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THE YEARBOOK OF THE UNIVERSITIES OF THE EMPIRE

SECOND CONGRESS OF THE UNIVERSITIES OF THE EMPIRE, 1921.

REPORT OF PROCEEDINGS, INCLUDING ADDRESSES, PAPERS, AND DISCUSSIONS.

(See page 8 of this Volume.)

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THE YEARBOOK OF THE UNIVERSITIES OF THE EMPIRE

1922

EDITED BY W. H. DAWSON AND
PUBLISHED FOR THE
UNIVERSITIES BUREAU OF
THE BRITISH EMPIRE



LONDON
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PREFACE

THE *Yearbook* was first published in 1914. Two further editions were issued during the war, but, by the close of 1916, it was felt that no useful purpose would be served by its continued publication. The fourth edition, published in Aug. 1920, gave summaries of the events of 1916–19 and included an account (40 pp.) of the War Work, other than combatant, undertaken by the Universities of the United Kingdom, and of the contributions to His Majesty's Forces of the Universities overseas.

In this, as in previous editions, an attempt has been made to present a conspectus of the calendars of all British Universities both at home and overseas. To do this in a volume of manageable dimensions compels the use of abbreviations. It is hoped that abbreviation has not been pressed beyond the limits of intelligibility.

Since a statement of the sources of the various degrees held by University teachers gives, in small space, information regarding the educational history of their holders, much trouble has been taken in ascertaining their origin. If no name of a University follows a degree it may be assumed that it was conferred by the University under which the name is entered.

With the exception of Honours conferred by H.M. the King, titles other than degrees are omitted where they do not throw light upon the standing of their holders in the subjects which they profess. The letters M.R.C.S., L.R.C.P. cannot be said to add to the distinction of a man who is M.D , M.Ch., although it may be of interest to note that a medical teacher of an Oversea University holds diplomas of the Royal Colleges of England.

Appendices to previous editions, summarizing the regulations governing admission to various professions and occupations for which a University education is a fitting preparation, and giving particulars of inter-university scholarships and fellowships for research, etc., have been revised and supplemented. Several new Appendices are included. New sections relating to several recently constituted Universities—Witwatersrand, Aligarh, Lucknow, Osmania (Hyderabad), and Rangoon—and University College, Potchefstroom, have been included

CONTENTS

	PAGE
PREFACE	v
THE UNIVERSITIES BUREAU	xiii, xiv
THE UNITED KINGDOM -	
INTRODUCTORY	1
DEGREES	11
ENGLAND AND WALES—	
BIRMINGHAM	19
BRISTOL	27
CAMBRIDGE	35
DURHAM	57
DURHAM DIVISION	60
COLLEGE OF MEDICINE, NEWCASTLE-UPON-TYNE	62
ARMSTRONG COLLEGE, NEWCASTLE-UPON-TYNE	65
LEEDS	69
LIVERPOOL	78
LONDON	89
UNIVERSITY COLLEGE	124
KING'S COLLEGE	126
INCORPORATED INSTITUTIONS AND UNIVERSITY DEPARTMENTS	128
IMPERIAL COLLEGE OF SCIENCE AND TECHNOLOGY	130
EAST LONDON COLLEGE	133
BIRKBECK COLLEGE	133
LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE	133
SOUTH-EASTERN AGRICULTURAL COLLEGE, WYE	134
LONDON DAY TRAINING COLLEGE	135
SCHOOL OF ORIENTAL STUDIES	135
WOMEN'S COLLEGES	136
THEOLOGICAL SCHOOLS	138
MEDICAL SCHOOLS	139
INSTITUTIONS WITH RECOGNIZED TEACHERS	143
MANCHESTER	145
OXFORD	157
SHEFFIELD	182

THE UNITED KINGDOM (*contd.*)— PAGE

WALES 189
UNIV. COLL. OF WALES, ABERYSTWYTH 192
UNIV. COLL. OF N. WALES, BANGOR 196
UNIV. COLL. OF S. WALES AND MONMOUTHSHIRE, CARDIFF 199
UNIV. COLL. OF SWANSEA 203
UNIVERSITY COLLEGES, UNATTACHED
EXETER, ROYAL ALBERT MEMORIAL 205
NOTTINGHAM 208
READING 212
SOUTHAMPTON 216

SCOTLAND—
INTRODUCTORY 219
ABERDEEN 225
EDINBURGH 230
GLASGOW 240
ROYAL TECHNICAL COLL. 247
ST. ANDREWS (INCLUDING UNIV. COLL., DUNDEE) 250

IRELAND—
BELFAST, THE QUEEN'S UNIVERSITY 256
DUBLIN 261
IRELAND, NATIONAL UNIVERSITY 269
UNIV COLL., DUBLIN 271
UNIV COLL., CORK 274
UNIV. COLL., GALWAY 276
ROYAL COLLEGE OF SCIENCE, DUBLIN 278

CANADA—
INTRODUCTORY 280
ACADIA, WOLFVILLE, NOVA SCOTIA 284
ALBERTA, EDMONTON 286
BISHOPS' COLLEGE, LENNOXVILLE, QUEBEC 292
BRITISH COLUMBIA, VANCOUVER 293
DALHOUSIE, HALIFAX, NOVA SCOTIA 297
KING'S COLLEGE, WINDSOR, NOVA SCOTIA 302
LAVAL, QUEBEC 304
McGILL, MONTREAL 308
McMASTER, TORONTO 318
MANITOBA, WINNIPEG 320
MONTREAL 327

CANADA (*contd.*)—

PAGE

MOUNT ALLISON, SACKVILLE, NEW BRUNSWICK 332
NEW BRUNSWICK, FREDERICTON 334
OTTAWA 336
QUEEN'S, KINGSTON, ONTARIO 338
ST. FRANCIS XAVIER, ANTIGONISH, NOVA SCOTIA 343
SASKATCHEWAN, SASKATOON 345
TORONTO 349
TRINITY COLLEGE, TORONTO 361
VICTORIA, TORONTO 363
WESTERN, LONDON, ONTARIO 364

AUSTRALIA—

INTRODUCTORY 367
ADELAIDE 372
MELBOURNE 376
QUEENSLAND, BRISBANE 381
SYDNEY 384
TASMANIA, HOBART 391
WESTERN AUSTRALIA, PERTH 393

NEW ZEALAND 395
UNIV. OF OTAGO, DUNEDIN 397
CANTERBURY COLL., CHRISTCHURCH 400
AUCKLAND UNIV. COLL. 402
VICTORIA UNIV. COLL., WELLINGTON 404

SOUTH AFRICA—

INTRODUCTORY 406
CAPE TOWN 410
SOUTH AFRICA 415
BLOEMFONTEIN, O.F.S. : GREY UNIV. COLL. 417
GRAHAMSTOWN, C.P. : RHODES UNIV. COLL. 419
PIETERMARITZBURG, NATAL : NATAL UNIV. COLL. 421
POTCHEFSTROOM : UNIV. COLL., TRANSVAAL 422
PRETORIA, TRANSVAAL : TRANSVAAL UNIV. COLL. 423
WELLINGTON, C.P. : HUGUENOT UNIV. COLL. 426
STELLENBOSCH, C.P. 427
WITWATERSRAND, JOHANNESBURG, TRANSVAAL 429
(FORMERLY SOUTH AFRICAN SCHOOL OF MINES AND TECHNOLOGY, AND, LATER, UNIV. COLL., JOHANNESBURG)

INDIA— PAGE
INTRODUCTORY 432
ALIGARH MUSLIM UNIVERSITY 435
ALLAHABAD 436
BENARES HINDU UNIVERSITY 441
BOMBAY 443
CALCUTTA 447
DACCA 453
LUCKNOW 455
MADRAS 458
MYSORE 462
OSMANIA UNIVERSITY, HYDERABAD 465
PANJAB, LAHORE 467
PATNA 471
RANGOON 474
INDIAN INSTITUTE OF SCIENCE, BANGALORE 477
MALTA 478
HONG-KONG 480

APPENDICES

I. HIS MAJESTY'S FORCES: REGULAR COMMISSIONS FOR UNIVERSITY CANDIDATES 485
II. ACCOUNTANTS, ACTUARIES, AND AUDITORS
INSTITUTE OF CHARTERED ACCOUNTANTS IN ENGLAND AND WALES 486
SOCIETY OF INCORPORATED ACCOUNTANTS AND AUDITORS 487
LONDON ASSOCIATION OF ACCOUNTANTS, LTD. 488
INSTITUTE OF COSTS AND WORKS ACCOUNTANTS 488
INSTITUTE OF ACTUARIES 489
III. AGRICULTURAL EXAMINATION BOARDS 490
IV. ARCHITECTS, ROYAL INSTITUTE OF BRITISH 492
V. AUCTIONEERS' AND ESTATE AGENTS' INSTITUTE OF THE UNITED KINGDOM 494
LAND AGENTS' SOCIETY 495
VI. BANKERS, INSTITUTE OF 496

PAGE

VII. CHEMISTRY, INSTITUTE OF, OF GREAT BRITAIN AND IRELAND 497
CHEMICAL SOCIETY 499

VIII. ENGINEERS
INSTITUTION OF CIVIL ENGINEERS 500
INSTITUTION OF ELECTRICAL ENGINEERS 501
INSTITUTION OF MECHANICAL ENGINEERS 502
INSTITUTION OF AUTOMOBILE ENGINEERS 503
INSTITUTION OF MARINE ENGINEERS 503
INSTITUTION OF NAVAL ARCHITECTS 504
INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS 505

IX. INDUSTRIAL ADMINISTRATION, INSTITUTE OF 506

X. INDUSTRIAL ART, BRITISH INSTITUTE OF 506

XI. LAW (ENGLAND AND WALES)
BARRISTERS . COUNCIL OF LEGAL EDUCATION ; INNS OF COURT 507
SOLICITORS · LAW SOCIETY 508

XII. MEDICINE AND SURGERY, ETC.
MEDICAL QUALIFICATIONS 510
REGISTRATION OF MEDICAL STUDENTS 511
DENTAL QUALIFICATIONS 513
REGISTRATION OF DENTAL STUDENTS 514
RECIPROCAL RECOGNITION 514
POST-GRADUATE MEDICAL STUDIES 515
ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, ENGLAND 515
ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, SCOTLAND 519
ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, IRELAND 522
SOCIETY OF APOTHECARIES, LONDON 523
ROYAL COLLEGE OF VETERINARY SURGEONS 524
ROYAL SANITARY INSTITUTE 524
ROYAL INSTITUTE OF PUBLIC HEALTH 525
INSTITUTE OF HYGIENE 526

XIII. MINING AND METALLURGY
INSTITUTION OF MINING AND METALLURGY 527
INSTITUTION OF MINING ENGINEERS 527
IRON AND STEEL INSTITUTE 528
INSTITUTE OF METALS 528
INSTITUTION OF PETROLEUM TECHNOLOGISTS 529

XIV. PATENT AGENTS, CHARTERED INSTITUTE OF 530

PAGE

XV. PHARMACEUTICAL SOCIETY OF GREAT BRITAIN 532

XVI. SECRETARIES, CHARTERED INSTITUTE OF 533

XVII. SURVEYORS' INSTITUTION 534

XVIII. TEACHERS' REGISTRATION COUNCIL 535

XIX. TRAINING OF TEACHERS 536

PROFESSIONAL OPENINGS IN THE KING'S DOMINIONS OVERSEAS 538

XX. LIST OF EXAMINATIONS 539

XXI. MATRICULATION EXAMINATIONS BY JOINT BOARDS 540

XXII. OVERSEAS STUDENTS IN UNIVERSITIES OF THE UNITED KINGDOM 541

XXIII. ADMISSION OF UNDERGRADUATES TO UNIVERSITIES OF THE UNITED KINGDOM 542

XXIV. INTER-UNIVERSITY SCHOLARSHIPS, GRANTS FOR RESEARCH, ETC. 547

XXV. SOME FOREIGN UNIVERSITIES

BELGIUM 567

CZECHO-SLOVAKIA 570

DENMARK 571

FINLAND 574

FRANCE 574

GREECE 581

HOLLAND 581

ITALY. 584

NORWAY 590

POLAND 591

ROUMANIA 592

SERBS, CROATS, AND SLOVENES, KINGDOM OF 592

SPAIN 593

SWEDEN 594

SWITZERLAND 596

UNITED STATES OF AMERICA 600

INDEX OF COLLEGES, ETC. 605

INDEX OF NAMES 609

THE UNIVERSITIES BUREAU OF THE EMPIRE

AT the final, Delegates', meeting of the Congress of 1912 it was resolved that steps be taken for the formation in London of a Bureau of Information for the Universities of the Empire. From its inception until November 1919 the Bureau was, by the great courtesy of the Director, allowed the use of a room in the Imperial Institute. In the spring of 1919 the Government offered a non-recurrent grant of £5000 to enable the Committee to secure and furnish premises suitable for the wide activities which the Bureau had developed, on condition that the Universities of the Empire undertook to provide funds adequate to its maintenance. The Committee thereupon purchased the lease of No. 50 Russell Square. Offices in this building have been let to—

THE BRITISH DIVISION OF THE AMERICAN UNIVERSITY UNION. *Director*—GEORGE MACLEAN, M.A., B.D., Ph.D., Hon. LL.D.

THE OFFICE NATIONAL DES UNIVERSITÉS ET ÉCOLES FRANÇAISES. *Director*—A. PHILIBERT, L. ès L., L. en D.

THE ANGLO-DANISH BUREAU, ESTABLISHED BY THE DANISH STUDENTS' INTERNATIONAL COMMITTEE. *Director*—J. H. HELWEG, Cand. Mag.

COMMITTEE

(Appointed in accordance with a resolution of the Delegates to the Congress of the Universities of the Empire, at a Meeting in London on July 5, 1912)

Vice-Chancellor J. GEORGE ADAMI, C.B.E., M.D., F.R.S., one of the two representatives of Canada.

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Principal Sir GEORGE ADAM SMITH, M.A., D.D., LL.D., Litt.D., F.B.A., representing Scotland (*Chairman*).

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E. M. WALKER, M.A., representing Oxford.

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Secretary. ALEX HILL, M.A., M.D., F.R.C.S.

EXPLANATORY NOTE

ARRANGEMENT OF SUBJECT HEADINGS

Medical Subjects (other than Anatomy, Bio-Chemistry, Biology, Botany, Chemistry, Embryology, Histology, Physics, Physiology, and Zoology) have in most cases been grouped under the head Medicine at the end of the general alphabetical series, and the same course has been followed in regard to Agriculture, Engineering, Law, Oriental Languages, Public Health, Technology, and Theology, in cases where, owing to the nomenclature adopted for the subdivisions of subjects under these heads or to their being specially numerous, incorporation in the general alphabetical list appeared to be inconvenient.

UNIVERSITIES OF THE UNITED KINGDOM OF GREAT BRITAIN AND IRELAND

INTRODUCTORY

HISTORICAL SUMMARY—ADMISSION AS AN UNDERGRADUATE—ADMISSION OF STUDENTS FROM ABROAD—NUMBER OF FULL-TIME STUDENTS—TERMS—FEES—CONFERENCES—STANDING COMMITTEE OF VICE-CHANCELLORS—CONGRESS OF 1921—ANGLO-AMERICAN CONFERENCES—INTERCHANGE OF TEACHERS AND STUDENTS—UNIVERSITY MISSIONS—UNIVERSITY GRANTS—REPRESENTATIVES IN PARLIAMENT

UNIVERSITIES were the outcome of the great intellectual revival which affected Europe in the twelfth and thirteenth centuries. Shortly after the Schools of Bologna and Paris had developed into what we now term Universities, similar seats of learning arose at Oxford and Cambridge. To the Seven Liberal Arts of the mediæval schools (the "trivium"—GRAMMAR, LOGIC, and RHETORIC, and the "quadrivium"—ARITHMETIC, GEOMETRY, MUSIC, and ASTRONOMY) the Universities added the three higher "Faculties" of THEOLOGY, LAW, and MEDICINE in order to provide complete preparation for the learned professions. The Scottish Universities, except Edinburgh, were founded in the fifteenth century, but the country had not been greatly influenced by the Revival of Learning, and although the earliest Reformers were in touch with continental scholars, and some attempts were made to introduce the New Learning into the schools and universities, the mediæval scholastic tradition remained paramount in St. Andrews and Glasgow until the seventeenth century. Aberdeen was more receptive to *renaissance* influences. The University of Edinburgh originated in a College established by the Town Council in 1583. Trinity College, Dublin, was founded by Queen Elizabeth in 1591 on the lines of the Oxford and Cambridge colleges.

After the Reformation a demand arose in England for education of a more secular type, but the Acts of Uniformity (1559 and 1662) and similar measures stereotyped the schools and universities as clerical and theological institutions, and by the latter half of the eighteenth century the teaching in the Universities had become mainly traditional and formal, and they were rapidly losing their hold on the national life.

Readjustment to modern conditions took place in the course of the nineteenth century. Already in 1779 Protestant Dissenters, and in

1791 Roman Catholics, had been emancipated from the ban against their following the teaching profession, and the few Denominational tests retained by the older Universities until 1871 were then abolished. Oxford in 1800 established a system of written examinations for the bachelorship, and Cambridge in 1824 the classical Tripos. Soon afterwards both Universities instituted non-classical Honour examinations. The University Commissioners of 1850 and 1877 made provision at Oxford and Cambridge for the endowment of the teaching of modern subjects and the throwing open of scholarships to students of such subjects removed practically all obligations to take orders in the Church of England, and did much to make the Universities accessible to all classes of the community.

Meanwhile the foundation in 1828 on a strictly undenominational basis of what has now become University College, London, provided a teaching institution of University rank free from all restriction of tests. The University of Durham obtained its charter in 1837. In its original conception it followed closely the lines of Oxford. It was partly endowed out of the funds of the See and Chapter of Durham. The Colleges in which the other English Universities originated were founded as follows: Owens College, Manchester, 1851; Yorkshire College, Leeds, 1874; University College, Bristol, 1876; Firth College, Sheffield, 1879; Mason College, Birmingham, 1880; University College, Liverpool, 1881. Created to minister to local needs and supported largely by local benefactions, they were naturally closely associated with local industries and from the first laid stress upon the study of mathematical, scientific, and modern subjects. The Royal College of Science and the Royal School of Mines originated in a Technical School formed in 1851 in connexion with a Museum of Practical Geology. They, together with the City and Guilds (Engineering) College, founded in 1881, became integral parts of the Imperial College of Science and Technology which was established in 1907 with the declared purpose of giving the highest specialized instruction and providing for research in the various branches of science, especially in its applications to industry. A University of Wales was projected early in the fifteenth century and the project was revived in Cromwell's time, but it did not materialize until 1893. The constituent colleges at Aberystwyth, Cardiff, and Bangor were founded in 1872, 1883, and 1884 respectively. They are thoroughly indigenous to the Principality, much of the funds having been collected in very small sums from workpeople at the doors of churches and chapels. The two modern Irish Universities both date from 1909. In 1850 a Royal Charter was granted to the then recently established Queen's Colleges of Belfast, Cork, and Galway, constituting them a Federal University which was absorbed in 1880 in the Royal University. University College, Dublin, representing the Catholic University established by the Irish Bishops in 1854, became with the Cork and Galway Colleges in 1909 constituents of the National University of Ireland, while Queen's College, Belfast, became the Queen's University of Belfast.

WOMEN were first admitted to Degrees by the University of London in 1878. Bedford College had already been founded in 1849; the

three other colleges for women in connexion with the University of London were founded, Westfield in 1882, Holloway in 1886, and King's in 1902. Of the Cambridge colleges Girton originated at Hitchin in 1869, and was removed to the near neighbourhood of Cambridge in 1873; Newnham was founded in 1880. The colleges at Oxford were opened, Lady Margaret in 1878, Somerville in 1879, St. Hugh's in 1886, and St. Hilda's in 1893. Cambridge admitted women informally to Tripos examinations in 1872 and adopted, October 1921, a proposal that it should take power to confer on them by diploma Titles of Degrees. Oxford admitted them to examinations in 1884 and to degrees and full membership in 1920. Women have been admitted to the Universities of Scotland since 1892, to Trinity College, Dublin, since 1904, and to all the modern Universities from their foundation.

Unlike those of most other countries, the Univs. of the United Kingdom have been, since their origin, independent of State control. Another distinguishing characteristic of British Univs., as compared with those of the Continent of Europe, has from the earliest days been the provision of halls of residence, or COLLEGES, in which students live as members of a community, with the privileges of social intercourse and subject to the mutual influence which corporate life exerts.

ADMISSION AS AN UNDERGRADUATE. Before inserting a student's name *in matricula* all Univs. exact evidence that the applicant's intellectual equipment fits him to undertake a course of study for a degree.

Matriculation examinations covering the usual subjects of education in a secondary school are held by the Univs. of Durham, London, Wales, Belfast, Dublin, Ireland (N.U.I.), and the Joint Board of Manchester, Liverpool, Leeds, Sheffield, and Birmingham. Analogous examns. are held by Oxford (" Responsions "), Cambridge (" Previous Examn."), and the Scottish Univs. Entrance Board (" Preliminary Examn."), and these must be passed (or exemption on the ground of having passed equivalent examns. must be obtained) by all students proceeding to degrees, though not necessarily before entering upon courses of study in the Univs. Many of the Oxford and Cambridge Colleges make the passing of Responsions or the Previous or equivalent examns. a condition of admission to the College. Bristol has discontinued its matricn. examn. as superfluous in view of the institution of the School Certificate and Higher Certif. examns. (v. *infra*), and the admission to them, as required by the Board of Education, of candidates not presented by schools.

At all the Univs. English, Mathematics, and at least *one* language other than English are compulsory, except that Oxford and Bristol allow a branch of Natural Science to be taken instead of or in addition to Maths., the Durham Colleges allow a choice between English and Greek Testament, and between Maths. and Logic, and at Oxford English is not a compulsory subject.

Cambridge, Dublin, Durham (except Armstrong College), Oxford, Belfast (for Arts students), Birmingham (for Arts students), and the National Univ. of Ireland (for Medical, including Dental, students)

all require *two* languages other than English, namely : in the case of Belfast—(*a*) or (*b*) and one other of the following, (*a*) Greek, (*b*) Latin, (*c*) French, (*d*) German, (*e*) Italian, (*f*) Spanish, (*g*) Celtic ; Birmingham —Latin and a modern language , Cambridge—Latin and either one of (*a*), (*c*), (*d*), (*e*), (*f*), or a combination, on a lower standard, of (*c*) with (*a*), (*d*), (*e*), or (*f*) ; Dublin—Latin and one of (*a*), (*c*), (*d*), (*e*), (*f*), or Russian ; Durham—Latin and one of (*a*), (*c*), (*d*) ; Oxford—2 of (*a*), (*b*), (*c*), (*d*), including either Latin or Greek ; N.U.I.—Latin and, if the candidate is exempted from the necessity of presenting Irish, any prescribed modern language.

Greek or Latin, though not compulsory at the London matricn. examn., is so at the Interm. examn. in *Arts* of this Univ. Greek or Latin is likewise compulsory for Arts students at Liverpool,* Armstrong Coll., and the N.U.I. (Arts, Philos., or Celtic studies) ; Latin for Arts students at Leeds, Manchester, Sheffield, and the Scottish Univs., and in most qualifying schemes for the Wales B.A. degree, for *Law* students at Manchester, Sheffield, Wales, and the N.U.I., and for Medical students at Manchester. Irish is compulsory at the N.U.I. for all students, except those born outside Ireland or whose home residence has been outside Ireland for 3 yrs. immediately preceding matricn. At Oxford and Cambridge Arabic, Sanskrit, Chinese, Pali, or, at Oxford, Persian or French, may under certain conditions be offered by natives of Asia or Africa not of European parentage in lieu of Latin or (Oxford) Greek ; at Durham oriental medical students may offer Sanskrit in lieu of Latin ; and in Scotland any approved classical language may be substituted for Greek or Latin by students whose native language is other than European. All candidates for admission to Scottish Univs. whose native language is other than English, who have not passed in English at the Intermediate or Final examn. for a degree in Arts, will be required to pass a special test in English including an oral examn.

In other subjects a considerable latitude of choice is allowed : the Joint Board for 5 English Univs., for instance, while requiring candidates to pass in English Composition and Literature, English History, and Mathematics, allow a choice of any three of the following, one of which must be a language—Greek, Latin, French, German, some other approved language, Mechanics or Physics, Chemistry, Geography, Natural History or Botany, General Experimental Science.

A Matriculation Examination for persons of mature years has been instituted by the above-mentioned Joint Board, v. App. XXI.

School Examinations.—England. In 1918 there came into operation a scheme originated by the Board of Education in consultation with all the Univs. of England for co-ordinating Secondary School examns. Under this scheme the following are recognized by the Board as approved—

I. As " First Examinations," suitable for pupils about the age of 16, the standard being such that a Pass with Credit in the three main groups of School subjects (English subjects, Foreign Languages, Mathematics

* Except those holding the Secondary Educn. Certif. of the Egyptian Ministry of Educn. and an exemption from the Matricn. Examn.

and Science) would entitle a candidate to admission to a Univ.;—The "School Certificate" examns. of the Oxford and Cambridge School Examn. Board, Bristol, Durham, and the Northern (Birm., Leeds, Liv., Manc., Sheff.) Univs. Joint Matricn. Board; "The General School" examn. of London; the Oxford (Delegacy) and Cambridge (Syndicate) "Senior Local" examns.; and the Senior examn. of the Central Welsh Board.

II. As "Second Examinations," suitable for pupils about 2 years older, framed on the assumption that the candidate has, after the stage marked by the first examn., followed a more specialized course;—The "Higher Certificate" examns. of the Oxford and Cambridge Schools Examns. Board, Bristol, Durham, the Northern Univs. Joint Board, London, Oxford (Delegacy for Local Examns.), Cambridge (Syndicate for Local Examns.), and the Central Welsh Board.

With a view to securing equality of standard and the acceptance of the certificates by Univs. and Professional Bodies, the Board of Education exercises a co-ordinating authority with the help of a "Secondary School Examinations Council" composed of 19 representatives of the Examining Bodies, County Councils Assocn., Assocn of Municipal Corporations, Assocn. of Education Committees, and Teachers' Registration Council. Provision is made for ensuring that teachers in the Schools are brought into touch with the Examining Bodies (supplied in all cases by the Univs.); that a School is examined, if it so desires, on its own syllabus, unless the Examining Body considers it inadequate; and that estimates of the merits of their candidates in each of the subjects offered by them if submitted by Head Masters and Head Mistresses are taken into account in the award of certificates.

Schools are not required as a condition of recognition for grants to take these examns., but Schools on the grant list entering pupils for them under conditions approved by the Board receive an additional grant in respect of each pupil so entered. Schools are warned against determining their organization or curriculum exclusively or principally with reference to the requirements of any examn. The arrangement of organization or curriculum for the purpose of preparing any pupils or Form for any examn. not approved by the Board is expressly forbidden.

Among the functions of the Secondary School examns. Council is negotiation with Univs. and Professional Bodies for the acceptance of the examn. certificates as exempting the holders from certain other examns. They are now accepted, subject to various qualifications, by all English Univs. and by a number of professional bodies (v. Appendices), as exempting from entrance examns. The "Second Examinations" are also recognized by many Univs. for partial exemption from Intermediate Exams. and for admission to Honours courses, etc.

Wales. The Senior and Higher examns. of the Central Welsh Board are accepted, subject for subject, as affording a test of fitness for matricn. equivalent to the Univ.'s matricn. examn., so also, subject for subject, are the Ox. and Camb. Schools Examn. Board's School (Pass with Credit) and Higher Certif., the Scotch Educn. Dept.'s Leaving

Certif. (Higher Grade) and the Intermediate Educn. Board of Ireland's Senior Grade Certif.

Scotland. On December 31, 1918, there came into operation Ordinance No. 70 (General No. 3) of the University Courts of the four Scottish Univs. as to Admission for purposes of graduation. This defines the normal test of fitness as " the production of evidence duly attested by a competent authority of the satisfactory completion of a suitable course of secondary education," and sets up an Entrance Board to regulate the application of this principle. This Board, which has superseded the Joint Board of Examiners for the Scottish Univs., will provide by " General Regulations " for the recognition of Group Certifs. of the Scotch Education Dept. and, in the case of Schools in Scotland not regularly presenting candidates for these certifs., other evidence of completion of suitable courses. It will similarly provide for the recognition of Leaving or other certifs., in the case of applicants from outside Scotland. The admission of applicants who, owing to exceptional circumstances, have not been able to fulfil the normal conditions will be provided for by " Special " Regns. In the meanwhile, the Preliminary Examn. Regns. of the Joint Board are continued (v. p. 208).

Ireland. The Senior Grade examn. of the Intermediate Education Board of Ireland is accepted, subject for subject, in lieu of the matricn. examns. of Dublin, Nat. Univ. of Ireland, and (subject to special conditions in respect of Maths.) Belfast. Belfast and the N.U.I. also accept, subject for subject, the Scottish Leaving Certif. (Higher or Hons.), the Higher Certif. of the Ox. and Camb. Schools Examn. Board, and (Belfast only) the Bristol School Certif. For admission to the Univ. of Dublin the Senior Lecturer is now allowed to recognize examns. as " equivalent " to the Senior Grade Intermediate, and does so recognize the Scottish Leaving Certificate and others.

ADMISSION OF STUDENTS FROM THE KING'S DOMINIONS OVERSEAS AND FROM FOREIGN COUNTRIES. Certificates which would qualify for admission to Univs. outside the United Kingdom are accepted as satisfying, in whole or in part, the matricn. requirements of the Univs. of the United Kingdom. Intending students should apply for information to the Registrar of the Univ. in which they desire to be matriculated. A summary of existing regulations is given in Appendix XXIII.

The NUMBER OF FULL-TIME STUDENTS in Universities and University Colleges in receipt of Treasury Grant is given in the Returns published by the University Grants Committee for the year 1919–20 as 37,081, including 9941 women. The returns do not include the students of Oxford, Cambridge, Trinity College, Dublin, the colleges at Durham, Guy's Hospital Medical School and some other schools of the University of London, and University College, Exeter. If the figures obtained from the Bureau's correspondents for these institutions are added a total of 52,600 is obtained. The total may be distributed as follows: Oxford and Cambridge (including 1100 women), 11,800; London 10,100; North Midlands (Birmingham, Leeds, Liverpool, Manchester, and Sheffield Universities, the Manchester College of Technology and

University College, Nottingham), 9300; the rest of England, 3400; Wales, 2500; Scotland, 11,000; Ireland, 4500. The Grants Committee classify the 37,081 full-time students included in their tables: Medicine, including Dentistry, 12,657, of whom 2949 were women; Arts, Theology, Law, Music, Commerce, Economics, and Education, 11,745 (5309 women); Pure Science, 6571 (1538 women); Engineering, Applied Chemistry, etc., 6108 (145 women). The above statistics do not include the students of the institutions other than Universities and University Colleges in which professional education of university grade is given in Theology, Teaching, Agriculture, Mining, etc.; nor students reading privately for the external degrees of the University of London, for the Bar, etc. Another consideration which makes difficult comparison with statistics of other countries is that the work of the higher forms of many of our secondary and " public " schools corresponds with the earlier stages of the work done in Colleges and collegiate departments of Universities elsewhere, *e.g.* in America. In the United States of America in 1918 there were 224,000 men and 151,000 women in 672 universities, colleges, and professional schools. In many of these institutions the enrolment of part-time students constitutes a very large proportion of the total number.

TERMS. The academic year is divided into three terms, which run from about Oct. 1 to the middle of Dec.; the middle of Jan. to the end of March; the middle of April to the end of the first week in July.

FEES are charged at all the Univs. of the U.K. They vary somewhat in the different Univs., but are, on the average, for Arts £30, for Science £36, for Engineering or for Medicine £30 to £60 per annum in English Univs. In Scottish, Welsh, and Irish Univs. the fees are lower.

CONFERENCES. In May 1917 representatives of the Univs. and Univ. Colleges of the U.K. met in Conference to devise measures for the further encouragement of Post-graduate Study and Research. It was resolved that it was desirable that a degree should be instituted carrying the title of Doctor, obtainable by graduates of British and foreign Univs. after a course of advanced study and research. The conditions and regulations for such a degree were further considered at adjourned meetings held on May 10, 1918, Jan. 24, 1919, and March 14, 1919. The resulting legislation is summarized on p. 10.

Amongst other matters considered by Conferences during the past five years have been included Interchange of Teachers and Students, the Tenure of University Offices, Superannuation and Provision of Pensions.

In May 1918 Mr. Balfour summoned at the Foreign Office a Conference of representatives of the Univs. of the U.K. for the purpose of putting before them a proposal that on the invitation of the Govt. of the U.S. a Universities' Mission should be sent to America. At this meeting Mr. Balfour took the opportunity of pressing upon the Univs. the desirability of establishing a representative body to which matters of interest to the Univs. might be referred by Govt. Departments.

He urged the necessity of the creation of "an organ of expression" which would voice the desires and aspirations of the British Univs. and represent them in their relations with the Univs. of other nations. At a subsequent meeting Conference resolved that "it is desirable in the interests of the Univs. and of the nation that steps be taken to promote co-operation and mutual consultation among the Univs. of Great Britain and Ireland, and, further, that the Vice-Chancellor or Principal of each Univ. or a deputy appointed by him, together with the Executive Committee of the Universities' Bureau, be appointed a Standing Committee to consider any matters of common interest arising out of the proceedings of this Conference or submitted to it by the Govt. and to report from time to time to the Conference."

The Standing Committee of Vice-Chancellors has dealt with such matters as the presentation of the case for Increased Grants to Univs and Univ. Colleges, leading to the Deputation to the President of the Board of Education and the Chancellor of the Exchequer which was received in Nov. 1918, the relations of the Univs. and Univ. Colleges to national schemes for the Promotion of Research, the question of controlling the number of students in professional and other subjects, the Recognition of the Special Army Education Certif., as qualifying for matriculation, Fees for Courses of Undergraduate and for Post-graduate Study and the possibility of adopting a uniform scale in each of the several Faculties of all Univs. of the U.K., the relations of the Univs. to Training Colleges for Teachers

PROCEEDINGS OF THE STANDING COMMITTEE OF VICE-CHANCELLORS AND PRINCIPALS IN 1921. Amongst the more important matters dealt with were: arrangements for the Second Congress of the Univs. of the Empire; qualifications to be required of candidates for admission to courses leading to the Ph.D. degree; recognition of the Dutch and other foreign school-leaving certificates as qualifying for matriculation; fees payable by students; salaries of teachers; interpretation of the expression "a good Honours degree" in the Burnham Report on Salaries of Teachers in Secondary Schools; proposed annual conference of Home Univs.; allocation of departments of Applied Science and of specialized subjects to Universities; effect upon University expenditure of the Safeguarding of Industries Act; co-ordination of pension schemes for teachers in Univs. of the U.K., the King's Dominions overseas, and India; recognition of academic records of students of Australian, Canadian and S. African Univs.; anticipated curtailment of Treasury grants.

The SECOND CONGRESS of the Univs. of the Empire met in Oxford on July 5, 6, 7, and 8. All members received, and upwards of 300 accepted offers of hospitality, either from a College or from a resident member of the Univ., for the four days during which Congress was to sit. Including members of the Univ. of Oxford, who attended without enrolment, and those who returned to London and other places for the night, the attendance numbered about 550. The 18 Home Univs. and 36 of the Univs. overseas were represented, the visitors from

overseas numbering 10♀. Subjects discussed : " The Universities and the Balance of Studies, ' Chairman, the Marquess Curzon of Kedleston Chancellor of the Univ. of Oxford ; " The Universities and the Teaching of Civics, Politics, and Social Economics," and " The Universities and Secondary Education," Chairman, Mr. A J. Balfour, Chancellor of the Univ. of Cambridge and of the Univ. of Edinburgh ; " The Universities and Adult Education," Chairman, Viscount Haldane, Chancellor of the University of Bristol ; " The Universities and Technological Education," Chairman, the Marquess of Crewe, Chancellor of the Univ. of Sheffield ; " The Universities and Training for Commerce, Industry, and Administration " and " The Universities and the Training of School Teachers," Chairman, Dr. J. C. Irvine, Principal, in the place of the late Lord Balfour of Burleigh, Chancellor of the Univ. of St. Andrews ; " University Finance," Chairman, Sir Robert Stout, Chancellor of the Univ. of New Zealand ; " The Universities and Research," Chairman, Lord Robert Cecil, Chancellor of the Univ. of Birmingham ; " Interchange of Teachers and Students," Chairman, Lord Kenyon, Pro-Chancellor of the Univ. of Wales.

Report of the Proceedings of the Congress, G. Bell & Son, London, pp. 452 and liv, price £1 : 1s.

Conferences of British and American University Teachers, organized by the University of London. In July 1920, 17 Professors of English, and in July 1921, 32 Professors of History, from many parts of the U.S.A. and the British Dominions overseas, met their colleagues of the Universities of the U.K. in conference in London to discuss methods of research and teaching and to elaborate plans of co-operation. The Conference of 1921 synchronized with the opening of the University of London Institute of Historical Research. A *Standing Committee* was established to give effect to the Resolutions of this Conference, to act as a permanent link between British and other historians, and to arrange for future meetings.

Interchange of Teachers and Students between the Univs. of the King's Dominions overseas and of foreign countries and the Univs. of the U.K. In May 1919 a Committee was established for the purpose of promoting interchange.

University Missions. Following the Mission to America already referred to, the British Univs. in May 1919 accepted an invitation to appoint a delegation to visit the Univs. of France as guests of the French Republic. In the autumn of 1919 a similar invitation was accepted from the Belgian Govt. The Universities of Switzerland have invited those of the U.K. to send representatives to confer with them in the summer of 1922.

Parliamentary Grants to Univs. and Univ. Colleges. Prior to 1889 the English Univs. and Univ. Colls. were dependent for their incomes upon endowments, subscriptions and students' fees. In that year a Treasury Grant of £15,000 p a. was made to the English Univ. Colls. and the College at Dundee. At the same date each of the three

Welsh Univ. Colls. was receiving £4000 p.a., and the Scotch Univs. a statutable grant of £42,000 to which was added in 1892 under the Education and Local Taxation Account (Scotland) Act an annual subsidy of £30,000. Between 1826 and 1895 sums amounting to £380,000 were contributed by Government towards the cost of enlarging the buildings of the Scottish Univs. In Ireland the Queen's Colleges of Belfast, Cork and Galway were established in 1845, the three buildings costing a total of £100,000. Each College received a Government Grant of £7000 p.a. The Queen's Univ. was established in 1850, as an examining body. Its annual subsidy, varying with the estimates, never exceeded £5000. In 1879 the Queen's Univ. was replaced by the Royal Univ., also an examining body, but differing from the Queen's Univ. in that students other than those of the Queen's Colls. were admitted to its examns. It also gave fellowships, scholarships and prizes. Until 1883, when, in accordance with the Act of Parliament by which it was established, it obtained its income of £20,000 p a. out of funds released by the disestablishment of the Church of Ireland, its expenses were met in the same way as in the case of the Queen's Univ.

In 1896 two Commissioners were appointed by the Treasury to inspect the equipment and report upon the work of the 12 Univ. Colls. in England and at Dundee participating in the Grant (£15,000 p.a.) of 1889 and 2 which were claimants for Grants. In recognition of their increased activities and of additional support received from rates and private benefactions the total Grant was increased to £25,000 p.a. In their Report on the Univ. of Birmingham (into which the Mason College had been transformed in 1900), the 11 other Univ. Colls. to which Grants had been assigned, and 3 claimants the two Commissioners appointed in 1901 submitted evidence of growth qualifying for increased financial aid; but owing to the South African War no action, with the exception of the addition of the Univ. Colls. of Reading and Southampton to the list, each receiving £1000, was taken by the Treasury until 1905, when the total Grant was increased to £100,000. In Jan. 1906 a Permanent Committee was appointed by the Treasury "to advise the Department as to the distribution of the Grant in aid of Colleges furnishing Education of a Univ. Standard." The Committee forthwith proceeded to appoint two inspectors to report upon the 14 Univ. Colls. receiving grants and 3 claimants. By this time, in addition to Birmingham, Leeds, Liverpool, Manchester and Sheffield possessed Univs. to each of which £2000 p.a. had been granted towards the cost of examns. and the giving of degrees. The Univ. of London also received £8000 p.a.

In 1909–10 the Grant to the English Univ. Colls. and the College at Dundee was raised to £150,000. In 1907 a Treasury Committee was appointed "to inquire and report upon the University of Wales and its constituent Colleges." (The present Secretary to the Bureau was one of the two Commissioners in 1901 and again in 1906 and a member of this Committee.) Following the issue of the Committee's Report in 1909 the Grant to the 3 Welsh Colleges was increased to £25,000. In 1919 the Advisory Committee was dissolved and the Univ. Grants Committee appointed "to inquire into the financial

needs of Univ. Education in the United Kingdom and to advise the Government as to the application of any Grants that may be made by Parliament towards meeting them." The total Grant was increased to £1,000,000. Including Emergency Grants to Cambridge, Oxford, and Trinity College, Dublin, the sums assigned in 1919–20 were, Annual Grants £789,500, Non-recurrent Grants £393,000. The total Grant for 1920–21 was £1,000,000 ; the estimate for 1921–22 £1,500,000. In the estimates 1921–22 there also appears the item " Univ. Institutions—Superannuation Grants " £500,000.

EDUCATIONAL GRANTS TO EX-SERVICE OFFICERS AND MEN studying in Universities and other institutions for higher education. The number of such students in receipt of Grants under the scheme administered by the Board of Education was in Sept 1921 about 11,000, and the total expenditure up to that date had been 5¾ millions. The estimated total cost of the scheme is 8½ millions

REPRESENTATIVES IN PARLIAMENT. Oxford (2), Cambridge (2), London, Wales, Scottish (3), Dublin, National of Ireland, Belfast—v. the sections relating to these Univs

Birmingham, Bristol, Durham, Leeds, Liverpool, Manchester, Sheffield —Rt. Hon. H. A. L. FISHER, M.A. ; Sir MARTIN CONWAY, M.A.

DEGREES OF THE UNIVERSITIES OF THE UNITED KINGDOM

THE older Universities have developed out of the Univs. of the Middle Ages under the compulsion of internal forces, with very little influence from outside. The historical continuity of their evolution and their individual independence account for certain customs and usages in which they differ one from another and from Univs. in other lands. Their titles of degrees afford an illustration of this. A Univ. of the Middle Ages was a Guild of learned men. Teaching was the craft of the Guild, whose fellowship carried with it the right to teach. An admitted aspirant for fellowship was termed a bachelor. The members of the Guild recognized his apprenticeship after submitting him to certain tests or, as we should term them, examns. After gaining some experience in teaching, and successfully maintaining a thesis in public disputation, the bachelor attained to his degree. Admitted into the Guild, with its *jus ubique docendi*, he was known indifferently as doctor, master or professor. Still following this ancient usage, the degree in Scotland is the mastership, M.A. In Oxford, Cambridge and Dublin, where the examn. for the bachelorship grew to be the determining test, the mastership, which carries with it all the privileges of membership of the Guild, or Senate, follows without further examn. after an interval of two or three years, but in no case less than six years from matricn. For convenience in standardizing the attainments of their alumni, modern Univs. have divided the degree into stages—usually described as the " first " and " higher " degrees—Bachelorship,

Mastership and Doctorate. The conferment of a first degree now marks the satisfactory completion of a three or four years' Univ course.

At Oxford, Cambridge, Dublin, and in the Scottish Univs. the Faculty of Arts is not subdivided. Except in Scotland, where the mastership (M.A.) takes the place of the bachelorship, B.A. is the "first degree," whether the course leading to it be literary or scientific. In Trinity College, Dublin, it is necessary to secure the B.A. before proceeding to any other degree (except in music) In Scotland, as alternatives to the M.A., the student may take as his "first degree" the B.Sc., pure or applied (the standard being that of M.A. with Honours), the B.L., or the B.Com. At St. Andrews the B.Phil. or the B.Litt. may be taken either conjointly with, or after, the M.A. At Cambridge there is no B.Sc. At Oxford there are special degrees, B.Litt. and B.Sc. (v. *infra*).

At all other Univs. a course in Arts leads to the B.A., in Science to the B.Sc., in Commerce to the B.Com., and similarly to other titles in other departments of knowledge.

Each of the Faculties of Theology, Law, Medicine, and Music has its own bachelor's degree.

The signatures of the titles of degrees vary. In the following list the more usual signature is placed first:

Bachelor of Arts: B.A.

Bachelor of Science: B.Sc., Sc.B. Dub.

Bachelor of Science in its various applications: B.Sc. (Engineering), B.Eng. Liv., Sheff.; B.A.I. Dub.; B.Sc. (Metallurgy), B.Met. Sheff.; B.Sc. (Mining), B.Sc. (Mining Engineering) Glas.; B.Sc. Tech.; B.Sc. (Applied Chemistry); B.Sc. (Naval Architecture); B.Sc. (Veterinary Science), B.V.Sc. Liv.; B.Sc.Agr., Agr.B. Dub., B.Agr.Sc. N.U.I.; B.Sc. (Forestry), Agr.B. (Forestry) Dub.; B.Sc. (Horticulture); B.Sc. (Estate Management); B.Sc. (Economics); B.Sc. (Public Health), B.Hy. Durh.; B.Sc. (Pharmacy).

Bachelor of Commerce: B.Com., B.Comm. N.U.I., B.Com.Sc. Belf.

Bachelor of Architecture: B.Arch.

Bachelor of Dental Science: B.D.S., B.Ch.D. Leeds, B.Dent.Sc. Dub.

Bachelor of Education: B.Ed. (of the Scottish Univs., two years after a first degree).

In Theology the title of the first degree is B.D. In Law it is LL.B., B.C.L. Ox. Durh., B.L. or (open only to graduates in Arts) LL.B. the Scottish Univs. In Medicine the signature of the title is M.B., B.M. Ox.; in Surgery, Ch.B., B.Ch. Camb. Dub. Ox. Wales, B.S. Durh. Lond.; in Obstetrics, B.A.O. Dub. N.U.I. In Music, Mus.B., B.Mus. Ox. Durh. Wales.

Honours Degrees.

In all Univs. of the United Kingdom the first degree in Arts (or Science, if a separate faculty) may be obtained as an ordinary degree, or with Honours.

At Oxford the Honours Schools (B.A.) are in Literæ Humaniores, Mathematics, Natural Science (including Engineering), Jurisprudence, Modern History, Theology, Oriental Studies, English Language and Literature, Modern European Languages, and Philos., Politics and Economics.

At Cambridge (Triposes), in Anthropology, Classics, Economics, English, Geography, History, Law (B.A. and LL.B.), Mathematics, Mechanical Science, Modern and Mediæval Languages, Oriental Languages, Moral Science, Natural Science, Theology.

In Scotland (M.A.), in Celtic Languages and Literature, Classics, Economic Science, English, History, Latin and French or Celtic, Mathematics and Natural Philosophy, Mental Philosophy, Modern Languages (St. Andrews, Natural Science), Sanskrit, Semitic Languages.

At Dublin (Moderatorships), in Mathematics, Classics, Mental and Moral Philosophy, Experimental Science, Natural Science, History and Political Science, Modern Literature, Legal and Political Science, Engineering Science, Celtic Languages, Oriental Languages.

At London, B.A. Hons. in Classics, Latin, Greek, Mathematics, Archæology, Architecture, English, French, German, Celtic, Italian, Spanish, Portuguese, Dutch, Russian, Polish, Czech and Slovak, Serbo-Croat and Slovene, Classical Sanskrit and Pali, Arabic, Persian, Hebrew and Aramaic (including Syriac), Chinese, Philosophy, Psychology, History, Sociology, Geography; B.Sc. Hons., Mathematics, Astronomy, Physics, Chemistry, Geology, Botany, Zoology, Physiology, Human Anatomy and Morphology, Psychology, Anthropology, Statistics; B.Sc. Hons. (Economics); B.Sc. Hons. (Engineering); B.Sc. Hons. (Mining); B.Sc. Hons. (Metallurgy); B.D. Hons.; LL.B. Hons.; M.B., B.S. Hons.; B.D.S. Hons.

In other Univs. Honours are obtainable in a variety of the subjects named above.

Recognition of Study at other Universities

UNDERGRADUATES. The Univs. of Bristol and Leeds accept attendance for 1 yr. at any Univ. requiring residence as a qualification for a degree. At London any person who has passed the external Intermediate examn. before registering as an Internal student may take the Final Examn. after a 2 yrs.' course and qualify for a degree in the subsequent year. At Oxford members of certain Affiliated Colleges of the United Kingdom, and of certain approved home, colonial, and Indian Univs., who have attended lectures for at least 2 yrs. and attained a prescribed standard, are allowed to count the first term kept by residence as their fourth term. At Cambridge a similar privilege is allowed to students of "Affiliated Institutions." At Dublin students who have spent 2 yrs. in Arts studies at certain Univs. (see list on p. 266) and have passed the examns. belonging to that period are given credit for the first academic year. At Durham a similar concession is made to students of science. In the Scottish and certain other Univs. attendance at lectures and examns. passed in other Univs. may be recognized by the Board of Studies, or Senate, after consideration of each case.

GRADUATES. The remission to graduates of any other Univ. (or of an approved Univ.) of 2 yrs. of the 4 yrs.' course is made by the Univ. of Dublin, of 1 yr. of the 3 yrs.' course by the Scottish Univs and by the Univs. of Bristol, London, and the N.U.I. At Oxford graduates of a home Univ. and others, being over the age of twenty-one, who can satisfy the Education Committee that they have received a good general education, are eligible to apply for admission to an approved course of special study and research for the degree of B.Litt. or B.Sc., and, if successful, may supplicate for the degree after completing 2 yrs. of residence. At Cambridge graduates suitably qualified are admitted as Research students and may, after the satisfactory completion of a 2 yrs.' course and the submission of a dissertation, obtain the degree of M.Litt. or M.Sc. At Dublin a graduate of any approved Univ. who possesses a degree the equivalent of Moderatorship may, after 1 yr. of advanced study and research, present himself for examn. for the degree of Sc.B. Certain Univs. which have not adopted ordinances to that intent are prepared to consider applications from graduates of other Univs. who desire to read for higher degrees for remission of standing or exemption from examinations.

Higher Degrees

M.A. At Cambridge a Bachelor of Arts may, without further examn., proceed to the M.A. at the close of the 6th yr. after the end of his first term ; at Oxford in the twenty-first term after matriculation ; at Dublin 3 yrs. after passing the B.A. examn. At Durham graduates in Honours of 3 yrs.' (Sheffield 1 yr.'s) standing are admitted to the Mastership without further examn. ; graduates who did not take Honours must pass the M.A. examn. Other Univs. exact a further period of study from their own graduates, followed by the presentation of a thesis, or an examn., or both, of 1 yr. at Birmingham, Leeds, Sheffield, and the N.U.I. ; of 1 yr. from graduates with Honours, and 2 yrs. from others, at Bristol, Manchester, and Wales ; of two years from all graduates at Liverpool and London. Graduates of approved Univs. can obtain the Mastership after 1 yr. of advanced study and research at Birm., Belf., and the N.U.I. ; after 2 yrs. at Bris., Leeds, Liv., Lond., Manc., Sheff., Wales. At London a thesis is required from Internal students in all branches, except Mathematics in which it is optional, and an examn. For External students the thesis is optional in all branches. At Liverpool and Manchester persons who have not graduated can obtain the M.A. degree after a course of advanced study and research extending, usually, over 3 years.

M.Sc. This degree is not conferred by Oxford, Dublin, or the Scottish Univs. At other Univs. it can be obtained by graduates of the Univ. under conditions similar to those for the M.A. At Durham, by graduates, B.Sc., of 2 yrs.' (Sheffield 1 yr.'s) standing who took first or second class Honours, without further test. At Leeds, by graduates, B.Sc., in Honours of 1 yr.'s standing without further test. At Liverpool, by graduates, B.Sc., with Honours, after 1 yr.'s higher study without examn. At London, by Internal students of 1 yr.'s or 2 yrs.', by External

students of 1 yr.'s standing from B.Sc. with thesis (optional in Mathematics) and examn. At Manchester, by graduates, B.Sc., of 1 yr.'s standing after thesis and examn. (at the discretion of the Faculty). At Cambridge the degree is conferred upon Research students (v. *supra*). In other Univs. which confer the degree, graduates of approved Univs. can obtain the M.Sc. on terms similar to those for the M.A.

Other titles of Mastership conferred by various Univs.—M.Litt., M.Com., LL.M., M.Mus., M.A.O., M.Ch., Ch.M., M.Ch.Orth., M.D.S., M.V.Sc., M.H. (Hygiene), M.Eng., M.Sc.Tech., M.Met., M.Arch., M.Ed.

Ph.D. All the Univs. of the United Kingdom now confer the degree of Philosophiæ Doctor. Candidates entering upon a course of advanced study and research with a view to this degree must be at least 21 (Oxford—22, Dublin and Bristol—no minimum age); must ordinarily be graduates either of the Univ. or of some other approved Univ.; must have pursued their studies at a Univ. or Univs. for a period of at least 3 yrs. (Oxford—4, London—2, Dublin—not specified); must produce evidence of fitness for the proposed course of study and research. The course for the degree extends over 3 yrs., except in special cases in which, on the ground of the candidate's previous training and attainments, it may be reduced to 2. At its termination the student must submit a dissertation and may be required to qualify also by examn. The degree is granted in any faculty in which the Univ. is prepared to receive advanced students.

A candidate for the degree of Ph.D., as an External student of the Univ. of London, must have graduated in the Faculty of Theology, Arts, Science, or Economics in this University not less than 2 academic yrs. previously.

Litt.D. and *Sc.D.* The Doctorate in Letters and in Science is conferred upon Masters of Arts and Masters of Science (Dublin, Bachelors or Masters) distinguished by their contributions to the advancement of learning or science. The claim to the degree must be based either upon a special thesis, as at London, or upon published works. In certain Univs. the Faculty may require the applicant to appear for examn. An applicant for the Doctorate must be of 3 yrs.' standing from graduation at Dublin, Belfast, N.U.I. (for D.Sc. Pub. Health); 4 yrs.' at Manchester, London (for D.Sc. and External D.Lit.); 5 yrs.' at Birmingham, Sheffield, N.U.I. (for D.Litt., D.Litt. Celt., D.Sc.), and the Scottish Univs.; 6 yrs.' at Durham (for D.Sc.), Leeds, Liverpool (for Litt.D. 4 yrs. from M.A.), Bristol, Cambridge; 7 yrs.' at Oxford, London (for Internal D.Lit.); 10 yrs.', Univ. of Wales, Durham (for Litt.D.).

Graduates of other Univs. who have been admitted to the degree of M.A. or M.Sc. (Oxford M.A., B.Sc., or B.Litt; Dub. B.A.) can proceed to the Litt.D. or Sc.D. under the prescribed regulations. In Scotland Honours graduates of approved Univs. of 5 yrs.' standing who have spent the equivalent (4 terms) of two winter sessions in research at a Scottish Univ., have submitted a satisfactory thesis or published work, and have, if required, passed an examn., are admitted to the Doctorate. At Bristol the degree of D.Sc. can be obtained

without previous admission to the M.Sc. At London and Manchester a candidate for the Doctorate may be specially exempted from the examn. for M.A. or M.Sc.

D.Hy (Durh.) 2 yrs. from B Hy.; examn., thesis.

Degrees in Divinity

B.D is conferred after examn. in the Scottish Univs and the Univs. of Durham, London, Manchester, and Wales; after examn. and submission of a thesis at Dublin; after examn. and the submission of a dissertation and published works at Cambridge (examn. may be omitted) and at Oxford. At London the course must extend over 3 yrs., subsequent to matriculation. In Scotland a candidate must be M.A. of a Scottish Univ. who has taken a theological course in a specially recognized institution, or a graduate of an approved Univ. who has taken a complete theological course of at least 2 yrs. in the Univ. conferring the degree; at Dublin, a B.A. of 3 yrs.' standing; at Durham, a man of 25 yrs. of age, who is either a graduate of 2 yrs.' standing or the holder of the Diploma in Theology; in Wales, a graduate who, subsequent to graduation, has studied for 3 yrs. at one of the Associated Theol. Colls. of the Univ.; at Cambridge, a candidate must be M.A. or LL.M.; at Oxford, a candidate must be a M.A. or must be 26 yrs. of age, have followed a course of study in Christian Theology extending over 6 terms, and resided at the Univ. during 6 terms.

D.D. In Scotland the degree is conferred *honoris causa tantum*. At London it is conferred upon B.D.'s who took Honours in at least one subject, on presentation of a dissertation, followed by an examn., if the examiners so desire. At other Univs. it is conferred in consideration of published works, or a dissertation (and, at Oxford, a *viva voce* examn., if the judges so desire). The requisite standing is, at Cambridge and London, 5 yrs. from B.D.; Dublin, 8 yrs. from B.A.; Durham, 10 yrs. from B.A.; Manchester, 4 yrs. from B.D. (or 6 yrs. for B.D.'s of other Univs. who have studied for 2 yrs. at Manchester); Oxford, 14 yrs. from matricn., or, if he was admitted to the degree of B.D. as a graduate of another Univ., the candidate must have attained the age of 33; Wales, 6 yrs. from B.D.

Degrees in Medicine and Surgery

M.B., Ch.B. The regulations for these degrees are practically uniform. A Preliminary examination satisfying the requirements of the General Medical Council—*i.e.* Matriculation, Responsions, Previous, or Scottish Preliminary. Registration as a medical student by the General Medical Council is recommended. Satisfactory attendance during at least 5 yrs. at courses of study and hospital practice. Four examns. (in some Univs. grouped as three or two). All examns. must be passed at the Univ. granting the degree, with the exception of the first, in Chemistry, Physics, and Biology, from which a candidate may be exempted if he has passed an equivalent examn.

at the Univ., or elsewhere (Scottish Univs., Birmingham, Bristol, Dublin for S. African students only, Durham, London, Oxford Senior Students, Sheffield). Study in the Univ. for at least 3 yrs., except for the degrees as an External student of the Univ. of London, who must study for 1 yr. in a Univ. of the United Kingdom; or for 2 yrs., Scottish Univs., Leeds, Liverpool, Manchester; for 1 yr. College of Medicine, Newcastle-on-Tyne (Durham). The Univs. of Oxford and Cambridge exact 3 yrs.' residence, but allow students to do any or all of their medical work at other recognized medical schools. At Oxford, Dublin, Univ. of Wales, candidates must graduate B.A. (or B.Sc., Wales) before admission to a medical degree.

M.D. Candidates must be M.B., Ch.B. of, usually, 2 yrs.' standing (Oxford, 10 yrs. from matriculation; Cambridge, M.B. of 3 yrs.', or M.A. of 4 yrs.' standing; Dublin, of M.A. standing; N.U.I., M.B. of 3 yrs.' standing). A dissertation is compulsory in almost all Univs., followed by an examn., unless the examiners pronounce the dissertation to be of such merit as to render further examn. unnecessary.

Ch.M. Regulations similar to those for M.D.

D.Ch. (Durh.). Candidate must have devoted, subsequently to having obtained a registrable qualification, 3 yrs. (including one at least in the Univ. and 6 months at least abroad) to the study of Surgery and ancillary subjects.

Degrees in Dentistry and in Veterinary Science are obtainable under somewhat similar conditions.

Degrees in Law

LL.B. (or *B.C.L.*), obtainable with Honours or as an ordinary degree. In the Scottish Univs. candidates must have graduated M.A.; at Belfast, Dublin, Durham (B.C.L.), National Univ. of Ireland, B.A. At Durham candidates must be of 4 yrs.' standing from B.A. In Wales the course extends over 4 yrs., the first year being spent on an intermediate course in Arts. At Belfast graduates of this, or of some other Univ. are eligible for the degree after a 1 yr.'s course in Law; at Oxford, after a 2 yrs.' course, if they obtain Honours in the B.C.L. examination. At Sheffield a graduate of a Univ. of the United Kingdom who has attended for 1 yr. the intermediate course and for 1 yr. the Final course in Law and for 2 yrs. studied in a recognized institution, may be a candidate for the degree. In the majority of Univs. there are two examns., Intermediate and Final.

LL.M. Cambridge, Leeds, Liverpool, Sheffield. By standing for graduates in Law with Honours, except at Leeds where a dissertation must be presented. For others, after examn.

LL.D. (or *D.C.L.*). By the Scottish Univs. the Doctorate is awarded only *honoris causa tantum.* Other Univs., unless the degree be awarded *honoris causa,* require the submission of a thesis, dissertation, or published works, and may require attendance at an examn.; in Dublin a candidate may elect to undergo examn. in lieu of offering a thesis, etc.

The requisite standing for the Doctorate is, t London, 2 yrs. from Honours LL.B.; Dublin, 3 yrs. from B A.; Manchester, 4 yrs. from LL.B.; National Univ. of Ireland and Sheffield, 5 yrs. from LL.B.; Oxford (D.C.L.), 5 yrs. from B.C.L.; Cambridge, 5 yrs. from LL.M.; Leeds and Liverpool, 6 yrs. from LL.B.; Durham (D.C.L.) and Wales, 10 yrs. from graduation.

Degrees in Music

The degrees of Mus.B. (or B.Mus.) and Mus.D. (or D.Mus.) are conferred by the Univs. of Cambridge, Dublin, Durham, Edinburgh, London, Manchester, Oxford, and Wales; B.Mus. and M.Mus. Birmingham; Mus.M. Cambridge and Wales.

Mus.B. At Birmingham, Cambridge, Dublin, Edinburgh, London, Manchester, and Wales, students must pass the same Entrance examn. (Matriculation, Previous, or Preliminary) as students in Arts; with, at Birmingham, an examn. in the Rudiments of Music. At Durham they are admitted on a *testamur* as Students of Music. At Oxford they must pass either Responsions or the Preliminary for Students of Music, in which, if two of the three languages, French, German, Italian, are taken, neither Greek nor Latin is obligatory. In Wales a student must attend an intermediate class in Arts or Science in addition to the Music course. Residence is not obligatory at Dublin, Durham, or Oxford. At Edinburgh students must study Music in the Univ. for one whole winter session. As a rule, the course extends over 3 yrs. with two, or three, examns., including an exercise for the Final examn.

Mus.M. Conferred 3 yrs. after the Mus B. for original work and dissertation (Birmingham), after examn. and exercise (Cambridge, Wales).

Mus.D. Conferred at Cambridge on graduates not less than 30 yrs. of age, and in Wales on graduates in any faculty of not less than 3 yrs.' standing in recognition of distinction as Composer; at Edinburgh on Mus.B.'s of 3 yrs.' standing, after examn. as Composer, Executant, or Theorist or Historian (Dissertation), and also *honoris causa tantum*; at Dublin on Mus.B.'s after further examn. or practical test; at London on Mus B.'s of 2 yrs.' standing, Oxford 3 yrs.', Manchester 4 yrs.', Durham and N.U.I. 5 yrs.', after exercise and examn.

UNIVERSITY OF BIRMINGHAM

VISITOR—H.M. THE KING.

CHANCELLOR—Rt. Hon. Lord ROBERT CECIL, M.A., D.C.L., LL.D., K.C., M.P.

VICE-CHANCELLOR—Sir GILBERT BARLING, BART., C.B., C.B.E., F.R.C.S.

PRO-VICE-CHANCELLOR—JOHN HENRY LLOYD, Esq., M.A , J.P.

TREASURER—BOULTBEE BROOKS, Esq.

PRINCIPAL—C. GRANT ROBERTSON, C.V.O., M.A. Oxford.

VICE-PRINCIPAL—Sir WILLIAM ASHLEY, Ph.D., M.Com., M.A.

SECRETARY—GEO. H. MORLEY, M.Com.

REGISTRAR—JOHN H. COSTAIN.

LIBRARIAN—E. H. F. MILLS, M.A.

PROFESSORS, LECTURERS, ETC., January 1, 1922

Accounting

Martineau, C. E., M.A. Camb., M.Com., F.C.A. Prof.

Agriculture, v. Zool.

Anatomy, Human, and Anthropology

..... Prof.

Brash, J. C., M.A., M.B., Ch.B., B.Sc. Asst. Prof.

Haslam, W. F., M.B., Ch.B., F.R.C.S. Lectr.

Raison, C. A., M.B., Ch.B. Lectr.

Rose, Baron T., B.Sc., M.B., Ch.M., F.R.C.S.E. Hon. Demr.

Shufflebotham, Miss H. N., B Sc., M.B. Demr.

Bennett, W. E., M.B., Ch.B., F.R.C.S. Hon. Demr.

Gemmill, W., M.A., F.R.C.S. Hon. Demr.

Botany [Mason Prof.

Yapp, R. H., M.Sc., M.A. Camb.,

Elliott, Jessie S., B.Sc. Lond., D.Sc. Lectr.

Slane, Una C., M.Sc. Manc. Asst. Lectr.

Brewing

Ling, A. R., M.Sc., F.I.C. Prof.

Cotterill, W. E., B.Sc. Asst.

Chemistry [Mason Prof.

Morgan, Gilbert T., O.B.E., D.Sc. Lond., A.R.C.S., F.I.C., F.R.S.

Carter, S. R., M.Sc., A.I.C. (Sr. Lectr. in Physical C.)

Goddard, A. E., M.Sc., A.I.C. Jr. Lectr.

Jones, Evelyn, B.Sc. Jr. Lectr.

Nicholas, S. D., B.A. Ox., A.I.C. Lectr.

Wardlaw, W., D.Sc. Durh., A.I.C. Lectr.

Wood, C. E., M.Sc., A.I.C. Lectr.

Jr. Lectrs. :

Cooper, E. Ashley, D.Sc. (Lond.), F.I.C.

Stewart, L. M., M.A., B.Sc. Edin., A.I.C.

Pinkard, F. W., B.Sc. Wales., A.I.C.

King, H. G. S., B.Sc. Lond.
Glover, T. J., M.Sc. N.U.I.
Shatwell, H. G., M.Sc., A.I.C.

Classics
Thomson, J. Oliver, O.B.E., M.A. Aberd. B.A. Camb. (Latin) Prof.
Hirst, Margaret E., M.A. Asst. Lectr.
Chambers, C. D., M.A. Ox. (Greek) Reader.
Barrett, A. J., M.A. Ox. (Latin) Asst. Lectr.

Commerce, v. also Acc.
Ashley, Sir Wm., M.A. Ox., M.Com., Ph.D. Berl. Prof.
Smith, J. G., M.A. Dub. Asst. Prof.
George, A. F., B.Sc.Econ. Lond. Tutor.
Whale, P. B., B.Sc.Econ. Lond. Lectr.

Commercial Law
Tillyard, F., M.A. Ox., M.Com., Barr.-at-Law Prof.

Dentistry, v. also Metall.
Matthews, G. F. C., L.D.S. (Orthod.) Lectr.

Dental Anat. and Physiol.
Humphreys, H. F., M.B., Ch.B., M.D.S., L.D.S. Lectr.

Dental Histol., etc. [Lectr.
Wellings, A. W., M.D.S., L.D.S.

Dental Mechanics
Donagan, A. E., M.A. Camb., L.D.S. Lectr.

Dental Surgery, etc. [Lectr.
Madin, W. T., B.D.S., L.D.S.

Economics, v. also Comm., Phil.
Hamilton, H., M.A. Lectr.

Education
Valentine, C. W., M.A. Camb., D.Phil. St. And. Prof.
Ritchie, Frances, B.Sc. Asst. Lectr.

Heads of Training Depts.:
Braddock A. P., M.A., B.Sc. Lond.
Hammond, Marjorie, B.A.
Gill, Conrad, M.A. Leeds, B.A. Camb., Senr. Tutor, Continuation Training Dept.

Lectrs.:
Griffin, A., L.R.A.M., A.R.C.M.
Chapman, A. E., M.A. Camb.
Scott, Eliz., B.A. Belf.
Chester, K. E., M.A. Ox.
Buchanan, Miss F. M., M.A.
Finegan, Eleanor, M.A. Liv.
Lall, Diana.
Robertson, Muriel.
Leitch, N. M.
Crowther, W. E.
8 Asst. Lectrs.

Engineering, Civil [Beale Prof.
Lea, F. C., O.B.E., D.Sc. Lond., M.Sc., A.M.I.C.E., A.R.C.S.
Panton, R. C., M.Sc., M.A., B.A.I. Dub. Lectr.
Stradling, R. E., B.Sc. Brist. A.M.I.C.E. Lectr.
Coultas, H. W., B.Sc. Leeds Asst. Lectr. & Demr.
Haywood, W., F.R.I.B.A. (Town Planning) Lectr.

Engineering, Electrical
Cramp, W., D.Sc. Manc., M.Sc. Tech., M.I.E.E. Prof.
Kipps, E. J., M.Sc., M.I.E.E. Lectr.
Vickers, H., M.Eng. Liv. Lectr.
Harvey, G. M., B.Eng. Liv., A.M.I.E.E. Lectr.
Randall, O. R., B.Sc. Lond. Lectr.

Engineering, Mechanical
Burstall, F. W., M.Sc., M.A. Camb., M.I.C.E., M.I.M.E. Chance Prof.
Porter, R. C., M.Sc. Vict., A.M.I.C.E. Lectr.
Boden, F. H., B.Sc. (Machine Design) Lectr.

Baker, H., B.Sc. (Machin e Design) Assist. Lectr.
Ellis, S. J., B.Sc. Demr.

English

De Sélincourt, E., M.A., D.Litt. Ox. Prof.
Maitland-Smith, I. J., M.A. Aberd. Lectr.
Hughes, A. D. M., M.A. Ox. Lectr.
Milner-Barry, Alda Lectr.

French

Ritchie, R. L. Graeme, M.A., D. de l'U. Paris, O.A. Prof.
Lafourcade, G., L. ès L. Paris. Lectr.
Milne, Jane J., M.A. Lectr.
Lespagnol, M. Asst.

Geology and Mineralogy [Prof.

Boulton, W. S., D.Sc. Wales, M.Sc., A.R.C.S., F.G.S.
Raw, F., B Sc. Lond., F.G.S. (Spl. Lectr. in Petrology) Lectr.
Wills, L. J., Ph.D., M.A. Camb., F.G.S. Lectr.

German

Sandbach, F. E., M.A. Camb., Ph.D. Strass. Prof.
Strachan, L. R. M., M.A. Lectr.
Liddell, M. F., M.A. Edin. Lectr.

History [Prof.

Beazley, C. R., D.Litt. Ox., M.A.
Gill, Conrad (v. Educ.) Reader in Const. H.
Sutcliffe, Dorothy, M.A. Manc. and Leeds Lectr.
Adams, H. P., M.A. (Ancient H) Asst. Lectr.

Italian

di Castelvecchio, Linetta P. Serena Prof.

Law, v. Comm.

Mathematics

Watson, G. N., Sc.D. Camb., D.Sc. Lond., F.R.S. Mason Prof.
Preece, C. T., M.A. Camb., Lectr.
Colomb, Ruby, M.A. Lond. Lectr.

Asst. Lectrs.:

Calderwood, Nora I., M.A., B.Sc Edin.
Lumsden, T. A., M.A., B.Sc. Edin.

Medicine, v. *infra*

Metallurgy [Feeney Prof.

Turner, T., M.Sc., A.R.S.M., F.I.C. (Lectr. in Dental M.)
Bamford, T. G., M.Sc. Liv. Lectr.
Stansbie, J. H., B.Sc. Lond. Lectr.

Asst. Lectr. & Demr.:

Harris, H., B.Sc., F.C.S.

Mining

Cadman, Sir John, K.C.M.G., D.Sc., Prof of M and Adviser in the Dep. of M. and Tech.
Haldane, J. S., LL.D., M.D., F.R.S., Hon. Prof. and Dir. of Research Lab.

Mining, Petroleum Tech.

Madgwick, T. G., A.R.S.M. Asst. Prof.

Mining, Coal, and Surveying

Moss, K. N., O.B.E., M.Sc., F.G.S. Asst. Prof.
Graham, J. Ivor, M.A. Camb., M.Sc. Lond., Asst. Dir. of Research.

Mining, Metal

Rees, J. P., A.R.S.M. Lectr. & Demr.

Mine Rescue Work

Veale, A. P., A.M.I.M.E. Lectr.

Music

Bantock, G., M.A., D.Mus. Edin. R. Peyton Prof.

Philosophy and Polit. Economy

Moberly, W. H., M.A. Ox. Prof.
Harvey, J. W., M.A. Ox. Lectr.

Physics

Smith, S. W. J., M.A. Camb. D.Sc. Lond., F.R.S. Poynting Prof.

Shakespear, G. A., D.Sc., M.A. Camb., B.A., B.Sc. Lond. (Spl. Lectr. in Expl. P.) Lectr.
Barlow, G., D.Sc. Birm., Wales, and Lond. Lectr.
Keene, H. B., D.Sc. Lectr.

Asst. Lectrs.:
Ibbs, T. L., M.C., M Sc.
Young, J., B.Sc. Lond., A.R.C.S.
Dee, A. A., B.Sc. Lond., A.R C.S.
Tyler, Edward, M.Sc.
Pratt, E. W., M.Sc.

Physiology
Carlier, E. W. W., M.Sc., M.D. Edin. F.R.S. Prof.
Walker, Hilda, M.B., Ch.B. Lectr.
Ligertwood, Laura M., M.B., Ch.B. Edin. Lectr.

Russian
Tillyard, H J. W., M.A., Camb., D.Litt. Edin. Prof.

Spanish
Conroy, R., M.A., N.U I. Lectr

Zoology and Comp. Anatomy
Gamble, F. W., D.Sc. Manc., M.Sc., F.Z.S., F.R.S. (Dir. of Agric. Z. Research) Mason Prof.
Newth, H. G., A.R.C.S. Lectr.
Eastham, L , B.Sc. Leeds Asst. Lectr.

Zool., Agric. (Research)
Meggitt, F. J., Ph.D., M.Sc. (Asst. Helminthologist) Reader.

Medicine (for subjects of first 2 yrs. —Anat., etc., v. *supra*.).

Bacteriology, v. Path.

Forensic M. & Toxicology
Morrison, J. T. J., M.A., M.B., B.C. Camb., F.R.C.S. Prof.
Walker, C., M.D., B.Sc. Asst.

Hygiene and Public Health
Robertson, J., C.M.G., O.B.E., M.D., B.Sc. Prof.
Auden, G. A., M.D., M.A., B.C., D.P.H. Camb., F.R.C.P. (Hygiene) Asst. Lectr.

Infant Hygiene and Dis. of Children
Parsons, L. G., M.D. Lond. (also Clin. Lectr.) Lectr.

Materia Medica
Kneale, J. C., M.B., Ch.B. Lectr.
Greenwood, F. R., M.D., F.S. Lond., M.B., Ch.B. Demr.

Medicine
Russell, J. W., M.A., M.D., F.R.C.P. Prof.
Kauffmann, O. J., M.D., F.R.C.P. Prof.
Ball, L., M.B., B.S. Asst.

Mental Diseases
Hughes, P. T., M.B., Ch.M. Edin., D.P.H. Lond. Lectr.

Midwifery and Dis. of Women
Wilson, T., Ch.M., M.D. Lond., F.R.C.S. Prof.
Purslow, C. E., M.D. Lond. Lectr.
Whitehouse, Beckwith, M.S., F.R.C.S. Asst.

Ophthalmology
Evans, J. J., M.D., F.R.C.S. Lectr.

Pathology & Bacteriology [Prof.
Dunn, J. S., M.A., M.D., Ch.B.
Piney, A., M.R.C.S. Lectr.
Lewis, C. J., M.D., D.Sc. Edin., F.R.C.P.E. (Board of Pub. Health) Spl. Lectr.
Wyatt, R. B. H., M.R.C.S., L.R.C.P. Demr.
Wilkinson, K. D., O.B.E., M.D. Asst.
Hardy, T. L., B.A., M.B. Asst.

Surgery
Leedham-Green, C., M.B., Ch.M., F.R.C.S. Prof.
Gamgee, L. P., F.R.C.S. Prof.

Barling, S., C.M.G, M.S., F.R.C.S. Asst.

Surgery, Operative

Heaton, G., M.A., M.B., B.Ch. Ox., F.R.C.S. Lectr.

Therapeutics

Stanley, D., M.D. Birm. and Edin., F.R.C.P. Prof.

Tutorial Classes

Tutors: J. W. Harvey (Jt.-Secy.) and 12 others.

AFFILIATED INSTITUTIONS

MIDLAND INSTITUTE. Students are admitted to Intermediate Arts examn. as Internal students.

SALTLEY TRAINING COLLEGE. Students taking the 4-yr. course are admitted to the Intermediate Arts examn. as Internal students.

HANDSWORTH AND LICHFIELD THEOLOGICAL COLLEGES. Students can take the 2nd and 3rd yrs. for the B.A. in their own Colls.

GENERAL INFORMATION

The UNIV., a development of the Mason College founded by Sir Josiah Mason in 1880, was incorporated by Royal Charter in 1900. The Charter prescribes instruction in all branches of a liberal education, and such instruction especially as may be of service in the manufactures, commerce, and industrial pursuits of the Midlands. Arts, Medicine, and the Biological departments are still housed in the buildings of Mason College in the centre of the city. Other buildings have been erected and equipped at a cost of £750,000 at Bournbrook on a site of 40 acres.

LIBRARY, about 75,000 vols. MUSEUMS, Anat., Dent., Geol., Zool. LABORATORIES: Chemical (with special organic, phys., electro-chem., analytical, and public health depts.); Engin., Mining, and Metall. (exceptionally well equipped and including expl. coal-mine and oil-boring plant and testing machines of high capacity); Brewing; Power-Station supplying whole Univ. with lighting, heat, and power. A small OBSERVATORY is attached to the dept. of Physics. HOSPITALS (600 beds) available for clinics—General, Queen's and many special.

FACULTIES. Arts (including Music), Science (Pure and Applied), Medicine (including Dentistry and Public Health), Commerce.

MATRICULATION. See Appendix XXI.

DEGREES, ETC. B.A., B.Mus., M.A., M.Mus., D.Phil., D.Litt.; B.Sc. (in Pure Science, or in Engineering—Civ., Elec., or Mech., Metallurgy, or Mining), M.Sc., D.Sc.; M.B., Ch.B., B.Sc. (Pub. Health), B.D.S., M.D., Ch.M., M.D.S.; B.Com., M.Com.; Ph.D. (in any Faculty); LL.D. (Honorary).

No degree can be obtained without attendance upon prescribed courses in the Univ. extending over at least 3 academic yrs. after matricn. except in the case of graduates of other Univs., who are, under certain conditions, admitted to the 1-yr. courses for the M.A. and M.Sc. and to 2 yrs.' courses for the B.Sc. (courses in technical subjects), B.Com., Ph.D. (v. p. 15), M.D., or Ch.M.

In the B.Com. courses one-third of the student's time may, if he chooses, be devoted to work in Applied Science.

The B.Sc. with Honours in Maths. or Chem. requires 3 yrs. after the

Intermediate standard has been reached. The B.Sc. courses in Engineering cover 4 yrs. Those in Mining involve practical work underground. Graduates of Oxford who have obtained the Ox. Dipl. in Scientific Engin. and Mining are eligible, subject to certain provisos, for the B.Sc. in Engin., Mining, or Metall. after 2 yrs.' study in Birmingham.

Med. students may spend their 5th yr. at any school or schools of Med. recognized by the Univ., and the Senate may recognize examns. passed therein as exempting from the 1st Med. examn. They may obtain the B.Sc. as well as their Med. degree by devoting 6 yrs. instead of 5 to study in the Univ.

Candidates for the B.Mus. must have passed the matricn. or an equivalent examn. and an examn. in the Rudiments of Music.

The M.A., M.Com., and M.Sc. involve at least 1 yr. of study after completing the course for the bachelorship.

The M.A. may be taken in Educn. and in Music as well as in the ordinary Arts subjects.

The D.Phil. or D.Litt., M.Mus., and D.Sc. may be taken 3 yrs. after the M.A., B.Mus., or M.Sc.

Advanced Standing. Candidates who pass at entrance certain examns. ordinarily taken after the first year of a degree course may take the final examn. for the B.A. or B.Sc. at the end of their second year and the M.A. or M.Sc. at the end of their third year. Certain examns. of other approved Univs. are accepted as qualifying for such advanced standing.

Diplomas. *Art* Instructor's (2 yrs.' course), for students of the Municipal School of Art; *Brewing* (3 yrs.' course), Brewing Special for graduates (1 yr.); Graduates' *Commerce* (1 yr. course), open to graduates of any Univ. who have passed an adequate test in accounting; *Mining*; *Social Study* (1 yr. or, Higher Dipl., 2 yrs.' course preparatory for public administration, charity organization, factory welfare, trade union official work, etc.); Secondary, Primary, or Continuation School *Teachers'* (1 yr. course), for graduates of a Univ. of the U.K. or others equally qualified.

An Industrial Certificate class has been instituted under the control of a joint board of Univ. and Trade Union representatives. This class provides two full days' instruction to members of Trade Unions, nominated by their Unions, in English Literature, Modern History, Economics, and Elementary Science. The work is organized by a special tutor, appointed and paid by the Univ. The class is held in all three terms of the Univ. session, and at the end an Industrial certificate is awarded after examn. The class is a new departure, as it is not based on the principle of evening work but on full-time day work, and the instruction is provided by members of the Univ. Staff. Evening classes are not provided by the Univ., this work being left to the Birm. and Midland Inst., Munic. Tech. Sch., etc.

FEES. Matricn., £2. Tuition for B.A., £75; B.Sc., £75-£96; Engin., £221; Mining, £146-£198; Metall., £129-175; Med., including Hospl. fees, £170. Examns., Interm. and Final, for first degree £10, except in Med., £20, and Engin., £12 : 10s. Laboratory research fees average about £20.

SCHOLARSHIPS for advanced students. Walter Myers (Travelling), £150 for 1 yr., renewable, for research in Path. or Clin. Med., open to graduates in Med. and Surg. of Birm. (who have also obtained the B.Sc.), London, Ox., or Camb.; 10 Scientific Research, tenable for 1 yr. (6 of £96 and 4 of £50 each), are offered annually.

RESIDENCE. For women there is a Hostel—Univ. House, Edgbaston Park Rd. (Warden), with grounds of 2¾ acres; for men students—"The

Dales," Augustus Road, Edgbaston. The cost of board and lodging is from £2 : 10s. upwards a week.

UNIVERSITY EXTENSION work includes Lectures and Tutorial Classes in the city and neighbouring towns.

PUBLICATIONS. *Calendar* (Oct.), 2s.; Sectional Prospectuses (April); students' magazine, *The Mermaid*, 6d.

THE YEAR 1920–21

RECENT AND PROJECTED DEVELOPMENTS. I. *General:* (*a*) *The Library* has now been completely reorganized. A new Librarian has been appointed; the staff has been augmented; a new and additional Reading Room has been provided and equipped, and the annual grant for the purchase of books has been increased.

(*b*) A Joint *Standing Committee on Research* of lay members of the Council and academic members of the Senate has been appointed. Its function will be to co-ordinate the research work of all the Faculties, to formulate a general policy of Research, to obtain funds for this purpose, and to co-operate with the organizations of the Government established for promoting Research.

(*c*) *Guild of Undergraduates.* A temporary ordinance has been passed by the Council, conferring practically full membership of the Guild on all undergraduates reading for a recognized University course, but who hitherto had been excluded from membership by a technical disqualification, *i.e.* they had not been matriculated. The Guild of Undergraduates therefore will now include the whole number of full-time students, and will be completely *representative* (through the affiliated Societies and Clubs, numbering roughly 40) of the social and intellectual and athletic sides of undergraduate life. Moreover, the Council has transferred to the Guild the distribution of the annual income derived from Membership Fees, hitherto administered and allotted by a Committee of the Council. The Guild therefore will in future enjoy a far larger measure of financial autonomy and responsibility.

(*d*) *Hostel for Men Students.* Thanks to a benefaction and a grant from the Univ. Grants Committee, the Univ. has now acquired a commodious house and grounds in Edgbaston. The necessary reconstruction and equipment to fit this house for a warden and some 70 men students are now being carried out, and the Hostel will be opened as soon as circumstances permit. The Council is taking into its consideration the extension of the Women's Hostel, which is urgently needed.

(*e*) *Extra-Mural Adult Accommodation.* The Trade Union Class (v. *supra*, Diplomas) is being continued. There is a marked increase in the demands in Birmingham and the Midlands for both 3-yr. and 1-yr. W.E.A. Classes which the Joint Committee is endeavouring to meet.

II. *Faculty of Science*: (*a*) *Honour Schools* for an Honours B.Sc. have now been instituted in all branches of Pure and Applied Science.

(*b*) *The Science Departments* at Edgbaston have been reorganized, largely re-equipped and extended. Geology has been removed from Edmund Street to Edgbaston and provided with new and commodious quarters. Extensive additions have been made to the Depts. of Chemistry and Physics.

(*c*) *Petroleum Engineering.* Thanks to a large benefaction, this Department has been completely reorganized and re-equipped. This is the only provincial univ. in which complete provision is made to meet a growing Imperial need for a scientific and technological training in this subject.

(*d*) *The Research Laboratory in Coal Mining* has been transferred from

Doncaster to Birmingham, and now forms part of the Mining Dept. of the Univ. It will remain under the control of the Director and Hon. Prof., Dr. J. S. Haldane, F.R.S. Funds have been provided for the continuance and extension of the research work of the Laboratory.

III. *Faculty of Arts*: (*a*) *The Classical Studies* Department has been reorganized and strengthened. The Independent Lectureship in Greek has been converted into a Readership of the University.

(*b*) *New Chairs in Modern Languages.* Full-time Professorships in *Italian* and *Russian* have been established. It is hoped shortly to set up Honour Schools (akin to those in French and German) in both these subjects.

(*c*) *New Honour Schools* in Maths. and in Music have now been established.

IV. *Department of Education.* The accommodation has been reorganized. A new large Drill Hall and other facilities have been provided. An M.A. Degree in Educ. has been established.

NUMBER OF STUDENTS. Preparing for degrees—in Sc. 644, Arts 301, Med. 259, Com. 118; diplomas—in Arts 217, other Faculties 211; research and post-grad. students—in Sc. 39, Arts 19, Med. 11; occasional—in Sc. 25; others 57. Total full-time students 1811, including 455 women; part-time 97. Total in two preceding yrs. 971, 1923 (women 282, 505). Students attending Tutorial classes (W.E.A.)—in Econ. 68, Sociol. 9, Lit. 42, Engl. Hist. 20, Indust. Hist. 85, Social Psych. 32. New entries, session 1921–22, in Sc., pure and applied; 207, Arts, including Music and Educn., 203, Commerce 37, Social Study and Indust. Certif. 26, Med. and Dent. 85.

HONORARY DEGREE (M.A.) conferred on Harriet E. G. Dale.

OTHER DEGREES.—B.A., 100, including 28 women; B.Sc., 134 (women, 5); B.Com., 32; M.B., Ch.B, 12 (w., 5); B.Mus., 3 (w., 1); B.D.S., 1; M.Sc., 20 (w., 2); M.A., 20 (w., 12); M.D.S., 1; M Com., 1; D.Sc., 1; Ph D., 2; M D., 1; D.Litt.. 2.

UNIVERSITY OF BRISTOL

VISITOR—H.M. THE KING.

CHANCELLOR—Rt. Hon. VISCOUNT HALDANE OF CLOAN, O.M., K.T., D.C.L., LL.D., F.R.S. (*ex officio* President of Court, Council, and Convocation).

PRO-CHANCELLORS—Rt. Hon. HENRY HOBHOUSE, M.A., LL.D.; G. A. WILLS, LL.D.; H. H. WILLS; The Rt. Rev. the LORD BISHOP OF BRISTOL, D.D., LL.D.

VICE-CHANCELLOR (ELECT)—THOMAS LOVEDAY, M A. Ox. (*ex officio* Chairman of Senate).

TREASURER—STANLEY H. BADOCK.

REGISTRAR—JAMES RAFTER, M.A.

TUTOR TO THE WOMEN STUDENTS AND WARDEN OF THE UNIV. HALL OF RESIDENCE FOR WOMEN—MAY C. STAVELEY, M.A.

LIBRARIAN—E. SIBREE, M.A.

MEDICAL LIBRARIAN—C. KING RUDGE, M.R.C.S., L.R.C.P.

ASSOCIATED INSTITUTIONS

(In which specialized teaching is given or facilities for research are afforded.)

(1) BRISTOL BAPTIST COLLEGE. *Principal*—W. J. Henderson, LL.D., B.A.

(2) WESTERN COLLEGE, BRISTOL. *Principal*—R. S. Franks, M.A., D.Litt.

(3) THEOLOGICAL COLLEGE, SALISBURY. *Principal*—C. T. Dimont, B.D.

(4) S. BONIFACE COLLEGE, WARMINSTER. *Principal*—J. W. S. Tomlin, M.A.

(5) NATIONAL FRUIT AND CIDER INSTITUTE, LONG ASHTON (v. *infra*, LABORATORIES). *Director*—Prof. B. T. P. Barker, M.A.

(6) REDLAND HIGH SCHOOL & COLSTON'S GIRLS' SCHOOL, BRISTOL, for kindergarten training.

N.B.—All members of the Teaching Staffs of (1), (2), (3), (4), and (5) are members of the Teaching Staff of the Univ.

PROFESSORS, LECTURERS, ETC., January 1, 1922

[(C) = Clinical Lecturer; (R.) = Recognized as qualified to instruct undergraduates studying for degrees; (S.) = Special Lecturer.]

Agriculture
Barker, B. T. P., M.A. Camb. (A. Biology) Prof.
Wallace, T., M.Sc. Durh., A.I.C. (A. Chem.) Lectr.
Wiltshire, S. P., B.A. Camb., B.Sc. (Mycology) Lectr.
Grove, O. (Œnology) Lectr.
Lees, A. H., M.A. Camb. (Plant Path.) Lectr.
Spinks, G. T., M.A. Camb. (A. Botany) Lectr.
Tutin, F. (Bio-Chem.) Lectr.
Peren, G. S., B.S.A. Tor. (Pomology) Lectr.
Summers, F., B.A. Camb., M.Sc. Liv. (Plant Physiology) Lectr.

Anatomy [Prof.
Fawcett, E., M.D., C.M. Edin.
Stock, W. S. V., M.B., Ch.B., M.B., B.S. Lond., F.R.C.S. Demr.
Llewelyn, Miss G. R., B.Sc. Demr.
Adams, W. A., M.B., B.S. Lond., F.R.C.S. Demr.
Moore, C. A., M.S., M.B. Lond., Ch.M., F.R.C.S. (Surg. and Applied Anat.) Lectr.

Arabic, Aramaic, etc., v. Orient.

Art
Wellington, H. L. (S.).

Bio-Chemistry
Nierenstein, M., Ph.D. Berne, D. ès Sc. Gen. Lectr.

Botany
Darbishire, O. V., B.A. Ox., Ph.D. Kiel Prof.
Hunter, C., M.Sc. Durh. Lectr.
Lee, Miss E. M., M.Sc. Lectr.
Gilchrist, Miss G., B.Sc. Demr.
White, J. W. (Systematic B.) (S.).
Gardiner, G. F., F.R.H.S. (Gardening) (R.).

Chemistry, v. also Agric.
Francis, F., D.Sc. Manc., Ph.D. Erl., F.I.C. A. C. Pass Prof.
Davis, O. C. M., D.Sc. Lond., D.Sc., M.D., Ch.B., F.I.C. (and Demr. in For. Med. and Toxicol.) Lectr
Rixon, F. W., M.Sc. Manc., Ph.D. Gies., F.I.C. Lectr.
Taylor, Millicent, D.Sc., A.I.C. Demr.
Fullman, B., B.Sc. Lond. Demr.

Chemistry, Applied, v. p. 32.

Chemistry, Hygienic [Lectr.
Russell, E., B.Sc. Lond., F.I.C.

Chemistry, Physical
McBain, J. W., M.A. Tor., Ph.D. Heid. Leverhulme Prof.
Laing, Mary E., M.Sc. Research Asst.

Classics [H. O. Wills Prof.
Dobson, J. F., M.A. Camb. (Greek)
Brooks, F., M.A. Ox. Prof.
Pitman, H., M.A. Ox. Lectr.

Dental Anatomy and Dental Histology [Lectr.
Nichols, F. C., M.B., Ch.B., L.D.S.

Dental Mechanics
Wing, J. C., L.D.S. Lectr.

Dental Surgery [Lectr. & (C.).
Ackland, W. R., M.R.C.S., M.D.S.
Nichols, F. C., M.B., Ch.B., L.D.S. (C.).
Kettlewell, N. H., L.D.S. (C.).
Rigg, S. K., L.D.S. (C.).

Dental Surg., Operative
Dowling, E. A. G., M.R.C.S. L.R.C.P., L.D.S. Lectr. & (C.).

Economics, v. also Loc. Govt.
Phillips, H., B.A. Ox. Lectr.

Education
Wodehouse, Helen M., M.A., D.Phil. Birm. Prof.
Pease, Marian F., LL.D. (S.).
Foster, T. S., M.A. Ox., Master of Method (S.).
Mullock, Amy, M.Sc. Manc., M.A. Mistress of Method.

Asst. Lectrs.:
Childs, E. C., M.A., B.D. Lond.
Carré, M. H., B.A. Ox.
Nicholson, J. H., B.A. Ox.
Morgan, L. T., B.Sc.
Harvey, A. C., M.A. Manc.
Odell, D. Anstace.
Allen, Hilda C.
Ward, Mrs. F. W., N.F.U.
Watson, A. J., A.R.C.A. Drawing (R.).
Warrell, A., F.R.C.O. Music (R.).
Carlson, G. Phys. Exerc. (R.).
Jennings, Miss E. S. Phys. Exerc. (R.).

Engineering, v. p. 32.

English [Winterstoke Prof.
Crofts, J. E. V., B.A., B.Litt. Ox.
Haworth, P., M.A. Manc. Lectr.
Birkhead, Edith, M.A. Liv. Asst. Lectr.

French, v. also p. 32. [Prof.
Boillot, F., M.A. Shef., L. ès L.
Perkins, B. N., M.A. Camb. Lectr.

Geography
Jervis, W. W., M.Sc. Durh., F.G.S. Lectr.

Geology
Reynolds, S. H., M.A., Sc.D. Camb. C. Wills Prof.
Turner, H. W., B.A. Ox. Lectr.

German
Ord, C., M.A. Camb. Lectr.
Ord, Evelyn Asst. Lectr.

Hebrew, v. Orient. Langs.

History
Leonard, G. H., M.A. Camb., M.A. (Modern H.) H. O. Wills Prof.
Staveley, May C., M.A. Dub., M.A. Lectr.
Cooper, W. L., M.A. Ox. Lectr.
Gardner, Alice, M.A. (Byzantine H.) Reader.
MacInnes, C. M., B.A. Ox. and Dal. Asst. Lectr.

Italian
Gualtieri, Signa. E. Lectr.

Law
Wilshere, A. M., M.A., LL.B. Lond. (S.).
Chilton, C. A. (S.).

Local Government
Cashmore, Hilda, M.A. Ox. Lectr.

Mathematics
Hassé, H. R., M.A. Camb., D.Sc Manc. H. O. Wills Prof.
Todd, H., B.A. Camb. Lectr.
Vint, J., M.A. Belf. Lectr.

Maths., Applied
Boulton, E. S., M.A., B.Sc. Prof.

Maths., Pure
Fraser, P., M.A. Camb., B.Sc. Aberd. Lectr.

Medicine, v. *infra*

Military Subjects
Berney-Ficklin, Major H. P. M., M.C. (S.).

Mining, v. Engin.

Oriental Languages
Sibree, E., M.A. Ox. Lectr.
Segall, J. (Arabic) (S.).
O'Leary, De L., M.A., D.D. Dub. (Aramaic and Syriac) (S.).
Polack, J., B.A. Lond. (Hebrew) (S.).

Palæontology
Bolton, H., M.Sc. Reader.

Philosophy
Broad, C. D., M.A., Litt.D. Camb. Prof.

Physics, v. also Chem.
Tyndall, A. M., D.Sc. Lond., D.Sc. H. O. Wills Prof.
Williams, Illtyd, M.Sc. Wales Lectr.
Piper, S. H., B.Sc. Lond. Lectr.
George, H. E. Asst. Lectr.
Sucksmith, W., B.Sc. Leeds Asst. Lectr.

Physiology
Buckmaster, G. A., M.A., M.D., B.Ch., D.P.H. Ox. H. O. Wills Prof.
Short, A. R., B.Sc., M.D., B.S. Lond., F.R.C.S. Lectr.
Hickman, H. R. B., M.A., B.M., B.Ch. Ox. Lectr.
Rowell, Miriam Lectr.
Bywaters, H., D.Sc. Lond. and Bris., Ph.D. Wurz. (General Metabolism) (S.).

Public Health
Davies, D. S., M.D. Lond., LL.D., D.P.H. Lectr.
Heaven, J. C., M.R.C.S., D.P.H. Demr.
Fraser, A. D., M.B., Ch.B. Glas., D.P.H. Asst. Lectr.
Askins, R. A., M.A., M.D. Dub., D.P.H. Camb. Demr.
Faill, C. J. C., L.R.C.S., L.R.C.P., F.R.C.P. Edin. Demr.

Technology, v. *infra*

Theological Subjects
Henderson, W. J., B.A. Lond., LL.D.
Robinson, F. E., B.A., B.D. Lond., M.A.
Franks, R. S., M.A. Camb., D.Litt. Ox
Macey, T. S., B.A. Lond.
Dimont, C. T., B.D. Ox.
Bellars, A. R., M.A. Ox. and Bris.
Wand, J. W. C., M.A. Ox.
Prideaux, S. P. T., D.D. Ox.
Walter, W. L., M.A. Camb., Lond., & Kiel.
Tomlin, J. W. S., M.A. Ox.
Palgrave, F. M. T., M.A. Ox.

Zoology [Lectr.
Henderson, W. D., M.A., B.Sc. Aberd., Ph.D. Freib. i/B.
Henderson, Mrs. I. F., M.A. Aberd. Asst. Lectr

Medicine (for subjects of first 2 yrs.—Anat., etc., v. *supra*)

Anæsthetics [(C.)
Freeman, J., M.D. Durh., F.R.C.S
Flemming, A. L., M.B., Ch.B. (C.).
Hill, Hedley, M.D. Durh. (C.).

Bacteriology, v. Pathology

Diseases of the Skin
Wills, W. K., M.A., M.B., B.Ch. Camb. (C.).
Nixon, J. A., C.M.G., B.A., M.D. Camb., F.R.C.P. (and ... Med.) (C.).

Fevers
Peters, B. A., M.D., B.Ch., D.P.H. Camb. (C.).

Forensic Med., etc., v. also Chem.
Parker, G., M.A., M.D. Camb. (Clin. Lectr. in Med.) Lectr.*

Laryng., Rhin., and Otology
Watson-Williams, P., M.D. Lond. Lectr. and (C.).*
Watson-Williams, E. M. B., B.Ch. Camb. (R.).
Wright, A. J. M., M.B., B.S. Lond., M.B., Ch.B., F.R.C.S. (C.) in L. and R.
Firth, J. L., M.D., M.S. Lond., F.R.C.S. (C.) in O.
Harty, J. P. I., M.B., B.Ch., R.U.I., F.R.C.S. (C.) in R. and O.

Medicine, v. also Obst.
Edgeworth, F. H., M.A., M.D., B.Ch. Camb., D.Sc. Lond Prof. & (C.).

* Head of Dept.

Symes, J. O., M.D. Lond., D.P.H. (C.).
Neild, N , M B., Ch B. Manc. (C.).
Coombs, C. F., M.D., B.S. Lond., F.R.C.P. (C.).
Charles, J. R., M.A., M.D. Camb., F.R.C.P. (C.).
Nixon, J. A., C.M.G , B.A , M.D. Camb , F.R C.P. (C).
Clarke, R. C., M.B., Ch.B. (C.).
Clarke, C., M.D., B.S. Lond. (C).
Mackenzie, W. G., M.R.C S , L.R C P. (R.).
Herapath, C. E. K., M.D., B.S. Lond. (C.)

Medicine (Dental Students)

Coates, V. M , M.A., M.D., B.C. Camb. Lectr. & (R.) in Med.

Medicine and Surgery

Clarke, C., M.D., B.S. Lond. (R).
(R.).
Chitty, H., M.S. Lond., F.R.C.S.
Herapath, C. E. K., M.D , B.S. Lond. (R.).

Mental Diseases

Blachford, J. V., M.D., B.S., Durh. Lectr. & (C).

Obstetrics

Swayne, W. C., M.D., B.S. Lond., M.D., Ch.B. Prof. & (C.).
Rayner, D. C., F.R.C.S. Lectr. & (C.).
Statham, R. S. S., M.D. Demr. & (C).
Newnham, W. H. C., M.A., M.B. Camb. (C.).
Baker, Lily, B.A., M.B., Ch.B. Dub., F.R.C.S.I. Asst. Demr.

Ophthalmology

Walker, C. H., B.A., M.B. Camb., F.R.C.S. Lectr. & (C.).*
Cross, F. R., M.B. Lond., LL.D., F.R.C.S. (C.) (S.).
Stack, E. H. E., M.B., B.Ch. Camb., F.R.C.S. (C.).
Iles, A. E., M.B., B.S. Lond., F.R.C.S. (R.).

Pathology [Prof.
Hall, I. W., M.D., Ch B. Manc.

Path. and Bacteriology

Fraser, A. D., M.B., Ch.B. Glas., D.P.H. Demr.
Todd, A. T., M.B., Ch.B. Edin. Demr.
Hadfield, G., M.D., B.S. Lond. (R.).

Pharmacology and Therap.

Neild, N., M.B., Ch.B. Manc. (and (C.) Med.) Lectr.*

Pharmacy (Practical)

Taylor, A. L., M.P.S. (R.).
Thomas, Wm., M.P.S. (R.).

Skiagraphy (C.).
Mayes, F. J A , M.R.C.S., L.R.C.P.
Bergin, F. G., M.R.C.S., L.R.C.P. (C.).

Surgery [Prof. & (C.).
Morton, C. A., F.R.C.S.
Swain, J., C.B., M.D., M.S. Lond., F.R.C.S. (C.).
Firth, J. L., M.D., M.S. Lond., F.R.C.S. (and in Otol.) (C.).
Carwardine, T., M.B., M.S. Lond., F.R.C.S. (C.).
Chitty, H., M.B., M.S. Lond. F.R.C.S. (C.).
Groves, E. W. H., M.D., M.S., B.Sc. Lond., F.R.C.S. (C.).
Walters, C. F., F.R.C.S. (C.).
Moore, C. A., M.S., M.B. Lond., Ch.M., F.R.C.S. (C.).
Short, A. R., B.Sc., M.D., B.S. Lond., F.R.C.S. (C.).
Wood, D., F.R.C.S. (C.).
Adams, A. W., M.B , B.S. Lond., F.R.C.S. (R.).
Smythe, H. J. D., M.S. Lond. (R.).

Operative Surgery

Bush, J. P., C.M.G., Ch.M. Lectr.

Practical Surg.

Lansdown, R. G. P., M.D., B.S. Durh. Lectr. & (C.).*

* Head of Dept.

Engineering

(In the Technical College of the Society of Merchant Venturers)

Applied Chemistry

Wertheimer, J., B.A. Lond., D.Sc., F.I.C. Prof.
Andrews, W. A., B.Sc. Birm., A.I.C. Lectr.
Marsden, A., A.I.C. (R.).
Popham, F. J. W., A.I.C. (R.)

Automobile Engineering

Morgan, W., B.Sc., M.I.A.E. Prof.
Robins, E. T. (Aeronautics) (R.).

Civil Engineering

Ferrier, R. M., M.Sc. Glas., M.I.C.E., M.I.M.E. Prof.
Francis, W. E., B.Sc. Lectr.
Smith, G. H. L., B.Sc. Asst. Lectr.

Engineering Comml. Subjects

Griffin, A. Lectr.

Electrical Engineering [Prof.

Robertson, D., D.Sc., M.I.E.E.
Holmes, Stratton, A.M.I.E.E.
2 Instrs. [Lectr.

Mech. and Mining Engineering

Robertson, A., D.Sc. Edin., M.I.Mech.E., A.M.I.C.E. Prof.
Watson, F. R. B., B.Sc., Lectr. (Mech. E.).
Stephens, G. A., B.Sc. Asst. Lectr. (Mech. E.)
5 Instrs.

Mining

Sampson, L. (R.).
Seymour, A. T. (R.).

Shipbuilding

Fry, R. K. (R.).

French and German for Engin. Students

Shepherd, Dorothy B. Asst. Lectr.

Maths. and Physics for Engin. Students

Pickering, A., B.Sc. (R.).
Smith, A., B.Sc. (R.).
Stockall, G. E., B.Sc. Lond. (Mag., Elec. and Phys.) (R.).
Palmer, W. P., B.Sc. (R.).
Banfield, A. D., B.Sc. (R.).
Pugh, G., B.Sc. (R.).
Rogers, T., B.Sc. (R.).
Tincknell, G. M., B.Sc. (R.).
Shorney, A. B., B.Sc. (Physics) Asst. Lectr.

Extra-Mural Lecturers

26 members of the staff (Secy., Prof. J. E. V. Crofts), including 4 for Tutorial Classes.

GENERAL INFORMATION

University College, Bristol, founded in 1876, was dissolved in 1909 on the incorporation by Royal Charter of the Univ. of Bristol. The main buildings, including a large extension estimated to cost about £500,000, temporarily stopped by the war, but now being proceeded with, a new building for the accommodation of the Physics department at a cost approaching £200,000, and other projected additions, when complete, will cover a site of 16 acres near the centre of the city on high ground adjoining residential districts. The Municipal Museum and Art Gallery adjoin.

The TECHNICAL COLLEGE OF THE SOCIETY OF MERCHANT VENTURERS provides accommodation for and maintains the Faculty of Engineering of the University. Dean of the Faculty—Prof. J. Wertheimer, B.A., D.Sc., F.I.C.

LIBRARIES, 45,000 vols. LABORATORIES: Scientific, Medical, and Engineering, all equipped for purposes of research. Agri-Horticultural station at Long Ashton with Expl. fruit plantations 268 acres devoted to research in fruit-

culture, cider-making, plant diseases and their treatment, etc. Hospitals available for clinical study, 2 General (618 beds), Children and Women (108), Eye (40), in all 766 beds.

MATRICULATION. In common with all other English Univs., Bristol holds School and Higher School Certificate Examns., at which candidates may qualify for matricn. It also recognizes, subject to certain conditions, School Certifs. and Higher School Certifs. approved as such by the Bd. of Educn., Senior and Higher Certifs. of the Central Welsh Board, Scottish Leaving Certif. in Higher or Honours grade, Special Army Educn. Certif., Matricn Examn. of any Univ. of the U.K., Responsions of Oxford, Previous Examn. of Cambridge, and graduation in any approved Univ., as qualifying for matricn. The Senate may also declare eligible for matricn. a candidate educated outside the U.K. on proof of having passed equivalent examns, or, if from an Oriental country, of sufficient education and ability to follow instruction given in English.

DEGREE COURSES. B.A., B.Sc., B.Sc. in Engineering—3 yrs., including at least 2 in the Univ.; Honours in Arts and Pure Science—4 yrs., except for those who enter with Higher School Certif.; on an evening class curriculum—9 yrs. (Engineering 5 yrs.); by research in case of a graduate of another Univ.—2 yrs.; "Sandwich" Scheme of Training for Engineers, including 30 mos. in works—5 yrs. M.B., Ch.B.—5½, B.D.S.—5 yrs., or, for those who enter with Higher School Certifs. in Physics, Chem., Biol. (Dental-Biol. or Zool.), M.B., Ch.B.—4½, B.D.S.—4 yrs., including at least 3 in the Univ.

Instruction given in Theological subjects in the Associated Colleges to undergraduates of the Univ. by the Principal or teachers mentioned above is, for the purpose of the B.A. degree, deemed to be given in and by the Univ.

HIGHER DEGREES. M.A., D.Litt.; M.Sc., D.Sc. (in Pure Sc. or Engineering); Ch.M., M.D.; Ph.D. (see p. 15). Graduates of other Univs. are placed practically on the same footing as graduates of Bristol as far as regards facilities for proceeding to all these except the Medical Degrees. Candidates who graduate with Honours in Science may take the M.Sc. one yr. later. Otherwise the Mastership is not granted within 2 yrs. after graduating. The M.D. may be taken 2 yrs. after graduating in Med., the D.Litt. 4 yrs. after the M.A., and the D.Sc. 4 yrs. (3, if devoted to original work in the Univ.) after the M.Sc.

DIPLOMAS. Education (post-graduate) 1 yr., L.D.S. 4 yrs., D.P.H. (for fully registered medical practitioners of 1 yr.'s standing), 9 months, D.V.S.M. (for M.R.C.V.S. of 1 yr.'s standing), Engineering 3 yrs. (or evening classes 5 yrs.).

CERTIFICATES. Testamur in Educn., 1 yr.; Continuation School Teachers' Certif., 1 yr.; Testamurs in Social Study, 2 yrs.; Journalism, 3 yrs., or, if qualified for matricn., 1 yr.; Engineering Apprentices, 2 yrs.

FEES. Matricn., 3 gs.; Registration, £1 : 10s.; Tuition, annual, B.A., 24 (Theol. students, 20) gs.; B.Sc., 30 gs.; B.Sc. in Engin., 40 gs. (Lab. practice alone, 4 gs. per term for one day a week); M.B., Ch.B., entire curriculum, 176 gs.; B.D.S., including mech lab. and hospl. practice, 208 gs.; Testamur in Social Study, 2 yrs., 14½ gs.; Journalism, for each of 3 parts, 6 gs.; Degree examns., B.A. or B.Sc., 9½ gs.; Med., 24 gs.; Dent., 25 gs.; M.A. and M.Sc., 7 gs.; Ph.D., 9 gs.; others, 17 gs. Graduation: B.A., B.Sc., M.B., Ch.B., B.D.S., M.A., M.Sc., 2½ gs.; Ph.D., 4 gs.; Ch.M., M.D.S., D.Litt., D.Sc., M.D., 7 gs. Guild of Undergrads., £1 : 15s.; Univ. Union, £1 : 5s. per annum..

Colston University RESEARCH Society devotes annually about £400 to the promotion of Research in the Univ.

SCHOLARSHIPS FOR GRADUATES. £50 for research in Engin.; £30 (women only), 32 gs. (men only), for post-graduate course; £35 for Metall. research.

RESIDENCE. Canynge Hall for men—£66 p.a.; Clifton Hill House and 4 other residences for women students in training—from 50 gs. p.a.

PUBLICATIONS. *Calendar*; Faculty prospectuses issued in July; annual report of Council; Students' Mag. *Nonesuch*, 9d.

THE YEAR 1920–21

SPECIAL EVENTS. Visit of H.R.H. the Prince of Wales in June; retirement of Vice-Chancellor Sir Isambard Owen.

BENEFACTIONS. Contributions of the City of Bristol and two Counties were increased to the proceeds of a penny and a halfpenny rate respectively; County of Wilts, a grant of £3000 p.a.; City of Bath, £800 p.a.; City of Gloucester, a grant of the equivalent of a farthing rate for 6 mos.; Treasury grant raised from £18,000 to £34,000; Mr. G. A. Wills and Mr. H. H. Wills, a further gift of £100,000 for buildings; Treasury promised a grant of £30,000 conditionally on similar sum being raised by public subsn.; Colston University Research Society, £400 for research; Dept. of Scientific and Industrial Research grants to enable 3 students to continue training in methods of research.

NEW BUILDINGS. Tower and Main Buildings in course of erection; plans of new (H. H. Wills) Physics buildings, not inferior to those of any other Physics Dept. in the country, approved; Engineering labs. completed, and already utilized largely for testing and investigation for firms in Bristol and the West of England.

NEW POSTS. Lectrs. in Plant Physiol., Dent. Anat., Dent. Histol.

OTHER DEVELOPMENTS. Representatives of Bath City and three County Councils appointed to Univ. Council; post-graduate courses for medical practitioners held in Bristol, Trowbridge, Swindon, and Dorchester.

NUMBER OF DAY STUDENTS. Total, 1384. Undergraduates pursuing degree curricula for B.A. and B.Sc., 427, including 159 4-yr. Training Students; M.B., Ch.B., 140; B.Sc. in Engin., 216; other Undergraduates, 30, including 20 in 2-yr. training. Of the 221 women Undergraduates 122 were preparing for the B.A., 53 for B.Sc., 37 for M.B., Ch.B. Post-graduates, 48, including 23 women. Other day students, 523, including 237 (55 women) 2-yr. training students and 105 (86 full-time) Engineering students. *Number of Evening Students*: 874 in Engineering; 17 others.

HONORARY DEGREES. M.Sc., R. R. Dobson.

OTHER DEGREES. B.A.—32; B.Sc.—33; B.Sc. in Engin.—31; M.B., Ch.B.—3; Degree of Master—14; Ph.D.—2; other Doctorates—4.

EXTRA-MURAL WORK. Tutorial classes, 5; 1-yr. classes, 14; short course of lectures for W.E.A.; lectures at Folk House; short courses of evening lectures; Saturday morning classes for teachers; extension lecture courses, 5; Saturday afternoon classes for miners; lectures to Bristol Assocn. of Science Teachers; popular Saturday lectures at Merchant Venturers' College; addresses to Scientific Assocns. Joint Adult Educn. Council formed for co-ordinating work in Bristol and Counties of Gloucester, Somerset, and Wilts. *Summer School* held for first time, under auspices of the Joint Committee on Tutorial Classes.

RETIREMENTS. Vice-Chancellor (v. *supra*), Dr. F. Richardson Cross, J. Macdonald, A. E. Luery, W. W. Davies, H. G. Hughes, H. L. Higgins, G. E. Tilsey, J. R. Kay Mouat, H. A. M. Borland, W. P. Warlow, A. V. Baker, W. P. Palmer, C. E. Morgan, Misses E. E. Oakden, A. Moncrieff, K. A. Shipsey, O. W. Sinclair, C. M. M'Lean, D. E. Jolin, Pepper.

UNIVERSITY OF CAMBRIDGE

CHANCELLOR—Rt. Hon. A. J. BALFOUR, O.M., M.A., Hon. LL.D. Trin.

VICE-CHANCELLOR—E. C. PEARCE, D.D. Corp.

HIGH STEWARD—Rt. Hon. the EARL OF PLYMOUTH, G.B.E., LL.D. Joh.

DEPUTY HIGH STEWARD—J. F. P. RAWLINSON, K.C., LL.M., Hon. LL.D. Trin.

REPRESENTATIVES IN PARLIAMENT—J. F. P. RAWLINSON, K.C., LL.M., Hon. LL.D. Trin.; Prof. Sir JOSEPH LARMOR, M.A., Hon. Sc.D. Joh.

PROCTORS—E. C. HOSKYNS, M.A. Corp.; D. PORTWAY, M.A. Cath.

PUBLIC ORATOR—T. R. GLOVER, M.A. Joh.

REGISTRARY—J. N. KEYNES, Sc.D. Pemb.

LIBRARIAN—F. J. H. JENKINSON, M.A. Trin.

HEADS OF COLLEGES

CHRIST'S	*Master*	Sir A. E. SHIPLEY, G.B.E., Sc.D.
CLARE	,,	W. L. MOLLISON, LL.D.
CORPUS CHRISTI	,,	E. C. PEARCE, D.D.
DOWNING	,,	Prof. A. C. SEWARD, Sc.D.
EMMANUEL	,,	P. GILES, Litt.D.
GONVILLE AND CAIUS	,,	H. K. ANDERSON, M.D.
JESUS	,,	A. GRAY, M.A.
KING'S	*Provost*	Sir W. DURNFORD, G.B.E., LL.D.
MAGDALENE	*Master*	A. C. BENSON, C.V.O., LL.D.
PEMBROKE	,,	W. S. HADLEY, LL.D.
PETERHOUSE	,,	Sir A. W. WARD, Litt.D.
QUEENS'	*President*	T. C. FITZPATRICK, D.D.
ST. CATHARINE'S	*Master*	Rt. Rev. T. W. DRURY, D.D.
ST. JOHN'S	,,	R. F. SCOTT, M.A.
SIDNEY SUSSEX	,,	G. A. WEEKES, M.A.
TRINITY	,,	Sir J. J. THOMSON, O.M., M.A., Hon. Sc.D.
TRINITY HALL	,,	H. BOND, LL.D.
SELWYN (Public Hostel)	,,	J. O. F. MURRAY, D.D.
FITZWILLIAM HALL (Non-Collegiate Students)	*Censor*	W. F. REDDAWAY, M.A. King's

RECOGNIZED COLLEGES FOR WOMEN

GIRTON.	*Mistress*	Miss K. JEX-BLAKE, M.A. Dub.
NEWNHAM	*Principal*	Miss B. A. CLOUGH.

PROFESSORS, LECTURERS, ETC., January 1, 1922

Agriculture, v. also Estate Management, Forestry
Wood, T. B., C.B.E., M.A. Cai Drapers Prof.
Mackenzie, K. J. J., M.A. Chr. Reader.
Venn, J. A , M A. Trin. Gilbey Lectr
Amos, A., M.A., Down Lectr.
Barber, C. A., Sc.D. Chr Lectr. in Tropical A.

Agric. Botany
Biffen, R. H., M.A. Cath. Prof.

Agric Physiology [Reader.
Marshall, F. H. A., Sc.D. Chr.

Anatomy, v. also Zool.
Wilson, J. T., M.A. Joh. Prof.
Duckworth, W. L. H., M.D , Sc.D. Jes. (Phys. Anthrop. and Human Embryology) Reader.
Appleton, A. B., M.A. Down. Senr. Demr.
Reid, D. G., M.A. Trin. Junr. Demr.
Hopkinson, A., M.A., M.B., B.Ch. Emm. Junr. Demr.
Pennell, V. C., M.A. Pemb. Addl. Demr.

Anglo-Saxon
Chadwick, H. M., M.A. Clare Elrington and Bosworth Prof.

Anthropology, v. Anat., Eth.

Arabic, v. Oriental

Archæology, v. also Clas. A., Pal.
Ridgeway, Sir Wm., Sc.D. Cai. Disney Prof.

Art [Slade Prof. of Fine Art.
Prior, E. S., M.A. Cai.

Astronomy [Plumian Prof.
Eddington, A. S., M.A. Trin.
Smart, W. M., M A. Trin. Adams Astronomer.

Astron & Geom. [Lowndean Prof.
Baker, H. F., Sc.D. Joh

Astrophysics, v. also Meteor.
Newall, H. F., M.A. Trin. (Dir. of Solar Phys. Obs.) Prof.
Milne, E. A., B.A. Trin. Asst. Dir.
Stratton, F. J. M., M.A. Cai. Lectr.
Wilson, C. T. R., M.A. Sid Obs. in Meteorological Phys.
Baxandall, F. E., A.R.C.Sc. Sen. Solar Physics Observer.
Butler, C. P., A.R.C.Sc. Sen Solar Physics Observer.
Moss, W. Junr. Solar Phys. Obs.

Bibliography
Hulme, E. W. Sandars Reader.

Bio-Chemistry [Prof.
Hopkins, F. G., M.A. Trin. (also Reader in Chem. Physiol.)
Hele, T. S., M.D. Emm. Lectr.
Peters, R. A., M.D. Cai. Lectr.

Biology [Quick Prof.
Nuttall, G. H. F., Sc.D. Magd.
Keilin, D., B.A. Magd. Asst.
Brindley, H. H., M.A. Joh. (Elem. B.) Demr.

Botany, v. also Agric.
Seward, A. C., Sc.D. Down. Prof.
Blackman, F. F., M.A. Joh. Reader.
Tansley, A. G., M.A. Trin. Lectr.

Brooks, F. T., M.A. Emm. Lectr.
Wadham, S. M., M.A. Clr. Senr. Demr.
Holttum, R E., B.A. Joh. Junr. Demr
Briggs, G. F., M.A. Joh. (Plant Physiol.) Demr.

Chemistry, v. also Bio- and Phys. C. and Med (Path.)
Pope, Sir Wm. J., K.B.E., M A. Sid. Prof.
..... Asst to Prof
Fenton, H. J. H., Sc.D. Chr. Lectr. and Demr.
Dootson, F. W., M.A. Trin. H. Lectr. and Addl. Demr
McCombie, H., M.A. King's Addl. Demr.
Palmer, W. G., M.A. Joh. Addl. Demr.

Chemistry, Organic
Mills, W. H., M.A. Jes. Lectr.

Chem. and Phys. for Hygiene, etc.
Purvis, J. E., M.A. Corp. Lectr.

Classical Archæology
Cook, A. B., M.A. Qu. Reader.

Classics, Epigraphy, and Dialects
Campbell, S. G., M.A. Chr. Lectr.

Classics
Pearson, A. C., Litt.D. Chr. (Greek) Reg. Prof.
Housman, A. E., M.A. Trin. (Latin) Kennedy Prof.
Ridgeway, Prof. Sir Wm., Sc D Cai. (v. Arch) Brereton Reader.

Divinity, v. also Orient. Langs., Religion [Ely Prof.
Brooke, A. E., D.D. King's
Barnes, W. E., D.D. Pet. Hulsean Prof.
Bethune-Baker, J. F., D.D. Pemb. Lady Margaret's Prof.
Burkitt, F. C., D.D. Trin. Norrisian Prof.
Stanton, V. H., D.D. Trin Reg. Prof.
Whitney, J. P., D.D. Emm. (Eccles. Hist.) Dixie Prof.
Inge, Very Rev. W. R., D.D. Jes. (Past. Theol.) Lectr.

Economics, v. also Geog., Geol., Pol. Econ. [Girdlers' Lectr.
Lavington, F, M A. Emm.
Henderson, H. D., M.A. Cla. Lectr.

Education
Fox, C, M.A. Chr. Lectr.*

Engineering, v. *infra*

English
Coulton, G. G., M.A. Joh. Lectr.

English Lit. [K. Ed. VII. Prof.
Quiller-Couch, Sir A. T., M.A. Jes.

Estate Management [Reader.
Smith, F. B, C.M.G., M A. Down.

Ethnology
Haddon, A. C., Sc.D. Chr. Reader.

Forestry
Dawson, W., M.A. Cai. Reader.
Stone, H. Lectr.
..... (Indian F.) Teacher.†

French [Drapers Prof.
Prior, O. H. P., M.A. Joh.

Genetics [Arthur Balfour Prof.
Punnett, R. C., M.A. Cai.

Geodesy
(Lenox-Conyngham, Sir G. P., F.R.S.) Reader *designate*

Geography, v. also Surv.
Lake, P., M.A. Joh. Reader.

Geog., Historical and Econ.
Stanners, R. W., M.A. Cai. Lectr.

* Apptd. by Teachers' Training Syndicate.
† Apptd. by the Forestry Committee.

Geology, v. also Mineral, Palæozool., Petrol.
Marr, J. E., Sc.D. Joh. Woodwardian Prof.
King, W. B. R., O.B.E., M.A. Jes. Asst.
Nicholas, T. C., O.B.E., M.A. Trin. Demr.
Rastall, R. H., Sc.D. Chr. (Econ. G.) Lectr.

German [Schröder Prof.
Breul, K., Litt.D. King's
Bullough, E., M.A. Cai. Lectr.

Hebrew, v. Oriental

History, Ancient
Reid, J. S., Litt.D. Cai. Prof.
Glover, T. R., M.A. Joh. Lectr.

History, Eccl., v. Div.

History, Indian [Lectr.*
Moriarty, G. P., M.A. Pemb.

History, Modern
Bury, J. B., M.A. King's Reg. Prof.
Temperley, H. W. V., O.B.E., M.A. Pet. Reader.

History, Naval
Rose, J. H., Litt.D. Chr., Vere Harmsworth Prof.

Hygiene, v. Med.

Italian
Okey, T., M.A. Cai. Prof.
..... Teacher.†

Law [Downing Prof.
Hazeltine, H. D., Litt.D. Down.

Law, Civil [Reg. Prof.
Buckland, W. W., M.A. Cai.

Law, English [Reader.
Hollond, H. A., O.B.E., M.A. Trin.

Law, Indian
Macleod, R. H., M.A. Cai. Lectr.*

Law, Internat.
Higgins, A. Pearce, C.B.E., LL.D. Down. Whewell Prof.

Literature [Leslie Stephen Lectr.
Mackail, J. W., M.A. Ox.

Logic, v. Philos.

Mathematics
Larmor, Sir Joseph, M.A., Hon. Sc.D., Joh., M.P. Lucasian Prof.
Hobson, E. W., Sc.D. Chr. (Pure M.) Sadleirian Prof.
Littlewood, J. E., M.A. Trin. Cayley Lectr.
Berry, A., M.A. King's Lectr.
Bromwich, T. J. I'A., Sc.D. Joh. Lectr.
Grace, J. H., M.A. Pet. Lectr.
Harrison, W. J., M.A. Clare Lectr.
Herman, R. A., M.A. Trin. Lectr.
Lamb, H., M.A., Hon. Sc.D. Trin. Rayleigh Lectr.

Medicine and Surgery, v. *infra*

Metallurgy [Goldsmiths' Reader.
Heycock, C. T., M.A. King's

Meteorology, Electrical
Wilson, C. T. R., M.A. Sid. Reader.

Military Subjects
Thornton, Lieut.-Col. L., Hon. M.A. Cai. Director of Studies.

Mineralogy
Lewis, W. J., M.A. Trin. Prof.
Hutchinson, A., O.B.E., M.A. Pemb. Demr.

Music
Stanford, Sir Charles V., Mus.D. Trin. Prof.
Wood, C., Mus.D. Cai. (Harmony and Counterpoint) Lectr.

Oriental Langs., v. *infra*

Palæography, v. also Bibliog.
Minns, E. H., Litt.D. Pemb. Lectr.

* Apptd. by Board of I.C.S. Studies.
† Apptd. by Spl. Board for Med. and Mod. Langs.
‡ Apptd. by Board of Military Studies.

Palæozoology
Woods, H., M A. Joh. Lectr

Petrology
Harker, A., M.A Joh. Reader.
Wordie, J. M., M.A. Joh Demr.

Philology, Comparative
Giles, P., Litt.D Emm. Reader.

Philosophy, v. also Psych., Religion

Philos., Mental, and Logic
Ward, J., Sc.D., Hon. LL.D. Trin. Prof.
Moore, G. E., Litt.D. Trin. (Moral Science) Lectr.
Johnson, W. E., M.A. King's (Moral Science) Sidgwick Lectr.

Philos., Moral
Sorley, W. R , Litt.D. King's Knightbridge Prof.

Physical Chem.
Lowry, T. M., C.B.E., M.A. Trin. H. Prof.
Rideal, E. K., M.A. Trin. H. H. O. Jones Lectr.

Physics, v. also Chem.
Thomson, Sir J. J., O.M., M.A., Hon Sc.D. Trin. Prof.

Physics, Experimental
Rutherford, Sir E., M.A. Trin. Cavendish Prof.
Dewar, Sir James, M.A. Pet. (Nat. Philos.) Jacksonian Prof.
Searle, G. F. C., Sc.D. Pet. Lectr. & Demr.
Wood, A., M.A. Emm. Lectr.
Thirkill, H., M.A. Clare Demr.
Bedford, T. G., M.A. Sid. Addl. Demr.
Crowther, J. A., Sc.D. Joh. (v. also Med. Rad.) Asst. Demr.
Appleton, E. V., M.A. Joh. Asst. Demr.
Mill, W. H., M.A. Jes. Demr. to Jackson. Prof.

Physiology, v. also Agric., Bio-Chem.
Langley, J. N., Sc.D. Trin. Prof.
Hardy, W. B., M.A. Cai. Lectr.
..... Lectr.
Barcroft, J., C.B.E., M.A. King's Reader.
Shore, L. E., O.B.E., M.A., M.D. Joh. Lectr.
Roberts, Ff., M.D. Clare Junr. Demr.
Thacker, C. R. A., M.D. Sid. Addl. Demr.
Parsons, T. R., M.A. Sid. Addl. Demr.
Adrian, E. D., M.A., M.D. Trin. Lectr. in Advanced P.

Physiol. of the Senses
Hartridge, H., M.D , Sc.D. King's (also Senr. Demr in P.) Lectr.

Political Economy, v. also Econ.
Pigou, A. C., M.A. King's Prof.

Portuguese, v. Spanish

Psychology, Exper.
Myers, C. S , C B E., M.D., Sc.D. Cai. (Dir. of the Psych. Lab.) Reader.
Bartlett, F. C., M.A. Joh. Asst.
Lowson, J. P., M.A. Emm. Demr.

Religion, Philosophy of
Oman, J. W., M.A. Qu. Lectr.

Romance [Reader.
Braunholtz, E. G. W., M.A. King's

Russian
Goudy, A. P., M.A. Clare Lectr.

Sanskrit, v. Oriental

Spanish [Reader.
Kirkpatrick, F. A., M.A. Trin.
..... Teacher.*
Young, G., M.V.O. Norman Maccoll Lectr. in Span. and Port.

* Apptd. by Spl. Board for Med. and Mod. Langs.

Statistics [Lectr.
Yule, G. Udny, C.B.E., M.A. Joh.

Surveying and Cartography
Debenham, F., O.B.E., B.A. Cai. R.G.S. Lectr.

Theology, v. Div.

Zoology, v. also Med. Entom., Palæoz.
Gardiner, J. S., M.A. Cai. Prof.
Borradaile, L. A., M.A. Selw. Lectr.
Browne, F. Balfour, M.A. Cai. Lectr.
Potts, F. A., M.A. Trin. H. (Demr. of Comp. Anat.) Lectr.
Gadow, H., M.A. King's (Morph. of Vertebrates) Reader.
Saunders, J. T., M.A. Chr. (Animal Morph.) Demr.

Engineering

Aeronautical Engineering
Jones, B. M., A.F.C., M.A. Emm. F. Mond Prof.

Electrical Engineering
Lamb, C. G., M.A. Clare Lectr.

Mechanism and Appl. Mechanics
Inglis, C. E., O.B.E., M.A. King's Prof.
Peake, A. H., M.A. Joh. Senr. Demr.
Peel, T., M.A. Magd. Demr
Womersley, W. D., M.A. Emm. Demr.

Mechanical Engineering
Landon, J. W., M.A. Cla. Lectr.

Thermodynamics
Lees, S., M.A. Joh. Hopkinson Lectr.

Medicine (for subjects of the first 2 yrs.—Anat., etc., v. *supra*)

Hygiene, v. also Chem. [Lectr.
Graham-Smith, G. S., M.D. Pemb.

Medical Chemistry
Cole, S. W., M.A. Trin. Lectr.

Medical Entomology
Warburton, C., M.A. Chr. Demr

Medical Jurisprudence
..... Lectr.

Medical Radiology & Electrology
Scales, F. Shillington, M.D. Jes. Lectr.
Crowther, J. A., Sc.D. Joh. (Physics as applied to M.R.) Lectr.

Medicine [Downing Prof.
Bradbury, J. B., M.D. Down.
Jones, E. Lloyd-, M.D. Down. Demr.
Inchley, O., M.D. Joh. Asst. to Prof. of Med.

Pathology
..... Prof.
Cobbett, L., M.D. Trin. Lectr.
Swann, M. B. R., M.A. Cai. Demr.

Pathology, Special
Strangeways, T. S. P., M.A. Joh. Huddersfield Lectr.

Path. Chem.
..... Lectr.

Pharmacology
Dixon, W. E., M.A. Down (Assessor to Reg. Prof. Physic) Reader.

Physic
Allbutt, Rt. Hon. Sir T. Clifford, K.C.B., M.D., Hon. LL.D. Caius Reg. Prof.

Surgery
Roderick, H. B., O.B.E., M.D., M.Ch. Emm. Demr.

Vaccination [Teacher.
Deighton, F., M.A., M.B. Pet.

Oriental Languages

Arabic [Sir T. Adams Prof.
Browne, E. G., M.A., M.B. Pemb.

Bevan, A. A., M.A. Trin. Lord Almoner's Prof.
Shaykh Md. 'Alí Majzúb, Hon. M.A. Lectr.*

Aramaic
McLean, N., M.A. Chr. Lectr.

Bengali
Dasgupta, S., Trin. Lectr.†

Burmese
Goss, L. A., M.A. Emm. Lectr †

Chinese
Giles, H. A., M.A. Trin. Prof.

Hebrew [Reg Prof.
Kennett, R. H., D.D. Qu.

Hindustani
Phillott, Lieut.-Col. D. C., M.A. Cai. Lectr.†

Marathi
Moore, R. A. Leslie, Pet. Lectr.†

Persian [Lectr.
Nicholson, R. A., Litt.D. Trin.
Mírzá Ẓabíhu 'lláh Bihrúz Lectr.*

Sanskrit
Rapson, E. J., M.A. Joh. Prof.
Rouse, W. H. D., Litt.D. Chr. Lectr.†

Talmudic
Abrahams, I., M.A. Chr. Reader.

Tamil
Wyatt, J. L. M.A., Chr. Lectr.†

Turkish
Shaykh 'Abdu 'l-Qádir Ẓáfir [Lectr.*

* Apptd. by For. Service Students' Committee.
† Apptd. by Board of I.C.S. Studies.

THE COLLEGES

[College Lecturers are indicated by the names of subjects in italics.]

CHRIST'S COLLEGE. Founded 1505. Master—Sir A. E. Shipley, G.B.E., Sc.D., F.R.S.

Fellows: Campbell, S. G., M.A., *Classics*, Bursar; Darwin,, C. G., M.A., †*Maths.*; Downs, B. W., M.A., †*Med. and Mod. Langs. and Engl.*; Fay, C. R., M.A., *Econ*; Grose, S. W., M.A.; Haddon, A. C., Sc.D., F.R.S. (Reader in Ethnol.); Hobson, E. W., Sc.D., F.R.S. (Prof. of Pure Maths.); *McLean, N., M.A., Senior Tutor, †Orient. Langs. and Moral Sciences, *Hebrew*; *Marshall, F. H. A., Sc.D., F.R.S., †Nat. Sc. and Agric.; Mercer, J., M.A., *Maths.*; *Rackham, H., M.A., †I.C.S. Studies, *Classics*; Saunders, J. T., M.A.; Valentine-Richards, A. V., M.A., Dean, †*Theol.*; Vines, H. W. C., M.A., M.B., B.Ch., †Med.; Wyatt, T. C., O.B.E., M.A., †Mech.Sc.

Other Lectrs., etc.: Marshall, T. H., M.A. Trin., † Hist.; Porter, H. H., M.A., †Hist.; Rastall, R. H., Sc.D., *Nat. Sc.*; Thatcher, W. S., M.A., †Econ.; Wheatcroft, W. H., LL.D., Down. †Law.

CLARE COLLEGE. Founded 1326. Master—W. L. Mollison, M.A., LL.D.

Fellows: Berwick, W. E. H., M.A.; Carey, G. V., M.A., Asst. Tutor Steward; Chadwick, H. M., M.A., Prof. of Anglo-Saxon; Forbes, M. D., M.A., *Engl.*, Librarian; Fulford, H. W., M.A.; Harrison, W. J., M.B.E., M.A., *Maths.*, Asst. Tutor; Henderson, H. D., M.B.E., M.A., † *Econ.*; Landon, J. W., M.A., † *Engin.*; Roberts, Ff., M.A., M.D., † Med.; Telfer, W., M.A., † Theol., Dean; Thirkill, H., M.A., **Phys. and Chem.*; Wardale, J. R., M.A., *Classics*; Wilson, G. H. A., O.B.E., M.A., Bursar.

* Tutor. † Director or Supervisor.

Other Lectrs., etc.: Appleton, E. V., M.A., † Mineralogy; Brindley, H. H., M.A. Joh., *Biol. and Zool.*; Brooks, F. T., M.A., † Bot.; Gaskoin, C. J. B., M.A. † Hist.; Hope, J. M. V., M.A., *Philos.*; Scarborough, H. A., B.A. † Chem.; Wadham, S. M., M.A., † Agric.; Wheatcroft, W. H., M.A., LL.D., † Law; Wordie, J. M., M.A. † Geol.

CORPUS CHRISTI COLLEGE. Founded 1352. Master—E. C. Pearce, D.D.

Fellows: † Butler, Sir Geoffrey, K.B.E., M.A., *Hist.*; Campbell-Smith, W., M.A.; Clark-Kennedy, A. E., M.A., † Med.; Goodhart, A. L., M.A., *Law*; Hoskyns, E. C., M.A., † *Theol.*; Morris, G. G., M.A. † *Classics*; Pickthorn, K. W. M., M.A., † *Hist.*; Pollock, C. A. E., M.A,. President, Bursar; *† Spens, W., C.B.E., M.A., *Nat. Sc.*; Thomson, G. P., M.A., † *Maths.*; Thouless, R. M., M.A.

Other Lectrs., etc.: Momber, R. M. S. T., M.A, † Mod. Langs.; Henderson, H. D., M.A., † Econ.; Farren, W. S., M.A., † Mech. Sc.; Winfield, P. H., LL.D., † Law.

DOWNING COLLEGE. Founded 1800. Master—A. C. Seward, Sc.D., M.A., F.R.S., Prof. of Botany.

Fellows: † Amos, A., M.A., Bursar, Agric. Sc.; † Berry, A. J., M.A., *Chem. and Phys.*; †Harris, D. L., M.A., Reader in *Law*; Kenny, C. S., LL.D. (supernumerary); Saunders, J. C., M.A.; † Thomas, H. Hamshaw, M.B.E., M.A., Dean and Steward, *Bot.*; *† Widdicombe, J. H., M.A, *Physiol.*

Other Lectrs. and Supervisors: Appleton, A. B., M.A., *Human Anat.*; Brown, B. G., M.A., *Hist.*; French, C. H., M.A, *Maths.*; Johnson, W. E., M.A., *Mor. Sc.*; Morris, G. G., M.A., *Class.*; Portway, D., M.A., *Engin.*; Thatcher, W. S., M.A., *Econ*; Webb, H. A., M.A., Trin., *Maths.*; Wheatcroft, W. H., LL.D., *Law*; Wyatt, A. J., M.A., Chr., *Med. and Mod. Langs.*; Sayers, L. D., M.A., † Biol., Chaplain.

EMMANUEL COLLEGE. Founded 1584. Master—Peter Giles, Litt.D.

Fellows: Allcock, W. B., M.A.; Attenborough, F. L., B.A., † *Engl.*; Bennett, G. T., Sc.D., F.R.S., *Maths.*; Burnaby, H., M.A., *Div.*, Dean; Dawkins, R. McG., M.A.; Gardner, R., M.A., *Class.*, Bursar and Steward; * Greenwood, L. H. G., M.A., *Class.*; * Head, F. W., M A., *Hist*; Hele, T. S., O.B.E., M.D., *Nat. Sc.*, † Anat. and Physiol.; Jones, B. M., M.A., A.F.C., Mond Prof. of *Aeronautics*; Lesley, J. W., M.A., *Nat. Sc.*, † Bot.; Peace, J. B., M.A.; Wallace, J. C., M.A., *Mech. Sc.*; Welbourn, E., M.A., *Hist.*; Whitney, J. P., D.D., Prof. of Eccl. Hist.; * Wood, A., M.A., *Nat. Sc.*; * Wood, P. W., M.A., *Maths.*

Other Lectrs., etc.: Brindley, H. H., M.A. Joh., † Biol.; Bullough, E., M.A. Cai., † Mod. Langs.; Johnson, W. E., M.A. King's, † Mor. Sc.; Lavington, F., M.A., † Econ.; Naylor, E. W., Mus.D., *Music*; Spiers, C. H., M.A., † Chem.; Woods, H., M.A., F.R.S., Joh., † Geol.; Ziegler, C. H., LL.M., † Law.

GONVILLE AND CAIUS COLLEGE. Founded 1348. Master—H. K. Anderson, M.D., F.R.S.

Fellows: Allbutt, Rt. Hon. Sir T. C., K.C.B., M.D., F.R.S., Prof. of Physic; † Brooke, Z. N., M.A., *Hist.*; Buckland, W. W., M.A., Prof. of Civ. Law; † Bullough, E., M.A., *Mod. Langs.*; † Cameron, J. F., M.A., *Maths. and Engin.*; Chadwick, J., Ph.D.; † Cook, S. A., M.A., Litt.D., *Heb. and Syriac*; † Debenham, F., O.B.E., B.A., *Surv.*, etc.; Fisher, R. A., M.A.; Fox. H. M., M.A.; †Godlop, E. G., M.A., *Maths.*; Gardiner, J. S., M.A., F.R.S., Prof. of Zool.; Gross, E. J., M.A.; † Hardy, W. B., M.A., Sec. R.S., *Physiol.*;

* Tutor. † Director or Supervisor.

* Hunkin, J. W., O.B.E., M.A., *Div.*; Layton, W. T., M.A., C.B.E.; Lock, C. N. H., M.A.; McLeod, A. R., B.A.; *† McNair, A. D., C.B.E., LL.M., *Law.* Muir, M. M. P., M.A.; Myers, C. S., C.B.E., Sc.D., F.R.S., *Exp. Psych.*; Okey, T., M.A., Prof. of Italian; * † Peters, R. A., M.A., M.D., *Physiol.*; † Phear, H. W., M.A., *Engin.*; Prior, E. S., A.R.A., M.A., Prof. of Fine Art; Punnett, R. C., M.A., F.R.S., Prof. of Genetics; Reid, J. S., LL.M., Litt.D., Prof. of Anc. Hist.; Ridgeway, Sir W., Sc.D., F.B.A., Prof. of Archæol.; † Scott, J. E., M.A., *Class.*; * † Stratton, F. J. M., M.A., *Maths.*; Venn, J., Sc.D., F.R.S., President; † Vesey, W. T., M.A., *Class.*; Wallis, Rt. Rev. F., M.A., D.D.; † Wood, C., Mus.D., *Music*; Wood, T. B., C.B.E., M.A., F.R.S., Prof. of Agric.

Other Lectrs. and Directors: Brindley, H. H., M.A. Joh., *Biol.*; Cooper, C. F., M.A. Trin., *Zool.*; Heigham, C., B.A., *Agric.*; Oliver, D. T., LL.M. Trin. H., *Roman Dutch Law*; Reid, D. G., M.A., *Anat.*; Wadham, S., M.A., *Bot.*

JESUS COLLEGE. Founded 1496. Master—A. Gray, M.A.

Fellows: * Abbott, E., M.A., *Classics*; Charlesworth, M. P., B.A.; † Duckworth, W. L. H., M.D., Sc.D., Asst.*, *Nat. Sc.*; Duke, W. H., M.A., *Classics*; †* Elliott, C. A., M.A., *Hist.*; Foakes-Jackson, F. J., M.A., D.D.; † King, W. B. R., O.B.E., M.A., *Geol.*; Manning, B. L., M.A., Bursar, *Hist.*; † Mills, W. H., M.A., *Nat. Sc.*; Nairne, A., M.A., D.D., Asst.*, Dean, *Theol.*; Pars, L. A., B.A.; Quiller-Couch, Sir A. T., M.A., Prof. of Engl. Lit.; Watt, J. C., M.A.; Welsh, W., M.A., Asst.*, *Maths.*

Other Directors of Studies: Alston, L., M.A., Chr., † *Econ.*; Braunholtz, E. G. W., M.A. King's, † *Mod. Lang.*; Lavington, F., M.A. Emm., † *Econ.*; Lyon, T. H., M.A. Corp., † *Architecture*; Peel, A. W., M.A. Jes., † *Econ.*; Petherbridge, F. R., M.A. Sid., † *Agric.*; Tillyard, E. M. W., O.B.E., M.A. Jes., † *Engl.*; Wheatcroft, W. H., LL.D., Down, † *Law*; Womersley, W. D., M.A. Emm., † *Mech. Sci.*; Wyatt, A. J., M.A. Chr., † *Mod. Lang.*

KING'S COLLEGE. Founded 1441. Provost—Sir Walter Durnford, G.B.E., LL.D.

Fellows: Adcock, F. E., M.A., O.B.E., *Classics*; Baker, P. J., M.A.; Barcroft, J., M.A., F.R.S., C.B.E., *Nat. Sc.*; Berry, A., O.B.E., M.A., *Maths.*; Birch, F. L., M.A., O.B.E., Steward; Brooke, A. E., D.D., *Div.*, Prof. of Div.; Bury, J. B., M.A., F.B.A., Prof. of Mod. Hist.; Cholerton, A. T., M.A.; * Clapham, J. H., Litt.D., C.B.E., *Hist. and Econ.*; Corbett, W. J., M.A., Bursar; Davey, J. E., M.A.; Dickinson, G. L., M.A.; Durnford, H. G. E., M.A., Bursar; Grant-Ives, C. E., M.A.; Gray, J., M.A., Dean; Harris, W. M., M.A.; Hartridge, H., M.A., M.D.; Heycock, C. T., M.A., F.R.S., *Nat. Sc.*; Hill, A. V., O.B.E., Sc.D., F.R.S., F.B.A.; Inglis, C. E., M.A., O.B.E., Prof. of Mechanism; Johnson, W. E., M.A.; Keynes, J. M., M.A., C.B., Bursar, *Econ.*; Knox, A. D., M.A.; Lucas, F. L., B.A.; Macaulay, W. H., M.A., Vice-Provost; McCombie, H., M.A., *Nat. Sc.*; Mann, A. H., Hon. M.A., Mus.D.; Milner-White, E., M.A., Dean and Chaplain; Pigou, A. C., M.A., Prof. of Pol. Econ.; Radcliffe, W. W., M.A.; Reddaway, W. F., M.A., *Hist. and Econ.*; Richmond, H. W., M.A., F.R.S., *Maths.*; Sheppard, J. T., M.B.E., M.A., *Classics*; Sills, H. H., M.A., *Classics*; Sorley, W. R., Litt.D., F.B.A., Prof. of Mor. Philos.; Tilley, A. A., M.A., *Mod. Langs.*; Turner, L. B., M.A., *Mech. Sc.*; Walston, Sir Charles, M.A., Litt.D.; Wedd, N., M.A., Librarian; Wollaston, A. F. R., M.A. B.Ch., D.Sc.

MAGDALENE COLLEGE. Founded 1542. Master—A. C. Benson, C.V.O., LL.D., † *Hist.*

* Tutor. † Director or Supervisor.

Fellows: Blackett, P. M. S., B.A.; Gaselee, S., C.B.E., M.A., † *Palæog.*; Martin, B. K., B.A.; Morshead, O. F., B.A., Librarian and Asst. Steward; Nuttall G. H. F., Sc.D., F.R.S., Prof. of Biol., † Med.; Peel, T., M.A., Bursar and Steward, † *Engin.*; Peskett, A. G., M.A.; * Ramsey, A. S., M.A., President, † *Maths.*; Salter, F. R., M.A., Dean, † *Hist.*, † Econ.; Vernon Jones, V. S., M.A., Asst. Tutor, † *Classics.*

Other Directors of Studies: Adie, R. H., M.A., Agric.; Petherbridge, F. R., M.A., † Agric.; Vulliamy, E. O., M.A., Mod. Langs.; Clark, F. H. H., M.A., Theol.; Brindley, H. H., M.A., Biol.; Crowther, J. A., Sc.D., Phys.; Winfield, P. H., LL.D., Law; Wyatt, A. J., M.A., Engl.; Foster, W. H., M.A., Chem. and Geol.; Henderson, H. D., M.A., Econ.

PEMBROKE COLLEGE. Founded 1347. Master—W. S. Hadley, LL.D, *Classics and Mod. Hist.*

Fellows: Attwater, A. L., M.A., *Engl.*; Bethune-Baker, J. F., M.A., D.D., Prof. of Div.; Birtwistle, G., M.A., *Maths.*; Browne, E. G., M.A., M.B., Prof. of Arabic, President; Comber, H. G., M.A., Treasurer (Estates), *Mod. Langs.*; Hutchinson, A., O.B.E., M.A., *Nat. Sc.*; * Lawson, J. C., O.B.E., M.A., *Classics and Mod. Greek*; McCleland, N. P. K. J. O'N., M.A., Bursar (Home); Minns, E. H., Litt.D., Librarian, *Russian;* Pennell, V. C., M.A., F.R.C.S., † Med.; Smith, C. J., M.A., Dean, *Div.*; Spittle, J. T., O.B.E., M.A., † Mech Sc., Tutorial Bursar; Whibley, L., M.A., *Classics and Anc. Hist.*; Wynn, H. E., M.A., Dean, *Hist.*

Other Lectrs., etc.: Moriarty, G. P., M.A., *Classics and Hist.*; Thatcher, W. S., M.A., † Econ.; Vulliamy, E. O., M.A., *Mod. Langs.*; Ziegler, C. H., LL.M., *Law.*

PETERHOUSE OR ST. PETER'S COLLEGE. Founded 1284. Master—Sir A. W. Ward, Litt.D., F.B.A.

Fellows: Barnes, W. E., D.D., Dean; Clayton, G. H., M.A., † Theol.; Dewar, Sir James, M.A., F.R.S.; Dickson, J. D. H., M.A.; Edwards, H. J., M.A., C.B., C.B.E., *Classics*; Lubbock, R., M.A., † Mech. Sc.; Temperley, H. W. V., M.A., O.B.E., Asst. Tutor, *Hist.*; * Vellacott, P. C., M.A., *Hist.*; Walker, T. A., M.A., LL.D., Senior Bursar, † *Law.*

Other Lectrs., etc.: Alston, L., M.A. † *Econ.*; Bedford, T. G., M.A. Sid., † Nat. Sc.; Grace, J. H., M.A., F.R.S., *Maths.*; Tillyard, E. M. W., M.A., *Engl.*; Winfield, P. H., LL.D., † Law.

QUEENS' COLLEGE. Founded 1448. President—T. C. Fitzpatrick, D.D.

Fellows: Browne, A. D., M.A., Bursar, † Mech. Sc.; Cook, A. B., M.A., *Classics*; * Gray, J. H., M.A., Prælector, *Classics*; Kennett, R. H., D.D., Prof. of Hebrew; Laffan, R. G. D., M.A., *Engl. Hist. and Lit.*, † Hist.; Munro, A., M.A., Bursar, *Maths.*; * Sleeman, C. M., M.A., † Nat. Sc.; Wood, C. T., M.A., Dean, *Div. and Hebrew*; * Wright, A., D.D., Vice-President.

Other Directors of Studies: Momber, R. M. S. T., M.A., Mod. Langs.; Carr, F., LL.D., Law.

ST. CATHARINE'S COLLEGE. Founded 1473. Master—The Rt. Rev. T. W. Drury, D.D., *Theol.*

Fellows: Biffen, R. H., M.A., F.R.S., Prof. of Agric. Bot.; Carr, E. T. S., M.A.; Chaytor, H. J., M.A., † *Mod. Langs.*; Jones, W. H. S., M.A., Bursar, † *Class., Theol. and Anc. Hist.*; Newman, L. F., M.A., † *Agric. and Nat. Sc.*; Portway, D., M.A., † *Mech. Sc.*; * Rushmore, F. M., M.A., President, † *Hist.*; Withers, J. J., C.B.E., M.A.

* Tutor. † Director or Supervisor.

Other Lectrs., etc.: Alston, L., M.A., † Econ.; Carr, F., LL.D., † Law; Fox, C., M.A., † Ment. and Mor. Sc.; Munro, A., M.A., † *Maths.*; Oldham, H. Y., M.A., † Geog.; Perrett, G. B., M.A., † Hist.; Roderick, H. B., M.D., M.Ch., † Med.; Tillyard, E. M. W., M.A., † Engl.

ST. JOHN'S COLLEGE (1511). Master—R. F. Scott, M.A.

Fellows: Appleton, E. V., M.A., † Mineral.; * Armitage, B. W. F., M.A., † *Nat. Sc. and Med.*; Baker, H. F., Sc.D., F.R.S. Prof. of Astron.; Bartlett, F. C., M.A., † Mor. Sc.; * Bemans, E. A., M.A., † *Hist.*; Bennett, G. M., M.A.; Blackman, F. F., M.A., F.R.S.; Bonney, T. G., Sc.D., F.R.S.; Briggs, G. E., M.A., † Botany; Bromwich, T. J. I'A., Sc.D., F.R.S., *Maths.*; Bruford, W. H., M.A.; Campbell, A. Y., M.A., *Classics*; Constable, W. G., M.A.; Coulton, G. G., M.A.; Cox, W. A., M.A.; Creed, J. M., M.A., † *Theol.*; Cunningham, E., M.A., * *Maths.*; Engledow, F. L., M.A., † *Agric.*; Foxwell, H. S., M.A., † Econ.; Glover, T. R., M.A., *Classics*; Guillebaud, C. W., M.A., *Econ.*; Harker, A., M.A., F.R.S., F.G.S.; Heitland, W. E., M.A.; Jeffreys, H., B.A.; Larmor, Sir Joseph, Sc.D., F.R.S., M.P., Prof. of *Maths.*; Leathem, J. G., Sc.D., Senior Bursar; Lees, S., M.A.; Liveing, G. D., Sc.D., F.R.S., President; MacAlister, Sir Donald, M.A., M.D., K.C.B.; Mills, E. H. F., M.A.; Marr, J. E., Sc.D., F.R.S., Prof. of Geol.; Palmer, W. G., M.A., Chem. †; Previté-Orton, C. W., M.A., Librarian; † Prior, O. H. P., M.A., Prof. of French; Rapson, E. J., M.A., Prof. of *Sansk.*; Rivers, W. H. R., M.A., F.R.S., † Anthrop, Prælector in Nat. Sc.; Rootham, C. B., Mus.Doc., Organist, † *Music*; Sandys, Sir John E., Litt.D., LL.D.; Shore, L. E., O.B.E., M.D., † Med., and *Physiol.*, Junior Bursar; * Sikes, E. E., M.A., † *Classics*; Stevens, A. J., M.A.; Street, R. O., M.A.; Tanner, J. R., Litt.D., † Hist.; Ward, J. T., M.A.; Webb, R. R., M.A.; White, F. P., M.A., *Maths.*; Wilson, J. T., M.A., Prof. of Anat.; Winfield, P. H., LL.D., † *Law*; Wordie, J. M., M.A.

Other Lectrs., etc.: Brindley, H. H., M.A., Steward, † Biol.; How, J. C. H., M.A., Joh. and Trin., *Hebrew*, † Oriental Studies; Lister, J. J., M.A., F.R.S., † Zool.; Peake, A. H., M.A., † *Mech. Sc.*; Thomas, L., M.D., F.R.S., *Physic* (Linacre); Woods, H., M.A., F.R.S., † Geol.; Holden, H. F., M.A., † Chem.

SIDNEY SUSSEX COLLEGE. Founded 1596. Master—* G. A. Weekes, M.A.

Fellows: Edwards, G. M., M.A.; Hackforth, R., M.A., *Classics*, Prælector; * Knox-Shaw, T., M.A., *Maths.*; McNeile, A. H., M.A., D.D.; Mayall, R. H. D., M.A., *Maths.*; Passant, E. J., M.A., *Hist.*; Pope, Sir W. J., K.B.E., M.A., F.R.S., Prof. of Chem.; Robson, H. C., M.A., Bursar; Smith, B. T. D., M.A., *Theol.*, Dean; Thacker, C. R. A., M.A., M.D., B.Ch., *Nat. Sc.*, † Biol. and Med., Steward; Wilson, C. T. R., M.A., F.R.S.

Other Directors of Studies: Mills, W. H., M.A. Jes., Chem.; Petherbridge, F. R., M.A., Agric.; Wheatcroft, W. H., LL.D., Down., Law; Wyatt, A. J., M.A. Chr., Med. and Mod. Langs.; Lyon, T. H., M.A. Corp., Archit.; Portway, D., M.A. Cath., Mech. Sc.; Thatcher, W. S., M.A., Econ.

TRINITY COLLEGE. Founded 1546. Master—Sir Joseph J. Thomson, M.A., O.M., Pres.R.S.

Fellows: Adrian, E. D., M.A., M.D., *Nat. Sc.*; Aston, F. W., M.A.; Ball, W. W. R., M.A.; Bevan, A. A., M.A., *Oriental Langs.*; Boughey, A. H. F., M.A.; Burnaby, J., M.A., Junr. Bursar; Butler, J. R. M., O.B.E., M.A., M.V.O., *Hist.*, Junr. Dean; Buxton, P. A., M.A.; Capstick, J. W., M.A., O.B.E.; Cornford, F. M., M.A., *Classics*; Duff, J. D., M.A.; * Dykes, F. J., M.A., *Mech. Sciences*; Eddington, A. S., M.A., F.R.S., Prof. of *Astron.*; Ellis, C. D., B.A.; Fletcher, Sir Walter M., M.A., M.D., Sc.D., K.B.F., F.R.S.;

* Tutor. † Director or Supervisor.

Fowler, R. H., O.B.E., M.A., *Maths.*; Frazer, Sir J. G., M.A., F.R.S. *Anthrop.*; Glaisher, J. W. L., Sc.D., F.R.S.; Glazebrook, Sir Richard T., M.A., K.C.B., F.R.S.; Glauert, H., M.A.; * Harrison, E., M.A., *Classics*; Henry, D. C., B.A.; Herman, R. A., M.A.; Hicks, R. D., M.A.; Hollond, H. A., O.B.E., M.A., LL.M., *Law*; Hopkins, F. G., M.A., F.R.S., Prof. of *Bio-Chem.*; Housman, A. E., M.A., Prof of Latin; Innes, H. McL., M.A., Senior Bursar; Jenkinson, F. J. H., M.A.; Kirkpatrick, Very Rev. A. F., M.A., D.D.; Langley, J. N., M.A., Sc.D., F.R.S., Prof. of *Physiol.*; * Lapsley, G. T., M.A., *Hist.*; Laurence, R. V., M.A., *Hist.*; Lenox-Conyngham, Sir G. P., F.R.S., Prælector in *Geodesy*; Littlewood, J. E., M.A., F.R.S., *Maths.*; McTaggart, J. McT. E., Litt.D., *Mor. Sciences*; Marshall, T. H., M.A.; Milne, E. A., B.A.; Newall, H. F., M.A., F.R.S., Prof. of *Astro-Physics*; Nicholas, T. C., M.A., *Nat. Sc.*; Parry, R. St. J., D.D., Vice-Master; Pearson, A. C., Litt.D., Prof. of Greek; Pollard, S., M.A., *Maths.*; Postgate, J. P., M.A., Litt.D., F.B.A.; Pye, D. R., M.A., *Mech. Sc*; Ritchie, A. D., M.A.; Robertson, D. H., M.A., *Econ.*; Robertson, D. S., M.A., *Classics*; Rutherford, Sir Ernest, M.A., F.R.S., Prof. of Expl. Physics; Schreiner, O. D., M.A.; Sedgwick, R. R., M.A.; Simpson, F. A., M.A., Senior Dean, *Hist.*; Stanton, V. H., D.D., Prof. of *Div.*; Stewart, H. F., D.D., Prælector in French; Taylor, G. I., M.A., F.R.S., *Maths.*; Taylor, H. M., M.A., F.R.S.; Tennant, F. R., D.D., *Theol.*; Turner, C. H., M.A., *Eccl. Hist* (Birkbeck); Ward, Jas., M.A., Sc.D., LL.D., Prof. of *Mental Philos. and Logic*; Whetham, W. C. D., M.A., F.R.S., *Nat. Sciences*; Whitehead, A. N., Sc.D., F.R.S.; * Winstanley, D. A., M.A., *Hist.*

Other Lecturs.: Bailey, J. C., *Eng. Lit.* (Clark); Earle, Col. M., C.M.G., D.S.O., *Mil. Hist.* (Lee Knowles); Winfield, P. H., LL.D., *Law.*

TRINITY HALL. Founded 1350. Master—H. Bond, LL.D., *Law.*

Fellows: Angus, C. F., M.A., *Classics*; Bell, W. G., M.A.; Campbell, Hon. I. M., M.A., Bursar, †*Agric.*; * Chase, G. A., M.A., *Div.*; Hayes, R. A., M.A., *Engin.*; Hopkins, F. L., M.A.; Oliver, D. T., LL.M., *Law*; Potts, F. A., M.A., *Nat. Sc.*; * Pym, W. St J., M.A., † *Hist.*; Rendell, W. R., M.A.; Rideal, E. K., M.A., † *Chem.*

SELWYN COLLEGE PUBLIC HOSTEL. Founded 1882. Master—J. O. F. Murray, D.D.

Fellows: * Borradaile, L. A., M.A., *Nat. Sc.*, † Med.; * Carpenter, S. C., M.A., *Theol.*; * Jordan, W. E., M.A., Vice-Master, *Classics, Hist.*; Knott, H. C., M.A., Bursar, Prælector, *Maths.*; Marsh, F. S., M.A., Dean, *Theol.*, Perrett, G. B., M.A., *Hist.*; Williams, W. N., M.A., LL.B., *Classics*, † Law.

Other Directors of Studies: Stewart, H. F., D.D. Trin., Mod. and Med. Langs.; Wood, C., Mus.D. Cai., Music.

FITZWILLIAM HALL. Established 1887. Non-collegiate students. Censor —W. F. Reddaway, M.A. Asst. Censor—G. H. Harris, M.A.

Directors of Students: Attenborough, F. L., M.A., Engl.; Barker, J. W., B.A., Mod. Langs.; Ezard, E. H., M.A., M.D., Med.; The President of Queen's, Nat. Sc.; Fox, C., M.A., Mor. Sc.; Gaskoin, C. J. B., M.A., Hist.; Goudy, A. P., M.A., Russian; Harris, G. H., M.A., Theol.; Hayes, R. A., M.A., Mech. Sc.; Heath, S. P., M.A., Nat. Sc.; Johnson, E. W., B.D., Theol.; Joseph, C. G., M.A., Geog.; Mackenzie, K. J. J., M.A., Agric.; Oldham, H. Y., M.A., Geog.; Purvis, J. E., M.A., Chem.; Scott, T. F., M.A., Econ.; Shepherdson, J. F., M.A., Mus.B., Music; Thatcher, F., M.A., Chaplain, Prælector, Bursar; Thatcher, W. S., M.A., Econ.; Vernon Jones, V. S., M.A., Classics; Watkins, M., B.A., Maths.; Winfield, P. H., LL.D., Law; Wyatt, A. J., M.A., Med. and Mod. Langs.

* Tutor. † Director or Supervisor.

WOMEN'S COLLEGES recognized by the University:

GIRTON COLLEGE. Founded 1869. Mistress—Miss K. Jex-Blake, M.A. Dub. Directors of Studies and Resident Lectrs.: Janet R. Bacon (Classics); Hilda M. R. Murray, M.A. Dub. (Engl. and Hist. and Compar. Philol.); M. Gwladys Jones, M.A. N.U.I. (Hist.); Frances E. Cave-Browne-Cave, M.A. Dub. (Maths.); Kathleen T. B Butler (Med. and Mod. Langs.); Lizzie S. Stebbing (Moral Sc.); M. Beatrice Thomas (Nat. Sc.); Mrs. Barbara F. Wootton (Econ.).

Bursar and Vice-Mistress—Eleanor M. Allen, M.A. Dub. Librarian—Ethel S. Fegan. Junior Bursar—Pauline K. Leveson, M.A. Dub. Secy.—Mary Clover, M.A. Dub.

NEWNHAM COLLEGE. Founded 1871. Principal—Miss B. A. Clough.

Vice-Principal and Tutor—Agnes B. Collier, M.A. Dub. (Old Hall); Tutors —J. Pernel Strachey, M.A. Dub. (Pelle Hall), College Lectr. in Mod. and Med. Langs.; M. Steele Smith (Clough Hall), College Lectr. in Engl.; E. M. Chrystal (Sidgwick Hall), Junr. Bursar.

Other College Lectrs.: L. M. Swain (Maths.); Jane E. Harrison and Hilda Richardson (Classics); Edith R. Saunders (Botany); Gertrude L. Elles, D.Sc. Dub. (Geol.); J. Mabel W. Slater, D.Sc. Lond. (Chem. and Physics); Anna C. Paues, B.A. Dub., Ph.D. Upsala (English); Mrs. M. E. Robinson (Econ.). Bursar—Lilian M. Lacy. Registrar of the Roll—Edith M. Sharpley.

AFFILIATION

The privileges of affiliation are granted, under certain conditions, (*a*) to members of Affiliated Institns.; (*b*) to graduates of other Univs. approved for the purpose. A student fulfilling the required conditions is entitled to either or both of the following privileges, namely: (1) to be exempted from all parts of the Previous examn.; (2) to reckon the 1st term kept by residence as the 2nd, 3rd, or 4th term of his residence, for the purposes of all provisions respecting the standing of candidates for Tripos examns. or for Degree examns. in Med., Surg., or Music, and respecting the standing of candidates for degrees.

List of Affiliated Institutions. St. David's Coll., Lampeter; St. Edmund's Coll., Old Hall, Ware. *Univ. Colls.*—Wales (Aberystwyth), S. Wales (Cardiff), Nottingham, Southampton, Exeter. *Universities*—Adel., All., Bish., Bom., Calc., Hong-Kong, King's (N.S.), McGill, McM., Mad., Mt. All., New B., New Z., Panj., Patna, Queen's (Ont.), Queensland, St. Fr. Xavier (N.S.), Sheff., S. Africa, Syd., Tasm., Tor., Western (of London, Ont.). *Local Lectures Centres*—Exeter, Leicester, Southport.

List of Approved Universities. Aberd., Belf., Birm., Bris., Chic., Col., Corn., Dub., Durh., Edin., Glas., Harv., Illinois, Johns Hopkins, N.U.I., Leeds, Liv., Lond., Manc., Melb., Minn., Ox., Penn., Prin., St. And., Virg., Wales, W. Aust., Wisc., Yale.

GENERAL INFORMATION

The SENATE, consisting, generally speaking, of all Masters of Arts and Masters of Laws who have retained their membership of the Univ. by the fulfilment of prescribed formalities and payment of proper dues, has full power to legislate for the Univ. subject to the Univ. Statutes, and allows degrees, appoints most of the Univ. officers, and elects the 2 members who represent the Univ. in the House of Commons.

The executive authority of the Univ. rests in theory with the Chancellor, but as he is by custom a non-resident officer, it devolves in practice upon his deputy, the Vice-Chancellor, who is appointed every year from among the

Heads of Colleges. With the Vice-Chancellor is associated a Council of 16 members known as the *Council of the Senate*, which is elected under certain restrictions by (practically) the resident part of the Senate—known as the *Electora' Roll*. This Council, besides its executive position, has also an important position in respect of legislation, as no Grace can be put to the Senate unless it has first received the sanction of the Council. The Univ. appoints *Syndicates* to administer various departments of Univ. business and *Special Boards of Studies* to superintend Univ. teaching and examns. in the various subjects of study. The system of teaching as a whole is under the supervision of a *General Board of Studies*, on which all the more important subjects of study are represented. All proposals involving the spending of money are submitted by the Council to the *Financial Board*.

The COLLEGES are corporate bodies distinct from the Univ. They possess and manage their own property; they are self-governing and elect their own officers; and for nearly all purposes they are independent of Univ. control. The connexion between them and the Univ., however, is of the most intimate kind. The Univ. is in part supported by contributions from them, and without any formal agreement to that effect the Univ. and the Colls. do as a matter of fact recognize each other's regulations. Nearly all the members of the Univ. belong to the Colls., and all the members of the Colls. belong to the Univ. The work of teaching is divided between the Univ. Profs., Lectrs., etc., and the more numerous body of College Lectrs.

MATRICULATION is effected by signing in a register following upon admission as a member of a Coll. or as a Non-Collegiate student; the Univ. does not require any examn. to be passed before Matricn., but an applicant for admission to a Coll. must, in general, satisfy its authorities by passing the Coll. Entrance examn. or otherwise that his attainments are sufficient to enable him to pass the Univ. examns. in due course, and ultimately to proceed to a degree. In effect the *Previous* examn. (v. *infra*) takes the place of the Matricn. examn. of other Univs.

For admission as a member of a Coll. or as a Non-Coll. student application should be made to the proper officer, namely, the Senior Tutor, Christ's, Cai., Clare; the Tutor, Cath., Corp., Down., Magd., Pet., Sid., or Trin. H.; one of the Tutors, Trin.; the Provost or Tutor, King's; the President, Queens'; the Master of any of the other Colls.; the Censor, Fitzwilliam Hall (Non-Coll. students). It is important for those who wish to have rooms in Coll. to apply for admission a long time beforehand.

TERMS. In order that a term may be counted towards qualifying for a degree, a student must reside in Cambridge (*i.e.* within a circle of $2\frac{1}{2}$ miles' radius from Gt. St. Mary's Church) during three-fourths of the term.

INCORPORATION. Students who before admission as members of this Univ. have kept terms by *bona-fide* residence at Ox. or Dub. are, subject to certain provisos, allowed terms corresponding to those which they have so kept; a graduate of Ox. or Dub. who took a degree or degrees after having duly qualified himself therefor not only by having passed the examns., etc., required, but by having kept his terms by residence in his own Univ., may be admitted on certain conditions to the same degree or degrees in Camb.

DEGREES. B.A., M.A., M.Litt., Litt.D., M.Sc., Sc.D.; B.D., D.D.; LL.B., LL.M., LL.D.; M.B. and B.Ch., M.Ch., M.D.; Mus.B., Mus.M., Mus.D.; Ph D.

ARTS. The qualifications for the B.A., except for *Research students* (v. *infra*), are: (i.) 9 terms' residence; (ii.) passing or being exempted from the

Previous examn.; (iii.) passing the examns. for the ordinary degree or a Tripos examn.

Exemption from (i.) to the extent of 3 terms can be obtained by students entitled to the privileges of *affiliation* (v. *supra*).

(ii.) The *Previous* examn. consists mainly of Latin, one other language, Maths., and English. Subject to certain provisos, natives of Asia or Africa who are not of European parentage may substitute papers in Arabic, Chinese, Sansk., or Pali for the Latin papers.

Exemption from (ii.) can be obtained by students who hold certain certifs. granted by various Univs of the U.K., or by the Scotch Education Dept., or by certain Australasian, S. African and European authorities (v. App. XXIII.); such exemption is also granted to students entitled to the privileges of affiliation.

As regards (iii.), the ordinary B.A is obtained by qualifying in 5 subjects of which 3 at least must be "principal" and 1 at least must be chosen from each of 2 groups. The principal subjects are—in Group I.: Bible, Church Hist, Engl, Gk., Lat, Fr., Ital, Span., Ger., Rus., Geog., Hist. I., Hist. II., Econ. I., Econ II., Moral Philos, Psych, Law I., Law II., Educn, Music, Mily. Subjects I., History of Art; in Group II.: Prelim in Sc., Maths., Physics, Chem., Applied Chem., Metal, Bot, Zool., Physiol., Geol., Geog., Engin. I., Engin. II., Mily. Subjects II. There are 4 subsidiary subjects in each group. The Honours B.A. is obtained by passing in the following Triposes. Anthropol., Classical, Economics, English, Geog., Hist., Law, Maths., Mech. Sciences, Med. and Mod. Langs, Mor. Sc, Nat. Sc., Oriental Langs, Theol.

A Bachelor may be admitted *Inceptor* in Arts at the end of six years from the end of his 1st term, provided that not less than 2 yrs. have elapsed from his *inauguration* (which occurs on Dec. 24 following admission to the title of a degree). The Inceptor is *created* M.A. at the end of the following Easter term.

DIVINITY. A M A. or LL.M. proceeds to the B.D. on or after the 11th of June in the 7th year from his *creation*, either (1) by submitting an original dissertation composed by himself in Latin or English on some subject connected with Biblical Criticism, Exegesis, or History, or with the Evidences of Christianity, or with Dogmatic Theology, or with the study of other Religions in relation to the Christian Religion, or with Ecclesiastical History, Literature, or Antiquities, or with the Philosophy of Religion, or (2) by specifying his published works on one or more of these subjects. He is required to satisfy the Degree Committee, either by his Dissertation, etc., or otherwise, that he possesses a competent knowledge of Christian Theology. A B.D. of 5 yrs.' standing proceeds to the D.D. by submitting published works or a printed dissertation on the same subjects as those for the B.D.

LAW. A student who has kept 9 terms and obtained Honours in both parts of the Law Tripos or Honours in some other Tripos and subsequently Honours in either part of the Law Tripos is entitled to the LL.B. as well as the B.A. A graduate who desires the LL.B. must satisfy the examiners for the Law Tripos in both parts or, on certain conditions, in one. A B.A. or LL.B. who has fulfilled certain conditions may be admitted *Inceptor* in Law at the end of 6 yrs. from the end of his 1st term, provided that not less than 2 yrs. have elapsed from his *inauguration*. A M.A. who has fulfilled these conditions may also be admitted Inceptor in Law. A LL.M. who makes an original contribution to the advancement of the science or study of Law may be admitted LL.D. 5 yrs. after *creation*.

MEDICINE. The qualifications for the M.B. and B.Ch. are: (i.) 9 terms' residence; (ii.) passing (or exemption from) the *Previous* examn. (v. *supra*);

(iii.) 5 yrs.' Medical study; (iv.) passing in due order 3 examns. and presenting an approved thesis. Admission to the 2nd M.B. examn. is conditional on proof of diligent attendance on prescribed courses of lectures and practical work. Admission to the 3rd M.B. is conditional on proof of 3 yrs. of hospl. practice, 5 yrs.' Medical study, and diligent attendance on prescribed courses of instruction and practical work. A M.B. in the 9th term after *inauguration* (v. *supra*) and a M.A. in the 12th after *creation* may be admitted M.D. on submission of a thesis or dissertation, but the M.A. must have attended lectures and hospl. practice and passed examns. as required for the M.B. A B.Ch. after 3 yrs. from inauguration may be admitted Inceptor in Surgery and so by creation to the M.Ch. degree. A M.A. may be admitted also if legally qualified to practise Surgery. A candidate for the M.Ch. must either pass the examn. for the degree or be exempted therefrom in consideration of a contribution to the advancement of the Science or Art of Surgery. Addenbrooke's Hospl., containing 192 beds and large out-patient depts., is available for clinics.

MUSIC. The qualifications for the Mus.B. include (i.) 9 terms' residence; (ii.) passing (or exemption from) the *Previous* examn.; (iii.) passing an examn. in two parts whereof the first may not be taken before the 2nd term, nor the 2nd before the 8th term. The Mus.M. may be taken after at least 3 yrs. have elapsed since *inauguration* (v. *supra*) as Mus.B. and after passing the prescribed examn.

Persons not less than thirty years of age who have graduated in some Faculty of the Univ. and given proofs of distinction in musical composition may be candidates for the Mus.D.

The Sc.D. and LITT.D. Any person may be a candidate for either degree who is a M.A., LL.M., or M.Ch. of not less than 5 yrs.' standing or a M.B. of not less than 7. These degrees are granted in consideration of original contributions to the advancement of Science or Learning.

DIPLOMAS. In addition to degrees, which are for the most part conferred only on its own members, the Univ. grants 5 Diplomas which are open to other persons—in Geog., in Psych. Med., in Pub. Health, in Med. Radiology and Electrology, and in Tropical Med. and Hygiene—and 7 which are almost entirely restricted to members of the Univ.—in Agric., Anthrop., Class. Archæol., Forestry, Horticulture, Hygiene, and Oriental Languages, the diplomas in Anthrop. and Orient. Langs. being open to non-members in certain exceptional circumstances only. Among overseas Mental Hospitals recognized for clinical work for the Dip. Psych. Med. are the Pretoria and the Gladesville (Sydney). *Certificates*, open to members of the Univ. only, are conferred in Architecture (open to graduates only) and in certain foreign languages. A *Divinity Testimonium* is granted on proof of diligent attendance at 6 courses of lectures.

The Diploma in Hygiene, established in 1921 in response to a communication from the League of Red Cross Societies at Geneva, is intended for *foreigners* who possess a qualification to practise medicine or surgery which, though not registrable in Great Britain, is recognized by the authorities of their own countries. The full course must extend over 9 months. The requirements are similar to those demanded for the English D.P.H. except that no detailed knowledge of English public health laws is required.

The Univ. makes provision for the training of candidates for the Higher CIVIL SERVICES; Student Interpreters; Indian Civil Service selected candidates; candidates for administrative appointments in Tropical Africa and other branches of the Civil Service and for service under the Govts. of Egypt

and the Sudan. To meet the wants of Civil Service candidates a series of lectures supplementary to the courses for regular Tripos candidates has been arranged by the Board of I.C.S. Studies, and by a Committee of Associated Colls. Detailed information may be obtained from the Director of Civil Service Studies, appointed by this Committee (G. P. Moriarty, M.A., 1 Mill Lane), and from H. A. Roberts, M.A., Univ. Offices, St. Andrew's St., who is Secy. to the Board of I.C.S. Studies, to the Foreign Service Students Committee, and to the Appointments Board.

A system of MILITARY INSTRUCTION has also been organized by the Univ. The Board of Milit. Studies (Secy.—Hon. I. M. Campbell, D.S.O., Trin. H.) are in direct communication with the War Office and responsible for the nomination of Camb. Univ. candidates for Regular commissions in H.M. Forces.

The TRAINING OF TEACHERS is under the management of the Teachers Training *Syndicate*, established in 1878 (Secy.—F. E. E. Harvey, M.A.; address—Warkworth House).

Examns. for the Univ.'s *Certificate of Proficiency*, held in June and Dec., are open to students of certain colleges, and to teachers who have had at least a year's experience in an approved Secondary School, if their attainments are satisfactory.

Students of the *University Training College* (Principal—C. Fox, M.A., Chr.; address—Warkworth House) devote their first 3 yrs. to reading for the B.A. degree, the 4th to professional training. Several scholarships and exhibitions are offered to intending schoolmasters who have been Bursars, Student Teachers, or Pupil Teachers.

There is also a Post-graduate Training Coll. for Women. Principal—Miss M. H. Wood, M.A. Lond., Litt.D. Dub., Girton; address—Wollaston Rd.

Candidates are trained for HOLY ORDERS at Ridley Hall, founded in 1879 (Principal—A. J. Tait, D.D. Joh.); or at the Clergy Training School, Westcott House, founded in 1881 (Principal—Rev. Canon B. K. Cunningham, M.A. Trin.). These and other similar institns.—the Westminster Coll., founded 1844 (Principal—J. Skinner, D.D. Aberd., M.A. Joh., Presbyterian); Cheshunt Coll., founded 1768 (Resident Tutor—Rev. E. W. Johnson, B.D., Undenominational); and St. Edmund's House, founded in 1896 (Principal—Rev T. F. McNulty, M.A., Roman Catholic)—are not directly or definitely concerned or connected with the Univ. Cheshunt and Westminster Colleges were moved from Cheshunt and London in 1905 and 1899 respectively.

RESEARCH STUDENTS. Each application for admission must be accompanied by (i.) a diploma or other certif. of graduation at a Univ.; (ii.) a statement as to the course of research which the applicant desires to pursue, together with evidence of qualification, attainments, and previous study; (iii.) a certif. or declaration that the applicant has attained the age of 21 yrs. In exceptional cases requirement No. (i.) may be dispensed with. The application is not granted unless it appears (*a*) that the course of research can conveniently be pursued within the Univ., and (*b*) that the applicant has produced adequate evidence that he is qualified to enter upon the proposed course.

A Research student pursues his course under direction and supervision, prescribed by the Degree Committee of the Special Board of Studies concerned. If he wishes to obtain a degree elsewhere he may, after he has pursued his studies in the Univ. for not less than 2 terms with regularity and industry, receive a *Certificate* to that effect signed by the V.C. After a course extending over 2 yrs. the M.Sc. or M.Litt. may be obtained. For the Ph.D. (v. p. 15)

3 yrs. are ordinarily required including 2 (in special cases 1) in the Univ. In exceptional cases a course extending over 2 yrs. instead of 3 may be accepted

UNIVERSITY SCHOLARSHIPS open to graduates number about 57, and are worth about £5600 p.a. In almost every instance they are open only to persons who have graduated in or are members of this Univ., and in some cases only to those who have kept a certain number of terms. For details see *Students' Handbook* (price 7s. 6d., Univ. Press), which also gives details of *Entrance* Scholarships.

APPOINTMENTS. There are two organizations: (1) the Appointments Board, which is concerned with appointments of all kinds (Secy.—H. A. Roberts, M.A.; Asst. Secy.—R. S. Goodchild, M.A., Univ. Offices); and (2) the Scholastic Agency, which is concerned with scholastic appointments only (Director—Prof. W. J. Lewis; office at Mineralogical Museum).

ADVISER OF INDIAN STUDENTS: W. S. Thatcher, M.A., Fitzwilliam Hall.

WOMEN. From 1872 women were informally admitted to Tripos examns. in the Univ., and from 1881 have been formally admitted to the *Previous* examn., the Tripos examns., and certain examns. in Med. and Music. They were subsequently admitted to the courses and examns for the Diplomas in Agric., Horticulture, Forestry, and Geog., and for the Training of Teachers, and were made eligible for Certifs. of Research. Finally in Oct. 1921 a Grace admitting them to titular degrees was passed and a Statute has been drafted and submitted to the King in Council. Women students must reside either at Girton or at Newnham or within the precincts of the Univ. under the Regulations of one or other of these colleges.

The UNIVERSITY LIBRARY contains over 900,000 vols., including many early printed books, and over 10,000 MSS. and 100,000 maps. It is entitled under the Copyright Act to a copy of every book published in the U.K., and a large number of foreign books and periodicals are acquired by purchase. Each Coll. and Pub. Hostel has a library. Some are interesting survivals of mediæval rooms kept in the state in which they were originally arranged. There are also many departmental libraries, such as the Class. Archæol.; the Seeley Memorial (works on Hist. and Comp. Politics originally collected by John Symonds, Regius Prof. of Mod. Hist. from 1771 to 1807, and added to by his successors); Economics; Law (Squire Law Library); Mod. Langs.; Moral Sciences; Bendall (Sanskrit, etc.); Pathological School; Music collections in the Fitzwilliam Museum and Museum of Archæol.; Conchol. and Ornithol. (in Museum of Zool.); Robertson Smith (Oriental books); Selwyn Div. School. The Library of the Philos. Soc. maintains a special relation to all the Scientific Depts. and is very rich in sets of Journals and Scientific Transactions. The Balfour Library contains a large collection of books and periodicals on biological subjects.

MUSEUMS of Art and Archæology. The Fitzwilliam (Director and Marlay Curator—S. C. Cockerell, M.A.) contains a large and valuable collection of paintings, drawings, engravings, Egyptian and Greek antiquities, ceramics, coins, illustrated MSS., autographs and early printed books; the Museum of Class. Archæol. (Curator—A. B. Cook, M.A. Qu.) contains a collection of casts illustrating the history of Greek sculpture.

The Museum of Ethnol. and Archæol. (Curator—A. C. Haddon, Sc.D., acting) has a large and increasing collection, including Saxon urns and ornaments, casts of Central American monuments, Egyptian stone im-

plements, unique Fijian collection, and numerous others resulting from scientific expeditions by Cambridge men.

The "Museums of Science" consist of the museums, labs., lecture-rooms, class-rooms, and workshops for Agric., Bio-Chem., Bot., Chem., Engin. (including Engine-room, Elasticity, Elec., and Hydraulic Labs., and drawing office), Exper. Physics, Hum. Anat., Ethnol., Forestry, Medicine, Mineralogy (collection very largely increased in recent years and one of the best in the country), Physiol., Psychol., Zool. and Comp. Anat. The Zool. Lab., in addition to providing for the ordinary work of the Dept. and for research, affords peculiar facilities for the study of diseases of animals and of economic entomology. The Museum of Zool. includes very complete series of vertebrates and invertebrates, the fishes obtained by Charles Darwin during the voyage of H.M.S. *Beagle*, a series of invertebrata from Naples, valuable collection of Polyzoa, extensive collection of marine animals from Pacific and Indian Oceans, and an important collection illustrating heredity, protective resemblance, and mimicry [Supt.—C. F. Cooper, M.A. Trin.; Strickland Curator (Birds)—H. Gadow, M.A., F.R.S. (King's); Curator in Entom.—H. Scott, Sc.D. Trin.]. The Sedgwick Museum of Geol. includes a fine collection of British and foreign building stones lately added to the Economic section. In addition to the labs. of the School of Agric. there are Field Labs. covering about 10 acres, provided by means of Govt. grants for an Inst. for Research in Animal Nutrition; also a Univ. Farm of 200 acres and Plant-breeding Farm of 230 acres. The Botanic Garden has excellent facilities for study.

The OBSERVATORY (Director—Plumian Prof. of Astr.), about a mile from Cambridge, has a meridian circle of 8¼-in. aperture; the Northumberland equatorial 12 in. aperture; the Sheepshanks photographic equatorial 12¼ in.; a number of smaller instruments, and a good library. The Solar Physics Observatory standing close to the older Obs. has the Newall telescope (25 in.), McClean coelostat and spectrograph, Huggins telescopes, etc. The Univ. has taken over charge (for the Govt.) of the Solar Physics Obs. formerly at South Kensington, receiving a grant-in-aid.

The CAMBRIDGE LOCAL EXAMINATIONS, instituted in 1858, are conducted at various places throughout the country and in the Colonies. Copies of the Regns. regarding the Junr. and Senr. Local and Higher School Certificate examns. and the examns. (designed for teachers of not less than 20 yrs. of age) for Certifs. of Proficiency in Religious Knowledge and in Mod. Langs., may be obtained from the Secy. for Local Examns, W. N. Williams, M.A., LL.B., Syndicate Buildings.

UNIVERSITY EXTENSION Lectures are delivered and classes in connexion with them held by a staff of about 25 itinerant lecturers in various towns in different parts of England, including places so distant as Southport, Newcastle, Gt. Yarmouth, and Exeter, under a system initiated in Cambridge in 1873. The characteristic features of the method of teaching adopted are (i) the Lecture presenting the subject in broad outline, (ii.) the Class, held for about an hour before or after the lecture, at which questions are given out by the lectr., (iii.) the short essays written on these questions, and (iv.) the examn. The grades of certifs. are: *Terminal*, awarded after a course of ordinarily 12 lectures; *Sessional*, for courses extending over not more than 2 yrs. and including at least 22 lectures; the *Vice-Chancellor's*, awarded to students who obtain Terminal or Sessional certifs. satisfying certain conditions and submit a satisfactory essay; and *Affiliation* certif., obtainable only at affiliated

centres (Exeter, Leicester, and Southport) under special conditions. A *Travelling Library* is provided by the Syndicate for each course. The work is under the management of the Local Examns. and Lectures Syndicate, and full particulars can be obtained from the Secy. for Lectures, Syndicate Buildings (Rev. D. H. S. Cranage, Litt.D.).

Tutorial Classes have been instituted in connexion with the Workers' Educational Assocn. They are in each case limited to about 30 members, most of whom are working men and women, who pledge themselves to attend the 24 lectures and classes provided in each session and to write essays. The course covers at least 3 yrs. The classes are managed by a Committee appointed by the Syndicate, consisting of 6 resident members of the Senate and 6 representatives nominated by the W E.A.

Publications. The *Camb. Univ. Reporter*, weekly during term, 3d. a copy, terminal subs. 2s. 6d., or by post 4s. 6d.; *Ordinances*, 1920 (fresh editions every 3 or 4 yrs., with suppts. in intervening years); *The Students' Handbook*, annually in July, 7s. 6d.; *Facilities for Graduate Study and Research*, 1921; *Compendium of Univ. Regns.*, 9d.; *The Statutes of the Univ., with some Acts of Parlt.*, 7s. 6d; *Endowments of the Univ. of Camb.*, 1904; *Alumni Cantabrigienses* (to 1751), Ed. J. and J. A. Venn, vol. 1. (Abbas-Cutts); *Matricns. and Degrees* (a list of all those who have entered the Univ.; 1544–1659, 1850–1900, 1901–1912); the *Calendar* and the *Historical Register*, pubd. by the Univ. Press. *Histories*: (*a*) *Annals of Camb.*, by C. H. Cooper (5 vols.); (*b*) *The Univ. of Camb.*, by J. B Mullinger (3 vols.); (*c*) College Histories—Robinson's Series, various authors; Dent's Series—King's, St. John's, Trinity, 2s. each. *Magazines*: The *Camb. Review*, the *Granta*, the *Old Cambridge*, the *New Cambridge*, weekly during term.

THE YEAR 1920–21

Benefactions. Dr. J F. P. Rawlinson, a freehold house; Haraldshofdingen Marcus Wallenberg and others, £10,000 for encouragement of Scandinavian studies; Mrs. L. E. Stuart, £5000 for Univ. Extension work; University Association, £4700, and Barclay's and 4 other banks, £2000 for Engineering Dept. buildings; £35,000 additional from Sir Wm. Dunn's Trustees for the endowment of the study of Bio-Chemistry; £2548 for English Studies Endowment Fund; £547 for French Studies; £886 for Forestry; £125 for Genetics; £500 for Modern Greek; numerous gifts to the Fitzwilliam Museum and Library, including all the learned publications of Vienna since the outbreak of the war, being a gift by a Viennese banker on behalf of a number of Viennese Professors who were entertained for some weeks in Cambridge in the summer of 1920.

New Buildings. £39,200 was allocated to the new Engineering Laboratory building scheme. The Marlay extension of the Fitzwilliam Museum, the Molteno Institute of Parasitology, and the Low Temperature Station for Research in Bio-Chemistry and Bio-Physics progressed towards completion and the foundations of the Sir Wm. Dunn Memorial building were laid. The Electric Power Station was rebuilt. The Registry was extended. In all, over £130,000 was spent on extensions.

New Posts, etc. Lectr. in Horticulture, Adams Astronomer, Sir Wm. Dunn Prof. of Bio-Chemistry, 2 Lectrs. in Bio-Chemistry, Director of Mily. Studies, Lectr. in Veterinary Science, Lectr. in Physics as applied to Med.

Radiology, Committee for study and research in Geodesy and Geodynamics, and appointment (by Trinity College) of Prælector of Geodesy. Approval was given to the establishment of a Polar Research Institute (Scott Memorial) at Cambridge in association with the School for Geography. An exchange was effected between Prof. Hickson of Manchester and L. A. Borradaile, Lectr. in Zoology.

Among CHANGES IN REGULATIONS were: remodelling of courses for the ordinary B.A. degree; provision for obtaining M.Sc. or M.Litt. degrees after a course of research extending over 2 yrs.; institution of Diploma in Hygiene, v. *supra*, p. 50; provision for securing Vice-Chancellor against pecuniary loss due to tenure of office; discontinuance of Higher Local examns. (after close of year); admission of women to titular degrees, v. p. 52.

OTHER IMPORTANT OCCURRENCES. Visits of H.R.H. the Prince of Wales and H.I.H. the Crown Prince of Japan. Preliminary arrangements for holding a conference in Cambridge in July 1923 on University Extra-mural Teaching.

DISTINGUISHED FOREIGNERS who gave Lectures: Señor Baeza, Prof. J. Baudiš of Prague, Prof. E. Cohen and Dr. A. Hulshof of Utrecht, M. Gabriel Mourey of Paris, Prof. R. L. Schuyler of Columbia, Prof. J. H. Beale of Harvard.

DEATHS. J. D. Anderson, Lectr. in Bengali, Nov. 30; D. V. Cow, Asst. to Prof. of Med., June 23; Sir Alfred Dale, Fellow of Trin. H., Aug. 13; C. E. Graves, Fellow of St. John's, Oct. 21; H. Jackson, O.M., Reg. Prof. of Greek, Sept. 25; C. H. W. Johns, Master of St. Cath., Aug. 20; O. Johnson, senr. Asst. of Library, April 30; J. B. Lock, Fellow of Caius, Sept. 8; C. W. Moule, Senior Fellow of Corpus, May 11; A. W. Spratt, Fellow of St. Cath., Nov. 15; R. H. Vernon, Asst. to Prof. of Chem., April 9. RETIREMENTS. J. H. Flather, E. J. Gross, Baron A. von Hugel. C. R. Fay, Gilbey Lecturer in History and Economics of Agric., resigned in order to hold a post for 2 yrs. in Canada; E. H. F. Mills, Secy. of the Library, resigned on appointment as Librarian in the Univ. of Birm.

NUMBER OF STUDENTS (Michaelmas 1919, 1920, 1921). Undergraduates (men) in residence, 4137, 4776, 4748; Research Students, 50, 89, 72; Women Students at Girton, 166, 175, 179; Newnham, 242, 250, 254. Of 72 research students 35 were from beyond the seas: Canada, 7; Australasia, 7; S. Africa, 2; India, 10; U.S.A., 6; others, 3.

HONORARY DEGREES CONFERRED. *D.D.*—R. S. Heywood, P. C. T. Crick, J. H. Greig, L. N. Fisher; *LL.D.*—A. G. Edwards (first Archbishop of Wales), Viscount Allenby, Sir G. A. Grierson, A. Calmette, Sir Patrick Manson, J. H. Beale, Crown Prince of Japan, Prince of Wales, Rear-Admiral W. S. Sims; *Litt.D.*—H. Hall; *Sc.D.*—J. Hjort; *M.A.*—O. Johnson, J. T. Wilson, T. M. Lowry, F. B. Smith, J. P. Lowson, W. A. Wood, C. W. B. Wright.

OTHER DEGREES. M.D., 19; Sc.D. and Litt.D., 6; Ph.D., 3; B.D., 5; M.Ch., 2; M.A., 342; LL.M., 6; M.B., 51; B.Ch., 47; B.A., 803; LL.B., 65; Mus.B., 3.

NUMBER OF WOMEN who passed Tripos exams. in 1921. Maths., Pt. I., 19, Pt. II., 8; Classics, Pt. I., 8, Pt. II., 5; Moral Sc., Pt. I., 3, Pt. II., 4; Nat. Sc., Pt. I., 27, Pt. II., 5; Law, Pt. II., 3; Hist., Pt. I., 12, Pt. II., 33; Med. and Mod. Langs., 34; Mech. Sc., 1; Econ., Pt. I., 4, Pt. II., 11; Engl., 39; Geog., Pt. I., 2.

APPOINTMENTS BOARD. In the years 1919 and 1920, 686 appointments were obtained on the introduction of the Board. These included lectureships in 14 Univs. or Univ. Colleges, scientific assistantships in 27 firms, engineering appointments under 39 bodies, Agricultural and Forestry appointments under 18 bodies, other posts in 108 firms and industrial organizations.

LOCAL EXAMNS. were held in 1921 at 295 centres, including 27 in India, 18 in Ceylon, 11 in Straits Settlements and Malay States, 9 in S. and W. Africa, 12 in West Indies. The number of candidates was 12,024.

LOCAL LECTURES centres increased from 65 to 79; the number of courses from 77 to 92; Final Examn. Certifs. from 147 to 218; attendance at lectures and classes from 10,376 and 2197 to 12,990 and 3415. The Summer Meeting, 1922, will be held at Cambridge; the main subject will be Mediæval and Modern Italy. A conference on Univ. Extra-mural Teaching is to be held at Cambridge in July 1923. At the first meeting (June 11, 1921) of the Committee formed by the President of the Board of Education to deal with problems connected with the Adult Education movement in England and Wales, Dr. Parry of Trin. Coll., Cambridge, was elected Vice-Chairman.

UNIVERSITY OF DURHAM

VISITOR—THE BISHOP OF DURHAM.

CHANCELLOR—The Rt. Hon. the EARL OF DURHAM, K.G., G.C.V.O., P.C., D.C.L.

VICE-CHANCELLOR—Prof. ARTHUR ROBINSON, M.A., D.C.L.

PRO-VICE-CHANCELLORS—J. S. G. PEMBERTON, M.A., D.C.L., Prof. DAVID DRUMMOND, C.B.E., M.A., M.D., D.C.L.; Sir THEODORE MORISON, K.C.S.I., K.C.I.E., M.A., D.C.L.

PROCTORS—P. J. HEAWOOD, M.A.; W. N. HAWORTH, Ph.D., D.Sc.

REGISTRAR—H. G. THEODOSIUS, M.A., B. ès L.

LIBRARIAN—E. V. STOCKS, M.A.

DIVISIONS OF THE UNIVERSITY

Durham Division, controlled by the Council of the

DURHAM COLLEGES.

Newcastle Division, consisting of:

THE COLLEGE OF MEDICINE.

ARMSTRONG COLLEGE.

AFFILIATED AND ASSOCIATED COLLEGES

A. Colleges in which students may matriculate, keep terms, and pass examns., and so qualify without coming to England for the B.A., M.A., B.D., D.D., B.C.L., D.C.L., and L.Th. degrees:

CODRINGTON COLLEGE, BARBADOS. Trustees (under the will of Christopher Codrington, who died in 1710)—The Society for the Propagation of the Gospel; Visitor—The Lord Bishop of Barbados; Principal—J. C. Wippell, M.A., B.D.; Prof. of Theology—E. J. Lee, M.A.; Prof. of Classics—W. W. C. Dunlop, M.A.; Prof. of Medicine—W. B. Clark, M.B., C.M.

FOURAH BAY COLLEGE, SIERRA LEONE. Founded in 1827 by the Church Missionary Society. In 1918 the Wesleyan Missionary Society became associated with the C.M.S. in the control of the College. Visitor—The Bishop of Sierra Leone; Principal—F. B. Heiser, M.A.; Vice-Principal—T. J. Evans, M.A., B.D. 4 Tutors and 2 Lectrs.

B. Ladies' College, Cheltenham; Queen's College, Harley St., London; Women's Training Colleges, Darlington and Ripon. Women students of 18 yrs. of age who have completed 2 yrs. of study and examn. at any one of these and passed the First Public Examn. in Arts may be allowed to count 2 yrs. kept at the College as 1 yr. towards the B.A. degree.

C. The following associated Theological Colleges:

St. Aidan's; St. Augustine's; Burgh; Chichester; Cumbrae; Dorchester; Edinburgh; Gloucester; Highbury; Islington; Jamaica; St. John's, Armidale, N.S.W.; Lichfield; Lincoln; Moore, Sydney; Queen's,

St. John's, Newfoundland; Salisbury; Selwyn, Dunedin; Truro; Warminster; Bishop Wilson School, Isle of Man; Theol. Depts. of King's Coll., London, and of Queen's Coll., Birmingham.

Students may take in these Colleges courses extending over 3 years, which qualify for the Lic.Theol. Six terms kept in one of these Colleges, after passing the matricn. examn., may be counted in lieu of 6 of the terms required for the B.A. degree in the case of a student who obtains the Lic.Theol

GENERAL INFORMATION

The Univ. was established by Act of Parliament in 1832 and reconstituted in two divisions in 1908. The College of Medicine, founded in 1832, became associated with the Univ. first in 1852 and more closely, as "The University of Durham College of Medicine," in 1870. Armstrong College was founded in 1871 as the Durham College of Physical Science and assumed its present name in 1904.

The Univ. has no teaching staff apart from those of the Durham Colls., the Coll. of Medicine, and Armstrong Coll. The Council of the Durham Colleges, the Coll. of Medicine, and Armstrong Coll. have respectively full power and authority to regulate teaching and discipline, and to provide for the appointment of all their teachers and other officers.

FACULTIES. At Durham only—Theology and Music; at Durham and Armstrong—Arts and Letters; at Armstrong only—Science and Commerce; at College of Medicine—Medicine.

ADMISSION OF STUDENTS FROM OVERSEAS. The matricn. examn. of Sydney and degrees in Arts of all Univs. of the British Empire are accepted.

DEGREES. B.A., M.A., B.Litt. (obsolete), M.Litt., D.Litt.; B.Sc., M.Sc., D.Sc.; B.D., D.D.; B.C.L., D.C.L.; M.B., B.S., M.D., M.S., D.Ch.; B.Hy., D.Hy.; B.Mus., D.Mus.; B.Com., M.Com.; Ph.D. (v. p. 15).

Diplomas in Foreign Langs., Arabic, Theol., Psychiatry, Teaching, Public Health; L.D.S., Lic.Theol.

The B.A., B.Sc., or B.Com. may be obtained by a 3 yrs.' undergraduate course. For the 1st yr. of the B.Sc. course equivalent study in another Univ., and for the 1st yr. of the B.Com. course 2 yrs.' attendance as an evening student may be accepted. For the B.Mus. two public examns. must be passed.

For the M.B. and B.S. at least 1 of the 5 yrs. of Med. study must be spent in the Coll. at Newcastle. The B.Hy. is open to graduates in Med. who have spent 1 yr. in professional study at Newcastle.

The B.C.L. may be taken by examn. by a B.A. of 12 terms' standing.

The course for the Diploma in Teaching covers 3 terms after graduation.

The course for the Diploma in Arabic covers 3 terms.

The M.A. is open to a B.A. of 9 terms' standing who obtained 1st or 2nd Class Honours in the Final B.A. examn. or, after passing this examn., has passed the Dipl. Theol., B.D., B.C.L., M.B. or B.Sc., degree examn., or who qualifies by passing a special examn.

The M.Sc. can be obtained by a B.Sc. of 2 yrs.' standing by original work or examn.

The D.Litt. or D.C.L. may be obtained by a B.A. (or B.Litt.) or B.C.L., respectively, of 10 yrs.' standing by a sufficient contribution to learning; the D.Sc. by a B.Sc. of 21 terms' standing after obtaining the M.Sc.; the D.Mus by a B.Mus. of 15 terms' standing.

For the M.D. a candidate must have had 2 yrs. of practice in a hospl. or Mily. or Naval service after graduation as M.B.

For the D.Ch. a candidate must have devoted 3 yrs. (including one at least in the Univ. and 6 months at least abroad), subsequently to having obtained a registrable qualification, to the study of surgery and ancillary subjects.

For the D.Hy. 2 yrs.' experience of Pub. Health administration or research after obtaining the B.Hy. are necessary.

M.D. Degree Examn. for Practitioners. A person who has been registered by the Gen. Med. Council of the U.K. and in the active practice of his profession for 15 yrs. as a qualified practitioner and is not less than 40 yrs. of age may obtain the M.D. degree without fulfilling any conditions as to residence on passing an examn. instituted for this purpose by this Univ. and held in March and June. Candidates who have not passed previously to their professional examn. an examn. in Arts are required to pass an examn. in Classics and Maths. Natives of India are admissible if they bring evidence of having passed within the preceding year an examn. in Latin.

Degrees, etc., in Theology. The B.D. examn. is open to candidates of 25 yrs. of age who are graduates in Arts (or Letters) of 2 yrs.' standing; if of another Univ. they must have obtained the Dipl. Theol. of Durham. The Board of the Faculty may admit also non-graduates who keep three terms at Durham and pass the Dipl. examn.; also, up to the end of 1922, clergymen in Priests' Orders.

The Lic. in Theol. is open to members of the C. of E. only. Nine terms must be kept at one of the Theol. Colls. in list C above.

The Dipl. in Theol. is obtainable by graduates of a Univ. of the British Empire who keep 3 terms at Durham and pass the Dipl. examn. Residence for a year at an approved Australian Coll. may be accepted in lieu of keeping 3 terms at Durham.

The D.D. is open to a B.D. of Durham who is a Master of Arts of 10 yrs.' standing on submission of a sufficient contribution to learning.

FEES. Matricn., £2. Examns and degrees, £2 to £10.

PUBLICATIONS. *Univ. Calendar* (Oct.), 3s. 6d.; *Durh. Univ. Gazette*, 4s. annually; *Durh. Univ. Journal* (oldest Univ. Mag. in England), once a term, 1s. 6d.

THE YEAR 1920–21

NEW DEVELOPMENTS. Honour Schools of Modern History (Durham Divn.) and Economics (Armstrong); Degree of D.Ch.; Diploma in Arabic; 1st or 2nd Class Hons. in B.A. examn. prescribed as qualification for M.A. degree without examn.

HONORARY DEGREES CONFERRED. *D.D.*—Rev. C. Plummer; H. St. J. Thackeray. *D.C.L.*—Rt. Hon. Viscount Grey of Fallodon; Sir W. Macewen; Sir T. Oliver; Sir H. D. Rolleston. *D.Litt.*—W. Brown; Viscount Burnham; Rev. A. H. Cruickshank; J. L. Garvin; G. P. Gooch, A. W. Pollard; J. Rhoades; T. F. Tout; Sir D. Williams. *D.Hy.*—T. E. Hill; Dr. J. W. Smith. *D.Sc.*—Sir E. H. W. Tennyson-d'Eyncourt; A. Meek; J. T. Milton; Sir A. Keith. *M.A.*—C. H. H. Blair, Dr. C. W. Pearce; Col. W. T. Wright; A. Cox.

OTHER DEGREES, DIPLOMAS, etc. B.D., 5; M.D., 11; M.S., 5; M.B., 9; B.S., 11; M.B., B.S. (under new Regulation), 23; B.Hy., 5; M.A., 51; B.A., 91; D.Sc., 4; M.Sc., 15; B.Sc., 76; M.Litt., 1; D.Mus., 6; B.Mus., 4; B.Com., 6; L.Th., 44; Dip.Th., 6; L.D.S., 4; D.P.H., 7; D.Th. P.T., 13. By vote of Convocation: M.A., 8; M.Sc., 5.

TUTORIAL CLASSES (W.E.A.) 28.

DURHAM DIVISION

President of Council—J. S. G. PEMBERTON, M.A., D.C.L.

Secretary of the Council—C. S. WALLIS, M.A.

Secretary of Examinations—A. ROBINSON, M.A., D.C.L.

Prælector—E. G. PACE, M.A.

Treasurer—F. W. RITSON, M.A.

Librarian—E. V. STOCKS, M.A.

Hon. Director of the Univ. Observatory—Col E. H. GROVE-HILLS, C.M.G., C.B.E., D.Sc., F.R.S. *Observer*—F. SARGENT, F.R.A.S.

PROFESSORS AND LECTURERS, January 1, 1922

Classics

Cruickshank, A. H., M.A. Ox., D.Litt. (Greek and Class. Lit.) Prof.
How, J. H., M.A. Ox. (Latin) Prof.
Lowe, W. D., Litt.D. Dub. Lectr.
Pestle, E. P., M A. Lectr.

Divinity and Eccl. History

Walker, D., M.A., D.D. Ox Prof.

Education

Powell, T. W., M.A. Lectr.

Elocution

Culley, A. D., M.A. Camb. Lectr.

English Lang. and Lit.

Ellershaw, H., M.A. Prof.
Colgrave, B., M.A. Camb. Lectr.

Hebrew and Oriental Langs.

Guillaume, A., M.A. Ox. Prof.

History, Ecclesiastical [Lectr.

Whiting, C. E., M.A., B.D., B.C.L.
Wallis, C. S., M.A. Lectr.

Liturgiology [Lectr.

Moulsdale, S. R. P., M.A., B.D.

Modern Languages

Herdener, C. F., M.A. Lond. Prof.
Lambley, Kathleen, M.A., D. ès L. Rennes Lectr.
Watkins, Gwendolen, M.A. Lectr.
Thevenot, E. A. M., L.ès L. Asst.

Mathematics

Heawood, P. J , M.A. Ox. Prof.
Burchnall, J. L., M.C , M.A. Ox. Lectr.

Military Science

Macfarlane-Grieve, A. A., M.C., M.A. Lectr.

Music

Bridge, J. C., M.A., D.Mus. Prof.

Philosophy

Jevons, F. B., M.A. Ox., D.Litt. Prof.

Psychology and Logic

Robinson, A., M.A., D.C.L. Prof.

Theology, v. also Div.

Pace, E. G., M.A., P.D.
Reader in Theol. and Hebrew.
Coleman, N. D., M.A. Camb.
Lectr. in T. and Hellenistic Greek.
Jones, Donald, B.D.
Lectr. in Christian Evidences.

Tutorial Classes, 1921–1922

Tutors: Rev. E. G. Pace, Secy. to the Joint Committee, and 13 others. Organizing Secy. of N.E. District of W.E.A.: Alderman W. N. Smith.

THE DURHAM COLLEGES

UNIVERSITY. Master—H. Ellershaw, M.A. Censor and Bursar—W. D. Lowe, M.A., D.Litt. Chaplain—E. P. Pestle, M.A.

HATFIELD. Master—F. B. Jevons, M.A., D.Litt. Vice-Master and Chaplain—E. G. Pace, M.A., B.D. Censor—C. F. Herdener, M.A. Bursar—J. L. Burchnall, M.A.

ST. CHAD'S. Principal and Chaplain—S. R. P. Moulsdale, M.A., B.D. Vice-Principal—C. E. Whiting, M.A., B.D., B.C.L. Classical Lectr.—L. A. Body, M.A.

ST. JOHN'S. Principal and Chaplain—C. S. Wallis, M.A. Vice-Principal—P. R. Frost, M.A. Asst. Chaplain and Bursar—H. T. Ganderton, M.A.

BEDE. Principal—D. Jones, B.D. Vice-Principal—A. Oswell, B.A. Lectrs.—T. W. Powell, M.A.; F. Bentley, B.A.; F. E. Dann, M.A., M.Litt.

ST. MARY'S (for women). Principal—Rachel Donaldson, M.A. Censor and Tutor—Gwendolen Watkins, M.A.

NON-COLLEGIATE STUDENTS. Censor—J. H. How, M.A.

HOME STUDENTS (Women). Censor—Kathleen Lambley, M.A., D. ès L.

GENERAL INFORMATION

University College was formed at the opening of the Univ.; Hatfield was opened (as Bishop Hatfield's Hall) in 1846, St. Chad's in 1904, St. John's in 1909. Bede College, founded in 1839, was brought into connexion with the Univ. in 1919 as a licensed Hall of Residence for Undergraduates. St. Mary's College, opened in 1899, is the residence for women.

LIBRARY, 38,000 vols., including rare theological and patristic books. MUSEUM with a nearly complete collection of British birds. OBSERVATORY with almucantar, etc.

FELLOWSHIPS, 3 Tutorial, £200 to £300, and 1 ordinary, £200, open only to candidates who have kept terms and taken B.A. in Durham Division.

FEES. Including admission, tuition, examns., board and lodging, subscriptions and gratuities, at Univ. College, £120 p.a.; Hatfield, £100; St. Chad's, £100; St. John's, £103 : 10s.; St. Mary's, £93. Non-Coll. students pay £24 p.a., Univ. fees including club subscriptions.

THE YEAR 1920–21. *Summer Courses* in English, Geog., Maths., Hist., *Lecture Conference* for Works Directors, Managers, Foremen, etc. *Number of Students* matriculated for session 1921–22, 91, including 17 women.

COLLEGE OF MEDICINE, NEWCASTLE-UPON-TYNE

Chairman of the Court of Governors—W. J. SANDERSON, J.P.

President of the College and Vice-Chairman of the Court of Governors—DAVID DRUMMOND, C.B.E., M.A., M.D., D.C.L.

Registrar—Prof. R. HOWDEN, M.A., M.B., D.Sc.

Treasurer—C. A. COCHRANE, M.A., D.C.L., J.P.

PROFESSORS, LECTURERS, ETC., January 1, 1922

Anatomy

Howden, R., M.B., C.M. Edin., M.A., M.B., D.Sc. Prof.

Demrs :

Smithies, C. M., M.B., Ch.B.
Gilmour, J., M.B., B.S., F.R.C.S.
Hewitson, W. A., M.B., B.S.
Evers, H., M.B., B.S., F.R.C.S.

Lectrs. in Appl. A. :

Clay, J., C.B.E., M.B., B.S., F.R.C.S.
Lickley, J. D., M.D. Glas.

Bacteriology, v. Path. Comp.

Biology

Potter, M. C., M.A. Camb. and Durh., Sc.D. Camb., F.L.S. (Botany) Prof.*
Meek, A., D.Sc., F.Z.S. (Zool.) Prof.*

Chemistry

Haworth, W. N., D.Sc. Manc., Ph.D. Gött., M.Sc. Prof.*
Briscoe, H. V. A., D.Sc. Lond., A.R.C.Sc., D.I.C. Prof.

Children, Diseases of

Ogden, O. W., M.D. Lectr.

Dermatology, Clinical [Lectr.

Bolam, R. A., O.B.E., M.D.
Thompson, S., M.B. Asst.

Hygiene, v. Pub. Health

Laryngology & Otology, Clinical

Whillis, S. S., M.D., B.S. Lectr.
Wilson, W. F., M.B., B.S. Asst.

Materia Medica and Pharmacology

Hume, W. E., C.M.G., M.A., M.D., B.C. Camb., F.R.C.P. Prof.

Medical Jurisprudence

Hardcastle, W., M.B. Lond., B.Hy., D.P.H. Durh. Lectr.

Medicine, Principles and Practice of

Drummond, D., C.B.E., M.A., M.D. Dub. and Durh., D.C.L. Prof.
Oliver, Sir T., M.D. Glas. and Durh., LL.D. Glas., D.Sc. Sheff., M.A., F.R.C.P. Prof.

Medicine, Clinical

Prof. Beattie (v. Therap.) Lectr.
Prof. Hume (v. Mat. Med.) Lectr.
Drummond, H., M.D., B.S. Lectr.
Parkin, A., M.D., F.R.C.S. Lectr.
Hall, G., C.M.G., M.D., B.Sc. Lectr.
Patterson, D. W., O.B.E., M.B., B.S. Lectr.
Hunter, T. C., M.D., B.S. Lectr.
Nattrass, F. J., M.D., B.S. Lectr.

* Also in Armstrong Coll.

Midwifery and Gynæcology
Lyle, R. P. R., M.A., M.D. Dub. and Durh., B.Ch., B.A.O. Dub. Prof.
Murray, E. F., M.D. St. And., F.R.C.S. Lectr.

Ophthalmology and Clin. Ophth.
Wardale, J. D., M.A., M.B., B.S. Prof.
Ar'le, J. S., M.B. Asst.

Pathology and Clin. Path.
McDonald, S., M.D., F.R.C.P. Edin., M.A. Prof.
Shaw, A. F. B., M.D. Dub., D.P.H. Lectr.
Crawford, G. J., M.B., B.Ch., D.P.H. Manc., B.Sc. Belf. Lectr.

Pathology, Comp., and Bacteriology
Hutchens, H. J., D.P.H. Ox., M.A. Heath Prof.
Clayton, F. H. A., M.D. Lectr.
Buckell, M. A. C., M.B. Lond., D.P.H. Lectr.
Warren, S. H., M.R.C.S., L.R.C.P., D.P.H. Lectr.
Wallace, J. M., M.A. Camb., M.R.C.S., L.R.C.P. Lectr.
Whitehead, H. R., B.Sc. Leeds Chemist.

Pathology, Medical
Prof. Hume (v. Mat. Med.) Demr.

Pathology, Surgical [Demr.
Drummond, H. (v. Surg. Clin.)

Physics
Stroud, H., M.A. Camb, and Durh., D.Sc. Lond. and Durh., F.Ph.S.L. Prof.*

Physiology [Prof.
Burns, David, M.A., D.Sc. Glas.
Atkinson, Mildred, B.Sc. Lectr.
Clark, G. A., M.B. Demr.

Psychological Medicine
Middlemass, J., M.A., M.D., B.Sc. Edin. Lectr.

Public Health
Kerr, H., O.B.E., M.D. Edin., D.P.H. Prof.

Surgery
Angus, H. B., M.B., M.S., F.R.C.S. (Lectr. in Clin. S.) Prof.
Turner, G. G., M.B., M.S., F.R.C.S. (and in Clin. S.) Lectr.

Clinical Lectrs.:
Martin, A. M., M.B., B.S.
Leech, J. W., M.D., M.S., F.R.C.S. Edin.
Clay, J. (v. Anat.)
Willan, R. J., M.V.O., M.B., M.S., F.R.C.S.
Drummond, Hamilton, M.B., F.R.C.S. Edin.
Pybus, F. C., M.B., M.S., F.R.C.S.
Johnston, H. M., B.A., M.B. Belf., F.R.C.S.
Barclay, J. H., M.D., M.S., F.R.C.S.
Hodgson, N., M.B., M.S.
Hindmarsh, T. A., M.B., M.S., F.R.C.S.

Therapeutics
Beattie, T., M.D., F.R.C.P. Prof.

Electrotherapy
Arnison, W. D., M.D., B.S. Lectr.

Zoology, v. Biol.

GENERAL INFORMATION

Instruction in Biology, Chemistry, and Physics is given at Armstrong College; in Clinical Medicine and Surgery, etc., in the Infirmary and other hospitals.

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THE YEAR 1920–21

BENEFACTIONS. Public subscriptions, £25,000

NEW BUILDING. Site acquired in conjunction with Armstrong Coll.

NUMBER OF STUDENTS 449, including 14 part-time, 24 graduate and research, 75 women (In 1918–19, '19–20. 289, 403.) New entries for 1921–1922, 55.

NUMBER OF DEGREES OBTAINED, 87.

DEATH AND RESIGNATIONS Prof. J. A. Menzies (Physiol.), d.; Prof R. Morison (surgery), r.; Prof. E. Hill (Pub. Health), r.; Dr. Helen G. Clark, r.

ARMSTRONG COLLEGE, NEWCASTLE-UPON-TYNE

President of the College—Rt. Hon. VISCOUNT GREY OF FALLODON, K.G., P.C., D.C.L.

Chairman of Council—Sir HUGH BELL, D.C.L., LL.D.

Vice-Chairman of Council—PERCY CORDER.

Principal—Sir THEODORE MORISON, K.C S I., K.C I.E., C.B.E., M.A., D.C.L.

Registrar—J. Y. T. GREIG, M.A.

Librarian—F. BRADSHAW, M.A., D.Sc.

Warden of Women's Hostel—CLEMENTINE M. HAWTHORN, B.Sc.

PROFESSORS, LECTURERS, ETC., January 1, 1922

Accounting
Bell, Albert, A.C A. Lectr.

Agriculture and Rural Economy, v. also Forestry
Gilchrist, D. A., B.Sc. Edin., M Sc. Prof.
Wheldon, R. W., B.Sc. Lectr.
Pawson, H. C. Lectr.
Worters, C. C (Land Surv., etc.) Lectr.

Agricultural Botany
Lynn, Doris, B.Sc. Lond. Lectr.

Agricultural Chemistry
Collins, S. H., M.Sc. Adviser & Lectr.
Hall, A. A., M.Sc. Liv. and Manc., Ph.D. Jena Lectr.

Agricultural Zoology
Gray, R. A. H., M.A., B.Sc. Aberd , M.Sc. Adviser & Lectr.
Buckle, P., M.Sc. Manc. Lectr.

Art
Hatton, R. G., A.R.C.A. Lond., M.A. Prof. and Dir. of School.
Bullock, R. Master of Painting and Asst. Dir.
Bertram, R. J. S. (Design)
Reid, J. M. W , A R.C.A. (Sculpture).
Weightman, F. N., L.R I.B.A. (Archit).
Heslop, A. (Engraving).
4 Craft Teachers.

Botany, v. also Agric.
Potter, M. C., M.A., Sc.D. Camb., F.L.S. Prof.*
Blackburn, Miss K. B., M.Sc. Lond. Lectr.
Bartlett, A. W., M.A. Camb., B.Sc. Lond. Lectr.
Griffiths, B. M., M.Sc. Birm. Lectr.
Lomas, Winifred M , B.Sc. Lond. Lectr.

Chemistry, v. also Agr.
Haworth, W. N., D.Sc. Manc., Ph.D. Gött., M.Sc Prof.*
Briscoe, H. V. A., D.Sc. Lond., A.R.C.Sc., D.I.C. (Inorg. and Physical C.) Prof.*
Smythe, J. A., D.Sc., Ph.D. Gött. Reader.

Also in Coll. of Med.

Madgin, W. M., M.Sc. Lectr.
Robinson, P. L., M.Sc. Lectr.
Mallen, Miss C. E. Lectr.
Hanby, T., B Sc Leeds Lectr.
Leitch, Miss G. C., M A, B Sc, Ph.D. St. And Lectr.
Allpress, C. F., B Sc Birm Lectr.
Irvine, F. M, B Sc. Lectr.

Classics and Ancient History
Duff, J. Wight, M A. Aberd, Ox. and Durh, D Litt. Ox. and Durh., LL D Aberd. Prof
Macdonald, J., M A. Aberd and Camb. Lectr.
Shipley, Miss C. M. Lectr.
Waddell, W. G, M A. Glas and Lond. Lectr.

Economics and Econ. Geog., v. also Accounting, Law
Hallsworth, H. M., O.B.E., M.A. Manc, M.Com D Dale Prof
Stevenson, Miss E. F., M.A. Lectr.
Jebb, Miss G. E. M. Lectr
Opie, R., B.Com. Lectr.
Beckingham, E L, B.Sc. Lectr. in Shipping.

Education
Thomson, G. H, Ph.D. Stras., D.Sc. Prof.
Melville, Ellen L, M.A. Manc, Leeds, and Durh. Lectr.
Brown, V., O.B E, B Sc. Lectr.
Bailes, Stella, B.Sc. Lectr.

Engin., Mechanical, Marine and Civil, v. also Met., Nav. Arch.
Hawkes, C. J., M.Sc., A.M.I.C E., M.I.N.A., M.I.M.E., R.N. (retd.) Prof.
Morrow, J., M.Sc. Manc. and Durh., D.Eng. Liv. Reader.
Hardy, G. F., M.Sc. Lectr.
Holmes, R. W., B.Sc., A.M I.C.E. Lectr.
Hall, J., A.M.I.E.E. Lectr.
Dixon, J. T. Lectr.
Davies, S. J, B.Sc. Lond., A.M.I.M.E. Lectr.
Martin, H. E. L., B.Sc Bris. and Lond, A M.I.C E. Lectr.

Engineering, Electrical
Thornton, W. M, O.B.E., D.Sc. Manc, Liv., and Durh., D.Eng Liv., M.I.E E. Prof.
Downie, F. H, O.B E., B.Sc. Glas, M.I.E E. Lectr.
Harle, J. A., M Sc. Lectr.

English
Renwick, W. L., M A. Glas., B.Litt. Ox. J. Cowen Prof.
Wragge, Sybil, B A. Dub. Lectr.
Taylor, A. B., B.A. Ox. Lectr.

Forestry
..... Lectr.

Geography, v. Econ.

Geology
Heckling, G, D Sc. Manc., M.Sc. Prof.
Woolacott, D., D.Sc. Lectr.
Mockler, G. S., B Sc. Liv. Lectr.
Tomkeieff, Serge Lectr.

Crystallography and Mineralogy
Fletcher, M., M.A. Camb. and Durh, M.Sc., F.G.S. Lectr.

History, Modern
Vickers, K. H., M A. Ox. Prof.
Bradshaw, F., M.A. Ox. and Durh., D.Sc. Lond. Lectr.
Thompson, A. H., M.A. Camb. Lectr.
Tesh, Miss E., M.A. Manc. Lectr.
Deansely, Miss M., M.A. Manc. Lectr.

History, Ancient, v. Classics

Law, Commercial
Fenwick, C. B., M.A. Ox., Bar.-at-Law Lectr.

Mathematics
Jessop, C. M., M.A. Camb. Prof.

Caunt, G. W., M.A. Camb. and Durh., M.Sc. Reader.
Colborne, D. C., M.A. Camb. Lectr.

Mathematics, Applied, and Math. Physics

Havelock, T. H., M A. Camb, D.Sc., F.R.S. Prof.
Goldsbrough, G. R., D.Sc. Lectr.
Miles, W. A., B.A. Ox. Lectr

Metallurgy, Mining and Surveying

Louis, H., M.A., D.Sc., A.R.S.M., M.I.C.E., F.I.C., F.G.S. Prof. W. Cochrane Lectr.
Dean, H., M.Sc., A.R.S.M. Lectr.
Contodimos, B.D., B.Sc. Lectr.

Military Science [Lectr.
Grieve, Capt. A A. M , M.C., M.A.

Modern Languages

Latham, A. G., M.A. Lond and Durh. Prof.
MacGregor, Lilias, M.A. Edin., D. de l'U. Gren. (Fr. and Ger.) Lectr.
Anger, H. L., Ph.D. Col. (Fr) Lectr.
Vallette, Jean, L. ès L. Paris (Fr) Lectr.
Coundouroff, H. G., B Sc. (Russian) Lectr.
Feather, G. (Spanish) Lectr.

Music

Whittaker, W. G., B.Mus., F.R.C.O. Lectr.

Naval Architecture

Welch, J. J., D.Sc., M.I.C.E., M.I.N.A. Prof.
Alexander, F. H., M.Sc., M.I.N.A. Reader.

Philosophy, Mental and Moral

Hoernlé, R. F. A., M.A , B.Sc. Ox. Prof.
Alderson, Mrs., M.A. Aberd. Lectr.

Physics

Stroud, H , M.A., D.Sc. Camb. and Durh., M.I.E E. Prof.*
Todd, G. W., M A. Camb., D.Sc. Birm , M Sc. Prof.
Bullerwell, J. W., M Sc. Lectr.
Lunnon, R. G., M.A , B.Sc. Lond. Lectr.
Tunnell, Mrs. S. E., M Sc. Lectr.
Laverick, Miss L. W., M.Sc. Lectr.
Faid, W., B.Sc. Lectr.
Oyston, H., M.Sc. Lectr.

Religious Knowledge

Fletcher, Rev. M., M.A. Camb. and Durh., M Sc. Lectr.
Fyffe, Rev. D., M.A. Edin. Lectr.

Zoology, v. also Agric. [Prof.*
Meek, A., B.Sc. St. And., D.Sc.
Peacock, A. D., M.Sc. Lectr.
Jorgensen, Olga, M.Sc. Lectr.
Harrison, J. W. H., D.Sc. Lectr.
Flattely, F. W. Lectr.
Meek, Edith M., M Sc Bio-Chemist.

Tutorial Classes, 1921–22

Tutors : Prof. Hallsworth (Econ.) ; J. Macdonald (Lit.) ; W. G. Whittaker (Music) ; The Regr. (Eng. Lit.) ; F. W. Wadeley, M.A., D.Mus. (Music). Hon. Sec. to Jt. Committee : Miss E. F. Stevenson, M.A.

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* Also in Coll. of Med.

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PUBLICATIONS. *Calendar* (Sept.), 3s. 6d.; *Annual Report* (Oct.).

THE YEAR 1920–21

BENEFACTIONS. Numerous donations (in answer to Appeal issued in Jan. 1921), including £6000 each from Messrs. Smith's Dock Co., Consett Iron Co., and Stella Coal Co.; £5000 each from Ashington Colliery, Priestman Colliery, Lord Joicey, Dr. J. B. Simpson. Sir W. G. Armstrong, Whitworth & Co., offered annual subscription of £1000. Total to June 1, £161,000. Govt. annual grant increased by £7000. Special non-recurring grant, £9000.

NEW BUILDING. Site acquired in conjunction with Coll. of Med.

NEW DEPARTMENTS, etc. The Dept. of Chemistry was reorganized, a second chair (Inorg. and Physical C.) being established.

NUMBER OF STUDENTS. Research and Post-graduate, 18; other full-time students in Arts, 126 (including 72 women), Pure Science, 214 (women 90), Engin., 148, other Faculties, 264; Part-time, 448 (women 115). Grand Total, 1225.

RETIREMENTS AND RESIGNATIONS. Prof. Bedson (Chemistry); Prof. A. Mawer (English), on appointment to Chair in Liverpool; F. C. Garrett (Chemistry); F. C. Green (Mod. Langs.), on appointment to post in Canada.

UNIVERSITY OF LEEDS

VISITOR—H.M. THE KING.

CHANCELLOR—His Grace the DUKE OF DEVONSHIRE, K.G., G.C.M.G., G.C.V.O., LL.D.

PRO-CHANCELLOR—E. G. ARNOLD.

VICE-CHANCELLOR—SIR MICHAEL E. SADLER, K.C.S.I., C.B., LL.D., Litt.D.

PRO-VICE-CHANCELLOR—Prof. A. SMITHELLS, C.M.G., B.Sc., F.R.S.

TREASURER—Hon. R. E. BECKETT.

ACCOUNTANT—G. R. BRENCH.

CLERK TO THE SENATE—F. T. BAINES, B.A.

REGISTRAR—A. E. WHEELER.

PROFESSORS, LECTURERS, ETC., January 1, 1922

[(C.) = Clinical Lectr.; (H.) = Hon. Demr.; (R.) = Research Asst.]

Agriculture, v. also Vet. Hyg.

Seton, R. S., B.Sc. Edin. Prof.
Archibald, C. F. Lectr.
Ruston, A. G., B.A., B.Sc. Lond., D.Sc. (Farm Econ.) Lectr.
Galt, A. S. (Hortic.) Lectr. & Organr.
Parton, F. W. (Poultry) Lectr. & Demr.
M'Millan, J. A., B.Sc. Edin. Asst. Lectr. & Demr.
Robertson, G. C. A., M.A., B.Sc. Aberd. Asst. Lectr. & Demr.
Dist. Lectrs.:
Thompson, H., B.Sc. Manc., B.Sc.
Johnstone-Wallace, D. B., B.Sc. Durh., N.D.D.
Strachan, J., M.A., B.Sc. Aberd., N.D.A.
Lynn, J. C., B.Sc.
9 Instrs. and Asst. Instrs. in Dairying, Hortic. and Farriery

Agric. Botany and Forestry

Millard, W. A., B.Sc. Bris. Lectr.
Bennett, F. T., B.Sc. Lond. Asst. Lectr.
Burr, S. Demr.
Eversheld, Miss A. F. C. H. Demr.

Agric. Chemistry

..... Prof.
Godden, W., B.Sc. Lond., A.R.C.S., F.I.C. Lectr.
Comber, N. M., B.Sc. Lond., A.R.C.S., A.I.C. Asst. Lectr.
Hanley, J. A., Ph.D. Mun., A.R.C.S. Asst. Lectr.

Agric. Zoology

Taylor, T. H., M.A. R.U.I. Lectr.
Thompson, H. W., M.Sc. Asst. Lectr.

Anatomy

Jamieson, J. Kay, M.B., C.M. Edin. (Dean of Med. Fac.) Prof.
Law, F. R., M.B. Lond. Demr.
Morton, W. C., C.B.E., M.A., M.D. Edin. (H.).

Richardson, A., M.B. Lond., F.R.C.S. (H.).

Bio-Chemistry, v. Physiol.

Botany

Priestley, J. H., B.Sc. Lond., F.L.S. (Dean of Science Fac.) Prof.
Wager, H., D.Sc., F.R.S. (Mycology) Hon. Lectr.
Walker, N. (Morphol.) Lectr.
Pearsall, W. H., M.Sc. Manc. ,,
Ewing, J., M.A., D.Sc. Aberd. Asst. Lectr.
Scott, Lorna I., B.S. Lond. Demr.
Woffenden, Lettice, M.Sc. (R)
Pearsall, Mrs. W. H., M.Sc. Manc. Demr.
Priestley, Mrs. (H)
Grist, Mrs , B.Sc. Lond. (H).

Chemistry, v. also Physiol. and Tech.

Smithells, A., C.M.G., B.Sc. Lond. and Manc., F.R.S. Prof.
Lowson, W., B.Sc. Lond., B.Sc., F.I.C. (Analyt. C.) Lectr.
Tatham, G. T. P., B.Sc. Lond. Asst. Lectr. & Demr.
Gregory, J. C., B.Sc., F.I.C. Asst. Lectr. & Demr.
Leslie, May S., D.Sc. ,, ,,
Whitaker, H., M.Sc. (R.).
Wagstaff, Mrs., M.A. Aberd. Demr.
Clark, C. H. D., B.Sc. Lond. Demr.
Hume, J., B.Sc., A.I.C. Demr.

Chemistry, Physical

Dawson, H. M., B.Sc. Lond., Ph.D. Gies., D.Sc. Prof.

Chemistry, Organic

Cohen, J. B., B.Sc. Manc., Ph.D. Mun., F.R.S. Prof.
Dutt, P. K., M.A. Calc., M.Sc., A.I.C. Asst. Lectr. & Demr.
Shore, Agnes Demr.
Ellingworth, S., M.Sc. (R.).

Classics

Roberts, W. R., M.A., Litt.D. Camb., LL.D. St And., Litt D. Wales Prof.
Connal, B. M., M.A. Ox. Prof.
White, H. G. E., M.A. Ox. (Class. Archæol) Lectr.
Bibby, F. E., M.A. Camb., M.A. Asst. Lectr.

Dental Anatomy and Physiology

Mawer, J. W., L.D.S. Lectr. & (C.)

Dental Mechanics

Rippon, C., L.D.S. Lectr.

Dental Metallurgy

Lowson, W., B.Sc. Lond., B.Sc., F.I.C Lectr.

Dental Surgery

Phillips, G. A., L.D.S. Lectr. & (C.).

Dental Surgery, Operative

Hey, S. D., L.D.S. Lectr. & (C.).
The Lectrs. in Dent. Anat. and Physiology, Dent. Mech., and Dent. Metallurgy Lectrs. and (C.).
Leigh, P. T., L.D.S. (C.).
Marston, W., L D.S. (C.).
Saville, D., L.D.S. (C.)
Thorburn, W. S., L.D.S. (C.).
Cocker, J. P., L.D.S. (Demr Dent Histology) (C)
Grundy, G. C., L.R.C.P., M R.C.S , L.D.S. (C.)
Iles, G. D., L.D.S. (C.).
Wilkinson, G. L , L.D.S. (C.).

Dentistry, Clinical

Webb, G. H., L.D.S. Demr.
Watt, C. V., L.D.S. Prosth. Demr.

Economics

Jones, J. H., M.A. Wales Prof.
Shimmin, A. N., M.A. Manc. Lectr.
Dower, R. S., M.A. Camb. (Social Organization) Lectr.
..... (Ec. Hist) Lectr.
..... (Statistics) Lectr.
..... (Acctcy.) Lectr.

..... Asst. Lectr.
..... Tutor.

Education
Strong, J., C.B.E., M.A. Lond., LL.D. St. And. Prof.
Welpton, W. P., B.Sc. Lond. Lectr.
Monahan, A. J., M.A. Lectr.
Wynn-Jones, Ll., Ph.D. (Expl. E) Lectr.
Curtis, S. J, B A. Lond. Asst. Mr. of Method.
Blackburn, Eliz. M., M.A. Asst. Lectr.
Holgate, Miss J., B A. Asst Lectr.
Goulding, Miss S. M, B A. Ox. Asst Lectr.
..... Art Teacher
Hoggett, T. J., Mus.B. Durh. Music, etc.
Wall, Miss E. M. Needlework.

Engineering, Civil and Mech.
Goodman, J., M.I.C.E., M.I.M.E. Prof.
Gilchrist, J., B.Sc. Edin., A.M.I.C.E. Lectr.
Naylor, T. M., B.Sc. Manc, A.M.I.C.E., A.M.I.M.E. Asst. Lectr.
Mitchell, J, B Sc. Lond, A.M.I.M.E. Asst. Lectr.
Colles, C., B Sc. Manc. Demr.
Somerscales, A. Demr.
Kelly, H. C., B.Sc.Tech. Manc. Demr.
Richardson, S. G. Demr.

Engineering, Elec.
French, W. E., A.M.I.C.E. Lectr.
Craig, D., B.Sc. Asst. Lectr. & Demr.

English Lang. and Lit.
Gordon, G., M.A. Ox. Prof.
Tolkien, J. R. R., M.A. Ox. Reader in E. Lang.
Davis, H. J., M.A. Ox. Asst Lectr.
Cowling, G. H., M.A. Asst. Lectr.
..... Asst. Lectr.

French (and Romance Philol.)
Barbier, P., M.A. Lond. Prof.
Gunnell, Doris, M.A., D. de l'U. Paris Lectr.
Soltau, R. H., M.A. Ox. Asst. Lectr.
Murray, Jessie, M A. St. And. Asst. Lectr.

Geography
Fawcett, C. B., B.Litt. Ox., M.Sc. Lond. Reader.
Heslop, Mary K, M.Sc. Durh. Asst. Lectr.

Geology
Kendall, P. F., M.Sc., F.G.S. Prof.
Gilligan, A, D Sc, F.G.S. (Petrology) Reader.
Versey, H. C., M.Sc. Asst. Lectr.

German Lang. and Lit.
..... Prof.
Gough, C. E., Ph.D. Basle Lectr.
Caldwell, Mary C., B.A. Asst Lectr.
Scott, Miss Alice, M A. Lond. Asst. Lectr.

Hebrew
Lightley, J. W, M.A. Recog. Teacher at Headingley Coll.
Blomfield, W. E., B.A., Ph.D., at Rawdon Coll.

Histology, v. Physiology

History
Grant, A. J., M.A. Camb. Prof.
Sellers, Maud, D.Litt. Reader.
Dainton, A. H, M.A. Ox. Asst. Lectr.

History, Ancient [Reader.
Woodward, A. M., M.A. Ox.

History, Eccles. (Recognized Teachers)
Moulton, W. J., M.A. at Headingley Coll.
Underwood, A. C., M.A., B.Litt., B.D. at Rawdon Coll.

Law [Prof.
Hughes, J. D. I., M.A., B.C.L. Ox.
Haggen, G. L., M.A. Ox., B.C.L.
Burrill, H. R., LL.B. Lectr.

Mathematics
Milne, W. P., M.A. Camb., D.Sc. Aberd., M.A. Prof.
Brodetsky, S., M.A. Camb., Ph.D. Leip. (Applied M.) Reader.
Berwick, W. E. H., M.A. Camb. Lectr.
Gilham, C. W., M.A. Camb., B Sc. Lond. Asst. Lectr.
Smeal, G., B.Sc. Melb. (Graphics, etc.) Asst. Lectr.
Steward, G. C., B A. Camb , M.Sc. Lond. Asst. Lectr. in Appl. M.

Medicine and Surgery, v. *infra*

Metallurgy, v. Tech.

Mining [Prof.
Poole, G., B.Sc., M.I.M.E., F.G.S.
Brown, T., M.Sc., A.M.I.C.E. Lectr. in Mine Surveying.
..... Lectr. in Met. M. and Ore Dressing.
Bentham, J. Colliery Electrician.

Philosophy
Gillespie, C. M., M.A. Ox. Prof.
Hallett, H. F., M.A. Edin. Asst. Lectr.

Physics
Whiddington, R., M.A., D.Sc. Camb. Cavendish Prof.
Allen, A. O., M.A., B.Sc. Lond., A.R.C.S. (Optics) Lectr.
Wagstaff, J. E. P., M.A., B.Sc. Camb. Lectr.
Menzies, A. C., B.A. Camb. Asst. Lectr. & Demr.
Ewles, J., M.A. Camb. Asst. Lectr. & Demr.
Watson, Clara, B.Sc. Demr.
4 Asst. Demrs.

Physiology and Histology
Raper, H. S., C.B.E., D.Sc., M.B., Ch.B. (P. and Bio-Chem.) Prof.
Winfield, G., M.A. Camb. Lectr.
M'Dowall, R. J. S, M.B. Edin. (Expl. P. and Expl. Pharmacol.) Lectr.
Botwood, C.A., M.B. Demr. in P.
Kay, H. D., O.B E., B.Sc Manc. (Bio-Chem) Demr.
Mordue, Miss E., B.Sc. Durh. (Histol.) Demr.
Flint, E R., M.B., Ch.B., F.R C S. (H).

Russian Lang. and Lit.
..... Prof.
Kolni-Balozky, J. Lectr.

Russian History and Music
Frere, W. H., D.D. (H.).

Spanish Lang. and Lit.
..... Prof.
Penzol, P. Lectr.

Technology, v. *infra*

Veterinary Hygiene
Bowes, H. G., F.R.C.V.S. Lectr.

Zoology, v. also Agric. [Prof.
Garstang, W., M.A., D.Sc. Ox.
King, Mrs. W. O. R., B.Sc. Asst. Lectr. & Demr.
Percival, E., B.Sc. Asst. Lectr. & Demr.
Simpson, Miss M. Asst.
Garstang, Sylvia, B.A. Ox. (R.).

Medicine (for subjects of first 2 yrs.—Anat., etc., v. *supra*)

Bacteriology, v. Path.

Dental Science, v. *supra*

Forensic Med. [Prof.
Eurich, F. W., M.D., C.M. Edin.
..... (H.).

Gynæcology, v. also Obst. [Lectr.
Oldfield, C., M.D. Lond., F.R.C.S.
..... Demr. (H.).

Infectious Diseases
Pearson, A. E., M.R.C.S., L.R.C.P.E. (C.).

Materia Med., v. Therap.

Medicine and Clin. Med.
Griffith, T. W., C.M.G., M.D., C.M. Aberd., F.R.C.P. (C.) Prof.
Watson, G. W., M.D. Lond., F.R.C.P. (C.).
Vining, C. W., M.D. Lond., D.P.H. (C.).
Burrow, J. Le F. C., M.B. Edin. Tutor.

Mental Diseases
Bolton, J. S., M.D., D.Sc. Lond., F.R.C.P. Prof.

Obstetrics
Croft, E. O., M.D. Durh. Prof.
Gough, W., B.Sc., M.B., B.S. Lond., F.R.C.S. (H.) (C.).
Roberts, C. S. Lane, M.S. Lond., F.R.C.S. Tutor.

Obstetrics and Gynæcology [(C.).
Young, W. M., M.A., M.D. Glas.
Adamson, Mrs. R., M.D., B.S. Lond. (C.).
..... (H.).

Ophthalmology
Lee, H., B.A., M.B. Camb., F.R.C.S. (C.) Lectr.

Otology
Bain, E. W., M.B., B.S. Lond., F.R.C.S. (C.) Lectr
Munby, W. M., Ch.M. Edin., F.R.C.S. (C.).

Pathology & Bacteriology [Prof
Stewart, M. J., M.B., Ch.B. Glas.
McLeod, J. W., O.B.E., M.B., Ch.B. Glas. Lectr. in B.
MacAdam, W., M.A., B.Sc., M.D., Ch.B. Glas., D.P.H. Camb. Lectr. in P.
Sutherland, P. L., M.B. Glas., D.Sc. Lectr. in P. of Industrial Diseases.
Wyon, G. A., B.Sc. Lond., M.D. Edin. Demr. in B. and Pub. Health.
Gordon, J., M.B., Ch.B. Demr. in P.
Phelon, H. V., M.B. ,,
Gleave, H. H., M.B., Ch.B. ,,
Cattley, R., M.B., C.M. Edin., B.Sc., D.P.H. Camb. Hon. Fellow P.
Veale, R. A., B.A. Ox., M.D., B.S. Lond. (H.) in Med. P. (C.).
Coupland, J. A., M.B., B.S. Lond., F.R.C.S. (C.) (H.) in Surg. P.
..... (H.) in Clin. P.
Stewart, Mrs, M.B. Lond. (H.) in P.
Gruner, O. C., M.D. Lond. (H.) in P.
..... (R.).

Pharmacology, v. Physiol.

Pharmacy, v. Therap.

Public Health, v. also Path.
Jervis, J. J., M.D. Edin., D.P.H. Lond. Prof. of P.H. Admn.
..... Demr. (H.).

Surgery and Clin. Surg.
Moynihan, Sir Berkeley G. A., K.C.M.G., C.B., M.S. Lond., F.R.C.S. Prof. (C.).
Coupland, J. A., M.B., B.S. Lond., F.R.C.S. (H.).
Daw, S. W., M.B., B.S. Lond., F.R.C.S. (C.).
Flint, E. R., M.B., F.R.C.S. Tutor.
Dobson, J. F., M.S. Lond., F.R.C.S. (C.).
Seaton, D., M.B., Ch.B. Manc. (Anæsth.) Lectr.
Thompson, W., F.R.C.S. (C.).
Braithwaite, L. R., M.B. Manc., F.R.C.S. (C.).

Surgery, Operative
Collinson, H., C.B., C.M.G., M.B., M.S. Lond., F.R.C.S. Lectr.

Therapeutics, Pharm., and Mat. Med.
Maxwell Telling, W. H., M.D. Lond., F.R.C.P. ((C.) in Clin. Med.) Lectr.
Gough, J. H. (P. and M.M.) Demr.

Vaccination
Greaves, F. W. M., M.B. Manc., D.P.H. Instr.

Venereal Diseases
Bibby, J. P., M.B. (C.).

Technology, v. also Agr., Engin., Mining

Coal, Gas, and Fuel Industries with Metallurgy
Cobb, J. W., C.B.E., B.Sc. Lond., B.Sc., F.I.C. (Dean of Fac.) Livesey Prof.
Hodsman, H. J., M.B.E., M.Sc., F.I.C. (Gas Chem.) Lectr.
Houldsworth, H. S., M.Sc. (Refractory Materials) (R.) & Asst. Lectr.
Summers, P. F., A.R.S.M. (Metall.) Asst. Lectr.

Research Chemists:
Wood, J. W., M.Sc. Tech. Manc.
Parker, A., D.Sc.
Kerr, H.
Townend, F. S., B.Sc. Lond.
Howarth, G. B., B.Sc.
Williams, E. C., M.Sc. (Benzol Research)

Colour Chemistry and Dyeing
Perkin, A. G., F.R.S., F.I.C. Prof.
Forster, R. B., A.R.C.S.I., Ph.D., D.Sc., F.I.C. Lectr. & Research Chemist.
King, P. E. (Dyeing) Lectr. & (R.).
Sewell, W. G., B.Sc. Leeds (Colour Chem.) Asst. Lectr. & Demr.
Cross, E. J., B.Sc. Demr.
Davis, C., B.Sc. Demr.

Leather Industries
McCandlish, D., M.Sc. (Applied Chem.) Prof.
Atkin, W. R., M.Sc. Asst. Lectr. & Demr.
Thompson, F. C., M.Sc. Asst. Lectr. & Demr.
Hey, A. M., B.Sc. Leeds Demr.
Procter, H. R., D.Sc., F.I.C. Hon. Dir., Internat. Research Lab.
Thompson, F. C., M.Sc. (R.).

Textile Industries
Barker, A. F., M.Sc. Prof.
Priestman, H. Lectr.
Hollis, T. Lectr.
Yewdall, A. Lectr.
Law, W. Lectr.
Pickles, F. Lectr.
Farley, W. A. Asst. Lectr.
Fisher, E. A., M.A., B.Sc. Camb., A.I.C. (R.).

Univ. Extension and Tutorial Classes
Staff Tutors: Dainton, A. H., M.A. Ox.; Gibson, G. W., M.A.; Shimmin, A. N., M.A. Manc.; Stewart, D., M.A. N.U.I.; Taylor, J. R., M.A. Edin.; Walker, N.

AFFILIATED COLLEGES

College of the Resurrection, Mirfield (Warden—B. Horner, M.A.) and Rawdon College (Principal—W. E. Blomfield, B.A., B.D.). Students are exempt from attendance at the Univ. in the first of the 3 yrs. of study for the B.A. degree.

Technical College, Huddersfield (Prin.—J. F. Hudson, M.A., B.Sc.). Similar exemption for B.A., B.Sc. (including Engin.), and M.B. and Ch.B.

Diocesan Training College, York. Similar exemption for the B.A. and B.Sc.

GENERAL INFORMATION

The Leeds School of Medicine, founded 1831, and Yorkshire College, established as a College of Science in 1874, were united in 1884. The College formed part of the Victoria Univ. from 1887 to 1904, when a Univ. was established by Royal Charter in the city of Leeds.

LIBRARY, about 88,000 vols. MUSEUMS: Anat., Colour Chem. and Dyeing, Materia Med., Path., Textile, Zool. LABORATORIES: Agricultural Chemistry, Botany, Chemistry, Colour Chem. and Dyeing, Engin. (Elec., Civ., Mech.), Geol., Leather Industries (including Procter Internat. Research), Metallurgy and Fuel, Mining, Path. and Bacteriology, Physics, Physiol., Textile (116 looms), Zool. OBSERVATORY, 18¼" reflector telescope. FARM, 312 acres, including Dairy School. HOSPITALS available for Clinics: Infirmary (520 beds) and several others; Asylum (2000 inmates).

FACULTIES. Arts (including Economics and Law), Science, Technology (including Agric., Coal Gas and Fuel with Metallurgy, Colour Chemistry and Dyeing, Engineering (Civ., Elec., Mech.), Leather Industries, Mining, Textile Industries), Medicine (including Dentistry).

DEGREES. Obtainable after a 3 yrs.' course starting from matricn.—B.A., B.Sc. (4 yrs. if Supplementary Textile Studies or Colour Chemistry be taken), B.Com., LL.B.; after 5 yrs., M.B., Ch.B., B.Ch.D.

Subject to a minimum attendance in this Univ. of 2 yrs., members of other Univs. requiring residence as a condition of graduation may be permitted to count their studies and examns. (other than the Final examn.) therein towards graduation in Leeds.

Honours in Mining or Gas Engin. or Fuel and Metall. involve 1 yr. of research or special study after taking the ordinary degree; in Leather Manuf., 4 yrs.' study.

Supplementary Textile studies may be combined with a B.A. or B.Com. course. Any of the other Tech. subjects may be taken in a B.Sc. course. The Law Dept. prepares students for the Bar and Solicitors' examns. as well as for the Univ. degrees.

HIGHER DEGREES. M.A., M.Sc., LL.M., M.D., Ch.M., 1 yr.; M.Ed. 2 yrs. after the bachelorship. Graduates of approved Univs. (all the chief Univs. of the world, including institutions recognized by the Assocn. of Amer. Univs., v. App. XXV.) may obtain the M.A., Ph.D. (v. p. 15), or M.Sc. by 2 yrs. of research. Masters of Arts or Science of this Univ. may obtain the Litt.D. or D.Sc. 6 yrs. after the bachelorship.

Graduates of other Univs. who have been admitted to degrees of equal or similar rank in Leeds may, in proceeding to higher degrees, count their standing as graduates from the date of original graduation.

DIPLOMAS. In Education, for graduates, 1 year or 2 yrs. For Teachers of French or German, 2 yrs.' course in Methods of Teaching and Phonetics. In Commerce, 2 yrs. (after matricn. or its equivalent). In Social Organization and Public Service, 2 yrs. In Geography, 1 yr. or 2 yrs. In Engin., Fuel and Metall., Dyeing, Textiles, Leather, 3 yrs., reducible under certain conditions to 2. In Gas Engin. or Fuel and Metall., special for graduates, 1 yr.; for apprentices, part-time, 4 yrs. In Colour Chem. and Dyeing, for apprentices, part-time, 5 yrs. In Public Health, 9 mos. In Psych. Med., 6 mos. In Nursing, involving 4 yrs.' hospital training and 3 mos.' lectures. In Dent. Surg., 4 yrs., including 2 in Univ.

Agric. Students are prepared for the National Diploma.

FEES. Matricn., £2. Registration, £2. Composition fees for tuition (including Union): Arts, £33 a session; Science, £41; Technology, £45; Agric. (other than degree students, who pay the Technol. fee in the 2nd and 3rd yrs.), winter course, £20, summer course, £10; Law Interm. course, 12 gs. a session; Final course, 20 gs. Course for Dipl. in Educn., £22 p.a.; Dipl. in Social Organization, £26 p.a. Medicine: complete course for M.B., including hospl. practice, £215. Dentistry (including hospl. practice and pupilage): Dipl., £224; Degree, £252. Research fee, £12 a session. Exams.: Arts, Science, etc., £6; Medicine (including graduation), £18; Dentistry, B.Ch.D., £16; L.D.S., £14. Graduation fee, £6.

SCHOLARSHIPS, ETC., FOR GRADUATES. Fellowships, £200 for one year, renewable, for research in Gas, and £100, renewable, in Col. Chem.; also £150 for 2 yrs. for research and advanced study; £70 Scholp. for research in Arts Faculty; £125 for higher Humanistic study, for graduates of Leeds or Sheffield; £45 for advanced study in Greek or Latin; £60, Colour Chem. and Dyeing; £20 (three), in Textile Dept.; £25, Forensic Med. and Hygiene; £150 for 3 yrs. for Textile Research (preference to graduates in Science or Tech. and to natives or residents of Bradford, but not restricted to members of Leeds Univ.).

RESIDENCE. Two hostels for men and 5 for women. Fees, men £70 to £72, women £56 to £65 per session of 32 weeks. A site of 160 acres on the outskirts of the city has been acquired for hostels for men and women students.

UNIVERSITY EXTENSION. Lecture courses and Tutorial classes are provided in co-operation with the Workers' Educnl. Assocn. and Local Education Authorities, and an Annual Summer School in connexion therewith was instituted in 1919.

The Annual Yorkshire Summer School of Geography, instituted by the Univ. in co-operation with Sheffield Univ. and Armstrong College and with the help of local authorities, lasts about 3 weeks. Certificates are granted.

In connexion with the Agric. Dept. a considerable part of the time of lecturers of the Univ. is devoted to work in local centres.

PUBLICATIONS. *Calendar* (Sept.), 2s.; Annual Reports of the Univ. and of Tech. Depts.

THE YEAR 1920–21

BENEFACTIONS. Donations to Development Fund, £24,795; Cloth-workers' Company, Spanish Endowment Fund, £6000.

NEW POSTS. Dean of Women Students (in place of Tutor of W.S.), Tutor in Obstetrics, Prosthetics Demr., Addl. Asst. Lectr. in Agr. Chem., Addl. Demr. in Path.

CHANGES IN ORDINANCES, ETC. Diploma in Nursing instituted.

OTHER IMPORTANT OCCURRENCES. Visit of H.H. Princess Helena Victoria.

DEGREES CONFERRED. B.A.—79; B.Sc.—97; B.Com.—1; M.B., Ch.B.—25; B.Ch.D.—1; M.A.—15; M.Ed.—1; M.Sc.—29; Ph.D.—1; D.Sc.—3; M.D.—2.

NUMBER OF STUDENTS. Full-time, reading for first degree, 1104, including 287 women; higher degree or post-grad. diploma, 33 (women, 16); other diplomas, 473 (women, 19). Part-time, reading for first degree, 6 men; higher

degree or post-grad. diploma and other research students, 23 (women, 7); other diplomas, 61 (women, 39); non-degree and non-diploma, 357 (women, 88). Evening students, 277.

STUDENTS FROM ABROAD. Australia, 2; India, 23; Egypt, 4; S. Africa, 6; Denmark, 3; Serbia, 5; China, 10; Japan, 8; other countries, 16.

EXTRA-MURAL WORK. Extension lectures on Music and its appreciation and on Methods of Teaching in Sunday Schools; Tutorial Classes, 35, attended by 748 students; Summer School for T.C. students, 137; 505 Agric. and Hortic. lectures at 174 centres.

UNIVERSITY OF LIVERPOOL

VISITOR—H.M. THE KING.

CHANCELLOR—Rt. Hon. EARL OF DERBY, K.G., G.C.V.O., C.B., LL.D.

PRO-CHANCELLORS—H. R. RATHBONE, M A., President of the Council; Emeritus Professor R. CATON, C.B.E., M.D., F.R.C.P.

VICE-CHANCELLOR—J. GEORGE ADAMI, C.B.E., M.D., F.R.S.

TREASURER—C. SYDNEY JONES, M.A

REGISTRAR—EDWARD CAREY, LL.B.

BURSAR AND ASSISTANT REGISTRAR—S. PRYCE PARRY, M.A.

LIBRARIAN—J. SAMPSON, M.A., D.Litt.

PROFESSORS, LECTURERS, ETC.—January 1, 1922

(H. = Honorary Lectr.)

Anatomy

..... Derby Prof.
Simpson, G. C. E., O.B.E., B.A., B.Sc., M.B. Assoc. Prof.
Douglas-Crawford, D., M.B., C.M. Edin., F.R.C.S. (Applied and Surg. A.) Independent Lectr.
Roberts, John Lloyd, M.D., B.S., B.A., B.Sc., F.R.C.S., (Applied and Med. A.) Independent Lectr.
Broad, W. H., M.D. (Physical Anthropology) Lectr.
Richards, D. H. Jr. Lectr. & Sr. Demr.
4 Asst. Demrs.

Anthropology, Social

Frazer, Sir J. G., M.A., D.C.L., Litt.D., LL.D. Camb., F.B.A. Prof.

Archæology, v. also Palæog. and Associated Institutions

Droop, J. P., M.A. (Classical A.) C. W. Jones Prof.
Peet, T. E., M.A Ox. (Egyptology) Brunner Prof.
Garstang, J., D.Sc., M.A., B.Litt. Ox., F.S.A. (Methods and Practice of A.) Rankin Prof.
Barnard, F. P., M.A., D.Litt. Ox., F.S.A. (Mediæval A.) Reader.
Newberry, P. E., M.A. (Egyptian Art) Reader.

Architecture, v. also Civ. Design, Engin.

Reilly, C. H., O.B.E., M.A. Camb., F.R.I.B.A. Roscoe Prof.
Budden, L. B., M.A., A.R.I.B.A. Senr. Lectr.
Cole, E. R. F., A.R.I.B.A. (Rendering, etc.) Lectr.
Marshall, J. E., M.S.A., M.R.S.I. (Building Constn., etc.) Lectr.
Scott, G. Gilbert, A.R.A., F.R.I.B.A. (Eccl. Archit.) Reader.
Miller, B. A., A.R.I.B.A. (Design) Junr. Lectr.
Williams, J. W. (Constrn.) Junr. Lectr.

Allen, C. J. (Modelling) Recog. Teacher.
Penn, W. C. (Drawing from the Life) Instr.

Art of the Theatre
Granville-Barker, H. Spl. Lectr., 1921.

Astronomy
Plummer, W. E., M.A. Ox., F.R.A.S. Reader.

Bacteriology, v. Med.

Bio-Chemistry [Johnston Prof.
Ramsden, W., M.A., D.M. Ox.
Coope, R., M.D., Ch.B., B.Sc. Junr. Lectr.

Botany
Thompson, J. M'Lean, M.A., D.Sc. Glas, F L.S. H. Gaskell Prof.
Blackwell, Elsie M., M.Sc. Demr. & Lectr.
Knight, Margery, M.Sc. ,,
Fry, Phyllis, B Sc., A.R C.S. Demr. & Junr. Lectr.

Celtic, v. Welsh

Chemistry, v. also Bio-C.
Baly, E. C. C., C.B.E., M.Sc., F.R.S. (Inorg. C.) Grant Prof.
Heilbron, I. M., Ph.D. Leip., D.Sc. Glas., F.I.C. H. Harrison Prof.
Lewis, W. C. McC., M.A. Belf., D.Sc., F.Inst P. (Physical C.) Brunner Prof.
Thomas, J. S., D.Sc. (Analyt. C.) Senr. Lectr.
Kay, F. W., M.Sc. Manc., Ph.D. Berl. (Applied Organic C.) Senr. Lectr.

Junr. Lectrs. and Demrs.:
Guthrie, F. C., M.A. (Inorg.).
Edwards, D. M., B.Sc. (Inorg.).
Griffith, R. O., M.Sc. (Phys.).
West, Helen, M.Sc. (Organ.).
Shutt; W. J., M.Sc. (Phys.).
M'Keown, A., B.Sc. (Phys.).
Doran, W., B.Sc., A.I.C. (Organ.).
Keffler, L. P. G., M.Sc. (Inorg.).
Nance, J. T, M.A. ,,
Occleshaw, V. J., M.Sc. ,,

Chemistry, Pub. Health
Roberts, W. H., M.Sc. Assoc. Prof.
Jones, E. Gabriel, M.Sc., F.I.C. Lectr.

Chinese
Parker, E. H., M.A. Manc. Reader.

Civic Design
Abercrombie, L. P., M.A., A.R.I.B.A. Prof.

Special Lectrs.:
Brodie, J. A., Assoc. Prof., M.Eng., M.I.C.E., M.I.M.E. (Civic Engin.).
Kelly, S. A., F.S.I. (Civic Engin.).
Mawson, T. H., Hon. A.R.I.B.A. (Landscape Design).
Clarke, J. J., M.A. (Law of Housing and Town Planning)

Classics
..... (Greek) Gladstone Prof.
Ormerod, H. A., M.A. Ox. Lectr.
Slater, D. A, M.A. Ox. (Latin) Prof.
Smiley, M. T., M.A. Dub. Lectr.
Chapman, Dorothy, M.A. St. And. Lectr.
Rees, Frances M., B.A. Wales Junr. Lectr.

Commerce
Dewsnup, E. R., M.A. Chaddock Prof.
Dumbell, S., B.A. Junr. Lectr.
Taggart, P. (Accountancy) Spl. Lectr.
Williams, A. (Banking) Spl. Lectr.

Dentistry, v. *infra*

Economic Science, v. also Com.
Gonner, Sir E. C. K., K.B.E., M.A. Ox., Litt.D. Manc. Brunner Prof.
Macdonald, R. A., M.A. Lectr.
Parry, Eliz. A., M.A. Tutor.

Education
Campagnac, E. T., M.A. Ox. Prof.
Heath, A. E, M.A. Camb. Senr. Lectr.
Collie, Frances A., M.A. Wales Lectr.
Turnbull, G. H., M.A., Ph.D. Lectr.
Kermode, Helen S., M.A. Hon. Demr.

Assts. in Method.
Beszant, C. F.
Tuckett, W. J., B.A. N.U.I.
Williams, Catherine A.
Milne, Susan.

Engineering, v. *infra*

English Lang. and Philol.
Mawer, A., M.A. Camb. and Durh. Baines Prof.

English Lit.
Elton, O., M.A. Ox., D.Lit. Durh., LL.D. King Alfred Prof.
Case, R. H., B.A. Lond. A. C. Bradley Prof.
Abercrombie, L., M.A. (Poetry) Lectr.
Trenery, Grace R., M.A. Junr. Lectr.

Entomology [Dutton Prof.
Newstead, R., M.Sc., F.E.S., A.L.S., F.R.S.

Fisheries, v. Ocean.

French
Eggli, J. E., Ag. des L. J. Barrow Prof.
Renault, G. E., B. ès A. Dijon Senr. Lectr.
Deane, Eliz., B.A. Junr. Lectr.
Nigot, G., Lic. ès Let. Junr. Lectr.
Adde, Mlle. Yvonne, B. ès L. Tutor.
Grenet, Mlle. A., L. ès L. Tutor.
Miraillet, Mlle. S. Tutor.

Geography [Rankin Prof.
Roxby, P. M., B.A. Ox.
Kinvig, R. H., M.A. Junr. Lectr.
Winchester, Lily, M.A., F.R.Met.S. Junr. Lectr.
Ellerton, M. K., Cartographer.

Geology [Herdman Prof.
Boswell, P. G. H., O.B.E., D.Sc. Lond., M.I.M.M., F.G.S.
Double, I. S. Junr. Lectr. & Demr.
Neaverson, E., B.Sc. (Palæont.) Junr. Lectr. & Demr.

German
Collinson, W. E., M.A. Lond., Ph.D. Prof.
Landau, Miriam, B.A. Lond. Junr. Lectr.

Hebrew, v. Affild. Instns.

Hellenistic Gk., v. Affild. Instns.

History [Senr. Lectr.
Jones, W. Garmon, M.A.

Hist., Ancient [Rathbone Prof.
Halliday, W. R., B.A., B.Litt. Ox.

History, Eccl., v. Affild. Instns.

History, Mediæval
Coopland, G. W., B.Sc. Lond., M.A., Litt.D. Senr. Lectr.
Howden, Marjorie, M.A Junr. Lectr.

History, Modern
Webster, C. K., M.A. Camb. A. Geddes & J. Rankin Prof.
Veitch, G. S., M.A., Litt.D. (H.).
Routledge, F. J, B.Litt. Ox., M.A. Lectr.
Lackland, Hilda M., M.A. Junr. Lectr.

Italian [Senr. Lectr.
Rébora, P., D.Litt. Turin

Law, v. also Civic [Q. Vict. Prof.
Blease, W. Lyon, LL.M., Barr.-at-Law, Dean of the Faculty
Batt, F. R., LL.M. (Comml. L.) Prof.

Findlay, J., M.A. Ox. Warr Mem. Lectr.
Jones, J. W., M.A., LL.M. (Criminal L., etc.) Lectr.
Thomas, H.H. Judge A. P., B.A., LL.D. Lond. (Internat. L.) Prof.
Dowdall, H.H. Judge C., K.C., M.A., B.C.L. Ox. (Eccles. L.) (H.).
Zouche, R. C. de, F.C.A. (Bookkeeping) Lectr.

Mathematics
Carey, F. S., M.A. Camb. Prof.
Proudman, J., M.A. Camb., D.Sc. (Applied M.) Prof
Hargreaves, R., M.A. Camb. Reader.
Street, R. O , M.A. Camb , M.Sc. (Maths. and M. Hydrography) Lectr
Wilson, B. M., B.A Camb. Lectr.
Ince, E. L., M A. Edin., B.A. Camb. and Dub. Lectr.
Boole-Stott, Alicia, D.Sc. (H.).
Grace, S. F., M Sc. Junr. Lectr.

Medicine, v. *infra*

Music
Pollitt, A. W., Mus.D. Durh., F.R.C.O. Lectr.

Naval Archit., v. Engin.

Oceanography
Johnstone, J., D.Sc. Lond. Prof.
Daniel, R. J., B Sc. Lectr.
Jenkins, J. T., D.Sc. Lond. and Wales, Ph.D. Kiel (Sea Fisheries) (H.).
Scott, A., A.L.S. (Econ. Ichthyol.) (H.).
Chadwick, H. C., A.L.S. (Marine Biol.) (H.).

Palæography and Diplomatics
Twemlow, J. A., B.A. Ox. Assoc. Prof.

Parasitology
Yorke, W., M.D. W. Myers Prof.

Southwell, T., A.R.C.Sc., F.Z.S. Asst. Lectr.

Philosophy
Mair, Alex., M.A. Edin. Prof.
Field, G. C., M.A., B.Sc. Senr. Lectr.

Physics, v. also Chem.
Wilberforce, L. R., M.A. Camb. L. Jones Prof.
Rice, J., M.A. Belf. Sr Lectr.

Junr. Lectrs. and Demrs. :
Ablett, R., B.Sc.
Edwards, E., B.Sc. Wales, M.A. Tor.
Roberts, R. W., B.Sc.

Physiology
Macdonald, J. S., M.A. Camb., F.R.S. Holt Prof.
Duffield, F. A., M.B., Ch.B. Edin. Lectr.
Walker, C. E., D.Sc., M.R.C.S., L.R.C.P. (Histology) Lectr.
2 Junr. Lectrs. and Demrs.

Russian Studies
Boswell, A. B., M.A. Bowes Prof. of R. Hist. Lang. and Lit.
..... Asst.
Williams, H. W., Ph.D. Mun. (R. Ethnog.) Research Fellow.

Social Studies
Davies, Mary H. Ll., M.A. Lectr.
Rathbone, Eleanor F., M.A. (Local Admn.) Lectr.

Spanish
..... Gilmour Prof.
Peers, E. A., M.A. Lectr. in charge.
Ruiz, N. G. Junr. Lectr.

Vet. Science
Share-Jones, J., D.V.Sc., M.Sc., F.R.C.V.S. Dir. of Vet. Studies Prof. of V. Anat.
Elam, C. W., D.V.H., M.R.C.V.S. Lectr.
Hughes, H. V., M.R.C.V.S., D.V.H. Junr. Lectr.

McLean, J., M.R.C.V.S.
Curator and Junr. Lectr.
Maguire, J., M.R C V.S.
Clin. Lectr.
Warburton, F. T., M.R.C.V.S.
Clin. Lectr.

Welsh
Davies, J. Glyn, M.A. Senr. Lectr.
Owen, E , Bar.-at-Law, F.S.A.
(Welsh Mediæval Antiq.) Reader.

Zoology, v. also Entom., Ocean.
Dakin, W. J., D Sc., F.L S.
Derby Prof.
Bisbee, Ruth C., M.Sc.
Lectr. & Demr.
Burfield, S. T., B.A., M Sc ,,
Fordham, Mahalah G. C., B.Sc.
West. Aus
Junr. Lectr. & Demr.

Engineering

Watkinson, W. H., M.Eng., M.I.C.E., M.I.M.E., M.I.E.E.
Harrison Prof.
Mason, W., D.Sc. Manc., M.I.C.E., A.M.I.M.E. (Strength of Materials) Hughes Prof.
Scholes, G. E , M.B.E., M.Sc. Manc., A.M I.A.E. (Thermodynamics) Rankin Prof.
Coston, E. P., B.Sc. Manc., B Eng., A.M.I.M.E. Lectr.
Mawson, H., D.Sc. (Eng.) Lond., A.R.C.S., A.M.I.C.E., A.M.I.M.E. Lectr.
Okill, J., M.I.A.E. Lectr.
Kearton, W. J., A.M.I.N.A. Lectr.
Cole, E. B., B.Sc. Bris. Lectr.
Rimmer, A., B.Eng. Lectr.
Smith, G., B.Sc. Jr. Lectr.

Civil Engineering
Perrott, S. W., M.A.I. Dub., M.I.C.E. Prof.
Rimmer, E. J., M.Eng., Barr.-at-Law (Contracts, etc.)
Spl. Lectr.
Whitaker, H. A., B.Eng. Lectr.

Design, etc., v. also Refrigeration
Clark, J. J., B.Eng., A.M.I.M.E.
Lectr. & Demr.
Hitchens, A. P., B.Eng., A.M.I.C.E. Lectr. & Demr.
Webster, F., M.C., M.Eng., A.M.I.C.E. Lectr. & Demr.
Dixon, B. J., A.R.C.Sc I.
Junr. Lectr.

Dock and Harbour Engineering
Wilton, T. R., M.A. Camb., A M I C.E. Assoc. Prof.

Electrical Engineering
Marchant, E. W., D.Sc. Lond., M.I.E.E. Jardine Prof.
Teago, F. J., M.Sc. Durh., A.M.I.E.E. (Elect. Machinery) Lectr.
Prescott, J. C., M.Eng.
Lectr.
Waygood, O. C., A.M.I.E.E.
Lectr.
Brookes, R. C., B.A. Camb.
Junr Lectr.
Bennett, J. E., B A. Camb.
Junr. Lectr.
Morgan, E. H. Demr.

Marine Engineering
Lectrs. : The Harrison Prof. of E., the Prof. of Nav. Arch., the Prof. of Refrig., etc.

Metallurgy
Bannister, C. O., A.R.S.M., F.I.C.
Wortley Prof.

Municipal Engineering
Brodie, J. A., M.Eng., M.I.C.E., M.I.M.E. Assoc. Prof.

Municipal Electrical Engineering
..... Assoc. Prof.

Naval Architecture
Abell, T. B., O.B.E., M.Eng., R.C.N.C. (ret.), M.I.N.A.
A. Elder Prof.
Wilson, J. C. M., R.N.C., A.M.I.N.A.
Lectr. & Demr.

Railway Engin. [Assoc. Prof.
Aspinall, Sir J. A. F., M.Eng., M.I.C.E., M.I.M.E.

Refrigeration
Anderson, J. W., M.Eng., M.I C.E., M.I.M.E. (also Lectr. on Design) Hughes Prof.

Medicine (for subjects of first 2 yrs.—Anat., etc., v. *supra*)

Bacteriology
Beattie, J. M., M.A. N.Z., M.D., C.M. Edin. Prof.
Ashcroft, L. S., M.B., Ch.B., D.P.H. Lectr.
Lewis, F. C., L.R.C P. (Bact. Methods) Lectr.
Fitch, A. A., M.R.C.S., L.R C.P. Lectr.

Cytology
Walker, C E, D.Sc., M.R.C.S., L.R.C.P. Assoc Prof.
Tozer, Frances, B Sc. Lond Lectr.

Dermatology [Lectr.
Leslie-Roberts, H., M.D. Edin.

Diseases of Children
Fordyce, A. D, M.D. Edin, F.R.C.P. Lectr.

Diseases, Infectious
Rundle, C., O.B.E., M.D. Lond., D.P.H. Lectr.

Diseases, Mental [Lectr.
Cowen, T. P., M.D., B.S. Lond.

Diseases, Specific
Wilson, F. P., M.D., M.Sc. Lectr.

Forensic Medicine [Prof.
Buchanan, R. J. M., M.D., F.R.C.P.
MacFall, J. E. W., M.D., D.P.H. (Toxicol.) Lectr.

Hygiene
Hope, E. W., O.B.E., M.D., D.Sc. Edin. Prof.
Mussen, A. A., B.A., M.D. Dub., D.P.H. (Practical San) Lectr.
Hanna, W., M.A., M.D. Belf., D.P.H. (Admn. and Vaccn.) Lectr.

Laryngology
Permewan, W., M.D. Lond., F.R.C.S., D.P.H. Lectr.

Mat. Med. and Pharm.
Marsden, P. H., F.C.S. Lectr.
Allan, J. S., M P.S. (H) Demr.

Medicine [Prof.
Glynn, T. R., M.D. Lond., F.R.C.P.

Clinical Lectrs.:
Abram, J. Hill, M.D. Lond., F.R.C P.
Buchanan, R. J. M., M.D. Vict., F.R.C.P.
Bigland, A. D., B.A. Camb., M.D.
Hay, J., M.D., F.R C.P.
Bligh, J. Murray, M.D.
Gullan, A. G., M.D. Lond., F.R.C.S.
Macalister, C. J., M.D. Edin., F.R.C.P.
Owen, J., M D. Lond , D.P.H.
Roberts, J. LL., M.D., B.S., B.A., B.Sc. Lond., F.R.C.S.

Midwifery and Gynæc.
Bell, W. Blair, M.D., B.S. Lond. Prof. and Clin. Lectr.

Clin. Lectrs.:
Gemmell, J. E., M B., C.M. Edin.
Ivens, Frances, M.B., M.S. Lond.
Murray, H. Leith, M.D. Aberd.
Willett, J. H., M.D.
Hendry, R. A., M.D., Ch.B. (Obst. and Gyn.) Lectr.

Neuro-Pathology of Mental Diseases
Watson, G. A., M.B., C.M. Edin. (H.).

Ophthalmology
Bickerton, T. H., M.R.C.S., L.R.C.P. Lectr.

Pathology
Glynn, E. E., M.A., M.D., C.M. Camb., F.R.C.P. Holt Prof.
..... Lectr.

Bamforth, J., M.D., D.P.H. Junr. Lectr.
Pemberton, H. S., M.B., Ch B. Demr.

Pharmacology, v. also Mat. Med.
Dilling, W. J., M.B , Ch B. Aberd. Lectr.

Radiology
Holland, C. Thurstan, D.L , M.R.C.S , L.R C.P. Lectr.

Surgery
Parker, R., M.B., B.S. Lond., F.R.C.S. Prof.
Thomas, W. T., M B.E , Ch.M , F.R.C.S. (Regional S.) Prof.
Jones, Sir Robert, C.B., K B.E., Ch.M., D.Sc., F.R.C.S. (Orthopædics) Lady Jones Lectr.
Kelly, R. E., C.B., M.D., B.Sc., F.R.C.S. (Practical S.) Lectr. and Clin. Lectr.
Monsarrat, K. W., M.B., C.M. Edin. (Operative S.) Lectr. and Clin. Lectr.
Kennon, R., M.D., F.R.C.S. Demr.

Other Clinical Lectrs. :
Armour, T. R. W., M.B., Ch.B. Edin , F.R C.S
Douglas-Crawford, D., M.B., C.M. Edin., F.R.C.S.
Evans, A. J., F.R.C.S. Edin.
Heaney, F. Strong, M.D. Dub., F.R.C.S.I.
Jones, T. C. Litler, F.R.C.S.
Newbolt, G. P., M.B. Durh., F.R C.S.
Simpson, G. C. E., B.A., M.B., B.C. Camb., B.Sc., F.R.C.S.

Therapeutics
Abram, J. Hill, M.D. Lond., F.R.C.P. Prof.

Tropical Med.
Stephens, J. W. W., B.A., M.D., D.P.H. Camb. Sir A. Jones Prof.
Thomas, H. W., M.D., C.M., Director of Research at Manaos (Yellow Fever).
3 Research Assts.

Tropical Diseases of Africa
Blacklock, D. B., M.D. Edin., D.P.H. Prof.

Tropical Sanitation
Prout, W. T., C.M.G., M.B., C.M. Edin. (H.).

Vaccination, v. Hygiene

Dentistry

Dental Surgery
Gilmour, W. H., M.D.S., L.D.S. (Dir. of D. Educn.) Cohen Prof.
Brown, I. W., B A. Belf., L.D.S. Lectr.

Anæsthetics [Lectr.
Bailey, F. W., M.R.C.S., L.R C.P.
1 Demr.

D. Anat., Histol., and Physiol.
Woods, J. A., M.D.S., L.D.S. Lectr.
Livingston, A., M.D.S. Demr.
1 Asst Demr.

D. Mechanics
Osborn, L. J., D.S.O., M.D.S., L.D.S. Lectr.
2 Demrs.

D. Metallurgy
..... Lectr.
1 Demr.

Operative D. Surgery
Bennette, H. W. P., M.D.S., L.D.S. Lectr.
Wilkinson, F. C., M.D., B.D.S. Demr.

Clin. D. Surgery
9 Lectrs.

Orthodontia
Mountford, E. H., L.D.S. Lectr.
1 Demr.

ASSOCIATED AND AFFILIATED INSTITUTIONS

INSTITUTE OF ARCHÆOLOGY, Abercromby Square, Liverpool. Associated Teachers additional to the staff of the Faculty—*Assyriology*, Pinches, T. G., LL.D.; *Numismatics*, Milne, J. G., M.A.; *Central American Arch*, Gann, T. W. F., M.R.C.S., L.R.C.P.

ST. AIDAN'S COLLEGE, Birkenhead. Principal, Rev. R. T. Howard, M.A. Affild. for first year of degree course and, in subjects in which instruction is not provided in the Univ., up to half of the entire course for the B.A.

Recognized Teachers in—*Hellenistic Greek*, Dowding, A. T. W., B.A.; Cotton, H. W. S., B.A.; *Eccl. Hist.*, Wood, T. J., M.A.; *Hebrew*, Keith, K. E., M.A.

EDGE HILL TRAINING COLLEGE. Principal, Miss E. M. Smith. Recognized Teachers in—*Maths.*, Smith, Miss E. M.; *English Lit.*, Deakin, Miss M., M.A

MOUNT PLEASANT TRAINING COLLEGE. Principal, Miss C. Holcroft, B.A. Recognized Teachers in—*Latin*, Sampson, Miss M., M.A.; *English Lit.*, Healey, Miss J., B.A.

CHESTER TRAINING COLLEGE. Principal, Rev. R. A. Thomas, O.B.E., M.A. Recognized Teachers in—*Maths.*, Thomas, R. A., O.B.E., M.A. *Physics and Chem.*, Morrell, H., B.Sc. *Chem.*, Hill, J. C., B.Sc., A.I.C.

THE HARRIS INSTITUTE, Preston. First year of Degree Course (Engineering).

SCHOOL OF TROPICAL MEDICINE. Office at H 24-25 Exchange Bldgs., Liverpool. Departments with research laboratories at Manaos and Sierra Leone. For training in the conduct of original research and organization of prophylactic measures. Has sent out numerous expeditions to tropical countries. Publishes Memoirs and *Annals*. For staff, v. *supra*—Trop. Med., Trop. San., Parasit, Entom., Hygiene. Diploma course, 3 months.

PATHOLOGICAL LABORATORY, County Asylum, Rainhill. *Pathologist*, Watson, G. A., M.B., C.M.

GENERAL INFORMATION

University College, Liverpool, founded by Royal Charter 1881, was admitted into the Victoria University, Manchester, in 1884. In 1903 the University of Liverpool was established by Royal Charter and the College was absorbed in it.

LIBRARY, MUSEUMS, ETC. The library of the Univ. contains about 90,000 vols., and includes the Rylands collection of early works on Geog. and Astron., over 100 incunabula, and the final sheets of the "Constitutiones" of Clement V., printed at Mainz in 1460. MUSEUMS AND LABORATORIES: Anat., Archæol. (including a unique Hittite collection), Archit., Bact., Bio-Chem., Bot., Chem., Physical and Electro-Chem., Electricity (Applied), Embryol. and Genetics, Engin. (including facilities for aerial motor and propeller testing and other wind experiments), Geol., Hygiene, Laryngology, Materia Medica, Expl. Med., Trop. Med. (including museum, animal houses, and specially warmed glass insectarium, and research labs. at Liverpool, Sierra Leone and Manaos), Obst. and Gynæc., Oceanog., Ophth., Path., Physics, Physiol. and Histol., Surg.

Path., Tidal Research, Toxicology, Vet. Anat. and Path., Zool. The Port Erin (Isle of Man) Marine Biol. Lab. has been transferred to the Univ. by an Act of Tynwald. Hospls. available for Clinics, 4 general and 5 special, containing 1140 beds, which together constitute the clinical school. The trade of the port ensures frequent importations of infection. Special wards for Trop. Diseases. Expeditions to Tropical countries organized for investigation or advice. Suitably qualified persons may enter the Laboratories for research work at a nominal fee.

Degree Courses: 3 yrs., B.A., B.Com., B.Sc., LL.B.; 4 yrs., B.Eng. (3 yrs. *plus* 2 or 3 yrs.' appr'ship); 5 yrs., B. Arch., M.B., Ch.B., B.D.S., B.V.Sc.

The B.Com. courses include (1) General Business; (2) Banking, Insurance, Accountancy; (3) Transport, Railways, Shipping; (4) Consular Service.

The LL.B. courses prepare for the Bar and solicitors' examns. as well as for the Degree. The B.V.Sc. may be taken concurrently with the M.R.C.V.S.

Higher Degrees. Obtainable 1 yr. after the bachelorship: M.Sc., M.D., (med. grads. of other Univs. after 2 yrs. in Univ. or Clin. School; Liv. med. grads. after 5 yrs.' practice may take M.D. by examn. without dissertation); Ch.M., M.D.S., M.V.Sc., LL.M.; 2 yrs., M.A., M.H. (Hygiene), Ph.D. (v. p. 15); 3 yrs., M.Eng.; 4 yrs., D.V.Sc.; 4 yrs. (after M.A.), Litt.D.; 6 yrs., LL.D., D.Sc., D.Eng.; 15 mos., M.Ch. Orth. The M.A. and M.Sc. are open to non-graduates engaged for 3 yrs. in higher study or research in this Univ. The M.A., M.Sc., LL.M. are open to grads. of approved Univs. and to those of other Faculties in Liv. who engage in higher study or research for 2 yrs., of which at least 1 yr. must be in Liv. The 2 yrs.' course for the M.H. is open to grads. of other Univs.

Diplomas. Archæol., 1 yr. course; Archit., 5 yrs.; Civic Design, 1 yr.; Commerce, 3 yrs.; Social Studies, 1 or 2 yrs.; Educn. (for grads.), 1 yr.; L.D.S., 4 yrs.; D.P.H., 9 mos.; D.T.M., 3 mos.; D.M.R.E., 2 terms; D.V.H., 6 mos.; Engin., 2 yrs. in practice after Final B.Eng. or 2nd examn. for certif. in Engin.

Certificates. Archaeol., 2 yrs.' course; separate Arts subjects, 2 yrs.; Archit., 3 yrs.; Archit. Design, 1 yr.; Civic Design, 2 terms; Social Studies, 1 or 2 yrs. (qualification for entry lower than for Diploma course); Engin. 2 yrs. (2 day sessions or equivalent combination or day or evening work, or both).

Fees. For Matricn. £2. Guild of Undergrads. £2 p.a. Tuition, average for Degree courses: in Arts (3 sessions), £78; Archit. (5 sessions), £150; Science (3 sessions), £102 to £120; Med. (5 sessions), £196; Hygiene (2 sessions), £71 : 10s.; M.Ch. Orth. (15 mos.), £41; Dentistry (5 sessions), including pupilage, £237; B.V.Sc. (5 sessions), £175; Law (3 sessions), £67; Engin. (3 sessions), £144 (4 sessions, £192); M.Eng. (1 session), £10; Ph.D. (2 sessions), £27; M.D.S. (1 session), £18. Diploma courses: 5 sessions, Archit., £150; Conjt. Bds. of P. and S., £190; 4 sessions, L.D.S., including pupilage, £199; course for M.R.C.V.S., £120; Engin. (4 or 5 sessions), £144 or £192; 3 sessions, Com., £78; 2 sessions, Social Studies, £25; 1 session, D.P.H., £35; Civ. Design, £35; D.V.H., £21; D.T.M., £18; Ed., £15; Archæol., £5; Med. Radiology and Electr. (2 terms), £23. Certif. courses: 3 sessions, Archit., £105; 2 sessions, Engin., £96; 2 sessions, Social Studies, £25; 2 sessions, separate Arts subject, £12; 2 sessions, Archæol., £30; 1 session, Archit. Design, £35; 2 terms, Civ. Des., £8.

EXAMN. FEES. M.B. and Ch.B., B.V.Sc., B.D.S., £15; B.Arch., £5; other bachelor degrees, £4; Master's degree (examn. or on application), M.H., 10 gs.; Ch.M., M.V.Sc., M.D.S., £5; others, £3; Doctor's (on application), £10. Diploma examns., L.D.S., £15; Comm., £4; Archæol., £3; Educn., Soc. Studies, Eng., £2; others, £5 or 5 gs. Certifs. Examns., Archit., £5; Eng., £4; others, £2. Degree Admission Fees, £5. Dipl. or Certif. fee, £1.

SCHOLARSHIPS, ETC., FOR GRADUATES. Research Fellowships and Scholarships of the aggregate value of over £6000 are offered annually in all faculties; Garrett International Fellowship for Research in Bact., Path., or Physiol. open to members of Univs. and Med. schools in the U.S.A. and of other foreign schools, £100 for 1 yr. with possible extension 2 yrs. (applications by May 31); Johnston Colonial Fellowship of same value, for research in Bio-Chem. with teaching, open to members of Colonial Univs. and Med. Schools, not excluding Colonial candidates with British qualifications (applications by May 31); Lloyds' Register Scholps. in Naval Archit., £100 p.a. for 3 yrs. for British subjects, men, not over 23.

RESIDENCE, ETC. Three hostels for about 70 men (fees, £82); one for about 90 women (fees from £58). Students' Union Club House cost £20,000.

A UNIVERSITY EXTENSION Board is responsible for extra-mural work. There are travelling libraries for local centres.

PUBLICATIONS. *Calendar* (Oct.), 1s.; *Diary* (Oct.), free; *Prospectuses of Faculties and Schools*, July, free; *Students' Handbook* (Oct.), free; *Annals of Trop. Med. and Parasitology*, quarterly—annual subs., 22s. 6d.; *Annals of Archæol. and Anthrop.*, quarterly—annual subs., £1 : 1s.; *Town Planning Review*, quarterly, 4s. 6d.; *Public Inaugural Lectures*; *Report of the Senate upon Research.* Issued in 1920, *inter alia*, *School of Tropical Medicine Historical Record*, 1898–1920, 10s. 6d.

THE YEAR 1920–21

BENEFACTIONS. Miss Holt and others, Hostel for women (£38,803); late R. B. Green bequest, £20,000 (subject to a life interest); transfer to the Univ. of the Liverpool Dental Hospital Clinical School (about £3000); Sir Alfred Paton, £1000 for Scholp. in connexion with Univ. Extension work; Lt.-Col. J. J. Shute, £100 p.a. for 5 yrs. for Lectureship in the Art of the Theatre; Univ. Appeal Fund contributions during year, £67,580.

NEW BUILDINGS, ETC. Extension of Dental School, including offices, demonstration and research rooms, and large Lab. for Dental Mechanics. A portion of new Chem. Labs. proceeded with to meet urgent demand for increased accommodation for Chem. Research. Dwelling-houses purchased and adapted for Depts of Geog., Civil Engin., and Metallurgy. Univ. Hall for women.

NEW DEPARTMENT. Tropical Diseases of Africa (with Sir Alfred Jones Research Permanent Lab. at Sierra Leone in course of erection).

NEW POSTS. Prof. of Tropical Diseases of Africa; Hon. Lectrs. in Bact. Chem., Modern Hist., and Neuro-Pathology of Mental Diseases; 4 Clin. Lectrs. in Gynæc.; Lectrs. in Art of the Theatre and Radiology; Reader in Welsh Mediæval Antiq.; Assoc. Prof. (instead of Lectr.) in Palæog. and Dipl.

CHANGES IN CURRICULA. Established: Hons. Schools of Spanish, Engin., Maths., Refrigeration, Metallurgy; M.A. Schools of Italian and Spanish; Degree of Master of Orthopædic Surgery; Certifs. in subjects of Univ. Extension instruction.

OTHER DEVELOPMENTS. Establishment of Advisory Boards in Commerce, Chem., and Elec. Engin.; foundation of J. B. Paton Scholp. (Univ. Extension work); affiliation of Path. Lab. of the County Asylum, Rainhill, and Training Coll., Chester.

NUMBER OF STUDENTS. Reading for Bachelorship, 1671, including 473 women; for diplomas and certifs., 717 (women, 94); research, 157 (w., 58); occasional, 120 (w., 63).

DEGREES CONFERRED. B.A.—62; B.Sc.—97; M.B., Ch.B.—38; B.Eng.—60; B.Com.Sc.—6; B.Arch.—1; B.V.Sc.—1; M.H.—19; M.Sc.—19; Ch.M.—1; LL.M.—1; M.Eng.—7; Ph.D.—3; D.Sc.—3; M.D.—7; D.Eng.—1. Diplomas: D.P.H.—12; D.T.M.—12; L.D.S.—11; others, 25.

EXTENSION Lectures and classes in 11 centres. Christmas Lectures in Science subjects to juveniles (over 1300 tickets sold). Tutorial Classes, 43, with enrolment over 1000.

SUMMER SCHOOL in Spanish attended by 90-100 students. Staff included 3 teachers from Spain. At close of School students accompanied Director to Spain, where study was continued.

RETIREMENTS. Profs.: H. Briggs, R. J. Harvey-Gibson; Assoc. Profs.: J. Montgomery, A. B. Holmes; Lectrs.: Stafford Jackson, T. Eaton Jones.

UNIVERSITY OF LONDON

VISITOR—H.M. THE KING IN COUNCIL.

CHANCELLOR—Rt. Hon. EARL OF ROSEBERY AND MIDLOTHIAN, K.G., K.T., D.C.L., etc.

VICE-CHANCELLOR—Sir SYDNEY RUSSELL-WELLS, M.D., B.Sc.

CHAIRMAN OF CONVOCATION —Sir EDWARD H. BUSK, M.A., LL.B.

PRINCIPAL OFFICER—Sir E. COOPER PERRY, M.A., M.D., F.R.C.P.

ACADEMIC REGISTRAR—EDWIN DELLER, LL.D

REGISTRAR OF THE COUNCIL FOR EXTERNAL STUDENTS—G. F. GOODCHILD, M.A., B.Sc.

REGISTRAR OF THE UNIVERSITY EXTENSION BOARD—J. LEA, M.A.

SECRETARY TO THE SENATE—P. M. WALLACE, M.A.

SECRETARY TO THE FINANCE COMMITTEE—W. K. HILL, B.A.

SUPERINTENDENT OF EXAMINATIONS—R. ROSCOE, B.A.

GOLDSMITHS' LIBRARIAN—R. A. RYE.

REPRESENTATIVE IN PARLIAMENT—Sir PHILIP MAGNUS, B.A., B.Sc.

INCORPORATED COLLEGES, SCHOOLS OF THE UNIVERSITY, AND INSTITUTIONS HAVING RECOGNIZED TEACHERS

Opposite each is shown the index letter or letters or number by which the institution is referred to in the subsequent part of this section.

INCORPORATED COLLEGES

UNIVERSITY COLL.	(U.).	KING'S COLL. FOR WOMEN	(KW.).
KING'S COLL.	(K.).	DITTO, HOUSEHOLD AND SOCIAL SCIENCE DEPT.	(KH.).

INCORPORATED INSTITUTIONS AND UNIVERSITY DEPARTMENTS

GOLDSMITHS' COLLEGE.

BROWN ANIMAL SANATORY INSTITN.

PHYSIOLOGICAL LABORATORY.

FRANCIS GALTON LABORATORY FOR NATIONAL EUGENICS.

BARTLETT SCHOOL OF ARCHITECTURE.

COMMERCE DEGREE BUREAU.

INSTITUTE OF HISTORICAL RESEARCH.

SCHOOLS OF THE UNIVERSITY

IMPERIAL COLL. OF SCIENCE AND TECHNOLOGY (Im.).
EAST LONDON COLL. (EL.).
BIRKBECK COLL. (3).
LONDON SCHOOL OF ECONOMICS (E.).
S.E. AGRIC. COLL., WYE (Ag.).
LONDON DAY TRAINING COLL. (Tr.).
SCHOOL OF ORIENTAL STUDIES (O.).

Women's Colleges

BEDFORD COLL. FOR WOMEN (BW.).
ROYAL HOLLOWAY COLL. (Ho.).
WESTFIELD COLL. (Wf.).

Theological

NEW COLL., HAMPSTEAD (N.).
HACKNEY COLL., HAMPSTEAD (H.).
REGENT'S PARK COLL. (R.).
KING'S COLL. THEOL. DEPT. (KT.).
WESLEYAN COLL., RICHMOND (WR.).
ST. JOHN'S HALL, HIGHBURY (J.).

Medical

ST. BARTHOLOMEW'S HOSPITAL MEDICAL SCHOOL (B.).
ST. THOMAS'S HOSPL. MED. SCH. (T.).
WESTMINSTER HOSPL. MED. SCH. (W.).
GUY'S HOSPL. MED. SCH. (G.).
ST. GEORGE'S HOSPL. MED. SCH. (SG.).
LONDON HOSPL. MED. COLL. (L.).
MIDDLESEX HOSPL. MED. SCH. (M.).
CHARING CROSS HOSPL. MED. SCH. (C.).
LONDON (R.F.H.) SCH. OF MED. FOR WOMEN (LW.).
UNIV. COLL. HOSPL. MED. SCH. (UM.).
KING'S COLL. HOSPL. MED. SCH. (KM.).
ST. MARY'S HOSPL. MED. SCH. (SM.).
LONDON SCH. OF TROP. MED. (TM.).
LISTER INST. OF PREVENTIVE MEDICINE (LI.).
ROYAL ARMY MED. COLL. (AM.).
ROY. DENT. HOSPL. AND LOND. SCH. OF DENT. SURG. (D.).
NAVAL MED. SCH., GREENWICH (NM.).
NATIONAL DENT. HOSPL. AND COLL. (ND.).

INSTITUTIONS HAVING RECOGNIZED TEACHERS

(1) GOLDSMITHS' COLL.*
(2) BATTERSEA POLYTECHNIC.
(3) BIRKBECK COLL.†
(4) CITY OF LONDON COLL.
(5) FINSBURY TECHNICAL COLL.
(6) JEWS' COLL.
(7) NORTHAMPTON POLYT. INST.
(8) NORTHERN POLYT. INST.
(9) ROYAL VETERINARY COLL.
(10) SIR JOHN CASS TECH. INST.
(11) SOUTH-WESTERN POLYT. INST.
(12) WEST HAM MUNICIPAL COLL.
(13) WOOLWICH POLYTECHNIC.
(14) MARIA GREY TRAINING COLL.
(15) ST. MARY'S COLL., PADDINGTON.
(16) BOROUGH ROAD COLL., ISLEWORTH.
(17) ST. JOHN'S COLL., BATTERSEA.
(18) ST. MARK'S COLL., CHELSEA.
(19) ROYAL ACADEMY OF MUSIC.
(20) ROYAL COLL. OF MUSIC.
(21) TRINITY COLL. OF MUSIC.
(22) GUILDHALL SCH. OF MUSIC.
(22*a*) PHYSIOL. LAB. OF THE UNIV.*
(23) BETHLEM ROYAL HOSPL.
(24) HOSPL. FOR CONSUMPTION.
(25) HOSPL. FOR SICK CHILDREN.
(26) NAT. HOSPL. FOR PARALYSED AND EPILEPTIC.
(27) ROYAL LOND. OPHTHALMIC HOSPL.
(28) SCH. OF PHARMACY.

* Incorporated in the Univ.

† Now a School of the Univ.

PROFESSORS, READERS, LECTURERS, ETC., January 1, 1922

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Accountancy and Business Methods, v. also Com.

Dicksee, L. R., M.Com. Birm. Cassel Prof. (E.)

Administration, v. Public

African Langs.

Werner, Alice. Prof. of Swahili and Bantu (O.).

Agriculture, v. also Botany

Haines, A. H. (Estate Management and Surv.) (Ag.).

Anatomy

Barclay-Smith, E., M.A., M.D., B.Ch. Camb. Prof. (K.).

Frazer, J. E. S., F.R.C.S. Prof. (SM.).

Gladstone, R. J., M.D., C.M., D.P.H. Aberd., F.R.C.S., (Embryol.) (K.).

Greene, W. H. C., C.B.E., B.A., M.B., B.Ch. Camb., F.R.C.S. (SM.).

Hill, J. P., D.Sc. Edin., F.R.S. Prof. of Embryology (U.).

Johnston, T. B., M.B., Ch.B. Edin. Prof. (G.).

Keene, Mrs. M. F. L., M.B., B.S., F.R.C.S. Reader (LW.).

Parsons, F. G., F.R.C.S. Prof. (T.).

Smith, G. E., M.D., C.M. Syd., M.A. Camb., F.R.S., F.R.C.P. Prof. (U.).

Wright, W., D.Sc. Bir., M.B., Ch.B. Manc., F.R.C.S. Prof. (L.).

Yeates, T., M.B., C.M. Edin., B.Hy., D.P.H. Durh. Prof. (M.).

Anatomy, Morbid [Prof. (T.).

Shattock, S. G., F.R.C.S., F.R.S. (also recogd. in Bact. and Path.)

Spilsbury, B. H., M.A., B.M. Ox. (recogd. in Path.) (B.).

Turnbull, H. M., M.A., B.Ch., D.M. Ox. (recogd. in Path.) Prof. (L.).

Arabic, v. Oriental Langs.

Aramaic, v. Semitic Langs.

Archæology, v. also Class., Hist.

Gardner, E. A., M.A., Litt.D. Camb. Yates Prof. (U.).

Assyrian and Babylonian Archæology

Murray, Margaret A. (U.).

Petrie, W. M. Flinders, D.C.L. Ox., LL.D. Aberd., Litt. D., Ph.D., F.B.A., F.R.S. Edwards Prof. (U.).

Architecture

Adshead, S. D., M.A. Liv., F.R.I.B.A. Prof. of Town Planning (U.).

Briggs, M. S., A.R.I.B.A. (U.).

Richardson, A. E., F.R.I.B.A. Prof. (U.).

Stratton, A. J., F.R.I.B.A., F.S.A. Reader (U.)

Art (Fine Art)

Borenius, C. T., Ph.D. Hels. (Hist of Art) (U.).

Marriott F., A.R.C.A., A.R.E. (1)

Porter, A. T., M.A. Camb. (U.)
Russell, W. W., A.R.A.
Asst. Prof. (U.).
Tonks, H., F.R.C.S.
Slade Prof. (U.).

Astronomy, v. Physics

Aviation, v. Engineering

Banking and Currency
..... Cassel Prof. (E.)

Bio-Chemistry, v. also Chem.
Harden, A., D.Sc. Manc., Ph.D. Erl., F.R.S. Prof. (LI.).
Ryffel, J. H., M.A., B.Ch. Camb., B.Sc., F.I.C. (recogd. in Forensic Med.) Reader (G)

Biology, v. also Zool.
Esdaile, Philippa C., D.Sc. Manc Reader (KH.)
Evans, T. J., M.A. Ox. (G.).
Leigh-Sharpe, W. H., B.Sc. (SM.).
Mudge, G. P., A.R.C.S. (L, LW.).
Nicholls, G. E., D.Sc., A.R.C.Sc. (KH.).
Shore, T. W., O.B.E., M.D., B.Sc. (B.).

Botany [Prof. (Ho.).
Benson, Margaret J., D.Sc.
Blackman, V. H., M.A., Sc.D. Camb., F.R.S. (Im.).
Delf, E. M., B.A. Dub., D.Sc., F.L.S. Reader (Wf.).
Drabble, F., D.Sc. Lond. & Shef., A.R.C.S., F.L.S. (8).
Farmer, J. B., M.A., D.Sc. Ox., F.R.S. (Im.).
Fritch, F. E., D.Sc., Ph.D. Mun., F.L.S. (EL.).
Garside, S., M.Sc. Manc. (B.).
Gates, R. R., M.A. Mt. All., B.Sc. McG., Ph.D. Chic., F.L.S. Prof. (K.).
Groom, P., M.B.E., M.A. Ox. and Camb., D.Sc. Ox., B.Sc. Birm., F.L.S. (1m.).
Gwynne-Vaughan, Dame H. C. I., D.B.E., D.Sc., F.L.S., LL.D. Glas. Prof. (3).
Haas, P., D.Sc., Ph D. Freib. Reader in Plant Chem. (U.).
Halket, Ann C., B.Sc. (BW.).
Hill, T. G., A.R.C.S., F.L.S. (Plant Physiology) Reader (U.).
Lacey, H. B., F.L.S. (11).
Neilson-Jones, W., M.A. Camb. Prof. (BW.)
Oliver, F. W., M.A. Camb., D.Sc , F.R.S. Quain Prof. (U.).
Salisbury, E. J., D.Sc., F.L.S. (U.).
Salmon, E. S. (Mycology) Reader (Ag.).
Wallis, T. E., B.Sc., F.I.C. (28).

Chemistry, v. also Bio-Chem.
Allmand, A. J., D.Sc. Liv. Prof. (K.).
Arnall, F., B.Sc. (11)
Baker, H. B., C.B.E., M.A., D.Sc. Ox., F.R.S. (Im.).
Barnett, E. de B., B.Sc. (10).
Barrow, F., M.Sc. Birm., Ph.D. Stras. (3).
Boyle, Mary, D.Sc. (Ho.)
Brady, O. L., D.Sc., B.A. (U.).
Burke, Katharine A., B.Sc. (U.).
Candy, H. C. H., B.A., B.Sc., F.I.C., F.C.S. (L.).
Clough, G. W., D.Sc. Birm. (9).
Coleman, J. B., A.R.C.S., F.I.C., F.C.S. (11).
Cremer, H W., B.Sc., A.I.C. (Inorg. C.) (K.).
Crompton, H., F.C.S., A.C.G.I. Reader (BW.).
Dean, G., M.A. Camb. (12).
Donnan, F. G., C.B.E., M.A. R.U.I., Ph.D. Leip., D.Sc. Liv., F.I.C. Prof. of Genl. Chem. (U.)
Drakeley, T. J., M.Sc., F.C.S., A.I.C. (8).
Eldridge, A. A., B.Sc., F.I.C. (Im.).
Evans, H. J., B.Sc., F.I.C. (U.).
Field, S., A.R.C.S. (Applied Chem.) (7).

Garner, W. E., M.Sc. Birm. and Lond. (U).
Gibson, C. S., O.B.E., M.A. Ox. and Camb., B.Sc. Ox., M.Sc. Manc, F I.C. Prof. (G)
Harwood, H. F., M.Sc. Manc., Ph.D. Heid. (Im.).
Hurtley, W. H , D.Sc. Reader (B)
Ingold, C. K., D.Sc. (Im.).
Keane, C. A., D.Sc. Manc., Ph.D. Erl., F.I.C. (10).
Kenyon, J., D.Sc., F.I.C. (2).
King, A. T., B.Sc. (Im.).
Lowe, F. H., M.Sc. Manc. (11).
Masson, J. I. O., M.Sc. Melb. Reader in Inorg. C. (U)
Masters, Helen, B.Sc. (KH.).
Melland, G., M.Sc. Manc., A.R.S.M., F.I.C. (13).
Myddleton, W. W., M Sc. Belf. (3)
Moore, T. S., M.A. Ox., B.Sc Prof. (Ho.).
Partington, J. R , M B.E., D.Sc. Manc. Prof. (EL.)
Patterson, W. H., M.Sc. Manc. (EL.).
Philip, J. C., O.B.E., M.A., D.Sc. Aberd., Ph.D. Gött. (Im.).
Pickard, R. H., B.Sc. Birm , Ph.D. Munich, D.Sc. (2)
Plimmer, R. H. A., D.Sc. Prof. (T.).
Pope, F. G., D.Sc. Reader (EL.).
Sand, H. J. S., Ph.D. Zür., D.Sc. Birm. (10).
Senter, G., D.Sc., Ph.D. Leip. (3).
Smiles, S., O.B.E., D.Sc., F.R.S. Daniell Prof. (K.).
Stratton, Mrs. K., M.Sc. (EL.).
Streatfeild, F. H. (12).
Sugden, S., B.Sc., A.R.C.S., A.I.C. (3).
Thole, F. B., D.Sc. (3).
Tinkler, C. K., B.Sc. Lond. and Wales, D.Sc. Birm. Prof. (KH.).
Tuck, W. B., D.Sc. Prof. (M.).
White, J. L., D.Sc. Durh. (2).
Whiteley, Martha A., O.B.E., D.Sc., A.R.C.S. (Im.).
Widdows, Sybil T., B.Sc., F.I.C. (LW.).

Chemistry, Organic

Collie, J. N., LL.D. Glas., D.Sc. Liv. and Belf., Ph.D. Würz., F.I.C., F.R.S. Prof. (U.).
Crocker, J. C., M.A. Camb., D.Sc., F.C S (11).
Fairbourne, A., M Sc. Manc , B.A. Ox. (K.).
Thorpe, J. F., C.B.E., D.Sc. Manc., Ph.D. Heid., F.I.C., F.C.S., F.R.S. (Im.).

Chemistry, Pathological, v. also Bio-Chem.

Goodbody, F. W., M.D., B.Ch., B.A.O., B.A. Dub. (U.).
Wallis, R L. M., M.A., M.D. (B).
Willcox, Sir Wm. H., K.C.I.E , C.B., C.M.G., M.D., B.Sc., F.R.C.P., F.I C., F.C S., D.P.H. (also in Med.—For. and Clin.) (SM.).

Chem., Physical

Spencer, J. F., D.Sc. Liv., Ph.D. Bres., B.Sc Manc. (also recogd. in Chem.). Reader (BW.).
Salmon, C. S., M.Sc. (K.).

Chemistry, Physiological

Drummond, J. C., D.Sc., F.C.S., F.I.C. Reader (U.).
Gardner, J. A., M.A. Ox., F.I.C., F.C.S. Reader (22*a*, SG.) (also recogd. LW.).
Schryver, S. B., D.Sc., Ph.D. Leip. (Im.).

Chemical Technology

Bone, W. A., D.Sc. Manc., Ph.D. Heid., F.R.S. (Im.).
Finch, G. I., M.B.E., Dipl. Tech. Chem. Zür. (Im.).

Chinese v. Oriental Langs.

Classics

Alford, Margaret (Latin) (Wf.).

Butler, H. E., M.A. Ox.
Prof. of Lat. (U.).
Crump, Mary, M.A. (1).
Earp, F. R., M.A. Camb. (EL.).
Kilner, G. W., M.A.
(N., H., R.).
Knight, Clara M., D.Lit.
Reader (KW.)
MacGregor, J. M., M.A. Ox.
Reader in Gk. (BW.).
Marshall, F. H., M.A. Camb.
(recogd. also in *Archæol*) (3.).
Parker, Constance E., M.A. (Wf.).
Platt, J. A., M.A. Camb.
Prof. of Gk. (U.).
Richardson, Anne W., B.A. (Wf.).
Sleeman, J. H., M.A. Camb. (Ho.).
Solomon, L., M.A. Ox. (U.).
Tarrant, Dorothy, M.A. (BW.).
Taylor, Margaret E. J., M.A. Dub.
(Ho.).
Turner, B. E. R., M.A. Ox. (K.).
Walters, W. C. F., M.A. Ox.
Prof. of Classical Lit. (K., KW.).
Westaway, Miss K. M., M.A.
(Ho.).
Williamson, H., M.A. Ox.
Prof of Latin (BW.).
Wright, F. A., M.A. Camb. (3).

Commerce, v. also Acc., Bank., Law
..... (*Home Trade and Indust.*)
Reader (E.).
Dalton, E. H. J. N., M.A. Camb.
(*Tariffs and Taxation*)
Reader (E.).
Gregory, T. E. G., B.Sc. Econ.
(*Foreign Trade*) Reader (E.).
Jones, Ll. Rodwell, B.Sc.
(*Comml. Geog.*) Lectr. (E.).
Joynt, T. A., M.A. Edin.
(*Transport*) Lectr. (E.)
Sargent, A. J., M.A. Ox. Prof. (E.).
Smith, J. D., O.B.E., M.A. Aberd.
(*Business Methods*)
Lectr. (E.).

Danish [(U.).
Helweg, J. H., Cand. Mag. Copen.

Dental Anat. and Physiol. [(G.).
Hopson, M. F., L.D.S. (D. Anat.)
Pare, J. W., M.D., C.M. Edin., L.D.S. (ND.).
Underwood, A. B. G., M.B., L.D.S. (ND.).

Dental Mechanics
Chapman, H., L.D S. (*Orthodontics*) (L.).
Dowsett, E. B., L.R.C.P., M.R.C.S., L.D.S. (G.).
Gabell, D. P., L.R.C.P., M.R.C.S., L.D.S. (D.).
Olver, S. H., L D.S. (ND).

Dental Surgery
Ackland, R. C., C.B E., L.R.C.P., M.R.C.S., L.D.S. (B).
Bennett, N. G., M.A., M.B., B.Ch. Camb., L.D.S. (SG.).
Buxton, J. L. D., L.D.S. (ND.).
Clapham, H. D., M.R C.S., L.R.C.P., L.D.S. (L.).
Colyer, Sir J. F., O.B.E., L R.C.P., F.R.C.S , L.D.S. (C.).
Dolamore, W. H., L.R.C.P., M.R.C.S., L.D.S. (Operative D.S.) (SM., D)
Glassington, C. W., M.R.C.S., L.D.S. Edin. (W.).
James, W. W., L.D.S., F.R C.S., L.R.C P. (M.).
Parfitt, J. B., L.R.C.P., M.R.C.S., L.D.S. (G.).
Payne, J. L., O.B.E., L.R C.P., M.R.C.S., L.D.S. (G).
Sprawson, E. C., M.R.C.S., L.R.C.P., L.D.S. (L.).
Turner, J. G., F.R.C.S., L.D.S. (D.).
Wallis, C. E., L.R.C.P., M.R.C.S. L.D.S. (KM.).

Dutch [Prof. (U., BW.).
Geyl, P., Lit.D. Leyd.
Harting, P. Reader (U., BW.).

Economics, v. also Com., Geog., Pol., Pub. Admn , Soc., Stat., Transp.
Beveridge, Sir W. H., K.C.B., M.A., B.C.L. Ox. (Descr. E. and Pub. Admn.). (E.).

Cannan, E., M.A. Ox., LL.D.
Prof. of Pol. Econ. (E.).
Foxwell, H. S., M.A. Camb., F.B.A.
Prof. of Pol. Econ. (U., E.).
Lloyd, C. M, M.A. Ox. (E. and Pub. Admn.). (E).
Stocks, Mrs. M. D., B.Sc. (KH.).
Tawney, R. H., B.A Ox. (Social E) (E).
Urwick, E. J., M.A. Ox.
Prof. of Social Philos. (E).

Economic Geography, v. also Comm.
Ormsby, Mrs. H. R., B Sc. (Econ) (E).

Economic Hist., v. also Palæog., Pub Admn
Knowles, Mrs., Litt.D. Dub.
Prof. (E.).

Education, v. also Music
Adams, J., LL.D. St. And., M.A., B.Sc. Glas. Prof. (Tr.).
Adamson, J. W., B.A. Prof. (K.).
Fairgrieve, J., B.A. Lond., M.A. Ox. (Tr.).
Firth, Catherine B, D.Lit. (15).
Graveson, Caroline C., B.A. (1).
Hague, J. C., M.A. Manc. (Tr.).
Hubback, Jane C, T.C. Camb. (15)
Hudson, R., M.A. Camb. (18).
Johnston, Katharine L., M.A. Sheff., T.D. Camb., B.A. (14).
Meiklejohn, Grace I. W., M.A. Edin. (14).
Melhuish, Sara, M.A. Manc.
Reader (BW.).
Nunn, T. P., M.A., D.Sc.
Prof. (Tr.).
Powell, Helena L. (15).
Punnett, Margaret, B.A. (Tr.).
Raymont, T., M.A. (1).
Showan, P. B., M.A. Liv. (K.).
Smith, Phyllis W., T.D. (14).
Steppat, Mrs. M. A. A., M.A. Durh., M.A. (14).
Von Wyss, Clotilde R. R., T.C. Camb. (Tr.).
Wimms, J. H., M.A. Wales, B.Sc. (1).

Embryology, v. Anat.

Engineering, v. *infra*

English, v. also Lib'ship
Blackman, Mrs. E., M.A. (U.).
Block, Katharine S., M.A. Dub. (Ho.).
Campbell, Mrs. K. W. (KW.).
Chambers, R. W., M.A., D.Lit.
Reader in Lang. and Lit. (U.).
Daunt, Beatrice M. (Old and Middle E.) (3).
Foster, Sir T. G., B.A., Ph.D. Stras. (Lang. and Lit. and Philol.) (U.).
Gollancz, Sir I., M.A., Litt.D. Camb., F.B.A.
Prof. of E. Lang. and Lit. (K., KW.).
Grattan, J H. G., B.A. (U.).
Ingram, Miss E. G., M.A. (K).
Ker, W. P., M.A. Ox., LL.D. Glas., Litt.D. Manc., D.Litt. Durh. F.B.A.
Quain Prof. of E. Lang. and Lit. (U.).
Lee, Margaret L., M.A. Ox. (KW.).
Lee, Sir Sidney, D.Litt. Ox., Litt.D. Manc., LL.D. Glas., F.B.A.
Prof. of E. Lang. and Lit. (EL.).
Lobban, J. H., M.A. Aberd. (Lang. and Lit.) (3).
Nicoll, J. R. A., M A. Glas. (K.).
Pollard, A. W., M.A. Ox.
Prof. (K.).
Reed, A. W., M.A. Reader (K.).
Routh, H. V., M.A. Camb.
Reader in E.Lit. (BW.).
Spurgeon, Caroline F. E., D. de l'U. Paris, Litt.D. Mich.
Prof. of E. Lit. (BW.).
Thomas, P. G., M.A. Camb.& Liv.
Reader in E. Lang. & Lit. (BW.).
Warren, Kate M. (Lang. and Lit.)
Reader (Wf.).

Willcock, Gladys D., M.A. (Ho.).
Williams, O. T., M.A. Wales (EL.).

Entomology, v. Zool.

Ethnology
Seligman, C. G., M.D., F.R.C.P., F.R.S. Prof. (E.).
Elderton, Ethel M. (Applied Statistics) (U).

Eugenics [Galton Prof. (U.).
Pearson, Karl, M.A., LL.D. Camb. Aberd. and St. And., F.R.S.

French
Brandin, L. M., M.A., Ph.D. Greifswald, L. ès L. Fielden Prof. of F. and Romance Philol. (U.).
Crosland, Mrs. J., M.A. (Wf.).
Dechamps, J. A., D.Phil., D. ès L. Liége (EL.).
Eccles, F. Y., M.A. Ox. Prof. of F. Lit. (BW.).
Halket, Eliz. C., M.A. (EL.).
Honey, Margaret E. D., M.A. (F. and Romance Philol.) (Ho).
Jeaffreson, J. W., B A. (U.).
Johnson, Fanny C., M.A. (BW.).
Kastner, V. E., B. ès L. (3).
Page, Florence, M.A. (BW.).
Perret, J. A., O.A. (4).
Perry, Mrs. M. C. A. E. (EL.).
Spiers, V., M.A. Ox., B. ès L. (K., KW.).
Stone, Louise W., M.A. (3).
Tuke, Margaret J., M.A. Dub. (F. and Romance Philol.) (BW.).
Turquet, Mrs. Gladys R., M.A., D.Lit. (Wf.).
Webb, C. D., M.A., D.Lit., B.Sc. (K.).

Geography, v. also Econ.
Hosgood, Blanche, B.A. (BW.).
Lyde, L. W., M.A. Ox. (U.).
Mackinder, Sir H. J., M.A. Ox., M.P. Reader (E.).
Smith, H. G., B.Sc., A.R.C.S. (EL.).
Unstead, J. F., M.A. Camb., D.Sc. (3).

Geology
Brade-Birks, S. G., M.Sc. Manc. (Ag).
Cullis, C. G., D.Sc., M.I.M.M., F.G.S. (Mineral) (Im.).
Davies, A M., D.Sc., A.R.C.S, F.G.S. (Im.).
Davies, G. MacD., M.Sc. (3).
Elsden, J. V., D.Sc. (U.).
Evans, J. W., D.Sc., LL.B., F.R.S., F.G S. (Im.).
Garwood, E. J., M.A., Sc.D. Camb., F.R.S., F.G.S. Yates-Goldsmid Prof. (U.).
Gordon, W. T., B.A. Camb., D.Sc., M.A. Edin. (Geol., including Palæont.) Prof. (K.).
Hawkes, L., M.Sc. Durh. Reader (BW.).
Maslen, A. J., F.G.S. (11).
Smith, H. G., B.Sc., A.R.C.S. (EL.).
Smith, Stanley, M.A. Camb., D Sc. Durh. (BW.).
Watts, W. W., M.A., Sc.D. Camb., M.Sc. Birm., LL.D. St. And., F.R.S., F.G.S. (Im.).
Wells, A. K., B.Sc. (K.).

German
Atkins, H. G., M.A., D.Lit., B.A. Camb. Reader (K., KW.).
Bithell, J., M.A. Manc. Reader (3).
Delp, Wilhelmine E., D. de l'U. Paris (Ho.).
Dunstan, A. C., B.A. Lond., Ph.D. Königsberg (EL.).
Massey, Isabella M., Ph.D. Marburg Reader (BW.).
Perrett, W., B.A., Ph.D. Jena Reader (U.).
Priebsch, R. C., B.A., Ph.D. Graz. Prof. (U.).
Richey, Marg. F., M.A. (Ho.).
Robertson, J. G., M.A., B.Sc. Glas., Ph.D. Leip. Prof. (U., BW.).
Steppat, J., B.A., Ph.D. Wien. Reader (K., KW.).
Williams, O. T., M.A. Wales (Germanic Philology) (EL.).

Greek, Modern
Oeconomos, L., L. ès L., D. de l'U. Paris (K.).
Toynbee, A. J., B.A. Ox. Koraés Prof. (K).

Hebrew, v. Semitic

Historical Research and Archive Science
Jenkinson, H, M A. Camb (K).

History and Culture of British Dominions in Asia, with special reference to India
Dodwell, H. H, M.A. Ox. Prof. (O).

History and Records of London
Davis, Eliza J., M.A. Reader (U).

History, v. also Econ., Palæog., Pol. Sc., Pub. [(U.).
Adair, E. R, M.A. Camb., B.A.
Adam, Margt., M.A Edin. (BW.).
Allen, J. W., M.A. Ox. (BW.).
Barker, E, M A. Ox. (K).
Cam, Helen M., M A. (Ho.).
Clarke, F., M.A. Ox. (EL.).
Dymond, Dorothy, M A. (1).
Innes, A. D., M.A Ox (O.).
Jenkins, C., M A Ox., F S A. (Eccl. H.) (K).
Johnstone, Hilda, M.A. Manc. Prof. (Ho).
Jones, A., M.A. Manc. Reader (3).
Lodge, Eleanor C, M.A. Ox. (Wf.).
Montague, F. C., M.A. Ox. (U.).
Newton, A. P., B.Sc., D.Lit. Rhodes Prof. (K).
Seton-Watson, R. W., D.Litt. Ox. (East European H.) (K.).
Skeel, Caroline A. J., D.Lit. Reader (Wf., 3).
Thornley, Isobel D., M.A. (U.).
Westaway, Katharine M., M.A. (Ho.).

History, Ancient [Reader (U.).
Baynes, N. H., M.A. Ox.
Cary, M., M.A. Ox. Reader (U., BW.).
Laistner, M. L. W., M.A. Camb. Reader (K.).
Power, Eileen le P., M.A. (K., E.).

History, English
Pollard, A. F., M A. Ox., Litt.D. Manc., F.B.A. Prof. (U.).

History, Mediæval [Prof. (K.).
Hearnshaw, F. J. C., M.A., LL.M. Camb., LL.D. Dub.

History of Medicine
Singer, C., M A, M D. Ox. (U).

History, Modern
Carlyle, E. I., M.A. Ox. (Ho.).

Household Science
Dyer, Margaret (KH).

Hygiene, v. Med.

Italian [Prof. (U.).
Cippico, A., Dr. Juris Graz.
Crespi, A. (3).
Dobelli, Emma B. (BW.).
Goad, H. E, O.B.E., M.A. Ox Reader (U.).

Law, v. *infra*

Librarianship
Baker, E. A., D.Litt., M A. (recogd. in Engl Lit) Dir. of Univ. School of L. (U.).

Logic, v. Philos.

Mathematics
Bickley, W. G., B Sc. (2).
Bryant, R., B.A., D.Sc. (4).
Churchill, W. F. S., M.A. Ox. (EL.).
Clay, R. S., B.A. Camb., D.Sc. (8).
Coates, C. V., M.A. R.U.I. (3).
Curzon, H. E. J., M.A. Camb., B.Sc. (1).
Dale, J. B., M.A. Camb. (K.).
Davidge, H. T., B.Sc., A.R.C.Sc. (U.).
Edwards, R. W. K., M.A. Camb. (K., KW.).

Forsyth, A. R., M.A., Sc.D. Camb., D.Sc. Ox., Math.D. Christ., LL.D. Glas. and Aberd., F.R.S. (Im.).
Graham, J., B.E., B.A. R.U.I. (5).
Green, S. L., M.Sc. (EL.).
Harris, H. H., M.A. Camb. (2).
Harvey, F. W., M.A. R.U.I., B.Sc. (2).
Hatton, J. L. S., M.A. Ox. (EL.).
Higgins, Ellen C., B.A. (Ho.).
Hill, M. J. M., M.A., Sc.D., Camb. LL.D. St. And., F.R.S. Astor Prof. (U.).
Hilton, H., M.A., D.Sc. Ox. Prof. (BW.).
Jeffery, G. B., M.A., D.Sc. (U.).
Jolliffe, A. E., M.A. Ox. Prof. (Ho.).
Klugh, H., B.A. Camb. (Im.).
Le Beau, G. S., M.A. Ox. (EL.).
Levy, H., D.Sc. Ox., M.A., B.Sc. Edin. (Im.).
Lister, J., A.R.C.S. (11).
Littlejohn, E. S., M.Sc. Manc. (12).
Miller, T. H., M.A., D.Sc. Glas. (16).
Pick, Marion, M.A. (Ho.).
Rhind, A., B.Sc., A.R.C.S. (8).
Richardson, A. R., B.Sc., A.R.C.S. (Im.).
Rowell, Ethel M. (Ho.).
Salmon, W. H., M.A. Camb., B.Sc. (12).
Saxelby, F. M., M.Sc. Manc., B.A. (2).
Sherriff, Catherine, M.A., B.Sc. (K.).
Shovelton, S. T., M.A. Ox. (K.).
Smart, E. H., M.A. Camb. (3).
Smith, R. T., B.A. Camb. (13).
Soal, S. G., M.A., B.Sc. (EL.).
Tinto, J. F., M.A. Glas., B.A. Camb., D.Sc. (K.).
Turner, G. C., B.Sc. (7).
Whitby, Lilian J., B.A. (Wf.).
White, S. A. F., M.A. Ox. Prof. (K.).
Whitehead, A. N., M.A., Sc.D. Camb., F.R.S. (Im.).
Wren, T. L., M.A. Camb. Reader (U.).
Wrinch, Dorothy M. (U.).

Maths., Applied, and Mechanics

Filon, L. N. G., B A. Camb., M.A., D.Sc., F.R.S. Goldsmid Prof. (U.)

Medicine and Surgery, v. *infra*

Metallurgy

Carpenter, H. C. H., M.A. Ox., Ph.D. Leip., A.R.S.M., M.I.M.M., F.R.S. (Im.).
Courtman, E. O., A.R.S.M. (Im)
Drinkwater, B. W., B.Sc., A.R.S.M., A R.C.S., A.I.M.M., F.I.C. (Im.).
Merrett, W. H., A.R.S.M., M.I.M.M., F.I.C. (Im.).
Naish, W. A., A.R.S.M., M.I.M.M., A.I.C. (11).

Meteorology

Shaw, Sir Napier, M.A., Sc.D. Camb., D.Sc Dub., Harv., and Manc., LL.D. Aberd. Reader.

Mineralogy, v. Geol.

Mining

Cooke, L. H., A.R.S.M., M.I.M.M., F.G.S. (Im.).
Truscott, S. J., A.R.S.M., M.I.M.M., F.G.S. (Im.).
Yates, A., M.I.M.M. (Im.).

Music

Allen, Sir H. P., Mus.D. (20).
Bridge, Sir Frederick, C.V.O., Mus.D. Ox., M.A. Durh. K. Edward Prof. (20).
Corder, F., F.R.A.M. (19).
Davies, H. Walford, Mus.D. Camb., LL.D. Leeds, F.R.C.O., A.R.C.M. (20).
Daymond, Emily R., A.R.C.M. (20).
Dunhill, T. F., A.R.C.M. (20).
Greenish, A. J., Mus. D. Camb. (19).
Horner, E. F., D.Mus. Durh., F.R.C.O. (21).
Macpherson, S., F.R.A.M. (19).
Miles, P. H., A.R.A.M. (19).

Parratt, Sir Walter, K.C.V.O., Mus.D., M.A. Ox., Mus.D. Camb. (20).
Pearce, C. W., Mus.D. Camb. (21).
Pringuer, H. T., Mus.D. Ox., F.R.C.O. (21).
Read, F. J., Mus.D. Ox. (20).
Richards, H. W., Mus.D. Durh., F.R.C.O. (19).
Salsbury, Janet, Mus.D. Durh., L.R.A.M., F.R.C.O. (21).
Stanford, Sir C. V., Mus.D. Ox. and Camb., M.A., D.C.L., LL.D. (20).
Waddington, S. P. (20).
Warriner, J., Mus.D. Dub. (also in Pedag. as applied to Music) (21).
Wells, H. W., B.Mus. Ox. and Durh., F.R.C.O., L.R.A.M. (also in Pedag. as applied to Music) (11).
Wetton, H. D., D.Mus. Durh., F.R.C.O. (2).
Wharton-Wells, H., B.Mus. Ox. and Durh., F.R.C.O., L.R.A.M. (11).
Wood, C., Mus.D. Camb., M.A., LL.D. (20).

Norwegian [(U.).
Gröndahl, I. C., Cand. Mag. Christ.

Oriental Languages, v. p. 112

Palæography and Econ. Hist.
Hall, Hubert, Hon. Litt.D. Camb., F.S.A. Reader (K.).

Pedagogy, v. Educ., Music

Philosophy, v. also Theol.
Aveling, F. A. P., D.D. Rome, Ph.D. Louv., D.Sc. (*Psychol.*) Reader (K.).
Carr, H. W., D.Litt. Durh. (Psychol.) Prof. (K.).
Edgell, Beatrice, M.A. Wales, B.A., Ph.D. Würz. Reader in Psych. (BW.).
Ginsberg, M., M.A. (U.).
Green, S. W., M.A. (also in Theol.) (R.).
Hadfield, J. A., M.A. Ox., M.B., Ch.B. Ed. (*Psychol*) (K.).
Hazlitt, Victoria H., M.A. (*Psychol.*) (BW.).
Hicks, G. D., M.A., Litt.D. Manc., Ph.D. Leip. (U.).
Oakeley, Hilda D., M.A. McG. Reader (KW.).
Spearman, C. E., Ph.D. Leip. Grote Prof. (U.).
Stebbing, Miss L. S. (BW.).
Wolf, A., M.A. Camb., D.Lit. Prof. of Logic and Scientific Method (U. and E.).

Phonetics
Jones, D., M.A. Camb. Prof. (U.).

Physics [Quain Prof. (U.).
Bragg, Sir W. H., K.B.E., M.A. Camb , D.Sc. Manc., F.R.S.
Brinkworth, J. H., M.Sc., A.R.C.S. (T.).
Callendar, Prof. H. L., C.B.E., M.A. Camb., LL.D. McG., F.R.S. (Im.).
Charlesworth, J., M.Sc. Manc. (8).
Cheshire, F. J., C.B.E., A.R.C.Sc. (Im.).
Clack, B. W., M.Sc. (3).
Clarke, F. C., B.Sc., A.M.I.E.E. (12).
Clay, R. S., B.A. Camb., D.Sc. (8).
Conrady, A. E. (Im.).
Curtis, W. E., B.Sc. Reader (K.).
Eccles, W. H., D.Sc., A.R.C.Sc. (5).
Eumorfopoulos, N., B.Sc. (U.).
Ferguson, A. H., D.Sc., M.A. Wales (EL.).
Fison, A. H., D.Sc., A.R.S.M. (G., L.).
Flint, H. T., M.Sc. (K.).
Forsyth, R. W., A.R.C.S. (Im.).
Fowler, A., A.R.C.S., F.R.S. (Im.).
Griffiths, A., D.Sc. Manc., A.R.C.S., F.P.S., A.I.E.E. (3).
Harlow, F. J., B.Sc., A.R.C.S. (10).
Horton, F., D.Sc., Sc.D. Camb., M.Sc. Birm. Prof. (Ho.).

Lees, C. H., D.Sc. Manc., F.R.S. Prof. (EL.).
Lownds, L., Ph D. Berl., B.Sc (11).
Marsh, S., B.Sc. Wales, Ph.D. Gott. (2).
Moss, H., M.Sc., A.R.C.S , D.I.C. (Im).
Nettleton, H. R., M.Sc. (3).
Nicol, J., B.A. Camb., B.Sc. (8).
Oschwald, U. A., B.A. (11).
Owen, D., B.A. Camb., D.Sc. (10).
Philpot, A. J., B.Sc. (K.).
Polson, W., M.A., B.Sc. Aberd. (12).
Porter, A. W., D.Sc. Melb., B.Sc., F.R.S. (Thermodyn.) Reader (U.).
Rankine, A. O., O B E , D Sc. (Im).
Richardson, O. W., M.A. Camb., D.Sc., F.R S. Wheatstone Prof. (K.).
Russ, S., D.Sc. Joel Prof. (M.).
Saltmarsh, Maud O (B.).
Simons, L , D Sc. Prof (3).
Skinner, S., M.A. Camb. (11).
Starling, S. G., B.Sc., A.R.C.S., A.I.E.E. (12).
Stoney, Edith A., M.A. Dub. (KH.).
Tarrant, A. G., B Sc., A.R.C.S. (11).
Tucker, W. S., D.Sc., A.R.C.S., A.I.E.E. (12).
Vinycomb, T. B., M.A. R.U.I. (13).
White, W. H., B Sc., M.A. Camb., A.R.C.S. (SM.).
Wilson, W., Ph.D. Leip., D.Sc. Prof. (BW).
Womack, Prof. F., M.B., B.Sc. (B.).
Wood, D. Orson, M.Sc., A R.C.S. (U.).

Physics, Astronomical
Fowler, A., A.R.C.S., F.R.S. (Im.).

Physiology, v. also Bio-Chem. and Chem.
Anrep, G., M.D. (U.).
Bayliss, W. M., M.A., D.Sc. Ox., LL D. St. And., F.R.S. (General P.) Prof. (U).
Collingwood, B. J., O.B.E., M.D. Camb. Prof. (SM.).
Cullis, Winifred C., O.B.E., D.Sc. Prof. (LW.).
Da Fano, C., M D., L.D. Pavia (K.).
De Souza, D. H., M.D., B.S., D.Sc., F.R C.P. (W.).
Edkins, J. S., M A., M B., Sc.D. Camb. Reader (BW.).
Halliburton, W. D., M.D., LL.D., F.R.C.P., F R S. Prof. (K.).
Hartwell, Gladys A , M.Sc. (KH).
Hewitt, J. A , B Sc , Ph.D St. And. (K).
Mellanby, J., M.A , M.D. Camb. Prof. (T.).
Mottram, V. H., M A. Camb. Prof (KH.)
Pembrey, M. S., M.A., M.D., B.Ch. Ox. Prof. (G.).
Roaf, H. E., M.D. Tor., D.Sc. Liv. Prof. (L.).
Schryver, S. B., Ph.D. Leip., D.Sc. (Im).
Starling, E H , C.M.G., Sc.D. Camb., M.D., B.S., F.R C P., F.R.S. Jodrell Prof. (U.).
Symes, W. L., M.R C.S. (9, 22*a*).
Vincent, T. S , D.Sc. Edin., M.D. Prof. (M.).
Waller, A D., M D., C.M. Aberd., LL.D., F.R.S. (Dir. of Lab.) Prof. (22*a*).

Political Science, v. also Econ.
Wallas, Graham, M.A. Ox. (recogd. in Const. History) Prof. (E.).
Barker, E., M.A. (K.).
Laski, H. J. (E.).

Political Theory
Dickinson, G. L., M.A. Camb. (E.).

Portuguese [Camoens Prof. (K.).
Young, G., M.V.O.

Public Administration, v. also Econ.
Grimshaw, H. A., M.Sc. (Econ.), B.A. (P.A. & Ec Hist) (E.).
Hurst, G. H. J. (v. Law) (3).
Lees-Smith, H. B., M.A. Ox. (P.A. and Economics) (E.).
Reeves, Hon. W. Pember, Ph.D. Athens (P.A. and Hist.) (E.).
Webb, S. J., LL.B. Prof. (E.).

Public Health, v. Med.

Romance Philology
Shears, F. S., B.A. Reader (K.).

Russian, v. also Slav.
Pares, Sir Bernard, K.B.E., M.A. Camb. Prof. (K.).
Meyendorff, Baron A. F. (R. Institns, etc.) (K.).
Raffi, Arshak (K.).
Smith, R. (R. Philol. & Lit.) (K.).

Scandinavian, v. Dan., Nor., Swe.

Semitic Languages
Box, G. H., M.A. Ox., D.D. St. And. (Hebrew) (KT.).
Buchler, A., Ph.D. Leip. (6).
Daiches, S., Ph.D. Leip. (6).
Gollancz, H., M.A., D.Lit. (Heb., Aramaic, Syriac) (U.).
Greenup, A. W., M.A. Dub. and Camb., D.D. Ont., Litt.D. Dub. (Heb. & Aramaic) (J.).
Hirschfeld, H., Ph.D. Stras. (S. Epig. & Hebrew & S.) (U., 6).
Marmorstein, A., Ph.D. Heid. (Bible and Rabbinics) (6).

Slavonic Languages, v. also Rus.
Chudoba, F., Ph.D. Prague (Czecho-Slovak Lang., Hist. and Lit.) (K.).
Masaryk, Prof. T. G., Ph.D. Vien. (S. Lit. and Sociol.) (K.).
Subotič, D., Ph.D., Munich (Serbo-Croat Lang. and Yugoslav Lit. and Hist.) (K.).

Sociology, v. also Econ.
Hobhouse, L. T., D.Litt. Durh., M.A. Ox., LL.D. St. And. Martin White Prof. (E.).
Westermarck, E. A., Ph.D. Hels., LL.D. Aberd. Martin White Prof. (E.).

Spanish
Barragán, J. V. (EL.).
Pastor, A. R., D.Ph. Madrid, B.Litt. Ox. Cervantes Reader (K.).
Villasanté, J. M., LL.D. Madrid. (K.).

Statistics, v. also Eugenics
Bowley, A. L., M.A., Sc.D. Camb. Prof. (E.).

Surveying, v. Engin.

Swedish
Björkhagen, O. I., Phil.Mag. Ups. (U.).

Theology
Andrews, H. T., B.A. Ox., D.D. Aberd. (N., H.).
Barber, W. T. A., M.A., D.D. (WR).
Box, G. H. (v. Semitic) (KT.).
Davies, Prof. W. A., M.A. Ox., and Wales, B.D. (N., H.).
Dearmer, P., D.D. Ox. (KT.).
Garvie, A. E., M.A. Glas. and Ox., D.D. Glas. (N., H.).
Gore, Rt. Rev. C., D.D., D.C.L. Ox., D.D. Edin. and Durh., LL.D. Camb. and Birm. (KT.).
Goudge, H. L., M.A., D.D. Ox. (KT.).
Green, S. W., M.A. (R.).
Greenup, A. W. (v. Semitic) (J.).
Harden, J. M., M.A., B.D., LL.D. Dub. (J.).
Jenkins, C., M.A. Ox., F.S.A. (KT.).
Matthews, W. R., M.A., B.D. [also in Philos. (K.)] (KT.)
Relton, H. M., D.D. (KT.).
Robinson, H. W., M.A. Ox. and Edin. (R.).

Rogers, C. F., M.A. Ox. (KT.).
Scullard, H. H., M.A. Camb., D.D. (N., H.).
Smith, C. R., B.A., D.D. (WR).
Smith, H., M.A. Camb., D.D. (J.).
Titterton, C. H., M.A., B.D. Edin. (J.).
Waterhouse, E. S., M.A., B.D. (WR.).

Transport, Economics of, v. also Com. [(E.).
Stephenson, W. T., B.A. Camb.

Veterinary Science
Cave, T. W., F.R.C.V.S. (Ag.).

Vet. Anatomy
..... (9).

Vet. Hygiene
Wooldridge, G. H., F.R.C.V.S. (9).

Vet. Path. and Bacteriology
McFadyean, Sir John, LL.D., M.B., C.M., B.Sc. Edin., M.R.C.V.S. Prof. (9).

Zoology
Alcock, Col. A. W., C.I.E., C.M., M.B., LL.D. Aberd., F.R.S. (Medical Z.) Prof. (TM.).
Bacot, A. W. (Med. Entomology) (LI.).
Buchanan, Florence, D.Sc. (Ho.).
Cunningham, J. T., M.A. Ox., F.Z.S. (8, EL.).
Dendy, A., D.Sc. Manc., F.R.S. Prof. (K., KW.).
Evans, T. J., M.A. Ox. (v. Biol.) (G.).
Jackson, H. G., M.Sc. Liv. Reader (3).
Lefroy, H. M., M.A. Camb.. F.L.S. (Entomol.) Prof. (Im.).
MacBride, E. W., M.A. Camb., D.Sc., LL.D. McG., F.R.S. (Im.).
MacKinnon, Doris L., D.Sc. Aberd. Reader (K.).
Mudge, G. P., A.R.C.S., F.Z.S. (EL.).
Nutt, Muriel M. (11).
Thomson, J. G., M.A., M.B., Ch.B. Edin. (TM.).
Tims, H. W. M., O.B.E., M.A Camb., M.D., Ch.M. Edin., F.L.S., F.Z.S. Reader (BW.).
Watson, D. M. S., M.Sc. Manc. Jodrell Prof. of Z. and Comp. Anat. (U.).
Woodcock, H. M., D.Sc. (Protozoology) (LI.).

Engineering, v. also Metall., Mining

Aviation
Glazebrook, Sir R. T., K.C.B., Sc.D. Camb., D.Sc. Ox., F.R.S. Zaharoff Prof. (Im.).
Piercy, N. A. V., D.Sc.(Eng.) (EL.).

Civil Engineering
Barker, A. H., B.A., B.Sc. (Heating and Ventg. E.) (U.).
Coker, E. G., M.A. Camb., D.Sc. Edin., M.Sc. McG., A.R.C.S., M.I.C.E., F.R.S. (Civ. and Mech. E.) Prof. (U.).
Curnock, W. E. M., M.Sc. (Eng.) Manc., B.Eng. Liv., A.M.I.E.E. (Civ. and Mech. E.) (2).
Dalby, W. E., M.A. Camb., B.Sc., M.I.C.E., M.I.M.E., A.M.I.N.A., F.R.S. (C. & Mech. E.) Prof. (Im.).
Dixon, S. M., M.Sc., M.A., B.A.I. Dub., M.I.C.E. (Im.).
Genève, L. F. C. A., B.Sc. (Eng.), A.C.G.I. (C. & Mech. E) (K.).
Higgins, A. L., M.Sc. Belf., A.M.I.C.E. (EL.).
Jameson, A. H., M.Sc. Manc., M.I.C.E. Prof. (K.).
Lamb, E. H., D.Sc., M.Sc. Manc., A.M.I.C.E., M.I.M.E. (Civ. & Mech. E.) Prof. (EL.).
Lobban, C. H., B.Sc. (Eng.) Glas., A.M.I.C.E. (K.).

Newton, K., B.Sc. (Eng.), A.C.G.I., A.M.I.C.E. (Civ. and Mech. E.) (Im.).
Ormsby, M. T. M., A.R.C.S. Dub., M.I.C.E I.
Chadwick Prof. of Munic. E. (U.).
Purser, J., B.A., B.A.I. Dub., M.Sc. Birm., A.M.I.C.E. (Im.).
Rice-Oxley, M. K., A.C.G.I., A.M.I.C.E. (Im.).
Smith, S. L., B.Sc. (Eng) (Civ. and Mech. E) (Im.).
Wedgwood, G. A., M.Sc. (Eng.) Belf, B.Sc. (Eng) (Civ. and Mech. E) (EL.).
Whittaker, H., B.Sc. (Eng.), A.R.C.S., A.M.I.M.E. (Civ. and Mech. E.) (Im.).
Witchell, E. F. D., B.Sc., A.C.G.I. (Civ. and Mech. E.) (Im.).
Wolley-Dod, J. C., B.Sc. (Eng.) (K.).

Electrical Engineering

Baillie, T. C., D.Sc., M.A. Edin. A.M.I.E.E. (12).
Burgess, A. F., B.Sc. (Eng.) (7).
Catterson-Smith, J. K., M.I.E.E. (5).
Clinton, W. C., B.Sc., M.I.E.E. (U.).
Denton, F. M., A.C.G.I. (7).
Dover, A. T., A.M.I.E.E. (2).
Dowse, C. M., B.Sc. (Eng.) (7).
Hague, B., M.Sc., A C.G.I. (Im).
Eccles, W. H., D.Sc., A.R.C.Sc. (5).
Fleming, J. A., M.A. Camb., D.Sc., F.R.S. Prof. (U.).
John, W. J., A.R.C.Sc., A.M.I.E.E. (EL.).
Jolley, A. C. (7).
Macgregor-Morris, J. T., M.I.E.E., A.I.C.E. (EL.).
Mallett, E., M.Sc. (Eng.) (Im.).
Mather, T., F.R.S. (Im.).
Robertson, F. S., M.I.E.E. (K.).
Rushton, A., M.Sc. (Tech.) Manc. (Im.).
Shawcross, R. E., A.M.I.C.E. (K.).
Smith, S. P., D.Sc. Durh., A.M.I.C.E., M.I.E.E. (Im.).
Walmsley, R. M., D.Sc., M.I.E.E. (7).
Wilson, E., M.I.C.E., M.I.E.E. W. Siemens Prof. (K.).

Engineering Design

Cruickshank, A., M.I.M.E. (Im.).
Sillick, W. E. G., A.R.C.S., D.I.C. (Drawing and Design) (Im.).

Mech. Engin., v. also Civ. E.

Ashworth, M. H., B.Sc. Manc. (13).
Campbell, H. G., B.Sc. (Eng.) Durh. (K).
Chappell, E., B.Sc., A.M.I.C.E., A C.G.I. (Im.).
Cook, G., D.Sc. Manc, A.M.I.C E., A.M.I.M.E. Prof. (K.).
Davies, V. C., B.Sc., A.M.I.M.E. (2).
Duncan, J., M.I M.E. (12).
Edmonds, H. M., B.Sc. (Eng.) (2).
Hewson, W., B.Sc., A.R.C.S., A.M.I.C.E. (Im.).
Howard, J. V., B.Sc. (Eng.) (Im.).
Keith, D. A., A.M.I.C.E. (Structl. E.) (7).
Larard, C. E., M.I.M.E., M.I.C.E. (7).
Limbourne, C. W. (13).
Richardson, D. (7).
Scoble, W. A., D.Sc. (Eng.), A.R.C.S., M.I.M.E., A.M.I.C.E. (13).
Shaw, J. B., A.R.C.S. (2).
Sprague, E. H., A.M.I.C.E. (U.).
Wells, G. J., A.M.I.C.E., M.I.E.E., M.I.Mar.E. (EL.).

Mech. Engin. and Surveying

Duncan, J., M.I.M.E. (12).
Gladwyn, A. E., B.Sc. (Eng.), A.M.I.M.E. (12)
Parker, W. E., B.Sc. (Eng.) Manc.. (7).

Law

Commercial [(E.).
Humphries, S., B.A., LL.B. Camb. (4).

Page, A., B.A. Ox. (also Crim. L. and Proc., K.) (E.).

Comml. and Industrial
Gutteridge, H. C, M.A Camb. Cassel Prof.

Common
Griffith, W. H., M.A. Camb. (K).

Comparative [Quain Prof. (U.).
de Montmorency, J. E. G., M.A., LL B (Camb.)

Constitutional [Prof. (U., E.).
Morgan, J. H., B.A. Ox., M.A.

English
Hurst, G. H. J., M A., LL.M. Camb. Reader (U.).
Mackay, H. J. H., M A., LL.B. Glas. (K).

Hindu and Mohammedan
Sabonadière, A. (O.).

International
Higgins, A. P., C.B.E., M.A., LL.D. Camb. Prof (E).

Jurispr. and Roman
Hibbert, W. N., LL.D. (K.).
Murison, A. F., M.A., LL D. Aberd. (U).

Railway Law relating to Transport
Bell, W. V., M.A Camb. (E).

Medicine (for subjects of the first 2 yrs.—Anat., etc., v *supra*)

Anæsthetics
Apperly, R. E, M.R.C S, L R.C.P. (M.).
Braine, C. C., F.R.C.S. (C.).
Chaldecott, J. H., L.R.C.P. (SM.).
Cross, W. F., M.R.C S., L R C.P. (B.).
Gandy, E. W, B.A. Camb., M.R.C.S., L.R C.P. (W.).
Gilliatt, Mrs., M.B., B.S. (LW.).
Hughes, C. H. M., M.B., B.S. (KM.).
Mennell, Z., M.B. (T.).
Probyn-Williams, R. J., M.D. Durh. (L.).
Shipway, F. E., M.A., M.D., B.Ch. Camb. (G.).
Shirley, H. J., C.M.G., M.D., F.R.C.S. (UM.).

Aural Surgery [(KM.).
Cheatle, A. H., C.B.E, F.R.C.S.
De Santi, P. R. W., F.R.C.S. (W.).
Dundas-Grant, Sir J., K B.E, M D., C.M., M A. Edin., F R C.S. (also in Laryng) (24).
French, J G, M.S., M.B., F.R.C.S. (also in Laryng.) (LW.).
Layton, T. B., M B, M.S., F.R.C.S. (G.).
Lees, K. A., M.A., M.B., B.Ch. Camb., F.R.C.S. (also in Laryng.) (SM.).
Marriage, H. J., M.B., B.S., F.R.C.S. (T).
Mollison, W. M., C.B E, M.A, M Ch. Camb., F.R C S. (G).
Scott, S. R., M S., M.B, F.R.C S. (B, 26).
Tilley, H., M.D., B.S., F.R.C.S. (also in Laryng.) (UM.).
Tod, H. F., M.D., B Ch, M.A. Camb., F.R.C.S. (L).
Waggett, E B., M.A., M.B., B.Ch. Camb. (also in Laryng.) (C.).
West, C. E., F.R.C.S. (B).

Bacteriology, v. also Anat., Path.
Bulloch, W., M.D., C.M., LL.D. Aberd., F.R.S. (recogd. in Path.) Goldsmiths' Prof. (L).
Eyre, J. W. H., M.D., M S. Durh., D P H. Camb. Prof (G.).
Fleming, A., M.B., B.S. (SM).
Freeman, J., D.M., B Ch. Ox., M A. (SM.).
Goadby, Sir K. W., K.B.E., L R.C.P., M.R.C.S., L.D.S., D.P.H. Camb. (ND.).
Gordon, M. H., B.Sc., D.M. Ox. (B.).

Hewlett, R. T., M.D., F.R.C.P., D.P.H. (recogd. in Path.) Prof. (K.).
Hunt, E L., D.P.H. Camb., M.B., B.S. (also in Path) (SG.).
Ledingham, J. C. G., C.M.G., M.A., M.B., Ch.B., D.Sc. Aberd. Prof (LI.).
Nabarro, D. N., B.Sc., M.D., D.P.H., F.R.C.P. (25).
Petrie, G. F., M.D., Ch.B. Aberd. (LI.).
Taylor, F. E., M.D., B.S., M.A., M.Sc. Manc , M.B., Ch.B., D.P.H. Camb., F.R.C.S. (K.).

Dental Science, v. *supra*

Dermatology [(B.).
Adamson, H. G , M.D., F.R.C.P.
Barber, H. W., B.Ch., M.B., M.A. Camb., M.R.C P. (G.).
Davis, Haldin, B.M. Ox , F.R.C.S. (LW.).
Dore, S. E., M.A., M.D., B Ch. Camb , F.R C P. (W.).
Fox, W. S., M.D., B Ch., M.A. Camb , F.Z.S. (SG).
Galloway, Sir J., K.B.E , C.B., M.A., M.D , C M. Aberd., F R C P., F.R.C S. (C).
Gray, A. M H., C B.E., M.D., B.S , F.R C S., F.R C.P. (UM.).
Little, E. G. G., B A. Cape, M.D., F.R.C P. (SM.).
MacCormac, H , M.D. Edin (M).
Macleod, J. MacL. H., M.D., C.M., Aberd., M.A. St. And., F.R.C.P. (C).
Sequeira J. H., M.D., F.R.C P., F.R.C.S. (L.).
Stainer, E., M.A., M.D.. B.Ch. Ox., F.R.C.P. (T.).
Whitfield, Prof. A., M.D., F.R.C.P. (KM.).

Diseases of Children [(25).
Barrington-Ward, L. E., M.Ch. Edin., F.R.C.S. (25).
Colman, W. S., M.D., F.R.C.P.
Frew, R. S., M.D. Edin., M.R.C.P. (25).
Lane, Sir W. A., Bart., C.B., M.S., M.B , F.R.C.S. (25).

Dis. of Child., & Medicine [(G).
Cameron, H. C., M.A Camb. and Glas , M.D. Camb., F.R C.P.
Fletcher, H. M., M.A., M.D., B.Ch. Camb., F.R C.P. (B.).
Hutchison, R. (v. Pharm.) (25, L.)
Poynton, F. J., M.D., F.R.C.P. (25, UM.).
Still, G. F., M.D., B.Ch., M.A. Camb., F.R.C.P. (25, KM.).
Thompson, H. T., M.D., B Ch , M.A Camb., B.Sc., F.R.C.P., F R.C.S (Chn. M) (25, L.).
Thursfield, J. H., D.M., M.A. Ox., F.R.C P. (25, B.).
Voelcker, A. F., M.D., B.S., F.R.C.P. (25, M).

Dis. of Child., & Surg. [(25, C).
Fairbank, H. A. T., O.B.E., M S , M.B., F.R.C.S., L.D.S.
Kellock, T. H., M.D., M.Ch. Camb., M A., F.R.C S. (25, M.).

Dis. of Women
Hedley, J. P., M.A., M.Ch., M.B. Camb., F.R.C.S. (T.).
Vaughan-Sawyer, Mrs , M.D., B.S., D.Sc., LL.D. Glas. (LW.).

Dis. of W., and Midwifery
Barris, J. D., B.A., M.B., B Ch. Camb., F.R.C.S (B.).
Berkeley, G. H. A. C., M.A , M.D., M.Ch. Camb., F.R.C.P. (M.).
Bonney, W. F. V., M.D., M.S., B.Sc., F.R.C.S. (M.).
Chapple, H., M.A., M.Ch , M.B. Camb., B.Sc., F.R.C.S. (G.).
Donaldson, M., M.B., B.Ch. Camb., B.A. (B.).
Fairbairn, J. S., M.A., M.B., B.Ch. Ox., F.R.C.P., F.R.C.S. (T).
Holland, E. L., M.D., F.R.C.S , F.R.C.P. (L.).

Luker, S. G., M.D. Camb., M.A. (L.).
Playfair, H. J. M., M.D., F.R.C.P., F.R.C.S. (KM.).
Robinson, G. H. D., M.D., B.S., F.R.C.P. (W.).
Roy, D. W., M.A., M.B., B.Ch. Camb., F.R.C.S. (SG.).
Williamson, H., M.A., M.B., B.Ch. Camb., F.R.C.P. (B.).

Forensic Med, v. also Bio-Chem., Chem.—Path.
Brend, W. A., M.A. Camb., M.D., B.Sc. (C.).
Burnford, J. M., M.B., D.P.H. (W.)
Burridge, H. A., M.A., M.B. Dub. (KM.)
Jones, G., M.A., B.M. Ox, D.P.H. (L.).
Lyster, R. A., M.D., Ch.B., B.Sc. (Pub. Health), D.P.H. Birm., B.Sc. (also in Hyg.) (B.).
Smith, E, M.D. (T.).

Helminthology
Leiper, R. T., D.Sc., M.B., Ch.B. Glas. Prof. (TM.).

Hygiene
Brincker, J. A. H., B.A., M.B., B.Ch. Camb., D.P.H., F.I.C. (BW., SM.).
Brown, R. K., M.D., B.Ch., B.A.O., B.A. R.U.I., D.P.H. (G.).
Copeman, S. M., M.A. Camb., M.D., F.R.C.P., D.P.H. (W.).
Foulerton, A. G. R., O.B.E., D.P.H. Camb., F.R.C.S., F.C.S. (LW.).
Kenwood, H. R., C.M.G., C.M., M.B. Edin., F.C.S., D.P.H. Chadwick Prof. (U.).
Lane-Claypon, Janet E., M.D., D.Sc., B.S. (KH.).
Lelean, Bt.-Col. P. S., F.R.C.S., D.P.H. (A.M.).
Lyster, R. A., B.Sc., M.D., D.P.H. Birm. (v. Forensic) (B.).
Porter, C., M.D., B.Sc. Edin. (M.).
Simpson, W. J. R., C.M.G., M.D., C.M. Aberd., F.R.C.P., D.P.H. Camb. Prof. (K., KM.).
Sommerville, D., M D., B.Ch., B.A.O., M.Sc., B.A. R.U.I., F.C.S., D.P.H. Camb. (K.).
Spitta, H. R. D., M.V.O., M.D., B.S. Durh., D.P.H. Camb. (SG.)

Laryngology, v. also Aural Surg.
Barwell, H. S., M.B., F.R.C.S. (SG.).
French, J. G., M.B., M.S., F.R.C.S. (LW.).
Graham, C. I., F.R.C.S. (SM.).
Harmer, W. D., M.Ch., M.B., M.A. Camb., F.R.C.S. (B.)
Hope, C. W. M., M D., B.S. Durh., F.R.C.S. (KM).
Howarth, W. G., M.A., M.B., B.Ch. Camb., F.R.C.S. (T.).
Lack, H. L., M.D., F.R.C.S. (L).
Layton, T. B., M.B., M.S., F.R.C.S. (G.).
Mollison, W. M., C.B.E, M.A., M.Ch. Camb., F.R.C.S. (G).
Rose, F A., M.A., M.B., B.Ch. Camb., F.R.C.S. (B.).
Thomson, Prof. Sir St. Clair, M.D. Lond. and Laus., F.R.C.P., F.R.C.S. (KM.).
Tilley, H., B.S., M.D., F.R.C.S. (UM.).
Waggett, E. B., M B., B.Ch., M.A. Camb. (C.).

Medical Statistics
Greenwood, M., Junr., M.R.C.P., M.R.C.S. Reader (U.).

Medicine and Clin. Med., v. also Chem.—Path., Dis. of Child., Path., Pharmacol.
Abrahams, A., M.D. Camb., B.A. (W.).
Beaumont, G. E., B.M., M.A. Ox., F.R.C.P., D.P.H. (M.).
Beddard, A. P., M.D., B.Ch., M.A. Camb., F.R.C.P., F.R.C.S. (G.).
Bennett, T. I., M.D. (M.).

Bolton, C., C.B.E., M.D., B.S., D.Sc., F.R.C.P., F.R.S. (UM.).
Bosanquet, W. C., M.A., D.M. Ox., F.R.C.P. (C., 24).
Box, C. R., M.D., B.S., B.Sc., F.R.C.P., F.R.C.S. (T.).
Bradford, Prof. Sir J. R., K.C.M.G., C.B., C.B.E., M.D., D.Sc., F.R.C.P., F.R.S. (UM.).
Branson, W. P. S., C.B.E., M.D., B.Ch., B.A. Camb., F.R.C.P. (LW.).*
Briscoe, J. C., M.D., F.R C.P. (KM).*
Broadbent, Sir J. F. H., Bart., M.D., B.Ch., M.A. Ox., F.R.C.P. (SM.).
Brown, W. L., M.A., M.D., B.Ch. Camb., F.R.C.P. (B).
Buzzard, E. F , M.D., B.Ch., M.A. Ox., F.R.C.P. (T., 26).
Cameron, H. C., M.A. Camb. and Glas., M.D. Camb., F.R.C.P. (G.)
Carlill, H., M.A., M.D. Camb., M.R.C.P. (W.).
Carr, J. W., M.D., B.S., F.R.C.P., F.R.C.S. (LW.).
Cassidy, M. A., M.A., M.D., B.Ch. Camb., F.R.C.P. (T.).*
Cockayne, E. A., M.A., D.M. Ox., Ch.B., F.R.C.P. (M.).
Collier, J. S., M.D., B.Sc., F.R.C.P. (SG., 26).*
Crawfurd, R. H. P., M.D., B.Ch., M.A. Ox., F.R.C.P. (KM.).
Dalton, N., M.D., F.R.C.P. (KM).
Dawson of Penn, The Rt. Hon. Lord, K.C.M.G., G.C.V.O., C.B., M.D., B.Sc., F.R.C.P. (L.).
De Souza, D. H., M.D., D.Sc., F.R.C.P. (W.).*
Drysdale, J. H., M.D., B.Ch., M.A. Camb., F.R.C.P. (B.).
Elliott, T. R., C.B.E., M.A., M.D. Camb., F.R.C.P., F.R.S. Prof. (UM.).*
Evans, A. G., B.A., M.D. Camb. (B.).
Fawcett, J., M.D., B.S., F.R.C.P., F.R C.S. (G.).
Fenton, W. J., M.A., M.D., B.Ch. Camb , F.R.C.P. (C., 24).*
Firth, A. C. D., M.A., M.D., B.Ch. Camb. (LM.).
Fletcher, H. M., M.A., M.D., B.Ch. Camb., F.R.C.P. (B.).
Forsyth, D., M.D., D.Sc., F.R C.P. (C).
Fraser, F. R., B A. Camb., M B., F.R C P. Edin. Prof. (B).
French, H. S., C.B.E., M.D., B.Ch., M.A. Ox., F.R.C.P. (G.).
Galloway, Sir J. (v. Dermatol.) (C.).
Golla, F. L., O.B.E., M.A., M.B., B.Ch. Ox., F.R C.P. (SG.).*
Gosse, A. H., M.D , M.A. Camb. (SM.)
Gregory, Mrs. H. H. C., M.D. (LW.).
Hadley, W. J., M D. Durh., F.R.C.P., F.R.C S., D.P.H. Camb. (L.).
Harris, W., M D , B Ch. Camb., B.A., F.R.C.P., F.C.S. (SM.).
Hartley, P. H.-S., C.V.O., M.D., B.Ch., M.A. Camb., F.R.C.P. (B., 24).
Hawkins, H. P., M.D., B.Ch., M.A. Ox.. F.R.C.P. (T.).
Head, H., M.A., M.D. Camb., F.R.C.P., F.R.S. (L.).
Herringham, Sir W. P., K.C M.G., C.B., B A., M.D. Ox. and Dub., F.R.C.P. (B.).
Holmes, G. M., C.M.G., C.B.E., M.D. Dub., B.Ch., B.A.O., B.A., F.R C.P. (26).*
Horder, T. J., M.D., B.Sc. (B.).
Howell, C. M. H., M.A., M.D. Ox., F.R.C.P. (G.).
Hunt, G. H., M.A., D.M., B.Ch. Ox., F.R.C.P. (G.).
Hurst, A. F. (v. Neurol.) (G.).

* Clinical.

Kidd, P., M.A., D.M. Ox., F.R.C.P. (L.).*
Lakin, C. E., M.D., B.S., F.R.C.S., F.R.C.P. (M.).
Langmead, F. S., M.D., F.R.C.P. Prof. (SM.).
Latham, A. C., M.A., D.M., B.Ch. Ox., M.A. Camb., F.R.C.P. (SG.).
Lewis, T., M.D., D.Sc. Wales, F.R.C.P., F.R.S. (UM.).
MacCormac, H., C.B.E., M.B, Ch.B. Edin., F.R.C.P. (M.).*
Mackenzie, H. W. G., M.A., M.D. Camb., F.R.C.P. (T.).
MacLean, H., M.D , Ch.B. Aberd , M.Sc. Liv., D.Sc. Prof. (T).
Marshall, G , M D. (G.).
Martin, S. H. C., M D , B.Sc , F.R C P., F.R.S. (UM.).
Miller, C. H., C.B.E., M.A., M.D., B.Ch. Camb., F.R C.P. (L.).*
Miller, R. H., M.D., B.S., F.R.C.P. (SM).*
Mutch, N., M.A., M.D., B.Ch. Camb., F.R C.P. (also in *Pharmacol*) (G.).
Ogle, Cyril, M.A., M.D., B.Ch. Ox., F.R.C.P. (SG.).
Parkinson, J., M.D. (L).
Perkins, J. J., M.A., M.B., B Ch. Camb., F.R.C.P. (T., 24).
Phear, A. G., C.B., M.D., B.Ch., B.A. Camb., F.R.C.P. (LW.).
Poulton, E. P., M.A., M.D., B.Ch. Ox., F.R C.P. (G.).
Poynton, F. J., M.D., F.R.C.P. (UM.).
Rolleston, Sir H. D., K.C B., M.A , M.D., B.Ch. Camb., F.R.C.P. (SG).
Rowlands, R. A., B.Sc., M.D. (L.).
Russell, A. E., M.D., B.S , F.R.C.P. (T.).
Russell, J. S. R., M.D., C.M. Edin., F.R.C.P. (26).
Ryle, J. A , M D. (G.).
Saunders, P. W., B.A., M.B. Tor., F.R.C.P. (LW.).
Shaw, H. B., M.D., B.S., F.R.C.P., F.R.C.S. (UM., 24).
Smith, L. A., M.D., F.R.C.P. (L.).
Stewart, Sir J. P., K.C.M.G., C.B., M D., C.M., M.A. Edin., F.R.C.P. (W.).
Stewart, T. G., M.D., Ch.B. Edin., F.R.C.P. (26).*
Still, G. F., M.A., M.D., B.Ch. Camb., F R.C.P. (KM.).
Stoddart, W. H. B., M.D., B.S., F.R.C.P. (23).
Stott, A. W., M A., B.Ch Camb (W).
Taylor, J., C.B.E., M.A., M.D. Edin., F.R.C.P. (26).
Thompson, H. T., M.A., B.Ch., M.D Camb., B.Sc., F.R.C P., F.R.C.S. (L.).
Thursfield, J. H., M.A., D.M. Ox., F.R.C.P. (25).
Tidy, H. L , M.A , D.M., B.Ch. Ox , F.R.C.P. (T.).
Tooth, H. H., C.B., C.M G., M.A., M.D. Camb , F.R.C.P. (B ,* 26).
Torrens, J. A., M.B., B S., M.R.C.P. (SG).
Tunnicliffe, F. W., M D. (KM.).
Turner, W. A , C.B , M.D , C M. Edin., F R.C.P. (KM ,* 26).
Turney, H. G., O.B.E., D.M., M.Ch., M.A. Ox., F.R.C.P., F.R.C.S. (T.).
Voelcker, A. F., M.D., B.S., F.R.C.P. (M).
Wall, R. C. B., D.M., B.Ch., M.A. Ox., F.R.C.P. (L.,* 24).
Ward, G. E. S., M.D., B.S. (M.).*
Wiltshire, H. W., M.A., M.D., B.Ch.Camb.,F.R.C.P.(KM.).*
Wilson, C. McM , M.D. (SM).
Woodwark, A. S., M.D. (W.).
Wynter, W. E., M.D., B.S., F.R.C.P., F.R.C.S. (M).

* Clinical.

Young, R. A., C.B.E., M.D., B.Sc, F.R.C.P. (M., 24).

Mental Diseases

Armstrong-Jones, Sir Robert, C.B.E., M.D., B S, F.R C.P., F.R C.S. (B.)
Chambers, J., M.A., M.D., M.Ch. R.U.I. (M).
Cole, R. H, M.D., F.R C.P. (SM.).
Craig, M, C.B E., M.A., M.D, B Ch. Camb., F.R.C.P. (G.).
Hart, B., M.D. (UM.).
Macnamara, E. D., M.A., M.D., B.Ch. Camb., F.R.C.P. (C.).
Norman, H. J, M.B Edin, D.P.H Edin & Glas (W).
Phillips, J. G. P., M.D., B.S. (23).
Smith, R. P., M.D., B.S, F.R.C P. (T).
Steen, Prof. R. H, B.A. R U.I., M D. (KM).
Will, J. K., M.A., M.D., C.M. Aberd. (L).

Midwifery, v. also Dis. of W.

Andrews, H. R., M.D., B S., F.R.C.P. (L).
Blacker, G. F., M.D., B.S., F.R.C.P., F.R.C.S. (UM.).
Bourne, A. W., B.A., M.B., B.Ch. Camb, F.R.C.S. (SM.).
Dodd, S., M.A., M.B., B.Ch. Camb., F.R.C.S.E. (W.).
Eden, T. W., M.D., C M. Edin., F.R.C.P., F.R.C.S.E. (C).
Gilliatt, W., M.D., M.S., F.R.C.S. (KM.).
M'Ilroy, Anne L., O.B.E., M.D., D.Sc. Glas.
Prof. of Obst. and Gyn. (LW.).
Smith, G. Bellingham, M.B., B.S., F.R.C.S. (G.).
Smith, G. F. D., M.A., B.M., B.Ch. Ox., F.R.C.S. (SG.).
Spencer, Prof. H. R., M.D., B.S., F.R.C.P. (UM.).
Stevens, T. G., M.D., F.R.C.S. (SM.).

Neurology

Birley, J. L., M A, B M., B.Ch. Ox., F R C P. (T.).
Howell, C. M. H., M.A., D.M. Ox., F.R.C.P. (26).
Hurst, A. F., M.D., B.Ch., M.A. Ox., F R C P. (G.).
Saunders, P. W., B.A., M.B. Tor., F.R.C.P. (26).
Thomson, H. C., M.D., F.R.C P. (M.).
Wilson, S. A. K., M.A., B.Sc., M.D. Edin., F.R.C.P. (KM., 26).

Ophthalmology

Cargill, L. V., F.R C.S. (KM.).
Collins, E. T., F.R.C.S. (27, C.)
Eason, H. L, C.B., C.M.G., M.D., M.S. (G.).
Fisher, J. H., M.B., B.S., F.R C.S. (T., 27).
Flemming, P., M.D., B.S., F.R.C.S. (UM., 27).
Greeves, R. A., M.B., B.S., B.A. R.U.I., F.R.C.S. (M.).
Grimsdale, H. B., B.A., M.B., B.Ch. Camb., F.R C.S. (SG.).
Goulden, C. B., M.A., M.Ch., M.D. Camb, F R.C.S. (L).
Hepburn, M. L., M.D., B.S., F.R.C.S. (LW., 27).
Holmes, G. M., C.M.G., C.B.E., B.A., M.D., B.Ch. Dub., F.R.C.P. (27).
Hudson, A. C., M.A., M.D., B.Ch. Camb., F.R.C.S. (27).
James, R. R., F.R.C.S. (SG.).
Jeremy, H. R., F.R.C.S., L.R.C.P. (L.).
Juler, F. A., M B., B.Ch., M.A. Camb., F.R.C.S. (SM.).
Lang, B. T., B.A. Camb., F.R.C.S. (27).
Lawson, Sir A., K.B.E., M.D. Brux., F.R.C.S. (M.).
Lister, Sir W. T., K.C.M.G., M.B., B.Ch., B.A. Camb., F.R.C.S. (L.).
Lyle, H. W., M.D., B.S., F.R.C.S. (KM.).

Moore, R. F., O.B.E., M.A., B.Ch. Camb., F.R.C.S. (B., 27).
Ormond, A. W., F.R.C.S. (G.).
Parsons, J. H., C.B.E., D.Sc., M.B., B.S., F.R.C.S. (UM., 27).
Paton, L. J., M.B., B.Ch., B.A. Camb., F.R.C.S. (SM., 26).
Roxburgh, A. B., M.A., M.B., B.Ch. Ox., F.R.C.S. (L.).
Spicer, W. T. H., M.A., M.B. Camb., F.R.C.S. (B., 27).
Worth, C. A., F.R.C.S. (27).

Pathology, v. also Anat.—Morb., Chem., Bact.
Andrewes, Sir F. W., O.B.E., M.A., M.D., B.Ch. Ox., F.R.C.P., D.P.H. Camb., F.R.S. (recogd. in Bact.) Prof. (B).
Boycott, A. E., M.A., B.Sc., B.Ch., D.M. Ox., F.R.S. Graham Prof. (UM.).
Daniels, C. W., B.A., M.B. Camb., F.R.C.P. (TM.).
Donaldson, R., M.A., M.D., D.T.M. Edin., D.P.H., F.R.C.S. (SG.).
Dudgeon, L. S., C.M.G., C.B.E., F.R.C P. (also in Bact.) Prof. (T.).
Hicks, J. A. B., M.D., B.S., D.P.H (recogd. also in Bact.) (W.).
Ingleby, Helen, M.B., B.S. (KM.).
Inman, A. C., M.A., M.B., B.Ch. Ox. (24).
Kettle, E. H., M.D. (SM.).
Lakin, C. E., M.D., B.S., F.R.C.P., F.R.C.S. (also in Med.) (M.).
Lawrence, T. W. P., M.B., F.R.C.S. (UM.).
Lepper, Eliz. H., O.B.E., M.B., B.S. (LW.).
McIntosh, J., M.D. Aberd. Prof. (M.).
Nicholson, G. W. de P., M.A., M.D. Camb. (Morb. Histol.) (G.).
Perry, Bt. Lt.-Col. H. M. J., L.R.C.P. and S.I. (AM.).
Teale, F. H., M.D., B.Sc., F.R.C.P. (UM.).
Topley, W. W. C., B.A., M.D., B.Ch. Camb., F.R.C.P. (C.).
Williamson, G. S., M.B., B.Ch. Edin. (LW.).

Pathology, Experimental [(G.).
Laidlaw, P. P., M.A., B.Ch. Camb.
Lazarus-Barlow, W. S., M.D., B.Ch. Camb., F.R.C.P. Prof. (M).
Martin, C. J., D.Sc., M.B., D.Sc. Shef., F.R.S. (Prof. L.I.).
Wright, Sir Almroth E., K.B.E., C.B., M.D., B.Ch., Sc.D. Dub., B.A. Camb., F.R.S. (recogd. in Bact.) Prof. (SM.).

Pharmaceutics
Greenish, H. G., F.I.C., F.L.S., D. de l'U. Paris Prof. (28).

Pharmacology, v. also Med.
Clark, A. J., M.D., B.A. Camb., D.P.H. Prof. (U.).
Hamill, P., M.A., M.D. Camb., D.Sc., F.R.C.P. (B.).
Hutchison, R., M.D., C.M. Edin., F.R.C.P. (also in Med.) (L.).
Inchley, O., M.A., M.D. Camb. (K.).
Laidlaw, P. P. (v. Path., Exper.) (G.).
Leyton, O. F. F., M.A., M.D., B.Ch. Camb., D.Sc., F.R.C.P. (also in Med., Clin.) (L.).
Ransom, F., M.D. Edin. Prof. (LW.).
Woolley, V. J., M.A., M.D. Camb. (T.).

Radiology
Reid, Sir A. D., K.B.E., C.M.G., M.R.C.S., L.R.C.P. (T.).

Surg., v. also Dis. of Child.
Adams, J. E., M.S. (T.).
Addison, O. L., M.B., B.S., F.R.C.S. (25).
Armour, D. J., C.M.G., M.B., B.A. Tor., F.R.C.S. (26).
Back, I., M.A., M.B., B.Ch. Camb., F.R.C.S. (SG.).
Ball, W. G., F.R.C.S. (B.).

Ballance, Sir C. A., K.C.M.G., C.B., M.V.O., M.S., M.B., F.R.C.S. (T.).
Bankart, A. S. B., M.A, M.Ch. Camb. (Orthopædics). (M.).
Battle, W. H., F.R.C.S. (T.).
Bromley, L., M.B., M.Ch. Camb., F.R.C.S. (G.)
Bryan, C. W. G., F.R.C.S. (S.M).
Burghard, F. F., C.B., M.D., M.S., F.R.C.S. (KM.).
Carling, E. R., M.B., B.S., F.R.C.S. (W.).
Cheatle, Sir G. L., K.C.B., C.V.O., F.R.C.S. (KM.).
Choyce, C. C., C.M.G., C.B.E., B.Sc , M.D. Edin., F.R.C.S. (UM.).
Clogg, H. S., M.S., M.B., F.R.C.S. (C.).
Cope, V. Z., M.A., M.D., M.S., F.R.C.S. (SM.).*
Corner, E. M., B.Sc. Lond., M.A., M.Ch., M.B. Camb., F.R.C.S. (T., 25).*
Cunning, J., M.B., B.S. Melb., F.R.C.S. (LW.).*
Daniel, P. L., F.R.C.S. (C.).*
Davies-Colley, R., C.M.G., M.A., M.Ch. Camb., F.R.C.S. (G.).
De Santi, P. R. W., F.R.C.S. (W.).
Dunhill, T. P., C.M.G., M.D., B.S. Melb. (B.).
Eccles, W. McA., M.S., M.B., F.R.C.S. (B.).
Edwards, A. T., M.A., M.Ch. Camb., F.R.C.S. (W.).
English, Sir T. C., K.C.M.G., M.B., B.S., F.R.C.S. (SG.).
Evans, A. H., O.B.E., M.D., M.S., F.R.C.S. (W.).
Everidge, J., F.R.C.S. (KM.).
Fagge, C. H., M.S., M.B., F.R.C.S. (G.).
Fedden, W. F., M.S., M.B., F.R.C.S. (SG.).
Fitzwilliams, D. C. L., M.D., Ch.M. Edin., F.R.C.S. (SM.).*
Frankau, C. H. S., C.B.E., M.B., B.S., F.R.C.S. (SG.).
Fripp, Sir Alfred D., K.C.V.O., C.B., M.S., M.B., F.R.C.S. (G.).
Gask, G. E., C.M.G., F.R.C.S. Prof. (B.).
Gordon-Taylor, G , M.A. Aberd., M.S., B.Sc , F R.C.S. (M.).
Gould, E. L. P., M.A., M.Ch., D.M. Ox. (M.).
Gray, H. T., M.A., M.Ch. Camb., F.R.C.S. (25).
Greene, W. H. C. (v. Anat.) (SM.).
Handley, W. S., M.D., M.S., F.R.C.S. (M.).
Hastings, S., M.S., M.B., F.R.C.S. (M.).*
Howard, R. J., C.B.E., M.S., M.B., F.R.C.S. (L.).*
Hughes, E. C., M.A., M.Ch. Camb., F.R.C.S. (G.).
Johnson, R., O.B.E., M.B., B.S., F.R.C.S. (UM.).
Lane, J. E., F.R.C.S. (SM.).
Legg, T. P., C.M.G., M.S., M.B., F.R.C.S. (KM.).*
Lett, H., C.B.E., M.B., Ch.B. Manc., F.R.C.S. (L.).*
Lindsay, E. C., B.Sc. N.Z., M.B., B.S., F.R.C.S. (L.).
Low, V. W., C.B., M.D., B.S., F.R.C.S. (SM.).*
Marshall, C. J., M.D., M.S., F.R.C.S. (KM.).
Maybury, B. C., M.B., B.S., F.R.C.S. (T.).
Milne, R., M.D., M.S., F.R.C.S. (L.).*
Murray, J., M.B., B.Ch. Dub., F.R.C.S. (M.).
Nitch, C. A. R., M.B., M.S., F.R.C.S. (T.).
Openshaw, T. H., C.B., C.M.G., M.B., M.S. Durh., F.R.C.S. (L.).
Page, C. M., M.B., M.S., F.R.C.S. (T.).

Pannett, C. A., M.D., B.S., B.Sc., F.R.C.S. (LW., SM.).
Pendlebury, H. S., M.A., M.B., B.Ch. Camb., F.R.C.S. (SG.).
Power, Sir d'A., K.B.E., M.A., M.B. Ox., F.R.C.S. (B.).
Rawling, L. B., B.A., M.B., B.Ch. Camb., F.R.C.S. (B).
Rigby, Sir H. M., K.C.V.O., M.B., M.S., F.R.C.S. (L.).*
Roberts, J. E. H., M.B., B.S., F.R.C.S. (B).
Romans, W. H. C., M.A., M.B., M.Ch. Camb., F.R.C.S. (T)
Rowlands, R. P., O.B.E., M.B., M.S., F.R.C.S. (G.).
Sargent, P. W. G., C.M.G., M.A., M.B., B.Ch. Camb., F.R.C.S. (T.).
Sherren, J., C.B.E., F.R.C.S. (L.).*
Slesinger, E. G., B.Sc., M.S., F.R.C.S. (G)
Smith, S. M., C.B., M.B., B.S., F.R.C.S. (SM.).
Souttar, H. S., C.B.E., M.A., B.M., M.Ch. Ox., F.R.C.S. (L.).
Spencer, W. G., O.B.E., M.S., M.B., F.R.C.S. (W.).
Steward, F. J., M.S., M.B., F.R.C.S. (G.).
Thompson, A. R., M.B., Ch.M. Manc., F.R.C.S. (G.).
Trotter, W. B. L., M.D., M.S., F.R.C.S. (UM.).
Turner, P., M.S., M.B., B.Sc., F.R.C.S. (G.).*
Turner, W., M.S., M.B., F.R.C.S. (W.).
Vick, R. M., M.A., M.Ch., F.R.C.S. (B.).
Walker, J. W. T., C.M. Edin., F.R.C.S. (KM).
Wallace, Sir C. S., C.B., K.C.M.G., M.B., B.S., F.R.C.S. (T.).
Walton, A. J., B.Sc., M.B., M.S., F.R.C.S. (L.).
Waring, H. J., C.B.E., M.S., M.B., B.Sc., F.R.C.S. (B.).*
Waterhouse, Sir H. F., M.D., C.M. Edin., F.R.C.S. (C.).
Watson, Sir C. G., K.B.E., C.M.G., F.R.C.S. (B)*
Waugh, G. E., B.A. Camb., M.D., B.S., F.R.C.S. (25).
Webb, C. H. S., M.S., M.B., F.R.C.S. (M.).
Webb-Johnson, A. E., C.B.E., M.B., Ch.B. Manc., F.R.C.S. (M.).
West, Lt.-Col. J. W., M.B., B.Ch. N.U.I., M.S. Belf., D.P.H.I. (Mily. S.) (AM).
Williams, G. E. O., M.D., M.S., F.R.C.S. (UM).
Wilson, H. W., M.B., M.S., F.R.C.S. (B.).

Tropical Hygiene

Simpson, Prof (v. Hyg) (TM.).

Trop. Med.

Hewlett, Prof. (v. Bact.) (TM.).
Kennedy, Lt.-Col. J. C., M.D. Edin., D.T.M. and H. Camb. (AM.)
Low, G. C., M.A. St. And., M.D., C.M. Edin. (TM.).
Manson, Sir Patrick, G.C.M.G., M.D., C.M., LL.D. Aberd., D.Sc. Ox., LL.D. Camb., F.R.C.P., F.R.S. (TM.).
Newham, H. B. G., C.M.G., M.D., D.P.H., D.T.M. Camb. (TM.).

Trop. Surg.

Cantlie, Sir J., K.B.E., M.A., M.B., C.M. Aberd., F.R.C.S., D.P.H. (TM.).

Oriental Languages, v. also Semitic

Arabic

Arnold, Sir T. W., C.I.E., Litt.D., M.A. Camb. Prof. (O)
Harding, H. G. (J.).
Sefi, A. (O.).

* Clinical.

Bengali
Page, Rev. W. S., B.A., B.D. St. And. (O.).

Burmese
Hough, A. L. (O.).

Chinese, Mandarin [(O.).
Chen, W., M.A. Pek , Ph.D Mich.
Rees, W. Hopkyn, D.D. Reader (O.).

Gujarati
Doderet, W., M.A. Camb (O.).

Hindostani (Hindi and Urdu)
Bailey, T. G., M.A., B D., D.Litt. Edin. Reader (O.).
Abdul Qayum Malik, B A All. (O.).

Japanese
Khori, T. (O.).
McGovern, W. M., Ph.D. (O.).

Malay
Blagden, C. O., M.A. Ox. Reader (O).

Pali Lit.
Davids, Mrs. C. A. R., M.A. (O.)

Persian
Ross, Sir E. D., C.I.E., Ph.D. Stras. Prof. (O.).
Wilson, C. E., B.A. (O.).

Sanskrit
Barnett, L. D., M.A., Litt.D. Manc., M.A. Camb. (O.).

Sinhalese, Tamil, and Telugu
Wickremasinghe, M. de Z., M.A. Ox. Reader (O.).

Tibetan
Thomas, F. W., M.A. Camb., Ph.D. Münich Reader (U.).

GENERAL INFORMATION

[NOTE. *The University authorities desire that it should be clearly understood that they can accept no responsibility for any information concerning examns. or procedure except such as is contained in their own official Regns. These can always be obtained on application at the Univ. offices.*]

Central offices—South Kensington, S.W.7. Telegraphic address—University, Southkens, London. Telephone—Kensington 7000.

The Univ. was constituted by Royal Charter in 1836 as a body empowered to grant degrees to students of approved institutions after examination, and, until 1900, its work was confined to the examination of students. The system whereby entrance to its examns. was restricted to students of certain affiliated Colleges was abolished, except for examns. in Medicine, in 1858. In 1878 its degrees were thrown open to women, London being the first of the Univs. of Great Britain to adopt this policy.

In 1900 the Univ. was reconstituted so as to strengthen the ties between it and the institutions engaged in Higher Education within a radius of 30 miles. The Senate is empowered to admit as *Schools of the University* institutions situated within the administrative county of London and not carried on for the private gain or profit of the owners which provide education of Univ. standard, and is required to obtain reports at prescribed intervals on the efficiency of such schools. A special form of recognition may be given to an institution within the same area founded for research or the cultivation of any special branch of science or learning, and the Lister Institute of Preventive Medicine and the School of Oriental Studies have been admitted in this category. The Senate has power also to recognize as Teachers of the Univ. any members of the teaching staff of public educational institutions within a radius of 30 miles, whether Schools of the Univ. or not. Matriculated students of Schools of the Univ. or studying under such *Recognized Teachers* are eligible

under certain conditions for registration as *Internal Students*, and are allowed, after pursuing Approved Courses of Study, to enter for the "Internal" examns. of the Univ. *External Students* may pursue their studies where and now they please, and are admitted, without any conditions as to attendance at Approved Courses, to examns. for degrees in all subjects except Medicine, Mining, and Architecture. The examns. for Internal and External students are in some cases separate, in others identical, but the statutes require that "the degrees conferred on both classes of students shall represent as far as possible the same standard of knowledge and attainments."

Since the reconstitution of the Univ., its two original colleges, University Coll. in 1905 and King's Coll. in 1908, have been incorporated in it, the Senate, which is the supreme Univ. body, taking over the responsibility for their administration.

LIBRARIES. The Libraries belonging to and connected with the Univ. contain in the aggregate about half a million volumes, distributed over every branch of knowledge. The Univ. Library in the Central Building, S. Kensington, contains about 100,000 volumes and pamphlets. It provides well-equipped special collections to promote research work and also serves as a lending library from which students can borrow expensive works for home study. It includes the Goldsmiths' Library of Economic Literature (45,000 vols.), which is restricted to purposes of research and reference. The British Library of Political Science at the London School of Economics has 160,000 vols. There are, in addition, large departmental libraries in the several Colleges and various collections of books on special subjects, too numerous for mention. Access can also be obtained to the library of the British Museum, the largest in the world, with 2½ million printed books, the Record Office, and numerous other collections. Full particulars are given in *The Libraries of London: a Guide for Students* (v. *infra*—Publications).

MUSEUMS. Among the many Museums which, in addition to those belonging to the Schools and Institns. of the Univ., are accessible to students in London are the British Museum (Antiq. and Nat. Hist.); Horniman (Anthrop. and Zool.); London; Parkes (Sanitary Science); Practical Geol.; Roy. Archit. Soc.'s; Roy. Coll. of Surgeons'; Science, S. Kensington (Mech., Nav., and Struct. Engin., Phys., Maths., Chem., Physiog., Geol., and Biol.); Sir John Soane's (Art and Antiquarian); Victoria and Albert, S. Kensington (Archit. and Sculpture, etc.). LABORATORIES, v. p. 128 and the sections relating to the several colleges and schools of the Univ.

FACULTIES. Theology, Arts, Laws, Music, Medicine, Science, Engineering, Economics and Political Science (including Commerce and Industry).

Standing Committees of the Senate. The more important are—The Academic Council, the Council for External Students, the Board to Promote the Extension of Univ. Teaching, the Matricn. and the Appointments Boards, the Establ. and Genl. Purposes, Finance, Library and Scholarships Committees. There are 26 other Committees besides the 43 Boards of Studies.

DEGREES. B.D., D.D.; B.A., M.A., D.Lit.; LL.B., LL.D.; B.Mus., D.Mus.; M.B., B.S., M.D., M.S.; B.D.S.; B.Sc., M.Sc., DSc..; B.Com., M.Com.; Ph.D. (in Faculties of Theol., Arts, Science, and Econ.).

The B.Sc. and D.Sc. are granted in the Faculties of Science (including Pure Sc., Agric., Hortic., Vet. Sc., and, for External students, Estate Management, and, for Internal students, Household and Social Science—B.Sc. only), Engineering, and Economics; the M.Sc. in Science (including Agric., Vet. Sc.,

and, for Internal students, Hortic.), Economics, and, for Internal students, Engineering.

ADMISSION. The Univ. holds 3 times a year in London and twice a year in certain Provincial centres a Matricn. examn. open to all persons of 16 yrs. of age and upwards. The examn. can also be held by special arrangement in any of the British Colonies or Dominions. Candidates are required to pass on one and the same occasion in 5 subjects: English, Maths., Latin or Greek or a scientific subject, 2 other subjects of which one must, if neither Latin nor Greek is chosen for 3rd subject, be a language. The General School examn. (v. p. 121), if passed in a combination required for Matricn., is equivalent to the Matricn. examn., and several other examns. are also accepted on conditions as exempting from it.

STUDENTS FROM OTHER UNIVERSITIES.—The graduates of any of the Univs. of the United Kingdom and of some other Univs. can also claim exemption.* Other students of 19 yrs. of age and upwards who present certificates of Matricn. in Colonial Univs. or Indian or foreign certifs. from educational authorities indicating an education equivalent in their own country to that required in England for the Matricn. examn. may apply for *examination under Statute* 116 with special reference to the line of study they propose to follow. This examn., which it has been the practice to hold about 5 times a year, is held in London only. Students who do not propose to proceed to a degree are not required to pass any Univ. examn., but must submit evidence that they are sufficiently advanced in their studies.

EXTERNAL students preparing for the Bachelorship undergo Intermediate and Final examns. at intervals prescribed in the Regns., and approximating (except in Med. and Vet. Sc.) to 3 yrs. in all. Copies of all Regns. may be obtained gratis and post free from the External Registrar.

EXAMINATIONS IN THE OVERSEAS DOMINIONS. Certain of the examns. of the Univ. for External students are held not only in London and at Provincial centres within Great Britain, but also in certain of the overseas Dominions of the Empire. In India only the examns. in the Faculty of Theol. are thus held, but the Matricn. examn. and the examns. in Theol., in Arts, in Laws, and in Economics have been held at 70 Colonial centres. In Ceylon the Univ. examns. in Science and Arts have also been held under special arrangement; in this latter case with certain modifications of the Regns., such as have made them suitable for the special needs of the Colony in question; with the result that the Ceylon Govt. now awards its scholarships upon the results of these Univ. examns.

An INTERNAL student before being allowed to enter as such for any examn. must, unless specially exempted, have attended Instruction courses in all the subjects thereof. For a first Degree in any Faculty he must have completed an Approved Course of Study extending over at least 3 yrs. which must, ordinarily, have been continuously pursued, but not necessarily all at one institution. A minimum number of hours of attendance is as a rule prescribed for each course, and a reduction is allowed in the case of an evening student

* The following is a list of approved Univs.: In Canada—Alb., Dal., King's, Laval, McG., McM., Manit., Qu., Tor., Vict.; Australasia—Adel., Melb., Qld., Syd., Tas., W.A. (Arts, Sc., Agr., Eng.), N.Z.; S. Africa—Cape, Cape Town, S. Afr., Stell.; India—All., Bom. (L.M. and S. also recognized), Calc., Mad., Mys., Panj., Rang.; Hong-Kong.

who is certified by an employer to be engaged in his service for not less than 25 hours a week. The Interm. course generally extends over 1 yr. As a general rule, Honours may be taken at the Final examns. A course of study extending over not more than 1 yr. taken in another Univ. approved for the purpose (Paris, Caen, Montpelier, Grenoble, Lille, Madrid and Freiburg have been so approved) subsequently to a student's passing the Interm. may be accepted subject to regns. in lieu of a course taken in this Univ.

N.B. *In the following notes regarding the several Faculties the Institutions in which the courses may be taken by Internal students are indicated by Index letters and numbers referring to the list on pp.* 89, 90 *above.*

ARTS. U., K., Ho., BW., EL., E., Wf., N., R., J., 1, 3, 4, 6, 8, 11, 16 (Pedagogy—K., BW., Tr., 14, 15, 17). In both Interm. and Final (Pass) examns. 2 langs. must be taken, including either Latin with Rom. Hist., or Greek with Greek Hist. External students may take Honours papers in certain subjects in the Interm. examn. The Honours subjects for the Final examn. are Archæol., Archit., Chinese, Classics, Hebrew and Aramaic (including Syriac), Hist., Geog., Maths., Philos., Psych., Engl., French, Ger., Ital., Span., Slavonic Studies, Classical Sansk. and Pali, Arabic, Persian, also Celtic for External students, and, for Internal students, Greek, Latin, Portuguese, Polish, Dutch, Sociology.

The M.A. is conferred in Archæol., Class., Hist., Maths., Mediæval and Mod. Langs., Oriental Langs., Philos., Educn., and, for Internal students only, in Comp. Philol. and Psychol. Internal students are required (except in Maths.) to submit a thesis. In some cases candidates must have taken Honours at the B.A. examn. External students may take the M.A. examn. 2 yrs. after graduation in Arts. For them a thesis is optional, except in Educn. Candidates may only take 1 branch or section at a time. In most there is a *viva-voce* examn.

The D.Lit. is open to M.A.'s and Ph.D.'s only (except as regards students excused under Statutes 113 and 129—v. p. 118), and is conferred for original work; minimum age—30 unless 5 yrs. have elapsed since passing Ph.D. or M.A. examn.

Diplomas. Teacher's, 1 yr. course for graduates and others similarly qualified; Fine Art (3 yrs.); History (4 yrs. part-time or 1 yr. full-time); History of Art (4 yrs. part-time); Journalism (2 yrs.); Literature (4 yrs. part-time or 1 yr. full-time); Town Planning and Civic Archit. or Civic Engin. (2 evenings a week for 2 terms or 1 day a week for 3 terms); Academic Dip. in Geog. (180 hours); External Dip. in Geog.; Sociol., etc. (v. *infra*, Econ.); Librarianship (2 yrs. for day students, 3-5 yrs. for evening students).

SCIENCE.* U., K., Im., Ho., BW., EL., E., Wf., B., T., G., 1, 2, 3, 4, 5, 8, 10, 11, 12, 13, 28 (Agriculture—Ag.; Vet. Sc.—9). For the Interm. examn. Pure Maths. or Applied Maths. or Phys. must be taken with 3 other subjects. External students may take Honours papers in certain subjects. For the Final (Pass) examn. any 3 of the following may be selected: Pure Maths., App. Maths., Astron., Physics, Chem., Geol., Bot., Zool., Physiol., Psych., Anthrop., Milit. Sc., Logic and Method (Ext. students), Statistics (Int. students). An Honours student selects 1 principal subject and (except in the case of a candidate for Honours in Human Anatomy and Morphology) 1 subsidiary subject. For the Degree in Agric. the Interm. examn. includes Chem., Bot., Zool., and 1 selected subject; the Final—Agric., Agric. Chem., Agric. eBot., and 2 selected. Internal students may take the B.Sc. "by Research" (v. p. 119). For the Degree in Hortic. the Interm. subjects are

* v. N.B. *above*, p. 113.

Chem., Bot., Zool., Physics, Geol., and Surveying; for the Final, Practice of Hortic., Book-keeping, Principles of Hortic., and Entom. For the Degree in Vet. Sc. there are 4 examns. to be taken in their proper order: Prelim. (Inorg. Chem. and Phys.), Interm. Pt. I. (Org. and Applied Chem., Genl. Biol., and Vet. Anat.), Pt. II. (Vet. Physiol.), and Final (Vet. Pathol. and Vet. Hyg.). For the M.Sc. a thesis is required except in Maths. There is no Doctorate in Agric. or in Vet. Sc., Bachelors of Science (Agric. or Vet. Sc.) being held to be eligible for the ordinary D.Sc. For the Degree in Household and Social Science there are 3 examns.: 1st Interm. (Phys., Inorg. Chem., Biol., and Social and Econ. Hist.); 2nd. (Chem.—Org. and Phys., Gen. and Econ. Biol., Principles of Econ.); and Final (App. Chem., Physiol. and Bio-Chem., Hygiene, and Bacteriology).

THEOLOGY.* N., H., R., KT., J., WR. The Interm. course is in Bibl. Langs., Greek, Latin, Psych., and Philos.; the Final in Old Test., New Test., Bibl. and Hist. Theol., Church Hist., Philos. Introdn. to Theol., and a selected subject. The Honours examn. is distinct from the Pass, and may be taken 1 yr. after graduation in Div.; the subjects are Hebrew and Aramaic, including Syriac, Greek N.T. and Apocrypha, Church Hist., Bibl. and Hist. Theol., Study of Religion. Candidates for the D.D. degree must have taken Honours in Theol. in this Univ.

LAWS.* U., K., and E. (under a joint scheme). The subjects of the Interm. course are Hist. of Rom. Law, Engl. Const. Law and its Hist., and Jurispr. Candidates for the LL.D. degree must have taken Honours at the LL.B. examn. or subsequently unless specially exempted.

MEDICINE. The course extends normally over 5½ yrs. In the 1st yr. courses in Inorg. Chem., Phys., and Genl. Biol. in preparation for the 1st examn. for Med. degrees are taken. The 2nd and 3rd yrs. are devoted to Org. and Applied Chem. (the only subject at Pt. I. of the 2nd examn., taken not less than 6 mos. after passing the 1st), Hum. Anat. and Embryol., Physiol., Pharmacol., including Pharmacy and Mat. Med. Pt. II. of the 2nd examn. is normally taken about 2½ yrs. after Matricn. In the Final course for the M.B., B.S. degrees the subjects are divided into 2 groups as follows: Group I.—Med., Path., For. Med. and Hyg.; Group II.—Surg., and Midw. and Dis. of Women. The groups may be taken separately or together, but degrees are not conferred until candidates have passed in both groups.

The M.D. may be taken in any of the following: Med., Path., Ment. Dis., Midw. and Dis. of Women, State Med., Trop. Med.

The M.S. may be taken in Surg., Dent. Surg., Ophth., or Laryn., Ot., and Rhin.

For the M.D. or M.S. a thesis or published work may be submitted.

The course for the B.D.S. extends normally over 5 years—there are four examns. The subjects of the Final examn. are Dental Surgery, Operative D.S. and Orthodontics.

Diploma in Psychological Medicine.

MUSIC.* 2, 19, 20, 21, 22. The subjects for the Interm. examn. are Harmony, Counterpoint, and Hist. of Mus. For the B.Mus. the subjects of examn. are Harmony; Counterpoint, Fugue, and Canon; Free Composition; Hist. of Music; and Musical Analysis. Every candidate for the B.Mus. must submit a musical exercise. For the D.Mus. there is a written examn., and a musical exercise is also required.

ENGINEERING.* U., K., Im., BW., E.L., 2, 5, 7, 8, 11, 12, 13. The same

* v. N.B. *above*, p. 113.

Interm. examn. is taken by all students whether intending to graduate in Engin., Mining, or Metall., the subjects being: Pure Maths. and Applied Maths., Heat, Elec. and Magn., Engin. Drawing and Design, and either Sound and Optics or Chem. or Geol. In the Final examn. in Engin. not less than 5 subjects are taken, a wide choice being allowed; in *Mining* 6, of which Geol. and Mineral., Elec. Tech., Mining, Mine Surveying and Assaying are compulsory; in *Metall.* 5, of which Mineral., Elec. Tech., Metall., and Assaying are compulsory. For an Honours degree in Engin., Mining, or Metall. at least 1 extra subject must be taken at the Final examn. and a higher standard reached in all the subjects taken.

ECONOMICS.* U, K., E., 3, 4. The subjects for the Interm. examn. are Econ., British Constitn., either Maths. or Logic and Scientific Method, Geog. For the Final (Pass)—Econ., including Statistics, Pub. Administrn., either Hist. or Accounting and Business Organizn., and one of the following: Accounting, Industr. and Comml. Law, Const. Law and Hist., Pub. Internat. Law, Geog. Honours students take Econ., Hist., Political Sc, and a selected subject. At both the Pass and Honours examns. passages are set from French and German works for translation and comment.

For the B.Com. the Interm. examn. is in 2 parts, which may be taken together or on different occasions. Pt. I.—Elements of Econ., Geog., an approved Modern Lang. Pt. II.—Banking, Currency, Trade (including Transport) and Finance, Accounting as applied to Traders and Trading Companies, or a second Approved Mod. Foreign Lang.; 1 selected subject. The B.Com. examn. is in: the Present Organization of Industry, Banking, Trade, and Transport; Modern Econ. Development of the Empire, and the more important Foreign countries; Elements of Comml. Law; Statistical Method; 1 selected group of subjects.

Diplomas. Academic Dip. in Sociology and Social Administration (2 yrs.' course, at least 150 hours in each); Dip. in Economics and Social Sc. (4 yrs.' part-time or shorter full-time course), *either* E. Hist. and Theory, Soc. and Pol. Sc., *or* conditions of Soc. and Indust. well-being and of Health—Dip. for Civic workers.

MILITARY EDUCATION. London is one of the Univs. which have established approved courses of instruction entitling them to nominate candidates for commissions in the Regular Army. The selection of qualified students is made by a Nomination Board consisting of the members of the Milit. Educn. Committee together with one or more Milit. members appointed by the War Office, who have the right of veto on any selection. An Internal Degree in one of the Faculties other than Theol., Med., and Music is one of the necessary qualifications. Since 1912 Military Science has been an optional subject for the Interm. and Final (Pass) B.A. and B.Sc. examns. The Officers' Training Corps Contingent supplied 4200 officers for the war, of whom 650 are known to have fallen.

POST-GRADUATE STUDY AND RESEARCH. In most of the Colleges and Schools of the Univ. special arrangements are made for Research students, and the facilities offered are not restricted to Internal graduates of the Univ. Under Statute 129 External graduates, and under Statute 113 graduates of, and persons who have passed the degree examns. of, other approved Univs. are allowed, under certain conditions, to enter as Internal students for the degree of Doctor in the several Faculties (but not in Medicine and Surgery—Stat. 113) and for the degrees of M.A. and M.Sc. Application for registration as a candidate for a higher degree may be submitted with evidence of gradua-

* v. N.B. *above*, p. 113.

tion, etc., through the authorities of the College, School, or Institution at which the applicant proposes to study, and supported by their certificate of his fitness to undertake a course of study or research with a view to the proposed degree, and that they are willing to supervise his work. An Overseas student may himself submit an application on the prescribed form, and the Univ. will, if so requested, advise as to the selection of the College, School, or Institution at which, and Teacher under whom, he should study. Application for such advice should be addressed to the Academic Registrar. Overseas students should apply for registration before coming to London, and their applications should reach the Univ. by May 1, or, if from Australia or New Zealand, March 1, to enable them, should their applications be successful, to enter upon their course of study in Oct., *i.e.* at the beginning of the Session. Students whose applications are approved are required to pursue a course extending over at least 2 yrs. (v *infra*—Publications).

An Internal Student who is a candidate for the Ph.D. degree must have previously graduated in the Univ. in the faculty of Theology, Arts, Science, or Economics, or have been registered as a candidate for the degree under the terms of Statute 113 or 129. An Internal student is further required to pursue a course of study of not less than two years' full-time, or four years' part-time, training in research and research methods. Any graduate of the Univ. may become a Candidate for the Ph.D. Degree as an External Student on receiving the approval of the Council for External Students.

The B.Sc. degree, in the Faculties of Science and Econ., may also be taken "by Research" by Internal students under Statute 112. Candidates must have attained the age of 19 and must have passed the Interm. examn. The research must extend over at least 2 yrs.

FEES.—Matricn.—3 gs.; Examn. and Graduation—15 gs. (Med., 29 gs.) for first Degree. Other Degree fees, 10 to 20 gs. Tuition, see the sections relating to the several colleges.

STUDENTSHIPS AND SCHOLARSHIPS. Studentships are awarded by the Senate in aid of advanced work or research. These include one of £50 p.a. for 1 or 2 yrs., open to students of Univ. Coll. in Maths.; one of £100 in Archæology; £120 and £50 in Physiol.; £100 in Arts; £100 in Econ.; £200 for the man or woman who, being resident in London and a graduate of the Univ., has done most in the preceding 5 yrs. to advance Medical Art or Science; £200 for a graduate of a British Univ. for the promotion of post-graduate research. The Gilchrist Trustees provide funds for two Studentships, viz. one of £100 for a woman graduate preparing for a profession; and one in Mod. Langs., £80, open to a B.A. who took Honours in French or German, for a course of study abroad with a view to the profession of teaching. Three Scholarships of £50 each for 1 yr. are awarded annually for proficiency in Oriental Langs. The Scholarships Pamphlet obtainable post free on application to the Univ. gives details of these and others.

An APPOINTMENTS BOARD (Secy.—H. J. Crawford, B.A.) co-ordinates and supplements work done by the Schools and Institns. of the Univ. Registration fee, 10s. 6d. p.a. A pamphlet with full information may be obtained from the Secy., 46 Russell Sq., W.C.1.

RESIDENCE. Hostels recognized by the Senate: Univ. Hall of Residence, 10 and 11 Carlyle Square, Chelsea; Univ. Coll. Hall, Ealing, for 40 men students (fees for residence, 30s. to £3 a week); College Hall, Byng Place, Gordon Square, W.C., for women students; King's Coll. Theological Hostel, Vincent Square; The Platanes, Denmark Hill, S.E., for King's Coll. and its Med. School. Residence is also provided at or in connexion with the S.E.

Agric. Coll., Wye, Bart's, Guy's and Middlesex Hospl. Med. Schools, the Theological Colleges at Hampstead and Highbury, and the Women's Colleges.

UNIVERSITY EXTENSION DEPARTMENT. The work of the *Board to Promote the Extension of Univ. Teaching* falls under the following heads: (*a*) Univ. Extension Lectures and Tutorial Classes for Working-people; (*b*) Holiday Courses for Foreigners; (*c*) Inspection and Examn. of Schools; (*d*) Examn. for the Certif. in Religious Knowledge; (*e*) Examns. for the Certifs. in Danish, English (for foreigners), French, German, Italian, Norwegian, Russian, Spanish, and Swedish; (*f*) Examns. for Diplomas in History, Literature, Economics and Social Science, History of Art; (*g*) Examn. for Diploma in Psychological Medicine.

(*a*) *Univ. Extension Lectures* have been carried on by the Board since 1902, and, prior to that, since 1876, by the London Society for the Extension of Univ. Teaching. By agreement with the Univs. of Oxford and Cambridge the work is restricted to the Metropolitan area. Courses are held, at about 70 centres, on Hist., Lit., Art, Econ. and Social Sc., Philos., Psychology, and Nat. Sc. A class is held in connexion with each lecture, and students are encouraged to do regular paper-work for the lectr. An examn. for certifs. may be held at the end of each Sessional (24 or 25 lectures) or Terminal (10 or 12 lectures) course. A few short courses (5 lectures) of a *pioneer* or illustrative character are arranged; in connexion with these there is no examn. Continuous study over several years is encouraged by the Vice-Chancellor's Certif. of Continuous Study (awarded to students who obtain 4 Sessional Certifs. in subjects chosen from certain groups) and by the *Diplomas in the Humanities* (Hist., Lit., Econ. and Social Science, Hist. of Art), awarded, under the Seal of the Univ., to students who carry on an approved co-ordinated course of study covering 4 yrs., and pass an examn. on the work of each Session, and a final examn. on the whole course.

The *Tutorial Classes for Working-people* are under the immediate direction of a Joint Committee of 7 members nominated by the Board and 7 nominated by the Workers' Educational Association. The classes extend over 3 consecutive years, and membership is limited to not more than 32 students, who undertake to attend regularly and to do regular paper-work for the Tutor. Certifs. are not awarded. There were 34 classes in 1920–21.

(*b*) A *Holiday Course* for Foreigners is held annually in London during four weeks from the middle of July. Special stress is laid upon Phonetic teaching. The course is designed to widen the student's knowledge not only of the Engl. Lang., but of English customs, institns., and art, by means of lectures, classes, a choral society, excursions, etc. The total number of students admitted to the course is limited to about 260, and the number in each class to 8. During the 14 years 1904–1914 and 1919–1921 the course was attended by 3356 students from 32 countries.

(*c*) *Inspection and Examination of Schools.* A close relationship between examination and inspection has been carefully and continuously developed by the Univ. Extension Board. The County Councils of Surrey and Middlesex have placed their Secondary Schools to the number of 50 under the Univ. for regular inspection and for the holding of the School examns., the local authority in each case making a special financial arrangement with the Univ. The Board of Educn. and the Univ. inspect alternately and exchange Reports.

Inspection may include either a general inspection of the whole school or a special inspection of certain subjects or groups of subjects. It may be so combined with the Certificate examns. that these form an integral part of it. It may also include an examn. carried on by the Inspectors and the Staff of the

school in co-operation. This system of combined inspection and examn. is known as Examinational Inspection, and is capable of considerable variation to meet the requirements of any particular school.

The *Examinations for Certificates* are held only in Schools inspected by the Univ. or under other approved inspection ; the course of study in the school must also be approved. The examns. are of 3 grades : I. Higher, II. General, and III. Junior, for I. the (*a*) Higher School, (*b*) External Intermediate (Arts or Science) Certif. ; II. the (*a*) School, (*b*) Matricn., or (*c*) School Commercial Certif. ; and III. the Junior School Certif., respectively. Certifs. I. (*a*), II. (*a*), and II. (*c*) are not awarded until the pupil leaves school. The Examn. fees are from 2½ to 3 gs.

The *Higher and General School Examinations* are recognized by the Board of Education as "Second" and "First" examns. (v. p. 4) respectively, and the Certifs. I. (*a*) and II. (*a*) awarded to candidates attending schools recognized by it as efficient Secondary Schools are attested by it. A candidate who takes the *Higher* with a view to qualifying for the External Intermediate Arts or Science Certif. is required to offer for examn. the syllabuses of the Ext. Interm. examns. The combination of subjects that may be taken at the General School examn. offers greater variety than is the case in the Matricn. examn., and a pupil who reaches the necessary standard at one and the same examn. in a combination required for Matricn. is entitled on payment of the registration fee of 12s. 6d. to be registered as a Matriculated student of the Univ., if or when he has attained the prescribed age. For Certif. II. (*c*) the combination of subjects required differs from that required for II. (*a*), and the subjects are treated from the commercial standpoint. The Senate have established a Panel of Advisors, consisting of a number of the leading authorities on Comml. subjects, to advise them in matters of policy and principle in connexion with the Scheme.

The *Junior School Examination* is intended for pupils about the age of 15.

In the case of each of the School examns. an Inspector visits the school for the purpose of conducting an oral examn. in such Mod. Langs. as are taken. Practical examns. in Science are optional, except in the case of grade I. and in Genl. Elem. Science at grade II., in which they form an essential part of the examn.

(*d*) The *Examination for the Certificate in Religious Knowledge*, instituted in 1909, is held once a year in June. It may be held at any of the Provincial centres at which the June Matricn. examn. is appointed to be held, as well as in London.

(*e*) *Examinations for the Certificates in French and in German* (instituted in 1913) and in *Italian, Russian, and Spanish* (instituted in 1919) are held in July and Aug. ; in *English* (for foreigners ; instituted in 1920) in Aug. or as may be arranged. They are intended primarily for teachers who are not specialists in, but who require a Certif. testifying to their practical working knowledge of, the language, both spoken and written.

Examns. for Certifs. in *Danish, Norwegian, and Swedish* have been established and were held for the first time in 1921.

(*f*) The *Examinations for the Diplomas in History* ; *Literature*—English Lang. and Lit. or General Lit. ; *Economics and Social Science*—either Economic History and Theory, Social and Political Science, or Conditions of Social and Industrial Well-being and Conditions of Health (Dip. for Civic Workers) ; *History of Art*—are held once a year in Oct. for students who have followed a recognized course of study for 4 yrs. as part-time students or for a shorter period as full-time students.

(*g*) The *Examn. for the Diploma in Psychological Medicine* is held twice a

year, in March and Apr. and in Oct. and Nov., and is open to candidates whose names are in the Medical Register. There are two varieties of this Dip., for those desiring to specialize in Mental Diseases and in Mental Deficiency respectively.

[*Further information and copies of the Regns. may be obtained from the University Extension Registrar, University of London, South Kensington, S.W.7.*]

PUBLICATIONS. The following are obtainable from the Univ. of Lond. Press, Ltd., 17 Warwick Sq., London, E.C.4 :

The Calendar, pubd. in Sept., price 6s. net, postage 1s. *Regns. and Courses for Internal Students* (the "Red Book"), pubd. in Sept., 2s. 6d., postage 1s. The Courses are pubd. separately for the several Faculties, 3d. each net. *Regns. for External Students* (the "Blue Book"), pubd. in Sept., 1s. 6d. net, postage 8d. ; *London Univ. Gazette*, pubd. at average intervals of 4 weeks ; the Examn. Lists are pubd. in Supplts. ; annual subs., including postage, 5s. ; single no., 8d. *Matriculation Pamphlet*, issued after each Examn., containing the Regns. and Examn. Papers, 1s. 8d. post free. *Examn. Papers*, published as soon as possible after the several Examns. ; prices vary from 1s. 1d. to 3s. 10d. *Libraries of London* : a Guide to Students, by R. A. Rye, Goldsmiths' Librarian, 6d., postage 3d. ; 2nd edition, 2s. 6d., postage 6d. *Historical Record of the Univ.*, pubd. in 1912 ; contains (*a*) a Hist. of the Univ. ; (*b*) the Univ. Charters, and Acts of Parliament referring to the Univ. ; (*c*) former Fellows ; (*d*) Donations and Trusts ; (*e*) Graduates ; (*f*) persons to whom prizes, etc., have been awarded, and other information of historical interest ; 5s. net. ; postage 6½d.

Regulations. The following may be obtained on application to the Univ. : Regns. for Matricn. ; Regns. for Int. and for Ext. Students (pubd. separately) for Degrees in Arts, Science, Agric., etc. ; for the various Diplomas and Certificates in special subjects ; Scholarships pamphlet. Applications for any of these should be addressed to the Principal.

O.T.C. Handbook obtainable from the Secy., 46 Russell Sq., W.C.1.

Regns. for Admission of Students from other Univs. as Candidates for Higher Degrees (except in Med. and Surg.), and *Regns. for Degree of Ph.D* , obtainable from the Academic Registrar.

THE YEAR 1920–21

BENEFACTIONS. Purchase by Govt. of 11½ acres in Bloomsbury as site for Univ. Headquarters with an undertaking to defray cost of rates and maintenance on the buildings to be erected ; Cassel Trustees, £20,000 for a University hostel ; £24,000 for Institute of Historical Research ; Sir Wm. Dunn's estate, £2000 for Med. Science ; £200 p.a. for 3 yrs. for Lectr. in Univ. Coll. in Diplomatic History ; Govt. of the Kingdom of Serbs, Croats and Slovenes, £250 p.a. towards Lect'ship at King's Coll. in Serbian ; £20,000 to Middx. Hosp. Med. School for Chair of Physiology. Several minor benefactions.

NEW DEPARTMENTS AND POSTS. Chairs of Embryology at Univ. Coll., Anatomy at St. Bart.'s, Medicine at St. Mary's, Chem. at Middx., Obst. and Gynæc. at London R.F.H. for Women ; at School of Oriental Studies, of History and Culture of British Dominions in Asia and of Sanskrit ; of Physics at Bedford College ; of History at Royal Holloway College ; Readerships at Univ. Coll. in Plant Chem., and in History and Records of London, at King's Coll. in Ancient History, Psychology, and Romance Philology ; at

Univ. Coll. Hosp. Med. School in Path. Chem.; at the Household and Social Science Dept. of King's College for Women in Biology; at Birkbeck College in Zoology.

NEW "SCHOOL OF THE UNIVERSITY." Birkbeck College was admitted for 5 yrs. in the Faculties of Arts and Science for evening and part-time students.

OTHER NEW DEVELOPMENTS. Large building enterprises in connexion with Rockefeller benefactions; Institute of Historical Research; institution of B.D.S. Degree; Diploma in Slavonic Studies; establishment of an Architectural Atelier at Univ. Coll.; constitution of a Board of Slavonic Studies to deal with recent increase in development of that subject—chiefly at King's College. CONFERENCE OF PROFS. OF HISTORY, v. p. 9.

NUMBER OF INTERNAL STUDENTS at end of year 1920–1921, 8099.

SUCCESSFUL CANDIDATES AT DEGREE EXAMN. in 1921: 1926, including 545 women. B.A.—Internal, 323, External, 195; B.Sc.—Int., 363, Ext., 205; M.B., B.S, 183; B Sc. (Engin.), 258, Mining and Met., 15; B.Sc. (Econ.), 58; B Sc—Agr, 17, Hortic., 2, Household and Soc. Sc, 4, Vet. Sc, 1; B.Com., 30; LL.B., 38; B.L., 32; B.Mus., 5; M.A., 49; M.Sc., 43; other Masterships, 19; M.D., 39; Ph.D., 17; D.Sc., 16; other Doctorates, 15.

UNIVERSITY EXTENSION WORK substantially increased, although many teachers, who in the past found in attending the Extension courses the opportunity they sought for further study of University character, are now encouraged to attend lectures arranged by the local Education Authority, of a similar type, but without the discussion classes, written work, and examn., which give to the Extension courses their special value.

The *Holiday Course for Foreigners* was attended by 249 students from Belgium, Chili, Czecho-Slovakia, Denmark, France, Holland, Italy, Java, Japan, Latvia, Norway, Roumania, Russia, Spain, Sweden and Switzerland, over 60 per cent being from Scandinavian countries. In 1922 the course will last from July 21 to Aug. 17.

Tutorial Classes—34. The Summer School showed a marked increase in the number of students attending it, the average being about 525 On this occasion for the first time a course of lectures on the History of Science was included, the Lecturer in each case being a Fellow of the Royal Society.

School Examinations—Fifty schools were added to the number of those at which the examns. of the Univ. are held. The General School examn. was taken by 8000 candidates.

APPOINTMENTS BOARD. During the session 107 appointments (63 for men, 44 for women) were obtained. These included administrative, engineering, secretarial, business, and journalistic, as well as educational appointments.

UNIVERSITY OF LONDON, UNIVERSITY COLLEGE

CHAIRMAN OF THE COLLEGE COMMITTEE—J. BOURNE BENSON, B.A., LL.D.

VICE-CHAIRMAN—.....

TREASURER—F V. SCHUSTER, B.A.

PROVOST—Sir GREGORY FOSTER, B A., Ph.D.

SECRETARY—W. W. SETON, M.A., D.Lit., F.S.A.

TUTOR TO WOMEN STUDENTS—WINIFRED SMITH, B.Sc

LIBRARIAN—R. W. CHAMBERS, M.A., D.Lit.

Address—Gower St., W.C.1. Telegrams—University College, London
Telephone—734 Museum.

Founded in 1826 and opened Oct. 1, 1828, under the name of "The University of London," the College was incorporated as "University College, London," by Royal Charter in 1836. On Jan. 1, 1907, it was incorporated in the University of London. It has 95 Appointed and Recognized Teachers (v. p. 91), and, in all, 41 Profs. and 150 other Teachers.

LIBRARIES. Science, including Fownes and Graham Chemical, Sharpey and Grant Biological, and Geologists' Assocn.'s collections, and the British Assocn.'s periodicals; Arts—Yates Archæol, Edwards (Egypt), Mocatta (Jewish Hist. and Antiq.), Romance Philol. and Lit., Oriental, Philos. and Psych. and other collections, including Barlow Dante, Strong (Oriental), and Leighton (Classics and Philos.) libraries; General College library, including the Whitley Stokes (Celtic), Blackburn and Quain (Law), Field Fine Art, Ricardo Pol. Econ., Graves Math., Joseph Hume's Parliamentary, Carnegie (American History and Institns.), and the Ward (London) collections.

MUSEUMS. Anat., Bot., Chem., Egypt., Engin., Geol. and Mineral., Mat. Med., Math. and Philos. Apparatus, Zool. Two Astron. OBSERVATORIES.

COURSES. Arts, Laws, Science, Engineering, Medical Prelim. and Intermediate, Hygiene. Open to students of both sexes. The Arts Faculty includes Slade School of Fine Art, School of Librarianship, School of Journalism, and Bartlett School of Archit. A *Diploma* in Engin. is given after a 3 yrs.' course, and *Certificates* in Engin. (2 yrs.) and Archit. (3 yrs.).

All departments of the College are available for POST-GRADUATE AND RESEARCH WORK, and the respective Professors are always prepared to advise such students desirous of undertaking research, whether for higher degrees or otherwise.

FOREIGN STUDENTS are admitted to the College on the same terms as British. They are expected to produce identification papers. In August a *Vacation Course* is held in Phonetics and Spoken English (Director: Prof. Daniel Jones).

Men attending that Course can reside at University College Hall, Ealing. Special courses in Aspects of British Life and Civilization take place *throughout the session.* The Secretary will always advise foreign students by correspondence or personal interview as to the cost of residence in London and as to suitable houses. The Ramsay Memorial Fellowships in Chemical Science founded by certain Foreign Governments are tenable at Univ. Coll., London among other places; five Fellows from overseas are now working there.

FEES. Composition for 3 sessions' course in Arts—97 to 105 gs., except Archit., 168 gs.; B.Sc.—134 to 140 gs.; Engin.—168 gs.; Econ.—21 gs. per session; Med. for 1st examn.—35, 2nd—80 gs.; Laws—18 gs. per session; Fine Art—28 gs. per session; for Higher Civil Service—50 gs.

SCHOLARSHIPS, ETC. Annual value, £2400.

RESIDENCE. A Hall for 52 men at Ealing, £2 to £3 a week. One for women in Byng Place, W.C.

PUBLICATIONS. *Calendar* (Oct.), 3s. 6d.; *Annual Report; Union Society's Magazine; Drapers' Co. Research Memoirs and Eugenics Lab. Memoirs;* ***Prospectus*** of post-graduate courses and arrangements for research.

THE YEAR 1920–21

BENEFACTIONS. Carnegie U.K. Trust, £1500 p.a. for School of Librarianship; Committee for Promotion of Scandinavian Studies, £1300 p.a. for Lect'ships in Swedish, Danish, and Norwegian; Drapers' Company, £500 p.a. for Biometric Lab.; per Italian Ambassador, £300 p.a. for Italian; Chadwick Trustees, £250 for Sanit. Sc.; Anon., £200 p.a. for Lect'ship in Diplom. History; Rhodes Trustees, £150 towards Chair of Const. Law; Mrs. A. J. Macgregor, £50 p.a. for Scholarship in Zool.; Miss Ethel Elderton, £80 for Equipment Fund, Dept. of Applied Statistics and Eugenics; Earl of Iveagh, £54 for Library; late American Ambassador, £26 : 5s. for Prize Essay; Anon., £25 for Prizes in Slade School; A. Oddenino, £10 for Prize in Italian; A. T. Taylor, 2 annual prizes of £5 each in Archit.

SPECIAL EVENTS. Dante Sexcentenary Celebrations, including issue of special volume and exhibition of rare editions, etc.; visits of Congress of Univs. and Anglo-American Conference of Teachers of History.

NEW DEVELOPMENTS. Chair of Embryology (Rockefeller gift); Readerships in Med. Statistics and Hist. and Records of London; Lect'ship in Diplom. Hist.

NUMBER OF STUDENTS. Total—3143; Arts—1090; Science—403; Laws—39; Engineering—160; Medical Sciences—278; Post-graduate—432; Evening—502; Vacation—233.

DEGREES OBTAINED. Bachelors—103; Masters—13; Doctors—9.

RETIREMENTS. Carveth Read; J. Bronte Gatenby, appointed Prof. in T. Coll., Dublin; Adelaide G. Davin; H. T. Mant; E. R. Matthews, appointed Chief Sany. Engr. to H.M. Office of Works; J. J. Guest, appointed Prof. at Royal Ordnance Coll., Woolwich; H. P. Philpot; G. D. Dewar. DEATHS. Sir John Macdonell, Prof. Harvard Thomas, Sir Herbert Bartlett.

UNIVERSITY OF LONDON, KING'S COLLEGE AND KING'S COLLEGE FOR WOMEN

CHAIRMAN OF THE DELEGACY—VISCOUNT HAMBLEDEN.

VICE-CHAIRMAN AND TREASURER—Hon. R. C. PARSONS, M.A.

PRINCIPAL—ERNEST BARKER, M A. Ox., Hon. LL.D. Edinb.

SECRETARY—S. T. SHOVELTON, M.A. Ox.

TUTOR TO WOMEN STUDENTS—Hon. ELEANOR M. PLUMER.

LIBRARIAN—F. W. WALTON, M.A.

Address—Strand, W.C.2. Telephone—207 Gerrard.

Founded by Royal Charter in 1829 for " instruction in the various branches of Literature and Science and the doctrines and duties of Christianity," King's College consisted at first of a School and Departments of General Literature, Science, and Medicine, to which were added successively Engineering, Theological, and Oriental Depts. The Hospital was built in 1839; the Evening Classes were started in 1856, and a Women's Dept. in 1881. In 1910 the College School became a separate Corporation, the Hospl. and Advanced Med. School were made independent, the other Depts. (except the Theological) doing work of University standard were incorporated in the Univ. of London, while the Council remained the governing body of the Theol. Dept., which became a School of the Univ. In 1915 the Arts and Science Departments of King's College for Women, previously housed in South Kensington, were transferred to the buildings of King's College, and the Household and Social Science Department to new buildings on Campden Hill. King's College has 87 Appointed and Recognized Teachers, King's Coll. for Women has 10, and its Household and Social Sc. Dept. has 10 (v. p. 91).

LIBRARY, 30,000 vols., including the Marsden (Philol. and Oriental), Skeat and Furnivall (English), Wheatstone (Electricity, etc), Slavonic, and Byzantine and Modern Greek collections.

LABORATORIES AND MUSEUMS. Anat. (Hughes Collection), Comp. Anat., Bact., Biol., Bot., Chem., Engin., Geol. and Mineral., Mat. Med., Metall., Pharmacol., Phys. (George III. Museum), Physiol., Psych., Pub. Health, Zool.

DEGREE COURSES in Arts, Science, Laws, Engineering. Prelim. and Interm. courses in Medicine and Pub. Health. Day Training College (men only) under the Board of Education. Dept. for training secondary Teachers (men and women).

College Diploma course in Engineering, ordinarily 3 yrs. The *Associateship*, open to men and women graduates who have attended a prescribed course in Divinity. *Certificate* in Palæography (1 session).

THE HOUSEHOLD AND SOCIAL SCIENCE DEPARTMENT (Dean—Miss J. Lane-Claypon, M.D., D.Sc., J.P.) at Campden Hill Road, W.8, continues to be a Department of King's College for Women, though in the main practically separate. It provides full degree courses for the B.Sc. in H. and S. Sc. Tuition

Fees, 45 gs. per session. Residence in Q. Mary's Hostel, 93 gs.; in annexe, 70 to 80 gs. Number of students in 1920–21, about 200.

ADVANCED STUDY. Special facilities in English (including Bibliography), History (especially Mediæval, Colonial, Naval, Eastern Europe, and Ancient), Slavonic, Spanish, Portuguese, Modern Greek, Bacteriology and Pub. Health, and several other Depts. of Science.

FEES. Entrance, £6; Tuition per Session: Arts, 30 gs.; Science, 42 gs.; Med., 35 gs.; Laws, 18 gs.; Engin., 54 gs.

SCHOLARSHIPS FOR GRADUATES. In English 3, aggregate value £145; Science 5, ag. value £73; Med. 3, ag. value £60; Engin. 2, ag. value £100.

RESIDENCE. Two hostels for men (one Theol.), and one for (40) women; also Q. Mary's Hostel and Annexe in the Household and Social Sc. Dept. buildings at Campden Hill with accommodation for 130.

PUBLICATIONS. *Calendar*, 4s. 6d. post free

THE YEAR 1920–21

DEVELOPMENT OF STUDIES. Certificate in Palæography instituted. Full-time Reader in Ancient History appointed; Lectr. in Econ. Hist. appointed in conjunction with School of Econ. Depts. of Civ. and Mech. Engin. divided and placed under separate heads. Special course in Radiology provided in connexion with Cambridge scheme. Arrangements with School of Econ. for provision of instruction in Geog., and with Royal Westmr. Ophth. Hospl. for teaching of Anat., Physiol., and Physics for Diploma of Ophth. Med. and Surg. The Slavonic Departmental Library, which received important accessions during the year, has been arranged and adapted for use as a Seminar Library.

OTHER NEW DEVELOPMENTS. Hostel for women students (40) provided. Hostel for Med. Students reopened. New Senior Common-room equipped. College servants' pension fund established and conditions of service otherwise improved by system of grading, etc.

NUMBER OF STUDENTS. Full-time preparing for first degree in Arts, 269; Nat. Sc., 254; Med., 192; Engin., 199; Theol., 47; preparing for Diploma in Arts, 63; Conjoint Board's Exams. in Med., 121; College Diploma in Engin., 14; Assoc'ship of College in Theol., 122. Total full-time, 1281. Evening, 117 (excluding Theol. students) taking course for degrees in Arts and Sc. Preparing for higher degrees: full-time, 40; part-time, 55; 64 other research and post-graduate or post-diploma courses. Part-time preparing for first diploma, 238; occasional, 1896. Women students included in above figures: full-time in Arts, 133; Sc., 37; Med., 124; part-time day students, 199, evening, 343. Public Lectures were attended by 15,400 persons.

DEGREES OBTAINED, 163.

RESIGNATIONS. Profs. H. G. Atkins, W. B. Bottomley, D. S. Capper, J. W. Nicholson; W. Brown, appointed Reader in Oxford; W. Wilson, appointed Prof. in Bedford Col.; Mary Williams, appointed Prof. in Swansea Univ. Coll.; Miss de Castelvecchio, appointed Prof. in Birmingham; C. da Fano, appointed Senr. Lectr. in Univ. Coll.; Florence Mockeridge, appointed head of Dept. of Biology at Swansea; H. M. Margoliouth, appointed Prof. at Univ. Coll., Southampton; Miss M. E. Clarke, appointed Lectr. in Cardiff; R. Custance; J. Pla.

INCORPORATED INSTITUTIONS AND UNIVERSITY DEPARTMENTS

GOLDSMITHS' COLLEGE, v. p. 143.

THE BROWN ANIMAL SANATORY INSTITUTION, 149 Wandsworth Rd., Vauxhall, S.W.8. Supt.—F. W. Twort, M.R.C.S., L.R.C.P. Established in 1871 for "investigating, studying, and, without charge beyond immediate expenses, endeavouring to cure maladies, distempers, and injuries, any quadrupeds or birds useful to man may be found subject to." It contains a Hospital, in which the diseases and injuries of animals are treated, and a Laboratory, where the investigation and study of diseases of animals are carried on. Both In and Out Patients are treated. Clin. students may be admitted to the Vet. Depts., and Research students are received in the Lab.

THE PHYSIOLOGICAL LABORATORY (Director—Prof. A. D. Waller, M.D., C.M., F.R.S.) in the Univ. Building, established in 1902, comprises a lecture-room, a workshop, a library, and rooms assigned to the Depts. of Physiol. Chem., Chem. Path. and Pharmacol, Electrophysiol., Genl. Exper. Physiol., and Exper. Psych. Courses of lectures on current research are given to Univ. students by lectrs. of the Univ. and others, and a limited number of duly qualified students are admitted as workers.

THE FRANCIS GALTON LABORATORY FOR NATIONAL EUGENICS (WITH WHICH IS ASSOCIATED THE DRAPERS' COMPANY'S BIOMETRIC LABORATORY). Director—Karl Pearson, M.A., LL.D., F.R.S., Galton Professor. These two form together a Department of Applied Statistics (housed at University College) adapted to the needs of post-graduate workers and of students training for special investigations.

The Francis Galton Laboratory was founded in 1904 for the study of those agencies under social control that may improve or impair the racial qualities of future generations, either physically or mentally. Open to Research students in Eugenics of both sexes.

The Biometric Laboratory, founded 1895, for the statistical study of biological problems, possesses a good collection of calculating machines, integrating mechanisms, moment-finders, as well as a large series of statistical models, etc. Research workers can start any time during the session, but, unless attending the lectures in the Dept., are expected to have a preliminary training either in Biol. or Maths.

Courses of Instruction are given on Statistics and cognate subjects, and also short courses of popular lectures. Fees (for Practical workers): per Term, £5. A Fee of 17 gs. per session admits to the Eugenic and Biometric Labs. on all days and to all lectures, as well as to the use of the Library and of the material in the Archives.

Publications. Eugenics Lab. Memoirs (i.-xx.) and *Lecture Series* (i.-xiii., popular exposition of conclusions); *Treasury of Human Inheritance* (9 parts). *Biometrika* Journal (i.-xiii.); Drapers' Company Research Memoirs, *Biometric Series* (i.-xi.), and *Studies in Natural Deterioration* (i.-ix.); Drapers' Company *Technical Series* (i.-vii.); *Tracts for Computors* (i.-vii.). Ephemeral papers published in *Questions of the Day and the Fray* (i.-x.).

BARTLETT SCHOOL OF ARCHITECTURE (Prof. A. E. Richardson, F.R.I.B.A., assisted by Arthur Stratton, F.R.I.B.A., and staff of Lectrs. and Studio Instrs.) was established by the combination of the Archit. Schools of University and King's Colleges. The accommodation includes three large Studios for ordinary and advanced students, a Museum, a Cast Gallery, a Library, a Lecture Theatre, and a Class Room. Rooms are also provided for the Department of Town-Planning instituted in Oct. 1914. The day-school is supplemented by evening classes in design and an Atelier for graduates and advanced students.

COMMERCE DEGREE BUREAU was founded in 1920 to help External and Part-time students proposing to take the Commerce Degree exams., to assist in the employment of Commerce Degree students and graduates at home and abroad, to provide a reference library, and generally promote the value of the Commerce degree.

INSTITUTE OF HISTORICAL RESEARCH, Malet St., W.C.1 : a series of seminar libraries of books containing or describing the main sources of English and European History. Training and guidance provided for Post-graduate Students of History from all Univs. Chairman of Committee, Prof. A. F. Pollard, Litt.D.

SCHOOLS OF THE UNIVERSITY

IMPERIAL COLLEGE OF SCIENCE AND TECHNOLOGY

VISITOR—H.M. THE KING.

CHAIRMAN OF THE GOVERNING BODY—The Most Hon. the MARQUESS OF CREWE, K.G., P.C., M.A., LL.D.

RECTOR—Sir ALFRED KEOGH, G.C.B., G.C.V.O., C.H., LL.D.

SECRETARY—A. GOW, M.A., B.Sc.

REGISTRAR—JOHN JONES.

Address—Imperial Institute Rd., S. Kensington, S.W.7.
Telegrams—Scientist, Southkens, London. Telephone—6444 Kensington.

Founded by Royal Charter in 1907 for the purpose of giving the highest specialized instruction and providing the fullest equipment for the most advanced training and research in various branches of Science, especially in its application to Industry, the Imperial College includes as integral parts the following Associated Colleges :

The Royal College of Science.
The Royal School of Mines.
The City and Guilds (Engineering) College.

The total staff exceeds 200. The College is a School of the University in Science and Engineering, having 47 Appointed and Recognized Teachers (v. p. 91). The buildings occupy about 8 acres and cost with equipment over £1,000,000.

LIBRARIES, ETC. The Library of the Science Museum is available for the use of Students, and each Dept. is provided with a special Library, RESEARCH LABORATORIES, and full facilities for advanced study.

DEPARTMENTS. The work is organized in 27 main and sub Depts. with the following Professorships : *R.C.S.*—Aerodynamics, Astro-Physics, Aviation, Bio-Chemistry, Bot., Chem. Technology, Fuel and Refractory Materials (Chem. Engineering under an Asst. Prof.), Meteorology, Chem., Econ. Mineralogy, Entom., Geol., Maths. (Pure), Maths. (Applied), Organic Chem., Phys. Chem., Physics (3), Plant Physiol., Tech. Optics (including Opt. Design and Mechanical Design), Technology of Woods and Fibres, Zool. *R.S.M.*—Mining, Mining Geol., Metall., Oil Technology (under Prof. of Geol.). *City and Guilds.*—Civil Engin., Elec. Engin., Mech. and Motive Power Engin. (including Aeronautical and Railway).

ADMISSION. The conditions of admission are as under, but the College reserves power to admit in special cases candidates whose qualifications do not in every respect coincide with those prescribed, but whose previous training fits them to take full advantage of the course proposed ; the prescribed qualifi-

cations give no right to admission, but will be considered with others of which the candidate may give evidence. (i.) *R.C.S.* and *R.S.M.* A candidate for admission must be as a rule not less than 17 yrs. of age. For admission to 1st yr. Assoc. courses an Entrance examn. in Maths. and Mechanics, Chem. Physics, Engl., French or German or Spanish or Italian, and Geometrical or Freehand Drawing must be passed, unless equivalent examns. have been passed elsewhere. (The Matricn. examn. of the Univ. is considered equivalent provided the student has passed in "More Advanced Maths." and "Elem. Mechanics," and in the other subjects prescribed for the Entrance examn.) Candidates for admission to a 2nd yr. must pass the more advanced College Entrance examn. in Maths., Mechanics, Chem., and Physics, unless equivalent examns. have been passed elsewhere. For admission to a 3rd yr. candidates must have reached a standard correspondingly higher. (ii.) *City and Guilds.* A candidate desiring to enter for the 1st yr. of the Assoc'ship course must be at least 16 yrs. of age and must pass a special Entrance examn. in Maths. and Mechanics, Mech. Drawing, Phys., Chem., Engl., and French or German or Italian or Spanish, unless he has passed the Matricn. examn. of the Univ., taking certain specified subjects, including More Advanced Maths. For admission to the 2nd yr. course candidates must take the more advanced papers and the practical tests in the College examn., or they must have passed the Interm. B.Sc. (Eng.) in the Univ. in Maths., Pure and Applied, Heat, Electricity and Magnetism, Engineering, Drawing and Design, and Chemistry. Candidates for admission to advanced or research work in the *R.C.S.*, *R.S.M.*, or *C. and G.* are admitted on satisfying the Coll. authorities as to their previous training.

DIPLOMA AND OTHER COURSES. Associateship of each of the 3 associated Colls., 3 or 4 yrs.; specially arranged courses in Advanced Science or Technology, 1 or more yrs., leading to the Diploma of the Imperial Coll.; short courses dealing with special subjects for graduates or persons engaged in scientific industrial pursuits; occasional courses to suit individual needs.

FEES. Entrance, £2; Tuition, per session, for full-time Associateship or Post-Associateship courses of study, £60 (including Union fees), reducible for special reasons; for less than full-time courses, *pro rata*; for Research Work the fee is specially determined in each case between the limits £3 and £20 per session (including Union fees).

SCHOLARSHIPS. Entrance—18 of £60 each (6 for each of the Assoc. Colls.); Royal, awarded by Board of Educn., £60 each and fees (v. Regns., obtainable from H.M. Stationery Office, Kingsway, 1d.); Beit Fellowship for Research, £250 (for men and women graduates below the age of 25, Europeans only); £300, R.S.M., Frecheville Research Fellowships; £300 Plimmer Fellowship in Pathology; £100 in Botany; and many others (v. *Calendar*). Under a scheme established in 1920, 6 scholarships of £300 each (in special cases £400) may be awarded for 1 yr. for courses of post-graduate study in American Univs. or Works.

AFFILIATION, ETC. The Univ. of Sheffield is associated with the Coll. for Advanced Studies in the Metallurgy of Iron and Steel. Students of Huddersfield Technical Coll. may be admitted, subject to certain conditions, without examn.

PUBLICATIONS. *Calendar*, 1s.; *Annual Report*, with list of memoirs pubd. by members of the Coll., 3½d.

THE YEAR 1920–21

BENEFACTIONS. Sir Alfred Yarrow, £1600 for post-grad. scholps. at American Instns.; G. Whiffen, £1000 (additional to £8000 donated last year) towards equipment of the Intermediate Scale Chem. Laboratory; several others in extension of equipment.

CHANGES IN REGULATIONS, ETC. Negotiations are in progress towards obtaining power to grant degrees.

OTHER DEVELOPMENTS. Extension of special investigations by Research workers not graded as students; 34 were engaged on problems relating to food storage, silk, adhesives, investigation of metals, etc.; establishment of a Loan Fund for assistance of needy students; discontinuance of the colour vision Lab. as a place for Board of Trade sight tests, and its absorption in the Technical Optics Dept. of the College.

DIPLOMAS GRANTED. A.R.C.S., 94 (including 75 in Chemistry); A.R.S.M., 36 (mining, 14; metall., 16; Oil Tech., 3; Mining Geol., 3); A.C.G.I., 130; D.I.C., 59. Women included in above, A.R.C.S., 7; D.I.C., 1.

NUMBER OF STUDENTS. Preparing for Diploma, 916, including 10 women (Chem., 195; Engin., 454; Mining, 91; Metall., 61; Biol., 23; Physics, 31; Mining Geol., 21; Oil Tech., 20; Opt. Engin., 6); post-diploma and research, 251, including 14 women (Biol., 75; Chem., 40; Chem. Tech., 26; aeronautics, 28); occasionals, 89. Also 34 Research workers. New admissions for 1921–22, 336. Students from abroad, 114: India, 33; S. Africa, 9; other parts of the Empire, 19; Russia, 16; Roumania, 5; Japan, 5; other Foreign countries, 27.

EAST LONDON COLLEGE

Address—Mile End Rd., E. Telephone—3384 East.

Principal—J. L. S. Hatton, M.A. Secretary—E. J. Wignall.

Established 1892. Governed by a Council which includes the Master and Clerk of the Drapers' Co., and representatives of the L.C.C., the Univ., and the Staff. A School of the Univ. in Arts, Science, and Engin. Appointed and Recognized Teachers—34 (v. p. 91), in Aviation, Bot., Chem., Class., Engin., English, French, Geog, Geol., German, Hist., Maths., Physics, Spanish, Zool. Special Research LABORATORIES in Physics, Chem., Elec. Engin. Degree courses in Arts, Science, Engin. (including Aeronautical Engin.), and Med. Fees, inclusive, 20 gs. p.a. Hostel for women. *Calendar*, 1s. post free.

NUMBER OF STUDENTS (Full-time. Day), 600.

BIRKBECK COLLEGE

Address—Bream's Buildings, E.C.4. Telephone—11514 Central.

Principal—G. Senter, D.Sc., Ph.D., F.I.C.

Secretary—G. F. Troup Horne, B.A.

Founded 1823. A School of the Univ. in Arts and Science for evening and part-time students for 5 yrs. from Oct. 1920. Recognized Teachers—27 (v. p. 91), in Chem., Physics, Bot., Zool., Geol., Maths., Classics, French, Engl., German, Ital., Hist., Geog., Pub. Ad. Courses for degrees in Arts and Science and for the Academic Diploma in Geog. *Fees* (including College societies): Arts, Day, £7: 10s. to £11; Science, £15 to £18; Evening, £6 per session. Registrn. fee for post-grad. work, 1 g. *Studentships*, 27, conferring remission of evening tuition fees, are awarded annually. *Number of Students* (Day and Evening), 1165. *Publications*: *Calendar*, 1s.; *Annual Report*; *Lodestone* (Students' Mag.).

LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE

Address—Houghton St., Aldwych, W.C.2.
Telegrams—" Poleconics, Estrand." Telephone—6361 Central.

Director—Sir Wm. H. Beveridge, K.C.B., M.A., B.C.L.
Secretary—Mrs. Mair, O.B.E., M.A.

Founded 1895. A School of the Univ. in Economics and Political Science (including Commerce and Industry) and Laws. Appointed and Recognized Teachers (v. p. 91)—35, in Acctcy., Banking, Comm., Econ., Ethnol., Geog., Hist., Law, Philos., Pol. Sc., Pub. Admn., Sociol., Stats., Transport; others —20.

The British LIBRARY of Political Science, 500,000 vols., is housed in the

School building. So also is the Ratan Tata Dept. of the Univ., under Prof. Urwick, for Social work of many Academic kinds. The teaching is, in the main, intended for candidates for degrees in the Faculty of Economics, B.Sc.Econ., B.Com., and higher degrees, but students may also proceed to Research degrees in Arts and Science, and many of them do not proceed to degrees at all. The School co-operates with Univ. and King's Colleges in providing complete pass and Hons. courses for the LL.B.

Courses of Lectures, Classes, or Tutorial supervision are provided in all the subjects (with the exception of Insurance) for the B.Sc.Econ., and also languages and certain options for the B.Com. falling within the Faculty of Econ. and Pol. Sc. Courses at the School are also recognized in the Faculties of Arts, Laws, and Science. British and foreign economists and political students, professors at foreign Univs., etc., from time to time give short courses on their special subjects, and distinguished men engaged in public life or administration occasionally lecture to the students. Investigation and research work are done under the immediate personal supervision of the Director or a member of the Staff; the method of utilizing the Brit. Museum, Pub. Record Office, etc., is explained; brief bibliographies are supplied, together with information as to the main sources from which they may be extended. The manner in which students collect and use their material is criticized and discussed. Research Studentships of from £75 to £175 p.a. are awarded. General Composition Fee, 21 gs. per session.

Publications: *Studies in Econ. and Pol. Sc.*; "Economics," thrice annually, 2s. 6d. (T. Fisher Unwin, Ld.).

NUMBER OF STUDENTS (1920–21). Regular, 978; Occasional, 1923. Of Regular Students 671 (202 women) were Day and 307 (44 women) Evening Students; 349 were preparing for the B.Sc.Econ., 238 (9 women) for the B.Com., 9 for the LL.B., 32 for the M.Sc., 9 for the Ph.D., 6 for other Doctorates, 24 for Geog. Dipl. and Certif., 59 for Comml. Certif., 24 for Journalism Dipl., 131 (111 women) for Soc. Sc. Dipl. and Certif. (Ratan Tata Dept.), 18 for Consular Service. The Occasional Students included 631 Railway Students, 153 L.C.C. Teachers, and 73 Journalists.

SOUTH-EASTERN AGRICULTURAL COLLEGE, WYE

Address—Wye, Kent. Telephone—1 Wye.

Principal—M. J. R. Dunstan, O.B.E., M.A., F.I.C. Secy.—J. N. L. Jones.

Founded 1894. A School of the Univ. in Science (Agric.). Recognized Teachers—4 (v. p. 91), in Agr., Bot., Vet. Sc.

LIBRARY, 3500 vols. LABORATORIES: Chem. Research, Biol. (35 places), Bact., Entom., Vet. Farm, 460 acres. Forestry demonstration plantation. Fruit research station.

Courses provided for B.Sc.—3 yrs., Diploma—3 yrs., Certif., or Horticulture—2 yrs. Training for practical farming, for teaching, and for scientific advisory work. Instruction in Agric., Dairying, Farriery, Forestry, Hops, Hortic., Iron- and Wood-work, Poultry, and Bee-keeping. Extension Lectures, summer courses for Elem. School Teachers, short courses for farmers' sons. FEES, inclusive for board, lodging, and tuition: British Subjects, £150 p.a.; others, £180 p.a. Tuition only—British subjects, £85; others, £115 p.a. Reduced fees for ratepayers of Kent and Surrey. Number of Students, 209.

LONDON DAY TRAINING COLLEGE

Address—Southampton Row, W.C.1.

Principal—Prof. John Adams, M.A., B.Sc., LL.D. Secy.—Miss G. M. Wacey.

Founded 1902. The Chancellor and Vice-Chancellor of the Univ. and Chairmen of the L.C.C. and London Educn. Committee are *ex-officio* members of the College Council. A School of the Univ. in Pedagogy. Appointed and Recog. Teachers, 6 (v. p. 95), in Educn.; others, 5.

Schools under the L.C.C. and others are used for practical instruction, and 3 Demonstration Schools are attached to the Coll.

Students are trained under the Regulations for the Training of Teachers (H.M. Stationery Office, Kingsway, W.C.2) for Elem. and Secondary Schools. Undergraduates can take a 4 yrs.' course so as to combine B.A., B.Sc., or B.Sc.Econ. courses (taken at other Colls.) with Professional training. One who has already graduated may devote himself continuously for a year to Theory, etc., of Educn. and obtain the Univ. diploma. *Fees*: London students—*nil*; others—for a year spent entirely at the Coll. for a professional course, £40. *Scholarships*: Free place in 4 yrs.' and 1 yr. courses. London students eligible for senior L.C.C. Scholps.

Number of Students (1920–21): Internal, graduates preparing for the diploma—58, including 37 women; for M.A., 25 (11 women); total, 587 (373 women).

SCHOOL OF ORIENTAL STUDIES

Address—Finsbury Circus, E.C.2.

Director—Prof. Sir Edward D. Ross, C.I.E., Ph.D.

Secy.—Miss C. L. Clegg.

Established by Royal Charter, 1916. A School of the Univ. in Arts. Appointed and Recog. Teachers—22 (v. pp. 97, 112); others, 11. *Library*, 100,000 vols. *Fees*: 6 to 15 gs. per session; I.C.S. probationers, 21 gs. *Scholarships* (Gilchrist), 2 of £50 in Turkish and Chinese.

Number of Students: 412.

WOMEN'S COLLEGES

(See also p. 126)

BEDFORD COLLEGE FOR WOMEN

Address—Inner Circle, Regent's Park, N.W.1.
Telephone—Langham 1420.

Principal—Miss Tuke, M.A. Secy.—Olive E. Monkhouse, M.B.E., B.A.

Founded 1849. A School of the Univ. in Arts and Science. Appointed and Recognized Teachers—35 (v. p. 91), in Bot., Chem., Classics, Dutch, Educn., English, French, Geol., German, Hist., Italian, Maths., Philos., Physics, Physiol., Zool. The Tate LIBRARY and Wernher Reading-Room contain 30,000 volumes. Special facilities for Research work in the LABORATORIES (Bact, Bot., Chem., Geol., Physics, Physiol., Psych., and Zool.).

Minimum age for admission, 17. Students are prepared for all examns. of the Univ. of London in Arts, Science, and Pedagogy, and for the Cambridge Teachers' Diploma. In Medicine the College is recognized by the Univ. for purposes of the First M.B., and in Chem. and Physiol. for the Second M.B. Examn.

RESIDENTIAL accommodation for 93 students in the Coll. and 80 at hostels. FEES (Inclusive Sessional), for tuition: Interm. Arts—42 gs.; B.A. Pass and Honours—£40; Interm. Science, First M.B. and B.Sc. Pass—£56; Pedagogy—£37. *Average Inclusive Fees—College and Residence*: Interm. Arts—£144; B.A.—£139; First M.B., Interm. Sc., or B.Sc.—£156; Training—£137; M.A.—£116. SCHOLARSHIPS open to graduates: One in Sociology, £80 p.a. for 2 yrs.; one for research in Arts or Science, £125; "F.M.W." medical, £50. Awarded biennially. PUBLICATIONS: *Calendar*, post free, 2s 4d. Number of Students, 560.

ROYAL HOLLOWAY COLLEGE FOR WOMEN

Address—Englefield Green, Surrey. Telephone—114 Egham.

Principal—Miss E. C. Higgins, B.A. Secy.—Miss U. R. Dolling.

Opened in 1886. 19 miles from London. A School of the Univ. in Arts and Science. Appointed and Recog. Teachers—19 (v. p. 91), in Bot., Chem., Class., Engl., French, German, Hist., Maths., Physics. LIBRARY, 15,000 vols. LABORATORIES: Bot., Chem., Physics. Botanic Gardens—area of grounds, 95 acres. Residential accommodation for 200.

Courses provided for Bachelorship and Higher degrees in Arts and Science. Inclusive FEES: £135 a yr. Post-graduate studentships, 3 or 4 of £40 to £60 each, open to students of the Coll. only. PUBLICATIONS: *Calendar*, 2s. post free.

NUMBER OF STUDENTS (1921). Full-time, preparing for Bachelorship—195; for Higher degrees—2.

WESTFIELD COLLEGE, HAMPSTEAD

Address—Kidderpore Avenue, Finchley Rd., N.W.3
Telephone—734 Hampstead.

Principal—Eleanor C. Lodge, M.A. Ox.
Secy.—Miss E. C. Gedge, B.A.

Founded in 1882 by Miss Dudin Brown for the higher education of women. The college is undenominational, but the Principal is required to be a member of the Church of England. Situated near the south-west corner of Hampstead Heath; has residential accommodation for 87 students.

A School of the University in Arts. Appointed and Recognized Teachers (v. p. 91)—11, in Bot., Class., Engl., Fr., Hist., Maths.; 4 other Lectrs.

Students are not admitted under the age of 18, and are required to pass an Entrance examn. Approved courses (Hons. and Pass) in the Faculty of Science in Bot. and Maths. are provided, as well as in Arts, and a 2 yrs.' course for College Diploma in Citizenship. *Scholarships* and Bursaries are from time to time offered to graduates of this Univ. and of other Univs. Two rooms are set aside for Botanical Research. *Fees*: For tuition from 38 to 53 gs., residence £90 per session. *Number of Students*, 1920–21: 112. Full-time, preparing for B.A., 86; B.Sc., 17; graduate students, 4.

THEOLOGICAL SCHOOLS OF THE UNIVERSITY

NEW COLLEGE, HAMPSTEAD (Congregational), Finchley Road, N.W.3. Principal—A. E. Garvie, M.A., D.D. Secy.—Rev. H. Staines, M.A., B.D.

Founded 1696, reconstituted 1850. Recognized Teachers (v. p. 91), including Principal—6, in Classics and Theol. *Library*, 30,000 vols. *Fees* for B.D. course for non-ministerial students: 30 gs. p.a. *Number of Students*: 27.

HACKNEY COLLEGE (Congregational), Hampstead, N.W.3 Telephone —3719 P.O. Hampstead. Principal—P. T. Forsyth, M.A., D.D. Secy.—T. R. Grantham, Dorking.

Founded 1803. Recognized Teachers (v. p. 91)—6, in Classics and Theol. In its educational work, the College co-operates with New and Regent's Park Colleges. *Fees*: 6 gs. p.a. for each Univ. class. *Number of Students*: 31.

REGENT'S PARK COLLEGE (Baptist), Regent's Park, N.W.8. Principal—Rev. H. W. Robinson, M.A. Secy.—Rev. C. M. Hardy, B.A.

Founded 1810. Recognized Teachers (v. p. 91)—3, in Classics and Theol. Students for an Arts degree attend classes at Univ. Coll. *Fees*: 2½ gs. each class per term. *Number of Students*: 25.

KING'S COLLEGE, THEOLOGICAL DEPARTMENT (Church of England), Strand, W.C.2. Telephone—207 and 208 Gerrard. Dean—W. R. Matthews, M.A., D.D. Secy.—S. T. Shovelton, M.A.

Founded 1829 (v. *supra*, King's College). Recognized Teachers (v. p. 101) —8. Complete courses for all Theol. degrees. Day and Evg. Classes. *Fees*: for tuition, undergraduate courses, £30 per session; entrance, £6; full post-graduate course, 12 gs.; Ph.D., 21 gs. *Hostel* for students: fee for residence, £24 per term. *Number of Students* (1920–21): Full-time, 180; others, 60.

WESLEYAN COLLEGE, RICHMOND, Surrey. Principal—W. T. A. Barber, M.A., D.D. Secy. of Committee—Rev. R. W. Harding, B.D.

Opened 1843. Recognized Teachers (v. p. 91)—3, in Theol. All students are accepted candidates for Ministry of Wesleyan Methodist Church. Residential accommodation for 60. *Number of Students*: 60.

ST. JOHN'S HALL, HIGHBURY, London, N.5 (Church of England). Principal—A. W. Greenup, M.A., D.D., Litt.D. Hon. Secy. of Council—Rev. T. J. Pulvertaft, M.A.

Founded and endowed 1863 by A. Peache, of the Western Univ. of Canada. Recognized Teachers (v. p. 91)—5 (Arabic, Semitics, and Theol.); others—3. Courses for L.Th. Durham as well as for B.D. of London; courses in Faculty of Arts in Arabic. *Fees*: Entrance, 2 gs.; board and tuition, £90. Residential accommodation for 51 students. *Number of Students* (1920–21): Preparing for B.D.—5; D.D. and Litt.D.—2; others—53.

MEDICAL SCHOOLS OF THE UNIVERSITY

ST. BARTHOLOMEW'S HOSPITAL, West Smithfield, E.C.1. Dean—T. W. Shore, O.B.E., M.D., B.Sc. Sub-Dean—W. Girling Ball, F.R.C.S.

Founded 1662. Appointed and Recognized Teachers—46 (v. p. 91); *Library*: the largest of the kind in London. *Museum*: 9400 specimens, 2090 casts and drawings. *Laboratories*, with facilities for research in Path., Pharmacol., etc. 757 beds. *Fees*: 220 gs. for whole curriculum; from 1st M.B., 190 gs. *Scholarships*: total annual value over £1000; two for Research in Path. (£115) and Surg. (£105) open to graduates of any Univ. educated at Bart's. Fellowship £600, open to graduates of any Univ. for research in Lymphadenoma. *Residential College* within Hospl. grounds for 26 students (Warden, R. M. Vick, O.B.E., M.Ch., F.R.C.S.). Large Athletic Grounds. Students' Union, including Athletic Clubs and Abernethian Soc. *Publications*: *Hospital Reports*, annually, and *Journal* (Students'), monthly.

Number of Internal Students: 335 (men).

ST. THOMAS'S HOSPITAL, Albert Embankment, S.E.1. Dean—Sir Cuthbert S. Wallace, K.C.M.G., C.B. Medical Secretary—A. Elliot, M.A., M.D.

Founded in 16th century. Recognized Teachers—35 (v. p. 91); others—9. Path. Dept. includes Museum with 3000 specimens. Large Laboratories for teaching and research. Hospl. beds, 602. *Fees*: Tuition per annum, £50. Hostel accommodation for 15. *Number of Students* (men only): 473.

WESTMINSTER HOSPITAL, 12 Caxton St., Westminster, S.W.1. Dean—A. S. Woodwark, C.M.G., C.B.E., D.Sc., M.D., F.R.C.P. Secy.—Major J. Burke. Women students are admitted.

Founded 1834. Recognized Teachers—20 (v. p. 91); others—11. *Fees*: 35 gs. p.a. and 10 gs. entrance. *Number of Students*: 42.

GUY'S HOSPITAL, St. Thomas's St., Borough, S.E.1. Dean—Prof. T. B. Johnston, M.B., Ch.B. Clerk to the Dean—S. H. Croucher.

Founded in connexion with St. Thomas's, 1769; as a separate School, 1826. Appointed and Recognized Teachers—43 (v. p. 91). Library, 10,000 vols. Museum, 5000 specimens and 2000 drawings. 613 beds. Fully equipped Dental Dept. with Lab. *Fees*: entrance, £28; annual, £49. Foundations in aid of Research include Lect'ship in Path., £1250 p.a.; in Clin. Chem., £190; Trav. Studentship, £100; Studentship in Mat. Med., £40; in Path., £230; Dem'rship in Clin. Chem., £160; in Path., £320; Med. Research Fellowship, £150. Numerous prizes and entrance scholps. Resident *appointments*—58 annually. *Residential* accommodation for 60 students. Furnished rooms, 15s. to 34s. *Number of Students*: about 800 (men).

ST. GEORGE'S HOSPITAL, Hyde Park Corner, S.W.1. Dean—R. R. James, F.R.C.S.

Founded 1752. Appointed and Recognized Teachers—22 (v. p. 91); others—19. 440 beds. *Fees*: entrance for Clinical course, 10 gs. Annual composition, 40 gs. Scholarships, etc., worth £270 p.a. for encouragement of research. *St. G.'s Gazette* is issued 3 times a year. *Number of Students*: 45 men.

LONDON HOSPITAL, Turner St., Mile End, E.1. Dean—Prof. W. Wright, M.B., D.Sc., F.R.C.S. Secy.—E. J. Burdon. Women students are not admitted.

Founded 1781. Appointed and Recognized Teachers—47 (v. p. 91); others—59. Laboratories include those of Path. Inst. for Advanced Research. 950 beds. *Fees*: entrance, 20 gs.; annual, 40 gs. 34 scholps. and prizes. Hostel. 150 appointments available for students. *Number of Students*: 374 (Med. and Dent.).

MIDDLESEX HOSPITAL, Mortimer St., W.1. Dean—A. E. Webb-Johnson, C.B.E., F.R.C.S. School Secy.—R. A. Foley. Secy. to Council—W. Kewley.

Founded 1835. Appointed and Recognized Teachers—32 (v. p. 91); others—13. Over 450 beds, including Cancer wing (90); Bland-Sutton Institute of Path. with Museum and Labs., Cancer Research Labs. *Fees*: Entrance, 15 gs.; annual, £42. Scholarships, etc., worth £1000 p.a. *Number of Students*: regular, 350; occasional, 180.

CHARING CROSS HOSPITAL, Charing Cross, W.C.2. Dean—W. J. Fenton, M.D., F.R.C.P. Founded 1821. Appointed and Recognized Teachers (v. p. 91)—16. *Fees*: entrance, 10 gs.; annual, 35 gs. Several scholarships, etc. *Number of Students*: over 150.

LONDON (ROYAL FREE HOSPITAL) SCHOOL OF MEDICINE FOR WOMEN, 8 Hunter St., Brunswick Sq., W.C.1. Dean—Miss L. B. Aldrich-Blake, M.D., M.S. Warden and Secy.—Miss Brooks.

Founded 1874. Appointed and Recognized Teachers—23 (v. p. 91); others—32. 240 beds. Special arrangements with several other Hospls. for Clin. study and dresserships, etc. Research Laboratories: Anat., Biol., Chem., Path., Pharmacol., Physics, Physiol. Courses for B.Sc. Hons. in Anat. and Physiol., as well as for Med. degrees and diplomas. *Fees*: Composition, for full Med. course, £240, in annual instalments, £35, £60, £60, £50, £35. Dental course, £80. *Scholarships*, etc., open to students of the School who have graduated in London, £40 and £30; to all Med. women, preferably those coming from or going to India, £100. Many other Scholps. *Residence*: unfurnished service chambers at from £48 to £100 p.a. for set.

UNIVERSITY COLLEGE HOSPITAL, Gower St., W.C.1. Dean—G. F. Blacker, C.B.E., M.D., F.R.C.P., F.R.C.S. Open to both sexes.

The Med. School was separated from the Univ. Coll. Med. Faculty in 1905. Recognized Teachers—22 (v. p. 91); others—71. *Library*, 13,500 vols. The *Charles Graham Laboratories*, under the direction of Prof. A. E. Boycott, were established in 1902 for research in Path. A limited number of qualified students are admitted as Lab. workers, to whom grants may be made. *Fees*: course for Final M.B., B.S., or 3rd examn. of Conjoint Board—112 gs. *Scholarships, etc.*: annual value, £1250. *Residence* for Maternity students. *Publications*: *Prospectus, Transactions of Research Dept., Magazine* (Students'). *Number of Students*, 259.

KING'S COLLEGE HOSPITAL, Denmark Hill, S.E.5. Dean—H. Willoughby Lyle, M.D., B.S., F.R.C.S. Secy.—S. C. Ranner, M.A. Women students are admitted.

Appointed and Recognized Teachers—30 (v. p. 91); others—17. *Fees*: entrance, 10 gs.; complete courses for Med. Degree and Diploma examns., 190 gs.; final course only, 93 gs. *Scholarships*: 2 of £80 for Ox. and Camb. students; 2 of £50 at entrance (one Arts, one Science) and 2 of £50 for students who have passed in Biol., Chem., and Physics and propose to graduate in any British Univ. *Hostel* with accommodation for 30 men students. *Students' Publication*: *K.C.H. Gazette* *Number of Students* (1921): 243.

ST. MARY'S HOSPITAL, Paddington, W.2. Dean—C. M. Wilson, M.D., F.R.C.P. Secy.—B. E. Matthews, B.A. Women students are admitted.

Founded 1852. Appointed and Recognized Teachers—35 (v. p. 91); others—6. *Fees*: Course for 1st M.B., 3 terms, 20 gs.; subsequent yrs., 40 gs. p.a. *Scholarships*: £100, £50, £25, and 2 of 50 gs. *Clinical Units* in Med. and Surg. established in 1920–21 *Number of Students*: part-time, 105; full-time, 251.

LONDON SCHOOL OF TROPICAL MEDICINE. Dean—Sir Havelock Charles, G.C.V.O., I.M.S., M.D. Secy.—Sir J. Michell, C.M.G., Seamen's Hospital, Greenwich, S.E.10. Open to both sexes.

Founded 1899; attached to the Hospl. for Tropical Diseases, Endsleigh Gdns., Euston Rd., N.W.1. Appointed and Recognized Teachers—10 (v. p. 91). Library, Museum, and up-to-date Laboratories with accommodation for 100. Special Depts. for Entom., Helminth., Proto-zool. In the various Hospls. of the Society are always numerous cases of Trop. Diseases. The funds available for encouraging research include Wandsworth Bequest, £10,000, and £60 p.a. from E. J. Stanley Memorial. Many Trop. Research expeditions have been equipped and maintained by the School. Students must be qualified Med. practitioners or in 5th yr. of Med. studies. An examn. is held at end of each term. Trop. Med. courses suitable for candidates for the M.D. in Trop. Med., Camb. diploma in Trop. Med. and Hyg., and diploma in Dis., etc., of Tropics of Roy. Colls. Certificates granted. *Fees*: 20 gs. for 12 weeks. *Number of Students*: 159.

LISTER INSTITUTE OF PREVENTIVE MEDICINE, Chelsea Bridge Rd., S.W.1. Director—Prof. C. J. Martin, C.M.G., M.B., D.Sc., F.R.S.

Founded 1901 for Research into causation, prevention, and treatment of diseases of men and animals. Open to Research students of both sexes, usually without fee. Appointed and Recognized Teachers—4 (v. p. 91); 9 other members of scientific staff. *Number of Students*: 23.

ROYAL ARMY MEDICAL COLLEGE, Grosvenor Rd., S.W.1. Commandant—Col. H. A. Hinge, C.B., C.M.G., D.S.O.

Opened 1902; under Army Med. Advisory Board; open only to fully qualified medical men commissioned in or probationers for the R.A.M.C. or I.M.S. Profs. of Path. and Bact., Hygiene, Trop. Med., and Military Surgery. Special teaching in Physical Training and at Mily. Hospl. (81 beds), Syphilology. Qu. Alexandra Mily. Hospl. (234 beds) forms part of the

Coll. Students (average, about 70) are probationers and Captains, R.A.M.C., taking 9 mos.' course for promotion. *Residential* accommodation for 70.

ROYAL DENTAL HOSPITAL AND LONDON SCHOOL OF DENTAL SURGERY, 32 Leicester Sq., W.C.2. Dean—H. Stobie, L.R.C.P., M.R.C.S., L.D.S. Secy.—W. J. Wadham.

Founded 1858. Open to both sexes. Recognized Teachers—3 (v. *supra*, p. 94); others—30. Library, Museum, and Laboratories. X-Ray Dept. *Fees*: £70 for 2 yrs.' Hospl. practice and Lectures, or, including 2 yrs.' Dent Mechanics, £200. *Number of Students* (1921): 316.

NAVAL MEDICAL SCHOOL OF THE ROYAL NAVAL COLLEGE, Greenwich, S.E.10. Director of Med. Studies—Surg.-Comdr. R. St. G. Bond, R.N., M.B., D.P.H.

Opened 1912. Courses (twice a year) in General and Naval Hygiene, Clin. Path., Micro-Biology, for acting Surg.-Lieuts. (2 mos., followed by 4 mos. at Haslar Hospl.); Surg.-Lieuts. (5 mos.) for promotion; for Senior Med. Officers (3 mos.). Number of officers under instruction (average)—80 a year.

NATIONAL DENTAL HOSPITAL AND UNIVERSITY COLLEGE HOSPITAL DENTAL SCHOOL, 187 to 191 Gt. Portland St., W.1. Sub-Dean for Students in U.C.H. Dental School—A. B. G. Underwood, M.B., B.S., M.R.C.S., L.R.C.P., L.D.S Eng. Clerk—M. P. Collings. Open to both sexes.

The College, opened in 1877 at the N.D.H. (founded 1861), became in 1914 the Dental School of U.C.H. Recognized Teachers—5 (v. p. 94). Complete modern equipment in all branches including X-Ray Dept. Ample clinical material. Students are entered as students of U.C.H., and as such attend Chem., Physics, Anat. and Physiol. classes in Univ. Coll., a few minutes' walk from Gt. Portland St. *Fees*: for 4 yrs.' course (2 yrs.' Dent. Mech., Chem., Physics, Anat., Physiol.; 2 yrs.' Hospl. Practice, Med.; Surg. and Dent. Lectures)—£257, namely, £77, £56, £92, £32; Medical men, 2 yrs.' Mech. and Dental Practice and Lectures—£102, £70; 6 yrs.' Med. and Dent. Educn.—£438, namely, £113, £70, £73, £60, £73, £49. *Number of Students* (1921): 84.

INSTITUTIONS WITH RECOGNIZED TEACHERS

[(*a*) Principal. (*b*) Subjects in which recognized. (*c*) Number of students.]

1. UNIVERSITY OF LONDON, GOLDSMITHS' COLLEGE, New Cross, S.E.14. Incorporated in the Univ. Warden, and Principal of the Training Dept.—T. Raymont, M.A. Vice-P'pals. of Training Dept.—F. H. C. Brock, M.A., and Miss C. C. Graveson, B.A.

Opened in 1905 in buildings presented by the Goldsmiths' Company, whose "Technical and Recreative Institute" had been carried on therein since 1891. Open to both sexes. Recognized Teachers—9 (v. p. 91—Art, Classics, Educn., Hist., Maths.); others—63.

Training Department. Recognized by Bd. of Educn. as a Training Coll. (Elem.). Ordinary course—2 yrs., or for students preparing for B.A. (Pass) degree—3 yrs. Lectrs. and Instrs.—36. *Fee* for tuition with mid-day meal: £18. Hostels provide accommodation for nearly all the women and many men students.

School of Art (Day and Evening). Headmaster and 7 Assts. *Fees*: Day, 1 to 10 gs., Evening, ½ to 2 gs., per session.

Engineering and Building Dept. (Evening). Carried on at expense of L.C.C. and only temporarily retained at the Coll. Courses: College Certif. and Diploma; C.G.I. examns.; Engineering Degree (5 yrs.).

2. BATTERSEA POLYTECHNIC, Battersea Park Rd., S.W.11. (*a*) R. H. Pickard, D.Sc., F.R.S. (*b*) Chem., Engin. (Civ., Elec., Mech.), Maths., Music, Physics. (*c*) 4018.

3. BIRKBECK COLLEGE, Bream's Buildings, E.C.4. (*a*) G. Senter, D.Sc., Ph.D., F.I.C. (v. p. 133).

4. CITY OF LONDON COLLEGE, White St., Moorfields, E.C.2. (*a*) S. Humphries, B.A., LL.B. (*b*) French, Law (Comml. and Merc.), Maths. (*c*) Day, 380; Evg., 2900.

5. FINSBURY TECHNICAL COLLEGE, Leonard St., Finsbury, E.C.2. *Dean*—Prof. W. H. Eccles, D.Sc., F.R.S., M.I.E.E. (*b*) Engin. (Civ., Mech., Elec.), Appl. Maths., Physics, Chem. (*c*) Day, 171.

6. JEWS' COLLEGE, Queen Sq. House, Guilford St., W.C.1. (*a*) A. Büchler, Ph.D. (*b*) Hebrew, Semitics. (*c*) 16.

7. NORTHAMPTON POLYTECHNIC INSTITUTE, St. John St., E.C.1. (*a*) R. M. Walmsley, D.Sc., M.I.E.E. (*b*) Engin. (Elec., Civil, Mech.), Maths., Physics, Surv. (*c*) 2311.

8. NORTHERN POLYTECHNIC INSTITUTE, Holloway, N. (*a*) R. S. Clay, D.Sc., B.A. (*b*) Bot., Chem., Geol., Maths., Physics, Zool. (*c*) 3816.

9. ROYAL VETERINARY COLLEGE, Gt. College St., Camden Town, N.W.1. (*a*) Sir John McFadyean, LL.D., M.B., C.M., B.Sc., LL.D., M.R.C.V.S. (*b*) Biol., Chem., Vet. Anat., Vet. Hyg., Vet. Path. and Bact., Vet Physiol. (*c*) 162.

10. SIR JOHN CASS TECHNICAL INSTITUTE, Jewry St., Aldgate, E.C.3. (*a*) C. A. Keane, D.Sc., Ph.D., F.I.C. (*b*) Chem., Maths., Physics. (*c*) 1000.

11. SOUTH-WESTERN POLYTECHNIC INSTITUTE, Manresa Rd., Chelsea, S.W.3. (*a*) S. Skinner, M.A. (*b*) Bot., Chem., Geol., Maths., Music, Physics, Zool. (*c*) Day, 977; Evg, 3838.

12. WEST HAM MUNICIPAL COLLEGE, Romford Rd., West Ham, E.15. (*a*) T. C. Baillie, M.A., D.Sc. (*b*) Chem., Engin. (Civ., Elec., Mech.) Maths., Physics. (*c*) Day, 295; Evg., 1650.

13. WOOLWICH POLYTECHNIC, Lower Market St., Woolwich. (*a*) A. F. Hogg, M.A., F.C.S. (*b*) Chem., Engin. (E., M.), Maths., Phys. (*c*) 1500.

14. MARIA GREY TRAINING COLLEGE, Salusbury Rd., Brondesbury, N.W.6. (*a*) Miss K. L. Johnston, M.A. (*b*) Educn. (*c*) 80.

15. ST. MARY'S COLLEGE, 34 Lancaster Gate, W.2. (*a*) Miss H. L. Powell. (*b*) Pedagogy. (*c*) 16.

16. BOROUGH ROAD COLLEGE, ISLEWORTH. (*a*) T. H. Miller, M.A., D.Sc. (*b*) Maths. (*c*) Resident, 139; non-resident, 4.

17. ST. JOHN'S COLLEGE, BATTERSEA, Vicarage Rd., S.W.11. (*a*) G. H. Dix, M.A. (*c*) 138.

18. ST. MARK'S COLLEGE, CHELSEA. (*a*) R. Hudson, M.A. (*b*) Educn. (*c*) 132.

19. ROYAL ACADEMY OF MUSIC, Marylebone Rd., N.W.1. (*a*) Sir A. C. Mackenzie, Mus.D., LL.D., D.C.L., F.R.A.M. (*b*) Music. (*c*) 720.

20. ROYAL COLLEGE OF MUSIC, Prince Consort Rd., S. Kensington, S.W.7. *Director*—Prof. Sir H. P. Allen, M.A., Mus.D., F.R.C.M. (*b*) Music. (*c*) 600.

21. TRINITY COLLEGE OF MUSIC, Mandeville Place, W.1. ***Chairman of the Board***—Sir Frederick Bridge, C.V.O., D.Mus., M.A. (*b*) Educn. (Ped as applied to Music), Theoretical M. subjects (*c*) 600

22. GUILDHALL SCHOOL OF MUSIC, John Carpenter St., E.C.4. (*a*) Sir Landon Ronald. (*b*) Music. (*c*) 2700.

22A. PHYSIOLOGICAL LABORATORY, v. p. 128.

23. BETHLEM ROYAL HOSPITAL, Lambeth Rd., S.E.1. *Physician Supt.*—J. G. Porter Phillips, M.D., B.S. (*b*) Mental Diseases.

24. BROMPTON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Fulham Rd., S.W.3. *Dean*—L. S. Burrell, M.A., M.D.; *Sub-Dean*—A. C. Inman, M.A., M.B. (*b*) Med.

25. HOSPITAL FOR SICK CHILDREN, Gt. Ormond St., W.C.1. *Dean*—Oswald L. Addison, F.R.C.S. (*b*) Dis. of Child., Surg. (*c*) 270.

26. NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Sq., W.C.1. *Dean*—C. M. Hinds Howell, M.D., M.A., F.R.C.P. (*b*) Aural Surg., Neurol., Ophth., Surg. (*c*) 264.

27. ROYAL LONDON OPHTHALMIC HOSPITAL, City Rd., E.C.1. *Dean*—M. L. Hepburn, M.D., B.S., F.R.C.S. (*b*) Ophth. (*c*) 72.

28. SCHOOL OF PHARMACY OF THE PHARMACEUTICAL SOCIETY OF GREAT BRITAIN, 17 Bloomsbury Sq., W.C.1. *Dean*—H. G. Greenish, F.I.C. (*b*) Pharmaceutics; Botany. (*c*) 98.

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BURSAR—S. CHAFFERS, M.A.

LIBRARIAN—C. W. E. LEIGH, M.A.

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[(H.) = Honorary Lectr.; (C.) = Clinical Lectr.; (S) = Special Lectr.]

Accounting
Ferguson, H. S., F.C.A. Lectr.

Agricultural Botany [Sen. Lectr
Smith, E. H., B.Sc. Edin.

Agricultural Entomology
Smith, K. M., A.R.C.S. Sen Lectr.

Anatomy
Stopford, J. S. B., M.D. Prof.
Wood, W. H., B.Sc., M.B. Lectr.
Sellars, Ruth, B.Sc. Edin. (Histology) Lectr.
Morley, J., M.B., Ch.M., F.R.C.S. Lectr. (Applied A.).
Holmes, A. H., M.D. ,, ,,
Jefferson, G., M.S., F.R.C.S. ,, ,,
Morison, J. M. W., M.B., C.M. Glas. Lectr. (Applied A.).
5 Demrs.

Arabic
Mingana, A., D.D. Rome (S.).

Archæology
Herford, Mary A. B., M.A. (Classical A) Lectr. (S.)
Peet, T. E., M.A. Ox. (Egyptol.) Lectr.

Architecture
Dickie, A. C., M.A., F.S.A., A.R.I.B.A. Prof.
Macgregor, J., A.R.I.B.A. Lectr.
Drury, F. E., F.I.S.E. Lectr. (Bldg. Constn.).
Morrey, P., M.Sc.Tech. Asst. Lect.
Grant, J. L., A.R.I.B.A. (Drawing and Design) Demr.

Banking
Bellhouse, H. H. Lectr.

Fraser, Sir D. D., K.B.E., M.Com. (H.).

Botany

Weiss, F. E., D.Sc. Lond., M.Sc., F.R.S. Harrison Prof.
Adamson, R. S., M.A., B.Sc. Edin., M.A. Camb. Sen. Lectr.
Howarth, W. O., M.Sc. Lectr.
Williams, S., B.Sc. Asst. Lectr.

Botany, Cryptogamic

Lang, W. H., M.B., C.M., D.Sc. Glas., F.R.S. Barker Prof.
Robinson, Wilfrid, D.Sc. Sen. Lectr.

Chemistry, v. also Physics, Physiol., Pub. Health, Tech.

Dixon, H. B., C.B.E., M.A. Ox., Ph.D. Prague, M.Sc, F.R.S. Sir S. Hall Prof.
Lapworth, A., D.Sc. Lond., F.R.S. (Organic C.) Prof
Burt, F. P., M.B.E., B.Sc. Lond, D.Sc. Bris. (Stoichio-C.) Reader.

Senior Lectrs.:

Smith, Norman, D.Sc.
Myers, J. E., O.B.E., D.Sc.
Stephen, H., O.B.E., D.Sc.
Challenger, F., D.Sc. Birm., B.Sc Lond., Ph.D. Gött.

Lectrs.:

Campbell, C., M.Sc.
Bangham, D. H., B.A. Ox.
Core, A. F., M.Sc.
Henry, D. C., B.A. Camb.
Fairbrother, F., M.Sc. Asst.
Harwood, J., M.Sc. Asst.
Royle, F. A., M.Sc, Ph.D. Asst.
Weston, A., B.Sc. Asst.
Core, C. G., M.Sc. Asst.
Gaul, E. G., M.Sc. (Bact. C.)

Chinese

Parker, E. H., M.A. Prof.

Classics

Calder, W. M., M.A. Aberd. & Ox. Hulme Prof. of Greek and Lectr. in Christian Epigraphy.
Conway, R. S., Litt.D. Camb. and Dub. F.B.A. (Latin and Indo-Eur. Philol.) Hulme Prof.
Anderson, W. B., M.A. Camb., D.Litt. Aberd. (Imperial Latin) Prof.
Braunholtz, G. E K., M.A. Camb. (also Lectr. in Indo-Eur. Philol.) Sen. Lectr.
Husband, Jeanie, B.A. Liv. Lectr.
McLachlan, H., M.A., D.D. (Hellenistic Greek) Lectr.
Drew, D. L., M.A. Ox. Asst. Lectr.
Clifton, E. W. V., M.A.Ox. Asst. Lectr.
Petch, J. A, B.A.Ox. Asst. Lectr.
Duff, J. F., B.A. Camb.

Commerce, v. Acc., Econ.

Crystallography

The Vice-Chancellor Prof.

Dentistry, v *infra*

Economics, v. also Bank.

Clay, H., M.A. Ox. Jevons Prof.
Daniels, G. W., M.A., M.Com. (Com. and Administn.) Prof.
Ashton, T. S., M.A. Lectr.
Collier, Frances, M A. Research Asst.

Economic History

Unwin, G., M.A. Ox. Prof.

Economics, Railway (v. Geog.)

Turner, H. P., M.A., LL.B.
Halliwell, D. Lectr.
Berry, R. R. Lectr.

Education

Smith, H. Bompas, M.A. Ox., M.Ed. Prof.
Findlay, J. J., M.A. Ox., Ph.D. Leip., M.Ed. Sarah Fielden Prof.
Mark, H. T., D.Lit. Lond., B.Sc., M.Ed. Lectr.
Eggar, Margaret E. Lectr.

Wheeler, Olive A., D.Sc. Lond., M.Sc. Wales Lectr. & Tutor.
Goldsack, Irene R. (E. of the Deaf.) E. Ll. Jones Lectr.
Conway, Gladys, B.A. Liv. (Continuation School E.) Lectr.
Start, Laura E., M.Ed. Lectr.
Vaughan, Frances M., M.A. (N.U.I.) Lectr.
Hindshaw, Winifred, M.A., M Ed. Lectr.
Clarke, Winifrid S. Lectr.
Jackson, S. F., M A., Litt.D. Liv., M.A. Lectr.
Reynolds, P.G., B.A. Lond. Lectr.
Burstall, Sara A., B.A. Lond., M.A. Dub. (S).
Paton, J. L., M.A. Camb. (S).
Hodson, G. S., M.A. Camb. (Woodwork) (H) (S)
Oppenheimer, Mary (Handwork and Drawing) Lectr.
Keighley, T., Mus.D. (Elementary E.—Singing) Lectr.

Egyptology, v. Archæology

Electro-Chemistry, v. Physics

Electro-Technics
Beattie, R., D.Sc. Durh., M.I.E.E. E. S. Massey Prof.
Gerrard, H., M.Sc. Sen. Lectr.
Higham, J., B.Sc. Lectr.

Engineering, v. also Tech.
Gibson, A. H., D.Sc., M.I.C.E., M.I.M.E. Beyer Prof.
Sandeman, E., M.Sc., M.I.C.E. Assoc. Prof. and (S.) in Water Supply and Irrign.
Dewhurst, C. B., M.Sc., A.I.C.E. Clifton Lectr.
Mason, C. M., M.Sc., A.M.I.C.E Sen. Lectr.
Jones, Eric, M.Sc. Lectr.
Baker, H. W., B.Sc. Asst. Lectr.
Wrigley, J. S., B.Sc., Manc. ,, ,,
Burness, H. H., B.Sc. St. And. Asst. Lectr.
Clifford, G. H. W., B.Sc. Birm. Asst. Lectr.
Frith, J., M.Sc., M.I.E.E. (Mech. E.) (S.).

English Language and Literature
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Charlton, H. B., M.A. Leeds Prof.
Wright, J D., M.A. Senr. Lectr.
Harmer, Florence, B.A. Lond. Lectr.
Sheavyn, Phoebe, D.Lit. Lond. (S.).
Parker, Eliz., M.A. Asst. Lectr.
Evans, B. I., B A. Lond. Asst. Lectr.

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Kastner, L. E., M.A. Camb Prof.
Orr, J., M.A., B.Litt. Ox., L. ès L. Paris (Language) Prof.
Marks, J., M.A. Lectr.
Valette, Mme. Andrée, L. ès L. Paris Lectr.
Fawtier, R , L. ès L., Ag. d'Hist. Lectr.
Crump, Phyllis E., M.A. Lond. Asst. Lectr.
Fawtier, Mme. Ethel, D. de l'U. Paris Asst. Lectr.
Webb, Ethel C. Asst. Lectr.

Geography
Barker, W. H., B.Sc. Lond. Reader.
Marten, Gladys M., M.A. (Lectr. in Railway Econ.) Asst. Lectr.

Geology, Palæont., and Petrol.
Jones, O. T., M.A. Camb., D.Sc. Wales Prof.
Dawkins, Sir Wm. Boyd, M.A., D.Sc. Ox. and Manc., F.R.S. Prof. (H.).
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Lindsey, Marjorie, M Sc. Lectr.

German and G. Philology
Johannson, A., M.A. Dorpat and Manc. Henry Simon Prof.

Halliday, F. W., M.A. Lectr.
Lloyd, M. D. I., M.A. Wales Lectr.

Hebrew, v. Semitic

Histology, v. Anat. and Med. (Path)

History, v. also Econ., Palæog., Theol.
Tout, T. F., M.A. Ox. and Manc., D.Litt. Durh., F.B.A. Prof.
Davis, H. W. C., C B E., M.A. Ox. (Modern H) Prof.
Powicke, F. M., M.A. Ox. and Manc. (Mediæval) Prof.
Waugh, W. T., M.A., B.D. (Eccl. H.) Bishop Fraser Reader.
Atkinson, D., B.A. Ox. (Ancient) Reader.
Higham, C. S. S., M.A. Camb (Colonial) Lectr.
Evans, Florence M. G., M.A., Ph.D. Asst. Lectr.
Mudie, Phyllis J., M.A. Asst Lectr.
Fiddes, E., M.A. Camb., Aberd. and Manc. (Roman) (S.)
Dunlop, R, M.A. (Irish) (S.).
Fawtier, R., L. ès L. (French) (S.)

Italian Studies
Gardner, E. G., Litt.D. Camb. Prof.
Valgimigli, A. Asst. Lectr.

Law
Brierly, J. L., B.C.L., M.A. Ox. Prof.
Eastwood, R. A., LL.D. Sen. Lectr.
Osborne, F. B., M.A. Ox. Lectr.
Ferguson, H. S., F.C.A. Lectr.

Mathematics, v. also Tech.
Chapman, Sydney, M.A. Camb., D.Sc., F.R.S. (M. and Nat. Philos.) Beyer Prof.
Livens, G. H., M.A. Camb. Fielden (Sen.) Lectr.
Jones, J. E., M.Sc. Lectr.
Child, J. M., M.A. Camb., B.Sc. Lond. Lectr.
Eagle, Albert, A.R.C.S. Lectr.
Bailey, W. H., M.A Camb. Lectr.

Medicine, v. *infra*

Metallurgy and Metallography, v. also Tech.
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O'Neill, H., B.Met. Sheff. Asst. Lectr.
Cartwright, W., M.Sc. Asst. Lectr.

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Music
Brodsky, A., Mus.D. Lectr.
Keighley, T., Mus.D Lectr.
Wilcock, A. W, Mus.D. Lectr.

Palæography
Little, A. G., M.A. Ox. Lectr.

Philology, v. Classics, German

Philosophy, v. also Pol., Psych., Theol.
Alexander, S., M.A. Ox. and Manc., LL D St. And, F.B A. Sir S. Hall Prof.

Physics, v. also Elec. and Tech.
Bragg, W. L., M.A. Camb, F R.S. Langworthy Prof.
Schuster, Sir Arthur, Sc.D. Camb., Ph D. Heid., D.Sc., F.R.S. Prof. (H.).
Lobley, A. G., M.Sc. (Electro-Chem) Reader.
Nuttall, J. M., M.Sc. Sen. Lectr.
James, R. W., M.A. Camb., B.Sc. Lond. Senr. Lectr.
Dickson, E. C. Scott, B.A. Camb., Ph.D. Bonn. Sen. Lectr.
Bell, H., M.A. Edin. Lectr.
Watson, W. H., B.Sc. Asst. Lectr.
Brentano, J. C. M., D.Sc. Mun. Asst. Lectr.
Blackaby, J. H., B.Sc. Lond. Asst. Lectr.
Lowery, H., B.Sc. Lond. Asst. Lectr.
Vernon, W. S., M.Sc. N.Z. ,, ,,

Physiology and Histology
Hill, A. V., O.B.E., M.A. Camb. F.R.S. Brackenbury Prof.
Lamb, F. W. J. A., B.A., M.D., D.P.H Dub. Reader in Human P.
Robinson, A. L., M.B., M.A., Sc.B. Dub. Lectr. (Chem. P)
McSwiney, B. A , M.B. Dub. Lectr. (Exper. P.).
Wilson, S. R., M.B., F.R.C.S. Edin. Asst. Lectr.
Ritchie, A. D., M.A. St. And., B.A. Camb. Asst. Lectr.

Political Philosophy
Burt, H. T., B.A. Ox. Asst. Lectr.

Psychology [Prof.
Pear, T. H., B Sc. Lond., M.A.
Thouless, R. H , M A. Camb. Lectr.
Wyatt, Stanley, M.Sc., M.Ed. (S.).

Public Health, v. *infra*

Railways, v. Econ.

Russian [Sir W. Mather Prof.
Trofimov, M. V., M.A. Pet.

Semitic Langs. and Lit.
Canney, M. A., M.A. Ox. (Prof. of Bibl. Crit.) Prof.
Farbridge, M. H., M.A. Asst. Lectr.

Spanish
Entwistle, W. J., M.A. Aberd. Lectr.

Technology, v. *infra*

Theology, v. also Classics, Sem.
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Perry, W. J , B.A Camb. (Comp. Religion) Reader.
Waugh, W. T., M.A., B.D. (Eccl. Hist.) Bishop Fraser Reader.

Lectrs. :
Mackintosh, R., B.D. Edin., M.A., D.D. Glas. (Philos. of Rel.)
Parsons, R. G., M.A. Ox. (Bib. Cr.).

Lectrs. in Hist. of Doctrine :
Marshall, J. T., M.A. Lond., D.D. Tor.
Mumford, A. H., B.A. Lond., B.D. Edin.
Grensted, L. W., M.A. Ox., B.D.
Brewis, J. T., B.A., B.D.
Moulton, W J., M.A., B.D. Camb.
Townsend, H., M.A., D.D. Lond.

Veterinary, v. *infra*, Pub. Health

Zoology
Hickson, S. J., M.A. Camb , D.Sc. Lond , D.Z. and Bot. Grön., F R S Beyer Prof.
Thomson, J Stuart, Ph.D. Berne, M.Sc. Sen. Lectr

Lectrs. :
Lapage, G., M.Sc., M.B., Ch.B.
Wardle, R. A., M.Sc. (Econ. Z.).

Medicine (for subjects of first 2 yrs.—Anat., etc., v. *supra*)

Anæsthetics, v. Venereal

Bacteriology, v. Path.

Cancer Research (Swindells Lab.)
White, C. P., M.A., M.D. Camb., F.R.C.S. (H.) and Dir. of Lab.

Children, Diseases of
Lapage, C. P., M.D. Lectr.

Children, Surgical Diseases of
Rayner, H. H., M.B., Ch.B., F.R.C.S (also in Clin. Surgery) Lectr.

Dermatology, v. also Path.
Lancashire, G. H., M.D. Bruss. Lectr.

Diseases of the Throat and Nose
Milligan, Sir W., M.D. Aberd. Lectr.

Forensic M., v. Path.

Gynæc., v. Obst.

Hygiene, v. Pub. Health

Infectious Diseases [(C.).
Fletcher, J., M.D. Aberd., D.P.H.

Larynx, Diseases of the
Westmacott, F.H., C.B.E., F.R.C.S. (C.).

Materia Med., Therap., and Pharmacy
Wild, R. B., M.D. Lond., M.Sc., F.R.C.P. Leech Prof.
Grier, J., M.Sc. Lectr. & Demr
Leech, E. B., M.D. Camb., F.R.C.P. Lectr.
Roberts, Ivy, B.Sc. (Pharm. and Pharm. Chem.) Asst. Lectr.
Duncan, Jeannette, B.Sc., Dip. Phm. Soc. Demr.
Rawsthorne, F., L.D.S. (Dent. M.M.) Lectr.

Medicine, Clinical
Ramsbottom, A., M.D., D.P.H., F.R.C.P. Prof.
Brockbank, E. M., M.D., F.R.C.P. Lectr.
Tylecote, F. E., M.D., D.P.H. Lectr.
Melland, C. H., M.D. Lond., B.Sc. Lectr.
Core, D. E., M.D. (also in Neurology) Lectr.
Oliver, T. H., M.D. Lectr.

Medicine, Systematic
Murray, G. R., M.A., M.D. Camb., M.D. Dub., D.C.L. Durh., F.R.C.P. Prof.
Moore, F. Craven, M.D., M.Sc., F.R.C.P. Lectr.

Mental Diseases
Sutcliffe, J., M.R.C.S., L.R.C.P. (C.).
Orr, D., M.D., C.M. Edin. Lectr.

Neurology, v. Med., Clin.

Obstetrics and Gynæcology
Donald, A., M.A., M.D. Edin., F.R.C.P. Prof. (C.).
Fothergill, W. E., M.A., B.Sc., M.D. Edin. Prof.
Shaw, W. F., M.D. Lectr.
Dougal, D., M.D. Asst. Lectr.
Clifford, H., M.B., F.R.C.S. Edin. (C.).

Ophthalmology
..... Lectr.
Clegg, J. G., M.D. Lond., M.B., Ch.B., F.R.C.S. (Clin. O.) Lectr.

Otology
Sewell, D. L., M.B., B.S. Lond. (C.).

Pathology and Path Anat.
Dean, H. R., M.A., M.D., B.Ch. Ox., F.R.C.P. Procter Prof.
Anderton, W. B., M.B. Lond (P. and Forensic M.) Lectr. & Curator of Museum.
Dible, J. H., M.B. Glas. (Bacteriology) Lectr.
Kyrie, B. J., M.B. Edin. (Path A. and Histology) Lectr.
Renshaw, A., M.D., B.S. Lond., B.D.S. Lectr.
Loveday, G. E., M.A., M.B., B.C. Camb. (Clin. P.) Lectr.
Dyson, W., M.D. (P. of the Skin) (H.) (S.).
3 Demrs.

Pharmacy, etc., v. Mat. Med.

Radiology
Barclay, A. E., O.B.E., M.D. Camb. Lectr.

Surgery, Clinical, v. also Children's Diseases
Burgess, A. H., M.B., M.Sc., F.R.C.S. Prof.
Roberts, C., M.B., B.S. Lond. Lectr. and Asst.
Buckley, J. P., M.A., M.D., B.C. Camb., M.B., M.S. Lond., F.R.C.S. (also in Regional Surgery) Lectr.

Surgery, Operative
Wrigley, P. R., F.R.C.S. Lectr.
Wright, G., M.B., Ch.B. Edin., F.R.C.S. Lectr.

Surgery, Practical
Telford, E. D., M.A., B.C. Camb., F.R.C.S. Lectr.

Surgery, Regional, v. Surg., Clin.

Surgery, Systematic
Smith, J. W., M.B., C.M. Edin., F.R.C.S. Prof.
Hey, W. H., M.B., F.R.C.S. Lectr. and Asst.

Surgical Pathology [Lectr.
Ray, J. H., M.B., Ch.M., F.R.C.S.

Therapeutics, v. Mat. Med.

Vaccination
Mitchell, A. M., M B, Ch.B. Aberd. Lectr.

Venereal Diseases
Macalpine, J. B., M.B., Ch.B. Instr. (C.).
Reid, W. J. S., M.A., M.D., B.Sc. Aberd. Instr. (C.).
Whitehead, Gordon, M.B., Ch.B. Instr. (C.).
Wilson, A., F.R.C.S. (also Hon. Lectr. in Anæsthetics) Instr. (C.).
Gibson, R., M.D. Instr. (C.).

Dentistry

Lectrs.:
Preston, C. H., M.D. Lond., F.R.C.S., L.D.S. (Anat. and Physiol.).
Rodway, B. J., L.D.S. (Mechanics and Prosthetics).
Houghton, E., L.D.S. (Operative Surgery).
Headridge, D., L.D.S. (Histol.).
Headridge, J. P., B.Sc. Lond., L.D.S., D.D.S. (Metall.).
Campion, G. G., L.D.S. (Orthodontics).
Simms, H., M.D., L.D.S. (Path. and Surg.).
Wild, Prof. (v. Med. (Mat. Med.))
Rawsthorne, F., L.D.S. (Mat. Med.).
Dean, Prof. (v. Path.) (Bacteriology).

Public Health

Principles of P.H. and Bacteriology
..... Prof.
Sidebotham, E. J., M.A., M B. Camb. (Pract. Bact. and Microscopy) Lectr.
Sellers, A., M.D. Edin., D.P.H. (Pract. Comp. Path.) Lectr.
Heap, H., M.Sc. (Pract. Chem.) Lectr.
Dawson, G. D., M.D., D.P.H. Asst. Lectr.

Administration
Butterworth, J. J., M.D., D.P.H. Lectr in Hygiene and A.
Brindley, A. E., M.D. Lond., B.Sc., D.P.H. Lectr.

Factory Hygiene
Legge, T. M., M.A., M.D. Ox., D.P.H. Lectr.

School Hygiene
Young, M., M.D. Edin., D.P.H. Lectr.

Vet. Hygiene
Woods, W., F.R.C.V.S. Lectr.

Technology

Jones, B. Mouat, M.A., Principal of the College of Tech. and Dean of the Faculty.

Architecture, v. *supra*

Chemistry, Applied
Pyman, F. L., Ph.D. Basle, D.Sc., F.I.C. Prof. of Technol. C.
Knecht, E., M.Sc.Tech., Ph.D. Zur., F.I.C. Assoc. Prof.

Lectrs.:
Grant, J., M.Sc.Tech., F.I.C.
Sinnatt, F. S., M.B.E., M.Sc. Tech., F.I.C., M.I.Min.E. (Fuels).
Radcliffe, L. G., M.Sc.Tech., F.I.C.
Wood, J. K., D.Sc. (Physical C.).
Hibbert, Eva, M.Sc.Tech. Asst. Lectr.

Craven, Mrs. May B., M.Sc.Tech. Asst. Lectr.
8 Demrs.

Dyeing, Bleaching, and Printing and Paper Manuf. [Lectr.
Huebner, J., M.Sc.Tech., F.I.C.
Rowe, F. M., D.Sc. F.I C. Lectr.

Engineering, Electrical
Walker, Miles, M.A. Camb., D.Sc. Lond., M.I.E.E. Prof.
Lectrs. :
Langton, J. L., M.Sc., M.I.E.E.
Moore, A. E., M.Sc.Tech., M.I.E.E.
Clayton, A. E., B.Sc. Lond., A.M.I.E.E.
Asst. Lectrs. :
Hoyle, B., M.Sc.Tech., A M I E.E.
Glynne, A., M.A Camb.
Shelley, H. J., B.Sc.

Engineering, Mechanical
Stoney, G. G., M.A.I. Dub., D.Sc. Durh., M.I.C.E , M.I.M E., M.I.E.E , F.R S Prof.
Lectrs. :
Jordan, H. G., M.Sc.Tech., A.R.C.S.I., M.I.M.E.
Petrie, P. T., M.Sc. Leeds. A.M.I.C.E.
Popplewell, W. C., M.Sc., A.M.I.C.E.
Smith, Dempster, M.B.E., M.Sc.Tech., M.I.M.E.
Jones, T. H., M.Sc., A.M.I.M.E. (Eng. Drawing).
Boswall, R. O., B.Sc.Eng. Lond., A.M.I.M.E.
Asst. Lectrs. & Demrs. :
Anderson, R. M., A.T.C., M.Sc.Tech.
Edmondson, A. R., M.Sc., A.M.I.C.E., A.M.I.M.E.
Ferguson, R. M., M.Sc.
Threlfall, H., M.Sc.Tech., A.R.C.S.I.
Bevan, T., M.Sc.Tech.
Carrington, H., B.Sc., M.Sc.Tech., A.M.I.M.E.

Engineering, Sanitary [Lectr.
Radcliffe, J., M.Sc.Tech., F.R.Met.S., F.R.San.I.
Coleman, G. S., D.Sc. Lectr.

Languages (Modern)
Kirk, A., M.A. Camb. Lectr.

Mathematics
Prescott, J., M.A., D.Sc. Lectr.
Bowman, F., M.A. Camb., M.Sc.Tech. Lectr.
Mordell, L. J., B.A. Camb. Lectr.
Barratt, W. S., A.R.C.S.I., A.I C. Asst. Lectr.
Tilsley, H., B.Sc. (Eng.) Lond. Asst. Lectr.

Metallurgy & Assaying
Rhead, E. L., M Sc Tech., F.I.C., M.Am.I.M.E. Lectr.
Waters, F. W., A.M.C.T., A.I.C. Demr.

Photographic Tech. [Lectr.
Gamble, C. W., O.B.E., M.Sc.Tech.

Physics [Lectr.
Gee, W. W. Haldane, B.Sc. Lond., M.Sc.Tech., A.M.I.E.E.
Adamson, A., M Sc.Tech., A.R.C.S. Lectr.
Mercer, H. N., M.A., B Sc. Asst. Lectr.
Anderson, W , B.Sc Glas. ,, ,,

Textile Industries
Turner, A. J., M.A. Camb., B.Sc. Lond. Prof.
Myers, W., M.Sc.Tech. Lectr.
Winterbottom, J., M.Sc.Tech. Asst. Lectr. & Demr.
Brookes, A. E. G. (Design) Lectr.
Hanton, W. A., M.Sc.Tech. (T. Engin) Lectr.
Dust, Emily R. (Design) Asst. Lectr.
Booth, J. H., M.Com. (Markets) (S.)

Tutorial Classes

20Tutors

ASSOCIATED COLLEGES

THE COLLEGE OF TECHNOLOGY originated in the Mechanics' Institution, founded in 1824, and developed between 1879 and 1912 under the direction of J. H. Reynolds as the Technical School (1883) and Municipal School of Technology (1901). In 1903 were completed, with the help of benefactions from the estate of Sir Joseph Whitworth, buildings covering 7300 sq. yards in the centre of the city and worth with their equipment £400,000. It became connected with the Univ. of Manchester in 1905 through the constitution of a Faculty of Technology, the greater part of the work of which is conducted in the College, whose Principal is Dean of the Faculty.

COLLEGES recognized for External Lectures in Theology:

BAPTIST COLLEGE, EGERTON HALL, HARTLEY PRIMITIVE METHODIST COLLEGE, MORAVIAN COLLEGE, Fairfield, UNITARIAN HOME MISSIONARY COLLEGE, and UNITED METHODIST COLLEGE at Manchester; LANCASHIRE INDEPENDENT COLLEGE, Whalley Range; WESLEYAN COLLEGE, Didsbury.

Recognized for instruction in Maths., Physics, Chem., and Biol. up to Interm. standard for B.Sc. and B.Sc.Tech.: the HARRIS INSTITUTE, Preston.

For third year of B.Sc.Tech. course in Mining: the CAMBORNE SCHOOL OF METALLIFEROUS MINING.

GENERAL INFORMATION

Owens College, named after a Manchester merchant who bequeathed £96,000 for its foundation, was opened in 1851. The Manchester School of Medicine was united with it in 1872. The Charter of 1880 by which the Victoria Univ. was founded established a federal constitution and made Owens a constituent Coll. of the Univ. Subsequently Univ. Coll., Liverpool, and Yorkshire Coll., Leeds, were admitted as constituent Colls. A new Charter was issued on July 15, 1903, reconstituting the Univ. under the name of the Vict. Univ. of Manchester and freeing it from liability to admit or remain in association with any Coll. other than Owens, and on June 24, 1904, the Act for the incorporation of Owens Coll. with the Univ. was passed. The Univ. Press was established in 1902.

In 1905, on the establishment of the Faculty of Technology, the work of Univ. standard at the Municipal School (now College) of Tech. was included in the Univ.

Most of the buildings, arranged in two quadrangles, and erected from time to time during the past 50 years, are situate in the city. The athletic ground (13 acres) is at Fallowfield, about 1½ miles distant.

LIBRARIES. The main (Christie) library (over 168,000 vols.) includes the private collections of Profs. Freeman and Stanley Jevons and Dr. Christie. Scientific periodicals are taken in by the Univ. in co-operation with the Manchester Literary and Philosophical Society, so that between them all the most important are available for both. The Manchester Medical Society's Library (42,000) is housed in the Medical School, where it is available for students. The John Rylands (250,000) includes the Althorp Library and the Crawford collection of MSS. It contains one of the most important collections of early printed books in existence. The ancient Chetham Library (70,000) has valuable mediæval MSS. and printed books of seventeenth and eighteenth

centuries. The Municipal Reference Library (194,000) is valuable for more recent books and periodicals.

LABORATORIES, ETC. Ample equipment for advanced study and research in all departments; special provision for Electro-Technics, Economic Zoology (including Agric. Entom.) and Botany, Radio-activity, Ionization of Gases, Pathology of Cancer. The Fielden School is organized mainly for demonstration, training, and research in Educn. The Manchester *Museum*, forming part of the Univ. buildings, and containing among other special depts. the Flinders Petrie Egyptol. Collection, is utilized for Univ. teaching in Zool., Bot., and Geol.; it is also used for systematic instruction of Elem. school children Available for clinical instruction are 4 general *Hospitals*, 1 Dental and 7 other special hospls. including the Christie Cancer Pavilion. The Howard Estate *Observatory* in the Peak District is for investigation of the Upper Atmosphere.

FACULTIES. Arts; Science; Theology; Law; Medicine; Music; Commerce; Technology (provided by the Municipal College of Technology); Education. *Departments*: Educn., Dent., Pharm., Pub. Health, and seven depts. of Technology (*see below*). There are Advisory Committees for Agric., Archit., Mining, Tech., Commerce, Theol., Pub. Health, Leg. Educn., and for Training Teachers of the Deaf.

DEGREE COURSES. 3 yrs. (graduates of other approved Univs., 2 yrs.)—B.A., B.Sc. (B.Sc. in Pub. Health, 2 yrs. subsequent to gradn. in Med.), LL.B., Mus.B., B.Com., B.D. (after Interm. courses in Arts), B.Sc.Tech.; 5 yrs.—M.B., Ch.B., B.D.S. The B.Com. course can be completed by attendance on evening lectures.

Honours students of French may be permitted to count attendance during 1 summer term (last but one) at Caen as equivalent to attendance at Manc.

Minimum attendance in the Univ. for graduation—2 yrs. Minimum attendance for Bachelorship in 2 Faculties—5 yrs.

HIGHER DEGREES. Open to Bachelors of 1 yr. standing—M.A., M.Sc. (2 yrs. if graduates of other Faculties), Ch.M., M.D., M.D.S., M.Com., M.Sc.Tech.; 2 yrs.—M.Ed.; 4 yrs.—Litt.D., D.Sc., LL.D., Mus.D., D.D.

Open to graduates of other approved Univs. through research in Manc. during 2 yrs. (non-graduates 3 yrs.)—M.A., M.Sc., M.Sc.Tech., M.Ed. (not open to non-graduates). Graduates of other approved Univs. of 4 yrs.' (D.D. 6 yrs.) standing who have obtained the degree of Master or one substantially equivalent thereto and spent 2 yrs. in study or research in Manc. may qualify for the Litt.D., D.Sc., D.D.

The Ph.D. differs from the Litt.D. and D.Sc. in requiring a definite course of study, and is of a lower standard though higher than the M.A., M.Sc., and M.Sc.Tech. (v. p. 15).

DIPLOMAS. Geog. (grads.), 1 yr. course; D.V.S.M., open to M.R.C.V.S. only, 6 mos.; Psych. Med. 1 yr., including 2 terms at the Univ.; D.P.H. 9 mos.; Teacher's (grads.) 1 yr.

CERTIFICATES. Engin., 3 yrs.' course; Applied Chem., 3 yrs.; Mining; Factory or School Hygiene (subsequent to obtaining D.P.H.); L.D.S., 4 yrs. Higher Commercial, 2 yrs. (grads. 1 yr.); Theol., 3 yrs.; Biblical Knowledge; Tech. (Assoc. Coll. Tech.), 3 yrs.; Tech. (Distinction), 4 yrs.; Photog. Tech., 2 yrs.

Certif. in Mining and the B.Sc.Tech. in Mining are accepted by Govt. in lieu of 2 out of 5 yrs.' practical experience for Mine Manager's Certif.

SPECIAL COURSES on Tuberculosis for Med. and Vet. practrs.

SCHOLARSHIPS, ETC., FOR GRADUATES. A considerable number are offered every year by the Univ., most of them reserved for its own graduates, but some—in Chemistry, £300 and £100; Economics, £70; Engineering, two of £200 each; Diseases of Children, £100; Physics, £125—are open to foreign students; others—in Industry and Comm., £200 (travelling); History, £50—are open to British subjects who have graduated at other Univs. Honorary Research Fellowships and Research Studentships, entitling the holders to the use of facilities for research either free or at greatly reduced fees, are also awarded.

FEES. Matricn., £2. Tuition, per session, including Students' Union and Athletic Union fees: for B.A. course, 26 gs. (Hons. in Archit., 31 gs.); B.Sc., 31 to 41 gs. (Hons. in Maths., 26 gs.); M.B., Ch.B. (5 sessions), 140 gs., *plus* Hospl. fees, 60 gs.; LL.B. (3 sessions), 37 gs.; B.D., 13 gs; B.Com., 16 gs.; Mus.B., 7 gs.; B.D.S., 93 gs., *plus* Hospl. fees, 175 gs.; L.D.S., 83 gs., *plus* Hospl. fees, 135 gs. (35 gs. if approved instrn. recd. from regd. dentist); Teacher's Dipl., 26 gs. Examn. fees: Med., 32 gs., others (Interm. and Final) for first degrees about 6 gs. (B.Sc., 4 to 5 gs.). Graduation fees, 8 gs. (Doctorate 15 gs., except Ph.D. £5).

Research fees, 5 gs. per session in Arts, Theol., and Educn.; higher fees for other science students.

HOSTELS. For men: Hulme Hall (Warden), £75-£95 per session; Dalton Hall (Principal), £108; St. Anselm's Hall (Warden), £90. For women (122): Ashburne Hall (Warden), £64 to £70; Langdale Hall (Warden), chiefly for women training students, whose fees are £42, private students, £70; Ellis Llwyd Jones Hall, special hostel for students in training as teachers of the deaf; Ward Hall (Warden); Lees Hall (Warden); St. Gabriel's Hall (Warden). Private lodgings with board obtainable.

INDIAN STUDENTS. Adviser—J. Moir, M.A., Coll. of Technology.

PERIODICAL PUBLICATIONS. *Calendar* (Sept.), 2s. 6d.; *Prospectus of Advanced Studies*; *Examn. Papers*, 6d. to 1s. 6d. a set, by Faculties; *The French Quarterly*, 3s.; *Bulletin of John Rylands Library*; *Journal*, 1s. quarterly; *Lancs. and Cheshire Naturalist*, monthly 9d.; *Journal of Manc. Egyptol. and Orient. Soc.*

THE YEAR 1920–21

BENEFACTIONS. The Appeal Fund, increased during year ending July 31, 1921, by £24,000, amounted in Sept. 1921 to £232,000. Among the larger contributions received since July 1920 are: Richard Johnson, Clapham & Morris, 1000 gs.; Alderman Plummer, £1000; A. Tongue, £1000; Palace Theatre of Varieties benefit matinée, £434; F. J. Milne, Wilson Bros. Bobbin Co., Ltd., and Townhead Mill Co., Ltd., £500 each; Local Branch of Institute of Builders, £3338 for Travelling Scholarships in Archit.; Local Trades Employers' Assocn., £1119 for further endowment of Chair of Archit.; Town of Oldham, £8355; Stalybridge, £3637 (partly for scholarship); other towns, £259. The Treasury gave a further non-recurrent grant of £10,000; for 1921–22 annual grant increased by £13,000 to £56,000 and non-recurrent grant of £20,000 made; Manchester City grant increased from £4000 to £8000; Counties of Lancashire and Cheshire from £1000 and £400 to £2000 and £500; County Boroughs of Bolton and Salford from £100 and £300 to £400 and £500; Borough of Oldham special grant, £2500; Law Societies,

£170 ; Moseley Physics Prize ; Jesse Haworth Bequest, £30,000 for extension of Museum, with collection of Egyptian antiquities, etc. ; French Govt. 200 books—chiefly on French Lit. and Hist ; Stationery Office, 50 vols. of Record Office publications on condition of purchase of all future R.O. publicns. for 15 yrs. ; Cassel Trustees, £250 p.a. for 5 yrs. for Lectr. in Spanish.

NEW BUILDINGS, ETC. Athletic ground largely extended ; St. Gabriel's Hall licensed as a Hall of Residence, making 9 in all ; Ellis Llwyd Jones Hall formally opened by Rt. Hon. H. A. L. Fisher ; temporary wooden Chemical Lab. erected.

NEW POSTS. Lectr. in Spanish, Prof. of Commerce and Administration, Prof. of Clinical Obst. and Gynæc.

The Pathological Dept. has been reorganized and its staff strengthened.

CHANGES IN REGULATIONS of or affecting the Univ. : Interm. LL.B. examn. recognized conditionally under Solicitors Act as qualifying for reduction to 4 yrs. of period of service under articles ; amount of full Research Scholarships raised to £75.

OTHER DEVELOPMENTS. Use of Fielden School for training students for Continuation School work and for part-time instruction of juvenile employees of the Univ ; two special Research Fellowships in Arts ; Conference between representatives of Council, Heads of Halls and representatives of Governing Bodies to be held every term to promote co-operation and effective working of the Halls.

NUMBER OF STUDENTS. (1919–20, 1920–21) Medical, 771, 754 (including women, 143, 147) ; Technology, 561, 502 (women, 12, 10) ; all other Faculties, 1601, 1643 (women, 457, 508). Candidates for Ph.D. Degree numbered 24. Evening class students, not included in above figures, 287.

HONORARY DEGREES. *LL.D.*—C. P. Scott ; *Litt.D.*—J. T. Sheppard ; *D.Sc.*—R. Kidston, Prof. C. S. Sherrington ; *D.D.*—J. T. Marshall ; *M.A.*—F. Brook, W. Butterworth, J. J. Mallon ; *M.Ed.*—Miss J. F. Wood. Also for special distinction in Research : *Litt.D.*—Sir Sydney J. Chapman, Profs. C. H. Herford, G. Elliot Smith, Rhys Davids ; *D.Sc.*—Profs. H. Lamb, Sir E. Rutherford.

PUBLIC LECTURES. Prof. Einstein on "Relativity" ; regular series of weekly evening lectures ; special courses on various subjects both in Manchester and elsewhere.

TUTORIAL CLASSES increased from 19 to 24. They were held in Manchester and 20 surrounding towns. Twenty tutors were engaged in the work. At the Bangor *Summer School* 132 students, including 59 women, attended : there were 18 tutors in residence.

RETIREMENTS AND RESIGNATIONS. Profs. C. H. Herford, Ramsay Muir, D. H. Macgregor (on appointment to Drummond Chair of Economics at Oxford), Sir Wm. Thorburn, E. S. Reynolds. Lectrs : Harold Williamson, appointed Prof. of Latin in Bedford College, London ; W. J. Jones, Prof. of Chem. in Univ. College, Cardiff ; Gilbert Cook, Prof. of Mech. Engin. in King's College, London ; F. A. Cavenagh, Prof. of Educn. in Univ. Coll., Swansea ; J. N. Pring, Head of Physical Chem. Branch of Research Dept. at Woolwich ; J. K. Charlesworth, Prof. of Geol. at Belfast ; J. Macmurray, Prof. of Philos., Univ. Coll., Johannesburg ; M. L. W. Laistner, Reader in King's Coll., London ; V. H. Galbraith, to a post in the Public Record Office ; Harold Robinson, Moseley Research Scholar ; Mrs. M. E. Robinson, Lectr. at Newnham Coll.

UNIVERSITY OF OXFORD

CHANCELLOR—The Most Hon. MARQUESS CURZON OF KEDLESTON, D.C.L. All Souls.

HIGH STEWARD—.....

VICE-CHANCELLOR—L. R. FARNELL, M.A., D.Litt., Rector, Exeter College.

REPRESENTATIVES IN PARLIAMENT (BURGESSES OF THE UNIVERSITY)—LORD HUGH R. H. CECIL, M.A. Hertford; Sir CHAS. W. C. OMAN, M.A. All Souls.

PROCTORS—D. L. CHAPMAN, M.A. Jes.; J. R. H. WEAVER, M.A. Trin.

ASSESSOR OF THE CHANCELLOR'S COURT—Sir E. J. TREVELYAN, D.C.L. All Souls.

PUBLIC ORATOR—A. D. GODLEY, M.A., Hon. D.Litt. Magdalen.

BODLEY'S LIBRARIAN—A. E. COWLEY, M.A., D.Litt. Magdalen.

KEEPER OF THE ARCHIVES—R. L. POOLE, M.A. Magdalen.

REGISTRAR—C. LEUDESDORF, M.A. Pembroke.

ASSISTANT REGISTRAR AND SECRETARY TO THE BOARDS OF FACULTIES—E. S. CRAIG, M.A. Magdalen.

COLLEGES

ALL SOULS COLLEGE	*Warden*	F. W. PEMBER, M.A., D.C.L.
BALLIOL ,,	*Master*	A. L. SMITH, M.A.
BRASENOSE ,,	*Principal*	C. H. SAMPSON, M.A.
CHRIST CHURCH	*Dean*	H. J. WHITE, D.D.
CORPUS CHRISTI COLLEGE	*President*	T. CASE, M.A.
EXETER ,,	*Rector*	L. R. FARNELL, M.A., D.Litt.
HERTFORD ,,	*Principal*	H. BOYD, D.D.
JESUS ,,	,,	E. G. HARDY, M.A., D.Litt.
LINCOLN ,,	*Rector*	J. A. R. MUNRO, M.A.
MAGDALEN ,,	*President*	Sir H. WARREN, K.C.V.O., M.A., Hon. D.C.L.
MERTON ,,	*Warden*	T. BOWMAN, M.A.
NEW ,,	,,	W. A. SPOONER, D.D.
ORIEL ,,	*Provost*	L. R. PHELPS, M.A.

PEMBROKE COLLEGE	*Master*	F. HOMES DUDDEN, D.D.
QUEEN'S ,,	*Provost*	J. R. MAGRATH, D.D.
ST. JOHN'S ,,	*President*	H. A. JAMES, D.D.
TRINITY ,,	,,	H. E. D. BLAKISTON, D.D.
UNIVERSITY ,,	*Master*	R. W. MACAN, M.A., D.Litt.
WADHAM ,,	*Warden*	J. WELLS, M.A.
WORCESTER ,,	*Provost*	F. J. LYS, M.A.
ST. EDMUND HALL	*Principal*	G. B. ALLEN, B.D.
KEBLE COLLEGE (New Foundation)	*Warden*	B. J. KIDD, D.D.

Censor of Non-Collegiate Students—J. B. BAKER, M.A.

PRIVATE HOSTELS

CAMPION HALL	*Licensed Master*	J. H. KEANE, M.A.
ST. BENET'S HALL	,, ,,	P. J. MCCANN, M.A.

RECOGNIZED SOCIETIES OF WOMEN STUDENTS

LADY MARGARET HALL	*Principal*	Miss LYNDA GRIER, M.A.
SOMERVILLE COLLEGE	,,	Miss E. PENROSE, O.B.E., M.A.
ST. HUGH'S COLLEGE	,,	Miss E. F. JOURDAIN, M.A.
ST. HILDA'S HALL	,,	Miss WINIFRED H. MOBERLY, M.A.
SOCIETY OF OXFORD HOME STUDENTS	,,	Miss CHRISTINE M. E. BURROWS, M.A.

PROFESSORS, LECTURERS, ETC., January 1, 1922.

Agriculture, v. p. 162

Anatomy, v. also Zoology
Thomson, A., M.A. Ch. Ch. Lee's Prof.
Dodds-Parker, A. P., B.M., M.A. Magd. (Applied A.) Lectr.
MacKeith, M. H., B.M. Magd., Edin Asst.
Whitelocke, H. A., B.M., M.A. Ch. Ch. Asst.
Chance, Alice, M.B. R.U.I. Asst.

Anglo-Saxon
Craigie, W. A., M.A. Or. Rawlinson and Bosworth Prof.

Anthropology, Physical [Demr.
Blackwood, B., M.A. Somerville

Anthropology, Social [Reader.
Marett, R. R., M.A., D.Sc. Exe.

Archæology, v. also Orient. Langs. and Papyr.
Gardner, P., M.A., D.Litt. Linc. (Classical A. and Art) Linc. & Mert. Prof.
Evans, Sir Arthur J., M.A., D.Litt., B.N.C. (Prehist. A.) Prof.
Beazley, J. D., M.A. Ch. Ch. Lectr. (Gk. vases).

Aramaic, v. Orient.

Art
Carline, S. W. (Drawing) Ruskin Master.
Hind, A. M., M.A. Camb. (Fine Art) Slade Prof.

Assyriology, v. Orient. Langs.

Astronomy [Savilian Prof.
Turner, H. H., M.A., D.Sc. New
Rambaut, A. A., M.A. Qu. Radcliffe Observer.

Bio-Chemistry
Moore, B., M.A. Trin. Prof.
Whitley, E., M.A. Trin. Lectr.
Raiment, P. C., B A. Univ. Lectr.
Peskett, G. L., B.A. New Lectr.

Biological Sciences, History of
Singer, G. J., D.M. Magd. Lectr.

Botany
Keeble, F. W., C.B.E., M A. Magd. Sherardian Prof.
Church, A. H., M.A., D.Sc. Jes. Lectr. & Senr. Demr.

Celtic
Fraser, J., M.A. Jes. Jesus Prof.

Chemistry [Waynflete Prof.
Perkin, W. H., M.A. Magd.
Marsh, J. E., M.A. Mert. Demr.
Hope, E., M.A. Magd. Demr.
Sidgwick, N. V., M.A. Linc. Demr.
Allott, E. N , B.A. Ball. Demr.
Hammick, D. L , M.A. Oriel Demr.
Plant, S. G. P., B.A., B.Sc. Magd. Demr.
Taylor, T. W. J., M.A. B.N.C. Demr.
Soddy, F., M.A. Ch. Ch. Lee's Prof.
Lambert, B., M.A. Mert. Aldrichian Demr.
Walden, A. F., M.A. New Demr.
Hartley, E. G. J., M.A. Ch. Ch. Demr.
Applebey, M. P., B.Sc., M.A. St. J. Demr.
Foster, B. W., B.A., New Coll. Demr.
Gordon, K., B.A., St. J. Demr.
Mill, C. K., B.A., Corp. Demr.

Classics, v. also Arch.
Murray, Gilbert, M.A., D.Litt. Ch. Ch. (Greek) Reg. Prof.
Tod, M. N., M.A. Or. (Greek Epigraphy) Lectr.
Clark, A. C., M.A. C.C.C. (Latin) Corpus Prof.
Anderson, J. G. C., M.A. Ch. Ch. (Roman Epigraphy) Lectr.

Crystallography, Chem.
Barker, T. V., B.Sc., M.A. B.N.C. Lectr.

Divinity, v. Theology

Economics, v. Pol. Econ.

Education
Keatinge, M. W., M.A. Exe. Reader.
Hendy, F. J. R., M.A. Linc. Dir. of Training.

Egyptology, v. Orient.

Engineering Science, v. also Surv.
Jenkin, C. F., M.A. B.N.C. Prof.

English
Raleigh, Sir Walter A., M.A. Mert. (E. Lit.) Prof.
Wyld, H. C. K., M.A. Mert. (E. Lang. and Lit.) Merton Prof.
Smith, D. Nicol, M.A. Worc. Goldsmiths' Reader.
Simpson, P., M.A. Or. Lectr.
Onions, C. T., M.A. Or. Lectr.
Wilson, F. P., B.Litt. Linc. Lectr.

Forestry, v. also Surv.
Troup, R. S., M.A. Prof.
Hiley, W. E., M.A. Qu. (Diseases of Trees) Research Offr.

French
Rudler, G., Dr. ès L. Paris (Fr. Lit.), M.A. Worc. Foch Prof.

Taylorian Lectrs.:
Berthon, H. E., M.V.O., M.A. Wadh.

Waters, E. G. R., M.A. Keb.
Jourdain, Eleanor F., M.A. St. Hu.
Pope, Mildred K., M.A. Som
Ewart, A., M.A., St. J.

Genetics, v. Zool.

Geography, v. also Surv.
Beckit. H. O., M.A. Ball. Reader.
MacMunn, Nora E., M.A. Soc O H.S. Demr.
Cossar, J., M.A. Asst.

Geology
Sollas, W. J., M.A. Univ. Prof.
Douglas, J. A., B.Sc., M.A. Keb. Demr.
Bayzand, C J., Non-Coll Demr

Geometry [Savilian Prof
Hardy, G. H., M.A. New Coll.

German [Taylorian Prof.
Fiedler, H. G., M.V.O., M.A. Qu. (G. Lang. and Lit.)
Montgomery, M., M.A., B.Litt. Linc. Taylorian Lectr.

Greek, Byzantine and Modern, Lang. and Lit.
Dawkins, R. McG., M.A. Exe. Bywater & Sotheby Prof.

Hebrew, v. Orient.

History, American
Morison, S E., Ph.D Harv. Harmsworth Prof.

History, Ancient, v. also Archæol.
Jones, H. Stuart, M.A. B N.C. Camden Prof.
Myres, J. L., M.A. New Coll. Wykeham Prof.

History, Colonial [Beit Prof.
Coupland, R., M.A. Trin.
Wrong, E. M., M.A. Magd. Beit Lectr.

History, Eccl., v. Theology

History, Econ., v. Pol. Econ.

History, English [Ford's Lectr.
Lodge, Sir Richard, M.A., B.N.C.

History, Foreign
..... Chichele Lectr.

History, Indian
Lovett, Sir H. V., K.C.S.I., M.A., Worc. Reader.

History, Military, v. Milit.

History, Modern
Firth, C. H., M.A. Or. Reg. Prof.
Oman, Sir C. W. C., M.A. All S. Chichele Prof.
Poole, R. L., M.A. Magd. (Diplomatic) Lectr.

Italian
Foligno, C., M.A. Qu. Serena Prof
Del Re, A., B A. Lond. Taylorian Lectr.

Law, v. *infra*

Logic [Wykeham Prof.
Joachim, H. H., M.A. New Coll.

Mathematics, Pure
..... Waynflete Prof.

Mathematics, Applied
Pidduck, F. B., M.A. Qu. Lectr.

Medicine, v. *infra*

Meteorology
Dobson, G., M.A. Camb. Lectr.

Military History [Chichele Prof.
Wilkinson, H. S., M.A. All S.

Mineralogy
Bowman, H. L., M.A., D.Sc. Magd. Waynflete Prof.

Music [Prof.
Allen, Sir H. P., M.A., D.Mus. New
Walker, E., M.A., D.Mus. Ball. Choragus (Asst. to Prof.).

Oriental Languages, v. *infra*

Palæography
Lowe, E. A., M.A., Exe. Lectr.

Papyrology [Prof.
Grenfell, B. P., M.A., D.Litt. Qu.
Hunt, A. S., M.A., D.Litt. Qu. Prof.

Philology, Comparative
Wright, J., M.A. Exe. Prof.

Philosophy, Experimental [Prof.
Lindemann, F. A., M.A. Wadh.
Griffith, I. O., M.A. St. J. Demr.

Dobson, G. M. B., M A. Camb. Demr.
Perfect, D. S., B. A., Worc. Demr.
Bosanquet, C. H., B.A. Ball. Demr.

Philosophy, Mental, v. also Logic
Brown, Wm , D.M. Ch. Ch. Wilde Reader.

Philosophy, Moral, & Metaphys.
Smith, J. A., M.A. Magd. Waynflete Prof.

Philos., Moral [White's Prof.
Stewart, J. A., M.A. C C C.

Philos., Natural [Sedleian Prof.
Love, A. E. H., M.A., D.Sc. Qu.

Physics [Wykeham Prof.
Townsend, J. S E., M A. New
Lattey, R. T., B Sc., M.A. Trin. Demr.
Gill, E. W. B., B.Sc , M.A. Mert. Demr.
Morrell, J. H., M.A. Magd. Demr.
Biggs, H. F., M.A. Trin. Demr.
Bailey, V. A., M.A. Qu. Demr.
Jones, W. M., B.A. Ball. Demr.
Hume-Rothery, J H., M.A. Camb. Demr.

Physiology, v. also Medicine
Sherrington, C. S., G.B.E., M.A. Magd. Waynflete Prof.
Douglas, C. G., B.Sc., D.M. St. J. Demr
Liddell, E. G. T., B.M., M A. Trin. Demr.
Carleton, H. M., B.A. New Coll. Demr.

Poetry
Ker, W. P., M.A. All Souls Prof.

Political Econ.[Drummond Prof.
Macgregor, D. H., M.A.
Lipson, E., M.A., New Coll. (Ec. Hist.) . Reader.

Political Theory and Institns.
Adams, W. G. S., M.A. All S. Gladstone Prof.

Religion, v. also Theology
Selbie, W. B., D.D , B.N.C. (Nat. and Comp. R.) Wilde Lectr.

Romance Lang. [Taylorian Prof.
Studer, P., M.A. Exe.

Russian [Prof. and Reader.
Forbes, N., M.A. Ball.

Spanish
de Arteaga y Pereira, Don Fernando, M.A. Worc. Prof. and Taylorian Lectr.
Kolkhorst, G. A., B A Exe. Taylorian Lectr.

Spectroscopy [Prof.
Merton, T. R., M.A., D.Sc. Ball.

Surveying (for Engin., Forestry, and Geog. Students)
Mackenzie, N. F., Hon. M.A. Instr.

Thermodynamics [Reader.
Egerton, A. C. G., B.Sc. Lond.

Zoology and Comp. Anat., v. also Rural Econ.
Goodrich, E. S., M.A. Mert. Linacre Prof.
Poulton, E. B., M.A., D.Sc. Jes. (Zool.) Hope Prof.
..... Aldrichian Demr.
Carr-Saunders, A., M.A. Magd. ,,
de Beer, G. R., B.A. Magd. Demr.
Huxley, J. S , M.A. New Coll. Lectr. in Genetics and Demr.

Law

Civil
De Zulueta, F., M.A., D.C.L. All S. Reg. Prof.

Criminal, and Evidence
Hazel, A. E. W., C.B.E., B.C.L., M.A. Jes. Lectr.

English
Geldart, W. M., C.B.E., B.C.L., M.A. All S. Vinerian Prof.
Holdsworth, W. S., D.C.L. St. J. All Souls Reader.

Indian [Reader.
Trevelyan, Sir E. J., D.C.L. All S.

Internat., and Diplomacy
Richards, Sir H. Erle, K.C.S.I., B.C.L., M.A. All S. Chichele Prof.

Internat. (Private)
Archibald, J. G., M.A. All S. Lectr.

Jurisprudence
Vinogradoff, Sir Paul, M.A., Hon. D.C.L., C.C.C. Corpus Prof.

Roman
Jolowicz, H. F., B.A., LL.B Camb., All Souls Reader.

Roman-Dutch
Lee, R. W., D.C.L. Ball. (Reader at Inns of Court) Rhodes Prof.

Medicine (for subjects of the first 2 yrs.—Anat., etc , v. *supra*)

Anatomy, Morbid
Gibson, A. G., D.M. Ch. Ch. Lectr.

Clinical Physiology
Priestley, J. G., D.M. Ch. Ch. Christopher Welch Lectr.

Medicine [Reg. Prof.
Garrod, Sir A. E., K.C.M.G., D.M.
Mallam, E., D.M. Magd. Litchfield Lectr.

Ophthalmology
Adams, P. E. H., B.M., M.A. Exe. Margaret Ogilvie's Reader.

Pathology
Dreyer, G., M.A. Linc. Prof.
Walker, E. W. A., D.Sc., D.M. Univ. Lectr

Pharmacology [Prof. & Reader.
Gunn, J. A. M.A. Qu.
Heathcote, R. St. A., D.M. New Coll. Demr.

Surgery
Dodds-Parker, A. P., B.M., M.A. Magd. Litchfield Lectr.

Oriental Languages

Arabic
Margoliouth, D. S., M.A., D.Litt. New Laudian Prof.

Aramaic [Lectr.
Stenning, J. F., C.B., M.A. Wadh.

Assyriology
Langdon, S., M.A. Jes. Prof. & Shillito Reader.

Bengali
Walsh, E. H. C., C.S I., M.A. Ex. Lectr.

Burmese
Bridges, J. E., M.A. Lectr.

Chinese
Soothill, W. E., M.A Trin. Prof.

Egyptology
Griffith, F. L., M.A. Qu. Reader.

Hebrew [Reg. Prof.
Cooke, G. A., D.D. Ch. Ch.

Hindustani
Dewhurst, R. P., M.A. Ball. Lectr.

Marathi
Jopp, C. H. K., M.A. New Lectr.

Persian
Levy, R., M.A. Jes. Lectr.

Sanskrit [Boden Prof.
Macdonell, A. A., M.A. Ball.
Morison, J., M.A. Ball. Lectr.

Tamil and Telugu
Roberts, S. G. Lectr.

Rural Economy

[Prof.
Somerville, W., M.A., D.Sc. St. J.
Ellis, J. C. B., M.A. Jes. Demr.
Doyne, H. C., M.A. Trin. Demr.

Agr. Botany [Lectr.
Bancroft, Helen, D.Sc. Lond.

Agr. Chemistry [Lectr. & Demr.
Morison, C. G. T., M.A. Ball.

Agr. Economics
Ashby, A. W., Dipl. Econ. Lectr.

Agr. History
Lennard, R. V., M.A. Wadh. Lectr.

Agr. Law
Hilliard, E., M.A. Ball. Lectr.

Co-operation
Hart-Synnot, R. V. O., M.A., St. J. Lectr.

Economic Zoology
Cunliffe, N., M.A. Camb.
Christopher Welch Lectr.

Estate Management
Orwin, C. S., M.A. Ball. Lectr.
Thring, D. T., Hon. M.A. Mert. Lectr.

Local Govt. and Land Tenure
James, W. E. C., B.A. Magd. Lectr.

Theology

Bib. Studies [Speaker's Lectr.
Bate, H. N., M.A. Magd

Divinity [Reg. Prof.
Headlam, A. C., D.D. Ch. Ch.
Lock, W., D.D. Keb.
Margaret Prof.
Pullan, L., D.D. St. J.
Bampton Lectr.

Eccles. History [Reg. Prof.
Watson, E. W., D.D. Ch. Ch.

Exegesis [Dean Ireland's Prof.
Turner, C. H., M.A. Magd.

Interpretation of Holy Script.
Burney, C. F., M.A., D.Litt. Or.
Oriel Prof.

Liturgiology [Lectr.
Brightman, F. E., M.A. Magd.

Pastoral Theology [Reg. Prof.
Ottley, R. L., D.D. Ch. Ch.

Philos. of Christian Religion
Webb, C. C. J., M.A. Oriel Prof.

Septuagint
Davies, A. Ll., M.A. Qu.
Grinfield Lectr.

THE COLLEGES

ALL SOULS COLLEGE. Founded 1437. Warden—F. W. Pember, D.C.L.

Fellows: Abel-Smith, L. R., M.A.; Adams, W. G. S., M.A., Prof. of Pol. Theory, etc.; Archibald, J. G., M.A.,‡ Private Internat. Law; Beckett, W. E., B.A.; Brand, Hon. R. H., C.M.G., M.A.; Bridges, E. E., M.A.; Cholmondeley, F. G., M.A.; Corbett, P. E., B.A.; Coupland, R., M.A., Prof. of Col. History; Craster, H. H. E., M.A., D.Litt., Sub-Warden; Curtis, L. G., M.A.; Dawson, G. G., M.A., Estates Bursar; de Zulueta, F., D.C.L., Reg. Prof. of Civil Law; Dibblee, G. B., M.A., Dom. Bursar, Dean; Dicey, A. V., M.A., B.C.L., Hon. D.C.L., K.C; Edgeworth, F. Y., M.A.; Egerton, H. E., M.A.; Faber, G. C., M.A.; Geldart, W. M., C.B.E., M.A., B.C.L., Vinerian Prof. of Engl. Law; Harris, C. R. S., B.A.; Holland, Sir T. E., D.C.L.; Jacob, E. F., M.A.; Johnson, A. H., M.A.; Ker, W. P., M.A., Prof. of Poetry; Lang, Rt. Hon. and Most Rev. C. G., M.A., Hon. D.D.; Lawrence, T. E., C.B., B.A.; Lee, R. W., D.C.L., Prof. of Rom.-Dutch Law; Lucas, Sir C., K.C.B., K.C.M.G. M.A.; Macgregor, D. H., M.A., Prof. of Polit. Econ.; Morrah, D. MacG., B.A.; Oman, Sir C. W. C., K.B.E., M.A., Librarian, Prof. of Mod. Hist.; Pollard, A. F., M.A.; Rawson, S. W., M.A.; Richards, Sir H. Erle, K.C.S.I., M.A., B.C.L., K.C., Chich. Prof. of Internat. Law; Robertson, C. G., C.V.O., M.A.; Simon, Rt. Hon. Sir John A., K.C.V.O., K.C., M.A.; Somervell, D. B., M.A., Dean; Sumner, B. H., M.A.; Trevelyan, Sir Ernest, J., D.C.L., Reader in

‡ Lecturer.

Ind. Law ; Wilkinson, H. Spenser, M.A., Chich. Prof. of Milit. Hist. ; Williams, L. F. R., M.A., B.Litt. ; Woodward, E. L., M.A.

BALLIOL COLLEGE. Founded 1263–1268. *Master*—A. L. Smith, M.A., Jowett Fellow.

Fellows : Bailey, C., M.B.E., M.A., Jowett Fellow, *Classical* * and Tutor for admissions ; Bell, K. N., M.A., Junr. Dean, *Mod. Hist.* * ; Gibbon, H. H., O.B.E., M.A , Chaplain, Catech. Lectr. ; Hartley, H. B., C.B.E., M.A., *Science*, *‡ *Phys. Chem.* ; Hilliard, E., M.A., B.C.L., Senior Bursar, *Law* * ; Lindsay, A. D., C.B.E., M.A., *Classical*,*‡ *Philos.* ; Macdonell, A. A., M.A., Prof. of Sansk. ; Macgregor, D. C., M.A., *Anc. Hist.* * ; Merton, T. R., M.A., D.Sc., Prof. of Spectroscopy ; Newman, W. L., M.A., Hon. D.Litt. ; Nicholson, J. W., *Maths. and Physics* * ; Pickard-Cambridge, A. W., M.A., Jowett Fellow, *Classical*, *‡ *Greek* ; Ridley, M. R., M.A., Chaplain, *Engl. Lit.* * ; Stone, C. G., M.A., *Hist.* * ; Urquhart, F. F., M.A., Senr. Dean., *Mod. Hist.** Other Lectrs. etc. : Russell, J. W , M.A., *Maths.* * ; Todd, J. A., B.L. Glas., ‡ *Econ.* ; Walker, E., D.Mus., M.A., Dir. of Music ; Priestley, J. G., D.M. Ch. Ch., ‡ *Physiol.* ; Morris, C. R., B.A. Trin. ‡ *Philos.* ; * Ponder, A. O., B.A. ; Duke, A. C. H., C.M.G., Dom. Bursar.

BRASENOSE COLLEGE. Founded 1509. Principal—C. H. Sampson, M.A.

Fellows : Barker, T. V., M.A., B.Sc. ; Butler, A. J., M.A., D.Litt. ; Evans, Sir A. J., D.Litt., F.R.S., Prof. of Archæol ; * Griffith, I. O., M.A. ; * Holroyd, M., M.A. ; Jenkin, C. F., C.B.E., M.A., Prof. of Engin. ; Jenkinson, A. J., O.B.E., M.A., *Litt. Hum.* * ; Jones, H. S., M.A., D.Litt., Prof. of Anc. Hist. ; Stallybrass, W. T. S., O.B.E., M.A.,* Vice-Principal ; Stocker, W. N., M.A., ‡ *Nat. Sc.*, Home Bursar ; Taylor, T. W. J., M.A., ‡ *Nat. Sc.* ; Wace, H. C., M.A., *Theol., Classics*,* Bursar ; Wakeling, G. H., O.B.E., M.A., Senr. Tutor.

Other Lectrs. : Jeffery, R. W., M.A., *Modern History*.

CHRIST CHURCH. Founded 1546. Dean—Very Rev. H. J. White, D.D.

Canons : Cooke, G. A., D.D., Reg. Prof. of Hebrew ; Headlam, A. C., C.H., D.D., Reg. Prof. of Div. ; Lock, W., D.D., Lady Marg. Prof. of Div. ; Ottley, R. L., D.D., Reg. Prof. of Past. Theol. ; Shaw, Rt. Rev. and Ven. E. D., D.D., Archdeacon of Oxford ; Watson, E. W., D.D., Reg. Prof. of Eccles. Hist.

Students (equivalent to Fellows) : Anderson, J. G. C., M.A., * *Classics* ; Barrington-Ward, J. G., M.A., * *Classics* ; Beazley, J. D., M.A., * *Classics* ; Blunt, H. W., M.A., * *Classics* ; Carter, A. T., C.B.E., D.C.L., K.C., * *Law* ; Chaundy, T. W., M.A., * *Maths.* ; Dundas, R. H., M.A., Censor, * *Classics* ; Feiling, K. G., O.B.E., M.A., * *History* ; Hassall, A., M.A., * *Hist.* ; Heaton, T. B., O.B.E., D.M., Lee's Reader in *Anat.* ; Garrod, Sir A. E., K.C.M.G., D.M., F.R.S., Reg. Prof. of *Med.* ; Hutchinson, G. T., M.A., Treasurer ; Lindemann, F. A., M.A., F.R.S., Lee's Prof. of Exp. Philos. ; Masterman, J. C., M.A., Censor, * *Hist.* ; Murray, Gilbert, M.A., D.Litt., Reg. Prof. of *Greek* ; Murray, J., M.A. ; Owen, S. G., M.A., * *Classics* ; Payne-Smith, W. H., M.A. ; Rawlinson, A. E. J., B.D., M.A., * *Theol.* ; Russell, A. S., M.A., Lee's Reader in *Chem.* ; Slessor, Major A. K., M.A., Steward ; Soddy, F., M.A., F.R.S., Lee's Prof. of Chem. ; Thomson, A., M.A., Lee's Prof. of Anat.

Lectr. : Taylor, F. A., B.A., *Mod. Langs.*

CORPUS CHRISTI COLLEGE. Founded 1516. President—T. Case, M.A.

Fellows : Clark, A. C., M.A., Corpus Prof. of *Latin* ; Grundy, G. B., M.A., D.Litt.* ; Livingstone, R. W., M.A., Vice-Pres., * Librarian ; Mowat, R. B., M.A., Asst. Tutor ; Oddie, J. W., M.A. ; Phelps, W., M.A., Dean, Asst. Tutor ; Pidduck, F. B., M.A., Asst. Tutor ; Plummer, C., M.A. ; Schiller, F. C. S.,

M.A., D.Sc. * ; Stewart, J. A., M.A., Prof. of Moral Philos. ; Vinogradoff, Sir Paul, M.A., Hon. D.C.L., Corpus Prof. Jurispr.

Lectrs. not on the Foundation : Miles, Sir J. C., M.A., B.C.L. Mert., *Jurispr.* ; Hammick, D. L., M.A. Or., *Nat. Science* ; Lightfoot, R. H., M.A., *Theol.*

Bursar : Lightfoot, H. Le B., M.A.

EXETER COLLEGE. Founded 1314. Rector—L. R. Farnell, D.Litt., Vice-Chancellor.

Fellows : Atkinson, C. T., M.A., ‡ *Modern Hist.* ; Barber, E. A., M.A. ; Sub-Rector, * ‡ *Classics* ; Cheshire, G. C., B.C.L., M.A., Bursar, ‡ *Law* ; Henderson, B. W., M.A., D.Litt., Senior Tutor ; Marett, R. R., M.A., D.Sc., *, Dean, Reader in Soc. Anthrop. ; Raikes, H. R., M.A., * *Nat. Sc.* ; Williams, N. P., B.D., M.A., Chaplain Fellow, ‡ *Theol.*

Other Lectrs. : Douglas, C. G., B.Sc., D.M. St. J., *Physiol.* ; Lattey, R. T., B.Sc., M.A. Trin., *Physics* ; Loewe, H. M. J., M.A., *Hebrew* ; Stampa, L., M.A. Magd., *Modern Hist.* ; Waters, E. G. R., M.A. Keb., *French* ; Wilson, F. P., B.Litt. Linc., *Engl.* ; Wood, G. R., M.A. Mert., *Maths.*

HERTFORD COLLEGE. Founded 1874. Principal—H. Boyd, D.D.

Fellows : Campbell, J. E., M.A., F.R.S., * ‡ *Maths.*, Vice-Principal ; Campbell, J. McL., M.A., Chaplain ; Cecil, Rt. Hon. Lord Hugh, M.A., M.P. ; Cruttwell, C. R. M. F., M.A., Dean, * ‡ *Mod. Hist.* ; Denniston, J. D., O.B.E., M.A., Librarian, * ‡ *Classics* ; Haselfoot, C. E., M.A., Bursar, * ‡ *Nat. Sc.* ; Jackson, C. N., M.A. ; Murphy, N. R., M.A., ‡ *Philos.* ; Whatley, N., M.A., Senr. Tutor, ‡ *Anc. Hist.*

Other Lectrs. : Allen, C. K., M.A. Univ., *Jurispr.* ; Emmet, C. W., B.D., M.A. Univ., *Theol.*

JESUS COLLEGE. Founded 1571. Principal—E. G. Hardy, M.A., D.Litt.

Fellows : Chapman, D. L., M.A., F.R.S., Asst. Tutor, *Nat. Sc.*, Junr. Bursar ; de Winton, Ven F. H., M.A. ; Dodd, P. W., M.A., Asst. Tutor, *Litt. Hum.* ; Edwards, J. Goronwy, M.A., Librarian, Asst. Tutor, *Mod. Hist.* ; Fraser, J., M.A. Aberd., Prof. of Celtic ; Genner, E. E., M.A., Senr. Tutor, *Classics* ; George, H. J., M.A., Research Fellow, Asst. Tutor, *Chem.* ; Hazel, A. E. W., M.A., B.C.L., Vice-Principal, Senr. Bursar, Dean, Asst. Tutor, *Law* ; Poulton, E. B., M.A., F.R.S., Prof. of Zool. ; Trow, A. H., D.Sc. Lond.

Other Lectrs., etc. : Hodgkinson, J., M.A., Mert. Asst. Tutor, *Maths.* ; Seymour, P. A., M.A., Asst. Tutor, *Classics* ; Simpson, D. C., B.D., Keb., ‡ *Theol.* ; Simpson, P., M.A. Or., ‡ *Engl. Lang. and Lit.* ; Stenning, J. F., C.B., C.B.E., M.A. Wad., ‡ *Orient. Langs.* ; Waters, E. G. R., M.A. Keb., ‡ *French.*

LINCOLN COLLEGE. Founded 1427. Rector—J. A. R. Munro, M.A.

Fellows : Brook, V. J. K., M.A., Dean, ‡ *Theol.* ; Carlyle, E. I., M.A., Bursar, ‡ *Modern Hist.* ; Dreyer, G., C.B.E., M.A., Prof. of *Path.* ; Gardner, P., M.A., D.Litt., Prof. of Class. Archæol. and Art ; Hanbury, H. G., B.A. ‡ *Jurispr.*, Marchant, E. C., M.A., * Sub-Rector, Sr. Tutor ; Sidgwick, N. V., M.A., ‡ *Nat. Sc.*

Other Lectrs. : Carlyle, A. J., M.A., D.Litt. Univ., *Engl. Lit.* ; Jeffery, R. W., M.A., B.N.C., *Mod. Hist.* ; Morison, C. G. T., M.A. Ball., *Agr. Chem.* ; Ward, H. K., New Coll., *Physiol.*

MAGDALEN COLLEGE. Founded 1458. President — Sir H. Warren, K.C.V.O., M.A., Hon. D.C.L.

* Tutor. ‡ Lecturer.

Fellows: Baker, G. E., M.A.; Bell, C. F., M.A.; Benecke, P. V. M., M.A., * *Classics*; Brightman, F. E., M.A.; Bowman, H. L., D.Sc., Prof. of Mineralogy; Bradley, H., M.A., Hon. D.Litt.; Carter, C. R., M.A., Estates Bursar; Coolidge, W. A. B., M.A.; Cowley, A. E., M.A., D.Litt.; Craig, E. S., M.A.; Driver, G. R., M.A., * *Classics*; Gunther, R. W. T., M.A.; Hodgson, L., M.A., * *Theol.*, Dean of *Div.*, Sec. to Tut. Board; Hogarth, D. G., C.M.G., M.A., D.Litt.; Hope, E., M.A., * *Chem.*; Keeble, F. W., C.B.E., M.A., Sc.D., F.R.S., Prof. of Botany; Kirk, K. E., M.A.; Lee, S. G., M.A., * *Hist.*; Manley, J. J., M.A.; Miers, Sir H. A., M.A., D.Sc., F.R.S.; Pedder, A. L., M.A., * *Maths.* and *Physics*; Perkin, W. H., M.A., F.R.S., Prof. of Chem.; Poole, R. L., M.A.; Salter, H. E., M.A.; Segar, R., B.A., * *Law*; Sherrington, C. S., G.B.E., M.A., Hon. D.Sc., F.R.S., Prof. of Physiol.; Smith, J. A., M.A., Prof. of Philos.; Thompson, J. M., M.A., * *Hist.*, Home Bursar; Turner, C. H., M.A., Prof. of Exegesis; Webb, C. C. J., M.A., * *Classics*, Prof. of Philos. of Christian Religion; Wilson, H. A., M.A.; Wrong, E. M., M.A., * *Hist.*

Other Lectrs.; Kemshead, C. T. T., M.A., *Modern Subjects*; MacKeith, M. H., *Med.*; Weldon, T. D., B.A., *Litt. Hum.* (1922–23).

MERTON COLLEGE. Founded 1264. Warden—T. Bowman, M.A

Fellows: Allen, P. S., M.A., Librarian and Dean; Bradley, F. H., M.A.; Deane-Jones, I., B.A.; Dixon, A. L., M.A., F.R.S., * *Maths.*; Fyfe, W. H., M.A.; Garrod, H. W., M.A., *Class.* *; Gill, E. W. B., O.B.E., M.A., B.Sc, Sub-Warden, Dom Bursar, Principal of Postmrs.; Goodrich, E. S., M.A., F.R.S., Prof. of Zool., etc.; Green, F. W., M.A., * *Theol.*, ‡ *Div*; Hodgkinson, J., M.A.; How, W. W., M.A., Sen. Tutor, *Class.* and *Anc. Hist.* *; Lambert, B., M.A., * *Nat. Sc.*; Marsh, J. E., M.A., F.R.S.; Miles, Sir J. C., M.A., B.C.L., *Law*, *; Mure, G. R. G., M.A.; Raleigh, Sir W. A., M.A., Prof. of Engl. Lit.; Smith, D. Nichol, M.A.; Wyld, H. C. K., B.Litt., M.A., Prof. of Engl. Lang. and Lit.

Other Lectr.: Johnson, A. H., M.A., All S., *Modern Hist.*

NEW COLLEGE. Founded 1379. Warden—W. A. Spooner, D.D.

Fellows: Allen, Sir H. P., M.A., D.Mus., Prof. of Music; Casson, S., M.A.; Courtney, W. L., M.A.; Fisher, Rt. Hon. H. A. L., M.A.; Haldane, J. S., M.A., F.R.S.; Haldane, J. B. S., M.A., ‡ *Zool.* and *Physiol.*; Hardy, G. H., M.A., F.R.S., Prof. of Geom.; Hayes, E. H., M.A.; Henderson, H. L., O.B.E., M.A., Dean, Dean of Arts, * *Classics*; Huxley, J. S., M.A., ‡ *Zool.*; Joachim, H. H., M.A., Prof. of Logic; Joseph, H. W. B., M.A., * *Philos.* and *Classics*; Legg, L. G. W., M.A., Junr. Bursar, * *Modern Hist.*; Lightfoot, R. H., M.A., * Dean of Div.; Margoliouth, D. S., M.A., D.Litt., Prof. of Arabic; Matheson, P. E., M.B.E., M.A., * *Anc. Hist.* and *Classics*; Moyle, J. B., D.C.L., Senr. Bursar; Myres, J. L., O.B.E., M.A., Libn., Prof. of Anc. Hist.; Ogg, D., M.A., * *Modern Hist.*; Poole, E. G. C., M.A., D.Phil. * *Maths.*; Prickard, A. O., M.A.; Radcliffe, G. R. Y., M.A., * *Law*; Schuster, E. H. J., M.A., D.Sc.; Smith, A. H., C.B.E., M.A., * *Litt. Hum.*, Precentor; Townsend, J. S. E., M.A., F.R.S., Prof. of Physics; Turner, H. H., M.A., D.Sc., F.R.S., Prof. of Astron.; Walden, A. F., M.A., * *Chem.*

Other Lectrs.: Woodward, E. L., M.A., *Mod. Hist.*

ORIEL COLLEGE. Founded 1326. Provost—L. R. Phelps, M.A.

Fellows: Burney, C. F., M.A., D.Litt., Prof. of Interpret. of Holy Script.; Clark, G. N., M.A., ‡ *Modern Hist.*; Craigie, W. A., M.A., Prof. of Anglo-Saxon; Firth, C. H., M.A., Prof. of Mod. Hist.; Graham, E., M.A., Dean ‡; Hall, F. H., M.A.; Hammick, D. L., M.A., ‡ *Nat. Sc.*; Lewis, W. J., M.A., F.R.S.; Lyon, P. C., M.A., C.S.I., Treasurer; Price, L. L. F. R., M.A.;

Richards, G. C., B.D., M.A., * ; Ross, W. D., O.B.E., M.A., * ; Simpson, P., M.A., ‡ *Engl Lit.* ; Tod, M. N , O.B.E., M.A., *.

Other Lectrs. : Berthon, H. E., M.A., *French* ; Dixon, A. L., M.A., *Maths.* ; Montague, F. C., M.A., *Modern Hist.* ; Stallybrass, W. T. S., O.B.E., M.A., *Law.*

PEMBROKE COLLEGE. Founded 1624. Master—F. H. Dudden, D.D.

Fellows : Burrowes, A. B., B.A., Dean, ‡ *Div.* and *Classics* ; Collingwood, R. G., M.A., * ; Drake, H. L., M.A., * *Classics* ; Leudesdorf, C., M.A., Vice-regent ; Ramsden, W., D.M. ; Wood, G., M.A., Bursar and Librarian.

Other Lectrs. : Berthon, H. E., M.A. Wad., *French* ; Brett-Smith, H. F. B., M.A., *Engl.* ; Chaundy, T. W., M.A. Ch. Ch., *Maths.* ; George, H. J., M.A. Jes , *Nat. Sc.* ; Penson, Sir T. H., K.B.E., M.A. Worc., *Modern Hist.* ; Williams, N. P., B.D., M.A. Exe., *Theol.*

THE QUEEN'S COLLEGE. Founded 1340. Provost—J. R. Magrath, D.D.

Fellows · Allen, T. W., M.A., * *Classics* ; Armstrong, E., M.A., Pro-Provost, ‡ Modern Hist. ; Bell, J., M.A., ‡ *Classics* ; Chattaway, F. D., M.A., Ph.D., F.R.S., ‡ *Chem.* ; Cronshaw, G. B., M.A., Bursar ; Elton, G., M.A., Dean, ‡ *Modern Hist.* ; Grenfell, B. P., M.A., D.Litt., Prof. of Papyrol. ; Hodgkin, R. H., M.A., * *Mod. Hist.* ; Hunt, A. S., M.A., D.Litt., Prof. of *Papyrol.* ; Morice, F. D., M.A. ; Paton, H. J , M.A., ‡ *Philos.* ; Sayce, A. H., M.A., Hon. D.Litt. ; Streeter, B. H., M.A., ‡ *Theol.* ; Thompson, C. H., M.A., * *Maths.* ; Walker, E. M., M.A , Senior Tutor, *Classics.*

Other Lectrs. : Berrisford, E. A., M.A., Chaplain, *Nat. Science* ; Brett-Smith, H. F. B., M.A., *English* ; Douglas, C. G., C.M.G , B Sc., D.M., *Physiol.* ; Forbes, N., M.A., *Russian* ; Hazel, A. E. W., C.B.E., B.C.L., M.A., *Law.*

ST. JOHN'S COLLEGE. Founded 1555. President—H. A. James, D.D.

Fellows : Appleby, M. P., M.B.E., M.A., B.Sc., ‡ *Chem.* ; Bidder, H. J., B.D. ; Burney, C. F., D.Litt., Prof. of Interp. of Holy Scrip. ; Dermer, E. C., B.D. ; Douglas, C. G., C.M.G., B.Sc., D.M., Vice-Pres. ‡ *Nat. Science* ; Hall, F. W., M.A., * ‡ *Classics* ; Holdsworth, W. S., D.C.L., ‡ *Jurispr.* ; Hutton, Very Rev. W. H., D.D. ; Last, H. M., M.A., ‡ *Anc. Hist.* ; Poole, A. L., M.A., ‡ *Modern Hist.* ; Powell, J. U., M.A., Senr. Tutor, ‡ *Classics* ; Pullan, L., D.D., * ‡ *Theol.* ; Somerville, W., D.Sc., M.A., Prof. of Rural Econ. ; Stevenson, W. H., M.A., Libn. ; Stocks, J. L., M.A., *‡ *Philos.* ; Troup, R. S., C.I.E., M.A., Prof. of Forestry.

Other Lectrs. : Berthon, H. E., M.V.O., M.A. Wad., *French* ; Costin, W. C., M.A., Asst. Tutor ; Russell, J. W., M.A. Mert., *Maths.* ; Simpson, P., M.A. Oriel, *Engl.* Bursar . Hart-Synnot, R.V.O., O.B.E., M.A.

TRINITY COLLEGE. Founded 1554–1555. President—H. E. D. Blakiston, D.D. (acting Estates Bursar).

Fellows : Burroughs, E. A., M.A., Chaplain ; Green, M. H., M.A. ; Higham, T. F., M.A., Dean, ‡ *Classics* ; Hinshelwood, C. N., B.A., ‡ *Chem.* ; Landon, P. A., M.A., ‡ *Law*, Jr. Bursar ; Liddell, E. G. T., B.M., M.A. ; Ogilvie, F. W., M.A., ‡ *Econ.* ; Patterson, M. W., M.A., *‡ *Modern Hist.* ; Prichard, H. A., M.A., *‡ *Philos.* ; Weaver, J. R. H., M.A., *‡ *Modern Hist.*, Librarian.

Other Lectr. : Russell, J. W., M.A. Mert., *Maths.*

UNIVERSITY COLLEGE. Founded 1249. Master—R. W. Macan, M.A., D.Litt.

Fellows : Allen, C. K., M.A., Stowell Civil Law Fellow, ‡ *Jurispr.* ; Bourdillon, R. B., M.A., Research Fellow ; Carritt, E. F., M.A., ‡ *Philos.*, Librarian ;

* Tutor. ‡ Lecturer.

Emmet, C. W., B.D., ‡ *Theol.*, Chaplain; Farquharson, Lt.-Col. A. S. L., C.B.E., M.A., * *Litt. Hum.*, Sr. Tutor, Dean of Degrees; Keir, D. L., B.A., ‡ *Mod. Hist.*; Leys, K. K. M., M.A., *Modern Hist.* *; Poynton, A. B., M.A., * *Classics*, Bursar; Sollas, W. J., M.A., F.R.S., Prof. of Geology; Stevenson, G. H., M.A., Prælector in *Anc. Hist.*; Walker, E. W. A., D.M., D.Sc., *‡ *Nat. Philos.*

Other Lectrs. and Asst. Lectrs.: Bowen, E. J., B.A., *Chem.*; Carlyle, A. J., M.A., D.Litt., *Econ.*; Douglas, J. A., B.Sc., M.A. Keb., *Geol.*; Johnson, A. H., M.A., *Modern Hist.*; Morison, C. G. T., M.A., *Agric.*, etc.; Thomson, C. H., M.A. Qu., *Maths.*

WADHAM COLLEGE. Founded 1610. Warden—J. Wells, M.A.

Fellows: Brabant, F. H., M.A., ‡ *Philos.*; Dixey, F. A., D.M., F.R.S., Wills Medical Fellow, ‡ *Physiol.*, etc., Sub-Warden and Bursar; Jacks, M. L., M.A., Dean, * *Classics* and *Philos.*; Lennard, R. V., M.A., Librarian, * *Hist.*; Lindemann, F. A., M.A., F.R.S., Prof. of Expl. Philos.; Stenning, J. F., C.B., C.B.E., M.A., Senr. Tutor, ‡ *Div.*, *Hebrew*; Wade-Gery, H. T., M.A., * *Classics*, *Anc. Hist.*

WORCESTER COLLEGE. Founded 1714. Provost and Senr. Bursar—F. J. Lys, M.A.

Fellows: Narborough, F. D. V., M.A., ‡ *Theol.*; Pickard-Cambridge, W. A., M.A., ‡ *Classics*, *; Roberts, P. E., M.A., Vice-Provost, *‡ *Mod. Hist.*; Somerset, H. V. F., B.A., ‡ *Mod. Hist.*, Junr. Bursar; Wilkinson, C. H., M.A., ‡ *Engl. Lit.*, Dean, Librarian.

Other Lectrs.: Marriott, J. A. R., M.A., M.P., *Mod. Hist.*; Penson, Sir T. H., K.B.E., M.A., *Econ.*

ST. EDMUND HALL. Founded 1269. Principal—G. B. Allen, B.D.

Staff: Bell, J., M.A. Qu., ‡ *Classics*; Brewis, G. R., M.A., Senr. Tutor; Chattaway, F. D., M.A., F.R.S., ‡ *Chem.*; Emden, A. B., M.A., Vice-Principal, * *Modern Hist.*; Ridley, M. R., M.A., ‡ *Engl.*; Simpson, D. C., M.A., B.D., ‡ *Theol.*, *Hebrew*; Thompson, C. H., M.A., ‡ *Maths.*; Waters, E. G. R., M.A., ‡ *French.*

KEBLE COLLEGE. Founded 1870. Warden—B. J. Kidd, D.D.

Other Tutors: Jackson, W. H., M.A., D.Sc., *Nat. Science*; Jolliffe, J. E. A., M.A., *Hist.*; Kirk, K. E., M.A., *Theol.*; Owen, A. S., M.A., *Classics*; Parker, H. M. D., M.A., *Litt. Hum.*; Reade, W. H. V., M.A., Dean, *Litt. Hum.*; Rice-Oxley, L., M.A., *Hist.*; Simpson, D. C., B.D., *Theol.*; Gretton, R. H., M.A. Magd., *Hist.*

Lectr.: Richmond, W. J., M.A., *Philos. of Religion.*

NON-COLLEGIATE STUDENTS. Censor—J. B. Baker, M.A., Non-Coll.

Tutors and Lecturers: The Censor, *Modern Hist.*; Carlyle, A. J., D.Litt., Univ., *Engl.*; Chattaway, F. D., M.A. Qu., F.R.S., *Chem.*; Cheshire, G. C., M.A., B.C.L. Exe., *Jurispr.*; Dixey, F. A., D.M. Wad., F.R.S., *Physiol.*; Garabedian, D., M.A., *French*; George, H. J., M.A. Jes., *Chem.*; Graham, E., M.A. Oriel, *Theol.*; Jeffery, R. W., M.A. B.N.C., *Modern Hist.*; Kendrew, W. G., M.A., Non-Coll.; Lindsay, A. D., M.A. Ball., *Philos.*; Nicholls, A. W., B.A., *Mod. Hist.*; Richards, G. C., B.D., M.A. Oriel, *Classics*; Thompson, C. H., M.A. Qu., *Maths.*; Underhill, G. E., M.A. Magd., *Litt. Hum.*

CAMPION HALL. Master—J. H. Keane, M.A.

ST. BENET'S HALL. Master—P. J. McCann, M.A.

* Tutor. ‡ Lecturer.

Recognized Societies.

LADY MARGARET HALL, founded in 1878 and opened in 1879; constituted under a Deed of Trust in 1893, incorporated 1913. *Principal*—Miss L. Grier, M.A. Resident Tutors: Miss E. M. Jamison, M.A., Vice-Principal; Miss K. H. McCutcheon, M.A.; Miss J. Spens, M.A., D.Litt.; Miss H. C. Deneke, M.A.; Asst. Tutor, Miss D. C. Johnson, M.A., B.Litt. Librarian—Miss M. G. Skipworth, M.A. Bursar and House Treasurer—Miss E. A. Musson.

The Hall is conducted on the principles of the Church of England, with provision for the liberty of members of other religious bodies.

SOMERVILLE COLLEGE, founded as Somerville Hall in 1879. In 1881 it was incorporated under the Companies Acts (1862–80). *Principal*—Miss E. Penrose, M.A. *Vice-Principal*—Hon. Alice Bruce, M.A. *Tutors*—Mildred Pope, M.A.; Hilda Lorimer, M.A.; Helen Darbishire, M.A.; Doris Rhodes; Jane Kirkaldy, M.A.; Maude Clarke, M.A.; Charlotte Young, B.A. *Lady Carlisle Research Fellow*—Mary Porter, B.Sc.; *Mary Somerville Research Fellow*—Evelyn E. S. Procter, B.A. *Librarian*—Vera Farnell, M.A. *Bursar*—Beatrice Stonedale.

ST. HUGH'S COLLEGE, founded as St. Hugh's Hall, in 1886, was incorporated as St. Hugh's Coll. in 1911. *Principal*—Miss E. F. Jourdain, M.A. *Resident Tutors*—Cecilia M. Ady, M.A.; Margaret R. R. Shaw, M.A.; Evelyn M. Simpson, M.A.; Jocelyn Toynbee; Gladys Scott-Thompson; Dorothy Everett. 3 Non-resident Tutors. *House Bursar*—Ruth Metherell. *Librarian*—Joan Evans, B.Litt. *Secretary*—Marie Wilkinson.

The College is conducted according to the principles of the Church of England.

ST. HILDA'S HALL, founded in 1893 by Miss Dorothea Beale, sometime Principal of Cheltenham Ladies' Coll. Admission (minimum age, 18) ordinarily by examn. Students are expected to read for an Honour School, a Certif. in Letters or in Science, or Univ. Dipl. *Principal*—Miss W. H. Moberly, M.A. *Tutors*: Miss Levett, M.A., Vice-Principal, Modern Hist.; Miss M. Coate, M.A., Asst. Hist. Tutor; Miss E. Rooke, M.A., English; Mrs. R. D. N. Somerset, Asst. Engl. Tutor; Miss Keith, Classics; Miss Skipworth, M.A., French. *House Bursar*—Miss Winslow. *Secy. and Librarian*—Miss J. C. Thornton, B.A.

SOCIETY OF OXFORD HOME-STUDENTS, founded in 1879. The Governing Body is the Univ. Delegacy of Home-Students. *Principal*—Miss Burrows, M.A., 1 Jowett Walk, Oxford. There is a staff of 10 Tutors.

The students reside in their own homes or with relatives or in private families in Oxford or, occasionally, in lodgings

St. Frideswide's, Cherwell Edge, is a hostel maintained by the Roman Catholic Community of the Holy Child Jesus, and licensed by the Univ. for the reception of Home-Students, religious and secular.

GENERAL INFORMATION

CONSTITUTION. *Convocation*, consisting of all Masters of Arts and Doctors of the Faculties of Divinity, Civil Law, and Medicine who have their names on the Univ. books, has the power of confirming or rejecting (but not of amending) Statutes which have passed Congregation. It also transacts

much of the ordinary business of the Univ. by means of "Decrees." It confers honorary degrees and also degrees granted by Decree or Diploma. It sanctions petitions to Parliament, authorizes the affixing of the Univ. seal when necessary, and its members elect the Univ. representatives in Parliament. But no proposals can be made to it which have not been sanctioned by the *Hebdomadal Council*, which consists of the Chancellor, Vice-Chancellor, immediate ex-Vice-Chancellor (for a certain period after the expiration of his term of office), and Proctors and 18 other members (Heads of Houses, Professors, etc.) elected by Congregation. This Council takes the initiative in all the legislation of the Univ., except what is proposed by the General Board of the Faculties. The *Congregation of the University* consists mainly of the teaching and administrative elements in the Univ. and Colleges. It has the power of adopting, rejecting, or amending legislation submitted by the Hebdomadal Council previously to its submission to Convocation. The *General Board of the Faculties* has power, after consultation with the Board of the Faculty concerned, to draft and send to Congregation through the Hebdomadal Council any proposals on matters connected with studies and examns. which require to be dealt with by Statute.

The Chancellor, elected for life by Convocation, is a non-resident Officer. The executive power is chiefly in the hands of his Deputy, the Vice-Chancellor, who is annually nominated by him from among the Heads of Colleges, and the Proctors annually elected by the Colleges and Halls in rotation.

The Colleges are corporate bodies distinct from the Univ. They are not even, at all events directly, subject to regulations made by the Univ.; they manage their own property and elect their own Officers, and the Proctors have no power within their walls. In many matters, however, they and the Univ. recognize each other's regulations, and an intimate relation exists between them; the great majority of the members of the Univ. belong to the Colleges, and all who belong to the various Colleges are at the same time members of the Univ. Teaching is given partly by Univ. Profs., Readers, and Lectrs., partly by the more numerous body of College Tutors and Lectrs. Altogether the teaching staff numbers approximately 300.

FACULTIES. Arts; Natural Science, Theology; Law; Medicine. Music and Education are included in Arts; Rural Economy and Forestry in Nat Science.

ADMISSION to the Univ. ("Matriculation") is without respect of sex, birth, age, nationality, or creed, and follows upon admission to a College or Hall or to the Society of Non-Coll. Students, or Society of Home-Students. No one can become a member of the Univ. unless he first becomes a member of one of these Societies. An application for admission must therefore be addressed, not to any officer of the Univ., but to the proper officer * of the Society to which admission is desired; it should be made, if possible, a year or more before residence is contemplated, especially if rooms within the College walls are desired.

Although the Univ. itself holds no Entrance examn., the Colls. and Halls and the Society of Non-Coll. Students require certain qualifications of character and intellectual attainment in which the passing of *Responsions* or some equivalent examn. is ordinarily included.

TERMS. The Academical year, which begins in Oct. and ends in June, consists of 3 terms, each of some 8 weeks. Residence within the walls of a

* Balliol—The Tutor for Admissions; Hert.—The Vice-Principal; Qu.—The Pro-Provost; Non.-Coll.—The Censor, Non-Collegiate Buildings; in other cases—The head of the Society (v. *supra*).

College or Hall, or in licensed lodgings,* during a certain number of terms, usually 9, and never less than 6, is a condition of admission to any degree except in Music. Full terms begin Jan. 22, April 30, and Oct. 15, 1922.

INCORPORATION. Members of the Univs. of Cambridge and Dublin can be, under certain conditions, "incorporated" into this Univ., *i.e.* admitted to the same status and degree which they hold in their own Univ. Notice of intention to incorporate as an undergraduate must be sent to the Registrar through the Head of a College or the Censor of Non-Coll. Students. The privileges of incorporation as a graduate are limited to B.A., M.A., Litt.D., B.D., D.D., and D.Sc. of those Univs. Any applicant for incorporation must have kept by residence at his Univ. before taking his degree the same number of terms that he would have been required to keep at Oxford for the corresponding degree. While an undergraduate is allowed to incorporate as a matter of course, a graduate must first satisfy the Hebdomadal Council that there are adequate reasons.

DEGREES. B.A., M.A., B.Litt., D.Litt.; B.Sc., D.Sc.; D.Phil.; B.D., D.D.; B.C.L., D.C.L.; B.M., B.Ch., D.M., M.Ch; B.Mus., D.Mus.

The degrees which are open to graduate students of other Univs. who are qualified for matricn. at Oxford are those of B.Litt., B.Sc., D.Phil., B.C.L., and B.D.

ARTS. Examns. in Arts, more usually called "Schools," are sharply divided into Pass and Honour examns.; in the former there is but one standard, in the latter successful candidates are distributed into 3 or 4 classes. No one is admitted to a place in the Class Lists who has exceeded a certain number of terms reckoned from Matricn. No conditions of residence are attached by the Univ. to either Pass or Honour examns.; it is simply for the attainment of the degree of B.A. that residence is obligatory. Every Coll. and Hall, however, as well as the Delegacy of Non-Coll. Students, has its own rules with regard to both residence and the entry for examns. A candidate for the degree of B.A. must (1) reside at the Univ. as a matriculated member during 9 terms, unless he is privileged as a member of another Univ. or as a "Service" Student; (2) pass or obtain Honours in the following examns., namely:

(*a*) *Responsions.* The examn. may be passed before matricn., and most Colls. require it or an equivalent examn. to be passed before residence is begun. Names of candidates who have not been matriculated must be entered through an officer of the Society to which they intend to belong. The examn. includes 3 groups: I. (*a*) Latin, (*b*) Greek; II. (*a*) English, (*b*) French, (*c*) German; III. (*a*) Maths., (*b*) Nat. Sc., (*c*) Maths. and Nat. Sc. In order to be deemed to have passed Responsions it is necessary to have passed either in both subjects of Group I. and in the first 2 subjects in Group III., or else in one subject at least in each group, and in 4 subjects in all, including two languages other than English.

(*b*) The *1st Public Examn.* This consists of (1) Examn. in Holy Scripture, (2) Honour Classical Moderations, (3) Hon. Math. Modns., (4) Pass Modns., (5) Prelim. Jurisprudence, (6) Prelim. Mod. Hist., (7) Prelim. N.Sc., (8) Prelim. Agr. and Forestry. In order to pass the Examn. a candidate must pass in (1) and in one of the other subjects.

(*c*) The *2nd Public Examn.* This consists of an examn. for Candidates who do not seek Honours, including a Pass School and a School of Agriculture

* In special circumstances leave to reside in a house which has not been licensed may sometimes be obtained.

and Forestry; and a Final Examn. in 10 Honour Schools, namely: Literæ Humaniores (Philos. and Ancient Hist.); Maths.; Nat. Science (Phys., Chem., Physiol., Zool., Bot., Geol., Astron., or Engin.); Jurispr.; Mod. Hist.; Theol.; Oriental Studies (Sanskrit, Arabic, Hebrew, Persian, or Egyptian); Engl. Lang. and Lit.; Mod. Langs. (French, Ger., Ital., Span., Russ., or Mediæval and Mod. Greek); Philos., Politics, and Economics.

Under certain conditions members of other Univs. and seconded officers not under 21 years of age who have held for not less than 3 years a permanent Commission in H.M. Navy, Army, or Air Force, and been admitted to the status of "Service Student," may obtain exemption from Responsions and, under further conditions, from the 1st Public examn., as well as a remission of 3 terms of the necessary residence (v. *infra*, p. 177). Natives of Asia, Egypt, or the Sudan, born of non-European parents, can apply for permission to offer a substitute for Latin or Greek in Responsions and the 1st Public examn.

The DEGREES B.LITT. AND B.SC., instituted in 1895 in order to encourage special study and research, are granted upon the satisfactory completion of an approved course of special study or research pursued under supervision and for the most part at Oxford. Application to enter upon such a course may be made by any person over the age of 21 years who produces sufficient evidence of his ability and (1) is a member of the Univ. who has passed the examns. for the degree of B.A., or (2) is a graduate in Arts, Letters, or Science of a Univ. within the U.K., or (3) can satisfy the Education Committee that he has received a good general education. Applications must in all cases be made to the Asst. Registrar through an officer of the Society to which the candidate belongs or desires to belong. Residence as a member of the Univ. for 6 terms is a necessary condition for either degree.

Of the same nature but of a higher standard is the degree of DOCTOR OF PHILOSOPHY instituted in 1918 (v. p. 15).

The higher degrees, D.LITT. AND D.SC., instituted in 1900, are awarded for published work of sufficient merit.

DIVINITY. The B.D. degree is open to candidates of over 26 yrs. of age who have passed a Qualifying examn. in Christian Theology, pursued a course of study therein extending over 6 terms, resided for 6 terms, and submitted a thesis of sufficient merit in some branch of the subject.

The degree of D.D. is open to those who have been admitted to the degree of B.D. subject to certain conditions of standing, provided they have submitted a thesis, or published work, of sufficient merit in some branch of Christian Theology.

LAW. The examn. for the B.C.L. degree is open either (1) to B.A.'s of the Univ. or (2) under certain conditions (including residence for 6 terms) to graduates in Arts, Philos., Science, or Law of other Univs. The subjects are Jurispr., Roman, Engl., Roman-Dutch, and Internat. Law.

MEDICINE. The B.M. degree is open only to B.A.'s of the Univ. who have passed certain examns. in Med. and Nat. Science. The total period of study for the degree (including the scientific subjects studied in the Arts course) is generally about 7 years, of which between 2 and 3 are usually spent in London in preparation for the more strictly professional subjects of the 2nd B.M. examn. The M.Ch. degree is open to candidates who have passed all the examns. for the B.M. and B.Ch., and either are members of the Surgical staff of a recognized hospital or have acted in such a hospital as Dresser or House Surgeon for 6 mos. A candidate for the D.M. must be a B.M., and have entered

on the 30th term from matricn. and had his name on the books of some Coll. or Hall or on the Register of Non-Coll. Students for 20 terms.

A "Senior Student" (v. p. 177) who has passed at his previous Univ. an examn. in Physics or Chem. or Zool. or Bot. may obtain exemption from further examn. in the same subjects as a condition of admission to the First Examn. for the B.M. or any part thereof.

MUSIC. The degree of B.Mus. is open to candidates who *either* (*a*) have been admitted to the degree of B.A. *or* (*b*) have (1) passed Responsions or an equivalent or a special Prelim. examn. for students of music, (2) satisfied the examiners in English or 1 of 3 language subjects in the Final Pass School, and (3) pursued either at the Univ. or at some approved institn. a course of musical study, approved by the Board of Studies for Music, extending over at least 2 yearly courses. All candidates must also pass 3 examns. in Music (the subject of one of which is the composition of a Musical Exercise) under conditions laid down by Statute. There is no residential qualification for the degree of B.Mus., but the conditions of admission to the various examns. make it necessary that the candidate's name should be on the books of his Coll. or Hall or of the Society of Non.-Coll. Students for at least 9 terms. A B.Mus. may qualify for the degree of D.Mus. by submitting a musical composition for approval and passing a further examn. in Music, but cannot submit a composition until the 9th term after his admission to the Baccalaureate.

DIPLOMAS. Most of these are open to persons who are not members of the Univ. Minimum courses and addresses of Secretaries from whom particulars can be obtained:

Geography, 1 yr., Reader in Geog., School of Geog., Mansfield Rd.

Education, 1 yr. (or Vacation course, v. p. 174) Director of Training, 15 Norham Gardens.

Economics and Polit. Sc., Dr. A. J. Carlyle, 29 Holywell St.

Anthropology, 1 yr., Reader in Social A., Acland House.

Forestry, 2 yrs., Secy., School of F.

Rural Economy, 2 yrs, Secy., School of R.E.

Classical Archæology, 1 yr., Secy. to Committee on C.A., Ashmolean Museum.

Theology, 1 yr., Asst. Registrar.

Open to Registered Medical Practitioners: Public Health and (also open to approved Bachelors and Doctors of Med. of Univs. outside the U.K.) Ophthalmology, Asst. Registrar.

Certificates: Surveying or General and Regional Geog., 2 terms, Reader in Geog.; Physical or Cultural Anthropology, 2 terms, Reader in Social A., Acland House; Modern History, 1 yr., Asst. Registrar; French or German, Asst. Registrar.

The following have been approved as Societies for higher study at Oxford, the members of which may have their names entered in the Univ. Register of Diploma students although they are not members of the Univ.: *Ruskin College* and (women students only) *Cherwell Hall.*

ARMY. The Univ. is empowered (Army Orders for March 1920) to nominate candidates for Regular commissions in H.M. Forces.

INDIAN CIVIL SERVICE. Studies of selected candidates are superintended by a Delegacy.

A Department for the TRAINING OF TEACHERS was established in 1919 Director, F. J. R. Hendy, M.A., address—15 Norham Gardens). Candidates or the Diploma (v. *supra*) must satisfy the Dept. of their efficiency as teachers.

Students who have obtained the Diploma and fulfilled certain other conditions are recognized as certificated Teachers by the Board of Educn. The 1 yr. course is open to graduates of any recognized Univ. and to other students who have passed certain examns. Maintenance grants are obtainable on certain conditions. The 4 yrs.' course (the 4th yr. of which is wholly devoted to the study of Educn.) is open to undergraduates of Oxford; substantial grants are given by the Board of Educn on certain conditions throughout the whole of the course. Both courses are open to men and women. Graduate teachers of 7 yrs.' standing and other persons who may be admitted in view of their possessing exceptional qualifications may take the Diploma examn. after attending a *Vacation Course of* 4 weeks which is held annually in August. This course, which includes a continuous series of lectures throughout the month on aims and methods, shorter courses on special subjects, lectures and discussions on new ideas, etc., is open to all students, men or women, without restriction. Fee, £7 : 10s.

DELEGACY FOR ORIENTAL STUDENTS. The Secy., S. M. Burrows, C.I.E., M.A., Indian Institute, is prepared to advise Indian and other Oriental students.

In 1910 a DELEGACY FOR WOMEN STUDENTS was constituted, and provision made for recognition by the Univ. of Societies for their reception for academical study, students on the books of such Recognized Societies being accorded a privileged status. Under the provisions of a Statute approved by Convocation on May 11, 1920, which came into force on Oct. 7, 1920, women may be matriculated and admitted to degrees in the Univ. Previous to matricn. a woman must have been admitted as a member of one of the 5 Societies of Women Students. A woman may be admitted to *Responsions* before matricn. provided her name is sent in to the Asst. Registrar by the Head or a Tutor of a Soc. to which she *bona fide* desires admission Women members of the Univ. are admitted to all degrees (except B.D. and D.D.) under the same conditions as those prescribed for men as regards standing, examns., course of study, exercises, and fees, and under analogous conditions as regards residence.

SCHOLARSHIPS. College Entrance scholarships are very numerous and valuable. The Univ. scholarships are usually open only to members of specified standing. Of those open to graduates, 16, of the aggregate value of £1130 p.a., are for Engl., Greek, and Latin; 1 (£100) is for Ment. and Mor. Philos.; 2 (£80) for Maths.; 8 (£1340) for Med. and Nat. Science; 4 (£440) for Law; 3 (£300) for Theol.; 13 (£760) for Oriental Studies. There are several College Research Fellowships tenable by persons distinguished in Science or Lit. (who may be elected without examn.) on condition of prosecuting some definite work.

The General Board of Faculties has power to provide studentships for advanced study and research; and there are certain funds, such as the Craven and Ireland, from which grants for the furtherance of particular studies may be made.

The **Rhodes Scholarships** were founded in 1902 under the will of the late Cecil John Rhodes. The value of each Scholarship is £300 a year, with an additional bonus for the present of £50 a year, and they are tenable at Oxford for 3 years, subject to approval from year to year by his College of the Scholar's progress and conduct. The conditions of the competition in each country or community are fixed from time to time by the Trustees.

In his will, Mr. Rhodes expressed the wish that "in the election of a student to a Scholarship, regard shall be had to (1) his literary and scholastic attainments; (2) his fondness for and success in manly outdoor sports, such as cricket,

football, and the like; (3) his qualities of manhood, truth, courage, devotion to duty, sympathy for and protection of the weak, kindliness, unselfishness, and fellowship; and (4) his exhibition during schooldays of moral force of character, and of instincts to lead and to take an interest in his schoolmates."

The Dominions and Colonies. An annual Scholarship is assigned to each Province of the Dominion of Canada; to each State of the Australian Commonwealth; to the Dominion of New Zealand; and in South Africa to the Province of Natal, the Transvaal, the Orange Free State, the Cape Province, the S.A. College School in Cape Town, the Diocesan College School of Rondebosch, the Boys' High School, Stellenbosch, and the St. Andrew's College School at Grahamstown, in alternate years to the towns of Kimberley and Port Elizabeth, and not more than three annually to Rhodesia. The Colonies of Jamaica, Newfoundland, and Bermuda have each an annual Scholarship. A single Scholarship was for the first time allotted to the Island of Malta in 1920.

In founding these Scholarships, Mr. Rhodes stated that he did so because he believed that the education of young Colonists at one of our residential universities will "broaden their view," "instruct them in life and manners," and "instil into their minds the advantage to the Colonies as well as to the United Kingdom of the retention of the unity of the Empire."

United States of America. Two Scholarships are assigned to each State. Since the Scholarship is tenable for 3 years, there will be 1 year out of every 3 in which there will be no election. In each of the other 2 years 1 scholarship will be filled up if a suitable candidate offers. The reason given by Mr. Rhodes for founding the American Scholarships is his "desire to encourage and foster an appreciation of the advantages which I implicitly believe will result from the union of the English-speaking people throughout the world, and to encourage in the students from the U.S. . . . an attachment to the country from which they have sprung but without I hope withdrawing them or their sympathies from the land of their adoption and birth."

General. Provision is now made under the Trust for the continuous residence at Oxford of 190 scholars. Candidates must be between 19 and 25 years of age and unmarried. They must be citizens of the country from which they come—usually with 5 years' domicile; and must have 2 years' standing at a regular degree-granting College or Univ., except in a few small communities which have no such institution. Detailed information for each country may be obtained from the offices of the Trust, Seymour House, Waterloo Place, London, S.W.1. Constable, London, and the Houghton Mifflin Co., Boston, publish a volume on the Scholarships, by the Organizing Secretary.

Secretary to the Rhodes Trustees—Geoffrey Dawson, Esq., Seymour House, Waterloo Place, London, S.W.1. Local Secretaries: Oxford—F. J. Wylie, Esq., 9 South Parks Road, Oxford; *U.S.A.*—President Frank Aydelotte, Swarthmore College, Swarthmore, Pa.; *Canada*—J. M. Macdonald, Esq., National Trust Co., Ltd., 18-22 King St. East, Toronto; *Australia*—J. C. V. Behan, Esq., Warden's Lodge, Trinity College, Melbourne; *S. Africa*—P. T. Lewis, Esq., S. African Chambers, St. George's St., Cape Town.

The APPOINTMENTS COMMITTEE, together with its Consultative Committee, contains representatives of every College. It receives notice of (1) scholastic appointments; (2) Government appointments; (3) openings in Banking, Industrial and Commercial firms; (4) miscellaneous posts. The *Secy.* is R. Truslove, M.A., Old Ashmolean Building, Broad St. Telegraphic address —Appointments, Oxford; Telephone, 225 Oxford. Brief information about posts in the *Public Services* suitable for men who have taken their degree at the Univ. is given in Ch. XV. of the Ox. Univ. *Handbook* (v. "Publications").

LIBRARIES AND MUSEUMS. The *Bodleian Library*, founded by Sir Thomas Bodley in 1602, which is also the general library of the Univ., contains over 1,000,000 vols. (representing more than 2,000,000 separate literary pieces) and 40,000 MSS. Persons, other than graduates of the Univ., are admitted on presenting a recommendation from some one in a responsible position. The *Manual for Readers* (obtainable from the Librarian) contains full information about the contents and catalogues of the Library. The chief books relating to it are: Macray, W. D., *Annals* (Clar. Press, 1890, 25s.); Clark, A., *Guide for Visitors* (Clar. Press, 1906, 1s. 6d.); Gibson, S., *Some Oxford Libraries* (Clar. Press, 1914, 2s. 6d.); Madan, F., *The Bodleian Library*, London, 1921, 2s.; *The Bodleian Quarterly Record* (1s. quarterly, obtainable from the Libn.).

The Taylorian Library of *Modern Languages and Literature*, 50,000 vols., comprises the chief philological, literary, and historical works of the principal European languages and nearly all respective Reviews, Literary periodicals, etc., of Continental Societies of importance. The Radcliffe consists very largely of books on Mathematics, Natural Science, and Medicine, and the Tylor *Anthropological* collection.

The Codrington Library (All Souls College) is especially rich in works bearing upon *Modern History and Law*. The Maitland Library, also at All Souls, is intended to assist advanced work and research in social and legal history. The Beit—*Colonial History*, the *English School*, and a *Geographical* Library (5000 vols.) and *Maps* (13,000 sheets) are at Acland House, 40 Broad St.; and a Library of *Economics and Politics* at Barnett House.

The *Indian Institute* has 23,000 vols. representing ancient, mediæval, and modern India and including also Arabic, Armenian, Georgian, Turkish, Egyptian, Burmese, and Chinese works; Sanskrit and Prakrit MSS. (printed catalogue); all the leading Oriental journals in English, French, and German; and a Museum giving an historical synopsis of Indian life and customs.

The *College Libraries* include many important collections such as the *Russian and other Slavonic* books, 5000 vols., of Queen's; *History and Literature* MSS. of 17th Century of Worcester; *Music and Early Scandinavian* collections of Christ Church. The MSS. in the College Libraries are described in Coxe's Catalogue, published at the Clarendon Press.

Art and Archæology. The Ashmolean, the earliest English Museum, formed 1600–1650, contains, in addition to a Library of *Art and Archæology*, the Parian and other marbles, Egyptian and Oriental, Classical, Prehistoric, Anglo-Saxon and local antiquities, 60,000 coins and medals (published catalogue of Mohammedan coins), and a special collection of Drawings and Engravings by Ruskin.

The Pitt-Rivers Museum has an *Anthropological* collection illustrating evolutionary history of material arts.

Zoology, Geology, Mineralogy (17,000 spec.), *Entomology* (Lepidoptera Collection illustrating mimicry, etc.), are all represented in the Univ. Museum.

LABORATORIES: Electrical; Clarendon (chiefly for study and research in Heat, Optics, and Acoustics); Chemistry, Organic and Inorganic (several Colleges have labs. of their own, *e.g.*, Ch. Ch., Magd.—Analyt. Chem.; Ball. and Trin.—Phys. Chem.; Jes.—Inorganic; Queen's); Physiol.; Zool., with small expl. garden; Entom., with extensive Collections and Library; Botany (Garden with Collections and Library); Geology (special equipment for study of fossils by serial sections); Mineralogy (special facilities for research in Crystallography); Engineering; Forestry (expl. plantations and forest garden); Model Farm; Human Anat.; Path. and Bact.; two *Observatories*.

The OXFORD AND CAMBRIDGE SCHOOLS EXAMN. BOARD, established 1873,

examines or inspects and reports on the work of schools which provide education of the highest grade. It also holds yearly examns. and awards certificates—Higher, School, and Lower. The two former exempt the holder, under certain conditions, from Responsions, Little-go, Matricn. examns. of London and of the Northern English Univs., and the Prelim. examns of various professional bodies, etc. The Regns. of the Board are published by the Ox. and Camb. Univ. Presses, price 1s. Secretaries: at Oxford—C. H. Wilkinson, M.A., 74 High St; at Cambridge—T. G. Bedford, M.A., 61A St. Andrew's St.

LOCAL EXAMINATIONS are held in March, July, and Dec. at Oxford and elsewhere. Candidates successful in the Senior or Higher Local examns., or in the Higher School Certificate examn., are on certain conditions exempted from Responsions. The regns. may be obtained from the Secy. of Local Examns., Merton St. All the examns. are open to persons of both sexes.

UNIVERSITY EXTENSION. The system begun in Camb. was adopted by Ox. in 1878. Up to the end of the session 1920–21 the number of persons attending courses was 616,591, and the number of students examined 29,144; 20 summer meetings had been held. Reading Univ. Coll. largely owes its origin to extension work. The following certifs. are issued under the sanction of the Delegacy: Terminal, on courses of 10 or 12 lectures; Sessional, on 24; Sessional in Honours, implying distinction and a special essay; affiliation or Higher Certif. of Systematic Study, on a sequence of courses comprising 96 lectures *plus* a general examn.; Vice-Chancellor's, on same conditions as affiliation *plus* examn. in Elem. Maths. and 2 languages. The majority of the lectures are on historical, scientific, or literary subjects. Any Univ. Extension student who avails himself of all the advantages offered, including the Summer Meeting, can secure continuous and systematic instruction in almost any subject for a yearly outlay not exceeding £10. Two Colls. (Ball. and Ch. Ch.) have elected Senior Extension Lectrs. to Fellowships or Studentships in view of their success in Univ. Extension work. Further information can be obtained from the Secy. to the Delegates, Univ. Extension Office, Examn. Schools, Oxford (Rev. F. E. Hutchinson, M.A.).

Tutorial Classes are held in working-class districts under the supervision of a Standing Committee consisting of 7 Univ. Extension Delegates and 7 representatives of the working classes. Students pledge themselves to a 3 yrs.' course. The classes meet once a week for 2 hrs. from Sept. to April, and each student writes an essay every fortnight. The Organizing Secy. is E. S. Cartwright, Barnett House, Oxford.

ADMISSION TO ADVANCED STANDING OF STUDENTS FROM OTHER INSTITUTIONS: "JUNIOR" AND "SENIOR" STUDENTS. I. *Universities other than Indian.*—(*a*) Any student who shall have pursued at his Univ. a prescribed course extending over 2 years may be admitted as a "Junior Student" provided that his course and the standard attained by him in any examns. proper to it shall have been approved. No course will be approved which does not include the study of 2 languages other than English, of which languages one must be either Latin or Greek. (*b*) Any person who has obtained a degree at his Univ., Degree and Univ. having been approved, may be admitted as a "Senior Student," provided that he shall have pursued at that Univ., or, if approved, at more than one Univ., a course extending over 3 years.

II. *Indian Universities.*—(*a*) Any student who shall have pursued at his Univ. a prescribed course extending over 2 years, and obtained the Degree of B.A. or B.Sc., may be admitted as a "Junior Student," provided that Degree and Univ. have been approved. No Degree will be approved which does not include the study of English and in addition of 2 of the following

languages, Latin, Greek, French, German, Sanskrit, Arabic, Persian, Pali, Classical Chinese, of which 2 either Latin or Greek or French or German must be one. (*b*) Any student who shall have pursued at his Univ. a prescribed course extending over 3 years and obtained a Degree with 1st or 2nd Class Honours, may be admitted as a "Senior Student," provided that Degree and Univ. have been approved.

III. A *Junior Student*: (*a*) may reckon his 1st term as his 4th; (*b*) is not required to pass Responsions; (*c*) is entitled to supplicate for Degree of B.A. after having resided 6 terms and passed the 1st Public Examn. and either (1) obtained a place in the Class List of an Honour School of the 2nd Public Examn. or been allowed "ægrotat"; or (2) obtained Honours in the 1st Public Examn., and subsequently passed the 2nd Public Examn.; or (3) if disqualified by standing from obtaining such Honours, shown such merit as would otherwise have entitled him to a place on the Class List; provided that he shall have satisfied the Examiners in Holy Scripture or in a book offered instead thereof.

A *Senior Student*: (*a*) may reckon his 1st term as his 4th; (*b*) is not required to pass Responsions or any part of the 1st Public Examn. or any Preliminary or Previous Examn. of the 2nd Public Examn.; (*c*) is entitled to supplicate for the Degree of B.A. after having kept statutable residence for 6 terms, and either (1)—as above—(*c*) (1); or (2)—as above—(*c*) (3).

No Junior or Senior Student will be entitled to supplicate for the Degree of B.A. except as above.

IV. *Until the first day of Michaelmas Term*, 1923, however, any person who under the rules in force on October 10, 1921, was entitled to claim the status and privileges of a Colonial, Indian, or Foreign Junior Student or of an Affiliated Junior Student from a Univ. within the U.K. may be permitted to do so.

The Statute summarized in this paragraph was approved by Congregation in Jan. 1922, but had not at the time of going to press been approved by Convocation.* A summary of the provisions to be superseded by it if it passes is appended.

Former rules for admission as "Junior" or "Senior" Student. Members of the following Univs. may be admitted as "Junior" or "Senior" students: Birm., Durh., Leeds, Liv., Lond., Manc., Sheff., Wales, Aberd., Edin., Glas., St. And., All., Bom., Calc., Mad., Mys., Panj.; Ac., Adel., Bish., S. Africa, Cape Town, Stell., Dal., King's (N.S.), McG., McM., Manit., Melb., Mt. All., N. Bruns., N.Z., Qu. (Ont.), Syd., Tasm., Tor. Members of the following may be admitted as Junior students only—Belf., N.U.I.; Alb., Laval, Malta, Ottawa, Queensland, Sask., St. Joseph's Coll. (N.B.), Hong-Kong. Such admission enables students to (1) reckon the term in which they are matriculated as their 4th for all purposes, except admission to B.C.L. examn.; (2) be exempted from Responsions [senior students—also from the 1st, and any Prelim. examn. of 2nd, Public examn.]; (3) take the degree of B.A. after a residence of 6 terms instead of 9, provided that they have passed the 2nd Public examn., and have obtained Honours in the 1st or in the 2nd [Senior students—in the 2nd] Public examn., and that a Junior student who has not taken Honours cannot take the B.A. until he has resided for 9 terms. A student who has obtained the L. ès L. or L. ès Sc. at a Univ. of the French Republic or the Ph.D. at certain other European Univs. is eligible for the status of Foreign Junior, or, if the mention *bien* or *cum laude* or higher distinction has been obtained, Foreign Senior, Student.

For admission to the status of Junior (or Senior) student, a candidate must have pursued at his Univ. a 2 yrs.' (or 3 yrs.') course of study, and passed

* Approved Feb. 7, 1922.

all the examns. incident thereto (Senior Student—obtained a degree at that Univ., such Degree and such Univ. having been approved by the Hebd. Council; members of Indian Univs. must have obtained Honours in the Final examn. incident to the course). Candidates for the junior status from Univs. within the U.K. must have attained at their examns. a certain specified standard, and those from Indian Univs. must have passed the examns. for the B.A. or B.Sc. degree.

Members of the following AFFILIATED COLLEGES may claim the status of Affiliated Junior student if they have pursued a 2 yrs.' course of study at their Coll. and taken Honours in an examn. thereon: St. David's Coll., Lampeter (3 yrs.' course with Honours may give admission to status of Senr. student); Univ. Colls., Nottingham, Reading, Southampton, Exeter; Exeter Diocesan Training Coll. The privileges of an Affiliated Junior Student are similar to but not identically the same as those of a "Junior Student."

PUBLICATIONS: *Calendar* (NOV.) 15s. net (includes Honours of each year since Oct. 1900. Earlier Honours given in Historical Register 1900, 2s. 6d.); First Supplement to Hist. Reg. (1900-1920) giving in addition to class lists and Hon. lists, information regarding constitution, Scholarships and Prizes, Offices and their incumbents, etc., 10s. 6d. net. *Responsions* Pamphlet (June) 6d. (Regns. for 1921-22 with dates of examns. and general information); *General Information* (admission, residence, examns. for B.A.) July, 7d. post free; *Handbook*, giving conditions of Admission and Residence, courses and examns., scholarships, etc., facilities for special study, etc.—new edition in preparation; *Statutes and Decrees* (Oct.), 5s.; *Examn. Statutes* (June), 3s. 6d. net; Pamphlet on *Advanced Study and Research* (Research Degrees, subjects of study, Libraries and Collections, Scientific Departments and Staffs), 1s. net; *Enactments* in Parliament concerning Ox. and Camb., Winchester, Eton, and Westmr., 2 gs.; *Principles and Methods of Univ. Reform*, by Curzon, 1909, 2s. 6d. net; *Univ. Gazette* (official), 6d. weekly. All the above are obtainable from the Oxford Univ. Press and its branches. The *Ox. and Camb. Year-book and Directory*, Sonnenschein, 5s.; each part gives short records of living graduates; *Ox. Review* daily during term, C. Harris, 11 New Rd. Numerous Histories of the Univ. and Colleges have been pubd. by the Ox. Hist. Soc., Hutchinson and Co., and others. Oxford Univ. *Roll of Service*, 1920, with names (14,561) and records of members of the Univ. who served in the Mily. and Naval Forces during the War, 15s., Clarendon Press.

THE YEAR 1920–21

BENEFACTIONS. W. Morrison, £50,000 for the Bodleian; Barclay's Bank, Ltd., £1000 for Dyson Perrins Laboratory; £1000 for accommodation for Nettleship Library, etc.; C. B. Heberden bequest, £1000; Prof. J. M. Baldwin, £100 p.a. (E. B. Poulton Fund) for study of Evolution; £520 (Bertha Johnson Fund) for Scholarship for Home Students; W. W. Fowler bequest, £500 for the Bodleian. There were also several valuable gifts and bequests to Colleges.

SPECIAL EVENTS. H.M. The Queen on March 11, 1921, and H.R.H. the Prince of Wales, Feb. 8, visited the Univ. and received the Diploma of the Degree of D.C.L. The Second Congress of the Universities of the Empire was held at Oxford, July 5-8, 1921 (v. p. 8). The Oxford Univ. Expedition to Spitzbergen, June-Sept. 1921, successfully carried out explorations and researches on glaciers, etc. Among visitors from abroad who lectured at Oxford were Joseph Bédier, Prof. of the Coll. de France; Gustave Lanson

and F. Brunot, Profs. at the Univ. of Paris; Emile Vandervelde, Minister of Justice in Belgium; Ernst Cohen, Prof. of Utrecht. As a sequel to the proceedings of the British Empire Forestry Conference the constitution within the Univ. of a Central Institution for training Forest Officers was recommended in April 1921 (Cmd. 1166) by a Govt. Interdepartmental Committee: the initial cost of the permanent staff was estimated at £4000 p.a.

LEGISLATION. A Statute was passed giving candidates in Pass Moderations a choice of subjects within specified groups and allowing them to offer themselves for examn. at any time after passing, or obtaining exemption from Responsions. An important new Honour School of Philosophy, Politics and Economics, forming part of the 2nd Public Examn., was established. The former inadequate scale of payments to Examiners was raised, and in order to do this and meet other increased examn. charges, the fees payable by candidates were increased. A new status of *Service Student* was established, for which officers who have held for not less than 3 yrs. a permanent commission in H.M. Forces will be eligible under certain conditions. The privileges attached to this status are similar to those granted to Affiliated Junior Students. Nearly all University Scholarships and Prizes have been thrown open to women on the same conditions as men. Early in the academic year 1921–22 the Delegacy for Women Students was abolished and a Women's Property Committee and Delegacy for Home Students were established; a Statute was passed simplifying the definition of the several avenues leading to the Final Pass and Honour Schools; the Statute relating to the Honour School in English Language and Literature was modified so as to require all candidates to show, in addition to a competent knowledge of the English Language of all periods and of English Literature, special knowledge of either the philology and history of the Language or specified authors and periods in English Literature; the admission to advanced standing of students from other Univs. formed the subject of a new Statute (v. p. 177); subject to the grant to the Univ. Colls. of Southampton and Exeter of Charters giving them the right of conferring Degrees and establishing Boards of Visitors for them, the Univ. consented to the appointment of such Boards with powers in connexion with the appointment of Profs., regulations for degree courses and examns., appointment of external examiners, etc.

HONORARY DEGREES CONFERRED. *D.C.L.*—G. Clemenceau (late Prime Minister of the French Republic), Vice-Admiral Sir R. Keyes, Sir B. Zaharoff, Sir Robert Stout, Sir R. A. Falconer, Sir Nil Ratan Sircar, W. Morrison; *D.D.*—H. Newton, W. J. Carey, C. F. Garbett, P. N. Waggett; *D.Litt.*—P. Batiffol (Canon of Notre Dame de Paris), Sir F. C. Kenyon, G. Lanson; *D.Sc.*—Duc de Broglie, C. S. Sherrington; *M.A.*—Mrs. Charlotte B. Green, E. S. Cartwright, E. A. Lamborn.

OTHER DEGREES. B.A., 1377; M.A., 684; B.C.L., 7; B.M., 13; B.Litt., 38; B.Sc., 15; others, 22. The Encænia of 1922 will be on June 28.

DEATHS. C. B. Heberden, H. Goudy, H. T. Gerrans, W. W. Fowler, R. E. Baynes, Alex. Macdonald, Sir Wm. Peterson, F. Rowden, G. E. Jeans, C. D. Plater.

NUMBER OF STUDENTS. Undergraduates on the books at the beginning of Michs. term, 1921, men 4803, women 949. Successful candidates in the Final Honour Schools in 1921: men 1037, women 192, namely—Litt. Hum. 140, 6; Maths., 10, 0; Nat. Sc., 109, 7; Jurispr., 128, 0; Mod. Hist., 377, 44; Theol., 97, 3; Or. Langs., 4, 0; Engl., 112, 39; Mod. Langs., 60, 15.

RHODES SCHOLARS. Number actually in residence in 1920–21 (whole or part), 277—studying Law 91, Nat. Sc. and Med. 62, History 50, Econ. (Dipl. and B.Litt. or D.Phil.) 16, Litt. Hum. 13, English 13, Theol. 10, Maths. 6, other subjects 16.

APPOINTMENTS COMMITTEE (year 1920). Number of vacancies notified: 1030, chiefly scholastic and lectureships. Number of appointments secured: 160, including—Govt. Administrative, 38; Educational, 51; Business, 19; Journalistic, etc., 3; Temporary, 49. The fee was fixed at 10s., and it was decided to charge a small percentage on the first year's salary.

UNIVERSITY EXTENSION LECTURES. 828 lectures distributed in 121 courses at 80 centres, regularly attended by 13,232 persons. 36 lecturers were employed. Of the courses 25 were in History or Literature, 19 in Economics, 11 in Art and Archæology, 11 in Nat. Sc., 3 in Music, 4 in Philos. and Ethics. 16 full Tutorial Classes and 2 preliminary courses were held with an average attendance of 323. A summer meeting in Oxford was held in Aug. 1921, subject—Ancient Rome: Its Place in the History of Civilization—with subsidiary courses on economic and scientific subjects. There will be a Vacation Course for *Foreign Students* in Aug. 1922.

Ruskin College was approved in Feb. 1921 as an Institn. for higher study, the women members of which may be registered as Diploma Students although they are not members of the Univ. (This privilege had already been given as regards its men students.)

A college for Catholic Working Men at Oxford is being formed under the auspices of the R.C. Social Guild. Scholarships of £100 each have been promised by working-men's organizations in several cities.

THE UNIVERSITY OF SHEFFIELD

VISITOR—H.M. THE KING

CHANCELLOR—The Most Hon. the MARQUESS OF CREWE, K.G.

PRO-CHANCELLORS—H. K STEPHENSON, M.P., LL D, J.P.; Sir A. J. HOBSON, LL.D., J.P.

VICE-CHANCELLOR—Sir W. HENRY HADOW, Kt., C.B.E., M.A., D.Mus.

TREASURER—D. VICKERS, M.P., J.P.

REGISTRAR—W. M. GIBBONS, O.B.E., M.A.

LIBRARIAN—A. P. HUNT, B.A.

PROFESSORS, LECTURERS, ETC., January 1, 1922

Anatomy

Patten, C. J., M.A., M.D., Sc.D. Dub. A. Jackson Prof.

Naish, Mrs. Lucy, M.D. Lond. (Ostcology) Lectr.

5 Asst. Demrs.

Architecture

Smith, F. R., A R.I.B.A. Lectr.

Leighton, H. B., A.R.I.B.A. Asst. Lectr.

3 Hon. Lectrs. for Evening Courses.

Art, v. Civic

Biology, v. Zool.

Botany [Lectr.

Bentley, B. H., M.A. Ox., F.L.S.

Thomson, J., M.A., B.Sc. Glas. Asst. Lectr. & Demr.

Chemistry

Wynne, W. P., D.Sc. Lond., F.R.S., F.I.C. Firth Prof.

Kenner, J., D.Sc. Lond., Ph.D. Heid. (Organic C.) Lectr.

Tryhorn, F. G., M.Sc. Liv. (Phys. C.) Lectr.

Turner, Emily G., M.Sc. Asst. Lectr.

Bennett, Dorothy M., M.Sc. Asst. Lectr.

Smith, T. B., B.Sc. Lond. Asst. Lectr.

Chapman, A. W., B.Sc. Lond. Demr.

Ibbotson, Kathleen, B.Sc. Demr.

Chemistry, Applied, v. Tech.

Civic Art

Rothenstein, W., M.A. Prof

Classics

Forster, E. S., M.B.E., M.A. Ox., F.S.A. (Greek) Prof.

Summers, W. C., M.A. Camb. (Latin) Firth Prof.

Whitehead, Florence, M.A. Manc. Lectr.

Craig, J. D., M.A. St. And., B.A. Ox. Lectr.

Dentistry, v. Physiol.

Economics

Knoop, D., M.A. Manc. Prof.

Beales, H. L., M.A. Manc. Lectr.

Jack, T., M.A. Glas. Lectr.

Education [Prof.

Green, J. A., B.A. Lond., M.A.

Thompson, J. R., M.Sc. Durh. Lectr.

King, Etheldreda, B.A. Lond. Lectr.

Bone, Woutrina A., B.A. Lectr.

Vickers, W., M.Sc., M.Ed. Manc. Lectr.
Bradford, E. J. G., B.Sc. Lond. Lectr.

Engineering, Mechanical

Ripper, W., C.H., Hon.D.Sc.Eng. Bris., D.Eng., M.I.C.E. Prof.
Boulden, F., B.Sc. Lond., M.Eng., A.M.I.C.E. Senr. Lectr.
Kershaw, J. W., M.Sc. Manc., M.Eng. Senr. Lectr.
Wall, T. F., D.Sc. Vict., D.Eng. Liv. Lectr. in Mech. and Elec. Research.
Hibbins, W. G., B.Sc. Lond., B.Eng., A.M.I.C.E. Lectr.
Waite, C. W., B.Sc. Lond. Lectr.
Davies, H. J., B.Sc. Lond. Asst. Lectr.
Chappell, A. J., B.Sc. Lond. A.M.I.C.E. Asst. Lectr.
Gulliver, G. C. Demr.
Burnet, W. Asst. Lectr. & Demr.
Turner. F. C., M.Eng., A.M.I.E.E. Lectr. & Demr.
Joyce, T. C., B.Sc. Lond. & Bris., A.M.I.E.E. Asst. Lectr. & Demr.

Engineering, Civil

Husband, Joseph, M.Eng., A.M.I.C.E., M.S.C.E. France, F.R.C.Sc.I. Prof.
Fordham, A. A., A.M.I.C.E. Lectr.

Engineering, Elec. [Lectr.

Crapper, E. H., M.Eng., M.I.E.E.

Asst. Lectrs.:

Hainsworth, C. H., A.M.I.E.E.
Hunt, F. O., A.M.I.E.E.

Engineering, Mining

..... Prof.
Statham, I. C. F., F.G.S. Lectr.
Bevan, E. Lectr.

English Lang. and Lit.

Smith, G. C. Moore, Litt.D. Camb., Hon.Ph.D. Louv. Prof.
Jones, J. D., B.A. Lond., Ph.D. Berl. Lectr.
White, H. M. O., M.A. Dub. Lectr.

French

Baker, A. T., M.A., Litt.D. Camb., Ph.D. Heid. Prof.
Larg, D. G., M.A. Aberd. Lectr.
Larsonneur, A.-J., L. ès. L., Ag. Lang. Mod. Asst. Lectr.

Geography

Brown, R. N. Rudmose, D.Sc. Aberd. Lectr.

Geology [Sorby Prof.

Fearnsides, W. G., M.A. Camb.
Wilcockson, W. H., M.A. Camb. Lectr.
Lewis, H. P., B.A. Camb., B.Sc. Lond. Asst. Lectr.

German

Willoughby, L. A., M.A., D.Lit. Lond., Ph.D. Vienna Lectr.

History

Appleton, H. W., M.A. Ox. Prof. (Ancient H.).
Black, J. B., M.A. Glas. and Ox. Prof. (Mod. & Const. H.).
Ward, E. H., M.A. Camb. Lectr. (Eccl. H.).
Perham, Marjory Lectr. (Modern and Const. H.).
Catlin, G. E. G., B.A. Ox. Lectr. (Modern H.).

Law

Trotter, W. F., M.A., LL.D. Camb., Barr.-at-Law, K.C. (Scot.) Prof.
Metcalfe, O. K., M.A., LL.M. (Pub. and Com. L.) Lectr.
Ellis, B., LL.B., Barr.-at-Law Asst. Lectr.

Mathematics [Town Trust Prof.

Leahy, A. H., M.A. Camb.
Stewart, C. A., M.A. Glas., B.A. Camb. Lectr. (Geom.).
Spencer, T. B. W., M.A. Camb. Asst. Lectr. & Tutor.
Stoneley, R., M.A. Camb. Asst. Lectr.

Bryan, W. E., M.A. Camb. Asst. Lectr.
Thompson, R. S., B.Sc. (for Engin) Lectr.

Medicine, v. *infra*

Metallurgy
Desch, C. H., D.Sc. Lond., Ph.D. Wurz., F.I.C. Prof.
Knowles, F K., M.Met. Sen. Lectr.
Ibbotson, F., B.Sc. Lond., D.Met., F.R.C.Sc.I., F.I.C. Sen. Lectr.
Wreaks, J. H., B.Met. Lectr.
Orme, F., M.Met. Asst Lectr (Non-ferrous M.)
Percival, R. T. Demr.
Lobley, A G., M.Sc Manc. Lectr. (Electro-M.).
Gregory, E. Demr.

Music
Linfoot, G. E., B.Mus., B.Sc. Lond. Lectr.

Philosophy
Laing, B. M., M.A. Aberd. Lectr.

Physics
Milner, S. R., D.Sc. Lond. and Bris. Prof.
Southerns, L., M.A. Camb., B.Sc. Lond. Lectr.
Lawson, R. W., D.Sc. Durh. Lectr.
Curtis, W. E., B.Sc. Lond., D.I.C. Lectr.
Mathews, Irene M. Asst. Lectr.
Clarke, J. R., M Sc. Asst. Lectr.

Physiology [Prof.
Leathes, J. B., B.M., M A. Ox., F.R.C.S., F.R C.P., F.R.S.
Eaves, Eliz. C., B.Sc. Lond. Lectr.
Imrie, C. G., M.D. Westn., Ont. ,,
Watson, E. M., M.D. Westn., Ont. Demr. in Expl. P.
Mellanby, Mrs. May. Demr. in *Dental Histol.*

Public Health, v. Medicine

Russian [Vickers Lectr.
Birkett, G. A., M.A. Liv.

Spanish [Hughes Lectr.
Birch, J. N., B.A. Lond.

Technology, Fuel [Prof.
Wheeler, R.V., D.Sc. Manc., F.I.C.
Batley, W. A., M.Sc Manc. Lectr.
Wigginton, R., B.Sc. Lond., A.R.C.S. Lectr.
Beet, A. E., B.Met. Demr.
Rees, W. J., B.Sc. Tech., F.I.C. Lectr. in Refractories.

Technology, Glass
Turner, W. E. S., O B.E., D.Sc. Lond., M.Sc. Birm. Prof.
English, S , M.Sc., A.I.C. Lectr.
Cousen, A., B.Sc., A.R.C.S., A.I.C. Asst. Lectr. & Demr.
Connolly, J. Hon. Lectr.
Wood, D., F.S.A.A. (Accounting) Hon. Lectr.
Research Assts. :
Hodkin, F. W., B.Sc., A.I.C.
Dimbleby, Violet, B.Sc.
Firth, Edith M., B.Sc.
Parkin, M., B Sc. Demr.

Zoology
Denny, A., M.Sc., F.L.S. (also Prof. of Biol.) Prof.
Grove, A. J., B.A. Camb., D.Sc. Birm. Asst. Lectr. & Demr.
Tetley, H., B Sc. Leeds Asst. Demr. and Cur. of Museum.

Medicine (for subjects of first 2 yrs. —Anat., etc., v. *supra*)

Dermatology and Radiology
Hallam, A. R., M.D., Ch.B. Edin., and 2 other Clin. Teachers.

Diseases of Children
Leader, H., M.B. Lond. Lectr.
5 other Clin. Teachers.

Dis. of Ear, Nose, and Throat
Wilkinson, G., B.A., M.B., B.Ch. Camb., F.R.C.S. Lectr.
1 other Clin. Teacher.

Diseases, Infectious
Williams, E. H., M.D. Brus., D.P.H. Lectr.

Diseases, Mental [Lectr.
Vincent, W., M.D., B.S. Durh.
1 other Clin. Teacher.

Diseases of Women
King, W. W., M.B., Ch B. Bris., F.R.C.S.E
Lectr. and Clin Teacher.

Forensic Medicine
Carter, G., M.B., Ch.B. Manc., D.P.H. Lond. Lectr.

Medicine
Hall, A. J., M.A., M.D. Camb., F.R.C.P. Prof.
Naish, A. E., M.A., M.B., B.Ch. Camb., F.R.C.P. Lectr.
Barnes, A. E., M.B. Lond., M.B., Ch.B., F.R.C.P. Lectr.
4 other Clin. Teachers.

Obstetrics and Gynæcology, v. also Dis. of Women
Phillips, Miles H., M.B., B.S. Lond., F.R.C.S. Prof.

Ophthalmology
Pooley, G. H., B.A. Camb., F.R.C.S. Eng. & Edin. Lectr.
3 other Clin. Teachers.

Pathology, v. also Surg.
Douglas, J. S. C., M.A., D.M., B.Ch. Ox., M.Sc. Birm.
Joseph Hunter Prof.
Simson, F. W., M B. Edin. Lectr.
Southgate, H. W., M.B., B.S., B.Sc. Lond.
Curator of Museum.
Eastwood, E. H., M.B. Liv. Demr.
Pleasance, R. E., M.B., Ch.B. Demr.
Edington, J. W., M.D., D.P.H. Edin. Dir. of P.H. Bact. Lab.
Buttery, Ethel M., M.B., Ch.B.
Asst. Dir.

Pharmacology, v. also Physiol.
Mellanby, E., M.A., M.D. Camb.
Prof.

Public Health
Wynne, F. E., M.B., B.Ch. Dub., D.P.H. Manc. Prof.
Anderson, A., M.B. Aberd , D.P.H.
Demr.

Surgery
Connell, A., Ch.M., F.R.C.S. Edin. (also Asst. Lectr. and Demr. in Path.) Prof.
Simpson, G., F.R.C.S. Lectr.
Cuff, A., B.A., M.B., B.Ch. Camb., F.R.C.S. Lectr.
Mouat, T. B., M.D., Ch.B. Edin., F.R.C.S. Tutor.
4 other Clin. Teachers.

Tuberculosis
Rennie, J., M.D. Aberd. Lectr.

Vaccination [Lectr.
Chisholm, J., M.B., Ch B. Edin.

University Extension Lectrs.
Prof. E. S. Forster
(Secy. to the Committee) and 15 other members of the staff.

GENERAL INFORMATION

University College, Sheffield, incorporated by Royal Charter in 1897, was in 1905 merged in the University of Sheffield constituted by Royal Charter in that year. The city being an important centre of steel, electro-plate, glass, and other manufacturing industries, and in the heart of an extensive coal-mining area, students of Engineering, Metallurgy, Mining, Fuel Technology, and Glass Technology have exceptional opportunities.

LIBRARY, 56,000 vols. Also Special Applied Science and Glass Technology departmental collections. RESEARCH DEPARTMENT LABORATORIES include Engineering, with complete illustrative power-plant, air-compressors, hydraulic appliances, testing machines, 45-h.p. motor-driven high-speed steel tool-testing

lathe, etc., the machine-tool branch being a special feature; Electro-tech. (lighting, traction, power transmission, mining, electro.-chem.), all provided with continuous and alternating currents, provision being made for 12 different combinations of parallel-running; Metallurgical, with the most modern apparatus for analysis and equipment, the most complete of its kind, for teaching practical manuf., chem. composition, and physical properties of steel (Siemens furnace of 2 tons capacity, Bessemer converter, elec. and annealing furnaces, etc.); Non-ferrous Dept., completely equipped for every phase of the work of the lighter Sheffield trades, silver and E.P., brass, and allied industries; Micrographic and Recalescence, each with complete installations; Glass Technology model factory for dealing with scientific manuf. on a commercial scale. OBSERVATORY with 6¼" equatorial. HOSPITALS available for clinics include 2 general (517 beds), 3 special (740), and Lunatic Asylum.

FACULTIES. Arts, Pure Science, Medicine, Law, Engineering (Depts. of Mech., Elec., Civ., and Mining E., Fuel Tech., Glass Tech.), and Metallurgy (Ferrous and Non-Ferrous).

DEGREE COURSES. 3 yrs.—B.A. (with Honours in Archit.—5 yrs., including 2 in an Architect's office), B.Sc., LL.B. (Graduates of a Univ. of the U.K. need only attend courses for 2 yrs., if they have pursued a course for 2 yrs. at some approved institution), B.Met. (3 yrs.' evening courses may be taken by students of 20 yrs. of age in lieu of the 2nd and 3rd yrs.' day courses), B.Eng. ("Sandwich" course 4 yrs.), B.Sc.Tech. ("Sandwich" course 4 yrs.); 5 yrs. (including 3 in the Univ.)—M.B., Ch.B.

Attendance on approved courses at a Univ. or Coll. recognized for the purpose may be accepted as equivalent to such courses in the Univ. The Univ. of Caen has been recognized in the Faculty of Arts, and the Univ. contributes £6 towards expenses of undergraduates spending a term there. Courses in Chem., Phys., and Zool. at Univ. Coll., Nottingham, qualify for entrance for the 1st M.B., Ch.B.

A Secondary Schools Council, including, in addition to members of the Univ. staff, representatives of local education authorities and school staffs, keeps the Univ. in touch with secondary educn.

HIGHER DEGREES. Obtainable by Bachelors of 1 yr.'s standing—M.A., M.Sc., LL.M., M.Eng., M.Sc.Tech., M.Met., M.D., Ch.M.; 5 yrs.—Litt.D. D.Sc., LL.D., D.Eng., D.Sc.Tech., D.Met.; open to graduates in Arts of any Univ. of the U.K. after 2 yrs., to graduates of Faculties other than Arts after 3 yrs., of advanced study or research in Sheffield—M.A.; open to graduates in Science of any Univ. of the U.K. after 2 yrs. of advanced study or research in Sheffield—M.Sc.; Ph.D., v. p. 15.

DIPLOMAS. Archit., 5 yrs. (including time spent in an Architect's office); Modern Lang. Teaching (graduates in Arts or others of similar attainments in the Lang.), 1 yr. course; Educn. (after graduation), 1 yr. (special facilities for Pedagogical research); Domestic Science, 2 yrs.; D.P.H., 9 mos.; L.D.S., 4 yrs.; Glass Tech., 3 yrs. (for those with 2 yrs.' pract. experience, 2 yrs.); Associateship in Engin., 3 yrs. (Works Pupils and Evening students, 4 yrs.); Associateship in Iron and Steel or Non-Ferrous Metallurgy, 3 yrs. (evening students, 4 yrs.); Mining, 4 yrs. (6 mos. each year in Colliery and 6 in Univ.; exemption from first yr. obtainable through examn. The Dipl. enables a student to sit for the examn. for a colliery manager's certif. after 5 yrs.' total training, including the time spent in the Univ.); Fuel, 4 yrs.; exemption from first yr. in special cases.

FEES. Matricn. £2. Registn. 21s. or 25s. Tuition for degree courses

(approximate): B.A., £23: 15s. p.a.; B.Sc., £30 p.a.; LL.B., about £13 p.a.; B.Eng., B.Met., B.Sc.Tech. (Glass or Fuel), 37½ gs. p.a.; "Sandwich" course for B.Eng., 4 yrs., £29: 10s. p.a.; M.B, Ch.B., £190 for 5 yrs.' course, including hospl. fees. Examns., Interm. or Final, £1 (M.B., Ch.B. examns., £5 each of 3). Degree Fee, £5.

SCHOLARSHIPS, ETC., FOR GRADUATES. Sorby Research Fellowship (administered by Royal Society) for research in Sheffield Labs., about £500 p.a. for 5 yrs., renewable; Alfred Tongue Scholp., £100 for 1 yr. for research in Engin., Met., or Chem.; George Senior Fellowships, £125 p.a., 2 offered annually for research, one in Engin. and one in Met.; several others of from £50 to £100.

RESIDENCE, ETC. Stephenson Hall, for men; fees per session, £90. Univ. Halls for women, Oakholme and Tapton Cliffe, £51 to £75 per session. A list of supervised Lodgings is maintained; board and lodging cost from 35s. to 50s. per week. Athletics ground, 15½ acres. The Students' Rep. Council takes a leading part in the Social life of the Univ. Separate Students' Unions for men and women.

UNIVERSITY EXTENSION work includes Tutorial classes, Free Extension Lectures, Collaboration (for Adult Educn. Lectures) with the Sheff. Educn. Committee.

PUBLICATIONS. *Calendar* (Oct.), 5s.; *Florcamus*, a Chronicle pubd. at end of each term, annual subs., 2s. (the 10 completed vols. give a full history of the Coll. and Univ., with portraits, etc.); Annual Report in Nov.

THE YEAR 1920–21

BENEFACTIONS. Donations up to July 31, 1921, to New Buildings and Endowment Fund amounted to £31,811, for Dept. of Glass Technology to £6191. The largest donors were F. Atkin, £4000; Vickers, Ltd., £2500; T. W. Ward, £2500; D. Vickers, £1250; United Steel Companies, Ltd., £1200; three Banking and two other firms, £1000 each.

NEW BUILDINGS, ETC. Field Laboratory; second house acquired for Students' Union.

CHANGES IN REGULATION. Higher School Certificate Examns. were recognized for partial exemption from attendance at lectures and from examn. of candidates for special intermediate examns. in Arts and Pure Science and for enabling med. students to take the first examn. in whole or in part at entrance.

OTHER DEVELOPMENTS. The more elementary work previously done in evening classes at the Univ. was transferred to the Sheff. Educn. Committee; a scheme of Adult Educn. was established in collaboration with the same Committee; a special matricn. examn. for persons of mature age was held in Sept. 1921 for the first time when 3 candidates were examined.

NUMBER OF STUDENTS. Full-time preparing for 1st degree, 637, including women 168, for 1st diploma, 262 (women 5). Part-time preparing for 1st degree, 6; for 1st diploma, 585 evening students and 66 others. Research students, 22 (w. 2); other advanced students, 50 (w. 27). Occasional, 29 (w. 11). Other students—day 694, evening 1272. Distribution by Faculties of day students preparing for Degrees or Diplomas: Arts, 237; Pure Sc., 205; Med., 161; Law, 25; Engin., 228; Mining, 38; Fuel Tech., 15; Glass Tech., 18; Metall., 121. Students from abroad: India, 13; Egypt, 9; other countries, 13.

DEGREES CONFERRED. B.A. 41, including 22 women ; B.Sc. 31 (women 8) ; M.B., Ch.B. 6 (women 2) ; LL.B. 4 ; B.Eng. 18 ; B.Sc.Tech. 5 ; B.Met. 11 ; Masterships 55 ; Ph.D. 3 ; D.Met. 1.

TUTORIAL CLASSES, 37.

RESIGNATIONS. Miss Sorby, Profs. P. E. Barber and H. Scurfield ; Lectrs., etc., H. J. Morris, H. C. Broadhurst, N. E. Challenger, W. W. King, H. W. Southgate, G. W. Burley, D. J. Richards, H. Waterhouse, Misses C. M. M. Muirhead and D. Holdsworth. DEATH. Prof. F. E. Armstrong.

UNIVERSITY OF WALES

VISITOR AND PROTECTOR—H.M. THE KING.

CHANCELLOR—H.R.H. THE PRINCE OF WALES.

PRO-CHANCELLOR—Rt. Hon. LORD KENYON, K C.V.O.

VICE-CHANCELLOR—for biennium ending Aug. 31, 1923, Principal A. H TROW, D.Sc., Univ. Coll. of South Wales and Monmouthshire.

WARDEN OF THE GUILD OF GRADUATES—ERNEST E. HUGHES, M.A.

CLERK OF THE GUILD OF GRADUATES—F. E. REES, B Sc.

PRESIDENT OF THE THEOLOGICAL BOARD AND DEAN OF DIVINITY—Principal THOMAS REES, M.A.

REPRESENTATIVE IN PARLIAMENT—Rt. Hon. J. H. LEWIS, LL D.

REGISTRAR—D. B. ANTHONY, M.A., University Registry, Cathays Park, Cardiff.

SECRETARY TO THE COUNCIL—JENKIN JAMES, O.B E., M A.

CONSTITUENT COLLEGES

UNIVERSITY COLLEGE OF WALES, ABERYSTWYTH.

UNIVERSITY COLLEGE OF NORTH WALES, BANGOR.

UNIVERSITY COLLEGE OF S. WALES AND MONMOUTHSHIRE, CARDIFF.

UNIVERSITY COLLEGE OF SWANSEA.

ASSOCIATED THEOLOGICAL COLLEGES

ABERYSTWYTH, The Theol. Coll. Principal—O. Prys, M.A., Prof. of *Philos. of Religion*, etc. Other Profs.: J. Y. Evans, M.A., B.D., *Ch. Hist.*, etc.; E. N. Jones, M.A., *Hebrew*, etc.; D. Williams, M.A., *N.T. Theol.*, etc.

BALA, The Theol. Coll. Principal—..... Profs.: R. Morris, M.A., B.D.; W. Porter, M.A , D.Litt.; J. O. Thomas, M.A.; D. Phillips, M.A.

BANGOR, The Baptist and Congregational Jt. School of Univ. Theol. Studies. Principals—S. Morris, M.A., Prof. of *N.T. Canon*, etc., and T. Rees, M.A., Prof. of *Christ. Doct.*, etc. Other Profs.: J. T. Evans, M.A., B.D., *Hebrew*, etc.; J. M. Jones, M.A., *Ch. Hist.*, etc.; T. Rhys, B.A., *N.T. Greek*, etc.

BRECON, The Memorial Coll. Principal—T. Lewis, M.A., B.D., Prof. of *Hebrew*. Other Profs.: D. M. Edwards, M.A., *Dogmatics*, etc.; Jos. Jones, B.A., B.D., *Greek*, etc.; John Evans, B.A., *Ch. Hist.*

CARDIFF, The S. Wales Baptist Coll. Principal—W. Edwards, B.A., D.D., Prof. of *N.T. Greek*, etc. Other Profs.: T. W. Chance, M.A., B.D., *Ch. Hist.*; J. M. Davies, M.A., *Philos.*, etc; T. H. Robinson, M.A., D D., *Hebrew*, etc.

CARMARTHEN, The Presb. Coll. Principal—W. J. Evans, M.A., Lectr. in *Classics*, etc. Other Lectrs.: P. Moore, B A.; M. B. Owen, B.A , B.D.; J. O. Stephens, B.A., B.D.

GENERAL INFORMATION

Founded by Charter, 1893, the Univ. has no teaching staff, the teaching for initial degrees being undertaken by the constituent Colleges, independent bodies with separate charters and government, to one of which every undergraduate must belong. The Univ. prescribes conditions under which it awards initial degrees to students of the Colleges and conducts the Final examns. An Academic Advisory Committee deals with the conditions on which the certifs. of the Central Welsh Board (v. p. 5) are accepted by the Univ. for matriculating, and as relieving a student from repeating in College work done in Secondary Schools, and with other matters lying in the borderland between School and Univ.

As the result of an inquiry held by a Royal Commission in 1916–1918, a Supplemental Charter was granted to the Univ. in 1920, which introduced many important changes, including: reconstruction of the Univ. Court, a deliberative and legislative body, with 250 members, of whom a little over a half are representatives of Local Education Authorities; institution of a Univ. Council, as the executive and administrative body of the Univ., controlling the finance and distributing all the funds provided for Univ. Education; provision of such funds from a penny rate levied throughout Wales and Monmouthshire, supplemented by an equivalent grant from the Treasury; larger freedom for the Constituent Colleges (now increased to four, by the inclusion of Swansea) in the control of the Courses of Study and in the conduct of their own examns. for initial degrees, Univ. Examiners now taking part only at the final stage; development of a National School of Medicine in connexion with Cardiff College; new Boards for special studies, such as the Board of Technology, the Board of Celtic Studies, and the Council of Music; enlarged scheme for extra-mural instruction.

DEGREES. B.A., M.A., Ph.D., D.Litt.; B.Sc., M.Sc., Ph.D., D.Sc.; B.Mus., M.Mus., D.Mus.; LL.B., LL.M., LL.D.; M.B., B.Ch., M.D.; B.D., D.D.

The minimum period of study for a first degree is 3 yrs. In Music the 3rd yr. may be in any approved Coll. of Music. The degree in Med. is only open to a graduate in Arts or Science of some British or approved colonial or foreign Univ.; the period of qualification for it is 6 yrs., of which the last 3 may be spent in an approved School of Med. in the U.K. or in one of the Univs. of Paris, Berlin, Vienna, or the Johns Hopkins Univ. The degree of B.D. (3 yrs.' course) is post-graduate; the scheme of study is pursued in one of the Associated Theol. Colls. (v. p. 189). The qualifying period of study for the LL.B. is 4 yrs., reducible by 1 in the case of a candidate who has qualified for a degree in any Univ. in the U.K. The M.A., M.Sc., and LL.M. may be awarded to graduates of other Univs. approved for this purpose who pursue a scheme of research for at least 2 yrs. in one of the Constituent Colls. As regards Ph.D., see p. 15.

Certificates in Educn. (post-grad. Certif. and Diploma); Public Health (D.P.H.).

FEES: Matricn., £2 (graduates of other Univs. exempt); examns. qualifying for Bachelor degree, from £6 : 15s.; Master, £8; Doctor, £16.

SCHOLARSHIPS, ETC., FOR GRADUATES. The Univ. has funds amounting to £2000 p.a. for the encouragement of research. In addition to 8 Fellowships, it awards studentships on the nomination of the Colls. to students who after graduation in Arts or Science engage in work preparatory to research for 1 or 2 yrs.

APPOINTMENTS BOARD for Wales (Secy., D. B. Anthony, M.A., Univ. Registry, Cathays Park, Cardiff) has been taken over by the Univ. from the Appointments Assocn. for Wales as one of the University Boards.

PUBLICATIONS: *Calendar* (Dec.). Courses in Div. and Matricn. and Degree Regns., free. Matricn. Examn. Papers, 6d. B.D. Questions, 6d. Degree Papers, Arts 6s., Science, 5s. Bulletin of Board of Celtic Studies, 5s. Publns. of the Council of Music.

THE YEAR 1921

HONORARY DEGREES CONFERRED. D.Litt.—Rt. Hon. A. J. Balfour, Profs. W. P. Ker, T. Powell, W. Rhys Roberts, C. E. Vaughan; LL.D.—J. Mortimer Angus, Rt. Hon. Lord Justice Sir J. Eldon Bankes, Sir T. M. Franklen, Rt. Hon. Viscount Haldane, Dr. G. E. MacLean, Rt. Hon. the Earl of Plymouth, Sir W. J. Thomas; D.Mus.—Sir W. H. Hadow; D.Sc.—Sir J. J. Dobbie, Prof. Andrew Gray; M.Sc.—David Davies.

OTHER DEGREES. B.A., 235, including 87 women; B.Sc., 142 (28 w.); LL.B., 7; B.Mus., 1 (1 w.); B.D., 2; M.Mus., 1; M.A., 27 (4 w.); M.Sc., 15 (4 w.); Ph.D., 3 (1 w.).

UNIVERSITY COLLEGE OF WALES, ABERYSTWYTH

PRESIDENT OF THE COURT OF GOVERNORS AND OF THE COUNCIL—Sir JOHN WILLIAMS, Bart., G.C.V.O., M.D., D.Sc.

PRINCIPAL—J. H. DAVIES, M.A. Ox.

GENERAL SECRETARY—C. G. BURTON.

ACADEMIC SECRETARY—G. J. WALKER

LIBRARIAN—J. D. WILLIAMS, B.A.

SENIOR WARDEN OF THE HALLS OF RESIDENCE FOR WOMEN STUDENTS —Miss C. P. TREMAIN, B.A.

PROFESSORS, LECTURERS, ETC., January 1, 1922

Agriculture

Jones, Abel E., B.Sc. Prof.
Phillips, R., B.Sc. Lectr.
County Organizers, 5.
Instructors in Horticulture, 2.
Instructors in Dairying, 6.

Agric. Botany

Stapledon, R. G., M.B.E., M.A. Camb. Prof.
Sampson, Kathleen, M.Sc. Lond. Lectr.
Adams, Miss E. F. M., B.Sc. Lond. Asst. Lectr.

Plant Breeding Station :

Prof. Stapledon Director.

Research Workers i/c investigations :

Jenkin, T. J., M.Sc.
Marquand, C. V. B., B.A. Camb.
Williams, R. D., B.Sc.

Research Asst. :

Jones, Martin G., B.Sc.

Agric. Chemistry

Griffith, J. J., B.Sc. Indept. Lectr.
Fagan, T. W., M.A. Camb., F.I.C. Adviser.
Davies, R. O., B.Sc. Asst. Lectr.

Arabic, v. Hebrew

Botany

Williams, J. Lloyd, D.Sc. (also Lectr. in Music) Prof.
Jones, S. G., M.Sc Lectr. & Demr.
Fry, Miss E J , M Sc. Asst. Lectr.
Walters, Miss G A., B Sc. Asst. Lectr.

Chemistry

James, T. C., M.A. Camb., D.Sc., F.I.C. Prof.
Hudleston, L. J., M.Sc., A.I.C. Lectr.
Bury, C. R., B.A., B Sc , A I C Lectr.

Asst. Lectrs & Demrs :

Cullinane, N. M., M.Sc., A.I.C
Davies, C. W., B.Sc., A.I C.
Roberts, H. Medwyn, B.Sc., A I.C.
Green, Albert, B.Sc., A.I.C.

Classics

Marshall, J. W., M.A. Glas. and Ox. (Greek) Prof.
Rose, H. J., M.A. Ox., B.A. McG. (Latin) Prof.
Jenkins, E. D. T., M.A. Ox. Lectr.
Gordon, Miss M. L., M.A., B.Litt. Ox. Asst. Lectr.
Woodward, Miss A., M.A. Asst. Lectr
Pope, R. A., M.A. Camb. Asst. Lectr.

Domestic Science
Fisher, Miss N. Instructress.
Vaughan-Jones, Miss E. Asst. ,,

Economics and Pol. Science, v also Politics [Prof.
Lewis, E. A., D.Sc Lond., M.A., D.Litt. (Lectr. in Palæog)
Rees, J. Morgan, M.A. Lectr.
King, William, M.A. Asst. Lectr.

Education
Chapple, C. R., M A. Lond. Prof.
Roberts, Dorothy E., M.A Lectr.
Smith, Frank, M.A. Camb, B.A., B Sc. Manc. Lectr.
Hughes, John, B A. Asst Lectr.
Jones, Gwenan, M.A, Ph.D. Minn Asst. Lectr.
Bonney, H, B A. Lond. Tutor.
James, T. J., M.A Tutor.
Thomas, R. A, B.A. Tutor.
Pugh, D W., B Sc Tutor.
Jones, Dan R., A R.C.A., A.M.C. Art Master.

Instrs. in Physical Training:
Stimson, Capt. H. F.
Davidson, Miss M.

English Language and Lit.
Atkins, J. W. H., M.A. Camb. and Lond. Rendel Prof.
Winstanley, Lilian, M.A. Manc. Lectr.
Garmonsway, G. N. Asst. Lectr.

French Lang. and Lit. and Romance Philol. [Prof.
Barbier, J. L. A., L. ès L. Paris
Thomas, A. B., D. de l'U. Lyon, M.A. Lectr.
Owen, Annie, B.A. Asst. Lectr.
Phillips, Eva M., B.A. Asst. Lectr.

Geography
Fleure, H. J., D.Sc. Prof.
Whitehouse, W. E., M.Sc. Lectr.
Rishbeth, O. H. T., M.A. Ox. Asst. Lectr.

Geology
Pugh, W. J., O.B.E., B.A. Prof.

Asst. Lectrs & Demis.:
Challinor, J., B.A.
Platt, J. I., B.Sc.

German
Evans, David, M.A. Indpt. Lectr.
Rees, Hermia, M A. Asst. Lectr

Hebrew and Arabic
..... Prof.

History
Edwards, Ed., M.A. Camb. and Lond. Prof.
Jane, L. C., M.A. Ox. Lectr.

History, Colonial [Prof.
Roberts, T. Stanley, M.A. Camb.

Law, English [Prof.
Levi, T. A., M.A., B.C.L. Ox., LL.B. Lond., Barr.-at-Law
Lewis, Malcolm M., M.A., LL.B. Camb. Lectr.
Parry, D. Hughes, B.A., LL.B. Wales and Camb. Asst. Lectr.

Logic and Philosophy
Jones, W. Jenkyn, M.A. Camb., B.A. Lond. Prof.
Reid, L. A., M.A Edin. Asst. Lectr.

Mathematics, Pure
Young, W. H., M.A., Sc.D. Camb., F.R.S. Prof.
Johnston, W. J., M.A. Belf., B.A. Dub. Asst. Prof.
Walmsley, C., B.A. Camb. Asst. Lectr.
Dienes, P., D.Sc. Paris Asst. Lectr.

Mathematics, Applied
Schott, G. A., B.A. Camb., D.Sc. Lond. Prof.
Unthank, H. W., B.A. Camb. and Lond. Asst. Lectr.

Music, v. also Botany
Davies, H. Walford, Mus.D. Camb., LL.D. Leeds, F.R.C.O. Prof.

de Lloyd, David, Mus.D. Dub., B.A., Mus.B. Lectr.
9 Assts.

Oceanography
Jenkins, J. Travis, B.Sc. Lond., Ph.D. Kiel, D.Sc. Hon. Lectr.

Palæography, v. Econ.

Philosophy, v. Logic

Physics
Owen, Gwilym, M.A. Camb , M.Sc. Manc., D.Sc. Liv. Prof.
Tunstall, N., B.Sc. Manc. Lectr.

Asst. Lectrs. & Demrs.:
Sulston, L. E.
Mandell, W., B.Sc. Lond.
West, J., B.Sc. Manc.

Politics, Internat.
..... Prof.
Herbert, S. Asst. Lectr.

Welsh
Parry-Williams, T. H., M.A. Wales, B.Litt. Ox., Ph.D. Prof.

Welsh Literature
Jones, T. Gwynn, M.A. Prof.
Lewis, Timothy, M.A. Manc., B.A. Reader (Celtic Philol. and Palæog.).

Zoology, v. also Ocean.
Laurie, R. D., M.A. Ox Lectr.
Carpenter, Miss K., B.Sc. Lond. Asst. Lectr.
Ritchie, W., D.Sc., B.Sc. Aber. Asst. Lectr.
Horsman, Miss E., M.Sc. Liv. Fisheries Naturalist.

Extra-Mural Studies
Morgan, Herbert, M.A. Bris. Director.

GENERAL INFORMATION (v. also p. 190)

Founded in 1872, the College was incorporated by Royal Charter in 1889, and is a Constituent College of the Univ. of Wales. Its main building and Students' Hostels are on the sea front, facing Cardigan Bay.

LIBRARIES. College, 40,000 vols., including the collection of Sir John Rhys. Access to the National Library of Wales founded in 1905, 250,000 vols., rich in Welsh and other Celtic books and MSS. MUSEUMS: Archæol., Bot., Chem., Ethnog., Geog., Geol., Zool. The Chemistry LABORATORIES, erected in 1907, are the most complete in Wales. Agric. Expl. and Plant-breeding Stations and Training Farm.

DEPARTMENTS. Arts and Science (including International Politics), Agriculture, Law, Music, Teaching (Elem. and Secondary). A special feature is the ample provision for instruction and research in Agriculture. A Chair of International Politics was founded in 1919.

DEGREE courses in Arts, Science, Law, Music.
College Diploma courses: Associateship, 2 yrs.; Assoc. in Agric., 3 yrs.; Dairying, 2 yrs.
Courses in Science meet the requirements of the first year of Medical study and the examns. of the Pharmaceutical Society.
Post-graduate courses (1 yr.) for Teachers (Elem. and Secondary), and in Agric.

RESEARCH work is systematically carried on in Agric. Botany and Agric. Chem. (whole-time Research Botanist and Chemist), Chem., Geol., Physics, Zool., etc.

FEES for tuition in Arts, £13 per session; Science, £17. Research students, 5 to 8 gs.

SCHOLARSHIPS FOR GRADUATES. 4 for Research, value £27 to £54, open to Colonial and Foreign students as well as to students of the College. *See* also under Univ. TRAVELLING SCHOLARSHIP for visiting Continental institutions.

RESIDENCE. Board and lodging at Hostels: men—55 gs., women—50 to 62 gs. per session. Accommodation in Hostels for 60 men and 300 women.

UNIVERSITY EXTENSION. Local lectures and short courses in Agric subjects; Travelling Dairy School; Tutorial Classes in Econ., Lit., Hist., Welsh Psychology, etc.; Summer School annually in Aug.

AFFILIATION. The Coll. is affiliated to Ox. and Camb., and is recognized by Edin. and N.U.I., by the R.C.P. and S. Eng. and Edin., the F.P. & S. Glas., the R.C.P.I., the Inst. Chem., and the Surveyors' Instn.

PUBLICATION: *Calendar* (Jan.), 1s. 6d.

THE YEAR 1920–21

BENEFACTIONS. For Scholarships in Music, £500; for Research Fellowships in Chemistry and Physics, £8000.

NEW DEVELOPMENTS. Travelling Scholarships to enable Students to visit Educational Instns. on the Continent. Course of Special Historical Lectures during Summer Term.

ADDITIONS TO BUILDINGS, ETC. A section of the special buildings for the Zool. Dept. completed; various minor extensions.

NUMBER OF STUDENTS. Full-time preparing for Bachelorship or Diploma —1088, including 310 women. (1917–18 to 1919–20: 298, 410, 1032). Part-time, 145. Research, 19. New students for 1921–22, 194.

NUMBER OF DEGREES OBTAINED IN 1918–19, 1919–20, 1920–21: B.A.—62, 76, 127; B.Sc.—22, 52, 66; M.A.—6, 4, 8; D.Sc. and M.Sc.—6, 1, 6; LL.B.—0, 0, 7.

UNIVERSITY TUTORIAL CLASSES held in 27 centres, attended by 508 three-year and 100 preparatory class students. 88 students attended Summer School of Music and 45 students attended Summer School in Library Service.

RETIREMENTS. Prof. Mouat Jones, appointed Principal of the College of Technology, Manchester; Miss M. Dalrymple, Miss O. Griffiths, Mr. O. R. Howell, Mr. F. Temperley, Prof. Zimmern.

UNIVERSITY COLLEGE OF NORTH WALES, BANGOR

PRESIDENT OF THE COURT OF GOVERNORS AND CHAIRMAN OF THE COUNCIL—Rt. Hon. LORD KENYON, K.C.V.O.

PRINCIPAL—Sir HARRY R. REICHEL, M.A., LL.D.

SECRETARY AND REGISTRAR—W. P. WHELDON, M.A.

BURSAR—RICHARD WILLIAMS.

WARDEN OF THE WOMEN STUDENTS—MURIEL O. DAVIS.

PROFESSORS, LECTURERS, ETC., January 1, 1922

Agriculture

White, R. G., M.Sc. Leeds Prof.
Roberts, E. Jones, B.Sc. Asst. Lectr.
Lectrs. in Bldg. Constn., Bookkeeping, Vet. Hygiene.
County Staffs: 4 Organizers; Instructors in Cheesemaking, Dairying, Horticulture and Poultry-keeping

Agric. Botany

Roberts, R. Alun, B.Sc. Adviser.
Whitehead, T., A.R.C.S. Adviser in Plant Pathology.
Rees, John, B.Sc. Asst. Lectr.

Agric. Chemistry

Robinson, G. W., M.A. Camb. Adviser and Lectr.
McLean, W., B.A., B.Sc., A.R.C.Sc.I., A.I.C. Lectr.
Williams, Rice, B.Sc. Asst. Lectr.

Agric. Entomology

Walton, C. L., M.Sc. Adviser.

Botany

Phillips, R. W., M.A. Camb., D.Sc. Lond., F.L.S. Prof.
Davey, A. Jane, M.Sc. Lond. Lectr.
Purvis, Nora, M.Sc. Asst. Lectr.

Chemistry

Orton, K. J. P., M.A. Camb., Ph.D., F.R.S., F.I.C. Prof.
Watson, H. B., B.Sc. Lectr.
Soper, F. G., B.Sc. Lectr. in Physical C.

Asst. Lectrs. & Demrs.:

Roberts, I. C., B.Sc.
Hunter, L., B.Sc. Lond.

Classics

Hudson-Williams, T., M.A., D Lit Lond. (Greek) Prof.
Arnold, E. V., Litt.D. Camb. (Latin) Prof.
Whatmough, J., M.A. Manc. Asst. Lectr.
Lees, Miss M. E., M.A. Manc. (Latin) Asst. Lectr.

Economics

Richards, R., B.A. Camb. Lectr.

Education

Archer, R. L., M.A. Ox. Prof.
Paterson, Alice, M.A. Edin., Ph.D. Jena Lectr.
Williams, Ivor Asst. Lectr.
Thomas, Miss M. Asst. Lectr.
Instructors in Drill, Handwork, and Rural Sc.

English Lang. and Lit.

Wright, H. G., M.A. Manc. Prof.
Lewis, Miss G. A., M.A. Lectr.
King, R. W., M.A. Lond. Asst. ,,
Isaacs, J., B.A. Lond. ,, ,,

Forestry

Thomson, T., B.Sc. Lectr.

French and Rom. Philol. [Prof.
• Fynes-Clinton, O. H., M.A. Ox.
Perrier, Mlle. J., L. ès L.
Asst. Lectr.

German and Teut. Philol.
Purdie, Edna, M.A. Liv. Lectr.

History [Prof.
The Principal (Constitutional H.)
Lloyd, J. E., M.A., D.Litt Ox.
Prof.
Turberville, A. S., M.A., B.Litt Ox. Lectr.
Shankland, Rev. T., M.A. (Mod. Welsh H.) Reader.

Logic and Philosophy
Gibson, J., M.A. Camb. Prof.
Lewis, Miss G. A., M.A. Lectr.
Sturt, H., M.A. Ox. Asst. Lectr.

Mathematics
Bryan, G. H., Sc.D. Camb., F.R.S. Prof.
Veitch, Mrs. E. B., M.A. Lectr.
Ferrar, W. L., M.A. Ox.
Asst. Lectr.
Mathews, G. B., M.A. Camb., LL.D., F.R.S. Spl. Lectr.

Music
Davies, E. T., F.R.C.O. Director
4 Executants and Teachers.

Philosophy, v. Logic

Physics [Prof.
Jones, E. Taylor, D.Sc. Lond.
Mainstone, P. A., M.Sc. Lectr.
Williams, W. Ellis, B.Sc.
Lectr. in Applied Electricity.
Partridge, J. F., B.Sc. Asst. Lectr.

Asst. Lectrs. & Demrs.:
Hughes, Wm., B.Sc.
Rowlands, R. D., B.Sc.

Religion, History of [Spl. Lectr.
McGovern, W. M., Ph.D.

Semitic Languages
Robertson, E., M.A., B.D., D.Litt. Edin. Prof.
Evans, Prof. J. T., M.A., B.D.
Spl. Lectr.

Welsh
Morris-Jones, Sir J., M.A. Ox., LL.D. Prof.
Williams, Ifor, M.A.
Prof. of W. Lit.
Parry, R. W., M.A. Asst. Lectr.

Zoology
White, P. J., M.B. Edin. Prof.
Thorpe, Laura, B.Sc. Asst. Lectr.

Tutorial Classes

Richards, R., B.A. Camb. (v. *supra*—Econ.)
Organizer and Lectr.

Whole-time Lectrs:
Dodd, A. H., M.A. Ox.; Hughes, B. E., B.A. Ox; Jones, E. J., B.A. Many other members of the staff give single courses or combine in giving a series.

GENERAL INFORMATION (v. also p. 190)

This College, constituted by Royal Charter in 1885, was made a constituent College of the Univ. in 1893.

The Physics and Chemistry buildings and the Biology laboratory were opened in 1885, and extended in 1892 to provide for Zoology and Agriculture, and in 1911 the Arts dept. was removed to a site, in the heart of the city, of over 10 acres, given by the Corporation. The buildings, including the Great Hall, were opened in 1911 by King George.

LIBRARIES. General, 40,000 vols. Welsh, 15,000, including the largest and best-equipped collection of Welsh periodicals in existence. MUSEUMS include special collections of fish, shell-fish, and fishing gear and Welsh antiquities. FARM, 675 acres, chiefly sheep pasturage. Dairy.

Special facilities are offered for research in Welsh Language and Literature, Political, Social, Economic, and Religious History of Wales, and allied subjects.

COURSES. B.A. degree courses include among others a "special scheme of study based on the idea of citizenship." Full courses for the B.Sc. in Agric. and Rural Economy, Forestry, and Applied Electricity, as well as in Pure Sc. College *Diploma* courses in Agric. (3 yrs.), and in Forestry, and Elec. Engineering (2 years). The Agric. course is recognized by the Surveyors' Instn. as qualifying for Students' Proficiency examn. Other courses: First year of Med. study; 1 yr. post-graduate course for Teachers (Elem. and Secondary); for Kindergarten Certif.—Elem. 1 yr., Higher 2 yrs. and 1 term. Shorter courses in Agric. and Dairy work by itinerant lecturers.

FEES. Registration, 1 g. per session. Tuition, per session: Arts, £12; Science, £16; Medicine, 1st year (including lab.), £18; Post-graduate courses, non-lab., 4 gs., with lab., £8; Agric., diploma course, per winter session, £15:15s. (2 terms); Farm Practical Instruction, £5 (or 2 gs. a term).

SCHOLARSHIPS, ETC., FOR GRADUATES. Several College awards ranging in value from £22 to £50, open to students of the College. *See* also under Univ.

RESIDENCE. Hostels for 35 men (£47 p.a.) and 150 women. Total cost of living in lodgings and tuition in Bangor, from £55 to £65 per session (1921).

UNIVERSITY EXTENSION, ETC. Local lectures in Literature, Econ., and Agric.; small lending libraries; Tutorial Classes, chiefly for slate-quarrymen and miners. The Advisers in Agriculture conduct experiments and give expert advice to farmers and others.

PUBLICATIONS. *Calendar* (Sept.), 1s. 6d.; *Students' Handbook*, 1s.; *College Magazine*, one issue per term, 1s; Prospectus free.

THE YEAR 1920–21

NEW DEVELOPMENTS. Temporary Science buildings; Department of Economics.

EXTRA-MURAL WORK. 17 Tutorial and Preparatory Classes. Substantial support from N. Wales Miners' Federation and Quarrymen's Union.

NUMBER OF STUDENTS (1920–21). Preparing for degrees—435; for diplomas—149, including those in Elem. Training Dept. taking 1 yr. course; research—13; occasional—13. Women included in above—196. Nine from foreign Univs. New entries for 1921–22—180.

DEGREES OBTAINED (1920–21). B.A.—45; B.Sc.—43; M.A., M.Sc., Ph.D., and D.Sc.—15.

RETIREMENTS. D. Emrys Evans, on apptmt. as Prof. in Swansea; E. Percival Jones; F. W. Stokoe, on expir. of temp. apptmt; Miss A. Cameron; Miss P. V. McKie, on apptmt. to Lectr. at Bedford Coll., London.

UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE, CARDIFF

PRESIDENT—The Rt. Hon. LORD GLANELY.

TREASURER—Sir D. R. LLEWELLYN, Bart.

PRINCIPAL—A. H. TROW, D.Sc. Lond., F.L.S.

REGISTRAR—D. J. A. BROWN.

LIBRARIAN—S. O. MOFFET, M.A.

PROFESSORS, LECTURERS, ETC., January 1, 1922

Anatomy

Hepburn, D., C.M.G., V.D., M.D., C.M. Edin., F.R.S.E. Prof.
Davies, D. L., M.D., M.S. Lond., F.R.C.S. Asst. Lectr. & Demr.
Evans, H., M.A., D.M. Ox., M.B., B.S., M.R.C.P. Lond. Demr.
Jones, A. M., M.D , F.R.C.S. Edin. Demr.

Archæology

Wheeler, R. E. M., M.A., D.Lit. Lond. [Lectr.

Architecture

Purchon, W. S., M A. Lond., A R.I.B.A. Lectr.

Botany

McLean, R. C., M.A. Camb., D.Sc. Lond., F.L.S. Prof.

Asst. Lectrs. & Demrs.:

Crow, W. B., M.Sc. Lond., F.L.S.
Holmes, Marion G., M.Sc. Lond.

Chemistry [Prof.

Jones, W. J., D.Sc. Manc., F.I.C.
Perman, E. P., D.Sc. Lond., F.I.C., F.C.S. Asst. Prof.
Bassett, H. Ll., M.A., Camb., B.Sc. Lond., A.I.C. (Organic C.) Lectr.
Rea, Florence W., B.A., M.Sc. Belf. Asst. Lectr. and Demr. and Lectr. for Med. students.

Classics, v. also German [Prof.

Norwood, G., M.A. Camb. (Greek)
Freeman, Kathleen, B.A. Asst. Lectr.
Davies, Gwilym A. T., M.A. Ox., B.A. (Latin) Prof.
Grundy, W. W., M.A. Camb. Asst. Lectr.

Economics and Pol. Science

Roberts, W. J., M.A. Ox. Fulton Prof.
Evans, R. T., B.A. Lectr.

Education

Phillips, W., M.A. Prof.
Foxley, Barbara, M.A. Dub. Prof.

Training Depts.: [Lectr.

Watkins, S. H., Ph.D. Leip., M.A.
Saxby, Ida B., D.Sc. Lond. Lectr.
Smith, Annie Lectr.

Asst. Lectrs.:

Jones, E. J., M.A. Asst. Lectr.
Barke, Ethel M., M.A. Dub.
Amos, A. D., B.Sc. Lond.

Engineering

David, W. T., M.A. Camb., D.Sc. A.M.I.C.E. Prof.
Thomas, S., B.Sc., A.M.I.E.E. Lectr.
Miller, C. V., B.Sc. Lond., A.C.G.I. Asst. Lectr. & Demr.
Foster, P. F., A.M.I.M.E. Asst. Lectr. & Demr.

English Lang. and Lit.
Brett, C., M.A. Ox. Prof.
McLean, Miss C. M., M.A. Edin. Asst. Lectr.

French
Watkin, M., M.A., L. ès L. Ren., Ph.D. Zur., O I.P. Prof.
Jones, P. Mansell, M.A. Asst. Lectr.

Geology
Cox, A. H., D.Sc. Birm., Ph.D. Stras., F.G.S. Prof.
Asst. Lectrs. and Demrs:
Dingwall, Miss J. M. M., M.A., B.Sc. Edin.
Heard, A., M.Sc. Manc., F.C.S.

German
Arnold, F. T., M.A. Camb. (Asst. Lectr. in Latin) Lectr.

Histology, v. Physiol.

History [Prof.
Bruce, H., M.A. Ox , F.R.H.S.
Rees, Wm., D.Sc. Lond., M A., F.R.H.S. Asst. Lectr.

Hygiene and Public Health, v. *infra*

Mathematics
Pinkerton, R. H., B.A. Ox., M.A. Glas. Prof.
Taylor, D. G., M.A. Camb. and Glas., D.Sc. Glas. (Pure M) Lectr.
Pope, A. H., B.Sc. Lond. Asst. Lectr.
Hayden, H. A., B.Sc. ,, ,,

Medicine, v. *infra*

Metallurgy
Read, A. A., D.Met. Sheff., F.I.C., F.C.S. Prof.
Jones, W. R. D., M.Sc. Asst. Lectr. & Demr.

Mining [Lectr.
Price, S. W., A.R.S.M., M.I.M.E.

Music
Evans, D., Mus.D. Ox. Prof.
Lloyd, J. Morgan, Mus.B Dub Asst. Lectr.

Philosophy, Logic and [Prof.
Scott, J. W., M.A., D.Phil. Glas.
Thorburn, J. M., M.A., B.Sc. Edin. B.A Lond. Asst. Lectr.

Physics
Selby, A. L., M.A. Ox. Prof
Shaxby, J. H., B.Sc. Lond. Lectr.
Armishaw, Jean C., M.A., B.Sc. Glas. Asst. Lectr. & Demr.
Young, C. L , B.Sc. Asst. Lectr. & Demr.

Physiology, v. also *Zool.*
Brown, T. Graham, M D , D Sc. Edin. Prof.
Burlend, T. H., M.A. Camb , B Sc. Lond. (Histol. & Embryol.) Lectr.
Harries, D. J., M.D., B.S. Lond , D.Sc , F.R.C.S. (Lectr. in Physiol Chem) Asst. Lectr. and Demr

Semitic Languages
Robinson, T. H., M A. Camb., D.D. Lond. Lectr.

Welsh
Gruffydd, W J., M A Ox. Prof.
Williams, G T , M.A Asst Lectr

Zoology, v. also Physiol.
Parker, W. N., Ph D. Frei., F.Z S. Prof.
Lloyd, J. H , M.Sc. Birm., F Z S. Lectr.
Sheppard, Edith M., B Sc. (Asst. in Histol) Asst. Lectr & Demr.

Medicine, Welsh National School of (for subjects of first 2 yrs. —Anat., etc., v. *supra*).

Gynæcology and Obstetrics [Prof
Maclean, E. J., M.D., Ch.M. Edin.

Medicine
Kennedy, A. M., M.D. Edin. Prof.
Evans, H. T., M.A., D.M. Ox., M.B., B.S. Lond. Asst.
Davies, I. J., M.D. Lond. Asst.

Pathology and Bacteriology
Emrys-Roberts, E , M.D. Liv., M.B., Ch.B. Manc. Prof

Haig, H. A., M.B., B.S. Lond., D.P.H. Lectr.

Pharmacology, Mat. Med. and

Stevens, W. M., M.D. Lond., F.R.C.P. Lectr.

Surgery

Sheen, A W., C.B E , M S., M.D. Lond , F R C.S. Prof.

Grant, J. W. Geary, F.R C.S. Asst.

Tuberculosis [Davies Prof.

Cummins, S L , C B , C.M G , B.Ch., B.A.O. N.U.I., D.T.M. & H. Camb., LL D., M D

Preventive Medicine and Public Health

Collis, E. L , M A , D M Ox. Talbot Prof.

Morgan, W. P., M.A., M.B. Camb. Lectr. in *Bacteriology* and *Parasitology*

Lectrs. in *Hygiene and P.H.* :

Williams, E C., M D. Durh., D.P.H. Camb.

Picken, M. F., B.Sc., M B. Glas., D.P.H. Camb.

Lectr in *Hygienic Chemistry* :

Sugden, J. H , M Sc. Manc., F.I.C.

Tutorial Classes

Tutors, 22 (including a few members of the College Staff). Joint Secy.—D. J. A. Brown, Regr.

GENERAL INFORMATION (v. also p. 190)

Opened in 1883 and incorporated by Royal Charter in 1884, this is now one of the constituent Colleges of the Univ. The Medical School was opened in 1894, the Engineering School in 1896. New College Buildings, containing the Arts and Administrative Blocks and the Drapers' Company's Library, were opened in Cathays Park (wherein the Univ. Offices are also located) in 1909, the Viriamu Jones Memorial Physical Research Laboratory in 1912. Physiological Dept. Buildings were completed and occupied in 1919, and formally opened in June 1921 by the Prince of Wales, who at the same time laid the foundation-stone of the buildings of the Dept. of Public Health and School of Preventive Medicine. In Oct. 1921 the development of the Medical School into the "Welsh National School of Medicine" enabled provision to be made for complete courses for a Degree or other qualification to practise Medicine.

LIBRARY: Drapers' Company's, 50,000 vols. MUSEUMS: Anat., Mat. Med., Path , Zool. The National Museum of Wales (Art, Archæol , Zool., Geol., Bot) is located in an adjoining building. LABORATORIES: Physical Research, with liquid-air plant, etc.; Engineering (including 100-ton testing machine); and usual Science and Medical teaching and Research labs. King Edward VII. Hospital (300 beds) is within five minutes' walk of the College.

FACULTIES. Arts, Science, Medicine. *Departments*: Music, Applied Science and Technology, Teaching (Elem. and Secondary); School of Preventive Med. and Dept. of Pub. Health; an Advisory and Research Dept. in Agric. has been arranged for. *Short Courses*: Midwifery (for midwives), Law. A Training School of Domestic Arts is under the management of several Local Authorities and the College.

COLLEGE DIPLOMAS. Engineering, Metalliferous Mining, Metallurgy; Welsh Lang. and Lit.; Economics and allied subjects; Music; Social Study and Training. In the Applied Science subjects the qualifying scheme of study covers 3 years; in the other subjects, 2 yrs. A Joint Diploma in Coal Mining is granted by the Coll. and the S.W. and Monmouthshire School of

Mines, 4 yrs.' residence being required. After a 4 yrs.' course students who desire to specialize in certain subjects can take a post diploma course. A Joint Diploma in Mech. Engin., Marine Engin., or Industr. Chem. is granted by this Coll. and the Cardiff Tech. Coll. after a 3 yrs.' course. Courses for a Joint Diploma in Commerce will probably be provided from Oct. 1922. The *Associateship* of the Coll. is given to students who attend the Coll. Classes for not less than 2 sessions, and who graduated at a Univ. in the U.K. or are otherwise qualified.

AFFILIATION. The Coll. is affiliated to Cambridge and (through the Univ of Wales) to Oxford.

SCHOLARSHIPS (Prospectus obtainable from the Registrar). One of £60 is offered for research by a woman in any faculty, one of £50 for Science research. *See also* under Univ.

FEES. Annual Composition for tuition—Arts, £12; Science, £16; Music, £12; Applied Science, £16 (Non-associated Counties, £24); Medical, £21 to £40; Research, 5 to 8 gs.; Registration, 1 g. p.a. These fees may be increased shortly.

RESIDENCE. 2 Hostels for women. Sessional Fees, £65 to £75. Board and lodging in the town can be obtained at about £2 per week.

PUBLICATIONS. *Calendar* (Feb.), 2s.; *Students' Handbook*; *Cap and Gown*.

THE YEAR 1920–21

BENEFACTIONS. Mrs. E. E. Forrester, £500 for Memorial Scholarship in Arts; Drapers' Coy., £140; Major J. G. Jones, £100; I. Roberts Bequest, £100; Sch. of Mines, £100; others, £296.

NEW DEVELOPMENTS (v. also "General Information," first para.). Arrangements were made under which the authorities of King Edward VII.'s Hospital will, as far as possible, give such facilities as may be required for the teaching, examn., and research purposes of the Med. School, including the allocation of beds to 3 Univ. Profs. Appointments were made to the Chairs of Tuberculosis (David Davies), Surg., Med., and Gynæc. and Obst.

After consultation with the Ministry of Agric. and the Grants Committee it has been agreed that an Advisory and Research Dept. in Agric. shall be established at the College.

A scheme of study for a Joint Diploma in Commerce of the College and the Cardiff Technical College has been adopted and should come into effect in Oct. 1922.

An appeal has been issued for £250,000 for (*a*) endowment for maintenance, (*b*) building science laboratories.

NUMBER OF STUDENTS (1918–19 to 1920–21). Full-time preparing for Bachelorship and Diploma—565, 888, 1037, including women—206, 212, 287; post-graduate—29, 34, 24; others—35, 48, 19, and also, attending short courses—237, 459, 253.

DEGREES OBTAINED (1918–21). B.A.—34, 48, 71; B.Sc.—36, 35, 46; others—9, 20, 30; (in 1920–21: M.A. 10, M.Sc. 6, M.Mus. 1, B.Mus. 1, B.D. 3, M.B. Lond. 2, B.S. Lond. 10, B.Sc. Lond. 1, M.Sc. Lond. 1.)

RETIREMENTS. Prof. C. M. Thompson, succeeded by former lectr. in Chem. at Manc.; Prof. H. Littledale; H. Lewis appointed Prof. of Welsh at Swansea.

EXTERNAL WORK. University Tutorial classes, 11, with 296 students; Pioneer Tutorial Classes, 16, with 410 students. Short courses of Evening Lectures in connexion with Social Study and Training work.

UNIVERSITY COLLEGE OF SWANSEA

PRESIDENT—F. W. GILBERTSON.

PRINCIPAL—T. FRANKLIN SIBLY, D.Sc. Lond. and Bris., F.G.S.

REGISTRAR—EDWIN DREW.

LIBRARIAN—OLIVE M. BUSBY, M.A. Lond.

PROFESSORS, LECTURERS, ETC., January 1, 1922

Biology

Mockeridge, Florence A., D.Sc. Lond., F.L.S. Lectr.
Adam, Miss D. I., B.Sc. Durh. Asst. Lectr. & Demr.

Chemistry

Coates, J. E., O.B.E., D.Sc. Birm., M.Sc., F.I.C. Prof.
Hinkel, L. E., M.Sc. Lond., F.I.C. Lectr. (Organic C.).
Hopkins, D. G., B.Sc., A.R.C.S. Lond., A.I.C. Asst. Lectr.
Ayling, E. E., B.Sc. Lond. Asst. Lectr.

Classics

Evans, Prof. D Emrys, B.Litt. Ox., M.A. Prof.

Education

Cavenagh, F. A., M.A. Lond. Prof.

Engineering

Bacon, F., M.A. Camb., A.M.I.C.E., M.I.M.E., M.I.E.E. Prof.
Isaacs, R. G., B.Sc. Lond., A.M.I.E.E. Lectr. (Elec. E.).
Davies, J Ll., B.Sc. Lond. Lectr. (Civ. E.)
Caswell, J. S. Demr.

English [Prof.

Thomas, W. D., M.A. Ox., B.A.
Jones, G. Nesta, M.A. Lectr. (E. and Hist.).

Geology

Trueman, A. E., D.Sc. Lond., F.G.S. Lectr.
Stuart, A., M.Sc. Durh. Asst. Lectr.

History, v. also Engl. [Lectr.

Hughes, E. E., M.A. Ox., B.A.

Mathematics

Richardson, A. R., B.Sc. Lond., A.R.C.S. Prof.
Marshall, J., M.A., D.Sc. St. And., B.A. Camb. Lectr.
Wilson, R., M.A. Ox. Asst. Lectr.

Metallurgy [Prof.

Edwards, C. A., D Sc. Manc.
Coe, H. I., M.Sc. Birm. & Wales Lectr.
Norbury, A. L., M.Sc. Manc. Asst. Lectr.
Pfeil, L. B., A.R.S.M. Asst. Lectr.

Modern Languages

Williams, Mary, D. de l'U. Paris, M.A. Prof.
Harris, Margaret E. A., B.A. Lond. Asst. Lectr.

Physics

Evans, E. J., D.Sc. Lond., B.Sc., A.R.C.S. Prof.
Jones, W. Morris, B.A. Camb., M.Sc. Lectr.
Hilditch, Mrs. K. G., B.Sc. Lond. Asst. Lectr.

Welsh

Lewis, Henry, M.A. Prof.

GENERAL INFORMATION (v. also p. 190)

Incorporated by Royal Charter, dated Jan. 21, 1920, the College was made a constituent College of the Univ. of Wales under the terms of a Supplemental Charter granted to the Univ. on Aug. 13, 1920.

The Municipality of Swansea has given a magnificent site of 45 acres in Singleton Park, and has granted the use of the mansion in the Park (pending the realization of a College building scheme) for the housing of the Library, Assembly Hall, Common Rooms, and Refectory, in addition to the Arts depts. and the administrative offices. The Science depts. are temporarily housed in the buildings of the Swansea Technical College. The foundation-stone of the College buildings was laid by H.M. the King on July 19, 1920.

Situated in the heart of a district possessing a long and interesting metallurgical history and presenting an unrivalled variety of present-day metallurgical practice, the College offers exceptional advantages for preparation for professional careers in the metallurgical industry. The manufacturers of the district, who contribute largely to the support of the College, give the staff and students ample opportunities of keeping in close practical touch with manufacturing processes in the works. To ensure the closest possible co-operation with the local industries, Advisory Committees in Metallurgy and Engineering have been set up.

FACULTIES. Science and Arts. Departments: Metallurgy and Engineering, and Training of Teachers (men and women) for Elem. and Sec. Schools.

DEGREES AND DIPLOMAS. Courses (3 years) of study are provided in preparation for the degrees of the Univ. in Pure and Applied Science and Arts; also in preparation for the College diplomas in Metallurgy and in Engineering. A Complete Prelim. Science Course for medical students is conducted.

Facilities for RESEARCH in the Depts. of Metallurgy, Maths., Physics, Chem., Biol., and Geol.

FEES. For tuition in Pure or Applied Science, £16; Registration, £1 : 1s. p.a.; for Research from 5 to 8 gs.

RESIDENCE. Hostel for 15 women students (Teachers' Training Dept.). A list of Registered Lodgings is kept by the Registrar.

THE YEAR 1920–21

BUILDINGS for the Dept. of Metallurgy were nearly completed and a site was acquired for Science Laboratories. Buildings for Depts. of Physics and Chemistry expected to be ready for session 1922–23.

NEW DEPARTMENTS. Classics, Engl., Welsh, Mod. Langs., Educn., Biol.

NUMBER OF STUDENTS. This was the first session of the College. Full-time preparing for degrees in Pure Science, 28, including 7 women; Appl. Sc., 46; Post-graduate, 4 (1 woman); Diploma, 6; others, 5. Part-time: Pure Science, 118 (80 women); Appl. Sc., 2. Grand Total, 209.

DEGREES OBTAINED. M.Sc., 1; B.Sc., 2; B.Sc. (Eng.) Lond., 6.

EXTRA-MURAL WORK. Public Lectures in Swansea. The Head of the Dept. of History delivered over 70 public lectures in various urban and rural centres. Six Univ. Tutorial (three-year) Classes and 7 "Pioneer" (one-year) Classes were conducted; total number of students attending these classes, 388.

UNIVERSITY COLLEGE, EXETER

VISITOR—ALEX HILL, M.A., M.D. Camb., F.R.C.S. (late Master of Downing College, Cambridge).

CHAIRMAN OF GOVERNING BODY—Sir HENRY Y. B LOPES, Bart., M.A., D.L.

PRINCIPAL—H. J. W. HETHERINGTON, M.A. Glas.

REGISTRAR AND SECRETARY—A. K. WOODBRIDGE.

PROFESSORS, LECTURERS, ETC., January 1, 1922

Art [School of Art.
Morrall, W. B., A.M.C. Headmr.

Biology
Sager, J. L., M.A. Camb. Lectr.
Cumming, A H., A.R.C S.I. Lectr.

Chemistry [Prof.
Lewis, W. H., M.A. Ox., F.I.C.
Glasstone, S., M.Sc. Lond. Lectr. in Physical C.
King, Miss R., M.Sc. Lond. Lectr.
Hathaway, T. H., B.A. Ox. Lectr.

Classics
Fletcher, F., M.A. Ox. Lectr.

Education [Lectr.
Wortley, H. A. S., M.A. Camb.
Walker, Miss A. J., M.A. Birm., B.A. Lond. Lectr.
Story, Miss W. Lectr.
Mathias, Miss S. Y., M.A. Liv. Lectr.
Owen, W. J., M.A. Wales Lectr.
Williams, W. J., B.A. Camb. Lectr.
Davey, Mrs. K. W. Mistress.

English
Morgan, A. E., M.A. Dub. Prof.
Gollancz, Prof. Sir I. (v. p. 95) Hon. Leofric Lectr. in Old E.
Wright, Miss B. D., M.A. Edin. Lectr.
Ashdown, Miss E., M.A. Lond. Lectr.
Pugh, Miss F. M., M.A. Lond. Asst. Lectr.

Geology and Geography
Clayden, A W, M A. Camb., Visiting Director.
Lewis, W. S., B.Sc. Lond. Lectr.
Paterson, R W., B.Comm.Sc. Belf. Lectr.

History and Economics
Harte, W. J., M.A. Ox. Prof.
Patterson, E. J., M.A. Camb. Lectr.
Easterling, Miss R. C., M.A. Wales Lectr.
Whyte, W. H., B.A. Leeds Lectr.

Keltic
Jenner, H., M.A. Wales Hon. St. Petrock's Lectr.

Law
Michelmore, H. T., M.C., LL.B. Lond. Lectr.

Mathematics
Benny, L. B., M.A. Cantab., B.A. Lond. Lectr.
Cook, Miss H. M., B.A. Lond. Lectr.
Mallison, H. V., B.A. Camb. Lectr.

Modern Languages
Schopp, J. W., M.A. Lond. Lectr.
Lockyear, Miss J. I., B.A. Lond. Asst. Lectr.
Mayoux, J. Asst. Lectr.

Music [Lectr.
Bullock, E., D.Mus. Ox., F.R.C.O.

Pharmacy
Ware, A. H., Ph.C. Lectr.

Philosophy
The Principal Prof.
Levine, I., M.A. Glas. Lectr.

Physics
Newman, F. H., M Sc., Ph.D.
Lond., A.R.C.Sc. Lectr.

Martin, F. H., B.Sc. Lond.
Asst. Lectr.
Searle, V. H. L., B.Sc. Lond.
Asst. Lectr.

Tutorial Classes

Organiser: E. J. Paterson, M.A.
Tutors: Profs. A. E. Morgan and W. J. Harte; W. H. Whyte, I. Levine, Miss E. Ashdown.

GENERAL INFORMATION

Founded 1865. Organized as University College, 1901.

Classes in Arts, Science, and Law prepare for degrees of Univ. of London. Courses are provided for Elementary and Secondary teachers for entrance into Civil Service, and for the first year of Medical study. The Training Department is recognized as a Training College for Elem. Teachers. Attached to the College are a School of Art and a School of Pharmacy. The Royal Albert Memorial Library (60,000 vols.) and Museum are closely associated with the College, and the important collections of books and scientific material are freely available for advanced students of the College.

ADMISSION. Minimum age, 18: though relaxation may be made under special circumstances. Each full-time student is placed under the supervision of a member of the Teaching Staff who acts as his tutor.

FEES. Sessional: Intermediate course, 16 gs.; final course in Arts 20 gs.; Science, 25 gs.

AFFILIATION. The College is affiliated to the Univs. of Ox. and Camb. It is recognized by the Camb. Special Board for Med., and the Conjoint Med. Board as a place of instruction in Chem., Physics and Biol., etc.

RESIDENTIAL FACILITIES. For *women*—(*a*) Hartwell House (31), sessional fee 50-55 gs.; (*b*) College Hostel (68); (*c*) Diocesan Church Hostel (30). For *men*—Grendon House (40). All women students not living at home must reside in hostel. Men students may live in licensed lodgings: costs range from 32s. 6d. to 40s. per week for board and lodging. All students in lodgings are subject to the discipline of the Supervisor of Lodgings.

PUBLICATIONS. *Calendar*, issued (free) in July; *College Magazine* (terminally); the *College Field Club Proceedings*.

THE YEAR 1920–21

BENEFACTIONS. Annual Grant from Devon County Council raised from £4000 to £8000. J. B. Cobb (per Viscountess Astor, M.P.), £250 to Scholarship Fund.

NEW DEVELOPMENTS. Two new hostels (Hartwell House and Grendon House) opened. Additional lectureships in Geography, Economics and

Physical Chemistry. The College is preparing a Charter of Incorporation as the "University College of the South-West of England." The Local Education Authorities of Cornwall, Devon, Exeter, and Plymouth have promised rate aid to the extent of almost £20,000 p.a. if the Charter is granted.

NUMBER OF STUDENTS. Full-time preparing for first degree, 91; Post-graduate, 4; Diploma and Certificate, 219; School of Art, 32; School of Pharmacy, 41; Number of degree students in 1921–22, 105.

DEGREES OBTAINED. Ph.D., 1; M.A., 1; B.A., 5; B.Sc., 8.

UNIVERSITY EXTENSION. Classes in connexion with the W.E.A. at 10 centres in Devon and Cornwall.

RESIGNATION. G. H. Haydock, M.A., B.Litt., Lectr. in Philosophy, on appointment to Univ. of Glasgow.

UNIVERSITY COLLEGE OF NOTTINGHAM

PRESIDENT—His Grace the DUKE OF PORTLAND, K.G.

PRINCIPAL—W. H. HEATON, M.A.

REGISTRAR—J. E. SHIMELD.

PROFESSORS, LECTURERS, ETC., January 1, 1922

Biology

Carr, J. W., M A. Camb. Prof.

Lectrs. and Demrs.:

Holden, H. S., D.Sc. Manc.

Bexon, Dorothy, M.Sc. Lond. (Bot.).

Hutchinson, Harriet J. (Histology and Physiology).

Chemistry and Metallurgy

Kipping, F. S., Ph.D. Mun., D.Sc. Lond., F.I.C., F.R.S. Prof.

Lectrs. and Demrs.:

Prideaux, E. B. R., M.A. N.Z., D.Sc. Lond.

Lambourne, H., B.A. Camb., B.Sc. Lond., F.I.C.

Firth, J. B., D.Sc. Manc., A.I.C.

Laxton, F. E., B.Sc. Lond., A.I.C.

Jinks, J. C., Ph.C.

Trotman, S. R., M.A. Camb., F.I.C.

Watson, F. S., M Sc. Manc.

Driver, J. E., B.Sc. Lond.

Bentley, A. O.

Classics and Philosophy

Granger, F. S., D.Lit., M.A. Lond. Prof.

Barker, E. P., M.A. Ox. Lectr. in C.

Adam, E. P., B.A. Lond. ,,

Economics and Commerce

Kirkaldy, A. W., M.A., B.Litt. Ox., M.Com. Birm. Prof.

White, A. J., B.A., B.Sc. (Ec.) Lond. Lectr. in E.

Radford, A., B.Sc. Econ. Lond. ,,

Howard, S. C. Lectr. in C.

Lindley, T., LL.D. Camb. Lectr. in Comml. Law.

Blythen, S., F.C.A., Prof. of Acctcy.

Lectrs. in Acctcy.:

Cairns, R. G., A.C.A.

Gullen, W. E., A.C.A.

6 Lectrs. in Insurance and Practical Banking

Education

Henderson, A., B.A. Lond. Prof.

Moncrieff, Miss A., M.A. Edin. Normal Mistress.

Adam, Anne K. Normal Mistress.

Becket, Miss E. M., B.A. Lond. Lectr.

Newton, W. H., B.Sc. Lond. Normal Master.

Drew, A., B.A. Ox. ,, ,,

Ward, Miss L. Lectr.

Walker, Miss A. Lectr. in Needlework.

2 Lectrs. in Phys. Exercises.

Engineering and Technology, v. also Textiles

Bulleid, C. H., O.B.E., M.A. Camb., A.M.I.C.E. Prof. of E.

Robinson, W., M.E. Belf., M.I.C.E., M.I.M.E. Prof. of T.

Lectrs. and Demrs.:

Westmoreland, J., M.I.M.E. (Drawing and Design).

Richardson, W. A., M.Sc., B.Sc (Eng.) Lond. (Civil E.).
Cotton, H., M.B.E., B.Sc. Lond. (El. E.).
Dickson, J. M., B.Sc.Lond (M. E.).
Bedford, J., A.M.I.Mech.E., B.Sc. (Mech. E.).
Wilde, J. H., B.Sc. (Eng.) Lond
Bird, A. W., B.Sc. Lond. (Geom. and Applied Mechanics).
21 other Technical Teachers.

English
Bond, R. W., M.A. Ox. Prof.
De Castro, Miss Lectr.
Hewitt, R. M., M.A. Ox. Lectr.
Selby, Alice Lectr.

Geology and Geography [Prof.
Swinnerton, H. H., D.Sc. Lond.
Connaughton, Miss, B.A. Dub. Lectr. in Geog.
Richardson, W. A., M.Sc. Lond. Lectr in Geol.
Straw, S. H., B.Sc. Lond. Lectr. in Geol.

Hebrew [Lectr.
Sanders, H. F., B.A., B.D. Lond.

History
Owen, L. V. D., M.A. Ox. Prof.
Guilford, E. L., M.A. Camb. Lectr.
Brameld, Nina, M.A. Lond. Lectr.

Hygiene and San. Sc.
Cotterill, W. H., M.R.San.I.
Sutton, J. A., Cert.R.San.I.

Law
Huntsman, E. Director & Lectr.

Mathematics
Piaggio, H. T. H., M.A. Camb., D.Sc. Lond. Prof.
Green, H. G., M.A. Camb. Lectr.
Wells, F. A., B.A. Camb. Lectr.
6 other Lectrs.

Metallurgy, v. Chem.

Military Science [Dir.
Pickbourne, Capt. H., B.A. Lond.
2 Lectrs. and Instrs.

Mining
McMillan, W. H., B.Sc. Glas., M.I.M.E. Prof.
Watkins, W. G., M.I.M.E., M.I.Mech.E. Lectr.
Whitaker, J. W., B.Sc. Lond. Lectr.
Jones, W. A., M.I.Min.E. Lectr.
Watson, J. M. R., B.Sc. Glas. Lectr.

Modern Languages
Weekley, E., M.A. Camb Prof.
Lectrs.: [Phonetics).
Clarke, Mrs. Lovell (English
Bourdache, E., B. ès L. (French).
Guigou, Mlle. M., L. ès L. (French).
Poget, E. (French).
Schweizer, W. R., Ph.D. (German).
Moroni, Mme. (Italian).
Hewitt, R. M., M.A. Ox. (Portuguese).
Lavrin, Prof. J. (Russian and Slavonic).
Chamberlain, G. L., M.A. Edin. (Spanish).

Music
Radcliffe, F., Mus.Doc. Manc. Hd of Dept.
Barber, E. M., L.R.A.M. Lectr.

Philosophy, v. Classics

Physics [Prof.
Barton, E. H., D.Sc. Lond., F.R.S.
Lectrs. and Demrs.:
Shaw, P.E., B.A.Camb., D.Sc.Lond. (Dir. Sub-Dept., Metrology).
Simpson, A. H., F.R.M.S.
Franks, A. H., B.Sc. Lond.
Browning, Helen, Ph.D. Lond.
Davy, N., B.Sc. Lond.
Brookes, A., M.Eng. Manc.
2 other Lectrs. and Demrs. in Telegraphy, etc.

Physiology, v. Biol.

Technology, v. Engin., Textiles

Textiles
Davis, W., M A. Edin.
Director of Dept.
6 Lectrs.

Zoology, v. Biol.

Extra-Mural Lectrs.
Peers, R , M.A. Liv.
Hd. of Dept.
Wright, B A., B.A.
4 other Lectrs and an Organizer.

GENERAL INFORMATION

The College, opened in 1881, is in the centre of the city. The Free Public Library is at present housed in the College building.

COURSES : For London degrees in Arts, Econ , Divinity, Pure Science, Med., Agric., Engin., and Mining ; Associateship of the College in Comm., Geog., Engin., Mining, Mine Surveying (each 3 yrs.) ; Social Study Diploma (1 yr) ; Bd. of Educn. Elem. Teachers' Certifs. and Cambridge Secondary Teachers' Diploma ; Law Soc.'s Examns. ; L.D.S. ; Assoc'ships of the Insts of Chem. and Physics ; Colliery Manager's Certif. ; Civil Service Appointments ; D.P.H. ; Pharmacy Diplomas ; Post-grad. and Research courses in Arts and Pure Science. Special English course for Foreigners.

Evening Classes, including some held on Thursday aftn. and Sat. morning and aftn., for London B.Sc., B.Sc. Econ , B Sc. Engin. and Interm. Arts ; St. And. L.L.A. ; Comml. ; Dispensing and Pharmacy ; Engin. and Technological ; Mining.

The session for Day Classes is Sept.-July ; Evening, Sept.-April.

FEES. Tuition composition, per annum : Interm. or Degree courses in Arts, Div., or Econ.—20 gs. ; in other Faculties, or Diploma courses in Commerce, Geog., Engin., Mining, Mine Surveying, Pharmacy, or for A.I.C. —30 gs. ; Social Study Diploma (complete course)—£10 ; L.D.S.—18 gs. ; Colliery Managers' Certif.—6 gs. ; D.P.H. (complete course)—£15 ; English course for Foreigners—£12 ; Registration fee, £1 p.a. ; Union fee, £1 : 1s. p.a.

Evening Classes, 15s. per session.

RESEARCH SCHOLARSHIPS in Arts and Science of from £50 to £75 are awarded annually in Dec. Special facilities for research in all subjects.

RESIDENCE. Mapperley Hall (men) and Cavendish House (women) primarily for Elem. Training students. Waverley House (men) and Hollygirt (women)—inclusive fee, 30s. per week. Registered lodgings, 30s. to 40s. Students are, when possible, placed with private families.

PUBLICATIONS. *Calendar* (Oct.), 1s. ; Day and Evening *Prospectuses*, 2d. ; *The Gong*, 3 times a year.

THE YEAR 1920–21

BENEFACTIONS. Sir Jesse Boot has offered a very valuable site and promised a further sum of £100,000 at least towards the expense of erecting buildings for the proposed University. Manufacturers in the city and district are contributing a further sum of £300 p.a. towards the extension of the Textiles Dept. The late J. H. Tomlin left his residuary estate to the East Midlands Univ. or failing the constitution of that authority to the College.

NEW BUILDINGS AND EQUIPMENT. Workshops adjacent to the College

utilized for practical classes and a Dept. for instruction in the testing of Textiles and Yarn established in connexion with the Dept. of Technology.

Co-operation. Members of the Staff continue to lecture at the Midland Agric. College and a member of the Staff of the Loughborough College delivered a course of lectures in Law at this College.

Other Developments. A further conference of representatives of the Educ. Authorities in the East Midlands has been held and a draft charter, statutes, and financial proposals for the proposed Univ. for the East Midlands have been approved. A Dept. of Extra-mural Adult Educn. has been constituted on the lines recommended by the Committee on Adult Educn., and has made rapid progress. Not only has there been a remarkable increase in this work, but facilities have also been provided for adult students to attend intra-mural courses, and the scheme is receiving the cordial support of the employers and trade unions concerned. A sub-dept. of Bacteriology has been established. The research work carried out at the College increased, the number of publications being double that of any previous session.

Public Lectures. 39 were delivered.

Number of Students. Full-time, preparing for bachelorship, 295, including 43 women; for diploma, 461 (79 women); research workers, 9 (1 woman). Total day students, 1011 (in 1918–19, 1919–20: 419, 995). 38 students from France, Switzerland, S. Africa, Egypt, and India. Extra-mural classes, attendance—1090.

Degrees obtained. M.A., 1; M.Sc., 2; B.A., 19; B.Sc., 16; B.Sc. Eng., 7. Total, 45.

Retirements. J. G. Garrett, Lectr. in Mining on apptmt. as Lectr. in Birm.; J. Marshall, Lectr. in Maths. on apptmt. as Lectr. in Swansea; S. H. Piper, Lectr. in Physics on apptmt. as Lectr. in Bristol.

UNIVERSITY COLLEGE, READING

VISITOR—THE DEAN OF CHRIST CHURCH, OXFORD.

PRESIDENT OF THE COURT OF GOVERNORS—J. H. BENYON, M.A., Lord-Lieutenant of Berkshire.

VICE-PRESIDENTS—Sir HALFORD J. MACKINDER, M.A , M.P. ; Mrs. G. W. PALMER ; A. PALMER (CHAIRMAN OF COUNCIL).

PRINCIPAL—W. M. CHILDS, M.A.

TREASURER—Sir WILLIAM A. MOUNT, Bart., C.B.E., M.A., M.P.

SECRETARY AND REGISTRAR—F. H. WRIGHT, M.A.

TUTORIAL SECRETARY—H. KNAPMAN, M.A.

PROFESSORS, LECTURERS, ETC., January 1, 1922

Agriculture, etc., v. *infra*

Art (Department of Fine Arts)
Seaby, A. W. Prof.
5 Teachers and an Asst. in Drawing and Painting, Design, Modelling, Handicrafts.

Botany, v. also Agr.
Stiles, W., M.A. Camb., Sc.D. Prof.
Burtt, A. H., D.Sc. Tüb., B.Sc. Manc. Lectr.
Prankerd, Theodora L., B.Sc. Lond., F.L.S. Lectr.

Chemistry, v. also Agr. [Prof.
Bassett, H., D.Sc. Lond., Ph.D. Mun., D. ès Sc. Nancy, F.I.C.
Dodgson, J. W., B.Sc. Lond. A.I.C. Lectr.
Maxted, D. R., B.Sc. Lond., A.R.C.Sc. Lectr.
A Sessional Lectr.

Classics
Ure, P. N., M.A. Camb. Prof.
Dodds, E. R., B.A. Ox. Lectr.
Haigh, W., M.A., B.Sc. Lond. Lectr. (in German also).
Leigh, Margaret, M.A. Ox. Lectr.

Commerce
Taylor, H., F.L.A.A. Lectr.
2 Assts.

Dairying, v. *infra*

Domestic Subjects
Friend, E. May
Lectr. in charge of Dept.
3 Assts. and a Teacher of Dressmaking and Needlework.

Economics
Buer, Mabel C., B.Sc. Lond. Lectr.

Education, Primary,
Cooke, H. S., M.A. Ox. and Cape Sen. Lectr.
Bolam, Mary, M.A. Dub. Lectr.
Peyton, S. A. Lectr.
Wolters, A. W. P., M.A. Lond. Lectr.
Ashford, Faith, B.Sc. Lond. Lectr. & Teacher of Handwork.
An Asst., a Teacher of Hygiene and 2 Instrs. in Phys. Exerc.

Education, Secondary
Ashcroft, Lucy, M.A. Dub. Lectr.

Education—Physical Training
Morgan, Florence A.
Lectr. in charge.
An Asst.

English Language & Lit. [Prof.
Dewar, R., M.A. Glas. (E. Lit.)
Morley, Edith J. (E. Lang.) Prof.
Powell, Annie E., M.A. Ox.
Lectr.
A Sessional Lectr.

French [Prof.
Desseignet, J., Ag. de l'U. Paris.
Paton, Dora A., B.A. Ox. Lectr.
Salmon, Yvonne M., B. ès L. Lectr.

Geography
Spicer, E. C., M.A. Ox. Lectr.
A Sessional Lectr. and an Asst.

Geology
Hawkins, H. L., D.Sc. Manc., F.G.S. Prof.
Dwerryhouse, A. R., D.Sc. Leeds, M.Sc. Manc., F.G.S. Lectr.

German, v. Classics

History, Modern
Stenton, F. M., M.A. Ox. Prof.
The Principal Hon. Prof.
Sacret, J. H., M.A. Ox. Lectr.
Stenton, Doris M., B.A. Lond.
Lectr.

Mathematics
Neville, E. H., M.A. Camb. Prof.
Ashcroft, Lucy, M.A. Dub. Lectr.
Clatworthy, J. P., B.Sc. Lond.
Lectr.
Knapman, H., M.A. Camb. Lectr.
Ternouth, Elsie J., M.A. Glasg.
Lectr.
Bowler, F. T., B.Sc. (Eng.) Lond. (Applied Mech.) Asst. Lectr.
A Teacher of Machine Drawing.

Music
Allen, Sir Hugh P., M.A. Camb., D.Mus. Ox. Visitor of Dept.
16 Teachers.

Philosophy
De Burgh, W. G., M.A. Ox. Prof.
Ward, S. B., B.A. Ox. Lectr.

Physics
Duffield, W. G., B.A. Camb., D.Sc. Manc. and Adel. Prof.
Bond, W. N., M.Sc., B.Sc. (Eng.) Lond. A.R.C.Sc. Lectr.
Pearson, R. L., A.M.I.E.E. Lectr.
Littlewood, T. H., M.A. Ox., B.Sc. Lond.
Hon. Research Fellow.

Psychology
Wolters, A. W. P., M.A. Lond. (also Lectr. in Educn.) Lectr.

Spanish
A Sessional Teacher.

Vet. Hygiene, v. Agric.

Zoology
Cole, F. J., D. Sc. Ox. Prof.
Eales, Nellie B., B.Sc., Ph.D. Lond.
Lectr.
A Museum Asst.

Agriculture and Horticulture

Agriculture
Pennington, S., B.Sc. Edin., M.R.C.V.S. [Prof.
Robinson, H. G., M.Sc. Durh. Lectr.
An Instr. in Poultry.
County Organizer and 4 Instrs. for Berkshire.

Agr. Botany [Prof.
Percival, J., M.A. Camb., F.L.S.
Erith, Adela G., B.Sc. Lond. Lectr.
Grieve, Lorna, B.Sc. Lond. Demr.

Agr. Chemistry, v. also Dairy C.
Neville, H. A. D., M.A. Camb., B.Sc. Lond., F.I.C. Prof.
Murray, J. A., B.Sc. Edin. Lectr.
Nicholson, H. H., M.A. Camb.
Lectr.
Thompson, J., Ph.D. Heid., F.I.C.
Analyst.
Harris, E. T., B.A. Camb., A.I.C.
Demr. etc.

Bacteriology, v. also Dairy B.
Mason, Grace H., N.D.D. Lectr.

Building Construct., etc. [Lectr.
Hitchins, W. W., M.S.A., P.A.S.I.
An Asst.

Dairy Farming
Mackintosh, J., O.B.E., N.D.A., N.D.D. Lectr.
An Asst.

Dairy Bacteriology
Williams, R. S., M.B., C.M., B.Sc. Edin., D.P.H. Camb.
Research Prof.
2 Assts.

Dairy Chemistry
Golding, J., F.I.C.
Research Chemist.

Mattick, Elfrida, M.Sc. Bris.
Asst. for Research.

Economic Mycologist
Buddin, W., M.A. Camb.

Horticulture
Cobb, A. J. Lectr. and Instr.
2 Assts.

Machinery
An Instr.

Plant Pathologist
Mosley, F. O., F.L.S. (1 Asst.).

Veterinary Hygiene
Male, G. P., M.R.C.V.S. Lectr

British Dairy Institute (occupying a building on the College site and controlled by a committee representing the British Dairy Farmers' Assocn. and the College). Manager and Chief Instructor—A Todd. 2 Asst Instrs

GENERAL INFORMATION

"The University Extension College, in conjunction with the Schools of Science and Art, Reading," was opened in 1892 and incorporated under the Companies Acts in 1896, and became the University College, Reading, in 1902. It has an endowment of £250,000.

Library, 26,000 vols. Museums: Zool. and Hist. and Archæol. Laboratories: Bot., Chem., Geol., Physics, Psych., Zool. Fine Art Studios. School of Music. Gymnasium. Two farms (359 and 141 acres) and Hortic. Station.

Faculties: Letters, Science, Agric. and Horticulture (associated with which are the National Inst. for Research in Dairying and British Dairy Inst.).

Departments: Fine Arts, Music, Domestic subjects.

Admission. Candidates for Degree courses must matriculate before admission. Entrance examn. for Diploma courses in Agric., Dairying, Hortic., Domestic subjects.

Degree Courses are provided for the London B.A., M.A., Ph.D., B.Sc. (Pass and Hons.), B.Sc. in Agric. (3 yrs.) and Hortic. (4 yrs.), the Mus.B. of Dub., Durh., Lond., and Ox., and the 2nd examn. for Med. degrees, Pt. I., of London.

College Diploma (Associateship) Courses: 2 yrs.—Agric., Commerce, Dairying, Domestic subjects, Educl. Handicrafts, Hortic., Letters; 3 yrs.—Fine Art, Music, Distinction in Agric., Dairying, Domestic subjects, or Hortic.

Other Courses for College Certifs. in Agric. (6 mos.), Commerce, Domestic subjects, Geog., Hortic., Phys. Training, Secretarial subjects (1 yr.), Metal Work, Wood Carving, Embroidery, Leather Work, Weaving, Writing and Illumination (2 yrs.); for the 1st examn. of the R.C.P. and R.C.S., the

Camb. Teachers' Certif. (1yr.), British Dairy Farmers' Assocn. examns. (6 mos.), L.R.A.M., A.R.C.M., etc.; Special courses in Illustration and for women teachers of Phys. Training in Continuation and Central Schools.

FEES. For Tuition: Degree or Diploma course—Arts, £25 p.a., Sc., £30 p.a. (Fine Arts, £18); Certif. course—£18 to £30.

SCHOLARSHIPS, ETC., FOR GRADUATES. Two Research Fellowships of £125 each, and several Scholarships in connexion with the HALLS OF RESIDENCE, which provide accommodation for 400 students, men (£80 per session of 30 weeks) and women (£54 to £64). Sanatorium attached.

UNIVERSITY EXTENSION, ETC. Agriculturists are helped by correspondence, visits, local lectures, examination of diseased plants, etc. Evening classes are held in Machine and Building Constn., Builders' Quantities, and most of the subjects in which Day courses are provided. Tutorial classes are held in connexion with the W.E.A.

PUBLICATIONS. *Calendar* (Sept.), 6d; *Tamesis* (students'), terminally.

THE YEAR 1920–21

NEW DEVELOPMENTS. Erection of new Library (a memorial to the late Rt. Hon. G. W. Palmer) begun. A large range of chemical laboratories built. New Diploma in Educational Handicrafts instituted. Students living at home or in licensed lodgings organized in an assocn. known as "St. David's Hall."

NUMBER OF STUDENTS. Full-time, preparing for first degree, 238, including 129 women; for first diploma, 305 (204 women); post-grad. and research, 6. Other day students, 359; evening, 70.

DEGREES OBTAINED (Univ. of London). Arts and Science, 50; Agric., 8; Hortic., 1.

THE UNIVERSITY COLLEGE OF SOUTHAMPTON

PRESIDENT—CLAUDE G. MONTEFIORE, M.A.

VICE-PRESIDENTS—Sir BEETHOM WHITEHEAD, K.C.M.G., M.A.; ALEX HILL, M.A., M.D.

TREASURER—Sir H. MILNER-WHITE, M.A., LL.D. Camb.

PRINCIPAL—THOMAS LOVEDAY, M.A.

REGISTRAR—D. KIDDLE.

PROFESSORS, LECTURERS, ETC., January 1, 1922

Art Instructress.
Conway, Miss E. I., A.R.C.A.

Botany
Mangham, S., M.A. Camb Prof.
Loader, Miss F. M., B.Sc. Lond. Lectr.

Chemistry
Boyd, D. R., D.Sc. Glas., Ph.D. Heid., F.I.C. Prof
Smith, A. E. Clarence, B.A. Camb. A.I.C. Lectr. in Physical C.
Paton, F. J., B.Sc. Birm. Lectr.
Smith, F. J. Demr.

Classics
Forsey, G. F., M.A. Lond. Lectr.

Commerce
Scholfield, A., M.Com. Manc. Lectr.
Plummer, A., A.C.I.S. Asst. Lectr.

Education and Philosophy
Cock, A. A., B.A. Lond. Prof.
Dudley, G., B.A., LL.B. R.U.I. Lectr.
Fox, Miss A. G., B.A. Lond. Lectr.
Kelly, V. G. F., B.Sc. Lond. Lectr.
Miller, Miss F. C., B.A. Leeds Lectr. (also in Geog.).

Economics
Cuthbertson, F. W., M.A. Ox. Lectr.

Engineering, Civ. and Mech.
Eustice, J., B.Sc. Lond., A.R.S.M., A.M.I.C.E. Prof.
Mann, E. E., M.Sc. Leeds, A.M.I.C.E. Lectr.
Glover-James, H., Dip. Eng Edin.
Ford, G. P. Asst.
Field, F. Demr.

Engin., Elec., v. Physics

English
Margoliouth, H. M., M.A.Ox. Prof.
Aubrey, Miss E. R., M.A. Lond. Lectr.
Buckhurst, Miss H. M., M.A. Ox. Lectr.

Geography, v. also Educn.
Barker, W. H., B.Sc. Lond. Lectr.

Geology and Zoology
Sherriffs, W. R., M.A., D.Sc. Aberd. Lectr.

History and Political Econ.
Lyttel, E. S., M.A. Ox. Prof.
Horrocks, J. W., D.Lit. Lond. Lectr.

Hygiene for Men
McKaig, Andrew, M.B., Ch.B. Edin. Lectr.

Hygiene for Women
McKaig, Mrs. Andrew, M.B., Ch.B. Edin. Lectr.

Mathematics, Pure and Applied
Watkin, E. L., M.A. Camb. Prof.
Stuart, T., D.Sc., R.U.I., M.A. Camb. Lectr.
Trout, Miss A. M., B.A. Lond. Lectr.
Lowry, H. V., B.A. Camb. Lectr.

Music
Leake, G., Mus.Bac. Durh., F R.C.O. Prof.

Physics & Electrical Engineering
Stansfield, H., D.Sc. Lond., A.M.I.E.E. Prof.
Spary, P G., B.Sc. Lond., M. Eng. Sheff , A M.I E E., A.M.I.C.E. Lectr. in Electro-technics.
Tomlinson, H. J., B.Sc Lond., A.I.E.E. Lectr.
Chester, C. E., B.Eng. Sheff. Asst. Lectr.
Cox, H. B., O.B.E. Demr.

Romance Languages and German
Patchett, E. W., B.A. Camb. Prof.
Hamilton, Miss G. Lectr.
Mignonat, G., L. ès L. Asst. Lectr.

Spanish
Lindsay, B., Lic. es Artes, Valladolid Lectr.

Zoology, v. Geol.

Tutorial Classes

The Lectr. in Economics conducts classes of the W.E.A., Southampton branch.

GENERAL INFORMATION

Founded 1850; opened as the Hartley Institute, 1862. Incorporated as the Hartley University College in accordance with a scheme of the Board of Education, 1902.

Classes in Arts and Science prepare for the degrees of the Univ. of London; a Commercial course for the B.Sc. (Econ.) and B. and M.Com. The Coll. has a Dept. of Engineering—Civ., Mech., and Elec. It provides courses for Elem. and Secondary Teachers, for entrance into the Civil Service, the first year of Med. Study, Pharmacy, Surveying, etc. It is recognized as a Training Coll. for Elem. Teachers. It is affiliated to the Univ. of Camb. Through its Evening Classes (attended by upwards of 600 students) it performs the function of a Technical Institute.

ADMISSION. The minimum age for both Day and Evening students is 16. Each full-time student is placed under the supervision of a member of the Staff, who acts as his Tutor.

FEES. The sessional fee is £25 for Courses in Arts, £30 for Courses in Science or in Engineering.

RESIDENTIAL FACILITIES. South Stoneham House, Hostel for men, Warden—Prof. A. A. Cock, B.A. South Hill, Bassett, Hostel for Women, Warden—Mrs. Ashdown. Highfield Hall, a Hall of Residence for Women, Warden—Miss E. R. Aubrey, M.A.

A group of huts erected for the accommodation of medical officers and nurses during the occupation of the College buildings as a military hospital has been converted into a Residential Club for 40 men students.

PUBLICATIONS. *Handbook*, pubd. in Sept.; *Hartley Mag.*, terminal, 6d.

THE YEAR 1920–21

BENEFACTIONS. Executors of the late Sir William Mather, £500.

NUMBER OF STUDENTS, 1918–21: Full-time, preparing for the B.A .or B.Sc. degree—men, 53, 99, 98; women, 29, 45, 67; for Diplomas, Certificates, etc.—men, 51, 113, 96; women, 54, 65, 71.

DEGREES OBTAINED, 1918–21. M.A., 0, 0, 2; B.A., 3, 2, 9; B.Sc., 1, 3, 10.

THE SCOTTISH UNIVERSITIES

ST. ANDREWS ABERDEEN
GLASGOW EDINBURGH

REPRESENTATIVES IN PARLIAMENT

Sir WM. W. CHEYNE, Bart., K.C.M.G., M.B., F.R.C.S., LL.D., F.R.S.; D. M'COIG COWAN, M.A.; Rt. Hon. Sir HENRY CRAIK, P.C., K.C.B., M.A., LL.D.

IN CONSTITUTION these 4 Universities have under the operation of the Univs. (Scotland) Acts, 1858 and 1889, been to a great extent assimilated. By the former Act 2 new bodies, called the Univ. Court and General Council, were instituted; by the latter a Committee of H.M.'s Privy Council was constituted, and an Executive Commission was created with extensive powers, which it continued to exercise till the end of 1897. These Commissioners issued ordinances, *inter alia*, for degrees, for the instruction and graduation of women, for special study and research, and for the constitution of a Students' Representative Council with power to petition the Senatus Academicus and the Univ. Court.

The *Chancellor* is elected (for life) by the General Council, of which he is President. He is empowered to nominate a *Vice-Chancellor*, who may confer degrees in his absence, but cannot discharge any other of his duties The Vice-Chancellorship is at the present time held in each Univ. on the Chancellor's nomination by the *Principal*, who is appointed by the Crown (except in Edinburgh) and is President of the Senatus Academicus, and, in the absence of the Rector, of the Univ. Court. The *Rector* is elected every 3 years by the matriculated students. He is the official President of the Univ. Court.

The *University Court* consists of the Rector, Principal, the Lord Provost of the City (in St. And. the Provost of St. Andrews and Lord Provost of Dundee), and Assessors appointed by the Rector, Chancellor, Senatus, General Council, and (except in St. Andrews) Town Council. In St. Andrews the Principals of St. Mary's Coll. and Univ Coll., Dundee, are also included in it. There is provision for the representation of other affiliated Colleges. The Court, a body corporate with full power to administer the property belonging to the Univ., is a Court of Appeal from the Senatus and has power, since the expiration of the powers of the Commrs. under the Act of 1889, to found new chairs with the approval of the Univs. Committee and make other ordinances with the approval of H.M. in Council. It has, *inter alia*, powers to appoint professors whose chairs are in the patronage of the Univ., examiners and lecturers; to define the nature and limits of a professor's duties under his commission; and to recognize for graduation purposes the teaching of any College or individual teacher, under the regns. providing for such recognition.

The *Senatus Academicus*, consisting of the Principal and the whole of the Profs., is entrusted with the regulation and superintendence of the teaching and discipline of the Univ. The administration of the Libraries and Museums is entrusted to Joint Committees elected two-thirds by the Senatus and one-third by the Court.

The *General Council* consists of the Chancellor, the members of the Univ. Court, the Profs. and the Graduates of the Univ. It meets twice a year and may hold special meetings at the instance of the Chancellor. Proposed improvements in the arrangements of the Univ. must be submitted to the Council for their consideration.

The General Councils of the four Universities elect three *Members of Parliament.*

FACULTIES. In all the Univs.—Arts. Science, Divinity, Medicine. In all except St. Andrews—Law. In Edin. only—Music.

SESSIONS. Oct. to March and April to May or June. In Arts and Med. the period Oct. to June is divided into 3 terms. In Divinity there is no regular summer session at Glas. or Aberd.

ADMISSION (v. also p. 6). The Preliminary Examn. Regulations prescribe for a candidate for a first degree in Arts or Science or Medicine that before entering on the curriculum he pass on specified standards an examn. in (1) English ; (2) Latin or Greek ; (3) Maths. ; (4) another (approved) language or Dynamics ; provided that Science and Medical Students may substitute French or German for Latin or Greek, and candidates for the B.Sc. in Engineering need not pass before entering on the curriculum, but only before taking any part of the First Science Examn.

Exemption (*pro tanto*) is granted in consideration of having passed approved equivalent examns. Candidates from abroad, whose native language is other than English, must pass a Special Examn. in English (held in March and Sept. ; in set works and an oral examn.). Candidates from the British Empire overseas, whose native language is English and who have passed examns. which would admit them to Univs. or Tech. Colleges affiliated to Univs. in their own country, will be exempted, but candidates for degrees in Engineering must show they have a sufficient knowledge of Mathematics (*e.g.*, if from India, such as is implied by a satisfactory pass in the Interm. Examn. of an Indian Univ.). Indian students must have passed an Interm. or Final Arts Examn. Similarly the Baccalauréat-ès-Lettres or ès-Sciences will exempt from the Prelim. Examn. for Arts or Science courses respectively or for Medical courses ; and Certificates of Maturity or Grades similar to the French Baccalauréat which would entitle the holder to enter upon a regular course of study in the Univs. of his own country will similarly exempt other students from the continent of Europe.

N.B. A Certificate submitted as proof of title to admission to Univs. abroad should be accompanied by an authenticated declaration by a Government Official or Official of an Agency-General, Embassy, Legation, or Consulate of the country to which the applicant belongs, testifying that it has the alleged value. If in a foreign language certificates should be accompanied by certified English translations.

Argentine Certificates giving admission to the Univ. of Buenos Ayres, the B.A. degree of St. John's, Shanghai, the first-class certificates of the Anglo-Chinese College, Amoy, and, if including Arabic, English, Maths., and—for Arts courses—French, the Egyptian Secondary Education Certificate, have been recognized as exempting from the Prelim. Examn.

Applications for exemption on the ground of having passed any of the above-mentioned examns., *or on other grounds*, should be addressed to the Secretary of the Entrance Board, 81 North Street, St. Andrews.

DEGREES and courses leading thereto (v. also p. 11). The *M.A.* (ordinary) course (there is no B.A) extends over 3 yrs. and, except at St Andrews, includes (for the ordinary degree) subjects from 3 of the 4 departments of the Faculty, namely Lang. and Lit., Ment. Philos., Science, Hist. and Law. A candidate for the degree must not only have regularly attended, but also have duly performed the work of the classes in the qualifying courses. The first 2 yrs. may be taken in any of the Scottish Univs. The Senatus may accept attendance given and examns. passed at other Univs. specially recognized for the purpose, provided that qualifying courses for at least 2 yrs. are attended and the Degree examns. are passed in the Univ. granting the degree. For the purpose of reckoning duration of study an academic yr. is constituted by attendance on at least 1 course (Glas. and St And., 2 courses) of study in each of the 3 terms. The degree is never conferred *honoris causa*. For M.A. (Hons) 4 yrs.' study is generally required.

The *B.Phil.* and *B.Litt.* are conferred only by St. And. A candidate for either of these degrees must take the M.A. either before or along with it. The standard of the Final examn. is that of the M.A. Honours.

The *B.Com.* conferred by St. And., Aberd., and Edin. may be taken, under conditions as to place of study similar to those for the M.A., after courses covering at least 9 terms.

The *Ed.B.* involves a 2 yrs.' course subsequent to the first 3 yrs. of study for a previous degree, in addition to Professional training or experience as a teacher.

The practical part of the training of students preparing for the *Teaching Profession* is provided by the several Provincial Committees, which likewise recognize attendance at Univ. classes as qualifying for their certificates.

The B.Sc. in Pure Science. The course for the ordinary degree covers 3 yrs. (Edinburgh 4 yrs.) and includes from 7 to 9 courses, of which 4 or 5 must be taken in the Univ. which is to grant the degree. The other 3 or 4 courses may be taken in other Univs. or Institns. approved, or under teachers recognized for this purpose, by the Univ. Court. The degree with Honours requires 4 yrs., and is of a standard not less high than that required for M A. (Hons.).

The B.Sc. in Applied Science. Students may graduate in Science in Agric. (Aberd., Edin., Glas.), Applied Chem. (Glas.), Engin. (Edin., Glas., St. And.), Mining Engin. (Edin., Glas.), Forestry (Aberd., Edin.), Pharmacy (Glas.), Pub. Health (Edin., Glas.), Vet. Sc. (Edin.). The course for the B.Sc. in Applied Chem. or Vet. Sc. covers 4 yrs., in Pub.

Health 18 months (after graduation in Med.), and in other branches 3 yrs.

Higher Degrees in Arts and Science. The D.Sc. in Pure Science, in Engin. (Edin., Glas., St. And.), Pub. Health (Edin., Glas.), and Vet.Sc. (Edin.), and the D.Lit. are open to graduates of 5 yrs.' standing. A thesis is required and, except in the case of a graduate of a Scot. Univ. with an Honours degree (St. And., a graduate of the Univ. granting the degree), research under supervision extending over 2 yrs in the Univ. which is to grant the degree. These degrees are never granted *honoris causa*.

Divinity. The B.D. examn. of any of the Univs. is open to a graduate in Arts. (1) of the same Univ. who has taken a complete Theol. course in a Scot. Univ. or other specially recognized Institn.; (2) of any Scot. or other specially recognized Univ. who has completed his Theol. course, of which not less than 2 yrs. has been in the Univ. in which he proposes to take the B.D. The D.D. is honorary. The Gifford Lectures in Natural Theology are open to the general public.

Law. The B.L. course (3 yrs.) is open to students who have passed the Arts Prelim. or its equivalent, with Latin (Higher Standard) as one of the subjects. The LL.B. (3 yrs.) is open to graduates in Arts of a Univ. of the U.K. or any other specially recognized.

Of the B.L. course 1 yr. and of the LL.B. 2 yrs. may be spent in any specially recognized Univ. or School of Law.

St. And. does not at present provide full courses for or grant these degrees. The LL.D. is honorary.

Medicine. Three of the requisite 5 yrs. of medical study for the M.B. and Ch.B. may be spent in any Univ. of the U.K. or other Institn. specially recognized for the purpose or under a teacher recognized by the Univ. A candidate who has at any such Univ. completed a course and passed an examn. in Chem., Physics, or Biology qualifying for a degree in Science, Arts, or Med. may be exempted by the Senatus from the corresponding part of the M.B., Ch.B. examns. Aberd. and St. And. extend this concession to courses and examns. in Anatomy and Physiology qualifying for a degree in Science (St. And.—or Arts or Med.).

A graduate in Medicine of at least 24 yrs. of age who has, subsequent to graduation, been engaged for at least 1 yr. in attending the Med. (or Surg.) wards of a hospl., or in scientific work bearing directly on his profession, or in the Naval, Milit., Colonial (Aberd., Edin., Glas.), or, for the M.D. (St. And.—M.D. or Ch.M.), Pub. Health Med. Services, or 2 yrs. in practice not restricted to Surg. (or Med.), and passed the prescribed examn. and submitted a satisfactory thesis, may be admitted M.D. or Ch.M. as the case may be.

Ph.D. See p. 15.

FEES. The Matriculation, 2 gs. *per annum*; inclusive Tuition fees *per annum* in Arts are 15 gs., in Science 25 to 30 gs.; examn. fees for M.A., 7½ gs.; B.Sc., 9 gs.; M.B., Ch.B., 33 gs.; graduation, £1. Further information is given in the several Univ. sections.

RESEARCH OR SPECIAL STUDY may be prosecuted in a Univ. under

supervision by persons suitably qualified, whether graduates or not, admitted by the Senatus. Access to and the use of the Univ. laboratories, etc., may be obtained on such conditions as to payment and otherwise as the Univ. Court may determine. The title of Research Fellow may be conferred with or without a stipend on specially distinguished research students.

APPOINTMENTS COMMITTEES have been constituted in all the Univs. to help students to find employment.

SCHOLARSHIPS. Provision for affording Univ instruction and maintenance to students of small means is probably nowhere more ample than in Scotland. Besides the numerous bursaries, etc., awarded by the Univs., and the Carnegie Trust benefactions (v. *infra*), the Provincial Committees for the Training of Teachers award bursaries, according to the necessities of students, of from £5 to £25, and travelling, hostel, and other special allowances, and Secondary Education Authorities may assist any duly qualified person resident in their areas to enter or attend a Univ., Training Coll., etc.

Scholarships, etc., for Graduates. The following are open to graduates of all the Scot. Univs.: (1) Carnegie Scholarships (£150) and Fellowships (£250) and grants in aid of Research. Application forms supplied by the Carnegie Trust, 14 Hanover St., Edinburgh. (2) Ferguson—six of £80 each for 2 yrs. for graduates in Arts. Ferguson Bequest Fund, 94 Bath St., Glasgow. (3) M'Cunn—four of £100 for 1 yr., renewable, for medical research. M'Cunn's Trustees, 160 West George St., Glasgow. (4) Shaw Philosophical—£150 for 5 yrs. for graduates in Arts (in the Patronage of Edinburgh Univ.).

CONFERENCES of the four Univs. dealt with proposed Changes in the Regulations for the Degree of B.Sc. and (Nov. 1920, see above—FEES) with the raising of fees.

CARNEGIE TRUST FOR THE UNIVERSITIES OF SCOTLAND. Offices at Merchants' Hall, Hanover Street, Edinburgh. Secretary, Jas. Robb, LL.B.; Treasurer, Sir John Ross, LL.D.; Asst. Treasurer, Jas. Davidson.

The annual income of the Trust amounts to £120,000, one half of which is devoted to (A) the improvement and expansion of the Universities of Scotland in the faculties of Science, Medicine, History, and Mod. Langs., and extending opportunities for scientific study and research, and Technical or Commercial Univ. education; the other half to (B) assisting Scottish students in the payment of Univ. class fees. Any surplus not required for (B) in any year is to be devoted to (A) Institutions in Scotland recognized by the Executive Committee of the Trustees as preparing students for graduation or as providing technical or commercial education of University level are entitled to participate as regards (A) and their students as regards (B). Any surplus not required for (A) or (B) may be devoted to Univ. Extension work.

The Regulations for Assistance in the payment of Class fees provide, *inter alia*, that applicants should hold the Leaving Certif. of the Scottish Educn. Dept. bearing evidence of such preliminary education as is

required by the Univs. for their respective graduating curricula. Where for satisfactory reasons such Leaving Certif. has not been obtained, the Exec. Committee may accept instead what they deem equivalent evidence of attainments, provided that no applicant will be eligible who has to pass any further prelim. examn. before completing his graduating curriculum. The annual report of the Exec. Committee contains reports of experts on the work of beneficiaries and lists of papers published by them.

Research Fellowships, Scholarships, and Grants awarded for 1920–21: St. Andrews—23, value £3718; Glasgow—26, value £2286; Aberdeen—15, value £2212; Edinburgh—37, value £6203. Total—101, £14,419.

Class Fees paid for 1920–21: St. A.—£6025 for 424 beneficiaries; G.—£23,760 for 1837; A.—£12,289 for 922; E.—£23,209 for 1677.

Under a Fourth Quinquennial Scheme of Distribution for the period from Oct. 1, 1920, to Sept. 30, 1925, there has been allocated a sum of £224,300, distributed thus: St. A. centre—£37,200; G.—£69,500; A.—£42,250; E.—£75,350.

THE SCOTTISH STUDENTS' INTER-UNIVERSITIES CONFERENCE At this Conference, which is held annually, the students of the 4 Univs. meet to discuss matters of general interest to them all. The Conference is held in rotation at St. Andrews, Aberdeen, Glasgow, and Edinburgh. Its work, interrupted by the war, was resumed in Jan. 1920 at Edinburgh, where the 27th meeting was held. The Students' Representative Council of each Univ. sends 4 delegates, one of whom must be a woman-student. The convener of the International Academic Committee (v. *infra*) also attends and reports on the work of his committee. The President and Secretary of the Conference are the President and Secretary of the Students' Representative Council of the Univ. at which the Conference is held. A record of the work of each Conference is printed and distributed to each of the Univs concerned. By providing a common meeting-place for the students of the Scottish Univs., this Conference is largely responsible for the feeling of solidarity which is a marked feature of student life in Scotland.

INTERNATIONAL ACADEMIC COMMITTEE. Committees are appointed annually by the Students' Representative Councils to collect and publish information regarding foreign study. A Central Committee of the four Univs. will maintain Consuls at foreign Univs. to assist students. The establishment of a National Bureau is one of the items on the agenda at the next Conference of S.R.C. Communications in the meantime should be addressed to the Convener, International Academic Committee, S.R.C., The University, Glasgow.

UNIVERSITY OF ABERDEEN

CHANCELLOR—His Grace THE DUKE OF RICHMOND AND GORDON, K.G., G.C.V.O., C.B.

VICE-CHANCELLOR AND PRINCIPAL—Very Rev. Sir GEORGE ADAM SMITH, M.A., D.D., LL.D., Litt.D., F.B.A.

RECTOR—Rt. Hon Sir ROBERT S. HORNE, K.B.E., G.B.E., P.C., K.C., M.A , LL B.

SECRETARY OF THE UNIVERSITY—H. J. BUTCHART, B.L.

CLERK AND REGISTRAR OF GENERAL COUNCIL AND LIBRARIAN—P. J. ANDERSON, M.A., LL.B.

UNIVERSITY COURT

PRESIDENT—THE RECTOR.

THE PRINCIPAL, *ex officio.*

THE LORD PROVOST OF ABERDEEN, *ex officio.*

J. E. CROMBIE, M.A., LL.D.

Sir JOHN FLEMING, LL.D.

H. J. GRAY, M.A., B.L.

D. M. M. MILLIGAN, M.A.

GEORGE DUNCAN, M.A.

GEORGE SMITH, M.A., LL.D.

J. SCOTT RIDDELL, M.V.O., C.B.E., M.A., M.B., C.M., LL.D.

Prof. MATTHEW HAY, M.D., LL D.

Prof. W. L. DAVIDSON, M.A., LL.D.

Prof. J. B. BAILLIE, O.B.E., M.A., D.Phil.

Prof. H. M. MACDONALD, O.B.E., M.A., F.R.S.

PROFESSORS, LECTURERS, ETC., January 1, 1922

Accounting & Business Methods

Davidson, H. A., B.Sc., C.A. Lectr.

Agriculture, v. also Eng., Nat. Hist., Vet. Hyg.

Profeit, W. J., M.A., B.Sc. Agr. [Lectr.

Donald, G., B.Sc. Agr. Asst.

Marshall, J. (Agr. Book-keeping) Asst.

Findlay, W. M. Asst.

Agric. Botany

Clark, R. M., B.Sc., F.L.S. Lectr.

Coutts, E. H. M., M.A., B.Sc. Asst.

Agric. Chemistry

Hendrick, J., B.Sc. Lond. Strathcona-Fordyce Prof.

Hill, Alfred, B.Sc., B.Sc. Agr. Asst.

Anatomy, v. also Embryol.

Reid, R. W., M.D., F.R.C.S. Reg. Prof.

Lockhart, R. D., M.B. Lectr.

Don, A. V. R., M.B. Asst.

Brown, Isobel G., M.B. Asst.

Mulligan, J. H., M.B. Asst.

Art

Kelly, W., LL.D. Lectr.

Townend, H. Lectr.

Profs. Baillie and Harrower Lectrs.

Banking

Cowie, R. H. Lectr.

Bio-Chemistry

..... Lectr.

..... Research Lectr.

Biology, v. Nat. Hist.

Botany, v. also Agric.
Craib, W. G., M.A., F.L.S. Reg. Prof.
Skene, MacG., D.Sc. Lectr. in Veg. Physiol.
Barnett, Euphemia C., B.Sc. Asst.
Downie, D. G., B.Sc., B.Sc. (For.) Edin. Asst.

Celtic
MacDonald, John, M.A. Lectr.

Chemistry, v. also Agric.
Findlay, Alexr., M.A., D.Sc., Ph.D. Leip. Prof.
Gray, F. W., M.A., D.Sc. Lectr.
Thomas, Wm , M.Sc. Wales, B A Camb., A.I.C. Lectr.
Reade, T. H., M.Sc. Birm., B.A. Camb., A.I.C. Lectr.
Bloom, E., B.Sc. Lond. Asst.
Evans, W. J. R., B.Sc. Wales. Asst.
Humphries, J. E., M.Sc. Wales, B.A. Lond and Camb. Asst.

Classics
Harrower, J., LL.D. Glas., M.A. (Greek) Reg. Prof.
Robertson, Mary W. U., M.A. (Lectr. in Gk. Hist.) Asst.
Mordaunt, Frances G., M.A. (Lectr. in Gk. Hist., Lit. and Art) Asst.
Souter, A., M.A., D.Litt. (Humanity) Reg. Prof.
Smith, A. J., M.A., D.Litt. (Latin) Lectr. & Asst.
Weir, R., M.A. (Rom. Hist.) Lectr. & Asst.
Kennedy, W. D., M.A. Asst.

Economics, v. Pol. Econ.

Education
Clarke, J., M.A. Belf. Lectr.
McClelland, W. W., M.A., B.Sc., Ed.B. Edin. Lectr.

Embryology
Low, A., M.A., M.D. Lectr.

Engineering, Agricultural
Horne, A. R., O.B.E., B.Sc. Lond. Lectr.
Stewart, F. R., B.Sc. (Eng.) Glas. Asst.

English
Jack, A. A., M.A. Glas., LL.M. Camb. Reg. Prof. of E. Lit.
Taylor, W. D., M.A. Glas., B.A. Ox. & Aberd. Lectr.
Abbott, C. C., M.A. Lond., B A. (Res.) Camb. Lectr.
Jack, P. M., M.A. Asst.

Fisheries, Scientific Study of
Fulton, T. A. W., M.D. Edin. Lectr.

Forestry [Lectr.
Leslie, P., M.A., B.Sc., B.Sc. Agr.
Fraser, G. K., M.A., B.Sc., B.Sc. For. Lectr. in Soils.

Forest Botany and Entomol.
Watt, A. S., B.A. Camb., M.A., B.Sc. Agr. Lectr.

French
Casati, E., L. ès L. Lyons Intm. Lectr. French and Lectr. Comml. F.
Harper, Margaret G., M.A. Asst.
Tourret, Jean, L. ès L. Gren. Asst.

Geography
McFarlane, J., M.A. Edin., M.Com. Manc., B.A. Camb. Lectr.

Geology
Gibb, A. W., M.A., D.Sc. Lectr.
Smith, Margaret, M.A., B.Sc. Asst.

German
Bruford, W. H., M.A. Camb. Lectr.
Jamieson, Ruth C., M.A. (Lectr. in G. Hist.) Asst.

Hebrew and Semitic Langs.
Gilroy, J., D.D. St. And., M.A. Reg. Prof.

History, v. also Law, Theol.
Terry, C. S., M.A., Litt.D. Camb. Burnett-Fletcher Prof.

Simpson, W. D., M.A. Lectr.
Kellas, J., M.A. Asst.

Law, v. *infra*

Logic [Reg. Prof.
Davidson, W. L., M.A., LL.D.
Dickie, W. M., M.A. Asst.

Mathematics
Macdonald, H. M., O.B.E., M.A., F.R.S. Prof.
Goodwillie, J., M.A. Camb. & Edin., B.Sc. Edin. Lectr. & Asst.
Barron, Williamina A., M.A., B.Sc. Asst.

Medicine, v. *infra*

Natural History, v. also Bot., Fish. [Reg. Prof.
Thomson, J. A., M.A., LL.D Edin.
Rennie, J., D.Sc. (Parasitology) Lectr.
Neill, R. M., M.A. Glas. (Zool.) Asst.
Allan, J. K., B.Sc. (Zool.) Asst.

Philosophy, Moral, v. also Logic, Psych.
Baillie, J. B., O.B.E., M.A. Camb., D.Phil. Edin. Reg. Prof.
Mitchell, J. S., M.A., B.Sc. Glas. (Pol. Sc. & Sociol.) Lectr. & Asst.

Philosophy, Nat.
Niven, C., D.Sc. R.U.I., M.A., F.R.S. Prof.
Fyvie, W. W., D.Sc. Lectr.
Geddes, A. E. M., O.B.E., M.A., D.Sc. Lectr.
Jack, Jessie M., M.A. Asst.

Physiology [Reg. Prof.
MacWilliam, J. A., M.D., F.R.S.
Reid, C., M.A., B.Sc., M.B. (Expl. P.) Lectr.
Fyfe, G. M., M.B. Asst.
Cormack, Gertrude E., M.B. Asst.
Orr, J. B., M.A., D.Sc., M.D. Glas. Lectr. (P. of Nutrition).

Political Economy, v. also Stats.
Gray, A., M.A. Edin. Jaffrey Prof.
Forrester, R. B., M.A. Edin., M.Com. Manc. Lectr.
Macdonald, Annie, M.A. (Lectr. in Pub. Finance) Asst.
Birnie, A., M.A. Edin. (Econ. Hist.) Lectr.

Polit. Sc., v. Philos.

Psychology, Comparative
McIntyre, J. L., O.B.E., M.A. Edin. & Ox., D.Sc. Edin. Anderson Lectr.

Public Speaking
Mursell, W. A. Lectr.

Spanish
Davidson, C., M.A. Lectr.

Statistical Methods
Tocher, J. F., D.Sc. Lectr.

Theology
Baird, A. C., M.A., B.D., B.Sc. Glas. (Bibl. Crit.) Reg. Prof.
Cowan, H., M.A. Edin., D.C.L. Durh., D.Th. Geneva, D.D. (Church Hist.) Reg. Prof.
Fulton, W., M.A., D.D., B.Sc. Glas. (Systematic T.) Prof.

Veterinary Hygiene
Brown, Wm., M.R.C.V.S. Lectr.

Zoology, v. Nat. Hist.

Law

Scots L., Roman L., Jurispr.
Stuart, A. M., K.C., LL.B. Edin., M.A. Prof.

Constit. L. and Hist.
Williamson, R. M., LL.B. Edin., M.A. Lectr.

Conveyancing
Morrison, A. C., O.B.E., M.A. St. And., LL.B. Glas. Lectr.
Masson, R. P., M.A., LL.B. Asst.

Internat. L., Public and Private
Duncan, G., M.A. Lectr.

Procedure and Evidence & Merc. Law for Comml. Students
Blacklaw, A., M.A. Clark Lectr.

Medicine (for subjects of the first 2 yrs.—Anat., etc., v. *supra*)

Bacteriology
..... Lectr.

Forensic Med.
Hay, M., M.D., LL.D. Edin. Prof.
Richards, R, M.A., M.D., F.R.C.S.E. Asst.
Williamson, G., M.A., M.B. (Med. Ethics) Lectr.

Materia Medica
Marshall, C. R., M.A. Camb., M.D. Manc. Reg. Prof.
Hendry, A. W., M.D. Asst.
Davidson, Bessie M., M.B. St. And. Asst.

Medicine
Mackintosh, A. W., M.A., M.D. Reg. Prof.
Anderson, A. G., M.A., M.D., M.R.C.P. Lond. Asst.

Midwifery
McKerron, R. G., M.A., M.D. Reg. Prof.
Semple, R., O.B.E., M.D. Asst.

Pathology [Wilson Prof.
Shennan, T., M.D., F.R.C.S. Edin.
Fraser, D. M. M., M.B., Ch.B. Asst.
Clark, R. J., M.B. Asst.
Buchan, Wm., M.B., Ch.B. Asst.
Cruikshank, J., M.D. Glas. Research Lectr.
Lockhart, Jeannie, M.P.S. Asst.

Public Health
Kinloch, J. P., M.D. Glas. Lectr.
Brown, F. W. C., M.B. Asst.
Berry, D , M.B. Asst.

Surgery
Marnoch, J., C.V.O., M.A., M.B., C.M. Reg. Prof.
Colt, G. H., M.B., B.Ch. Camb., F.R.C.S. Asst.

Tropical Medicine
Williamson, G. A., D.T.M. Liv., M.A., M.D. Lectr.

GENERAL INFORMATION (v. also p. 219)

The " University and King's College of Aberdeen," founded under a Papal Bull in 1494, and the " Marischal College," founded in 1593 by George Keith, Earl Marischal, were reconstituted in 1860 as " The University of Aberdeen." Certain of the original buildings remain, notably the Chapel (A.D. 1500).

The LIBRARY, founded in 1500, has 250,000 vols. and 200 Incunabula, some unique. It is especially rich in Celtic literature, and books bearing on the history, topography, and antiquities of the Scottish Highlands, and Classical Archaeology. Annual budget about £3500. MUSEUMS: Anthropological (illust. cat. 1s.), Surgical (2500 specimens and 600 instruments), etc. Besides the usual LABORATORIES there is one for Agric. Research with special reference to *Animal Nutrition*, under the management of a joint committee of the Univ. and the N. of Scotland College of Agric. Hospitals available for clinics: Infirmary, 230 beds; Children's, 85 ; Fever, 100; Lunatic Asylum, 700.

DEGREES, ETC. (v. p. 221). For the Diploma courses (2 yrs.) in Agric. and Forestry there is a preliminary examn. in English and Maths. The papers in the Final examn. in Agric. are the same as those set for the B.Sc.Agr. The only other Diploma conferred is the D.P.H. Univs. outside the United Kingdom which have been recognized by the Univ. Court *pro tanto* as institutions in which 3 of the requisite 5 yrs. of medical study may be taken, provided that the prescribed conditions with reference to such study are fulfilled: Bom , Calc., Mad., Adel., Melb., Syd., N.Z., S. Africa, Dal., Queen's

(Kingston), Tor., McGill, Chic., Corn., J.H.U., Harv., Stanf., Mich., Penn., Yale. Individual teachers in other Univs. may be recognized upon satisfying the Univ. Court with respect to their courses. The following have been recognized in respect of courses and examns. in Bot., Zool., Biol., Physics, and Chem. qualifying for a degree in Science or in Arts or in Med.: Bom., Calc., Mad., All., Panj., Melb., Syd., Adel., Queen's (Kingston), McGill, Tor., Manit., S. Africa. The courses and examn. in Anat. and Physiol. for the Science degree of the Univ. of Cape Town have been recognized.

FEES (v. also p. 222). Inclusive fees for tuition: B.D., 40 gs.; LL.B., 40 gs. (28 gs. for a M.A. of the Univ.); B.L., 30 gs.; M.A. and B.Sc. taken together, 112½ gs.; M.A. and B.Com., 75 gs.; B.Sc. and B.Com., 112½ gs.; M.B., Ch.B., 90 gs.; M.A., M.B., Ch.B., 126 gs.; B.Sc., M.B., and Ch.B., 168 gs.; M.A., B.Sc., M.B., and Ch.B., 202 gs. The total cost of the whole medical curriculum, including hospital fees, classes, matricn., and degree fees, is usually about £248. The degree fees for the Doctorates are from 10 to 20 gs. The fee for the D.P.H. is 8 gs.

SCHOLARSHIPS, ETC., for graduates (v. also p. 223) about 25; aggregate annual value about £1600.

RESIDENCE. No Univ. Hostel. List of lodgings kept by Students' Repve. Council.

PUBLICATIONS. *Calendar* (Sept.), 4s. 6d.; *Univ. Review*, 7s. 6d. p.a. (3 issues); *Students' Handbook* (Nov.), 1s; *Univ. Libr. Bulletin*, 2s. 6d. p.a. (2 issues).

THE YEAR 1920–21

BENEFACTIONS. Sir Thos. Jaffrey, £20,000 endowment for chair of Pol. Econ.; Mrs. W. Stewart Thomson, in memory of her late husband, £700 foundation of Bursary in Divinity; Sir Wm. Noble, 10 gs. for prize for Poem in Braid Scots; Soc. of Acctts., Aberd., £5 for prize.

NEW BUILDINGS for Botany Dept. in course of erection.

OTHER DEVELOPMENTS. Spanish recognized as a subject qualifying for M.A. degree.

NUMBER OF STUDENTS. Total, matriculated, 1918–19 to 1920–21: 1187, 1531, 1655 (including women, 418, 486, 523). In 1920–21: graduating, 1525; diploma, 127; research, 3. Students from overseas: Africa, 28, Jamaica, 9, Asia, 12; Aust., 1; America, 3; Switz., 1.

HONORARY DEGREES CONFERRED. D.D.—Principal E. E. Anderson, Bishop E. D. Logie Danson, Prof. E. de Faye, Prof. J. A. Robertson, D. G. Barron, W. MacConachie; LL.D.—Prof. W. M. Bayliss, J. M. Bulloch, Sir George Carmichael, Sherift J. M. Irvine, Sir Thos. Middleton, Genl. Sir George F. Milne, Rt. Hon. R. Munro, Prof. R. S. Rait.

OTHER DEGREES. M.A.—112 (including women, 53); Ed.B.—2; B.Sc—18 (women, 6); B.Sc.Agr.—13; B.Sc.For.—2; B.Com.—1; B.D.—2; LL.B and B.L.—4; M.B., Ch.B.—65 (women, 25); Doctors—5.

DEATH. W. Scholle, Lectr. in French.

EXTERNAL WORK. Lectures on Art, 157; Tutorial Classes in Indust. Hist., 17; Engl. Lit., 31; Theory of Govt., 15.

UNIVERSITY OF EDINBURGH

CHANCELLOR—Rt. Hon. A. J. BALFOUR, O.M., D.C.L., LL.D.

VICE-CHANCELLOR AND PRINCIPAL—Sir J. ALFRED EWING, K.C.B., M.A., D.Sc., LL.D., F.R.S.

RECTOR—Rt Hon. D. LLOYD GEORGE, O.M., D.C L , LL.D

SECRETARY TO THE UNIVERSITY—WILLIAM WILSON, M.A., LL.B , Advocate.

UNIVERSITY COURT

PRESIDENT—THE RECTOR, *ex officio.*

THE PRINCIPAL, *ex officio.*

The Rt. Hon. THE LORD PROVOST OF EDINBURGH, *ex officio.*

The Hon. LORD DUNDAS, B.A., LL.D., D.L.

JAMES WALKER, C.A., LL.D.

Judge F. J. ROBERTSON.

R. M'KENZIE JOHNSTON, M.D.

J. ROBERTON CHRISTIE, LL.B., K.C.

SIR GEORGE A. BERRY, M.B.

J. B. CLARK, M.A.

Prof Sir JOHN RANKINE, K.C., M A., LL.D.

Prof. T. HUDSON BEARE, B.A., B.Sc., M.I.C.E.

Prof. Sir RICHARD LODGE, M.A., LL.D.

Prof. J. RITCHIE, M.A., M.D.

PROFESSORS, LECTURERS, ETC., January 1, 1922

Accounting and Business Method
Laird, T. P., M.A., C.A. Prof.
Stewart, G. D., C.A. Asst.

Actuarial Science
Robertson, W. A., F.F.A. Lectr.
Gunn, G. O., F.F.A. Lectr.

Agriculture and Rural Economy, v. also Bot. and Forestry
Wallace, R., M.A. Prof.
Watson, J. A. S., B.Sc. Lectr.
Bruce, W., B.Sc. Lectr.

Agric. and Forest Entomol.
MacDougall, R. S., M.A., D.Sc. Reader.

Anatomy
Robinson, A., M.D. Prof.
Jamieson, E. B., M.D. Lectr.
..... Asst.

Anatomy, Applied
Jardine, F. E., M.B. Lectr.

Anatomy, Comparative
Bradley, O. C., M.D., D.Sc. Lectr.
Grahame, Tom, M.R.C.V.S. Asst.

Anatomy, Morbid
Alexander, W. A., M.B. Lectr.

Anthropology and Prehistoric Archæol.
..... Munro Lectr.

Arabic
Bell, Richard, M.A., B.D. Lectr.

Art (*Fine Art*)
Brown, G. Baldwin, M.A. Ox. Prof.

Astronomy
Sampson, R. A., M.A.Camb., D.Sc., F.R.S. Reg. Prof.

Banking
M'Neil, A., S.S.C. Bruce Lectr.

Biology, v. Nat. Hist.

Botany, v. also Forestry
Balfour, Sir I. B., K.B.E., M.D., D.Sc., F.R.S. Reg. Prof.
Smith, J. L. S., M.A., B.Sc. (Forest B.) Lectr.
Watt, Sir G., C.I.E., M.B., C.M., LL.D. Aberd. & Glas., F.L.S. (Indian Forest Trees) Lectr.
Matthews, J. R., M.A., B.Sc. Lectr.
Wilson, M., D.Sc. (Mycol. and Bacteriol.) Lectr.
Graham, R. J. D., D.Sc. (Plant Physiol.) Lectr.
..... Asst.

Celtic Languages, etc.
Watson, W. J., M.A. Ox., LL.D. Prof.

Chemistry
Walker, Sir J., D.Sc., F.R.S. Prof.
Barger, G., M.A. Camb., D.Sc., F.R.S.
Prof. of C. in relation to Med.
Dobbin, L., Ph.D. Lectr.
Mackenzie, J. E., D.Sc., Ph.D. Lectr.
Kay, S. A., D.Sc. Lectr.
Rule, H. G., Ph.D., D.Sc. Lectr.
Shoesmith, John B., M.Sc. Lectr.
Ross, J. D. M., M.A., B.Sc. Lectr.
Bolam, T., M.Sc. Lectr.
Mitchell, R. K. S., B.Sc. Asst.
Mackenzie, Mary E., B.Sc. Asst.
Numbers, Annie H., M.A., B.Sc. Asst.
Stedman, E., B.Sc. Asst.
M'Michael, Dorothy, B.Sc. Asst.
Robson, W., B.Sc. Asst.
Smith, A. M., B.Sc. Asst.
Smith, John, B.Sc. Asst.
Fairweather, D. A., M.A., B.Sc. Asst.
Stewart, C. P., B.Sc. Asst.
Coutie, A., B.Sc. Asst.

Chemistry, Technical
Cottrell, Allin, M.Sc. Lectr.

Classics
Mair, A. W., M.A. Camb., Litt.D. Aberd. (Greek) Prot.
Kerr, R. B., M.A. (Greek) Lectr.
Richmond, O. L., M.A. Camb. (Humanity) Prof.
Mill, J., M.A. (Latin) Lectr.
Mountford, J. F., M.A. (Latin) Lectr.
Nicolson, Catherine A., M.A. (Latin) Lectr.
Steuart, E. M., M.A. (Latin) Lectr.

Commerce, and Organization of Industry [Lectr.
Oliver, W., B.Sc., A.M.I.C.E. (v. also Acc., Banking)

Commercial and Polit. Econ. and Merc. Law, v. also Law
Nicholson, J. S., M.A. Lond., Sc.D. Camb. Prof.
Rees, J. F., M.A. (Econ. Hist.) Lectr.
Rankin, Mary T., M.A., D.Phil. Lectr.
Joynt, Thomas A., M.A. Lectr.
Fenelon, K. G., M.A. Lectr.
Carse, G. A., M.A., D.Sc. (Statistics and Math. Econ.) Lectr.

Divinity
Paterson, W. P., LL.D. Penn., M.A., D.D. Prof.
Campbell, Colin, D.D.
Gunning Lectr. 1921-22
Curtis, W. A., M.A., D.Litt., D.D.
Reg. Prof. of Biblical Criticism & Bib. Antiq.
..... Asst.
Mackinnon, J., M.A., Ph.D., D.D.
Reg. Prof. of Eccl. Hist.

Pringle Pattison, A. S., LL.D., Prof. Gifford Lectr. on Natural Theol.

Economics, v. Comm.

Education

Darroch, Alex., M.A. Prof.
Fraser, D. Kennedy, M.A., B.Sc. Lectr.
Beckersteth, Marguerite E. Asst.
Young, Margaret, M A. Asst.

Engineering

Beare, T. H, B.A., B Sc. Adel., M.I.C.E. Reg Prof.
Kerr, W. Hume, M.A., B Sc. (Drawing, etc.) Lectr.
Todd, J. B., B.Sc., A.M.I.M.E. (Surv. & Hydraulics) Lectr.
Gordon, W., B.Sc., A.M.I.M.E. (Strength of Mats. and Forest Engin.) Lectr.
Stewart, David S., A.M.I.C.E. Lectr.
3 Assts.

English Lit. and Rhetoric

Grierson, H. J. C, M.A. Aberd., B.A. Ox., LL.D. St. And. Reg. Prof.
Kitchin, G., M.A., B.Litt. Lectr.
Dickins, Bruce, M.A. Lectr.
Hislop, Gordon, M.A. Lectr.
Cumming, Lucy M., M.A. Asst.

Entomology, v. Agric.

Forestry, v. also Agric., Bot., Engin.

Stebbing, E. P., M.A. Prof.
Pike, J. L., M.A., B.Sc. Lectr.
Fergusson, D. C., B.Sc. Lectr.

French and Rom. Philol.

Sarolea, C., K.O.L., Ph.D., D.Litt. Liége, D.Jur. Cleve. Prof.
Moore, J. M., M.A. Lectr.
Burns, Mary, M.A., D. de l'U. Paris Lectr.
Requilé, Mlle. Asst.
Battistini, Pierre Asst.

Geography [Reader.
Chisholm, G. G., M.A., B.Sc.

Lennie, Alice B., M.A., B.Sc. Lectr. and Asst.

Geology

Jehu, T. J., M.A., M.D. Reg. Prof.
Campbell, R., M.A., D.Sc. (Petrology) Lectr.
Finlay, T. M., M.A., B.Sc. (Palæont.) Lectr.
Craig, Robert, M.A., B.Sc. (Econ. Geol.)
Allan, Douglas A., B.Sc. Asst.

German and Teutonic Philol.

Schlapp, O., Ph.D. Reader.
Eggeling, H. F., M.A. Lectr.
Barker, Marie, M.A. Asst.

Hebrew and Semitic Langs.

Kennedy, A. R. S., D D. Glas and St. And. Prof.
Weir, Cecil J. M. Asst.

Histology, v. Physiol.

History, v. also Comm., Div.

Lodge, Sir Richard, M.A. Ox., LL.D. Glas. Prof.
Heatley, D. P., M.A. (Political Science) Reader.
Melville, E. W. M. B., M.A. Lectr.
Williamson, Mary G., M.A. Asst.

History, Ancient (Gk. & Roman)

Giles, A. F., M.A. Lectr.

History, Ancient, and Palæog.

Hannay, R. K., M.A. Glas. and Ox. Prof.
Lemon, Miss E., M.A. Asst.

History, Colonial and Indian

Ewing, J., M.A. Lectr.

History, Const. Law and Const.

Millar, J. H., M.A. Ox., LL.B. Prof.

Italian

Purves, J., M.A. Lectr.

Law, v. *infra*

Mathematics

Whittaker, E. T., M.A. Camb., Sc.D., F.R.S. Prof.
Horsburgh, E. M., M.A., D.Sc., A.M.I.C.E. Reader.

Tweedie, C., M.A., B.Sc. Lectr.
Gibb, D., M.A., B.Sc. Lectr.
Baker, B. B., M.A., B.Sc. Lectr.
Robinson, G., M.A. Asst.

Mathematics, Applied
Knott, C. G., M.A., D.Sc., LL D. St. And., F.R S. Reader.

Medicine and Surgery, v. *infra*

Music
Tovey, D F., B A., D Mus. Ox., Mus M. Reid Prof.
Shirlaw, M., Mus.D. Lectr.
Dunn, J. P., Mus.B. Lectr.

Natural History
Ewart, J. C., M.D., F.R.S. Prof.
Ashworth, J. H., D.Sc., F.R.S. Prof. (Zool.).
Patton, Major W. S., I.M.S. Lectr.
Stephenson, J., M.B., D.Sc. Lectr.
Purser, G. L., M.A. Asst.
Crew, F. A. E., M.B. Lectr.
Lamont, Augusta, B.Sc. Asst.
Beard, J., D.Sc. Lectr. (Comp. Embryol., etc.).

Philology, v. French, Ger., Sansk.

Philosophy
Smith, N. Kemp, M.A., D.Phil. St. And , LL.D. Prof.
Hardie, R. P., M.A. (Ancient P.) Reader.
Anderson, J., M.A. Lectr.
Davidson, A. N., M A. Asst.
Gray, Marion I., M.A. Asst.

Philosophy, Moral, v. also Psych.
Seth, J., M.A., LL.D., Prof.
Barker, H., M.A. Lectr.

Philosophy, Natural
Barkla, C. G., M.A. Camb., D.Sc. Liv., F.R.S., Nobel Laureate Prof.
Allen, H. S., M.A., D.Sc. Reader.
Carse, G. A., M.A., D.Sc. Lectr.
Milne, J. R., D.Sc. Lectr.
Dunbar, R. T., M.A., D.Sc. Lectr.
Jack, D., M.A., B.Sc. Nichol Asst.
Buchanan, Miss R. C., M.A., B.Sc. Asst.
Watson, W. H., M.A. Asst.
Cranfield, R. V. Asst. (Mechanics).

Physiology
Schafer, Sir E. A. Sharpey, LL.D., F.R.S. Prof.
Taylor, W. W., M.A , D.Sc. (Chem. P.) Lectr.
Walker, May L., M.A., B.Sc., M.B. (Expl. P.) Lectr.
Lim, R. K. S., M.B. (Histol.) Lectr.
Bruce, A. N., M.D., D.Sc. (P. of Nervous System) Lectr.
McDowall, R. J. S., M.B. Lectr.
Ponder, E., M.B. Lectr.
Dryerre, H., M.R.C.S. Asst.
Purves, J. E., M.B. Asst.
Dott, N. M , M.B. Asst.
Charlton, Dorothy D. Asst.

Pol. Econ., Sc., v. Comm., Hist.

Psychology
Drever, J., M.A., B.Sc. Lond., D.Phil. Lectr.
Collins, Mary, M.A., B.Ed. Asst.

Public Health
Stewart, C. Hunter, M.B., C.M., D.Sc. Prof.
Young, J. B., M.B., D.Sc. Lectr.
Hendry, Miss W. W., M.B. Asst.

Rhetoric, v. English

Russian [Lectr.
Brennan, H. G., M.A., L. ès. L.

Sanskrit and Comp. Philol.
Keith, A. Berriedale, M.A., D.Litt., D.C.L. Reg. Prof.

Semitic Langs., v. Hebrew

Spanish
Walton, L. B., B.A. Lectr.

Statistics, v. Comm.

Theology, v. Divinity

Zoology, v. Nat. Hist.

Law

Administrative
Wood, P. F., M.A., LL.B., B.A. Ox. Lectr.

Civil
Mackintosh, J., K.C., M.A. St. And., B.A. Ox., LL.D Prof.
Mackintosh, C., B.A., LL.B Asst.

Constitutional, v. Hist.

Conveyancing
Mounsey, J. L., W.S. Prof.
Grant, J. A. Asst.

English Law [Lectr.
Murdoch, H. Burn, B.A., LL.B.

Evidence and Procedure
Lewis, W. J., M.A. Ox., B.L., S.S.C. Lectr.

Industrial and Merc., v. also Comm.
Aitken, H., K.C. Lectr.
Lillie, J. A., M.A., LL.B Asst

International, Private
Dykes, D. O., M.A., LL.B. Lectr.

Landlord and Tenant
Cowan, John, K.C. Lectr.

Public
Grant, Sir Ludovic J., Bart., B.A., LL.D. Reg. Prof.

Scots [Prof.
Rankine, Sir J., M.A., K.C., LL.D.
Stevenson, W. H., M.A., LL.B. Asst.

Medicine (for subjects of the first 2 yrs.—Anat., etc., v. *supra*)

Anæsthetics
Jones, M. H. Howard, M.B. Demr.

Bacteriology, v. Path.

Children, Diseases of
Fowler, J. S., M.D., and Staff of Hospl. for C. Lectrs.

Dermatology, Clinical
Walker, N., M.D. Lectr.
Gardiner, F., M.D. Lectr.
Low, R. C., M.B. Lectr.

Eye, Diseases of the
Paterson, J. V., M.B. Lectr.
Sinclair, A. H. H., M.D. Lectr.
Traquair, H. M., M.D. Lectr.
Cameron, E. H., M.B. Clin. Tutor.

Forensic Med. [Reg. Prof.
Littlejohn, H., M.A., M.B., B.Sc.
..... Asst.

Gynæcology, Syst. and Clin.
Ferguson, J. Haig, M.D. Lectr.
Fordyce, W., M.D. Lectr.
Johnstone, R. W., M.A., M.D. Lectr.
Young, Jas. A., M.D. Lectr.
Browne, F. J., M.D. Tutor.
Miller, D. A., M.B. Tutor.

History of Med. [Lectr.*
Comrie, J. D., M.A., B.Sc., M.D.

Infective Fevers
James, A., M.D. Lectr.
Ker, C. B., M.D. Lectr.

Laryng., Ot., and Rhinology
Turner, A. L., M.D. Lectr.
Fraser, J. S., M.B. Lectr.
Lithgow, J. D., M.B. Lectr.
Gardiner, W. T., M.B., Ch.B. Lectr.
Martin, G. E., M.B. Lectr.

Materia Medica, v. also Pharm.
Cushny, A. R., M.A., M.D., LL.D., F.R.S. Prof.
Lambie, C. G., M.B. Lectr.
Crawford, J. H., M.B. Asst.
Mayrs, E. B., M.D. Asst.

Medicine and Clin. Med.
Gulland, G. L., C.M.G., M.A., B.Sc., M.D. Prof.
Mathewson, G. D., M.D., B.Sc. Asst. (Med.).*

Medicine, Clinical
Boyd, F. D., C.B., M.D. Moncrieff-Arnott Prof.
The Prof. of Therap. Sr. Lectr.
Fleming, R. A., M.D. Sr. Lectr.
Rainy, H., M.A., M.D. (also in Physical Methods) Sr. Lectr.
Watson, D. C., M.D. Sr. Lectr.
Bramwell, E., M.D. (also in Neurology) Sr. Lectr.

* Lectr. in Clin. Med.

Matthew, E., M.D. Sr. Lectr.
Ritchie, W. T., M.D. Lectr.
Goodall, A., M.D. Lectr.
Eason, J., M.D. Lectr.
Comrie, J. D., M.D. Lectr.
Mathewson, G. D., M.D., B.Sc. Lectr.
Lyon, D. M., M.B. Lectr.
Hewat, A. F., M.B. Lectr.
Smith, G. L. M., M.B. Asst. & Tutor.
Cran, D. H. D., M.D. Tutor.
Davidson, Jas., M.B. Tutor.
Ritchie, A. G., M.B. Tutor.
Smith, A. N., M.B. Tutor.
Rutherford, A., M.B. Tutor.
Matheson, A. R., M.B. Tutor.
Crawford, J. H., M B. Tutor.

Mental Diseases, v. Psychiat.

Midwifery
Barbour, A. H. F., M.D. Prof.*
Ballantyne, J. W., M.D. Lectr.

Clin. Lectrs.:
Ferguson, J. H., M.D.
Fordyce, W., M.D.
Johnstone, R. W., M.D.
Young, Jas., M.D.
Lackie, J. L., M.D.
Nicholson, H. O., M.D.
McGibbon, J., M.B.
Davidson, H. S., M.B.

Neurology, v. Med. Clin.

Orthopædics
..... Lectr.

Pathology and Bacteriology, v. also Anat. Morb.
Smith, J. Lorrain, M.A., M.D., F.R.S. Prof.
Ritchie, J., M.A., M.D. Irvine Prof.
Reynolds, F. E., M.B. Lectr.
Macartney, J. E., M.B. Lectr. in B.
Findlay, G. W. M., M.D. Lectr.
Mailer, R., M.B. Asst.
Macgregor, Agnes R., M.B. Asst.
Sprunt, T., M.B. Asst.

* Clin. Lectr. in Midw.

Hastings, T. E., M.B. Asst.
Davidson, Jas., M.B. Asst.
Muir, R. Demr. of Methods.

Pharmacology, Expl., and Mat. Med.
Sillar, W. C., M.D., B.Sc. Lectr.

Physical Methods, v. Med. Clin.

Psychiatry
Robertson, G. M., M.D. Prof.

Pub. Health, v. *supra*

Surgery
Thomson, H. Alexis, C.M.G., M.D., F.R C.S. Prof.
Graham, J. M., M.B , Ch.M. Lectr. & Asst.
Watson, A. Pirie, M.B., Ch.M. Asst.
Bell, F. Gordon, F.R.C.S Asst.

Surgery, Clinical [Reg. Prof.
Stiles, Sir Harold J., M.B., C.M.
The Prof. of Surg. Senr. Lectr.
Hodsdon, Sir J. W. B., M.D. Senr. Lectr.
Wallace, Sir D., C.M.G., M.B. Senr. Lectr.
Miles, A., M.D. Senr. Lectr.
Dowden, J. W., M.B. Senr. Lectr.
Skirving, A. A. S., C.M.G., M.B. Senr. Lectr.
Wilkie, D. P. D., O.B.E., M.D., Ch.M. Lectr. & Asst.

Surg. Pathology
Graham, J. M., M.B., Ch.M. Lectr.

Therapeutics
Meakins, J. C., M.D. Prof.
Davies, H. W., M.B., B.Sc. Asst.
Harington, C. R., B.A. Asst.

Tropical Climates Diseases
Marshall, Lt.-Col. D. G., M.B., I.M.S. Lectr.

Tuberculosis
Philip, Sir R. W., M.A., M.D. Prof.
Hewat, A. F., M.B. Asst.†
Simpson, J. C., M.B. Asst.

Venereal Diseases
Lees, David, M.D. Lectr.

† Lectr. in Clin. Med.

ASSOCIATED COLLEGES, in which Univ. courses are provided at Edinburgh.

EDINBURGH AND EAST OF SCOTLAND COLLEGE OF AGRICULTURE. Director, Alex. Lauder, D.Sc.

HERIOT-WATT COLLEGE. Principal, A. P. Laurie, D.Sc.

NEW (UNITED FREE CHURCH) COLLEGE. Principal, Alex. Martin, D.D.

ROYAL (DICK) VETERINARY COLLEGE. Principal, O. C. Bradley, M.D., D.Sc.

GENERAL INFORMATION (v. also Scottish Univs.)

Originally the "Town's College," founded in 1583 by the Town Council under general powers granted by Royal Charter, April 14, 1582. The Old College on the site of "Kirk o' Field," the scene of the murder of Lord Darnley, was designed by Robert Adam, and completed in 1838. New buildings include the McEwan Hall (1888–97), in theatre form, which holds 2600 people and has a great electric organ. The Medical School of this Univ. has been famous for many generations; specially ample provision exists also for instruction and research in Theology (post-graduate school instituted 1919), Agric., Forestry, Engin., and Vet. Sc. Edinburgh is the seat of the Scottish Supreme Courts of Law.

LIBRARY, founded in 1580, 300,000 vols., 8000 MSS., includes special collections—Shakespearean, Sanskrit, Celtic, Persian, and Arabic MSS., Economics (Hodgson), Math. tables by E. Sang., transactions of Engin. Societies in Great Britain and America. MUSEUMS: Nat. Philos., Fine Art, Geol., Nat. Hist., Chem., Forestry, Agric., Entom. and Forest Zool. (Waterhouse collection of Coleoptera), Anat. (founded with the Monro collection in 1800; numerous specimens of Cetacea and human crania), Physiol., Mat. Med. (notable collections of medicinal and food substances, including those of Duncan and Christison), Forensic Med., Practice of Physic, Surg., Obst. (Simpson collection), Music and Musical Instruments. The Prof. of Botany is Regius Keeper of the Royal Bot. Garden. The Prof. of Astronomy is Astronomer Royal for Scotland and gives practical courses at the *Royal Observatory*. The LABORATORIES are especially well equipped for research in Anat., Anthrop., Bact., Chem. (a section of the new Laboratories at King's Buildings is now in use; when completed there will be accommodation for about 400 students), Engin. (notably Hydraulics, Strength of Materials, Elec. Engin.), Mat. Med., Path., Physics, Physiol., Psych., Pub. Health (Institute built 1902, costing £21,000). The Univ. has a table at the Millport Marine Station. HOSPITALS: the Royal Infirmary adjoining the Univ. provides over 900 beds for clinical teaching, in addition to the Children's, Maternity, and Fever Hospls., and Lunatic Asylums. Over 50 resident posts in these are given annually to Med. graduates.

DEGREES AND DIPLOMAS (v. Scottish Univs.). A diploma in *Education* is granted on completion of Univ. courses (1 yr.) and passing examns. in Psych., Theory and Hist. of E., and modern E. Systems and Problems. Candidates must have attended a course of Professional training or have had at least 3 yrs.' experience as a teacher, and must have completed a graduation course in Arts. Diplomas are also granted in *Actuarial Mathematics* (2 yrs.), *Forestry* (2 yrs.—certificate only, 1 yr.—open only to ex-Service men), *Geography* (open to graduates or students about to graduate in Arts or Science).

A candidate for the B.Sc. in *Vet.Sc.* must (i.) have passed the Prelim. examn. for degrees in Sc., (ii.) have been engaged in Vet. study for 4 yrs., (iii.) have a registrable qualification, (iv.) have attended certain specified courses, including 1 yr. of study in this Univ. The Royal (Dick) Vet. Coll., Edin., provides certain of the qualifying courses.

The 1st examn. for the B.Sc. in *Pub. Health* is open to graduates in Med. of Univs. of the U.K., or McG., Queen's (Ont.), Panj., Harv., Bruss., or Würz., on conditions which include study during 5 mos. in the Edin. Pub. Health Lab. The 2nd examn. may not be taken until 6 mos. after passing the 1st.

Diplomas in *Pub. Health* (1 yr. course), in *Tropical Med. and Hygiene* (16 mos.), and in *Psychiatry* (1 yr.), are open to graduates of the Univ. and registered Med. practitioners.

Candidates for the *Mus.B.* must have passed the Arts or Sc. Prelim. examn., or its equivalent, and attended a course in this Univ. during a whole winter session. A Mus.B. of 3 yrs.' standing may offer himself for the Mus.D. (which may also be conferred *honoris causa*) as Composer, as Executant, or as Theorist or Historian.

Recognition of Institutions and Teachers outside the United Kingdom:

(*a*) For exemption from one (not the final) year of the course for M.A. or for B.Com. and from attendance on classes in and examn. in two subjects for the Ordinary Degree: the following Univs.—Alb., Dal., McG., Manit., Queen's (Kingston), Tor., Adel., Melb., Syd., N.Z., S. Africa, All., Bom., Calc., Mad., Panj., Paris, Tokyo, Osaka, Sendai; graduates of the American institutions listed in Appendix XXV.

(*b*) For some of the courses for the B.Sc.: Madras Coll. of Agric., Colls. affiliated up to B.A. and B.Sc., and Engin. Colls. affiliated to the Indian Univs., Univs. and Polytech. Sch. supported and regulated or recognized by Govts. in Europe.

(*c*) For admission as graduate in Arts to the LL.B. examn.: the Univs. of All., Calc., Mad. V. also (*f*).

(*d*) For 2 of the 3 yrs.' study for LL.B.: McGill Univ., Madras Law Sch., Law Coll., Trevandrum, Ripon Coll., Calc.

(*e*) For 3 of the 5 yrs. of Med. study: recognized teachers in Singapore (in Physiol. and Practice of Med.) and Wellington, S. Africa (in Chem.).

(*f*) For admission of graduates from these institns. to study for the Ph.D. degree (General Recognition is also granted to them in terms of the various Graduation Ordinances): the following Univs.—Dal., King's Coll. (N.S.), Laval, McG., Manit., Queen's (Ont.), Tor., Adel., Melb., Queensland, Syd., W. Aust., N.Z., Cape Town, S. Africa; all Colleges affiliated to these Univs.; Univs. and Colls. approved by the Assocn. of American Univs. V. App. XXV.

Post-graduate Courses in Medicine are held during the Summer and Autumn Terms and the *Summer Vacation*. Particulars obtainable from the Hon. Sec., P.-G. Courses in Med. Univ. New Buildings, Edinburgh. The Post-graduate School of Theology has issued a detailed list of courses for 1921–22, obtainable from the Sec., Prof. Kennedy, 33 Fountainhall Road. Graduates contemplating research in other Faculties should apply to the Deans. V. also p. 222.

Scholarships. Total annual value over £22,000; for graduates only, £6000. Most are open to colonial and foreign students. The Earl of Moray's Endowment provides over £1000 p.a. for *research*. V. also p. 223.

Fees. (*N.B.*—See also p. 222.) Inclusive tuition fees for LL.B., 42 gs.; B.L., 30 gs.; B.Sc. (except in Mining, 105 gs.), 90 gs., or for Hons. Degree,

100 gs.; B.D., 33 gs.; M.B., Ch.B., including Hospl. Fees, 177 gs. Combined M.A. and B.Sc., 120 gs.; M.A. and B.Com. or LL.B., 70 gs.; M.A. and B.L. 65 gs.; B.Sc. in Agr. and in For., 135 gs. Graduation examns.: D.Sc., 15 gs.; B.D., 7½ gs.; LL.B., 9 gs.; B.L., 7½ gs.; M.D., 21 gs.; Mus.B., 15 gs.; Mus.D. 15 gs.; Ph.D., 10 gs.

HALLS OF RESIDENCE, ETC. For men: University Hall on a self-governing basis (information from Messrs. Whitson and Methuen, 21 Rutland Street). Board and lodging about £3 a week. For women: East Suffolk Rd., Craigmillar Park (Warden); Masson Hall, 31 and 32 George Square (Warden); and Muir Hall, 12 George Square (Warden), about £20 a term. Six months' notice generally necessary.

There is a Franco-Scottish Society for advising and assisting French students in Scotland and Scottish students in France. It has local centres at Glas., Aberd., and Dundee.

Indian Students' Adviser: Maj. J. E. Mackenzie, D.Sc.

UNIV. EXTENSION, ETC. The Univ. is now represented on the Advisory Committees for the management of the Tutorial Classes for adults instituted by the Edin. Educational Authority, in co-operation with the Workers' Educnl. Assocn. Summer Classes (4 weeks) for Teachers are held during vacation, the lecturers being drawn mainly from the Univ. staff.

OFFICIAL PUBLICATIONS. The *Calendar* (Aug.), 6s.; the *Prelim. and Degree Examn. Pps.* (May and July), 5d. to 1s. 9d. a set (James Thin, 55 South Bridge). The *Students' Handbook* issued by the Students' Representative Council. Facilities for advanced Study and Research free on application.

THE YEAR 1920–21

BENEFACTIONS. Treasury annual grant increased by £3000, and special grant, £20,000, for social needs of students; Carnegie Trustees grants—£5000 for Library and £15,000 for Playing Grounds and Gymnasium; late Col. F. J. Ryder bequest, £4000; Sir Robert Jones, £200 for annual prize in Orthopædic Surgery; Em. Prof. Caird, collection of specimens; Dr. W. S. Bruce, his Library.

NEW BUILDINGS, ETC. One-third of new Chem. Laboratory—estimated total cost, £250,000—on the Liberton site of 115 acres completed; second portion progressing rapidly; provision for 5 main labs., each 70′ × 45′. To supplement existing playing-fields 10 acres of ground purchased. Large temporary but substantial building purchased and re-erected on Liberton site for refectory, etc., for students working there. Bio-Chemical Lab. for Clin. Therapeutics provided and equipped. An Indian Hostel (not a Univ. institution) providing accommodation for 38 students opened.

NEW ORDINANCES provided for an additional (Tait) Chair of Nat. Philos., for a 4 yrs.' course (Ordy. and Hons.) for Degrees in Pure Sc., and for institution of Degrees of B.Sc. and D.Sc. in Mining and Metallurgy.

HONORARY DEGREES CONFERRED. *D.D.*—Sir Robert A. Falconer, A. R. Henderson, D. C. MacGregor, Rt. Rev. A. Philip, Prof. W. B. Stevenson, the Bishop of Winchester. *LL.D.*—Profs. S. A. Arrhenius of Stockholm, J. C. Kapteyn of Gröningen, A. Krogh of Copenhagen, V. Volterra of Rome, and R. W. Wood of Johns Hopkins; Dr. I. Langmuir of Schenectady, Sir Oliver Lodge, Sir Wm. Ridgeway, Sir Edward Thorpe, J. Alison, the Duke of

Atholl, Lady Frances Balfour, Ernest Barker, Sir John Cowan, Sir Arthur W. Currie, Rt. Hon. Sir George E. Foster, J. S. Haldane, Rt. Hon. Sir Robert S. Horne, Rt. Hon. T. B. Morison, Sir Nilratan Sircar, Rt. Hon. Sir Robert Stout.

OTHER DEGREES. M.A.—193 (including women, 84); M.B., Ch.B.—179 (women, 56); M.D.—34 (w., 4); B.Sc.—174 (w., 18); D.Sc.—7; B.D.—7; LL.B. or B.L.—15; Mus.B.—3; B.Ed.—3 (w., 1); B.Com.—9 (w., 1); Ph.D.—10 (w., 3).

NUMBER OF STUDENTS. Preparing for First Degree in Arts, 1196, including women, 541; Science, 912 (w., 85); Med., 1786 (w., 407); Law, 86 (w., 6); Div., 35; Music, 14 (w., 7); for Diploma in Sc., 21; post-grad. and research in Arts, 66 (w., 18); Med., 14 (w., 6); Sc., 27 (w., 8). Total: full-time, 4162, part-time, 724; previous year's totals, 4182, 308. New students, 1921–22, 592; 1920–21, 1274.

RETIREMENTS OF LECTRS. D. Balsillie, A. C. Cumming, G. Smeal, J. Templeton.

EXTRA-MURAL WORK. Tutorial Class enrolments, Oct. 1921, over 1500. Among the Tutors were 5 Univ. Profs. and 6 Univ. Lectrs. Summer Classes for Teachers were held for 4 weeks during vacation, the lectrs. being drawn mainly from the Univ. Staff.

UNIVERSITY OF GLASGOW

CHANCELLOR—THE EARL OF ROSEBERY AND MIDLOTHIAN, K.G., K.T.

VICE-CHANCELLOR AND PRINCIPAL—Sir DONALD MACALISTER, K.C.B., M.A., M.D., D.C.L., LL.D., D.Sc., Ph.D.

RECTOR—The Right Hon. A. BONAR LAW, M.P., LL.D.

DEAN OF FACULTIES—Emeritus Prof Sir H. C. CAMERON, M.D , LL.D.

SECRETARY TO THE UNIV. COURT—A. E. CLAPPERTON, LL.D.

CLERK OF SENATE—Prof. G. MILLIGAN, D.D , D.C.L.

REGISTRAR—A. MORRISON.

LIBRARIAN AND KEEPER OF HUNTERIAN BOOKS AND MSS.—.....

CLERK OF THE GENERAL COUNCIL—A. CRAIG, LL.B., O.I.P.

QUEEN MARGARET COLLEGE

Mistress—Miss F. H. MELVILLE, M A., B D.

UNIVERSITY COURT

THE RECTOR, *ex officio.*

THE PRINCIPAL, *ex officio.*

THE LORD PROVOST OF GLASGOW, *ex officio.*

Sir WM. LORIMER, LL.D.

Sir THOS. DUNLOP, Bart., LL.D.

J. BRUCE MURRAY.

DAVID MURRAY, LL.D.

R. A. DUFF, M.A., D.Phil.

D. MACGILLIVRAY, M.A.

G. S. MIDDLETON, M.D., LL.D.

Prof. MILLIGAN, D.D., D.C.L.

Prof. G. A. GIBSON, LL.D.

Prof. T. H. BRYCE, M.A., M.D.

Prof. LATTA, D.Phil.

PROFESSORS, LECTURERS, ETC., January 1, 1922

Anatomy

Bryce, T. H., M.A., M.D. Edin. Reg. Prof.

Hutton, W. K., M.A., M.B., C.M. Lectr.*

Maclaren, Norman, Ph.D. Lectr.

Harrower, J. G., M.B.,Ch.B. Lectr.

..... Asst.*

..... Asst.*

Weir, R. S., M.B. Demr.

Connell, W. K., M.B. Demr.

Thompson, E. J. T., M.B. Demr.

Davidson, A. M., M.B. Demr.

Blair, D. M., M.B. Demr.

Arabic

Weir, T. H., B.D., M.R.A.S. Lectr.

Archæology, v. Hist.

* At Queen Margaret Coll.

Astronomy
Becker, L., Ph.D. Bonn. Reg. Prof.
Connell, J. Lectr.
Ross, John Demr.

Botany
Bower, F. O., Sc.D. Camb., D.Sc. Syd., LL.D. Aberd., F.R.S. Reg. Prof.
Mann, Annette G., B.Sc. Asst.
Patton, D., M.A., B.Sc. Lectr.
Wardlaw, C. W., B.Sc. Asst.

Celtic
Calder, G., B.D., D.Litt. Edin. Lectr.

Chem., v. also Physiol.
Henderson, G. G., D.Sc., F.R.S., LL.D. St. And., F.I.C. Reg. Prof.
Bolam, H. W., B.Sc. Edin., Ph.D. Lectr.*
Knox, J., D.Sc. Aberd. Lectr.
Roberts, J., F.C.S. Lectr.
Henderson, A , M.A , B.Sc. Lectr.
Morrison, Jane, M.A. Asst.*
Walker, Mona M., B.Sc. Asst.*
Stewart, Eliz. C. Asst.*

Chem., Organic
Patterson, T. S., D.Sc. Lond. & Glas., Ph.D. Heid. Gardiner Prof.
M'Millan, A., M.A., D.Sc. (Analytical) Lectr.
Tucker, S. H., B.A., M.Sc. Lectr.
Coleman, Eva S. E., B.Sc. Asst.
Semple, Jean M., B.Sc. Asst.
Dunn, Edith F. M., B.Sc. Asst.
Buchanan, C., B.Sc. Asst.

Chem., Physical
Wright, Robert, M.A., D.Sc. Belf. Lectr.
Smith, R. C., M.A., B.Sc. Asst.

Classics [Prof.
Davies, G. A., M.A. Camb. (Greek)
Rennie, W., M.A. (Greek) Lectr.
Gomme, A. W., B.A. (Greek) Lectr
Phillimore, J. S., M.A. Ox., LL.D. St. And. (Humanity) Prof.
..... (Humanity) Asst.
Nisbet, R. G., M.A. (Latin) Lectr.
M'Glynn, P., M.A. (Latin) Lectr.

Divinity, v. also Hebrew
Reid, H. M. B., D.D. St. And. Prof.
Milligan, G., D.D. Aberd., D.C.L. Durh. (Bibl. Crit.) Reg. Prof.
Cooper, J., D.D. Aberd. and Ox., Litt.D. Dub., D.C.L. Durh. (Church Hist.) Reg. Prof.

Economics, v. Pol. & Social Econ.

Education [Lectr.
Boyd, W., M.A., B.Sc., D.Phil.

Engineering, v. also Naval
Goudie, W. J., D.Sc. J. Watt Prof. of Theory and Practice of Heat Engines.
Brown, R. M., B.Sc. Lectr.
Speirs, H. M., B.Sc. Lectr.
Scobie, J., B.Sc. Lectr.
Vost, J., B.Sc. Lectr.
Morrison, J. C. Lectr.
Small, J., B.Sc. Lectr.
Tullis, J., B.Sc. Lectr.
Thom, A., B.Sc. Lectr.

Engin., Civil and Mech.
Cormack, J. D., C.M.G., C.B.E., D.Sc., M.I.C.E., M.I.M.E. Reg. Prof.
Hewatt, A. F., B.Sc. Young Asst.

Engineering, Electrical
Howe, G. W. O., D.Sc. Durh. and Adel., M.I.E.E. J. Watt Prof.

English Language and Literature
Dixon, W. M., Litt.D. Dub., LL.D. Aber. Reg. Prof.
Bickersteth, G. L., M.A. Lectr.
Alexander, P., M.A. Lectr.
Girvan, R., M.A. (Eng. Lang.) Lectr.
Smart, J. S., M.A., D.Litt. Lectr.
Gray, Margaret M., M.A. Asst.

At Queen Margaret Coll.

French, v. also Mod. Langs.
Martin, C. A., M.A. Paris, O.I.P. Prof.
Pitoy, L. M., B.Sc., L. ès L. Phil. Lectr.
Valette, J. Asst.
Pitoy, Mary C., M.A. Asst.
Ferguson, Marjorie, M.A. Asst.

Geography
Stevens, A., M.A., B.Sc Lectr.
Grierson, Aileen, M.A. Asst.

Geology [Prof.
Gregory, J. W., D.Sc. Lond., F.R.S.
Tyrrell, G. W., A.R.C.Sc. Lectr.
Neilson, Agnes T. Asst.
Weir, John Baxter Demr.
M'Leod, Angus Demr.
Swinton, W. E. Demr.

German
Smith, H., M.A. St. And., Ph.D. Marburg William Jacks Prof.
Clark, James M., M.A., Ph.D. Lectr.
Scherrer, M., Ph.D. Asst.

Hebrew and Semitic Langs.
Stevenson, W. B., D.D., D.Litt. Edin. Prof.
Harris, E. J., M.A., B.D. Asst.

History, v. also Div., Law, Pol. Econ.
Medley, D. J., M.A. Ox. Prof.
Browning, A., M.A. Lectr.
Brown, W. E., M.A. Lectr.
Miller, S. N., M.A. (H. and Antiq., Roman) Lectr.
Rait, R. S., C.B.E., M.A. Ox. (H. and Lit., Scot.) Prof.
Pearson, Mrs., B.A. Asst.

Humanity, v. Classics

Italian
Grillo, Cav. E., M.A., Litt.D. (Flor.), LL.D. Perugia, K.C.O.I. Lectr.

Law, v. *infra*

Logic and Rhetoric
Latta, R., M.A., D.Phil. Edin. Prof.
Russell, L. J., B.Sc., D.Phil. Lectr.
Levett, Margaret J., M.A. Lectr.*
Haydock, G. H., M.A., B.Litt. Asst.
..... Asst.

Mathematics
Gibson, G. A., LL.D. Edin., M.A. Prof.
M'Arthur, N., M.A , B.Sc. Lectr.
MacRobert, T. M., M.A., D.Sc. Lectr.
M'Whan, J., M.A., Ph.D. Lectr.
Arthur, W., M.A. Asst.
Miller, Andrew H., M.A., B.Sc. Asst.
Rodger, Janet, M.A. Asst.

Medicine and Surgery, v. *infra*

Metallurgy, etc., v. p. 248.

Mining
..... Dixon Prof.
..... Asst.

Modern Langs. [Marshall Prof.
Martin, C., M.A. Paris, O.I.P.

Naval Archit., including Marine Engin.
Hillhouse, P. A., D.Sc. Harv. John Elder Prof.
..... Asst.

Philology, Comparative
Pirie, J. W., M.A. Aberd. Lectr.

Philosophy, Moral, v. also Logic and Psychol.
Jones, Sir Henry, LL.D. St. And., Litt.D. Wales, F.B.A. Prof.
Macbeath, A., M.A. Lectr.
White, Alex. K., M.A. Lectr.
Phillips, I. W., M.A. Asst.

Philosophy, Natural
Gray, A., LL.D., F.R.S. Prof.
Green, G., M.A., D.Sc. Lectr.
Cochrane, Charles, M.A., B.Sc. Lectr.

* At Queen Margaret Coll.

Allan, G. E., D.Sc. Birm.
Arnott and Thompson Demr. in Expl. Physics and Lectr. in Electricity.
Houstoun, R. A., D.Sc., Ph.D. (Physical Optics) Lectr.
Robertson, J., M.A., B.Sc. Asst.

Physics, Applied
Gray, J. G., D.Sc. Prof.

Physiology
Paton, D. Noël, M.D., B.Sc., LL.D. Edin., F.R.S. Reg. Prof.
Watson, A. M. (Histology) Lectr.
Henderson, Pearl, B Sc. Demr.
Shanks, W. F., B.Sc., M.B. Lectr. & Demr.

Physiolog. Chem.
Cathcart, E. P., M.D., D.Sc., F.R.S. Gardiner Prof.
Wishart, G. M , B.Sc., M.B. Grieve Lectr.

Polit. Econ.
Scott, W. R., M.A., Litt.D. Dub., D.Phil., LL.D. St. And , F.B.A. Adam Smith Prof.
Scott, Nelly, B.A. (Econ. Hist.) Lectr.
Smith, C. F., B.A. Asst.

Political Philosophy
Duff, R. A., M.A., D.Phil. Lectr.

Psychology
Watt, H. J., Ph.D. Würz., D.Phil. Aberd. Lectr.

Russian [Sir William Weir Lectr.
Brennan, H. G., M.A. Lond.

Social Economics
Cunnison, James, M.A. Lectr.

Theology, v. Divinity

Zoology
Kerr, J. Graham, M.A. Camb., F.R.S. Reg. Prof.
Floyd, J. F. M., M.A. Ox. Lectr.
Dunkerly, J. S., B.Sc. Lond. Lectr.
Glen, Edith H., M.A. Asst.

Law

Gloag, W. M., K.C., B.A. Ox., LL.D. Edin. Reg. Prof.

Civil Law
Muirhead, J. S., LL.B. Lectr.

Const. Law and Hist.
Mungo, D. B., LL.B. Lectr.

Conveyancing [Prof.
M'Kechnie, W. S., LL.B., D.Phil.

Evidence and Procedure
Lamond, R., LL.B. Lectr.

Internat. Law, Public, and Internat. Private Law
Nicol, R. M., LL.B. Lectr.

Jurisprudence, Genl.
Mitchell, A. A., LL.B. Lectr.

Mercantile Law
Wright, T. G., LL.B. Prof.

Medicine (for subjects of first 2 yrs.—Anat., etc., v. *supra*)

Bacteriology [Gardiner Prof.
Browning, C. H., M.D.
Wilson, G. H., M.B. Lectr.

Dermatology
Nicol, J. W., M.B., C.M.
M'Call Anderson Mem. Lectr.
M'Intyre, G., M.B., C.M. Lectr.

Ear, Diseases of the
Gray, A. A., M.D. Lectr.
Adam, J., M.D. Lectr.

Electrical Diagnosis and Therapeutics [Lectr.
Riddell, J. R., F.R.F.P.S.G.
Chapman, Katharine M., L.R.C.P. Lectr.

Forensic Medicine [Reg. Prof.
Glaister, J., M.D., F.C.S.
Glaister, J., Junr., M.B., Ch.B. Asst.
Ross, H. A., M.B. Asst.

Infancy and Childhood
Findlay, L., M.D., D.Sc. (Med. Diseases) Lectr.

MacLennan, A., M.B. (Surgery and Orthopædics) Lectr.

Insanity
Oswald, L. R., M.B., C.M. Lectr.
MacDonald, J. H., M.B., Ch.B. (Psych. Med.) Mackintosh Lectr.

Materia Medica
Stockman, R., M.D. Edin. Reg. Prof.
Campbell, David, M.A., B.Sc., M.B. Lectr.
Clark, G. H., M.D., D.P.H. Weir Asst.

Medicine [Muirhead Prof.
Hunter, W. K., M.D., D.Sc.
Cruickshank, J. N., M.B Asst.
..... Asst.

Medicine, Clinical [Lectr.
Cowan, J. M., M.D. Camb., D.Sc.
Anderson, J. B. M., M.B. Lectr.
Jack, W. R., M.D., B.Sc. Lectr.
Henderson, J., M.D. Lectr.

Medicine, Practice of [Reg. Prof.
Monro, T. K., M.A., M.D., C.M.
Allan, G. A., M.B. Asst.
Patrick, A., M.A., M.D. Asst.
Adams, D. K., M.A., B.Sc., M.D. Asst.

Midwifery
Cameron, M., M.D. Reg. Prof.
Cameron, S. J., M.B. Lectr. & Asst.
M'Lellan, A. N., M.B., C.M. Asst.

Nose and Throat, Diseases of the
Syme, W. S., M.D. Lectr.
Harper, J., M.A., M.B., Ch.B. Lectr.

Obstetrics and Gynæcology
Kerr, J. M. M., M.D. Muirhead Prof.
Hendry, J., M.A., B.Sc., M.B. Asst.
Cameron, S. J., M.B. (Clin.) Lectr.
Shannon, David, M.B. (Clin.) Lectr.
M'Intyre, D., M.B. Asst.

Pathology
Muir, R., M.A., M.D. Edin., Sc.D., F.R.S. Prof.
Dunlop, Ernest M., M.B. Asst.
Blacklock, J. W. S., M.B. Asst.
Teacher, J. H., M.A., M.D. St. Mungo-Notman Prof.
Burton, J. A. G., M.B., Ch.B. St. Mungo-Notman Asst.
Marshall, Alice J., M.B. Asst.

Pathological Histology [Lectr.
Strachan, A. S., M.A., B.Sc., M.B.

Pharmacy
Middleton, J. C., M.A., B.Sc., M.B. Lectr.

Psychological M., v. Insanity

Public Health
..... Lectr.

Surgery
Macewen, Sir William, C.B., D.Sc. Ox. & Dub., LL.D. Glas. & Liv., M.D., F.R.S. Reg. Prof.
Macewen, J. A. C., B.Sc., M.B., C.M. Asst.
Dunbar, J., M.B. Asst.
Robertson, G. M'Gregor, M.B. Asst.
Kennedy, R., M.A., D.Sc., M.D. St. Mungo Prof.
Battersby, J., F.R.C.S. Asst.
Tennant, R., M.B., F.R.C.S. Edin. Asst.

Surgery, Clinical
M'Gregor, A. N., M.D. Lectr.
Kay, T., M.B., C.M. Lectr.
Edington, G. H., M.D., D.Sc. Lectr.

Tuberculosis, Clinical
Crocket, J., M.D. Edin. Lectr.
Macgregor, A. S. M., M.D. Lectr

Venereal Diseases
Watson, D., M.B., C.M. Lectr.

GENERAL INFORMATION (v. also p. 219)

Founded by a Papal Bull in 1451, after the model of Bologna, the Univ. was reconstituted by a Charter of King James VI. of Scotland in 1577. In 1864–70 the old college buildings and site were sold and new buildings were erected in a more suitable position on the crest of a hill (Gilmorehill) to the west of the city. Funds for this were obtained partly from the proceeds of the sale, partly from public subscription, and partly from a Parliamentary grant of £120,000. Queen Margaret College was acquired by gift in 1893 for the use of women students. The Carnegie Trust contributed £60,000 towards the cost of additional buildings which were completed in 1907, and a neighbouring estate was presented by the MacLellan family in 1917.

The LIBRARY, founded in the 15th century, contains 200,000 vols., including 300 books printed before A.D. 1500, and much other material for research. More than 500 current periodicals are taken in. The Hunterian MUSEUM, founded in 1783, contains important collections of MSS., coins, anatomical preparations, zoological and mineral specimens, etc. Large new departments with spacious LABORATORIES have been erected for Engin., Bot., Nat. Philos., Chem., Physiol., Anat., Path., Mat. Med., Forensic Med., Pub. Health. There are BOTANICAL GARDENS and an OBSERVATORY. As Glasgow stands at the centre of the shipbuilding, engineering, mining, and industrial area of Scotland, it offers unique opportunities for technical training. Three large general HOSPLS. are available for clinics, besides special institutions (including Consumption Sanatoria).

FACULTIES. Arts, Science, Medicine, Theology, Law. Depts. of Applied Science—Engineering (Civ., Elec., Mech., Mining, Naval Archit.), Applied Chem., Agric., Public Health, Pharmacy.

DEGREES, v. p. 221. Applications by Overseas students for remission of part of the class attendance for B.Sc. in branches other than Engineering will be considered sympathetically. *Diploma* in Education, 1 yr. course, for graduates (the first yr. of the Ed.B. course). *Certificates* of Proficiency in Engineering Science and in Mining Engin., 3 yrs.' courses, of which first yr. may be taken in Roy. Tech. Coll.; no prelim. examn.

The list of extra-academical teachers whose courses in certain subjects are recognized as qualifying *pro tanto* for graduation include several resident outside the United Kingdom, namely in Cape Town (in Nat. Philos., Chem., Bot., Zool.), Grahamstown (Physics, Chem., Bot, Zool.), Johannesburg (Zool. and Chem.), and Stellenbosch (Bot., Chem., Physics).

For detailed information regarding POST-GRADUATE study and research in any Faculty application should be made to the Dean, v. also p. 222. A Post-graduate *Medical* Assocn. organizes demonstrations for Med. Practitioners; fee for series, Nov. to May, 3 gs.; programme obtainable from the Secy., P.-G. Med. Assocn., The Univ.

CLASS FEES. For LL.B., 40 gs.; B.L., 30 gs.; M.B., Ch.B., about £200 for 5 yrs. Combined M.A. and B.Sc., 112½ gs. V. also p. 222.

SCHOLARSHIPS FOR GRADUATES: about 76 of from £30 to £280 p.a., most of them open only to graduates of Glas. (For undergraduates there are 480, varying in value from £10 to £50 or more p.a., chiefly in the Faculty of Arts, in addition to Bursaries of from £5 to £25, awarded by the Provincial Committee for the training of teachers.) V. also p. 223.

RESIDENCE. Lodgings or board with private families with use of 2 rooms,

generally obtainable in neighbourhood of the Univ., for from 35s. to 50s. per week. A few students' hostels or settlements, of limited accommodation, where the charges are lower, are run by private committees or bodies of students and graduates.

PUBLICATIONS. *Calendar* (July); *Glasgow Univ. Magazine*, weekly during winter session; *Examn. Papers*, Prelim. and Degree, 6d. per set; *Annual Handbook* for matriculated students; *Handbook* for Overseas students and graduates.

THE YEAR 1920–21

BENEFACTIONS. Robert Wylie Bequest of books (including his chapbooks and directories), engravings, etchings, and water-colour paintings relating specially to Glasgow, and the residue of his estate for further endowment and equipment of the Regius Chair of Engineering and Engin. Teaching and of the James Watt Engin. Labs., in commemoration of the benefits conferred on mankind by James Watt; Mrs. Torrance Bequest, £1000 for endowment of a Scholarship in connexion with Pathological Research; W. J. Chrystal Bequest, £10,000; Sir Ernest Cassel Educational Trust, £300 p.a. for 3 yrs. towards the teaching of Russian; Bellahouston Trustees, £500 for apparatus for Physiol. Dept.; Prof. Sir Henry and Lady Jones, £500 for endowment of an Arthur Jones Memorial Prize in Citizenship.

HONORARY DEGREES CONFERRED. *LL.D.*—Allan F. Baird, Lawrence Binyon, Sir Dugald Clerk, Dr. A. Freeland Fergus, Principal J. C. Irvine, Duncan M'Naught. *D.D.*—M. Raoul Allier, John MacGilchrist, W. Mackintosh Mackay, Prof. A. Main, James Murray, James E. Somerville.

OTHER DEGREES. M.A.—217; D.Litt.—4; LL.B.—6; B.L.—12; M.D.—12; M.B., Ch.B.—128; B.D.—5; B.Sc.—126; D.Sc.—5; Ph.D.—2.

NUMBER OF STUDENTS preparing for first degree in Arts, 1244, including 558 women; Pure Science, 231 (women, 103); Medicine, 1825 (w., 439); Law, 105 (w., 5); Theol., 36; Engineering, 845; Applied Chem., 168 (w., 12); Agric., 38; Pub. Health, 4. Research and Post-graduate, 33 (w., 5). Occasional, 202. Total: full-time, 4518; part-time, 209. Total, 1920–21, 4727.

RESIGNATIONS. Prof. Sir John H. Biles; Lectrs. and Assts.: Dr. Andrew Allison, appointed Lectr. in Med. Jurispr. at St. Mungo's Coll., Glasgow; Dr. A. Louise M'Ilroy, appointed Prof. of Midwifery in Univ. of London; Montagu Drummond, appointed Director of Plant Breeding Station for Scotland; Dr. J. D. Falconer, appointed to Nigerian Civil Service as Director of Geol. Survey; Dr. J. McL. Thompson, appointed Prof. of Botany in the Univ. of Liverpool; Dr. David Burns, appointed Prof. of Physiology in the Newcastle Coll. of Med., Durham Univ.; Dr. A. M. Kennedy, appointed Prof. of Medicine in Univ. Coll., Cardiff; W. L. Renwick, appointed Prof. of English Lang. and Lit. in Armstrong Coll., Durham Univ.; M. Jean Valette, appointed Lectr. in French in Armstrong Coll.

THE ROYAL TECHNICAL COLLEGE, GLASGOW

[Affiliated with the University of Glasgow.]

Chairman of the Board of Governors—Sir GEORGE BEILBY, LL.D., D.Sc., F.R.S., F.I.C.

Director—H. F. STOCKDALE, LL.D.

PROFESSORS, LECTURERS, ETC., January 1, 1922.

Botany and Bacteriology

Ellis, D., D.Sc. Lond., Ph.D. Marb. Lectr.

Chemistry, Technical

Gray, T., D.Sc., Ph.D. Jena, F.I.C. Young Prof. and Dir. of the Sch. of Chem.

Cruickshanks, G. S., Ph.D. Leip., F.I.C. Lectr.

Buchanan, Walter J., A.R.T.C. Demr.

Heriot, T. H. P., F.I.C. (Sugar Manuf.) Lectr.

Chem., Inorg. and Analyt.

Caven, R. M., D.Sc. Lond., F.I.C. Prof.

Sutherland, Maggie M. J., D.Sc., F.I.C. Lectr.

Cranston, J. A., D.Sc., A.I.C. Lectr.

Duncan, J. G., F.I.C., A.R.T.C. Lectr.

Demrs.:

Gordon, P. F., A.I.C.

Pickering, E. C., B.Sc. Lond., A.I.C.

Brown, A. C., A.I.C., A.R.T.C.

Macaulay, R. M., A.I.C.

Crawford, A. B., B.Sc.

Steele, J. K., B.Sc.

Ferguson, J., B.Sc.

Burns, R., A.R.T.C.

Chemistry, Organic

Wilson, F. J., D.Sc. Edin., Ph.D. Leip., F.I.C. Prof.

Cumming, W. M., B.Sc., A.I.C. Lectr.

Hopper, I. V., B.Sc. Lond., A.R.C.S.I., F.I.C. Lectr.

Dyeing, Bleaching, etc.

Steven, A. B., B.Sc. Lond., F.I.C. Lectr.

Engineering, Civil

Moncur, G., B.Sc. Edin., M.I.C.E. Prof.

Hunter, W., B.Sc. Lond., A.R.T.C. Lectr. & Asst.

Thomson, G., M.A. Edin., M.I.C.E. (San. Eng.) Lectr.

Engineering, Electrical

Maclean, M., M.A., D.Sc., LL.D., M.I.C.E., M.I.E.E. Prof.

MacKellar, D. J., B.Sc., A.R.T.C., A.M.I.E.E. Lectr.

4 Assts.

Engineering, Mechanics

Longbottom, J. G., A.R.C.S., M.I.Mech.E. Prof.

Blackadder, W., B.Sc. Edin., A.M.I.C.E. Lectr.

Blacklock, W., B.Sc. Lond. Lectr.

3 Assts.

Engineering, Mechanical

Mellanby, A. L., D.Sc. Durh., M.Sc. McG., M.I.Mech.E. Prof.

Sinclair, J. H., M.Sc. Vict., B.Eng. Liv. Lectr.

Kerr, Wm., A.R.T.C. Lectr.
Smith, J., B.Sc. Lectr.
6 Assts.

Engineering, Mining
Burns, D., M.I.M.E. Prof.
Stevenson, J. Lectr.
Miller, Wm. Asst.

Geology, Economic
Edwards, E. J., M Sc. Manc. and Leeds, F.R.G.S. Lectr.

Mathematics
Miller, J., M.A., D.Sc. Prof.
Paul, J., M.A., B.Sc. Lectr.
Burrell, W. G., M.A. Lectr.

Metallurgy
Andrew, J. H., D.Sc. Manc. Prof.
Regan, W., B.Sc., A.R.T.C. Asst.

Metallurgical Chemistry
Hay, R., B.Sc., A I.C. Lectr.

Natural Philosophy
Muir, J., D.Sc., M.A. Camb. Freeland Prof.
Rankin, J. S., B.Sc., A.R.T.C. Lectr.
Morton, E., A.R.C.S.I. Lectr.
Cameron, Jessie G., M.A. Lectr.
M'Kerracher, D., B.Sc., A.R.T.C. Demr.
Symon, F. J., B.Sc. Demr.

Pharmacy and Mat. Med.
Todd, J P., Ph.C. Lectr.

Sugar Manufacture, v. Chem.

GENERAL INFORMATION

Anderson's College, founded in 1796, the College of Science and Arts (1823, the first "Mechanics' Institution"), and the Atkinson Institution (1861), were amalgamated in 1886 under the title of the Glasgow and West of Scotland Technical College, which was changed in Feb. 1912 to the Royal Technical College. The College was affiliated to the Univ. of Glasgow in March 1913.

The College building, comprising over 7 acres of floor space, cost, with equipment, £400,000. Qualifying courses are provided in the subjects named above for Degrees of the Univ. in Applied Science and for the Diploma of the College. Courses in the following qualify for the Diploma only: Archit. and Building, Naval Archit., Textile Manuf. There are also Departments of Navign. and Bakery, as well as numerous evening classes in other subjects, mainly technological. The courses for the Diploma cover 3 (in Chem. and Metall., 4) yrs.; for the Associateship in any of the Diploma subjects, attendance during 4 yrs. is required.

The Glasgow School of Architecture is maintained by the College and the Glasgow School of Art working in co-operation through a Joint Committee under whose authority its Diplomas (5 yrs' course) are issued.

FEES for tuition: 25 gs. and 30 gs. p.a.

THE YEAR 1920–21

BENEFACTIONS. Bequest of £10,000 by late W. J. Chrystal. Donations, etc., to New Development Fund, £5082.

NEW LABORATORIES. An additional Chem. Research Lab.

NEW DEVELOPMENT. A course for the B.Sc. in Pharmacy has been established.

NUMBER OF STUDENTS. Graduating and Diploma students in Applied Science admitted for the first time, 316 men and 3 women. Total full-time Research, Graduating, and Diploma students, 629 men and 5 women. Part-

time students, Degree 49 men, Diploma 172 men. Part-time students attending classes of Degree or Diploma standard, 2379 men and 74 women, of whom 70 were graduates of 8 different Univs. Other part-time students, 2338. Totals, full-time, 634; part-time, 5012. 65 day-students were from abroad: Norway, 8; India, 24; Serbia, 2; Brit. W. Indies, 2; S. Africa, 8; China, 4; other countries, 17. Nearly 3000 of the evening students were not less than 21 yrs. of age.

DEGREES obtained, 47. Diplomas, 34.

RESIGNATION. D. Clark, appointed Prof. of Civ. Engin. in Trinity College, Dublin.

UNIVERSITY OF ST. ANDREWS

CHANCELLOR AND PRESIDENT OF THE GENERAL COUNCIL—The Rt. Hon. EARL HAIG OF BEMERSYDE, O.M., K.T.

VICE-CHANCELLOR AND PRINCIPAL OF THE UNIVERSITY AND OF THE UNITED COLLEGE—JAMES COLQUHOUN IRVINE, C.B.E., Ph.D., D.Sc., F.R.S., LL.D. Glas.

RECTOR AND PRESIDENT OF THE UNIVERSITY COURT—Sir JAMES MATTHEW BARRIE, Bart., M.A., LL.D.

SECRETARY AND REGISTRAR—ANDREW BENNETT.

LIBRARIAN—J. M. ANDERSON, LL.D.

PRINCIPAL OF ST. MARY'S COLLEGE—Very Rev. G. GALLOWAY, M.A., D.Phil., D.D.

PRINCIPAL OF UNIVERSITY COLLEGE, DUNDEE—J. Y. MACKAY, M.D., LL.D.

ADVISERS OF STUDENTS AT ST. ANDREWS: IN ARTS—Prof. BURNET; IN SCIENCE—Prof. HERRING; IN MEDICINE—Prof. WATERSTON.

AT DUNDEE: IN ARTS AND SCIENCE—Prof. STEGGALL; IN MEDICINE—Prof. CHARTERIS.

UNIVERSITY COURT

PRESIDENT—THE RECTOR.

THE PRINCIPAL, *ex officio*.

THE PRINCIPALS OF ST MARY'S COLLEGE and UNIVERSITY COLLEGE, DUNDEE, *ex officio*.

THE PROVOST OF ST ANDREWS and THE LORD PROVOST OF DUNDEE, *ex officio*.

JAMES YOUNGER, LL.D.

WILLIAM LOW, O.B.E., LL.D.

A. MACGILLIVRAY, C.M., M.D., D.Sc.

J. M. DAWSON, M.A.

JAMES THOMSON, M.A., LL.B.

JAMES CUNNINGHAM, M.A., LL.D.

Prof. BURNET.

Prof. STEGGALL.

Prof. KAY

SECY.—ANDREW BENNETT.

PROFESSORS, LECTURERS, ETC., January 1, 1922

Anatomy

Waterston, D., M.A., M.D., C.M. Edin. — Bute Prof.

Mackay, J. Y., M.D. Edin., LL.D. — Prof.*

Dow, D. R., M.B., Ch.B. (Regional A.) — Lectr. & Asst.

Taylor, John, M.D., Ch.M. — Lectr. & Asst.*

Robertson, W. G., M.B., Ch.B. — Asst.

Archæology, v. History

Biology, v. Nat. Hist.

* At Dundee.

Botany
..... Prof.*
West, G. Lectr. and Asst.*
Robertson, R. A., M.A , B.Sc Reader & Lectr.
Kirton, Joanna B , B.Sc. Asst.

Chemistry
Robinson, R., D.Sc., F.R.S. Prof.
Macbeth, A. K., D.Sc. Belf., M.A. Lectr.
Steele, Ettie S., M.A., B.Sc., Ph.D. Lectr. & Asst.
M'Kenzie, Alex., M.A., D.Sc., Ph.D. Berl., F.R.S. Prof.*
Boyle, J. S. W., M.A., B.Sc. Lectr. & Asst.*
Hynd, Alex., M.A., D.Sc. (Clinical C.) Lectr.
Hirst, E. L., M.A., B.Sc , Ph D. Asst.
Walker, Nellie, B.Sc , M.A., Ph.D. Lectr. & Asst.*
Macdougall, Eliz., B.Sc. Asst.*

Classics
Burnet, J., M.A. Ox., LL.D. Edin., Ph.D., F.B.A. (Greek) Prof.
Lorimer, W. L., M.A. (Greek) Lectr. & Asst.
Dall, Mrs. A., M.A. Asst.
Lindsay, W. M., M.A. Ox., LL.D., Litt.D., Ph.D., F.B.A. (Humanity) Prof.
Thomson, H. J., M.A. (Latin) Lectr. & Asst.
Mills, T. R., M.A. (Latin) Lectr.*

Divinity
Galloway, G., M.A., D.Phil., D.D. Edin. Primarius Prof.
Duncan, G. S., O.B.E., M.A., B.D., B.A. (Bibl. Crit.) Prof.
Main, A., M.A. Glas., B.A. Ox., D.Litt., D.D. Glas. (Eccl. Hist.) Prof.

Education
Edgar, J., M.A. Glas., B.A. Ox., F.S.A. Scot. Prof.†

Engineering, Civ. and Mech., and Drawing
Fulton, A. R., D.Sc. Prof.*
Walker, W. J., B.Sc., Ph.D. Lectr. & Asst.*
..... Asst.*

English Lang. and Lit.
Webster, A. B., M.A. Berry Prof. of E. Lit.
Bond, A. C., B.A. Lond. Lectr. & Asst.
Soutar, G., M.A., D.Litt. Lectr.*
Wright, Miss S. L. P. Asst.
Graham, Margaret, M.A. Glas. Asst.*

French Lang. and Lit. and Rom. Philol.
Lewis, C. B., B.A., L. ès L., Ph.D. Lectr.†
Tanquerey, F. J., L. ès L., B.Sc., D.Litt., O.A. Lectr.†
De Villele, Madeleine, L. ès L. Asst.†

Geology
Innes, D. E. I., M.A. Lectr.†
Kirk, S. R., B.Sc. Asst.

German and Teut. Philol.
Smith, Muriel, M.A. Lectr.
Hayens, K., M.A., D.Litt. Lectr.*

Hebrew and Oriental Langs.
Kay, D. M., D.D. Edin., M.A., B.Sc. Prof.
..... Asst.

History, Ancient, and Archæol.
Burnet, Professor Lectr.

History, Mediæval [Lectr.†
Williams, J. W., M.A., B.Litt. Ox.

History, Modern
Mackie, J. D., M.A. Lectr.†
Martin, Linda K., M.A. Asst.

Law, Scots [Lectr.*
Allison, J., C.B.E., M.A., LL.B.

* At Dundee. † At St. Andrews and Dundee.

Logic and Metaphysics
Stout, G. F., M.A. Camb., LL.D., F.B.A. Prof

Logic and Psychology
Morrison, D., M.A. Lectr.†
Wright, J. N. Asst.†

Mathematics and Applied Maths.
Turnbull, H. W., M.A. Reg. Prof.
Steggall, J. E. A., M.A. Camb. Prof.*
Saddler, W., B.A. Camb., M.A. Lectr. & Asst.
Butchart, R. K., B.Sc., Ph.D. Lectr. & Asst.*
Black, C., M.A. Asst.*

Medicine and Surgery, v. *infra*

Natural History
Thompson, D'A. W., C.B., M.A., D.Litt., F.R.S. Prof.
Gemmill, J. F., M.A., D.Sc., M.D. Glas. Prof.*
Sutherland, Christina, M.A., B.Sc. Asst.*
Burt, D. R. R., D.Sc. Asst.

Philosophy, Moral, v. also Logic
Taylor, A. E., M.A. Ox., D.Litt., F.B.A. Prof.
..... Asst.

Philosophy, Natural
Butler, A. S., M.A. Ox. Prof.
Bagot, J. C. Lectr. & Asst.
Robson, W. G., A.R.C.S. Lectr.

Physics
Peddie, W., D.Sc. Edin. Harris Prof.*
Forrest, J., M.A., B.Sc. Asst.*
Malcolm, Ada, B.Sc. Asst.*

Physiology
Herring, P. T., M.D. Edin. Chandos Prof.
Reid, E. W., B.A., M.B., Sc.D. Camb., F.R.S. Prof.*
Paton, R. S., M.A., M.B., Ch.B. Asst.
Stiven, D., B.Sc. Asst.*

Political Economy
Morrison, C., M.A., LL.B. Lectr.

Psychology, v. Logic

Pub. Health, v. Med.—Fevers

Theology, v. Divinity

Zoology, v. Nat. Hist.

Medicine (for subjects of first 2 yrs.—Anat., etc., v. *supra*)

Anæsthetics
Mills, Arthur, M.D. Lectr.*
3 Instrs.

Bacteriology
Tulloch, W. J., M.D. Prof.*
Macnaughton, F. G., M.D., D.T.M. and H. Lectr.
Ross, G. R., M.B., Ch.B. Asst.*

Diseases of Children
Rogers, J. S. Y., M.B., C.M. Lectr.*
Price, Prof. Ll. T. Lectr.*

Diseases, Mental
Mackenzie, W. T., M.D. Lectr.*

Diseases, Throat, Nose, and Ear
Mathers, R. P., M.D. Lectr.*

Diseases, Skin
Milne, F. M., M.A., B.Sc., M.B., Ch.B. Lectr.*

Fevers and Pub. Health
Burgess, W. L., M.B., Ch.B., M.D., D.P.H., D.T.M. and H. Lectr.

Forensic Medicine
Lennox, D., M.D. Lectr.*

Materia Medica
Charteris, F. J., M.D. Glas. Prof.*
Buchanan, W. E. A., M.B., Ch.B. Asst.*

Medicine
Stalker, A. M., M.A., C.M., M.D. Edin. Prof.*
Stalker, J. M., M.B., Ch.B. Asst.*

* At Dundee. † At St. Andrews and Dundee.

Medicine, Clinical
Profs. Charteris and Stalker, Drs. Mackie-Whyte, Foggie, and Kerr (Lectrs.), Drs. Stalker, Malcolm, Scott, and Rankine (Tutors).

Midwifery
Kynoch, J. A. C., M.B., C.M. Edin. Prof.*
Fairlie, Margaret, M.B., Ch.B. Asst. & Tutor.

Midw. and Gynæc.
Buist, R. C., M.A., M.D. Lectr.*

Ophthalmology
M'Gillivray, A., C.M., M.D. Aberd., D.Sc. Reader & Lectr.*
M'Gillivray, Allister, M.B., Ch.B. Asst.*

Pathology
Sutherland, L. R., M.B., C.M. Glas. Prof.*
Tudhope, G. R., M.B., Ch.B., D.P.H. Asst. & Lectr.*

Pathology, Clinical
Milne, F. M., M.A., B.Sc., M.B., Ch.B. Lectr.*

Surgery
Price, Ll. T., M.B., C.M. Prof.*
Brown, F. R., M.B, Ch.B., F.R.C.S. Edin. (Tutor in Clinical S) Asst.*

Surgery, Clinical
Anderson, J., M.B., Ch.B., F.R.C.S. Edin. Lectr.*
Alexander, R. C., M.A., M.B., F.R.C.S. Edin. Lectr.*
Taylor, John, M.D., Ch.M. Tutor.*

Vaccination [Lectr.*
Scott, Douglas, M.B, Ch.B.

* At Dundee.

GENERAL INFORMATION (v. also p. 219).

The University was founded in 1411. In 1747 St. Salvator's (1450) and St. Leonard's (1512) Colleges were united under the name, "United College of St. Salvator and St. Leonard." St. Mary's College (1537) has, since 1579, been restricted to the teaching of Theology. University College, Dundee (1880), was affiliated to and made to form part of the University in 1897.

LIBRARY: 160,000 printed vols. (some of 15th and 16th centuries). MSS. include fine Persian specimens and large folio Antiphonarium. College Library at Dundee. MUSEUMS at St. Andrews—Anat., Anthrop., Ethnol., Geol., Mineral., Nat. Hist.; at Dundee—Geol., Med., Nat. Hist. LABORATORIES at St. Andrews—in all above depts. except Med., also Chem. (with special Research lab.), Marine, Physics, Physiol., Bot. Garden. At Dundee—Anat., Bact., Chem., Embryol., Engin. (Elec., Hydraulic, Mech.), Mat. Med., Maths., Nat. Hist., Physics, Physiol.

DEGREES, ETC., v. p. 221. Courses for graduation in Arts and Science are given both in the United Coll., St. And., and in Univ. Coll., Dundee, some being given in both places, some—Greek, Hebrew, Hist., Moral Philos., Pol. Econ.—only in St. And., some—Engineering—only in Dundee. Medical studies after the first two yrs. are taken solely in Dundee, where facilities for clinical instruction are available. Here also is provided a course in Scots Law. Associated with the Univ. is the Dundee School of Social Study and Training.

The M.A. Course includes a General and a Special Examn. The former, which must be completed before proceeding to the Special, embraces at least 5 subjects, of which Logic must be one, at least two must be Linguistic, and at least one Scientific. Languages must include either (*a*) Latin or Greek, or (*b*) French and

German. *Foreign students* may count English as a language subject. The Science may be either (1) Maths., or (2) Nat. Philos., or (3) Chem. Either (*a*) or (1) must be taken by every candidate. In the Special Examn. two cognate subjects must be taken, the whole examn. being passed at one time.

The B.Sc. in Pure Science Ordinary Degree involves a 3 yrs.' course, embracing at least 4 subjects with a 1st examn. (4 subjects) and a 2nd (2 subjects); the Honours Degree involves a 4 yrs.' course (the last year being devoted exclusively to advanced study in the Hons. subject) with 2 examns.—a 1st in 4 subjects and an Honours in one.

Diplomas: Education, for graduates who complete the first year of the Ed.B. course; D.P.H., 9 months; L.D.S., 4 yrs.; L.L.A. (for women), attendance on courses not required, standard about the same as that of the ordinary M.A.; Social Study, 2 yrs. after obtaining M.A. or B.Sc. *Certificate* in Social Study for non-graduates over 21 with good general educn., 2 yrs.

FEES for Tuition (v. also p. 222). B.Sc., £80; B.Sc. Hons., 90 gs.; M.B., Ch.B., £182. Combined Courses: M.A. and B.Sc., 112½ gs.; M.A. and M.B., Ch.B., £208; M.A., B.Sc. and M.B., Ch.B., £236; B.Sc. and M.B., Ch.B., £220. The above do not include fees for hospl. ticket or cases of labour, or laboratory fees for use of apparatus, etc. Maximum fee for Research students, 5 gs. a term. Degree fees for M.D. or Ch.M., 15; D.Litt., D.Sc., Ph.D., L.D.S., or D.P.H., 10 gs. Dipl. or Certif. in Social Study, 4 gs.

RESIDENCE. University Hall for Women (Warden) at St. Andrews, £66 and upwards p.a., exclusive of tuition fees. Hostel for women students, Dundee (Warden), £40 p.a. Chatton House for men (Warden) at St. Andrews, £60 p.a. and upwards, exclusive of tuition fees.

SCHOLARSHIPS FOR GRADUATES: 20, annual value about £1200; v. also p. 223.

PUBLICATIONS. *Calendar* (June), 3s. 6d.; U. Coll., Dundee, *Calendar*, 6d.; Students' Repvc. Council's *College Echoes* (St. And.) and *The College* (Dundee).

THE YEAR 1920–21

BENEFACTIONS. W. J. Matheson of New York, £2000, and D. and R. Russell, £500, both for Hall of Residence for men students.

NEW BUILDINGS, ETC. Depts. of Surgery, Bacteriology and Physiology enlarged; Students' Union at St. Andrews altered and refurnished; reconstruction of Chapel (including erection of War Memorial) begun; Chatton House, residence for men students, opened; recreation park near Dundee purchased and laid out for students.

NEW DEPARTMENTS AND POSTS. Prof. of Bacteriology (instead of Lectr.); Lectrs. in Path., Maths., Chem., Nat. Philos., Clin. Surg.; Tutors in Clin. Surg., Clin. Gynæc.; Assts. in Bot., Geol., Engl. (2); 3 Instrs. in Anæsth.; Warden of new Men's Residence. Chair of French provided for by ordinance.

NEW ORDINANCES, ETC. Providing for Honours Degree of B.Sc. in Pure Science; separating Lectureships in Forensic Med. and Pub. Health; providing for Diploma and Certif. in Social Study; introducing Hebrew as subject for General M.A. Degree Examn.; enabling foreign students to count Engl. as a language subject; limiting number of subjects in common with B.Sc. Degree Course, which may be taken in Special M.A. Degree Examn.

NUMBER OF STUDENTS. Full-time preparing for first degree, 746 (including

280 women); research, 31 (12 women); occasional, 61 (15 women). Total, 858 (307 women); in two preceding years, 525, 797.

DEATHS. Lord Balfour of Burleigh, Chancellor, July 1921; Emeritus Prof. A. Lawson, Jan. 1921; W. L. Robertson, Lectr. in Clin. Surg., Jan. 1921.

RESIGNATIONS AND RETIREMENTS. J. C. Irvine, Prof. of Chem. (appointed Principal), succeeded by R. Robinson from Huddersfield; Sir P. R. Scott Lang, Prof. of Maths., succeeded by H. W. Turnbull of Board of Educn. Lectrs.: A. R. Fulton, appointed Prof. of Engin., succeeded by W. J. Walker of Manc.; D. M. Greig, appointed Conservator, Museum, R.C.S., Edin.; W. E. Collinge, appointed Curator, York Museum. Assts., etc.: Miss Ethel Osgood, Miss Edith Dobbie, E. G. Ritchie (appointed Chief Tech. Asst. to a Research Assocn.), Mlle. Renée Jardin, W. Alexander (appointed Resident M.O. in King's Cross Hospl., Dundee), J. L. Low, Miss F. B. Mason, W. A. Fraser, A. Sturrock.

THE QUEEN'S UNIVERSITY OF BELFAST

VISITOR—H.M. THE KING.

CHANCELLOR—Rt. Hon. THE EARL OF SHAFTESBURY, K.C.V.O., K.P., LL.D.

PRO-CHANCELLORS—Sir HIRAM SHAW WILKINSON, LL.D., D.L.; Prof. Sir SAMUEL DILL, M A., Litt D., Hon. LL.D.

PRESIDENT AND VICE-CHANCELLOR—Rt. Hon. and Rev. THOMAS HAMILTON, M.A., D.D., LL.D.

REPRESENTATIVE IN THE PARLIAMENT OF THE UNITED KINGDOM—Sir WM WHITLA, M A., M D, LL D.; IN THE PARLIAMENT OF NORTHERN IRELAND—J. H. ROBB, B.A., K.C.; Prof. R. J. JOHNSTONE, B.A., M.B., F.R.C.S. Eng.; J. CAMPBELL, M A., M D, LL.D., F.R.C.S. Edin.; H. S. MORRISON, M.D.

REGISTRAR—Prof. T. SINCLAIR, C.B., M.D., M.Ch., F.R.C.S.E.

SECRETARY—J. M. FINNEGAN, B.A., B.Sc.

SECRETARY OF ACADEMIC COUNCIL—Prof. R. M HENRY, M.A.

BURSAR—JOHN GREEN, C.A.

LIBRARIAN—Prof. G. GREGORY SMITH, M.A., LL.D.

CHAIRMAN OF CONVOCATION—JOHN CAMPBELL, M.A., LL.D., M.D., F.R.C.S.E.

PROFESSORS, LECTURERS, ETC., January 1, 1922

Agriculture

8 Extra-Mural Lecturers.

Agricultural Chemistry

Robertson, G. S., D.Sc. Durh., F.C.S. Lectr.

Anatomy

Walmsley, T., M.D. Glas. Prof.
Anderson, Olive M., M.B. Asst.
Woodside, C. J. A., M.B. Asst.
Hunter, R. H., M.B. Demr. (Embryology).

Anatomy, Applied

Crymble, P. T., M.B., F.R.C.S. Eng. Lectr.

Archæology

..... Lectr.

Bio-Chemistry

Milroy, J. A., M.A., M.D. Edin. Lectr.

Botany

Small, J, D.Sc. Lond. Prof.
Finnegan, Ina, B.Sc. Demr.
Lynn, Mary J., M.Sc. Demr.

Celtic

O'Connell, F. W., M.A., Litt.D., B.D. Dub., M.R.A.S. Lectr.

Chemistry

Stewart, A. W., M.A., D.Sc. Glas. Prof.
M'Clelland, E. W., B.Sc. Asst.
Marsh, J. K., M.Sc. Asst.
Jackson, Jane H., M.Sc. Asst.

Chemistry, Applied

Chemistry, Organic
Graham, Hugh, M.Sc. Lectr.

Classics
Dill, Sir Samuel, M.A., Hon. Litt.D., Hon. LL.D. Ox. (Greek) Prof.
Henry, R. M., M.A. (Latin) Prof.
Wilkins, M., M.A. Dub. (Latin) Asst.
Semple, W. H., B.A. (Greek) Asst.

Commerce
Meredith, H. O., O.B.E., M.A. Camb., M.Com. Manc.
Dean of the Faculty, Lectr. in C., and Prof. of Economics.

Recognized Teachers in the Munic. Coll. of Tech. :
Dodd, F. T. Lloyd, M.A , D.Sc. Prof.
Boyd, D. T., B.Com.Sc. (Accounting).
M'Cracken, W. J , B.A., B.L. (Coml. Law).
Fleet, H. (French).
Sueyras, M. (Spanish)
Carson, J. H. A. (Maths.).

Dental Science
Hunter, W. M., L.D.S. Edin. (Mat. Med.) Lectr.
Elwood, H., L.D.S. Edin. and Penn. (Mechanics) Lectr.
Swan, H. M., L.D.S., R.C.S. Eng. (Surgery) Lectr.
M'Keag, H. T. A., B.D.S. Dub. (Orthod.) Lectr.

Economics, v. Comm., Hist.

Education [Prof.
M'Callister, W. J., M.A., B.Sc.
Simms, Florence, B.A. Dub. Asst.

Engineering, Civil
Hummel, F. H., M.Sc. Birm., A.M.I.C.E. Prof.
M'Cann, R. L., B.E. Asst.
Finnan, E., M.Sc. Asst.

*Engineering, Elec. and Mech.**

English Language
Belfour, A. O., M.A. Ox. Lectr.

English Literature
Smith, G. Gregory, M.A., LL.D. Ox. and Edin. Prof.
Poston, M. L., M.A. Asst.

French
Savory, D. L., M.A. Ox. Prof.
Monsinjon, Charlotte, B. ès L. Asst.
Moorhead, Margt. D., B.A. Asst.

Geology and Geography
Charlesworth, J. K., D.Sc. Leeds, Ph.D. Bres. Prof.

Geology [Asst.
Reynolds, Doris, B.Sc. Lond.

German
Williams, R. A., Ph.D. Leip., D.Litt. Dub. Prof.

History, Modern
Todd, J. E., M.A. Ox. and Edin. Prof.

History, Economic
Lemberger, J., M.A. Ox. Lectr.

Law, English
Baxter, J. S , LL.D. Dub. Prof.

Law, Jurispr. and Roman
Strahan, J. A., M.A., LL.B. Prof.

Logic and Metaphysics [Prof.
Laird, J., M.A. Camb. and Edin.

Mathematics
Dixon, A. C., M.A., Sc.D. Camb. and Lond., F.R.S. Prof.
Geale, Eliza A., B.A. Asst.

Music
Walker, L., B.A., Mus.D. Lectr.

Philosophy, Moral, and History of Philos.
Dorward, A. J., M.A. Camb. Lectr.

* V. *infra* Recognized Colls.

Philosophy, Scholastic
O'Keeffe, D., M.A. Lectr.

Physics
Morton, W. B., M.A. Camb. Prof.
..... Lectr.
Wylie, J., B.A. Lectr.
Woods, Amy I., M.A., M.Sc. Demr.

Physiology [Prof.
Milroy, T. H., M.D , B Sc. Edin.
Lee, J. S , M.B. Demr.
Martin, Edith S., M.Sc. Demr.

Spanish
Llubera, J. G., D.Litt. Mad. Lectr.

Technology, v. *infra*

Zoology [Prof.
Wilson, G., O B.E., M.A., D.Sc. Edin., Ph.D. Freib., M.R.I.A.
Riddell, W., M.A. Demr.

Medicine (for subjects of first 2 yrs.—Anat. etc., v. *supra*)

Gynæcology
Johnstone, R. J., B.A., M.B., F.R.C.S. Eng. Prof.
Greer, H. L. H., M.B. Asst.

Hygiene, v. also Pub. Health
Wilson, W. J., B.A., M.D., D.Sc., D.P.H. Prof.
Blair, E. M., M.Sc. Demr.
Totton, J. H., B.A., B.Sc. Demr.

Materia Medica
M'Ilwaine, J. E., M.D. Prof.

Mat. Med. and Pharmacy [Demr.
Fielden, V. G. L., M.D., Ph.C.

Medicine
Lindsay, J. A., M.A., M.D., F.R.C.P. Lond. Prof.
Turkington, S. I., M.D., D.P.H. Asst.

Medical Jurisprudence
The Prof. of Pathology Lectr.
The Demr. in Path., Clin. Lectr.

Midwifery and Infantile Diseases, v. also Vacc.
Lowry, C. G., M.D., F.R.C.S.I. Prof.

Ophthalm. and Otology [Lectr.
Craig, J. A., M.B., F.R.C.S. Eng.

Pathology
Symmers, W. St. C., M.B. Prof.
Magee, V., M.B., B.Sc., D.P.H. Demr.

Pathology, Clinical
Houston, T., B.A., M.D. Demr.

Pharmacology
..... Lectr.

Public Health [Lectr.
Bailie, H. W., L.R.C.P. and S. Edin., L.F.P.S. Glas., D.P.H.

Surgery
Sinclair, T., C.B., M.D , M.Ch., F.R.C.S. Eng. Prof.
Malcolm, H. P., M.B. Asst.

Vaccination
M'Liesh, J., M.B., D.P.H. (Asst. in Midw.) Teacher.

University Clinical Lecturers :
Calwell, W., M.D. (Med).
M'Polin, J., M.B. (Med.).
Moore, J. B., M.B , F.R.C.S.I. (Surg).
Stevenson, H., M.B., F.R.C.S.I. (Surg.).
Holmes, T. S. S., M.B., F.R.C.S. Eng. (Midw.).
Killen, W. M., M.D. (Ophth. & Ot.).
Mulholland, H., L.R.C.P. & S. Edin. (Ophth. & Ot.).

Technology (v. also Agr. and Engin.)

Extra-Mural Staff (Hon.) being Profs. and Lectrs. at the Munic. Coll. of Tech.

Architecture
Beaumont, I., A.R.C.A. Lond., F.R.S.A. Prof.

Building Construction
Hampshire, T. R. Lectr.

Chemical Technology
Wren, H., M.A., D.Sc., Ph.D. Prof.
Still, C. J., M.Sc., A.I.C. Lectr.
Hughes, Miss K. H., B.A. Lectr.

Electrical Engineering and Physics
Matthewman, T. H., M.A., M I.E.E. Prof.
Jefcoat, C , A.R.C.Sc.I. Lectr.
M'Kenna, O., M.A., B Sc. Lectr.

Electro-Technics
Stanley, Rupert, B.A , M.I.E.E. (Principal) Prof.

Mathematics
Earle, J., B A. Prof.
Murphy, J. J. F., B.Sc. Lond. Lectr.

Mechanical Engineering
Smith, J. H., D.Sc., A.R.C.Sc. Prof.
Warnock, F. V., B.Sc , A.R.C.Sc. Lectr.
Fforde, W. J. (Design) Lectr.
Sandham, B., B.E. (Nav. Archit.) Lectr.

Textile Industries
Bradbury, F. Prof.

RECOGNIZED COLLEGES AND TEACHERS

MUNICIPAL COLLEGE OF TECHNOLOGY, BELFAST, v. *supra*—Commerce and Tech.

ROYAL COLLEGE OF SCIENCE, DUBLIN, providing instruction for the 3rd and 4th yrs. of the B.Sc. (Agr.) courses, v. p. 278.

GENERAL INFORMATION

Queen's College, incorporated in 1849, was dissolved in 1909 on the constitution of the Queen's University of Belfast.

LIBRARY, 90,000 vols. MUSEUMS: Class. Archæol., Nat. Hist., Medical, Materia Medica, Sanitary Science. LABORATORIES: Chemistry ("Donald Currie"), Engineering ("Harland"), Physiology ("Jaffé"), Pathology and Bacteriology ("Musgrave"), Physics, Anat., Bot., Geol., Pharm., Zool. HOSPITALS available for Clinics, 3 general, 10 special (Fever, Maternity, Women, Children, Ophth., Eye, Ear and Throat, Consumption, Lunacy, Skin).

FACULTIES. Arts (including Music), Science (including Agric. and Civil Engin.), Law, Medicine, Commerce, Applied Science and Technology, Dept. of Dental Science.

DEGREE COURSES. 3 yrs.—B.A., B.Sc., B.Sc. in Engin. or Textile Tech., LL.B., B.Com.Sc.; 4 yrs.—B.Sc. in Agric.; 5 yrs. (of which 2 may be in other approved Univs. or Med. Schools)—M.B., Ch.B., B.A.O.; 1 yr.—LL.B. course for graduates of this or another Univ.

The courses in Elec. and Mech. Engin. are taken in the Municipal College of Technology; the 3rd and 4th yr. courses for the B.Sc. in Agric. in the R.C.Sc., Dublin. 3 yrs.' day or 5 yrs.' evening classes in the M.C.T. qualify for B.Sc. in Tech. 3 yrs.' day or 5 yrs.' evening classes in the M.C.T. qualify for the B.Com.Sc.

Diplomas. Commerce (2 yrs.' course); Educn. (1 or 2 yrs.); Higher Dipl. in Educn. (for graduates).

HIGHER DEGREES. The M.A. may be taken by a B.A. 1 yr. after graduation (examn. or thesis or independent research). The (1) D.Lit. and (2) LL.D. are conferred on grads. of this Univ. distinguished in (1) letters, or in literary, philos., or hist. research, or (2) Law, or in legal or hist. research. The M.Sc.

is open to a B.Sc. of the Univ. and grads. of other Univs. holding a degree of similar rank after the lapse of not less than 1 yr. from graduation (thesis or independent research). The D.Sc. is open to grads. of this Univ. 3 yrs. after graduation in any faculty. It is conferred for research or scientific work in relation to Science pure or applied, or for distinction in Science, Engin., or other practical application of Science. The M.D., M.Ch., and M.A.O. are open to graduates in Medicine of 3 yrs.' (if also graduates in Arts or Science, 2 yrs.') standing by examn. or thesis. As regards Ph.D. *see* p. 15.

FEES. Enrolment (annual), 3 gs. Class fees, annual (inclusive)—Arts Honours School, 11 gs.; Engineering, 21 gs.; B.Com.Sc., 8 gs.; Dipl. Educn. (2 yrs.), 6 gs.

SCHOLARSHIPS, ETC., FOR GRADUATES of the Univ. Studentships of £50: 5 in Arts, which may be raised by £25 and continued for a 2nd yr.; 4 in Science. Special grants to Med. graduates for original research or clin. study. Mackay Wilson Travelling Med. Scholp, £100. 4 Studentships of the aggregate annual value of £330.

RESIDENCE. Women's Hostel. Board and residence per annum, about £52. Board and lodging obtainable in the town from about 25s. a week upwards.

RECOGNITION OF OTHER UNIVS. Students from other approved Univs. may apply for exemption from a year's attendance for first degree, attendance and examn. in some of the subjects for first degrees in Arts and Science, in consideration of equivalent courses and examns. elsewhere.

PUBLICATION. *Calendar* (Jan.), 2s.

THE YEAR 1920–21

CO-ORDINATION WITH MUNICIPAL COLLEGE OF TECHNOLOGY. Evening students in Elec. and Mech. Engin. and students in the Faculty of Commerce after a course of study extending over 5 years, who have an approved business or engineering experience, may obtain the Degree of B.Sc. in the Univ.

OTHER DEVELOPMENTS in the Faculty of Law and Depts. of Agr. and Educn. are probable, in consequence of constitution of Parliament of N. Ireland: the Univ. will return 4 members to it, as well as 1 member to the Imperial Parliament.

DEGREES CONFERRED. B.A.—30; B.Sc.—39; B.Com.Sc.—10; M.B.—86; LL.B.—7; M.A.—4; M.Sc.—13; M.D.—8; M.Ch.—1; M.A.O.I.—3; D.P.H.—21; Dip. Ed.—16; Higher Dip. Ed.—18.

NUMBER OF STUDENTS. Total, full-time, 1074 (in 3 preceding yrs.: 741, 888, 995); in Arts, 200 (including 98 women); Science, 207 (70 w.); Med., 588 (125 w.); Law, 20 (3 w.); Commerce, 50 (10 w.); Social Training, 9 (8 w.).

RESIGNATION. Dr. A. R. Dwerryhouse on appointment as Lectr. in Reading.

UNIVERSITY OF DUBLIN, TRINITY COLLEGE

CHANCELLOR—The EARL OF IVEAGH, K.P., LL.D., F.R.S.

VICE-CHANCELLOR—The Rt. Hon. BARON GLENAVY, LL.D.

VISITORS OF TRINITY COLLEGE—THE CHANCELLOR (or VICE-CHANCELLOR); THE LORD CHIEF JUSTICE.

PROVOST—The Rt. Hon and Most Rev. J. H. BERNARD, D.D.

REPRESENTATIVES IN PARLIAMENT—Sir ROBERT H. WOODS, M.Ch.; W. M. JELLETT, B.A.

SENIOR FELLOWS OF THE COLLEGE

Gray, T. T., M.A., Vice-Provost.
Cathcart, G. L., M.A., Auditor.
Purser, L. C., M.A., Litt.D., Registrar.
Roberts, W. R. W., D.D., Senr. Lectr.
Culverwell, E. P., M.A., Senr. Dean and Catechist.
O'Sullivan, A. C., M.A., M.D.
Russell, R., M.A., Bursar.

JUNIOR FELLOWS OF THE COLLEGE

Fry, M. W. J., M.A., Sen. Proctor.
†Macran, H. S., M.A.
Gwynn, E. J., M.A.
Thrift, W. E., M.A.
Smyly, J. G., Litt.D.
Mooney, G. W., M.A.
*Kennedy, W., M.A.
*Rogers, R. A. P., M.A.
*†Goligher, W. A., M.A., Litt.D.
*†Fraser, J., M.A.
*†Alton, E. H., M.A.
*Gwynn, R. M., B.D.
†Webb, G. R., M.A., Junr. Bursar and Registrar of Chambers.
*Tate, Sir R. W., K.B.E., M.A., Junr. Dean.
*Thrift, H., M.A.
*†Canning, H., M.A.
*†Luce, A. A., D.D.
*Johnston, J., M.A.
*Henry, J. M., M.A.
†*Godfrey, F. La T., M.A.
Joly, John, Sc.D., Junr. Proctor.
Fearon, W. R., Sc.D.
†Rowe, C. H., M.A.

* Tutor Fellows. † Honor. Lecturers for 1921-22.

PUBLIC ORATOR—Sir R. W. TATE, M.A
LIBRARIAN—J. G. SMYLY, Litt.D.
REGISTRAR—L. C. PURSER, M.A., Litt.D.

REGISTRARS OF THE PROFESSIONAL SCHOOLS

Law—W. A. Goligher, Litt.D.
Physic—A. C. O'Sullivan, M.D.
Engineering—W. E. Thrift, M.A.
Music—H. S. Macran, M.A.
Civil Service—E. H. Alton, M.A.
Education—J. M. Henry, M.A.
Agriculture—J Joly, Sc.D.
Army—Sir R. W. Tate, M.A.

REGISTRAR OF S. AFRICAN STUDENTS—G. R. WEBB, M.A
LADY REGISTRAR—OLIVE C. PURSER, M.A.
WARDEN OF TRINITY HALL—ELIZ. M. CUNNINGHAM, M.A

PROFESSORS, LECTURERS, ETC., January 1, 1922

Anatomy, v. Zool. and Med. Surg.

Anglo-Saxon, v. German

Arabic, Persian, and Hindustani
King, Sir L. White, LL.D. (Reader in Ind. Hist.) Prof.

Astronomy
..... Royal
Astronomer of Ireland Prof.
Martin, C. Asst.

Biblical Greek and Hebrew
Gwynn, R. M., B.D. Prof.

Botany
Dixon, H. H., Sc.D. Prof.
Ball, N. G., M.A. Asst.

Celtic Languages
Gwynn, E. J., M.A. Lectr.

Chemistry
Young, S., Sc.D. Prof.
Ramsden, W. C. Asst.
Bell, J. Demr.

Chemistry, Applied
Werner, E. A., Sc.D. Prof.

Classical Archæol., v. Hist.

Classical Composition
Tate, Sir R. W., M.A. Lectr.

Classics
The Tutorial Staff Lectrs.
Smyly, J. G., Litt D (Greek) Regius Prof.
Mooney, G. W., M.A. (Latin) Prof.

Dental Surg. and Pathol [Lectr.
Baker, A. W. W., M.D., M.Dent.Sc.
Friel, E. S., M.Dent.Sc. Lectr. in Orthodontia.

Dental Mechanics
Cockburn, J., L.D.S. Lectr.

Divinity, v. also Bibl. Gk., Hist., Theol.
M'Neile, A. H., D.D. Regius Prof.
White, N. J. D., D.D. (Lectr. in Hebrew) Abp. King's Prof.
Jennings, J. A., M.A. Wallace Lectr.
Luce, A. A., D.D. Asst.
Green, D. C., B.D. Asst.

Education
..... Prof.
Henry, J. M., M.A. Lectr.

Engineering, Civil
Clark, D., B.Sc. Lond., A.M.I.C.E. Prof.
Jackson, J. T., M.A. Asst.
Cotter, J. R., M.A. Lectr.

Engin. Practice, Elec.
Tatlow, W., M.A., B.A.I. Lectr.

Engineering, Elec. Traction
Harriss, G. M. Lectr.

Engineering, Harbour
Griffith, Sir J. P., M.A.I. Hon. Prof.

Engineering, Mech.
Lilly, W. E., M.A., M.A.I., Sc.D. (Asst. in Civ. E.) Lectr.

English Literature
Trench, W. Fitz J., Litt.D. Prof.

French, v. also Romance
The Tutorial Staff Lectrs.

Geology and Mineralogy
Joly, J., M.A., Sc.D. Prof.
Poole, J. H. J., B.A. (Asst. in Physics also) Research Asst.
Smyth, L. B., Sc.B. (Palæontology) Asst. and Lectr.

German [Prof.
Waterhouse, G., M.A. Camb., Litt.D. (Lectr. in Anglo-Saxon)

Hebrew, v. also Bibl. Greek, Div.
Kennedy, W., M.A. Lectr.
Alton, E. H., M.A. Lectr.

History, Ancient, and Classical Archæol. [Prof.
Gollgher, W. A., M.A., Litt.D.
Johnston, J., M.A. Asst.

History, Ecclesiastical
Lawlor, H. J., D.D, Litt.D. (Asst. in Div. and Lectr. on Engl. Bible) Prof.

History, Indian, v. Arabic

History, Modern
Curtis, E., M.A. Ox. (also of Oratory) Erasmus Smith's Prof.
Phillips, W. A., M.A. Ox. Lecky Prof.
Maxwell, Constantia E., M.A. Lectr.

Irish
O'Rahilly, T. F. Prof.

Italian, v. also Romance
Tate, Sir R. W., K.B.E., M.A. Lectr.

Law
Bastable, C. F., LL.D. (also Prof. of Pol. Econ.) Reg. Prof.

Law, Feudal and English
Baxter, J. S., LL.D. Reg. Prof.

Law, Const. and Crim., etc.
Lowry, W., LL.B. Belf. Reid Prof.

Mathematics
Rowe, C. H., M.A. Acting Erasmus Smith's Prof.
Rogers, R. A. P., M.A. Donegal Lectr.
Broderick, T. S., B.A. Lectr.
The Tutorial Staff Lectrs.

Medicine and Surgery, v. *infra*

Modern East Indian Langs.
Pope, J. v. S., M.A. Camb. Prof.

Music [Prof.
Kitson, C. H., M.A. Camb., Mus.D. Ox., F.R.C.O.

Oratory, v. History
Curtis, E., M.A. Ox. Erasmus Smith's Prof.

Oriental Langs., v. Arabic, Hebrew, Modern, Sansk.

Philosophy, Moral
Macran, H. S., M.A. Prof.

Mental and Moral Science
The Tutorial Staff Lectrs.

Philosophy, Natural
Fry, M. W. J., M.A. Prof.
Fraser, J., M.A. Asst.
The Tutorial Staff Lectrs.

Physics
Thrift, W. E., M.A. Erasmus Smith's Prof. of Nat. & Exper. Philos.
Thrift, H., M.A. Asst.

Political Economy, v. Law

Romance Languages, v. also French, Ital.
Rudmose-Brown, T. B., M.A. Aberd., D.Litt. Prof.
Starkie, W. F., B.A. (Spanish and French) Asst.

Sanskrit and Comp. Philol.
Canning, H., M.A. Prof.

Theology, Pastoral
Drury, T. W. E., M.A. Prof.

Zoology and Comp. Anat.
Gatenby, J. B., D.Phil. Ox., D.Sc. Lond. Prof.

Medicine

Anæsthetics
Kirkpatrick, T. P. C., M.D. Lectr.

Bact. and Preventive Medicine
Stokes, A., M.D. Prof

Dermatology
Beatty, W , M.D. Hon. Prof.

Laryngology and Otology
Woods, Sir Robt. H., M.D., M.Ch. Hon. Prof

Materia Med. and Pharmacy
Moorhead, T. G., M.D. King's Prof.

Med. Jurispr. and Hygiene
Bewley, H. T., M.D. Lectr.

Medicine, Institutes of
Pringle, H., M.D. King's Prof.
Fearon, W. R., Sc.D. Asst.

Medicine, Practice of
Craig, J., M.D. King's Prof

Midwifery [King's Prof.
Wilson, T. H., F.R C.S I.

Ophthalmology
Holmes, Lt.-Col. G. M., M.D., C.M.G. Montgomery Lectr

Pathology
O'Sullivan, A. C., M.D. Lectr.
Wigham, J. T., M.D. Asst.
Synge, V. M., M.B. Junr. Asst

Physic
Purser, J. M., M.D. Regius Prof.

Surgery and Anatomy
Dixon, A. F., M.B., Sc.D. Prof. of *Anat.*
Taylor, E. H., M.D. Regius Prof. of S. & Univ. Anatomist.
Gordon, T. E., M.B. Prof. of S.
Pearson, W., M.D. Asst. in S.
McConnell, A. A., M.B. Lectr. in Applied A.
West, C. M., M.D. Chief Demr.

GENERAL INFORMATION

Trinity College was founded and incorporated by Royal Charter in 1592 as "Mater Universitatis," but no other College has been founded, so that "Dublin Univ." and "Trinity College" are practically interchangeable terms. The Corporation of the College was put on its present basis by Letters Patent of 1637. Letters Patent of 1911 transferred the powers of making statutes from the Crown to the Corporation. The general government of the Univ. is in the hands of the Board of Trinity College, which consists of the Provost, Senior Fellows, 2 representatives of Junior Fellows, and 2 representatives of the non-Fellow Profs. The Univ. Council, formed by representatives from the various Faculties and Schools, has the right of appointment to most Professorships, and in conjunction with the Board can make changes in the curriculum, but otherwise has only advisory functions. The power of making new statutes was reserved to the Crown until 1911, when by Letters Patent this power was given to the Board subject to the consent of a majority of the Fellows and the approval of the Visitors.

The College occupies a large site in the middle of the city, with ample grounds for the athletic clubs.

THE LIBRARY of Trinity College has enjoyed since 1801 the privilege of receiving a copy of every book published in England. It contains 368,000 volumes and 2000 MSS., affording an unrivalled field for the study of Irish palæography. The State papers in the Irish Record Office are another valuable source available for research in Irish History and Genealogy. A catalogue of MSS. in the Library was published in 1900. There is a lending library of 6000 vols. bequeathed by the late W. E. H. Lecky, and a departmental library in German and the Romance Languages.

MUSEUMS. Zool. and Comp. Anat., Surg. and Med. Path., Mat. Med Anthropometric, Engineering models, Geol. and Mineral., Nat. Philos.

LABORATORIES. Zool., Mat. Med., Anthrop., Physical (Iveagh), Mech. Engin.

HERBARIUM (rich in plants of N. America, India, S. Africa, and Australia). BOTANIC GARDENS, 8 acres.

The Astronomical Observatory of Trinity College is at Dunsink, 5 miles from the College. It is the official residence of the Royal Astronomer of Ireland.

Ample facilities for clinical studies and many appointments for graduates are available in numerous HOSPITALS, including the well-known Rotunda. The Irish High Court is situated within a short distance of the College.

DEGREES. Every student must take the B.A. before proceeding to any other degree, except those in music. The course lasts 4 yrs., but it is only necessary to keep 2 out of the 3 terms in each, or 8 in all. It is also possible to complete the course within 3 yrs. from entrance by taking the final examn. of the 1st yr. at the time of entering and keeping all 3 terms of the 2nd yr. However, all students not in a professional school are required to attend Arts lectures in every term, unless specially exempted (*e.g.* those earning their living by teaching). If exempted they are permitted to keep all of their 8 terms by examn. instead of by attendance.

For the first 2 yrs. (Junr. and Senr. Freshman) all subjects are compulsory: Algebra, Geom., Trig., Mech., Logic, Engl. Essay, Latin, Greek *or* French *or* Irish *or* German. After the examn. ("Little-Go") at the end of the 2nd yr. wide freedom of choice is allowed of subjects for the remaining (Junior and Senr. Sophister) yrs., and exemption from one subject is granted to Law, Engin., and Div. students. For Med. students there is a specially reduced Arts course throughout.

Pass Arts teaching is given by the Tutor Fellows, and is partly of a catechetical nature. Every student must choose one of the Tutor Fellows (see list above) as his Tutor and should apply to him for all information before and after entrance.

The *Honour* B.A.—known as a *Moderatorship*—can be taken in 11 different groups (viz. 1 Math., 2 Class., 3 Ment. and Mor. Philos., 4 Exp. Sc., 5 Nat. Sc., 6 Hist. and Pol. Sc., 7 Mod. Lit., 8 Leg. and Pol. Sc., 9 Eng. Sc., 10 Celtic, 11 Oriental Lang.), and undergraduate honours in the same subjects (except Nos. 9 and 11) can be obtained in each academic year and in some subjects in each term. The course lasts four years in the case of Nos. 1, 2, 4, 5, 6, 7, three years in Nos. 3 and 10, and two years in No. 8. Instruction in these Honour courses is given partly by the Profs. and partly by the Tutorial staff.

A B.A. of three years' standing may be admitted M.A. There is no examn. for this, nor is a thesis required.

The B.D. is obtained by an examn. open to all grads. in Arts, and the D.D.

is open to any B.D. of three years' standing, and is awarded on a thesis or published Theol. work.

The LL.B. course covers 2 yrs.; the M.B., B.Ch., and B.A.O., 5 yrs.; B.Dent.Sc., 4 yrs.; B.A.I., 3 yrs. (optional 4th yr. in Elec. and Mech. Engin.); Agr. B. or Agr. (Forest) B., 4 yrs., of which 3rd and 4th are taken in Roy. Coll. of Sc. The Sc.B. and Ph.D. (v. p. 15) involve post-graduate study and research for 1 yr. and 2 yrs. respectively.

A candidate for the Sc.D. or Litt.D. must have at least 3 yrs.' standing as B.A., and submit important original work. A LL.D. must be of M.A. standing. A M.D. must have taken the M.B. degree and be of M.A. standing; a M.Ch. must be a B.Ch. of 3 yrs.' standing; a M.A.O., a B.A.O. of 2 yrs.' standing; a thesis or examn. is required for M.D., an examn. for the M.Ch. or M.A.O. A M.Dent.Sc. must be a B.Dent.Sc. of 1 yr.'s standing, and pass an examn. A M.A.I. must have practised his profession for 3 yrs. after graduating as B.A.I. The Mus.D. is granted after an exercise or practical test.

DIPLOMAS in Agric., Educn., Econ. and Comml. Knowledge, Elec. Engin., Gynæc. and Obst. (1 yr. course), D.P.H., Religious Knowledge (women).

Testimonium in Divinity (2 yrs.' course).

RECOGNITION OF OTHER UNIVS., ETC. Credit is allowed for terms kept at Oxford or Cambridge, but no student or graduate of any other Univ. can take the B.A. unless he has kept at least 2 yrs. at Trinity College. No student can take any medical degree unless he has attended at least 3 yrs. in Trinity College.

A B.A., B.Sc., or M.A. of any of the undermentioned Univs. may be allowed credit *pro tanto* for the first 2 yrs. and the examn. held at their expiration: Aberd., Belf., Birm., Brist., Edin., Glas., Leeds, Liver., Lond., Manch., St. And., Sheff., Wales, and Nat. Univ. of Ireland.

A student who has passed two years in Arts studies at any of the undermentioned Univs. and passed the examns. belonging to that period is given credit *pro tanto* for the first academic year: Adel., All., Bom., Cal., McGill, Madr., Mel., N. Brun., N. Zea., Panj., Syd., Tas., Tor., King's Coll., Windsor.

A student who has passed the Matricn. examn. of any Univ. in S. Africa, including Latin, Maths., and either French, German, Dutch, or Greek, is admitted without further examn., and, if a Med. student, is excused the Prelim. Med. examn. Medical students are given credit for lectures and examns. in Zool., Bot., Chem., and Physics of any S. African Univ., and also for lectures and practical work in Anat. and Physiol., but not for the examns. in these last two subjects. Courses in Path. and Bact. at Cape Town are also recognized.

A student who has passed the Interm. examn. of any Univ. in S. Africa is permitted to present himself at the Final Freshman examn., with exemption from those subjects in which he has already passed at the Interm. examn.

A student who has passed the B.A. examn. of any Univ. in S. Africa is allowed credit for the 1st two collegiate yrs. and for the Final Freshman examn.

To students admitted to advanced standing the entrance fee is remitted and in most cases some of the half-yearly Arts fees.

In keeping terms students from S. Africa are allowed to substitute Dutch for French or German, when 2 languages are required. 6 exhibitions are offered for medical students from S. Africa, on the nomination of the S. Af. Univs., value from £150 to £200 according to the number of years spent in Dublin (3-5). The Board and Council are prepared, in the case of students of Medicine, to consider applications from Colonial Univs. and Colls. for recognition of courses of instruction given by them.

Students from S. Africa should write to the Registrar of S. African Students for fuller information.

No recognition granted under this scheme will exempt a student wishing to take the Dublin degree from spending at least three full years of Med. study in Trin. Coll.

The Univ. of Melbourne is entitled to nominate one of its Med. graduates to an exhibition of £100, with rooms rent free for 6 mos. in T.C.D., intended to defray, in part, the expenses incurred in obtaining the Diploma in Gynæc. and Obst.

FEES. Entrance, £15; Composition for all Arts Lectures, 20 gs. p.a.; Medical course total (including Hospitals and Degree fees), about £150; Dental Science total, about £200; Engineering, (3 yrs.) £40 (minimum), in addition to Arts Tuition fees; Divinity free for students in Arts, 20 gs. p.a. for others.

SCHOLARSHIPS OPEN TO GRADUATES. 2 studentships of £100 p.a. tenable for 5 years offered at the B.A. degree examn.; prizes amounting to £450 awarded annually to candidates who deserve assistance for research or other purposes; a prize of £300 to the best unsuccessful candidate at the Fellowship examn. A number of other prizes, etc. (including the National Hist., nearly £400), are open to graduates under M.A. standing.

RESIDENCE. The College has accommodation for 320 students. Rent £6 to £30 p.a. (for rooms intended to accommodate 2 students); dinner in Hall, 14s. a week. Trinity Hall accommodates 40 women; board and residence, £23 : 10s. to £28 : 10s. per term of 10 weeks. There is also a hostel for Divinity students of the Church of Ireland.

PUBLICATIONS. *Calendar*, vol. i. (Nov.), 4s., includes information as to courses and *Pass* Arts examn. papers, results of examns., degrees conferred, etc.; vol. ii. (occasional), lists of past honours, benefactors, etc.; *Supplement* (Feb.), 4s., Honours and Professional Schools Examn. Papers, etc. *Book of T.C.D.*, 1591–1891, 21s. (Hodges, Figgis & Co., Dublin). *Hermathena* (occasional) original papers in Arts subjects. *T.C.D.* (Students'), 3d. weekly.

THE YEAR 1920–21

BENEFACTIONS. Earl Iveagh, £20,000 for a bath-house; £200 for a prize in memory of C. M. Minchin from his widow; £1465 from Gold Medallists of the College for advancement of children of members of the Univ. fallen in the War.

NEW DEVELOPMENTS. A scheme for distributing the State Grant of £30,000 promised by a clause in the 1920 Irish Government Act was drawn up by the Board. The scheme followed on the whole the report of the Royal Commission, omitting new developments for which no funds were available. No capital grant has been secured, and owing to the 1920 Act having failed to operate, no payment of the £30,000 has been received yet and the scheme is in abeyance.

HONORARY DEGREES CONFERRED. *LL.D.*—Sir R. A. Falconer, E. Borel. *D.Litt.*—G. H. Orpen, J. S. Phillimore. *M.Ch.*—E. H. Taylor.

OTHER DEGREES. B.A. 203 (including 39 women); M.B., B.Ch., B.A.O., 50; B.A.I., 27; Mus.B., 6; M.Dent.Sc., 1; LL.B., 13; M.A.I., 1; M.Ch., 1;

M.A., 82; B.D., 4; Mus.D., 3; Litt.D., 1; D.Sc., 2; M.D., 11; LL.D., 2; D.D., 3.

NUMBER OF STUDENTS in Arts, 1390, including 388 graduates, on Jan. 1, 1922. In addition, about 70 students in Med. not included in above. Junior freshmen, 1921–22, 174.

INTERCHANGE of an English Lit. Lectr. for a French Lectr. effected with Univ. of Paris. RETIREMENTS. H. W. Macintosh, Prof. of Zool.; T. Alexander, Prof. of Engin.; H. C. Plummer, Astronomer Royal (on accepting an appointment in Woolwich Royal Mil. Academy).

THE NATIONAL UNIVERSITY OF IRELAND

VISITOR—H.M. THE KING.

CHANCELLOR—EAMON DE VALERA, B.A., B.Sc.

VICE-CHANCELLOR — ALEXANDER ANDERSON, M.A., D.Sc., LL.D. President, Univ. Coll., Galway—*until* Dec. 31, 1922.

PRO-VICE-CHANCELLORS—THE PRESIDENTS, UNIV. COLLS., DUBLIN AND CORK, AND ST. PATRICK'S COLL., MAYNOOTH.

REPRESENTATIVE IN THE PARLIAMENT OF THE UNITED KINGDOM—J. MACNEILL, B.A., D.Litt.; IN THE PARLIAMENT OF SOUTHERN IRELAND—ADA ENGLISH, M.B., B.Ch., B.A.O.; M. HAYES, M.A.; J. MACNEILL, B.A., D.Litt; W. F. P. STOCKLEY, M.A.

REGISTRAR—Sir JOSEPH MCGRATH, LL.D.

CONSTITUENT COLLEGES. University Colleges, Dublin, Cork, and Galway.

RECOGNIZED COLLEGE. St. Patrick's College, Maynooth.

PROFESSORS AND LECTURERS, January 1, 1922

Prof. of Catholic Theology—Peter Finlay, S.J.

Staffs of the Univ. Colleges, v. *infra.*

Recognized Teachers in approved degree courses in St. Patrick's College, Maynooth (President—Rt. Rev. Monsignor MacCaffrey, Ph.D.). *Classics*—J. F. D'Alton, M.A., D.D., D.Litt.; T. Fahy, M.A.; M. Sheehan, M.A., D.D., D.Ph. *Eastern Languages*—P. Boylan, M.A. *English*—C. Mulcahy; P. MacSweeney, M.A. *French and German*—J. L. Rigal, M.A. *Irish*—G. O'Nolan, M.A. *Maths. and Math. Physics*—P. J. Browne, M.A., D.Sc. *Maths. and Expl. Physics*—J. I. Donaghey, B.D., Ph.D. *Mental and Moral Philos.*—M. Forker, D.Ph.; P. Coffey, D.Ph.; J. O'Neill, D.Ph. *Music*—..... *Welsh*—P. Walsh, M.A.

GENERAL INFORMATION

Queen's University in Ireland, founded in 1850, was replaced in 1880 by the Royal University of Ireland, which was dissolved along with Queen's College, Belfast, on Oct. 31, 1909. On this date the National University of Ireland, Univ. College, Dublin, and Queen's University of Belfast came into being, and the Colleges previously known as Queen's at Cork and Galway became with the new College at Dublin constituents of the N.U.I.

FACULTIES. (1) Arts, (2) Philosophy and Sociology, (3) Celtic Studies, (4) Science, (5) Law, (6) Medicine, (7) Engineering and Architecture, (8) Commerce.

Music is included in Arts and Celtic Studies. Classes are held in all Faculties at each of the constituent Colleges, and in 1, 2, 3, and 4 at Maynooth.

DEGREES: B.A., M.A., D.Litt., B.Mus., D.Mus., D.Litt.Celt.; B.Sc., B.Agr.Sc., M.Sc., M.Agr.Sc., D.Sc.; LL.B., LL.D.; M.B., B.Ch., B.A.O., M.Ch., M.A.O., M.D., B.Sc. and D.Sc. in Pub. Health, B.D.S., M.D.S.; B.E., B.Arch., M.E., M.Arch.; B.Comm., M.Comm.; Ph.D.

Course for a First degree in any faculty—9 terms in one of the Constituent Colls. or St. Patrick's.

The M.Sc., M.Agr.Sc., D.Sc., B.Sc, Pub. Health, M.E., M.Arch., Ph. D. may be conferred on graduates or other students for research under prescribed conditions in the Univ. or in a Constituent Coll. during at least 3 terms for a Master's degree or 6 terms for the Doctorate.

Diplomas are offered in the subjects of Faculties 1, 3, 8, and in several others; certificates in Commercial subjects. A Higher Diploma in Educn. may be obtained by a graduate of any Univ. of the U.K. or other approved Univ. after a course in one of the Constituent Colls.

FEES: Matricn., £3. Combined examn. and degree, £7 to £21. Diplomas £2 to £5.

STUDENTSHIPS, ETC., FOR GRADUATES. Five of £200 each, tenable for 2 yrs. outside Ireland (to which a prize for a further year of Irish Historical Research may be added), open to graduates of the Univ. of not more than 4 yrs.' (one in Medicine, 2 yrs.') standing; one of £150 in Mental and Nervous Diseases; one of about £40; prize of £100 for Irish Historical Research.

PUBLICATION. *Calendar* (July), 2s.

THE YEAR 1920–21. Degrees conferred: B.A.—204 (including 42 women); B.Sc.—36 (16 w.); M.B., etc.—166 (32 w.); B.Comm., 22 (14 w.); B.E.—30; B.D.S.—5 (1 w.); M.A.—16 (6 w.); M.Sc.—6 (4 w.); others, 12. Diploma in Educn.—37 (2 w.); Higher Dipl. in Educn.—38 (22 w.); D.P.H.—7. Honorary war degrees: B.Sc.—3.

UNIVERSITY COLLEGE, DUBLIN

VISITOR—H.M. THE KING.

PRESIDENT—D. J. COFFEY, M.A , M.B., B.Ch , B.A.O., LL.D.

REGISTRAR—Prof A. W. CONWAY, M.A., D.Sc , F.R.S.

SECRETARY AND BURSAR—J. W. BACON, M.A.

LIBRARIAN—J. J. O'NEILL.

PROFESSORS AND LECTURERS OF THE UNIVERSITY, January 1, 1922

Accountancy
O'Connor, D., A.C.A. Lectr.

Agriculture
Drew, J. P., A.R.C.Sc.I. Prof.

Anatomy
M'Loughlin, E. P., B.A , M B., B.Ch., B.A.O. Prof.

Archæology, Celtic [Prof.
Macalister, R A. S , M.A., Litt.D.

Architecture
..... Prof.

Banking and Finance
Leet, F. L., LL D. Lectr.

Botany
Butler, J. B., M.A., M.B., B.Ch., B.A.O. Prof.

Chemistry
Ryan, H., M.A., D.Sc. Prof.

Classics [Prof.
Browne, H., S.J., M.A. (Greek)
Semple, P., M.A. (Latin) Prof.

Commerce
Shields, B. F., M.A. Prof.

Dental Mechanics
Potter, J. I., L.D.S. Prof.

Dental Surgery [Prof.
Sheridan, E., L.D.S., F.R.C.S.I.

Economics, National, of Ireland
Oldham, C. H., B.A. Prof.

Education [Prof.
Corcoran, T., S.J., B.A , D.Litt.

Engineering, Civil
Purcell, P. F., M A., M.A I. Prof.

English Lang. and Philology
O'Neill, G., S.J , M.A. Prof.

English Literature
Donovan, R., B.A. Prof.

French and Romance Philol.
Chauviré, R., D. ès L. Prof.

Geology
Seymour, H. J., B.A., B.Sc. Prof.

German
Macken, Mrs., M.A. Prof.

Histology, v. Physiology

History [Prof.
O'Sullivan, J. M., M.A., Ph.D.

History, Early, including Mediæval Irish
MacNeill, J., B.A., D.Litt. Prof.

History, Modern Irish
Hayden, Mary T., M.A. Prof.

History, Municipal
Webb, J. J., M.A., LL.D. Dub. Corpn. Lectr.

Irish, Early and Mediæval
Bergin, O., B.A., Ph.D. Prof.

Irish Lang. and Lit., Modern
Hyde, D., LL.D., D.Litt. Prof.

Irish
O'Farrelly, Agnes, M.A. Lectr.

Italian and Spanish
Degani, Maria A., Dipl. Univ. Padua Prof.

Law, Const., and Wrongs
MacNeill, J. G. Swift, M.A. Ox., K.C. Prof.

Law, Jurispr., and Internat. and Roman [Prof.
Murnaghan, J. A., M.A., LL.D.

Law of Property and of Contracts
Clery, A. E., B.A., LL.D. Prof.

Mathematics
M'Weeney, H. C., M.A. Prof.

Mathematics, Pure
Egan, M. F., S.J., M.A. Lectr.

Mathematical Physics
Conway, A. W., M.A., D.Sc., F.R.S. Prof.

Medicine and Surgery, v. *infra*

Music
Larchet, J. F., Mus.D. Prof.
O'Dwyer, R. (Irish M.) Dub. Corpn. Prof.

Oriental Languages
Boylan, P., M.A. Prof.

Philosophy
Cronin, M., M.A, D.D. (Ethics and Politics) Prof.
Shine, J., M.A. (Logic and Psychology) Prof.
Magennis, W., M.A. (Metaphysics) Prof.

Physics, Experimental
Nolan, J. J., M.A., D.Sc. Prof.
Dowling, J. J., M.A. Lectr.

Physiology and Histology
O'Connor, J. M., B.A., M.D. Prof.

Political Economy
Finlay, T. A., S.J., M.A. Prof.

Welsh
Jones, J. Ll., M.A., B Litt. Prof.

Zoology [Prof.
Sigerson, G., M.D., M.Ch., D.Litt.

Medicine

Hygiene and Med. Jurispr.
Meenan, J. N., M.B., B.Ch., B.A.O., D.P.H. Prof.

Mat. Med. and Therap.
..... Prof.

Medicine
O'Carroll, J. F., M.D., M.Ch., LL.D., F.R.C.P.I. Prof.

Midwifery and Gynæc.
Smith, A. J., M.B., M.Ch., M.A.O., F.R.C.S.I. Prof.

Ophthalmology
Werner, L., B.A., M.B, B.Ch., B.A.O., F.R.C.S.I. Prof.

Pathology and Bacteriology
M'Weeney, E. J., M.A., M.D., M.Ch., M.A.O., D.P.H., F.R.C.P.I. Prof.

Pathology, Special
Crofton, W. M., B.A., M.D. Lectr.

Surgery [Prof.
M'Ardle, J. S., M.Ch., F.R.C.S.I.

GENERAL INFORMATION (v. also p. 269)

The College was constituted by Royal Charter in 1909. The LIBRARY, 60,000 vols., includes the books of the late Catholic Univ. and R.U.I. and the Zimmer Celtic Library. MUSEUMS: Ancient History. LABORATORIES include those of the late R.U.I.

COURSES are provided for the degrees of the N.U.I. in all Faculties.

FEES for tuition, annual, in degree courses: Arts or Comm.—14 gs.; Science—£20 to £25; Engin.—£20 to £23; Law (in addition to Arts)—8 gs.; Med. (including Coll. Hospl.), whole period—£165.

COLLEGE SCHOLARSHIPS, post-graduate in Arts or Science, 5 of £60.

RESIDENCE. Hostels for men and for women. Students are subject to supervision by Deans of residence.

PUBLICATION. *Calendar*, Sept., 2s.

THE YEAR 1920–21. *Number of students* preparing for Bachelor's degrees, 1179; Master's degrees or Higher Dipl. in Ed., 50; D.P.H., 17; other Diplomas, 64; occasional, 7; Total, 1317, of whom 65 were non-matriculates, 293 women. Full-time, 1285 (291 women). Students from King's Dominions overseas, 13. *Degrees conferred* on students of the College: B.A., 94; B.Sc., 15; M.B., 95; LL.B., 2; B.D.S, 4; B.E., 12; B.Comm., 14; B.Arch., 1; B.Agr.Sc., 1; M.A., 18; M.Sc., 6; M.D., 3; Higher Dip. Ed., 26; D.P.H., 11.

UNIVERSITY COLLEGE, CORK

VISITOR—H.M. THE KING.
PRESIDENT—P. J. MERRIMAN, M.A.
REGISTRAR—A. O'RAHILLY, M.A., B.Sc., Ph.D.
SECRETARY AND BURSAR—J. DOWNEY.
LIBRARIAN—J. FAWCETT, M.A.

PROFESSORS AND LECTURERS OF THE UNIVERSITY, January 1, 1922

Accounting
MacCarthy, C. P., M.Comm. Lectr.

Agriculture
..... Lectr.

Anatomy
Fitzgerald, D. P., B.A., M.B., B.Ch., B.A.O. Prof.
O'Connor, W. F., M.B., B.Ch., B.A.O., F.R.C.S.I. Asst.

Archæology
Power, P., M.R.I.A Prof.

Architecture
Hill, H. H., B.A. Lectr.

Biology
Quinlan, Christina, M.Sc. Asst.

Botany [Prof.
Cummins, Maj. H. A., M.D , C.M.G.

Chemistry
Dixon, A. E., M.D. Dub. Prof.
Taylor, John, D.Sc. Asst.

Classics
Treston, H. J., M.A. Prof.
Porter, W. H., M.A. Dub. Lectr.

Dental Materia Med.
Cantillon, E. V., M.B., B.Ch., B.A.O. Asst.

Dental Mechanics
Sheedy, G., L.D.S. Lectr.

Dental Surgery
Hackett, J. R., M.B., B.Ch., B.A.O., L.D.S. Lectr.

Economics and Commerce
Smiddy, T., M.A. Prof.

Education, Methods of
O'Sullivan, Eliz. M., M.A. Prof.

Education, History of
M'Sweeney, E. P. Lectr.

Electrical Technology
Belas, P. E , B.A., M.Sc Lectr.

Engineering, Civil
Walsh, H. N., M.E. Prof.
..... Asst.

English [Prof.
Stockley, W. F. P., M.A. Dub.

French
Curran, Mary, M.A. Demr.

Geology and Geography
Swain, I., B.A. Prof.

German
..... Prof.

History
Hogan, J., B.A. Prof.

Irish Lang. and Lit.
O'Donoghue, T. Prof.
O'Donoghue, E. Lectr.

Law
Dunlea, W. J., LL.D. (Contracts, etc.) Prof.
Moloney, H. J., B.L. (Real Property) Prof.

Mathematics
Conran, M. J., M.A. Prof.

Mathematical Physics [Prof.
O'Rahilly, A., M.A., B.Sc., Ph.D.

Medicine and Surgery, v. *infra*

Music
Lacy, F. St. J., F.R.A.M. Prof.

Philosophy [Prof.
Fitzgibbon, T. E., B.A., Ph.D.

Stokes, G. J., M.A. Dub. (P. and Jurispr.) Prof.
O'Sullivan, J., Ph.D. Asst.

Physics, v. also Maths.
Bergin, W., M.A. Dub. Prof.

Physiology
Barry, D. T., M.D., D.Sc., D.P.H., F.R.C.S. Prof.
O'Donovan, J. M., M.Sc., M.B. Asst.

Romance Languages, v. also French
Ryan, Mary, M.A. Prof.

Spanish
Cooke, W. C. Lectr.

Zoology and Embryology
..... Prof.

Medicine (for subjects of first 2 yrs.—Anat., etc., v. *supra*)

Hygiene [Prof.
Donovan, D. D., L.R.C.P. and S.E.

Materia Med.
Dundon, J., M.B., F.R.C.S., B.Ch., B.A.O., F.R.C.S. Prof

Medical Jurisprudence
O'Sullivan, P. T., M.D., B.Ch., B.A.O. Prof.

Medicine [Prof.
Cummins, W. E. A., M.D., M.Ch.

Mental Diseases
Fitzgerald, J. J., M.B., B.Ch., B.A.O. Lectr.

Midwifery
Corby, H., B.A., M.D., M.Ch. Prof.

Ophth. and Otology
Sandford, A. W., M.D., M.Ch. Dub. Prof.

Pathology [Prof.
Moore, A. E., M.B., B.Ch., B.A.O.
Enright, Margt. A., M.B., B.Ch., B.A.O., D.P.H. Asst.

Surgery
Pearson, C. Y., M.D., M.Ch., F.R.C.S. Prof.
Pearson, C. B., M.D., B.Sc. Asst. & Demr.

GENERAL INFORMATION (v. also p. 269)

Queen's College, Cork, founded in 1845, became a constituent College of the N.U.I. in 1908.

LIBRARY: 60,000 vols., including the d'Arbois Jubainville collection of Celtic works. MUSEUMS. Archæol., Ethnol., Geol., Mineral., Nat. Hist., Med.

LABORATORIES. Biol., Chem., Engin. (Testing—200,000 lb. machine—and Hydraulics), Geol., Physics, Medical School. BOTANICAL GARDENS. OBSERVATORY with 8″ equatorial and 11″ photo. telescopes, seismograph, and 4″ siderostat.

Complete COURSES provided for all degrees and diplomas of the Univ., except 2 years in the B.Sc.Agric. course. Students are also prepared for the examns. of the Univ. of London.

Commerce students can do 6 mos.' practical work in railway or accountants' offices, etc. Courses in Engin. (Mech., Elec., Chem., Workshop Practice, Design, and Drawing) at the Municipal Tech. Sch. qualify for the B.E. degree.

FEES for tuition, including College fee: Arts, £42; Science, £58; Engin. £60; Med., £145, including Hospl. fees; Dentistry, £185, including Hospl. fees; Music, £35.

RESIDENCE. Hostel for men (charitable trust, R.C. only); students are supervised by Officers of Residence.

PUBLICATION. *Calendar* (Sept.), 1s.

THE YEAR 1920–21. *Number of Students* (1917–18 to 1920–21): men—450, 492, 499, 494; women—116, 137, 161, 170. *Retirements*: Prof. M. Hartog; Assts. W. Magner, Eliz. O'Driscoll.

UNIVERSITY COLLEGE, GALWAY

PRESIDENT—ALEXANDER ANDERSON, M.A. Camb., D.Sc., LL.D.
REGISTRAR AND SECRETARY—Rev. J. HYNES, B.D.

PROFESSORS AND LECTURERS OF THE UNIVERSITY, January 1, 1922

Anatomy
Shea, S., M.B., B.Ch., B.A.O. Prof.

Archæology, Celtic
Hynes, J., B.D. Lectr.

Chemistry
Dillon, T., M.A., D.Sc. Prof.

Classics, Ancient [Prof.
M Elderry, R. K., M.A. Camb.

Economics, Commerce, & Accicy.
M'Bryan, F., M.A. Prof.

Education
O'Kelly, T., B.A., B.D. Prof.

Engineering, Civil
Rishworth, F. S., B.E., B.A., A.M.I.C.E. Prof.

Engineering, Electrical
Griffith, W. G, B.Sc. Lond., A.M.I.E.E., M.I.C.E.I. Prof.

English Language and Lit.
Byrne, W. A., B.A. Lond. Prof.

Geology and Mineralogy
Mitchell, J., B.Sc., B.E. Prof.

German
Cooke, Miss M. M., M.A. Prof.

History (Special Reference to Irish H.) [Prof.
Donovan O'Sullivan, Mrs., M.A.

Irish Lang., Philol., and Lit.
O'Maille, T., M.A. Manc., Ph.D. Frei. Prof.

Irish, Modern
Prof. MacEnri, S. P. Lectr.

Law and Jurisprudence
Sheehy, R. J., LL.B. Prof.

Mathematics
Power, M., M.A., B.Sc. Prof.

Medicine and Surgery [Prof.
Colahan, N. W., M.D., M.Ch. (Fevers, Materia M., etc.)
Mahon, R. B., M.D., M.Ch., F.R.C.S.E. (Practice of M.) Prof.
English, Adeline, M.B., B.Ch., B.A.O. (Mental Diseases) Lectr.
Kinkead, R. J., B.A., M.D. Dub. (Obst. and Gynæc.) Prof.
MacEnri, S. P., M.A., M.D. Dub., B.Ch. (Ophth. and Ot.) Prof.
Walsh, T., M.A., B.Sc., M.D., D.P.H. (Path.) Prof.
Brereton, W. W., L.R.C S.I., M.R.C.P.I. (Practice of S.) Prof.
Lectrs. in Med. Jur. & Hygiene : Profs. Kinkead and Walsh.

Natural History [Prof.
Mangan, J., M.A., F.R.C.Sc.I.

Philosophy
Howley, J. F. W., M.A. Prof.

Physics
The President Prof.

Physiology
Donegan, J. F., M.B., B.Sc. Prof.

Romance Languages
O'Brien, L., M.A. Prof.

GENERAL INFORMATION (v. also p. 269)

Queen's College, Galway, opened in 1849, became a constituent College of the N.U.I. in 1908.

LIBRARY: 50,000 vols. LABORATORIES: Physics, Chem., Biol., Physiol., Path., Geol., Engin. MUSEUMS: Nat. Hist., Mat. Med., Gynæc., Anat. Dept.

DEGREE COURSES in Arts, Celtic, Science, Law, Med., Engin., Commerce. Courses for Diploma in Educn.

Med. degree students are required to spend 1 yr. at a Metropolitan Hospl. after a 4 yrs.' course in the College.

FEES. College, £2 (women, £1). Degree courses (approximately): Arts, £26; Science, £30 to £45; Law, £12; Medicine (including 2 years General Hospital fees), £78; Engineering, £46; Commerce, £26. Post-graduate or research course, £5.

SCHOLARSHIPS open to students of the Coll. on graduation: 4 of £40.

RESIDENCE. The cost of board and lodging for a student varies from 26s. to 35s. a week. Every student is required to register under a Dean of Residence, who exercises supervision over the general conduct of students outside the precincts, and every woman student under a Lady Supt., who exercises supervision over their conduct within the precincts of the College.

PUBLICATIONS. College *Handbook* and list of licensed lodging-houses, free; *Calendar* (post free, 1s. 3½d.); Regns. for Degrees and Courses (3½d.); Regns. for Scholps. and Diploma in Educn. (3d.), from O'Gorman and Co., Galway; Univ. Examn. Papers (post free, 1s. 7d.), from Supervisor of Examns., Univ. Coll.

THE YEAR 1920–21. Grant of £1500 received from County Councils of Connaught. *Number of Students*: in Arts, 68; Science, 14; Law, 1; Med., 131; Engin., 24; Commerce, 20. Total full-time students preparing for first degree, 220, including 59 women; taking post-grad. courses for higher degrees, 12 full-time; diploma students, full-time 4, part-time 11. Grand total, 251. *Degrees obtained*: B.A., 5; B.Sc., 2; LL.B.,1; M.B., B.Ch., B.A.O., 11; B.E., 12; B.Comm., 1; M.A., 3; M.Sc., 1.

ROYAL COLLEGE OF SCIENCE FOR IRELAND, DUBLIN

DEAN—H. H. JEFFCOTT, B.A.I., M I.M.E., A.M.I.C.E
REGISTRAR—P. A. E. DOWLING, B.A.

PROFESSORS, LECTURERS, ETC., January 1, 1922

[Associates of the College marked *.]

Agriculture, v. also For., Hort., Vet.
Wilson, J., M.A., B Sc. Prof.

Agric. Botany
*Gorman, M. J. Lectr.

Agric. Chemistry
Stephenson, G. Lectr.

Agric. Econs., Bookkeeping, etc.
*Cole, R. D. Lectr.

Bacteriology
Denham, C. H., B.A., M.B Lectr

Botany
Johnson, T., D Sc, F.L.S., M.R I.A. Prof.
*O'Connor, P. Demr.

Chemistry [Acting Prof.
*Adeney, W. E., D.Sc., F.I.C.

Chemistry, Organic
O'Farrelly, A., M.A., F.I.C. Lectr.

Chem., Phys. and Metall. [Lectr.
*Leonard, A. G. G., B.Sc., Ph.D.

Engineering
The Dean Prof.
*Taylor, J., M.A. Lectr.
*Warwick, F. W., B.A, B.E. Demr.

English and Education
Williams, W. J., M.A. Lectr.

Forestry [Prof.
Henry, A., M.A., F.L.S., M.R.I.A.

Geology [Prof.
Cole, G. A. J., F.R.S., M.R.I.A.
*Fannin, R. J. Demr.

Horticulture
*Sherrard, G. O. Lectr.

Mathematics [Prof.
Orr, W. McF., M.A., D.Sc, F.R.S.
Johnston, J. P., M.A., Sc.D. Lectr.

Physics
Hackett, F. E. W., M A, M.Sc., Ph.D. Prof.
*Allen, R. G, B.Sc., A.M.I.E.E. Lectr.
*O'Callaghan, P. Demr.

Veterinary Hygiene
Mason, F. C., M.R.C.V.S. Lectr.

Zoology [Prof.
Carpenter, G H., D Sc., M.R.I.A.
*Torrens, D. S. Demr.

GENERAL INFORMATION

The College is housed in new buildings, and the LABORATORIES are fitted throughout with all modern appliances. Facilities for technical research in all branches of Chemistry, *e.g.* extraction of metals, production of metallic alloys, glazes, enamel, glass, pigments, paints, coal-tar derivatives, peat products, synthetic drugs. Engineering Pattern Shop, Foundry, Smithy,

Machine Shop ; examples of types of engines aggregating 700 H.P. Hydraulics and Hydraulic Machinery Labs. Testing Machines recording up to 100 tons. Elect. Engin. Labs. with D.C. and A.C. machines. Extensive Physics, Agric., and Nat.Sc. equipment. LIBRARY with 30,000 Scientific and Tech. books, 10,000 pamphlets, numerous maps, etc.

The Regular COURSES extend over 4 yrs. leading to the *Associateship* of the College in Agric. (4 groups), Applied Chem., Engin., Science Teachers' courses (Tech., Expl. Sc., Nat. Sc., Rural Sc.).

The *Fellowship* of the College may be awarded to any Associate of at least 3 yrs.' standing who (1) submits a satisfactory thesis embodying results of original scientific research or investigation or treating critically some branch of Science, or (2) has contributed in a marked degree to the advancement of Science.

Several valuable *Scholarships* are attached to the College, and a number of *Research Studentships* are available.

Short *Summer Courses* are held in the College in Science subjects by the Dept. of Agric. and Tech. Instruction for Ireland.

THE YEAR 1920–21. *Number of Students*, 421 ; additional attending summer course, 142. *Number of Diplomas* granted : Fellowship, 0 ; Assoc., 33.

CANADIAN UNIVERSITIES

In *Nova Scotia*: ACADIA, DALHOUSIE, KING'S COLLEGE, ST. FRANCIS XAVIER. In *New Brunswick*: NEW BRUNSWICK, MOUNT ALLISON. In *Quebec*: BISHOP'S COLLEGE, LAVAL, MCGILL, MONTREAL. In *Ontario*: MCMASTER, OTTAWA, QUEEN'S, TORONTO, TRINITY COLLEGE, VICTORIA, WESTERN. *Western Provincial Univs.*: MANITOBA, SASKATCHEWAN, ALBERTA, BRITISH COLUMBIA.

I. GENERAL DESCRIPTION

[Contributed by A. Stanley Mackenzie, Ph.D., D.C.L., President of Dalhousie Univ., President for 1920 of the Conference of Canadian Univs.]

IT is probably not true to say that Canada has evolved a distinctive type of Univ.; and yet Canadian higher institutions of learning differ in many ways from the corresponding institutions in the British Isles and in the United States. One might divide Canadian Univs. into groups, determined by the prototype after which each was consciously or unconsciously modelled. In the first group are those which followed closely the Oxford tradition — King's, New Brunswick, Bishop's, Toronto, and some of its federated colleges (University, Trinity, Wycliffe). The Univs. in the second group are those which modelled themselves on Edinburgh, viz. Dalhousie, McGill, Queen's. Laval in Quebec, Laval in Montreal (which has lately changed its name to that of the Univ. of Montreal), and Ottawa have followed closely the forms and tradition of France. The four western provincial Univs. of Manitoba, Saskatchewan, Alberta, and British Columbia, and especially the three last, bear a close resemblance to the State Univs. of the United States. The Univs. which have not been named are perhaps more free from direct imitation of older types.

As the years have gone by all these institutions, while maintaining individuality and evidences of their original form, have tended to uniformity in many important regards. For instance, they all require four years for the Bachelor degree in Arts or in Science. Again, they have a common standard of preliminary education for admission to the course leading to these degrees. This standard is that attained by a pupil who has completed three years of a High School course superimposed on eight years in the common schools. This standard is called Junior matriculation. If a pupil has successfully completed the fourth year of the High School course in the proper subjects, or passes the equivalent Senior matriculation examination, he can enter the second year and complete the course for the degree in three years. This practically amounts to saying that High Schools or Collegiate Institutes which have a fourth year course give in that year about the same work as is done in the first year of the Univ. course.

JUNIOR MATRICULATION. Students can satisfy the Entrance requirements of the Univs. either by examination or on certificate from a standard High School or accredited Preparatory School or Collegiate Institute or School. Such certificate is, however, not accepted as such, but considered subject by subject; that is, it must show a Pass in the Required Subjects of matriculation. These required subjects differ somewhat from one Univ. to another. Practically all Univs. require for candidates for the B.A. degree the following six subjects: (1) English, (2) History, (3) Algebra (through quadratics), (4) Geometry (at least four books), (5) Latin, (6) a second foreign language. There is in nearly every Univ. a seventh subject; it is usually a science (in some cases specified, in others elective), but in many cases a third foreign language is accepted instead.

Where a course in Pure Science is given leading to the degree of B.Sc. the requirements are as above, except that the two foreign languages are French and German.

There is much more variation in the requirements for entrance to the courses in Applied Science, or Engineering; but the best schools of Applied Science require in addition to the requirements (1) and (2) of Arts, Advanced Algebra, Advanced Geometry, Trigonometry, Physics, Chemistry, and at least one foreign language.

The requirements for entry upon the study of Medicine are generally the same as those for Arts. The same is true for Dentistry except that no second foreign language is required.

The requirements for entry upon the study of Law are the same as those for Arts, except in the case of Osgoode Hall (affiliated with the Univ. of Toronto), where Senior matriculation is required, and of Dalhousie, where a year of Arts in a Univ. is required. *See also* under Toronto.

CURRICULUM. Speaking very generally, one can say that about one-half of the course for the degree of B.A. is prescribed and the other half elective; but these elective subjects are commonly to be distributed among certain broad groups of allied subjects in a specified way, varying with the individual Univs. The prescribed work includes English, History, two foreign languages, one of which is usually Latin (British Columbia requires only one), Philosophy, Mathematics, and Science. In the case of the B.Sc. degree in Pure Science the two foreign languages required are French and German.

A feature of Canadian Univs. which distinguishes them from the typical Univs. of the United States is the provision made for the ambitious student and the student who wishes to specialize during his course for the B.A. degree. This is accomplished by the provision of the system of Honour courses. In this system a student who shows the necessary aptitude is permitted to take special classes, which in some instances are in extension of the regular classes, and in other cases are restricted to Honour students. In some Univs. the Honour classes are confined to the third and fourth years of the course; in others, as in the case of Toronto, they are given in all four years, and there is also a special Honour matriculation. In general, also, the number of pre-

scribed classes is reduced, so that the student not only goes more deeply into each subject, but specializes to a greater extent than the Pass man is allowed to do. On the completion of an Honour course the student receives a degree With Honours. No small measure of the academic success of Canadian students in post-graduate work in home and foreign Univs. is to be attributed to this system.

LENGTH OF SESSION. The Canadian Univs. open about October 1, and close in May or early in June. The average length of the session is 32½ weeks for all faculties, except those of Medicine and Dentistry, which are 4 weeks longer. Of the 32½ weeks, 26 are given up to actual lecturing, and the remainder to vacations, examinations, and closing exercises.

LENGTH OF COURSE FOR A DEGREE. For a degree in Arts, Pure Science, Applied Science, or Dentistry, the course extends over four years. For Medicine it was five years until the present time; it has now been extended to six. The course in Law proper extends over three years only; Dalhousie, however, requires a preliminary year in Arts and will soon extend this to two years.

By a proper combination of studies a student can complete a combined course for the degrees in Arts and a professional faculty in a year less than the sum of the years required for each.

SCIENTIFIC AND INDUSTRIAL RESEARCH, v. Appendix XXIV.

II. CONFERENCE

The 7th Conference of Canadian Univs. was held at Laval Univ., May 17 and 18, 1920, when reports were presented on Graduate Work in Agric., Correspondence with British and French Univs. regarding Higher Degrees, Medical Educn., and Legal Educn. Among other matters discussed were Aid for Soldier Students, Joint Matricn. Boards, Exemption from Income Tax of Gifts to Univs., and Military Training in Univs. A paper was read on the subject of Forestry. Standing Committees for 1920–21: On Matricn., Med., Legal, and Engin. Educn., Educn. of Soldiers, Educn. for Foreign Trade and Service, Graduate Work in Canada, Graduate Work in Agric., Univ. Co-operation in Scientific and Indust. Research; to correspond with British and French Univs. Officers for 1921: President, Dr. H. M. Tory, Pres. of Alberta; Vice-Pres., Dr. C. C. Jones, Chancellor of N.B.; Secy.-Treasr., Dr. J. Sirois of Laval, 21 Couillard St., Quebec; other members of Exec. Committee, Dr. F. D. Adams of McGill and Dr. R. Bruce Taylor of Queen's.

Owing to the second Congress of Univs. of the Empire taking place in 1921 the usual annual meeting of Canadian Univs. was not held in that year. At the Imperial Education Conference at Toronto in Aug. 1921 the relations between high schools and colleges and Univs. were discussed, and the desirability of establishing University Chairs of Imperial and Colonial History was emphasized.

III. DEGREES IN DIVINITY FOR STUDENTS BELONGING TO THE ANGLICAN CHURCH IN CANADA

The Church Universities and Theological Colleges in Canada having entered into an agreement to adopt a uniform standard for degrees in Divinity, all such degrees are now only conferred in accordance with Canon X of the General Synod of Canada, and only on examn. by a Joint Board, including the Arch-

bishop of Rupert's Land (Chairman), and representatives of the Univs. of King's, Bishop's, and Trinity Colleges, Montreal Diocesan, Wycliffe (Toronto), Huron (London, Ont.), St. John's (Winnipeg), Emmanuel (Saskatoon), St. Chad's (Regina), Anglican Theol. Coll. of B.C.

In the case of a College within the "Province of Canada" (a group of dioceses in Eastern Canada) which has not the power to confer degrees the Metropolitan, or a representative of the College acting for him, grants the degrees. The Canon provides for similar powers being conferred on the Primate for the granting of degrees throughout the jurisdiction of the General Synod. [*Contributed by the Bishop of Ottawa.*]

IV. Nova Scotia Technical College, Halifax

This institution represents the principal effort of the province in University training. It is supported entirely from provincial revenues. Through a co-operative agreement, a uniform matriculation and a uniform engineering course covering the general work of the freshman and sophomore years is carried out entirely in the Univs. of Acadia, Dalhousie, King's, Mount Allison, St. Francis Xavier, and St. Mary's College. On successful completion of this course, the student proceeds to the Technical College without examn. for the professional work of the last 2 of the 4 yrs.' course. Here the studies are differentiated and the student elects either Civ., Elec., Mech., or Mining Engineering. The degree given is that of B.Sc. The Technical Coll. confines its attention entirely to the work of the jun. and sen. yrs. It is equipped principally for teaching the engineering courses and commercial testing of industrial materials and natural resources, and incidentally for scientific research. The buildings and equipment represent a provincial investment of about $500,000. [*Contributed by the Department of Technical Educn.*, N.S.]

V. The Carnegie Foundation for the Advancement of Teaching

The object of the Foundation is to provide retiring allowances and pensions, and, "in general, to do and perform all things necessary to encourage, uphold, and dignify the profession of the teacher and the cause of higher education." Its 15th Annual Report, dated Oct. 1920, stated that the following classes of persons are eligible for retiring allowances: (1) A person in an institution on the associated list who (*a*) is 65 years of age and has served not less than 15 years as professor, or not less than 25 years as instructor or as prof. and instr., or (*b*) has served 25 years as prof. or 30 years as instr. or as prof. and instr., and who is shown by medical examn. to be entirely unfitted by disability for continuing the work of teacher; (2) a widow who has for 10 years been the wife of any teacher of class (*a*) or (*b*). The offices of the Foundation are at 522 Fifth Avenue, New York City.

The list of associated institutions includes Dalhousie, McGill, Queen's, and Toronto. Up to June 1921, 1389 allowances had been granted, including 45 in Canada and 3 in Newfoundland.

In addition to its work in connexion with the payment of pensions the Board of Trustees has undertaken the issue of various publications and their free distribution. The Annual Reports include discussions of various questions connected with teaching institutions. Separate bulletins have been published on Financial Reports of Colleges, Univs., and Tech. Schools; Medical, Engineering, Legal, and other vocational education; the Training of Teachers; and Teachers' Pensions.

Canadian Students in the Universities of the United Kingdom, v. Appendix XXII.

ACADIA UNIVERSITY, WOLFVILLE, NOVA SCOTIA

PRESIDENT—G. B. CUTTEN, Ph.D., D.D., LL.D.

CHAIRMAN OF THE BOARD OF GOVERNORS—J. W. MANNING, D.D.

REGISTRAR—Prof. A. B. BALCOM, B.Sc., M.A.

BURSAR—A. COHOON, B.A., D.D.

LIBRARIAN—MARY K. INGRAHAM, M.A.

PROFESSORS, LECTURERS, ETC., October 1921.

Biology [C. F. Myers Prof.
Perry, H. G., M.A.

Chemistry
Hill, D. U., M.A., Ph.D. Prof.

Classics
Thompson, W. H., jun., M.A., Ph.D. Barss Prof.

Economic Science
Balcom, A. B., B.Sc., M.A. Prof.

Education and Psychology
Kellogg, C. E., M.A., Ph.D. Instr.
Borden, K.
Instr. in Manual Training.

Engineering [I. Curry Prof.
Wheelock, F. E., M.A., Ph.D.
Sutherland, A., B.Sc. Prof.

English Lang. and Lit. [Prof.
Rhodenizer, V. B., M.A., Ph.D.
Logan, J. D., Ph.D.
Spl. Lectr. in Canadian Lit.

Geology
Rau, W. M., B.Sc., M.A. Prof.

German
Ross, Roy, M.A. Prof.

History
..... M. Curry Prof.

Law [Lectr.
Illsley, J. L., K.C., B.A., LL.B.

Library Science [Instr.
Ingraham, Mary Kinley, M.A.

Mathematics [White Prof.
Coit, W. A., M.A., Ph.D.

New Test. Lang. and Lit.
De Wolfe, H. T., B.A., D.D. Prof.

Old Test. Lang. and Lit.
Chute, A. C., B.A., D.D.
G. P. Payzant Prof.

Oratory
Smallman, Evelyn Instr.

Osteology and Physiology
De Witt, C. E. A., B.A., M.D. Instr.

Physical Training
Russell, C. B. Director.

Physics
Haley, F. R., M.A. Alumni Prof.

Psychology and Philos.
The President Prof.

Romance Languages
Conant, R. O., B.A. Prof.

Social Service
White, Edith M., B.A. Instr.

Theology and Church Hist.
Spidle, S., B.D., Ph.D.
G. P. Payzant Prof.

GENERAL INFORMATION (v. also p. 280).

Founded in 1838 by the N.S. Baptist Educational Society, Acadia College was incorporated in 1840 by Act of the N.S. Legislature, with the powers of a University. In 1896 an endowment of $100,000 for the Theol. Dept. was received under the will of G. P. Payzant. The Board of Governors is appointed by the Baptist Convention of the Maritime Provinces, but the students are subject to no religious tests.

LIBRARY: 45,000 vols. MUSEUMS: Biol., Ethnol., Geol., Hist. LABORATORIES: Biol., Chem., Geol., Physics, Engineering. OBSERVATORY: Meteor. and Astron.

DEPARTMENTS. Arts and Sciences, Theology, Applied Science, Music.

DEGREE COURSES. 4 yrs.—B.A., B.Sc.; 3 yrs.—B.Mus., and for ordained ministers or licentiates of some Christian Church who have completed the first 2 yrs. of the Arts course, B.Th.; 1 yr. (for resident graduates)—M.A. Combined B.A. and B.Th.—6 yrs. The B.Sc. Engineering courses enable graduates to enter the 3rd year classes of McGill Univ. and N.S. Tech. Coll. Some of the B.A. and B.Sc. courses enable graduates to enter the 2nd yr. of the Dalhousie Law School, Halifax, and the Med. Dept. of McGill Univ. respectively (v. pp. 283, 301, 314, 341).

OTHER COURSES. "English" Theol. (2 yrs.); Applied Sc. (2 yrs.), covering same ground as Unified course at McGill and the N.S. Tech. Coll., and giving admission to the 3rd yr. courses therein (v. p. 283).

FEES for tuition: in Arts and Sc., $306; in Theol. *nil*; in Appl. Sc. (2 yrs.), $220. Lab. fees extra, about $30.

RESIDENCE. College hostels provide accommodation for 70 men and 65 women.

AFFILIATION, v. pp. 178, 314.

PUBLICATIONS. *Bulletin*, 25 cents p.a.; *Calendar*, number issued in July.

THE YEAR 1920–21

SPECIAL EVENTS. On Dec. 1, 1920, a fire destroyed the main College building. Fortunately most records were saved. A movement for the raising of $1,000,000 for construction of new buildings and endowment was inaugurated. One pledge of $250,000.

NUMBER OF STUDENTS, 1920–21. Preparing for B.A., 206; Dept. of Theology, 7; B.Sc., 24; Applied Science, 76; Special, 16. Total, 333.

HONORARY DEGREES CONFERRED. D.D.—Austen T. Kempton, Maynard W. Brown; M.A.—Mrs. Irene Elder Morton, F. A. Good, and M. F. Gregg.

OTHER DEGREES. M.A., 4; B.A., 41; B.Sc., 8.

UNIVERSITY OF ALBERTA

VISITOR—THE LIEUTENANT-GOVERNOR OF THE PROVINCE.

CHANCELLOR—Hon. CHARLES ALLAN STUART, B A , LL.D Tor.

CHAIRMAN OF BOARD OF GOVERNORS—Hon. H. HARVEY, M.A., LL.B. Tor., LL.D., Chief Justice.

PRESIDENT—HENRY MARSHALL TORY, M.A., D.Sc., LL.D. McG.

REGISTRAR—C. E. RACE, B.A Tor , C.A

LIBRARIAN—D. E CAMERON, M.A. Edin

PROFESSORS, LECTURERS, ETC., January 1, 1922

Accountancy

Race, C. E , B A. Tor , C.A. Lectr.

Agriculture, v. also Vet.

Howes, E. A., B.S.A. Tor.
Dean of Faculty.
Smith, J. MacG , B S.A. Man.
Prof. of Ag. Engineering.
Dowell, A. A., B.S.A. Ames.
Prof. of Animal Husby.
Lattimer, J E., B S.A. Tor.
Asst. Prof. of Animal Husby.
Bowstead, J. E., M.S.A. Wisc.
Asst. Prof of Animal Husby.
Marker, C P. Prof. of Dairying.
Cutler, G. H., B.S.A. Tor.
Prof. of Field Husby.
Newton, R., B.S.A. McG.
Asst. Prof. of Field Husby.
Fryer, J. R., M.A. Tor.
Asst. Prof. of Field Husby.
Harcourt, G., B S.A. Tor.
Lectr. in Hortic.
Bergey, S. A., B.S.A. Tor.
Asst. Prof. of Poultry.
Wyatt, F. A., B S.A. Utah, M.S., Ph.D. Ill. Prof. of Soils.

Anatomy. [Prof.

Revell, D. G., B.A., M.B. Tor.
Shaner, R. F., Ph.D. Harv.
10 Demrs. and 2 Instrs.

Architecture

Burgess, C. S., A.R.I.B.A. Prof.

Bacteriology, v. Med.

Bio-Chemistry, v. Physiol.

Biology [Prof.

Lewis, F. J., D.Sc. Liv., F.L.S.
Rowan, W., M.Sc , F.Z.S.
Assoc Prof. of Zool.
Moss, E. H , M.A. Tor.
Lectr. in Botany.
Rivett, Maud, B.Sc. Lond.
Lectr. in Botany.
Pelluet, Dixie, M.A. Tor.
Demr. in Zool.

Botany, v. *Biol.*

Chemistry

Lehmann, A. L. F., B.S.A. Tor., Ph.D. Leip. Prof.
Cowper, A. D., B.Sc. Lond., M Sc.
Asst. Prof.
Walker, O. J , B A Sask., M.A Harv., Ph.D. McG. Asst. Prof.
Leavell, Gladys, M.Sc. Chic.
Lectr.
Stover, N. McK , M Sc. Asst.

Classics

Alexander, W. H., M.A. Tor., Ph.D. Calif. Prof.
Misener, Geneva, M.A. Qu., Ph.D. Chic. (Latin) Assoc. Prof.
Hardy, W. G., M.A. Tor. Lectr.
Cox, L. C , M A. Tor., Ph.D. Chic.
Instr.

Dentistry
Fuller, L. L., D.D.S. Phila. Instr. (Prosth.D.)
Gilchrist, H. A., D.D.S Northwn Instr.
Bulyea, H. E , D M.D. Harv. Instr. (Op. D.)

Drawing & Descr. Geom.
Adam, J., M.A. Assoc. Prof.

Engineering, Civil & Municipal
Wilson, R. S. L., B.Sc. McG. Prof
Morrison, I. F , S.B Mass. Inst. Tech. (Civil E) Assoc. Prof.
Fife, W. M., B.Sc. (Civ E.) Lectr.
Macdonald, A E., B.Sc. N.S. Tech. Col. Lectr

Engineering, Mechanical
Robb, C. A., B Sc. McG., M.S. Mass. Inst Tech. Prof.

English
Broadus, E. K., M.A. Chic , Ph D. Harv. Prof.
Gordon, R. K., B.A. Ox., M.A., Ph.D. Tor. Prof.
Wallace, P. A. W , B.A. Tor. Lectr.

French and Ger., v. Mod. Langs.

Geology
Allan, J. A., M.Sc. McG., Ph.D. Mass. Inst. Tech. Prof.
Warren, P. S , B.A. Tor , A.R.C S. Lond. Lectr.
Lee, Vera, M.Sc. Asst.

Hebrew
Miller, A. D., M.A. Tor., B.D. Vict. Sessional Lectr.

History
The President. Prof.
Burt, A. L., B.A. Tor., M.A. Ox. Prof.
Long, M. H., B.A. Ox. Asst. Prof.

Household Economics
Patrick, Mabel, B.A. Tor. Lectr.
Deadman, Edith, B.A. Tor. Instr.

Law
Weir, J. A., B.A., LL.B. Sask., B.A. Ox. Lectr.
18 Sessional Lectrs.

Mathematics
Sheldon, E. W., M.A. McG., Ph.D. Yale Prof.
Killam, S. D., M.A. Mt. All., Ph.D. Gott. Prof.
Campbell, J. W., M.A. Qu., Ph.D. Chic. Assoc. Prof.
Milne, T. T., M A Tor Lectr.
Mitchell, Mrs. E. T., M.Sc. Instr.

Medicine, v. *infra*

Mining Engineering,
Pitcher, N. C., M.Sc. McG. Prof.
Cameron, A. E., M.Sc. McG. Assoc. Prof

Modern Languages
Kerr, W. A. R , M.A. Tor., Ph.D. Harv. Prof.
Coar, J. F., M.A., Ph.D. Harv. (German) Prof.
Sonet, E., B. ès L. Lyons (French) Assoc. Prof.
Pelluet, A. P. (French) Asst. Prof.
Owen, F., M.A. Tor. Lectr.
de Savoye, H., B.ès L. Paris, LL.B. (French) Lectr.

Philosophy
MacEachran, J. M., M.A. Qu., Ph.D. Leip. Prof.
MacDonald, J., M.A. Edin. Asst. Prof.
MacPhee, E. D., M.A., Ed.B. Edin. Lectr.

Physics
Boyle, R. W., M.A., Ph.D. [Prof. McG.
Smith, S., M.A., B.Sc. Ox. Assoc. Prof.
MacLeod, H. J., B.Sc. McG., M.Sc. Assoc. Prof.
Lang, R. J., B.A. McM., M.A. Tor. Lectr.
Morgan, S. C., B.Sc. Qu. Lectr.

Physiology and Bio-Chemistry
Downs, A. W., M.A., M.D., D.Sc. Prof.
Collip, J. B., M.A., Ph.D. Tor. Assoc. Prof.
Eddy, N. B., M.D. Corn. Asst. Prof.
Bills, C. E., B.Sc. J.H.U. Lectr. in B.

Political Economy
MacGibbon, D. A., M.A. McM., Ph.D. Chic. Prof.
McGoun, A. F., B.A., B.C.L. McG., M.A. Harv. Lectr.

Veterinary Science
Talbot, P. R., V.S. Tor., M.D.V. Chic. Specl. Lectr.

Zoology, v. *Biol.*

Medicine (for subjects of first 2 yrs.—Anat., etc., v. *supra*)

Bacteriology and Hygiene
Rankin, A. C., C.M.G., M.D., C.M., D.P.H. McG., L.R.C.P., M.R.C.S. Prof.
Shaw, R. M., B.A., M.D., C.M., D.P.H. McG. Asst. Prof. of B.
Laidlaw, W. C., M.B. Tor. Lectr.
Orr, H., O.B.E., M.B., D.P.H. Tor. Instr.

Medicine, Clinical
Jamieson, H. C., M.B. Tor. Lectr.
2 Demrs.

Pathology
Ower, J. J., B.A., M.D., C.M. McG., Prof., and Provincial Serologist.
Hall, M. E., B.A., M.B. Tor. Demr.

Pharmacology
Bell, L. R., B.A., M.B. Tor. Lectr.

Pharm. and Mat. Med. [Prof.
Gaetz, H. H., Director of School,
Dunn, F. A. S., Ph.C. Tor., M.P.S. Gr. Bn. Lectr.

Surgery
Mewburn, W. H., M.D., C.M. McG. Prof.
Gray, G. C., M.B. Tor. Lectr.
Munroe, A. R., M.D., C.M. McG. Instr.
Wilson, W. A., M.D., C.M. McG. Instr.

Industrial Laboratories
Kelso, J. A., M.Sc. Qu. Director.

Industrial Research Profs.
Stansfield, E., M.Sc. Manc. (Fuels.)
Clark, K. A., M.A. McM., Ph.D. Ill. (Road Materials.)

Physical Education
MacRae, D. A., B.P.E. Director.
Fabb, Christine L. Asst. Dir.

Correspondence Courses
MacKenzie, D. S. Director.
3 Instrs.

Department of Extension
Ottewell, A. E., M.A. Director.
Patton, H. S., B.A. Tor., M.A. Harv. Lectr. in Pol. Econ.

AFFILIATED COLLEGES

(1) ALBERTA THEOLOGICAL COLLEGE (Methodist), Edmonton. Chairman of Board of Governors, H. B. Smith, M.D.; Secy., C. E. Race, B.A., C.A. Principal—A. S. Tuttle, M.A., D.D. Mt. All., Prof. of Philos. of Religion. Other Profs.: A. D. Miller, M.A. Tor., B.D. Vict., Hebrew, etc.; Clyo Jackson, M.A. Tor., B.D. Vict., New Test. Lit. Three Lectrs. Situated on Univ. grounds; quarters for 125 students.

(2) ROBERTSON THEOLOGICAL COLLEGE (Presbyterian), Edmonton. Chairman of Board of Management—J. A. McDougall. Principal—J. M. Millar,

M.A., B.D., D.D., Prof. of Engl. Bible, etc. Head of Extra-mural Dept. and Lectr.—A. T. Barnard, M.A., B.D.

(3) ST. AIDAN'S COLLEGE and Hostel (C. of E.), Edmonton—affiliated, 1919. Warden—Rt. Rev. Bishop Gray.

(1) and (2) co-operate, Profs. of both instructing joint classes.

GENERAL INFORMATION (v. also p. 280)

Telegraphic address—VERA (A.B.C. Code)

The University, created by act of the Provincial Legislature, 1906, originally consisted of a Chancellor, Vice-Chancellor, Senate, and Convocation. By amendment the office of President was created 1907, and a Board of Governors 1910, the latter being given financial and administrative control, while the Senate was restricted to educational supervision. Student residences, Athabasca, Assiniboia, and Pembina Halls, were opened in 1911, 1912, and 1914 respectively, while the main teaching and administrative building was completed in 1915. Classes began September 1908. In 1912 extension work, conducted from the beginning, was departmentalized under a Secretary. In the same year a Faculty of Law was created. Subsequent expansion involved the establishment of Faculties of Applied Science and of Medicine, 1913; Faculty of Agriculture, 1915; courses in Pharmacy and in Dentistry, 1914 and 1917 respectively; in Household Economics, 1918; in Commerce and in Public Health Nursing, 1921. In 1919–20 the extraordinary increase in the number of medical students necessitated the construction of a new Medical Building. In the same session the creation of the office of Director of the School of Pharmacy completed the evolution of the School from a Department under the Faculty of Medicine to an independent unit. The Provincial Legislature has established a close relationship between the Univ. and the Professions, and the Senate now has jurisdiction over the educational standards of Architects, Chartered Accountants, Dentists, Engineers, Land Surveyors, Lawyers, Pharmacists, Physicians and Surgeons, Registered Nurses, Optometrists, and Veterinary Surgeons.

The University grounds, 637 acres, beautifully situated on the wooded south bank of the Saskatchewan, include provision for the accommodation of affiliated colleges and afford ample room for expansion. Edmonton is a city of about 60,000 inhabitants, the capital of the Province of Alberta (area 250,000 sq. m.; pop. 600,000). The chief activities of the city are wholesaling, coal-mining, and meat-packing, while the main interests of the Province are agriculture and coal-mining. For 2000 miles to the north of Edmonton, and naturally tributary to it, lie the valleys of the Athabasca, the Peace, and the Mackenzie Rivers. The fur trade is still the chief activity of this vast region, though on the Peace River a rapid agricultural growth is in progress, and its great resources in coal, water-power, natural gas, lumber, asphalt, etc., await development.

LIBRARY, 19,000 vols. LABORATORIES for all scientific courses; museum; herbarium; farm; agricultural experimental plots.

FACULTIES. Arts and Sciences (including Household Economics, Pharmacy and Commerce); Applied Science (including Architecture); Medicine (including Dentistry); Law; Agriculture.

MATRICULATION examns. are conducted in April, June, and Sept., under control of High School and Univ. Matricn. Examns. Board of the Province. Equivalent examns. by recognized authorities in the British Dominions are accepted *pro tanto* for admission.

DEGREE COURSES. 4 yrs.—B.A., B.Sc. in Arts, in Com., in Household Econ., in Engin. (Civ., Elec., or Mining), in Archit., or in Pharmacy, LL.B., D.D.S. (first 2 yrs. provided here, after which students are admitted to McG., or Tor. without further examn. for completion of course); 3 yrs.—B.H.E. (in Household Econ.), B.Sc. in Agric.; 6 yrs. (5 for returned soldiers)—M.D. (4 yrs. provided here, after which students are admitted to McG. or Tor. for completion). Combined B.A. and B.Sc. in Arts—6 yrs.; B.A. and B.Sc. in Applied Sc.—6 yrs.; B.A. and M.D.—8 yrs.; B.A. and LL.B.—6 yrs. (v. also pp. 178, 237, 314, 341). The Agric. course is preceded by preliminary training at one of the Provincial Agric. Schools.

A Bachelor may obtain the M.A. or M.Sc. in Arts by 1 yr. of advanced study or investigation. The B.D. is open to B.A. students of affiliated Colls. on completion of approved courses. The LL.D. is for distinction in Lit. or Science, or notable public service.

OTHER COURSES: For Licence in Pharmacy; Correspondence Courses for Teachers (Senr. Matricn. subjects); Summer School for Teachers (conducted at the Univ. by Dept. of Educn.); Short courses in Agric. for returned soldiers; 3 mos.' course in P.H. Nursing for Registered nurses; Provincial Dairy School short courses.

A system of EXCHANGE LECTURES is carried on in co-operation with Manit. and Sask.

FEES, tuition per session: Arts (including 4 yrs.' degree courses in Pharm., Com. and Household Econ.), $30; Appl. Sc., $60 to $80; Law, $15; Med. and Dent., $100 (1st yr., $75); Acctcy, $25 and $50; Agric. (including 3 yrs.' course in Household Econ.), free. Students' Union, $7; Med. Service, $3.

SCHOLARSHIPS: several, particulars obtainable from Registrar. L. H. Bishop Memorial Fellowship in Engl. Lit., $200, open to graduates of the Univ.

RESIDENCE, ETC. 4 Halls of residence (including 1 belonging to an affiliated Coll.), with accommodation for 400. Fees for room and board for the session, $280; board only, $28 per month. Social life is under supervision of Provost, a Univ. officer. All undergraduates are members of Students' Union.

UNIVERSITY EXTENSION work includes travelling and packet libraries and lantern slide and cinema services.

PUBLICATIONS. *Calendar* (June); *Press Bulletin*, weekly, by Dept. of Extension; *The Trail*, quarterly, by Alumni Assocn.; *The Gateway*, weekly, by students.

THE YEAR 1920–21

BENEFACTIONS. Moshier Memorial Medal, awarded by Volunteer Overseas Med. Assocn. of Edmonton; Rockefeller Foundation, $500,000 for development of Medical Faculty; P. Burns of Calgary, $150 Scholp.; a returned soldier, $150 Scholp.; Loan Fund for Soldier Students, including $12,000 share of Mem. Scholps. Fund of Khaki Univ.

NEW BUILDINGS. Medical building including besides laboratories and offices two lecture theatres, each to accommodate 200.

NEW POSTS. Research Profs. of Fuels and Road Materials, Profs. of Agr. Engineering and Dairying, Assoc. Profs. of French and Physics, Asst. Profs. of Philos. and Poultry.

OTHER DEVELOPMENTS. Legislative provision for control by Univ. Senate of examns. for licence to practise optometry and Veterinary Science, for reorganization of Faculty of Law on a permanent academic basis, and for making the Univ. ultimate heir of lands of intestate persons; courses in Commerce and Public Health Nursing; Provincial course in Dairying; excavations in Red Deer District for palæontological specimens; Scientific Assocn. of the Univ. comprising all members of Staff in Pure and Applied Science completed its first year's work.

NUMBER OF STUDENTS. Preparing for B.A. or B.Sc in Arts—289 (including women, 147); M.D.—141 (women, 11); D.D.S.—40 (woman, 1); combined B.A. and M.D.—22 (women, 7); B.A. in Household Ec.—24 women; B.Sc. in Pharmacy—20 (women, 11); Pharmacy Licence—43 (women, 5); B.S.Agr.—44; B.Sc. in Household Ec.—3 women; B.Sc. in Applied Sc.—67 (woman, 1); combined B.A. and B.Sc. in App. Sc.—19 (woman, 1); LL.B.—75 (women, 8); combined B.A. and LL.B.—68 (women, 5); taking graduate courses—50 (women, 12); senior matricn. correspondence courses—73 (61 women); other special courses—130 (women, 45). Grand total—1106

HONORARY DEGREES CONFERRED. LL.D.—Sir James Aikins, Lieut.-Govr. of Manit.; Lieut.-Col. W. H. Mewburn.

OTHER DEGREES. B.A.—58 (including women, 26); LL.B.—14; B.S.A.—10; other Degrees—19.

EXTENSION WORK. Lantern slides sent out, 1000; moving picture films, 200 series; lectures, 250; travelling libraries, 250. A University week for Farm Young People was held.

UNIVERSITY OF BISHOPS' COLLEGE, LENNOXVILLE, QUEBEC

CHANCELLOR—JOHN HAMILTON, M.A., D.C.L.

VICE-CHANCELLOR—H. H. BEDFORD-JONES, M.A., D D., Principal of the College.

REGISTRAR—J. C. STEWART, Bursar and Secy. of the College.

PROFESSORS AND LECTURERS, September 7, 1921

Smith, Rocksborough R , M.A. Lond., Harold Prof. of Divinity.

Boothroyd, E. E., M.A. Camb , Prof. of History and English Literature.

Burt, H. C., M.A., T.C. Tor., Prof. of Philos. and Econ., Lectr. in Church Hist.

Call, F. O., M.A., Prof. of Mod. Langs., Dean of Residence and Librarian.

The Principal, Lectr. in Hebrew and Old Test., Dean of Arts.

Morgan, J., Lectr. in Natural Science.

Rae, W. A., M.A., Hamilton Prof. of Classics.

Richardson, A. V., M.A. Camb., Prof of Maths.

Vial, F. G., M.A., B.D., Warden of the Divinity House, Mountain Prof. of Past. Theol., Lectr. in Classics.

GENERAL INFORMATION (v. also pp. 47, 178, 280)

The College, founded in 1843, was in 1853 by Royal Charter constituted a University with power to confer degrees. It is administered by a Corporation consisting of the Anglican Bishops of the Province and Trustees and Council appointed by them jointly. The Bishops of Montreal and Quebec are President and Vice-President respectively of the Corporation and Visitors of the College.

The College provides ordinary and Honours courses for the B.A. degree, covering 3 yrs., and a 2 yrs.' course for the L.S.T. Divinity is a compulsory subject in each of the years of the ordinary course. Terms kept in other Univs. may be counted up to 2 yrs. Clergymen of the Dioceses of Quebec and Montreal may proceed to the B.A. by examns. without residence if of 6 yrs.' standing, and on a reduced period (1 or 2 yrs.) if of 4 or 2 yrs.' standing.

Examns. are conducted for degrees in Music.

FEES. For tuition, $75 p.a.; board and furnished lodging with heating and lighting, $300 p.a.

THE YEAR 1920-21. *Number of students* (Oct. 1920): Divinity, 8; Arts, 60 (including 27 women). *Degrees conferred*: B.A., 17; M.A., 4; B.D., 1; L.S.T., 1; Honorary D.C.L.—Sir Charles Fitzpatrick, Lt.-Gov. of Quebec; Canon Gould, Gen. Sec. M.S.C.C.; Col. W. H. Blaylock.

THE UNIVERSITY OF BRITISH COLUMBIA, VANCOUVER

VISITOR—THE LIEUT.-GOVERNOR OF THE PROVINCE.

CHANCELLOR—R. E. MCKECHNIE, M.D., C.M., F.A.C.S., LL.D.

PRESIDENT—LEONARD S. KLINCK, B.S.A. Tor., M.S.A., D.Sc. Ames.

REGISTRAR—S. W. MATHEWS, M.A. Qu.

LIBRARIAN—J. RIDINGTON, Acting.

PROFESSORS, LECTURERS, ETC., October 21, 1921

Agriculture, v. *infra*

Bacteriology and Public Health

Mullin, R. H., B.A., M.B. Tor. (Red Cross Prof. of Pub. Health) Prof.*

Coleman, R. E., M.B. Tor. Lectr.

Wilson, Freda L., B.A. Asst.

MacKenzie, Mary A., B A. Tor. Red Cross Instr. in P.H

Botany

Hutchinson, A. H., M.A. McM., Ph.D. Chic. Prof.*

Davidson, J., F.L.S. Botanist i/c Herbarium, etc.

Eastham, J. W., B.Sc. Edin. Lectr. in Plant Path.

Dunlop, H A., M.A. Asst. in B. & Zool

Chemistry

Archibald, E. H., B.A. Dal., A.M., Ph.D. Harv. Prof.*

Clark, R. H., M.A. Tor., Ph.D. Leip. Assoc. Prof.

Seyer, W. F., B.A., M.Sc. Alb., Ph.D. McG. Asst. Prof.

Marshall, M. J., M.Sc. McG., Ph.D. Mass.Inst. Tech. Asst. Prof.

6 Assts.

Classics [Prof.*

Robertson, L. F., M.A. McG.

Todd. O. J., Ph D. Harv. Prof. of Greek.

Logan, H. T., B.A. McG., M.A. Ox. Asst. Prof.

Mildmay, A. N. St. J., M.A. Ox. Asst.

Dairying, v. Agric.

Economics, Sociology, & Polit. Sc.

Boggs, T. H., B.A. Ac., M.A., Ph.D. Yale Prof.*

Angus, H. F., B.A. McG., B.C.L., M.A. Ox. Assoc. Prof.

Beckett, S. E., M.A. Qu. Asst. Prof.

Fournier, L. T., B.A. Asst.

Engineering, Civil, & Surveying

Matheson, E. G., B.Sc. McG., M.E.I.C., M.Am.S.C.E. Assoc. Prof.

Powell, W. H., B.Sc. McG. Lectr.

Wilkin, F. A., B.A.Sc. McG. Lectr.

Grant, J. R., B.Sc. Qu. Lectr.

3 Assts.

Engineering, Mech. & Elec.

Gill, L. W., M.Sc. McG. Prof.*

Ryan, C. C., M.Sc. McG. Assoc. Prof. of M.E.

8 Assts.

* Head of Department.

English

Sedgewick, G. G., B.A. Dal., Ph.D. Harv. Prof.*
MacDonald, W. L , B.A. Tor., M.A. Wisc , Ph.D. Harv. Assoc Prof.
Wood, F. G. C., B.A. McG., A.M. Harv. Asst. Prof.
Larsen, Thorleif, M.A. Tor., B.A. Ox. Asst. Prof.
Walker, F. C., B.A. N.B., Ph.D. Harv. Asst. Prof.
Bollert, Miss M. L., M.A. Tor., A.M. Col. (Adviser of Women) Asst Prof.
2 Assts. and 2 part-time Assts.

Forestry

Christie, H. R., F.E. Tor. Assoc. Prof.

French, v. Mod. Langs.

Geology and Mineralogy

Brock, R. W., M.A , LL.D. Qu , F.G.S., Dean of Fac. Prof *
Schofield, S. J., B.Sc. Qu., Ph D. Mass. Inst. Tech. Prof.
Uglow, W. L., M.A. Qu., B.Sc. Sch. Mi. Kingston, M.S., Ph.D. Wisc. Prof. of Mineralogy, etc.
Williams, M. Y., B.Sc. Qu., Ph D. Yale Assoc. Prof. of Palæont.
An Asst.

History

Eastman, M., B.A. Tor., Ph.D. Col. Assoc. Prof.
Sage, W. N., B.A. Tor., M.A. Ox. Assoc. Prof.
Davidson, G C., B.A. Tor., Ph.D. Calif. Instr.

Horticulture, v. Agr.

Mathematics

Buchanan, D., M.A. McM., Ph.D. Chic. Prof.*
Robinson, G. E., B.A. Dal. Assoc. Prof.
Richardson, L., B.Sc.Lond. Asst. Prof.
Jordan, E. E , M.A. Dal. Asst. Prof.
Hartley, B. S., M.A. Camb. Lectr.
4 Assts. and 2 part-time Assts.

Mining and Metallurgy

Turnbull, J. M., B.A.Sc. McG. Prof.
Thomson, H. N., B.Sc McG. Prof. of Met.
Gillies, G. A., M.Sc. McG. Assoc. Prof. of Mi.
1 Asst

Modern Languages

Ashton, H., M.A. Camb., D.Lett. Univ. Paris, D.Litt. Birm , O.I.P. Prof of French.*
Clark, A. F. B., B.A. Tor., Ph.D. Harv Assoc. Prof (French).
MacInnes, Isabel, M A. Qu. Asst. Prof.
Grojean, G., L. ès L. et en Dr. Toul. Asst. Prof.
Bernard, F., B.A. Lond. (Spanish) Lectr.
4 Assts. in French.

Nursing

Johns, Miss E. I. Asst. Prof.

Philosophy

Coleman, H. T. J., B.A. Tor., Ph.D. Col , Dean of Fac. Prof.*
Henderson, J., M.A. Glas. Assoc. Prof.

Physics

Hebb, T. C., M.A., B.Sc. Dal., Ph.D. Chic. Prof.*
Davidson, J. C., B.A. Tor , Ph.D. Calif. Assoc Prof
Hennings, A. E., M.A. Lake Forest Coll , Ill., Ph.D. Chic. Assoc. Prof.

Public Health, v. Bact.

* Head of Department.

Zoology, v. also Bot.
Fraser, C. McL., B.A. Tor., Ph.D. Iowa — Prof.
Treherne, R. C., B.S.A. Tor. — Lectr. in Econ. Entom., etc.

Agriculture

Agronomy
Boving, P. A., Cand. Phil. and Agr. (Sweden). — Prof.*
Moe, G. G., B.S.A. McG. — Asst. Prof.
Boving, G. B., B.S.A. McG. — Extension Asst.
Derick, R. A., B.S.A. McG. — Asst.
Laird, D. G., B.S.A. Tor. — Asst.

Animal Husbandry
King, H. M., B.S.A. Guelph — Assoc. Prof.
Davis, R. L., B.S.A. Mont., M.S.A. Iowa — Asst. Prof.
Hare, H. R., B.S.A. Guelph — Ext. Asst.
Jagger, T., D.V.S. Tor. — Lectr. in Vet. Sc.
Stillwell, E. C., B.S.A. Tor. — Asst.

Dairying
Sadler, W., B.S.A., M.Sc. McG., N.D.D (Reading) — Prof.*
Golding, N. S., N.D.D., B.S.A. Guelph — Asst. Prof.
Mounce, Marion, B.S.A., B.A. — Extension Asst.

Horticulture
Clement, F. M., B.S.A. Guelph, Dean of Fac. — Prof.*
Barss, A. F., A.B. Roch., B.S.Agr. Corn., M.S. Oreg. Ag. Coll. — Assoc. Prof.
Buck, F. E., B.S.A. McG. — Asst. Prof.
Middleton, W. A., B.S.A. McG. — Extension Asst.

Poultry Husbandry
Lloyd, E. A., B.S.A. Sask. — Assoc. Prof.
Asmundsen, V. S., B.S.A. Sask., M.S.A. Corn. — Asst. Prof.
Skelton, R. J., B.S.A. Tor. — Extension Asst.

* Head of Department.

AFFILIATED COLLEGE

Victoria College, Victoria, B.C. Affiliated for 1st and 2nd years in Arts. Principal—E. B. Paul, M.A. Aberd., Assoc. Prof. of *Classics*. Other Profs.—E. H. Russell, B.A. Qu., *Maths.*; P. H. Elliot, M.Sc. McG., *Science*; Jeanette A. Cann, B.L. Dal., *Engl.* and *Philos.*; Mme. E. Sanderson-Mongin, *French*.

GENERAL INFORMATION (v. also p. 280)

Telegraphic Address—Ubrico.

An Act of the Provincial Legislature was passed in 1890 establishing a University of British Columbia, but it lapsed in 1891. Vancouver High School was affiliated to McGill for the first year in Arts under the name of Vancouver College in 1899. In 1902 Victoria High School was similarly affiliated as Victoria College. In 1906 the Royal Institution for the Advancement of Learning of B.C. was incorporated and established, the McGill Univ. Coll. of B.C., taking over, by agreement, the Arts work of Vancouver College (extended in 1908 to include the 3rd yr. in Arts), and adding 2 yrs. of Applied Science. In 1907 Victoria College was incorporated in the Univ. Coll. The connexion with McGill was brought to a close in 1915, when the University of British Columbia, incorporated by an Act of 1908, and endowed with 2,000,000 acres of land, was opened, with provision for a complete course in Arts and 3 yrs. in Applied Science.

The Board of Governors consists of the Chancellor, elected by Convocation, President, and 9 nominees of the Lieut.-Govr. in Council. The Senate consists of the Minister of Educn., Chancellor, President (as Chairman), Dean, and 2 Profs. of each Faculty, 3 nominees of the Lieut.-Govr. in Council, Supt. of Educn., principals of normal schools, one member elected by high school principals and assts., one by Provl. Teachers' Inst., one by each affiliated Coll. or School in the Province, 15 by Convocation.

The University site consists of 540 acres on the headland of Point Grey, 300 feet above the sea. The Science building now under construction will cost $600,000. The LIBRARY has 39,000 vols. and over 10,000 pamphlets, and regularly receives 400 periodicals. LABORATORIES available for all courses. A Forest Products Lab. (with two Olsen Universal Testing Machines of 200,000 and 30,000 lb. capacity respectively and one Hatt-Turner Impact Testing Machine) has been established by the Forestry branch of the Dept. of the Interior. HERBARIUM, 12,000 sheets native flora, 200 water colours B.C. Fungi. BOTANICAL GARDENS, Arboretum and economic section, 5 acres.

Students are ADMITTED as (1) undergraduates, by Matricn. examn. or its equivalent; (2) conditioned undergraduates, with a view to completing matricn. requirements during first year; (3) partial students. Every student is submitted to a physical examn. on entrance. Session 1922–23 begins Sept. 26.

DEGREE COURSES. B.A., 4 yrs. (3 from Senior matricn.). B.Sc. in Applied Science, 4 yrs. (following 1st yr. in Arts or Senr. matricn.). A degree course in nursing covers 5 yrs., including 2 yrs. of hospl. training. B.S.A., 4 yrs. from Junr. matricn. Double course, B.A. and B.Sc., 6 yrs. SHORT COURSES in Mining, 8 weeks, Jan.-March (no entrance qualification except ability to read and write); in Agric. at the Univ. and elsewhere. Evening courses, with summer excursions, in Botany. Summer course for Certificated Teachers of the Province.

Work at OTHER UNIVERSITIES of a standard equivalent to that of this Univ. is accepted *pro tanto*.

FEES, inclusive, $50 per session. Graduation, $20.

FELLOWSHIP. $200 awardable to graduate for further studies.

RESIDENCE. Board and lodging in vicinity of the College from $40-50 p.m.

PUBLICATION. *Calendar* (April).

THE YEAR 1920–21

BENEFACTIONS. Universities' Service Club, Captain LeRoy Memorial Scholarship, $30,000; British Columbia Fruit Growers' Association, Scholarship $10,000; Khaki University and Y.M.C.A. Memorial Scholarship Fund, $1,200,000.

NEW DEPARTMENTS. Forestry; Fourth Year work in Civ. and Mech. Engineering.

CHANGES IN REGULATIONS. Fees in all Faculties raised from $40 to $50 per session.

NUMBER OF STUDENTS. In Arts and Science, 1st year, 334 (including women, 182), 2nd, 3rd, and 4th years, 347, graduates, 15; Applied Science—209 (women, 10, of whom 9 were taking courses in nursing); Agric.—51 (women, 3); combined Arts and Appl. Sc.—4; Summer School—197; Short courses for ex-soldiers—480 (including Agric. 240); other short courses—70.

DEGREES. B.A.—84; B.Sc.—18; B.S.A.—8; M.A.—3.

RESIGNATIONS. L. Killam, Assoc. Prof. Mech. Engin., to accept post of General Manager of a Ry. and Coal Coy.

DALHOUSIE UNIVERSITY, HALIFAX, NOVA SCOTIA

CHAIRMAN OF THE BOARD OF GOVERNORS—GEORGE S. CAMPBELL, LL.D.

PRESIDENT OF THE UNIVERSITY—A. STANLEY MACKENZIE, Ph.D, D.C.L, F.R.S.C.

REGISTRAR OF THE FACULTY OF ARTS—Prof. M. MACNEILL, M.A.

PROFESSORS, LECTURERS, ETC., December 17, 1921

Anatomy
Cameron, J, M.D. Edin, D.Sc. St. And., M.R.C.S. Campbell Prof.
Demrs.:
Campbell, J. G. D., M.D., C.M.
Atlee, H. B., M.D., C.M., F.R.C.S. Edin.
Curry, W. A., M.D., C.M. McG., F.R.C.S. Edin.
Grant, G. W., M.B. Edin., B.A.

Biblical Literature
Kent, H. A., M.A Lectr.

Biology [Asst. Prof
Dawson, J. A., Ph.D. Yale
Sleggs, G. F., B Sc. Liv. Asst. Prof.

Chemistry [Asst. Prof.
Nickerson, C. B., M.A. Clark
Peck, W. A., B.A. Colg. Asst. Prof.
Todd, F. W., B.A. Demr.

Classics
Murray, H., B.A. Lond., LL.D. Tor. McLeod Prof.
Nichols, E. W., Ph.D. J. Hopk. Asst. Prof.
Logan, J. W., M.A. Lectr.
Butler, G. K., M.A. Lectr.

Commerce
Hunt, B. C., B.A. Prof.

Dentistry, v. *infra*

Economics
Dawson, R. MacG., M.A. Lectr

Engineering, Civil
Copp, W. P., M.Sc. McG. Prof.
Theakston, H. R., S B., E.M. N.S. Tech. Asst.

English Lang. and Lit.
MacMechan, A, B.A Tor., Ph D. J.H.U. Munro Prof.
Snow, R H, B A. Harv. Asst. Prof.
Todd, Mabel V. Reader.

Geology [Asst. Prof.
McIntosh, D. S., M.Sc McG., B.A.

History [Asst. Prof.
Wilson, E. E., M.A. Qu.

Law, v. *infra*

Mathematics
MacNeill, M., M.A. Harv. Prof.
Winters, F. W., B.A. Mt. A. Asst. Prof.

Medicine and Surgery, v. *infra*

Modern Languages
Jones, H. P., B.A. Vind., Ph D. Heid. McLeod Prof.
Mercer, C. H., M.A, B.Com. Manc. Asst. Prof.

Philosophy [Munro Prof.
Stewart, H. L., M.A. R.U.I. and Ox., Ph.D. R.U.I.

Physics [Munro Prof.
Bronson, H. L., B.A., Ph D. Yale
Johnstone, J. H. L., Ph.D Yale Assoc. Prof.
Colpitt, Merle P., M.A. Instr.

Physiology and Histology
Harris, D. Fraser, C.M., M.D. Glas., B.Sc. Lond., D.Sc. Birm. Prof.
M'Laren, P. D., M D., C.M. Asst.
Schwartz, H. W., M.D., C.M. Asst.
Low, Margaret Demr.

Political Science, Government and
Munro, H. F., M.A. Harv. Prof.

Law

Agency
Jenks, Stuart, LL B., K.C., Deputy Attorney-General Lectr.

Constit. and Internat. L.
MacRae, D. A., A.M., Ph.D. Corn., B.A. Munro Prof.

Contracts
Russell, Hon. Benjamin, M.A., D.C.L. Mt. All.* Prof.

Contracts, Const. Hist., etc.
Smith, S. E., M.A. King's, LL.B. Instr.

Crimes [Lectr.
O'Hearn, W. J., LL.B., K.C.

Domestic Relations
Robertson, T. R., B.A., LL.B., K.C. Lectr.

Dominion Statutes [Lectr.
Yeoman, R. F., B.A., LL.B.

Evidence, etc.
Patterson, G., M.A., LL.B.† Lectr.
Mellish, H., B.A., LL.B.* Lectr.

Insurance [Lectr.
Allison, E. P., B.A., LL.B., K.C.
Macdonald, W. C., B.A. St. F. X., LL.B. Lectr.

Mortgages and Suretyship
Murphy, T. W., K.C. Lectr.

Partnership
Bell, F. H., K.C. Lectr.

Prac. Statutes and Interpn.
Macnutt, E. R., B.A.U.N.B., LL.B. Lectr.

Procedure and Property [Prof.
Read, J. E., B.C.L. Ox., B.A.

Sales [Lectr.
Stewart, J. McG., B.A., LL.B.
MacDonald, V. C., LL.B. Lectr.

Shipping [Lectr.
Burchell, C. J., M.A., LL.B., K.C.

Statutes
Rogers, T. S., B.A.Ac., K.C. Lectr.*

Torts
Wallace, W. B., LL.B.† Lectr.

Medicine (for subjects of the first 2 yrs —Anat., etc., v. *supra*)

Anæsthetics
Lessel, J. F., M.D., C.M. Demr.
Muir, W. L., M.D., C.M. McG. Demr.

Bact., v. Path. and Skin Dis.

Diseases of the Eye, etc.
Mathers, R. E., M.D. N.Y. Lectr.

Gynæcology
Morton, C. S., M.D. Tor. Lectr.

Hygiene
Prof. Hattie (v. Ment.) Lectr.

Materia Medica
Burbidge, G. A., M.N.S. Phm. Soc. Demr.

Medical Jurispr.
Churchill, J. L., M.D., C.M. McG. Lectr.

Medicine and Clin. Med.
Silver, L. M., B.A. Vind., M.B., C.M. Edin. Prof.
MacKenzie, K. A., M.D., C.M. (Med.) Lectr.

* Judge of the Supreme Court of N.S. † Judge of the County Court.

MacIntosh, G. A., M.D., C.M. Lectr.

Mental Diseases [Prof.
Hattie, W. H., M.D., C.M. McG.
Lawlor, F. E., M.D., C.M. McG Demr.

Obst. and Dis. of Women and Children
Curry, M. A., B.A. Vind., M.D. N.Y. Prof.
Almon, W. B., M.D., C.M. (Obst.) Assoc. Prof.
Macdonald, P. A., M D., C M. McG. (Practical O.) Lectr.

Path. and Bacteriology
Nicholls, A. G., M.A., M.D., C.M., D Sc. McG. Prof.
MacKenzie, D. J , M D., C.M. Lectr.
Lyons, J. N., M.D., C.M. Demr. in B.

Pediatrics
Carney, M. J., M.D., C.M. McG , B.A. Lectr.

Skin Diseases
Mack, F. G., M.B., C.M. Tor. (Demr. in Bact.) Lectr.

Surgery and Clin. Surg.
Hogan, E. V., M.D., C.M. McG., M.R.C.S. Eng., L.R.C.P. Lond. Prof.
Chisholm, M., M D., C.M. McG., L.R.C.P. Lond. (Clin.) Prof.
Murphy, G. H., M.D., C.M. Lectr.
McDonald, H. K., M.D., C.M. McG. (Clin.) Prof.
Stewart, J., M.B., C.M., LL.D. Edin. (Surg.) Prof.
Weatherbe, P., M.B., Ch.B. Edin. (Op. Surg.) Lectr. & Demr.
McDougall, J. G., M.D., C.M. McG. (Clin) Lectr.
Thomas, L., M.D., C.M., M.R.C.S. Eng., L.R.C.P. Lond. (Pract. Surg.) Demr.

Therapeutics [Lectr.
Corston, J. R., B.A., M.D., C.M.

Public Health Course for Nurses

Royer, B. F., M.D. Jeff. Director.

Dentistry

D. Anatomy
Ritchie, S. G., B.A N.B , D.M.D. T.D.C. Prof.

Crown and Bridge Work, etc.
Thomson, G. K., D.D.S. P.D.C. Prof.
Oxner, W. C., D.D.S , B.C.D.S. Lectr.

Exodontia and Radiology [Lectr.
Hennigar, G. R., D.D., B.C.D.S.

Genl. and Oral Surg. and Anæsth.
Woodbury, F. V., M.D., C.M. Dal., L.R.C.S. and L.R.C.P. Edin., L.F.P.S. Glas. Prof.

History, Ethics, and Jurispr., v. Prosthetic

Materia Medica
Woodbury, K. F., D D.S. Lectr.

Operative D.
Ryan, F. W., D.D.S. Mich. Prof.
Beckwith, W. H. H., D.D.S. Penn. Lectr.

Orthodontia
Woodbury, W. W., B.Sc., D.D.S. P.D.C. Prof.

D. Path. and Therap.
Cogswell, A. W., M.D., C.M. Hfx., M.C., D.D.S. Penn. Prof.
Prof. Ryan Lectr.

Prosthetic D.
Woodbury,Frank,D.D.S. P.C.D.S. (also Prof. of Hist., etc.) Prof.
Woodbury, R. H., D.D.S. P.D.C. Lectr.
Fluck, G. H., D.D.S. P.D.C. Lectr.
Faulkner, A. W., D.D.S. Lectr.
Bagnall, J. S., D.D.S. Lectr.

AFFILIATED INSTITUTIONS

PRESBYTERIAN COLLEGE, Halifax. Classes and examns. in Hebrew, Gaelic, and New Testament Greek at the Coll. are recognized as qualifying for the B.A. Students may complete the Div. course at the Coll. and take the B.A. in 6 yrs.

PRINCE OF WALES COLLEGE, Charlottetown, P.E.I. Students holding certain certifs. of the Coll. are admitted to the 1st, 2nd, or 3rd yr. of the B.A. course.

HALIFAX CONSERVATORY OF MUSIC. Courses recognized for Mus.B. and Lic.Mus.

MARITIME COLLEGE OF PHARMACY. Courses recognized for B.Phm.

MOUNT ST. VINCENT ACADEMY. Recognized for Advanced Standing in Arts.

GENERAL INFORMATION (v. also p. 280)

Dalhousie College, founded in 1818 by the Earl of Dalhousie, was in 1841 granted Univ. powers, but was closed in 1845 for want of sufficient funds. In 1863 it was reorganized and opened with a staff of 6 Professors. In 1877 the Faculty of Science was organized, and from 1879 development proceeded rapidly with the help of the benefactions of George Munro of New York ($350,000), Alexr. McLeod of Halifax ($65,000), and Sir Wm. Young ($88,000). The Faculty of Law was established in 1883, the School of Mines in 1902. In 1911 the Halifax Medical College, into which the Faculty of Medicine (organized in 1868) had been merged, was acquired by the Univ., and the College of Pharmacy was established with its co-operation. In 1912 the work of the Maritime Dental College was taken over by the Univ. In this year $400,000 was collected for a new site (40 acres) and buildings, etc., towards which Andrew Carnegie gave $40,000. Further benefactions amounting to $200,000 were received in 1915–18.

Appointments to the Board of Governors are made by the Govr.-in-Council on the nomination of the Board or on the nomination, with the approval of the Board, of individuals or bodies supporting chairs.

LIBRARY, 20,000 vols. and 5000 pamphlets. Access also to Science Library —16,000 vols. and 30,000 pphlets.; Legislative—21,000 vols.; Theol.—11,000; Law—18,000. MUSEUMS: Ornith., Geol., Indian antiquities. Access to Provincial Museum of Geol., Mineral., Zool. LABORATORIES: Chem., Physical, Geol., Engin., Biol.

FACULTIES. Arts and Science (including Commerce, Music, Pharmacy, and Engineering); Law; Medicine; Dentistry.

MATRICULATION requirements are articulated to the High School system of the Province which covers the 4 last years of the Public School 12-year course. The compulsory subjects for admission to the B.A., Phm.B., and LL.B. courses are (1) English, (2) Maths., (3) Latin or Greek, (4) another foreign language, (5) History (British or Ancient), Physics, or Chem.; B.Sc. or B.Mus.—(1), (2), (5), French, German; M.D., C.M., or D.D.S.—(1), (2), (4), Latin, Brit. Hist., Physics, Chem.

The 4 Univs. of the Province hold an annual conference on the subject of Matricn.

DEGREE COURSES. 4 yrs.—B.A., B.Sc., B.Com., D.D.S.; 3 yrs.—LL.B.,

Mus.B.; 6 yrs.—M.D., C.M. (taken together); 1 yr. (following 4 yrs.' practical experience)—Phm.B.; the first 2 yrs. of the Engin. course (v. p. 283). A B.A. of one of the Univs. of N.S. or N. Bruns. who has taken Law subjects for part of his course may qualify for the LL.B. in 2 yrs. The M.D., C.M., and D.D.S. can be reached by concurrent courses in 7 yrs. The M.A. or M.Sc. is given on successful completion of an approved one-year course of study by a B.A. or B.Sc., respectively, of an approved Univ. The course may be pursued by graduates of Dalhousie wholly or in part by private reading, attendance at the Univ. being optional for them (v. also pp. 178, 228, 237).

DIPLOMA course for the Lic.Mus.—2 yrs. Music and Pharmacy courses are taken in the Affiliated Institutions, v. *supra*. A 6 mos.' course of training for Pub. Health work for trained nurses is provided.

FEES. For tuition, for each class (ex. lab. or draughting-room), $18; lab. or draughting-room class, $23.

RESIDENCE. Hostel for 60 women students, erected at a cost of $200,000. Dormitories are provided also for men students.

PUBLICATIONS. *Calendar* (July); *Annual Report* (Sept.); *Gazette*, $1.

THE YEAR 1920–21

BENEFACTIONS. Mrs. Eddy, of Ottawa, bequest of $350,000 in addition to $300,000 already given.

NEW BUILDINGS. Extension of Library completed. Arts Building completed and occupied (Dec. 1921). Future Arts Building commenced and partly constructed (used meanwhile for other purposes). Medical Science Laboratory under construction. Out-patient Clinic, plans completed, construction to proceed in April 1922. Women's Residence under construction.

NUMBER OF STUDENTS. Preparing for B.A. or B.Sc. or B.Comm., 247; LL.B.—68; M.D.—159; D.D.S.—55. Total students, men, 525; women, 152. Students from outside Canada, 41.

DEGREES. B.A. or B.Sc.—56; LL.B.—19; M.D., C.M.—14; D.D.S.—6; M.A. or M.Sc.—8.

UNIVERSITY OF KING'S COLLEGE, WINDSOR, NOVA SCOTIA

PATRON—THE ARCHBISHOP OF CANTERBURY.

VISITOR—THE ARCHBISHOP OF NOVA SCOTIA.

CHANCELLOR—Sir CHAS. J. TOWNSHEND, M.A., D.C.L.

VICE-CHANCELLOR AND PRESIDENT—T. S. BOYLE, M.A., D.D

REGISTRAR—T. H. HUNT, M.A., D.D.

PROFESSORS AND LECTURERS, September 1921

Chemistry and Physics
Sturley, A. A., M.A. Ox. Prof.

Classics [Prof.
Willets, C. E., M.A. Camb., D.C.L.

Divinity [Senr. Prof.
Vroom, Ven. Archdeacon F. W., M.A., D.D., D.C.L.
Hunt, T. H., M.A., D.D. Alexandra Prof.
Paterson-Smyth, C., M.A. Tor., B.D. (Past. Theol., etc.) Prof.
Hiltz, R. A., M.A. (Rel. Educn., etc.) Prof.

Engineering
Nixon, R. L., B.Sc. Prof.

English
MacFarlane, W. D., M.A. McG., Ph.D. Gött. Prof.
Miller, R. A., M.A. Lectr.

French
Mason, E. M., B.A. Lectr.

German
Harley, H. A., M.A. Lectr.

History and Economics
The President Prof. of H.
Judd, W. W., M.A. Lectr. in E.

Law
Martell, L. H., M.A., LL.B. Lectr.

Mathematics
Wadley, H. W. A., M.A. Camb. Prof.

Modern Languages
..... Prof.
Miller, R. A., M.A. Lectr.

Philosophy and Ethics
Kingston, G. F., M.A. Tor., B.D. Prof.

GENERAL INFORMATION (v. also p. 280)

Opened in 1790 and established with full Univ. powers by Royal Charter in 1802. Governed by a Board of 36 members, of whom 19 are elected by Rural Deaneries, 11 by Alumni, 4 by Diocesan Synods. The Archbishop of Nova Scotia is Visitor and President of the Board. The Bishop of Fredericton is Vice-President.

The College has 2 Professors of Divinity, Professors of English Literature, Mathematics, Modern Languages, Philosophy and Ethics, Science, and Physics

and Engineering, and Lecturers in Pastoral Theology and Homiletics, History, Law, Mathematics, Philosophy, and S.S. Methods.

A SCHOOL OF LAW in connexion with the College was established in St. John, N.B., in 1892. It has a staff of 14 lecturers.

The College is *affiliated* with Oxford, Cambridge, and Dublin.

The *Provincial Technical College* at Halifax admits to its 3rd year students who have taken the prescribed Science course and passed the appropriate examns. in King's, and such students, on passing the final examn. of the Technical College, may be admitted to the B.Sc. degree (v. p. 283).

Students from the *Jamaica Church Theological College* who, after a residence of 6 terms there, pass the required examns. in the subjects of the Divinity course at King's, may receive the diploma of L.S.T.; and Divinity students who have completed the required residence at the Jamaica College, and have passed the necessary examns. according to the requirements of King's, may be admitted to the degree of B.A.

THE YEAR 1920–21. *Benefactions*: Chief Justice Harris, £20,000; J. W. Allison, £5000; Anon. £6000. *Special events*: New Main Building cornerstone laid by Lieut.-Govr, May 12, 1920. Campaign opened to raise £200,000. *Number of students*: Arts and Science, 89; Div., 18; Law, 39. *Degrees conferred*: D.C.L. (Hon.), Prest. N. M. Butler of Columbia; Lieut.-Govr. Maccallum Grant; R. A. Hilz; R. W. Norwood; G. H. Bolt; E. M. Stires. B.A., 11; M.A., 7; B.D., 1; B.C.L., 9; D.Sc., 1.

LAVAL UNIVERSITY, QUEBEC

VISITOR AND CHANCELLOR APOSTOLIC—H.E. Cardinal L. N. BÉGIN, Archbishop of Quebec.

RECTOR—N. GARIÉPY, D.D., Sup. of the Seminary of Quebec.

SECRETARY OF THE UNIVERSITY AND MODERATOR—Prof. O. BERGERON, M. ès A.

PROFESSORS, LECTURERS, ETC., October 15, 1921

Anatomy, v. Med.

Astronomy, Practical
Smith, A. (Dir. of Quebec Observatory) Prof.
Simard, H., M.A , D.D. Prof.

Chemistry
Fillion, Ph. J., M. ès A. Prof.

Chemistry, Analytical
Garneau, Sir G., B. ès Ing.Civ., C.L.D'H. Sc.Ap., Prof.

Chemistry, Organic
Cardinaux, P., D. ès Sc. Prof.
Guntsensperger, J. J., D. ès. Sc. Asst. Prof.

Classics [Prof.
Pelletier, F., M A. (Greek Lit.)
Croissaub, L., M.A. (Greek Lang.) Prof.
Hébert, P., M.A. (Latin Lit.) Prof.
LeBel, A , D. ès Lettres (Latin lang.) Prof.
Levesque, R., M.A. (Latin Lit.) Prof.

Commerce, v. Law

Economics, v. Law and Soc.

Elocution
Rivard, A., M.A., B en Dr., D. ès L., K.St.Gr., K.C. Prof.

Forestry
Piché, G. C., Ing.For. Prof.
Bédard, A.. Ing.For. Prof.

Forest Law
Richard, L. A., D. en Dr. Prof.

French Language
Aubert, A. Prof.

French Literature
Roy, C., L. ès L., D.Ph. Prof.
Gaillard du Champris, D. ès L. Prof.
Maheux, A., M.A. Prof. of Rhetoric
Laliberté, M , M.A. Prof of Belles-Lettres.
Morel, A., M.A. Prof. of Belles-Lettres.

Geography
Garneau, A., M. ès A. Prof.

Geology and Mineralogy
Vachon, A., M.A., L.Phil. Prof.

Histology, v. Med.

History (General)
Chapais, Hon. F., D.L., C.St.Gr., C.L.D'H. Prof.

History of the Church
Roy, G., L.Ph., D.D. Prof.

History of Canada and of the Church in Canada
Gosselin, Mgr., M.A. Prof.

Law, v. *infra*

Mathematics
Tremblay, A. Prof.
Mercil, A., Ing.Civ., B. ès Sc.Ap Prof.
Bergeron, O., M. ès A. Prof.
Morissette, C., B.A. Prof.

Medicine, v. *infra*

Philosophy
Benoit, R., D.Th., L.Ph. Prof.
Robert, A., M.A., L. en Econ., D.D. Prof.

Physics
Simard, H., M. ès A., D.Th. Prof.
Christen, A., D. ès Sc. Prof.

Physiology, v. Med.

Social and Political Econ. [Prof.
Prince, J. E , D. en Dr., K.C.
Gregoire, A., L. en Dr., L. en Econ. L. en Sc. Pol. et Dipl. Prof.

Surveying
Gastonguay, J. N., Ing.Civ. Prof.
Joncas, P., Ing.Civ., B. ès Sc.Ap., M.Can. Soc. C.E. (Building and S.) Prof.

Theology, v. also Hist.
Paquet, Mgr. L. A., V.G., D.Th., M.St.T.A. Prof.
Nadeau, E., D.Th., L. en Dr. Can. Prof.
Gariépy, C. N., D.Th. Prof.
Gagnon, C., D.Th. Prof.
Vandry, F., L.Ph., L.Th. Prof.
Foy, C., Lic. en. Ph., D.Th. Prof.
Gignac, J., D.Th., D. en Dr. Can. (Canon Law) Prof.
Grandbois, J. E., L. en Ph., D.Th. (Holy Script. and Orient. Langs.) Prof.
Robert, A., M.A., D.Th., D.Ph., D.St.T.A., L.Sc. Louv. Prof.
Langlois, A , D. en Phil. et en Th. Prof.

Zoology and Botany
Robitaille, A., M.A. Prof.

Law

Administrative L.
Sirois, L. P., D. en Dr. Prof.

Admin., Const., and Munic. L.
Sirois, J., D. en Dr. Prof.

Civil L.
Dorion, Hon. C. E., D. en Dr., K.C.* Prof.
Roy, F., D. en Dr., K.C., O.I.P. Prof.

Comml. Policy & Customs Laws
Baillargeon, E. B. A., D. en Dr., K.C. Prof.

Commerc. and Marit. Law
Bernier, L. M. J. A., D. en Dr., K.C. Prof.
Marchand, A., D. en Dr., K.C. Prof.

Criminal L. [Prof.
Lachance, A., L. en D., Judge
Fitzpatrick, Hon. Sir Chas., G.C.M.G., D. en Dr., P.C.C., Lt.-Govr. Prof.

History of L.
St. Laurent, L., D. en Dr. Prof.

International L.
Rivard, A.,M.A ,D. ès L.,D. en Dr., K.C. Prof.

Procedure, Civil
Pouliot, A., D. en Dr. Prof.
Baillargeon, E., D. en Dr., K.C. Prof.

Roman L.
Flynn, Hon. E. J., D.en Dr.* Prof.
Belleau, E., D. en Dr., K.C. Prof.
Desrivières, E., D. en Dr. Prof.

Medicine

Anatomy, Descr.
Dagneau, C., M.D. Prof.

Anatomy, Pathological
Vallée, A., M.D. (Dir. of P.A. and Bact. Labs.) Prof.

Anat. and Oper. Med., Pract.
Pâquet, A., M.D. Prof.

Dermatology
Mayrand, R., M.D. Prof.

Gynæcology and Gyn. Clin.
Grondin,S., M.D., C.L.D'H., O.I.P. Prof.

Histology and Bact.
Hamel, A. C., M.D. Prof.

Hygiene, Public
Paquin, R., M.D. Prof.

* Judge of the High Court.

Laryngology
Fiset, L. J. N., M.D. Prof.
Dussault, N. A., M.D. (Rhino-Lar., etc.) Prof.

Materia Medica
Faucher, P. V., M.D. Prof.
Turcot, E., M.D. Prof.

Ophthalmology
Pagé, J. D., M.D. Prof.

Ophth. and Ot. Clin., etc.
Coote, P., M.D. Prof.

Pathology, Ext. and Clin. Surg.
Simard, E. T. A., M.D., O.I.P. Prof.

Path., Genl. and Clin. Med.
Rousseau, A., M.D., O.A. Prof.

Path., Internal
Brochu, M. D., M.D., O.I.P. Prof

Pediatrics, Hygiene, etc.
Fortier, E. R., M.D. Prof.
Jobin, A , B.A., M D. Prof.

Physiol. and Clin. Med.
Leclerc, O., M.D. Prof.

Therapeutics
Guérard, J., M.D. Prof.

Toxicol., Leg. Med., etc.
Marois, A., M.D. Prof.

INSTITUTIONS ANNEXED OR AFFILIATED TO THE UNIVERSITY

[" Annexion " implies merely approval by the Univ. of the programmes of study and, in some cases, nomination of some of the staff, diplomas being granted on reports presented by the Directors of the annexed institution. " Affiliation " or—in the case of an institution outside the province of Quebec— " agrégation " involves control by the Univ. of examinations.]

ÉCOLE D'ARPENTAGE ET DE GÉNIE FORESTIER (Surveying and Forestry). Founded by Govt. and annexed to the Faculty of Arts. Director, Avila Bédard, Prof. of Forestry. 11 other Profs.

ÉCOLE AGRICOLE DE STE. ANNE DE LA POCATIERE, affiliated. Director, Prof. N. Pelletier. 12 other Profs.

ÉCOLE SUPÉRIEURE DE CHIMIE. Annexed to the Faculty of Arts. Director, Prof. P. Cardinaux. 6 other Profs.

ÉCOLE NORMALE SUPÉRIEURE. Annexed to the Faculty of Arts. Director, Prof. F. Pelletier.

GRANDS SÉMINAIRES. (Pupils obtain the B. en Th. by passing a certain number of quarterly examns. in the Seminary.) Québec (comprising Theol. students under its jurisdiction or following its courses); Ste. Anne de la Pocatière (Coll. de Ste. Anne); Rimouski; Chicoutimi; Nicolet; Trois Rivières.

ENSEIGNEMENT SECONDAIRE MODERNE ET CLASSIQUE. Numerous institutions are affiliated to the Univ. under conditions providing for complete preparation for Inscription and the Baccalauréat.

GENERAL INFORMATION (v. also p. 280)

The Univ. was founded by the Seminary of Quebec in 1852 under a Royal Charter. A general supervision of teaching and discipline is exercised by the Archbishop of Quebec as Visitor and Chancellor Apostolic and President of the Conseil Supérieur of Archbishops and Bishops of the Province. The Profs.

of the Faculty of Theology are nominated by the Visitor, those of other Faculties by the Conseil de l'Université, composed of the Directors of the Seminary of Quebec and 3 Senior Profs. of each Faculty.

LIBRARIES, 146,000 vols. MUSEUMS: Mineral, Geol., Bot., Zool., Ethnol., Relig., Paintings, Coins. LABORATORIES: Chem., Phys.

FACULTIES. Arts (with Schools of Surveying and Forestry, Chemistry and Training for Teachers annexed), Theology, Law, Medicine.

DEGREES AND DIPLOMAS. The Univ. perpetuates the stages by which a Degree was, and still is, reached in the Univ. of Paris. The Baccalauréat (B. ès A., etc.) is not the equivalent of any of the English Degrees, but is an official certificate (recognized by the Govt.) that the student has successfully completed his literary and scientific studies, and is entitled to begin his professional studies in law, medicine or applied science. It is obtained before he leaves the affiliated Institute, Seminary or College at which he has studied. Students who reach a certain standard in both Letters and Sciences obtain the B. ès A.; those who reach this standard in either and a certain lower standard in the other obtain the B. ès L. or B. ès Sc. The course for the Licence covers 2 yrs. in Philos. (L. en Ph.) or Letters (L. ès L.); 3 yrs. in Theol. or Law (L. en Th. or Dr.). To obtain the D. en Ph. or D. en Dr. it is necessary to support successfully in public a thesis and propositions as in other French Univs. The D. en Th. and D. en M. or M.D. are granted after examn.

The complete medical course formerly lasted only 4 yrs., but since Jan. 1909 has, in accordance with the regns. of the Provincial Coll. of Phys. and Surgns., been framed so as to cover 5 yrs. The Baccalauréat, however, may be taken on the completion of 2 yrs. The Doctorat gives admission to the examn. for the Diploma of M.R.C.S. Lond. Inscription in Arts is recognized as corresponding to the Prelim. examn. of the R.C.S. Lond. The examns. for the Dipl. of Hygiéniste expert may be taken by a D. en M. after a 6 mos.' course.

The Diploma in Forestry or Bachelorship in Surveying implies 4 yrs.' study in the Sch. of Surveying and Forestry.

The new École de Chimie provides a 4 yrs.' course leading to a Licence and to a Doctorate in Chemistry.

RECOGNITION of the B. ès A. of Laval is accorded by the Univs. of Rome, of France and of Louvain, and by Canadian Univs., and some of those of the U.S.A (v. also pp. 178, 237).

FEES for tuition, $100 to $150 p.a.

THE YEAR 1920–21

NEW DEVELOPMENTS. Opening of École Normale Supérieure (providing full courses for L. ès L.) and École de Commerce. The École de Chimie was opened with session 1921–22.

NUMBER OF STUDENTS. Arts, 855; Theol., 168; Med., 125; Law, 81; Annexed Schools, 173; Total, 1402.

DEATHS AND RESIGNATIONS. Sir A. Routhier, Prof. of Internat. Law, d.; Prof. J. Bouffard (Forest Law), d.; Prof. L. P. Pelletier (Civ. Proc.), d.; Prof. P. B. Garneau (Eccl. Hist.), r.; Prof. F. Vandry (Dogma), r.

McGILL UNIVERSITY, MONTREAL

VISITOR—THE GOVERNOR-GENERAL OF CANADA.

PRESIDENT OF THE BOARD OF GOVERNORS AND *ex officio* CHANCELLOR—E. W. BEATTY, B.A., K.C.

PRINCIPAL AND VICE-CHANCELLOR—Sir ARTHUR W. CURRIE, G.C.M.G., K.C.B., LL.D.

SECRETARY AND BURSAR—A. P. S. GLASSCO, B.Sc.

REGISTRAR—J. A. NICHOLSON, M.A., LL.D.

LIBRARIAN—G. R. LOMER, M.A., Ph.D.

HON. REPRESENTATIVE IN GREAT BRITAIN—W. A. BULKELEY-EVANS, M.A., 5 Paper Buildings, Temple, London, E.C.4.

INCORPORATED COLLEGES

MACDONALD COLLEGE, at Ste. Anne de Bellevue (about 20 miles from Montreal), including School of Agric., School for Teachers, and School of Household Science.

Principal—F. C. Harrison, B.S.A. Tor., D.Sc.

ROYAL VICTORIA COLLEGE, Montreal (The Women's College of the Univ.).

Warden—Ethel Hurlbatt M.A. Dub. (Somerville Coll., Oxford). Vice-Warden—.....

PROFESSORS, LECTURERS, ETC., November 23, 1921

Accountancy

Thompson, R. R., A.C.A. (Engl. & Wales) Asst. Prof.

Agriculture, v. *infra*

Anatomy

Whitnall, S. E., M.A., D.M., Ox. Prof.
Orr, A. E., M.D. Lectr.
Freedman, A. O., M.D. Lectr.
MacDermot, H. E., M.D. Lectr.
Jackson, F. S., M.D. (Embryology) Lectr.
Thompson, I. McL., B.Sc., M.B., Ch.B. Edin. Lectr.
Smyth, W. H., B.A., M.D. Demr.

Architecture, v. also Engin., Civil [Macdonald Prof.

Traquair, R., F.R.I.B.A.
Nobbs, P. E., M.A., F.R.I.B.A., A.R.C.A. (Design.) Prof.
Turner, P. J., F.R.I.B.A. (Constrn., etc.) Lectr.
Carless, W., O.B.E., F.R.I.B.A. Asst. Prof.
Thomson, L. R., B.A.Sc. Spl. Lectr.

Bio-Chemistry [Prof.

Macallum, A. B., M.A., M.B., Ph.D., D.Sc., LL.D., F.R.S.
Simpson, G. E., M.A. Asst. Prof.
1 Demr.

Biology, v. Zool.

Botany [Macdonald Prof.

Lloyd, F. E., M.A. Prin.
Derick, Carrie M., M.A. (Morph. B.) Prof.
Scarth, G. W., M.A. Lectr.

Chemistry, v. also Physiol.

Ruttan, R. F., B.A., D.Sc. Tor., M.D. Macdonald Prof.

Evans, N. N., M.A.Sc. Assoc. Prof.
Johnson, F. M. G., M.Sc., Ph.D. Bres., F.I.C. Prof. (Inorg. C.)
Maas, O., M.Sc., Ph.D. Harv. Assoc. Prof.
Whitby, G. S., M.Sc., Ph.D., A.R.C.S. Assoc. Prof.
McLean, A. R. M., M.Sc., Ph.D. Asst. Prof.
Hatcher, H. W., M.Sc., Ph.D. Asst. Prof.
9 Demrs.

Classics
Laing, G. J., B.A. Tor. Ph.D. J.H.U. Prof.
Slack, S. B., M.A. Ox. (Lectr. in Comp. Philol.) Prof.
McLean, R. A., Ph.D. Asst. Prof.
Carruthers, C. H., B.A. Ox., M A. Asst. Prof.
Thompson, A. M., Ph.D Harv. Asst. Prof.
Irwin, Eliz. A., M.A. Lectr. & Tutor.*

Commerce, v. also Acctcy., Law
Sugars, R. M., M.A. Dir. of School and Assoc. Prof. of Spanish

Dentistry, v. *infra*

Economics, v. Pol. Econ.

Education
School for Teachers in Macdonald College: [Dean & Prof.
Laird, S., M.A., B.Phil.
Brunt, H. D., M.A., Ph.D. Lectr.
Percival, W. P., B.A. Lectr.
Lockhart, A. R. B., B.A. Lectr.
Thompson, J. G., M.A. Lectr.
McOuat, J. E., B.S.A. Lectr.
Musgrove, R. B. Lectr.
Tanner, Miss L. E. Lectr.
2 Instrs.

Department of Physical Education:
Lamb, A. S., M.D. Director
6 Assts.

Engineering, v. *infra*

English Lang. and Lit.
Lafleur, P. T., M.A. Molson Prof.
McMillan, C., M.A., Ph.D. Harv. Assoc. Prof.
Latham, G. W., B.A. Harv. Assoc. Prof.
Harvey-Jellie, W., M.A., B.D. Lond., D. ès. L. Paris Asst. Prof.
Noad, A. S., M.A. Lectr.

French [Assoc. Prof.
Du Roure, R., Agrégé France
Morin, J. L., M.A. Asst. Prof.
Touren, Lucie, L. ès L. France Lectr.
Villard, P., M.A., M.D., O.I.P. Asst. Prof.

Geology
Adams, F. D., Ph.D. Heid., LL.D. Tor., D.Sc., F.G.S.A., F.R.S. (G. and Palæont.) Logan Prof.
Bancroft, J. A., Ph.D. Dawson Prof.
1 Demr.

German
Walter, H., M.A. Edin., Ph.D. Mun. Prof.
Lambert, E. T., B.A. Lond. Asst. Prof.
Meyer, Bertha, M.A. Lectr.

Hebrew and Semitic Langs.
Brockwell, C. A. B., M.A. Prof.
Gordon, A. R., M.A., D.Litt. Aberd. Prof.
Graham, W. C., M.A. Lectr.

Hellenistic Jewish Lit.
Abbott-Smith, G., M.A., D.D., D.C.L. Asst. Prof.

Histology and Embryology
Simpson, J. C., B.Sc. Assoc. Prof.
Fisk, W. M., M.D. (Histol.) Lectr.

History
Williams, Basil, M.A. Ox. Prof.

In Royal Victoria Coll.

Fryer, C. E., M.A., Ph.D. Harv. Prof.
The Warden Tutor.*

Household Science
Philp, Miss B., Head of the School of H.S. in Macdonald Coll.
5 Instrs.

Law, v. *infra*

Logic, v. Philos.

Mathematics
Harkness, J., M.A. Camb. (Pure M.) Redpath Prof.
Sullivan, C. T., B.A. Dal., M.Sc., Ph.D. Chic., D.Sc. Assoc. Prof.
Murray, D. A., Ph.D. J.H.U. (Applied M.) Prof.
Gillson, A. H. S., M.A. Camb. Assoc. Prof.
Matthews, T. H., M.A. Ox. Asst. Prof.
Tate, H., B.Sc., M.A. Dub. Asst. Prof.
Dodd, G. J., B.Sc. (M. and Civ. Engin.) Lectr.
Jamieson, R. E., B.Sc. (M. and Civ. Engin.) Lectr.

Medicine, v. *infra*

Metallurgy
Stansfield, A., D.Sc. Lond., A.R.S.M. Birks Prof.
Sproule, G. St. G., M.Sc. (Assaying) Lectr.
Pascoe, C. F. Spl. Lectr.

Mineralogy [Asst. Prof.
Graham, R. P. D., B.A. Ox., M.Sc.

Mining, v. Engineering

Music
Perrin, H. C., Mus.D. Dub. Prof.
Lichtenstein, Clara Assoc. Prof.*

Nursing
Shaw, Miss M. Directress of School.
18 Lectrs. and Instrs.

Philology, v. Classics

Philosophy
Caldwell, W., D.Sc. Edin. (Moral P.) Macdonald Prof.
Hickson, J. W. A., M.A., Ph.D. Halle (Logic and Met.) Assoc. Prof.

Physics [Macdonald Prof.
Eve, A. S., D Sc., F.R.S.
King, L. V., M.A. Camb., D.Sc. Prof.
Shaw, A. N., B.A. Camb., D.Sc. Assoc. Prof.
Gray, J. A., O.B.E., D.Sc. Assoc. Prof.
Reilley, H. E., B.A., M.Sc. Asst. Prof.
10 Demrs.

Physiology
Tait, J., M.D., D.Sc. Drake Prof.
Green, F., M.D. Lectr.

Physiol. Chem.
Shaw, T. P., M.D. Lectr.

Political Economy
Leacock, S., B.A. Tor., Ph.D. Chic., Litt.D., LL.D. Prof.
Hemmeon, J. C., M.A., Ph.D. Harv. Assoc. Prof.
Sandwell, B. K., B.A. Asst. Prof.

Psychology, Exper.
Tait, W. D., B.A. Dal., Ph.D. Harv. Assoc. Prof.

Social Service
Falk, J. H. T. Director.
12 Lectrs. (Part-time).

Spanish, v. Commerce

Zoology [Strathcona Prof.
Willey, A., D.Sc., F.R.S.
Stafford, J., B.A. Tor., M.A., Ph.D. Leip. Asst. Prof.
Jackson, F. S., M.D. (Biol.) Lectr.
Notkin, M., M.D. Lectr.

* In Royal Victoria Coll.

Agriculture, School of, in Macdonald Coll.

Animal Husbandry
Barton, H., B S.A. Prof.
Ness, A. R., B.S.A. Lectr.
McOuat, L. C., B.S.A. Lectr.

Bacteriology [Prof.
Harrison, F. C , D.Sc. (Principal)
Hood, E. G , B.S.A. Lectr.

Biology
Lochhead, W., B.A., M.Sc. Prof.
Dickson, B. T., B.A. Prof.
Biffen, W., B.Sc., N.D.D. Lectr.

Cereal Husbandry
Summerby, R., B.S.A. Prof.
McRostie, G. P., Ph.D. Asst. Prof.
Raymond, L. C., B.S.A. Lectr.

Chemistry
Snell, J. F., Ph.D. Prof.
McCarthy, J. B., B.A., M.Sc. Asst. Prof.

Engin. and Manual Training
Emberley, G. E. Lectr.
Starrak, J. A. Lectr.

Homemakers Clubs, etc.
A Superintendent and 10 other Assts.

Horticulture
Bunting, T. G., B.S.A. Prof.
Tawse, W. J., B.S.A. Lectr.
Howitt, M. H., B.S.A. Lectr.

Physics
Lynde, C. J., Ph.D. Prof.

Poultry
Jull, M. A., B.S.A. Lectr.
Maw, W. A., B.S.A. Lectr.

Dentistry

Clinical Dentistry
Thornton, A. W., D.D.S. (Dean of the Faculty) Prof.
Hart, R. A., D.D.S. Supt.

D. Pathology, Mat. Med. and Therap.
Henry, Fred. G., D.D.S. Prof.

Operative D.
Baxter, F. H. A., D.D.S. Prof.

Orthodontia
Morison, J. B., D.D.S. Prof.
McClelland, A. W., D.D.S. Lectr.

Crown and Bridge Work
Dohan, J. S , D.D.S. Lectr.

Prosthetic D.
Cameron, G. S., D.D S Prof.

D. Jurisprudence [Lectr.
Bond, W. L., B.A., B.C.L., K.C.

D. Anatomy
Jack, A. C., D.D.S. Lectr.

Oral Surgery
Pennoyer, A. R., M.D. Lectr.

D. History, Ethics and Econ.
Stevenson, F. A., D.D.S., D.M.D. Harv. Lectr.

Engineering, v. also Archit., Maths.

Applied Mech. and Hydraulics
Brown, E., M.Sc., M.Eng. Prof.
Batho, C., B.Sc. Manc., B.Eng. & M.Sc. Liv., D.Sc. Assoc. Prof.

Civil E.
Mackay, H. M., B.A., B.A.Sc., M.Am.Soc.C.E. Prof.
Batho, C., B.Sc. Manc., M.Sc. and B.Eng. Liv., D.Sc. Assoc. Prof.
Lamb, H. M., M.Sc. (Lectr. in Archit.) Assoc. Prof.

Economics
Brown, F. B., M.Sc. Lectr.

Electrical E.
Herdt, L. A., E.E. (Inst. Montef., Belg.), D.Sc. Macdonald Prof.
Christie, C. V., M.A., B.Sc. Dal. Assoc. Prof.
Burr, E. G., B.Sc. Asst. Prof.
Wallace, G. A., B.Sc. Lectr.

Freehand Draw. & Descr. Geom
Armstrong, H. F. Assoc. Prof.
Dyonnet, E. Spl. Lectr.

Highway and Municipal E.
French, R. de L., B.Sc., C.E. Prof.

Law, Engineering
Weldon, J. W. Lectr.

Mechanical E.
McKergow, C. M., M.Sc. Prof.
Roberts, A. R., M.Sc. Assoc. Prof.
Coote, J. A., B.Sc. Lectr.
Fraser, J. M., B.Sc. Lectr.
3 Demrs.

Mining E. [Macdonald Prof.
Porter, J. B., E.M., Ph.D Col., D.Sc. (Hon.) Cape, M.I.C.E.
Bell, J. W., M.Sc Assoc. Prof.
..... Lectr.
3 Research Fellows

Surveying and Geodesy
Kelly, A. J., B.Sc. Asst. Prof.
Weir, James, B.Sc. Asst. Prof.

Law

Civil L. [Prof.
Marler, W. De M., B.A., D.C.L.
Howard, Hon. Justice E. E., B.A., B.C.L., K.C. Prof.
Chipman, W. F., B.A., B.C.L., K.C. Lectr.
Beullac, P., K.C. Lectr.

Civil Procedure
Surveyer, E. F., B.A. Laval, B.C.L., K.C. Prof.

Commercial L.
Martin, Justice J. E., B.C.L., K.C. Prof.
Tyndale, O. S., M.A., B.C.L. Lectr.

Comml. and Private Internat. L.
McDougall, G. W., B.A., B.C.L., K.C. Prof.

Common L. and Jurispr.
Smith, H. A., M.A. Ox. Prof.

Constitutional L.
Mackay, I. A., M.A., LL.B. Dal., Ph.D. Corn. Prof.

Criminal L.
Greenshields, Hon. Justice R. A. E., B.A., B.C.L. Prof.

Ethics, Legal
Mignault, P. B., LL.D Laval K.C. Prof.

Evidence Prof.
Wainwright, A., B.A., B.C.L., K.C.

History, etc.
Johnson, W. S. Lectr.

Municipal L.
Rinfret, T., B.C.L. Lectr.

Roman L.
..... Gale Prof.
Rose, H. E., B.A., B.C.L., LL.M. Lectr.

Medicine (for subjects of first 2 yrs.—Anat., etc., v. *supra*)

Bacteriology
Bruère, A. A., M.D. Edin. (B and Clin. Med.) Asst. Prof.
Gurd, F. B., B.A., M.D. (Immunology) Lectr.
McKee, S. H., C.M.G., B.A., M.D. (B. and Ophth.) Lectr.
1 Asst. Demr.

Dermatology, v. also Ped.
Burnett, P., M.D. Lectr.

Gynæcology and Obst.
Chipman, W. W., B.A., M.D. and F.R.C.S. Edin. Prof.
Lockhart, F. A. L., M.B. Edin., M.D. Prof.
Goodall, J. R., O.B.E., B.A., M.D., D.Sc. Asst. Prof.
Little, H. M., B.A., M.D. Asst. Prof.
Patrick, D., M.D. Lectr.
Gray, H. R. D., B.A., M.D. Lectr.
Duncan, J. W., M.D. Lectr.
Burgess, H. C., M.D. Lectr.
Fraser, J. R., M.D. Lectr.

History of M.
Macphail, Sir A., B.A., M.D. Prof.

Hygiene [Strathcona Prof.
Starkey, T. A., M.B., D.Ph., L.R.C.P. Lond., M.R.C.S. Eng., M.D., C.M.
McDonald, R. St. J., B.A., M.D., D.P.H. Lectr.
Jones, F. B., M.D., D.P.H. Lectr.

Med. Jurispr. [Prof
MacTaggart, D. D., B.A.Sc., M.D.

Med. and Clin. Med., v. also Bact., Ped.
Finley, F. G., C.B., M.B. Lond., M.D. Prof
Lafleur, H. A., B.A., M.D. Prof.
Martin, C. F., B.A., M.D. Prof.
Hamilton, W. F., M.D. Assoc. Prof.
Gordon, A. H., M.D. Lectr
Peters, C. A., M.D. Lectr.
Mason, E. H., M.D. Lectr.
Robertson, A. A., B.A., M.D. Lectr.
Kaufmann, J., M.D. Lectr.
15 Demrs. and Asst. Demrs.

Mental Diseases
Burgess, T. J. W., M.D. (Med. Supt. Hospl. for Insane) Prof.
Porteous, C. A., M.D. Lectr.

Neurology, Clin.
Russel, C. K., B.A., M.D. Lectr.
Mackay, F. H., B.A. Lectr.

Ophthalmology, v. also Bact.
Stirling, J. W., M.B. Edin., M.D. Prof.
Byers, W. G. M., M.D., D.Sc. Prof.
Mathewson, G. H., B.A., M.D. Prof.
Tooke, F. T., B.A., M.D. Demr.
1 Asst. Demr.

Oto-Laryngology
Birkett, H. S., C.B., M.D. Prof.
Hamilton, H. D., M.A. Bish., M.D., L.R.C.P. and S. Edin., L.F.P.S. Glas. (O.-L. & Rhin.) Lectr.
Craig, R. H., M.D. (O.-L. & Rhin.) Lectr.
4 Demrs. and Asst. Demrs.

Parasitology [Assoc. Prof.
Todd, J. L., B.A., M.D., D.Sc. (Hon.) Liv., M.R.C.S.E.

Pathology
Oertel, H., M.D. Strathcona Prof.
Lawrence, J. R., B.Sc., M.D. Assoc. Prof.
Abbott, Maude E., B.A., M.D. Bish., L.R.C.P. and S. Edin. Lectr.
Crowdy, C. T., M.D. Lectr.
4 Demrs.

Pediatrics and Dermatology
Campbell, G. G., B.Sc., M.D. Lectr.
Fry, F. M., B.A., M.D. (and Demr. in Clin. M.) Lectr. in P.
Cushing, H. B., M.D. Lectr. in P.
Enright, W. E., B.A., M.D. Demr.

Pharmacy
Moore, B. J., Ph.G. Hd. of Dept., Prof.

Pharmacology
Barbour, H. G., A.B. Trin. Coll. Conn., M.D. J.H.U. Prof.
Mason, J. L. D., B.A., M.D. Lectr.
Bourne, W., M.D. Demr.

Psychiatry
Mundie, G. S., B.A., M.D. Lectr.

Radiology
2 Demrs.

Surgery and Clin. Surg.
Armstrong, G. E., C.M.G., M.D., LL.D. Qu., D.Sc. Liv. Prof.
Hutchison, J. A., C.B.E., M.D., L.R.C.P. and S. Edin. Prof.
Garrow, A. E., M.D. Asst. Prof.
Bazin, A. T., M.D. (S. and Applied Anat.) Asst. Prof.
Eberts, E. M., M.D., M.R.C.S. Eng. Asst. Prof.
Archibald, E. W., B.A., M.D. Asst. Prof.
Barlow, W. L., B.A., M.D. Clin. Lectr.
Keenan, C. B., M.D. Clin. Lectr.

Patch, F. S., B.A., M.D. (Genito-Urinary) Prof.
Mackenzie, D. W., B.A., M.D. (Genito-Urinary) Prof.
Turner, W.G., B.A., M.D., M.R.C.S. Eng (Orthop. Surg.) Prof.
Forbes, A. M., M.D. (Orthop. Surg.) Prof.
Howell, W. B., M.D. (Anæsthesia) Lectr.
Hepburn, W. G., M.D. (Anæsthesia) Lectr.
Scrimger, F. A. C., B.A., M.D. Lectr.
Tees, F. J., B.A., M.D. Lectr.
12 Demrs. and Asst. Demrs.

AFFILIATED INSTITUTIONS

Acadia, Alberta, Mt. Allison, and St. Francis Xavier Univs. Students who have completed the 2 yr. course in Engin. of these Univs. are admitted directly to the 3rd yr. in McGill Engin. courses. Alberta students who have completed their 3rd yr. in the Med. course are admitted to the 4th in McGill.

Graduates of the Royal Military College, Kingston, are admitted to the 3rd yr. in McGill Engin. courses. Graduates and students of the Mechanical Science course of Cambridge are admitted to advanced standing in the Faculty of Appl. Sc. Particulars obtainable from the Dean of the Faculty.

THEOLOGICAL COLLEGES

Congregational College of Canada, Montreal. Principal, D. L. Ritchie, B.A., D.D.

Diocesan College of Montreal. Principal, E. I. Rexford, M.A., I.L.D.

Presbyterian College, Montreal. Principal, D. J. Fraser, M.A., LL.D.

Wesleyan College of Montreal. Principal, J. Smyth, LL.D.

Students enter after graduation or pursue courses concurrently in Arts at the Univ., in Theol. at the Coll.—6 yrs. in all.

GENERAL INFORMATION (v. also p. 280)

The Hon. James McGill, of Montreal, who died in 1813, bequeathed 46 acres of land, with some buildings and £10,000, to found a college, and in 1821 the Royal Institution for the Advancement of Learning, the trustees for the purposes of the bequest, obtained a Royal Charter (amended in 1852) under which the work of teaching was begun in the Faculties of Arts and Med. in 1829. The Governors are the members of the Royal Institution above mentioned. Their number is limited to 25, and vacancies are filled by nomination of the remaining members, with the approval of the Visitor. The Govrs., Principal, and 42 Fellows (representing faculties and depts., grads., affild. colls., and other bodies) constitute the Corporation, the highest academical body, which frames regulations. The Peter Redpath Museum was opened in 1882, the Redpath Library in 1893, Royal Victoria Coll. in 1899, the Conservatorium in 1904. Macdonald College was opened in 1907, and in 1911 Sir Wm. Macdonald purchased for the use of the Univ., at a cost of $1,117,640, 25 acres of land, destined for students' residences and athletic grounds. In this year $1,550,000 was raised for the Univ. chiefly from Montreal citizens. Sir Wm. Macdonald bequeathed nearly $2,000,000, of which $500,000 was for the Medical Faculty and $300,000 for the Conservatorium. In 1918 the Carnegie Corporation, New York, gave $1,000,000 in recognition of McGill's

service and sacrifice in the Great War. In 1920 the sum of $1,000,000 was given by the Rockefeller Foundation for the Faculty of Medicine; $1,000,000 by the Provincial Govt. for general purposes; and $4,400,000 was raised from the graduates and the citizens of Montreal as a general endowment. Income from Investments, about $1,000,000.

SPECIAL FEATURES. The provision for instruction and research in Applied Science is exceptionally ample, especially in Engin. in all its branches. The Med. School also is exceptionally strong.

LIBRARIES, 210,000 vols. (Medical, 30,000; large Ophth. Dept.) and 31,000 pamphlets; Peter Redpath collection of 10,000 political and religious tracts dating from A.D. 1600; E. S. Wood Library of Ornithology; Blackader Library of Archit.; Blacker Library of Zool.; Travelling Library. LABORATORIES: Engineering and Chemistry, each accommodating 200 students; Physics; Zool., 100 students, 3 rooms specially fitted up for research; Bot., 43 students; Physiol., 80; Psych. Research; Agric. Research. FARM, Live Stock and Grain, 780 acres Astron. OBSERVATORY. MEDICAL MUSEUM (Strathcona), said to be the finest in America; rich collection of disturbances of heart and vascular system and aneurisms. HOSPLS. available for clinics, general—800 beds, several special.

FACULTIES. Arts, Law, Medicine (including Pharmacy), Applied Science, (Archit., and 6 branches of Engin.—Chem., Civil, Elec., Mech., Metall., Mining), Agric., Dentistry, Music. The Univ. has also Schools of Commerce, Physical Educn., Graduate Nurses, Social Service, a Graduate School, and (in Macdonald Coll.) Household Science and a School for Teachers.

ADMISSION. For candidates in Great Britain an examn. is held in London in June: particulars obtainable from W. A. Evans, M.A., 5 Paper Buildings, Temple, London, E.C.4. *Women* are not admitted to the Med. Faculty until after completing 2 yrs. in Arts.

DEGREE COURSES. 3 yrs.—B.Com., B.C.L., LL.B., Mus.Bac.; 4 yrs.—B.A., B.Sc., B.S.A., B.H.S. (Household Science), D.D.S.; 5 yrs.—B.Arch.; 6 yrs.—M.D., C.M.

B.A. or B.Sc. (Arts) course combined with B.Com., 5 yrs.; with Appl. Sc. or Theol., 6; Med., 8.

Med. students of 5 yrs.' standing of an approved institution may be admitted to the final examn. after one full session in McG. Recent grads. of approved Univs. may qualify for examns. by advanced courses or special research.

HIGHER DEGREES. Obtainable by 1 yr. of resident graduate study at McG. (grads. of McG.—2 yrs. of private work), thesis and examn.—M.A., M.Sc., LL.M., M.S.A.; by 3 yrs. of graduate study—Ph.D.; by valuable contribution to legal science—D.C.L.; by a composition and examn. not less than 3 yrs. after taking the Mus.Bac.—Mus.Doc.; on recommendation of Board of Grad. studies—D.Sc., D.Litt.

DIPLOMAS. Lic. Mus., D.P.H., Teachers', Pharmacy, Graduate Nurses'.

OTHER COURSES. Music Certif., Agric. (2 yrs. or 1 yr.), Household Sc. (2 yrs., 1 yr.. or shorter), Social Science (1 yr., and numerous special courses).

ATTENDANCE at lectures at the Univ. or Macdonald or Affiliated Coll. is indispensable.

RECOGNITION by other Univs. v. pp. 47, 178, 229, 237, 266.

FEES. Per annual session, Arts, $100; Appl. Sc., $205; Med., $200; Dent., $200; Law, $150; Music, $175; Commerce, $150; M.A. or Ph.D.

course, $40. Graduation fee for M.A. or M.Sc., $20; Ph.D., $30; D.Sc. or D.Litt., $80.

SCHOLARSHIPS FOR GRADUATES. In Econ. and Polit. Sc., Allen Oliver, $700; Chem., Sterry Hunt; Geol., Le Roy, $700; Mining Research and Teaching Fellowships, 3 of $500 each; Med. Research, especially Obstetrics and Gynæc., A. A. Browne Endowment, $10,000, open to grads. of any recognized Med. school; Path. Research, J. Douglas Endowment, $25,000; any subject, "Delta Upsilon," $800; Law, Macdonald Endowment, $20,000.

RESIDENCE. Women, Roy. Vict. Coll.; men, Strathcona Hall (Y.M.C.A.), accommodation for 60. PHYSICAL TRAINING is compulsory, and students are subjected to physical examn. on entering the Univ. Board and residence in Roy. Vict. Coll., $500 per session; in private houses, $60 p.m. and upwards; rooms only, $15 to $20 p.m.

McGill Union dining-room, accommodating 120 students at a time, provides inexpensive meals.

PUBLICATIONS. *Calendar* (June); *Coll. Announcements* (May to July); *Annual Report* (Dec.); *McGill News*, quarterly, by Graduates' Soc.; *McGill Daily*, by students.

THE YEAR 1920–21

BENEFACTIONS. Robt. R. Blacker, $40,000 for books on Zool. for Library; Misses M'Lennan, $3000 towards fitting up M'Cord Nat. Museum; Dr. C. A. Wood, $673 for books on Ornith. for Library; J. T. McCall, $5000 for Memorial Scholp.; late Khaki Univ., $12,000 for Scholps., preference to sons and daughters of those who served in the Great War; graduates and friends of late O. E. Le Roy, $11,460 for Fellowship in Geol.; Mrs. E. B. Eddy, $200,000 bequest for foundation of Chair or Chairs.

NEW BUILDINGS approaching completion: (1) for Biology at a cost, with equipment, of $570,000; (2) Library extension, $150,000.

CHANGES IN REGULATIONS. A new Degree of B.Sc. in Medicine to encourage specialization mainly for the purpose of teaching in Physiol., Anat., Bio-Chem., Pharmacol. and Path. Candidates will specialize in one of these for at least 1 yr. on the conclusion of the first 3 yrs. of the medical course. If they wish thereafter to proceed to the degree of M.D., C.M., they will attend for 3 more years.

A course in Common Law leading to the LL.B. established, to extend over 3 yrs. concurrently with the old course for the B.C.L.; the latter course is intended for those purposing to practise at the Bar of the Province of Quebec.

The session in the Faculty of Law extended from 7½ to 8½ months, and in the Faculty of Arts from 7½ to 8.

Admission standards raised for Faculties of Law and Medicine so as to involve completion of the work of the First Year in Arts and for Faculties of Music and Agric. to Junior Matricn. as in Arts and Science.

NEW FELLOWSHIP in Geology (Le Roy Memorial), $700 p.a.

THE CENTENNIAL CELEBRATION, being the first general reunion of graduates in the history of the Univ., took place Oct. 12 to 16, 1921. Over 3000 attended. At a special convocation attended by representatives of 58 Univs. 55 honorary degrees were conferred.

HONORARY DEGREES CONFERRED. (LL.D.)—Baron Byng of Vimy, F. D.

Adams, J. R. Angell, Chief Justice J. S. Archibald, H. S. Birkett, A. D. Blackader, Chief Justice J. T. Brown, B. Carman, Canon J. S. E. Chartier, C. W. Colby, W. W. Colpitts, C. V. Corless, Rt. Hon. Sir Louis H. Davies, W. Dixon, J. R. Dougall, Lady Drummond, G. H. Duggan, Rt. Rev. J. C. Farthing, W. S. Ferguson, Rev. D. J. Fraser, Sir George Garneau, Mgr. J. A. G. Gauthier, Sir Auckland Geddes, J. Harkness, J. G. Hibben, P. Johnson, G. L. Kittredge, E. Lafleur, J. B. Lawford, J. E. LeRossignol, W. D. Lighthall, D. R. McCord, R. E. McKechnie, R. T. McKenzie, A. S. Mackenzie, F. McLennan, Sir Andrew Macphail, A. Macphail, F. H. Mewburn, A. A. Michelson, Judge J. B. Moore, Lieut.-Col. H. Molson, T. H. Morgan, W. C. Murray, Rt. Rev. J. A. Newnham, P. Pelliot, G. F. Porter, Helen R. Y. Reid, Sir Thomas G. Roddick, H. J. Silver, Rt. Rev. J. F. Sweeny, Hon. L. A. Taschereau, R. B. Taylor, C. A. Wood, G. McK. Wrong.

NUMBER OF STUDENTS. Total, excluding 1341 enrolled in Extension courses, 2878 (in 1919–20, 2669). Undergraduates in Arts—464, including 203 women; Sch. of Commerce—148 (women, 3); Applied Sc.—668; Med.—719 (w., 12); Dent.—119; Law—131 (w., 6); Agric.—77 (w., 3). Partial students in Arts—73; other Faculties—18. Preparing for D.P.H.—3; for Dip.Phm.—39 (w., 4). Faculty of Music—97 women, including 77 partial students. Dept. of Social Service—72 (including 59 partial); Physical Educn.—70 (47 partial). Sch. for Graduate Nurses—37 (18 partial). Graduate School, 50 (w., 12). Household Sc.—122.

OTHER DEGREES. B.A.—70 (including women, 34); B.Sc. in Arts—11 (w., 1); B.Com.—10 (w., 1); B.Sc. in Applied Sc.—101; B.Arch.—1; B.C.L.—55; LL.B.—4 (w., 1); D.D.S.—14; M.D., C.M.—99; Mus.Bac.—1 woman; B.S.A.—27 (w., 2); M.A.—6 (w., 3); M.Sc.—18 (w., 5); Doctorates—6.

RESIGNATIONS. Prof. A. D. Blackader, appointed Emeritus Prof., succeeded by H. G. Barbour from Yale; Muriel B. Carr, accepted an apptmt. in an American Univ.; Prof. R. W. Lea, appointed Prof. of Roman-Dutch Law in Oxford; D. A. Shirres. DEATHS. S. L. D. Harris, W. H. P. Hill.

McMASTER UNIVERSITY, TORONTO

CHANCELLOR AND PRINCIPAL—A. L. McCRIMMON, M.A., LL.D.

REGISTRAR AND TREASURER—E. J. BENGOUGH, B.A.

LIBRARIAN—ENID A. McGREGOR, B.A.

PROFESSORS, LECTURERS, ETC., November 15, 1921

Biology
Smith, R W, B.A, Ph.D. Prof.

Chemistry
Walker, W. O., M.A. Prof.

English
McLay, W. S. W., M.A. Prof.
McGregor, Enid A, B A. Reader.

French
Franzen - Swedelius, B., B.A, Ph.D. Prof.

Geology
McNairn, W. H., M.A., Ph.D. Prof.

German
Mueller, P. W., B A. Prof.

Greek
Campbell, P. S., M.A. Prof.

History
New, C. W., B.A., B.D., Ph.D. [Prof.

Latin
Moon, A. J., M.A. Prof.

Mathematics
Findlay, W., M.A., Ph.D. Prof.

Philosophy, Psychology, Logic, and Ethics
Ten Broeke, J., M.A., Ph.D. Prof.

Physics
Dawes, H F., M.A., Ph.D. Prof

Political Economy, Education, and Sociology
The Principal Prof.
Michell, H, M.A Ox. Prof.

Public Reading and Speaking
Kirkpatrick, F. H, Ph.D. Spl Lectr.

Theology

Church History and Missions
Brown, J G, M A., D.D Prof.

Homiletics and Pastoral Theol.
Gilmour, J. L., M.A., D.D. Prof.

New Test. and Patristic Greek
Farmer, J. H, B.A., LL.D. Prof.

Old Test, Hebrew and Aramaic
Curr, H. S., M.A. Edin., B D., B.Litt. Prof.

System. Theol. and Apologetics
Keirstead, E. M., M.A., D.D., LL.D. Prof.

Hon. Lectrs.:
MacNeill, J., B.A., D.D. (Evangelism).
Merrill, B. W., B.A., B.Th. (Rel. Educn.).

AFFILIATED COLLEGE (v. also p. 280)

BRANDON COLLEGE, Brandon, Man., controlled by Baptist Union of W. Canada. Affild. for courses in Arts.

GENERAL INFORMATION

In 1887 Toronto Baptist College and Woodstock College, Woodstock, were united under the name of McMaster University, and their already existing endowments were increased by $900,000, received under the will of the Hon. Wm. McMaster. The Board of Governors (16) are elected by the Baptist Convention of Ontario and Quebec. There is no religious test for entrance but the Profs. and Lectrs. must be members of some evangelical church. Woodstock Coll. was separated from the Univ. in 1888, but both it and Moulton Ladies' Coll., Toronto (founded in 1888), are represented on the Senate.

LIBRARY, 24,000 vols. LABORATORIES: Phys., Biol., Chem., Mineral. Science Hall has 24 lecture rooms and labs.

DEGREE COURSES. 4 or 5 yrs., B.A.; 3 yrs. (after completing 2 yrs. of Arts course), B.Th.; 6 yrs., combined B.A. and B.Th. The first 2 yrs. in Arts do not necessarily involve attendance at lectures. Brandon Coll. provides instruction in Swedish for immigrants from that country.

The B.A. degree is recognized by Ox., Camb., Lond., and N.Y. State, v. also pp. 47, 178.

HIGHER DEGREES. Open to B.A after 1 yr. course (attendance at lectures not required),—M.A.; to B.Th. who are also B.A. and have taken 3 yrs. in Hebrew, involving 1 yr. of study after graduating as B.Th.,—B.D.

DIPLOMA. English Theol., 3 yrs.' course.

CERTIFICATE. Missionary Training for women.

FEES. Annually, for tuition, examn., library—Arts, $50, Theol., $12. For student organizations, athletics, etc., men, $8, women, $5.50.

RESIDENCE. Board and room per session, men, in McMaster Hall, $240; women, in Wallingford Hall, $10 a week.

PUBLICATIONS. *Calendar* (June); *McMaster Monthly* (students' magazine); *McMaster Graduate*, quarterly.

THE YEAR 1920–21

BENEFACTIONS. Wm. Davies bequest $60,000, mainly for Pension Fund; Khaki Univ. and Y.M.C.A. Scholarship Fund, $3000.

NUMBER OF STUDENTS (1920–21). Preparing for B.A.—182; B.Th. and Theol.Dipl.—29; Missionary Training Certif.—3. Three graduates carried on advanced work at Toronto, 8 at Univs. in the U.S.A. Four were awarded studentships by Dominion Council for Industrial Research.

HONORARY DEGREES CONFERRED. D.D.—J. H. Rushbrooke, J. R. Stillwell, C. C. McLaurin; LL.D.—Sir John Kennedy, F. Eby, Sir J. A. M. Aikens.

OTHER DEGREES. B.A., 45; B.Th., 2; M.A., 7.

UNIVERSITY OF MANITOBA, WINNIPEG

VISITOR—THE LIEUT.-GOVERNOR OF THE PROVINCE.

CHAIRMAN OF THE BOARD OF GOVERNORS—ISAAC PITBLADO, M.A., LL.D., K.C.

VICE-CHAIRMAN—J. A. MACHRAY, M.A., LL.B., K.C.

CHANCELLOR—Most Rev. S. P. MATHESON, D.D., D.C.L., Archbishop of Rupert's Land.

VICE-CHANCELLOR—Rt. Rev. Mgr. A. A. CHERRIER, LL.D.

PRESIDENT—JAMES A. MACLEAN, Ph.D , LL.D.

REGISTRAR—W. J. SPENCE, B.A.

LIBRARIAN—F. E. NUTTALL, M.A.

DEAN OF WOMEN—URSILLA N. MACDONNELL, M.A.

PROFESSORS, LECTURERS, ETC., January 1, 1922

Anatomy

Grant, J. C. B., M.B., Ch.B., F.R.C.S. Edin. Prof.
McGibbon, R. T., M.B., Ch.B. Glas. Asst. Prof.
Wheeler, D., M.A., M.D., C.M., M.R.C.S. Eng., L.R.C.P. Lond. Lectr.
McAlister, H. C., M.D. Demr.
Abbott, W. F., B.A., M.D., C.M. Demr.
7 Hon. Demrs.

Architecture

Stoughton, A. A., Ph.B. Col. Prof.

Bio-Chemistry

Cameron, A. T., M.A., B.Sc. Edin., F.I.C. Assoc. Prof.

Botany

Buller, A. H. R., B.Sc. Lond., D.Sc. Birm., Ph.D. Leip. Prof.
Roberts, H. F., B.A. Kans., LL.B. N.-Wstn., M.Sc. Kans. (Agr.) Asst. Prof.
Lowe, C. W., M.Sc. Birm. Lectr.
1 Demr.

Chemistry [Prof.

Parker, M. A., B.Sc. Glas., F.I.C.
Armes, H. P., B.Sc. Leeds, Ph.D. Stras. Asst. Prof.
Shipley, J. W., M.A , Ph.D. Harv. Asst. Prof.
4 Demrs.

Classics

Clark, F. W., Ph.D. Chic., B.A. Prof.
Coombes, G. F., M.A. Camb., D.D. Prof.
Taylor, J. W., M.A. Tor., Ph.D. Chic. Asst. Prof.
Hugill, W. M., B.A. Tor. Asst. Prof.

Engineering, Civil

Finlayson, J. N., M.Sc. McG., M.E.I. Can. Prof.
Johnstone, L. I., B.S. Maine, A.M. Amer. Soc. C.E. Asst. Prof.
Moffatt, R. W., B.A.Sc. Tor., A.M.E.I. Can. Asst. Prof.
Cameron, C. F., B.A., B.C.E., A.M.E.I. Can. Lectr.

McLean, D. L., B Sc., McG., A.M.E I. Can Lectr.
3 Demrs.

Engineering, Electrical
Fetherstonhaugh, E. P., B.Sc. McG., M.E I.C., A.M A I.E.E. Dean of Fac Prof.
Dorsey, J. W., E.E., A M E.I.C. Asst. Prof.
1 Demr

Engineering, Mechanical
Hall, N. M , O.B.E , B.Sc. McG., A M E.I.C. Asst. Prof.

English
Crawford, A. W., M.A. Tor , Ph.D. Corn. Prof.
Perry, A. J , M A Yale Asst. Prof.
Allison, W. T., M.A Tor , Ph D. Yale Asst Prof.
Amos, Flora R , B.A. Tor , Ph.D. Col. Asst Prof.
Edwards, J A M., M A. Asst

French
Osborne, W. F., M.A. Tor. Prof.
Green, F. C , M.A , St. And , Ph.D. Cologne Asst. Prof.
Ballu, Céline A., B.A. Wisc. Lectr.
Haynaud, A. Marie, B.A. Qu. Lectr.

Geology and Mineralogy
Wallace, R. C., M.A., D Sc. Edin., Ph.D. Gött., F.G.S. Prof.
De Lury, J. S., B.A. Tor., M.A.I.M.E. Asst. Prof.
Burwash, E. M., M.A. Tor., Ph.D. Tor. and Chic., B.D. Vict. (Tor.) Asst. Prof. (*ad int.*).

German
Heinzelmann, J. H., B.A. Ill., Ph.D. Chic. Prof.
Bryce, Helen F., B.A. Asst.

History
Martin, C. B., M.A. N. Bruns , M.A., B.Litt. Ox. Prof.
Harvey, D. C., B.A. Dal., M.A. Ox. Asst. Prof.
Howe, J. E , B.A. Yale, M.A. Acad. Lectr.

Mathematics
MacLean, N. B , M.A. Tor. Prof.
Wilson, N. R , M.A. Tor., Ph.D. Chic. Prof.
Warren, L. A H., M A Qu , Ph.D. Chic. Asst. Prof.
Tier, W , M.A. Tor., Dean of Fac. of Arts Asst. Prof.
Nowlan, F. S., M.A. Harv. Lectr.
1 Fellow.

Pharmacy [Prof.
Bletcher, H. E., B.Sc (Phar.)
1 Demr.

Philosophy [Prof.
Wright, H. W., B A , Ph.D. Corn.
Lodge, R. C., M.A. Ox. Prof.

Physics
Allen, Frank, M.A. N. Bruns. & Corn., Ph.D. Corn. Prof.
McClung, R. K , B.A. Camb , M.A., D.Sc. McG. Asst. Prof.
Miller, C. D., B.S. Rich., Ph.D. Chic. Asst. Prof.
4 Demrs.

Physiology, v. Medicine

Political Economy
Clark, A. B., M.A. Edin. Prof.
Jones, R. F., M.A. Liv. Asst. Prof.
McCullough, Lily A., M.A., LL.B. Asst.

Zoology
O'Donoghue, C. H., D.Sc. Lond., F Z.S. Prof.
Riley, C. F. C., M.A. Doane, B.S. Mich., M.S. Ill. Asst. Prof.
Bulman, Eileen, M.A. Col., B.Sc. Lectr.

Medicine (for subjects of first 2 yrs.—Anat., etc., v. *supra*)

Bacteriology and Hygiene [Prof.
Bell, G., B.A. Tor., M.D., C.M.

Douglas, A. J., B.A., M.D., C.M. (Hygiene) Prof.
Cadham, F. T., B.A , M.D. (B. and Serology) Asst. Prof.
Fraser, M. S., B.A., M.D., C.M. (Hygiene) Lectr.
4 Demrs.

Gynæcology
Simpson, R. M., M.D., C.M., L.R.C.P. Lond , M.R.C S. Eng , F.A.C.S. Prof.
Mackay, D. S., O.B.E., M D., C.M., F.R.C S. Edin., F.A.C.S. (Clin. G.) Assoc. Prof.
Pullar, J., B.A., M.D., C.M. Assoc. Prof.
Bercovitch, A., M.D., C M. Lectr.
McQueen, J. D., M.D., C.M., F.A.C.S. Lectr.

Hygiene, v. Bacteriology

Laryngology and Otology
Prowse, S. W., B.A., M.D., F.R.C.S. Edin., F.A.C.S., Dean of Fac. Prof.
Fletcher, G. W., M.D., F.A.C.S. Assoc. Prof.
Leishman, A., M.D. Lectr.
Washington, E. J., M.D. Lectr.

Materia Medica and Pharmacy
Bletcher, H. E., B.Sc. (Phar.) Prof.

Medicine and Clinical Medicine
Montgomery, E. W., M.A., M.D., C.M., F.A.C.P. Prof. of Clin. Med.

Assoc. Profs. of Clin. Med.:
Burridge, A. J., M.D., F.A.C.P. (Therap.).
Davidson, J. R., B.A., M.D., C.M.
Hunter, C., M.A., M.D., M.R.C.P. Lond. (Therap.).
Moody, A.W., M.D., C.M., F.A.C.P.
Rogers, W., B.A , M.D., C.M., F.A.C.P.
Gilmour, C. R., M.D., C.M.
Pope, E. L., B.A., M.D., C.M., M.R.C.P. Lond.
Young, F. A., O.B.E., B.A., M.B., F.A.C.P.
Chestnut, W., M.D., C.M. Assoc. Prof. of Med.
Stewart, D. A., B.A., M.D. Assoc. Prof. of Med. and Clin. Med.

Asst. Profs. of Clin. Med.:
Alexander, A. B., B.A., M.D.
Ferguson, R. G., B.A., M.D.
Moorhead, E. S., M.D., B.Ch. Dub.
Mackay, H., M.D., C.M (Dermatology).
Mathers, A. T., M.D., C.M. (Psychiatry).

Lectrs. in Clin. Med.:
Benner, F., M.D., C.M.
Campbell, S , C.M.G., M.D.
Hart, F., M.D., C.M.
Swan, R. R., M.B., Ch B.
O'Neill, J. H., M.D., C.M.
Bell, F. C., C.M.G., B.A., M.D. Lectr. in Dermatology.
McMillan, J. C., M.D., F.A.C.P. Lectr. in Roentgenology and Electro-therapy.
9 Demrs.

Medical Jurisprudence
McConnell, B. J., M.D. Lectr.

Obstetrics
McCalman, D. H., B.A., M.D., C.M. Prof.
Bjornson, O., M.D., C.M., F.A.C.S. Assoc. Prof.
Mitchell, R. B., B.A., M.D., C.M., F.A.C.S. Assoc. Prof.
Coulter, J. E., M.D., C.M., F.A.G.S. Lectr.
Campbell, W. G., M.D., C.M. Lectr.

Ophthalmology
Smith, W. H., M.A., M.D., C.M., F.A.C.S. Prof.
Bell, T. H., M.C., M.D., C.M., F.A.C.S. Assoc. Prof.
Bell, P. G., B.A., M.D., F.A.C.S. Assoc. Prof.
Stefansson, J., M.D. Lectr.

Pediatrics
Field, C. C., M.D., C.M. Prof.
Rorke, R. F, M.D., C.M. Assoc. Prof.
MacArthur, C., M.D., C.M. Lectr.
Norton, E. L., M.D. Lectr.

Pathology
Boyd, W., M.D., M R.C.P. Edin, Dipl. Psych. Prof
Nicholson, D., M.D., C.M. Lectr

Physiology and Pharmacology
Moorhouse, V. H. K., M.C., B.A, M.B. Tor. Prof.

Surgery and Clinical Surgery
Halpenny, J., M.A, M.D., C.M., F.A.C S Prof.
McKenty, J., M D., C.M., F.A.C.S. Assoc. Prof.

Assoc. Profs. of Clin. Surg.:
Galloway, H. P. H., M.D., C M, F.A.C.S (Orthop.).
Gibson, A, M.B., Ch.B., F.R.C S, F.A.C.S (Orthop.).
Brandson, B. J., B.A., M.D., C.M, F.A.C.S.
Campbell. A. M., B.A., M.D., C.M.
Fletcher, R. D., M.A., M.D., C.M., F.A.C.S. (Urology)
Gunn, J. A., C.B., O.B.E., B.A., M.D., F.A.C.S.
Lehmann, J. E, M.D., F.A.C.S.
MacLean, N. J., M D, F.A.C.S.
Webster, W., M.D., C.M. (Anæsthetics).
Elkin, S. J., M.D., C.M. Assoc. Prof. of Oper. Surg.

Lectrs. in Clin. Surg.:
Gardner, W. A., B.A., M.D., C.M., F.A.C.S. (Orthop.).
Gorrell, J. A., B.A., M.D., C.M., F.A.C.S.
Hamilton, T. G, M.D., F.A.C.S.
Mann, W. L., B.A., M D., C.M.
McIvor, N. K., M.D., F.A.C.S.
Musgrove, W. W., M.D., C.M., F.A.C.S.
Waugh, O. S., M.D., C.M., F.A.C.S.
Murray, A. A., M.D., F.A.C.S (Orthop.).

Lectrs. in Surg.:
McEachern, J. D., M.D.
McIntyre, D. F., M.D, F.A.C.S.
Fahrni, G. S., M.D.
7 Demrs.

Therapeutics, v. Medicine

AFFILIATED COLLEGES represented on the Council, the first four having power to confer degrees in Divinity:

ST. BONIFACE COLLEGE, St. Boniface (R.C.). Rector—H. Bourque, S.J.

ST. JOHN'S COLLEGE, Winnipeg (C. of E.). Warden—Rev. G. A. Wells, C.M.G., B.A.; Deputy Warden and Secy.—G. F. Coombes, D.D.

MANITOBA COLLEGE, Winnipeg (Presb. Ch. in Canada). Principal—John MacKay, M.A., D.D.; Registrar—Prof. J. Dick Fleming, Ph.D.

WESLEY COLLEGE, Winnipeg (Meth. Ch. in Canada). Principal—J. H. Riddell, D.D., LL.D.; Registrar—A. Stewart Cummings, B.A.

MANITOBA LAW SCHOOL, Winnipeg. Chairman of Trustees—Hon. H. A. Robson, LL.D.; Recorder—R. J. Russell.

MANITOBA AGRICULTURAL COLLEGE, St. Vital. President—J. Bracken, B.S.A.; Registrar—Prof. G. A. Sproule, B.A.

GENERAL INFORMATION (v. also p. 280)

Established in 1877 mainly as an examining and degree-conferring body, the Univ. was in 1900 empowered to give instruction. In 1917 a Board of Governors, appointed by the Lieut.-Govr., was constituted, and the functions of the Univ. Council, until then the governing body and composed largely of representatives of the affiliated Colleges, were limited to general charge of the academic work. The Univ. has the sole power of conferring degrees in Arts, Science, Law, Med., Engin., Pharmacy, Agric., and Archit. in the province. It received in 1898 from the Dominion Govt. a land grant of 150,000 acres.

Winnipeg, the capital of Manitoba, with its environs, including the neighbouring city of St. Boniface, has a population of over 270,000. The Univ. at present occupies a site in the heart of the city, but a new site on the outskirts has been selected. The Agric. Coll. at St. Vital, 7 miles distant, has a farm of 450 acres.

LIBRARY, 29,000 vols.; 364 periodicals received. LABORATORIES: Anat., Bact., Chem., Engin. (Material testing—200,000 lbs., Cement, Elec.), Geol. and Mineral., Path., Physics, Physiol., Zool. HOSPITALS available for clinics: 2 general (1000 beds) and several special, including tuberculosis.

FACULTIES. (1) An Arts and Science Faculty providing instruction in all subjects of undergraduate courses in Arts (except 3 options), Science, Arch., and Phm. (2) Medicine. (3) Engineering. Other subjects of Arts course and Law, Agr., and Home Ec. are taught in the affiliated Colls.

MATRICULATION examns. are conducted in June by the Provincial Educ. Dept. and in Sept. by the Univ. It is not necessary to pass completely at one time, and a candidate may enter on a Degree course, except in Law or Med., as a conditioned student. The subjects of Matricn. examn. for Arts or Science courses are English, Hist., Maths., Latin or Greek or French or German; a second language or 2 of the following sciences—Physics, Chem., Bot., Phys. Geog.; a third language or 2 sciences not already taken, or 1 science not already taken with Home Econ. or Indust. Arts or Music or Agric. or Comml. work. For a period of 3 yrs., 1921 to 1923 incl., no examns. will be required for Matricn. standing in the subjects of Part I. (Grade X.) Matricn. from pupils of the Collegiate Institutions of the province, where recommended for such exemption by their school principals. There are Senior Matricn. examns. for Med. and Engin. of the standard of 1st yr. examns. in Sc. or Arts. Instruction in subjects of Senior Matricn. is given in the Univ. and, in part, in affiliated Colls., but not at present in the High or Preparatory schools of the province. Beginning with 1922–23 session entrance requirements for Medicine will be clear standing of two pre-medical years, and for Law standing of 2nd year in Arts. Members of any British or approved Univ. may be admitted *ad eundem statum* or *gradum* without Entrance examn.

DEGREE COURSES. 4 yrs.—B.A., B.Sc., B.Sc. (C.E., E.E., or Mech.E.), B.Sc. (Phar.), B.Arch.; 3 yrs., following 1st yr. (in future, 2nd yr.) in Arts or its equivalent—LL.B.; 3 yrs.—Phm.B.; 5 yrs., following Senr. Matricn. (in future, 2 pre-medical yrs.)—M.D.; 5 yrs.—B.S.A., B.H.Ec. Graduates in Med. of at least 2 yrs.' standing with certain prescribed training and experience may obtain C.M. on passing written, oral, and pract. examn.

Attendance is required at 75 per cent of lectures in all subjects in which class instruction is given by the Univ. or an affiliated College. Extra-mural students may not take courses in Med., Sc., Arch., or Engin., or any course in Arts involving practical or lab. work, nor may they appear at examns. without permission of the Bd. of Studies.

The 1st yr. of the B.A. course includes 5 subjects, of which English, Maths., and a foreign lang. (already taken for matricn.) are compulsory; the 2nd—5, including English, Hist., and the same lang. One Science subject must be taken in the 1st or 2nd yr. unless both Physics and Chem. were taken for matricn.

The M.A. may be obtained by an extra year of full-time study under the direction of a committee of instructors. A thesis is required as well as examn.

The M.Sc. requirements are at least one yr's. grad. work in one or more of the Sc. depts. of the Univ. (incl. Maths.), an examn. and a thesis. While taking the LL.B. course a student may simultaneously obtain the Law Society's qualification for practice. Extra-mural courses may be taken by law students residing in Manitoba elsewhere than in Winnipeg or environs, and by graduates in Arts of an approved Univ. residing elsewhere. The LL.D. is honorary.

In the B.Sc. Engineering courses summer work and thesis relating thereto are required. Theses for the M.C.E. or M.E.E. may be presented 2 yrs. after graduation, the interval having been spent in the active practice of the profession.

2 yrs.' service in an Architect's office following graduation (B.Arch.) will qualify for licence to practise.

Students holding a 1st class Teachers' Non-prof. Certif. of the Provincial Ed. Dept. or its equivalent may complete " the Teachers' course " for B.S.A. in 3 yrs.

DIPLOMAS. Pharm. Chem. (2 yrs.' course); Agr. (3 yrs.). In *Dentistry* the Univ. is the sole examining body in the province. The Univ. conducts examns. for admission to the Man. Assocn. of Graduate *Nurses*, to the practice of *Accountancy* and membership of the Inst. C.A. of Manitoba, to the practice of *Architecture* and membership of the Man. Association of Archts.; also qualifying examns. for the Man. Civil Service.

FEES. Tuition and examn. in Arts and Sc., $44 p.a.; Engin. and Arch., $63 to $88; Phm., $83; Med., $158 (1st and 2nd yrs.) and $168 (3rd, 4th and 5th yrs.); Law, $58. Licence to practise Med., $100. Agr. Dipl. course, $31; Degree course, $54 p.a.

SCHOLARSHIPS for graduates: $600 p.a. for 2 yrs., open to graduates in special courses in Arts, in Med., or Engin., every alternate year, tenable at some other seat of learning; Fellowship, $500 awarded annually in Hist. and Pol. Sc.; Research Fellowship, $1500 annually in Sc.; Research Prize, $300 annually in Sc.

RESIDENCE. Hostels at all affiliated Arts Colls. and Agr. Coll.

INTERCHANGE of teachers for a few days and conference annually with Univs. of N. Dakota and Sask.

UNIV. EXTENSION. Over 150 popular lectures each session at numerous places in the province and a few in Ont. are given by members of the Faculties of the Univ. and affiliated Colls.; evening classes in Winnipeg; annual short course in Business.

PUBLICATIONS. *Calendars* (July), General, Matricn., and several faculties free; *Manitoban* (students' paper), weekly; *Annual Report*, Historical notes (1877–1917); *Examn. Papers*, $1.

THE YEARS 1919–21

BENEFACTIONS. Govt. Grants, $1,294,000, including special grants of $250,000 for new Science building and $479,000 for Med. and other building schemes. Rockefeller Foundation, $500,000 endowment for Med. faculty. For scholarships, prizes, etc.: Sir James Aikins, $5000 (for English); Chem. Soc. of Winnipeg, $50 p.a. (Chem.); Sir D. H. McMillan, $500 p.a. (Fellowship in Hist. and Pol. Sc.); J. J. Moir, $100 (Science); Hudson's Bay Co., $1500 p.a. (Research in Science); Scientific Club of Winnipeg, $300 (Research prize); Can. Inst. of Mining and Met., $100.

NEW BUILDINGS. Erection and equipment of new Science block cost $330,000; old Legislative Assembly building acquired; part of new Med. block completed in 1921.

NEW POSTS. Profs. of Philos. (2); Asst. Profs of Bot., Pol. Econ., English, Physics, Assoc. Prof. of Bio-Chem.; Instr. of Athletics.

OTHER NEW DEVELOPMENTS. Reorganization of Faculties; arrangements made to conduct examns. for Man. Assoc. of Archits. and for Man. Civil Service; M Sc. degree established; new regulations for M.A.; Dept. of Philos. established; special Arts course for 1st Class Teachers provided, beginning with 2nd yr., introducing Educn. as an option; courses for nurses in training, for nurses of Man. Dept. of Public Health, and in Social Welfare Work.

RETIREMENTS (1919–20). Swale Vincent (apptd. Prof. in Middlesex Hosp. Med. School of Univ. of London); R. O. Joliffe (apptd. Prof. in Queen's); R. Flenley (apptd. Assoc. Prof. at Toronto); Maude A. Bissett (on marriage); Emma F. Pope; N. Macdonald (apptd. Fellow at Harvard); Edna Sutherland (apptd. Dean of Women, Man Coll.); W. Rowan (apptd. Assoc. Prof. at Alberta).

HONORARY DEGREE GRANTED (1919–20). LL.D.—Swale Vincent.

OTHER DEGREES (1919–20). B.A.—88 (31 women); B.Sc.—1; B.Sc. in C.E.—1; B.Sc. in E.E.—2; B.Sc. in Agric.—10; B.Arch.—1; B.H.Ec.—5 w.; LL.B.—39 (4 w.); M.D.—27 (2 w.); C.M.—4; M.A.—2; Dipl. in Phar.—11.

NUMBER OF STUDENTS (1919–20). Full-time, taking curr. for bachelorship—837, including 223 women; for diploma—36 (1 w.); Sen. Matricn. for Med.—105 (10 w.); Sen. Matric. for Engin.—78; for M.D.—220 (27 w.). Part-time, for B.A.—30 (19 w.); for M.A.—16 (2 w.); in Evening and other Extension courses, 691 (66 w.). Total, 2013.

In 1920–21: in regular courses leading to degrees or diplomas, 1554, including Arts and Sc., 837; Engin. and Archit., 123; Med., 265; Phm., 30; Law, 107; Agr., 57; Home Econ., 19; Spl. Teachers' course in Arts, 37; Returned Soldiers, 32; Summer Course in Pharmacy, 21; in Evening and other Extension courses, 597.

EXTENSION WORK (1919–20). Evening Classes in Accty.; Short Courses in Social Welfare Work, Industrial Economics, Merchandizing, Geol. and Life Insurance; Tutorial Courses for returned soldiers continued into summer. 153 popular lectures at 94 places outside Winnipeg.

MONTREAL UNIVERSITY

PATRON—S.E. Cardinal G. VAN ROSSUM.

CHANCELLOR—S.G. Mgr. P. BRUCHÉSI, D.Th., Archbishop of Montreal.

RECTOR—S.G. Mgr. G. GAUTHIER, D.Th, LL.D., Bishop of Philippopolis.

PRESIDENT—Sir LOMER GOUIN, LL.D., K.C.M.G.

PRESIDENT OF THE EXECUTIVE COMMITTEE—Hon. F. L. BÉIQUE, LL.D.

VICE-RECTOR—Canon E. CHARTIER, M. ès A., L. ès L, D Ph.

SECRETARY-GENERAL—E. MONTPETIT, B.A., LL.D., D.S.P. Paris.

TREASURER—O. ARCHAMBAULT.

LIBRARIAN—A. FAUTEUX, B.A.

PROFESSORS, LECTURERS, ETC., December 15, 1921

Agriculture, v. Affiliated Instns.

Anatomy, v. also Med. Histology

Mignault, L. D., M.D., M.Ch. Prof.
Delorme, L. N., M.D. Prof.
Latreille, E., M.D. (A. Path.) Prof.
Virolle, E., M.D Prof.

Applied Science, v. Affiliated Instns.

Architecture

Beaugrand-Champagne, A. Prof.
Dyonnet, E. Prof.
Larue, A. Prof.
Poivert, J., D.Arch. Paris Prof.

Art, History of

Lagacé, J. B., M.A. Prof.

Astronomy

Choquette, Mgr. Prof.

Biology [Prof.

Dalbis, L. J., L. ès Sc. Paris

Botany

Victorin, M. Prof.
Pelletier, A. (Prof. of Maths.) Prof.

Chemistry, v. also Affiliated Instns.

Baril, G. H., M.D. (Bio-Chem.) Prof.
Morin, L. J., L. ès Sc. Paris Dean & Prof.
Nadeau, H., L. ès Sc. Paris Prof.
Laplante-Courville, D.Pharm. Prof.

Classics

Chartier, Can. E., M. ès A., L. ès L. Paris (Prof. of Educn.) Dean & Prof.
Dombrowsky, Ag. des L., Paris. Prof.
Maurice, P., D.D. Prof.

Commerce, v. Affiliated Instns.

Dental Science

Dubeau, E., D.C.D. Dean and Prof.
Nolin, J., D.C.D. Prof.
Gendreau, J. G. A., D.C.D. Prof.
Beauchamp, A., D.C.D. Prof.
Duhamel, J. A., M.D. Prof.
Dufresne, G. A. H., M.D. Prof.
8 Profs. agrégés, 3 Hony., 11 Clinicians and Demrs.

Economics, v. Social Sciences

Education, v. Classics

Engineering, v. Affiliated Instns.

English Lang. and Lit.
Atherton, W., LL.D. Prof.

French Literature
..... Prof.

Geology, v. Affiliated Instns.

Hebrew, v. Theol.

History
Désy, J., L. ès L., D.S.P. Paris
Prof. of Comml. and Genl. H.
Groulx, L., M.A., D Th. Prof.

Household Science
Aucoin, E., M.A. Prof.
Anctil, Miss J. Prof.

Italian
Nelli, G. Prof.

Law, v. *infra*

Mathematics, v. also Botany
Beaupré, V. E., B.A. Prof.
Léveillé, A., B.A. Lond.
Prof. (Finance).

Medicine, v. *infra*

Mineralogy, v. Applied Sc.

Modern Languages
Jasmin, H., D.Ph , D.Th. Prof.

Music
Charbonneau, J. N.
Head of Schola Cantorum.

Philosophy
Perrin, L., D.Th., D.Ph., M.A.
Dean and Prof.
Pineault, L., D.Th., D.Ph., M.A.
Prof.
Forest, C., Ph.M. Prof.
Gauthier, O., D.Th., Ph.D. Prof.
Fauteux, A., LL.L. Prof.
Perrault, A., LL.D., K.C. Prof.

Physics
Gendreau, E., L. ès Sc. Paris, Ph.D., M.D.
Prof. of P. and of Bio-P.
Demers, J., B.A. Prof.
Dollo, A. (Prof. of Mech. Engin.) Prof.

Physiology
Asselin, E. G., M.D. Prof.

Social Sciences, Economics, and Politics
Montpetit, E., K.C., LL.D., D.S P. Paris.
Prof. of Econ., Pub. Finance and Statistics, Director of the School.
Perrin, L. Prof.
Surveyer, A. Prof.
Vanier, G. Prof.
Miller, E. Prof.
Pelletier, G. (Journalism). Prof.
Fauteux, N (Journalism). Prof.
Rinfret, F. (Journalism). Prof.
4 Profs. agrégés.

Spanish
Gonzalès, B. Prof.

Theology
Allard, R., D.Th. Prof.
Belcourt, E. Prof.
Dorvaux, J. E., D.Th., D.Dr. Can. Prof
Dubeau, A. Prof.
Duchein, F., D.Th. Prof
Filion, E. Prof.
Gattet, B. M., D.Th. Prof.
Gauthier, H., D.Th. Prof.
Jeannotte, H. J., D.Th. Prof.
Lesieur, R. Prof.
McShane, G., D.Th. Prof.
Many, N. V., D.Th. (Hebrew) Prof.
Savignac, E., D.Th. Prof.
Urique, P., D.Th. (Dean) Prof.
Yelle, E. Prof.

Veterinary Science
Daubigny, T., M.V.
Director of the School & Prof.
Généreux, D., M.V. Prof.
Lorrain, L. P. H., M.V. Prof.
Dauth, A., M.V. Prof.
6 Profs. agrégés.

Law

Administrative L.
Baudoin, G., L. en Dr. Prof.

Civil L.
Demers, Hon. L. P., LL.D., J. of High Ct. Prof.
Lafontaine, Hon. E., LL.D., J. of High Ct. (Dean) Prof.

Civil Procedure [Prof.
Taschereau, R., LL.D., K.C.
Genest, R., L. en Dr. Lectr.

Comml. and Mart. L.
Lacoste, Sir A., LL.D. Prof.
Perrault, A., D. en Dr., K.C. Prof.
Gérin-Lajoie, A., LL.D. Lectr.
Faribault, R., L. en Dr. Lectr.

Const. and Munic. L.
Cousineau, Hon. P., LL.D., J. of High Ct. Prof.

Criminal L. [Prof.
Morin, L. J. S., LL.D., K.C

Industrial Legn. and Civ., Comml. and Indust. L.
Pérodeau, Hon. N., LL.D. Prof.
Gouin, L. M., L. en Dr., B.A. Lectr.

Internat. L. and Hist. of L.
Lemieux, Hon. R., LL.D., K.C. Prof.

Notarial Procedure
Morin, V., LL.D. Prof.

Roman L.
Beaulieu, E., LL.D., K.C. Prof.

Medicine (for subjects of the first 2 yrs.—Anat., etc., v. *supra*)

Bacteriology
Bernier, A., M.D. Prof.
Aubry, H., M.D. Lectr.

Contagious Diseases
Leduc, J., M.D. Prof.
Delvecchio, P., M.D. Prof.
Lebel, A., M.D. Lectr.

Deontology and Clin. Surg.
Saint-Jacques, E., M.D., B.A. Prof.

Dermatology and Syph.
Décarie, J. D., M.D. Prof.
Archambault, G., B.A., M.D. Prof.
Toupin, J. R., M.D. Lectr.

Gynæcology [(Dean) Prof
Harwood, L. de L., M.D.
Ethier, A., M.D. Prof.
Trudeau, R., M.D. Prof.

Histology and Path. Anat.
Dalbis, L. J., D.S. Prof.
Saint-Pierre, C., M.D. Lectr.
Jutras, L., M.D. Lectr.

History of Med.
Saint-Pierre, A., M.D. Prof.

Hygiene
Valin, C. N., M.D. Prof.
Baudouin, J. A., M.D. Prof.

Legal Med.
Derome, G. W., M.D. Prof.

Medicine, Clinical
Guérin, J. J., M.D., M.Ch., LL.D. Dub., K.C.St.Gr. Prof.
Benoit, E. P., M.D., O.A. Prof.
Bruneau, T., M.D. Lectr.
Lebel, H., M.D. Lectr.
Léger, A., M.D. Lectr. (C.M. & Path.).
Rouleau, A., M.D. Lectr.
Beauchamp, G. E., M.D. Lectr.
Verner, L., M.D. Lectr.

Mental Diseases
Tétreault, A., M.D. Prof.
Lefebvre de Bellefeuille, G., M.D. Lectr.

Neurology
Prévost, A., M.D. Prof.

Obstetrics
De Cotret, E. A. R., M.D Prof.
Langevin, S., M.D. Lectr.

Ophth., Ot. and Rhino-Lar.
Foucher, A. A., M.D., O.I.P. Prof.
Boulet, R., M.D. Prof.

Pathology, v. also Med.
Parizeau, T., M.D. Paris
Prof. (P. and Clin. Surg.).
Lesage, A , M D., O.A. Prof
Bourgeois, B., M D. Prof.

Pediatrics
Masson, R., M.D. Prof.
Ricard, A , M.D. Prof.
Ferron, A., M.D. Lectr.

Pharmacology
Laurence, A. J., L.Ph. Prof.

Pharmacy
Contant, J , D.Phm.
President of the School & Prof.
Lecours, J. E. W., L Phm. Prof.
Lawrence, A. J., L.Phm.
Sec.-Dir. of the School & Prof
Lanctot, H , L.Phm Prof.
Vadboncœur, E , L.Phm. Prof.
Quintin, A. D., L.Phm. Prof.
Boutin, J , L.Phm. Prof.
Flahaut, J., L. ès S Lille Prof.
Pilon, H., L.Phm. Prof.
3 Profs. agrégés.

Phthisiotherapy
Dubé, J. E., M.D., O.A. Prof.

Jarry, A , M D. Lectr.

Propædeutics
Hébert, R., M.D., O.A. Prof.

Radiology, etc.
Panneton, J. E., M.D. Prof.

Surgery, Clinical, v. also Deont., Path.
Mercier, O. F., M D. Prof.
Marien, A., M.D. Prof.
Hingston, D., M.D. Prof.
Demers, A., M.D Lectr.
Gagnon, A , M D. Lectr.
Dufresne, E , M.D. Lectr.
Derome, A , M D. Lectr.
Ferron, A , M.D. Lectr.

Surg., Operative
Rhéaume, Z., M D. Prof.
Fournier, N., M.D. Prof.

Therapeutics
Masson, D., M.D. Paris Prof.
Fortier, L. E , M.D. Prof.
Bourgoin, J., M.D. Prof.
Mignault, G E., M.D. Lectr.

Toxicology
Rivat, A. N., M.D. Prof.

AFFILIATED INSTITUTIONS

AGRICULTURAL INSTITUTE at Oka, about 30 miles from Montreal, founded 1893 by the Trappist Fathers of Oka, and affiliated to Laval in 1908. Director, Prof. Jean de la Croix. 15 other Profs. of *Ag. Botany*; *Animal Biology and Hygiene*; *An. Industry*; *An. Pathology and Bacteriology*; *Apiculture*; *Arboriculture*; *Aviculture*; *Buildings and Accounts*; *Chem., Geol. and Mineral*; *Fruit and Flower Gardening*; *Kitchen Gardening*; *Large-scale Farming and Machinery*; *Maths.*; *Physics and Drawing*; *Soils*; *Zoology and Rural Economy*. 4 other Supts. of Practical Work.

APPLIED SCIENCE, including Engineering. École Polytechnique. Founded in 1874; annexed to the Faculty of Arts of Laval, 1887; subsidized by the Provincial Govt. and the principal Railways of the Dominion. Principal, A. Boyer. 23 Profs. of *Architecture, Chemistry, Drawing, Electricity, Electrotechnics, Electrochem., Electro-met., Engineering—Civil, Elec., Mech. and Sanit., Geodesy, Geology, Geometry, Heating, Hydraulics, Industrial Chem., Industrial Legisln., Indust. Technology, Maths., Metallurgy, Mineralogy, Mining, Physics, Railways, Surveying, Thermodynamics, Ventilation*. 14 Hony. Profs.

COMMERCE. École des Hautes Études Commerciales. Created by the Provincial Govt. in 1907 and affiliated to Laval in 1915. Director, Prof. H.

Laureys. 18 other Profs. of *Accountancy, Banking, Chemistry, Customs Legislation, Economics, English, French, Geography, History, Insurance, Italian, Law, Maths., Math. Physics, Publicity.* 3 Hony. Profs.

CONSERVATOIRE NATIONAL DE MUSIQUE. Recently affiliated.

ENSEIGNEMENT SECONDAIRE OU CLASSIQUE. Ten Colleges for boys are affiliated to the Univ. under conditions providing for a 4 yrs.' High School course followed by a 4 yrs.' College or Arts course, on the completion of which a student may qualify by examn. for a diploma admitting him to professional studies in the Univ. The École d'enseignement supérieur pour les Jeunes Filles provides similar College courses for girls organized in French, English, and Special (Arts d'Agrément, Commerce, Pol. and Soc. Econ., Domestic Science) sections.

GENERAL INFORMATION (v. also p. 280)

Established, as a branch of Laval, Quebec, in 1878, with Faculties of Theology and Law, to which were added Medicine in 1879 and Arts in 1887. Since 1889 this Institution has been practically independent of, though receiving its degrees from, Quebec, and on Feb. 14, 1920, it was incorporated under its present name by an Act of the Provl. Legislature. The general administration is conducted by a Senate, Commissions of Admn. and Studies, Univ. Council and Exec. Committee. Endowments: $4,000,000 from a national subscription (1920), $1,000,000 from the Provl. Govt., and $1,000,000 from the Seminary of St. Sulpice.

LIBRARY, 120,000 vols. Each Faculty and School has the necessary teaching collections and laboratories.

FACULTIES. Theol. (constituted by the Grand Seminary of St. Sulpice); Philosophy; Law; Med.; Letters; Sciences; Dental Science. Incorporated in the Univ. are Schools of Vet. Med., Pharmacy, and Social, Econ. and Polit. Science.

DEGREES AND DIPLOMAS. Courses in the incorporated and affild. institns. include—a 4 yrs.' course in the Éc. Polyt., for the B. ès Sc. App.; 3 yrs. in the Éc. de Méd. Comp. for the D. en Méd.Vét.; 4 yrs. in the Éc. de Ch. Dent. for the D. en Ch.D.; 4 yrs. in the Éc. de Phm. for the B. en Ph. and D. en Ph.; 4 yrs. in Inst. Agric. d'Oka for the B. en Agr. and D. en Sc.Agr.; 3 yrs. in the Éc. des H.E. Comm. for a Diploma.

THE YEAR 1920–21

NUMBER OF STUDENTS. Theol., 298; Philos., 128; Law, 121; Med., 283; Pure Sciences, 70; Letters, 166; Vet. Surg., 20; Dent. Chir., 203; Pharm., 145; Soc. Sc., 96; Engin., 127; Comm., 115; Agr., 120; Inst. d'Ens. Mod., 160; Music, 790; Household Sc., 85.

HONORARY DEGREES CONFERRED. *LL.D.*—Marshal Foch; E. Cotelle (Pres. Assoc. des Notaires of France); Hon. G. Lamothe, C.J.; Judge E. Guerin. *D.Sc.*—R. Faribault; Prof. C. Moureu (Collège de France); *D.Vet.Sc.*—J. Sendrail (Toulouse).

MOUNT ALLISON UNIVERSITY, SACKVILLE, N.B.

CHAIRMAN OF THE BOARD OF REGENTS—GEORGE STEEL, D D.
PRESIDENT OF THE SENATE—B. C. BORDEN, D.D , D.C L.
SECRETARY AND LIBRARIAN Prof. F W. W. DES BARRES, B.A
REGISTRAR OF THE FACULTY OF ARTS—Prof W. M TWEEDIE, M A.

PROFESSORS, LECTURERS, ETC., October 27, 1921

Biology
Fraser, R., B.S. Prof.

Chemistry
Bigelow, H. E., Ph.D. Prof.

Classics
Cohoon, J. W., Ph.D. Wood Prof.

Engineering
McKiel, H. W., B.A., B.Sc.
(Mech.E.) Prof.
West, F. L., M A., B.Sc. Prof.

English Lang. and Lit.
Tweedie, W. M., M.A. Allison Prof.

French and Greek
Delano, C. C., Ph.D. Prof.

Law [Lectr.
Trites, R., B.A., LL.B. (Contracts)
Bennett, A. W., LL.B., Judge
(Torts) Lectr.

Mathematics
Hunton, S. W., M.A. Prof.

Physics
Randolph, J. R., M A. Prof.
Chapman, Ray, B.A. Instr.

Political Sciences
President Borden Black Prof.

Psychology and Logic
Liddy, R. B., B.D., Ph.D.
Massey Prof.

Theology
Line, J., M.A., B.D. Allison Prof.
Watson, W. G., B.A., B.D.
(Hebrew and Engl. Bible)
Prof.
Des Barres, F. W. W., B.A. (Church
Hist.) Prof.

GENERAL INFORMATION (v. also p. 280)

The METHODIST CHURCH of Canada controls the administration, which is, however, conducted on strictly non-sectarian principles; a considerable number of the students belong to other religious denominations. The Univ. is named after C. F. Allison, founder (in 1843) of "Mt. Allison Wesleyan Academy," the Trustees of which were, by an Act of the Legislature of N.B. in 1858, authorized to establish as a degree-conferring institution, "Mt. Allison Wesleyan College." This name was changed in 1886 to "Univ. of Mt. Allison Coll." and in 1913 to "Mt. Allison Univ." In 1903 the McClelan School of Applied Science was opened in the Univ.

LIBRARY, 15,000 vols. Engineering WORKSHOPS with gasoline engine, etc.

FACULTIES. Arts, Science, Theology, School of Applied Science.

DEGREE COURSES. 3 yrs., B.Mus.; 4 yrs. (from "Junior" Matricn.), B.A., B.Sc. "Senior Matricn." Certifs. (*e.g.* N.S. Provl. High School, grade A) admit to 2nd yr. of B.A. or B.Sc. course; Prince of Wales Coll. High Honour Diploma to 3rd yr V. also p 283

HIGHER DEGREES. Open to B.A. of 1 yr.'s standing, M.A.; 2 yrs.' B.D.; to B.Sc. of 1 yr.'s standing, M.Sc.; Honorary, D.D., LL.D., D.C.L.

CERTIFICATES. Applied Science, 2 yrs.' course (may be taken as part of 3rd and 4th yrs. of B.A course); Finance and Com., 2 yrs.; Probationers for Ministry, 3 yrs.

RECOGNITION by other Univs. (v. pp. 47, 178, 301, 314, 341).

FEES, tuition and registration, annual: Arts, $80; Engin., $120.

RESIDENCE. Accommodation in the Univ. for 130 men and 60 women students. Board and lodging, $249 p.a.

PUBLICATIONS. *Calendar* (July); *Argosy* (students'), and *Mt. Allison Record*, monthly.

THE YEAR 1920–21

NUMBER OF STUDENTS. Full-time, preparing for Bachelorship or Diploma, 207 (including women, 51); for M.A. or M.Sc., 4; Occasional or Special (chiefly women)—54.

DEGREES CONFERRED B.A., 22 (including women, 15); M.A., 7; B.D., 1 Engin. Certif., 22

BENEFACTIONS. In 1920–21 the endowment was increased $200,000 by gifts and subscriptions. From 1919–21 salaries in general were, on the average, increased from 20 to 25 per cent.

UNIVERSITY OF NEW BRUNSWICK, FREDERICTON

VISITOR ON BEHALF OF H.M. THE KING—THE LIEUT.-GOVERNOR OF NEW BRUNSWICK.

CHANCELLOR—C. C. JONES, M.A. Ph.D., LL.D.

PRESIDENT OF THE SENATE—W. S. CARTER, M.A. LL.D., D.C.L.

REGISTRAR—HAVELOCK COY, M.A.

PROFESSORS AND LECTURERS, September 2, 1921

Chemistry
Cameron, A., M.A., B.Sc. St. And. [Prof.

Classics and Anc. Hist.
Raymond, W. T., B.A., B.A. Harv., LL.D. Dal. Prof.

Engineering, v. also Phys.
Turner, E. O., S.B. Mass. I. Tech. (Civil E.) Prof.
Stephens, J., M.A., M.A.I. Dub., M.I.C.E.I. (Mech. E. and Drawing) Prof.
Claridge, B. E., Ph.B., M.F. Yale (Forest Engineering) Prof.

English and Mod. Hist.
Harvey, E. L., B.A. Ox. Prof.

Forestry
Pulling, A. V. S., B.Sc. N.Y. State Coll. For. Prof.

French and German
Klimpke, P., M.A. Yale. Prof.

Law
Richards, C. D., B.A. (Contracts and Const. Hist.) Lectr.
Hughes, P. J., B.A. (Torts, Crimes) Lectr.

Mathematics
The Chancellor Prof.

Natural History and Geol.
Cox, P., B.A., B.Sc., Ph.D. Prof.

Philosophy and Economics
Kierstead, W. C., Ph.D. Chic., M.A. Prof.

Physics and Elec Engin.
Baird, A. F., M.Sc. Prof.

GENERAL INFORMATION (v. also p. 280)

The " College of New Brunswick " was incorporated in 1800 by Provincial Charter, re-incorporated in 1828 by Royal Charter as " King's College," and merged in 1859 in the Univ. of N.B. established in that year. The Provincial Govt. appoints the Chancellor and a majority of the governing body, called the Senate, of which the Chief Supt. of Education for the Province is *ex-officio* President. The annual grant from Provincial revenues is $25,000.

LIBRARY, 14,000 vols. MUSEUMS, Natural History (rich in birds). LABORATORIES: Bot., Chem., Engin., Geol., Phys., Psych. OBSERVATORY: Telescope with 6" clear aperture.

DEPARTMENTS. Arts, Applied Science (Engineering and Forestry).

DEGREE COURSES. 4 yrs. (from "Junior" Matricn.), B.A., B.Sc. (in Pure Science, Engin. or Forestry). The "Senior" Matricn. (or equivalent) Certif. admits to the 2nd year. The first 2 yrs. in Engin. are arranged to suit candidates for licences as Land Surveyors. The Forestry and Civ. Engin. courses may be combined in 5 yrs.

HIGHER DEGREES. Open to B.A. of 2 yrs.' standing, M.A.; to B.Sc. in Pure Science of 2 yrs.', in Engin. or For. of 3 yrs.' standing, M.Sc.; to B.A. of 6 yrs.' standing, B.C.L.; to B.C.L. of 5 yrs.' standing, D.C.L.; D.Litt., D.Sc., LL.D. (Hon.).

RECOGNITION by other Univs. (v. pp. 47, 178, 266, 301).

FEES, tuition, annual: Arts, $70, Engin. or Forestry, $100.

THE YEAR 1920–21

BENEFACTIONS. $5000 for scholarships.

NUMBER OF STUDENTS. Full-time, preparing for B.A. or B.Sc.—137 (including 25 women); graduate students—2.

HONORARY DEGREES. LL.D.—Lord Beaverbrook, Hon. F. B. Carvell.

OTHER DEGREES. B.A.—4; B.Sc.—12; M.A. and M.Sc.—6.

RESIGNATION Prof. E. Elias.

UNIVERSITY OF OTTAWA

APOSTOLIC CHANCELLOR—H.G. The Most Rev. C. H. GAUTHIER, Th D., Archbishop of Ottawa.

RECTOR—F. X. MARCOTTE, D D , D.Ph.

SECRETARY—A. JASMIN, Ph.D.

TREASURER—A. D McGOWAN, B L.

PREFECT OF STUDIES—J. A. LAJEUNESSE, M.A.

PREFECT OF DISCIPLINE—R. LEGAULT.

PROFESSORS, October 1921

[a = Arithmetic, c = Classics, e = English, f = French, h = History, m = Mathematics, r = Religious Knowledge.]

Allard, O.—f, h, r.
Arès, C. E.—f, r.
Arsenault, A. J.—c, e, h, r.
Beauchamp, A.—f, h, r.
Belleau, P. H.—e.
Bergevin, L.—c.
Binet, J. L.—c & Chem.
Boileau, G.—e, r.
Bourassa, A., D.D.—r.
Bradley, F.—e.
Brosseau, H. D.—e, h, m, r.
Cannon, R., B.A.—e, h, m.
Cardin, H.—c, f.
Cary, A.—e, Geog , Econ.
Cavanagh, W.—e, m.
Choquette, F.—c, r.
Cornellier, P., B.A., Ph.D., Th.D. —r.
Côté, V.—f, r.
Coupal, G.—a, e, h, Geog.
Desnoyers, A., Ph.D.—r, Science.
Dubé, H., Ph.D., M.Sc.—m, Physics, Astron.
Duranseau, N.—e, Penmanship.
Fusey, A.—c, f.
Gravel, J.—c, f, r.
Guertin, A.—f, h, r.
Guy, J.—f, m, r, Geog.
Jasmin, A.—h, r.
Julien, O —a, e, f, h, Stenography.
Lajeunesse, J. A., M.A.—Nat. Sc.
Lamoureux, R., Ph.D.—r.
Latulipe, E.—a, f, r.
Leblanc, R.—Philos.
Leclerc, A.—m, Botany.
Legault, R.—Business.
Lesage, L.—a.
Marchand, G., Ph D.—r.
Martel, G.—e, m, r, Biol.
Morisseau, H.—f, h, r.
Nadeau, L.—c, m.
Nilles, N., D.D.—c, Econ.
Paquette, A.—f, h, r.
Pelchat, J.—a, r.
Pelletier, A.—c, f.
Perruisset, L., D.Ph.—h, Philos.
Poulet, D., L.Ph.—Philos., r.
Ralph, D.—h, Geog.
Renaud, E.—Chem., m.
Robert, U.—f.
St.-Georges, L.—c, f, h.
Sénécal, R.—Business.
Simard, G.—Eccl. Hist.
Véronneau, A., M.A.—c, r.
Vézina, E.—f, Penmanship.
Villeneuve, R., D.Ph.—r.

GENERAL INFORMATION (v. also p. 280)

The " College of Bytown," incorporated in 1849, changed its name in 1861 to " College of Ottawa," and became in 1866 the Univ. of Ottawa with power to grant degrees. The Univ. is conducted by the Oblate Fathers of Mary Immaculate.

LIBRARY, 25,000 vols. The Parliament Library, to which students have access, has 300,000 vols. MUSEUMS: In the Univ.—Geol.; access also to Geol. Survey Dept. Museum. The Dominion Observatory and Canadian Fisheries Museum are located in Ottawa. LABORATORIES: Chem., Phys., Mineral.

DEGREES, ETC. B.A., M.A., B.L. (Lit.), B.Phil., B.Th., D.Th., LL.D. (Hon.), Lic. Phil., D.Phil, Lic. Th. The Arts course leading to the B.A. or B.L. covers 4 yrs., the work of the Fourth to the Seventh " Forms," that of the first 3 Forms being preparatory to matricn. Extra-mural students may appear for examn. without attending classes in the Univ. for more than 1 yr. The B.A. exempts law and medical students from Prelim. Examns. and entitles the former to a reduction of 2 yrs. of the ordinary 5 yrs.' course. The B.Th. and the L.Th. involve respectively 2 and 3 yrs.' study of Theology after the completion of a classical course; the B.Ph. and the L.Ph. respectively 3 and 4 yrs.' study after matricn. Marks assigned for the exercises of students are read in public once a month and monthly reports are sent to parents. V. also p. 178.

FEES. For Tuition and Board Residence per half-year, $300. Degrees from $5 to $75.

RESIDENCE. Students whose homes are not in Ottawa are required to live in the Univ. building where they are subject to strict discipline—*e.g.* no book or newspaper may be introduced without having been previously examined and approved of by the Prefect of Discipline.

THE YEAR 1920–21

NUMBER OF STUDENTS, in the Faculty of Theology, 52; Philosophy, 57; Collegiate (pre-matriculation) and Commercial course, 715.

DEGREES GRANTED. B.A., 15; B.Ph., 14; L.Ph., 9; B.Th., 8; L.Th., 7; Hon. Degrees, 4.

QUEEN'S UNIVERSITY, KINGSTON, ONTARIO

CHANCELLOR—E. W. BEATTY, K.C.

PRINCIPAL AND VICE-CHANCELLOR—R. BRUCE TAYLOR, M.A., D.D., LL.D.

RECTOR—A. E. ROSS, C.M.G., B.A., M.D , LL.D.

VICE-PRINCIPAL—Prof. J. WATSON, M.A., D.D., LL.D., D.Litt.

REGISTRAR AND TREASURER—W. E. MCNEILL, M.A., Ph.D.

LIBRARIAN—Miss LOIS SAUNDERS.

DEAN OF WOMEN—Mrs. W. E. MCNEILL, M.A.

PROFESSORS, LECTURERS, ETC.*

Anatomy, v. also Med. [Prof
Kidd, G. E., B.A , M.D., C.M.
Sparks, J. F., B.A., M.D., C.M.
Asst. Prof. of Applied A.
McQuay, R. B., B.A., M.D. Fellow.
2 Assts.

Banking, v. Pol. Econ.

Biology (*Botany and Animal Biol.*), v. also Med.
MacClement, T. W., D.Sc. Armour Inst., M.A. Allan Prof.
Klugh, A. B., M.A. Asst. Prof.
Earl, R. O., B.A. ,, ,,
Bissonnetre, T. H., M.A. Lectr.
O'Connor, F. X., M.D., C.M.
Lectr. in Embryol. & Histol.
3 Tutors.

Chemistry, v. also Engin.
Goodwin, W. L., B.Sc. Lond., D.Sc. Edin. Prof.
Neish, A. C., M.A., Ph.D. Col. Prof.
Waddell, J., B.A. Dal., B.Sc. Lond., D.Sc. Edin., Ph.D. Heid. Assoc. Prof.
McRae, J. A., M.A., F.I.C. Asst. Prof.
McKee, J. L., B.A. R.U.I., M.Sc. N.U.I., Ph.D. Freib. Asst. Prof.
Cadenhead, A. F. G., B A. Lectr.
Dorrance, R. L., B.A. Lectr.
5 Tutors, 1 Demr.
12 Assts.

Chemistry, Biological
Lothrop, A. P., M A. Ober , Ph.D. Col. Prof.
1 Asst.

Classics
Callander, T., M.A. Aberd. and Ox. (Greek) Prof.
Mitchell, G. W., M.A. Prof.
Jolliffe, R. O., Ph.D. Chic. (Latin) Prof.
Keill, L. G., B.A. (Greek) Lectr.
1 Tutor

Economics, v. Polit.

Engineering, v. also Mining
Macphail, A. J., C.M.G., B.Sc. (General E.) Prof.

Staff of Medical Faculty as in December 1920. Remainder as in July 1921.

Arkley, L. M., M.Sc. (Mech. E.) Prof.
Goodwin, L. F., Ph.D. Heid., A.C.G.I., F I.C. (Chemical E.) Prof.
Wilgar, W. P., B.Sc. (Civil E.) Prof.
Malcolm, L., M.A., B.Sc. (Munic. E.) Prof.
Jemmett, D. M., M.A., B.Sc. (El. E.) Asst. Prof.
Ellis, D. S., M.A., B.Sc. (Civil E.) Asst. Prof.
Rutledge, L. T. (Mech. and El. E.) Asst. Prof.
Jackson, A., B Sc. Asst. Prof. in Draughting.
Davis, R L., M.S. (El. E.) Lectr.
2 Assts. in Draughting, 2 Instrs.

English
Macdonald, J. F., M.A. Prof.
Roy, J. A., M.A. Edin. Asst. Prof.
Kinnick, O. C , M.A. Lectr.
Snow, R. H., S.B. Harv. Lectr.
Gordon, Miss W., M.A. Instr.
4 Tutors.

French, v. also Rom.
Hicks, R. K., B.A. Camb., M.A. Harv. Assoc. Prof.
Conacher, W. M., B.A. Lond. Asst. Prof.
1 Fellow.

Geology, v. also Mineralogy
Baker, M. B., B.A., B.Sc., F.G.S.A. Prof.

German
Macgillivray, J., B.A. Tor., Ph.D. Leip. Prof.

History
Morison, J. L., M.A., D.Litt. Glas. Prof. of H. and Douglas Prof. of Colonial H.
M'Neil, J. T., Ph.D. (European H.) Assoc. Prof.
Prince, A. E., M.A. Ox. (English H.) Asst. Prof.

Mathematics
Matheson, J., M.A. Prof.
Gummer, C. F., M.A. Ox. Assoc. Prof.
Miller, Norman, M.A., Ph.D. Harv. Assoc. Prof.
Johnston, K. P., M.A., B.Sc. Asst. Prof.
Wood, F. M., M.A., B.Sc. Lectr.
Newlands, Mrs., M.A. Instr.
5 Tutors and 7 Assts.

Medicine, v. *infra*

Metallurgy
MacKay, G. J., B.Sc. Prof.
Drury, C. W., B.Sc., Ph.D. (Electro M. and Research) Prof.

Mineralogy [Prof.
Bruce, E. L., B.A., B.Sc., Ph.D.
Alcock, F. J., B.A., Ph.D. Lectr. in M. & Geol.

Mining Engineering
Graham, S. N., B.Sc. Prof.

Philosophy
Watson, J., M.A. Glas., LL.D. Glas. and Tor., D.D. Knox, D.Litt. Mich. Charlton Prof. of Moral P.
Ferguson, A. S., M.A. Ox. and St. And. (Mental P.) Prof.
Symons, N. J., M.A. Ox. Asst. Prof.
2 Fellows.

Physics
Clark, A. L., B.Sc. W.P.I., Ph.D. Clark, Dean of Fac. of App. Sc. Prof.
Baker, W. C., M.A. (Expl. P.) Prof.
Hughes, A. L., B.A. Camb., D.Sc. Liv. Research Prof.
Flammer, E., B.Sc. Calif., Ph.D. Harv. Asst. Prof.
Robertson, J. K., M.A. Tor. Assoc. Prof.
Watts, J. O., B.A. Lectr.
4 Tutors, 1 Asst.

Physiology
Melvin, G. S., M.D. Aberd. Prof.
2 Assts.

Political and Econ. Science
Skelton, O. D., Ph.D. Chic , M.A. Macdonald Prof.
Clark, W. C., M.A., Ph.D. Prof.
Ballard, J. C., M Sc. N.Y. Asst. Prof.
Mackintosh, W. A., M A. Asst. Prof. of Pol. Sc.
7 Tutors in Econ. and Banking.
1 Fellow.

Romance Lang. and Lit., v. also French
Campbell, P. G C., M A. Ox. Prof.
Brovedani, J. H., D ès L. Rennes Prof. of Span. & Ital
1 Tutor in Spanish.

Semitic Langs and Lit. [Prof.
Jordan, W. G., B A. Lond., D.D.

Medicine (for subjects of the first 2 yrs —Anat , etc., v. *supra*)

Anæsthetics, v. Surg.

Bacteriology
Reed, G. B., M.A., B.Sc., Ph.D. Harv. (Asst. Prof. of Biol.) Prof.

Electro-Therapy
Quigley, J. P., M.A., M.D., M.R.C.S. Eng., L.R.C.P. Lond. Lectr.

Med. Jurispr. and Toxicology
Boyce, H. A., M.D., C.M. Lectr. in J., Clin. Asst. in Med.
Farrell, J. M., B.A. (M. J. and T.) Lectr.

Medicine and Clin. Med.
Connell, W. T., M.D., M.R.C.S. Eng., L.R.C.P. Lond. Prof.
Gibson, W., M.D. Asst. Prof. of M.
MacCallum, E. C. D., M.D., C.M. McG. Asst. Prof. of M.
Hopkins, B. H., M.B. Clin. Asst.
Jones, W. A., M.D., C.M. Clin. Asst. & Historian.
Angrove, H. S., M D , C.M. Clin. Asst. in M. & Demr. in Anat.
Day, H. E., M.D , C.M. Clin. Asst. in M. & Ped.

Obstetrics
Williamson, A. R. B., M.A., M.D , M.R.C.S. Eng , L R.C.P. Lond Prof.
O'Connor, F. J., M D., C.M. Clin Asst. & Demr. in Anat.

Ophth., Ot , Laryng. and Rhin.
Connell, J. C., M.A., M.D. Prof.
Cays, F. A , M.D., C.M. Clin. Asst

Pathology
Miller, J., M D. Prof.
Little, T. R., M.B. Asst. Prof.
Filson, R. M., M.D., C.M. Fellow.

Pediatrics and Gyn., v. also Med.
Mylks, G. W., M.D. Prof.

Pharmacology
Asselstine, S. M., M.D., C.M. Douglas Prof.

Psychiatry
Ryan, E., B.A., M.D., C.M. (Assoc. Prof. of Surg.) Prof.
Ross, W K., M.D., C.M. Clin. Asst.

Surgery, v. also Psych.
Mundell, D. E., B.A., M.D. (Principles and Practice) Prof.
Austin, E. J., M.B., M.Ch. Prof. of Clin. S.
Gardiner, R. J., M.D., C.M. Asst. Prof.
Keyes, S. J., M.D., C.M. (Lectr. in Anæsthetics) Asst. Prof.
Bogart, I. G., M.D., C.M. Lectr. in Clin. S.

AFFILIATED COLLEGE

QUEEN'S THEOLOGICAL COLLEGE (Presbyterian). Principal and Prof. of Church Hist. and Hist. of Dogma, S. W. Dyde, D.Sc., D.D., LL.D. 5 other Profs.

GENERAL INFORMATION (v. also p. 280)

On the initiative of the Presbyterian Church a Royal Charter was granted in 1841 for the establishment of Queen's College, Kingston, funds being provided by grants from the Church and from the Govt. and by private benefactions. To the original Faculties of Arts and Theology were added, in 1854 Medicine, in 1907 Education, and in 1916, by amalgamation with the Univ. of the School of Mining founded in 1893, Applied Science. In 1912 the Faculty of Theology was separately incorporated as "Queen's Theological College" in affiliation with the Univ. but controlled entirely by the Presbyterian Church. In 1920 the Faculty of Educn. was discontinued, the students being transferred to the Teachers' Training College, Toronto.

The administration is vested in a Board of Trustees, composed of Chancellor, Principal and Rector, and representatives of the College, the Faculties, Graduates and Benefactors.

LIBRARY, 80,000 vols. (valuable Canadian Historical Section). MUSEUMS Herbarium (35,000 spec.), Geol., Mineral., Ethnol. (rich N. American stone age collection). LABORATORIES, including important School of Mines buildings. Biol. (accommodating 220 students), Chem., Geol., Physics, Engineering, Mining, Metall., Mineral. OBSERVATORY with 6" telescope. HOSPLS. available for clinics, 2 general, 1 for insane. Easy access to important locomotive shops, dry docks, canal locks, water-power stations, mines, metallurgical works. Exceptional natural facilities for Geol. study.

FACULTIES. Arts, Applied Science, Medicine. The Senate includes representatives of the Theol. College also.

DEGREE COURSES. 4 yrs. from Junr. Matricn., B.A., B.Sc. (in Engin.—Civ., Mech., Elec., Mining and Metall., Chem. and Metall.—Analyt. and Applied Chem., Mineral. and Geol., or Physics); 5 yrs., M.D., C.M.

Combined courses: 6 yrs., B.A. and B.Sc.; 7 yrs., B.A. and M.D.

First 2 yrs. of general Engin. course in Acadia, Alb., B.C., Mt. All., or Sask. Univ. or of Chem. course in B.C. are accepted *pro tanto*; graduates of Roy. Milit. Coll., Kingston, admitted to 3rd yr. in Appl. Science.

For teachers in schools and others unable to pursue the full degree courses in Arts at the Univ. extra-mural instruction is provided by correspondence conducted by a staff of tutors. Attendance at the Univ. during at least one full session, or four full sessions of the summer school, must ordinarily be given (v. also pp. 47, 178, 228, 237).

HIGHER DEGREES. M.A. (1 yr. graduate course); M.Sc. (1 yr. course and 2 yrs. professional practice); Ph.D. (2 yrs.); D.Sc. (2 or 3 yrs.); D.P.H. (Doctor of Pub. Health); B.D. (3 yrs.' course or its equivalent); B.Pæd. and D.Pæd. Examn. open to graduates in Arts or Science of a Univ. in the British Dominions holding Ontario Educn. Dept. Certif. (First Class or High School) or equivalent, and having 2 yrs.' experience (D.Pæd., 3 yrs.' experience and a summer course or its equivalent and thesis); Honorary LL.D., D.D.

DIPLOMAS. Banking (examns. held, by arrangement with Canadian Bankers' Assocn., in many centres throughout Canada, admitting to A.C.B.A. and F.C.B.A.); Arts (3 yrs.' extra-mural course); Testamur in Theology (3 yrs.' course).

FEES (Class and Examn.) in Arts, $54 p.a.; Science, $102 to $122.

RESIDENCE. 2 Hostels for women. Board and lodging, $8 to $10 a week.

PUBLICATIONS. *Calendars* (by Faculties); *Queen's Quarterly*; *Queen's Univ. Journal.*

THE YEAR 1919–20 (returns for 1920–21 not received)

BENEFACTIONS. Late Chancellor Douglas, $500,000; Carnegie Fund, $250,000; other subscriptions to Endowment Fund (completed June 1919), $250,000; F. D. Ross, 2 Scholps. of $150 each, to be given annually; Mrs. D. B. Mactavish, $500 for Matricn. Scholp. (Judge Mactavish Memorial); J. Richardson, a stadium for athletics (G. Richardson Memorial); F. Carrel, $200 for athletics; friends of Corpl. W. J. Stewart, $1000 for Matricn. Scholp.

CHANGES IN ORGANIZATION, CURRICULA, ETC. Separate Dept. of Spanish and Italian opened; new courses in Commerce and Administration leading to degree of B.Comm. in 4 years; new system of studies in Arts; change of entrance requirements in Applied Science; concentration of training of teachers in Training College, Toronto, and discontinuance of Faculty of Educn. in Queen's.

HONORARY DEGREES CONFERRED. *D.D.*—Alex. Gordon, T. Eakin, C. G. Young. *LL.D.*—H. Godfrey (Drexel Inst., Pa.), T. F. Holgate (N.W. Univ.), A. C. M'Giffert and Prof. E. F. Scott (Union Th. Sem., N.Y.), H. M. Nimmo (of Detroit), E. F. Smith (Univ. of Pa.), R. M. Wenley (Univ. of Mich.), F. J. E. Woodbridge (Columbia), F. D. Adams, F. Carrel, G. H. Duggan, Sir J. G. Garneau, Sir R. A. Falconer, J. Brebner, G. H. Ferguson, Gen. J. T. Fotheringham, L. de L. Harwood, Seager Wheeler.

OTHER DEGREES. B.A., 119; B.Sc., 44; M.A., 20; M.D., 55.

NUMBER OF STUDENTS. In Arts, 488, including 213 women; Science, 378; Med., 229; Educn., 54 (34 women); Extra-mural in Arts, 532 (231 women); in Banking Courses, 513; Summer School, 230 (104 women). Students from U.K., 5; Newf'd, 1; W. Indies, 2; U.S.A., 4; Smyrna (Internat. Coll.), 2.

NUMBER OF STUDENTS. Grand total, in 1921, 2247.

RETIREMENTS. Deans J. Cappon and W. L. Goodwin; Profs. A. P. Knight and J. Third; Prof. L. W. Gill, apptd. Dir. of Tech. Educn. for Canada; G. Y. Chown, Treasurer.

UNIVERSITY OF ST. FRANCIS XAVIER, ANTIGONISH, NOVA SCOTIA

CHANCELLOR AND *ex-officio* CHAIRMAN OF THE BOARD OF GOVERNORS—Rt. Rev. J. MORRISON, D.D., Bishop of Antigonish.

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VICE-PRESIDENT—J. J. TOMPKINS, M A , LL.D.

VICE-RECTOR AND DIRECTOR OF DISCIPLINE—Prof. H. J. MACDONALD, M.A., S.T.L. Urb. Rome.

BURSAR—J. A MCPHERSON.

LIBRARIAN—D. J. MACDONALD, Ph.D.

PROFESSORS, LECTURERS, ETC., December 3, 1921

Biology and German
Connolly, C. J., Ph.D Mun. Prof.

Chemistry
McIntyre, R. K., M.A., B.Sc. Cath. Univ. of Amer. Prof.
Tompkins, M. N., B.A., B.A.Sc. Tor. Assoc. Prof.

Classics
Smith, H. R. W., M.A. Ox. Prof.

Economics
Macdonald, D. J., M.A., Ph.D. Cath. U.A. Prof.

Education
Thibeau, P. W., M.A. Cath. U.A. Lectr.

English Lit. and Modern Hist.
Bucknell, W. H., B.A. Lond., M.A. Camb. Prof.

French
Gautheron, R., Ag. de l'U. de France. Prof.
Raiche, J. F., M.A. Assoc. Prof.

Gaelic Lang. and Lit.
..... Lectr.

Geology and Engineering
McPherson, H., D.D., Ph.D. Urb. Rome. Prof.
Connolly, D., B.Sc. Asst. in E.

History, v. Engl

History, Ancient
Smith, H. R. W., B.A. Ox. Prof.

Latin
The Vice-Rector Asst. Prof.

Law
Macdonald, A., M.A., Judge C.C. Lectr.

Mathematics
O'Connor, F. J., B.A. Harv., B.Sc. M.I.T. Prof.
Tompkins, J. J., M.A., LL.D. Dal. Lectr.

Philosophy
Gillis, D. C., Ph.D., S.T.L. Urb. Rome Prof.

Physics
Nicholson, P. J., M.A., Ph.D. J. Hopk. Prof.
MacLellan, D., B.A. Asst.

Religion
Boyle, T. O'R., D.D. Lectr.

Extension Teaching

The Vice-President (Secy.), 5
Profs. on the Staff and 7
other Lectrs.

GENERAL INFORMATION (v. also p. 280)

The Univ. was authorized in 1866 to grant degrees, and was endowed with full Univ. powers in 1882. A new Charter was granted in 1909. The Univ. is under the control of the Roman Catholic Church, but there are no religious tests for entrance or for degrees.

LIBRARY, 22,000 vols. LABORATORIES: Biol., Chem., Geol., Phys.

COURSES. 4 yrs., B.A., B.Sc.; 2 yrs., Engineering (gives admission to leading technical colls. of Canada and U.S.A.); first year course in Law; graduate 1 yr. course for M.A. (v. also pp. 47, 283, 301, 314).

EXPENSES. Board, lodging, and tuition, $7.50 per week; private room rents from $1 per week.

A "PEOPLE'S SCHOOL," open Jan. to March, provides courses in various Arts, Pure Science, and Agric. subjects. No educational test for entrance.

PUBLICATIONS. *Calendar* (July); *Xaverian*, monthly.

THE YEAR 1920–21

NEW DEPARTMENT. Extension Teaching (v. *supra*—"People's School"), attended in 1921 by 53 students (1 woman) of ages from 17 to 53, chiefly farmers. Subjects: English, Maths., Econ., Chem., Physics, Biol, Business and Finance, Public Speaking, Agric.

NUMBER OF STUDENTS. 197, including 29 women.

DEGREES CONFERRED. B.A., 28; LL.D., 1; M.A., 1.

UNIVERSITY OF SASKATCHEWAN, SASKATOON

VISITOR—Hon. W. H NEWLANDS.

CHANCELLOR—Sir F. W. G. HAULTAIN, LL.D.

PRESIDENT—W. C. MURRAY, M.A., LL D

REGISTRAR—A. R. WEIR, B.A.

PROFESSORS, LECTURERS, ETC., September 19, 1921

Accounting

Neilson, J., B Acc. Prof.

Agriculture, v. *infra*

Bacteriology and Pathology

Lindsay, W. S., O.B.E., B.A. Dal., M.B. Edin. Prof.

Rea, George, M.B., Ch.B., D.P.H. Belf. Prof.

Biology

Thompson, W. P., M.A. Tor., Ph.D. Harv. Prof.

Cameron, A. E., M.Sc. Man., D.Sc. Aberd. Prof.

Fraser, W. P., B.A. Corn., M.A. Dal. Lectr.

Newton, Margaret, B.A. McG., M.A. Minn. Instr.

Chemistry

Thorvaldson, T., B.A. Man., Ph.D. Harv. Prof.

Manning, R. J., B.A. Tor., D.Sc. Brist. Prof.

Basterfield, S. L., B.Sc. Lond., Ph.D. Chic. Prof.

Grubb, H. C., Ph.D. Chic. Asst. Prof.

Acason, Rosalie, A.R.C.Sc.I. Instr.

Classics

Sullivan, W. G., M.A. Dub. Prof.

Ramsay, W., B.A. Queen's Prof.

Hopkins, L. C., M.A. Ox. Lectr.

Economics

Swanson, W. W., M.A. Qu., Ph.D. Chic. Prof.

Carrothers, W. A., Ph.D. Edin. Prof.

Education

The President, M.A. Edin., LL.D. Qu. and Alb. Lectr.

Wilson, R. A., Ph.D. Qu. Lectr.

Engineering, v. *infra*

English

Wilson, R. A., Ph.D. Queen's Prof.

Bayer, Jean G., M.A. Dal. Asst. Prof.

Weir, A. R., B.A. Lectr. in E. and Maths.

Carr, Ruth, M.A. Tor. Instr.

McKenzie, Edith J , B.A. Sask. Instr.

French [Prof.

MacDonald, J. A., M.A. Harv.

Muller, C. E., B.A. Lausanne, B.Sc. Geneva Prof.

Gallon, Geraldine, M.A. Chic. Instr.

German

Eaton, J. W., M.A. Dub. Prof.

Hebrew

Munro, M. F., M.A., B.D. Queen's Lectr.

History
Morton, A. S., M.A. Edin. Prof.
Underhill, F. H., B.A. Tor., M.A. Ox. Prof.
MacPherson, Elsie, B A. Tor. Instr.

Household Science
Rutter, Ethel Asst. Prof.
Patrick, Edith, B.A. Tor., M.A. Col. Instr.

Law [Dean & Prof.
Moxon, A., B.C.L. Ox.
Hebert, J. T., LL.B. Harv. Prof.
Maclean, D., LL.B. Dal., B.Sc. Lectr.
Sibbald, A. S., M.A. Tor. (Interpretn.) Lectr.
Jordan, H. L., B.A. Tor., K.C. (Munic. L.) Lectr.
Estey, J. W., LL.B. Harv. (Torts, etc.) Lectr.

Mathematics [Prof.
Ling, G. H., B.A. Tor., Ph.D. Col.
Dines, L. L., Ph.D. Chic. Prof.
Barnett, I. A., Ph.D. Chic. Asst. Prof.

Pharmacy
Campbell, Alex. Prof.
Woods, Esli Instr.

Philosophy
Sharrard, J. A., M.A. Tor. Prof.
Bateman, J. V., B.A. T.C.D. Asst. Prof.

Physics
McGougan, A. G., B.A. McGill Ph.D. Yale Prof
Harrington, E. B., Ph.D. Chic. Prof.
Klein, Elias, Ph.D. Yale Instr.
Petry, R. Instr.

Agriculture

Animal Husbandry
Shaw, A. M., B.S.A. Tor. Prof.
Winters, L. M., M.Sc. Ames. Asst.
Benson, W. S., B.S.A. Sask. Instr.

Dairying [Prof.
Potts, A E., B.Sc. Edin , M.S.A.
Broby, S. P. Instr.

Engineering, Agric.
Greig, A. R., B.Sc. McGill Prof.
Hardy, A. E., B.S.A. Ames. Prof.
Josephson, H. B. Instr.

Farm Management
Rutherford, W. J., B.S.A. Tor. Dean & Prof.

Field Husbandry [Prof.
Champlin, M., M.Sc. Sth. Dak.
Kirk, L. E., B.A., B.S.A. Sask. Asst. Prof.
Goulden, C. H., B.S.A. Instr.

Horticulture
Ross, N. Special Lectr.

Poultry
Baker, R. K., B.A. Man. Prof.

Soils
Hansen, R., M.S. Ill. Prof.

Veterinary Science
Wright, N. Lectr.

Engineering, v. also Agric.

Ceramic E.
Worcester, W. G. Prof.

Civil E.
MacKenzie, C. J., B.E. Dal., M.C.E. Harv. Prof.
Williams, G. M., B.Sc. Neb. Prof.
Spencer, R. A., B.Sc. McG. Asst. Prof.

Mechanical E.
Greig, A. R., B.Sc. McG. Prof.
Fraser, I. M., B.Sc. McG. Asst. Prof.

Extra-Mural Work

Raynor, J. G., B.S.A. Man. Director.
Gordon, K. W., B.S.A. Man. Asst. Dir. of Home-makers Clubs.
De Lury, Abigail
Thompson, Esther, B.A. Man. Asst.

AFFILIATED COLLEGES, ETC.

EMMANUEL COLLEGE, estabd. 1879 for training native helpers at Prince Albert, transferred to its present site in the Univ. grounds in 1909. Principal, G. F. Trench, M.A. Courses for Testamur, Lic.Th., B.Th.

ST. CHAD'S, Regina (Church of England).

PRESBYTERIAN COLLEGE, Saskatoon. Principal, E. H. Oliver, M.A., Ph.D.

WESTMORE HALL LAW SCHOOL, Regina. Recognized for 1st and 2nd yrs. of LL.B. course.

COLLEGE OF PHYSICIANS AND SURGEONS; DENTAL COUNCIL; PHARMACEUTICAL ASSOCN.; ASSOCN. OF REGISTERED NURSES; VETERINARY ASSOCN.; ASSOCN. OF ARCHITECTS; INST. OF CHARTERED ACCOUNTANTS.

GENERAL INFORMATION (v. also p. 280)

Established by Act of the Provincial Legislature in 1907, the Univ. opened classes in Arts and Science in 1909 and took over the educational work of the Agricultural Dept. in 1910. These were developed under the name of "Colleges." Colleges of Law and Engineering were opened in 1913 and 1915. The site includes 1340 acres devoted to Agric. Education and Research, and a campus of 300 acres with a half-mile river frontage. The land, buildings, and equipment cost over $2,500,000.

Of the Board of Governors 5 members are elected by the Senate and 3 appointed by Govt.; the President is a member. The Senate (19 members elected by graduates, who also elect the Chancellor, and 13 *ex officio*, including the Minister of Education) regulates educational matters, the administration of which is controlled for the Univ. as a whole by an Academic Council and within each College by the Faculty. The President is a member of each of these bodies, and no appointment or dismissal is made without his recommendation. The maintenance of the Univ. is partially provided for by assignments of revenue and half of the Dominion grant in aid of Agric. education.

LIBRARY, 25,000 vols. LABORATORIES: Chem., Phys., Biol., Bact., Engin., Agric. Engin., Farm (830 a.), Agric. Exper. Fields (450 a.).

FACULTIES. Arts and Science (including Pharmacy and Accounting), Agric., Law, Engineering.

DEGREE COURSES. 4 yrs., B.A., B.Sc., B.Acc., B.S.P. (Pharmacy), B.S.A. (Agric.), B.E. (Engin.), LL.B. (3 or 4 yrs.); combined B.A. and B.S.A., 6 yrs. This Univ. has the sole right to confer degrees (other than Theol.) in the Province (v. also pp. 178, 341).

HIGHER DEGREES. Examn. open to Bachelors of 1 yr. standing—M.A., M.Sc., M.S.A.

DIPLOMAS AND CERTIFICATES. A 3 yr. course in Agric. leads to the "Associateship in Agric." A 1 yr. certif. course is given in Pharmacy.

FEES. Tuition for degree course in Agric., $36 p.a.; Engin., $45; Acc., $40 to $60; Pharm., $50; Arts and Sc., $3 to $6 each class.

SCHOLARSHIP FOR GRADUATES. One in Arts or Sc., $100 p.a.; one in Agric., $800 p.a.

RESIDENCE. Hostels for 200 men and 30 women. Board and room fees, $8 or $9 a week.

UNIV. EXTENSION. In Farming and Home Economics short courses by itinerant lecturers at local centres. Annual convention (one week) in winter; 3 weeks' course in summer for teachers and others at the Univ. Bulletins, fairs and shows.

PUBLICATIONS. *Calendar* (April); *Agric. Bulletins*; *Sheaf*.

THE YEAR 1920–21

BENEFACTIONS. Khaki University and Y.M.C.A., $12,000.

NEW BUILDINGS. Civil Engineering, $90,000; Physics building, $400,000; Chemistry, to cost $400,000, begun.

OTHER DEVELOPMENTS. Department of Ceramic Engineering established. Soil Survey of Province begun. Investigation of Decay of Concrete in Alkali Soil.

EXTENSION WORK in Agric. through 137 Agric. Societies, 18,000 members; Boys' and Girls' Clubs, 3000 members; 190 Women's Clubs, 5000 members.

NUMBER OF STUDENTS. Arts and Sc., 407 (including 165 women); Accounting, 35; Law, 52 (3 women); Engin., 36; Agric. (*a*) degree, 68, (*b*) Assoc'ship, 108; Pharm., 61; Household Sci., 6; summer school (*a*) degree, 81, (*b*) teachers, 71; evening (*a*) degree, 44, (*b*) others, 154; preparing for higher degrees, 6.

DEGREES, ETC., CONFERRED. B.A., 63; B.Sc, 7; LL B, 12; B.S.A., 9; B.E., 2; Assoc. in Agric., 10; Dipl.Phm., 38; H. Sci., 6; M.A., 3.

DEATH AND RESIGNATIONS. T. N. Willing, Prof. of Nat. Hist., d.; W. D. Thomas, M.A., Prof. of English, r., to accept position in Swansea; J. S. Dexter, Ph.D., Lecturer in Biology.

UNIVERSITY OF TORONTO

with which are federated

VICTORIA UNIVERSITY,
THE UNIVERSITY OF TRINITY COLLEGE, TORONTO, and
ST. MICHAEL'S COLLEGE, TORONTO.

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EDUCATION—J. T. CRAWFORD, B.A.

MUSIC—ANNIE W. PATTERSON, B.A.

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WARDEN OF HART HOUSE—J. B. BICKERSTETH, M.A.

SUPT. OF BUILDINGS AND GROUNDS—A. D'O. LE PAN, B.A.Sc.

PHYSICAL DIRECTOR—J. W. BARTON, M.D.

MANAGER OF THE UNIV. PRESS—R. J. HAMILTON, B.A.

PROFESSORS, LECTURERS, ETC., December 6, 1921

[Members of the Staffs of Colleges—University, Victoria, Trinity, and St. Michael's—are indicated by (C.), (V.), (T.), and (M.).]

Accountancy

Ferguson, W. S. Lectr.

Anatomy, v. also Biol., Med.—Surg.

McMurrich, J. P., M.A., Ph.D. J.H.U., LL.D. Mich. Prof.

Watt, J. C., M.A., M.D. Asst. Prof.

9 Assts., 2 Demrs.

Anglo-Saxon

Keys, D. R., M.A. Prof. (C.).

Archæology, v. Classics

Architecture

Wright, C. H. C., B.A.Sc. Prof.

McConnell, A. W., B.A.Sc. Assoc. Prof.

Berrington, A. Assoc. Prof.

Madill, H. H., B.A.Sc. Lectr.

2 Instrs.

Astrophysics [Prof.
Chant, C. A., M.A., Ph.D. Harv.
3 Assts., 1 Demr.

Bacteriology, v. Med.—Path

Bio-Chemistry
Hunter, A., M.A., B.Sc., M.B., Ch.B. Edin. Prof.
Wasteneys, H., Ph.D. Col. Assoc. Prof.
Benson, Clara C., Ph.D. Assoc. Prof. of Physiol. Chem. in Faculty of Household Sc.
4 Fellows, 1 Demr., 2 Instrs., 1 Asst. (Food Chem.)

Biology, v. also Histol., Zool.
Walker, E. M., B.A., M.B. Assoc. Prof.
Huntsman, A. G., B.A., M.B. (Marine B.) Assoc. Prof.
Clemens, W. A., M.A., Ph.D. Corn. Asst. Prof. of Lymnobiology
Baillie, W. H. T., M.A., M.B. Lectr. in Mamm. Anat.
Craigie, E. H., B.A., Ph.D. Lectr. Comp. Anat. and Neur.
MacArthur, J. W., A.B. Ober., M.A. Wabash. Lectr.
18 Class Assts., etc.

Botany [Prof.
Faull, J. H., B.A , Ph.D. Harv.
Thomson, R. B., B.A. Assoc. Prof.
Sifton, H. B., M.A. Asst. Prof.
Duff, G. H., M.A. Lectr.
Wright, Jessie G. Lectr.
5 Assts.

Chemistry, v. also Electro-C., Med.—Path.
Lang, W. R., D.Sc. Glas. Prof.
Miller, W. L., B.A., Ph.D. Munich (Physical C.) Prof.
Allan, F. B., Ph.D. Prof.
Kenrick, F. B., M.A., Ph.D. Leip. Prof.
Ferguson, J. B., B.A. Assoc. Prof.
Rogers, L. J., B.A.Sc. Asst. Prof.
Funnell, W. S., M.A. Asst. Prof.
Martin, W. H., M.A. Lectr.
Boswell, M. C., M.A. Harv., Ph.D. (Org. Chem.) Assoc. Prof.
12 Assts.

Chemical Engineering
Bain, J. W., B.A.Sc. Prof.
Ardagh, E. G. R., B.A.Sc. Assoc Prof.
Locke, C. D. Lectr.
3 Demrs , 4 Res. Assts.

Classics, v. also Hist.
Hutton, M., M.A. Ox., LL.D. (Greek) Prof. (C.).
Carruthers, A., M.A. (Gk. Lit. and Archæology) Prof. (C).
Woodhead, W. D., B.A. Ox., M.A. Alta., Ph.D. Chic. (Gk. Lang. and Philos.) Asst. Prof. (C.)
Robertson, J. C., M.A. (Gk. Lang. and Philos) W. E. H. Massey Prof. (V.).
Langford, A. L., M.A. (Gk.) Prof. (V.).
Owen, E. T., M.A. (Gk) Prof (T.).
Adams, S. M., M.A. Lectr. (T.).
Morley, Susan G., M.A. Lectr. (T.).
Robertson, H. G., B.A. Lectr. (V.).
Carr, H., B.A. (Gk. and Hist. of Philos.) Prof. (M.).
Macnaughton, J., M.A., LL.D. Qu. (Latin) Prof. (C.).
Smith, G. Oswald, M.A. Ox. (Latin) Assoc. Prof. (C.).
Dale, E. A., M.A. Ox. (Latin) Asst. Prof. (C.).
Duff, D., M.A., B.D. Edin. Lectr. (C.).
1 Instr. (C.)
De Witt, N. W., B.A., Ph.D. Chic. (Latin Lit.) Prof. (V.).
1 Fellow, 1 Instr. (V.)
Kirkwood, W. A., M.A., Ph.D. Harv. (Latin) Prof. (T.).
Woodcock, J. N., M.A. Ox. (Latin) Prof. (T.).

McBrady, R. (Latin) Prof. (M.).
Murphy, V. J. (Latin)
Assoc Prof. (M.).
Walsh, J. B. (Latin) Lectr. (M.).
St. Clare, M. M., B A. (Latin)
Lectr. (M.)

Drawing
Cockburn, J. R., B.A.Sc.
Assoc. Prof. of Descr. Geometry.
Smither, W. J., B.A.Sc. Asst. Prof.
Wright, W. J. T , B A Sc. Lectr.
10 Demrs., 2 Instrs.

Economics, v. Pol. Econ.

Education, v. also Household Sc., Music
Pakenham, W., B.A , LL.D.
Prof.
Crawford, H. J., B.A. Prof.
Sandiford, P., M.Sc. Manc , Ph.D.
Col. (Educ. Psych.) Prof.
Coombs, F. E., M.A. Asst Prof.
Cornish, G. A., B.A. Asst. Prof.
Crawford, J. T., B.A. Asst. Prof.
Ferguson, W. C., B.A. Asst. Prof.
Jones, Geo. M., B.A. Asst. Prof.
Macpherson, W. E., B.A., LL.B.
Qu. Asst. Prof.
Perry, S. W., B.A. Lectr.
Scarrow, A. N. Lectr.
15 Instrs.

Electro-Chemistry [Asst. Prof.
Burt-Gerrans, J. T., M.A., Phm.B.
3 Demrs.

Embryology, v. Histol., Zool.

Engineering, Civil, v. also Drawing, Surveying
..... Prof.
4 Demrs., 1 Res. Asst.

Engineering, Commercial
Bennett, S. G., B.A.Sc. Lectr.

Engineering, Electrical
Rosebrugh, T. R., M.A. Prof.
Price, H. W., B.A.Sc. Prof.
Zimmer, A. R., B.A.Sc.
Asst. Prof.
Guest, W. S., B.A.Sc. Lectr.
10 Demrs.

Engineering, Mechanical, v. also Mech.
Angus, R. W., B.A.Sc. Prof.
Parkin, J. H., B.A.Sc., M.E.
Asst. Prof. of Design.
Taylor, R., B.A.Sc. Lectr.
1 Demr., 1 Asst , 1 Research Asst.

Engineering, Mining
Haultain, H. E. T., C.E. Prof.
King, J. T. D., B.A.Sc.
Asst. Prof.
Dyer, F. C., B.A.Sc. Asst. Prof.
2 Demrs., 2 Research Assts.

English, v. also Anglo-Saxon, Philos.
Alexander, W. J., B.A. Lond., Ph.D. J.H.U., LL D. Qu.
Prof. (C.).
Wallace, M. W., B.A., Ph.D. Chic.
Prof. (C.).
Knox, R. S., M.A. Aberd., B.A. Ox. Assoc. Prof. (C.)
Clawson, W. H., B.A. N.Br., M.A., Ph.D. Harv. Asst. Prof. (C.).
Waddington, Miss M. M., Ph.D.
Lectr. (C.).
Wookey, Gladys E., B.A.
Lectr. (C.).
Edgar, O. P., B.A., Ph.D. J.H.U.
Gooderham Prof. (V.).
Auger, C. E., B.A.
Assoc. Prof. (V.).
Simpson, H. C., B.A. Ox., M.A. Tor. & Harv. (E. Lit.)
Prof. (T.).
Hodgins, L. C. A., M.A. Harv.
Lectr. (T.).
Cartwright, Mabel, B.A.
Lectr. (T.).
Pratt, E. J., Ph.D. (Lectr. in Soc. Service) Lectr. (V.).
Kennedy, W. P. McC., M.A. Ox., Litt.D. Dub. (Asst. Prof. in Hist.) Prof. (M.).
Margarita, M. M., B.A. Lectr. (M.).
Agnew, Ruth M. Lectr. (M.)
Lectrs. for Med. Students:
Daniher, E. L.
Van Every, J. F., B.A.

Ethnology, v. Hist.

Forestry

Howe, C. D., M.A., Ver. Ph D. Chic. Prof.
Millar, W. N., B.Sc. Penn., M.F. Yale Assoc Prof.
White, J. H , M A , B.Sc.F , Ph D. Assoc. Prof.

French

Cameron, J. H., M.A. Prof. (C.).
Will, J. S., B A. Prof. (C)
De Champ, St. E , B. ès L. Lyons, O I.P. Assoc Prof. (C)
Jeanneret, F C. A., B.A. Assoc. Prof. (C)
Moraud, M , L. ès L., Agrégé de l'U. Assoc. Prof (C.).
McKellar, H. S., B A. Asst Prof. (C)
Andison, J. G., B A. Man., A.M. Col. Lectr. (C)
Evans, W. D., B.A. Lectr.
Ford, H. E., M.A., Ph D. Col. Prof (V)
De Beaumont, V., M A Col. Assoc. Prof. (V.).
Lacey, A., M.A. Lectr (V)
Rowell, Mary C., B.A. Lectr (V)
Kittredge, R. E. L , M.A. Harv. Prof. (T)
Norton, A. A., M.A. Camb. Lectr. (T.).
Murray, W. H., B.A. Assoc. Prof. (M)
O'Driscoll, Eliz., M.A. N.U.I. Assoc. Prof (M)
Agnes, S. M., B.A. Lectr. (M.).
Pageau, J. E. Lectr (M).
3 Instrs. (C.), 3 Instrs. (T.).

Geology

Coleman, A. P., M.A., Ph.D. Bres., F.R.S. Prof.
Parks, W. A., Ph D. (Palæont.) Prof.
MacLean, A., B.A. Asst. Prof.
1 Class Asst.

German, v. also Philol., Psych.

Needler, G. H., B.A., Ph.D. Leip Prof (C.).
Fairley, B., M.A. Leeds, Ph.D. Jena Assoc. Prof. (C.)
Hedman, T., Ph.B. Chic. Asst. Prof (C.)
Holt, G. E., M.A., Mus.B. Lectr. (C.).
Lang, A. E., M.A. Prof. (V.).
Addison, Margt., B A. Lectr (V)
Robins, J. D , B.A. Lectr. (V.)
Young, A. H., M.A , D.C.L. Prof. (T)
Scott, Miss L. C., M A. Lectr. (T.)
Perpetua, S. M., B A Lectr. (M)

Hebrew [Prof (T)

Cosgrave, F. H., M A. Dub , B.D.
Rollo, W., M.A. Aberd. Lectr. (T).

Histology and Embryology.

Piersol, W. H , B.A., M B. [Assoc Prof.

History, v. also English, Orient. Langs.

Wrong, G. McK , M A. (H and Ethnology) Prof.
Williams, R. H., M A Ox , A.M. Col. Assoc. Prof
Smith, G M , M A. Ox. Assoc Prof.
Flenley, R., M.A. Liv., B.Litt. Ox. Assoc. Prof.
Brebner, J. B., B.A. Ox. Lectr.
Wrong, H. H., B.A Ox. Lectr.
Wallace, W. S., M.A Ox Spl. Lectr.

History, Ancient

Milner, W. S , M.A. (Greek and Roman H.) Prof (C.).
Duckworth, H. T. F , M.A. Ox. Prof. (T.).
Sissons, C. B., B.A. Nelles Prof. (V.)
Cochrane, C. N., M.A. Ox. Assoc. Prof. (C).
Brown, A. Grant, M.A. Ox Asst. Prof. (C.)

History of Industrial Art

Currelly, C. T., M.A. Prof.

Household Science, v. also Bio-Chem. [Assoc. Prof.

Laird, Annie L., M.S. Drex.

Harris, B. Lectr.
Hickmans, Evelyn M , M.Sc. Birm. Lectr.
Hill, Hannah, B.S. Col. Lectr.
Ockley, Laura L., B.A. Asst. Prof. in Coll of Educ.
3 Instrs., 1 Researcher.

Italian and Spanish
Buchanan, M. A., B.A., Ph.D. Chic. Prof.
Shaw, J. E., A.B., Ph.D. J.H.U. Prof.
Goggio, E., A B., Ph.D. Harv., M.A. Asst. Prof.
Patterson, G. C., B.A. Lectr.
Pijoan, J., L.Litt. Barcelona. Spl. Lectr.

Law
Black, T H., M.A., B.Sc , LL.B. Glas. (Roman L.) Prof.
Clute, A. R., B.A., LL.B. (Federal Constit. & Comm. L.) Lectr.
Foster, H. W. A., LL.B. (Comm. and Int. L.) Lectr.

Mathematics
De Lury, A. T., M.A. Prof.
Fields, J. C., B.A., Ph.D. J.H.U., F.R.S. Prof.
Mackenzie, M. A., M.A. Camb. Prof.
Beatty, S., Ph.D. Assoc. Prof.
Pounder, I. R., M.A. Asst. Prof.
Synge, J. L., B.A. Dub. Asst. Prof.
3 Fellows and 1 Tutor.

Mechanics
Loudon, W. J., B.A. Prof.
Sheppard, N. E., M.A. Lectr.

Mechanics, Applied
McGowan, J., B.A., B.A.Sc. Prof.
Gillespie, P., M.Sc., C.E. Prof.
Young, C. R., B.A.Sc., C.E. Assoc. Prof.
Laing, A. T., B.A.Sc. Assoc. Prof. of Highways.
3 Demrs.

Medicine and Surgery, v. *infra*

Metallurgy
Guess, G. A., M.A. Qu. Prof.
Loudon, T. R., B.A.Sc. (Ferro-M.) Assoc. Prof.
Ellis, O. W., M.Sc. Lectr.
Toomer, J. E., B.S. Lectr.
2 Demrs.

Military Studies
Prof. Lang (v. Chem.) Director.
Cartwright, G. S., C.B., C.M.G. Spl. Lectr.

Mineralogy
Walker, T. L., M.A. Qu., Ph.D. Leip. Prof.
Parsons, A. L., B.A. N.Y. Assoc. Prof.
Thomson, J. E., B.A.Sc. Asst. Prof.
2 Assts.

Mining, v. Engin.

Music
Vogt, A. S., Mus.D. Dean.
Fricker, H. A., M.A., Mus.B. (Choral and Orch. M.) Lectr.
Ham, A., Mus.D. (Church M.) Lectr.
Mouré, F. A. (Hist. of M.) Lectr.
Willan, H., Mus.Doc. (Theory of M.) Lectr.
Bramfitt, G. N., B.A. Lectr. (Coll. of Educ.).

Oriental Lang., v. also Hebrew
Taylor, W. R., Ph.D. Prof. (C.).
Craig, J. A., M.A. McG., B.D. Yale, Ph.D. Leip. Prof. (C.).
Irwin, W. A., M.A., D.B. Chic. Lectr. (C.).
McLaughlin, J. F., B.A., D.D. (Langs. and Lit.) Massey Prof. (V.).
Hooke, S. H., M.A. Ox., B.D. Lond. (Spl. Lectr. in Hist.) Flavelle Prof. (V.).
Potter, W. A., M.A., B.D. Assoc. Prof.

Philology
Horning, L. E., B.A., Ph.D. Gött. (Teutonic P.) Prof. (V.).

Philosophy, v. also Classics
Hume, J. G., B.A., A.M. Harv., Ph.D. Frei. (Baden) (Hist. of P.) Prof
Brett, G. S., M.A. Ox. Prof.
Robinson, T. R., Ph.D. Asst. Prof.
Bell, W., M.A. Mt A. and Harv. Lectr.
Tracy, F., B.A., Ph.D. Clark (Ethics) Prof. (C).
Lane, W. B., M.A., Ph.D. Wisc. (Ethics) Ryerson Prof. (V.).
Brown, W. T., M.A., Ph.D. Harv. (Ethics) Assoc. Prof. (V.)
Childs, S., B.A. (Ethics) Lectr.
Windle, Sir B., M.A., M.D., Sc D., LL.D., F.R.S. (Anthrop.) Prof (M).
Roach, W. J., B.A. (Ethics) Prof. (M.).
McCorkell, E. J., B.A., M.A. Cath.U.Am. (Assoc. Prof. of English). Prof. of Social Ethics (M.).
Bellisle, H. S., B.A., M.A. Cath.U.Am. Prof. (M.).

Physics, v. also Astro-, Mechanics
McLennan, J. C., O B.E., Ph.D., D.Sc., LL.D., F.R.S. Prof.
Burton, E F., B.A. Camb., Ph.D. Assoc. Prof.
Satterly, J., M.A. Camb., D.Sc. Lond. Assoc. Prof.
Gilchrist, L., M.A., Ph.D. Chic. Asst. Prof.
McTaggart, H. A., B.A. Camb., M.A. Asst. Prof.
7 Demrs., etc.

Physics and Photography
Anderson, G. R., M.A. Assoc. Prof.
2 Demrs.

Physiology, v. also Bio-Chem.
MacLeod, J. J. R., M.B., Ch.B., Aberd., D.P.H. Camb. Prof.
Olmsted, J. M. D., M.A. Ox., Ph.D. Harv. Asst. Prof.
Taylor, N. B., M.B. Lectr.
7 Fellows and 2 Demrs.

Political Economy
Mavor, J., Ph.D. Prof.
MacIver, R. M., M.A., D.Phil. Edin., B.A. Ox. Prof.
Fay, C. R., M.A. Camb., D.Sc. Lond. Prof. Hist. Econ.
Jackman, W., M.A. Assoc. Prof. Rural Econ.
Jackson, G. E., B.A. Camb. Assoc. Prof.
Innes, H. A., M.A. McM., Ph.D. Chic. Lectr.
Kemp, H. R., M.A. Lectr.
1 Instr.

Psychology [Director.
Clarke, C. K., M.D., LL.D.
Oliver, M. J., Ph.M. Cath.U.Am., B.A (Assoc. Prof. of German) Prof. (M.).
Bott, E. A., Ph.D (Spec. Lectr. in Psychiatry). Asst. Prof.
Bridges, J. W., B A. McG., A.M., Ph.D. Harv. Asst Prof.
Banham, Katharine M., B.Sc. Manc. Lectr.
McDonagh, V. A., M.B. Lectr. (M.).
2 Cl. Assts., 1 Lab. Asst.

Public Health Nursing
Cowan, Kate S., Supervisor of Field Work.

Religious Knowledge, v. the Federated Univs. and Colls.

Social Service, v. also English
Dale, J. A., M.A. Ox. Prof. Soc. Science.
McGregor, Agnes Director of Field Work.
12 Instrs.

Spanish, v. Italian.

Surveying
Stewart, L. B. (S. and Geodesy) Prof.
Treadgold, W. M., B A. Assoc. Prof.
Crerar, S. R., B.A.Sc. Asst. Prof.
Banting, E. W., B.A.Sc. Lectr.
Melson, J. W., B.A.Sc. Lectr.

Thermodynamics [Assoc. Prof.
Allcut, E. A., M.Sc. Birm.
2 Demrs.

Zoology
Bensley, B A , Ph.D. Col. Prof.
Coventry, A. F., B.A. Ox. (Vertebrate Embryology) Asst.Prof.
Dymond, J. R., M.A.
Lectr. Vert. Z.

Zymology [Assoc. Prof.
Speakman, H. B., M.Sc. Manch.
1 Res. Asst.

Medicine (for subjects of the first 2 yrs.—Anat., etc., v. *supra*)

Anæsthesia [Demr.
Johnston, S , B.A., M.D., C.M.
6 Assts.

Bacteriology, v. Path.

Gynæcology, v. Obst.

Hygiene
Fitzgerald, J. G., M.B. Prof.
Defries, R. D., M.B., D.P.H.
Asst. Prof.
Fraser, D. T., B.A., M.B., D.P.H.
Asst. Prof.
Porter, G. D.
Spl. Lectr. Health Educ.
Silverthorne, G., M.B. (Assoc. Clin. Surg.) Prof.
2 Demrs., 1 Instr.

Medical Jurisprudence
..... Prof.

Medicine and Clinical Medicine, v. also Path.
Graham, Duncan A. L., M.B. Prof.
Fotheringham, J. T., C.M.G., B.A., M.D., C.M., LL.D.
Assoc. Prof.
Assoc. Profs. of Clin. Med. :
Chambers, G., B.A., M.B.
Goldie, W., M.B.
Thistle, W. B., M.D.
38 Clinicians.

Obstetrics and Gynæcology
Watson, B. P., M.D., Ch.B. Edin.
Prof.
McIlwraith, K. C., M.B
Assoc. Prof.
Marlow, F. W., M.D., C.M. F.R.C.S.Eng. Assoc. Prof.
Hendry, W. B., B.A., M.B.
Assoc. Prof.
Kinnear, J. A., M.D., C.M.
Assoc.
1 Asst., 5 Demrs., and 2 Fellows.

Ophthalmology [Prof.
MacCallum, J. M., B.A., M.D.
6 Demrs., 1 Asst.

Oto-Laryngology
Wishart, D. J. G., B.A., M.D., C.M. McG. Prof.
Goldsmith, P. G., C.B.E., M.D., C.M. Assoc. Prof.
Royce, G , B A., M.B. Assoc. Prof.
Biggs, G. M , M.B. Assoc.
4 Demrs.

Pathology and Bacteriology
Mackenzie, J. J., B.A., M B. Prof.
Anderson, H. B , M.D., C.M. (Assoc. Prof. Clin. Med.)
Prof. Clin. Path.
Maitland, H. B., M.B. Asst. Prof.
Magner, W., M.D., D.P.H. Lectr.
Robinson, W. L., B.A. McM., M B. Lectr.
4 Fellows, 4 Assts.

Pathology, Chemical
Harding, V. J , D.Sc. Manc.
Prof.

Pathological Chemistry
Collip, J. B., Ph.D. Asst. Prof.
3 Fellows and 1 Demr.

Pediatrics
Brown, A. G., M.B. Assoc. Prof.
1 Res. Fellow.

Pharmacy and Pharmacology
Henderson, V. E., M.A., M.B.
Prof.
Sharpe, N. C., B.A., M.B.
Asst. Prof.
6 Assts.

Psychiatry, v. also Psychology
Clarke, C. K., M.D., LL.D. Prof.
Clare, H., M.D., C.M. Assoc.
2 Demrs.

Radiology
Richards, G. E. Assoc.

Surgery and Clinical Surgery
Starr, C. L., M.B., M.D. Bellevue, N.Y. Prof.
Primrose, A, C B., M.B., C.M. Edin. Prof. of C.S.
Bruce, H. A., M.D., F.R C.S.Eng. (Clinical S.) Prof.

Assoc. Profs. of Clin. Surg. :
Bingham, G. A., M.D., C.M. (C.S. and Clin. Anat.).
Hay, S. M., M.D.
McKeown, P. W. H., C.B.E., B.A., M.B.
Starr, F. N. G., C.B.E., M.B.

Associates in Clin. Surg. :
Gallie, W. E., M.D., F.R.C.S.
Jones, W. W., B.A., M.B., F.R.C.S.
Richardson, T. B., M.D., C.M.
Ryerson, E. S., M.D., C.M.
Shuttleworth, C. B., M.D., C.M., F.R.C.S.
Uren, J. F., M.D., C.M.
7 Associates, 11 Demrs., 18 Assts.

Therapeutics
Rudolf, R. D., C.B.E., M.D., C.M. Edin. Prof.
1 Demr., 1 Asst.

COLLEGES OF THE UNIVERSITY

UNIVERSITY COLLEGE. Principal—M. Hutton, M.A., LL.D.; Registrar—F. C. A. Jeanneret, B.A.

VICTORIA COLLEGE. The Faculty of Arts of Victoria Univ., v. *infra*.

TRINITY COLLEGE. The Faculty of Arts of the Univ. of Trinity College, v. *infra*.

ST. MICHAEL'S COLLEGE. Superior—Prof. H. Carr, B.A.; Registrar—Rev. E. J. McCorkell, M.A. Other Teachers: the Profs., etc., marked (M.) in above list.

FEDERATED COLLEGES

ST. MICHAEL'S, v. *supra*.

KNOX COLLEGE and WYCLIFFE COLLEGE. Teachers giving instruction in Univ. courses (*Religious Knowledge*): (1) Knox—J. Ballantyne, B.A., D.D.; R. Davidson, Ph.D.; A. Gandier, M.A., D.D.; W. Manson, M.A.; D. M. Ramsay, D.D.; J. D. Robertson, M.A., D.Sc. (2) Wycliffe—W. R. R. Armitage, M.A.; W. T. Hallam, B.A., D.D.; E. A. McIntyre, M.A., B.D.; H. W. K. Mowll, M.A.; T. R. O'Meara, B.A., LL.D.

AFFILIATED COLLEGES

ONTARIO AGRICULTURAL COLLEGE, GUELPH. President—J. B. Reynolds, M.A. 16 Profs., 6 Assoc. Profs., and 14 Lectrs. 25 Demrs. and Instrs.

ROYAL COLLEGE OF DENTAL SURGEONS, TORONTO. President—M. A. Morrison, D.D.S.; Secy.-Treas.—W. E. Willmott, D.D.S.; Registrar—E. E. Bruce, D.D.S. Faculty—22 Profs.; 8 Assoc. Profs.; 7 Lectrs.; 8 Clinicians; 33 Demrs.

ONTARIO COLLEGE OF PHARMACY, TORONTO. President of Council—Alex. Stewart; Registrar-Treasurer—W. R. Graham. Faculty—4 Teachers.

ONTARIO VETERINARY COLLEGE, TORONTO. Principal—C. D. McGilvray, V.S., M.D.V.

ALBERT COLLEGE, Belleville; ALMA COLLEGE, St. Thomas; ONTARIO LADIES' COLLEGE, Whitby; ST. HILDA'S COLLEGE, TORONTO (the Women's RESIDENCE for Trin. Coll.).

GENERAL INFORMATION (v. also p. 280)

An appropriation of 500,000 acres of land for the support of 4 grammar schools and a Univ. in Upper Canada was made in 1798, and a Royal Charter was granted in 1827 for a " King's College " with the privileges of a Univ., but it was not until 1843 that the College was inaugurated. In 1849 its title was changed to The University of Toronto. It was reorganized in 1853 as an examining and degree-conferring body on the model of the Univ. of London. In 1887 it again became a teaching body, the Faculties of Medicine and Law which had been abolished prior to the reorganization of 1853 were revived, the Arts work was divided between the Univ. and Univ. College, and provision was made for the admission of other institutions as Federated Colleges. Victoria, Trinity, and St. Michael's Colleges became integral parts of the Univ. in 1892, 1904, and 1907 respectively.

LIBRARY, 168,418 vols. and 54,176 pamphlets. Annual Grant for purchase of books is $18,000, with special grant, $15,000. 60 periodicals subscribed for and many others received. The (Science) Library of the Roy. Can. Inst. is housed in the same building. MUSEUMS: Anat., Geol., Mineral.; Trinity has a Nat. Hist. and Archæol. Museum of its own; the Agric. and Vet. Colleges, Knox, and the School of Dentistry have each one. The Ontario Provincial Museums of Archæol. and Nat. Hist. are in the vicinity. LABORATORIES: very extensive in all depts. of Applied Science and Engineering as well as Anat., Biol. Chem., Geol., Household Sc., Path., Physics, Physiol.; described in *Bulletin* for Graduate Students. BOTANICAL GARDEN. OBSERVATORY. HOSPITALS available for Clinics: General, 700 beds; Children's, 250; St. Michael's, 400; Western, 120.

FACULTIES. Arts, Medicine, Applied Science and Engineering (Depts.—Archit., Civil E., Mining E., Mech. E., Chem. E., Elec. E., Metall. E.), Education, Forestry, Household Sc., Music. DEPARTMENTS. Social Service, Public Health Nursing.

UNIVERSITY MATRICULATION BOARD. As a result of a conference of representatives of the Univs. of Toronto, Queen's, McMaster, and Western Univ., London, held in Dec. 1908, the Senates of these Univs. created a Board to conduct and control their annual Matricn. examns. The Dept. of Educn. of Ontario agreed to provide the same machinery for holding these examns. as it employs for the Departmental examns., and the Registrar of the Dept. is Secy. of the Board. In connexion with the Pass Junior Matricn. examn. a report signed by all members of the staff of the school concerned as to the standing of their candidates is taken into account in determining the results.

The Univs. of Ontario annually confer with McGill on the subject of Matricn.

The subjects of Pass Matricn. are (1) Latin, (2) English, (3) History, (4) Maths., (5) Greek, (6) French, (7) German, (8) Spanish or Italian, (9) Physics and Chemistry. For Matricn. in Arts it is necessary to pass in (1) to (4) and any two of (5) to (9). In certain cases foreign students may substitute their native language for Greek or French or German.

For Matricn. in the Univ. of Toronto in Med. the requirements are (1) to (4), (9), and any one of (5) to (8) with honour standing in (2), (4), and one of (5) to (8); in Applied Sc. or Forestry—(2), (3), (4), and any three of (1) and

(5) to (9) with honour standing in (2), (4), and one of (1), (5) to (8); in Music—(2) and any two of (1), (5), (6), (7), (8).

Minimum age for admission to the Faculty of Arts, 16; Law, 21; Med., 17; Appl. Sc., 17; Educ., 19; Forestry, 17.

Degree Courses. 4 yrs.—B.A., B.Com., B.A.Sc., B.Sc. (Med.), B.Sc.F., B.S.A. (at Guelph), D.D.S., B.V.S., Phm.B.; 3 yrs.—Mus.B.; 6 yrs.—M.B. Combined courses: B.A. and B.Sc.F.—6 yrs.; B.A. and M.B.—7 yrs.; M.B. and D.D.S.—7 yrs.

Certificates of having passed certain examns. of the standard of the Senior Oxford and Cambridge Local may enable a student to enter at the second year the B.A. Pass course (but not an Honours course except in Polit. Sc. or Philos.), provided he is not less than 17 yrs of age.

Honour courses for the B.A. are provided in Household Science and in Science for teachers, there being no separate Household Science degree, and the B.Pæd. being a post-graduate degree.

The first 2 yrs. of the Law course may be taken in Arts in the Univ., the 3 remaining yrs. being taken at Osgoode Hall.

The B.Sc. (Med.) may be obtained by Med. students who, after the 4th or subsequent year of Med. study, having maintained therein a prescribed standard of proficiency, spend a year in courses in the introductory Med. sciences, and show facility in reading one modern language besides English.

A student who has already graduated in the Faculty of Arts, Med., or Science of a Canadian or other recognized Univ. may complete the course in Dentistry in 3 yrs. instead of 4; and persons holding the L.D.S. of one of the Med. authorities of Great Britain or the B.D.S. degree of Melbourne may be admitted in the Dept. of Dentistry without further examn., and to the final D.D.S. examns. on completing one full session at the School of Dentistry of the Royal Coll. of Ontario.

Higher Degrees. M.A., obtainable by approved course of graduate study extending over 2 yrs. or, in the case of a B.A. in an Honours course, 1 yr.; Ph.D., open to a graduate in Arts (or, on special conditions, another Faculty) of this or another recognized Univ. by pursuing in the Univ. of Toronto an advanced course of study for 3 yrs., exemption from 1 of which may be given in consideration of the candidate having already pursued such a course for 1 yr. A thesis embodying the result of an original investigation is required.

The M.D. is obtainable by thesis embodying results of original research at least 1 yr. after graduating as M.B. The D.P.H. course (for Med. graduates) covers 11 months—1 winter and 1 summer session.

The M.A.Sc. may be obtained by a B.A.Sc. of this Univ. who pursues a course of advanced study in the Faculty for 1 yr., presents a satisfactory thesis, and passes such examns. as may be prescribed.

The professional degrees, C.E., M.E. (Mining or Mech.), E.E., Chem.E. are open to candidates who, after obtaining the B.A.Sc. or diploma of the Faculty, spend 3 yrs. in the actual practice of one of these branches of engineering, present a satisfactory thesis, and pass examns. The F.E. may similarly be obtained by a B.Sc.F.

The B.Pæd. and D.Pæd. are open to graduates in Arts or Science of any British Univ. who hold a 1st class or High School Asst.'s certif. of Ontario or its equivalent, and pass, after 2 yrs.' (D.Pæd.—3 yrs.) successful experience in teaching, prescribed examns. For the D.Pæd. a thesis is also required, and the candidate must have attended a summer course (or its equivalent) in each subject of examn.

The Mus.D. is open to a Mus.B. of this or another Univ. of 3 yrs.' standing.

The Univ. publishes annually an announcement of *Graduate Courses. All communications on the subject must be addressed to the Board of Graduate Studies.*

RECOGNITION BY OTHER UNIVS. (v. pp. 47, 178, 229, 237, 266).

TRAINING OF TEACHERS. Courses are provided for Teachers' certificates of several grades, including the Household Science and the Physical Culture Teachers'. The Educn. Dept. of Ontario grants certifs. on the results of Univ. examns., entitling the holders to teach in the Public Schools. All teachers for the upper grades of Public and High Schools and Colls. must spend at least 1 yr. in the College of Education.

FEES. Students proceeding to the B.A. and enrolled in one of the Colleges of the Univ. attend lectures of Univ. Profs. and Lectrs. in the Faculty of Arts without payment of fees except for laboratory supplies. The College Fees, which entitle students to attend lectures in their respective Colleges, are about $40 p.a. Medical students pay for tuition, laboratory supply, hospital and annual examn., $150 p.a. Certificate courses in the College of Education cost $25 p.a. Forestry, $80 p.a. Applied Science and Engineering, $150. D.P.H., $150.

SCHOLARSHIPS, etc., open to graduates include $120 for 2 yrs. for Divinity course in Trinity Coll.; Fellowship in Philos., $300; $1000 Prize for Scientific research or invention, open to all Canadians; $500 Scholarship in Medicine; $500 Fellowship in Anatomy; $750 Fellowships (one or more, each tenable for 3 yrs.) for research in Medicine; and others.

RESIDENCE. University Houses accommodate 150 men, rent, $4 per week; Univ. Coll. Hall, Residence and board for women (133), about $8 per week; Victoria Coll. Halls for 132 men, about $9 per week, and 126 women, $200 to $300 p.a.; Trinity Coll. provides for 70 men and 50 women; St. Michael's (R.C.) has also Residences for men and women.

PUBLICATIONS. *President's Annual Report*; *Calendars* of the several Faculties, April and May; *Graduate Studies Bulletin*; *Medical Bulletin*; *Univ. Monthly*; *Can. Historical Review*; *Univ. Studies*; Students' Mags.—*'Varsity, Torontonensis, The Goblin.*

THE YEAR 1920–21

BENEFACTIONS. Rockefeller Foundation, annual grant of interest on $1,000,000 for development of Medicine; J. Harrington Walker Bequest for Residences, $15,000; Khaki University Memorial Scholarships, $12,000; Canadian Red Cross Society for Public Health Nursing, $4500; Sir John M. Gibson for Pass Matricn. Scholarships, $4000; Canadian Oral Prophylactic Assoc. for Dental Research, $3000; William Hardie Scholarship, $1000; Prof. J. Squair for French Library Fund, $1000; Sir Edmund Osler for Path. Special Investigation Fund, $1000; Graduate Fellowships—Col. R. W. Leonard, 1; Sir Edmund Osler, 2; R. A. Reeve Bequest, $800; John Hughes Horton Bequest, $650; Marion Dickenson Estate, $200; Anonymous, $500.

SPECIAL EVENTS. Visit of Imperial Press Conference, Aug. 1920; Conference on Recent Advances in Physics, Jan. 1921.

NEW BUILDINGS. Electrical Engineering; University Press; under construction, Anatomical Building.

CHANGES IN CURRICULA, ETC. Arts entrance requirements raised to full Pass Matricn. standing; Med. and For. Matricn. requirements raised by addition of Hon. Matricn. standing in Engl., Maths. and one of Gk., Lat., Ger., French, Spanish.

UNIVERSITY EXTENSION WORK. Enrolment, 890; Summer Session, 85; Teachers' Classes, 76; Correspondence Courses, 165; Tutorial Classes, Urban 48, Rural 43; Special Course for Farmers, 279; W.E.A., Toronto, 160, Hamilton, 34. Local Lectures, 53.

NUMBER OF STUDENTS. Total registered in 1920–21, 5060. Full-time, preparing for first degrees: Arts, 1949; Med., 1106; Applied Sc., 805; For., 53; Music, 13; Educ., 226; Vet., 57; Social Service, 59; Public Health Nursing, 50; Graduate Courses, 163; Occasional, 156. Women included in above: Univ. Coll., 540; Victoria, 191; Trinity, 41; St. Michael's, 85; Graduate Courses, 50; Med., 89; Educ., 76; Music, 6; Social Service, 348.

HONORARY DEGREES CONFERRED. LL.D.—R. Donald, G. E. Fairfax, Sir Robt. Bruce, Rt. Hon. Sir Gilbert Parker, C. D. Massey, Hon. A. Meighen, Rt. Hon. J. C. Smuts, Hon. E. C. Drury, Hon. L. A. Taschereau, Hon. N. W. Rowell, F. W. Merchant; D.Litt.—W. P. Mustard, D. C. Scott; D.Sc.—J. M. R. Fairbairn, R. A. Ross.

OTHER DEGREES. B.A., 332; M.B., 143; D.D.S., 140; Phm.B., 94; B.V.Sc., 19; B.A.Sc., 118; B.S.A., 94; B.Sc.F., 6; LL.B., 4; M.A., 52; Ph.D., 3; M.A.Sc., 1; D.V.Sc., 1; M.D., 2; D.P.H., 2; C.E., 2; M.E., 1.

RETIREMENTS. Profs. Irving B. Cameron, N. H. Beemer.

UNIVERSITY OF TRINITY COLLEGE, TORONTO

CHANCELLOR—J. A. WORRELL, K C., M.A , D C.L.

VICE-CHANCELLOR AND PROVOST—C. A. SEAGER, M.A , D.D.

DEAN OF RESIDENCE—Prof. A H. YOUNG, M A , D.C L.

REGISTRAR—Prof W. A. KIRKWOOD, M.A., Ph.D

LIBRARIAN—Prof. R. E. L. KITTREDGE, M A.

PRINCIPAL OF ST. HILDA'S COLLEGE FOR WOMEN—MISS M. CARTWRIGHT, B A

PROFESSORS, LECTURERS, ETC., IN DIVINITY, Dec. 6, 1921

[*See also* the consolidated list under the Univ. of Toronto, in which appear the names of Profs. and Lectrs. on the Staff of Trin. Coll., marked (T.), under the heads Class., Engl., Fr., Ger., Heb., Hist.]

Apologetics
Todd, John, M.A. Ox. Lectr.

Church History
Morris, H. C. S., M.A. Ox. Assoc. Prof.

Canadian Church History
Young, A. H., M.A., D.C.L. Spl. Lectr.

Divinity
The Provost Prof.
Rollo, W., M.A. Aberd. Prof.†
Duckworth, H. T. F., M.A. Ox. Lectr.*
The Provost. Prof.

Homiletics and Pastoral Theology
Fotheringham, J. B., B.A. Spl. Lectr.

Old Testament Prof.*
Cosgrave, F. H., M.A., B.D Dub.

Pastoral Theology
The Provost. Prof.

Trinity College, established in connexion with the United Church of England and Ireland in 1852, was in 1853 granted a Royal Charter as a University. It is federated with the Univ. of Toronto and, in its Faculty of Arts, forms an integral part of it, but in the Faculty of Divinity remains entirely independent and itself confers degrees. Telegraphic address—Trincoll, Toronto.

LIBRARY, 13,000 vols. MUSEUM, Nat. Hist.

COURSES. L.Th.—4 yrs.; Hons. or Pass B.A. of Toronto and Divinity Testamur—5 or 6 yrs., or, with Hons. in Theol., 7 yrs. Candidates for the B.D. or D.D., if resident outside the Eccl. Provinces of Canada, must be graduates in Arts of 3 yrs.', or ordained clergymen of 5 yrs.' standing. The D.D. is open to B.D.'s of 5 yrs.' standing.

* † Also Prof. (*), Lectr. (†), in the Faculty of Arts.

A SCHOLARSHIP of $120 p.a. for 2 yrs. is open to students who have taken an Arts course in the Coll.

THE YEAR 1920–21. The new Provost was installed on Nov. 17. A gift of £7000 for a Chair in Music was promised. An Alumni Lectureship in Present-day Church Problems was established by the Dean of Ontario. *Number of Students.* Undergraduates in Arts, 139, including 58 women; in Div., 16; special women students in Div., 2; graduate students in Div., 3. *Retirements.* T C. S. Macklem, to be a missionary in British Honduras; G. S. Brett, to be wholly a Professor in the Univ. of Toronto.

PUBLICATIONS. *Yearbook* (July); *Calendar* (May); *Review*, monthly, $1.50; *St. Hilda's Chronicle*, terminally, $1.

VICTORIA UNIVERSITY, TORONTO

PRESIDENT—R. P. BOWLES, M.A., D.D., LL.D.
REGISTRAR—A. L. LANGFORD, M.A.
LIBRARIAN—A. E. LANG, M.A.
Telegraphic Address : Vicollege, Toronto.

PROFESSORS AND LECTURERS, October 21, 1921

[*See also* in the consolidated List under Toronto, names marked (V.)]

Homiletics, Past. Theol., Ch. Hist
Johnston, A. J., B.A. M Cox Prof

New Testament, Greek, etc.
Michael, J. H., M.A. Wales.
G. A. Cox Prof

Public Speaking
Greaves, W. H., M.A. Bos. Prof.

Religious Pedagogy
Langford, F. W., B.A Prof.

Sociology [Prof.
MacMillan, J.W., B.A., D.D. Manit.

Systematic Theology
The President, M.A., D.D. Wes., LL.D Mt. A & Tor.
Ed. Jackson Prof.

GENERAL INFORMATION

The Upper Canada Academy was established by Royal Charter in 1836 in connexion with the Methodist Church in Canada. Its name was changed in 1841, when power was obtained to grant degrees in Arts, Theol., Med., and Law, to "Victoria College," and in 1884 to "Victoria University." In 1890 it was federated with Univ. of Toronto, and its Arts Faculty became a College thereof, but it still confers degrees in Theology.

LIBRARY. Special features—Canadian verse and Tennysoniana (C. C. James's collections), Methodism in Canada, Education in Ontario.

COURSES. 4 yrs. in Languages, Anc. Hist. and Ethics for B.A., both Pass and Hons.; 3 yrs. for B.D., the 2nd and 3rd yrs. being subsequent to graduation in Arts; 3 yrs.' conference course for probationers for the Ministry following a 2 yrs.' course taken on circuit; 3 yrs.' conference course for graduates.

HOSTELS for 120 men and 125 women students.

PUBLICATIONS. *Theological Calendar* (May); *Bulletin* (July); *Acta Vict.*, a students' monthly.

THE YEAR 1920-21

BENEFACTIONS. Sir John Eaton, The Wesley Collection of Rev. R. Green of Didsbury Coll., Manchester, £800; Mrs. Hutton, $1000; Mrs. E. Morse, $1000 for Scholarship.

NUMBER OF STUDENTS. Full-time, preparing for B.A., 481 including 219 women; M.A., 4; B.D. or Dipl.Th. (graduates), 30; Dipl.Th. (non-grads.), 28; occasional, 13 (4 women).

HONORARY DEGREES. D.D.—S. W. Fallis, W. H. Graham, E. W. Wallace, H. C. Wrinch.

OTHER DEGREES. B.D.—3; Dipl.Th. (graduates), 24; Dipl.Th. (non-grads.), 19.

RETIREMENT. Prof. A. J. Bell.

WESTERN UNIVERSITY OF LONDON, ONTARIO

CHANCELLOR—Hon. W J. ROCHE, M D., LL.D., M.P.
CHAIRMAN OF THE BOARD OF GOVERNORS—Major A. T. LITTLE.
PRESIDENT—.....
REGISTRAR—Prof. K. P. R. NEVILLE, M.A., Ph.D.
BURSAR—W. WAUGH, M.D., LL D.
LIBRARIAN—MARJORIE ROSS, B.A.

PROFESSORS, LECTURERS, ETC., August 30, 1921

Anatomy
McKibben, P. S, B S Granv, Ph.D. Chic., Dean of Fac. of Med. Prof
Macklin, C. C., M.B. Tor. Prof.
Schaef, H. E, M D Instr.

Biology
Robertson, A. D., B.A. Tor. Prof.
Hart, N. C., M.A. Tor. Assoc. Prof.
Detwiler, J., M.A. Qu., Ph.D. Corn. Asst. Prof.
McIntosh, Margaret, B.A. Asst.

Chemistry
Slack, J. A., Ph.C. Mass. C. Ph., M.D. Prof.
Sturdevant, E. G, A.M., Ph.D. Mich. Assoc. Prof.
Best, N. C., Ph.C. Mass. C. Ph. Lectr.
Jackson, H. D., B.A. Mich. Instr.
McLean, Mary M., B.A. Asst.
Rowntree, Gertrude, B.A. Asst.

Classics
Fox, W. S., M.A. McM., Ph.D. J.H.U., Dean of College of Arts Prof.
Neville, K. P. R., M.A. Harv., Ph.D. Corn. (C. & Hist.) Prof.
Auden, H. W., M.A. Camb. Assoc. Prof.

Elocution
Hannah, R, B A Instr.
Walker, Jean I Instr.

English
Tamblyn, W. F., M.A. Tor, Ph D Col. Prof.
Spenceley, J. A, B A. Tor., Ph.D. Harv. Asst. Prof.
Albright, Evelyn, B.A. Tor. Instr.

French and Italian
Shanks, L. P., Ph.D. Corn. Prof.
Edwards, B., B.A. Bowd., M.A. Prin. Instr.

French and Spanish
Ellis, O. F. W., B.A. Tor., Ph.D. Harv. Asst. Pro.
Meras, E. A., B.A. Coll. of City of N.Y. Asst. Prof.

Geology [Assoc. Prof.
Russell, J. W., M.A. McM.

German
James, N. C, B.A. Tor., Ph.D. Halle Prof.

Hebrew [Prof.
Waller, C. C, M.A. Camb., D.D.

History
Dorland, A. G., B.A. Qu., M.A. Yale Assoc. Prof.
Landon, F., M.A. Lectr.

Mathematics
Kingston, H. R., M.A. Qu., Ph.D. Chic. Prof.
Patterson, W. J., M.A. Qu. Prof
Woods, A., M A. Qu. Instr.

Medicine, v. *infra*

Philosophy
Hiles, W. L., B.A. Tor. Lectr.

Physics [Prof.
Dearle, R. C , B.A., Ph D Tor.
Allen, R. L., M.A. McM. Instr.
Blampin, Caroline, B.A. McG. Instr.

Physiology
Miller, F. R., M A., M.B. Tor., M.D. Mun. Prof.
Laughton, N. B., B.A. Tor. Instr.
Banting, F. G., M.B. Tor. Instr.

Political Science
Wood, L. A , B.A. Tor., B.D. Montreal Presb. Coll., Ph.D. Heid. Prof.
Perrin, F. E., B.A. Tor. Lectr

Psychology [Lectr.
Sage, G. B., M.A. Trin., D.D.

Medicine (for subjects of first 2 yrs.—Anat., etc., v. *supra*)

Anæsthesia
Alexander, N. B., M.D. Assoc. Prof.

Eye, Ear, Nose, Throat
Thompson, S., M.D. Prof.
Babb, W. F., M.D. Lectr.
Hunt, J. C., M.B. Tor. Lectr.
Brown, W. J., M.D., C.M. McG. Instr.

Medicine
Macgregor, J. A., M.D. Prof.
Childs, J. R. N., M.D. Assoc. Prof.
Hale, J. C., M.D., C.M. McG. Assoc. Prof.
Fisher, S. M., M.D. Instr.
Campbell, F. J. H., B.A., M.D. Instr.
Hughes, F. W., M.D. Instr.
Jepson, G. L., M.D. Instr.
Harris, C. A., M.D. Instr.
Bean, S. J. T., M.D. Instr.
Bowman, J. T., M.D. Instr.

Obstetrics and Gynæcology [Prof.
Ferguson, R., B.A. Tor., M.D.
Williams, E. L , M D. Assoc. Prof.
Stevenson, W. J., M.D. Asst. Prof.
Black, H. H., Ph.B., M.D. Asst. Prof.
Clegg, F. R., M.D. Instr.
Tew, W. P., M.B. Tor. Instr.

Pathology
Bullard, H. H., A.B. Missouri, Ph D. Tul , M.D. J.H.U. Prof.
Gordon, J. E., B S., Ph D. Chic. Assoc. Prof.
Ballantyne, E. N., B.A., M.D. Instr.
Ramsay, G. A., M.D. Instr.

Pediatrics
Tillmann, W. J., M.D. Prof.
Lindsay, J. C., M.B. Tor. Asst. Prof.
Ferguson, J. I., M.D. Asst. Prof.
Denny, W. L., M.D. Instr.

Pharmacology
Crane, J. W., M B. Tor. Prof.
Young, E. G., B.A., M.Sc. Asst. Prof.
Le Touzel, J. R., M.D., C.M. McG. Asst. Prof.
Quinn, W. R., B.A. Tor. Asst.

Psychiatry [Assoc. Prof.
Robinson, W. J., M.B. Tor.
Young, E. H., M.D. Assoc. Prof.

Public Health
Hill, H. W., M.D., D.P.H. Tor., Dean of Inst. of P.H. Prof.
Downham, W. S., M.D. Lectr.

Radiology
McNeill, G., M.D. Prof.

Surgery [Prof.
Williams, H., M.D., F.R.C.S.
Hodgins, E. L., M.B. Tor. Assoc. Prof.
Wilson, J. C., M.D. Instr.
Grant, A. J., M.D. Instr.

AFFILIATED INSTITUTIONS

HURON COLLEGE. Principal, Prof. of Div. and Hebrew, Rev. C. C. Waller, M.A. Camb. and McG., D.D. Other teachers not on staff of the Univ.: Rt. Rev. Bp. of Huron, D.D., Lectr. in Bib. Exeg.; F. Anderson, M.A. Ox., Prof. of Ch. Hist.; Dean L. N. Tucker, M.A., D.C.L.

ASSUMPTION COLLEGE. President, Prof. of Greek, T. J. Muckle, M.A. Eleven other Profs. of Arts subjects.

URSULINE COLLEGE. President and Prof. of English, Mother Carmel. Three other Profs. of Arts subjects.

CONSERVATORY OF MUSIC, BRANTFORD, ONT. Principal, W. Norman Andrews, Dip. Leip.

GENERAL INFORMATION (v. also p. 280)

Incorporated by an Act of the Provincial Legislature in 1878 as a College in connexion with the Church of England, the Univ. has become, under the provisions of an amending Act of 1908, absolutely undenominational in its government, which is under provincial and municipal control.

FACULTIES. College of Arts, Medical School, Public Health.

DEGREE COURSES. 4 yrs. (from Junr. Matricn.), B.A.; 1 yr. (graduates), M.A.; 6 yrs., M.D. Attendance on part of the classes may be dispensed with by the Senate, but all students must have attended lectures in the Univ. for at least 1 yr. before they can graduate. D.P.H. and C.P.H.N. courses (1 yr.) provided for graduates in Med. and graduate Public Health nurses respectively.

PUBLICATIONS. *Calendar* (May); *Western Univ. Gazette*, weekly during term.

THE YEAR 1920–21

BENEFACTIONS. Ontario Govt., $84,000; City of London, $55,000.

NEW DEVELOPMENTS. New Medical Building opened; new courses in Agric. and Commercial Economics instituted; government grants put on an automatic basis by report of commission on University Finance; medical faculty strengthened by appointment of several additional full-time profs.

NUMBER OF STUDENTS. Medicine, 132; Arts, 283; Graduates, 9; Public Health, 108.

DEGREES CONFERRED. LL.D.—2; LL.B.—1; B.D.—1; D.P.H.—1; C.P.H.N.—4; M.D.—12; B.A.—23.

THE UNIVERSITIES OF AUSTRALIA

ADELAIDE	MELBOURNE	QUEENSLAND, BRISBANE
SYDNEY	TASMANIA, HOBART	WESTERN AUSTRALIA, PERTH

GENERAL DESCRIPTION

[Summary, corrected to Sept. 1921, of information issued in June 1919 by an Administrative Committee of the Australian Universities through the Education Service of the Australian Imperial Force of which the Committee was a part.]

THE Universities of Australia are dotted all round the Commonwealth and are at great distances from one another and in diverse climates. The mean annual temperatures range between about 70° at Brisbane and 54° at Hobart. Western Australia's nearest neighbour is Adelaide, which is about 1600 miles away by the shortest route. There is, naturally, not much moving about of students from one to another; but in the three younger some of the principal professional courses are not yet provided, and it frequently happens that a student after working in one of them for a year or two transfers to one of the older and more central Univs. where he is granted status in his professional course. As the Univs. are not all uniformly developed, they cannot be quite uniform even in their requirements for entrance. But they exercise all possible reciprocity in the interchange of students. They also give students who come from British Univs. the same status as at Home. Typical of their attitude in this regard is the By-law of Sydney: Undergraduates of other Univs. may, at the discretion of the Professorial Board, be admitted *ad eundem statum* in this Univ. without examn. Provided always that they shall give sufficient evidence of their alleged status and of good conduct.

THE COLLEGE SYSTEM. When the Univs. of Sydney and Melbourne were founded provision was made for the establishment of "Colleges of Residence in connexion with different religious denominations." So there came into existence at Sydney, and on the Univ. grounds, "St. Paul's" (Church of England), "St. John's" (R.C.), "St. Andrew's" (Presb.) and "Wesley" (Meth.). An "unsectarian" Coll. for women was added. Similarly at Melbourne, the first Coll., "Trinity" (C. of E.), was opened in 1872, and was followed by "Ormond" (Presb.), "Queen's" (Meth.), and "Newman" (R.C.). "Queensland" has "Emmanuel" (Presb.), "St. John's" (C. of E.), "King's" (Meth.), and an "undenominational" Women's Coll., as well as St. Leo's (R.C.). There are no other Univ. Colls. in Australia. All these are self-governing and receive no financial aid from the Univ. They accommodate and teach only a small proportion of the whole number of Australian students; but their importance and influence on Univ. life are not to be gauged by this circumstance.

CONSTITUTIONS. The outstanding feature of the Australian Univ. constitutions is the definite and considerable part taken by the State in appointing members of their governing bodies. This is due to the large contributions made to them out of public funds. The newest Univs. have admitted divers other persons, such as representatives of commercial, industrial, scientific, and educational societies, or benefactors, to participate with their graduates in the election of senators or councillors. The constitution of Sydney is the simplest; that of Queensland is the most comprehensive in its legal conception of the Univ. as "a body corporate consisting of Senate, Council, and graduate and undergraduate members." Western Australia, however, is the only Univ. where undergraduates are enrolled by Act of Parliament in a "Guild" which is given a representative on Convocation, the electing body that may also disallow or propose amendments in any legislation of the Senate.

ADMISSION. Attempts have been made to devise a common matricn., but, so far, they have failed. The reason for this is that the Univs., although they are developing on very similar lines, and attaining very similar standards, are maintaining a certain amount of individuality. Generally speaking, matriculation requirements include passing a recognized examn. (school-leaving, matricn., etc.) in English, another approved language (at Sydney, *e.g.*, Latin, Greek, French, German, or Japanese), Mathematics, and one or more other subjects. Sydney and Queensland offer special facilities to persons who have attained the age of 25 yrs. for matricn. in the faculties of Arts, Science, and Economics.

THE UNIVERSITY AND THE PROFESSIONS. The Univ. has always at least one professional school. Thus Queensland's School of Engineering has a high repute. Western Australia is making a specialty of Agriculture. Tasmania has no professional school but Law. Sydney, Melbourne, and Adelaide have each a wide range of schools.

The Engineering schools give a thorough practical training. Rather high entrance requirements are called for in each of the Univs. The curricula extend over 4 yrs. (W. Australia, 5 yrs), and are arranged with the definite view of giving a sound knowledge of the properties of materials, and the principles of Maths., Phys., Chem., and Mechanics underlying all engineering work, before specialized professional subjects are taken. Owing to several large bequests the Russell School of E. in Sydney is the most fully equipped. It maintains separate depts. for Civil, Mech., and Elec. E., for Mining and Metall., and for Archit. and Building Construction. The corresponding Schools in Queensland and Melbourne are also well equipped, and those of Adelaide and Western Australia, although not so comprehensive, are efficient. Systematic arrangements are made for students to obtain practical experience in workshops or in the field during vacations. The University training is widely recognized as a necessary qualification for professional positions. As a rule graduates in Civil E. enter the State or Federal Public Works Depts., which carry out practically all the large national engineering works, very little in the way of Public Services being left to private enterprise. The experience thus to be gained is

very good, although it must be admitted that the emoluments are relatively low. Many graduates in Mining E. have been absorbed in the mining industries of Australia, but a great number—probably the majority—find their way to the larger mining centres of the world where the financial rewards are usually greater. There is a good deal of industrial and commercial engineering in Australia, and men wishing to have the freer scope which this offers usually take the courses in Mech. and Elec. E. In Archit., especially the domestic kind, there is a promising outlook in practically all parts of the Commonwealth.

The Medical Schools of Sydney, Melbourne, and Adelaide are among the best in the Empire. They comply with the requirements of the General Medical Council, and there is full reciprocity, in respect of registration of degrees as qualifications to practise, between the U.K. and Australia Practically the whole Australian medical profession is now trained in these 3 Univs., and distinguished teachers and research workers are continually being brought in to supplement their staffs. High positions are also held by their graduates outside Australia. It is generally felt by Australian medical men who have had experience in Europe among men trained in the Schools of the U.K., that their own training has been even more practical. It is thoroughly British in scope and method, but, in the proportion of hospital facilities to the number of students, it has had some advantages over the training received by the average British student. Whether this impression is or is not correct, it remains true that Australian medical education has reached a high standard, and the equipment of the Faculty is always good and often excellent. Sydney has the advantage of an immense public hospital, on its own grounds, with another a short tramway journey distant. In Melbourne general hospitals containing 500 beds, and women's and children's hospitals are close to the Univ. The Genl. Hospl. at Adelaide is within half a mile of the Univ., and after the 2nd yr. the greater part of students' time is spent in it. The work done may also be supplemented by study, after graduation, in the " Australian Institute of Tropical Medicine " at Townsville in Queensland ; and a Diploma in Trop. Med. is attainable. The recent foundation of the Hall Research Institute in connexion with the Melbourne Hospl. will provide facilities for post-graduate work.

In all the Univs. the Faculty of Arts is becoming, with due help from the Faculty of Science, a professional school for teachers. Sydney and Melbourne have Profs. of Education who are also heads of the State Training Colleges. Adelaide has the State Director of Education on its Ed. Committee and Council, and gives a Diploma to graduates in Arts and Science who take a prescribed course of prof. study and have proper experience of teaching. There is a course in Ed. at Queensland and every facility is given to teachers to graduate in Arts. Western Australia has a Dept. of Ed., but it is not yet fully organized. An excellent professional equipment for teaching can now be obtained in Australia and the material rewards of teaching are likely to increase.

The less anciently established professions become associated with the Univs. on obtaining a higher status or a legal organization. Thus Vet. Science, the practice of which is as yet legally controlled in only two

States, is now regularly entered in one of these (Victoria) through a Univ. course of study. In N.S.W. its legal constitution will certainly follow the recent institution of a Faculty of Vet. Science at the Univ. of Sydney. In Western Australia, whose Univ. also has a Dept. of Vet. Science, the law requires such qualifications for vet. practice that a Univ. training will become the natural approach to the profession in that State.

PERIODS OF STUDY. The Univ. requires 3 yrs.' study for a B.A. or B.Sc. The curriculum for the first degree in Med., hitherto 5 yrs., is being lengthened; in Sydney it is 5⅔ yrs. (17 terms). The time needed to graduate in law may vary; thus Melbourne course takes 4 yrs., but Sydney allows Arts graduates, if they can, to do the prof. studies in 2 yrs. To graduate in Engin. requires 4 yrs., in Vet Science, in Agric., and in Dentistry also 4 yrs., subject to certain minor variations.

ACADEMIC TERMS. In Australia qualifications are reckoned in "Years" and "Courses." But each "Year" is divided into "Terms." The number of Terms in the Year is usually 3. The Year begins in March and ends in Nov. or Dec. The "Long Vacation" comprises Dec., Jan., and Feb., which are the warmest months. Melbourne has 4 terms, the First of 12 weeks; the Second of 10; the Third of 10; and the Fourth, or Examn. Term, of 4. Tasmania also has 4 terms. Queensland has 3 terms and 2 Examn. Periods.

FEES AND COST OF LIVING. The cost of living varies a good deal in different parts of Australia. A student will probably not notice much difference between Sydney and Melbourne in this respect. But anywhere he will find that £175 a year gives him quite sufficient means, for the climate is benign and good food is plentiful. The style of living everywhere is unostentatious. Decent board and lodging should not cost more than 30s. a week. The Univ. "Unions" provide good meals at about cost price, from 6d. to 2s. each, together with all the other comforts of a clubhouse, for £1 or less a year. Exercise in rowing, football, cricket, and other games may be had in the Sports Clubs on correspondingly easy terms.

The student may pay fees for residence in a College, but that is optional. Thus Wesley College, Sydney (Methodist), charges 28 gs. a term for resident students; Ormond, Melbourne (Presb.), from 75 to 90 gs. a year for residence during terms, according to the course being taken. St. John's, Queensland (Anglican), has fees of £18 per term. Special arrangements can always be made for residence during vacations and, for an example, Ormond then charges £2 a week. Many men live in College on a total income of not more than £150 a year; it is doubtful if any will spend double that amount. There are few rich students and no tradition of expensive living among College men, no charming but costly ancient customs. The assistance from Scholarships and Bursaries is generous.

A list of Univ. Fees payable at Melbourne and Sydney is given below. The fees at Tasmania are very small, 4 or more subjects a year costing only 10 gs., and a year's work in the laboratory not going beyond 4 gs. Queensland has composition fees for complete degree courses, which are from 12 to 18 gs. a year in Arts, 20 gs. in Science,

and 21 gs. in Engineering. W. Australia at present charges fees for examns., degrees, and certifs., but tuition fees only to overseas students. The Senate have approved of the institution of tuition fees for all students, and a Statute is in preparation for this purpose. Fees at Adelaide do not differ widely from those at Melbourne and Sydney.

Melbourne. Matricn , 1 g. ; Degree, 7 gs. ; Degree Courses in Arts, 3 yrs., 36 gs. ; Science, £22 each yr. ; Agric., 4 yrs., 90 gs. ; Laws, 4 yrs., 72 gs. ; Med., 5 yrs., £190 (including Hospl. Fees) ; Engin., 4 yrs., £94 ; Vet. Sc., 4 yrs , £97 ; Music, 3 yrs , at conservatorium, 32 gs. p.a

Sydney. Matricn , £3 ; Degree in Arts, Econ , Sc., Agric., or Vet. Sc., £3 , M.D. and M S., 20 gs. ; other Degrees, £10 , Degree Courses in Arts, 3 yrs., £75 ; Econ , 4 yrs , £96 ; Law, £90 (Arts subjects additional) ; Med., £196 (excluding Hospl. Attendance, 10 gs., and practical Midwifery, 5 gs) ; Dent., 4 yrs , £150 (including Dent. Hospl. £10 p.a) ; Science, 3 yrs , £99 ; Engin , 4 yrs., £154 (Min. and Met., £168) ; Agric., 4 yrs , £118 : 10s ; Vet Sc , 4 yrs., £114 ; Archit., 4 yrs., £168.

CONFERENCE

After a conference held at Sydney in May 1920 the Australian Univs. established a Standing Advisory Committee to deal with matters of common interest The temporary headquarters of the Committee are in Melbourne The Chancellor of Melbourne Univ. acts for the time being as Convener of the Committee, and the Registrar as Honorary Secretary.

AUSTRALIAN STUDENTS IN THE HOME UNIVERSITIES, v. Appendix XXII.

UNIVERSITY OF ADELAIDE

VISITOR—H.E. THE GOVERNOR.

CHANCELLOR—Hon. Sir G. J. R. MURRAY, K.C.M.G., B.A., LL.M., Lieut.-Governor and Chief Justice.

VICE-CHANCELLOR—Prof. W. MITCHELL, M.A. D.Sc.

REGISTRAR—C. R. HODGE.

PROFESSORS, LECTURERS, ETC., September 10, 1921

Accountancy
Booth, S. R., B.A. Camb. Lectr.
Wauchope, J. G. N., A.C.U.A. Asst.

Anatomy [Elder Prof.
Wood-Jones, F., M.B., M.R.C.S., L.R.C.P., D.Sc. Lond.
Scott, M. L., M.B., M.S., F.R.C.S. Lectr.

Botany [Prof.
Osborn, T. G. B., M.Sc. Manc.
Millar, L. J., B.Sc. Demr.

Chemistry
Rennie, E. H., M.A. Syd., D.Sc. Lond. and Melb. Angas Prof.
Cooke, W. T., D.Sc. Lectr.
Pennycuick, S. W., B.Sc. Lectr.
Finlayson, H. H. Asst. Lectr. & Demr.

Classics and Comp. Philol. and Lit. [Hughes Prof.
Naylor, H. D., M.A. Camb.
Hollidge, D. H., M.A. Asst. Lectr.

Commerce, v. also Acctcy.
Heaton, H., M.A. Leeds, M.Com. Birm. (Econ. & Indust. Pract.) Lectr.
Clucas, R. J. M., B.A. (*Ec. Geog.*) Lectr.
Finlayson, R. N., LL.B. (Indust. and C. Law) Lectr.
Ham, W. (Aus. Industries) Lectr.
Sutton, J. (Bank. & Exch.) Lectr.
Steele, R. M., A.C.U.A. (Com. Practice) Lectr.

Dental Science
Lectrs. : [(Prosthetics
Chapman, A. I., D.D.S.
Reid, F. W., B.Sc. (Metal.)
Shanasy, W. T, D.D.S. (Mat. Med., &c.)
Fuller, W. (Histology).
Swan, F. M., L.D S. (Operative D.)
Millhouse, E. J. (Surg. & Path.)

Economics, v. also Com.
Pavy, Emily, D.Sc. Econ. Asst. Lectr.

Education [Lectr.
Schulz, A. J., Ph.D. Zur., M.A.

Engineering, v. also Mining
Chapman, R. W., M.A., B.C.E. Melb. Prof

Engineering, Elec.
Clark, E. V., B.Sc. Lectr.

English Lang. and Literature
..... Jury Prof.

Forestry
Corbin, H. H., B.Sc. Lectr.
Lea, A. M., F.L.S. (Entomology) Lectr.

French
Crampton, J., B.A. Lond. Lectr.

Geology and Mineralogy
Mawson, Sir Douglas, B.E., B.Sc. Syd., D.Sc. Prof.
Madigan, C. T., B.A. Ox., B.Sc. Lectr.

History, Modern
Henderson, G. C., M.A. Ox. Prof.
Oldham, W., B.A. Asst. Lectr.

Law
Phillipson, C., M.A., LL.D., Litt.D. Vict., Manc., Barr.-at-Law Prof.
Napier, T. J. M., LL.B. (Ev. and Proc.) Lectr.
Rudall, R. J., LL.B. (Const. L.) Lectr.
Finlayson, R. N., LL.B. (Roman L.) Lectr.
Thomson, H., LL.B. (Wrongs) Lectr.

Mathematics
Wilton, J. R., M.A. Camb., D.Sc. Elder Prof.
Neitz, H. H., M.A. Asst. Lectr.

Medicine, v. *infra*

Mining Engineering
Gartrell, H. W., M.A. Col., B.A., B.Sc. Lectr.

Music [Elder Prof.
Davies, E. H., Mus.D.

Philosophy [Hughes Prof.
Mitchell, W., M.A., D.Sc. Edin.
Jackson, Sarah E., M.A. Tutor.

Physics
Grant, K., M.Sc. Melb. Prof.
Gray, R. C., M.A., D.Sc. Lectr.
Reimann, A. L., B.Sc. Evg. Lectr.

Physiology
Robertson, T. Brailsford, Ph.D. Calif., D.Sc. Prof.
Fuller, W. (Lectr. in Biol.) Demr.

Zoology
Johnston, T. Harvey, M.A., D.Sc. Syd. Prof.

Medicine (for subjects of first 2 yrs.—Anat., etc., v. *supra*.)

Diseases of Children, Med.
Gunson, J. B., M.B. Clin. Lectr.

Diseases of Children, Surg., v. also Obstetrics
Newland, H. S., M.B., M.S. Clin. Lectr.

Forensic Medicine [Lectr.
Rogers, R. S., M.A., M.D., Ch.M.

Gynæcology
Wilson, T. G., M.D. Way Lectr.

Materia Med. and Therap.
Fry, H. K., B.Sc., M.B., B.S. Lectr.

Medicine and Therap.
Swift, H., M.D. Lectr.
Verco, J. C., M.D. Lond., F.R.C.S. Eng. Lectr.

Medicine, Clinical [Lectr.
Hone, F. S., B.A., M.B., B.S.
De Crespigny, C. T. C., M.D., B.S. Melb., M.R.C.P. Lectr.

Medicine, Psychol.
Downey, M. H., M.B., B.S. Lectr.

Obstetrics and Dis. of Children
Lendon, A. A., M.D. Lond. Lectr.

Ophthalmic Surg. [Gosse Lectr.
Morgan, A. M., M.B., B.S.

Otology
Pulleine, R. H., M.B. Syd. Lectr

Pathology
Cleland, J. B., M.D. Syd. Prof.
Barlow, D. L., M.B., B.S. Asst.

Public Health & Preventive Med.
Hone, F. S., B.A., M.B., B.S. Lectr.

Surgery
Cavenagh-Mainwaring, W. R., M.B., F.R.C.S. Lectr.

Surgery, Clinical and Operative
Newland, H. S., M.B., M.S. Lectr.

Tutor in Medicine
Ray, W., B.Sc., M.B., B.S.

Tutor in Surgery
Smeaton, B., M.B.

Tutor in Obstetrics
Wilson, T. G., M.D., Ch.M. Syd., F.R.C.S. Edin.

Clinical Teachers
The Staff of the Adelaide and of the Children's Hospls.

Tutorial Classes
Heaton, H (v Commerce) Director.

ASSOCIATED OR AFFILIATED INSTITUTIONS

S. AUSTRALIAN SCHOOL OF MINES AND INDUSTRIES. President, Hon. Sir L. Bonython. Unites with the Univ. in providing courses and examns. in Mining, Metall., and Engin. The Chancellor is Chairman of the Joint Board.

ROSEWORTHY AGRICULTURAL COLLEGE. Affiliated for parts of the B.Sc. course for Agric. students.

PERTH TECHNICAL SCHOOL. Affiliated to this Univ. as well as to W. Aus. for courses in Phys. Chem., etc.

GENERAL INFORMATION (v. also p. 367)

The Univ. was established by Act of the Provincial Legislature in 1874 with endowments of £40,000 from Sir W. W. Hughes and Sir T. Elder, and a land grant of 50,000 acres (subsequently repurchased by Govt. for £40,000) as well as a site of 5 acres in the city and a recurrent money grant. Sir T. Elder died in 1897 leaving £65,000 to the Univ. In 1911 the State Parliament sanctioned an additional annual grant and took power to appoint 5 additional members of the Council which, until then, consisted of 20 elected by the Senate. In 1914–19 Mr. Peter Waite presented to the Univ. extensive estates including mansion, and in 1920 Sir J. L. Bonython gave £40,000. The annual Govt. grant raised in 1919 by £20,000 is now about £35,000. The value of the endowments amounts to £400,000.

LIBRARY, over 50,000 volumes. LABORATORIES, Biol., Bio-Chem., Bot., Chem., Path., Phys. The Univ. assists in the management of a Public Library, MUSEUM and ART GALLERY, and controls the ELDER CONSERVATORIUM (annual fee, 14 gs.).

FACULTIES. Arts, Science, Law, Medicine, Dentistry, Music, Applied Science (including Staff of S. Aus. School of Mines and Industries).

DEGREES. Obtainable after 3 yrs.' course, B.A., B.Sc., Mus.B.; 4 yrs.', LL.B., B.E., B.D.S.; 5 yrs.', M.B., B.S.

HIGHER DEGREES. Open to bachelors of 2 yrs.' standing, M.A., M.E.; 3 yrs.', D.Sc., LL.D., M.D., M.S., Mus.D.

DIPLOMAS. Applied Science (Mining, Metall., or Engin.—Civ., Elec., Mech., or Archit.), 4 yrs.' course; Commerce (A.C.U.A.) evening courses; Education (post-graduate); Forestry, 2 yrs.'; Music (A.M.U.A.), 3 yrs.'

A "Final Certificate in Law" for admission as a practitioner in the Supreme Court is obtainable by articled clerks on a curriculum less extensive than that for the LL.B.

The Univ. conducts PUBLIC EXAMNS. of various grades, irrespective of those for its own degrees, etc.

SCHOLARSHIPS, etc., for graduates. Angas Engineering, £200 p.a. for 2 yrs., not open to graduates of other Univs.; several smaller.

EXTENSION. Univ. Tutorial classes were established in 1918.

CALENDAR publd. in Feb. Price 2s. 6d.

GRADUATES' ASSOCN. Hon. Sec.—D. H. Hollidge, Box 498, G.P.O.

THE YEAR 1920-21

BENEFACTIONS. Family of late R. Barr Smith, £11,000, endowment for Library; subscriptions, £7000, Foundation for Animal Products research; Mrs. G. A. Jury, £12,000, for Chair in Engl. Lit.

NEW DEPARTMENTS, ETC. Chairs of Engl. Lit. and Zool. founded; full lectureships in Geol., Maths., Physics, and Physical Chem. instituted.

NUMBER OF STUDENTS. Preparing for first degrees, 736; for M.A., 23. Non-graduating students, 541. Conservatorium, 528.

DEGREES CONFERRED. B.A., 17 (including 5 women); B.Sc., 5 (1 woman); B.E, 9; M.B., B.S., 8; LL.B., 9; Mus.B., 1; M.A., 2; M.E., 1; LL.D., 1; D.Sc., 1; M.D., 3.

RETIREMENTS. Prof. W. Howchin, Dr. W. T. Hayward.

UNIVERSITY OF MELBOURNE

VISITOR—H.E. THE GOVERNOR.

CHANCELLOR—Sir J. H. MACFARLAND, M.A., LL.D.

VICE-CHANCELLOR—Sir J. GRICE, B.A., LL.B.

REGISTRAR—J. P. BAINBRIDGE, F.I.C.A., F.C.I.S., J.P.

LIBRARIAN—E. D. ULRICH, M.A.

PROFESSORS, LECTURERS, ETC., September 2, 1921

[(H) = Hon. Lectr.; (E) = Evening Lectr.]

Agriculture

Richardson, A. E. V., M.A., B.Sc. Director of School & Lectr.

Agric. Engineering

Rennie, E. J. C., M.E. Lectr. & Demr.

Anatomy

Berry, R. J. A., M.D., Ch.M., F.R.C.S. Edin. Prof.

Anderson, J. H., C.M.G., C.B.E., M.D. Lectr.

Chenoweth, E. W., M.B., B.S. Stewart Lectr.

Anat., Regional and Applied

Newton, H. A. S., M.B., M.S., F.R.C.S. Eng. Lectr.

Architecture

Gawler, J. S., A.R.V.I.A. Lectr.

Sutherland, G. J., Dip. Arch. Asst.

Alsop, R. H., F.R.I.B.A. Dir. of Atelier.

Irwin, L., A.R.I.B.A. Asst.

Henderson, A. M., M.C.E. (H.)

Bacteriology, v. Med.

Bio-Chemistry

Young, W. J., M.Sc. Manc., D.Sc. Lond. Lectr. & Demr.

Botany & Plant Physiology

Ewart, A. J., D.Sc. Lond. & Ox., Ph.D. Leip., F.L.S. Prof.

McLennan, Ethel, D.Sc. Lectr. & Demr.

Cookson, Isabel C., B.Sc. Demr.

Chemistry, v. also Bio-Chem.

Masson, D. O., C.B.E., M.A., D.Sc. Edin., F.R.S. Prof

Green, W. H., D.Sc. Lectr. & Demr.

Rivett, A. C. D., M.A., B.Sc. Ox., D.Sc. Assoc. Prof.

Hartung, E. J., D.Sc. Lectr. & Demr.

Sugden, Ruth, M.Sc. Demr.

Ampt, G. A., B.Sc. Demr.

Classical Philology

Scutt, C. A., M.A. Prof.

Classics

Kerry, W., M.A. Lectr.

Cornwall, E. W., B.A. (E.).

Dentistry, v. Affiliated Colls

Dutch

Lodewyckx, A., M.A., Litt.D. (Lectr. in German) Instr.

Economics, v. Pol. Econ.

Education

Smyth, J., M.A., D.Phil. Edin. Prof.

McRae, J., M.A., Dip.Ed. Lectr.

Sharman, M. S., M.A., M.Sc. (Maths. & Sc.) Lectr.

Marshall, Ida D., M.A. (Engl. & Hist.) Lectr.

Lawson, R., M.A. (Langs.) Lectr.

Engineering, v. also Agric., Arch., Metall., Mining [Prof.
Payne, H., M.I.C.E., M.I.M.E.
Sexton, C. W. N., B.E. (Civ. E.) Lectr. & Demr.
Kernot, W. N., M. Mech. E., M I.C.E. (Design, &c.) Lectr.
M'Carthy, C. P., B Sc. (Design, &c.) Asst. Lectr. & Demr.
Brown, E. B., M.Sc., A.C.G.I. (Elec. E.) Lectr
Laing, J. A , M.C.E. (Concrete) Lectr.
..... (Surv) Lectr
Millar, S. J., B.E. (Lubrication) Lectr.
Callaway, A. E., C.E. (Roads) Lectr.
Bassett, W. E., B C.E. (Mech. E) Asst Lectr. & Demr

English Lang. and Lit.
Wallace, R. S., M.A. Prof.
Strong, A. T., M.A., Litt.D. Assoc. Prof.
Price, W. T., M.A. Lectr. (E.).

French
Chisholm, A. R., B.A. Lectr.
Rouel, T., B. ès L., O.A. (E.).

Geology and Mineralogy
Skeats, E. W., D.Sc. Lond., A.R.C.Sc., F.G.S. Prof.
Summers, H. St. J., D.Sc. Assoc. Prof.
Chapman, F., A.L.S. (Palæont.) Lectr.
McInerny, K. M. M., M.Sc. Demr. & Asst. Lectr.
Singleton, F. A. (Agric. G.) Lectr.

German
Lodewyckx, A., M.A., Litt.D. Lectr.

Histology and Human Embryol.
Hurley, L. E., M.D., M.S. Lectr. & Demr.

History
Scott, E. Prof.
Webb, Jessie S. W., M.A. Lectr.

Japanese, v. also Logic
Inagaki, M. Asst. Instr.

Law
Moore, W. H., C.M.G., B.A. Camb., LL.B. Lond., LL.D. Prof.
Sproule, W. S., M.A., LL.B. (Contracts, etc.) Lectr.
Mackey, Sir J. E., M.A., LL.B. (Equity) Lectr.
Gregory, R. H., LL.B. (Land, etc.) Lectr.
Maguire, J. R , B.A., LL.B. (Wrongs, etc.) Lectr.

Logic
Smith, T. J., M.A. (also Instr. in Jap.) (E.).

Mathematics, Pure and Mixed
Nanson, E. J., M.A. Camb. Prof.
Mitchell, J. H., M.A. Camb. F.R.S. Lectr.
Weatherburn, C. E., M.A. Camb. & Syd , D.Sc. Syd. (E.).
Gundersen, G., B.Sc. (E.).

Medicine, v. *infra*

Metallurgy
Higgin, A. J., F.I.C. Lectr.
Thompson, P. F. Lect. and Demr.

Mining
Merrin, A. H., M.C.E. Lectr.

Music
Laver, W. A. Ormond Prof.

Natural Philosophy
Laby, T. H., M.A. Camb., D.Sc. Prof.
Love, E. F. J., M.A., D.Sc., F.R.A.S. Lectr. & Demr.
Hercus, E. O., M.Sc. Lectr.
Holmes, W. M., M.A., B.Sc. Lectr. & Demr.
Rossiter, A. L., M.Sc. Demr.
Allen, Natalie C. B., B.Sc. Demr.

Philos., Mental & Moral [Prof.
Gibson, W. R. B., M.A., D.Sc. Ox.
Stewart, J. McK., B.A., D.Phil. Assoc. Prof.

Physics, v. Nat. Phil

Physiology
Osborne, W A., M.B. Belf., D.Ph. Tub, D.Sc. Prof.
Maxwell, L. A. I., M.Sc., B.Agr.Sc., M.B., B.S. (also *Anæsth.*) Lectr. & Demr.
Barrett, Sir J. W., K.B.E., C.B., C.M.G., M.D., M.S., F.R.C.S. Eng. (P. of Spec. Senses) (H)
Brewster, Blanche L. Demr.

Political Economy
Kelly, E. C. W., LL.M. Lectr.
Foenander, O. de R., LL M. (E).

Pub. Health, v. Med.

Spanish
Fernandez, R. C. Instr.

Vet. Sc., v. *infra*

Zoology
Agar, W. E., M.A. Camb., D Sc. Glas., F.R.S. Prof.
Sweet, Georgina, D.Sc. (also Lectr. in Vet. Parasit.) Assoc. Prof.
Buchanan, G. V., D.Sc. Lectr. & Demr.
Raff, Janet W., M.Sc. Demr.

Medicine (for subjects of first 2 yrs.—Anat., etc., v. *supra*)

Anæsthetics
Davies, F. L., M.B, B.S. Lectr.

Bacteriology
Bull, R. J., M.D., B.S. Lectr.
Rennie, Hilda M., M.B., B.S. Demr.

Clinical M. and Clin. Surg.
Staffs of the Melb., Alfred, and St. Vincent's Hospls.

Ethics, Med. [Lectr.
Anderson, A. V. M., M.D., B.S.

Forensic M.
Mollison, C. H., M.B., B.S., M.R.C.S. Eng. Lectr.

Mat. Med. and Pharmacy
Stanton, B. L., M.B., B.S. Lectr.

M. Theory and Practice
Latham, L. S, M D, B.S, M.A. Stewart Lectr.

Obst. and Gynæc.
Morrison, R. H, M.D., C.M Lectr.

Pathology [Prof.
Allen, Sir H. B., M.D., B.S, LL.D.
Apperly, F. L, M.A., B M, B.Ch. Ox, M.R C.S., L.R C.P. Lond. Lectr.
Tait, J. T, M.D., B.S. Stewart Lectr.
Thomas, D J, M D Demr.

Pub. Health [Lectr.
Sinclair, T. W., M.D., B.S., D.P.H.

Surgery
Kilvington, B., M.D., M.S. Stewart Lectr.

Therapeutics
Turnbull, H. H., M.D., B.S. Lectr.

Veterinary Science, v. also Biol.
Woodruff, H. A., M.R.C.V.S., M.R.C.S.Eng., L.R.C.P.Lond. Prof.

V. Anat. and Surg.
Lewis, J. C., D.V.Sc., B.Sc., M.B., B.S. Lectr.

V. Hygiene and Diet.
Cameron, S. S., D.V.Sc., M.R.C.V.S. Lectr.

V. Med. and Obst.
Bordeaux, E. F. J., B.V.Sc., G.M.V.C. Lectr.

V. Path., Bact., and Pharm.
Seddon, H. R., D.V.Sc. Lectr.

University Extension
Atkinson, M., M.A., Prof., Dir. of Tutorial Classes.

AFFILIATED COLLEGES (v. also p. 367)

I.—RESIDENTIAL—Controlled by representatives of the Churches but open to members of all religious denominations:

TRINITY COLLEGE (Church of England). Warden, J. C. V. Behan, M.A., LL.B., B.C.L. Ox.

ORMOND COLLEGE (Presbyterian). Master, D. K. Picken, M.A. Camb., Glas., and Melb.; Vice-Master, H. W. Allen, M.A.

QUEEN'S COLLEGE (Methodist). Master, Rev. E. H. Sugden, B.A., B.Sc. Lond., Litt.D.

NEWMAN COLLEGE (R.C.). Rector, V. Rev. A. Power, S.J., M.A.

COLLEGE LECTURES (excluding those on Univ. staff). *Chemistry*—Campbell, F. H., D.Sc. *Classics*—Vice-Master of Ormond; Lothian, Miss E. I., M.A. *English*—Master of Queen's. *French and German*—Wood, Mrs. E., B.A. *History*—Clyne, T. S., M.A.; Hoy, Miss A., M.A. *Law*—Warden of Trinity. *Logic and Philos.*—Flinn, Miss I. M., B.A. *Maths. and Physics*—Master of Ormond; Nelson, Miss E., M.Sc. *Med. and Surg.*—Morgan, F. G., M.B. *Theology*—Albiston, A. E., M.A.; Nance, F. J., M.A.; Grove, J. W., M.A.

II. AUSTRALIAN COLLEGE OF DENTISTRY. President, The Chancellor. Superintendent, F. A. Aird, L.D.S., B.D.Sc. Other Lecturers (excluding those on Univ. staff): Finlay, G. (Op. D.); Greenwood, E. F., D.D.Sc. (Mat. Med.); James, W. A., M.D. (Or. Surg.); Lewis, J. M., D.D.Sc. (D. Surg., etc.); Nicholls, E. B., D.D.Sc. (D. Anat.); Pritchard, G. B., D.Sc. (Met.); Robertson, A. W. D., M.D., B.S. (Anat.); Springthorpe, J. W., M.A., M.D. (Med.); Tuckfield, W. J. (D. Mech. and Met.); Wilkinson, W. S., L.D.S., D.D.S. (Orth.).

GENERAL INFORMATION (v. also p. 367)

The Univ. was founded in 1853 by Act of the Victorian Legislature. In 1904 the annual grant of £9000 was increased by £11,000, enabling the Mining and Agric. Depts. to be developed. At the same time 3 Parliamentary Members were added to the Council of 20 elected by the Senate. In 1909 a further annual grant of £4200 was sanctioned for a Vet. School. In 1920 the invested Trust funds amounted to £185,000, Govt. grants £37,000, fees £64,000, and expenditure on salaries £68,000. The grounds, 104 acres, include four 10-acre College sites surrounding a recreation ground of 16 acres.

LIBRARY, including the Med. and Chem. Departs., 45,000 vols. MUSEUMS AND LABS., Anat., Biol., Engin., Geol., Path. (15,000 specimens), Vet. LABORATORIES, Agric., Bact. (investigations undertaken for Govt. Hospitals and Med. practrs.), Chem., Dent., Metall. and Mining (with 3 head stamp battery), Physics, Physiol. VET. RESEARCH INSTITUTE. Werribee RESEARCH FARM.

FACULTIES. Arts, Sc., Law, Med., Dent., Vet. Sc., Engin. (including Archit., Metall., Mining), Agric. Conservatorium of Music (Director).

DEGREE COURSES: 3 yrs.—B.A. (ordy. and with Honrs.), B.Sc., Mus.B.; 4 yrs.—B.Sc. (Honrs.), LL.B., B.D.Sc., Lic.V.Sc., B.V.Sc., B.C.E., B.M.E., B.E.E., B.Mech.E., B.Agric.Sc.; 5 yrs.—M.B., B.S.

The first 2 years for the LL.B. may be those of the Arts course. The 2nd year of the B.Agr.Sc. course is passed at Werribee Research Farm.

HIGHER DEGREES. Open to Bachelors of 1 yr.'s standing—LL.M., M.V.Sc.; 2 yrs.'—M.A., M.Sc., M.D., M.S., D.D.Sc., M.C.E., etc.; 3 yrs.'—D.V.Sc.; 4 yrs.'—D.Litt., D.Sc., LL.D.; 5 yrs.'—D.Eng.; 6 yrs.'—Mus.D.

DIPLOMAS (which except Dip.Ed. can be taken without Matricn.): Educn., 3 yrs.' course which may include 2 yrs. of the course for any degree in the Univ.; Analyt. Chem., 9 mos. following Final Hons. in Chem.; D.P.H., open to Med. grads. of Melb. of 1 yr.'s standing and persons who have for 1 yr. been qualified for registration as Med. practr. in U.K., 9 mos.; D.T.M., open to Aus. Med. practrs. of 1 yr.'s standing, 3 mos.; Metall. or Mining, 3 yrs.; Archit., 4 yrs.; Agric., 3 yrs., of which the 3rd is spent at an Agric. Coll.

The Act of 1904 provided for the admission without fee of at least 80 students for 4-yrs.' courses in Mining and Agric. Each year 20 teachers of the Educn. Dept. are admitted without fee to the Diploma course, and special concessions in fees are made to all certif. teachers and students of Training Colls. who are candidates for the Dip.

SCHOLARSHIPS, ETC. Aggregate annual value about £7500. Among the more important are £100 in Pathology, £100 for Econ. Research, £100 (for 2 yrs.) in Geol. and in Vet. Anat., £100 in Anat., £100 for Scientific Research.

RESIDENCE. The Affiliated Colls. (v. *supra*) accommodate over 400 resident students.

PUBLIC EXAMINATIONS. School Intermediate and School Leaving are held by the Univ. annually in Dec.; the Intermediate qualifies for entry into the State Public Service, the School Leaving certif. qualifies for matricn. The Univ. also arranges for the Inspection of Secondary Schools with a view to recognition of Headmasters' Certifs. in connexion with the Public examns.

PUBLICATIONS. *Calendar*, 3s. net., includes list of publicns. by members of staff; *Univ. Mag.*; *Univ. Review*; *Speculum* (Med. Students' Journal); *Examn. Papers*, 1s.; *Handbook of Pub. Examns.*, 1s.; *Short Guide to the Univ.*; *Conservatorium Prospectus*; *Syllabus of Pub. Examns. in Music.*

THE YEAR 1920–21

BENEFACTIONS. Appeal resulted in gifts aggregating about £49,000.

NUMBER OF STUDENTS (1918, 1919, 1920). Total (except Music), 1319, 1840, 2366, including women, 420, 443, 478; evening, 89, 128, 167; research, 3, 11, 10; full degree course, 1244, 1782, 2181.

DEGREES CONFERRED (1920–21). B.A. and B.Sc., 119; LL.B., 25; M.B. and B.S., 62; B.C.E., M.E., E.E., and Mech. E., 15; Mus.B., 3; B.D.Sc., 18; B. Agr. Sc. and B.V.Sc., 4; M.A. and M.Sc., 41; LL.M., 7; M.S. and M.Vet.Sc., 3; M.C.E., etc., 1; D.Litt., LL.D., and D.Sc., 3; M.D., D.V.Sc., and D.D.Sc., 16.

RETIREMENTS. Lecturers: Sir H. C. Maudsley, F. D. Bird, G. Horne, G. Higgins, J. T. Lupson.

MIGRATION. Eight graduates proceeded to Europe for further study, to Oxford 3, Manc. 2, Lond. 1, Dub. 1, France 1.

UNIVERSITY OF QUEENSLAND, BRISBANE

CHANCELLOR—Hon. Sir POPE A. COOPER, K.C.M.G., M.A., Chief Justice of Queensland.

VICE-CHANCELLOR—Hon. A. J. THYNNE, M.L.C.

REGISTRAR AND LIBRARIAN—F. W. S. CUMBRAE-STEWART, B.A., B.C.L. Ox., Barr.-at-Law.

PROFESSORS, LECTURERS, ETC., November 22, 1921

Biology

Cayzer, A., B Sc. Syd. Lectr.
Walker, Mavis J., M.Sc. Adel. (Tempy.) Sr. Demr. & Asst. Lectr.

Chemistry

Steele, B. D., D Sc. Melb, F I.C., F.R.S. Prof.
Bagster, L. S., B.Sc. Melb. (Applied C.) Lectr.
Jones, T. G. H., B.Sc. Syd., A.I.C. Lectr.

Classics

Michie, J. L., M.A. Camb. Prof.
Castlehow, S., M.A. Ox. Lectr.

Engineering

Hawken, R. W. H., B.A., M.E. Syd., M I.C.E. Prof.
Boyd, A, D.Sc. Lond., B.E, M.I.E.E., A.M.I.C.E. Lectr. (Mech. & El. E.).

Sr. Demrs. & Asst. Lectrs. :
Munro, A. R., A.M.I.M.E.
Ross, C. N., M.Sc., B.M.E. Melb.

English, French, and German

Stable, J. J., M.A. Camb. Lectr.
Kirwood, A. E. M., M.A. Melb. (Tempy.) Lectr.
Schindler, C., M A. (Tempy.) Lectr.

Geology and Mineralogy

Richards, H. C., D.Sc. Melb. Prof.
Bryan, W. H., M.Sc. Lectr.

History and Economics

Alcock, H., M.A. Ox. Lectr.
Melbourne, A C. V., B.A. Adel. Lectr. in Econ. and Colonial H.

Mathematics

Priestley, H. J., M.A. Camb. Prof.
Priest, H. J., B A., B.Sc. Adel. Lectr.
Swanwick, K. Ff., B.A., LL.B. Syd. Evening Lectr.

Medical Psychology

..... Research Prof.

Philosophy

Mayo, G. E., B.A. Adel. Prof.
Edwards, L. D., M.A. (Tempy.) Lectr.
Flinn, Miss I. M., M.A. Melb. (Tempy.) Lectr.

Physics

Parnell, T., M.A. Camb. Prof.
Lusby, S. G., M.A. Syd. Lectr.
Rimmer, T., M.Sc. Manc. Sr. Demr. & Asst. Lectr.

Correspondence Studies

Jones, T. E, B.A. Syd. Director.
Darvall, Annie E., B.A. (Tempy.) Asst.

RECOGNIZED RESIDENTIAL COLLEGES

EMMANUEL (Presb.). Principal—R. Glaister, M.A., D.D.

ST. JOHN'S (C. of E.). Warden—Rev. W. H. W. Stevenson, M.A. Syd.

KING'S (Methodist). Master—L. E. Bennett, M.A., B.D.

ST. LEO'S (R.C.). Rector—Rev. E. Barry.

WOMEN'S (includes unmatriculated students). Principal—Freda Bage, M.Sc. Melb., F.L.S.

GENERAL INFORMATION (v. also p. 367)

The Univ. was established by an Act of the local legislature in 1909. The entire management and control are in the hands of a Senate of 20 members, of whom 10 were appointed by the Government and 10 were elected by the Council (consisting of all members and past members of the Senate, graduates of the Univ. of 3 yrs.' standing, persons appointed by the Govt. as representatives of Commercial, Industrial, Scientific, etc., Assocns., benefactors, etc). The annual grant from Govt. was £10,000 until 1917, when it was raised to £15,000. Under the will of the late Sir Samuel McCaughey, the Univ. will receive an annual income of about £7500.

The grounds, facing the Brisbane River and adjoining the Botanical Gardens, include, in addition to the main building and recreation grounds, 6 departmental buildings and the Central Technical College.

LIBRARY, 19,000 vols. LABORATORIES: Biol., Chem., Applied Chem., Engin., Geol., Metall. and Assaying, Physics.

FACULTIES. Arts, Science, Law, Medicine, Engineering.

DEGREE COURSES. 3 yrs.—B.A., B.Sc.; 4 yrs.—B.Sc. (Applied) in Industrial Chem., B.E. in Civ., Mech. and Elec., or Mining Engin.

A Diploma Course in Mech. and Elec. Engin. (may be followed in any approved Coll. or Instn.), 4 yrs.; a Diploma course of at least 2 yrs. for persons who have had 3 yrs.' practical experience of Journalism.

HIGHER DEGREES. M.A. and M.Sc., open to B.A. and B.Sc. of 2 yrs.' standing, through examn. (M.A., examn. and thesis). M.E., open to B.E. of 3 yrs.' standing, 25 yrs. of age, engaged in professional work. D.Sc. open to M.Sc. of 5 yrs.' standing by examn. and thesis.

EVENING LECTURES AND EXTERNAL STUDENTS. Evening students may extend their course over 5 yrs. in Arts and Sc. No evening work in Engin. subjects is done, but by 5 yrs. of evening work elsewhere exemption from the first 2 yrs. of the B.E. course may be obtained.

Persons who having matriculated are unable to attend lectures at or in connexion with the Univ. may pursue certain courses under the guidance of the Director of Correspondence studies. They may thereby, provided they pass the prescribed examns. (which may be held at local centres), qualify for a B.A. degree.

ADULT MATRICULATION.—Candidates who have attained the age of 25 yrs. may be admitted to matricn. in the Faculties of Arts and Science upon passing a special examn.

SCHOLARSHIPS, ETC., FOR GRADUATES. 2 gold medals offered by Govt. for distinction at graduation; £100 for 2 yrs. for Chem. Research; £200 for 1 yr. for Engin. work; £250 for study outside Australasia; £300 for 3 yrs. (W. and E. Hall Foundation), of which 2 to be spent abroad in Engin. Research; £500 for 2 yrs. in Econ. Biol.

RESIDENCE. Undergraduates are required to reside with their parents or approved friends or a tutor or in a recognized Residential Coll. or boarding-house licensed by the Senate. Fees in the Colleges, including residence, commons, and tuition, 20 gs. a term (Women's £20, St. Leo's £20).

PUBLICATIONS *Calendar*, 2s 6d.; *Manual of Pub. Examns.*, 1s.

THE YEAR 1921

NEW POSTS Research Prof. of Med. Psychology, Lectr. in Engin., Senr. Demr and Asst. Lectr in Physics.

CHANGES IN REGULATIONS, ETC Adult Matricn.; Diploma for Journalism.

DEGREES CONFERRED B.A. 22 (including 10 women); B.Sc., 17 (women 3); B.Sc App., 1; M.Sc., 12 (1 woman); B.E., 2; M.E., 1.

NUMBER OF STUDENTS, Matriculated: Day—Arts, 72, including 45 women; Sc., 47 (women 14); App. Sc., 7; Engineering, 45; Evening—Arts, 27 (women 4); Sc., 14; External—Arts, 45 (women 6); non-matric., 58 (women 6).

RETIREMENTS. H. G. Denham, P. A. Seymour, T. H. Johnston (appointed Prof. in Adel.).

PUBLIC EXAMNS., 1921. Junr. Candidates, 1288; Senr., 271.

UNIVERSITY OF SYDNEY

VISITOR—H.E. THE GOVERNOR.

CHANCELLOR—Hon. Sir WILLIAM PORTUS CULLEN, K.C.M.G., M.A., LL.D., Chief Justice of N.S.W.

VICE-CHANCELLOR—F. LEVERRIER, B.A., B.Sc., K.C.

WARDEN AND REGISTRAR—H. E. BARFF, M.A.

LIBRARIAN—H. M. GREEN, B.A., LL.B.

PROFESSORS, LECTURERS, ETC., December 7, 1921

Accountancy, v. Com.

Agriculture

Watt, R. D., M.A., B.Sc. Prof.
Wright, G. (A. Chem.) Lectr.
Froggatt, W. W., F.L.S. (A. Entom.) Lectr.
Maiden, J. H., F.R.S. (A. Bot., also Forestry) Lectr.
Baker, R. T., F.L.S (Forestry) Lectr.
Wolstenholme, E. K., F.L.S. (Fruit Culture) Lectr.

Anatomy

Maguire, F. A., M.B., Ch.M., F.R.C.S. Actg. Prof.
Hunter, J. I., M.B., Ch.M. Assoc. Prof.
Coen, B. J., M.B. Lectr. & Demr.
Burkitt, A. N. St. G. H., M.B. Lectr. & Demr.
Poate, H. R. G., M.B., Ch.M., F.R.C.S. Eng. Demr.
Darling, H. C. R., M.B., M.S. Lond., F.R.C.S. Eng. Demr.
Storey, J. C., O.B.E., M.B., Ch.M., F.R.C.S. Demr.
Teece, L. G., M.D., Ch.M. Demr.
Edye, B. T., M.B., Ch.M., F.R.C.S. Demr.
Fisher, E. M., M.B., Ch.M. Demr.
Wassell, C. E., M.B., Ch.M. Demr.
Dark, E. P., M.B., Ch.M. Demr.
M'Kee, J., M.B., Ch.M. Demr.
Silverton, R. J., M.B., Ch.M. Demr.

Architecture

Wilkinson, L., A.R.I.B.A. Prof.
Hennessy, J. F. (Construction.) Lectr.
Coffey, A. (Freehand Dr.) Instr.
Moore, J. D. (Design) Lectr.
Berry, J. L. (Med. Arch.) Lectr.
Harris, R. K., A.R.I.B.A. (Town Planning) Lectr.

Astronomy

Cooke, W. E., M.A. Prof.
Furber, T. F. (Geodesy & A.) Lectr.

Botany, v. also Agric.

Lawson, A. A., D.Sc. Prof.
McLuckie, J., M.A., B.Sc. Lect. & Demr.
Brough, P., M.A., B.Sc., B.Sc.Agr. Lectr. & Demr.
Keys, R. A., B.Sc. Demr.
Way, A. J. Demr.

Chemistry

Fawsitt, C. E., D.Sc. Edin., Ph.D. Leip. Prof.
Schofield, J. A., A.R.S.M., F.I.C. Assoc. Prof.
Brereton, E. Le G., B.Sc. Lectr. & Demr.
Burrows, G. J., B.Sc. Lectr. & Demr.
4 other Demrs.

Chem., Assaying and Metall.
Eastaugh, F. A., A.R.S.M., F.I.C. Asst. Prof.

Chem., Organic, Pure and Applied
Read, J., M.A. Camb., B.Sc. Lond., Ph.D. Zur. Prof.
Harker, G., D.Sc. Lond. Lectr. & Demr.
Earl, N. C., B.Sc. Adel.; Ph.D. St. And. Lectr.
Hurst, E., B.Sc Demr.

Classics
Woodhouse, W. J., M.A. Ox. (Greek) Prof.
Tucker, T. G, C M.G., Litt.D Camb Actg. Prof.
Todd, F. A., B.A., Ph.D. Jena (Latin) Prof.
Powe, A. B., B.A. (Latin) Lectr.
Fraser-Hill, Charlotte E, B.A. (Latin) Lectr.

Commerce, v. also Econ.
Carter, G. P., A.C.A. (Acctcy.) Lectr.
Moors, E. M., M.A. (Actuarial Maths.) Lectr.
Allard, G. M. (Banking) Lectr.
Braddon, Sir Henry, K.B.E., M.L.C. (Business) Lectr.
Russell, F. A. A., M.A. (Com. & Indust. Law) Lectr.

Dentistry
Reading, R. F., M.R.C.S., L.R.C.P., L.D.S. Eng. Prof.
Deck, E., D.D.S. (Mech. D.) Lectr.
Marshall, F., D.D.S. (Mech. D.) Lectr.
Lyell, A. L., D.D.S. (Clin. D.) Lectr.
Ash, P. A., D.D.S. (Surg. D.) Lectr.
Smith, Donald (Surg. D.) Lectr.
Charlton, P. C., L.D.S., D.M.D. (Dental Mat. Med.) Lectr.

Economics
Irvine, R. F., M.A. Prof.
Mills, R. C., LL.M., D.Sc. Lectr.
Portus, G. V., B.Litt. Ox., M.A. (E. Hist.) Lectr.
Bland, F. A., M.A., LL.B. (Pub. Admn.) Lectr.
Watts, P. R., B.A., LL.B. (Pub. Admn.) Lectr.
Guthrie, F. B., F.I.C. (Tech. of Com. Products) Lectr.
Hodgson, C. A., M.A. (Transport) Lectr.
Jefferson, H. G. (Transport) Lectr.

Education
Mackie, A, M.A. Prof.
Cole, P. R., M.A., Ph.D. Col. Lectr.
Roberts, T. T., M.A. Lectr.
Cameron, R. G., M.A. Lectr.
Phillips, G., M.A., D.Sc. (Exper. E.) Lectr.

Engineering, v. *infra*

English Language
Holme, E. R., O.B.E., M.A. Prof.

English Literature [Hon. Prof.
MacCallum, M. W., M.A., LL.D.
Le Gay Brereton, J., B.A. Prof.
Waldock, A. J. A., B.A. Lectr.

Forestry, v. Agric.

French
Nicholson, G. G., C.B.E., B C.L. Ox., M.A. Prof.
Marks, Gladys, B.A. Asst. Lectr.

Geodesy, v. Astron.

Geography [Assoc. Prof.
Taylor, T. G., D.Sc., B.E.

Geology and Phys. Geog.
David, Sir T. W. E., K.B.E., C.M.G., B.A., D.Sc. Ox., F.R.S. Prof. & Hovell Lectr.
Cotton, L. A., M.A., D.Sc. Asst. Prof.
Browne, W. R., B.Sc. Lectr. & Demr.
Waterhouse, L. L., B.E. Lectr. & Demr.
Powell, Dorothy E., B.Sc. Demr.
Peart, Mary M., B.Sc. Demr.
Toone, Dorothy A., B.Sc. Demr.
Sharpe, Flora L., B.Sc. Curator.
Dun, W. S. (Palæont.) Lectr.

German
Brennan, C. J., M.A. Assoc. Prof.

History, v. also Econ.
Wood, G. A., M.A. Ox.
Challis Prof.
Bruce, J. F., B.A. Ox., M.A. Lectr.

Law, v. *infra*

Logic and Mental Philos.
Anderson, F., M.A. Glas.
Challis Prof.
Lovell, H. T., M.A., Ph.D. Jena (Psychology) Assoc. Prof.
Martin, A. H., M.A., Ph.D. Col.
Lectr.

Mathematics, Pure and Applied
Carslaw, H. S., M.A., Sc.D. Camb., D.Sc. Glas. Prof.
Lyons, R. J., M.A. Camb., B.A.
Lectr.
Wellish, E. M., B.A. Camb., M.A. (Appl. M.) Lectr.
Thorne, H. H., B.A. Camb., B.Sc.
Lectr.
Simonds, E. F., B.A., Ph.D.
Lectr.

Medicine, v. *infra*

Metallurgy, v. also Chem.
Turner, B. W., A.R.S.M.
Russell Lectr.

Mining
Power, F. D., F.G.S. Russell Lectr.

Oriental Studies
..... Prof.
Okada, R. (Japanese) Instr.
Yii, W. H. (Chinese) Instr.
Thatcher, G. W., M.A., B.D. (O. Hist.) Lectr.

Philosophy, v. also Logic
Muscio, B., M.A. Challis Prof.

Physics
Pollock, J. A., D.Sc., F.R.S. Prof.
Vonwiller, O. U., B.Sc. Assoc. Prof.
Mackay, I. G., C.M.G., B.A.
Lectr. & Demr.
Booth, E. H., B.Sc. Lectr. & Demr.
Briggs, G. H., B.Sc. Lectr. & Demr.
3 other Demrs.

Physiology
Chapman, H. G., M D., B.S. Prof.
Priestley, H., M.D., Ch.M., B.Sc.
Assoc. Prof.
Horsfall, W. N., M.B., B.S.
Lectr. & Demr.
Cotton, F. S., B.Sc. Lectr. & Demr.
McQuiggin, H. G., B.Sc.
Lectr. & Demr.
Wardlaw, H. S. H., D.Sc.
Lectr. & Demr.
Dixon, J. R., M.R.C.S. Demr.
Hindmarsh, Ellen M., B.Sc.
Lectr. & Demr.
Ingram, W. W., M.D., B.Ch.
Demr.

Public Health
Sutton, Harvey, M.D., Ch.B., D.P.H. Melb., B.Sc. Ox.
Lectr.

Surveying [Russell Lectr.
Craig, A. D., B.A., B.E.

Veterinary Science, v. also Zool.
Stewart, J. D., M.R.C.V.S., B.V.Sc. Prof.
Dodd, S , F.R.C.V.S., D V.Sc. Melb. (Path., etc.) Lectr.
Walters, C. J. M., B.V.Sc. (Mat. Med., etc.) Lectr.
Gunn, R. M. C., B.Sc. (Agr.), Birm. & Syd., M.R.C.V.Sc. (Surg. & Anat.) Lectr.
Symons, S. T. D., M.R.C.V.S. (State Vet. San. Sc.) Lectr.

Zoology, v. also Agric.
Johnston, S. J., B.A., D.Sc.
Challis Prof.
Harrison, L., B.A., B.Sc. (Lectr. in Vet. Parasit.) Lectr. & Demr.
Briggs, E. A , B.Sc. Lectr. & Demr.
Chase, Eleanor E., B.Sc. Demr.
Nicholson, A. J., M.Sc. (Entom.)
Lectr.

Engineering, v. also Mining

Warren, W. H., M.I.C.E., LL.D. Challis Prof.
Miller, W. A., B.Sc., M.E. (Civ. E.) Lectr. & Demr.
Chapman, R. H., B.E. Lectr. & Demr.
Sams, E. V., B.E. Demr.
Lewis, A. R, B.E. Demr.
Debenham, A. J., B.E. Lectr.
Larkins, H. M., B.E. Lectr.
Carleton, G. B, B.E. Lectr.
Vicars, J., M.E. Lectr.

Electrical E.
Madsen, J. P. V., B.E., D.Sc. Adel. Russell Prof.
Sharp, L. H., B.Sc., B.E. Lect. & Demr.
Campbell, E. F., B.E. Lectr & Demr

Mechanical E.
Barraclough, Sir S. H. E, K.B E., M.M.E. Corn., B.E, M.I.M E, M.I.C.E. Russell Prof.
Swain, H J., B.A., B.Sc., B.E. Lectr.
Sutherland, G. F., A.R.C.S. Lectr. & Demr.
Gibson, W. H. H., B.Sc., B.E. Lectr. & Demr.
May, H. W., B E. Demr.

Law, v. also Com.

Peden, The Hon. J. B., M.L.C., B.A., LL.B. Challis Prof.

International Law & Jurispr.
Charteris, A. H., LL.B. Challis Prof.

Contracts, Merc. Law, Torts
Hammond, J. H., B.A., LL.B. Challis Lectr.

Equity, Probate, etc.
Hooton, J. R., B.A. Ox. and Syd. Challis Lectr.
McDonald, E. F., LL.B. Lectr.
Davidson, C. G., B.A., LL.B. (Lectr. in Divorce) Reader.

Crim. Law & Proc. & Common Law Practice
Edwards, D. S., B.A., LL.B. Challis Lectr. & Reader.

Interpretation [Challis Lectr.
Street, K. W., B.A., LL.B.

Roman Law [Challis Lectr.
MacCallum, M. L., M.A., B.C.L.

Conveyancing
Watts, P. R., B.A., LL.B. Reader.

Medicine (for subjects of the first 2 yrs.—Anat., etc , v. *supra*)

Anæsthetics
Lidwill, M. C., M.D. Tutor.
Holmes à Court, A. W, M.D., Ch M. Tutor.

Diseases of Ear, Nose, Throat
Marks, H. J , M.A., M.D. Lectr.

Diseases of the Skin [Lectr.
Molesworth, E. H., M.B , Ch.M.

Ethics of Med. Pract.
..... Lectr.

Gynæcology
Barrington, F., M.B., Ch.M. Edin., F.R.C.S. Eng. Lectr

Infectious Diseases [Hon. Tutor.
Millard, R. J., M.B., Ch.M

Materia Med.
Macpherson, J., M.A., M.B., Ch.M., B.Sc. Lectr.
Stroud, S. H., F.I.C. Lectr. & Demr. in Pharmacy.

Medical Jurispr. [Lectr.
Todd, R. H., B.A., M.D., Ch.B.

Med., Principles, etc.
Mills, A. E., M.B., Ch.M. Prof.

Medicine, Clinical [Lectr.
Rennie, G. E., B.A., M.D., F.R.C.P.
Gillies, S., M.A., M.D. Lectr.
Blackburn, C. B., O.B.E., M.D., Ch.M. Lectr.
Gill, J. M., M.D., L.R.C.P., M.R.C.S. Lectr.

Med. Tutors
Cosh, J. I. C., M.B., Ch.M.
Smith, S. A., M.B., Ch.M.
Ritchie, H. J., M.B., Ch.M.

Obstetrics [Lectr.
Windeyer, J. C., M.B., Ch.M.

Ophthalmology
Waddy, R. G , M.B., Ch M. Lectr.

Pathology
Welsh, D. A., M.A., B.Sc., M.D., F.R.C.P. Edin. Prof.
Barling, J. E. V., M.B., Ch.M. Lectr. & Chief Demr.
Little, E. Marjory, M.B. Demr.
Edye, B. T. (v. Anat.) Demr.
Inglis, W. K., M.D., Ch.M. Demr.
Walker, A. S., M.B., Ch.M. Hon. Demr.

Pharmacy, v. Materia Med.

Psych. Med.
Davidson, A., M.D. Lectr.

Public Health, v. *supra*

Surgery, Principles, etc. [Prof.
Sandes, F. P., M.D., Ch.M., B.Sc.

Surg., Clinical
MacLaurin, C., M.B., Ch M. Lectr.
Abbott, G. H., B.A., M.B., Ch.M. Lectr.
Craig, R. G., M.B., Ch.M. Lectr.
Maitland, Sir Herbert L., M.B., Ch.M. Lectr.

Surg. Tutors
McKelvey, J. L., M.B., Ch.M.
Aspinall, A. J., M.B., Ch.M.

University Extension
Mackay, I. G., C.M.G., B.A. Secy. to the Board.
Portus, G. V. (v. *supra*, Econ) Dir. of Tutorial Classes
Bland, F. A. (v. *supra*, Econ.) Asst. Director.

COLLEGES WITHIN THE UNIVERSITY

St. Paul's College (Anglican). Warden—A. H. Garnsey, M.A., Lectr. in *Div.* and *Classics*. Sub-Warden—L. B. Heath, B.A., Lectr. in *Classics*. Lectr. in *Med.*—H. J. Clayton, M.B., Ch.M. *Philos.*—R. S. Lee, B.A. *Science*—F. H. H. Wilson.

St. John's College (R.C.). Rector—Very Rev. M. J. O'Reilly, Lectr. in *Christian Apologetics*. Vice-Rector—E. Sheehy, B.A. Other Lectrs.: *Med.*—H. M. Moran, M.B., Ch.M. *Scholastic Philos.*—Rev. P. Dalton. *Hist.*—P. J. Sheehy.

St. Andrew's College (Presb.). Principal—E. E. Anderson, M.A. Aberd. Vice-Principal—A. L. Campbell, B.A., B.E. Secretary—S. J. Carruthers. Hunter-Baillie Profs.: *Oriental and Polynesian Langs.*—A. Harper, M.A., D.D. *Engl. Lang. and Lit.*—R. G. Macintyre, M.A., B.D. Lectrs.: *Law*—R. I. Kay, B.A., LL.B. *Maths.*—The Vice-Principal. *Med.*—E. M. Fisher, M.B., Ch.M. *Science*—G. H. Clarke, B.Sc. (*Biol.*); A. A. Pain, B Sc., M.B., Ch.M. (*Phys. and Chem.*). *Classics and Philos.*—The Principal. *Engin.*—The Vice-Principal.

Wesley College (Methodist). Master—M. Scott Fletcher, M.A. Syd., B.Litt. Ox. Tutors: *Philos.* and *Class.*—The Master; *Physics*—L. A. Basser, B.Sc. 3 Tutors in *Med.*

The Women's College. Principal—Miss S. J. Williams, M.A.

GENERAL INFORMATION (v. also p. 367)

Founded by Act of the N.S.W. Legislature in 1850, the Univ. was granted a Royal Charter in 1858. Its development has been largely due to private benefactions, notably those of J. H. Challis—£250,000—in 1880, T. Fisher—

£30,000 for Library—in 1885, and P. N. Russell—£100,000 for School of Engineering, etc.—in 1896 and 1904. Under the will of Sir S. McCaughey it will receive £15,000 p.a. In 1912 the Statutory endowment was raised from £10,000 to £20,000 with provision for further automatic increases, and at the same time the constitution of the governing body, called the Senate, was altered so as to include 6 nominees of the Govr. and Parliament (one-fourth of the whole number). In 1917–18 the Statutory endowment was further increased by £32,000, including £2000 for the new School of Architecture. The Private Foundations cash balances amounted in 1918 (*i.e.* before receipt of the McCaughey Bequest) to nearly £600,000, Govt. grants to £66,000, fees £32,000, expenditure on salaries £115,000, including £12,000 from the Challis Fund, and £7000 from the McCaughey Fund. The grounds, which include the sites of the Colleges grouped round an oval, cover 140 acres.

Provision was made by Act of Parliament soon after the foundation of the Univ. for endowing such Colleges as might be established within it, to the extent of £20,000 in aid of building and £500 p.a. towards the Principal's salary.

The LIBRARY, 120,000 vols., receives over 700 serial publications. MUSEUMS: Nicholson collection of Egyp., Greek, Roman, and Medieval Antiq. (4000 specimens); Macleay Nat. Hist.; Anat., Geol., and Zool. LABORATORIES: Schools of Med., Engin., and Archit., Bot., Chem. (including Metall. and Research), Geol. (with rock analysis Research), Phys., Zool.

The ROYAL PRINCE ALFRED HOSPL., erected on the Univ. grounds as a general hospl. and school, has 518 beds.

FACULTIES. Arts, Law, Med., Science, Engin., Dent., Vet. Sc., Agric., Econ., Archit.

DEGREE COURSES: 3 yrs.—B.A., B.Sc.; 4 yrs.—B.Arch., B.Sc. in Agric. (3 for diplomate of recog. Agric. Coll.), B.Ec., LL.B. (after completing 1st yr. in Arts or passing Law Entrance Examn.), B.D.S., B.V.Sc., B.E. (in Civ. Mining and Metall., or Mech. and Elec.); 5½ yrs.—M.B., B.S.; 2 yrs.' advanced study or research (after full 3 yrs.' course at another Univ.)—B.A. or B.Sc. The LL.B. qualifies conditionally for admission to the bar. Law students usually take the B.A. first, selecting Law subjects in 3rd yr., and complete combined course in 5 or 6 yrs., thereby gaining concessions in regard to periods of studentship and service as articled clerk.

HIGHER DEGREES. Obtainable by bachelors of 2 yrs.' standing—M.A., M.Ec., LL.D., M.D., M.S.; 3 yrs.—D.Sc., M.E.

DIPLOMAS. Educn. (for graduates in Arts or Sc.), 1 yr.'s course; Econ. and Comm., 3 yrs.; D.P.H.; D.T.M.

Candidates for the Diploma of the Pharmacy Board have to attend courses in the Univ.

RECOGNITION OF STUDIES ELSEWHERE. A considerable portion (in Med. 3 yrs.) of the curriculum for a Degree must be taken in Syd.

SCHOLARSHIPS, ETC., FOR GRADUATES. Junior Demrs. are appointed annually in each Scientific Dept. with the obligation to carry out research under the direction of the Prof.; 6 post-grad. Scholarships of £150 each and 2 of £300 are awarded annually for scientific study and research in the Univ.; 4 Macleay Fellowships of £400 p.a. each are tenable by B.Sc.'s; 4 others of £300 p.a., and 2 Scholps. of £250 p.a., tenable for 2 yrs., are awarded annually for further study and research at Syd. or abroad.

RESIDENCE. The four denominational Colls. (v. *supra*) provide accommodation for 180 students; the Women's Coll. for 28.

UNIVERSITY EXTENSION LECTURES are given in courses of from 3 upwards in Sydney and numerous local centres. *Tutorial Classes* are provided, as prescribed by the Act of 1912, under the superintendence of a Joint Committee of the Univ. and Workers' Educl. Assocn. of N.S.W. In 1920 the Govt. grant for this purpose was £5370; 37 classes were at work, including 800 effective students.

ADULT MATRICULATION. Persons who have attained the age of 25 yrs. may be admitted as matriculated students in the Faculties of Arts, Science, and Econ. upon satisfying the Faculty as to their qualifications.

PUBLICATIONS. *Calendar* pubd. in June, 3s. 6d., with annual report and list of publicns. of Univ. Staff; Reprints of Scientific Papers by members of the Staff; *Students' Handbook*, annually in March; *Hermes*, an undergrads.' mag.

THE YEAR 1920

BENEFACTIONS. J. F. Archibald Bequest for promotion of cancer research, £7000; Mrs. M. A. Dalley bequeaths £5000 for Memorial Bursaries and for a prize in the Faculty of Law; MacCallum prize-fund—£200 from subscribers for annual prize in English; for additional buildings Govt. grant £50,000 p.a. for 6 yrs.

NEW BUILDINGS. Lecture-room for Organic and Applied Chem. and a new Mech. Engin. building were completed.

NEW POSTS. Chair of Psychiatry, Assoc. Prof'ships of Physics and Chem., Lect'ship in Entomology.

OTHER DEVELOPMENTS. (1) Curriculum leading to B.Sc. revised so that pass students may graduate in 3 yrs.: hons. students must attend for a 4th yr. (2) (i.) Ch.M. degree abolished; (ii.) B.S. and M.S. instituted; (iii.) Med. curriculum extended from 5 yrs. to $5\frac{2}{3}$ yrs. (17 terms); (iv.) Ben Fuller Loan Fund for students established.

NUMBER OF STUDENTS attending lectures (1921). Grand total 3275 (including 769 women). Corresponding figures for 1919, 2764 (748); 1920, 3356 (777). Taking regular degree courses: total 2711, undergraduates in Med. 983 (women 118), Arts 632 (women 206, evening students 158), Law 305 (women 8), Science 194 (women 77), Engin. 215, Dent. 77 (women 3), Vet. 15, Agric. 24 (women 5), Econ. 133 (women 35), Archit. 38 (women 15), Jap. and Oriental Hist. 3; Dipl. in Educn. 76 (women 51); other post-graduate and research 58. Special courses 191 (chiefly Arts). Diploma courses in Pharmacy 204, Econ. and Com. 101, Massage 21.

DEGREES CONFERRED (1920). B.A. 82, M.B. 81, Ch.M. 80, M.A. 16, B.Ec. 14, LL.B. 10, B.D.S. 5, B.Sc. 49, B.E. 18, B.Sc. Agric. 2, B.V.Sc. 2, Doctorates 4.

PROFESSORES EMERITI. M. W. MacCallum and T. Butler.

OTHER RETIREMENTS AND RESIGNATIONS. Lectrs.: P. H. Rogers, W. G. Armstrong, E. E. Turner, G. W. C. Hirst. Demrs.: W. H. Lush, A. J. Pilz, Alberta Andrews. Librarian, J. le Gay Brereton.

DEATHS of Fellows of Senate: Rt. Hon. Sir Samuel Griffith, Rt. Hon. Sir Edmund Barton, Hon. J. Garland.

UNIVERSITY OF TASMANIA, HOBART

VISITOR—H.E. THE GOVERNOR.
CHANCELLOR—Hon. TETLEY GANT, C.M G., M.A.
VICE-CHANCELLOR—W. J. T. STOPS, LL.B.
REGISTRAR—M M. ANSELL, M.A.
LIBRARIAN—E MORRIS MILLER, M.A , Litt D.

PROFESSORS, LECTURERS, ETC., September 27, 1921

Accountancy and Auditing
Cummins, H. H., F.I.C.A. Lectr.

Biology [Ralston Prof.
Flynn, T. T., D Sc. Syd.

Chemistry
MacLeod, P. J., B.A. N.Z. Lectr.

Classics and English Lit. [Prof.
Williams, W. H., M.A. Camb.
Dunbabin, R. L., M.A. Ox. (Classics) Prof.

Economics
Copland, D. B , M.A. N Z. Prof.
Judd, W , M.A. Melb. (Hist. and E.) Lectr.
Brigden, J B , B A. Ox (Hist. and E.) Lectr

Education
Johnston, J. A., M A. N.Z. Lectr.

Engineering
Burn, A., B.E. Syd , M.Sc. Prof.
Canning, R. W., A.M.I.C.E., A.C.G.I. Lond. Lectr. in Elec E. and in Maths.

History, v. also Econ.
King, C. S , M.A. Ox., B.A. Lectr.

Law
McDougall, D. G., M.A., B.C.L. Ox., M.A., LL.D. Melb. Prof.
Griffiths, P. L , M A Melb , LL.B. Lectr.

Mathematics, v. also Engin.
McAulay, A., B.A. Camb., M.A. Melb Prof.
Fraser, H., M.A., B.C.E. Melb. Lectr.

Modern Languages
Raamsdonk, I. N., Litt.B., LL.B. Amst. Lectr.

Psychology and Philosophy
Miller, E. Morris, M.A., Litt.D. Melb. Lectr.

Physics
Burdon, R. S., B.Sc. Adel. Lectr.

Tutorial Class Lectrs.

Prof Copland (Director) and the Lectrs in Economics.

AFFILIATED SCHOOLS

ZEEHAN SCHOOL OF MINES AND METALLURGY.
MT. LYELL SCHOOL OF MINES AND INDUSTRIES.

GENERAL INFORMATION (v. also p. 367)

Founded in 1890 under an Act of the Tasmanian Legislature, the Univ. was, in 1915, granted a Royal Charter. To the original Faculties—Arts, Science, and Law—Commerce was added in 1919. The annual Govt. grant is £13,000.

LIBRARY, 14,000 vols. LABORATORIES: Chem., Phys., Biol.; Testing plant in Engin. Dept. Facilities for investigation in Elec. Engin. OBSERVATORY, 8″ reflector telescope.

DEGREE COURSES: 3 yrs., B.A., B.Sc., LL.B. (after 1 yr. of Arts course); 4 yrs., B.Com.

HIGHER DEGREES. Open to Bachelors of 2 yrs.' standing, M.A., M.Sc., LL.M., M.Com.; 3 yrs.' D.Sc.; to Masters of 3 yrs.' standing, LL.D.

DIPLOMAS of the Affiliated Schools: Metal Mining; Metall., Chem., and Assaying.

CERTIFICATE of Commerce, 2 yrs.' course.

UNIVERSITY EXTENSION. Tutorial classes were first established in 1914. Annual grant, £1125.

PUBLIC EXAMINATIONS. Intermediate and Leaving (minimum ages 14 and 16); Music (held in conjunction with other Australian Univs.).

PUBLICATIONS. *Calendar* (Aug.), 2s.; *Pub. Examn. Manuals*, 2s.; *Degree Examn. Papers*, 1s. Univ. news appears in Hobart *Mercury* and *World*. Students' Magazine, *Platypus*.

THE YEAR 1920–21

BENEFACTIONS. Sir Philip Fysh's estate, annuity of £50 for scholarship and annual prizes; £100 for Ellerton Brown memorial prize; Rev. Edwin Bean, £50 for essay prize.

NEW BUILDING. Elec. Engineering and Physics laboratories, to cost £11,000.

OTHER DEVELOPMENTS AND EVENTS. Under the recent Mental Deficiency Act a Psychological Clinic is to be established and Dr. Morris Miller visited America to make inquiries in connection therewith. The Univ. was visited by President C. F. Thwing, Litt.D., of Western Reserve Univ., Cleveland, Ohio.

DEGREES CONFERRED. B.A., 8; B.Sc., 4; LL.B., 2; others, 5.

NUMBER OF STUDENTS. Preparing for Bachelor's degree 200, including 70 women; for Master's degree 4. W.E.A. students 487.

PUBLIC EXAMNS. Entries: Junior, 599; Senior, 180.

UNIVERSITY OF WESTERN AUSTRALIA, PERTH

VISITOR—H.E. THE GOVERNOR.

CHANCELLOR—His Grace Archbishop RILEY, M.A , D.D.

PRO-CHANCELLOR—CECIL ANDREWS, M.A.

VICE-CHANCELLOR—Prof. E. O. G. Shann, B.A.

WARDEN OF CONVOCATION—Hon. A. J. H. SAW, M.D.

REGISTRAR—.....

PROFESSORS AND LECTURERS, October 4, 1921

Agriculture

Paterson, J. W., B.Sc. Edin., Ph.D. Leip. Prof.

Biology

Nicholls, G. E., D.Sc. Lond., A.R.C.Sc. Prof.

Reid, E. R. L., B.Sc. Adel. Asst.

Chemistry

Wilsmore, N. T. M., D.Sc. Melb., F.I.C. Prof.

Tattersall, G., M.Sc. Manc., F.I.C. Lectr.

Classics

Wood, G., M.A. Aberd. Lectr.

Education

Rooney, W. J., B.A. Syd. Assoc. Lectr.

English

[Prof.

Murdoch, W. L. F., M.A. Melb.

Thompson, H. S., M.A. Asst.

Derham, Enid, M.A. Melb. Asst.

French and German

Irving, G. T., M.A. Edin. Lectr.

D'Ery, Liliane Asst.

Geology

Clarke, E. de C., M.A. N.Z. Lectr.

History and Economics

Shann, E. O. G , B.A. Melb. Prof.

Hancock, W. K., B.A. Melb. Asst.

Mathematics and Physics

Ross, A. D., M.A , D.Sc. Glas. F.R.S E , F.R.A.S. Prof.

Thompson, R. D., M.A., B.Sc. N Z. Lectr.

Moir, Margt. B , M.A., D.Sc. Glas. Lectr.

Orton, A. A., B.A., B.Sc. Asst.

Mining and Engineering

Whitfeld, H. E., B.A., B.E. Syd., M.I.M.M. Prof.

Tomlinson, A., M.Sc. Manc., A.M.I.C.E. Lectr.

Fraenkel, P. H., B.E.E. Melb., A.M.I.E.E. Assoc. Lectr.

Philosophy

Fox, A. C., B.A. Syd. Lectr.

Surveying

Nunn, G. M., L.S. Assoc. Lectr.

Veterinary Science

Le Soeuf, E. A., B.V.Sc. Melb. Assoc. Lectr.

AFFILIATED SCHOOLS

PERTH TECHNICAL SCHOOL, and SCHOOL OF MINES, KALGOORLIE.

GENERAL INFORMATION (*v.* also p. 367)

Established by Act of the State Legislature in 1911, the Univ. opened its first session in 1913. It has a large endowment of land granted by Govt., including a site of 100 acres for buildings, and receives an annual grant of £15,000. The administration is vested in a Senate of 18 persons, of whom 9 are nominated by Govt.

LABORATORIES. Agric., Biol., Chem., Geol., Engin., Phys.

FACULTIES. Arts, Sc. (including Agric.), Engin.

DEGREE COURSES: 3 yrs.—B.A., B.Sc.; 4 yrs.—B.A. (Hons.) and B.Sc. (Hons.); 5 yrs.—B.E. (a sandwich system during last 3 yrs.). First year Med. course in Fac. of Sc

HIGHER DEGREES. M.A., M.Sc., M.E., D.Litt., D.Sc.

DIPLOMAS. Agric. and (Associateship) Engin.

PUBLIC EXAMINATIONS. School Certifs. (Junr. and Leaving) and Music.

PUBLICATIONS. *Calendar* (Dec.), 2s. 6d.; *Public Examn. Manuals.*

THE YEAR 1921

DEGREES GRANTED. B.A., 28; B.Sc., 9; B.Sc. Eng., 8; B.E., 2; M.A., 2; Hon. LL.D., 1.

NUMBER OF STUDENTS. In Arts—Ordinary, 196 (including 94 women); post-grad., 9 (5 women); Science—78 (16 w.), post-grad., 5 (1 w.); Engineering, 27. Attending special courses, 79.

RETIREMENTS. H. Ramsay, apptd. Chair of Engl., Otago Univ.; H. Sanders and R. C. Gray, apptd. Lectrs., Adelaide Univ.; Miss M. Fordham, apptd. Asst. in Zool., Liverpool Univ.; F. E. Oxer; G. N. Dods, deceased.

UNIVERSITY OF NEW ZEALAND

VISITOR—H.E. THE GOVERNOR-GENERAL.

CHANCELLOR—Sir ROBERT STOUT, K.C.M.G , LL.D.

VICE-CHANCELLOR—J. MACMILLAN BROWN, M.A., LL.D.

CHAIRMAN, BOARD OF STUDIES—Prof. H. W SEGAR, M.A., Auckland.

REGISTRAR—E. T. NORRIS, M.A., Wellington.

AGENT IN ENGLAND—J. W. JOYNT, M.A. Dub., 88 Gower Street, London, W.C.1.

AFFILIATED INSTITUTIONS

UNIVERSITY OF OTAGO, DUNEDIN.

CANTERBURY COLLEGE, CHRISTCHURCH.

AUCKLAND UNIVERSITY COLLEGE.

VICTORIA UNIV. COLLEGE, WELLINGTON.

This University, an examining body, was founded in 1870. Its constitution, defined by the N.Z. Univ. Act 1908 as amended in 1912, 1914, and 1915, vests the Government of the Univ. in a Senate of 24 members (Fellows), assisted, as regards schemes of study, etc., by a Board of Studies representing the College Professorial Boards. Of the Fellows, 4 are nominated by the Governor, and 20 elected, 8 by the College Governing Bodies, 4 by their teaching staffs, and 8 by graduates. The Chancellor and Vice-Chancellor are elected by the Senate; the former (or, in his absence, the latter) presides at meetings of the Senate. There are no University buildings: the offices are at Wellington. An annual grant of £4000 is received from Govt.

MATRICULATION. Candidates must pass in 5 subjects, including English, Maths., and one language. A candidate who does not pass in Latin or Greek must pass in Physical or Natural or Home Science. Not more than one of these sciences can be taken; in the syllabus prominence is given to their practical aspect.

TERMS. A student presenting himself for a Univ. examn. for which the keeping of terms is required must have passed the College examn. in the subjects he offers at the corresponding stage. The subjects in which terms must be kept are: all those of the B.A., B.Sc., and LL.B. degree courses; of the 1st and 2nd Divisions of the B.Com. course; of the Engineering Entrance examn. A student whose name is on the books of an affiliated College, and who has passed its annual examn., is deemed to have kept the terms of the year if he has attended the prescribed courses, *or*, being resident more than 10 miles from College or engaged in acquiring a profession or trade or earning a livelihood, has been thereby prevented from attending, *or* objects on grounds of religious scruples to such attendance.

DEGREE COURSES: 3 yrs.—B.A., B.Sc.., B.Sc. in Home Science, B.Mus., B.Agr. (including practical work on farm), B.Sc. in Forestry; 4 yrs.—B.Sc.

in Archit. (including 18 mos.' practical work), LL.B., B.D.S., B.E. (Mech., Elec., Civ., Mining, Metall., including from 9 to 18 mos. in shops, mines, or surveying), B.Com.; 5 yrs.—M.B., Ch.B. The B.A. and B.Sc. courses are framed on a system of Pass and Advanced subjects. Each now consists of (*a*) 4 Pass and 2 Advanced or (*b*) 5 Pass and 1 Advanced or (*c*) 6 Pass subjects. English Lang. and Lit., Latin, Greek, French, and German are separate subjects for honours.

HIGHER DEGREES. M.A., M.Sc., LL.M., M.D.S., M.Com.; Litt.D., D.Sc., LL.D., M.D., D.Mus. The Mastership is obtained through examn. The Doctorate may be taken by a Bachelor of 5 yrs.' (in Med. 3 yrs.') standing who offers suitable original work and, if in Arts, Sc., or Law, has already obtained the Mastership or equivalent degree, or, if in Med. or Music, passes a prescribed examn.

DIPLOMAS. D.P.H. (9 mos.' course); Journalism, Education, Social Science, Banking. *Certificate* of Proficiency in Dental Surgery.

PROFESSIONAL AND TECHNICAL SCHOOLS. *Law* at all the Affiliated Colls., the chief school being that of Victoria; *Med.* and *Dent.* and *Home Science* at Otago; *Archit.* and *Engin.* (Civ., Elec., and Mech.) at Canterbury; *Mining* and *Civ.*, *Elec.*, and *Metall. Engin.* at Auckland and Otago; *Commerce* and *Music* mainly at Auckland and Canterbury; *Agric.* at a recognized (but not affiliated) Coll. at Lincoln.

"AD EUNDEM" RECOGNITION. Courses completed, or partially completed, at any British chartered or other approved Univ. are accepted *ad eundem.*

SCHOLARSHIPS FOR GRADUATES. In almost every subject of the B.A. or B.Sc. syllabus and in Law—£60 each; Travelling Scholps. in Arts and French—£200 (2 yrs.) each, in Engin. and Med.—£150 each.

Two first-class return passages between Australia and England are offered yearly by the Orient Co. and P. & O. Co. for grads. of the Univ. proceeding to Europe to continue their studies. The Union S.S. Co. supplements this by a similar concession between N.Z. and Australia. One passage between N.Z. and England is offered by the N.Z. Shipping Co. and one by the Shaw, Savill & Albion Co.

PUBLICATIONS. *Calendar* (June), 2s. 6d.; *Minutes of Prodgs. of Senate*, free; *Examn. Papers*, 6d. or 1s. a set; *Reports of Examrs.* (in England and N.Z.) free; Reports (Govt. Press, Wellington) on Univ. Colls., 1912, 9d., and on Univ. Reform (with evidence), 1913, 2s. 3d.

THE YEAR 1921

DEGREES CONFERRED. B.A.—95; B.Sc.—26; LL.B.—31; M.B., Ch.B.—30; B.Com.—1; B.E.—5; B.Sc. Home Sc.—10; B. Agr.—1; M.A., M.Sc., M.Com., and LL.M.—64; M.D.—8.

UNIVERSITY OF OTAGO, DUNEDIN

VISITOR—H.E. THE GOVERNOR-GENERAL.

CHANCELLOR—ANDREW CAMERON, B.A., LL.D

VICE-CHANCELLOR—T. K. SIDEY, B A., LL B., M.P.

REGISTRAR—H. CHAPMAN, B.A.

PROFESSORS, LECTURERS, ETC., October 5, 1921

Accountancy
Reid, G. W., B.Com. Lectr.

Accountancy Law
Paterson, J. M , M.A., LL B. [Lectr.

Anatomy
Gowland, W. P., M.D., B.S. Lond., F.R.C.S. Eng. Prof.

Biology
Benham, W. B , M.A. Ox , D.Sc. Lond., F.R.S. Prof.
Fyfe, Marion L., B.Sc. Asst.

Botany
Betts, Mary W., M.Sc. Lectr.

Chemistry
Inglis, J. K. H., M.A., B.Sc., D Sc. Edin., F.I.C. Prof.
Carter, C. L., M.Sc. Asst.

Classics
Adams, T. D., M.A. Prof.
Turnbull, Mary I., M.A. Asst.

Dentistry
Pickerill, H. P., M.D., Ch.B., M.D.S., L.D.S. Eng. Prof.
Bell, R. C., B.D.S. Prof. (Clin. D.).

Domestic Arts
Strong, Ann G., B.Sc. Prof.

Economics
Pringle, W. H., M.A., LL.B. Edin. Prof.

Education
Pinder, E., M.A. Lectr.

Engineering, v. Mining

English Lang. and Lit.
Ramsay, H., M.A. St. And. Prof.
Clement, Bertha, M.A. Asst.

Ethnology
Skinner, H. D., Dip. Anth Camb , B.A. Lectr.

Geology and Mineralogy
Benson, W. N., B.A. Camb , D.Sc. Syd., F.G.S. Prof

Hebrew
Cumming, J., M.A. Edin., B.D. Lond., D.D. Melb. Lectr.

History
Elder, J. R., M.A., D.Lit. Aberd. Prof.

History, Constitutional
Lang, J., M.A., LL.B. Lectr

Home Science
Rawson, G. Helen Prof.
Strong, Ann G., B.Sc. Prof. Domestic Arts.
Gloy, Olga H. M. Asst.
Bagley, Sybil D. Asst.
Little, Dora Teacher.

Law [Lectr.
Stephens, A. C., LL.B. (Contracts)
Neill, A. G. (Crim. Law & Prop.) Lectr.
Adams, H. S., M.A., LL.B. (Evidence) Lectr.
Hay, W. G., LL.M. (Jurispr.) Lectr.
Cook, H. L., LL.B. (Property) Lectr.

Adams, F. B., B.A., LL.M. (Property) Lectr.
Barrowclough, H. E., LL.B. (Proc.) Lectr.
Callan, J. B., B.A., LL.B. (Torts) Lectr.

Mathematics, Pure and Applied
Bell, R J. T., M.A., D.Sc. Glas. Prof.
Aitken, A. C., M.A. Asst

Metallurgy and Assaying
Waters, D. B., A.O S.M. Prof.

Mining
Park, J., M.A.I.M.E., M.I.M.M., F.G.S. Prof.

Modern Languages
Thompson, G. E., M.A. Prof.
Barron, Viola M., M.A. Asst.

Philosophy, Ment. and Moral
Dunlop, F. W., Ph.D. Jena, M.A. Prof.

Physics
Jack, R., M.A., D.Sc. Glas., Ph.D. Gött. Prof.
Hinton, J. W., M.Sc. Lectr.

Physiology [Prof.
Malcolm, J., M.D., Ch.B. Edin.
Milligan, R. R. D., M.B., Ch.B., Asst.

Medicine (for subjects of the first 2 yrs.—Anat., etc., v. *supra*)

Bacteriology and Pub. Health
Champtaloup, S. T., M.D. Edin., D.Sc , D.P.H. Prof
Cameron, Gladys C. M., M.Sc. Lectr.

Clin. Med. and Clin. Surg.
The Hon. Staff of the Dunedin Hospl. Lectrs.

Clin. Med. and Therap
Fitchett, F. W. B , M.D., C.M. Edin. Prof.

Dis. of Children
Williams, E. H., M.B., Ch.B., M.R.C.S. Eng Lectr.

Ear, Nose, and Throat
Hall, A. J., M.B., Ch.B., M.R.C.S. Eng., L.R.C P Lond. Lectr.

Medicine, Practice of [Prof.
Carmalt-Jones, D. W., M.A., D.M. Ox., F.R C P. Lond.
Parr, T. S., M.B , Ch.M. Syd. Tutor.

Mental Diseases
M'Killop, O. C , M.B., Ch.B. Edin. Lectr.

Midwifery and Gynæc.
Riley, F. R., F.R.C.S. Eng., L.R.C.P. Lond. Lectr.
Ritchie, R. I., M.B., Ch.B., M.R.C.S. Eng., L.R.C.P. Lond. Tutor.

Ophthalmology [Prof.
Ferguson, H.L ,C M G., M.A., M.D. Dub., F.R.C.S.I., L.K.Q.C.P.I.

Pathology
Drennan, A. M., M.B., Ch B., F.R.C.P. Edin. Prof.
Stevenson, Grace, M.B , Ch.B. Asst.

Surgery
Barnett, L. E., C.M.G., M.B., C.M. Edin., F.R.C.S. Eng. Prof.
Newlands, W., M.B., Ch.B. Edin., F.R.C.S. Edin., M.A., B.Sc. Asst. Lectr.
White, J. R., M.B., F.R.C.S. Eng. Tutor.
Fergus, T., M.B., F.R.C.S. Edin. Tutor.

GENERAL INFORMATION

Founded by Ordinance of the Provincial Council in 1869 with power to grant degrees in Art, Medicine, and Law, the Univ. was opened in 1871. The Law School originated in 1873, the Medical in 1874, the School of Mines in 1878, the Dental School in 1907, the Accountancy Lectures and the Home

Science Dept. in 1911. Between 1869 and 1877 the Univ. received grants of land exceeding 220,000 acres. It is entirely unconnected with any religious denomination except that the right of nomination to certain Chairs endowed by the Presbyterian Church rests with the Board of Church Property, subject to the approval of the Synod.

By an agreement effected in 1874 the Univ. agreed to hold in abeyance its power of granting degrees, and to become affiliated to the Univ. of N.Z.

LIBRARY, 15,000 vols.: also the Hocken collection of pamphlets and MSS. bearing on the History of N.Z. MUSEUMS: Biol., Ethnog., Geol., Anat., Path. LABORATORIES: Phys., Chem., Physiol., Bact., Path.

FACULTIES. Arts and Science, Medicine, Dentistry, Mining, Law and Commerce, Home Science.

COURSES for degrees in all the Faculties; D.P.H.; Certif. in Dent. Surg.; Associateship of Otago School of Mines (A.O.S.M.), 4 yrs.; Diploma of Land and Mine Surveyor, 2 yrs.; Associateship in Home Science, 4 or 3 yrs.

RESEARCH SCHOLARSHIPS, ETC. One in Chem. and one in Experimental Sc.

HOSTELS. Presbyterian for men and women. Anglican for men; Home Science Students'. Cost of board and lodging, 21s. to 30s. a week.

UNIV. EXTENSION. Since 1916 classes in connection with the W.E.A. in Dunedin and Invercargill have met with very great success.

THE YEAR 1920–21

BENEFACTIONS. J. Edmond, £2000 for research fellowship in Chemistry; P. Smeaton, £4800 for research scholarship in Experimental Science; Govt. subsidy, £1 for £1 of each of foregoing; Prof. Macmillan Brown, £100 prize in English.

NEW BUILDINGS. Physics Dept. (£25,000) and Drill Hall (£10,000) in course of erection.

NUMBER OF STUDENTS (1921). Preparing for first degree in Arts 280 (including 164 women), Sc. 25 (11 w.), Law 62 (1 w.), Comm. 29 (3 w.), Med. 345 (59 w.), Dent. 70 (10 w.), Mining 20, Home Science 59 women; graduates working for higher degrees 44 (19 w.); occasional 256.

CANTERBURY COLLEGE, CHRISTCHURCH

VISITOR—THE MINISTER OF EDUCATION.

CHAIRMAN OF BOARD OF GOVERNORS—H. D. ACLAND, B.A

RECTOR—PROF. C. CHILTON, M.A., D.Sc., etc.

REGISTRAR—L. A. STRINGER.

PROFESSORS, LECTURERS, ETC., December 5, 1921

Accounting, etc.

Morrison, J., F.I.A.N.Z. Lectr.
Smith, W. A., A I A.N.Z. Asst. Lectr.

Biology

Chilton, C., M.B., C.M. Edin., Hon. LL.D. Aberd., M.A , D.Sc., F.L.S. Prof.
Herriott, Eliz. M., M.A. Asst Lectr

Chemistry

Evans, W. P., M.A., Ph.D. Gics., M.S.C.I. Lond. Prof.
Page, S., B.Sc. Demr.

Classics [Prof.

Stewart, H., C.M.G., M.A. Camb.
Broadhead, H. D., B.A. Camb. and N.Z. Asst. Lectr.

Economics

Condliffe, J. B., M.A. Prof.
Tocker, A. H., M.A. Asst. Lectr.

Education

Shelley, J., M.A. Camb. Prof.
Purchase, J. E., M.A. Lectr.

Engineering

Scott, R. J., M.I.C.E., M.I.M.E., F.A.I.E.E. Prof.
Bamford, P. G., B.E. Demr.
Campbell, R. A., B.Sc. (Eng.), A.M.I.C.E. Lectr. in Civ. E.
Morrison, A. F. Demr.
Powell, P. H., M.Sc. Manc.,M Eng. Liv., M.I.E.E. (Elec. E), Dir. of School for 1922 in absence on leave of Prof. Scott. Lectr.
Steele, S., B.Sc.Eng. (Mech. E.) Lectr.
Robinson, W. F., F.R.G S. (Surveying, etc.) Lectr.

English [Prof

Wall, A., M.A. Lond , B.A. Camb.
Cane, T. W., M.A. Asst. Lectr.

Forestry and Botany

Foweraker, C. E., M.A. Lectr.

French and German

Blunt, T. G. R , M.A. Ox. Prof.
White, J. F. D., B.A (French) Asst.

Geology and Geography [Prof.

Speight, R., M.A., M.Sc., F.G.S.
Wild, L. J , B.A., B.Sc. Asst. Lectr.

History

Hight, J., M.A., Lit.D. Prof.
Candy, Alice, M.A. Asst.

Journalism

Henderson, A. G., B.A. Asst. Lectr.

Law

Murphy, T. A., M.A., LL.B. Lectr.
Rowe, T. W., M.A., LL.B. Asst. Lectr.

Mathematics and Nat. Philos.

Gabbatt, J. P., M.A. Camb., M.Sc. Manc. and Liv. Prof.

Pitman, E. J., B.A., acting Prof. for 1922, *vice* Gabbatt on leave

Darwin, L. J., M.A. Adel. Asst. Lectr.

Music [Lectr.

Bradshaw, J. C., Mus.D. Manc., F.R.C.O., L.R.A.M., A.R.C.M.

Jones, H. B., Mus.B., acting Lectr. for 1922, *vice* Bradshaw on leave.

Philosophy, Mental and Moral

Salmond, C. F., M.A. Prof.

Parr, S., M.A. Asst.

Physics

Farr, C. C., D.Sc. Adel. Prof.

Macleod, D. B., M.A , B.Sc. Demr.

GENERAL INFORMATION

Created by Provincial Ordinance, and affiliated to the Univ. of N.Z., 1873. Govt. endowments—£179,000, including £83,000 for the High Schools, School of Art, Museum, and Public Library controlled by the Board of Govrs. Annual grants—£6000, including £2000 for *Engineering*, the national School of Engin. in N.Z. The *Rector* is the academic head of the College and the permanent Chairman of the Professorial Board

DEGREE COURSES in Arts, Science, Mus., Com., and Engin., and Certif. courses in Engin. (3 yrs.) and Com. (2 yrs.). Evening courses in Mech. and Elec. Engin.

LABORATORIES. Biol., Chem., Engin., Phys.

THE YEAR 1920–21

BENEFACTIONS. R. Triggs Bequest, £10,000 for scholarships in Tech. Educn.; A. H. Alabaster Bequest, £1000 for scholp. in Classical Lit.; Mrs. C. Sawtell, £100 for School of Art prize; Govt. grant, £125 for research in Forestry.

NEW BUILDINGS. Additions to School of Engineering, costing £15,000, commenced.

NEW POSTS. In July 1921 the position of Rector of the College was offered to and accepted by Prof. Chilton. Other new posts: Prof. of Economics, Asst. Lectrs. (full-time) in Classics, Engl., Hist., and Econs.

NUMBER OF STUDENTS in 1921, 761, of whom 290 were women; these figures include non-matriculated students—142 men, 129 women. In addition there were in the Sch. of Engin. and Tech. Sc. 91 matriculated and 181 non-matric. In 1921 students pursuing full degree courses numbered 338, including 89 women; of these 178 (56 w.) were in the Arts Faculty, 43 were studying Law, 28 Commerce, 24 Science, 11 Medicine. During the year students of the College obtained the following external scholarships: Rhodes 1, Royal Holloway College 1, General Electric Coy. 1, Travelling (Engineering) 1.

EXTERNAL WORK. 27 W.E.A. classes with 650 students.

AUCKLAND UNIVERSITY COLLEGE

VISITOR—THE MINISTER OF EDUCATION.

CHAIRMAN OF COUNCIL—HON. G. FOWLDS., C.B.E.

REGISTRAR—A. B. CHAPPELL, M.A.

PROFESSORS, LECTURERS, ETC., September 21, 1921

Accounting, etc.
Seaman, A. M. Lectr.

Architecture
Cumming, W. A. Lectr.
Morran, H. S., A.R.I.B.A. (Building Constn.) Lectr.

Biology [Prof.
Johnson, J. C., M.A., M.Sc., M.B., B.Ch. N.U.I., Litt.D., F.Z.S.
McGregor, W. R. Lectr.-Demr.

Botany
Lancaster, T. L., B.Sc. Asst. Lectr.

Chemistry
Worley, F. P., D.Sc. Lond., M.A., M.Sc., D.I.C., F.C.S. Prof.
Bowell, A. H., F.C.S. Lectr.-Demr
Short, W. F., M.Sc. Manc. Lectr.-Demr.

Classics [Prof.
Dettmann, H. S., B.A. Syd., M.A., B.C.L. Ox., Hon. M.A. Adel.
Sinclair, N. T., M.A. Asst. Lectr.

Dental Anatomy
Carter, A. M. Lectr.

Education
Cousins, H. G., M.A. Lectr.
Fitt, A. B., M.A. (N.Z.), Ph.D. Leipzig Asst. Lectr.

Engineering
Lamb, S. E., B.Sc. Lond., A.R.C.S. Eng., A.M.I.M.E. (Applied Mechanics, etc.) Lectr.
W. S. Wright (Elec. E., etc.) Lectr.
Gray, W. S., B.A.I. Dub. (Civil E., etc.) Lectr.
McLaren, E. J. R. Demr.

English
Egerton, C. W., M.A. Dub. Prof.
Ardern, P. S., B.A. Ox., M.A. Asst. Lectr.

Geology [Lectr.
Bartrum, J. A., M.Sc., A.O.S.M.

History and Economics
Grossmann, J. P., M.A. Prof.

Law
Algie, R. M., LL.M Prof
Grey, P., LL.B. Asst. Lectr.
Tuck, W. R., M.A., LL.M. Asst. Lectr.

Mathematics
Segar, H. W., M.A. Camb. Prof.

Mental Science
Anderson, W., M.A. Glas. Prof.

Modern Languages
Walker, M., M.A., B.Com. Prof.

Music
Thomas, W. E., Mus.D. Ox. Prof.

Physics
Burbidge, P. W., B.A. Camb., M.Sc. Prof.
Salt, G. McB., M.Sc. Demr.

GENERAL INFORMATION

Established by Act of the N.Z. Legislature in 1882, the College was affiliated to the Univ. of N.Z. in 1883. It received in 1885 an endowment of 30,000

acres of land, of which one-third was sold in 1915 for £10,246. It receives an annual grant of £9000.

Of the 14 members of the College Council 3 are appointed by the Governor, 2 by the Prof. Board, 1 by local bodies, 4 are elected by the graduates, and 3 by the Auckland members of the General Assembly.

COURSES are provided for the degrees of the Univ. in Arts, Science (including B.Sc. in Archit.), Law, Music, Commerce, and for the Associateship of the College in Commerce (2 yrs.' course) and in Engineering (3 yrs.').

PUBLICATION. *Calendar* (Feb.), 1s.

THE YEAR 1921. Plans for new Arts building have been obtained by competition. *Number of Students* in 1919 and 1920 respectively: Undergraduates, 472, 561, including women, 127, 129; total, including non-matriculated, 821, 969 (women 292, 317). *W.E.A. tutorial classes*, 9. *Degrees obtained*: B.A., 18; B.Sc., 4; LL.B., 10; B.Com., 2; M.A., 9; LL.M., 2.

VICTORIA UNIVERSITY COLLEGE, WELLINGTON

VISITOR—THE MINISTER OF EDUCATION.

CHAIRMAN OF COUNCIL—P. Levi, M A

REGISTRAR—G. G. S. ROBISON, M.A.

PROFESSORS, LECTURERS, ETC., October 17, 1921

Biology
Kirk, H. B., M.A. Prof.
Pigott, Ellen, M.A. Asst. & Demr.

Chemistry
Robertson, P. W., M.A. Ox. Ph.D. Leip., M Sc. Prof.
Munro, A. D., B.Sc. Asst. & Demr.

Classics
Brown, J. R., M.A. Ox. and St. And. Prof.
Ward, W. F , M.A., LL.B. Asst.

Economics [Prof.
Murphy, B. E., M A , B.Com., LL.B. (E. Hist. & Geog.)
Neale, E. P , M.A , LL B., B Com. Asst.

Education
Tennant, J. S., M.A., B.Sc. Prof.

English Language & Lit. [Prof.
Mackenzie, H., M.A. St. And.
Watson, I. Evelyn S., M.A. Asst.

Geology
Cotton, C. A., D.Sc , A.O.S.M., F.G.S. Lectr.

History
Wilson, F. P., M.A. Prof.

Law, Roman, etc. [Prof
Adamson, J., M.A., LL.B. Edin
Cornish, H. H , M A , LL B Asst.

Law, English and N.Z. [Prof.
Garrow, J. M. E., B.A., LL.B.
McKay, Georgina Asst.

Law, Criminal and Torts
Mazengarb, O. C., LL M. Lectr.

Law, Evidence
Wiren, S. A., B A., LL M Lectr.

Law, Procedure [Lectr.
Watson, G. G. G., M.A., LL.B.

Mathematics
Sommerville, D. M. Y., M.A., D.Sc. St. And. Prof.
Macleod, D., M.A. Glas., B.Sc. Asst. & Instr.

Modern Languages
Wilson, E. J., M.A., B Sc. Prof.
Thompson, J , M.A. Asst.

Philosophy, Mental and Moral
Hunter, T. A., M.A., M.Sc. Prof.
Woodhouse, Iris H., M.A. Asst. & Demr.

Physics
Marsden, E., D.Sc. Manc. Prof.
Fenton, Ethel W. J., M.Sc. Asst. & Demr.

GENERAL INFORMATION

Established by Act of the N.Z. Legislature, 1897, and affiliated to the Univ. of N.Z., 1899. Endowed by Govt. with 4000 acres. College buildings, towards which Govt. gave £31,000, were opened in 1906. Annual grants about £14,000.

Full Degree *Courses* are provided in Arts, Science, Law, and Com., and the earlier stages in other Faculties.

THE YEAR 1920

BENEFACTION. W. S. Reid Bequest, £100 for Reference Library. NEW BUILDING—Wing for Physics Department. NUMBER OF STUDENTS—For degrees and diplomas, 563 (in 1919, 425); Occasional, 117. DEGREES OBTAINED—B.A., 26 (13 women); B.Sc., 5 (1 woman); LL.B., 17 (1 woman); Higher Degrees, 21 (8 women).

UNIVERSITIES OF THE UNION OF SOUTH AFRICA

UNIVERSITY OF SOUTH AFRICA, PRETORIA (formerly the Univ. of the Cape of Good Hope), with 6 CONSTITUENT COLLEGES.

UNIVERSITY OF STELLENBOSCH (formerly Victoria College, Stellenbosch).

UNIVERSITY OF CAPE TOWN (formerly South African College, Cape Town).

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG (formerly S. African School of Mines and Technology, and, later, University College, Johannesburg)

HISTORICAL SUMMARY (for which the Bureau is indebted to Professor Ritchie of Cape Town). The history of higher education in S. Africa covers but a comparatively short period of time. It may be said to have had its beginnings when, in 1829, the S. African College (now incorporated in the Univ. of Cape Town) was founded, as a proprietary institution, by a number of progressive citizens of Cape Town, assisted by subscribers from various parts of the country. This institution was, at its inception and for a long time afterwards, not much more than a higher-class school, but it had within it the possibilities of growth and started with very high aims. It had a very chequered history for some time, and was on more than one occasion in danger of extinction, but it gradually acquired a stronger position on ceasing to be a proprietary institution and receiving support from the public funds. For 20 years it remained the only educational establishment in S. Africa which aspired to anything beyond the range of elementary education, but in 1849 a rival College (the Diocesan) was started under the ægis of the Episcopalian Church at Rondebosch, a suburb of Cape Town. A few years later, in 1855, a somewhat similar College, St. Andrew's, was founded in Grahamstown, in the eastern part of the Cape Colony. Under the Governorship of Sir George Grey there was founded, in 1855, the Grey College at Bloemfontein in the Orange Free State, the first attempt at higher education beyond the borders of the then Cape Colony. None of these Colleges were well equipped, and most of the work done by them was school work rather than Univ. work, but they gradually acquired a growing influence and formed centres at which development was only a question of time. A very strong impetus in the direction of higher education was given in 1858 by the establishment of a Board of Examiners in Literature and Science. This Board had in view in the first instance the testing by means of examination of the competency of candidates for the Civil Service and public offices, but

it soon extended its scope and started examinations on more distinctively Univ. lines, corresponding roughly to Matricn., B.A., and M.A. The competition between the existing Colleges caused by these examns. had undoubtedly a strong influence on the growth of these Colleges and the greater attention paid to subjects beyond the mere school range. This Board continued to exist until 1873, when a successful attempt was made to institute a Univ. for S. Africa. The Univ. of the Cape of Good Hope, which was then founded, continued to exist until the beginning of 1918, when it was transformed into the Univ. of S. Africa, with its administrative seat at Pretoria. This Univ. was modelled on the lines of the London Univ., as then existing, as a purely examining body. It was governed by a Council, half of whose members were nominated by the Government, half elected by the members of Convocation. It had no constitutional connexion with the Colleges which prepared students for its examns., but the members of the Council who were elected by Convocation tended gradually to be almost entirely members of the teaching staffs of the various Colleges. In this indirect fashion the Colleges had a considerable influence on the development of the Univ. and the extension of the range and scope of its examns. Almost at the same time as the founding of the Univ. of the Cape of Good Hope there was passed by the Cape Parliament a Higher Education Act, which gave definite salary grants to the professors at recognized Colleges. This Act, together with the new impulse given to higher education by the new Univ., had a very marked influence on the development of the Colleges, which now began to increase in staff and numbers of students. The new College of Stellenbosch (afterwards the Victoria College and now the Univ. of Stellenbosch) was founded in 1874, and grew very rapidly, until it was a formidable rival of the older College at Cape Town. Other Colleges were founded also at Somerset East (Gill College) and Port Elizabeth (Grey Institute), but these had only a very short term of life. At a considerably later period, as S. Africa grew in population and wealth, other Colleges sprang into existence. A College for women (the Huguenot College) was founded at Wellington in 1898. In 1904 St. Andrew's College at Grahamstown separated its College department from its school, and the former became incorporated as the Rhodes College. In the same year was founded at Johannesburg an Institute, designed in the first instance for instruction in mining but afterwards developed into a College for higher education generally, and now The University of the Witwatersrand. In 1908 a Univ. College was founded at Pretoria, and in 1909 a similar College was instituted at Pietermaritzburg, Natal.

In 1904 there began a movement for the institution of a teaching, in place of the examining, Univ., and the controversy regarding the rival claims of a federal and a single-college Univ. continued for a number of years. An Inter-Colonial Conference on Univ. Education in 1908 reported in favour of a federal scheme, but nothing came of its decision. A new factor in favour of a teaching Univ. was introduced by the munificent gifts for this purpose of Mr. Alfred Beit, his brother, Mr. (now Sir) Otto Beit, and Sir Julius Wernher. In consequence of these gifts, various attempts were made by the Government to solve

the knotty question of reconciling claims of the existing Colleges with the institution of one or more teaching Univs. A parliamentary committee deliberated on the subject in 1913, and a Commission was appointed in the same year and, after taking evidence, issued its report in 1914. This Commission proposed two Univs., one consisting of a federation of the S. African College and the Victoria College, the other of a federation of the remaining Colleges (Rhodes College being allowed the choice of joining whichever federation it pleased), but the proposal led to no practical result, chiefly owing to the objection on the part of the two oldest and strongest colleges, at Cape Town and Stellenbosch, to the loss of their independence. The problem was at length solved in 1916 by giving charters to both the S. African College and the Victoria College, and by the reincorporation of the old Univ. of the Cape of Good Hope as a federal Univ. embracing all the other Colleges under the name of the Univ. of S. Africa.

The three Acts passed by the Union of S Africa in 1916 were to the following effect:

I. The Univ. of the Cape of Good Hope became the Univ of South Africa, with its administrative seat at Pretoria.

II. The South African College became the Univ. of Cape Town, with which is incorporated the S. African College. Its seat is to be upon the Groote Schuur estate on the eastern slopes of Table Mountain.

III. The Victoria College, Stellenbosch, became the Univ. of Stellenbosch, with its seat in the division of Stellenbosch in the Province of the Cape of Good Hope.

The Faculties of the Univ. of Stellenbosch are defined as—Arts, Science, Education, Agric., Law, Music; of the Univ. of Cape Town as—Arts, Science, Medicine, Law, Engineering, Education; of the Univ. of South Africa the Faculties are not defined, but permission is given to each of the constituent Colleges to establish such faculties or depts. as it may deem fit; provided that it shall not, without the consent of the Govr.-General, apply towards the maintenance of a faculty or dept. not established at the commencement of this Act any money granted to the College from public funds. A schedule is appended to the Act stating that professional examns. will be conducted in Law and Jurisprudence, in Civil Service Law, and in the Theory of Land Surveying.

In 1921 Parliament passed a further Act, which has the effect of incorporating, with effect from March 1, 1922, as " The University of the Witwatersrand, Johannesburg " the University College, Johannesburg (formerly the S. African School of Mines and Technology) one of the constituent colleges of the University of S. Africa. Its Faculties are defined as Arts, Science, Medicine, Law, Engineering, Commerce.

Each of the four Univs. is governed by Council, Senate, and Convocation. The Senate of the Univ. of South Africa consists of the Professors and Lecturers of the constituent Colleges who are heads of such departments as are recognized by the University Council; the Senates of the Univs. of Stellenbosch, the Witwatersrand, and Cape Town consist in each case of the Principal, the Vice-Chancellor, two additional members of the Council appointed for a prescribed period,

and the Professors and Lecturers who are heads of their respective departments.

A JOINT MATRICULATION BOARD (address—P.O. Box 392 Pretoria) has been constituted to control and conduct the Matricn. examns. of all the Univs. The examns are held in Dec. and one other month. Under Interim Regulations a candidate must take (1) English or Dutch, (2) Latin or French or German, (3) Maths , (4) Greek or Hist., (5) Physics or Chem. or Phys. Sci. or Bot. or Zool., (6) Engl. or Dutch or French or Ger. or Gk or Hist or Portuguese or Hebrew or Native lang Under new regns. the subjects are grouped thus : (1) English, Dutch , (2) Maths. ; (3) Latin, Greek, French, German ; (4) Physics, Chem., Bot., Zool , Geol. ; (5) Hist., Geog., English, Dutch, Hebrew, addl. subject from 3 or 4 ; (6) Agric. Sc., Practical Maths., Mechanics, Bookkeeping and Comml. Arith., Shorthand and Typewriting, Drawing, Geom. Drawing, Domestic Sc., Music, addl lang., addl. subject from 5. One subject must be selected from group 1 ; and either one from each of the other groups, or four selected from the groups 1 to 5 in such a way that not more than one of the groups 2, 3, 4, 5 is omitted. A subject from group 1 must be taken on the higher grade and, if only 5 subjects in all are taken, two other subjects from two other groups (of which one must be 2 or 3) must also be on the higher grade.

CONFERENCE. The Vice-Chancellors of the Univs. acting as a Joint Committee (known as *The Vice-Chancellors' Committee*) have, in the exercise of powers conferred by the above-mentioned Acts, made joint statutes and regulations relating to the Joint Matricn. Board, the Joint Committee for the control and conduct of certain professional examns., the administration of certain scholarships, the admission of registered students of any one of the Univs. to any of the others as registered students, and a minimum period of attendance and minimum fees for the Degree of Bachelor. They have power to legislate for any other matters of common interest.

The professional examns. in question are those for the Certifs. of proficiency in Law and Jurispr., and in the Theory of Land Surveying; the Civil Service Law examns. ; the Law Certif. examns. of the Transvaal, Orange Free State, and Natal ; the Civil Service Higher Law examns. ; and the Final examn. for Patent Agents.

An important Conference of representatives of the Univs with the Minister of Educn. was held on Sept. 27 and 28, 1921.

TERMS. The academic year is usually divided into 4 terms, beginning in Feb. or March and ending Nov. or Dec.

UNIVERSITY OF CAPE TOWN

WITH WHICH IS INCORPORATED THE

SOUTH AFRICAN COLLEGE

VISITOR—THE GOVERNOR-GENERAL.

CHANCELLOR—THE PRINCE OF WALES.

VICE-CHANCELLOR—Principal Sir J. C. BEATTIE, D.Sc, F R.S.E.

PRESIDENT OF CONVOCATION — Advocate R. W. CLOSE, K C., B A., LL.B., M.L.A.

CHAIRMAN OF COUNCIL—J. M. RUSSELL, M.A., B D.

REGISTRAR—W. G. R. MURRAY, M.A.

PROFESSORS, LECTURERS, ETC., December 23, 1921

Accounting and Business Method

Galbraith, H. G, B.A Camb, C.A. Edin. Lectr

African Life and Languages

Norton, W. A., M.A., B.Litt. Ox. Prof. of Bantu Philology.

Brown, A. Radcliffe, M A. Camb. Prof. of Soc Anthrop.

..... Lectr. in Phonetics

Afrikaans, v. Nederlands

Anatomy

Drennan, M. R., M.A., M.B., Ch.B. Edin. Prof.

..... Sr. Lectr.

..... Lectr.

Gordon, L., M.D., F.R.C.S. Edin. Demr.

Lurie, D., B A. Demr.

Art

Kolbe, Mgr. F. C., D.D. Reader in Æsthetics

Bacteriology

Mackie, T. J., M.B. Glas., D.P.H. Ox. Prof.

Gie, J. C., M.B. Lond., M.R.C.S. Lectr.

Bio-Chemistry [Prof.

Edie, E. S., M.A., B.Sc. Edin.

Botany

Compton, R. H, M.A Camb. Prof. and Dir. of National Bot. Gardens.

Thoday, D, M.A. Camb. Prof.

Stephens, Miss E. L., B A., F.L S. Sr. Lectr.

Michell, Miss M., B.A. Lectr.

Bolus, Mrs. F., B.A. Curator of Bolus Herbarium.

Chemistry

Tietz, H, M A. Cape, Ph.D. Berl. (Organic) Prof.

Newbery, E., D.Sc. Manc., F.I.C. (Physical) Prof.

Denham, H. G., Ph.D. Heid., D.Sc Liv, M A, M Sc. N.Z. (Inorganic) Prof.

Pugh, W., B.Sc. Lond. Lectr.

Storm, H. C., B.A. Demr.

van Niekerk, S. K. Demr.

van Heerde, P., B.A. Demr.

Classics

le Roux, T., M.A., Litt.D. Amst. Prof. (Gk.).

Farrington, B., M.A. N.U.I. Lectr. (Gk.).

Ritchie, W., M.A. Aberd., M.A. Ox. Prof. (Latin & Class. Philol.).
..... Sr. Lectr. (Latin, etc.)

Dutch, v. Nederlands

Economics

Leslie, R., M.A. Edin., Dean of Fac. of Commerce Prof.

Education

Clarke, F., M.A. Ox. Prof.
Scrimgeour, A. C. S., M.A. Edin. (Method) Prof.
Burger, J. F., B.A. Sr. Lectr.
Jamieson, J. N , M.A. St. And. Sr. Lectr.
Broodrijk, H. H , B A. Cape Lectr.

Electrotechnics [Prof.

Bohle, H., M.V.D.E., M.I.E.E.
Rogers, A. H. E., A.C.G.I. Lond. Sr. Lectr.

Engineering, Civil

Snape, A. E., M.Sc. Manc., A.M.I.C.E., F.R.San.I. Prof.
Stewart, G. S., A.M.I.C.E. Sr. Lectr.

Engineering, Mechanical [Prof.

McMillan, D., A.R.T.C., A.M.I.M.E.
Weaver, W. G., A.M.I.M.E. Sr. Lectr.
Brooks, J. J., A.R.C.S. Lectr

English [Prof. (E. Lit.).

Clark, J., M.A., LL.D. St. And.
Mackie, W. S., M.A. Aberd., B.A. Ox. Prof. (E. Lang.).
Greenlees, Miss M., B.A. Lectr.

Ethics and Politics

Malan, G. H., M.A. Cape, D.Phil. Glas. Prof.

French and German

Logeman, W. S., L.H.C. Utr. Prof.
Nauta, R. D., O.A. Prof.

Geology, v. Mineralogy

Hebrew

Bender, A. P., M.A. Camb. Prof.

History

Walker, E. A., M.A. Ox. Prof.
Mandelbrote, H., M.A., B.A. Ox. Sr. Lectr.

Law

Wille, G., B.A , LL.B. Camb. Prof.
..... Lectr.
Howes, R. B., M.A LL.D. Dub., LL.B. Lectr.
Reid, F., B.A. Ox. Lectr.
Thompson, C. N., M.A. Cape, LL.B. Camb. Lectr.

Mathematics, Pure

Crawford, L., M A. Camb., D.Sc. Glas. Prof.
Kent, T. P., M.A. Ox. Prof.
..... Asst.

Mathematics, Applied

Brown, A., M.A. Camb., M.A., B Sc. Edin. Prof.
v. d. Lingen, J. Steph., B A. Sr. Lectr.

Mineralogy and Geology

Young, A., M.A., D.Sc Edin. Prof.
Walker, A. R. E., B.Sc. Lond., A.R.C S. Lond. Sr. Lectr.

Music

Bell, W. H., F.R.A.M. Prof.

Nederlands en Afrikaans

du Toit, P. J., M.A. Cape, Ph.D. Ghent Prof. (Lang.).
Botha, M. C., M.A. Prof. (Lit.).
van der Merwe, I. W., M.A. Lectr.

Philosophy, v. also Ethics

Reyburn, H., M.A., D.Phil. Glas. Prof.
Eales, W. C., B.A. Cape Lectr.

Physics

Ogg, A., M.A., B.Sc. Aber., Ph.D. Gött. Prof.
..... Sr. Lectr.
van der Merwe, C. W., B.A. Lectr.
Hattingh, J. T., B.A. Cape, B.Sc. Asst. Lectr.

Physiology
Jolly, W. A., M.B., Ch.B., D.Sc. Edin. Prof.
..... Sr. Lectr.
Kaplansky, B , B.A. Demr.
M'Loughlin, D. D. O. Demr.

Politics, v. Ethics

Zoology [Prof.
Gilchrist, J. D. F., M.A., D.Sc. Edin., Ph.D. Zur., F.L.S.
von Bonde, C., M.A. Lectr.

Medicine (for subjects of the first 2 yrs.—Anat., etc., v. *supra*)

Anæsthetics
Daniell, G. W. Bampfylde, M.R.C.S. Lectr.

Dermatology
Smith, Hugh, M.D. Lond. Lectr.

Ear, Nose, and Throat
Luckhoff, J., M.D. Edin. Lectr.

Med. Jurisprudence [Lectr.
Engelbach, H. A., M.B. Dub.

Medicine
Falconer, A. W., C.B.E., M.D. Aber., M.R.C.P. Prof.

Medicine, Clinical
Ketchen, A. D., M.B. Lond., M.R.C.S. Lectr.
Lester, J. B., M.D. Edin. Lectr.
Gie, J. C. (v. Bact.) Tutor.

Mental Diseases [Lectr.
Cassidy, C. G., M.B., C.M. Edin.

Obstetrics and Gynæcology
Crichton, E. C., B.A., M.B., B.A.O., B.Ch. Dub. Prof.

Obstetrics, Clinical
Simpson Wells, A., M.D. Glas., F.R.C.S.E. Lectr.

Ophthalmology
Wood, D J., M.B. Edin. Lectr.

Pathology
Bartlett, G. B., B A., M.B. Camb., M.R.C.S. Prof.
..... Sr. Lectr.

Pharmacology [Prof.
Gunn, J. W. C., M.B , Ch.B. Edin.
..... Sr. Lectr.

Public Health [Prof.
Anderson, A. J., M.A., M.B. Ox., M.R.C.S., D.P.H. Camb.

Surgery
Saint, C. F. M., C B E., M.D., M.S. Durh., F.R.C.S. Prof.

Surgery, Clinical
Elliott, C. C., M.D.. M.R.C.S. Lectr.
Fuller, E. B., M.B., F.R.C.S.E. Lectr.
Moffat, H. A., F.R C.S. Lectr.

Vaccination
Molteno, V. G., M.B. Camb. Lectr.

Venereal Diseases
Fraser, A. R., M.D. Lectr.

GENERAL INFORMATION (v. also p. 406)

The University of Cape Town, with which is incorporated the South African College, created by Act 14 of 1916, came into legal existence on April 2, 1918, when the Council took over a bequest by Sir Julius Wernher of £250,000 and a donation of equal amount from Mr. Otto Beit, who added £50,000 to a lapsed bequest by Mr. Alfred Beit. The S. African College, out of which the University grew, opened in 1829 as a private venture, became a public institution in 1837. In 1895 classes were opened in mining engineering. In 1900 the matriculation classes were transferred to the College school and the College confined itself to University teaching. In 1902 £40,000 was collected from past students and others, and courses for medical students and civil, mechanical, and electrical engineers were begun. Provision was made in 1910 for post-graduate courses for the training of teachers, in 1917 for the third year of

medical study, and in 1918 for a complete medical course. In 1921 Schools of Commerce and of Music were established. Early in 1921 a special appeal for funds was concluded; the amount obtained was about £280,000, including a sum of £50,000 for the Jameson Memorial Hall.

A site for the University has been provided by Government at Groote Schuur, a suburb of Cape Town. Pending the erection of buildings there those formerly occupied by the Univ. of the Cape of Good Hope have been rented.

LIBRARY, 12,000 vols. Access to S.A. Public Library, 100,000 vols., specially well equipped in Bot. and Zool. Depts. Also Bolus Bot. Library and (for students of Teaching) the Library of the Educn. Dept. The Bolus HERBARIUM includes Guthrie Collection of Cape Flora. The S.A. MUSEUM of Nat. Science adjoins the Univ. grounds. MARINE BIOL. LABORATORY at St. James'.

FACULTIES. Arts, Commerce, Science, Engineering, Law, Medicine, and Education.

DEGREE COURSES. B.A., 3 yrs.; LL.B., 4 yrs.; B.Sc. (in Applied Sc.), 4 yrs.; M.B., Ch.B., 6 yrs.; M.A., 1 yr.; M.Sc, 2 yrs. The M.A. and M.Sc. courses are open to graduates of any approved Univ.; so also are courses for the D.Litt., D.Phil. (open to bachelors of at least 3 yrs.' standing), and D.Sc., for which attendance for 2 yrs. may be required. Under certain conditions the M.Sc. may be conferred on non-graduates after 3 yrs.' attendance. The LL.M. is open to LL.B. after 2 yrs.' attendance; the LL.D. is open to LL.B. or LL.M.

OTHER COURSES. For Teachers' Certificate.—T.1 (Union of S. Africa 1st Class Teacher's Certif.), Secondary Lower, Primary Higher; Univ. Diploma in Commerce, Law Certif., Land Surveying, Civil Service Law examn., Dentistry (preliminary subjects), and for students of Agric. and Theol. proposing to graduate in those subjects elsewhere.

RECOGNITION OF AND BY OTHER INSTITUTIONS. Attendance in Stellenbosch and the constituent Colls. of the Univ. of S. Africa is accepted under certain conditions as part of the attendance qualifying for degrees. Attendance on classes in Physics, Chem., Bot., and Zool. are accepted by Aberd., Bris., Durh., Edin., Glas., Liv., Manc., Dub., R.C.P. Lond., R.C.S. Eng.; so also are examns. in the Faculty of Arts on the special courses in these subjects (except by Dub.). Attendance on courses in Anat. and Physiol. is accepted by Aberd., Durh., Edin., and Glas., R.C.P. Lond., and R.C.S. Eng.; examns. in the Faculty of Arts in these subjects are accepted by Aberd. (v. also pp. 237 and 266). The Dentistry course is recognized by the R.C.S. Eng., R.C.P.S. Edin., and Edin. Dental School; the Hygiene course by the Conjoint Boards of Eng., Ire., Edin., and Glas.

FEES. For tuition, including registration, excluding laboratory fees, annually: Arts or Sc., from £21 to £29; Engin., £29 to £33; Med., £35 (average); Law (LL.B.), £21 to £27, Law Certif., £9; Teaching, £9 to £13; Surv., £21 to £25; Commerce, £11. Examn. and graduation fees, minimum: B.A., £11; B.Sc. Engin., £20; LL.B., £30; M.B., Ch.B., £30; Master's degree, £6; Doctor's, £13.

SCHOLARSHIPS OPEN TO GRADUATES OF THE UNIV. Jamison, Croll, Porter, George Grey, Donald Currie, Willem Hiddingh, H. B. Webb, and several others, of £150 and £200 p.a., tenable generally for 3 yrs., and awarded from time to time after the M.A. examns. £150 p.a. for 2 yrs., awarded annually after the B.Sc. (Engin.) examn.

Travelling concessions to students are granted by the Union-Castle S.S.

Coy. and (except to law students and married persons and students over 21) by the Union Railways.

RESIDENCE. Hostels for 180 men and 80 women. Board and residence, £60 p.a.

PUBLICATIONS. *Calendar* (Dec.); Students' Repve. Council's *University Quarterly*; *Annals of the Bolus Herbarium.*

THE YEAR 1921

BENEFACTIONS. Additional £1000 for Eldridge Boarding Scholarships; Roderick Noble Scholarship, £90 p.a.; 2 addl. Lewis Scholps. of £50 p.a. each.

NEW DEPARTMENTS AND POSTS. Chair of Bio-Chemistry, Lectureship in Accounting and Business Method, Readership in Æsthetics; Faculty of Commerce.

NEW DEGREES. Ph.D.; B.Sc. in Applied Sc. (4 years' course).

CONFERENCE of representatives of Universities with Minister for Education, held 27th and 28th Sept.

DEGREES (1920). B.A., 69; B.Sc. in Engin., 15; LL.B., 1; M.A., 20; B.Sc., 1.

NUMBER OF STUDENTS (1920). Undergraduates preparing for B.A.—307; B.Sc. in Engin.—94; LL.B., 26; M.B., Ch.B.—234; Dental—32; Land Survey—4; Sec. Teachers' Lower Certif.—24; Primary Teachers' Higher Certif.—37; Pharmaceutics—19; Law Certif.—44; Diploma in Commerce—57; Graduates preparing for M.A.—22; other Higher degrees—6; Sec. Teachers' Higher Certif.—31; D.P.H.—3. Occasional, 15. Total—955, including women—200. Students who left to continue studies in U.K., America, or Holland in 1921: med. or dental, 35; Arts studies, 4.

SPECIAL COURSES OF LECTURES for School Teachers (in Long Vacation and in 3rd and 4th Terms). University Extension Lectures given by members of the Staff.

RESIGNATIONS. P. Battaerd, to become Prof. of Physiol. at the Univ. of Stellenbosch; T. J. Haarhoff to be Prof. at Univ. Coll., Johannesburg; L. Simons to be Reader in Physics at King's Coll., London; P. R. v. d. R. Copeman; R. P. Davis; J. C. Goldberg.

UNIVERSITY OF SOUTH AFRICA

(By Act 12 of 1916 of the Legislature of the Union of South Africa the UNIVERSITY OF THE CAPE OF GOOD HOPE, incorporated by Act of the Cape Legislature in 1873, became and was incorporated in the University of South Africa with administrative seat at Pretoria, v. p. 408.)

CHANCELLOR—Field-Marshal H.R.H. THE DUKE OF CONNAUGHT AND STRATHEARN, K.G., K.T., K.P.

VICE-CHANCELLOR—W. J. VILJOEN, M.A., L.N.C., Phil.D.

CHAIRMAN OF SENATE—Professor A. C. PATERSON, M.A.

REGISTRAR—W. THOMSON, M.A., B.Sc., LL.D.

ASST. REGISTRAR—C. C. GRANT, M.B.E., M.A.

PRESIDENT OF CONVOCATION—Prof. P. G. Gundry, B.Sc., Ph.D., A.R.C.S.

CONSTITUENT COLLEGES

GREY UNIVERSITY COLLEGE, Bloemfontein (1855).

HUGUENOT UNIVERSITY COLLEGE, Wellington (1874).

NATAL UNIVERSITY COLLEGE, Pietermaritzburg (1909).

RHODES UNIVERSITY COLLEGE, Grahamstown (1855).

POTCHEFSTROOM UNIVERSITY COLLEGE (1922).

TRANSVAAL UNIVERSITY COLLEGE, Pretoria (1903).

FACULTIES: Arts (including Divinity and Music), Science, Engineering, Agriculture, Law, Commerce, Medicine, Veterinary Science.

DEGREES. B.A., M.A., D.Litt., D.Phil.; B.D., D.D.; B.Mus., M.Mus., D.Mus.; B.Com.; B.Econ.; B.Sc., M.Sc., D.Sc.; M.B., Ch.B., Ch.M., M.D.; B., M., and D.Sc. in Engin.; B., M., and D.Sc. in Agric.; LL.B., LL.M., LL.D.; B.V.Sc., D.V.Sc.

Courses for B.A., B.Com., B.Econ., B.Sc.—3 yrs.; for B.Sc. Engin., B.Sc. Agric.—4 yrs.; B.V.Sc.—5 yrs.; M.B., Ch.B.—6 yrs. Internal candidates for these degrees must have attended as registered matriculated students at a constituent Coll. for the prescribed periods, provided that the Senate will accept as qualifying attendance on recognized courses at the Univ. of Cape Town or Stellenbosch and may accept attendance and examns. at other recognized Univs. But the minimum attendance on approved courses at the Univ. of S.A. for the Bachelor's degree in Applied Science is the final 2 yrs., in Med. and Surg. the final 3 yrs., and for other Bachelor's degrees one-half of the courses prescribed. *External* students must have their curricula approved by the Senate and must pass the examns. prescribed for them from year to year by the Senate in order to qualify for degrees.

Higher Degrees. The M.A., M.Sc., and M.Sc. (Agric.) courses each cover 1 yr. (after graduating as bachelor). The M.Sc. (Engin.) may be conferred on a B.Sc. (Engin.) who has had, since graduating, 2 yrs.' practice of his profession. A thesis is required for the M.Sc. (Agric.) or M.Sc. (Engin.).

THE YEAR 1920. Number of persons who qualified for degrees by examn. —237; admitted to B.Sc. in Engin., as holding Dipl. in Engin. of Cape or S.A. Sch. of Mines and Tech.—8; Honorary degrees—3

GREY UNIVERSITY COLLEGE, BLOEMFONTEIN, O.F.S.

CHAIRMAN OF COUNCIL—J. S. M. RABIE, B.A.

RECTOR—Rt. Rev. J. D. KESTELL.

REGISTRAR—R. B. SAAYMAN, B.A.

PROFESSORS, LECTURERS, ETC., November 1, 1921

Afrikaans and German
Malherbe, D. F., B.A., Ph.D. [Prof.

Botany
Potts, G., B.Sc. Durh., Ph.D. Halle Prof.
Bergstedt, Miss H., B.Sc. Demr.

Chemistry
Rindl, M., D.Ing. Charl. Prof.
Viljoen, J. A., B Sc. Demr.

Classics
Ross, J. A., M.A. (Greek) Lectr.
Conlin, W., M.A. Dub. (Latin) Prof.

Dutch and French
Francken, A., B.A. Prof.

English
Johnson, W. S., M.A., R.U.I. Prof.

Geology
Von Bonde, W., M.A. Lectr.

History (S. African)
The Rector Prof.

History and Economics
Barnard, S. P., Docts. Leyd. Lectr.

Law
Streeten, R. C., B.A. Ox., LL.B. [Lectr.
Hœxter, O., B A. Lectr.

Mathematics
Arndt, W. F. C., B.A., Ph.D. Gött. [Prof.
Mudd, N., M.A. Camb. (Applied M.) Lectr.

Pedagogy
Kottich, R. G., B.A., Ph D. Berl. [Prof.

Philosophy
Forsyth, T. M., M.A., D.Phil. Edin. Prof.

Physics
Logeman, W. H., M.A. Prof.
Landau, L. I., B.A. Demr.

Zoology
Dreyer, T. F., B.A., Ph.D. Halle [Prof.
Meiring, A. D., B.Sc. Demr.

GENERAL INFORMATION (v. also pp. 406, 415)

Founded in 1855 by Sir George Grey, the College was reorganized in 1904, constituted a Univ. College in 1907, and incorporated by statute in 1910. It is 2 miles from Bloemfontein town. It provides *courses* for degrees in Arts, Science, and Law, and for the Teachers' 1st class Certif. of the Union, and prelim. training for Med., Engin., and Agric.

HOSTELS for men and women within the Coll. grounds. BOARD AND RESIDENCE: £15 per quarter. TUITION FEES: £5 per quarter (Law, £2: 10s.).

SCHOLARSHIPS, open to residents of O.F.S. for study abroad, 4 or 5 of £150 p.a. for 3 yrs.; of these 3 are for Agric. study.

THE YEAR 1921

NEW POSTS. Demr. in Zoology.

OTHER NEW DEVELOPMENTS. Govt. grants made for additional men's Hostel, central Dining Hall, and Laboratories.

NUMBER OF STUDENTS (1921). Preparing for Bachelorships—88, including women—23; for Teacher's Certif.—20; Law Certif.—12; M.A. or M.Sc.—4; Survey—2; Pharmacy—9; LL.B.—9.

DEGREES OBTAINED (1921). B.A.—19; B.Sc.—12; M.A. or M.Sc.—2.

RHODES UNIVERSITY COLLEGE, GRAHAMSTOWN, C.P.

CHAIRMAN OF COUNCIL—THE BISHOP OF GRAHAMSTOWN.

CHAIRMAN OF SENATE—Professor SMAIL.

REGISTRAR OF COUNCIL AND SECRETARY OF SENATE—Lieut.-Col. H. GREENER, D.S.O.

PROFESSORS, LECTURERS, ETC., August 20, 1921

Anatomy [Lectr.
Drury, E. G. D., B.S. Lond., D.P.H. Durh., M.D. Cape.

Botany
Schönland, S., Ph.D. Kiel, Hon. M.A. Ox. Prof.
Britten, Miss L., B.A. Cape Lectr.

Chemistry and Metallurgy
Cory, G. E., M.A. Camb., Durh. and Cape, Litt.D. Camb. Prof.
Page, R. A., M.A. Cape Lectr.

Classics
Bowles, C. W., M.A. Camb. and Cape (Greek) Prof.
Smail, W. M., M.A. Ox. and Edin., B.A. Lond. (Latin) Prof.

Commerce
Williamson, J. W. M., C.A. Lectr.

Drawing and Graphics
Armstrong, F. W., A.R.C.A. (Principal, School of Art) Instr.

Dutch
Dingemans, G. F., M.A. Edin. and Cape Prof.

Economics
Hall, R. L., B.A. Ox. and Cape Lectr.

Education
Earle, F. M., B.A., M.Ed. Lectr. i/c Dept.
Martinius, Miss M., B.A. Cape Lectr.

3 Instrs.

English
Kidd, A. S., M.A. Camb., Manc., and Cape Prof.
McWilliam, Miss J. F. Lectr.

French
Bodmer, H. S. Prof.

Geology
Schwarz, E. H. L., A.R.C.S. Lond., F.G.S. Prof.

German and Dutch
Weehuizen, P. B., M.O. Hol. Lectr.

History
Rousseau, I. J., B.A. Ox. Prof.

Law
McKerron, G. G., M.A., LL.B. Edin. and Cape Lectr.

Mathematics, Pure and Applied
Williams, D., B.Sc. Lond. and Cape Prof.
Martin, J., M.A. Camb. and Cape Lectr.
Finlay, W. H., M.A. Camb. Lectr.

Philosophy
Lord, A. R., M.A. Ox. Prof.

Physics
Varder, R. W., M.A. Cape Prof.
Watson, S. W., B.A. Camb. and Cape Lectr.

Zoology [Prof.
Duerden, J. E., M.Sc. Cape, Ph.D. J. Hopk., A.R.C.S. Lond.

GENERAL INFORMATION (v. also pp. 406, 415)

In 1902 a sum of £50,000 was set apart by the Rhodes Trustees for the further development of what was then known as St. Andrew's College, founded in 1885. Other contributions were made by the public, and in 1904 the College was incorporated under its present name.

LIBRARY, 12,000 vols. LABORATORIES: Applied Maths., Bot., Chem., Geog., Geol., Phys., Zool.

COURSES. B.A., B.Sc., M.A., M.Sc., LL.B., Law Certif., Surveying, Teachers' 1st and 2nd Class Certifs., 1st yr. Medical, 1st B.Sc. in Agric., 1st Mining, 1st Engin., 1st and 2nd B.Com. FEE for full degree course, £21 p.a.

HOSTELS for 90 men and 70 women. BOARD AND RESIDENCE, £56 p.a. inclusive.

PUBLICATIONS. *Calendar* (Nov.); *The Rhodian* twice a year.

THE YEAR 1920–21

BENEFACTIONS. Rhodes Trustees, £50,000 in trust; De Beers, Ltd., £5000; Alfred Beit, £25,000; Town Council, £2000; Otto Beit, £1000 for scholarship for a graduate; others, £13,200.

NEW BUILDINGS. Men's Dining Hall completed; Arts block (£30,000) completed; Men's Residence and Women's Residence commenced.

NEW POSTS. History Prof. instead of Lectr.; Educn., Mistress of Method; Lectr. in charge of new Dept. of Economics.

OTHER NEW DEVELOPMENTS. Courses in Commerce.

NUMBER OF STUDENTS (1921). In B.A. and B.Sc. classes 134 (including 63 women); B.Com., 2; Med., 9; Survey, 4; Law, 13; Educn., 23; Theol., 3; M.A. and M.Sc. 11, special 3.

DEGREES OBTAINED. B.A. and B.Sc., 21; M.A. and M.Sc., 4.

RESIGNATION. Miss R. S. M. Turnbull; Miss K. Garthwaite.

NATAL UNIVERSITY COLLEGE, PIETERMARITZBURG, NATAL

CHAIRMAN OF COUNCIL—The Hon. Sir JOHN C. DOVE-WILSON.
CHAIRMAN OF SENATE—Prof. WATERHOUSE.
REGISTRAR—D. ROBB.

PROFESSORS AND LECTURERS, August 30, 1921

Botany [Prof.
Bews, J. W., M.A., D.Sc. Edin.
Aitken, R. D. B.Sc. Cape Lectr.

Chemistry
Denison, R. B., D.Sc. Leeds, M.A. Cape, Ph.D. Bres. Prof.
Mudie, A. D., M.A., B.Sc. St. And. Lectr.

Classics
Petrie, A., M.A. Aberd., B.A. Camb. Prof.

Dutch and German
Besselaar, G., M.A. Cape, D.Litt. Ghent Prof.

Education
Ferguson, J. G. W., M.A. Ox. and St. And. Prof.

English and Philosophy
Waterhouse, O., M.A. Manc. Prof.
Sweeney, G. W., B.A., LL.B. Cape Lectr.

French
Guiton, P. A., B.A. Lond. Lectr.

Geology and Geography
Sayce, R. U., M A. Wales Lectr.

History [Lectr.
Hattersley, F. A., M.A. Camb.

Law
Selke, E. A., M.A. Ox. Lectr.
Burchell, F. B., B.A., LL.B. Camb. Lectr.

Mathematics [Prof.
Roseveare, W. N., M.A. Camb.

Physics
Mesham, P., M.Sc. Liv. Prof.

Zoology
Warren, E., D.Sc. Lond. Prof.

GENERAL INFORMATION (v. also pp. 406, 415)

Established by an Act of 1909, the College was opened in 1910 in the Town Hall and moved in 1912 to its own buildings (which, with equipment, cost £60,000) in the suburb of Scottsville. Students have access to Maritzburg *Botanical Gardens* and Govt. *Museum*.

COURSES are provided leading to the B.A., B.Sc., M.A., M.Sc., etc., 1st examn. for B.Sc. in Agric. (including 1st yr.'s course for Med. students), LL.B., Natal Law Certif. and Natal Advocates' Law examn., Survey examn. (theory only), Mining Dipl. of S.A. Sch. of Mines and Tech. (1st and 2nd examns.). FEES: Tuition per half-yearly term—ordinary, 10 gs.; Law or single subject, £5.

HOSTEL in grounds for women students.

THE YEAR 1921. *New Buildings.* Women Students' Hostel (£14,000) and Science Block (£19,000) nearing completion. *New Posts.* Prof. of Educn.; Lectr. in Geol., etc. *Other Developments.* Preparation of scheme of co-operation with DURBAN TECHNICAL COLLEGE, providing for recognition of work in Engineering, Applied Chem., Maths., and Economics, and transfer to the Univ. Coll. of some members of staff of D.T.C. *Number of Students.* Preparing for degrees or Law or Teachers' Diplomas, 154, including 72 women. *Degrees obtained* (1920), B.A. and B.Sc. 24, M.A. and M.Sc. 2. A student obtained from the Board of Science and Industries an Overseas Scholarship of £250 p.a. and proceeds to America to study Chemical Technology.

THE POTCHEFSTROOM UNIVERSITY COLLEGE, TRANSVAAL

CHAIRMAN OF COUNCIL—Rev. N. H. v. d. WALT.

PRINCIPAL AND CHAIRMAN OF THE SENATE—

REGISTRAR—W. J. DE KLERK.

PROFESSORS AND LECTURERS, January 6, 1922

Botany and Zoology
Eiselen, G. T. S., B.A. Cape. Lectr.

Chemistry
du Plessis, D. J., B.Sc. Lectr.

Classics
Postma, F., D.Phil. Amst. Prof.
du Plessis, L. J., B.A. (hon.) Cape. Lectr.

Dutch and French
Kamp, J. Prof.
Schulze, H. G., M.A. Lectr. (also in English).

English
Boshoff, S. P. E., M.A. Amst. Prof.

German
Kohl, C. G. A. Lectr.

History
v. d. Walt, A. J. H. J , B.A. (hon.) Lectr.

Mathematics
Duvenage, A P. C., M.A. Cape. Prof.

Mathematics, Applied, and Physics
van Wageningen, G., Cand. Maths. and Phys. Amst. Prof.

Pedagogy
Prof. Postma (v. Classics). Prof.
van Heerden, J. S., M.A. Lectr.
Coetzee, J. C , M.A. Lectr.

Philosophy
van Rooy, J. C., M.A. Prof.

Theology
du Toit, J. D., D.D. Amst. Prof.
du Plessis, J. A., B.A. Cape. Lectr.

GENERAL INFORMATION (v. also p. 415)

Founded in 1869 as the Literature and Science department of the Theological School of the Reformed Church of S. Africa, this institution became in April 1919 " Het Potchefstroom Universiteits Kollege voor Christelik Hoger Onderwijs," and was in 1921 admitted as a Constituent College of the Univ. of S. Africa under an Act (No. 25) of the Union, whereby the annual subsidy of the Govt. is provisionally limited to the ratio of £1 for £1 and to £4000.

TRANSVAAL UNIVERSITY COLLEGE, PRETORIA, TRANSVAAL

CHAIRMAN OF COUNCIL—H. L. MALHERBE.

RECTOR—Prof. A. C. PATERSON, M.A.

REGISTRAR—Advocate A. A. ROBERTS, B.A., LL.B.

PROFESSORS AND LECTURERS, September 7, 1921

Accountancy
Barnes, S. R., A.S.A.A. Lectr.

Agricultural Botany
Hector, J. M., B Sc. Aberd. Prof.

Agricultural Chemistry
Ross, J. C, B A Cape, Ph.D. Illinois Prof.

Agricultural Engineering
van Tonder, A. J., M.Sc. Calif., A.C.G.I. Lectr.

Agronomy
Leppan, H. D., B.Sc. Tor. Prof.

Animal Husbandry
Bosman, A. M, B.Sc. Tor, *Dean* of the Faculty Prof.

Bio-Chemistry
Green, H. H., D.Sc. Glas. Prof.

Botany
Wager, H. A., A.R.C.S. Prof.

Chemistry, v. also Phys. [Prof.
Malherbe, D. F. du T., Ph.D. Halle

Dairying
Davel, H. B., B.Sc. Iowa Lectr.

Dutch
Le Roux, T. H., Litt.D. Leid. Prof.
Kritzinger, M. S. B., M.A. S. Afr. Lectr.

Economics
Holloway, J. E., D.Sc. Lond., *Dean* of Faculty of Commerce Lectr.

Education
Garnett, E., B.A. Lond. Prof.
Bosman, J. C., M.A. Harv. Assoc. Prof.

English
Wallis, J. P. R., M.A. Liv. Prof.
Zorn, P. W, B A. Cape, M.A. Ox. Lectr.

Entomology [Prof.
Faure, J. C., M.A., B.Sc. Corn.

French and German
de Villiers, W. P., Ph. & Litt.D. Ghent Lectr.

Geography
Gamble, E. G., B.A. Cape Lectr.

Geology [Prof.
De Villiers, L. C., Ph.D. Freiburg

Greek
Reinink, H., Litt D. Amst., *Dean* of Faculty Prof.

Hebrew, v. Latin

History [Prof.
Fouché, L., Ph. et Litt.D. Ghent

Horticulture [Lectr.
Amundsen, E. O., B.Sc. Calif.

Latin and Hebrew [Prof.
Paterson, A. C., M.A. Edin. and Ox.
Boxwell, J., M.A. S. Afr. (Latin) Lectr.

Law [Prof.
Pittman, W., B.A. Cape, M.A. Ox.
Barry, C., B.A. Ox. Lectr.

Mathematics
du Toit, A. E., M.A. Cape Prof.
Erasmus, H. W. B., M.Sc. Stell. Lectr.
Kops, C. W., B.A. Cape Lectr.

Mathematics, Applied [Lectr.
Sherwood, E. T. G., M.A. Camb.

Philosophy
Macfadyen, W. A., M.A. Ox., LL.D. Cape Prof.

Physical Chemistry [Lectr.
Tromp, F. J., B.A. Camb., D.Sc.

Physics and Applied Maths.
Gundry, P. G., Ph.D. Gött., A.R.C.S., *Dean* of Faculty of Science. Prof.
Voss, V., Ph.D. Johns H. Lectr.

Physiology
Andrews, W. H., B.Sc. Lond., M.R.C.V.S. Prof.

Political Science
Brookes, E., M.A. S. Afr. Lectr.

Psychology
Hugo, T. J., B.A. Cape, Ph.D. Gron. Lectr.

Theology
Greyvenstein, J. H. J. A., Th.D. Utr. Prof.
Macmillan, E., M.A., B.D. Glas. Lectr.
Engelbrecht, S. P., Th.D. Utr. Lectr.
Runge, C. H. S., B.A. Ox. Lectr.

Veterinary Anatomy [Prof.
De Kock, G. v. d. W., M.R.C.V.S.,

Vet. Hygiene
Du Toit, P. J., Ph.D. Zür., D.M.V. Berl. Prof.
Robinson, E. M., M.R.C.V.S. Lectr.

Vet. Medicine
Viljoen, P. R., M.R.C.V.S. Prof.
Neser, C. P., B.A. Cape, M.R.C.V.S. Lectr.

Vet. Pathology
Theiler, Sir A., K.C.M.G., D.Sc. Cape, D.M.V. Berne, *Dean* of Faculty of Vet. Sc. Prof.

Zoology
Malan, D. E., Ph.D. Zür. Prof.

GENERAL INFORMATION (v. also pp. 406, 415)

In 1908 University Classes in Arts, Science and Law were established at Pretoria by the Transvaal Govt., and were placed under the control of the Council of the Transvaal Univ. College at Johannesburg, the constitution of that body being altered so as to give Pretoria equal representation. A separation took place in 1910, the Johannesburg section being reincorporated as the South African School of Mines and Technology, whilst the Pretoria section retained the name of the Transvaal Univ. College. In 1917 was instituted a Faculty of Agriculture, financial provision for which (an endowment of £100,000) had been made by the last Parliament of the Transvaal in 1910. The following Faculties have since been established: 1918, Theology; 1919, Commerce and Public Administration; 1920, Veterinary Science. The original College Buildings were erected and equipped at a cost of £50,000; those of the Faculty of Agric. at a cost of £100,000; while those of the Faculty of Vet. Science, now in process of erection, involve an expenditure of £150,000.

COURSES are provided for all Degrees and Diplomas of the Univ. in Arts, Science, Agric., Vet. Sc., Law, Div., and Commerce and Public Administration. FEE for full degree course, £20 p.a.

HOSTELS. 3 for men, including the Dutch and English Church Hostels, and 1 for women. Board and Residence, £60 p.a.

LIBRARY, 11,000 vols. LABORATORIES. Bot., Chem., Geol., Phys., Zool., Agric. Bot., Agric. Chem., Agronomy, Physiol., Vet. Anat.

THE YEARS 1920–21

BENEFACTIONS. Hon. S. Marks, £1000; Committee of "Million Shilling Fund," £1500; Prof. Paterson, £1000; Rhodes Trustees, £3000; Patrick Millar Foundation, £500. Contributions to the Buxton Hostel for men (English church) totalled £8000, including: Sir J. B. Robinson, £3500; Sir O. Beit, £500; S. B. Joel, £500; C. Maggs, £500; Sir L. Phillips, £500. An appeal for £250,000 for College development is being issued.

NUMBER OF STUDENTS in 1920 and 1921: Arts, 115, 170 (women, 25, 62); Science, 81, 83 (women, 32, 27); Law, 60, 74; Commerce and Public Administration, 87, 119 (women, 3, 3); Agriculture, 30, 34 (women, 1, 4); Education, 17, 20 (women, 11, 6); Theology, 9, 8; Vet. Science, 9, 21; Special Subjects, 22, 16 (women, 7, 1); Total, 430, 545 (women, 79, 105).

DEGREES obtained in 1919 and 1920: B.A., 25, 30; B.Sc., 5, 11; B.Sc. (Agric.), 1, 7; M.A., 3, 1; M.Sc., 1, 0; D.Sc., 1, 0; LL.B., 1, 2; Diploma in Educn., 8, 8.

HUGUENOT UNIVERSITY COLLEGE, WELLINGTON, C.P.

PRESIDENT—Miss B. STONEMAN, D.Sc.

PROFESSORS AND LECTURERS, December 10, 1921

Botany and Philosophy [Prof.
Stoneman, Bertha, D.Sc. Corn.
Robson, Miss G., B.A. Lectr. in Phil.

Chemistry
Kilroe, F. C., B.Sc. Lond. Prof.

Classics [Prof.
Sargent, Helen A., M.A. Oberl.
Williams, Marie V., B.A. Prof.

Dutch
van de Koppel, Miss L. H., M.A. Lectr.

Education [Lectr.
de Wet, Miss F. C., M.A. Col., B.A.

English
Snell, Florence M., M.A. Oberl., Ph.D. Yale Prof.

French and German [Lectr.
Hansen, Miss C., Ph.D. Heid.

History [Prof.
Stafford, Susan, M.A. N.U.I.

Horticulture
Hebditch, Miss G. L. Lectr.

Mathematics [Prof.
Johnson, Alta M., Ph.B. Neb.

Philosophy, v. Botany

Physics
..... Lectr.

Zoology
Newell, Miss, Ph.D. Lectr.

GENERAL INFORMATION (v. also pp. 406, 415)

Originally a department of the Huguenot Seminary founded by Dr. Andrew Murray in 1874, the College was incorporated by Act of the Cape Legislature in 1907 as a College for Women and became a constituent College of the Univ. in 1918.

LIBRARY, over 7000 vols. HERBARIUM, over 2000 specimens. LABORATORIES, Bot., Chem., Physics, Zool.

COURSES for B.A., B.Sc., M.A., M.Sc., and First Class Teachers' certif. Special courses in Horticulture.

EXPENSES. Class Fees, £16 per annum. Board at the College Hostel, £44 p.a.

THE YEAR 1921

BENEFACTIONS. Mrs. B. v. d. Westhuizen, £100; others £120.

NEW POSTS. Lectrs. in Philos. and in French and German.

NUMBER OF STUDENTS. Full-time, preparing for Bachelorship, 49, including 7 men; for Master's Degree, 1. Graduates taking course in Educn., 12; others, 29, including 5 men. One graduate went to London for Med. study.

DEGREES OBTAINED. B.A. or B.Sc., 10; Certif. Tr. 4.

RETIREMENT. Dr. A. E. Bliss after 10 yrs.' service as President.

UNIVERSITY OF STELLENBOSCH

CHANCELLOR—Prof. P. J. G. DE VOS, Litt.D.
VICE-CHANCELLOR—Prof. A. MOORREES, Litt.D.
PRINCIPAL—Prof. G. G. CILLIE, Ph.D.
REGISTRAR—D J. ACKERMANN, B.A.

[*Returns not received since February* 1921]

PROFESSORS, LECTURERS, ETC.

Agriculture, v. also Vet. [Prof.
Perold, A I., Ph.D. Halle, B.A. (Œnology and Viticulture)
Neethling, J. H., M.Sc. Corn. (A. Botany) Prof.
Reinecke, O. S H., B.S.A. Guelph (Fruit-culture) Prof.
Brain, C. K., M.A. Chic., D.Sc. Birm. (Pathology) Prof.
Malherbe, I. de V., Ph.D. Mün., B.A. (A. Chem.) Prof.
Reimers, J. H. W. (Animal Husbandry) Lectr.

Botany [Prof.
Nel, G. C., B.A., Ph.D. Berl.
Duthie, Miss A. V., M.A. Lectr.
..... Lectr.

Chemistry
van der Merwe, C. D., Ph.D. Halle, B.A. Prof.
van der Riet, B. de St. J., Ph.D. Halle, M.A. Prof.
du Toit, D. F., D.Chem. Leyd., M.A. Prof.
Krige, G. J. R., M.Sc. Lectr.
..... Lectr.

Classics
van Braam, P., Litt.D. Utr., M.A. (Latin) Prof.
Edgar, C. S., B.A. Ox., M.A. Edin. (Greek) Prof.
Basson, J., Ph.D. Berl., M.A. (C. and Classical Philol.) Prof.
McCulla, J., M.A. R.U.I. Lectr.

Commerce (Staff to be apptd.)

Dutch and Afrikaans
Joubert, W. A., Th.D. Amst., B.A. (Dutch) Prof.
Pienaar, E. C., Litt.D., Amst. B.A. (Dutch) Prof.
van Niekerk, Lydia, Litt.D. Amst., B.A. (Dutch) Prof.
Smith, J. J., B.A., Barr.-at-Law (Afrikaans) Prof.
Celliers, J. F. E. (Literature) Prof
de Wet, B.A., M.A. Lectr.

Economics
Grosskopf, J. F. W., Dr. Jur. Prof.

Education [Prof.
Cillie, G. G., Ph.D. Stras., B.A.
Pauw, D. A. A., B.A. (Method) Prof.
Donald, M., M.A. Lectr.
Schröder, Miss A. E. Lectr.
..... Lectr.
Stockenström, E. C., B.A. Lectr.

English
Notcutt, H. C., B.A. Lond. Prof.
..... Lectr.
Pienaar, W. J. B., B.A. Lectr.

French
Franken, J. L. M., Litt.D. Ghent, M.A. Lectr.

Geography
Serton, P., Litt.D. Utr. Prof.

Geology
Shand, S. J., Ph.D. Münst., D.Sc. St. And. Prof.

German
..... Lectr.

Germanic Philology [Prof.
Bouman, A. C., Litt.D. Utr.

Hebrew
Stolk, M. F., Ph.D. Leip. Lectr.

History [Prof.
Blommaert, W., Litt.D. Ghent.

le Roux, Miss M., B.A. Lectr.
Gie, S. F. N., Ph.D. Berl., B.A. (H. of S. Africa) Prof.
Law [Prof.
Bodenstein, H. D. J., Barr.-at-Law, LL.D. Leid. (Roman-Dutch L.)
Others to be appointed.
Logic and Metaphysics [Prof.
Wilcocks, R. W., Ph.D. Berl., B.A.
Mathematics
Mackenzie, A. H., M.A. Aberd. and Camb. Prof.
Stegmann, E. T., B.A., D.Sc. Ag. Prof.
Mathematics, Applied [Prof.
Morrison, J. T., M.A., B Sc. Edin.
Cilliers, A. C., M.Sc. Lectr.
Philosophy, Moral and Polit.
Brümmer, N. J., B.D. St. And., M.A. Prof.
Physics [Prof.
Malherbe, W. E., B.Sc. Edin., B.A.
Harvey, S. C., B.A. Lectr.
Schumann, T. E. W., M.Sc. Lectr.
Physiology
Battaerd, P., M.D. Leyden Prof.
Veterinary Science [Prof.
De Kock, G. v. d. W., M.R.C.V.S.
Zoology [Prof.
Goddard, E. J., B.A., D.Sc. Syd.
Grobbelaar, C. S., M.A. Lectr.

GENERAL INFORMATION (v. also p. 406)

The Univ. was formally opened on Feb. 28, 1920.

FACULTIES. Literature and Philosophy (including also Languages, History, Economics, Roman Dutch Law), Maths. and Nat. Sc., Educ., Agric., Theol.

DEGREES, ETC. B.A., B.Sc., B.Sc. (Agric.) [4 yrs.' course], B.Educ. (6 months after passing T1), LL.B. (4 yrs. combined with B.A.); obtainable by 1 yr. post-graduate course—M.A., M.Sc., M.Sc. (Agric.). After 2 yrs. [for D.Sc. (Agric.) 1 yr.] of further study and research at the Univ. or other approved place a M.A., M.Sc., or M.Sc. (Agric.) respectively may present a thesis for the Litt.D., or Ph.D., D.Sc., or D.Sc. (Agric.). Similarly a LL.B. may [2 yrs.] present a thesis for the LL.D.

Courses are also provided for the T1 and T2 Teachers' certifs. and for the Univ.'s diploma (2 yrs.' course) in Agric.

FEES for tuition per semester, £10 (Teaching, £5 to £7 : 10s.). Examns., £5 to £20. Hostel fees, £44 and £48 p.a.

PUBLICATION. *Calendar* (Dec.).

THE YEAR 1920

NEW BUILDINGS. For Chemistry Dept., to be completed in 1921 at cost of £50,000; Hostel for 100 men, to cost £40,000.

NEW POSTS. Profs. of Agric., Chem., and Path., instead of Lectrs. New Chairs of Econs., Geog., Vet. Sc. Lect'ships in Dutch, Engl., Chem., Educn., Animal Husbandry.

EXTENSION WORK. Evening lectures by members of staff once a week.

NUMBER OF STUDENTS. Preparing for B.A. or B.Sc. (Pure Sc.), 393, including 57 women; for LL.B., 2; for B.Sc. (Agric.), 29; for M.A. or M.Sc., 26; for Teachers' Certif., 135 (92 women); others, 50. 3 graduates went to Oxford for further study and 1 to Amsterdam. 40 other students went abroad for further study.

DEGREES CONFERRED (1919). B.A. and B.Sc., 81; M.A. and M.Sc., 11.

DEATHS. Dr. G. D. Roos; M. H. Jackson, 1921.

RETIREMENT. A. B. Bartmann, Prof. of Maths., July 1920.

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG, TRANSVAAL

WITH WHICH IS INCORPORATED

UNIVERSITY COLLEGE, JOHANNESBURG, TRANSVAAL

(FORMERLY SOUTH AFRICAN SCHOOL OF MINES AND TECHNOLOGY)

CHAIRMAN OF COUNCIL—Col. Sir W. DALRYMPLE, K.B.E.

CHAIRMAN OF SENATE AND PRINCIPAL—JAN H. HOFMEYR, M.A

SECRETARY OF COUNCIL—D. P. SUTTIE.

SECRETARY OF SENATE—Prof. YOUNG.

PROFESSORS, LECTURERS, ETC., October 14, 1921

Accounting

Findlay, J., C.A. Edin., F.S.A.A. Eng., I.A., R.P.A. Trans. Prof.

Dix, F., B.Com., R.P.A. Trans. Lectr.

Stewart, J. L. Lectr. in *Banking*.

Anatomy

Stibbe, E. P., M.R.C.S., L.R.C.P. [Prof.

Edelstein, H. H., M.B. Edin. Demr.

Gluckmann, H., M.R.C.S., L.R.C.P. Hon. Demr.

Architecture

Pearse, G. E., A.R.I.B.A. Prof.

Botany

Moss, C. E., M.A. Camb., D.Sc. Manc., B.Sc. Leeds Prof.

Heatley, Miss M., M.A. Well. Lectr.

Young, Miss E., M.Sc. S.A. Jr. Lectr.

Chemistry

Wilkinson, J. A., M.A. Camb., F.C.S. Lond. Prof.

Robertson, J. B., M.A., B.Sc. Edin. Sr. Lectr.

George, E., M.Sc. S.A. Lectr.

Sampson, B., B.Sc. S.A. Jr. Lectr.

Adam, H. R., B.Sc. Aberd., F.I.C. Analyt. and Research Chemist.

Classics

The Principal Prof.

Haarhoff, T. J., B.A., B.Litt. Ox. Prof.

Wagner, A. I., B.A. Ox. and Cape Asst.

Dutch

Krige, J. D. A., Ph.D. Ghent, M.A. Cape (also Lectr. in German) Prof.

Economics, Ec. Hist., and Statistics

Lehfeldt, R. A., B.A. Camb., D.Sc. Lond. Prof.

Education

Macgregor, W. R., M.A. Aberd. (also Prof. of Psych.) Prof.

Electro-Technics.

Heather, H. J. S., B.A. Ox., M.I.C.E., M.I.E.E., F.Am.I.E.E. Prof.

Damant, E. L., B.Sc. Lond. and S. Afr., A.M.I.E.E. Sr. Lectr.

Engineering, Mechanical
Orr, John, O.B.E., B.Sc. Glas., M.I.C.E., M.I.M.E., M.Am.S.C.E., M.Am.S.M.E. De Beers Prof.
Jensen, A. E., B.Sc. Lond. and S. Afr. Sr. Lectr.
Gimkewitz, F., B.Sc. S.A. Sr. Lectr.
Drysdale, J., A.R.I.B.A. Jr. Lectr.

Engineering, Civil
Charters, R. H., M.I.C.E. Prof.

English
Drennan, C. M., M.A. Camb. and Lond. Prof.
Lawrie, J. G., B.A. S.A. Asst.

French
Maingard, L. F., M.A., D.Lit. Lond., L.e.D. Paris. Prof.

Geography
Wellington, J. H., B.A. Camb. and Lond. Sr. Lectr.

Geology
Young, R. B., M.A. Glas., D.Sc. Edin. Prof.
Küpferburger, W., M.Sc. Stell. Jr. Lectr.

Hebrew [Prof.
Landau, J. L., Ph.D. Vien., M.A.

History
Macmillan, W. M., B.A. Ox. Prof.
Hodgson, Miss M. L., B.A. Ox. and Cape Lectr.

Law
Murray, J. C. Lectr.
Schreiner, O. D., B.A. Cape and Camb., LL.B. Camb. Asst.

Mathematics [Prof.
Dalton, J. P., M.A., D.Sc. St. And.
Constançon, C., Dip. Ing. Zür. Sr. Lectr.
..... Jr. Lectr.

Maths., Applied [Sr. Lectr.
Le May, H., M.A., B.Sc. Glas.

Metallurgy and Assaying
Stanley, G. H., A.R.S.M., F.I.C., M.I.M.E., M.I.M.M. Prof.
Millin, D., B A. Cape, F.I.C. Sr. Lectr.

Mining and Surveying
Watermeyer, G. A., B.A. Cape, A.R.S.M. Prof.
..... Sr. Lectr.

Music
Kirby, P. R., M.A. Aberd., A.R.C.M. Prof.

Philosophy [Prof.
MacMurray, J., M.A. Ox. & Glas.

Physics
Paine, H. H., M.A. Camb., B.Sc. Lond. & Wales Prof.
Evans, G. T. R., B.Sc. Wales Lectr.
Kops, C. W., B.A. Cape Jr. Lectr.
Rosenstein, V , M.Sc. S.A. Addl. Lectr.

Physiology [O. Beit. Prof.
Cluver, E. H., B.A., B.M. Ox., B.A. Cape
Stammers, A. D., B.A. Camb. Sr. Lectr.

Psychology, v. Educn.

Veterinary Anatomy [Prof.
Mettam, R. W. M., M.R.C.V.S.

Zoology
Fantham, H. B., M.A. Camb., D.Sc. Lond. Prof.
Sandground, J., M.Sc. S.A. Jr. Lectr.
Taylor, Miss E., B.Sc. S.A. Demr.

Medicine (for subjects of first 2 yrs.—Anat., etc., v. *supra*)

Gynaecology [Prof.
Grant, W. Gordon, M.D. Aberd.

Medicine
Williamson, O. K., M.A., M.D. Camb., F.R.C.P. Lond. Prof.
Watt, A., M.B., C.M., F.R.C.S. Edin. Tutor.

Obstetrics
McGibbon, J., M.B., F.R.C.P. Edin. Prof.

Pathology and Bacteriology

Watkins-Pitchford, W., M.D. Lond., D.P.H. Ox., F.R.C.S. Hon. Prof.

Becker, J. G., M.B. Glas., D.P.H., D.T.M. Liv. Sr. Lectr.

Pirie, J. H. H., B.Sc., M.D., F.R.C.P. Edin. Sr. Lectr.

Pharmacology

Watt, J. M., M.B. Edin. Prof.

Crawford, J. Instr.

Surgery

Thomson, G. Ritchie, M.B., Ch.M. F.R.C.S. Edin. Prof.

Levin, J. J., M.B. Edin. Tutor.

Mudd, F. B., M.R.C.S., L.R.C.P. Lectr. in Anæsth.

GENERAL INFORMATION (v. also p. 406)

Telegraphic address—University, Johannesburg.

The TRANSVAAL TECHNICAL INSTITUTE, constituted in 1903, was opened in 1904 and took over at Johannesburg the work of the S. AFRICAN SCHOOL OF MINES, KIMBERLEY, which had been founded in 1896. In 1906 its name was changed to "TRANSVAAL UNIVERSITY COLLEGE," and in 1908 Arts and Science classes at Pretoria were placed under its control. This arrangement was terminated in 1910, when the Johannesburg part of the institution was incorporated under the name of the S. African School of Mines and Technology. Buildings, towards the cost of which the Council of Education, Witwatersrand, contributed £60,000 and Govt. £30,000, were opened in March 1909. In March 1917 classes in Arts, Pure Science, and Medicine were inaugurated. In Sept. 1920 the institution became the "University College, Johannesburg." In 1921 the College was reincorporated as a University with effect from March 1, 1922.

LIBRARIES. Seymour Memorial, 11,000 vols., and several departmental. MUSEUM with good Geol. collection.

In addition to the Degree COURSES, Evening Classes are provided in technical and other subjects at Johannesburg and other Witwatersrand centres, and in connexion with these College certificates are given. Inclusive FEES from 12 gs. p.a. (Civil Service Law course) to £32 (B.Sc. Eng.).

SCHOLARSHIP for Graduates in Mining and Metallurgy—£250 for Research.

RESIDENCE. Hostels for 150 men and 30 women. Fees, £60 p.a.

PUBLICATIONS. *Calendar; Evening Class Prospectus; Examn. Papers.*

THE YEAR 1920–21

BENEFACTIONS. Chamber of Mines, £5000; Rhodes Trustees, £5000.

NEW BUILDINGS. Medical School and Hostels for men and women nearly completed; buildings at Milner Park begun for Arts and Pure Science Depts., the main buildings of the Coll. having been disposed of to S. Afr. Govt.

NEW POSTS. Prof. of Archit., Lectrs. in Anæsth., Botany, Engin., Hist., Physiol., Med. and Surg. Tutors, Demrs. in Anat. and Zool., Instr. in Pharmacology.

NUMBER OF STUDENTS. Full-time, 490, including 92 women. Part-time, preparing for Bachelorship, 131 (27 women); for Diplomas, 190 (41 women); Occasional, 13 (6 women).

RESIGNATIONS, ETC. Prof. Tillyard resigned to accept post as Prof. of Russian at Birmingham; Prof. T. Wendt resigned; J. Hutcheon died.

THE UNIVERSITIES OF INDIA

UNIVERSITIES were first established in British India as a result of the great parliamentary inquiry into the condition of India which preceded the confirmation of the Company's Charter in 1853. It was resolved to create a properly articulated system of education from the Primary School to the Univ. The London Univ., at that time a purely examining body, which admitted to its tests only the students trained in affiliated institutions—the latest device of educational statesmanship—was taken as a model. "It had been suggested, in London, by conditions which resembled those of Bengal. . . . Its defects were not yet apparent, though it was to be profoundly modified by London itself four years later. It had the advantage of costing very little. It enabled all the existing collegiate institutions, whether Government or missionary, to be worked into the same scheme, and promised to provide a quite impartial mode of testing the qualifications of students for Government service. Above all, it gave freedom to the non-Government Colleges—all, at that date, mission colleges—to carry on their work in their own way, and offered them help from public funds for the secular side of their work" (*Report of the Calcutta Univ. Commission*, 1917–19). In pursuance of this policy, Univs. were founded in 1857 at Calcutta, Bombay, and Madras. The framers of the policy, while contemplating that the ordinary subjects of study should be dealt with by the Colleges, did not intend that the Univs. should have no teaching functions, but in point of fact they have until recently concerned themselves solely with examinations. In 1882 and 1887 the Univs. of the Panjab and Allahabad were established on similar lines. A Commission was appointed in 1902 to examine the working of the system, and the Univs. Act of 1904 was designed to give effect to its recommendations as to reorganization of the government of the Univs., their assumption of teaching functions, and more effective supervision by them of the Colleges as well as more exacting conditions of affiliation. Univ. Professorships, Readerships, and Lectureships have accordingly been constituted in the above-named Univs., but mainly for advanced (post-graduate) courses and, except in Calcutta, only on a very small scale. Benares (Hindu), Mysore, and Patna Univs. were established in 1916 and 1917. The foundation, structure, and working of institutions for higher education in India have been subjected to exhaustive re-examination by the Calcutta Univ. Commission, 1917–19. Preparations are in progress (1921) for giving effect to many of the far-reaching and fundamental changes recommended by this body. Universities of the unitary, teaching, and residential type were established in 1920 and 1921 in Aligarh, Dacca, Hyderabad (Deccan), and Rangoon. The following summary relates to the five older Univs.

CONSTITUTION. Under the Act of 1904 the SENATE, comprising the (official) Chancellor, the Vice-Chancellor, and Fellows (and, in Calcutta, the Rector) constitute the Body Corporate of the Univ., the executive government being vested in a SYNDICATE of from 9 to 17 members including the Vice-Chancellor and Director(s) of Public Instruction and

members (largely College teachers) elected by the Senate or the Faculties. The constitution and abolition of FACULTIES rests with the Senate.

ADMISSION TO EXAMINATIONS. Save on the recommendation of the Syndicate, by special order of the Senate, and subject to any regulations made in this behalf, no person may be admitted to any except the Matriculation examn. unless he produces a certificate from a College *affiliated* to the Univ. to the effect that he has completed the prescribed course.

Applications for AFFILIATION are submitted by the Syndicate. if satisfied as to the managing agency, teaching staff, provision for residence of students, equipment, financial resources, suitability of fees, etc., to Government. If granted, the courses in respect of which the College is affiliated are specified. Affiliated Colleges must comply with requisitions by the Syndicate for information, submit themselves to inspection under the Syndicate's orders, and take such action as may be ordered consequent upon such inspections.

TERMS. Bombay divides the academic year into two terms, June–Oct., Nov.–March ; elsewhere Colleges make such arrangements as they find convenient. Univ. examns. are for the most part held in the spring.

DEGREE COURSES. In *Arts and Science* a 2 yrs.' course leading to an Intermediate examn. is followed by a further 2 yrs.' course for the Degree. English is a compulsory subject. Madras gives a B.A. Honours degree requiring an additional year of study.

Law. The LL.B. (or B L.) course covers 2 yrs. after graduating in Arts or Science.

Medicine. The M.B. and B.S. course covers 5 yrs., starting from the Intermediate examn. in Arts or Science or (Bom. and Calc.) 6 yrs. from Matricn.

Teaching. The B.T. (All. and Mad.—L.T.) courses cover 1 yr. after graduating in Arts or Science. Calc. gives a L.T., obtainable by 2 yrs. of study after passing the Interm. examn. in Arts or Sc. Bombay requires either 3 yrs ' experience or 2 terms at a Training College after graduation *plus* 1 yr.'s experience thereafter.

Engineering. For the B.E. Bombay gives a 3 yrs.', Calc. and Mad. a 4 yrs.', course.

HIGHER DEGREES. The M.A or M.Sc. can be taken by bachelors of 2 yrs.' standing ; the D.Litt. of All. and D.Phil. of Calc. by M.A. of 3 yrs.' standing ; the D.Lit. or D.Sc. of Panj by M.A. or M.Sc. after 2 yrs. of further advanced study ; the D.Sc. of All. by M.Sc. after 1 yr. of further study ; the D.Sc. of Calc. by M.Sc. of 3 yrs.' standing.

The LL.M. of All. and Bom., the M.L. of Mad., and the LL.B. (Hons.) of Panj. may be taken by LL.B. or B.L. of 2 yrs.' standing, the M.L. of Calc. at any time after taking the B.L. The LL.D. (or D.L.) is open to LL.M. (or M.L.) after 5 yrs. (Calc. 1 yr.) of practice.

The M.D. (and in Calc. M.O.) can be taken by medical graduates after experience (All. and Panj. 4 yrs., Calc. and Mad. 3 yrs., Bom. 5 yrs.) in the practice of their profession or hospital practice (All. and Panj. 2 or 3 yrs., Mad. and Calc. 1 or 2 yrs., Bom. 1 or 2 yrs., in addition to professional practice). The M.S. qualifications are similar, but in Calcutta both hospl. and professional practice are required.

RESIDENCE. One of the recommendations of the Commission of 1902 was that much closer attention should be given to the conditions under which students live and work, and very large sums have since been spent in providing hostels and otherwise improving the conditions of student life.

CONFERENCES. In April 1920 a Committee was formed for drafting an outline of the functions and constitution of an Assocn. of Indian Univs.

The project was further advanced at the Congress of Universities of the British Empire at Oxford in July 1921. A conference of Principals of Engineering Colleges in India was held in July 1921 to discuss matters connected with training and recruitment and post-graduate training or higher specialized courses for Engineers.

INDIAN STUDENTS AT THE HOME UNIVERSITIES. In view of the difficulties which have been experienced by Indian students coming to the United Kingdom, an organization has been established by Government for their assistance. This organization is under the control of the High Commissioner for India, and consists of an Indian Students' Department at 42 Grosvenor Gardens, S.W.1, in charge of two Joint Secretaries to the High Commissioner for India for Indian Students' work, N. C. Sen, O.B.E., and T. Quayle, D.Lit., assisted by R. M. J. Knaster, B.A., and V. I. Gaster, B.A. There is also a hostel at 21 Cromwell Rd., S. Kensington, S.W.7, under the control of the Department (Warden, R. M. J. Knaster). There are Local Advisers to Indian Students at Manchester, Edinburgh, and Glasgow, and eleven Advisory Committees in India (Allahabad—Sec., R. K. Sorabji, M.A., Barr.-at-Law; Ajmere—Sec., F. A. Leslie-Jones, M.A., Principal, Mayo College; Bombay—Sec., Prof. F. M. Dastur, M.A., Univ. Buildings; Calcutta—Sec., J. W. Holme, M.A., 7 College Sq.; Dacca—Sec., Prof. B. N. Das, M.A., B.Sc.; Delhi—Sec., S. K. Rudra, M.A., Principal, St. Stephen's College; Gauhati—Sec., G. Barooah, Barr.-at-Law; Lahore—Sec., K. Dalip Singh, B.A., Barr.-at-Law; Madras—Sec., A. Davies, M.A., Barr.-at-Law, Principal, Law College; Nagpur—Sec., S. R. Pandit, M.A., LL.B., Barr.-at-Law; and Patna—S. N. Sahay, B.Sc., B.A., Barr.-at-Law).

The Indian Students' Department at 42 Grosvenor Gardens comprises a bureau for the supply of information on educational matters, and one of the Jt. Secs. acts as Local Adviser to Indian Students in London. A pamphlet, giving a detailed account of the house at 21 Cromwell Road, which serves as a centre and meeting-place for Indian students in London and a temporary residence for new arrivals, can be obtained from the Warden, or from the Advisory Committees in India, and a *Handbook of Information on the Educational Facilities of the United Kingdom* will be published by the Department in the early part of next year.

The posts of Local Adviser to Indian students in Oxford and Cambridge were abolished in 1916, and were replaced by a Secretary to the Delegacy for Oriental Students at Oxford, and a Secretary to the Inter-Collegiate Indian Students Committee at Cambridge. These gentlemen are Univ. officers, and are in no way under the control of the High Commissioner for India.

ALIGARH MUSLIM UNIVERSITY

LORD RECTOR—THE GOVERNOR-GENERAL OF INDIA.

CHANCELLOR—HER HIGHNESS NAWAB SULTAN JEHAN BEGUM OF BHOPAL, G.C.S.I., G.C.I.E., C.I., G.B.E.

PRO-CHANCELLOR—HIS HIGHNESS AGA SIR SULTAN MOHAMED SHAH AGA KHAN, G.C.S.I., G.C.I.E.

VICE-CHANCELLOR—RAJA SIR MOHAMED ALI MOHAMED KHAN, KHAN BAHADUR, K.C.I.E., C.S.I.

PRO-VICE-CHANCELLOR—ZIA-UD-DIN AHMAD, C.I.E., M.A. Camb., D.Sc., Ph.D.

TREASURER—NAWAB SYED MAHOMED ALI.

The Mahomedan Anglo-Oriental College, founded in 1875, became, under the Aligarh Muslim University Act of 1920, a unitary residential University. Although it is chiefly Muslim, and special attention is paid to Muslim Theology, it is open to all, without distinction of sex, race, creed, or class. In the grounds, comprising several square miles, are halls and hostels sufficient for the accommodation of all the students and some of the junior members of the staff. The existing Departments include English, History and Political Science, Economics, Philosophy, Physics (with exceptionally fine laboratory), Chemistry, Mathematics and Astronomy, Geography, Theology, Oriental Languages, and Law. The present staff consists of over 30 Professors, Readers, and Lecturers. Several new departments are to be opened, and the staff is to be increased in the near future. For names of principal members of the College staff see p. 437.

UNIVERSITY OF ALLAHABAD

PATRON—THE GOVERNOR-GENERAL OF INDIA

CHANCELLOR—THE GOVERNOR OF THE UNITED PROVINCES.

VICE-CHANCELLOR AND CHAIRMAN OF THE SYNDICATE—Hon. Justice MUNSHI GOKUL PRASAD, M.A., LL.B.

REGISTRAR—M. G. V. COLE, M.A.

PROFESSORS, READERS, ETC., December 21, 1921

Economics

Jevons, H. Stanley, M.A., B.Sc., F.S.S. Prof.
Bhatnagar, B. G., M.A. Reader.
Chaube, R. R., M A. Research Asst.
Nanda, G. L., M.A. Scholar.

Geography

..... Prof.

History

Khan, S. Ahmad., M.A., Litt.D. Prof.
Tripathi, Ram Prasad, M.A. Reader.
Beni Prasad, M.A. Asst. Prof.
Iswari Prasad, M.A. Asst. Prof.
Dhown, D. S., M.A. Research Scholar.
Rao, Gurty Venkat Research Scholar.

UNIVERSITY SCHOOL OF LAW. Principal—J. C. Weir, B.A., LL.D. Dub., Barr.-at-Law. Professor—R. K. Sorabji, M.A., Barr.-at-Law. Lecturers—Sarat Chandra Chowdhry, B.A., LL.B.; Mohd. Walliulla, Barr.-at-Law.

GENERAL INFORMATION (v. also p. 432)

Founded in 1887, the Univ. concerned itself mainly with examinations, having no teaching staff (except that of its School of Law) until 1914. Since then it has established Chairs and Readerships, etc., for research work in Economics and Modern History for graduate students.

LIBRARY, 18,000 vols. MUSEUM in connection with Economics Dept.

FACULTIES. Arts, Science, Law, Medicine, Commerce.

DEGREES, ETC. B.A., M.A., D.Litt.; B.Sc., M.Sc., D.Sc.; LL.B., LL.M., LL.D.; M.B., B.S., M.D., M.S.; L.T. (Teaching); Commerce Diploma.

RECOGNITION OF OTHER UNIVS. The examns. of Bom., Calc., Mad., Panj., Patna, and Benares, the Ox. and Camb. Senior Local, and Lond. Matricn. examns. are recognized.

SCHOLARSHIPS FOR GRADUATES. Emp. Vict. Research Readership, Rs. 100 p.m. (3 yrs.) for M.Sc.; one of Rs. 100 and 3 of Rs. 50 for Research under Univ. Profs.

RECOGNIZED HOSTELS. 8 at Allahabad and Agra.

PUBLICATIONS. *Calendar*, Rs. 5; *Arts, Sc., and Law Examns. Prospectus*, R. 0.6.0. *Journal of Economics*, Rs. 12 p.a.; *Univ. Retrospect.*

AFFILIATED INSTITUTIONS RECOGNIZED IN DEGREE COURSES

[M.A., etc. =affiliated up to M.A., etc., standard.]

AGRA COLLEGE. M.A.; M.Sc., except in Bot.; B.Sc. in Bot.; I.L.B. Principal and Prof. of *Engl. Lit.*—T. Cuthbertson Jones, B.A. Lond. Other Profs.: *Arabic and Pers.*—Syed Mohd. Ibn Ibrahim, M.A. *Biol.*—Karam Chand Mehta, M.Sc. *Chem.*—H. Krall, B.A., B.Sc. Dub.; B. L. Vaish, M.Sc. *Econ.*—Lokendra Nath Ghosh, M.A. *Engl. and Logic*—T. F. O'Donnell, B.A. N.U.I. *Hist.*—A. Brookes, M.A. Camb. *Law*—Nilmani Dhar, B.A., B.L. *Maths.*—Ekanath Banerji, M.A., B.Sc. *Phys.*—S. P. Prasad, B.Sc. Cal.; Satish K. Mukerji, M.Sc. *Sansk.*—Krishna Lal Misra, M.A. *Zool.*—H. S. Seth, M.Sc. 25 Lectrs. and Demrs.

AGRA, *St. John's College.* M.A., except in Econ.; M.Sc. in Maths.; B.Sc.; and in Commerce. Under the general control of the Church Missionary Soc. Admits non-Christians, but is especially for Christians. Principal, and Prof. of *Engl.*—A. W. Davies, M.A. Ox. Vice-Principal, and Prof. of *Philos.*—T. B. Sully, B.A. Ox. Other Profs.: *Commerce*—L. Steele, F.I.A. Lond. *Engl. Lit.*—V. G. H. Shaw, M.A. Camb.: C. F. Walbank, B.A. Camb. *Maths.*—C. Chaturvedi, M.A., B.Sc. *Philos. and Logic*—H. Mark, M.A. 27 Asst. Profs., etc.

AJMER, *Govt. College.* B.A.; B.Sc. in Maths., Phys., Chem. Principal—E. F. Harris, B.A. 11 Profs., etc.

ALIGARH, *Mohammedan Anglo-Oriental College.* M.A.; D.Sc. in Maths., M.Sc. in Chem. and Phys.; LL.B. The Coll. was instituted for Mohammedans, but admits students of other creeds also. Principal—Zia Uddin Ahmad, C.I.E., M.A. Camb., Ph.D. Gött., D.Sc. Profs.: *Arabic*—A. S. Tritton, M.A. Ox., D.Litt. Edin. *Chem.*—M. Haidar Khan, B.A. Camb., B.Sc. Lond., B.Sc. *Econ.*—L. K. Hyder, B.A. Camb., Ph.D. Heid. *Eng.*—L. Chase, Ph.D. Col.; M. Collins, B.A. Lond., Ph.D. Leip. *Hist.*—K. M. Panikkar, B.A. Ox. *Law*—Syed Ali Naqi, B.A. Vakil. *Maths.*—A. M. Kureishy, M.A. *Philos.*—Mian Mohd. Sharif, B.A. Camb. *Phys.*—..... 30 Asst. Profs., etc.

ALLAHABAD, *Ewing Christian College.* M.A. in Philos. and Econ.; B.Sc. American Presb. Mission. Principal, and Prof. of *Engl.*—C. A. R. Janvier, M.A., D.D. Vice-Principal, and Prof. of *Econ.*—C. D. Thomson, M.A. Col. Other Profs.: *Biol.*—W. S. Dudgeon, Ph.D. *Philos. and Engl.*—N. C. Mukerji, M.A.; J. C. Manry, M.A. Harv. 20 other Profs., etc.

ALLAHABAD, *Kayastha Pathshala.* B.A. in Engl., Maths., Hist., Pers., Sansk. and (provisionally) Econ. Principal—B. Sanjiva Rao, M.A. Camb. 12 other Profs., etc.

ALLAHABAD, *Muir Central College.* M.A.; D.Sc. in Chem., Phys., Maths., and Zool.; B.Sc. in Bot. Maintained by Govt. Principal—J. J. Durack, M.A. Camb. Profs.: *Arabic and Pers.*—Syed Mohd Ali Nami, Maulvi Alim, etc. *Biol.*—W. N. F. Woodland, D.Sc. Lond.; K. N. Bahl, M.Sc.; D. R. Bhattacharya, M.Sc.; J. H. Mittra, M.A., B.Sc. *Chem.*—N. R. Dhar, D.Sc. Lond; K. P. Chatterji, M.Sc.; S. C. Deb, M.A.; A. P. Sarcar, D.Sc.; N. G. Chatterji, M.Sc. *Engl.*—C. P. W. Lloyd, M.A. Dub.; S. G. Dunn, M.A. Ox.; A. C. Mukerji, M.A.; S. A. Pande, M.A., LL.B.; J. A. Ewing, M.A. Edin.; P. N. Bhattacharya, M.A.; A. N. Jha, M.A. *Hist.*—Parmanand, M.A. *Maths.*—R. H. Moody, M.A. Camb. and Aberd.; A. C. Banerji, M.Sc.

Cal.; Kumud Behari Mittra, M.A. *Philos.*—E. A. Radford, M.A. Ox.; H. N. Randle, B.A. Ox. *Phys.*—Wali Mohammad, Ph.B.; Jagat B. Seth; C. L. Sahney, M.Sc.; D. N. Pal, M.A.; S. R. Bhargava, M.Sc. *Econ.*—G. D. Karwal, M.A.; A. R. Burnett-Hurst, B.Sc. Lond. *Sansk.*—P. K. Acharya; Sita Ram Sastri. 15 Asst. Profs., etc.

ALLAHABAD, *Government Training College.* L.T. Principal—J. L. Watson, M.A. Edin. Vice-Principal—R. S. Weir, M.A., B.Sc. Glas. Head of Practising School—J. C. Powell-Price, M.A. Camb. Other Teachers: W. G. P. Wall, M.Sc. Manc.; K. C. Bhattacharya, M.Sc., L.T.; 4 others.

BAREILLY COLLEGE. B.A. Principal—J. H. Maxwell, M.A. Glas. 9 other Teachers.

BENARES, *Queen's College.* M.A. except in Econ.; B.Sc. in Phys., Chem., and Maths. A Govt. Institn. Principal—P. S. Burrell, M.A. Ox. Profs.: *Arabic*—Himayal-ul-Hasan, B.A. *Engl.*—R. L. Turner, M.A. Camb. *Engl. and Hist.*—H. N. Randle, M.A. Ox. *Maths.*—M. Khurshed Ahmed, M.Sc. *Philos.*—C. M. Mulvany, M.A., B.Lit. Ox. *Sansk.*—Lakshman Sastri; V. J. Antani, M.A. 2 Profs. in Science, 2 Demrs.

CAWNPORE, *Christ Church College.* M.A. except in Econ. Controlled by the Lucknow Diocesan Board of Missions and a Managing Committee. Principal, and Prof. of *Engl.*—M. S. Douglas, M.A. Camb. Vice-Principal, and Prof. of *Philos.*—S. C. Chatterji, M.A. Panj. 7 other Profs., etc.

CAWNPORE, *Dayanand Anglo-Vedic College.* Provisionally from July 1919, B.A. in Engl., Maths., Hist., Econ., Philos., Sansk., Pers.; Commerce. Principal—Dewan Chand, M.A. 10 other Profs.

GORAKHPUR, *St. Andrew's College.* B.A. in Engl., Hist., Maths., Philos. Pers., and Sansk. Principal—A. C. Pelly, M.A. Camb. 11 Profs., etc.

GWALIOR, *Victoria College.* B.A.; B.Sc. in Maths., Phys., Chem. Entirely supported by the State. Principal—H. F. Manley, M.A. Camb. 17 Profs., etc.

INDORE, *Christian College.* M.A. in Philos. Principal—R. A. King, M.A. Manit. Other Profs.: *Engl. and Econ.*—H. W. Lyons, B.A. Toronto. *Engl. and Philos.*—A. A. Scott, B.A. Tor. 6 other Profs.

INDORE, *Holkar College.* B.A.; B.Sc. in Maths., Phys., Chem. Maintained by the State. Principal—P. C. Basu, M.A. Cal. 13 Profs.

JABALPUR, *Robertson College.* B.A.; B.Sc. in Maths., Phys., Chem. Principal—A. C. Sells, M.A. Ox. 18 Profs. and Demrs.

JABALPUR, *Training College.* L.T. A Govt. Institn. Principal—R. McGavin Spence, M.A. Edin. Profs.—Satish Chandra Ghoshal, B.A., B.Sc., LL.B.; Gangadhar Govind Kanetkar, M.A.; Sheoram Hari Gokhale, M.A.; L. G. D'Silva, B.A.; S. V. Pendse, B.A.

JAIPUR, *Maharaja's College.* M.A. except in Econ.; B.Sc. in Maths., Phys., Chem. Maintained by the State. Principal (Dir. of Pub. Instrn.)—N. K. Ray, B.A. Cal. Vice-Principal—D. P. Saksena, M.A. Profs.: *Arabic*—Altaf Husain, Maulvi Alim. *Econ.*—Vithal Vaman Tamhankar, B.A. *Maths.*—Manmohan Lal Mathur, B.Sc. *Pers.*—Mohammed Baqa, Munshi Fazil. *Engl. and Logic*—Parbati C. Mukerji, M.A. *Sansk.*—Vireshwar Shastri. 6 Asst. Profs., etc.

JODHPUR, *Jaswant College.* B.A. Principal—Pandit Suraj Prakash, M.A. 7 Profs.

MEERUT, *Meerut College.* B.A.; B.Sc. in Maths., Phys., Chem.; LL.B.; and in Commerce. Principal—W. Jesse, M.A. Camb. Prof. of *Law*—Gurcharan Das, B.A., LL.B.; B. N. Mithal, B.Sc., LL.B. 18 other Profs., etc.

MUSSOORIE, *Woodstock College* (for European and Anglo-Indian Girls): B.A. in Latin, French, and Hist. Principal—Miss E. E. Fife, M.A., D.D. Musk, U.S.A. 6 Profs., etc.

NAGPUR, *Hislop College.* M.A. in Engl., Philos., Sansk., Pers., Hist., Maths., and Econ.; B.Sc. (teaching in Vict. Coll.). Principal, and Prof. of *Hist. and Engl.*—T. W. Gardiner, M.A. Camb. Prof. of *Engl. and Hist.*—J. S. Hoyland, M.A. Camb. *Maths.*—G. K. Garde, M.A. *Pers.*—M. M. Kabir, B.A. *Philos. and Engl.*—J. Brenner, M.A. Aberd. *Sansk.*—S. J. Dehedrai, M.A. *Econ. and Hist.*—J. S. Prentice, M.A. Queen's (Canada). 10 other Profs., etc.

NAGPUR, *Morris College.* M.A. in Engl., Philos., Maths., Sansk, Pers., Econ., and Hist.; B.Sc. in Maths., Phys., Chem. (teaching in Vict. Coll.); LL.B. Principal, and Prof. of *Hist.*—F. P. Tostevin, B.A. Ox. Other Profs.: *Econ.*—M. H. Nanawati, M.A., LL.B. *Engl. and Hist.*—F. M. Cheshire, B.A. Camb. *Law*—G. P. Dick, Barr.-at-Law; P. S. Kotwal, B.A. Ox.; J. C. Ghose, B.A., B.L. Cal. *Maths.*—S. P. Banerji, M.A. *Pers.*—M. A. Ghani, M.A. *Philos.*—J. B. Raju, B.Sc. Ox., M.A. *Econ. and Engl.*—A. C. Sengupta, M.A. *Sansk.*—Rampratap Shastri. 9 other Profs., etc.

NAGPUR, *Victoria College of Science.* D.Sc. in Phys. and Chem. Maintained by Govt. Principal, and Prof. of *Chem.*—R. H. Beckett, B.Sc. Lond. Prof. of *Phys.*—M. Owen, M.Sc. Wales. 4 Assts.

THE YEAR 1920-21

BENEFACTIONS. Govt. grant, Rs. 25,000 for electric installation; Ram Mohan Roy, Rs. 3000 for gold medal.

CHANGES IN REGULATIONS. Introduction of Geography as an independent subject of Univ. study; students of Benares Univ. permitted to study in King George's Med. College; regns. for LL.B. and D.Sc. revised; age-limit for Matricn., Interm., and B.A. examns. reduced by one year.

NEW AFFILIATIONS. Sanatan Dharm College, Cawnpore, in Commerce.

OTHER IMPORTANT EVENTS. Scheme for combined Univ. and Inter-College lectures in Economics (M.A. course) was introduced; the colleges at Lucknow were transferred to New Lucknow Univ.; an Act for establishing a High School and Intermediate Board was passed in the Local Legislative Council.

Soon after the close of the year an Act was passed for the reorganization of the Univ. as a unitary, teaching, and residential institution, with control, however, over the quality and character of the teaching in affiliated (to be called associated) colleges. The Univ. authorities will comprise a Court, Executive Council, Academic Council, Faculties, Council of Associated Colleges, and a Committee of Reference, consisting mainly of elected members of the Court not belonging to the Executive Council. Students will not be eligible for admission to the Univ. until after passing the Intermediate examn. of the H.S. and I. Board or its equivalent.

The foundation-stone was laid in Nov. 1921 of the Cawnpore Technological Institute for instruction and research in vegetable oils, leather, and tinctorial chemistry and (later) in other subjects.

NUMBER OF STUDENTS examined in 1921. B.A. and B.Sc., 1662; LL.B. (Pre. and Final), 957; M.B., B.S., 20; L.T., 109; M.A. and M.Sc. (Pre. and Final), 360; Comml. Diploma, 51.

DEGREES CONFERRED in 1921. B.A., 459; B.Sc., 101; LL.B., 205; M.B., B.S., 11; L.T., 98; M.A., 85; M.Sc., 15.

RESIGNATIONS. Pritam Singh and D. S. Dube of Economics Dept.

BENARES HINDU UNIVERSITY

LORD RECTOR—THE GOVERNOR-GENERAL OF INDIA, *ex officio.*

VISITOR—THE GOVERNOR OF THE UNITED PROVINCES, *ex officio.*

CHANCELLOR—THE MAHARAJAH OF MYSORE.

PRO-CHANCELLOR—THE MAHARAJAH OF GWALIOR.

VICE-CHANCELLOR—Pandit MADAN MOHAN MALAVIYA, B A., LL.B.

PRO-VICE-CHANCELLOR AND SECRETARY OF THE COURT AND THE COUNCIL—PRINCIPAL A. B. DHRUVA, M.A., LL.B.

TREASURER—Hon. RAJA MOTI CHAND SAHEB, C.I.E.

REGISTRAR—Professor SYAMA CHARAN DE, M.A.

On April 1, 1916, a teaching and residential Hindu University was incorporated " for the purposes, among others, of making provision for imparting education, literary, artistic, and scientific, as well as agricultural, technical, commercial, and professional, of furthering the prosecution of original research, and of giving instruction in Hindu theology and religion, and of promoting the study of literature, art, philosophy, history, medicine, and science, and of imparting physical and moral training."

A site was presented by the Maharajah of Benares, and by 1920 assets worth Rs. 1,33,00,000 had been acquired. These include perpetual grants by the Govt. of India and by Ruling Chiefs of Rs. 1,00,000 and 75,000 respectively. The Univ. began to function on Oct. 1, 1917, when it became responsible for the maintenance of the Central Hindu College, Benares. Colleges of Oriental Learning and Theology, and a Training College were opened in July and Aug. 1918, a College of Engineering in 1919.

Every member of the *Court*, the supreme governing body, must be a Hindu. It includes representatives of benefactors, graduates, the Senate, the Jain and Sikh communities, Hindu religion and Sanskrit learning, the learned professions. Of the *Senate*, the academic body, at least three-fourths must be Hindus; it includes (1) the Chancellor, Pro-Chancellor, Vice-Chancellor, Pro-Vice-Chancellor, Univ. Profs., and Principals or Heads of Colleges as *ex-officio* members; (2) 5 members nominated by the Visitor; (3) elected members, including representatives of the Court, of Hindu religion and Sanskrit learning, and graduates. The *Council* and *Syndicate* are the executive bodies of the Court and Senate respectively.

LABORATORIES include shop equipped for manufacturing machines, smith and paint shops, iron and brass foundry, and motor-car repair shop. A power-house is attached to the Engin. College.

ADMISSION. The Univ. is, subject to regns., open to persons of all classes, creeds, and castes, but provision is made for religious instruction (which is compulsory for Hindu students) and examination in the Hindu religion only. Women are eligible for admission to the Univ. and examns., degrees, etc.

FACULTIES. Oriental Learning, Theology, Arts, Science—Pure and Applied, Law.

DEGREES. B.A., M.A., D.Litt., B.Sc., B.Sc. in Appl. Sc. (Engin.), M.Sc., D.Sc., Shastri, Shastracharya, Smritiratna, Smritisagara, Dharmashastri, Dharmacharya, LL.B., LL.M., LL.D., L.T. The minimum qualification for Degree course (5 yrs.) in Engin. is Interm. Sc. examn. of an Indian Univ., with Maths., Phys., and Chem. as optional subjects.

RESIDENCE. Students are required to live in a Univ. or College Hostel, or, subject to the approval of the Pro-Vice-Chancellor, with parents or guardians.

SCHOLARSHIPS. 76 for Arts and Science students of merit, 30 for Teachers' Training College. Numerous other College Scholps.

DEGREES were conferred in 1919 as follows: B.A., 27 (including 1 woman); M.A., 1; B.Sc., 5; M.Sc., 2. Hon. Degrees were conferred in Dec. 1921 on H.R.H. the Prince of Wales, Mrs. Annie Besant, and the Maharajadhiraja of Darbhanga.

COLLEGES MAINTAINED BY THE UNIVERSITY

CENTRAL HINDU COLLEGE. Principal and Prof. of Sanskrit—A. B. Dhruva, M.A., LL.B. Honorary Univ. Profs.: Sir P. C. Roy, Kt., C.I.E., D.Sc. (Chem.); Nil Ratan Dhar, M.A., D.Sc. (Phys. Chem.); C. V. Raman, M.A. (Phys.); B. Keightley, M.A. (Philos.); P. K. Telang, M.A., LL.B. (Hist.); Manoharlal, M.A., N. C. Mehta, M.A., I.C.S., V. G. Kale, M.A., and H. R. Batheja, M.A. (Econ.). Other Univ. Profs.: G. Prasad, M.A., D.Sc. (Maths.); N. P. Gandhi, M.A., B.Sc., A.R.S.M., A.I.M.M., F.G.S. (Geol.); K. R. Gunjikar, B.A. Camb., B.Sc. (Phys.); S. S. Bhatnagar, Ph.D. (Chem.); K. K. Mathur, B.Sc. (Geol.); R. S. Inamdar, B.A. Camb. (Biol.). Lectrs. in *Biol.*—H. R. Mehra, M.Sc.; N. K. Tewari, M.Sc.; H. C. Ahuja, M.Sc.; R. K. Saxena, B.Sc.; Chandrabal, B.Sc. *Chem.*—M. B. Rane, M.A.; S. K. Basu, M.Sc.; N. N. Godbole, M.A., B.Sc.; P. S. Varma, M.Sc.; D. N. Banerji, M.Sc.; P. N. Roy, M.Sc. *Econ.*—H. L. Chablani, M.A.; R. C. Khanna, M.A.; Gurmukh Singh, M.Sc.; G. C. Varma, M.A. *Engl.*—P. Seshadri, M.A.; B. Banerji, M.A.; K. Prasad, M.A., Barr.-at-Law; V. G. Desai, M.A.; J. S. Yajnic, M.A., LL.B; S. N. Lal, M.A. *Hist.*—K. C. Chatterji, M.A.; S. N. Bhattacharya, M.A.; G. P. Mehta, M.A.; J. N. Prasad, M.A. *Maths.*—L. Narayan, M.A.; P. Prasad, M.A., B.Sc.; S. Pande, M.Sc.; H. N. Datta, M.A.; Gorakh Prasad, M.Sc. *Pers.*—Mirza M. M. Husain, Pandit Harihar Shastri. *Philos.*—P. B. Adhikari, M.A.; A. C. Mukerji, M.A.; I. Tewari, M.A.; G. P. Ganguli, M.A. *Phys.*—P. K. Dutt, M.A.; N. K. Sethi, D.Sc.; U. S. Asrani, M.Sc.; N. K. Pande, B.Sc. *Sansk.*—N. Bhattacharya, M.A.; R. Prasad Shastri, B. Nath, M.A.

COLLEGES OF ORIENTAL LEARNING AND THEOLOGY. Principals: O. L.—Pandit Ramavatar Sarma, M.A., Sahityacharya; Theol.—Pandit Prabhu Datta Agnihotri (acting). 17 other Profs.

TEACHERS' TRAINING COLLEGE. Principal, Pandit C. M. Sukul, M.A., L.T. 2 Assts.

ENGINEERING COLLEGE. Principal and Prof. of Mech. E.—C. A. King, B.Sc., A.R.C.Sc. Other Profs.: L. D. Couselant, B.Sc., B. C. Chatterji, B.A., B.Sc., B.L., A.M.I.E.E. 6 Asst. Profs. and a Demr.

UNIVERSITY OF BOMBAY

CHANCELLOR—THE GOVERNOR OF BOMBAY.

VICE-CHANCELLOR AND CHAIRMAN OF THE SYNDICATE—Sir CHIMANLAL H. SETALVAD, Kt., B.A., LL.B.

REGISTRAR—KHAN BAHADUR FARDUNJI M. DASTUR, M.A.

GENERAL INFORMATION (v. also p. 432)

Founded in 1857, the Univ. has concerned itself mainly with examinations and maintained no teaching staff until 1913. Since then it has provided annually lectures for post-graduate students in scientific and literary subjects. In 1919 it established a School of Economics and Sociology.

LIBRARY (established 1864, owing to Premchund Roychund Benefaction, Rs. 4,00,000), 24,000 vols., including Fawcett Collection (Econ.).

FACULTIES. Arts, Science (including Agric. and Engin.), Law, Medicine.

DEGREES. B.A., M.A.; B.Sc., M.Sc.; B.Com.; LL.B., LL.M.; M.B., B.S.; B.Hy., M.D., D.Hy., M.S.; B.Ag., B.E. (Civ., Mech., Elec.), M.C.E.

RECOGNITION of examns. of other Univs.; Interm. Arts and Sc. examns. of other Indian Univs. and London.

FEES for Univ. post-grad. courses, Rs. 5 each.

RESIDENCE. Board and lodging at Colleges generally from Rs. 40 to Rs. 70 p.m.

SCHOLARSHIPS FOR GRADUATES. In Sanskrit, Bhugwandass Purshotumdass, Rs. 514; Law, Sir Mangaldas Nathubai, Rs. 1000 p.a. for 3 yrs.; Travelling Fellowship, Rs. 700 p.a. for 3 yrs. for Hindus; Technical educn. in England for Hindus, Rs. 2000 p.a. for 3 yrs.; Springer Research Scholp. Lectureships: Wilson Philological, Rs. 750 (6 cold weather lectures); Bhagranlal Indraji, Rs. 1000 (6 lectures on Indian Epig., etc.).

INSPECTION OF SCHOOLS applying for recognition for purposes of the School-Leaving examn. is arranged for by the Joint Examn. Board.

PUBLICATION. *Calendar* (March); vol. i. Rs. 3, vol. ii. (examn. pp.) R. 2.

UNIVERSITY SCHOOL OF ECONOMICS & SOCIOLOGY

Director and Professor of Sociology and Civics—Patrick Geddes. Asst. Prof.—S. N. Pherwani, M.A.

Prof. of Economics—K. T. Shah, B.A., B.Sc. Lond. Asst. Prof.—C. N. Vakil, M.A., M.Sc. Lond.

AFFILIATED INSTITUTIONS RECOGNIZED IN DEGREE COURSES

AHMEDABAD, *Gujarat Coll.* (Govt.). In Arts. Principal—W. G. Robertson, M.A., B.D. Aberd. Profs.: *Bot.*—W. T. Saxton, M.A. Camb. *Chem.*—A. N. Meldrum, D.Sc. Aberd. *Engl. and Logic*—B. N. Seal, B.A. Camb. *French*—P. L. Charlier, B.A. *Hist.*—M. S. Commissariat, M.A. *Maths.*—S. M. Shah, M.A. *Physics*—V. B. Divatia, B.A. Camb., M.A. *Sansk.*—K. V. Abhyankar, M.A. 14 other Lectrs., etc.

BARODA, *State College.* In Arts; in Science for B.Sc. Principal—A. M. Masani, M.A., B.Sc. Profs.: *Biol.*—S. V. Sheode, B.Sc. *Chem.*—K. G. Naik, M.A., M.Sc. *Engl. and Hist.*—S. L. Joshi, A.M. Col. *Engl.*—A. X. Soares, M.A., LL.B. *Hist. and Pol. Econ.*—P. B. Naik, M.A. *Logic and Mor. Philos.*—A. K. Trivedi, M.A., LL.B. *Maths.*—Gajanan G. Pendse, M.A.; B. Sengupta, M.A. Calc., B.L. *Pers.*—Syed Nawab Ali, M.A. *Phys.*—S. G. Burrow, B.Sc. Lond. *Sansk.*—Bhaster R. Arte, M.A. *Phil.*—A. G. Widgery, M.A. Camb. 6 other Lectrs., etc.

BHAVNAGAR, *Samaldas State College.* In B.A. courses. Principal, and Prof. of *Maths. and Nat. Philos.*—Kavasji J. Sanjana, M.A. 10 other Profs., etc.

BOMBAY, *Elphinstone Coll.* (Govt.). In Arts; in Science for B.Sc. Principal, and Prof. of *Engl. Lit.*—A. L. Covernton, M.A. Ox. Other Profs.: *Engl.*—C. J. Sisson, M.A. Edin. (on deputation). *French*—L. Peltier, B.A., B.Sc. Paris. *Hist. and Pol. Econ.*—A. C. Farran, B.A. Dub. *Logic and Mor. Philos.*—R. Marrs, M.A. Ox. (on deputation); J. C. P. D'Andrade, M.A. (Acting). *Maths.*—D. D. Kapadia, M.A., B.Sc. *Pers.*—A. K. S. Shaikh, M.A. *Sansk.*—A. B. Gajendruzadkar, M.A. *Chem.*—C. J. Fox, Ph.D., B.Sc. Lond., Principal, Roy. Sc. Inst. *Physics*—G. R. Paranjpye, M.Sc. 18 other Lectrs., etc.

BOMBAY, *Grant Medical College* (Govt.). In Med. and in B.Sc. courses. Dean, and Prof. of *Path.*—Lt.-Col. R. M. Carter, C.B, F.R.C.S., D.T.M. Liv., I.M.S.; Major B. Higham, Acting. Other Profs.: *Anat.*—Y. G. Nadgir, M.S. *Bact.*—D. A. Turkhud, M.B., C.M. *Biol. and Med. Jurispr.*—W. Nunan, M.D., Acting. *Chem.*—Lt.-Col. W. H. Dickinson, M.B., B.Ch., I.M.S. *Mat. Med. and Pharm.*—Lt.-Col. E. F. G. Tucker, M.B., B.S., M.R.C.P. Lond., I.M.S.; S. K. Engineer. *Midw. and Dis. of Women and Children*—Major A. F. Hamilton. *Operative Surg.*—Lt.-Col. T. S. Novis, F.R.C.S., I.M.S. *Ophth.*—Major G. McPherson, M.A., M.B., C.M., I.M.S. *Phys.*—J. A. D'Souza, B.A., L.M., and S. *Physiol, Histol., and Hygiene*—Lt.-Col. L. T. R. Hutchinson, M.D., B.C., D.P.H. Camb., I.M.S.; Capt. S. L. Bhatia, Acting. *Surg.*—A. K. Dalal, F.R.C.S. 8 others.

BOMBAY, *Government Law School.* In Law. Principal, and Prof. of *Jurispr.*—B. J. Wadia, M.A., LL.B., Barr.-at-Law. Other Profs.: S. S. Rangnekar, B.A., LL.B.; P. W. Kane, M.A., LL.M.; W. B. Pradhan, B.A., LL.B.; Mirza A. Khan, M.A.; Y. N. Nadkarni, B.A., LL.B.; R. S. Bilimoria, Barr.-at-Law; P. B. Vachha, B.A., LL.B.; H. M. Mehta, B.A., Barr.-at-Law; P. L. Thacker, B.A., LL.B.

Bombay, *St. Xavier's College* (S.J.). In Arts; in Science for B.Sc. Principal, and Prof. of *Botany and Zool.*—E. Blatter. Other Profs.: *Biol.*—J. P. Mullan, M.A. *Chem.*—S. S. Dastur, M.A.; R. N. Bhagwat, M.A., B.Sc. *Engl. Lit.*—J. Devine. *French Lit.*—J. Duhr. *Hist. and Econ.*—S. N. Haji, B.A. Ox. *Hist. and Logic*—A. Soares, M.A.; C. D. Pinto, M.A. *Logic*—F. B. Vachha, B.A. Ox. *Maths.*—F. Hallberg; A. A. Engineer, M.A. Camb. *Pers. and Arabic*—M. M. Abbas, M.A., M.F. *Phys.*—A. Steichen; K. V. Joshi, M.A. *Sansk.*—R. Zimmermann; S. R. Dharadhar, M.A. 10 Lectrs.

BOMBAY, *Wilson College* (U.F. Church of Scotland). In Arts ; in Science for B.Sc. Principal, and Prof. of *Engl. and Philos.*—J. McKenzie, M.A., D.D., LL.D. Aberd. Other Profs. : *Biol.*—Vinayak N. Hate, B.Sc. *Chem.*—A. R. Normand, M.A., B.Sc. Edin. ; A. E. Walden, B.Sc. *Econ.*—J. Kellock, M.A., B.D. *Engl. Lit.*—E. A. Parker, M.A. *French*—V. G. Rao, B.A., LL.B. *Hist. and Latin*—R. Strachan, M.A., B.D. Aberd. *Maths.*—J. McLean, M.A., B.Sc. Aberd. *Pers.*—M. Ahmed, M.A. Calc. *Philos.*—J. R. Cuthbert, M.A. *Philos. and Hist.*—P. A. Wadia, M.A. *Phys.*—H. R. Hamley, M.A., B.Sc. ; D. B. Naik, M.A., B.Sc., LL.B. *Sansk.*—Hari D. Velankar, M.A. 10 Asst. Profs

BOMBAY, *Cama and Allbless Hospitals.* In Midwifery courses for the M.D.

BOMBAY, *Sydenham College of Commerce and Economics.* In Arts for B.Com. Principal, and Prof. of *Econ. and Econ. Hist.*—M. L. Tannan, B.Com. Birm. 7 Profs.

BOMBAY, *Municipal Laboratory.* In Chem. courses for the B.Hy. examn.

DHARWAR, *Government Karnatak College.* In Arts ; in Science for B.Sc. Principal, and Prof. of *Engl.*—H. G. Rawlinson, M.A. Camb. Other Profs. : *Engl. and Philos.*—H. V. Hampton, M.A. Dub. *Engl. and Hist.*—N. S. Takakhav, M.A. *Econ.*—S. G. Bari, M.A. *Sansk.*—V. G. Bhat, B.A. Camb. *Maths.*—C. P. Saldanha, M.A. *Logic and Philos.*—A. D. Dhopeshwarkar, M.A., LL.B. 7 Lectrs.

JUNAGADH, *Bahauddin College.* In Arts. Principal, and Prof. of *Engl. Hist., and Pol. Econ.*—S. H. Hodivala, M.A. Other Profs. : *Engl.*—K. L. Oza, M.A. *French*—C. F. Saldanha, M.A. *Logic and Mor. Philos.*—Harilal M. Bhatt, M.A. *Maths.*—Narayan B. Pendse, M.A., LL.B. *Pers.*—Aga Abdul Rahimkhan. *Sansk.*—Mahadev M. Joshi, M.A. *Science*—Vasudev S. Ghurye, M.A. 5 Lectrs.

KARACHI, *Dayaram Jethmal Sind College.* In Arts; in Science for B.Sc. Principal, and Prof. of *Engl.*—S. C Shahani, M.A. Other Profs. : *Biol.*—M. G. Punvani, B.A., M.B. *Engl.*—T. M. Advani, M.A., LL.B. *Engin.*—Motiram H. Advani, L.C.E. *Hist.*—D. T. Mariwalla, M.A. *Philos.*—G. G. Kewalramani, M.A., LL.B. *Maths.*—T. P. Trivedi, M.A., LL.B. *Pers.*—Hotchand M. Gurbaxani, M.A. *Phys. and Chem.*—Suratram B. Butani, M.A., B.Sc. *Sansk.*—Hari Laxman Lagu, B.A. 5 other Teachers.

KOLHAPUR, *Rajaram College* (State). Principal, and Prof. of *Engl. and Hist.*—Naipal Singh, B.A. Ox. 8 other Profs., etc.

POONA, *Deccan Government College.* In Arts. Principal, and Prof. of *Maths.*—A. C. L. Wilkinson, M.A. Other Profs. : *Engl.*—H. Hamill, B.A. Belf. *Hist. and Econ.*—B. K. Thakore, M.A. ; R. P. Patwardhan, B.A. Ox. *Logic*—Shankar Gopal Sathe, M.A. *Pers.*—A. N. D. Minocherhomji, B.A. *Sansk.*—S. K. Belvalkar, Ph.D. Harv., M.A. 7 other Teachers.

POONA, *Fergusson College.* In Arts ; in Science for B.Sc. Under the control of the Deccan Educn. Soc. Principal, and Prof. of *Engl.*—..... Other Profs. : *Bot. and Zool.*—Dhundiraj L. Dixit, B.A. *Chem.*—G. B. Kolhatker, M.A. *Engl. and Sansk.*—V. G. Paranjpe, M.A., LL.B. ; Pandurang D. Gune, Ph.D. Leip., M.A. *Engl.*—Ganesh H. Kelker, B.A. Camb., M.A. *German*—Krishnaji K. Joshi, M.A., Ph.D. Würz. *Hist. and Pol. Econ.*—Hon. Vaman G. Kale, M.A. *Hist.*—S. R. Kanitkar, M.A. ; V. N. Kumbhare, M.A. *Logic, etc.*—V. K. Joag, M.A. *Maths.*—V. B. Naik, M.A. *Pali*—Dharmanand Kaushambi. *Pers.*—Mahomedkhan Munshi. *Philos.*—R. D. Ranade, M.A. *Phys.*—Kesheo R. Kanitker, M.A., B.Sc. *Phys. and Chem.*—Mahadeo K. Joshi, M.A. *Sansk.-Shastri*—Wasudeo S. Abhyanker. 15 other Teachers.

POONA, *Government Agricultural College.* In B.Ag. courses. Principal, and Prof. of *Agric.*—J. B. Knight, M.Sc. Mass. *Bot.*—W. Burns, D.Sc. Edin. *Chem. and Geol.*—D. L. Sahasrabuddhe, M.Sc., M.Ag. *Mycology*—S. L. Ajrikar, B.A. Camb. *Entom.*—R. S. Kasargode, B.Sc. 18 other Teachers.

POONA, *Government College of Engineering.* In Engin. and in B.Sc. courses. Principal, and Prof. of *Mech. Engin.*—R. S. Cree Brown, B.Sc., A.M.I.C.E. Other Profs.: *Chem.*—R. J. Patwardhan, M.A. *Civil Engin.*—N. N. Ayyanger, L.C.E. *Elec. Engin.*—Shiv Narayan, B.E., M.A., B.Sc. *Engin.*—C. Graham Smith, A.M.I.C.E. *Geol.*—G. G. Narke, M.A. Calc., M.Sc. Manc. *Mech. Engin.*—Kirpal Singh, B.Sc. Lond. 11 other Teachers.

Poona, New Poona College. In Arts. Under control of Shikshana Prasarak Mandali. Principal, and Prof. of *Engl. and Sansk.*—V. G. Apte, B.A. Other Profs.: *Econ. and Maths.*—R. P. Sabnis, M.A. Camb. *Engl. and Sansk.*—R. D. Karmarkar, M.A. *Engl.*—R. K. Lagu, M.A. *Philos.*—N. G. Naralkar, M.A. *Phys. and Maths.*—N. M. Shah, M.A. Camb. 10 other Teachers.

SURAT, *Sarvajanik College.* In Arts. Under control of Gujarat Educn. Soc. Principal, and Prof. of *Engl.*—V. K. Rajvade, M.A. 12 other Profs.

THE YEAR 1920-21

BENEFACTIONS. Indian Community in Kobe, Rs. 10,216 for Dr. Dadabhai Naoroji Scholarship for an Indian girl with highest marks in English at matricn.; E. Dalgado, Rs. 10,000 for Scholarships.

CHANGES IN REGULATIONS. Sociology introduced into M.A. curriculum as one of the alternatives in the History and Philos. groups; Portuguese recognized as a 2nd language in Arts examns.; age-limit for school-leaving examn. abolished; regns. for B.T. revised; matricn. examns. of other Indian statutory Univs. and Mysore recognized.

NEW AFFILIATION. New Poona College.

NUMBER OF STUDENTS who presented themselves for degree examns. and (in brackets) those who took degrees: B.A., 1318 (754); LL.B., 483 (263); M.B., B.S., 263 (108); B.Com., 59 (26); B.Sc., 112 (53); B.Ag., 41 (29); B.E., 74 (51); Higher degrees, 94 (51).

UNIVERSITY OF CALCUTTA

CHANCELLOR—THE GOVERNOR OF BENGAL.

VICE-CHANCELLOR AND CHAIRMAN OF THE SYNDICATE—The Hon. Justice Sir ASUTOSH MOOKERJEE, Kt., C.S.I., M.A., D.L., D.Sc., Ph.D.

REGISTRAR—J. C. GHOSH, M.A.

CONTROLLER OF EXAMINATIONS—RAI BAHADUR A. C. BOSE, M.A.

INSPECTOR OF COLLEGES—H. C. MOOKERJEE, M.A., Ph.D., offg.

UNIVERSITY PROFESSORS, October 6, 1921

Art : Indian Fine Arts

Tagore, A. N., C.I.E. Bageswari Prof

Botany

Agharkar, S. P., M.A., Ph.D. Sir R. B. Ghosh Prof.

Brühl, P. J., D.Sc., I.S.O., F.C.S., F.G.S. Prof.

Chemistry

Ray, Sir P. C., Kt., C.I.E., D.Sc., Ph.D., F.C.S. Palit. Prof.

Mitter, P. C., M.A., Ph D. Sir R. B. Ghosh Prof.

Sen, H. K., M.A., D.Sc. Lond. Sir R. B. Ghosh Prof. of Applied C.

Mookerjee, J. C., D.Sc. G. P. Singh Prof.

Economics [Minto Prof.

Banerjee, P. N., M.A., D.Sc. Lond.

English

Stephen, H., M.A., D.D. Prof.

History and Culture, Ancient Indian

Bhandarkar, D. R., M.A. Carmichael Prof.

Law [Tagore Prof.

Garner, J. W., M.A., Ph.D.

Brown, A., M.A., LL.B. Prof. of Internat. L. (Public and Private).

Mathematics

Cullis, C. E., M.A., Ph.D. (Higher M.) Hardinge Prof.

Mookerjee, S. D., M.A., Ph.D. Prof.

Banerjee, S. K., M.A., D.Sc. (Applied M.) Sir R. B. Ghosh Prof.

Mental and Moral Science

Radhakrishnan, S., M.A. George V. Prof.

Haldar, H. L., M.A., Ph.D. Prof.

Philology, Comparative

Taraporewala, I. J. S., B.A., Ph.D. Prof.

Phonetics

Chatterjee, S. K., M.A., D.Litt. G. P. Singh Prof.

Physics

Raman, C. V., M.A. Palit. Prof.

Bose, D. M., M.A., Ph.D. Sir R. B. Ghosh Prof.

Ghosh, Phanindranath, M.A. Ph.D. Sir R. B. Ghosh Prof. of Applied P.

Saha, M. N., D.Sc. G. P. Singh Prof.

Zoology

Maulik, S., B.A. Camb. Prof.

LECTURERS holding endowed Lectureships :

Macdonell, M.A., Ph.D., LL.D. (Comparative Religion).
Pandit Khuddi Jha (Maithili).
Ganapat Sing, B.A. (Maithili and Hindi).
A. K. Guha, M.A., B.L., Ph.D. (Bengali).
B. C. Majumdar, B.A. (Oriya).

COUNCIL OF POST-GRADUATE TEACHING IN ARTS AND SCIENCE, 1920–21. President—The Hon. Justice Sir Asutosh Mookerjee, Kt., C.S.I., M.A., D.L., D.Sc., Ph.D. Secretaries: *Arts*—G. N. Banerjee, M.A., Ph.D. *Science*—H. C. Banerjee, M.A., B.L.

POST-GRADUATE TEACHERS IN ARTS. *Economics*, 16; *English*, 20; *History*, including *History and Culture, Ancient Indian*, 37; *Indian Vernaculars*, 25; *Mathematics, Pure*, 12; *Pali*, 9; *Persian and Arabic*, 6; *Philology, Comp.*, 3; *Philosophy*, 14; *Psychology, Expl.*, 7; *Sanskrit*, 21; *Anthropology*, 8.

POST-GRADUATE TEACHERS IN SCIENCE. *Botany*, 5; *Chemistry*, 14; *Geology*, 3; *Mathematics, Applied*, 9; *Physics*, 16; *Physiology*, 2; *Zoology*, 5.

UNIVERSITY LAW COLLEGE. Principal—S. C. Bagchi, B.A., LL.B., LL.D. Vice-Principal—B. M. Majumdar, M.A., B.L. Professors: *C.P. Code and Evidence*—Birajmohan Majumdar, M.A., B.L., and 4 others. *Crim. L.*—Haraprasad Chatterjee, M.A., B.L., and 2. *Equity*—The Principal and 2. *Hindu L.*—Jyotiprasad Sarbadhikary, M.A., B.L., and 7. *Internat. L., Public and Private*—Arthur Brown, M.A., LL.B. *Internat. L., Private*—P. Chaudhury, M.A. *Jurispr. and Roman L.*—Karunamay Basu, M.A., B.L., and 7. *Land Laws*—S. C. Datta, and 1. *Real Property, Contracts and Torts*—S. C. Ray, B.A., LL.B., and 9. *T.P. Act, Mahom., and Pers. L.*—M. N. Ray, B.L., and 9.

GENERAL INFORMATION (v. also p. 432)

Founded in 1857, this Univ. has been mainly an examining body, but has provided facilities for research since 1893 (when the Premchand Roychand Endowment was applied to this purpose), and post-graduate teaching since 1909. In 1917 a new scheme for post-graduate teaching came into operation under which all students who desire instruction in the M.A. or M.Sc. courses in Calcutta must be registered in the Senate House as Univ. students. A Commission under the Presidency of Sir Michael Sadler, K.C.S.I., appointed by the Govt. of India in Sept. 1917 to inquire into the condition and prospects of the Univ. and consider the question of a constructive policy, presented a comprehensive report and a series of important recommendations in March 1919.

The Univ. buildings include a Senate House, completed in 1872 at a cost of Rs. 4,35,000, the Durbhanga LIBRARY with Law College, Hostel, and Univ. offices (Rs. 12,00,000), the Univ. Press, and Examn. Halls and Lecture Rooms. LABORATORIES (in Univ. Coll. of Science): Phys. and Chem. (Pure and Applied), Applied Maths., Expl. Psych., Biol., Agric., Indian Fine Arts.

FACULTIES. Arts, Science, Law, Medicine, Engineering. The Affiliated Institutions (v. *infra*) include Colleges of Law (Calcutta—Ripon and Univ.—Gauhati), Medicine (Belgachia and Calcutta), Engineering (Sibpur), and Teaching (Calcutta—David Hare and Diocesan).

DEGREES, ETC. B.A., M.A., D.Phil.; B.Sc., M.Sc., D.Sc.; L.T., B.T.; B.L., M.L., D.L.; M.B., M.D., M.S., M.O., D.P.H.; B.E., D.Sc. (Engin.).

RESIDENCE. At the Hardinge Hostel for Law students the monthly charges amount to from Rs. 23 to Rs. 25.

RESEARCH STUDENTSHIPS, ETC. Premchand Roychand, Rs. 1400 p.a. for 3 yrs., awarded annually, 1 in Lit. and 1 in Science subject; Sreegopal Basumallik (fellowship), Rs. 1200 p.a. for 3 yrs. in Vedanta Philos.; Durbhanga, Rs. 600 in Med.; Sir R. B. Ghosh, Rs. 900, 8 annually to Science students to be attached to the Sir R. B. G. Profs.; Guruprasanna Ghosh, 1 annually, tenable for 3 yrs. in Japan (Rs. 1000) or Europe or America (Rs. 2000) by Bengal Hindus; Palit., Rs. 1,00,000 endowment for research or investigation out of India; Sir R. B. Ghosh Travelling Fellowships (3), Rs. 2,50,000 endowment for research or investigation out of India for 1 yr.; numerous other scholarships, medals, and prizes.

AFFILIATED INSTITUTIONS RECOGNIZED IN DEGREE COURSES

[M.A., etc. =Affiliated up to M.A., etc., standard.]

BANKURA, *Wesleyan College*. B.A. Principal—A. E. Brown, M.A. Camb., B.Sc. Lond. Vice-Principal—E. J. Thompson, B.A. Lond. 14 other Teachers.

BARISAL, *Brojomohan Institution*. B.A. Principal, and Prof. of *Engl. Lit.*—N. L. Mukerjee, M.A. 17 other Teachers.

BELGACHIA, *Carmichael Medical College*. M.B. Principal—M. N. Banerjee, B.A., M.R.C.S. Lond. Profs.: *Anat.*—M. N. Bose, M.B., C.M. Edin. *Physiol.*—S. P. Niyogi, M.Sc., M.B. *Mat. Med.*—P. Nandi, M.D. 33 other Teachers.

BERHAMPUR, *Krishnath College*. B.A. and B.Sc. Two years' course for Diploma in Commerce. Principal—N. G. Leather, M.A. Camb. 40 Profs. and other Teachers.

BHOWANIPUR, *South Suburban College*. Principal, and Prof. of *Econ.*—Panchanan Sinha, M.A., B.L. 20 other Teachers.

CALCUTTA, *Bangabasi College*. B.A. and B.Sc. Principal—G. C. Bose, M.A., M.R.A.C., M.R.A.S. 38 Teachers.

CALCUTTA, *Bethune College* (Girls). B.A. Supported by Govt. Principal—Miss G. M. Wright. 11 Teachers.

CALCUTTA, *City College*. B.A. and B.Sc. Principal, and Prof. of *Engl. Lit.*—Herambachandra Maitra, M.A. Vice-Principal, and Prof. of *Maths.*—K. P. Chattoraj, M.A. 44 other Teachers.

CALCUTTA, *David Hare Training College* (Govt.). B.T. Acting Principal, Prof. of *Hist. of Educn.*—Chintaharan Chakravarti, M.A., B.T. Other Profs.: Binayabhusan Sarkar, B.A., B.T.; S. N. Gupta, B.A., B.T.; Banabilas Ray, M.A., B.T.; G. C. Das-gupta, B.A., B.T.

CALCUTTA, *Diocesan College* (Girls). B.A., B.T. Principal—Sister Mary Victoria. 19 Teachers.

CALCUTTA, *Indian Association for the Cultivation of Science*, 210 Bow Bazar St. B.Sc. President—The Govr. of Bengal. Hon. Secy.—C. V. Raman, M.A.

CALCUTTA, *Medical College of Bengal*, M.B. Principal, and Prof. of *Medicine*—Lt.-Col. F. A. F. Barnardo, C.I.E., C.B.E., M.D., F.R.C.S.E., I.M.S. Other Profs.: *Anat.*—N. Pan, M.B. *Anat. and Physiol.*—Capt. J. A. Shorten, I.M.S. *Bot. and Zool.*—Asst. Surg. E. N. Ghosh. *Chem.*—..... *Dentistry*—J. E. Gill, L.D.S. *Hygiene*—C. A. Bentley, M.B., D.P.H. *Mat.*

Med. and Clin. Med.—Lt.-Col. D. McCay, M.D., M.R.C.P., I.M.S. *Med. Jurispr.*—Major N. P. Sinha, I.M.S. (ret.). *Midw.*—Lt.-Col. Leicester, I.M.S. *Ophth. Med. and Surg.*—Lt.-Col. W. V. Coppinger, M.D., F.R.C.S., I.M.S. *Path.*—Lt.-Col. Sir L. Rogers, Kt , C.I.E., M.D , F.R.C.S., I.M.S. *Physics*—Tulsidas Kar, M.A. *Surgery, Principles of*—Lt.-Col. F. P. Cannor, D.S.O., F.R.C.S., I.M.S.; *Surgery, Clin. and Operative*—Lt.-Col. R. P. Wilson, F.R.C.S., I.M.S. 29 other Teachers.

CALCUTTA, *Presidency College.* B.A. and B.Sc. Maintained by Govt. Number of undergrads. limited to 650. Principal—J. R. Barrow, M.A., Prof. of *English Literature.* Other Profs.: J. W. Holme, M.A. Liv.; M. Ghose, B.A. Ox.; T. S. Sterling, M.A.; Praphullachandra Ghosh, M.A.; N. N. Chakrabarti, M.A.; Srikumar Banerjee, M.A.; Bhupendrachandra Basu, M.A.; S. C. De, M.A., B.L. *Ment. and Mor. Philos. and Logic*—Adityanath Mukherjee, M.A., Ph.D.; Khagendranath Mitra, M.A.; R. K. Datta, M.A. *Hist.*—K. Zachariah, B.A.; Binaykumar Sen, M.A.; U. N. Ghoshal, M.A. *Pol. Econ. and Pol. Philos.*—J. C. Coyajee, B.A., LL.B.; A. C. Sengupta, M.A. Edin.; Panchanandas Mukherjee, M.A.; D. G. Chattoraj, M.A. *Sansk., Pali, and Bengali*—Nilmani Chakrabarti, M.A.; Harihar Banerjee, M.A. *Arabic and Pers.*—Maulavi Muhammad Hasan; S.-ul-U. Hedayat Hossain. *Maths. and Astron.*—C. E. Cullis, M.A., Ph.D.; D. N. Mallik, B.A., Sc.D.; Saradaprasanna Das, M.A.; J. M. Bose, M.A., B.Sc. Edin.; Karunamay Khastgir, M.Sc.; H. C. Sengupta, M.A. *Phys.*—E. P. Harrison, M.A., Ph.D.; P. C. Mahalanabis, B.A., B.Sc. *Chem.*—Jyotibhushan Bhaduri, M.A., F.C.S. *Physiol.*—S. C. Mahalanabis, B.Sc.; N. C. Bhattacharyya, M.A., B.Sc. *Botany*—J. C. Nag, B.Sc.; S. C. Banerjee, M.A.; S. C. Sinha, M.A. 25 Assts. and Demrs.

CALCUTTA, *Ripon College.* B.A., B.Sc., B.L. *Law Dept.* Principal—S. C. Chaudhuri, M.A., LL.B. Camb., Barr.-at-Law. Profs.: J. N. Kanjilal, M.A., D.L., Gangadhar Mukerjee, B.L. 10 other Teachers.

College Department. Principal, and Prof. of *Engl.*—J. N. Bhattacharyya, M.A., B.L. Vice-Principal, and Prof. of *Engl.*—R. N. Ghose, M.A. 38 other Teachers.

CALCUTTA, *St. Paul's Cathedral Mission College* (formerly "The Church Missionary Society's College"). B.A. Number of students limited to 250. Principal, and Prof. of *Hist.*—W. E. S. Holland, M.A. Ox. (E. C. Dewick, M.A. Camb., offg.). Vice-Principal, and Prof. of *Engl.*—A. B. Johnston, M.A. Camb. 13 other Teachers.

CALCUTTA, *St. Xavier's College* (S.J.). B.A., B.Sc. Students of other religious persuasions are admitted. Rector, and Prefect of Studies—J. Fallon, S.J. 27 Teachers.

CALCUTTA, *Sanskrit College.* B.A. Principal, and Prof. of *Sanskrit*—Asutosh Sastri, M.A. Other Profs.: Maha. P. N. Tarkabhushan (*Hindu Law*); N. N. Chakrabarti, M.A. (*English*); K. D. Banerjee, M.A. (*History*). 11 other Teachers.

CALCUTTA, *Scottish Churches' College.* B.A. and B.Sc. Formerly the General Assembly's Institn. and Duff Coll. Principal, and Prof. of *Chem.*—J. Watt, M.A., D.D., F.C.S. Other Profs.: *Engl.*—J. C. Scrimgeour, M.A.; A. Cameron, M.A.; A. Warren, B.A. Lond.; J. D. Sinclair, M.A., B.D.; N. K. Siddhanta, M.A.; M. K. Mookerjee, M.A. *Philos. and Logic*—W. S. Urquhart, M.A., D.Phil.; G. Ewan, M.A.; P. C. Sen, M.A.; B. N. Ray, M.A. *Econ.*—J. C. Kydd, M.A.; B. C. Datta, M.A. *Maths.*—G. S. Mill, M.A., B.Sc.;

M. S. Sarkar, M.A.; A. C. Ganguli, M.Sc.; B. B. Mandal, M.A. *Sansk.*—B. L. Banerjee, M.A.; K. P. Mookerjee, N. L. Vidyabinod. *Physics*—N. C. Ray, M.A.; R. K. De, M.A., B.Sc. *Chem.*—B. C. Dutt, M.A., F.C.S.; S. N. Sen, M.A. 10 other Teachers.

CALCUTTA, *Univ. Law College*, v. *supra*.

CALCUTTA, *Vidyasagar College* (formerly Metropolitan Institn.). B.A. and B.Sc. Principal—Saradaranjan Ray, M.A. Vice-Principal, and Prof. of *Engl. Lit.*—J. R. Banerjee, M.A., B.L. 41 other Teachers.

CHITTAGONG, *College* (Govt.). B.A. and B.Sc. Principal—H. C. Banerjee, M.A., B.L., offg., and Prof. of *Phys.* 22 other Teachers.

COMILLA, *Victoria College*. B.A. Principal and Prof. of *Engl. Lit.*—Satyendranath Basu, M.A. 12 other Teachers.

COOCH-BEHAR, *Victoria College*. B.A. Principal, and Prof. of *Maths.*—Upendranarayan Sinha, M.A. 14 other Teachers.

DAULATPUR, *Hindu Academy*. B.A. Principal—Dwijapada Banerjee, M.A. Vice-Principal—Surendranath Basu, M.A. 22 other Teachers.

GAUHATI, *Cotton College* (Govt.). M.A. in English (partially); B.A. and B.Sc. Principal—F. W. Südmersen, B.A. Lond. Profs. of *Engl.*: R. C. Goffin, M.A. Lond.; Praphullachandra Ray, M.A.; Asutosh Chatterjee, M.A.; S. K. Bhuyan, M.A.; B. K. Kakati, M.A. Prof. of *Physics*—D. E. Roberts, M.A. 21 other Teachers.

GAUHATI, *Earle Law College* (Govt.). Principal—J. Barooah, Barr.-at-Law. Profs.: T. R. Phookun, Barr.-at-Law; Satyanath Bara, B.L.

HUGHLI COLLEGE. B.A. and B.Sc. Maintained by Govt. Principal, and Prof. of *Engl.*—S. C. De, M.A. 20 other Teachers.

KRISHNAGAR COLLEGE (Govt.). B.A. and B.Sc. Principal—Egerton Smith, M.A. 20 other Teachers.

MYMENSINGH, *Anandamohan College*. B.A. Principal—Jajneswar Ghosh, M.A., Ph.D. 21 Teachers.

RAJSHAHI, *Government College*. B.A. and B.Sc. Principal, and Prof. of *Phys.*—Rai Kumudinikanta Banerjee, Bahadur, M.A. 32 other Teachers.

RANGPUR, *Carmichael College*. B.A. Principal, and Prof. of *Engl.*—N. Mookerjee, M.A. 19 other Teachers.

SERAMPORE COLLEGE (chartered in 1818 by the King of Denmark. Grants a B.D. degree which is accepted as equivalent to Calcutta B.A. as qualifying for post-graduate courses in most subjects. Bishops' College, Calcutta, is affiliated to it). B.A. Principal, and Prof. of *Engl. and Hist.*—G. Howells, M.A., B.D., B.Litt., Ph.D. Vice-Principal, and Prof. of *Philos.*—J. Drake, B.A., B.D. 17 other Teachers.

SIBPUR, *Bengal Engineering College* (Govt.). B.E. Principal—B. Heaton, M.I.E. Ind. Profs.: *Civil Engin.*—T. H. Richardson, B.A., B.A.I. Dub., M.I.C.E. Irel. *Elec. Engin.*—W. H. Everett, B.A., B.E., R.U.I., M.I.M.E., M.I.E.E. (on deputation); B. C. Gupta, offg. *Mech. Engin.*—R. Wolfenden, M.B.E., M.Sc. *Mining*—E. H. Roberton, B.A., M.Sc. Birm., M.I.E.E., F.G.S. *Phys. and Maths.*—A. Macdonald, M.A., B.Sc. Glas. *Chem.*—W. Saunders, B.Sc. Lond. 16 other Teachers.

SYLHET, *Murarichand College* (Govt.). B.A. Principal—A. C. Datta, B.A. Camb. 16 Teachers.

THE YEAR 1920-21

BENEFACTIONS. Khaira Fund, Rs. 5,50,000 (applied to establishment of Chairs of Indian Fine Arts, Phonetics, Physics, Chem., Agric.); late Sir R. B. Ghosh endowment yielding Rs. 40,000 p.a. for chairs in Applied Chem. and Applied Physics, 4 studentships, and improvement of Science College (attached to Univ.); Sir R. B. Ghosh bequest, Rs. 2,50,000 for 3 Travelling Fellowships; smaller endowments of aggregate value, Rs. 37,416.

NEW AFFILIATIONS. A new college at Feni in Noakhali was affiliated up to I.A. standard. Affiliation of following colleges was extended: Bankura, Wesleyan; Barisal, Brajmohan; Berhampur, Krishnath; Bhowanipur, S. Suburban; Calcutta, Loreto House, St. Paul's, St. Xavier's; Chittagong; Comilla, Victoria; Faridpur, Rajendra; Mymensingh, Anandamohan; Pabna, Edward; Rajshahi; Serampore.

LEGISLATION. Control over Univ. transferred from Govt. of India to Govt. of Bengal, the Govr. of Bengal becoming Chancellor of the Univ.; new courses in Anthropology and in Commerce were instituted.

MIGRATION. 469 students migrated to this Univ. from other Indian Univs.

UNIVERSITY OF DACCA (BENGAL)

VISITOR—H.E. THE GOVERNOR-GENERAL OF INDIA.

CHANCELLOR—H.E. THE GOVERNOR OF BENGAL.

VICE-CHANCELLOR—P. J. HARTOG, C.I.E., M A., B.Sc.

This Univ. was established in 1921 under an Act passed in 1920 which provides for the constitution of Faculties of Arts, Science, Law, Agriculture, and Medicine. It is proposed to constitute Departments in English Lang. and Lit., Phonetics, Maths., Philos., History (including Indian H.), Politics, Pol. Econ., Sansk. and Bengali, Arabic and Islamic Studies, Persian and Urdu, Physics, Chem., Law, Educn., Physical Educn. To these it is hoped to add at an early date Depts. of Bot., Zool., Physiology., Exp. Psychology, and Statistics. The initial Staff will comprise about 15 Profs., 18 Readers, and 60 Lectrs., Assts., and Demrs.

The Univ. is being constituted in its main lines in accordance with the recommendations of a Committee presided over by Mr. (now Sir Robert) Nathan in 1912 and by the Calcutta Univ. Commission of 1917–19, presided over by Sir Michael Sadler. The Report of this Commission states that "two main factors may be clearly distinguished in the origination of the Scheme: first and foremost the desire of the Musalmans of Eastern Bengal to stimulate the educational progress of their community, and, secondly, the desire of the Govt. of India to create a new type of residential and teaching Univ. in India, as opposed to the present affiliating type. To these must be added a third factor of especial importance, the desire of the Govt. to relieve the congestion of the Univ. of Calcutta." * Although special attention will be devoted to Islamic Studies and to the needs of the Musulman community, the Univ. will be open to all, without distinction of sex, race, creed, or class. It will be a unitary and residential Univ., of which the constitution will resemble in many respects that of the modern English Univs. The Authorities of the Univ. will include a Court, an Executive Council, an Academic Council, and Faculties; and the Teaching Staff will be mainly responsible for all matters connected with teaching and examns. The students (other than those living under specially approved conditions) will reside in Halls and Hostels situated in the Univ. domain, and the Univ. teachers will also reside in houses erected for them thereon. The domain consists of about a square mile of fine park land, including over 100 acres of playing fields. It is adjacent to the Civil Station of Dacca and to a park called the Ramna, and lies from 1 to 1½ miles north-west from the centre of Dacca City. It is provided with electric light and power.

The chief existing buildings for teaching and administrative purposes include: A Senate House with offices; a two-storied building, containing about 200 rooms, which cover 117,000 feet of floor space (at present utilized partly as a hostel for Muslim students), to be used for Class-rooms and Library; Chemical and Physical Laboratories, each including about 10,000 sq. feet of floor space, and now being enlarged; the buildings of the present Dacca College, including the Curzon Hall (which accommodates about 2000 persons)

* Chapter xxxiii. of the *Report* deals in great detail with the scheme for the Dacca Univ.

and 20 class-rooms; the Dacca Hall buildings, including two quadrangles, for 400 students; the Jagannath Hall buildings, in course of construction, which it is hoped to complete by July, and which will provide for 300 students; a small Archæol. Museum. To these will be added: a Muslim Hall, ultimately for 400 students; Hostel accommodation for Law students and students in the Dept. of Educn.; Biological Laboratories.

The Univ. will be differentiated from the Univs. in India previously created by the high standard of its entrance test, which is to be equivalent to that of the present Intermediate examn. of other Indian Univs. The undergraduate course in Indian Univs. in the Arts and Science is a 4 yrs.' course, the Interm. examn. being taken at the end of the 2nd year. The change in the standard of entrance has been made in accordance with the Recommendations of the Calcutta Univ. Commission.

UNIVERSITY OF LUCKNOW

VISITOR—THE GOVERNOR-GENERAL OF INDIA.

CHANCELLOR—THE GOVERNOR OF THE UNITED PROVINCES OF AGRA AND OUDH.

VICE-CHANCELLOR—RAI G. N. CHAKRAVARTI BAHADUR, I.S.O., M.A., LL.B.

TREASURER—E. A. H. BLUNT, O.B.E., I.C.S.

REGISTRAR—MAJOR T. F. O'DONNELL, B.A.

COLLEGES AND DEPARTMENTS

KING GEORGE'S MEDICAL COLLEGE. Principal—Lt.-Col. C. A. Sprawson, C.I.E., M.D., B.S. Lond., F.R.C.P., I.M.S. Maintained by the Univ.

CANNING COLLEGE (Arts and Science). Principal, M. B. Cameron, M.A., B.Sc. Lond.

ISABELLA THOBURN COLLEGE (Women's). Principal, Florence L. Nichols, M.A.

DEPARTMENT OF COMMERCE. Head of the Department, E. M. Moffatt, M.A.

LAW DEPARTMENT. Head of the Department, Pt. Jagmohan Nath Chak, B.A., Barr.-at-Law.

PROFESSORS, LECTURERS, ETC., November 21, 1921

KING GEORGE'S MEDICAL COLLEGE

Anatomy
Said-uz-Zafar Khan, M.B. Edin., D.T.M. Liv. Reader.
Mukerji, P. D., L.M.S. Cal. Senr. Demr.
Kackar, P. C., M.B. All. Junr. Demr.

Hygiene
Pandya, D. D., L.R.C.P. & S.E., L.F.P. & S.G., D.P.H. Camb. Reader.

Materia Medica & Med. Jurispr.
Modi, J. P., R.B., L.R.C.P. & S.E., L.F.P. & S.G. Reader.

Medicine
The Principal Reader.

Obstetrics
Hunter, Lt.-Col. T., M.A., B.Sc., M.D. Glas. Reader.

Ophthalmology
..... Reader.

Pathology
..... Reader.
Mukerji, J. G., L.M.S. Demr.

Physiology
Lister, Maj. A. E. J., M.B., B.S. Lond., F.R.C.S. Reader.
Mathur, S. N., M.B., B.S. Lectr.

Surgery
Nutt, Lt.-Col. H. R., M.D. Lond., F.R.C.S., I.M.S. Prof.

Canning College (Arts and Science)

Arabic
Kamal-uddin, Sa. Md., M.A. Reader.

Botany
Sahni, Birbal, M.A., D.Sc. Prof.
Chaudhury, H. P., M.Sc. Lectr.

Chemistry
MacMahon, P. S., M.Sc. Manc. Reader.
Sane, S. M., M.Sc., Ph.D. Reader.
Das, H. R., M.Sc. Lectr.

Economics
Mukerji, R. K., M.A., Ph.D. Prof.
Mukerji, B. B., M.A. Reader.
Dey, H. L., M.A. Lectr.

English
Brown, C. J., M.A. Ox. Reader.
Walker, H. S., M.A. Edin. Reader.
Nixon, R. H., M.A. Reader.
Roy, F. T., M.A. Lectr.
Pinto, F. T., B.A., LL.B. Lectr.

History
Smith, S. B., M.A. (Modern) Reader.
Mukherji, R. K., M.A., Ph.D. (Indian) Reader.
Banerji, S., M.A., L.T. Lectr.

Mathematics
Strang, J. A., M.A., B.Sc. Edin. Reader.
Narayan, Lakshmi, M.A. Reader.
Banerji, S., M.A. Lectr.

Persian and Arabic
Nurul-Aziz, Moulvi Md., M.A. Lectr.

Philosophy
The Principal Reader.
Cornelius, J J, M.A. Reader.
..... Lectr.

Physics
Mohammed, Wali, M.A., Ph.D. Prof.
Deodhar, D. B., M Sc. Reader.
Banerji, B. B., M.Sc. Lectr.

Sanskrit
Iyer, K. A. Subramanya, M.A. Reader.
Chakravarti, D. N., M.A. Lectr.

Zoology
Bahl, K. N., M.Sc. Reader.
Thapar, Sardar Govind Singh, M.Sc. Lectr.

Isabella Thoburn College (Women's)

Economics
Reddick, Miss O. I., B.A. Reader.

English
Dimmitt, Miss M. A., B.A. Reader.

History
Eustice, Miss W. E., M.A. Reader.

Latin
Manchester, Miss R. C., M.A. Reader.

Persian
Nath, Munshi Baij, Lectr.

Philosophy
Rockwell, Miss L. M., B.A. Reader.

Department of Commerce

Pandalai, K. C., B.Sc. Lectr.

LAW DEPARTMENT

Readers:

Husain, Hyder, B.A., LL B., Barr.-at-Law.

Misra, J. N , M.A., LL.D., Barr.-at-Law.

GENERAL INFORMATION

This residential and teaching Univ. was established under an Act of the Provincial Legislature passed in Nov. 1920. The authorities of the Univ. include a Court, Executive Council, Academic Council, Committee of Reference, and Faculties.

FACULTIES. Arts, Science, Commerce, Medicine, Law.

ADMISSION. Qualifications for Degree courses: Arts or Science—the Intermediate Examn. of an Indian Univ.; Law—Degree in Arts or Science; Commerce—Commerce Diploma Certif. of Allahabad; Med.—Degree in Science of Cal., Mad., Bom., All., or Panj. taken with Biol. as one of optional subjects, or, subject to certain conditions, the Interm. Examn. of Science Faculty of Panj. or equivalent examn. of Calc , Mad., or Bom., or P.Sc. Examn. of All.

DEGREE COURSES for B.A., B.Sc., B.Com , 2 yrs.; M.A., M.Sc., 2 yrs.; LL.B., 2 yrs.; M.B., B.S., 5 yrs. The lectures are supplemented by tutorial work, each student being assigned to a tutor who gives him personal attention and guidance in his course of study.

FEES for tuition for full course: B.A., B.Sc., LL.B., or B.Com., Rs. 200; M.A. or M.Sc., Rs. 240; M.B., B.S., Rs. 594.

SCHOLARSHIPS for Graduates. The Univ. provides 6 of the value of Rs. 30 p.m. each.

RESIDENCE. Students are required, unless specially exempted, to live in hostels.

UNIVERSITY OF MADRAS

CHANCELLOR—THE GOVERNOR OF MADRAS.

VICE-CHANCELLOR AND CHAIRMAN OF THE SYNDICATE—The Hon. Mr. K. SRINIVASA AIYANGAR, B.A., B L.

REGISTRAR—F. DEWSBURY, B.A., LL.B

UNIVERSITY PROFESSORS, September 9, 1921

Indian History and Archæology	*Indian Economics*
S. Krishnaswami Aiyangar, M.A.	..... Prof.
	T. K. Duraiswami Aiyar, M.A., L.T. Asst. Prof.

GENERAL INFORMATION (v. also p. 432)

This Univ., founded in 1857, has hitherto been mainly an examining body, but has, since 1912, maintained a small teaching staff and organized special lectures by persons eminent in Arts and Science in Europe and India. It appoints annually ordinary Univ. lecturers, and arranges inter-collegiate lectures mainly to assist the affiliated colleges in Honours courses.

FACULTIES. Arts and Science, Law, Medicine, Engineering.

ADMISSION. The Matricn. examn. has been almost completely superseded by the School-Leaving Certif. scheme.

DEGREES, ETC. B.A., B.A. (Honours), M.A.; L.T.; B.L., M.L., LL.D.; M.B., B.S., L.M.S., B.San.Sc., M.D., M.S.; B.E.

DIPLOMAS. Titles in Oriental Learning (4 yrs.' course); Econ. (1 or 3 yrs.'). CERTIFICATES of Proficiency in Oriental Learning (2 yrs.').
For the B.A. (Honours) an extra yr. of study is required.

RECOGNITION of examns. of other Univs. is not granted in general terms. The Syndicate deals with each application on its merits.

FEES for Univ. examns. range from Rs. 12 for matricn. to Rs. 100 for higher degrees.

RESIDENCE, ETC. Minimum cost of board and lodging for students living in European style, Rs. 50 p.m., for Indians, Rs. 30. A Students' Club, started under the auspices of the Madras Govt. in 1919, provides inexpensive meals and facilities for games and social intercourse irrespective of caste or creed.

RESEARCH STUDENTSHIPS not exceeding 8 annually, tenable 3 or 4 yrs., value Rs. 100 to Rs. 200 p.m.

PUBLICATIONS. *Calendar* (Jan.)—vol. i., Administration, Regns., Syllabuses; vol. ii., Affld. Colls., Endowments, Graduates. *Examn. pp.* (Sept.). *Annual Report. Minutes.*

AFFILIATED COLLEGES RECOGNIZED IN DEGREE COURSES

Arts and Science

ANANTAPUR, *Ceded Districts College.* Principal—A. Arulanandam, B.A. Ox.

HYDERABAD, *Nizam College.* Principal, and Prof. of *Hist.*—K. Burnett, M.A. Ox.

KUMBAKONAM COLLEGE (Govt.). Ag. Principal—P. Rajagopala Aiyar, M.A.

MADRAS, *Christian College.* Supported by Church and U.F. Church of Scotland and several Missionary Societies. Acting Principal—W. Meston, M.A., B.D. Professors: *Chem.*—E. Barnes, B.Sc. *Engl. Lang. and Lit.*—S. J. Crawford, M.A., B.Litt.; W. L. Campbell, B.A.; K. C. Macartney, M.A.; W. A. Jeffery, M.A.; W. Meston, M.A., B.D. *Hist.*—F. E. Corley, M.A.; J. N. Anderson, M.A. *Maths.*—E. B. Ross, M.A.; G. Ogg, M.A., B.D., D.Sc. *Ment. and Mor. Sc.*—A. G. Hogg, M.A.; A. J. Mackenzie, M.A.; W. Skinner, C.I.E., M.A., D.D. *Phys. Sc.*—A. Moffat, M.A., B.Sc. 27 other Teachers.

MADRAS, *Muhammadan College* (Govt.). For Muhammadans. Principal and Lectr. in *Engl.*—W. C. Douglas, M.A.

MADRAS, *Pachaiyappa's College.* For Hindus. Principal, and Prof. of *Hist.*—M. Ratnaswami, M.A., Barr.-at-Law. 34 other Teachers.

MADRAS, *Presidency College* (Govt.). Principal, and Prof. of *Econ.*—H. J. Allen, M.A. Dub. Profs.: *Bot.*—P. E. Fyson, B.A. Camb. *Chem.*—W. Erlam Smith, M.A. Ox.; B. B. Dey, D.Sc. (Ag.). *Econ.*—J. Mathai, M.A., D.Sc. *Engl.*—H. S. Duncan, M.A.; H. C. Papworth, M.A.; S. E. Ranganathan, M.A., L.T. *Geol.*—H. Narayana Rau, M.A. *Hist.*—M. A. Candeth, B.A., LL.B. *Maths.*—K. Ananda Rao, B.A. Camb. (acting). *Ment. and Mor. Sc.*—A. Chakravarti, M.A., L.T. (acting). *Physics*—Savoor, S. R. U., D.Sc. Lond., B.A. Camb. *Math. Phys.*—P. V. Seshu Aiyar, B.A., L.T. *Sansk.*—S. Kuppuswami Sastri, M.A. *Zool.*—K. Ramunni Menon, M.A. Camb. 35 other Teachers.

MADRAS, *Queen Mary's College.* Principal—Miss de la Hey. 5 other Profs.

MADRAS, *Women's Christian College.* Principal, and Prof. of *Engl.*, etc.—Miss E. McDougall, M.A. Vice-Principal, and Prof. of *Maths.* and *Phys.*—Miss E. M. Coon, M.A., Ph.D. 6 other resident Profs.

MADURA, *American College* (Mission). Principal, and Prof. of *Engl.*—W. M. Zumbro, M.A. Prof. of *Engl.*—E. L. Notling, B.A. *Hist. and Econ.*—A. J. Saunders, M.A. *Phys.*—E. M. Flint, M.A., B.Sc. 18 other Teachers.

MANGALORE, *St. Aloysius' College* (S.J.). Rector and Principal—C. Perazzi, D.D. 22 other Teachers.

MANNARGUDI, *Findlay College* (Wesleyan Mission). Principal, and Prof. of *Engl.*—R. Smailes, M.A. Camb. Prof. of *Hist.*—G. Satyanarayanamurti, M.A. 13 other Teachers.

MASULIPATAM, *Noble College* (Church Miss. Soc.). Govt. annual grant. Principal—W. C. Penn, M.A. Ox. Vice-Principal—W. S. John, M.A. (acting). 17 Profs., etc.

RAJAHMUNDRY, *Government College.* Principal, and Prof. of *Engl.*—N. R. Krishnamma, B.A. 26 other Teachers.

TRICHINOPOLY, *St. Joseph's College* (S.J.). Open to all creeds and classes, but primarily for R.C.'s. Rector—P. Carty. Principal—F. Bertram. Vice-Principal—C. Leigh. Profs.: *Bot. and Phys.*—E. Gombert. *Chem.*—A. Hass. *Org. Chem. and Zool.*—F. J. Caius. *Econ.*—P. Carty. *Engl.*—H. J Quinn. *Hist.*—L. V. Newton. *Maths.*—C. Pruvôt. *Phys.*—D. Honoré; P. E. Subrahmanya Aiyar, M.A. *French*—J. Bourdot. *Latin*—E. Rapinal. *Polit. Sc.*—J. Castets. 30 other Teachers.

TRICHINOPOLY, *S.P.G. College.* Principal and Warden, and Prof. of *Engl.*—A. F. Gardiner, M.A. Vice-Principal—W. H. M. Lonsdale, M.A. 27 Profs. and Lectrs.

TRIVANDRUM, *Maharaja's College* (Govt.). Principal, and Prof. of *Appl. Maths. and Physics*—J. Stephenson, B.Sc., A.R.C.Sc. Lond. 29 other Teachers.

VIZIANAGRAM, *Maharaja's College.* Principal, and Lectr. in *Chem.*—Y. Narasinham.

Teaching

MADRAS, *Teachers' College* (Govt.). Principal—R. G. Grieve, M.A. 13 other Teachers.

TRIVANDRUM, *Training College* (Govt.). Principal—G. F. Clark, M.A., Ph.D. 7 other Teachers.

Law

MADRAS, *Law College.* Principal—A. Davis, M.A., Barr.-at-Law. Profs.: K. P. Lakshmana Rao, B.A., B.L. 6 Asst. Profs.

TRIVANDRUM, *Maharaja's Law Coll.* (Govt.). Principal—H. S. Chatfield, M.A., Barr.-at-Law. Senr. Profs.—E. J. John, B.A., B.L.; K. G. Paramesvara Menon, B.A., B.L. 7 other Teachers.

Medical

MADRAS, *Medical College* (subject to the authority of the Surg.-Genl. with the Govt. of Mad.). Its certifs. are recognized by the Colls. of Surgs. of Eng., Scot., and Irel. Women students are admitted free. Principal—Lt.-Col. F. F. Elwes, C.I.E., M.D., I.M.S. Other Profs.: *Anat.*—G. Rama Rao, M.B., C.M. *Dent. Surg.*—C. F. Badcock, L.D.S. *Hyg.*—P. S. Chandrasekhar, B.A., M.D. *Mat. Med.*—Major A. W. J. Lynsdale. *Med.*—Maj. A. C. Ingram, B.A., M.D., D.Ph., I.M.S. *Med. Jurispr.*—Maj. J. M. Skinner, M.B., I.M.S. *Midw.*—Major C. A. F. Hingston, I.M.S. *Ophth.*—Major H. Kirkpatrick, M.B., I.M.S. *Path.*—Major A. J. H. Russell, M.D., I.M.S. *Physiol.*—Lt.-Col. C. Donovan, B.A., M.D., I.M.S. *Surg. and Biol.*—Lt.-Col. W. J. Niblock, M.B., F.R.C.S.I., I.M.S. 32 Lectrs. and Assts.

Engineering

MADRAS, *College of Engineering.* Principal—W. H. James, M.Sc., M.I.M.E., A.M.I.C.E. Profs.: *Civil E.*—G. Nagarathnam Aiyar, B.A., B.E.; K. C. Chakko, D.Sc. (Eng.) Lond. *Mech. E.*—C. L. Cartwright, M.I.M.E., A.M.I.C.E., M.I.E.E. *Elec. E.*—H. B. Mathews, M.I.E.E. *Maths.*—K. R. Ramaswami Aiyangar, M.A., L.T. *Technical Chem.*—S. N. Dhar, D.Sc. Lond., M.Sc. Calc. 25 Instructors.

Oriental Learning

Two Sanskrit Colleges in Madras and twelve in other towns are recognized as qualified to provide instruction for the Oriental Titles.

THE YEAR 1920–21

BENEFACTIONS. For 2 Scholarships, Rs. 26,800; for medals Rs. 19,400.

CHANGES IN REGULATIONS. Graduates in Law of other Indian Univs. to be permitted to appear for M.L. Degree Examn.; Degree in Agric. to be instituted and Agric. College at Coimbatore to be affiliated; Regns. for M.B., B.S., and L.M.S. to be amended, as indicated by the Gen. Med. Council, to ensure adequate training in midwifery.

DEGREES CONFERRED (1920). B.A.—745; B.A. (Hons.) and M.A.—226; B.L.—306; M.L.—17; L.T.—277; M.B., B.S.—19; L.M.S.—8; B.San.Sc.—1; B.E.—17.

RESIGNATIONS. Prof. Gilbert Slater, on accepting appointment under Govt. as Publicity Officer; Dr. S. A. Khan, on appointment as Prof. in Allahabad; S. Vaidyanathan, on appointment as Lectr. in Dacca.

UNIVERSITY OF MYSORE

CHANCELLOR—H.H. THE MAHARAJA OF MYSORE.

PRO-CHANCELLOR—H.H. SRI NARASIMHA RAJA WADIYAR, G.C.I.E., Yuvaraja of Mysore.

VICE-CHANCELLOR—BRAJENDRA NATH SEAL, M.A., Ph D.

REGISTRAR—V. SUBRAHMANYA IYER, B.A.

LIBRARIANS—N. NARASIMHAMURTHI, M.A., B L.; (Oriental L.) R. SHAMA SASTRI, B.A.

CONSTITUENT COLLEGES

At Mysore	*At Bangalore*
The Maharaja's College.	The Central College.
The Maharani Women's College.	The College of Engineering.

PROFESSORS, ETC., September 15, 1921

[M., W., C., E. = at Maharaja's, Women's, Central, Engineering College. V = Visiting.]

Botany (C.)
Sampatkumaran, M.A., Ph.D.Chic.
1 Demr. Acting Prof.

Chemistry
Usher, F. L., B.Sc. Lond., Prof. (C.).
Srinivasa Rao, M. G., M.A. Prof. (C.).
3 other Teachers (C. and E.).

Commerce (M.)
3 Teachers.

Economics
Subba Rao, M.A. Camb., Barr.-at-Law (Principal) Prof. (M.).
2 Lectrs. (W. and E.).

Engineering (E.)
Seshachar, K. R., B.A., B.E. (acting Principal) (Civ. E.) Prof.
Raghavendra Rao, S., B.A., B.Sc. Birm., M.I.Met. (Mech. E.)
3 Asst. Profs. Prof.

English
Mackintosh, A. B., B.A. Ox., M.A. St. And. Prof. (M., W.).
Rollo, J. C., B.A. Ox., M.A. Glas. Prof. (M., W.).
Sell, F. R., M.A. Ox. Prof. (C.).
McAlpine, E. G., M.A. Edin. Prof. (C.).
Hensman, Mrs. S. G., M.A. Prof. (W.).
Srikantia, B. M., M.A., B.L. Junr. Prof. (M., W.).
4 other Teachers.

French
Argaut, J. B. Lectr. (V., M., W.).
Collart, Father Lectr. (V., C.).

Geology (C.)
Sampathiengar, P., M.A. Prof.
2 other Teachers.

Hindustani and Persian
Aga M. Abbas Shooshtry Asst. Prof. (M.).
2 Munshis (M., C.).

History
Radhakumud Mookerji, M.A., Ph.D. Prof. (M., W.).
Krishnaswami Iyengar, S., M.A. Prof. (M.).
Sri Rukminiamma, K. D., B.A. Supt. (W.).
1 Asst. Prof. (M., W.).

Kannada
Krishnappa, B., M.A.
Asst. Prof. (M.).
1 Tutor (C.).

Mathematics
Narayana Iyengar, M. T., M.A.
Prof. (C.).
4 other Teachers (C. and E).

Philosophy (M)
Wadia, A. R., B.A. Camb., Barr-at-Law Prof.
1 Asst. Prof.
1 Tutor.

Physics
Metcalfe, E. P., B.Sc. Lond. (Principal) Prof. (C.).
Venkatanaranappa, B., M.A.
Junr. Prof. (C.).
Venkatesachar, B., M.A.
Junr. Prof. (C.).
3 other Teachers (C. and E.).

Sanskrit
Hiriyanna, M., M.A., L.T.
Prof. (M.).
4 other Teachers (M., C.).

Tamil and Telugu
4 Pandits (M., C).

Zoology (C.)
Narayana Rao, C. R., M.A., L.T.
Acting Prof.
2 other Teachers.

GENERAL INFORMATION

This Univ. was founded in 1916 with two constituent Colleges, the Central Coll., Bangalore, and Maharaja's Coll., Mysore, which had for 25 yrs. been affiliated to the Univ. of Madras. To these have since been added the Women's and Engineering Colleges. The executive government is vested in a Council of from 9 to 15 members, comprising the Vice-Chancellor, Inspr.-Genl. of Educn., Principals of Constituent Colls., Deans of Faculties, of Arts and Science, and member appointed by the Chancellor, or, if Govt. so direct, elected by the Senate from among its members. The Senate is charged with the organization of instruction, etc. It consists of from 40 to 70 members, including the Council, the Univ. Profs., and persons nominated by the Chancellor or elected with his approval.

LIBRARIES. Univ., 9000 vols.; Colls., 17,000; Sansk. and Oriental, 11,000 vols. and 9600 MSS.

FACULTIES. Arts, Science. TERMS: Jan.–April, July–Dec.

ADMISSION to B.A. or B.Sc. courses is normally by Entrance examn. in English, a second language, and either (*a*) Phys., Chem., and Maths. or Nat. Sc. or (*b*) Hist., Logic, and Sansk. or Pers. or Elem. Econ. Candidates prepare for this by an *extra* yr. of study in Collegiate High Schools after completing the ordinary High School course. The Interm. examn. of any other Indian Univ. is accepted as equivalent to the 1st yr. examn. and qualifies for admission to the 2nd yr. class. Admission to the B.E. course is by the Entrance examn. with Phys., Chem., and Maths.; to the B.Com. course by the Entrance examn. or corresponding examn. of any other Univ. Graduates in Arts of other Indian Univs. are admitted to the M.A. courses provided they have passed their degree examns. in cognate subjects. The B.A. and B.Sc. of other Indian Univs. are recognized for the purpose of admission to the B.T. course.

DEGREE COURSES. 3 yrs.—B.A., B.Sc., B.Com.; 4 yrs.—B.E. (passed candidates will be eligible to take the degree after a year's practical course in a recognized firm); graduate course for M.A.—2 yrs. Courses for B.T. (teaching) and M.Sc. not yet organized. The D.Lit. and D.Sc. are Honorary.

RECOGNITION by other Univs. The B.A and B.Sc. qualify for admission to M.A. and M.Sc. courses of Calc. ; the B.A. for admission to the LL.B. course of Bombay or Madras. The 1st yr. Certif. examn. is recognized by Bombay as equal to the same examn. of one of its Art Colleges. With Phys., Chem., and Maths , or Zool., Geol., and Bot., it is accepted by Calc. as equal to the I.Sc. examn. for admission to the Prelim. Sc. M.B. examn.

V. also p. 106.

FEES for courses for Bachelorship, Rs. 60 p.a. (B.E., Rs. 100).

RESIDENCE. Hostels at Colleges. Cost of living about Rs. 140 p.a. at Mysore, Rs. 220 at Bangalore.

An APPOINTMENTS BUREAU is maintained.

INSPECTION OF SCHOOLS recognized by the Univ. is done by Profs. deputed by the Council.

THE YEAR 1920–21

BENEFACTIONS received up to July 1921 brought the total endowment fund up to Rs. 1,57,861.

NUMBER OF STUDENTS. Maharaja's Coll , 452 ; Central, 351 ; Maharani's, 11 ; Engineering, 150.

DEGREES CONFERRED. B.A., 78 ; B.Sc., 21 ; B.Com., 20 ; M.A., 12.

OSMANIA UNIVERSITY, HYDERABAD, DECCAN

PATRON—HIS EXALTED HIGHNESS THE NIZAM, G.C.S.I., G.C.B.E.

CHANCELLOR—Sir SYED ALI IMAM, K.C.S.I. (Nawab Mued-ul-Mulk Bahadur).

VICE-CHANCELLOR—NAWAB VILAYAT JUNG BAHADUR.

PRINCIPAL OF UNIVERSITY COLLEGE—A. Siddiqi, M.A. All, Ph.D. Gött.

REGISTRAR—H. A. ANSARI, B.A.

CONSTITUENT COLLEGE—Osmania University College.

PROFESSORS, ETC., November 2, 1921

Biology

..... Prof.

Chemistry

..... Prof.

Choudri Barkat Ali, B Sc. All. Asst. Prof.

Economics

..... Prof.

Mohd. Elias Burney, M A., LL.B. All. Asst. Prof.

English

N. G. Welinkar, M.A., LL.B. Bom. Prof.

Syed Abdul Lateef, B A. Mad. Asst. Prof.

History

Haroon Khan Sherwani, B.A. Ox. Prof.

..... Prof.

..... Asst. Prof.

Mohd. Jamilur Rahman, M.A. Punj. Asst. Prof.

Languages (Ancient and Modern)

A. Siddiqi, M.A., Ph.D. Prof.

..... Prof.

..... Prof.

..... Prof.

Syed Ghulam Nabi (Arabic) Asst. Prof.

Abdul Hai (Arabic) Asst. Prof.

Syed Ibrahim (Arabic) Asst.Prof.

Syed Ashraf Shamsi (Persian). Asst. Prof.

Abdul Hamid Khan (Persian). Asst. Prof.

Wahiduddin Salim (Urdu) Asst. Prof.

C. N. Joshi, M.A. Bom. (Marathi) Asst. Prof.

T. Rama Rao, B.A. Mad. (Kanarese) Asst. Prof.

R. Subba Rao (Telugu) Asst. Prof.

Hari Har Shastri (Sanskrit). Asst. Prof.

Mathematics

Quazi Mohd. Husain, M.A. Punj., B.A., LL.B. Camb. Prof.

Amrit Lal Sil, M.A. All. Asst. Prof.

Philosophy

..... Prof.

Khalifa Abdul Hakim, M.A., LL.B. Punj. Asst. Prof.

Physics
..... Prof.
Wahidur Rahman, B.Sc. Calc. Asst. Prof.
Theology
Abdul Wasay. Asst. Prof.

Faculty of Muslim Theology
..... Prof.
Abdul Qadeer (Islamic Law). Asst. Prof.
Sher Ali (Philosophy of Islam). Asst. Prof.
Mufti Abdul Lateef (Quran). Asst. Prof.
Shah Mushatafa Qadiri (Islamic Law). Asst. Prof.
Manazir Ahsan Gilani (Hadith). Asst. Prof.
Syed Ahmed Husain (Logic). Asst. Prof.

GENERAL INFORMATION

The University was established by a Firman (Order) of H.E.H. the Nizam, in April 1917, but actual tuitional work began in Aug. 1920, with the opening of the College. It differs from the other Univs. of India in that instruction throughout the college courses is imparted through the medium of Urdu, English being taught as a compulsory Second Language, while in other Univs. the medium of instruction is English. The Bureau of Translation which came into existence in Sept. 1917 has provided in Urdu all books required for the Interm. and B.A. Examns. The executive government of the Univ. is in the hands of a Council consisting of 11 members. The organization of instruction rests with the Faculties and the Senate, which consists of from 40 to 60 members in addition to the Council, Univ. Profs., and representatives of graduates and Faculties.

LIBRARY. 9000 vols., 500 MSS. The Staff have also access to the large Asafia Library.

BUREAU OF TRANSLATION. Curator, Md. Enayatullah, B.A., 15 Translators, Assts. and Advisers. Books published, 24; in press or completed, 74. Univ. Press attached to the Bureau. Special grant of one lac of rupees for additional plant, etc.

FACULTIES. Arts (including Science and Law) and Islamic Theology. Faculties of Education, Engineering and Medicine under consideration.

TERMS. July to Dec. and Jan. to April.

ADMISSION. The Univ. holds a Matricn. Examn. in English, one addl. lang., Hist. and Geog., Nat. Sc. and Maths., but the Matricn. Examns. of other Univs., the Senior Oxford and Cambridge Local Examns. and the State H.S.L.C. Examn. are accepted as equivalent. The B.A. and B.D. Courses extend over 4 yrs. with an Interm. Examn. at the end of 2 yrs. The Interm. Examn. of other Indian Univs. is accepted as equivalent to this. The LL.B. Degree can be taken either 2 yrs. after the B.A. or after 1 yr. in the case of those who have studied Law in B.A. Courses.

FEES. Interm.—Rs. 60 p.a.; B.A.—Rs. 80 p.a.

RESIDENCE. 3 hostels attached to the College. Cost of living about Rs. 180 p.a.

THE YEAR 1920-21

B.A. and B.D. (Islamic) Classes opened in July 1921; H.E.H. the Nizam has approved of a site for the Univ. buildings, which are estimated to cost over a crore of rupees; 8 new Asst. Profs. appointed; 5 Asst. Profs. being sent to England for further study.

NUMBER OF STUDENTS in Arts, 329; in Theol., 8.

THE UNIVERSITY OF THE PANJAB, LAHORE

PATRON—H.E. THE GOVERNOR-GENERAL OF INDIA.

CHANCELLOR—THE LIEUT.-GOVERNOR OF THE PANJAB.

VICE-CHANCELLOR AND CHAIRMAN OF THE SYNDICATE—Hon. Sir JOHN MAYNARD, M.A. Ox., K.C I.E., C.S.I., I.C.S.

DEAN OF UNIVERSITY INSTRUCTION—A. C. WOOLNER, M.A. Ox.

REGISTRAR –P. N. DUTT, B.A , R B.

JOINT REGISTRAR—ISHWAR DAS, M.A., LL.B.

UNIVERSITY PROFESSORS, READERS, AND LECTURERS, December 2, 1921

[(U.) = maintained entirely by the Univ.]

Arabic

Md. Shafi, B.A. Camb., M A. Prof. (U.).
Sadr-ud-din, D.Litt. Lectr.
Asghar Ali, M.O.L. Lectr.
Md. Ismail, M.A. Lectr.
Najm-ud-Din Lectr.

Botany

Shiv Ram Kashyap, B.A. Camb., M.Sc., Rai Sahib Prof.
S. L. Ghose, M.Sc. Lectr.
..... Reader (U.).

Chemistry, Physical

..... Prof. (U.).

Chemistry, Organic

Bawa Kartar Singh, M.A. Camb., I.E.S. Prof. (U.).

Economics

W. H. Myles, M.A. Edin. Prof. (U.).
G. D. Sondhi, M.A., I.E.S. Lectr.
L. Shiv Dayal, M.A. Lectr.
E. D. Lucas, M.A., D.D. Lectr.
A. N. Bali, M.A. Lectr.
Brij Narain, M.A. Lectr.

History

..... Prof. (U.).

Mathematics

C. V. H. Rao, B.A. Camb., M.A. Prof. (U.).
G. S. Chowla, M.A. Camb. Prof.
Devi Dyal, M.A. Lectr.
S. N. Das Gupta, M.A. Lectr.
Hem Raj, M.A. Lectr.
P. Samuels Lal, M.A. Lectr.
A. N. Ganguly, M.A. Lectr.

At Delhi:

S. N. Mukerjee, M.A. Camb. Lectr.
A. T. Banerjee, M.A. Lectr.
Ram Bihari, M.A. Lectr.

Persian

Md. Iqbal, M.A. Prof. (U.).
K M. Maitra, M.A. Calc. Lectr.
Q. Fazl-i-Haqq, M.A. Lectr.
Ismail, M.A. Calc. Lectr.
Mohd. Umar Lectr.

Sanskrit

Woolner, A. C , M.A. Ox. P'pal, Oriental Coll. (U.).
Lakshman Sarup, M.A., Ph.D. Prof. (U.).
Raghubar Dayal, M.A., M.O.L. Lectr.
Gulbahar Singh, M.A., LL.B. Lectr.
M. K. Sarkar, M.A. Lectr.

Urdu Literature

Sh. Abdul Qadir, B.A. (Judge, C.C.) Lectr.

Zoology

G. Matthai, M.A., I.E.S. Prof.
Diwan Anand Kumar Reader (U.).

UNIVERSITY COLLEGES

ORIENTAL COLLEGE, LAHORE. Principal—A. C. Woolner, M.A. Vice-Principal and Prof. of Arabic—Md. Shafi, M.A. Prof. of Sanskrit—Lakshman Sarup, Ph.D. Head Pandit—Siva Datta, M.M. Head Maulvi—M. Nazim-ud-din. Head Munshi—Muhammad Din.

LAW COLLEGE, LAHORE. Principal—Kanwar Sain, M.A., Barr.-at-Law. Lectrs.—K. C. Chatterji, B.A., B.L., Pleader; S. Hassan, B.A., Barr.-at-Law; 5 Part-time Lectrs.

GENERAL INFORMATION (v. also p. 432)

Established in 1882, the University confined its activities, until recently, mainly to examinations, the control of affiliated institutions, and the provision of instruction in its Oriental and Law Colleges. It has now undertaken the maintenance of Professors and co-ordination of higher teaching in other subjects.

LIBRARY, 31,000 vols. Astronomical OBSERVATORY.

FACULTIES. Oriental, Arts, Law, Medicine, Science, Agriculture, Commerce.

DEGREES. B.A., M.A., D.Lit.; B.Sc., M.Sc., D.Sc.; B.Sc. (Agr.), M.Sc. (Agr.); LL.B., LL.D.; M.B., B.S., M.S., M.D.; B.T.; (in Oriental Learning) B.O.L., M.O.L., D.O.L.

Diploma in Commerce (2 yrs.' course). In the Faculty of Oriental Learning a 2 yrs.' course from Matricn. leads to an Interm. examn., and further courses of 2 yrs., 1 yr., and 2 yrs. to the B.O.L., M.O.L., and D.O.L. successively. Examns. are also held for Proficiency, High Proficiency, and Honours in Arabic, Sanskrit, and Persian. Honours admit to the Oriental titles: Maulvi Fazil (Arabic), Shastri (Sanskrit), and Munshi Fazil (Persian); and High Proficiency to Maulvi Alim, Visharada, and Munshi Alim. Similar examns. are held in Urdu, Hindi, Panjabi, and Pashto.

The B.T. is open to any one who after graduating in any faculty other than the Oriental has undergone a 1 yr. course at an Affiliated Training Coll.

RECOGNITION OF OTHER INSTITUTIONS. An equivalent examn. of any recognized Univ. may be accepted in lieu of Interm. Arts or Science, B.A. or B.Sc., for the purposes of admission to a higher examn.

SCHOLARSHIPS FOR GRADUATES. Several of from Rs. 20 to Rs. 25 p.m. for 2 yrs. in Oriental Studies, Arts, and Science. Research studentships tenable for from 2 to 4 yrs. in Oriental Hist., Sanskrit, Pali or Prakrit, Arabic, Panjabi, Science.

PUBLICATION. *Calendar*, including Examn. pp. (Sept.), Rs. 5.

AFFILIATED COLLEGES RECOGNIZED IN DEGREE COURSES

[B.A., M.A., etc.—A., B., C., E., Ec., G., H., M., Ph., Ps., S., Z. = Affiliated up to B.A., M.A., etc. in Arabic, Botany, Chemistry, English, Economics, Geology, History, Maths., Philos., Physics, Sanskrit, Zoology.]

Medical

LAHORE, *Medical College* (Govt.). M.D., M.S. Class accommodation for 400 Degree students. Principal, and Prof. of *Med.*—Lt.-Col. D. W. Sutherland, C.I.E., M.D., C.M. Edin., I.M.S. Other Profs.: *Anat.*—Major H. H. Broome, M.B., Ch B. Edin., I.M.S.; *Eye, Ear, and Throat Dis.*—Lt.-Col. H. Ainsworth, M.B., I.M.S.; *Forensic Med.*—Civ. Surgeon, Lahore; *Hygiene*—The Dy. San. Commr.; *Mat. Med.*—Major J. J. Harpur Nelson, I.M.S.; *Mental Dis.*—Major J. F. Fleming, I.S.M.D.; *Midwifery*—Lt.-Col. G. Tate, I.M.S.; *Path.*—Lt.-Col. H. M. Mackenzie, I.M.S.; *Physiol.*—Major Hughes, I.M.S. Number of students passed in Final M.B., B.S. (1921), 34.

DELHI, *Lady Hardinge College for Women.* 2nd Prof. examn. Principal—G. Campbell, M.D. Glas.

Teaching

LAHORE, *Central Training College* (Govt.). B.T. Principal—H. G. Wyatt, M.A. Ox. Vice-Principal—J. E. Parkinson, M.A. Camb. Students in B.T. classes (1921), 47.

Agriculture

LYALLPUR, *Agricultural College* (Govt.). M.Sc.Agr. Research Depts. in Agr., Bot., Chem. Principal, and Prof. of *Bot.* and Economic Botanist—D. Milne, B.Sc. (Ag.), I.A.S. Prof. of Agr.—H. R. Stewart. Prof. of *Chem.* and Chem. Adviser to Govt.—P. E. Lander.

Arts and Science

AMRITSAR, *Khalsa College.* M.A.—Ec., Maths. Large Collegiate School attached. Principal, and Prof. of *English*—G. A. Watken, C.I.E., M.A. *Chem.*—W. H. F. Armstrong, M.A.; *Econ.*—B. K. Chatterji, M.A.

DELHI, *St. Stephen's College.* M.A.—A., E., Ec., M., Ph., S. Established by Cambridge Mission. Principal, and Prof. of *Econ.*—S. K. Rudra, M.A. Calc. *Philos.*—N. K. Sen, M.A. Calc.; *Hist.*—P. N. F. Young, M.A. Camb.; *Maths.*—S. H. Thomas, M.A.

DELHI, *Hindu College.* Principal, and Prof. of *Engl.*—N. V. Thadani, M.A. Bom.

DELHI, *Ramjas College.* Principal, and Prof. of *Theol.*—Kidar Nath, M.A. Calc.

JAMMU, *Prince of Wales College.* M.A.—Ec.; M.Sc.—G. Principal, and Prof. of *English*—S. Robson, M.A. Edin. *Geol.*—D. N. Wadia, M.Sc. Bom.

LAHORE, *Dayanand Anglo-Vedic College.* M.A.—E., S. 600 resident and 400 other students. Principal, and Prof. of *Chem.*—Lala Sain Das, M.A. Calc., B.A. Camb.

LAHORE, *Dyal Singh College.* M.A.—M., Ph. Principal, and Prof. of *Maths.*—Hem Raj, M.A. (acting).

LAHORE, *Forman Christian College.* M.A.—E., Ec., H., M.; M.Sc.—C. Supported and controlled through Board of Trustees by Panjab Mission of American Presb. Church. Has a Dept. of Indust. Chem. Principal, and Prof. of *Econ.*—E. D. Lucas, M.A., D.D. *English*—J. B. Weir, M.A.; *Hist.*—Ross Wilson, M.A.; *Maths.*—S. N. Das Gupta, M.A. Calc.

LAHORE, *Government College.* M.A.—A., E., Ec., H., M., Ph., S.; M.Sc.—B., C., Ps., Z. Principal, and Prof. of *Physics*—A. S. Hemmy, M.Sc. Melb., B.A. Camb. Profs. of *Arabic*—M. Sadr-ud-din, D.Litt.; *Bot.*—Shiv Ram Kashyap, B.A. Camb., M.Sc., Rai Sahib; *Econ.*—G. D. Sondhi, B.A. Camb.; *English*—J. R. Firth, M.A.; Muhd. Said, M.A.; *Hist.*—H. L. O. Garrett, M.A. Camb.; *Maths.*—Gopal Singh Chawla, M.A. Panj. and Calc., B.A. Camb.; *Zool.*—G. Matthai, B.A. Camb., M.Sc.

LAHORE, *Islamia College.* M.A.—A., Ph. For Muhammadans. Principal, and Prof. of *Econ.*—J. L. Wilson, M.A. Profs. of *Arabic*—M. Asghar Ali, M.O.L.; *English*—.....

LAHORE, *Sanatan Dharma College.* M.A.—Ec., S. Principal, and Prof. of *Sansk.*—Raghubar Dayal Shastri, M.A., M.O.L.

LAHORE, *Kinnaird Girls' College.* Principal, and Prof. of *Econ.*—Miss E. M. Edwards, M.A.

PATIALA, *Mohindra College* (State). No fees. M.A.—Maths. Principal, and Prof. of *Hist.*—Man Mohan, M.A.

PESHAWAR, *Edwardes College.* Principal, and Prof of *English*—P. W. Stephenson, M.A., B.D.

PESHAWAR, *Islamia College.* For Muhammadans. 6 miles from Peshawar. Residential. Large Collegiate School attached. Principal, and Prof. of *English*—H. Martin, M.A. Ox.

RAWALPINDI, *Gordon Mission College.* Principal, and Prof. of *English*—E. L. Porter, M.A., D.D. Westmr., U.S.A.

SIALKOT, *Murray College.* Maintained by Panjab Mission of Church of Scotland. Principal, and Prof. of *Engl.* and *Philos.*—W. Scott, M.A., B.D.

SRINAGAR, *Sri Pratap College* (State). M.A.—M., Ph., S. Principal, and Prof. of *Philos.*—Ikbal Kishen Shargha, B.A. Calc.

THE YEAR 1920-21

BENEFACTIONS. Govt. grant for Chair of Zoology and Chemistry Dept. and for building Chem. Lab. and Law College.

NEW DEVELOPMENTS. Interm. Colleges opened at Firozepur and D.I. Khan.

CHANGES IN REGULATIONS Examn. for M.Sc. degree in Agr. instituted; Europeans allowed to take Urdu or Hindi or Panjabi in Interm. Arts Examn. Law College fees raised.

NUMBER OF STUDENTS appearing for Degree examns. in 1920 and in 1921 in Sansk.—180, 200; Arabic—61, 46; Pers.—224, 213; B.A.—1469, 1332; B.A. Hons.—201, 202; M.A.—107, 109; B.T.—52, 49; B.Sc.—106, 93; B.Sc. Hons.—52, 53; M.Sc.—24, 17; LL.B.—361, 207; M.B., B.S.—53, 51; M.D.—3, 0.

PATNA UNIVERSITY

[*No returns received since Jan.* 1921.]

CHANCELLOR—Sir E. A. GAIT, K.C.S.I., C.I.E., Hon. Ph.D., Lieut.-Govr. of Bihar and Orissa.

VICE-CHANCELLOR—V. H. JACKSON, M.A. Ox.

REGISTRAR—R. SHAW, M.A. Aberd.

UNIVERSITY READERS AND LECTURERS, 1920–21

Chemistry
Caldwell, K. S., B.Sc. Wales, Ph.D. Leip., M.A. Lectr.

Economics
Hamilton, C. J., M.A. Ox. Reader (Indian E.).
Horne, E. A., M.A. St. And. Lectr.

English
Armour, J. S., M.A. Glas. Lectr.

Ethnology
Roy, Rai Bahadur S. C., M.A., B.L. Reader.

History
Haraprasad Shastri, Mahamahopadhyaya, C.I.E. Reader (Ancient Indian H).
Sarkar, Jadunath, M.A. Reader (Moghul Period).
Batheja, H. R., B.A. Ox., M.A. Lectr.

Mathematics
Prasad, Ganesh, M.A., D.Sc. Reader.
Moore, W. W. T., M.A. Dub. Lectr.
Chatterji, A., M.A. Lectr.

Physics
Mukarji, A., M.A. Lectr.

Sanskrit
Prasada, Jagannatha, M.A., B.L. Lectr.
Thakur, Amareshwar, M.A. Lectr.

GENERAL INFORMATION

Founded Oct. 1, 1917. Most of the teaching is conducted in the "admitted" Colleges, v. *infra*.

LIBRARY, 3000 vols.

FACULTIES. Arts, Science, Educn., Law.

DEGREES. B.A., M.A., Ph.D., B.Sc., M.Sc., D.Sc., B.Ed., B.L., M.L., D.L.

RECOGNITION of examns. is accorded by Ox., Camb., Dub., Edin., and the General Med. Council.

PUBLICATIONS. *Calendar*, Rs. 4; *Courses of Studies*, Re. 1; *Question Papers*, Rs. 4; *Regns.*, Re. 1; *Minutes*, Rs. 2.

ADMITTED COLLEGES—(*a*) Admitted to Degree Standard

PATNA College. B.A., B.Sc. Principal, H. Lambert, M.A. Camb. (acting). Professors: *Arabic and Persian*—Azimuddin, Ahmad, Ph.D. Leip. *Chem.*—

A. S. Khan, M.Sc. Manc.; R. C. Roy, M.Sc. *Econ. and Pol. Philos.*—*C. J. Hamilton; H. R. Batheja, B.A. Ox.; R. K. Jha, M.A. *Engl.*—†J. S. Armour; D. Auchterlonie, M.A. Aberd.; J. C. Banerjee, M.A. *History*—W. Owston Smith, M.A. Camb.; G. S. Bhate, M.A. Edin. *Maths.*—†W. W. T. Moore; †A. Chatterje. *Philos.*—C. C. Sinha, M.A. *Physics*—†A. Mukarji; K. Prasad, B.A. Camb.; K. Dayal, M.Sc. *Sanskrit*—Jagannatha Prasad, M.A. 18 other Profs., Lectrs., and Demrs.

CUTTACK, *Ravenshaw College.* B.A., B.Sc. Principal, and Prof. of *Engl.*—P. O. Whitlock, M.A. Camb. (acting). Other Profs.: *Botany*—P. Misra, M.Sc. *Chem.*—A. C. Ganguli, B.A. *Econs.*—S. C. Bardhan, M.A. *Hist.*—†Jadunath Sarkar. *Law*—Syed S. S. Alam, Barr.-at-Law. *Maths.*—S. K. Ganguli, M.A. *Persian and Urdu*—A. F. M. Abdul Kadir, M.A. *Philos.*—M. M. Senapati, M.A. *Physics*—S. C. Mazumdar, M.A. *Sanskrit and Oriya*—K. N. Das, M.A. 22 other Profs., Lectrs., and Demrs.

BANKIPUR, *Bihar National College.* B.A., B.Sc. Principal, and Prof. of *Philos.*—D. N. Sen, M.A. Other Profs.: *Chem.*—B. K. Chowdhry, M.Sc. *Engl.*—S. M. Huq, M.A. *History*—H. C. Rai Chaudhary, M.A. *Maths.*—L. K. Ghosh, M.A. *Persian*—A. A. Wahab, M.A. *Philos.*—G. P. Hazari, M.A. *Physics*—D. K. Bhattacharayya, M.Sc. *Sanskrit*—S. N. Bhattacharayya, M.A. 23 other Profs., Lectrs., and Demrs.

MUZAFFARPUR, *Greer Bhumihar Brahman College.* B.A. Principal—R. P. Khosla, M.A., B.A. Ox. Profs.: *Arabic and Pers.*—A. B. P. Sinha. *Chem.*—R. K. Basu, M.Sc. *Econ.*—N. R. Malkani, M.A., B.T., LL.B. *Engl.*—M. N. Chatterji, M.A. *Hist.*—S. N. Basu, M.A. *Maths.*—K. P. Das, M.Sc. *Philos.*—J. K. Sarkar, M.A. *Physics*—R. C. Sen, M.A. *Sansk.*—A. P. Banarji, M.A. 10 other Profs., Lectrs., and Demrs.

BHAGALPUR, *Tej Narain Jubilee College.* B.A. Principal, and Prof. of *Engl.*—N. N. Raye, M.A. Other Profs.: *Chem.*—H. L. Das Gupta, M.A. *History*—S. Bhattacharyya, M.A. *Philos.*—B. C. Sinha, M.A. *Physics*—S. M. Bhattacharyya, M.A. *Pol. Econ.*—T. N. Basu, M.A. *Sansk.*—K. C. Chakravarti, M.A. 17 other Profs., Lectrs., and Demrs.

HAZARIBAGH, *St. Columba's College.* B.A. Principal, and Prof. of *Philos.* and *Engl.*—F. H. W. Kerr, B.A. T.C.D. Other Profs.: *Chem.*—H. C. Mukharji, M.A. *Econs.*—P. C. Bose, M.A. *Engl.*—G. C. P. Stevenson, B.D. T.C.D. *History*—J. N. Maitra, M.A. *Logic and Ethics*—A. O. Hardy, M.A. T.C.D. *Maths.*—J. C. Forrester, M.A. T.C.D. *Pers.*—B. D. Singh Choudhury. 4 other Profs.

PATNA *Training College.* B.Ed. Principal—J. H. Thickett, M.A. Camb. Vice-Principal—M. Hashim, M.A., Dip.Ed. Ox. Profs.: Kalika Singh, M.A., B.T.; H. L. Bhattacharji, M.A., B.T.; Syed Tahiruddin Ahmad, B.A., L.T.

PATNA *Law College.* B.L. Principal—Saiyid Zainuddin, B.L. Profs.: Ragho Prasad, B.L.; S. P. Varma, B.A., Barr.-at-Law; Shiveshwar Dayal, M.A., B.L. 2 other Lectrs.

(*b*) Admitted to Intermediate Standard

Patna New College, Bihar Sharif Nalanda College, Monghyr Diamond Jubilee College, Cuttack Ravenshaw Girls' High School, Interm. classes.

Univ. Reader. † Univ. Lectr.

THE YEAR 1920

BENEFACTIONS. Sir E. Gait, Rs. 1500 for gold medal; Sir R. Prasad Singh, Rs. 1000 for medal; Hon. Sachchidananda Sinha, Rs. 1500 each for 2 medals; Rajas Kalanand Sinha and Kirtyanand Sinha, Rs. 20,000 for Univ. Readership in Indian Econs., and Rs. 5000 for books on Econs.

NEW AFFILIATIONS. Nalanda College and Ravenshaw Girls' High School senior classes.

NUMBER OF STUDENTS who presented themselves for Degree examns. B.A., 449; B.Sc., 53; B.Ed., 14; B.L., 117; M.A., 25.

DEGREES CONFERRED. B.A., 231; B.Sc., 19; B.L., 79; B.Ed., 11; M.A., 15.

UNIVERSITY OF RANGOON

VISITOR—THE GOVERNOR-GENERAL OF INDIA.

CHANCELLOR—THE LIEUTENANT-GOVERNOR OF BURMA.

VICE-CHANCELLOR—R. S. GILES, M.A. Ox., Barr -at-Law.

PRO-VICE-CHANCELLOR—MARK HUNTER, M.A. Ox., I.E.S., Director of Public Instruction, Burma.

REGISTRAR—C. W. AINLEY, M.A. Camb., I E.S.

CONSTITUENT COLLEGES AND THEIR STAFFS, November 30, 1921

UNIVERSITY COLLEGE

Biology

..... Prof.

Chemistry

Hunter, M., C.I.E., M.A. Ox., F.C.S., I.E.S., *Principal* of the College. Prof.

Venkateswaran, R., M.A. Mad. Lectr.

Ba, Mg., B.A. Calc., F.C.S. Asst. Lectr.

6 Demrs. and Asst. Demrs.

Education

..... Prof.

Tilley, Una H., M.A. Ox., I.E.S. Lectr.

English [Prof.

Sloss, D. J., M.A. Liv., I.E.S.

Luce, G. H., B.A. Camb., I.E.S. Lectr.

Campbell, A., M.A. Edin., I.E.S. Lectr.

Fraser, W. G., M.A. Aberd., I.E.S. Lectr.

Ainley, C. W., M.A. Camb., I.E.S. Lectr.

4 Tutors.

History

Hall, D. G. E., M.A. Lond., F.R.H.S., I.E.S. Prof.

Law

May-Oung, Mg., M.A. Camb., LL.B., Barr.-at-Law. Prof.

Bilimoria, J. C., B.A. Bom., Barr.-at-Law. Lectr.

Mya-Bu, Mg., Barr.-at-Law. Lectr.

Gyi, J. A. Mg., Barr.-at-Law. Lectr.

Mathematics

Owen, L. G., M.A. Ox., I.E.S. Prof.

De, K. P., M.A. Calc., I.E.S. Lectr.

Haldar, K. P., M.A. Calc. Asst. Lectr.

2 Tutors.

Oriental Studies

Duroiselle, C., M.A. Prof.

Cassim, A., B.A. Calc. Lectr. in Pali.

Ba-Kya, Mg , B.A. Calc. Asst. Lectr. in Pali.

Akbar, Md. Gulam, M.A. Calc. Lectr. in Persian.

Philosophy

Ross, G. R. T., M.A., D.Phil. Edin., I.E.S. Prof.

Saunders, L. P., M.A. Camb., I.E.S. Lectr.

Physics

Ward, K. M., B.A. Camb., I.E.S. Prof.

Aiyar, N. C. Krishna, M.A. Mad. Asst. Lectr.

Basu, R. M., B.Sc. Lond. Asst. Lectr.

1 Demr. and 3 Asst. Demrs.

Political Economy

..... Prof.

JUDSON COLLEGE

Burmese and Pali Literature
Tun-Pe, Mg., M A. Calc
Kanungoe, D. C , M A Calc. (Pali).

Chemistry and Physics
Witnah, C. H., M.Sc. Chic.
Gates, G. E., M.A. Harv. (Chem.).
Sein-Maung, Mg., B.A. (Chem.).
Iyer, P. P. A. N., B.A. Mad. (P. and Maths.).

English Literature
Gilmore, D. C , M.A., D.D. Rochester.
Crawford, R. N , M.A. Chic.
Currier, R. P., M.A. Harv.
Hunt, Miss H. K., Ph B , Dennison, B.Sc. Simmons, *Dean of Women.*
Htin-Si, L., M A. Calc.
Mani, B. S., B.A. Calc.

History
Safford, H. E , M.A. Harv.
Sen-Gupta, S. K , M.A. Calc.

Mathematics, v. also Chem.
Van Horn, C. E., M.A., B.D. Colgate.
Kangyi, Johnson, B A. Calc.

Mental and Moral Science and Logic
St. John, W , B.D., Ph.D. Chic.
Howard, R. L , M.A. Harv., *Principal* of the College.
Jury, G. S., M.A. Yale, *Vice-Principal.*

Physics, v. Chem.

GENERAL INFORMATION

This Univ., founded in Dec. 1920, is governed by a widely representative Council consisting of not more than 50 members, which exercises its functions by means of an Executive Committee of 10 members. The Council has the power to reject any act or resolution of the Senate (the academic body of the Univ.) in excess of its powers under the Univ. of Rangoon Act, 1920, and to confirm or reject any resolution presented by it affecting the income or expenditure of the Univ. or of a Constituent College. The Senate consists of the Vice-Chancellor, the Director of Public Instruction, Burma, the Principals of Constituent Colleges, the Professors, 3 members of the Council, and not less than 10 lecturers in constituent colleges. Its executive duties are discharged by a Standing Committee.

An estate of about 450 acres of high and healthy ground, adjoining the Victoria Lakes on the outskirts of Rangoon, has been acquired for the Univ. buildings, which will lie along the margin of the lakes. Both Constituent Colleges and the Halls of Residence attached to them will be accommodated on the estate, where Univ. teachers will be housed and provision made for playing fields, and ample room will still be left for other professional and technical colleges.

LIBRARIES.—University, in process of formation; University College, 7000 vols.; Judson College, 5000 vols.

DEGREES.—B.A., B.A. (Hons.) and M.A.; B.Sc., B.Sc. (Hons.) and M.Sc.; B.L.

DIPLOMAS, in Teaching and in Economics and Commerce.

ADMISSION. Ordinarily by Matriculation or a pass in the Anglo-Vernacular High School Exam. or the European High School Examn. held by Educational Dept. in English, a Vernacular, Maths., and two optional subjects. Proficiency in English must be shown. The Univ. has access to the High School Final Examn. results and classes intending students: A class may matriculate; B class must undergo a preliminary year's study which is mostly intensive work in English. The matter of equivalence of other examns. is under negotiation.

FEES for Examinations: B.A, B.Sc., Rs. 30; B.A (Hons.)., B.Sc. (Hons.), Rs. 40; M.A., M.Sc., Rs. 40; B.L., Rs. 40.

THE INDIAN INSTITUTE OF SCIENCE, BANGALORE

PATRON—H.E. THE VICEROY OF INDIA.

OFFICIATING DIRECTOR—ALFRED HAY, D.Sc, M.I.E.E.

PROFESSORS, ETC., September 2, 1921

General Chemistry [Prof.
Watson, H. E., D.Sc. Lond., A.I.C.

Organic Chemistry
Sudborough, J. J., D.Sc. Lond., Ph.D. Heid., F.I.C. (Head of Dept. of Genl. and O.C.) Prof.
Ramaswamy Iyer, P., M.A. Mad. Asst.
Sanjiva Rao, B, B A. Mad. Asst.

Bio-Chemistry [Prof.
Fowler, G. J., D.Sc., F.I.C., F.C.S.
Malandkar, M A, M.A., B.Sc. Bom. Asst.

Electrical Technology [Prof.
Hay, A., D.Sc. Edin., M.I.E.E.
Grundy, E. L., B.Sc., A M.I.E.E. Asst. Prof.

Mechanical Engineering
Kann, J. H C, B.Sc. Asst. Prof.

French and German [Lectr.
Tacchella, C F. H., M.A Dub.

GENERAL INFORMATION

The object of the Institute, opened July 24, 1911, is to establish Chairs and Lectureships in Science and Arts, especially with a view to the promotion of original investigations and their utilization for the benefit of India, and to provide and to assist in the provision of suitable libraries, laboratories, and all other necessary appliances. Industrial Chemistry is at present the main feature of the Institute.

Associateships are awarded for 5 terms (of which there are 3 in a yr.—July–Sept., Nov.–Dec., Jan.–March) devoted entirely to research work and satisfactorily accounted for; also for 3 terms *plus* a period of research elsewhere before or after the period spent at the Institute. *Fellowships* may be awarded to Associates who, having spent 5 yrs. in actual practice, produce satisfactory evidence of original and valuable research work, or other contribution to the advancement of scientific or industrial knowledge. *Certificates* are granted to students who satisfactorily complete approved courses of study. 13 Associateships have been granted.

Students reside in a *Hostel.* Messing charges are from Rs. 28 to Rs. 35 p.m.; rent, lighting, and service, Rs. 10 p.m.

POSTAL ADDRESS: Indian Institute of Science, Hebbal, Bangalore District. TELEGRAMS—Science, Bangalore.

THE YEAR 1920–21. *Number of Students and other Workers*: Genl. and Org. Chem.—51; Applied Chem.—21; Elec. Tech.—11. *Current Expenditure*, Rs. 3,34,200. A Committee was formed (Chairman, Sir Wm. Pope, F.R.S., of Cambridge) to inquire during the session 1921–22 into the working of the Institute.

UNIVERSITY OF MALTA

VISITOR—H.E. THE GOVERNOR OF MALTA.

PRESIDENT OF THE GENERAL COUNCIL AND RECTOR—Prof. T. ZAMMIT, C.M.G., M.D., Hon. D.Litt. Ox.

SECRETARY—E. STAINES.

PROFESSORS, LECTURERS, ETC., January 1, 1922

Anatomy and Histology
Busuttil, R., M.A., M.D. Prof.
Briffa, J., B.Sc., M.D. Asst. Prof.

Biology, v. Nat. Hist.

Chemistry
Zammit, T., C.M.G., M.D., D.Litt. Ox. Ag. Prof.
Borg, S., M.D. Demr. in Expl. Sc.

Engineering and Architecture
Galea, R. V., L.S. & A. (also Lectr. in Descr. Geom. and Arch. Drawing) Prof.

English Literature
Shepherd, E. R. Prof.

Latin and Italian Literature
Bartoli, A. Prof.

Law
Vassallo, Most Rev. Can. E., Jur. Can. Doc. (Canon L.) Prof.
Mallia, C., B.Litt., LL.D. (Comml. L.) Prof.
Vassallo, E. C., M.A., LL.D. (Const. and Internat. L.) Prof
Randon, L. A., M.A., LL.D. (Crim. & Natural L.) Prof.
Bartolo, A., B.Litt., LL.D. (Hist. of Legisln.) Prof.

Logic and Philosophy
Cuschieri, Very Rev. A., O.C. Prof.

Mathematics and Pract. Engin.
Nixon, W. F., B.Sc. Lond., A.R.C.Sc. Prof.

Mechanics, Applied, and Drawing
Gatt, J. L., L.S. and A. Prof.

Medicine and Surgery, v. *infra*

Natural History
Borg, John, M.A., M.D. Prof.

Philosophy, v. Logic

Physics
Agius, T., M.A., M.D. Prof.
Borg, S., M D. Demr. in Expl. Sc.

Physiology and Pathology
Samut, R., M.B., C.M. Edin. Prof.

Political Economy
Sultana, A., LL.D. Prof.

Theology
Formosa, Mgr. G., B.A., D.D., J.U.D. Prof. of Dogm. T.
Grima, Mgr. Can. C., D.D. Prof. of Moral T.
Gonzi, M., B.Litt., J.C.D., D.D. Prof. in Holy Script. and Hebrew.

Medicine

Forensic M. and Toxicology
Ullo Xuereb, G. (v. Mental) Prof.

Hygiene and Preventive M.
Bernard, A. V., M.B.E., M.D. Prof.

Materia M., Pharmacy and Therap.
Cassar, I., M.D. Prof.

Medicine
Mifsud, C., M.D. Prof.
Paris, A., M.D. Asst. Prof.

Mental Diseases		*Ophthalmology*	
Ullo Xuereb, G., M.D.	Prof.	Vassallo, A., M.A., M.D.	Prof.
		Pathology, v. Physiology	
Midwifery and Gynæcology		*Surgery*	
Debono, G., M.D.	Prof.	Cassar, S., M.D.	Prof.
Ellul, J., B.Sc., M D.	Asst. Prof.	Borg, F., B.Sc , M.D.	Asst. Prof.

GENERAL INFORMATION

Founded in 1769 by Grand-Master Fra Emmanuel Pinto de Fonçeca of the Order of St. John under the authority of Pope Clement XIV., the University is lodged in a building erected by the Jesuit Fathers in 1591–93 for a College, whilst its Medical Faculty originated in a School of Anatomy founded in 1674 by Grand-Master Nicola Cottoner in the Great Hospital of the Order which accommodated 745 patients. The authorities of the University as reconstituted by a Govt. Statute of 1921 are the Visitor, the Rector, the General Council (comprising the Rector, six Professors, and three members elected by Convocation), six Faculty Councils, and Convocation.

LIBRARY, 5000 vols. A public library maintained in connexion with the Univ. contains over 100,000 vols. and is rich in MSS. and rare editions of great historical interest. MUSEUMS: Nat. Hist. and Archæol. OBSERVATORY, full meteorol. equipment and seismograph. BOTANICAL GARDEN. HOSPITALS, available for Clinics: general (240 beds) and several special; Leper Asylum (100); lunatic (700); aged poor (700).

FACULTIES: Literature, Science, Engineering and Architecture, Theology, Law, Medicine.

MATRICULATION involves passing an examn. in 5 subjects, including English, Italian, Maths., and, except for Engineering courses, Latin; for Med. students proposing to register in England, 6 subjects, including also Hist.

DEGREES, ETC. B.A., B.Sc., B.E. and A., M.D., LL.D., D.D., B.L. Can. Diplomas of Notary Public, Legal Procurator, Pharmacist and Apothecary, Dental Surgeon, Midwife.

SCHOLARSHIPS FOR GRADUATES. £120, one each in Theol., Law, Engin., two in Med. (Travelling Scholps.). £50, one each in Theol., Law, Med.

THE YEAR 1920–21

NUMBER OF STUDENTS. Full-time, preparing for B.Litt.—7; B.Sc.—5; B.Eng. and Arch.—4; Dipl. in Pharm.—26; in Legal Proc.—5; M.D.—24; LL.D.—19; D.D.—6; others—46.

DEGREES CONFERRED (1920). Hon. LL.D.—3; B.Sc.—5; D.D.—8; B.L.Can.—8; LL.D.—22; M.D.—14. Diplomas: Notary Public—3; Pharmacist and Apoth.—14; Dent. Surg.—1.

RETIREMENT. Dr. A. Paris.

UNIVERSITY OF HONG-KONG

PATRON—H.M. THE KING.

CHANCELLOR—THE GOVERNOR OF HONG-KONG.

VICE-CHANCELLOR AND PRINCIPAL—Sir WILLIAM EDWIN BRUNYATE, K.C.M.G., M.A.

CHAIRMAN OF CONSULTING COMMITTEE IN LONDON—Sir CHARLES S. ADDIS, K.C.M.G.

REGISTRAR—N TEESDALE-MACKINTOSH, M.A. Ox.

PROFESSORS, LECTURERS, ETC., September 15, 1921

Accounting & Business Practice
Williams, E. A. M., A.S.A A., A.I.S. Lectr.

Anatomy
Digby, K. H., M.B., B.S. Lond., F.R.C.S. Eng. Prof.
Heanley, C. M., M.B., B.S. Lond. Tutor.

Biology
Barney, R. W., B.A. Dub. Lectr.

Chemistry
Byrne, G. T., M.Sc. Manc. Prof.

Chinese
Au Tai Tin Lectr.
Lai Hsi Chi Lectr.

Education [Prof.
Vickers, W., M.Sc., M.Ed. Manc.

Engineering, Civil and Mech.
Smith, C. A. Middleton, M.Sc. Birm., M.I.M.E., A.M.I.E.E. Dean and Taikoo Prof.
Ring, J., B.Sc. Birm. Lectr.
..... Lectr.
Redmond, F. A., B.Sc. Lond. Asst. Prof. of Civil E.
Iu Tak Chung, B.Sc. Demr. in Civ. E.
..... Lectr. in Mech. E.
Wong Tai Cho, B.Sc. Demr. in Mech. E.

Engineering, Electrical
Roffey, M. H., M.Sc. Lectr.
Day, I., A.M.I.E.E. Demr.

English
..... Prof.
Simpson, R. K. M., M.A. Prof.
Fenton, J., Ph.D. Lectr.
Birch, B. G., B.A. Tutor.

History [Lectr.
Romanis-Lee, J., M.A. Camb.

Mathematics
Brown, W., M.A., B.Sc. Glas. Prof.

Medicine and Surgery, v. *infra*

Physics
..... Prof.
Florance, D. C. W., M.Sc. Manc.

Physiology [Prof.
Earle, H. G., M.A., M.B. Camb.
..... Tutor.

Political Economy
Hinton, W. J., M.A. Wales Dean and Prof.
Danaher, M., M.A., LL.B. N.U.I. Lectr.

Political Science
Robertson, R., M.A. Lectr.

Medicine

Hygiene and Pub. Health
Woodman, W. J. M.R.C.S., L.R.C.P. Lectr.

Medical Jurispr., v. Path.

Medicine
McKenny, C. W., M D.Dub. Lectr.
Aubrey, G. E., M.D Lond. Lectr.

Obstetrics & Gynæcology [Lectr.
Forsyth, C., M D., F.R.C S. Ed.
Moore, W. B. A., M.R.C.S., L.R.C.P.I. Lectr.
Thomas, G. H., M.D., B.S. Tutor.

Ophthalmology [Teacher
Harston, G. M., M.D., D.O. Ox.

Pathology
Scott, H. H., M.D., M.R.C.P. Lond., D.P.H.
Prof. of Special P. and Med. Jurispr.
Wang, C. Y., M.D. Edin., B.Sc. Manc., D.P.H. Prof.

Pharmacology and Therapeutics
Marriott, O., M.D. Lond. Lectr.

Surgery
Digby, K. H. (v. Anat.)
Dean and Prof.
Koch, W. V. M., M.D. Edin. Lectr.

Tropical Medicine
Jordan, G. P., M.B., C.M. Edin., LL.D. Prof.

GENERAL INFORMATION

The College of Medicine for Chinese, founded in 1887 for the training of Chinese students in Western Medicine, was incorporated under the name of the Hong-Kong College of Medicine in 1907. It had no building of its own, and its teaching was conducted by permission in various hospitals and other institutions. Between 1907 and 1910 an Endowment and Equipment Fund of $1,280,000 was raised for a University to include Engineering and Arts as well as Medicine. The cost of the buildings and preparation of the site—$345,000—was borne by Sir H. N. Mody, the originator of the Fund. Other contributors were the Govt. of China, the Hong-Kong Govt., Swire & Sons, and other firms and Chinese residents of Hong-Kong, Canton, and other places. The Univ. was incorporated in 1911 and formally opened in 1912, when it took over the work of the College of Medicine. The buildings, including class-room accommodation for 500 students, three hostels, laboratories, etc., together with playing-fields, occupy an area of 25 acres. In 1919 were opened the Schools of Physiology, Tropical Medicine, and Pathology presented by three Chinese gentlemen. "The root idea of the Univ. is to provide a place for Higher Education where Chinese youths can remain under the influence of their own parents and guardians . . . subject to the strong control which Chinese opinion exerts upon young men, instead of being adrift in a foreign country where a liberty unknown to students in the East is allowed to undergraduates" (*Calendar*, 1919–20).

The Court is composed of life, *ex-officio*, and nominated members; the Council of 14-16, including the Chancellor, V.C., Colonial Secy., Univ. Treasr., Deans, Regr., Col. Treasr., Dir. of Educn., 2 Chinese members of Leg. Council, Secy. for Chinese Affairs, Chief Manager in H.K. of H.K. and S.B. Corpn., and a representative of the H.K. Ch. of Commerce. The Senate consists of the V.C., Dir. of Ed., Dean of and 1 other representative elected by each Faculty, Regr., and representatives of the H.K. Coll. of Med.

MUSEUM of Pathology and Trop. Med. LABORATORIES: Anat., Bact.,

Biol., Chem., Histol., Path., Physics, Physiol., Trop. Med. ; Applied Mechanics, Materials, Elec. Tech., Power House, Hydraulics, Steam, Elec. Machinery, Elec. Traction, Engin. and Carpentering workshops. HOSPLS. in the vicinity available for clinics, 400 beds ; Govt. Bacteriological Inst. and Mortuary.

FACULTIES. Medicine, Engineering, Arts.

TERMS. Sept.–Dec. ; Jan.–March ; April–May.

MATRICULATION examn. (framed for use also as a School Leaving examn.) includes (*a*) English, (*b*) Maths., (*c*) Chinese Lang. and Lit., (*d*) Latin *or* a Classical Oriental Lang. other than Chinese, (*e*) Geog., (*f*) a Modern Lang. other than English or Chinese, (*g*) Mandarin, (*h*) Hist., (*i*) Physics, (*j*) Chem., (*k*) Higher Maths., (*l*) Trigonometry, (*m*) Mechanics, (*n*) Drawing. (*a*) and (*b*) are compulsory for all, and (*c*) for all Chinese candidates. It is necessary to pass in 5 subjects, and for the Med. Faculty these must include (*c*), (*d*) or (*f*), and (*e*) or (*h*).

DEGREES. B.A., B.Sc. (Eng.), M.A., M B , B.S., M.D., M.S., M.Sc. The standard aimed at is that of the Univ. of London. To qualify for admission to the Bachelor's degree examns. residence for 12 (in Med.—15) terms is necessary.

The examn. for the Master's degree may be taken at the end of 2 yrs. after graduation as Bachelor. For the M.A. or M.Sc. a thesis is required ; for the M.S., evidence of special post-graduate experience. The examn. for the M.D. may be taken 5 yrs. after graduation, or at the end of 2 yrs. if evidence is produced of special post-graduate experience.

Graduates of other Univs. who wish to become candidates for a Master's degree must work under the direction of the Faculty concerned for at least 1 yr.

A Teacher's *Diploma* may be obtained by pursuing a modified B A course or by a 2 yrs.' post-graduate course.

FEES for tuition, $300 p.a. ; board and lodging, $240 ; Univ. Union, $15 ; books and charges for materials, etc., in Labs., about $60. It is claimed that there is no European Univ. where a foreign student can live so cheaply.

RESIDENCE. With the object of "developing and forming the character of students of all races, nationalities, and creeds," it is provided by the Ordinance of Incorporation that all students must reside in the quarters provided, or in hostels founded by religious bodies and conducted under regns. approved by the Council.

THE YEAR 1920–21. *Benefactions.* For General Endowment Fund, Hong-Kong Govt., $100,000 ; H.M.H. Nemazee, $100,000 ; Mok Kon Sang, $50,000. For Engineering Faculty, John Swire and Sons, $100,000 ; Sir Robert Ho Tung, $100,000. A new *Commercial Course* for B.A. Degree was instituted. *Honorary Degrees* conferred on Rt. Hon. Sir John Jordan and Prof. G P. Jordan. *Other Degrees* conferred : B.A., 4 ; B.Sc., 13 ; M.B., B.S., 3.

APPENDICES

I

REGULAR COMMISSIONS IN H.M. FORCES FOR UNIVERSITY CANDIDATES

Provisional Regulations (*Army Orders* for March 1920 amended by A.O. 43 of 1921) provide for Commissions being granted in the Cavalry, R.A., R.E. (scheme to be reconsidered in Jan. 1924), Infantry, and R.A.S.C., and in the Indian Army. The following Univs., having established approved courses, are empowered to nominate candidates: (*a*) Oxford; (*b*) Cambridge; (*c*) London; (*d*) Edin., Dublin (Trin. Coll.), Manc.; (*e*) McGill, Sydney. The grant of Commissions in the Indian Army is limited to candidates from Univs. in the U.K. Commissions of accepted candidates will be antedated approximately 1 yr., *i.e.* to such dates as will give those appointed to the R.A. seniority over the Royal Military Academy cadets, and those appointed to other branches seniority over the Royal Military College cadets, who passed out of those institutions in July or Dec. (as the case may be) of the previous year. In exceptional cases a candidate who has graduated with First-Class Honours may be granted an additional antedate not exceeding 6 months. The commissions of accepted candidates for the R.A.S.C. who have taken a course in Engineering (other than Mining and Metallurgy) will be antedated approximately 18 mos., an additional antedate, not exceeding 6 mos., being allowed in exceptional cases; this arrangement will be reconsidered in Jan. 1924. These antedates will not count for the issue of pay or allowances; but in all cases in which increase of pay is dependent on the completion of a fixed period of service, service towards increase of pay will be considered as commencing from the date to which the commission has been antedated. The additional antedate for First-Class Honours will count for retired pay, but the ordinary antedate of about 1 yr. will not so count, and no portion of the antedate will count for Indian pension.

The Army Orders mentioned give full details of the requisite qualifications—general, academic, military, and physical. The age-limits are 21 to 25 (Indian Army 21 to 24) on Jan. 15 and July 15 for winter and summer nominations respectively; special limit of 27 for candidates who were serving on Jan. 1, 1920, or had served prior to that date satisfactorily in R.N., R.M., Reg. Army, S.R., I.A.R.O., Militia, T.F., Overseas Dominions' Forces, or R.A.F., provided they entered Univ. within 6 mos. of demobilization. Candidates must be unmarried.

Provisional Regulations (*Air Ministry*, Dec. 1920) provide on somewhat similar lines for the nomination of candidates for permanent commissions in the R.A.F. The max. age is 23 on June 1 of the year of nomination, or 25 for candidates who have served for at least 12 mos. prior to Jan. 1, 1920, in R.N., R.M., Reg. Army, R.A.F., S.R., I.A.R.O., Militia, T.F., New Armies, or Overseas Dominions' Forces. Preference given to those who have read for a degree in Genl., Engin. Sc., Aero. Engin., Physics, or Maths. Selected candidates will be attached during the long vacation to a Flying Unit for 6 weeks on probation.

Further information as to entry and conditions of service in the R.A.F. is given in Air Publication 879, obtainable from any bookseller or on application to the Air Ministry, Kingsway, London, W.C.2.

II

INSTITUTE OF CHARTERED ACCOUNTANTS IN ENGLAND AND WALES

Incorporated by Royal Charter in 1880. *Address*—Moorgate Place, London, E.C.2.

The *Preliminary* examn. for persons wishing to become Articled Clerks is held in London, Manchester, Birmingham, and Newcastle-upon-Tyne during the first week of June and Dec. It embraces: Dictation and short English Composition, Arith., Algebra and Geom., Geog., Hist., a foreign language (Latin, Greek, French, German, Italian, or Spanish), and one of the following—Advanced Maths, Physics, Chem., Biol., Geol., Stenography. Exemption is allowed to persons who have passed certain other examns., including those numbered in the list on p. 539, 1, 2, 3, 4, 5, 6, and, provided the standard attained was "pass with credit" in at least 5 subjects, of which one was Maths. (Arith. and Dictation not counting as separate subjects)—7, 8 (*b*), 9, 10, 11, 12, 13; also, if in all the subjects of the Inst.'s prelim. examn., 14. The minimum age for being articled is 16.

The *Intermediate* examn. for Articled Clerks who have served half of their term of service embraces Book-keeping and Accounts (including Partnership and Executorship Accounts), Auditing and General Commercial Knowledge.

The *Final* examn. may not be taken until 2 yrs. have elapsed since passing the Interm., except that graduates articled for 3 yrs. only may take it 1 yr. after passing the Interm. No person may present himself for the Final unless he has served under Articles in England or Wales to a member for 5 yrs. (or, in the case of a graduate of a Univ. of the U.K., for 3 yrs.). It embraces, in addition to the subjects of the Interm., Principles of Law of Bankruptcy and of Law relating to Joint Stock Companies, Principles of Mercantile Law and of Law of Arbitrations and Awards, and the Rights of Liquidators, Trustees and Receivers.

The *Fee* for admission to any of the examns. is 2 gs., and for Certif. of Exemption 1 g. Thirty days' notice is required, and late entries will not be accepted.

No person may be admitted as *Associate* (fee 10 gs.) who has not passed the Final examn. The minimum age for admission is 21. Any person who, being an Associate, has for 5 yrs. been continuously in practice as a Public Accountant may be admitted as *Fellow* (fee 10 gs.).

SOCIETY OF INCORPORATED ACCOUNTANTS AND AUDITORS

Incorporated 1885. *Address*—50 Gresham St., Bank, London, E.C.2. *Branches*: Glasgow, Dublin, Montreal, Melbourne, Sydney, Cape Town, Johannesburg. Members are designated "*Incorporated Accountants.*"

Examinations are held ordinarily in May and Nov. in London, Manchester, Leeds, Cardiff, Glasgow, Dublin and Belfast. 28 days' notice is required. They are also held in Australia and S. Africa.

The *Preliminary* (fee 1½ gs.) embraces English (Hist., Geog. and Grammar), either French or German or Latin, Maths. Exempting examns.: Matricn. of any British, Irish, or Colonial Univ., and those numbered in list on p. 539, 1, 2, 7, 8 (*a*) or (*b*), 9, 10, 11, 12, 13, 18 (Arts or Science), Army Qualifying, or, if it comprise Arith., Maths., Engl., one Lang., and one other subject—9*a* or 10*a* (Hons.), 14, 16 (First-Class certif.), 19, 23.

The *Intermediate* (fee 2 gs.) embraces Book-keeping and Accounts, including Partnership and Executorship and Cost Accts., General Commercial Knowledge and Comml. Law, Powers and Duties of Liquidators, Trustees, etc.

The *Final* (fee 2½ gs.) embraces, in addition to these, Advanced Accounting; Auditing; Merc., Jt. Stock Co. and Bankruptcy Law; Statistical Methods; Economics.

Service under Articles of Clerkship (after passing or obtaining exemption from the Prelim. examn.) is a condition precedent to sitting for the Interm. and Final examns., subject to special regns. in favour of Clerks to Public Accountants of long service (9 yrs. before admission to the Final). The period of service under Articles is ordinarily 5 yrs., for a graduate of a Univ. of the U.K. 3 yrs.; a reduction is allowed to candidates who have served with H.M. Forces. Clerks may sit for the Interm. examn. on the completion of 2 yrs.' service under Articles; for the Final during the 5th year.

Admission to *Associateship* (fee 5 gs.) is open to a Public Acctt., Principal Clerk to a P.A., Acctt. in service of the Govt. of the U.K. or India or any Dominion or Dependency, or of a corporation or public body, under certain conditions, who has passed the prescribed examns. Admission to *Fellowship* (fee 10 gs.—for Associates, 5 gs.) is open to a Public Acctt. in the U.K. or Overseas Dominions after continuous practice as such for 7 yrs. (in the case of an Associate, 3 yrs.), provided he has passed the prescribed examns.

Publications. Yearbook, 3s.; *Journal*, monthly, 12s. 6d. p.a.; *Examn. Questions*, 1s.

LONDON ASSOCIATION OF ACCOUNTANTS, LTD. (BY GUARANTEE)

Incorporated Jan. 1905. *Address*—Temple Chambers, Temple Avenue, E.C.4. *Branches*: Liverpool, Manchester, Sheffield, Birmingham, Bradford, Hampshire and Sussex, S. Wales, Scottish, Belfast, Johannesburg. Members are designated "*Certified Accountants.*"

Examinations are held in June and Dec.: the *Preliminary* (fee 1½ gs.): the *Intermediate* (fee 2½ gs.), and the Final (fee 2½ gs.). The last embraces: Practical Accounting and Business Methods; Partnership Accts.; either Ex'ship Accts. or Cost Accts. and Systems of Costing; Jt. Stock Co. Law; Auditing; Liquidation, Trustees, and Bankruptcy; Income Tax Law and Practice. Special paper for Scottish candidates.

For admission to the Assocn. it is necessary to pass the examns. On passing the Final a person is eligible for admission as Associate member if he complies with the conditions, requiring 5 yrs.' accountancy experience. Entrance fees: for Associates, 2 gs.; Fellows, 5 gs. The examns. are open to women.

Publications. Yearbook, 5s. (including Examn. Papers); *Journal*, 5s. p.a.

INSTITUTE OF COSTS AND WORKS ACCOUNTANTS

Incorporated 1919 as a Company limited by guarantee with the object, *inter alia*, of securing a definite professional status by means of a system of exams., etc., for persons engaged in occupations requiring knowledge of the cost of production, manufacture or sale of commodities. *Address*—38 Grosvenor Gardens, S.W.1.

Qualifications for membership as Fellow F.W.C.A.) or Associate (A.W.C.A.): candidates for admission must be actually in practice as Cost Accountants, at least 21 years of age, and of British nationality, and have had 5 years' practical experience; provided that (i.) for Associateship a candidate is eligible who has been for 3 years continuously in practice and (unless exempted by Council) has satisfied the Inst.'s examnrs. at the "Intermediate" standard, and (ii.) for either Fellowship or Associateship a candidate, as to whose experience and qualifications the Council is satisfied, is eligible if he has satisfied the Inst.'s examnrs. at the "Final" standard.

Persons actually employed in a manufacturing concern may be elected as "Student" members. Such members, if they have not already passed the Inst.'s "Preliminary" examn. or its equivalent, are required, unless exempted by the Council, to pass this examn. and thereafter the Intermediate as a condition of continuing as student members.

Articled Clerks of members of the Inst. are required to have passed

or been exempted from the Preliminary examn. and to serve 4 yrs. (a graduate of a univ. of the U.K.—3 yrs.). Exemption from this examn. is granted to graduates of any Univ. of the U.K., and persons who have passed any of certain examns., among which are nos. 1, 2, 3, 4*a*, 8(*a*), 9, 10, 16 of the list on p. 539 and, if taken at or below the age of 16, 9(*a*) and 10(*a*); also examns. for Comml. Certifs. of the Ox. and Camb. Schools Examn. Board, Univ. of Manc., London Chamber of Commerce (Higher) or Manc. Ch. of Com. (senior) or certain other examns.

Subjects of the Prelim. examn. (fee, ½ g.): Maths., English Essay, Book-keeping, Mechanical Knowledge, and (optional) a Modern Language. Interm. (fee 1 g.): Maths., Economics, Book-keeping, Workshop Knowledge, Costing. Final (fee 1½ gs.): Maths., Mechanical Knowledge and Costing.

Entrance fees for Fellows, 4 gs.; Assocs., 3 gs.; Annual subs. 3 gs. and 2 gs. Publications: *The Cost Accountant*, monthly. Examn. Papers, 1s.

INSTITUTE OF ACTUARIES

Established 1848. Incorporated by Royal Charter, 1884. *Address* —Staple Inn Hall, Holborn, London, W.C.1.

Examinations qualifying for membership are held in **April** of each year, or at such other times as may be prescribed by the **Council**. Candidates must give 14 days' notice. Applications for examination outside the U.K. must reach the Hon. Secretaries 2 months prior to the date of examn.

Candidates for *Studentship* must have passed one of the following examns. (v. list on p. 539): Nos. 3, 13*b* (or an examn. similar to 3 or 13*b* at any Univ. in the Empire), 9, 10, 16; any other examn. approved by the Council.

Candidates for *Associateship* must be "Students" and have passed Parts I. and II. of the Syllabus. Candidates for *Fellowship* must be Students or Associates and pass the 4 Parts of the Syllabus. *Examn. Fees*, 1 g. for each Part.

III

NATIONAL AGRICULTURAL EXAMINATION BOARDS

Appointed by the Royal Agricultural Society of England (16 Bedford Sq., London, W.C.1.) and the Highland and Agricultural Society of Scotland (3 George IV. Bridge, Edinburgh), and including representatives of the Ministry of Agr. and Fisheries and the Board of Agr. for Scotland.

(i.) An examn. in the SCIENCE AND PRACTICE OF AGRICULTURE is held annually for the National Diploma in Agr. (N.D.A.). Qualifications for admission: a certificate from a recognized Agr. College that his attainments in General Botany and Chemistry, Geology, Physics, and Mechanics justify the candidate's admission; or evidence of (*a*) having passed the 1st B.Sc. or Interm. examn. in Science of a British Univ.; or (*b*) having passed examn. No. 9 or 10 (v. list on p. 539), with evidence of having continued study of science for at least a yr., and a certif. in Elem. Chem. and Physics and Botany of Group H of the Oxford Higher Local or in Group E of the Cambridge Higher Local examn.; or (*c*) Interm. Leaving Certif. of the Scottish Ed. Dept., with evidence of having continued study for at least another year, and the Higher Leaving Certif. in Science, including Chem. and Botany. The subjects of the written papers are Practical Agr.; Land Surveying and Farm Buildings; Farm Machinery and Implements; Agr. Chem., Botany, Book-keeping and Zoology, Vet. Sc. They may be taken all at one time or 4 or 5 in one yr. and the remainder the next yr. *Fee* (non-returnable) for entire examn., 6 gs. In 1922 the examn. will be held at Leeds Univ. on March 30 and following days; entries (which should be in prescribed form) close February 25.

(ii.) An examn. in the SCIENCE AND PRACTICE OF DAIRYING is held annually in England and in Scotland for the National Diploma in Dairying (N.D.D.).

Qualifications necessary for admission: (*a*) at least 6 session months' instruction (not necessarily continuous) in practical dairy work at an approved dairy training institution; also (*b*) at least 6 months on an approved dairy farm (not concurrent with period mentioned under (*a*); also (*c*) certificates in prescribed form from a recognized institution or institutions, of attendance on approved courses in Chem., Bacteriology, and Botany, and fitness for admission to the examn. The examn. includes tests of practical skill in Dairying and capacity for imparting instruction to others, as well as tests of the candidate's knowledge.

In 1922 the examns. will be at Reading and Kilmarnock on Sept. 8 and 22. Entries (which must be in prescribed form) are receivable at the addresses given above up to Aug. 12. A candidate may not enter for the examns. both in England and Scotland.

Examn. papers of past years may be had at 6d. a set. A detailed syllabus of subjects of examn. is also obtainable.

NATIONAL POULTRY EXAMINATION BOARD

This Board, formed by the National Poultry Council, includes representatives of the Ministry of Agriculture, the Scottish Board of Agr., Leeds Univ., S.E. Agr. College (Wye), Univ. College, Reading, and several other bodies. The Chairman is the Principal of Harper Adams Agr. College, Newport, Salop. It holds examns. annually and awards a National Diploma in Poultry Husbandry (N.D.P.)

Qualifications for admission to the Diploma examns. (fee 5 gs.): i. Passing the Board's Prelim. examn. (fee 2 gs) in Elem. Chem., Physics, Biol., and Maths., or producing other satisfactory evidence, *e g.* Matriculation certificate, of knowledge of these sciences; ii. Training in Poultry Husbandry in a recognized Teaching Instn. for at least a year; iii Experience on an approved Poultry Farm for at least a year. The subjects of the examn. are Poultry Husbandry in all branches and, in so far as they relate to this, Agr and Horticulture, Physiology, Pathology, Chem. and Physics, Building and Appliance Construction, Bookkeeping. The next examn. will be held in Sept. 1922.

Applications receivable by the Secy., National Poultry Council, 31 Essex St, London, W.C.2.

IV

ROYAL INSTITUTE OF BRITISH ARCHITECTS

Founded 1834. Incorporated by Royal Charter in 1837. *Address*—9 Conduit St., Regent St., London, W.1.

The Institute's Recommendations in regard to preliminary and professional education imply a course of professional training in schools occupying at least 4 yrs., during the last yr. or two of which the student would be working in an architect's office, either as pupil, improver, or assistant—the training being kept under the supervision of the Board of Architectural Education of the Inst. or its delegates during the whole term.

Registration as Probationer, R.I.B.A. A candidate must submit a certificate of passing some recognized Public examn., or other evidence of general education, and, unless he has passed an Entrance examn. in Geometrical and Perspective, and also Freehand Drawing at one of the recognized Schools of Arch., evidence in the shape of drawings that he has an elementary knowledge of these subjects. A list of the recognized schools is given in the following paragraph and particulars regarding them are given in an explanatory Pamphlet on examns., price 1s. The candidate must also attend a personal interview at a centre convenient to the locality in which he resides. Registration fee, 4 gs.

The *Intermediate* examn. (fee 5 gs.), open to Probationers of at least 19 yrs. of age, tests their progress while engaged as pupil, improver, or assistant in an office, and passing it qualifies for registration as *Student*, R.I.B.A. Exemption from this examn. (but not from the fee) may be granted, provided the work done during the session be submitted to and approved by the Board, or has been previously approved by the external examiners, to Probationers who have attended the full course at the Sch. of Arch., Univ. Coll., London, or the 2 yrs.' course at King's Coll., London, and obtained the First-Class certif., or gained certain qualifications at Cambridge, Liverpool, Manchester, or Sheffield Univ., Leeds Sch. of Art, Glasgow Sch. of Arch., Arch. Assocn. London, Royal Academy Schools, Edinburgh Coll. of Arts and Heriot-Watt Coll., Robert Gordon Tech. Coll. of Aberdeen, Tech. Coll. Cardiff, School of Art, Bombay, McGill Univ., Toronto Univ. The Institute desires that Students within reach of these Univs. and Schools should avail themselves of the opportunities thus afforded rather than submit themselves for the examn. without such recognized training. Students who have passed with distinction through a full course (on lines approved by the Inst.) in other Dominion, Colonial, or Foreign Schools, may, at the discretion of the Board, be recommended for full or partial exemption.

The *Final* examn. (fee 6 gs.) for the *Associateship*, R.I.B.A., is open

to Students of at least 21 yrs. of age. Before admission a candidate must submit designs in answer to at least 4 problems set by the Board, and a thesis in Historical Arch. *or* in Science, as applied to Building, *or* in Design, including Decoration. Exemption from the Final examn., with the exception of that portion which deals with Professional Practice, is given to Students who have completed successfully a 5 yrs.' Diploma or Degree Course at the Arch. Assocn., London, Liverpool Univ., Glasgow School of Arch., School of Arch., London Univ.

A *Special* examn. (fee 10 gs.) for the Associateship is held in June and Dec. for candidates exempted by permission of the Council from the Interm. examn. It is open to architects in practice not less than 25 yrs. of age and Chief Assts. over 30 yrs. of age.

Overseas examns. (fee 10 gs.). Architects of not less than 25 yrs. of age, working overseas either as architects in practice or as assistants, can be admitted to the Special examn. for Associateship which is held at certain overseas centres. Particulars are obtainable from the Secy., R.I.B.A.; or F. S. Baker, Hon. Secy., R.I.B.A. for Canada, the Traders' Bank Building, Toronto; or Prof. L. Wilkinson, Hon. Sec., R.I.B.A. for Australia, the University, Sydney.

Examns. (fee 3 gs.) qualifying for candidature as *District Surveyor* in London or *Building Surveyor* under local authorities are held in Oct.

Allied Societies exist in 19 towns in the U.K., Montreal, Adelaide, Melbourne, Brisbane, Sydney, Perth, Wellington (N.Z.), Cape Town, Johannesburg, Nairobi.

The Henry Jarvis *Studentship*, £250 for 2 yrs., tenable at the British School at Rome, is open only to British subjects who are Associates or Students, R.I.B.A. Information regarding this and other Studentships and prizes is given in a pamphlet, price 6d.

The Archibald Dawnay *Scholarships*. Two of £50 p.a. for 2 yrs. and one of £25 p.a. for 2 yrs. are offered for competition between students of recognized schools. For details apply for Explanatory Circular.

Publications include the *Kalendar*, 3s. 9d., containing, *inter alia*, a historical sketch, regns. for international and other competitions, and information about the allied societies. *Journal*, in 20 numbers annually, 1s. 6d. each number. *Explanatory Pamphlet on Examns.* 1s. and postage. *Past Examns. Questions*, price 1s. 6d. and postage.

V

AUCTIONEERS' AND ESTATE AGENTS' INSTITUTE OF THE UNITED KINGDOM

Address—34 Russell Sq., London, W.C.1.

Examinations are held in London annually, usually in March, the Preliminary (fee 1 g.) to qualify for the grade of *Student*, the Intermediate (fee 2 gs.), and Final (fee 3 gs.), or the Direct Final (fee 5 gs.), to qualify for the grades of *Associate* (A.A.I) and *Fellow* (F.A.I.)

The subjects of the *Preliminary* are English Compn., Maths., Geog., Hist. of England, General Knowledge, one foreign language (Elem. Latin, French, Spanish, Italian, or German), and either Shorthand or Elem. Book-keeping. Exempting examns.: Matricn. of a Univ. in the U.K., Prelim. of Law Soc., Surv. Instn., Inst. C.A., Soc. of Inc. Acctts. and Audtrs., Special Army Ed. Certif., London Chamber of Com. (Comml.), those in the list on p. 539, numbered 7, 8 (*a*) and (*b*), 9, 10, 11, 12, 13, 13*a*, 14, 16.

The *Intermediate* is open to Students and Articled Clerks and others who have gained practical experience. Minimum age, 19. Exempting examns.: London B.Sc. (Estate Management) Final, and, as regards some of the subjects, the Interm. B.Sc.

The *Final* is open to persons who have passed or been exempted from the Interm.; the Direct Final, to persons not less than 25 yrs. of age who fulfil certain conditions as to practical experience. The subjects of the Final are: Valuation, Law of Vendors and Purchasers, Elements of Law of Receiverships and Mortgage, Arbitrations and Compulsory Purchase, Sanitation, Specifications and Estimates for Repairs, Report Writing, and two out of a list of 6 other subjects. The Direct Final includes also the following from the Interm. list: Book-keeping, Plans and Mensuration, and Law of Landlord and Tenant.

Minimum age for admission to Associate grade, 25; Fellow, 30. Candidates must also fulfil specified conditions as to practical experience.

Important concessions to ex-Service men who sit for examn. in March 1923 are announced.

Publications: Regns. and Syllabus with list of Text-books and particulars of Prizes and *Scholarships* (value up to £50), 1s. Part of Question Papers, 2s. *Yearbook & Diary*, 10s. 6d.

THE COLLEGE OF ESTATE MANAGEMENT, 35 Lincoln's Inn Fields, London, W.C.2. Inaugurated by the Inst. in 1919, the College offers instruction—daytime, evening, and by correspondence—in preparation for the examns. of the Institute, the Surveyors' Instn., the Land Agents' Society, and the Univ. of London (B.Sc. Degree). Principal R. Parry, B.Sc. Lond., F.S.I., F.A.I., A.M.I.C.E., Barr.-at-Law. Directors of studies in Urban and in Rural Science. 11 other Lectrs. and Instrs. 18 Visiting Lectrs.

THE LAND AGENTS' SOCIETY

Address—12 Little College Street, London, S.W.1.

Qualifications for (1) Membership: Having passed the Society's examns.; being Manager of Agricultural Estate of not less than 2000 acres; having been, for at least 2 yrs., professionally employed. (2) Associateship: Being Manager of a smaller estate or a Sub-Agent, or an Assistant or Pupil of a Land Agent qualified to be a Member or Associate

Examinations annually in March. Entries receivable up to Sept. 15. Open to persons eligible for Membership or Associateship. Fee for each Part, 4 gs. Part I. comprises Agric. (Elementary), Surveying, Agr. Law (Elem), Taxation and charges on Land, Building Constn., etc., Forestry, Book-keeping. Part II. is of an advanced character to test practical knowledge

Journal, 2s. 6d. monthly (members, 1s.).

VI

THE INSTITUTE OF BANKERS

Founded 1879. *Address*—34 Clement's Lane, E.C.4. Local centres in Birmingham, Bradford, Bristol, Leeds, Leicester, Liverpool, Newcastle-on-Tyne, Sheffield. Subscription ½ g. to 2 gs. p.a.

Qualifications for election to Associateship: (*a*) 10 yrs.' service in a Banking Establishment, or (*b*) passing approved examns., or (*c*) being a graduate of a University and on the staff of a Banking Establishment. Ordinary members are elected from the staff of any Banking Establishment on the Council's list.

Examinations, open to members only, (i.) For the Associate Certificate, held in April in London and the provinces. Latest date for entry—end of Feb. Subjects: Practice and Law of Banking, Economics, Engl. Compn., Comml. Geog., Foreign Exchange; optional—French, Spanish, Italian, Portuguese, German. The examn. is divided into two parts extending over not less than 2 yrs. Examns. *exempting* from Part I. in Practice and Law,—examns. for B. Com. of Bombay with Banking as special subject; in Econs.,—examn. by Prof. Knoop at Univ. of Sheffield. Certain certificates obtainable in Manchester, Bradford and Ireland are also recognized. (ii.) For Diploma in French, Spanish, Italian and German, held annually in the spring. *Scholarships* entitling holder to spend 2 months in a bank abroad are awarded in connexion with the examns. *Classes* in preparation for the examns. are held by the Inst.

Courses of *Lectures* in Banking subjects are given during the winter in London and some provincial towns. *Library* (lending), 6000 vols. *Journal* monthly, Oct. to June, 1s. 6d. (15s. p.a., post free). *Examn. Questions* (1921), 6d. each part.

VII

INSTITUTE OF CHEMISTRY OF GREAT BRITAIN AND IRELAND

Founded 1877. Incorporated by Royal Charter, 1885. *Address*—30 Russell Sq., London, W.C.1. *Library* of 3000 vols. *Laboratories*, available for use for examination purposes by other institutions as well as for the I.C.'s own examns. *Appointments Registers* of Fellows, Associates, Registered Students, and Laboratory Assts.

Studentship. Minimum age, 16. Annual subs., 10s. A candidate for admission must have passed an approved Prelim. examn. of Univ. matricn. standard in English, Elem. Maths., an approved foreign language, and either a second lang. or one of the following: Higher Maths., Engl. Hist., Geog., Bot., Chem., Geol., Mechanics, Physics, Zool., and must be undergoing a course of preparation and training for the practice of Chemistry in one of the teaching institutions recognized by the Council, or as a pupil of a Fellow of the Institute in a lab. or works approved by the Council. The approved Prelim. examns. include those in list on p. 539, numbered 7, 8 (*a*) and (*b*), 9, 10, 11, 12, 13, 13*a*, 14, 16, 18, 22; in Canada—Matricn. of Dal., McG., Manit., New Bruns. Univs., and Departmental Arts Matricn. of Queen's and of Univs. and Colls. of Ontario; in Australia—Senior Public examns. of Adel, Syd., and Tasm., First Year in Arts of Adel. and Syd., Matricn. of Melb. and Syd.; in N.Z.—Prelim. of N.Z. and Otago; in S. Africa—Joint Board's Matricn.; in India—Interm. in Arts of Allahabad and Panj., Matricn. of Bom., First Arts of Calc. and Mad.; in Ceylon — Med. Coll. Prelim.; in Malta — Matricn.; in foreign European countries—examns. entitling to proceed to the French B. ès L. and B. ès Sc., and other corresponding Entrance examns. approved by the Council. The candidate should have passed in the compulsory subjects at one examn., but this condition may be relaxed if he has passed them in two.

The institutions recognized for the training of candidates for the Examns. of the I.C. are those in connexion with the Univ. of London shown on pp. 89, 90—(U.), (K.), (Im.), (EL.), (2), (3), (5), (8), (10) (evening), (11); in the Univ. of Durham, Armstrong Coll.; Constituent Colls. of Wales and of N.U.I.; all other Univs. in the U.K.; Univ. Colls. Nottingham, Reading, and Southampton; Birmingham and Blackburn Munic. Tech. Schools, Bradford City Tech. Coll., Huddersfield Tech. Coll., Leeds Central Tech. Sch., Salford Royal Tech. Inst., Cardiff Tech. Coll., R. Tech. Coll. Glasgow, Heriot-Watt Coll., Paisley Tech. Coll., R.C.Sc.I.; Overseas Univs.—McGill, Queen's Univ. (Ontario), Toronto, Adel., Melb., Syd., W. Aust., Univ. of N.Z., Univ. of South Africa—Constituent Colls.

The compulsory subjects of training are Chem., Physics and Maths.,

the course in Chem. extending over 4 yrs. Evening class training is recognized if the candidate is engaged in the practice of Chem. during the day and attends a systematic course previously approved by the Council extending over 5 yrs., and is recommended by his teachers. Evidence of having passed the class or other examns. is required.

The A.I.C. examn. in General Chemistry (inorganic, organic and physical), fee 5 gs., occupies at least 5 days, including 4 days of practical Chemistry, and is open to students who have completed the prescribed training or have obtained a degree including the necessary subjects, and worked for a further year in a recognized Univ. or Coll., or for 2 yrs. with a Fellow in a lab. or works approved by the Council, or have been otherwise trained to the satisfaction of the Council and been engaged in the study and practice of Chem. for 10 yrs. The A.I.C. may be granted (without examn.) to graduates with 1st or 2nd Class Hons. in Chem., or holders of diplomas recognized as equivalent, who have completed a 4 yrs.' course in the requisite subjects or a 3 yrs.' course supplemented by approved experience in a lab. or works approved by the Council. The examns. recognized for this purpose include, in addition to examns. of all Univs. of the U.K. : Final B.Sc. with 1st or 2nd Class Hons. in Chem. of McGill, Toronto, Adelaide, Melb., Syd., and the Final B.A. of Toronto with 1st or 2nd Class Hons. in the graduating Dept. of Chem. and Mineralogy. Applications from candidates having diplomas of a specialized character will be decided on their merits.

The F.I.C. examn., fee 10 gs. (for Associates, 5 gs.), occupies at least 5 days in any one of the following branches : Inorganic with Sections, Mineral Products, Metallurgy, Manufactured Products ; Physical ; Organic ; Agricultural ; Foods and Drugs and Water ; Bio-Chemistry ; Chem. Engineering. It is open to Associates of 3 yrs.' standing, and in special cases to other candidates who have been systematically trained and had considerable experience. The F.I.C. may be granted without examn., or with a modified examn., to Associates of 3 yrs.' standing who have carried out original research or devised processes or inventions or given other sufficient evidence of knowledge and ability.

Arrangements have been made between the Board of Education and the Institute for the award of national certificates in chemistry to students in technical schools and colleges in England and Wales (Rules 100, 1921, 2d.). Under this scheme the Institute in conjunction with the Board will approve schemes of training submitted by the technical schools or colleges, for the award of certificates for part-time and full-time grouped courses, including in addition to chemistry suitable courses in physics, mathematics and cognate subjects. Courses for Part-time Course Certifs. will be designated *Senior* for the Ordinary and *Advanced* for the Higher Certif. Courses for Full-time Course Certifs. will be suitable for students who have attended a Secondary School up to the age of 16 yrs., will extend over at least 3 yrs. for the certif. in Chem., and at least 1 yr. for the Certif. in Applied Chem., and will include physics, maths. and one or more modern languages, and may include other cognate subjects. Certifs. will be awarded in

Chem. and in Applied Chem. Admission to the course in Applied Chem. will be restricted to students who have satisfactorily completed a full-time course in chemistry, or other course approved by the Inst. and by the Board.

The Council of the Inst. will consider at a later date whether and how far the training and the Higher Certifs. should be recognized as qualifying for admission to the examn. for its Associateship.

Publications. *Register of Members*; *Regns. for Admission*; *Examn. Papers*, 1s. a set; *List of Official Chemical Appointments*; *Journal and Prodgs.*, 6 parts annually, 2s. each; *History of Inst.*, 15s.; *Lectures* (monographs on various industries — Branches of chemical practice) at various prices.

CHEMICAL SOCIETY

Address—Burlington House, London, W.1. Professional qualification not required. Entrance by ballot; fee £3, annual subs. £3. Library, 25,000 vols. Lectures. Monthly Journal. Annual vol. of Reports by eminent men on recent progress. Research Fund from which grants are made (in 1921 they amounted to £629) for purchase of special materials for research.

VIII

INSTITUTION OF CIVIL ENGINEERS

Established 1818. Incorporated by Royal Charter, 1828. *Address*—Great George St., Westminster, S.W.1. *Telegrams*—Institution, London.

Examinations, (i.) Preliminary and (ii.) Associate Membership, are held annually in April and Oct. in London. Entries receivable up to Feb. 28 and Aug. 31. The April Prelim. and Oct. A.M. may also be held, the former in Manchester, Glasgow, and Newcastle-upon-Tyne, the latter in the King's Dominions overseas. (i.) may also under certain conditions be held overseas.

For admission to (i.) nomination by a corporate member is necessary, and conditions relating to practical training have to be fulfilled. It includes English, Maths., and 2 (which must not both be languages) of the following subjects: Elem. Chem., Elem. Mechanics, Elem. Physics, Latin, Greek, French, German, Ital., Span., Port., Dutch, Russian.

Admission to (ii.) is open to (*a*) *Students* of the Instn. (v. *infra*) of at least 1 yr.'s standing between ages 21 and 26, and (*b*) persons of at least 25 yrs. of age who have passed or are exempt from (i.) and are in other respects qualified (in respect of training, experience, etc.) for election into the Instn. It includes papers in (A) Mechanics, Strength and Elasticity of Materials, *either* Theory of Structures *or* Theory of Elec. and Magn.; (B) 2 out of 9 other subjects; and (C) Engin. Drawings, Specifications, and Quantities, and, unless candidate has previously qualified therein, a modern Foreign Lang.

For admission as *Student* age must be between 18 and 25, and candidate must be recommended by a corporate member under whom he is or has been in course of preparation and training in accordance with the Instn.'s prescriptions. A candidate for election as *Associate* Member must satisfy the Council as to his training and experience, and must, unless exempted, pass (i.) and (ii.). Exemption from (i.) is granted to graduates of any Univ. of the Empire, and Whitworth Scholars and, subject to certain provisos, persons who have passed any of examns. (v. p. 539) Nos. 4 (Engin.), 8*a*, 8*b*, 9, 10, 11, 13*b*, 18, 20 (Engin.), 22, or Matricn. examn. of any other Univ. of U.K., or 14, 15*a* (Engin.), 15*b* (Engin.), 15*c*, 17, or 19, or Matricn. (Engin.) of McGill or Sydney, or combined Prelim. and Entrance in Engin. of N.Z., S. Africa, or Cape Town, or Senior Public examn. of Adel., Melb., or Tasmania. Exemption from (ii.) is granted for the following degrees if taken after 3 yrs.' study in the several Univs. in accordance with their regns.: Oxford B.A. with Hons. in Engin. Sc., Final Hons. Sch.; Camb. B.A. Hons. Mech. Sc. Trip.; Edin., Glas., or St. And. B.Sc. in Engin.; Dub. B.A.I. with Hons.; B.Sc. or B.Eng.

with Hons., Birm., Leeds, Liv., Lond., McG., Manc., Sheff.; also subject to further provisos certain other degrees of Adel., Belf., Birm., Bris., Cape Town, Dub., Durh., N.U.I., Leeds, Liv., Lond., McG., Manc., Melb., N.Z., Queensland, Sheff., S. Africa, Syd., Wales.

Publications. Report on Methods of Educn. and Training of all Classes of Engrs., 1906, Wm. Clowes, 94 Jermyn St., S.W.1, post free, 11d.; *Report of Confce. on Educn. and Training*, June 1911; Reports on Technical Subjects.

INSTITUTION OF ELECTRICAL ENGINEERS

Founded 1871. Incorporated by Royal Charter 1921. *Address*—Savoy Place, Victoria Embankment, London, W.C.2. *Telegrams*—Voltampere, Phone, London

Examinations are held in London and other centres at home and abroad about the end of April and the end of Oct. of candidates for *Associate Membership*. Applications should reach the Secy. not later than March 1 and Sept 1 respectively. Examns. may also be held in other centres at the discretion of the Council. Part I. of the examn. includes English essay or translation into English from French, German, Italian, or Spanish; Applied Mechanics; and either General Elem. Physics or Chem Part II. consists of papers on technical subjects only.

A candidate for the Associate Membership is required, unless exempted, to pass the examn. or to present a thesis, paper, or other contribution to Electrical knowledge. He must also be at least 25 yrs. of age or have been a student of the Institution for at least 3 yrs., must be engaged in one of the branches of El. Eng., and satisfy the Council as to his experience, etc.

Exemption from Part I. of the examn. is granted to candidates who have obtained a Science degree from any Univ. in the U.K. or Colonies, or Whitworth Exhibition, and exemption from the whole of the examn. to persons who have obtained: any Engin. Degree of any Univ. in the U.K. or the Colonies; Whitworth Scholarship; Diploma in Engin. of R.C.Sc.I. or Hons. Sch. of E E. of Univ. of Liverpool; Diploma or Certif. in E.E. of the City and Guilds (Engin.) Coll., or King's Coll., London; Final or Hons. Grade Certif. in E.E. of City and Guilds of Lond. Institute; Diploma in E.E. of Univ. Coll, London, Faraday House, Heriot-Watt Coll. Edin., Roy. Tech. Coll. Glas., Armstrong Coll., S. African Coll.; Day Course Certif. in E.E. of Finsbury Tech. Coll.; 4 yrs.' Engin. Course Certif. of Northampton Polyt. Institute, London; Certif. of Technology in E.E. of Manc. Municipal Coll. of Tech. or Inst. of Science, Bangalore, India.

The Council will consider on its merits any other Engin. degree, diploma, or certificate of equivalent standing to the above from any Univ. or College in the U.K. or abroad.

INSTITUTION OF MECHANICAL ENGINEERS

Established 1847. *Address*—Storey's Gate, St. James's Park, London, S.W.1. *Telegrams*—Mech. Parl., London.

Examinations are held in London in April and Oct.: (i.) *Graduateship* (minimum age, 17), including papers in English, Elem. Maths., and Scientific Knowledge (Mechanics and either Physics or Chem.). (ii.) *Associate Membership*, open to graduates of the Instn. (minimum age, 20), *or* candidates for Graduateship over 20 and under 26 who intend to become Assoc. Members, and for whose regular training as M.E.'s satisfactory arrangements have been made, *or* other candidates (minimum age, 27) duly proposed for election and permitted to take the examn. The examn. includes a short essay paper, Applied Maths., Physics and Chem., Technical Knowledge, and a Modern Lang.

A candidate for election as *Graduate* must, unless exempted (*see below*), have passed examn. (i.) or (ii.), and have received or be receiving regular training as a Mechanical Engineer, and have received or intend to obtain sufficient practical and scientific training to fit him for employment in a responsible position.

A candidate for election as *Associate Member* must be a practising Engineer at least 27 yrs. of age. The passing of the A.M. or equivalent examn. is an indispensable qualification up to the age of 33, and he must, in addition, have been regularly trained as a M.E. and have had sufficient practical experience in the direction or design of Engineering work.

Examns. exempting from (i.): Graduateship of any Univ. in the Empire; any of those on p. 539 numbered 3*, 4 (Engin.), 5, 6 (provided either Mechanics or Chem. is covered by the Certif.), 7 (provided it has been taken by an Internal student of Birm., Leeds, Liv, Manc., or Sheff., and a Pass with Credit obtained in Engl. Comp. and Lit., Maths., and 2 of Mechanics, Physics, Chem.), 8 (*a*) (provided candidate passed in Physics either as a Group or as a Subsidiary subject—not in combination with Chem.), 9 or 10†, 11 (if covering requisite subjects of Graduateship examn., v. *supra*), 13‡, 13 (*a*)*, 14†, 15 (*a*) (Engin.), 15 (*b*) (Engin.), 15 (*c*), 17 (provided a foreign language was taken), 18, 19†, 20 (Engin.), 21 (if including English, Hist., Geog., Maths., and either Nat. Philos. or Physics), 22; Matricn. (Engin.) of Birm., Liverpool, or Hong-Kong; S. Africa Matricn.; Instn. of C.E. Studentship; Naval Cadets passing-out; Whitworth Scholps. and Exhibns.

Examns. exempting from (ii.): Engineering Degrees of any Univ. in Gt. Britain (including War B.Sc. (Eng.) Lond.), Ireland, British Dominions, or India, except such as may be specifically excluded; Camb. B.A. Hons. in Eng. and, if Spl. examns. in Eng. Sc. and in either Chem. or Physics were passed, the ordinary B.A.; Manc.

* If the certif. covers Mechanics or Chem. or Physics or Drawing.

† If the certif. covers a physical science subject.

‡ If the certif. covers Elem. and Adv. Maths., Hist., and Geog., and either Mechanics or Chem. or Elem. Physics.

Certif. in Technology, Mech. or El. Eng.; Eng. Degree of a Foreign Univ. if recognized by the Council; Diploma in Eng. of Univ., King's, or City and Guilds (Engin.) Coll., London; Dipl. or Higher Certif. (3 yrs.' course) of City and Guilds of Lond. Inst. if taken by matricd. student; Final Dipl. in Mech. or El.E. of R.T.C., Glas., if approved Matricn. examn. passed before beginning course; R.N. examn. qualifying as Lieut. (E.); R.N. College Prof. Certif. for Constructors; Inst. C.E., Assoc. M.; Whitworth Scholps. and Exhibns.

National Certificates and Diplomas are awarded by the Institution in conjunction with the Board of Education to students of approved Technical Schools and Colleges (v. Board of Education Rules 106 of 1921, 1d.). Certificates are awarded in respect of part-time and Diplomas in respect of full-time grouped courses. Part-time courses are classified as *Senior* or *Advanced*, the latter aiming at reaching within the limits of the subjects covered by them the standard of University work. Full-time courses are also classified as *Senior* (for Secondary School students aged 16) and *Advanced* (for Secondary School students aged 17 or 18 or students who have been for 2 yrs. in regular employment with concurrent instruction at senior or advanced part-time courses). The courses must extend over at least 2 yrs. and the senior part-time course should normally extend over 3. The Certifs. and Diplomas relating to Senior and advanced courses respectively are known as *Ordinary* and *Higher*.

INSTITUTION OF AUTOMOBILE ENGINEERS

Incorporated 1907. *Address*—28 Victoria St., Westminster, S.W.1.

Qualifications for (1) Ordinary Membership (M.I.A.E.): minimum age 25; having occupied during a sufficient period a responsible position in connexion with the practice of, or otherwise proved thorough knowledge of theory and practice of Automobile Engineering; (2) Associate Membership (A.M.I.A.E.): min. age 23; having been trained as Engineer and subsequently employed for at least 2 yrs. in practice and science of A.E. and being actually so engaged. Persons suitably qualified may also join as graduates, associates, or honorary members. Annual subsn. 1 g. to 3½ gs. according to class. Prizes up to £25 for Papers by Graduates.

THE INSTITUTE OF MARINE ENGINEERS, INCORPORATED

Established 1889. *Address*—85 The Minories, Tower Hill, London, E.1.

Membership open to Engineers holding First or Second Class Sea-going certificates or those holding responsible or qualifying positions and engaged in the science or practice of Engineering or shipbuilding; Associateship, to persons so engaged and at least 21 years of age;

Graduateship, to those receiving training in such science or practice who have completed one year of such training; Student Graduateship, to those who have attended Technical classes for a year, are training for such science or practice, and have passed the Institute's examn. The examn. (fee, 2s. 6d.) is held in London and the provinces in May in the following subjects; Theoretical Mechanics, Heat and Heat Engines, Machine Constn. and Drawing, Applied Mechanics, Maths., English, Elec. Engin. Entrance fee and annual subsn, 5s. to £1 : 11 : 6 according to grade of membership.

Library (over 3000 vols.) and Reading Room. Lectures during winter session. Gold Medal and other awards for Essay competitions.

Lloyd's Register Scholarships: Three of £100 p.a. tenable for 3 yrs. in a University or College (day classes), open for competition, by examn., to British subjects, aged 18-23, who are Graduates or Associates of the Inst., apprentices or junior engineers, not necessarily connected with the Inst., who have served at least 2 yrs. in a commercial engineering workshop and until the time of application have been employed at engineering either ashore, afloat, or at College with a view to entering upon the business of Marine Engineering. The examn. is held about end of June each year in various centres to suit the residences of candidates in Great Britain.

INSTITUTION OF NAVAL ARCHITECTS

Founded 1860. Incorporated by Royal Charter 1910. *Address*—5 Adelphi Terrace, London, W.C.2.

Principal qualifications for Membership: minimum age 30; having served apprenticeship in naval architecture or marine engineering and subsequently been engaged in such occupation and having held a post of primary responsibility for 5 yrs. or more. Qualifications for Associate Membership are similar, but minimum age is 25 and post of primary responsibility need not have been held. Age-limit for Associates 25, students 18-25. Entrance fee and annual subsn., 2 gs. each, except for students, who pay subsn. 15s. p.a. and no entrance fee.

Scholarships in naval architecture and marine engineering: upwards of 15, varying in value from £75 to £150 p.a., offered for competition open to students and apprentices in firms engaged in shipbuilding industry and Royal dockyards; two for post-graduate research in naval architecture (value £250 p.a. and £150 p.a. respectively) are awarded on recommendation of Univ. authorities.

Annual meetings, when papers are read and discussed. Summer meetings at shipbuilding centres at home or abroad.

Library, over 4000 vols., comprising principal works on shipbuilding, ancient and modern. Transactions, issued annually, constitute a permanent record for past 60 yrs. of all important developments in shipbuilding and marine engineering: £3 : 3s. for current volume (issued free to members), £2 : 2s. to 10s. 6d. for earlier numbers. Total membership about 2800, including many foreign naval architects of eminence.

INSTITUTION OF MUNICIPAL AND COUNTY ENGINEERS

Founded 1873. Incorporated 1890. *Address*—92 Victoria Street, London, S.W.1.

Qualifications for Membership (M.Inst.M. and Cy.E.): minimum age 25; either (*a*) holding a permanent chief appointment as an Engineer or Surveyor under a Municipal Corporation or other such Public Authority, or (*b*) holding a permanent appointment as Deputy Engineer or Surveyor or the like and having passed the examn. of the Instn. or the A.M.I.C.E. examn. or obtained equivalent Degree or Diploma or satisfied the Council that he possesses equivalent professional ability and experience. Qualifications for Associate: Membership (A.M.Inst.M. and Cy.E.), minimum age 22; having undergone a recognized course of instruction as Civil Engineer and Surveyor and holding a position as Engineer Asst. or Resident Engineer or the like under a Public Authority; and having passed the examn. of the Instn. or satisfied the Council that he has equivalent engineering qualifications or experience. A candidate for election as student (age-limits 18 to 24) must be undergoing or have undergone a regular course of training as an articled pupil to or hold an approved appointment with an Engineer or Surveyor to a Public Authority.

Entrance fee for Member and Assoc. Member, 1½ g., £1 : 5s.; subsn., 2 gs., 1½ g. Student's subsn., 1 g.

Examinations are held in London in April and Oct. Examns. are also held in Scotland, Ireland, India, S. Africa and other parts of the Empire. Applications receivable up to Jan. 1 and July 1. Three certificates are awarded: (*a*) Testamur for general proficiency in work of a local govt. engineer and surveyor; (*b*) certificate in Town Planning; (*c*) certificate in County and Highway Engineering for specialized knowledge of road and bridge engineering and highway management and administration.

Qualifications for admission to the examns.: minimum age 21; certificate of having passed the matricn. examn. of some University in the British Empire or an Examn. of similar standard approved by the Council; fees—(*a*) 4 gs., (*b*) or (*c*) 1½ or 3 gs.

Inquiries about examns. in India and S. Africa may be addressed to M. Lea, Chief Engineer, Municipal Office, Karachi, India, and T. W. Stainthorpe, Irrigation Dept., P.O. Box 399, Pretoria, Transvaal, respectively.

Publications. Journal, fortnightly, 2 gs. p.a.; Town Planning Conference 1913, 10s. 6d.; Handbook containing lists of Members, Regns., etc., 2s. 6d.; and several others.

IX

INSTITUTE OF INDUSTRIAL ADMINISTRATION

Founded 1920. *Registered Office*—110 Victoria Street, London, S.W.1. Branches at Birmingham and Manchester.

Among the objects of the Institute are "to formulate from time to time standards of knowledge, training and experience requisite to the proper performance of the various branches and functions of administration" and "to hold examns. and proficiency tests and grant certificates and/or diplomas in subjects within the scope of industrial administration." Its usual activities include the reading of papers, the maintenance of an Information and Research Bureau, Reference Library and Reading Room, Instructional Courses, Visits to Works, and a Journal (monthly, 1s. 6d). Subscription, ½ g. to 10 gs according to class.

X

BRITISH INSTITUTE OF INDUSTRIAL ART

Incorporated 1920 under the auspices of the Board of Trade and Board of Education. *Address*—217 Knightsbridge, S.W.7.

The Institute undertakes to advise University Authorities on matters connected with the Teaching of Art in relation to Commerce, and has at the request of the Univ. of London drawn up a Report on this subject in connexion with the Commerce Degree (H.M. Stationery Office, 4d.). Membership subscription, entitling to admission to exhibitions, lectures, etc., arranged by the Inst. and copies of its publications, 1 g.

XI

THE BAR IN ENGLAND AND WALES

THE right to practise as a Barrister in the Law Courts of England and Wales is restricted to those who have been called to the Bar by one of the Inns of Court—Lincoln's Inn, Middle Temple, Inner Temple, and Gray's Inn. The consolidated Regulations of these Societies (obtainable from the *Council of Legal Education*, 15 Old Square, Lincoln's Inn, London, W.C.2) provide, *inter alia*, as follows :

Admission of Students The conditions include : (i) having passed any examn. held by any Univ. in the British Dominions, approved by the Council of Legal Educn., which entitles to a degree or, provided that one of the subjects in which the Student has passed is Latin, one of certain other examinations approved by the Council of Legal Education ; (ii.) satisfactory evidence of good character ; (iii.) declaration that the candidate will not " directly or indirectly apply for or take out any certificate to practise, directly or indirectly, as a Pleader or Conveyancer or Draftsman in Equity, without the special permission of the Masters of the Bench," and is not and does not " directly or indirectly act in the capacity of a Solicitor, Attorney-at-Law . . . Professional Accountant, Actuary, Land-Agent, Surveyor . . ." or " in any capacity similar to any of those . . . otherwise than as. . . ." The Schedule of approved Prelim. examns. includes those numbered in the list on p. 539, as 1, 2, 3, 5, 6, 8 (*a*) (*b*), 9 or 10 (subject to provisos), 18 (according to standard applicable to students whose native language is English), 20, 21. The Council may add others, and the Masters of the Bench of the Inn of Court concerned may, in special cases, relax or dispense with this requirement.

Keeping Terms. This is done by eating dinners 6 days in each of 12 terms (members of Univs. of the U.K. 3 days). There are 4 terms in each year.

Education and Examination. Systematic instruction is provided under the supervision and direction of the Council of Legal Education in Roman, International, Constitutional, and English Law, Jurisprudence, Legal History, and Equity. Reading in the chambers of a Barrister or Pleader for the purpose of studying the practice of Law is recommended, but not compulsory. Four examns. for Call to the Bar are held each year. Candidates must satisfy the examiners in each of the sections : (1) Roman Law, (2) Constitutional Law (English and Colonial) and Legal History, (3) Criminal Law, (4) Real Property and Conveyancing *or* Hindu and Mohammedan Law *or* Roman-Dutch Law, (5) Common Law, (6) Equity, (7) Law of Evidence and Civil Procedure, (8) General Paper on 5, 6, and 7. A student who has passed an examination in Roman Law, forming part of a qualifying examination for a

Univ. degree, may be excused the examination in Section 1. Sections 1 to 4 (constituting Part I.) may be taken separately (fee, ½ g. each); 5 to 8 (the Final examination) must be taken together (fee, 1 g.) after having passed 1 to 4 and, ordinarily, after having kept at least 6 terms.

The successful students are classified and the names of those in Classes I. and II. of the Final Examination Pass List are arranged in order of merit. A Certificate of Honour is granted to those in Class I. at the Final examination. Prizes of £50 each may be awarded for the best students (not over 25 yrs. of age) in Sections (2) and (3), and a Studentship of 100 gs. p.a. tenable for 3 yrs. to the best student (not over 25 yrs. of age) at the Final examination (during the years 1921 and 1922 the age-limit will be 30 instead of 25). The Inn to which a student who has obtained a Studentship or Certificate of Honour belongs may, if desired, dispense with any Terms, not exceeding 2, that may remain to be kept by him.

Calls to the Bar. Minimum age, 21. In special circumstances the Masters of the Bench may dispense with the keeping of not more than 2 of the 12 terms ordinarily required to be kept by a student before he is called. For war service an even more liberal dispensation may be granted, and students having certain qualifications may be excused examinations. Special concessions in regard to the keeping of terms or examinations, etc., are allowed to Scottish Advocates, Irish Barristers, members of the Bar of New South Wales, Ceylon, the Cape Province of South Africa, New Zealand, Vakils of High Courts in India, and to persons who, prior to admission as students, have practised as Solicitors for 5 yrs. (including interruptions caused by war service).

Fees. On admission: application, 1 g.; stamp duty, £25; lecture fee, 5 gs.; admission fees, £9 (Gray's Inn and Lincoln's Inn), £15 (Middle Temple), or £21 (Inner Temple). On Call: stamp duty, £50; composition for annual dues, £12; call fees, £28 (Gray's), £32 (Lincoln's), £38 (Middle), or £50 (Inner).

SOLICITORS IN ENGLAND AND WALES

Examinations are held by the LAW SOCIETY, Chancery Lane, London, W.C.2. All persons, except some Colonial Solicitors, are subject to Final examination at conclusion of service under Articles before they can be admitted as Solicitors. Subjects of Foreign States cannot be admitted. English Barristers of 5 yrs.' standing are not required to enter into Articles, but may be admitted after passing the Final examn. Before entering into Articles of Clerkship (under the Solrs. Act, 1877) with a view to admission as Solicitors it is necessary, except for persons exempted, to pass a *Preliminary examn.* (fee, £4) held in London and several provincial towns in Feb., July, and Oct., in English, Elem. Maths., Geog. of Europe, and Hist. of England, Latin, and one or (if Algebra and Elem. Geom. are not taken) two of the following—Latin translation, Greek, French, German, Spanish, Italian.

Exemption is allowed to graduates in Arts or Laws of any Univ. of the U.K., except Birm. and Brist.; to Utter Barristers in England; and to persons who have passed the examns. numbered in list on p. 539 as 1*a*, 2, 3, 4*a*, 8 (*a*), 9, 9*a*, 10, 10*a*, 16 (First-Class certif.); also *provided* the candidate passed in Latin, and all the prescribed subjects were taken at one time, and the regns., character, and standard of the examn. remains as in July 1920, the following: 1, 1*b*, 5, 6, 7 (Certif. A.), 8 (*b*), 13, 14, 24.

Service under Articles (stamp duty, £80) is normally for 5 yrs. This may be reduced: (1) to 3 yrs. for graduates in Arts or Laws of any Univ. of the U.K., except Birm., Belf., or N.U.I., or for members of the Faculty of Advocates, Writers to the Signet and Solrs. in the Supreme Courts of Scotland, or Procurators before any of the Sheriff Courts of Scotland; (2) to 4 yrs. for persons who have (*a*) passed examns. Nos. (v. list on p. 539) 1, 1*a*, 1*b*, 2, 3 (1st Division), 4*a*, 6 (1st Division), 13 (with Hons), 24, if the conditions of the last-mentioned proviso were fulfilled, or (*b*) before entering into Articles attended for 1 yr. the approved curriculum of study at the Law Society and passed a satisfactory examn. therein, or (*c*) before entering into Articles passed examn. No. 6 (Latin being taken), and subsequently attended, to the satisfaction of the Univ., the curriculum for the Interm. LL.B. of Leeds, Liverpool, or Sheffield, and passed Interm. LL.B. examn.

An *Intermediate* examn. (fee, £6), which may be taken after completing 12 months' service, is held in March, June, and Nov. Exemption from the Legal portion (but not from the Trust Accounts and Book-keeping portion) is given to those who (i.) before or after entering into Articles have passed the examn. for the B.C.L. or LL.B. at any of the Univs. of England (except Bristol) and Wales or at the Univ. of Dublin; or (ii.) before entering into Articles have taken Honours in the Final Honour School of Jurispr. at Oxford or in the Law Tripos at Cambridge. Exemption from the whole of this examn. in consideration of circumstances connected with the war is obtainable under certain conditions (v. sec. 2 of Solrs. Act, 1918).

The *Final* examn. (fee, 10 gs.) is held in March, June, and Nov. Prints of the Questions set at this and at the Interm. are obtainable from the Law Society.

XII

MEDICAL AND DENTAL QUALIFICATIONS AND STUDIES

A. MEDICAL QUALIFICATIONS

Address of the Registrar, General Medical Council—44 Hallam St., Portland Place, London, W.1. *Telegrams*—Genmedicum, Eusroad, London. *Registrars of Branch Councils*—20 Queen St., Edinburgh; 35 Dawson St., Dublin.

No person is recognized by law as a duly qualified Medical Practitioner in Great Britain or Ireland whose qualification is not *registered* in the books of the *General Medical Council*. The following lists show the registrable qualifications obtainable (*a*) in Great Britain and Ireland, (*b*) in British Possessions overseas, (*c*) in foreign countries. The document presented in evidence of any of these must show that the possessor has passed a Qualifying examn. in Medicine, Surgery, and Midwifery. For registration in the Colonial or Foreign list it is essential that the qualification be first registered in the Province, State, etc., in which it was obtained.

(*a*)

Royal College of Physicians, London—F., M., L., R.C.P. Lond.
Royal College of Surgeons of England—F., M., L.M., R.C.S. Engl.
Royal College of Physicians of Edinburgh—F., M., L., R.C.P. Edin.
Royal College of Surgeons of Edinburgh—F., L., R.C.S. Edin.
Royal Faculty of Physicians and Surgeons of Glasgow—F., L., R.F.P.S. Glas.
Royal College of Physicians of Ireland—F., M., L., L.M., R.C.P. Irel.
Royal College of Surgeons in Ireland—F., L., L.M., R.C.S. Irel.
Apothecaries' Soc. of London—L.M.S.S.A. Lond.
Apothecaries' Hall, Dublin—L.A.H. Dub.
Each Univ. in the U.K.—M.D. (Ox., D.M.), M.B. (Ox., B.M.), Ch.B. (or B.Ch. or B.S.), Ch.M. (or M.Ch. or M.S. or C.M.); Dub.: L.Med., L.S.
Registrable Diplomas or Certificates for proficiency in Sanitary Science, Public Health, or State Medicine which may be added to qualifications already registered but do not admit primarily to the Register: D.P.H. (R.C.P.S. Eng., R.C.P.S. Edin., and R.F.P.S. Glas., R.C.P.S. Irel., and each of the Univs. of Great Britain and Ireland, except London).
D.S.Sc. (Camb., Vict.)
L.S.Sc. Durh.
B.Hy., D.Hy. Durh.
Cert. P.H. Lond.
M.D. (S.M.) Lond.

M.H. L'pool.
B.Sc. (P.H.), D.Sc. (P.H.) (Edin., Glas.).
D.S.M. Dub.

Under the Public Health Acts no appointment as Med. Officer of Health may be made in any county, district, or combination of districts of a population of 50,000 or upwards unless he is registered as the holder of a Diploma in San. Sc.

New Rules for obtaining qualifications in Public Health are now (Dec. 1921) under consideration, and the requirements are likely to be more stringent in the near future.

(*b*)

Australia. M.B, M.D. Syd., Adel., or Melb.; Ch.M. Syd.; B.S., M.S. Adel.; B.S. Melb.
Canada. M.D Dal., Laval, McG., Manit., Mont.; C.M. Dal., McG.
L.M.S. New Brunswick Provincial Council of P. & S., *or* Nova Scotia Provl Med. Board, *or* Prince Edward Island Med Council
M.C.P. & S. Alta., *or* Manit., *or* Ont., *or* Sask.
As qualifications which may be added to M.C.P. & S. Ont.: M.B., M.D., C.M. of Queen's, M.B., M.D. Tor., or M.D. Western.
Ceylon. L.M.S. Ceylon Med. Coll.
Hong-Kong. M.B., B.S. Hong-Kong.
India. M.B., B.S. All.
L.M.S., M.B., B.S., M.D., M.S. Bom.
L.M.S., M.B., M.D., M.S., M.O. Calc.
M.B., B.S., M.D., M.S. Mad.
L.M.S., M.B., M.D., M.S. Panj.
M.B., B.S. Lucknow.
Malta. M.D. Malta.
Newfoundland. L.M.S. N.F. Med. Board.
New Zealand. M.B., Ch.B., M.D. N.Z.
South Africa.
M.B., Ch.B. Cape Town.
M.B., Ch.B. S. Africa.
M.B., B.Ch. U. Witwatersrand.
Straits Settlements. L.M.S. Singapore Med. Sch.

(*c*)

Degrees of (i.) Doctor of Med. and Surg. of all the Royal Italian Univs.; (ii.) Bachelor of Med. and Doctor of Med. of the Imperial Univs. of Japan; and Bachelor of Med. of any Govt. or Prefectural Special Med. Coll. or of a private special Med. Coll. designated by a Minister of Educn. of the Empire of Japan.

B. REGISTRATION OF MEDICAL STUDENTS

The Regulations, obtainable from the Registrar, 44 Hallam St., London, W.1., post free, 1s. 2d., prescribe Registration of Medical

Students within 15 days of the commencement of their professional studies. For this purpose they should apply in the prescribed form, obtainable from any of the Registrars (v. *supra*), submitting evidence of having (*a*) attained the age of 16; (*b*) passed a Prelim. examn. recognized by the Council; and (*c*) commenced Med. study at a Univ. or School of Med., or at a Teaching Institn. *recognized* by one of the Licensing Bodies and *approved* by the Council.

On and after Jan. 1, 1923, the minimum age for registration will be 17, the minimum standard of general educn. will be that of Univ. Matriculation or Entrance examn., and the applicant will also be required to have passed an examn. in Elem. Physics and Elem. Chem. conducted or recognized by one of the Licensing Bodies; also a student who has diligently attended an approved course in Elem. Biology at a Secondary School or other teaching institn. recognized by a Licensing Body will be admitted to the Professional examn. in this subject immediately after registration as a student. In the meanwhile the Prelim. examns. recognized include, subject to specified conditions, the Schools' examns. recognized by the Board of Educn. (v. p. 4), and numerous others in the U.K.; also the following, if completed at not more than 2 periods of examn., provided the pass-certifs. include (*a*) English, (*b*) Maths., and (*c*) Latin or Greek or Hebrew and at least 1 of Lat., Gk., Heb., Arab., Pers., or any approved modern language, and provided the examn. include (*a*) Grammar, Compn., Lit., questions in Hist. and Geog. arising out of the subject-matter of the examn., (*b*) Arith., Algebra (including easy quadratics), Geom. (including subject matter of Euclid i., ii., iii., and simple deductions), (*c*) Grammar, Translations into English from unprescribed books, Translations from English (natives of Oriental countries, whose vernacular is not English, may offer a Classical Oriental Language in lieu of Latin):

Australia, Melbourne matricn.; Sydney matricn. for Med., or, if certif. includes requisite subjects, First Year in Arts or Senior Public; Adelaide Senior Public; Tasmania Senior Public, with Special Certif. of pass in Prelim. examn. in Med.; W. Aust. matricn. in Arts and Science, or School-Leaving certif. (so far as it qualifies for matricn. in Arts and Science); Queensland Senior Public.

Canada, McGill, Manitoba, and Dalhousie Univs., matricn.; Univs. and Colleges of Ontario, Junior matricn.

Ceylon, Medical College prelim. examn.

Egyptian, Govt. Secondary Educn. certif.

Hong-Kong, matricn. in Medicine.

India. Entitling (*a*) to undertake as part of the recognized medical curriculum the study of Chem., Physics, and Biol., within any of the affiliated Colleges; (*b*) to admission to Students' Register in the U.K.: (*a*)—Matricn. of Allahabad, Bom., Calc., Madras, Panjab, Patna; School-Leaving certif. of U.P. Educn. Dept.; (*b*)—Interm. in Arts of Allahabad, First Arts and Prelim. Scientific of Bom., Prelim. Sc. or Interm. of Calc., Interm. of Madras, Interm. in Arts or Sc. of Panjab or Patna, following either matricn. of same Univ. or School-Leaving certif. of the U.P. Ed. Dept.

Malta matricn.

New Zealand, Prelim. for Med. students ; Otago Prelim. Med.

S. African Univs., Joint matricn. for Med. students (Greek may be taken as an alternative to History, and Dutch may be substituted for English as the principal language, provided English is taken as the second).

Abiturienten-Examen of Swiss and German Gymnasia and Real-gymnasia ; examns. entitling to the French B. ès L. and B. ès Sc. and other corresponding Entrance examns. to the Univs. in Europe.

N.B.—The Indian and Colonial Examining Bodies are supplied with a form of certificate for showing that the examn. has been conducted by or under the authority of the Body granting it, and includes all the required subjects, etc. All applicants for registration must produce this certif. duly completed.

Institutions in which Medical Study may be *commenced* include: (*a*) in the U.K., all the Univs. and their Colleges and numerous Secondary Schools and other Institns. ; (*b*) South African Univs.

C. DENTAL QUALIFICATIONS

The Dentists Act 1921 has now become law and after a certain date, at present fixed at July 28, 1922, no person who is unregistered will be able to practise dentistry without rendering himself liable to prosecution.

A new body named the Dental Board of the United Kingdom has been constituted which is charged with the duty of dental registration. The address of the Registrar is 44 Hallam St., London, W.1.

The following lists show the registrable qualifications obtainable (*a*) in Great Britain and Ireland, (*b*) in British Possessions overseas, (*c*) in foreign countries.

(*a*)

Royal College of Surgeons of England—L.D.S., R.C.S. Eng.

Royal College of Surgeons of Edinburgh—H.D.D., L.D.S., R.C.S. Edin.

Royal Faculty of Physicians and Surgeons of Glasgow—H.D.D., L.D.S., R.F.P.S. Glas.

Royal College of Surgeons in Ireland—L.D.S., R.C.S. Irel.

Univ. of Birmingham—M.D.S., B.D.S., L.D.S. U. Birm.

Univ. of Bristol—B.D.S., L.D.S. U. Brist.

Univ. of Durham—L.D.S. U. Durh.

Univ. of Leeds—M.D.S., B.D.S., L.D.S. U. Leeds.

Univ. of Liverpool—M.D.S., B.D.S., L.D.S. U. L'pool.

Univ. of London—M.S. (Dent.) U. Lond.

Victoria University of Manchester—M.D.S., B.D.S., L.D.S. U. Manc.

Univ. of St. Andrews—L.D.S. U. St. And.

Univ. of Dublin—M.D.Sc., B.D.Sc., L.D.Sc., U. Dubl.

National Univ. of Ireland—M.D.S., B.D.S. N.U. Irel.

(*b*)

Victoria, Australia—L.D.S. Vict.
Univ. of New Zealand—B.D.S. U. N. Zealand.
Univ. of Sydney—B.D.S. U. Sydney.
Univ. of Melbourne—D.D.Sc., B.D.Sc. U. Melb.

(*c*)

Diploma in Dentistry granted to Candidates in Medicine of the Univs. of Brussels, Ghent, Liége and Louvain, after examn. by a Belgian Provincial Medical Commission –Dent. Dip Belg.

Diploma of Doctor of Dental Surgery (Shikwa'-Igakushi) of the Nippon Dental College—D.D S. Nippon Dent. Coll

Diploma of Doctor of Dental Surgery (Shikwa'-Igakushi) of the Tokyo Dental College—D.S.S. Tokyo Dent. Coll.

D. REGISTRATION OF DENTAL STUDENTS

I. Registration is carried on at the Council Office in London in the same manner as that of Med. students, and is subject to the same regns. as regards age and Prelim. examns., but professional study may commence by pupilage with a Registered Dental Practitioner.

II. Candidates for a Diploma in Dental Surgery should produce certificates of having been engaged during 4 yrs. in Professional Studies, and of having received 2 yrs.' instruction in Mechanical Dentistry from a Registered Practitioner.

III. One year's *bona-fide* apprenticeship with a registered Dental Practitioner, after being registered as a Dental student, may be counted as 1 of the 4 yrs. of Professional Study.

IV. The necessary 2 yrs. of instruction in Mech. Dentistry, or any part of them, may be taken by the Dental student either before or after his registration as a student. When he can show evidence of regular pupilage in Mech. Dentistry to a registered practitioner, prior to passing a Prelim. examn., he may be allowed to antedate for a period not exceeding 1 yr. prior to the passing of the Prelim. examn.

Schools at which Dental Study may be commenced: Birmingham D. Hospl; Bristol, Royal Infirmary, Genl. Hospl.; Dublin, D. Hospl. of Ireland; Dundee D. Hospl; Edinburgh D. Hospl.; Glasgow D. Hospl.; Leeds, D. Hospl., Public Dispensary; Liverpool D. Hospl.; London, Guy's Hospl D. School, London Hospl. D. School, National D. Hospl., Royal D. Hospl.; Manchester D. Hospl.; Newcastle-upon-Tyne D. Hospl.; Sheffield Royal Hospl.; Roy. Coll. of Surg. in Ireland; D. Department of any Univ. of the U.K.

E. RECIPROCAL RECOGNITION

The States, Presidencies, and Provinces in which the registrable medical qualifications specified under A (*b*), (*c*), are granted all allow practitioners with qualifications registered in the U.K. to register with-

out further examn. There are also other Colonies, *e.g.* Tasmania, which recognize British qualifications, but in which at present no qualifications are granted.

[A Report (5th edition pubd. in Feb. 1921) as to the conditions under which Med. and Dent. practitioners registered or legally qualified in their own country may practise abroad is obtainable from the Council Office, price 2s. 6d. (post free U.K. 2s. 10d., elsewhere in the Empire 3s. 1d., outside 3s. 4d.). It contains, among other matters, the designations and addresses of the persons to whom application should be made for forms and further information.]

F. POST-GRADUATE MEDICAL STUDIES

In London, in addition to the general hospital medical Schools which provide to a limited extent for qualified practitioners, there are the West London Post-graduate College at the West London Hospital, Hammersmith, with a staff of 37 regular lectrs. and demrs , the North-East London Post-Graduate College at the Prince of Wales' Hospital, Tottenham, and the London School of Clinical Medicine at the Seamen's Hospital, Greenwich, as well as certain special hospitals where excellent arrangements are made for post-graduate work in particular subjects. The Fellowship of Medicine and Post-graduate Medical Association (1 Wimpole St , London, W 1) formed in 1918, promotes and advertises the provision of facilities for post-graduate work and provides machinery by which graduates can make use of the courses likely to be of service to them.

Post-graduate courses are also provided by other Univs , notably Edinburgh and Glasgow.

A committee was appointed in Jan. 1921 by the Minister of Health, with the Earl of Athlone as chairman, to investigate the needs of medical practitioners and other graduates for further education in medicine in London, and to submit proposals for a practicable scheme for meeting them This Committee reported in May 1921 in favour of the Constitution of a Central Post-graduate Hospital.

ROYAL COLLEGE OF PHYSICIANS OF LONDON AND ROYAL COLLEGE OF SURGEONS OF ENGLAND

Address of the Secy., Conjoint Examining Board in England, 8-11 Queen Sq., Bloomsbury, London, W.C.1. Applications for admission to the Board's examns. should reach the Secy. at least 14 days (in the case of the L.D.S. Professional examns., 21 days) beforehand. Agency for the sale of Books of Questions set in past years (9d. each)—Taylor & Francis, Red Lion Court, Fleet St., London, E.C.4.

Examinations for the Diplomas of LICENCE OF THE R.C.P. of London and MEMBER OF THE R.C.S. of England are held ordinarily in Jan., April, July, and Sept. or Oct. Candidates must have passed a Prelim.

examn. in general education recognized by the Board, and must, before admission to the examns., produce certificates of having pursued the prescribed courses of study and practice. The *First* Professional examn. (fee, 10 gs.) comprises: Pt. I., Chem.; Pt. II., Physics; and Pt. III., Elem. Biol. Candidates may take this examn. immediately after passing the Prelim., provided they have the prescribed certificates of instruction and laboratory work in institutions recognized by the Board, in Chem. (180 hours), Physics (120), and Biol. (120). Pt. III. may be taken separately if desired. The *Second* Prof. examn. (fee, 10 gs.): Pt. I., Anat. and Physiol. (studied after the candidate has passed in 2 of the subjects of the First examn.), and Pt. II., Mat. Med. and Pharmacology. The Parts may be taken separately. The *Final* (fee, 20 gs.): Pt. I., Med., including Med. Anat., Path., Therap., Forensic M., Pub. Health; Pt. II., Surg., including Path., Surg. Anat., use of Surg. appliances; Pt. III. Midw. and Dis. of Women. 2 yrs. must have elapsed since passing the Second examn. The parts may be taken separately.

Exemptions. (*a*) Candidates who shall have passed an examn. for a degree in Medicine in any of the subjects of the First examn. conducted at a Univ. in the U.K., in India, or in a British Colony, will be exempt from examn. in the subjects in which they have passed. (*b*) Candidates with colonial, Indian, or foreign qualifns. which entitle them to practise Medicine or Surgery in the country where such qualifns. have been conferred, after a course of study and examn. equivalent to those required by the regns. of the two Colls., will, if at least 21 yrs. of age and proficient in Vaccination, be admissible to the Second and Final examns. without any intervals between them. (*c*) Members of English Univs. who shall have passed an examn. or examns. at their Univ. comprising the subjects of the First and Second examns. of the Board, and completed the curriculum of medical study required by the Board, will, 2 yrs. after having passed in Anat. and Physiol., be eligible for admission to the Final examn. of the Board on payment of 5 gs.; and after passing the Final examn. on the further payment of not less than 35 gs., and subject to the By-laws of each Coll., to receive the Diplomas. (*d*) Members of a Scotch or Irish Univ. may obtain a similar concession. (*e*) Any member of a colonial, Indian, or foreign Univ. recognized for the purpose may obtain a concession similar to (*c*), but has to pay 20 gs. before admission to the Final examn. and not less than 20 gs. before receiving the Diplomas. The following colonial, Indian, and foreign Univs. have been recognized for this purpose: in Canada—Dal., Laval, McG., Manit., Queen's, Tor., Westn.; Australasia—Adel., Melb., Syd., N.Z.; India—All., Bom., Calc., Mad., Panj.; Malta, Hong-Kong; Paris, Lyons, Mars., Montp., Nantes, Toulouse; Brussels, Liége, Louvain; Amsterdam, Groningen, Leyden, Utrecht; Bern, Basle, Geneva, Lausanne, Zurich; Rome, Bologna, Florence, Genoa, Milan, Naples, Pavia, Pisa, Turin; Petrograd, Kharkov, Moscow, Warsaw; Christiania, Stockholm, Upsala, Copenhagen; Madrid, Salamanca, Seville, Lisbon, Coimbra, Oporto, Tokyo Impl. Univ. 42 Univs. in the U.S.A.

For admission to the MEMBERSHIP OF THE R.C.P. (fee, 40 gs., *less*

Licence fee, if any, already paid) the minimum age is 25, and a candidate must satisfy the Censors' Board as to his moral character and conduct and pass an examn. of such nature and extent as may be determined by the Board. If under the age of 40, he must prove a knowledge of Latin, and of either Greek, French, or German, in addition to proving his professional acquirements. If he has not passed the examns. required for the Licence. he must be a registered practitioner who *either* has obtained the degree of Doctor or Bachelor of Medicine at a Univ. in the Empire or a foreign qualification entitling him to practise Medicine or Surgery in the country where it was conferred, after undergoing courses and examns. which the Censors' Board consider sufficient, *or* has attained the age of 40, and can produce testimonials sufficient to satisfy the Board, and subsequently the Fellows, at a General Meeting, that he ought to be admitted to examn.

The FELLOWSHIP of the R.C.P. is conferred by election on a member of the College of not less than 4 yrs' standing:

Examns. for the FELLOWSHIP OF THE R.C S. are held twice yearly —the 1st Prof. in June and Dec., and the 2nd Prof. in May and Nov. Fees, first examn., 8 gs., 2nd, 12 gs., admission to Fellowship (minimum age, 25), 30 gs., or, for M.R.C.S. Eng., 20 gs., *less* examn. fees not exceeding 20 gs. The *First* examn. (in Anat. and Physiol.) is open to M.R.C.S. Eng., and, on production of certain certificates involving work extending over 3 winter sessions, to (*a*) candidates who have passed the First Examn., Pts. I., II. and III., and the Second examn. for the L.R.C.P. Lond. and M.R.C.S. Eng., and (*b*) members of Univs. recognized under the Regns. of the Board. The *Second* examn. (in Surgery, including Surg., Anat., and Path.) is open, provided they have passed the First, to (*a*) M.R.C.S. Eng. who have been engaged not less than 6 yrs. in the study or study and practice of the profession, and (*b*) persons possessing the registrable Surg. and Med. degrees of the undermentioned Univs., who have been engaged after obtaining such degrees in the study, or study and practice of the profession for 4 yrs., including 1 yr. spent in attendance upon the Surg. Practice of a recognized Hospl. or Infirmary: the Univs. of the U.K., Bishop's College, Dalhousie, Laval, McGill, Manitoba, Queen's (Kingston), Toronto, Western (Ont.), Adelaide, Melbourne, Sydney, N.Z., Bombay, Calcutta, Madras, Panjab, Hong-Kong, Italian Royal Univs. and Imperial Univ. of Japan.

Examns. for the LICENCE IN DENTAL SURGERY (L.D.S., R.C.S. Eng.) are held, the Prelim. Science (identical with Pts. I. and II. of the Conjoint Board's First examn.) in Jan., March or April, July, and Sept., the First Professional in Jan., April, and Sept., and the Second Professional in Feb., May or June, and Nov.

Candidates must have been registered as Med. or Dental students by the Gen. Med. Council, or have passed one of the examns. in general education recognized by the Board, or in the case of a D.M.D. Harvard, or D.D.S. Penn., Mich., or Illinois, completed a 4 yrs.' High School course at a reputable High School. Candidates for the Prelim. Science examn. (fee, 5 gs.) must have received instruction in Chem. (180 hours) and Physics (120 hours) in an institution recognized for the purpose. One who has passed in either for a degree in Med. at a Univ. recognized

by the Board is exempt from further examn. therein. A holder of the Licence of the Dental Board of Victoria, Australia, or D.M.D. Harvard, or D.D.S. Penn., Mich., or Illinois is exempt from this examn.

The *First Professional examn.* (Pt. I., Mech. Dent., fee, 4 gs.; II., Dent. Metall., fee, 1 g.; III. (*a*) Anat. and Physiol., (*b*) Dent. Anat. and Physiol., fee, 4 gs.) is taken after 2 yrs.' instruction in Dentistry in accordance with prescribed conditions. Those who have passed the second examn. of the Conjoint Board or the examn. in Anat. and Physiol. for a qualification registrable under the Med. Act of 1886, or for the M.D. of a foreign or Colonial Univ. recognized by the Board, are exempt from further examn. in those subjects in Pt. III.

For the *Second Professional Examn.* (minimum age, 21; fee, Part I. 2 gs., II. 4 gs.) prescribed study courses must have been completed, and, except in the case of a Colonial or Foreign Dentist, 6 mos. must elapse after passing the First before sitting for the Second Professional examn., and the candidate must before taking Pt. II. have been engaged in professional study during 4 yrs. after passing the required Prelim. examn. in general educn. Those who are M.R.C.S. Eng., or have passed the examn. in Surgery of the Conjoint Board, or for a qualification registrable under the Med. Act., 1886, are exempt from Part I. of the examn.

For the DIPLOMA IN PUBLIC HEALTH, Part I. of the examn. is held in April, June, and Dec., and Part II. in Jan., April, and July. Both Parts must be passed; they may be taken together or separately. In the latter case Part I. must be passed before admission is allowed to Part II. Fee for each Part, 10 gs. (candidates who hold Diplomas of R. Colls., 6 gs.). Qualifications for admission to Part I.: a registrable qualifn. in Med., Surg., and Midw. held for at least 12 mos., and practical instruction during at least 240 hours for 6 mos. (subsequent to obtaining such qualifn.) in a laboratory recognized by the Examining Board, in Chem., Bact., and the Path. of Diseases of Animals transmissible to man; for admission to Part II.: (*a*) 9 mos.' special study of Pub. Health since obtaining a registrable qualifn.; (*b*) 6 mos.' (at least 60 working days) practical training in Pub. Health administration under a Med. Officer of Health of sufficient standing in the British Empire or under a Sanitary Staff Officer of the R.A.M.C. in charge of a unit recognized for this purpose by the General Medical Council; and (*c*) attendance twice weekly during 3 mos. after obtaining a registrable qualifn. on the practice of a Hospl. for Infectious Diseases, including instruction in Methods of Administration. Candidates who have held for 3 yrs. appointments as Med. Officers of Health of Sanitary Districts within the British Dominions having a population of not less than 15,000 may be exempt from condition (*b*), and the prescribed period, 6 mos. (and 60 working days), may be halved in consideration of having during 3 mos. attended after obtaining a registrable qualifn. a course of instruction in Sanit. Law, Vital Stats., Epidemiology, School Hygiene, etc., given by a teacher in the Dept. of Pub. Health of a recognized Med. School, or been resident Med. Officer in a Hospl. for Infec. Diseases of at least 100 beds.

The examn. for the DIPLOMA IN THE DISEASES AND HYGIENE OF THE TROPICS is held in April, July, and Dec. Fee, 9 gs. Qualifications for

admission: instruction and clinical practice, as prescribed, during 3 mos. after obtaining a registrable qualifn. in Med., Surg., and Midw. Graduates in Med. or Surg. of Indian, Colonial, and Foreign Univs. recognized by the Board, whose degrees are not registrable in the U.K. may also under certain conditions be admitted. The prescribed conditions of study may be modified in view of Foreign or Colonial Med. service, or public professional or teaching work, or original investigation in tropical countries.

All the above examns. are open to WOMEN, who are also eligible, subject to the provisions of the Medical Act, 1876, and Bye-laws of the Colleges, for the Diplomas of L.R.C.P., M.R.C.S, and F.R.C.S.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH, ROYAL COLLEGE OF SURGEONS OF EDINBURGH, AND ROYAL FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW

Joint examinations, open alike to men and women, are held in Edinburgh in Oct., Jan., April, and July, and in Glasgow in April and July for the DIPLOMAS IN MEDICINE, SURGERY, AND MIDWIFERY of these three bodies. Applications for admission should reach the Inspector —in Edinburgh, D. L. Eadie, 49 Lauriston Place; in Glasgow, W. Hurst, 242 St. Vincent St.—one week before the examn. Fees: for First examn. (in Physics, Chem., and Elem. Biol.), £5, or for each subject, £2: 10s.; Second (Anat. and Physiol.), £5, or for each subject, £3; Third (Path. and Mat. Med. with Pharmacy), £5, or for each subject, £3; Final (Med., Surg., Midw., and Med. Jurispr., and Pub. Health), £15 for the whole, and £5 for M. J. and P.H. if taken separately. Exemptions: (1) from examn. in any subject of the first 3 examns. on production of certificate (in which subject is specified) of having passed an equivalent examn. for a Med. qualification before certain Boards recognized by the 3 co-operating bodies; (2) from first 3 examns. in case of candidate possessing a recognized Colonial, Indian, or Foreign qualification entitling him to practise Med. and Surg. in the country where it was granted, provided he has passed a Prelim. examn., and attended a course of study as required by the Regns., and proved that he has passed for such qualifn. a separate examn. in each of the subjects of the first 3 examns. of the Joint Board. The Boards whose earlier Med. examns. are wholly or partly recognized are: the R.C.P. and R.C.S. in the U.K., the R.F.P.S. Glas., Conjoint Boards in England and Ireland, Univs. of U.K.; S.A. Lond. and A.H. Dub. under provisions of Med. Act, 1886; Univs. in India and Univs. and Colls. in Brit. Dominions whose Matricn. examns. have been recognized by the Gen. Med. Council, whose curriculum fulfils the requirements of the Conjoint Board, and whose Diplomas are granted upon equivalent examns.; such foreign authorities as grant Med. and Surg. qualifications

entitling to practise in the country in which granted as may be recognized as entitling to registration under the Med. Act, 1886, after a course equivalent to that required by the Conjoint Board, and preceded by an examn. in Arts recognized by the Gen. Med. Council.

Medical Qualification obtained in the U.S.A. The Scottish Conjoint Board resolved on 30th June 1920 to admit to its Final examn. any candidate who produces evidence of having passed the qualifying examn. of the National Board of Examiners of the U.S.A.

Examns. for the DIPLOMA IN PUBLIC HEALTH (fee, 12 gs., or for each Part, 6 gs.) are held early in Oct. in Edinburgh and early in May in Glasgow, the conditions being similar to those for admission to the corresponding examns. in England, v. p. 518.

The R.C.P. Edin. may admit to examn. for its single qualification —LICENCE—any candidate who has a Surg. qualification recognized for the purpose. Fee, 15 gs. Examns. held every month, except Sept. and Oct. Admission to MEMBERSHIP (minimum age, 24) is by election. Candidates must hold a Licence of a British or Irish College of Physicians or Degree in Med. of a Univ. approved by the Council, and pass the prescribed examn. unless exempted by the Council from the whole or part of it in consideration of work in any sphere of Med. adjudged to be of high distinction. Fee, 35 gs., or, if a L.R.C.P. Edin., 20 gs. A member of 3 yrs.' standing may be elected FELLOW. Fee, 38 gs., and stamp duty, 25 gs. The College has a Library of 100,000 vols. and Research Laboratory.

For admission to the FELLOWSHIP OF THE R.C.S. Edin. candidates must pass an examn. (fee, £45, or for L.R.C.S. Edin., £35) in: (*a*) Principles and Practice of Surgery, including Surg. Anat.; (*b*) Clinical S.; (*c*) one of the following—including clinical or practical as well as written and oral tests—S. Path. and Operative S.; Ophth. S.; Aural, Nasal, and Laryng. S.; Obst. S.; Gyn.; Adv. Anat.; Dental S. Qualifications for admission to the examn. (which is now open to women): minimum age, 25 yrs.; 2 yrs.' study and practice of the profession after obtaining one of the following, or other approved qualifications in S.: those of R.C.S. Eng., R.C.S.I., R.F.P.S. Glas.; Surgical degrees of the Univs. of the U.K. and Canada, Adelaide, Melb., Syd., N.Z., Bom., Calc., Mad., Panj.; L.M.S.S.A. Lond., and L.A.H. Dub. registered under the Med. Act, 1886.

At the final consideration of the candidate's petition for admission to the Fellowship election is determined by ballot.

Examns. for the LICENCE IN DENTAL SURGERY, R.C.S. Edin., are held at the end of Oct., middle of March, and beginning of July. One week's notice required. Open to men and women. The *First* examn. comprises: (*a*) Chem. and Physics, (*b*) Anat. and Physiol. Fee, 5 gs., or for (*a*) or (*b*) separately, 3 gs. The *Second* (fee, 10 gs., or if exempted from First, 15 gs.) cannot be taken before conclusion of prescribed courses. It comprises: Surg. and Med.; Dental Anat. and Physiol., D. Surg. and Path., D. Mat. Med., D. Mech., and D. Metall., with practical, written, and oral examn. in Dental and Oral Surg., Path., and Mech.

Minimum age, 21. A candidate must have been registered as a

Dental Student by the Gen. Med. Council; pass the usual Prelim. examn. of General Educn.; have been engaged in professional study for at least 4 yrs.; have attended for specified periods courses in the general subjects of a recognized Med. School, and for 3 mos. special courses at a recognized D. Hospl. and School, and for 2 yrs. the Practice (Surg. and Mech.) of a recognized D. Hospl. or D. Dept. of a General Hospl.; have received for 3 yrs. (if previously registered Med. Practitioner, 2 yrs.) practical instruction in Mech. D. from a registered Dentist or in the Mech. Dept. of a recognized D. Hospl. and School as apprentice or otherwise, either before or after registration.

Grounds for *exemption* (1) from First examn.: having passed the qualifying examns. in (*a*) and (*b*) for registrable Med. qualifications; (*pro tanto*) having passed in any of subjects (*a*) and (*b*) before any Dental Licensing Board recognized by the College its Final (or only) examn. in the subject, if co-extensive in scope and pre-requisite educn. with that of the College; (2) from proof of attendance on other than special Dental courses of lectures and instruction and from examn. in other departments than these: Registered Med. Practitioners. The Dental curricula of Indian, Colonial, and Foreign Boards may be recognized wholly or in part by the College.

Examns. for the LICENCE OF THE L.R.F.P.S. Glasgow can be arranged at any time of the year, except August. Fee, 15 gs. Qualifications for admission: Licence of one of the Colleges of Physicians of the U.K. or Colonies, or of the Soc. of Apothecaries of London or Apothecaries' Hall, Dublin, conferred after passing the qualifying examns. of these bodies; Degree in Med. of a Univ. of the British Empire.

Examns. for the FELLOWSHIP of the R.F.P.S. Glasgow are held in Jan., April, July, and Oct. 14 days' notice required. Admission to the Fellowship (fee, £30, or for L.R.F.P.S., £25; additional, qualifying to hold office, £20, or for L.R.F.P.S., £15) is either by examn. and subsequent election by ballot or by election in virtue of high distinction in Med. Science or Practice of persons not less than 40 yrs. of age who have been qualified for at least 10 yrs. Not more than 4 Practitioners are admitted by the latter method annually. Candidates must be proposed by 2 Fellows of the Faculty. Special regns. for candidates who have served in the Great War.

Examns. for the LICENCE IN DENTAL SURGERY OF THE F.P.S. Glasgow are held early in April, July, and Oct. One week's notice required. Candidates must have been registered at the beginning of studentship, as Dental student, by the Gen. Med. Council, and produce certificates of 4 yrs. of professional study subsequent to registration and in accordance with prescribed conditions. Those already qualified under the Medical Acts need not produce evidence of attendance on courses in subjects not special to Dentistry, and will not be examined in such subjects. The *First Dental examn.* is in 3 divisions: (A) Chem. and Physics; (B) Dent. Metall. and Dent. Mech.; (C) Human Anat. and Physiol. Fee, 6 gs., or for each division, 2 gs. The *Final Dental examn.* is in (*a*) Principles of Surgery; Med., with Mat. Med. and Therap., mainly in their application to D. Surg.; (*b*) D. Anat. and

Physiol., D. Path., Bact., and Surg.; (*c*) D. Surg. (Practical) in a D. Hospl. Fee, 9 gs.

All examns. of the R.F.P.S. are open to women as well as to men.

ROYAL COLLEGE OF PHYSICIANS AND ROYAL COLLEGE OF SURGEONS IN IRELAND

Address of Committee of Management of the Conjoint Board—Royal College of Surgeons, Stephen's Green, Dublin. Registrar of the R.C.P.—6 Kildare St., Dublin.

Professional examns. for the LICENCES IN MEDICINE, SURGERY, AND MIDWIFERY are held by the Conjoint Board in spring, summer, and autumn. Candidates must comply with the requirements of the Gen. Med. Council (v. *supra*) *re* Prelim. examn. and Registration of students. The *First* Prof. examn (fee, 15 gs.) comprises Chem. and Physics and Biol. The *Second* (fee, 10 gs.), Anat. and Physiol. and Histol. The *Third* (fee, 9 gs.): (*a*) Path., (*b*) Mat. Med., Pharmacy, Therap.; (*c*) Forensic M. and Pub. Health. The *Final* (fee, 6 gs.): (*a*) Med., including Fevers, Mental Diseases, and Dis. of Children; (*b*) Surg., including Operative and Ophth. S.; (*c*) Midw. and Gyn., Vaccn., and Dis. of Newborn Children.

Institutions recognized for instruction in subjects of the First examn. include numerous schools in the U.K., and also the Univ. of Cape Town and Transvaal Tech. Inst. (now Univ. Coll.). Institutions recognized for certification of studies include: in Canada—the Univs. of Dalhousie, Laval, McGill, Toronto, Trinity Coll. and Vict. Coll. Tor.; Bishops' Coll., Montreal; R.C.P.S., Kingston; Trinity Med. Sch.; in Australia—Univs. of Melb. and Syd., Adelaide Infirmary, Melb. Hospl., Alfred Hospl., Syd. Infirmary, Prince Alfred Hospl., Genl. Hospls. of Hobart and Launceston; in N.Z.—Dunedin Hospl.; in Cape Town—S. African Coll.; in India—Med. Colls. of Bengal and Madras; the Ceylon Med. Coll.

Candidates who have passed in any of the required subjects at examns. conducted by any Licensing Body recognized by the R.C.P. and R.C.S. may be exempted from further examn. therein.

Examns. for the LICENCES OF THE R.C.P.I. are held early in Feb., May, and Nov., and at specially appointed times. That for the *Licence in Medicine* (fee, 15 gs., or for Special examn., 20 gs.) comprises Practice of M., Clinical M., Path., Med. Jurispr., Midw., Hygiene, Therap. It is open to a Registered Med. Practitioner of the U.K. or on the Colonial or Foreign List of the Gen. Med. Council if the College be satisfied as to his character and his courses of study and examns. passed by him. The examn. for the *Licence in Midwifery* (fee, 5 gs., special, 10 gs.) is open to Registered Med. Practitioners: (*a*) of the U.K. who have (i.) obtained the Lic. in Med. of the College or have passed the examn. therefor, or (ii.) satisfied the College as to character and as to course of

study pursued and examns. passed; (*b*) of 5 yrs' standing who have so satisfied the College. Entrants under (*b*) are exempt from the examn. by printed questions.

Examns. for MEMBERSHIP OF THE R.C.P.I. are held in Feb., June, and Nov., and at specially appointed times. Applications for admission should reach the Registrar by 2nd week in Jan., May, Oct. Fee, 35 gs. or for L.R.C.P.I., 20 gs.; extra for Special examn., 10 gs. The examn. is open to Registered Med. Practitioners: (*a*) who have held for at least a year a Licence in Med. of a College of Physicians of the U.K., or a degree (B. or D.) of any Univ. in the Empire recognized for registration purposes by the Gen. Med. Council; or (*b*) who hold a foreign qualification, entitling to practise Med. and Surg. in their own countries, obtained after a course of study deemed by the College to be satisfactory. The testimony of a fellow or member of the College or a F.R.C.P. Lond. or Edin. as to professional conduct and moral character is also required. The Diploma of membership carries with it the Licence if this has not been already obtained. Exemption from part of the examn. may be allowed by the Court of Examiners on a consideration of evidence that a candidate has "improved the Art or extended the Science of Med."

For admission to the FELLOWSHIP OF THE R.C.P.I. (fee, £35; stamp duty, £25) the candidate must have been a member of the College for 1 yr. Minimum age, 27. It is open to women.

The R.C.S.I. holds examns. (fee, 5 gs.) for a LICENCE IN SURGERY at the same times as those of the Conjoint Board. They are open at the discretion of the Council to Registered Med. Practitioners who have passed through a course of study and examns. equivalent to those required by the Conjoint Board and an examn. in Arts recognized by the Gen. Med. Council. Fee for Licence, 25 gs., including 5 gs. examn. fee.

The R.C.S.I. also holds examns. for a DIPLOMA IN MIDWIFERY. Candidates must have a registrable qualification and produce certificates of attendance on Lectures, 6 months' Hospital practice and conduct of 30 labour cases. Fee, 15 gs.

The examn. for the FELLOWSHIP OF THE R.C.S.I. is in 2 parts. Fee for each, 5 gs. For admission to the Final part a candidate must be a Licentiate or Graduate in Surg. of a Univ. or licensing body recognized by the Gen. Med. Council. Minimum age, 25. Fee on admission to Fellowship, 40 gs., or for Licentiate of the College, 25 gs.

THE SOCIETY OF APOTHECARIES OF LONDON

Incorporated by Royal Charter, 1617. *Address*—Water Lane, Queen Victoria St., London, E.C.4.

Examinations for the Diploma of Licentiate in Medicine, Surgery, and Midwifery (L.M.S.S.A.) are held in London, the Primary examn. (fee, 5 gs.) in Elem. Biol., Chem., Materia Medica and Pharmacy,

Anatomy, Physiology, and Histology in Jan., April, July, and Oct., the Final (fee, 15 gs.), monthly, except in Sept. For admission to either, certificates are required, showing in detail the course of Medical study pursued by the candidate with particulars of instruction received, practice and operations performed, and offices held. The course covers 5 yrs. in all. Exemption from the Primary subjects may be obtained by proving that equivalent examns. recognized by the Society have been passed.

THE ROYAL COLLEGE OF VETERINARY SURGEONS

Address—10 Red Lion Sq., London, W.C.1. *Affiliated Colleges*—Royal V. College, Camden Town, London, N.W.1; The V. School of the University, Liverpool; Royal (Dick) V. College, Summerhall, Edinburgh; The V. College, Buccleuch St., Glasgow; Royal V. College of Ireland, Ballsbridge, Dublin.

A candidate for the *Membership* must, after passing one out of a list (similar to that of the Gen. Med. Council, v. *supra*) of recognized Preliminary Educational examns., attend courses in one of the Affiliated Colleges during 4 yrs. as follows: 1st year (from which exemption is given under certain conditions to graduates in Arts, Science, or Medicine): Anat. of Domestic Animals; Chem. and Elem. Physics; Biol., Elem. Zool., and Botany. 2nd year: Anat. of Dom. Animals; Physiol. and Histol.; Stable Management, Shoeing, etc. 3rd year: Path., Bact., and Protozoology; Mat. Med., Tox., and Practical Pharmacy; V. Hygiene and Dietetics. 4th year: Principles and Practice of V. Med. and V. Surg. and Obst.; Meat Inspection. An examn. (fee, £5) is held at the end of each year's course.

Qualifications for *Fellowship*: 2 yrs.' practice after obtaining the membership, and a thesis on results of original research followed by oral and, if deemed necessary, written and practical examns. Fee, 15 gs.

For admission to the examn. for the *Diploma in V. State Medicine* it is necessary after graduation as M.R.C.V.S. to take a special course at a V. School and undergo training under a County or Municipal V. Inspector. Fee, £5: 5s.

THE ROYAL SANITARY INSTITUTE

Founded 1876. Incorporated 1888. *Address*—90 Buckingham Palace Road, London, S.W.1. Branches in W. Australia, New Zealand, and S. Africa.

The Institute is a composite body, representative of the various sciences allied to sanitation and public health, and its members (nearly 5000) include Medical men, Engineers, Architects, Municipal Officers, etc.

Qualifications for (1) Membership: evidence of attainments of standard indicated by certain of the Inst.'s own certificates, a Degree of a University, or Diploma of a Medical Corporation recognized by the Council, San. Science certif. of Surveyors' Instn. (v. p. 534), Testamur of the Instn. of Munic. and County Engineers (v. p. 505); (2) Associateship: the Inst.'s certif. for Inspector of Nuisances or other evidence of attainments of similar standard. Annual Subsn. for Members, 1½ to 2 gs.; Associates, 15s. to 1 g. Fellows are elected from Members of at least one year's standing.

Examinations held by the Institute (fee, 4 to 5 gs.): (1) Inspector of Nuisances, under P.H. Act, 1875; (2) Advanced Knowledge of Inspectors' duties; (3) Inspectors of Meat and Foods; (4) Smoke Inspectors; (5) San Science as applied to Buildings, etc.; (6) Women Health Visitors and School Nurses; (7) Maternity and Child Welfare Workers; (8) School Hygiene, including Elem. Physiol.; (9) Tropical Hygiene for Inspectors. (1) and (3) are recognized by Loc. Govt Boards of England, Scotland, and Ireland, (6) by the L.G.B. of England, (8) by L.C.C. Educn. Committee and other Educational Authorities.

The examns. are held in London and in numerous other towns in the U.K. and in India, Burma, Canada, Australasia, S. Africa, Hong-Kong, West Indies. Examns. for San. Surveyors and San. Inspectors are held in Bombay and Rangoon in co-operation with the Local Governments.

Courses of Lectures and Demonstrations are held in London in spring and autumn. Fees, 3½ to 5 gs.

The Parkes Museum, founded 1876, became part of the Inst. in 1888. It serves as a public demonstrating school. The Inst. has a large Library, including many foreign works. Sessional meetings, about ten yearly, are held in London and other large towns.

Congresses and exhibitions have been held almost every year since 1877.

Publications: *Journal* and numerous pamphlets.

ROYAL INSTITUTE OF PUBLIC HEALTH

Founded 1886. Incorporated 1892. *Address* — 37 Russell Square, London, W.C.1.

The Institute provides courses of Instruction qualifying for admission to the examinations for the Degrees and Diplomas in Public Health of all the Univs. and Medical Corporations. Fees for Laboratory Instruction: 6 months, 18 gs.; P.H. Admn., 10 gs.; Fever Hosp. Admn., 3 gs.; Special Lab. Fees., Chem. or Bact., monthly, 6 gs., 3 months, 15 gs. Courses of free lectures are also given in the Lecture Hall of the Inst. Special lectures open to Fellows, Members, and Students. Subscription, 1 g. p.a.

The Laboratories are recognized as a place of research in connexion with the Beit Memorial Fellowships. Researches and Clinical Examns. are undertaken for Public Bodies and Med. Practitioners. Culture media of all descriptions are supplied.

Reference Library containing all important P.H. Works, Govt. Reports, etc.

Congress to be held at Plymouth, May 31 to June 5, 1922.

Publication. *Journal of State Medicine*, monthly, 2s.

INSTITUTE OF HYGIENE

Founded 1903 *Address*– 33-34 Devonshire St (Harley St.), London, W.1. Branches at the University of Birmingham and Armstrong College, Newcastle-on-Tyne.

Examinations for Certificates and Diplomas (advanced) are held at the leading centres throughout the U.K. on the second Saturday of Jan. and of June each year. Subjects: General Hygiene, School H., Home Nursing and First Aid, Mothercraft, Food and Dietetics, Cooking, Physical Training, School Nursing, and Health Visiting. Fee, ½ g. to 2 gs. Complete syllabus with list of Text Books, 2s. Specimen questions, 1d.

The Certificate and Diploma in General Hygiene qualify for nomination as Associate and Member respectively of the Inst.

Public Lectures are regularly given throughout the year in the Lecture Hall. The Inst. has Laboratories for analytical and bacteriological investigation, and a Museum of Hygiene open to the public free throughout the year.

XIII

THE INSTITUTION OF MINING AND METALLURGY

Founded 1892. Incorporated by Royal Charter 1915. Objects: Advancement of the Science and Practice of Mining in respect of minerals other than coal and of Metallurgy in respect of metals other than iron; and to afford a means of facilitating the acquisition and preservation of that knowledge which pertains to the profession of a Mining Engineer and Metallurgist. *Address*—Cleveland House, 225 City Road, London, E.C.1.

Qualifications for Membership (M.Inst.M.M.): minimum age, 30, having been for at least 5 yrs. in full charge of important mining or metallurgical operations or in practice as a Consulting Mining Engineer or Metallurgist; if born after Dec. 31, 1894, a regular course of at least 3 yrs.' study in pure or applied science. Qualifications for Associateship (Assoc.Inst.M.M.): minimum age, 25, having been engaged in mining or metallurgical pursuits for not less than (*a*) 2 yrs if a graduate of the R.S.M. or other mining college or school of equivalent standing; (*b*) 3 yrs., or such longer period as Council may determine, if a graduate of some other college or school; (*c*) 6 yrs. in other cases. The minimum age for admission as student is 18. A candidate for either Membership or Associateship must be actually practising his profession at the time, and must satisfy the Council as to his fitness for admission. The Council may elect a candidate as Member in consideration of his position and attainments in Science or Technology. Entrance fee and annual subsn. for Member, 5 gs. each; Assoc., 3 gs. Students pay subsn., 1g. (over 25—1½ g.) p.a. and no entrance fee.

General meetings for discussion of papers monthly, Oct.-May. Large Library, reading- and writing-rooms. Publications: *Bulletin*, monthly (£1 : 11 : 6 p.a), and Transactions annually (£1 : 11 : 6 p. vol.) may be purchased by non-members. Gold medals, etc., are awarded by the Instn. for promoting its objects. The Instn. is closely associated with the Royal School of Mines.

INSTITUTION OF MINING ENGINEERS

Established 1889. Incorporated by Royal Charter 1915. *Address*—Cleveland House, 225 City Road, London, E.C.1. *Telegrams*—"Instimini Phone London."

The Institn.'s objects and purposes are "the advancement of coal and iron-ore mining and allied industries, and the promotion of the acquisition of the knowledge necessary for the control and direction of mining operations in relation to stratified deposits." It is a federation

of the Manchester Geol. and Mining Soc. ; the Midland Counties Instn. of E. ; the Midland Instn. of Mining, Civil, and Mech. E. ; the Mining Inst. of Scotland ; the North of England Inst. of Mining and Mech. E. ; the North Staffs Inst. Min. E., and the South Staffs and Warwickshire Inst. Min. E. There is no separate membership of the Institution apart from membership of one of the Federated bodies.

Conditions of admission to membership since Jan. 12, 1916, include : (*a*) regular education and training as a Min. E., and 5 yrs.' work in a responsible position in practical Mining ; or (*b*) First-Class Certif. of Competency under Coal Mines Act, and tenure of post as Manager, Asst. Manager, Under-Manager, or Chief Surveyor ; or (*c*) position or attainments rendering his membership desirable in the opinion of the Council. There are also Associate Members, Hon. Members, Associates, and Students.

Publications. Transactions (in which are included Procdgs. of Federated Instns. as well as those of the Instn. itself), 62 vols. Price to non-members, 54s. each for current volumes ; back volumes at varying rates.

THE IRON AND STEEL INSTITUTE

Founded 1869. Incorporated by Royal Charter 1899. *Address*—28 Victoria St , London, S.W.1.

Qualifications : (1) for Membership—minimum age 21 ; being practically engaged in iron or steel works or being a person of scientific attainments in metallurgy or specially interested in the applications of iron and steel. Entrance fee, 2 gs. ; annual subsn., 3 gs. (if resident abroad, 2½ gs.). (2) For Associateship—maximum age, 24 ; being (*a*) Student of Metallurgy taking a course at a Univ., Univ. College, or Tech. School, or (*b*) pupil or apprentice in metallurgy or engineering, or (*c*) employed in some practical or scientific capacity in met. or engin. works. Annual subsn., 1 g.

Meetings in May and Sept. for reading and discussion of papers. Library, reference and lending ; printed catalogue. Information Bureau ; service not restricted to members.

Carnegie Research Fund—£20,000, interest on which is used for grants to assist metallurgists and students in conducting researches.

Publications. Journal in 2 vols. annually ; *Carnegie Scholarship Memoirs*, 1 vol. annually.

THE INSTITUTE OF METALS

Founded 1908. Incorporated 1910. *Address*—36 Victoria St., London, S.W.1.

Local Sections in Birmingham, Glasgow, London, Newcastle-on-Tyne, Sheffield.

Qualifications for Ordinary Membership (M.Inst.Met.): minimum age, 24; occupying a responsible position, being either engaged in the manufacture, working or use of non-ferrous metals and alloys or a person of scientific, technical or literary attainments connected with or interested in the metal trades or with the application of non-ferrous metals and alloys. Limits of age for Student Members, 18-25. Entrance fee and annual subsn. for Ordinary Members, 2 gs. and 3 gs. Students, 1 g. and 1 g. Associate members of local sections pay a nominal subscription and do not receive the *Journal*. *Fellows* are limited in number to 12. They are chosen by Council for having rendered eminent service to the Assocn.

The Inst. aims at "the advancement of the non-ferrous metals industry and the associated sciences," by the co-operation of manufacturers, users and scientific investigators. It concerns itself rather with the manufacture and working of metals and alloys and with their properties and modes of treatment and testing, than with the production of metals from their ores. The leading features of its work are the holding of sessions in the spring and autumn and an annual "May lecture" given by some acknowledged master of his subject.

The *Journal* contains in addition to the proceedings of all the meetings abstracts and reviews of all the more important current publications, British and foreign, bearing upon non-ferrous metals. Price to non-members, £3: 5s. for the two annual vols. (post free).

Library with all the current journals of interest to those concerned with metals. Nucleus museum.

Research is encouraged, directed, and even undertaken by means of a series of special committees, the most important being the Corrosion Research Committee which began its work in 1910 and after receiving substantial help from the Govt. Dept. of Scientific and Industrial Research was augmented by the addition of representatives of several Govt. Depts. and Professional Institns. Funds were provided by Sir George Beilby for enabling the Inst. to reward an important research, still continuing, on "The Solidification of Metals from the Liquid State."

The number of members in 1921 was 1406.

INSTITUTION OF PETROLEUM TECHNOLOGISTS

Incorporated 1914. *Address*—5 John Street, Adelphi, London, W.C.2.

Conditions of admission to associate membership (A.M.Inst.P.T.) since June 17, 1914, include (*a*) good general and scientific education, (*b*) at least 2 yrs.' practical experience in a position (held at time of application) as petroleum technologist.

Publications. *Journal*, quarterly, 7s. 6d. (free to members). *Library Catalogue* (with history, regulations, etc., of the Instn.), 2s.

XIV

THE CHARTERED INSTITUTE OF PATENT AGENTS

Founded 1882. Incorporated by Royal Charter 1891. *Address*—Staple Inn Buildings, London, W.C.1.

Under the Patents and Designs Acts, 1907 and 1919, it is illegal to practise as a Patent Agent without being duly registered. The Register of Patent Agents is kept by the Institute in accordance with the Board of Trade's Rules of 1920.

Examinations are conducted or recognized by the Inst. for the two purposes of Registration of P.A.'s and the admission to the Inst. of Fellows, Associates and Students.

The Inst. recognizes as Preliminary examns. the Matricn. examn. of any Univ. in the U.K., the examns. recognized by the Board of Educn. as approved examns. in respect of Secondary Schools, Nos. 1*a*, 2, 4*a*, 8(*a*), 9, 10, 13, 15*c*, 16, of the list on p. 539, and several others.

The Inst. holds each year (i.) Intermediate (fee, 2 gs.), and (ii.) Final examns. (fee, 3 gs.), qualifying for Registration. Latest date for entry, April 1. Subjects of (i.): A. Patent Law and Practice, Designs, Trade-marks, Foreign Law, the reading of Mechanical Drawings; B. Manufactures, Science, and the preparation of Mechanical Drawings. Subjects of (ii.): A. Preparation of Specifications for British Colonial and Foreign Patents; B. Interpretation of British Specifications. Candidates for admission to (i.): must have passed one of the approved Prelim. examns. and (*a*) have served 3 yrs. as a pupil or technical asst. to one or more registered P.A.'s or (*b*) have so served for 2 yrs. *and* attended a 2 yrs.' course at an approved Tech. Coll. or had 2 yrs.' approved practical experience, or (*c*) have so served for 1 yr. *and* taken a degree at a Univ. of the U.K. or attended a 3 yrs.' course at an approved Tech. Coll. or had 3 yrs.' approved practical experience, or (*d*) be entitled to practise as a Solicitor or (Scotland) Law Agent.

Candidates for admission to (ii.) must have passed (i.) and have served as above for a period of 2 yrs. in excess of term prescribed under (*a*), (*b*), or (*c*) above, as case may be, or be entitled as in case (*d*).

Minimum age for membership of the Inst.—25. Other qualifications: For Fellowship, (*a*) having ceased to be an Associate by reason of being in practice on own account as P.A.; (*b*) having passed Final examn.; (*c*) special dispensation in case of candidate of exceptional standing or experience. For Associateship (not applicable to person registered as a P.A.); (*a*) being qualified and able by reason of connexion with the Law, Science, or the Arts, to advance the objects of the Inst.; (*b*) being pupil or asst. of 3 yrs.' standing of a Fellow or a Student attached to the Inst. and having passed Interm. Examn. For Foreign Membership: having been established in practice as P.A. for a sufficient time not less than 3 yrs. in a British Colony or Dependency or in a Foreign Country and neither having an office nor practising in the U.K.

Minimum age for " Studentship "—18. Other qualifications : being an articled pupil of a Registered P.A. and having passed an approved Prelim. examn.

Fellows may use the initials C.P.A. after their names.

Entrance fee for Fellow, 2 or 3 gs.; Assoc., 1 g.; Foreign Members, 2 gs.; Student, 1 g. Annual subs. : for Fellow, 2 or 3 gs. ; other classes, 1 g.

XV

PHARMACEUTICAL SOCIETY OF GREAT BRITAIN

Address—17 Bloomsbury Sq., London, W.C.1.

Examinations (open to women as well as men) are held in London and Edinburgh in Jan., April, July, and Sept. or Oct. : the *Qualifying* examn. (fee, 12 gs.), for registration as Chemist and Druggist under the Pharmacy Act, 1868 ; the *Major* examn. (April and July, fee, 3 gs.), for registration as Pharmaceutical Chemist under the Pharmacy Act, 1852. No person can be admitted to any portion of the Qualifying examn. who is not a *Registered Apprentice or Student*, and this involves passing in English, Arith., Algebra, Geom., and 2 optional subjects at not more than 3 approved examns. It is recommended that one of the optional subjects be Latin. Among the approved examns. are those numbered in the list on p. 539 as 1, 2, 3, 4, 5, 6, 7 (Junior), 8, 9, 9*a*, 10, 10*a*, 11, 12, 13, 13*a*, 13*b*, 13*c*, 14, 16, 16*a*, 19, 20, 21, 23, 23*a*.

In 1921 the Qualifying examn. was passed by 1233 persons, the Major examn. by 39.

XVI

CHARTERED INSTITUTE OF SECRETARIES

OF JOINT-STOCK COMPANIES AND OTHER PUBLIC BODIES

Founded 1891. Incorporated by Royal Charter, 1902. *Address*—59A London Wall, London, E.C.2. Branches at Birmingham, Bradford (for W. Yorks), Liverpool, Manchester, Newcastle-on-Tyne, Nottingham, Sheffield, Cardiff, Glasgow; and overseas at Montreal, Brisbane, Melbourne, Sydney, and Johannesburg.

Examinations are held in London and at various other places both at home and abroad in June and Dec. A candidate must either enter into Articles of Clerkship with a member of the Inst. for a period of 4 yrs. (if a graduate, 3 yrs.) or obtain registration as *Student*, for which a certificate that he is *bona fide* in course of preparation for the secretarial profession is required.

The *Preliminary* examn. (fee, 1 g.; min. age, 16) comprises English (Grammar, Compn., Dictn.), Engl. Hist., Geog., Elem. Maths., one foreign lang., and one of: Maths. (more Advanced), Physics, Chem., Elem. Mech., Stenography. Exempting examns. include matricn. of any recognized Univ. in the Empire, and those in list on p. 539 numbered 1, 2, 7, 8 (*b*), 9 or 10, 9*a* or 10*a* (Hons.), 11, 12, 13, 14, 16, 19 (Interm.), 23*a*, and the Prelim. of Inst. C.A. or Soc. of Inc. Acctts. and Audrs., provided, in case of 9*a*, 10*a*, and 16, that the candidate has passed in the above specified subjects. The Council may also exempt any candidate over 21 yrs. of age as to whose educational status they are satisfied.

For admission to the *Intermediate* (fee, 2 gs.; min. age, 21) a candidate must have passed or been exempted from the Prelim. Graduates of recognized Univs. in the U.K., and persons who have passed the Final of the Bar Council, Law Soc., Inst. C.A., or Soc. of Inc. Acctts. and Audrs., are allowed a pass in the Interm. on attaining the usual standard of proficiency in any 3 of the specified examn. subjects they select, but must pass the Final as a whole before election to membership.

For admission to the *Final* (fee, 2 gs.; min. age, 21) a candidate must have passed the Interm. The subjects are: Economics, Sec. practice and duties, Law and practice in connexion with meetings, Book-keeping and Accts., Merc. Law, an approved foreign language, and one special law subject (*e.g.* Company Gas, Water, Insurance) or Banking and Exchange.

Associate Membership can be obtained after 6 yrs.' service with a Public Coy. or Body; *Fellowship*, after 8 yrs.', of which 3 have been as Secy. or Asst. Secy.

Publications: *Yearbook*, *Secretarial Practice*, *The Secretary* (monthly, 1s.).

XVII

SURVEYORS' INSTITUTION

Founded 1868. Incorporated by Royal Charter, 1881. *Address*—12 Great George St., Westminster, S.W.1.

Professional examns. (fees: Interm, or Final, 4 gs.; Direct Fellowship, 5 gs.; applications receivable in Sept.) are held in March in London, Glasgow, and Dublin, and a Prelim. examn. (fee, 1½ g.) in Jan. in the same places and Manchester.

The *Preliminary* (min. age, 16), for admission of students comprises Elem. Maths., Hist., Compn., and one of: Latin, French, German, Inorg. Chem., Botany, Geol. A candidate must be a pupil of a Surveyor or studying at one of the Univs. of the U.K. or their Affiliated Colleges or one of the following: the Agr. Coll., Uckfield; Harper Adams Agr. Coll., Newport; University Coll., Reading or Southampton; Seale-Hayne Agr. Coll., Newton Abbot. He is expected to reach the standard of examn. No. 8 (*b*) of the list on p. 539.

Candidates for admission as *Student* (min. age, 18) are exempt from undergoing the Prelim. if they have passed any of the examns. Nos. 7, 8 (*a*), 9 or 10, 9*a* or 10*a* (Hons.), 11, 12, 13, 14, 16, 19 (Interm.), or the Matricn. examn. of any Univ. in the U.K., Inst. C.E. Studentship, Prelim. of Inst. C.A., R.I.B.A., Law Soc. or Sandhurst or Woolwich.

For admission to the (i.) *Intermediate* (min. age, 19), a candidate must, unless at one of the institutions above mentioned, be actually engaged in an office where he has opportunities of obtaining practical experience in the profession. The subjects are grouped thus: I chiefly Land Agency, II. chiefly Valuation, III. chiefly Building or chiefly Quantities, IV. chiefly Mining. A candidate may elect any one of these subdivisions. For the (ii.) ordinary *Final* (min. age, 21), a candidate must have passed the Interm. in the same subdivision which he takes for the Final. The (iii.) *Direct Fellowship* examn. (min. age, 30) may be taken, without having passed (i.) or (ii.), by a candidate who has been in practice on his own account for 5 yrs.

For election as *Professional Associate* (P.A.S.I.) a candidate must have passed (i.) and (ii.), and be in practice as a Surveyor on his own account or employed as an Asst. in a Surveyor's office. For admission as Fellow a candidate must have passed either (i.) and (ii.) or (iii.), and had 5 yrs.' experience either as Principal or Responsible Manager in an established business or as Head of a Dept. in the office of a public body reporting direct to his Board or Council.

Scholarships worth £80, £60, and £50, tenable for 3 yrs. at any Univ. in Great Britain, have been established by the Council.

XVIII

TEACHERS' REGISTRATION COUNCIL

Constituted by Order in Council, 1912. *Address*—47 Bedford Sq., W.C.1.

Conditions of Registration (fee, £2): (*a*) minimum age, 25; (*b*) a degree or other qualification approved by the Council; if obtained in respect of a technological subject the applicant must have spent 36 months, after attaining the age of 16, in the practice of the profession or industry in question, and of this period 12 mos. must have been concurrent with or subsequent to the course for the degree (or other qualification); (*c*) successful completion of a course, extending over at least 1 academic year, or its equivalent, of training in the principles and methods of teaching, carried on under conditions approved by the Council and accompanied by practice under supervision; (*d*) experience as a teacher in educational institns. accepted for the purpose by the Council for a period varying according to circumstances, but in no case less than 3 academic years, of which 2 must have been in one institn. or under one governing body unless the whole period has been spent in not more than 2 institns.

Conditions (*b*) and (*c*) are waived in the case of a teacher who has had not less than 3 academic yrs.' experience as Recognized Teacher in Univs. and institns. of Univ. rank approved by the Council for this purpose. Condition (*c*) may be modified in other cases where the Council is satisfied that facilities for the prescribed training do not exist.

XIX

EDUCATION AND TRAINING FOR TEACHING IN ENGLAND AND WALES

The Board of Education have recently consolidated their Regulations on this subject, and introduced several changes designed to promote the unity of the teaching profession and to remove barriers which have existed between its different branches, while giving ample scope for freedom and variety, which they regard as essential in the training of teachers, and encouraging Training Colleges to plan their schemes of training on different lines so as to provide for the requirements of the various kinds of school included in the national system of education.

Courses of Training qualifying for the Board's Certificate for Teachers in *Elementary Schools* are provided in independent Training Colleges and also in the Training Departments which form part of the work of all the Univs. (Wales—the Constituent Colleges, except Swansea; Durham—Armstrong College), both for men and (except Cambridge) for women, and also in the Univ. Colleges, Nottingham, Reading, and Southampton.

The Board recognizes for grants in respect of courses preparatory to teaching in *Secondary* Schools: (i.) Departments of all the Univs. except Sheffield, (ii.) Reading Univ. College, (iii.) 7 other Colleges. Cambridge provides for men only, Leeds and Reading for women only.

Candidates for admission as *Recognized students* must, unless this condition is specially waived by the Board in any case, be British subjects ordinarily resident in the U.K.; they must, as a rule, be over 18, and must at least be over 17 on the first day of the academic year for which they are admitted, must give satisfactory evidence of health, character, and suitability for the profession, and must have passed the Prelim. examn. for the Elem. Sch. Teachers' certificate or, subject to provisos ensuring adequate proficiency in English, History, Geog., and Arith., one of the examns. in the list on p. 539. numbered 7, 8 (*b*), 9, 10, 11, 12, 13, 14, or some other examn. as to which the Board are, in particular cases, satisfied that it is equivalent to these in range and standard; they must give an *Undertaking to teach* in an Approved School after completion of their training for 7 (women 5) yrs. or to repay a certain proportion of the grant payable by the Board in respect of them. (In some cases the Board has accepted service in a State School in one of the Overseas Dominions as a sufficient compliance with this undertaking.) A married woman is not admissible without the special sanction of the Board.

Candidates who satisfy the above requirements as to age, attainments, and character may be admitted as *Private students* without giving the prescribed Undertaking, but no grants will be payable on their account except in certain special cases, and the fees chargeable to them will be correspondingly higher.

The principal *types of courses* approved are : (i) 4-year, including 3 yrs. of study for a Univ. degree followed by a year of professional training ; (ii.) 2-year, including a period of prof. training taken concurrently with a period of academic study ; (iii.) 3-year, providing a year of further training for selected students who have completed (ii.) ; (iv.) 1-year—(*a*) prof. training for graduates or other advanced students, or (*b*) a year of partly prof. and partly academic study for Certificated Teachers. The foregoing give a suitable training for teaching in Public *Elementary* Schools. Other types are : (v.) in preparation, extending over not less than a full academic year, for teaching in *Secondary* Schools ; (vi.) professional instruction, extending, as a rule, over not less than a full academic year, for teaching in *Continuation* Schools ; (vii.) in preparation for teaching *Domestic Subjects*.

As regards (i.), a student may be admitted to the 2nd, 3rd, or 4th yr. if he has completed 1 yr., 2 yrs., or the whole of the course for a Degree before entering the Training Dept. and is over 18, 19, or 20 as the case may be. A student who has pursued a course of type (i.) will not as a rule be certificated as a Teacher unless he has passed a Final examn for a Degree, but the Board may regard as qualified one who has failed to pass if he is specially recommended by the Univ. Authorities, or he may be recognized as a temporarily Certificated Teacher and subsequently qualify for permanent recognition.

(ii.) Suitable Univ. examns. forming recognized stages in courses for degrees may, subject to certain conditions, be approved for individual students in lieu of the Board's Final examn. Concessions similar to those above mentioned may be made to students who fail in a Final examn. for a degree.

(iii.) may include preparation for a Final examn. for a Univ. degree, provided an advanced course in the Principles of Teaching is included in it or taken separately, and certain other conditions are fulfilled.

For (iv.) any candidate who has not already served as a Certificated Teacher for 4 yrs. must be over 19 and have passed the Final examn. for a Univ. degree, or the examn. for the Diploma of Assoc. in Letters or Science of Univ. College, Reading, or an approved School Leaving Certif. examn. conducted by a Univ., including special advanced papers in English, a foreign language, and one other subject, or the Oxford or Cambridge Higher Local, including Arith. and English, Maths. or Science, Languages or Hist. or Geog., or the Nat. Froebel Union Higher certif., or some corresponding or higher examn. approved for the purpose. No 1-year student may be allowed to enter for an examn. which forms a recognized stage in the course for a Univ. degree.

(v.) Persons who have obtained a Univ. degree in Honours or its equivalent may be admitted as Recognized students, and will be eligible for maintenance as well as tuition grants if they sign the prescribed Undertaking. Others who have obtained a Univ. degree or a Special Honours Higher Local certif. (Ox. and Camb.) fulfilling the special requirements of the Board may earn tuition grants for the Dept. even though not giving the prescribed Undertaking. Students who have been admitted for a 4-year course and obtained a Univ. degree

in Honours or the equivalent may, on the recommendation of the Univ. authorities, take a type (v.) course instead of the fourth year of the type (i.) course.

A person, not under 21, who has obtained an approved degree in a Univ. of recognized standing or a Special Honours Higher Local certif. (Ox. or Camb.) fulfilling the special requirements of the Board may on certain conditions be recognized as a teacher in training in an approved Secondary School, the course extending over at least a full school year. If such a teacher has obtained an approved degree in Honours or its equivalent the School will be entitled to a tuition grant.

Teachers of any ordinary subject of instruction in recognized schools, etc., are eligible for *Studentships*: (*a*) "Special," not exceeding £100, for full-time courses of advanced study or research either at Univs. or institns. of Univ. rank in the British Empire, or at approved places in foreign countries; these are intended for teachers who are able to obtain a term or longer period of grace from school teaching for the purpose, not for the whole or part of an ordinary degree course; (*b*) "Assisted," not exceeding ½ of the fees of the proposed course, for approved part-time courses in Univs. or institns. of Univ. rank; teachers so assisted would continue their ordinary teaching work at the School.

The League of the Empire (124 Belgrave Rd., London, S.W.1) promotes schemes for the interchange of teachers between the Mother Country and the Dominions. In 1920 the London County Council ruled that service in any State School of the Dominions should count as London service for the purposes of such interchange Canadian, Australian, and New Zealand Education Departments have reciprocated.

An Overseas Education League, under the auspices of the Govts. of the Dominion of Canada, Newfoundland, New Zealand, and the Depts. of Education of Alberta, B.C., Manit., N.S., N.B., Ont., P.E.I., Que., Sask., New S. Wales, Vict., W. Aust., Natal, and Sierra Leone, undertakes the organization of official visits of Teachers to Great Britain and other parts of the Empire, interchange of Teachers and School Inspectors within the Empire, etc. Office of the Hon. Organizer in Canada (the Gen. Secy., National Council of Education)—Parliament Buildings, Winnipeg.

PROFESSIONAL OPENINGS IN THE KING'S DOMINIONS OVERSEAS

Information on this subject is available in the *Professional Handbook* issued in 1920 by the Oversea Settlement Office, 6 St. James's Square, London, W.1, in 4 Parts: I. Barristers and Solicitors, Notaries Public; II. Physicians and Surgeons, Dentists, Vet. Surgeons, Nurses, Chemists and Druggists; III. Civil Service; Clerks, Stenographers, Typists, and Accountants; Governesses, Teachers; IV. Architects and Engineers, Auctioneers, Commercial Travellers, Police, Surveyors. Price of each Part, 6d.

XX

LIST OF EXAMINATIONS REFERRED TO IN THE PRECEDING APPENDICES

1. Oxford Responsions ;
1*a*. Oxford, First Public Examn. before Moderators ;
1*b*. Oxford, Prelim. Examn. in Jurisprudence ;
2. Cambridge Previous ;
3. London Matriculation ;
4. Durham Matriculation ;
4*a*. Durham, Examn. in Arts for the 2nd year ;
5. Wales Matriculation ;
6. Joint Board of Northern English Univs. (Manc., Liv., Leeds, Sheff., Birm.) Matricn. ;
7. The same Board's School Certificate ;
8. Oxford and Cambridge Schools Examn. Board's (*a*) Higher, (*b*) School, (*c*) Lower Certificate ;
9. Oxford Senior Local ;
9*a*. Oxford Junior Local ;
10. Cambridge Senior Local ;
10*a*. Cambridge Junior Local ;
11. Bristol School Certificate ;
12. Durham First School Certificate ;
13. London General School ;
13*a*. London General (School) Matricn. ;
13*b*. London Higher School ;
13*c*. London Junior School ;
14. Central Welsh Board's Senior or Higher Certificate ;
15*a*. University College, London, Matricn. ;
15*b*. King's College, London, Matricn. ;
15*c*. City and Guilds (Engineering) College, London, Matricn. ;
16. College of Preceptors, Senior ;
16*a*. College of Preceptors, Junior.
17. University College, Southampton, Special Entrance (Engineering) ;
18. Scottish Univs. Preliminary in Science ;
19. Scottish Educn. Dept. Leaving Certif. ;
20. Belfast Matricn. ;
21. N.U.I. Matricn. ;
22. Dublin General at end of Senior Freshman year ;
23. Irish Intermediate (Middle Grade) ;
23*a*. Irish Intermediate (Senior Grade) ;
24. Responsions at St. David's College, Lampeter.

XXI

MATRICULATION EXAMINATIONS BY JOINT BOARDS

UNIVERSITIES OF MANCHESTER, LIVERPOOL, LEEDS, SHEFFIELD, AND BIRMINGHAM (sometimes referred to as the "Northern Universities"). *Address* of the Secy. (J. M. Crofts), 315 Oxford Rd., Manchester. The examn. (fee, £2) is held at each of the Univs. in July and Sept. Candidates are required to satisfy the examiners in (1) English Compn. and Literature, (2) English Hist., (3) Maths., (4) three of the following, one of which must be a language: Greek, Latin, French, German, some other approved language, Mechanics, Physics, Chem., Geog., *either* Nat. Hist. *or* Botany, General Experimental Science (not for candidates who have taken Physics or Chem.). The Univs. require special conditions for entrance to certain Faculties. Some of these are indicated on pp. 3 and 4. The requirement of Greek or Latin for admission to the Arts faculty of Liverpool is waived in the case of students holding the Secondary Ed. Certif. of the Egyptian Ministry of Ed., who are exempted by the Joint Board from the Matricn. examn. For admission to the Faculty of Engineering of Liv. a candidate must have passed in Additional Maths., in Mechanics or Physics, and in two of the other optional subjects specified. Leeds requires candidates taking Physics as a principal subject for the B.Sc. to produce evidence of adequate knowledge of Mechanics, and candidates for the B.Com. to have satisfied the Matricn. examrs. in at least one modern foreign language. For admission to the Faculty of Engineering in Birmingham candidates must have passed in Mechanics and are recommended to take Addl. Maths.

Holders of the Matricn. Certif. or a certif. entitling to exemption from the examn. who require a certif. of having satisfied examrs. in subjects not appearing on their certifs. or in Addl. Maths. may be admitted to a Supplementary examn. (fee 10s., or, for single paper subjects, 5s.).

Exempting Examns. Those in the list on p. 539 numbered 1 and 2, London Interm. examn., First examn. in Arts, Sc., or Med. of an Indian Univ., Secondary Ed. Certif. of Egyptian Ministry of Ed., Final examn. of Law Soc. (in case of Barrister or Solicitor entering Faculty of Law), Special Army Ed. Certif. at Advanced Standard; also, subject to provisos Nos. 3, 8 (*a*), 8 (*b*), 9, 10, 11, 12, 13, 13*a*, 13*b*, 14, 19, and School and Higher School Certifs. of the Joint Board, Oxford Local Ex. Delegacy, and Camb. Local Ex. Syndicate; also at the Board's discretion other examns. of equal or higher standard.

A special Matricn. examn. for *candidates of mature years* (not under 23 on May 1 of year of application) has been instituted. Applications (with fee, £2, and birth certif.) will be received up to May 1.

SCOTTISH UNIVS., v. p. 220.
CANADA, v. pp. 281, 300, 357.
AUSTRALIA, v. p. 368.
S. AFRICA, v. p. 409.

XXII

STUDENTS FROM OVERSEAS IN THE UNIVERSITIES AND UNIVERSITY COLLEGES OF THE UNITED KINGDOM *

From AFRICA 1187, AMERICA 781, ASIA 1576, EUROPE 645, THE PACIFIC 281. Total, 4470 The number of students from each of the countries which contributed largely to these totals is given below :—

From EGYPT 294, including 52 at Birmingham, 17 at Cambridge, 10 at Oxford, 24 at Liverpool, 88 at London, 20 at Manchester, 14 at Sheffield, 31 at Edinburgh

From SOUTH AFRICA and RHODESIA 832, including 82 at Oxford, 42 at Cambridge, 30 at Liverpool, 327 at London, 13 at Manchester, 178 at Edinburgh, 17 at Aberdeen, 30 at Glasgow, 95 at Dublin.

From CANADA and NEWFOUNDLAND 200, including 22 at Cambridge, 61 at London, 87 at Oxford and 23 at Edinburgh

From SOUTH AMERICA 75, including 11 at Cambridge, 14 at London, 11 at Manchester and 17 at Edinburgh.

From U.S.A. 400, including 57 at Cambridge, 90 at London, 219 at Oxford and 24 at Edinburgh

From the WEST INDIES and BERMUDA, 101, including 33 at London, 14 at Oxford and 23 at Edinburgh

From CHINA 143, including 17 at Cambridge, 49 at London, 25 at Edinburgh and 12 at Glasgow.

†From INDIA, BURMA and CEYLON 1240, including 20 at Bristol, 171 at Cambridge, 24 at Leeds, 446 at London, 45 at Manchester, 170 at Oxford, 173 at Edinburgh, 65 at Glasgow, 26 at St Andrews.

From JAPAN 73, including 55 at London

From BELGIUM 23, DENMARK 28, FRANCE 62, GREECE 52, HOLLAND 29, ITALY 24, NORWAY 12, SWEDEN 39, POLAND 27, ROUMANIA 49, RUSSIA 91, KINGDOM OF SERBS, CROATS and SLOVENES 48, SPAIN 28, SWITZERLAND 61.

From AUSTRALIA 178, including 35 at Cambridge, 41 at London, 50 at Oxford, and 36 at Edinburgh.

From NEW ZEALAND, 102, including 24 at Cambridge, 27 at London, 20 at Oxford, and 25 at Edinburgh.

* Compiled from lists received from all Universities and University Colleges except the Medical Schools of St. Bartholomew's Hospital (72 students from overseas, including 9 from Foreign Countries) and Charing Cross Hospital and University College, Dublin. A consolidated list of names of the students has been printed and can be obtained from the Universities Bureau.

† In 1921 the Indian Students' Department of the Office of the High Commr. for India estimated at 1500 the number of Indian students at the Univs. *and technical colleges* of Great Britain, and at 600 the number studying at the Inns of Court.

XXIII

ADMISSION AS UNDERGRADUATES OF THE UNIVERSITIES OF THE UNITED KINGDOM OF PERSONS EDUCATED ABROAD

The following notes relate to the admission of students from other countries proposing to take full courses for a First degree, excluding from consideration those who seek admission with advanced standing on the ground of having already pursued courses in other Univs.* and those who seek only to study without aiming at a degree.

A comparison of the regulations of the several Univs. of the U.K. governing admission of such students discloses a general agreement in principle with divergencies in application.

The regulations are drafted on the understanding that the application to a student educated in another country of the ordinary entrance tests might be inappropriate owing to the fact that the tests exacted in the U.K. have been framed with reference to secondary education curricula, which may be somewhat different from those which obtain in the country from which the student comes, or to the student having reached a stage in his education at which the passing of ordinary entrance tests would involve a wasteful repetition of preparatory studies. They accordingly provide for the acceptance from such a student of other evidence of academic qualifications: ordinarily certifs. which would entitle to admission to a Univ. in the student's own country, together with such further evidence as may be necessary to ensure that no student shall be admitted to a course of study for a degree without a reasonable prospect of his being able to pursue it to graduation; in particular, if the student be one whose mother tongue is not English, evidence that he has a sufficient mastery of this language to enable him to follow courses of instruction conducted in English.

The lines along which this policy has been applied in the several Univs. may be briefly indicated as follows:

Oxford and Cambridge particularize the examns. conducted abroad, which they recognize to the extent of accepting pass certifs. as exempting from Responsions or the Previous Examn. respectively. These are not, strictly speaking, Entrance Examns., because in Oxford and Cambridge matriculation follows without further examination upon admission to one of the Colleges, Halls, or Societies, which fix their own entrance conditions; in effect, however, they take the place of the Matriculation Examn. of other Univs.

Oxford includes in its list (see Appendix A) examns. held in France, Germany, Austria, Hungary, Switzerland, Russia, Serbia, Italy, Holland, and, subject to the condition that the student has passed in Latin or Greek and in one other approved foreign language, in Canada, Australasia, S. Africa and Hong-Kong.

* A résumé of Regulations regarding such concessions is given on pp. 13 and 14.

Cambridge exempts from the several Parts of the Previous Examn. candidates who have passed in the subjects prescribed for those Parts, certain examns. (see Appendix B) held in Australasia, S. Africa, France, Germany, Austria, Hungary, Switzerland, Russia and Spain.

Exemption may also be obtained, not only from Responsions (and the Examn. in Holy Scripture) or the Previous Examn., but also from the Entrance Examns. of the other Home Univs., by passing the Oxford or Cambridge Senior Local Examns., which are held in various parts of the British Empire overseas as well as in the U.K.

London accepts certifs. of matricn. of Colonial Univs., and (provided they indicate a standard *prima facie* involving an education equivalent in the student's own country to that required in England for matriculation in London) Indian or Foreign certifs., as grounds for exemption from the ordinary Matriculation Examn. of students of not less than 19 years of age, but requires all candidates so exempted to undergo in London a shortened form of this examn. under Statute 116 (see Appendix C). London also arranges for the holding of its own ordinary Matriculation Examn. in the Colonies and self-governing Dominions upon the application of the local Governments.

Scottish Universities. Candidates from the British Dominions or Colonies may be exempted from the Preliminary Examn. if they have passed examns. which would admit them to a course qualifying for graduation in Arts or Science in Univs. or Technical Colleges affiliated to a Univ. in the Dominion or Colony from which they come, provided (1) their knowledge of English is sufficient to enable them to follow the courses of instruction with profit; and (2) if candidates for degrees in Engineering, they have a knowledge of Mathematics of a certain specified standard. Those whose native language is other than English are required to pass an examn., oral and written, in this language, including set books. Students from India are subject to the further condition that they have passed the Intermediate Examn. in Arts or Science, as the case may be, in a recognized Indian Univ.

As regards students from foreign European countries, the B. ès L. and B. ès Sc. and similar " certifs. of Maturity or Grades, entitling the holder to enter upon a regular course of study in the Univs. of his own country " are accepted subject to the above-mentioned conditions as to knowledge of the English language. Certain Egyptian, Argentine and Chinese certifs. are also recognized. Provision is not made specifically for the acceptance of other foreign certifs., but the Board has a general dispensatory power in regard to applicants of not less than 21 years of age who satisfy it as to their fitness.

N.B.—In each Univ. the Senatus may for any particular class, attendance on which for a specified period is necessary in order to qualify for graduation, determine the conditions of admission to such qualifying attendance.

The Northern (English) Universities Joint Board. Subject to Special Regulations for Entrance to particular Faculties exemption from the Matriculation Examn. is granted to a student who holds the Secondary Education Certif. of the Egyptian Ministry of Education, or has

passed the First Examn. in Arts, Science, or Medicine of an Indian univ., and may, at the discretion of the Board, be granted to " applicants holding certifs. of having passed examns. of a standard at least equal to " Oxford Responsions, Cambridge Previous, etc. The procedure at Liverpool is as follows : Applications, with references, from Foreign and Indian undergraduate students are receivable up to June 1, from Egyptian—up to July 31. In respect of Indian and Egyptian undergraduate students the Students' Dept. of the High Commr. for India and the Egyptian Educational Mission are asked to certify as to the character, qualifications and suitability of applicants

Durham. Foreign students may matriculate provided they satisfy a special Committee that they have passed in their own country an examn of standard equivalent to the Durham Matriculation, and that they have sufficient knowledge of English to profit by the proposed course of study. The Matriculation Examn. of the Univ. of Sydney is recognized as exempting from that of Durham. Students in Codrington College, Barbados, and Fourah Bay College, Sierra Leone, may matriculate (and qualify for degrees) locally.

Bristol. A candidate educated elsewhere than in the U.K. may submit to the Senate evidence of having passed examns. elsewhere equal to the Matriculation Examn. of any Univ. of the U.K., or to any of the other examns. which qualify for matriculation at Bristol; if from an oriental country he may submit evidence of previous education in his own country and of ability to follow instruction given in English. The Senate may thereupon, if satisfied with the evidence, declare him eligible for matriculation.

Wales. Candidates who have passed the Intermediate Examn. of an Indian Univ. and are certified by a Constituent College as possessing sufficient knowledge of English to profit by a degree scheme of study, are deemed to have passed an examn. equivalent to the Matricn. Examn.

Belfast. Matriculated students of Univs. outside the British Isles may send written statements and certifs. which should, as a rule, cover all subjects required for matricn. in the Faculty concerned. When a certif. in any subject is not available, other evidence of proficiency may be furnished.

Dublin admits students who have passed the Matricn. Examn. of any Univ. in S. Africa including English, Mathematics, Latin, and one other approved language.

National University of Ireland.—The Senior Public Examns. of Sydney, Melbourne, and Adelaide, the Jaffa Gymnasium Maturité, and the Matricn. Examns. of Sydney, Melbourne, and New Zealand are recognized as qualifying for exemption from the Matricn. Examn. The Matricn. Examns. of other Univs. in the British Empire overseas (excluding India) are recognized only in combination with an Intermediate Examn. in Arts or Science.

APPENDIX A

Oxford Responsions. Exemption may be granted to persons who have passed the Baccalauréat in France, the Maturitäts-Prüfung at a Gymnasium in the German Empire, the Austro-Hungarian Empire, Switzerland, Russia or Serbia, the Examn. for the Licenza Liceale in Italy, or the Eindexamen at a Gymnasium in Holland; also, provided they have satisfied the examiners in either Latin or Greek and in one other approved language (Greek, Latin, French, German, Italian, Spanish), to persons who have passed any of the following examns.:

S. African Univs Joint Matricn. Board (Distinction in 2 languages *or* in 1 language and Maths. or Nat. Sc.),
Adelaide Senior Public;
Melbourne School-leaving (Class B),
New South Wales Educn Department's Leaving Certif.;
New Zealand Matricn. or Entrance Scholarship;
McGill Matricn., or First Year in B.A course;
Ontario Educn. Department's Junior Matricn;
Toronto Senior Matricn, or First Year;
Hong-Kong Senior Local;
Baccalauréat de l'Enseignement Secondaire Classique conducted under any Décret of the French Republic.

APPENDIX B

Cambridge Previous Examn. Exemption may be granted from the several Parts of the Examn. to a person who has passed (i.) the Matricn. Examn. of Melbourne, Sydney, New Zealand, or the Univ. of S. Africa; or (ii.) the Baccalauréat in France, the Bachillerato in Spain, the Reifeprüfung in Germany, Austria, Hungary, or Russia, or the Maturitäts-Zeugnis in Switzerland, as follows:

(i.) From Part I. if he has passed in 2 languages other than English, one being Latin or Greek, provided that both have been taken on one and the same occasion;

From Part II. if in either Mathematics or Physics or Chemistry;

From Part III. if in English.

(ii.) From Part I., if he has passed (either in the Examn. in question or in another Univ. Examn. in the same country, certified by the authorities of the Univ. as ranking higher) in Latin and either Greek or a Modern Language other than French, Spanish, German, or Russian as the case may be;

From Part II., if in either Mathematics or Science;

From Part III., if in a Modern Language other than that used for exemption from Part I.

APPENDIX C

London. The Examn. under Statute 116 held in London, usually about four times a year, comprises four subjects, one of which must be

either Mathematics or Logic. Subjects outside the more usual field of elementary academic study may not be taken. Any certifs. that the candidate may present, or any examn. he may have passed, may be taken into account; but in every case he is required to undergo a *viva-voce* examn., and a sound elementary knowledge of English is necessary. Work for the Intermediate Examn. may be begun (*e.g.* in October) before passing the Matricn. test, this being deferred (*e.g.* until the following May just before the Intermediate).

XXIV

INTER-UNIVERSITY SCHOLARSHIPS AND GRANTS FOR ADVANCED STUDY AND RESEARCH

Under the heading " SCHOLARSHIPS, ETC.," will be found in the sections of the Yearbook relating to the several Universities information regarding the extent to which they provide for the promotion of advanced Study and Research by the offer of Scholarships, Fellowships, etc., to their own graduate members. In this Appendix are given particulars of some other aids.

(i.) Funds administered by Universities and Colleges.
(ii.) Royal Commission for the Exhibition of 1851.
(iii.) Beit Memorial Fellowships for Medical Research.
(iv.) Beit Fellowships for Scientific Research.
(v.) Gilchrist Educational Trust.
(vi.) Funds administered by the Royal Society.
(vii.) British Association for the Advancement of Science.
(viii.) British School at Athens.
(ix.) Marine Biological Association.
(x.) Ramsay Memorial Fellowships.
(xi.) Albert Kahn Travelling Fellowships.
(xii.) Cancer Research Funds.
(xiii.) Daglish Mining Fellowship.
(xiv.) Johnston Chemical Scholarship.
(xv.) Grocers' Company Sanitary Science Scholarship.
(xvi.) Salter's Institute of Industrial Chemistry.
(xvii.) Kitchener Scholarships.
(xviii.) Plunkett House Scholarship.
(xix.) Travelling Scholarships for Journalists.
(xx.) British Empire Exhibition (1924) Fellowships.
(xxi.) Sir George Watson Chair of American History, etc.
(xxii.) American University and College Scholarships.
(xxiii.) Anglo-Swedish Society.
(xxiv.) British Federation of University Women.
(xxv.) Government Grants and Co-ordinating Agencies.
(xxvi.) Ministry of Agriculture and Fisheries.
xxvii.) Medical Research Council.
cxviii.) Research in the Colonies.
(xxix.) Research in Canada, Australia, and S. Africa.
(xxx.) Research in India.
(xxxi.) Research in the U.S.A.
xxxii.) Research in France.
cxxiii.) International Foundations and Organizations for Research.

For *Rhodes Scholarships*, v. p. 174 ; for *Carnegie Trust* for the Univs. f Scotland, p. 223.

(i.) FUNDS ADMINISTERED BY UNIVERSITIES AND COLLEGES

CAMBRIDGE: *Almeric Paget Studentship*, £150, for Polit. Sc., Economics, etc., open to graduates of any Univ., or those about to graduate. Election after exam., viz. English Essay and questions on Polit. Hist., Polit. Sc. and Econ. Applications, with evidence as to graduation and signed statement of age and proposed course of study, receivable up to July. Student to come into residence at Corpus Christi Coll. for the academic year succeeding election.

F. W. Maitland Memorial Fund. Grants may be made to any person engaged in any research in the History of Law or of Legal Language or Institutions, or for delivery of lectures, publication of works, etc., connected with these subjects.

Whewell Scholarships in International Law, one of £100 and one of £50 open to all persons whether already members of the Univ. or not who are under 25, tenable for 2 yrs. in the Univ.

J. L. Walker Studentship in Pathological research, £300 p.a. for 3 yrs. Candidate need not necessarily be a member of the Univ.

Balfour Studentship in Biological research, especially in Animal Morphology, £300 p.a. for 3 yrs.; student need not be a member of the Univ., but must study in it for at least 3 terms.

Hort Memorial Fund, income about £65 p.a., for grants to persons engaged in Biblical, Hellenistic, or Patristic research, or undertaking connected therewith.

Worts Fund for investigations in foreign countires respecting religion, laws, etc., or geographical discovery or antiquarian research therein.

TRINITY COLLEGE RESEARCH STUDENTSHIP AND COLONIAL EXHIBITIONS.—A Studentship of value (dependent on the student's pecuniary circumstances) not exceeding £200 p.a., tenable during preparation for the Ph.D. degree in the Univ. of Cambridge. Open to men who have graduated or before Oct. 1 will have graduated at any Univ. other than Cambridge, or who can show evidence of exceptional qualification for research, provided that at date of election they have not commenced residence in the Univ. of Cambridge. Tenure is conditional on permission being obtained from the Board of Research Studies to enter as a Research student (minimum age, 21; v. p. 51) and upon diligence in the approved course. Applications with certificates of birth, graduation, and character, record of education, any evidence of aptitude for research, and full account of pecuniary circumstances, should reach the Senr. Tutor as early as possible in July and not later than July 25.

The *Colonial Exhibitions* are provided in view of the difficulties which prevent students residing in the Colonies from competing in the open examn. for Scholarships, etc., held in Dec. They are of the annual value of £40, which may be increased by remission of College fees to £85 in cases of special need, and are tenable for 2 yrs. and possibly for 3. Candidates must apply through the principal authority of the Univ. to which they belong. The Univ. authorities, if they think fit

to forward an application, the candidate being in their opinion of marked ability and one of whom it may be confidently expected that he will profit by a further period of Univ. study, will send with it certificates of birth and character, record of scholastic career, confidential reports by professors, etc., having personal knowledge of his attainments, on his ability, industry, and fitness to profit by a course at Cambridge, and a statement of the means at his disposal. A selected candidate may enter as an ordinary or as a research student (v. p. 51).

EMMANUEL COLLEGE RESEARCH STUDENTSHIP.—Value £150 p.a., tenable for 2 yrs. Open to a graduate or other qualified student, not less than 21 yrs. of age, from another Univ. beginning Research at Cambridge (v. p. 51).

GIRTON COLLEGE RESEARCH FELLOWSHIPS.—1. *Science.* £300 p.a. for 3 yrs. (renewable up to 6 yrs.) for research in Math., Physical and Nat. Sciences. 2. *Arts* (Pfeiffer Fellowship). £250 for 3 yrs. (renewable up to 6 yrs.) for research in Language and Lit., Moral and Polit. Sc., or History. Open to women who are graduates or have taken Honours in a final degree examn. of any Univ., and members of the Girton College Roll. The Fellow will reside at the College (charge for rooms and commons, £60 p.a.) or, with the special permission of the Council, elsewhere. Next award, 1924.

LONDON: *Dixon Fund for assisting Scientific Investigations.* Income available for grants—about £275. Applications receivable by the Principal between April 1 and May 15. Full information required as to nature and objects of research proposed, estimated amount required for it (detailed estimate to be given), any previous grant received for same object, what apparatus of permanent value will be needed. Names of two referees to be given. Instruments, specimens, etc., purchased out of grants to be returned to the Univ. Published results of researches to refer to the Fund, and 25 copies to be supplied to the Univ. Preference given to applicants who are graduates of the Univ. or who undertake to work in a Dept. or School of the Univ. or other Instn. connected therewith.

Charles Graham Medical Research Fund. A Scholarship in Pathology, value not exceeding £400 p.a. for 2 yrs., is awarded from time to time "to enable a young man to continue his pathological researches, and at the same time to secure his services to the School of Advanced Medical Studies connected with Univ. College Hospl. as a Teacher under the direction of the Prof. of Pathology." Applicants should give names of 3 referees, including a Teacher of the Univ. or College in which he has conducted his studies in Pathology. The Scholar is required to undertake teaching as well as research work.

Keddey Fletcher-Warr Studentships for Post-Graduate Research in Science. Value £200 for 3 yrs., renewable. Open to men and women of European descent who are graduates of some British Univ. or have qualified for such graduation, but preference is given, other things being equal, to a graduate of London of small or no private means. Awardable from time to time as notified in the Public Press.

IMPERIAL COLLEGE SCHOLARSHIPS TENABLE AT AMERICAN UNIVERSITIES. Under a scheme established in 1920, 6 Scholarships of £300 each (in special cases £400) may be awarded for 1 year for courses of post-graduate study in American Univs. or Works.

OXFORD: *Philip Walker Studentship for Research in Pathology.* £200 p.a. for from 1 to 5 yrs., not restricted to members of the Univ., open to women as well as men.

BIRMINGHAM, *Walter Myers*—v. p. 24. LEEDS, *Textile Research*—v. p. 76. LIVERPOOL, *Garrett International, Johnston Colonial, Lloyd's Register*, p. 87. MANCHESTER, *Chemistry, Economics, Engineering, Diseases of Children, Physics, Industry and Commerce, History*, p. 155. SCOTTISH UNIVS., *Ferguson, M'Cunn, Shaw*, v. p. 223.

(ii.) SCHOLARSHIPS AWARDED BY THE ROYAL COMMISSION FOR THE EXHIBITION OF 1851

I. *Science Research Scholarships offered to Overseas Universities*, to enable selected students who have already completed a full University course and given sufficient evidence of capacity for scientific investigations to devote themselves for 2 years to research work under conditions most likely to equip them for practical service in the scientific life of the Empire. Value, £250 p a., with supplements in certain cases, tenable ordinarily for 2 yrs., renewable in exceptional cases for a third year, at any institution approved by the Commrs., but not, except in very special circumstances, in the Dominion in which the scholar has received his scientific education; open to British subjects of age (except in very special circumstances) over 26 yrs. At present not less than 7 (Canada 3, Australia 2, S. Africa and N.Z. 1 each) are offered annually; recommendations receivable up to May 1 (Australia and N.Z. June 1) from the following Univs.: Alb., B C., Dal, McG., Manit., Queen's (Ont.), Sask., Tor., and any of the Univs. of Australia, N.Z. and S. Africa. A Scholar is not permitted to hold any position of emolument likely to conflict with the devotion of his whole time to the objects of the Scholarship, nor to accept any additional emoluments without the previous consent of the Commrs.

II. *Senior Studentships*, at present 5 in number, each of £400 p.a. with supplements in certain cases, for 2 yrs. or, in special cases, for longer; open to British subjects of age not (except in very special circumstances) more than 30 yrs., on recommendation, receivable up to May 1, by Profs. and Heads of Depts. through the executive authorities of such Institutions as may be invited by the Commrs. to nominate; tenable at any Institn. at home or abroad approved by the Commrs. The Student is not permitted to undertake any work likely to conflict with the devotion of his whole time to the objects of the studentship, but a limited amount of time may, with the approval of the Commrs., be spent in delivering an advanced course of lectures. He is not debarred from holding another position of emolument, but in such cases the Commrs. may modify the value of the studentship.

III. *Post-graduate Scholarship in Naval Architecture.* £250 p.a. for 2 yrs. for research work (for which no emolument will be receivable) in problems connected with design and construction of ships and their machinery and in the development of the shipbuilding industry at home and abroad. Open to British subjects under 30 who have passed with marked distinction through a course of study and practical training in N.A. at, and been nominated by, the R.N. College, Greenwich, Univ. of Glas. or Liv., or Armstrong College. The nominations are reported on by the Council of the Inst. N.A.

IV. *Industrial Bursaries* of not more than £150 p.a. for 1, 2, or, exceptionally, 3 yrs. to cover the period between leaving College and obtaining sufficiently remunerative employment in Industry. Open to British subjects under 25 recommended from one of the Univs. of Gt. Britain, including the Imperial Coll. of Sc. and Tech., Heriot-Watt Coll, or Univ. Coll, Nottingham. A candidate must have been a *bona fide* student of Science for a term of 3 yrs., should give evidence of practical ability likely to lead to his advancement in industrial work, and show that he has obtained, or can within 1 month of election obtain, an industrial post to be approved by the Commrs., and is in need of pecuniary assistance to enable him to hold such a post.

V. *Rome Scholarship in Architecture,* £250 p.a. for 3 yrs. Open to British subjects under 30 by competition conducted by the Faculty of Arch. of the School at Rome. A Student or Associate of the R.I.B.A. who is placed next in order of merit to the winner will be recommended for the Jarvis Studentship of £250 p.a., v. p. 493.

Rome Scholarships in Sculpture and in Decorative Painting, £250 p.a., tenable for 3 yrs. at the British School at Rome. Open to British subjects under 30 by competition conducted by the Faculties concerned. The Faculty of *Engraving* administers a Scholp. of the same value.

General. Women are eligible for all the Scholps. except III. and IV. Address of the Secy. to the Commrs., 1 Lowther Gardens, Exhibition Rd., London, S.W.7. Entries for the Rome Scholps. are receivable up to Nov. 1 by the Hon. General Secy. (same address).

(iii.) BEIT MEMORIAL FELLOWSHIPS FOR MEDICAL RESEARCH

Founded in 1909 by Sir Otto Beit, K.C.M.G., in memory of his brother Alfred, " to promote the advancement by means of research of Medicine and the allied sciences in their relation to Medicine." Ten, each of £400 p.a. and tenable for 3 yrs., with a possible maximum extension of 1 yr., are usually awarded in Dec. Open to graduates, men or women, in any Faculty, of a British Univ. Notice of each election is published 3 mos. in advance. Applications are considered by an Advisory Board composed of eminent Physicians and Surgeons. Special grants have been made from time to time for, or in aid of, particular objects of research. *Address* of Hon. Sec. to the Trust (from whom further particulars as to authorized places of research, etc., may be obtained)—35 Clarges St., Piccadilly, London, W.1.

(iv.) BEIT FELLOWSHIPS FOR SCIENTIFIC RESEARCH

Founded by Sir Otto Beit, K.C.M.G., in 1913 to promote the advancement of Science by means of research. At present £250 p.a. for 1 yr. with possible maximum extension of 1 yr. Tenable at Imperial College of Sc. and Tech., London, under supervision of a Prof. Fellows are required to devote their whole time to their research and to hold no appointment, paid or unpaid, without sanction of the Trustees. Open to men or women under 25, of European descent by both parents, who have taken a degree in any Univ. in the British Empire, or Diploma or Associateship of any College approved by the Trustees. Not open to holders of any other Scholarship or Fellowship. Elections, advertised 3 mos. in advance, are made annually in July. Applications should give full information as to qualifications, previous career, general character of proposed research, whether applicant has private means sufficient to carry on the research for 2 yrs. without aid of Fellowship, names of not more than 3 referees including one on the staff of the Univ. or College or a College of the Univ. at which the degree, etc., was obtained. Testimonials should not be sent. Capacity for research, personal record, and importance of proposed research will be taken into consideration. Inquiries may be addressed to the Rector of the Imperial College.

(v.) GILCHRIST EDUCATIONAL TRUST

Most of the Scholarships, etc., awarded by the Trust are for students of particular institutions. The following are not so restricted :

Scholarships in *Turkish* (1) and *Chinese* (1). £50 tenable at the School of Oriental Studies, London, or, in the case of a student of the School of 1 yr.'s standing, in an Oriental country. Open to candidates of European origin. Awarded on results of an examn. held in July in Grammar, History of the Language and its Relationships, 2 set books, unseen translation. Applications (in a prescribed form) receivable by the Director of the School up to May 15.

Several Scholarships of £30 tenable for 1 yr. in a *Training College for Women*. Open to graduates of a British or other recognized Univ.

Studentship tenable at the *British School at Rome*, £75 for 1 yr. At least 5 months to be spent in Rome. Open to men and women under 25 for a definite course of study for which Rome offers advantages and calculated to assist them in their profession. Applications with statement of previous training and proposed course, copies of not more than 3 recent testimonials based on personal acquaintance with candidate and his work, and any references, should reach the Secy. of the School, 19 Bloomsbury Sq., London, W.C.1, by Sept. 1.

Scholarship in *Economics and Home Science*. £50 tenable for 1 yr. at King's College for Women, London. Open to graduates of any approved Univ. or students who have successfully completed the 3 yrs.' course in these subjects. Evidence required of knowledge of not less than 2 of the following : Bact., Biol., Chem., Economics, Physics and

Hygiene, Physiol., Psychol. Applications with account of educational career and not more than 3 recommendations should reach the Warden by June 8.

Studentship in *Geography*. £80 (in special cases, £100) for a definite course of advanced work extending in general over 9 mos., to be approved by the Trustees. No other work to be undertaken without written consent of the Trustees during the tenure of the Studentship Open to Teachers of either sex who have had experience in teaching Geog. Applications, stating age, career, training in Geog., experience in teaching Geog., proposed work, time to be devoted to it, name of Headmaster, etc., to whom reference can be made, to reach Prof. Lyde, University College, Gower Street, London, W.C 1, by Feb. 28. The student is required to sign a declaration of intention to continue to be a teacher of Geog. for 2 yrs. after expiry of the Studentship.

Address of the Secy. to the Trustees : 1 Plowden Buildings, Temple, London, E.C.4.

(vi.) FUNDS ADMINISTERED BY THE ROYAL SOCIETY

Mackinnon Research Studentships for "furthering Natural and Physical Science, including Geology and Astronomy and . . . original research and investigation in Pathology." Two of £150 p.a. for 1 yr., renewable (in exceptional cases) for a third yr. Open to British subjects. It is considered undesirable that a Studentship should be held in conjunction with a teaching post, nor may any other work be carried on during its tenure without the approval of the Council. Applications are invited by advertisement in time to enable award to be made before end of summer term. Candidates are required to state the nature of the research proposed (Mathematics excluded) and whether they hold any other endowments. Their other resources may also be taken into account.

Sorby Research Fund for original Scientific research. The income, about £600, is devoted to maintaining a Fellowship tenable ordinarily in the Univ. of Sheffield for 5 yrs., renewable for further periods. No permanent duties outside the research work may be undertaken. Appointments are made by a Committee composed of 4 persons appointed by the Council of the R.S. and 3 appointed by the authorities of the Univ. of Sheffield. The last appointment was in 1920.

Foulerton Studentship (2 of £400 each p.a., tenable for from 3 to 6 yrs.) for research in Medicine. Open to men and women of proved ability of British race and nationality.

International Research and Travelling Expenses Fund, income about £150 p.a., for expenses connected with the International Research Council.

Scientific Relief Fund (income about £700 p.a.) to aid scientific men or their families requiring assistance

Minor Funds : Tyndall Mining Research, income about £35 p.a., for a studentship ; Gunning, about £30 p.a., triennial grant for research in Physical Science and Biology ; Joule, about £50 p.a., biennial grant

for research in branches of Physical Science connected with Joule's work; Lawrence, about £160 p.a., for research in Diseases in man and animals.

Government Grants for Scientific Investigations. The conditions are notified annually in time for applications to be received by Jan. 1. Only British subjects are eligible. Appropriations in 1919–20 numbered 43, the amounts ranging between £8 and £200.

The National Physical Laboratory (budget for 1921–22, £213,000) is under the scientific control of the Royal Society; the property is vested in the *Imperial Trust for the Encouragement of Scientific and Industrial Research*; the income is vested in the Committee of the Privy Council for Scientific and Industrial Research.

Medals. Copley, for Philosophical research (any country); Rumford (biennial), for useful discovery in Light or Heat, in any part of Europe; Royal, for advancement of National Knowledge; Davy, for Discovery in Chemistry in Europe or Anglo-America; Darwin (with grant of £100, biennial) for work in Darwinian field; Buchanan (with money grant, quinquennial), for service to Hygienic Science or Practice; Sylvester (with money grant, triennial), for Mathematical Research; Hughes (with money grant), for discovery in Physical Sciences, particularly Electricity and Magnetism. The 4 last are open to foreigners as well as to British subjects.

Address of the Society—Burlington House, Piccadilly, London, W.1.

vii.) BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

Research Committees of the Association are constantly at work either conducting researches or preparing reports. They consider *inter alia* the financing of proposed researches. Address of the Assocn.—Burlington House, Piccadilly, London, W.1.

(viii.) BRITISH SCHOOL AT ATHENS STUDENTSHIP

A studentship of value £100 tenable for one year is placed at the disposal of the Univs. of Oxford and Cambridge alternately. All students admitted to the School are expected to spend at least 3 months in Greece and to be engaged on some research work. They can, on payment of a small rent, reside in the School *Hostel*, and are admitted to use of the library. They also obtain special facilities for working in Museums and in travelling. Students of the British School at Rome are *ipso facto* admitted as students at Athens. Address of the Secy., 19 Bloomsbury Sq., London, W.C.1.

(ix.) MARINE BIOLOGICAL ASSOCIATION

A number of research tables at the Plymouth Laboratory are provided free of cost on the nomination of Governors (among others the Univs. of Oxford and Cambridge) and Founders of the Marine Biological

Assocn. of the United Kingdom. The Ray Lankester Fund provides for the payment of £100 to an Investigator to be appointed from time to time by the trustees on condition of his spending at least 5 months in carrying on researches at the Laboratory. For full particulars application should be made to the Director of the Laboratory, Citadel Hill, Plymouth.

(x.) RAMSAY MEMORIAL FELLOWSHIPS

The Trustees (Chairman, Sir Hugh Bell, Bt.; Secy., Dr. Walter W. Seton, University College, Gower St., London, W.C.) award from time to time 3 Fellowships, value £300 a yr. for 2 yrs., for Chemical research. They can be held in any Univ. or other place in the U.K. possessed of the requisite facilities for research; also in exceptional circumstances in other parts of the British Empire, and, by special permission of the Trustees, elsewhere. One is limited to candidates nominated by the Univ. and the Royal Technical College, Glasgow.

(xi.) ALBERT KAHN TRAVELLING FELLOWSHIPS

Founded by M. Albert Kahn of Paris "to enable men of proved intellectual attainments to enjoy during one yr. or more sufficient leisure and freedom from all professional pursuits or pre-occupations to enter into personal contact with men and countries they might otherwise never have known; to issue from the world of books and their narrow sphere of habitual interests into the broader world of various civilizations, and all such human interests, struggles, and endeavours as go to the making of general civilization." Value £660 (namely, £600 for travelling expenses and £60 for books and souvenirs), temporarily increased to £1000. Open to British subjects, men or women, who have graduated, or qualified for graduation, at a Univ. in the U.K. No age limit is imposed, but preference will probably be given, other things being equal, to persons between 25 and 35. Elections are made not later than May 31 each yr. on nominations made by any of the Vice-Chancellors of the Univs. in the U.K., or the President of the Royal Society or of the British Assocn. *Address* of the Secy. to the Trustees (F. J. Port, LL.B.): University of London, South Kensington, S.W.7.

(xii.) CANCER RESEARCH FUNDS

The Imperial Cancer Research Fund (capital, £116,000), which is under the direction of the R.C.P. Lond. and R.C.S. Edin., has research laboratories and publishes reports of researches. Address—8-11 Queen Square, London, W.C.1.

Lord Atholstan of Montreal has recently offered a prize of $100,000 for an approved medicinal cure for cancer and the same amount to help, meantime, in the work of research. Sir William Veno has offered £10,000 for such research. Details as to conditions were not available at the time of going to press. Information as to Cancer Research facilities at Middlesex Hospital and Manchester is given on pp. 140 and 154.

(xiii.) DAGLISH MINING FELLOWSHIP

Value about £120 for 1 yr. (renewable in exceptional cases for a second yr.) for the purpose of travel for 10 months chiefly in foreign mining districts. Open to a Mining student not under 20. Applications receivable up to Dec. 1 by the Secy., North of England Inst. of Mining and Mech. Engineers, Neville Hall, Newcastle-upon-Tyne.

(xiv.) JOHNSTON CHEMICAL SCHOLARSHIP

Value £105 for 1 yr., awarded on the results of an examn. in Chem. with Crystallography or Mineralogy, and tenable at Armstrong College, involving at least 24 hours per week throughout the session. Open to B.Sc. of any British Univ. of not more than 3 yrs.' standing from graduation. Evidence of previous training and ability to conduct an original Chem. investigation is required.

(xv.) GROCERS' COMPANY'S SCHOLARSHIPS

Three, £300 each, for 1 yr., renewable for 1 or 2 yrs., for inquiry into Causation of Prevalent Disease or as to means of Prevention of Premature Death. Cost of apparatus, etc., will be defrayed up to £300 in any one year. No other scholarship to be held or remunerative employment undertaken without sanction. Open to British subjects under 35. Applications in prescribed form receivable before April 1 by the Clerk, Grocers' Hall, Princes Street, London, E.C.2.

(xvi.) SALTER'S INSTITUTE OF INDUSTRIAL CHEMISTRY

Allocations are directed towards improving the training of those who seek a career in the chemical industry and are made under three heads: (*a*) Fellowships, of £250 p.a. for 1, or exceptionally 2 yrs. for science graduates to secure training in the methods of chemical research; they may be held in any Univ. or approved college in the U.K. or abroad; (*b*) Scholarships, of £132, for the same purpose, or for a special course; (*c*) Grants (£5 to £20) in Aid, awarded to young assistants employed in chemical factories within the London district, for the purchase of books or the payment of evening class fees. Address of the Inst.—Salter's Hall, St. Swithin's Lane, London, E.C.4.

(xvii.) KITCHENER SCHOLARSHIPS

For Study and Training. Maximum value in any year £175 for maintenance *plus* tuition fees and, in case of study abroad, approved travelling expenses. Maximum period, 6 yrs.; minimum age, 16. Open to officers and men of the Navy and Army of suitable age and sons of officers and men of the Navy and Army—as a rule, sons of deceased officers and men. Value and length of tenure will in each case be such as to enable successful candidates to undertake a complete course of industrial or commercial education at any Univ. or other approved institn.

Application for full information should be made to the Secy., Lord Kitchener National Memorial Fund, 34 Norfolk St., Strand, London, W.C.2.

(xviii.) PLUNKETT HOUSE CO-OPERATIVE REFERENCE LIBRARY SCHOLARSHIP

£150 for one year, open to graduates of recognized Univs.; tenable at the Library, where the scholar is required to attend daily and assist the Librarian and to devote his attention to some special division of the theory or practice of co-operation or some other subject to be approved. Applications receivable up to Oct. 15 at Plunkett House, Dublin.

(xix.) TRAVELLING SCHOLARSHIPS FOR JOURNALISTS

The Empire Press Union are preparing a scheme to enable young journalists of proved capacity to travel in the Empire Overseas.

(xx.) BRITISH EMPIRE EXHIBITION (1924) COMMERCIAL RESEARCH FELLOWSHIPS

These were awarded on the nominations of the Chambers of Commerce of London, Glasgow, Warrington, Norwich and Oldham. The value of each is not less than £500, and the subjects have reference to inter-imperial trade and the development of the potential resources of the Empire and their promotion by means of the Exhibition.

(xxi.) SIR GEORGE WATSON CHAIR OF AMERICAN HISTORY, LITERATURE AND INSTITUTIONS

Founded by Sir W. G. Watson, Bt., who presented £20,000 for the purpose on the occasion of the return of the Prince of Wales from his American tour. Each yr.'s course will usually comprise about 6 lectures by an eminent authority, American or British. The courses will be given in the various British Univs. in rotation. A general Inaugural Lecture was given in London by the late Viscount Bryce, O.M., in July 1921. In April 1922 Dr. A. T. Hadley, ex-President of Yale, will give a course of 6 lectures at English Univs. on "Some Economic Problems of Democracy." The Foundation is administered by the Anglo-American Society, 1 Central Buildings, Westminster, London, S.W.1.

(xxii.) AMERICAN UNIVERSITY AND COLLEGE SCHOLARSHIPS FOR BRITISH STUDENTS

Rose Sidgwick Memorial Fellowship. Established by Americans in memory of a member of the British Educational Mission which visited the U.S.A. in 1918, in recognition of her service in the cause of Anglo-American friendship. Administered by the American Assocn. of Collegiate Alumnæ. Value $1000 (providing tuition and residence

during term for 1 yr., and about $400 in cash towards travelling expenses and incidental fees) ; tenable at any approved College or Univ. in the U.S.A. English friends of Rose Sidgwick have raised a fund to supplement the Fellowship by providing for outfit, etc., in case of need a sum not exceding £30. Open to British women not over 35 yrs. of age, of graduate standing. Applications (with 6 copies of not more than 2 recent testimonials and 2 references) giving date of birth and information as to qualifications, experience, work proposed to be done during tenure of Fellowship, and any experience of speaking in public, should be sent before May 1 to Miss Theodora Bosanquet, 66 Avenue Chambers, Vernon Place, London, W.C 1. The award is made on the nomination of the Committee on International Relations of the British Federation of Univ. Women.

HARVARD UNIVERSITY. The Divinity School offers for 1922–23 (Sept. 25 to June 21) two " Williams Fellowships " of $800 each for advanced studies in *Theology*. They are open to candidates from Great Britain, France, Holland and Switzerland, as well as to Americans and Canadians. Should a fellowship be assigned to an applicant from one of the European countries an additional grant of $200 will be made towards travelling expenses. Applicants must be not less than 22 nor more than 30 yrs. of age ; must have a working knowledge of Greek, Latin, French, German and English ; and must have already pursued theological studies with high distinction. Preference to candidates wishing to prepare themselves to teach one of the theological disciplines. Applications receivable up to March 1 by the Secy. of the School.

BRYN MAWR COLLEGE SCHOLARSHIPS FOR WOMEN.—Three of $720 (covering fees for tuition and, during term only, board and residence during one academic year). Open to English, Scottish and Irish women qualified for graduate study. Three similar scholarships for Frenchwomen and three for women of certain other nationalities. Applications receivable up to May 1, Further particulars obtainable from American Univ. Union, 50 Russell Sq., London, W.C.1.

UNION THEOLOGICAL SEMINARY, N.Y. CITY. — Fellowship in Theol., $1200 for 1921–22, for advanced graduate work. Open to theol. students of high grade in England or Wales of any ecclesiastical communion who have completed a regular theol. course. Applications receivable by the Rev. the Principal, Mansfield College, Oxford.

PRINCETON. Jane Eliza Procter Visiting Fellowships. Three of $2000 each annually, for 2 British scholars (to be nominated by the Univs. of Oxford and Cambridge) and 1 French, tenable for one year, with possibility of renewal, in Princeton Graduate College, for independent advanced study and investigation in purely liberal arts and sciences, exclusive of professional, technical or commercial subjects ; open only to men holding a degree in distinctly liberal studies and of reasonably good health, high character and exceptional scholarly power.

24 American Universities having " Graduate Colleges " offer Research Scholarships and Fellowships of from $300 to $2000 p.a. which are ordinarily open to foreign as well as to American students. Nearly

all the American Univs. other than State Univs., and a few of the latter, offer each year fellowships of from $200 to $800 which are open to Foreign students.

A tentative plan for the establishment of fellowships for British subjects in American Univs. has been formulated by President Frank Aydelotte of Swarthmore College, American Secretary of the Rhodes Scholarship Trust. The plan has been submitted to several influential bodies and has been approved by the Executive Committee of the American Council on Education.

(xxiii.) ANGLO-SWEDISH SOCIETY

Two Travelling Scholarships of £50 each offered to qualified British students of either sex residing in the British Isles, to enable them to visit Sweden and there carry out a definite course of study and research. Applications were receivable up to Feb. 1, 1922, by the Secy., 10 Staple Inn, High Holborn, London, W.C.1. It is not known whether the offer will be repeated this year.

(xxiv.) INTERNATIONAL FELLOWSHIP OF THE BRITISH FEDERATION OF UNIVERSITY WOMEN

£300 to enable the holder to carry on during the Academic year 1922–23 a year's research or post-graduate study at any approved Univ. or College in some country other than that in which she has received her previous education or habitually resides. Open to all members of Assocns. or Federations of Univ. women forming branches of the International Federation. Applications receivable by the Secy., 73 Avenue Chambers, Vernon Place, London, W.C.1, up to March 1, 1922.

(xxv.) GOVERNMENT GRANTS AND CO-ORDINATING AGENCIES

The estimates for 1921–22 provided under the head " Scientific Investigation, etc.," £217,000, of which £130,000 was for the Medical Research Council—v. *infra* (xxvii.), £49,000 for the National Museum and Library of Wales, £10,750 for the Imperial Mineral Resources Bureau, £9000 for the Royal Society—v. *supra* (vi.), £3000 for the Solar Physics Observatory, £3281 for the Edinburgh Observatory, £2500 for the Inst. of Industrial Art—v. *supra*, App. X., and smaller sums for 15 other bodies.

The Mineral Resources Bureau (2 Queen Anne's Gate Buildings, London, S.W.1) undertakes, in addition to collecting, compiling and disseminating information, to advise on the development of mineral resources.

For expenditure in connexion with the DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH the estimate was £704,000. This included Departmental expenses £48,000, Grants for Investigation and Research, £51,500, Research Boards and Committees, £121,500 (ex-

penses, £82,000, development,—grant-in-aid,—£39,500), Fuel Research Board, £63,000, Geological Museum and Survey, £66,000, National Physical Laboratory, £213,000.

Grants to individual research workers (£47,000) are made on recommendations by individual professors. Notes on the conditions under which such grants are made were published by the Dept. in 1920, price 2d., and the Annual Report of the Dept. for 1920–21 contains an exposition of the principles determining these conditions and an account of the working of the system (Cmd. 1491, price 1s.). During 1920–21 the Dept made 132 allowances to students for training in research in Univs and Colleges; 70 grants to research workers to undertake independent research or act as scientific assistants to investigators of standing; 43 grants to scientific workers to enable them to employ laboratory or clerical assistants or to purchase equipment. The system is intended to supplement and not in any way to supersede existing provision, national or local, for post-graduate research.

Up to August 1921 the number of *Industrial Research Associations* approved by the Dept. was 26. During 1920–21 the expenditure on grants to such Assocns. was £74,500.

Developments in the organization of research in the Overseas Dominions and certain foreign countries are described in an Appendix to the above-mentioned Report.

(xxvi.) MINISTRY OF AGRICULTURE AND FISHERIES

GRANTS FOR AGRICULTURAL (AND VETERINARY) RESEARCH. For some few years past the Ministry has awarded annually Research Scholarships (£200 p.a. for 2 yrs.) to assist promising students—usually honours graduates in Science of a British Univ.—to qualify as research workers. In 1921, 4 were awarded to students of Cambridge, Edinburgh and Glasgow. A year ago the Ministry instituted Travelling Research Scholarships for members of staffs of aided research institutions. In 1921, 2 were awarded to members of the staffs at Rothamsted and Aberystwyth.

The Ministry have allocated (with a view to the concentration at one institution or at institutions working in combination, of the scientific work in each of certain definite groups of subjects) grants-in-aid for the maintenance of research departments of institutions as follows: *Agr. Zool.*—Birmingham Univ.; *Fruit-growing*—Bristol Univ.; *Animal Nutrition and Plant-breeding*—Cambridge Univ.; *Plant Physiology*—Imperial College of Science; *Economics of Agr.*—Oxford Univ.; *Dairying*—Univ. College, Reading; *Plant Nutrition and Soil Problems and Plant Pathology*—Rothamsted Experimental Station, Harpenden, Herts; *Animal Pathology*—Royal Vet. College, Camden Town, London, N.W.1, and the Ministry's Vet. Laboratory, Addlestone, Weybridge. Grants are also made for research in Plant-breeding to Univ. College, Aberystwyth, Animal-breeding (poultry and rabbits) to Cambridge, Bee-culture to Oxford and Cambridge, Fruit-growing to East Malling Research Station (near Maidstone), Glasshouse culture

to Waltham Cross Research Station, Pot-culture and field experiments to the R.A.S. Farm at Woburn, Beds.

A grant has also been made to enable the Agr. Depts of the following institutions to supplement in cases calling for special scientific knowledge and training the advice usually given by members of the county Agr. Staffs: Armstrong Coll, Bristol, Cambridge, Leeds and Manchester Univs, Aberystwyth, Bangor and Reading Univ Colleges, Midland, S Eastern (Wye), Harper-Adams, and Seale-Hayne Agr. Colleges.

Special research grants amounting in the aggregate to £3250 for work in 1921–22 were made to Cambridge and Leeds Univs, the Imperial College of Science, Aberystwyth, Armstrong, and S. Eastern Agr. (Wye) Colleges, East Anglian Institute and Royal Horticultural Society.

In a leaflet (197) issued by the Ministry in Sept. 1920 information is given regarding some of the above-mentioned grants and generally regarding Agr. Education and Research in England and Wales

FISHERY RESEARCH. Researches likely to lead to results bearing on the development and improvement of fisheries are eligible for advances from the Development Fund as follows: 1. *Grants-in-aid of the general work of Independent Marine Institutions*, to aid fundamental researches forming part of the Institution's continuous programme of work. Departments of a Univ. engaged principally upon education which may be eligible for grants administered by the Univ. Grants Committee are not eligible for these. Applications in prescribed form are receivable by H.M. Treasury up to Sept. 30 for grants to be made in the ensuing year. They involve informal inspections by representatives of the Govt. Depts concerned.

2. *Grants for Specific Researches.* (*a*) Directed to definite economic ends of use to the Fishing Industry; or (*b*) "Free" researches. Communications with a view to grants under head (*a*) should be addressed to the Fishery Dept. concerned. As regards grants to Instns. under head (*b*), the work may be carried on either by members of the staff or by workers temporarily attached to the Instn. or by research students working under the guidance of members of the staff, whose qualifications are approved and who are definitely recommended by the Head of the Institn. The Development Commrs. will also be prepared to consider applications for additional grants for temporary assistants and for apparatus, etc., to enable members of the staff to prosecute special lines of inquiry. Applications should be addressed to H.M. Treasury and will be dealt with in the same way as those under par. 1. In special cases applications for grants under either (*a*) or (*b*) in respect of researches by workers not attached to any recognized Instn. may be considered.

The amount provided in the estimates for 1921–22 for Fishery Research Grants was £1845.

(xxvii.) MEDICAL RESEARCH COUNCIL

Grants are made to individual research workers in respect of specific investigations approved by the Council. They may be made for the whole-time or part-time personal remuneration of the worker or of his scientific assistants, or for the payment of the special expenses of the work, the two kinds of grant being rigidly distinguished. Applications should be addressed to the Secretary, Medical Research Council, 15 Buckingham Street, London, W.C.2.

(xxviii.) RESEARCH IN THE COLONIES

A Committee, appointed in Nov. 1920 by Lord Milner, then Secy. of State for the Colonies, to consider what steps could be taken to secure the assistance of the Univs. in carrying out research work for the Colonies and Protectorates, reported (Cmd. 1472, price 2d.) in April 1921 that there should be such substantial augmentation of scientific workers in our Univs. as will not only foster research among students but also enlarge the corps of scientific experts to whom the Empire may turn for help in the hour of need. They drew attention to the large number of appointments which the Colonial scientific departments offer to men adequately equipped for them (Agric. 254, Forestry 106, Analytical Chemists 18, Vet. 77, Geol. 20, Med. 649) and recommended that for appointments requiring research qualifications selection should be not by competitive examination but based on recommendations by Universities or Colleges. Among organizations other than the Univs. the resources of which are available for assisting in the research work in question are the Imperial Bureaux of Entomology and Mycology, the Tropical Diseases Bureau, the Tropical Diseases Research Fund Committee and the Advisory Medical and Sanitary Committee for Tropical Africa.

(xxix.) RESEARCH IN CANADA, AUSTRALIA AND S. AFRICA

CANADA. An Honorary Advisory Council for Scientific and Industrial Research was constituted in Nov. 1916 under a sub-committee of the Privy Council of Canada which had been formed in the same year to have charge of all measures to foster the scientific development of Canadian Industries. It consists of 11 members chosen from the Univs., the Engineering Profession and the Industries of the Dominion. With the help of Associate Committees comprising over 100 of the leaders of science and industry it has undertaken or promoted important researches in regard to the utilization of peat and of low-grade lignites, methods of re-forestation, Canadian iron ores, action of alkaline waters on concrete, rust in wheat, and some 30 other subjects. By the foundation of *Bursaries, Fellowships* and *Studentships* tenable in Canadian Univs. provision is made each year for the training of young graduates in the methods of scientific investigation.

AUSTRALIA. A Commonwealth Institute of Science and Industry, including Bureaux of Agriculture and Industries, has been formed. It co-operates with existing State organizations in the co-ordination of research, training of investigators, etc. Among subjects with which it has specially concerned itself is the paper-making qualities of Australian woods. Provision has been made for establishment of Industrial Research studentships and fellowships.

S. AFRICA. The Research Grant Board of the Union of S. Africa, created in 1918 as part of the subsidiary organization of the Advisory Board of Industry and Science, considers questions of detail by which the spirit of research may be fostered amongst students and members of the staff of Univs., Research Laboratories and Museums. It has provided (*a*) Grants of from £25 to £200 in aid of Research by members of the staffs of Univs., etc., awarded in the main to persons who have carried out previous research; (*b*) Research Scholarships of £80 to £130 p.a. for students at Univs., etc., who have taken their B.Sc. degree and show an aptitude for research, administered under the supervision of heads of Departments of Institutions; (*c*) Scholarships (temporarily suspended) for study of Commerce and Industries Overseas, £250 p.a., of which 4 were awarded in 1920 and will expire in 1922 and 1923.

None of these are restricted to any particular number. They depend on the number of suitable applications and recommendations.

(xxx.) RESEARCH IN INDIA

Under the new Constitution the development of industries is a Provincial transferred service and the Government policy in regard to research work will to a large extent be determined provincially. The Imperial Department of Industries, however, maintains a record of research work, disseminates information and makes provision for the conduct of researches for which the resources of any one province would be inadequate. An account of the Indian Institute of Science is given on p. 477; there is a Central Research Institute at Dehra Dun; a Technological Institute for instruction and research in vegetable oils, leather and tinctorial chemistry, etc., is being established at Cawnpore; projects are in hand for a Tanning Research institute in Calcutta and a Forest Research Institute in Burma.

(xxxi.) RESEARCH IN THE UNITED STATES

The NATIONAL RESEARCH COUNCIL of the U.S.A., an organization supported during the war largely by the Government but now entirely by private bodies and firms, has lately published an inventory (Bulletin No. 9, March 1921, $1, obtainable from the Council Office, 1701 Massachusetts Avenue, Washington, D.C.) of funds, other than Federal and State Funds, available in 1920 for the encouragement of Scientific Research. It gives particulars of 529 University and College Funds of which the aggregate annual value was 2½ million dollars and of 170 other Funds worth over 18 million dollars per annum. Rockefeller

and Carnegie benefactions alone provide over 17 million dollars p.a. for research. A summary of the information contained in the Bulletin appeared in " Nature," Aug. 4, 1921. An estimate quoted in the Appendix referred to in section (xxv.) above gives 30 million dollars as the amount to be spent in 1921 in the U.S.A. on research work.

The AMERICAN COUNCIL OF LEARNED SOCIETIES, 419 West 117th Street, New York, represents organized scholarship in the humanistic fields of study.

The UNIVERSITY CENTRE FOR RESEARCH IN WASHINGTON, constituted in 1921, is maintained by a voluntary association of scholars, to promote and facilitate research in archives, libraries and other collections located in the District of Columbia, on the part of students in the graduate departments of American and Foreign Univs and of others. Technical Divisions of History, Polit Sc., Internat. Law and Diplomacy, Economics, and Statistics have been established. Students in foreign Univs. and other investigators desiring to avail themselves of its services should apply to the Secy., Dr. S. P. Capen, Director of the American Council on Education, 818 Connecticut Avenue, Washington, D.C.

(xxxii.) RESEARCH IN FRANCE

Les Ressources du Travail Intellectuel en France, by MM. Tassy and Léris (Gauthier Villars, 1921) contains lists of " Encouragements et Aides Financiers." The annual value of prizes distributed in France by the national academies and by societies dependent on private initiative is stated to exceed 1,500,000 francs, and an almost equal amount is said to be devoted to subventions to missions, travelling fellowships and other aids to research.

(xxxiii.) INTERNATIONAL FOUNDATIONS AND ORGANIZATIONS FOR RESEARCH

FONDATION UNIVERSITAIRE, 74 rue de Namur, Brussels, founded in 1920 with a capital of 55 million francs derived from the unexpended balance of the funds of the Commission for Relief in Belgium, aims (1) at helping impecunious young Belgians to take courses in Institutions for higher education and (2) at developing scientific production in Belgium. It makes loans for the first purpose and grants and subsidies for the second. In the year 1920–21 its loans for University study amounted to 709,000 francs, its subsidies to 1,287,000 francs. The subsidies included grants for study in Brazil 20,000 fr., in European Univs. 10,000 fr., for training in Scientific Research 36,000 fr., for research workers 69,000 fr., to periodical publications 114,000 fr. Two of the beneficiaries worked in Oxford and one in London. Grants for study in American Universities were made to 24 Belgian graduates and grants for study in Belgian Universities were made to 22 Americans.

AMERICAN-SCANDINAVIAN FOUNDATION. Travelling Fellowships of $1000 each for travel and study by American graduates in Scandinavian Univs. and *vice versa*, 20 for America, 5 for Denmark, 10 for Sweden

and 5 for Norway. Address—25 West 45th Street, New York City. Applications receivable up to March 15.

FRANCO-AMERICAN SCHOLARSHIP EXCHANGE. Administered by the American Council on Education, 818 Connecticut Avenue, Washington, D.C. Fellowships for American graduates in French Univs. Free tuition, 16; free tuition plus 3000 francs, 1. About 24 scholarships for American women in French Lycées and Écoles Normales: board, room and tuition and 30 p.c. discount on passage each way. Scholarships for French women in American Colleges: 74 were allotted in 1920.

NOBEL PRIZES, founded by Alfred Nobel who died in 1896, awarded for contributions to the common good by workers in (*a*) Physics, (*b*) Chemistry, (*c*) Medicine or Physiology, (*d*) Literature, (*e*) the Preservation of Peace. The prizes, worth from Kr. 125,000 to Kr. 150,000 each, are awarded for (*a*) and (*b*) by the Swedish Academy of Science, for (*c*) by the Stockholm Faculty of Medicine, for (*d*) by the Swedish Academy of Literature, and for (*e*) by a committee elected by the Norwegian Storthing. Among the categories of persons qualified for candidature for prize (*e*) are University Professors of Political Science and Law, of History, and of Philosophy. Particulars can be obtained from Nobelstiftelsens Styrelse, Norlandsgatan 6, Stockholm, Sweden. Awards in 1921: (*b*) W. Nernst, (*d*) Anatole France, (*e*) H. Branting, Swedish Premier, and Chr. Lange. The list of recipients of prizes in previous years includes the following names which have a special interest for English-speaking students: (*a*) 1904, Lord Rayleigh; 1906, J. J. Thomson; 1907, A. A. Michelson; 1915, W. H. Bragg and W. L. Bragg; 1917, Ch. G. Barkla; (*b*) 1904, Sir Wm. Ramsay; 1908, E. Rutherford; 1914, T. W. Richards; (*c*) 1902, Sir Ronald Ross; 1912, Alexis Carrel; (*d*) 1907, Rudyard Kipling; 1913, Rabindranath Tagore; (*e*) 1903, Sir W. R. Cremer; 1906, Theodore Roosevelt; 1912, Elihu Root.

FONDATION GEORGE MONTEFIORE offers triennially a prize of the value of 21,000 francs "au meilleur travail original présenté sur l'avancement scientifique et sur les progrès dans les applications techniques de l'électricité dans tous les domaines, à l'exclusion des ouvrages de vulgarisation ou de simple compilation." Work should be received by April 30, 1923, by M. le Secrétaire-archiviste de la Fondation George Montefiore à l'hôtel de l'Association, rue Saint-Gilles, 31, Liége (Belgique).

VISSER INTERNATIONAL LAW PRIZE (triennial). Administered by Leyden Univ. 5000 guilders. Subject for next competition (closing July 1, 1923), "International Treaties of the Republic of the United Provinces, 1579–1795." Language to be used—French or Dutch.

TRAVERS-BORGSTROEM FOUNDATION. V. p. 598—Berne.

INTERNATIONAL RESEARCH COUNCIL. Permanent Domicile, Brussels. General Secretary—Sir Arthur Schuster, Royal Society, Burlington House. This body has been constituted with effect from Jan. 1, 1920, in pursuance of a resolution adopted in Nov. 1918 at a Conference in Paris at which the principal Allied Academies were represented. It is proposed to deal with all matters of international scientific interest through unions as follows: Astronomy, Geodesy and Geo-

physics, Pure and Applied Chemistry, Mathematics, Physics, Scientific Radio-Telepathy, Biological Sciences, Geology, Geography, Engineering, Patent Laws.

UNION ACADÉMIQUE INTERNATIONALE for co-operation in the advancement of studies by means of collective researches and publications in the fields of Archæology, History, Philology, and Moral, Political and Social Science. The Union was constituted in 1919 on the initiative of the Académie des Inscriptions et Belles-Lettres. Its address is Palais des Académies, Bruxelles. The 3rd annual session will be held there on May 25, 1922, and 2 following days, when work in progress (corpus of antique vases, catalogue of alchemical MSS., Edition of Grotius' works, customary law of Indonesia) will be reviewed, and projects for other work, including a suggestion regarding the administration of antiquities in mandated territories, will be considered.

XXV

FOREIGN UNIVERSITIES

While considerably enlarged since last year this Appendix is far from being as comprehensive as it is hoped that it may eventually be made. Pending the resumption of more normal international relations Universities of the late enemy countries have not yet been included.

BELGIUM

Of the four Universities Gand and Liége are State institutions administered under the control of the Ministère des Sciences et des Arts, which also controls the secondary schools. In order to qualify for the State degrees which alone are recognized for the purposes of the laws relating to the practice of professions it is necessary for candidates to have obtained a Certificat d'Études moyennes evidencing the satisfactory completion of six years' study in secondary schools or, in the case of degrees in Physical and Mathematical Sciences, five years' study in professional schools.

Brussels is the seat of the headquarters of various International bodies concerned with higher education and research (see Appendix XXIV. (xxxiii.)). The " Université Internationale " held its second session in Aug. 1921 in the Palais Mondial, Brussels. A Semaine Sociale Universitaire is held at Brussels during the summer vacation : Secy.—F. Van Langenhove at the University. The Anglo-Belgian Union, 35 Albemarle St., London, W.1, and 32 rue de Namur, Brussels, has a sub-committee for " échanges intellectuels et universitaires," to whom British students may apply for general information; while special inquiries should be addressed to the respective Secretaries of the four Universities.

There is a State School of Veterinary Medicine at Cureghem, Brussels (Director—G. Gratis). An Agricultural Training College recently established on the Hosseghem estate, Laeken, Brussels, arranges interchange of members with similar institutions in other countries. The Institut des Hautes Études de Belgique, 67 rue de la Concorde, comprises sections for Maths., Physics and Chem. ; Nat. Sc., History and Philology ; Social, Polit. Econ., and Jurid. Sciences, Arts and Letters (President—G. de Greef).

At Antwerp is an Institut Sup. de Commerce with about 20 Profs.

At Gembloux a State School of Agriculture with about 20 Profs.

At Gand an " Institut Supérieur des Fermentations," rue du Lac.

At Liége an École des Hautes Études Commerciales et Consulaires with about 25 Profs. ; École Libre d'Anthropologie, with 16 Profs.

At Mons an École Sup du Commerce with about 20 Profs. and a well-equipped and largely attended École des Mines.

At Verviers an École Sup. des Textiles with about 20 Profs.

BRUXELLES (UNIVERSITÉ LIBRE)

Président du Conseil : Dr. Paul Héger. *Secrétaire de l'Université* : M. Jean Willems. *Recteur* : Ch. De Keyser. *Présidents des Facultés* : Philos. et Lettres—M. A. Kugener ; Droit—E. Hanssens ; Sciences—H. Wuyts ; Méd.—J. Bordet ; Sc. appliquées—H. Vanderrydt. École des Sc. Polit. et Soc. ; École de Commerce

The new School of Medicine, which will be in close connexion with the City Hospital, has received large endowments enabling it to offer ample facilities for advanced study and research. In addition to the regular courses for undergraduates, " Cours libres " in many special subjects, suitable for graduates and practitioners, are given by more than 20 Profs. The " M.D. Brussels " examns. have been discontinued.

The new School of Applied Sciences is also well equipped for research. It has depts. of Archit., Aviation (6 Profs.), Industrial Chem., Engineering, Mining, Metallurgy, Railways. A new Laboratory for Aeronautics will be completed during 1922. Five new chairs have been endowed with effect from Oct. 1922. In 1920–21 a grant of 5 million francs contributed by Belgian manufacturers was received for the reorganization of higher technical instruction.

It rests with the Faculty concerned to decide on questions of equivalence of foreign academic records with the ordinary Belgian qualifications for admission to Univ. courses. Of 353 recipients of Diplômes scientifiques in 1920–21, 84 were foreigners, including 10 from Great Britain and 1 from Australia. Total number of students in 1920–21 : 2501. In Oct. 1921 was inaugurated a " Maison des Étudiants " Co-operative Society managed by students. It provides cheap and wholesome food and assists students in finding lodgings.

Inquiries by foreign students should be addressed to the Secretary of the Univ.

GAND (GHENT)

Recteur : Dr. H. E. W. Eeman. Administrateur - Inspecteur, Directeur des Éc. du *Génie Civil* et *des Arts et Manuf.* : A. Roersch. *Doyens des Facultés* : Philos. et Let.—J. J. van Biervliet ; Droit—G. Eeckhout ; Sciences—L. Gesché ; Méd.—Felix Daels. Prés. de l'*Inst. Sup. d'Éduc. Physique*—M. F. Gommaerts. Inspecteurs des études des Éc. du *Génie Civil* et *des Arts et Manuf.* : Éc. prép.—M. J. J. van Rysselberghe ; Éc. Spéciale—F. Keelhof. Prés. de l'Éc. Spéciale de *Commerce*—M. E. Dauge.

NUMBER OF STUDENTS IN 1921 : 1277, including 276 from Greece, Serbia, Roumania and U.S.A. Of special interest to foreign students are the short courses provided by the École Spéciale de Commerce and facilities for advanced study offered by the Institut Supérieur d'Éducation physique. British students who have passed examns. qualifying for admission to degree courses in a British Univ. can be admitted to degree courses at Gand without further examn.

LIÉGE

Recteur : Ch. De Jace, Prof. of Law and Polit. Econ. *Doyens des Facultés* : Philos et Let.—K. Hanquet, Prof. of Hist. (President of the Institut Supérieur d'Art et d'Archéologie annexed to this Faculty—Ch. Michel, Prof. of Greek), Law—O Orban, Prof. of Adm. and Public Law (President of the École Spéciale de Commerce annexed to this Faculty—E van der Smissen, Prof. of Polit. Econ), Sciences—D. Damas, Prof. of Zool. ; Méd.—E. Malvoz, Prof. of Bact. and Hygiene ; Technology (including Institut Électrotechnique Montefiore)—M. Dehalu, Prof of Topography.

It rests with the Faculty concerned to decide on questions of equivalence of foreign academic records with the ordinary Belgian qualifications for admission to degree courses. A special examn. in Maths. is required for admission to the Faculty of Technology.

TOTAL NUMBER OF STUDENTS IN 1920–21 : 2303, including 945 in the École Spéciale des Arts et Manuf. et des Mines (Faculty of Technology).

LOUVAIN (UNIVERSITÉ CATHOLIQUE)

Rector Magnificus : Mgr. P. Ladeuze, D.D. *Deans of Faculties* : Divinity (Roman Catholic)—N. Balthasar, D.D. ; Law—L. Dupriez, LL.D. ; Med.—A. van der Straeten, M.D. ; Philos. and Let.—F. Mayence, D.Ph. ; Science—C. J. de la Vallée Possin, D.Sc. Pres. of Sch. for *Polit and Soc. Sc.*—J. N. M. van der Heuval, LL.D. (Minister of State). Pres. of *Higher Commercial Sch.*—A. E. Janssen, LL.D. Pres. of *Superior Philos. Inst.* (St. Thomas Aquinas)—Mgr. S. Deploige, LL.D., D.Ph. Pres. of Schools for *Engineering, Mining, Arts and Manuf., Archit., and Electricity*—C. J. de la V. Poussin, D.Sc. Pres. of *Agronomie Inst.* and of Sup. Sch. for *Brewery*—P. Biourge, D.Sc. Director of Prep. Inst. for Tech. Schools—L. Marchal. [*N.B.*—No returns received since Dec. 1920.]

For admission to the Schools of Applied Science an entrance examn. must be passed. Otherwise British students qualified for admission to British Univs. may be admitted to courses for the State degrees if their qualifications are considered equal to the Belgian Certif. d'Études moyennes ; they may also enter without such qualifications for Academic or Scientific non-State degrees. Number of students in 1921 : 3248.

SPECIAL ADVANTAGES FOR FOREIGN STUDENTS. Both French and Flemish may be easily learnt. Students can attend, in addition to the special branches selected, the courses of Language and Literature (especially French) in the Faculty of Philosophy and Letters. Louvain being merely a Univ. town and centre of intense intellectual life, they have all facilities for acquiring a thorough knowledge of Belgian Art, Lit., and Culture, either through the various series of conferences organized by the Univ. and Schools, or in the numerous clubs, societies, and seminaries amongst the students, with a professor as chairman, which are most flourishing, and constitute a highly interesting feature of Louvain Univ. life.

The Library is being rapidly restored, and it now includes 450,000 vols., including 210,000 sent from Germany in fulfilment of the Peace Treaty. In 1920–21 a grant of 5 million francs was received from Belgian manufacturers for the reorganization of higher technical instruction. A new scientific review, "Louvanium," was established by the professors.

CZECHO-SLOVAKIA

PRAGUE: CHARLES UNIVERSITY (founded 1348)

Rector: František Mareš, M.D., Prof. of Physiology. *Deans of Faculties*: Theol. (Roman Catholic)—V. Hazuka, D.D., Ph.D., Prof. of Semitic dialects and Assyriology; Laws—Jan Kapras, LL.D., Prof. of Hist. of Bohemian Law; Philos.—Josef Janko, Ph.D., Prof. of German Lang. and Lit.; Med.—Ivan Honl, M.D., Prof. of Bact.; Nat. Sc.—Karel Petr, Ph.D., Prof. of Maths. [*N.B.*—Returns not received since Jan. 1921].

SPECIAL FACILITIES AVAILABLE FOR BRITISH STUDENTS. The Director of English Seminar, Prague I., Veleslavinova, 96, is prepared to answer inquiries by students proposing to study at Prague.

The ancient University founded by Charles, King of Bohemia, and amalgamated in 1653 with the Jesuit College of Prague under the name "Charles-Ferdinand" was in 1882 divided into two—a Czech (The Charles University) and a German University. The latter, which has about half as many students as the Charles, has Faculties of Theology, Law, Medicine and Philosophy (including Pure Science). There are also at Prague Czech and German Technical High Schools, each having about 60 Profs. There are also Universities, founded in 1919, at Pressburg (Bratislava) and Brunn (Brno), the former having at present a Faculty of Medicine only and the latter Faculties of Law and Polit. Sc. and of Med.

DENMARK

(Contributed by the President, Anglo-Danish Students' Bureau, London Branch)

THE UNIVERSITY OF COPENHAGEN has always been, and is at present, the only Univ. of the country. For some time past there has been a general desire to have one more, and the incorporation of the Danish part of Slesvig in 1920 has intensified this need. There are now plans of establishing a second Univ. in Jutland, and the seat of this institution is most likely to be *Aarhus*, the largest city but one (about 100,000 inhabitants), which has many advantages for the realization of such a plan in its great hospitals, its excellent library and museum. This is, however, still a dream of the future, which cannot be expected to realize until three or four years hence.

HISTORY AND CONSTITUTION. The Univ. was opened in 1479, in accordance with a Papal Bull of June 19, 1475. Beginning as a School of Theology, and by degrees adding the other faculties when the need for them arose, the Univ., faithful to its historical traditions, still contains only five faculties: Theology, Law (now including Polit. Econ.), Medicine, Arts (Det Filosofiske Fakultet), Science (including Maths.). Other subjects, which are in England generally treated as Univ. subjects, are taught at special institutions at Copenhagen, not being incorporated in the Univ., but, like it, under State supervision: *Engineering* at the so-called Polytekniske Læreanstalt; *Agriculture* at the Royal Vet. and Agr. College; *Fine Arts* at the Royal Academy of Art; *Music* at the Academy of Music (Musikkonservatoriet).

The academical year is divided into 2 terms (Semestre), beginning on Sept. 1 and Feb. 1 respectively. Christmas holidays: Dec. 23–Jan. 6. Easter holidays: Wed. before till Tues. after Easter. Whitsuntide: Sat. before till Tues. after Whitsunday. Long vacation: June 9–Sept. 1. The number of matriculated students of the Univ. proper was in 1920–21: 3196 (including 506 women) as follows: studying Theology—454 (10 women); Law—692 (32 women); Economics and Actuarial Science—172 (25 women); Medicine—887 (117 women); Arts subjects—520 (139 women); Maths. and Natural Sciences—148 (19 women); others—323 (164 women).

The Univ. is a self-governing and, to a great extent, a self-supporting institution besides being a State Univ. Thus it relies for its income partly on large endowments of bygone ages, and partly on State aid. The rector and deans of faculties are elected each year by a limited body of the professoriate called Consistorium. *All tuition is free*, and a very great number of scholarships and fellowships are available to Danish students, often including free residence at one of the colleges. Nearly all lectures are open to the public without fee or ticket. The only fees charged to students are a matricn. fee of a little more than £1, and a similar fee for examns.

Rector Magnificus for 1922 is Prof. *Einar Biilmann*, Dr.Phil. *Referendarius Consistorii* is Prof. *H. Munch-Petersen*, Dr.Jur.

ADMISSION. (I.) According to the Statutes any student who wishes to study at the Univ. must matriculate. The matricn. is, however, not an examn., as the entrance examn. will generally have been passed by the student as a Final examn. on his leaving the school or institution at which he has been prepared for the Univ. Thus the matricn. simply consists in paying down a fee once and for all of 22 kroner. Candidates must bring: (i.) a certificate from the school or other Univ. attended; (ii.) birth certificate. The student will then in due time receive the document styled "Akademisk Borgerbrev" in proof of his being admitted as "Civis Academicus."

(II.) Any matriculated student who wishes to attend the teaching of the Univ., and enter for examns., must enter his name on the annual list kept of all students in the course of the month of Sept. of each year. The student will then receive without any fee or payment an *Identity Card* for the year, enabling him to obtain cards of admission to lectures, courses, laboratories, etc. In brief, with this Identity Card in his possession he enters into his rights as "Civis Academicus."

UNDERGRADUATE STUDIES. British undergraduate students with a matricn. certificate from their own Univ. will be admitted on the same conditions as Danish students, and degrees, diplomas, and certificates will be open to them.

There is no fixed time for the duration of the courses of studies, the candidate can enter for his examn. when he thinks fit. However, the courses of studies at Copenhagen are generally longer than those at British Univs., the minimum being usually 5 yrs. A good knowledge of the Danish language is essential, if not indispensable, in order to derive the full benefit from lectures and courses.

ADVANCED STUDY AND RESEARCH. The Univ. offers great advantages for research students by its excellent library of more than 500,000 vols. and 6500 MSS., which, amongst other things, contains the famous Arnemagnæian collection of Icelandic and a very valuable collection of Oriental MSS; also the still greater Royal Library may be mentioned in this connexion. On the whole, as the Univ. is situated in the metropolis of the country, it is unique in that its under-graduate and post-graduate students have at their disposal all the facilities afforded by its central position in the midst of all the most important institutions of the kingdom.

DANISH DOCTORS' DEGREES will, no doubt, be open to foreign students, but are considered some of the most difficult to obtain, and, as far as can be ascertained, have never yet been taken by any foreigners. After having had his thesis recognized by two censors of the Professoriate, appointed by the Univ., the candidate is required to publish it, and then on an appointed day defend his thesis in public, not only against the said two censors as chief opponents, but against any one from the audience who wishes to take part in the disputation. It is also worth mentioning that the whole performance must be conducted either in Latin or in Danish.

VACATION COURSES. The only vacation course so far given in

Copenhagen was a *summer course in Agriculture* at the Royal Vet. and Agr. College from June 25 to July 25, 1920. This course was given to foreign students, with special reference to British students. The lectures were delivered in English by Professors of the College and other agricultural experts on topics like: Organization and Co-operation, Animal and Plant Breeding, Dairy Industry, Seed-Testing, Control of Diseases in Animals and Plants, Education, etc. The course included excursions under the guidance of an English-speaking Agr. expert to experimental stations, farms of animal and plant breeders, schools, agr. summer exhibitions, cattle and horse shows, dairies, bacon and sugar factories, etc. A similar course will no doubt be conducted this year, but no programme has been issued as yet.

STUDENT ORGANIZATIONS AND INFORMATION BUREAUS. The students of the Univ., as well as those of cognate institutions, have founded students' representative councils for each college respectively. The joint representative body of these different councils is the *Danish Students' International Committee*, whose aim it is to promote every kind of international collaboration between the Univ. circles of Denmark and those of other countries. Foreign students who want to get acquainted with Danish institutions, or are desirous of obtaining information about Danish Univ. life, will therefore always be met with the greatest sympathy by this Committee. In order to further their ideas and put them on a practical basis, the Committee have established a *General Information Bureau* in the Univ. itself. All inquiries should be directed to—The Secretary, Danish Students' International Committee, Studiestræde 6, Copenhagen K., Denmark.

Moreover, the Committee have established branch offices in the central Univ. towns of different countries.

For England: Anglo-Danish Students' Bureau, 50 Russell Square, London, W.C.1.

France: Foyer franco-scandinave, 25 rue Servandoni, Paris.

Italy: Comitato Internationale degli Studiosi danesi, 42 via Campo Marcio, Rome.

In U.S.A. the American-Scandinavian Foundation have undertaken the representation of the Committee; address: 25 West 45th Street, New York City.

And for Germany, the Danish clergyman in Berlin, Pastor B. Lindhardt, Sesemerstrasse, 20, has placed himself at the disposal of the Committee.

FELLOWSHIPS. The only Fellowships for foreign graduates who want to study at the Univ. are the *Exchange Fellowships* between the U.S.A. and the Scandinavian countries offered by the *American-Scandinavian Foundation*. There are 5 each year, and the subjects mentioned in the prospectus of the Foundation are the following: Industrial Organization, Co-operative Agriculture, Agricultural Sciences, Bacteriology, Chemistry and Physics, Folk High Schools, Language and Literature, other Humanistic subjects.

All applications for these Fellowships, which are of the value of one thousand dollars per annum each, should be directed to—The Assistant

Director of Students, The American-Scandinavian Foundation, 25 West 45th Street, New York City.

J. H. HELWEG.

February 1922.

FINLAND

HELSINGFORS (HELSINGIN YLIOPISTO, founded in Abo in 1640)

This, the only State Univ. in the country, is organized on the same lines as those of the Scandinavian countries. Foreigners who are members of a Univ. of approximately the same standing may carry on their studies in the several faculties and obtain the degrees. All lectures are given in one of the two national languages of Finland, Finnish and Swedish, which are also used in all examns., written and oral. Doctors' dissertations may be in these or any of the great living European languages, or in Latin. The number of immatriculated students is 2700, of whom one-fourth are women. Female students have in every respect the same rights as men. Rector—I. A. Heikel, D.Phil.

DEGREES conferred in the several Faculties: Theol.—Sacr. Min. Cand.; Theol. Cand, Lic., Dr. (Hon.). Law—Jur. Utr. (Justice and Administration) Cand., Lic., Dr. (Hon.). Med.—Med. Cand., Lic.; Med. et Chir. Dr.; Odont. Cand., Lic., Dr. Philos.—Cand., Mag. (Hon.), Lic., Dr. (Hon.) Phil.

Examns. also held in Pedagogy, Metallurgy, Agric, Forestry, Gymnastics. Exemptions from the various examns. may, if corresponding examns. have been passed in a foreign country, be granted by the Chancellor, in individual cases, on the recommendation of the Faculty and the Senate.

At Helsingfors also are a TECHNICAL HIGH SCHOOL, founded 1908, giving a Diploma and a Doctorate of Engineering, and a COMMERCIAL HIGH SCHOOL, founded 1911, giving a Mastership of Commercial Science.

THE ACADEMY OF ABO (Swedish)

Founded 1916, opened 1919. Confers degrees of Cand., Mag., Lic., and Dr.Phil., Diploma and Doctorate of Engineering.

The FINNISH UNIVERSITY OF ABO (Turku), founded 1920, opened 1922, with Faculties of Humanities and of Nat. Sc.

FRANCE

For full information regarding the French Univs. students in the U.K. are recommended to apply to the Office Nationale des Universités et Écoles françaises, London Branch, 50 Russell Square, W.C.1. In America the Office Nationale has a representative in the Institute of

International Education, 419 West 117th St., New York. The Handbook, *Les Universités et les écoles françaises* (300 pp.), published by the Office, contains full details concerning admission, degrees, etc.

The French Univs. which grant degrees and most of the other Institutions of Higher Learning in France, as well as the Lycées and Primary schools, are under the direction of the Minister of Public Instruction. The degrees, diplomas, and certificates obtainable at the Univs. are of two kinds—those of the State and those of the Univ.; the latter, while attesting with equal authority the same and other courses of study, do not confer the right to practise a profession in France. Further, the unified control of the Univs. has resulted in giving to the degrees granted by all of them a uniform value. In this connexion it is noteworthy that the word " Université " is frequently used to denote not what is signified by the English word, but the entire system of French education of all grades, *e.g.* " Professeur de l'Université " means a person *qualified* to teach in a Univ. whether he actually teaches in one or not. Uniformity in the essentials of administration does not, however, prevent each Univ. from having a character of its own, and their differentiation is accentuated by the practice of devoting special attention to the study of Local History, Dialects, Industries, and Economic Conditions. The excessive separation from each other of the several Faculties which was enforced during the nineteenth century for political reasons has given place to a close collaboration which greatly furthers the interests of study and research. Associated with the Univs. are numerous Institutes and Schools for the cultivation of special branches of knowledge, Technology and Research. The Office Nationale draws special attention to the advantages for foreigners of studying in a provincial Univ., where initiation into French life is easier and more intimate relations with teachers and fellow-students can be established than in Paris, and where the cost of living is appreciably lower.

Admission to courses of lectures in the Faculties of Science and Letters of the Univs. can ordinarily be obtained on payment of the prescribed fees by foreign students of either sex, without difficulty and without any preliminary test of their qualifications, and in many places " sections étrangères " have been organized for their benefit, and, for students of the French Language, Literature, History, Institutions, etc., " Cours spéciaux d'études françaises." It is, however, advisable in all cases and necessary for " immatriculation " (entitling, to take part in all the work of the Univ. and utilize its libraries, collections, etc.), that the student bring with him a passport or birth certificate, and (though the Dean of the Faculty may allow matricn. without this if satisfied on other grounds as to the candidate's qualifications) an academic diploma or certificate. It is also advisable to have the latter as well as the former *visé*-d by a French Consul. On arrival in France a declaration of residence must be made at the Préfecture de Police or Mairie and a certificate, " récépissé," of the declaration obtained (free of charge). It may also be necessary to obtain official translations by a " traducteur juré " of the passport, etc.

The method of qualifying for a degree is somewhat similar to that

prescribed for London External students: continuous residence and attendance on prescribed courses are not required, the candidate's fitness being ascertained merely by examinations. For all the State and some of the Univ. degrees and diplomas, however, "inscription" at intervals of 3 months is required, but not necessarily at one and the same Univ. It is effected on each occasion by the student himself attending at the office of the Secretary and paying a fee, ordinarily 30 fr. *plus* a library fee of 10 fr. and, for some courses, laboratory fees. At the first "inscription" must be presented a duly *visé*-d passport or birth certificate with official translation, a diploma or certificate equivalent to the French Baccalauréat and the "récépissé" mentioned above. The Baccalauréat does not correspond with our bachelorship, but marks the satisfactory completion of a course of secondary education. A matriculation certificate of a Univ. in the U.K. is regarded as equivalent to it, but the document, whether a matricn. certif. or one of equivalent or higher standard, should be accompanied by an official translation and a formal request on stamped (2 fr.) paper (obtainable from any stamp-vendor) addressed to the Ministry of Public Instruction for an "équivalence du baccalauréat". All these documents—passport, etc., certificate, translations, "récépissé" and request—must be delivered personally to the Secy. of the Faculty or School in which it is desired to register. Graduates seeking to obtain a Doctorat would similarly apply for an "équivalence" of the Licence instead of the Baccalauréat.

In nearly all the Univs. there are special committees who make it their business to assist foreign students in obtaining all needful information. Students under 28 years of age attending holiday courses in French Univs. may obtain tickets at half the ordinary fares for railway journeys in France. The S.E. & C. Ry. Coy. makes available for such students for 2 months the excursion tickets ordinarily available for a fortnight only. In order to get the benefit of these concessions students should apply to the Secretary of the Holiday Course for the requisite vouchers at least 15 days beforehand.

A Commission appointed by decree of the Ministry of Public Instruction in Feb. 1921 to prepare a list of foreign academic records which will in future be accepted as equivalent to the French "licence" for the purpose of candidature for the Doctorat d'État (en Médecine, en Droit, ès Sciences, or ès Lettres) has (Feb. 1922) just completed its work, and the list will shortly be published.

AIX-MARSEILLE

Recteur: J. Payot (at Aix). *Faculties*: Droit and Lettres at Aix; Sciences at Marseille, where are also an Institut technique supérieur, École d'Ingénieurs, Inst. Colonial with Museum, École de plein exercice de Méd. et de Phm., Faculté libre de Droit, and Observatoire. At Endoume, on the sea-coast, is a Laboratory of Marine Zoology. Special booklet for foreign students. Office des étudiants at the Hôtel-de-Ville, Aix, gives advice regarding board and lodging, etc.

ALGER

Recteur: E. Ardaillon. *Facultes*: Lettres (Doyen—R. Basset); Droit (M. Morand), Sciences (E Ficheur); Méd. et Phm. (J Curtillet). Certif. d'études fr. and Diplôme d'études universitaires for foreign students. [*N.B.*—Returns not received since Feb. 1921.]

BESANÇON

Recteur: M Alengry *Facultes*: Sciences (Doyen—M. Fournier); Lettres (A. Kontz). École de Méd. Inst. Colonial. École de Chimie Indust. et Agr École prép. de Méd. et Phm Cours de Français pour les étudiants étrangers under direction of M. Rouget, Dir. hon. de l'École Normale (both in terms and vacation). Vacation courses, reorganized in 1920, July 1 to Oct. 31. Registration for whole period, 225 fr.; 2 weeks, 75 fr.; 1 mo, 120 fr, etc. Certif d'études fr (Diplôme d'Univ) obtainable by 3 mos.' vacation course and examn. Instruction also given by correspondence. Special booklet for foreigners. Comité de Patronage (Sec., 2 rue du Chapitre) will supply all necessary information gratuitously.

BORDEAUX

Recteur: R. Thamin. *Facultes*: Droit (Doyen—L. Duguit); Méd. et Phm. (C. Sigalas); Sciences (E. Fallot); Lettres (J. Dresch). Observatoire. Marine Zool. station at Arcachon. Special courses for foreigners are provided during the sessions but not in vacations: Address—Office des étudiants étrangers, 3 rue Jean-Burguet.

CAEN

Recteur: R. Moniez. *Facultes*: Droit (Doyen—Pilon); Sciences (A. Bigot); Lettres (A. Barbeau). École prép. de Méd. et Phm. Marine Zool. station at Luc-sur-Mer. Inst. de Droit Commercial. Inst. Technique de Normandie. Cours de Français pour les étrangers, Easter to June 30. Fee, 90 fr. Certif. d'études fr. de l'Univ. or Diplôme élém. de Fr., 30 fr. *Livret de l'étudiant étranger* and all requisite information obtainable from the Comité des étudiants étrangers, which keeps a list of lodgings. Facilities for research in Geol, Bot., Hist. of Normandy.

CLERMONT-FERRAND

Recteur: Ch. Causeret. *Facultes*: Sciences (Doyen—R. Chavastelon); Lettres (A. Audollent). École de Méd. et Phm.; Inst. de Géog.; Faculté Libre de Droit; Observatoire Météor.; Station Limnologique de Besse, open Aug. and Sept.; Inst. d'Hydrologie. Publications: *Annuaire* and *L'Univ. de C.-F. et le pays d'Auvergne*, 248 pp.

DIJON

Recteur: H. Pade *Faculties*: Droit (Doyen—P. L. Lucas); Sciences (C. Queva); Lettres (Ch Lambert) École prép. de Méd. et Phm. École de Notariat; Inst. Œnol. et Agron. Special French courses for foreigners during terms and vacations. [*N.B.*—Returns not received since Feb. 1921.]

GRENOBLE

Recteur: F. Dumas. *Facultes*: Droit (Doyen—L. Balleydier); Sciences (E. Gau); Lettres (S. Chabert). École prép. de Méd. et Phm.; Inst. Polyt. (Electrotech. and Paper Manuf.); Inst. du Géog Alpine; Inst. de Phonétique; Inst. de Sc. Comm.; Inst. Français de Florence. Special courses for foreigners during semesters, Nov. 3 to March 1, and March 1 to June 30, and vacation course July 1 to Oct. 31. Fees: Academic year—one month 80 fr, two 120, whole term 150; vacation —one month 120 fr., 6 weeks 160, two months 190, three 230, four 260. No diploma required for matricn. for these courses The Certif. d'études fr. may be obtained by examn. after one semester or vacation course; Dipl. des hautes études de langue et lit fr, or Dipl d'études sup. de phonétique fr. after 2 semesters or 1 semester *plus* vacation course; Doctorat d'Univ (examn fee, 100 fr), after 4 semesters, including at least 2 full attendances (partial dispensation in exceptional cases). The vacation courses have been provided annually for many years, are highly organized, and are attended by foreigners in large numbers Full information obtainable from Comité de Patronage des étudiants étrangers at the Univ. Special facilities for research in French Lang. and Lit, Alpine Geog., Geol, Pisciculture.

LILLE

Recteur: G. Lyon. *Faculties*: Droit (Doyen—C. Mouchet); Méd. et Phm. (P Charmeil); Sciences (Chatelet), Lettres (G. Lefèvre). Inst. de Chimie, d'Electrotech., de Pédag., de Géog, de Papyrologie. Laboratoire de Phonétique. Lab. of Marine Biology at Portel. At Lille are also Catholic Faculties: Theol., Droit, Méd et Phm, Lettres, Sciences; and many important tech and professional schools. Courses for Diplôme d'études fr., Diplôme sup. pour l'enseignement de la langue et de la lit fr à l'étranger, and Diplôme d'études sup. de phonétique fr., Nov. 1 to June 30; fee—175 fr. for 2 semesters. Partial courses, 1 mo., 30 fr, etc Vacation courses at Boulogne-sur-mer, July 17 to Aug. 27; supérieur (littéraire, pratique, or commercial), moyen, and élém.; fees—95 fr. 4 weeks, etc. Facilities for research with a view to Doctorat de l'Univ. in letters, economics, science, pharmacy, médicine. Diplomas in Russian, dentistry, elec. engin., chem. engin. Inquiries should be addressed to Office des étudiants étrangers, 9 rue Auguste Angellier. Lille has established an Inst. Français in London.

LYON

Recteur: P. Joubin. *Facultes*: Droit (Doyen—L. Josserand); Méd. et Phm. (L. Lépine); Sciences (C. Depéret); Lettres (L. Clédat). École de Chimie Indust; École de Tannerie; Inst Bact.; Inst de Chimie, Inst. Agron., Station de Biol. Marine de Tamaris-sur-Mer; Observatoire; Laboratoires de Photométrie et de Photog.; Inst. de Sc. Econ. et Polit.; Collège Oriental, Schools of Law and of Engin at Beirut (Syria). At Lyon are also Catholic Faculties of Theol., Droit, Lettres, Sciences; École Centrale (Tech); École Nat. Vét. There are a Comité de Tutelle des étudiants étrangers and a Consul Univ for students from English-speaking countries—P. Courmont, Prof in the Fac. of Méd.

MONTPELLIER

Recteur: A. Benoist *Facultes*: Droit (Doyen—J. Bremond); Méd. (A. Mairet); Sciences (S. Dautheville), Lettres (J. Vianey) École sup. de Phm.; Inst de Biol, Botanique, Chim., Electrothérapie et Radiog., Physique, Zool, Jardin des Plantes, Marine Zool. Station at Cette Special courses (Elem and Sup) for foreigners during terms. Full information obtainable from Sec, Comité de Patronage at the Univ. At Montpellier are also an École Nat. d'Agr and École Sup. de Commerce. [*N.B.*—Returns not received since Feb. 1921.]

NANCY

Recteur: Ch Adam *Facultes*: Sciences (Doyen—O. Petit); Méd. (E. Meyer), Droit (F. Gény); Lettres (P. Souriau); Pharmacie (L. Brunz); Inst. Sérothérap; Inst. Dent., Inst Chim., Electrotech. et de Méc app, Métall. et Minier, Agr., Colonial, Géol app., de Brasserie et de Malterie, de Laiterie; Inst. Commercial; Diplôme d'Ingénieur de l'Univ. Special courses for foreigners. Bureau des Renseignements de l'Univ., 15 place Carnot.

PARIS

Recteur: P. Appell *Facultes*: Lettres (Doyen—F. Brunot); Sciences (M. Molliard); Droit (F. Larnaude); Méd. (H. Roger); Pharmacie (H. Gautier). École Normale Sup.; Inst. de Méd. coloniale, de Méd. légale, de Puériculture, de Chimie app., aérotechnique; Inst. de Pédag. and numerous other Institutes in the Faculty of Letters. Special courses for foreigners are provided by the Faculties of Law and of Letters, and there is under the direction of the Faculty of Letters a School for the preparation of professors of French in foreign countries. The special courses are conducted in vacations as well as during the "année scolaire." No diploma is necessary for admission. Fee for

4 months' course in Faculty of Letters, 300 fr.; partial course (3 hours a week), 75 fr.; Law, 150 fr. Accounts of the numerous official and other Institutions of higher learning in Paris, of the Libraries, Laboratories, Museums, etc., and of the Associations organized for the benefit of students are included in the *Livret de l'Étudiant*, issued by the Bureau des Renseignements at the Sorbonne.

POITIERS

Recteur: L. Pineau. *Facultes*: Droit (Doyen—G. Barilleau); Sciences (J Welsch); Lettres (P. Boissonnade) École prép de Méd. et Phm.; Lab. d'analyses agr.; special practical courses, open to candidates without diploma, in Commerce, Industrial Electricity, Industrial Chemistry, and Agr. Special courses for foreigners Tuesday and Friday evenings. Special Certif. d'études littéraires for foreigners (examn. fee, 20 fr.) Vacation courses at Tours, July 1 to Sept. 30. Comité de Patronage assists foreigners in arranging for board and lodging; Secy —M. Castelain, Prof. of Engl Lit, 18 place de la Liberté Illustrated booklet in French and English.

RENNES

Recteur: H. Gérard-Varet. *Facultes*: Droit (Doyen—M. Turgeon); Sciences (G. Moreau); Lettres (G. Dottin). École de plein exercice de Méd et Phm Special French courses (French Phonetics, French Lit. and Hist) for foreigners during terms and, at St. Malo, vacation courses Facilities for research in Celtic. Inquiries may be addressed to Information Bureau of the Faculté des Lettres. At Rennes is an École Nat. d'Agr

STRASBOURG

Recteur: S. Charléty. *Facultes*: Théol. Cath. (Doyen—Abbé Lang); Théol. Prot. (Ehrhard); Droit (Beudant); Méd. (G. Weiss); Sciences (Bataillon); Lettres (Pfister); Pharmacie (Jadin). Observatoire; Inst. de Chimie et de Physique; Centre d'études médiévales; Inst. commercial d'enseignement sup. Special courses of the Inst. d'études françaises modernes, Nov. 1 to Feb. 28 and March 1 to June 30. Vacation courses in French and in German, beginning July 1. Special facilities for research in Physics and Maths., Bact., Civ. Law, Comparative Lit., Mediæval Studies, etc. Inquiries may be addressed to Bureau de Renseignements pour les étudiants étrangers at the Univ. Special Club for British students at 2 rue Geiler.

TOULOUSE

Recteur: J. Cavalier. *Facultes*: Droit (Doyen—M. Hauriou); Méd. et Phm. (E. Abelous); Sciences (P. Sabatier); Lettres (H. Guy).

Inst. de Chimie, Electrotech. et de Méc. app., Agr., d'études méridionales; Observatoire; Stations d'Hydrobiologie et de Pisciculture, Agron., d'essais de semences et de path. végétale, Hydrol.; Union of French and Spanish students of the French Inst. of Madrid; Inst. Normal d'études françaises provides intensive instruction in two 6 months' terms beginning Oct. 1 and March 1, leading to Diplôme de professeur de français; after one term only a certif. is given; fee for tuition 225 fr. per term, examn. 100 fr. (for certif examn. 40 fr), similar instruction and diploma in Spanish. Facilities for research in Prehistoric Archæology and Spanish Lang. and Lit At Toulouse is also an École Nat de Méd Vét. Vacation courses at Bagnères-de-Bigorre, Hautes Pyrénées, in July, Aug, Sept., including French for foreigners and Spanish for French and others The Inst. Français organizes each year in important towns in Spain series of conferences attended by distinguished French professors of various branches of Science Board and lodging for women obtainable at 190 fr a month at the Maison des Étudiantes. Bureau des Renseignements, 4 rue de l'Université.

GREECE

ATHENS: NATIONAL UNIVERSITY

Directors of Faculties: Theol - C. Androutsos, Law—M. Libadas, Med.—S. Libieratos, Philos.—N. Exarchopoulos, Physico-Math. Sciences - N. I Chatzidakis

There are also at Athens a Polytechnikon (with Schools of Engineering, Archit. and Indust Chem), and American, Austrian, British, French, German and Italian Schools of Hellenic studies and Archæology.

HOLLAND

For full information regarding the Netherlands Univs. students are recommended to apply to the Office of the Netherlands Committee for international academic relations, temp. address, 33 Wasstraat, Leyden This Committee was established in 1921 with a view to promoting the study of foreigners in the Netherlands and *vice versa* and to strengthening the relations between Dutch and foreign Univs. A guide-book in English, containing full particulars, will be published by it in the course of 1922. The Committee's Secretary has kindly supplied the Universities Bureau with the following summary.

The Netherlands Univs.—by which term are also denoted here the so-called " Hoogescholen " or High Schools, which are on equal footing with the ordinary Univs.—are governed by a Board of Curators, which forms an intermediate body between the Univs. and the Government, the Municipality, or the Private Corporation by which they are con-

trolled. Internal matters are regulated by the Academical Senates, consisting of the entire body of professors and presided over for annual terms by one of them, called Rector Magnificus. Owing to their relatively modern origin, the Dutch Univs have never possessed the college system. The teaching staffs, though quite adequate, are not so extensive as in some other countries, since the system of private lecturers is not very much developed The equipment in the way of laboratories and other means of research is generally excellent, and the attendance at the Dutch Univs. being comparatively small, they provide excellent opportunities to students for research and post-graduate work under the direct supervision of the professors

The ordinary courses of lectures are open to everybody at an annual fee of 200 guilders Persons not entering for examns are allowed to follow one or two single courses at a fee of 30 guilders each

Admission to examns is granted—as far as British students are concerned—to holders of one of the following certificates, which have been specially recognized. Bachelor, Master or Doctor in the Faculty of Arts of any Univ. of the U K or Laval, Montreal, Toronto, Victoria (Toronto), Adelaide, Melbourne, Sydney, N Z, Cape Town, Allahabad, Bombay, Calcutta, Madras, Punjab Other exemptions may be granted on application in individual cases by the Minister concerned on advice of a Faculty and the Senate

The so-called Academical Statute of 1921 has fundamentally altered the studies at the Univs proper and leaves the students considerable liberty in the choice of their subjects Full particulars will be found in the guide-book mentioned above The degree of Doctor is acquired after having passed the doctorate examn by writing and defending a dissertation accompanied by at least 6 theses. Other languages than Dutch are allowed. Exemption from one or more of the Univ examns. may be granted to individual foreigners in possession of diplomas or degrees by the Minister concerned on the advice of a Faculty and the Senate, as above.

Division of the Academical year in semesters or terms is unknown in Holland. The Academical year begins about Sept 20 and lasts until about July 10.

The cost of living, everything included, may at present be estimated at about £200. For further particulars concerning lodgings, etc., apply to the Netherlands Students' Organization Bureau, 15 P. K. Choorsteeg, Leyden.

AMSTERDAM: MUNICIPAL UNIVERSITY

Rector Magnificus: Prof dr. J. K A Wertheim Salomonson. *Secy. of Senate*: Prof. J. H. Scholte. *Deans of the Faculties*: Theol—Prof. dr. H. A. van Bakel; Law—Prof dr P. Scholten; Med.—Prof. dr. P. Ruitinga; Maths. and Physics—Prof. dr. A. F. Holleman; Philology and Philos—Prof. dr. J Elhorst. *Foreign Correspt.*: *Prof. dr. Ph. Kohnstamm.

Note.—A Commercial Faculty will be opened in 1922.

AMSTERDAM: FREE UNIVERSITY

Rector Magnificus: Prof dr A Anema *Secy of Senate*: Prof. dr. F. W. Grosheide. *Deans of the Faculties*: Theol.—Prof dr. F. W. Grosheide, Law—Prof. dr. P. A. Diepenhorst, Philology and Philos.—Prof. dr A Goslinga *Foreign Correspt.*: *Prof dr. R H Woltjer.

DELFT: TECHNICAL UNIVERSITY

Rector Magnificus: Prof J A G van der Steur *Secy of Senate*: Prof. L A. van Royen. *Presidents of the Sections*: Universal Science—Prof dr. L H Siertsema, Hydraulics and Road Constn—Prof. H. J Heuvelink, Archit.—Prof T K L Sluyterman, Mechanics and Naval Archit.—Prof G Brouwer, Electrotechnics—Prof C. L. van der Bilt, Chemical Technology—Prof P D C Kley, Mining—Prof dr. H. A Brouwer. *Foreign Correspt.*: *Prof C Feldmann, Vice-President of the Committee.

GRONINGEN. STATE UNIVERSITY

Rector Magnificus. Prof. dr F M Jaeger. *Secy of Senate*: Prof. dr. I. B. Cohen *Deans of the Faculties*. Theol.—Prof. dr J. de Zwaen; Law—Prof. dr H. van Goudoever, Med—Prof dr E D. Wiersma, Maths. and Physics—Prof. dr F. M Jaeger *Foreign Correspt.*: *Prof. dr. J F. van Bemmelen

LEYDEN: STATE UNIVERSITY

Rector Magnificus: Prof dr. C Snouck Hurgronje *Secy. of Senate*. Prof. dr. J. P Kuenen *Deans of the Faculties*: Theol.—Prof dr. H. Windisch, Law—Prof E. M. Meyers, Med—Prof. dr. P. Th L. Kan; Maths. and Physics Prof dr. L van Itallie; Philology and Philos.—Prof. dr G. Kalff *Prof dr J Huizinga, Chairman of the Committee for International Academic Relations. *J J L. Duyvendak, Secy. *pro tem* of the Committee

ROTTERDAM: NETHERLANDS UNIVERSITY FOR COMMERCE

Rector Magnificus: Prof. dr. F. de Vries. *Secy. of Senate*: Prof. dr. H. R. Ribbius. *Foreign Correspt.*: *Prof. dr. G. W. J. Bruins.

UTRECHT: STATE UNIVERSITY

Rector Magnificus: Prof. dr J. A. C. van Leeuwen. *Secy. of Senate*: Prof. dr. J. F. Niermeyer. *Deans of the Faculties*: Theol.—Prof. dr. A. Noordtzy; Law—Prof. dr. C. W. Star Busmann; Med.—Prof. dr. H. Snellen; Maths. and Physics—Prof. dr. N. Schoorl; Philology and Philos.—Prof. dr. W. Vogelsang. *Foreign Correspt.*: *Prof. dr. H. Zwaardemaker.

UTRECHT: UNIVERSITY FOR VETERINARY SCIENCE

Rector Magnificus: *Prof. dr. H. M. Kroon. *Secy. of Senate*: Prof. dr. H. Jacob.

WAGENINGEN: UNIVERSITY FOR AGRICULTURE

Rector Magnificus: Prof dr. N. J. van Uven. *Secy. of Senate*: Prof. A. te Wechel. *Foreign Correspt*. *Prof. dr. J. C. Kielstra. Departments of Study: Agriculture, Colonial Agr., Horticulture, Forestry, Colonial Forestry.

(The professors whose names are starred,* being members of the Committee for international academic relations, are prepared to supply applicants with information concerning studies in the Netherlands.)

ITALY

ROYAL UNIVERSITIES: Bologna, Genoa, Macerata, Modena, Naples, Padua, Parma, Pavia, Pisa, Rome, Siena, Turin; in Sicily—Catania, Messina, Palermo, in Sardinia—Cagliari, Sassari.

FREE UNIVERSITIES: Camerino, Ferrara, Perugia, Urbino.

OTHER INSTITUTIONS OF UNIVERSITY GRADE under the Ministry of Public Instruction: Institute of Higher Studies at Florence, Academy and Clinics at Milan; Polytechnics at Milan and Turin; Higher Veterinary Schools at Milan, Turin, Naples; Naval School in Genoa. Higher Commercial Schools under the Ministry of Industry, Commerce and Labour at Turin, Genoa, Milan, Venice, Rome, Bari.

For full information regarding Italian Universities the *Annuario degli Istituti Scientifici Italiani* (Athenæum, Rome) may be consulted. As in France, the Universities are under State control, which is exercised through a Directorate-general for Higher Education, a department of the Ministry of Public Instruction. It is by the State that the Professors are in most cases appointed, and the degree courses are prescribed. It follows that the standards and legal values of the degrees are uniform throughout the country, including even the "free" Universities (which are supported by local or provincial bodies instead of by the State). The University system is articulated to a Secondary School course of 8 years (5 in the Ginnasio and 3 in the Liceo), culminating in a "Licenza Liceale" obtained normally at the age of 18.

STAFF. The chief administrative officer in each University is the *Rettore*, who is appointed annually by selection from a list of 3 Professors submitted by an Assembly of all the Professors. At the head of each Faculty or School is a *Preside* or *Direttore* respectively. The instructional Staff consists of Professori (about 1200 in all—excluding the

Free Universities) who receive fixed salaries, Dottori Aggregati (supernumerary professors) and Liberi Docenti (licensed teachers).

ORGANIZATION OF STUDIES The ordinary faculties are: Law; Medicine and Surgery; Physical, Mathematical and Natural Sciences, Letters and Philosophy. In these four faculties the only degree (laurea) is that of Dottore The degree course covers 4 (in Medicine 6) years. In Engineering a 5 years' course leads to the degree of Ingegnere or Architetto Attendance at lectures (which are freely open to the public) is optional, and intermediate examinations are not held, the sole conditions for qualifying for degrees being registration, payment of fees, and passing the examn. (esame speciale) at the end of each course and the esame di laurea or general examn, at which a dissertation is presented and publicly discussed and theses are orally defended.

In the Faculty of *Letters and Philosophy* candidates for degrees take 12 courses The following are compulsory subjects for the degree in (1) Letters or (2) Philosophy respectively: (1) Italian, Latin and Greek Literatures, History of Philosophy or Theoretic Philosophy; (2) Theoretic Philosophy, Pedagogy, Moral Philosophy, History of Philosophy, Experimental Psychology, Italian and Latin Literatures, either Greek or some Modern Literature or Ancient or Modern History.

In the Faculty of *Physical, Mathematical and Natural Sciences* the doctorate may be taken in Mathematics or Physics or Chemistry or Natural Sciences. A scheme has been prepared for mixed degrees in Physical Science and Maths, and in Physical Science and Nat. Sc, intended for teachers who are required to instruct in a group of scientific subjects.

In *Medicine* the instruction is of an eminently practical character *Dentistry* is taught as a branch of Medicine, and there is in connexion with each Medical Faculty a School of *Pharmacy* which confers after a 4 years' course a diploma giving the right to practise the profession of Pharmacy, and after a 5 years' course the degree of Doctor of Chemistry and Pharmacy.

For the degree of *Engineering* or *Architecture* the first 2 years, devoted chiefly to Mathematics, Chemistry, Elementary Architecture, and Ornamental Design, may be taken in any Univ., and the 3 subsequent years in the Polytechnic at Turin, the Higher Technical Institute at Milan, the Engineering School at Padua, or the Naval School at Genoa. Post-graduate courses leading to a special diploma are provided in Turin and Milan.

The *Veterinary* School course covers 4 years and leads to the degree of Dottore in Zooiatria.

ADMISSION OF FOREIGNERS. Foreigners who have completed the entrance requirements of an approved Univ. in their own country may enter the Italian Univs., and those who have already completed one or more years of study in their own Univs. may be given advanced standing, even to the extent of being allowed, if their studies have already included courses equivalent to those prescribed for an Italian degree, to present themselves forthwith for the final examn. without taking any further courses. Except in very exceptional cases, however, a

candidate who has not completed at least a year's work in the Italian Univ. is not likely to succeed in passing the examn It is important that foreigners should bring with them properly authenticated academic records and birth certificate countersigned by an Italian consul. The matriculation fee is 75 lire, and the annual tuition fee from 125 to 220 lire Foreigners may without matriculation register as "uditori," and may obtain certificates of attendance at courses and of passing examns.

SPECIAL NON-PROFESSIONAL DEGREES (laurea speciali rilasciate a titolo di particulare cultura scientifica). These were instituted in 1917 specifically for foreigners, but are also open to Italians Like the regular professional degrees they imply 4 years of study and at least 12 courses, but the student is allowed more freedom in his selection of courses and they confer no right to practise a profession A graduate, whether of an Italian or of an approved foreign Univ., need not spend more than one year in residence The degrees are conferred only by the Royal Univs.

RESIDENCE The Universities do not provide or undertake any responsibility in regard to lodgings Living expenses are in general lower than in England, especially in Naples, Bologna, Florence and most of the smaller cities.

TEACHING POSTS IN SCHOOLS Candidates for posts as teachers of modern foreign languages in Secondary Schools are required to pass written and oral tests in Italian and in the foreign language, and to give a demonstration lecture. These examns , which are rather severe, are open to foreigners who can produce satisfactory evidence of having had a good general education

The SERENA FOUNDATION, 1,000,000 lire, for the encouragement of the higher study of English at Italian Univs , is administered by a Committee of the British Italian League The income is to be divided between the Università Bocconi of Milan and the British Institute of Florence.

BOLOGNA

R. UNIVERSITÀ. *Rettore* . V. Puntoni. *Faculties* : Law, Preside—G. Brini ; Med.—A Poggi ; Science—G. Capellini ; Philos. and Letters—T B Supino. Number of students in the several Faculties : 376, 740, 548, 282 , in the graduate school for teachers, 934 ; School of Pharmacy, 146 ; Vet Med., 233 , Agric , 393. The Univ. Institutes are numerous and well equipped. Among them is one for the study of criminology and police methods. Annexed to the Univ. is an Engineering School with 285 students.

R. ISTITUTO DI BELLE ARTI. 70 students. Archit., Sculp., Geom.

GENOVA (GENOA)

R. UNIVERSITÀ. Number of students in Law, 790 ; Med., 340 ; Science, 520 ; Philos. and Letters, 140. Numerous special schools

and Institutes The Botanic Garden has recently acquired the Bicknel herbarium of Bordighera.

Among other Institutions for Higher Educn in Genoa are: R Sc. Sup Navale, R Ist Sup. di Studi Commerciali (600 students), Accademia di Belle Arti (3 years and higher courses, 340 students).

NAPOLI (Naples)

R Università. Number of students in Law, 2299; Med, 2350; Philos, 666, Science, 3282; in Normal School, 690, Pharmacy, 491. Notable Botanic Gardens, Astron Observatory, Vesuvian Observatory, Zoological Station with Museum, Aquarium, and Laboratories providing unequalled facilities for study of Marine Biology

R Sc. Sup Politecnica. 1000 students. Provision for specializing in Civil, Industrial (Chem or Electro-mech) and Naval Engineering

R Sc. Sup. di Med Vet. 72 students

R Istituto Orientale Sections Languages, Colonial Culture; Experimental Station of Hygiene and Colonial Biology

PADOVA (Padua)

R Università *Rettore*: L Lucatello. *Faculties*. Law, Preside—A Arcangeli, 488 students, Med—E. Belmondo, 599, Science—E. Soler, 499, Philos and Letters—V Lazzarini, 187 School of Pharmacy, Direttore P Spica, 188 students Annexed to the Univ is an Engineering School (Direttore—F Lori, 2349 students), where students may specialize in Hydraulics (4 Special Laboratories), Drainage, Chemical E, Electrical E.

The courses (Nov—June) in Italian and Romance Literatures, History of Italian Law, Polit Econ, Statistics, etc, are arranged so that each term's work is a self-contained unit and they can be taken with profit for a single year. Facilities for research in History of Fine Arts, Slavonic Langs and Lit, Hydraulics Exemption from fees allowed to students obtaining high percentage of marks A *Mensa Universitaria* provides good meals at low prices for Profs and students.

PAVIA

R Università. Number of students in Law, 450; Med., 499; Science, 197, Philos and Letters, 86 Schools of Pharmacy and Indust. Chem.

PISA

R. Università. Number of students in Law, 271, Med, 257; Science, 444; Philos. and Letters, 186, in Engineering School, 200; Agric., 133, Vet. Med, 22; Pharm., 21 Notable Institute of Experimental Physics and Meteorology Connected with the Univ. is a Higher Normal School for Teachers for Secondary Schools.

ROMA

R. UNIVERSITÀ. Number of students in Law (with School of Applied Criminology), 1330, Medicine (with School of Pharmacy), 1151; Science (with School for Teachers, Math. Seminar, special course of Sciences as applied to Agr.), 1268; Philos. and Letters (with School for Teachers, Schools of Archæology and of Oriental Studies, advanced courses in Art, Philology, and Pedagogy), 534; Higher Normal School, 505.

OTHER STATE INSTITUTIONS School of Engineering with 700 students; Institutes of Commercial Studies, Fine Arts and Women Teachers

PONTIFICIA UNIVERSITÀ GREGORIANA. *Rettore*: P. Calcagno Francesco. Faculties of Philos., Theol., and Canon Law. Courses for the Doctorate—3 yrs. in Philos. or Canon Law, 4 yrs in Theol.—provided for candidates for the ministry of the Church.

OTHER PAPAL INSTITUTIONS OF HIGHER EDUCATION: Seminario Romano, Collegio Internaz. "Angelico" dei P. P. Domenicani (confers academic degrees in Philos., Theol. and Canon Law), Collegio Urbano di "Propaganda Fide," Istituto Orientale (founded 1918, providing 2-year courses for missionaries to the East), Istituto Biblico (for Biblical Exegesis, etc.), Scuola Sup. di Musica Sacra.

Many FOREIGN SCHOOLS of Art, Archæology, etc., are maintained at Rome. Among these are the British School in the Valle Giulia and the English Academy of Fine Arts, Via Margutta, 53 B

The ISTITUTO INTERNAZIONALE D' AGRICOLTURA, founded at an international convention in 1905, has an annual budget of L. 1,250,000, including a royal grant of L. 300,000, the remainder being furnished by the 55 States represented on the Permanent Commission. It has a Library of 70,000 vols., and issues monthly bulletins and other publications in English, French and Spanish as well as Italian.

TORINO (TURIN)

REGIA UNIVERSITÀ. *Rettore*: G. Parona. *Facultìes*: Law, Preside—G. Pacchioni; Med.—P. Giacosa; Philos. and Letters—L. Valmaggi; Science—C. Somigliana. Number of students in the several faculties, 770, 643, 273, 302, School of Pharmacy, Preside—O. Matterolo. Numerous Institutes and special schools; those attached to the Faculty of Med., 22 in number, include the Laboratory and Museum of Legal Med. and Anthropology, founded by Lombroso in 1876.

The courses are annual from Oct. 15 to June 15 Of special interest to British students is the course of Comparative English-Italian Law of Prof. M. Sarfatti; peculiar facilities are available in the Univ. Library for research in this subject.

"La lega Italo-britannica" (Pres avv. Armissoglio, 18 Piazza Statuto, Torino), in correspondence with the British-Italian League of London, is prepared to answer inquiries by British students and help them in finding lodgings, etc.

Among other Institutions for Higher Education in Turin are: R. POLITECNICO. President—B. Boselli, number of students about 2000; complete 5 yrs.' courses in Civil and Indust. Engineering, Archit., Electro-technics, Electro-chemistry, and Industrial Art. R. SCUOLA SUP. DI MED. VET.; R. ISTITUTO SUP. DI ST. COMMERCIALI (400 students); R. ACCADEMIA ALBERTINA (Painting, Sculpt., Archit.).

CATANIA

R. UNIVERSITÀ. Number of students in Law, 559; Med., 431; Science, 345; Philos and Letters, 290, School of Pharmacy, 63, Normal School, 170 Observatory of Astrophysic and Volcanic phenomena

PALERMO

R UNIVERSITÀ. Number of students in Law, 927; Med, 643; Science, 617; Philos and Letters, 417, School of Pharmacy, 46; Normal School, 250 Annexed is an Engineering School with 120 students There are also State Institutes of Fine Arts and Music.

FIRENZE (FLORENCE)

R ISTITUTO DI STUDI SUP PRATICI E DI PERFEZIONAMENTO. Number of students of Philos. and Philol., 169; Med., 237; Science, 144; Pharmacy, 14; in Graduate School for Teachers, 250. The Doctorate is conferred in Letters, Philos, Nat. Sc, Chem, Med., Pharmacy.

At Florence are also an Inst. of Social Science providing training for government offices and public life, Training School for Women Teachers, Schools of Fine Arts, Music, Forestry, Colonial Agric; also a British School for promoting intellectual relations between the two nations and preparing teachers of English for Italian Schools, and a French Institute founded by the Univ. of Grenoble for similar purposes.

MILANO

CONSORZIO DEGLI ISTITUTI D' ISTRUZIONE SUPERIORE. The Council of this body, created in 1875 (Address—Piazza Cavour, 4), includes representatives of the following (except 2, 7, 8), and the Royal Observatory, Royal Numismatic Collection, etc.

1. *R. Istituto-Tecnico Superiore.* Direttore—G. Colombo. About 1800 students. Among the subjects provided for in special Schools and Labs. are Paper manuf., Textiles, Oils and Fats.

2. *R. Accademia Scientifico-litteraria.* Equivalent to a Univ. Faculty. Number of students of Philos., 199, Modern Langs., 56; Pedagogy, 616.

3. *RR Istituti Clinici di perfezionamento* for advanced study and research, open only to Medical graduates. The Dental School is of very high standard The Clinic for Occupational Diseases has served as a model for other countries.

4. *R. Sc Sup di Med. Vet*, 55 students

5. *R. Sc Sup. di Agricoltura*, 286 students

6. *R. Accademia di Belle Arti*, about 40 profs

7 *R. Conservatorio di Musica*, about 30 profs

8. *Università Commerciale Luigi Bocconi* (independent), about 25 Profs. Confers a degree of Doctor of Econ. and Com. Sc (4 yrs ' course). To receive half the income of the Serena Foundation (v *supra*)

VENEZIA

R Istituto di Belle Arti 15 Profs of Archt, Sculpt, Painting, Geom, etc.

R. Sc. Sup. di Commercio Confers a Doctorate. About 30 Profs. Courses include Civ. and Internat Law and Procedure, Arabic and Japanese as well as other Modern Langs, and usual subjects taught in Comml schools

NORWAY

The only Univ. is Det Kongelige Frederiks Universitet at Kristiania, where also is a Theological College. Other institutions of interest to students are the Geo-physical Inst., Bergen, and Biological Inst., Drobak (July and Aug). Courses in Oceanography are given at Bergen. The Agric. College, Aas, and Technical High School, Trondhjem, are not at present available for foreign students Student Associations to which foreigners are admitted exist at Kristiania, Trondhjem, and Aas. Information regarding conditions of study in Norway can be obtained from Studie-oplysningskontoret, Universitetet, Kristiania.

KRISTIANIA

Rector: Prof. Fredk. Stang. *Treasr.*—J. Theiste. *Secy.*- H. C. Wölner. *Deans of Faculties*: Theol.—S. Michelet; Science -C. Störmer; Law—Fredk. Stang; Letters --Sten Konow; Med.—Kr. Brandt

The Faculty of Law offers a Prize of Kr. 5000, open to all, irrespective of nationality, for a paper to be submitted not later than Dec. 31, 1923 on the following subject: To what extent has Roman Law and Canon Law had an influence on Norwegian Law ?

ADMISSION AS AN UNDERGRADUATE. The Collegium (Rector and Deans of Faculties) can admit a foreigner who has passed an examn. corresponding to the " Artium " (the school final examn. for Norse students), which entitles him to admission into the Univs. of his own country, provided that he produces good references as to character.

EXEMPTION FROM UNIVERSITY PREPARATORY EXAMNS., in consideration of having passed corresponding examns. in a foreign country, may be granted by the King on the recommendation of the Collegium.

RESIDENCE There is some provision for boarding students in the colleges Cost of board and lodging, 200 to 250 kroner a month. The Akademsk Dyrtidskontor is prepared to assist applicants in procuring rooms

POLAND

[The Bureau is indebted to the courtesy of the Polish Legation for the following article]

The rules relating to Polish Universities were laid down in the law of July 13, 1920. Students, whether Polish or foreign, are ordinarily admitted on a certificate of maturity received in any of the Government schools for general education or any other certificate considered by the Ministry of Education to be equivalent. The course for a degree covers 4 years, except for a medical degree for which it is 16 terms (trimestres). The degrees are (1) in Univs.—magister and doctor; (2) in Politechnical schools—engineer and doctor Fees per annum 2000 marks. In addition there are payments for the use of laboratories, libraries, etc. Below is a list of all the Univs. of Poland.

UNIVERSITY OF CRACOW, founded in 1364, reorganized in 1400. Sections: Theol., Philos., Law and Administration, Med , with Pharm. subsection.

UNIVERSITY OF LWOW, founded in 1661, reorganized in 1816. Sections: Theol., Law and Polit Sc., Philos., Med., with Pharm. subsection.

UNIVERSITY OF WARSAW, founded in 1816, reorganized in 1915. Sections: Theol. (Cath. and Prot), Law and Polit. Sc., Philos., Med., with Pharm. and Vet subsections.

UNIVERSITY OF VILNA, founded in 1576, renewed in 1919. Sections: Theol., Law and Social Sc., Classics, Maths. and Natural Sc., Fine Arts, Med., with Pharm. subsection.

UNIVERSITY OF POSEN: Sections: Theol. (being organized at present), Law, Econ. and Polit. Sc., Philos., Med., with Pharm. subsection, Agric. and Forestry.

UNIVERSITY OF LUBLIN, founded by a Polish financier, C. Javozrynshi, immediately after the war.

Other institutions of University grade :

POLYTECHNIC COLLEGE IN LWOW, founded in 1877. Sections : Communications (roads, waterways, etc), Architecture (construction, arts), Mechanics (machinery, electro-technics), Chemistry.

POLYTECHNICAL COLLEGE IN WARSAW Sections : Constructive engineering, Water engineering, Construction of machinery, Electro-technics, Chemistry, Architecture

VETERINARY COLLEGE IN LWOW, founded 1881.

CHIEF AGRICULTURAL COLLEGE IN WARSAW. Sections : Agric., Forestry, Gardening

MINING ACADEMY IN CRACOW.

ACADEMY OF FINE ARTS IN CRACOW; PEDAGOGICAL INSTITUTE IN WARSAW (now being organized).

Two higher schools for ECONOMICS in Warsaw and Cracow.

ROUMANIA

There are Universities at Jassy, Bucharest, Cluj, and Cernăuti. A Handbook on opportunities for foreign students in Roumania is now in course of preparation by C Muresanu, B A , LL B. (of the Roumanian Legation, 4 Cromwell Place, London, S W 7), to whom students proposing to visit that country may, in the meanwhile, apply for particulars regarding the Univs. Among the subjects in which special facilities for advanced study and research are to be found in Roumania are Biology (Cluj), Romance Philology (Bucharest and Jassy), Byzantinology (Bucharest), Central European and Balkanic History (Bucharest – Institute of S. European and Balkanic Studies). *Summer courses*, to which foreign students are admitted, are provided at Valenü de Munte near Ploesti (centre of the Petrol industry—one hour by rail from Bucharest). Director of the School—Neculai Jorga, Prof. of History at Bucharest. Most of the profs are able to converse in French and German, and the Roumanian language presents no great difficulties to English students acquainted with Latin. English has been made a compulsory subject in the Lycées. In the summer of 1921 Prof. Craigie was invited by the Roumanian Govt. to organize a pioneer summer school for English in Transylvania

KINGDOM OF THE SERBS, CROATS, AND SLOVENES

UNIVERSITY OF BELGRADE. *Rektor* : S. Jovanović. *Faculties* : Sciences—Dean N. Vulić ; Law—C. Mitrović ; Technology—S. Marković ; Med.—M. Jovanović Batut ; Agric.—P. Djordjević ; Theol.—S. Dimitrijević. Over 100 profs. and 7000 undergraduates. The Faculties of Med., Agr., and Theol. are at present small.

UNIV. OF ZAGREB (Agram), with over 100 profs and 3000 students. Faculties of Theol., of Law, of Philos, Sciences and Letters, and of Agronomy and Forest Economy

ZAGREB POLYTECHNIC; ZAGREB TRAINING COLLEGE for Teachers; ZAGREB SCHOOL OF VET. MED

UNIV. OF LJUBLJANA (Laibach), with 70 profs. and 800 students

Faculty of Law in SUBOTICA, 10 profs and 100 students.

Faculty of Arts in SKOPLJE, 10 profs. and 40 students.

SPAIN

Universities at Madrid, Barcelona, Granada, Murcia, Oviedo, Salamanca, Santiago, Seville, Valencia, Valladolid, Zaragoza. Madrid has also Schools of Fine Art, of Agronomic, Civil, Mining, and Forest Engineering; Madrid and Barcelona have Schools of Industrial Engineering and of Architecture; Barcelona, a School of Agriculture (advanced); Cadiz, a Faculty of Medicine; and Madrid, Cordoba, Leon, Santiago, and Zaragoza, Veterinary Schools.

MADRID: UNIVERSIDAD CENTRAL

Rector: Exmo. Sr Don José Rodriguez Carracido. *Vice-Rector*: Ilmo Sr Don Rafael de Ureña y Smenjaud, General Secretary: Don Fr de Castro y Pascual *Deans of Faculties*: Filosofia y Letras—Ilmo Sr. Don Adolfo Bonilla y San Martin; Ciencias—Ilmo Sr. Don L. O. de Toledo y Zulueta; Derecho—Ilmo Sr Don R de Ureña y Smenjaud, Med—Exmo Sr Don S. Recasens y Girol; Farmacia—Exmo Sr Don José Casares Gil

The ordinary qualification for admission is the "Bachiller"-ship. (marking the completion of a course of secondary education; similar to the French Baccalauréat) or its equivalent. The official course for the Doctorate covers one year.

VACATION COURSES FOR FOREIGNERS in Madrid are organized by the Centro de Estudios Históricos (Almagro, 26), an institution created by the Junta para Ampliación de Estudios e Investigaciones Cientificas. In 1922 (the 11th yr.) the course will cover about 6 weeks in July and Aug., the lectures of the first 4 weeks being devoted to Spanish Lang., Phonetics, and Lit., those of the last 2 weeks to Spanish Art, History, Geog., Pedagogy, and Contemporary Politics. Special courses (also in July-Aug.) for advanced students in Phonetics, History of Drama, and Contemporary Spanish Literature. Registration for entire course, 150 pesetas. Board and lodging in Hostel (the Residencia de Estudiantes, built by the Junta for students and equipped with bath-rooms, library, playing-fields, etc.) costs from 12 to 15 pesetas a day. A number of Spanish instructors and students live in the Hostel.

A course for foreigners in Spanish Language and Literature, the Literary Movement in Spanish America, Spanish Popular Music, and Commercial Spanish was to be held from Jan 16 to March 25, 1922

In 1921 the Special Board for Medieval and Modern Languages of the Univ. of Cambridge offered grants of from £10 to £25 for travel and study in Spain

The "Anglo-Spanish Society of Spanish-speaking Countries and the British Empire," 5 Cavendish Square, London, W 1, aims at promoting, among other objects, the foundation of Travelling Scholarships, interchange of teachers and students, facilities for British students in Spanish-speaking countries, etc. The Honorary Secretaries are prepared to answer inquiries by British students proposing to visit such countries.

SWEDEN

[The Bureau is indebted to the courtesy of the Swedish Legation and the Secretary of the Chancellor of the Universities of Sweden for the following article.]

The State Universities at Uppsala and Lund, a Medical "High School"—Karolinska medico kirurgiska institutet—at Stockholm, and the Stockholm and Goteborg "High Schools," founded on private donations, are all under the supervision of the *Chancellor of the Universities of Sweden* (C. Swartz, formerly prime minister), whose official address is Universitetskanslersexpeditionen at Stockholm. Secy. O. Croneborg.

There are also at Stockholm High Schools of Technology, of Forestry, and of Pharmacy, a College for Commercial studies (Handelshogskolan), a Veterinary College, Colleges for Music (at the Kungl. Musikkonservatorium), and for Fine Arts (at the Kungl. Konsthogskolan), and a Central Institute for Gymnastics; at Ultuna and at Alnarp are Agric. Colleges. Each of these institutions is governed by a special Board of Directors.

For ADMISSION to one of the State Univs. a foreigner should apply to a special Board of the Univ.—Consistorium Minus. If he is not already matriculated in Sweden he must prove that he is a student at a foreign State Univ., or obtain a Royal dispensation, application for which should be addressed to the King (Till Konungen) at the Ministry of Education (Ecklesiastik departementet) at Stockholm. For admission to the Karolinska institutet a foreigner should likewise apply to the same ministry: permission is usually granted if an examn. equivalent to the Swedish matriculation examn. has been passed, but sometimes a student is required to undergo a supplementary examn. for admission. Application for matriculation at Stockholms hogskola is made to a special committee (Rektorsnamnden) appointed by the Senate (Lagarradet). A certificate from one of the profs. to the effect that the student is sufficiently advanced in his studies to follow the courses with profit is required. A foreigner who has passed an examn. which entitles him to admission to a Univ. of his own country will

always obtain such a certif Good personal references must also be given At Goteborgs hogskola students who have not passed the Swedish matricn examn. may be matriculated on application to the Board—Styrelsen

EXAMINATIONS A foreigner wishing to pass an examn at any of these institutions should apply for Royal permission as described above Examns passed elsewhere are taken into consideration

FEES for matricn at Uppsala, 12 kr , Lund, 12 25 kr , Karolinska inst , 0 25 , Stockholms hogskola, 25 (science, 50) , Goteborgs, 10. For examn ordinarily 15 kr for each complete examn , at Stockholms hogskola, 25 Fees per term only at Stockholms hogskola: Science, 100 kr , Laws, 55 , Letters, 63 Various fees for many courses and lectures, and subscriptions to students' Assocns

STUDY AND RESEARCH WITHOUT MATRICULATION OR EXAMINATION. Public lectures are given at the Univs. and High Schools and permission to follow courses is ordinarily obtainable A foreign student can ordinarily obtain permission for special study or scientific research at the Karolinska inst if the places are not all required for Swedish students

UPPSALA

The Univ , established in 1477 under a Papal Bull, has faculties of Theol , Law, Med , and Philos , the last comprising (1) Letters, including History and Languages, etc , and (2) Science—Maths and Natural Sc

Rector Magnificus: Prof I. Stavenow *Deans of Faculties* Theol E Linderholm , Laws F Wetter , Med G Bergmark , Philos—B Hesselman (Letters), O Bergstrand (Science)

LUND

Founded 1666 *Rector Magnificus* Prof J C W Thyrén *Deans of Faculties* Theol H Holmquist , Laws the Rector , Med.—T. Thunberg , Philos E Lofstedt (Letters), S Mulbeck (Science).

STOCKHOLM

KAROLINSKA MEDIKO-KIRURGISKA INSTITUTET. An independent High School founded 1810. *Rector*: Prof. F. Lennmalm. Inspector of Dental School (Tandläkar institutet, founded 1898): Prof J. Akerman

HOGSKOLA. This Univ., active since 1878, includes faculties of Science, Laws, and Letters, the last being only for studies in Polit. Econ , Polit. Sc., History of Art, History of Literature, and History.

Rector: Prof. I. Bendixson *Deans* Science—I Fredholm; Laws N Alexanderson , Letters—O. Varenius

GÖTEBORG

HOGSKOLA. This Univ. began its work in 1891. It has a complete faculty of Letters *Rector*: Prof. O. Sylwan.

SWITZERLAND

[For the following article the Bureau is indebted to the courtesy of the Swiss Legation and the Office Central, Interuniversitaire Suisse, rue de l'Hôpital 30, Berne.]

In the Cantons of the Swiss Confederation, as in the United States of America, Higher Education is legislated for by the constituent states (in the Swiss Confederation, the Cantons) severally, and the only Institution of University grade controlled by the Confederation is the "École polytechnique fédérale" at Zürich.

THE CANTONAL UNIVERSITIES

Although the Cantons are free to organize their Univs as they please, untrammelled by federal laws, there exists among them an understanding on the most important points so that it is possible to generalize to some extent in describing them It should nevertheless be borne in mind that such generalizations imply "no uniform prescription but merely coincidence of particular dispositions" For exact information it is necessary to refer to the regulations of the particular Univ in question

The following list gives (*a*) the number of professors, (*b*) the number of regular students, (*c*) the language of instruction of each of the Univs.:

BÂLE: (*a*) 140, (*b*) 1000, (*c*) German.
BERNE: (*a*) 170, (*b*) 1700; (*c*) German
FRIBOURG: (*a*) 70, (*b*) 500; (*c*) French and German.
GENEVA: (*a*) 170; (*b*) 900, (*c*) French
LAUSANNE: (*a*) 110, (*b*) 900, (*c*) French
NEUCHÂTEL: (*a*) 60, (*b*) 200, (*c*) French
ZURICH: (*a*) 100, (*b*) 1600; (*c*) German

FACULTIES. Theology, Law and Political Sciences, Medicine, Letters (philos, languages, history), Sciences (Maths. and Nat. Sc.). Berne and Zurich have also a faculty of Vet. Med.; Lausanne an Engineering School Fribourg and Neuchâtel have no Med. faculty.

The COURSES are organized by *semesters* The winter semester is from the middle of Oct. to the middle of March, the summer from the middle of April to the end of July. Immatriculation may be at the beginning of either semester and students choose freely the courses they wish to follow, the study plans published by the several faculties

being merely intended for the guidance of those who wish to adopt a normal curriculum.

DEGREES obtainable are the *Licence* and the Doctorate The former is not ordinarily conferred in the German-speaking Univs Almost all the faculties confer the Doctorate and there are numerous special examns which may be taken with a view to it, each carrying its special Diploma Candidates must prove that they have studied in a Univ. during a certain number of semesters, ordinarily 6, of which at least 2 have been passed in the Univ which is asked to confer the degree Graduation fees are from 300 to 400 fr , and, in addition, candidates are required to supply within a certain time after the examn. printed copies (generally 200) of their dissertation.

IMMATRICULATION Regular students (minimum age, 18) must present (*a*) A certificat de maturité of a recognized Swiss gymnasium or a similar foreign certificate entitling to admission to a foreign Univ. (Entrance examns are arranged for students whose certificates are insufficient), (*b*) certificate of character, (*c*) passport (or equivalent document). The admission fee varies from 10 to 62 fr. and there are sundry other initial charges, *e g* at Berne · library 5 fr , Sick Fund 10 fr , General Fund 2 fr

Certain courses are open to unmatriculated persons as " auditors," and admission to others may be obtained from the professors concerned, who in some cases require evidence of suitable preparation The fee for inscription as " auditor " is nominal (*e g* 1 fr.), but the student is required to pay instruction fees

INSTRUCTION FEES The system generally adopted is to levy a tax for the semester according to the number of hours per week assigned to the courses taken The rate per hour is ordinarily 5 fr , at Geneva and Zurich 6 fr A student who, *e g* at Bâle, takes an inscription for 20 hours a week would pay 100 fr At Fribourg each student pays a fixed sum, whatever the number of hours of his courses—winter 60 fr , summer 50 fr.

Special taxes (from about 10 to 50 fr) are levied for the use of laboratories, clinics, etc Sundry subscriptions, as for Sick Fund, General Fund, Library, etc , amount to from 5 to 25 fr.

SPECIAL INSTITUTIONS AND FACILITIES. *Sick Fund.* Students are required to insure against sickness expenses (hospital, or doctor and chemist). *Reading Rooms* are organized and administered, for the most part, by the students *Museums, Libraries*, and other collections in each University town are open to students *Theatres* generally admit students at reduced rates *Scholarships* are comparatively unimportant and are not open to foreigners, but *Prizes* open alike to Swiss and foreign students are offered in most faculties. The first prizes range from 500 to 1000 fr. The most important competition is the " Concours internationale de la Fondation Travers-Borgstroem " of Berne : subject, " La Nationalisation du crédit," first 2 prizes 25,000 fr. and 20,000 fr., closing date March 31, 1924.

LODGING Information obtainable from the Secretariat of the Univ , at Bâle and Zurich from the Comités d'Étudiants

STUDENT ORGANIZATIONS The Comités at Bâle and Zurich manage the reading-rooms, procure lodgings, purchase books, organize conferences, cheap meals and clubs, encourage sports and answer general inquiries The general body of students constitute the " Fédération Suisse des Étudiants " In each Univ exist numerous student societies, some characterized by the political opinions, social connexions, or religion of their members, others by a benevolent neutrality Notable among them are those devoted to sport

BALE. *Rektor*: A Simonius *Deans*: Theol —J. Heinzelmann , Law—C Wieland , Med —A Labhardt , Philos —F. Zinkernagel (Philol -Hist), and H Hassinger (Maths.-Nat Sc)

Holiday course for foreigners beginning about July 23, 1922, and lasting 5 weeks

BERNE. *Direktor des Unterrichtswesens des Kantons Bern* : Regierungsrat Leo Merz *Rektor der Universitat*. Prof Dr Paul Gruner. *Deans* · Evang -theol.—Dr Karl Marti , Kath -theol.—Dr. E Herzog , Law—Dr. N Reichesberg , Med Dr. G Sobernheim ; Vet -Med — Dr. Fr Schwendimann , Philos —Dr K Taberg and Dr J Tambor.

Travers-Borgstroem Foundation Under the patronage of the Univ. an *International Competition* has been organized for Prizes for an essay on " The Nationalization of Credit—a critical study of the organization of credit in a given country, and proposals for its nationalization " Prizes : 25,000 fr , 20,000 fr , 10,000 fr., and 15 of 3000 fr each Essays receivable up to March 31, 1924

FRIBOURG. *Recteur*: A Gockel *Deans*: Theol Cath — J. Gonzalez , Law—G. Garnel , Letters—A. Piccardt , Sciences—A. Bistrzycki.

GENEVÂ. *Recteur*: G Fulliquet *Doyens des Facultés* : Sciences— H Fehr , Let.—V. Martin , Sc Econ et Soc —H. Toendury , Droit— P. Moriaud ; Theol.—E Choisy , Méd.—H Crastiam Secrétaire de l'Université : A. Roussy. Séminaire de français moderne ; Inst. des Hautes Études Commerciales ; Inst Dentaire

Holiday courses for foreigners, July 15 to Sept 15, 1922, arranged in self-contained units of various duration Full information obtainable from Comité de Patronage at the Univ Booklet, *Geneva, an Educational Centre*, issued by the Assocn of the Interests of Geneva, 3 place des Bergues , also an excellent *Guide de l'Étudiant à Genève*, by A. Roussy, 1921–22 Board and Lodging in *pensions*, 175 to 300 fr. a month

Of special interest to foreigners are the Linnæan Gardens and Laboratory of Alpine Biology at Bourg-St-Pierre (Valais), open July 15 to Sept. 15, regarding which details may be obtained from Prof. R. Chodat at the Univ ; courses in Pedagogy at the Institut J. J. Rousseau (the 3rd International Congress of Moral Education will be held at Geneva, July 28 to Aug. 1, 1922, under the presidency of Sir Fredk Pollock). There are also exceptional facilities for research in Greek

Papyrology and Greco-Roman Institutions, the Calvinistic Reformation (special library of the Soc du Musée hist. de la Réforme), Industrial Economics. There are numerous Medical and Dental Laboratories, Clinics and Institutes Many valuable prizes are open to foreign as well as to Swiss students, in Literature, History, Science and Medicine.

LAUSANNE. *Recteur*: F Oliver. *Deans*. Theol Prot — A. Chavan; Law—P de Tourtoulon; Med —M Arthus; Letters—A Taverney, Sciences—A. Perrier Attached to the Faculty of Law are Schools of Social Sciences and Commerce. The Engineering School has about 25 profs

NEUCHÂTEL. *Recteur*. C Meckenstock. *Deans*: Letters – G Jequier; Science—A Berthoud, Law—A de Maday, Theol Prot. —P Humbert *Director of French Classes for Foreigners* (Séminaire de français): A. Dubied *Director of Commercial Classes*: P E Bonjour

Holiday courses for foreigners, July 17 to Aug 12, and Aug. 14 to Sept 9

ZURICH *Rector*: Prof. Dr jur. E Hafter. *Deans*: Theol –Dr J Hausheer, Law - Dr P Mutzner, Med - Dr W R Hess, Vet Sc. —Dr O Zietzschmann, Philos –Dr A. Wreschner; Sciences—Dr A. Ernst

L'ÉCOLE POLYTECHNIQUE FÉDÉRALE, ZÜRICH

This, the only establishment of higher education of the Confederation, comprises schools of Archit., Engin, Industrial Mechanics, Chem., Pharm., Sylvic., Agric, Rural Engin and Surveying, Normal Schools (Maths and Physics and Nat Sc.), Mily School, and a General Division (Cours Libres) with sections of (*a*) Philos. and Polit Sc., and (*b*) Maths. and Natural and Industrial Sc Number of profs 115, students 2100.

Instruction is given both in German and in French

The courses are organized by the academic year, and admission as a regular student is ordinarily possible only at the commencement of the year (Oct). The winter semester is from the middle of Oct. to the middle of March, the summer from the middle of April to the end of July. The programme of studies is obligatory for all regular students, and only those who pass the examns. held at the end of each semester may follow the higher degree courses. The various Schools hold preparatory and final diploma examns., and the Doctorate is as a rule conferred only on those who, having already received diplomas, present a thesis and undergo an oral examn

Immatriculation conditions are the same as in the Univs. Inscription should take place on or before Sept. 15, fee 10 fr. A limited number of "Auditeurs" are admitted

Instruction fees for foreigners, 600 fr. p.a. Other general fees come to about 25 fr. p a.

Special Institutions and facilities -as in the Univs; students are organized in an Assocn. des Étudiants (E P.F).

UNITED STATES OF AMERICA

The Univs. and degree-granting Colleges in the United States are so numerous and of so many diverse types that no attempt has been made to include any account of them. Ample facilities exist, however, for students desiring to inform themselves on the subject. In the United Kingdom reference may be made to the American University Union in Europe, British Division, 50 Russell Sq ; on the continent of Europe to the headquarters of the Union, 1 rue de Fleurus, Paris. In Rome there is an American Academy at Porta San Pancrazio 29. In Belgium the Fondation Universitaire which administers numerous scholarships tenable in American institutions of higher learning has its office at 74 rue de Namur, Bruxelles. In America reference may be made to the Secretary to the Board of Trustees of the American University Union, Prof. J. W. Cunliffe, Columbia Univ., New York City, or to the Institute of International Education, 419 West 117th St., New York A recent Australian view of American Univ. life and organization is given in *The American University* by E. R. Holme of the Univ. of Sydney (Angus and Robertson, Ltd., Sydney, 1920, 7s. 6d) The Bureau of Education of the United States Department of the Interior published in 1921 a Bulletin (No. 39 of 1920) on " Facilities for Foreign Students in American Colleges and Universities." This is obtainable from the Government Printing Office, Washington, D.C , at 15 cents a copy. The attractiveness of New York for foreign students will be greatly enhanced as a result of the donation by J. D. Rockefeller, junr., of funds for an International House as a residential centre for 500

American Degrees (non-professional) The following notes are based on a Report presented by a Committee of the American Council on Education to the French Ministry of Public Instruction : The American Colleges, both those which are independent institutions and the colleges of liberal arts within Universities, award the A.B. (or B.S) degree to students who complete a 4 years' course. Ordinarily the student at the time of admission to the college is about 18 years of age and has completed a 4 years' course in a secondary school. A considerable portion of his work at college belongs, however, to what in European countries is called secondary education. A peculiarity of the American system of grading, both in secondary and in higher institutions, is the weight attached to the length of time spent under instruction, a degree being attainable by gradual accumulation of a specified number of " credits " (certificates of definite periods of time spent successfully under instruction), which thus largely replace the examinations used in other countries for testing the student's capacity at various intervals. The college graduate who aspires to the degree of M.A. (or M.S.) proceeds to the Graduate School of a University (the professional schools of law, medicine, etc., with few exceptions, admit undergraduates), and there pursues his studies, either general or, if aiming at a subsequent doctorate, specialized, for one year. The Ph.D. requirements are ordinarily " 3 years of resident study, beyond the

baccalaureate, the presentation of a thesis embodying the results of original research, and the passing of a comprehensive examination testing the candidate's knowledge of his chosen field of learning."

The Report points out that higher education in the U.S A is largely autonomous, there being no control by the Federal Government and little control by the political authorities of any State Such standardization as has been effected has come through the voluntary efforts of groups of institutions having similar ideals and purposes. Conspicuous among these is the Association of American Universities. The Report recommends the admission to candidacy for the State Doctorate of any student holding the M A or M S degree of an institution belonging to the Assocn. of American Univs who has specialized in the branch of learning chosen for the work for the doctorate, and proved to the satisfaction of the head of his department and of the Dean of the Graduate School of his Univ. his capacity for research , also candidates for the Ph D. in one of those institutions who have completed 2 or more years of study for the Ph D., and proved their capacity for research ; also holders of a Ph D from one of those institutions. The institutions in question are starred (*) in the list given below In other cases it is suggested that reference should be made to the Committee, 818 Connecticut Avenue, Washington

Below is given a list of 137 institutions approved by the Association of American Univs. This list has been adopted by most of the Univs. of the U.K. for the purpose of admission of graduates with a view to qualifying for the Ph.D. degree (v. p. 15).

Allegheny College, Meadville, Pa. ; ‡Amherst College, Amherst, Mass. ; †Barnard College, New York, N.Y. ; Bates College, Lewiston, Me ; Beloit College, Beloit, Wis. ; Boston University, Boston, Mass. ; ‡Bowdoin College, Brunswick, Me ; ‡Brooklyn Polytechnic Institute, Brooklyn, N.Y. ; Brown University, Providence, R.I. ; Bryn Mawr College, Bryn Mawr, Pa. ; Carleton College, Northfield, Minn. ; ‡Case School of Applied Science, Cleveland, Ohio ; *Catholic University of America, Washington, D.C. ; ‡Central University of Kentucky, Danville, Ky ; Clark College, Worcester, Mass. ; ‡Clarkson School of Technology, Potsdam, N.Y. , *Clark University, Worcester, Mass ; Coe College, Cedar Rapids, Iowa , Colby College, Waterville, Me. , ‡Colgate University, Hamilton, N.Y. ; ‡ †College of the City of New York, New York, N.Y. ; †College of St. Catherine, St. Paul, Minn. ; § †College of St. Elizabeth, Convent Station, N.J. ; Colorado College, Colorado Springs, Colo. ; *Columbia University, New York, N.Y. ; Cornell College, Mt. Vernon, Iowa ; *Cornell University, Ithaca, N.Y. ; Dartmouth College, Hanover, N H ; De Pauw University, Greencastle, Ind. ; Dickinson College, Carlisle, Pa. ; Drake University, Des Moines, Iowa ; Drury College, Springfield, Mo. ; Earlham College, Richmond, Ind. ; §Elmira College, Elmira, N.Y. , ‡Fordham University, Fordham, N.Y. ; Franklin College, Franklin, Ind. ; Goucher College, Baltimore,

* Institutions starred are members of the Association of American Universities.

† Added at the meeting of the Association in November of 1917.

‡ For men only. § For women only.

Md.; Grinnell College, Grinnell, Iowa; ‡Hamilton College, Clinton, N.Y.; *Harvard University, Cambridge, Mass.; ‡Haverford College, Haverford, Pa.; Hobart College, Geneva, N.Y.; *Indiana University, Bloomington, Ind.; Iowa State College, Ames., Iowa; *Johns Hopkins University, Baltimore, Md.; ‡Kenyon College, Gambier, Ohio; Knox College, Galesburg, Ill.; ‡Lafayette College, Easton, Pa.; § †Lake Erie College, Painesville, Ohio; Lake Forest College, Lake Forest, Ill.; Lawrence College, Appleton, Wis.; Lehigh University, South Bethlehem, Pa.; *Leland Stanford Jr. University, Stanford University, Cal.; †Macalester College, St. Paul, Minn.; Marietta College, Marietta, Ohio; †Massachusetts Agricultural College, Amherst, Mass.; Massachusetts Institute of Technology, Boston, Mass.; Miami University, Oxford, Ohio; Middlebury College, Middlebury, Vt; § †Mills College, Oakland, Cal.; § †Milwaukee-Downer College, Milwaukee, Wis.; Mount Holyoke College, South Hadley, Mass.; †Municipal University of Akron, Akron, Ohio; New York University, New York City; *Northwestern University, Evanston, Ill.; Oberlin College, Oberlin, Ohio; Ohio State University, Columbus, Ohio; Ohio Wesleyan University, Delaware, Ohio; Pennsylvania State College, State College, Pa; Pomona College, Claremont, Cal.; *Princeton University, Princeton, N.J.; Purdue University, Lafayette, Ind.; Radcliffe College, Cambridge, Mass.; § †Randolph-Macon Women's College, Lynchburg, Va.; Reed College, Portland, Oregon; ‡Rensselaer Polytechnic Institute, Troy, N.Y.; Ripon College, Ripon, Wis.; § †Rockford College, Rockford, Ill.; ‡Rose Polytechnic Institute, Terre Haute, Ind.; ‡Rutgers College, New Brunswick, N.J.; Smith College, Northampton, Mass.; State College of Washington, Pullman, Wash.; *State University of Iowa, Iowa City, Iowa; ‡Stevens Institute of Technology, Hoboken, N.J.; Swarthmore College, Swarthmore, Pa.; Syracuse University, Syracuse, N.Y.; Trinity College, Durham, N.C.; ‡Trinity College, Hartford, Conn.; †Trinity College, Washington, D.C.; Tufts College, Medford, Mass.; Tulane University, New Orleans, La.; ‡Union University, Schenectady, N.Y.; †University of Alabama, University, Ala.; *University of California, Berkeley, Cal.; *University of Chicago, Chicago, Ill.; University of Cincinatti, Cincinatti, Ohio; University of Colorado, Boulder, Colo.; ‡University of Georgia, Athens, Ga.; *University of Illinois, Urbana, Ill.; *University of Kansas, Lawrence, Kan.; University of Maine, Orono, Me.; *University of Michigan, Ann Arbor, Mich.; *University of Minnesota, Minneapolis, Minn.; *University of Missouri, Columbia, Mo.; *University of Nebraska, Lincoln, Neb.; University of North Carolina, Chapel Hill, N.C.; University of North Dakota, University, N.D.; †University of Oklahoma, Norman, Okla.; University of Oregon, Eugene, Ore.; *University of Pennsylvania, Philadelphia, Pa.; University of Pittsburg, Pittsburg, Pa.; University of Rochester, Rochester, N.Y.; University of South Dakota, Vermillion, S.D.; ‡University of the South, Sewanee,

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‡ For men only. § For women only.

Tenn.; University of Tennessee, Knoxville, Tenn.; University of Texas, Austin, Texas; University of Vermont, Burlington, Vt.; ‡ *University of Virginia, Charlottesville, Va.; University of Washington, Seattle, Wash.; †University of West Virginia, Morgantown, W.Va.; *University of Wisconsin, Madison, Wis.; University of Wooster, Ohio; Vanderbilt University, Nashville, Tenn.; §Vassar College, Poughkeepsie, N.Y.; ‡Wabash College, Crawfordsville, Ind.; †Washburn College, Topeka, Kan.; ‡Washington and Jefferson College, Washington, Pa.; ‡ †Washington and Lee University, Lexington, Va.; Washington University, St. Louis, Mo; §Wellesley College, Wellesley, Mass.; §Wells College, Aurora, N.Y.; ‡Wesleyan University, Middletown, Conn.; Western Reserve University, Cleveland, Ohio, †Whitman College, Walla Walla, Wash.; ‡William Jewell College, Liberty, Mo.; ‡Williams College, Williamstown, Mass.; ‡Worcester Polytechnic Institute, Worcester, Mass.; *Yale University, New Haven, Conn.

Supplementary list of institutions admitted since Nov 1917: Agnes Scott College, Decatur, Ga; California Institute of Technology, Pasadena, Cal, College of St. Teresa, Winona, Minn; Denison University, Granville, Ohio; Hamline University, St. Paul, Minn, Illinois Woman's College, Jacksonville, Ill, Morningside College, Sioux City, Iowa; Occidental College, Los Angeles, Cal., University of Idaho, Moscow, Idaho; University of Kentucky, Lexington, Ky.; University of Nevada, Reno, Nev; Western College for Women, Oxford, Idaho.

* Institutions starred are members of the Association of American Universities

† Added at the meeting of the Association in November of 1917.

‡ For men only. § For women only

INDEX OF COLLEGES

AND OTHER INSTITUTIONS ASSOCIATED WITH UNIVERSITIES

[*See also* Colleges of Cambridge (p. 41), London (pp. 89 and 124-144), Oxford (p. 163), and India (pp 473-475).]

Aberystwyth, 192
Agricultural (v. also p. 490)—
East of Scotland, 236
Lincoln, N.Z , 396
Long Ashton, 27
Lyallpur, 469
Macdonald, Canada, 308, 311
Madras, 237
Manitoba, St. Vital, 323
Oka, Canada, 330
Ontario, Guelph, 356
Poona, 445
Reading, Dairy Inst., 214
Roseworthy, Australia, 374
St. Anne de Bellevue, 308
St. Anne de la Pocatière, 306
Wye, 134
Alma, St. Thomas, 357
Antigonish, Canada, St. Francis Xavier, 343
Archæology, Inst. of, 85
Architecture, 492
Armstrong, 65
Auckland, N.Z., 402
Australian Colleges, 367, 379, etc.

Bangor, 196
Barbados, 57
Bede, 61
Belfast Municipal, 259
Belleville, Albert, Canada, 357
Bloemfontein, Grey, 417
Brandon, Canada, 318
Brisbane, 382
Bristol, Baptist ; Western, 27

Camborne Sch. of Mining, 153
Canterbury, N.Z., 400
Cape Town, 410
Cardiff, 191
Chester, 85
Christchurch, N.Z., Canterbury, 400
Codrington, Barbados, 57
Colston's Girls' Sch., 27
Commerce, Montreal, 330
Cork, 274

Dairy Inst., 214
Dental, Melbourne, 379
Toronto, 356
Dick Veterinary, 236, 237
Dublin, R.C.Sc., 259, 278
Univ. Coll , 271
Dundee, Univ Coll., 250
Dunedin, Otago, 397
Durham, 61

Edge Hill Training, 85
Estate Management, 494
Exeter, 205

Forestry, Quebec, 306
Fourah Bay, 57
Fruit and Cider Inst., 27

Galway, 276
Glasgow Technical, 247
Grahamstown, Rhodes, S. Africa, 419
Grey, 417
Guelph, Ontario, 356

Halifax, Canada, 283, 300
Handsworth, 23
Harris Inst., 85, 153
Hartley, 217
Hatfield, 61
Heriot-Watt, 236
Historical Research Inst., London, 123
Huddersfield, 74
Huguenot, S. Africa, 426

Imperial, 130

Johannesburg, 429

King's, Windsor, 302
Kingston, Canada, Royal Military, 314, 341
Knox, Tor., 356

Lampeter, 47, 179
Law—
Osgoode, Toronto, 358
St. John, N.B., 303
Westmore Hall, Regina, 347
Winnipeg, 323
For Indian Law Colls, v. under the several Univs.
Lennoxville, Canada, 292
Lichfield, 23
London, Canada, 366
Long Ashton, 27

Macdonald, Canada, 308
Manaos, 85
Manchester, Technology, 151, 153
Manitoba Law Sch, 323
Maynooth, 269
Medical (v. also pp. 515 to 526)—
Liv, 85
London, 139
Newcastle-upon-Tyne, 62
Welsh Nat., 200, 201
Melbourne Colls, 379
Merchant Venturers', 32
Midland Inst., 23
Mnfield, 74
Montreal Colls, 314, 330
Mt Pleasant, 85
Mt. St Vincent, 300
Music—
Brantford, Ont, 366
Elder, Adelaide, 374
Halifax, Canada, 300
London, 144
Montreal, 331

Natal, 421
Newcastle-upon-Tyne—
Armstrong, 65
Medicine, 62
New Zealand Colls., 397-405
Nottingham, 208

Ormond, 379
Otago, 397

Pharmacy, Maritime Coll., Canada, 300
Toronto, 356
Pietermaritzburg, 421
Potchefstroom, 422
Pretoria, Transvaal, 423
Prince of Wales, 300

Quebec Colls., 356

Rawdon, 74
Reading, 212
Redland High School, 27
Rhodes Univ. Coll., 419

Sackville, Canada, Mt. Allison, 332
St. Chad's, 61
St. Edmund's, Ware, 47
St. Francis Xavier's, 343
St. John, N B., Law School, 303
St. John's, Durham, 61
St Mary's, Durham, 61
St. Michael's, Toronto, 356
St. Patrick's, 269
Saltley Training College, 23
Sierra Leone, 57
South African Colls, 410, 417-426
Southampton, 216
Stellenbosch, 427
Swansea, 203
Sydney Colls, 388

Technical—
Bangalore, 477
Belfast, 259
Camborne Sch. of Mining, 153
Dairy Inst, 214
Glasgow, 247
Halifax, Canada, 283, 303
Harris Inst, Preston, 85, 153
Heriot-Watt, 236
Huddersfield, 74
Imperial, 130
Kalgoorlie, Mines, 394
London, 130, 143
Long Ashton, 27
Madras, 460
Manchester, 151, 153
Merchant Venturers', 32
Midland Inst., 23
Montreal, 330
Mt. Lyell, Tasmania, Mines, etc., 391
Mysore, 462
Nova Scotia, 283
Perth, 374, 394
Poona, 445
Sibpur, 451
South Australian, Mines and Industries, 374
South Wales and Monmouthshire School of Mines, 201
Swansea, 203
Zeehan, Mines and Metallurgy, 391

Theological (v. also pp. 57, 138, 153)—
Aberystwyth, 189
Alberta, 288
Bala, 189
Bangor, 189
Bishops', Canada, 292
Brecon, 189
Bristol Baptist, 27
Canadian Anglican, 282
Cardiff, 189
Carmarthen, 189
Cheshunt, 51
Codrington, 57
Durham, 61
Edmonton, Canada, 288
Exeter, Diocesan, 179
Fourah Bay, 57
Halifax, Canada, 300
Handsworth, 23
Hatfield, 61
Huron, 366
Jamaica, 303
King's, Windsor, 302
Knox, Tor., 356
Lampeter, 47, 179
Laval, affiliated to, 306
Lichfield, 23
London, Schools of, 138
London, Ont , 366
Manchester, recognized by, 153
Mirfield, 74
Montreal, 314
New, Edinburgh, 236
Ontario, affiliated to Western, London, 366
Quebec, 356
Queen's, Kingston, 340
Rawdon, 74
Resurrection, of the, 74
Ridley Hall, 51
Robertson, 288
St. Aidan's, Birkenhead, 57, 85
St. Aidan's, Edmonton, 289
St. Boniface, Manit , 323
St. Boniface, Warminster, 27
St David's, 47, 179
St. Edmund's, 51
St. Francis Xavier, 325
St. Mary's, 250, 253
St. Patrick's, 269
Salisbury, 27
Saskatchewan, affiliated to, 347
Toronto, 356
Wales, 189
Theological (*contd.*)—
Warminster, 27
Westcott House, 51
Western, Bristol, 27
Westminster, 51
Winnipeg, 323
Wycliffe, Tor., 356
Toronto, St Michael's, 338
Trinity, 361
Victoria, 363
Transvaal, 423
Tropical Medicine—
Liv., 85
London, 141

United Coll., St. Andrews, 250

Veterinary, 236, 237, 356, 524
Victoria, B C , 295
Victoria, Montreal, 308
Victoria, Toronto, 363
Victoria, Wellington, 404

Wales, 192-204
Wellington, N Z , 404
Wellington, S Africa, 426
Windsor, N.S , King's, 302
Wolfville, Canada, 284
Women's—
Bedford, 136
Brisbane, 382
Calcutta, 449
Cambridge, 47, 52
Cheltenham, 57
Darlington, 57
Delhi, 469
Edge Hill, Training, 85
Girton, 47
Glasgow, 240
Holloway, 136
Huguenot, S. Africa, 426
Lady Margaret Hall, 169
Lahore, 470
London, 126, 136, 144
School of Med., 140
Lucknow, 456
Madras, 459
Montreal, 331
Victoria, 308
Moulton, Toronto, 319
Mt. Pleasant, Training, 85
Mussoorie, 439
Mysore, 462
Newnham, 47
Oxford, 169

Women's (*contd.*)—
Queen's, London, 57
Queen Margaret, Glasgow, 240
Ripon, 57
St. Frideswide's, 169
St. Hilda's, Oxford, 169
St. Hilda's, Toronto, 357
St. Hugh's, 169
St. Mary's, 61
Somerville, 169
Sydney, 388
Westfield, 137
Whitby, Ont., 357
Woodstock, 319
Wycliffe, Tor., 356

York, Diocesan Training, 74

Indian Colleges at

Agra, 437
Ajmer, 437
Ahmedabad, 444
Aligarh, 435
Allahabad, 437
Amritsar, 469
Anantapur, 459

Bangalore, 462, 477
Bankipore, 472
Bankura, 449
Bareilly, 438
Barisal, 449
Baroda, 444
Belgachia, 449
Benares, 438, 442
Berhampur, 449
Bhagalpur, 472
Bhavnagar, 444
Bhowanipur, 449
Bombay, 443, 444

Calcutta, 448, 449, 450
Cawnpore, 438
Chittagong, 451
Comilla, 451
Cooch-Behar, 451
Cuttack, 472

Dacca, 453
Daulatpur, 451
Delhi, 469
Dharwar, 445

Gauhati, 451
Gorakhpur, 438
Gwalior, 438

Hazaribagh, 472
Hughli, 451
Hyderabad, 459, 465

Indore, 438

Jabalpur, 438
Jaipur, 438
Jammu, 469
Janagadh, 445
Jodhpur, 438

Karachi, 445
Kolhapur, 445
Krishnagar, 451
Kumbakonam, 459

Lahore, 468-470
Lucknow, 455
Lyallpur, 469

Madras, 459, 460
Madura, 459
Mangalore, 459
Mannargudi, 459
Masulipatam, 459
Meerut, 439
Mussoorie, 439
Muzaffarpur, 472
Mymensingh, 451
Mysore, 462

Nagpur, 439

Patiala, 470
Patna, 471, 472
Peshawar, 470
Poona, 445

Rajahmundry, 459
Rajshahi, 451
Rangoon, 474, 475
Rangpur, 451
Rawalpindi, 470

Serampore, 451
Sialkot, 470
Sibpur, 451
Srinagar, 470
Surat, 446
Sylhet, 451

Trichinopoly, 460
Trivandrum, 237, 460

Vizianagram, 460

INDEX OF NAMES

Abbas, M. M., 444
Abbot, C. C., 226
Abbott, E., 43
G. H., 388
M. E., 313
W. F., 320
Abbott-Smith, G., 309
Abdul Qayum Malik, 113
Abel-Smith, L. R., 163
Abell, T. B., 82
Abercrombie, L., 80
L. P., 78
Abhyankar, K. V., 444
Abhyanker, W. S., 445
Ablett, R., 81
Abrahams, A., 106
I., 41
Abram, J. H., 83, 84
Acason, R., 345
Acharya, P. K., 438
Ackermann, D. J., 427
Ackland, R. C., 94
W. R., 28
Acland, H. D., 400
Adair, E. R., 97
Adam, A. K., 208
D. I., 203
E. P., 208
Sir F. F., 145
H. R., 429
J., M.A., 287
J., M.D., 243
M., 97
Adami, J. G., 78
Adams, A. W., 31
D. K., 244
E. F. M., 192
F. B., 398
F. D., 309
H. P., 21
H. S., 397
J., 95, 135
J. E., 110
P. E. H., 162
S. M., 350
T. D., 397
W. A., 28
W. G. S., 161, 163
Adamson, A., 152
H. G., 105
J., 404
J. W., 95
Mrs. R., 73
R. S., 146
Adcock, F. E., 43
Adde, Mlle. Y., 80
Addis, Sir C. S., 480
Addison, M., 352
O. L., 110, 144
Adeney, W. E., 278
Adhikari, P. B., 442
Adie, R. H., 44
Adrian, E. D., 39, 45
Adshead, S., 91
Advani, M. H., 445
T. M., 445
Ady, C. M., 169
Aga-Khan, 435
Agar, W. E., 378
Agharkar, S. P., 447
Agius, T., 478
Agnes, S. M., 352
Agnew, R. M., 351
Agnihotri, P. D., 442
Ahmad, S. T., 472
Z. U., 435, 437
Ahmed, M., 445
M K., 438
Ahuja, H. C., 442
Ainley, C. W., 474
Ainsworth, H., 469
Aird, F. A., 379
Aitken, A. C., 398
H., 234
R. D., 421
Aiyangar, K. R. Ramaswami, 460
K. S., 458
S. Krishnaswami, 458
Aiyar, G. N., 460
N. C. K., 474
P. E. Subrahmanya, 460
P. R., 459
P. V. Seshu, 459
T. K. D., 458
Ajrikar, S. L., 446
Akbar, Md. G., 474
Alam, Syed S. S., 472
Albiston, A. E., 379
Albright, E., 364
Alcock, A. W., 102
F. J., 339
H., 381
Alderson, Mrs., 67
Aldrich-Blake, L. B., 140
Alexander, A. B., 322
F. H., 67
N. B., 365
P., 241
R. C., 253
S., 148
T., 268
W., 255
W. A., 230
W. H., 286
W. J., 351
Alford, M., 93
Algie, R. M., 402
Ali, Asqhar, 467
C. B., 465
M. A., 470
Ali-Mohamed-Khan, 435
Ali Nami, S. M., 437
Ali, Sher, 466
Syed Nawab, 444
Allan, D. A., 232
F. B., 350
G. A., 244
G. E., 243
J. A., 287
J. K., 227
J. S., 83
Allard, G. M., 385
O., 336
R., 328
Allbutt, Sir T. C., 40, 42
Allcock, W. B., 42
Allcut, E. A., 355
Allen, A. O., 72
C. J., 78
C. K., 165, 167
E. M., 47
F., 321
G. B., 158, 168
Sir H. B., 378
H. C., 29
H. J., 459
Sir H. P., 98, 144, 160, 166, 213
H. S., 233
H. W., 379
J. W., 97
N. C. B., 377
P. S., 166
R. G., 278
R. L., 365
T. W., 167
Allison, A., 246
E. P., 298
J., 251
W. T., 321
Allmand, A. J., 92
Allott, E. N., 159
Allpress, C. F., 66
Almon, W. B., 299
Alsop, R. H., 376
Alston, L., 43, 44, 45
Alton, E. H., 261, 262, 263
Amos, A., 36, 42
A. D., 199
F. A., 321
Ampt, G. A., 376
Amundsen, E. O., 423
Anctil, J., 328
Anderson, A., M.B., 185
Alexander, D.Sc., LL.D., 269, 276
A. G., 228
A. J., 412
A. V. M., 378
E. E., 388
F., M.A. Glas., 386
F., M.A., Ox., 366

Anderson, G. R., 354
H. B., 355
H. K., 35, 42
J., 233, 253
J. B. M., 244
J. D., 55
J. G. C., 159, 164
J. H., 376
J. M., 250
J. N., 459
J. W., 83
O. M., 256
P. J., 225
R. M., 152
W., 152, 402
W. B., 146
Anderton, W. B., 150
Andison, J. G., 352
Andrew, J. H , 248
Andrewes, Sir F. W., 110
Andrews, A., 390
C., 393
H. R., 109
H. T., 101
W. A., 32
W. H., 424
W. N., 366
Anger, H. L., 67
Angrove, H. S., 340
Angus, C. F., 46
H. B., 64
H. F., 293
R. W., 351
Anrep, G., 100
Ansari, H. A., 465
Ansell, M. M., 391
Antani, V. G., 438
Anthony, D. B., 189, 191
Apperly, F. L., 378
R. E., 104
Applebey, M. P., 159, 167
Appleton, A. B., 36, 42
E. V., 39, 42, 45
H. W., 183
Apte, V. G., 446
Archambault, G., 329
O., 327
Archer, R. L., 196
Archibald, C. F., 69
E. H., 293
E. W., 313
J. G., 162, 163
Ardagh, E. G. R., 350
Ardern, P. S., 402
Arès, C. E., 336
Argaut, J. B., 462
Arkle, J. S., 63
Arkley, L. M., 339
Armes, H. P., 320
Armishaw, J. C., 200
Armitage, B. W. F., 45
W. R. R., 356
Armour, D. J., 110
J. S., 471, 472
T. R. W., 84
Armstrong, E., 107
F. E., 188
F. W., 419
G. E., 312
H. F., 312
Armstrong, W. G , 390
W. H. F., 469
Armstrong-Jones, Sir R., 109
Arnall, F., 92
Arndt, W. F. C., 417
Arnison, W. D., 63
Arnold, E. G., 69
E. V., 196
F. T., 200
Sir T. W., 112
Arsenault, A. J., 336
Arte, B. R., 444
Arthur, W., 242
Arulanandam, A., 459
Ash, P. A., 385
Ashby, A. W., 163
Ashcroft, L., 212, 213
L. S., 83
Ashdown, E., 205, 206
Mrs., 217
Ashford, F., 212
Ashley, Sir W., 19, 20
Ashton, H., 294
T. S., 146
Ashworth, J. H., 233
M. H , 103
Askins, R. A., 30
Asmundson, V. S., 295
Aspinall, A. J., 388
Sir J. A. F., 83
Asrani, U. S., 442
Asselin, E. G , 328
Asselstine, S. M., 340
Aston, F. W., 45
Atherton, W., 328
Atkin, W. R., 74
Atkins, H. G., 96, 127
J. W. H., 193
Atkinson, C. T., 165
D., 148
M., 378
Mildred, 63
Atlee, H. B., 297
Attenborough, F. L., 42, 46
Attwater, A. L., 44
Au Tai Tin, 480
Aubert, A., 304
Aubrey, E. R., 216, 217
G. E., 481
Aubry, H., 329
Auchterlonie, D., 472
Aucoin, E., 328
Auden, G. A., 22
H. W., 364
Austin, E. J., 340
Aveling, F. A. P., 99
Aydelotte, F., 175
Ayling, E. E., 203
Ayyanger, N. N., 446
Azim-ud-din Ahmad, 471

Ba, Mg., 474
Ba-Kya, Mg., 474
Babb, W. F., 365
Back, I., 110
Bacon, F., 203
J. R., 47
J. W., 271
Bacot, A. W., 102
Badcock, C. F., 460
Badock, S. H., 27
Bagchi, S. C., 448
Bage, F., 382
Bagley, S. D., 397
Bagnall, J. S., 299
Bagot, J. C., 252
Bagster, L. S., 381
Bahl, K. N., 437, 456
Bailes, S., 66
Bailey, C., 164
F. W., 84
J. C., 46
T. G., 113
V. A., 161
W. H., 148
Baillie, H. W., 258
Baillargeon, E. B. A., 305
E., 305
Baillie, J. B., 225, 227
T. C., 103, 144
W. H. T., 350
Bain, E. W , 73
J. W., 350
Baines, F. T., 69
Baird, A. C., 227
A. F., 334
Baker, A. T., 183
A. V., 34
A. W. W., 262
B. B., 233
E. A., 97
G. E., 166
H., 21
H. B., 92
H. F., 36, 45
H. W., 147
J. B., 158, 168
L., 31
M. B., 339
P. J., 43
R. K., 346
R. T., 384
W. C., 339
Balcom, A. B., 284
Balfour, Lord, 255
A. J., 35, 230
Sir I. B., 231
Bali, A. N., 467
N. G., 262
Ball, L., 22
W. G., 110, 139
W. W. R., 45
Ballance, Sir C. A., 111
Ballantyne, E. N., 365
J., 356
J. W., 235
Ballard, J. C., 340
Ballu, C. A., 321
Balsillie, D., 239
Baly, E. C. C., 79
Bamford, P. C., 400
T. G., 21
Bamforth, J., 84
Banarji, A. P., 472
Bancroft, H., 162
J. A., 309
Banerjee, A. T., 467
B. L., 451
D., 451
G. N., 448

Banerjee, H., 450
H. C., 448, 451
J. C., 472
J. R., 451
K. D., 450
M. N., 449
P. N., 447
R. K., 451
S., 450
S. C., 450
S. K., 447
Banerji, A. C, 437
B., 442
B. B., 456
D. N., 442
E., 437
S., 456
S. P., 439
Banfield, A. D., 32
Banham, K. M., 354
Bangham, D. H, 146
Bankart, A. S. B, 111
Bannister, C. O., 82
Banting, E. W., 354
F. G., 365
Bantock, G., 21
Baqa, Md., 438
Bara, S., 451
Barber, C. A., 36
E A, 165
E. M., 209
H. W., 105
P. E., 188
W. T. A., 101, 138
Barbier, J. L. A., 193
P., 71
Barbour, A. H. F., 235
H. G., 313, 317
Barclay, A. E., 150
J H., 63
Barclay-Smith, E., 91
Barcroft, J., 39, 43
Bardhan, S. C, 472
Barff, H. E., 384
Barger, G., 231
Bari, S. G., 445
Baril, G. H., 327
Barke, E. M., 199
Barker, A. F., 74
A. H., 102
B. T. P., 27, 28
E., 97, 100, 126
E. P., 208
H., 233
J. W., 46
M., 232
T. V., 159, 164
W. H., 147, 216
Barkla, C. G., 233
Barling, Sir G. 19
J. E. V., 388
S., 23
Barlow, D. L., 373
G., 22
W. L., 313
Barnard, A. T., 289
F. P., 78
S. P., 417
Barnardo, F. A. F., 449
Barnes, A. E., 185
Barnes, E., 459
S. R., 423
W. E, 37, 44
Barnett, E. C., 226
E. de B., 92
I. A., 346
L. D., 113
L. E., 398
Barney, R. W., 480
Barooah, G., 434
J, 451
Barraclough, S. H. E., 387
Barragán, J. V., 101
Barrat, W. S., 152
Barrett, A. J., 20
Sir J. W., 378
Barrie, Sir J. M, 250
Barrington, F., 387
Barrington-Ward, J. G, 164
L. E., 105
Barris, J. D., 105
Barron, V. A., 398
W. A., 227
Barrow, F, 92
J. R., 450
Barrowclough, H. E, 398
Barry, C., 423
D. T., 275
E, 382
Barss, A. F., 295
Bartlett, A. W., 65
F. C, 39, 45
G. B., 412
Sir H., 125
Bartmann, A. B., 428
Bartoli, A, 478
Bartolo, A., 478
Barton, Sir E., 390
E. H., 209
H, 311
J W, 349
Bartrum, J. A., 402
Barwell, H. S., 106
Basser, L A., 388
Bassett, H., 212
H. Ll., 199
W. E., 377
Basson, J., 427
Bastable, C. F., 263
Basterfield, S. L., 345
Basu, B., 450
K., 448
P. C., 438
R. K., 472
R. M., 474
Surendranath, 451
S., 451
S. K., 442
S. N., 472
T. N., 472
Bate, H. N., 163
Bateman, J. V., 346
Batheja, H. R., 442, 471, 472
Batho, C., 311
Batley, W. A., 184
Batt, F. R., 80
Battaerd, P., 414, 428
Battersby, J., 244
Battistini, P., 232
Battle, W. H., 111
Baudoin, G., 329
Baudouin, J. A., 329
Baxandall, F. E., 36
Baxter, F. H. A., 311
J. S., 257, 263
Bayer, J. G., 345
Bayliss, W. M, 100
Baynes, N. H, 97
R. E., 180
Bayzand, C. I., 160
Bazin, A. T., 313
Beales, H. L., 182
Bean, S. J. T., 365
Beard, J, 233
Beare, T. H., 230, 232
Beattie, J. C, 410
J. M., 83
R., 147
T., 62, 63
Beatty, E. W., 308, 338
S, 353
W. W., 264
Beauchamp, A., 327, 337
G. E., 329
Beaugrand-Champagne, A., 327
Beaulieu, E., 329
Beaumont, G. E., 106
I, 258
Beaupré, V. A., 328
Beazley, C. R., 21
J. D, 158, 164
Becker, J. G, 431
L., 241
Beckersteth, M. E., 322
Becket, E. M., 208
Beckett, R E., 69
R. H., 439
S E, 293
W. E., 163
Beckingham, E. L., 66
Beckit, H O, 160
Beckwith, W. H. H., 299
Bédard, A., 304, 306
Beddard, A. P, 106
Bedford, J., 209
T. G., 39, 44, 177
Bedford-Jones, H. H., 292
Bedson, Prof., 68
Beemer, N. H., 359
Beet, A. E., 184
Begin, L. N., 304
Behan, J. C. V., 175
Beilby, Sir G., 247
Béique, F. L., 327
Belas, P. E., 274
Belcourt, E., 328
Belfour, A. O., 257
Bell, A., 65
A. J., 363
C. F., 166
F. C., 322
F. G., 235
F. H., 298
G., 329
H., 148
Sir H., 65
J., M.A., 167, 168
J., 262
J. W., 312

Bell, K. N., 164
L. R., 288
P. G., 322
R., 231
R. C., 397
R. J. T., 398
T. H., 322
W., 354
W. B., 83
W. G., 47
W. H., 411
W. V., 104
Bellars, A. R., 30
Belleau, E., 305
P. H., 336
Bellhouse, H. H., 145
Belleisle, H. S., 354
Belvalkar, S. K., 445
Bender, A. P., 411
Benecke, P. V. M., 166
Bengough, E. J., 318
Benham, W. B., 397
Beni Prasad, 436
Benians, E. A., 45
Benner, F., 322
Bennet, F. T., 69
Bennett, A., 250
A. W., 332
D. M., 182
G. M., 45
G. T., 42
J. E., 82
L. E., 382
N. G., 94
S. G., 351
T. I., 106
W. E., 19
Bennette, H. W. P., 84
Benny, L. B., 205
Benoit, E. P., 329
R., 305
Bensley, B. A., 355
Benson, A. C., 35, 43
C. C., 350
J. B., 124
M. J., 92
W. N., 397
W. S., 346
Bentham, J., 72
Bentley, A. O., 208
B. H., 182
C. A., 449
F., 61
Benyon, J. H., 212
Bercovitch, A., 322
Bergeron, O., 304
Bergevin, L., 336
Bergey, S. A., 286
Bergin, F. G., 31
O., 271
W., 275
Bergstedt, H., 417
Berkeley, G. H. A. C., 105
Bernard, A. V., 478
F., 294
J. H., 261
Berney-Ficklin, H. P. M., 29
Bernier, A., 329
L. M. J. A., 305
Berrington, A., 349
Berrisford, E. A., 167
Berry, A., 38, 43
A. J., 42
D., 228
Sir G. A., 230
J. L., 384
R. J. A., 376
R. R., 146
Berthon, H. E., 159, 167
Bertram, F., 460
R. J. S, 65
Berwick, W. E. H., 41, 72
Besselaar, G., 421
Best, N. C., 364
Beszant, C. F., 80
Bethune-Baker, J. F., 37, 44
Betts, M. W., 397
Beullac, P., 312
Bevan, A. A., 41, 45
E., 183
T., 152
Beveridge, Sir W. H., 94, 133
Bewley, H. T., 264
Bews, J. W., 421
Bexon, D., 208
Bhaduri, J., 450
Bhagwat, R. N., 444
Bhandarkar, D. R., 447
Bhargava, S. R., 438
Bhat, V. G., 445
Bhate, G. S., 472
Bhatia, S. L., 444
Bhatnagar, B. G., 436
S. S., 442
Bhatt, H. M., 445
Bhattacharji, H. L., 472
Bhattacharya, D. R., 437
K. C., 438
N., 442
P. N., 437
S. N., 442
Bhattacharyya, D. K., 472
J. N., 450
N. C., 450
S., 472
S. M., 472
S. N., 472
Bhopal, Begum of, 435
Bhuyan, S K., 451
Bibby, F. E., 70
J. P., 74
Bickerstetb, G. L., 241
J. B., 349
Bickerton, T. H., 83
Bickley, W. G., 97
Bidder, H. J., 167
Biffen, R. H., 36, 44
W., 311
Bigelow, H. E., 332
Biggs, G. M., 355
H. F., 161
Bigland, A. D., 83
Bihari, R., 467
Biles, Sir J. H., 246
Bilimoria, J. C., 474
R. S., 444
Bills, C. E., 288
Binet, J. L., 336
Bingham, G. A., 356
Birch, B. G., 480
Birch, F. L., 43
J. N., 184
Bird, A. W., 209
F. D., 380
Birkett, G. A., 184
H. S., 313
Birkhead, E., 29
Birley, J. L., 109
Birnie, A., 227
Birtwistle, G., 44
Bisbee, R. C., 82
Bissett, M. A., 326
Bissonnetre, T. H., 338
Bithell, J., 96
Björkhagen, O. I., 101
Bjornson, O., 322
Blachford, J. V., 31
Black, C., 252
H. H., 365
J. B., 183
T. H., 353
Blackaby, J. H., 148
Blackadder, W., 247
Blackader, A. D., 317
Blackburn, C. B., 387
E. M., 71
K. B., 65
Blacker, G. F., 109, 140
Blackett, P. M. S., 44
Blacklaw, A., 228
Blacklock, D. B., 84
J. W. S., 244
W., 247
Blackman, E., 95
F. F., 36, 45
V. H., 92
Blackwell, E. M , 79
Blackwood, B , 158
Blagden, C. O., 113
Blair, D. M., 240
E. M., 258
Blakiston, H. E. D., 158, 167
Blampin, C., 365
Bland, F. A., 385, 388
Blatter, E., 444
Blease, W. L., 80
Bletcher, H. E., 321, 322
Bligh, J. M., 83
Bliss, A. E., 426
Block, K. S., 95
Blomfield, W. E., 71, 74
Blommaert, W., 427
Bloom, E., 226
Blunt, E. A. H., 455
H. W , 164
T. G. R., 400
Blythen, S., 208
Boden, F. H., 20
Bodenstein, H. D. J., 428
Bodmer, H. S., '19
Body, L. A., 61
Bogart, I. G., 340
Boggs, T. H., 293
Bohle, H., 411
Boileau, G., 336
Boillot, F., 29
Bolam, H. W., 241
M., 212
R. A., 62
T., 231

Bollert, M. L., 294
Bolton, C., 107
H., 29
J. S., 73
Bolus, Mrs. F., 410
Bond, A. C., 251
H., 35, 46
R. St. G., 142
R. W., 209
W. L., 311
W. N., 213
Bone, W. A., 93
Woutrina A., 182
Bonney, H., 193
T. G., 45
W. F. V., 105
Bonython, Sir L., 374
Boole-Stott, A., 81
Booth, E. H., 386
S. R., 372
Boothroyd, E. E., 292
Bordeaux, E. F. J., 378
Borden, B. C., 332
K., 284
Borenius, C. T, 91
Borg, F., 479
J., 478
S., 478
Borland, H. A. M., 34
Borradaile, L. A., 40, 46
Bosanquet, C. H., 161
W. C., 107
Bose, A. C., R. B., 447
D. M., 447
G. C., 449
J. M., 450
M. N., 449
P. C. N., 472
Boshoff, S. P. E., 422
Bosman, A. M., 423
J. C., 423
Boswall, R. O., 152
Boswell, A. B, 81
M. C., 350
P. G. H., 80
Botha, M. C., 411
Bott, E. A., 354
Bottomley, W. B., 127
Botwood, C. A., 72
Bouffard, J., 307
Boughey, A. H. F., 45
Boulden, F., 183
Boulet, R., 329
Boulton, E. S., 29
W. S., 21
Bouman, A. C., 427
Bourassa, A., 336
Bourdache, E., 209
Bourdillon, R. B., 167
Bourdot, J., 160
Bourgeois, B., 330
Bourgoin, J., 330
Bourne, A. W., 109
W., 313
Bourque, H., 323
Boutin, J., 330
Boving, G. B., 295
P. A., 295
Bowell, A. H., 402
Bowen, E. J., 168
Bower, F. O., 241
Bowes, H. G., 71
Bowler, F. T., 213
Bowles, C. W., 419
R. P., 363
Bowley, A. L., 101
Bowman, F., 152
H. L., 160, 166
J. T., 365
T., 157, 166
Bowstead, J. E., 286
Box, C. R., 107
G. H., 101
Boxwell, J., 423
Boyce, H. A., 340
Boycott, A. E., 110
Boyd, A., 381
D. R., 216
D. T., 257
F. D., 234
H., 157, 165
W. B.Sc., 241
W., M.D, 323
Boylan, P., 269, 272
Boyle, J. S. W., 251
M., 92
R. W., 287
T O'R, 343
T. S., 302
Brabant, F. H., 168
Bracken, J., 323
Bradbury, F, 259
J. B., 40
Braddock, A. P., 20
Braddon, Sir H., 385
Brade-Birks, S. G., 96
Bradford, E. J. G. 183
Sir J. R., 107
Bradley, F., 336
F. H., 166
H., 166
O. C., 230, 236
Bradshaw, F., 66
J. C., 401
Brady, O. L., 92
Bragg, Sir W. H., 99
W. L., M.A., 148
Brain, C. K., 427
Braine, C. C., 104
Braithwaite, L. R., 73
Brameld, N., 209
Bramfitt, G. N., 253
Bramwell, E., 234
Brand, R. H., 163
Brandin, L. M., 96
Brandson, B. J., 323
Branson, W. P. S., 107
Brash, J. C., 19
Braunholtz, E. G. W., 38, 43
G. E. K., 146
Brebner, J., 349, 352
Brench, G. R., 69
Brend, W. A., 106
Brennan, C. J., 386
H. G., 233, 243
Brenner, J., 439
Brentano, J. C., 148
Brereton, E. Le G., 384
J. Le G., 385, 390
W. W., 276
Brett, C., 200
G. S., 354
Brett-Smith, H. F. B., 167
Breul, K., 38
Brewis, G. R., 168
J. T., 149
Brewster, B. L., 378
Bridge, Sir F., 98, 144
J. C., 60
Bridges, E. E., 163
J. E., 162
J. W., 354
Brierly, J. L., 148
Briffa, J., 478
Brigden, J. B, 391
Briggs, E. A., 386
G. E., 37, 45
G. H., 386
H., 88
M. S., 91
Brightman, F. E., 163, 166
Brincker, J. A. H., 106
Brindley, A. E., 151
H. H., 35, 42, 43, 44, 45
Brinkworth, J. H., 99
Briscoe, J. C., 107
H. V. A., 62, 65
Bristol, Bishop of, 27
Britten, L, 419
Broad, C. D., 29
W. H., 78
Broadbent, Sir J. F. H., 107
Broadhead, H. D., 400
Broadhurst, H. C., 188
Broadus, E. K., 287
Broby, S. P., 346
Brochu, M. D., 306
Brock, F. H. C., 143
R. W., 294
Brockbank, E. M., 150
Brockwell, C. A. B., 309
Broderick, T. S., 263
Brodetsky, S., 72
Brodie, J. A., 79, 82
Brodsky, A., 148
Bromley, L., 110
Bromwich, T. J. I'A., 38, 45
Bronson, H. L., 298
Broodrijk, H. H., 411
Brook, V. J. K., 165
Brooke, A. E., 37, 43
Z. N., 42
Brookes, A., M.Eng., 209
A., M.A., 437
A. E. G., 152
E., 424
R. C., 82
Brooks, B., 19
F., 28
F. T., 37, 42
J. J., 411
Miss, 140
Broome, H. H., 469
Brosseau, H. D., 336
Brough, P., 384
Brovedani, J. H., 340
Brown, A., 411, 447, 448
A. C., 247
A. E., 449
A. G., 352, 355

Brown, A. R., 410
B. G., 42
C J., 456
D. J. A., 199, 201
E., 311
E. B., 377
F. B., 311
F. R., 253
F. W. C, 228
G. B., 231
I. G., 225
I. W., 84
J. G., 318
J. M., 395
J. R., 404
R. K., 106
R. M., 241
R. N. R., 183
R. S. C., 446
T., 72
T. G., 200
V., 66
W., 480
Wm., 127, 161
Wm. (Aberdeen), 227
W. E., 242
W. J., 365
W. L., 107
W. T., 354
Browne, A. D., 44
E. G., 40, 44
F. B., 40
F. J., 234
H., 271
P. J, 269
W. R., 385
Browning, A., 242
C. H., 243
H., 208
Bruce, A., 169
A. N., 233
E. E., 356
E. L., 339
H., 200
H. A., 356
J. F., 386
W., 230
Bruchesi, P., 327
Bruère, A. A., 312
Bruford, W. H., 45, 226
Brühl, P. J, 447
Brümmer, N. J., 428
Bruneau, T., 329
Brunt, H. D., 309
Brunyate, Sir W. E., 480
Bryan, C. W. G., 111
G. H., 197
W. E., 184
W. H., 381
Bryant, R., 97
Bryce, H. F., 321
T. H., 240
Buchan, Wm., 228
Buchanan, C., 241
D., 294
F., 102
F. M., 20
G. V., 378
M. A., 353
R C., 233
Buchanan, R. J. M., 83
W. E. A., 252
W. J., 247
Büchler, A., 101, 143
Buck, F. E., 295
Buckell, M. A. C, 63
Buckhurst, H. M., 216
Buckland, W. W, 38, 42
Buckle, P., 65
Buckley, J. P., 150
Buckmaster, G. A., 30
Bucknell, W. H., 343
Budden, L. B., 78
Buddin, W., 214
Buer, M. C, 212
Bunst, R. C, 253
Bulkeley-Evans, W A, 308
Bull, R. J., 378
Bullard, H. H., 365
Bulleid, C. H., 208
Buller, A. H. R., 320
Bullerwell, J W., 67
Bulloch, W., 104
Bullock, E., 206
R., 65
Bullough, E., 38, 42
Bulman, E., 321
Bulyea, H. E., 287
Bunting, T G., 311
Burbridge, G. A, 298
P. W., 402
Burchell, C. J, 298
F. B, 421
Burchnall, J L., 60, 61
Burdon, E. J., 140
R. S, 391
Burfield, S. T., 82
Burger, J. F., 411
Burgess, A. F., 103
A. H., 150
C. S., 286
H. C., 312
T. J. W., 313
W. L., 252
Burghard, F. F., 111
Burke, J., 139
K. A., 92
Burkitt, A. N St. G. H., 384
F. C, 37
Burlend, T. H., 200
Burley, G. W, 188
Burn, A., 391
Burnaby, H., 42
J., 45
Burness, H. H., 147
Burnet, J., 250, 251
W., 183
Burnett, K., 459
P., 312
Burnett-Hurst, A. R., 438
Burney, C. F., 163, 166, 167
Md. E., 465
Burnford, J. M., 106
Burns, D., 248
David, D.Sc., 63, 246
M., 232
R., 247
W., 446
Burr, E. G., 311
S., 69
Burrell, L. S., 144
P. S., 438
W. G., 248
Burridge, A. J., 322
H. A., 106
Burrill, H. R, 72
Burroughs, E. A., 167
Burrow, J. le F. C., 73
S. G, 444
Burrowes, A. B, 167
Burrows, C M E., 158
G. J, 384
Miss, 169
S. M., 174
Burstall, F. W, 20
S. A, 147
Burt, A L., 287
D. R. R., 252
F P., 146
H C., 292
H T., 149
Burt-Gerrans, J T., 351
Burton, C. G., 192
E. F., 354
J A G, 244
Burtt, A. H, 212
Burwash, E. M, 321
Bury, C. R, 192
J. B., 38, 43
Busby, O M, 203
Bush, J P, 31
Busk, Sir E H, 89
Busuttil, R, 478
Butani, S. B, 445
Butchart, H J., 225
R. K, 252
Butler, A. J, 164
A S, 252
C. P., 36
Sir G., 42
G. K., 297
H. E, 94
J. B., 271
J. R. M., 45
K T. B, 47
T, 390
Butterworth, J J., 151
Buttery, E. M, 185
Buxton, J. L. D., 94
P. A, 45
Buzzard, E. F., 107
Byers, W. G. M., 313
Byrne, G. T., 480
W. A., 276
Bywaters, H., 30

CADENHEAD, A. F. G., 338
Cadham, F. T., 322
Cadman, Sir J., 21
Cairns, R. G., 301
Caius, F. J., 460
Calder, G., 241
W. M., 146
Calderwood, N. I., 21
Caldwell, K. S., 471
M. C., 71
W., 310
Call, F. O., 292
Callan, J. B., 398
Callander, T., 338

Callaway, A. E., 377
Callender, H. L., 99
Calwell, W., 258
Cam, H. M., 97
Cameron, A., B.Sc., 334
A. (Otago), 397
Miss A., 198
A., M.A., 450
A. E., M.Sc., 287
A. E., D.S., 345
A. T., 320
C. F., 320
D. E., 286
E. F., 387
E. H., 234
G. C. M., 398
G. S., 311
H. C., 105, 107
Sir H. C., 240
I. B., 360
J., 297
J. F., 42
J. G., 248
J. H., 352
M., 244
M. B., 455
R. G., 385
S. J., 244
S. S., 378
Campagnac, E. T., 80
Campbell, A., 474
Alex., 346
A. L., 388
A. M., 323
A. Y., 45
C., M.Sc., 146
Colin, D D., 231
D., 244
F. H., 379
F. J. H., 365
G., 469
G. G., 313
G. S., 297
H. G., 103
I. M., 46, 51
J., 256
J. E., 165
J. G. D., 297
J. McL., 165
J. W., 287
K. W., 95
P. G. C., 340
P. S., 318
R., 232
R. A., 400
S., 322
S. G., 37, 41
W. G., 322
W. L., 459
Campbell-Smith, W., 42
Campion, G. F., 151
Candeth, M. A., 459
Candy, A., 400
H. C. H., 92
Cane, T. W., 400
Cann, J. A., 295
Cannan, E., 95
Canney, M. A., 149
Canning, H., 261, 264
R. W., 391
Cannon, R., 336
Cannor, F. P., 450
Canterbury, the Archbishop of, 302
Cantillon, E. V., 274
Cantlie, Sir J., 112
Capper, D. S., 127
Cappon, J., 342
Capstick, J. W., 45
Cardin, H., 336
Cardinaux, P., 304, 306
Carey, E., 78
F. S., 81
G. V., 41
Cargill, L. V., 109
Carless, W., 308
Carleton, G. B., 387
H. M., 161
Carher, E. W. W., 22
Carhill, H., 107
Carline, S. W., 159
Carling, E. R., 111
Carlson, G., 29
Carlyle, A. J., 165, 168
E. I., 97, 165
Carmalt-Jones, D. W., 398
Carney, M. J., 299
Carpenter, G. H., 278
H. C. H., 98
K., 194
S. C., 46
Carr, E. T. S., 44
F., LL.D., 44, 45
H., 350, 356
H. W., 99
J. W., M.A., 107, 208
M. B., 317
R., 345
Carr-Saunders, A., 161
Carré, M. H., 29
Carrington, H., 152
Carritt, E. F., 167
Carrothers, W. A., 345
Carruthers, A., 350
C. H., 309
S. J., 388
Carse, G. A., 231, 233
Carslaw, H. S., 386
Carson, J. H. A., 257
Carter, A. M., 402
A. T., 164
C. L., 397
C. R., 166
G., 185
G. P., 385
R. M., 444
S. R., 19
W. S., 334
Cartwright, C. L., 460
E. S., 177
G. S., 353
M., 351, 362
W., 148
Carty, P., 460
Carwardine, T., 31
Cary, A., 336
M., 97
Casati, E., 226
Case, R. H., 80
T., 157, 164
Cashmore, H., 29
Cassar, I., 478
S., 479
Cassidy, M. A., 107
C. G., 412
Cassim, A., 474
Casson, S., 166
Castets, J., 460
Castlehow, S., 381
Caswell, J. S., 203
Cathcart, E. P., 243
G. L., 261
Catlin, G. E. G., 183
Catterson-Smith, J. K., 103
Cattley, R., 73
Caunt, G. W., 67
Cavanagh, W., 336
Cave, T. W., 102
Cave-Browne-Cave, F. E., 47
Caven, R. M., 247
Cavenagh, F. A., 156, 203
Cavenagh-Mainwaring, W. R., 373
Cays, F. A., 340
Cayzer, A., 381
Cecil, Lord H. R. H., 157, 165
Lord R., 19
Cellers, J. F. E., 427
Chablani, H. L., 442
Chadwick, H. C., 81
H. M., 36, 41
J., 42
Chaffers, S., 145
Chak, J. N., 455
Chakko, K. C., 460
Chakrabarti, N., 450
N. N., 450
Chakravarti, A., 459
C., 449
D. N., 456
G. N., 455
K. C., 472
Chaldecott, J. H., 104
Challenger, F., 146
N. E., 188
Challinor, J., 193
Chamberlain, G. L., 209
Chambers, C. D., 20
G., 355
J., 109
R. W., 95, 124
Champlin, M., 346
Champtaloup, S. T., 398
Chance, A., 158
T. W., 189
Chand, Dewan, 438
Rajah Moti, 441
Chandrabal, 442
Chandrasekhar, P. S., 460
Chant, 350
Chapais, Hon. F., 304
Chapman, A. E., 20
A. I., 372
A. W., 182
D., 79
D. L., 157, 165
F., 377
H., 94
H. (Otago), 397
H. G., 386

Chapman, K. M., 243
R., 332
R. H., 387
R. W., 372
S., 148
Chappell, A. B., 402
A. J., 183
E., 103
Chapple, C. R., 193
H., 105
Charbonneau, J. N., 328
Charles, Sir H., 141
J. R., 31
Charlesworth, J., 99
J. K., 156, 257
M. P., 43
Charlier, P. L., 444
Charlton, D. D., 233
H. B., 147
P. C., 385
Charteris, A. H., 387
F. J., 250, 252
Charters, R. H., 430
Chartier, E., 327
Chase, E. E., 386
G. A., 46
L., 437
Chatfield, H. S., 460
Chattaway, F. D., 167, 168
Chatterje, A., 472
Chatterjee, A., 451
H., 448
S. K., 447
Chatterji, A., 471
B. C., 442
B. K., 469
K. C., 468
K. C., M.A., 442
K. P., 437
M. N., 472
N. G., 437
S. C., 438
Chattoraj, D. G., 450
K. P., 449
Chaturvedi, C., 437
Chaube, R. R., 436
Chaudhary, H. C. R., 472
Chaudhuri, S. C., 450
Chaudhury, P., 448
Chaundy, T. W., 164, 167
Chauviré, R., 271
Chawla, G. S., 470
Chaytor, H. J., 44
Cheatle, A. H., 104
Sir G. L., 111
Chen, W., 113
Chenoweth, E. W., 376
Cherrier, A. A., 320
Cheshire, F. J., 99
F. M., 439
G. C., 165, 168
Chester, C. E., 217
K. E., 20
Chestnut, W., 322
Cheyne, Sir W. W., 217
Child, J. M., 148
Childs, E. C., 29
J. R. N., 365
S., 354
W. M., 212
Chilton, C., 400, 401
C. A., 29
Chipman, W. F., 312
W. W., 312
Chisholm, A. R., 377
G. G., 232
J., 185
M., 299
Chitty, H., 31
Cholerton, A. T., 43
Cholmondeley, F. G., 163
Choquette, F., 327, 336
Choudhury, B. D. S., 472
Chowdhry, B. K., 472
S. C., 436
Chowla, G. S., 467
Chown, G. Y., 342
Choyce, C. C., 111
Christen, A., 305
Christie, C. V., 311
H. R., 294
J. R., 230
Chrystal, E. M., 47
Chudoba, F., 101
Church, A. H., 159
Churchill, J. L., 298
W. F. S., 97
Chute, A. C., 284
Cillie, G. G., 427
Cilliers, A. C., 428
Cippico, A., 97
Clack, B. W., 99
Clapham, H. D., 94
J. H., 43
Clapperton, A. E., 240
Clare, H., 356
Claridge, B. E., 334
Clark, A. B., 321
A. C., 159, 164
A. F. B., 294
A. J., 110
A. L., 339
C. H. D., 70
D., 249, 262
E. V., 372
F. H. H., 44
F. W., 320
G. A., 63
G. F., 460
G. H., 244
G. N., 166
H. G., 64
J., 411
J. B., 230
J. J., 82
J. M., 242
K. A., 288
R. H., 293
R. J., 228
R. M., 225
W. B., 57
W. C., 340
Clark-Kennedy, A. E., 42
Clarke, C., 31
C. K., 354, 356
E. de C., 393
F., 97, 411
F. C., 99
G. H., 388
J., 226
Clarke, J. J., 79
J. R., 184
Mrs. Lovell, 209
M., 169
M. E., 127
R. C., 31
W. S., 147
Clatworthy, J. P., 213
Clawson, W. H., 351
Clay, H., 146
J., 62, 63
R. S., 97, 99, 143
Clayden, A. W., 205
Clayton, A. E., 152
F. H. A., 63
G. H., 44
H. J., 388
Clegg, C. L., 135
F. R., 365
J. G., 150
Cleland, J. B., 373
Clemens, W. A., 350
Clement, B., 397
F. M., 295
Clery, A. E., 272
Clifford, G. H. W., 147
H., 150
Clifton, E. W. V., 146
Clinton, W. C., 103
Clogg, H. S., 111
Close, R. W., 410
Clough, B. A., 36, 47
G. W., 92
Clover, M., 47
Clucas, R. J. M., 372
Clute, A. R., 353
Cluver, E. H., 430
Clyne, T. S., 379
Coar, J. F., 287
Coate, M., 169
Coates, C. V., 97
J. E., 203
V. M., 31
Cobb, A. J., 214
J. W., 74
Cobbett, L., 40
Cochrane, C., 242
C. A., 62
C. N., 352
Cock, A. A., 216, 217
Cockayne, E. A., 107
Cockburn, J., 262
J. R., 351
Cocker, J. P., 70
Cockerell, S. C., 52
Coe, H. I., 203
Coen, B. J., 384
Coetzee, J. C., 422
Coffey, A., 384
D. J., 271
P., 269
Cogswell, A. W., 298
Cohen, J. B., 70
Cohoon, A., 284
J. W., 332
Coit, W. A., 284
Coker, E. G., 102
Colahan, N. W., 276
Colborne, D. C., 67
Cole, E. B., 82

Cole, E. R. F., 78
F. J., 213
G. A. J., 278
M. G. V., 436
P. R., 385
R. D., 278
R. H., 109
S. W., 40
Coleman, A. P., 352
Eva S. E., 241
G. S., 152
H. T. J., 294
J. B., 92
N. D., 60
R. E., 293
Colgrave, B., 60
Collart, Father, 462
Colles, C., 71
Collie, F. A., 80
J. N., 93
Collier, A. B., 47
F., 146
J. S., 107
Collinge, W. E., 255
Collings, M. P., 142
Collingwood, B. J., 100
R. G., 167
Collins, E. T., 109
M., 233, 437
S. H., 65
Collinson, H., 73
W. E., 80
Collip, J. B., 355
J. B., 288
Collis, E. L., 201
Colomb, R., 21
Colpitt, M. P., 298
Colt, G. H., 228
Colyer, Sir J. F., 94
Comber, H. G., 44
N. M., 69
Commissariat, M. S., 444
Compton, R. H., 410
Comrie, J. D., 234, 235
Conacher, W. M., 339
Conant, R. O., 284
Condliffe, J. B., 400
Conlin, W., 417
Connal, B. M., 70
Connaught, Duke of, 415
Connaughton, Miss, 209
Connell, A., 185
J., 241
J. C., 340
W. K., 240
W. T., 340
Connolly, C. J., 343
D., 343
J., 184
Conrady, A. E., 99
Conran, M. J., 274
Conroy, R., 22
Constable, W. G., 45
Constançon, C., 430
Contant, J., 330
Contodimos, B. D., 67
Conway, A. W., 272
E. I., 216
G., 14
R. S., 146
Cook, A. B., 37, 44
G., 103, 156
H. L., 397
H. M., 205
S. A., 42
Cooke, G. A., 162, 164
H. S., 212
L. H., 98
M. M., 276
W. C., 275
W. E., 384
W. T., 372
Cookson, I. C., 376
Coolidge, W. A. B., 166
Coombes, G. F., 320, 323
Coombs, C. F., 31
F. E., 351
Coon, E. M., 459
Coope, R., 79
Cooper, C. F., 43, 53
E. A., 19
J., 241
Sir P. A., 381
W. L., 29
Coopland, G. W., 80
Coote, J. A., 312
P., 306
Cope, V. Z., 111
Copeman, P. R. v. d. R., 414
S. M., 106
Copland, D. B., 391
Copp, W. P., 297
Coppinger, W. V., 450
Corbett, P. E., 163
W. J., 43
Corbin, H. H., 372
Corby, H., 275
Corcoran, T., 271
Corder, F., 98
P., 65
Core, A. F., 146
C. G., 146
D. E., 150
Corley, F. E., 459
Cormack, G. E., 227
J. D., 241
Cornelius, J. J., 456
Cornellier, P., 336
Corner, E. M., 111
Cornford, F. M., 45
Cornish, G. A., 351
H. H., 404
Cornwall, E. W., 376
Corston, J. R., 299
Cory, G. E., 419
Cosgrave, F. H., 352, 361
Cosh, J. I., 388
Cossar, J., 160
Costain, J. H., 19
Costin, W. C., 167
Coston, E. P., 82
Côté, V., 336
Cotter, J. R., 262
Cotterill, W. E., 19
W. H., 209
Cotton, C. A., 404
F. S., 386
H., 209
H. W. S., 85
L. A., 385
Cottrell, A., 231
Coultas, H. W., 20
Coulter, J. E., 322
Coulton, G. G., 37, 45
Coundouroff, H. G., 67
Coupal, G., 336
Coupland, J. A., 73
R., 160, 163
Courtman, E. O., 98
Courtney, W. L., 166
Couselant, L. D., 442
Cousen, A., 184
Cousineau, Hon. P., 329
Cousins, H. G., 402
Coutts, E. H. M., 225
Coventry, A. F., 355
Covernton, A. L., 444
Cow, D. V., 55
Cowan, D. M'C., 219
H., 227
J., 234
J. M., 244
K. S., 354
Cowen, T. P., 83
Cowie, R. H., 225
Cowley, A. E., 157, 166
Cowling, G. H., 71
Cowper, A. D., 286
Cox, A. H., 200
H. B., 217
L. C., 286
P., 334
W. A., 45
Coy, H., 334
Coyajee, J. C., 450
Craib, W. G., 226
Craig, A., 240
A. D., 386
D., 71
E. S., 157, 166
J., 264
J. A., M.A., 353
J. A., M.B., 258
J. D., 182
M., 109
R., 232
R. G., 388
R. H., 313
Craigie, E. H., 350
W. A., 158, 166
Craik, Sir H., 219
Cramp, W., 20
Crampton, J., 372
Cran, D. H. D., 235
Cranage, D. H. S., 54
Crane, J. W., 365
Cranfield, R. V., 233
Cranston, J. A., 247
Crapper, E. H., 183
Craster, H. H. E., 163
Craven, M. B., 152
Crawford, A. B., 247
A. W., 321
G. J., 63
H. J., London, 113
H. J., Toronto, 351
J., 431
J. H., 234, 235
J. T., 349, 351
L., 411

Crawford, R. N., 475
S. J., 459
Crawfurd, R. H. P., 107
Creed, J. M., 45
Cremer, H. W., 92
Crerar, S. R., 354
Crespi, A., 97
Crew, F. A. E., 233
Crewe, Marquis of, 130, 182
Crichton, E C, 412
Crocker, J. C., 93
Crocket, J., 244
Croft, E. O, 73
Crofton, W. M, 272
Crofts, J. E V., 29, 32
Croissaub, L, 304
Crombie, J. E, 225
Crompton, H., 92
Cronin, M., 272
Cronshaw, G B., 167
Crosland, Mrs. J., 96
Cross, E. J., 74
F. R., 31, 34
W. F, 104
Croucher, S H, 139
Crow, W. B, 199
Crowdy, C. T., 313
Crowther, J. A., 39, 40, 41
W. E., 20
Cruickshank, A., 103
A. H, 60
J. N., 244
Cruikshank, J., 228
Cruikshanks, G. S., 247
Crump, M., 94
P. E., 147
Cruttwell, C. R. M. F, 165
Crymble, P. T., 256
Cuff, A., 185
Cullen, Sir W. P., 384
Culley, A. D., 60
Cullinane, N. M., 192
Cullis, C. E., 447, 450
C. G., 96
W. C., 100
Culverwell, E. P, 261
Cumbrae-Stewart, F. W S, 381
Cumming, A. C, 239
A. H., 205
J., 397
L. M., 232
W. A., 402
W. M., 247
Cummings, A. S., 323
Cummins, H. A., 274
H. H., 391
S. L., 201
W. E. A., 275
Cunliffe, N., 163
Cunning, J., 111
Cunningham, B. K., 51
E., 45
E. M., 262
J., 250
J. T., 102
Cunnison, J., 243
Curnock, W. E. M., 102
Curr, H. S., 318
Curran, M., 274
Currelly, C. T., 352
Currie, Sir A. W., 308
Currier, R. P., 475
Curry, M. A., 299
W. A., 297
Curtis, E., 263
L G, 163
S. J., 71
W. A, 231
W E., 99, 184
Curzon, Earl, 157
H. E J., 97
Cuschieri, A., 478
Cushing, H. B., 313
Cushny, A R, 234
Custance, R., 127
Cuthbert, J. R., 445
Cuthbertson, F. W., 216
Cutler, G. H., 286
Cutten, G. B., 284

Da Fano, C., 100, 127
Dagneau, C., 305
Daiches, S., 101
Dainton, A H, 71, 74
Dakin, W. J., 82
Dalal, A K, 444
Dalbis, L. J., 327, 329
Dalby, W. E., 102
Dale, Sir A. W. W., 55
E A., 350
J A., 354
J B., 97
Dall, Mrs. A., 251
Dalrymple, M., 195
W., 429
Dalton, E. H J. N, 94
J. P., 430
N., 107
P., 388
Damant, E. L, 429
Danaher, M, 480
Daniel, P. L, 111
R. J., 81
Daniell, G W. B, 412
Daniels, C. W, 110
G. W., 146
Danilher, E. L, 351
Dann, F. E., 61
Darbishire, H., 169
O V., 28
Dark, E. P., 384
Darling, H. C. R., 384
Darroch, A., 232
Darvall, A E., 381
Darwin, C. G, 41
L. J., 401
Das, B. N., 434
G, 439
H. R., 456
I., 467
K N., 472
K. P., 472
L. S., 469
Saradaprasanna, 450
Das Gupta, G. C., 449
H. L., 472
S. N., 467, 469
Dasgupta, S., 41
Dastur, F. M., 434
Dastur, S. S., 444
Datta, A. C., 451
B. C., 450
H. N., 442
K. B F. M., 443
R. K, 450
S., 468
S. C., 448
Daubigny, T., 328
Daunt, B. M, 95
Dauth, A., 328
Davel, H. B., 423
Davey, A. J., 196
J. E., 43
Mrs. K. W., 205
David, T. W. E., 385
W. T., 199
Davidge, H. T., 97
Davids, C. A. R, 113
Davidson, A., 388
A N, 233
A. M., 240
B. M, 228
C, 227
C G, 387
G. C., 294
H. A, 225
H. S, 235
J, 293
Jas, 223, 235
J. C, 294
J. R., 322
M., Miss, 193
R., 356
W. L., 225, 227
Davies, A., 434
A. Ll, 163
A. M., 96
A. W., 437
C. W, 192
D L, 199
D. S., 30
E. H, 373
E. T., 197
F L, 378
G. A, 241
G. A T., 199
G MacD, 96
H. J., 183
H. W., Mus.D, 98, 193
H. W., M.B., 235
I. J., 200
J. G., 82
J. H., 192
J. Ll., 203
J. M., 189
M. H. Ll., 81
R. O., 192
S. J., 66
V. C., 103
W. A., 201
W. W., 34
Davies-Colley, R., 111
Davin, A. G., 125
Davis, A., 460
C., 74
E. J., 97
H., 105
H. J., M.A., 71
H. W. C., 14

Davis, M. O., 196
O. C. M., 28
R. L., 295, 339
R. P., 414
W., 210
Davy, N., 209
Dawes, H. F., 318
Dawkins, R. M'G., 42, 160
Sir W. B., 147
Dawson, Lord, 107
Geoffrey, 175
G. D., 151
G. G., 163
H. M., 70
J. A., 297
J. M., 250
R., MacG., 297
W., 37
Day, H. E., 340
I., 480
Dayal, K., 472
L. S., 467
R., 467, 470
S., 472
Daymond, E. R., 98
De, K. P., 474
R. K., 451
S. C., 441, 450, 451
D'Alton, J. F., 269
D'Andrade, J. C. P., 444
de Arteaga y Pereira, F., 161
De Beaumont, V., 352
De Beer, G. R., 161
De Burgh, W. G., 213
De Castro, Miss, 209
De Champ, St. E., 352
De Cotret, E. A. R., 329
De Crespigny, C. T. C., 373
D'Ery, L., 393
de Klerk, W. J., 422
De Kock, G. v. d. W., 424, 428
De la Hey, Miss, 459
De Lloyd, D., 194
De Lury, A., 346
A. T., 353
J. S., 321
de Montmorency, J. E. G., 104
De Santi, P. R. W., 104, 111
de Savoye, H., 287
de Sélincourt, E., 21
D'Silva, L. G., 438
De Souza, D. H., 100, 107
D'Souza, J. A., 444
de Valera, E., 269
De Villele, M. L., 251
De Villiers, L. C., 423
W. P., 423
De Vos, P. J. G., 427
de Wet, B. A., 427
De Wet, F. C., 455
De Winton, F. H., 165
De Witt, C. E. A., 284
N. W., 350
De Wolfe, H. T., 284
De Zulueta, F., 161, 163
Deadman, E., 287
Deakin, M., 85
Dean, G., 92
H., 67
H. R., 150
Deane, E., 80
Deane-Jones, I., 166
Deanesley, M., 66
Dearle, R. C., 365
Dearmer, P., 101
Deb, S. C., 437
Debenham, F., 40, 42
A. J., 387
Debono, G., 479
Décarie, J. D., 329
Dechamps, J. A., 96
Deck, E., 385
Dee, A. A., 22
Defries, R. D., 355
Degani, M. A., 272
Dehedrai, S. J., 439
Deighton, F., 40
Delano, C. C., 332
Del Re, A., 160
Delf, E. M., 92
Deller, E., 89
Delorme, L. N., 327
Delp, W. E., 96
Delvecchio, P., 329
Demers, A., 330
J., 328
Hon. L. P., 329
Dendy, A., 102
Deneke, H. C., 169
Denham, C. H., 278
H. G., 383, 410
Denison, R. B., 421
Denniston, J. D., 165
Denny, A., 184
W. L., 365
Denton, F. M., 103
J., 50
Deodhar, D. B., 456
Derby, the Earl of, 78
Derham, E., 393
Derick, C. M., 308
R. A., 295
Dermer, E. C., 167
Derome, A., 330
G. W., 329
Desai, V. G., 442
Des Barres, F. W. W., 332
Desch, C. H., 184
Desnoyers, A., 336
Desrivieres, E., 305
Desseigne, J., 213
Désy, J., 328
Dettmann, H. S., 402
Detwiler, J., 364
Devine, J., 444
Devonshire, Duke of, 69
Dewar, G. D., 125
Sir J., 39, 44
R., 213
Dewhurst, C. B., 147
R. P., 162
Dewick, E. C., 450
Dewsbury, F., 458
Dewsnup, E. R., 79
Dexter, J. S., 348
Dey, B. B., 459
H. L., 456
Dhar, N., 437
N. R., 437, 442
S. N., 460
Dharadhar, S. R., 444
Dhopeshwarkar, A. D., 445
Dhown, D. S., 436
Dhruva, A. B., 441, 442
Dhundiraj, L. D., 445
di Castelvecchio, L. P., 21, 127
Dibblee, G. B., 163
Dible, J. H., 150
Dicey, A. V., 163
Dick, G. P., 439
Dickie, A. C., 145
W. M., 227
Dickins, B., 232
Dickinson, G. L., 43, 100
W. H., 444
Dicksee, L. R., 91
Dickson, B. T., 311
E. C. S., 148
J. D. H., 44
J. M., 208
Dienes, P., 193
Digby, K. H., 480, 481
Dill, Sir S., 256, 257
Dilling, W. J., 84
Dillon, T., 276
Dimbleby, V., 184
Dimmitt, M. A., 456
Dimont, C. T., 27, 30
Dines, L. L., 346
Din, Mohd., 468
Dingemans, G. F., 419
Dingwall, J. M. M., 200
Divatia, V. B., 444
Dix, F., 429
G. H., 144
Dixey, F. A., 168
Dixon, A. C., 257
A. E., 274
A. F., 264
A. L., 166, 167
B. J., 82
H. B., 146
H. H., 262
J. R., 386
J. T., 66
S. M., 102
W. E., 40
W. M., 241
Dobbie, Edith D., 255
Dobbin, L., 231
Dobelli, E. B., 97
Dobson, G., 160
G. M. B., 161
J. F., 28, 73
Dodd, A. H., 197
F. T., Ll., 257
G. J., 310
P. W., 165
S., M.B., 109
S., F.R.C.V.S., 386
Dodds, E. R., 212
Dodds-Parker, A. P., 158, 162
Doderet, W., 113
Dodgson, J. W., 212
Dods, G. N., 394
Dodwell, H. H., 97
Dohan, J. S., 311
Dolamore, W. H., 94
Dolling, Miss, 136

Dollo, A., 328
Dombrowsky, Ag. des L., 327
Don, A. V. R., 225
Donagan, A. E., 20
Donaghey, J. I., 269
Donald, A., 150
G., 225
M., 427
Donaldson, M., 105
R., 61, 110
Donegan, J. F., 276
Donnan, F. G., 92
Donovan, C., 460
D. D., 275
R., 271
Donovan O'Sullivan, Mrs., 276
Dootson, F. W., 37
Doran, W., 79
Dore, S. E., 105
Dorion, C. E., 305
Dorland, A. G., 364
Dorrance, R. L., 338
Dorsey, J. W., 321
Dorvaux, J. E., 328
Dorward, A. J., 257
Dott, N. M., 233
Double, I. S., 80
Dougal, D., 150
Douglas, A. J., 322
C. G., 161, 165, 167
J. A., 160, 168
J. S. C., 185
M. S., 438
W. C., 459
Douglas-Crawford, D., 78, 84
Dove-Wilson, Sir J. C., 421
Dover, A. T., 103
Dow, D. R., 250
Dowdall, H. H., 81
Dowden, J. W., 235
Dowding, A. T. W., 85
Dowell, A. A., 286
Dower, R. S., 70
Dowling, E. A. G., 28
J. J. 272
P. A. E., 278
Downey, J., 274
M. H., 373
Downham, W. S., 365
Downie, D. G., 226
F. H., 66
Downs, A. W., 288
B. W., 41
Dowse, C. M., 103
Dowsett, E. B., 94
Doyne, H. C., 162
Drabble, F., 92
Drake, H. L., 167
J., 451
Drakeley, T. J., 92
Drennan, A. M., 398
C. M., 430
M. R., 410
Drever, J., 233
Drew, A., 208
D. L., 146
E., 203
J. P., 271
Dreyer, G., 162, 165
T. F., 417
Drinkwater, B. W., 97
Driver, G. R., 166
J. E., 208
Droop, J. P., 78
Drummond, D., 57, 62
H., 62, 63
J. C., 93
M., 246
Drury, C. W., 339
E. G. D., 419
F. E., 145
T. W., 35, 44
T. W. E., 264
Dryerre, H., 233
Drysdale, J., 430
J. H., 107
Du Plessis, D. J., 422
J. A., 422
L. J., 422
Du Roure, R., 309
Du Toit, A. E., 424
D. F., 427
J. D., 422
P. J., 411, 421
Dubé, H., 336
J. E., 330
Dube, D. S., 440
Dubeau, A., 328
E., 327
Duchein, F., 328
Duckworth, H. T. F., 352, 361
W. L. H., 36, 43
Dudden, F. H., 158, 167
Dudgeon, L. S., 110
W. S., 437
Dudley, G., 216
Duerden, J. E., 419
Duff, D., 350
G. H., 350
J. D., 45
J. F., 146
J. W., 66
R. A., 240, 243
Duffield, F. A., 81
W. G., 213
Dufresne, E., 330
Dufresne, G. A., 327
Duhamel, J. A., 327
Duhr, J., 444
Duke, A. C. H., 164
W. H., 43
Dumbell, S., 79
Dun, W. S., 385
Dunbabin, R. L., 391
Dunbar, J., 244
R. T., 233
Duncan, G., 225, 227
G. S., 251
H. S., 459
J., 103
J. G., 247
Jeannette, 150
J. W., 312
Dundas, Lord, 230
R. H., 164
Dundas-Grant, Sir J., 104
Dundon, J., 275
Dunhill, T. F., 98
T. P., 111
Dunkerly, J. S., 243
Dunlea, W. J., 274
Dunlop, E. M., 244
F. W., 398
H. A., 293
R., 148
Dunlop, Sir T., 240
W. J., 349
W. W. C., 57
Dunn, E. F., 241
F. A. S., 288
J. P., 233
J. S., 22
S. G., 437
Dunstan, A. C., 96
M. J. R., 134
Durack, J. J., 437
Duranseau, N., 336
Durham, the Bishop of, 57
the Earl of, 57
Durnford, H. G. E., 43
Sir W., 35, 43
Duroiselle, C., 474
Dussault, N. A., 306
Dust, E. R., 152
Duthie, A. V., 427
Dutt, B. C., 451
P. K., 70, 442
P. N., 467
Duvenage, A. P. C., 422
Dwerryhouse, A. R., 213, 260
Dyal, D., 467
Dyde, S. W., 340
Dyer, F. C., 351
M., 97
Dykes, D. O., 234
F. J., 45
Dymond, D., 97
J. R., 355
Dyonnet, E., 312, 327
Dyson, W., 150

Eagle, A., 148
Eales, N. B., 213
W. C., 411
Earl, N. C., 385
R. O., 338
Earle, F. M., 419
H. G., 480
J., 259
M., 46
Earp, F. R., 94
Eason, H. L., 109
J., 235
Eastaugh, F. A., 385
Easterling, R. C., 205
Eastham, J. W., 293
L., 22
Eastman, M., 294
Eastwood, E. H., 185
R. A., 48
Eaton, J. W., 345
Eaves, E. C., 184
Eberts, E. M., 313
Eccles, F. Y., 96
W. H., 99, 103, 143
W. McA., 111
Eddington, A. S., 36, 45
Eddy, N. B., 288
Edelstein, H. H., 429
Eden, T. W., 109

Edgar, C. S., 427
J., 251
O. P., 351
Edgell, B., 99
Edgeworth, F. H., 30
F. Y., 163
Edie, E. S., 410
Edington, G. H., 244
J. W., 185
Edkins, J. S., 100
Edmonds, H. M., 103
Edmondson, A. R, 152
Edwards, A. T., 111
B., 364
C. A., 203
D. M., B.Sc., 79
D. M., 189
D. S., 387
E., 81, 193
E. J., 248
E. M, 470
G. M., 45
H. J., 44
J. A. M, 321
J. G., 165
L. D., 381
R. W. K., 97
W., 189
Edye, B. T., 384, 388
Egan, M. F., 272
Egerton, A. C. G., 161
C. W., 402
H. E., 163
Eggar, M. E., 146
Eggeling, H. F., 232
Eggli, J. E., 80
Eiselen, G. T. S., 422
Elam, C. W., 81
Elder, J. R., 397
Elderton, E. M., 96
Eldridge, A. A., 92
Elkin, S. J., 323
Elias, E., 335
Ellershaw, H., 60, 61
Ellerton, M. K., 80
Elles, G. L., 47
Ellingworth, S., 70
Elliot, A., 139
Elliott, C. A., 43
C. C., 412
J. S., 19
P. H., 295
T. R., 107
Ellis, B., 183
C. D., 45
D., 247
D. S., 339
J. C. B., 162
O. F., 364
O. W., 353
S. J., 21
Ellul, J., 479
Elsden, J. V., 96
Elton, G., 167
O., 80
Elwes, F. F., 460
Elwood, H., 257
Emberley, G. E., 311
Emden, A. B., 168
Emmett, C. W., 165, 168
Emrys-Roberts, E., 200
Engelbach, H. A., 412
Engelbrecht, S. P., 424
Engineer, A A., 444
Engledow, F. L., 45
English, A., 269, 276
S, 184
Sir T. C., 111
Enright, M A., 275
Entwistle, W. J., 149
Erasmus, H. W. B., 424
Erith, A. G., 213
Esdaile, P. C., 92
Estey, J. W., 346
Ethier, A., 329
Eumorfopoulos, N., 99
Eurich, F. W., 72
Eustice, J., 216
W. E., 456
Evans, A. G., 107
A. H., 111
Sir A. J., 158, 164
A. J., F.R.C.S., 84
B. I., 147
D., M.A., 193
D, Mus.D., 200
D. E., 198, 203
E. J., 203
F. M G, 148
G. T. R., 430
H., 199
H. J, 92
H. T., 200
J., 189
Joan, 169
J. J., 22
J. T., 189, 197
J. W., 96
J. Y., 189
N. N., 309
R. T., 199
T. J., 57, 92, 102
W. A., 315
W. D., 352
W. J., 189
W. J. R., 226
W. P., 400
Eve, A. S., 310
Everett, D., 169
W. H., 451
Evers, H., 62
Evershed, A. F. C, 69
Everidge, J., 111
Ewan, G., 450
Ewart, A, 160
A. J., 376
J. C., 233
Ewing, J., 70, 232
Sir J. A., 230
J. A., 437
Ewles, J., 72
Eyre, J. W. H., 104
Ezard, E. H., 46

Fabb, C. L., 288
Faber, G. C., 163
Fagan, T. W., 192
Fagge, C. H., 111
Fahy, T., 269
Faid, W., 67
Fahrni, G. S., 323
Faill, C. J. C., 30
Fairbairn, J. S., 105
Fairbank, H. A. T., 105
Fairbourne, A., 93
Fairbrother, F., 146
Fairgrieve, J., 95
Fairley, B., 352
Fairlie, M., 253
Fairweather, D A., 231
Falconer, A. W., 412
J. D, 246
Sir R. A, 349
Falk, J. H. T., 310
Fallon, J, 450
Fannin, R. J., 278
Fantham, H. B., 430
Farbridge, M. H., 149
Faribault, R., 329
Farley, W. A, 74
Farmer, J. B., 92
J. H., 318
Farnell, L. R., 157, 165
V., 169
Farquharson, A. S. L., 168
Farr, C. C., 401
Farran, A. C., 444
Farrell, J. M., 340
Farren, W. S., 42
Farrington, B., 410
Faucher, P. V., 306
Faulkner, A. W., 299
Faull, J. H., 350
Faure, J. C., 423
Fauteux, A., 327
N., 328
Fawcett, C. B., 71
E., 28
J., M.D., 107
J., M.A., 274
Fawsitt, C. E., 384
Fawtier, E., 147
R., 147, 148
Fay, C. R., 41, 55, 354
Fazil-i-Haqq, Q., 467
Fearnsides, W. G., 183
Fearon, W. R., 261, 264
Feather, G., 67
Fedden, W. F., 111
Fegan, E. S., 47
Feiling, K. G., 164
Fenelon, K. G., 231
Fenton, E. W. J., 404
H. J. H., 37
J., 480
W. J., 107, 140
Fenwick, C. B., 66
Fergus, T., 398
Ferguson, A. H., 99
A. S., 339
H. L., 398
H. S., 145, 148
J., 247
J. B., 350
J. G. W., 421
J. H., 234, 235
J. I., 365
M., 242
R., 365
R. G., 322

Ferguson, R. M., 152
W. C., 351
W. S., 349
Fergusson, D. C., 232
Fernandes, R. C., 378
Ferrar, W. L., 197
Ferrier, R. M., 32
Ferron, A., 330
Fetherstonhaugh, E. P , 321
Fforde, W. J., 259
Fiddes, E., 145, 148
Fiedler, H. G., 160
Field, F , 216
C. C., 323
G. C., 81
S., 92
Fielden, V. G. L., 258
Fields, J. C , 353
Fife, E. E., 439
W. M , 287
Filion, E , 328
Fillion, Ph. J., 304
Filon, L. N G., 98
Filson, R. M., 340
Finch, G. I , 93
Findlay, A., 226
G. W. M , 235
J , M.A , 81
J., C.A , 429
J. J., 146
L., 243
W., 318
W. M., 225
Finegan, E., 20
Finlay, G., 379
P., 269
T. A., 272
T. M., 232
W. H., 419
Finlayson, H. H., 372
J. N., 320
R. N., 372, 373
Finley, F G , 313
Finnan, E., 257
Finnegan, Ina, 256
J. M., 256
Firth, A. C D., 107
C. B., 95
C. H., 160, 166
E. M., 184
J. B., 208
J. L., 30, 31
J. R., 470
Fiset, L. J. N., 306
Fisher, E. A., 74
E. M., 384, 388
H. A. L., 166
J. H., 109
N., 193
R. A., 42
S. M., 365
Fisk, W. M., 309
Fison, A. H., 99
Fitch, A. A., 83
Fitchett, F. W. B., 398
Fitt, A. B., 402
Fitzgerald, D. P., 274
J. G., 355
J. J., 275
Fitzgibbon, T. E., 274
Fitzpatrick, Sir C., 305
T. C., 35, 44
Fitzwilliams, D. C. L., 111
Flahaut, J., 330
Flammer, E., 339
Flather, J. H., 55
Flattely, F. W., 67
Fleet, H., 257
Fleming, A., 104
Sir John, 225
J. A., 103
J. D., 323
J. F., 469
R A., 234
Flemming, A. L., 30
P , 109
Flenley, R., 326, 352
Fletcher, F , 205
G W., 322
H. M., 105, 107
J , 150
M , 66, 67
M S., 388
R. D., 323
Sir W. M , 45
Fleure, H. J , 193
Flinn, I. M , 379, 381
Flint, E. M., 459
E R., 72, 73
H. T., 99
Florance, D. C. H., 480
Floyd, J. F. M., 243
Fluck, G. H , 299
Flynn, E. J , 305
T. T , 391
Foakes-Jackson, F. J., 43
Foenander, O. de R., 378
Foggie, Dr., 253
Foley, R. A., 140
Foligno, C., 160
Forbes, A. M., 314
M. D., 41
N , 161, 167
Ford, G. P , 216
H. E., 352
Fordham, A. A., 183
M., 394
M. G. C., 82
Fordyce, A. D., 83
W., 234, 235
Forest, C., 328
Forker, M., 269
Formosa, G., 478
Forrest, J., 252
Forrester, J. C., 472
R. B., 227
Forsey, G. F., 216
Forster, E. S., 182, 185
R. B., 74
Forsyth, A. R., 98
C., 481
D., 107
P. T., 138
R. W., 99
T. M., 417
Fortier, E. R., 306
L. E., 330
Foster, B. W., 159
Sir G., 124
H. W. A., 353
Foster, P. F., 199
Sir T. G., 95
T. S., 29
W. H., 44
Fothergill, W. E., 150
Fotheringham, J. B., 361
J. T , 355
Fouché, L., 423
Foucher, A. A., 329
Foulerton, A G. R., 106
Fournier, L. T., 293
N., 330
Foweraker, C. E., 400
Fowlds, G., 402
Fowler, A., 99, 100
G J., 477
J. S., 234
R. H., 46
W. W., 180
Fox, A. C., 393
A. G., 216
C., 37, 45, 46, 51
C. J., 444
H M., 42
W. S., M.D., 105
W. S., Ph.D., 364
Foxley, B., 199
Foxwell, H. S , 45, 95
Foy, C., 305
Fraenkel, P. H., 393
Francis, F , 28
W. E , 32
Francken, A., 417
Frankau, C. H. S., 111
Franken, J. L. M., 427
Franks, A H., 209
R. S , 27, 30,
Franzen-Swedelius, B., 318
Fraser, A. D., 30, 31
A. R., 412
C. McL., 295
Sir D. D., 146
D J., 314
D. K., 232
D. M. M., 228
D. T., 355
F. R., 107
G. K., 226
H., 391
I. M., 346
J., 159, 165, 261, 263
J. M., 312
J. R., 312
J. S., 234
M. S., 322
P., 29
R., 332
W A., 255
W. G., 474
W. P., [illegible]5
Fraser-Hill, C. E., 385
Frazer, J. E. S., 91
Sir J. G., 45, 78
Freedman, A. O., 308
Freeman, J., 30, 104
K., 199
French, C. H., 42
H. S., 107
J. G., 104, 106
R. de L., 312

French, W. E., 71
Frere, W. H., 72
Frew, R. S., 105
Fricker, H. A., 353
Friel, E. S., 262
Friend, E. M , 212
Fripp, Sir A. D., 111
Fritch, F. E., 92
Frith, J., 147
Froggatt, W. W., 384
Frost, P. R., 61
Fry, E. J., 192
F. M., 313
H K., 373
M. W. J., 261, 263
P., 79
R. K., 32
Fryer, C. E., 310
J. R., 286
Fulford, H. W., 41
Fuller, E. B., 412
L. L , 287
W., 372
Fullman, B , 28
Fulton, A. R., 251
T. A W., 226
W., 227
Funnell, W. S., 350
Furber, T. F., 384
Fusey, A , 336
Fyfe, G. M., 227
M. L., 397
W. H., 166
Fyffe, D., 67
Fynes-Clinton, O. H., 197
Fyson, P. E., 459
Fyvie, W. W., 227

Gabbatt, J. P., 401
Gabell, D. P., 94
Gadow, H., 40, 53
Gaetz, H. H., 288
Gagnon, A., 330
C., 305
Gait, Sir E. A., 471
Gajendruzadkar, A. B., 441
Galbraith, H. G., 410
V. H., 156
Galea, R. V., 478
Gallie, W. E., 356
Gallon, G., 345
Gallop, E. G., 42
Galloway, G., 250, 251
H. P. H., 323
Sir J., 105, 107
Galt, A. S., 69
Gamble, C. W., 152
E. G., 423
F. W., 22
Gamgee, L. P., 22
Ganderton, H. T., 61
Ganapat Sing, 448
Gandhi, N. P., 442
Gandier, A., 356
Gandy, E. W., 104
Ganguli, A. C., 451, 472
G. P., 442
S. K., 471
Ganguly, A. N., 467
Gann, T. W. F., 85
Gant, T., 391
Garabedian, D., 168
Garde, G. K , 439
Gardiner, A. F., 460
F., 234
G. F., 28
J. S., 40, 42
R. J., 340
Gardiner, T. W., 439
W. T., 234
Gardner, A., 29
E. A., 91
E. G., 148
J. A., 93
P., 158, 165
R., 42
W. A., 323
Garnépy, N., 304
C. N. 305
Garland, J , 390
Garmonsway, G. N., 193
Garneau, A , 304
Sir G., 304
P. B , 307
Garner, J. W , 447
W. E., 93
Garnett, E., 423
Garnsey, A H , 388
Garrett, Dr., 68
H. L. O , 470
J. G , 211
Garrod, Sir A , E , 162, 164
H. W., 166
Garrow, A. E., 313
J. M. E., 404
Garside, S., 92
Garstang, J , 72, 78
S , 72
Garthwaite, K., 420
Gartrell, H W., 373
Garvie, A. E , 101, 138
Garwood, E. J , 96
Gaselee, S., 44
Gask, G. E., 111
Gaskoin, C. J. B , 42, 46
Gaster, V. I , 434
Gastonguay, J. N., 305
Gatenby, J. B , 125, 264
Gates, G E., 475
R. R , 92
Gatt, J. L , 478
Gattet, B. M., 328
Gaul, E. G., 146
Gautheron, R., 343
Gauthier, Abp. C. H., 336
Bp. G., 327
H., 328
O., 328
Gawler, J. S., 376
Geale, E. A , 257
Geddes, A. E. M., 227
P., 443
Gedge, E. C., 137
Gee, W. W. H., 152
Geldart, W. M., 162, 163
Gemmell, J. E., 83
Gemmill, J. F., 252
Wm., 19
Gendreau, E., 327, 328
Généraux, D., 328
Genest, R., 329
Genève, L. F. C. A., 102
Genner, E. E., 165
George, A. F., 20
D. Lloyd, 230
E , 429
H. E., 30
H. J., 165, 167, 168
Gérin-Lajoie, A., 329
Gerrans, H T., 180
Gerrard, H., 147
Geyl, P , 94
Ghani, M. A., 439
Ghose, J C., 439
M., 450
R. N , 450
S. L , 467
Ghosh, E. N , 449
J , 451
J C , 447
L K , 472
L N , 437
P , 447, 450
Ghoshal, S. C , 438
U N., 450
Ghurye, V. S , 445
Gibb, A. W., 226
D., 233
Gibbon, H. H , 164
Gibbons, W. M , 182
Gibson, A., 323
A G., 162
A. H , 147
C. S., 93
G. A., 240, 242
G W., 74
J , 197
R , 151
W , 340
W. H. H., 387
W. R. B , 377
Gie, J. C., 410, 412
S. F N , 428
Gignac, J., 305
Gilani, M. A , 466
Gilbertson, F W., 203
Gilchrist, D. A , 65
G., 28
H. A., 287
J , 71
J. D. F., 412
L , 354
Giles, A. F., 232
H. A., 41
P , 35, 39, 42
R. S , 474
Gilham, C. W., 72
Gill, C., 20, 21
E. W. B., 161, 166
J E., 449
J M , 387
L. W., 293, 342
Gillespie, C. M., 72
P., 353
Gilliat, Mrs., 104
Gilliatt, W., 189
Gillies, G. A., 294
S., 387
Gilligan, A., 71
Gillis, D. C., 343

Gillson, A. H. S., 310
Gilmore, D. C., 475
Gilmour, C. R., 322
J., 62
J. L., 318
W. H., 84
Gilroy, J., 226
Gimkewitz, F., 430
Ginsberg, M., 99
Girvan, R., 241
Gladstone, R. J , 91
Gladwyn, A. E., 103
Glaisher, J. W. L., 46
Glaister, J., 243
J , Junr., 243
R., 382
Glanely, Lord, 199
Glassco, A P S , 308
Glassington, C. W., 94
Glasstone, S., 205
Glauert, H., 46
Glazebrook, Sir R. T , 46, 102
Gleave, H. H., 73
Glen, E. H., 243
Glenavy, Baron, 261
Gloag, W. M., 243
Glover, T. J., 20
T. R., 35, 38, 45
Glover-James, H., 216
Gloy, O. H. M., 397
Gluckmann, H., 429
Glynn, E. E., 83
T. R., 83
Glynne, A., 152
Goad, H. E., 97
Goadby, Sir K. W., 104
Godbole, N. N., 442
Goddard, A E., 19
E. J., 428
Godden, W., 69
Godfrey, F. La T , 261
Godley, A. D., 157
Goffin, R. C., 451
Goggio, E., 353
Gokhale, S. H., 438
Goldberg, J. C., 414
Goldie, W., 355
Golding, J., 214
N. S., 295
Goldsack, I. R., 147
Goldsbrough, J. R., 67
Goldsmith, P. G., 355
Goligher, W. A., 261, 262, 263
Golla, F. L., 107
Gollancz, H., 101
Sir I., 95, 205
Gombert, E., 460
Gomme, A. W., 241
Gonner, Sir E. C. K., 79
Gonzalès, B., 328
Gonzi, M., 478
Goodall, A., 235
J. R., 312
Goodbody, F. W., 93
Goodchild, G. F., 89
R. S., 52
Goodhart, A. L., 42
Goodman, J., 71
Goodrich, E. S., 161, 166
Goodwillie, J., 227
Goodwin, L. F., 339
W. L., 338
Gordon, A. H., 313
A. R., 309
G , 71
J., 73
J. K., 365
K , 159
K. W., 346
L., 410
M. H., 104
M. L., 192
P. F , 247
R. K., 287
T. E., 264
W., B.Sc., 232
Miss W., M.A., 339
W. T., 96
Gordon-Taylor, G., 111
Gore, C., 101
Gorman, M. J., 278
Gorrell, J. A., 323
Goss, L. A., 41
Gosse, A H , 107
Gosselin, Mgr., 304
Goudge, H. L , 101
Goudie, W. J., 241
Goudy, A. P., 39, 46
H., 180
Gough, C. E , 71
J H., 73
W., 73
Gouin, Sir L., 327
L. M., 329
Gould, E. L. P., 111
Goulden, C. B., 109
C. H., 346
Goulding, S. M., 71
Gow, A., 130
Gowland, W. P., 397
Grace, J. H., 38, 44
S. F., 81
Graham, C. I., 106
D. A. L., 355
E., 166, 168
H., 257
J., 98
J. I., 21
J. M., 235
M., 251
R. J. D., 231
S. N., 339
W. C., 309
W. R., 356
Grahame, Tom, 230
Graham-Smith, G. S., 40
Grahamstown, Bishop of, 419
Grandbois, J. E., 305
Granger, F. S., 208
Grant, A. J., 71
A. J., M.D., 365
C. C., 415
G. W., 297
J., 151
J. A., 234
J. C. B., 320
J. L., 145
J. R., 293
J. W. G., 201
Grant, K., 373
Sir L. J., 234
W. G., 430
Grant-Ives, C. E., 43
Grantham, T. R., 138
Granville-Barker, H., 79
Grattan, J. H. G., 95
Gravel, J , 336
Graves, C. E., 55
Graveson, C. C., 95, 143
Gray, Bishop, 289
A., M.A., 35, 43, 227
A., LL.D., F.R.S., 242
A. A., 243
A. M H , 105
F. W., 226
G. C., 288
H. J., 225
H. R. D., 312
H. T., 111
J , 43
J. A., 310
J. G., 243
J. H , 44
M. I., 233
M. M , 241
R A H., 65
R C., 373, 394
T., 247
T. T., 261
W. S , 402
Greaves, F. W. M., 74
W. H., 363
Green, A., 192
D. C., 262
Dr., 68
F., 310
F. C., 321
F. W., 166
G., 242
H. G., 209
H H , 423
H. M., 384
J. A., 182
John, 256
M. H., 167
S. L., 98
S W., 99, 101
W. H., 376
Greene, W. H. C., 91, 111
Greener, H., 419
Greenish, A. J., 98
H. G., 110, 144
Greenlees, M., 411
Greenshields, R. A., 312
Greenup, A. W., 101, 138
Greenwood, E. F., 379
F. R., 22
L. H. G., 22
M., Junr.. 106
Greeves, R. ., 109
Greer, H. L. H., 258
Gregoire, A., 305
Gregory, E., 184
H. H. C., 107
J. C., 70
J. W., 242
R. H., 377
T. E. G., 94
Greig, A. R., 346

Greig, D. M., 255
J. Y. T., 65
Grenet, Mlle A., 80
Grenfell, B. P., 160, 167
Grensted, L. W., 149
Gretton, R. H., 168
Grey, Viscount, 65
P., 402
Greys-vensteen, J. H. J. A., 424
Grice, Sir J., 376
Grier, J., 150
L., 158, 169
Grierson, A., 242
H. J. C., 232
Grieve, A. A. M., 67
Lorna, 213
R. G., 460
Griffin, A., 32
A., A.R.C.M., 20
Griffith, F. L., 102
I. O., 161, 164
J. J., 192
Sir J. P., 263
R. O., 79
Sir S., 390
T. W., 73
W. G., 276
W. H., 104
Griffiths, A., 99
B. M., 65
O., 195
P. L., 391
Grillo, E., 242
Grima, Mgr., 178
Grimsdale, H. B., 109
Grimshaw, H. A., 101
Grist, Mrs., 70
Grobbelaar, C. S., 428
Grojean, G., 294
Grondahl, I. C., 99
Grondin, S., 305
Groom, P., 92
Grose, S. W., 41
Gross, E. J., 42
Grosskopf, J. F. W., 427
Grossmann, J. P., 402
Groulx, L., 328
Grove, A. J., 184
J. W., 379
O., 28
Grove-Hills, E. H., 60
Groves, E. W. H., 31
Grubb, H. C., 345
Gruffydd, W. J., 200
Grundy, E. L., 477
G. B., 164
G. C., 70
W. W., 199
Gruner, O. C., 73
Gualtieri, E., 29
Guérard, J., 306
Guérin, J. J., 329
Guertin, A., 336
Guess, G. A., 353
Guest, J. J., 125
W. S., 351
Guha, A. K., 448
Guigou, Mlle. M., 209
Guilford, E. L., 209
Guillaume, A., 60
Guilleband, C. W., 45
Guiton, P. A., 421
Gullan, A. G., 83
Gulland, G. L., 234
Gullen, W. E., 208
Gulliver, G. C., 183
Gummer, C. F., 339
Gunderson, G., 377
Gundry, P. G., 415, 424
Gune, P. D., 445
Gunjikar, K. R., 442
Gunn, G. O., 230
J. A., 162
J. A., M.D., 323
J. W. C., 412
R. M. C., 386
Gunnell, D., 71
Gunson, J. B., 373
Gunther, R. W. T., 166
Guntsensperger, J. J., 301
Gupta, B. C., 451
S. N., 449
Gurbaxani, H. M., 445
Gurd, F. B., 312
Guthrie, F. B., 385
F. C., 79
Gutteridge, H. C., 104
Guy, J., 330
Gwalior, Maharajah, 441
Gwynn, E. J., 261, 262
R. M., 261, 262
Gwynne-Vaughan, Dame H. C. I., 92
Gyi, J. A., 474

Haarhoff, T. J., 414, 429
Haas, P., 92
Hackett, J. R., 274
F. E. W., 278
Hackforth, R., 45
Haddon, A. C., 37, 41
Hadfield, G., 31
J. A., 99
Hadley, W. J., 107
W. S., 35, 44
Hadow, Sir W. H., 182
Haggen, G. L., 72
Hague, B., 103
J. C., 95
Hai, A., 465
Haidar-Khan, M., 437
Haig, H. A., 201
Haigh, W., 212
Haines, A. H., 91
Hainsworth, C. H., 183
Haji, S. N., 444
Hakim, K. A., 465
Haldane, Viscount, 27
J. B. S., 166
J. S., 21, 166
Haldar, H. L., 447
K. P., 474
Hale, J., 365
Haley, F. R., 284
Halket, A. C., 92
E. C., 96
Hall, A. A., 65
A. J., F.R.C.P., 185
A. J., L.R.C.P., 398
D. G. E., 474
Hall, F. H., 166
F. W., 167
G., 62
H., 99
I. W., 31
J., 66
M. E., 288
N. M., 321
R. L., 419
Hallam, A. R., 184
W. T., 356
Hallberg, F., 444
Hallett, H. F., 72
Halliburton, W. D., 100
Halliday, F. W., 148
W. R., 80
Halliwell, D., 146
Hallsworth, H. M., 66
Prof., 67
Halpenny, J., 323
Halsbury, the Earl of, 157
Ham, A., 353
W., 372
Hambleden, Viscount, 125
Hamel, A. C., 305
Hamill, H., 445
P., 110
Hamilton, A. F., 444
C. J., 471, 472
Miss G., 217
H., 20
H. D., 313
J., 292
R. J., 349
T., 256
T. J., 323
W. F., 313
Hamley, H. R., 445
Hammick, D. L., 159, 165, 166
Hammond, J. H., 387
M., 20
Hampshire, T. R., 258
Hampton, H. V., 445
Hanbury, H. G., 165
Hanby, F., 66
Hancock, W. K., 393
Handley, W. S., 111
Hanley, J. A., 69
Hanna, W., 83
Hannah, R., 364
Hannay, R. K., 232
Hansen, C., 426
R., 346
Hanton, W. A., 152
Har, H., 465
Haraprasad, M., 471
Harcourt, G., 286
Hardcastle, W., 62
Harden, A., 92
J. M., 101
Hardie, R. P., 233
Harding, H. G., 112
R. W., 138
V. J., 355
Hardy, A. E., 346
A. O., 472
C. M., 138
E. G., 157, 165
G. F., 66

Hardy, G. H., 160, 166
T. L., 22
W. B., 39, 42
W. G , 286
Hare, H R., 295
Hargreaves, R , 81
Harihar, 442
Harington, C R , 235
Harker, A , 39, 45
G., 385
Harkness, J , 310
Harle, J. A , 66
Harley, H A , 302
Harlow, F J , 99
Harmer, F , 147
W. D , 106
Harper, A., 388
J , 244
M G , 226
Harries, D J , 200
Harrington, E. B , 346
Harris, B , 353
C A , 365
C R. S , 163
D. F , 298
D I , 42
E. F., 437
E. J , 242
E. T , 213
G. H., 46
H , 21
H H , 98
M. E A., 203
R. K., 384
S. L. D , 317
W., 107
W. M , 43
Harrison, E , 46
E. P., 450
F. C , 308, 311
J. E , 47
J. W. H., 67
L , 386
W. J., 38, 41
Harriss, G. M., 263
Harrower, J , 225, 226
J. G., 240
Harston, G. M., 481
Hart, B , 109
F., 322
N. C., 364
R. A., 311
Hart-Synnot, R. V. O , 163, 167
Harte, W. J , 205, 206
Harting, P., 94
Hartley, B. S., 294
E. G. J., 159
H. B , 164
P. H.-S , 107
Hartog, M., 275
P. J., 453
Hartridge, H , 39, 43
Hartung, E. J , 376
Hartwell, G A., 100
Harty, J. P., 30
Harvey, A. C , 29
D. C., 321
E. L., 334
F. E. E., 51
Harvey, F. W., 98
G. M., 20
Hon. H., 286
J W , 23
S C., 428
Harvey-Gibson, R. J., 88
Harvey-Jellie, W , 309
Harwood, H F., 93
J , 146
L de L , 329
Hasan, M. M , 450
Haselfoot, C. E , 165
Hashim, M , 472
Haslam, W F., 19
Hass, A., 460
Hassall, A , 164
Hassan, S , 468
Hassé, H R., 29
Hastings, S , 111
T E , 235
Hatcher, H. W , 309
Hate, V N , 445
Hathaway, I. H , 205
Hattersley, F A , 421
Hattie, W. H , 298, 299
Hattingh, J T , 411
Hatton, J. L S , 98, 133
R G., 65
Haultain, Sir F W G , 345
H. E T , 351
Havelock, T H , 67
Hawken, R W H , 381
Hawkes, C J , 66
L , 96
Hawkins, H L , 213
H. P , 107
Haworth, P , 29
W N , 57, 62, 65
Hawthorn, C. M , 65
Hay, A , 477
J , 83
M , 225, 228
R , 248
S M , 356
W G., 397
Hayden, H. A., 200
M T., 271
Haydock, G. H , 207, 242
Hayens, K , 251
Hayes, E. H., 166
M , 269
R. A , 46
Haynaud, A M , 321
Hayward, W T , 375
Haywood, W , 20
Hazari, G. P , 472
Hazel, A. E W., 161, 165, 167
Hazeltine, H D , 38
Hazlitt, V. H., 99
Head, F. W., 42
H., 107
Headlam, A. C., 163, 164
Headridge, D , 151
J P., 151
Healey, J., 85
Heaney, F. S., 84
Heanley, C M., 480
Heap, H., 151
Heard, A., 200
Hearnshaw, F. J. C , 97
Heath, A. E , 80
L. B., 388
S. P., 46
Heathcote, R. St. A , 162
Heather, H. J. S., 429
Heatley, D. P., 232
Heatley, M., 429
Heaton, B , 451
G., 23
H , 372, 374
T B , 164
W. H , 208
Heaven, J C., 30
Heawood, P. J , 57, 60
Hebb, T C , 294
Hebditch, G. L , 426
Heberden, C B., 180
Hebert, J T , 346
Hébert, P , 304
R , 330
Hector, J. M , 423
Hedley, J. P., 105
Hedman, T., 352
Heigham, C , 43
Heilbron, I. M , 79
Heinzelmann, J. H , 321
Heiser, F. B , 57
Heitland, W. E , 45
Hele, T. S , 36, 42
Helweg, J. H , 94
Hemmeon, J C , 310
Hemmy, A. S , 470
Henderson, A , B A , 208
A., M A., B Sc , 241
A. G , 400
A M , 376
B. W., 165
G. C., 373
G G., 241
H D , 37, 41, 42, 44
H. L , 166
I F , 30
J , M.A , 294
J , M D , 244
Pearl, 248
V E., 355
W. D., 30
W. J , 27, 30
Hendrick, J., 225
Hendry, A. W., 228
J., 244
R. A., 83
W. B., 355
W W., 233
Hendy, F. J. R., 159, 173
Hennessy, J. F., 384
Hennigar, G R., 299
Hennings, A. E , 294
Henry, A., 278
D. C , 146
F. G , 311
J. M., 261, 262
R. M., 256, 257
Hensman, Mrs. S. G., 462
Hepburn, D., 199
M. L., 109, 144
W. G., 314
Herapath, C. E. K., 31
Herbert, S., 194

Hercus, E. O., 377
Herdener, C. F., 60, 61
Herdt, L. A., 311
Herford, C. H., 156
M., 145
Heriot, T. H. P., 247
Herman, R. A., 38, 45
Herring, P. T., 250, 252
Herringham, Sir W. P., 107
Herriott, E. M., 400
Heslop, A., 65
M. K., 71
Hetherington, H. J. W., 205
Hewat, A. F., 235
Hewatt, A. F., 241
Hewitson, W. A., 62
Hewitt, J. A., 100
R. M., 209
Hewlett, R. T., 105, 112
Hewson, W., 103
Hey, A. M., 74
S. D., 70
W. H., 151
Heycock, C. T., 38, 43
Hibbert, E., 151
W. N., 104
Hibbins, W. G., 183
Hickling, J., 66
Hickman, H. R. B., 30
Hickmans, E. M., 353
Hicks, G. D., 99
J. A. B., 110
R. D., 46
R. K., 339
Hickson, J. W. A., 310
S. J., 149
Higgin, A. J., 377
Higgins, A. L., 102
A. P., 38, 104
E. C., 97, 136
G., 280
H. L., 34
Higham, B., 441
C. S. S., 145, 148
J., 147
T. F., 167
Hight, J., 400
Hilditch, Mrs. K. G., 203
Hiles, W. L., 365
Hiley, W. E., 159
Hill, Alex., 205
Alfred, 225
A. V., 43, 149
D. U., 284
E., 64
Hannah, 353
Hedley, 30
H. H., 274
H. W., 365
J. C., 85
J. P., 91
M. J. M., 98
T. G., 92
W. H. P., 317
W. K., 89
Hillhouse, P. A., 242
Hilliard, E., 163, 164
Hilton, H., 98
Hiltz, R. A., 302
Himayal-ul-Hasan, 438
Hind, A. M., 159
Hindmarsh, E. M., 386
T. A., 63
Hindshaw, W., 147
Hinge, H. A., 141
Hingston, C. A. F., 460
D., 330
Hinkel, L. E., 203
Hinshelwood, C. N., 167
Hinton, J. W., 398
W. J., 480
Hiriyanna, M., 463
Hirschfeld, H., 101
Hirst, E. L., 251
G. W. C., 390
M. E., 20
Hislop, G., 232
Hitchens, A. P., 82
Hitchins, W. W., 214
Hobhouse, H., 27
L. T., 101
Hobson, Sir A. J., 182
E. W., 38, 41
Hodge, C. R., 372
Hodgins, E. L., 365
L. C. A., 351
Hodgkin, R. H., 167
Hodgkinson, J., 165, 166
Hodgson, C. A., 385
L., 166
M. L., 430
N., 63
Hodivala, S. H., 445
Hodkin, F. W., 184
Hodsdon, Sir J. W. B., 235
Hodsman, H. J., 74
Hodson, G. S., 147
Hoexter, O., 417
J. H., 429
Hogan, E. V., 299
J., 274
Hogarth, D. G., 166
Hogg, A. F., 111
A. G., 459
Hoggett, T. J., 71
Holcroft, C., 85
Holden, H. F., 45
H. S., 208
Holdsworth, D., 188
W. S., 162, 167
Holgate, J., 71
Holland, C. T., 84
E. L., 105
Sir T. E., 163
W. E. S., 450
Hollidge, D. H., 372
Hollis, T., 74
Hollond, H. A., 38, 46
Holloway, J. E., 423
Holme, E. R., 385
J. W., 450
Holmes, A. B., 88
A. H., 145
G. M., 107, 109, 264
M. G., 199
R. W., 66
S., 32
T. S. S., 258
W. M., 377
Holmes à Court, A. W., 387
Holroyd, M., 164
Holt, G. E., 352
Holttum, R. E., 37
Hone, F. S., 373
Honey, M. E. D., 96
Honoré, D., 460
Hood, E. G., 311
Hooke, S. H., 353
Hooton, J. R., 387
Hope, C. W. M., 106
E., 159, 166
E. W., 83
J. M. V., 42
Hopkins, B. H., 340
D. G., 203
F. G., 36, 46
F. L., 46
L. C., 315
Hopkinson, A., 36
Hopper, J. V., 247
Hopson, M. F., 94
Horder, T. J., 107
Horne, A. R., 226
E. A., 471
G., 380
G. F. T., 133
Sir R. S., 225
Horner, B., 74
E. F., 98
Horning, L. E., 353
Horricks, J. W., 216
Horsburgh, E. M., 232
Horsfall, W. N., 386
Horsman, E., 194
Horton, F., 99
Hosgood, B., 96
Hoskyns, E. C., 35, 42
Hossain, H., 450
Hough, A. L., 113
Houghton, E., 151
Houldsworth, H. S., 74
Housman, A. E., 37, 46
Houston, R. A., 243
T., 258
How, J. C. H., 45
J. H., 60, 61
W. W., 166
Howard, E. E., 312
J. V., 103
R. J., 111
R. L., 475
R. T., 85
S. C., 208
Howarth, G. B., 74
W. G., 106
W. O., 146
Howchin, W., 375
Howden, M., 80
R., 62
Howe, C. D., 352
G. W. O., 241
J. E., 321
Howell, C. M. H., 107, 109, 144
O. R., 195
W. B., 314
Howells, G., 451
Howes, E. A., 286
R. B., 411
Howitt, M. H., 311

Howley, J. F. W., 276
Hoy, A., 379
Hoyland, J. S., 439
Hoyle, B., 152
Htin-Si, L., 475
Hubback, J. C., 95
Hudleston, L. J., 192
Hudson, A. C., 109
J. F., 74
R., 95, 144
Hudson-Williams, T., 196
Huebner, J., 152
Hughes, A. D. M., 21
A. L., 339
B. E., 197
C. H. M., 104
E. C., 111
E. E., 189, 203
F. W., 365
H. G., 34
H. V., 81
J., 193
J. D. L., 72
K. H., 258
Major, 469
P. J., 334
P. T., 22
W., 197
Hugill, W. M., 320
Hugo, T. J., 424
Hulme, E. W., 36
Hume, J., 70
J. G., 354
W. E., 62, 63
Hume-Rothery, J. H., 161
Hummel, F. H., 257
Humphreys, H. F., 20
Humphries, J. E., 226
S., 103, 143
Hunkin, J. W., 43
Hunt, A. P., 182
A. S., 160, 167
B. C., 297
E. L., 105
F. O., 183
G. H., 107
H. K., 475
J. C., 365
T. H., 302
Hunter, A., 350
C., 28, 322
J. I., 384
L., 196
M., 474
R. H., 256
T., 455
T. A., 404
T. C., 62
W., 247
W. K., 244
W. M., 257
Hunton, S. W., 332
Huntsman, A. G., 350
E., 209
Huq, S. M., 472
Hurlbatt, E., 308
Hurley, L. E., 377
Huron, Bishop of, 366
Hurst, A. F., 107, 109
E., 385
Hurst, G. H. J., 101, 104
Hurtley, W. H., 93
Husain, A., 438
H., 457
M. M., 442
Q. M., 465
S. A., 466
Husband, Jeanie, 146
Joseph, 183
Hutchens, H. J., 63
Hutcheon, J., 431
Hutchinson, A., 38, 44
A. H., 293
F. E., 177
G. T., 164
H. J., 208
L. T. R., 444
Hutchison, J. A., 313
R., 105, 110
Hutton, M., 350, 356
W. H., 167
W. K., 240
Huxley, J. S., 161, 166
Hyde, D., 271
Hyder, L. K., 437
Hynd, A., 251
Hynes, J., 276

Ibbotson, F., 184
K., 182
Ibbs, T. L., 22
Ibn Ibrahim, Syed Mohd., 437
Ibrahim, S., 465
Iles, A. E., 31
G. D., 70
Illsley, J. L., 284
Imam, S. A., 465
Imrie, C. G., 184
Inagaki, M., 377
Inamdar, R. S., 442
Ince, E. L., 81
Inchley, O., 40, 110
Inge, W. R., 37
Ingleby, H., 110
Inglis, C. E., 40, 43
J. K. H., 397
W. K., 388
Ingold, C. K., 93
Ingraham, M. K., 284
Ingram, A. C., 460
E. G., 95
W. W., 386
Inman, A. C., 110, 144
Innes, A. D., 97
D. E. I., 251
H. A., 354
H. M'L., 46
Iqbal, Md., 467
Irvine, F. M., 66
J. C., 250, 255
R. F., 385
Irwin, E. A., 309
L., 376
W. A., 353
Isaacs, J., 196
R. G., 203
Ismail, 467
M., 467
Iswari Prasad, 435
Iu Tak Chung, 480
Iveagh, Earl of, 261
Ivens, F., 83
Iyengar, K., 462
N., 463
Iyer, K. A. S., 456
R., 477
V. S., 462

Jack, A. A., 226
A. C., 311
D., 233
J. M., 227
P. M., 226
R., 398
T., 182
W. R., 244
Jackman, W., 354
Jacks, M. L., 168
Jackson, A., 339
C. N., 165
F. S., 308, 310
G. E., 354
H., 55
H. D., 364
H. G., 102
J. H., 256
J. T., 262
M. H., 428
Stafford, 88
S. E., 373
S. F., 147
V. H., 471
W. H., 168
Jacob, E. F., 163
Jagger, T., 295
James, A., 231
H. A., 158, 167
Jenkin, 189
N. C., 364
R. R., 109, 139
R. W., 148
T. C., 192
T. J., 193
W. A., 379
W. E. C., 163
W. H., 460
W. W., 94
Jameson, A. H., 102
Jameson, E. B., 230
H. C., 288
J. K., 69
J. N., 411
R. E., 310
Jamison, E. M., 169
Jane, L. C., 193
Janvier, C. A. R., 437
Jardin, R., 255
Jardine, F. E., 230
Jarry, A., 330
Jasnun, A., 336
H., 328
Jeaffreson, J. W., 96
Jeanneret, F. C. A., 352, 356
Jearnotte, H. J., 328
Jeans, G. E., 180
Jebb, G. E. M., 66
Jefcoat, C., 259
Jeffcott, H. H., 278
Jefferson, G., 145

Jefferson, H. G., 385
Jeffery, G. B., 98
R W., 164, 165, 168
W. A., 459
Jeffreys, H., 45
Jehu, T J , 232
Jellett, W M., 261
Jemmett, D M , 339
Jenkin, C. F., 159, 164
T J., 192
Jenkins, C , 97, 101
E D T., 192
J T , 81, 194
Jenkinson, A J., 164
F J. H., 35, 46
H , 97
Jenks, S , 298
Jenner, H , 205
Jennings, E S , 29
J A , 262
Jensen, A E , 430
Jepson, G L , 365
Jeremy, H R , 109
Jervis, J J , 73
W W , 29
Jesse, W , 439
Jessop, C M , 66
Jevons, F B , 60, 61
H S , 436
Jex-Blake, K , 36, 47
Jha, A. N , 437
P K , 448
Jinks, J C , 208
Joachim, H. H , 160, 166
Joag, V K , 415
Jobin, A , 306
Johannson, A., 147
John, E J., 460
W. J , 103
W S , 459
Johns, C H. W., 55
E I , 294
Johnson, A. H , 163, 166, 168
A. M , 426
D. C , 169
E. W , 46, 51
F. C , 96
F. M G., 309
J. C , 402
O., 55
R., 111
T., 278
W. E., 39, 42, 43
W. S., 312, 417
Johnston, A. B., 450
A. J., 363
H. M , 63
J , Dublin, 261, 263
J. A., 391
J. P., 278
K. L., 95, 4
K. P , 339
R. M'K., 230
S., 355
S. J., 386
T. B., 91, 139
T. H , 373, 383
W. J., 193
Johnstone, H., 97
J., 81
Johnstone, J H L., 298
L. I , 320
R. J , 256, 258
R W , 234, 235
Johnstone-Wallace, D B , 69
Johtle, R O , 326
John, D E , 34
Jolley, A C , 103
Jolliffe, A E , 98
J E A , 168
R O , 338
Jolly, W A , 412
Jolowicz, H F , 162
Joly, J , 261, 262, 263
Joncas, P , 305
Jones, A , 97
A. E , 192
A M , 199
B M , 40, 42, 151
C C , 334
C S , 78
D , 61
D , 99, 124
Donald, 60
D R , 193
Eric , 147
Evelyn, 19
E G., 79
E J , 197, 199
E Lloyd-, 40
E. N , 189
E. P , 198
E. T , 197
F B , 313
G , 106
Gwenan, 193
G M., 351
G N , 203
Sir H , 242
H B , 401
H P , 297
H. S., 160, 164
John, 130
Jos , 189
J. D , 183
J. E , 148
J. H., 70
J. Ll , 272
J M , 189
J N L , 134
J W , 81
Ll. R , 94
Mouat, 195
M G , 197
M. Gwladys, 47
M. H., 234
O. T , 147
P. M., 200
Sir R , 84
R. F , 321
S G., 192
T. C., 437
T. C. L , 84
T. E , B A., 381
T. Eaton, F.R.C V.S., 88
T. G , 194
T. G. H., 381
T. H , 152
W. A , 209
Jones, W. A , M D., 340
W G., 80
W H S , 44
W J., D Sc , 156, 199
W Jenkyn, M A , 193
W M , 101, 203
W R D , 200
W W , 356
Jopp, C H K , 162
Jordan, E. E , 294
G P , 481
H G , 152
H L , 346
W E., 46
W G , 340
Jorgensen, Miss O M , 67
Joseph, C. G , 46
H. W. B , 166
Josephson, H B , 346
Joshi, C N , 465
K K , 415
K. V , 444
M. K , 415
M M , 424
S L , 444
Joubert, W. A , 427
Jourdain, E F , 158, 160, 169
Joyce, I C , 183
Joynt, J W , 395
T A , 94, 231
Judd, W , 391
W W , 302
Juler, F. A , 109
Julien, O , 336
Jull, M A , 311
Jung, V , 465
Jury, G. S , 475
Juttas, L., 329

Kabir, M M., 439
Kackar, P C , 455
Kadir, A F M A , 472
Kakati, B K , 451
Kale, V G , 442, 445
Kamal-uddin, 456
Kamp, J , 422
Kane, P W , 444
Kanetkar, G. G , 438
Kangvi, J , 475
Kamtkar, S. R , 445
Kamtker, K. R , 445
Kann, J H C., 477
Kanungoe, D C , 475
Kapadia, D D., 444
Kaplansky, B , 412
Kar, T , 450
Karmarkar, R. D , 446
Karwal, G. D , 438
Kasargode, R S , 446
Kashyap, S. R , 467, 470
Kastner, L. E , 147
V. E , 96
Kauffmann, O. J., 22
Kaufmann, J , 313
Kaushambi, D., 445
Kay, D. M., 250, 251
F. W., 79
H. D., 72
R. I., 388
S. A., 231

Kay, T., 244
Keane, C A, 93, 143
J H., 158, 168
Kearton, W J., 82
Keatinge, M W., 159
Keeble, F. W, 159, 166
Keenah, C B, 313
Keene, H. B, 22
Mrs. M. F. L, 91
Keffler, L. P. G., 79
Keighley, T., 147, 148
Keightley, B, 442
Keilin, D, 36
Keill, L. G., 338
Keir, D. L., 168
Keirstead, E M, 318
Keith, A. B, 233
D. A, 103
K. E., 85
Kelker, G H, 445
Kellas, J, 227
Kellock, J, 445
T H, 105
Kellog, C E, 284
Kelly, A. J, 312
E C W, 378
H C, 71
R E, 84
S A, 79
V G F, 216
W., 225
Kelso, J A, 288
Kemshead, C T T, 166
Kendall, P F, 71
Kendrew, W. G, 168
Kennedy, A. M, 200, 246
A. R. S., 232
J C, 112
R, 244
W, 261, 263
W. D, 226
W P. McC., 351
Kenner, J, 182
Kennett, R H., 41, 44
Kennon, R, 84
Kenny, C. S, 42
Kenrick, F. B, 350
Kent, H. A., 297
T. P., 411
Kenwood, H R, 106
Kenyon, Lord, 189, 196
J., 93
Keogh, Sir A, 130
Ker, C B., 234
W. P., 95, 161, 163
Kermode, H S., 80
Kernot, W N., 377
Kerr, F. H. W., 472
H., 63, 74
J. G., 243
J. M. M., 244
R. B., 231
W., 248
W. A. R, 287
W. H., 232
Kerry, W., 376
Kershaw, J. W., 183
Kestell, J. D., 417
Ketchen, A. D., 412
Kettle, E. H., 110
Kettlewell, N H., 28
Kewalramani, G G, 445
Kewley, W., 140
Keyes, S. J., 340
Keynes, J. M, 35, 43
Keys, D. R, 349
R A, 384
Khan, A H, 465
A S, 472
Mirza A, 414
S. A, 436, 461
S.-U.-Z, 455
Khanna, R C, 442
Khastgir, K, 450
Khori, T, 113
Khosla, R P. 472
Kidd, A S, 419
B J, 158, 168
G. E, 338
P., 108
Kiddle, D, 216
Kierstead, W C, 331
Killam, L, 296
S D, 287
Killen, W. M, 258
Kilner, G. W, 94
Kilroe, F C, 426
Kilvington, B, 378
King, A T, 93
C A, 442
C. S, 391
E, 182
H G S, 20
H M, 295
J T D, 351
L V, 310
Sir L W, 262
P. E, 74
R, 205
R A, 438
R W, 196
W, 193
W. B R, 38, 43
Mrs W. O R, 72
W. W, 185, 188
Kingston, G F, 302
H. R, 365
Kinjilal, J. N, 450
Kinkead, R J, 276
Kinloch, J P., 228
Kinnear, J. A, 355
Kinnick, O C, 339
Kinvig, R H, 80
Kipping, F S, 208
Kipps, E. J, 20
Kirby, P. R, 430
Kirk, A., 152
H B., 404
K E., 166, 168
L E, 346
S R., 251
Kirkaldy, A W., 208
J., 169
Kirkpatrick, A F., 46
F. A., 39
F. H, 318
H., 460
T. P. C., 264
Kirkwood, W. A., 350, 361
Kirpal, S., 446
Kirton, J. B, 251
Kirwood, A E, 381
Kitchin, G., 232
Kitson, C H, 263
Kittredge, R E L, 352, 361
Klein, E., 316
Klimpke, P, 334
Klinck, L S, 203
Klugh, A. B, 338
H, 98
Knapman, H, 212, 213
Knaster, R. M J, 434
Kneale, J C, 22
Knecht, E, 151
Knight, C M, 91
J B, 146
M, 79
Knoop, D, 182
Knott, C. G, 233
H C, 46
Knowles, F K, 184
Mrs, 95
Knox, A D, 43
J., 241
R S, 351
Knox-Shaw, T, 45
Koch, W V M, 481
Kohl, C G, 422
Kolbe, F. C, 410
Kolhatker, G B, 445
Kolkhorst, G A, 161
Kolmi-Balozky, J, 72
Kops, C W, 424, 430
Kottuch, R G, 417
Kotwal, P S, 439
Krall, H, 437
Krige, G J R, 427
J D A, 429
Krishnamma, N R, 459
Krishnappa, B, 403
Kritzinger, M S. B, 423
Kumar, D A, 467
Kumbhare, V N, 445
Kupferburger, W, 430
Kurtchy, A M, 437
Kydd, J C, 450
Kynoch, J. A C, 253

Lamy, T. H, 377
Lacey, A., 352
H B, 92
Lachance, A, 305
Lack, H L., 106
Lackie, J L, 235
Lackland, H M, 80
Lacoste, Sir A, 329
Lacy, F St J, 274
L. M, 47
Laffan, R G. D, 44
Lafleur, H A, 313
P. T., 36
Lafontaine, Hon E., 329
Lafourcade, G., 21
Lagacé, J B., 327
Lagu. H. L., 445
R. K., 446
Lai Hsi Chi, 480
Laidlaw, P. P., 110
W. C., 288
Laing, A. T., 353

Laing, B M, 184
G. J., 309
J A, 376
M E, 28
Laird, A L, 352
D. G, 295
J, 257
S, 309
T P, 230
Lanstner, M L, 97, 156
Lajeunesse, J A, 336
Lake, P, 37
Lakin, C E, 108, 110
Lal, P S, 467
S. N, 442
Laliberté, M, 301
Lall, D, 20
Lamb, A S, 309
C G, 40
E H, 102
F. W J A, 149
H., 38
H M, 311
S. E, 402
Lambert, B, 159, 166
E T, 309
H, 471
Lambie, C G, 234
Lambley, K, 60, 61
Lambourne, H, 208
Lamond, R, 243
Lamont, A, 233
Lamoureux, R., 336
Lancashire, G H, 149
Lancaster, T L., 402
Lanctot, H, 330
Landau, J L, 430
L. I, 417
M., 80
Lander, P. J, 469
Landon, F, 364
J. W, 40, 41
Landon, P. A, 167
Lane, J. E, 111
Sir W A, 105
W B, 354
Lane-Claypon, J., 126
Lang, A E, 352, 363
B. T., 109
C. G, 163
J, 397
R. J, 287
W. H, 146
W. R., 350
Langdon, S., 162
Langevin, S., 329
Langford, A. L., 350, 363
F. W, 363
Langley, J. N, 38, 45
Langlois, A., 305
Langmead, F. S., 98
Langton, H. H., 349
J. L., 152
Lansdown, R. G. P., 31
Lapage, C. P., 149
G., 149
Laplante-Courville, D., 327
Lapsley, G. T., 46
Lapworth, A., 146
Larard, C. E., 103
Larchet, J F, 272
Larg, D. J, 183
Larkins, H M., 387
Larmor, Sir J, 35, 38, 45
Larsen, F, 294
Larsonneur, A-J, L ès L, 183
Larue, A, 327
Laski, H J, 100
Last, H M, 167
Latcef, S. A, 465
Latham, A C, 108
A G, 67
G W, 309
L S., 378
Latreille, E, 327
Latta, R, 240, 241
Lattey, R T, 161, 165
Lattimer, J E, 286
Latulipe, A, 336
Lauder, A, 236
Laughton, N B, 365
Laurence, A J, 330
R V, 46
Laureys, H, 330
Laurie, A P, 236
R D, 191
Laver, W A, 377
Laverick, L W, 67
Lavington, F, 37, 42, 43
Lavrin, J, 209
Law, A Bonar, 210
F R, 69
W, 74
Lawlor, F E, 209
H J, 203
Lawrence, A J, 330
J R, 313
T E, 163
T W P, 110
Lawrie, J G, 430
Lawson, Sir A., 109
A, 255
A A, 384
J C, 44
R, 376
R. W., 184
Layton, T B, 104, 106
W. T, 43
Lazarus-Barlow, W S, 110
Le Beau, G S, 98
Le Bel, A, 304
Le May, H., 430
Le Pan, A d'O, 349
Le Roux, M, 428
T., 410
T. H., 423
Le Sœuf, E A, 393
Le Touzel, J R, 305
Lea, A. M, 372
F. C, 20
J, 89
R. W, 317
Leacock, S, 310
Leader, H, 184
Leahy, A. H., 183
Leake, G, 217
Leathem, J G., 45
Leather, N. G, 449
Leathes, J. B., 184
Leavell, G., 286
Lebel, A, 329
H, 329
Leblanc, R, 336
Leclerc, A, 336
O, 306
Lecours, J. E W, 330
Ledingham, J. C G, 105
Leduc, J, 329
Lee, E. J, 57
E M, 28
H., 73
J S, 258
M L, 95
R S, 388
R W., 162, 163
Sir S, 95
S G, 166
V, 287
Leech, E B, 150
J W, 63
Leedham-Green, C, 22
Lees, A H, 28
C H, 100
D, 235
K A, 104
M E, 196
S, 40, 45
Lees-Smith, H B, 101
Leet, F L, 271
Lefebvre de Bellefeuille, G, 329
Lefroy, H M, 102
Legault, R, 336
Léger, A, 329
Legg, L G W, 166
T P, 111
Legge, T M, 151
Lehfeldt, R A, 429
Lehmann, A L F, 286
J E, 323
Leicester, —, 450
Leigh, C, 460
C W. E, 145
M, 212
P T, 70
Leigh-Sharpe, W. H, 92
Leighton, H B, 182
Leiper, R T, 106
Leishman, A, 322
Leitch, G. C, 66
N. M, 20
Lelean, P S, 106
Lemberger, J, 257
Lemieux, Hon R, 329
Lemon, E, 232
Lendon, A A, 373
Lennard, R V, 163, 168
Lennie, A B, 232
Lennox, D, 252
Lenox-Conyngham, G. R, 37, 45
Leonard, A. G. G., 278
G. H, 29
Leopan, H. D., 423
Lepper, E. H, 110
Lesage, A, 330
L., 336
Lesieur, R, 328
Lesley, J. W, 42

Leslie, M S, 70
P., 226
R., 411
Leslie-Jones, F. A., 434
Leslie-Roberts, H, 83
Lespagnol, M, 21
Lessel, J. F., 298
Lester, J. B., 412
Lett, H 111
Leudesdorf, C, 157, 167
Léveillé, A., 328
Leverrier, F, 384
Leveson, P. K, 47
Levesque, R., 304
Levett, Miss, 169
M. J., 242
Levi, P., 404
T A, 193
Levin, J. J, 431
Levine, I, 206
Levy, H, 98
R., 162
Lewis, A R, 387
C. B., 251
C J., 22
E A., 193
F C., 83
F. J., 286
G. A, 196, 197
H., 202, 203
H. P, 183
J C, 378
J. H., 189
J M., 379
M M, 193
P. T, 175
T, M D., D Sc, 108
T, B D., 189
Timothy, 194
W C McC., 79
W. H., 205
W. J., 38, 52, 166
W J, B L, S S C, 234
W S, 205
Leys, K. K. M, 168
Leyton, O F F, 110
Lichtenstein, C, 310
Lickley, J. D., 62
Liddell, E. G. T., 161, 167
M F, 21
Liddy, R. B, 332
Lidwill, M C., 387
Ligertwood, L. M, 22
Lightfoot, H le B., 165
R H., 165, 166
Lightley, J. W., 71
Lillie, J. A, 234
Lilly, W. E, 263
Lim, R K. S, 233
Limbourne, C W., 103
Lindemann, F. A., 161, 164, 168
Lindley, T, 208
Lindsay, A. D., 164, 168
B., 217
E. C., 111
J. A., 258
J. C., 365
W. M, 251
W. S., 345
Lindsey, M, 147
Line, J., 332
Linfoot, G E, 184
Ling, A R, 19
G H., 346
Lipson, E, 161
Lister, A E. J, 455
J., 98
J J, 45
Sir W. T, 109
Lithgow, J. D, 234
Little, A. G, 148
A. T., 364
D., 397
E. G. G, 105
E. M, 388
H M, 312
T R, 340
Littledale, H, 202
Littlejohn, E. S, 98
H, 234
Littlewood, J. E, 38, 45
T. H, 213
Liveing, G. D, 45
Livens, G H, 148
Livingston, A, 84
Livingstone, R W., 164
Llewellyn, D. R, 199
Llewelyn, G. R, 28
Lloyd, C. M, 95
C P. W, 437
E. A, 295
F E, 308
J E., 197
J. H., 19, 200
J. M., 200
M D I, 148
Llubera, J G, 258
Loader, F M, 216
Lobban, C. H, 102
J. H, 95
Lobley, A. G, 148, 184
Lochhead, W, 311
Lock, C N H, 43
J. B, 55
W., 163, 164
Locke, C D, 350
Lockhart, A R B, 309
F A L, 312
Jeannie, 228
R. D., 225
Lockyear, J I, 205
Lodewyckx, A, 376, 377
Lodge, E. C, 97, 137
Sir R, 160, 230, 232
R. C, 321
Loewe, H. M. J., 165
Logan, H T, 293
J D., 284
J. W, 297
Logeman, W H, 417
Lomas, W. M, 65
Lomer, G R., 308
Long, M H., 287
Longbottom, J G., 247
Lonsdale, W. H. M., 460
Lopes, H. Y P., 205
Lord, A. R., 419
Lorimer, H., 169
Sir W., 240
Lorimer, W L, 251
Lorram, L. P H., 328
Lothian, E. I, 379
Lothrop, A. P, 338
Loudon, T. R, 353
W J, 353
Louis, H, 67
Love, A E H, 161
E. F. J, 377
Loveday, G E., 150
T, 27, 216
Lovell, H. T., 386
Lovett, Sir H. V, 160
Low, A, 226
G C, 112
J L, 255
M, 298
R. C., 234
V. W, 111
W, 250
Lowe, C W, 320
E A, 160
F H, 93
W. D, 60, 61
Lowery, H, 148
Lownds, L., 100
Lowry, C. G., 258
H. V, 217
T M, 39
W, 263
Lowson, J. P, 39
W, 70
Lubbock, R., 41
Lucas, Sir C, 163
E D, 467, 469
F. L, 43
Luce, A A, 261, 262
G H, 474
Luckhoft, J, 412
Luery, A E, 31
Luker, S. G, 106
Lumsden, T A, 21
Lunnon, R G, 67
Lupson, J. T, 380
Lurie, D, 410
Lusby, S G, 381
Lush, W. H, 390
Lyde, L. W., 96
Lyell, A. L., 385
Lyle, H. W., 109, 141
R P. R., 63
Lynde, C. J, 311
Lynn, D, 65
J C, 69
M J., 256
Lynsdale, A. W J, 460
Lyon, D M, 235
P. C., 106
T. H., 43, 45
Lyons, H. W 38
J. N., 99
R. J., 386
Lys, F. J, 158, 168
Lyster, R. A, 106
Lyttel, E. S, 216

Maas, O, 309
MacAdam, W., 73
Macalister, C. J., 83
R. A. S., 271

MacAlister, Sir D., 45, 240
McAlister, H. C., 320
Macallum, A. B., 308
Macalpine, J. B., 151
McAlpine, E. G., 462
Macan, R. W., 158, 167
M'Ardle, J. S., 272
MacArthur, C., 323
J. W., 350
M'Arthur, N., 242
Macartney, J. E., 235
K. C., 459
Macaulay, R. M., 217
W. H., 43
McAulay, A., 391
McBain, J. W., 28
Macbeath, A., 242
Macbeth, A. K., 251
McBrady, R., 351
MacBride, E. W., 102
M'Bryan, E., 276
MacCaffrey, J., 269
M'Callister, W. J., 257
MacCallum, E. C. D., 340
J. M., 355
M. L., 387
M. W., 385, 390
McCalman, D. H., 322
McCandlish, D., 74
McCann, P. J., 158, 168
M'Cann, R. L., 257
MacCarthy, C. P., 274
M'Carthy, C. P., 377
M'Carthy, J. B., 311
McCay, D., 450
McCleland, N. P. K. J. O'N., 44
McClelland, A. W., 311
W. W., 226
M'Clelland, E. W., 256
MacClement, T. W., 338
McClung, R. K., 321
McCombie, H., 37, 43
McConnell, A. A., 264
A. W., 349
B. J., 322
McCorkell, E. J., 351, 356
MacCormac, H., 105, 108
M'Cracken, W. J., 257
McCrimmon, A. L., 318
McCulla, J., 427
McCullough, L. A., 321
McCutcheon, K. H., 169
MacDermot, H. E., 308
McDonagh, V. A., 354
Macdonald, A., 343
A., Oxford, 180
A., Calcutta, 451
A. E., 287
Anni 227
H. M., 2 5, 227
J., 34, 66, 67
J. F., 339
J. M., 175
J. S., 81
N., 326
P. A., 299
R. A., 79
W. C., 298
MacDonald, D. J., 343
MacDonald, H. J., 343
J., 226, 287
J. A., 315
J. H., 214
V. C., 298
W. L., 294
McDonald, E. F., 387
H. K., 299
R. St. J., 313
S., 63
Macdonell, A. A., 162, 164
Sir J., 125
M. A., 448
MacDonnell, U. N., 320
Macdougall, E., 251
MacDougall, R. S., 230
McDougall, D. G., 391
E., 159
G. W., 312
J. A., 288
J. G., 299
M'Dowall, R. J. S., 72
McDowell, R. J. S., 233
MacEachran, J. M., 287
McEachern, J. D., 323
M'Elderry, R. K., 276
MacEnri, S. P., 270
Macewen, J. A. C., 244
Sir W., 214
Macey, T. S., 30
McFadyean, Sir J., 102, 143
Macfadyen, W. A., 424
MacFall, J. E. W., 83
MacFarland, Sir J. H., 376
MacFarlane, W. D., 302
McFarlane, J., 226
Macfarlane-Grieve, A. A., 60
MacGibbon, D. A., 288
McGibbon, J., 235, 430
R. T., 320
Macgillivray, J., 339
MacGillivray, D., 240
A., 250
M'Gillvray, Allister, 253
A., 253
McGilvray, C. D., 356
M'Glynn, P., 241
McGougan, A. G., 346
McGoun, A. F., 288
McGovern, W. M., 113, 197
McGowan, A. D., 336
J., 353
McGrath, Sir J., 269
Macgregor, A. R., 235
A. S. M., 214
D. C., 164
D. H., 156, 101, 163
J., 145
J. A., 365
W. R., 429
MacGregor, J. M., 94
L., 67
McGregor, A., 354
E. A., 318
W. R., 402
M'Gregor, A. N., 244
Macgregor-Morris, J. T., 103
Machray, J. A., 320
M'Ilroy, A. L., 109, 246
M'Ilwaine, J. E., 258
McIlwraith, K. C., 355
McInerny, K. M. M., 377
MacInnes, C. M., 29
I., 294
MacIntosh, G. A., 299
Macintosh, H. W., 268
McIntosh, D. S., 297
J., 110
M., 364
Macintyre, R. G., 388
McIntyre, D. F., 323
E. A., 356
J. L., 227
R. K., 313
M'Intyre, D., 244
G., 243
MacIver, R. M., 354
McIvor, N. K., 323
Mack, F. G., 290
McKaig, Mrs. A., 216
Mackail, J. W., 38
Mackay, D. S., 322
F. H., 313
H., 322
H. J. H., 104
H. M., 311
I. A., 312
I. G., 386, 388
J. Y., 250
MacKay, G. J., 339
J., 323
McKay, G., 404
M'Keag, H. T. A., 257
McKechnie, R. E., 293
M'Kechnie, W. S., 243
McKee, J. L., 338
S. H., 312
M'Kee, J., 384
MacKeith, M. H., 158, 166
MacKellar, D. J., 247
McKellar, H. S., 352
McKelvey, J. L., 388
Macken, Mrs., 271
M'Kenna, O., 259
McKenny, C. W., 481
McKenty, J., 323
Mackenzie, Sir A. C., 144
A. H., 428
A. J., 159
A. S., 280, 297
D. W., 314
H., 404
H. M., 469
H. W. G., 108
J. E., 231, 238
J. J., 355
K. J. J., 36, 46
M. A., 353
M. E., 231
N. F., 161
W. G., 31
W. T., 252
MacKenzie, C. J., 346
D. J., 299
D. S., 288
K. A., 298
M. A., 293
N., 349
M'Kenzie, A., 251
McKenzie, E. J., 345

McKenzie, J., 445
M'Keown, A., 79
McKeown, P. W. H., 356
McKergow, C. M., 312
M'Kerracher, D., 248
McKerron, G. G., 419
R. G., 228
Mackey, J. E., 377
McKibben, P. S., 364
McKie, P. V., 198
Mackie, A., 385
J. D., 251
T. J., 410
W. S., 411
Mackie-Whyte, 253
McKiel, H. W., 332
M'Killop, O. C., 398
Mackinder, Sir H. J., 96, 212
MacKinnon, D. L., 102
J., 231
Mackintosh, A. B., 462
A. W., 228
C., 234
J., LL.D., 234
J., N.D.A., 214
R., 149
W. A., 340
Macklin, C. C., 364
McLachlan, H., 146
Maclaren, N., 240
McLaren, E. J. R., 402
M'Laren, P. D., 298
McLaughlin, J. F., 353
MacLaurin, C., 388
McLay, W. S. W., 318
Maclean, D., 346
E. J., 200
J., 82
M., 247
MacLean, A., 352
H., 108
J. A., 320
N. B., 321
N. J., 323
McLean, A. R. M., 309
Miss C. M., 200
D. L., 321
J., 445
M. M., 364
N., 41
R. A., 309
R. C., 199
W., 196
M'Lean, C. M., 34
MacLellan, D., 343
M'Lellan, A. N., 244
MacLennan, A., 244
McLennan, E., 376
J. C., 354
Macleod, D., 404
D. B., 401
J. MacL. H., 105
R. H., 38
MacLeod, H. J., 287
J. J. R., 354
P. J., 391
McLeod, A. R., 43
J. W., 73
M'Leod, A., 242
M'Liesh, J., 258
M'Loughlin, D. D. O., 412
E. P., 271
McLuckie, J., 384
MacMahon, P. S., 456
MacMechan, A., 297
M'Michael, D., 231
Macmillan, E., 424
W. M., 430
MacMillan, J. W., 363
McMillan, C., 309
D., 411
J. C., 322
W. H., 209
M'Millan, A., 241
J. A., 69
MacMunn, N. E., 160
Macmurray, J., 156
MacMurray, J., 430
McMurrich, J. P., 349
McNair, A. D., 43
McNairn, W. H., 318
Macnamara, E. D., 109
Macnaughton, F. G., 252
J., 350
M'Neil, A., 231
J. T., 339
McNeile, A. H., 45
M'Neile, A. H., 262
MacNeill, J., 260, 271, 318
J. G. S., 272
M., 297
McNeill, G., 365
W. E., 338
Mrs. W. E., 338
McNulty, T. F., 51
Macnutt, E. R., 298
McOuat, J. E., 309
L. C., 311
Macphail, Sir A., 312
A. J., 338
M'Phee, E. D., 287
Macpherson, J., 387
S., 98
W. E., 351
MacPherson, E., 346
H. P., 343
McPherson, G., 444
H., 343
J. A., 343
M'Polin, J., 258
McQuay, R. B., 338
McQueen, J. D., 322
McQuiggin, H. G., 386
MacRae, D. A., 288, 298
McRae, J., 376
J. A., 338
Macran, H. S., 261, 262, 263
MacRobert, T. M., 242
McRostie, G. P., 311
McShane, G., 328
MacSweeney, P., 269
M'Sweeney, E. P., 274
McSwiney, B. A., 149
MacTaggart, D. D., 313
McTaggart, H. A., 354
J. McT. E., 46
M'Weeney, E. J., 272
H. C., 272
M'Whan, J., 242
MacWilliam, J. A., 227
McWilliam, J. F., 419
Madgin, W. M., 66
Madgwick, T. G., 21
Madigan, C. F., 372
Madill, H. H., 349
Madin, W. T., 20
Madsen, J. P. V., 387
Magee, V., 258
Magennis, W., 272
Magner, W., 275, 355
Magnus, Sir P., 89
Magrath, J. R., 158, 167
Magro, E., 479
Maguire, F. A., 384
J., 82
J. R., 377
Mahalanabis, P. C., 450
S. C., 450
Maheux, A., 304
Mahon, R. B., 270
Maiden, J. H., 384
Mailer, R., 235
Main, A., 251
Maingard, L. F., 430
Mainstone, P. A., 197
Mair, A., 81
A. W., 231
Mrs., 133
Maitland, H. B., 355
Sir H. L., 388
Maitland-Smith, I. J., 21
Maitra, H., 449
J. N., 472
K. M., 467
Majumdar, B., 448
B. C., 448
B. M., 448
Malan, D. E., 424
G. H., 411
Malandkar, M. A., 477
Malaviya, M. M., 441
Malcolm, A., 252, 253
H. P., 258
J., 398
L., 339
Male, G. P., 214
Malherbe, D. F., 417
D. F. du T., 423
H. L., 423
I. de V., 427
W. E., 428
Malkani, N. R., 472
Mallam, E., 162
Mallen, C. E., 66
Mallett, E., 103
Mallia, C., 478
Mallik, D. N., 450
Mallison, H. V., 205
Man, M., 470
Manchester, R. C., 456
Mandal, B. B., 401
Mandelbrote, H., 411
Mandell, W., 194
Mangan, J., 276
Mangham, S., 216
Mani, B. S., 475
Manley, H. F., 438
J. J., 166
Mann, A. G., 241
A. H., 43

Mann, E. E., 216
W. L., 323
Manning, B. L., 13
J. W., 284
R. J., 345
Manoharlal, 442
Manry, J. C., 437
Manson, Sir P., 112
W., 356
Mant, H. T., 125
Many, N. V., 328
Marchand, A., 305
G., 336
Marchant, E. C., 165
E. W., 82
Marcotte, F. X., 336
Marett, R. R., 158, 165
Margarita, M. M., 351
Margoliouth, D. S., 162, 166
H. M., 127, 216
Marien, A., 330
Mariwalla, D. T., 445
Mark, H., 437
H. T., 140
Market, C. P., 280
Marks, G., 385
H. J., 387
J., 147
Marler, W. de M., 312
Marlow, F. W., 355
Marmorstein, A., 101
Marnoch, J., 228
Marois, A., 306
Marquand, C. V. B., 192
Marr, J. E., 38, 45
Marriage, H. J., 104
Marriott, F., 91
J. A. R., 168
O., 481
Marris, R., 444
Marsden, A., 32
E., 404
P. H., 83
Marsh, C. J., 111
F. S., 46
J. E., 159, 166
J. K., 256
S., 100
Marshall, A. J., 244
C. R., 228
D. G., 235
F., 385
F. H., 94
F. H. A., 36, 41
G., 108
I. D., 376
J., 203, 211, 225, 419
J. E., 78
J. T., 149
J. W., 192
M. J., 23
T. H., 41, 46
Marston, W., 70
Martel, G., 336
Martell, L. H., 302
Marten, G. M., 147
Martin, A., 236
A. H., 386
A. M., 63
B. K., 44
Martin, C., M.A., O.I.P., 242
C., 262
C. A., 242
C. B., 321
C. F., 313
C. J., 110, 141
E. S., 258
F. H., 206
G. E., 234
H., 470
H. E. L., 66
J. E., 312
L. K., 251
S. H. C., 108
W. H., 350
Martineau, C. E., 19
Martinus, M., 419
Masani, A. M., 414
Masaryk, T. G., 101
Maslen, A. J., 96
Mason, C. M., 147
E. H., 313
E. M., 302
F. B., 255
F. C., 278
Grace H., 213
J. L. D., 313
W., 82
Massey, I. M., 96
Masson, D., 330
D. O., 376
J. I. O., 93
R., 330
R. P., 227
Masterman, J. C., 164
Masters, H., 93
Mathai, J., 459
Mather, T., 103
Mathers, A. T., 322
R. E., 298
R. P., 252
Matheson, A. R., 235
E. G., 293
J., 339
P. E., 166
Abp S. P., 320
Mathews, G. B., 197
H. B., 460
I. M., 184
S. W., 293
Mathewson, G. D., 234, 235
G. H., 313
Mathias, S. Y., 205
Mathur, K. K., 442
M. L., 138
S. N., 455
Matthai, G., 467, 470
Matthew, E., 235
Matthewman, T. H., 259
Matthews, B. E., 141
E. R., 125
G. F. C., 20
J. R., 231
T. H., 310
W. R., 101, 138
Mattick, E., 214
Maudsley, Sir H. C., 380
Maulavi, M. H., 450
Maulik, S., 447
Maurice, P., 327
Maurice-Carton, F. I., 302
Mavor, J., 354
Maw, W. A., 311
Mawer, A., 67, 80
J. W., 70
Mawson, Sir D., 372
H., 82
T. H., 79
Maxted, D. R., 212
Maxwell, C. E., 263
J. H., 438
L. A. I., 378
May, H. W., 387
May-Oung, Mg., 474
Mayall, R. H. D., 45
Maybury, B. C., 111
Mayes, F. J. A., 31
Maynard, Sir J., 467
Mayo, G. E., 381
Mayoux, J., 205
Mayrand, R., 305
Mayrs, E. B., 234
Mazengarb, O. C., 404
Mazumdar, S. C., 472
Meakins, J. C., 235
Medley, D. J., 242
Meek, A., 62, 67
E. M., 67
Meenan, J. N., 272
Meggitt, F. J., 22
Mehra, H. R., 442
Mehta, G. P., 442
H. M., 441
K. C., 437
N. C., 442
Meiklejohn, G. I. W., 95
Meiring, A. B., 417
Melbourne, A. C. V., 381
Meldrum, A. N., 444
Melhuish, S., 95
Mellanby, A. L., 247
E., 185
J., 100
Mrs May, 184
Melland, C. H., 150
G., 93
Mellish, H., 298
Melson, J. W., 345
Melville, E. L., 66
E. W. M. B., 232
Miss F. H., 240
Melvin, G. S., 340
Mennell, Z., 104
Menon, K. G. Parameswara, 460
K. R., 459
Menzies, A. C., 72
J. A., 64
Meras, E. A., 364
Mercer, C. H., 297
H. N., 152
J., 41
Mercier, O. F., 330
Mercil, A., 304
Meredith, H. O., 257
Sir W. R., 349
Merrett, W. H., 98
Merrill, B. W., 318
Merriman, P. J., 274
Merrin, A. H., 377

Merton, T. R., 161, 164
Mesham, P, 421
Meston, W, 459
Metcalfe, E P, 463
O. K., 183
Metherell, R, 169
Mettam, R W M, 430
Mewburn, W H, 288
Meyendorff, Baron, 101
Meyer, B., 309
Michael, J. H, 363
Michell, H, 318
M, 410
Michelli, Sir J., 141
Michelmore, H T., 205
Michie, J. L, 381
Middlemass, J, 63
Middleton, G. S., 240
J. C., 244
W. A, 295
Mires, Sir H A, 145, 166
Mifsud, C., 478
Mignault, G. E., 330
L D, 327
P B, 312
Mignonat, G, 217
Mildmay, A. N St. J, 293
Miles, A., 235
Sir J. C., 165, 166
P H, 98
Mill, C K, 159
G. S, 450
J., 231
Millar, J H, 232
J. M, 288
L J., 372
S. J., 377
W N, 352
Millard, R J, 387
W. A, 69
Miller, A. D, 287
Andrew H, 242
B A, 78
C. D, 321
C. H, 108
C. V., 199
D. A., 234
E., 328
E. M., 391
F. C., 216
F. R., 365
J, D Sc., 248
J, M D., 340
M, 392
N., 339
R A, 302
R. H., 108
S N., 242
T. H., 98, 144
W., 248
W. A., 387
W. L., 350
Millhouse, E. J., 372
Milligan, D. M. M., 225
G., 240, 241
R R. D., 396
Sir W., 149
Millin, D., 430
Mills, A., 252
A. E., 387
Mills, E H F, 19, 45, 55
R. C., 385
T. R, 251
W. H, 37, 39, 43, 45
Milne, D, 469
E. A, 36, 46
F M, 252, 253
J G, 85
J J, 21
J R, 233
R, 111
S, 80
T T, 287
W. P, 72
Milner, S R, 184
W S., 352
Milner-Barry, A, 21
Milner-White, E, 43
Sir H, 216
Milroy, J A, 256
T H, 258
Mingana, A, 145
Minns, E H, 38, 44
Minocherhomji, A N. D, 445
Miraillet, S, 80
Mirza Zabihu'llah Bihruz, 41
Misener, G, 286
Misra, J. N, 457
K L, 437
P, 472
Mitchell, A. A, 243
A. M, 151
Mrs E. T, 287
G. W, 338
J, 71, 276
J H, 377
J S, 227
R B, 322
W, 372, 373
Mithal, B N, 439
Mitra, K, 450
Mitter, P. C, 147
Mittra, J H, 437
K. B., 438
Moberly, W. H, 21, 158, 169
Mockeridge, F. A, 127, 203
Mockler, G. S., 66
Modi, J. P., 455
Moe, G G, 295
Moffat, A., 459
E M., 455
H. A., 412
R. W., 320
Moffet, S. O, 199
Moir, J., 155
M B, 398
Molesworth, B H, 374
E. H, 387
Mollison, C H, 378
W L., 35, 41
W. M., 104, 106
Moloney, H J., 274
Molteno, V. G, 412
Momber, R M S. T., 42, 44
Monahan, A. J., 71
Moncrieff, A, 34, 208
Moncur, G., 247
Monkhouse, O. E., 136
Monro, T. K., 244
Monsarrat, K. W., 84
Monsmjon, C, 257
Montague, F C, 97, 167
Montefiore, C G, 216
Montgomery, E W, 322
J., 88
M, 160
Montpetit, E, 327, 328
Moody, A W, 322
R H, 437
Mookerjee, Sir A, 447, 448
H C, 447
J. C., 447
K P, 451
M K, 450
N, 451
S D, 447
Mookerji, R, 462
Moon, A J, 318
Mooney, G W, 261, 262
Moore, A E, M I E E, 152
A E, M B., B Ch, 275
B, 150
B J, 313
C A., 28, 31
F. C, 150
G E, 39
J B, 258
J. D, 384
J M, 232
P, 189
R. A L, 41
R F, 110
T S., 93
W B A., 481
W. H, 377
W. W. T, 471, 472
Moorhead, E. S, 322
M D., 257
T G., 264
Moorhouse, V. H. K, 323
Moorrees, A, 427
Moors, E M, 385
Moran, H M, 388
Moraud, M, 352
Mordaunt, F. G, 226
Mordell, L J, 152
Mordue, E, 72
Morel, A, 304
Morgan, A E, 205, 206
A. M, 373
C. E., 34
E H, 82
F. A, 213
F G, 379
G T., 19
H, 194
J., 292
J. H., 104
L T., 29
S. C, 287
W., 32
W P, 201
Moriarty, G. P, 38, 44
Morice, F. D., 167
Lt J. L., 327
Morin, J. L., 309
L. J. S, 329
V, 329
Morisette, C., 304
Morison, C. G. T., 163, 165, 168

Morison, J., 162
J. B., 311
J. L., 339
J. M. W., 145
R., 64
S. E., 160
Sir T., 57, 65
Morisseau, H., 336
Morley, Viscount, 145
E. J., 213
G. H., 19
J., 145
S. G., 350
Morom, Mme., 209
Morrah, D., 163
Morrall, W. B., 205
Morran, H. S., 402
Morrell, H., 85
J. H., 161
Morrey, P., 145
Morris, C. R., 164
G. G., 42
H. C. S., 361
H. J., 188
R., 189
S., 189
Morris-Jones, Sir J., 197
Morrison, A., 240
A. C., 227
A. F., 400
C., 252
D., 252
I. F., 287
H. S., 256
Bishop J., 343
J., 400
Jane, 241
J. C., 241
J. T., 426
J. T. J., 22
M. A., 356
R. H., 378
Morrow, J., 66
Morshead, O. F., 44
Morton, A. S., 346
C. A., 31
C. S., 298
E., 248
W. B., 258
W. C., 69
Mosley, F. O., 214
Moss, C. E., 429
E. H., 286
H., 100
K. N., 21
W., 36
Mottram, V. H., 100
Mouat, J. R. K., 34
T. B., 185
Moule, C. W., 55
Moulsdale, C. P., 60, 61
Moulton, W. J., 71, 149
Mounce, M., 295
Mounsey, J. L., 234
Mount, Sir W. A., 212
Mountford, E. H., 84
J. F., 231
Mouré, F. A., 349, 353
Mowat, R. B., 164
Mowll, H. W. K., 356
Moxon, A., 346
Moyle, J. B., 166
Moynihan, Sir B. G. A., 73
Muckle, T. J., 366
Mudd, F. B., 431
N., 417
Mudge, G. P., 92, 102
Mudie, A. D., 421
P., 148
Mueller, P. W., 318
Muir, J., 248
M. M. P., 43
R., 235, 244
Ramsay, 156
W. L., 298
Muirhead, C. M. M., 188
J. S., 243
Mukerjee, G., 450
N. L., 449
S. N., 467
Mukerji, A., 471
A. C., 437, 442
B. B., 456
J. G., 455
N. C., 437
P. C., 438
P. D., 455
R. K., 456
S. K., 437
Mukharji, A., 472
H. C., 172
Mukherjee, A., 450
P., 459
Mukherji, R. K., 456
Mulcahy, C., 209
Mulholland, H., 258
Mullan, J. P., 144
Muller, C. E., 345
Mulligan, J. H., 225
Mullin, R. H., 293
Mullock, A., 29
Mulvany, C. M., 438
Mumford, A. H., 149
Munby, W. M., 73
Mundell, D. E., 340
Mundie, G. S., 313
Mungo, D. B., 243
Munro, A., 44, 45
A. D., 404
A. R., 381
H. F., 298
J. A. R., 157, 165
M. F., 345
Munroe, A. R., 288
Munshi, M. K., 445
Murdoch, H. B., 234
W. L. F., 393
Mure, G. R. G., 166
Murison, A. F., 104
Murnaghan, J. A., 272
Murphy, B. E., 404
G. H., 299
J. J. F., 259
N. R., 165
T. A., 400
T. W., 298
V. J., 351
Murray, A. A., 323
D., 240
D. A., 310
Murray, E. F., 63
G., 159, 164
Sir G. J. R., 372
G. R., 150
H., 297
H. L., 83
H. M. R., 47
J., M. B., 111
J., M. A., 164
Jessie, 71
J. A., 213
J. B., 240
J. C., 430
J. O. F., 35, 46
M. A., 91
W. C., 345
W. G. R., 410
W. H., 352
Mursell, W. Y., 227
Musciо, B., 386
Musgrove, R. B., 309
W. W., 323
Mussen, A. A., 83
Musson, E. A., 169
Mutch, N., 108
Mya-Bu, Mg., 474
Myddleton, W. W., 93
Myers, C. S., 39, 43
J. E., 145, 146
W., 152
Myles, W. H., 467
Mylks, G. W., 340
Myres, J. L., 160, 166

Nabapro, D. N., 105
Nabi, S. G., 465
Nadeau, E., 305
H., 327
L., 330
Nadgir, Y. G., 444
Nadkarni, Y. N., 444
Nag, J. C., 450
Naik, D. B., 445
K. G., 444
P. B., 444
V. B., 445
Nairne, A., 43
Naish, A. E., 185
Mrs L., 182
W. A., 98
Najm-ud-Din, 467
Nanawati, M. H., 439
Nance, F. J., 379
J. T., 79
Nanda, G. L., 436
Nandi, P., 449
Nanson, E. J., 377
Napier, T. J. M., 373
Naqi, Syed Ali, 437
Naram, B., 467
Naralkar, N. G., 446
Narasimhamurthi, N., 462
Narasimham, Y., 460
Narayan, L., 442, 456
S., 446
Narborough, F. D. V., 168
Narke, G. G., 446
Nath, B., 442
K., 469
M. B., 456

Nattrass, F T, 62
Nauta, R D., 411
Naylor, E W, 42
H D, 372
T. M, 71
Nazim-ud-din, M, 468
Neale, E P., 404
Neaverson, E., 80
Needham, Sir C T, 145
Needler, G H., 352
Neethling, J. H, 427
Neild, N, 31
Neill, A G, 397
R M, 227
Neilson, A. T, 242
J, 345
Neilson-Jones, W, 92
Neish, A. C, 338
Neitz, H H, 373
Nel, G C, 427
Nelli, G, 328
Nelson, E, 379
J J. H, 469
Neser, C. P, 424
Ness, A. R, 311
Nettleton, H R, 100
Neville, E. H, 213
H. A D, 213
K. P. R, 364
New, C. W., 318
Newall, H. F., 36, 46
Newberry, P E, 78
Newbery, E, 410
Newbolt, G. P, 84
Newell, Miss, 426
Newham, H B G, 112
Newland, H S, 373
Newlands, Mrs A, 339
W., 398
Hon. W. H., 345
Newman, F H., 206
L F., 44
W. L, 164
Newnham, W. H C, 31
Newstead, R., 80
Newth, H G, 22
Newton, A P, 97
H. A. S, 376
K, 103
L. V., 460
M, 345
R, 286
W. H., 208
Niblock, W. J., 460
Nicholas, S. D., 19
T. C., 38, 46
Nicholls, A. G., 299
A W, 168
E. B., 379
Nicholls, G. E., 92, 393
Nichols, E. W., 297
F. C., 28
F. L., 455
Nicholson, A. J, 386
C. A., 231
D., 323
G. G, 385
G. W. de P., 110
H. H., 213
H. O., 235
Nicholson, J. A., 308
J. H., 29
J S., 231
J. W., 127, 164
P. J., 343
R A., 41
Nickerson, C B, 297
Nicol, J, 100
J R A, 95
J. W., 243
R M, 243
Nierenstein, M, 28
Nigot, G., 80
Nilles, N, 336
Nisbet, R G., 241
Nitch, C. A, 111
Niven, C., 227
Nixon, J. A, 30, 31
R H., 456
R. L., 302
W. F., 478
Niyogi, S P., 449
Noad, A S, 309
Nobbs, P E., 308
Nolan, J. J, 272
Nolin, J, 327
Norbury, A L, 203
Norman, H J, 109
Normand, A. R, 415
Norris, E T, 395
Norton, A. A, 352
E L, 323
W. A., 410
Norwood, G, 199
Notcutt, H. C, 427
Notkin, M, 310
Nothing, E L, 459
Nova Scotia, Archbishop of, 302
Novis, T. S, 444
Nowlan, F S., 321
Numbers, A H, 231
Nunan, W., 444
Nunn, G. M., 393
T. P., 95
Nurul Aziz, Md., 456
Nutt, H R., 455
M. M., 102
Nuttall, F. E., 320
G H F, 36, 44
J. M., 148

O'Brien, L, 276
O'Callaghan, P., 278
O'Carroll, J. F., 272
O'Connell, F. W., 256
O'Connor, D., 271
F J., 340, 343
F. X., 338
J. M., 272
P., 278
W F, 274
O'Donnell, T. F., 437, 455
O'Donoghue, C. H., 321
E., 274
T., 274
O'Donovan, J. M., 275
O'Driscoll, E., 275, 352
O'Dwyer, R., 272
O'Farrelly, A., 278
O'Farrelly, Agnes, 272
O'Hearn, W J, 298
O'Keeffe, D, 258
O'Kelly, T, 276
O'Leary, De L, 29
O'Maille, T., 276
O'Meara, T R, 356
O'Neill, G, 271
H, 118
J., 269
J H, 322
J. J., 271
O'Nolan, G, 269
O'Rahilly, A, 274
T. F, 263
O'Reilly, M. J, 388
O'Sullivan, A C, 261, 262, 264
E. M, 274
J, 275
J M, 271
P. T., 275
Oakden, E E, 34
Oakeley, H D, 99
Occleshaw, V. J, 79
Ockley, L L, 353
Oddie, J W., 164
Odell, D A., 29
Oeconomos, L, 97
Oertel, H, 313
Ogden, O W, 62
Ogg, A, 411
D, 166
G., 459
Ogilvie, F W, 167
Ogle, C., 108
Okada, R, 386
Okey, T., 38, 43
Okill, J, 82
Oldfield, C, 72
Oldham, C. H., 271
H. Y., 45, 46
W., 373
Oliver, D. T., 43, 45
E H, 347
F. W., 92
M J, 354
Sir T, 62
T H, 150
W., 231
Olmsted, J. M. D., 354
Olver, S H., 94
Oman, Sir C. W. C., 157, 160, 163
J. W., 39
Onions, C. T., 159
Openshaw, T. H., 111
Opie, R., 66
Oppenheimer, M., 147
Ord, C., 29
E., 29
Orme, F, 184
Ormerod, H. A., 79
Ormond, A. W., 110
Ormsby, H. R., 95
M. T. M., 103
Orr, A. E, 308
D., 150
H., 288
J., B.Litt., 147

Orr, J , B Sc., 430
J. B , 227
W. McF., 278
Orton, A. A , 393
J. K. P., 196
Orwin, C. S , 163
Osborn, L J., 84
T G. B., 372
Osborne, F B , 148
W A , 378
W. F., 321
Oschwald, U. A , 100
Osgood, Ethel, 255
Oswald, L. R , 244
Ottewell, A E , 288
Ottley, R L , 163, 164
Owen, A , 193
A. S , 168
D , 100
E , 82
E T , 350
F , 287
G , 194
J., 83
L G , 474
L V. D , 209
M , 439
M B , 189
S G , 164
W J , 205
Ower, J. J., 288
Oxer, F E , 394
Oxner, W C , 209
Oyston, H , 67
Oza, K L., 445

Pace, E. G , 60, 61
Page, A., 104
C. M , 111
F., 96
R A , 419
S , 400
W. S , 113
Pagé, J D , 306
Pageau, J E., 352
Pain, A A., 388
Paine, H. H , 430
Pakenham, W., 351
Pal, D N., 438
Palgrave, F M T , 30
Palmer, Mrs. G. W., 212
R. W , 147
W. G., 37, 45
W. P., 34
Pan, N , 449
Pande, N. K., 442
S., 442
S. A., 437
Pandit, S. R , 434
Pandya, D D , 455
Panikkar, K. M., 437
Panneton, J. L., 330
Pannett, C. A., 112
Panton, R. C., 20
Papworth, H C , 459
Paquet, A., 305
Paquet, L. A., 305
Paquette, A., 336
Paquin, R., 305
Paranjpe, V. G., 445
Paranjpye, G. R., 444
Pare, J. W , 94
Pares, Sir B , 101
Parfitt, J. B , 94
Paris, A., 478
Parizeau, T , 330
Park, J , 398
Parker, A., 74
C E , 94
E , 147
E A , 445
E. H , 79, 146
G., 30
H. M. D , 168
M. A , 320
R , 84
W. E , 103
W. N , 200
Parkin, A , 62
J H , 351
M , 184
Parkinson, J , 108
J. E , 469
Parks, W A , 352
Parmanand, 437
Parnell, T , 381
Parr, S , 401
T S , 398
Parratt, Sir W , 99
Parry, D H , 193
E. A , 79
R St J , 46
R W , 197
S P , 78
Parry-Williams, T H , 194
Pars, L A , 43
Parsons, A L , 353
F G , 91
J H , 110
L G , 22
R. C., 126
R G , 149
T R , 39
Partington, J. R., 93
Parton, F. W , 69
Partridge, J F , 197
Pascoe, C. F , 310
Passant, E. J., 45
Pastor, A. R., 101
Patch, F S , 314
Patchett, E. W., 217
Paterson, A , 196
A. C , 415, 423
E. J , 206
J M , 397
J. V., 234
J W., 393
R W., 205
W. P , 231
Paterson-Smyth, C , 302
Paton, D A , 213
D. N., 243
F. J , 216
H J., 167
J. L , 147
L. J , 110
R. S., 252
Patrick, A , 244
D., 312
E., 346
Patrick, M., 287
Patten, C. J., 182
Patterson, A. W., 349
D. W., 62
E. J., 205
G , 298
G. C., 353
M. W., 167
T S., 241
W. H , 93
W. J., 365
Patton, D., 241
H S., 288
W S , 233
Patwardhan, R P , 445
R. J , 446
Paues, A C , 47
Paul, E. B , 295
J , 248
Pauw, D A. A , 427
Pavy, E., 372
Pawson, H C , 65
Payne, H , 377
J. L , 94
Payne-Smith, W H., 164
Peace, J B , 42
Peacock, A. D , 67
Peake, A. H , 40, 45
A S , 149
Pear, T H , 149
Pearce, C W , 99
E C., 35, 42
Pearsall, Mrs , 70
W H , 70
Pearse, G E., 429
Pearson, Mrs , 242
A C., 37, 46
A. E , 72
C B., 275
C Y , 275
K , 96, 128
R L , 213
W , 264
Peart, M M , 385
Pease, M. F., 29
Peck, W. A , 297
Pedder, A L , 166
Peddie, W , 252
Peden, J B , 387
Peel, A. W., 43
T., 40, 44
Peers, E. A., 81
R , 210
Peet, T E , 78, 145
Pelchat, J., 336
Pelletier, A., 327, 336
F., 304, 306
G., 328
L. P., 307
N , 306
Pelluet, A. P., 287
D., 286
Pelly, A. C., 438
Peltier, L., 444
Pember, F. W., 157, 163
Pemberton H. S., 84
J. S. C., 57, 60
Pembrey, M. S., 100
Pendlebury, H. S , 112
Pendse, Gajanan G., 444

Pendse, N. B., 445
S. V., 438
Penn, W. C, 79
W C, M A, 459
Pennell, V. C., 36, 44
Pennington, S, 213
Pennoyer, A R, 311
Pennycuick, S W, 372
Penrose, E, 158, 169
Penson, Sir T. H, 167, 168
Penzol, P, 72
Pepper, Miss, 34
Perazzi, C, 459
Percival, E, 72
J., 213
R. T, 184
W. P, 309
Peren, G S, 28
Perfect, D S, 161
Perham, M, 183
Perkin, A G., 74
W H., 159, 166
Perkins, B. N, 29
J. J, 108
Perman, E P, 199
Permewan, W, 83
Perodeau, Hon. N, 329
Perold, A. I, 427
Perpetua, S M, 352
Perrault, A, 328, 329
Perret, J A, 96
Perrett, G. B, 45, 46
W., 96
Perrier, J, 197
Perrin, F E, 365
H C, 310
L, 328
Perrott, S W, 82
Perrusset, L, 336
Perry, A J, 321
Sir E C, 89
H G, 284
H M J, 110
Mrs M C. A. E., 95
S W, 351
W. J, 149
Peskett, A G., 44
G. L, 159
Pestle, E. P, 60, 61
Petch, J A, 146
Peters, B A, 30
C. A., 313
R A, 36, 43
Peterson, Sir Wm, 180
Petherbridge, F. R., 43, 44, 45
Petrie, A, 421
G. F, 105
P. T, 152
W. M. F, 91
Petry, R., 346
Peyton, S A, 212
Pfeil, L B, 203
Phear, A G., 108
H W, 43
Phelon, H. V., 73
Phelps, L. R, 157 166
W., 164
Pherwani, S. N., 443
Philip, J. C, 93
Sir R. W., 235
Phillimore, J. S., 241
Phillips, D, 189
E M, 193
G, 385
G A., 70
H, 29
I. W, 242
J G P., 109, 144
M. H, 185
R, 192
R. W., 196
W, 199
W. A, 263
Phillipson, C, 373
Philpott, D C, 41
Philp, B, 310
Philpot, H. P, 125
A J, 100
Phookun, T R, 451
Piaggio, H T H, 209
Piché, G C, 304
Pick, M, 98
Pickard, R H, 93, 143
Pickard-Cambridge, A W, 164, 168
Pickbourne, H, 209
Picken, D K, 379
M F, 201
Pickerill, H P, 397
Pickering, A, 32
E C, 247
Pickles, F, 74
Pickthorn, K W M, 42
Pidduck, F B, 160, 164
Pienaar, E C, 427
W. J. B, 427
Piercy, N A V, 102
Piersol, W H, 352
Pigott, E, 404
Pigou, A C, 39, 43
Pijoan, J, 353
Pike, J L, 232
Pilon, H, 330
Pineault, L., 328
Pilz, A J, 390
Pinches, T. G, 85
Pinder, E, 397
Piney, A, 22
Pinkard, F W, 19
Pinkerton, R H, 200
Pinto, C D., 444
F T, 456
Piper, S H, 30, 211
Pirie, J H H, 431
J W, 242
Pitblado, I., 320
Pitcher, N. C, 287
Pitman, E J, 401
H, 28
Pitoy, L M, 242
M C, 242
Pittman, W, 423
Pla, J, 127
Plant, S G. P, 159
Plater, C. D, 180
Platt, J. A., 94
J I, 193
Playfair, H J M, 106
Pleasance, R E., 185
Plimmer, R. H. A, 93
Plumer, E M, 126
Plummer, A, 216
C, 164
H. C, 268
W. E, 79
Plymouth, the Earl of, 35
Poate, H R G., 384
Poget, E, 209
Poivert, J, 327
Polack, J, 29
Pollard, A F, 97, 129, 173
A. W, 95
S, 46
Pollitt, A. W., 81
Pollock, C A E, 42
J A, 386
Polson, W, 100
Ponder, A O, 164
E, 233
Poole, E G C, 166
G, 72
J H J, 263
R L, 157, 160, 166
Pooley, G H, 185
Pope, A H, 200
F I, 326
F L, 322
F G, 93
J. V. S, 263
M, 169
M K, 100
R A, 192
Sir W J, 37, 45, 177
Popham, F J W, 32
Popplewell, W C, 152
Porteous, C A, 313
Porter, A J, 92
A W, 100
C, 106
F L, 470
G D, 355
H H, 41
J B, 312
M, 169
R C, 20
W, 189
W. H, 274
Portland, the Duke of, 208
Portus, G V, 385, 388
Portway, D., 35, 42, 44, 45
Postgate, J P, 46
Postma, F, 422
Poston, M L., 257
Potter, J. I, 271
M C, 62, 65
W. A, 353
Potts, A E, 346
F A, 40, 46
G, 417
Poulet, D, 336
Pouliot, A, 305
Poulton, E. P, 161, 165
E P, 108
Pounder, I R, 353
Powe, A B, 385
Powell, A E., 213
D. E, 385
H L., 95, 144
I., 172
J. U., 167

Powell, P. H., 400
T. W., 60
W. H., 293
Powell-Price, J. C., 438
Power, A., 379
Sir d'A., 112
F. le P., 97
F. D., 380
M., 276
P., 274
Powicke, F. M., 148
Poynton, A. B., 168
F. J., 105, 108
Pradhan, W. B., 441
Prakash, S., 438
Prankard, L. L., 212
Prasad, Beni, 436
Ganesh, 471
Gorakh, 442
G., 442
Iswari, 436
J., 471, 472
J. N., 442
K., 442, 472
Munshi G., 436
P., 442
R., 442
Pagho, 472
S. P., 437
Pratt, E. J., 351
E. W., 22
Preece, C. L., 21
Prentice, J. S., 439
Prescott, J., 152
J. C., 82
Preston, C. H., 151
Previté Orton, C. W., 45
Prévost, A., 329
Price, H. W., 351
L. L. F. R., 166
L. T., 252, 253
S. W., 200
W. T., 377
Prichard, H. A., 167
Prickard, A. O., 166
Prideaux, E. B. R., 208
S. P. T., 30
Priebsch, R. C., 96
Priest, H. J., 381
Priestley, Mrs., 70
H., 386
H. J., 381
J. G., 162, 164
J. H., 70
Priestman, H., 74
Primrose, A., 356
Prince, A. E., 339
J. E., 305
Pring, J. N., 156
Pringle, H. 264
W. H., 32
Pringle Pattison, A. S., 232
Pringuer, H. T., 99
Prior, E. S., 36, 43
O. H. P., 37, 45
Pritchard, G. B., 379
Probyn-Williams, R. J., 104
Procter, E. S., 169
H. R., 74
Profeit, W. J., 225
Proudman, J., 81
Prout, W. T., 84
Prowse, S. W., 322
Pruvôt, C., 460
Prys, O., 189
Pugh, F. M., 205
D. W., 193
G., 32
W., 410
W. J., 193
Pullan, L., 163, 167
Pullar, J., 322
Pullene, R. H., 373
Pulling, A. V. S., 334
Pulvertaft, T. J., 138
Punnett, M., 95
R. C., 37, 43
Punyani, M. G., 445
Purcell, P. F., 271
Purchase, J. E., 400
Purchon, W. S., 199
Purdie, E., 197
Purser, G. L., 233
J., 103
J. M., 264
L. C., 261, 262
O. C., 262
Purslow, C. E., 22
Purves, J., 232
J. E., 233
Purvis, J. E., 37, 46
N., 196
Pybus, F. C., 63
Pye, D. R., 46
Pym, W. St. J., 46
Pyman, F. L., 151

Qadeer, A., 466
Qadri, S. A., 467
Qadri, S. M., 466
Quayle, T., 434
Quigley, J. P., 340
Quiller-Couch, Sir A. T., 37, 43
Quinlan, C., 274
Quinn, H. J., 460
W. R., 365
Quinton, W. D., 330

Raamsdonk, I. N., 391
Rabie, J. S. M., 417
Race, C. E., 286
Rackham, H., 41
Radcliffe, F., 209
G. R. Y., 160
J., 152
L. G., 152
W. W., 43
Radford, A., 208
E. A., 438
Radhakrishnan, S., 447
Rae, W. A., 292
Raft, J. W., 378
Rafti, A., 101
Ratter, J., 27
Rahmkhan, A. A., 445
Rahman, Md. J., 465
W., 466
Raiche, J. F., 343
Raikes, H. R., 165
Raiment, P. C., 159
Rainy, H., 234
Ranson, C. A., 19
Rait, R. S., 242
Raj, Hem, 467, 469
Raju, J. B., 439
Rajvade, V. K., 446
Raleigh, Sir W. A., 159, 166
Ralph, D., 336
Raman, C. V., 442, 447, 449
Rambaut, A. A., 159
Rampratap, 439
Ramsay, D. M., 356
G. A., 365
H., 394, 397
W., 345
Ramsbottom, A., 150
Ramsden, W., 79, 167
W. C., 262
Ramsey, A. S., 44
Ranade, R. D., 445
Randall, O. R., 20
Randle, H. N., 438
Randolph, J. R., 332
Randon, L. A., 478
Rane, M. B., 442
Ranganathan, S. E., 459
Rangnekar, S. S., 444
Rankin, A. C., 288
J. S., 248
M. T., 231
Rankine, Dr., 253
A. O., 100
Sir J., 230, 234
Ranner, S. C., 141
Ranson, F., 110
Rao, B. S., 437
C. H. V., 467
G. R., 460
G. V., 436
K. A., 459
K. P. L., 460
N., 463
R., 462
R. S., 465
Sanjira, 477
Srinivasa, 462
T. R., 465
V. G., 445
Raper, H. S., 72
Rapson, E. J., 41, 45
Rastall, R. H., 38, 41
Rathbone, E. F., 81
H. R., 78
Ratnaswami, M., 459
Rau, H. Narayana, 459
W. M., 284
Raw, F., 21
Rawling, L. B., 112
Rawlinson, A. E. J., 164
H. G., 445
J. F. P., 35
Rawson, G. H., 397
S. W., 163
Rawsthorne, F., 150, 151
Ray, B., 445
B. N., 450
J. H., 151
M. N., 448
N. C., 451

Ray, N. K., 438
P., 451
Sir P. C , 417
S., 451
S. C., 448
W., 373
Raye, N., N 472
Raymond, L. C., 311
W. T., 334
Raymont, T., 143
Rayner, H. H., 149
Raynor, J. G., 346
Rea, F. W., 199
G , 345
Read, A. A., 200
C., 125
F. J , 99
J., 385
J. E , 298
Reade, T H., 226
W. H V., 168
Reading, R. F., 385
Rébora, P., 80
Reddaway, W. F , 35, 43, 46
Reddick, O. I., 456
Redmond, F A , 480
Reed, A W , 95
G B., 340
Rees, F. E., 189
F. M., 79
H , 193
John, 196
J. F , 231
J. M., 193
J. P., 21
T., 189
W., 200
W. H , 113
W. J , 184
Reeves, Hon. W. P , 101
Regan, W., 248
Reichel, Sir H. R., 196
Reid, A. D , Sir, 110
C., 227
D G., 36, 43
E. R. L , 393
E. W., 252
F., 411
F W., 372
G. W., 397
H. M. B., 241
J. M. W., 65
J. S., 38, 43
L. A., 193
R. W , 225
W. J. S., 151
Reilley, H. E., 310
Reilly, C. H., 78
Reimann, A L., 373
Reimers, J. H W., 427
Reinecke, O. S H., 427
Reinink, H., 423
Relton, H M , 101
Renaud, E., 336
Renault, G. E , 80
Rendell, W. R., 46
Renne, E. H., 372
E. J. C., 376
G. E., 387
H. M., 378
Rennie, J., 185, 227
W., 241
Renshaw, A., 150
Renwick, W. L., 66, 246
Requilé, Mlle , 232
Revell, D G., 286
Rexford, E. I., 314
Reyburn, H , 411
Reynolds, D , 257
E. S , 156
F. E., 235
J. B , 356
P. G , 147
S H., 29
Rhead, E L , 152
Rhéaume, Z., 330
Rhind, A , 98
Rhodenizer, V. B , 284
Rhodes, D , 169
Rhys, T , 189
Ricard, A , 330
Rice, J., 81
Rice-Oxley, L., 168
M. K., 103
Richard, L A , 304
Richards, C D , 331
D. J , 188
D H., 78
G C , 167, 168
G. E., 356
H C , 381
Sir H E., 162, 163
H W., 99
R , 196, 197, 228
Richardson, A , 70
A. E , 91, 129
A E. V., 376
A. R , 98, 203
A. V., 292
A W , 94
D , 103
Hilda, 47
L., 294
O. W., 100
S. G , 71
T. B., 356
T. H., 451
W. A , 209
Richey, M. F , 96
Richmond, the Duke of, 225
H. W., 43
O. L , 231
W. J , 168
Riddell, J. H , 323
J. R., 243
J. S , 225
W., 258
Rideal, E. K , 39, 46
Ridgeway, Sir W., 36, 37, 43
Ridington, J., 293
Ridley, M. R., 164, 168
Rigal, J. L., 269
Rigby, Sir H M., 112
Rigg, S K., 28
Riley, Archbishop, 393
C. F. C., 321
F. R., 398
Rimmer, A., 82
E. J., 82
T., 381
Rindl, M., 417
Rinfret, F , 328
T., 312
Ring, J., 480
Ripper, W., 183
Rippon, C , 70
Rishbeth, O H. T , 193
Rishworth, F. S., 276
Ritchie, A. D , 46, 119
A G , 235
D. L , 314
E. G , 255
F M , 20
H. J , 388
J , 230, 235
R I , 398
R L. G , 21
S G , 299
W , 191, 411
W T , 235
Ritson, F W , 60
Rivard, A , 304
Rivat, A. N , 330
Rivers, W H. R., 45
Rivett, A C. D , 376
M., 286
Rixon, F W., 28
Roach, W J., 354
Roaf, H. E , 100
Robb, C. A , 287
D , 421
J , 223
J H , 256
Robert, A , 305
U , 336
Roberton, E H , 451
Roberts, A. A , 423
A R , 312
C , 150
C. S. L., 73
D. E , 193, 451
E J , 196
Ff , 39, 41
H. A , 52
H. F , 320
H. M., 192
I., 150
I C , 196
J , F C.S., 241
J. E H , 112
J. Ll , 78, 83
P. E., 168
R. A , 196
R. W., 81
S G., 162
T. S., 193
T. T., 385
W. H , 79
W. J., 199
W. R., 70
W R W , 201
Robertson, A., 32
A. A., 313
A. D., 364
A. W. D., 379
C G., 19, 163
D., D.Sc., 32
D. H., 46
D. S , 46
E., 197

Robertson, F J, 230
F. S, 103
G C. A, 69
G M, 235
G M'G, 244
G. S, 256
H. G, 350
J., 22, 243
J B., 429
J C., 350
J D, 356
J G, 96
J. K., 339
L F., 293
M, 20
M. W. U, 226
P W., 404
R, 481
R A, 251
T. B, 373
T R, 298
W A, 230
W G, 250, 444
W L, 255
Robins, E T, 32
J D, 352
Robinson, A, D.C L, 60
A, M D, 230
A L, 149
E. M, 424
F E, 30
G, 233
G E, 294
G H D, 106
G. W., 196
Harold, 156
H. G, 213
H W., 101, 138
Mrs. M E., 47, 156
P. L., 66
R, 251, 255
T. H., 200
T R., 354
Wilfrid, D Sc, 146
W., M I M E, 208
W. F., 400
W J, 365
W. L., 355
Robison, G. G. S, 404
Robitaille, A, 305
Robson, G., 426
H. A, 323
H. C., 45
S., 469
W, 231
W. G., 252
Roche, W. J, 364
Rockwell, L. M, 456
Roderick, H. B., 40, 45
Rodger, J 242
Rodway, L. J 151
Roffey, M. H, 480
Rogers, A. H. E., 411
C. F, 102
J. S. Y., 252
Sir L., 450
L. J., 350
P. H., 390
R. A. P., 263
R. S., 373
Rogers, T., 32
T S, 298
W., 322
Rolleston, Sir H. D., 108
Rollo, J C, 462
W., 352, 361
Romans, W H C, 112
Romans-Lee, J, 480
Ronald, Sir L, 144
Rooke, E., 169
Rooney, W J, 393
Roos, G D, 428
Rootham, C B, 45
Rorke, R F, 323
Roscoe, R, 89
Rose, B. T, 19
F A., 106
H. E, 312
H. J, 192
J. H, 38
Rosebery, the Earl of, 89, 240
Rosebrugh, T R, 351
Rosenstein, V, 430
Roseveare, W. N., 421
Ross, A D, 393
A E, 338
C N, 381
F B, 159
Sir E D, 113, 135
G R, 252
G R. T, 474
H A., 243
J, 241
Sir J, 223
J A., 417
J. C., 423
J D. M, 231
M, 361
N, 346
R, 284
W. D, 167
W. K, 310
Rothenstein, W., 182
Rouel, T, 377
Rouleau, A, 329
Rouse, W. H D, 41
Rousseau, A, 306
I. J, 419
Routh, H. V., 95
Routhier, Sir A., 307
Routledge, F. J, 80
Rowan, W., 286, 326
Rowden, F, 180
Rowe, C. H, 261, 263
F. M, 152
T W, 400
Rowell, E. M, 98
M, 30
M. C., 352
Rowlands, R. A., 108
R D, 197
R. P., 112
Rowntree, G., 364
Roxburgh, A. B, 110
Roxby, P. M, 80
Roy, C., 304
D. W., 106
F, 305
F. T., 456
G., 304
Roy, J. A, 339
P C, 442
P. N, 442
R B S. C, 471
R. C, 472
Royce, G, 355
Royer, B F, 299
Royle, F A, 146
Rudall, R. J, 373
Rudge, C. K, 27
Rudler, G, 159
Rudmose-Brown, T B., 264
Rudolf, R D, 356
Rudra, S K., 434, 469
Ruiz, N G, 81
Rukmmanuma, K D Sri, 462
Rule, H G., 231
Rundle, C, 83
Runge, C. H S, 424
Rushmore, F. M, 41
Rushton, A, 103
Russ, S, 100
Russel, C K, 313
Russell, A. E., 108
A J. H, 460
A S., 164
B, 298
C B, 284
E, 28
E H, 295
F A A, 385
J. M, 410
J S R., 108
J W, 164, 167
J W, M A, 304
J W, M D, 22
L J, 242
R., 261
R. J., 323
W. W, 92
Russell-Wells, Sir S, 89
Ruston, A. G, 69
Rutherford, Sir E, 39, 46
W. J., 316
Rutledge, L T, 339
Ruttan, R. F, 308
Rutter, E, 346
Ryan, C. C., 293
E, 340
F W., 299
H, 271
M, 275
Rye, R A., 89
Ryerson, E. S., 349, 356
Ryffel, J H., 92
Ryle, J. A, 108
Ryrie, B. J., 150

Saayman, R. B., 417
Sabins, R. P, 446
Sabonadiere, A, 104
Sacret, J. H, 213
Saddler, W., 252
Sadler, Sir M E., 69
W., M.Sc, 295
Sadr-ud-din, M., 467, 470
Safford, H. E, 475
Sage, G. B., 365
W. N, 294
Sager, J. L., 205

Saha, M N , 447
Sahasrabuddhe, L , 446
Sahay, S. N., 434
Sahney, C L , 438
Sahni, B., 456
Said, Muhd , 470
Sain, K , 408
Saint, C F M , 412
St Clare, M M , 351
St Georges, L , 336
Saint-Jacques, E , 329
St John, W , 475
St Laurent, L , 305
Saint-Pierre, A , 329
C , 329
Saksena, D P , 438
Saldanha, C. F , 445
C P , 415
Salim, W., 465
Salisbury, E J , 92
Salmon, C. S , 93
E. S , 92
W H , 97
Y. M , 213
Salmond, C F., 401
Salsbury, J. M , 99
Salt, G McB , 402
Salter, F R , 44
H. E., 166
Saltmarsh, M O , 100
Sampathiengar, P , 462
Sampatkumeran, 462
Sampson, B , 429
C H , 157, 164
J., 78
K , 192
L., 32
M , 85
R A , 231
Samut, R , 478
Sams, E V , 387
Sand, H J. S , 93
Sandbach, F E , 21
Sandeman, E , 147
Sanders, H , 394
H F , 209
Sanderson, W. J., 62
Sanderson-Mongin, Mme. E., 295
Sandes, F. P , 388
Sandford, A. W , 275
Sandground, J , 430
Sandham, B , 259
Sandiford, P , 351
Sandwell, B K , 310
Sandys, Sir J., 45
Sane, S. M , 456
Sanjana, K J , 444
Sarbadhikary, J., 448
Sarcar, A P , 437
Sargent, A. J , 94
F., 60
H. A , 426
P. W. G , 112
Sarkar, B , 449
J., 471, 472
J K , 472
M. K., 467
M. S , 451
Sarma, R., 442
Sarolea, C., 232
Sarup, L , 467, 468
Sastri, Asutosh, 450
L , 438
R S , 462
S. K , 459
S. R., 438
Sathe, S G , 445
Satterly, J., 351
Satyanarayanamurti, G , 459
Saunders, A J , 459
E R , 47
J C , 42
J P , 40, 41
L , 338
L P , 474
P W , 108, 109
W , 451
Savignac, E , 328
Saville, D , 70
Savoor, S R U , 459
Savory, D L , 257
Saw, A. J H , 393
Saxby, L B , 199
Saxelby, F M , 98
Saxena, R. K , 442
Saxton, W T , 111
Savce, A H , 167
R U., 421
Sayers, L D , 42
Scales, F. S , 40
Scarborough, H A., 42
Scarrow, A N , 351
Scarth, G , 308
Schaef, H E , 361
Schafer, Sir E A S , 233
Scherrer, M , 242
Schuller, F C S , 164
Schindler, C , 381
Schlapp, O , 232
Schofield, J A , 384
S J , 294
Scholes, G E , 82
Scholfield, A., 216
Scholle, W , 229
Schonland, S , 419
Schopp, J W , 205
Schott, G. A , 193
Schreiner, O D , 46, 430
Schroder, A E , 427
Schryver, S B , 93, 100
Schultze, H. G., 422
Schulz, A. J , 372
Schumann, T E W , 428
Schuster, Sir A , 148
E. H. J , 166
F. V., 124
Schwartz, H W , 298
Schwarz, E H L , 419
Schweizer, W. R , 209
Scobie, J., 241
Scoble, W. A., 103
Scott, A., 81
Alice, 71
A. A , 438
D., 253
E., 377
Eliz , 20
G G., 78
H., 53
Scott, H H., 481
J. E , 43
J W., 200
L C , 352
L I , 70
M L , 372
Nelly, 243
Sir P. R., 255
R. F., 35, 45
R J , 100
S R., 104
T F , 46
W , 470
W R , 243
Scott-Thompson, G , 169
Scrimgeour, A C S , 411
J C , 450
Scrimger, F A , 314
Scullard, H H , 102
Scurfield, H , 188
Scutt, C A , 376
Seaby, A W , 212
Seager, C A., 301
Seal, B N , 444, 462
Seaman, A M , 102
Searle, G F C , 39
V. H L., 206
Seaton, D , 73
Seddon, H. R , 378
Sedgefield, W. J , 147
Sedgewick, G. G , 294
Sedgwick, R R , 46
Sen, A , 112
Segall, J , 29
Segar, H W., 395, 402
R., 166
Sein-Maung, Mg , 175
Selbie, W. B , 161
Selby, A , 209
A L , 200
Seligman, C G., 96
Selke, E A., 421
Sell, F. R , 462
Sellars, R , 145
Sellers, A , 151
M , 71
Sells, A C , 438
Semple, Jean, 241
P., 271
R , 228
W H., 257
Sen, B., 450
D N., 472
H. K , 447
N C , 434
N. K , 469
P. C., 450
R C , 472
S N , 451
Senapati, M. M., 72
Sénéchal, R , 336
Sen-Gupta, S K , 475
Sengupta, A. C., 439, 450
B., 444
H C., 450
Senter, G., 93, 133, 143
Sequeira, J. H., 105
Serton, P., 427
Seshachar, K. R., 462
Seshadri, P., 442
Scott, H H., 481

Setalvad, Sir C H., 443
Seth, H. S , 437
J , 233
J B , 438
Sethi, N K , 442
Seton, R S , 69
W. W , 124
Seton-Watson, R W , 97
Seward, A C , 35, 36, 42
Sewell, D L , 150
W G., 74
Sexton, C. W. N , 377
Seyer, W. F , 293
Seymour, A T , 32
H. J , 271
P. A , 165
Shah, M , 467, 468
Shaftesbury, the Earl of, 256
Shah, K T , 443
N M , 446
S M , 444
Shaham, S. C., 445
Shaikh, A K S , 444
Shakespear, G. A , 22
Shamsi, S A , 465
Shanasy, W F., 372
Shand, S J , 427
Shanei, R F , 286
Shankland, T., 197
Shanks, L P., 364
W F , 243
Shann, E. O G , 393
Shannon, D , 244
Share-Jones, J , 81
Shargha, I. K., 470
Sharif, M. M , 437
Sharman, M S , 376
Sharp, L H , 387
Sharpe, F. L., 385
N G , 355
Sharpley, E M , 17
Sharrard, J. A , 346
Shattock, S. G , 91
Shatwell, H G , 20
Shaw, A F B , 63
A. M , 346
A N , 310
E D , 164
H B , 108
J B , 103
J E , 353
M , 310
M. R. R , 169
Sir N., 98
P. E., 209
R , 471
R M , 288
T P , 310
V G H., 437
W. F , 150
Shawcross, R , 103
Shaxby, J. H., 200
Shaykh 'Abdu 'l-Quádir Zafir, 41
Shaykh 'Alf Majzub, 41
Shea, S , 276
Shears, F. S., 101
Sheavyn, P., 145, 147
Sheedy, G , 274
Sheehy, E., 388
Sheehy, P. J , 388
R J , 276
Sheen, A W , 201
Sheldon, E W , 287
Shelley, H J , 152
J , 400
Shennan, T , 228
Sheode, S. V , 444
Shepherd, D. B , 32
E. R , 478
Shepherdson, J F , 46
Sheppard, E M , 200
J T , 43
N E , 353
Sheridan, F , 271
Sherrard, G. O , 278
Sherren, J , 112
Sherrill, C , 98
Sherriff, W R , 216
Sherrington, C S , 161, 166
Sherwani, H K., 465
Sherwood, E I G , 424
Shields, B F , 271
Shimeld, J E , 208
Shimmin, A N , 70, 74
Shine, J., 272
Shipley, Sir A E., 35, 41
C. M , 66
J W , 320
Shipsey, K. A , 34
Shipway, F E , 104
Shirlaw, M , 233
Shirley, H J , 104
Shirres, D. A , 317
Shoesmith, J B , 231
Shooshtry, Aga M A , 462
Shore, A , 70
L. E , 39, 45
T. W., 62, 138
Shorney, A B , 32
Short, A R , 30, 31
W. F , 402
Shorten, J A , 449
Shovelton, S T , 98, 126, 139
Showan, P B , 95
Shuffelbotham, H N , 19
Shutt, W J , 79
Shuttleworth, C B , 356
Sibbald, A S , 346
Sibly, T F , 203
Sibree, E , 27, 29
Siddhanta, N K., 450
Siddiqui, A , 465
Sidebotham, E J , 151
Sidey, T K , 397
Sidgwick, N. V , 159, 165
Sierra Leone, Bishop of, 57
Sifton, H B., 350
Sigerson, G , 272
Sikes, E E , 45
Sil, A. L , 465
Sillar, W C , 235
Sillick, W. E G , 103
Sills, H H , 43
Silver, L. M , 298
Silverthorne, G , 355
Silverton, R J., 384
Simard, E. T. A., 306
G , 336
H., 304, 305
Simms, F., 257
H , 151
Simon, Sir J A , 163
Simonds, E F , 386
Simons, L , 100, 414
Simpson, A H , 209
D C , 165, 168
E M , 169
F. A , 46
G , 185
G C E , 78, 84
G. E , 308
H C , 351
J C , 235, 309
M , 72
P , 159, 165, 167
R K M , 480
R M , 322
W D , 227
W. J R , 106, 112
Simson, F. W , 185
Sinclair, A H H , 234
J. D , 150
J H., 247
N. T., 402
O W , 31
T , 256, 258
T W , 378
Singer, C , 97
G. J , 159
Singh, B. K , 467
G , 442
Gulbahar, 467
K , 472
Kunwar Dalip, 434
N , 415
Pritam, 440
Singleton, F. A , 377
Sinha, A B P , 472
B C , 472
C C , 472
N. P., 450
P , 449
S C , 150
U , 451
Sinnatt, F. S , 151
Sirois, J , 305
L P , 305
Sisson, C J , 444
Sissons, C. B , 352
Skeats, E W , 377
Skeel, C A J , 97
Skelton, O. D , 340
R. J , 295
Skene, MacG , 226
Skinner, H D , 397
J., 51
J. M , 460
S., 100, 144
W., 459
Skipworth, Miss, 169
M. G , 169
Skirving, A. A S , 235
Slack, J. A , 364
S B., 309
Slane, U. C , 19
Slater, D. A., 79
G., 461
M. W , 47
Sleeman, C. M , 44

Sleeman, J H., 94
Sleggs, G F , 297
Slesinger, E. G , 112
Slessor, A K , 164
Sloss, D J , 474
Small, W M , 419
Smales, R , 159
Small, J , 241, 256
Smallman, E , 284
W. H., 36
Smart, E H., 98
J S , 241
Smeal, G , 72, 239
Smeaton, B , 374
Smiddy, T , 274
Smiles, S , 93
Smiley, M. T , 79
Smith, A , B Sc., 32
A , 304
Annie, 199
A E C , 216
A. H., 166
A J , D Litt , 226
A J , M.B., 272
A. L , 157, 164
A. M , 231
A N , 235
B T. D , 45
C A. M , 480
C F , 243
C. G , 446
C J , 44
C R , 102
Dempster, 152
Donald, 385
D N., 159, 166
E , 106
Egerton, 451
E. H , 145
E M , 85
F , 193
F B , 37
F. J., 216
F. R , 182
G., 82
G., LL D , 225
Sir G A., 225
G. B., 109
G C M , 183
G. E., 91
G. F. D , 109
G. G , 256, 257
G. H. L., 32
G. L M , 235
G. M., 352
G O., 350
H., M A., 102
H , M.D , 412
H., Ph.D , 242
H. A., 312
H. Bompas, 146
H. G., 96
H. R. W., 343
J., 248
John, B Sc., 231
J. A., 161, 166
J. D., 94
J. G., 20
J. H., 259
J. J., 427
Smith, J. L , 235
J L S , 231
J. MacG., 286
J W , 151
K. M , 145
L. A., 108
Margaret, 226
Muriel, 251
M S , 47
N , 145, 146
N. K., 233
P. W , 95
R , 101
R C , 241
R P , 109
R. R , 292
R T , 98
R. W., 318
Stanley, 96
S , 287
S A , 388
S B , 456
S E., 298
S L , 103
S M , 112
S P , 103
S W J , 21
T B , 182
T I , 377
Winifred, 124
W A , 400
W E , 459
W. H , 322
W. N , 60
W Owston, 472
Smithells, A., 69, 70
Smithett, W J , 351
Smithes, C M , 62
Smyly, J. G , 261, 262
Smyth, J , LL D , 314
J , M.A , 376
L B , 263
W. H , 308
Smythe, H J D , 31
J A , 65
Snape, A E , 411
Snell, F. M , 426
J. F., 311
Snow, R. H , 297, 339
Soal, S. G., 98
Soares, A., 444
A. X., 444
Soddy, F , 159, 164
Sollas, W. J., 160, 168
Solomon, L , 94
Soltau, R. H., 71
Somerscales, A., 71
Somerset, H. V F., 168
R D. N , 169
Somervell, D B., 163
Somerville, W , 162, 167
Sommerville, D , 106
D. M. Y., 404
Sondhi, G. D., 467, 470
Sonet, E., 287
Soothill, W. E., 162
Soper, F. G., 196
Sorabji, R. K , 434, 436
Sorby, Miss, 188
Sorley, W. R , 39, 43
Soutar, G., 251
Souter, A , 226
Southerns, L , 184
Southgate, H W., 185, 188
Southwell, T., 81
Souttar, H. S , 112
Sparks, J. F , 338
Spary, P. G , 217
Speakman, H B , 355
Spearman, C. E , 99
Speight, R , 400
Spence, R. McG , 438
W J., 320
Spenceley, J. A , 364
Spencer, H R , 109
J. F., 93
R. A , 346
T B W , 183
W G., 112
Spens, J , 169
W , 42
Spicer, F C , 213
W T H , 110
Spidle, S , 284
Spiers, C H , 42
H M , 241
V , 95
Spilsbury, B. H , 91
Spinks, G. T , 28
Spitta, H R D , 106
Spittle, J T , 44
Spooner, W. A , 157, 166
Sprague, F. H , 103
Spratt, A. W , 55
Sprawson, C A., 455
E C , 94
Springthorpe, J W., 379
Sproule, G A , 323
G St. G., 310
W. S , 377
Spruit, T., 235
Spurgeon, C F. E , 95
Srikantia, B. M , 462
Stable, J J , 361
Stack, E H E , 31
Stafford, J , 310
S , 426
Stainer, E , 105
Staines, E., 478
H., 138
Stalker, A M , 252, 253
J. M , 252, 253
Stallybrass, W. T S , 164, 167
Stammers, A. D., 430
Stampa, L , 165
Stanford, Sir C. V., 38, 99
Stanley, D., 23
G H., 430
R., 259
Stanners, R. W., 37
Stansbie, J. P., 21
Stansfield, A , 310
E., 288
H , 217
Stanton, B. L , 378
V. H., 37, 46
Stapledon, R. G., 192
Starkey, T. A., 313
Starkie, W. F , 264
Starling, E. H., 100

Starling, S. G., 100
Starr, C. L., 356
F. N. G., 356
Starrak, J. A., 311
Start, L. E., 147
Statham, I. C. E., 183
R. S. S., 31
Staveley, M. C., 27, 29
Stebbing, E. P., 232
L. S., 47, 99
Stedman, E., 231
Steel, G., 332
Steele, B. D., 381
E. S., 251
J. K., 247
L., 437
R. M., 372
S., 400
Steen, R. H., 109
Stefansson, J., 322
Steggall, J. E. A., 250, 252
Stegmann, E. T., 428
Steichen, A., 444
Stenning, J. F., 162, 165, 168
Stenton, D. M., 213
F. M., 213
Stephen, H., 447
H., O.B.E., 146
Stephens, A. C., 397
E. L., 410
G. A., 32
J., 334
J. O., 189
J. W. W., 84
Stephenson, G., 278
H. K., 182
J., B.Sc., 460
J., M.B., 233
P. W., 470
W. T., 102
Steppat, J., 96
M. A. A., 95
Sterling, T. S., 450
Steuart, E. M., 231
Steven, A. B., 247
Stevens, A., 242
A. J., 45
T. G., 109
W. M., 201
Stevenson, E. F., 66, 67
F. A., 311
G., 398
G. C. P., 472
G. H., 168
H., 258
J., 248
W. B., 242
W. H., Edin., 234
W. H., Ox., 167
W. H. M., 382
W. J., 362
Steward, F. J., 112
G. C., 72
Stewart, A., 356
A. W., 256
C. A., 183
C. H., 233
C. P., 231
D., 74
D. A., 322
Stewart, D. S., 232
E. C., 241
F. R., 226
G. D., 230
G. S., 411
H., 400
H. F., 46
H. L., 297
H. R., 469
J., 299
J. A., 161, 165
J. C., 292
J. D., 386
J. L., 429
J. McG., 298
J. McK., 377
Sir J. P., 108
L. M., 19
M. J., 73
Mrs., 73
T. G., 108
Stibbe, E. P., 429
Stiles, Sir H. J., 235
W., 212
Still, C. J., 258
G. F., 105, 108
Stillwell, E. C., 295
Stimson, H. F., 193
Stirling, J. W., 313
Stiven, D., 252
Stobie, H., 142
Stock, M. F., 427
W. S. V., 28
Stockall, G. E., 32
Stockdale, H. F., 247
Stockenstrom, E. C., 427
Stocker, W. N., 164
Stockley, W. F. P., 269, 274
Stockman, R., 244
Stocks, E. V., 57, 60
J. L., 167
M. D., 95
Stoddart, W. H. B., 108
Stokes, A., 264
G. J., 275
Stokoe, F. W., 198
Stone, C. G., 164
H., 37
L. W., 96
Stonedale, B., 169
Stoneley, R., 183
Stoneman, B., 426
Stoney, E. A., 100
G. G., 152
Stopford, J. S. B., 115
Stops, W. J. T., 391
Storey, J. C., 384
Storm, H. C., 410
Story, W., 205
Stott, A. W., 108
Stoughton, A. A., 320
Stout, G. F., 252
Sir R., 395
Stover, N. M., 286
Strachan, A. S., 244
J., 69
L. R. M., 21
R., 445
Strachey, J. P., 47
Stradling, R. E., 20
Strahan, J. A., 257
Strang, J. A., 456
Strangeways, T. S. P., 40
Stratton, A. J., 91
F. J. M., 36, 43
K., 93
Straw, S. H., 209
Streatfeild, F. H., 93
Street, K. W., 387
R. O., 45, 81
Streeten, R. C., 417
Streeter, B. H., 167
Stringer, L. A., 400
Strong, A. G., 397
A. T., 377
J., 71
Stroud, H., 63, 67
S. H., 387
Stuart, A., 293
A. M., 227
C. A., 286
T., 217
Studer, P., 161
Sturdevant, E. G., 364
Sturley, A. A., 302
Sturrock, A., 255
Sturt, H., 197
Subotic, D., 101
Sucksmith, W., 30
Sudborough, J. J., 477
Sudmersen, F. W., 451
Sueyras, M., 257
Sugars, R. M., 309
Sugden, E. H., 379
J. H., 201
R., 376
S., 93
Sukul, C. M., 412
Sullivan, C. T., 310
W. G., 345
Sully, T. B., 437
Sulston, L. E., 194
Sultana, A., 478
Summerby, R., 311
Summers, F., 28
H. St. J., 377
P. F., 74
W. C., 182
Sumner, B. H., 163
H., 79
Surveyer, E. F., 312
Surveyor, A., 328
Sutcliffe, D., 21
J., 150
Sutherland, A., 284
C., 252
D. W., 469
E., 326
G. F., 387
G. J., 376
L. R., 253
M. M. J., 247
P. L., 73
Suttie, D. P., 429
Sutton, H. 386
J., 372
J. A., 209
Swain, H. J., 387
I., 274
J., 31

Swain, L. M., 47
Swan, F. M., 372
H. M., 257
R. R., 322
Swann, M. B. R., 40
Swanson, W. W., 345
Swanwick, K. Ff., 381
Swayne, W. C., 31
Sweeney, G. W., 421
Sweet, G., 378
Swift, H., 373
Swinnerton, H. H., 209
Swinton, W. E., 242
Syed Mahomed Ali, 435
Syme, W. S., 244
Symes, J. O., 31
W. L., 100
Symmers, W. St. C., 258
Symon, F. J., 248
Symons, N. J., 339
S. T. D., 386
Synge, J. L., 353
V. M., 264

Tacchella, C. F. H., 477
Taggart, P., 79
Tagore, A. N., 417
Tait, A. J., 51
J., M.D., D.Sc., 310
J. T., 378
W. D., 310
Takakhav, N. S., 445
Talbot, P. R., 288
Tamblyn, W. F., 364
Tamhankar, V. V., 438
Tannan, M. L., 445
Tanner, J. R., 45
L. E., 309
Tanquerey, F. J., 251
Tansley, A. G., 36
Taraporewala, I. J. S., 447
Tarkabhushan, Maha, P. N., 450
Tarrant, A. G., 100
D., 94
Taschereau, R., 329
Tate, G., 469
H., 310
Sir R. W., 261, 262, 263
Tatham, G. T. P., 70
Tatlow, W., 263
Tattersall, G., 393
Tawney, R. H., 95
Tawse, W. J., 311
Taylor, A. B., 66
A. E., 252
A. L., 31
D. G., 200
E., 430
E. H., 264
F. A., 164
F. E., 105
G. I., 46
H., 212
H. M., 46
J., C.B.E., 108
J., M.A., 278
John, M.D., 250, 253
John, D.Sc., 274
J. R., 74
Taylor, J. W., 320
M., 28
M. E. J., 94
N. M., 354
R., 351
R. B., 338
T. G., 385
T. H., 69
T. W. J., 159, 164
W. D., 226
W. R., 353
W. W., 233
Teacher, J. H., 244
Teago, F. J., 82
Teale, F. H., 110
Teece, L. G., 384
Tees, F. J., 314
Teesdale-Mackintosh, N., 480
Telang, P. K., 442
Telfer, W., 41
Telford, E. D., 151
Telling, Maxwell, 73
Temperley, F., 195
H. W. V., 38, 44
Templeton, J., 239
Ten Broeke, J., 318
Tennant, F. R., 46
J. S., 404
R., 244
Tennouth, E. J., 213
Terry, C. S., 226
Tesh, E., 66
Tetley, H., 184
Tetreault, A., 329
Tew, W. P., 305
Tewari, I., 442
N. K., 442
Thacker, C. R. A., 39, 45
P. L., 444
Thadani, N. V., 469
Thakore, B. K., 445
Thakur, A., 471
Thapar, S. G. S., 456
Thatcher, F., 46
G. W., 386
W. S., 41, 42, 44, 45, 46, 52
Theakston, H. R., 297
Theiler, Sir A., 424
Theodosius, H. G., 57
Thevenot, E. A. M., 60
Thibeau, P. W., 343
Thickett, J. H., 472
Thirkill, H., 39, 41
Thistle, W. B., 355
Thoday, D., 410
Thole, F. B., 93
Thom, A., 241
Thomas, A. B., 193
D. J., 378
F. W., 113
G. H., 481
Harvard, 125
H. H., 81
H. H., M.B.E., 42
H. W., 84
J. O., 189
J. S., 79
L., 299
M., 196
Thomas, M. B., 47
P. G., 95
R. A., 193
R. A., M.A., 85
S., 199
S. H., 469
W., 31, 226
W. D., 203, 348
W. E., 402
W. T., 84
Thompson, A. H., 66
A. M., 309
A. R., 112
C. H., 167, 168
C. M., 202
C. N., 411
D'A. W., 252
E., 316
E. J., 149
E. J. L., 240
F. C., M.Sc., 74
F. C., B.Sc., 148
G. E., 398
H., 69
H. S., 393
H. T., 105, 108
H. W., 69
I. McL., 308
J., 213
J., M.A., 404
J. G., 309
J. M., 166
J. M'L., 79, 246
J. R., 182
P. F., 377
R. D., 393
R. R., 308
S., 365
S., M.B., 62
W. H., Junr., 284
W. P., 345
Thomson, A., 158, 164
C. D., 437
C. H., 168
G., 217
G. H., 66
G. K., 299
G. P., 42
G. R., 431
H., 373
H. A., 235
H. C., 109
H. J., 251
H. N., 294
J., 182, 250
J. A., 227
J. E., 353
J. G., 102
Sir J. J., 35, 39, 45
J. O., 20
J. S., 145
L. R., 308
R. B., 350
Sir St. C., 106
T., 196
W., 415
Thorburn, J. M., 200
Sir Wm., 156
W. S., 70
Thorne, H. H., 386

Thornley, I D, 97
Thornton, A W, 311
J C, 169
L, 38
W M, 66
Thorpe, J F, 93
L, 197
Thorvaldson, T, 315
Thouless, R H, 149
R M, 42
Threlfall, H, 152
Thritt, H, 261, 263
W E, 261, 262, 263
Thring, D. T, 163
Thurshield, J H, 105, 108
Thwing, C F, 392
Thynne, A J, 381
Tidy, H L, 108
Tier, W, 321
Tietz, H, 410
Tilley, A A, 43
H, 104, 106
U H, 474
Tillmann, W. J, 365
Tillyard, E M W., 43, 44, 45
F, 20
H J W, 22
Tilsey, G E, 31
Tilsley, H, 152
Tims, H W M, 102
Tincknell, G M, 32
Tinkler, C K., 93
Tinto, J F, 98
Titterton, C. H., 102
Tocher, J. F, 227
Tocker, A. H, 100
Tod, H. F, 104
M N, 159, 167
Todd, A, 214
A. T, 31
F. A, 385
F W, 297
G W, 67
H, 29
I, 361
J. A., 164
J. B, 232
J. E, 257
J. L, 313
J. P, 248
M V., 297
O J, 293
R. H, 387
Tolkien, J. R. R., 71
Tomkeieff, S, 66
Tomlin, J. W. S, 27, 30
Tomlinson, A., 393
H J., 217
Tompkins J. J, 343
M. N., 343
Tonks, H., 92
Tooke, F. T, 313
Toomer, J. E, 353
Toone, D. A, 385
Tooth, H. H., 108
Topley, W. W C, 110
Torrens, D. S., 278
J. A., 108
Tory, H. M., 286
Tostevin, F. P., 439
Totton, J H, 258
Toupin, J. R, 329
Tourret, J., 226
Tout, M, 145
T F, 148
Tovey, D. F, 233
Townend, F S, 74
H, 225
Townsend, H, 149
J S E, 161, 166
Townshend, Sir C J, 302
Toynbee, A J, 97
J, 169
Tozer, F M, 83
Tracy, F., 354
Traquair, H. M, 234
R, 308
Treadgold, W M, 354
Treherne, R C, 205
Tremain, Miss C P, 192
Tremblay, A, 304
Trench, G F, 347
W Fitz J, 203
Trenery, G R, 80
Treston, H. J, 274
Trevelyan, Sir E J, 157, 162, 163
Tripathi, Ram Prasad, 436
Trites, R, 332
Tritton, A. S, 437
Trivedi, A K, 144
T. P, 145
Trotmoy, M V, 149
Trotman, S R, 208
Trotter, W B L, 112
W F, 183
Troup, R S, 159, 167
Trout, A M, 217
Trow, A H, 165, 189, 190
Trudeau, R, 329
Trueman, A E, 203
Truscott, S J, 98
Truslove, R, 179
Tryhorn, F G., 182
Tuck, W. B, 93
W R., 402
Tucker, E F. G, 444
L N., 366
S H, 241
T G., 385
W S, 100
Tuckett, W J., 80
Tuckfield, W. J., 379
Tudhope, G R., 253
Tuke, M J., 96, 136
Tullis, J., 241
Tulloch, W. J., 252
Tun-Pe, Mg., 475
Tunnell, S E, 67
Tunnicliffe, F. W, 108
Tunstall, N., 194
Tuiberville, A. S., 197
Turcot, E, 306
Turkhud, D. A, 444
Turkington, S. I, 258
Turnbull, G H., 80
H. H, 378
H. M, 91
H. W., 252, 255
J. M., 294
Turnbull, M. I, 397
R S M, 420
Turner, A: J, 152
A L., 234
B E R, 94
B W., 386
C H, 46, 163, 166
E G, 182
E O, 334
F C, M.Eng, 183
G C, 98
G G, 63
H H, 159, 166
H P, 145, 146
H W, 29
J G, 94
L B, 43
P, 112
P. J, 308
R L, 138
T, 21
W, 112
W. A, 108
W. E S, 184
W. G, 314
Turney, H G, 108
Turquet, Mrs G R, 96
Tutin, F, 28
Tweedie, C, 233
W M, 332
Twemlow, J A, 81
Twort, F. W, 128
Tylecote, F E, 150
Tyler, E, 22
Tyndale, O S, 312
Tyndall, A M, 30
Tyrrell, G. W, 242

Ughow, W L, 294
Ullo-Xuereb, G, 478, 479
Ulrich, E D, 467
Umar, Md, 467
Underhill, F H, 346
G E., 168
Underwood, A. B G., 94, 142
A C., 71
Unstead, J. F., 96
Unthank, H W, 193
Unwin, G., 146
Ure, P N, 212
Uren, J. F., 356
Urique, P, 328
Urquhart, F F, 164
W. S, 450
Urwick, E J., 95
Usher, P L., 462

Vachha, F B, 444
P B, 444
Vachon, A., 304
Vadboncœur, E., 330
Vaidyanathan, S., 461
Vaish, B. L, 437
Vakil, C. N, 143
Valentine, C. W., 20
Valentine-Richards, A. V, 41
Valette, Mme. A, 147
J., 242, 246
Valgimigli, A., 148

Valin, C N., 329
Vallee, A , 305
Vallette, J , 67
Van Braam, P , 427
Van Every, J F., 351
Van Heerde, P , 410
Van Heerden, J S , 422
Van Horn, C E , 475
Van Nickerk, L , 427
S K , 410
Van Rooy, J C , 422
Van Rossum, Cardinal G., 327
Van Tonder, A. J , 423
Van de Koppel, L. H , 426
V de Lingen, J. S , 411
Van der Merwe, C D , 427
C W , 411
I W , 411
Van der Riet, B. de St J , 427
Van Wageningen, G , 422
V. d Walt, A. J H J 422
N H , 422
Vandry, F , 305
Vanier, G , 328
Varder, R. W., 419
Varma, G C , 442
P. S , 442
S P., 472
Vassallo, A , 479
E , 478
E C , 478
Vaughan, F. M., 147
Vaughan-Jones, Miss E., 193
Vaughan-Sawyer, Mrs , 105
Veale, A P , 21
R. A , 73
Veitch, Mrs. E. B., 197
G. S., 80
Velankar, H D , 445
Vellacott, P. C , 44
Venkatanaranappa, B , 463
Venkatesachar, B., 463
Venkateswaran, R., 474
Venn, J , 43
J A , 36
Verco, J C., 373
Verner, L., 329
Vernon, R H., 55
W S , 148
Vernon-Jones, V. S , 44, 46
Veronneau, A , 336
Versey, H. C., 71
Vesey, W T., 43
Vézina, E , 336
Vial, F. G , 292
Vicars, J , 387
Vick, R M , 112, 139
Vickers, D., 182
H , 20
K H , 66
W., 183, 480
Victorin, M., 327
Vidyabinod, N. L., 451
Viljoen, J. A., 417
P. R , 424
W. J., 415
Villard, P., 309
Villasanté, J. M., 101
Villeneuve, R., 336
Vincent, S , 326
T. S , 100
W , 185
Vines, H W C , 41
Vining, C W , 73
Vinogradoff, Sir P., 162, 165
Vint, J , 29
Vinycomb, T B , 100
Vireshwar, 438
Virolle, N , 327
Voelcker, A F , 105, 108
Vogt, A S , 353
Von Bonde, C., 412
W , 417
Von Wyss, C R R , 95
Vonwiller, O. U , 386
Voss, V , 424
Vost, J , 241
Vroom, F W , 302
Vulliamy, E O , 41

WACE, H C , 164
Wacey, G M , 135
Waddell, J , 338
W G , 66
Waddington, M. M , 351
S P , 99
Waddy, R A , 388
Wade-Gery, H I , 168
Wadham, S , 43
S M , 37, 42, 43
W J , 142
Wadeley, F W , 67
Wadia, A R , 463
B. J , 444
D. N , 469
P A , 445
Wadiyar, Sri Narasimha Raja, 462
Wadley, H W A , 302
Wager, H , 70
H. A , 423
Waggett, E B , 104, 106
Wagner, A I , 429
Wagstaff, Mrs , 70
J E. P , 72
Wahab, A A , 472
Wainwright, A., 312
Waite, C W , 183
Wakeling, G H , 164
Walbank, C F., 437
Walden, A. E , 445
A. F., 159, 166
Waldock, A J A , 385
Wali Mohamad, 438, 456
Walker, A., 208
A J , 205
A. R E., 41
A. S , 388
C., 22
C E , 81, 83
C. H., 31
D , 60
E., 164
Sir Edmund, 349
E. A , 411
E. M , M.A , 167
E. M., M.B., 350
E. W. A., 162, 168
F C , 294
Walker, G J , 192
H , 22, 418
H S , 156
Sir J , 231
James, LL.D., 230
J I , 364
J W. T , 112
L , 257
M , 402
M M , 241
Miles, 152
M. L , 233
N , 70, 74, 234
Nellie, 251
O J , 286
T A , 44
T L , 353
W J , 251, 255
W. O , 318
Wall, A , 400
E M , 71
R C B , 108
T F , 183
W. G P , 438
Wallace, Sir C S , 112, 139
Sir D , 235
G A , 311
J C , 42
J M , 63
M W , 351
P A W., 287
P M , 89
R , 230
R C , 321
R S , 377
T , 28
W. B , 298
W S , 352
Wallas, G , 100
Waller, A D , 100, 128
C C , 364, 366
Wallis, C E , 94
C S , 60, 61
F , 43
J P R , 423
R. L M , 93
T F , 92
Wallulla, Mohd , 436
Walmsley, C., 193
R M , 103, 143
Walsh, E H. C , 161
H. N , 274
J. B., 251
P , 269
T , 276
Walston, Sir C., 43
Walter, H , 309
W. L , 30
Walters, C F., 31
C J. M , 386
G. A., 1 2
W. C. F., 94
Walton, A. J , 112
C L., 196
F. W., 126
L. B., 233
Wand, J W. C., 30
Wang, C. Y., 481
Warburton, C., 40
F. T., 82

Ward, Sir A. W., 35, 44
E H, 183
F W., 29
G. E S, 108
H. K, 165
J, 39, 46
J. T, 45
K M, 471
Miss L, 208
S B, 213
W. F, 404
Wardale, J D, 63
J. R, 41
Wardlaw, C W., 241
H S. H, 386
W., 19
Wardle, R A, 140
Ware, A H, 206
Waring, H J, 112
Warlow, W P, 34
Warnock, F V, 259
Warrell, A, 29
Warren, A, 450
E, 421
Sir H, 157, 165
K M, 95
L A H, 321
P S, 287
S H, 63
W H, 387
Warriner, J, 99
Warwick, F. W., 278
Wasay, A, 466
Washington, E J, 322
Wassell, C E, 384
Wasteneys, H, 350
Waterhouse, E. S, 102
G, 263
H., 188
Sir H F, 112
L L, 385
O, 121
Watermeyer, G A., 430
Waters, D B., 398
E G R, 160, 165, 168
F W., 152
Waterston, D., 250
Watken, G. A, 469
Watkin, E L, 217
M, 200
Watkins, G, 60, 61
H W., 54
M., 46
S H., 199
W. G., 209
Watkins-Pitchford, W, 431
Watkinson, W H, 82
Watson, A. J., 29
A. M 243
A. P., 235
B. P., 352
C, 72
Sir C. G., 112
D., 244
D. C., 234
D. M. S., 102
E. M., 184
E. W., 163, 164
F. R. B., 32
F. S., 208
Watson, G. A., 83, 85
G G G, 404
G N, 21
G W, 73
H B, 196
H E, 477
I E S, 404
J., 338, 339
J. A S, 230
J L, 438
J. M R, 209
S. W, 419
W. G, 332
W H, 148, 233
W. J., 231
Watson-Williams, E M B., 30
P, 30
Watt, A, 430
A S, 226
C V, 70
Sir G, 231
H J, 243
J, 450
J C, 43
J. C, M D, 319
J M, 431
R D, 384
Watts, J O, 339
P. R, 385, 387
W W, 96
Waugh, G E, 112
O S, 323
W, 364
W T, 148, 149
Way, A J, 384
Waygood, O C, 82
Weatherbe, P, 209
Weatherburn, C E., 377
Weaver, J. R H, 157, 167
Webb, C C J, 163, 166
C D., 95
C H. S, 112
E C, 147
G. H, 70
G R, 261, 262
H A., 42
J. J, 271
J. S. W., 377
R R, 45
S. J., 101
Webb-Johnson, A. E, 112, 140
Webster, A. B., 251
C K, 80
F., 82
W, 323
Wedd, N, 43
Wedgwood, G A., 103
Weehuizen, P. B., 419
Weekes, G. A., 35, 45
Weekley, E., 209
Weir, A. R, 345
C. J M., 232
J, 242
J. A, 287
James, 312
J. B, 469
J. C., 436
Weir, R., 226
R. S, 240, 438
T. H, 240
Weightman, F N, 65
Weiss, F E, 145, 146
Welbourne, E, 42
Welch, J. J, 67
Weldon, J W, 312
T. D, 166
Welmkar, N G, 465
Wellings, A W, 20
Wellington, H L, 28
J H., 430
Wellish, E M, 386
Wells, A K, 96
A S., 412
F A, 209
G. A, 323
G J, 103
H. W, 99
J., 158, 168
Welpton, W P, 71
Welsh, D A, 388
W, 43
Wendt, T, 431
Werner, A, 91
E A, 262
L, 272
Wertheimer, J, 32
West, C E, 104
C M., 264
F. L, 330
G., 251
H., 79
J, 104
J. W, 112
Westaway, K M, 94, 97
Westermarck, E A, 101
Westmacott, F H, 150
Westmoreland, J, 208
Weston, A, 146
Wetton, H D, 99
Whale, P. B, 20
Wharton-Wells, H, 99
Whatley, N, 165
Whatmough, J., 196
Wheatcroft, W. H, 41, 42, 43, 45
Wheeler, A. E, 69
D., 320
O A, 147
R. E. M., 199
R. V, 184
Wheelock, F. E, 284
Wheldon, R W., 65
W. P., 196
Whetham, W C. D, 46
Whibley, L, 44
Whiddington, R, 72
Whillis, S. S., 62
Whitaker, H., 70
H. A, 82
J. W, 209
Whitby, G S, 309
L. J, 98
White, A. J., 208
A. K., 242
C P., 149
E M., 284
F P, 45

White, H. G. E., 70
H J, 157, 164
H M O, 183
J F D., 400
J H, 352
J L, 93
J. R, 398
J. W, 28
N J. D, 262
P J, 197
R. G, 196
S. A. F, 98
W. H, 100
Whitehead, A. N, 46, 98
Sir B, 216
F, 182
G, 151
H. R, 63
T, 196
Whitehouse, B, 22
W E, 193
Whiteley, M A, 93
Whitelocke, H. A, 158
Whitfeld, H. E., 393
Whitfield, A, 105
Whiting, C E, 60, 61
Whitla, Sir W., 256
Whitley, E, 159
Whitlock, P O, 472
Whitnall, S E, 308
Whitney, J P., 37, 42
Whittaker, E T, 232
H., 103
W G, 67
Whyte, W. H, 205, 206
Wickremasinghe, M. de Z, 113
Widdicombe, J. H, 42
Widdows, S T, 93
Widgery, A G, 444
Wigginton, R, 184
Wigham, J T., 264
Wignall, E J, 133
Wilberforce, L. R, 81
Wilcock, A. W, 148
Wilcocks, R W, 428
Wilcockson, W. H, 183
Wild, L. J., 400
R. B., 150
Wilde, J. H, 209
Wilgar, W. P, 339
Wilkie, D. P D, 235
Wilkin, F A, 293
M, 257
Wilkinson, A. C. L., 445
C. H, 168, 177
F. C., 84
G, 184
G. L., 70
H S, 160, 164
Sir Hiram S, 256
J. A, 429
K. D, 22
L., 384
Marie, 169
W. S, 379
Will, J K., 109
J S., 352
Willan, H., 353
R. J., 63
Willcock, G D, 96
Willcox, Sir W H., 93
Wille, G, 411
Willets, C E, 302
Willett, J. H, 83
Willey, A, 310
Williams, A, 79
B, 309
C A, 80
D., Cardiff, 189
D, S. Africa, 419
E A. M, 480
E C, 74, 201
E H, M D, 185
E H, Ch B, 398
E L, 305
G. E. O., 112
G M, 340
G. T, 200
H, 365
H W, 81
Ifor, 197
Ilftyd, 30
Ivor, 196
Sir J, 192
J D, 192
J Ll, 192
J W, 78
J W, M A, 251
L F R, 164
M, 127
Mary, 203
M. V, 426
M. Y, 294
N R, 165, 167
N. T, 147
O T, 96
Rice, 196
Richard, 196
R. A, 257
R. D, 192
R. H, 352
R S, 214
S, 146
S J., 388
W. E, 197
W H, 391
W J, B A, 205
W. J, M.A, 278
W. N, 46, 53
Williamson, A. R B., 340
G, 228
G. A, 228
G S, 110
H, 94, 106, 156
J W. M., 419
M. G, 232
O. K, 430
R. M, 227
Willing, T N, 348
Willmott, W. E., 356
Willoughby, L. A, 183
Wills, G. A, 27
L J., 21
W K, 30
Wilshere, A M., 29
Wilsmore, N. T. M., 393
Wilson, A., 151
B. M., 81
C. E., 113
Wilson, C M, 141
C McM, 108
C T R, 36, 38, 45
E, 103
E. E, 297
E J, 404
F H H, 388
F J, 247
F L, 293
F P, B.Litt, 159, 165
F P, M A, 404
F P, M D., 83
G, 258
G H, 243
G H A, 41
H A, 166
H W, 112
J, 278
J C, 365
J C M, 82
J L, 170
J T, 36, 45
M, 231
N R, 321
Ross, 469
R, 203
R A, 345
R P., 450
R S T., 287
S A K, 109
S R, 149
T, 22
T G, 373, 374
T. H, 294
W, 127
W, Ph D, 100
William, LL B, 230
W A, 288
W F, 62
W. J, 258
Wilton, J. R, 373
T R, 82
Wiltshire, H W, 108
S P, 28
Wimms, J. H, 95
Winchester, L, 80
Windeyer, J. C, 388
Windle, Sir B, 354
Winfield, G, 72
P H, 42, 44, 45, 46
Wing, J C, 28
Winslow, Miss, 169
Winstanley, D. A, 46
L, 193
Winterbottom, J., 152
Winters, F W, 297
L. M., 340
Wippell, J. C, 57
Wiren, S. A., 404
Wishart, D J. G, 355
G M, 2 3
Witchell, E F. D, 103
Withers, J J., 44
Witnah, C. H, 475
Wodehouse, H. M., 29
Wolf, A, 99
Wolfenden, R, 451
Wollaston, A. F. R., 43
Wolley-Dod, J. C, 103
Wolstenholme, E. K., 384

Wolters, A. W. P., 212, 213
Womack, F., 100
Wonersley, W. D, 43
Wong Fat Cho, 480
Wood, A, 39, 42
C, 38, 43, 46, 99
C E, 19
C. T, 44
D, 31, 184
D J, 412
D O, 100
Mr, E 379
F. G C, 294
F M, 339
G, Oxford, 167
G, W Australia, 393
G A, 386
G. R., 165
J K, 151
J. W, 74
L A, 305
M H, 51
P F, 233
P W, 42
T B, 36, 43
T J, 85
W. H, 145
Woodbridge, A. K, 205
Woodbury, Frank, 299
F V, 299
K. F., 299
R H, 299
W W., 299
Woodcock, H M, 102
J N, 350
Woodhead, W D, 350
Woodhouse, I H, 404
W J, 385
Wood-Jones, F, 372
Woodland, W N. F, 437
Woodman, W. J, 481
Woodruff, H A, 378
Woods, A, 365
A. I, 258
E., 346
H, 39, 42, 15
J A, 84
Sir R. H, 261, 264
W, 151
Woodside, C. J A., 256
Woodward, Miss A, 192
A. M., 71
E L., 166
Woodwark, A. S., 108, 139
Wookey, G E., 351
Woolacott, D, 66
Wooldridge, G. H, 102
Woolley, V. J, 110
Woolner, A C, 467, 468
Wootton, B F, 47
Worcester, W. G., 346
Wordie, J. M, 39, 42, 45
Worley, F P, 402
Wortell, J. A, 361
Worters, C C, 65
Worth, C A, 110
Wortley, H A S, 205
Wragge, S, 66
Wreaks, J H, 184
Wren, H., 258
T L, 98
Wright, A, 44
Sir A E, 110
A J M, 30
B A, 210
B. D, 205
C. H. C, 349
F A., 94
F. H, 212
G, F R C S, 150
G, 384
G M, 449
H C, 196
H. W, 321
J, 160
J D, 147
J G, 350
J N, 252
N., 346
R, 241
S L P, 251
L G, 243
W., 91, 140
W. J. T, 351
W. S, 402
Wrigley, J. S, 147
P R, 150
Wrinch, D M, 98
Wrong, E M, 160, 166
G M K, 352
H H, 352
Wyatt, A J, 42, 43, 44, 45, 46
F A, 286
H G, 469
J. L, 41
R B H., 22
S., 149
Wyatt, T C, 41
Wyld, H C K., 159, 166
Wylie, F J, 175
J, 258
Wynn, H E, 44
Wynn-Jones, Ll, 71
Wynne, F E, 185
W P, 182
Wynter, W. E, 108
Wyon, G. A, 73

Yajnic, J S., 442
Yapp, R H, 19
Yates, A, 98
Yeates, T, 91
Yelle, E., 328
Yeoman, R F, 298
Yewdall, A, 74
Yu, W. H, 386
Yorke, W, 81
Young, A, 411
A H, 352, 361
C, 169
C L, 200
E, 429
E G, 365
E H, 365
F A, 322
G, 39, 100
I, B Sc, 22
Jas A, M D, 234
Jas, M D, 235
J B, 233
M, 151, 232
P N F, 469
R A, 109
R B, 429, 430
S, 262
W. H, 103
W J, 376
W M, 73
Younger, J., 250
Yule, G. U, 40

Zachariah, K, 450
Zam-ud-din, Sayid, 472
Zammit, T, 478
Ziegler, C. H, 42, 44
Zimmer, A. R, 351
Zimmermann, R, 441
Zimmern, Prof, 195
Zorn, P W, 423
Zouche, R C de, 81
Zumbio, W. M, 459

THE END

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