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TRAINING AND
EDUCATION



THE COST ACCOUNTANT

THE OFFICIAL JOURNAL OF THE INSTITUTE OF COST AND WORKS ACCOUNTANTS

Published monthly by *The Institute of Cost and
Works Accountants Limited* (by Guarantee) 63 Portland Place, London, W.1.

DECEMBER 1957

Vol. 36, No. 7
Postgraduate Library
College of Arts & Commerce, O. S.

Shilling and sixpence



THE INSTITUTE OF COST AND WORKS ACCOUNTANTS

Limited (by Guarantee) Incorporated March 1919

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THE PURPOSE OF THE INSTITUTE

The Institute is the professional and examining body in cost accountancy—a specialised branch of the accountancy profession. It seeks to promote the study and adoption of scientific methods in cost and works accountancy as a means of securing maximum efficiency in industrial, commercial, municipal and other undertakings, it also ensures the protection of the public by admitting only properly qualified and experienced persons.

Membership and Examinations

There are two grades of membership, each of which is obtainable only by examination and proof of practical experience. Membership is designated by the use of the letters ACWA (Associate) and FCWA (Fellow). The Fellowship has been established as a post-graduate qualification in management accountancy with its own separate examination open to associates of the Institute, and, subject to specified conditions, to members of certain other recognised accountancy bodies.

The Preliminary examination is held each June. Only those who have been accepted as registered students of the Institute are eligible to sit for the Intermediate and Final examinations which are held in June and December of each year in London, the provinces, and at certain overseas centres. The examination for the Fellowship in Management Accountancy is held in June in each year. Full particulars of the examinations can be obtained on application to the offices of the Institute.

Publications, Research and Library

The official journal of the Institute—*The Cost Accountant*—is published monthly (18s per annum), and the Institute also issues a number of research and other publications. There are a Technical Department and a lending library at Institute Headquarters.

Branches of the Institute

Branches, sub-branches, discussion groups, and students' societies exist in over fifty industrial and manufacturing centres in the United Kingdom, and in the principal cities in the Union of South Africa and Southern Rhodesia (*for list see inside back cover*). Local meetings and works visits are organised by members for their mutual benefit and to supplement the practical training and tuition undertaken by registered students of the Institute.

Conferences and Summer School

A national cost conference, a number of regional cost conferences, and a summer school are held annually for the purpose of exchanging ideas and opinions on matters of interest to the profession.

Consulting Cost Accountants

A register of consulting cost accountants is also maintained for those requiring consultancy services.

Members of the Institute are not allowed to advertise or circularise for business

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TRAINING SCHEMES

IN the years since the war there have been encouraging developments in the field of education and training for a commercial career: outstanding among them has been the growth of schemes of training in industry for young people seeking a professional qualification.

The Institute is anxious to promote these schemes as it is obviously of great value to the registered student to follow a planned course of practical instruction in the various aspects of cost accountancy and kindred subjects while pursuing his academic studies. Practical experience of cost accountancy is, moreover, essential to him when he has passed the examinations and applies for associate membership of the Institute.

Competition in industry for the services of the intelligent school-leaver and young graduate becomes ever more severe and there seems little doubt that the employer who is prepared to offer facilities for training is the most favourably placed in the labour market,

quite apart from the obvious advantage to him of building up a supply of fully-trained costing personnel.

All three parties involved—the Institute, the employer and the registered student—have much to gain from the provision of organised practical training in cost accountancy and it may be helpful to members concerned with training matters to have some description of the type of scheme at present in existence. Such a description is published elsewhere in this issue together with the names of some 70 major companies known to the Institute to offer a comprehensive programme of practical training for registered students.

The importance to the Institute of the proper training of registered students can hardly be over-stressed, and all members in any way responsible for preparing students for membership are urged to do their utmost to ensure that they receive a wide and thorough practical training.

NOTES AND COMMENTS

SHIFT WORKING

THERE can be little doubt that one of the results of the recent decision by the Government to restrict capital expenditure by private industry will be to make managements explore the possibilities of expanding output by the use of shift working. In anticipation of this trend, an article has been published in *Bulletin for Industry* which makes a factual comparison between the use of shift work in this country and in America.

In April 1954 about one half of the wage-earners in manufacturing, mining (excluding coal), utilities and laundries in the United Kingdom, were employed in establishments where there was some shift-working and 673,500, which is 12 per cent of the total employed in these industries, were actually working on shift systems. The range around this average of 12 per cent was, however, considerable, extending from 42 per cent in metal manufacture to nil in some trades.

Three-shift working predominated in industries where the process was continuous, such as in metal manufacture, chemicals, glass, cement, paper mills, sugar processing, grain milling. Double day-shift was a feature in cotton manufacture, and part-time evening shifts and night shifts were used in the woollen and worsted industry. Alternating day and night shifts were common in the vehicles and aircraft industries and represented such little shift working as was done in the engineering, shipbuilding, and electrical goods industries, and that mainly on maintenance.

Comparison with American practice has been taken from relevant comments made in the productivity team reports. Though not statistically comparable with the figures relating to the U.K., they throw up some interesting differences. Some of the most marked differences of practice were in the extensive use of three- or two-shift working by the Americans in

non-ferrous metal manufacture, plastic moulding, food processing, textiles, printing, and engineering. In each case, the outcome of this more intensive working is the ability of the industrialist to replace his plant by more up-to-date equipment at an earlier stage than would otherwise be economic.

Shift work in the U.K. is for the most part forced on the industrialist by the continuous nature of his process. In the United States it is a conscious and constructive endeavour on the part of the industrialist to get the fullest value out of his capital equipment. It must be admitted that the climate of social habits and industrial relations is more suitable for shift work in the U.S.A. than in this country, but some modifications of conditions may be necessary here if we are to maintain our productivity of capital at a time when investment in capital assets is being restricted.

INTEGRATION SCHEME

ANOTHER stage in the evolution of the profession in the United Kingdom has now been completed. For nearly a year, we have from time to time mentioned the scheme to integrate The Society of Incorporated Accountants with The Institute of Chartered Accountants in England and Wales, The Institute of Chartered Accountants of Scotland and The Institute of Chartered Accountants in Ireland. This scheme is now an accomplished fact

An extraordinary general meeting of members of the Society held on 1 November last passed a resolution by 225 votes to 42, more than the necessary three-fourths majority, placing the Society in voluntary liquidation; this resolution gives final effect to the decision already taken, and the scheme became effective on 1 November.

1957. Addressing the meeting, the President of the Society, Sir Richard Yeabsley, C.B.E., F.C.A., F.S.A.A., said in the course of his speech that all that remained to be done was the passing of the resolution before them and the placing of the Society in voluntary liquidation and,

'to transfer the net assets to the English Institute which will make appropriate payments in accordance with the schemes to the Scottish and Irish Institutes in respect of members joining those Institutes.'

All three Institutes, he added, desired that the schemes should become effective as soon as possible after the passing of the resolution when,

'each member would receive at an early date a communication giving information about the procedure for applying for membership of the appropriate Institute.

'The schemes provide for ten seats on the Council of the English Institute to be filled by members of the Council of the Society and for four seats on the Council of the Irish Institute to be filled by four members of the Society resident in Ireland.'

Sir Richard also made a short valedictory speech in which he referred to the seventy-two years of life of the Society, reflecting on what it had achieved and paying tribute to those who founded and fostered it and to those who served it.

'Counting those who have passed on,' he said 'there have probably been some 14,000 members of the Society, many of whom might not otherwise have joined the profession of which we are so proud and in which I think we may claim, in all humility, to have played no small part in preserving its high ideals of integrity, fairness and service.

'We too have played our part in the development of the profession, widening its sphere of influence and its contribution in commerce'

He continued:

'Thus we look to the future with quiet confidence that by learning, experience and wisdom, coupled with right conduct, we can play our part in the service to the community to which we belong and which it is our bounden duty to give.'

Sir Richard spoke warmly of the first secretary, Sir James Martin, who held the post for thirty-three years, and of Mr. A. A. Garrett, M.B.E., M.A., who took over and, with equal distinction, served for a further thirty years.

We Wish All Readers

A Merry Christmas

and

A Happy New Year

INDUSTRIAL ASSURANCE

THE annual report for 1956 of the Industrial Assurance Commissioner has just been published.¹ It provides an interesting insight into the volume of insurance business conducted by small premium payments and into the control exercised by the Commissioner over the manner in which such business is conducted.

Industrial assurance may briefly be defined as the business of effecting assurances on human life where the premiums are payable at intervals of less than two months and are received by collectors who make house to house visits for the purpose. The average sum assured by each new policy in 1956 was £56 and the average annual premium about £1 13s. With just over 120 million policies in force at the end of the year the premium income amounted to around £164 million, the vast bulk of which is received by 14 industrial assurance companies and the 12 largest collecting societies.

For the fifth successive year the number of new policies effected during the year showed a decrease, this time of 109,000, but the total sums assured increased by £12.7 million. The ratio of management expenses to premium income varies from a minimum of 26.3 per cent to a maximum of 49 per cent, in all except the tiniest societies. On average, the number of assurances which lapsed without the grant of free

¹ *Report of the Industrial Assurance Commissioner for the Year 1956.* H.M.S.O. 3s. 6d

policies or the payment of surrender values was 17 per cent of the number of new policies taken up during the year. This figure has declined steadily from around 24 per cent in 1949.

The report also includes information about certain selected disputes which have some impact on the principles of conducting industrial assurance, and an account of an inspection into the affairs of one collecting society concerning an alleged malpractice. During the year the Commissioner undertook 10 successful prosecutions for offences under the appropriate acts.

THE WORLD BANK

THE International Bank for Reconstruction and Development was established in 1946, and its recently published twelfth annual report is eloquent testimony of its great achievements.

Twenty loans during the year, amounting to \$388 million, brought the total of loans since it began operations to over \$3,100 million. These loans were mainly for basic services that stimulate the economic growth of a country and this year had among their objects a steel mill, an airline, and a power station in India, port improvements in Thailand, agricultural development in Peru and Australia, power development in Austria, and a rehabilitation programme in southern Italy.

Earlier loans have helped member countries to finance about fifty railway, road and port improvement schemes, to clear 300,000 acres of desert, to add 7½ million kilowatts of electric power capacity (equivalent to almost 40 per cent. of the output capacity of the C.E.A.).

The Bank raised its rate of interest on loans to 5½ per cent during the year in keeping with other world interest rates. It received \$134 million from member governments representing releases of subscriptions in their own currencies to the Bank's capital.

Borrowers from the Bank place orders for the equipment and services they require on the basis of international competitive bidding. The Bank estimates that 44.3 per cent of such expenditure was incurred with United States suppliers, 18.7 per cent with German suppliers, and 11 per cent with the United Kingdom.

SCOTTISH CHARTERED ACCOUNTANTS IN LONDON

THE fortieth annual dinner of the London Local Committee of The Institute of Chartered Accountants of Scotland (the Association of Scottish Chartered Accountants in London) held on 11 November at the Savoy Hotel, was attended by the President of The Institute of Cost and Works Accountants, Mr. James Borsay, F.C.W.A., and the Director, Mr. Stanley J. D. Berger, M.C., F.C.I.S.

Mr Robert Adams, C.A., Convener, London Local Committee, was in the chair. A toast to The Institute of Chartered Accountants of Scotland was proposed by Lord Conesford, Q.C.; in his reply, Mr. James T. Dowling, C.A., President of the Institute, spoke of the need for improvement in the method of presentation of the information given in company accounts. He felt that accounts should be more clearly expressed and that they could go further to meet the more varied needs of today.

The toast of 'Our guests' was proposed by Mr. Sydney H. Mearns, C.A.; Mr. W. H. Lawson, C.B.E., B.A., F.C.A., President of The Institute of Chartered Accountants in England and Wales, replied. The company numbered 322.

HOME MIGRATION

IN assessing the long-term effects of various technical, social and economic developments, economists frequently make reference to the mobility of labour. To those who have lived in the same house for fifteen years or more, this term may mean little. To such people it may well come as a surprise to learn the results of an analysis recently published¹ which indicates that on average, over one out of every eight people changed his residence during the three years January 1948 to December 1950.

The analysis has been prepared from the records of the General Register Office and is based on a sample of 4,738 persons, representing one in 1000.

Two-thirds of the migrants were between 15 and 45 years of age, and 45 per cent were males. Though the majority of migrants moved only

¹ *Internal Migration—A Study of the Frequency of Movement of Migrants.* H.M.S.O. 1s. 3d.

once, as many as 15 per cent moved three or more times—the predominant age group in this class being 15–29.

The study suggests that search for employment is the major influence in home migration with marriage also creating its impact.

BRITISH COMPUTER SOCIETY

THE first meeting of the British Computer Society Ltd. took place at London University on 21 October, when Professor D. R. Hartree, F.R.S., spoke on 'The machine's-eye view', giving examples of errors that occur in computing processes.

The speaker stated that with the increasing popularity of computers, it was likely that they would sometimes be used by people without adequate experience and perhaps without an adequate sense of responsibility. If able to speak, computers would plead: 'Please remember how much we do not know.'

The Society is now publishing *The Computer Bulletin*, in alternate months, copies being available at the published price of each issue from the offices of the Society at 29 Bury Street, St. James's, London, S.W.1. The main sections of the October issue, priced 10s., deal with administration and management, commercial applications, and equipment.

About one hundred people attended the inaugural meeting of the Glasgow Branch on 11 November; the chair was taken by Dr. D. C. Gilles, B.Sc., Ph.D., Director of the Computing Machine Laboratory, Glasgow University. Mr. J. J. B. Young, C.A., A.C.W.A., is a member of the interim committee.

SHORTER NOTES

A one-act play, entitled, *Marginal Costing Convinces Management*, was presented for the first time at a meeting of members and students of the Nottingham, Derby and District Branch held in Derby on 29 October last. Each member of the audience was presented with a copy of the 'accounts' under consideration by the 'management committee' and was thus enabled to follow the arguments advanced in favour of converting the accounts to marginal presentation. The branch is to be congratulated on its enterprise.

The programme of meetings of the Crawley Accountants Group for the 1957–58 session includes a talk on 'Electronics' by Mr. S. R. Lucas on 11 December. Further details of the meetings, which will be held at West Green Community Centre at 7.45 p.m. for 8 p.m., can be obtained from Mr. Peter S. Wells, A.C.W.A., A.A.C.C.A., 107 Gales Drive, Three Bridges, Sussex.

★ ★ ★

The Department of Management Studies of The Regent Street Polytechnic, will begin its twenty-seventh course on 'Work simplification in the office' on 14 January 1958. Full information can be obtained from the Registrar, The Department of Management Studies, St. Katharine's House, 194 Albany Street, London, N.W.1.

★ ★ ★

Mr Alvin R. Jennings, C.P.A., a partner in the New York office of Lybrand, Ross Bros. & Montgomery, has been elected president of the American Institute of Certified Public Accountants.

★ ★ ★

The New Zealand Society of Accountants' Year Book for 1957 has just been published. It contains a mass of detailed information about the affairs of the Society, the membership of which, at 30 November 1956, was 6,191.

★ ★ ★

Mr. V. H. Mumford, F.C.W.A., Cost Accounts Adviser to the Ministry of Finance, Government of Pakistan, has been appointed by the Pakistan Ministry of Finance to lead a ten-man team of accountants to advise the Government and industry on cost accounting. According to a report in the *Times of Karachi*, the team will seek to improve existing cost accounting systems in Government concerns such as dockyards and railway workshops; it will assist the Government in price control, and will give practical training.

★ ★ ★

Col. Lyndall F. Urwick, O.B.E., M.C., M.A., is the author of a new 18-page booklet, *The Life and Work of F. W. Taylor*, published by Urwick, Orr & Partners Ltd., at 2s. 6d. Mr. Taylor was one of the pioneers of work study and the 'father of scientific management'.

THE COST OF VARIETY

by C. E. POWER, A.C.A., F.C.W.A.

The British United Shoe Machinery Co., Ltd.



[Photo—
Leicester
Mercury]

The reduction of product variety is a major problem to which management must give concentrated attention if greater manufacturing efficiency and competitive costs are to be obtained. The incidence of product variety affects every aspect in an undertaking and this paper endeavours to review some of the important effects which variety can have in varying degrees upon business and manufacturing operations, and discusses lines of action which may achieve more economic costs by reducing variety.

HOW often is it found that an apparently simple title holds the key to a management problem, so diverse and so vast in its implications? The problem of product variety in industry is of the greatest magnitude and current importance; it is so noticeably a root problem of our national economics and our position in competitive world trading. Government and management may have a realistic appreciation of the economics of what industry should be striving for to raise production efficiency and achieve savings in costs to meet competition, but the diversification of our industries, and even more so of our products, when associated with the preponderance of smaller manufacturing units, make the objectives all the harder to achieve. In trying to overcome the fundamental causes of extensive product variety other problems may be created—all the 'ifs' and 'buts' which can stretch management techniques and ability to the limit.

Costs, particularly indirect costs, may be reduced by close control and by taking every opportunity to prune expenditure. In these times of high overhead costs, however, more direct and profitable results are likely to spring from the reduction of cost by means of higher productivity. There are numerous ways in which productivity can be improved—by more automatic plant, labour saving devices, better production services, better human relations and

so on—but in undertakings which have not been able to use mass production techniques, it is probable that, over all, no way can make a more significant contribution to increased productivity than concerted and rational efforts to reduce the variety in the products sold.

The diverse products and manufacturing structures of our industries—whether trading in consumer goods or capital goods and services—necessarily dictate an individual approach to get such improved results as may be possible. The problem similarly affects large and small undertakings; those manufacturing single items and those manufacturing assembled units; those where all products may be 'specials' and those where running lines or stock items may be manufactured alongside special requirements; those where commercial policies may, or may not, be influenced by, or designed to meet, competition and the strength of the customer's position in demanding exact requirements. Political considerations, too, may exert an influence. It is very often found that variety in product breeds greater variety in providing facilities for and in the processes of manufacture, but much can be done by better organisation to simplify the problems of the manufacture of a large variety of products even though trading conditions may preclude any really appreciable help from customers.

Whatever the apparent scope for reducing the range of products, the approach must basically be the same in all cases. It is to seek to reduce variety in order to diminish the com-

An address delivered on 27 September, at the summer school of The Institute of Cost and Works Accountants. Mr. W. E. HARRISON, F.C.W.A., a member of the Council, was in the chair.

plexities of manufacture and in other functions, so that with existing resources more volume of product can be made at reduced costs. Where it is possible to reduce the number of products, greater customer appeal may be engendered for a more economically priced and simplified list of products, and once this movement has started, opportunities for further simplification can become cumulative. Where trading policies, which cannot easily be changed, place heavy restrictions upon the scope for reducing the range of products, the main effort in cost reduction must be concentrated upon getting the greatest production efficiency and internal simplification from the existing situation and by determined attacks on overhead costs.

If one considers the trends in industry today and forecasts for the future, particularly in relation to the capital goods industries, the evolution of automatic processes for manufacturing consumer goods, needing more specialised plant, equipment and facilities, is tending to create a situation for the manufacturers of capital goods which is likely to lead to the production of more specialised single purpose equipment in smaller or bespoke quantities. Moreover, greater technical resources are being required for design etc., and what may become a growing influence of 'specials' or 'one-offs', will put increasing emphasis on the dual problem of maintaining an adequate and profitable rate of productivity and keeping costs economic.

In pressing forward with efforts to reduce variety, the decisions which will have to be taken may well have a profound bearing upon the future operations and success of the undertaking. The risk element may be appreciable and therefore the policies to be followed must be those of top management. The claims of the production organisation for greater quantities of fewer different products may be quite in opposition to the policies of the sales departments that the customer must be satisfied. The lead must come from top management with the whole effort fully co-ordinated. For instance, a policy of going all out for the highest sales turnover—to be achieved by ruthless cutting of products—may be as much a failure to safeguard future profitability as may be the lack of appreciation of the importance of variety on cost. If co-ordinated investigations, taking in design, production and sales, are carried out, in few undertakings will it be found that there is no opportunity for compromise. In the appreciation of the most profitable courses to follow, accounting and costing information is vital.

Variety and Profitability

It cannot be wholly assumed that, because an undertaking manufactures and sells products in considerable variety—whether as running lines or for 'specials'—it must be, or it must become, uneconomic or unprofitable. There are many such undertakings which can show consistently good profit records and strong financial positions, and there will always be the need for undertakings willing to manufacture special products.

Many of these undertakings may have been able to work in the past without meeting any substantial competition, and this factor may have contributed to their present position. But in these days of inflation, credit squeezes and the like, even such undertakings may find their customers rather more unwilling to pay the price asked, not necessarily because they can get the desired products elsewhere, but because it may be uneconomic to buy at all. This may be particularly so in capital goods industries. Undertakings whose products are sold in a competitive market are naturally more conscious of the need to trade at the most competitive and economic selling prices.

In either case, therefore, there is now a greater awareness that the customer must be attracted at the price he is able and willing to pay. If profitability is to be at least maintained, on a scale sufficient to provide for the replacement of assets, and to ensure liquidity, the customer must be attracted to the products which individually and collectively have increased turnover potentialities and can be made to yield the greatest contribution to profit. The attraction will be lower selling prices, but if these are not to be obtained at the expense of profitability, they must be made possible by lower costs and increased productivity, whatever the competitive nature of the products.

One of the vital considerations which management in a quantity production undertaking has to safeguard, is the major effect on overall profit of the standardised products when comparatively minor fluctuations in trading conditions occur. Undertakings with variety in product will not usually be beset with this problem in any comparable degree. As certain products fall out of favour, even temporarily, others may show increased demand or at least maintain their popularity. New products may be emerging all the time gradually to supersede those existing. Cessation of production while

changing over to new models is unlikely. The variety itself has a distinctly cushioning effect upon overall profitability. If management intends to pursue policies of product simplification, then the increased vulnerability to more violent profit fluctuations must be taken into account in assessing profit rates, working capital and reserves required for a gradually changing structure of the undertaking.

But it is obvious that something more than figures of overall profit must be obtained if the simplification policy is to be successful. Appreciation of the profitability of all products, or at the least of product groups, is desirable. Management has to determine the basis of profit rates to be used as the ideal in fixing selling prices, and in conditions of variety it may be extremely difficult to get a co-ordinated profit plan for the achievement of maximum earnings. Profit margins for individual products may be fixed on too rigid a formula without sufficient regard to the economic contribution to profit which should be obtained if specific factors such as design and development, potential sales and capital employed are taken into account.

Variety and Capital Resources

In mass production or process industries, very considerable financial resources have to be deployed in the provision of fixed assets, but the great volume of production may materially assist in giving a reasonably high turnover/capital ratio thus helping to recover the cost of these assets in a comparatively short time. Again, the assets can more closely be identified with specific products and it is more readily possible to relate capital costs realistically to turnover, product by product.

In undertakings concerned with product variety, higher profit margins may be needed, as the ratio of turnover/capital may be low due to the complexity of fixed assets and stocks and work-in-progress. Some factors which influence the utilisation of capital resources are given below.

Machinery may have to be general-purpose which will permit the variety to be manufactured with the least possible capital equipment. This may mean that whereas specialised machinery could be used to carry out operations on a product more efficiently, the volume of that product may not justify its cost if it is

unusable for other products. The obsolescence risk of specialised machinery may be prohibitive.

Investment in special equipment for each product may be essential, and the cumulative outlay can be very substantial. Examples are the investment in special tooling, casting patterns and forging dies. The rate of productivity can therefore be influenced by restriction in investment in tooling. Not the least problem is the capital cost involved in providing adequate storage space to house large quantities of special equipment.

The variety of product manufactured inevitably leads to a multi-various stock of materials, much of which may be slow moving, and therefore requiring a considerable investment.

Work-in-progress throughout manufacture may cause an appreciable investment, since one of the difficulties of variety is to organise adequately the planning and control of production, and there will be a natural tendency towards lengthy manufacturing cycles.

Except in those cases where products are manufactured as 'specials', the investment in finished product stocks can be an unduly heavy burden on financial resources. For example, even though only limited quantities of any given product are stocked, a substantial range, backed by a large variety of replacement parts, creates a problem which must be carefully watched by management. Overall stock increases can take place which may seriously deplete cash resources although no really noticeable increase may occur in respect of any one product or range. The introduction of new products aggravates this problem unless old products drop out, but there still remains the difficulty of stocks of replacement parts which might have to be carried as long as existing models of machines continue in use. Again the space problems connected with storage of quantities of finished products can, in terms of investment in property and storage equipment, be quite out of proportion to average conditions.

In variety production, the effective measurement of expenditure on fixed assets is often difficult. Yet the sheer variety of demands for capital expenditure makes it essential that there should be very close control to avoid over depletion of liquid resources. Many of these demands may be for small amounts, which might be expected to be within the authorising power of, say, departmental executives,

but the cumulative effect may make it necessary to restrict delegation even for replacement spending.

Budgeting for capital expenditure is quite essential, but though allocations may be made in respect of major capital projects, block allowances may be necessary to deal with the range of other items, such as jigs and tools and smaller items of equipment which may be needed but the individual costs of which cannot be forecast with certainty. Careful control of the cumulative costs is important, and although expenditure may be essential to carry out the required production, limitation in the outlay on specific items may be necessary. In the case of special orders it may be appropriate to ask the customer to pay.

The control of stocks is a function of production control. Control of the overall values of stock may be easy, but the real problem is to make sure that within the overall stock the factory have produced the right quantities of the products which are currently required. Close planning of production may be very difficult, and some degree of flexibility in production must be allowed for, with the result that stock values may fluctuate from period to period. The chief danger may come from some products becoming gradually obsolescent, and there should be the closest possible liaison between sales and production departments to avoid what might, because of the variety of items, be an unnoticed build-up of doubtful stock.

Simplification of Product

The principal theme for the achievement of economic costs under conditions of variety production has been enunciated in the catchphrase, 'The three S's—Simplification, Standardisation and Specialisation'. It is the concept that simplification in the range of products to be sold leads to simplification in manufacture, and through it, to a greater measure of standardisation and specialised techniques. Like standard costing and budgetary control, the three S's are not essential to each other, but are complementary.

In the undertaking which finds itself unable to simplify its range of products to any extent, there is obviously scope for standardisation of design techniques, and improvements in productivity and production methods are possible. For instance, in engineering, a measure

of standardisation of components in a range of machines may be achieved even though there may be no simplification in the range of machines itself. The use of methodical systems of classification is always essential when numerous components are manufactured, and is a first step in simplification procedures.

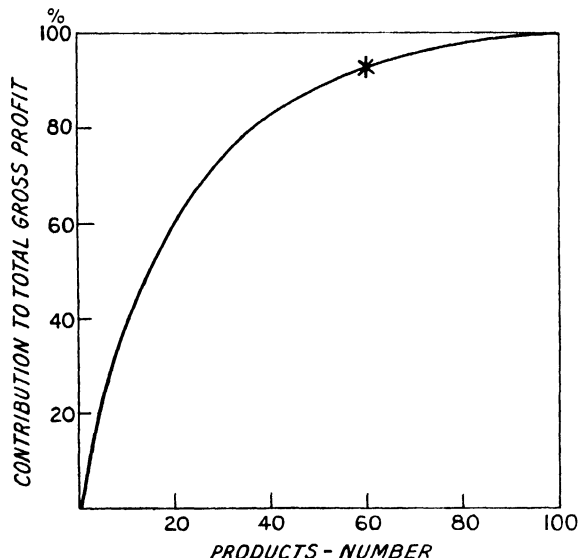
But whatever may be done independently by the manufacturing side of an undertaking, the primary effort in simplification must rest with the commercial departments. They are the people who will have to assess the customer's willingness to accept a simplified range of product and at what prices. They are the people who will have to assess to what extent the volumes and values of sales are likely to be affected.

The success of product simplification procedures can therefore depend upon whether sales management has a clear appreciation of the aims of simplification in terms of the affairs of the whole undertaking. For instance, sales should be profitable, and unless special circumstances apply it is not necessarily illogical to refuse business if they are not. A policy of simplification may require sales staff to be trained and acclimatised to a new conception of sales policy, to put them in a position to retain the customer, by quoting him comparative figures of possible savings and the reasoning which stimulated simplification. The cost accountant can take a major part in providing the ammunition by, first of all, producing product costs which are as representative as possible and then by demonstrating to the sales staff those items which are most likely to be profitable and the effect on profits of concentrating upon those items.

Once a policy of simplification has been decided upon by management, its achievement will normally be a continuing process, products being reviewed one after another, but with priority given to ones likely to be the most profitable.

Those engaged in simplification procedures must know the customer demand for individual products. Consequently, analysis of quantities sold and turnover value for ranges of product having similar characteristics, will demonstrate, firstly, the specific items in the range for which the customer demand appears to be the greatest either in quantity or sales value or both, and, secondly, those items sold in small quantities or as 'specials' which at least can be discouraged. These deductions are not likely to be conclusive until they have been considered in conjunction

with the profitability of each product. The relative contributions to total profit made by each of the various products, will need to be determined, and the effect on profit of eliminating those products making the least contribution or having the smallest customer demand. The following chart demonstrates the contribution to total profit of a range of products and shows that the major contribution is made by a minority of the range of products.



In the illustration some 60 products, for instance, yield in the region of 95 per cent of the profit, and it would seem that the remaining 40 items may be regarded as having little more than a nuisance value and, provided there are no restricting influences, might be eliminated. The profitability of the remaining 60 items could be improved as a result of this to more than offset that lost by the items which had undergone simplification treatment.

Finally, it must be certain that if some products are cut out there will be scope for increased productivity in manufacture of the remainder. As regards their increase in productivity, the ratios of the elements of total cost will give an indication of the possible contribution and it may be found that some of the 'nuisance' items, because of a high material cost element, actually do not have an appreciable adverse effect on production sufficient to warrant antagonising customers by refusing to supply. All these factors must be considered in determining simplified ranges of product, but the

most important is that of profitability. Without having knowledge of profits by product, simplification based solely on turnover values may lead to lower profits, since it could be found that the items with the larger turnover did not yield the highest overall contribution. To take fullest advantage of greater productivity and reduced costs it is essential that there is a reasonably increased sales potential for the continuing products and it is here that the sales staff must carry out their investigations with particular care before decisions are made.

Surveys of the saleability of product based upon market research techniques may be useful as supporting evidence, but except in those cases, mainly in consumer goods trades, where the variety range may be particularly susceptible to customers whims and changing ideas, small quantity sales may prevent adequate sampling being undertaken and results may be inconclusive. It would appear therefore that the greater reliance must be placed upon analysis of the existing turnover and profit of the products, supplemented, of course, by the forecasts and sales experience of the commercial staff.

Cases may arise when it could be hasty to pursue a too rigid policy of reducing the proportion of 'special' orders, and an example of the care which has to be taken in arriving at the right decision is when a customer's special request for a variation though, on the face of it, creating just a small quantity 'special', may have possibilities of sales development. Some equipment may be needed for production in any case, and in relation to the single order it may be uneconomic to manufacture even though the customer is prepared to pay a reasonable additional price, but it may be found that the future possibilities, if followed up, would make it worthwhile to set up the 'special' for production and accept the risk.

The Ascertainment of Representative Product Costs

Inevitably, where there is a large range of products manufactured, there are conflicting opinions as to the extent of the detail accuracy needed in product costing. The dilemma which must be resolved is that masses of detail cost information provided by cost systems—e.g. job cost systems, with an emphasis on product costing—may be in quite unsuitable form for management control purposes. Management is likely to be more interested in summarised

information showing overall costs of manufacture in order to assess profitability as a whole or at the most by type or group of product. Only if the average profitability of a specific type of product does not reach expectations may it be desired to consider individual items.

In practice, therefore, in order to keep the costing procedures economic, there is often a strong case in conditions of variety production, for the normal costing procedures to be designed to deal with average conditions and when more specific details or investigations are required *ad hoc* studies can be made. When a considerable variety of different types of items are produced, so called 'actual costs' can become very arbitrary, mainly because of the problems associated with the apportionment of overhead to the product. Normal costing procedures may ascertain, product by product, the direct labour and material costs with reasonable accuracy, but the overhead of the business will be expediently apportioned and absorbed over products by conventional methods which will not ascertain a representative cost for each product capable of being readily used to assess individual savings in cost. This particularly may apply to administration, selling and distribution costs.

The real unit costs of obtaining orders for small quantities and 'specials', and processing them through, may be much higher than for the larger order for a stock line. With office costs, the time taken and paperwork involved can be the same whatever the size of the order. The sales effort involved in obtaining orders for small quantities or 'specials' may bear no comparison with an average cost of selling which may be apportioned to the product. It is when one comes to assess the individual profitabilities during simplification investigations that the shortcomings of routine costing practices may be brought out. Acceptance of information based on the conventional and routine ascertainment of cost can so easily mislead management into erroneous conclusions regarding profitability of specific items, and investigation in detail may show that the less popular items are in reality priced too low at the expense of the popular products. As a result, saleability of the popular products may have been restricted when there may have been a greater potential market, and, conversely, opportunity may have been lost to recover the economic cost of 'specials' and small quantity items from the customer.

Further steps should be taken to ascertain the real effects on cost and profit of those items

which are restricting an increase in productivity in all parts of the undertaking. It will be appreciated that the handling of a greater volume of turnover without increase in cost in the sales departments, the administrative office, the accounting organisation, the stores or warehouse, besides in manufacturing, can be just as significant a cost reduction arising from greater productivity as reduction gained from increases in manufacturing productivity.

The cost measurement required is to know whether the elimination of specific items will permit the simplified range of items to be manufactured so that the contribution to profits can be maintained or increased, and when variety of product is considerable there may be no alternative but to select similar items piecemeal for comparison and action.

The marginal costing approach may be most useful and although the extent of the variety may place difficulties in the way of its comprehensive use, localised comparisons can give helpful information. The problems associated with the division of fixed and variable costs can be much complicated by product variety, and it may be found that the ascertainable variable overhead may be a very small part of the total overhead. As a matter of expediency a fairly reliable indication for the purpose of simplification could well be obtained by measuring the contribution to all overhead and profit against the labour and material cost.

The following simplified example illustrates a typical case.

EXAMPLE

Assume three products having certain small differences in dimensions and finish. It is thought that simplification might be achieved by concentrating upon the item made in the largest quantity if some reduction in selling price can be achieved.

(a) Present contribution

	Product A	Product B	Product C
Quantity per annum (similar batch size)	50	1,000	180
Standard unit labour cost of operation	1s. ea.	9d. ea.	10d. ea.
Standard setting and changeover cost	5s.	5s.	5s.

Total labour cost for qty.	55s.	755s.	155s.	
Total material cost for qty.	25s.	500s.	90s.	
Labour and material cost	80s.	1,255s.	245s.	
Unit selling price	5s.	4s.	4s. 3d.	
Selling value	250s.	4,000s.	765s.	
Contribution to overhead and profit	170s.	2,745s.	520s.	= 3,435s.
Contribution per unit	3s. 5d.	2s. 9d.	2s. 10d.	

(b) **Future contribution** if product B only is made and capacity created is filled with additional quantities of B.

Additional quantities of B, in place of A which can be manufactured (assuming setting and changeover cost is only saving in productivity) could be assumed to be:

On operating time.

$$1s. \div 9d. = 1.33 \times 50 = 66\frac{2}{3} \text{ units.}$$

On setting time (assuming batch size of B can be increased)

$$5s. \div 9d. = 6\frac{2}{3} \text{ units.}$$

Total extra units say 73

Similarly for C the additional units of B which could be manufactured would be 207.

Therefore the contribution from 1,000 + 73 + 207 units of B at the same selling price would be:

	Product B
Quantity	1,280
Labour Cost = 1,280 × 9d. + 5s.	965s.
Material Cost 1,280 × 6d.	640s.
	1,605s.
Selling Value at 4s. each	5,120s.
Contribution	3,515s. compared with 3,435s. = increase of 80s. p.a.

If it is assumed that some increase in productivity is possible, apart from the saving in setting time, say in the region of 5 per cent, an additional 64 units could be made in the same total time which would give a new cost of labour and materials of 1,685s. against sales of 5,376s., an increased contribution of 255s. over the pre-simplification position. From this study, subject to some recognition of the

extra variable overhead cost involved in making the additional 344 units, it may be deduced that selling prices could be reduced by up to approximately 5 per cent without loss of profitability, and in the hope of attracting further sales.

This example is designed to illustrate the position regarding the effect on productivity, but the simplification will have an effect on the actual overhead costs, savings in which, though not easily measurable in terms of specific products, will become more apparent as simplification proceeds. If the productivity comparison itself does not show conclusive enough evidence to proceed, detail studies of specific items of overhead in relation to the products under review should be made, as a case may be presented on these grounds alone.

Variety Costs and Productivity

The problem of increasing productivity has been publicised well enough in recent years, and it will be sufficient in this paper to draw attention to some of the important effects which simplification can have in the ranges of products to be manufactured. Broadly speaking, the efforts of management will be directed towards getting greater productivity through better production control, better production methods, better lay-outs, better servicing, better personnel management, etc., whether it is possible to simplify variety of product appreciably or not.

Simplification can reduce costs in the following ways:

Increasing batch quantities and reducing job change-over time and cost, so getting better plant utilisation.

Tending to simplify the degree of skill required in setting up and operating machines, and the additional technical assistance and supervision which may be required to cope with the ever changing nature of the work.

Reducing inspection problems and making 'line' inspection or quality control methods more feasible.

Reducing the disproportionate and disorganising effect upon output arising on 'short run'

Note: A paper 'Experiences in applying standard costing for job production' presented by the author at an Institute regional conference in October 1951 and published in *The Cost Accountant* (November 1951, at page 182) described an attempt to overcome the problems of costing in an undertaking very much concerned with variety, although not specifically in relation to variety simplification.

batches because the operator, having set-up the job, has not a sufficient quantity to get into an efficient rhythmic speed of working before the batch is finished.

Reducing operator 'know how' and the degree of reliance which has to be placed upon operators of long experience. This permits greater flexibility in loading work to operators.

Reducing the losses in production time which so often can occur and may be almost inevitable if the services to production are not efficiently organised, causing the operator to waste time fetching and carrying for himself. Variety in manufacture may cause great organisational difficulty for services and to create an efficient organisation for, say, material and work handling, tool and consumable storekeeping, labouring, etc. can add heavily to overhead costs.

Improving the rate of production through the greater possibilities of economically running specialised machinery for particular products, but, in general, tending towards greater standardisation of equipment and techniques in manufacture.

Saving machining time and therefore product cost, through increased quantities, making tooling-up more economically justifiable.

Reducing the risk of having to 'break down' machines to put through special urgent customers' orders—usually small in quantity—or particularly in the case of assembled products, to put through items which are holding up the assembly programme because of the difficulties which are inevitably increased in planning and progressing production for variety. Associated with this problem are the evils of priorities and eventually super-priorities.

Setting up in suitable cases, separate sections away from the normal manufacturing routines to deal comprehensively with 'specials' and 'one-off' orders. In addition to relieving production capacity of these deterrents to productivity, a most useful purpose may also be served if these sections are manned by older and long service employees who may not now be able to keep up with the normal production rate of working, but must, of course, be looked after until retirement or if they are used for training apprentices or other operators.

The foregoing examples must demonstrate to the cost accountant the important effects of simplification and it is the lessons to be learnt from costing information, setting out the uneco-

nomical effect on cost of these results of variety, which must be hammered home persistently to management.

Variety Costs and Simplification of Development and Design

Taking the longer term view, and to quote the tag that 'prevention is better than cure', the nerve centre for the maintenance of an economic range of manufactured products will be the design office. The ability to sell new products and to manufacture them economically stems from this function. It is too often found, however, that design staff when left to their own devices tend to design new products or vary existing ones to suit specific customers' requirements in accordance with their own inventive ideas and perfectionist aims and without sufficient regard for the principles of simplification and standardisation. One result can be that when a prototype has proved successful a measure of redesign may be necessary to adapt the original design to the needs of economic production and to get down to a manufacturing cost which will make the product profitable.

The designer therefore has two tasks to ensure that adequate simplification is achieved. Firstly, he must correlate the market requirements with economic design and where variations to suit the customer must be incorporated he must try to design products which are basically standard requiring the least possible modification. Design should be attractive enough to the potential customer to minimise the risk of his asking for modification, for example, in style or finish, which involves any appreciable extra work. It would appear to be essential for success that the design staff and the sales staff should be in constant liaison to enable the designer to understand fully the ultimate uses to which the product is put. Secondly, he must design throughout to make best use of simplified and standardised methods of production, and avoid creating new specifications of materials and new components until he has been satisfied that existing items are unusable.

In this connection, the use of adequate classification procedures for products, materials, special manufacturing equipment has already been mentioned. The employment of rational techniques of classification to assist in the rapid reference to items with similar characteristics of shape, size, function, specification and cost, to mention only some of the reasons, cannot

fail to throw up existing cases which show unnecessary variety and this alone can make a significant contribution to economies in future design. Co-ordinating committees can be of great assistance in making sure that the greatest measure of economic design is maintained. Since costing information is indispensable if the purpose is ultimately to be achieved, there is a very strong case for the cost accountant's participation in the activities of these committees.

Developing New Products

Management often does not realise the extent of the cost of developing new products and this is particularly so in those undertakings which are prone to dissipate the resources of the research, design, development and planning functions over a wide range of new or modified products under simultaneous development. The costs of research and prototype design may be ascertained with reasonable accuracy, but the costs of the effort spent by technical departments in getting developments into production are too often ignored and lost in the total cost of overhead. The cost of maintaining additional staff for pre-production purposes can be of such dimensions when dealing with variety as to warrant specific interest and control by management, particularly when surges of new developments which may be experienced from time to time, have a disorganising influence on the ability of technical departments to maintain their normal work as well.

It is just as important under variety conditions, as it obviously is when a mass production undertaking has to spend many thousands of pounds on a new quantity product, that the realistic appraisal of estimated costs of research, design and pre-production development should be made by management before proceeding with the development of products. The obvious advantages in doing so are that, firstly, a comparison of these costs with the commercial potential will establish an appreciation of profitability and benefit, *vis-à-vis* superseded products; and, secondly, with this knowledge, management can authorise development work upon specific items likely to lead to the most successful results in the quickest time; and, thirdly, that concentration on a simplified range of products will be assisted in a rational manner, with diversionary, small developments not being allowed to interfere with the main programme.

Simplification and other Costs of Variety

Consideration of the effect of variety of product on functional costs is an essential part of any simplification procedure, whether there appears to be scope for drastic product simplification or whether savings in cost will be made almost wholly by internal simplification and standardisation procedures.

Mention has been made of some areas for cost reduction in the section on design, and, it is appropriate now to set down some examples of the specific costs which effective simplification may help to reduce appreciably in terms of unit costs and so achieve greater efficiency.

Selling and distribution costs

Greater effectiveness in publicity services through concentration and ability to spend more profitably. Greater effective sales effort and reduction in cost of obtaining orders.

Reduction in the cost of specialist sales, technical and service staff with knowledge of all individual products.

Greater effectiveness in deliveries in larger quantities from stock and reduction of uneconomic journeys.

More economic distribution through decentralised stocks at depots, leading to speedier delivery to customers.

Reduction in packing costs through standardisation of packing materials and packing methods.

Manufacturing costs

Savings in costs of training throughout the factory and technical departments.

Simplification of the services to production operators, e.g. inspection services.

Reduction in the costs of supervision.

Simplification of the work of technical staff and a reduction of the demands on rate-fixers and planners, and achievement of reduced costs through more concentrated investigations by methods engineers.

Reduction of the variety, and therefore cost, of maintaining technical records and factory paperwork generally.

Material costs

Reduction in prices of materials through more advantageous buying in larger quantities.

Reduction in the cost of following up purchase orders particularly for small quantities which may take quite as much effort to progress.

Reduction in costs through avoiding having to use alternative sizes of materials for small quantities which could only be bought at uneconomic prices.

Office costs will tend to be reduced and the position is more likely to be reached when technical ability assumes an increasing advantage over long term experience and memorisation of products.

Electronics and Variety

This paper would be incomplete without at least a passing reference to the use to which electronic aids may be put in helping management to make decisions affecting simplification besides their more conventional use in recording systems.

In a general sense, reduction in variety must in any case provide a background for the more economic use of mechanical and electronic methods in office and factory recording systems.

A large volume, induced by variety, of initial and master records has often been advanced as too great an obstacle to the use of mechanised methods. The development of electronic devices is now making it possible to tackle these large volumes in ways which could make substantial savings in office costs and, for instance, in costs of production control.

Computers could provide most of the information required to assess the relative cases for simplification in products by their ability to deal with alternatives; and indeed, it may not be overstressing to say that the conditions met with in variety production will, in the future, make computers indispensable in providing management information as well as being the backbone of the office procedures.

The development of storage devices in computers capable of dealing with a huge quantity of data will, in time, overcome the present difficulties associated with the large volumes of master information. For example, the difficulties experienced in planning and progressing production of a large variety of products in detail may be insurmountable by clerical methods, but will become economically possible by computer. Again, simplification procedures may well be aided by linear programming techniques and management should be able to base its decisions upon more sound basic information of the profitable courses to follow.

The development of smaller computers should help those undertakings of smaller size who nevertheless have the same variety problems.

Conclusion

An apt opinion on this problem of variety given by the Ministry of Supply Committee for Standardisation of Engineering Products¹ was:

'In our opinion the biggest stimulus to the reduction of variety in production will come from manufacturers giving a proper price incentive to their customers to buy items in regular production. We consider that price differentials normally quoted between the regular lines and articles which are produced in very limited quantities are often inadequate and usually do not reflect the real differences in the cost of production. Insufficient attention is given to the disproportionate dislocation frequently caused by the production of items in small quantities, and the special and often hidden overhead costs covered by them. Furthermore, dispersal of effort on these lines hinders endeavours to reduce costs on the regular products. Part of the difficulty in assessing the real difference in cost lies, of course, in the absence, with many manufacturers, of costing systems sufficiently detailed and accurate to arrive at true costs and very often, therefore, the special order which has to have unusual attention only bears the overhead rate appropriate to the general work of the factory.

'There may be many valid reasons why a user requires a special design but he should pay a proper price for it. At the moment, because the price differential is frequently inadequate there is insufficient incentive for him to buy standard or simplified products in regular production.

'In many cases the result of the conditions we have outlined is that there is no real drive and concentration on a limited range of products at all. In consequence the production on the average tends to be inefficient and the costs excessive'.

In this paper, it will have been noticed that there has been more than a taint of the influence of variety as it might affect many undertakings in the engineering industry. My own particular experience of the problem of variety in engineering, when associated with the require-

¹ H.M.S.O. 1949. Pp. 35. 9d.

ments of a consumer industry much dominated by seasonal fashion and customer appeal, leaves me in no doubt that anything short of a fully co-ordinated policy and effort throughout the undertaking cannot give effective results.

The cost accountant has a difficult task in deciding the degree of detail his costing procedures should produce, and information required from him in connection with simplification procedures may only be obtained with a considerably increased volume of analysis work. At the same time, costing techniques and procedures must not be static, and with the accentuation on the economic consequences of excessive costs of variety, one may pause to query

whether the cost accountant is yet making the most of an opportunity to demonstrate the value of costing information which can be directed so cogently towards maintaining profitability in its widest sense.

The whole subject of costing techniques and methods of presenting information in relation to the problems of product variety and its reduction could well be considered by the Institute as a research and technical study with resulting great benefit to management and the profession. The purpose of this paper has been to range over the more important aspects related to variety costs to provide a stimulus to further interest in this topical subject.

Discussion

THE discussion groups spent some time dealing with the broad issues of the subject, commenting on the general economics of, and customer reaction to, variety production. There seemed to be an underlying belief in the groups that despite the undoubted saving which reduction in variety could achieve, the ultimate result might be a less colourful existence for all. Some sought to limit the necessity for variety reduction to special circumstances, for example, a period of falling demand or when the output of a standard product had been mainly replaced by its variants.

Mr. Power, in answer, distinguished between the many advantages of knowing how much variety production did cost and the possibility of being able to reduce variety. On the particular point of a firm introducing new, non-standard lines to combat a trade recession, Mr. Power said that such a policy needed to be operated with caution, and never to the detriment of the main effort. The same watchfulness should be exercised in selling small quantities of products at uneconomic prices—loss leaders—in order to further the sales of remunerative lines.

Dangers of Simplification

Other matters of management policy were mentioned in the discussion and one group pointed out that one of the dangers of simplification was the failure to weigh up the comparative costs of making or buying small batches as against maintaining large quantities of slow moving stocks with obsolescence risks. Mr. Power said that this was a particular problem in his own company, but they had decided that, on balance, small batch production was better. Another danger of simplification which was mentioned by more than one group was the vulnerability

of producing for a single market or a very restricted number of customers with a consequent dependence on them.

The techniques of costing of variety were discussed and one group doubted the value of standard costing in these conditions: the speaker did not share their doubts. On the other hand, he agreed with one group which commented that the much publicised device—the break-even chart—did not help when production was complicated by variety or changing product-mix. Another group considered that it was more useful and more economical to obtain, even partially, the overall cost of variety, than to conduct detailed *ad hoc* researches into specific cases.

Rationalisation of Components

The desirability of a complete survey was generally agreed, especially in the field of standardisation, and one group suggested that management did not pay sufficient attention to the co-ordination of the work of design and production and the part which the cost accountant could play in furthering that co-operation. In fact, more than one group suggested that a more fruitful field of variety reduction lay in the rationalisation of components. With this Mr. Power agreed and commented that the cost accountant should be in at the beginning when new products, or variations of old ones, were being designed.

The use of standardised components to produce a variety of finished products was felt to be a successful way of getting the best of both worlds and removed the unspoken objection to drab uniformity. This was emphasised in the summing-up where it was said that the object was to reduce the cost of variety rather than variety itself.

TOWARDS ELECTRONIC DATA PROCESSING

by H. KIRKHAM, F.C.W.A.



'The development and application of the automatic electronic computer—commonly known as the 'electronic brain'—for the integration and control of office procedures and manufacturing processes is something new, beckoning us towards the electronic office and the automatic factory of which we can already see the outlines. But the solution of the complex technical problems involved and the definition of the operational procedures inherent in the new methods of working depend not on machines but on the use we make of our human resources, in particular on the training we are prepared to give and undergo.' Sir B. Lockspeiser.

SINCE the war a growing volume of comment and publicity, both official and otherwise, has brought to the general public an awareness of the achievements of a branch of science about which very little had previously been heard. This interest was first aroused by more or less enlightened references to electronic computers, often in extravagant terms, and much of the popular propaganda with which the advent of these remarkable devices had been heralded, created a conception of mysterious black boxes having superhuman powers.

For some time, therefore, it was understandable that machines of this kind, which had been generously endowed by many with the alias 'electronic brains', should be looked upon reverently from a distance by most people from whom they were veiled in a shroud of mystery. Their seemingly uncanny ability to play noughts and crosses, or the National Anthem, or even to write an occasional *billet-doux* could hardly be calculated to lead to an immediate recognition of their potential value on a more practical plane in industry.

The situation has since changed considerably. It is now recognised in many quarters that electronic computers, in addition to their proven

value in the scientific field, can make a very definite contribution towards the solution of some of industry's data handling problems.

It is doubtful, however, whether, in the majority of cases, the initial interest which widespread publicity has aroused, has led to a more serious consideration of the wide implications of electronic data processing. In the commercial field today there may be those who still believe, or continue to hope, that the answers to their problems will one day, with very little effort on their part, be provided by some omniscient monster known affectionately to its friends by a pseudonym.

But we must not allow ourselves to be mesmerised by a vision of the 'electronic age' in which the only terminology required by the accountant would consist of one word—*abracadabra*. And, despite their undoubted skill and versatility in their own sphere, we must not look to the technicians to provide the solution to the wide assortment of problems which are our special concern.

The object of this paper is not to engage in a technical dissertation; that is a task for experts. It aims to show that there are steps which we may be able to take immediately, and which are essential, if we are adequately to appraise and utilize the equipment and techniques which science has placed at our disposal.

From an address delivered on 7 March 1957, to the Manchester Branch of The Institute of Cost and Works Accountants.

There can be no good reason why the engineering novelty of a few years ago should continue to remain an object for our distant admiration if, as it is claimed, it is capable of revolutionising some of the traditional clerical routines with substantial economies and increased efficiency.

Data Processing

Data processing—by that or any other name—has long been concerned with what is commonly referred to as ‘paper work’ of one kind or another. It begins with the recording of a transaction and continues through all the avenues along which the record travels in its various usages.

Computation is only one link in the complete data processing chain, and although the ability of electronic computers to execute this particular function with notable success has already been established, and valuable experience gained from their use in the scientific field, commercial requirements raise other fundamental problems in regard to the recording, communication, sorting and presentation of information.

All of these functions are already being performed somehow—in some cases possibly *anyhow*—throughout the vast range of business organisations of which we represent just a small cross section.

Data processing constitutes an important part of industrial activity and it is estimated that considerably more than 2,000,000 people are engaged in clerical work in the U.K. at the present time.

It will be apparent, therefore, that the introduction into this field of devices which can greatly expedite the flow of information into its ultimate form, with a minimum of human intervention, constitutes a major development which we cannot afford to ignore. The electronic computer is such a device, comprising in the words of the I.C.W.A. Sub Committee’s report¹:

- ‘(a) FUNCTION UNIT which performs the operations of arithmetic and comparison. . .
- ‘(b) CONTROL UNIT which directs and modifies the operations of the computer according to the instructions supplied to it. . .
- ‘(c) STORAGE UNITS which store data supplied, and intermediate and end results developed during the computer’s operations, and release these data to the appropriate units whenever they are called for by the control unit.

‘(d) INPUT UNIT which feeds to the units concerned all operating data and instructions from outside the computer. . .

‘(e) OUTPUT UNIT which records the final results for retention and use outside the computer.’

All of these characteristics, utilized in combination with other special items of data processing equipment which are gradually becoming available and which are based upon basic business needs, afford the commercial user the prospect of the creation of a well balanced and highly efficient system.

Such a system must, of necessity, be built around the particular needs of a business, and, therefore, demands a degree of flexibility which the increasingly wide range of equipments used in suitable combination will afford.

It should be noted that there appears to be no foundation whatsoever for the fears which were once widely prevalent—that reliance upon a single installation might involve too great a risk for commercial applications. Users’ reports so far available consistently confirm the high standard of reliability which has been experienced wherever electronic computers have been in operation, and it has generally been found that the time demands for maintenance and repair can be met by the careful allotment of machine capacity, having due regard for these contingencies.

The widespread adoption of the plug-in unit feature in computer design, and its direct influence upon the speed with which equipment failures can be corrected, will no doubt contribute a great deal towards the high utilization factor which is desirable.

It would be impossible to describe adequately the wide variety of techniques and types of equipment which is either currently available or in process of development for data processing purposes, but the subject provides an absorbing field of interest, a study of which may prove to be a very rewarding exercise.

It is important, however, that the understandable interest which new developments are bound to arouse must not be allowed to blind us to the tremendous amount of work which lies nearest to our hand at the present time.

Preparing for E.D.P.

The establishment of disciplined routines is an important pre-requisite to efficient data processing, and it is claimed that the investigation and necessary re-organisation of clerical pro-

¹ *Electronic Digital Computers and Business Data Processing*. The Institute of Cost and Works Accountants.

cedures towards this end has sometimes been the source of considerable economies. Anyone who has carried out such an investigation for any reason at all, even on a modest scale, will realise the tremendous scope for improvement which established practices of long standing may offer.

The perpetuation of records for which the need has long since disappeared, duplication of effort, badly planned procedures and unsatisfactory documentation may contribute to a general state of inefficient and expensive operation which a systematic attempt at rationalisation might considerably improve.

Realising this, and appreciating the futility of attempting to build an elaborate edifice upon a shaky foundation, the accountant might usefully give some present thought to these matters, even whilst continuing to employ more orthodox methods.

If he can free himself for a little while from his natural pre-occupation with day to day problems, in order to review, or cause to be reviewed, some of the elementary clerical operations upon which the end results of his work depend, he may learn a good deal about the functioning of his own department which has previously escaped his notice. It is always a salutary thought that end results can be no more reliable than the basic data from which they are derived. It is equally true that they are of no value whatsoever, even if they are perfectly reliable, if they serve no useful purpose and satisfy no genuine need.

The accountant occupies a unique and advantageous position for the conduct of such an operation, in that many of the clerical routines which are essential to modern business come directly under his control or are designed to satisfy his requirements. He may, therefore, be able to exert a positive influence upon the pattern of data processing in his own sphere, e.g., through the simple medium of record design, and by the formulation of the routines to which original records must be subjected.

He may also be able to make a significant contribution towards data processing by the development and use of a well designed accountancy code, which is a requirement of considerable importance in any automatic information handling scheme. Those already familiar with punched card accounting methods will readily appreciate this fact. Attention has recently been drawn to the subject of coding by Dr. J. M. S. Risk who has made a comprehensive study of the problem. In his booklet

*Classification and Coding of Accounts*¹ Dr. Risk states:

'The present study has developed from an impression that an understanding of the principles of classification and coding is necessary if precision is to be obtained in the recording of accounting information. . .

'Even before attention was directed to electronic machines, it was rightly stated that punched-card equipment was only as good as the codes employed with it. The ever increasing interest now being shown in the potentialities of electronic book-keeping serves to emphasise the need for a critical examination of the way in which book-keeping data is coded so as to enable the machine to function effectively and produce the maximum variety of useful information.

'The actions of the machines are based on prior human thought, and to enable such thinking to be translated into instructions to the machine the use of classification and coding is fundamental'.

These considerations, therefore, may serve to illustrate the important part which the accountant, by virtue of his natural implication in such matters, may be able to play towards the establishment of the basic conditions upon which sound data processing depends.

But he must realise that the potential contribution which he might be able to make in this direction is unlikely to be fully realised unless he takes some positive steps to equip himself to deal adequately with the special problems which E.D.P. raises. A casual interest alone, which avoids the persistent pursuit of knowledge of the subject will not be sufficient for the task.

In the first place he should seek to acquire a knowledge of the capabilities and limitations of available equipment. This will involve the understanding and use of the new vocabulary which has been built around it, and will take him into a realm which seems strangely removed from that in which he is accustomed to operate.

Ample means whereby this knowledge may be acquired are already available, probably none more rewarding than a study of the literature which surrounds the subject. It is not to be expected that such an attempt at self education will itself be adequate; it must be supported by other means. Participation at conferences, attendance at technical colleges and demonstrations, and the constant seeking of information in discourse with other interested parties are

¹ Institute of Cost and Works Accountants. Obtainable from Gee & Co. (Publishers) Ltd. 7s. 6d. post free.

all means whereby a considerable background of useful knowledge may be built up.

As a result of a painstaking approach to the subject the accountant will be enabled to communicate his problems to the technician in a language which both can understand. Only by an exchange of views between users and suppliers will the most suitable equipment for commercial applications be made available, and this is more likely to be achieved by the accountant making a study of the techniques and equipment available to him than by the technician attempting to learn the mysteries of accountancy in all its ramifications.

If he embarks upon this course, the accountant will come to realise that the fact that 'computers' happen to be a product of electronic engineering need not overawe him in his consideration of their application to commercial problems. Their highly complex structure and detailed functioning are not reasons for undue concern, and their partiality for the use of the binary scale of notation, about which a great deal has been said, is, from his point of view, only of real significance insofar as it has a bearing upon certain other characteristics with which he is more likely to be directly concerned, e.g., the speed of operation and the economics of the computer.

He will also quickly learn that there is no simple criterion by which to judge the relative merits of available equipment. Numerous factors will have to be taken into account in assessing their suitability for the particular requirements of the business. Storage capacity and speed of access, input and output features, programming facility, and of course, costs, are amongst the many factors which have an influence upon such a decision, and only against the background of a detailed appraisal of the task to be performed can a final choice be made.

Even then, it must, to some extent, be an act of faith, for it is probable that many problems will arise under operating conditions which could not possibly have been foreseen. It would be a bold man who, without such experience, would dare to believe that even the most carefully prepared scheme could cover all possible contingencies. 1957 has already seen the beginning of a steadily increasing flow of electronic computers and their associated equipment into British industry, and a pool of valuable experience will gradually be built up around it.

The comprehensive investigation which the introduction of E.D.P. inevitably entails in any business will involve a critical analysis of

information requirements and existing procedures, a review of documentation, an assessment of equipment needs, a consideration of possible alternative installations and of their costs, and the ultimate choice of equipment, its detailed programming and installation.

Here is an area of operations so widespread that it will demand the full time interest over a long period of a well qualified team if it is to culminate in an effective system. This is the experience of those who have seriously attempted to introduce E.D.P. applications into their own organisations, both here and in the U.S.A., and on the basis of this experience it would be folly for anyone to imagine that worthwhile results are likely to be forthcoming within several years following the commencement of an organised investigation.

It would be impossible to define rigidly the constitution of such a team. The nature of the work involved, however, as already outlined, undoubtedly calls for the specialist ability of the methods engineer, and computer programmer in addition to that of the accountant. He, himself, might well be best qualified to assume the leadership in this field, but it should not be assumed that he has any exclusive right to the role.

Integrated System Concept

Data processing by any means is, or should be, directed towards definable ends i.e., the presentation of information for specific purposes. It is largely dependent for its efficiency upon the observation of a strict orderliness in all its phases, from the initial preparation of data to its ultimate usage. Under ideal conditions a transaction record would initially be made in such a manner as to enter the system without further effort. The progress already made in connection with the development of character recognition techniques affords the imaginative mind some reason to hope that this highly desirable state may one day be reached, but the practical problems involved will call for a great deal of attention in the meantime. The information would then be automatically processed to serve all the ends for which it could be required.

This underlying principle of integration should be applied wherever E.D.P. is attempted, e.g. the processing of basic wage information for the purpose of payroll preparation should have regard to the further use of the same initial data for labour costing purposes.

Up to the present time very few examples are to

be found in Britain of electronic data processing on a successful routine basis, but this has evidently been achieved in quite a number of American installations. Statistics made available by the Controllershship Foundation in America indicate that installations now operating on a 'normal run' basis cover a variety of business categories over a hundred different organisations. It is interesting to note that a considerable majority of these installations are primarily concerned with payroll applications in manufacturing and process industries—insurance companies take second place. The calculation of gross earnings, gross to net reduction and provision of labour costing details are all embraced by these schemes. There is certainly no place in a sound scheme of E.D.P. for applications which ignore the principle of integration.

For the accountant this concept has particular significance; it crosses the artificial boundaries which are sometimes drawn between cost and financial accounting and brings nearer the general recognition of the truth that 'accounting is one and indivisible'.

If we are prepared to accept the fact that through this new medium clerical operations within industry may be subjected to far reaching changes in the future, we should nevertheless beware of the irresponsible claims made on behalf of the new devices in some quarters. Sufficient evidence is already available to confirm their value in certain directions; their successful application to payroll routines has already been referred to, and in this, as in other applications, a well defined need is being catered for.

There is a tendency, however, to ascribe to them a remarkable capacity for providing management with valuable but unspecified information, formerly unobtainable, or if obtainable only after considerable delay, and on the basis of which management control might be considerably improved.

The danger inherent in such nebulous suggestions is that others may thereby be induced to remain in the same state of hopeful inaction from which this paper hopes to arouse the accountant. Whilst the attractive possibilities in these directions cannot be ignored, they must be examined closely. Management must not be encouraged to believe that E.D.P. will achieve a revolution in its own sphere unless it gives some substance to these visionary information requirements. It may well be that the introduction of new techniques *can*

supply a long felt want; if so, it should be possible to define it.

Impact on the Accountant

It is inevitable that the impact of electronic devices upon industry will affect the size and deployment of clerical staffs. New tasks will, of course, be introduced into the clerical sphere. The programmer and maintenance engineer will become essential members of any 'electronic office'; electronic equipment operators will take the place of more traditional office types amongst whom some measure of redundancy is to be expected.

But whatever may be the ultimate pattern of clerical organisation in industry, its success is entirely dependent upon the shrewd appreciation of the needs of the business, and the satisfaction of those needs at the highest level of efficiency, by whatever means are available. The advent of E.D.P., therefore, cannot usurp from man his established role of thinker, and the scope for the accountant in this capacity will not be diminished by even the most ingeniously conceived brain-child of the scientist.

Although the routines with which he has long been associated may change with the changing tools of his profession and many accounting and cost accounting processes come to be performed by inhuman aids, it is unlikely that there will be any fundamental change in the principles upon which his art is founded or in the objectives towards which his efforts are directed. In propagating the principles, in determining the objectives and in interpreting the results obtained by whatever means may be employed, the accountant fulfils a vital function for which by training and experience he is especially equipped.

In the sphere with which we are most familiar, he must always be able to exercise discrimination, in the knowledge that a cost is as much concerned with an occasion as with a commodity and that there are times when standard costs, total costs, marginal costs, each in their turn, may be required to meet the needs of particular circumstances. Realising that costing for price fixing, costing as a guide to policy making and costing for control are separate arts, he knows that he must carefully consider the very pertinent question 'What am I costing for?' if the information supplied in any circumstances is to be adequate for the occasion. Reliance must, therefore, continue to be placed on his judgement in these and other matters in the future.

Nevertheless, he should be prepared to rise

to the demands which technical developments may make of him and fit himself to make a vital contribution to future progress.

Conclusion

It may not be difficult to agree with the views expressed above. They are, after all, largely a reiteration of some of the underlying principles upon which clerical procedures of various kinds may already have been based, even before the advent of electronic data processing. But the object of this paper has not been to propagate ideas so much as to stimulate action in those directions in which, despite a recognition of their value as a basis for efficient data processing, sound first principles have not been consistently practiced, or have tended to become buried under the pressure of the day to day operations of business.

There is a saying which has, no doubt, evoked a hearty endorsement from all of us at some time or another—'I like work; it fascinates me—I can sit and look at it for hours'. With slight modification this epigram might be used to express the attitude of many of us to E.D.P.—'We like the thought of it, it fascinates us—we could sit and toy with the idea for hours'. But the long term operation which is involved, and the

apparent remoteness of any advantages which might possibly accrue therefrom, may deter many from initiating the course of action which is a necessary preliminary to an ultimate application.

This paper aims to effect a change in this attitude of comfortable detachment from the many problems which the subject raises, and to bring about a realisation that they may already offer a challenge to our skill, ingenuity and vision. This is not a matter for the large organisation only; it may well be that E.D.P. facilities will one day be available on a service basis for smaller concerns. In that event it will be just as necessary that careful preparation should have been made for this contingency.

Whatever the nature and size of his business, the individual accountant may be able to contribute to the creation of a valuable body of knowledge and enlightened opinion within his profession.

He may be certain that if he takes up the challenge, and sets out along the path to the ultimate goal, it will only be negotiated slowly. This is confirmed by those who were first bold enough to embark upon it, and it is the belief in the inevitability of a gradual progression towards that goal which led to the title of this paper—'Towards electronic data processing'.

BOOK REVIEWS

Statistics, A New Approach

W. ALLEN WALLIS and H. V. ROBERTS

Methuen & Co. Ltd., Publishers, London.
Pp. 646. 50s.

The book is divided into four distinct parts all of which are particularly well furnished with actual examples, of both good and bad methods. The majority of readers would find food for thought in chapter 3, 'Misuses of statistics'.

Part 2, 'Statistical description' covers the points usually dealt with in any good elementary statistics book. Graphs, averages and measures of dispersion, are adequately presented, together with a detailed explanation of how best to read a statistical table.

Part 3, 'Statistical inference' is much concerned with samples, probabilities, the normal distribution, and estimation. The author's aim has been to minimise the mathematics. Part 4 deals with quality control, correlation, fitting a regression line, time

series, and finally we have a chapter on practical short-cut methods.

This is a book which would provide valuable supplementary matter for students studying for the Institute's examinations, and interesting reading for qualified members. The excellent indexing and tables of random digits etc., provide a useful work of reference, especially to those who may only occasionally need to use a sampling technique in their work.

★ ★ ★

The Supply of Capital Funds for Industrial Development in Europe

The European Productivity Agency of the Organisation for European Economic Co-operation, Paris. Pp. 235. 12s.

This report on the organisation of capital supply for industrial development in Europe contains much of interest for the banker, the industrialist

and the student of industrial economy. It is a factual and yet thought-provoking study of the problems facing those concerned with the provision and acquisition of funds for industrial development and expansion. It provides an illuminating comparison of the parts played by many classes of financial institutions, banks and savings organisations in the changing monetary market of Europe.

If there is one section of the report, however, which in the reviewer's opinion is more controversial than the rest, it is that dealing with what is termed 'self-financing'. There can be no doubt that this practice has increased greatly in the post-war period. Equally, as the report says, it may have been necessary in the actual situation of recent years. Nevertheless it is a practice which should be followed only with great caution. Strange as it may appear to a people trained to regard all saving as exemplary, there is much of logic and common-sense in Dr. Rittershausen's case against the retention of profits by companies. An overdose of compulsory saving by way of high prices (and retained profits) may take a long time to get out of the system and in the process might frighten off both customer and investor.

★ ★ ★

Outline of Work Study—Part III, Work Measurement

British Institute of Management, London.
Pp. 97. 12s. 6d.

This booklet is the third in a series of publications on work study, previous publications having been *Part I, Introduction* and *Part II, Method Study*.

It owes much to the work carried out by Mr. R. M. Currie of I.C.I., and the bulk of the material involved deals with techniques and methods of organisation used by that firm.

Of special interest to I.C.W.A. students is an appendix showing the calculation of bonus earnings and performance based on work unit values.

★ ★ ★

Public Authorities' Stores, Small Plant and Tools Accounting and Control

Institute of Municipal Treasurers and Accountants (Incorporated) Pp. 117. 15s.

This is an excellent book, concise, well written and cogently expressed. It supplies a want and is by no means limited in its usefulness to public authorities' staff for whom it is primarily intended.

All too often, books on stores control and accountancy appear to have been written for the large units in the engineering industry and are, therefore, of little use to smaller units in (say) extractive industries.

The fact that 83 public authorities, covering nine different types, completed the questionnaire on which the study was based, is a guarantee that a wide field has been surveyed; in turn, this means

that very few people concerned with the administration of stores can fail to profit from this book.

The fourteen chapters into which the book is divided cover most of the problems commonly met in industry in connection with stores control and accountancy, and not the least valuable aspect of the book is the presentation of conflicting views and methods on thorny questions.

There is a useful appendix which gives a description of a mechanised stores accounting system and also, in full, the questionnaire sent to the 83 public authorities in December 1953.

★ ★ ★

Computers, Their Operation and Applications (Third Reprint)

EDMUND CALLIS BERKELEY, F.S.A.,
LAWRENCE WAINWRIGHT, M.SC., PH.D.

Chapman & Hall Ltd., London. Pp. 366. 64s.

This work sets out, according to the preface, to present basic information about computers, particularly automatic computers. Not only is the more familiar digital computer well covered, but analogue computers are also given a large section. This may not be considered desirable by some accountants but who can be sure that analogue computers will not be much more used for business applications in the future, especially in automation? The early chapters cover the two types of computers whilst chapters in the last part of the book include information on the possible markets for computers in the U.S.A. and the probable effect on clerical and engineering workers.

There is one point which must be borne in mind when reading this book. It was originally published two years ago and developments in both the numbers of users and the applications in that time have been so great that some of the information given on these subjects is somewhat out of date. This does not detract from the use of the book for basic information on computer techniques. Those wishing to gain some knowledge on the subject are well advised to read this book.

★ ★ ★

Slater's Mercantile Law (Thirteenth Edition)

by LORD CHORLEY, M.A., Barrister-at-Law, and
O. C. GILES, LL.M., Barrister-at-Law.
Sir Isaac Pitman & Sons, Ltd., London.
Pp. 466. 30s.

That *Slater*—originally written half a century ago for commercial students and business men—has reached a thirteenth edition, would seem to be sufficient proof of its merits.

The reviewer of this book has personal experience of its particular value to students preparing for accountancy and secretarial examinations.

It is perhaps inevitable that the necessity, in a work of this kind, to state the law in a very con-

densed form, should lead to occasional inaccuracy, as on page 7, where it is stated in effect that the mere announcement of a sale of property by auction 'without reserve' entitles an intending bidder to recover his expenses of attending at the place named if the auction is not held; but in the main the law is quite accurately stated, and indeed the value of the work is enhanced by the present edition.

Many chapters have been rewritten or substantially revised.

★ ★ ★

The Case of Torches

by CLARK SMITH

Hammond, Hammond & Co. Ltd., London.

Pp. 224. 10s. 6d.

It is not often that we have the opportunity of reviewing works of fiction, but since a new novel concerned with accounting has found its way to the Institute library, we are glad to mention it as an example of lighter literature with a professional background.

This story of murder and free-lance detection has as its hero the internal auditor of a large industrial concern. His interest is aroused by a seemingly insignificant but unusual entry in the accounts. Interest soon develops into suspicion, and a train of enquiry is started in which the auditor-cum-amateur-detective justifies his title of 'investigating accountant' by solving a murder and saving his company from certain disaster.

The plot is ingenious, though improbable, and the characters somewhat larger than life, but the conflicting ambitions and jealousies of various members of the firm provide a background against which the accountant's method of approach is seen to be the only one capable of dealing with the situation.

★ ★ ★

Company Executive Development Schemes

British Institute of Management and Manchester College of Technology.

Management Publications Ltd., London.

Pp. 164. 10s. 6d.

This report on a survey of executive development schemes run by certain firms in the north-west of England points to a need for standardising the use of terms in management studies. The survey has expressly excluded formal schemes for developing the effectiveness of executives who are beyond the trainee stage. It is concerned mainly with programmes for those aged from 21 to 25. Very few of those concerned with executive development would agree to such a restrictive definition of their tasks, nor would they all agree that this approach gives the right emphasis.

This problem of definition of terms arises again when the reader learns that the length of training varies in different undertakings from a minimum of 6 months' specific training for a first managerial

appointment to a planned programme extending over ten to fifteen years. When does a trainee cease to be a trainee?

One of the most alarming conclusions reached, is that 'there did not appear to be a great deal of real interest in education for management (as distinct from training) *per se*.'

The authors seem to have put themselves in a dilemma by giving such a significance to the term 'executive development'. Many of the schemes outlined—such as craft apprenticeships—would be considered by many undertakings as technical and not executive training.

Nevertheless, a useful attempt has been made to establish pre-requisites for a sound management training scheme and the report contains much valuable information on the training schemes of well-known firms.

★ ★ ★

Numerical Methods (Second Revised Edition)

by ANDREW D. BOOTH, D.SC.

Butterworths Scientific Publications, London.

Pp. 195. 35s.

This is an excellent book in its own specialist field. It deals mainly with finite differences and series, and with simultaneous, differential, non-linear and integral equations. It is very compact and has only a few numerical examples, but has comprehensive references.

It will be useful to those concerned with advanced mathematical problems arising in the physical sciences or, on the commercial side, in econometrics or operations research, as it contains the fundamental theorems for much of the calculations, and reviews them for their suitability for use with digital computers.

★ ★ ★

Effects of Price Level Changes on Business Income, Capital and Taxes. (Part 1)

Price Level Changes and Financial Statements, Case Studies of Four Companies. (Part 2)

by RALPH COUGHENOUR JONES, PH.D., C.P.A.

American Accounting Association.

Part I, pp. 199. Part II, pp. 179.

The project on which these two books are based was made possible by two grants to the American Accounting Association by the Merrill Foundation for the Advancement of Financial Knowledge.

As the author says in his preface, there are at least three different ways of studying the effects of general price level changes on the capital and income of business enterprises: (1) by analysing the accounts of individual companies; (2) by showing in mathematical terms what necessarily happens under definite sets of assumed conditions, and (3) by using aggregate figures to show the effects of

inflation or deflation on earnings and earning rates of all firms in the national economy.

The project employed both methods (1) and (2). The companies studied were The Armstrong Cork Company, the New York Telephone Company, the Reece Corporation, and Sargent & Company.

Those who have read the Institute's publication on the accountancy of changing price levels will remember that it dealt with two aspects of price level changes, namely: (1) the preservation of real capital as opposed to money capital in a business, and (2) the restatement of financial and operating statements in terms of a common value of the £ sterling.

It is with the second of these aspects of the subject that the whole project was concerned.

The main test of a company's profitability, namely its return on capital employed, is the keystone to the whole investigation. It is shown quite conclusively that when the return on capital in terms of depreciated dollars is satisfactory, the real return on capital in terms of standardised dollars is frequently anything but satisfactory. To take the New York Telephone Company as an example, the real earning rates from 1946 to 1952 were on average 3 per cent as compared with an apparent 6 per cent when the calculation was made in terms of depreciated dollars.

To arrive at these standardised figures it is necessary, of course, to express in terms of standardised dollars all of the assets, liabilities, costs and revenues of a business. Briefly, the second volume describes the principles which are followed in carrying out this exercise, whilst the first volume shows the results which were obtained for the four companies mentioned by applying the principles so enunciated.

The description of these principles is extremely detailed and the author has been thorough in his endeavour to treat the subject as clearly and exhaustively as possible. It is doubtful whether the average accountant in this country—who is rarely an economist or a mathematician—will have the necessary patience. This is no reflection on the author or the value of the literature which he has produced as a result of the research project.

★ ★ ★

Studies of Automatic Technology, No. 2, The Introduction of an Electronic Computer in a Large Insurance Company

U.S. Department of Labor. Pp. 16

This short and very readable document is primarily concerned with labour relations and personnel problems arising from the installation of a computer. In the large installation concerned, re-employment of the staff was made relatively easy because of the steadily increasing size of the company and previous shortages of similar staff elsewhere. There is an interesting schedule of the approximate salary

scale before and after installation which indicates that the higher average salary rates payable after installation were not in the main due to the employment of higher grade staff, but that the more junior staff became redundant.

★ ★ ★

Cost Accounting (2nd edition)

CHARLES F. SCHLATTER, M.S., C.P.A.,
WILLIAM J. SCHLATTER, PH.D., C.P.A.

Chapman & Hall Ltd., London.

Pp. 725. 58s.

This is an American publication written in an easy style and advertised as a thorough, practical treatment of industrial cost accounting and analysis for managerial purposes.

Looking at the publication from a student's point of view, it offers practical treatment, although the student may on occasions stumble clumsily against Americanisms—such as 'burden' as opposed to 'overheads'.

Throughout the book a multitude of examples and problems are given, covering a host of different types of businesses. A number of short write-ups explain the actual work done in, for example, a foundry, before explaining the cost collecting processes; this is an obvious advantage for students with experience of only one type of industry.

The chapters dealing with the application of overheads and the methods of valuing stock are clear, concise and provocative, especially when dealing with stock profits or losses on account of price changes.

The book is written on very much the same lines as standard English text books, covering labour, materials and overheads and not forgetting waste, spoilage and scrap.

★ ★ ★

Other Publications Received

Key to Munro's Elementary Book-keeping (Revised Edition)

by Andrew Munro, F.C.I.S. Revised edition by Alfred Palmer, A.S.A.A.
Sir Isaac Pitman & Sons, Ltd., London.
Pp. 72. 10s. 6d.

L. Urwick: A Bibliography

Urwick, Orr & Partners Ltd., London.
Pp. 45.

Book-keeping Simplified (Fifth Edition)

by W. O. Buxton.
Sir Isaac Pitman & Sons, Ltd., London.
Pp. 344. 8s. 6d.

Sixty Years of the C.I.I.

by H. A. L. Cockerell,
The Chartered Insurance Institute.
Pp. 92

North Midlands Cost Conference

A SUCCESSFUL regional conference held at the Grand Hotel, Leicester, on the 26 October, was attended by over 180 members and students. The conference began with a civic welcome by the Lord Mayor of Leicester, Alderman



Mr. Alan Kershaw, F.C.W.A., A.A.C.C.A., explains one of the tables in the morning paper.

F. J. Jackson, after which the conference sessions were opened by Mr. James Borsay, F.C.W.A., President of the Institute. Members and students were present from Nottingham and Derby, Leicester, Coventry and Birmingham Branches, and the sub-branches of Northampton and Wolverhampton. Members and students were also present from London.

At the morning session

Mr. H. Kennewell, F.C.A., and Mr. Alan Kershaw, F.C.W.A., A.A.C.C.A., presented a paper 'The cost accountant's contribution to sales policy'. In the chair was Mr. J. H. Whicheloe, F.C.W.A., President of the Birmingham and District Branch. Mr. F. H. Bellamy, A.C.W.A., opened the discussion.

Members and registered students present were joined by their ladies at the luncheon, presided over by Mr. W. A. Harvey, B.COM., C.A., F.C.W.A., F.C.I.S., President of the Leicester and District Branch. The toast 'The City and trade of Leicester' was proposed by Mr. N. Poyner, F.C.W.A., President of the Coventry and District Branch, with a response by the Lord Mayor of Leicester.

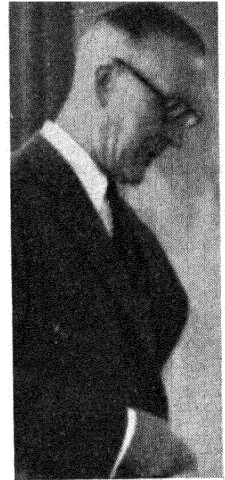
Proposing the toast of 'The Institute', the guest of honour, Mr. Halford Reddish, F.C.A., Chairman and Managing Director of the Rugby Portland Cement Co. Ltd., said that students taking up the study of cost and works accountancy had great opportunities for an interesting and rewarding career. The great thing, he said, was experience. Opportunity, added Mr. Reddish, lay within a man himself—a man who had prepared himself by study, by work and by experience.

The President of the Institute, Mr. Borsay, replied to the toast.

The guests included Mr. William Bentley, M.B.E., M.I.MECH.E., the Bentley Engineering Co. Ltd., and Mr. R. E. Wood, M.SC., F.INST.P., Principal of the Leicester College of Technology and Commerce.

In the afternoon a paper, 'The cost aspects of raising productivity,' was presented by Mr. W. Coutts Donald, C.A., F.C.W.A., and the discussion was opened by Mr. E. S. Pearson, B.SC.(ECON.), F.C.W.A. The chairman was Mr. J. Shiels, F.C.W.A., President of the Nottingham, Derby and District Branch.

At the close of the conference, the Director of the Institute, Mr. S. J. D. Berger, M.C., F.C.I.S., mentioned the value of regional conferences and said that although only of post-war origin they had now become an important part of the Institute's work. The organising secretary, Mr. J. C. Atkinson, A.C.W.A., was thanked most sincerely by both Mr. Berger and Mr. Harvey for arranging a highly successful conference. The pictures illustrating this report of the conference were kindly provided by Mr. H. W. Calvert, A.C.W.A.



Mr. H. Kennewell, F.C.A., introduces his paper at the morning session.



The platform party at the afternoon session. (Left to right) Mr. W. Coutts Donald, C.A., F.C.W.A., author of a paper; Mr. J. Shiels, F.C.W.A., chairman; Mr. James Borsay, F.C.W.A., President of the Institute; Mr. Stanley J. D. Berger, M.C., F.C.I.S., Director of the Institute; Mr. E. S. Pearson, B.SC.(ECON.), F.C.W.A., discussion opener. Mr. Coutts Donald is shown answering a question.

LEGAL COMMENTARY

Price Maintenance: 'The Changing Law'

Lord DENNING'S phrase—'The Changing Law'—receives additional emphasis from the Restrictive Trades Practices Act, 1956, which as regards price maintenance agreements has made a fundamental change in the Law of Contract, a branch of law in which there are many differences between land and goods.

If Tom, the owner of two freehold properties, Nos. 2 and 4, High Street, sells No. 4 to Harry, who covenants in the conveyance not to use the premises as a fried fish shop, he can compel Dick to observe his covenant; and if Dick does use the premises for the prohibited purpose, Tom can recover damages for the breach of contract up to date and an injunction to restrain such breach in future.

If, however, Dick does not himself open a fried fish shop, but sells No. 4 to Harry, who does, can Tom prevent Harry from continuing that business? He certainly has no remedy against Harry for breach of contract, for no contract has been made between Tom and Harry; but if the covenant between Tom and Dick was so worded as (a) to attach the benefit of the covenant to the premises at No. 2, and not merely to Tom personally, and (b) to be binding on Dick's successors in title, Tom can obtain an injunction against Harry and subsequent purchasers from him because in such a case the covenant 'runs with the land' in equity, i.e. the benefit with No. 2, and the burden with No. 4.

Until recently, however, except in the case of articles manufactured under patent rights, it was not legally possible for a seller of goods so to attach a restrictive condition as to render it enforceable by him against every person in whom the goods might subsequently become vested, for as Swinfen Eady, J. observed in *Taddy & Co. v. Sterious & Co* [1904] 1 Ch. 354, 358, 'conditions of this kind do not run with goods'.

So if manufacturer Tom sold an article to wholesaler Dick with an attached condition prohibiting its sale by anybody at less than a specified price, Tom had his remedy against Dick for breach of contract if he sold to retailer Harry below the specified price, but none whatever against 'cut price' Harry if he sold to a customer at a lower price, even if Harry was aware of the condition.

The most that a manufacturer could do was to adopt some scheme (often very complicated) designed to involve the ultimate retailer in liability for breach of contract if he sold below the fixed price. Tom might exact from Dick an undertaking that he personally would not sell below the fixed price, or sell to any dealer, or the agent of any dealer, who had not signed Tom's form of retail price agree-

ments, or to any dealer, or the agent of any dealer, whom Tom had placed on his 'black list', and further that he, Dick, would exact a similar undertaking from any dealer to whom he supplied Tom's goods.

But the efficacy of any such scheme depended upon its faithful observance by all parties concerned. In *Dunlop & Co. v. Selfridge & Co.* [1915] A.C. 847, for instance, Dunlop sold tyres at a discount to Dew, who undertook not to sell below Dunlop's list prices, and not to sell to retailers who would not agree to maintain those prices. Dew sold to Selfridge, who signed an agreement not to sell below the list prices, but Selfridge in breach of agreement did so. It was held that Dunlop had no remedy against Selfridge, for there was no contract between them.

Now, the Restrictive Trade Practices Act, 1956, Part II, which came into force on 2 November 1956, provides (by sec. 25) that a supplier of goods subject to a condition as to the price at which they may be resold (including a condition as to the amount of any discount allowable on resale) may be enforced by the supplier (by way of injunction or damages) even against a person not party to the contract who acquires the goods with notice of the condition (see *County Laboratories Ltd. v. Mindel*, noted in *The Cost Accountant*, May 1957, at p. 420), except against a person who acquired otherwise than for resale in the course of business, or who acquired (whether immediately or not) from such a person; and the provision does not apply to the resale of goods under an order of Court or by way of execution or distress, or by a person acquiring after such resale, nor does it apply to a restrictive condition which the Restrictive Practices Court has declared to be contrary to the public interest.

At the same time agreements for the collective enforcement of resale price conditions, as by 'black lists' and stop lists, are in general prohibited by sec. 24, which makes it unlawful for two or more persons carrying on business as suppliers of goods to make any agreement to withhold supplies of goods (for delivery in the United Kingdom) from dealers (whether parties to the agreement or not) who resell or have resold goods in breach of any condition; or to refuse to supply such dealers on less favourable terms than other dealers; or to supply only persons undertaking to withhold or refuse supplies as above.

The same section similarly prohibits any agreement between two or more dealers to withhold orders from suppliers who have supplied goods otherwise than subject to the restrictive condition or have not taken steps to ensure compliance and any agreement to discriminate in their handling of goods against the goods of such suppliers.

LETTERS TO THE EDITOR

Standard Costing and Job Costs

Dear Sir,

I have recently joined an electrical engineering company which operates an historical costing system, and job cards are raised to which actual labour and material costs are machine posted and accumulated. These cards are headed by the estimated labour and material cost for the complete job and the system is inadequate inasmuch as variances from planned performance are not thrown up until the job is well on the way to completion.

The majority of jobs are of long duration and operations and stores issues are varied and numerous. There are about 400 direct operators performing on an average of about three jobs per week.

The directors desire a standard costing system at the same time maintaining the principle of collecting actual job costs to enable them to obtain progress payments applicable to over 50% of the production.

It is apparent that separate job cards will have to be raised on which job variations in labour and materials will be logged and accumulated. This will of course greatly increase the paper work and I shall be glad to hear of any short cut suggestions or similar experiences from other readers.

Yours faithfully,
'JONQUIL'

London.

'Third Entry'

Dear Sir,

Many students, teachers and practitioners of costing are confronted with the words 'third entry' and some of them seem absolutely unaware of their existence. After some detailed investigation, the clue to this has been found on page 10 of *Integrated Accounting* by J. E. Smith and J. C. W. Day, which states that posting to cost sheets for products, jobs, special orders, standing orders, cost centres, etc., is called third entry.

The authors go on to say that the name 'arises from the fact that both financial and

cost accounting imply the use of double-entry book-keeping, whereas in integrated accounting any debit in the cost control account has to be accompanied by a posting to an analysis cost sheet. In other words, cost analysis necessitates a third entry.'

Yours faithfully,
P. K. SHAHANI.

Finsbury Park, London.

[Mr. J. E. Smith, who is joint author with Mr. J. C. W. Day, of *Integrated Accounting* writes:

We agree that there is confusion and indeed, some ignorance, concerning the term and technique of 'third entry'. To us it implies that integrated accounting is used, and we would stress that by integration we mean 'interim cost accounts' and 'annual financial accounts' contained in and produced from *one* set of books. It is our experience that many industrial accountants claim to use integrated accounting when, in fact, they produce *two* sets of figures and reconcile them, say, annually.

Assuming integration, the nominal ledger contains merely total or control accounts with debits and corresponding credits posted in total only. The breakdown of the totals, required only for costing and interim trading statement purposes is achieved by analytical posting, which is termed 'third entry'.]

Replacement Costs

Dear Sir,

On page 224 of the November issue of *The Cost Accountant* there is an interesting excerpt from an address on 'Costs and prices during inflation' by Professor W. T. Baxter, B.COM., C.A.

In dealing with depreciation during inflation, Professor Baxter suggests the following formula for replacement costs:

$$\text{Replacement cost provision} = \text{Cost} \left(\frac{S}{C} - 1 \right)$$

where 'S' is the current price index and 'C' the index of the year when the asset was acquired.

Assuming cost indices of 100 in 1938 and 390 today the replacement cost provision of a plant

costing £50,000 in 1938 would, according to the above formula, be:

$$£50,000 \left(\frac{390}{100} - 1 \right) = £145,000$$

The actual present day cost of replacing this plant would not however, be £145,000 but £195,000, i.e. £50,000 × 3.9.

It would appear then that the total depreciation to be recovered should be based on the total of the replacement cost provision of £145,000 as shown above, plus the original cost of £50,000, Professor Baxter's formula showing only the additional cost incurred through inflationary price increase.

Yours faithfully,
R. JOHNSTON, A.C.W.A.

Edinburgh.

[Professor Baxter writes:

There were a number of points that a condensed account of my talk could perhaps not make clear. In particular:

- (1) The 'replacement cost provision' in question was connected with the *annual* depreciation charge. Taking your correspondent's figures, therefore, and allowing for say a ten-year life, the basic cost should be reduced from £50,000 to an annual charge of £5,000.
- (2) The provision was explained as a *supplement* to the above figure of £5,000, i.e. the full cost item for the year would be:

Depreciation:		£
On historical basis	.	5,000
Replacement cost provision	.	14,500
Total real cost	.	<u>19,500</u>

ELECTRONICS AND AUTOMATION

NEW RESEARCH H.Q.

POWERS-SAMAS ACCOUNTING MACHINES LIMITED have opened a new research establishment at Whyteleafe, Surrey, which will be the new headquarters of the research division of the company.

The research, development and design carried out there will cover three fields, mechanical, electrical (including electro-mechanical) and electronic.

The other two branches at present housed outside Whyteleafe are concerned with automatic recording and control and the pre-production of new and original machines.

Future research and development will cover the increased use of semi-conductor devices (of which the transistor is one), the storage of data using magnetic and other new methods, and the extension of the use of plastics.

ELECTRONIC READING MACHINE

BOOTHS, the chemists, are reported to have completed negotiations with Solartron Electronic Business Machines, for the purchase of the first production model of the Solartron Electronic Reading Automaton (ERA).¹ It is to be installed at Boots' head office in Nottingham, where its task will

be to read the printed sales record produced on rolls by the cash registers in the firm's branches.

ERA will convert the printed figures into electrical impulses and feed them direct to a special purpose electronic accumulator, which will print out the totals required for accounting and statistical purposes. Certain of the figures will be used for purposes of cash control.

Central processing of data recorded at the point of sale will make possible the use of relatively cheap and simple sales recorders and will also result in a substantial reduction of clerical work, it is claimed. The reading speed of ERA, which is 200/300 characters per second, will enable it to deal with rolls from hundreds of cash registers each week.

AUTOMATIC POSITIONING

THE Mullard automatic co-ordinate positioning machine is a fully automatic machine designed for drilling, marking out, plotting, draughting or spotting on any material up to 24 inches wide, and of unlimited length. The tool head is moved over the work-table in increments of 0.001-inch to any desired position determined either by the settings of dials on the control panel, or by means of punched cards or tape. The machine is extremely easy to use, and can be operated from a sitting position by unskilled labour.

It is claimed that the machine will have applications in industry where precision work on sheet

¹ A description of this machine appeared in the August 1957 issue of *The Cost Accountant*.

materials is a standard practice. Possible applications are as follows:

Jig and Tool Work: Marking out pilot drilling saves expensive set-ups and achieves savings in time and cost.

Checking of Finished Work: Final checking of the work for positional accuracy is unnecessary, due to the built-in measuring accuracy.

Development Work: The cost and time in producing prototypes is reduced to a minimum, while retaining the accuracy usually only obtained with jigs and fixtures.

Direct Production: Small and medium job lots can be handled with maximum efficiency; overhead expenditure is minimised, wastage due to rejects is eliminated, and the cost of jigs and fixtures is saved.

HANDLING COMPUTER OUTPUT

THE Charactron computer readout equipment is designed for high speed printing and plotting from digital data processing systems. The method employed is to feed the computer output on to a television type screen from which it is photographed on to film.

The display in a typical readout tube consists of characters about 0.035-inch high by 0.026-inch wide positioned in a page type display of printed lines. The tube is capable of displaying more than 64 lines with 128 characters in each line. The shape of the characters is fixed by stencils.

Printing speeds are in excess of 15,000 characters per second. It is claimed that the equipment could reduce expenditure on standard company forms. A facsimile of the form is projected on to the screen; the information from the computer is then fed to fall into the appropriate positions on this form and the whole is recorded by the camera.

APPLICATION OF COMPUTERS

The Constantine Technical College, Middlesbrough, is holding a course of nine lectures on 'The commercial and industrial application of computers' in the spring term of the new year on Monday evenings at 7 p.m. at an inclusive fee of £1 11s. The course commences on 20 January and concludes on 17 March. Applicants wishing to enrol should apply to the College before 13 January 1958.

INSTITUTE RESIDENTIAL COURSES

Automatic Data Processing

THE majority of large business organisations in this country will be equipped with some form of automatic data processing machines within the next decade; many smaller firms will be using bureau services. In either case cost accountants will play a leading part.

Arrangements, therefore, have been made by The Institute of Cost and Works Accountants to hold a series of residential courses for the study of automatic data processing. Three centres have been chosen initially for the early spring of next year: one in the London area, one near Warwick and the third at Manchester. It is hoped to run further courses in the following autumn.

Programme

The programme at each centre will consist of the following subjects:

'What a computer is and what it can do.'

'A survey of installation and administration problems.'

'A practical example—a wages application.'

The papers, all written by experts, will be circulated before the commencement of each course, and in general the form of the course will be similar to that at the Institute's summer school.

Members attending will be expected to have some basic theoretical knowledge of calculators and computers, and a list of books to provide this, recommended for prior reading, will be sent to all applicants.

The Three Centres

The three courses arranged so far are:

London Area: Netley House, Gomshall, Nr. Guildford, Surrey.

Wednesday 19 February to Friday 21 February.

Warwick: Westham House, Barford, Nr. Warwick.

Friday 14 March to Sunday 16 March.

Manchester: Hulme Hall, Victoria Park, Manchester.

Friday 28 March to Sunday 30 March.

Members will be expected to assemble for dinner at 7 p.m. on the first evening and will disperse after tea on the third day. The charge for the course, including meals and accommodation, is 5 guineas.

Accommodation at each centre is limited and an early application to the Technical Officer, The Institute of Cost and Works Accountants, 63, Portland Place, London, W.1, for the appropriate form is advised.

ABSTRACTS OF ARTICLES

in Contemporary Journals

Statistics in Business

by G. E. F. WOOD, M.A. (Government Statistician)
The Accountants' Journal (New Zealand). July 1957.

This article describes the very familiar uncertainties which plague business life and the relation thereto of the science of statistics. Following a classification of the kinds of statistical fallacies, the author enumerates the 'things to watch with graphs', among which he warns that 'pictograms almost always deceive' and 'pre-diagrams frequently deceive', and that the unrelated diagram—the diagram which has no scale inserted on it—should be watched.

★ ★ ★

The Graduate Accountant in Industry

by J. M. S. RISK, B.COM., PH.D., C.A., F.C.W.A.,
A.C.I.S., M.B.I.M.

The Accountant. 12 October 1957.

In an appendix, Dr. Risk gives a list of the avenues of opportunity open to the graduate accountant. The qualifications necessary for the attainment of a selected goal are discussed in the text of the article.

★ ★ ★

Purchasing for Stock—How Much to Buy

by PETER BAILY, M.P.O.A.

The Purchasing Journal. October 1957.

'Large Scale Ltd.' surveyed the amounts of paper work produced over a period in connection with the purchase and delivery of stock goods. Details are given of the costs thus incurred, showing that the average cost per order was 10s. The object of the exercise is to find the size of order which minimises acquisition costs. For this purpose fixed expenses, such as rent, lighting, heating etc., are ignored.

★ ★ ★

Top Management and Cost Reduction: False Economies vs. Positive Results

by E. LEE TALMAN (Administrative Vice President, Lever Brothers Company)

The Management Review. October 1957.

'Successful cost reduction is in large measure the result of internal climate . . . Without the right cli-

mate the job can't be done.' The will to save must start with the chief executive and continue with the entire line organisation.

Claiming that accounting staff has been reduced in number by 50 per cent and that in this area alone overall costs have been reduced by about one-third or about half a million dollars, the author discusses four basic techniques of cost reduction:

- '(1) cost reduction imposed by central organisational authority.
- '(2) cost reduction as a result of employee suggestions or ideas.
- '(3) cost reduction through evaluation of staff functions.
- '(4) cost reduction through "imagineering".'

The psychology of each form and the necessary methods of implementation are discussed.

★ ★ ★

Wallcharts Simplify their Management Accounting

by PHILIP CAISTOR

Business. October 1957.

Claiming that 'executives see "who is achieving what" when all the facts are displayed visually', this article describes the set of wallcharts kept in the room where a weekly management conference is held. These charts are actively used in running the business in addition to keeping management's left hand informed of what the right is doing.

★ ★ ★

Publications Cited

The Accountants' Journal (2s. 6d.), 86 Lambton Quay, Wellington, C.I., New Zealand.

The Accountant (1s. 6d.), 4 Drapers' Gardens, Throgmorton Avenue, London, E.C.2.

The Purchasing Journal (30s. a year), Wardrobe Court, 146A, Queen Victoria Street, London, E.C.4.

The Management Review (\$1), 1515 Broadway, Times Square, New York 36.

Business (3s.), 180 Fleet Street, London, E.C.4.

PRACTICAL TRAINING

A Typical Programme

The leading article of this issue of 'The Cost Accountant' discusses the provision of practical training for the registered student. A description of a type of scheme which, with variations, is at present in operation in a number of companies, is given below.

SCHMES of training naturally vary in structure and detail from one company to another but all have points in common. A programme of training—normally lasting 5 years—is drawn up by the employer and while following it the registered student is expected to study for and pass the examinations of the Institute.

Comprehensive Experience

There is no standard Institute scheme of training and it is not considered practicable to design one that would be applicable to all industries and companies. Any scheme, however, should aim to give the student comprehensive experience of the various aspects of cost and financial accountancy and some insight into the processes of production and distribution. A typical programme of training might include experience in some or all of the following:

Wages Office

Methods of recording hours worked in total and on separate jobs or processes with the various analyses of waiting and other unproductive time. Rates of pay; preparation of pay-rates; calculation of incentive or bonus schemes; income tax deductions and national insurance.

Material Control

Methods by which materials are procured and their use recorded and controlled; preparation of the various vouchers and records; stores routines, both physical and clerical; methods of pricing issues; verification of suppliers' invoices and discharge of suppliers' accounts.

General Accounting

Book-keeping, including the control of work-in-progress, nominal ledgers, sales invoicing and

sales records, preparation of profit and loss accounts. Mechanical aids to accounting.

Cost Accounting

How all money spent is recorded and controlled in relation to the output of the enterprise; the division of costs into fixed and variable, with special attention to the control and absorption of overhead costs; the preparation of cost statements and the integration and/or reconciliation of cost and financial accounts. Preparation of budgets, the operation of budgetary control and the construction and use of the particular company's costing system.

Factory

The cost accountant is essentially a practical man and it is important for the registered student to have first-hand experience of works and factory practice and routine, including, for example, the following: operation of various machines; shop floor organisation; purchase, storage and control of materials; design, planning and progress of work; inspection; work study; maintenance; warehousing and distribution.

Commercial Departments

Sales; advertising; contracts.

The Examinations

While following such a programme of practical training, the student would normally be expected to complete the Intermediate examination by the end of the second year, and the Final by the end of the fifth year.

A feature of all the schemes is that the student is given one day off a week for full-time study at the local technical or commercial college: members who had to rely solely on spare-time study

will appreciate the value to the registered student of this arrangement.

Some schemes are arranged so that for the first two years students work for the ordinary national certificate in commerce and for the remaining three years concentrate on professional

studies. All trainees are paid a wage and the employer very often pays all or part of the tuition and examination fees. In some cases—the minority—the registered student is bound apprentice to his employer and formal articles are drawn up.

List of Companies

The Institute is in touch with the following companies having schemes of practical training for registered students:

Albright & Wilson Ltd. *Birmingham.*
 A.P.V. Co. Ltd., *Crawley, Sussex.*
 Armstrong Siddeley Motors Ltd., *Coventry.*
 Babcock & Wilcox Ltd., *Renfrew.*
 Baker Perkins Ltd., *Peterborough.*
 Bayliss, Jones & Bayliss Ltd., *Wolverhampton.*
 Bellis & Morcom Ltd., *Birmingham.*
 Thomas Blackburn & Sons Ltd., *Preston.*
 Bradford Dyers' Association.
 Briggs Motor Bodies Ltd., *Dagenham, Essex.*
 S. Briggs & Co. Ltd., *Burton on Trent.*
 Bristol Aeroplane Co. Ltd.
 British Aluminium Co. Ltd., *Warrington.*
 British Oxygen Engineering Ltd., *London, N.18.*
 British Petroleum Co. Ltd., *London, E.C.2.*
 David Brown Companies, *Meltham, Yorkshire.*
 Brush Electrical Engineering Co. Ltd., *Loughborough.*
 Central Electricity Authority, *Winsley Street, London, W.1.*
 Chance Brothers Ltd., *Smethwick.*
 Chloride Batteries Ltd., *Swinton, Manchester.*
 Colgate-Palmolive Ltd., *London, W.C.2.*
 Courtaulds Ltd., *Coventry.*
 Crane Ltd., *Ipswich.*
 De Havilland Aircraft Co. Ltd., *Hatfield, Hertfordshire.*
 Dorman Long & Co. Ltd., *Middlesbrough.*
 Dunlop Rubber Co. Ltd., *London, S.W.1.*
 Electro-Hydraulics Ltd., *Warrington.*
 Enfield Cables Ltd., *Enfield, Middlesex.*
 English Electric Co. Ltd., *London, W.C.2.*
 English Steel Corporation Ltd., *Sheffield.*
 Ericsson Telephones Ltd., *Beeston, Nottinghamshire.*
 Esso Petroleum Co. Ltd., Refinery Department, *Fawley, Hampshire.*
 Folland Aircraft Ltd., *Hamble, Southampton.*
 Ford Motor Co. Ltd., *Dagenham, Essex.*
 General Electric Co. Ltd., *Witton, Birmingham.*
 J. & E. Hall Ltd., *Dartford, Kent.*

Handley Page Ltd., *London, N.W.2.*
 Head, Wrightson & Co. Ltd., *Thornaby on Tees.*
 Holliday & Greenwood Ltd., *London, S.W.1.*
 Hoover Ltd., *Greenford, Middlesex.*
 Henry Hope & Sons Ltd., *Smethwick.*
 Horseley Bridge and Thomas Piggott Ltd., *Tipton, Staffordshire.*
 Hunting Percival Aircraft Ltd., *Luton Airport, Bedfordshire.*
 Imperial Smelting Corporation Ltd., *Avonmouth, Bristol.*
 Jaguar Cars Ltd., *Coventry.*
 Kodak Ltd., *Harrow, Middlesex.*
 John Laing & Son Ltd., *London, N.W.7.*
 Joseph Lucas Ltd., *Birmingham.*
 Marconi's Wireless Telegraph Co. Ltd., *Chelmsford, Essex.*
 Metropolitan Vickers Electrical Co. Ltd., *Manchester.*
 Mobil Oil Co. Ltd., *London, S.W.1.*
 D. Napier & Son Ltd., *London, W.3.*
 National Cash Register Co. (Manufacturing) Ltd., *Dundee.*
 Needle Industries Ltd., *Redditch.*
 Philips Electrical Ltd., *London, W.C.2.*
 Plessey Co. Ltd., *Ilford, Essex.*
 Power Gas Corporation Ltd., *Stockton on Tees.*
 Albert E. Reed & Co. Ltd., *Maidstone.*
 Renold Chains Ltd., *Manchester.*
 Rolls-Royce Ltd., Aero-engine Division, *Derby.*
 Rubery Owen (Warrington) Ltd.
 Joseph Sankey & Sons Ltd., *Bilston.*
 F. Shepherd & Son Ltd., *York.*
 Smith & Wellstood Ltd., *Bonnybridge, Stirlingshire.*
 Stanton Ironworks Co. Ltd., *Nottingham.*
 Steel Co. of Wales Ltd., *Port Talbot.*
 Alexander Stephen & Sons Ltd., *Glasgow.*
 Tangyes Ltd., *Smethwick.*
 John Thompson Ltd., *Ettingshall, Wolverhampton.*
 Tube Investments Ltd., *Birmingham.*
 Vauxhall Motors Ltd., *Luton, Bedfordshire.*
 Vickers Armstrongs (Engineers) Ltd., *Crayford, Kent.*
 Weldless Steel Tube Co Ltd., *Wednesfield.*

MEETING THE CREDIT SQUEEZE

The Value and Use of Profits

Plain Speaking at Manchester Branch Dinner

COMMENTS of interest and of value to the community were made on Thursday, 7 November, in Manchester, from which city, as a speaker reminded his listeners, came many distinguished men who played leading parts in the Institute's growth and development.

The occasion was the annual dinner and dance of the Manchester and District Branch, at which Mr. R. A. Sutton, F.C.W.A., President of the Branch, who was accompanied by Mrs. Sutton, presided over the company of 170 members and guests.

'Big and Bigger Profits'

It was most appropriate that a toast to 'The City and Trade of Manchester' should be proposed by a founder member of the Institute—number 5 on the *Register of Members*—who was born in the city, though he left it almost 50 years ago. Mr. Charles E. Lewton, F.C.W.A., who remarked, amid laughter, that he had received his infant nurture and education there—'I am arrogant and unrepentant regarding it'—spoke of the 'wonderful improvements' in the civic administration, trade and industry, which had been made.

During his journeyings round the world, he had found that conditions of honest government, efficient and economic services and amenities, existed only where honest and well-intentioned men formed the government 'and where there are trades and industries making good profits'.

'I am an unrepentant believer in big and bigger profits,' he continued. 'In this country, as well as in a number of others, it is lamentable and sad to state that the prevailing idea . . . is to carve up these profits, to see how much each can take of them, rather than to dedicate all their best brains and endeavours towards making bigger profits.'

The glories of the past of this great city, he said, had been admirable, but added:

'There will be no glories if there are no profits. The finest cities of the world are those in which there are firms making substantial profits.'

What can be done with profits

'Profits enable you always to have the best buildings and machinery, to employ the best brains, to spend big sums on research and development, to launch sales

and advertising campaigns not only at home, but, and more especially for most goods, abroad. They enable more and better articles to be produced at lower costs. They permit the best working conditions to be provided and high remuneration paid—but that must be earned. Utopian conditions can only be obtained by *work* and the sooner that is better understood and done, the better it will be.' (*Applause.*)

'Our hope and salvation lie not in the division of profit but the creation of it.' (*Applause.*)

In conclusion, Mr. Lewton said that members of the Institute would continue to do all they could to attain these ideals.

The Deputy Lord Mayor of Manchester, Councillor Harry Sharp, J.P., acknowledged the toast on behalf of the Lord Mayor, whose apologies he expressed as his attendance had been unavoidably prevented.

The toast of 'The Institute of Cost and Works Accountants' was proposed by Professor R. W. Revans, B.Sc., Ph.D., Professor of Industrial Administration, Manchester College of Science and Technology, who spoke of the admirable work done by members of the Institute and of the impact of automation on the work of the profession.

Reduction of Costs

Responding to the toast, Mr. James Borsay, F.C.W.A., President of the Institute, referred to the effects of the credit squeeze on the national economy.

'Whilst it is almost certain that there will be some upset,' he said, 'all our efforts should be concentrated on reducing this to a minimum and the cost accountant can play a large part in assisting management in this direction.' (*Hear, hear.*)

'If profits are going to be harder to earn, we must direct our energies to the control and reduction of costs—a field which can produce a very rich harvest. In times of plenty, control tends to become slack, and effort free-wheels; the slack must be taken up and effort intensified.'

'It is our duty to use to the full our knowledge, training and experience, in directing the attention of management to those sources where economies can be effected. . . .

'It seems to me that there is considerable scope for the formation of cost reduction committees in many of our industrial undertakings. There are *some* such committees in existence but I think you will agree that they are in the minority.'

Benefits of Shift Working

'The benefits of shift working should be fully explored; in the past, the attitude of labour has tended to damp down our enthusiasm for shift working: the situation that we find ourselves in today demands that the matter should be reconsidered.'

'Management should be presented with full information showing the costs of producing under the shift system as opposed to the commonly accepted method, so that in the event of negotiation with the unions, the financial facts are available. I have particularly mentioned shift working because of the general understanding that investment is to be reduced and it is therefore essential to get more production from our existing plant in a given time.' (*Hear, hear.*)

Commenting on labour troubles, the President emphasised the need for increased consultation with labour and 'just as important—further education'. He continued:

'Means must be found of educating the workers into the understanding of the financial structure of an undertaking and the implications of the taking of certain courses of action . . .'

Round-table Conferences

'I would like to see round-table conferences with selected workers' representatives. . . . It is useless to preach from a platform or through the medium of the printed word. Discussion and argument across a table are much more effective.' (*Applause.*)

'If it is true—and it is confidently stated that it is so—that further wage advances, without corresponding increase in productivity, will so reduce or, indeed, eliminate profits to the extent that the future of an undertaking is seriously prejudiced, this fact must be put over to labour, and labour must fully understand the implications of any actions they contemplate taking.'

'In the round-table conferences I have mentioned, the cost accountant can play a very large part. He should be looked upon by the workers as a man capable of producing the facts of the case without fear or prejudice.'

Stock and Work in Progress

After commenting on the proposed reduction in Government expenditure on capital investment, Mr. Borsay turned to 'the field of stock and work in progress reduction' as one in which 'the management accountant is well qualified to operate'.

'Stock control schemes should be reviewed and where necessary tightened, the theme being "just enough, not too much";' he said.

'Work in progress presents a much more difficult problem. Unbalanced and out of phase production contributes in a large measure to the size of this investment. . . . The system of production planning should be thoroughly scrutinised and overhauled and all involved should be acquainted with the purpose of the exercise. *Cash should be the keynote.*'

In conclusion, Mr. Borsay said that intense competition was likely to arise when European Free Trade made business a 'free for all'.

'We should strain every nerve to see that the tools we have available are of the highest order and in sufficient quantity,' he said. (*Applause.*)

The Company

Among those present at this function at the Midland Hotel were:

Mr. James Borsay, F.C.W.A., *President of the Institute*, and Mrs. Borsay; Mr. Roland Dunkerley, J.P., F.C.W.A., *a Past President of the Institute*, and Mrs. Dunkerley; Mr. T. Hodgson, F.S.A.A., *President, Incorporated Accountants' Society of Manchester and District*, and Mrs. Hodgson; the Very Rev. H. A. Jones, *Dean of Manchester*, and Mrs. Jones; Mr. Charles E. Lewton, F.C.W.A., *a former member of the Council*; Mr. L. W. Moody, *a director of Brocklehurst-Whiston Amalgamated Ltd.*, and Mrs. Moody; Judge Sir Basil Nield, C.B.E., Q.C., *Recorder of Manchester*; Professor R. W. Revans, B.Sc., Ph.D., *Professor of Industrial Administration, Manchester College of Science and Technology*, and Mrs. Revans; Mr. F. Rostron, *President, Manchester Chamber of Commerce*, and Mrs. Rostron; Councillor Harry Sharp, J.P., *Deputy Lord Mayor of Manchester*, and Mrs. Sharp; Mr. A. H. Walton, F.C.A., *President, Manchester Society of Chartered Accountants*; Mr. J. Wilkinson, *President, Manchester Cotton Employers' Association*, and Mrs. Wilkinson; Mr. Stanley J. D. Berger, M.C., F.C.I.S., *Director of the Institute*, and Mrs. Berger; and Mr. Derek du Pré, *Joint Secretary of the Institute*.

There was dancing to the music of 'The Music Makers' after dinner. This continued until 1 a.m. Refreshments were served. Mr. W. Sheppard, F.C.W.A., who was accompanied by Mrs. Sheppard, acted as Master of Ceremonies.

DEVELOPMENTS IN ACCOUNTING

The Glasgow and District Branch of the Institute of Cost and Works Accountants met on 15 October, when the speaker was **Mr. W. H. Leather**, M.A., F.C.A. who spoke of the much closer relationship now existing between the financial and the cost accountant, with the integration of accounts a pre-requisite for the adoption of a system of budgets and standard costs now widely accepted as the best means of

providing management with effective control of cost and production.

He emphasised that the accountant should adapt his technique to the type of management and business with which he was concerned and be prepared to sell his methods to management if it should appear that the directorate were not aware of the benefits to be derived from the new techniques.

THE INSTITUTE OF COST AND WORKS ACCOUNTANTS

Elections to Membership

The following were elected or transferred to Fellowship, or elected to Associateship, during October 1957. Employers are shown as at the date of election or transfer.

FELLOWS

CROZIER, J. M., Central Engineering Works (Pty) Ltd., Johannesburg.
DUGDALE, H., Confederation of Textile Dyers and Finishers, Manchester.
FUSSELL, H. E., St. Anne's Board Mill Co. Ltd., Bristol.
JACKSON, A. H., C. E. Heinke & Co. Ltd., London.
MCCULLAGH, J. J. P., Alliance and Dublin Consumers Gas Co., Dublin.
MOAT, W. W., Wrexham Borough Council.
PERKINS, F. A., St. Anne's Board Mill Co. Ltd., Bristol.
SMITH, R. W., Girling Ltd., Birmingham.
TILL, R. S. A., Urwick Orr & Partners Ltd., London.

WHITE, F. H., D. T. Dobie & Co. (E.A.) Ltd., Nairobi.
WOODCOCK, F., Rhodesian Iron & Steel Co. Ltd., Redcliff, S. Rhodesia.

ASSOCIATES

ASTBURY, F., Morgan Refractories Ltd., Neston, Cheshire.
BRADSHAW, D. W., British United Shoe Machinery Co. Ltd., Leicester.
CUSWORTH, J. S., National Coal Board, Stanley, Co. Durham.
GILMORE, R. J., Merseyside & North Wales Electricity Board, Chester.
HOMBURGER, A. N., Blick Rothenberg & Noble, London.
JOHNSON, L. S., Borax Consolidated Ltd., London.
JONES, R. W., W. J. Brookes & Sons Ltd., Liverpool.
RODERICK, A. J. L., British Railways, Swindon.
SARMA, K. N., Sarabhai Chemicals, Wadi Wadi, India.
SCHOFIELD, G. E., Bury & Rossendale Hospital Management Committee, Bury.

PERSONAL

Mr. D. N. Dow, B.COM., C.A., A.C.W.A., lately Company Secretary of Mirrlees, Bickerton and Day Ltd., Stockport, has been appointed Company Secretary of Fuller Electric Ltd.

★

Mr. P. Holmes, F.C.W.A., has resigned his position as Senior Cost Accountant with the British Broadcasting Corporation, and has taken up an appointment with The Coca-Cola Export Corporation, New York.

★

Mr. G. R. Howell, A.C.W.A., A.C.I.S., Chief Accountant of Alvis Ltd., has been elected to the Board of Directors.

★

Mr. P. J. Kurian, B.SC., A.C.W.A., A.M.INST.T., previously Assistant Commercial Superintendent, Bombay Electric Supply and Transport Undertaking, has joined Hindustan Aircraft (Private) Ltd., Bangalore, as Assistant Accounting Manager.

★

Mr. H. C. Lighen, F.C.W.A., A.M.INST.T., A.M.B.I.M., has been appointed Town Hall Superintendent and

Manager of the Public Halls, Manchester City Corporation.

★

Mr. W. S. Martin, F.C.W.A., F.C.I.S., is now Chairman and Managing Director of Howards Stores Limited, Newcastle upon Tyne.

★

Mr. R. J. Mayne, A.C.A., A.C.W.A., has been appointed Cost Accountant to Pollard Bearings (Northampton) Ltd.

★

Mr. Ian T. Morrow, C.A., F.C.W.A., A.T.I.L., has been appointed Chairman of the Board of Directors of a new company, National Free Piston Power Ltd., a subsidiary of The Brush Group Ltd., of which he is Managing Director.

★

Mr. J. W. Peak, A.C.W.A., has been appointed a Director of Sociedad Anónima Comercial Anglo-Ecuatoriana, Guayaquil, Ecuador.

★

Mr. W. E. Reed, A.C.W.A., A.C.I.S., has been appointed Secretary to The British Computer Society Limited.

★

Mr. P. W. Schick, F.C.W.A., has been appointed a Director of Thomas Ryder & Co. Manchester Ltd., Allen Harrison & Co. Ltd., and John Meller & Co. Ltd.

★

Mr. John F. Smith, A.C.W.A., previously Director and Secretary/Cost Accountant with The Reay Gearworks Ltd., Hebburn on Tyne, has accepted an appointment as Lecturer in Costing and Allied Subjects at the Staffordshire County Commercial College, Wednesbury.

★

Mr. Victor Strauss, A.C.W.A., has been appointed Joint Managing Director of Flaura Shoe Co. Ltd., London.

EXAMINATIONS

The closing date (10 October) for the receipt of applications to sit the examinations this December has now passed and no further entries can be accepted.

The June examinations (Preliminary, Intermediate, Final and Fellowship) will be held at the usual home and overseas centres on Monday, Tuesday and Wednesday, 2, 3 and 4 June 1958. Applications to sit must be made on form C, obtainable from the Institute on receipt of a stamped and addressed gummed label. Applications, accompanied by the appropriate fees, must be received at Institute headquarters not later than the following dates:

Home centres—10 April 1958

Overseas centres—10 March 1958.

Intending candidates are asked to note the above dates carefully as **no late entries can be accepted.**

SUMMER SCHOOL 1958

The 9th summer school will be held at St. Catharine's College, Cambridge, from Monday, 22 to Saturday 27 September 1958. Full details will be announced in due course.

INSTITUTE CHRISTMAS CARDS

Christmas cards bearing the Institute's coat of arms attractively diestamped in three colours and gold, are again available, printed on white card, size 4 in. by 5 in., with a greeting on page 3.

Orders should be sent to the Institute at 63 Portland Place, London, W.1, marked 'CARDS' in the top left-hand corner of the envelope. The cards are priced at 1s. 3d. each, or boxed in dozens at 13s. per dozen, inclusive of envelopes, packing and postage.

APPOINTMENTS VACANT and APPOINTMENTS WANTED

For nearly a quarter of a century one of the services provided by the Institute has been that of helping alike those employers who have appointments to be filled, and those members and registered students who seek appointments. It is no exaggeration to say that thousands of our members and registered students have benefited from the work of the Appointments Bureau, and hundreds of firms also—indeed, letters on our files and innumerable telephone calls have testified to the welcome help that employers, members and registered students have received in this way at no cost to themselves. The proportion of vacancies that have been filled is very high indeed.

As the months have gone by this service has been gradually extended: recently, nearly nine hundred members and registered students on the Appointments Bureau mailing list have been receiving the weekly lists. These lists have not only disseminated details of appointments to be filled which have been advised to us direct, but they have also duplicated appropriate advertisements appearing in the daily Press.

Now we plan to extend our help to the professional community. There is clearly a need for a method of approach to a far wider field than to those who are registered with the Appointments Bureau; we must reach not only the members and registered students who are receiving the weekly lists, but the immeasurably wider circle who read *The Cost Accountant*. This journal goes to about twenty-one thousand readers and it is reasonable to assume that each copy is seen by three people: this then, is the audience before which details of these appointments are to be placed.

The issue of *The Cost Accountant* dated January 1958, will contain classified advertisements in a section which will include 'Appointments Vacant' and 'Appointments Wanted', at normal rates as detailed below.

In place therefore, of the present system of advising details of appointments to be filled to members and registered students—which has been carried on by the Appointments Bureau at considerable expense to the Institute—these details will appear as classified advertisements, and the weekly lists will not be sent out after 12 December, 1957.

The advertisement rates, identical for both sections, will be a minimum of 20s. for four lines (average, 8 words per line), and 5s. per additional line. Box number, 2s. 6d. extra.

Owing to Christmas, advertisements for the January 1958 issue must be received at the Institute by 16 December at the latest.

BRANCH NEWS

INFORMATION TO EMPLOYEES

Mr. G. I. Gibbons, O.B.E., a labour relations officer, spoke to the Coventry Branch on 16 October.

The arguments in favour of giving financial information were that it helped employees to understand the system under which they worked; improvements in educational levels resulted in employees raising more and more questions about industrial matters; it would help trade union representatives better to understand the economics involved; and it fought dissatisfaction which sprang from lack of knowledge, especially about wages.

On the other hand, said the speaker, the following arguments might be urged against the idea. The facts might be misinterpreted; company finance could not be understood by the average employee; important information might reach competitors; depressing effect on morale in bad times; pressure for profit sharing might result.

In reply to questions, **Mr. Gibbons** said that in his company, employees, if they sold their co-partnership shares, tended to sell them to each other, and they appreciated the opportunity of having holdings. Discussion about financial results of individual *units* in the concern was discouraged, as were matters which tended too much to detail.

The main discussions about results took place annually. There were regular foremen's meetings, and they were free to discuss any topic they wished. Co-partnership shares in the hands of employees had demonstrated that profits were not as outrageous as some people believed.

USES OF COLOUR

The Hampshire Branch (Portsmouth Centre) joined The Institute of Industrial Supervisors on 23 October to hear a talk by **Mr. J. W. Wilson**, a colour consultant, on 'The uses of colour in reducing fatigue and improving morale in industry.'

Mr. Wilson said there was an increasing demand for advice on the colouring of factories. Carefully selected colouring of buildings and plant would improve working conditions and reduce fatigue, resulting in increased productivity and less absenteeism. In selecting the colours, thought should be given to the effect they had on people. Colour was reflected light and therefore, the type of lighting to be used must be considered; colours affected one another so all the colours must be seen together at the selection stage; because of the after image, the immediate surroundings of work should be different from the background; the psychology of colour was exemplified in such expressions as, seeing red and feeling blue.

The speaker suggested that factory waiting rooms

could be made more attractive, giving the potential buyer a favourable impression of the undertaking; staff canteens should be painted in different colours from those used in the factory; pipe-lines and danger areas should be painted with the standard colour code. Products should be coloured to satisfy customer demands; colour trends abroad should be constantly investigated.

ACADEMIC COSTING

It was **Sydney Smith**, who in seeing two women quarrelling from upper storeys on opposite sides of a narrow street in Edinburgh said: 'Those two women will never agree; they are arguing from different premises.' So it was at the debate which opened the session for the Liverpool and District Branch when **Mr. J. B. Charnock**, A.C.W.A., proposed and **Mr. A. Callaghan**, A.C.W.A., opposed the motion that 'Academic costing theories are too often based on unsound premises'.

Both speakers presented their case with vigour and humour.

The motion was overwhelmingly defeated, but the many contributions from the body of the meeting proved that it had aroused keen interest.

MANAGEMENT ACCOUNTANCY

At a well-attended meeting of the Kingston and District Branch on 11 October **Mr. Peter Randolph**, Assistant Managing Director of Wilkinson Sword Co. Ltd., gave a talk on 'Management: what the management expect of management accountancy'.

In the speaker's opinion the accountant should be encouraged to pay more attention to the efficiency of all levels of management, and to issue reports, recommendations and suggestions. Often management were presented with sales statistics, many of which were probably already known to the sales manager, whilst the influence of design on the profitability and future of the business was not thought of enough.

COSTING AS A CAREER

Mr. Denis C. Edis, F.C.W.A., spoke on 'Costing as a career' at the meeting held in Worcester under the auspices of the Birmingham and District Branch. The chair was taken by **Mr. G. Lancaster**, F.C.I.S., Past President, Industrialists' Association; **Mr. C. E. Sutton**, A.S.A.A., F.C.W.A., a director of the Metal Box Co. Ltd., opened the discussion.

The organiser was **Mr. A. F. Wilkes**, A.C.W.A.

ESSENTIALS OF COST REDUCTION

Mr. W. A. Eastwood, F.C.W.A., spoke on 'The essentials of cost reduction' at a meeting of the Chester and North Wales Sub-Branch on 10 October.

The speaker said that it could not be emphasised too strongly that unless direction, participation, enthusiasm and the appreciation of their necessity were found in management at the highest level, the success of any cost reduction team could not be assured.

Direct contact between management and the cost accountant was essential, and the work of any cost reduction team must be on a continuous basis and not conducted in a haphazard manner.

FREE TRADE AREA

On 11 October the Harrow Branch was addressed by **Sir Ernest Goodale**, C.B.E., M.C., on the impact of the European Free Trade Area on British industry.

Sir Ernest said that there would be a diversity of effects upon industry. Specialisation in particular products would inevitably occur in each country as a natural process. Organisations which could no longer compete would be forced to turn to new products, and some kind of interest-free Government loan would be necessary to assist hard-hit industries in changing their manufacturing policy. The Free Trade Area would help new industries such as those connected with electronics and atomic energy, but would probably be bad for the consumer industries.

Sir Ernest believed that a European Free Trade Area would ultimately result in an increased volume of trade for Great Britain rather than a loss.

INSURANCE AND THE COMPANY

The Norfolk and Suffolk Branch met jointly with the local centre of The Institute of Industrial Administration at Norwich, on 9 October. A talk was given by **Mr. P. H. Liechti**, F.C.I.I., on 'Insurance and the company'. He recommended the employment of brokers to arrange insurance, pointing out that a reputable firm could add considerable weight to negotiations with the insurance offices and that their experience and survey facilities could be most advantageous. Because of the tax position, Mr. Liechti was doubtful about the advisability of a firm establishing its own self-insurance fund unless it was large enough to start a separate company for the purpose.

ELECTRONIC DATA PROCESSING

Mr. J. Gelley, B.COM., A.C.A., spoke on 'Electronic data processing' to the Burnley and Nelson Sub-Branch on 1 October.

A colour film dealing with electronic data processing equipment was shown, entitled 'Direct line to

decision', following which Mr. Gelley outlined the steps necessary to prepare the way for the installation of such equipment. A period of approximately eighteen months was required for this. During this time detailed clerical method study was carried out, all documentation reviewed and flow charts prepared for the new system. Approximately six months training was then required for a programmer; this must be followed by practical experience; the training of such programmers would be the key factor governing the expansion of the use of electronic data processing equipment in the future.

A second film, dealing with random access memory accounting was then shown, and Mr. Gelley explained how this meant a fundamental change in accounting techniques in that all records could be updated almost all at once.

In conclusion Mr. Gelley stressed that the reliability of electronic machines was high and the volume of work that could be dealt with, immense.

CONTENT OF MANAGEMENT

A joint meeting of the Dublin and District Branch and the Irish Management Institute was held on 1 October.

The speaker was **Lt.-Col. L. Urwick**, O.B.E., M.C., M.A., who chose as his theme 'The content of management'. Col. Urwick stressed the need for scientific management in this age of technological revolution, and contrasted facilities for the training of managers in Europe and the United States of America.

The audience of almost 300 passed an enthusiastic vote of thanks to Col. Urwick which was proposed by **Mr. J. C. Tonge**, F.C.W.A., President of the Dublin & District Branch of the Institute.

The chair was taken by **Mr. T. F. Laurie**, M.INST. P.E.T., Chairman of the Irish Management Institute.

PURCHASING AND DISTRIBUTION OF MATERIALS

On 19 September **Mr. R. R. Newcombe**, assistant chief materials officer, United Kingdom Atomic Energy Authority, talked on the purchase and distribution of materials and stores to the Hampshire Branch, at Basingstoke.

While it was prudent to maintain a small reserve, the aim should be to turn over stocks at least three times a year, said the speaker. Running contracts, by which requirements over a set period could be obtained as needed, were a great help in keeping down stock levels.

The Authority always tried to purchase supplies, other than minor local purchases, by competitive tendering, so that any suitably qualified firm might be given the chance of obtaining a contract. This was usually easy to arrange for stock items but for other equipment only one supplier might exist, or it might be essential to standardise on a type previously purchased. In large contracts where com-

petitive tendering was not used, provision was made for the firm's cost to be examined before the final price was agreed. Firms were normally expected to provide their own working capital but on large contracts, which might involve considerable work before delivery, progress payments might be made against expenditure incurred by the contractor.

CAPITAL EXPENDITURE

At the 1 October meeting of the Exeter Sub-Branch, **Mr. F. Higgins**, A.C.W.A., of Bristol Aircraft Ltd., described a system of control of capital and special revenue expenditure by a large industrial concern. He dealt with methods of assembling advance estimates, of scrutiny, priority, coding for accounts purposes, progress records and statements, and supplementary sanctions.

Subsequent discussion revealed particular interest in bases for charging work of a capital or special nature performed by a company's own maintenance department, and in means of limiting the office work entailed in the control.

Mr. Higgins mentioned the wider audience reached by *The Cost Accountant*, in which a report of his previous lecture at Exeter, concerning a dual purpose cost and stock card, helped another large company to find an answer to one of its problems.

This sub-branch congratulates two members on their transfer to Fellowship, and two on election to Associateship.

'THE INSTITUTE'

The Ipswich Section of the Norfolk and Suffolk Branch met on 18 October to hear **Mr. Stanley J. D. Berger**, M.C., F.C.I.S., Director of the Institute, speak on the history, development and functions of the Institute.

Additional detailed information, regarding the work of the committees, was given by **Mr. F. Simmonds**, F.C.W.A., a member of the Council.

A wealth of information and interest was provided by the speakers in their addresses, and in their answers to questions, both stressed the need for members and students of the Institute to give careful consideration to professional matters so that they could reflect credit on their profession and help the Institute to play a leading part as a body in industrial and social life.

QUALITY CONTROL

Mr. J. R. Moore, of the Austin Motor Co., Ltd., addressed the Birmingham Students' Society on 18 October, on the subject of quality control. He stressed that the control of quality was not attained by the use of inspectors and measuring gauges.

Standards of quality which were consistent with the price range of the product should be established. This having been done, it was the interest of everyone within the business to ensure that the desired standards of quality were realised. The problem

was fundamentally one of labour relations. If relations were good and the right spirit prevailed, then good quality would automatically prevail. The onus therefore fell on all who supervised labour.

Mr. Moore quoted the example of the tool-maker. In an industry like the car industry, much depended upon the quality of the tools. If these were right then quality would ensue. There was nothing more distressing to a conscientious toolmaker than to see the products of his labours misused. If operatives were slipshod in the use of tools and this attitude were not corrected, then this spirit would eventually permeate through to the toolmakers and the control of quality would be lost.

Mr. Moore pointed out that many British industries had been able to produce mediocre quality and still to survive, owing to the protection of tariff walls. The proposed European Free Trade Area could radically alter this situation, and it was the responsibility of everyone in industry, including the cost accountant, to prepare for it now.

VISIT TO WITNEY MILLS

On 23 October members of the Oxfordshire Sub-Branch paid a visit to the Witney Mills of Charles Early & Co. Ltd., the blanket manufacturers. The group was met on arrival by **Mr. G. T. Maynard**, A.C.W.A., the secretary of the company, and was taken on a tour of the mill.

A very high degree of mechanisation has been achieved in the various processes and Mr. Maynard explained how costs were centred around each process—blending, spinning, weaving, milling, etc.—all expenses being allocated directly as far as possible. Nearly all the operators were on an incentive payment system with an extensive inspection routine ensuring the quality of the Witney blanket.

The tour ended with a visit to the warehouse and stock room where the finishing and smart packaging of the blankets, particularly of those for export to the North American market, was commented upon as an important selling feature.

JOINT AND BY-PRODUCT COSTING

There were 20 members and students present at a meeting of the Dundee Branch on 8 October which was addressed by **Mr. W. Bishop**, C.A., F.C.W.A., a member of the Council of the Institute. Mr. Bishop outlined the work on by-product costing being carried out by the Scottish Section of the Research Committee of the Institute. Mr. Bishop was supported by **Mr. J. Liddell**, F.C.W.A., F.C.I.S., a member of the Council of the Institute.

This first, highly successful meeting on by-product costing, was followed in November by a visit to Dundee gas works and this month by a discussion on by-product costing in the gas industry. In the new year, the Dundee Branch will continue its investigations into by-product costing from the point of view of the application of punched cards.

MARGINAL COSTING

At the first meeting of the Bolton Sub-Branch on 1 October, a talk on marginal costing was given by **Mr. W. E. Harrison**, F.C.W.A., A.M.B.I.M., a member of the Council of the Institute. The meeting was attended by the President of the Institute, **Mr. James Borsay**, F.C.W.A.

Mr. Harrison gave a lucid exposition of the growth of the marginal costing technique and of the advantages claimed for it compared with orthodox costing methods.

In the discussion which followed his talk, the speaker affirmed that he would use orthodox methods in ascertaining product costs for price-fixing purposes but maintained that in the majority of businesses the selling price was largely fixed by the market. In answer to the criticism that direct labour cost, treated as a variable expense in marginal costing, is now virtually a fixed expense, Mr. Harrison said that the cost of working time was always a variable expense. A correct analysis of direct labour charges would disclose the idle time element, which was a policy cost.

DONALD L. MORAN PRIZE PRESENTED

The opening meeting of the Swansea Sub-Branch was held on 15 October in conjunction with the local section of the British Institute of Management. The speaker was **Mr. W. E. Harrison**, F.C.W.A., A.M.B.I.M., who spoke under the title, 'The object of the exercise.'

Before giving his address, Mr. Harrison presented the *Donald L. Moran Prize* to **Mr. C. J. James** to whom it had been awarded for his paper on 'Management—factory and distribution' at the June, 1957 examinations of the Institute.

Dealing with standard costing, examination could well be made, he said, of the interaction of variances on other variances. Variances were recorded because they did not agree with the standards, but these were of historical value only—unless action was taken at the earliest possible stage.

ROAD TRANSPORT COSTING

'Road transport costing—a case study' was the title of a lecture given to the Eltham and District Branch by **Mr. T. C. Watkins**, F.C.W.A., A.C.I.S., on 10 October.

The speaker emphasised that the prime purpose of the costing system was to provide cost information and statistics which would reveal the efficiency of operation and give a valuable guide as to the suitability of equipment employed, not for vehicles alone but for certain fittings to the vehicles, e.g., tyres. Based on actual experience in the past,

standard costs were in operation for each group of vehicles. He stressed the need for the fullest possible utilisation of vehicles since the fixed costs of operation (Road Fund Tax, insurance, drivers' wages, etc.) amounted to about 60 per cent of the total.

Economies could be achieved where a number of vehicles were operated; the speaker instanced bulk purchase of fuels and lubricating oils, quantity discounts on tyres, and reduced premiums for insurance.

MONSANTO CHEMICALS

Twenty-five members and registered students attended the opening meeting of the Chester and North Wales Sub-Branch on 24 September. This was a visit to Monsanto Chemicals at Ruabon, Denbighshire, a company which produces a variety of heavy and light chemicals.

The works are very extensive, being made up of many individual buildings. This minimises the fire damage risk, but in conjunction with the fact that the buildings were built on the side of a hill, presents problems of internal transport by vehicles, although in many cases advantage was taken of the gravity afforded for transport through pipes to succeeding processes.

After the visit, **Mr. W. H. Brown**, the works accountant, and **Mr. J. R. M. Park**, the cost accountant, gave short talks on the principles employed in their work and provisional arrangements were made for an additional meeting in Chester for a fuller discussion of the subject.

ELECTRONICS IN THE OFFICE

At the second meeting of the Carlisle and District Discussion Group, **Mr. J. W. Dunsmoir**, F.C.W.A., electronics development accountant, United Steel Companies Ltd., Sheffield, presented a most interesting and thought-provoking lecture on 'Electronic equipment and office work'.

It was stressed by Mr. Dunsmoir that with the developments in the past—e.g. ledger posting machines, conventional punched card equipment—the speed of the operation was limited to the speed of the moving parts of the machine. In electronic equipment, apart from the mechanism for feeding original data and printing results, there were no moving parts, each number used being represented by a series of electronic impulses, the merger of two series of impulses providing the sum, difference, product or dividend, as the case might be. This merger took place at electronic speed; therefore the amount of data capable of being processed by electronic equipment is greatly increased.

Providing there was sufficient work to keep the equipment reasonably fully occupied, the working speed and the scope provided must cut down the cost of operation. There was a vast saving in oper-

ator hours and essential information was presented to management more quickly, thus minimising the delay in the framing and operation of policy decisions. Alterations in procedure could prove extremely expensive in conventional punched card equipment—computers were able to cater for all known changes. There was also a reduction in the necessity for inter-process manual intervention—the computer had greater scope in taking the job to its eventual conclusion.

The magnitude of the task involved in a change-over to electronic means was considerable and the *modus operandi* could be either to treat the organisation sectionally or to tackle it in its entirety. The gradual take-over, although it had the disadvantage of idle capacity in the initial stages, was recommended by the authority.

MANAGEMENT ACCOUNTING

Meeting on 8 October, the Sheffield and District Branch staged a forum consisting of the Branch President, **Mr. E. Senior**, F.C.W.A., and branch members, **Mr. D. E. Edmonds**, F.C.W.A., a member of the Council of the Institute, **Mr. H. Pattison**, F.C.W.A., and **Mr. J. B. Charles**, A.C.A., C.A.(S.A.), F.C.W.A., on the theme, 'Management accounting and the functions of the management accountant'. Each member of the forum contributed his own ideas on this theme before the meeting was opened for general discussion.

Particular reference was made to the fact that the management accountant should be the leader of a team of specialised technicians whose object was to give top management the necessary facts and figures with as little delay as possible to enable quick decisions to be made. Considerable emphasis was laid on the fact that speed of presentation was essential if full advantage was to be taken of the information provided.

Regret was expressed at the unavoidable absence of **Mr. H. H. Norcross**, F.C.W.A., a member of the Council of the Institute, who was to have lectured.

VISIT TO COPPER WORKS

On 18 September members and students from the Stoke on Trent and District Sub-Branch visited the copper works of Thomas Bolton & Sons Ltd., at Froghall.

This thriving industrial plant is sited deep in the picturesque Churnock valley and is hidden in the surrounding scenery. The visitors were shown all the processes from the refining of the crude copper to the finished products which included all kinds and sizes of bar, sheet, tube and wire.

They were particularly impressed by the smart teamwork on some of the wire drawing and tube extrusion processes and by the fact that, in all sections, supervision was almost invisible. The party has been invited to pay a second visit to the factory when the works accountant, **Mr. J. W. Burton**, A.C.W.A., has undertaken to explain the costing procedure which has been adopted.

THE NATAL CENTRE

Retiring Secretary

During June, the Centre wished **Mr. A. O. Hawes**, A.C.A., A.C.W.A., the retiring Honorary Secretary, and his wife *bon voyage*. Mr. and Mrs. Hawes are to live in France. A cocktail party in their honour was held at the Air Force Club, Durban on 14 June.

'Presenting Your Case'

A most successful series of talks was held on 5, 12, 17 and 21 July, at the Hotel Edward on the subject entitled 'Presenting your case'. **Mr. J. R. Price**, C.A., F.C.W.A., gave the opening address; he advised members that subsequent talks could have a profound effect on their careers if they used the knowledge they gained to the best advantages.

Mr. Gordan Cramb, A.C.I.S., addressed the audience on the theoretical aspects of public speaking and a team of experts acted as group leaders at the subsequent practical sessions. Attendance throughout averaged forty-five members and guests.

Work Study

A successful film evening was held on 24 July at the Hotel Edward, Durban, which was attended by ninety members and guests. **Mr. K. S. Fifer** addressed the audience on the practical value of work study after which four films on the subject were shown.

Human Relations in Industry

Dr. R. Cheetham, M.A., PH.D., M.B., C.H.B.(Cape), D.P.B.(Rand), addressed sixty members and their guests at a meeting held on 21 August at the Hotel Edward on the importance of the practical application of psychiatry in analysing the underlying emotional behaviour of humans. The speaker particularly stressed that our society consisted of a number of different emotional types, which, in our industrial environment, were all expected to work as a team. The successful manager was one who could understand and handle people of different emotional types.

PIETERMARITZBURG

A successful inaugural luncheon of the members of the centre domiciled in Pietermaritzburg was held at the Imperial Hotel on 21 June, attended by fifteen members. **Mr. E. Morrison**, B.COM., A.C.W.A., chairman of the Natal Centre, journeyed to Pietermaritzburg and at the dinner addressed the members on the activities of the Institute and of the Centre.

Film Evening

A successful film evening was held in Pietermaritzburg on 2 August, at which the attendance including guests was seventy. Four films on work study were shown.

BRANCH DIARY

December 2

NORTH EAST COAST BRANCH: (Joint meeting with Institution of Works Managers) R. W. Mann, Victor Products Ltd., at the Royal Station Hotel, Newcastle upon Tyne, at 7 p.m.

December 3

DUNDEE BRANCH: 'By-product costing in the gas industry'; talk and discussion (following works visit) at the Royal Hotel, 1 Union Street, Dundee, at 7.30 p.m.

December 4

COVENTRY AND DISTRICT BRANCH: 'Electronic computers—practical application using Hec 4', by L. A. Thurgood, Morgan Crucible Co. Ltd., at the Craven Arms Hotel, High Street, Coventry, at 7.15 p.m.

MANCHESTER AND DISTRICT BRANCH, TEXTILE SECTION: At the Engineers' Club, Albert Square, Manchester, at 7 p.m.

December 5

DUBLIN AND DISTRICT BRANCH: 'Wise and otherwise', by C. E. Lewton, F.C.W.A., at Jury's Hotel, Dublin, at 7.30 p.m.

MANCHESTER AND DISTRICT BRANCH: 'Operational research', by W. G. Jones, F.C.W.A., at the Engineer's Club, Albert Square, Manchester, at 6.45 p.m.

December 6

HARROW AND DISTRICT BRANCH: 'The electronic computer and its application to payroll calculations', by R. G. Mills, M.Sc., Elliott Brothers (London) Ltd., at Harrow Technical College Hall, Station Road, Harrow, at 7.15 p.m. for 7.30 p.m.

LONDON AND DISTRICT BRANCH AND LONDON STUDENTS' SOCIETY: 'Control of maintenance costs', by H. E. Kearsey, A.C.W.A., A.M.I.M.F.C.H.E., M.S.I.E., in the Lancaster Room, Caxton Hall, Caxton Street, Westminster, S.W.1, at 6.45 p.m. for 7 p.m.

NORFOLK AND SUFFOLK BRANCH: Branch dinner, at the Flixton Room, Samson and Hercules House, Norwich, at 7.15 for 7.45 p.m.

WOLVERHAMPTON SUB-BRANCH: 'Municipal accounting', by Norman Marsh, A.S.A.A., A.I.M.T.A., Deputy Borough Treasurer, Wolverhampton, at the George Hotel, Stafford Street, Wolverhampton, at 7.15 p.m.

December 9

MIDDLESBROUGH AND DISTRICT BRANCH: 'The application of electro-mechanical electronic equipment, including computers, to industry', by E. S. Carden, The British Tabulating Machine Co. Ltd., at the Cleveland Scientific and Technical Institution, Corporation Road, Middlesbrough, at 7.15 p.m.

December 10

EDINBURGH AND DISTRICT BRANCH: 'Fact finding from figures', by H. Kirkham, F.C.W.A., at the North British Hotel, Edinburgh, at 7.15 p.m.

HIGH WYCOMBE AND DISTRICT SUB-BRANCH: 'Factory regulations', by J. T. Skipper, H.M. Inspector of Factories, at The Swan Hotel, Paul's Row, High Wycombe at 7.30 p.m.

LEICESTER AND DISTRICT BRANCH: Dinner and dance, at the Grand Hotel, Leicester, at 7 p.m. for 7.30 p.m.

NORTH EAST COAST BRANCH: Students' evening (students only). 'Standard costing and flexible budgetary control', by H. A. Butler, F.C.W.A., A.C.I.S., A.M.B.I.M., at the Royal Station Hotel, Newcastle upon Tyne, at 7 p.m.

SHEFFIELD AND DISTRICT BRANCH: 'Integrated accounts', by G. C. Stone, F.C.W.A., at the Grand Hotel, Sheffield, at 7.15 p.m.

SLOUGH AND DISTRICT SUB-BRANCH: 'The cost accountant and labour utilisation', by C. D. Ellis, F.C.W.A., at Slough Community Centre, Farnham Road, Slough, at 7.15 p.m.

December 11

BRIGHTON AND DISTRICT SUB-BRANCH: 'Incentives', by Councillor A. Illman, at the Brighton Technical College, Richmond Terrace, Brighton, at 7.45 p.m.

CHELMSFORD SUB-BRANCH: 'Some problems resulting from automation', at the Golden Fleece Hotel, Duke Street, Chelmsford, at 7.15 p.m.

GLASGOW AND DISTRICT BRANCH: (Joint meeting with Chartered Institute of Secretaries) 'Modern methods of business recruitment', by E. Thompson, Ph.D., M.A.(COM.), B.SC.(ECON.), M.B.I.M., at the Ca'doro Restaurant, Union Street, Glasgow, at 7.15 p.m.

HAMPSHIRE BRANCH: Open discussion, at the Southern Gas Board's Offices, 136 Old Christchurch Road, Bournemouth, at 7.30 p.m.

HULL AND DISTRICT SUB-BRANCH: 'Control of a sales and distribution organisation—costs of operating, control of branch office sales, office and technical representatives', by D. Aslen, at the Imperial Hotel, Paragon Street, Hull, at 7.30 p.m.

NORTH GLOUCESTERSHIRE SUB-BRANCH: 'Company law', by H. J. E. Stannard, at the Queens Hotel, Cheltenham, at 7.30 p.m.

AN INVITATION

Every member and registered student of the Institute is cordially invited to join the branch, sub-branch or students' society nearest to him. Names and addresses of honorary secretaries are given in an alphabetical list of place names on the inside back cover. No charge is made for membership of branches, sub-branches or students' societies.

December 12

CHESTER AND NORTH WALES SUB-BRANCH: 'The application of high-speed computers to accounting procedures', by J. A. Goldsmith, M.A., A.C.A., A.C.W.A., at the Queen Hotel, Chester, at 7 p.m.

ELTHAM AND DISTRICT BRANCH: 'Industrial insurance', by W. G. Draper, A.C.I.L., at Sherrard Hall, Court Road, Eltham, S.E.9, at 7.30 p.m.

NORTHAMPTON AND DISTRICT SUB-BRANCH: 'Wages, remuneration and incentives', by R. W. Austin, Lecturer in Management Studies, Northampton College of Technology, at the Northampton Town Footwear Manufacturers' Association, 55 Abington Street, Northampton, at 7.30 p.m.

NORTH LANCASHIRE BRANCH: 'Monthly accounts and standard costing', by A. I. G. Farquharson, C.A., A.C.W.A., at the Chamber of Commerce Board Room, Fishergate, Preston, at 6.45 p.m.

December 13

BIRMINGHAM AND DISTRICT BRANCH: 'Some experiences of installing electronics', by G. J. Pierce, F.C.W.A., at the Birmingham Exchange and Engineering Centre, Stephenson Place, Birmingham, at 7 p.m.

CROYDON AND DISTRICT BRANCH: 'Fuel economy', by L. Clegg, chief engineer, N.I.F.E., at The Greyhound, High Street, Croydon, at 7.15 p.m.

KINGSTON AND DISTRICT BRANCH: 'The Factory Acts and their application to industry', at The Three Compasses, 31 Eden Street, Kingston-upon-Thames, at 7.45 p.m.

WATFORD AND DISTRICT SUB-BRANCH: 'Provisions of the Factory Acts in practice', by C. W. Hewlett, H. M. District Inspector of Factories, at Watford Town Hall, at 7.30 p.m.

December 14

CROYDON AND DISTRICT BRANCH: Works visit. R. and A. Kohnstamm Ltd., Elmers End.

December 17

ABERDEEN STUDENTS' SOCIETY: Works visit. Harrott and Co. Ltd., Glove and Hosiery Manufacturers.

CHESTERFIELD SUB-BRANCH: 'Transport costs', by E. K. Wenlock, of *Motor Transport*, at the Station Hotel, Chesterfield, at 7.30 p.m.

LEEDS AND DISTRICT BRANCH: Student's meeting—film show: 'Layout and handling in factories'; 'Mechanical handling on show'; 'Work flow'; at the Great Northern Hotel, Leeds, at 7 p.m.

LEICESTER AND DISTRICT BRANCH: 'Electronic data processing'—(1) How we use a computer', by L. A. Thurgood, Morgan Crucible Co. Ltd., at the Bell Hotel, Humberstone Gate, Leicester, at 7.15 p.m.

PETERBOROUGH AND DISTRICT SUB-BRANCH: 'Some legal aspects of industry', by T. A. Read, at the Grand Hotel, Peterborough, at 7.30 p.m.

December 18

NORFOLK AND SUFFOLK BRANCH: Film show—current developments in electronic computers—at the Assembly House, Norwich, at 7.30 p.m.

December 19

BELFAST AND DISTRICT BRANCH: 'Textile factory costing', by Walter Scott, J.P., at the Kensington Hotel, Belfast, at 7.30 p.m.

BRANCH MEETINGS

Details of forthcoming meetings included in this section are taken from the branch programme cards; to avoid incorrect entries, branch secretaries are requested to notify the editor immediately of any alterations to these programmes.

January 2

BURNLEY AND NELSON SUB-BRANCH: Works visit. Birtwistle and Fielding Ltd., Great Harwood.

DUBLIN STUDENTS' DISCUSSION GROUP: Film show.

January 3

BIRMINGHAM AND DISTRICT STUDENTS' SOCIETY: 'The relationship between cost and financial accounts,' by J. W. Fewlass, F.C.W.A., A.C.I.S., A.M.B.I.M., at the Birmingham Exchange and Engineering Centre, Stephenson Place, Birmingham, at 6.45 p.m.

HAMPSHIRE BRANCH: 'Practical application of statistics,' by J. Lappin, A.S.A.A., at the Central Electricity Authority's Conference Room, 111, High Street, Portsmouth, at 6.15 p.m.

January 7

BOLTON SUB-BRANCH: 'Integrated accounts', by G. B. Lowe, A.C.W.A., A.C.I.S., at the Town Hall, Victoria Square, Bolton, at 7.30 p.m.

SWANSEA AND DISTRICT SUB-BRANCH: (Joint meeting with The Institute of Industrial Administration.) 'Finance for industry,' by A. D. Coventry, A.C.A., F.C.W.A., A.C.I.S., at the Lecture Room, Gas Showrooms, Kingsway, Swansea, at 6.45 p.m.

STOKE ON TRENT AND DISTRICT SUB-BRANCH: 'Where the accountant fails in his service to management,' by R. H. Murray, M.Sc., A.R.I.C., at the Town Hall, Stoke on Trent, at 7.30 p.m.

January 8

BRIGHTON AND DISTRICT SUB-BRANCH: 'Insurance as it affects industry,' arranged by The Brighton Insurance Institute, at the Brighton Technical College, Richmond Terrace, Brighton, at 7.45 p.m.

CHELMSFORD SUB-BRANCH: Students' evening. Three short papers to be given by students on selected subjects, at the Golden Fleece Hotel, Duke Street, Chelmsford, at 7.15 p.m.

EDINBURGH AND DISTRICT BRANCH: 'Practical aspects of administration,' by J. Wotherspon, M.I.P.E., A.M.B.I.M., at the North British Hotel, Edinburgh, at 7.15 p.m.

THE COST ACCOUNTANT

Editorial and advertising offices:—63 Portland Place, London, W.1. (Tel.: LAngham 6542.)

Subscription rate: 18s. per year, post free. Single copies, 1s. 10d., post free.

Published each month by The Institute of Cost and Works Accountants.

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Printed by Straker Brothers Ltd., 194–200 Bishopsgate, London, E.C.2.

THE COST ACCOUNTANT

Journal of The Institute of Cost and Works Accountants

VOLUME 36

APRIL 1958

NUMBER 11

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Prices, Productivity and Incomes

INDEPENDENCE of analysis and simplicity of language are the keynotes of the first report of the Council on Prices, Productivity and Incomes.¹ Appointed in August 1957, the Council consists of three eminent men; a distinguished lawyer, Lord Cohen, as chairman; a leading accountant, Sir Harold Howitt; and Sir Dennis Robertson, the well-known economist. Its purpose is to keep under review changes in prices, productivity and the level of incomes, and to report from time to time. This first report is the result of informal discussions with representatives of Government departments, organisations of employees and employers, the Bank of England, leading economists, and certain other selected individuals of note in the world of finance.

The first half of the report deals with the facts and figures behind the rise in prices since the year 1946. Based on published statistics, it summarises the figures which tell a story that has often been heard over the past few years.

It is, however, in the second part of the report, where the Council has drawn its

conclusions from those figures, that the major importance of the work done seems to rest.

The rising trend of prices and money incomes has resulted from an abnormal demand for both consumer and capital goods, and services, assisted by a plentiful supply of money and by the pursuit by successive Governments of full employment policies. The Council considers that far from having to accept a slow rise of prices of 2 or 3 per cent a year, the immediate objective should be to stop—and not merely to moderate—the inflation. It further suggests that, with increasing productivity, the objective should be more ambitious and that we should aim at a gently falling price-level. This might result from an attempt to stabilise the general level of money income per head.

From its consideration of the measures taken last September by the Government, the Council is led to the provisional conclusion that monetary policy can play an effective part and it welcomes the importance laid on the re-establishment of effective control over the supply of money.

The Council is of the opinion that, where productivity has increased of recent years,

¹ H.M.S.O., 2s. net.

wages have also risen in the full proportion. As increased productivity can result not only from increased energy, skill, or hours of the workers themselves, but also from extra capital expenditure or improved management techniques, the Council is critical of piece-rates and bonus schemes which, it says, do not pass on to the consumers, in the form of lower prices, a share in the fruits of progress.

This national need for increased productivity to be translated into lower prices is the theme of the Council's approach to profits. Total profit incomes are between 35 and 40 per cent of the total national wage and salary bill, and company profits account for one half of total profits. How can they be reduced in absolute size through the modification of attitudes and price policies of business men? The Council suggests three approaches. One way is to choose the low profit-high turnover approach rather than the reverse when the likely results of each policy balance fairly evenly. Another way is for the Government to back by law its exhortations to reduce prices. In this connection the Council commends the competitive spirit engendered by the Monopolies and Restrictive Practices Act 1956.

It draws attention, however, to the fact that the power of the individual manufacturer to maintain re-sale prices has been increased, not decreased, by the Act and that, in times of moderately reduced demand, the pressure to maintain prices is stronger than in times of extremely high or extremely low demand. This provision in the Act should, says the report, be carefully reconsidered.

The third approach to a change in attitude concerns the retention of profits. The Council considers it correct that companies should aim at making and retaining enough profits to provide for research and expansion. During inflationary periods, the amounts to be retained for these purposes are all the greater because of the increased costs of carrying stocks and the higher replacement costs of fixed assets. But such a practice

means that the cost of future growth is borne as higher prices by today's consumers. If it were possible to ensure an adequate continuing supply of money from other people's savings (e.g. the consumers), it might be possible to reduce the amounts that companies need to retain. The possibilities in this direction are increased by the likelihood of reduced capital needs in periods of disinflation and the revival in personal savings.

What is the likely impact of this report on the work of the cost accountant? To the extent that this report is issued by a body which is purely fact-finding, perhaps none. But if the opinions advanced are likely to form the basis of future Government policy, then the cost accountant will find himself busier than ever before, and probably with different emphasis.

The endeavour to intensify the search for increasing productivity will focus the cost accountant's attention on techniques of measuring the likely impact on total costs of the substitution of one method of production for another. It should also make him severely critical of the cost of his own particular department and cause him to look into ways of reducing the cost of costing.

Pressure to reduce prices and margins will concentrate sales management attention on determining the elasticity of demand. This will call for information of the likely cost at different levels of output, placing the accent on both forecasting and the consideration of the variability of items of cost.

The drive for reduced prices will accentuate the cost consciousness of management. This will imply an extension of the use of cost control techniques, and may also assist the further extension of cost accounting into still more non-manufacturing fields.

Above all, it will call for an outlook of prediction of changes, of forecasting and budgeting. The cost accountant has already shown his potential in these fields. He will have a very big part to play if the policies advocated by the Council on Prices, Productivity and Incomes are implemented.

DINNER IN GUILDHALL

Forthcoming Institute Occasion

FRIDAY 24 OCTOBER, 1958

IT is with great pleasure that we announce a forthcoming function which will be one of the milestones in the history of the Institute.

On Friday, 24 October next, the President, Council and members will entertain distinguished guests at a dinner in Guildhall, London.

Our holding this dinner in Guildhall—in the heart of our country's great financial centre—will, we feel, be an occasion on which will be demonstrated to representatives of diplomatic, government, civic, professional,

financial, industrial, and business life, the increasingly important parts played by our members in the economic life of this country.

The dinner, of which full details will be published later on, will present a unique opportunity for members and their guests to dine together in one of the world's historic buildings which has received kings and queens, the world's diplomats, statesmen and warriors, throughout its long and glorious history. Guildhall has a dignified and austere splendour all its own, from the stained glass windows at one end, to the

towering figures of Gog and Magog, remote and aloof, at the other.

In the thirty-three years during which our Director and Secretary, Mr. Stanley J. D. Berger, M.C., F.C.I.S., has guided the affairs of our Institute, the status of members has risen to the present accepted high level. To Mr. Berger must be attributed considerable credit for this and, even more important, he has during this long period played no small part in the growth and development of the profession.

A brief paragraph in the report of the Council meeting held on 7 March,

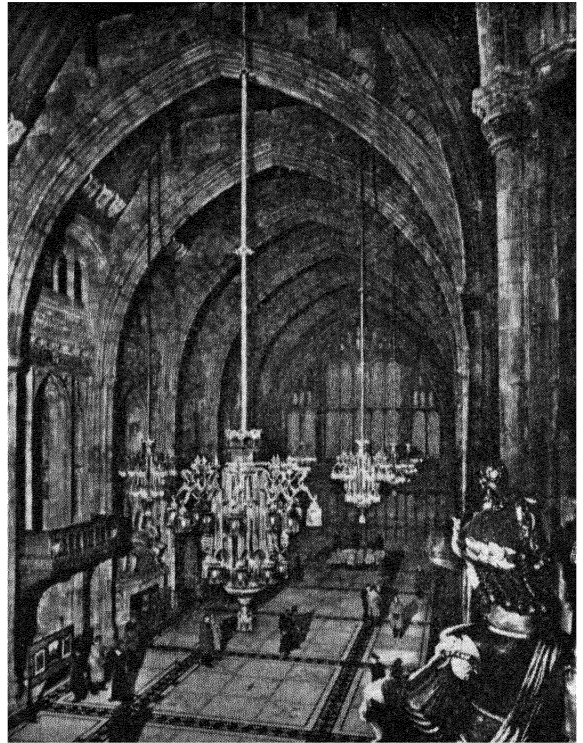


An exterior view of Guildhall

published elsewhere in this issue, states that Mr. Berger will retire towards the end of this year. This function, therefore, will be one at which the President, Council, members, and registered students will be able most fittingly and formally to express their appreciation and affection to Mr. Berger in the presence of our many friends. This is not the place to elaborate on Mr. Berger's work—it will be fully recorded by his many friends in due season.

We know that members will be anxious to be present on this special occasion and that they will welcome the opportunity of entertaining personal guests. We are expecting that official and personal guests, members and registered students, will fill all the accommodation and because of this, the Council has decided that it shall be an all-male function—with the exception that lady members will, of course, be able to attend.

An interior view of Guildhall with the famous figure of Magog seen on the right.



NOTES AND COMMENTS

AUTOMATION IN EUROPE

A REPORT of a study on the application of automation has been published by the O.E.E.C.¹ The study was made on the basis of visits to 33 factories in five European countries. The report regards automation as the third step in a three-stage evolution of production methods, the first two steps being rationalisation and mechanisation.

In considering redundancy, attention is drawn to the differing impact of automation in an expanding industry and in one which is contracting. The reduction in demand for semi-skilled and unskilled labour led the author to consider the facilities for training for redeploy-

ment. Here the author contrasts the continental willingness to retrain to craft skill and to upgrade workers even at a late age, with the attitude of British trade unions, which would often not accept the up-grading of certain men who had been employed as mates for long periods.

The study emphasises the need for consultation with workpeople who wish to discover what effect automation is likely to have on their work, and contrasts this need with the typical management attitude to providing information.

Almost ten years ago the Convention was

¹ *Application of Automation in Europe*, by Eric Southwell. Trade Union Research and Information Service. E.P.A., O.E.E.C., Paris.

signed establishing the Organisation for European Economic Co-operation, and a recently-published booklet has described its scope.¹

The European Productivity Agency, an organisation within O.E.E.C., whose purpose is to encourage—with its financial resources and technical literature—efforts made in Europe to improve productivity, is of topical interest and importance.

As a result of the continuous co-operation between member countries and the rule of unanimity which must be satisfied for any decision to be taken, it may be said that there is emerging a 'European way of thinking' which will substantially benefit the whole continent.

PRESIDENT'S CHAIR

MR. S. C. TYRRELL, F.C.W.A., a past-president and a member of the Council, has presented the Institute with a chair to be used by the President in the council room during his term of office. The presentation was made at the meeting of the Council on 7 March.

The central decorative feature of the chair is a multi-coloured replica of the Institute's coat of arms, tooled on a white background against the blue leather of the chair. A triumph of painstaking craftsmanship, the coat of arms is built up of 99 pieces of gold, blue, green, red and other shades of leather, each individual piece being designed, cut and separately positioned.

The result is a unique example of highly-skilled leatherwork, of which the Institute may well be proud. It is a creation of a famous firm of bookbinders and illuminators, F. Sangorski and G. Sutcliffe, of London. Established in 1901, this firm has been responsible for such work as the Royal Family Coronation Bible and the volume presented to Sir Winston Churchill on his 80th birthday. The craftsman responsible was Mr. Edgar Turner.

The chair itself is in walnut, in the Charles II style, with stuffed back and seat. The arms are moulded and carved with leaf-work, terminating in scrolls carved with rosettes; the legs are of 'S' scroll form carved with rosettes and leaf-work, finished with square cushion toes, the elaborately shaped stretcher being moulded and carved in a similar manner.

At the presentation ceremony, Mr. Tyrrell

said that he thought the time had arrived for the Institute to acquire 'a few trappings'. He was anxious that the chair should not be regarded as a 'gift' but rather as a token of his personal indebtedness to the Institute.

Receiving the chair on behalf of the Council, the President, Mr. James Borsay, F.C.W.A., said that this handsome piece of craftsmanship would be treasured by the Institute, and on behalf of the Council he warmly thanked Mr. Tyrrell.

NATIONAL ASSOCIATION OF ACCOUNTANTS

THE thirty-ninth annual conference of the National Association of Accountants, New York, will be held in Chicago, from 22 to 26 June next. Over 3,000 members are expected to attend.

The subjects of the six addresses will include: developing the accountant's managerial abilities; changes expected in the field of accounting; the changing cost-volume-profit relationship; the 'profit squeeze'; the accountant and market research; controlling marketing costs.

On one afternoon there will be two concurrent sessions, one for representatives of larger companies who will hear talks on planning for profit and systems and procedures for the electronic age, the other for representatives of smaller companies who will hear discussions of forecasting and planning and the smaller companies' approach to improved systems and methods.

The National Association of Accountants is, 'an educational institution of 42,000 members devoted to a better understanding of the nature, purposes and uses of accounting as applied to all types of economic endeavour by means of research, discussion and exchange of information'.

SHORTER NOTE

Among the speakers at a conference organised by the British Productivity Council, in conjunction with the Factory Equipment Exhibition, will be Mr. H. H. Norcross, F.C.W.A., a member of the Council of the Institute, who will speak on 'Costing as an aid to productivity', and Sir Stanley Rawson, F.C.W.A. Vice-Chairman, John Brown Ltd., who will speak on 'Variety reduction'. The conference takes place from 14 to 16 April.

¹ *At Work for Europe*. O.E.E.C., Paris.

The Economics of Plant Replacement

by J. A. SCOTT, C.A., F.C.W.A., A.M.B.I.M.

Chief Financial Executive, Hayeshaw Ltd., Manchester.



The social significance of plant replacement, key factors, and the cash position are examined. The value of the 'pay off period' after interest and tax, and discounting methods, are considered. The distinction between 'return' and 'additional return' and their relationship with 'cash reinvested' and 'capital employed' is studied. The management accountant's responsibility for assessing the determining factors is stressed.

IT has been said that economics are concerned with the relationship between ends and scarce means which have alternative uses. Management continually has to deal with this relationship. The subject has to be considered in the wider context of asset replacement. Cash may be replaced by plant or by stocks or by other investments and vice versa. Investment too has to be thought of in its widest sense, as any outlay which will show a yield for some period to come, or will come to fruition in later years. Additional skilled staff or an advertising programme can be very good investments and may even have to form a prelude to investment in specific types of plant.

The object of asset replacement is to enable an organisation to carry on exchanging goods in order to provide continuing satisfaction to all having relationship with the undertaking; investors, employees, customers, suppliers, the government, and the public. If we are to raise our standard of living there must be no wasteful capital expenditure, and an increased selectivity in choosing expenditure which will promote the maximum return to all concerned.

Key Factors

The problem of management is to determine between the conflicting claims on resources—the priorities, which are most likely to assist in attaining the objectives. It is generally helpful, but not always simple, to approach the problem

by trying to establish the dominant or key factor in the future situation. In industrial and economic life the possible situations can roughly be subdivided into two broad phases:—

- (a) Where effective demand exceeds current capacity to supply.
- (b) Where capacity to supply exceeds current effective demand.

In both cases there are invariably certain outstanding limiting factors which are obstructing full attainment of the objectives and there are certain appropriate patterns of action and associated forms of investment. (see Table I)

Management must apply the military concept of mass—maximum concentration at the decisive point and the dominant factors must primarily receive full consideration. A decision relating to replacement concerns the future and the future is never certain. There is thus an element of speculation in all replacement decisions even if negative, *i.e.* not to replace. Project costing and asset replacement analysis set out to narrow down the speculative area to a minimum. The greater the speculative element the higher should be the potential return called for.

This paper is primarily concerned with one facet of this problem, plant replacement. This need not necessarily appear in the form of replacing an old machine by a new one of identical or of a bigger and better type. Machines may be replaced by entirely different machines to make entirely different products. Replacement can also appear in the guise of what temporarily looks like plant expansion—in new factories, in new locations—but this may only represent

An address delivered on 26 September, 1957, at the eighth residential summer school of The Institute of Cost and Works Accountants.

TABLE I

FUTURE (AND CURRENT) KEY FACTOR OR LIMITING FACTOR	PRIMARY INVESTMENT	LEADING TO PLANT REPLACEMENT PRIORITY
A. Effective Demand Exceeding Capacity to Supply (Long order books—price competition weak)		
Supplies of raw materials	Abnormal stocks of raw materials Research into possible substitutes	Storage and transport facilities Machines or modification suited to substitutes
	Exploration of new sources Production of raw materials Acquisition of an existing source	— Plant producing raw materials Plant producing raw materials
Supplies of skilled operatives	Trainees and training programmes Method and work study programme Simpler machines for unskilled operatives Research into simpler products Special attractions	Training equipment Modifications and accessories Simpler or modified machines New or modified machines for simpler products Special amenities
Supplies of skilled executives or clerical staff	Trainees and coaching programmes Simplified procedures	— Office equipment
Supplies of suitable machines or bottlenecks or unbalanced capacity	New machines Modification of existing machines Speeding up present machines Research into alternative products from existing machines Extra labour for shift working	New machines for existing products Modification for existing products Modifications for increased speed Modifications for alternative products —
B. Capacity to Supply Exceeding Effective Demand (Short order books—price competition strong)		
Temporary satisfaction of demand in existing market	Publicity and advertising to stimulate or re-channel demand Travelling and research into new markets	— —
Change of fashion in existing market or appearance of competitors' better design or better substitute	Travelling and research into new markets Research into design and quality Better design or inspection staff Research into alternative products from existing machines and manpower Research into new products from new machines	— Machines for new design or better quality — Modifications for alternative products Machines for new product
Demand limited by price or diverted by competitors' lower price	Methods and work study programme Research into simpler product Better and faster machines Machines calling for less or less skilled manpower Research into substitute raw materials Advertising products' desirability or superiority	Revised layout, handling equipment, modifications Modifications for simpler product Machines for more efficient production Machines for more efficient production Machines or modifications for substitutes —
Inadequate or incompetent distribution channels	Better sales staff and training Development or acquisition of distributive channels	— Property and transport relative to distribution

replacement of depreciation elsewhere. Deterioration may appear to be the main cause of plant replacement, but obsolescence can be equally important. This may arise through the emergence of better machines or through demand changing to different products.

The over-riding factor in determining whether a new machine shall be installed or not must always be the probability of a strong future demand for the *products* produced by the machine. Market research has a part to play and significant decisions may be called for as to general versus special purpose machines. Strange cases have arisen of factories being laid down to produce products in a volume, which a little study would have revealed as being far in excess of any likely demand, where the required labour force was unobtainable, and where the supply of raw materials in the projected quantities simply did not exist. A rather negative measure of success may be conceded, if major blunders are avoided.

Types of Replacement

Plant replacements can be divided into three broad categories, *i.e.*, necessary, optional, and social. In the necessary category is the replacement of a defective or broken-down machine forming one part of a linked sequence of processes on a profitable product. Even if replacement of the machine appears to increase the cost of that one operation, the effect on unit costs and profits for the sequence of processes as a whole must be considered. Replacements to meet legal requirements covering safety are also essential.

Where a machine and its products are self-contained, there is an option when replacement is under consideration as to whether the process and the product be discontinued.

In the social category come welfare and amenities. It is only by extremely hypothetical assumptions as to recruitment, labour turnover, absenteeism, productivity, that a 'return' on better lighting, heating, ventilation and noise reduction can be assessed. Such outlay should be frankly regarded as raising the standard of living at work as a distinct option from raising it at home—primarily part of the return on other investments and efforts and only secondarily an investment in its own right. It is a difficult economic task to assess a 'return' on a 'return'.

Intangibles

Reference must be made to some intangibles which are often underrated perhaps because they

are not amenable to treatment in economic terms. Where change is seldom seen it is probably true to say that resistance to and suspicion of change grow up at all levels in an organisation. In the long run it is neither diligence nor intelligence but adaptability which may count for survival. A youngster's intelligence and ingenuity is developed and his interest is held by the steady introduction of new problems and new toys. This also holds good in a factory.

It was Roy Harrod who tentatively suggested that there might be something analogous to a chemical chain reaction in this re-equipment business—one thing leading to another—a change with negligible gains at the first stage, leading to second stage improvements, which in turn may lead up to unsuspected spectacular gains at the change twice or thrice removed.

Projects entered into with enthusiasm may achieve a greater success than alternative projects with seemingly better prospects but which somehow arouse very little real interest. For reasons such as these, there may frequently be a case for changes being made even when the immediately assessable economic gains are if anything negligible. Perhaps no department should be left completely unchanged for too long. It has been argued that new equipment can revitalise a department and be the help to opening the door to new ideas and new enthusiasms.

Estimates and Assumptions

In considering plant replacement one is considering the future. It is a specialised form of budgeting and the budget may have to cover the anticipated life of the new plant. In making comparisons one must compare future with future not present with future. For example, one might show net profit before project £50,000, after project £40,000. This could lead to a bad error of judgment. What has been omitted is the forecast of the future results if the project is not undertaken. This might show net profit £10,000. Outlay may be as justified when it sustains profits or cuts down losses as it will be to bring in additional gains.

If there is no proposed change in the volume of output it may be possible to limit one's figures to considering comparative costs, but the probable future trend of costs has to be estimated, for old and new plant. This is particularly important where old plant is reaching the stage where major overhauls are essential if the old plant is to be kept in service. One simplified method is to estimate the running costs of the old and the new plant for the first and last year

of the future period under consideration and to average these figures.

It may also be necessary to estimate changes in income trends, perhaps on a similar basis. This becomes significant when changes in volume of output from the new as compared with the old plant are contemplated. Income has sometimes to be allocated to particular machines. Sometimes a declining trend of income may be used to introduce a contingency factor into the computation. One must be careful that one does not multiply up a contingency factor by duplicating it at many points—under-estimating income, over-stating operating costs, under-stating length of life, and over-stating interest—one must be clear where it is located. Over optimism regarding installation costs and freedom from teething troubles has, however, to be guarded against.

In most re-equipment projects there will be a fringe area, within which it will be difficult to make reasonably valid assumptions as to effects. This makes it the more essential to assess the effects within the area where results can be anticipated with reasonable certainty. If action seems justified by such calculations, well and good; if some doubt remains, then the effect of the known variables has been assessed, leaving the weight to be attached to the intangible factors to be judged separately.

Changes in costs arising through plant replacement are not unduly difficult to assess with a reasonable amount of validity, provided the cost accountant, in collaboration probably with the engineer and work study man, is prepared to undertake a certain amount of painstaking work and logical reasoning and provided adequate analysis of past cost history is available. Past percentage activities may be pointers to probable future utilisation. Assumptions as to changes in income, where applicable, may sometimes have less sure foundations. Some reliance will be placed on past trends. There is no reason, however, why estimates for the vital early years of the future period should fall very wide of the mark.

Two factors which come into the fringe area, and are thus often ignored, but which in certain circumstances can have significant effects resulting in the gains from re-equipment being frequently under-stated, had best be referred to at this point.

Where economies in labour utilisation arise from re-equipment, such gains are naturally embodied in the computation, but where labour is in short supply, the contribution to earnings by the men released for other work seems frequently to be overlooked. Where such

a release can be utilised to open out a bottleneck, there is an added significance. Where such conditions are envisaged an assessment can perhaps be made by reference to the average marginal contribution per operative to profits and overheads. Within short, rather than average, periods this could be as high as 25–75 per cent. on labour released.

Where major re-equipment schemes are under consideration at home and by competitors abroad four possible situations can be envisaged:

- (i) Our firm re-equipped v. competitors non-re-equipped.
- (ii) Our firm re-equipped v. competitors re-equipped.
- (iii) Our firm non-re-equipped v. competitors re-equipped.
- (iv) Our firm non-re-equipped v. competitors non-re-equipped.

Where re-equipment leads to a reduction in total costs or in marginal costs this in turn may affect pricing policies, particularly in times of stress. Any price reductions may lead to a displacement of income away from the non-re-equipped firm to the re-equipped. If increased volume then in turn leads to further cost reduction through wider spread of overheads, further price reductions leading to further progressive income displacement may ensue. Even slight derived improvements in quality can sometimes have a similar effect.

Cost Changes Arising from Plant Replacement

The term 'variable costs' has come to be used for costs which vary with changes in volume. A new term is really required for costs which move with changes in method. The term 'movable costs' might be applied. The general areas where cost changes are to be looked for as a result of plant replacement are well known. New plant may permit the substitution of semi-skilled, or less restricted, labour for skilled labour and release the latter for other work. The effect may be the reverse but there may be vastly outweighing advantages.

It may be possible to eliminate preceding or succeeding processes, reduce inspection, cut down scrap, enable lower grades of material to be used. Maintenance and power costs may be less or greater. Automatic feeding, ejection, oiling, cleaning, positioning and stop motions

may enable more machines to be tended. Higher speeds may mean lower unit costs. Loss of earnings during a changeover period may have to be allowed for. Two elements, however, require special mention.

Interest. In the case where new plant is financed out of funds at present deposited in the bank, or by the realisation of investments, there will be a loss of interest earned on deposited funds. Where the plant is financed from borrowed funds there will be an interest charge to be met. Interest can therefore be shown either as a cost of the new plant or as a reduction in cost of operating the old.

It is considered that this factor should be brought into the computation. It is simplest only to take account of interest until the funds are replaced or the borrowing can be repaid out of additional gains, which for this purpose, it is thought, should be taken after tax (Table II). In the appended examples the interest figure can be looked on from another angle as being the *difference* in interest under two conditions—re-equipped and non-re-equipped over a future period of years.

Depreciation. When computing pay-off periods, depreciation is not directly relevant. In making cost comparisons, however, and in assessing figures of net profit or additional return, capital costs, or depreciation provisions, of the new plant must be allowed for. Capital costs of the old plant are irrelevant as far as future costs of operating the old plant are concerned, since they have already been incurred, even if they have not been fully amortised in the book records. Their treatment in the books may, however, have affected the financial liquidity.

Salvage values have to be allowed for but allowances for a decline in salvage values in future years seem very hypothetical and can frequently be ignored. If there is an unamortised balance of capital outlay on the old plant and new plant is to be installed, there is an apparent loss of capital, or an over-statement of previous profits, to be dealt with. This problem arises from the difficulty of adjusting one's mind to thinking in terms of the appearance and sum of the profits for the next five or ten years and the appearance of the balance sheet at the end of that time, instead of thinking in terms merely of the appearance of this year's profit and loss account and balance sheet.

To take an extreme example, this week a man buys and installs a machine costing £3,000 whose operating costs (excluding depreciation) are estimated at £1,100 per annum and whose life is estimated at ten years. Next week he visits

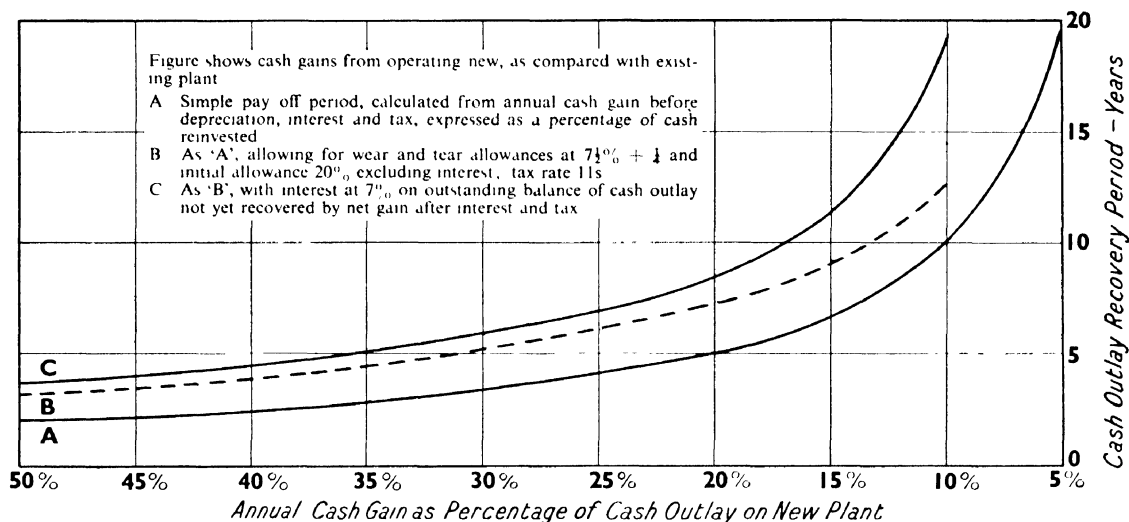
TABLE II

Computation of Interest and Pay Off Periods						
Capital cost £1,000. Cash gain 30 per cent of capital cost. Interest 7 per cent. Wear and tear $7\frac{1}{2}$ per cent + $\frac{1}{4}$. Initial allowances 20 per cent. Tax 11s.						
	Year					
	1	2	3	4	5	6
	£	£	£	£	£	£
Cash gain . . .	300	300	300	300	300	300
Interested on unrecovered capital cost . . .	70	54	41	30	20	10
Tax at 11s. . .	230	246	259	270	280	290
Net cash . . .	230	182	150	151	153	155
Unrecovered capital cost at beginning of year . . .	1,000	770	588	438	287	134
Capital allowances	294	66	60	54	49	45
		180				
		-64				
Taxable gain . . .	-64	116	199	216	231	245
Pay off period 5.86 years. Total interest £225						

an exhibition and sees a new version also costing £3,000 but with operating costs of £375 and a ten-year life. If he will not be financially embarrassed, it will pay him to scrap the first machine and install the second (assume the first has no scrap value after removal) for if he had held the first, at the end of ten years he would have incurred further costs of £11,000 but if he now decides to substitute the second his further costs will be £3,000 plus $10 \times £375 = £6,750$; or his total costs in retaining the first would be £14,000, against scrapping the first and buying the second, £9,750. The writing off of a capital loss of £3,000 in the first year is, therefore, more than offset by gains in the subsequent ten years. Arguments that deferment of replacement would reduce the write off are incorrect in that reduction in the write off is more than offset by loss of potential gains from new equipment.

If, however, both old and new plant are rendered completely redundant before this estimated advantage is obtained, e.g. if the machines are made redundant in four instead of ten years, the further operating costs of the old machine would have been £4,400 but of the new machine £3,000 + £1,500 = £4,500. Financial strin-

Fig. 1. CASH OUTLAY RECOVERY PERIODS



agency may also prevent undertaking outlays which it is estimated would maximise profits. Another way of looking at this problem is to assess the gains assuming the old plant scrapped and the new machine rented rather than purchased.

One way of tempering the shock of the idea that maintainable old plant should be scrapped, with a write down of capital in favour of new, is to transfer a portion of such depreciation provisions as can be said to have been genuinely over-allocated to other plant, to the obsolete plant, thus writing it off, or again a revaluation of all plant might be appropriate. It may be helpful, too, to approach depreciation in the light of the alternative book-keeping entries:

Dr.	Share capital account.
Cr.	Fixed asset accounts
	<i>for loss of capital through depletion.</i>
Dr.	Profit and loss account.
Cr.	Share capital account
	<i>for provision for replenishment of capital.</i>

This approach also has a bearing on the figure considered to represent capital employed.

Cash Changes. Plant replacement inevitably involves either a temporary decline in liquid funds or an increase in borrowing. Major schemes may entail raising additional capital. Many schemes show such substantial and rapid returns that even if liquid funds are not available, borrowing will be well warranted. There is, however, frequently a strong reluctance to borrow or even to raise additional capital.

In the former case this sometimes arises from the thought, 'If anything goes wrong we do not want to face the risk of outside interference by persons who have unsatisfied financial claims on us'. Similarly, particularly in tightly held family firms, a reluctance to raise outside capital derives from a distrust of the faint chance of possible outside interference or spread of control or of sharing of gains. This attitude can be shared by managers. The directors of some ambitious firms, confident of success, have however discovered that a widespread shareholding leaves power more firmly with the executives and adopt an American view that, 'The corporation is merely a way of doing things. It is a means whereby the small and scattered money hoards of millions of individuals are gathered together in large aggregations capable of producing and distributing goods in quantity'.

Another factor, however, is the thought that if funds are sunk for some time in the current project, then other more desirable projects or opportunities which may arise in the near future will have to be foregone. Managers must look round and assess whether or not even better investments or machines are in the air which might have to be let slip if funds are sunk in current projects. Taken to extremes this can of course result in all opportunities being missed.

This raises a fundamental problem of comparison. If funds are not invested in new plant there are innumerable ways in which they could be profitably or unprofitably used or disused in the future. Is using past experience, or yields, or

interest rates a satisfactory basis of comparison with the estimated return on new plant? In practice, however, alternatives tend to be limited to those falling within the field of knowledge and experience of the executives. When faced with a schedule of alternative big and little projects it can be helpful to arrange these in a series of ascending magnitude with the returns on the projects interpolated with the additional return on each addition to outlay.

If a capital project is carried out from borrowed funds it is theoretically unnecessary to provide for both provisions for depreciation and provisions for a sinking fund to cover repayment, for repayment can be made out of accumulated depreciation provisions, and at the end of the life of the equipment one is back where one started, *i.e.* no new plant, no borrowed funds, but with, one hopes, surplus gains earned in the period.

Methods of Assessing Advantages

The methods of screening and of assessing the advantages of plant replacement can now be studied. The following methods will be referred to: Pay off period (i) Simple. (ii) After tax and interest; additional average return to cash re-invested; average net profit to capital employed; discounting methods; special formulae. There is a lot of loose wording in connection with these methods and one has to be clear with

definitions particularly with regard to the treatment of depreciation, interest and tax. One has to be constantly on guard to ensure that 'like' is being compared with 'like'. It is felt that the 'pay off period' method is generally appropriate to most projects, but it should often be supplemented by one of the other methods.

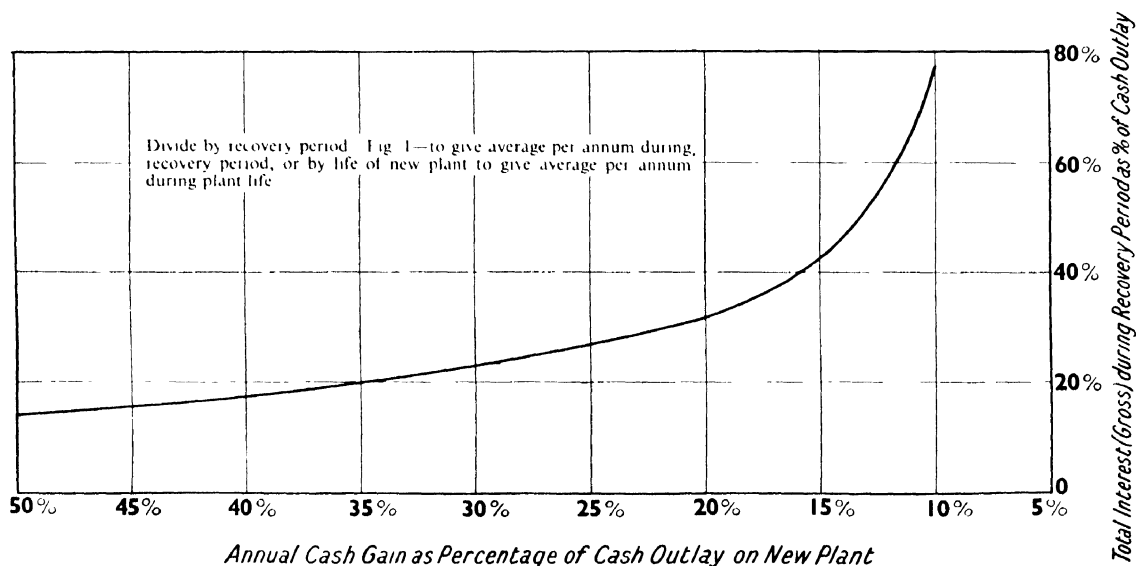
The term 'annual cash gain' will be introduced at this stage. Where there is no anticipated change in income between the existing method and the new method, this will represent the difference between the estimated average 'moveable' out of pocket operating costs of the two methods, excluding any allowance for depreciation and interest. Where income changes are programmed, the annual cash gain will be the difference between income less operating costs of the old method, as compared with income less operating cost of the new method. Where there is an extension out of cash, and there is no old method, this is the additional income less additional operating cost. This also applies when replacing an old machine which can no longer produce.

The Simple Pay Off Period. This is simply:

$$\frac{\text{Capital Outlay (Less Salvage Value of Old Equipment)}}{\text{Annual Cash Gain}} = \text{Number of Years to Pay Off.}$$

This is the first test to apply. When the gains are so substantial that the answer shows that

Fig. 2. Total interest (gross) at 7% on unrecovered cash outlay expressed as a percentage of cash outlay.



the simple pay off period is very short (one or two years) it may be unnecessary to take matters much further. This method is also useful for comparing alternative simple projects having approximately similar characteristics—the same length of life and the same tax treatment. It does not really show, however, when the firm gets its money back. The mistake is sometimes made of embodying a depreciation charge against the annual cash gain. This is irrelevant to this form of presentation. It is, however, assumed that cash gains are retained in the business during the pay off period.

The Pay Off Period after Interest and Taxation. This is a really valuable figure for general purpose uses and does, except in special cases, show when a firm is likely to achieve the return to liquidity and manoeuvrability. The method of computation is shown in Table II and graphed in Figure 1. (Table II type calculations also form the basis for Figure 2). Certain assumptions are required as to future rates of interest and of taxation. It will be noted that interest is allowed for only on the balance of capital outlay unrecovered by annual cash gains after tax. The effects of initial (or investment) allowances and of wear and tear allowances calculated on the diminishing balance method will be noted. Slightly different computations are called for where repayment of actual borrowing is by fixed instalments.

The value of the pay off period approach should not be under-rated. Because of the speculative element in plant investment a quick return to the mobility and adaptability to changing circumstances, afforded by a quick return to liquidity, is a valuable recommendation for any scheme irrespective of its ultimate profitability. Where possible this should always be applied as one of the tests. Taken by itself, however, it has the following disadvantages:

- (a) The real gain only commences after the pay off period is exhausted and suitable plant should, therefore, have a much longer potential life than the pay off period.
- (b) It can be misleading where estimated gains are low in early years but rise to a crescendo later (e.g. plant for making a new product) or where gains are high in early years but are anticipated to fall away rapidly.
- (c) It does not show the estimated 'return'.
- (d) The simple pay off method is unsuited to making comparisons between different projects where their lengths of life differ widely, where condition (b) holds good, or where

tax treatment differs (e.g. initial v. investment allowances).

- (e) Where the figures are based on the comparative operating costs between old and new machines it becomes somewhat unrealistic where the pay off period emerges as being much longer than the maintainable life of the old machine on which the comparative costs were based.
- (f) It is an inadequate assessment for major expansion or replacement projects.

More detailed and subtle methods are called for where some of these conditions hold good.

Return on Investment

Businessmen looking round for a basis for internal and external comparison for plant projects turn naturally to projected forms of orthodox accounting presentation or to stock exchange concepts of 'yield', with both of which they are often in regular contact. Yield, however (past dividends gross as a percentage of the current market value of the shares), is dependent largely on a firm's past dividend record and on the market estimate of the firm's future dividend prospects in relation to the prospects for industry in general.

The nearest approach to the yield concept which can be achieved in asset replacement analysis is the accounting concept of net profit before tax to capital employed; *i.e.* share capital plus reserves—in turn equivalent to net fixed assets plus current assets less current liabilities. It will be very rare for net profits to correspond with gross dividends or for future book values of capital employed to correspond with the market value of the shares. In view of the high proportions of retained profits, a figure nearer to yield may be obtained by taking half the estimated net profits (before tax) to capital employed. 'Return' is often confused with 'additional return' and there is a real danger of drawing false analogies; when someone says 'this project shows a 20 per cent. return' the phrase is meaningless unless one knows 'on what' the 'return' is calculated and what is contained or excluded in the 'return'.

The following example of yields had best be given. Mr. 'A.' starts with £300 and invests this in 'X' Co. Their £1 shares have been paying a dividend of 25 per cent. but they stand at £3 on the market. For his £300 he, therefore, acquires 100 shares: at this rate he will anticipate receiving a dividend of £25, representing a yield of $8\frac{1}{3}$ per cent. Some years later the dividend has fallen to 15 per cent. and the share value has dropped to 30s. The anticipated yield

to a new buyer is therefore 10 per cent. For the present owner his £300 is returning £15, a yield of 5 per cent. If he sells his shares he gets £150. Assume he also has £50 deposited in the bank paying 4 per cent., i.e. £2. At this time the £1 shares of another company 'Y' have been paying 30 per cent. dividend and stand at £2 in the market, a yield of 15 per cent. If 'A' uplifts his present investment and deposits, receiving £200 and invests in 'Y' he receives 100 £1 shares on which he hopes to receive a dividend of £30 and does so. His additional income is £13 (£30—£17). The *additional return on initial cash re-invested* (£200) is $6\frac{1}{2}$ per cent.

Average Additional Return on Cash Re-invested.¹ The average *additional return* to cash *re-invested* is a form of presentation that is frequently used in asset replacement analysis. It is a valid and valuable concept provided it is not confused with the return itself. It is easier to compute than net profit to capital employed and can be used for comparing projects with different lengths of life, for provision for depreciation on the new asset should be embodied. It has still some of the defects of the pay off period however.

It is useful and appropriate for comparing the advantages of replacing a single old machine or series of machines with alternative new types, and for comparing this with other projects of no great magnitude. In common with yields it is generally expressed *before tax*. For this purpose only 'movable' costs will be embodied in the computation—the share of common overheads, i.e. supervision, rent, rates, etc. would be excluded.

In its simplest form this is on the lines illustrated in Table III.

TABLE III.

Capital Cost New Plant £10,000			
Salvage value, old plant £300. Life, new plant 15 years.			
	Old Plant	New Plant	
	£	£	
'Movable costs' . . .	4,400	2,800	
Depreciation . . .		666	
Interest (per Fig. 2) . . .		242	
	4,400	3,708	
Additional return . . .		692	
% to cash outlay . . .			7 $\frac{1}{4}$ %

When it comes to considering major replacement or expansion programmes, however, one

may need to go in for the more complex calculation of estimated average net profit to capital employed to obtain a full picture.

Average Net Profit to Capital Employed. In the case of complex major replacement or expansion projects cash will not only be translated into plant but into new and different stocks, debtors and creditors. It will be desirable if possible not only to show the relative capital employed and the net profits on the project in isolation, but to embody this with the corresponding picture of the effects on the firm's results as a whole. Again one will be dealing in estimated future averages.

For purposes of showing the return, capital employed on the project probably has to be treated as a constant throughout the period, cash being first translated into fixed assets then back into cash through the operation of depreciation provisions, it being assumed in this case that surplus gains are distributed. A partly marginal concept of stock values seems appropriate. In this form of presentation an attempt is made to get at the 'return' itself as distinct from the 'additional return' and for this purpose attributable income must be brought in. Similarly, whilst it is possible to produce a kind of 'marginal contribution' to capital employed, it is really 'net profits' which should be aimed at for purposes of external comparison and for this form of presentation only, share of common overheads may have to be introduced.²

Where entirely new plant is being installed for new output, the theoretical part of the computation of estimated gains may be considered to be relatively simple—see Table IV. It is when one is considering whether or not to replace old plant by new that the computation theory becomes complex—see Table V. Major projects may have to be supplemented by long term cash forecasts of the future financial position of the firm as a whole.

Additional Return and Net Profit to Capital Employed. A small capital outlay on certain accessories to a process (automatic feeding or stop motions, etc.) may show additional returns on cash re-invested of perhaps 75 per cent., but the anticipated yield (net profit to capital employed) from the output from the process might be low and remain low—say rising from 2 per cent. to 7 per cent. Conversely certain modifications to a process might show additional returns of only 6 per cent. or 7 per cent. but the

¹ There seems to be no point in endeavouring to try and assess the future *average* cash invested for this type of presentation.

² See *Company Income and Finance* 1949–53, National Institute of Economic and Social Research.

TABLE IV

A		Replace Cash with New Plant for New Output (No relative old plant)	
	£		£
Estimated Income	37,000	Capital Cost New Plant	20,000
Estimated Raw Materials	20,000	Additional Working Capital (Stock, Debtors less Creditors) calculated as in Appendix	9,561
Net Output	17,000		29,561
Movable Costs	8,100	Estimated Life	10 years
Capital Costs		Cash Gain £8,900	
Depreciation	2,000	% to Cash Re-invested	30.1 %
Common Costs	Nil	Additional Return to Cash Re-in- vested	20.9 %
	10,100	Net Profit to Capital Employed	23.3 %
Net Profit	6,900	Pay Off Period after Interest and Tax Fig. 1	6 years
Less Interest (Fig. 2)	710		
Additional Return	6,190		

(See also Table V)

(See also Table V)

future yield from the output of the process, due to high price margins might be raised from 25 to 30 per cent.

For full appreciation, two distinct but interlocking pieces of information have in fact to be sought. The effect of the project (a) on the *operating* cost of the process; (b) on the yield from the *output* from the process. One is sometimes faced with the problem of whether or not it is worthwhile, quite profitably, spending money on processes whose output will still give an unsatisfactory yield as against devoting attention, superficially with lower additional return, to processes whose output seems to present a rosy future. It is dangerous to divorce the future of the machine from its future output. For top management purposes the conclusions drawn from detailed schedules will require to be condensed and probably supported by a summary report on 'factors to be considered'. Where possible reference should be made to the percentage reduction in unit costs.

Limitations of Return on Capital Employed.

The urge to use the 'percentage-to' approach is part of the search for a common denominator, yet the return on investment is not the complete answer to assessing all forms of gain. It is most appropriate where the dominant factor responsible for the improvement in earnings is the capital investment, but many improvements arise from foresight, skill, initiative and improvement in methods. Consulting engineers, auditors and solicitors would not assess their

profits in relation to capital employed. The method cannot be applied to isolated machine replacements where the new equipment is rented rather than purchased, and it would seem that in some cases the gains must stand on their own feet unrelated to anything other than initiative.

Where interest is brought into account one must be clear whether one is making an assumption that gains are retained in the organisation or are distributed when earned, to interested parties. While for computation purposes it is useful to assume that gains accrue to the investor, in practice at least a proportion of the gains are invariably disseminated—to customers through reduced prices, to employees in increased wages, to the public via the slice the government takes in taxation. Even where it is the expressed intention to pass on gains to the consumer, as in non-profit making concerns, it may still be convenient for computation purposes to assume they accrue in the organisation.¹

Discounting Methods

There are more sophisticated actuarial methods of assessing plant replacement and expansion projects, but these do not as yet appear to have come into common use and business men are not normally used to thinking in actuarial terms. Lord Keynes stated: 'I

¹ Can there be any presumption that interest necessarily accrues in the hands of beneficiaries or on retained depreciation provisions? An elaborate interest structure can be erected on very shaky foundations.

TABLE V

	B. Replace Old Plant with New Plant for Same Output	C. Replace Old Plant with Higher Output	D. Modify Existing Plant
	15 years minus £133 8 years	20 years plus £887 5 years	10 years minus £20 10 years
	£10,000 £3,000 £300/£500	£12,000 £ 6,000 £ 2,000/£1,000	£ 300 £3,000 £600/nil
5. Figures other than Capital Costs averaged over	8 years	5 years	10 years
1. New Plant Capital Cost and Estimated Life			
2. " " Changes in Working Capital			
3. Old Plant Book Value and Maintainable Life			
4. " " Salvage Value now and at end of Life			
6. Allocated Share of Income			
7. Allocated Share of Raw Materials			
8. Net Output			
9. Direct and Indirect Labour, Power, Maintenance, Scrap, Extra Admin.			
10. Additional Cash Gains			
11. Depreciation			
12. Interest over Life of New Plant			
13. Total 'Movable' Costs			
14. Additional Return			
15. Supervision, Light., Heat., Gen. Maint., Rates, Taxes, Insurance, Gen. Admin. (excl. Capital Costs above)			
16. Total Cost			
17. Net Profit before Tax			
18. Net Current Assets—Stocks plus Debtors less Creditors			
19. Fixed Assets			
20. Cash Re-invested			
21. Average Capital Employed			
a. % Addit. Cash Gains to Cash Re-invested			
b. % Addit. Return to Cash Re-invested (during what would have been remaining life of old plant)			
c. % Net Profit to Capital Employed			
d. Pay off period after Interest and Tax			
e. Capital Write Down			

Note.—1. Gains from labour released for other work etc. not included. 2. Figures between dotted lines are not shown for small projects.

define the marginal efficiency of capital as being equal to the rate of discount which would make the present value of a series of annuities given by the returns from the capital asset, just equal to its supply price'. Before discounting however one has to be clear as to exactly what 'return', or diverging series of returns, one is going to discount. The present value of an annuity of £1 for n years (say 8) at an annual compound rate of interest i (say 5 per cent.) is:

$$A_n = \frac{1}{i} \left[1 - \frac{1}{(1+i)^n} \right] = \frac{1}{0.05} \left[1 - \frac{1}{(1+0.05)^8} \right] = 6.464$$

Using this as the basic formula, if the amount of the annual cash gain is treated as the annuity and a stipulated rate of interest is demanded, the present value is the maximum amount which should be spent to obtain the gain. If the capital sum is known, the annuity at a stipulated rate of interest can be computed or the number of years' life required can be calculated given the other factors.

These formulae are intended to bring home the fact that the more hypothetical distant gains are less valuable than those for nearer years. Most accountants will probably prefer to illustrate this by showing a contingent declining income trend. Most approaches hitherto made on these lines seem unrealistic in that they do not take into account the varying incidence of taxation. Where the successive annual savings are S , $S + p$, $S + 2p$ etc. the expression for A_n is:

$$A_n = S \left[\frac{(1+i)^n - 1}{i(1+i)^n} \right] + p \left[\frac{(1+i)^n - ni - 1}{i^2(1+i)^n} \right]$$

Special Formula. Reference should be made to a special formula developed by George Terborgh and illustrated in the May 1955 issue of *The Cost Accountant*. He alleges that where

$$\text{New machine capital cost} \times \left(\frac{2n-1}{n^2} + \frac{i}{1.4} \right)$$

is less than next year's 'annual cash gain' referred to as 'defender's adverse minimum' (assuming no salvage values) replacement is signalled. This formula attempts to find an answer to the correct timing of replacement but contains some doubtful assumptions, omits many fringe factors and ignores taxation effects.

Effects of Possible Inflation

The effects of possible inflation are very complex and cannot be dealt with in detail here.

To some extent it may depend on how the projects are financed, whether out of deposited funds or out of loans. It is also tied up with what would have been the alternative disposition of funds had the project not been undertaken. The method of treating interest in the examples has some justification in an assumed depreciation of cash funds.

Control of Actual Outlay and Performance.

All possible steps must be taken to keep actual outlay in line with sanction. Actual performance too should be compared with estimate, for valuable lessons can be learnt. The real gains can never be precisely measured for one cannot test them against what otherwise actually would have been.

Conclusion

No little confusion has arisen because, when economists have tackled this problem, they have in general adopted a global approach and assumed that all *new* investment comes from *new* saving and treated all types of finance and the return thereon as one and the same category. To the businessman the problem frequently appears in the form of computing the effect of a transfer of what, to the firm, are existing savings from one form of investment to another.

The economist, too, has tended to treat the firm as if it were a sole trader financed by the trader's equity capital to whom all returns, whether retained or distributed, immediately accrue and become available for re-investment at interest. In practice, however, the management of a public company may require a distinction between interest on loans and profit on capital and may make some divorce between the fortunes of the company and of the individual shareholders. Tax effects differ according to distribution, and returns on capital may be consumed rather than re-invested. Civil engineers approaching the problem have on the other hand tended to regard all finance as being borrowed.

Again the global or communal approach tends to ignore the effects of displacement of income or contribution of released labour as between different firms, but to the individual firm these may be vital factors. A 2 per cent. income displacement from a non-re-equipped to a re-equipped firm, allowing for relative cost effects, can easily convert a first year cash gain of 12½ per cent on capital outlay to about 30 per cent. within 6 or 7 years depending on the ratio of costs to income.

Much of the road towards the successful solution of the plant replacement problem will

have been travelled if all the factors bearing on the problem are recognized; if really careful estimates have been compiled of probable short term effects on costs and income; and finally if trouble has been taken to look ahead to probable future requirements in the next three, four, or five years, and if these have been listed, their merits discussed and their probable priorities roughly established.

Given reasonable basic data for even short term gains, reasonably satisfying formulae can be devised to provide an index for the relative profitability of alternative new projects with common starting dates. For this type of comparison, assumptions are at their minimum. Immediately replacement of existing plant with a remaining life shorter than the projected plant is brought in and *long term* comparisons of new plant against retaining old are sought, further assumptions as to what ultimately takes the old plant's place and what is done with unspent funds arise.

The method of presentation will vary according to what is to be deemed to be the source of funds—existing deposits, borrowed money, new equities.

Recognition of the comparative product profitability factor can be brought in by the net profit to capital employed type of approach. In its simplest form with the minimum number of additional assumptions this can be taken as a guide to the immediate future, but can be regarded as no more than a comparative index if taken over longer periods. (The appended examples come into this category.)

Immediately one attempts to bring such figures to long term averages directly comparable with commonly recognized contemporary industrial data, in addition to the factors previously

referred to, further assumptions must be brought in, clearly tabulated and recognized as such, as regards (a) precise proportions of gains distributed and retained (after tax), (b) how retentions (depreciation provisions and profit) are re-invested, (c) the profitability of such re-investments.

The examples given tend to effect a working compromise between the short and long term viewpoints, particularly in regard to the treatment of interest. They also tend to compromise between the viewpoint of the sole trader and that of the directors of a large corporation.

The embodiment of such assumptions need not vitiate conclusions as regards comparisons between projects provided all computations are on the same basis, but as regards comparisons with omnibus external data, such data must be treated with reserve. The problem of analysis must not be shirked on the grounds that management is making some assumptions. Management accountants have to deal with more than history.

Where equipment is a significant factor in profit earning, major re-equipment decisions in effect set out the strategy within which subsequent tactical moves must operate. A big decision may lay down the bed within which a firm's activities must flow for a decade or so. The advent of large scale automation will warrant especial care in selection. Plant replacement decisions, at least in major cases, call for far-sighted management with a readiness to take calculated risks. The type of data appended can be looked on as aid to sound decisions but falls within the wider background of product development policy. One might quote *The Economist* referring to one company's large scale projects:

— Balance Sheet of Company prior to Proposed Projects —

	£
Capital	100,000
Reserves	63,000
<i>Current Liabilities</i>	
Trade Creditors	10,000
Others	7,200
	180,200

	£
Fixed Assets Net	97,000
<i>Current Assets</i>	
Stock Raw Materials	9,000
W.I.P. Materials	18,000
Labour and O/Hs.	4,000
Finished Goods	13,700
Debtors	18,500
Cash	20,000
	180,200

	Turnover	Profit before Tax
	£	£
1953	200,000	20,000
1954	250,000	50,000
1955	150,000	15,000
1956	222,000	33,000

'This type of forward planning must produce occasional mistakes. Some cygnets turn out to be ducks and some ugly ducklings to be swans.'

On the question of 'timing' it is doubtful if there is any substitute for repeated reappraisals of priorities in the light of changing conditions. Five year programmes periodically reassessed may be valuable. It may have been noted that benefits arise for the community where new plant installations are undertaken in the light of figures computed before taxation which clearly point to such action, since some portion of the slice taken in taxation in turn goes out in the form of pensions, health and education services, etc. The effects of taxation and interest as they affect the individual firm will, however, also have been noted. A government wishing to retain the incentive to re-equip must keep an eye on how the fiscal arrangements affect 'pay off' periods.¹

It is not pretended that all the answers have been given; some of the conclusions are controversial. The 'awkward' examples are designed to provoke debate. This paper might be deemed a preface to a subject which provides ample scope for further study.

APPENDIX

In order that all illustrated examples can be treated as hypothetical cases and judged in relation to an assumed specific financial situation, the balance sheet (see previous page) is given.

Note 1. Where income is isolated to particular machines, net output for product group is allocated to old machines, in proportion as con-

version cost at each machine relates to total conversion cost of product group; net output then split as for product group into income and raw materials. For new machine net output taken is *pro rata* to scheduled new production in relation to old production.

Note 2. For simplicity, current assets for appended projects have been computed: raw materials stocks 1/12 of allocated raw materials usage. Work in process—materials content 1/6 of raw material usage, labour and overheads content 1/12 of labour and overheads (excluding depreciation and interest). Finished goods 1/12 of 80 per cent. of income. Debtors 1/12 of income. Creditors 1/12 of raw materials usage. (Except in the case of project C where it is assumed no stocks of finished goods will require to be carried.)

Note 3. Interest computed from Fig. 2.

Note 4. To line up with book-keeping, 'capital write down' at foot of schedule could be added to both sides of comparative costs without affecting additional return (*i.e.* to cost of non-replaced old plant as depreciation, to cost of new plant if installed as capital write down; as an alternative to averaging, presentation of these scheduled figures could be given as cumulative totals).

Note 5. In practice figures would be improved by showing trends and possible plus and minus tolerances.

Note 6. If the new plant is soon scrapped, the point at which one cannot lose falls below the graphed pay-off period after tax, by virtue of the effect of balancing allowances.

Equalisation or Break-Even Period

[A variation on Mr. Scott's approach to the subject of the economics of plant replacement was evolved from discussion of his paper at the summer school; this 'equalisation or break-even period approach' is explained below by Mr. W. L. Spalding, B.Sc.(ECON.), C.A., F.C.W.A., of the Decca Record Company.]

The equalisation or break-even period is calculated as the earliest time required to reach a position when the business cannot be worse off by having undertaken the replacement project. It is assumed that at the end of the equalisation period the new plant

could be disposed of or scrapped without any sale value, and that at that point a claim would be made for taxation 'balancing allowance'. At that point the annual cash gains less the total interest paid on the reducing balance of funds allocated to the replacement project will be equal to the original capital cost of the project.

For taxation purposes the whole of the capital cost will be an allowable deduction taking the period of use and the time of scrapping combined. The annual cash gains less interest paid out will have been regarded as income for tax purposes. Accordingly the amounts chargeable over the whole period for tax purposes will be exactly equal to the amounts allowed for tax purposes. If rates of taxation remain constant there will be no tax liability over

¹ In Figure 1 an estimated average rate of tax of 8s. instead of 11s. over the next 20 years would bring line 'C' down by nearly one year throughout. Figure 2 is not materially affected.

the whole period, the amounts paid in the earlier years being exactly recouped by the repayment claim at the end.

Because of the absence of net tax liability over the equalisation period, the length of the equalisation period is very substantially less than the 'pay off period after interest and taxation'. If the equalisation period is submitted to management as the first test instead of 'pay off period after interest and taxation' there is much greater likelihood of projects being given adequate consideration. In the example given by Mr. Scott in Table II the equalisation period is 3.97 years, as against 5.86 years for 'pay off period after interest and taxation'. In addition it is much easier to make a fairly firm forecast for 3.97 years than for 5.86 years.

If the forecast annual cash gain can be clearly seen to be capable of continuing beyond the equalisation period there can be no doubt that the project is preferable to continuing with the old plant. The equalisation period calculation does not however purport to give a complete answer to the question of whether or not to proceed with the project. For this purpose additional tests are essential, e.g. determination of 'average additional return on cash reinvested' and 'average net profit to capital employed' as outlined in Mr. Scott's paper.

The figure of 3.97 years for the equalisation period has been worked out in the pro forma profit and loss accounts and balance sheets (*right*). They are based on the data at the top of his Table II. Tax has however been taken at 9s. 1.2d., i.e. 8s. 6d. income tax + 3 per cent profits tax. Since over the whole period concerned there will be neither profits nor losses from the project, it can be assumed that no distributions would be made attracting the 27 per cent. distribution charge.

The foregoing represents the most detailed calculation which the cost accountant might make to determine the equalisation period. If the profit and loss accounts were recalculated without bringing tax in as a charge, or as a recovery, the amount of cash

available to repay the loan would be increased in the third and fourth years, with consequent lowering effect upon the interest charge in the subsequent years and an apparent shortening of the period required to reach equalisation. In the example given the figure worked out on this simplified basis would be 3.92 years. It would appear therefore that for easy calculation where the equalisation period is known anyhow to be quite short it would be sufficient to adopt the simpler approach of ignoring taxation and rounding up the answer by about 1 or 2 per cent.

In any event, when presenting this equalisation period figure to management, where the basic amount of annual cash gain is itself difficult to assess closely, it would be advisable in this example to give the period as 'about 4 years' even though the arithmetical process is an exact one which gives the answer 3.97 years.

Balance sheets of replacement project in isolation from other transactions

£'s	Beginning of 1st Year	End of 1st Year	End of 2nd Year	End of 3rd Year	After 3.97 Years Before Claim	After 3.97 Years After Claim	End Subsequent Year
Loan a/c	1000	770	524	314	136	136	—
Tax o/s	—	—	53	92	99	99	—
P & L. a/c	—	—	63	174	292	5	—
	1000	770	640	580	527	240	—
Tax recoverable	—	—	—	—	—	240	—
Written down capital cost of plant	1000	706	640	580	527	—	—
P. & L. a/c	—	64	—	—	—	—	—
	1000	770	640	580	527	240	—

Profit and loss accounts

	End of 1st Year	End of 2nd Year	End of 3rd Year	End of 4th Year	Adjustments on scrapping	Subsequent Year	Total
Cash gain	300	300	300	291	Nil	Nil	1191
Tax recovery at 9s. 1.2d	—	—	—	—	240 ¹	4 ²	244
	300	300	300	291	240	4	1435
Interest @ 7% p.a.	70	54	37	21	—	9	191
Depreciation at taxation rates	294	66	60	53	(Bal.) 527	—	1000
	364	120	97	74	527	—	1191
Balance before tax	Dr 64	Cr 180	Cr 203	Cr 217	Dr 287	Dr 5	Cr 244
Tax at 9s. 1.2d. provided	—	53 (on 116)	92	99	—	—	244
	Dr 64	Cr 127	Cr 111	Cr 118	Dr 287	Dr 5	—
Balance after tax	Dr 64	Cr 64	Cr 63	Cr 174	Dr 292	Dr 5	—
Balance from previous year	—	—	—	—	—	—	—
Balance to next year	Dr 64	Cr 63	Cr 174	Cr 292	Cr 5	—	—

Cash available for loan repayment

Cash gain	300	300	300	291	—	—	1191
Tax recovery	—	—	—	—	—	240 + 4	244
	300	300	300	291	—	244	1435
Interest	70	54	37	21	—	9	191
Tax paid (1 year after)	—	—	53	92	—	99	244
	—	—	90	113	—	108	435
Applied to loan repayment	230	246	210	178	—	136	1000

¹ On £527 written off.

² On £9 interest.

ELECTRONICS AND AUTOMATION

INSTITUTE'S SECOND RESIDENTIAL COURSE

FIFTY members and students assembled at Westham House near Warwick on 14 March for the second, three day, residential course on automatic data processing organised by the Institute. They heard three excellent papers and so great was their interest that discussions continued far beyond the time allowed by the programme.

The first speaker, Mr. P. V. Ellis of Powers-Samas Accounting Machines Ltd., presented a paper entitled 'What a computer is and what it can do'. One of the many cogent points made by this speaker was that it was better to think of a computer as an assembly of functional units rather than an entity. The power and suitability of a machine depended on the correct balance of the functions of input, output, storage, calculating and control: what balance was right for one application might be quite wrong for another.

Mr. F. C. de Paula, T.D., F.C.A., F.C.W.A., gave the second paper, 'A survey of installation and administration problems'. He provided a valuable guide over this rough country and suggested that the military method of 'appreciation of the situation' was an excellent one to adopt. Another appropriate army maxim, would be 'time spent on reconnaissance is seldom wasted.'

The final paper was really 'down to earth' in the words of the course chairman, Mr. G. J. Pierce, F.C.W.A., a member of the Council of the Institute, and vice-chairman of the Institute's Electronic Committee; this was the practical wages application provided by Mr. W. J. Sargent of British Railways. In a most comprehensive way, augmented by a wealth of illustrations, Mr. Sargent gave a detailed description of the use of a computer for the payroll of the Swindon works of British Railways. In the electronics world where so much is still theory, the opportunity of questioning a speaker with practical success behind him is rare: the members of the course seized the opportunity to their great benefit.

The third and final course of this series was assembling at Hulme Hall, Manchester as this issue went to Press: we hope to report on it in our May issue.

I.E.A. EXHIBITION

THE Instruments, Electronics and Automation Exhibition is due to be held at Olympia from 16 to 25 April and the following details have been given of exhibits to be shown.

The British Tabulating Machine Company's stand will incorporate a number of informative

displays, one of which will be concerned with production planning by electronic computer. Members of the company's production control department will be in attendance to discuss questions relating to production control.

The Electrical Development Association will focus attention on electronic control as a step towards automation by exhibiting a small-scale working automatic production plant. Methods of electronic control will be incorporated in the plant and visitors will see how these applications can be suited to a wide range of industrial processes.

Another working model, a new system for the automatic control of powered trolleys and trucks, will be shown by E.M.I. Electronics Ltd. Over the desired route a wire is laid—or buried if the route is permanent—and a current passed through the wire sets up a magnetic field which is detected by sensing coils mounted on the front of the trolley. Two coils are used, spaced slightly apart, and these coils form part of a closed servo loop which controls the steering gear. When the trolley is on course the current induced into each sensing coil is equal and therefore does not actuate the servo system. However, as soon as there is a tendency for the trolley to move away from its precise route, the current induced into the sensing coils becomes unbalanced and immediately the servo system operates and restores the trolley to its intended path. Stopping and starting from one or more remote control points is provided.

A photographic firm will show the results of specialised research into the use of photo-copying in office and factory, which, it is claimed, can eliminate typing, re-typing, and the taking of copies. It is reported that in a big electrical works all the work-sheets and other production documents required for the production of up to 40,000 components a week have been transferred to a photo-copy system.

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The Office Appliance and Business Equipment Trades Association are sponsoring jointly with the Radio Communication and Electronic Engineering Association, a national electronic computer exhibition. This will be held at Olympia from 28 November to 4 December, 1958. The display will include data handling equipment of all types. Price of admission will be 2s. 6d.

★ ★ ★

Mr. W. J. Arris, Managing Director of Burroughs Adding Machine Limited, has retired after 33 years' service with Burroughs. Mr. Reginald C. Cavill has been appointed the new Managing Director.

LEGAL COMMENTARY

affecting Industry and Commerce

PRICE CONTROL IN EIRE

There is now before the Eire legislature a Prices Bill (An Bille Praghanna 1957) containing proposals to empower the Minister for Industry and Commerce to fix maximum prices for certain commodities and maximum charges for certain services, (1) upon a report by the Fair Trade Commission (constituted under the Restrictive Trade Practices Act, 1953) that prices or charges are excessive by reason of restrictive trade practices; or (2) upon a report by an advisory committee (proposed to be constituted) that prices or charges are excessive by reason of causes within the control of manufacturers, or the persons rendering the services, or of undue labour costs; or (3) where a government order has declared a state of emergency affecting the supply of any commodity.

These proposals, however, are not to extend to (*inter alia*) prices paid to producers, or received by dealers at factories, for primary agricultural products (including eggs, poultry, milk and milk products) and horticultural products, ex-boat prices of fish, prices of commodities sold for export or exported for sale, and charges for services wholly professional in character or rendered in connection with banking and insurance.

The Minister would also have power to control the wholesale and retail prices for bread and sugar and the retail prices for butter and milk, and to require the display of retail prices by persons selling batch bread, flour, butter, tea, eggs, potatoes, beef, mutton, bacon, pork, and oranges.

★

ARBITRATION

Judicial Exercise of Discretion

HEAVEN & KESTERTON LTD. v.
SVEN WIDAEUS A/B.

[1958] 1 W.L.R. 248

After delivery of goods under a contract of sale, the buyers claimed damages for defect of quality of one portion and the right to reject another. The parties proceeded to arbitration, and upon the disagreement of the arbitrators the umpire found for the buyers as to the damages (though in a greatly reduced sum) but against them upon the claim to reject, and in the circumstances ordered them to pay the whole of the costs. The buyers sought to have the award set aside on the ground that the umpire's dismissal of the claim to reject was a mistake of law, and accordingly that he was

guilty of misconduct in that his award of costs against the buyers was not a judicial exercise of his discretion.

Diplock, J. held that this contention failed. An umpire has a discretion to order even a successful party to pay the costs of the other side in appropriate cases, and as the Court had no jurisdiction to set aside an award on the ground of mistake of law, it could not, in deciding whether the umpire had exercised his discretion judicially or not, take the alleged mistake of law into consideration.

'In general,' said the learned judge, 'an award of an arbitrator cannot be set aside for error, whether of fact or of law, except by the machinery which is supplied through case stated, save that if he chooses to make a speaking award, it may be set aside for error on its face. But an award can always be set aside for misconduct.'

He also expressed the view that where an umpire is not asked to state an award in the form of a special case, there is no reason why he should give any reason for any part of his award.

★

MASTER AND SERVANT

Contract of Service

NATIONAL COAL BOARD v. GALLEY

[1958] 1 W.L.R. 16

The defendant was employed as a colliery deputy under a contract of service regulated by an agreement between his union and the Board which provided that '*deputies shall work for such days or parts of days in each week as shall reasonably be required*'. On 14 June, 1956, the defendant (and other deputies) at the colliery gave notice that they would not turn coal on Saturdays in future, with the result that there was no output of coal at that colliery on 16 June, 1956, or on the nine following Saturdays, after which substitute deputies were employed at a cost of £3 18s. 10d. each per Saturday.

In an action by the Board against the defendant for breach of contract, the Court of Appeal held the defendant liable. The parties intended to treat the agreement with the union as binding, and the provision in italics above, which was incorporated in the defendant's contract, was not too vague to be enforceable; neither were the hours of work required by the Board unreasonable.

The measure of damages as regards the defendant was the cost of providing a deputy for the 16 June, 1956 (i.e. £3 18s. 10d.) and not more, for it had not been shown that his breach of contract contributed to the loss of output of coal on that day.

BOOK REVIEWS

Man and Automation

by L. LANDON GOODMAN

Penguin Books, Harmondsworth, Middx.

Pp. 286. 3s. 6d.

This little book, of close on three hundred pages of small print, ranges widely over the whole field of what is now termed automation. Part I consists of a survey of what is being done in workshop and office, and what may be done in the future by automatic devices of all kinds. Part II discusses the broader aspects of automation and the possible implication of its impact on our social and economic life.

It points to the need for deep thinking and forethought by government, managements and unions if automation is to be introduced smoothly and its potential benefits for all wisely utilised.

This is not a book for the specialist wanting detailed information on a specific application, but it is recommended to the reader interested in viewing automation in historical and philosophical perspective.

★ ★ ★

The Management Approach to Electronic Digital Computers

by J. SANDFORD SMITH, A.C.A., M.I.I.A.

Macdonald and Evans Ltd., London.

Pp. 227. 35s.

The first two-thirds of this book give an introduction to computers; the final third is addressed mainly to cost accountants and office managers. Excellently illustrated, it is one of the best books available on this theme. Easily readable, the amount of technical jargon is limited and is explained when it arises.

The chapters on the major components of the computer are adequate for the majority of managers. The author makes it clear that a computer is limited by the imagination, energies and technical knowledge of its programmers: it cannot deal with unforeseen contingencies, nor can it make use of guess-work based on long experience.

On such less definite questions as the impact of integrated data processing on organisational structure and the size of business which can profitably use a computer, Mr. Sandford Smith varies from general observations in some directions to over-precision in others. He does no more than indicate possible accounting or office applications, yet goes on to quote quite detailed hypothetical cost figures. He might perhaps have dwelt longer on the question

whether the case for a computer on purely cost grounds has yet been made. Surely there is still an element of an act of faith in the decision to install one?

Mr. Sandford Smith has included a comprehensive list of available computers, each with its photograph. He also reprints an instructive glossary of computer terminology.

★ ★ ★

The Western European Markets

by J. WALTER THOMPSON COMPANY

McGraw-Hill Book Company, Inc., New York.

Pp. 287. \$18.

Statistics are not always easy to digest but the layout and presentation, country by country, under eleven main headings, from land and climate to income and standard of living, makes absorption more easy and comparison no onerous task in this book.

With the information given it should be possible for a manufacturer to judge whether there is a potential market for his products, although the final decision on marketing would rest outside the scope of this book, e.g., import restrictions, advertising media. This is a book that can repay study and for some companies may provide a useful reference book.

★ ★ ★

Cost Accounts (7th edition)

by WALTER W. BIGG, F.C.A., F.S.A.A.

Macdonald and Evans Ltd., London.

Pp. 328. 18s.

There are certain books to which one repeatedly refers: Bigg's *Cost Accounts* is one of these. This new edition fully confirms the confidence placed by students of cost accounting in the six earlier editions.

With an unusual clarity of thought and of exposition, the book progresses from general principles through a description of the control of the elements of costs, to the main types of costing found necessary according to the industry concerned; and there are chapters on budgets and standard costs.

Facts are neatly marshalled and concisely expressed; examination questions and adequate examples are given at the end of each chapter. The book is delightfully presented, and is an example of the art of explaining technical matter clearly.

ABSTRACTS OF ARTICLES

in Contemporary Journals

Training for Management—an Englishman at Harvard
The Chamber of Commerce Journal. February 1958.

Mr. Garald Hamill won a *Charles R. E. Bell Scholarship* offered by the Commercial Education Committee of the London Chamber of Commerce, and at the Harvard Graduate School of Business Administration was accepted for the Middle Management Programme of 1957. His reports to the Chamber on the course and his reactions to it provide a picture of American methods in this field.

★ ★ ★

Company Accounts—*Quo Vadis?*

by PROFESSOR D. S. ANDERSON, C.A.
The Accountants' Magazine. January 1958.

After reviewing the growth of the present method of the presentation of company accounts, the author recommends a decent burial of the nondescript term 'balance sheet' with which 'we have been stuck for the past 100 years', and discusses variants of the term more in keeping with modern requirements.

★ ★ ★

Taking a Computers' Pulse

by RONALD W. CLARK
The Director. February 1958.

The manufacture of digital computers for industrial and commercial use has developed into an industry. Preparing an accurate yardstick to measure the efficiency of a computer is not easy. But it is a problem this new industry must solve.

The performance percentage of one of the first five Ferranti Pegasus machines is shown by a 'histogram'. Only once in the first 24 weeks did performance fall below 90 per cent.

★ ★ ★

The Actuary Penetrates into Commerce

by F. A. A. MENZLER, F.I.A.
The Times Review of Industry. February 1958.

The actuarial profession is a small one. There are only about a thousand fellows in the two British actuarial bodies—700 in The Institute of Actuaries and 300 in The Faculty of Actuaries in Scotland. About three-quarters of the fellows of both institutes are employed in life assurance offices, the remainder being spread over government service, investment

work and industry, both private and nationalised. The article discusses how the special skills of the actuary can be employed in industry and commerce.

★ ★ ★

New Cost Accounting Concept

by GEORGE GIBBS, Associate Professor,
Claremont Men's College.

The Accounting Review, Wisconsin. January 1958.

The article discusses the concepts of *direct* costing, *marginal* costing and variations of these two concepts on actual and standard bases. Two variants of the break-even chart are given.

Other Articles Noted

Serving Job Order Cost Needs in a Steel Processing Plant.

by THEODORE W. BENNEVER
N.A.A. Bulletin, Section 1. February 1958.

Obtaining Benefits of both Direct and Standard Costing, in a Furniture Factory

by LEONARD HEIMANN and
RICHARD S. ROSENBLUM
N.A.A. Bulletin, Section 1. February 1958.

Giving the Flexible Budget Complete Coverage for Control in a Paper Company

by NORMAN J. DUMDEI
N.A.A. Bulletin, Section 1. February, 1958.

No Formula for Goodwill Valuation

by RALPH A. HADRILL, F.INST.D.
The Times Review of Industry. March 1958.

The Conduct of an O. and M. Assignment

by K. WHYLD
Office Management. March 1958.

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LETTERS TO THE EDITOR

We publish this month a further selection of letters commenting on the article by Mr. R. B. Sellors in our February issue. The author's reply is on page 439.

Standard Cost Variances: A New Approach

Dear Sir,

Mr. Sellors' article should serve as a warning to others of the dangers of stretching analogy too far. His graphical method of illustrating the effect of variances was a good one. But his logic was at fault when he endeavoured to apportion the cause of an increase in area over two linears for this has no geometrical meaning whatever.

Mr. Sellors was incorrect when he stated, without giving any reasons, that the two factors influencing variances 'must in all cases be considered as concurrent and their joint effect analysed'.

My view and, I believe, that of most cost accountants, is that the factors should be considered in the order of their occurrence. For example, in most contracts dealing with the supply of materials or labour, the prices are settled on the basis of predetermined quantities or periods of time which do not necessarily have any relationship with the quantity of material used or the length of time taken for any particular job.

If these prices differ from standard then rates variances are bound to occur and their magnitudes should be in direct proportion to the quantity of material used or time taken for any job.¹ Alternatively (as the Institute's publication on standard costs suggests) they may be written-off to rates variances for the entire quantity or length of time which is the subject of the contract.² Any quantity variance thereafter arising will be in direct proportion to the excess or reduction of quantity or time over or below standard.

The point is, of course, that a rates or price

¹ This confirms the logic of the third method of calculating rates of pay variance mentioned in the letter of your other correspondent, 'Economical' (*The Cost Accountant*, February, 1958) and may be helpful to him in solving his problem.

² *An Introduction to Budgetary Control, Standard Costing, Material Control and Production Control*, Gee and Co. (Publishers) Ltd., 15s.

variance cannot, after the determination of the actual rate or price, be converted into a quantity variance merely because the quantities used are not standard. The following example will perhaps make this more clear.

The standard price for materials implies that the purchasing department will ensure the supply of material required at this price; and this responsibility is not restricted to a standard quantity. On the other hand, the user department undertakes to use only a standard quantity of material; but if it uses more or less than this quantity it should not be charged or credited with any premiums or discount in the rate arising out of previous action of the purchasing department.

Whilst there may be special circumstances when rate premiums and discounts may be treated as part of the quantity variance (e.g. when special purchases at inflated prices have to be made as a result of spoilage or inaccurate estimation of quantity when this is a significant factor) I believe that the conventional method of variance analysis is, on the whole, quite sound. And, far from supplying incorrect information to management, as Mr. Sellors suggests, it indicates quite fairly the persons or departments responsible for causing variances.

Yours faithfully,

L. LLEWELLYN JONES.

London, S.W.9.

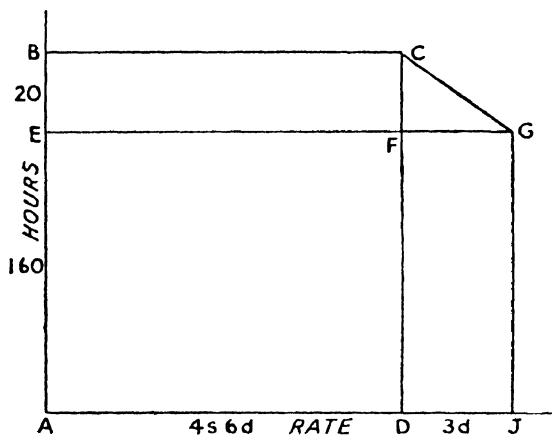
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Dear Sir,

I was interested to read Mr. R. B. Sellors' article in the February issue of *The Cost Accountant*.

I agree with his arguments when applied to the example given. But on applying his formulae for quantity and rate variances to the case of a decrease in cost due to quantity or a saving due to price, the formulae break down.

For example, where there has been a saving in time Mr. Sellors' diagram becomes:



Area ABCD = Standard cost
Area AEGJ = Actual cost

Traditional method of variance calculation:

- | | | | | |
|----------------------|---|---------------------|---|---------|
| 1. Rate variance | = | $160 \times 3d.$ | = | $-40s.$ |
| 2. Quantity variance | = | $20 \times 4s. 6d.$ | = | $+90s.$ |
| Total variance | | | = | $+50s.$ |

Mr. Sellors' method of calculation:

- | | | | | |
|----------------------|---|--------------------------------|---|-------------|
| 1. Rate variance | = | $170 \times 3d.$ | = | $-42s. 6d.$ |
| 2. Quantity variance | = | $20 \times 4s. 7\frac{1}{2}d.$ | = | $+92s. 6d.$ |
| Total variance | | | = | $+50s.$ |

The total variance is still correct but clearly the individual variances are not, since the rectangle CFGH in Mr. Sellors' diagram no longer exists.

There is an error in each variance, viz. triangle CFG, which in total cancel, giving the correct total variance.

Mr. Sellors' formulae, therefore, may only be applied where both variances are gains or both losses.

Yours faithfully,
N. S. A. SHAW.

Bootle.

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Dear Sir,

In an appraisal of his article, Mr. R. B. Sellors is to be given due credit for a good deal of ingenuity, but has he not overlooked certain factors in standard costing practice? In the first place, the two variances of price and

quantity are ascertained, in many cases, for inclusion in separate cost or operating statements, following the rule that variances should only be brought to the notice of persons having direct control over them. Thus, to take an example, material price variances which are the responsibility of the materials buyer would not be shown on the same operating statement as materials usage variances which are the responsibility of the person in charge of a particular production cost centre.

Surely the correct method of calculating a material price variance for presentation to a materials buyer is that cited in formula 1, because this gives the difference between the price allowed to the buyer, and the actual price paid. Having established that variance for that person, and having taken the materials into stock at the standard price (my experience differs in so far as I have usually found the price variance separated at the purchase invoice stage) what else remains but to issue them at standard cost, separating the usage variance according to formula 2?

A variance is designed to convey the state of a certain set of conditions, and if the limiting factors are understood it serves its purpose. In the case of the conventional usage variance this latter principle is observed, and it has the virtue of simplicity.

Yours faithfully,
W. A. PICKLES.

Hull.

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Dear Sir,

The article by Mr. Sellors stimulated me to examine a problem which arises in the firm for which I work, namely the calculation of variances resulting from the operation of three factors. Let us take the following example:

Standard
 $40,000 \text{ hrs (t)} \times 4s. 6d. \text{ rate (r)} = 180,000s. \text{ (t r)}$

Actual
 $36,000 \text{ hrs (T)} \times 5s. 0d. \text{ rate (R)} = 180,000s. \text{ (T R)}$

Applying the formulae put forward by Mr. Sellors the variance due to hours

$$(T - t) \times \frac{1}{2} (R + r)$$

is $-19,000s.$ and the variance due to rate $+19,000s.$

Now the standard hours of 40,000 may have been 1,000 men (m) at 40 hours (h) each, whereas the actual is 800 men (M) working 45 hours (H) each. It is thus necessary to find

out the effect of each of the three factors—number of men, hours worked and rate. Our present method is to say that:

- The variance due to manning is
 $(M - m) h r$, i.e., -36,000s.
 The variance due to hours is
 $(H - h) M r$, i.e., +18,000s.
 The variance due to rate is
 $(R - r) M H$, i.e., +18,000s.

This balances arithmetically, but like Mr. Sellors, I think it over-simplifies the position and does not take into account the inter-action of all three factors.

It might be thought that one could apply Mr. Sellors' formulae and say that:

- (i) The variance due to manning is
 $(M - m) \times \frac{1}{2} (hr + H R)$ i.e., -40,500s.
 (ii) The variance due to hours is
 $(H - h) \times \frac{1}{2} (mr + M R)$ i.e., +21,250s.
 (iii) The variance due to rate is
 $(R - r) \times \frac{1}{2} (hm + H M)$ i.e., +19,000s.

 - 250s.

As can be seen, this does not balance. If one assumes that either (ii) or (iii) is correct, it can be shown by simple arithmetic (of which space does not allow details here) that,

- (iv) The variance due to manning is
 $(M - m)(H + h)(R + r)$ i.e., -40,375s.
 4

We thus have three possible formulae for the manning variance, (i) and (iv) twice. The simplest way to reconcile these is to average them, which resolves (space again not permitting details) to

$$\frac{(M - m)(2 hr + 2 H R + Rh + rH)}{6}$$

Similarly, the variance due to hours becomes

$$\frac{(H - h)(2 mr + 2 M R + Rm + rM)}{6}$$

and the variance due to rate becomes

$$\frac{(R - r)(2 mh + 2 M H + Mh + mH)}{6}$$

Working on the example given, this gives variances of -40,416s., +21,333s. and +19,083s. respectively, which do balance arithmetically.

I should be interested to have any comments from any of your readers on these last three formulae, and also to know how this problem has been overcome in practice.

Yours faithfully,

D. R. WEATHERLEY, A.C.A.
 Clevedon, Somerset.

Dear Sir,

After reading Mr. Sellors' article, I was a little perturbed by some misleading possibilities which the application of these principles may give.

In analysing a total variance the chief point to bear in mind is that of giving guidance to management. Consequently an important requirement is an analysis of 'accountability'; that is, an analysis of a variance to the elements the cause of which is controllable by specified persons. If 'price' variances are partially included with operating variances, confusion may well be introduced into a figure on which a person may be judged.

Two examples will illustrate this:

- (a) in the case of material—an excess usage variance having an element of price variance allocated thereto, may give an exaggerated picture of factory operations whilst the results of adverse buying activities may be mitigated;
 (b) in the case of labour, then the position could arise whereby an individual machine operator may be penalised due to the excessive cost of a job which is partly due to the fact that his hourly rate is in excess of the factory average.

As factory personnel may well be brought to account on a basis of excess material usage or excess time taken, from the operating results promulgated by a costing department, then there must be readily available an abstract in terms of units to which those persons are accustomed, showing its conversion to monetary values. This statement must be in such a form that departmental supervisors can readily reconcile physical units of material or hours expended to financial figures. Any interference with this by the introduction of formulae not easily understood by them may cause suspicion and eventually cause management's confidence in costing schedules to deteriorate.

In comparing costs of a current manufacturing batch with one previously manufactured, any price fluctuations (either labour or material) in the intervening period would be reflected in the operating variances to the extent of half the price variance on excess time and material.

Therefore, comparisons may be vitiated due to the movement of two factors within one variance. For example, a similar variance on both batches may be due in one case to a larger material excess usage but at a cheaper price, whilst in another case the actual quantity used in excess of standard may have been reduced,

but the effect of the saving lost due to dearer prices.

Thus this basis by which the results of the manufacturing side of an organisation is compared may result in misleading deductions.

In forecasting future costs for fixed quotations on a basis of a standard cost plus anticipated variances, the simplest method is as shown below:

	£
(a) Standard cost—100 hrs. @ 5s. per hr.	25.000
(b) Excess time allowance—10%	2.500
	27.500
(c) Rate variation allowance—5%	1.375
Total estimated cost	£28.875

When actual costs are collated, analysed and the excess variances (i.e. over allowance) determined, then, naturally, the basis of determining the actual variances must be on a similar basis to that used in the estimate. If Mr. Sellors' method of apportioning actual variances is used, then the method of compiling an estimate will be complicated, as follows:

	£	£
(a) Standard cost—100 hrs. @ 5s. per hr.		25.0000
(b) Excess time allowance		
10% at standard rate	2.5000	
$\frac{1}{2}$ of 5% rate allowance on excess time	.0625	2.5625
		27.5625
(c) Rate variation allowance		
5% of standard hours	1.2500	
$\frac{1}{2}$ of 5% rate allowance on excess time	.0625	1.3125
		£28.8750

I would hesitate before introducing this second method into the clerical routine of estimating. Should there be definite reasons for apportioning the excess rate variance on excess time to the basic excess rate variance and the basic excess time variance, then I believe a reasonable argument could be made for apportioning this variance on the basis of the ratio which the excess time at standard rates bears to the rate variance on standard quantity. This would give an effect of 'weighting' resulting from the predominance of either excess time or excess rate.

I would, naturally, associate this method with the criticisms previously stated, and I would rather go to the other extreme and advocate

that the excess time variance be inclusive of the full rate variance on this excess time—that is let the excess time variance show the total cost of the time taken in excess of standard.

Surely though, an expedient compromise, capable of accurate interpretation by any party would be to reveal three distinct variances, viz:

- (a) excess time variance at standard rate;
- (b) rate variance
 - (i) on standard time;
 - (ii) on excess time.

I cannot believe that the cause of cost accounting will be furthered by the introduction of complications whereby considerable time, tact and patience is required to explain to a manager what a variance really covers, unless the refinements causing this complexity give positive and useful information.

Yours faithfully,
J. B. DAY.

Horley, Surrey.

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Dear Sir,

I looked in vain for evidence in the portrait of Mr. Sellors, accompanying his article, of a protuberance denoting the presence of the tongue in the cheek. However, with such a protuberance conspicuous on my own countenance, I would like to suggest that Mr. Sellors is himself in turn guilty of the over-simplification which is the platform of his objection to the normal approach in evaluating variances by causes.

His general rules are only good for a situation in which the percentage variances on both quantity and price are the same. An appreciation of this point is assisted by drawing the diagram provided in the article to a rational scale. The division between the price and quantity areas is then indicated by the projection of the diagonal AC of the standard cost area.

Thus the general rule for variance due to quantity can be restated as,

'the difference between the actual and standard quantities, multiplied by the standard price, increased by either (a) half the fractional ratio between the percentage variances in quantity and price where this ratio is less than unity, or (b) the complement (to unity) of half the reciprocal of this ratio where it exceeds unity.'

The rule for variance due to price can be correspondingly framed.

Such simple definitions, I submit, should suffice to kill this controversy—stone dead!

Yours sincerely,

F. CHESHIRE, A.C.W.A.

Romford.

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Dear Sir,

Mr. R. B. Sellors' very interesting article on the joint effect of standard cost variances, appearing in the February 1958 issue of *The Cost Accountant*, contains the statement that the joint effect is attributable equally to both causative factors.

It is suggested that it might be more accurate to apportion this joint effect on the basis of the respective ratios of variation from standard. Thus in the example diagrammed the ratio of increased hours to increased price, when compared with standard, is 2 : 1. Apportionment could be in this ratio and would give a quantity variance of 93s. 4d. and a price variance of 46s. 8d.

If this reasoning is incorrect, the writer would welcome correction.

Yours faithfully,

K. P. LOADER.

Transvaal, South Africa.

[Mr. Sellors writes:

It has been of great interest to read the differing views of correspondents and I am grateful to those who have drawn my attention to previous literature on the subject.

Criticisms of the proposed method centre round the problem of analysing the joint variance, most writers wishing to add it wholly to the separate price variance on the ground that it is not the responsibility of the production department. *Why should the buyer be called to account for the whole of the joint variance, however, when it would not have been incurred at all but for the inefficiency of the production department?*

It is of course impossible to separate the effect of price and quantity with absolute finality and two correspondents have suggested other methods of apportionment which merit consideration. Unfortunately these solutions have the disadvantage of being even more complicated than the one I described.

No one has commented on my tentative proposal to state the joint variance separately. This would avoid difficulties of allocation and enable the separate quantity variance to be explained on conventional lines as many correspondents desire. On the other hand, it would leave an indigestible lump perhaps even more difficult to explain to management.

Some have made the point that as present methods are only slightly inaccurate, it is not worth making alterations. I have considerable sympathy for this view particularly as the practical difficulties in

adapting a costing system to fit the proposed method are very great. Nevertheless, I find it somewhat disturbing that no rational mathematical basis can be adduced in support of conventional methods.

Finally, I would say to those who claim that the rules can only be applied in certain conditions that there exist eight possible cases of increased, decreased or constant prices or quantities all of which can be demonstrated in a manner similar to that given in my example.]

Standard Costing

Dear Sir,

Mr. W. E. Harrison in a paper published in your issue of October 1955 implored that, 'The standard cost accountant must also consider the potential effect of one type of variance upon another cost.' He then put two questions, viz.:

'Is there any method of ascertaining, measuring and presenting a combination of variances. . . ? Is it necessary to show clearly both cause and effect?'

Mr. R. B. Sellors' article has provoked investigation into the first question. But it seems that Mr. Harrison's second question doubts the usefulness of the investigation into the first.

Do not some of the recent authoritative articles indicate that in the future the technique of standard costing may have considerably limited usefulness and a narrower perspective, though the value of budgetary control may remain *status quo*? Is there, therefore, any need to examine further into standard cost variances?

Yours faithfully,

P. K. SHAHANI.

London, N.4.

[Mr. Harrison comments:

It should be remembered that the paper to which Mr. Shahani refers was written for consideration at the Institute's summer school of 1955, and consisted mainly of a series of questions. In a paragraph following the quotation given in your correspondent's letter I said:

'What I wish to suggest is that the system (standard costing) is still young, and as yet we have only discovered a little about its uses and its limitations, and much work still remains to be done before we can claim to know all its potential virtues'.

Whilst Mr. Shahani draws quite logical conclusions from consideration of more recent articles on the subject, I am not prepared to damn the orthodox technique of standard costing until the large body of 'orthodox standard costers' has carried out much more research into the value of the information provided by its use. This research they seem strangely reluctant to undertake.]

NATIONAL COST CONFERENCE

Advance Programme

ELECTRONICS IN INDUSTRY

Address by Mr. John Diebold

Thursday 5, Friday 6 and Saturday 7 June

It is a pleasure to us to announce the holding of the twenty-ninth national cost conference on Thursday, 5 June, to Saturday, 7 June next. This is the occasion on which matters of professional interest to our members can be deliberated with experts and discussed by members themselves—all combined with the pleasure of social gatherings.

SPEAKING of the national cost conference last year, we described its theme—electronics in industry—as ‘perhaps the most significant advance in industry and commerce for decades’. If we believe that to be true—and the attendance and interest at the conference confirmed our opinion—then two days’ brief discussion did less than justice to such an important topic. The ensuing twelve months have seen a deepening interest and an increasing awareness of the impact of electronics on our work as cost accountants, and it is for that reason that we return to the same subject this year.

Computers are intricate machines—even bewildering ones—and the intending purchaser is offered a wide choice. How should he set about evaluating the rival merits of different models? What is best for him? Mr. J. A. Goldsmith, M.A., A.C.A., A.C.W.A., who has made a special study of the equipment available in this country, will provide some answers and an authoritative guide, in his paper ‘Choosing your computer’.

The choice of the particular computer, according to many authorities, is only the beginning; putting the machine to effective use is a much more difficult problem. In this country our experience of the pitfalls and snags is limited and we have much to learn. In the United States of America many more case histories are

available and the acknowledged authority on them is Mr. John Diebold.

The Institute is therefore pleased to announce that Mr. Diebold has kindly consented to address the conference. There can be few, if any, better informed on this topic than Mr. Diebold.

ADVANCE PROGRAMME

Details of the programme are not finally fixed but an outline is as follows

Thursday Afternoon, 5 June

In the Grand Hall of The Connaught Rooms, Great Queen Street, London, W.C.2.

Relationship between Top Management and Labour

3 p.m. Opening of the conference by the President of the Institute, Mr. James Borsay, F.C.W.A., followed by a discussion by a panel of distinguished speakers on the management accountant's part in the relationship between top management and labour.

Thursday Evening, 5 June

Reception in the House of Commons

8.30 p.m. Informal reception by the President and Mrs. Borsay. By kind permission of Sir William Steward, M.P., the reception will be held in the Members' Room and other rooms in the House of Commons (subject to the Parliamentary programme).

Business dress will be worn and there will be buffet refreshments. Members and their ladies will be pleased to know that arrangements are being made for conducted tours of both Houses. Guides will be in attendance and members will have the opportunity of seeing and hearing fascinating details of the history of our country, our system of legislature, and of great parliamentarians of the past.

Accommodation at the President's reception is limited: attendance is therefore restricted to those members and registered students who have registered for the conference, and they may each be accompanied by only one personal guest to the reception.

Friday Morning, 6 June

In the Grand Hall of The Connaught Rooms, Great Queen Street, London, W.C.2.

Conference Sessions

- 10 a.m.** President's address by Mr. James Borsay, F.C.W.A.
- 10.45 a.m.** Interval for coffee
- 11 a.m.** An address by Mr. J. A. Goldsmith, M.A., A.C.A., A.C.W.A., on
'Choosing Your Computer'
- 1 p.m.** Luncheon to be served in the Balmoral and Edinburgh Rooms. Informal seating—no table plan. Ladies will be welcome at the luncheon. Tickets 15s. 6d. each.

Friday Afternoon, 6 June

- 2.30 p.m.** An address by Mr. John Diebold.

For the Ladies

Many of the ladies accompanying their husbands to London for the national cost conference will be

planning to take the opportunity of inspecting the shopping areas while the conference sessions are in progress.

For those ladies who would like to refresh their memories of the famous sights of London, a conducted motor-coach tour can be arranged for the afternoon of Friday, 6 June, starting from The Connaught Rooms at 2.30 p.m. and returning there at about 4.30 p.m. Tickets will be 5s. each.

One of London's newest attractions is the London Planetarium in Marylebone Road, next door to Madame Tussaud's Waxworks Exhibition. In this International Geophysical Year the skies are being studied with unprecedented curiosity; here in the planetarium the story of the sun, moon, planets and stars, is absorbingly dramatised.

Seats have been reserved for the afternoon presentation, and a coach will leave The Connaught Rooms after luncheon on Friday, taking ladies to the Planetarium. The performance ends at ten minutes past four, allowing ample time for tea and changing for the Institute's banquet later in the evening. Tickets will be 5s. each.

Friday Evening, 6 June

7 for 7.30 p.m. The twenty-ninth annual banquet of the Institute will take place at The Dorchester, Park Lane, W.1, followed by dancing until 1 a.m. Evening dress, with decorations. Tickets will be 35s. each, exclusive of wines.

Saturday Morning, 7 June

10.30 a.m. The thirty-ninth annual general meeting of the Institute will be held at The Connaught Rooms, Great Queen Street, W.C.2.

A conference registration form is enclosed with this issue of *The Cost Accountant*.

COSTING FOR PROFIT

AN audience of 200 attended a public meeting organised by the North East Coast Branch of The Institute of Cost and Works Accountants on 11 March. The speaker was Mr. C. G. S. Jennings, F.C.W.A., A.M.B.I.M. In the chair was Mr. W. Spencer Paulin, B.Sc., managing director of a local engineering firm. The speaker emphasised that profit was still the main-spring of activity—whether of the individual or the business firm.

Costing for profit involved a plan for the business—which implied budgeting control techniques. A business must have a detailed plan of its operations for a given future period and the period must be suited to the circumstances of the particular business—some businesses were fast moving and others had a very slow cycle, such as civil engineering.

A close watch was necessary on book debts, stocks, and work-in-progress. As regards stocks, care should be taken to detect and eliminate the many useless and obsolete items (often short ends, pieces) which tended to accumulate and masquerade as good

stock in the books. Valuable space was often wasted on such items. In the case of work-in-progress he gave advice on the need for pinpointing of delays, hold-ups, bottlenecks, so as to help to keep things moving.

To-day investment in plant and machinery was generally very high in relation to the man-power factor and the speaker felt it a pity that so much attention was usually given to the labour element in costs. One reason for this emphasis on labour, he suggested, was probably that it was easier to deal with. Idle machine time was generally much more serious than idle labour, and he said that cost accountants should prepare regular data on machine utilisation and the causes of idle time.

Mr. Jennings suggested that cost accountants and estimators should get together more often, as in his experience these two functions often worked on quite different data. Close co-operation between the two was particularly essential in regard to new products, projects, etc.

FINANCIAL FACTS FOR WORKERS

Liverpool Branch Annual Dinner

THE Liverpool and District Branch annual dinner and dance was held in Liverpool on 14 March. The guests were received by the President of the Branch, Mr. G. B. Souster, F.C.W.A., A.C.I.S., and Mrs. Souster.

The President of the Institute, Mr. James Borsay, F.C.W.A., responded to the toast to the Institute:

'Much has been said in the past—and much more will be said in the future—about what information should be passed to the worker in connection with the finances of the undertaking by which he is employed,' in the view of Mr. Borsay.

'Addressing the Institute of Transport in London recently, the General Manager of the Birmingham and Midland Motor Omnibus Company, when talking of employer/employee relations, suggested that each employee should be supplied with a copy of his company's balance sheet along with an explanatory brochure. This suggestion pre-supposes that the employee is interested in the details of the company's balance sheet and that with the explanatory brochure would be able to understand its implications.

'I do not believe that the worker is particularly interested in the figures revealed by the balance sheet, nor do I think it possible by means of an explanatory brochure to make the balance sheet understandable to the layman.

Security of Tenure

'It is my experience that the information required by the worker is of a somewhat different nature. I believe that security of tenure of employment is first and foremost in every worker's thoughts and secondly, that the remuneration for his employment will not fall below a given level.

'The opportunity should be taken of informing the worker of the relative size of the order book compared with previous years and the projected output in similar terms, and an indication given, where possible, of the position for, say, the next five years. This could probably be better done by means of ratios—instead of being expressed in monetary terms.

'If it were felt that some financial information should be given to the workers, I would suggest that they should be given details of the dividends declared, expressed in terms of the market price of the share instead of the nominal value, so as to give the worker an appreciation of the real return to the investor.

'Details could also be given of the capital required to replace the existing assets at current prices and the provision made by the company to meet this.

Annual Increase

'Some weeks ago a prominent industrialist suggested that consideration should be given to the granting of an annual increase of 2½% to wage earners for a period of five years. If it is not the intention to increase prices or reduce profits, the wage increases must come from increased productivity, and it is problematical at the present

time if the productivity of the country is increasing at a rate to enable this to be done.

'We must get back to the belief that there can be stability of wage rates. It is a fact that in the engineering industry between 1922 and 1935, a period of 14 years, the only increase given was a minor one of 2s. to a small section of the workers employed.

'Is it possible, I wonder, to devise a scheme whereby wage increases are given in the form of company shares, which would be non-transferable and redeemable at a fixed period of time in the future, when we hope to have killed the inflation bug? This would leave the cash still available for use by industry, act as a compulsory means of saving for the worker and bring in a small annual return in the way of dividends.

Financial Stake in Company

'I believe that all workers should have a financial stake in the company by which they are employed, however small. This would have the effect of emphasizing that the company's interest and that of the workers are inseparable and, I hope, would lead to greater understanding.

'If and when workers became shareholders in the company, then I think the time should be ripe for educating them into the intricacies of company finance'. (*Loud applause*)

The toast to the Institute had been proposed by Mr. R. Graham Page, M.B.E., LL.B., M.I.P.A., M.P., Member of Parliament for Crosby.

The toast to the City of Liverpool was proposed by Mr. F. Nuttall, F.C.W.A., a member of the Council of the Institute and Past President of the Liverpool and District Branch. Mr. J. Ainsworth, M.B.E., M.COM., F.S.A.A., F.I.M.T.A., Treasurer of the City of Liverpool, responded.

The toast to 'Our Guests' was proposed by Mr. Souster and Mr. E. G. Hardman, F.C.I.S., President of the Chartered Institute of Secretaries, responded.

Mr. Graham Page, Mr. and Mrs. Ainsworth, Mr. and Mrs. Hardman, were among those who attended. Also present were:

Mr. J. F. Allan, F.C.A., *Vice-President, Liverpool Society of Chartered Accountants*, and Mrs. Allan; Mr. H. Percy Bibby, *Chairman, J. Bibby & Sons*, and Mrs. Bibby; Miss K. Carr; Mr. G. Castell, F.A.C.C.A., *President, Liverpool & District Society of Certified and Corporate Accountants*, and Mrs. Castell; Mr. H. Duthie, F.C.I.S., *Chairman, Liverpool & District Branch, Chartered Institute of Secretaries*; Mr. T. Gore, M.A., B.SC. (ECON.), M.I.I.A., *Barrister-at-law, Principal, Liverpool College of Commerce*, and Mrs. Gore; Mr. G. F. Parflect, *Chairman and Managing Director, John Peck & Co. Ltd.*, and Miss Y. M. Parflect; Mr. G. L. Tillotson, J.P., *Chairman, Tillotson & Son, Ltd.*, and Mrs. Tillotson; Mr. S. J. D. Berger, M.C., F.C.I.S., *Director of The Institute of Cost and Works Accountants*, and Mrs. Berger.

Incidental music and music for dancing was provided by the Ray John Orchestra.

TECHNICAL PROGRESS

Need for Appreciation of Economic Affairs

Birmingham Branch Entertains Sir Edward Boyle

THE Birmingham and District Branch held a dinner and dance in Birmingham on 14 March. The guests were received by the President of the Branch, Mr. J. H. Whicheloe, F.C.W.A., A.A.C.C.A., A.C.I.S., and Miss Y. E. Whicheloe, with Mr. H. J. Furness, F.C.W.A., Senior Vice-President of the Institute, and Mrs. Furness.

Schemes of Training

Proposing the toast of the Institute, Sir Edward Boyle, Bart., M.P., Parliamentary Secretary to the Ministry of Education, referred to the part played by the Institute in the promotion of schemes of training in industry for its registered students.

He referred to the large numbers of students—including many from overseas—working for the Institute's examinations at technical and commercial colleges, and to the increasing number following part-time courses for which they were released by their employers.

Sir Edward concluded by paying a tribute to the standards set for those who wished to become members and to the value of the qualifications when they are obtained.

Replying to the toast, Mr. Furness said in the course of his speech:

'We have seen, in the relatively short life of the Institute, revolutionary changes in industrial and managerial techniques—changes which are gathering impetus with every year that passes.

'The technical progress which has been made throughout the world in this period has been startling and has probably no parallel in history. Atomic energy, the use of electronics in both commerce and industry, the growth of mechanisation, are just a few of the more important projects which now confront us.

'These benefits which science has bestowed upon us, must be harnessed effectively for the improvement of industrial efficiency, and for enhancing the productivity of our factories.

Cost Accountants' Special Duty

'We, as cost accountants, have therefore a special duty to study and to understand these new advances and innovations so that we can direct the thoughts of management towards those facets of industry which will give us, as a nation, the maximum return. (*Hear, hear.*)

'These scientific advances will have tremendous repercussions upon our way of life, but as science advances so must our commercial knowledge advance with it.

'The Institute has directed its activities towards the development of special skills which call for a knowledge not only of pure accounting techniques, but a much wider appreciation of economic affairs.

'It can only continue to develop those special skills if

all its members are willing to contribute to the pool of knowledge which can be used for the benefit of all'

'This is a materialistic world in which service to the community seems to be secondary to that of self-interest. But if you are to obtain a fullness of living, it is essential that you should bring to bear on the job you are doing, all the skill, ingenuity and creative thought of which you are capable, without paying too much reference to the immediate reward. (*Applause.*)

Institute has a Major Part to Play

'This is a time for looking forward and the rewards for boldness and farsightedness are great—the Institute, coupled as it is with the manufacturing facilities of the country, can play a major part in planning for the future. We shall only be worthy of that part if we all believe we can contribute both collectively and individually, and give our utmost in the job we are called upon to do.' (*Loud applause.*)

The toast to the City of Birmingham was proposed by Mr. Whicheloe, the Deputy Mayor of Birmingham Alderman E. W. Apps, J.P., responding.

Mr. S. J. Careless, A.C.A., F.C.W.A., A.S.A.A., a member of the Council of the Institute, proposed 'The Guests', and Miss Beryl Foyle, Managing Director, Boxfoldia Ltd., responded.

The Company

Sir Edward Boyle, Bart., M.P., *Parliamentary Secretary to the Ministry of Education*, Alderman E. W. Apps, J.P., *the Deputy Mayor of Birmingham*, Mrs. J. Collins, and Miss Beryl Foyle, were among those who attended. Also present were:

Mr. F. B. Anscombe, *Chairman, British Institute of Management*, and Mrs. Anscombe; Mr. E. C. Blewitt, *Chairman, Office Management Association, Birmingham and District Branch*, and Mrs. Blewitt; Mr. F. Ellinghouse, *Chairman, The Chartered Institute of Secretaries, Birmingham and District Branch*, and Mrs. Ellinghouse; Mr. P. J. Griffiths, *Hon. Secretary, The Association of Certified and Corporate Accountants, Birmingham and District Branch*, and Mrs. Griffiths; Mr. H. Harman, *Principal, Wednesbury County Commercial College*, and Mrs. Harman; Mr. Norman Iley, *President, The Institute of Bankers, Birmingham and District Branch*, and Mrs. Iley; Mr. S. Kitchen, *President, The Institute of Chartered Accountants, Birmingham and District Branch*, and Mrs. Kitchen; Mr. A. M. B. Rule, M.B.E., *Principal, Birmingham College of Commerce*, and Mrs. Rule; Mr. G. T. Walker, *Scottish Chartered Accountants, Midland Branch*, and Mrs. Walker; Mr. Derek du Pré, *Joint Secretary of The Institute of Cost and Works Accountants*.

There was dancing to the music of Alan Melville and his orchestra until 1 a.m.

THE INSTITUTE OF COST AND WORKS ACCOUNTANTS

MEETING OF THE COUNCIL

A meeting of the Council of The Institute of Cost and Works Accountants was held at the Institute in London on 7 March, 1958.

Present: Mr. J. Borsay, *President, in the Chair*; Messrs. T. W. Badgery, *Nottingham*; W. Bishop, *Edinburgh*; S. J. Careless, *Birmingham*; W. Coutts Donald, *London*; Roland Dunkerley, *Manchester*; D. E. Edmonds, *Sheffield*; E. Emmerson, *Leeds*; L. Frankland, *London*; H. J. Furness, *London*; B. T. Hamnett, *North Lancashire*; W. E. Harrison, *Walsall*; H. Hodgson, *London*; A. Holdsworth, *London*; H. Kirkham, *Manchester*; J. Liddell, *Glasgow*; Ian T. Morrow, *London*; A. W. Muse, *Birmingham*; H. H. Norcross, *Birmingham*; F. Nuttall, *Liverpool*; G. J. Pierce, *Bristol*; C. E. Power, *Leicester*; J. M. S. Risk, *London*; W. S. Risk, *London*; F. W. H. Saunders, *London*; L. W. Seddon, *Manchester*; F. Simmonds, *East Anglia*; H. Smith, *Manchester*; W. Troughton, *North East Coast*; S. C. Tyrrell, *Sheffield*; G. S. Whitson, *South Wales*; J. P. Wilson, *Coventry*; with Mr. Stanley J. D. Berger, *M.C.*, *Director and Secretary*, and Mr. Derek du Pré, *Joint Secretary*.

Apologies for absence were received from Messrs. R. Glendinning, *London*; F. M. W. Hird, *Hatifax*; G. Nicholson, *Stoke on Trent*; Lawrence W. Robson, *London*; G. C. Stone, *Birmingham*; and H. Wilmot, *C.B.E., London*.

Gift of a President's Chair

On behalf of the Council, the President accepted a president's chair, bearing the Institute's coat of arms, emblazoned on blue leather upholstery which was presented by Mr. S. C. Tyrrell.¹

Mr. S. C. Tyrrell

The Council learned with regret that Mr. S. C. Tyrrell, *F.C.W.A.*, whose five years *ex-officio* service on the Council as a Past-President of the Institute will expire at the annual general meeting in 1958, was unable to accept re-nomination. The President expressed, on behalf of the Council, very sincere appreciation of the outstanding services rendered to the Institute by Mr. Tyrrell.

Resignation of Mr. A. D. Coventry

Consequent upon his removal to Birmingham, Mr. A. D. Coventry, *F.C.W.A.*, has resigned his seat as an elected member from Area No. 1, London and South-East England.

Mr. Stanley J. D. Berger, M.C., F.C.I.S. Director and Secretary of the Institute

The Council agreed to the formal announcement of the impending retirement towards the end of 1958 of the Director and Secretary, Mr. Stanley J. D. Berger, *M.C.*, *F.C.I.S.*, and discussed certain details relating thereto.

¹ A description appears elsewhere in this issue.

President's Dinner

The report of the President's dinner at the House of Commons on 14th January was received.

1958 National Cost Conference

A report was received on the arrangements to date in connection with the twenty-ninth national cost conference, to be held in London on Thursday, Friday and Saturday, 5th, 6th and 7th June 1958.

Institute Dinner in Guildhall, 24th October 1958

A report was received on the arrangements made for the holding of an Institute dinner in Guildhall on Friday evening, 24th October 1958.

Regional Cost Conferences

Approval was given to a plan for regional cost conferences for 1959.

Fellowship Examination Prizes

New bases of award for the *Lewton Coronation Prize* and the *Beyer Peacock Prize* were approved.

Elections to the Council

Authority was given to declare vacancies in the areas where members were due to retire at the next annual general meeting.

Annual Report and Accounts for 1957

The draft report and accounts for the year ending 31st December 1957 were approved.

Changes in Branch Secretaryships

The resignation of Mr. S. W. Mills, *F.C.W.A., Ilford*, and of Mr. A. van der Bijl, *F.C.W.A., Johannesburg*, as honorary secretaries of the branches named, were accepted with the thanks of the Council for their past services.

Mr. H. W. Calvert, *A.C.W.A.*, was appointed honorary secretary of the Ilford branch.

Conference of Branch Secretaries

Approval was given to the holding of a branch secretaries' conference at 63 Portland Place, on Thursday, 5th June 1958.

Committee Reports

Reports were received from the following committees: Examination, Law and Parliamentary, Journal and Library, Training and Educational Facilities, Branch Development, Research and Technical, Cost Consultancy, Awards, and the Nominating Committee.

ELECTIONS TO MEMBERSHIP

The following were elected to Associateship, during February 1958. Employers are shown as at the date of election.

BATES, E., Marshall Taplow Ltd., London.

CHAKRABARTI, A., Damodar Valley Corporation, Calcutta.

COOLING, J. R., Hardman & Holden Ltd., Manchester.

DICKSON, O., Burton, Son & Sanders Ltd., Ipswich.

FOWLER, D. A. H., Mullard Radio Valve Co. Ltd., Mitcham.

GAMBLE, J., Courtaulds Ltd., Carrickfergus, N. Ireland.

HARRISON, A. J., Joshua Hoyle & Sons (Rochdale) Ltd., Rochdale.

HERBERT, K., Belliss & Morcom Ltd., Birmingham.

IRELAND, N. C., Avon India Rubber Co. Ltd., Melksham, Wiltshire.

LEE, R. H. W., Scroll Pens Ltd., Enfield.

MCNAUGHTON, D., Euclid (Great Britain) Ltd., Motherwell.

MONDAL, R. P., S.E. Railway, Calcutta.

O'CONNOR, J. K., National Coal Board, Burton on Trent.

RYAN, J., National Coal Board, Wigan.

SCHOFIELD, R., George Angus and Co. Ltd., Manchester.

SEN SARMA, S. C., Small Industries Service Institute, Calcutta.

SMITH, A. E., Derby County Borough Council.

WICKS, D. A. R., Southern Gas Board, Portsmouth.

WILLIAMS, M. G., Car Mart Ltd, London.

WOOLCOTT, E. W., Leon Robert Ltd., Jeppe, South Africa.

WYLIE, D., Leo Computers Ltd., London.

PERSONAL

Mr. J. A. Cullen, A.C.W.A., has been appointed Accountant/Secretary to Walker and Wilson, Ltd., Hamilton.

★

Mr. W. J. P. Dolan, A.C.W.A., at present engaged in management consultancy, has been appointed a Senior Accountant, Beecham Foods Limited.

★

Mr. D. Gledhill, A.C.A., A.C.W.A., has been appointed General Manager of the Blackpool Tower Company Ltd.

★

Mr. K. D. Hughes, F.C.W.A., F.A.C.C.A., F.C.I.S., has been appointed to the Board of John Manners Ltd., Leicester.

★

Mr. Edwin Jarvis, F.C.W.A., has been elected to the local Board of his company, Armstrong Whitworth (Metal Industries) Ltd., Gateshead on Tyne, and its subsidiary, Jarrow (Metal Industries) Ltd., Jarrow.

★

Mr. A. M. Jerrom, F.C.W.A., has been appointed Director and Chief Accountant of Aeroplane & Motor Aluminium Castings Ltd., Birmingham.

BRANCH PRESENTATION

Mr. Eric W. Hall, F.C.W.A., a former member of the Council of the Institute, has been presented with a gold watch by the Committee of his branch, Liverpool and District, in appreciation of his long services to the Institute and to the branch. Mr. Stanley J. D. Berger, M.C., F.C.I.S., made the presentation on behalf of the Committee. (*A report of the meeting appears in Branch News*).

OBITUARIES

Mr. Arthur Lucas

Mr. Arthur Lucas, A.C.W.A., late Assistant Works Accountant at Linotype & Machinery Ltd., Altrincham, Cheshire, died on 18 January 1958, after a brief illness. He leaves a widow to whom we offer our sympathy.

He was born in Harrogate in 1885, but his family moved south, and he was at school in Dorchester. His early business life was spent in the south, before returning to the north in 1907.

Joining the Manchester Branch in 1926, he became an interested member, and was treasurer for a number of years. On the formation of evening classes at the Manchester College of Technology, he lectured to students on various aspects of cost and works accounting.

Mr. Lucas was well known in Cheshire Masonic circles, being a provincial officer, and occupying the office of treasurer to his own lodge over a long period.

Mr. William Donald Bryce

We regret to announce the death, at the age of 73, of **Mr. William Donald Bryce**, F.C.W.A., F.S.S., F.I.I.A., of Newcastle. Elected a Fellow of the Institute in 1919, Mr. Bryce played an important part in the foundation of the North East Coast Branch and served for some years as joint honorary secretary, with Mr. W. Reed Bowles, F.C.W.A.

In an appreciation of his former colleague, Mr. Bowles has recalled that they were at school together in Newcastle. They met again in 1922 and after much preliminary work of organisation, the North East Coast Branch was launched with a very successful public meeting.

In 1925 Mr. Bryce accepted an appointment as costing manager with Patons and Baldwins Ltd. of Alloa. He retired in 1948 and unhappily suffered from poor health in his latter years.

Mr. Bryce was the author of an article on 'Coal mining costs and costing for coke and by-product plants' which was published in three parts in *The Cost Accountant* for December 1925 and for February 1926.

He leaves a widow, son and daughter to whom we extend our sympathy.

SUMMER SCHOOL 1958

Members and registered students are reminded that the ninth summer school will be held at St. Catharine's College, Cambridge, from 22 to 27 September 1958. Full details will be published in *The Cost Accountant* in due course.

'THE FINANCIAL TIMES' FOR REGISTERED STUDENTS

The Financial Times is available at the specially reduced rate of 2d. per copy (half price) to students following approved courses. This concession has now been extended to registered students of the Institute and an application form may be obtained on request from the Education Officer.

Registered students are reminded that, as announced in the June 1957 issue of *The Cost Accountant*, a similar concession is available in respect of *The Times*.

SOUTH WEST REGIONAL COST CONFERENCE

BRISTOL, SATURDAY, 26 APRIL

'Planning for control' and 'Electronic data processing in the United States' are the subjects chosen for the morning and afternoon sessions of the South West Regional Cost Conference, details of which were given in the March issue. The conference will take place in the Engineering Lecture Theatre of the University of Bristol.

A cordial invitation is extended to all members and registered students, and particularly to those who, in the ordinary course of events, are unable to participate in branch activities. Business colleagues may be invited.

A similar warm welcome is extended to those who would like to join the Bristol Branch at their annual dinner on the previous evening, Friday, 25 April.

The dinner, which is to be followed by a dance, will be held at the Royal Hotel, Bristol; tickets are 21s. (single) and 37s. 6d. (double).

Applications to attend either the conference or the branch dinner should be sent to the honorary secretary of the Bristol Branch: Mr. G. V. Chidgey, A.C.W.A., 110 Wellington Hill West, Henleaze, Bristol.

EXAMINATION TIME LIMITS

Registered students of the Institute are required to present themselves for the whole of the Intermediate examination, and for the whole of the Final examination within five and eight years respectively of the date of registration, and thereafter at least once in every twelve months until successful.

The bye-laws containing these regulations became operative on 1 January 1953, so that any student registered before that date should by now have presented himself for the whole of the Intermediate examination. The attention of all registered students is drawn to the bye-laws concerned, and those now affected who have not already complied are advised to do so as soon as possible.

EXAMINATIONS

The June examinations (Preliminary, Intermediate, Final and Fellowship) will be held at the usual home and overseas centres on Monday, Tuesday and Wednesday, 2, 3 and 4 June 1958. Applications to sit must be made on form C, obtainable from the Institute on receipt of a stamped and addressed gummed label. (Printed rate for home centres, 2d.) Applications, accompanied by the appropriate fees, must be received at Institute headquarters not later than 10 April 1958 (Postage, sealed, 4½d.) The closing date for overseas centres has now passed.

Intending candidates are asked to note the above date carefully as **no late entries can be accepted.**

BRANCH NEWS

ELECTRONIC MACHINES

Electronic machines which use punched cards have increased the power of the punched card system in three ways, according to Mr. E. R. Lawrence, M.A., of Powers-Samas Ltd., who spoke to the Belfast and District Branch on 20 February. These machines offered unprecedented speeds of calculation; they could do calculations which were not previously possible by punched card methods; and the more advanced machines had the power of logical decision,

i.e. they could choose one of several operations according to the facts presented to them. Before the advent of electronics the evaluation of stores issues on the F.I.F.O. method, for example, would have defeated the orthodox punched card installation.

When deciding what types of electronic machine would best suit his purpose, the cost accountant should start with something simple and gradually build up his system to take larger and more complicated machines. The electronic multiplying punch, manufactured by the speaker's company, was recom-

mended as a type of machine to start with. This machine was not a computer; the calculations it performed were determined by the set-up of the machine before the cards were fed into it and there was no programme. Mr. Lawrence claimed, however, that remarkable results could be achieved by putting cards through the machine a number of times with different set-ups. The whole series of calculations involved in P.A.Y.E. could for example be performed by this machine without any need for reference to tax payments.

The lecture was illustrated by a film strip and questions were answered by Mr. Appleby, Powers-Samas Manager for Ireland.

'LISTENING' TO A COMPUTER

A device for detecting faults in a computer by 'listening' to it at work was described by Mr. N. D. Hill, B.Sc., A.Inst.P., of E.M.I. Electronics Ltd., at a meeting of the Eltham Branch on 13 February.

The computer referred to by the speaker was designed for the British Motor Corporation. The sound of the working rhythm of the computer was transmitted over a loudspeaker and it was claimed that an operator could detect faults in the working of the apparatus through the pattern of sound emitted. This particular machine had been re-designed and was now 'transistorised', leaving only two valves, with consequent reduction in electric power consumption.

Mr. Hill defined computers as fully automatic electronic devices, distinct from electronic multipliers, and traced their development through the use of radar during the war years. It was the observation of the extremely high speed of electrical impulses in this type of equipment that led to the suggestion of their use in mathematical calculation; thence a short step to link it with binary arithmetic.



Mr. A. Hopewell, M.P., B.A., C.A.(S.A.), F.C.W.A. (left), President of the Natal Centre, with Mrs. Hopewell (far right) and Mr. E. Morrison, B.Com., A.C.W.A., Chairman, with Mrs. Morrison, at the successful Christmas dinner and dance of the Centre held in Durban, South Africa.

The speaker said that the heart of all computers was an adding unit which performed the simple calculation $A + B = C$. It did this by operating on the simple basis of being either 'on' or 'off.'

STIMULATING ADDRESS

On 29 January Mr. Stanley J. D. Berger, M.C., F.C.I.S., the Director of the Institute, visited the Liverpool and District Students' Society to speak on 'The Institute, past, present and future'. He left his audience stimulated and encouraged.

The Branch Committee took the opportunity to invite the Director to make, on their behalf, a presentation of a gold watch to Mr. Eric W. Hall, F.C.W.A., a former member of the Council of the Institute, in token of the committee's appreciation of Mr. Hall's long services to the Institute and to the Branch. (See also page 445)

Mr. R. T. Rickers, F.C.W.A., spoke to the Society on 22 January on business organisation. He said that in the future there would no longer be the present sharp division between office and factory. Lines of communication would be shortened and some office workers would tend machines; more data would be prepared on the plant itself through increased instrumentation.

INSTALLING ELECTRONICS

Mr. G. J. Pierce, F.C.W.A., a member of the Council of the Institute, gave a paper entitled 'Some aspects of installing electronics' to a meeting of the Birmingham Branch on 13 December 1957. He stressed the importance of considering the equipment alongside the particular application. In the case he cited, it was felt that punched card equipment, with well-tried routines for the processing of basic information in the form of unit documents, would be the best solution. Dealing with details

of the application on payroll work, Mr. Pierce explained how the bonus, wages and tax deductions were calculated by the computer. The incentive scheme was a complex premium bonus system involving many multi-man jobs; as many as 94 men on a job had been known. Each man's actual time was adjusted by the computer on the basis of the ratio which his own hourly rate bore to the job rate. In the programme there was provision for calculating job cost and a built-in check to ensure that the job costs balanced with the men's gross wages.

In his opinion the cost accountant, by his training

and experience, was the most suitable man to control this type of installation and to supervise the method study which was an essential prerequisite to the successful application of mechanisation in the office. Mr. Pierce appealed, on behalf of the Institute's Electronics Committee, of which he is Vice-Chairman, for information about the application of computers.

COMPUTER APPLICATION

Mr. K. F. Turner of Rolls Royce Ltd., gave a talk and presented a film on 'The application of the electronic computer to the office' to the Nottingham, Derby and District Branch on 11 February. The speaker said that two lessons could be derived from experience. First, the use of the computer demanded perfection of organisation and systems; and, second, the work of planning was essentially a team job.

To be effective there had often to be a new concept of centralisation. Detailed investigations of procedures were essential so that accurate information was fed to, and supplied by, the installation. It usually required the organisation to accept a greater measure of discipline.

MAKING THE FARM PAY

Mr. G. B. Clarke, B.Sc.(ECON.), DIP.AGRIC.SCI., of the University of Leeds, spoke to the Leeds Branch on 28 January, on 'Making the farm pay'. In this country, he said, there were a million workers in agriculture, including 290,000 farmers, so in general the unit was small. Of the farms larger than 25 acres, 60 per cent. were smaller than 100 acres.

The small farmer, skilled in a multitude of jobs, seldom appreciated the valuable services a cost accountant could provide for him. The cost accountant, other than the consultant, was not readily available to demonstrate to the farmer the value of the service he could give. There appeared to be no easy way of bridging this gap.

Mr. Clarke considered marginal costing and budgetary control to be the most effective answers to the farmers' accounting problems, with an adviser to suggest where improvements might be made.

INCENTIVE BONUS SCHEME

Mr. F. B. Anscombe, M.B.I.M., spoke to the Birmingham Students' Society on 31 January on factory administration.

The speaker described a system he had installed in a large-scale light engineering concern, to obtain efficiency in the use of materials, labour and expenses by the application of an incentive bonus scheme to all those concerned, including foremen, booking clerks, departmental managers and factory managers.

Each day every foreman was presented with a 'daily earnings record'. This showed, in respect of the previous day, the amount earned by each

operative under his control. It also showed for each worker an analysis of the actual performance against standard. The wage of each operative was made up to the agreed minimum on a daily basis. Consequently the worker was able to start each day with a clean sheet knowing that, even if yesterday had been a poor day, the amount made up would not be carried forward and offset against a good day. On this basis, therefore, each worker was encouraged to give of his best every day, instead of being discouraged from making an additional effort at the end of the week if, for any reason, a below-standard performance had been given in the early part of the week.

COST ACCOUNTING IN THE TEXTILE INDUSTRY

At the Harrow Branch meeting held on 7 February, Mr. J. C. Jones, A.C.W.A., spoke of the problems confronting accountants in the textile industry. He explained that in Britain firms tended to be horizontal, whereas in America they were vertical, each organisation in effect carrying out all the functions of spinning, weaving and converting.

Emphasis was placed on the importance of controlling process costs. Stock control was negligible, as the raw material—although seventy per cent of total cost—was bulky, and therefore easily watched. Keen competition was forcing textile firms to watch their costs strictly and to search constantly for ways of reducing expenditure. The works study and costs departments were co-operating in order to achieve the utmost economy.

The textile industry was well aware of its difficulties and was striving to meet future conditions by improved methods, said the speaker.

VISIT TO VICKERS-ARMSTRONG

Members of the North East Coast Branch visited the Elswick works of Vickers-Armstrong (Engineers) Ltd. on 18 February.

Amongst the many products of the works are gun mountings, Centurion tanks, bombs, printing machines capable of producing 100,000 copies per hour, and automatic tyre presses. The biggest single product is the 800 ton double-action clearing press which Vauxhall Motors use to press out car bodies.

An interesting feature was the elaborate shop which exists solely for the training of apprentices and is equipped with a battery of modern lathes, work benches and tools. An apprentice serves six months in this shop interspersed with day studies; after this he goes either into the factory or on to further studies and training—according to the ability he has shown—all at the firm's expense.

A tour was also made of the Powers-Samas installation which is used in connection with payroll and stores. It has a staff of forty with about

twenty punch-verifiers, an automatic verifier, an interpolator, two reproducers, several sorting machines and tabulators and an electronic multiplier.

The wages department has seventy operators, sectionalized to the various machine shops; this sectionalization is essential because the shops are subject to different conditions of service and pay. Up to now, mainly because of government contracts, job costing has been employed for most sections of the factory, but the possibilities of departmental unit costing are being studied.

WORK STUDY AND CLERICAL OPERATIONS

On 18 February the Stoke-on-Trent & District Sub-Branch held its annual joint meeting in Hanley, acting as hosts to the local branch of The Chartered Institute of Secretaries.

Mr. B. D. Tait, A.C.W.A., had an audience of 53 members and students to hear his lecture on 'Work study applied to clerical operations'. He was con-

vinced that the office put nothing but cost on to the product and from this premise set out to show the economic advantages of work study.

With the aid of films he demonstrated how some of the repetition jobs, such as manual sorting, collating and paper folding, could be done with less effort and at higher speeds.

It was suggested that the strict rhythmic movements recommended by the motion study men replaced physical fatigue by mental boredom; Mr. Tait would not accept this but agreed that human beings and not robots were involved.

In an address to the Sub-Branch on 7 January, Mr. R. H. Murray, M.Sc., A.R.I.C., named 13 points on which he considered that the accountant failed in his service to management.

These were answered by members present and there was a spirited discussion. Later, Mr. Murray said that he was a production manager 'who believes accountancy is a most valuable function in business today'.

BRANCH DIARY

April 2

HULL AND DISTRICT SUB-BRANCH: Annual general meeting, at the Imperial Hotel, Paragon Street, Hull, at 7.30 p.m.

LIVERPOOL AND DISTRICT BRANCH: 'The basic principles of electronic computers', by E. S. Carden, British Tabulating Machine Co. Ltd., at the Liverpool Chamber of Commerce, Old Hall Street, Liverpool, at 6.45 p.m.

April 8

DUNDEE BRANCH: Annual general meeting, at the Royal Hotel, 1 Union Street, Dundee, at 7.30 p.m.

HIGH WYCOMBE AND DISTRICT SUB-BRANCH: Annual general meeting, at The Swan Hotel, Paul's Row, High Wycombe, at 7.30 p.m.

April 10

ELTHAM AND DISTRICT BRANCH: 'Charts as an aid to management', by J. E. Bessel, A.I.S., at Sherrard Hall, Court Road, Eltham, S.E.9, at 7.30 p.m.

NORTH LANCASHIRE BRANCH: 'Management accounting', by A. B. MacColl, C.A., A.C.W.A., at the Chamber of Commerce Board Room, Fishergate, Preston, at 6.45 p.m.

NORTHAMPTON AND DISTRICT SUB-BRANCH: Annual general meeting, at the Northampton Town Footwear Manufacturers' Association, 55 Abington Street, Northampton, at 7.30 p.m.

April 11

DUBLIN AND DISTRICT BRANCH: 'Costs in industrial development', by T. J. Murphy, A.C.W.A., at University College, Galway, at 8 p.m.

HARROW AND DISTRICT BRANCH: Students' evening, 'By-products, rejects and waste', by H. Hodgson, F.C.A.,

F.C.W.A., at Harrow Technical College Hall, Station Road, Harrow, at 7.15 p.m. for 7.30 p.m.

KINGSTON AND DISTRICT BRANCH: 'Integrated data processing', at The National Cash Register Co. Showroom, 206, Marylebone Road London, N.W.1.

April 14

MIDDLESBROUGH AND DISTRICT BRANCH: Annual general meeting, at the Cleveland Scientific and Technical Institution, Corporation Road, Middlesbrough, at 7.15 p.m.

April 15

ENFIELD AND DISTRICT SUB-BRANCH: 'Basic principles of electronic computers', by a representative of the British Tabulating Machine Co. Ltd., followed by annual general meeting, at the Eastern Gas Board Lecture Theatre, Sydney Road, Enfield, at 7.30 p.m.

LEEDS AND DISTRICT BRANCH: Annual general meeting and smoking concert, at the Great Northern Hotel, Leeds, at 7 p.m.

NORTH EAST COAST BRANCH: Seminars for students Arrangements by E. Jarvis, F.C.W.A., at the Royal Station Hotel, Newcastle upon Tyne, at 7 p.m.

NOTTINGHAM, DERBY AND DISTRICT BRANCH AND STUDENTS' SOCIETY: Annual general meeting, at the Midland Hotel, Derby, at 7.15 p.m.

PETERBOROUGH AND DISTRICT SUB-BRANCH: Annual general meeting, at the Grand Hotel, Peterborough, at 7.30 p.m.

April 16

ST. HELENS SUB-BRANCH: Annual general meeting, at the Edinburgh Café, Church Street, St. Helens, at 7.30 p.m.

April 16

COVENTRY AND DISTRICT BRANCH: Three short papers by members, at the Craven Arms Hotel, High Street, Coventry, at 7.15 p.m.

April 17

BEDFORD AND LUTON BRANCH: Annual general meeting, at the Committee Room, Town Hall, Bedford, at 7.30 p.m.

BOLTON SUB-BRANCH: Film on materials handling, at 7.30 p.m., followed by annual general meeting at 8 p.m., at the Town Hall, Victoria Square, Bolton.

CHESTER AND NORTH WALES SUB-BRANCH: Annual general meeting, at the Queen Hotel, Chester, at 7.0 p.m.

LIVERPOOL AND DISTRICT STUDENTS' SOCIETY: Works visit. The Automatic Telephone and Electric Co. Ltd., Strower Works, Edge Lane, Liverpool. Meet at main entrance, 2.15 p.m.

MANCHESTER AND DISTRICT STUDENTS' SOCIETY: Film on materials handling, at the Engineers' Club, Albert Square, Manchester, at 6.45 p.m., followed by annual general meeting at 8 p.m.

OXFORDSHIRE SUB-BRANCH: Eighth annual general meeting, and informal branch dinner, with an address by Thomas Degenhardt, M.A., A.C.I.S., Education Officer of the Institute, at the Royal Oxford Hotel, Oxford, at 7.15 p.m.

April 18

CROYDON AND DISTRICT BRANCH: 'Electronics in the office', by a representative of The National Cash Register Co. Ltd., at The Greyhound, High Street, Croydon, at 7.15 p.m.

LONDON AND DISTRICT BRANCH AND LONDON STUDENTS' SOCIETY: 'Market research', by H. A. Smith, B.Sc.(ECON.), in the Lancaster Room, Caxton Hall, Caxton Street, Westminster, S.W.1, at 6.45 p.m. for 7 p.m.

April 22

ABERDEEN STUDENTS' SOCIETY: Annual general meeting. Address by the President of the Society, Alex. Mair, A.C.W.A., at the Institute of Bankers Rooms, Union Street, Aberdeen, at 7.30 p.m.

SLOUGH AND DISTRICT SUB-BRANCH: Annual general meeting, at Slough Community Centre, Farnham Road, Slough, at 7.15 p.m.

April 23

ELTHAM AND DISTRICT BRANCH: Works visit. Department of Scientific and Industrial Research, Fuel Research Station, East Greenwich.

GLASGOW AND DISTRICT BRANCH: Annual general meeting, at the Ca'doro Restaurant, Union Street, Glasgow, at 7.15 p.m.

April 24

CHESTERFIELD SUB-BRANCH: 'What I expect from the cost accountant', by E. B. Robinson, at the Station Hotel, Chesterfield, at 7.30 p.m.

EDINBURGH AND DISTRICT BRANCH: Annual general meeting, at the North British Hotel, Edinburgh, at 7.15 p.m. Show of films by Aims of Industry Ltd.

ILFORD AND DISTRICT BRANCH: Annual general meeting. 'Successive balance sheets', by L. Frankland, A.C.A., F.C.W.A., A.M.B.I.M., at The Ilford Club, 21a Balfour Road, Ilford, at 7.30 p.m.

MAIDSTONE AND DISTRICT SUB-BRANCH: 'Transport costing', by T. C. Watkins, F.C.W.A., A.C.I.S., at County Technical School, Fort Pitt, New Road, Chatham, Kent, at 7 p.m.

April 25

BIRMINGHAM AND DISTRICT STUDENTS' SOCIETY: Annual general meeting, at the Birmingham Exchange and Engineering Centre, Stephenson Place, Birmingham, at 6.45 p.m.

BRISTOL AND DISTRICT BRANCH AND STUDENTS' SOCIETY, EXETER SUB-BRANCH AND NORTH GLOUCESTERSHIRE SUB-BRANCH: Branch dinner and dance, at the Royal Hotel, Bristol.

ILFORD AND DISTRICT BRANCH: Annual dance, at 'The Red House', Ilford, 7.30 p.m. until midnight.

WATFORD AND DISTRICT SUB-BRANCH: Annual general meeting, followed by members' dinner, at Watford Town Hall, at 7.30 p.m.

WOLVERHAMPTON SUB-BRANCH: Annual general meeting, at the George Hotel, Stafford Street, Wolverhampton, at 7.15 p.m.

April 26

SOUTH WEST REGIONAL COST CONFERENCE: 'Planning for Control' and 'Electronic data processing in the United States', in the Engineering Lecture Theatre, University of Bristol, at 10.15 a.m.

April 29

NORTH EAST COAST BRANCH: Annual general meeting, at the Royal Station Hotel, Newcastle upon Tyne, at 7 p.m.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: Annual general meeting, at the Park Hotel, Cardiff, at 7 p.m.

April 30

LIVERPOOL AND DISTRICT BRANCH AND STUDENTS' SOCIETY: Annual general meeting, at the Liverpool Chamber of Commerce, Old Hall Street, Liverpool, at 6.45 p.m.

NORFOLK AND SUFFOLK BRANCH: Annual general meeting, at the Assembly House, Norwich, at 7.30 p.m.

COVENTRY AND DISTRICT BRANCH: Works visit. Universal Grinding Wheel Co. Ltd., Stafford.

May 6

LEICESTER AND DISTRICT BRANCH: Annual general meeting, followed by an address by Stanley J. D. Berger, M.C., F.C.I.S., Director of the Institute, at the Bell Hotel, Humberstone Gate, Leicester, at 7.15 p.m.

May 8

DUBLIN STUDENTS' DISCUSSION GROUP: Model answers. Examination problems submitted by students will be answered by members. At Jury's Hotel, Dublin, at 7.30 p.m.

ELTHAM AND DISTRICT BRANCH: Tenth annual general meeting, followed by an address by Stanley J. D. Berger, M.C., F.C.I.S., Director of the Institute, at Sherrard Hall, Court Road, Eltham, S.E.9, at 7.30 p.m.

THE COST ACCOUNTANT

Editorial and advertising offices:—63 Portland Place, London, W.1. (Tel. LANGham 6542)

Subscription rate: 18s. per year, post free. Single copies, 1s. 10d., post free.

Published each month by The Institute of Cost and Works Accountants.

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Printed by Straker Brothers Ltd., 194-200 Bishopsgate, London, E.C.2.

THE COST ACCOUNTANT

Journal of The Institute of Cost and Works Accountants

VOLUME 36

MAY 1958

NUMBER 12

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BUDGET FOR AN UNCERTAIN FUTURE

FIRST judgments on a Budget are always coloured by the extent to which one's personal hopes have been fulfilled. Subsequent judgment must, however, consider the way in which the interests of the nation have been served in the economic sphere.

Mr. Heathcoat Amory's first Budget needs to be viewed in the light of the current economic situation, and it is the fact that the future is so uncertain which seems to have guided his proposals.

The Chancellor has had to choose in his planning between two possible future developments. On the one hand the nation has just begun to emerge fairly successfully from a crisis due to inflation in which the strength of sterling had been challenged. The answer to the challenge had been measures to restrict industrial activity—high interest rates, credit squeeze, and reduction of investment. Until the size of our reserves and the strength of sterling are fully re-established there would be little point in relaxing to any significant extent the restrictive measures now in force.

On the other hand, there has been an increase in unemployment in this country and a very distinct recession in the United States. Whilst the American authorities have expressed confidence in their capacity to keep this recession under control, the Chancellor had to face the possibility that the position in the U.S. would get out of hand and have its impact on our economy too. Such a position would call for expansionist measures in his Budget to stimulate business activity and combat recessive tendencies.

Mr. Amory's policy has been to base his Budget on the assumption of the continuance of the need to fight against inflation, but to initiate some permissive measures which he could bring into effect in the event of some stimulation of the economy being required.

Why did the Chancellor choose the first line of approach? He gave a number of reasons for the choice. He expects fixed investment to be high. Expenditure in the public sector has been stabilised at the same level as last year and private investment expenditure is also expected to stay at its

present level. He also expects consumption to be high, the position being reinforced by the fact that import prices have fallen, thus keeping prices—particularly food prices—down in relation to incomes. If employment is relatively stable there should be a moderate increase in consumer spending in real terms. Government expenditure will, in real terms, remain about the same as last year.

These expectations are good indicators of a satisfactory level of home demand but omit two components, however, in which the future holds greater uncertainties. One is the level of expenditure on stocks which, in conditions of falling commodity prices and static production, might well fall. The other is the volume of exports. So far, foreign demand for our goods has been well maintained and the most recently published figures are very encouraging. But exporting is likely to become more difficult, despite the alteration of the terms of trade in our favour, and much of the course of our future will depend on exports being maintained.

Fight Against Inflation

The major objective of Government policy will thus be to fight against inflation, involving, as hitherto, restrictions on credit and the limitation of wage increases to the increases in productivity. The Chancellor did, however, indicate the measures that he would take to stimulate the level of demand should it suddenly fall. One such measure involves assistance to exporters through the medium of the Export Guarantees Act by making available more extensive insurance or credit finance facilities if conditions in export markets warrant this. Another is the willingness to modify or relax the existing tight restrictions on expenditure by central government, local government or nationalised industries if the moment should seem right, and thus increase public investment. An indication of what could be done for the private sector of investment was illustrated by the increase of initial allowances on investment

from 20 to 25 per cent. Whether so small an increase will have any effect is dubious, particularly in view of the time for such investment to be brought into effect, but its token value may be significant.

The current patchiness in abnormal and persistent unemployment will now receive attention in two ways. The credit squeeze is effectively to be relaxed in areas where unemployment is substantially above the average, and financial assistance, at present only available to Development Areas under the Distribution of Industry Act, is now to be extended to these other areas. Moreover, special encouragement is to be given in such areas to the construction of dry docks.

Changes of Special Interest

On the basis of this policy the concessions that the Chancellor gave amount to £108 million in a full year and are spread fairly widely. Two changes of special interest may be considered mainly of administrative importance. The one is the consolidation of profits tax into a flat rate of 10 per cent.

The other change is in the structure of purchase tax which has been simplified. The reductions, if only by the emotional welcome that they have received, should do something for the maintenance of internal demand which may also assist the economics of manufacturers selling on the export market. Incidentally, the Chancellor's adverse views on a sales tax are likely to erase that tax from the vocabulary of any pre-Budget writings of future years.

Has the Chancellor given us a Budget suitable for our economic outlook? The answer seems to depend on whether or not we can be considered to be already involved in a recession. If we can, then Mr. Amory has not done enough to stimulate demand, nor has he given enough immediate assistance to exporters. If, however, the Chancellor is correct in his opinion that no sharp recession is likely in the very near future, then he has probably held the balance fairly nicely, even if somewhat negatively.

NOTES AND COMMENTS

NATIONAL COST CONFERENCE

APPPLICATIONS for the Institute's twenty-ninth National Cost Conference now being received at Institute headquarters indicate that this most important annual event in the Institute's calendar will once again be well supported by members and students. A technical and social programme of exceptional interest has been arranged, and those who have not yet made their applications to attend on the form enclosed with the April issue of *The Cost Accountant* should do so without delay.

The theme of this year's conference, 'Electronics in industry', is a return to the subject of last year's conference, and reflects the growing interest on the part of cost accountants in the impact of electronics on their work.

On the evening of Thursday, 5 June, the President of the Institute, Mr. James Borsay, F.C.W.A., and Mrs. Borsay, will hold an informal reception in the Members' Room and other rooms of the House of Commons (subject to the Parliamentary programme) by kind permission of Sir William Steward, M.P. Members and their ladies will be able to take part in conducted tours of both Houses. There will be buffet refreshments; business dress will be worn.

At 10 a.m. on the Friday, Mr. Borsay will deliver his presidential address in the Grand Hall of the Connaught Rooms, Great Queen Street, W.C.2. After an interval for coffee, Mr. J. A. Goldsmith, M.A., A.C.A., A.C.W.A. will introduce his paper which is entitled 'Choosing your computer'. As is customary, this will be followed by a discussion.

Luncheon will be served in the Balmoral and Edinburgh Rooms at 1 p.m., when ladies will be welcomed. Tickets for this function are 15s. 6d. each.

On Friday afternoon, at 2.30 p.m., there will be an address by Mr. John Diebold. Following on from the title of Mr. Goldsmith's address, Mr. Diebold will speak on 'Putting it to work';

his address will be followed by a discussion. Through his writings and his speeches, Mr. Diebold is a world figure whose forthright views, formed from a wide experience, cannot fail to be of the utmost interest and value.

The ladies will be especially looked after during conference sessions. On the afternoon of Friday, 6 June, a conducted motor-coach tour of the famous sights of London can be arranged, to start from the Connaught Rooms at 2.30 p.m. and returning there at about 4.30 p.m. Tickets will be 5s. each. A coach will also leave the Connaught Rooms after luncheon on the Friday, taking ladies to the London Planetarium, where seats have been reserved for the afternoon presentation. The performance ends at ten minutes past four. Tickets will be 5s. each.

The Institute's twenty-ninth annual banquet will take place at The Dorchester, Park Lane, W.1, on the Friday evening, at 7 for 7.30 p.m., and will be followed by dancing until 1 a.m. Tickets for this will be 35s. each, exclusive of wines. Evening dress with decorations will be worn.

The thirty-ninth annual general meeting of the Institute will be held at the Connaught Rooms at 10.30 on the morning of Saturday, 7 June.

COSTING IN THE NATIONAL INTEREST

THAT 'it is in the national interest that the true comparative costs of different products should be ascertained' since this 'would help to establish a structure of prices that reflected the real comparative costs of different products', is the view of the economists who have just completed their third report on the British hosiery industry.¹ The authors were concerned

¹ *The British Hosiery Industry—A Study in Competition. Third Report—A. G. Pool and G. Llewellyn. The Leicester University Press. 7s. 6d.*

by the extent to which this competitive industry relied on rule-of-thumb costing methods. They came up against the old failing—'a single rate for overheads' applied to all products. Where indirect expenses were allocated to departments, firms had widely differing ideas about the appropriate basis of allocation.

'If misled by their defective costing practices, a considerable number of firms refrain from manufacturing over-costed lines, believing them to be relatively unprofitable, the supplies of such lines will be less and their market prices greater—under-costed lines will tend to be more abundant in supply and lower in price than they otherwise would have been', states the report.

But there is another contributory factor which the authors place first, and which leads them to the view that many manufacturers draw incorrect conclusions about the comparative profitability of different products.

'So widespread', they state, 'is the use of the ratios of profit on cost as a simple guide to comparative profitability' that 'many firms choose to produce the lines that yield the highest percentage profit on cost, in the mistaken belief that they thereby maximize their aggregate profit. Different lines may, however, have widely varying knitting and making-up times, so that the manufacturer who aims at maximizing his profit needs to consider not only the comparative rates of profit on cost, but also the comparative outputs he can get from his factory in a given time.'

These factors give the authors reason for thinking that the structure of hosiery prices resulted in some sections of the industry being permanently more profitable, and others less profitable, than the average.

They appear to note with approval that the Federation Costing Advisory Service advised manufacturers to select for production those lines which maximized the ratio of overhead costs plus profits per dozen and the cost of whatever factor fixed the upper limit of output obtainable from the factory. They conclude:

'The industry as a whole, with some notable exceptions, urgently needs to overhaul its costing techniques.'

Whilst the widespread use of sound and uniform principles of cost ascertainment will eliminate the worst errors and will go a long way towards preventing inadvertent price cutting, this alone will not provide a complete answer to the problem. In simple cases in industry

it is not difficult to assess whether profit can be maximized by making, say, low margin buns rather than high margin wedding cakes, but in more complex situations one moves into more advanced budgeting techniques relating to alternative product mix analysis, capacity balance, multiple and changing limiting factors, to which the authors make little reference.

The report shows that there seems to be wide scope in the industry for the exercise of costing talents.

The authors of the report express their indebtedness to Mr. H. Kennewell, F.C.A., Director of the National Hosiery Manufacturers' Federation, and Mr. Alan Kershaw, F.C.W.A., Cost Accountant to the Federation, with whom they had 'many fruitful discussions' and who read the report in draft. Readers are referred to a lecture reproduced at page 456 of this issue of *The Cost Accountant*, of which the joint authors are Mr. Kennewell and Mr. Kershaw.

SCOTTISH INSTITUTE'S NEW PRESIDENT

AT the meeting of The Institute of Chartered Accountants of Scotland, held on 26 March, Mr. Robert Ian Marshall, B.COM., C.A., Edinburgh, was elected President of the Institute, and Mr. Thomas Lister, M.A., C.A., London, Vice-President, for 1958-9. To Mr. Marshall, who is senior partner in the firm of Graham, Smart and Annan, and to Mr. Lister, a partner of Thomson McLintock & Co., London, we offer our congratulations.

Accounts of Companies

Mr. James T. Dowling, C.A., the retiring President of The Institute of Chartered Accountants of Scotland, spoke of the accounts of companies in the course of his address at the same meeting. Three particular points, he felt, merited renewed consideration; the first arose from,

'... the gap which so often exists nowadays between the nominal amount of paid up equity capital of companies and the net assets representing such capital. This gap is frequently composed—mainly—of reserves which represent retained profits of past years.'

It was, he thought, unusual to find these reserves represented by cash assets or their equivalent, which might be available for distribution to shareholders.

Later, Mr. Dowling spoke of the amount to be charged for depreciation of fixed assets before striking net profit. Profits earned and dividends paid were quite often related to the amount of capital employed, he said, computed by reference to balance sheet values. This relationship, he held,

'will almost certainly differ—and possibly quite widely—according to whether the balance sheet figures of fixed assets are based on historic cost or on revaluation'.

'Was this not another source of possible misunderstanding' he asked. Mr. Dowling continued,

'Is it reasonable to suggest that, in accounts generally, periodical revaluation of fixed assets—say every five years—might replace historic cost?'

COMMISSIONS IN THE ARMY

THE Paymaster-in-Chief advises us that the Army has a need of qualified accountants for commissioning into the Royal Army Pay Corps. Members can now be considered for the grant of Direct National Service and Short Service Commissions in that Corps.

Candidates who successfully pass the War Office Selection Boards and medical boards and who satisfy other requirements, will be appointed either to National Service or to Short Service Commissions on probation in the rank of Second Lieutenant with effect from the date on which they join for duty. The upper age limit for application under this scheme is twenty-six. They will be required to carry out their training at the R.A.P.C. Training Centre at Devizes, Wiltshire. Subject to satisfactory completion of their training, their commissions will be confirmed and will bear the date and rank of their appointment to commissions on probation.

National Service Commissions will be granted for a period of two years and Short Service Commissions normally for a period of three years on the Active List and five years on the Reserve in the first instance. Short Service Commissions carry a gratuity and may be extended at the discretion of the War Office.

Men due for National Service may apply for either type of commission. Candidates who are granted National Service or Short Service Commissions under this scheme may apply subsequently to transfer to permanent Regular Commissions under normal procedure.

Registered students who have not completed their Final examinations may like to know that they may be provisionally accepted, subject to their qualifying at a later date. Candidates should apply in manuscript to the War Office (F9), Whitehall, London, S.W.1.

DINNERS OF KINDRED SOCIETIES

THE President of the Institute, Mr. James Borsay, F.C.W.A., who was accompanied by the Director, Mr. Stanley J. D. Berger, M.C., F.C.I.S., attended a dinner given by the President of The Institute of Municipal Treasurers and Accountants on Thursday 10 April, in the Members' Room of the House of Commons. Mr. Borsay also attended the annual dinner of The Institute of the Motor Industry at The Dorchester, London, on 25 March.

SHORTER NOTES

With the aim of demonstrating how to make better products more cheaply and efficiently, The Production Exhibition will be staged at Olympia, London, from 12 to 21 May. The conference of The Institution of Production Engineers will be held concurrently. The exhibition will be opened by The Rt. Hon. The Lord Mills, K.B.E., Minister of Power.

★ ★ ★

At a successful conference organised by the British Productivity Council in conjunction with the Factory Equipment Exhibition last month, Mr. Edward Pearson, F.C.W.A., Financial Director, Clarkson (Engineers) Ltd., gave a paper entitled 'A case study in the application of costing and the benefits to be derived from it in the smaller and medium size firms'. As reported in the April issue of *The Cost Accountant*, Sir Stanley Rawson, F.C.W.A., Vice-Chairman, John Brown Ltd., and Mr. H. H. Norcross, F.C.W.A., also gave lectures to the conference.

THE COST ACCOUNTANT'S CONTRIBUTION TO SALES POLICY

by H. KENNEWELL, F.C.A., and ALAN KERSHAW, F.C.W.A.

The National Hosiery Manufacturers' Federation

Many considerations of fact and much speculation enter into the final decisions about a sales policy. As part of the management team, the cost accountant's function is to introduce the greatest measure of certainty or probability into what is usually an area of wide speculation and hunches. If alternate products can be made and offered, what criteria should determine the choice? Can the progress of the sales policy be measured often enough and quickly to allow effective amendments to be made to it? The authors offer a solution of these difficult problems.

THE task of management in a freely competitive industry is the full employment of the potential production resources at their disposal, at the maximum profit. In any industry, achievement of this task must be based upon sound information about the production resources available, a sales policy related to that potential, and a plan of action which correlates both. The execution of the plan must be closely controlled, so that variations from it are quickly seen and prompt corrective action may be taken.

The larger units in the clothing industry of North America commonly follow this ideal. The sales force surveys its large market many months before the commencement of the season, for which a sales budget is then prepared, based on estimates of the range and styles of clothing which will be in demand, the prices obtainable, and the quantity of each type which the sales force can sell in the season. This selling target is then measured against the available production resources, including availability of required materials, machine capacity, labour supply, and ancillary services. As a result, a final sales budget is settled and the production plan is made. Control information is produced daily or weekly during the making and selling season, so that the plan and its execution can be quickly amended in the light of actual developments. At many stages in this ideal procedure, the cost accountant's tools of measurement and forecasting are brought into play.

In most establishments producing hosiery and knitwear in the United Kingdom, as well as in the smaller establishments in North America, the procedures of sales budgeting, production

planning, and control, are seldom found in this ideal form. In most branches of the industry, seasonal influences and fashion have great sway, and it is customary to prepare ranges of samples and prices for the Spring and Autumn selling seasons which are then offered through the normal selling outlets of the firm in advance of production. The orders obtained form the basis of the batch orders to the plant, supplemented by some production for stock as a provision against new ordering or repeat orders. Cost estimates are prepared on the basis either of sampling or small batch production. To these estimates of cost is commonly added a target profit percentage in order to arrive at the desired selling price, which is then usually re-examined in light of market conditions. Once the finally-assessed selling price is made widely known, it can seldom thereafter be amended upwards unless increased cost of general application takes place during the early part of the selling season. On the other hand, there are many occasions when the desired price cannot be obtained; it may have to be reduced because the price does not fit into a conventional selling price, or the line is not sufficiently attractive, or fashionable, or is not otherwise competitive in price, quality, style, get-up, or some other of the many factors which influence sales. In these circumstances of limited budgeting and pre-planning and the domination of day-to-day market conditions, the service needed by management from the cost

An address delivered on 26 October 1957 at the North Midlands regional cost conference of The Institute of Cost and Works Accountants. Mr. J. H. Whicheloe, F.C.W.A., President of the Birmingham and District Branch, was in the chair.

accountant assumes an even greater importance and urgency than in the ideal conditions described in the second paragraph.

Formulation of a Sales Policy

Many considerations of fact and much speculation enter into the final decisions about a sales policy. Decision is required on such questions as which products shall be offered; in what range of design, colours and sizes; on which products within the range shall be expended the greatest selling effort; which channels of distribution shall be used; pricing policy; full employment of the plant; the potential production resources available.

As part of the management team, which should include the persons responsible for sales, production, design and accounting, as well as the man who takes the final decisions, the cost accountant's function is to introduce the greatest measure of certainty or probability into what is usually an area of wide speculation and hunches. He knows, or must estimate, the capacity to produce in terms of machine hours and ancillary processes, and he is familiar with the cost structure of the business. This fundamental knowledge, allied with his techniques and imagination, are the foundation for his contribution of the following:

- (a) an estimate of the direct costs and contribution to overheads and profit of each product under consideration;
- (b) assessments of production resources absorbed by, and the profits expected from, alternative choices;
- (c) the provision of control procedures.

Each section of this work is a valuable contribution to the formulation and execution of a sales policy; each will now be examined in more detail.

An estimate of the direct costs and contribution to overheads and profit of each product under consideration

The products being considered. In many industries, the machinery and processes employed are so versatile that a wide choice of products exists. This is especially so in many branches of the hosiery and knitwear industry. For example, the choice may lie between the many types of sweaters, cardigans, and slip-overs made for men or women in different sizes, produced from different fibres (wool, cotton, rayon, nylon, terylene, cashmere, etc., or mixtures of these fibres) in different qualities, colours, and designs. Choice of the range to be offered within these possibilities depends on

technical knowledge, marketing experience, type of production facilities, and many other factors outside the scope of this paper. Consideration is here confined to the choice of products from within a range already decided. At the same



Mr. Kennewell

time, it is incumbent upon management constantly to watch the market for products not at present included in the range but which are within the production facilities and capacity of the business, and which may offer opportunities of successful exploitation. Examination of these

opportunities offers scope for contributions by the cost accountant similar to those described below.

An assessment will have been made, within the potential range, of the styles and types of products and their particular construction which is likely to meet the demands of fashion and the season, and a range of samples prepared from which a choice must be made. The likely selling price and a forecast of the demand must also be made for each sample, based on marketing experience, and for each sample a cost estimate must be prepared employing the usual cost accounting techniques.

Based on budgets for each of the broad types of overhead (factory, administration, selling, distribution), apportionment is made to the product, and the expected profit yielded by the estimated selling price is ascertained. This profit should now be subjected to the test of relative profitability discussed below, and the result entered on the cost estimate.

The sample and the first cost estimate may now be re-examined for possible economies in production resulting from modification of design or quality or processes employed. Consequential amendments of direct cost and/or expected selling price will lead to a new cost estimate and calculation of relative profitability.

The test of relative profitability. The measurement of net profit as a percentage on selling price or a rate per unit is frequently an insufficient test of the real contribution which a product can make to total profit. To the measurement of profit in relation to sales must be added the production-limiting factor. Two alternative products, each selling at the same price and the same percentage of profit on the selling price, may yet be found to yield a very different ANNUAL contribution to profit. For

some limiting reason, it may be possible to produce only half as many of product 'A' as of product 'B' in a stated time, and, provided each can be sold in maximum quantity, the yield to profits from sales of product 'B' will therefore be twice as large per annum as that from product 'A'.

In Table 1 are five products subject to the same limiting factor, from which a choice can be made in terms of relative profitability. From this simple example, it will be apparent that, in spite of the differences in profit percentage on selling price or as a rate per dozen, the inclusion of the production-limiting factor establishes the potential contribution of these alternatives to the annual profit.

In this example, it has been assumed that production of any one of these products would



Mr. Kershaw

stretch production capacity to its maximum, i.e. that the capacity to produce is limited. Often, it will be found that maximum production potential is limited by machine capacity, multiplied by hours of use available. Other examples are a limited supply of raw material, or labour, or capacity to carry out a process subsequent to machining. If such a 'bottle-neck' is known, efforts will be made to overcome the restriction, but if this cannot be achieved, then that production factor becomes the limiting factor and will supply the figure of maximum production potential against which the profit yield per day or per annum will be measured.

Maximum profitability is yielded, then, by so planning a sales policy as to utilise the limiting factor to its fullest extent on products showing the highest relative profitability. Given equal saleability, the products to be offered should be chosen in light of these two considerations.

In the hosiery and knitwear industry, the limiting factor is commonly the knitting machine, and when this is so, it is recommended that profit be expressed in relation to knitting time per unit of sales. If the knitting time is not available, the piecework rate paid for a unit is usually a reasonable indication of knitting time, and can be used in its place as the basis of calculation.

Because many overhead charges do not

TABLE 1

Article	Expected Profit Margins		Maximum production potential per day units	Daily profit yield s.
	Percentage on selling price %	Rate per doz. s. d.		
1	5	1 -	1000	1000
2	3	- 6	1800	900
3	10	1 6	600	900
4	8	1 9	500	875
5	15	- 9	1000	750

vary directly with output, it is necessary to know what contribution each product will make to the recovery of fixed overhead, as well as to profit. If all overhead varied directly with output, it could be ignored in calculating profitability. If all overhead were fixed, then it would be correct to use total overhead *plus* the net profit figure. In broad terms, we find that in the hosiery industry, selling and distribution overheads are mainly variable, whilst administration and factory overheads are mainly fixed in the short term and especially so during over-full employment. For these reasons, we bring only factory and administration overheads into the calculation of relative profitability, along with the net profit.

A formula can now be stated:

$$\frac{\text{Net profit plus fixed overhead}}{\text{Limiting factor}} \times 100 = \text{Profitability \%}$$

The example at page 459 (Table 2) is taken from the hosiery industry and illustrates the comparison of four products, all of which pass through the same machinery and processing, and all of which are subject to the same limiting factor, i.e. the total of knitting machine time available per annum. The use of this formula demonstrates which of these alternative products will make the most profitable use of the limited number of knitting hours available.

Absolute precision is not claimed for this method, nor is precision usually necessary. Within the principles enunciated, the cost accountant will no doubt find many refinements which can be introduced to give greater precision in a given factory. Unfortunately, too few firms in British industry employ expert assistance, but the simple tool of measurement of relative profitability here explained can be used with safety by the inexpert, provided that an adequate basis of cost estimating has been established.

TABLE 2

	PRODUCT C	PRODUCT D	PRODUCT E	PRODUCT F
Cost Estimate	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
All materials including dyeing, packing . . .	16 8	16 8	26 5	32 0
Wages: Knitting	11	1 2	1 2	1 6
Remainder	1 0	2 3	2 3	1 9
Overhead: Factory and Administration . . .	1 8	3 0	3 0	2 9
Carriage, warehousing, commission, discount .	1 6	1 8	1 11	2 3
Total cost	21 9	24 9	34 9	40 3
Profit (5% on total cost)	1 1	1 3	1 9	2 0
Selling price	22 10	26 0	36 6	42 3
Measurement of relative profitability by formula .	$\frac{33d}{11d} \times 100$ =300%	$\frac{51d}{14d} \times 100$ =364%	$\frac{57d}{14d} \times 100$ =407%	$\frac{57d}{18d} \times 100$ =317%
Total knitting wages paid per annum will be the same (say, £10,000), whether Product C, D, E, or F, is knitted, giving a yield to meet Overhead and Profit of	£30,000	£36,400	£40,700	£31,700

NOTE: When completing the formula it is the figure of fixed overhead which should be taken. In practice the figures on the cost estimate will include some variable expenses, but their total will seldom be significant.

Assessments of production resources absorbed by and the profits expected from alternative choices

The target is 'the full employment of the potential production resources . . . at the maximum profit'. As a further contribution to the attainment of this target, the cost accountant must bring together the following information:

- the cost estimate for each sample;
- the measure of relative profitability of each;
- the expected selling price of each;
- the estimated quantity of each that the market will buy in a stated period.

This information should be so marshalled as to afford facilities, not only for choice of products to be offered, but also for the subsequent control procedures which will be essential. A table (Table 3) should be prepared for each of the alternative samples which use the same production-limiting factor, listing them in the order of relative profitability factor shown at the foot of the cost estimate, and containing the following information.

At the head of the form will appear a statement of the total of the limiting factor (e.g. machine hours available), in the production period concerned. The point should then be marked in column (5) at which this total is reached in the list of samples. Bearing in mind, however, that this calculation is based upon the

estimates of demand in column (4), management will not be content to exclude all samples below this point and will undoubtedly wish to include further samples in the range as an insurance against a short-fall of orders on the samples above the line. In arriving at its decision as to how much further to go down the list of samples for inclusion in the range, management should have in mind the fact that as the variety offered and sold is increased, so the available use of the

TABLE 3

No.	Group	Date	Total of Limiting Factor		
Sample number	Relative profitability factor	Use of limiting factor per unit of sales	Estimated demand in unit of sales	Total use of limiting factor	
(1)	(2)	(3)*	(4)	(5)†	

* The use per sales unit of the limiting factor (in hours, or money, or other appropriate unit).

† Estimated total absorption of the limiting factor by each sample, obtained by multiplying item (3) by item (4).

limiting factor may be reduced, with a consequent reduction in the contribution towards overhead and profit.

From the foregoing compilation, it may become apparent immediately that the range of samples offered for consideration, when combined with the estimates of quantities which the market will absorb, is unlikely to employ the full production capacity of the limiting factor. Management must then consider the alternatives, which include the production either of a new range of samples or of additions to the range submitted, so that these can be substituted for or added to those in the list, together with the possibility of new markets or new outlets within existing markets and the extra selling effort and cost involved. In order to absorb the available production resources of a given group, some samples may have to be included for which the profitability factor indicates that they will sell at a price which makes a contribution only towards fixed overhead. Obviously, such samples will be included in the final choice only if no other more profitable items can be designed.

Before the final choice can be settled, it will be essential to assess in detail the production resources needed against those known to be available. This may bring about the elimination of samples, or plans to provide additional resources. The list will, of course, be amended in light of these further decisions by management.

When the final choice of the range has been made and the figures in Table 3 have been suitably revised, the cost accountant will readily see that that information, combined with the detailed figures used in the cost estimates, provides material for initial forecasts of costs and profits.

TABLE 4

No.....	Group.....		Date.....	
Orders received—Weekly totals				
Sample Number				
Week ending	Units	£	Units	£
.....				
.....				
2 weeks total				
.....				
3 weeks total				
.....				
etc.				

TABLE 5

No.....	Group.....	Date.....		
<i>Revision of relative profitability factors</i>				
Sample number	Target selling price	Achieved average selling price	Original relative profit-ability factor	Revised relative profit-ability factor

Subject always to the demands of the market and the influences which can be brought to bear to change them (e.g. publicity), the work done indicates to management which products should make the greatest contribution to its task and should lead to the best direction of the selling effort.

The provision of control procedures

After the expiration of a reasonable period of selling, facts will have been obtained against which to begin to measure the forecasts contained in Table 3. The orders received for each sample should be listed in a group summary, week by week, plus cumulative totals (see Table 4).

Periodically as required, the achieved average selling price will be listed for each sample against the target selling price. The achieved average selling price is now used as a basis for re-calculation of the relative profitability factor (see Table 5).

The information resulting from the compilation of Tables 4 and 5 is now used as a basis for the re-examination of Table 3. For this purpose, a new estimate of demand will be required in respect of each sample, but as each revision period occurs, more and more facts will be available as a foundation for measurement of progress of the sales policy and its necessary revision.

It is essential that the same management team which provided the information on the basis of which the original decisions were made, should meet frequently to review the latest information and decide on necessary amendments of the policy.

SUBSIDIARY COMPANIES

Formation, Operation, Control

by S. PERRIN, F.C.W.A.



The problem of maintaining a foothold in one's best overseas markets in these days of steady expansion of local industry is one which may call for the establishment of a subsidiary company in the territory in question. This paper discusses the major issues likely to be encountered in the formation, operation and control of any subsidiary company, either at home or abroad, and indicates some of the precautions which are desirable should the alternative step of licensing an existing overseas company seem more attractive than setting up a subsidiary company.

PERHAPS it would be advisable for us to be quite clear at the outset what a subsidiary company is. Section 154 of the 1948 Companies Act defines a subsidiary company as one in which another company holds more than half in nominal value of its issued equity share capital, or of which another company is a member and controls the composition of its board of directors.

It may perhaps be argued, and with some justification, that there is little point in establishing a separate subsidiary company to handle a new product or group of products, when it is much simpler to create a new division within the general framework of the main company.

The answer will depend very largely upon the circumstances surrounding each particular case, but in an already large organisation, it may be said that, where the proposed new product is basically different from those already handled and calls for an appreciable number of additional specialist staff, there is probably a good case for a new subsidiary company, even though it may be intended to manufacture the new product either partially or even entirely in the same premises.

In the opinion of the writer, the greatest single advantage arising from this segregation is the incentive to the new executive to push as rapidly as possible towards the goal of profitable

operation for, whilst it may be argued that it is purely a question of accounting, there is no doubt that a new company name and a separate managerial team will give added incentive to get the new product moving quickly, without sheltering behind the parent company. We are probably all familiar with the large organisation in which a new product is launched which seems to hang fire, often because it is a spare-time job for the staff given responsibility for it.

However, it more frequently happens that the acquisition of a new subsidiary company is by purchase, and here there are probably well-known trade marks or named products already in existence. In such cases, there are clearly considerable advantages in maintaining the established names and connections, probably built up over a long period, and the subsidiary should be retained, albeit with a modified management structure.

Overseas Operation

In overseas operations, when it appears that local competition is such that the British company has great difficulty in importing into that country, or where established business is slipping away, the remedy is either to establish a company there, to take a financial interest in an existing company, or to licence a local company to use one's patents, trade marks and 'know how'. It is surprising how ready continental and dominion companies are to

An address delivered on 22 October 1957, to the Leicester Branch of The Institute of Cost and Works Accountants.

establish connections of this kind with a British company of good repute, and to pay for the privilege.

The question as to whether to establish an overseas subsidiary company or to licence a local company to manufacture one's products can, of course, be determined only after the most careful consideration of all the relevant factors but it may generally be assumed that the overall cost of setting up an overseas subsidiary company will be very heavy, and if the products in question are not already well-known locally and in good demand, probably owing to substantial importations over an appreciable period, it may take three or four years for the company to reach break-even point.

In any event, it will almost certainly be necessary to send a team of specialists to establish the new company and some of them may be required to remain permanently. This is a severe drain upon all but the largest companies.

There are also factors such as, for example, the acquisition or erection of premises; purchase and installation of plant; location of suitable and adequate material supplies; power and water supplies and other basic services and the recruitment and training of supervisory and operative labour. All of these will occupy a considerable amount of time and effort on the part of senior executives.

It may be, therefore, that a tie-up with a local company of good standing is the better solution, perhaps on the basis of a down-payment for 'know how' plus a royalty on sales and/or a percentage of profits. One advantage of this arrangement is that there is a reasonable prospect of a substantial proportion of such down-payment being regarded by Inland Revenue as a capital receipt and therefore not taxable.

There are good grounds for assuming that Inland Revenue will accept a claim by a British licensor that, in selling his secret and confidential knowledge to a foreign licensee, such receipts should not be subject to tax. The recent decision by the House of Lords in the Evans Medical Supplies Ltd. case, that the initial payment is not subject to tax, has considerably clarified this issue. There is, however, a very real danger that more than one such agreement will be regarded by Inland Revenue as dealing in 'know how' and attacked accordingly. There are, of course, no possible grounds for any claim by the licensor that royalty receipts are other than revenue and they will undoubtedly be assessed to tax.

When considering a foreign licence agreement, it should be borne in mind that in certain coun-

tries the local government imposes an extremely high rate of income tax upon royalty payments to foreign (e.g. British) licensors and in India, for example, a rate as high as 75 per cent. of the gross royalty due has been recorded. In such a case, the British licensor should obviously ask for a larger initial payment than he would normally request, as otherwise his net receipts after tax would not justify his entering into such an agreement.

In most foreign licensing agreements it is customary to stipulate a minimum royalty in respect of the third and subsequent years in order to safeguard oneself against the possibility of the licensee not exercising adequate efforts in his manufacture and selling activities. The possibility of making reciprocal arrangements will naturally be borne in mind in negotiating foreign licensing agreements.

Other important factors requiring consideration in drafting foreign licensing agreements are:

The basis of payment of royalties (usually turnover and/or profits) requires very careful definition.

The payment by the licensee of salaries and expenses of staff visiting the licensee's works at his request.

Safeguarding confidential information concerning the operation of the patents and/or products being transferred to the licensee.

Ensuring that exchange control consent has been obtained at both ends and checking that a double taxation agreement is in operation between the respective countries.

Definition of exact territories covered by the licence, whether exclusive or non-exclusive and any restrictions relating to exporting therefrom.

Arrangements covering the action to be taken in restraining any infringement of the patents by a third party.

The responsibility of paying patent and trade mark renewal fees.

Reciprocal arrangements on other products and in respect of improvements by the licensee of one's own products.

Arrangements covering arbitration and the application of English or foreign law.

The period covered by the agreement; conditions regarding premature termination by licensor and obligations upon the licensee in the event of such termination.

If the decision taken is in favour of establishing a subsidiary company, whether it be at home or overseas, several important factors will require

to be resolved before any building or manufacturing operations are commenced. These will include:

The required amount of capital and how it should be raised and also the question as to whether, if not to be a wholly-owned subsidiary, the public should be invited to subscribe.

The drafting of its memorandum and articles of association and its registration.

The constitution of the board and representation of the parent company thereon. In overseas operations, this may be a question of paramount importance in view of local company and tax law.

Local regulations governing building construction and manufacturing operations in certain areas. The necessity of obtaining a Board of Trade Industrial Development Certificate is often overlooked.

Local trade associations, 'rings', restrictive agreements and the like, which can cause considerable difficulty at a later stage.

Management Structure of Subsidiary

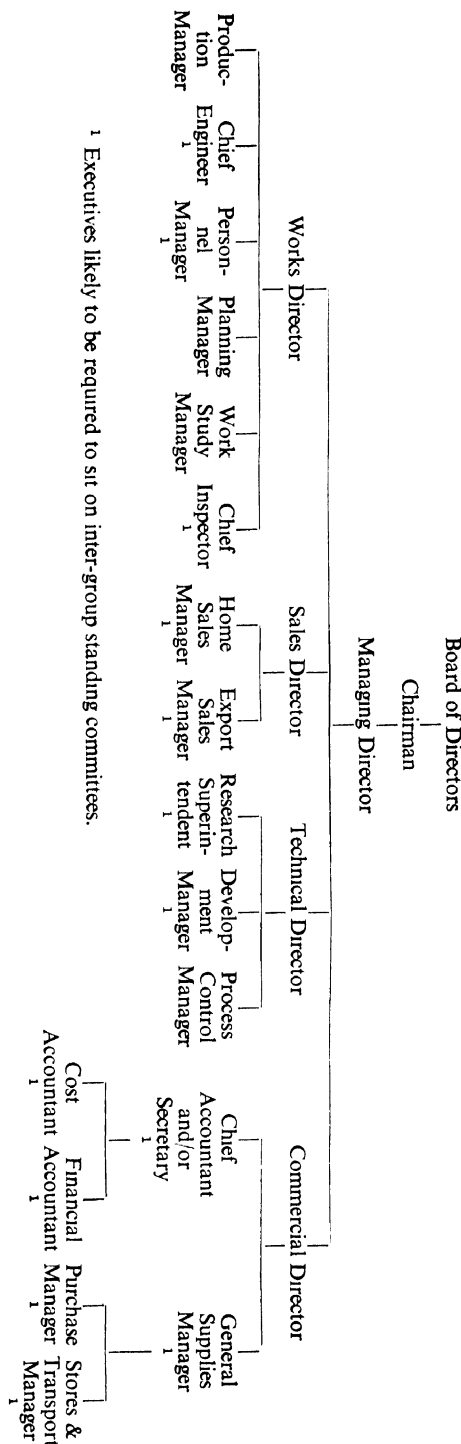
The parent company will probably find it desirable to have at least one member of its board sitting on the board of the subsidiary company and if limited to one, he could no doubt with advantage occupy the chair, whence he can act in a general advisory capacity. By this means, also, directives from the parent board may conveniently be conveyed to the subsidiary board.

The top management structure of a subsidiary company having a minimum of, say, 500 employees might take a form somewhat on the lines of Fig. 1.

A policy of succession must be established and strictly observed. In the ordinary course of events, no doubt, all appointments to senior management level will be by promotion from within the organisation and it is therefore essential that executive material of an adequate quality and quantity is available for training and grooming for the higher posts. To what extent this process will be operated on a group basis, or alternatively on an individual company basis, rather depends upon the structure of the group and the thinking of the parent board but there should be the fullest possible measure of integration of staff and executive training procedures amongst the individual companies within the group and promotions and transfers of staff from one company to another should be made as easy as possible.

It is important that every member of the staff

FIGURE 1
SPECIMEN ORGANISATION CHART—TOP MANAGEMENT ONLY



should know his place in the company's organisation, to whom he is responsible and what are his functional responsibilities. It is also essential that a standard practices manual or operating manual be compiled in respect of each function, so that everyone is aware of his duties and how he should proceed to carry them out.

The formation of standing inter-group committees, covering certain specialist functions, can play an extremely useful part in the co-ordination of group policy, in the elimination of inefficiencies and wastage, and in the prevention of misunderstandings or misconceptions as between the various companies within the group.

The maximum degree of effectiveness in this respect is to be obtained where it is feasible to integrate group functions directly under one executive and this is most frequently found in connection with research; purchasing; publicity; secretarial and accounting, and personnel and training.

Standing group committees can perform much useful work in achieving economies even in respect of specialist functions which may be partially centralised (e.g. purchasing), where it may be deemed expedient for the parent organisation to provide those materials in common use throughout the group but not those required only by individual subsidiaries.

Executives likely to be required to sit on inter-group standing committees are indicated in Fig. 1.

Provision of Working Capital

It is frequently a matter of considerable difficulty to balance the working capital requirements of individual members of the group. Such individual needs will naturally vary from time to time and although the amount of working capital required by a subsidiary company will have been assessed when it was originally formed or was acquired, it will be necessary to have an annual review of the cash required to carry on the business of each company as an integral part of the budgetary control routine, and to revise this from time to time during each year. It may be that one company will have considerably more cash available than it appears likely to require, whilst another with a good profit-earning potential may be short of working capital. Some re-adjustment would, therefore, seem to be indicated and this can be effected by an inter-company transfer, the borrowing company possibly paying a reasonable amount of interest therefor.

It should be borne in mind that most banks will not permit the favourable balance or balances

of one or more of the members of a group of companies to be offset automatically against overdrafts granted to others, even where the same branch of the bank handles the accounts of all the companies in question. In such cases, banks usually charge a 'turn' of 1 per cent. on the amount so offset, so that where appreciable sums are involved, inter-company transfers of cash are advisable.

In the event that anticipated total cash requirements of the group exceed the total available resources, the parent company board will have to decide whether to seek permanent additional capital or temporary accommodation—e.g. bank borrowings, institutional advances, or short-term bills.

Permanent capital can take many forms—e.g. ordinary shares (voting or non-voting), preference shares or debentures, and in these days of high rates of taxation, loan capital is an attractive form of financing industrial expansion.

Irrespective of the form of financing which is decided upon, the consent of the Capital Issues Committee will be required if the sum involved exceeds £10,000. This applies even to bank accommodation.

The amount of capital expenditure which each subsidiary desires to incur during the ensuing year will also require to be budgeted and this financial information is most conveniently presented to the parent board by the managing director of each subsidiary within the general framework of his annual report.

If it be assumed that the utmost degree of autonomy is exercised by the subsidiary companies, the general sequence of financial control operations may take the following form.

Control Operations

At the commencement of each financial year the managing director of each subsidiary company will present to the parent board a comprehensive report on the past year's operations, together with a detailed budget covering the ensuing year. This budget will include such basic features as the anticipated turnover by product groups; material, labour and general operating expenses also by product groups; the principal projected works of a capital nature; new product lines which it is intended to introduce; material stock-holding policy; the overall cash requirements; executive and staff recruitment programme, etc.

If approved by the parent board, this budget will form the basis of the subsidiary's operations during that year and each month the managing director will be required to present to the parent

board a personal report in general terms of the stewardship of himself and his colleagues. These reports should relate to matters which would not normally form part of the monthly financial statement and would, for example, include reference to actual or anticipated problems or difficulties such as those relating to the supply of materials, plant breakdown, labour problems and the like; matters of particular interest such as important new sales contacts; the state of the order book; a review of the forward cash position including details of capital commitments; senior staff appointments or losses; detailed explanations of unusual features or anomalies contained in the monthly statement of account, etc.

A monthly statement of account from each subsidiary company will obviously be a fundamental part of the financial control procedure and these accounts will be required in a standardised form in order to facilitate consolidation. It is in this respect that a standing committee or some other effective form of integration will be of particular value. A specimen form of monthly trading and profit and loss account and balance sheet are shown in Tables 1 and 2.

It will be appreciated that, quite apart from the preparation of monthly consolidated trading and profit and loss accounts, it is a require-

TABLE 1

A.B.C. CO. LTD.

Trading Account for Month of August 1957

	Month of August		8 months to August		
	1957 Actual	Budget	1956 Actual	1957 Actual	1956 Actual
SALES TURNOVER					
FACTORY COST:					
Opening Stock of Materials					
Add Direct Materials Purchased					
Deduct Closing Stock of Material					
Direct Materials Consumed					
Direct Labour					
GENERAL MANUFACTURING EXPENSES:					
Indirect Materials					
Indirect Wages & Salaries					
Fixed Overhead Expenses					
Variable Overhead Expenses					
FACTORY COST OF OUTPUT					
Opening Stock of Finished Goods					
Add Goods & Components Bought for Resale					
Deduct Closing Stock of Finished Goods					
FACTORY COST OF GOODS SOLD					
GROSS TRADING PROFIT					
ADMINISTRATION EXPENSES					
SELLING EXPENSES					
DISTRIBUTION EXPENSES					
TOTAL COST OF SALES					
NET TRADING PROFIT	£				

Notes:

(i) The above is a summarised form of trading account, such as might be submitted monthly by a subsidiary company to the parent board. A fully detailed set of accounts, analysed under functional headings would be submitted to members of the subsidiary company board for control purposes.

(ii) The percentage which each of the above figures represents of the factory cost of output or of sales turnover, as appropriate, should also be indicated.

ment of the Companies Acts that there should be published each year a consolidated profit and loss account and a consolidated balance sheet, covering the operations of all companies within the group.

Within the above-mentioned limits, each subsidiary company board, if it be expected to show a reasonable profit on its trading operations, should have full control of its day-to-day affairs. In order to give effect to this, certain additional basic accounting and statistical data will require to be prepared for the guidance of the subsidiary board. Although no list can possibly be entirely complete, the following would certainly seem to be fundamental requirements:

- (a) turnover and profit by product groups.
- (b) principal raw material and finished goods stocks, by product groups if possible, excessive or low stocks being indicated.
- (c) the state of the order book by product groups.
- (d) the production and delivery position, by principal product groups.
- (e) summarised details of rejects in excess of standard cost allowances, by product groups.
- (f) establishment and personnel records.
- (g) the current and projected cash position.
- (h) capital commitments and current capital expenditure.

It will be appreciated that huge masses of detailed information presented to a board of directors are of little use and whenever possible, senior executives should be given the responsibility of considering the detailed routine statements and of high-lighting to the board those aspects of such statements which appear to call for urgent action.

In the case of an overseas subsidiary, it may be considered desirable during the formative years for this detailed statistical information to be remitted to the parent board weekly or monthly, as appropriate. It is perhaps unnecessary to add that frequent visits by directors and senior executives of the parent company will be advisable.

The communication of information to staff and operatives can be quite a problem, even in a comparatively small organisation, but where a company is a member of a sizeable group it becomes even more complex.

Undoubtedly one of the most effective means of conveying information concerning the general state of affairs within the company and of covering the more routine social and personal hap-

TABLE 2

A.B.C. CO. LTD.

Balance Sheet as at 31 August 1957

	31 August 1957	31 Decem- ber 1956
FIXED ASSETS		
Land and Buildings	£	£
Plant and Machinery		
Research Equipment		
Fixtures and Fittings		
Vehicles	£	£
	—	—
CURRENT ASSETS		
<i>Stocks:</i> Raw Materials	£	£
Work-in-Progress		
Finished Goods		
Cash in Hand and at Bank		
<i>Debtors:</i> Trade		
Group		
Bills Receivable	—	—
TOTAL CURRENT ASSETS	£	£
Less CURRENT LIABILITIES		
<i>Creditors:</i> Trade	£	£
Group		
<i>Taxation:</i> Profits Tax		
Income Tax	£	£
	—	—
NET CURRENT ASSETS	£	£
	—	—
TOTAL NET ASSETS	£	£
REPRESENTED BY:		
CAPITAL		
Preference Shares		
Ordinary Shares		
Share Premiums		
RESERVES		
General		
Bad Debts		
Stock Contingency		
Fixed Assets Replacement		
Profit & Loss Account at		
31/12/56		
Profit for Eight Months to		
31/8/57 less Tax thereon		
TOTAL CAPITAL EMPLOYED		£

penings is by the establishment of a house magazine. This need not be an elaborate or an expensive publication, but should preferably be issued monthly, as its news and reports tend to be somewhat faded if it appears less frequently. Some companies make a free issue of their house magazines, whilst others prefer to make a small charge, considering that employees will then read them more carefully.

It is certainly very useful to have this means of presenting to employees information concerning the financial and other activities of the company and if this is given in the simplest possible form it can do much to educate employees into a proper understanding of such mysteries as, for example, what happens to all the money the company receives from the sale of its products and how small a proportion of the total revenue the shareholders receive in relation to, say, total taxation and to the expenditure on salaries and wages.

Another most useful exercise is to give in very simple terms a breakdown of the annual balance sheet and this tends to be more readily set into its correct perspective if the individual assets and liabilities are calculated on a 'per employee' basis. Announcements of staff appointments and promotions and of other official and semi-official matters may also usefully be made through this medium.

Unless the group is large (say six or more companies), it will be preferable to publish the magazine on a group basis, it being reasonable to suppose that happenings in one company will be of some interest to the others. It will also help to knit together the various companies forming the group, and facilitate the inclusion of matters of a group nature, such as will be issued from time to time by the parent board.

Apart from the use of house magazines, there are several other channels open to the management for the dissemination of information. Works councils, on which representatives of management, staff and operatives meet together, can do much useful work, provided that a director conducts the meetings and gives a positive lead to the council. If this is not done, the agendas will usually comprise a list of requests and complaints from the staff and operatives, which could equally effectively be dealt with in some other manner.

The practice of holding regular senior staff meetings is widely carried on and such meetings are useful in that they make executives feel they are in the board's confidence and are kept *au fait* with important developments. Information can be conveyed by this means to the

executives for dissemination within their respective departments.

Direct contacts with shop stewards' committees and with local trades union officials are other effective ways of conveying appropriate information. These meetings can with advantage be on a regular (e.g. monthly) basis.

Some managing directors make a regular practice of speaking to their employees, either by using broadcasting equipment, or by calling the employees together for the purpose. All these methods are no doubt useful in keeping a good spirit in the organisation and of explaining to employees the problems and achievements of the company.

Finally, there are official or semi-official social functions, and whilst these will naturally tend to occur during the winter months, they form an invaluable opportunity for top management to meet employees on an informal basis and to convey information and to exchange views. It will normally be much better for such gatherings to be arranged on an individual company—i.e. on a non-Group—basis so that they do not become too large to fulfil their primary purpose.

Cost Accounting Function

What will be the role of the cost accountant in this general scheme of things?

Viewing the question from the position of the chief cost accountant of the parent company, one must assume the basic fact that he, or his immediate superior (probably the chief accountant), will be in a position to indicate to his opposite numbers in the various subsidiary companies the general lines upon which their costing procedures should be operated. It would be quite absurd if entirely independent and unrelated costing systems were in operation within the group, for this could give rise to serious anomalies as between product costs, as for example, in respect of similar groups of products of the different companies. Differences in cost there will most certainly be, but the situation could become quite chaotic unless there is some reasonable degree of uniformity in the costing methods employed within the group.

Apart from establishing some degree of uniformity in the sphere of cost analysis and collection, there is the question of uniformity in budgeting procedures. There must be well-defined instruction given to the cost accountants of the subsidiary companies and these will be laid down in the standard practices manuals. Within these limits, the cost accountants of individual companies should have full control

of their day-to-day costing and allied routines and will prepare and submit to their respective boards such cost and other data as may be required for control purposes.

It would seem to be highly desirable that the respective chief cost accountants of the companies within the group be formed into a standing group committee, of which the parent company's chief cost accountant (or his immediate superior) would function as chairman. In this way, problems or difficulties arising within a particular company's costing operations may be discussed and resolved and suggestions for improving existing standard practices considered.

The price-fixing policy to be followed by the group will require to be established by the parent board and may have to be modified from time to time, according to the advice and experience of the individual companies. Problems may arise concerning current price levels and the margin of profit available in

any particular case, which the parent board may or may not feel inclined to leave to the discretion of the subsidiary board. It may, for example, be obvious in a period of trade recession that normal profit margins cannot be obtained and a decision may require to be made as to whether a subsidiary company be permitted to take an order at a reduced margin of profit, or even below total cost. It may be considered sound policy in such instances for the subsidiary company concerned to be required, save in minor cases, to justify such a policy to the parent board and to indicate the extent, if any, to which fixed expenses have been eliminated from cost calculations.

In a period of severe trade depression, however, the parent board would no doubt find it necessary to establish a new price policy and the closest attention would then have to be paid to the extent to which fixed overhead expenses should be excluded from total cost.

OVERSEAS MANUFACTURE

AND MARKET RESEARCH

ECONOMIC nationalism is growing everywhere, said **Mr. H. J. Furness, F.C.W.A.**, Senior Vice-President of The Institute of Cost and Works Accountant in a stimulating lecture to the Harrow Branch of the Institute on 7 March. Traditional markets were falling away, and British companies might have to face the necessity of moving into overseas manufacture on a much larger scale.

He took three countries as examples of areas of investigation in which he had been engaged. In all cases the common denominator was an economic survey. It was necessary to check that the currency was sound and that capital invested would not be subject to devaluation. The overall internal economy should be examined and the improving standard of living measured. Studies should be made of the current ownership level, future buying intentions and the methods of purchase.

In the case of Turkey, Mr. Furness described a country rich in mineral wealth, undeveloped, but anxious to encourage foreign investment. The high cost of raw materials imported made

manufacture within the country by British companies impracticable at the present time.

South Africa, unlike Turkey, had placed emphasis on the consolidation of progress already made and the manufacture of capital rather than consumer goods. Politics apart, there was no reason why South Africa should not look forward to a great future as a manufacturing country.

Mr. Furness quoted France as his third example, a country which he claimed was economically sound and which had a high standard of industrial development.

The investigator, he said, should take into consideration the special requirements of the inhabitants of each country, their habits and traditions. It might therefore be necessary to alter the product in many ways to meet the demands of the country. Local labour problems should also be studied.

Mr. Furness answered many questions ranging from technical details of his market research to the probable effects of the European Common Market.

THE COST ACCOUNTANT

Journal of The Institute of Cost and Works Accountants



GENERAL INDEX

Volume 36

JUNE 1957 to MAY 1958

The Institute of Cost and Works Accountants Limited (by Guarantee)

63, Portland Place, London, W1.

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LEGAL COMMENTARY

affecting Industry and Commerce

COMPANY LAW

Date of Resolution

HOLMES v. KEYES [1958]

The Times, 19 March, 1958

At a general meeting of a company held on 23 December 1957, a poll was taken on resolutions for the election of *X* and *Y* as directors of the company. The voting was completed on that day, but the votes were not counted until the following day, 24 December, when, as a result of the count, *X* and *Y* were declared to have been elected. It was not until 24 February 1958, however, that their names were entered on the register as holders of the necessary qualification shares, and the question was raised whether they had acquired their qualification within two months after their appointment as required by the Companies Act, 1948, Sec. 182.

The Court of Appeal (reversing the decision of Danckwerts, J.) held that *X* and *Y* were duly qualified as directors. The resolutions must be regarded as having been passed on the date on which the result of the poll was declared, *i.e.* 24 December 1957, so that the period within which the necessary qualification must be acquired ran from midnight on 24/25 December 1957, to midnight on 24/25 February 1958. The registration was accordingly within the prescribed time.

★

FACTORIES ACTS

Safety of Lift Gates

BLAKELEY v. C. & H. CLOTHING CO.
(A FIRM)

[1958] 1 W.L.R. 378

A company owning a factory building let two floors to a firm of clothing manufacturers and maintained for the use of the firm's workmen (and others) an automatic lift which the company controlled. The plaintiff, an employee of the firm, had emerged from the lift in the course of his employment and shut the lift gates, when, thinking he had not properly shut the inner gate, inserted his hand through the outer gate to close the inner gate. As he did so the lift started, severely injuring his hand.

Lynskey, J., held (1) that the employers (the firm) were not in breach of their common law duty because the risk of the lift moving by someone pressing the button on a lower floor was too obvious to make any warning necessary; but (2) that the company were liable for breach of their duty under the Factories Act, 1937, Sec. 22(3) which imposed an *absolute* obligation to provide the lift with

gates which, when shut, would prevent persons from coming into contact with the lift when moving.

★

MASTER AND SERVANT

Safe System

HAYNES v.

QUALCAST (WOLVERHAMPTON) LTD.

(1958) 1 W.L.R. 225

The plaintiff, a moulder at defendants' foundry, was injured in the course of his work by reason of his ladle slipping and the molten metal splashing on to his foot. Protective spats were available for use, as the plaintiff well knew, but he did not wear them; and as he was an experienced workman, he was not actually ordered or even advised to wear them.

The Court of Appeal held that the defendants, not having taken steps to educate workmen to wear protective clothing, were in breach of their common law duty, but that in the circumstances such breach was responsible for the accident only to the extent of 25 per cent. Lord Evershed, M.R. observed that in some employments an injury (*e.g.* to the eyes) might have such serious effects as to render it necessary to make the wearing of protective clothing a rule of the factory, but that where the risk was not so serious (as in this case) advice might be sufficient.

★

SALE OF GOODS

Confirmed Letter of Credit

HAMZEH MALASS & SONS v. BRITISH IMEX INDUSTRIES LTD.

[1958] 2 W.L.R. 100

Under a contract for the sale of goods for delivery in Jordan by two instalments payment was made by a confirmed letter of credit with an English bank in respect of each delivery. The buyers alleged that the first instalment was defective in quality, and, as the sellers had realised the first letter of credit, sought an injunction to restrain them from drawing upon the second.

The Court of Appeal refused an injunction on the ground that it was undesirable to interfere with a well-established commercial practice under which a confirmed letter of credit is regarded as imposing on the banker an *absolute* liability to pay, notwithstanding any dispute between buyer and seller as to whether goods are in accordance with the contract or not.

INSTITUTE DINNER IN GUILDHALL

A Great Moment in the Institute's Life

FRIDAY 24 OCTOBER 1958

Distinguished Official Guests

LAST month we announced the forthcoming holding of a banquet in London's Guildhall on which occasion the ever-increasing importance of the part played by members in the economic life of the country will be emphasised by many distinguished guests.

Price of Tickets

Details of the arrangements made for this outstanding event in the thirty-nine years of the Institute's life, will be announced in later issues,

but we are now able to state that the price of tickets will be £3 3s. 0d. each. An application form will be enclosed with the June issue of *The Cost Accountant*.

Because of the limited accommodation, the Council has decided that attendance at the banquet shall be all male, with the exception that lady members of the Institute will, of course, be entitled to attend.

There will be no limit on the number of personal guests that a member may bring. It is expected that the proceedings will end by 10.30 p.m.

Those who come will dine in a hall which has seen a thousand years of English history. The story of Guildhall goes back at least to the time of the

Norman conquest. Guildhall was then the meeting place of the representatives of the City of London. Already a powerful group, these citizens played a vital part in the struggle between the barons and King John, setting the pattern of vigorous activity which was to go on to the present day.

The struggle for freedom by the City of London has earned for it the title 'the protectress of freedom'. Guildhall has been used to such good effect that, in the words of the historian, Sir Walter Besant, the citizens of London 'won for their descendants, they won for every town where the English language is spoken, the rights of free men in free cities, the rights of the individual, the rights of property'.

When it has not been at odds with the reigning monarch, Guildhall has rejoiced with him. One of the earliest instances of this was in 1312, when on receiving the news announcing the birth of



An interior view of Guildhall showing the outer panelling surrounding the dais which is used during receptions, and on which the Queen's table is placed on Royal occasions.

Edward, afterwards the Third, high festival was held for a week, and on the last day of rejoicing,

'The Mayor, richly costumed, and the Aldermen, arrayed in like suits of robes, with the Drapers, Mercers, and Vintners, in costumes, rode on horseback to Westminster, there made offering, and then returned to Guildhall, which was excellently well tapestried and dressed out. There they dined.'

Since then, Guildhall has become the recognised centre for the celebration of events of great national importance.

First Mayor of the City

The first Mayor of the City was installed in the 'old' Guildhall in 1119. The foundation of the present Hall, which replaced the old Hall, was laid about the year 1411 and the Great Hall was completed by 1440.

Another important role acquired by Guildhall—as a courtroom—was illustrated by the turbulent events in 1450, when Jack Cade and his Kentish followers took possession of the City and held mock trials in Guildhall; they sentenced Lord Say and two others to death, carrying out the sentences in Cheape and setting up the heads on London Bridge. In the hands of its lawful owners, Guildhall was the scene of such famous trials as those of Archbishop Cranmer and Lady Jane Grey.

Perhaps the most popularly known event at Guildhall is the annual banquet held on Lord Mayor's Day, first recorded in the City records in 1529, when Sir Ralph Dodmer assumed office. Over the centuries it became the custom for each new monarch, as he succeeded to the throne, to attend the first Lord Mayor's Banquet after his succession.

In this same century Guildhall was the meeting place of the merchant adventurers of the first Elizabethan era—Frobisher, Hawkins and Raleigh, to name three. In the following century, the fate of Cromwell, of King Charles II and of William and Mary was influenced by the powerful City of London, and each monarch in turn was received in Guildhall.

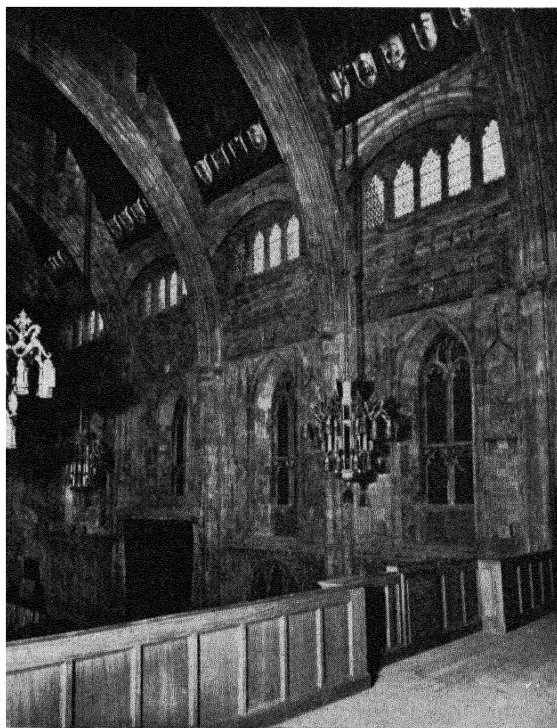
Twice in its history fire has attacked Guildhall. In the Great Fire of 1666 the roof of Guildhall caught, but happily the 'horrid, malicious, bloody flame'—as Pepys called it—burnt itself out without serious damage to the walls. On 29 December 1940, Guildhall and the greater part of the administrative offices lying to the north were burnt in an air raid. Once again, however, the mediæval portions of the old Hall remained intact and practically uninjured. Once again the Hall was re-roofed.

The Editor wishes to thank the City of London Information Centre for much historical data.

There is a highly prized honour, traditionally presented in Guildhall—the Freedom of the City of London. An early recipient, William Pitt, was the author of that famous comment, made on an occasion in Guildhall during the conflict with Napoleon: 'England has saved herself by her exertions and will I trust save Europe by her example.'

The celebrations at Guildhall at the conclusion of that war, when the Czar of Russia, the King of Prussia, Louis XVIII, the Prince Regent and a host of other distinguished guests were entertained, set the pattern for similar occasions after the Crimean War, the Boer War, and the first and second World Wars. It is at such occasions that our national heroes—Nelson, Roberts, Kitchener, Beatty, Haig, Montgomery—and our great political figures, of whom one example—Sir Winston Churchill,—will suffice, are traditionally thanked for their services.

Today, Guildhall continues to play a vital role in the affairs of the nation, adding dignity and splendour to our great occasions.



A view from the gallery at the west end of Guildhall. Some of the shields of the eighty-two Livery Companies can be seen above the clerestory windows beneath the stone arches of the new roof, which replaced the hammer-beam roof destroyed by fire in 1940.

TRAINING SCHEME

FOR COST ACCOUNTANTS

The following programme of training for registered students of the Institute is reproduced by kind permission of Henry Hope and Sons Ltd., metal window manufacturers, Birmingham. This is the second in the series of training schemes actually in operation that we hope to publish from time to time. The first appeared in our February issue.

TOUR OF THE WORKS

This will consist of a visit to the manufacturing departments under the direction of a guide qualified to explain the various processes involved.

OFFICE JUNIOR

Three months

Opening incoming mail, preparing outgoing letters and parcels for posting, filing, assisting in print room and general office duties. Collecting mail from, and distributing mail to, the various departments.

WAGES OFFICES IN WORKS

Two months

Preparing piecework tickets by reference to operation layout sheets and issuing to operators. Collecting and completing time sheets and collating relative piecework tickets and calculating overtime allowances.

WAGES OFFICE

Six months

Agreement of hours between clock cards and time sheets. Calculation of gross wages for both pieceworkers and day workers. Recording adjustments of standing deductions on personal record cards. Marking and stamping national insurance cards, recording average earnings and holiday pay. Making up wage packets and paying out.

WORKS OFFICES

One month

Assisting in the maintenance of production progress records. Recording production for the purpose of calculating bonus earnings. Recording control information for works supervisors. Assisting in the preparation of material and fittings requisitions.

STORES

Two months

Assisting in the receipt of incoming stores and placing in storage bins and racks. Preparing goods inwards advice notes. Putting up materials in accordance with stores requisitions. Issuing materials into production.

STORES CONTROL

Three months

Recording on stock cards the inward and outward movement of stock items. Checking and pricing

requisitions. Checking physical stocks against stores records in accordance with the requirements of the continuous audit system. Maintaining stocks within predetermined minimum and maximum levels.

PURCHASE INVOICE DEPARTMENT

Three months

Collecting and filing goods inwards advice notes covering materials received. Collating goods inwards advice notes and suppliers' invoices, checking against purchase orders and recording deliveries and prices thereon. Checking and recording cost code numbers. Filing suppliers' invoices and goods inwards advice notes. Totalling and reconciling prior to machine posting for departmental analysis and financial accounting purposes.

WAGES ANALYSIS

Two months

Assisting in the preparation of wages analyses under departmental headings, showing the various categories of direct and indirect labour. Preparing tickets for posting to job cost cards and reconciling weekly and monthly departmental summaries.

FACTORY

Two months

Assisting in the preparation of various works, stores, wages and production records connected with galvanizing, window manufacture and window assembly. Keeping records showing the movement of work through the factory for the purpose of determining work in progress at various production points.

COST OFFICE

Six months

Assisting cost clerks in preparing media for the purpose of machine posting to job cost cards. Checking the accuracy of information on the various prime cost documents. Filing departmental copies of sales invoices in readiness for entry on the job cost cards. Filing sales invoices for the purposes of branch and production analysis. Assisting in the calculation of cost of sales for the purpose of determining work in progress. Listing, pricing and extending work in progress sheets in departments not job-costed. Preparation of cost information for the purposes of price fixing.

BOUGHT LEDGER SECTION*Six months*

Agreeing suppliers' statements with ledger accounts, deducting discounts where applicable prior to the preparation of cheques. Checking payments, writing cheque remittance forms. Checking suppliers' statements and listing missing invoices. Corresponding with suppliers regarding differences. Filing receipted cheques.

SALES LEDGER SECTION*Six months*

Agreeing payments received with ledger accounts, writing to customers regarding differences, 'chasing' overdue accounts, checking that payments authorised by architects' certificates are met on due dates. Noting retentions on ledger cards and checking that they are paid on the due dates.

MONTHLY TRADING STATEMENTS*Three months*

Assisting in the preparation of departmental trading accounts, including interpretation and checking various sources of prime entry. Allocating and apportioning various types of overhead expense to the productive departments and service sections.

COST OFFICE*Nine months*

Recording and maintaining a departmental cost ledger including the responsibility for checking entries, calculating work-in-progress values and reconciling with the financial records. Finalising contract costs and preparing summarised costs of completed contracts.

OFFICE ORGANISATION AND METHODS SECTION*Three months*

Assisting in investigations into clerical methods and procedures, including training in the preparation of procedure charts, form design and procedure reports. Instruction in the capabilities of various types of office machinery. Assisting in the introduction of agreed new or revised clerical procedures.

FURTHER TRAINING AT**WISH OF TRAINEE***Three months*

A second period of work in any section in which the trainee wishes to gain further experience.

Total training period, sixty months

ELECTRONICS AND AUTOMATION

ANALOGUE COMPUTER

AMONG equipment being shown by E.M.I. Electronics Ltd., at this year's Hanover Fair, due to open on 27 April, was a new analogue computer specially designed for industrial organisations, both large and small, which are faced with complex design or production problems.

Known as EMIAC II, the new computer can be tailor-made to meet the specific needs of a wide range of industries. The basic operation, which can be likened to a slide rule, can, it is claimed, solve in a matter of hours problems that would normally take a team of specialists weeks or months of calculations on paper. Care has been taken to simplify the computer's operation so that operators need no specialised knowledge of electronics.

E.M.I. report that they have evolved a new instrument which gives a simple direct meter reading of the dilution by fuel oil of the lubricating oil of a diesel engine.

THE INSTITUTE'S FINAL RESIDENTIAL COURSE

THE last of the current series of three residential courses on automatic data processing, organised by the Institute, took place at Hulme-Hall, Manchester, from 28 to 30 March. This course emphasised the lesson of the previous ones that however good the written papers may be—

and those at Manchester were excellent—great value also lies in discussion. The members and students, from a wide variety of industries were able, at Hulme Hall, to exchange opinions and experience and to question at length the experts on points of difficulty.

Mr. C. A. Wilkes, A.C.W.A., F.C.I.S., the course chairman, drew attention to a welcome innovation by one manufacturer—mentioned by one of the speakers—of a sliding scale of allowances in part exchange for those purchasers of computers who now wanted to purchase more powerful machines.

PRODUCTION CONTROL

THE London data processing centre of IBM United Kingdom Ltd., based on an IBM basic 650 computer, which provides facilities for outside organisations, has reported on a production control programme for Belling and Lee Ltd., makers of electronic components and television aerials. Representatives of this company saw a demonstration showing how a computer could achieve a quick breakdown of parts' requirements as a result of a change in the sales forecast. At that time the company's own sales programme was subject to a rapidly changing and unpredictable market, and to produce a breakdown of parts' requirements as a result of a change took three men, working full time, three weeks. Now, one day only

is needed to prepare stock figures, and in a single run of thirty minutes on the IBM 650, the breakdown is made. It is claimed that the financial savings in the first six months amount to many thousands of pounds and a far greater accuracy in the forecast has been achieved.

Transportation Problem

The IBM 650 has also been used to study a transportation problem to determine the most economical method of shipping coal from a system of 51 pit-heads to 33 gas works. It was estimated that if the conclusions reached in the data processing centre

were put into operation, the annual saving in transportation costs to the sponsoring organisation would be in the region of £70,000.

PROCESS CONTROLLER

A PROCESS controller which records and controls temperature and pressure variables to a pre-set programme is available from the Cambridge Instrument Co. Ltd. Eight separate operations can be controlled in sequence and fully automatically. Programme and timing cams are cut to plant requirements by the particular manufacturer or user.

ABSTRACTS OF ARTICLES in Contemporary Journals

Financial Implications of Growth

by J. FRED WESTON

The Controller. March 1958.

With high profitability a firm expects no problem in financing growth, yet the firm finds it requires more financing. Three situations are illustrated with an exposition of the principles derived from the examples.

★ ★ ★

Measuring Organizational Performance

by RENSIS LIKERT

Business Games—Play One

by G. R. ANDLINGER

Harvard Business Review. March–April 1958.

Each of these articles deals with the efficiency of managerial control. The first contrasts what is called the 'traditional' theory of reporting end results, such as production, sales, profits and percentage of net earnings to sales, with what is called the 'modified' theory, which takes into account such factors as levels of confidence and trust, motivation and loyalty and the capacity of the organisation to communicate fully, to interact effectively, and to achieve sound decisions. Particularly is this important where decentralisation can lead to undue emphasis on short-run results.

The second article points out that to qualify for any top-level job a man must have 'sound business judgement' and related skills. Yet how is he able to acquire these qualities before he is in a top-level

job? 'Business gaming' is the first promising attempt to provide this experience by simulating the real life operations of a business and forcing the participants to cope with the same kind of problems that face the top management of a company.

The article outlines and explains the basic concepts of the business management game.

Other Articles Noted

Automation: A Break with the Past

by JOHN DIEBOLD

The Times Review of Industry. April 1958.

Analogue Games Supplement Business Experiments

by M. H. PESTON

The Times Review of Industry. April 1958.

Banking Considers Computer Centres

The Times Review of Industry. April 1958.

A Regression Control Chart for Costs

by EDWIN MANSFIELD and HAROLD H. WEIN

Applied Statistics. March 1958.

Automation in Check Handling

by THE EDITORS

Burroughs Clearing House. February 1958.

Publications Cited

The Controller (65c.), 2 Park Avenue, New York 16, N.Y.

Harvard Business Review (\$2.00), Soldiers Field, Boston 63, Mass.

The Times Review of Industry (1s.), Printing House Square, London, E.C.4.

Applied Statistics (12s. 6d.), 21 Bentinck Street, London, W.1.

Burroughs Clearing House, Detroit 32, Michigan, U.S.A.

BOOK REVIEWS

Elements of Supervision

by W. R. SPIEGEL, EDWARD SCHULZ, and
W. B. SPIEGEL

Chapman and Hall, London
Pp. 349. 48s.

In view of the increasing pressure for the organised training of foremen, this volume should fill part of the gap now existing in the supply of suitable text books. It is reasonably comprehensive in treatment both of principles and of practical methods, but, in places, its American origin becomes perhaps too evident.

For the teacher and the discerning student, this is a first-class manual, thoroughly to be recommended as the basis for a syllabus of supervisory training.

The book, however, has a value additional to that of a training manual. The first five chapters, covering the functions and duties of supervision, should be read by all in managerial positions. By studying them, one can draw logical support for convictions that supervision should be regarded as the first line in management, and that sound knowledge of the theory and practice of supervisory duties should be an essential constituent of any course in managerial studies.

★ ★ ★

Profitable Export Marketing

by MARTIN MADDAN, M.A.

Newman Neame, London
Pp. 192. 15s.

Mr. Maddan summarises his approach when he says:

'This book is written for the practical business man who is responsible for his company's exports and who wants to make use of market research in order to manage them in the most profitable way.'

At the same time, the author makes it clear that the book is also intended for the use of students. It will be seen that the focusing of attention on exports places the emphasis on the importance to British industry of proper overseas marketing.

An important warning is given by the author, quite bluntly, to the effect that the exporter must make use of experts in this field, or the results may be worse than useless. Among the points discussed is market research into the requirements of the ultimate purchaser abroad. Advertising will be needed in the consumer country, to which an initial properly planned visit by an official of the firm is also most important. A study of outlets must be

made, and a sales agent appointed with whom close co-operation must be maintained. These activities must not be embarked on separately, but as integrated parts of an overall plan.

The treatment of the subject is very realistic, and shows a background of real knowledge of the practical details of the work. The reader will especially enjoy the chapter on planning an overseas visit.

★ ★ ★

Communication in Industry (Third Edition)

Edited by CECIL CHISHOLM, M.A.

Business Publications Ltd., London, and
B.T. Batsford Ltd., London.
Pp. 314. 35s.

The value of this excellent book has been increased by three new chapters which bring it up to date.

The first additional chapter (chapter four) discusses the effect of communications on modern problems—particularly automation and redundancy. The second (chapter five) shows the need for training in communications, and describes methods of training. Chapter 18 discusses the role of the shop steward in industry.

All those who have the duty of ensuring that relations between men and management, management and unions, production and sales, and sales and customers, are maintained at their highest level by the efficient transmission of information and orders, will find this book stimulating and helpful.

It is perhaps not going too far to say that adoption of some of the ideas of the experienced contributors to this volume might well result in improvement in the industrial efficiency of this country.

★ ★ ★

A Dictionary of Statistical Terms

by MAURICE G. KENDALL, SC.D., and
WILLIAM R. BUCKLAND, B.SC., PH.D.

Oliver and Boyd, Edinburgh.
Pp. 493. 25s.

Serious statisticians everywhere will welcome this comprehensive work. Those who have occasion to struggle with foreign texts will welcome the French, German, Italian and Spanish glossaries. In some instances a bibliographical note giving a reference to a more extensive treatment would have made the work more valuable. The book is reasonably priced and excellently produced.

LETTERS TO THE EDITOR

We publish this month the final selection of letters commenting on the article by Mr. R. B. Sellors in our February issue. The Editor wishes to thank all those who have contributed to this correspondence. It is now closed.

Standard Cost Variances: A New Approach

Dear Sir,

The interest displayed in the subject of the alternative presentation of variances, as shown by recent correspondence, prompts me to extend this to the question of the volume variance, where a somewhat similar situation exists.

Taking basic figures:

	Standard £	Recovered by actual output at standard rates £	Actual cost £
Overheads 'variable':	800	608	700
Overheads 'fixed':	1,200	912	1,200
	<u>2,000</u>	<u>1,520</u>	<u>1,900</u>
Allowed 'variable' for actual output:			648
Then some of the alternatives are:			
(a) Unabsorbed overhead (£1,900—£1,520):			380
(b) Volume variance (gross) (£2,000—£1,520): Excess			480
Overhead variance (£2,000—£1,900): Gain			100
			<u>£380</u>
(c) Volume variance (net) (£1,200—£912): Excess			288
'Variable' overhead variance (£700—£608): Excess			92
			<u>£380</u>
			£
(d) Volume variance, fixed overheads: Excess			288
Volume variance, semi-variable overheads: Excess			40
Overhead variance, semi-variable overheads: Excess			52
			<u>£380</u>

All are technically correct, *according to the way one likes to look at them*. All have their uses. (c) and (d) lay emphasis on saying 'to reduce excess, costs must be cut'. (b) lays emphasis on saying 'to reduce excess, volume must be augmented'. Without very detailed

elaboration there can never be a clean cut line between fixed and variable expenses and the simpler version (b) points to the fact that overheads have been reduced below standard, but not nearly to the extent required to compensate for loss of volume.

On deciding on presentation I feel that the guiding rule should be to *lay emphasis on the aspect which is most likely to lead to appropriate action in the particular circumstances*.

Where short term volume variances tend to arise in different departments through poor production planning, bad time-keeping, labour turnover, repairs and breakdowns, shortages of materials, containers, tools or instructions, etc., it seems to me that there is much to be said for presentation (b), particularly where volume variances are reported weekly—or for that fact, monthly—to different management levels, and especially where firms are working with a full order book.

Control of cost per unit is a two-fold problem. In practice one does not expect managers or foremen to change their indirect labour, or modify their maintenance programme for every weekly variation in activity—but volume control is a day to day challenge.

Expense reduction is a longer term policy and for this purpose analyses (c) or (d) seem useful.

Yours faithfully,
J. A. SCOTT

Manchester.

★ ★ ★

Dear Sir,

In the February 1958 issue of *The Cost Accountant*, Mr. R. B. Sellors suggests that the formulae for analysis of direct cost variances have remained unchanged since 1930 although these formulae are not correct.

May I call attention to the fact that this

situation has been recognised in this country although it is true that it has not yet affected the generally used textbooks on cost accounting.

Professor Lawrence L. Vance of the University of California, who is well known as the author of books and articles on the use of sampling methods in auditing, published a paper as early as 1950 in which he called attention to the failure of the conventional formulae to consider the existence of a joint variation which represents as he puts it 'the extra price paid for the extra quantity used'.¹ He proposes to distribute what he calls 'the joint product' between the price and quantity variances in a ratio which reflects the 'amounts which are definitely attributable to price and quantity influences'.

More recently, Professor Robert N. Anthony, of the Harvard Graduate School of Business Administration, analysed in detail what he calls 'the grey area' which arises whenever the two variances are either both favourable or both unfavourable.² Mr. Sellors' chart shows that grey area quite clearly.

The problem which he has raised is merely one particular aspect of the much broader issue—to improve cost data so as to make them more useful for scientific analysis by operations research analysts and other scientific research workers in the field of managerial decision making.

Very truly yours,

ERNEST H. WEINWURM

Associate Professor
DE PAUL UNIVERSITY

Chicago, Illinois, U.S.A.

★ ★ ★

Dear Sir,

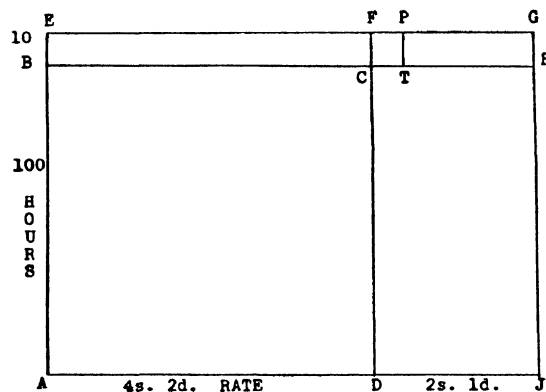
Mr. Sellors suggests that the portion of variance which is due to the joint effect of the variations from standard price and standard quantity (CFGH, in his diagram) should be apportioned equally.

Undoubtedly this is an improvement over the conventional methods; however, I should like to suggest that the area CFGH should be apportioned on the basis of the extent to which each causative factor (i.e. price and quantity) is responsible for it, in order that an accurate assessment of the impact of change due to variation from standard rate and that due to variation from standard quantity can be made.

¹ 'The Fundamental Logic of Primary Variance Analysis', Lawrence L. Vance. *Bulletin of the National Association of Cost Accountants*, January 1950.

² *Management Accounting* (chapter 15), Robert N. Anthony. Richard D. Irwin, Inc., 1956.

The reasoning of this proposition will be obvious from the following diagram:



Variation in rate is 50% from standard, while that in quantity is only 10%. Hence, the ratio of apportionment of the area CFGH should be 50 : 10, i.e. 5/6th to price variance and 1/6th to quantity variance.

The calculations are as follows:

PRICE VARIANCE

(i) Difference between standard rate and actual rate × standard quantity + 5/6 of joint effect variances

$$= (25d. \times 100) + 5/6 (10 \times 25).$$

$$= 2708d. \text{ (i.e. Area } CDJH + PTHG)$$

QUANTITY VARIANCE

Difference between standard hours and actual hours × standard rate + 1/6 of JEV (joint effect variances)

$$= (10 \times 50d.) + 1/6 (10 \times 25)$$

$$= 542d. \text{ (i.e. } EBCF + FCTP)$$

(ii) Calculating according to Mr. Sellors:

$$\text{Price variance } 25 \times \frac{110}{2} + \frac{100}{2} = 2625d.$$

$$\text{Quantity variance } 10 \times \frac{75}{2} + \frac{50}{2} = 625d.$$

Variances under the two methods of calculation show the difference of:

Price Variance

(i) 2708d.

(ii) 2625d.

83d.

Quantity Variance

(i) 542d.

(ii) 625d.

83d.

166d. Total inaccuracy.

In other words in a quantity variance of

542d. there is an inaccuracy of $\pm 83d.$, making a total range of 166d. which is 30.6% of the real variance.

Although the calculations involved in the suggested method may render it impracticable in some cases, yet in cases where the range of the rate of variation is high, or where the amount of variation is large, it may serve the purpose better, particularly in making summary statements.

Yours faithfully,

K. RAHMAN, B.COM.

London, N.7.

Cost Accountants and the Future

Dear Sir,

The writer feels that far too much effort and attention are given nowadays to the wrong kind of security and that the moment is opportune for directing our thoughts to the essentials without which there will be no security for any of us.

These essentials are made abundantly clear in Mrs. Sally Clark's clever letter herewith which I read in the *Farm Journal*, Philadelphia, in its correspondence columns.

I consider the letter worthy of the widest circulation for which reason I invite you to publish it.

Yours sincerely,

CHARLES E. LEWTON, F.C.W.A.

Ballinapark, Eire.

[We are grateful to our correspondent, to the Assistant Editor of *Farm Journal*, for permission to reproduce Mrs. Clark's letter.—EDITOR.]

A Future for Boys?

DEAR EDITOR: As a mother of growing sons, I am constantly disturbed by newspaper and magazine articles which portray the 'job with a future.'

It seems to me that this idea is a fallacy and that it stems from the current emphasis on security. The future isn't in the job—but in the man. We have been sold a mess of pottage when we buy the notion that security should be guaranteed from womb to tomb.

'Security' is a poor substitute for thought and effort. It is a habit-forming mental drug which dooms a man to remain in the ranks of the ordinary. It tends to make more 'common' men, of which the nation already has too many.

Common men do not build a better world so they cannot build a better future. Only uncommon men become top men. A man's limitations are within himself—his ability to grow with the job.

Industry's leaders are looking for men who have

what it takes to make industry grow. Not just men who will work—but men who will think. Jobs are only stepping stones for men who are big enough to create their own future—and create a future for their industry.

I don't want my sons to grow up looking for 'secure' jobs. I want them to work to fulfill every potential within them.

SALLY CLARK

Florida

COMPANY TRAINING SCHEMES FOR REGISTERED STUDENTS

IN our December 1957 issue, we published a list of companies having schemes of practical training for registered students. Since then, a number of additional companies have notified us that they have such schemes in operation and their names are listed below.

We wish to repeat the advice given in our March 1958 issue that these schemes have been designed by the companies concerned primarily for school-leavers in this country and that there is little possibility of students from overseas being accepted for training.

Supplementary List

British Timken Ltd., *Northampton*.
British United Shoe Machinery Co. Ltd., *Leicester*.
Cadbury Brothers Ltd., *Bournville*.
J. S. Fry & Sons Ltd., *Bristol*.
Hoffman Manufacturing Co. Ltd., *Chelmsford*.
Igranic Electric Co. Ltd., *Bedford*.
Lockheed Hydraulic Brake Co. Ltd., *Leamington Spa*.
Morgan Crucible Co. Ltd., *London, S.W.11*.
Parkinson & Cowan Ltd., *London, S.W.1*.
F. Perkins Ltd., *Peterborough*.
Rubery Owen Ltd., *Darlaston*.
Jas. Williamson & Son Ltd., *Lancaster*.

REPRINTS OF ARTICLES

From time to time we are asked for reprints of articles. Supplies of the following are still available: 'Electronic digital computers and business data processing', 1955, which is the first report of a sub-committee set up by the Research and Technical Committee of The Institute of Cost and Works Accountants to investigate the application of electronics to industrial accounting; 'Management accountancy', 1955, by G. S. Whitson, M.A., C.A., F.C.W.A.; 'Work study and control', 1955, by R. M. Currie, M.I.C.E., M.I.MECH.E., M.I.PROD.E., Head of I.C.I. Central Work Study Department. These are obtainable from the Institute, price 1s. 2d. each, including postage.

Institute Branch Dinners

THE COST ACCOUNTANT AND INDUSTRY

SHARES FOR WORKERS ?

North Lancashire

THE North Lancashire Branch held their annual dinner in Preston on 28 March. The guests were received by the President of the Branch, Mr. H. Hurst, F.C.W.A., F.A.C.C.A., F.C.I.S., and Mrs. Hurst, with Mr. James Borsay, F.C.W.A., President of the Institute, and Mrs Borsay.

Replying to the toast to the Institute, Mr. Borsay urged members to make positive efforts to assist in improving industrial relations, particularly by drawing attention to the cost, to both workers and industry, of restrictive practices and absenteeism. Mr. Borsay suggested that instead of continuing wage advances, schemes should be developed enabling workers to be allocated shares which could be purchased on easy terms. This would serve the dual purpose of countering inflation and giving workers a financial interest in the success of their companies. (*Applause*)

The toast to the Institute was proposed by Dr. David A. Harper, B.Sc., F.R.I.C., PH.D., Managing Director, Storey Brothers & Co. Ltd.

Mr. Alan Green, M.P. for Preston South, proposed the toast to the trade and industry of North Lancashire. Reviewing the fortunes of the principal industries of the area—engineering and textiles—he said that we now had, for the first time since the war, if inflation could be held, resources available for capital investment abroad. He thought that such a policy would provide a bright future for the engineering trades. Prospects in the textile industry did not seem to be optimistic at present; it was difficult to restrict by Government action the level of cloth imports from Commonwealth countries, and the solution might well lie in assisting these countries to diversify their trades, reducing their dependence on exports to the United Kingdom.

The Mayor of Preston, Councillor C. H. Hearn, J.P., responded.

Mr. Hurst proposed the toast, 'The Guests', Mr. C. de Wit, Director, Mullard Blackburn Works Ltd., responding.

Arrangements were made by the Social Secretary, Mr. K. Whalley, A.C.W.A., assisted by the Branch committee under the chairmanship of Mr. T. W. Battle, A.C.W.A.

Mr. Alan Green, M.P.; Dr. D. A. Harper, B.Sc., F.R.I.C., PH.D., Managing Director, Storey Brothers and Co. Ltd.; The Mayor of Preston, Councillor C. H. Hearn, J.P.; and Mr. C. de Wit, Director, Mullard Blackburn Works Ltd., were among those who attended.

Also present were:

Mr. L. Beswick, *Director and Secretary, Jas. Williamson and Son Ltd.*, and Mrs. Beswick; Mr. J. Foster-Humphreys, *Vice-President, North Lancashire Branch of The Chartered Institute of Secretaries*; Mr. Stanley J. D. Berger, M.C., F.C.I.S., *Director of The Institute* and Mrs. Berger.

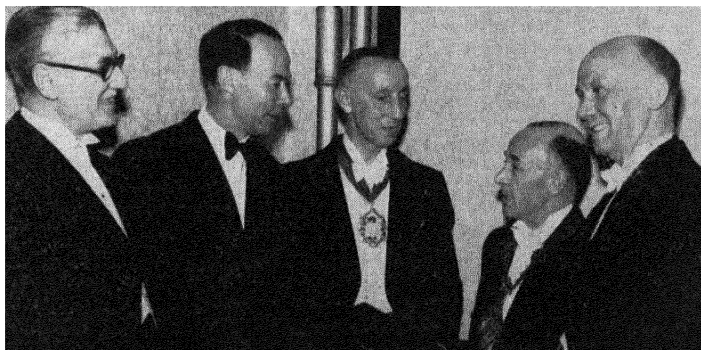
PLANNING FOR THE FUTURE

South Wales and Monmouthshire

THE South Wales and Monmouthshire Branch annual dinner was held in Cardiff on 26 March. The guests were received by the President of the Branch, Mr. David J. Young, C.A., F.C.W.A., and Mrs. Young, with Mr. James Borsay, F.C.W.A., President of the Institute, and Mrs. Borsay.

Replying to the toast to the Institute, Mr. Borsay said,

'I think our main job to-day lies in assisting manage-



Lancashire Evening Post

The President of the Institute Mr. James Borsay, F.C.W.A., (centre), at the North Lancashire Branch dinner, in conversation with Mr. Alan Green, M.P., (to his right) and the Mayor of Preston (to his left) with the Director, Mr. Stanley J. D. Berger, M.C., F.C.I.S., (far left) and the Branch President, Mr. H. Hurst, F.C.W.A. F.A.C.C.A., F.C.I.S.

ment in formulating their plans for the future; interpreting the plan in terms of financial figures; and keeping management informed, day by day, of the costs of output.' (*Hear, hear*).

He endorsed the view that members of the Institute should have experience on the shop floor and some knowledge of the machinery used. Information should be presented to operatives to develop a sense of cost consciousness but one of the difficulties was in getting to the men. The works representative sometimes intervened and passed on information coloured with his own views.

Mr. A. J. Nicholas, O.B.E., President of the Industrial Association of Wales and Monmouthshire, in his toast to the Institute, paid tribute to cost and works accountants. They were the 'guiding hands of industry' constantly watching that nothing went astray.

Technical training was becoming an important factor; with technological development, especially in Wales where a number of small industries were growing up, it was more than ever essential for the management to know how to keep costs right.

Industrial Field Transformed

Mr. Young said that the character of the South Wales industrial field had been transformed during the last thirty years.

Over the whole world, he went on, there were indications of a recession. It was in averting this that management and cost accountants—often described as industrial efficiency experts—could give the greatest assistance. (*Applause*)

Mr. S. J. Watkins, F.C.W.A., Branch Chairman, proposing the toast to 'Our Guests' paid tribute to the outstanding service, extending over 33 years, of Mr. Stanley J. D. Berger, M.C., F.C.I.S., Director and Secretary of the Institute. Mr. Berger responded.

Among the guests present were:

Mr. J. E. Daniels, A.C.W.A., A.C.I.S., *Honorary Secretary of the Swansea Sub-branch*; Mr. Dymond, *Headmaster, Cardiff High School for Boys*; Mr. C. J. Henry, F.C.W.A., *Chairman of the Swansea Sub branch*; Mr. H. B. Meredith, J.P. *local Director, Barclays Bank*; Mr. G. Newman, A.C.I.S., D.P.A., *Assistant Secretary, South Wales Division, Central Electricity Generating Board*; Mr. A. J. Nicholas, *President of the Industrial Association of Wales and Monmouthshire*; Mr. C. F. Pagnamenta, A.C.A., *Chief Accountant, Guest, Keen, Iron and Steel Co. Ltd.*; and Mr. Stanley J. D. Berger, M.C., F.C.I.S., *Director of the Institute*.

VALUE OF TRAINING

Nottingham and Derby

THE Nottingham, Derby and District Branch held a dinner and dance at Nottingham on 14 March; the Branch President, Mr. J. Shields, F.C.W.A., and Mrs. Shields, with Mr. E. Emmerson, A.C.A., F.C.W.A., a Vice-President of the Institute, and Mrs. Emmerson, received the guests.

Proposing the toast to the Institute, Mr. Geoffrey King, O.B.E., a director of Raleigh Industries Ltd.,

said that cost and works accountants played a most valuable role in industry by providing the figures and statistics which gave guidance to management for the progress and well-being of the company.

'In some cases the barometer may read fine, fair or even stormy, but, even so, without the cost accountant's work we should not be able to build such a progressive industry as we have today,' he said.

Turning to the question of training, Mr. King said that the Institute had a tremendous task in assisting the furthering of education; students were doing something for the benefit of all. (*Applause*)

Provision of Information

Mr. Emmerson, responding to the toast, said that by the provision of adequate information in good time, a cost accountant could assist materially in enabling the purchasing officer in any organisation to keep stocks to the minimum quantity necessary to provide a smooth flow of production and to avoid unnecessary tying up of capital in excessive or unremunerative stock. This was a very important matter, in these days of financial stringency and the high cost of borrowing.

Of the Institute itself, he said it was now entering upon the fortieth year since incorporation, and membership at present totalled nearly 6,000 qualified members and approximately 14,500 registered students. Mr. Emmerson went on to explain the increasingly important role being played by the Institute in the country.

He appealed to members and students to play a full part in the Institute's affairs by taking an active role at branch meetings and regional and national conferences, where the discussions provided an opportunity for those with experience to pass on the benefits of this to the younger management and cost accountants. (*Applause*)

The passing of this period of forty years had fully proved the value of proper training for the cost accountant. The Institute had ample evidence that the position of the cost accountant in the business community was now fully consolidated—largely through the efforts of the Institute. Time and time again eminent industrialists had stated that the Institute performed a very valuable national service in providing cost accountants who bore the hallmark of competency. Not only did the aspiring cost accountant have to pass the hard tests of the Institute's examinations; he had also to satisfy the exacting requirements of the Council in regard to practical training and experience, before being admitted to membership.

Mr. Emmerson presented *The Leverhulme Prize*, for the best paper in advanced cost accountancy in the Final examination, to Mr. P. L. Martin, A.C.A., of Wollaton.

The toast 'The City and Trades of Nottingham' was proposed by Mr. G. H. Tarrant, A.C.A., A.C.W.A., the Lord Mayor of Nottingham, Ald. W. Hickling, J.P., responding.

There was dancing till 1 a.m. to the music of 'The Black Boy Orchestra'.

THE INSTITUTE OF COST AND WORKS ACCOUNTANTS

ELECTIONS TO MEMBERSHIP

The following were elected to Associateship during March 1958. Employers are shown as at the date of election.

ADAMSON, C. F. P., *S.A. Fabrica Uruguaya de Alpargatas, Montivideo*

ALSOP, H., *National Coal Board, Durham.*

BENHAM, J. E., *Central Electricity Authority, Portsmouth.*

CODDINGTON, B., *Hope and Anchor Breweries, Sheffield.*

CORDWENT, H. G. A., *War Office, London.*

DENNISON, C. J. C., *Natal Cotton & Woollen Mills Ltd., Durban.*

FAROOQI, A. F., *Pakistan Industrial Development Corporation, Karachi.*

FOSTER, G., *Yates, Duxbury & Sons Ltd., Bury.*

GOSWAMI, B. K., *Ministry of Finance (Defence) (Factories) Calcutta.*

GOUGH, J. O., *Kleen-E-Ze Brush Co. Ltd., Bristol.*

GOWDS, D., *Motor Assemblies Ltd., Jacobs, S. Africa.*

JACKSON, J., *Star Paper Mills Ltd., Blackburn.*

LOW, E. G. I., *Production Engineering Ltd., London.*

MATTHEWS, W. E., *Biro-Swan Ltd., London.*

MORAN, E. P., *Ford Motor Co. Ltd., Dagenham.*

MORGAN, R. P., *British Nylon Spinners Ltd., Pontypool.*

MORTON, D., *Thomas Green & Son Ltd., Leeds.*

POOLEY, D. S., *Coronation Brick & Tile Co. Ltd., Durban.*

ROWETT, G. C., *Production-Engineering (S.A.) (Pty) Ltd., Johannesburg.*

ROY, S., *Venner Ltd., New Malden, Surrey.*

SHAW, T., *Co-operative Wholesale Society, Tobacco Factory, Manchester.*

THOMPSON, J. H., *Chemico (Pty) Ltd., Johannesburg.*

VOSE, G. A., *De Havilland Propellers Ltd., Lostock, Lancs.*

WALSH, M. F., *Electricity Supply Board, Dublin.*

WHITLEY, G. R., *General Motors South African (Pty) Ltd., Port Elizabeth.*

WILKINSON, J. T., *High Duty Alloys Ltd., Slough.*

WILLIAMS, T. A., *Exeter.*

WILSON, H. A. V., *Binder, Hamlyn & Co., London.*

PERSONAL

Mr. G. A. Aghahowa, A.C.W.A., has been appointed Accountant to the Electricity Corporation of Nigeria, Lagos.

★

Mr. F. H. Atkinson, F.C.W.A., is retiring from service with Bird & Co. Ltd., Calcutta. He has spent thirty years in industry and commerce in Bengal and Bihar, and is now returning to the United Kingdom.

★

Mr. G. A. Collins, F.C.W.A., has been appointed General Manager of Combined Optical Industries Ltd., Slough.

★

Mr. D. G. Hutcheon, A.C.W.A., has been appointed Financial Controller of the Kenya Meat Commission, Nairobi.

★

In consequence of his appointment as Managing Director of Midland and Northern Securities Ltd.

of Birmingham and Manchester, Mr. J. B. Rule, F.C.W.A., is resigning all his Directorships with effect from 30 April, 1958, with the exception of the Erin Guild Ltd. of which he is Chairman, and the Coventry General and Press Tool Co. Ltd. of which he is Managing Director.

★

Mr. J. R. Sadler, A.S.A.A., A.C.W.A., has been appointed Chief Accountant of the Southern Rhodesia Government Forestry Commission.

★

Mr. S. C. Tyrrell, F.C.W.A., a member of Council of the Institute and a Past President, whose appointment as a Director of Ransomes and Rapier Limited, was announced in our March issue, has now been elected Joint Managing Director of that company.

★

Mr. C. Wells, F.C.W.A., has been appointed Cost Accountant with Hills (West Bromwich) Ltd.

EXAMINATIONS

Intermediate Part I Subject Exemptions

Up to, and including, the December 1958 examinations, candidates satisfying the examiners in any subject of the Intermediate Part I examination are not required to present themselves for that subject again.

The attention of all concerned is drawn to the fact that after the December 1958 examinations, candidates must satisfy the examiners in all the subjects of Intermediate Part I, at one and the same sitting, before being awarded a pass in that Part. This brings Intermediate Part I into line with the other Parts of the examinations.

Exemptions granted up to and including December 1958 from individual subjects of Part I will remain valid until further notice. Candidates left with a balance of subjects to complete after December 1958, however, will be required to pass the remaining subjects at one and the same sitting. (These may be taken at the same diet as Part II, if desired).

Subject exemptions granted on the grounds of membership of certain other professional bodies, or the holding of certain university degrees, are not affected by the new regulations.

December 1958

The closing date (10 April) for the receipt of applications to sit the examinations in June has now passed and no further entries can be accepted.

The December examinations (Intermediate and Final grades only) will be held on Monday, Tuesday and Wednesday, 1, 2, 3 December, 1958, and applications to sit must be made on form C, obtainable from the Institute on receipt of a stamped and addressed gummed label. (Printed rate for home centres, 2d.) Applications, accompanied by the appropriate fees, must be received at Institute headquarters not later than the following dates:

Overseas centres: 10 September 1958.

Home centres: 10 October 1958.

Intending candidates are asked to note the above dates carefully, as **no late entries can be accepted.**

EXAMINATION REVISION COURSE

The Slough and District Sub-Branch has again arranged a one-day pre-examination course similar to that inaugurated last year, to be held at Slough Technical College, William Street, Slough, on Saturday 17 May. It is hoped to be able to cover the main Final and Intermediate subjects during two sessions, 10 a.m. to 12 noon, and 2 p.m. to 4 p.m.

Further details will be available from the Honorary Secretary, Mr. A. H. Bryson, 3 Burlington Road, Burnham, Bucks. (Burnham 1212), to whom application should be made by May 10.

EMINENT SPEAKERS FOR INSTITUTE SUMMER SCHOOL

AN interesting programme, in which four eminent speakers will take part, has been arranged for the Institute's ninth residential summer school, to be held at St. Catharine's College, Cambridge, from Monday 22 to Saturday 27 September 1958.

The following papers will be given:

'Practical standard costing: a case study',
by Mr. K. W. Bevan, A.C.A., Financial
Comptroller, British Overseas Airways
Corporation.

'The effect of the increasing ratio of fixed
to variable costs',
by Mr. E. B. Bishop, F.C.W.A., A.C.I.S.,
Group Cost Accountant, C. C. Wakefield
& Co. Ltd.

'The cost accountant in a period of recession',
by Mr. E. F. Brown, F.C.W.A., Chief Ac-
countant, Howard Farrow Ltd.

The name of the fourth speaker, on a topic of
more general financial or economic interest,
will be announced later.

Accommodation at the College is limited,
and any member or registered student wishing
to attend should obtain without delay an
application form from the Education Officer
of the Institute.

The inclusive fee is £10 10s.

DIRECTORY OF OPPORTUNITIES

We have received from the Cornmarket Press Ltd., 1 Lower James Street, London, W.1, a copy of their *Directory of Opportunities for Qualified Men*. It contains information about openings for employment and the opportunities and prospects offered to qualified men and women by nearly a hundred industrial and commercial organisations and government departments.

Copies of the *Directory* may be obtained free of charge from the publishers at the above address.

'THE FINANCIAL TIMES' FOR REGISTERED STUDENTS

The Financial Times is available at the specially reduced rate of 2d. per copy (half price) to students following approved courses. This concession has now been extended to registered students of the Institute and an application form may be obtained on request from the Education Officer.

Registered students are reminded that, as announced in the June 1957 issue of *The Cost Accountant*, a similar concession is available in respect of *The Times*.

BINDING 'THE COST ACCOUNTANT'

This May issue completes Volume 36, and an index to this volume is issued with this number of the journal.

For the convenience of readers who would like to have their copies bound, arrangements have been made with the printers, Straker Bros. Ltd., of 194/200 Bishopsgate, London, E.C.2, for the binding of the twelve issues forming Volume 36 at a charge of 19s. 6d., including postage. Those wishing to take

advantage of this service should **forward their copies direct to Straker Bros., Ltd.**, together with the appropriate remittance.

For those wishing to make their own arrangements for binding, separate binding cases can be obtained from Straker Bros., Ltd., at a charge of 5s. 6d. including postage.

Filing cases to take twelve issues of the journal can be obtained from the printers, price 7s. 5d. each, post free.

BRANCH NEWS

STANDARD COSTING

On 13 February the Glasgow and District Branch met jointly with the management accounting discussion group of The Institute of Chartered Accountants of Scotland. The meeting was arranged as an informal debate on the subject, 'Standard costing is over-rated'.

Mr. Kenneth D. Gilbert, a member of the staff of a firm of management consultants, spoke for the motion, and **Mr. A. C. Bowie**, A.C.W.A., Students' Convener of the Glasgow Branch, spoke against.

An interesting discussion followed the completion of the two papers, contributions coming from members of both Institutes.

CONTROL OF ACCOUNTING WORK

The Norfolk and Suffolk Branch met jointly with local members of The Chartered Institute of Secretaries on 5 March to hear **Mr. J. A. Goldsmith**, M.A., A.C.A., A.C.W.A., speak on the control of accounting work. The speaker said that the first essential was the adequate definition of the terms of reference. A preliminary survey had to be made, a plan prepared showing departments and personnel, a draft made of questions to be asked and an estimate of the time required forecast.

Mr. Goldsmith placed considerable emphasis on using questionnaires merely as guides and check lists and allowing interviews to develop naturally. When collecting documents, he said, it was important to be selective and not adopt a 'jackdaw mentality'. If possible two copies of any form should be obtained, one for reference and the other for filling-in with sample figures and particulars.

All appropriate tools should be used, such as flow charts, graphs and Gantt charts to demonstrate information and tendencies. Office layout should be checked for adequacy in all respects and special attention should be given to the relationship between the seating of staff and the flow of work.

After a new system was agreed he said that it would help to keep it going properly if a manual were prepared, both for reference and for educating new executives or clerical staff.

LAW OF AGENCY

Meeting at Norwich on 5 February, the Norfolk and Suffolk Branch was addressed by **Mr. Gerald Draycott**, Barrister-at-Law, on the subject of the 'Law of Agency.' He commenced from the authority of the common law for one person to act for another and then went on to show how the relationship of principal and agent could be established, either as contractual or express, as master and servant or principal and independent contractor.

He described the functions of special categories of agents such as factors, brokers, *del credere* agents, auctioneers and house agents.

Mr. Draycott dealt with the rights of the agent to remuneration and his liability to discharge if he accepted a secret commission. An agent who did not disclose that he was contracting as such might have to accept liability, said the speaker.

ACCOUNTING IN THE GAS INDUSTRY

'Accounting in the gas industry' was the subject of a lecture by **Mr. R. L. Buckingham**, A.C.W.A., to the Eltham and District Branch on 13 March.

The speaker explained that gas industry administration was controlled by twelve area boards which organised the functions of production and sales and services, while a central Gas Council retained authority over finance, labour, and research.

Mr. Buckingham described an accounting system which was fully intergraded, and used an eleven digit coding system to identify expenditure, in conjunction with Powers-Samas forty-column punched card equipment.

The numerical coding was arranged to follow the same sequence as the operations in the manufacture

of gas, and the speaker demonstrated diagrammatically how the weekly expenditure of wages and monthly costs of materials were tabulated and brought together to build up the quarterly accounts. To reduce the volume of punched cards involved in sorting and tabulating, summary punching was used. One of the statements presented showed the end result of the summary punching in terms of a quarterly summarised revenue account giving the items of expenditure incurred in the manufacture of coal gas and its by-products, cost of distribution and the cost of rendering of accounts.

Against this expenditure was set the income from sales, resulting in a balance of net revenue. Each item of income and expenditure was compared with a budget, and the variances analysed to show the influence upon income and expenditure of such things as demand, yield of gas per ton of coal, and yield of by-products. Another schedule compared budgeted production of gas and its by-products with actual performance, showing the variances from budget.

COMPUTERS AND ACCOUNTING

On 14 January, Mr. N. D. Hill, B.Sc. spoke on 'Computers and their application to accounting problems' to the Slough Sub-Branch. The speaker said that in the E.M.I. machines, words consisted of 36 binary digits which could represent a decimal number; a sterling sum; six alphanumeric characters, a program instruction.

Mr. Hill then showed how an invoicing job would be carried out on a computer, and how, by adding certain extra input data and increasing the stored information in the computer, the simple invoicing job could be expanded to include sales analysis, customer's ledgers, and stock control, thus

leading the way to a fully integrated data processing system. Slides were shown to illustrate the parts of a computer, and examples of magnetic cores and transistors were passed round.

The speaker maintained that we were only at the beginning of a revolution in management made possible by the speed and accuracy of electronic data processing. Reliability and ease of programming were a challenge to the computer manufacturers and as these were improved the applications of computers would increase.

He thought computer prices would probably tend to increase. Further development was being devoted to improved input and output equipment and present systems were being designed to facilitate the addition of such components as they became available.

COMPANY TAXATION

On 11 February, Mr. J. H. Hodge, Senior Inspector of Taxes, Sheffield 6th District, gave an interesting paper on 'Company taxation—Schedule "D"' to the Sheffield and District Branch.

The speaker said that every item and case of allowable and non-allowable deductions for taxation purposes was judged on its particular merits and no hard and fast rules could be taken from the result of any specific case.

Mr. Hodge was warmly thanked by the Branch President, Mr. E. Senior, F.C.W.A.

CURRENT ECONOMIC PROBLEMS

At a meeting of the Chester and North Wales Sub-Branch on 13 March, Mr. T. Gore, M.A., B.Sc.(ECON.), M.B.I.M., Barrister-at-Law, Principal of the Liverpool College of Commerce, spoke on the subject of current economic problems. This country, said the speaker, was the banker of the Sterling Area, with large liabilities and small reserves. This state of affairs was the direct result of the war, during which there had been severe depletion of our assets. It was the opinion of Mr. Gore that there should have been immediate post-war negotiations with the object of considerably reducing our debts to other countries, on account of the sacrifices we had made on their behalf.

We had little in the way of natural resources to help, such as oil fields, but the ingenuity and tenacity of the British people would conquer the difficulties in the end. Mr. Gore felt it would not be in our time.

Our salvation lay in the industrial field, and the speaker thought the cost accountants and methods study engineers were particularly important in the overall picture of successful management.



The President of the Institute, Mr. James Borsay, F.C.W.A. (left), and Mrs. Borsay, being received at the Liverpool and District Branch annual dinner and dance by Mr. G. B. Souster, F.C.W.A., A.C.I.S., President of the Branch, and Mrs. Souster. The occasion was reported in the April issue of The Cost Accountant.

Mr. Gore regretted that this country lacked the realism to tackle the problem of apprentice training, which in his opinion should be done in three years, not five; it should be possible for a man to become a union tradesman at any age, as in the U.S.A. and Germany.

HUMAN PROBLEMS

Mr. John Holland, Assistant Director of the Industrial Welfare Society, spoke to the Croydon and District Branch on 21 February. Other organisations represented at the meeting were the Chartered Institute of Secretaries, the Institution of Production Engineers and the Croydon and District Productivity Association.

Mr. Holland's talk was based on the thoughts of the Duke of Edinburgh, as outlined at Oxford in 1956 at the study conference on the human problems of industrial communities within the Commonwealth and Empire.

Mr. Holland was reported to have said that in recent years there had been an increasing interest in the subject, and to this the Industrial Welfare Society had contributed. Many managers now held the view that a good human relations policy was not only right in itself but was also, in the long run, good for business.

'To assume that with the existing patterns of industrial behaviour it is possible to get complete co-operation is to blind oneself to the facts,' said Mr. Holland. 'Good relations in industry start with sound industrial relations policies, and if such policies are to operate, it is the responsibility of management to have a knowledge of the factors which help to determine the attitude of the workers, including understanding of the objectives of trade unionism, the priorities in requirements, and the area in which a trade union negotiator is likely to be able to move.'

No lasting improvement could be brought about unless management cultivated an attitude towards its workers based on the belief that employees were firstly, people, and secondly, workers.

BUDGETARY CONTROL OF CAPITAL EXPENDITURE

A large audience attended a joint meeting of the South Wales and Monmouthshire Branch and the British Institute of Management, at Cardiff on 25 February, to hear Mr. D. J. Young, C.A., F.C.W.A., speak on budgetary control of capital expenditure, which he described as a neglected aspect of accounting and yet one of fundamental importance.

Mr. Young, who is president of the branch, emphasised that the control was accomplished before the expenditure was incurred. Changes in design frequently caused overspending and contingency allowances—often authorised for work not specified in detail—were to be deprecated. It was necessary to assess the competing demands of the long-term plant and the short-term demands of repairs, alterations and improvements.

Meeting at Cardiff on 3 March, the Branch heard Mr. B. J. Hart, A.I.PROD.E., A.M.B.I.M., give an address entitled 'Some thoughts on organisation and management'.

Scientific management involved inductive thinking, said the speaker. In reviewing an organisation the investigator should select one aspect of activity, then observe, classify, analyse and determine if any hypothesis emerged from the phenomena.

It was in the field of probability that difficulty arose and for this reason the statistical devices of linear programming, queueing theory, etc., were employed. The cost analyst could make a most useful contribution in attempting to forecast tomorrow's events.

SOUTH WESTERN TRANSVAAL STUDENTS SOCIETY

We have received a copy of the first issue of a news letter produced by The South Western Transvaal Students Society of the Institute, which is mainly centred around the Potchefstroom University.

The eight-page printed leaflet, partly in English and partly in Afrikaans, contains a preface by Mr. A. J. E. Sorgdrager, B.COM., A.C.W.A., Chairman of the committee and a short article entitled 'Process and quality control', by G. Wiehahn, among other material. We congratulate the Society on this news letter of which the Honorary Editor is Mr. F. P. Viljoen. The Honorary Secretary of the Society is Mr. H. H. Nightingale.

PRESENTATION OF INFORMATION

On 11 February a lecture on 'The presentation of information to management' was given by Mr. E. B. Esland, F.C.W.A., to a meeting of the North East Coast Branch.

The speaker said that from a data presentation viewpoint 'management' could be considered to embrace all those responsible for spending money and resources of an organisation. Four basic principles were stated and explained by Mr. Esland.

- (1) the higher the level of management the less detail was required;
- (2) managers generally had no time for unravelling complicated statements and masses of figures;
- (3) speedy presentation was essential even if at some sacrifice of accuracy; and
- (4) data presented to an individual should relate only to items under his control.

Suitable criteria should be included in all presentation statements. It was essential to study the needs of individual managers before attempting to prescribe what control data should be provided.

On 14 January a lecture and film demonstration entitled 'Punched card accounting and electronics' was given by Mr. K. T. Woodard of I.B.M. Ltd., to a well attended meeting of the Branch.

The speaker said that it was most unlikely that a

computer installation could be established satisfactorily in any business that had not first obtained good basic experience with ordinary punched card techniques.

THE COMPANIES ACT

On 28 February, a lecture on 'The Companies Act in relation to financial accounts' was given to the Birmingham Students Society by **Mr. B. W. Sutherland, A.C.A.**

Among several weaknesses of the Act, said the speaker, was the requirement that the balance sheet should present a 'true and fair' view; as an eminent judge had asked, how could a balance sheet present a 'true and fair view' when it was perfectly legal—indeed normal—to show fixed assets at book values which in the present day were probably far lower than current values? Mr. Sutherland maintained, however, that the Companies Act had given rise to a great many improvements in the manner in which accounts were presented.

The speaker thought that the book-keeping entries designed for the 'forfeiture of shares' were unnecessary since only a lunatic would allow his shares to

go forfeit when he had—as he always had—the alternative of selling them.

On 22 February a party of about 50 members of the Society visited the factory of Chance Bros., the glass manufacturers of Smethwick.

PUNCHED CARDS

On 20 February, a party of 70 from the Swansea Sub-Branch saw a punched card installation in operation at the office of The Steel Company of Wales Ltd., Port Talbot.

Mr. D. J. Hasell, Manager, Powers-Samas Department, outlined the procedure and the work done by the machines in preparing a payroll. The main operations demonstrated were punching and verifying, calculating by an electronic multiplying punch, sorting, interpolating and tabulating, and the use of a cross-adding punch to arrive at the P.A.Y.E. calculations.

The visitors were shown a tape-to-card translator in action, converting five channel tape produced by Flexowriters into punched cards. These cards are used for order control and sales analysis.

BRANCH DIARY

May 8

DUBLIN STUDENTS' DISCUSSION GROUP: Model answers. Examination problems submitted by students will be answered by members. At Jury's Hotel, Dublin, at 7.30 p.m.

ELTHAM AND DISTRICT BRANCH: Tenth annual general meeting, followed by an address by Stanley J. D. Berger, M.C., F.C.I.S., Director of the Institute, at Sherrard Hall, Court Road, Eltham, S.E.9, at 7.30 p.m.

May 9

CROYDON AND DISTRICT BRANCH: Annual general meeting, at The Greyhound, High Street, Croydon, at 7.15 p.m., followed by film show.

HAMPSHIRE BRANCH: Annual general meeting, at the Polygon Hotel, Southampton, at 7.30 p.m.

HARROW AND DISTRICT BRANCH: Annual general meeting, at Harrow Technical College Hall, Station Road, Harrow, at 7.15 p.m. for 7.30 p.m.

May 13

LEICESTER AND DISTRICT BRANCH: Annual general meeting, followed by an address by Stanley J. D. Berger, M.C., F.C.I.S., Director of the Institute, at the Bell Hotel, Humberstone Gate, Leicester, at 6.45 p.m.

May 14

BRIGHTON AND DISTRICT SUB-BRANCH: 'Organisation and methods', by P. A. Rylance, Brighton Corporation, at the Brighton Technical College, Richmond Terrace, Brighton, at 7.45 p.m.

COVENTRY AND DISTRICT BRANCH: Annual general meeting and dinner, at the Leofric Hotel, Coventry.

May 16

KINGSTON AND DISTRICT BRANCH: Annual general meeting, at The Three Compasses, 31 Eden Street, Kingston-upon-Thames, at 7.45 p.m.

May 20

BRISTOL AND DISTRICT BRANCH AND STUDENTS' SOCIETY: Annual general meeting, at the Grand Hotel, Broad Street, Bristol, at 7.15 p.m.

May 22

MAIDSTONE AND DISTRICT SUB-BRANCH: Annual general meeting, followed by an address by E. W. Whittaker, F.C.W.A., President of the Eltham Branch, at Maidstone Technical College, at 7 p.m.

THE COST ACCOUNTANT

Editorial and advertising offices:—63 Portland Place, London, W.1. (Tel. LANGham 6542)

Subscription rate: 18s. per year, post free. Single copies, 1s. 10d., post free.

Published each month by The Institute of Cost and Works Accountants.

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Printed by Straker Brothers Ltd., 194–200 Bishopsgate, London, E.C.2.

THE COST ACCOUNTANT

Journal of The Institute of Cost and Works Accountants

VOLUME 37

JUNE 1958

NUMBER 1

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LOWER PRICES

IT was the *cri de coeur* of the Council on Prices, Productivity and Incomes in its first report that prices should be kept stable and, if possible, reduced. This was also the theme of the Chancellor's recent budget proposals. There are now signs that the fall in prices of manufactures is becoming sufficiently large and widespread to have a major stabilising effect on the wholesale price index of manufactures.

World primary markets have weakened and the price index for basic materials, other than fuel, used in non-food manufacturing has fallen consistently since spring of last year. According to the Treasury's review, *Bulletin for Industry*, the index in March 1958 was 12 per cent. below that for March 1957. This index, however, measures only prices of materials as imported; it excludes products like iron and steel bought by one industry from another for further processing.

Individual industries have paid varying prices for their materials during the past year. Textile material prices have fallen by some 17 per cent., but in engineering prices

have risen. In the electrical machinery industry, the falls in prices of non-ferrous metals cancelled out the rises in steel prices.

The full impact of the reduction in material prices cannot be felt in the price of the manufactured article. Imported materials account, on average, for about one-fifth of the ex-works cost of finished manufactures, and there appears to be a time-lag of about six months as an average before any fall can be passed on. Increases in labour costs or development provisions can offset the reduced material costs. Nevertheless the wholesale price index of all manufactured products (other than fuel, food, and tobacco) has been stable since October 1957 and, for the first time in three years, began to fall in February. No doubt intensified competition in some industries and the Government's sterner fiscal measures have played their part in this.

The index comprises some 7000 price quotations over a wide range of products including capital as well as consumer goods. Moreover, the reduction extends in varying

degrees to each of the five major groups of products except one where the index was fractionally higher—the clothing and footwear group. The products which have particularly become cheaper are notably those with a high content of metal, textile fibres, or rubber—all materials which have fallen very sharply in price.

Can we now envisage a stabilisation in the cost of living in the months ahead? This does not necessarily follow—for three major reasons. Firstly, the wholesale index includes capital goods and exports which do not figure in the retail index. Secondly, it takes longer for altered material costs to be reflected in retail prices than in wholesale

prices. Thirdly, and most important, the index of manufactures excludes such items as food, housing, transport and fuel. Retail food prices have steadied, consequent upon the drop in import prices and for the first quarter of this year were about the same as the average for last year. But higher rents have raised the price of housing, and the prospects in transport and fuel depend largely on the course of labour costs in these industries.

To some extent, the reductions in purchase tax will have a lowering effect on retail prices but still greater benefit will result from lower labour costs of production, distribution, and services.

NOTES AND COMMENTS

NATIONAL COST CONFERENCE

AS *The Cost Accountant* goes to press the final arrangements are being made for the 29th National Cost Conference of the Institute, which will take place in London on Thursday 5, Friday 6 and Saturday 7 June.

Additional details are now available on the programme at the Thursday afternoon technical session, which will be held at The Connaught Rooms, Great Queen Street. The theme at this session will be 'The relationship between management and labour,' and we are pleased to announce that the conference will be addressed by Mr. Victor Feather, who is Assistant Secretary of the Trades Union Congress. This session will follow the opening of the conference at 3 p.m. by Mr. James Borsay, F.C.W.A., President of the Institute.

At 8.30 p.m. on Thursday, the President and Mrs. Borsay will give an informal reception in the Members' Room at the House of Commons, by kind permission of Sir William Steward, M.P. Business dress will be worn and there will be buffet refreshments.

The Friday conference sessions, again at the Connaught Rooms, will commence at 10 a.m.

with the President's address. This will be followed at 11 a.m. by an address 'Choosing your computer' by Mr. J. A. Goldsmith, M.A., A.C.A., A.C.W.A.

At the afternoon session at 2.30 p.m. Mr. John Diebold will elaborate on the theme of computers with an address entitled 'Putting it to work.'

On Friday evening the Institute's annual banquet will be held at the Dorchester Hotel.

The 39th annual general meeting of the Institute will be held at 10.30 a.m. on Saturday at the Connaught Rooms.

BLOWING OUR OWN TRUMPET

SOME facts which should help to keep in perspective the developments which have taken place in economic conditions in this country since the end of the war are listed in an article in the treasury publication *Bulletin for Industry* under the title, 'Some myths exploded'.

Some of these are worth mentioning. The electronics industry has increased in size five times and is now the second largest in the world; the net output of plastics is nearly as high as sheet steel and tinsplate together; the total

volume of exports is now twice what it was before the war and over a quarter of the nation's output is now shipped abroad.

Of the changes in manpower deployment, one of the most striking is in the aircraft and radio industries where employment has increased by four-fifths.

Time lost in strikes is about one-tenth of that lost through industrial accidents and about one per cent. of the loss through sickness.

Despite the critics of the British workman, production per man employed in manufacturing has increased by a quarter between 1948 and 1956, and the recent Canadian Trade Mission noted that as well as doing as much work an hour as Canadians, Britons were working a longer week.

EUROPEAN CO-OPERATION

THE ninth annual report¹ of the O.E.E.C. has recently been published and shows what has been achieved since the Organisation grew out of the Marshall Plan.

This is a history of what is possible as a result of international co-operation within the continent of Europe. It has had as its objectives the recovery and expansion of output, the expansion of exports and the freeing of trade, the fight against inflation, and the easing of intra-European trade through the medium of the European Payments Union.

The O.E.E.C. continues to regard the achievement of these objectives as its major task for the future. It also seeks to encourage further liberalisation of dollar imports so as to increase Europe's volume of trade with the rest of the world, and to encourage action which will lead to an increase in dollar earnings by Europe and reduced United States tariffs.

Economic development of areas in several Southern European countries with extensive under-employment is another immediate aim of the Organisation, as is the setting up of joint nuclear undertakings to ensure technical co-operation in the field of nuclear energy.

MOTORS DRIVE AHEAD

IN a recent speech to the National Production Advisory Council on Industry, the Chancellor of the Exchequer suggested that industry's aim should be to build up its potential efficiency to a higher level so that the benefits of

higher productivity and higher sales can be obtained. He instanced the experience of the motor industry which in 1956 went into a recession of its own, but then, he said, took action which belied any thoughts of inevitable stagnation. The motor industry went ahead with expansion plans and a determined cultivation of overseas markets. This combined attack ensured that improved and extended capacity could be translated into bigger output.

As a result, the number of motor-cars produced in the first quarter of the year was three-quarters higher than a year earlier. Of this record output some 48 per cent. of passenger cars was exported—4 per cent. higher than in the previous boom year of 1955. Some of this success was won in North America by exploiting the opportunities offered by the recession there.

Productivity has increased considerably as these results have been achieved with a reduction of 4 per cent. in the labour force compared with 1955.

CLEAN AIR REGULATIONS

AS from 1 June, it is an offence under the Clean Air Act to emit dark smoke from chimneys, except as permitted by new regulations.² Dark smoke is defined as smoke as dark as or darker than shade 2 on the Ringelmann chart.

The new regulations are to meet the case of dark smoke which is unavoidably caused by such essential operations as cleaning the fires of furnaces. They allow ten minutes of dark smoke in eight hours, (14 minutes if soot blowing is carried out in that period), provided no single burst of dark smoke lasts longer than four minutes. It will also be an offence to discharge black smoke (shade 4 on the Ringelmann chart) for more than two minutes in aggregate in any period of 30 minutes within the limits allowed. Rather higher allowances are given where two, three, four or more furnaces discharge smoke to a single chimney.

The regulations apply to dark smoke from the chimneys of factories, shops, offices and railway engines, but not to dark smoke from

¹ *A Decade of Co-operation, Achievements and Perspectives*. O.E.E.C. April, 1958.

² S.I. No. 498, *The Dark Smoke (Permitted Periods) Regulations, 1958*. H.M.S.O. price 3d. net.

the funnels of ships, for which separate regulations will be made. House chimneys, while subject to the ban on dark smoke, in practice rarely produce it, but the regulations would apply to them.

A new British Standard version of the Ringelmann chart (B.S. 2742C), for use in connection with these regulations, has been published. The chart, printed on white board, consists of five 10 cm. squares ranging from No. 0, which is left white to indicate no smoke, to No. 4 which is criss-crossed with thick, black lines to simulate black smoke. A black strip above the No. 4 square assists quality control during printing of the chart.

In practice the density of smoke emitted by a chimney is estimated by comparing the smoke with a Ringelmann chart held at such a distance from the observer that the black lines on the chart seem to merge into the white background producing, for each shade, an apparently uniform shade of grey. In producing the new British Standard chart a board has been chosen which will not be affected by water vapour in the atmosphere.

In addition a separate publication, *Notes on the Use of the Ringelmann Chart* (B.S. 2742) has been issued.

A PATTERN FOR BRITAIN?

IF there is any merit in anticipation, some careful watching of American experience in relation to their business recession should not now come amiss.

An indication of the impact on top-management jobs is given in a recent article.¹ It appears common experience that most companies are now scrutinising both the size and quality of their administrative staffs and that those executives who are mediocre are being either dismissed or 'persuaded to take early retirement'.

In many cases the position is being brought to a head by amalgamations amongst sizeable companies with more prompt attention than previously to any duplication of functions.

There is, nevertheless, still a substantial and even increased demand for the top-most, policy-making levels of executive. Good men in the field of marketing and finance are very

¹ 'The executive job market and the recession' by Edward T. Thompson. *Fortune*, April 1958.

much in demand, and to quote the director of one executive recruiting company, 'The controller is a damned important guy right now'.

Piracy of executives from one company to another within the same industry is rife and appointments now take much longer to fill as firms want to explore the widest possible market for potential candidates.

Quality of the executive still appears to be the main consideration, however. Companies are not looking for cheapness in salary and will willingly pay more for a really good man. They will certainly give very earnest consideration to the employment of one highly-paid top-grade man instead of two satisfactory men.

'THE ACCOUNTANT' ANNUAL AWARDS

THE two winning companies in 1958 of *The Accountant* Annual Awards for reports and accounts of public companies are the Peninsular and Oriental Steam Navigation Company—to whom the award for large companies goes—and John Dale Ltd., winners in the smaller companies group. There was a considerable increase this year in the number of entries for both categories.

Sir John Braithwaite, Chairman of the Council of the Stock Exchange, has agreed to present the awards this month at a ceremony in the hall of the Worshipful Company of Grocers. The awards, which are of equal rank, are in the form of a pair of hand-made silver wall sconces, inscribed with the name of the winning company, and designed with ancient and modern symbolism depicting commerce and accountancy.

OFFICE SALARIES IN AMERICA

A SURVEY of 6,058 companies employing some 464,905 clerical workers, has recently been undertaken in the United States of America by the National Office Management Association, and it is interesting to read that there is 'a continuing shortage' of qualified office workers, in response to which, clerical salaries rose to 'new highs' during 1957. The survey, which is briefly mentioned in the March issue of *The Management Review*, New York, covers 24 basic office jobs ranging from private secretary to messenger.

The highest paid clerical worker in most cities is still the senior bookkeeper, according

to the survey. He now draws an average salary of \$87 a week, a gain of \$2 since 1956, and Houston bookkeepers get the top U.S. clerical rate of \$109.

It will be of interest to our readers to know that the largest salary gains (of \$4) were registered by cost clerks (now \$78) and tabulating machine operators (now \$75).

Average salaries for other clerical jobs are shown as: payroll clerks, \$71; sales order clerks, \$74; private secretaries, \$87; key punch operators, \$62; stenographic secretaries, \$73 telephone operators, \$61; senior typists, \$60.

DINNERS OF KINDRED BODIES

MR. JAMES BORSAY, F.C.W.A., President of the Institute, attended a dinner given by Mr. W. H. Lawson, C.B.E., F.C.A., President of The Institute of Chartered Accountants in England and Wales, in Fishmongers' Hall on Tuesday, 6 May.

Mr. Borsay, accompanied by the Director, Mr. Stanley J. D. Berger, M.C., F.C.I.S., and the Joint Secretary, Mr. Derek du Pré, attended the President's dinner of The Association of Certified and Corporate Accountants which also was held in Fishmongers' Hall, on Monday, 28 April.

PAYMENT BY RESULTS

SYSTEMS of payment by results are not gaining ground in British industry; if anything, they are not so popular as they were two years ago, when 32 per cent. of all wage-earners covered by a Ministry of Labour survey were paid by results.¹ A similar survey at the end of last year revealed that there had been a drop of one per cent.

The Ministry did not count as payment by results such arrangements as good time-keeping bonuses, merit payments, profit-sharing and co-partnership. It asked employers only for details of systems where payment varied according to the output of individuals, groups or departments.

Payment by results is still a more common way of paying women than men. Two women wage-earners in five are paid according to what they produce though this proportion is not so high as before the war. On the other hand the proportion of wage-earning men paid by results has risen in the 20 years from 18 to 28 per cent.

The bigger firms offer to their workers more opportunities to be paid by results. In manufacturing four in five of those firms employing more than 500 had introduced schemes for at least some of their workers and more than half the workers in concerns with a thousand or over were paid on such schemes.

In smaller concerns such as those employing more than 25 but less than a hundred, the total percentage of wage earners paid by results was 23 and the percentage of such firms with schemes was only 42.

SHORTER NOTES

At the invitation of the Lord Mayor of London, Sir Denis H. Truscott, T.D., the President, Mr. James Borsay, F.C.W.A., accompanied by the Joint Secretary, Mr. Derek du Pré, attended at the Mansion House on 6 May, where they met the Minister of Labour and National Service and the Chairman and members of the Advisory Board and others associated with the re-settlement of ex-regular members of H.M. Forces.

★ ★ ★

Mr. Harold Wilmot, C.B.E., F.C.W.A., a past-President and a member of the Council of the Institute, Chairman and Managing Director of Beyer, Peacock and Co. Ltd., retires on 23 July, as Chairman of the British Institute of Management at the end of his two years of office. He is succeeded by the Rt. Hon. the Earl of Verulam, J.P., Chairman of Enfield Rolling Mills Ltd., Engineering and Lighting Equipment Co. Ltd., and Sternal Ltd.

★ ★ ★

The Board of Trade's *Bankruptcy General Annual Report for the Year 1957* published recently shows that receiving and administration orders in England and Wales numbered 2,061, seventy-five fewer than in the previous year, and the lowest number since 1951.² The six principal groups of trades affected were builders, farmers, retail grocers and provision merchants, hotel keepers and publicans, restaurant, café and snack bar proprietors and retail clothiers and drapers and accounted for 744 failures as compared with 685 in 1956.

¹ *Ministry of Labour Gazette*. April, 1958.

² H.M.S.O. 1s. 6d.

PLANNING AND CONTROL

by J. P. WILSON, F.C.W.A., A.C.I.S.

T.I. (Group Services) Limited

1. Management Accounting for Planning and Control

AT the inception of the consideration of the subject of planning and control by a meeting of accountants, it may be appropriate to consider generally the practice of management accounting which has much to contribute to the effective application of planning and control.

1.1. There is not one system of accounting which will provide the right information in every circumstance, and the first essential is to appreciate the distinction between ownership accounting and management accounting. Ownership accounting can be defined as the preparation of accounts and financial statements for the purpose of safeguarding the interests of the owners of the business. An example of ownership accounting is the preparation of the annual profit and loss account and balance sheet which is submitted to the owners of the business: further examples of ownership accounting are the plant and machinery records of a company, its customers' accounts and suppliers' accounts. The purpose of these records is to ensure that the company's assets are safeguarded, that all money recoverable by the company is in fact recovered and that nothing is paid which is not due. Management accounting is the provision of information to management for the purpose of managing the business to the best advantage. The figures prepared for these two purposes may not necessarily be the same. A profit

and loss account prepared for ownership purposes would tend to show a conservative assessment of profit, possibly making pessimistic reserves for all contingencies; on the other hand a profit and loss account for management purposes would show what had actually happened during the period, without any adjustment dictated purely by reasons of financial pessimism. To take an example: in the preparation of a profit and loss account for ownership purposes, it may be quite in order to write down the value of stock at the end of each period to a figure well below its commercial valuation, but to follow this practice in the preparation of periodic profit and loss accounts for management purposes would obscure the results of the operations of the period; it is obvious that inflated profits would be shown in periods in which stock had been liquidated, and understated profits would be shown in periods in which stock had been built up. Accounts must be prepared and financial statements presented in accordance with management accounting principles in order to assist in planning and control. If it is so desired, the figures prepared in accordance with management accounting principles can be subsequently adjusted to disclose the profit or other information required for ownership accounting purposes.

1.2. An examination of management accounting will show that its provision of information to management is essentially for two purposes; as the basis for taking decisions and as the basis for exercising control. Taking decisions is a form of planning and the provision of information for this purpose must have regard to marginal costs. In many cases where plans are being laid, the right decision may be depen-

An address delivered on 26 April 1958 at the South West regional cost conference of The Institute of Cost and Works Accountants. The conference proceedings are reported elsewhere in this issue.

dent upon the provision of marginal cost information, and information based on total costs may in certain circumstances be quite misleading. Having taken its decisions, the management is then concerned to ensure that these decisions are implemented, and as information for this control function, the techniques of budgetary control and standard costing are particularly valuable.

1.3. In considering the organisation of the accounting system for planning and control, it is necessary to consider what is economically practicable, for it is not possible to employ an accounting system which will have on tap all the information all the time. It is suggested that there must be a minimum of continuous accounting records, designed essentially to give basic information, and particularly, continuous information for control purposes. These records should be supplemented as necessary by *ad hoc* investigations, which may take the form of special abstracts, special records maintained for a limited period or physical studies involving timing or measurement. As information for decision purposes is frequently required just once this information can be provided more economically by *ad hoc* investigation.

1.4. While the exercise of planning and control in a business organisation is greatly facilitated by management accounting, it would be well to recognise that this is not the only technique. Operational research is of particular value for planning purposes, for whereas in many cases management accounting can provide the necessary information, there are some business problems which can best be solved by operational research methods, occasionally involving the use of higher mathematics. While it may be irrelevant to the subject of this paper, the question may be posed whether management accountants should not seek to extend their activities to take in operational research.

2. Long Term Requirements for Effective Planning

2.1. It perhaps goes without saying that the first requirement for effective planning is that the business unit should have a long term policy which is well defined and clearly understood by the executives of the business. This policy should also be followed with consistency, as planning is difficult if there is doubt whether the long term policy is to be maintained. This consistency of policy is necessary in respect of projects such as research or the entry into new product fields, which may be attended in their early stages by considerable cost or trading

losses. It is not suggested that a business should never cut its losses, but merely that such long term projects should not be entered into without counting the cost and recognising that a period must elapse before the project pays off.

2.2. A further requirement for effective planning is that the organisation structure of the business should be arranged on logical and commonsense lines: the structure should also be clearly defined. It could perhaps be said that in this country there is a tendency to adapt the organisation to suit the individual rather than to fit the individual to the organisation that is best for the business. It is doubtful whether this country can afford that undue regard, even from the best of motives, should be paid to the vested interests of individuals. There is also a marked reluctance in many cases to define the responsibilities for the various activities of a business. This tendency obviously diminishes the exercise of effective control.

2.3. Certain requirements in respect of production must be met if planning and control are to be fully effective. It is suggested that it is necessary to prepare, and work in accordance with, proper specifications of the product and its material content. The specification of the processes upon each product is also necessary and so are standard processing times. Sometimes there is opposition to setting such standards because it is maintained that at various times different practice is followed. This objection is not valid, as the setting of standards does not mean that variations from standard will not occur in certain justifiable circumstances. In practice it has been found that the very act of studying production in order to fix standards has frequently revealed economies and improvements that could be made. Standards are really the units in which the plans of the business can be laid, and they are indispensable for a full measure of planning.

2.4. Just as it is necessary to secure the proper organisation for production before effective planning can be carried out, so the same consideration applies to the organisation of sales. There is reason to believe that in this country the organisation of production is more advanced and widely practised than the organisation of sales; this may not be true of a number of the largest companies where selling is one of the larger activities. In establishing plans for sales, the necessity for market research should perhaps be more widely appreciated. In the same way as standards are set in some detail for performance in the field of production,

so standards could, with advantage, be set in the field of sales. It is suggested that within the function of selling there is not sufficient distinction made between the planning of sales and the actual selling. It is possible that these two activities call for different types of individuals and that the man who is the best in establishing happy relations with the customer and obtaining the order, is not the man best suited to the back-room work of analysing the markets, studying statistics and carrying out all that staff work which is a part of sales planning.

3. Budgets

Budgets are the most common means in which the planning of a business is expressed, at least as regards the general operations of the business as a whole and as distinct from the detailed plans embodied in material specifications or standard processes of manufacture.

3.1. The period for which the budgets of a business should be set is one which requires, consideration. In many cases budgets may be set for an indefinite period, but expressed in particular terms of the achievement of sales, production, and costs normally expected in a definite period, such as one year or one period of four weeks. Such budgets would need to be flexible, so that revisions could be made as necessary and budgets, adjusted for the circumstances of each accounting period, made available for measurement of the actual results. The alternative is to set budgets for a definite period such as the month or the year ahead with specific reference to the circumstances likely to obtain in that particular period. Where a specific budget is set for twelve months ahead and not for shorter periods, it is necessary to use a flexible budgetary control technique to measure the results of the shorter periods. The choice between budgets set for an indefinite period and budgets set for a specific period ahead will largely depend upon the circumstances of the business, for in cases where the production is of a complex nature it might be necessary to employ the technique of indefinite period and flexible budgets in order to avoid the excessive work of refiguring product standard costs. The use of flexible budgets is not budgetary control to the full extent as it is the measurement of results only; whereas the use of specific budgets is both budgeting and subsequent measurement. To set specific budgets for each accounting period of a month with particular reference to the plans of that month may entail considerable work, but it bears the advantage

that the planned action for each month is brought continuously under review. A matter for further research might well be the extent to which the normal systems of flexible budgetary control and standard costing are too automatic in their operation, and whether a measure of specific period budgeting could not be incorporated with advantage.

3.2. The use of budgets for the planning and control of performance has been widely adopted in this country, but formal budgets are not used at all extensively for the planning and control of financial requirements. Performance budgets are used to plan and control the profit or loss of the business; requirements budgets are used to plan and control the financial position of the business as reflected in the balance sheet. It is not easy to understand why requirements budgets, apart from capital expenditure budgets, are not in more general use, for they can be obtained by a modest extension of a system of performance budgetary control, and their value is considerable. The aim should be to budget completely so that the budgets can be summarised in a forecast profit and loss account and balance sheet. By this means it can be ensured that the plans of the business are within its financial means or alternatively that steps are taken to secure new finance. This system also ensures that policy on such matters as the size of inventories, cash discounts and length of credit allowed to customers, payment of suppliers' accounts, investment of surplus funds, and dividends to shareholders, is in harmony with the planned performance of the business.

3.3. While the availability of finance is an important factor in laying plans for the expansion of a business, a factor of greater importance is the anticipated profit to be derived from the expansion planned. Mention has already been made of the necessity for sales planning, which by market research can forecast the likely volume of sales and the selling prices obtainable. Such forecasts, however, are affected by governmental action and by the economic climate which must certainly be taken into account in planning. As a means of forecasting the economic climate, charts of Stock Exchange statistics prepared and interpreted in accordance with the Dow theory can be of value, subject to the proviso that no means of forecasting can be infallible. The principle of the Dow theory is that the trend of prices on the Stock Exchange anticipates, and is indicative of, the level of general trade activity. Economics and politics, and world affairs, are

now so inextricably mixed that business forecasts can only be prepared against a background of such knowledge. Regular reading of *The Economist*, *The Financial Times* and daily newspapers, at least one of which should be of the popular kind, is almost essential. Professional economists can be employed by industrial concerns, but while they can provide much information on economic trends and statistics, their ability to forecast the future to any appreciable extent is still open to doubt.

4. Control

In the context of this paper, control can be defined as the function of ensuring that the plans made are implemented. It is suggested that just as the plans of a business are commonly and effectively expressed in budgets, so the information for the control of operations in accordance with these plans can be most effectively provided by budgetary control and standard costing.

4.1. While budgetary control and standard costing can take many forms, a system based on the principles illustrated in the appendices to the Institute's book *An Introduction to Budgetary Control, Standard Costing, Material Control and Production Control* would be particularly suitable in providing information for control. It should be unnecessary to add that any system of control must be specially designed to fit the particular business, although general principles may be followed.

4.2. A major principle of budgetary control and standard costing is the emphasis laid upon the department as the unit for planning and control. By the same token emphasis is laid upon the task and the results of the individual who is responsible for the department. For this reason the departments of a business, the individuals in charge of the departments and the classifications of cost for which each department is responsible should be clearly defined.

4.3. Decentralised cost control is the logical development of budgetary control and standard costing. Under this procedure actual costs are analysed to classifications of cost, such as direct materials, labour, electricity, depreciation etc., and under these classifications to departments only. The departmental manager is debited with these costs of his department, and is credited with the standard cost value of the work done. The resulting variance is analysed to its causes such as material yield, labour efficiency, capacity employed, or spending; but normally no attempt is made to analyse

actual costs either to jobs or to the different cost centres of the department. The variance is the measure to the departmental manager of his achievement and the analysis indicates his results in the main sectors of his activity. The more detailed control of different jobs and cost centres is not a subject of records but is effected through the personal knowledge of the departmental manager of what is actually happening on the shop floor.

4.4. In the formulation of a system of budgetary control, the service, selling and administrative departments of the business should be subject to the same control procedures as the production departments. Too frequently, even in concerns where budgetary control is practised, the control procedures over these activities are deficient, particularly in respect of selling and general administration. It is many years since the Institute's publication on selling and distribution costs was written and the Institute might well give a lead by promoting fresh research into this subject and that of general administration costs. Apart from research promoted by the Institute, members of the profession may individually develop improved methods of control. For example, a procedure has been developed whereby work units are budgeted for each service and administrative department and standard cost rates for each unit are ascertained. Each service and administrative department is charged each period with its actual cost and is credited with its work units produced, valued at standard cost. The advantage of this procedure is twofold; firstly a variance is thrown up for each service and administrative department, giving a greater measure of control over the operations, and secondly, as the units of service actually received by each department of the business are charged at standard rates, the whole of the cost of each department, including both direct departmental spending and service and the administration costs, is controllable by the departmental manager.

4.5. As the analysis of departmental variances is an aid in control by indicating the activities to which attention should be directed, it is essential that the arrangements for this analysis should be designed with imagination and with a view to the particular requirements of the department and of the concern as a whole. Management's way of thinking on the problems and control of the business must be taken into account.

4.6. The culmination of the control procedures of a business is the profit and loss account for

the period. Its efficacy is increased if it is presented quickly after the end of the period, and its form should be designed to give a balanced view of all the operations of the period. For example, where a normal system of budgetary control and standard costing is in operation, the period profit and loss account should show the variances between budgeted sales and actual sales as well as the variances between standard cost and actual cost. Taken a stage further, the period profit and loss account can be constructed to show an analysis, to causes, of the variance between the budgeted profit and the actual profit, including for instance, a statement showing the effect of variation of volume of business in terms of the gain or loss of budgeted profit.

5. Gaining Acceptance and Interest in Planning and Control

In order to derive the full benefit from planning and control, it is necessary to secure its acceptance by the executive staff of the business, at least down to the rank of departmental foreman. Not only must it gain acceptance, but it must secure a maintained interest. This problem should be given specific attention, recognising that it is largely a matter of human relations.

5.1. The first essential is that the scheme of planning and control should be technically sound and fitted to the requirements of the business. The second essential is that it should be arranged in a form and terms sufficiently simple so that the scheme can be understood by each executive, broadly as regards its general operation, and in detail as regards its implications for his own sphere of activity. Even so, a suitably designed course of education in the operation and use of the scheme might be desirable.

5.2. It must be made apparent that the scheme is approved and used by the top management. If the scheme is well designed, it can be so valuable as to ensure its use, but care should be taken that a senior executive does not on occasions misuse his power to snatch a temporary advantage for a particular job in hand, by cutting across the established procedures. The effect of such an example can be very bad.

5.3. A feature of budgetary control is the presentation to each executive of the figures of his results and the consideration of them with him. In some concerns it is the practice for this discussion to be held in private between the executive responsible and his superior, sometimes with the budget officer in attendance to

advise on the interpretation of the figures. In other concerns it is the practice to consider the results of a number of executives at a formal meeting. There is much to be said for the latter procedure; the results of one department may have a bearing upon the results of other departments, and the discussion may have considerable value for co-ordination purposes. Also, the fact that the results of a department are known to other departmental managers, promotes the desire on the part of each manager to make the best showing possible.

5.4. One method of maintaining full interest in the scheme is to provide a financial incentive to executives by basing part of their remuneration upon their results. While this principle is frequently observed in the remuneration of sales executives, its application to departmental managers on the basis of cost control results is comparatively rare. It is a matter which would appear to warrant investigation.

6. The Cost of Planning and Control

It must be recognised that the adoption of advanced techniques of planning and control may bring about an appreciable increase in the indirect costs of a business. These increased costs must be considered in relation to the saving of cost and other financial advantages resulting from the improved planning and control. These increased costs may be considered as strengthening the eyes and mind of the business so that the body can be directed to greater productivity. This is not to say that the cost of planning and control should not itself be planned and controlled.

6.1. The cost of planning and control can be reduced if the administrative procedures of the business as a whole are co-ordinated. Functions of the business such as buying, material control, production control, work study, production engineering, wages and management accounting overlap in their interest in the transactions of the business, both internal and external, and records and procedures should be designed to serve all purposes economically. This particular function of co-ordination should be formally recognized and the responsibility for it clearly assigned.

6.2. The paper-work and statistics of planning and control should be constantly reviewed to ensure that they are necessary and economic. It is possible to maintain records which have some value, but not commensurate with the cost of obtaining the records. For example, the elaborate daily labour control statistics, which

are frequently prepared in concerns where work study and wage incentive schemes have been introduced, may be of doubtful value. In many cases it may be found that information is being obtained by continuous records which could be better obtained as required by *ad hoc* investigation.

6.3. Advances in office mechanisation in particular electronic accounting, may bring about changed conditions which warrant a change of procedures for planning and control. For example, a method of providing the ideal statistics for planning might have been considered and rejected as being too costly with the clerical methods available, but the advent of the electronic computer might provide the means whereby the method becomes quite economic.

Introducing his paper to the conference, Mr. Wilson had pointed the distinction between accounting for management purposes and accounting for ownership purposes, and said that no one system

was always applicable. In a reference to the value in certain circumstances of marginal costing, the speaker said that it was neither a panacea nor an abomination.

In his remarks on planning, Mr. Wilson said that in his experience it was sales planning which was defective. On the use of budgets he advocated a greater use of specific budgets for each accounting period of a month rather than the employment of flexible budgets which, he considered, was not budgetary control to the full extent. He went on to say that one method of maintaining full interest in budgetary control was to provide a financial incentive to executives by basing part of their remuneration upon the results of their cost control.

The discussion on Mr. Wilson's paper was opened by Mr. G. F. M. Rufford, A.C.W.A., of Dowty Group, who said he was always a little suspicious of *ad hoc* figures which Mr. Wilson advocated, and thought that the minimum period for the production of really accurate accounts was once a quarter. Mr. Wilson, in reply, was most emphatic that a quarter was far too long, and on the subject of *ad hoc* figures, felt that something was better than nothing.

REVIEW OF E.D.P. EQUIPMENT

THE number of installations of computers and E.D.P. systems in this country up to the autumn of 1957 was 83, excluding calculators and multipliers, according to Mr. J. G. Thompson, A.C.I.S., M.O.M.A., of Boots Pure Drug Co. Ltd., who gave a review of existing and planned E.D.P. equipment in a lecture to the Leicester Branch of the Institute of Cost and Works Accountants on 21 January.¹

Sixteen of these were for commercial data processing jobs such as payroll, costing, stock control, production control, sales analysis; seven were for service bureaux or for demonstration, and four were for unstated commercial jobs.

These 27 commercial installations covered six types of equipment—H.E.C. 4, I.B.M. 650, National-Elliott 405, P.C.C., Pegasus, Leo I and II. Provided, delivery promises had been fulfilled there should now be a further eight commercial installations. It was also possible to order certain American systems in this country.

There were at present about 38 E.D.P. systems on order for commercial applications and a further 24 for unstated use. 31 of these had 1958 delivery dates and nearly all orders were for 'existing' systems. Some companies had taken a calculated risk in ordering equipment not yet built in order to obtain

systems with greater speed, size or flexibility, and less likely to be obsolete within a few years.

Many existing systems could be ordered with new features added, such as I.B.M. 650 with R.A.M.A.C. and the National-Elliott 405 with a high speed printer, or Leo II with magnetic drums. In addition many new systems were under construction and several had been ordered, such as Stantec Zebra, Metrovick 1010, Emidec, Perseus and Hollerith 1400.

New developments were mainly in research laboratories. These included:

Input. Punched card reading speeds of 2,400 per minute had been attained, while magnetic tape had been developed to read at the rate of 250,000 'words' (of 12 digits each) *per second*. The Friden 'Selecta-data' was designed to read punched tape at high speed, while searching for specified information, and then to feed the selected data to a computer.

Storage. Units were shrinking. The tiny magnetic cores now in use were large compared with such proposals as 1,000 units of information stored in a thimbleful of liquid, 250,000 on a square inch of glass, or millions of units per square inch stored in tiny globules of light-sensitive chemical liquid.

Arithmetic. Improving on previous speeds of thousands of additions per second, I.B.M. had announced 'Stretch' adding, at the rate of 5,000,000 per second. New switching devices were being developed to operate ten times as fast as this.

Output. Paper tape punching had been pushed up to 200 characters per second. Printing, on the other hand had now reached 10,000 characters per second by combining the cathode ray tube with xerography in the Stormberg-Carlson S-C 5,000 printer.

¹For the purpose of this address, the term 'existing' is limited to equipment ordered, delivered, assembled, installed and capable of doing a job. The term 'planned' covers equipment almost ready for delivery, or in the prototype stage, or on the drawing board. The initials 'E.D.P.' or 'E.D.P.M.' are limited to commercial data processing applications.

What a Works Manager Expects From His Cost Accountant



by J. S. THOMPSON, M.B.E., B.Sc., A.I.M.

Works Manager, Durham Chemicals Ltd.

Effective cost control demands fully co-operative effort from the costs and production departments. Their separate responsibilities frequently obscure the fact that both are participating in the same process and that there is a common aim. Certain factors which are particularly important to production management, but which tend to be overlooked by the cost accountant in the preparation of control information, are discussed.

BEING, as I am, a works manager, I would never presume to tell the cost accountant how to carry out his job. Nevertheless, since in the industrial relationship which exists between cost accountant and works manager the latter occupies the role of consumer—of information—I feel that he is entitled to hold definite views on the commodity, particularly with reference to its quality, the acceptable tolerances or product specification, the method of packaging, the delivery delay and the after sales service, even if not on its cost!

Contact between works and costs departments is most frequently established in that field of executive effort which is covered by the general term control, and consideration of certain aspects of this field has been made the basis of this paper. Control may be defined conveniently and, I think, adequately as a continuing process of measuring the actual results of the operations of an organization in relation to those planned for it, and of subsequent direction and appropriate action.

Examination of this definition reveals the duality of control, the existence of the two elements commonly referred to as the control

activity and the control function. Thus, although the cost accountant is responsible for the measurement of actual results and their comparative presentation against reliable standards (i.e., control activity), so far as production is concerned it is the works manager and his staff who have to interpret this information in terms of action in order to carry the sequence of events to its proper conclusion, the achievement of maximum efficiency (i.e., control function).

It is important to recognise that, in practice, responsibility for these different aspects results in quite different approaches to, and emphasis on, the many problems of control by the accountant and the works manager. Consequently to the cost accountant the views which follow may appear prejudiced, or even heretical, but if this expression of personal opinion reduces the existing divergence, however slightly, it is well justified.

In outline what I expect from the cost accountant is that he will provide me, and certain members of my staff, at the required times, with all information necessary to achieve effective control of the company's manufacturing operations and to attain maximum efficiency in using the factors of production. It is essential that this information be conveyed with accuracy, brevity, clarity and unambiguity and in such a

Based on a lecture delivered on 20 November 1956, to the North East Coast Branch of The Institute of Cost and Works Accountants.

way as to demand the minimum of interpretative effort from the reader. In dealing with certain aspects of this outline in some detail I hope to present a picture of control as it appears to one production executive; perhaps it will reflect the views of many others.

Control Information A Means not an End

Control information, which should be a major element in a fully integrated system of factory control, is not important in itself. Its value lies in highlighting inefficiencies in operation and barriers to the attainment of objectives, so that the reasons may be determined and corrective action taken.

This is not to say that the provision of control information is any less important than either the deductions made from it or the corrective action taken, since these cannot be carried out without the appropriate information. But the final achievement which is the eradication of inefficiencies and, so far as possible, correction of undesirable deviations from plan is the important thing.

I consider it essential that the activities of the cost department be very closely geared to the attainment of this ultimate goal. It is unfortunate that the remoteness of the department, both on paper and in fact, from production activities frequently tends to obscure this issue. A result of this is its substitution by a secondary, and in fact unimportant, objective which is the production of figures for their own sake rather than for the information which they should convey and the action which they should stimulate. What should be considered as an intermediary in the chain of operations comes to be regarded as an end-product in itself. The development of an outlook which is founded on the importance of the figures rather than the facts which they represent, is almost an inevitable consequence.

Information and the Individual

(a) The information must be given to each individual who has to exercise control. This applies down the line of management and supervision and should only stop where an indivisible sector of control is reached, usually at the level of shop or plant foreman and probably not including shift foreman. It is not enough to present to the works manager at regular intervals a sheaf of comprehensive documents and to regard this as 'control'. Doubtless he can sift

from it the information appropriate to each individual on his staff but this course has the following disadvantages:

- (i) it takes time, involving as it does preparation of a longer and more comprehensive statement, sifting by the works manager, conveying by the works manager to his subordinates and examination and analysis by them before action is taken;
- (ii) it wastes time, particularly that of the works manager, which, as everyone knows, is expensive;
- (iii) it relies upon the presence of the works manager;
- (iv) it reduces junior management's sense of responsibility.

(b) An individual should be provided only with information relevant to his own area of control. In general this precludes the practice of 'knocking off' copies of certain sheets of a master control statement to present to juniors. If the individual is not required to control a certain element of cost, then information relating thereto is not essential for the purpose under consideration. It may be interesting and useful, and it may be of psychological value but it is not necessary for effective control.

For example a plant foreman is not normally responsible for maintenance of his plant, so to provide him with maintenance costs, whether detailed or general, is unnecessary, and in broad terms would not result in more effective control. A similar case would be that of the plant manager and the costs of steam production in a factory where steam generation, as opposed to steam utilisation, is under the control of a boiler house superintendent.

(c) The issue of control statements must relate to the established structure of organisation and the position of individuals therein. A member of the management team can be responsible only for that part of the company's activities over which he can exercise effective control and this principle cannot be implemented unless the structure of organisation is clearly laid down and the provision of control information links up precisely with the structure, leaving no gaps and creating no overlaps.

Timing and Accuracy

Timing and accuracy in the presentation of the control information must be considered in the light of the desired aim which is eradication of inefficiency and departures from plan. With this as an overriding consideration it is impor-

tant that at all times the stress placed on these elements is appropriate to,

- (a) the nature of the production operation, i.e. whether it be unit, batch, flow or contract;
- (b) the nature of the controlled element of cost, i.e. whether labour, materials, services or miscellaneous process charges;
- (c) the position of the recipient in the management structure—although it is true that an individual's area of control becomes more extensive with increasing seniority, it does not follow that the more senior a person the more rapidly should he receive his control statements. In general remedial action will be taken by junior members of the management team and the sooner they receive the information on which they are to act the better.

Speedy presentation of information is vital. It is evident that there is a very real limit to the speed at which information can be prepared, this being imposed by considerations of the cost of the accounts department, even if no other. Nevertheless, it is essential for it to be appreciated how rapidly the value of the information diminishes as the time interval between the actual production activity and the reporting of the facts relating thereto increases. It is evident that the sooner the information is in the hands of the individual who is to take remedial action the quicker will unnecessary losses be stopped or undesirable deviations corrected. Without enlarging further on the major question of frequency of presentation, it is worth bearing in mind that even with a highly efficient costs department monthly statements inevitably mean that in order to interpret the position represented by the figures production personnel are frequently having to think back to events of some six or seven weeks ago.

It would be unwise to attempt a specification of the desired degree of accuracy. All that is really necessary is that it should be of such a level as to ensure that action is taken at the necessary points and in the right directions. To a considerable extent it is acceptable that accuracy be sacrificed for speed, so long as the information points the way to the proper corrective action.

Brevity and Clarity

This is not so much a case of effecting a compromise between these elements as one of steering the right course. On the one hand it is

necessary to give sufficient information to ensure that nothing of significance is omitted and that the executive is neither continually 'referring back' nor being involved in a series of calculations in order to get at the underlying essential facts. On the other hand care must be taken to guard against the very real danger of presenting so much information that the recipient suffers serious mental indigestion each time a control statement is presented, and becomes so overawed by a mass of figures as to be unable to use them effectively.

I would suggest the following factors as providing some guide in determining the relative weightings of the two aspects, brevity and clarity:

(a) Standard costing, and indeed the whole art of management, is based on the Principle of Exceptions; in determining the degree of detail required in relation to each cost factor its application can be invaluable.

(b) The degree of detail should be related to the controlling power of the individual; the more junior a person the more detail he requires.

(c) For junior management the classification under one rather arbitrary cost heading of elements which are unrelated in practice should be avoided. A statement which gives an aggregate figure on variable or works overheads for a certain cost centre when such diverse items as, say, power, gas, steam, filter materials and water are involved is of no value to a foreman who has to control each of these distinct elements of cost.

(d) Recognition of the cases where conventional analysis is not adequate as an effective basis for control is important. A rather simple example is the treatment of deviations on raw materials in terms of price and efficiency factors. In many operations varying mixes of similar, but not identical, raw materials may be used to give the same end product. In such circumstances an analysis of this mix variance must be presented if the process supervisor is to be fully aware of the standard of performance. Obviously labour demands similar treatment in certain cases.

(e) For lower grades of management and supervision the use of artificial conventions should be kept to a minimum. In my experience a control statement, the full understanding of which depends upon even a reasonable knowledge of, say, standard costing, is not suitable for a foreman. Such a presentation is by no means essential and if not fully understood can only lead to frustration and dissatisfaction.

Physical Control Statements

The incurring of cost may be regarded as the use of a factor of production or economic resource, i.e. labour, materials, services or capital. In order to relate these elements and put them on to a common basis it is convenient, of course, to employ the shorthand of financial expression but the use of, say, one ton of a particular raw material is a cost regardless of whether or not it is expressed in £s. Since production personnel work with physical entities it is usual for them to think of their processes and the results of their activities in physical and not financial terms.

It follows that for primary control it is essential that physical control statements should be provided. For this purpose I consider it quite pointless for the costs department to translate the acquired physical data carefully into cash terms for transmission to the plant foreman if he then has to do difficult, and probably inaccurate, calculations to reconvert to physical terms before he is able to interpret the statements. The difficulty in the case of wages is probably particularly obvious when the foreman, in doing his interpretation, might have to make due allowance for time and a half for overtime, double time on Sunday, incentive bonus earnings, a housekeeping bonus and some awkward basic rate such as 4s. 1½d. per hour, before he can arrive at the man-hours worked in a particular section.

I do appreciate, however, the need to get across to all those responsible for the company's production activities, the cash consequences of their actions, but I view this as being complementary to basic physical control. Much as I regard the reported cost consciousness (cash-wise) of American supervisors as desirable and even enviable, I consider that such an attitude cannot be developed merely by presenting detailed financial costs at regular intervals. A superficial cost consciousness might well emerge from this but only at the expense of loss of control and consequent fall off in efficiency.

The broad background should be provided, perhaps even irregularly, so that the plant controller is aware of the approximate relative values of his various elements of cost in each product or centre, but detailed cash statements should not be given unless it is felt, with reasonable certainty, that the individual and the company will gain from their being issued. It would seem reasonable to formulate a general principle to the effect that, within the structure of production management, the cash content of

control statements should diminish with decreasing managerial status of the recipient.

Allocation of the Unallocable

By definition overheads do not admit of precise apportionment or allocation either to products or cost centres and for the purposes of control to attempt to do so, on however elaborate a basis, is pointless, wasteful and confusing. Since the individual elements (or physically related groups of elements) which constitute the overheads are themselves controllable, there can be no advantage in lumping them all together in the first place, and then breaking them down on some mysterious basis compounded of, say, numbers employed, man-hours and floor space in order to compare the resultant fragments with allegedly equivalent ones derived from the budget; particularly since this was formulated for a significantly different set of conditions than those obtaining during the period under review. The application of this practice to the preparation of control statements is bad enough because it is so pointless. When it is extended to the provision of information which is to be the basis for managerial decision it becomes, in most cases, positively dangerous and is likely to lead to quite incorrect conclusions.

'Do not Wait to be Asked'

All too frequently the production man is extremely vague as to just what the costs department can do to help him in controlling production operations. Also, as frequently, he is unwilling to appear stupid by asking. The value of the accountant occasionally taking the opportunity of finding out whether members of the management team are really getting what they need in the way of control information could be enormous. The attitude of the accountant who says, 'If he tells me what he wants I will provide it', may be justifiable in many ways but it does not contribute towards the realization of the objective, which is better control.

I imagine that it is more than likely that the charge will be made against me that this paper contains nothing new and that all my points are covered adequately in many established systems of control. I would accept the first charge without reservation. In reply to the second I would say that the gulf between theory and practice is, in this instance, too great to be bridged by wishful thinking and that, in any event, I have too great a respect for my accountant colleagues to be able to accept such a charge.



GUILDHALL DINNER

Friday, 24 October

As already announced, The Institute of Cost and Works Accountants is to hold a dinner in Guildhall on Friday, 24 October, when members and students will join a company of distinguished guests on an occasion which will mark the increasing importance of the Institute in the affairs of the country. Included with this issue of 'The Cost Accountant' is an application form for the use of those wishing to obtain tickets for the dinner; these should be completed and returned to the Institute headquarters as soon as possible. The price of tickets is £3 3s. each, and there is no limit to the number of personal male guests who may be invited. To add to the splendour of the occasion, the orchestra of the Coldstream Guards, by permission of Colonel I. W. Gore-Langton, M.B.E., Commanding Coldstream Guards, will play during the dinner.

GOG and . . .

THIS, the third of the articles aimed at introducing our readers to Guildhall, moves from the historical survey published in the May issue of *The Cost Accountant* to a description of some of the notable features contained within the Hall itself. The best known of these are undoubtedly Gog and Magog. These two giant carved figures stand on pedestals at each end of the gallery.

The giants now in Guildhall are not the originals; at least twice in their long history Gog and Magog have been destroyed. The present figures replace those destroyed in the fire of 1940. The originals are presumed to represent Gogmagog and Corineus who, in the ancient mythology of the monks of the Middle Ages, are recorded as having come to this country with the Trojan invaders. In the course of time the name of one of the warriors has been forgotten, and the name of the other divided between the two.

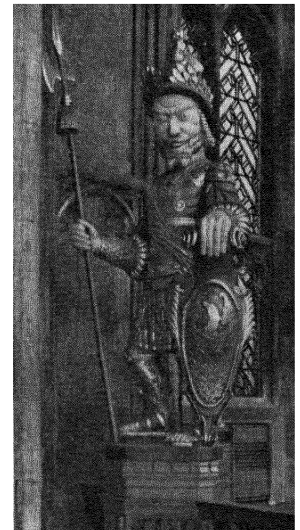
This myth fostered the belief that the City was founded by the Trojan invaders, who named it 'Troynovaunt' or New Troy.

Carved in limewood, both the figures are 9 ft. 3 in. high. Gog is armed with a globe set with protruding spikes, fastened to a long pole by a chain—a weapon known in the Middle Ages as a 'morning star'. In addition, he carries a bow, and a quiver full of arrows. Magog is armed with a shield and spear and attired in Roman costume.

Predecessors of the present figures used to be carried in the processional pageant on Lord Mayor's Day. In a book (published in 1741) by Thomas Boreman, who had a stall 'near the Giants in Guildhall', we read the following account of them:

'Before the present giants inhabited Guildhall there were two giants, made only of wicker-work and pasteboard, put together with great art and ingenuity, and these two terrible, original giants had the honour to yearly grace My Lord Mayor's Show, being carried in great triumph in the time of the pageants; and when that eminent annual service was over, remounted their old stations in Guildhall, till, by reason of their very great age, Old Time with the help of the City rats and mice had eaten up all their entrails. The dissolution of the two old, weak and feeble giants gave birth to the two present substantial and majestic giants, who, by order and at the City's charge, were formed and fashioned. Captain Richard Saunders, an eminent carver in King Street, Cheapside, was their father, who after he had completely finished, clothed, and armed these, his two sons, they were immediately advanced to their lofty stations in Guildhall, which they have peacefully enjoyed ever since the year 1708.'

The present effigies—they are seen illustrated on this page which replace those destroyed in 1940, were the gift of Alderman Sir George Wilkinson,



. . . MAGOG

Bt., and the work of Mr. David Evans, F.R.B.S.

The official standards of length marked on brass plates across the floor of Guildhall provide a more modern feature of interest. The late Sir George Airy, Astronomer Royal, superintended the laying of the standards, which run from east to west within the Hall. A tablet on the south wall at the west end of the Hall explains that the standards, at 62° Fahrenheit, were placed in the Hall by the Corporation of the City of London in 1878. On the tablet itself, 1 ft., 2 ft. and the imperial yard are measured, while 100 ft. and 66 ft. are measured out upon the floor. All but four of the stained glass

windows were wholly or substantially destroyed by the fire of December 1940. The fifteenth century window in the south wall next to the Royal Fusilier memorial, is reputed to be a survival of the original hall.

In comparatively modern times, a number of monuments have been erected in honour of our national heroes. Among those represented are William Pitt, Earl of Chatham, William Pitt the Younger, Lord Nelson and the Duke of Wellington. A bronze statue of Sir Winston Churchill, the work of Mr. Oscar Nemon, was unveiled in June 1955 and has been temporarily placed in the Hall.

BOOK REVIEWS

The Finances of Increased Airline Profitability **AVIATION STUDIES (INTERNATIONAL)** **LTD., LONDON.**

Pp. 110.

This study of the air transport industry provides ample food for thought. There is, it is held, abundant evidence, based on a thorough investigation, to support the conclusions.

The treatise shows that too rapid expansion and heavy future commitments for the replacement of piston-engined aircraft are endangering the financial stability of this industry. Having regard to the gearing of their capital and profit trends, the case studies, it is stated, seem to show that all but one of the companies are committed to far heavier investments in jet aircraft than would seem wise. Airlines are overburdened with high interest payments on huge loan debts—out of proportion to their issued capital.

The treatise is worthy of close study by cost accountants whose work brings them into contact with any branch of air transport.

★ ★ ★

Installing Electronic Data Processing Systems

by RICHARD G. CANNING

Chapman & Hall, London.

Pp. 193. 48s.

This book gives an account of the work assumed to have been undertaken by a medium-sized engineering company in America in the installation of an electronic data-processing system. The information is taken from studies of actual installations in a number of different companies.

The scope extends from preliminary investigations and the setting up of the necessary organisation—with particular emphasis on the selection and

training of personnel—to the final installation and operation of the data-processing system, using a comparatively large-sized computer.

The object of the E.D.P. system described was to improve the company's competitive efficiency by better production, customer satisfaction and stock investment. Such an extensive reorganisation involved top-level managerial decision and control rather than piecemeal applications of electronics to improve existing routines.

Discussions on many of the problems associated with E.D.P. have been included.

★ ★ ★

Practical Financial Statement Analysis

by ROY A. FOULKE

McGraw-Hill Publishing Company Ltd., London.

Pp. 712. 58s.

The author has here compressed into one volume the result of many years of study and experience in the analysis of financial statements. He is to be congratulated on the lucid and interesting way in which the subject matter is presented.

Although written from the viewpoint of an on-looker seeking information on which to form a view on the soundness or otherwise of the finances and management of an undertaking, it is, nevertheless, a book which all engaged in the preparation of financial statements and accounts or concerned with financial management will find absorbing and profitable.

Mr. Foulke shows the reader how to interpret the facts behind the figures in a simple and logical manner. He explains at each stage the reasoning and theory on which his conclusions are founded. He illustrates his technique and the lessons to be gained therefrom by drawing on the published

accounts etc. of a large variety of concerns representing most aspects of American industry and commerce.

One is left with a feeling of regret that so much of the information voluntarily disclosed by American undertakings is not so readily available to the student of the accounts of their opposite numbers in the United Kingdom.

* * *

Readings in Cost Accounting, Budgeting and Control by WILLIAM E. THOMAS

American Accounting Association.
Pp. 785.

How often have we had to cut out of periodicals articles on our pet subjects, or how often have we endeavoured to file successfully the publications in which such articles have appeared? We have sighed, perhaps, for easier methods of recording. This volume, therefore, meets a want: it is an assembly of articles in book form and comprises 785 pages of easy reference. As these articles were written by leading personalities in the field of accounting and cost accounting in the U.S.A., the material is useful to the qualified man and to the student.

The book is divided into five sections some of which are sub-divided into two or more parts. At the beginning, the historical development of cost accounting is considered and it is pleasing to note the recognition given to *Factory Accounts* written by two Englishmen, Mr. Garcke and Mr. Fells, and published towards the end of the last century.

From historical development the book passes on to the theory of cost accounting and budgeting and discusses this well in about 160 pages.

The next section is devoted to what is called 'problem areas' and deals with accounting for product and period costs and planning and control. Finally, there are several useful articles on reports for management.

Altogether this is a worth-while publication, both as a book of reference and as a supplement to the student's reading.

* * *

Buckley on the Companies Acts (13th edition)

by J. B. LINDON, O.B.E., M.A., LL.M.

Butterworth & Co. (Publishers) Ltd., London.
Pp. 1395. £6 17s. 6d.

This edition fully maintains the high standard set previously. It records the numerous decisions of the English and Scottish Courts affecting company law in the eight years which have elapsed since the publication of the 12th edition; some historical matter has been deleted.

Although, so far as possible, the author's original

basic text and arrangement have been preserved, certain notes have been largely rewritten in the light of recent decisions and practice, and other notes have been considerably revised. The index has been greatly enlarged.

Relevant sections of the Prevention of Fraud (Investments) Act, 1939, have been included in appendix IV. The enactments and regulations relating to the control of borrowing and raising capital, formerly collected in appendix V to the 12th edition, are not now included, experience having shown that these latter regulations are liable to undergo fairly frequent changes.

The addenda bring the matter covered by this edition down to 1 July 1957, and also deal with the minor amendments necessitated by the recent revision of appendix 34 of the Rules of the Stock Exchange, London.

* * *

By Road to Turkey

by ROBERT BELL

Alvin Redman, London.
Pp. 221. 15s.

This book will certainly be greatly enjoyed by all who read it. It is a mixture—partly a travel guide and partly a description which will delight those whose travelling must be confined to the arm chair at home. The author likes a holiday which is nothing if not unusual. With a 'modest motor car' he set out to travel to Istanbul with two companions. Between them, they spoke no language other than English but despite that, which some travellers might regard as a handicap, he has produced this volume which is packed with information of value to those who might also wish to visit Turkey. Costs, currency, scenery, places of interest, food and wine, are among the many interesting matters on which he dilates. Cost accountants will, we feel sure, be interested to hear that this holiday which can virtually be described as exciting and off the track, costs him no more than £50!

There is another reason why this book should have a particular appeal to our readers—Mr. Bell is known to many of the profession because he is an administrative assistant to The Association of Certified and Corporate Accountants.

* * *

The Substance of Economics (14th edition)

H. A. SILVERMAN

Sir Isaac Pitman & Sons Ltd., London.
Pp. 379. 20s.

This standard work on economics is both readable and comprehensive and will be an asset to students. It includes a full index.

LEGAL COMMENTARY

affecting Industry and Commerce

ARBITRATION

Misconduct

LONDON EXPORT CORPORATION v.
JUBILEE COFFEE ROASTING CO. LTD.

[1958] 1 W.L.R. 271

A contract for sale of goods incorporated one of a trade association's forms of contract, which included an arbitration clause. A reference was to be to two arbitrators (one appointed by each party) with power to them to appoint an umpire in the event of disagreement; the arbitration was to be subject to rules, one of which (rule 6) allowed appeal from the umpire to a board of appeal, but with a provision that no member of the appeal committee who should have acted as arbitrator or umpire in the case, and no member of the firm to which an arbitrator or the umpire should belong, should vote upon the appointment of members of the board of appeal or be a member of the board. Upon an appeal from the umpire's award in this case, the board at the conclusion of the hearing allowed the umpire (who had been present throughout) to remain behind with them, as was the usual practice of that trade association, and the board held communication with him in the absence of the parties.

Diplock, J. held that the award must be set aside for misconduct. The usual practice of the board in allowing the umpire to remain after the retirement of the parties was not of itself sufficient to invalidate the awards, but in this instance it was inconsistent with rule 6, which was incorporated in the arbitration agreement, and which was clearly intended to exclude the umpire from having any influence, direct or indirect, upon the decision of the board.

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MASTER AND SERVANT

Vicarious Liability and Indemnity
HARVEY v. R. G. O'DELL LTD.

[1958] 2 W.L.R. 473

The plaintiff a fitter and one Galway, a storekeeper, were employed by the defendants, whose manager instructed both men to proceed to a certain job. Galway owned a motor-cycle combination which the manager instructed him to use for the journey and to take Harvey with him. In the course of the job it became necessary to obtain additional materials, for which purpose Galway (with Harvey in the sidecar) went to a neighbouring town, where they also had a meal before returning

to the job. On the return journey an accident occurred, owing partly to Galway's negligence, as a result of which Galway was killed and Harvey seriously injured. In this action Harvey claimed damages against the defendants as being vicariously liable for Galway's negligence, and the defendants claimed indemnity in respect of such liability from Galway's personal representative.

McNair, J. held (1) that the defendants were liable to Harvey, because the job being an all-day job, the journey was incidental to it for the purpose of having a meal as well as for obtaining materials; (2) that in respect of such liability the defendants were entitled to indemnity from Galway's estate. Although Galway's contract of employment as storekeeper implied no agreement for indemnity against his negligence in the use of his own vehicle, nevertheless, under the Law Reform (Married Women & Tortfeasors) Act, 1935, sec. 6(1), he was potentially liable as a tortfeasor to contribute towards any damages in which the defendants might be mulcted, and, although he could not have become actually liable until a judgment against the defendants had been pronounced, his liability must be regarded as subsisting at the date of his death by reason of the Law Reform (Miscellaneous Provisions) Act, 1934.

It was also held that, although the defendants' claim against Galway's personal representative was not made within six months after his death, it was not barred under sec. 3 of the Act of 1934, because it was not a claim in respect of a cause of action *in tort*.

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COMPANY LAW

Company may Own Shares in Itself
IN RE CASTIGLIONE'S WILL TRUSTS

[1958] 2 W.L.R. 400

By his will a testator, who held ordinary shares in the X Company Limited, bequeathed 1000 of such shares to trustees upon trust for his son for life, and at the son's death, in the event (which happened) of the son leaving no issue, upon trust to transfer the shares to the company.

Danckwerts, J. held that, although the company could not be registered as holder of the shares—because it could not be a member of itself—it could as beneficial owner direct the trustees of the will to transfer the shares into the names of persons nominated by the company to be held by them as trustees for the company as absolute beneficial owner.

ELECTRONICS AND AUTOMATION

COMPUTER COURSES

WHAT is believed to be a new venture—the provision through a correspondence course of training in the programming of business computers—has now been introduced into this country. It is claimed that students will be taught to develop and programme electronic systems for business problems such as payroll and inventory control. A theoretical computer has been designed for this purpose so that the theory can be taught free from any ties to a particular computer marketed.

It is suggested, by the organisers of the course, that an appropriate use for the course would be to train staff during the period between the ordering of a computer and its delivery.

Remington Rand

Remington Rand are to organise Univac File computer training courses during 1958. One course will last ten days, for those who have already attended British Univac II courses or other similar computer courses; the other course will last for fifteen days, and is intended for those who have little or no knowledge of computer techniques.

ELECTRONIC HANDLING OF MATERIALS

THE application of electronics to material flow equipment was demonstrated by the Manufacturers Equipment Component Ltd. at the Mechanical Handling Exhibition in London this month, the electronic equipment having been developed by EMI Electronics Ltd.

The stand was constructed to represent a factory store, or commercial warehouse, and demonstrated how the use of electronics could reduce manual operation. Flow racks held the packages which could be released automatically in a pre-set rotation. They then flowed through a swing tray elevator which operated so as to combine three lanes of packages on to one belt; an automatic device ensured that the packages were spaced regularly at five second intervals.

The packages then flowed on to an electronic weighing machine, the weights being printed out on to a teleprinter. The number of parcels passing through the system was also recorded. Having been weighed, the packages passed on to a coded route selection device which employed a bank of photo-electric cells to read a black and white binary code fixed to each package. By means of this

coding system, any specified conveyor path could be selected, the system being demonstrated employing two subsidiary paths.

Materials Handling Films

The National Joint Committee on Materials Handling, a co-ordinating committee for professional bodies, including The Institute of Cost and Works Accountants, and other bodies interested in materials handling, has compiled a list of films on materials handling.¹ Some sixty titles are listed showing the size and running-time (where known), the source of film and a brief synopsis of its purpose and audience suitability.

The list covers such subjects as the operation of a high capacity floating grain handling plant; the handling of Coca Cola cases on the production line; the application of the unit load system to sausage and pie manufacture; excavators moving 700 tons of earth an hour; the use of tractor equipment in vineyards and cargo handling at the ports.

COMPUTER 'BUILDING BRICKS'

SOLARTRON are now offering small units, costing relatively few pounds, which, it is claimed, can be built up to make analogue computers of any size—from a dozen units or so, to hundreds—according to the type of problem to be solved or process to be simulated. Once the type of problem has been solved, other types may be quickly handled by permuting the 'bricks' and, if necessary, adding to them.

Solartron have also designed an automatic keyboard instructor for training operators of card punches.

★ ★ ★

'Electricity and world progress: Britain's contribution' is the theme of this year's British Electrical Power Convention which takes place at Brighton from 16 to 20 June.

★ ★ ★

The first issue of a new quarterly publication, *The Computer Journal*, published by the British Computer Society Ltd., appeared in April. It will aim 'to provide a permanent record of papers and notes of lasting interest to all who are engaged in the development and use of computational machinery and related techniques'.

¹ Available upon receipt of a stamped addressed envelope, from The Secretariat, National Joint Committee on Materials Handling, 20-21 Took's Court, Cursitor Street, London, E.C.4.

ABSTRACTS OF ARTICLES

in Contemporary Journals

Diagnosing Some Cost-volume-profit Relationships

by E. G. COX

Better Accounting for Fixed Expenses in a Seasonal Business

by PHILIP KREGER

N.A.A. Bulletin, Section 1, April 1958.

Dealing with the three basic factors affecting profit—price, cost, volume—the first article illustrates their inter-relationships by a series of break-even charts.

The second article deals with the presentation of figures useful to management in a company where 60 per cent of turnover is achieved in the middle four months of the financial year.

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Lessons from Vauxhall

The Economist. 12 April 1958.

This article surveys the expansion scheme of Vauxhall Motors to increase the yearly output of passenger cars from 70,000 to 155,000, and of commercial vehicles from 50,000 to 95,000. The new plant was brought into production in about two-thirds of the originally planned time and although the results of 1957 were a loss of more than a million pounds against a profit in 1956 of nearly £4 million, the taxation account showed a credit of £1,232,000 against a debit figure of £2,452,000—a difference of over £3½ million compared with 1956.

★ ★ ★

The Use of Accounting Ratios

by E. H. DAVISON, A.C.A.

The Accountant, 19 April 1958.

Accounting ratios are analysed from three aspects, *financial*—ratios between one item on the balance sheet and another; *expense*—ratios between profit and loss account items; and *operating*—ratios between balance sheet and profit and loss account.

★ ★ ★

Fabric of the Future

by LEWIS T. WRIGHT

The Manager. April 1958

The author, who is General Secretary of the Amalgamated Weavers' Association, analyses the attitude of organised labour to the situation created by companies who are not prepared to modernise

plant. A table is given of average hours worked in different countries ranging from 146 weekly in Hong Kong, on automatic looms, to 37 in the U.K. which is only 14.7 per cent. automatic.

★ ★ ★

The Politics of Management

by G. PRYS WILLIAMS

Scope. April 1958.

This is the first of five articles concerned with the 'office politics' of higher management and their effect on the interests of a business, particularly when succession to top leadership is involved.

Other Articles Noted

Marginal Costing and the Railways

by E. L. KENWORTHY, A.C.A.

The Accountant. 15 March 1958.

This is a plea for a more realistic policy regarding branch lines.

Coding

by A. E. SKINNER, B.SC., F.R.I.C., M.P.O.A.

The Purchasing Journal. March 1958.

Coding methods used in the Supply Department of I.C.I.'s Paints Division are illustrated.

Electronic Computers—the Challenge to Management

by JOHN DIEBOLD

Automation and Automatic Equipment News. March 1958.

Can Economists Help Business?

by RICHARD STONE, C.B.E., SC.D., F.B.A.

The Accountant. 22 March 1958.

Publications Cited

N.A.A. Bulletin (75 cents), 505 Park Avenue, New York 22, N.Y.

The Economist (1s. 6d.), 22 Ryder Street, St. James's, London, S.W.1.

The Accountant (1s. 9d.), 4 Drapers' Gardens, Throgmorton Avenue, London, E.C.2.

The Manager (3s.), Management House, 80 Fetter Lane, London, E.C.4.

Scope (2s. 6d.), 9 Grosvenor Street, London, W.1.

The Purchasing Journal (2s. 6d.), Wardrobe Court, 146A Queen Victoria Street, London, E.C.4.

Automation and Automatic Equipment News (2s.), 9 Gough Square, Fleet Street, London, E.C.4.

Second South African National Conference 'ELECTRONICS IN THE OFFICE'

Institute Event Arouses Widespread Interest

The Second South African National Conference was held in Cape Town from Sunday 30 March to Wednesday 2 April, a hundred and twenty delegates from the Union and Rhodesia attending. The theme of this highly successful conference was 'Electronics in the office'. As the first conference in Southern Africa dealing with the subject, it was followed with great interest throughout the country.

THE conference opened at 9.30 on the Monday morning, when the Deputy Mayor of Cape Town, Councillor Mrs. J. Newton-Thompson, gave an address of welcome to the delegates. This was followed by an address by Mr. C. S. Marx, President of the Cape Federated Chamber of Industries. Both these addresses were under the chairmanship of The Hon. C. J. Hatty, F.C.W.A., Minister of the Treasury and Minister of Native Education for Southern Rhodesia. After an official luncheon, attended by the Deputy Mayor and Deputy Mayoress of Cape Town, the business sessions of the conference began. The aim of the convenors was to deal with every aspect of this subject, the papers following on in a logical sequence.

There are already a number of electronic computers in the Union, and the largest computer in the southern hemisphere is to be installed at the head office of an insurance company in Cape Town. The conference provided the first opportunity for delegates to exchange ideas and experiences in this field. The proceedings were fully reported in the Press, the conference being the subject of leading articles in both the *Cape Times* and the *Johannesburg Star*.

The Institute in South Africa are to be congratulated upon the success of the conference, and the very high standard of papers presented.

Conference Speakers

Mr. Gutteling, Training Officer of Hollerith Machines (S.A.) (Pty.) Ltd., spoke on the subject of 'The theory of electronics as applied to computers'. What the future held in store was a point of conjecture, he said, but,

'in retrospect, however, the development has been amazingly fast over the past ten years and a new territory has been tamed by scientists and engineers, and domesticated for the commercial, industrial and scientific user.'

Mr. D. C. Gers spoke on a paper prepared by Mr. J. Aspinall, of the Computer Division, Hollerith Machines (S.A.) (Pty.) Ltd., on 'The theory of a computer'. The various elements of a computer—input, arithmetic unit, memory, programme controller, and output—were discussed. Input of

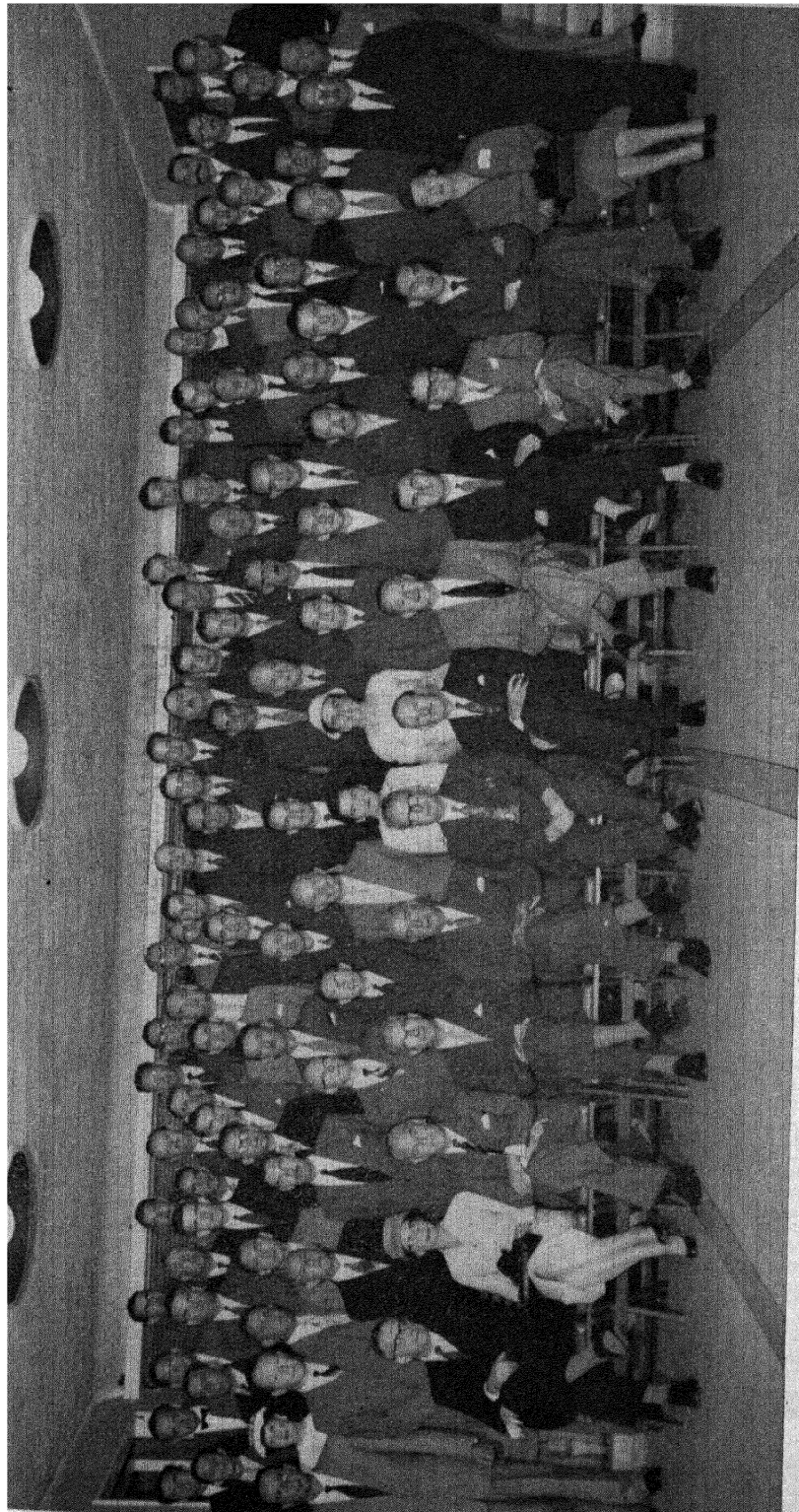
data was usually carried out by either punched cards, paper tape or magnetic tape, or by a combination of the three. The computer's 'memory' or storage facility was the element which most resembled the human mind. Mr. Gers said that 'output' data took two basic forms—printed and machineable, i.e. as punched cards, magnetic or paper tape. The use for the second type arose in carrying data forward. The data for several different end results or accounting documents were frequently prepared by a computer in one operation.

The subject of 'Systems analysis and programming' was dealt with by Mr. R. Davis-Berry, B.Sc., A.I.E.E.(S.A.), electronics specialist, The National Cash Register Co. (S.A.) Ltd., Chairman, Sales Managers' Association of Southern Africa, and member of the British Computer Society. Speaking of the potentialities and limitations of a computer, Mr. Davis-Berry said,

'it is capable of replacing many man-hours by a few minutes; no more and no less than that'.



Mr. G. T. M. Rae, B.Com., C.A., F.C.W.A., President elect of the South African Council (left), with Miss L. Hodge, A.C.W.A., one of South Africa's only two lady Associate members of the Institute, (to his left) and Mr. F. G. Dew, F.C.W.A., President of the South African Council, and Mrs. Dew, at the President's reception.



Second South African National Conference, Cape Town, April, 1958

Front row (left to right): Mr. S. T. Vieyra (Member, S.A. Council); Mrs. M. Mollink (Secretary, S.A. Council); Mr. G. T. M. Rae (Member, S.A. Council); The Hon. C. J. Hatty (Minister of the Treasury and Minister of Native Education, S. Rhodesia); Dr. J. Dommissie; Messrs. F. G. Dew (President, S.A. Council); C. S. Marx (President, Federated Chamber of Industries); C. Mollink (Member, Institute Council); C. T. Aitkin (Member, S.A. Council); E. G. Buttesworth; G. D. Horwood; Miss L. Hodge.

Second row (left to right): Messrs. R. R. A. Champion; V. E. Fricker; J. R. Grant; J. J. Crouse; T. Yates; W. E. Chetwin; J. Thackray; Miss B. J. N. Greig; Mrs. B. M. Bussio; Mr. L. G. Baumann; Dr. C. Verburgh; Messrs. D. R. Coleman; A. E. Burnett; T. A. G. Scotcher; K. Wood.

Third row (left to right): Mrs. J. J. Baillie; Messrs. K. B. Dickenson; R. F. Ferguson; A. J. Brown; E. R. Davis; I. W. Liefeldt; J. Prestage; J. A. Edgell; E. F. R. Corbett; D. E. Nevin; A. W. Sperry; H. H. B. Descroock; J. B. Cox; J. C. Cartwright.

Fourth row (left to right): Messrs. B. J. Baillie; S. Jacobs; L. V. Fuller; K. Slack; L. C. Carter; E. P. H. Biebert; A. de V. C. Purcell; D. R. Sheer; D. H. Craddock; D. J. Martin; F. J. Ford; R. Wright; S. C. Whitticom; H. Weber; F. Markwell.

Fifth row (left to right): Messrs. C. Michelsen; H. G. Lederman; A. B. Murdoch; G. J. Hill; D. B. van der Merwe; H. F. Hands; H. J. Lombardi; H. D. Rabkin; J. A. F. Horwood; T. A. Tuffin; L. G. Walker; H. E. Sneath; Q. R. Shepherd; R. E. G. Rex; R. J. Wood; S. A. Kroin; C. Gutting.

Sixth row (left to right): Messrs. G. J. du Toit; J. O. Lillis; J. B. Bankier; N. L. Franken; G. R. Sloane; G. W. Mole; Dr. J. Brieger; Messrs. A. Hilhorst; J. C. Alborough; W. T. McCarthv. H. C. A. de Villiers. P. H. McGrath. F. J. Hecker. E. J. Richardson. G. de Korte.

He believed that new management thinking and organisation were necessary if the benefits of an installation were to be gained. Partial information would only be obtained at an economic cost in really big industrial undertakings; experience had shown that most installations so far had been made without sufficient preparation. Mr. Davis-Berry spoke of the difficulties of programming, and warned against expecting too much of a computer.

'A computer cannot do what man cannot do', he said, 'it is not an "electronic brain", it is an "electronic moron"'.

Mr. W. J. Henderson spoke on a paper prepared by Mr. J. E. P. Levyns, on 'A HEC application—Cape Provincial Administration'. The Cape Provincial Administration had, he said, become interested in the installation of a digital computer for payroll purposes. The pay section of the Administration would in the future 'consist only of a few highly skilled coding clerks', said the speaker. The scheme was planned to cover the salaries of some 18,000 teachers, though the speaker thought it would be possible to extend it to cover some 10,000 doctors, nurses and other officials employed in the provincial hospitals. He thought it might even be possible later on, by detailed studies of population growth and migration, birth, death and disease statistics, to plan accurately future requirements not only of buildings but also of staff.

On the subject of 'Planning a computer installation', Mr. A. Hilhorst, B.COM., B.ECON., A.C.I.S., methods officer (Administrative), South African Iron and Steel Industrial Corporation Ltd., said:

'It is becoming more clear that electronic computers will help to reverse the present trend toward greater decentralisation of management control.

'The real purpose is to achieve the full range of the company's objectives most economically. . . . Only by a change in thinking can the gap be bridged between the electronics engineer, the mathematician and top management'.

'The philosophy of the computer' was the subject of a paper by Mr. E. P. H. Bieber, B.SC., F.F.A., A.I.A. Mr. Bieber said that one of the 'reasons for automation' was the,

'compiling of more extensive information, producing the information faster, producing statistics that need attention, rather than historical records of everything that has happened'.

He concluded [with this challenge to management:

'Those of us who are members of professions such as production engineers, chartered accountants, cost and works accountants, and secretaries,

should use our influence to persuade the professional institutions to change their syllabi to include the subject of electronics so that the following generations of professionally qualified persons are fully equipped to deal with the problems of modern office automation', he said. 'Only in this way can we guarantee that our professions are able to contribute to the advancement of efficiency in office operations'.

Dr. J. Dommissie, B.A., B.SC., M.SC., PH.D., F.F.A., addressed the conference on the wider implications of electronics.

On Tuesday evening the President of the South African Council held a reception.

At 4 p.m. on Wednesday a closed session of members and students of the Institute was held under the chairmanship of Mr. F. G. Dew, F.C.W.A., President of the South African Council. An address was delivered by Mr. C. Mollink, F.C.W.A., Member of the Institute Council (London) for the Union of South Africa. The conference banquet was held in the evening.

Members of the South African Council and delegates who had already arrived in Cape Town were entertained at a reception on Saturday evening 29 March, given by the Mayor and Mayoress of Pinelands, Councillor and Mrs. V. Hill.

On Sunday morning a special service was conducted at St. Stephens Church, Pinelands, and was well attended by delegates. Following the church service a buffet lunch was arranged at the sports field of a large insurance company. Afterwards, in very pleasant surroundings, a cricket match was played, the 'Rest of the Union' being opposed by the Cape Centre. The visitors scored 104 runs, to which the Cape replied with 97.



Conference delegates at the Cape Provincial Administration Offices where the HEC Computer was demonstrated.

South West Regional Conference

PLANNING AND CONTROL

ELECTRONICS IN THE U.S.A.

ALL ship-shape and Bristol fashion is a fitting description of the most successful South West regional cost conference held in Bristol on 26 April. The national President, Mr. James Borsay, F.C.W.A., opened the conference in the Engineering Lecture Theatre of the University of Bristol, and commented that this magnificent building was one of the finest that had ever held a regional conference of the Institute.

The roll-call showed that the conference enjoyed the support of all branches in the south west, and that members had come from as far away as Cornwall to listen to the speakers' introductions and to join in the discussions on their papers.

The first speaker was Mr. J. P. Wilson, F.C.W.A., A.C.I.S., a member of the Council of the Institute, who presented a most thoughtful and provocative paper on the subject of 'Planning and control'. His paper, with a brief summary of the discussion, is reproduced elsewhere in this issue.

The Chairman was Mr. L. A. Rich, F.C.W.A., President of the Bristol and District Branch, who was supported on the platform by Mr. G. J. Pierce, F.C.W.A., a member of the Council of the

Institute, and Mr. Stanley J. D. Berger, M.C., F.C.I.S., Director of the Institute.

The afternoon session was under the chairmanship of Mr. J. E. Griffin, A.C.W.A., who introduced a welcome guest speaker from the United States, Mr. J. Manse Drummond. In his opening remarks, Mr. Drummond emphasised a number of points which he had made in his paper, 'Electronic data processing in the United States'. He said that in the United States the early development of computers was supported mainly by the Government, and he traced the initial use of these machines in government departments to their adoption in industry and commerce. Mr. Drummond commented briefly on the economics of installing an E.D.P. system, and said that,

'quite often, computer manufacturers were asked in the past whether the installation of an E.D.P. system would for instance reduce the number of employees. The answer was generally "yes". Now it is realised that perhaps this is not the first question to ask. The computer manufacturers now point out that the installation of an EDP system could eliminate "x" number of employees if management wants to use the system in that way.'

He gave one example of an installation where the savings on one application alone paid for the system, but this was a scientific application, planning the optimum route of a new road. The speaker commented on the recent statements that American management had rather blindly accepted computers to 'keep up with the Joneses', and said,

'I simply do not believe this or any implication of it. I would make the statement that American management has not fully utilised the E.D.P. system. When one thinks about it, this is not a condemnation of any installation.'

'Whenever this subject of utilisation and justification comes up, I always think of a screwdriver. The application of turning a screw through metal or into wood should certainly justify the acquisition of a screwdriver. But there are many more applications in which this tool may be utilised. It can be used to pry lids off containers; the handle is sometimes used as a hammer; the blade and shank can be inserted through a

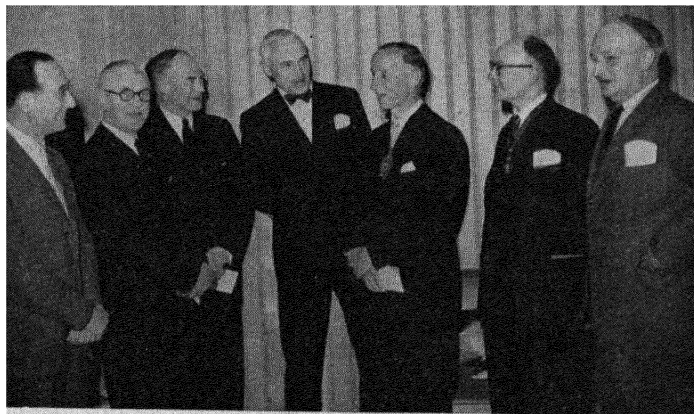


Photo 'The Western Daily Press'—Bristol

Assembling outside the Lecture Hall of Bristol University before the start of the first business session. (left to right) Professor David Solomons, B.COM., A.C.A., Professor of Accounting, University of Bristol; Mr. Stanley J. D. Berger, M.C., F.C.I.S., Director of the Institute; Mr. Derek du Pré, Joint Secretary of the Institute; Mr. G. F. M. Rufford, A.C.A., A.C.W.A., who opened the discussion on Mr. Wilson's paper; Mr. James Borsay, F.C.W.A., the President of the Institute; Mr. L. A. Rich, F.C.W.A., President of the Bristol and District Branch; and Mr. J. P. Wilson, F.C.W.A., A.C.I.S., a member of Council of the Institute.

sparking plug spanner for leverage; and it is sometimes used as a chisel. I do not say that these are proper applications for a screwdriver, but they are certainly making full use of it.'

Mr. G. J. Pierce, F.C.W.A., opened the discussion, inviting Mr. Drummond's views on the use of magnetic tape for storage, for in his opinion by far the greatest amount of time was taken up in this system by the computer examining items and then saying, 'No, next please'. Similarly, he thought that the punched card input was preferable. Of E.D.P. systems in general, Mr. Pierce said a large number of simple programmes were much better than a few complex ones.

In the discussion from the floor, a number of speakers challenged Mr. Drummond's view about 'keeping up with the Joneses', and Mr. A. B. Wiggins, A.C.W.A. (the Secretary of the Conference Organising

Committee), said it seemed to him that there were three types of computers in use—those bought after an exhaustive survey, those acquired for one or two small jobs only, and another, a numerous category, those purchased so their owners could say, 'Look, Ma! I'm dancing!'

Mr. Kett asked the author to say something of character recognition equipment, and Mr. Drummond, in reply, said that he thought it would be some time before a really reliable machine was produced capable of dealing with all types of characters, but that he thought that in this respect a Great Britain manufacturer was well in the lead.

It was with obvious reluctance that the chairman was forced to close the discussion, and call upon Mr. F. O. Higgins, A.C.W.A., to propose a vote of thanks to Mr. Drummond, which was carried with acclamation.

Bristol and District Annual Dinner

THE Bristol and District Branch annual dinner and dance was held at Bristol on 25 April. The guests were received by Mr. L. A. Rich, F.C.W.A., President of the Branch, and Mrs. Rich, with Mr. James Borsay, F.C.W.A., President of the Institute, and Mrs. Borsay.

Brigadier A. L. W. Newth, C.B.E., D.S.O., M.C., *Chairman, Western Regional Board for Industry*; Mr. W. E. Wheatley, J.P., *Sheriff of Bristol*, and Mrs. Wheatley; and Mr. E. J. N. Briffett, F.C.W.A., *President-elect of the Bristol and District Branch of the Institute*, were among those who attended.

The company present also included:

Mr. R. S. B. Ames, A.C.A., *Chief Accountant, National Smelting Company Ltd.*, and Mrs. Ames; Mr. W. B. Armstrong, M.Sc. (ECON.), B.COM., F.C.I.S., *Principal, Bristol College of Commerce*, and Mrs. Armstrong; Mr. J. G. Bennett, F.A.C.C.A., *President, Bristol and District Society, Association of Certified and Corporate Accountants*, and Mrs. Bennett; Mr. M. E. Drummond, M.A., B.S., *Manager, Applied Science Department, IBM United Kingdom Ltd.*, and Mrs. Drummond; Mr. R. J. Gibbens, F.C.W.A., *a past-president of Bristol and District Branch*; Mr. T. R. Johnson, F.I.M.T.A., *City Treasurer*, and Mrs. Johnson; Mr. A. L. Little, F.C.I.S., *Chairman, Bristol and District Branch, Chartered Institute of Secretaries*, and Mrs. Little; Mr. J. A. Moir C.A., *Chief Accountant, E. S. and A. Robinson Ltd.*, and Mrs. Moir; Professor D. Solomons, B.COM., A.C.A., *Professor of Accounting, University of Bristol*, and Mrs. Solomons; Mr. G. C. Stone, F.C.W.A., *a past-president of the Institute*; Mr. Stanley J. D. Berger, M.C., F.C.I.S., *Director of the Institute*, and Mrs. Berger; Mr. Derek du Pré, *Joint Secretary of the Institute*; Mr. P. E. Randall, F.C.W.A., *Technical Officer of the Institute*, and Mrs. Randall.



Photo 'The Western Daily Press'—Bristol

At the annual dinner of the Bristol and District Branch (left to right) Mr. Stanley J. D. Berger, M.C., F.C.I.S., *Director of the Institute*, and Mrs. Berger; Mr. James Borsay, F.C.W.A., *President of the Institute*, and Mrs. Borsay; Mr. L. A. Rich, F.C.W.A., *President of the Bristol and District Branch*, and Mrs. Rich; Mr. W. E. Wheatley, J.P., *Sheriff of Bristol*, and Mrs. Wheatley; and Brig. A. L. W. Newth, C.B.E., D.S.O., M.C., *Chairman, Western Regional Board for Industry*.

Replying to the toast to the Institute, Mr. Borsay suggested that the fact that the tribunal had turned down the wage claim of the railwaymen might be seen as an important change in policy. For years it had been almost automatic to increase wages in accordance with living costs, but the claim had been turned down, in spite of the increased cost of living.

The question now was whether they had to look elsewhere to find the necessary savings. It seemed that a return was being made to the good old word 'efficiency' and away from the popular but very much misunderstood word, 'productivity'. The railwaymen had been told that any wage increase must come out of increased efficiency. Mr. Borsay continued:

"The accountant must be looked upon as the watchdog of public efficiency. I suggest that the only real measure of efficiency is that revealed in the surplus or profit—the difference between the cost and the selling price."

Mr. Borsay said that cost was undoubtedly controllable by management, and he suggested that

members of the Institute had a more important part to play than ever before in trying to bring down costs.

On the question of alternative products, he thought that the aircraft industry must be seriously considering its field of operation 'on account of its heading in the direction of redundancy'.

The toast to the Institute had been proposed by Brigadier Newth, who paid his tribute to the profession of accountancy. Proposing the toast to the ladies and guests, Mr. Briffet included a special reference to Mr. Berger, who, he said, had guided the affairs of the Institute for thirty-three years and who was attending his last branch dinner in Bristol in his capacity as Director. The Sheriff of Bristol responded to the toast.

Sheffield and District Annual Dinner

THE Sheffield and District Branch held its annual dinner and dance in Sheffield on 21 March. The guests were received by Mr. E. Senior, F.C.W.A., President of the Branch, and Mrs. Senior, with Mr. James Borsay, F.C.W.A., President of The Institute of Cost and Works Accountants, and Mrs. Borsay.

Mr. D. J. Haggie, *President, Sheffield Chamber of Commerce and Manufacturers (Inc.)*; Mr. H. Hart, A.C.A., *Finance Director, National Coal Board, North Eastern Division*; Alderman R. Neill, M.I.MECH.E., *Deputy Lord Mayor of Sheffield*; and Sir Frederick Pickworth, *The Master Cutler*, were among those who attended. Also present were:

Mr. R. L. Chapman, F.I.M.T.A., *Chairman, South Yorks and Derbyshire Section, North East Students' Society, Institute of Municipal Treasurers and Accountants*; Mr. Leslie F. Daniels, *Industrial Editor, 'The Sheffield Telegraph'*; Mr. F. Downing, F.C.A., *President, Sheffield and District Society of Chartered Accountants*; Mr. A. J. Druce, F.A.C.C.A., *President, Sheffield and District Society, Association of Certified and Corporate Accountants*; Mr. F. G. Jones, F.I.M.T.A., *City Treasurer of Sheffield*; Mr. P. A. Pashley, A.C.A., M.B.I.M., *Chairman, Sheffield Branch, British Institute of Management*; Mr. E. Robinson, A.C.W.A., *Chairman, Chesterfield Sub-Branch, Institute of Cost and Works Accountants*; Mr. E. Robinson, F.C.I.S., *Chairman, Sheffield and District Branch, Chartered Institute of Secretaries*; Mr. K. van den Toorn, B.COM., M.ED., *Head of the Department of Commerce and Management, Sheffield College of Commerce and Technology*; Dr. B. Walkden, PH.D., B.COM., F.S.A.A., *Head of the Department of Commerce and General Education, Barnsley College of Technology*; Mr. Stanley J. D. Berger, M.C., F.C.I.S., *Director, Institute of Cost and Works Accountants*, and Mrs. Berger.

Replying to the toast to The Institute of Cost and Works Accountants, Mr. Borsay said:

"The syllabus for our examinations has been very carefully considered, and is the result of much research. Whether or not the examination is the best

method of testing a man . . . no better method is yet known."

Mr. Borsay said that we should be quite clear what we were trying to tell industry; through our examinations we said that students had satisfied us academically—and we had also satisfied ourselves that they had had experience which was not just academic. Mr. Borsay continued:

"Our aim is to produce the results at the time when they can be best used. Our policy can be described as dynamic and if the syllabus needs changing tomorrow, it will be changed."

The toast to the Institute was proposed by Sir Frederick Pickworth, whose experience in industry spans over fifty years. It was his opinion that the syllabus for the Institute's examinations was 'too broad'. Sir Frederick expressed the view that the best man in industry was the one with common sense and some idea of human relations; such a man would gain the confidence of people on the shop floor and be a better man for the industry.

Proposing a toast to the City and trade of Sheffield, Mr. Hart said that in his view many people had erroneous ideas on the question of the recent changes in prices of coal. He said that the price had not been increased to 'secure increased revenue'. The price of large coal had been increased, and the price of small coal reduced, to take the consumer demand away from the larger coal and encourage consumers to use smaller coal. He said that in his division of the National Coal Board there were 40 million tons of coal economically disposable each year, and that four million tons of this were in the Sheffield region. The Deputy Lord Mayor of Sheffield responded to the toast.

The toast to the guests was proposed by the Branch President, Mr. E. Senior, F.C.W.A., the response coming from the President of the Sheffield Chamber of Commerce and Manufacturers.

THE INSTITUTE OF COST AND WORKS ACCOUNTANTS

REPORT OF THE COUNCIL

To be submitted at the thirty-ninth annual general meeting of members
to be held at the Connaught Rooms, Great Queen Street, London, W.C.2,
on Saturday, 7 June, 1958, at 10.30 a.m.

1.—The Council have pleasure in submitting the thirty-ninth annual report and accounts for the year ended 31st December, 1957.

Membership

2.—During the year 439 persons were admitted to membership and after allowing for resignations, lapsed memberships and deaths, the total membership at 31st December, 1957, was 5,758, showing a net increase of 406 over the previous year.

3.—With deep regret the Council record the deaths of Mr. Henry Dallas Jack, who was President of the Institute during the years 1946-1948, and of Mr. Albert Williamson, a founder member of the Institute who was Chairman of the Council during 1924/25 and a Vice-President of the Institute from 1931 to 1941.

Registered Students

4.—During the year there were 3,173 new student registrations and after allowing for transfers to membership, resignations, lapsed registrations and deaths, there were 14,464 names on the students' register at 31st December, 1957.

Institute Awards

5.—The Institute's *Silver Medal* was awarded for valuable contributions to the technique of the profession to Mr. William Edward Harrison, F.C.W.A., Mr. Frederick Charles Lawrence, M.C., B.SC.(TECH.), A.M.I.E.E., F.C.W.A., and Mr. George Cecil Stone, F.C.W.A.

Examinations

6.—The usual examinations were held in June and December, 1957, at which a total of 9,332 candidates presented themselves, including 1,575 overseas.

The comparative figures for the past six years are as follows :—

1952	..	..	5,954	1955	..	..	7,524
1953	..	..	6,820	1956	..	..	8,478
1954	..	..	7,089	1957	..	..	9,332

7.—During the year examinations were held at the following centres :—

Home.—London, Aberdeen, Belfast, Birmingham, Bristol, Cardiff, Cork, Dublin, Dundee, Edinburgh, Glasgow, Hull, Leeds, Leicester, Liverpool, Luton, Manchester, Middlesbrough, Newcastle upon Tyne, Norwich, Nottingham, Preston, Sheffield, Southampton, Stoke-on-Trent, Swansea and Swindon.

Overseas.—Bloemfontein, Bombay, Calcutta, Cape Town, Colombo, Delhi, Durban, Johannesburg, Karachi, Lahore, Madras, Port Elizabeth, Pretoria, Salisbury (S. Rhodesia), and in 55 specially arranged other centres.

8.—The results of the examinations held were as follows :—

PASSED	com- pleting Examin- ation	Inter- mediate Part I only	Part A only	Part B only	TOTALS		
					Passed	Failed	numbers of candi- dates
JUNE, 1957							
FELLOWSHIP	17	—	—	—	17	86	103
FINAL—							
Parts A & B	29	—	15	24	68	82	150
Part A, completing Final ..	181	—	—	—	181	342	523
Part B, completing Final ..	45	—	—	—	45	52	97
Part A, only	—	—	54	—	54	126	180
Part B, only	—	—	—	183	183	382	565
Total	255	—	69	207	531	984	1,515
INTERMEDIATE—							
Parts I & II	106	120	—	—	226	237	463
Part I	—	512	—	—	512	963	1,475
Part II	330	—	—	—	330	906	1,236
Total	436	632	—	—	1,068	2,106	3,174
PRELIMINARY	77	—	—	—	77	152	229
Grand Totals	785	632	69	207	1,693	3,328	5,021
DECEMBER, 1957							
FINAL—							
Parts A & B	18	—	24	16	58	72	130
Part A, completing Final ..	105	—	—	—	105	355	460
Part B, completing Final ..	39	—	—	—	39	64	103
Part A, only	—	—	50	—	50	99	149
Part B, only	—	—	—	172	172	412	584
Total	162	—	74	188	424	1,002	1,426
INTERMEDIATE—							
Parts I & II	93	69	—	—	162	274	436
Part I	—	338	—	—	338	937	1,275
Part II	319	—	—	—	319	855	1,174
Total	412	407	—	—	819	2,066	2,885
Grand Totals	574	407	74	188	1,243	3,068	4,311

9.—The first places and Institute prizes were awarded as follows :—

Lewton Coronation Prize (Management Accountancy—Fellowship)

June, 1957 .. Leslie Gerald Young Cullercoats, Northumberland

First Place Final (S. Laurence Gill Prize)

June, 1957 .. David Andrew Kilmarnock

December, 1957 .. John Thomas Edward Gay Sevenoaks

Leverhulme Prize (Cost Accountancy—Final)

June, 1957 .. James Hetherington Ilford

December, 1957 .. Peter Leverton Martin Nottingham

Donald L. Moran Prize (Management: Factory and Distribution—Final)

June, 1957 .. Cyril John James Neath

December, 1957 .. John Patrick Dearden Belfast

First Place Intermediate (George Russell Memorial Prize)

June, 1957 .. Godfrey Frederick Groom Scunthorpe

December, 1957 .. Noel Hunter Aitken London

Branches

10.—Branches, sub-branches and students' societies in the United Kingdom and centres in South Africa and Southern Rhodesia continued to run full programmes of lectures, demonstrations, study groups, and visits to various types of manufacturing plant and other installations.

11.—The Council record with pleasure that on the 4th April, 1957, the Bristol Branch held an annual dinner to celebrate the twenty-first anniversary of the founding of the branch.

12.—A conference of branch honorary secretaries was held in London on 30th May, 1957, when matters connected with branch policy, organisation and administration were considered.

13.—For the work of branch honorary secretaries and of other officials, and the services kindly rendered by many speakers at branch meetings, the Council have pleasure in recording their appreciation.

Union of South Africa

14.—The Union of South Africa Council of the Institute have met three times during the year. In April, 1957, Mr. F. G. Dew, F.C.W.A. (Cape Town), was elected Chairman of this Council in succession to Mr. C. Mollink, F.C.W.A. (Pretoria).

15.—Plans have been made for a second South African National Cost Conference to take place at Cape Town towards the end of March, 1958.

Regional Conferences

16.—The following regional conferences were held :—

Belfast—29th March, 1957 :

(a) " Practical costing for the textile industry ", by Mr. G. H. Tarrant, A.S.A.A., A.C.W.A.

(b) " The information needs of management ", by Mr. H. L. Bingham, B.A., A.C.W.A.

Newcastle upon Tyne—6th April, 1957 :

(a) " The accountant's relationship with management and men ", by Mr. F. M. W. Hird, A.C.A., F.C.W.A.

(b) " Industrial finance and its control ", by Mr. G. S. Nelson, A.S.A.A., A.C.W.A.

Liverpool—14th September, 1957 :

(a) " The cost accountant's contribution to human relations in industry ", by Mr. D. A. J. Manser, A.C.A., A.C.W.A.

- (b) "The management's point of view", by Mr. D. W. Collier, M.A.
- (c) "The trade unionist's point of view", by Mr. Frank E. Chappell.

Leicester—26th October, 1957 :

- (a) "The cost accountant's contribution to sales policy", by Mr. H. Kennewell, F.C.A., and Mr. A. Kershaw, F.C.W.A., A.A.C.C.A.
- (b) "The cost aspects of raising productivity", by Mr. W. Coutts Donald, C.A., F.C.W.A.

28th National Cost Conference

17.—A record number of members attended the conference sessions of the twenty-eighth national cost conference held at The Connaught Rooms, London, on the afternoon of Thursday, 30th May 1957, and the morning and afternoon of Friday, 31st May, 1957. The main theme of the conference was "Electronics in industry" and at the opening session The Rt. Hon. The Viscount Chandos, D.S.O., M.C., Chairman of Associated Electrical Industries Ltd., addressed the meeting on "The economic consequences of electronics in industry".

18.—On the evening of Thursday, 30th May, 1957, the President and Mrs. Morrow held an informal reception in the Livery Hall of The Worshipful Company of Stationers and Newspaper Makers, by kind permission of the Master, Wardens, and the Court of Assistants.

19.—At the formal opening of the conference sessions on Friday, 31st May, 1957, the presidential address was given by Mr. Ian T. Morrow, C.A., F.C.W.A., and was followed by the presentation of the Institute silver medals.

20.—Mr. R. H. Tizard, B.A., M.I.E.E., of the London School of Economics and Political Science, gave a paper at the morning session on "Automatic control and computing in industry". At the resumption of the conference in the afternoon, Mr. E. M. Renals, A.C.W.A., spoke on "Electronics in the office : planning and installation", and Mr. G. J. Pierce, F.C.W.A., on "Electronics in the office : future possibilities".

21.—The Institute annual banquet followed by a dance was held at The Dorchester, London, on the evening of Friday, 31st May, 1957, when The Rt. Hon. The Lord Mancroft was the principal guest.

Seventh International Congress of Accountants

22.—The Institute was strongly represented at the seventh international congress of accountants held in Amsterdam on 9th to 13th September, 1957. Mr. J. P. Wilson, F.C.W.A., gave a paper on "Budgeting and the corresponding modernisation of accounting".

23.—The official delegation consisted of Mr. James Borsay, F.C.W.A., President of the Institute ; Mr. G. Nicholson, F.C.W.A., a Past President of the Institute ; Mr. R. Glendinning, M.A., C.A., F.C.W.A. ; Mr. S. Vieyra, B.COM., C.A.(S.A.), A.C.W.A. ; and Mr. J. P. Wilson, F.C.W.A., together with Mr. Stanley J. D. Berger, M.C., F.C.I.S., Director of the Institute, and Mr. Derek du Pré, Joint Secretary of the Institute. Many other members of the Institute were present.

24.—The President gave a luncheon party to representatives of the other accountancy bodies taking part in the congress.

Eleventh International Congress of Scientific Management

25.—A considerable number of members of the Institute attended the management congress in Paris, held on 24th to 28th June, 1957. The subjects ranged over a wide field but those of special interest to the Institute dealt with problems of automation and maintaining full employment, work simplification and standardisation, operational research, and exchange of information between trade associations, firms and government departments. The Institute was represented by the President and the Director.

Institute Hospitality

26.—By courtesy of Sir William Steward, M.P., the President gave a dinner party in the House of Commons on 15th January, 1957, and had the pleasure of entertaining a number of distinguished guests in various walks of public life, also the Presidents and officials of many of the kindred societies.

27.—The President also gave two luncheon parties during the year—one in the City of London, and one at Institute headquarters.

Kindred Societies

28.—The Council desire to place on record their appreciation of the helpful co-operation of the kindred professional societies in the United Kingdom and abroad.

29.—The Council have noted with pleasure the services given by members of the Institute to a number of other organisations, some of which are given in the following paragraphs.

30.—At a one-day conference on cost reduction, organised in January, 1957, by the North London Committee of the British Productivity Council jointly with the Institute, the chair was taken by Mr. Ian T. Morrow, C.A., F.C.W.A., a Past President of the Institute. Papers were given by : Mr. W. Coutts Donald, C.A., F.C.W.A., on "Organising for cost reduction"; Mr. R. Warwick Dobson, C.A., F.C.W.A., on "Figures for cost reduction"; and Mr. H. J. Furness, F.C.W.A., on "Incentives".

31.—A paper on "Forecasting cost behaviour" was given by Mr. H. H. Norcross, F.C.W.A., at the northern management conference held by the British Institute of Management at Southport in March, 1957.

32.—One of the sessions at a week-end conference held in March, 1957, by the Institute of Municipal Treasurers and Accountants at Oxford was addressed on "Recruitment and training of the finance officer in the public service" by Dr. J. M. S. Risk, B.COM., PH.D., C.A., F.C.W.A., A.C.I.S.

33.—Dr. J. M. S. Risk also gave a paper on "The accounting panorama" at the annual conference of the Chartered Institute of Secretaries held in Cardiff in May, 1957.

34.—A one-day conference on industrial organisation and forward planning was organised by the Institute of Directors in London in May, 1957, at which Mr. F. Simmonds, F.C.W.A., gave a paper on "Control of the plan".

35.—A paper was given by Mr. F. T. Hunter, F.C.A., F.C.W.A., on "The cost of automation", at a conference held by the Institution of Production Engineers at Harrogate in June, 1957.

36.—The first of a series of cost study conferences organised by the Council of Ironfoundry Associations took place in London in June at which Mr. W. E. Harrison, F.C.W.A., a Past President of the Institute, and Mr. H. P. Court, F.C.W.A., conducted the sessions on "The elements of foundry costing".

37.—Mr. Ian T. Morrow, C.A., F.C.W.A., gave a paper entitled "Current problems in management accounting" at the fifth summer school of the Institute of Chartered Accountants of Scotland, held in July, 1957, at St. Andrews University.

Research and Technical Activities

38.—Progress on the various research projects continued throughout the year, and in particular on the proposed publications on marginal costing and business forecasting. Research work into the effect of product mix was started towards the end of the year and plans were laid for a series of residential courses on automatic data processing to be held in 1958.

39.—The Institute played a prominent role in the formation of the British Conference on Automation and Computation, and Mr. E. M. Renals, A.C.W.A., representing the Institute, was elected Vice-Chairman of Group B—the section dealing with computation and control : the Institute is also an additional sponsor of Group C—the group for the sociological and economic aspects of automation.

40.—The series of articles on costing first published in *Target* a monthly bulletin circulated widely in industry was reprinted as a booklet under the title of *Costing Matters* by the British Productivity Council, in conjunction with the Institute, and published in September, 1957.

Summer School

41.—The eighth residential summer school was held in St. Catharine's College, Cambridge, from 25th to 29th September, 1957. The subjects and speakers were :—

"The cost accountant and automation in the factory", by Mr. Alan Kenyon, B.COM., F.C.W.A., A.A.C.C.A., A.C.I.S., A.M.B.I.M.

"The cost of variety", by Mr. C. E. Power, A.C.A., F.C.W.A.

"The economics of plant replacement", by Mr. J. A. Scott, C.A., F.C.W.A.

"The role of the banks in the national economy", by Mr. W. Manning Dacey, Economic Adviser to Lloyds Bank Limited and Editor of *Lloyds Bank Review*.

42.—The Council desire to record their appreciation of the facilities provided by the College authorities and the excellent arrangements made by them for the Institute's summer school; also their cordial thanks to the speakers and group discussion leaders.

Conference of Consulting Cost Accountants

43.—An informal conference of consulting cost accountants was held in London on 30th November, 1957.

Library

44.—The usual addendum was issued at the end of 1957 cataloguing the titles of books and pamphlets added to the library during the preceding twelve months.

45.—The gifts of books and pamphlets from publishing houses and kindred societies, and the reviews contributed by members of the Institute, are gratefully acknowledged by the Council.

Journal

46.—Once again the Council desire to thank the numerous journal correspondents for reports of branch meetings, and the authors of contributed articles and features.

47.—The format and typography of the journal has undergone a gradual change, with the emphasis on greater readability and clarity of presentation.

48.—Arrangements were made for the journal to provide, as from January 1958, the service formerly rendered to industry by the Institute's appointments bureau. Vacant situations offered to members and registered students of the Institute are now publicised on the widest possible basis through the advertisement pages. The monthly circulation of the journal is now 21,000 copies.

Recruitment and Training

49.—The Institute is now in touch with more than 80 companies having schemes of practical training in cost accountancy for registered students. An article in the December, 1957, issue of *The Cost Accountant* on the subject aroused considerable interest, and it is planned to publish from time to time details of a few of the schemes in operation.

50.—The need to bring cost accountancy as a career to the notice of school-leavers and university graduates has been constantly in mind, and contributions have been made to a number of newspapers and journals on the subject.

51.—In October, 1957, the Institute organised, in collaboration with the further education department of the London County Council, a one-day refresher course for members engaged in the teaching of costing.

List of Members

52.—The Council have decided that in future, members will be able to obtain a free copy of the published List of Members only by making application in the manner prescribed from time to time and as announced in *The Cost Accountant*.

New Premises

53.—To provide the necessary additional accommodation for the expansion of the work of the Institute, negotiations were concluded during the year for the acquisition of the lease of the adjoining premises, No. 65 Portland Place, and for an extension of the lease of the present premises. The requisite structural alterations are in progress.

Council and Committees

54.—Four meetings of the Council, four meetings of the Executive Committee, and twenty-nine meetings of standing and other committees were held during the year.

55.—The Awards Committee, although still appointed by the Council, is no longer a standing committee of the Council under Bye-Law (61). The Journal and Public Relations Committee has been re-named the Journal and Library Committee and a special committee has been formed to deal with the Institute's public relations.

Members of Council

56.—In accordance with the articles, the following seats on the Council become vacant at the annual general meeting in 1958, the names of the present holders being as hereunder :—

Area No. 1—London and South East England	..	..	Mr. A. D. Coventry
			Mr. H. Hodgson
			Mr. L. Frankland
Area No. 4—Birmingham and District	..	..	Mr. S. J. Careless
Area No. 5—South Wales	..	..	Mr. G. S. Whitson
Area No. 7—Manchester and District	..	..	Mr. H. Kirkham
Area No. 9—Sheffield and District	..	..	Mr. D. E. Edmonds
Area No. 10—Leeds and District	..	..	Mr. E. Emmerson
Area No. 11—North East Coast	..	..	Mr. W. Troughton
and 13—Middlesbrough and District	..	..	
Area No. 30—Glasgow and West of Scotland	..	..	Mr. J. Liddell
Area No. 31—Edinburgh and East of Scotland	..	..	Mr. W. Bishop
Area No. 50—Union of South Africa	..	..	Mr. C. Mollink

57.—At the annual general meeting, 1957, Messrs. Roland Dunkerley, A. W. Muse, W. S. Risk, and H. Wilmot, were co-opted under Article 36. During the year, Mr. H. Kirkham was elected by Area No. 7, Manchester and District.

58.—The Council desire to place on record their appreciation of the excellent service given by Mr. E. W. Hall, F.C.W.A., as a member of the Council from 1945 to 1957.

Benevolent Fund

59.—The Institute's Benevolent Fund was started in 1938. During the first ten years no claims were made on the resources of the Fund. Of the nineteen applications subsequently dealt with, five were cases where widows of former members of the Institute needed help towards the upkeep of children during schooling and early training. In all five of these cases the children have been successful in their respective examinations and can be said to be safely launched on careers. The Benevolent Fund Committee take pleasure in bringing to the notice of members the good work enabled by the generous support of members of the Institute.

60.—The sum total of disbursements is small in relation to the total resources of the Fund as at present, but the Council wish to point out that at any time, and without warning, much greater calls might be made, requiring grants to be made regularly over longer periods than has hitherto been the case. It is therefore hoped that members will continue to support the Fund, and that wherever income tax is being paid at standard rate, members will consider the great advantage accruing to the Fund from annual donations made under a Deed of Covenant for seven years.

Accounts

61.—The audited accounts for the year ended 31st December, 1957, are annexed. [*Not reproduced —Editor*].

62.—The auditors, Messrs. Calder-Marshall, Ibotson and Bould, continue in office in accordance with the provisions of The Companies Act, 1948.

By Order of the Council

STANLEY J. D. BERGER

Director and Secretary

ELECTIONS TO MEMBERSHIP

The following were elected during April 1958. Employers are shown as at the date of election.

FELLOWS

HOSEGOOD, C. J. E., *S. Smith & Sons (England) Ltd., London.*
ROBERTSON, W., *Grocer Supply Co. Ltd., Glasgow.*
STRACHAN, H., *Babcock & Wilcox Ltd., Renfrew.*

ASSOCIATES

ADAMS, R. W., *Highland Home Industries Ltd., Edinburgh.*
BAILEY, A. R., *George Glover & Co. Ltd., London.*
BAKER, J., *East Midlands Gas Board, Gainsborough.*
BARNESLEY, S., *Quasi-Arc Ltd., Gateshead.*
BARNESLEY, T. E., *Simplex Electric Co. Ltd., Birmingham.*
BARRACLOUGH, R. J., *Plessey Co. Ltd., Towcester.*
BARTLETT, A. F., *Stroud & Bentley Piano Cos. Ltd., Stroud.*
BHUSHAN, B. S. N., *Standard Vacuum Oil Co. Ltd., Calcutta.*
BICKERS, W. H., *College of Technology, Loughborough.*
BOWKER, C., *Tomlinsons (Rochdale) Ltd., Rochdale.*
COETZEE, D. J. G., *Phosphate Development Corporation (Pty.) Ltd., Phalaborwa, South Africa.*
COUCH, N. G. S., *Taylor Tunnicliff & Co. Ltd., Stoke on Trent.*
CRAIG, A. M., *African Lakes Corporation, Ltd., Blantyre, Nyasaland.*
DOYLE, J. B., *Osram Lampworks, London.*
HALL, A. M. F., *Arthur Guinness Son & Co. (Park Royal) Ltd., London.*
HANNABY, R., *Metal Box Co. Ltd., Manchester.*

HORWELL, J. E., *J. C. Bamford (Excavators) Ltd., Uttoxeter.*
HOWARD, G., *Rayon Staple Spinners & Doublers Association, Manchester.*
LADD, K. P., *Rockware Glass Ltd., Greenford.*
MARSH, M. DE W., *Transvaal Steel Pressing Syndicate Ltd., Springs, South Africa.*
MILLER, J. W. H., *Constructors John Brown Ltd., London.*
NEWMAN, J., *Mullard Blackburn Works Ltd., Blackburn.*
NORTHON, W. G., *George H. Anderton Ltd., Goole.*
OVERTON, R. D. R., *Carborundum Co. Ltd., Manchester.*
PARKER, V., *National Coal Board, Sutton in Ashfield.*
PHEASANT, R. A., *Middlesex County Council, London.*
SARKER, A., *Leda Chemicals Ltd., London.*
SCULL, R. P., *Salem Engineering Co. Ltd., Derby.*
SHAFF, M., *Webb & Son, London.*
SHINNICK, C., *Wool Combers (Ireland) Ltd., Middleton.*
SNOOK, G. F. W., *Ultra Electric Ltd., London.*
SPEAR, C. W., *Aerograph Co. Ltd., London.*
STUDLEY, C. J., *National Smelting Co. Ltd., Avonmouth.*
TANSEY, L., *Hindley Brothers Ltd., Nelson.*
TRATT, R., *Ministry of Supply, Bishopton.*
WANN, J. K., *Thomas Motors Ltd., Blackpool.*
WARNER, C. E., *Fodens Ltd., Sandbach.*
WEBB, A. W., *Post Office Contracts Department, London.*
WICKER, D. A., *John Bright & Bros. Ltd., Rochdale.*
WILLIAMS, E., *Incorporated Northern Rhodesia Chamber of Mines Ltd., Kitwe, N. Rhodesia.*
WILLIAMS, J., *Imperial Chemical Industries Paper Goods Ltd., Sutton.*
WOOLF, D. J., *Ministry of Supply, Patricroft.*

PERSONAL

Mr. W. Alan Brailsford, A.C.W.A., has now been appointed a local Director and Company Secretary of H. Leverton & Company Ltd. and its subsidiary, Leverton of Leeds Ltd.

★

Mr. F. A. Callaby, F.A.C.C.A., F.C.W.A., has been appointed Secretary to Toledo Woodhead Springs Ltd. and Toledo Woodhead (Sheffield) Ltd.

★

Mr. Henry Key, A.A.C.C.A., A.C.W.A., has been appointed Secretary to the Institute of Public Cleansing, London.

★

Mr. J. W. Luffingham, A.C.W.A., has been appointed Cost Accountant with Camp Bird Industries Ltd., London.

Mr. R. L. Quine, A.C.W.A., A.C.I.S., has been appointed Secretary and Planning Manager to British Overseas Fairs Ltd., London.

CHANGES OF ADDRESS

The Institute maintains extensive records and when a member or registered student changes his employment or his private address a number of clerical operations become necessary. The work of the Institute can be greatly eased by prompt notification of any such change.

If the Institute is notified of a change of address after the 20th of the month it may not be possible to send *The Cost Accountant* for the succeeding month to the new address.

EMINENT SPEAKERS FOR INSTITUTE SUMMER SCHOOL

AN interesting programme, in which four eminent speakers will take part, has been arranged for the Institute's ninth residential summer school, to be held at St. Catharine's College, Cambridge, from Monday 22 to Saturday 27 September 1958.

The following papers will be given:

'Practical standard costing: a case study',
by Mr. K. W. Bevan, A.C.A., Financial
Comptroller, British Overseas Airways
Corporation.

'The effect of the increasing ratio of fixed
to variable costs',
by Mr. E. B. Bishop, F.C.W.A., A.C.I.S.,
Group Cost Accountant, C. C. Wakefield
& Co. Ltd.

'The cost accountant in a period of recession',
by Mr. E. F. Brown, F.C.W.A., Chief Ac-
countant, Howard Farrow Ltd.

The name of the fourth speaker, on a topic of
more general financial or economic interest,
will be announced later.

Accommodation at the College is limited,
and any member or registered student wishing
to attend should obtain without delay an
application form from the Education Officer
of the Institute.

The inclusive fee is £10 10s.

'THE FINANCIAL TIMES' FOR REGISTERED STUDENTS

The Financial Times is available at the specially reduced rate of 2d. per copy (half price) to students following approved courses. This concession has now been extended to registered students of the Institute and an application form may be obtained on request from the Education Officer.

Registered students are reminded that, as announced in the June 1957 issue of *The Cost Accountant*, a similar concession is available in respect of *The Times*.

REPRINTS OF ARTICLES

From time to time we are asked for reprints of articles. Supplies of the following are still available: 'Electronic digital computers and business data processing', 1955, which is the first report of a sub-committee set up by the Research and Technical Committee of The Institute of Cost and Works Accountants to investigate the application of electronics to industrial accounting; 'Management accountancy', 1955, by G. S. Whitson, M.A., C.A., F.C.W.A.; 'Work study and control', 1955, by R. M. Currie, M.I.C.E., M.I.MECH.E., M.I.PROD.E., Head of I.C.I. Central Work Study Department. These are obtainable from the Institute, price 1s. 2d. each, including postage.

EXAMINATIONS

Intermediate Part I: Subject Exemptions

Up to and including the December 1958 examinations, candidates satisfying the examiners in any subject of the Intermediate Part I examination are not required to present themselves for that subject again.

The attention of all concerned is drawn to the fact that after the December 1958 examinations, candidates must satisfy the examiners in all the subjects of Intermediate Part I, at one and the same sitting, before being awarded a pass in that Part. This brings Intermediate Part I into line with the other Parts of the examinations.

Exemptions granted up to and including December 1958 from individual subjects of Part I will remain valid until further notice. Candidates left with a balance of subjects to complete after December 1958, however, will be required to pass the remaining subjects at one and the same sitting. (These may be taken at the same time as Part II, if desired).

Subject exemptions granted on the grounds of membership of certain other professional bodies, or the holding of certain university degrees, are not affected by the new regulations.

December 1958

The December examinations (Intermediate and Final grades only) will be held on Monday, Tuesday and Wednesday, 1, 2, 3 December, 1958, and applications to sit must be made on form C, obtainable from the Institute on receipt of a stamped and addressed gummed label. (Printed rate for home centres, 2d.). Applications, accompanied by the appropriate fees, must be received at Institute headquarters not later than the following dates:

Overseas centres: 10 September 1958.

Home centres: 10 October 1958.

Intending candidates are asked to note the above dates carefully, as no late entries can be accepted.

LECTURERS AT TECHNICAL AND COMMERCIAL COLLEGES

Members who are able to devote some of their time and energy to teaching the subjects of the Institute's examinations in technical and commercial colleges render a great service to registered students, and, indeed, to the Institute as a whole.

The Institute is anxious that tuition for its examinations—and particularly for the papers in cost accountancy—should be given as far as possible by qualified members of the Institute.

To this end, there is maintained at headquarters a panel of members who are interested in lecturing—and in giving private tuition—in the subjects of the examinations.

Principals of colleges will be invited to refer to this list in case of need and any members interested in teaching who would like their names included should write to the Institute Education Officer for an application form.

BRANCH NEWS

EFFECTS OF AUTOMATION IN THE OFFICE

In his talk at the 4 March meeting of the Exeter Sub-Branch, Mr. F. Grimshaw, A.C.W.A., of British Cellophane Ltd., suggested that although initial development in the field of automation in the office was usually on routine operations such as payroll, this was not necessarily the best use of advanced equipment; except in certain non-industrial organisations and government departments, there was greater scope in stock and production control; programming orders received for complex products; apportionment of overheads and analysis of standard costing variances; and the application of newly developed statistical techniques such as linear programming.

Many key positions would be held by mathematicians and statisticians, supported by skilled programmers, and cost accountants should familiarise themselves with basic thinking in these fields, and concentrate on improving the speed and accuracy of originating the necessary data.

ELECTRONIC DATA PROCESSING

The third in the series of four lectures on electronic data processing, organised by the Leicester Branch, was given on 25 February by Mr. E. M. Renals, A.C.W.A., of the Ford Motor Co. Ltd., who spoke on 'Some practical considerations'.

Before installation, a broad investigation into the existing clerical system should be conducted, preferably with the aid of O. & M. A poor system could always be improved by the introduction of new devices, but the same results might at times be achieved by a less costly reorganisation of systems.

For deriving the utmost benefit, particularly from the computer's speed and ability to perform complex operations, management's requirements should be re-appraised, said the speaker. It was futile to transfer an existing system on to a computer, since its capabilities lent themselves to novel tasks and approaches. The potential benefits to be derived, particularly by way of improved management reporting and information flow techniques, should be defined before deciding on an installation.

The existing functions should be integrated and streamlined so as to avoid duplication. This would mean a re-allocation of departmental responsibilities.

The reports really required by management should be formulated. This required careful programming

which was an expert job needing exhaustive training. Certain ideas about the quick and easy training of programmers were entirely misconceived.

Mr. Renals stressed that the installation of electronic computers was very costly indeed in capital outlay and related expenses such as training and salaries during the lengthy period of development, site preparation, and system launching costs. Related expenses could be as much as two-thirds of capital costs.

SEMINARS FOR STUDENTS

An experimental series of twelve seminars for students organised by the North East Coast Branch was concluded on 15 April. Designed specifically to assist students in their preparation for the examinations of the Institute, the seminars, led by qualified members of the Branch, covered standard costing; budgetary control; overhead expenditure; presentation of information to management; cost control accounts; and integral accounting.

The seminars were based on students' replies to a questionnaire inviting them to select the subjects of most importance to them. Students taking part were divided into three groups, each of which attended discussions on four of the six subjects, the panel of six discussion leaders each taking two seminars. The average attendance was twelve, the seminars being conducted informally so as to encourage discussion.

At the Branch chamber meeting on 15 April, the results of the experiment were discussed, and the future of the scheme considered. Students were invited to ask any questions on which they required further guidance, and there was lively discussion amongst an audience made up largely from students who had attended the seminars.

Much of the credit for the success of the experiment must go to Mr. E. Jarvis, F.C.W.A., who conceived the original idea and played a major part in the detailed organisation of the seminars. He was thanked by Mr. G. Stoker on behalf of the students.

It was the unanimous opinion of the meeting that the seminars had been a great success and should be continued.

Dinner Party

On 2 May, Mr. John Shields, F.C.W.A., President of the North East Coast Branch, and Mrs. Shields, Mr. Jarvis and Mrs. Jarvis, and Miss D. M.

Graham, A.C.W.A., Branch Secretary, were the guests at a dinner party given by student members of the Branch Committee. They were welcomed by Mr. David Cleminson, Convenor of the Students' Section.

Mr. Shields thanked the students for their support, which had helped to ensure a successful winter session for the Branch. Mr. Jarvis said he hoped that the students' seminars, which had been held during the past session, would become a permanent feature of the Branch programme.

OVERHEAD ABSORPTION

On 11 March, the Sheffield and District Branch heard a lecture by Mr. F. Wolstenholme, F.C.W.A., on the subject of overhead absorption in a complex organisation.

The speaker said that he was exasperated by continually hearing references made to overheads as an evil and so-called 'high overhead rates', in particular, as 'a cancerous growth'. In certain circles, 'overheads' had become a bad word, and cost accountants were not wholly blameless for this development.

High overheads should be a sign of efficiency and progress and not something which immediately raised suspicions of inefficiency. Every item of overhead expenditure which was spent should have saved a greater item of direct cost or a greater item of some other overhead cost.

The only exception to this rule was when money was spent in order to remain in business tomorrow. On such expenditure the progress of the company, of the nation and, in fact, universal progress depended.

It was only the lack of such expenditure in development which enabled some small organisations to produce certain things with a lower overhead, and with lower costs altogether, than a complex organisation. In such cases the question should then be asked by the complex organisations 'Should we, in fact, be in this particular business at all? Are we trying to turn over our garden with a bull-dozer?'

Application of Computers

Speaking to a joint meeting of the Branch and the Chesterfield Sub-branch, on 'The application of electronic computers to commercial and accounting work', on 14 January, Mr. D. M. Preston, commercial manager of the business computing machines division of Elliott Brothers (London) Ltd. said that two years ago, computers were surrounded by an aura of magic. The 'electronic brain' label was recognised as a device to catch the popular imagination and the resulting publicity of the science-fiction type did not do the cause of computers any good.

In the time that had elapsed since then, some important lessons had been learnt about using computers for office procedures. It was very easy indeed to under-estimate the magnitude of the task of preparing for a computer installation. The long

delivery period of these machines was often by no means too long. The quality of maintenance staff must be kept high if the best use was to be made of the computer.

The possible market in programmers had been unnecessarily restricted. It was common practice to specify graduate mathematicians as an absolute minimum. It was not realised that the requirement was not so much for good mathematicians as for people who would have been good mathematicians if they had chosen to study mathematics instead of whatever they did choose. Admittedly, an honours degree in mathematics was a useful ready-made yardstick, but it was easy to fall into the trap, 'All trained mathematicians make good programmers therefore all good programmers are made from trained mathematicians', which is a *non sequitur*.

GLASGOW AND DISTRICT BRANCH

The 36th annual general meeting of the Glasgow and District Branch was held on 23 April, with Mr. J. S. McLauchlan, F.C.W.A., President, in the chair.

Mr. G. D. Procter, F.C.W.A., was elected President for the coming session, with Mr. R. A. Smith, F.C.W.A., Vice-President. Members of the Committee and Students Committee due to retire were re-elected, with the addition of Mr. A. Veitch, A.C.W.A., to the Committee, and Mr. J. A'Hara, to the Students Committee.

After the business meeting, Mr. J. Liddell, F.C.W.A., F.C.I.S., a member of the Council of the Institute, gave an address on the Institute and the scope of its activities.

'AIMS AND TRENDS

Mr. C. E. Power, A.C.A., F.C.W.A., a member of the Council of the Institute, visited the Liverpool and District Branch for the first time on 26 February to address the members on the aims and trends of modern cost accountancy. The aims he summarised as being: to establish economic prices; to measure performance; and to assist in forward planning. The trends, he thought, must be towards an even greater emphasis on budgetary control and standard costing and a greater appreciation of the value of the marginal costing technique for policy making purposes.

Costing for variety was a field in which much valuable research could be beneficial to the national economy and which would yield rich rewards to industry. The changing economy was obviously leading to the necessity for a stricter budgeting for, and control of, capital expenditure.

In contrast to trends arising from the development of automation, Mr. Power instanced several industries in which costing hardly appeared to be practised at all and he thought that the opportunities in the cost accountancy profession were as great now as they ever had been.

THE COST ACCOUNTANT

Journal of The Institute of Cost and Works Accountants

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JULY 1958

NUMBER 2

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The New President

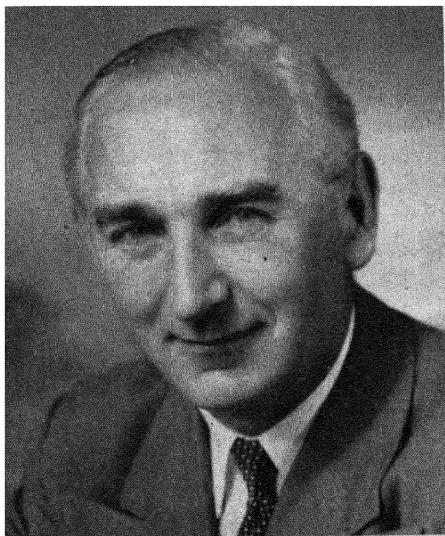
IT is not often that Presidents of the Institute are as widely travelled as Mr. Henry James Furness, F.C.W.A., who was elected to this office at the annual general meeting held on 7th June. In most European countries, in the United States, Canada, South Africa, Australia, New Zealand and Turkey, he has examined trading conditions, and has made economic, production, and market studies.

But all this travelling, with the resulting prolonged absences from this country, has not prevented Mr. Furness from becoming a leading 'Institute man'. And his interest in the affairs of his professional body is long-standing. Already well known to members up and down the country, Mr. Furness has spoken at regional cost con-

ferences, national cost conferences and at innumerable branch meetings.

President of the London Branch in 1949-1950, and a member of the No. 1 Area Co-ordinating Committee since its formation in 1951, he has demonstrated his interest in domestic Institute matters by service on many committees: he has been a member of the Research and Technical Committee, and of a Sub-Committee of the Journal and Library Committee. He was an examiner for five years, a member of the Examination Committee, and is a member of the Executive Committee.

In 1946, long before productivity teams were sent to the United States under the auspices of the British Productivity Council, Mr. Furness visited that country to study the



MR. HENRY JAMES FURNESS

comparative productivity of British and American companies. And it is of interest to note that about seven years ago he made a study of the cost of labour turnover—this was destined to become the first Institute publication which resulted from the research of one individual member.

Joining the Dunlop Rubber Company in Manchester in 1925, Mr. Furness was appointed Cost Accountant to Hoover Ltd., eleven years later, becoming Chief Cost Accountant to the group in 1947. Since 1957, he has occupied the responsible post of Manager of the Long Term Planning Division responsible for all market, economic, marketing and operational research for the Hoover Group at home and all overseas countries outside the American continent.

In his time, Mr. Furness has enjoyed

many sports and hobbies: perhaps the activities which he most appreciates today are sailing and gardening—he has a love of the sea, and his delightful garden is evidence of his green fingers.

The Institute has always been fortunate in its Presidents. Once again it is clear that the traditions of which members are so rightly proud will be maintained and enhanced by Mr. Furness, whose experience of conditions not only in this country but abroad as well, is among the many qualities which will surely fit him admirably for the high office to which he has now been elected.

We are sure that members and registered students will want to join us in wishing our new President success and happiness during his year of office.

Mr. Borsay's Presidential Address

WE are sure that readers will agree with us when we say that the wise words of Mr. Borsay—reproduced elsewhere in this issue—worthily uphold the tradition of statesman-like utterances which we have now grown to expect each year from our retiring President.

During the whole of his tenure of office, Mr. Borsay has given evidence of his deep concern about the affairs of the profession and of the country. At dinners which he has attended he has never failed to make pungent remarks when he felt that by so doing he would advance the interests, not only of the Institute but of all accountants and, indeed, the country at large.

It is a wide field which is surveyed by Mr. Borsay. He starts by pointing to the 'partial success' of our battle against inflation and the need to consolidate ground which has been won. The restrictions on credit, he says, 'have forced industry to

consider its investment policy in the light of present restrictions rather than that of its future needs.'

On the subject of wages, too, Mr. Borsay makes interesting statements: there are three ways in which wage increases can be absorbed: increased efficiency; reduction in profit margins; and increased selling prices. He then argues that further wage increases can come only from increased productivity.

Saying that the development of a European Free Trade Area had not progressed as well as had been expected, Mr. Borsay feels it essential for all industries to find out the likely effect on their future livelihood—in nearly all cases, adjustments would be necessary. In considering this,

'many difficult questions will require to be resolved, and it is vital that full and accurate information is made available to management to facilitate their reaching the correct decisions.'

These decisions might be far reaching,

necessitating changing the product, increasing or reducing the variety, changing the location of manufacture, and the re-organisation of the selling and distribution arrangements.

Here, as in other ways mentioned by Mr. Borsay, the cost accountant has an important contribution to make 'by forecasting the results of suggested courses of action to guide management in making their ultimate decisions.'

In favour of providing certain financial information to selected representatives of the employees, Mr. Borsay suggests the formation of small forums under the direction of the management accountant where the many aspects of the finance would be thoroughly explained and discussed.

The response from the employees to the opportunities made available to them of purchasing shares within a company on favourable terms had, he says, been disappointing and he suggests that if the idea is to be successful it should be preceded by

education in the nature and benefit of the investment. Commenting frankly on training and education, Mr. Borsay says that the qualification of 'cost accountant' is keenly sought and that the 'number and quality of our present intake' is eminently satisfactory.

In a reference to the development of the electronic digital computer in the field of integrated data processing, Mr. Borsay holds the machine would not stand up to the usual test, that is, how long would it take to pay for itself and how many employed persons would it replace? It should be considered as a tool which will enable management to do a better job than heretofore by speeding up existing procedures and providing more useful types of information.

Mr. Borsay ends his address by reminding members that the accountancy which they practise is that of looking ahead with a view to safeguarding the future, rather than looking back and recording history. If we do that, he says, we shall indeed be worthy of those whom we serve.

NOTES AND COMMENTS

THE INSTITUTE'S VICE-PRESIDENTS

AS reported elsewhere in this issue, the election of officers for the coming year took place on 7 June at the thirty-ninth annual general meeting of The Institute of Cost and Works Accountants, held at the Connaught Rooms, London. Biographical details of the Institute's two vice-presidents for the coming year are given below.

Mr. E. Emmerson, A.C.A., F.C.W.A.

Mr. Edward Emmerson, A.C.A., F.C.W.A., who was re-elected a Vice-President, is a Director, and Secretary, of Procter Bros. (Wireworks) Ltd., Leeds. He left Leeds Grammar School in 1928 to join the staff of Armitage

and Norton, chartered accountants, Leeds, where he qualified as an incorporated accountant. He became Secretary to Procter Bros.

(Wireworks) Ltd., in 1938, General Manager in 1944 and a Director in 1945.

Mr. Emmerson was elected an Associate of the



Institute in 1940 after being awarded the *Leverhulme Prize* in the Final examination. He was elected a Fellow in 1946, and a council member in 1949.

Mr. W. S. Risk, B.Com., C.A., F.C.W.A.

Mr. William Symington Risk, B.COM., C.A., F.C.W.A., who joins Mr. Emmerson as the Institute's new Vice-President, is a Scotsman. He left school in 1927, attended Glasgow University and, later, took the Bachelor of Commerce Degree at Edinburgh University. As an apprentice chartered accountant he was with the firm of Wilson Stirling and Co., chartered accountants, in Glasgow, obtaining further experience with the firm of David Strathie and Co.

From Scotland Mr. Risk moved to North Wales where he was appointed Cost Accountant with Penmaenmawr and Welsh Granite Co. Ltd. During the war he joined the Admiralty and



was engaged on work connected with torpedoes. Going further south, Mr. Risk joined Robson, Morrow and Company where he was a partner until 1953 when he joined Allied Bakeries as Managing Director of H. W. Nevill Ltd., of which he is still a Director. Two years later he became Managing

Director of the Aerated Bread Company Ltd.

Mr. Risk is now Chairman of the London Multiple Bakers' Alliance, which is the trade association of the large bakers in London and south-eastern England.

Mr. Risk was formerly well-known in Scottish Rugby as a member and captain of Glasgow Academicals and played for Glasgow, in Scottish International Trials and for the Barbarians.

The report of the proceedings at the annual general meeting of the Institute appear at page 81 of this issue.

BIRTHDAY HONOURS LIST

Mr. Berger Honoured

IT is with the greatest of pleasure that we announce the inclusion of the name of our Director and Secretary, Mr. Stanley J. D. Berger, M.C., F.C.I.S., in the June, 1958, Birthday Honours List. Her Majesty the Queen is graciously pleased to confer upon Mr. Berger the honour of making him an Officer of the Most Excellent Order of the British Empire—O.B.E.



Adding our congratulations to those which are coming to him from all over the world, it is fitting that we should remind readers that he has served the Institute for thirty-three years and that when he was appointed Secretary in 1925 there were less than five hundred members and a few hundred registered students. We welcome this tribute to the success that has attended the work of a lifetime.

Elsewhere in this issue, we report that the Council has agreed to Mr. Berger's request that he should retire on 30 September, 1958. On that occasion, we are sure, it will be the wish of all members of the Institute that we should place on record an account of the leading part that he has played in the growth and development of the Institute.

Other Recipients

As on previous occasions the profession has been well represented in the list. Two chartered accountants are among the Knights Bachelor and we congratulate them also. They are Mr. William Speight Carrington, F.C.A., a Past President of The Institute of Chartered Accountants in England and Wales, and Mr. William Cash, M.A., F.C.A. Mr. Carrington is a partner in the firm of Whinney, Smith and Whinney; he was a member of the Royal Commission on the Taxation of Profits and Income and a member

of the Tucker Committees on the Taxation Treatment of Provisions for Retirement and the Taxation of Trading Profits. Mr. Cash is senior partner in the firm of Cash, Stone and Company, and is chairman of the Girls' Public Day School Trust.

We also offer our congratulations to Mr. D. Bellamy, O.B.E., D.L., F.A.C.C.A., F.C.W.A., who has been made a Commander of the Most Excellent Order of the British Empire. Mr. Bellamy is chairman of the Yorkshire Electricity Board, Scarcroft; he is one of four members of the profession to receive this honour.

Mr. Edward Baldry, F.C.A., formerly Vice-President of the Society of Incorporated Accountants, a member of the Council of The Institute of Chartered Accountants in England and Wales and a partner in the firm of Allen, Baldry, Holman and Best, has been awarded the O.B.E. To him, too, we extend our congratulations.

SMALLER GOVERNMENT SHARE

WHILST the total current expenditure by central Government has increased by 56 per cent since 1948, its share in the gross national product has fallen fairly consistently from 30 to 25 per cent in 1957, according to the Treasury publication, *Bulletin for Industry*.

The rise in current central Government expenditure on goods and services has been largely due to rising prices. Increases in several other items of current expenditure, such as national assistance and family allowances, have also been necessitated by rising prices.

MEASURING EXPORT PERFORMANCE

MEASUREMENT of a country's export performance can be undertaken in a number of ways. One is to assess its volume of exports shipped abroad. The pre-war volume of exports of manufactures was regained by 1946, and since that time it has doubled, according to the Treasury publication, *Bulletin for Industry*. But the rate of growth since 1955 has been markedly slower.

This increase in volume of exports has not, however, kept pace with the growth in world exports, as the U.K.'s share dropped between

1953 and 1957 from 21 to 18 per cent. In the same period Germany's share increased from 13 to 18 per cent and Japan's from 4 to 6 per cent, and the shares of these two nations are still increasing.

A third measure of the U.K. export effort is the ratio of goods exported to goods produced. From about 1935 until the second world war, the level was around 25 per cent. Since 1952 the figure has been around 30 per cent. Whilst the proportion has increased, it is still well below the 1929 level of about 40 per cent.

The ultimate test of a drive for exports, however, lies in the condition of the balance of payments as a whole. During the past five years, the average surplus on current account has been £170 million. Last year the results were even better and indications for the current year are favourable.

But it must never be forgotten that the U.K. is not only a trading nation. It has obligations as a provider of long-term capital and as an international banker, especially for other sterling countries. Since 1954 overseas sterling balances have been reduced by over £250 million, and an average of over £200 million a year has been invested abroad.

To maintain its position, the U.K. needs a continually larger exporting effectiveness as measured in the critical terms of its balance of payments.

EUROMARKET

A JOINT statement has recently been made on free trade in Western Europe by the industrial federations and employers' organisations of six important O.E.E.C. countries outside the European Economic Community¹. The countries concerned are Austria, Denmark, Norway, Sweden, Switzerland and the United Kingdom.

Because of the changes that have taken place since the original proposals for a European free trade area, the statement suggests the substitution of the word 'Euromarket' as the new name for the organisation being established.

The statement suggests that the objectives of 'Euromarket' should be fourfold: firstly, to encourage a freer and wider international exchange of commodities, goods and services not

¹ *Free Trade in Western Europe*.

only in Western Europe but with the rest of the world; secondly, to promote the widest possible system of multilateral trade and payments; thirdly, the aim should be to stimulate the emergence of a rational structure of production in Western Europe; and fourthly, to promote conditions favourable to a high and stable level of employment.

To achieve these objectives it is suggested that the Free Trade Convention should so be designed as to create, from the beginning, rules which will make for stability, balanced expansion, and smooth functioning. Such rules would take as fundamental the prevention of discrimination by nationality and complete coverage of all commodities, goods and services, except for special arrangements for agriculture and fisheries.

The statement then considers at some length a wide range of matters including the dismantling of trade barriers, problems of origin, rules of competition, escape clauses, special rules for agriculture and fisheries, and some principles to be followed by institutions established to control the operation of 'Euromarket'.

ECONOMIES IN HOSPITALS

SOME of the recommendations of the Select Committee appointed to examine the economies that are possible in the running costs of hospitals would make fine chapter headings for a book on management accounting.¹

Stress is laid on the need to undertake long term planning if the fullest value is to be obtained for the money spent.

The measurement of work and responsibility of senior administrators by criteria other than the simple, and often misleading, measure of the number of beds, is recommended.

The importance of departmental costing is stressed as an instrument of control over expenditure and as an objective criterion in measurement of efficiency to be used in determining the allocation of money for development work.

The extension of the organisation and methods service of the Ministry of Health to cover the whole hospital service is also recommended.

Cost consciousness on the part of doctors, surgeons, and dentists is also strongly urged. Indeed, it is suggested that medical students should be required to show, before qualifying,

that they fully understand the financial structure of the National Health Service and the costs of treatment for which they may be responsible.

OCCUPATIONAL PENSION SCHEMES

IT is axiomatic that the framing of intelligent policy in any sphere demands adequate information. In order to assist its policy-making in the field of making provision for old age, the Government decided, on the recommendation of the report of the Phillips Committee, to undertake a statistical survey.² This was conducted by the Government Actuary, and his report has just been published.³

The survey aimed firstly at providing information about the number of persons covered for occupational pensions, the numbers of pensioners, the total sums paid as contributions and as pensions; and secondly at discovering the salient features of the provisions of the various types of scheme.

For the first part of the survey a questionnaire was sent to a representative sample of employers. Over 1,200 returns were received, representing about 16 per cent of the schemes with 500 members or more, and about 4 per cent of the remainder.

For the second part of the survey, an analysis was made of the rules lodged with the Inland Revenue relating to schemes for which usable answers to the questionnaires had been received from firms. In order to complete the picture, comparable information was added for schemes in the public service and the nationalised industries.

The survey estimates that the number of persons covered by occupational pensions schemes is about 8½ million. Of this total about 7 million are men—implying that almost one-half of the employed men of Great Britain and Northern Ireland have some provision for pensions additional to those under National Insurance. About 5 million people are in private schemes whilst the public service covers pensions for 2¼ million and the nationalised industries account for 1½ million.

¹ *Fourth Special Report from the Select Committee on Estimates, 1957-58.* H.M.S.O. 6d.

² *Report of the Committee on the Economic and Financial Problems of the Provision for Old Age.* Cmd. 9333.

³ *Occupational Pension Schemes.* H.M.S.O. 2s.

There are about 37,500 private schemes altogether, and just over half of all persons so insured are in schemes administered by insurance companies. In 1956 the number of pensioners was about 1,100,000, of whom 300,000 were in private schemes. The total paid in the year as contributions to private schemes was £246 million, of which £72 million was paid by employees; the annual pension roll was £50 million. Corresponding figures for the public service and nationalised industries' schemes were £221 million (£56 million by employees) and £150 million as pensions.

Most schemes apply to 'staff' only, or cover all employees, and over a half are non-contributory. The usual age at retirement is 65 for men and 60 for women, but there is a marked tendency to postpone retirement beyond the normal age. Lump sum payments are normally reserved as death benefits and apply rarely to retirements. Ill-health pensions are far from universal, and often restricted to a withdrawal of the contributions paid.

INCREASE IN COMPANIES REGISTERED

THE increase in the number of new companies registered in Great Britain in recent years continued during 1957 according to *The Companies General Annual Report* for that year.¹ The number of 20,665 new companies registered in that year exceeds 20,000 for the first time since the Companies Act 1948 came into force; it is 18 per cent more than in the preceding year and 35 per cent more than the average for the previous five years.

The total number of companies on the register at 31 December, 1957, was 331,119, compared with 317,988 at the end of 1956 and 171,404 at the end of 1938. The total comprised 314,751 private companies and 16,368 public companies. The corresponding figures at the end of 1956 were 301,534 private and 16,454 public companies.

The total number of new companies registered with a share capital in 1957 was 20,510 (17,417 in 1956) comprising 20,500 (17,401) private companies and 10 (16) public companies, the total nominal capital of the companies so registered being £85.1 million (£75.5 million).

During the year 7,584 (7,180) companies were dissolved or struck off the register, and winding-up proceedings were begun in 3,256 (3,390) cases of which 310 (365) were compulsory liquidations.

INVESTMENT ALLOWANCES INCREASED

IN his Budget speech the Chancellor of the Exchequer indicated that, as the occasion arose, he would take the opportunity of initiating measures that would stimulate the level of demand if it should suddenly fall.

He has just taken such a step by the introduction of an amendment to the Finance Bill which doubles the Budget increases in initial allowances on investments. The rates will now be 30 per cent. for machinery and plant, and 15 per cent for industrial building.

Mr. Amory claims that this step is an indication of the flexibility of the Government's policy in economic affairs and that it will assert a positive influence on investment in fixed assets and encourage further modernisation.

The Chancellor ranks industrial investment alongside expansion of the export trade as the two parts of the economy which must go ahead as fast as conditions will allow.

BUSINESS EFFICIENCY EXHIBITION

AS already announced (*The Cost Accountant*, February 1958), the Business Efficiency Exhibition will open on 22 September at the City Hall, Manchester. Over 100 firms from all parts of the country will be taking part and the wide range of equipment on show will range from electronic computers to simple devices for removing staples.

Among individual exhibits will be the first standard non-electric typewriter to afford proportional spacing; a typewriter for automatic letter production by means of punched tape control; a transparent telephone with a neon light which flashes when the bell rings and then stays on to enable the user to take notes; a printed-circuit telephone which can be taken to pieces with a simple screwdriver; and an electric book-keeping machine mounted on its own sound-controlled aphonic stand.

Readers wishing to obtain complimentary tickets to this exhibition should write direct to

¹ H.M.S.O. (1s. 9d.; by post 2s.).

the exhibition office of the Office Appliance and Business Equipment Trades Association, 11-13 Dowgate Hill, Cannon Street, London, E.C.4, mentioning *The Cost Accountant* and enclosing a stamped, addressed envelope.

The association has announced that in future this exhibition will be held each year in London, not, as hitherto, alternating between the capital and Birmingham, Glasgow or Manchester. In 1959 it will be held at Olympia from 26 May to 4 June; in 1960 it will be held in October and will then become a regular autumn event.

FINANCIAL CLIMATE

THAT conditions for firms seeking capital had been deterrent was a point made by the Rt. Hon. Lord Piercy, C.B.E., Chairman of the Industrial and Commercial Finance Corporation Ltd., in his statement accompanying the thirteenth annual report and statement of accounts of the Corporation for 1957-58.

The financial climate was forbidding for the general run of concerns; rates were high. On the other hand, the pressure of the squeeze on needs for increased credit facilities, and still more on the need of the class of facilities supplied by I.C.F.C. (long-term capital loans and share capital), was extremely harsh on small and medium-sized concerns, said Lord Piercy.

He pointed out that the credit squeeze, and the measures taken of recent years to restrict investment, had fallen with peculiar stringency on the sectors of industry which are not in the habit of resorting to the new issue market. This included all private companies and the smaller type of public company.

Not all companies of the smaller sort needed to go outside for facilities; where they had adequate reserves and were reasonably liquid they had met their needs from internal resources. This, however, had not been possible for many companies, especially expanding companies and companies developing new lines of industry. It had not been ineligibility for, or inability to obtain C.I.C. consent, which has been the obstacle in such cases, but the difficulty in finding the means.

Lord Piercy added that opinion, including official opinion, seemed to be turning to the necessity of stimulating the reduced flow of investment in manufacturing business, and he

was confident that I.C.F.C. would play a useful part in this, when it regained its normal ability to provide facilities freely.

INTRODUCTION OF A NEW CUSTOMS TARIFF

A NEW classification of goods for Customs purposes based on the Brussels nomenclature has been introduced by a Treasury Order.¹ Made under the Import Duties Act, 1958, the Order reproduces the existing protective tariff, within the framework of that classification, in the form of import duties under the Act.

The Brussels nomenclature is an internationally agreed classification prescribed by the 1950 Brussels Convention on Nomenclature for the Classification of Goods in Customs Tariffs (Cmnd. 8220) and the 1955 Protocol of Amendment to that Convention (Cmnd. 127).

The new protective tariff, which is set out in a schedule to the Order, will come into force on 1 January, 1959, and from that date the duties shown in the schedule will be substituted for the variety of types of protective duties charged under the pre-war enactments repealed by the Import Duties Act, 1958. Apart from some changes made in the interests of simplification, the rates of duty will remain the same. An advance edition of the tariff will be issued immediately on approval of the Order by the House of Commons so that traders and officials may have an opportunity to familiarise themselves with the new tariff before it comes into operation at the beginning of 1959.

SCOTTISH CHARTERED ACCOUNTANTS' SUMMER SCHOOL

TWO MEMBERS of the Council of The Institute of Cost and Works Accountants will present papers at the summer school of The Institute of Chartered Accountants of Scotland which is to be held at St. Andrews University from 12 to 16 September. Mr. W. S. Risk, B.COM., C.A., F.C.W.A., the newly-elected Vice-President of The Institute of Cost and Works Accountants will speak on 'Standard costing', and Mr. R. Glendinning, M.A., C.A., F.C.W.A., on 'Electronic computers'.

¹ *The Import Duties (General) Order, 1958* (S.I. 1958, No. 973). H.M.S.O., 9s.

Other speakers will be Professor A. D. Campbell, M.A., St. Andrews University, on 'Britain and European free trade', Professor John M. Halliday, M.A., LL.B., Glasgow University, on 'Estate duty pitfalls', and Mr. John A. Steward, C.A., on 'Auditing methods and responsibilities'.

PRESIDENTS OF KINDRED SOCIETIES

THREE Presidents and Vice-Presidents of kindred societies have been elected for the coming period of office. Mr. William Leonard Barrows, J.P., F.C.A., has been elected President of The Institute of Chartered Accountants in England and Wales, and Mr. Charles Urie Peat, M.C., M.A., F.C.A., has been elected Vice-President; Mr. William Jackson, F.A.C.C.A., is the new President of the Association of Certified and Corporate Accountants, and Mr. John Edward Harris, B.COM., F.A.C.C.A., is the new Vice-President; Mr. J. W. Hough, O.B.E., F.I.M.T.A., F.S.A.A., Borough Treasurer, Islington, has been elected President of The Institute of Municipal Treasurers and Accountants, and Mr. G. B. Esslemont, J.P., M.A., B.COM., LL.B., F.I.M.T.A., C.A., Vice-President.

THE INSTITUTE OF MUNICIPAL TREASURERS AND ACCOUNTANTS

FOUR papers on the subject of the Local Government Bill and the Scottish Local Government Bill were read at the 73rd conference and annual general meeting of The Institute of Municipal Treasurers and Accountants held at Eastbourne from 11 to 13 June. They were 'The Local Government Bill—Some general thoughts', by D. N. Chester, C.B.E., M.A., Warden of Nuffield College, Oxford; 'The Local Government Bill—Counties and County Districts', by Alderman R. Guymer, J.P., F.C.A., formerly chairman of the Finance Committee, Lancashire County Council; 'The Local Government Bill—The financial consequences', by C. H. Pollard, C.B.E., F.I.M.T.A., F.S.A.A., City Treasurer, Kingston upon Hull; and 'The Scottish Local Government Bill', by Mr. A. L. Imrie, F.I.M.T.A., C.A., City Chamberlain, Edinburgh.

The conference was under the presidency of Mr. W. O. Atkinson, M.B.E., F.I.M.T.A., County Treasurer, Middlesex County Council, and it

was also addressed by the Paymaster-General, the Rt. Hon. Reginald Maudling, M.P.

The annual dinner was held on 11 June and was attended by Mr. H. J. Furness, F.C.W.A., President of The Institute of Cost and Works Accountants, accompanied by Mrs. Furness, and by Mr. Stanley J. D. Berger, M.C., F.C.I.S., Director of the Institute with Mrs. Berger.

SHORTER NOTES

Standardisation Committee

Sir Stanley Rawson, F.C.W.A., has been appointed chairman of a committee, recently set up by the British Standards Institution and the British Productivity Council, to encourage a wider appreciation throughout industry, and by the education authorities, of the advantages to be derived from standardisation, simplification and specialisation, and particularly from variety reduction. Sir Stanley is Vice-Chairman of John Brown and Co. Ltd., and Chairman of the British Standards Institution's Engineering Divisional Council.

Furniture Development Council

Mr. W. Johnston, F.C.W.A., a member of the Council of the B.F.M., Director of John McGregor & Sons Ltd., and Director of Greaves & Thomas Ltd., has been reappointed as a member of the Furniture Development Council for a period of two years. Brigadier A. L. W. Newth, C.B.E., D.S.O., M.C., T.D., D.L., J.P., Chairman of the South Western Regional Board for Industry, has also been reappointed a member of the Council.

Industrial Welfare Society

Mr. David Gray has been appointed secretary of the Industrial Welfare Society. Mr. Gray, who is 52, is a former acting Chief Secretary of the Federation of Malaya; for the past two years, he had been secretary-general of the Engineering Industries Association.

National Association of Accountants

Mr. John B. Inglis, partner in the public accounting firm of Price Waterhouse & Co., New York, took office on 1 July as President of the National Association of Accountants, U.S.A., for 1958-59.

PRESIDENTIAL ADDRESS

The text of the address by the President of The Institute of Cost and Works Accountants, Mr. James Borsay, F.C.W.A., delivered on 6 June 1958, to the twenty-ninth national cost conference of the Institute, is reproduced below.



MR. JAMES BORSAY, F.C.W.A.

Credit Restriction

DURING the past year, we in Great Britain have fought a hard and severe battle against continuing inflation and it appears that our efforts have been partially successful. The measures taken have been stringent and though some easing may of necessity have to take place, the ground which has been won should be firmly consolidated. It is the duty of every member of the community to make a maximum contribution to this end.

The rise in the Bank Rate and the accompanying restrictions on credit have forced industry to consider its investment policy in the light of present restrictions rather than that of its future needs.

In the search for liquid resources, attention must be directed to the efficient utilisation of cash within a business. It is not efficient, for example, to carry an inventory which has been swollen to a degree that keeps it out of phase with the required output. When materials were scarce and cash plentiful, stocks were built up to meet normal requirements and to provide a safety margin against future shortages. The conditions which brought this about are now in reverse—hence the present tendency for a reduction in the stocks carried.

More emphasis is required in this direction and the accountant in industry must carry out an intensive campaign to reduce inventories to their lowest possible level compatible with efficient production in order to free money otherwise locked up.

The running-down of inventories does, of necessity, contribute to the present under-

utilisation of much of our capital equipment. The cost of under-utilisation of plant can be extremely serious and it is essential that management should be fully aware of this cost so that consideration can be given to encouraging potential markets by reducing prices in order to encourage volume. When equipment is not being utilised to its fullest capacity, there is a natural tendency not to indulge in further expansion. The dangers inherent in this approach are obvious when one considers the lag between the decision to expand or modernise and the commissioning of the new plant etc. We must invest today if we wish to reap tomorrow.

Wages

The slowing down of wage increases in the past year has contributed in no small measure to winning the fight against inflation. The instability of wage rates during recent years has conditioned us to accept as normal the regular annual wage increase. It is worth recalling that in the engineering industry between the years 1922 and 1935, wage rates were stable except for one small increase to a minority of those employed in the industry.

For long it appears to have been accepted that a rise in the cost of living must, of necessity, be matched by a rise in wage rates whether or not the wage increase can be afforded.

The Cohen Report stated that during 1957 the retail prices index rose by over 4½ per cent. and that a general rise in wage rates on this scale would exceed the rate of growth of productivity in any recent year.

There are three ways in which wage increases

can be absorbed: increased efficiency; reduction in profit margins; and increased selling prices.

Any further increases in selling prices are likely to lead to a reduction in demand, with consequent unemployment. We have lost to Germany our place as the world's second largest exporter of manufactured goods: any increase in export prices must worsen the position still further.

Any further reduction in profit margins could result in industry being unable to provide the finance so necessary to ensure the continuity and expansion of the business.

If the foregoing statements are accepted, it is clear that further wage increases can only come from increased productivity.

The recent settlement of the claim by the railway workers for increased wages was made on the assumption that the cost will be met out of increased productivity in the future; this is a dangerous precedent and a classic example of putting the cart before the horse.

The proportion of total cost incurred by labour in a manufacturing industry is very high but the cost of labour involved in the conversion of basic commodities to consumable products is not easily ascertainable: research in this direction would be of great value. It would serve to highlight the effect of changing commodity prices on the selling price of the finished article, and would probably help to clarify the present situation in which falling commodity prices have not, in general, resulted in lower selling prices.

European Free Trade

The development of a European Free Trade Area has not progressed as well as was expected. Nevertheless, as it is the declared policy of the Government that the United Kingdom should become a member of the proposed Area, it is incumbent on industry to continue to give serious consideration to the consequences of active participation.

A national profit and loss account to show the effect on our national economy, has not been drawn up, but it is necessary for each industry and every concern within an industry, to ascertain for themselves the effect on their future livelihood. To some the effect will be favourable, to others, adverse. In nearly all cases adjustments will be necessary.

In those concerns most favourably placed, the utmost pressure must be exerted to ensure that maximum advantage is obtained from the changed circumstances. To those less fortunately placed, many difficult questions will

require to be resolved, and it is vital that full and accurate information is made available to management to facilitate their reaching the correct decisions. These may necessitate changing the product, increasing or reducing the variety, changing the location of manufacture, and the reorganisation of the selling and distribution arrangements.

There is an increasing tendency for company mergers leading to rationalisation of manufacture, design and selling, with its consequent economies. This might well be the pattern of future development, not only to help to secure a reasonable share of the European business but to maintain and increase our share of world trade, without which our standard of living cannot be maintained.

In considering the possible changes which may be necessary, the cost and management accountant has an important contribution to make by forecasting the results of suggested courses of action to guide management in making their ultimate decisions.

Financial Information for Employees

There is an ever-growing tendency for concerns to present to their employees, in some form or other, financial information on the operations of the undertaking. The method of presentation has been given considerable attention in order that the information can be understood at all levels, and whilst the modern method of presentation is to be commended, I am not at all sure that it is properly understood. I would go further and suggest that the vast majority of employees are not interested in most of the information provided. The prime interest of the employee is continuity of employment and the assurance of a regular income sufficient to satisfy his economic needs.

I am all in favour of providing certain financial information to selected representatives of the employees in order to give them an appreciation of the ramifications of company finance, but not through the medium of brochures or pamphlets. I would suggest the formation of small forums under the direction of the management accountants at which the many aspects of finance would be explained and discussed thoroughly.

The items for discussion could be such as 'The need for profit appropriation to meet increased replacement costs of assets'. 'The methods of financing expansion, with the emphasis on the ability to finance from within the undertaking'. 'That profit is not cash'. 'An outline of the operation of the Stock Exchange

and the relationship of dividends to the market price of the share'.

Such education, would, I think, lead to employees' better understanding of their own company's operations and lessen their opinions when wage negotiations are taking place.

Many concerns have made it possible for employees to purchase shares within the company on favourable terms but the response generally has been disappointing. This is probably due to lack of faith or understanding on the part of the employees, and it does seem that if the idea is to be successful, it should be preceded by education in the nature and benefit of the investment.

Efforts have been made to legalise the payment of wages by cheque, but even if they had been successful this method of payment would not have been capable of universal application, nor indeed would it have resulted in the saving of labour suggested by its sponsors. Whilst the writing of a cheque might take a little less time than the preparation of a pay packet, the work previously done by the wages office would be merely transferred to the bank.

Training and Education

For any profession to make progress it is essential that there is a sufficient influx of new blood of first class quality.

The qualification of 'cost accountant' is keenly sought and the number and quality of our present intake is eminently satisfactory.

Whilst some of our recruitment is through the kindred accounting bodies, the majority of our intake is from those who commence their career in industry and are trained in the field in which they are later to operate.

The syllabus of our examinations has been carefully framed to cover all those subjects which are considered necessary for the complete management accountant. In these days of industrial complexity the requirements of management are such that management accountancy has become highly specialised; amongst other things, it calls for some knowledge of the various facets of management techniques.

There are now in this country many concerns with approved training schemes for registered students of our Institute and these are rapidly increasing in number. There have, of course, been training schemes for technical students for many years and their value is without question. Industry has somewhat belatedly recognised the desirability of extending forms of training to those employees intending to follow a commercial career and I am sure that the results

will justify their continuance and extension.

There are, however, many concerns where, because of size or other reasons, it is not practicable to operate a training scheme, but this need not prevent the student from being properly trained. Any member of this Institute who has a student under his control should look upon it as a duty and an obligation to see that the student is given every opportunity to acquire that all-round accountancy experience so necessary if he is to become a cost accountant of the right calibre.

I need not stress that after passing his Final examination the candidate must produce evidence of three years' comprehensive practical costing experience before his application for membership is considered.

In surveying the results of the examinations of the accountancy bodies, the proportion of successful candidates is of a very low order; the recent figures of our own Institute being just below 30 per cent. of those sitting. This could cause concern if it arose from the relaxation of the rigid standards of entry for the examinations. These have not been relaxed in any degree. The quality of the intake is first class and one must look elsewhere for the cause of failure.

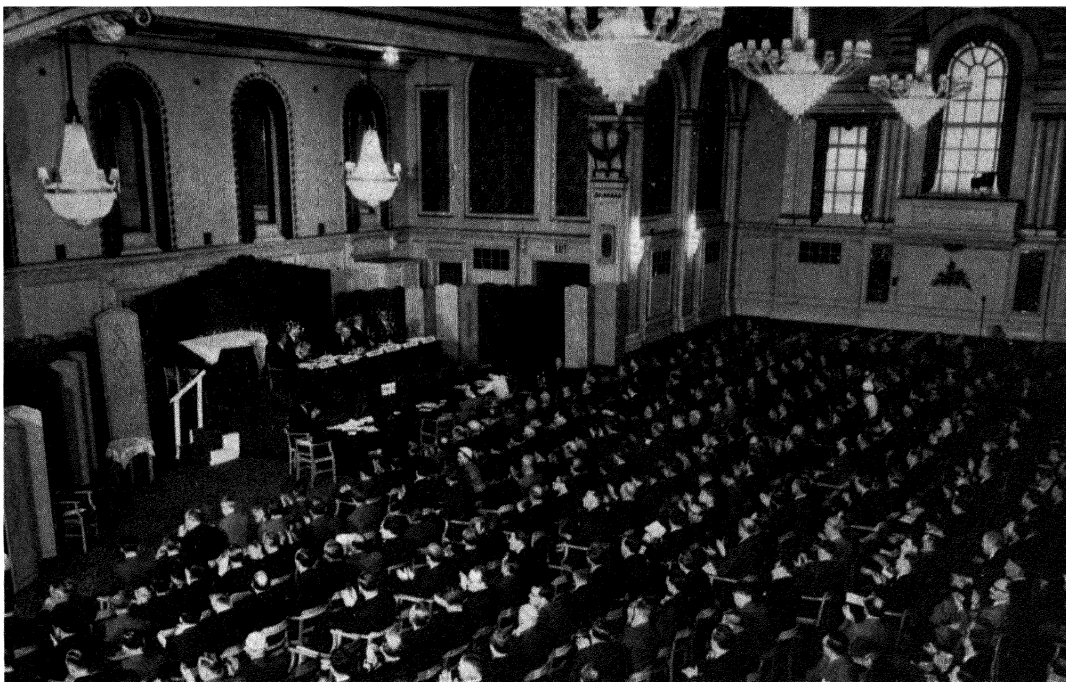
Since our incorporation some forty years ago, the syllabus has been subject to alteration and addition to meet the changing and increasing demands made on the cost and management accountant by industry.

Most students carry out their studies in the evening following a day's work, some attending evening classes and others taking correspondence courses. In spite of the increasing complexity of the syllabus, the education authorities are still endeavouring to prepare candidates for the examinations in the same total time as before, which is a heavy burden both for the authorities and for the students.

There has been a gradual tendency on the part of industry to arrange for accountancy students to attend day continuation courses and I look forward to this process being rapidly accelerated so that every young person seeking a professional qualification may be given the utmost encouragement in his quest, and at the same time be left with some opportunity to indulge in activities not directly connected with his work.

The Electronic Computer

The development of the electronic digital computer in the field of integrated data processing is one in which we have a particular interest.



A section of the large audience which gathered in the Grand Hall at the Connaught Rooms to listen to the presidential address and the technical papers presented to the national cost conference.

Many of our members are playing an active part in the introduction of these machines and the Institute has provided, through its Electronics Committee and numerous conferences, sufficient information to enable us to have an appreciation of the uses to which the computers can be put. The justification for the capital expenditure of a computer does not stand up to the usual test—i.e., how long will it take to pay for itself and how many employed persons will it replace. It should be considered as a tool which will enable management to do a better job than heretofore by speeding up existing procedures and providing more useful types of information. Undoubtedly, in many cases, there will be a saving of clerical labour and considerable thought will need to be given to the welfare of those displaced. It is easy to talk of alternative employment but very often difficult to provide. With the advent of the computer, greater emphasis has been placed on operational research, and this is another field of activity of which members should have a working knowledge.

Many years ago Mr. Herbert Morrison classified accountants as the 'Watch dogs of efficiency', and this was never truer than at the present time.

Speaking in London in April this year, the President of the Board of Trade, Sir David Eccles, said:

'We want to go all out and in a competitive world win more orders.

'Price is usually the deciding factor, so if we attack waste and obsolete methods, we are on the way to getting more orders. There is no plant or office in the country where some saving in work, some greater efficiency is not possible'.

This is as applicable to the Government services and nationalised industries as it is to private industry. The Select Committee on National Expenditure regularly reports glaring instances of inefficiencies resulting in large losses to the nation.

The more extensive use of management accounting would prevent many such losses occurring by spotlighting the danger before the expenditure is incurred.

The management accountant's place in the national economy is becoming one of increasing importance and if it is remembered that the accountancy which we practise is that of looking ahead with a view to safeguarding the future, rather than looking back and recording history, we shall indeed be worthy of those whom we serve.

Putting it to Work : Making the Most of Automatic Data Processing

by JOHN DIEBOLD



DAMON RUNYON'S character, Harry the Horse, once stated, on approaching the track, 'I hope I break even today. I need the money.' (*laughter*). Faced with the worst profits squeeze in something over a decade, the presidents, treasurers, and controllers of a number of major American companies are voicing the same sentiment, if not using the same language. This is in very sharp contrast to the basis on which these electronic data processing programmes were launched a few years ago.

For the last year or so there has begun a re-assessment of data processing and to some extent people have been growing sceptical of exactly what we will accomplish in business with the use of computing machines and data processing equipment.

About the middle of last year we assigned a team to a six-month project of getting operating data on some 200 computer installations in the States. These were machines which had been running in excess of six months, that were being used for business or a combination of business and scientific work. Something over 50 per cent. of the individuals interviewed felt that their actual experience with computers did not measure up to their expectations; the proportion finding trouble with computer installations or finding them falling short, was substantially higher than 50 per cent.

In virtually every case the actual costs of installation, conversion costs, operating costs of the data processing activity after it was installed and converted from the old to the new, had been

under-estimated. I would like to stress that most of these organisations are large business concerns that are quite sophisticated in their approach to budgeting and cost analysis and are certainly not naive at business practice.

I think, perhaps, that the attitude can be summed up by a letter I received from a restaurant chain on the West Coast enclosing a bill for a dinner I had had there two months previously. It read:

'Recently a salesman from an office equipment firm posing as an efficiency expert, approached me with what I thought was an interesting proposition about efficiency of billing procedures. All of this was several months and quite a number of thousand dollars ago. Today, in presenting this late statement, we confess that we have learned the hard way the ins and outs of office automation.'

This begins to express the scepticism.

I think that a statement made by one of the equipment manufacturers' representatives is also indicative of this.

'We started talking to a company president who was interested in E.D.P.' said the statement. 'It turned out that he did not have the volume to justify it although he would have loved it. Instead we sold 30,000 dollars worth of conventional equipment to do the job. Without the stimulus of electronics to get him thinking about electrical computer problems, we would not have made the sale.'

I think on both sides of the fence this a fairly real reading of attitudes. What can we make of this? Has automatic processing been terribly over-rated? I think, more to the point, that the task of applying data processing equipment to business operations has been under-estimated. In most of the cases the individuals who are putting in this equipment, or who have it in and have had their fingers burned, still feel that

An address delivered on 6 June, 1958, at the twenty-ninth national cost conference, in London, of The Institute of Cost and Works Accountants. Mr. H. J. Furness, F.C.W.A., a Vice-President of the Institute, was in the chair.

this is the right direction, the inevitable direction. Looking back, a few years on some of the expectations in this field can be helpful. I recently went through a number of back issues of professional journals and tried to find the early expectations of data processing and I have one or two quite typical quotations. The first article I find, on business use of data processing, was in a magazine called *Nation's Business* in 1947.

I think appropriately enough as the start of this worship of the electronic calf it began with the single phrase 'Holy Cow'. It then went on to describe what the world of business would be like when we simply had buttons to push and everyone went from there. In a serious vein a publication in May of 1947 said that for most applications in the insurance business the number of programme steps between input and output would be between half a dozen and several hundred. We now know it is something like 30,000.

Research and Development Costs

The article went on to say that machines were being designed to sell at up to 150,000 dollars each but as designs improved the pay-off period would continue to decline since each machine would do the work of more than 100 man years and costs would decrease as the charges for research and development were paid off.

But, in the real world, charges for research and development are never paid off. The actual research and development expenditure in the computer area of one company is of the order of eight million dollars a month. Other companies which have had to get out of the business in the States have found costs extremely high and they continue. The chances of reducing machine costs appreciably are fairly slight.

Another quotation is taken from a business review which carried a series of near science fiction articles on the business application of computers.

* Thus the elimination of 100 clerks might save one quarter of a million dollars in salaries a year and cover the annual revenue charge. The company with 5,000 employees might justify a computer on pay-roll alone.*

One particular organisation installed a large scale computer and found, much to their chagrin, that the world was quite different.

The common thing missing in these journals'

words and the words of most people talking about electronics is the whole series of costs, analysis costs, costs of programming, system design, installation costs, power running costs, operating costs, which are either omitted or seriously underestimated.

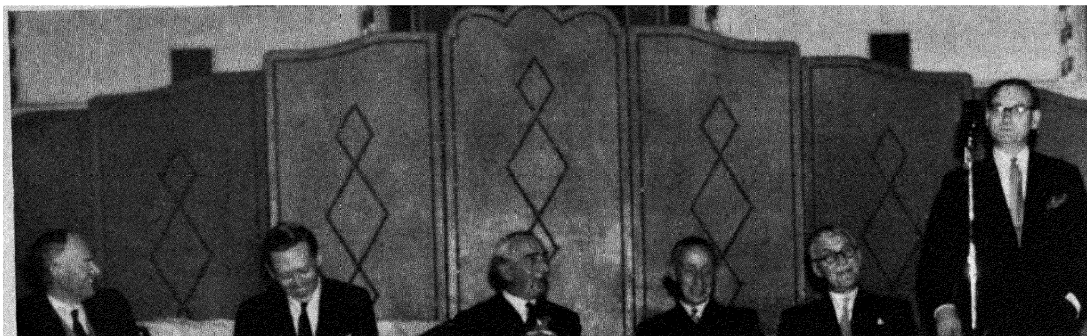
I think that when you are sitting in the deep-carpeted, air-conditioned, humidity controlled, sound proof, pastel coloured computer display rooms of the manufacturers, it is relatively easy to forget about such things. You find a very brave new world clearly defined. The element that is missing from much of this is a realistic idea of the effort that is required to get this working. Once you are actually faced with the extremely high monthly rentals; when the data verification processes seem to be cursed by gremlins; when strange lights flicker during pay-roll preparation; when the programmers, who carry in their memories a large part of the information used, leave to have a baby; with insufficient staffing of different parts of the computer activity and the incredible time-table that you yourself laid out; and through it all, the memory of the managing director speaking to his golfing partner and explaining how successful his computer has been . . . (laughter). At this moment the magazine stories seem a bit hard to take. E.D.P. becomes Every Damn Problem in the book.

The fact that people running the programmes have maintained their sights on the future, and a firm belief in where they are going, is an incredible tribute to their own endurance under this kind of situation.

The Management Problem

One problem standing out is the management problem. It has fundamentally been a management and not a technical problem. Our troubles and mistakes in the use of this equipment are the result of inadequate management planning. For some years all the talk about long range management planning seemed reasonable but the more I have seen of this field the more I have come to appreciate the fact that it is one of a group of new developments in business that requires exquisite management planning.

I would like to mention a few of the kinds of problems that we face. The first problem was that people were fascinated with the hardware—with the machines—and everything seemed to centre around the machine. A whole group of irrelevant mechanical contrivances and versa-



On the right (standing), Mr. C. A. Wilkes, F.C.W.A., A.C.I.S., is seen opening the discussion on Mr. Diebold's address. The chairman of this session, Mr. H. J. Furness, F.C.W.A., Vice-President of the Institute, is in the centre of those seated on the platform, with Mr. James Borsay, F.C.W.A., President of the Institute, on his left, and Mr. Diebold on his right. The Director of the Institute, Mr. Stanley J. D. Berger, M.C., F.C.I.S., is to the right of Mr. Wilkes, and Mr. Derek du Pré, Joint Secretary, is on the far left.

tility of many kinds which had no relevance to actual needs when running the business, became a fetish.

Our country is strewn with electronic committees travelling from one ocean to the other looking at machines in manufacturers' plants, acquiring the whole pseudo-scientific vocabulary impressive to management, who do not understand what they are talking about. Out of this came a sense of 'it is an all or none' proposition—that either you are in this new world or you are not in it.

There was the dream of taking the plunge, of getting the courage to dive into an ice-cold pool. This term, 'taking the plunge', has been used more frequently than any other in the electronic committees of our country to describe what they are doing. Once they take the plunge they do so with a feeling of 'this is it; now we can leave it to this man who does the programming'. But there is a great deal more to it than this.

It was felt that committee organisations were essential but they become unbearable in many cases. I knew one large manufacturing company in New Jersey which had an electronics committee and 24 sub-committees and it had taken them three or four years to get nowhere. A couple of weeks ago I spent a day in West Sweden in a gigantic company which had a group of some 14 men on an electronics committee. I found that each was a chairman of a sub-committee and all served on the others' committees.

This nonsense has gone on for a long time and has been extremely expensive. It has kept people from spending their time where they should. You get superannuated vice-presidents

assigned to this kind of task because they are there and someone is needed. Out of all this came an incredible lack of common sense business judgement in the planning of electronics.

There is the problem of timing the computer. Most of the installations at the present time have been put in on the assumption that you will take the present punched card applications and put these on to the computer. This will take 60 or 80 per cent. of the time on the computer and you will have additional machine time available and a powerful new piece of equipment with which to tackle other management problems. A whole lot hinged on this question of having free time. There is a tendency to take the time required for a single transaction, for a single calculation, and say that during the day we will need this many multiplied and the gross figure is this much time. The time to handle tapes, re-winding time of the tapes, the time of starting and stopping and a whole range of similar things are omitted. They have said, 'We cannot pre-time progress with accuracy so we will use a conservative approach.' This is just admitting from the beginning that you don't know what you are doing.

Last week, in a case involving a heavy equipment manufacturer, individual programme time was 50 to 150 per cent. off but they had put in a large safety margin and came out reasonably close. Other times this does not happen. A large generating company put in a large scale computer after two years' basic study and two years' close study. They expected to have their daily billing run completed in 20 hours. When they actually ran the first run they found it something more than 60 hours. Even with a large scale machine there are only 24 hours in the

day so they sent the machine back and scrapped the programming. This is a case where timing elements were simply badly handled.

These new random access memories are being widely pushed at the moment. Usually they will not bring you to the one item you want; it will be a group and so there is extra time for searching. If you have a spare parts application, unless you have converted spare parts to a suitable numbering system, you have to allow the machine to make its own calculations about where the information is before searching for it.

Standard of Performance

The operation and organisation of a data processing centre is in itself a complex managerial problem. In the States there is virtually no firm standard with which to measure the performance of a data processing programme and the actual performance, day to day, of the data processing centre. It can make an enormous difference in what you are getting out of it and what it is costing. A lot of the equipment is normally operated by people whose only training is in the manufacturer's school. The necessity for extremely skilled men is essential to success. Yet operators spend a few months with one company, get a substantial increase, then go somewhere else for more money, never staying long enough at one place to see the results of their work.

We have been working for a year on the development of tests that will measure the personality and characteristics that are present in the highly successful systems analysts, and are starting to get to the point where we have some good measures of these characteristics.

Equipment companies—if I may go back to Damon Runyon's song in 'Guys and Dolls'—encourage customers to 'Marry the man to-day, train him subsequently'. Machine companies have this philosophy—to get the computer in and train people subsequently in the final uses. When you are faced with these high costs you stampede and have to do something to cover yourself; you put on applications which have previously been running perfectly well with punched cards.

A research team was studying the handling of a military field piece and tried to analyse what each of the people in the crew did. One man loaded the shells, another cleaned the gun, and so on, but the sixth man did not apparently have any duty to perform. The research team went back to the training manuals and found only five positions, although there

had always been six men in the gun crew. Finally they located the brigadier who had written the manual; he was retired and had grown hard of hearing. It was difficult to get through what they were after but finally, having got it over, the brigadier gave them the answer: 'The sixth', he said, 'He holds the horse's! There are a lot of 'sixth men' in business.

The basic analysis of the system is not nearly as glamorous as moving in a big computer but it is essential if you are going to use the computer properly. It will take a long time and will involve a high level of intelligence, drive and business acumen in the company. I think we should look at this as a way of extending the range of man's ability.

In some scientific and engineering areas some notable achievements resulted from this. One company, United Aircraft, captured better than 95 per cent. of the jet engine market in U.S.A. as the result—according to a public statement of the president—of enormous investments over a number of years in the use of a computer in doing advanced designs which came out two years ahead of the designs of the rest. This is the kind of achievement that it is possible to look forward to in the business application. It requires a nice measure of blue sky thinking and a sound knowledge.

Future Prospects

Now I would like to say just a few words on what we can expect in the future. Ever since Leonardo da Vinci's day, up until this first half of our own century, the military were not the people to look to for new techniques. They brought business to industry and up to World War I looked to industry to acquire techniques. They did not develop new technology or science to any large extent. Suddenly in World War I, the military realised that this was a completely changed world, and from World War I to World War II there was a gradual shift. It is only since the second World War that we have begun looking to the military for technical development but very clearly this is where we look to-day. It is to the military that we can look to-day to find the techniques, and perhaps, the machines that will begin to be used in business and industry during the next decade.

Our biggest cost to-day, once the system is running, is data preparation cost. To get over this we are constantly reaching out further and further into production processes in order to get the data at a very early point. Petroleum

refineries are very common users of automatic look devices in which you scan the instrument readings. Simple additions of tape punches to the looking devices have already given us a form of output that can be used to immediately calculate yield.

It seems that the whole area of development should have very great importance for this country. It depends for success on highly trained staff and the imaginative use of equipment. This is an area that is very important. Monetary incentive to tighter operation is also going to be extremely important and the use of this equipment and new techniques can be of tremendous importance in this country. It is something that you can do here. I think that one area that we also should be conscious of is the fact that the West is not alone in this. The Russians have an automation ministry, have made a strong drive for improving productivity and are conscious of these techniques.

Mr. Bulgainin has devoted a lot of his state-

ments recently to the fact that large scale automation opens up the prospects for improvements in labour and productivity. In addition it leads to better quality and lower costs of production. Therefore it brings greater reliability and economy in production.

Meanwhile we are looking to all the dire consequences of labour upset and management is taking a defensive stand. I cannot find justification for this. We become the whipping boy for both sides. We worry about whether we are going too fast but the real question is whether automation is moving too slowly. One may cite many examples of our big achievements in this sphere of electronic progress but it is not this that should emerge and take our attention. We must concentrate our efforts on removing short-comings in this field. The more we look to removing stumbling blocks and road blocks and try to go at this with a hard, sincere effort on the part of business managements the better it will be (*applause*).

DISCUSSION

OPENING the discussion, Mr. C. A. Wilkes, F.C.W.A., A.C.I.S., stressed the difficulty of installing a computer and still carrying on the business of the company and making a profit. He said that costs tended to be under-estimated; nor did he anticipate a fall in the price of computers.

Mr. Wilkes spoke of the number of electronics committees which had sprung up in firms, and suggested that in many cases they were simply the result of a desire to 'jump on the band wagon'; they tended to fall apart as soon as difficulties arose. He said that in the commercial, as distinct from the scientific, use of computers, a great deal of time was often spent in performing calculations which were common-place and well known. It was necessary to devise new ways of managing industry.

In reply, Mr. Diebold agreed that if a computer was to be used to produce the same information as before, there was no need to bother with a computer. It was possible, before purchasing a machine, to test out with new data without going through the process of conversion. It was possible to hire time on a computer at comparatively low cost.

He said that there were certainly cases of computers being employed in business to produce something new, and instanced a distribution analysis using linear programming techniques, and an air-line maintenance schedule; neither of these cases was a purely mathematical operation, and in each case something was being produced which had not been produced before.

On the difficulty of running a programme at the same time as making a profit, Mr. Diebold said there was no point in running a programme unless one was planning for a very high return.

Mr. H. H. Norcross, F.C.W.A., a member of the Council of the Institute, stressed the need for re-thinking management methods. One should force decision-making down to the lowest level at which good decisions could be obtained, which could eliminate many data processing problems.

Mr. Diebold said that there were often extremely complex problems on a working level, which a computer could help to solve.

Mr. J. P. Wilson, F.C.W.A., A.C.I.S., a member of the Council of the Institute, said that he felt the day's papers and discussions had been rather gloomy; did not companies intending to purchase a computer have to take a calculated risk?

He felt that it would be rather difficult for a company to overhaul all its systems and reshape all its management procedures before changing over to automatic data processing. Any changes were expensive; the step by step approach might be more practicable.

In reply, Mr. Diebold agreed that a calculated risk had to be taken. He suggested that a firm could go quite a long way without actually acquiring a computer, by hiring time for pre-purchase try-outs.

Mr. W. Hyde, F.C.W.A., said that if computers were used for processing clerical data, they could restrict the scope of management decision. A management, for example, would be discouraged from making a fundamental alteration in its method of wage payment if such an alteration would necessitate the reprogramming of its pay-roll for the computer.

Mr. Diebold said that in clerical activities it was possible for a computer to be used in a way which would yield new data for decision making.

The Relationship Between Management and Labour

by VICTOR FEATHER

Assistant Secretary, Trades Union Congress



THE British trade union movement spends thousands of pounds of its own money—not the Government's money, nor the firms' money—in developing an interest amongst its members in increased production and productivity, while the United States trade unions spend nothing in that direction. I was told they had appointed, in the International Garment Workers Union, an expert to advise the American Master Garment Makers on how they could run their industries more efficiently. I believed that until I went to the United States. When I had spoken to three managements I realised that not many unions were going to be invited by many managements to tell them how to run their own businesses. They have a closed shop there—of management. In that sphere we are perhaps too modest, but in the trade union movement here we are doing much to encourage that something is known about time and motion study, more than is the case in the United States. I have an affection for the trade union movement in the United States and I am not saying this as criticism, but in a sense of comparison.

We have realised that science marches on and no one can stand still. We ourselves have to march shoulder to shoulder with the scientist and the industrialist, in the development of new techniques for a simple reason. That is that the

welfare and standard of living of our own members depends on this. Since it is our object to improve the standard of living of members, then obviously we must take note of industrial progress; not only accept it, but encourage it and, indeed, use it for the purpose of giving to our members a higher standard of living to which they are entitled. We know that as a consequence of this it means, in many respects, fewer people on what I would call direct operations and more of what I would call white-collar workers dealing with the statistical side with forms, punched cards and analysis of one kind and another.

On the development of the administrative side of the business, sometimes our own members—who perhaps are not so interested, and not often so well-informed as some trade union leaders on these kinds of things—begin to wonder if the administration of industry is becoming too top-heavy in relation to the operative side. There is a need, I think a considerable need, not only for trade unions to educate members about what is happening in industry and the need for this kind of transfer of activity, but also there is a need for management to let the work people know the reasons for some of these changes, as to why, apparently, the administrative side of modern industry is growing while the operative side is diminishing.

I know this may shock you, but there are people engaged in workshops in industry who are inclined to think that the cost accountant is not a workman and that he is taking out of the business, and that only the man with the pick

An address delivered on 5 June, 1958, at the twenty-ninth national cost conference, in London, of The Institute of Cost and Works Accountants. The President of the Institute, Mr. James Borsay, F.C.W.A., was in the chair.

and shovel is putting anything in. That is something that you and I and anyone else who wants increased efficiency in industry as a means of improving the standard of living, should get busy on, so that people do understand what these developments mean. I think there has been a great deal of expansion in cost accountancy in respect of works, factories, perhaps in engineering industries where there is a manufacturing process; but I am not sure that there ought not equally to be expansion—because this bears heavily too on the cost of production—to develop more cost accountancy in respect of office expenditure as well as the factory floor; whether, for example, there should be a great deal more cost accounting applied in the retail distributing services and generally over a far wider range than apparently cost accountancy operates at the moment.

I am not criticising, but some people think there ought to be some cost accounting into cost accounting; the cost of costing could be subject to some sort of review, to offer an assurance that we are not involving ourselves in blinding ourselves with punched cards.

Functions of Trade Unions

I think I ought to tell you what the main functions of trade unions are. Our function is to strive to maintain and improve the standard of living of our members.

In doing that, naturally, we take into account, primarily, wages, hours and conditions. We would think ourselves very foolish indeed if we considered—when we thought of wages—the number of pound notes in a wage packet in isolation from their purchasing power. Therefore, we never think in terms of wages only, but in relation to prices. As soon as we have done that, having thought of the relative value of the wage rather than the nominal value of the pound, we have got to think not only about what the wage will buy, but the number of times in a year that a workman gets his wage; we want him to get it 52 times in a year and not on the basis of 40 weeks' employment and 12 weeks' unemployment.

Therefore, in respect of wages and living standards, we have to consider prices and full employment. As soon as we get into that field of security for the wage earner, we have to think in terms of exports as well as imports and that brings us on to the ground floor of productivity and production. We know that it is impossible to talk about maintaining or improving the living standards of people in this

country on the basis of diminishing exports or imports. This country, perhaps more so than any other country in the world, is more vulnerable in respect of its overseas trade and the dependency of our living standards on overseas trade and imports and exports, than any other.

We are also faced in this field not only with visible exports and imports, but the invisible—services which help to bring in currency, sterling and foreign currency, which enables us to maintain this balance and this comparatively high standard of living which we have attained in this country on the basis of our exports, on the basis of our production and productivity in the past. Production and productivity are not merely matters of electronics in industry.

I know there are differing degrees of efficiency in industry, and amongst managements. Anyone who tries to tell me that all managements are efficient and all shop stewards undisciplined, will next expect me to think that there are fairies at the bottom of his garden as well as mine. It is true that we cannot, perhaps, do much about efficiency in management in all industries, but I think that in the larger corporations there is likely to be a higher degree of efficiency than there is in most of the smaller concerns. Perhaps it is the cost of capital investment which enables a company to utilise the most modern appliances, and also because there is not so much of the family influence in the top concerns.

Inheritance of Brilliance

It always amazes me in the family concern when I find that the grandfather who founded the business had a brilliant son who had a brilliant son but who is not married yet, but who will marry and have a brilliant son who will succeed into the business. I do not know what happened in my family. My father was brilliant, but he had some misgivings about me (*laughter*). Whether it just happens in the management strata that you get this inheritance of brilliance, I do not know. It does not happen in rabbits (*laughter*). I would have thought that you could inherit wealth, a title—until, of course, they change the law—but I have not heard yet of anyone who can inherit ability. No one can pass that along in his will, and it does seem to me that if management is going to continue to be drawn from a limited base, the impact will not be so high as it would be if top management were to be drawn from a broader base, and that is one of the things we are trying to do.

I make no bones about it. As far as the next

move in the trade union movement is concerned, I want to see development of joint consultation in industry, though not just because I believe it is a good thing that people should get on well together, and that there should be a good family atmosphere in the workshop. Why people say 'good family atmosphere' I do not know. There have been some pretty bad ones, like the Barretts of Wimpole Street—although I never met them. Joint consultation for the purpose of increasing production and increasing productivity, of getting maximum efficiency in every unit in industry—that is why we are doing it.

I want all people who have had limited opportunities in the past and know something about managerial functions to have access to some of the information that management has. That is not because I think that they are going to sell it to a competitor down the road. I want him to know as much about management as it is possible to learn at that stage, so that if he has the ability he may succeed to a managerial position.

Do Not Think of Class

The time has gone, inside the trade union movement, when we used to think that if a man went over to the management side, he had deserted the working class. At one time, among trade unionists, they thought that if the shop steward became a foreman, he had deserted to the capitalist class, that he had been seduced from his loyalties to the class to which he belonged. We do not think of class any more. We think of the whole wide world being the oyster both for members and their children.

I think, myself, that from the point of view of the trade union movement, from the point of view of industry, and from the point of view of management themselves, the more efficiently industry is run, the better the standard of livelihood for members and the more security there is for everyone in the country.

I believe that in most cases, if two people,



A view of a small section of the members and students who attended the technical sessions of the conference, which were held in the Grand Hall of the Connaught Rooms.

whoever they are, are given the same problem with the same factors in the problem, and are put in separate rooms quite independently, in nine out of ten cases they will arrive at the same conclusion, whether you call one a manager and the other a shop steward, one Communist and one Conservative, or Labour and Liberal. I believe problems usually carry within themselves the whole answer. There is only one answer to most of the problems that are recognised as being in a narrow field, but there are many answers to some particular problems, and that is where we get most difficulties. That is where we get the fewest number of people who can cope with those particular difficulties.

Human Relations

I think, therefore, that this business of industrial relations, which means consideration of hours, wages and conditions, must be widened considerably to take into account human relations, of which industrial relations is only a part. When I talk of human relations I am not thinking just in terms of joint consultation about welfare, safety and traffic and communications; or whether we shall have horizontal or vertical bicycle racks; or whether a window should be

opened at this, that or some other time; I am thinking of human relations on the basis of understanding; an opportunity for every person in the works to know that his part of the operation in the works is identified with some seemingly remote things that he never dreamed of, and that he ought to be concerned in those things as well.

I think the development of human relations is going to contribute a great deal, and probably a great deal more, towards efficiency in industry than many people have given credit for yet. Half the stoppages which take place in British industry are not for increased wages at all. Half the stoppages in industry have nothing to do with money. But they have a great deal to do with human relationships.

Joint Consultation

Last year, for example—and these are not my statistics, but are from the Ministry of Labour—you will find that some 39 per cent. of the stoppages which took place had nothing to do with wages at all. They had a great deal to do with human relations. That was against 44 per cent. that took place in respect of wages, i.e. 44 per cent. stoppages in respect of wages and 39 per cent. in respect of something unrelated to wages at all. I think that joint consultation to a great extent will help to diminish that particular side of the problem and—one never knows—as a consequence of joint consultation, with the people on the shop floor knowing something more about the problems of management, it may well be that the other percentage will diminish as well.

Human relations is something, not about pounds, shillings and pence, but something about the prestige of persons and recognition that work people are capable of solving problems and of understanding a great deal more than the limited functions they are asked to perform as a consequence of their daily duties.

I think there is a third interest in this. There are not only the management and work people, but also the general consumer—and all of us are consumers in one way and another. For example, a man who drives a railway train is a consumer of the baker's products, of boots and shoes and clothing, but he has quite a different identity as between consuming capacity and producing capacity.

We have got away from the old terms of capitalists and workers, employers and bosses and wage slaves and all that sort of thing. We have developed a psychological approach to

the question of management and labour; it indicates more and more that there is a community of interest in respect of the productivity of the worker. If we think management are getting away with too much, we fall back not on human relations but labour relations. The point about community interest is that we should be striving to get increased efficiency not just for increased wages, not just for increased profits or pay-outs for shareholders, although I recognise their importance to industry and the importance of saving.

I am glad to see here, in a different capacity, a regional chairman of the National Savings movement. I don't know that we could encourage it too much.

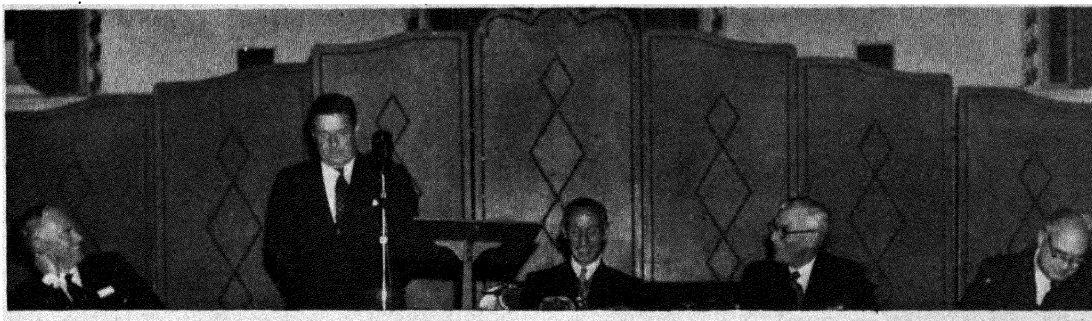
Greater efficiency, we think, ought to be directed towards getting prices reduced, and that there should not be a period of waiting to see what prices the market can pay. The object of the exercise of increased efficiency in industry should be how quickly you can get prices down.

Information for Workers

The idea is that workers should know something about the economics of business, their own business, because it is their livelihood, and I hope that all reasonable and intelligent managements would hope that their people would want to take a reasonable and responsible view. If you treat someone as if they are incapable of accepting responsibility, it seems that you cannot complain if people like that act in an irresponsible way. I think that responsibility enables a man to develop and enables a business to succeed to a greater extent. It has occurred to me, and I am sure that it is being done, but I wondered whether this could be widened considerably in your own business sphere.

Not only work people should know more about your work and the results of your work through joint consultative committees, production committees, works committees or whatever you call them; there ought to be, amongst managements themselves, a much greater exchange in some way, of the results you achieve in different works.

What I mean is that comparisons tend to remain, usually, as between this week and last week, next week and this week when the factors are all the same, this year and last year and so on in the same way. I wondered whether there is not scope for a greater exchange of information derived from different units of production—a sort of employment exchange of information



A lighter moment during the speech of Mr. Feather. Seated on the speaker's left is the President of the Institute, Mr. James Borsay, F.C.W.A., with the opener of the discussion on the address, Mr. G. C. Stone, F.C.W.A., a Past President and a member of the Council of the Institute, on the far right of the picture. Also on the platform are Mr. Stanley J. D. Berger, M.C., F.C.I.S., Director of the Institute and (far left) Mr. Derek du Pré, Joint Secretary of the Institute.

relating to various costing aspects—so that one firm would be able to compare their ratio of costs with the ratio of costs in another firm, although I know there is a great deal of jealousy as between one factory and another. I do think that there is room for development of this kind of thing as between works and works and not only within the same managements and the same management sphere. I know that there are bound to be variations, variations because of geographical reasons, for a great variety of reasons.

Productivity Council

I remember after the war when we set up the Anglo-American Productivity Council, the avidity with which management took the opportunity of going from this country to the United States in order to see industry in the United States so that they could come back with the know-how and apply it here. This went on for four or five years; then one or two of us got a little fed up and thought it irrational to send 70 people about 5,000 miles to learn something which we thought they could learn even in the next street.

We started talking not about Anglo-American productivity, but Anglo-Anglo productivity, but it was a damn sight easier to get managements in New York, Milwaukee and Cincinnati to let British manufacturers visit their factories and give information about productivity and methods. It is easier to get that, at that distance, than between a firm in Birmingham and one in Coventry, because they are competitors in the

same business. All right, be competitors, but it is prices that are paying for it, and the standard of living which is paying for it, and, in the long run, our members have an interest in it.

Co-operation will Extend

I will conclude by saying that as far as the future is concerned I believe that co-operation in industry will extend and will intensify. I think it is inevitable and that it would be foolish to try to limit it or hold it back. I am not depressed about the immediate or long-term prospects of this country. I will not introduce any political note but in the long term I think that there is more reason to be optimistic than, perhaps, just at the moment, but that is a matter of opinion which I will not inject into this conference at all.

I think that the future, as far as we are concerned, must be determined very largely on the contribution that we can make to industry as a whole and to the living standards of other countries as well as our own. This can be done as a consequence of increasing efficiency in industry, of conserving raw materials, manpower, time, labour, all of these things, and since you are engaged in this particular process so intricately, it seems that you, perhaps, ought to know a bit more about our aspirations—and we ought to know a bit more about what you are doing. Our members on the shop floor will, as a consequence, I am sure, be even more co-operative and understanding, being wider in knowledge about what the future holds for Britain generally (*applause*).

DISCUSSION

THE discussion on the address was opened by Mr. G. C. Stone, F.C.W.A., a Past-President and a member of the Council of the Institute, who said that there was a community of interest between labour and management which should be used to increase productivity and the general good of industry. In his view, managers were not born; they had to be trained.

Mr. Stone said that people liked to be partners. They liked to be interested in what was going on; they liked to feel that there was a concern for their well-being.

'I was particularly interested in what Mr. Feather said about the satisfaction that is derived from being associated with a business which is well run,' said Mr. Stone. 'People like to work for a successful business. It is in this respect that accountants have a very important and highly specialised service that they can render. They can influence and increase the amount of profit earned.'



Mr. G. C. Stone, F.C.W.A.

Mr. Stone concluded with two points: firstly that no man is truly educated unless he knows the meaning of loyalty—loyalty to the team represented by management and labour; and secondly, that, in Chinese, the word *crisis* also means *opportunity*.

In reply, Mr. Feather said even with a private firm there was a public responsibility and a public interest, expressed through the people engaged as wage-earners in the business. In a democracy there was a great deal of public interest; in private industry it was the same. Mr. Feather said he would compel an individual to accept his responsibilities even if he did not want to; if a man enjoyed trade union holidays and trade union pay, the least he could be expected to do was to participate in the organisation that had brought him these advantages, and if he did not want to, he was free to go elsewhere. There was no conflict between loyalty to management and loyalty to a union, for management was dependent on the productivity of the firm just as the workers were. It was the duty of management to provide as high a standard of living as possible within the framework of the firm.

Mr. P. M. Dale, A.C.W.A., spoke of 'Inherited management', and said that under the present

educational system it was much more likely that a man would rise from the shop floor to a managerial position. Management was being drawn increasingly from people who had not previously had the right opportunities.

Mr. Feather said that he did not mean that there should be forty managers in a works, since there was only room for one general manager, but that work people ought to know a little more about management problems. This was necessary not because they would then assume to be managers, but because they would then have more understanding of the problems of a particular works.

Mr. B. Ward, F.C.W.A., said that in his particular firm (The Metal Window Association Ltd.) the various members of the association had been sharing costs for five years, and were now actually sharing production times. Such sharing of information made for improved efficiency, with the result that basic wage rates had been able to be greatly increased. Mr. Ward advocated that the system should be much more widely applied throughout British industry.

Mr. Feather replied that he was glad to know that such exchanges of information were developing. He said that it was difficult, where costs were high, to convince management that they could afford the same wage rates as the low-cost producers.

Mr. M. V. Kamath, A.C.W.A., urged that more information should be given to employees by management, and stressed the need for contact between management and workers.

In reply, Mr. Feather said that it was wrong merely to give information to workers when negotiations were in progress. Joint consultation committees should meet regularly and frequently, and not just in times of crisis, so that work people knew what was happening month by month. Such frequent contact would lead to a better understanding between management and workers, and also negotiations would tend to be much more effective when they arose.

Mr. J. Denham, F.C.W.A., quoted the case of a firm which had spent £50,000 on a machine; the union insisted that five men should staff the department, whereas a staff of one could have done the job. He added that in his firm joint consultation was practised, but that the results had so far been very disappointing. The workers had been given information on points which management thought were of vital interest, but the workers did not seem to be interested.

Mr. Feather replied that the problem of over-staffing could eventually be solved through negotiation. He said that management must show initiative and perseverance in joint consultation and not expect results over-night. There were certain historical difficulties; they would be overcome more rapidly as a result of security.

'On the basis of full employment we can expand and replace unnecessary man-power', he said.

He mentioned printing, ship-building and building as industries affected by difficulties of this nature.

NATIONAL COST CONFERENCE

Sessions • Reception • Banquet

A large number of members, registered students and guests attended the twenty-ninth national cost conference, which was held in London at the Connaught Rooms on the afternoon of Thursday, 5 June and on Friday, 6 June. The annual banquet was held at the Dorchester on the Friday evening. The business proceedings and social events, which were highly successful, are described below.

THE conference was opened by the President of the Institute, Mr. James Borsay, F.C.W.A., at 3 p.m. on Thursday at the Connaught Rooms. The speaker at this session was Mr. Victor Feather, Assistant Secretary of the Trades Union Congress.

Mr. Feather was an active rank and file trade unionist from 1924 to 1937; a shop steward at 15, he was chairman of his union branch at 21. He joined the staff of the T.U.C. in 1937 to deal with organisational questions and with joint advisory committees to the Minister of Labour, and was appointed to his present position in 1947.

His extensive travels on international trade union work and for the Government include a visit to the Soviet Union in 1943, to the U.S.A. and to South East Asia. He has very recently returned from a

mission to Japan in which he assisted the Japanese railway unions in a critical labour dispute.

Introducing Mr. Feather, the President said that the Institute had a very active and intimate interest in the affairs of the trade unions and in the unions, views on industry and what employers and managements should do.

'We are, I think, a type of referee,' said Mr. Borsay. 'We are not management, and I am quite certain we are not 'workers'. We are able to look at the difficulties which exist—and they do exist—between management and men; and we have a part to play on both sides.'

Cost accountants were responsible for the payment of wages, an item of particular importance to the workers, and could be looked upon as advisers to the men on such problems as house purchase and other financial matters.

'Last year we had an eminent industrialist—Lord Chandos,' said the President, 'and I think it very appropriate this year that we should have an eminent trade unionist.'

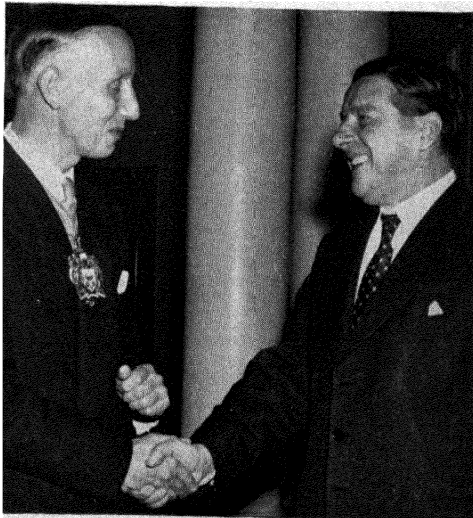
Mr. Feather then gave his address, which is reported on page 57, together with the discussion upon it, which was opened by Mr. G. C. Stone, F.C.W.A., a Past President and a member of the Council of the Institute.

Speaking as a fellow Yorkshireman, Mr. E. Emmerson, A.C.A., F.C.W.A., a Vice-President of the Institute, moved a vote of thanks to Mr. Feather at the conclusion of the discussion. Saying that the Institute was particularly grateful that the speaker had found time to attend the session during a period when the T.U.C. was very busy, Mr. Emmerson added:

'We thank you most cordially for your most interesting address and for the pleasant manner in which it was delivered.'

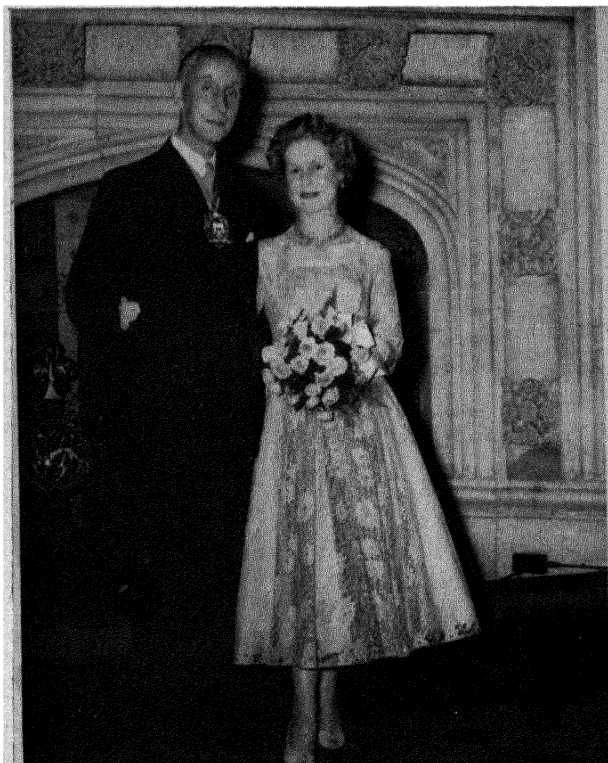
Also included in the platform party at this session were the Director of the Institute, Mr. Stanley J. D. Berger, M.C., F.C.I.S., and the Joint Secretary of the Institute, Mr. Derek du Pré.

On the Thursday evening, the President and Mrs. Borsay welcomed a large number of guests at a colourful and vivacious reception in the Members'



The President greets Mr. Victor Feather, Assistant Secretary of the Trades Union Congress, who addressed the conference at the first technical session.

President's Reception in The House of Commons



(top left) The President and Mrs. Borsay await the guests. (top right) Mrs. W. S. Risk arrives with Mr. W. S. Risk, B.COM., C.A., F.C.W.A., a member of the Council of the Institute. (above) Mrs. E. Emmerson and Mr. E. Emmerson, A.C.A., F.C.W.A., a Vice-President of the Institute.

(left) A party leaves to tour the House of Commons and the House of Lords.

Room at the House of Commons. This accommodation was made available through the courtesy of Sir William Steward, M.P.

Guests and their ladies were received by Mr. and Mrs. Borsay in an elegant ante-chamber of the House and then proceeded through to the Members' Room which looks out over the river Thames towards Lambeth Palace.

During the course of the evening, parties of guests were conducted round both the House of Lords and the House of Commons.

The traditional calling of the roll opened the conference proceedings on Friday morning, when representatives from a total of over 20 branches stood individually to register their presence at the conference.

Mr. E. Emmerson, A.C.A., F.C.W.A., who moved the vote of thanks to Mr. Feather.

This ceremony was followed by another—the presentation by the President, of Institute silver medals and scrolls to two members. The citations are reproduced below.

Francis William Hildyard Saunders, F.C.W.A.

THE award is made in recognition of his long and consistent service to the Institute and to the profession and also as an expression of appreciation of his helpful counsel in Institute administrative matters.

He has taken a leading and constructive part in branch affairs since 1932. For 16 years he was a member of the London Branch Committee; he was Vice-President of the Branch in 1940–41,

and President in 1943–44. In 1948 he was prominent in the formation of the Eltham Sub-Branch, of which he was the first chairman, and when this became a Branch in 1952 he was elected the first President. He also took a leading part in the formation of the No. 1 Area Co-ordinating Committee in 1951, on which he has served continuously. He was elected by this Area (London and South East England) to serve on the Council of the Institute in 1941, and is still serving. He is also a member of the Executive Committee, and has served on other committees, notably as



The President presents the Institute's silver medal and scroll to Mr. E. F. Brown, F.C.W.A.

chairman of the Costing Terminology and the Training and Educational Facilities Committees, and has been and is still chairman of the Applications Committee.

He was President of the Institute in 1953–54.

Edwin Francis Brown, F.C.W.A.

THE award is made in recognition of his original thought in costing technique and in the development of the profession.

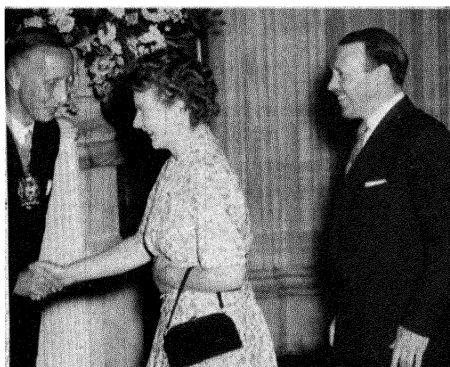
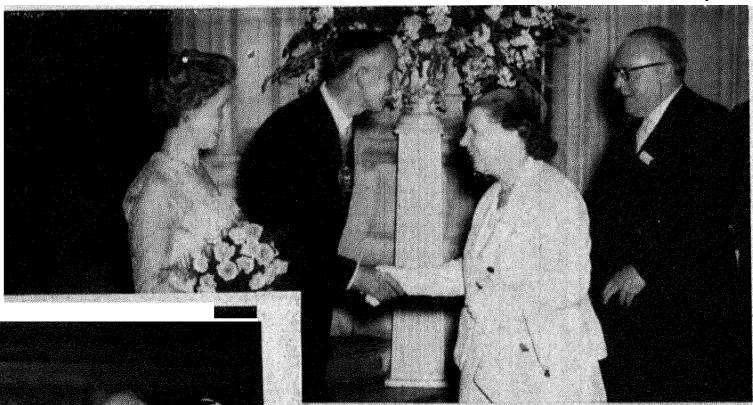
His contributions have taken the form of papers and addresses at National and Regional Conferences, at Summer Schools and at many Branch meetings of the Institute.

For over 15 years he was an active member of the Manchester Branch, serving on its Committee as its honorary secretary for a period and as Branch President in 1947–48. He was a member of the Council from 1947 to 1957 and has served on many of its Committees.



Mr. F. W. H. Saunders, F.C.W.A., receives his silver medal and scroll from the President.

In the House of Commons. (right) Mr. G. Nicholson, F.C.W.A., a Past President, and Mrs. Nicholson are greeted by the President and Mrs. Borsay. (below) Mr. A. Holdsworth, B.COM., F.C.W.A., A.A.C.C.A., A.C.I.S., a member of the Council of the Institute and Mrs. Holdsworth (right) in conversation with Mr. and Mrs. H. R. Jones.



Sir William Steward, M.P. (centre) joins the Director (right) and Mrs. Berger in a toast to the President and Mrs. Borsay.

Mr. E. F. Potter, A.C.W.A., and Mrs. Potter and (above) Dr. J. M. S. Risk, B.COM. PH.D. C.A., F.C.W.A., A.C.I.S., a member of the Council of the Institute and Mrs. Risk.

Mr. Ian T. Morrow, C.A., F.C.W.A., immediate Past President and a member of the Council of the Institute, assumed the chair to call upon Mr. Borsay to deliver his presidential address. This address, which is reproduced at page 48, was received with enthusiasm by the conference.

Proposing a hearty vote of thanks to Mr. Borsay, Mr. F. Simmonds, F.C.W.A., a member of the Council of the Institute, said that it was necessary for those trained in professions to keep a balanced perspective of their jobs.

'This morning the President has given us some aspects of these wider perspectives' said Mr. Simmonds.

We had a large part to play, as the President appreciated, in the decisions concerning the European Common Market. The President's address had been on a serious note, but had had its lighter moments.

'Mr. Borsay has given us the lead to lift our eyes from our own cabbage patch,' concluded Mr. Simmonds.



Mr. Ian T. Morrow, C.A., F.C.W.A., calls upon Mr. Borsay to deliver his presidential address.

knowledge on the types of equipment cost accountants were likely to be dealing with. The author was a graduate engineer, and a chartered accountant as well as a member of the Institute. At the moment he was doing special work on electronics from both the commercial and scientific points of view.

Mr. Goldsmith then introduced his paper, which we hope to reproduce in a later issue of *The Cost Accountant*, together with the discussion upon it opened by Mr. H. Kirkham, F.C.W.A.

Moving the vote of thanks to Mr. Goldsmith, Mr. F. M. W. Hird, A.C.A., F.C.W.A., a member of the Council of the Institute, said that the devices which Mr. Goldsmith had so ably described had been given a reception usually accorded only to those who insulted minor royalty or dismembered somebody with great brutality. We now had in our midst these entities—admired by all and known in some

The first technical paper of the day was 'Choosing your computer', the author being Mr. J. A. Goldsmith, M.A., A.C.A., A.C.W.A.

The chairman of this session, Mr. C. E. Power, A.C.A., F.C.W.A., a member of the Council of the Institute, said that the subject of the conference was again connected with electronics, as it had been last year.

'It appears that this subject is still topical; still a subject about which the average cost accountant does not know the full story,' he said.

Mr. Goldsmith's paper would bring fresh

cases by their Christian names—which were highly temperamental, thick in the intellect, and very expensive to employ.

'When one has displayed these qualities for years to an unappreciative world, one may be a little envious to find that popularity depends on sheer speed,' said Mr. Hird amidst laughter.

Mr. Goldsmith had done a great service in giving such a lucid and succinct survey. He had had the widest possible experience of computers, particularly in the difficult fields of telling them what to do.

'When I spoke of the thickness of intellect of these devices, I was not speaking as lightly as you may have thought,' said Mr. Hird. 'For here we have a stupidity quite unapproached by the most defective human mind.'

It was not proper to expect anything else, but when we were faced with mechanisms which performed many functions previously regarded as mental ones, there was an understandable tendency to apply intellectual standards.

'We must be on our guard against such thoughts because the results produced by such superb equipment are just as inaccurate as the ones we have always had, but are now the result of a mechanical virtuosity which gives them the air of authoritative statements.'

Granted an uncritical acceptance of works records, it was possible to produce a substantial amount of erroneous information with a quill pen:

'We now learn that in this jet-propelled age we can be led up the garden path at the rate of 200 characters a second, and so smoothly that the critical faculties are lulled,' said the speaker.

Mr. Goldsmith had dealt with the computers themselves; it remained to see that the data to be programmed and processed was worth the trouble, concluded Mr. Hird.

Also on the platform at this session were the President, the Director and the Joint Secretary.

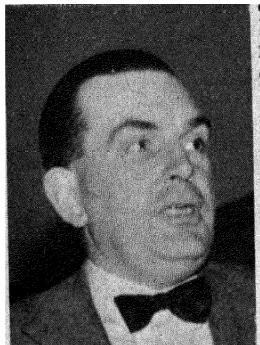


Mr. F. Simmonds, F.C.W.A., proposing the vote of thanks following the President's address.



Mr. J. A. Goldsmith; M.A., A.C.A., A.C.W.A., introducing his paper, 'Choosing your computer.'

Following an informal lunch, the final conference session—an address by Mr. John Diebold—was opened by the chairman, Mr. H. J. Furness, F.C.W.A., a Vice-President of the Institute.



Mr. C. E. Power, A.C.A., F.C.W.A., chairman at the Friday morning conference session.

Mr. Diebold, who spoke under the title, 'Putting it to work; making the most of automatic data processing', was the man who coined the word 'automation'. At the age of 31, he is an acknowledged authority on this subject, with a world-wide reputation.

Mr. Diebold's lecture, which was received with acclamation by the conference, is reported at page 52, together with the discussion upon it, which was opened by Mr. C. A. Wilkes, A.C.W.A. A.C.I.S.

Proposing the vote of thanks to Mr. Diebold, Mr. C. F. Howell, F.C.W.A., thanked Mr. Diebold on behalf of the conference.

Mr. Howell recalled that when Mallory was asked, 'Why climb Mount Everest?', he replied, 'Because it is there'. EDP offered similar prospects.

'Here we have a tremendous advantage; we have a tremendous potential in front of us, and it is there; but Mr. Diebold has not underestimated the long and difficult task in climbing to the top,' concluded Mr. Howell.

With a word of thanks to 'all those people who have done so much to make it a success', Mr. Borsay

closed the conference. Also on the platform at this final session were the Director and the Joint Secretary.

Special arrangements were made for the entertainment of the ladies on the Friday afternoon; some went on a conducted motor coach tour of the famous sights of London, while others attended an afternoon performance at the London Planetarium.

The Annual Banquet

The twenty-ninth annual banquet of the Institute was held at the Dorchester on the Friday evening. Mr. James Borsay, F.C.W.A., President of the Institute, presided, and with Mrs. Borsay, received a distinguished company of guests, among whom were Sir Arnold Hall, F.R.S., M.A., HON.A.C.G.I., F.R.A.E.S., President, The Royal Aeronautical Society, and Lady Hall, and Councillor A. D. H. Plummer, T.D., J.P., F.A.I., Mayor of St. Marylebone, and Mrs. Plummer, Mayoress of St. Marylebone.



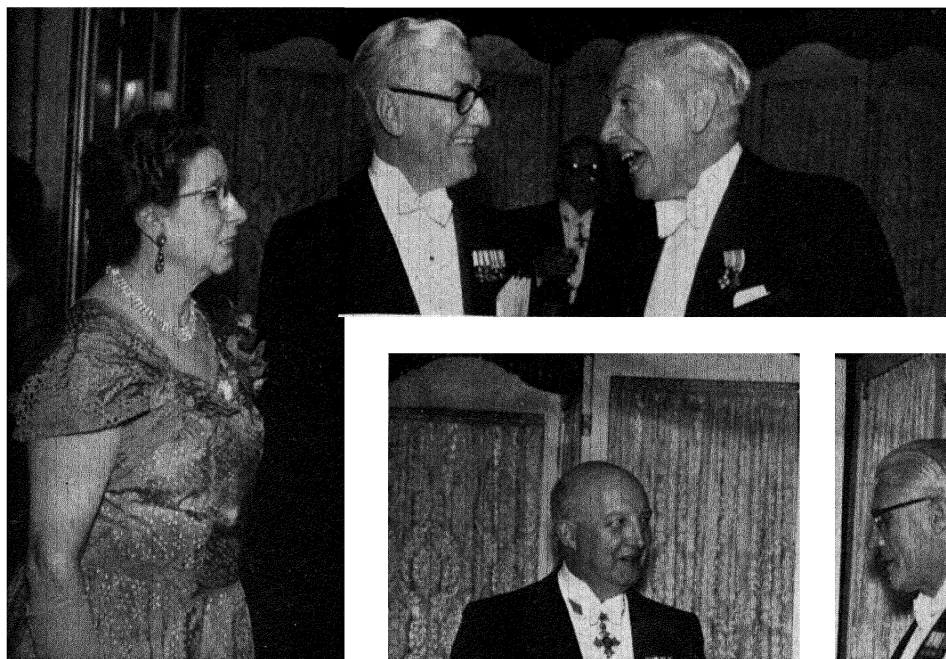
Mr. H. Kirkham, F.C.W.A., opening the discussion on Mr. Goldsmith's paper.

Also present were:

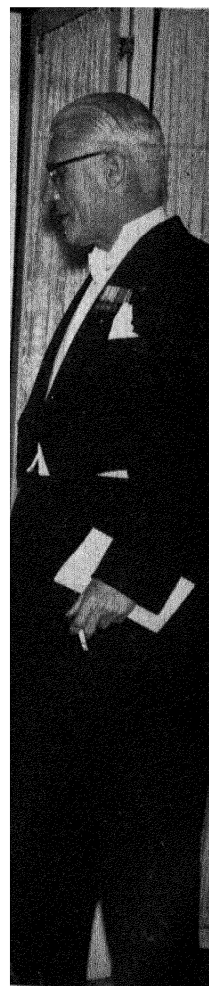
Mr. G. H. Andrew, C.B., *Second Secretary, Board of Trade*, and Mrs. Andrew; Mr. W. O. Atkinson, F.I.M.T.A., *President, The Institute of Municipal Treasurers and*



A speaker from the audience is seen at the microphone adding his contribution to the discussion during one of the technical sessions in the Grand Hall of the Connaught Rooms. Many well known members of the Institute can be seen in the foreground.



At the Banquet. (above) Sir Archibald Forbes (right) enjoys a joke with the Director and Mrs. Berger.



Mrs. Morrow, accompanied by Mr. Ian T. Morrow, C.A., F.C.W.A., a Past President and member of the Council, is received by the President and Mrs. Borsay.

(above) Mr. George Pollock, Q.C., chats with Mr. Harold Wilmot, C.B.E., F.C.W.A. a member of the Council of the Institute.

Accountants; Mr. W. L. Barrows, F.C.A., *President, The Institute of Chartered Accountants in England and Wales*, and Mrs. Barrows; Professor W. T. Baxter, B.COM., C.A., *Professor of Accounting, London School of Economics*, and



Mr. F. M. W. Hird, A.C.A., F.C.W.A., who proposed the vote of thanks to Mr. Goldsmith.

Diebold; Mr. W. Coutts Donald, C.A., F.C.W.A., and Mrs. Coutts Donald; Mr. E. Emmerson, A.C.A., F.C.W.A., a *Vice-President*, and Mrs. Emmerson; Captain J. D. F. Elvish, C.B.E., and Mrs. Elvish; Sir Archibald Forbes, C.A., *Chairman, The Iron and Steel Board*; Mr. Henry J. Furness, F.C.W.A., a *Vice-President*, and Mrs. Furness.

Mr. R. B. Garnham, F.C.W.A., a *Past President*, Mrs. Garnham, and Miss M. Garnham; The Rt. Hon. W. Glenvil Hall, M.P.; Mr. J. A. Goldsmith, M.A., A.C.A., A.C.W.A.; Sir Henry Hancock, K.C.B., K.B.E., C.M.G., *Chairman, Board of Inland Revenue*, and Lady Hancock; Mr. E. G. Hardman, F.C.I.S., *President, Chartered Institute of Secretaries*, and Mrs. Hardman; Mr. J. E. Harris, B.COM., F.A.C.C.A., *Vice-President, Association of Certified and Corporate Accountants*; Mr. W. E. Harrison, F.C.W.A., a *Past President*, and Mrs. Harrison; Mr. Basil Hughes, F.R.I.B.A., F.R.I.C.S., and Mrs. Hughes; Air Marshal Sir Owen Jones, K.B.E., C.B., A.F.C., B.A., M.I.MECH.E., R.A.F. (RETD.), *President, The Institution of Mechanical Engineers*, and Lady Jones.

Mrs. Baxter; Captain R. C. Benstead, M.C., M.A., R.N. (RETD.); Mr. Michael Berger, A.C.A., and Mrs. Berger; Mr. W. H. Boddington, F.I.M.T.A., a *Past President*; Mr. R. Borsay and Mrs. R. Borsay; Mr. P. J. Bovill and Mrs. Bovill.

Mr. L. F. Cheyney, F.I.M.T.A., F.S.A.A., *Secretary, The Institute of Municipal Treasurers and Accountants*, and Mrs. Cheyney; Mr. Douglas A. Clarke, LL.B., F.C.A., and Mrs. Clarke; Mr. W. Manning Dacey and Mrs. Manning Dacey; Mr. E. M. Dakin and Mrs. Dakin; Mr. John



Mr. John Diebold, the speaker at the final session of the conference, arrives at the Connaught Rooms.

The Rt. Hon. The Lord Latham, F.A.C.C.A., and Lady Latham; Mr. F. R. Livock, T.D., M.I.E.E., *Director, The British Institute of Management*, and Mrs. Livock; Mr. Alan S. MacIver, M.C., B.A., *Secretary, The Institute of Chartered Accountants in England and Wales*, and Mrs. MacIver; Mr. P. J. Mantle, C.M.G., *Assistant Secretary, Insurance and Companies Department, Board of Trade*, and Mrs. Mantle; Mr. R. I. Marshall, B.COM., C.A., *President, The Institute of Chartered Accountants of Scotland*, and Mrs. Marshall; Mr. E. H. V. McDougall, *Secretary, The Institute of Chartered Accountants of Scotland*, and Mrs. McDougall; Mr. Ian T. Morrow, C.A., F.C.W.A., a *Past President*, and Mrs. Morrow; Mr. A. W. Muse, F.C.W.A., F.A.C.C.A., a *Past President*, and Mrs. Muse; Mr. George Nicholson, F.C.W.A., a *Past President*, and Mrs. Nicholson.

Mr. F. Cameron Osbourn, M.B.E., B.A., LL.B., *Secretary, The Association of Certified and Corporate Accountants* and Mrs. Cameron Osbourn; Mr. R. Graham Page, M.B.E., LL.B., M.P., and Mrs. Graham Page; Mr. A. A. Part, M.B.E., *Under-Secretary, Ministry of Education*, and Mrs. Part; Mr. John F. Phillips, O.B.E., LL.M., *Secretary, The Chartered Institute of Secretaries*, and Mrs. Phillips; Mr. George Pollock, Q.C., *Director, The British Employers' Confederation*, and Mrs. Pollock; Professor E. E. Rich, M.A., *Master of St. Catherine's College, Cambridge*, and Mrs. Rich; Mr. F. M. Richard, a *Past President, La Compagnie Nationale des Experts Comptables*; Mr. Lawrence W. Robson, F.C.A., F.C.W.A., a *Past President*; Mr. L. F. Ryland and Mrs. Ryland.

Miss Beryl Saunders; Mr. F. W. H. Saunders, F.C.W.A., a *Past President*, and Mrs. Saunders; Mr. D. Secker-Walker and Mrs. Secker-Walker; Mr. Ronald C. F. Smith; Mr. R. J. W. Stacy, C.B., *Insurance and Companies Department, Board of Trade*, and Mrs. Stacy; Mr. G. C. Stone, F.C.W.A., a *Past President*; Mr. R. H. Tizard, B.A., M.I.E.E.; Captain A. J. R. Tyrrell; Mr. S. C. Tyrrell, F.C.W.A., a *Past President*, and Mrs. Tyrrell.

Mr. James Walker, C.B.E., C.A., F.C.A., *President, The Institute of Chartered Accountants in Ireland*; Miss A. S. Walsh; Rear-Admiral R. S. Warne, C.B., C.B.E., and Mrs. Warne; Mr. Arthur Webb, *Editor, The Accountant*, and Mrs. Webb; Mr. J. Reed Wilkinson and Mrs. Wilkinson.

Mr. Harold Wilmot, C.B.E., F.C.W.A., a *Past President, Chairman, British Institute of Management*; Mr. C. F. Wood, F.I.A., *President, The Institute of Actuaries*, and Mrs. Wood; Sir Richard Yeabsley, C.B.E., F.C.A., and Lady Yeabsley; Mr. Ian D. Yeaman, *President, The Law Society*, and Mrs. Yeaman; Mr. Stanley J. D. Berger, M.C., F.C.I.S., *Director of the Institute*, and Mrs. Berger; Mr. Derek du Pré, *Joint Secretary of the Institute*, and Mrs. du Pré.

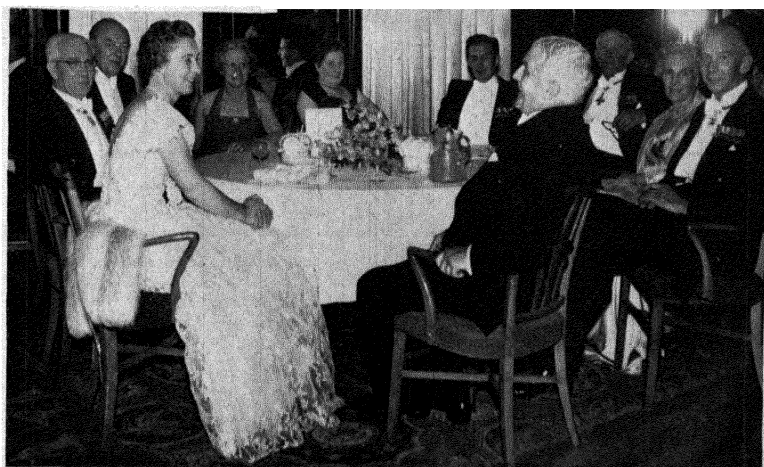
The toast to the Institute was proposed by Sir

(right) The President and Mrs. Borsay receiving guests at the Banquet



(above) Sir Arnold Hall, F.R.S., M.A., HON.A.C.G.I., F.R.A.E.S., and Lady Hall.

A very merry moment at the table of Mr. S. C. Tyrrell, F.C.W.A. (left), a Past President. Mr. Lawrence W. Robson, F.C.A., F.C.W.A., also a Past President, is seen second from left.



Arnold Hall. After paying tribute to the Institute and its President, Sir Arnold commented:

'It seems that there are two things which are terribly important to our national economic future. Firstly, stimulation of our creative science and arts in engineering and then the control of our efficiency and costs to make us competitive. If we fail in both these things there can be no doubt that there is no economic future for a country in which 50 million people endeavour to live on a postage stamp with no resources of their own'.



Mr. Diebold addressing the conference.

It fell to cost accountants to maximise efficiency in the exploitation of new ideas of creative engineering and in the exercise of those techniques of planning and costing which the Institute had done so much to further.

'Now, of course, it is usual to say on these occasions that these matters are matters of team work, but that is trite,' continued Sir Arnold. 'The real difficulty about bringing modern techniques to bear is well illustrated by what one clergyman said to another in my hearing; "We are both doing the Lord's work, you in your way and I in His".'

Clearly, cost accountants had a duty—and appeared to be prosecuting it well—to take their techniques into industry, and into the factory, and to advance costing matters and improve their efficiency.

'You will need to understand the modern technologist just as he should make some effort to understand you,' said the speaker. 'You are rather difficult people. I was brought up in the world of science and it was



The Mayor and Mayoress of St. Marylebone, Councillor A. D. H. Plummer, T.D., J.P., F.I.A., and Mrs. Plummer, being received by the President and his wife at the Dorchester before the annual banquet.

apparently expected that I should have some command of higher mathematics. It is often conceded that two plus two makes four but if it is suggested that £2 plus £2 makes £4, then this is heresy to you' (laughter). 'It seems that the accountants' profession might accept that engineers have the ability to count, and technologists will accept the remarkable contribution open to members of your Institute to make to our future affairs.'



Mr. C. A. Wilkes, A.C.W.A., A.C.I.S., opening the discussion on Mr. Diebold's address.

There was understanding and sometimes misunderstanding. The speaker was once in the drawing room of a friend when the telephone rang. He answered it, listened to what was said and then said, 'Don't ask me, ask the meteorologists,' and put the 'phone down. His wife said 'Who was that?' to which he replied, 'Some silly ass asking if the coast was clear' (laughter).

'Were it possible for us in the technical world to get that degree of understanding from accountants by whom we are hounded, we would be more than grateful (laughter).'

Sir Arnold emphasised that he was serious when he said it did very much fall to them to maximise creative capabilities in this country but one had to be careful that in producing techniques of control and management one did not stifle the hen that laid the golden egg.

'As the little boy said when asked, in the 11-plus examination, "What would happen if your ear was cut off?" "I would not hear so well." He was then asked, "What will happen if we cut off both?" He replied, "I would not see so well," and when asked to explain his answer said, "My cap would fall over my eyes." (laughter).

People would be surprised by the regularity with which that kind of situation was introduced in laboratories by well meaning people who thought they could introduce control of creative thinking, he continued.



Mr. C. F. Howell, F.C.W.A., who moved the vote of thanks to Mr. Diebold.

'I have, Mr. President—and it is a great pleasure and honour—to propose the toast to your Institute. You are leading the drive to improve the educational standing of your profession. You are, as I understand, highly regarded as a professional institute of major merit.



The President and Mrs. Borsay join in the dancing after the banquet.

'It is not difficult for me to give you the toast to this fine body; to congratulate you and speed you on, if possible, on the excellent work being done. It is even more delightful to couple with that toast the name of your President, Mr. Borsay.'

Mr. Borsay opened his reply to the toast to the Institute by promising 'not to keep the ladies too long from the dance'.

'One of the subjects before the conference,' he continued, 'was human relations in industry. I wonder whether we have made the progress in this direction that we think we ought to have done. After listening on Thursday to a very eminent trade unionist, I have come to the conclusion that we have made but little progress. We still have this feeling of distrust in industry which leads, of course, to strikes. We have one with us now and some of us here have suffered, travelling in the

Underground because of it. No one seems to know the answer. A lot is said about joint consultation in industry but I wonder whether we ought not to start with the young people. We talk of advanced education—further education. I have a feeling that three months' education in the simple economics of life for children before leaving school would perhaps be a lot better than many of the things we are teaching.'

Industry could help itself. A young boy who came into industry, particularly engineering, was sent to a training school to be taught how to use a file and a hammer.

'Why do we not spend three months teaching him something of the trade union idea in industry?' he asked. 'Why leave it to the unions to tell the boy? It is all one-sided. The time must come when we must look at this from the youngster's point of view and try, before he gets too far into the hands of biased ones, to give him a balanced idea of what he is coming into, and what he has to put in, in order to get the maximum out of it.'

Mr. Borsay regretted that Mr. Roland Dunkerley, J.P., F.C.W.A., an Institute Gold Medallist, and Mr. L. Frankland, A.C.A., F.C.W.A., both members of the Council of the Institute, were unable to be present, and concluded:

'I thank you, Sir, for the toast, and you, ladies and gentlemen, for the very nice way in which you have received it.' (*applause*).

The toast to the guests was proposed by Mr. W. Coutts Donald, C.A., F.C.W.A., a member of the Council of the Institute, who said they were delighted



The Director's table at the banquet (from left to right): the Director; Mrs. Berger; Mr. Douglas A. Clarke, LL.B., F.C.A.; Mr. John F. Phillips, O.B.E., LL.M., Secretary, The Chartered Institute of Secretaries, just visible; Mrs. Phillips, on far side of table; Mrs. Clarke, near camera; Mr. G. H. Andrew, C.B., Second Secretary, Board of Trade, and Mrs. Andrew, on far side of table; Mr. Lawrence W. Robson, F.C.A., F.C.W.A., a Past President; behind him, Mr. L. F. Cheyney, F.I.M.T.A., F.S.A.A., Secretary, The Institute of Municipal Treasurers and Accountants, and Mrs. Cheyney; and, extreme right, M. F.-M. Richard, a Past President, La Compagnie Nationale des Experts Comptables.



A general view of the scene at the Dorchester during the banquet. The top table extends from the right corner of the picture to the left, as far as the eye can see.

to welcome such a distinguished company to the Institute's banquet, and added:

'It is particularly gratifying to us to welcome members from our sister professional institutes.'

The Institute of Cost and Works Accountants was not quite forty years old, continued Mr. Coutts Donald:

'Being young, we have been able to dream dreams and throughout our short life we have come a long way and have established for ourselves a high reputation in the business world,' he said.

The road the Institute had travelled had undoubtedly been made easier by the benevolent attitude of the older societies.

'As an Institute, we have always set our sights high, and we shall continue to do so,' concluded Mr. Coutts Donald.

In a charming and witty speech, Mr. George Pollock, Q.C., Director of the British Employers' Confederation, replied on behalf of the guests. He devoted much of his time to paying a tribute to the ladies present, who, he said, were 'the people who are really important to industry'.

'We have had a most gracious welcome here tonight and we have had a simply delicious meal,' he concluded.

Following the banquet, the company danced to the music of Arthur Salisbury and his orchestra, and were entertained by the cabaret artistes Ming Chow and Joan Turner.

The thirty-ninth annual general meeting of the Institute, which was held on the morning of 7 June, is reported at page 81 of this issue.



At the Dorchester, left to right; Mrs. Garnham; Mr. R. B. Garnham, F.C.W.A., a Past President; Mrs. Coutts Donald; Mr. W. Coutts Donald, C.A., F.C.W.A., and Mrs. Stanley J. D. Berger. Mr. Coutts Donald, who is a member of the Council of the Institute, proposed the toast to 'Our Guests'.

GUILDHALL DINNER

THE dominating feature of Guildhall is the 'Great Hall' itself, but below this Hall and attached to it there are a number of extensions, including the crypt, a library and an art gallery. The entrance to the crypt is a door at the east end of the hall. Divided into eastern and western sections, the crypt is of the same date as the Great Hall (1411-25) and occupies the same area.

On the first Lord Mayor's Day after the accession of Queen Victoria, the crypt was decorated in the style of an ancient baronial hall, and suitably furnished to welcome Her Majesty. The plate of the City companies was displayed and tapestries copied from the famous examples at Bayeux were suspended from the walls. City policemen stood clad in suits of armour brought from the Tower.

The crypt was used in recent years to entertain the crew of the Viking ship *Hugin*, on a visit from Denmark to commemorate the fifteen hundredth anniversary of the invasion of Great Britain by the Vikings.

Applications are now being received for the dinner of The Institute of Cost and Works Accountants to be held in Guildhall on Friday 24 October. Those wishing to attend are advised to complete and return their ticket application forms (enclosed with 'The Cost Accountant' last month) as soon as possible. There is no limit to the number of personal male guests who may be invited. As already announced, the orchestra of the Coldstream Guards, by permission of Colonel I. W. Gore-Langton, M.B.E., Commanding Coldstream Guards, will play during dinner.

blue Purbeck marble; the caps are yellow Mansfield stone; the bases and the vaulting ribs are sandstone from Godstone.

At the intersections and points of the ribs there is a series of carved bosses. Those in the centre of the groins are large roses, bearing shields. These are emblazoned with the Arms assigned to King Edward the Confessor, the Arms of the See of London and—of modern origin—the Arms of England and of Russia. The western crypt is now only used for storage and heating.

Guildhall library was founded over 500 years ago under the terms of the will of the great Dick Whittington. It was a 'fayre and large librerye', probably consisting mostly of theological books. This first library came to an untimely end when the building was sold and became a 'market howse for the sale of clothes'.

For nearly 300 years from 1550, there was no library at Guildhall. The present library was founded in 1828, and although the accommodation was damaged in the fire of 1940, and many books were lost, the library was never closed to the public.

The present Guildhall art gallery was built to replace the original gallery, opened to the public in 1886 and destroyed by enemy action in 1941. The policy of the gallery is to restrict the acquisition of pictures to works of London interest. At the time of the Institute's dinner, the gallery, which is open from 9.30 a.m. to 5 p.m. on weekdays, will be staging an exhibition of paintings organised by the Society of Marine Artists.



Photo: Raphael Tuck & Sons Ltd.

The eastern crypt below Guildhall. The crypt was built during the fifteenth century.

LEGAL COMMENTARY

affecting Industry and Commerce

MASTER AND SERVANT

A 'Real' Accident

SALT v. IMPERIAL CHEMICAL INDUSTRIES & BRITISH TRANSPORT COMMISSION
[1958] *The Times*, 1 February

The plaintiff, while employed by the Commission to remove from a railway wagon drums of caustic soda powder made, filled and loaded into that wagon by the I.C.I. for consignment, was injured in the eye by a puff of the powder from a hole in one of the drums. The drum concerned had afterwards passed to its destination and was unidentifiable, so no evidence was available as to the nature of the hole or how it came to exist. The trial judge fully appreciated the standard of care owed by the defendants to the plaintiff, but was satisfied that they had in fact exercised all proper care, and the plaintiff's claim for damages was accordingly dismissed.

On appeal the plaintiff contended that, as the escape of the powder must have been due to the negligence of one or other of the defendants, the judge had really failed to decide as to which was to blame; but the Court of Appeal dismissed the appeal. The accident was not comparable with an ordinary street accident which could not occur without someone's want of care, because the defect in the drum *could* have developed without negligence on the part of anyone; and as the appellant had not established any want of care on the part of either defendant his claim must fail.

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ARBITRATION

Remitting Awards

MARGULIES BROTHERS LTD. v. DAFNIS THOMAIDES & CO. (U.K.) LTD.
[1958] 1 W.L.R. 398

By three contracts *M* agreed to sell to *D* 100 tons of cocoa (3 per cent more or less) at a certain price, and by another three contracts *M* agreed to purchase from *D* the same quantity of cocoa at a lower price. A dispute on the contracts (which were really a speculation in 'differences') was referred to arbitration and subsequently to the board of appeal of the trade association, which simply awarded that the later contracts should be applied against the earlier three and that the resultant differences should be paid to *M*.

Upon an application to have the award remitted, Diplock, J. held: (1) that the Court, in the exercise

of its discretion to remit an award, is *not* restricted to the commonly recognised grounds, *i.e.* badness on the face of the award, misconduct or admitted mistake on the part of the arbitrator, and discovery of additional evidence; but (2) that in the instant case the award must be remitted to the board of appeal, on the first of those grounds, for calculation of the actual sum payable by *D* to *M*, because the award did not define with certainty the quantity of cocoa within 3 per cent which must be taken into account in order to calculate the sum payable to *M*; also (3) that it is an implied term in an arbitration agreement that an award for the payment of *money* shall be in a form capable of being enforced as a judgment under the Arbitration Act, 1950, Sec. 26, so that this award must be remitted for the additional reason that the board of appeal, having failed to comply with that implied term, had been guilty of misconduct.

★

FACTORIES ACTS

Dangerous Machinery

RUTHERFORD v. R. E. GLANVILLE & SONS (BOVEY TRACEY) LTD.

[1958] 1 W.L.R. 415

The plaintiff was employed by the defendants upon a machine with an abrasive carborundum wheel which was liable to disintegrate. The wheel was fenced by means of a protective hood, but while the plaintiff was working on the machine, the wheel disintegrated and so lifted the hood that the hood struck and injured the plaintiff.

The Court of Appeal held that the defendants were liable for breach of their statutory duties, because the wheel (which was the dangerous part of the machine) was not securely fenced within the meaning of the Factories Act, 1937, sec. 14, and the fence (*i.e.* the hood) was not securely maintained or kept in position as required by sec. 16 of the Act. It was immaterial that the injury was caused, not directly by a fragment of the wheel, but by the protective hood.

★

PRICE CONTROL IN EIRE

The Prices Bill (An Bille Pragsanna, 1957), the details of which were reported in our issue of April at page 432, has now been passed by both Houses of the Oireachtas.

BOOK REVIEWS

Office Organisation and Method (2nd edition)

by GEOFFREY MILLS and
OLIVER STANDINGFORD.

Sir Isaac Pitman & Sons Ltd., London.
Pp. 360. £1 2s. 6d.

The first edition of this book was published in 1949 and won an immediate place as a standard text-book for this particular subject; it is included in the list of recommended books issued by the Institute for the Intermediate examination. Clear, logical, factual, complete without being tediously exhaustive, it has guided many students—and seniors—through the intricacies of the mechanics of office methods.

Obviously a text-book on so live a subject could not be reprinted in its original form. Methods change, machinery improves and becomes more specialised, scales of remuneration alter.

All the basic structure of the original edition has been retained, with additional chapters on production control and electronic computers both of which will increase the value of the book. Nearly all the photographs of office machinery have been brought up to date.

The teaching and practice of O. & M. can go forward with its bibliography re-invigorated by this revision.

★ ★ ★

Standard Batch Control

by JOHN L. BURBIDGE, A.M.I.P.E., A.M.B.I.M.
Macdonald and Evans Ltd., London.

Pp. 186. £1 15s.

That modern methods of production control as applied in the engineering assembling industry are far too complicated and involved to enable adequate control to be achieved is the view put forward in this publication. The author contends that the complete progressing of a plan in detail cannot be kept sufficiently up to date to be of value to management; causes too much money to be tied up in stocks; is very expensive to operate; and involves a great deal of paper work.

Mr Burbidge suggests that loading by standard batches of parts, using a balanced standard ordering unit, would simplify administration, control and forecasting. Stocks and work-in-progress would be kept at lower levels, shop loading would be simplified and modifications could be introduced very easily. This method of control would allow production in smaller batches to be achieved without

increasing the cost and complication of control; in fact control would be simplified because 'progressing' would be restricted to checking the variances.

This book is well worth reading. Many of the statements are controversial and will certainly make the reader think again about the problems peculiar to this industry. The references to cost accounting suggest that cost accountants might possibly cause engineers to proceed on a wrong course because of an illogical approach to a situation. Not everyone will agree with the statements made but here are warnings of the dangers which can be brought about by loose thinking.

The problems peculiar to the engineering industry are clearly stated and the author suggests logical solutions which could be of the utmost value to the companies concerned. He deserves to be widely read.

★ ★ ★

Accounting and Action

by R. J. CHAMBERS

The Law Book Co. of Australasia Pty. Ltd., and
Sweet & Maxwell Ltd., London.

Pp. 248. £1 7s. 6d.

This is an unusual book compared with orthodox publications on accounting, and it proves extremely interesting.

The author has dealt with the financial affairs of individuals (i.e. householders), sole traders, companies and governments. In progressing from one to the other, he has made very clear the difference in outlooks and financial requirements.

This book is not for the beginner but it should prove a useful addition to many reference libraries. The important thing which has been achieved is to make quite clear the necessity of taking a broad view of the subject.

★ ★ ★

The Directory of Directors, 1958

Thomas Skinner & Co. (Publishers) Ltd., London.
Pp. 940. £2 10s.

This directory contains the names of all directors of public companies in the United Kingdom and of a large number of private companies, together with the names of the companies with which they are connected. Some of them are directors of only one business, while others are on the boards of several companies; they are all engaged, in an executive or

professional capacity, in one or more of the many branches of British trade and finance.

The directory, which is now in its 79th year of publication, is under constant revision. Among a total of well over 30,000 directors, more than 5,000 changes occur in the course of a year, due to death, retirement, new appointments and the formation of new companies.

An asterisk is placed against the names of members of The Institute of Directors. Notices and additions received while the book was in the press are included at the end of the volume.

★ ★ ★

The Electronic Office (2nd edition)

by R. H. WILLIAMS, A.I.B.

Gee & Co. (Publishers) Ltd., London.
Pp. 80. 17s. 6d.

Written for the business man, this book serves as a general introduction to the subject. Well illustrated, it contains a short history of the development of

digital computers and a list of computers on the market at the time of writing.

There are uncomplicated descriptions of the way in which a computer works and the various methods of feeding information into, and receiving information from, the machines. There are a few specific examples of computer applications and the author is at his best when discussing the application to bank book-keeping.

As the author has confined himself to eighty pages, he has necessarily omitted many of the problems associated with computer applications and consequently, he has oversimplified the subject. More could have been made of the need for pre-installation overhauls of office methods and routines and of the direct benefits that can accrue from these.

Other Publication Received

The Manchester Association of Engineers,
Transactions, 1954-55 and 1955-56

Published by the Association
Pp. 433 and pp. 388.

LETTER TO THE EDITOR

Subsidiary Companies

Dear Sir,

In Mr. Perrin's published paper on subsidiary companies (*The Cost Accountant*, May, 1958, page 464) he mentions that C.I.C. consent is required for borrowing in excess of £10,000 and adds that this applies even to bank accommodation.

I am not certain what accommodation he has in mind but would draw his attention to Article 1 (2) (a) of the Control of Borrowing Order, 1947, which states that the order does not apply to borrowing by any person, other than a local authority, if the borrowing is in the ordinary course of his business and is from a person carrying on a banking undertaking.

Yours faithfully,

A. W. FIELD, F.C.W.A., A.C.I.S., A.B.I.M.

Ruislip.

[Mr. Perrin writes:

Mr. Field is quite right in stating that the Control of Borrowing Order, 1947, does not apply to a company which requires overdraft accommodation 'in the ordinary course of its business' but it is a question of fact in each case as to what is or is not the ordinary course of business. For example, the financing of

increased stocks or to give longer credit to one's customers, or a reasonable expansion in plant or premises, would no doubt be construed by the C.I.C. as arising in the ordinary course of business but, on the other hand, the erection of a large new factory would almost certainly be viewed in a contrary manner and C.I.C. consent would almost inevitably be required.

It is entirely the responsibility of the borrower to satisfy himself either that C.I.C. consent is not needed, or alternatively, to obtain formal consent and the lender—in this particular instance, the banker—would normally only enquire what steps the borrower had taken in obtaining C.I.C. clearance. This would normally be dealt with by the company's accountant or legal adviser.

To summarise the position, therefore, I think it is true to say that theoretically Mr. Field is right but that it would, in practice, be extremely dangerous to assume that, irrespective of the purpose for which the bank accommodation was required, one would be entirely at liberty to arrange with one's bankers for funds to be made available in excess of £10,000, and I personally have no doubt whatever that the banker in question, upon being approached, would want to know for precisely what purpose the money was needed. If it seemed to him from his past experience that such purpose came within the purview of 'not being within the ordinary course of his business', on the lines I have indicated above, then C.I.C. consent would be required.]

ELECTRONICS AND AUTOMATION

AUTOMATIC MIXING OF MATERIALS

A PRODUCT of the Simon Engineering Group, Select-O-Weigh is stated to be a system of automatic proportioning by which materials are mixed into batches of fixed or variable formulae. Plants have been installed to handle food, rubber, animal feed, cement, chemicals, glass and other products.

In this system—which originated in America—the whole cycle of feeding, weighing, mixing and discharging can be brought under the control of a central panel from which operations may be directed either by a single operator or, if preferred, by means of a punched card. The Select-O-Weigh system, it is claimed, can co-ordinate storage, proportioning and processing into a single automatic system.

A solenoid-operated typewriter, or other electrically operated print-out unit can be linked to the system through a suitable decoder, to print individual weights as they are made. Continuous stationery, with headings and rulings for each ingredient, may be used. Print-out can also be on to punched cards.

ELECTRONICS EXHIBITION

MORE than 40 British manufacturers of electronic computers and ancillary equipment have taken space in the Electronic Computer Exhibition to be held at Olympia, London, from 28 November to 4 December. H.R.H. The Duke of Edinburgh has consented to be patron of the exhibition.

A business symposium, to be run in conjunction with the exhibition, will consist of papers based on practical experience gained in the installation and operation of data processing systems. Information about the exhibition is obtainable from the exhibition organiser, 11/13 Dowgate Hill, London, E.C.4.

COMPUTER NOT JUSTIFIED?

REMINGTON RAND LIMITED have established a new business services division, consisting of the existing Univac electronic computer division and an organisation and methods services department.

This new development is the result of Univac studies revealing that no justifiable need exists in a number of organisations for an electronic computing

system, although initially it appeared as a possible solution to their business problems. Increased efficiency which was being sought could be obtained by other means, such as the rationalisation of business forms and the introduction of modern office techniques.

The organisation and methods services department will undertake feasibility studies without charge; more detailed surveys will be offered on an agreed fee basis.

ELECTION FORECASTING

AFTER only 11 results out of a total of 163 had been received, an electronic computer made what proved to be a correct forecast of the Government majority in the recent South African General Election. The computer used was a Hec, installed in the Hollerith factory at Steeledale, near Johannesburg. In its forecast for a particular constituency, the computer gave the Government candidate a majority of 1,528 votes; the actual figure was 1,531.

COMPUTER STUDY GROUP

SIX local authorities and a regional hospital board, which have either installed or are preparing to install the Hec Type 1201 electronic computer, have established, in liaison with the British Tabulating Machine Co. Ltd., their own computer study group. The objects of the group have been defined as:

- (i) to provide a forum for the discussion of common problems;
- (ii) the interchange of information, ideas and the results of research for the mutual benefit of all members with particular emphasis upon programming techniques;
- (iii) the study of computer projects both from the administrative and technical aspects;
- (iv) to facilitate the interchange of up-to-the-minute information between user and manufacturer and *vice versa*.

The group, which has met six times, arranges its own discussion programmes and in addition to the investigation and detailed examination of specific applications, has given considerable attention to preparatory planning for the introduction of electronics, staffing requirements and the O and M and 'systems engineering' aspects of computer employment.

ABSTRACTS OF ARTICLES

in Contemporary Journals

The Internal Auditor and Profit-Planning

by M. B. T. DAVIES, C.P.A.

The Accountant, 10 May, 1958.

This paper (which was delivered to the London Chapter of the Institute of Internal Auditors) is not intended as a survey of the internal auditor's role in the profit-planning function, but explores a few of the more important areas which should interest him.

These areas are given as budgeting, capital expenditure, taxes, financing, cost reduction, method improvement and internal auditing.

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Spokesman for Industry

by SIR HUGH BEAVER, K.B.E.

F.B.I. Review, May 1958.

The text is given of the president's address at the annual general meeting of the F.B.I. It is essential, said the President, that there should be a voice of industry, sufficiently clear to be recognised, and wise and broad in its views. In this regard the position of the F.B.I. becomes more assured and authoritative each year.

During the past years, two major considerations have dominated the whole picture—our economic position, and the proposed European free trade area.

All the signs show that we are moving into a situation different from that of the post-war years up to mid-1957.

★ ★ ★

Cost Accounting and Computers

by MAURICE S. NEWMAN

The Controller, May 1958.

The article is based on the primary thesis that cost accounting functions involve a tremendous amount of manual re-producing of basic data, which could be done more efficiently by the use of computers. The actual designing of a cost accounting system is technical and tedious.

★ ★ ★

'Basics' of IDP and EDP

N.A.A. Bulletin, Section 1, May 1958.

Integrated data processing (IDP) is a current catch-phrase emphasising the fact that data should be handled in a systematic, well-organised manner

instead of allowing it to become a jumbled, disorganised mass.

Electronic data processing (EDP), as its name implies, concerns the processing of IDP by means of a computer.

This issue is a symposium comprising nine articles on specific applications of both IDP and EDP, and seven short reports on particular cases.

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Other Articles Noted

Memory in Business Education

by CHRISTINA ALLEN, M.A.

Pitman's Business Education, June 1958.

This short article stresses the need for correct patterns of thinking

New Wine in Old Bottles

by BERTRAND DE JOUVENEL

Westminster Bank Review, May 1958.

Full employment and inflation are discussed.

Flexibility, or, the Plain Man's Guide to Good Storage

by H. F. MATHER

Works Management, May 1958

Space costs money—its full employment can show very great savings.

Increasing Office Productivity

Office Magazine, June 1958.

This is a report of a two-day conference organised by the College of Production Technology.

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THE INSTITUTE OF COST AND WORKS ACCOUNTANTS

THE THIRTY-NINTH ANNUAL GENERAL MEETING

THE thirty-ninth annual general meeting of members of The Institute of Cost and Works Accountants was held at the Connaught Rooms, London, on Saturday, 7 June, 1958, at 10.30 a.m. The Chair was occupied by Mr. James Borsay, F.C.W.A., President of the Institute.

Report and Accounts

The report of the Council and the accounts for year ended 31 December, 1957, which had previously been circulated, were taken as read.¹ The President, before moving the adoption of the Annual Report and Accounts, paid tribute to the memory of Mr. Albert Williamson, one of the Institute's founder members, and Mr. H. D. Jack, a Past President of the Institute.

The President commented on the continued high numbers of entries for the Institute's examinations both at home and overseas. He was inclined to agree with the remark, made by one of the Institute's guests at a recent branch dinner, that the considerable numbers of failures on the part of registered students did not necessarily represent wasted effort. To attempt the examination at all, a student was obliged to read extensively, thereby gaining knowledge which could be of lasting benefit to him, even if he never succeeded in reaching the high standards set by the Institute.

The Council believe that the Fellowship examination will come to be regarded more and more by industry as a most valuable preparation for, and test of competence in, those attributes which are required for posts of great responsibility in financial management and control. It is expected that an increasing number of Associates of the Institute and members of the sister accountancy bodies will be taking the Fellowship Examination each June.

The President said the Council had been very interested to see the outcome of the decision to abandon the collection of a branch subscription—a step which some had feared would damage the branch organisation so carefully built up over the years. The evidence available so far showed that the support for meetings had continued at about the same level: the cost of branch administration had continued to increase.

It was hoped that the staff would shortly be able to use the additional office space nearing completion at No. 65 Portland Place.

The President paid a warm tribute to Mr. Berger, who, after more than thirty-three years of dedicated service to the Institute, was approaching a well-earned retirement. Arrangements were being made to mark the occasion in the manner most fitting, but the President said that he could not lay down his own office without paying his personal tribute at this time, coupled with his own thanks for all the help and support given to him by Mr. Berger during the past twelve months.

Questions on investment policy, examinations and the sale of research publications were answered by Mr. S. C. Tyrrell, Chairman of the Finance Committee, and by the President.

The report and accounts were unanimously adopted.

Elections and Co-options to Council

Vacancies on the Council caused by the retirement of members in rotation in accordance with the articles had resulted in the following elections:

Area No. 1, London and South East England	Mr. L. Frankland Mr. H. Hodgson Mr. E. W. Whittaker
Area No. 4, Birmingham and District	Mr. S. J. Careless
Area No. 5, South Wales	Mr. W. W. Williams
Area No. 7, Manchester and District	Mr. H. Kirkham
Area No. 9, Sheffield and District	Mr. D. E. Edmonds
Area No. 10, Leeds and District	Mr. E. Emmerson
Area No. 11, North East Coast and 13, Middlesbrough and District	Mr. H. A. Butler
Area No. 30, Glasgow and West of Scotland	Mr. J. Liddell
Area No. 31, Edinburgh and East of Scotland	Mr. W. Bishop

The Council, in accordance with Article 36, proposed the co-option for two years, of Messrs. W. Coutts Donald, F. M. W. Hird and G. C. Stone.

The meeting formally confirmed all the foregoing elections and co-options.

The President expressed, on behalf of all members, the great regret that would be felt at the retirement from the Council of two distinguished Past Presi-

¹ Reproduced in the last issue of *The Cost Accountant*.

dents, Mr. S. C. Tyrrell and Mr. H. Wilmot. Both had served the Institute nobly and well, and their efforts had been deeply appreciated, particularly so by their colleagues on the Council.

Election of Vice-Presidents of the Institute

The President moved that the meeting confirm the Council's re-nomination of and elect Mr. Edward Emmerson as a Vice-President of the Institute for the ensuing year. The motion was duly seconded and carried unanimously. The President next moved that the meeting confirm the Council's nomination of and elect Mr. William Symington Risk as a Vice-President of the Institute for the ensuing year. The motion, having been seconded, was carried unanimously; the new Vice-President was handed his badge of office and took his seat on the platform.

Election of President

Mr. Borsay, the retiring President, then asked the meeting to confirm the Council's nomination of and elect Mr. Henry James Furness to the office of President of the Institute for the ensuing year. The motion was seconded warmly by Mr. C. F. Morgan and when put to the meeting, it was carried with acclamation.

Investiture of New President

With the meeting standing to hear the traditional words of investiture, Mr. Furness was installed as President by Mr. Borsay, invested with the presidential badge and handed the Institute gavel as the emblem of his authority within the Council.

Vote of Thanks to the Retiring President

The first task of a new President, said Mr. Furness, was a pleasurable one—that of proposing a vote of thanks to the retiring President. Mr. Borsay had given unstintingly of his time during his year of office and had furthered the objects of the profession. It was a tribute to his skill and his sense of duty that only once during this year had the Vice-Presidents to attend meetings on his behalf, and even then the President was attending a similar function elsewhere.

His speeches had been remarkable for their commonsense, their practical approach and their forthright expression of his points of view.

Mr. Borsay had represented the Institute at very many functions and social occasions, and abroad in Amsterdam last year, always fulfilling his high office with skill and dignity.

"Words are always inadequate, I feel, to express our thanks, but when he looks back in the years to follow, I am sure he will regard this last year as one of his most treasured memories."

Mr. Borsay was then presented by Mr. Furness with a miniature of the Presidential Badge, and was asked to accept on behalf of Mrs. Borsay a silver brooch bearing the Institute's coat of arms, as a token of the thanks of members for her charming and graceful presence at so many of the Institute's functions.

Vote of Thanks to Director and Staff

A vote of thanks to the Director and the staff of the Institute was proposed by Mr. Borsay and the Director replied.

MEETING OF THE COUNCIL

A meeting of the Council of The Institute of Cost and Works Accountants was held at the Connaught Rooms, London, on 7 June, 1958.

Present:—Mr. H. J. Furness, *President, in the Chair*; Messrs. W. Bishop, *Edinburgh*; J. Borsay, *Manchester*; H. A. Butler, *Newcastle*; S. J. Careless, *Birmingham*; D. E. Edmonds, *Sheffield*; E. Emmerson, *Leeds*; B. T. Hamnett, *Lancaster*; W. E. Harrison, *Birmingham*; F. M. W. Hird, *Leeds*; H. Hodgson, *London*; A. Holdsworth, *London*; J. Liddell, *Glasgow*; Ian T. Morrow, *London*; A. W. Muse, *Birmingham*; G. Nicholson, *Stoke-on-Trent*; H. H. Norcross, *Birmingham*; F. Nuttall, *Liverpool*; G. J. Pierce, *Bristol*; C. E. Power, *Leicester*; J. M. S. Risk, *London*; W. S. Risk, *London*; F. W. H. Saunders, *London*; L. W. Seddon, *Manchester*; H. Smith, *Manchester*; G. C. Stone, *Birmingham*; E. W. Whittaker, *London*; J. P. Wilson, *Coventry*; with Mr. Stanley J. D. Berger, *M.C., Director and Secretary*, and Mr. Derek du Pré, *Joint Secretary*.

Apologies for absence were received from Messrs. T. W. Badgery, *Nottingham*; W. Coutts Donald, *London*;

Roland Dunkerley, *Manchester*; L. Frankland, *London*; H. Kirkham, *Manchester*; Laurence W. Robson, *London*; F. Simmonds, *Letchworth*; and W. W. Williams, *South Wales*.

Thirty-Ninth Annual General Meeting

The proceedings of the 39th annual general meeting (an account of which appears on the previous page) were taken as reported.

Appointment of Executive and Standing Committees

The Council appointed Standing Committees as follows, the Chairmen of which, together with the President, the two Vice-Presidents, the immediate Past President and Messrs. Ian T. Morrow and F. W. H. Saunders, constitute the Executive Committee of the Council:

Examination Committee: Mr. W. S. Risk (Chairman), Messrs. W. Bishop, S. J. Careless, D. E.

Edmonds, L. Frankland, R. Glendinning, A. W. Muse, F. Nuttall, J. M. S. Risk, F. Simmonds, G. S. Whitson.

Law and Parliamentary Committee: Mr. E. Emmerson (Chairman), Messrs. G. Nicholson, L. W. Seddon, G. C. Stone.

Journal and Library Committee: Mr. F. Simmonds (Chairman), Messrs. R. W. Duffield, L. Frankland, R. B. Garnham, R. Glendinning, A. Holdsworth, R. Y. Kennedy, J. M. S. Risk.

Training and Educational Facilities Committee: Mr. F. M. W. Hird (Chairman), Messrs. E. F. Brown, A. D. Coventry, Roland Dunkerley, F. Nuttall, C. E. Power, J. M. S. Risk, F. W. H. Saunders, W. L. Spalding.

Branch Development Committee: Mr. J. Liddell (Chairman), Messrs. T. W. Badgery, S. J. Careless, D. E. Edmonds, W. S. Foster, L. Jenkinson, J. M. S. Risk, W. S. Risk, L. W. Seddon.

Research and Technical Committee: Mr. C. E. Power (Chairman). *Southern Section:* Mr. C. E. Sutton (Chairman), Messrs. R. V. Denby, J. A. Reece, J. M. S. Risk, W. L. Spalding. *Midland Section:* Mr. W. L. Withers (Chairman), Messrs. H. H. Norcross, R. E. Thomason, J. H. Whicheloe, J. P. Wilson. *Northern Section:* Mr. H. Smith (Chairman), Messrs. B. T. Hamnett, H. Kirkham, R. T. Rickers. *Scottish Section:* Mr. W. Bishop (Chairman), Messrs. D. Fridge, J. Liddell. *Electronics Sub-Committee:* Mr. D. J. Young (Chairman), Mr. G. J. Pierce (Vice-Chairman). *Technical Papers Advisory Sub-Committee:* Mr. W. E. Harrison (Chairman). *IMTA/ICWA Joint Committee:* Mr. A. W. Muse (Convenor). *IPE/ICWA Joint Committee:* Mr. W. Coutts Donald (Convenor).

Cost Consultancy Committee: Mr. J. P. Wilson (Chairman), Messrs. W. Coutts Donald, E. Emmerson, H. Hodgson, F. C. Lawrence, Ian T. Morrow, H. H. Norcross, H. Smith.

Nominating Committee

Mr. W. E. Harrison, a Past President, was elected, in accordance with Bye-Law 64, to serve on the Nominating Committee.

Resignation of Mr. Harold Wilmot, C.B.E.

The Council accepted with regret the resignation of Mr. Harold Wilmot, C.B.E., and recorded a unanimous vote of thanks for his long and distinguished service on the Council.

Vacancy on the Council

The Council declared a vacancy in respect of the seat occupied by Mr. H. J. Furness (Area No. 1, London and South-East England) before his election to the office of President.

Annual Appointment of Examiners

The appointments and reappointments of persons constituting the Panel of Examiners were approved.

Changes in Branch Secretaryships

The resignations of Messrs E. M. Blair, B.COM., A.C.W.A. (Bedford and Luton), L. Jenkinson, F.C.W.A. (Croydon and District), H. Hanson, A.C.W.A. (Norfolk and Suffolk), E. Stones, F.C.W.A. (North Lancashire), J. A. Salsbury, A.C.W.A. (Nottingham, Derby and District), and Mrs. M. Mollink, A.C.W.A. (Pretoria Centre), as honorary secretaries of the branches named, were accepted, with the best thanks of the Council for their past services. The following were appointed to fill these vacancies: Messrs J. Hill, A.A.C.C.A., A.C.W.A. (Bedford and Luton), S. W. Turner, A.A.C.C.A., A.C.W.A. (Croydon and District), G. J. C. Watson, A.C.W.A., (Norfolk and Suffolk), K. Whalley, A.C.W.A. (North Lancashire), D. H. Goffin, A.C.W.A., (Nottingham, Derby and District) and H. K. Dykstra, A.C.W.A., (Pretoria Centre).

Retirement of Director and Secretary

The Council formally agreed to a request from Mr. Stanley J. D. Berger, M.C., F.C.I.S., that the date of his retirement from the service of the Institute be fixed as 30 September, 1958.

Dates for Council and Executive Meetings

Meetings were arranged as follows:—Executive Committee: 6 February, 24 April, 10 July, 30 October, 1959. Council: 6 March, 6 June, 2 October, 4 December, 1959.

CONFERENCE OF BRANCH SECRETARIES

A CONFERENCE of Branch Secretaries was held at 63 Portland Place, London, at 11 a.m. on Thursday, 5 June, 1958.

The branches represented were: Belfast, Birmingham, Bristol, Coventry, Croydon, Dublin, Dundee, Edinburgh, Eltham, Hampshire, Harrow, Ilford, Kingston, Leeds, Leicester, London, Middlesbrough, Norfolk and Suffolk, North East Coast, North Lancashire, Sheffield, South Wales and Monmouthshire and Wolverhampton.

Mr. J. Liddell, F.C.W.A., F.C.I.S., Chairman of the Branch Development Committee, presided, and the President, Mr. J. Borsay, F.C.W.A., opened the conference.

Members of the Executive Committee of the Council and of the Branch Development Committee were also present.

The conference discussed many aspects of branch administration and problems of organisation.

ELECTIONS TO MEMBERSHIP

The following were elected during May 1958. Employers are shown as at the date of election.

ASSOCIATES

- ABRAHAM, R., *English Electric Co., Ltd., Liverpool.*
 APPLEYARD, J., *Burco Ltd., Burnley.*
 BILLSON, N. G., *Robson, Morrow & Co., London.*
 BIRD, C. A., *Bevers & Adgie, Leeds.*
 BUCK, G. E., *E.M.I. Ltd., Hayes.*
 BURNETT, T., *Country Life (Wear) Ltd., Edinburgh.*
 CHARITY, F. W., *National Coal Board, Eastwood.*
 CHATTERJEE, K. B., *Indian Oxygen & Acetylene Co. Private Ltd., Calcutta.*
 CLARK, K., *National Coal Board, Bolsover.*
 CLARK, T. D. L., *Rankin & Blackmore Ltd., Greenock.*
 CLAYTON, A., *Central Electricity Generating Board, Manchester.*
 COCKER, R., *Vernon & Co. Ltd., Preston.*
 DAVIES, P. J., *Circuits Management Association Ltd., London.*
 DENT, J., *Herbert Morris Ltd., Loughborough.*
 DIMOND, R. J., *Airways Union Ltd., Weston-super-Mare.*
 DOBBIE, W., *Dundee Corporation Transport Department, Dundee.*
 DYKE, L., *Genatosan Ltd., Loughborough.*
 EAGLESHAM, G., *Ministry of Supply, Irvine.*
 EDGAR, R. G., *Hull Brewery Co. Ltd., Hull.*
 FORD, J. E., *John Edginton & Co. Ltd., London.*
 FRETWELL, B., *Allied Ironfounders Ltd., London.*
 GALE, I. V., *Stewarts & Lloyds Ltd., Newport.*
 GFORGE, N. J., *Modern Containers Ltd., Toronto, Canada.*
 HANCOCK, M. C., *Shell-Mex and B.P. Ltd., London.*
 HARRIS, J., *Lancashire United Transport Ltd., Atherton.*
 HARRISON, S., *H. J. Heinz Co. Ltd., Wigan.*
 HATFIELD, H., *Homa Engineering Co. (Cosby) Ltd., Leicester.*
 HAYDEN, P., *Electricity Supply Board, Dublin.*
 HEPPLEWHITE, J. C., *British Paints Ltd., Newcastle-upon-Tyne.*
 HOGG, A. B., *United Fireclay Products Ltd., Armadale.*
 HOLSTEAD, G., *Leeds City Transport Department, Leeds.*
 HORSEY, V. A. J., *R. G. Whitaker Ltd., Kingston.*
 HUNTER, J. B., *Rhodesia Cement Ltd., Bulawayo.*
 JOHNSON, M. W., *Mellor Bromley & Co. Ltd., Leicester.*
 JUSTICE, P. J., *Head, Wrightson Processes Ltd., London.*
 KELLEY, D. W., *Conflow Ltd., Nottingham.*
 KRISHNAMOORTHY, R. K., *Ganges Manufacturing Co. Ltd., Calcutta.*
 LAMB, R., *Moore's Group (Organisation) Ltd., Newcastle-upon-Tyne.*
 McDONNELL, M. A., *Price's (Bromborough) Ltd., Birkenhead.*
- MACPHERSON, C. M., *Howrah Mills Co. Ltd., Howrah, India.*
 MAINWARING, T. H., *Decca Radar Ltd., London.*
 MARTIN, R. E., *Betts & Co. Ltd., Colchester.*
 MEATON, A. H., *Wenham Bros. & Co. London.*
 MILLMAN, J. S., *Mardon, Son & Hall Ltd., Bristol.*
 MOORE, G., *Shell Refining Co. Ltd., Ellesmere Port.*
 MORRIS, R. D. F., *Midland Silicones Ltd., Barry.*
 MOXON, H. F., *Courtaulds Ltd., Preston.*
 OLIVER, T. W., *John Heaton & Son (Leyland) Ltd., Leyland.*
 PAGE, D. W., *Philips Electrical Ltd., London.*
 PARROTT, J. A. P., *Rowntree & Co. Ltd., York.*
 PATTERSON, E. O., *Wellman Smith Owen Engineering Corporation Ltd., Belfast.*
 PICKLES, W. A., *Melrose Tanners Ltd., Beverley.*
 PLACE, A., *North Eastern Gas Board, Leeds.*
 SALMON, P. F., *Albright & Wilson (Mfg.) Ltd., Oldbury.*
 SCRIVENS, F., *BP Refinery (Aden) Ltd., Aden.*
 SRINIVASAN, K. R., *Megna Mills Co. Ltd., Calcutta.*
 TAYLOR, H. E., *Barker & Briscoe Ltd., Moreton.*
 TAYLOR, R., *Birfield Tools Ltd., Coventry.*
 THOMPSON, I. C., *Loewy Engineering Co. Ltd., Bournemouth.*
 TROTTER, R. G., *Morgan Crucible Co. Ltd., London.*
 TWOMEY, J., *Ford Motor Co. Ltd., Dagenham.*
 WALKER, C. J., *College of Further Education, Newcastle-upon-Tyne.*
 WILKINSON, H., *North Western Gas Board, Birkenhead.*
 WILLIAMS, D. A., *Armstrong Siddeley (Brockworth) Ltd., Gloucester.*
 WOODWARD, D. B., *Courtaulds Ltd., Coventry.*

PERSONAL

Mr. J. E. Bambrough, F.C.W.A., has been appointed to the Board of Broom and Wade Ltd., High Wycombe.

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Mr. W. H. Bickers, B.COM., A.C.W.A., has been appointed Lecturer in Management Accountancy at the Loughborough College of Technology.

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Mr. J. W. Coulson, A.C.W.A., will shortly be leaving this country to take up a senior appointment with J. H. Fenner & Co. (Australia) Pty. Ltd., a newly-created subsidiary of J. H. Fenner & Co. Ltd., Hull.

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Mr. J. O. Davies, F.C.A., A.C.W.A., Chief Internal Auditor of the National Coal Board, has been re-elected President of the London Chapter of the Institute of Internal Auditors.

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Mr. William Dobbie, A.C.W.A., has been appointed

Principal Administrative Assistant with Dundee Corporation Transport.

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Mr. D. V. Groves, A.C.W.A., has been appointed Assistant Accountant to The Farmers' Co-operative (N.R.) Ltd., Lusaka, Northern Rhodesia.

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Mr. Leonard Hellawell, F.C.W.A., has been appointed Secretary/Accountant to Cusick Transport Ltd., Manchester, and Secretary to Hands Transport Ltd., Birmingham.

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Mr. A. D. Honeyman, A.C.W.A., has joined, as a Management Consultant, the firm of Peat, Marwick Mitchell & Co.

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Mr. J. Hume, C.A., A.C.W.A., has been elected Chairman of the professional and financial section of the Edinburgh Junior Chamber of Commerce and Manufacturers for the 1958-59 session.

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Mr. R. G. Payten, A.C.W.A., has been appointed Company Secretary/Accountant with DCA Industries Ltd., London.

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Mr. S. Sarkar, M.A., B.COM., A.C.W.A., having resigned from the National Instruments Factory, Calcutta, has joined the Tata Iron and Steel Co. Ltd., Jamshedpur.

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Mr. Clifford J. Saunders, F.A.C.C.A., A.C.W.A., A.C.I.S., A.T.I.L., has gone into partnership with Mr. W. C. Howell, M.B.E., F.A.C.C.A., A.C.I.S., F.T.I.L., and continues in practice at the present address under the style of Saunders Howell & Co.

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Mr. G. P. B. Smith, A.C.W.A., has accepted a post with the United Kingdom Atomic Energy Authority at the Atomic Energy Research Establishment, Harwell, as Chief Executive Officer in charge of Office Services (including organisation and methods).

EXAMINATIONS

December 1958

The December examinations (Intermediate and Final grades only) will be held on Monday, Tuesday and Wednesday, 1, 2, 3 December, 1958, and applications to sit must be made on form C, obtainable from the Institute on receipt of a stamped and addressed gummed label. (Printed rate for home centres, 2d.). Applications, accompanied by the appropriate fees, must be received at Institute headquarters not later than the following dates:

Overseas centres: 10 September 1958.

Home centres: 10 October 1958.

Intending candidates are asked to note the above dates carefully, as no late entries can be accepted.

EMINENT SPEAKERS FOR INSTITUTE SUMMER SCHOOL

AN interesting programme, in which four eminent speakers will take part, has been arranged for the Institute's ninth residential summer school, to be held at St. Catharine's College, Cambridge, from Monday 22 to Saturday 27 September 1958.

The following papers will be given:

'Practical standard costing: a case study', by **Mr. K. W. Bevan**, A.C.A., Financial Comptroller, British Overseas Airways Corporation.

'The effect of the increasing ratio of fixed to variable costs', by **Mr. E. B. Bishop**, F.C.W.A., A.C.I.S., Group Cost Accountant, C. C. Wakefield & Co. Ltd.

'The cost accountant in a period of recession', by **Mr. E. F. Brown**, F.C.W.A., Chief Accountant, Howard Farrow Ltd.

The name of the fourth speaker, on a topic of more general financial or economic interest, will be announced later.

Accommodation at the College is limited, and any member or registered student wishing to attend should obtain without delay an application form from the Education Officer of the Institute.

The inclusive fee is £10 10s.

LONDON REGIONAL CONFERENCE 15 NOVEMBER

Developments in European Trade

Members and registered students are cordially invited to a London regional cost conference on Saturday 15 November 1958, when three speakers will discuss the European Common Market and the development of the concept of European free trade. Further details of the conference will be published in *The Cost Accountant* and a registration form for attending the conference will be distributed.

The conference will take place in The Connaught Rooms, Great Queen Street, London, W.C.2, and will be followed in the evening by a dinner and dance for members and registered students (with their ladies).

SOUTH-WEST REGIONAL CONFERENCE

In our last issue we published a report on the conference held in Bristol on 26 April and we said that the afternoon session was under the chairmanship of **Mr. J. E. Griffin**, A.C.W.A. This is not correct. The chair was taken by **Mr. R. J. Gibbens**, F.C.W.A., a Vice-President of the Branch.

BRANCH NEWS

BELFAST ANNUAL GENERAL MEETING

The 13th annual general meeting of the Belfast and District Branch was held on 1 May. Mr. James Borsay, F.C.W.A., President of the Institute, and Mrs. Borsay, and Mr. Stanley J. D. Berger, M.C., F.C.I.S., Director of the Institute, and Mrs. Berger, were welcomed to the meeting by the Branch President, Mr. J. E. Richardson, A.S.A.A., F.C.W.A.

Addressing the meeting, Mr. Borsay said his pleasure in visiting the Belfast and District Branch was marred by the knowledge that he did so at a time when unemployment was at an unhealthy level. The cost and management accountant could make a real contribution to the solution of this problem.

To maintain our share of the world's market, our production, selling and distribution machines must be geared to meet the challenge. Management must take into account the dangers of obsolescence and consider the manufacture of alternative products. Mr. Borsay added:

'This is of vital importance as you in Northern Ireland know only too well. I need only mention the change from manned, fighting aircraft to guided missiles to illustrate my point. In this connection the cost accountant can be of real value.'

Mr. Borsay presented the *Donald L. Moran Prize* for the best paper submitted on Management—factory and distribution, at the December 1957 examinations to Mr. J. P. Dearden.

The Director spoke to the meeting on the work of the Institute.

Mr. Richardson reported that the membership of the Branch had increased during the year by the election of seven Associates. Relations between the Branch and other professional bodies represented in the area had been most cordial during the year.

Mr. G. S. Shaw, F.C.W.A., was elected the new Branch President, the Committee elections returning Messrs. G. A. Pogue, A.C.W.A.; S. D. Crossey, A.S.A.A., F.C.W.A.; J. Dornan, B.SC. (ECON.), F.C.W.A.; and N. McKee, A.C.W.A.

The proceedings concluded with a private dinner.

ELECTRONIC ACCOUNTING

'Electronic accounting' was the theme of a brains trust staged by the Hampshire Branch on 9 May which attracted a large audience. Questions on the use of computers to aid accounting procedures were answered by a panel composed of Mr. P. A. Bundy, F.C.W.A., A.A.C.C.A., and Mr. P. S. Neall, M.Sc., A.R.C.S., respectively Chief Accountant and Scientific Computer Manager of the United Kingdom

Atomic Energy Authority, Aldermaston; Mr. W. Hyde, F.C.W.A., A.A.C.C.A., Chief Accountant, Southern Gas Board; and Mr. L. C. Bone, A.C.W.A., of the British Tabulating Machine Co. Ltd.

On the replacement of thermionic valves by transistors, the panel agreed that the size of electronic installations would be reduced and working efficiency increased. The need for refrigeration, necessary with large computers using thermionic valves, would be eliminated.

The chairman for the evening was Mr. F. H. Sharpe, A.C.W.A., 1957-58 Branch President.

THE BALANCE SHEET

Eltham and District Branch met on 10 April to hear a paper, 'The balance sheet in management accounting', by Mr. L. Frankland, A.C.A., F.C.W.A., a member of the Council of the Institute, read in his absence by Mr. W. L. Spalding, B.SC. (ECON.), C.A., F.C.W.A.

In Mr. Frankland's view the balance sheet was a statement of the position of a company at a point in time. For this reason, a single one was useless, as a balance sheet produced a few hours later might show a completely different picture. To indicate the trend of events, it was necessary to produce several sets of accounts, each separated by a pre-determined interval, so that comparisons could be made. These would be plotted graphically, and by considering the relationships of various items, a forecast of the future financial position of the company could be made.

Mr. Spalding suggested that another useful comparison would be with the balance sheets of other companies engaged in the manufacture of similar products.

ACCOUNTANCY AND THE STUDENT

At the concluding meeting of the Swansea and District Sub-Branch held at Neath on 18 March, Mr. T. B. Parmiter, A.C.W.A., A.A.C.C.A., gave a paper on 'Accountancy and the student'.

Before starting the detailed study of a subject, he said, it was advisable to review its origin and development. A review of this nature would dissipate any alarm that the subject might create and would develop interest. When preparing for examinations it was essential that students should work out as many problems as possible, and endeavour to complete them within given time limits.

Mr. Parmiter assured students that questions were not set to trap them.

PLANT RENEWAL AND REPLACEMENT

On 12 February the Brighton Sub-Branch held a joint meeting with the Institution of Mechanical Engineers to which members of the Institution of Production Engineers were invited.

The meeting was opened by Mr. A. J. Till, B.Sc., Acting Chairman of the Sussex Branch of the Institution of Mechanical Engineers, the guest speaker being Mr. C. W. Griffiths, C.A., M.I.M.E., whose subject was 'The economics of plant renewal and replacement'.

Time and Motion Study

Following the annual general meeting of the Sub-Branch on 9 April, two students gave short talks.

Speaking on the subject of 'Time and motion study', Mr. D. L. Adams said that the co-operation of the men was essential and it had to be secured through the workshop supervisors. What happened on the workshop floor was often not what management expected because operating instructions had been misinterpreted.

Refrigeration Costing

Speaking on the subject of refrigeration costing, Mr. M. J. Etheridge said that in his own firm, at the moment, unit costs were applied in the factory, with continual physical checks. Standard times for operations were used by agreement with the unions. Certain standard costs could be obtained, but budgetary control was not possible because of the growth of the organisation.

Mr. J. P. Upham, A.C.W.A., thanked both the speakers.

ORGANISATION AND METHODS

At the meeting of the Burnley and Nelson Sub-Branch on 3 March, Mr. A. E. Yeadon, of Imperial Chemical Industries Ltd., Northern Regional Office, Manchester, spoke on 'Organisation and methods'.

The speaker said that the purpose of O and M was to reduce the cost of clerical work. An O and M officer should be in the age group 25 to 35, with a wide experience of clerical systems, and have an analytical mind; for these reasons accountants often made good O and M officers. It was desirable for officers to have no direct executive responsibility and for the post to be considered only as a temporary one, so that renewed enthusiasm could be brought to the job through regular replacement, preferably by transfer. Mr. Yeadon suggested that it would pay to employ a full-time O and M officer where administrative staff amounted to 200.

Typing surveys could often be carried out by supervisors provided that the method was clearly laid down. Pre-prepared transparent grids could be used to measure square inches of typing work, with different

allowances for different spacing and type. Photocopying was now recognised as a means of reducing typing costs in many cases, particularly where handwritten figures were accepted.

Mr. Yeadon reported that an organisation and methods training council had been set up to promote training.

INDUSTRIAL DEVELOPMENT

A well-attended meeting of the Dublin and District Branch on 11 April in University College, Galway, heard a paper, 'Costs in industrial development', by Mr. T. J. Murphy, A.C.W.A. Professor O'Buachalla, Dean of the Faculty of Commerce of the University, presided.

The speaker drew attention to the need for capital to develop Irish industry, adding that costs would have to be kept at the lowest possible level to allow a good return on foreign money invested. Efficient training for both management and workers and a new outlook on the question of industrial relations were necessary if Irish industry was to develop its export trade.

Professor O'Buachalla said that belief and faith in Ireland and in her industry were essential to the nation's growth and development.

BUDGET PREPARATION

On 25 March Mr. R. Booth, A.C.W.A., spoke to the Burnley and Nelson Sub-Branch on 'Budget preparation'. The speaker was in favour of a review of past labour trends before budgets were finally fixed, in order to cover such items as seasonal overtime and absenteeism.

Machine maintenance plans should be consulted in order to fix budgeted waiting time. New machines should be budgeted for from the planned date of installation, and this should cover power consumption and depreciation; heavy re-tooling costs could be budgeted for over several years.

BY-PRODUCTS, REJECTS AND WASTE

A by-product was defined as a saleable commodity unavoidably made during the manufacture of the main product, by Mr. H. Hodgson, F.C.A., F.C.W.A., a member of the Council of the Institute, when he spoke to the Harrow Branch on 11 April on the subject of 'By-products, rejects and waste'.

The speaker said that it was important to cost the refining of a by-product as a separate operation. The profit on such a product should not affect the main job, nor should the by-product share any of the basic overheads.

The losses from rejects should be excluded or removed at each stage from the work in progress. The residual value of the reject should be carefully calculated and the reclamation of any item should only be attempted if the result would be economic.

CLASSIFICATION

Mr. J. Gombinski spoke to the Birmingham Branch on 21 March on the subject of 'Classification as applied to accountancy'. He said that the object of classification was to identify, arrange and present the facts.

The classification should be designed from the users' point of view to highlight permanent characteristics, and to be comprehensive, both currently and in the future; the categories of each classification should be mutually exclusive.

The test of a classification was that it could produce the facts—all the facts—and that they were accurate. Applied to accountancy, classification should recognise four elements of a financial transaction:

- (1) *the physical asset*, covered by industrial classification of materials, components, tools, plant and equipment;
- (2) *the user*, covered by classification of the organisational structure; and/or
- (3) *the activity for which the financial and/or physical assets are used*, dealt with by classification of activities and operations; and
- (4) *the financial aspects*.

The Birmingham Students Society was addressed on 28 March by **Mr. J. Jordan**, F.C.W.A., on the subject of accounting for selling, distribution and administration expenses.

ELECTRONIC COMPUTERS

A keen desire for information on computers was evident when members of the Liverpool and District Branch and students met on 2 April to hear a lecture by **Mr. E. S. Carden**, F.S.S., A.M.B.I.M., manager of the lectures and films department of British Tabulating Machine Co. Ltd., entitled 'The basic principles of electronic computers'.

The speaker said that the introduction of electronic computers was not just a logical development of existing punched card equipment; computers required a full appraisal of problems and requirements and a complete re-thinking in the approach to them.

He agreed that many firms were wasteful in buying this equipment 'to keep up with the Joneses', a feature which all manufacturers were trying to resist. One should budget for expenditure far in excess of the initial cost of the equipment.

PLANNING FOR PROFIT

The fifth lecture in the series on planning, arranged by the Bristol Branch, was given by **Mr. G. F. M. Rufford**, A.C.A., A.C.W.A., on 25 February. With a new product or service, sales would depend on such special advantages as novelty value, position in street, market for goods, cheap production, proximity to labour and/or materials, said the speaker. He warned against over-optimism about 'special advantages' as these tended to disappear or to aid competitors also.

In an established business with a proper system of cost control, departmental budgets based on estimated turnover should be compiled; they should contain only those costs for which the departmental manager was responsible. A summary of these budgets would show the total estimated profit or loss calling for action—such as an increase in sales prices, the cutting down of variable or fixed costs, or a sales drive.

The speaker warned against dispensing with a department which was showing a low rate of profit after bearing a high fixed overhead charge, without considering the effect of spreading the fixed costs over the remaining sections.

The Master Plan

The final lecture in the series, 'The master plan', was given to the branch on 25 March by **Mr. J. W. Seddon**, A.C.A., A.C.W.A., Chief Accountant, Revlon International Corporation. The speaker said that in America the chances of rising to the top were considered to be better through the sales and production approach rather than through accountancy. The sales-trained administrator, however, tended to be 'volume minded', rather than 'profit minded'. Clear-cut authority and responsibility should be laid down and the organisation should be capable of being represented by a chart, though not one which consisted of a series of parallel lines going up into the clouds.

PLANT SELECTION

On the 22 May, **Mr. A. H. Hofmeyer**, B.Sc. (Mech. Eng.), gave an address to the Cape Centre illustrating an actual case study of plant selection for the dairy industry. In his talk, he stressed the importance of co-operation between the engineer and the cost accountant.

Mr. Hofmeyer had been requested to investigate a scheme for a milk drying plant to be erected at an existing butter factory, to determine:

- (a) whether the scheme would be profitable;
- (b) which type of plant would yield the best return on the investment;
- (c) whether both buttermilk and skim milk could profitably be dried in the same plant.

One of the most interesting points that emerged from the talk was the fact that, due to climatic conditions and costs of certain basic materials, the type of plant recommended and extensively used in another country was not suitable in South Africa. This fact illustrated the dangers of selecting plant in a haphazard manner.

VISIT TO THE POTTERIES

On 10 May, a party of 34, composed of members of the Manchester and District Students' Society and friends went to Stoke-on-Trent to visit the china and pottery works of Royal Doulton Fine China Ltd., Johnson Bros. (Hanley) Ltd., and W. & T. Copeland and Sons Ltd.

THE COST ACCOUNTANT

Journal of The Institute of Cost and Works Accountants

VOLUME 37

JULY/AUGUST 1959

NUMBER 14

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The New President

IT is usually the busiest men who manage to find time for yet more work. Mr. Edward Emmerson, A.C.A., F.C.W.A., who was elected President of the Institute at the annual general meeting on 6 June, is no exception. His active business life is matched by a wide variety of outside interests, not the least of which are his services to the profession of accountancy, to which he has given his time and energy unsparingly. He was admitted an Associate of the Institute in 1940 being a *Leverhulme* prizewinner in the Final examination. His services to the Institute began in the same year with his appointment to the Leeds and District Branch committee. His membership of that committee has remained unbroken since then, and he has



MR. EDWARD EMMERSON

been the Committee's honorary treasurer since 1943. He was President of the Branch from 1947 to 1949. Mr. Emmerson's early devotion to professional activities in his own district has not prevented him from taking an active part in the Institute's national affairs. In 1949, three years after he was awarded his Fellowship, he was elected to the Council. In 1952, he was appointed a member of the Executive Committee and Chairman of the Law and Parliamentary Committee. In addition to these important interests, he has served on several other Institute committees and sub-committees, among them being the Exemptions Committee and the Applications Committee. The new President's interest in accountancy,

however, extends beyond the affairs of the Institute. Having earlier qualified as an incorporated accountant, he was elected in 1947 to Fellowship of The Society of Incorporated Accountants and Auditors. He had many years' service on the committee of The Incorporated Accountants' District Society of Yorkshire, whose President he was from 1951 to 1953. He is also an Associate of The Institute of Taxation and a member of The Institute of Directors.

His business career started in 1928, on leaving Leeds grammar school, when he joined the firm of Armitage and Norton, chartered accountants, of Leeds; it was during his time with this firm that he qualified

as an incorporated accountant.

His appointment as Secretary of Procter Brothers (Wireworks) Ltd., in 1938, led to promotion as general manager of the company in 1944 and to membership of the Board in 1945.

An inveterate pipe smoker, Edward Emmerson has a warmth of personality which has made him many good friends. Yorkshiremen, it is said, have a reputation for being clear sighted and the new President is no exception.

In his time a keen cricketer and Rugby footballer, he now devotes much of his leisure to the large garden at his home in the country.

Mr. Furness's Presidential Address

IT is clearly evident from the content of the public addresses delivered by our retiring President during his term of office that his interests range over a remarkably wide field. His speeches at the various functions which he attended throughout the country, notable both for the interest which they aroused and for their thought-provoking challenges, have dealt with a diversity of subjects in all of which he has shown an enviable grasp of the fundamental principles involved. But, in all his pronouncements, there recurs a central theme which expresses itself as a very genuine concern over Britain's position as a trading nation in the contemporary world.

This central theme forms one of the main subjects in Mr. Furness's presidential address, which is reproduced elsewhere in this issue. He is particularly aware of the danger facing this country of losing her place in world markets,

'upon which our standards of living depend.'

He is fully alive to the increase in competitive activity in these markets, which is daily gathering greater momentum. A serious view

is taken of the implications arising from the formation of a Common Market in Western Europe,

'an economic unity which will be a powerful and resourceful competitor in the markets of the world.'

Within the Common Market, as integration of the member countries gets under way, manufacturers will be provided with ample opportunities for reducing production costs. Enormous possibilities will be created for introducing large-scale production methods and for carrying out rationalisation and specialisation schemes, and, in the words of the retiring President,

'we shall be faced with revolutionary changes and a new challenge which will require all our skill and ingenuity to overcome.'

Recently, the 'Outer Seven' comprising Great Britain, the Scandinavian countries, Austria, Portugal and Switzerland have begun discussions on the possibility of forming a free trade area among themselves. These have taken a course which encourages the view that a satisfactory treaty will be the outcome. As a trading area, the outer seven

cannot be compared in size or in potentialities with the Common Market, and, it is doubtful whether this country, as a whole, would derive very substantial benefits from the arrangement.

Therefore, it is evident that this country cannot afford to turn away from the challenge which the Common Market presents, and it is also clear as Mr. Furness suggests that,

'it is not too soon for British industry to be making adequate preparations to meet the struggle which lies ahead'.

In his address, the President has some firm ideas to offer in this connection, ideas which can be described as both enlightened and farsighted. He stresses, first of all, the importance of adopting a completely new outlook in industry. He then defines this new outlook, which must take the form of willing collaboration between firms within the same industry in research into fundamental and mutual problems associated with

increasing productivity and research into commercial and marketing activities at home and abroad. Co-operative economic, marketing and production research of this nature must be undertaken on a continuous basis to be of any value and will cost relatively large sums of money which, Mr. Furness suggests, could be provided jointly by the Government and industry. In the overall consideration these sums,

'will constitute a fraction of the cost of failing to be prepared for the intensification of competitive activity in world markets'.

Members of the Institute have a vital role to play in this co-operative effort and it is the aim of the Institute,

'to provide trained cost and management accountants with a broad concept of industrial life and society, who will be able to utilise their special skills in ensuring the development of their own industries, and, in the broad sense, to make a special contribution to the furtherance of our life as a leading industrial nation'.

NOTES AND COMMENTS

THE INSTITUTE'S VICE PRESIDENTS

AT the 40th annual general meeting of The Institute of Cost and Works Accountants on 6 June, the Institute's two Vice Presidents, who will serve during the coming year, were elected. To introduce these two Vice Presidents to members, registered students and other readers of *The Cost Accountant* the following biographical notes are published.

Mr. W. S. Risk, B.COM., C.A., F.C.W.A.

Mr. William Symington Risk, B.COM., C.A., F.C.W.A., re-elected for his second year as a Vice President, is a Scotsman who took the degree of Bachelor of Commerce at Edinburgh University in 1930 after leaving the Glasgow Academy, where he spent his school years. He

served his apprenticeship with Wilson Stirling and Company, chartered accountants, and qualified in 1934. He obtained further experience in the profession with David Strathie and Company in Glasgow before taking up an appointment in industry as cost accountant and departmental manager with the Penmaenmawr and Welsh



Mr. W. S. Risk

industry as cost accountant and departmental manager with the Penmaenmawr and Welsh

Granite Company Limited in North Wales.

After serving with the Admiralty during the war, he joined the firm of Robson, Morrow and Company and remained a partner of this firm until 1953 when he returned to industry as an executive of Allied Bakeries Limited, holding appointments as managing director of H. W. Nevill Limited and later the Aerated Bread Company Limited. He was recently appointed a Regional Director of British Bakeries Ltd. Last year he was chairman of the London Multiple Bakers Alliance and a member of the main committee of The Federation of Wholesale and Multiple Bakers in England and Wales.

He has spoken at many conferences and branches of the Institute and other bodies and in 1952 gave a paper on behalf of the Institute to the International Congress of Accountants.

Mr. F. M. W. Hird, A.C.A., F.C.W.A.

Mr. Francis Maurice William Hird, A.C.A., F.C.W.A., who joins Mr. Risk as the Institute's new Vice President, comes of Yorkshire stock. Educated at Buxton College and later in Manchester, Mr. Hird was articled to A. A. Gillies & Co., Chartered Accountants, of Manchester. In 1931 he qualified as a chartered accountant and a year later he became a special trainee at Metropolitan Vickers, Ltd. In September 1932 he joined the firm of Paton, Lawrence & Co., and three years later accepted an appointment with Frederick Smith & Co. Wire Manufacturers Ltd. of Halifax, of which firm he is now secretary, having been appointed to that position in 1937. In 1956 he was partly responsible for the formation of The Iberian Consortium Ltd., of which he is a director.

Mr. Hird is treasurer of the Loyal Georgian Society, which is the oldest registered friendly society.

He was elected an Associate of the Institute in

1935 and a Fellow in 1940. He has played an active part in Institute affairs, being elected to the Council in 1940.

Mr. Hird's wife is Dr. Constance Mary Hird, B.Sc., M.B., CH.B. They have three sons.

The report of the proceedings of the annual general meeting of the Institute appears on page 535.

PRINTING DISPUTE

THE publication of this issue of *The Cost Accountant* has been delayed as a result of the recent dispute in the printing industry. We apologise to all readers and advertisers for this interruption which has been brought about by circumstances outside our control.

This enlarged issue of the journal, which is dated 'July/August', will be followed by another enlarged issue in September. We shall then return to normal publication. It is intended that these two enlarged issues shall contain most of the material which would normally have appeared in the three issues.

MEMBERS' DINNER

ALL members of The Institute are cordially invited to an Institute dinner which will take place on Tuesday, 20 October, 1959 in the banqueting suite at Quaglino's, the world-famous restaurant situated in St. James's, London.

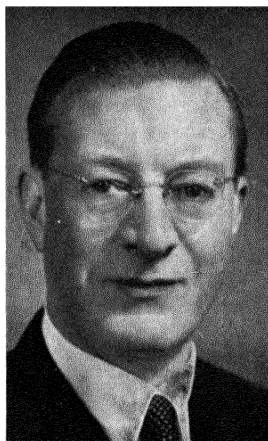
The President of the Institute, Mr. Edward Emmerson, A.C.A., F.C.W.A., will receive the guests between 7.30 p.m. and 8 p.m. and the dinner will commence at 8.15 p.m.

It will be recalled that last year a similar highly successful dinner was held at Guildhall when over five hundred members met and dined together.

It is confidently anticipated that this year's dinner at Quaglino's, providing as it will a meeting place for large numbers of members and distinguished guests, will prove another memorable occasion in the life of the Institute.

Quaglino's is a famous name. Situated in the heart of London's clubland, its present site has housed an unbroken line of catering establishments from as far back as the early 1800's. In 1911 the original Quaglino's was opened, then under the name of The St. James's Palace Hotel. In 1935 the name Quaglino was adopted.

To Quaglino's fell the honour of being the first restaurant to entertain a reigning British monarch.



Mr. F. M. W. Hird

when the Queen and the Duke of Edinburgh and Queen Elizabeth, the Queen Mother attended a dinner party in honour of the British Equestrian Team—Gold Medal winners in the Olympic Games in June 1956.

Members and registered students wishing to attend should send immediately for tickets. It is expected that official and personal guests, members and registered students, will fill all available accommodation and because of this the Council has decided that it shall be an all-male function—with the exception that lady members will, of course, be able to attend. There is no limit to the number of male guests who may be invited. Evening dress or dinner jackets, with decorations, will be worn.

Tickets will be £2 2s 0d each inclusive of cocktails, coffee and gratuity, but excluding wines, liqueurs and cigars.

SUMMER SCHOOL

APPPLICATIONS are now being received for the tenth summer school of the Institute which is to be held at St. Catharine's College, Cambridge, from Monday 21 to Saturday 26 September. Members and registered students who wish to attend are advised to obtain application forms immediately from the Secretary of the Institute.

An interesting and topical programme has been arranged for this year's summer school and the following will be the subjects and speakers:

'The installation of a costing system: a case study,' by Mr. K. S. Ayres, F.C.W.A., *Secretary and Chief Accountant, Wilsons & Mathiesons Ltd., Leeds.*

'Some cost aspects of publicity', by Mr. C. Raeburn, A.C.A. A.C.W.A., *Cost Accountant, Cadbury Brothers Ltd., Bournville, Birmingham.*

'The measurement and utilisation of capital employed' by Dr. J. M. S. Risk, B.COM., PH.D., C.A., F.C.W.A., F.C.I.S., *a member of the Council of the Institute.*

'Take-over bids,' by Mr. K. Buckley Edwards, *Barrister-at-Law.*

Ten years have passed since the first summer school of the Institute was held at St. Catharine's College, and this event now occupies an important place in the Institute's calendar. The summer school provides an invaluable opportunity for the discussion and consideration of professional topics of interest and importance in a more profound and detailed way than is possible at other

BIRTHDAY HONOURS

We offer our congratulations to Mr. P. E. G. Eden, A.C.W.A., who was awarded the M.B.E. in the 1959 Birthday Honours List.

Institute functions. The many members and registered students who have attended in the past will vouch for the profit—and pleasure—to be gained from these few days of deliberation in congenial academic surroundings among colleagues from a wide variety of industries and places.

The inclusive charge for those attending will be £10 10s. Members and registered students only may attend.

CHARTERED ACCOUNTANT'S NEW PRESIDENT

AT the meeting of The Institute of Chartered Accountants in England and Wales, held on 3 June, Mr. Charles Urie Peat, M.C., M.A., F.C.A., was elected President of the Institute for 1959-60, and Mr. Sidney John Pears, F.C.A., Vice President. To Mr. Peat, who is a partner in the firm of Peat, Marwick, Mitchell & Co., and to Mr. Pears, senior partner in the firm of Cooper Brothers & Co., we offer our congratulations.

VARIETY REDUCTION

ACOLLECTIVE defence against the insidious infiltration of unwanted variety was one of the benefits of standardisation, according to Lord Halsbury, President of The Institute of Production Engineers, in his opening address to the 1959 conference of standards engineers, held recently.

Lord Halsbury said that it was typical for 30 per cent of a company's products to be non-standard and costly to produce and yet for these goods to yield only a trifling part of the company's turnover. He would urge firms to double the mark-up on these non-standard goods so as to discourage buyers.

In a case history also given at this conference, Mr. Bertram White, Managing Director of A. Boake Roberts, illustrated the experiences of his company in reducing excessive variety. Over a period of five years they had reduced the number of separate aromatic-chemical products from 1500 to about 230. All items counting for

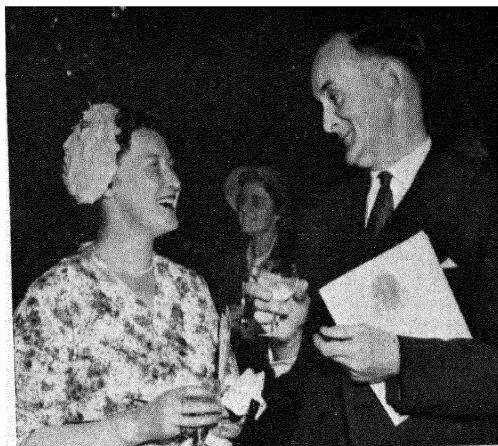
less than £100 of sales each year were rejected, as were products which showed signs of 'withering'. Entire ranges of products which were incompatible with overall production plans were dropped. Nevertheless the welfare of customers was always considered and in some cases arrangements were made with other firms to supply discontinued lines.

'THE ACCOUNTANT' ANNUAL AWARDS

THE presentation of *The Accountant* Annual Awards, by the Lord Mayor of London, Alderman Sir Harold Gillett, M.C., F.C.A., took place in the Mansion House on 16 June, at a ceremony presided over by Mr. Percy F. Hughes, Editor-in-Chief of *The Accountant*. The Awards were received on behalf of The British Oxygen Company Limited by Mr. J. S. Hutchison, C.A., Chairman of the company, and on behalf of General Refractories Limited by Mr. R. A. Kirkby, J.P., F.I.CERAM., Chairman of the company.

Opening the proceedings, Mr. Hughes said that the election of Sir Harold as Lord Mayor had given immense pleasure to members of the accountancy profession not only in London but throughout the country. In a reference to industrial share ownership, Mr. Hughes said that there were signs that before very long there would be more opportunities for the 'small investor' to acquire small blocks of shares, perhaps with less formality than at present.

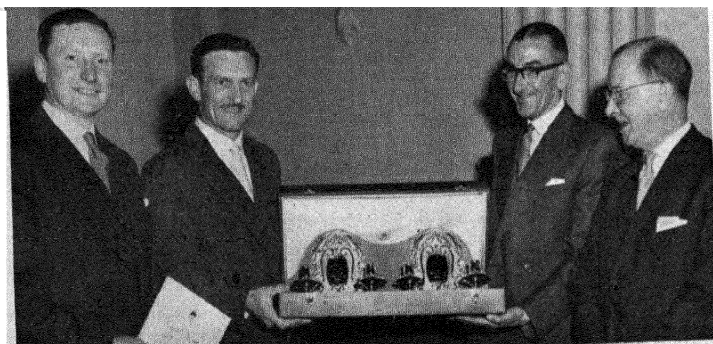
'In this event the importance of accounts being readily understandable and being as informative as possible becomes all the greater and the responsibility of our profession to ensure that a really high standard is achieved becomes a vocation to which we should all be dedicated,' he added.



Among the many distinguished guests at the Mansion House were representatives of the City, the professions, industry and commerce. The Institute was represented by the President, Mr. Edward Emmerson, A.C.A., F.C.W.A., and Mrs. Emmerson (in the foreground, above), Mr. Henry J. Furness, F.C.W.A., Immediate Past President, and Mrs. Furness, and Mr. Derek du Pré, Secretary of the Institute, and Mrs. du Pré, seen in the centre of the picture.

In the course of his remarks, the Lord Mayor stressed the need today for simplicity in accounts and in their presentation. He congratulated *The Accountant* for the way it had instituted and carried out these Awards and thanked the panel of judges for their hard work.

Acknowledging the presentation made to his company, the chairman of General Refractories Ltd. said that 'the real credit should go to two colleagues' of his—Mr. J. L. Hilton, F.C.W.A., A.M.B.I.M., and Mr. J. H. Williams—'who, together, designed the layout, ably assisted by our joint auditors . . .'



Mr. J. L. Hilton, F.C.W.A., A.M.B.I.M., Financial and Administrative Executive of General Refractories Ltd. (left) and Mr. J. H. Williams (right) holding their company's Award. With them are (left) Mr. F. S. McWhirter, C.A., one of the company's London auditors, and (right) Mr. H. Bowker, F.C.A., one of the Sheffield auditors of the company.

Electrical Aids in Industry

Data Sheet **No. 4**

Resistance Heating - 1

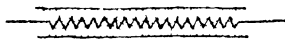
In this form of heating, the heat is produced by passing an electric current through a high resistance conductor which is termed the "heating element".

The heat is transferred from the heating element to the work by convection, radiation or conduction or by a combination of any, or all, of these. When it is a question of radiation or convection, the element can be a bare wire or strip of suitable material, provided it is adequately supported on electrical insulation capable of withstanding the temperature.

○



When there is to be contact between the work and the element, heat being transferred to the work by conduction, the wire or strip must be surrounded by suitable insulating material and enclosed in a protective sheath.

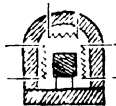


In the majority of cases, the wire or strip forming the heating element is made of a nickel-chromium alloy which has a high electrical resistance and can be safely used in air at temperatures of up to 1050°C., or in a suitable atmosphere, of up to 1150°C. Other element materials are available for use at higher temperatures.

Electric resistance heating may profitably be put to many diverse uses; two of these are described briefly below, others will be listed in a subsequent data sheet.

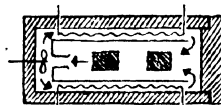
Furnace Heating

Electric resistance furnaces can be divided into two main categories, batch type and continuous. In most cases, the heating elements are of nickel-chromium alloy, for furnace temperatures up to around 1050°C., but higher temperatures, up to nearly 3000°C., can be obtained by using other metals or alloys, or in some cases non-metallic elements. A protective atmosphere is desirable to prolong the life of some of these higher-temperature elements. For all temperatures, electric resistance furnaces can be constructed so that the heating process takes place in a controlled atmosphere if this is dictated by the composition or heat requirements of the work charge. In some furnaces, fans are used to circulate the air or special atmosphere over the charge, thereby giving increased heating rates



and a uniform temperature over the whole charge.

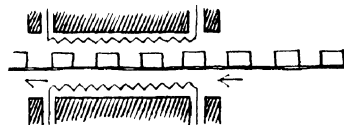
Automatic temperature control and program control of the heating process are readily effected.



Electric furnaces are extensively used in industry, for example in the general heat treatment of metals, in the glass and ceramics industries, for brazing and sintering, and for many other applications requiring temperatures above 500°C.

Oven Heating

There are two basic forms of heat transfer used in electric resistance ovens; convection and radiation. The latter is dealt with in a separate data sheet under the heading "Infra-Red Heating".



Convection ovens may again be of the batch or continuous type. In either case, the charge is heated mainly by the movement of hot air, which is sometimes assisted, as in furnaces, by fans to give a rapid and uniform temperature rise. Ovens are normally designed for temperatures of up to about 500°C., and the heating elements are invariably of nickel-chromium or nickel-chromium-iron alloy.

Ventilation, when required, can be provided and regulated entirely to suit the heating process. Temperatures and times are readily controlled. A vacuum can be maintained in suitably designed ovens to assist in the extraction of moisture and solvent.



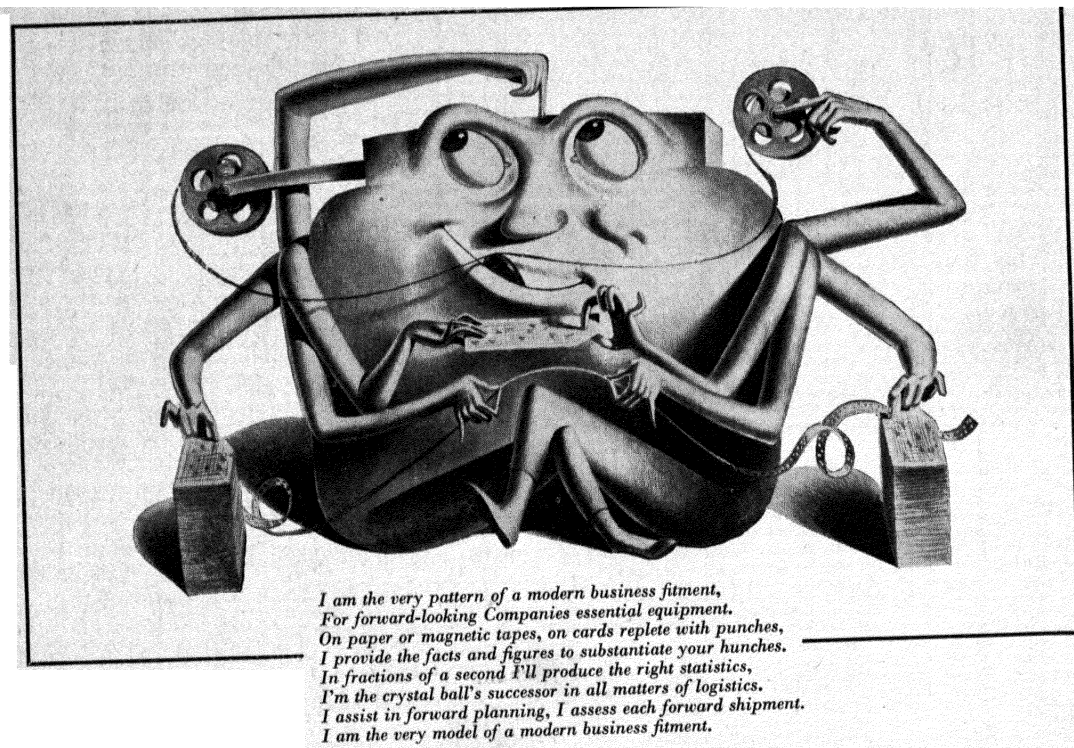
Convection ovens are extensively used for drying, baking and stoving operations, and for a host of other processes requiring a low or medium temperature.

For further information, get in touch with your Electricity Board or write direct to the Electrical Development Association, 2 Savoy Hill, W C 2.

Excellent reference books on electricity and productivity (8/6 each, or 9/- post free) are available—"Induction and Dielectric Heating" is an example; "Resistance Heating" is another.

E D A. also have available on free loan a series of films on the industrial use of electricity. Ask for a catalogue.

6780/4A



Men and Machines at your service

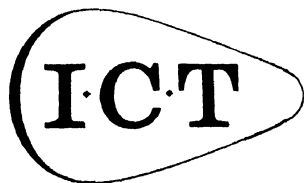
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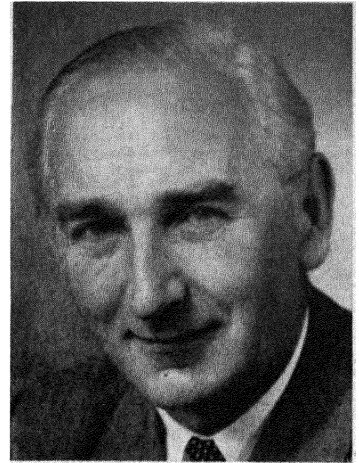


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PRESIDENTIAL ADDRESS



The text of the address by the President of The Institute of Cost and Works Accountants, Mr. Henry J. Furness, F.C.W.A., delivered on 5 June, to the thirtieth national cost conference of the Institute, is reproduced below.

IN the last twenty or thirty years, profound changes have taken place in the outlook of the governments of the Western countries. The economic lessons of the 1930's were bitterly learnt and, today, governments have become increasingly aware of their role and responsibility in promoting economic growth, full employment and better standards of living. It was realised by enlightened governments, that these very desirable objectives could only be achieved, ultimately, by the expansion of world trade which would provide the impetus for an expanding world economy. It was also realised that, because of the inter-dependence of national economies, this could only be brought about by a willingness to achieve common ends by joint and co-operative action. Nationalism and political or economic isolationism had no place in such a scheme and, if practised, would only retard the attainment of these objectives.

Thus, the immediate post-war years saw the birth of important international organisations and institutions, such as the I.M.F., G.A.T.T. and O.E.E.C., the development of which has played such a vital part in the co-operative effort to achieve an expanding international economy.

Much of the work of leading economists over the past thirty years has been directed towards examining the nature of the economic forces which motivate a country's development, and the results of their research have given government ministers a better understanding of the economic problems which confront the world today. This better understanding can only lead, ultimately, to better solutions being found.

But governments, in order to shape their policies and measure their effectiveness, need

reliable and up-to-date information on economic trends. Industry, equally, needs this information, but in much greater detail than government departments can reasonably be expected to provide.

We are living today in a world in which countries are developing at a great pace, where the structure of industry and commerce is changing rapidly, bringing with it new and more complex problems, about which it is increasingly necessary to have reliable information on economic and commercial activity.

Our Government is becoming more and more conscious of its responsibilities in this respect. Sir Frank Lee, K.C.B., C.M.G., the Permanent Secretary to the Board of Trade, in the Stamp Memorial Lecture stated:

'The expansion of the statistical material collected and published by the Government is clearly one of the most notable and welcome things which has happened in this country since the war.'

The Government fully realises its responsibility in providing overall economic information and has accepted the need for a new outlook in meeting the demands of contemporary society.

Industry, to a large extent, has retained the outlook born in the days of the Industrial Revolution—Government demands for statistical data are met with objections and delays, and with an attitude which treats such demands as attempts by the State to interfere with private enterprise.

It is remarkable how difficult it is for industry to grasp the fact that by helping the Government to collate economic and statistical information

¹ *The Board of Trade Journal*, November, 1958.

it is, in fact, helping itself. The collection and dissemination of statistical data and economic knowledge is essential for research into the improvement of productivity. Moreover, this background information is vital in providing the foundation for long-term planning.

Co-operation of Industry Essential

But the Government can assist only by supplying some of the information we need and by providing, by legislation, the framework within which industry can best operate. The co-operation of industry itself is equally essential to the optimum development of our available resources. During the last war, co-operation between the Government and industry was essential and born of a common and clearly evident danger.

Today we are faced with another kind of danger, equally real but perhaps not so patently obvious; that of losing our place in world markets upon which our standards of living depend.

We are now confronted with an established Common Market in Western Europe, an economic unity which will be a powerful and resourceful competitor in the markets of the world. Within the Common Market itself we shall be faced with revolutionary changes and a new challenge which will require all our skill and ingenuity to overcome. Already we are receiving reports that discussions are going on between firms located in the countries of the Common Market, covering a wide variety of subjects, but all aimed at strengthening their competitive position. Mergers of firms in different countries producing similar products are being considered. But where mergers are

not satisfactory, plans are being considered to pool financial resources for research projects, to establish within the Common Market technical associations for closer collaboration, and to set up unions of industrial, commercial and technical associations which now exist nationally.

Many industrial agreements for the design, manufacture and marketing of products have already been made between firms in the Common Market.

But, quite apart from the emergence of this new economic force, there are indications that the Soviet Union is anxious to develop and expand her export trade, and it is quite possible that in a few years time she will constitute yet another serious rival in the world's markets.

Thus, it is clearly evident that it is not too soon for British industry to be making adequate preparations to meet the struggle which lies ahead.

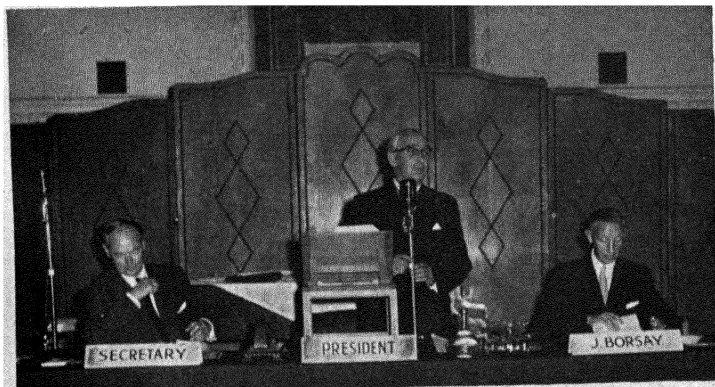
New Outlook Required

Whilst competition between firms within the confines of the country is healthy and conducive to efficient production, the eventual aim of industry is to satisfy the wants of the community and to earn sufficient foreign exchange to enable us to raise our standards of living. To do this, in the face of the coming intensified struggle for the markets of the world, requires a completely new outlook.

This new outlook must take the form of willingness to collaborate, with other firms within the industry, in research into fundamental problems in the field of increased productivity and research into the fields of commerce and marketing at home and abroad.

One of the major problems in industry today is the making of decisions for further expenditure on capital goods upon which our future productivity depends.

Each firm, in its own judgment of the likely future situation and consequent market size, expends large sums in building and plant but, all too often, essential expenditure is curtailed or postponed through lack of knowledge which clouds the ability to make a clear and fair assessment of probable future trends.



The platform cards identify Mr. Furness, with Mr. Borsay, Immediate Past President, on his left, and Mr. Derek du Pré on his right.

If we, as a country, are to expand our world trade by meeting and overcoming future competition, a far greater corporate effort is needed to provide technical and economic information as the basis for sound and enlightened forward planning.

All this can only be accomplished by the co-operation of the Government and industry through its trade associations and with the unstinted assistance of the professional bodies, among whose members lies a wealth of knowledge and proved interpretative ability.

A great deal of valuable work has already been done in studying the impact which the creation of the Common Market will have upon European trade, but because of the complexity of the subject and the scarcity of specific data, it has been possible to examine the problem by broad industrial groups only.

So far, some of the larger companies have made studies of their own particular problem in this field, but the majority of smaller organisations, which contribute such a large part of our industrial output, have neither the finance nor specialised skills required to make these individual studies.

Larger Problem of World Trade

Research into this new concept in Europe is only part of the much larger problem of world trade upon which so little basic information is available. What is needed is not a generalised picture of trading patterns, but an intensive research into industrial and commercial activities for specific products and services, which will give individual companies the opportunity to study their own future against the background of world competition.

It must, therefore, be made possible for large scale and co-operative market and economic research to be undertaken, which should be directed toward the ascertainment of what consumers want and the likely rate of growth of spending power.

Research into economic trends, coupled with market research, enables present and future consumer wants to be related to the consumers' ability to satisfy these wants in terms of available wealth. It is from this type of research that the consumer industries can develop their future plans and ensure that their resources are deployed to the best advantage.

From these plans can also come the basic information needed by the primary industries to fulfil the future needs of the consuming trades.

Research of this nature will cost relatively

large sums of money, which could be provided jointly by the Government and industry, but in the overall consideration will constitute a fraction of the cost of failing to be prepared for the intensification of competitive activity in world markets.

Research, a Continuing Process

It is, however, more than useless to undertake research of this nature as a single venture—it must be a continuing process. Markets, consumer wants, economic conditions, constitute a changing pattern which requires constant study and re-appraisal.

From this continuous process of study will emerge a much better understanding and grasp of the interaction of economic development upon the pattern of consumer spending which, in the ultimate, dictates not only the type of product but also the level of output of all industry, whether concerned with basic or manufacturing trades.

The Institute has made considerable strides in the past few years in developing techniques of forecasting, but however good these techniques may be, the whole structure of forecasting the future must eventually depend upon the accuracy of primary data.

The scheme to gather together known facts and reliable data on probable future development which has been outlined, will enable a reservoir of basic knowledge to become available for the use of industry.

Forecasting can then become much more nearly related to planning, enabling management to gauge with much greater accuracy the future requirements of the firm in terms of finance, plant, equipment and personnel. But knowledge of basic facts, no matter how reliable it may be, is useless and even dangerous unless it is used and interpreted skilfully and intelligently.

It is the aim of the Institute to provide trained cost and management accountants with a broad concept of industrial life and society, who will be able to utilise their special skills in ensuring the development of their own industries and, in the broad sense, to make a special contribution to the furtherance of our life as a leading industrial nation.

Professional bodies have a special responsibility to satisfy themselves that their members fulfil the high ideal to which they aspire, not only in regard to their technical ability but in their ethics and business integrity.

It is for this reason that we must welcome the recent publication of the *Report of the Advisory*

*Committee on Further Education for Commerce.*¹ The report stresses, very forcibly, the need for commercial training and emphasises the low value which has been placed upon the part which education can play in this important aspect of our industrial and commercial life.

The report states:

'Despite the efforts of previous Committees, the part which education can play in meeting the needs of commerce is still under-valued. Greater efforts are required by all concerned if education is to make its maximum contribution to the efficiency of business and the well-being of its employees. Not only must education promote the efficiency of commerce; commerce must encourage the entry into its ranks of more of the most intelligent young people by providing, through education and training, fuller opportunities for advancement.'

It is not as yet possible to forecast the measures which are likely to be taken to implement the recommendations which have been made, but general acceptance of education in commercial activities as of equal importance to technical education, constitutes a vitally important part in the development of a sense of vocation, particularly in younger people who have chosen to enter this field.

A sense of vocation is missing far too often—absent, too, is a belief in the future greatness of our country as an industrial power, which is the motivating force for inspiring imaginative thinking and creative action.

Development of Virile Minds

Commercial training must, therefore, not be confined to the acceptance and absorption of facts, it must include the development of virile minds which will accept the wide concept of world trading and the part which this country can play in this overall pattern.

It is among these forward-looking people that the Institute must look for its future members.

The Institute has already sponsored quite a large number of training schemes in industry for its registered students, but we have always been deeply conscious of the urgent necessity of offering the benefits of commercial training—as a part of their normal commercial life—to the largest possible number of registered students.

This report on commercial education, provided it receives the wholehearted support it deserves—not only from the Government but also from industry and commerce—will constitute an important move forward.

Industry and commerce must assist by advising on the type of specialised skills which will



Mr. F. M. W. Hird, now a Vice President of the Institute, moving the vote of thanks to Mr. Furness, seen on his left.

result in the greatest mutual benefit being derived.

What is undoubtedly needed is the development of such skills within the framework of a broadly based education, covering world commercial activities, customs and traditions.

The Institute and other professional bodies can be of the utmost assistance in the guidance and help which must be given to universities, colleges and schools, and it is to be hoped that such guidance will be sought.

In writing this address, my thoughts have been directed toward a wider field than purely Institute affairs. Perhaps some of the ideas which have been expressed for co-operative effort within industry in this country may seem alien to our traditions and perhaps idealistic in concept, but the co-ordination of factual knowledge of world trading practices and the likely evolution of markets, is a prerequisite of rational planning and development.

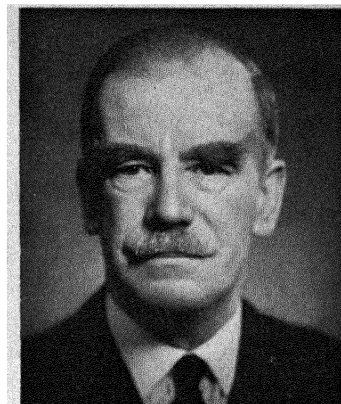
This planning for the future within industry must succeed, for without successful planning, our competitive ability as an industrial nation would be impaired. Members of the Institute are largely concerned with forecasting and financial budgeting which constitute such an important facet of planning. They therefore have a vital role to play and a highly significant contribution to make towards meeting the challenge for supremacy in world markets which undoubtedly lies ahead.

A vote of thanks was proposed to the President by Mr. F. M. W. Hird, A.C.A., F.C.W.A.

¹ H.M.S.O. 2s. 6d.

THE ECONOMICS OF PUBLIC TRANSPORT

by Sir Brian Robertson, Bart., G.C.B., G.B.E.,
K.C.M.G., K.C.V.O., D.S.O., M.C.
Chairman, British Transport Commission



After a brief historical introduction, the author discusses the effect of the development of private transport on the economics of public transport and deals with the question of whether this country could dispense with public transport. He then turns to the problem of making the railways pay, and describes the role of the traffic costing service in helping to attain this objective. There are special references to peak hour suburban services; and to the comparable costs of road and rail transport.

LET me start my remarks on the economics of public transport by emphasising that the expression 'public transport' has got nothing to do with ownership. Public transport plies for the carriage of passengers and goods and may be either publicly or privately owned.

There has always been some kind of public transport in well organised communities; in this country it seems to have taken real shape for the first time during the reign of the Stuarts. I wonder how many of you know the origin of the expression 'Hobson's choice'. Mr. Hobson was a member of The Road Haulage Association (*laughter*) in the reign of King James, erroneously described as King James I south of the border. (*more laughter*)

Public carriers and stage coach services increased and improved during the next century, until in the nineteenth century, railways appeared and swept everything before them. For the most part, the railways in those days were very profitable and a railway investment was regarded as the equivalent of gilt-edged. Then the internal combustion engine arrived. Road

transport became a rival to the railways and as new roads were built and better road vehicles manufactured the rivalry proved ever sharper. Already before the last war it was clear that the railways had run into formidable financial difficulties.

And since the last war a new factor of a different kind has intervened. I refer to the effect of the development of private transport upon the economics of public transport. Now obviously there has always been some private transport but it belonged almost exclusively to the rich and it was scarcely in active competition with public transport. In these days, wealth is far more widely spread. This is one reason for the increase in private transport as exemplified particularly by the private motorcar. Then again the size of industrial and commercial undertakings has shown a steady tendency to increase. Small firms for the most part do not care to operate a transport fleet of their own because it does not pay them to do so. Large firms, on the other hand, have sufficient traffic of their own to justify in many cases a transport fleet in the ownership of the firm itself, to carry a proportion of the firm's traffic.

These are the fundamental reasons for the growth of private transport but there are other

An address delivered on 4 June 1959, at the thirtieth national cost conference, held in London, of The Institute of Cost and Works Accountants. Mr. Henry J. Furness, F.C.W.A., President of the Institute, was in the chair.

reasons, some of which derive from the eccentricities of our fiscal and licensing systems. Whatever the reasons may be the fact certainly is that privately owned transport has immensely increased in recent years and is thereby creating a very serious problem in the economics of public transport. Today it is not only the railways which are in difficulties. Road passenger transport is faced with steadily declining traffics. Public transport by road has to accept ever lower freight rates. It is now generally admitted that the chief competitor of public road transport is not the railways but the 'C' licensed or privately owned transport fleets. If in my subsequent remarks I tend to focus attention mainly upon the problems of the economics of rail transport, please understand that I do it only for the sake of some brevity and because the case of the railways is the most discussed and may be, though this is not certain, the most urgent.

Need for Public Transport

Of course, if you think that public transport is something with which a well organised country can dispense then no problem remains. I do suggest, however, that in this country at least we cannot get on without public transport, nor shall we be able to do so in the foreseeable future. In the first place we are a long way off the position which obtains widely in the United States of America in which almost every family owns one car and most families own two. Apart from that consideration there is certainly no room on our roads for the amount of private transport which would be necessary to carry the goods; still less could our roads compete with the vast mass movements of passengers during the peak hours of the working day. Traffic congestion in our cities and their approaches is bad enough already and there is every prospect of it getting much worse. If, however, all the people who today travel by train and bus were to travel in private motorcars or bicycles, all movement would certainly decline to a halt and so would the life of the cities themselves.

Public transport is therefore an essential in this country and the problem is to cope with its economics.

As regards railways, it is commonly held that railways do not pay anywhere and therefore cannot be expected to pay here. I quite agree that in most countries the railways do not pay. I do not however agree that it has yet been proved that they could not be made to pay. Take the case of the French Railways for example. They are very good, they carry a large

number of passengers and a steadily increasing volume of freight. They are, however, subject to a very high degree of political interference. In particular, political pressure has kept down the rate for season tickets in the Paris area much below true economic level. The Government has also insisted on concession rates for a wide variety of people. The Government also determines wage and pension rates and has fixed them without any relevance to the economics of the industry. I frequently feel that if I were in the chair occupied by my French colleague I should have long ago lost all interest in the financial results.

Railways in the United States

Take the case of the railways of the United States of America. Many of them are in great difficulties; they are tied hand and foot by festoons of out-of-date federal and state legislation which gives them no chance to compete effectively with the rivals on the road or in the air and they are not allowed to move their prices up or down save by long and complicated procedures which often fail to produce the necessary result at the end.

Take the state of Arkansas, for instance. Every freight train which goes through the State of Arkansas has to take on a fifth member of the crew. He is known as the 'law man'. By law, he has to mount the train, and as the train passes the state border at the other end, he gets off. That kind of thing of course makes life very difficult. There are also too many railway companies duplicating each other's systems, but attempts to amalgamate or rationalise are liable to meet insurmountable obstruction.

There are very few railway systems in the world which are not subject to handicaps of the kinds which I have described in France and the United States, and I say again that it is certainly not proved to my satisfaction that these railway systems could not pay if they were given a proper chance to do so.

In this country, an attempt and a very determined attempt is being made to get our railways upon a sound economic footing. It might be easier to seek to solve the problem by subsidy. In these days when the Government goes to the assistance of many industries in a variety of ways, it will not be seemly for one who is concerned with the railways to adopt too high and mighty an attitude in this matter. The difficulties of the railways are great, the burdens which they have accumulated already from the past are very heavy. They are receiving a form of help from the Government now and I do not deny that

they may need more help before they can rest secure on a solid economic foundation. On the other hand I should say that a mere subsidy does not provide solid ground for any industry. Nor do I think that either political party would be likely to favour such an uncontrolled solution. What then is to be done about it?

The remedies for an unsatisfactory economic position in any industry must be broadly the same. Endeavour must be directed in three directions, first to increase the business, second to increase the level of receipts of the business, and thirdly to reduce the costs of conducting the business. You can arrange these three in a different order if it pleases you to do so.

As regards increasing the business, this may of course involve reducing the charges in some cases and the important thing is to know when that is necessary and when it is possible without losing money. Anybody can cut the price. Increasing the level of revenue also demands a knowledge, an accurate knowledge, of the cost of the traffic. Take the cost of passenger fares as an example. I should like to give you a quotation from an excellent treatise on the subject of railway economics written not by a railwayman but by two able professors of the University of Durham. In their treatise entitled *The Obligation to Carry*, Professor Alastair M. Milne and Professor Austen Laing said among other things:

'From the early nineteenth century to the present day the providers of rail services in this country have been held guilty of the sins of both commission and omission and the community has never been reticent in expressing its disapproval of the alleged failure of the railways to promote the public interest. This is not surprising in view of the fact that each section of the community holds its own interest to be the national interest. . . . It is to be expected that it is always agreed that the railways have costs and charges higher than they ought.'¹

I think those are very wise words.



A general view of a section of the audience which attended the conference sessions at the Connaught Rooms. Mr. H. H. Norcross, F.C.W.A. is at the microphone making his contribution to the discussion.

Be those things as they may, it is certain that the economics of a railway system will not be soundly based unless their charges, including their passenger fares, are properly related to their costs and therefore we come back to the same conclusion, namely that it is necessary for them to know their costs.

It is also pretty obvious that if the third line of attack is to be in the direction of reducing working costs a means for ascertaining those costs must be available.

Difficulty of Expense Allocation

If it is to be the policy, for example, that unremunerative services and branch lines and stations are to be discontinued and closed, then the costing system must reveal which services are really unremunerative, making allowance among other things for their value as feeder tributaries to the remainder of the system.

A small concrete example to illustrate how important it is to be able to assess costs correctly can be drawn from the working of a small section of line, namely that between Bletchley and Banbury. For the past two years this has been carried out by a service of diesel cars. As a result receipts have increased by 468 per cent. The running costs, that is to say actual cost of running the diesel cars by comparison with that of the steam train, have decreased by 28 per cent. However, a proper analysis of the economics of the line shows that the true costs of the ser-

¹ The Institute of Transport, 1956, 5s.

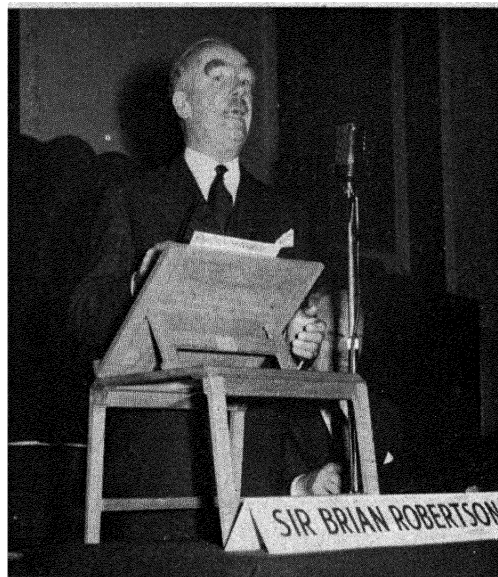
vices are still approximately double the receipts.

The ascertaining of the true receipts and costs to be ascribed to a particular part of a railway system or to a particular operation on it has long been known to be extremely difficult. Before nationalisation the four mainline groups had the greatest difficulty in ascertaining revenues and costs properly belonging to each of them and this in spite of the existence of a very expensive piece of machinery for doing the job. As a result of nationalisation the system has been unified and the allocation of overheads to individual parts of the system and to individual operations has thus become more difficult than ever. The financial accounts of the Commission provide reliable figures of the receipts and expenses of British Railways as a whole but they do not and cannot give answers to the questions the management must ask.

The over-riding difficulty consists in the size and the extent of the expenses which are common to all traffic carried in some degree and yet cannot be readily apportioned among the various traffics. An obvious example of such costs are those incurred on the track and signalling. These amount to some 20 per cent of the total costs of the railway system as a whole but there is no means of allocating them between passenger and freight traffics, between fast trains and slow, between excursion trains and ordinary trains, save on a very arbitrary and inaccurate basis. Administrative overheads, too, have to be allocated on an arbitrary basis.

A further difficulty is the extent to which important classes of expense are common to related flows of traffic, making it necessary to indulge in a whole series of allocations. Thus, a locomotive and its crew may be used from day-to-day, or in different parts of the same day, on a wide range of different duties. As a consequence of the extent of the joint expenses of one kind and another in railways, there is often a big difference between the costs which may be attributed to a particular operation or service and, on the other hand, the costs which would be saved if the operation or service were to be applied or discontinued.

Let me again give you a concrete example. Let us say a traffic officer in Manchester finds his excursion trains to Blackpool in July weekends are too full, and he is having to turn some passengers away. Should he lay on more trains? Is it going to pay? You might think, at first, that of course it must pay. Well, the stock for these trains may have to come from another region. If there is to be a refreshment car on the trains, those cars may have to be sent



Sir Brian 'sailing the frail craft of my knowledge over the tricky waters of accountancy technology'—in his own modest phrase.

'riding on the cushion', as they say, overnight from a long way away, together with the crews. A locomotive is probably borrowed from somewhere else. All that may mean that the cost of the operation may be out of proportion to the receipts you are likely to get from it.

Not only has the sub-division of receipts and costs become more difficult on the railways today than it was, but it has also become more important. The railways are faced with much fiercer competition. To enable themselves to compete they have obtained in the Freight Charges Scheme of 1957 freedom of charging for freight traffics. Formerly, their commercial officers worked to rate books in which the charges for moving various commodities were set out for all to see. This incidentally placed them at great disadvantage with their competitors on the road. Today the rate book has been thrown on to the scrap heap and therefore the railway traffic officers need an alternative form of guidance and that guidance can only be given them by costing.

At this time the Commission has before the Tribunal an application for greater freedom in fixing passenger fares. This has been requested for much the same reason and if we get it, it will emphasise again the need for accurate information in order that the new flexibility may be correctly used.

It was for such reasons as these that a traffic costing service has been developed in the Commission. After the original investigations and experiments in this largely unexplored field had been carried out under headquarters guidance, traffic costing teams were set up to serve the regions of British Railways and the divisions of British Road Services. This traffic costing service has now been extended by attaching traffic costing staff to the line traffic managers and other traffic managers who have big commercial and operating responsibilities under the new organisation for the decentralisation of the management of British Railways.

The word 'cost' has of course many meanings. For the purpose of traffic, total cost is regarded as the expenditure involved in the long term in the provision of a given service. Therefore, it includes not only an allocation of the overhead expenses of all sorts but also items such as the proper allowance for the replacement of assets. Calculated in this way total cost can be quite an inaccurate yardstick for measuring the cost of an individual operation, though accurate enough for the operations as a whole. There is, however, an element in the total cost which we call the 'direct cost' and this can generally be calculated with reasonable accuracy for any specific flow of traffic whereas the indirect costs consisting of administrative overheads and the costs of the track and signalling etc., can only be apportioned arbitrarily.

Use of Costing Data

By the possession of costing data of this kind our traffic managers are able to act with at least some essential guidance. Their aim must be to ensure that the direct costs of any operation are covered and that contribution is made to the indirect costs in accordance with the possibilities of a competitive market.

One must admit of course that such a system does not cater for marginal traffics. It will give a good answer for the cost of running a freight train for a given number of days in the week but the marginal cost of adding one more wagon to that train will be very difficult to calculate and may be almost nil.

It will not be a precise answer to the problem before the traffic officer at Manchester of whom I spoke. Indeed, the technique is intended not so much to give precise answers as to educate the mind of the traffic officer and give a foundation on which to build.

According to the circumstances rail transport may be cheaper than road or road than rail, or a combination of both may be the most economi-

cal. There is no universal rule. One locomotive and crew can move a very large volume of passenger or freight traffic whereas the relatively small carrying unit of road transport with its own power unit requires a crew for each vehicle. On the other hand, rail traffic may involve expensive transshipments or terminal charges and these can completely counter-balance the relative cheapness of railway movement. It is sometimes said that the railways are economical for long distance carrying but not so economical as road for short distances. Even this statement is not entirely true. Rail movement can be very economical for a distance of 20 miles or less under favourable circumstances and can be quite extravagant for a 100 miles under the wrong circumstances.

I can think of some cases up and down this country where we have regular flows of traffic of less than 20 miles under conditions which are highly economic both for us and our customer.

Passenger Traffics

As regards passenger traffics the average cost per seat mile for the longer journeys by railway is much lower than the comparable road cost although the overall railway load factor is sometimes rather low and that changes the balance. On rural and feeder passenger services where the volume of traffic is small the bus service is usually cheaper though in some cases the traffic may be so thin that even a bus service cannot operate it, save at a loss.

Of all traffics to produce a headache for the traffic costing service none is worse than the peak hour suburban services round our great cities. These services are required by the public for a short period in the morning and the evening to carry them to and from their work. Very large resources of staff and equipment are needed to cope with these peaks. During the remainder of the day these resources are very much under-employed. The travelling public have for long been accustomed to getting their travel to and from work at specially cheap rates and they feel, perhaps understandably, affronted when they are asked to accept increases in the cost of such travel which to them is a necessary evil.

The fact remains that so far from paying adequately for these relatively expensive services, the travelling public is paying considerably less than for travel at other times. Season tickets based on five return journeys a week are often less than a 1d. a mile for distances of over 25

miles as compared with the standard rate of 2d. per mile. The services cannot be provided at that cost.

The economic operation of bus services is subject to a special handicap represented by the congestion on the streets in urban areas. By reducing seriously the speed at which journeys can be made congestion results in heavy increased costs per bus mile. This problem is particularly acute in London and that is one of the reasons why we are so anxious to start building the Victoria line tube which would be a major contribution to the relief of congestion over a wide area in London. The prognostication is that that line would not be a particularly paying proposition for the Commission—indeed it might be the reverse—but it would not only be a boon to the travelling public but it might

also help us to get down the cost of operating the bus services and reduce the congestion in the streets.

I feel that I have been sailing the frail craft of my knowledge for long enough over the tricky waters of accountancy technology. Let me come to a conclusion of the whole matter. A public transport industry, including the road and rail, is essential to the prosperity of this country and to its social stability. The several parts of this industry, including the railways, should be economically sound in themselves. This is possible of achievement provided that Government and the people are consistently serious in their desire for it, but it will demand scientific management and an essential tool for management is an efficient system of cost and revenue analysis.

Mr. Morrow Opens the Discussion

Opening the discussion on Sir Brian Robertson's speech Mr. Ian T. Morrow, C.A., F.C.W.A., a Past President, said he agreed with Sir Brian that one of the basic reasons why railways were in trouble today all over the world was that in the nineteenth century they had a monopoly and the then directors exploited it. They made themselves enormous fortunes—put the lines through their own land and then sold them to the company—and generally had a good time, at the same time giving good service to the community. Unfortunately for Sir Brian's colleagues, these days were past.

'But,' continued Mr. Morrow, 'there is no doubt in my mind that in this country we have one of the best transport systems in the world. We are a compact country, which perhaps makes it a little easier, but we have a very flexible transport system—partly due to the duplication of the railways, partly due to the roads and partly due to the "C" licence system.'

It was also, in his experience, economical in comparison with overseas costs. To shift goods by rail across Canada or across the United States, compared with the equivalent cost per mile here, the costs were astronomical. It always paid to send by sea, but that was a long, long, haul. American industry costs were very often cheaper in the factory than ours but their costs of distribution often looked extravagant compared with ours because of this very high cost of transportation.

There was one thing which should perhaps please them all; it had been underlined by Sir

Brian that whatever the form of ownership, whether nationalised or private, when management is in trouble they turn to costs to give them information to help them out. In transport he would think they probably had a higher proportion of constant costs than in any industry. The fixed or constant costs were an enormous part of their total expenditure and the direct or variable costs were very low indeed.

'I am quite certain that in their discussions the Commission would love to get back to the volume of traffic they had during the war,' commented Mr. Morrow. 'Whether we would be prepared to put up with being cramped 16 in a carriage is a different matter. But the railways would show an enormous profit.'

Sir Brian had mentioned that the classic way for any undertaking in trouble was either to increase its revenue or to reduce its costs. He said he did not mind in which order they were taken. Mr. Morrow did not personally agree with that. It was always easier to look for increasing revenue rather than to reduce costs because reducing costs often meant dismissing old servants through no fault of their own. That was particularly unpleasant, especially in the railways where men had made it their life. A railwayman was not there for a job; it was his life.

'In that kind of situation the proper strategy is to tackle your costs first and not to hope for an increased revenue to cover them,' said Mr. Morrow. 'The main reason for that is that your cost may be in the wrong place and the revenue increase

would merely be covering up inefficiencies which should be eliminated. I have just been through the mill in that kind of exercise myself and I would think, unpleasant though it is, the right tactics are to get your costs down first.'

Sir Brian had not touched on the question of salesmanship. It was fair to say that the railways today did not have a good reputation with the general public.



Mr. Ian T. Morrow, a Past President of the Institute, opens the discussion on Sir Brian's address.

At a recent dinner party he had heard the womenfolk complain that the railways were dirty and would not guarantee one a seat. This was unfair criticism. One could book a seat and the railways today were not dirty. The womenfolk had compared the railways unfavourably with coach companies. This was partly due to bad public relations. But in certain regions they were making big efforts to get freight traffic. They were getting hold of heads of businesses and saying: 'Why won't you give us traffic? Tell us what is wrong.' That was a revolution which quite possibly Sir Brian had inspired.

The railways had, through historical necessity, become almost a self-sufficient community—or were until recently. The number of trades in a railway were quite incredible, and they had the ability to do any job from building a loco to repairing the track. They did the lot. Of course, they were pioneers in the industrial revolution and the only way they could get the equipment was to make it themselves. The mechanical engineers and the electrical engineers did not want to give that up, and no doubt they could prove it was justifiable to continue. On the other hand, the railways would get a lot more sympathy if they gave out fairly large orders for equipment and they would become more a part of the community than today when they were living in an enclosed community. In their reorganisation programme the railways had handed out enormous orders to industry. There was no doubt at all that certain firms were now much more interested in the health of the transport industry than they would have been if the railways had made their own rolling stock.

Mr. Morrow did not think many firms costed their 'C' transport very accurately. They were not sure whether they were genuinely saving compared with using public transport.

'On the other hand, it is an enormous conveni-

ence to be able to load up your own lorry at 8 or 9 o'clock on Friday night and keep your promise to the customer to be there on Monday morning; or, alternatively, to collect supplies from somewhere else; and possibly that has had as much to do with the use of "C" transport licences as any thought of saving money,' commented Mr. Morrow. 'It was convenient and flexible and it enabled companies to cover up their production deficiencies.'

He did not think anyone in industry would doubt the absolute paramount necessity of having an efficient railway system in this country; he was sure they did not doubt either that it was a bad thing for the railways to be subsidised in any way whatever. It was a bad thing for any organisation, because it meant, very often, a feeling of despondency throughout the organisation and it often meant that essential expenditure was cut merely because they were living under subsidy conditions.

One of the problems in a large undertaking—especially a large transport undertaking—was the division between the revenue coming in and the expenditure going out. There were enormous divisions expending money—mechanical and electrical engineers and civil engineers and traffic departments. They merely claimed they must spend the money to carry out the duties laid upon them by management; they got irked and irritated when accountants went round and said they did not need to spend that amount of money; while there was no doubt that the introduction of standards did help, there was still a large gap to bridge to make the men responsible for large expenditure feel the sanction of demand.

'I am sure we all wish Sir Brian every success in his endeavour to put British Railways back on the map as an economic proposition even if we have to pay more for the services, and I think we would salute the courage with which he is tackling a very difficult task', concluded Mr. Morrow.

Sir Brian Robertson Replies

Replying to Mr. Morrow and to the other speakers taking part in the discussion Sir Brian Robertson said that increasing the revenues did not necessarily mean increasing prices. Indeed this might involve lowering the charges. Reducing the costs did not necessarily mean reducing the staff. Staff costs on British Railways were a bit over 60 per cent of the total costs whereas the average in an industrial undertaking was 20 per cent or somewhat below.

'It is always particularly high in transport and therefore it does frequently mean that if you wish to reduce your costs you have to reduce your staff,'

continued Sir Brian. 'Nobody is more reluctant than I am—and my colleagues, too—to cause hardship among a fine body of men who have given and are giving very devoted service to British Railways. I think it would be fair to say that in the past the railway industry has not been ranked among the high wage industries, but it has been regarded as an industry in which a man was pretty well sure of his job in fair weather and in foul; and therefore we are straining our very utmost to ensure that in the contraction of manpower which is inevitable at this time, hardship shall be avoided or mitigated to the utmost, and it is in that connection that we constantly seek the co-operation of the unions.'

If it were only necessary to cut the costs, one need not measure the cost of providing the service. In his opinion it was essential to cover the direct costs. If it were true that the cost quoted by the railways could be fairly criticised for being widely higher than the cost of road haulage, how could they explain the fact that a group of road haulage competitors had complained to the Government that they were cutting charges? Publications of the road haulage industry did not accuse the railways of having higher charges than their own, but the reverse. He agreed that when a firm had built up its 'C' licence fleet and appointed a transport manager it was very difficult to get the business back.

If a firm had its own fleet and its own drivers, then if something was broken the firm would know exactly whose neck to wring, and that was always important. The railways were doing a great deal on the matter of care in the handling of goods and the reduction of the cost of handling. That they had achieved something was born out by their claims' figures which showed a marked fall over the years. One way in which they were endeavouring to get over some of the difficulties was to promote the use of containers and pallets. The container, in its various forms, was an excellent type of door-to-door service and got round 90 per cent of the claims and damage problems.

Decentralisation of Management

The Transport Commission had moved a lot in the field of decentralisation of management. It was relatively easy of course, to give authority away, but it was often more difficult to pin responsibility. It was difficult to fix groups of costs of operations and it was the same difficulties which entered into the matter when one tried to assess the individual. Nor did one wish to set individuals in competition with each other to such an extent that they competed at the expense of the organisation. He entirely agreed as to the absolute necessity of having a

good means of appraising the value of the man and the work he was doing and of making him responsible for the financial results he produced. The Commission had gone some distance with their cost accounting staff but they had a very much further distance to go.

There was no doubt that the railways, well before nationalisation, failed to attract sufficient of the 'quality' article.

They were now making a big effort to attract the highly-qualified youngish man with a high university degree. They could not dangle a prize of glittering wealth in front of such a person, but they

could and did offer a very fair salary which was competitive with the salaries offered in any other industry. They were at last beginning to get a share of the 'quality' article, but they were not obtaining it without much hard endeavour.

He did not think that any professional railwayman would deny that in the past salesmanship was not at a high premium in the railways. He had striven very hard since he had been in the organisation to change the position and put it more in proper harmony with the conditions of today. He had endeavoured and was still endeavouring to build up the need for salesmanship, not only just with the townsman but with the man who went round as a commercial traveller.

'Salesmanship is demanded from the top down to whatever you like to put at the lower end of the scale—you can say the porter or the man who drives the van round to the firm's door,' said Sir Brian.

Amongst those taking part in the discussion on Sir Brian Robertson's address were: Messrs. J. L. Hilton, F.C.W.A.; J. F. Holbrook; J. N. Lund, A.C.W.A.; H. H. Norcross, F.C.W.A.; and R. H. Spalton, A.C.W.A.

A vote of thanks to Sir Brian was proposed by W. S. Risk, B.COM., C.A., F.C.W.A., a Vice President of the Institute.



Mr. W. S. Risk, a Vice President of the Institute, who proposed a vote of thanks to Sir Brian.

NATIONAL COST CONFERENCE

Widespread Comment on Technical Sessions

RECEPTION IN CITY OF LONDON

Gay Company at Dorchester Banquet

THE thirtieth national cost conference of The Institute of Cost and Works Accountants took place in London on Thursday 4 and Friday 5 June. The technical sessions, which were held at the Connaught Rooms, aroused widespread interest and comment. Underlining the growing importance of the Institute in the commercial

and financial life of the City of London, the President's reception was held at Mercers Hall by kind permission of the Master and Wardens of this ancient City company. A gay gathering, to which was lent elegance and colour by the presence of the ladies, attended the annual banquet at the Dorchester on the Friday evening.

Enlivened by brief, witty speeches, professional entertainers and dancing, the occasion provided a most enjoyable conclusion to the conference.

The speakers at the conference sessions were Sir Brian Robertson, Bart, G.C.B., G.B.E., K.C.M.G., K.C.V.O., D.S.O., M.C., Chairman of the British Transport Commission, Mr. G. E. Walker, O.B.E., Director of Central Services and Secretary of Associated Electrical Industries Ltd., and Mr. T. C. Watkins, F.C.W.A., A.C.I.S., Director and General Manager of Reed Corrugated Cases Ltd. The number of questions raised following each address showed that those present had given considerable thought to the subjects under discussion.



The President of the Institute, Mr. Henry J. Furness, (left) welcomes Sir Brian Robertson, Chairman of the British Transport Commission, at the Connaught Rooms on Thursday afternoon. Sir Brian addressed the conference on 'The economics of public transport'.

From the questions which were put to Sir Brian it is clear that members of the Institute are fully aware of the difficulties which are confronting those responsible for running the national transport system and are appreciative of the efforts being made to find solutions to the problems. Sir Brian's informative replies to questions were notable for their frankness.

It is obvious that members of the Institute, involved as they are in the intricacies of manage-

ment accountancy, are giving careful consideration to the problems which are arising in the realm of organisation and management structure. The text of the papers presented by Sir Brian and Mr. Walker with the additional comments of the speakers arising out of the discussion, are reported elsewhere in this issue; it is hoped that the paper presented by Mr. Watkins will be published in the following issue of *The Cost Accountant*.

The President's Reception

ON the evening of 4 June, members, registered students and their guests were welcomed by Mr. Henry J. Furness, F.C.W.A., and Mrs. Furness to the President's Reception which was held at Mercers Hall in the City of London, by kind permission of the Master and Wardens.

The splendour of this City hall, rebuilt by the Worshipful Company of Mercers after it had been destroyed during the war, set a majestic background for this gay, brilliant occasion. Amongst the large company attending were a number of overseas visitors.

From a very early date the mercers—originally merchants dealing in the staple cloths—carried on their business near the site where the present Hall and chapel of the Mercers' Company stand in Cheapside.

When the Order of St. Thomas was dissolved in 1538, the Company made suit to King Henry VIII for the church and premises adjoining for use as its hall. The request was granted by letters patent dated 21 April, 1541, in consideration of £969 17s. 6d., and alterations were made to accommodate the Company's grammar school

and to make provision for shops. All the buildings were destroyed in the Great

Fire of 1666. The Company rebuilt its Hall in 1672–1682, at a cost of £11,881. This Hall was totally destroyed by an incendiary bomb in May, 1941.

Excavations for the new hall started in August, 1953. The new building, has been set back a little from the old building line to allow for the widening of Cheapside and Ironmonger Lane. Otherwise it occupies the same site as the old Hall. After being received by the President and Mrs. Furness, the guests went through to the Livery Hall, a fine high-ceilinged room with English oak panelling and lit with magnificent late seventeenth and early eighteenth century English crystal glass chandeliers taken from the old Hall. Later in the evening parties

of guests left the Livery Hall to inspect other parts of the building which include a chapel; an ambulatory with a fine sixteenth century figure of Christ; a dining room containing six of the Company's Grinling Gibbons carvings which were removed from the old hall; and two court rooms.



The President of the Institute, Mr. Henry J. Furness and Mrs. Furness who received the guests at Mercers Hall in the City of London.

AT MERCERS HALL

Mr. E. Emmerson, a Vice President, (*centre*) with Mrs. Emmerson and Mr. Roland Dunkerley, a Past President.



Mr. James Borsay, immediate Past President, and Mrs. Borsay.



(*above*) Mr. Ian T. Morrow, a Past President, and Mrs. Morrow.



(*left*) Mrs. J. M. S. Risk with Mr. W. Hyde (*centre*) and Dr. Risk, a member of Council.

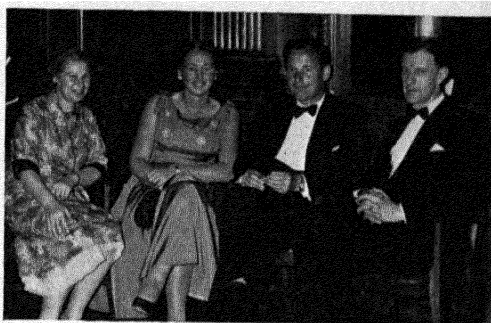
.. IN THE CITY OF LONDON



(top left) Mr. W. L. Spalding, a member of Council, and Mrs. Spalding waiting to be received by Mr. and Mrs. Furness. (top right) Mr. and Mrs. R. W. Duffield. (above) Mr. F. M. W. Hird, now a Vice President of the Institute, and Mrs. Hird are greeted by Mr. and Mrs. Furness.



Mr. William S. Risk, a Vice President, and Mrs. Risk, walking forward to be received by Mr. and Mrs. Furness. (above right) Mr. J. N. Bose, a member of the Institute from Calcutta, and his daughter, Mrs. B. Das.



Amongst overseas visitors at the President's reception were (top left, left to right) Mr. J. Asamoah from Ghana, Mr. J. Lavine from Johannesburg, and Mr. W. K. Sackey also from Ghana. Pictured above are two lady members of the Institute with their guests. Miss K. E. G. King, a Fellow, (far left) came with her brother Mr. G. C. King (far right) and Mrs. D. J. de Voil, an Associate from Nairobi, brought her husband. The group of guests (left) were pictured while on a tour of inspection of the Hall. Mr. J. Liddell, Chairman of the Institute's Branch Development Committee, can be seen second from left.

Banquet at the Dorchester

THE thirtieth annual banquet was held at The Dorchester on the Friday evening. Mr. Henry J. Furness, F.C.W.A., President of the Institute, presided, and with Mrs. Furness received a distinguished company of guests, among whom were Sir Edwin Herbert, K.B.E., and Lady Herbert, and Lieut.-General the Rt.-Hon. Lord Weeks, K.C.B., C.B.E., D.S.O., M.C., T.D. Also present were:

Mr. G. H. Andrew, C.B., *Second Secretary, Board of Trade*, and Mrs. Andrew; Mr. Stanley J. D. Berger, O.B.E., M.C., F.C.I.S., *former Director and Secretary of the Institute*, and Mrs. Berger; Mr. M. S. Berger, A.C.A. and Mrs. M. S. Berger; Mr. W. Bishop, C.A., F.C.W.A.; Mr. L. Bloomfield, O.B.E., *President, The National Chamber of Trade*, and Mrs. Bloomfield; Mr. J. Borsay, F.C.W.A., *a Past President*, and Mrs. Borsay; Mr. E. C. L. Butler, *Secretary, The Building Societies Institute*, and Mrs. Butler; Mr. John Davison, O.B.E., F.C.I.S., *President, The Chartered Institute of Secretaries*, and Mrs. Davison; Mr. Derek du Pré, *Secretary of the Institute*, and Mrs. du Pré; Mr. Roland Dunkerley, J.P.,

F.C.W.A., *a Past President*, and Mrs. Dunkerley; Mr. H. Eason, *Secretary, The Institute of Bankers*, and Mrs. Eason; Mr. E. Emmerson, A.C.A., F.C.W.A., *a Vice President*, and Mrs. Emmerson.

Mr. T. E. Goldup, C.B.E., M.I.E.E., *Chairman, General Committee, British Conference on Automation and Computation*, and Mrs. Goldup; Mr. W. E. Harrison, F.C.W.A., *a Past President*, and Mrs. Harrison; Mr. F. M. W. Hird, A.C.A., F.C.W.A., and Mrs. Hird; Mr. Basil Hughes, F.R.I.B.A., F.R.I.C.S.; Mr. Thomas Lister, M.A., C.A., *President, The Institute of Chartered Accountants of Scotland*, and Mrs. Lister; Mr. Leo T. Little, *Editor, 'Accountancy'*, and Mrs. Little; Mr. Alan S. MacIver, M.C., B.A., *Secretary, The Institute of Chartered Accountants in England and Wales*, and Mrs. MacIver; Mr. E. H. V. McDougall, *Secretary, The Institute of Chartered Accountants of Scotland*; Brigadier T. Mainprize-King and Mrs. Mainprize-King; Mr. P. J. Mantle, C.M.G., *Assistant Secretary, Insurance and Companies Department, Board of Trade*, and Mrs. Mantle.

Mr. Ian T. Morrow, C.A., F.C.W.A., *a Past President*; Mr. A. W. Muse, F.C.W.A., F.A.C.C.A., *a Past*

President, and Mrs. Muse; Mr. G. Nicholson, F.C.W.A., a Past President, and Mrs. Nicholson; Mr. F. Cameron Osbourn, M.B.E., B.A., LL.B., Secretary, The Association of Certified and Corporate Accountants; Mr. C. U. Peat, M.C., M.A., F.C.A., President, The Institute of Chartered Accountants in England and Wales, and Mrs. Peat; Mr. J. F. Phillips, O.B.E., LL.M., F.C.I.S., Secretary, The Chartered Institute of Secretaries, and Mrs. Phillips; Mr. F-M. Richard; Mr. W. S. Risk, B.COM., C.A., F.C.W.A., a Vice President, and Mrs. Risk; Mr. F. W. H. Saunders, F.C.W.A., a Past President, and Mrs. Saunders; Mr. R. J. W. Stacy, C.B., Under Secretary, Insurance and Companies Department, Board of Trade, and Mrs. Stacey.

Mr. G. C. Stone, F.C.W.A., a Past President; Mr. G. E. Walker, O.B.E., and Mrs. Walker; Mr. T. C. Watkins, F.C.W.A., A.C.I.S., and Mrs. Watkins; Mr. A. E. Webb, Editor, 'The Accountant', and Mrs. Webb; Mr. H. Wilmot, C.B.E., F.C.W.A., Past President, and Miss M. Wilmot; Mr. W. F. S. Woodford, Secretary, The Institution of Production Engineers, and Mrs. Woodford.

Responding to the toast to the Institute, the President said that this year the Institute had attained its 40th anniversary. It seemed to him, having had the privilege of visiting so many branches and meeting so many members



The President and Mrs. Furness posed for this charming picture after receiving the many distinguished guests who came to the banquet at the Dorchester. Mrs. Furness was in white brocade and carried a bouquet of crimson roses.

throughout the country, that the enthusiasm which created the belief in the value of the work cost accountants did and which laid the foundation stone of the Institute's existence as a professional body, was still as alive and creative today. He went on:

'As I listened both yesterday and again today to the various technical sessions of our 30th national conference which we are now enjoying, it was evident from the virility of thought and the eminently practical ideas which were put forward that the profession still has a wealth of untapped knowledge which can be used for the benefit of industry and commerce and which augurs well for those who will follow us.'

The value of a professional body was not confined, however, to the technical excellence of its training or the ethical standards which it might lay down. Its main value, he believed, was in the sense of belonging—belonging to an organization in which one had a common denominator where

one could, through branch activities, meet people who spoke the same sort of language, and where there was an understanding of one another's problems and aspirations.

'I am sure that it is through this interchange of thoughts and this interchange of ideas which

is a constant feature of our Institute life that we shall see the development of the profession to greater heights than we can now envisage,' he added.

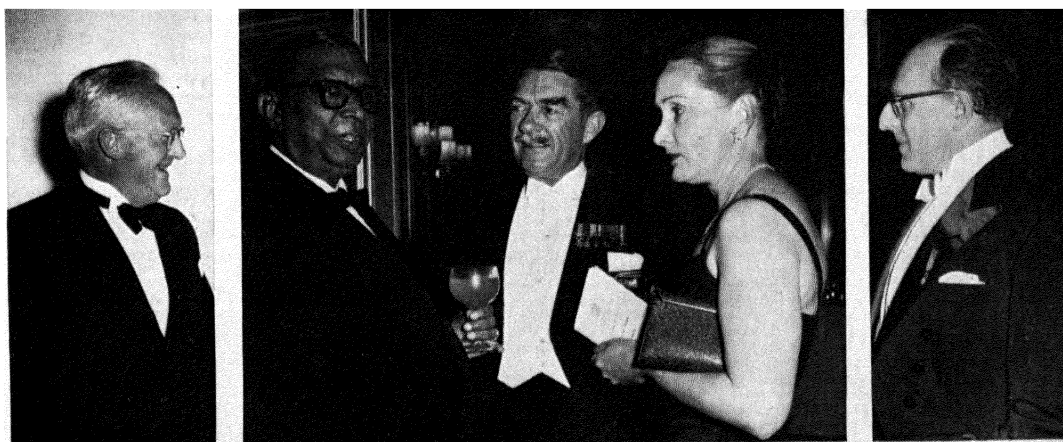
He had appreciated the encouragement and good wishes which had been accorded to himself and his wife in all the places they had been to all over this country, and he thanked them most sincerely.

Proposing the toast to the Institute Sir Edwin Herbert, K.B.E., said that the work of the cost and works accountant had become an absolutely vital part of commerce and industry today.

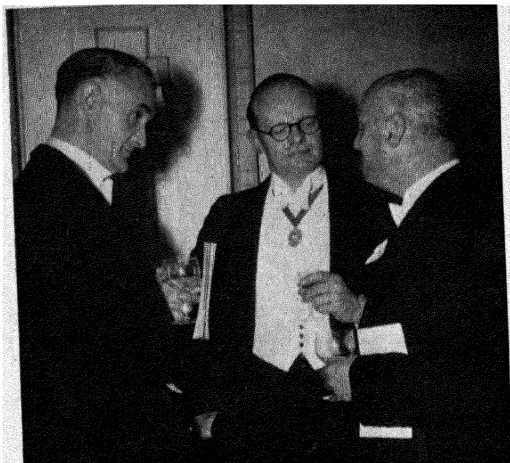
'The days are long past when we could deal with things by the light of nature or by feminine intuition. We have to have really exact figures of cost and we have to build those figures into the structure of our businesses. We could not do that without the cost and works accountant, and the cost and works accountant would not be half the man he is and would not have half the influence he has if it



The Institute's principal guests at the banquet were Sir Edwin Herbert (centre) who proposed the toast to The Institute and Lord Weeks who responded to the toast to the guests. With them in this picture is Lady Herbert.



There was a strong overseas representation both at the conference and at the social events. Pictured (left) at the Dorchester is Mr. Charles E. Lewton, from the Republic of Ireland, who is number five on The Institute's Register of Members. On the right is Monsieur F-M. Richard from France; and in the centre picture, Mr. J. N. Bose, a Fellow of the Institute, from Calcutta, is in conversation with Brigadier and Mrs. T. Mainprise-King.



Amongst the President's guests at the reception before the banquet were (top left) Mr. Edward Emmerson, (left) a Vice President, with two Past Presidents Mr. Ian T. Morrow (centre) and Mr. G. C. Stone. Four more Past Presidents are seen in the bottom left hand picture; they are (left to right) Mr. G. Nicholson, Mr. A. W. Muse, Mr. W. E. Harrison, and Mr. Roland Dunkerley. The kindred societies were well represented at the banquet. The President of The Institute of Chartered Accountants in England and Wales, Mr. C. U. Peat, in the group (top right) is speaking to Mrs. MacIver whose husband Mr. Alan S. MacIver (second from right) is Secretary of that Institute; the Editor of 'Accountancy', Mr. Leo T. Little, is seen on the extreme right. The Secretaries of two other kindred societies, Mr. F. Cameron Osbourn, of The Association of Certified and Corporate Accountants, is seen in the bottom right hand corner; Mr. E. H. V. McDougall, of The Institute of Chartered Accountants of Scotland is to his right.

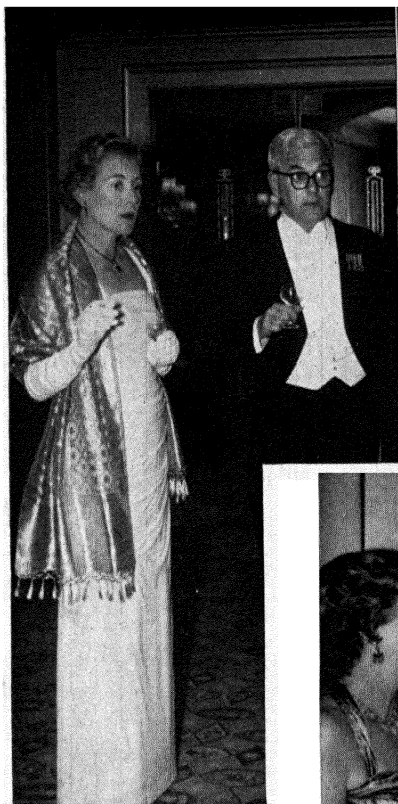
were not for the backing and training and education and discipline, which this Institute, this great professional body, provides,' commented Sir Edwin.

The toast to the Guests was proposed by Mr. W. Bishop, C.A., F.C.W.A., a member of the Council of the Institute, and Lieut.-General the Rt. Hon. Lord Weeks, K.C.B., C.B.E., D.S.O., M.C., T.D., responded.

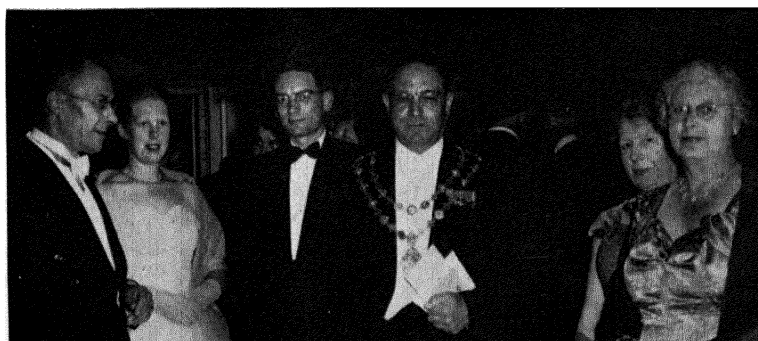
There were two special ceremonies at the banquet. The presentation of the Institute's

Gold Medal for outstanding merit to Mr. Harold Wilmot, C.B.E., F.C.W.A., a Past President of the Institute; and the presentation, to Mr. Stanley J. D. Berger, O.B.E., M.C., F.C.I.S. former Director and Secretary of the Institute, of a cheque and a volume containing the signatures of all who had subscribed to the Stanley J. D. Berger Testimonial Fund.

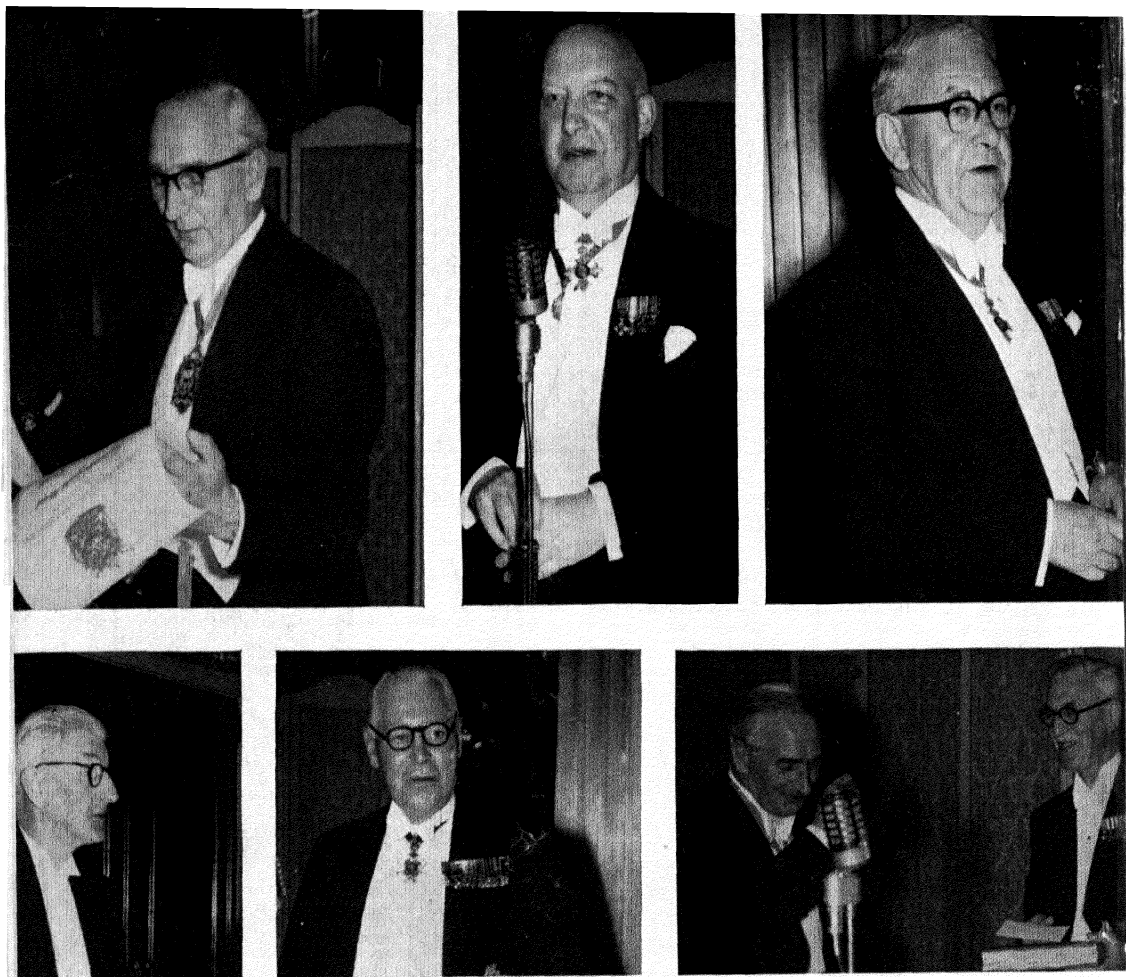
Making the presentation to Mr. Wilmot, Mr. Furness said that all members knew of



After his very considerable performance as one of the main speakers at the conference Mr. G. E. Walker, (*above*) relaxes with his wife at the reception before the banquet. In the other picture at the top of the page The President and Mrs. Furness are greeting Mrs. Thomas Lister, wife of the President of The Institute of Chartered Accountants of Scotland. In the centre picture Mr. John Davison, President of The Chartered Institute of Secretaries, with Mrs. Davison (*left*) are seen with Mr. J. F. Phillips, Secretary of The Chartered Institute of Secretaries, and Mrs. Phillips.



With Mr. F. W. H. Saunders (*far left*) a Past President of The Institute, are Mrs. Saunders (*second from the right*) and their daughter and son-in-law, Mr. and Mrs. R. F. Smith (*second and third from left*). Mr. L. Bloomfield, President of the National Chamber of Trade and Mrs. Bloomfield complete the group.



'er the banquet the President made two special presentations. Mr. Furness is seen (top left) reading the citation to Mr. Harold Wilmot who eived The Institute's Gold Medal for outstanding merit. Mr. Wilmot who, in his own words, 'has been interested in the Institute almost from birth' is seen (top centre) expressing his gratitude and pleasure on the occasion. The second presentation was made to Mr. Stanley J. D. Berger (bottom right), former Director and Secretary of The Institute, and took the form of a cheque and a book containing the signatures of those who contributed to the Testimonial Fund. In addition to the President, who responded to the toast to The Institute, the other speakers following the banquet were Sir Edwin Herbert (top right) who proposed that toast; Lord Weeks (bottom centre) who responded to the toast to the guests, and Mr. W. Bishop, a member of the Council of the Institute, who proposed the toast to the guests.

Mr. Wilmot's tremendous contribution over many years to the progress of the Institute.

Responding, Mr. Wilmot said that they could imagine with what gratitude and pleasure he stood at that moment to receive the Institute's Gold Medal.

'As one who has been interested in the Institute almost from its birth, one who has taken a lot of time away from business to devote to the official affairs of the Institute, and one who has

watched the younger members come along and take over from those of us who are older and getting a little sere and yellow, it is to me a peculiar pleasure to receive this honour from your hands, Sir, and to receive from members their welcoming applause when the President handed this to me,' he said.

He was impressed with the seriousness of the occasion. As a cost accountant, as he was as a young man and he hoped still was, although he had drifted into other and less glamorous

fields (*laughter*)—more remunerative, he might say (*laughter*)—he felt this was the culminating moment of his professional career.

'I thank you, Mr. President, and I thank the Awards Committee for having recommended it, and I thank the Council for having accepted that recommendation. Thank you very much,' he concluded amidst applause.

The citation to Mr. Wilmot is reproduced below.

Harold Wilmot, C.B.E., F.C.W.A.

THE Award is made for his services to the profession and the Institute over a period of more than thirty-five years. He has been a member of the Institute since 1921, and a member of Council for the period 1924–1958. He has been Branch Secretary of the Scottish Branch of the Institute, President of the Manchester Students Society, President of the Manchester and District Branch and President of the London and District Branch. He was an active editor of 'The Cost Accountant' for a considerable period, and President of the Institute for the three years 1943–1946.

During the period of his presidency he provided inspiration at a period which has proved to be one of the most significant throughout the life of the Institute. The late war and early postwar years were remarkable as a stage in the growth and development of the Institute and of the profession. The part played by him emphasised the value of his exceptional powers of leadership and devotion to the Institute.

Welcoming Mr. and Mrs. Berger, the President recalled that Mr. Berger retired last October after 35 years' service to the Institute. After such a long and distinguished career in the



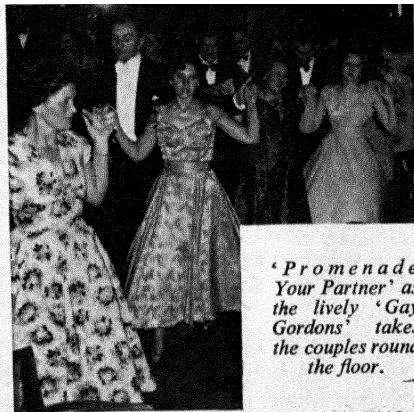
At the reception before the banquet, Mr. Harold Wilmot a Past President, with his daughter Miss M. Wilmot (centre) and Mrs. Edward Emerson.

service of the profession, members of the Institute thought they would like to express their gratitude in a tangible way and a testimonial fund was opened to which all members and registered students could give. The result of this was that a handsome sum was subscribed and he asked Mr. Berger to accept a cheque for the amount and a volume containing the signatures of all who had subscribed.

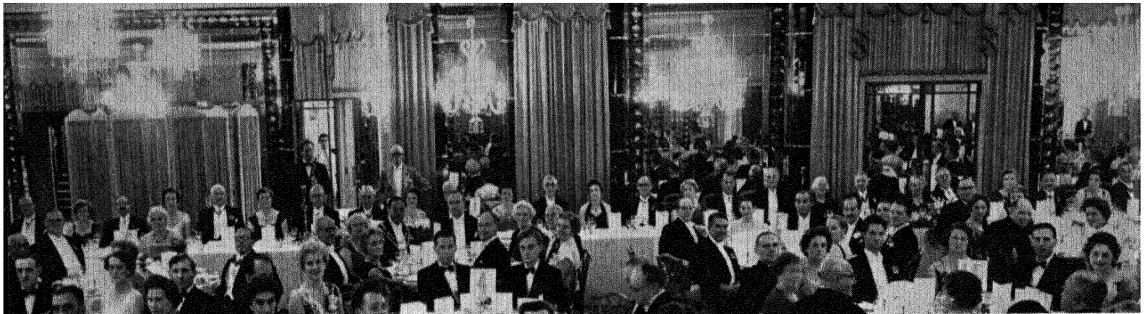
Accepting the gift, Mr. Berger said that just after his retirement from the Institute he bade his farewell to members and students in a short message which was published in the October issue of the journal. Therein, he tried to express his appreciation and thanks for their friendship and co-operation over the years. Since then he had received many hundreds of letters from all parts of the world, and although he hoped he had acknowledged each one of them individually, there were at least a few which he could not acknowledge because after including messages of goodwill and cordiality they were signed with a *nom de plume* such as 'a grateful associate', 'a fifth time lucky finalist'. (*laughter*) He hoped the latter did not think he had anything to do with his good luck. He assured

him he did not. If these people should be here tonight, he thanked them. In any case, he would like to say 'thank you' to all those who had written to him, including those unidentified friends.

In this same issue of the Journal there appeared an open letter from his good friend Harold Wilmot, to which the President had referred, and today he was the happy recipient of the response to that letter in the form of the handsome presentation which the Presi-



'Promenade Your Partner' as the lively 'Gay Gordons' takes the couples round the floor.



The banqueting hall at the Dorchester lit with chandeliers and their reflected light from the wall mirrors set a striking background to the notable company. At the back of this picture of a part of the hall the top table stretches left and right on either side of the President and his wife who can be seen seated immediately in front of the toastmaster.

dent had just made on behalf of thousands of members and students.

'Frankly,' he continued, 'I hardly know how and to whom to begin to say thank you. Obviously I must begin with the present company but I realise only a small fraction of the total number of donors can be present to hear me tonight. Perhaps my few words may, through other channels, reach those many absent friends.'

Some of them might remember that in his speech in Guildhall last October he endeavoured to pay tribute to the many who, in the early days, had helped to blaze the trail of a new profession for which the Institute stood. No longer was it a new profession, for the importance of costing and the wider concepts of management accounting over the past 40 years had been a period which had witnessed a flowering of the accountancy technique and practices which had spread and had continued to spread throughout the world.

'It has been my great privilege, to help, in a modest way, to direct the Institute's affairs during this period of development, and the achievements of the Institute and its present reputation are, to me, the greatest possible rewards,' said Mr. Berger.

'In December last, Members of the Council and some 15 Past Presidents of the Institute, together with their ladies, entertained my wife and me to a memorable dinner party in the Institute's Council Chamber and made personal presentations to us both to mark our retirement. I say 'our' retirement for in fact, as many of you know, my dear wife has been an active partner in all that has concerned the welfare of the Institute and its members and students.'

And now tonight, the large mass of members and students whose names were recorded in this handsome volume had shown their good

will and cordiality in a most practical way. Although the generous cheque which accompanied the book was a most welcome and appreciated gift, he valued equally and particularly the kindness, the friendship and the goodwill which it betokened. During his service with the Institute he had had many masters. Some of them changed every year, but in the wider sense members, students, and the community at large, both at home and abroad, had always been the real masters whom it had been his privilege to serve. Whether he had done so effectively or not, that at least had been his aim, and now, having laid down responsibility, it was most comforting to feel that he still had their goodwill.

'In the past I have issued injunctions to speakers to limit their remarks to a stated time. They have not always regarded that injunction, but on this occasion the tables are reversed and I am the recipient of a similar injunction which I must observe. My time, therefore, is up and I can only conclude by thanking you all once again most sincerely on behalf of my wife and myself for your generous gift and for your friendship which we have valued in the past and we hope in the future. Retirement has involved me in many other activities, but our home is still open-house to those who care to call and I hope there will be many callers. God bless the Institute and may it go on from strength to strength.' (applause)

Following the banquet, the company danced to the music of Arthur Salisbury and his Orchestra, and were entertained by the cabaret artists Shirley Abicair and the All England Professional Ballroom Dancing Champions, Christine Norton and Stanley Dudley.

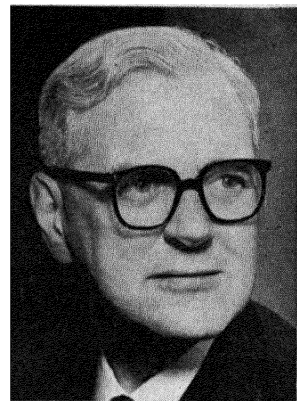
The fortieth annual general meeting of the Institute, which was held on the morning of 6 June, is reported at page 535 of this issue.

ORGANIZATION AND MANAGEMENT STRUCTURE

An Illustration of their Development in a Large Industrial Group

by G. E. WALKER, O.B.E.

Director, Central Services, and Secretary,
Associated Electrical Industries Ltd.



In a written paper, circulated before the conference, the author gave a brief outline of the organisation of Associated Electrical Industries and its development over the years. In presenting his paper to the conference Mr. Walker dealt in greater detail with some of the statements of fact contained in his written paper and considered whether there were any principles of organization that could be laid down. His speech at the conference session is here reported first, followed by his printed paper.

I WANT first to go back to the beginning of things, and tell you a little more about the amalgamation of Metro-Vick and B.T.H. in 1928, because there is in it a most important lesson for those of us who have to do with the administration of companies: a lesson which we in A.E.I. have tried to profit by in later years.

One has to remember that the amalgamation in 1928 was a deliberate act of management; it was not brought about by pressure of circumstances; there was no question of one failing company being taken over by another stronger one; Metro-Vick and B.T.H. had been bitter rivals since they were first formed, and their rivalry had come to a head only the year before with a devastating patent action that went up to the House of Lords; there were strong personalities among the senior men on both sides to whom the whole thing was a sort of shot-gun wedding; and one would have thought that here, if ever, was a case for the most delicate handling on the 'human relations' side.

One would have expected a new holding company to be formed, whose shares would be issued to the shareholders of Metro-Vick and

B.T.H. in exchange for their holdings in those companies, so that the two old companies would come into the new one as equal partners. Unfortunately, the accountants found that they could save about £20,000 of stamp duty by using a block of unissued shares in Metro-Vick to buy the B.T.H. shares, and afterwards changing the name of Metropolitan-Vickers to A.E.I.

What was the result? First, it was announced that Metro-Vick had bought up B.T.H., which not unnaturally roused the fury of the B.T.H. men, not only at the thought of becoming subordinate to their old rivals, but also from a feeling that their American owners, who were the prime movers in the deal, had sold them up the river. When it was explained that the purchase was only a matter of form, that Metro-Vick was to be transmogrified into A.E.I., and that in consequence the Metro-Vick factories and equipment would no longer belong to them but to the new A.E.I., the anger of Trafford Park exceeded even that of Rugby.

Our American forebears may have been astute business men, but they were not industrial diplomats. Anyhow, that was how it was done; the unissued capital of Metro-Vick was issued to the shareholders of B.T.H. in exchange for their B.T.H. holdings; the name of Metropolitan-Vickers was changed to Associated Electrical Industries; and then a little subsidiary

An address delivered on 5 June, 1959, at the thirtieth national cost conference, in London, of The Institute of Cost and Works Accountants. Mr. J. Borsay, F.C.W.A., immediate Past President of the Institute, was in the chair.



Another view of part of the audience at the Connaught Rooms, taken during the conference.

of Metro-Vick had its name changed to Metropolitan-Vickers Electrical Co.; and (quite apart from the 'new' Metro-Vick being only tenant-at-will of its own factories) we had, for twenty-odd years, a company doing about £30m. a year of turnover on a nominal capital of £10,002—sixpence paid up. We did not straighten out the tangle until 1951.

But it taught us a lesson in what I have called industrial diplomacy, which we have profited by whenever we have added a new company to the Group in recent years. Companies may seem to develop personalities of their own; but in the last resort a company can neither laugh nor weep nor lie awake at night and worry: the human beings, who direct it or work for it, can. And that is something to be kept in mind by those of us who administer companies.

I mentioned in my written paper the international ramifications of the American General Electric Co. There is no doubt that their amalgamation of B.T.H. and Metro-Vick was only part of a plan to build up an immense international cartel, embracing all their world-wide collection of subsidiaries and controlled from Schenectady, with an all-round exchange of inventions, patents, technical knowledge, and all the rest of it. (These things are worth knowing when modern Americans describe us as imperialists.) They never succeeded in setting up their cartel, because the United States legislated against monopolies long before we did; and the American G.E., soon after the last war, were prosecuted under the anti-trust laws for all

kinds of monopolistic crimes, among them the ownership of the overseas subsidiaries and associated companies which they had established with such forethought.

I remember one of their vice-presidents lunching with us in London shortly after the judgment was given, and saying,

'The High Court in the State of New York has issued an injunction in perpetuity against us—and perpetuity, gentlemen, is a long time'.

They had in fact seen what was coming, and for several years had been selling down their holding in A.E.I. (usually by selling

rights whenever there was a rights issue of new capital), until, from owning about 58 per cent of the equity in 1928, they had got down to a little under 25 per cent by 1953. This 25 per cent comprised over two million shares, whose then market-value was about £8m.; and in 1953, after the judgment, these shares were placed on the London market, the Treasury having given permission to spend the dollars that were needed; and since that time, apart from a few individual holdings overseas, A.E.I. has been a British-owned company.

General Principles of Organisation

Now I want to put forward a few, perhaps rather speculative, thoughts on the general principles of organisation. I ought to start at once by saying that I do not believe, in spite of all the theorists and all the practitioners, that there is an absolute science of the organisation, management and administration of companies. If there were, one system would be right and all others wrong—which, as we all know, simply is not the case. Theorists will lay out an ideal organisation chart, forgetting that the growth and development of a company or group is inevitably affected by personalities and by the accidents of history; and practical men are apt to say: 'I did it this way and it worked, so this must be the right way'.

You may examine the structure of many companies, as my friends Edwards and Townsend did in their monumental work *Business Enterprise: Its Growth and Organisation*, and

you will find some with their organisation centralised, some decentralised: and efficient and inefficient ones in each class.¹ One company may be efficient because it is a one-man band, and another may be inefficient for exactly the same reason.

No company has a perfect organisation; and if any administrative officer of a company thinks he has, it is time to pension him off. The best one can hope for is to have an organisation that works; that works without undue friction; and that works without causing too many people to suffer from duodenal ulcers. If your organisation can be made to tick over without an undue proliferation of bumb, and without any unseemly manifestations of Parkinson's Law, you are doing well.

Accidents of History

I said that the organisation of a company can be affected by accidents of history and by personalities, and it might be useful to illustrate this from my own company. Taking an accident of history as meaning something over which the company itself can have no control, it was an accident of history that A.E.I. was formed at the beginning of the great depression, and in an era of price-rings and quota systems; and this, undoubtedly, affected the original structure of the Group. Thirty years later, the Restrictive Trade Practices Act was another accident of history, which triggered off the complete change in our internal arrangements which we are now undertaking.

It was an accident of history—the second world war—that placed 15 per cent of the equity of Siemens Bros. in the hands of the Custodian of Enemy Property, from whom we were able to buy our way into that company. And let us say it was an accident of history that in 1945 the electorate threw out the Conservative Party and thus caused one of the greatest men in industry to be looking for a job just at the time when the chairmanship of A.E.I. had fallen vacant. All these things have had their effect on us.

But of course, 'accident of history' is much too elastic an expression, and theories of causation are an unprofitable speculative field for practical men. 'Personalities', again, is a large and vague word; but you must all know of cases where a shrewd, commonsensible, helpful, co-operative man is so much in demand by his colleagues that he attracts to himself a number of jobs which there is no logical reason to put in one port-

folio, but which come his way simply because he is what he is. Conversely, most of us have met the brilliant man who is indispensable because of his specialist skill, but is so prickly and insufferable that no one can work with him: in his case the organisation has a way of saving his skill for the company by flowing round his little island, like a mountain stream changing its course to avoid a boulder.

It is interesting to look at the people who have held the top jobs in A.E.I., and have thus been responsible not only for its industrial policy but for its administration and management, and to see how (or if) their personalities have affected the organisation.

In 1928, the first chairman of A.E.I. was Mr. Levis, formerly chairman of B.T.H., and the first managing director was Sir Philip Manley Nash, the former chairman of Metro-Vick. After the board had decided, in August 1929, not to integrate the operating companies, these two resigned, and their places were taken by Sir Felix Pole as chairman, and Mr. William Clardie Lusk as managing director. Sir Felix came to us from the Great Western Railway, and Mr. Lusk had been the managing director of B.T.H.

Neither of them was by nature or temperament a man who was concerned with organisation as an art. Sir Felix, one of the most lovable of men, was also one of the most 'unregimental'; and of Mr. Lusk, Sir Felix himself has written,

'He was a most hard-working and highly efficient managing director, but he made no attempt whatever to ingratiate himself with his sub-



Mr. James Borsay, Immediate Past President, was chairman at the Friday morning conference session. On his right is Mr. Henry J. Furness, President of the Institute.

¹ Macmillan, 1958. £3.

ordinates. He was by no means an easy man to work with, but when convinced that certain measures should be taken, he could be relied upon to effect them'.

It would not be unfair to say that the early years of the company were marked by the dictatorship of Mr. Lusk, tempered by the benign humanity of Sir Felix.

In 1944 Mr. Lusk died suddenly, and was succeeded as managing director by Sir George Bailey, then the managing director of Metro-Vick. In the following January Sir Felix Pole resigned the chairmanship, and later in the year Mr. Oliver Lyttelton was appointed in his place. For the first time the company now had at its head a man with a real grasp of administrative practice and procedures, and an immensely wide experience of their application in industry and in public life.

'Many Things to be Put Right'

There were many things to be put right, which I have mentioned in my written paper; the central financial control, the improvement of statistics and returns, and the reduction in the number of subsidiaries took some time to accomplish; and with a truly shocking expenditure of the accountants' and lawyers' time, we also succeeded in unscrambling the Metropolitan-Vickers' eggs, recapitalising the 'new' Metro-Vick, transferring to it its own factories and machine tools and other assets, and generally cleaning up the mess which had been caused by the original misguided attempt to save stamp duty.

In 1947 Sir George Bailey had become deputy chairman of A.E.I., and Sir Hugh Warren had succeeded him as managing director. Sir George came from Metro-Vick, and Sir Hugh from B.T.H., and each of them owned his parent company to be his first love. When Mr. Lyttelton went to the Colonial Office in 1951, Sir George took over the chairmanship, Sir Hugh continuing as managing director.

Sir George was perhaps the greatest expert in the country on production and factory-management, and Sir Hugh was an outstanding research scientist; but neither of them would have claimed expertise in matters of company administration; and no changes in organisation took place during the three years of Sir George's chairmanship.

In August 1954, Lord Chandos (as Mr. Lyttelton had now become) returned to the company as chairman, and we undertook the major reorganisation sketched in my printed paper, followed by the even greater one of

1958 and 1959. I think there are few people who would have dared to set on foot such radical changes in the system of a big company, and fewer still who could have carried them out so smoothly and successfully.

Looking at our history dispassionately, I think one can say that we had over-centralisation under the dictatorship of Lusk, then, after his death, a swing away to over-decentralisation until by 1954 the tail was liable to wag the dog; we achieved the beginnings of a balance in the 1954 reforms, and should be just about right when the present changes are completed. This is, I think, not an uncommon pattern in a big group of companies.

I seem to have wandered away from the general principles—if there are such things. I have denied strenuously that there is an absolute science of company administration, but can one truly say that there are no general principles? I am not sure; and this may be because I try never to think of company administration in abstract terms, and general principles seem always to be enshrined in abstracts. Again, my own chief concern is with the relationship between a holding company and its subsidiaries, which is not quite the same thing as, say, the organisation of a marketing company.

Great Corpus of Experience

There is a great corpus of experience in all these matters; but people's experience seems to me rather like Stephen Leacock's Lord Ronald, who 'flung himself upon his horse and rode madly off in all directions'. What suits one company doesn't always suit another; and it seems that practices can be diametrically opposed to one another yet equally successful.

Some people, for example, would lay it down as a principle that the exact scope of every man's responsibilities should be set out in black and white and beyond a peradventure; others say,

'Good Lord! You'd need a book the size of Q.R. & A.I., and *then* some ruddy hedge-lawyer'd always be saying, "You can't do that there 'ere: its not in your terms of reference".'

My own view, for what it's worth, is that you should not try to make a 'principle' of the thing, but should just exercise commonsense: if you are giving a junior man a strictly limited authority, then obviously you must make it plain beyond a doubt how far he can go on his own and at what point he must go to his next-ahead; but the more senior a man gets, and the wider the scope of his duties, the less precisely you should define them.

My legal training tells me, and 30 years' practical experience goes to confirm, that there is no half way house between a general 'statement of intent' (that any sensible man can interpret sensibly but that any lawyer could drive a coach-and-four through), and a legal document complete with whereases and hereinbefores, which is lawyer-proof but incomprehensible to the layman. And you really cannot run an industry on lawyer-proof documents for all.

Anyway it is worth remembering that old Fleet-Paymaster Poë used to keep a poker-work text on his desk:

'Rules are made for the guidance of fools; the wise man knows when to break 'em'.

Of course, there is a lot of 'potted wisdom' that can be most helpful. My own chairman has a way of producing little wisecracks which are easy to remember, and which sometimes help to bring a problem into focus. For instance:

'Good organisation consists in facing every man with only those problems which he has been trained to solve'.

This is obvious enough in extreme cases: you would not set an accountant to mind machines, or an engineer to look after the accounts; but there are cases where it is not so obvious, and I have found it a useful tag to remember. Another:

'Excessive tidiness in organisation is the last infirmity of the third-class mind'.

One should not be afraid of an occasional crooked line on the organisation-chart if it produces the right practical answer. But these again are guides to knowledge, not principles.

The Handmaid of Production

On the whole, I doubt whether a genuine principle is to be found. But whether I am right or wrong, there is one thing about all organisation that the professional administrator—you and I, the accountant and the secretary—needs to keep in front of him: administration is the handmaid of production and not the master, and all administration or organisation should be a lubricant and an exercise in the humanities.

Translating that from the abstract into the concrete: we must always remember that if it



Mr. Walker, an experienced, vigorous speaker, made effective use of a pungent sense of humour. Enjoying the joke is Mr. Derek du Pré, Secretary of the Institute, pictured with the speaker.

was not for the indissoluble trinity of design, production and sales, we should be out of a job; they are the 'substantive' departments; we are the 'adjective'. So we should approach all problems of administration with humility, and exercise tolerance and patience with those who do not see eye to eye with us. No one in this game knows all the answers. Remember that searing sentence of Oliver Cromwell's in a letter to the General Assembly of the Church of Scotland:

'Brethren, I beseech you, in the bowels of Christ, think it possible you may be mistaken'.

Another thing which I think we should cultivate (and it is not always easy) is a 'semantic' approach to problems of organisation. By this I mean going for the realities behind the words—trying to find something tangible and assessable on which to base your course of action, and not some high-sounding phrase like 'an increased measure of efficiency', or 'sound business principles', or 'generally-accepted administrative usage'.

In the last resort all our work, in business, industry or commerce, involves *doing* something. You cannot *do* efficiency. You cannot *do* economy. One cannot do an abstract; one can only think it. There is no such *thing* as efficiency; no such *thing* as economy: they are abstracts—philosophical concepts. You can do something that will save money or manpower, or time or tempers; those are concrete things

and I can understand them. But if someone tells me that 'this is contrary to sound business principles', or 'this will lead to the optimum efficiency of administration', then I'm afraid I don't know what he is talking about.

As we of the administrative staffs reach positions of responsibility—as I on the secretarial side advance beyond mere minute-books, and you on the accountancy side beyond mere columns of figures—we have increasingly to consider not only what our departments and companies do, but how they do it; and if we can get rid of this bogey of abstracts and reduce all our problems to concrete terms, we have gone a long way towards solving them.

I suggest there are three questions we must always ask—and insist on getting the answers to: *What, Why, and How?* What are we doing, Why are we doing it, and How are we tackling it? And, even more important, What are you proposing to change, Why are you proposing to change it, and How are you proposing to set about it?

If the answers contain abstract words, they are wrong. If they are practical and concrete answers, supported by facts and figures and arguments and instances, they are still not necessarily right; but at least you will have the data on which to judge.

ORGANISATION AND DEVELOPMENT OF A.E.I.

I HAVE been careful to call this paper an illustration.¹ I can tell you briefly what is the organisation of my company, Associated Electrical Industries, and how that organisation has changed during the past 30 years; but I don't seek to draw any general conclusions or to base any theories on our experience; still less do I seek to show that what we have done was always right, or that others should follow in our footsteps. Perhaps in discussion some principles of general application may emerge, but in this written paper I will stick to the facts.

A.E.I. started life in 1928 by the amalgamation of Metropolitan-Vickers Electrical Co. (Metro-Vick) and The British Thomson-Houston Co. (B.T.H.) and their subsidiaries. Both companies were of American origin, Metro-Vick having started in 1889 as British Westinghouse, a subsidiary of one of George Westinghouse's many companies, and B.T.H. in 1886 as a selling agency in Great Britain for the apparatus made by the Thomson-Houston Co. of America, which was later amalgamated with the Edison General and became the General Electric Co. of America.

At the time of the amalgamation, Metro-Vick had two subsidiaries, the Cosmos Lamp Works, Ltd., and Harcourts Ltd., and B.T.H. had three, the Edison Swan Electric Co., Ltd., Ferguson Pailin, Ltd., and the Hotpoint Electric

Appliance Co., Ltd. The group have since formed or acquired many other subsidiaries, and I have given a list of the principal ones, with the dates of their formation or acquisition, in an appendix to this paper.

What led to the amalgamation of the two companies was the growth in the 1920's of a strong feeling in this country that the only way of meeting the great American and continental combines on level terms was by the creation of similar combines here; and in 1928 it was announced that the control of Metro-Vick had been sold to General Electric of America—who already owned B.T.H.—'in the pursuit of a policy of co-operation within the industry'—in other words, with the intention of combining the two.

It may seem strange that an American company should take the lead in forming a British combine whose object was to compete effectively with American and continental combines; but in fact the G.E. had subsidiaries in most European countries, under reciprocal agreements for the exchange of patents and technical information, and for territorial limitation of their operations; so whoever the new combine was going to compete with, it would not be G.E. This, of course, was in the days before the Sherman anti-trust Acts.

In the early board meetings of A.E.I., there were radical differences of opinion on the first problem of a combine of this kind—whether to preserve the operating companies under their

¹ Mr. Walker's printed paper, which was circulated before the conference, begins here.

old names, or whether to integrate them completely and organise the combine in functional divisions, as I.C.I. had done two years earlier. Logically, there was much to be said for complete integration—of having, say, one A.E.I. turbine division instead of two turbine departments, one at Metro-Vick and one at B.T.H. But this would have meant a sacrifice of the goodwill which the individual companies had built up over the preceding years, and would also have disregarded the human factor; and the two companies had for nearly forty years been bitter rivals. Moreover, in those days all industry, including ours, was run on a system of price-agreements, quotas, etc., and it seemed more profitable to preserve the individuality of the companies than to amalgamate them into A.E.I. divisions, for under the quota system Metro-Vick and B.T.H. would get one contract each, making two for A.E.I., whereas an A.E.I. division would have had only one.

Maintaining Separate Companies

In the end, the board came down on the side of maintaining the separate companies, and that was the basis of the A.E.I. organisation for the succeeding thirty years.

The board then had to decide how best to organise the anomaly it had created, and the pattern which was evolved was this: at the top was the holding company's board, with its chairman and managing director and the managing directors of Metro-Vick and B.T.H. as executive directors, and ten or a dozen non-executive directors from the City and from other industries.

Below the main board came the executive committee, consisting of the executive directors only. Below this again came the boards of all the subsidiary companies; and to provide liaison between Metro-Vick and B.T.H., the managing director of each of them became a director of the other. The main board and its executive were responsible for finance and general policy, and the subsidiary companies for manufacture, design, sales and research.

The 'horizontal' organisation consisted of a series of inter-company committees, whose objects were 'the consideration of ways and means of (a) effecting economies, (b) increasing efficiency, and (c) avoiding unnecessary duplication'. The committees also provided a common ground for opposite numbers in the operating companies to discuss common problems.

There was some rationalisation of manufacture in the 1930's, as Metro-Vick took over

from B.T.H. the manufacture of all motors above 40 h.p., 1,000 r.p.m., and B.T.H. took over from Metro-Vick all industrial motors below that rating; the manufacture of industrial control-gear was rationalised in a similar way. But this never went beyond the rationalisation of manufacture; the sales outlets of the two companies were always maintained.

In 1945 Mr. Oliver Lyttelton became the Chairman of A.E.I., and a slow process of reorganisation was begun, though still adhering to the pattern of the virtually autonomous operating companies. A centralised financial control was instituted, the holding company becoming the banker to the entire group; standard practices in accountancy and statistics were introduced. Many of the smaller subsidiaries and sub-subsidiaries were absorbed into the larger companies, a complicated process because of the problems of taxation involved.

From 1951 to 1954, Mr. Lyttelton left us to become Secretary of State for the Colonies, and during that time there were no major changes in organisation.

On his return, as Lord Chandos, in 1954, we carried out a large-scale review of the structure of the group, which I can summarise as follows.

We had at that time the two big companies, Metro-Vick and B.T.H., who were directly represented on the board and executive committee of the holding company by their managing directors; and we had, in spite of the amalgamations among the smaller companies, a number of lesser subsidiaries, who, although in theory of equal standing to the two big ones, were too small to have direct representation on the main board; inevitably these smaller subsidiaries felt that they were getting into the position of poor relations.

Then we had one or two rather special problems: our domestic appliance business had been on the down-grade for years, because we had always regarded ourselves as a heavy engineering company, and what money there was for development had gone to the heavy side of the business, to the starvation of the appliance side. At this time, too, we held 15 per cent of the equity of Siemens Bros., and we had to consider whether to stay in this position as a minority shareholder, or whether to make an offer to the other shareholders so as to bring Siemens completely into the A.E.I. group.

We had also a number of overseas companies in Australia, South Africa, India and Pakistan,

with no organisation at headquarters to which they could turn for help in either short-term or long-term problems.

We discussed at that time the possibility of changing our internal structure from the independent operating companies to a divisional system, but decided against it; but, still within the old framework, we decided to work towards a system where there would not be large and small units but a limited number of equal units. We set out to achieve this by grouping together the smaller and medium-sized companies—not, in this case, by absorption and liquidation, but by placing some of the smaller companies under the direct management of the larger ones. So, for example, Ferguson Pailin came under the management of Metro-Vick, and Birlec of B.T.H.; and by, as it were, grafting the concept of a management company on to the existing operating companies, we were paving the way for a more radical change if circumstances should ever warrant it.

Siemens Bros. was bought in, and was amalgamated with Edison Swan into a new Siemens Edison Swan company (S.E.S.); and Hotpoint, the domestic appliance company, was made independent of the other groups, because domestic appliances are not electrical engineering in the sense that heavy plant or electronic devices are, but present problems of design, styling and marketing which are peculiar to themselves.

The overseas companies were coped with by forming A.E.I. Overseas Ltd., with a staff of its own and a liaison with the home operating companies and the home exporting companies, which took over the care and management of all the overseas subsidiaries and associates.

Return of Lord Chandos

The whole of this change was brought about within six months of Lord Chandos's return, which is an indication not only of the organising ability of the man at the top, but also of the loyalty and co-operation which he secured from his colleagues and their staffs.

The pattern then was that we had the five groups: the Metro-Vick Group, the B.T.H. Group, the S.E.S. Group, Hotpoint, and the Overseas Company, each of them under a group managing director who was a member of the A.E.I. board and executive committee, and who was responsible to those bodies for the well-being of all the companies in his group.

The holding company continued to be concerned with finance and policy; the carrying

out of policy was the responsibility of the operating groups. Once finance had been provided for an approved project, the operating companies themselves had the responsibility for spending the money and bringing the project into being.

As the managing directors of all the groups met on the A.E.I. executive committee, there was no longer any need for the managing directors of Metro-Vick and B.T.H. to have seats on each other's boards; but to increase the liaison between the operating companies, the chairman of A.E.I. himself became the chairman of each of the operating groups.

In the same way the group managing director of each home group became the chairman of all the sub-subsidiaries and associated companies for which he was responsible, so that direct contact with the A.E.I. board was maintained right down the line.

We retained the 'horizontal' committee structure, the principal ones being the manufacturing, engineering, commercial, research, and administrative and accounting committees, which were the meeting grounds of the directors or departmental heads of the operating companies responsible for those particular functions.

This major reorganisation of 1954 lasted for barely four years. The chief reason for this is to be found in the appearance of the Restrictive Trade Practices Act on the statute book. With the outlawing of price agreements and all their ancillaries, the old argument in favour of having separate and 'overlapping' companies in A.E.I., competing against each other, was no longer valid. It is uneconomic in such circumstances to have two separate design staffs and two competing sales staffs, and a double set of manufacturing overheads, for the same kind of apparatus. So in 1958 we decided to take the course which was rejected 30 years earlier, and to reorganise the group into functional divisions.

Some parts of the group, of course, were virtually divisions already: the A.E.I. Lamp and Lighting Co., Ltd., for instance, and Birlec, Ltd. (electric furnaces) were two of them; and in Siemens Edison Swan over 95 per cent of their business could readily be transformed to the divisional system because they did not overlap the other companies. The chief problem, now as always, concerned Metro-Vick and B.T.H., which both covered practically the whole range of heavy electrical engineering, and a good deal of light engineering as well.

The pattern we have decided upon is this: the three principal operating companies, B.T.H.,

Metro-Vick and S.E.S., will remain in being as management companies, managing on behalf of A.E.I. Ltd. such divisions as are appointed to their charge. In this way we retain the special skills and expertise that have been built up in the different sectors of the group, and will also have, in the management companies, directors who are not preoccupied with the minutiae of the daily running of a business, but will have more time than they have had in the past to 'think ahead'.

Under the management companies will come the divisions, which will be divisions of A.E.I. Ltd., and not of the company which is appointed to manage them. Each division will have at its head a divisional general manager, with his commercial manager, chief electrical and mechanical engineers, and manufacturing manager, who will be responsible for the day-to-day business of the division. I cannot say yet how many divisions there will finally be, but probably twelve. Two are already in being; the turbine-generator and the heavy plant divisions. Nine more are in the process of being formed, and will be at work within the next few months. These are the motor and control-gear; switchgear; transformer; electronic apparatus; cables; telecommunications; radio and electronic components; traction; and instrumentation divisions.

In general, the Metro-Vick or Manchester group will have charge of the divisions which are engaged in the production of apparatus for the generation and distribution of power, that is turbo-alternators, transformers and switchgear; the B.T.H. or Rugby group will manage that part of our business which is mainly concerned with the application or utilisation of electric power in industry; and the S.E.S. or London group will manage telecommunications, cables and the entertainment side of the business, *i.e.*, the manufacture of such things as cathode-ray tubes and radio valves for the entertainment industry.

The pattern will not be wholly tidy, as it seems probable that the traction division will come under Metro-Vick, though traction is rather an application of electric power than a function of generation or distribution. Also, although the newly-formed divisions will all be technically departments of A.E.I. Ltd., those which had already been established as limited companies before the general policy of 'divisionalisation' was decided upon will retain that form. And some of our more recent acquisitions, such as Henleys and London Electric Wire, will not for

the present be fully integrated into the divisional system, though they may be assigned to one of the group managing directors for general liaison and proper representation on the A.E.I. board.

Research and secretarial and accountancy duties will be management company functions, not divisional.

During the 30 years of the virtually independent operating companies, many differences in practice in secretarial and personnel matters grew up, which cannot be allowed to persist under the new system, and a directorate of central services has therefore been set up at headquarters to secure uniformity in these matters. Another headquarters department is economics and intelligence, and we also have an officer who 'progresses' the capital expenditure of the group; these are responsible directly to the chairman.

The Export Field

In the export field, each main operating company has up to now had its own exporting subsidiary. This will no longer fit into the general pattern, and the three export companies of B.T.H., Metro-Vick and S.E.S. have been amalgamated into an A.E.I. Export Co., whose first (and perhaps most difficult) task is to sort out the vast number of overseas agencies, in practically every country in the world, which have hitherto served the separate export companies.

This, then, is the new structure of the A.E.I. group, which is still in the process of evolution, but which will have taken its new shape by the end of 1959. The A.E.I. board, still with its majority of non-executive directors, lays down policy, controls and plans finance, selects and promotes senior personnel, and gives uniformity to administrative arrangements other than industrial.

The Executive Committee of A.E.I. Board, consisting of the chairman, the five group managing directors, and the director of central services, is the executive arm of the board, and provides top-level liaison between the Groups.

Below this come the five management companies, B.T.H., Metro-Vick and S.E.S. managing divisions on behalf of A.E.I., the overseas company managing A.E.I.'s overseas investments, and Hotpoint in charge of all domestic appliances.

Below them again come the divisions, and linking the entire structure together horizontally

Practices Act and the fact that this had removed the desirability of operating separate companies in direct competition.

'This raises a very interesting point for, as Mr. Walker rightly points out, this streamlining of operations and companies involves a sacrifice of goodwill which individual companies have built up, apart from which there is a certain amount of customer preference for dealing with particular local units.'

In a reference to overseas trading the speaker commented that overseas companies provided good training grounds because in most cases the local officials had to act on their own initiative.

Replying to Mr. Slater and to the others who took part in the discussion, Mr. Walker said that the extent to which decentralisation was an advantage, was one of those things which depended on so many factors. As Sir Roger de Coverly had said, 'Much might be said on both sides.'

'The extent, I think, is bound up with the extent to which the executive directors should maintain any sort of control over the day-to-day operations of the operating companies,' continued Mr. Walker. 'I think we manage to get the best of both worlds by putting the general manager of the operating company on to the central board. That gives him his connection with the forward planning; it links the holding company board closely to the operating companies, and it makes sure that the general manager—whatever title you may give him—shall be in the closest possible touch with the development of policy of the holding company.'

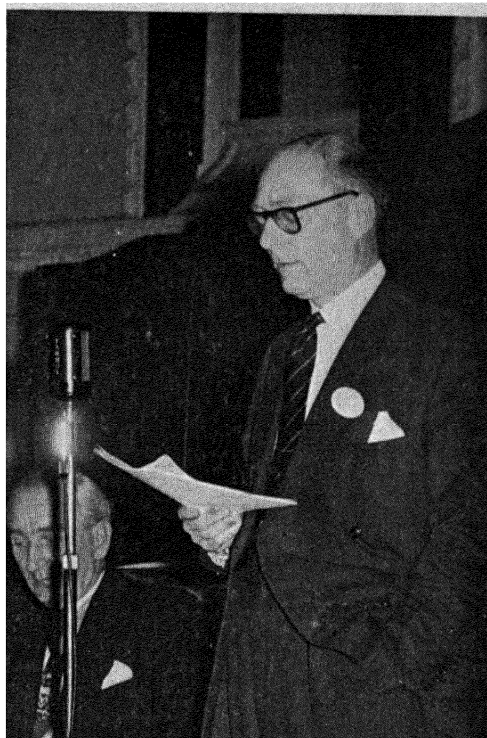
There again, it was a matter of very considerable differences of opinion on all sides.

As far as the comparative advantages of number and size of operating units went, he believed that neither number nor size was really the criterion. Unity was the criterion.

'If you are going to have a divisional system, you must accept a division which is a logical unit, even though it may be only a quarter of the size of one of the other divisions, provided it hangs together so that all people who work for it are devotees of their particular trade,' said Mr. Walker.

That was more important than trying to say, 'We must have ten divisions; each must employ roughly the same amount of capital; each must employ roughly the same number of people' and so on, so that you got a jumble of divisions.

'We were faced with this,' he continued, 'when a good deal of our business in our latest reorganisation fell into a perfectly natural series of



Mr. G. P. Slater, who opened the discussion on Mr. Walker's paper.

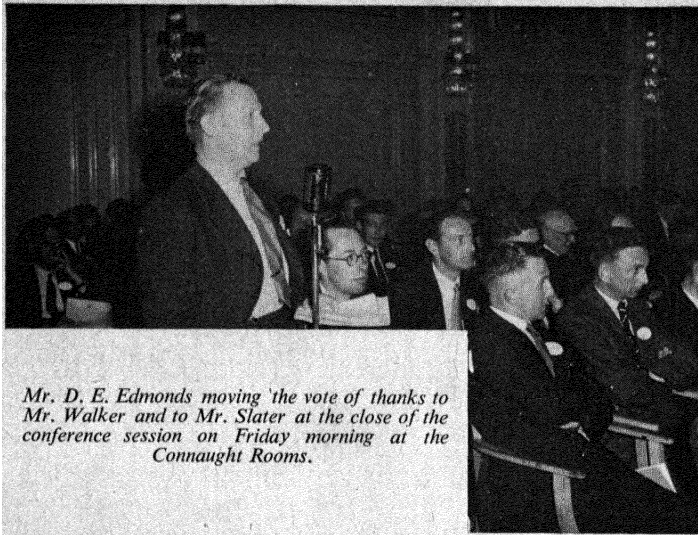
divisions and we were left with a lot of little stuff left over. It did not look as if it would justify making a division out of each small technical portion, but when we began to think of putting them together we found that you just could not have a miscellaneous division. It does not make sense. It is a contradiction in terms.'

Number and size was not nearly as practical a criterion as unity, so that one got a team of people devoted to their own job left to work it out for themselves.

He wondered if it was much more than a matter of terminology whether a division was organised as a division, or as an operating company, provided it had that essential unity in itself.

The question of one-man responsibility or committee responsibility, depended whether it was for debate or for execution. (*laughter*) A committee most certainly to talk things over; but one man had got to have the responsibility at the end of the day. (*applause*)

On the problem of drawing the line of division through the two main producing groups at Rugby and Manchester, Mr. Walker agreed



Mr. D. E. Edmonds moving 'the vote of thanks to Mr. Walker and to Mr. Slater at the close of the conference session on Friday morning at the Connaught Rooms.

A.E.I. 13 years ago the pensions section at headquarters consisted of one secretary, one clerk, and one stenographer. There were then 300 people in the pensions scheme, whereas there were now 7,000 and such a small staff could not possibly cope with such a number. That kind of thing was bound to happen and was bound to put up the ratio of administrative staff to productive staff. Some administrative staffs felt there was too heavy a band over the top and he thought that excess weight occurred more with the centralised company than the decentralised.

that when one tried to draw the line, it was an extremely wobbly line, but he thought it was a temporary phase.

'It is undoubtedly a most difficult problem and it has been the basic problem preventing people from trying to undertake the integration into divisions earlier. But it will solve itself in the course of years by expansion,' he added.

Dealing with terminology Mr. Walker said that one could not avoid using words like 'efficiency' and 'efficient economy' but provided one stuck to the semantic approach and got at the realities behind the words, it did not matter what words were used. He preferred to stick to concrete words rather than abstract terms.

Time to Charge

As to the point of time at which an organisation should be changed, there were times when the move must come from the people who were sitting in the middle of the web and thinking ahead. It was no good trying to change the structure of one's organisation in a way which was unacceptable to the people who had to carry it out and therefore he would say that the point of time came when by precept, example, propaganda and discussion, they had created a state of mind where the people who were to carry the thing out would accept the change.

The ratio of administrative workers to productive workers was much higher now than 15 or 20 years ago and there was a constant increase as the technique of industry developed. In the

Mr. Walker agreed with a questioner that the operations of the Monopolies Commission were driving more firms to combine. He thought it was one of the things the politicians did not think about. They did not realise how far they were driving people to combine. One of the reasons why people must combine was that they had to have research and development in order to live in industry, and research and development could be expensive things. They could only be carried out by a fairly heavy turnover and a liberal scope for making profits, and there came a point when a unit was just economically not viable. It could not support independent research and development and it must combine.

The organisational system for any company had to be that which suited it best and suited the people who were working in it and the trade it carried out. Then if all went right, they would get their profits. If they did not get profits it suggested that there had been a miscalculation somewhere and another line should be tried. One should keep the organisation constantly under critical examination.

Amongst those taking part in the discussion on Mr. G. E. Walker's address were Messrs. G. P. Clarke, F.C.W.A.; R. V. Denby, F.C.W.A.; G. E. Ellard, A.C.W.A.; F. Goodey, F.C.W.A.; B. T. Hamnett, F.C.W.A.; W. Hyde, F.C.W.A., A.A.C.C.A.; J. N. Lund, A.C.W.A.; F. Osborn, F.C.W.A.; and D. Willingham.

A vote of thanks to Mr. Walker and Mr. Slater was moved by Mr. D. E. Edmonds, F.C.W.A.

LETTERS TO THE EDITOR

The Stanley J. D. Berger Testimonial

(FROM THE FORMER DIRECTOR AND SECRETARY
OF THE INSTITUTE)

My Dear Friends,

During the annual banquet on 5 June, 1959, the President presented to me a handsome cheque on behalf of a large number of members and registered students who had so generously subscribed to the testimonial fund, sponsored by Mr. Harold Wilmot, after my retirement from the Institute last September. Accompanying the cheque was a beautifully bound volume containing the signatures of the many contributors.

I have recognised from the majority of these signatures a very large number of members and students in all parts of the world; many are the names of lifelong friends; others are of those whom it has been my privilege to meet at the head office, at Institute functions, in the branches or overseas; others again are of people with whom I have corresponded but have never met.

I expressed my thanks at the banquet and this letter is the only practical means of conveying to those not present on that occasion my very sincere and grateful thanks for their generosity and goodwill.

The money gift is most acceptable and will add considerably to the happiness of my wife and myself in our retirement, but above all, the goodwill and friendship which has actuated this gift will always be a treasured memory.

Yours very sincerely,

STANLEY J. D. BERGER,

O.B.E., M.C., F.C.I.S.

84 Hallam Street,
London, W.1.

[The report of Mr. Berger's speech at the banquet, with photographs of the occasion, are published elsewhere in this issue—*Editor*].

Fixed and Variable Costs

Dear Sirs,

I read with interest the articles by Mr. Bishop and Mr. Partridge.

I think that Mr. Bishop is quite correct in his views regarding the increasing ratio of fixed to variable costs, and this matter requires careful thought.

In my view Mr. Partridge misses the main point. In ordinary day-to-day control and esti-

imating, vast increases or decreases in output etc. do not have to be considered. I submit that for every-day practical control, and for purposes of profitability estimates, the segregation of costs into fixed and variable, difficult though it is, is worthwhile and has very practical applications. Sometimes it is necessary and proper to break down a certain cost into fixed and variable elements, and this calls for careful study of that cost.

Of course, whenever fundamental changes occur in output, types of plant, method of production etc. the cost accountant must carefully review the position in the light of the changed conditions.

Your journal is doing a service to all concerned in providing space in which this important subject may be debated.

Yours faithfully,

D. H. JACK

Bletchley

Dear Sir,

After studying carefully Mr. Partridge's interesting article challenging the proposals put forward in my summer school paper I am only able to find one fundamental difference between our two points of view and even that I feel is capable of being resolved.

Mr. Partridge's only deep-rooted objection I think is that he does not like my 'take-over bid' for the grand old firm of 'Fixed and Variable' with a view to its playing an important part in cost control schemes, but I am firmly of the opinion that we need the old firm's important and useful assets of simplicity and wide acceptance as costing terms to be turned to good account in the operation of such schemes, which I envisage are going to become an even more important duty of the management accountant in the future.

The illustrations in Tables I to III do not seem incompatible with my proposals for they are surely based on the same idea of a master plan and performance budgeting of future activity. One comment however on the tables is that I would have thought that the £45,000 loss on obsolescent machinery created by a switch from project A to project B would have represented a variable cost of B in assessing the relative long-term profitability of making the change.

I agree with the point that the great majority

of industrial firms are going concerns with a high proportion of more or less settled activities, but nevertheless each organisation is carrying out a certain combination of projects, some old and some new, and my suggestion is that if at a certain point in time the entire activity of an individual firm was to be set within the framework of a long-term or master plan then it would be in a better position to safeguard its future.

As to the question of using 'long term' and 'short term' in relation to cost control, there can surely be no objection to borrowing economic terms when with the increased planning of production, economics and costing must become ever more closely linked.

If Mr. Partridge thinks that I have got a bee in my bonnet over planning and cost control, he would be quite right! Of course I put good planning at a very high premium. Proper production planning *allied to a planned programme of cost control* is essential as production becomes more automatic, and this applies as much to the medium-size jobbing industry which is increasing its output by the use of high-speed tools and modern ideas of work measurement as it does to the very large concerns making articles on mass-production conveyor belts.

The management accountant has got to make himself a good planner, and to recognise that cost control should provide his organisation with a constant means of inspection while production is being carried on in the same way that the pro-

duct itself is being carefully and regularly tested for quality. Cost control is essentially a test of the quality of the organisation itself.

We are living in an age when historical cost analysis is having to yield in importance to budgeting and other techniques of cost control, and terms such as 'fixed' and 'variable' which have given such good service to the cost analyst in the formative years of cost accountancy surely need not be thrown on the scrap-heap at a time when the entire science (or art!) should be evolving to keep pace with modern conditions. I am quite unrepentant in wanting to give these ancient terms a new lease of life, and less of a split personality, by fixing new definitions to them which can apply in both theory and practice, and if these definitions should happen to mean the same thing as 'controllable' and 'non-controllable', why should we argue with that in an age when *control* ought to be our main pre-occupation?

To conclude, I would like to thank Mr. Partridge for the courteous and stimulating manner in which he has made his challenge and although I would have liked to comment further on several other interesting points which he makes, I feel that I have taken up more than my fair share of space already.

Yours faithfully,
E. B. BISHOP, F.C.W.A., A.C.I.S.

West Wickham

BOOK REVIEWS

Decision-making and Productivity

by SEYMOUR MELMAN

Basil Blackwell, Oxford.

Pp. 260. £1 7s. 6d.

Mr. Seymour Melman is an Associate Professor of Industrial and Management Engineering at Columbia University. The purpose of his book is to show that there are major alternatives in industrial decision making and that they have measurable effects on productivity. Mr. Melman appears to favour the effectiveness of labour in this respect and he bases his arguments on a personal study of the management and the workers of the Standard Motor Company, Coventry. The information presented for the most part covers the period 1950-53, but in the latter part of the book some details of the so-called 'automation strike' of 1957 are given, thereby bringing the book up-to-date.

There can be, of course, no argument that there are alternative ways for organising decision making on production in large mechanical plants. It is,

however, more debatable whether high levels and rapid growth in industrial productivity can be achieved, as claimed by Mr. Melman, when industrial workers as well as management do such decision making.

Even although one may disagree with the views expressed and with the presentation of the arguments to support them, this book is nevertheless an interesting inside view of the management and the union in the Standard Motor Company.

★ ★ ★

The Directory of Directors 1959

Thos. Skinner and Co. (Publishers) Ltd.

Pp. 940. £3.

Now in its 80th year, this most popular and frequently used reference work contains some 35,000 names of directors and the companies they control.

It is an essential item for the well equipped business library and is particularly useful for accountants who come into contact with many firms.

THE INSTITUTE OF COST AND WORKS ACCOUNTANTS

THE FORTIETH ANNUAL GENERAL MEETING

THE fortieth annual general meeting of members of The Institute of Cost and Works Accountants was held at The Connaught Rooms, London, at 10.30 a.m. on Saturday, 6 June. The chair was occupied by Mr. Henry J. Furness, President of the Institute.

Report and Accounts

The report of the Council and the accounts for the year ended 31 December, 1958, which had previously been circulated, were taken as read.

The President, addressing the meeting before moving the adoption of the annual report and accounts, said that during the present year they should see the completion of the work in the headquarters premises. It was the view of the Council that the exceptionally heavy expenditure reflected in the accounts was in the nature of a wise investment and was all directed towards the Institute's ultimate objectives.

In a reference to *The Cost Accountant*, Mr. Furness said that the journal was probably the most valuable of the free services provided by the Institute for its members and registered students. The Council most earnestly asked that all members and registered students make a point of reading the contents page and the page of official announcements immediately the journal was received.

Articles from members, explaining a particular aspect of a technique of cost accounting, for publication in the journal, would be welcomed.

The Council were conscious of the special difficulties which continued to confront committees of branches and students' societies in their endeavour to maintain and increase interest in meetings and works visits. About one-third of the Institute's members and registered students were able or willing to take any part in the corporate life of the Institute.

The Council had been giving particular attention to the election of members to the Council from the respective geographical areas. Discussions had been going on in branch committees concerning the possible effects of reducing the number of geographical areas from the present 20, in the United Kingdom, to 9, dividing the country more equally, territorially.

The report and accounts were unanimously adopted.

Co-options and Election to Council

Vacancies on the Council caused by the retirement of members in rotation in accordance with

the articles had resulted in the following elections:

Area No. 1—London and South East England	Mr. H. P. Court Mr. A. Holdsworth Mr. Lawrence W. Robson
Area No. 3—East Anglia	Mr. F. Simmonds
Area No. 4—Birmingham and District	Mr. J. H. Whicheloe
Area No. 7—Manchester and District	Mr. L. W. Seddon
Area No. 15—North Lancashire & N.W. Coast	Mr. B. T. Hamnett
Area No. 16—Leicester and District	Mr. C. E. Power

During the year a postal ballot was held in Area No. 1, London and South East England, as a result of which Mr. W. L. Spalding was elected.

Messrs. Roland Dunkerley, A. W. Muse, W. S. Risk, F. W. H. Saunders and S. C. Tyrrell were co-opted to the Council for the two-year period allowed under article 36.

The meeting formally confirmed all the foregoing elections and co-options.

Election of Vice Presidents

The President moved that the meeting confirm the Council's re-nomination of and re-elect Mr. William Symington Risk as a Vice President of the Institute for the ensuing year. The motion was seconded and carried unanimously.

The President next moved that the meeting confirm the Council's nomination of and elect Mr. Francis Maurice William Hird as Vice President of the Institute for the ensuing year. The motion was seconded and carried unanimously.

The new Vice-President was handed his badge of office and took his seat on the platform.

Election of President

Mr. Henry J. Furness, the retiring President, then asked the meeting to confirm the Council's nomination of and elect Mr. Edward Emmerson to the office of President of the Institute for the ensuing year. The motion was seconded by Mr. Roland Dunkerley and on being put to the meeting, it was carried with acclamation.

Investiture of President

With the meeting standing to hear the traditional words of investiture, Mr. Emmerson was installed as President by Mr. Furness, invested with the presidential badge and handed the Institute gavel as the emblem of his authority within the Council.



THE NEW PRESIDENT OF THE INSTITUTE IS INSTALLED In an impressive ceremony at the annual general meeting the retiring President, Mr. Henry J. Furness, takes off his chain of office and transfers it to the new President, Mr. Edward Emmerson. Mr. W. S. Risk, (second from right) and Mr. F. M. W. Hird (right), are the two Vice Presidents for the ensuing year. Mr. Derek du Pré, Secretary of the Institute is seen on the left.

Vote of Thanks to Retiring President

The new President, Mr. Emmerson, proposed a vote of thanks to the retiring President, Mr. Furness and asked him to convey the thanks of the Council to Mrs. Furness for the cheerful and willing support given to him in carrying out the official duties during his year of office.

Mr. Emmerson then asked Mr. Furness to accept the Past-President's badge and, for Mrs. Furness, a

broach bearing the Institute's Coat of Arms and expressed the hope that these tokens would remind them of the many friendships made all over the country.

Vote of Thanks to Secretary and Staff

A very cordial vote of thanks to the Secretary and the Institute staff was proposed by Mr. Furness, and Mr. du Pré replied.

MEETING OF THE COUNCIL

A MEETING of the Council of The Institute of Cost and Works Accountants was held at 63 Portland Place, London, on 6 June.

Present: Mr. E. Emmerson (*President, in the Chair*); Messrs. T. W. Badgery; W. Bishop; J. Borsay; H. A. Butler; S. J. Careless; Roland Dunkerley; D. E. Edmonds; H. J. Furness; R. Glendinning; B. T. Hamnett; W. E. Harrison; F. M. W. Hird; J. Liddell; Ian T. Morrow; A. W. Muse; F. Nuttall; G. J. Pierce; C. E. Power; J. M. S. Risk; W. S. Risk; F. W. H. Saunders; L. W. Seddon; H. Smith; W. L. Spalding;

G. C. Stone; J. H. Whicheloe; E. W. Whittaker; W. W. Williams; J. P. Wilson; with Mr. Derek du Pré (*Secretary*).

Apologies for absence were received from Messrs. H. P. Court, W. Coutts Donald; H. Hodgson; A. Holdsworth; H. Kirkham; G. Nicholson; Lawrence W. Robson; and F. Simmonds.

Fortieth Annual General Meeting

The proceedings of the fortieth annual general meeting (an account of which appears on the previous page) were taken as reported.

IN AN ANSON OFFICE —

NEW MACHINE ELIMINATES MISTAKES halves P.A.Y.E. work preparation

Banish the time-wasting costly drudgery of making useless repetitive entries in Wages Book, Taxcards, Payslips and Wages Envelopes. Essential entries for each employee are completed in one operation with no risk of transcription errors with the Anson P.A.Y.E. Machine. One entry only for three records means one single proof only for 100 to 1,000 employees to ensure accuracy. Any wages clerk can use the Machine without special training.

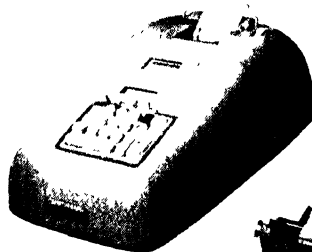
The Anson Payroll Machine has the approval of the Inland Revenue and is suitable for any firm employing more than sixteen people. It costs less than a typewriter. Rental terms if required.

Every Anson P.A.Y.E. Machine is guaranteed for life and will pay for itself in twelve months.

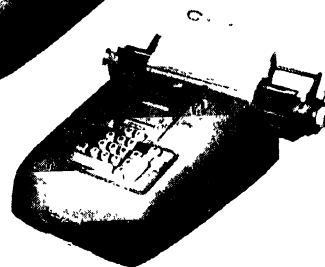
1959	ANSON PAYROLL MACHINE ENQUIRY FORM	
Please send full details of the Anson Payroll Machine without obligation.		
Name	Title	Please pin completed form to your letter-heading and post to GEORGE ANSON & CO LTD Solway House Southwark Street London, SE1 Telephone: WATerloo 2711 (10 lines)
Company		
Address		
.....		
.....		
Telephone	No. employed	C.A.



The makers of the
universally renowned **COMPTOMETER**
NOW offer you **Comptograph**
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METROPOLITAN COLLEGE

ST. ALBANS

Vacancy on the Council

The Council declared a vacancy in respect of the seat on the Council for Area No. 10 (Leeds and District) held by Mr. E. Emmerson at the date of his election as President, the unexpired period being two years.

Co-option of Mr. J. B. Charles

The Council co-opted Mr. J. B. Charles, A.C.A., C.A.(S.A.), F.C.W.A., under Article 36.

Appointment of Executive and Standing Committees

The Council appointed standing committees as follows, the chairmen of which (among whom is Mr. F. M. W. Hird, a Vice President), together with the President, Mr. E. Emmerson, the immediate Past President, Mr. Henry J. Furness, Mr. W. S. Risk, a Vice President, and Messrs. J. Borsay, Ian T. Morrow and F. W. H. Saunders, Past Presidents of the Institute, constitute the Executive Committee for the forthcoming year:

Examination Committee Mr. W. Bishop (*Chairman*); Messrs. S. J. Careless; W. Coutts Donald; D. E. Edmonds; R. Glendinning; A. W. Muse; F. Nuttall; J. M. S. Risk; W. S. Risk; F. Simmonds; W. L. Spalding.

Law and Parliamentary Committee Mr. H. Hodgson (*Chairman*); Messrs. G. Nicholson; L. W. Seddon; G. C. Stone.

Journal and Library Committee Mr. F. Simmonds (*Chairman*); Messrs. R. W. Duffield; R. B. Garnham; R. Glendinning; A. Holdsworth; R. Y. Kennedy; J. M. S. Risk.

Training and Educational Facilities Committee Mr. F. M. W. Hird (*Chairman*); Messrs. E. F. Brown; A. D. Coventry; Roland Dunkerley; F. Nuttall; C. E. Power; J. M. S. Risk; F. W. H. Saunders; W. L. Spalding.

Branch Development Committee Mr. J. Liddell (*Chairman*); Messrs. T. W. Badgery; S. J. Careless; H. P. Court; D. E. Edmonds; W. S. Foster; L. Jenkinson; J. M. S. Risk; W. S. Risk; L. W. Seddon; E. W. Whittaker.

Cost Consultancy Committee Mr. J. P. Wilson (*Chairman*); Messrs. W. Coutts Donald, W. E. Harrison; H. Hodgson; F. C. Lawrence; Ian T. Morrow; H. H. Norcross; H. Smith.

Research and Technical Committee Mr. C. E. Power (*Chairman*); Messrs. W. Bishop; W. Coutts Donald; R. V. Denby; J. Fridge; B. T. Hamnett; H. Hodgson; H. Kirkham; J. Liddell; A. W. Muse; H. H. Norcross; G. J. Pierce; J. A. Reece; R. T. Rickers; J. M. S. Risk; H. Smith; W. L. Spalding; C. E. Sutton; R. E. Thomason; J. H. Whicheloe; J. P. Wilson.

Nominating Committee

The Council elected Mr. A. W. Muse as the third Past President, for service on the Nominating Committee.

Annual Appointment of Examiners

The Council confirmed the appointments and re-appointments of the persons constituting the Board of Examiners for 1960.

Changes in Branch Secretaryships

The resignations of Messrs. W. D. Blackwood, A.C.W.A. (Glasgow and District Branch), L. E. H. Lovejoy, A.C.W.A. (Harrow and District Branch), S. Carter, A.C.W.A. (Sheffield and District Branch), E. A. M. Scott, F.C.W.A. (Bulawayo Centre), and C. A. Jurgens, A.C.W.A. (Natal Centre), as honorary secretaries of the branches named, were accepted, with the best thanks of the Council for their past services. The following were appointed to fill these vacancies. Messrs. A. W. White, F.C.W.A. (Glasgow and District Branch); E. V. Powell, A.C.W.A. (Harrow and District Branch); D. Titterton, A.C.W.A. (Sheffield and District Branch); J. B. Hunter, A.C.W.A. (Bulawayo Centre); and V. H. Bunn, A.C.W.A. (Natal Centre).

Dates for Council and Executive Meetings

Meetings were arranged as follows: COUNCIL, 4 March; 14 May; 30 September; 2 December. EXECUTIVE COMMITTEE, 5 February; 29 April; 8 July; 28 October.

CONFERENCE OF BRANCH SECRETARIES

A conference of branch secretaries was held at 63 Portland Place, London, at 11 a.m. on 4 June.

The branches represented were: Bedford and Luton; Belfast; Birmingham; Bristol; Croydon; Dublin; Dundee; Edinburgh; Glasgow; Hampshire; Harrow; Ilford; Kingston; Leeds; Leicester; Liverpool; London; Middlesbrough; Norfolk & Suffolk; North East Coast; North Lancashire; Nottingham; South Wales & Monmouthshire; Wolverhampton.

Mr. J. Liddell, Chairman of the Branch Development Committee, presided, and the President, Mr. Henry J. Furness, opened the conference.

Members of the Executive Committee of the Council and of the Branch Development Committee were also present.

Amongst the subjects discussed by the conference were a revised scheme for the election of members of Council; branch records and circularisation; students' courses; the presentation of examination certificates; joint meetings with local productivity committees; and the costs of branch functions.

EXAMINATIONS

December 1959

The December examinations (Intermediate and Final grades only) will be held on Monday, Tuesday and Wednesday, 7, 8, 9 December, 1959, and applications to sit must be made on form C, obtainable from the Institute on receipt of a stamped and addressed gummed label. (Printed rate for home centres, 2d.) Applications, accompanied by the appropriate fees, must be received at Institute headquarters not later than the following dates:

Overseas centres: 10 September 1959.

Home centres: 10 October 1959.

Intending candidates are asked to note the above dates carefully, as no late entries can be accepted.

ELECTIONS TO MEMBERSHIP

The following were elected during May 1959. Employers are shown as at the date of election.

FELLOW

CHANDRASEKHARAN, T. R. I., *Macneill & Barry Ltd.'s Collieries, Dishergarh, India.*

ASSOCIATES

ALDRED, B. C., *Folland Aircraft Ltd., Southampton.*
ALLAN, C., *Miller Insulation & Engineering, Ltd., Glasgow.*

AMOS, R., *A. Bird & Son Ltd., Birmingham.*

BAILEY, F. G., *Collaro Ltd., Barking.*

BANERJEE, P. L., *High Commission of India, London.*

BINDING, L. H., *Laporte Industries Ltd., London.*

BREALEY, G. O., *Aristoc Ltd., Langley Mill, Notts.*

BURNS, J. A., *Albright & Wilson (Mfg.) Ltd., Oldbury.*

CLARE, N., *Pilkington Bros. Ltd., St. Helens.*

COX, B., *Marconi Wireless Telegraph Co. Ltd., Chelmsford.*

CREW, S. A., *Norton Grinding Wheel Co. Ltd., Welwyn Garden City.*

CROFTS, G. C., *National Coal Board, Bolsover.*

DAISH, P. R., *Radio Heaters Ltd., Wokingham.*

DAVIES, H., *Skyways, Ltd., Stansted.*

DIXON, A., *British Insulated Callenders Cables Ltd., Prescott.*

DUCKWORTH, E. R., *C. G. Skipper Ltd., Burnley.*

EDWARDS, C. M., *National Coal Board, Manchester.*

ELLIS, C. W., *C. C. Wakefield & Co. Ltd., London.*

FENNELL, R., *Fletcher Bros. (Pressings) Ltd., Birmingham.*

FRAMPTON, T. A., *Tate & Lyle, Ltd., London.*

HAIGH, R. E., *Rediffusion Research Ltd., Kingston.*

HAMBLETT, J. C., *National Coal Board, Manchester.*

HARRISON, W., *National Coal Board, South Shields.*

HODKINSON, J., *Croxden Gravel Ltd., Stoke-on-Trent.*

HOLFORD, D. A., *Rolls-Royce Ltd., Derby.*

HUNTER, W., *Readson Textiles Ltd., Manchester.*

IONS, J. T., *Commercial Plastics Ltd., Wallsend on Tyne.*

KEOGH, J. F. G., *Arthur Guinness Son & Co. (Park Royal) Ltd., London.*

LOWCOCK, B., *F. Francis and Sons Ltd., London.*

MCCAFFERY, C., *W. J. Bush & Co. Ltd., Widnes.*

MALLINSON, S., *Mitchell, Ashworth, Stansfield & Co. Ltd., Rossendale.*

MOAT, A. M., *Servomex Controls Ltd., Crowborough.*

MOORE, R. C., *Corporation of Belfast.*

MORLEY, V. A., *Board of Trade, Liverpool.*

MOSS, V. R., *London & Rhodesian Mining & Land Co. Ltd., Salisbury, S. Rhodesia.*

NAIR, C. P. K., *P. & T. Department, Government of India, Calcutta.*

ROCHE, A., *Renold Chains Ltd., Manchester.*

ROCK, T., *Hough, Hseason & Co. Ltd., Manchester.*

ROSS, L., *Kesselman and Kesselman, Tel-Aviv, Israel.*

RYAN, J., *Ford Motor Co. Ltd., Dagenham.*

SCOTT, I. F., *Henry Wiggin & Co. Ltd., Glasgow.*

SHACKLETON, D. B., *Hepworth & Grandage, Ltd., Bradford.*

STEPHENS, C. M., *Peat, Marwick, Mitchell & Co., London.*

THAN TU, *Board of Management, Port of Rangoon.*

THORBY, W. G., *Peat Marwick Mitchell & Co., Pretoria.*

TITTERTON, D., *Newton Chambers & Co. Ltd., Sheffield.*

VAIDYANATHAN, R., *Firestone Tyre & Rubber Co. of India Private Ltd., Bombay.*

VAILL, L. W., *Rubery Owen & Co. Ltd., Darlaston.*

WHELDAL, L., *Wood Bros. & Co. (Gaskets) Ltd., Cleckheaton.*

WHOLER, A. G., *Bowater-Scott Corporation Ltd., London.*

WITT, H. J., *Pirie Appleton & Co. Ltd., Chadwell Heath.*

WOOLLARD, C. C., *Murex Ltd., Rainham.*

WYKES, R. T., *London Rubber Co. Ltd., London.*

YARDLEY, A. J., *Foresight Productions Ltd., Birmingham.*

COST CONFERENCES

NORTH REGION

A North Regional cost conference is being arranged to take place at the Grand Hotel, Sheffield, on 17 October. The theme of the conference will be management accountancy. Detailed information will be made available through the usual channels.

LONDON REGION

On Saturday, 21 November, the branches in London and South-East England are to combine for a day's conference at The Connaught Rooms. This year they are being invited to hear firstly an eminent economist on the factors which can determine national economic policy; and secondly, a managing director on the problems top management in industry is called upon to solve as a result of such policy.

Mr. Paul Bareau, the distinguished economist and well-known city editor has kindly agreed to give the conference his impressions of the choices open to a Chancellor of the Exchequer and other ministers in the formation of national economic policy.

Mr. Ian T. Morrow, a Past President of the Institute and Chairman and Managing Director of U.K. Optical Bausch & Lomb Limited, will examine the probable consequences for industry and the effects on costs.

AN INVITATION TO JOIN BRANCHES AND STUDENTS SOCIETIES

Honorary secretaries of branches, sub-branches and students societies are now compiling their mailing lists of names and addresses of members and registered students who wish to receive reminders about the monthly meetings from September to April next.

The same form of postcard application (Form B.M.1) is in use, and copies are distributed by branch secretaries. Mailing lists have to be pruned each year to avoid waste. The completion of a card *last year* will not be taken as evidence of continuing interest.

EDUCATIONAL FACILITIES

Colleges Providing Examination Tuition

The following colleges have notified the Institute that they can provide tuition for some or all of the Institute's examination subjects in the 1959-60 session. Students wishing to enrol should apply without delay to the principal of the college of their choice.

London (Postal Area)

Balham and Tooting College of Commerce,
Tooting Broadway, S.W.17.*†‡
Catford College of Commerce, Plassy Road, S.E.6.
Chiswick Polytechnic, Bath Road, W.4.*
City of London College, Moorgate, E.C.2.*†
Ealing Technical College, St. Mary's Road, W.5.*
East Ham Technical College, Barking Road, E.6.
East London College of Commerce,
Vallance Road, E.1.
Hendon Technical College, The Burroughs, N.W.4.*†
Kennington College of Commerce,
Kennington Road, S.E.11.
North London College of Commerce,
Stoke Newington Road, N.16.
North Western Polytechnic,
Prince of Wales Road, N.W.5.*†
Regent Street Polytechnic, W.1.†
South West Essex Technical College,
Forest Road, E.17.*†
West Ham College of Technology,
Romford Road, E.15.*
West London College of Commerce,
Airlie Gardens, W.8.
Woolwich Polytechnic, Thomas Street, S.E.18.*†

ASHINGTON County Technical College.
BANBURY North Oxfordshire Technical College and
School of Art.
BARNLEY College of Technology.*†
BARROW IN FURNESS Central College of Further
Education.*
BEDFORD Mander College.
BELFAST College of Technology.†
BILLINGHAM Stockton/Billingham Technical
College.*
BIRKENHEAD Technical College.*
BIRMINGHAM College of Commerce.*†

BLACKBURN Municipal Technical College and
School of Art.*†
BLACKPOOL Technical College and School of Art.
BOLTON Technical College.*
BOURNEMOUTH Municipal College of Technology
and Commerce.*
BRADFORD Institute of Technology.*†
BRADFORD Technical College.
BRAINTREE College of Further Education.*†
BRIDGEND Technical College.
BRIGHTON Technical College.*†
BRISTOL College of Commerce.*†‡
BROMLEY Technical College.
BROMSGROVE College of Further Education.†
BURNLEY Municipal College.
BURTON ON TRENT Technical College.*

CAMBRIDGE Cambridgeshire Technical College and
School of Art.*†
CANNOCK Cannock Chase Mining and Technical
College.
CARDIFF Welsh College of Advanced Technology.*†‡
CHATHAM Medway College of Technology.*
CHELMSFORD Mid-Essex Technical College and
School of Art.*
CHELTENHAM North Gloucestershire Technical
College.*
CHESTER College of Further Education.
CHESTERFIELD College of Technology.†
COATBRIDGE Technical College.*
CONNAH'S QUAY Flintshire Technical College.*†
CORK Municipal School of Commerce.
COVENTRY Technical College.*†
CRAWLEY College of Further Education.
CROYDON Technical College.
CRUMLIN Technical College of Monmouthshire.*

DAGENHAM South East Essex Technical College.*†
DARLINGTON College of Further Education.*
DARTFORD North West Kent College of Technology.
DERBY and District College of Technology.*
DONCASTER Technical College.*
DUBLIN College of Commerce.*
DUDLEY and Staffordshire Technical College.*
DUNDEE Technical College.*†

* A part-time day course is offered in addition to the normal evening class.

† A full-time day course is offered in addition to the normal evening class.

‡ A course for the Fellowship examination is offered.

EASTHAM Central College of Further Education.*
 EDINBURGH Heriot-Watt College.*
 ENFIELD Technical College.*
 EXETER Central Technical College.*†

FARNBOROUGH (Hants) Technical College.
 FOLKESTONE Technical College.

GAINSBOROUGH County Technical College.*
 GLASGOW Scottish College of Commerce.*††
 GLOUCESTER Technical College.*
 GRANTHAM College for Further Education.*
 GRAYS Thurrock Technical College.
 GRIMSBY College of Further Education.*
 GUILDFORD County Technical College.

HALESOWEN College of Further Education.*
 HALIFAX Percival Whitley College of Further Education.*

HARLOW College of Further Education.
 HARROW Technical College and School of Art.*
 HATFIELD Technical College.*
 HEREFORD College of Further Education.
 HIGH WYCOMBE College of Further Education.
 HINCKLEY College of Further Education.
 HUDDERSFIELD Technical College.*

IPSWICH School of Commerce and Management.*
 ISLEWORTH Spring Grove Polytechnic.

KETTERING Technical College.*
 KINGSTON UPON HULL College of Commerce.*
 KINGSTON UPON THAMES Technical College.*††

LEEDS College of Commerce.*††
 LEICESTER College of Technology and Commerce.*†
 LETCHWORTH North Herts Technical College.*
 LIVERPOOL College of Commerce.*††
 LLANELLY Technical College.*
 LUTON College of Technology.*

MAIDSTONE Technical College.*
 MANCHESTER College of Commerce.*†
 MANSFIELD Technical College.*
 MIDDLESBOROUGH Constantine Technical College.*

NEATH Technical College.*
 NEWCASTLE UPON TYNE Municipal College of Commerce.*††
 NEWPORT, MON., College of Further Education.*
 NORTHAMPTON College of Technology.
 NORWICH City College and Art School.*
 NOTTINGHAM and District Technical College.*

OXFORD College of Technology, Art and Commerce.*

PETERBOROUGH Technical College.*
 PLYMOUTH and Devonport Technical College.*
 POOLE College for Further Education.
 PORTSMOUTH College of Technology.*†
 PRESTON Harris College of Further Education.*

RAMSGATE Thanet Technical College.*
 READING Technical College.*

REDDITCH College of Further Education.
 REDRUTH Cornwall Technical College.*
 ROTHERHAM College of Technology.
 RUGBY College of Technology and Arts.

ST. HELENS Technical College.*†
 SALFORD Evening Institute of Commerce.
 SHEFFIELD College of Technology.*†
 SLOUGH College of Further Education.*†
 SOUTHAMPTON Technical College.*
 SOUTH SHIELDS Marine and Technical College.*
 STAFFORD County Technical College.*
 STOCKPORT College for Further Education.*
 STROUD and District Technical College.
 SUNDERLAND Technical College.*
 SWANSEA Technical College.*†
 SWINDON The College.*

TREFOREST Glamorgan College of Technology.*

WAKEFIELD Technical and Art College.
 WARRINGTON Technical College.*
 WATFORD Technical College.
 WEDNESBURY County Commercial College.*†
 WEST HARTLEPOOL Technical College.*
 WESTON SUPER MARE Technical College.*
 WIGAN and District Mining and Technical College.
 WOLVERHAMPTON and Staffordshire College of Technology.*
 WORCESTER Victoria Institute.
 WORKINGTON College of Further Education.

YARMOUTH College of Further Education.
 YORK Technical College.*

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† A full-time day course is offered in addition to the normal evening class.

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THE COST ACCOUNTANT

Editorial and advertising offices:—63 Portland Place, London, W.1 (Tel. LANGham 6542).

Subscription rate: 18s. per year, post free. Single copies, 1s. 10d., post free.

Published each month by The Institute of Cost and Works Accountants.

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Printed by Straker Brothers Ltd., 194–200 Bishopsgate, London, E.C.2.

THE COST ACCOUNTANT

Journal of The Institute of Cost and Works Accountants

VOLUME 37

SEPTEMBER 1959

NUMBER 15

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'A Fund of Knowledge'

SINCE man learnt to write, the quantity of accumulated knowledge and experience recorded is so vast that it is quite impossible to comprehend it. In our time so much is poured into print each year on every imaginable subject that the enquiring mind finds difficulty in sifting the pertinent passages in a reasonable space of time.

Yet there is a fund of knowledge—the real expertise gained from practical experience—which is never recorded in any form but is passed on by word of mouth to those who are lucky enough to be in a position to hear it. In thirty minutes or so a speaker at an Institute meeting can pour out for the benefit of his audience the distilled knowledge and wisdom gained over the years through the practical application of cost and management accountancy. The attentive member or student has priceless opportunities of asking questions and receiving explanations on aspects of the problems discussed which have a direct bearing on his own daily work or on his studies. The discussion periods which follow the presentation of a lecture offer the chance of learning how to present a case in concise language—an accomplishment which

is far from common and one which is indispensable to the cost accountant who wants to excel in his job.

In September or October every branch, sub-branch and students society of the Institute will commence a series of meetings planned for the purpose of adding to the sum total of knowledge of cost accounting, financial control, business management and all the other complicated techniques used to attain maximum efficiency in the conduct of modern industry.

Meetings take the form of lectures, informal discussions following a short expert introduction of a subject, debates, films with commentaries or inspections of factory plant followed by discussion of the methods and controls applied.

Every member and student is invited to make the fullest use of this service provided by the Institute. The only formality required to join a branch, sub-branch or students society is the completion and return of the postcard provided by local honorary secretaries. Details of the meetings arranged are also given each month in the pages of *The Cost Accountant*.

NOTES AND COMMENTS

BRITISH AND AMERICAN OUTPUT AND PRODUCTIVITY

A STUDY recently published by O.E.E.C. shows that real *per capita* product of the United Kingdom in 1957 was 57 per cent of that of the United States of America, measuring both at British prices.¹ Output per American worker was 2.2 times as high as output per British worker, again at British prices.

Some of the most striking results of the study emerge from the examination of the effects of wage and productivity levels on cost structures in the two countries. Estimates are given for 44 individual industries, additional information for a further 110 industries and sectors being provided in a series of appendices.

For example, in 1950, American employers in the motor industry paid £3 7s. 3d. (\$9.42) in wages for every £1 paid by their United Kingdom counterparts. But output per American worker was 4.7 times as high as output per British worker, so that unit labour cost was 14s. 6d. (\$2.02) per £1. The corresponding net cost ratio (i.e. taking into account also capital costs and profits per unit of output), was 17s. 6d. (\$2.47) per £1. In other words, in Britain it cost £1 (\$2.80) to produce an output which in America cost only 17s. 6d. (\$2.47). Thus the United States motor industry was in general more competitive than that of the United Kingdom, since, to the extent that final prices are accounted for by net costs, an importer in a third country could buy from the United States for 17s. 6d. (\$2.47) an item which would have cost £1 (\$2.80) if bought from Britain.

Shipbuilding and repairing may be taken as an example of an industry at the other end of

the scale. In 1950, the wage ratio was £3 4s. (\$8.99) per £1, but United States productivity was only 11 per cent higher, so that unit labour cost was £3 0s. 6d. (\$8.10) per £1. The net cost ratio was £2 17s. 3d. (\$8.02), i.e. it cost £2 17s. 3d. (\$8.02) to have the same shipbuilding and repairing work done in the United States as could have been done for £1 in British yards.

This study represents a new step forward in the technique of international comparisons, and will be of value to all those interested in the productive and competitive potential of the two economies.

REDUCING PRICES

THE third 'Cohen report' makes as challenging reading as did its two predecessors.² Established some two years ago the Council's task was to report from time to time on changes in prices, productivity and the level of incomes. Considerable stress is laid by the Council on the opportunity that current conditions give for a reduction in prices. A rise in output per head is expected and it is considered doubtful if money rates of pay and the prices of imported materials will go up. If these expectations are realised, unit costs will fall and this, according to the Council, is a most timely opportunity to reduce prices.

In relation to the profit margin content of prices, the Council have obtained some interesting information about the result of calculating depreciation at replacement costs as against historic cost. For British companies as a whole from 1950 to 1956 replacement cost depreciation was about one-third higher than historic cost depreciation, and total profits were 6 per cent. less on a replacement cost basis as against those calculated on a historic cost basis. The Council is completely in favour of prices being set to cover the additional cost of replacements.

Whilst, from a national viewpoint, the present situation is an ideal opportunity for

¹ *A Comparison of National Output and Productivity of the United Kingdom and United States*, by Deborah Paige and Gottfried Bombach. Joint study by the Organisation for European Economic Co-operation and the Department of Applied Economics, University of Cambridge. Pp. 245. £1 1s.

² *Council on Prices, Productivity and Incomes*. Third Report. July 1959. H.M.S.O. 2s. net.

active participation by industry in an endeavour to break through inflationary spirals, the position for any individual firm may not be so clear cut.

The justification for reducing prices is the stimulation of volume of sales to such a level as will more than compensate in total sales income for the loss in unit sales income and profit. Elasticity of demand is, however, by no means a uniform attribute of all products. There can clearly be situations for any individual company when to reduce prices as a result of reduced costs would be bad tactics both in the long and short term.

In many industries price levels are extensively conditioned by the activities of traditional price leader companies within the industry, and smaller companies merely try to follow suit.

Where a basic raw material cost is reduced for an industry as a whole, there is a great likelihood that all firms will reduce their prices. Where, however, the cost reductions arise from improvements in organisation or from research work, it is often good practice to maintain the price level and to keep the extra profit.

Above all it is important to recognise that price levels for any one firm are only one element of its marketing strategy and that other features such as channels of distribution, advertising, terms, etc., are equally factors to be considered.

Exhortations to reduce prices do not apply only to manufacturers. In many industries reductions in the price from the manufacturer have little impact on the price to the consumer because of high distribution costs. On the other hand as retailers tend to work extensively on given mark-up levels, manufacturers' price reductions can often result in a multiplied reduction to the final consumer.

The indications for the cost accountant are firstly that he should watch for the impact of lower costs on the possibilities of lower prices, and that he should be ready with figures and schemes which might be relevant to a variety of eventualities. Secondly, the cost accountant should maintain an awareness of the possibilities of cost cutting arising from a policy of variety reduction. Thirdly, he must recognise that his activities encompass not only the production but also the selling and distribution function and that he must have something of value to offer management in that sphere.

FINANCE FOR EXPANDING COMPANIES

AN encouraging indication of vitality in the industrial scene in this country is given in the recently issued annual report of the Industrial and Commercial Finance Corporation. This organisation was formed to bridge the gap in providing finance for expanding companies which have not yet reached the stage of obtaining a quotation on the Stock Exchange.

The Chairman, Lord Piercy, reports that the Corporation is continually coming into contact with a number of new concerns which are expanding and the report gives a brief review of the application of technical innovations in five medium sized companies in which the Corporation is now interested.

The I.C.F.C. is selective in those organisations which it backs. It only provided facilities to 146 of the 313 applications that were received during its last financial year, and over one half of those successful went to existing customers on second or subsequent applications. Over 40 per cent of the advances made are in the form of secured loans and less than 10 per cent are in ordinary shares.

TREASURY DISPENSE WITH 130,000 FORMS

THE Treasury have announced a further simplification of exchange control formalities effective from 1 July, which has been designed to assist traders and to economise on administration costs.

At present, exchange control permission must be obtained by means of the appropriate form whenever a payment is to be made to a person or firm resident outside the Sterling Area in respect of imports into the United Kingdom exceeding £250 in value. In future no form will be required by the bank authorising payment for imports up to and including £500 in value.

The last occasion on which formalities on importation were reduced was in October, 1956, when, by waiving the requirement of form filling up to a consignment value of £250, it was estimated that some 400,000 forms per year would be eliminated. This represented about 50 per cent of the then number of all exchange control forms relating to U.K. imports from outside the

Sterling Area, but less than 2 per cent of their value. The present extension of that limit to £500 will, it is estimated, dispense with the need for over 130,000 additional forms per year, or nearly 30 per cent of the present clerical work falling on firms and banks; it will, however, eliminate from this formal control less than 2 per cent by value of imports from the non-sterling world.

RE-ORGANISATION OF COTTON INDUSTRY

A WHITE PAPER published in May sets out the Government's proposals to aid the Lancashire cotton industry in concentrating and re-equipping, by paying to it an estimated amount of £30 million over a five-year period. Firms which use man-made fibres as well as those which exclusively or mainly process cotton are included in the scheme. The first step will be to remove surplus capacity, as some 50 per cent of the spinning capacity, nearly 30 per cent of the weaving capacity, and between 25 and 40 per cent of the finishing capacity is regarded as being superfluous to foreseeable requirements.

These estimates are given in the white paper, which also reveals that the various sections of the industry estimate that the total cost of re-equipping the remaining plant would be between £78 and £93 million. In the rationalisation of the industry, the Government is ready to contribute two thirds of the cost of closing unwanted mills under schemes approved by the Board of Trade, and supervised by a special agency under the Cotton Board. The industry will raise the balance by statutory levy.

Provided the Board of Trade is satisfied that enough surplus capacity in the industry will be eliminated, the Government will also pay a grant of one quarter of the cost of modernising existing machinery and providing new machinery. Grants to owners will be conditional on compensation being paid to displaced operatives.

There are many difficulties in assessing the amount of compensation payable to individuals made redundant, and after separate meetings of mill owners and trade union officials it was agreed that compensation payments should be linked to age alone and be on a sliding scale, ranging from one week's pay for a 21-year-old worker, to 30 weeks' pay for a worker aged 65 years or over. A working party of employers

and union officials was set up to work out details of this part of the scheme.

The total charge on public funds in implementing the scheme is estimated at £30 million, but this depends on the extent to which the industry takes advantage of the assistance offered, and on such factors as the terms which are settled for eliminating surplus capacity.

The Government's proposals have now been ratified by Confirmation Orders dated 30 July, 1959, in respect of the spinning, weaving and doubling sections of the industry.

In these Orders, a deadline of 30 September, 1959, is made for registration of applications for compensation, and minimum figures are laid down for the scrappage of machinery in each section. Unless these minimum figures are reached by the deadline date, the compensation proposals will not apply.

There is a strong feeling in the industry that the necessary participation will be achieved and that many firms will benefit by a special 5 per cent. bonus for registering their decisions before 31 August.

Accountants connected with the industry must ensure that their approach to costing and pricing problems is as up to date as the new organisations and machinery that are imminent.

JUNE 1959 EXAMINATIONS

WE publish elsewhere in this issue the pass list for the June 1959 examinations of the Institute. The total number of candidates was 5,770, of whom 2,032 (35%) were successful.

Of the 114 candidates for the Fellowship examination, 28 passed. The *Lewton Coronation Prize* for the best paper in management accountancy submitted by an Associate of the Institute was won by Mr. F. W. Rowley, A.C.W.A., A.C.I.S., who is general manager of the Ghana Industrial Development Corporation, Accra.

There were 1,780 candidates sitting for one or both parts of the Final examination, of whom 612 (34%) were successful. The *S. Laurence Gill Prize* for first place was won by Mr. J. F. R. Gale, B.A. of Welling, Kent, formerly of S. Africa; the *Leverhulme Prize*, for the best papers in advanced cost accountancy, by Mr. D. Young, B.COM. cost accountant with Gold-hanger Fruit Farms Ltd., Bridgend; and the

Donald L. Moran Prize, for the best paper in management, by Mr. P. R. Hurrell, B.A., graduate apprentice with British Timken Ltd., Northampton.

1,332 (36%) of the 3,642 candidates for one or both parts of the Intermediate examination passed. The *George Russell Memorial Prize* for first place was awarded to Mr. D. H. Probert, commercial trainee with Joseph Lucas Ltd., Birmingham.

There were 234 candidates in the Preliminary examination. 60 (26%) passed.

EXAMINATION RESULTS OF SOME KINDRED BODIES

AT the May 1959 examinations of The Institute of Chartered Accountants in England and Wales, there were 2,994 candidates, of whom 1,341 (45%) passed.

There were 981 candidates for the examinations of The Society of Incorporated Accountants (in voluntary liquidation) conducted, in accordance with the scheme of integration, by the three chartered institutes. 521 (53%) were successful.

Of the 1,829 candidates for the June examinations of The Association of Certified and Corporate Accountants, 746 (41%) were successful.

In the examinations of The Institute of Municipal Treasurers and Accountants, there were 828 candidates of whom 287 (35%) passed.

NATIONAL PRODUCTION ADVISORY COUNCIL

FOR some years the National Production Advisory Council on Industry has performed the useful function of allowing the parties to the Council—T.U.C. the employers and the nationalised industries—to hear at first hand from the Chancellor of the Exchequer, as Chairman, the Government's view on industrial and economic trends. It has also been able to discuss problems on the basis of reports from chairmen of Regional Boards for Industry and to examine important questions raised either by a Minister or a member of the Council.

In a document recently sent to the Chancellor of the Exchequer, the T.U.C. General Council have suggested how the N.P.A.C.I. might play a more purposeful role in increasing the pace of industrial development. They suggest that the

N.P.A.C.I. should examine, amongst other things, the wide variations between the efficiency of industries and firms and the contribution which automation can make towards the objective of doubling the standard of living in twenty-five years.

AGREEMENT WITH UNIVERSITY OF SHEFFIELD

THE Institute of Cost and Works Accountants has made an arrangement with the University of Sheffield whereby graduates who have taken the B.A.(ECON.) degree with Accountancy and Financial Administration as a primary subject are entitled to exemption from the whole of the first part of the Institute's Intermediate examination.

An increasing number of graduates are entering industrial accountancy and the Institute welcomes this arrangement which is on the lines of those made with several other universities in this country.

LOANS AND GRANTS

IN the February issue of *The Cost Accountant* (page 316) attention was drawn to the Board of Trade pamphlet *Industry on the Move*. This has now been revised and includes places which have been added to the list of areas where Government assistance is available under the Distribution of Industry (Industrial Finance) Act 1958. Copies of this pamphlet are available from Institute headquarters.

NEW FELLOWSHIP PROPOSALS FOR THE INSTITUTE OF CHARTERED ACCOUNTANTS

PROPOSALS to alter the supplemental Royal Charter and certain bye-laws dealing with fellowship of The Institute of Chartered Accountants in England and Wales are being considered by the Privy Council.

The alterations which have been approved by a poll of the membership of the Institute—14,231 for the resolution and 3,825 against—provide, in the main, for the automatic acquisition of fellowship status after ten years' membership; associates in practice would remain entitled to apply for fellowship on completion of five years' practice.



The luxurious ballroom, central feature of the banquetting suite at Quaglino's where the Members' Dinner will take place

MEMBERS' DINNER 20 OCTOBER

APPPLICATIONS are now being received from members and registered students of the Institute who wish to attend the dinner to be held on Tuesday, 20 October, in the banquetting suite at Quaglino's, the world-famous restaurant, situated in St. James's, London.

Among the many distinguished guests who have accepted invitations to attend are the Rt. Hon. Lord Radcliffe, P.C., G.B.E., chairman of the committee whose report on the monetary system was recently published; the Rt. Hon. Lord Ebbisham, T.D.; the Rt. Hon. the Chairman of the London County Council; the Lord Bishop of London; Dame Evelyn Sharp, D.B.E., Permanent Secretary, Ministry of Housing and Local Government; and Sir Charles

Cunningham, K.B.E., C.B., C.V.O., Permanent Under-Secretary of State, Home Office.

The President of the Institute, Mr. Edward Emmerson, A.C.A., F.C.W.A., will receive the guests between 7.30 p.m. and 8 p.m. and the dinner will commence at 8.15 p.m.

Tickets will be £2 2s. each inclusive of cocktails, coffee and gratuities, but excluding wines, liqueurs, and cigars; those wishing to attend should send immediately for tickets.

The Council has decided that this shall be an all-male function—with the exception that lady members will be able to attend. There is no limit to the number of male guests who may be invited. Evening dress or dinner jackets, with decorations, will be worn.

BREAK-EVEN ANALYSIS

by J. A. SCOTT, C.A., F.C.W.A., and J. ARKLEY, B.Sc.

The authors explain what they believe to be a new method of obtaining, algebraically, the information disclosed by a graphically plotted break-even chart. It is thought that this approach may be relevant to the current reorganisation in the cotton industry.

IT is perhaps not too widely realised that most of the information which can be deduced from break-even charts of the conventional type can be derived from mathematical equations precisely in theory, and often to adequate approximations in practice, without the need for graphical plotting.

The general equation is:

$$p = xaf - xae - xb - xd - c$$

where:

p = profit on one week's output expressed in pence;

a = the hourly production of the factory (department or process) expressed in units—tons, lbs, yards, gallons, units. This could be 'standard hours' or even total working hours of direct labour;

b = the total variable hourly wage bill at single shift rate expressed in pence per hour;

c = the fixed weekly overheads expressed in pence per week (including any fixed element in hourly wages);

d = the variable hourly overheads expressed in pence per hour;

e = the raw material cost per unit of output (a) expressed as pence per unit;

f = the selling price per unit of output expressed as pence per unit. ($f - e$ = net output value per unit.);

x = the hours worked at basic (single shift) rate used as a measure of activity and expressed in terms of factory working hours per week, e.g. 45, 30, 20, 50, etc.

Some of the above may be averages.

In break-even chart presentation x would be the terms in which the measure of the volume of activity would be shown along the horizontal axis of the chart.

x is expressed in hours but can readily be converted into percentage activity; e.g. if 45 hours full working is taken to represent 100 per cent

activity, 50 per cent activity = 22½ hours, 200 per cent activity = 90 hours; or if 90 hours is taken as 100 per cent activity, 45 hours = 50 per cent activity.

There are undoubtedly other ways of expressing the formula—but some care is required in definition and in application.

To obtain the mathematical equation to express profitability using various systems of working it is assumed that overheads can be strictly divided into (1) a fixed weekly proportion (2) a portion which is strictly proportional to the volume of saleable goods produced. Any semi-variables have thus to be split into a fixed and variable portion appropriate for the range of activity under consideration. This calls for careful assessment.

It is also assumed that the rate of production per hour (a) is constant throughout the range of activity.

The break even activity point is found by finding the value of x where

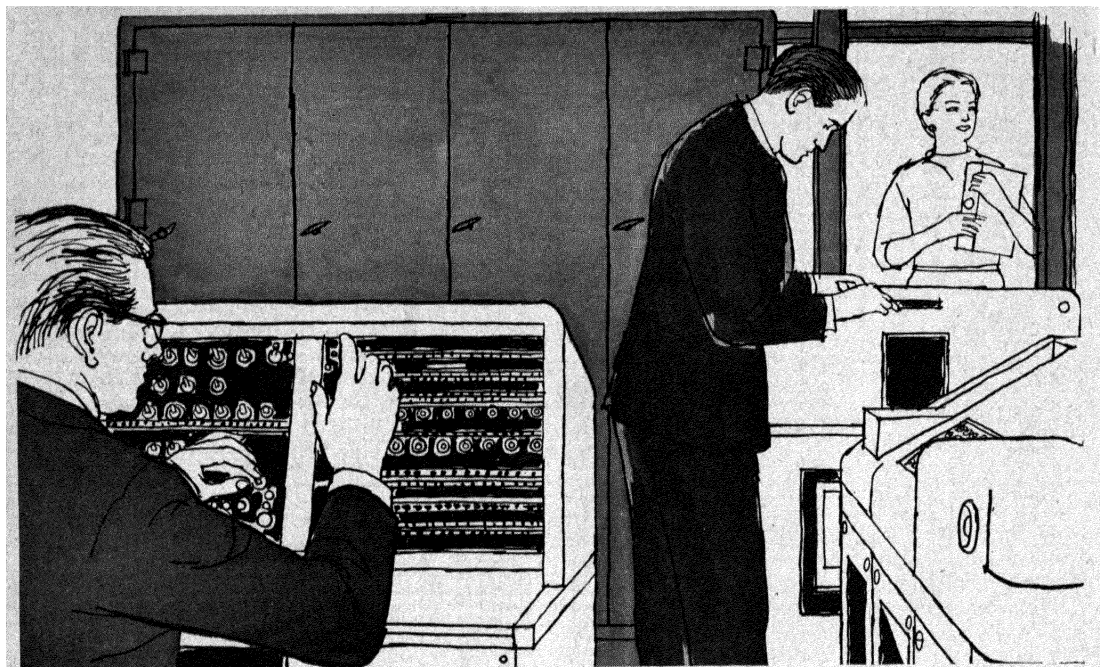
$$xaf = xae + xb + xd + c, \text{ or where } xa(f - e) = x(b + d) + c$$

Complete for known values and solve for x .

To find the activity at which a given profit will emerge the general equation is used inserting the desired value for p and the other known values and solving for x .

Similarly to find the profit which will emerge at a certain activity the general equation is used to solve for p other values being known. Questions of prices and of price increases required to give certain results at certain volumes can be similarly solved.

A problem which is frequently met, and which was of particular importance in this instance, was when and in what measure it paid to operate regular organised shift work covering all running



Searching for the right answer

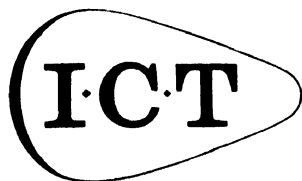
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ORGANISATION AND MANAGEMENT STRUCTURE

Problems of Growth and Development

by T. C. WATKINS, F.C.W.A., A.C.I.S.

Director and General Manager, Reed Corrugated Cases Ltd.



In the evolution of large industrial units managerial organisation and executive control follow a cycle of centralisation and decentralisation to which the financial and accounting operations must conform. There is a maximum size for centralised control depending upon the experience and capacity available to the central management and the complexity of the management problem. When this capacity is exceeded decentralisation must take place in order to preserve flexibility and speed. Such decentralisation involves alterations in the type and method of management but not in the principles and it is necessary to transfer expertise outwards from the centre by educational processes and actual transfer of personnel. What is ultimately evolved is a two way executive and functional pattern of control that can only operate in a harmonious background clearly defined by senior management, thoroughly understood by all executives and supported by efficient communication procedures. The functional control itself follows a standard pattern of alternating between centralisation and decentralisation according to the factors outlined above. Some examples of financial control methods are given.

THE post-war period has been remarkable for the number of amalgamations, business acquisitions and rapid growth of individual industries. This has produced both for managements and accountants the most intricate problems for solution. Such problems once exceptional in character are now day-to-day affairs. They do not repeat themselves precisely but nevertheless it is possible to conclude from a multitude of circumstances and decisions that there are certain universal factors which can be used as a pattern for the solution of future problems of a similar nature.

Administrative Problems

Administrative problems arise from the necessity:

1. to decide at what point in time in the evolution of a management structure, authority should be centralised or decentralised. (This point is reached when the limits of control by one brain using the best known available techniques are exceeded. Change of brain or technique may alter the point.)

An address delivered on 5 June, 1959, at the thirtieth national cost conference, in London, of The Institute of Cost and Works Accountants. Mr. Edward Emmerson, A.C.A., F.C.W.A., a Vice President of the Institute, was in the chair.

2. to decide upon the degree to which such centralisation or decentralisation should take place. (This is a straightforward decision on the amount of managerial power to be decentralised (*e.g.*) it may be all production, part only of administration, all current sales but not market development, no power to spend capital without reference back or any other combination. These decisions are influenced by the considerations mentioned in (1) above.)
3. to decide upon the structure of such centralised or decentralised management. (Such structure must take into account the basic principles of division of labour, specialisation and standardisation and have regard to definition of responsibility and rapidity of communication and action.)
4. to select suitable people for such management. (This is the fundamental decision since although people can produce orderly management structures it is quite clear that unsuitable people cannot operate the most orderly and scientifically designed management structure.)
5. to determine the procedures and methods by which such management should be carried out with full control and harmony maintained by the central body or parent company. (Included in these methods are the important ones of education and understanding, mutual response and team outlook or morale.)

Financial and Accounting Problems

The financial and accounting problems arising out of such management decisions are as follows:

1. the evolution of a flexible accounting organisation which includes (a) functions centralised and advisory; (b) functions centralised and executive; (c) functions decentralised and executive; and (d) the planning of communications procedures both within and external to the accounting function;
2. the evolution of machinery of financial control which can operate successively in circumstances of either centralised or decentralised management and can be used as a stable management tool in rapidly changing circumstances;
3. the standardisation of financial planning procedures and forms of presentation of accounting information; and
4. the education at certain stages of management evolution of individuals in the principles of financial management and the relationship of such management to other managerial functions.

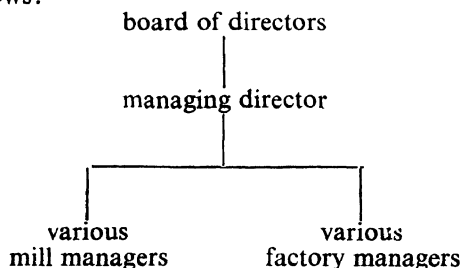
Case Study

The growth pattern used to illustrate the above problems is that of an integrated group of paper mills and converting companies which expanded both horizontally and vertically. That is to say that while certain mills themselves grew by the addition of extra plant and an extension of the range of products, which were sold to customers direct, other units which in some cases converted the products of those mills either grew or were acquired and themselves expanded in the same way.

From time to time quite substantial groups of companies complete with their own managements were absorbed or perhaps we should say came into orbit with the central body.

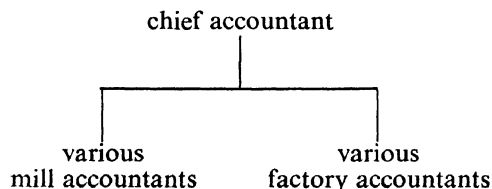
Briefly this group with which I am associated increased in some seven years from 6,000 to 16,000 employees; from net assets of £11 million to over £41 million at balance sheet values; and increased its production and turnover commensurately.

Initially the management structure was as follows:



The size of the organisation at this stage of development, which was immediately after the war, was such that a considerable degree of centralised control was exercised, the various mills and factories being primarily concerned with efficient production out of a controlled and limited supply of raw materials to meet the demands of customers.

From the accounting point of view the organisational structure was as follows, control and interpretation being exercised centrally:



The freeing of price, quantity and other controls to which all industry was subject during the war, and expansion as it began to take place, began to lay a very heavy burden on central management and it became apparent that some decentralisation of management authority would become essential at a not too distant date if problems were to be dealt with quickly and efficiently. The necessary steps were therefore taken to meet this situation.

It is not proposed in this review to deal with the problems of sales or production, but only with the effect of such decisions on the accounting organisation.

Primary Requirements

Two factors became apparent:

1. the necessity to create a control department able to concentrate exclusively on the development of modern accounting techniques as a function of management; and
2. the necessity to build up a flexible team of accountants already experienced or capable of being trained in management accounting with the object of making such knowledge and techniques available on a uniform basis to the future decentralised managements.

It was convenient and logical to start at this point in time with a centralised management accounting function charged with the responsibility of:

- (a) developing standard costing, marginal costing and budgeting techniques on uniform lines;
- (b) developing suitable presentation of information to decentralised management in a form which was standard in character; and

- (c) developing suitable interpretation and understanding of figures based on the most significant cost and earnings features.

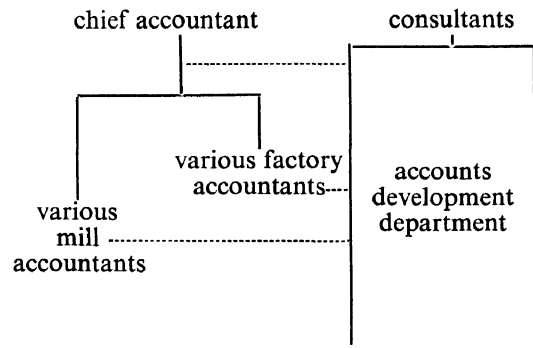
It is perhaps opportune to mention here that the most significant cost features do vary over a period of time. Thus at one time material costs and/or supply problems may be most significant and cause various management decisions such as modifying products, abandoning or introducing products or carrying out a heavy analytical programme on processing.

At another time utilisation of machine capacity may be such as to outweigh other considerations, for instance when customer demand exceeds the national productive capacity and plans for the expansion of industry have not yet crystallised.

This kind of problem was once referred to at a previous cost conference under the heading of opportunity costing and it is always present. It emphasises the necessary flexibility in approach that modern managements must have.

Interim Development

At this stage the accounting organisation became as follows:



..... lines of advisory responsibility.

It should be noted that, in order to avoid any difficulty in such development work, the consultants were responsible to the group management for development and maintained constant liaison with the chief accountant and local managements so that all phases of development were fully understood and appreciated. This is of course standard consultancy practice.

Methods Adopted

With the main objective of ensuring that suitable accounting teams were available for allocation to the future decentralised manage-

ments, constant surveys and assessment of accounting strength were made throughout the group and steps taken:

- to engage from outside a small number of highly qualified men to form the nucleus of the central department;
- to complete the education of accountants judged to have potential; and
- to encourage suitable young men to qualify as accountants and particularly as cost and works accountants against a future demand for their services.

Under central guidance therefore suitable accounting teams were developed and, as necessary, individuals were allocated and/or promoted to mills and factories to provide an accounting service, an outlook of a uniform character, and the highest possible standard for the benefit of their managements.

Such appointments are executive in character and it was clearly not possible to maintain executive control from the centre under conditions of decentralised management and over cost fields of varying complexity and magnitude, which required a most thorough understanding of local detail. Neither was it possible to maintain functional control on an advisory basis alone, *i.e.*, it was not possible to guarantee the standard of accounting service or the further development of it to the ultimate degree of efficiency without some senior authority that would be recognized by the accountants involved and backed by the various managements. Accordingly the senior management accountant from the development department was appointed to the entire group as accounts controller, with the object of providing uniformity of guidance and control.

Evolution of Management and Accounting Structure

As further businesses were acquired certain erstwhile centralised management responsibilities themselves had to be decentralised from the group headquarters to the various mills and factories. The final management structure evolved is shown in organization chart 'A'.

All divisional chief executives were members of the main board and also of the executive board of directors dealing with the day to day affairs of companies comprising a division. The executive board of directors apart from being directors were specialists in some function, *e.g.* finance, sales, production, development.

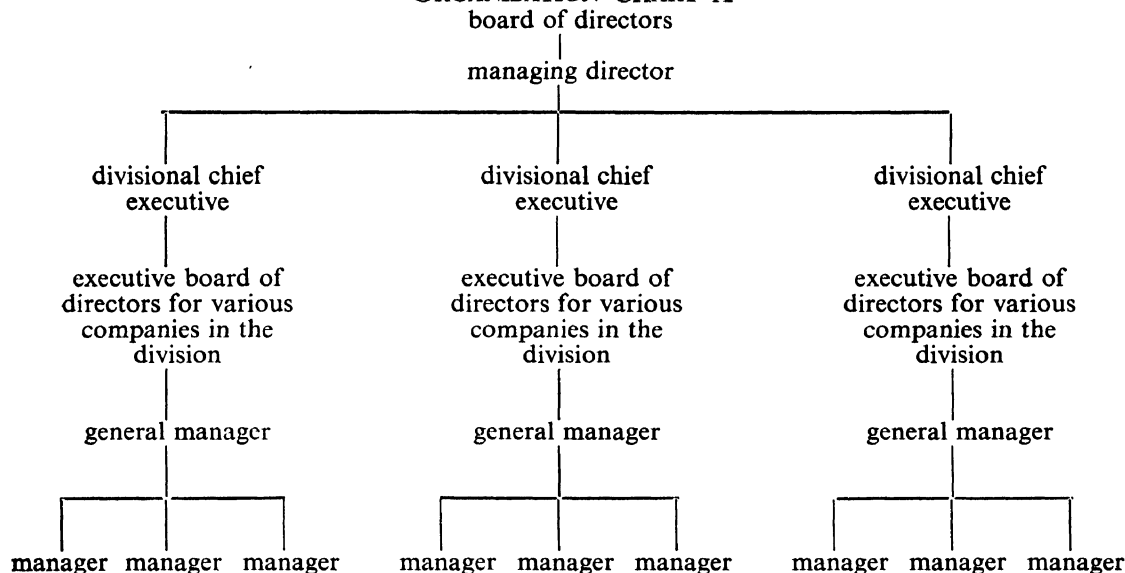
The divisional general manager was a member of the executive board of directors as well

as the responsible senior manager for all mills or factories in his division. Direct cross liaison between all levels of management was standard practice.

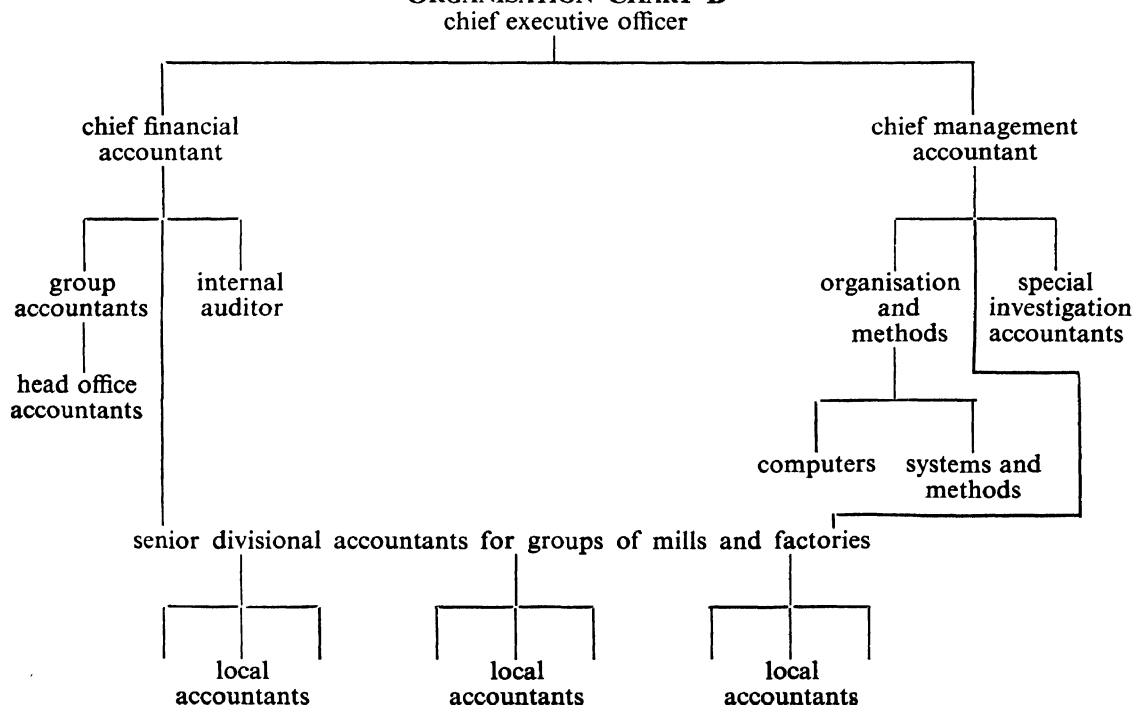
The final accounting pattern evolved to

accord with the management pattern was as follows. It will be noted that the principles of division of labour, specialisation and standardisation are all taken care of in the structure illustrated in organisation chart 'B'.

ORGANISATION CHART A



ORGANISATION CHART B



Functional control was exercised through the chief executive of all divisional and company accountants who were responsible to their own executive board or managers and executive control of group accounting departments was exercised through their appropriate chief accountants.

The internal auditor and his staff were responsible for ensuring that existing routines were properly carried out with particular reference to the requirements of the Companies' Act and cash and stock control. They liaised with the management accountant who acted as an adviser and development accountant when required and who was concerned with standardisation of procedures and presentation of information to management and the examination and application of the latest techniques and methods. He also answered management enquiries at all levels and especially of the nature that required co-ordination of information from various separate units. On instructions from the chief executive he also made enquiries on accounting matters that seemed to require investigations.

In tracing the development of the accounting function as part of a large industrial organisation it is pertinent to try and examine the reasons behind the various decisions made from time to time. It is suggested that these follow a relatively simple pattern of centralisation or decentralisation according to:

- (a) the ability and capacity of the particular controlling unit to cope with a certain volume of control information; and
- (b) the speed with which vital information could be sent forward to the point of decision.

The organisation of the accounting function must of necessity therefore follow and be closely related to the management structure which follows the rule in (a) above.

In order to illustrate these points it is proposed to deal in a little more detail with some of the requirements previously mentioned as necessary functions of a group accounting organisation.

Functions Centralised and Advisory

Centralised and advisory functions included:

- (a) the receipt and examination of accounting figures and reports from all companies with particular reference to inter-company relationships; and
- (b) advising managements when required on development projects involving the operation of more than one division.

Initially these were all dealt with centrally but as development and expansion of the organisation took place and divisions comprising numerous companies of a similar or related character were created it became necessary to create divisional accountants who were of sufficient stature to carry out such functions on their own in direct communication with divisional managements.

There was regular cross communication between such divisional accountants, the financial and management accountants and other accounting executives that ensured a thorough understanding of one another's problems and a uniform approach.

Functions Centralised and Executive

Centralised and executive functions included:

- (a) evolving group procedures for presentation of financial data in a standard form and to a timetable that would allow rapid preparation of group accounts in head office for presentation to group management;
- (b) standardisation of tax procedures to ensure rapid ascertainment of tax liabilities;
- (c) arrangements for remission of surplus cash from companies to central accounts to ensure economy in the use of cash resources;
- (d) standardisation of procedures for capital budgeting and education in principles involved;
- (e) internal auditing which is regarded as essentially a function requiring central control;
- (f) external auditing arrangements; and
- (g) education and development of individuals and co-ordination functions.

Functions Decentralised and Executive

In general the principle followed with decentralised and executive functions was that after a period in central group departments, accountants were allocated to decentralised management either at divisional or company level according to qualifications.

Such accountants, working within a group framework thoroughly understood and appreciated by them, were then granted autonomy in the particular sphere in which they were to operate.

Thus they became responsible for:

- (a) all financial and cost accounting;
- (b) credit control;
- (c) interpretation and investigation;
- (d) staff control;
- (e) development of accounting systems;

- (f) budgeting with particular reference to capital spending, cash budgeting and profit forecasting; and
- (g) general service to their management.

They were however expected and required to refer back to the group accounting service departments especially those problems of a specialist character to see whether group developments or special relationships would call for any modification of plans or procedures and to see whether expert advice was necessary. The knowledge they had already acquired in their training of the nature and standard of central services would assist them in knowing when to refer.

Evolution of Machinery of Financial Control

The general principles of financial control are of course understood by all qualified accountants, but in a large group of companies of a diverse character there are special problems on which decisions have to be made.

These may be conveniently summarised as follows:

Treatment of Cash Flow

The treatment of cash flow was represented by the profit earned, plus any non-cash item of cost, less cash required for capital expenditure, plus or minus change in stock, work in progress or debtors. In a large group this is especially important since there are occasions when surpluses at one division may be set off by adverse movements in another. Alternatively all divisions may synchronise in a demand for or a release of funds at some period which could be embarrassing if not foreseen. Standard procedure is for subsidiary companies to exhaust off to group all funds not required so that they are always working on a minimum of funds. Capital expenditures or seasonal demands for funds for say raw material imports are met by loans from the parent company which operates as an investment company or banker from this point of view. Such capital expenditures will already have been authorised as part of a standard capital budget control procedure, initiated and operated by group.

Capital Budget Control

Control is based on the principle that over a period of time companies must normally:

- (1) spend their depreciation on replacement or development;
- (2) spend some proportion of retained earnings;
- (3) raise extra capital for special developments not within the resources of the group.

In application of these principles group management determines annually what funds are to be spent by (a) the group, (b) the divisions within the group and (c) the companies within the division.

One of the most difficult tasks for management to decide in a large group is the extent to which the total funds available for capital spending should be allocated as between the many demands arising from companies, divisions, or group and within those fields from production, sales, development and service departments.

All projects submitted are given authority numbers and are accompanied by sufficient particulars to enable an adequate assessment to be made of the proposals before they are authorised (*see forms 1 and 1a*).

Cash Forecasting

For the purpose of forward cash budgeting, forecast profits are incorporated together with adjustments for variations in stock and debtors and a group cash position arrived at as far ahead as is considered desirable and within a reasonable degree of accuracy.

It is perhaps pertinent to remark here that in an industry that may have to spend £3 million or more on a single large development that can only be completed two or three years ahead, it is most important to have the closest control on cash. All procedures building up to the control of funds are therefore the subject of considerable accounting analysis and scrutiny.

The closest attention must be paid to following up capital expenditure forecasts with particular reference to timing, since the bringing forward or deferring of plans can seriously affect the group financial position.

Profit Forecasting

The function of profit forecasting of necessity has to be decentralised to the maximum degree so that when summarised the group forecasts represent the combined knowledge and experience of the various managements starting with branches or companies and proceeding through divisions to group. In the process of summarising some modifications may take place of company estimates by the divisional managements, but normally it is not expected that group will modify the divisional estimates. Any modification made by divisions is agreed at lower levels and apart from management conferences, the accounting executives consult together at all stages so that the maximum critical scrutiny is applied to the forecasts. Even so it can readily be appreciated that in the unlikely event that

diverse products. The basic approach to these problems is to adopt standard procedures and terminology in all like factories or mills and a standard form of presentation to both company and divisional managements. In such circumstances it is possible for accountants and managements to circulate as they must do in an expand-

I wish now to turn to some of the control problems arising in a large group that produces

ing organisation and to find when they take up their new positions that they have to do a minimum of adaptation.

This principle holds good for all companies in our divisions but as between divisions cost procedures will differ according to manufacturing processes while adhering to standard accounting principles and as far as possible standard forms of presentation.

It has been found as a result of this that emphasis is turned at company level on accountants thoroughly trained in cost and management accounting and with a thorough knowledge of the mill or factory. At divisional level which is normally occupied by a senior accountant who served his time in a company emphasis changes to interpretation, analytical and advisory work and comparisons between companies from the financial point of view as well as supervision, education and managing the divisional accounting function.

At group level which is too far removed to deal with detail, emphasis is on group accounting, taxation, and financial trends with particular emphasis on cash and profit forecasting follow-

ing the summary first of company and then of divisional estimates and the steps to be taken to keep the group properly financed.

Monthly Returns

All monthly returns are accompanied by statements interpreting the figures so that company, divisional and group managements are fully advised in a standard way without having to ask. The standard form of return for financial accounts contains the following schedules:

1. trading account
2. balance sheet
3. overhead expenses
4. depreciation
5. sales to group companies
6. stock summary
7. capital commitments
8. debtors analysis
9. inter-branch current account balances
10. group company balances
11. sales reconciliation
12. wages and salaries statistics
13. other statistics

The return is received not later than the fourteenth of each month for consolidation which is normally carried out two or three days afterwards.

By the time consolidation is effected, subsidiary reports in greater detail are ready at companies and divisions incorporating *inter alia* the following information:

- (a) current and cumulative figures with variations from budgets;
- (b) effect of changes in sales volume, price or mix;
- (c) cost variations from standard by causes; and
- (d) statistics.

Any enquiry made at group level that is not immediately explainable can be dealt with by reference either to reports at company level or to the accountant concerned.

Presentation to Group Management

It has been found that notwithstanding the maximum simplification of schedules the amount of reading that has to be carried out by management is enormous and recourse has been made to graphic presentation as an aid to the appreciation of trends in the quickest way. It will be appreciated that such presentation is an acknowledgement of the fact that analogue methods are in certain cases superior to digital methods, *e.g.* when assessing trends.

FORM IA

SUPPLEMENTARY INFORMATION (To be completed where applicable)

1. Capacity

- (a) Increase in capacity. Utilisation expected.
- (b) Type of product.
- (c) Replacement only.
- (d) General remarks.

2. Quality

- (a) Product concerned.
- (b) Department requesting improvement.
- (c) Specify improvement expected.
- (d) General remarks.

3. Cost Reduction

Are savings expected in

Estimated Savings

- (a) Manpower.
- (b) Material.
- (c) Maintenance.
- (d) Power and steam.
- (e) Supervision.
- (f) General remarks.

4. General

- (a) Safety of personnel.
- (b) Personnel facilities.
- (c) Fire protection.
- (d) Public relations.
- (e) Any other to be specified.
- (f) Any group consideration involved.

The graphic form now used is as follows:

GROUP (1) *Graphs Showing*

- (a) forecast and actual profits per accounting period in cumulative form for the financial year;
- (b) similar figures for past 3 years;
- (c) capital employed calculated in a standard way for 3 years;
- (d) profit as a percentage of capital employed on a cumulative basis for 3 years; and
- (e) profit as a percentage of equity, this representing the investor's point of view, on a cumulative basis for 3 years.

GROUP (2) *Graphs Showing*

- (a) group stocks throughout the year showing range and actual for current period;
- (b) debtors and creditors and net cash throughout the year showing range and actual for current period;
- (c) fixed assets per employee; and
- (d) current assets per employee.

GROUP (3) *Graph Showing*

- (a) divisional profits as percentage of sales in cumulative and period form with comparison of previous 3 years; and
- (b) divisional graphs as in (a), (b), (c) and (d) above.

Subsidiary to the above control graphs are the following:

1. graphs of sales for each division in some convenient quantity, *e.g.* tons on an actual, cumulative and moving average basis; and
2. graphs of sales in sterling for each division on the same basis.

(Appendix I gives an example of such graphs.)

DIVISIONS

These employ graphs compiled on the same principles as the group graphs but sub-divided into companies or branches.

COMPANIES

These employ similar graphs but sub-divided into product groupings or other convenient groups.

It is possible therefore to work up either from companies to group or down from group to companies on a constant basis and examine trends not only in the parent company and in divisions but as between divisions and between companies in those divisions. This is invaluable in many ways. It is for example possible (but with considerable care) to draw conclusions as to the profitability of capital employed in one or other operations and in changing market conditions.

Functional Meetings

In order to preserve a uniform approach under the guidance of the senior accounts executive and to assist co-ordination it was found necessary to arrange regular meetings of accountants.

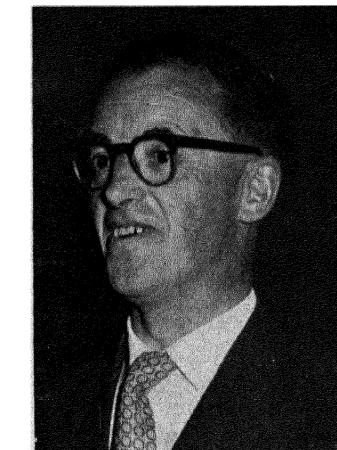
These meetings had a number of main objectives.

Firstly they economised in management time by ensuring that all accountants were fully informed on accounting matters, principles and developments.

Secondly they formed a useful discussion period during which the combined knowledge and experience of all accountants was freely

available. Not the least valuable here was the discussion of the various reactions of managements to standard developments and this was most useful in getting to understand wider points of view.

Thirdly, accountants educated one another by relating and getting views on particular problems. This



Mr. F. Nuttall, a member of Council, who proposed the vote of thanks to Mr. Watkins and to Mr. Leadbetter, the discussion opener.

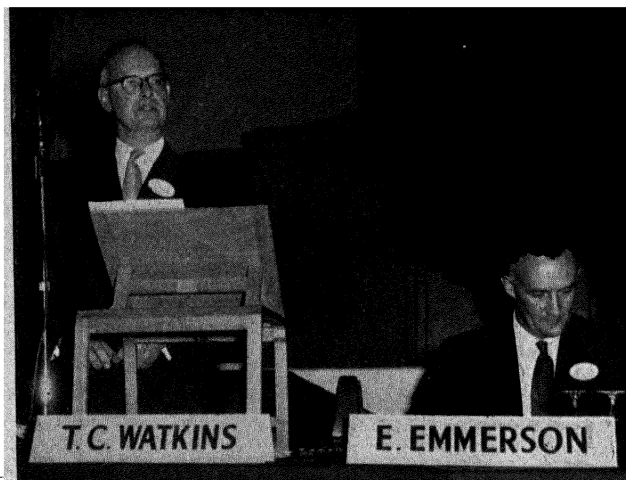
developed into mutual visiting between companies and divisions and the elimination of all barriers that could have developed. Indeed it became standard practice for accountants to seek guidance from one another on particular problems and to put forward special problems for open discussion.

Fourthly, the communications problem in both directions was simplified and understanding of relationships of various functions within the accounting sphere became widespread.

Fifthly, *esprit de corps* was maintained and the function became personal and tangible.

Originally the meetings were held monthly with all accountants (subject to management requirements) present, but as the number and location of companies in the group developed the pattern changed. The latest arrangement is for regular meetings of company and divisional

Centralisation or Decentralisation ?



The speaker addressing the Friday afternoon session of the national cost conference.

I want now to come to the final part of my talk which refers back to the theme mentioned at the beginning, namely that executive power follows a cycle of decentralisation and centralisation according to circumstances and the capacity and ability available to central management.

A few examples may illustrate better the point I wish to make.

It was found originally that payrolls were prepared at various companies in various ways. The application of skilled O. and M.

experience finally standardised the preparation but on a decentralised basis.

The advent of electronic calculation and punched card systems allowed central preparation of payrolls for a number of companies sited compactly although subsidiary work was still decentralised.

The electronic computer which is a most impressive addition to capacity looks as though it will cause considerable procedural work to be centralised not only as regards payroll but also in cost analysis and other fields such as pensions calculations.

Speed and accuracy of communication with outlying companies is a factor which when technically advanced enough may give the opportunity of dealing centrally with such matters as quotations and estimates using a computer.

Capacity to deal quickly with volume, flexibility in procedure, ability to come to conclusions, time to pass those conclusions to the point of management action and efficient communication procedures are all important in deciding when to centralise or decentralise and the degree to which this should be done. Time as always is the enemy.

The most important factors of all however are never to lose sight of the realities behind the figures or of the necessity to be flexible enough to adjust internal procedures rapidly to deal with external requirements. These last are sufficiently powerful influences in a large organisation to prevent complete centralisation however efficient the central management may be.

accountants, of divisional and group accountants, and for two general sessions per annum of all accountants. Meetings are now being amplified to include talks by executives in other functions such as sales, market research and production, all of which are most valuable to our accounting executives. We make a point of pulling no punches at these sessions and this self criticism is invaluable in the pursuit of efficiency.

Educational Arrangements

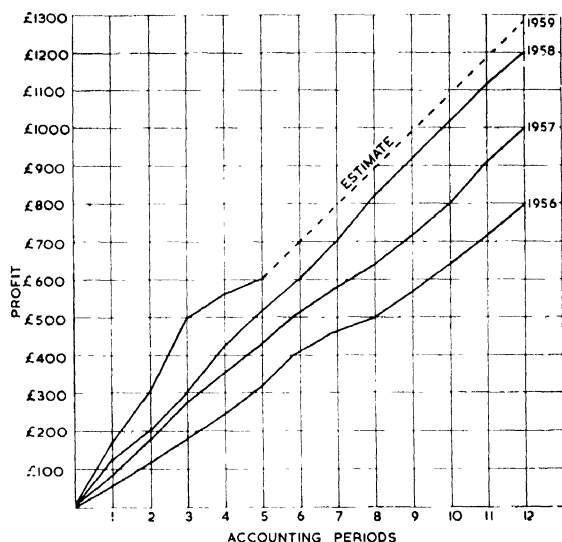
One of the main problems of an expanding organisation is to provide for a supply of adequately trained men to develop into assistants and then to seniors over a long period ahead. There is an inherent value in an accountant trained by our own training methods due to familiarity with the organisation acquired over a long period of time.

Consequently steps were taken:

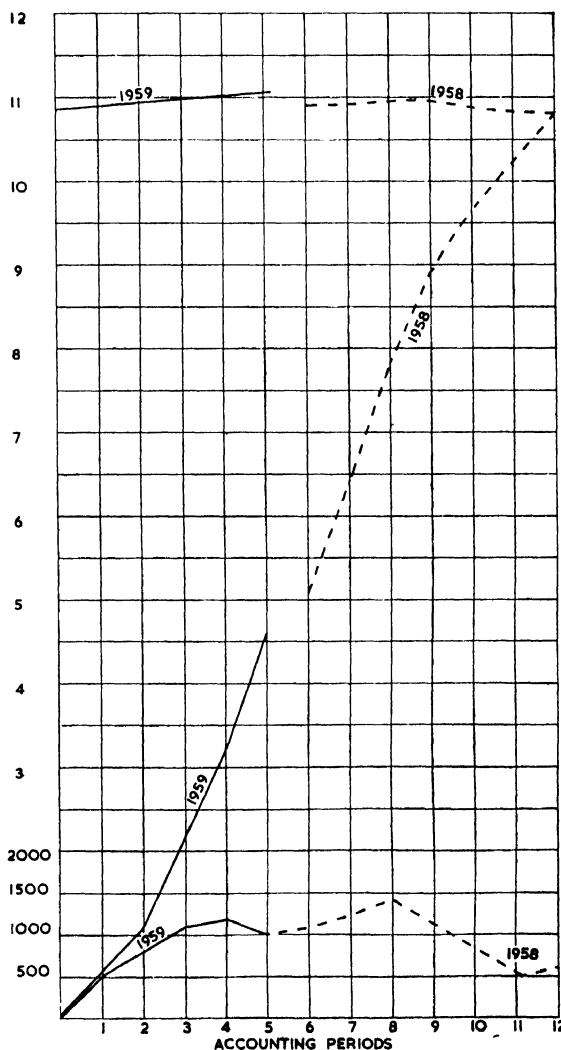
- (a) to encourage suitable employees to qualify as accountants and particularly as cost and works accountants; and
- (b) to develop a training scheme for school leavers of a certain standard that would assure them continuing practical training over all spheres of industrial accounting to supplement their theoretical studies. (Such arrangements include circulation of trainees to various companies and departments, between divisions and group and also into various service departments such as O. and M., internal audit and computers. This arrangement has been found most valuable.)

Appendix I

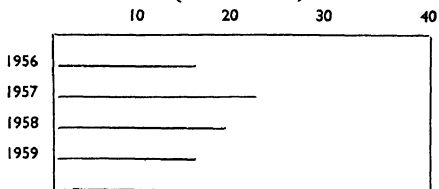
**Group or Divisional Control Graph
(Profits)**



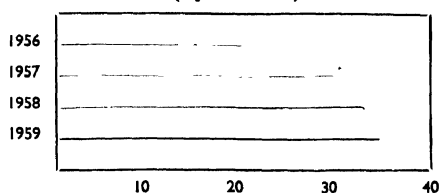
**Group or Divisional Control Graph (Sales)
£'s or Tons**



**Cumulative Profit % Capital Employed
(£x million)**



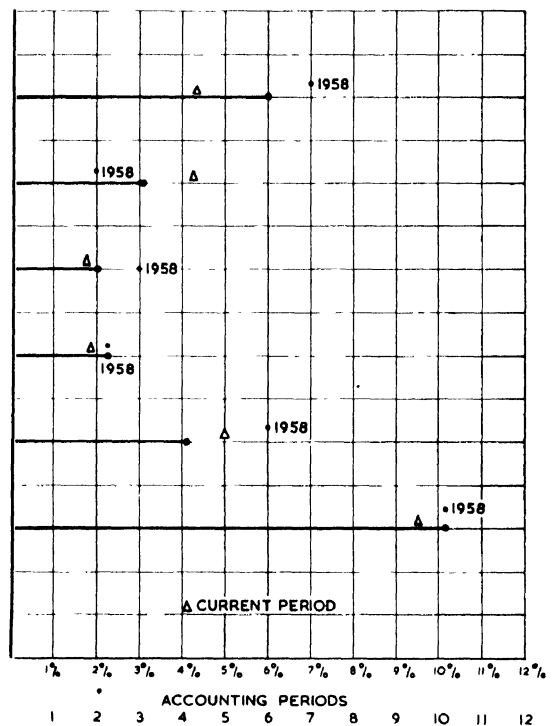
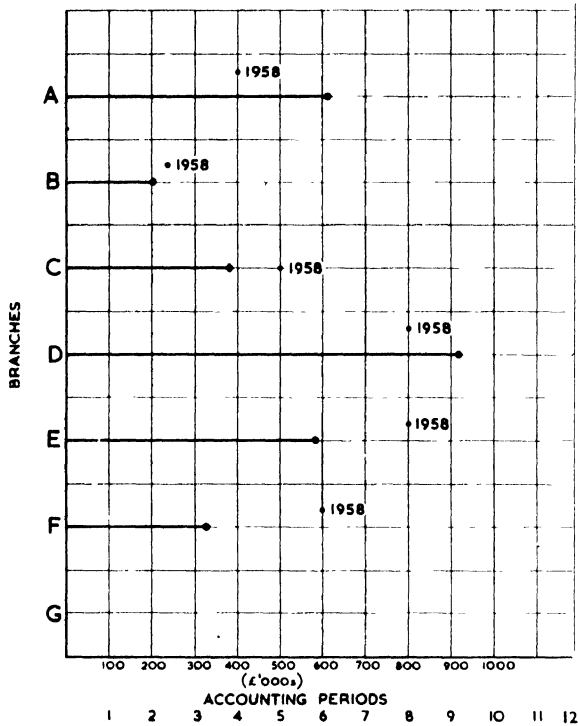
**Cumulative Profit % Equity
(£y million)**



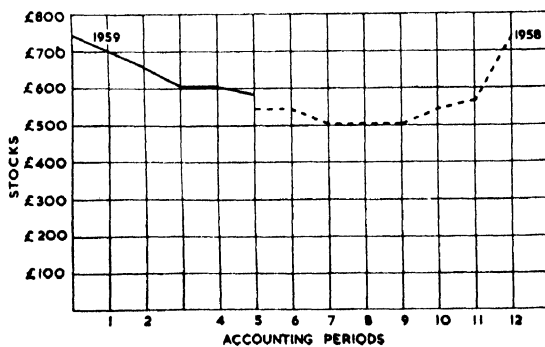
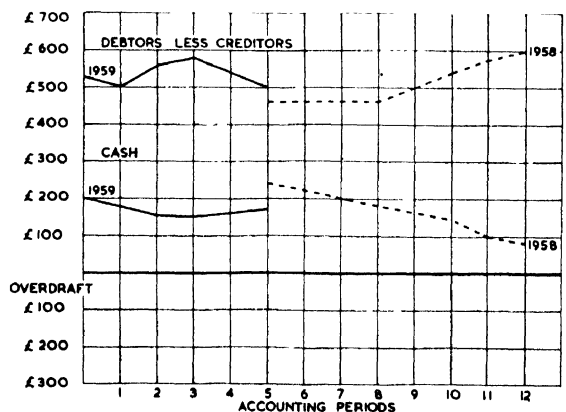
Cumulative Profit

Company or Branch Control Graphs

Profit % Sales



Group or Divisional Control Graph (Stocks)

Group or Divisional Control Graph
(Cash and Debtors less Creditors)

Mr. Leadbetter Opens the Discussion

Opening the discussion on Mr. Watkins' paper Mr. F. Leadbetter, F.C.W.A., F.C.I.S., Director and Secretary, Horrockses, Crewdson & Co., Ltd., said that he could imagine the principle of alternation between centralisation and decentralisation—and presumably back again—applying to only certain aspects of an organization.

He could imagine something like that happening to centralised office services. Having visited the Business Efficiency Exhibition, he could imagine anything with the development of computers and long-range communication once it had begun, for example the possibility of wages being prepared miles from the actual centres; and there could be alternation in that respect. But the principle of alternation applied to other aspects—say group managements and divisional managements alternating—seemed to be difficult to envisage at all.

'I could not imagine for one moment—and this may be due to lack of comprehension on my part—this organisation chart of Mr. Watkins' which shows how the divisions have been set out, ever becoming scrambled together again,' continued Mr. Leadbetter. 'I think something has happened there—a hiving off from group control to divisional management—but I can never see it alternating in the sense of going back to what it was before. The position as I see it is that group control must always exist in any group which functions as a group, and without the possibility of alternation.'

On the other hand, in a complex organisation—and complexity was the key element—both central or group control and decentralised management must exist.

'That would be so, and the two management aspects would be distinguishable even if only one location were involved. You could see the group control function at the top having an overall picture and the divisional chiefs operating within that group policy. One would be group control and the other divisional management. This set-up would be permanent and without the possibility of alternation, although subject to evolution, which would affect considerable changes in detail,' continued Mr. Leadbetter.

Once decentralisation had taken place, two tendencies naturally developed which tended to conflict. The first on the part of the separate divisions which would usually seek the maximum degree of local autonomy and second that arising from the duty of the central control to

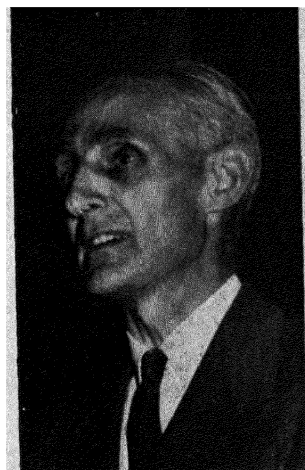
harmonise the activities of all the individual divisions within the group policy, as formulated by the top board.

'The necessity of overall direction from the top must to some extent restrict the individual divisions from achieving full autonomy. These conditions present both problems and opportunities to the accounting function, which as Mr. Watkins points out, must first conform to the changing management structure; and when central control and decentralised responsibility both develop significantly it then becomes necessary for the accounting division to take on the characteristics attributed to certain ladies' foundation garments and known technically to those of us who study I.T.V. commercials, as the "two-way stretch".' (laughter)

This entailed a certain element of dual control which was inevitable, but did not really matter so long as the *esprit de corps* was satisfactory. Local accountants thus had responsibilities both to their local boards and also to the central accounting control.

One of the principal duties of the accountants to central control was perhaps worth underlining and that was to provide an 'objective measure of achievement throughout the group'. Undoubtedly, in a complex group, the accounts should be regarded at both local and central levels as one of the impartial and completely reliable measures of achievement.

Referring to the titling used in the management structure charts included in the paper Mr. Leadbetter commented that, thinking back over the years during which the cost accountant evolved from the cost clerk, became involved with works accountants—as the title of the Institute indicated—and not too long ago toyed with the title of industrial accountant, it did



Mr. F. Leadbetter
addressing the conference.

occur to him that if titles were to indicate functions and responsibilities, they should be as clear as possible both in thinking and nomenclature.

'I should think that the title "management accountant" was intended to include the responsibilities attributed at one time to the industrial accountant with particular emphasis on the control of the entire accounting structure, and on the interpretation of figures for management guidance,' he said.

The functions assigned to the chief management accountant on Mr. Watkins' chart, whilst of the greatest importance, did not seem to warrant the title 'chief management accountant'. He had the feeling that this development in fact arose from the engagement of consultants as a parallel accounting organisation in an advisory capacity to the established accounting department.

One of the most important factors during expansion, as indeed always was the need for experienced and able executives. At a time when an organisation was expanding and accounting was in the course of revision to meet the requirements of new productions and additional locations of production and selling, considerable demands inevitably fell on the accounting executive team. The team thus required additional strength, some of which might, however, only

be required during the transitional and development stages. This problem was solved by Mr. Watkins' company by employing consultants during those phases and presumably when the new and expanded systems were installed, the consultant staff for the most part would be withdrawn.

When however, consultants were not engaged, an alternative procedure would appear to be the engagement of young qualified cost accountants on a definite understanding that they would receive, during the hectic stages of development and expansion, industrial accounting experience of a very high and valuable order. At the end of that phase of the company's history, unless of course suitable permanent posts became available, they would be free to proceed elsewhere well equipped by their experience and qualifications to take important posts in industrial accounting.

'This in fact, was the procedure followed by my company in the post-war period and a number of cost accountants trained by us, now hold important posts elsewhere,' commented Mr. Leadbetter.

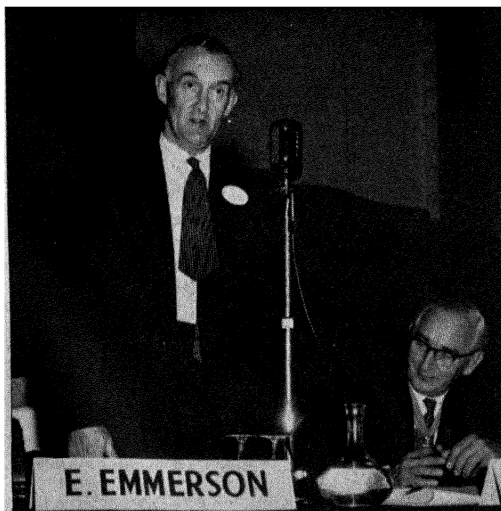
Mr. Watkins Replies

Replying to Mr. Leadbetter and to other speakers taking part in the discussion, Mr. Watkins dealt with the question of alternating centralisation and decentralisation, backwards and forwards, *mutatis mutandis*.

'Here I had in mind this kind of experience,' he said, 'where a company expands into four or five companies which can be centrally controlled. It then expands to ten companies where there is the utmost difficulty in keeping all the information under control in the centre, so you then split the ten companies into two batches of five and appoint a divisional manager. One assumes that under the first condition each of the five companies was decentralised, and then the ten companies would be centralised. When one begins to appoint two divisional managements with five companies each there is a degree of centralisation of control. That was the framework within which I suggested one might get decentralisation and then centralisation.'

He agreed that policy must be centralised. There could in fact only be one policy and it must operate at the centre, and one presumed that policy decisions were taken after listening to the viewpoints of all the divisional chief officers who were responsible for carrying out that policy.

With regard to the degree to which management was decentralised, that was very much a



Mr. Emerson, a Vice President of the Institute, as chairman of the Friday afternoon session, introduced Mr. Watkins. Mr. Henry J. Furness, President of the Institute, is also seen in the picture.

question of management judgement. Broadly speaking, managements were given responsibility for obtaining a certain return on capital employed, and if there was 100 per cent decentralisation, they operated quite freely within that broad mandate. Of course, there were technical considerations and divisional considerations. It was not impossible for a decision to be made in regard to a division which was perfectly satisfactory and financially sound from its point of view, but when one came to consider the relationship of that decision to other divisions, then it might very well be that it had to be quite seriously modified. That was the reason why one had group divisions.

'I would wish to point out', he went on, 'that this alternation question is one which takes place over a time cycle that is very, very long. I would not like to suggest that decentralised and centralised control are popping in and out like a steam piston; it may be five or ten years before this type of thing takes place.'

Group Limitation

Group limitations must be on the mandates given to decentralised executives, whether they were company or divisional. They must make their decisions in relation to the facts, and the best way of dealing with these was as indicated in his chart, namely, that the divisional chief executives responsible for the various divisions were in fact members of the main board and therefore participated in policy making.

He thought it was inevitable in a functional organisation that there would be dual control and unless there was a complete understanding of executives on this basis of control, then there could be trouble.

'The way to deal with the situation in practice is to get these chaps all together so that they know they form a body,' continued Mr. Watkins. 'It is the understanding of their relationship to one another and to their seniors and to their managers which comes about as a result. This is a very sensitive arrangement and I think if one gets one cuckoo in the nest it is possible for that cuckoo to cause trouble out of all proportion.'

Dealing with the accounting organisation chart in his paper, Mr. Watkins said that when he looked at 'chief management accountant' he regarded it as not really that individual, but also all his satellites—organisation methods, etc., and everything connected with him as a collective organism—rather than as an individual.

'So the position is, costs control does in fact come under chief management control.' (This chart, on page 552, has been amended by the author.—*Editor*.)

The divisional accountants were regarded as being of senior status and were responsible for finance and costs and management accounts and advising managers. The function of the chief management accountant was advisory and confirmatory. He and his staff were specialising in better methods and better development.

Qualifications for a General Manager

Giving his views on the necessary qualifications for a general manager, Mr. Watkins said that he should specialise in something—whether accounts, engineering, or physics—because that sort of discipline trained the mind to be quick on the uptake and 'to keep your head when all about you are losing theirs and blaming it on you'. Such a person would also require knowledge of both theory and practice. So far as qualifications for accountants were concerned, the word 'qualifications' did not mean merely the possession of a degree or the membership of an association. There were such things as personality, tact, methods of dealing with people, and so on. He did not advocate permanent consultants, but rather the payment of a retainer to a firm of consultants; but with expansions going on all the time consultants were more or less on the spot all the time.

Raising the Break-Even Point

Asked if the possibility of heightening the break-even point was considered where large capital expenditure was involved, Mr. Watkins said that one would deal with earnings as a percentage of capital employed, and it was basic to raise the break-even point under the circumstances outlined.

Other points made by Mr. Watkins were that monthly accounts were essential since they were important in an industry where they had seasonal factors to be taken into consideration; that his experience of accountants' functional meetings was that they were harmonious; and that personnel managers were today well aware of the necessity to spread knowledge wisely.

Amongst those taking part in the discussion on Mr. T. C. Watkins' paper were Messrs. D. Edis, F.C.W.A.; S. A. Freeman, A.C.W.A.; D. James; W. G. Jewers, F.C.W.A., A.A.C.C.A.; J. N. Lund, A.C.W.A.; W. S. Risk, B.COM., C.A., F.C.W.A., a Vice-President of the Institute; and D. Willingham.

A vote of thanks to Mr. Watkins and Mr. Leadbetter was proposed by Mr. F. Nuttall, F.C.W.A.

CONTROL OF CAPITAL EXPENDITURE

by W. COUTTS DONALD, C.A., F.C.W.A.

The need for formulating, evaluating and controlling capital projects is explained. Certain principles have a general application: expenditure must be justified technically; profitability must be assessed; the appropriate level of management must approve capital expenditure which must then be rigidly controlled; cost classification and control must follow the physical segregation of the job; the use of the master plan to check progress both in time and money; the relation and the check on variations in time and money between actual achievement and the plan.



The Necessity for Control

IT is probably true to say that management problems are becoming more complex and more difficult. As a result management requires more data with regard to the activities of an enterprise, more promptly presented and better interpreted.

The major trends in business since the war are:

- (1) growing scale and complexity of industry.
- (2) increasing use and importance of fixed capital.
- (3) increasing range and tempo of change.
- (4) increasing social control of business.

The above trends mean that increased attention has been given to the technique of management accounting.

In the application of this technique more attention has been given to controlling the running expenses of a business through standards of performance and cost than to the detailed control of capital projects. The need for detailed control of capital projects cannot be too strongly emphasised. Just as much time and money can be wasted in developing capital projects as in any other activity of the business, for example, it is not unusual to find that an estimate for a new building has been exceeded by 50 per cent both in terms of cost and time; a new machine has cost much more than anticipated and another machine bought only six months ago is lying discarded in the stores as it was found not to be satisfactory in operation.

An address delivered at the Scottish regional cost conference of The Institute of Cost and Works Accountants held at Glasgow on 18 April, 1959.

Also there are many hidden costs with regard to capital projects that are not properly determined and brought to the notice of management. For example, a computer may cost £150,000 but the total initial cost involved in developing the effective use of a computer will amount to about double that figure. It is true to say that the scope open to the management accountant for saving costs and eliminating waste in the control of capital expenditure is very considerable.

The Purposes and Uses of Financial Standards

It will probably be useful at this stage of the paper to digress for a moment and to consider how companies can judge the effectiveness with which their capital is used. This is done by means of what are called 'financial standards'. Financial standards are based on the balance sheet and profit and loss account. They provide a check on the result of a group of operations. Financial statements are primarily expressions of business relationships. The abstract facts stated in the balance sheet or profit and loss account may be interesting in themselves, but they will usually mean little until relationships are considered. The amount of stock-in-trade, of plant investment or of current liabilities may be interesting in itself but of more importance are the turnover of stocks, the turnover of plant investment and the ratio of current assets to current liabilities.

Similarly, the amount of sales, expenses or net profit is more significant when judged in connection with turnover, expense ratios and the earnings on capital. These relationships can be best expressed by means of ratios. The most

usual ratios are given in the schedule attached to this paper and explanations are given on how they are used.

In fixing a normal or standard ratio, by which to judge the ratios shown by current reports, the company will have to rely on its past experience or the experience of other companies as to what the ratio should ordinarily be. Ratios thus determined will serve as standards by which to judge the effectiveness with which capital is used. Capital must be purchased and paid for, and its inefficient use leads to a loss just as much as does the inefficient use of labour and materials—hence the necessity for financial standards.

Need for Economic Justification

Mechanical evolution has gradually substituted machine methods for hand methods. Machines tend to be more specialised and therefore less versatile than labour. The growth in the size of enterprises has made possible the profitable utilisation of even larger and more specialised machines. Indeed, this has been one of the major objectives in increasing the scale of production. Increasing size of machines has tended to make costs associated with machines more important relative to labour costs and to make machine costs a larger proportion of the total costs of an enterprise.

Now, every project must be proved worthwhile in terms of £ s. d. It must be seen to be economically justifiable to spend the money involved in buying new equipment. This applies to large projects as well as to replacements of plant and machinery. In these days of rapid technological changes capital expenditure should be recovered in approximately five years. A statement should be prepared by the management accountant to show the costs at present, as compared with costs under the proposed expenditure. This applies particularly to the acquiring of new machines. When acquiring new machines it will usually be found that the output capacity will be greater than present output. Points to be considered in preparing a statement should be the effect of the increased output on the whole range of manufacturing facilities. The effect of the increased output in the production lines and the fact that the production line will not be thrown out of balance should be checked with the technical people concerned. Attention should also be given to ensure that the market will be capable of absorbing the increased output and reports on the marketing and selling possibilities should be prepared to show that increases in output are justified and called for.

Types of Capital Expenditure

The various types of capital expenditure can be grouped under:

- 1 Large projects to cater for improvements and expansion of the business. This covers the provision of new buildings and plant for the production of new lines or for the increase in the market possibilities for existing products.
- 2 Normal capital expenditure encountered in the running of a business such as the purchase of new and the replacement of plant and machinery for existing products, new lay-outs, new offices, better handling methods etc.
- 3 Development expenses covering abnormal publicity, advertising and the placing of new products on the market.
- 4 Research expenditure. There is very often a definite element of capital expenditure on research projects, but companies generally show a general reluctance to capitalise research costs, the reason being that to charge research costs concurrently against profits is conservative and the results of research work are always uncertain. For example, if the work in the research laboratories should represent failure, no future period would benefit. Generally speaking, it is wise to write off research expenditure and to control the amount spent on research by means of an appropriation out of profits. The amount to be spent should be determined by the board as a matter of company policy and the accountant should collate his costs under the various research projects and ensure that the total sum involved is within the appropriation and limits stated by the board. Periodical reports on the cost of research should be made to top management and the board.

Control of Large Projects

As said above, these cover generally improvements and expansion of the business and usually involve the erection of new buildings, etc. Before it is decided to go ahead with a new project, statements should be prepared covering:

- 1 Market assessments, showing the extent of the market and the results of any market research carried out for a new product or expansion of existing products envisaged.
- 2 Labour and housing requirements for permanent staff.
- 3 Service requirements such as steam, heating, power, water, etc.
- 4 Estimated unit costs of production and estimated profits of the new enterprise.

- 5 Estimated profit and loss account for the undertaking when the project is fully operative.

All these statements mentioned above will take a large amount of time and effort to prepare.

The management accountant should be responsible for the collation of all information for top management and the board. He will work in close conjunction with his technical colleagues.

Broadly speaking, there are three ways in which the company may set about building new premises :

- 1 by competitive tender;
- 2 by negotiation; and
- 3 on a cost plus management fee basis.

The competitive tender is the traditional method of selecting a general contractor to do a job. Tenders are invited from a selected number of contractors and the contract is usually awarded to the lowest tenderer unless there is some special reason for passing him over. A contract awarded in this way is normally a fixed price contract and may take one of several forms.

(a) Lump Sum Contract

The simplest form is that in which the fixed price is a lump sum where no quantities have been prepared. The sum is determined by the builder on whatever basis he thinks fit. This is the usual form for a small job carried out by the local builder without the help of an architect.

(b) Bill of Quantities Contract

The fixed price contract most widely used is that which is based on fully detailed bills of quantities prepared by a quantity surveyor to every item of which the builder has fixed a price. The aggregate of the quantities so priced serves as the contract sum and the individual items provide a schedule for the valuation of any variations to the contract which may occur as the work proceeds. The tenderer submits the total sum only, the 'priced bill' to be called for from each of the two or sometimes three of the lowest tenderers before deciding to whom the contract will be awarded.

(c) Schedule Contracts

A third method is that in which every item of work carried out by the contractor is measured, valued and paid for according to a 'schedule of rates' agreed beforehand.

Although each of the above are 'fixed price contracts' the contractor is normally protected

against increases in costs of labour, materials etc., by a 'cost recoverable' clause in the contract, which enables him to claim reimbursement of increased payments made by him during the course of the work.

The Negotiated Contract

Certain companies prefer, rather than inviting competitive tenders, to select a building contractor and to negotiate with him a contract on terms and prices regarded as fair by both sides. It is claimed that this method has advantages for both sides. For the building contractor it cuts out the competitive element, and he is usually at great pains to justify the confidence placed in him by working well with the architect and the company in the hope that he will be able to negotiate similar work with one or both in the future. On the other hand many companies believe from experience that they get a better and quicker job by this method of choosing from builders. Certainly one great advantage is that the company architect can contact the building contractor at a much earlier stage than is possible with the competitive tender. In fact, the contractor appointed under these conditions often assists as an adviser, co-operating closely with the company architect and usually putting his practical experience as a builder at the service of the company. One disadvantage of this method is that the company does not in fact know whether or not they are paying the market price for such a building in that locality at that particular time. Nevertheless, if the company is satisfied that the contractor of their choice will give the quality of workmanship required, the speed of construction necessary, and that there is a good check on prices, these are considerations which will normally outweigh the disadvantages mentioned.

Cost and Management Fee Contract

This practice is not a very prevalent one and is not used very frequently in this country.

For the purposes of this paper we shall assume that the new buildings required by the company for the expansion of their business are carried out by negotiated contract or by the company's own building staff supervised by the company's engineers and architect. We shall also assume that the capital project has been approved by the board and that a detailed bill of quantities has been prepared to support the capital costs envisaged. The first step to be taken by management is the appointment of a chief planning engineer who will be responsible

for the planning of the entire contract. He should have as one of his right hand men a cost accountant who will be responsible for the collation of costs and the comparison of costs with estimate.

After it has been decided to go ahead with the contract the chief executive of the company should call an initial planning meeting to discuss the information available on the contract and the plans for its execution.

The salient features of the contract, physical and financial should be reviewed as a start to the proceedings and the following aspects should also be dealt with:

- 1 the broad phasing of the contract in construction sequence;
- 2 the number of sub-contracting arrangements required;
- 3 the nomination of the site agent and staff;
- 4 plant requirements;
- 5 any special materials problems;
- 6 any engineering problems;
- 7 starting date; and
- 8 planning arrangements—time phasing—who to collaborate etc.

The chief planning engineer should collect and collate planning information from the following sources:

- 1 bill of quantities;
- 2 specifications, contract documents and drawings;
- 3 minutes of tender stage planning meetings;
- 4 any draft planning documents prepared at the tender stage; and
- 5 site survey check list.

The above documents should be up-to-date and include all or any amendments which may have taken place since the tender was submitted.

The Master Programme

The chief planning engineer should be responsible for preparing the master programme. This is the major planning document from which all other planning stems. There are three main stages in the completion of this programme.

Programme Calculations

This involves an analysis of 'quantities' usually taken from the 'bill' at this stage since few drawings are available. When the quantities for each operation have been 'taken off', the work content in man hours can be determined by dividing the total quantities by the relevant company output standards for each operation. The length of time required for each operation can thus be calculated by

dividing the total man hours by the planned gang size. Alternatively, where a time limit is set for an operation or where a known production rate is required, the gang size can be determined by dividing the total man hours by the number of hours in the standard working week or by the hours in the time limit specified.

Methods Statement

This is a description of the agreed construction methods to be employed on each of the main items of work shown on the master programme. It will include the type of plant, tools and tackle to be used for the operation and will be in sufficient detail for the site agent to understand what is required.

In the case of operations for which alternative methods are under consideration, comparative costs statements in respect of each method should be prepared for discussion.

The Programme

This shows the time allowed for each main operation in order to complete the job within the accepted contract period.

To each main operation in the programme a number of other different items of information will be added such as:

- 1 the production rate in each unit period on which operational programmes are based (e.g. excavation and concrete in cu. yds. per week, number of bricks per week etc.);
- 2 the labour requirements to fulfil programme;
- 3 dates by which items of key materials and plant are required on site in relation to individual operations; and
- 4 key dates for the supply of outstanding information and drawings.

In the case of large and complex contracts it may well be an advantage to have one overall master programme supplemented by several 'stage' programmes in which case items 1 to 4 above would be incorporated in the latter which, since it would be concerned with only a portion of the project over a shorter period of time, could be made more detailed.

The cost classification should follow religiously the physical controls as detailed in the master programme. The master programme is the 'bible' for both the builders and the accountant. Time and cost factors should be collated under all the detailed heads of the master programme and compared with the detailed estimate in the bill of quantities. Detailed variations in cost should be reported to the executives concerned and totals reported to top management and the board. The

planning of a large contract is both a complicated and complex procedure, and the successful outcome of the project is dependent on good detailed planning supported by an adequate cost control.

Tied in with the master programme, as mentioned above, should be:

- 1 details of the mechanical plant schedule;
- 2 details of the non-mechanical plant schedule; and
- 3 details of the material schedule.

As an example of the uses of these schedules for cost control purposes, the material schedule would be dealt with in the following way. The material schedule is an extract of all materials in the bill and shows bill reference, material description, order details, delivery period and delivery required. This should be extended to show the following:

- 1 the total budgeted material cost based on the prices used at the estimating stage;
- 2 the total budgeted material cost based on firm prices on which purchase orders were placed; and
- 3 the total material cost based on actual usage.

1 minus 2 above will give the total saving achieved by the buyer in placing his orders and 3 minus 2 above will reveal the total excess material costs due to wastage, spoilage, etc. One very important column in the materials schedule is the one headed 'delivery period.' In this column is noted the manufacturers' delivery period required for the various classes of materials and the information thus provided should be kept up to date by the buying department as the contract proceeds.

Major projects are important operations and the emphasis is laid in this paper on the necessity for detailed planning of the physical work and the compilation of costs against the detailed stages of the master plan. The cost classification must follow the physical segregation of the work involved. Stress is laid on the accountant working in close conjunction with the planning engineer and the necessity for the cost figures produced reflecting the actual progress of the job. Generally speaking insufficient time is spent on the preliminary stages and too great a stress cannot be laid on the fact that time spent in detailed planning of the job and the collation of costs at the various stages of the job are well worthwhile. The overall saving in terms of cost and time are likely to be considerable. It is only in this way that a sound summary statement of progress can be presented to the top management and board, and a detailed statement to lower levels of management and supervision. In

other words the whole emphasis is laid on the integration of cost information with the actual happenings and progress of the job.

Control of Normal Capital Expenditure

The capital expenditure budget should be prepared by each department head for his own department, agreed by the managing director and submitted to the board for approval. Every item on the capital expenditure budget should be supported by a statement prepared by the accountant showing the justification for the purchase in terms of profit and loss. This is a discipline which should never be dispensed with. Undoubtedly one of the most difficult cost procedures is justifying the replacement of existing facilities.

The oft prevailing view that a machine is only scrapped and replaced when it can no longer do the job for which it was originally designed can be disastrous to the individual company. On the other hand, some companies, being accustomed to, and very keen on technological improvements, have steadfastly adhered to the idea of discarding unhesitatingly the serviceable equipment of today for something better that may come along. The replacement of a piece of equipment rarely means the installation of a new unit of plant or equipment identical with the one removed. It is much more likely that the new unit is an improved and often radically different unit or combination of units. To make a decision, management has had available a multitude of replacement formulae and methods for computing and comparing costs. Usually, however, most executives are inclined to dismiss mathematical procedure and rely on hunches. As neither the extreme scientific-mathematical approach, nor the rule of thumb method appears to answer the needs of business management for a certain amount of data on which to base decisions of this type, the accountant should be able to provide the necessary information on a factual cost basis compared with the future estimated cost. The proposal for new equipment originates in most companies through the superintendents, works managers, engineers or foremen. These employees have been contacted by representatives of equipment and tool manufacturers. In all cases these recommendations should be coupled with a cost study prepared by the accountant, and in this way top management can be enabled to give the best decision in the interests of the company.

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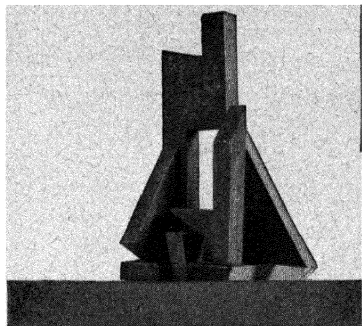
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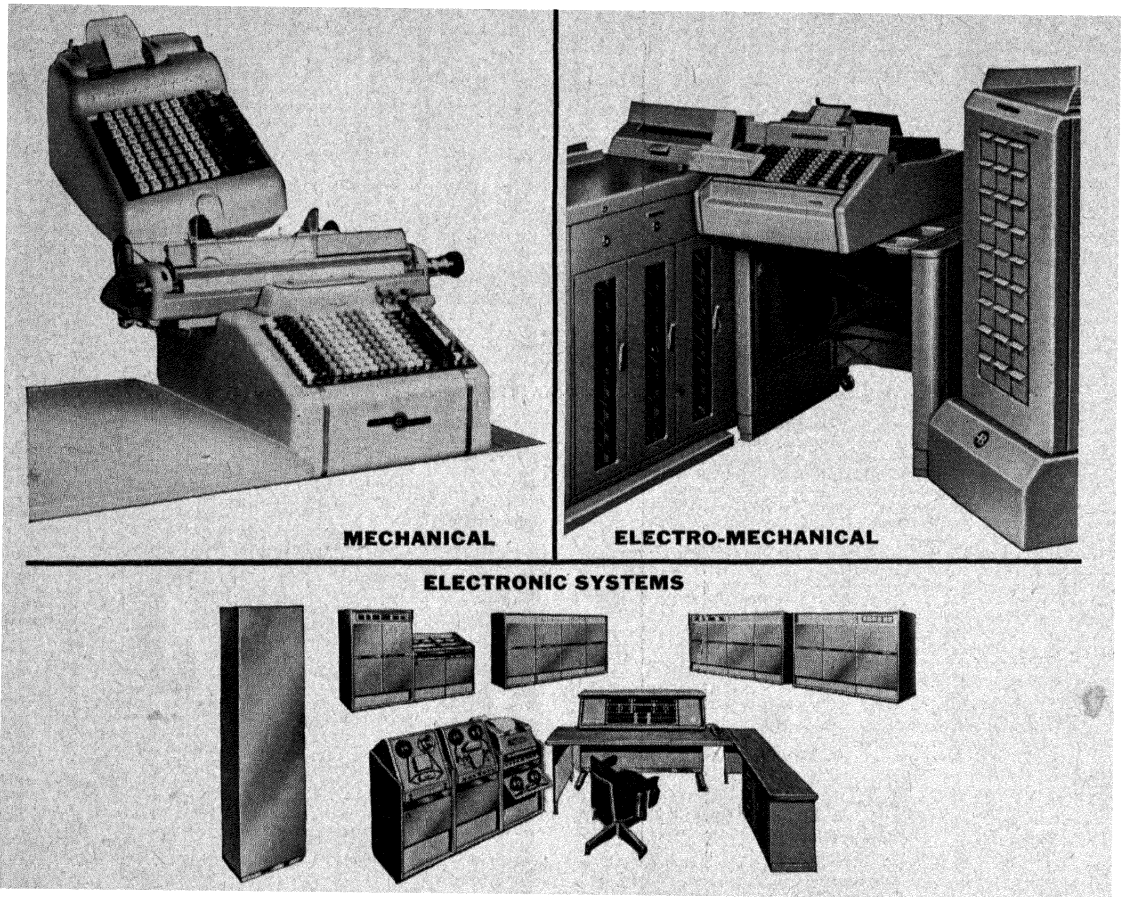
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ture, a separate account classification should be prepared and costs compiled and compared against the amount authorised by top management and the board. A statement showing the progress of capital expenditure to date against budget should be prepared every month and particular note should be taken of individual items where there have been variations on the amount estimated.

Control of Development Expenses

Expenditure for opening up new markets, publicity and advertising campaigns should be budgeted in detail and duly passed and authorised by the managing director and the board.

The whole development plan for new markets embracing publicity and advertising campaigns should be split down into its constituent parts and costs compiled under these classifications so that adequate reports can be made to top management on the amount of expenses and the variations from estimate.

Financing

There is not time available in this paper to go into the various problems facing the financial executive of the company in connection with the securing of the necessary capital to finance the various capital projects of the company. Normal capital expenditure will usually be met from existing resources and provided for in the preparation of the various cash budgets.

For larger projects, however, additional finance will normally be required, and in considering the various ways this can be raised care should be taken that provision is made for additional working capital, as this is very often lost sight of.

Conclusion

This problem of control of capital expenditure covers a very wide field, and it is one in which the accountant has still to do a lot of research. One can only say that from personal experience such research would be profitable and worthwhile.

SCHEDULE

Financial Ratio Analysis

1 Net Working Capital

Shows amount of working capital available to finance company policy.

2 Working Capital Ratio

Current assets should always exceed current liabilities by a considerable margin, since it is from the liquidation of the current assets that the cash must be obtained to pay the current liabilities. Banks usually insist on a ratio of at least 2 to 1.

3 Ratio of Cash to Sundry Creditors

Shows the company's capacity to meet its immediately maturing obligations from actual cash resources.

4 Ratio of Cash and Debtors to Current Liabilities

Known as 'acid test'. Used to supplement working capital ratio. Arbitrary standard sometimes adopted is 1 to 1.

5 Ratio of Net Worth and Loan Indebtedness to Fixed Assets

Shows the relation of capital secured on a permanent or long term basis to the amount invested in more or less permanent form. The net worth and loan indebtedness should show a sufficient margin in excess of the fixed assets to provide a portion of the permanent working capital.

6 Ratio of Net Worth to Current Liabilities

Shows margin of safety for creditors as all losses must be first sustained by the shareholders. The net

worth should be large enough to furnish a sufficiently broad basis to support the volume of the company's outstanding obligations.

7 Day's Sales in Sundry Debtors

Is a measure of the economy achieved in the use of capital tied up in debtors. Standard will vary according to company policy and methods of handling credits and collections.

8 Stock Turnover

Indicates the relative investment in inventory as compared with the value of business done. The higher the ratio, the greater is the relative saving of capital employed in the business.

9 Ratio of Sales to Fixed Assets

The greater the volume of business done with the existing assets, the more money is saved.

10 Ratio of Sales to Total Assets

The higher this ratio, the more favourable is the trend shown by the business in this respect.

11 Per Cent Net Profit on Net Worth

Is the ultimate measure of success. The direction of the trend should govern the expansion and dividend policies.

12 Per Cent Net Profit earned on Ordinary Capital

Shows yield on ordinary shares.

13 Per Cent Operating Profit to Total Asset used

Is a measure of operating efficiency. It is the real measure of earning power. It shows the return on the total capital employed, regardless of the source of the capital.

BOOK REVIEWS

Economic Aspects of Industry and Commerce

by J. L. HANSON, M.A., M.ED., PH.D.

Macdonald and Evans Ltd., London.

Pp. 369. £1 5s.

This book sets out to offer an introductory course in economics for readers and students who have no previous knowledge of the subject. It is primarily intended for students who wish to take the examinations of The Institute of Cost and Works Accountants and The British Institute of Management. It would satisfy also the needs of those studying for the National Certificate in Commerce and the requirements of students taking economics at the G.C.E. advanced level.

Dr. Hanson's book is introductory. It offers a grounding to the uninitiated. Many technical college students will find it ideal for their purpose. It covers the main topics with which economics is concerned. The author has attempted to balance descriptive economics with economic theory and applied economics. A list of questions appended to the book, many of them selected from past examination papers of the Institute demonstrate how closely the author has been concerned with the needs of his readers in drafting his text.

The structure of the book, the layout, the quality of the print, all testify to the care which the author and publishers have taken to furnish the student with a first class text-book. An intelligent selection of books for further reading is recommended.

★ ★ ★

The Elements of Modern Industrial Organisation

by F. J. WRIGHT, M.SC.(ECON.), A.M.B.I.M.

Macdonald and Evans Ltd., London.

Pp. 210. 18s.

It has been recognised for some little while that one of the reasons why so many students fail in examinations is their lack of practical knowledge of the subjects taken. Text-books on the whole have perforce tended towards broad generalisations which often do not give a clear picture to the inexperienced.

Here is a new work concerning industrial organisation which goes some little way towards remedying this defect, for its main feature is to provide instruction by practical examples. Thus the student is enabled to supplement his general reading on organisational theory with valuable background information as to the means whereby theory has been translated into practice.

An early section of the book gives some historical

detail of the evolution of management thought; this is followed by practical examples of public and private industrial structures such as The National Coal Board and General Motors.

The line, functional and staff relationships of industrial management are discussed, followed by chapters concerning the design and distribution of the product, the latter term being used in its broadest sense to include the selling, publicity and market research functions of business.

The chapter on control includes a short but useful section on the presentation of statistics and the book concludes with a survey of human relations in industry including a description of British trade union structure.

This book is thoroughly recommended for students, and will also be of interest to the experienced cost accountant who desires a short survey of industrial management in a lucid and easily readable form.

★ ★ ★

High Speed Data Processing

by C. C. GOTLIEB and J. N. P. HUME

McGraw-Hill Publishing Company Ltd., London.

Pp. 338. £3 14s.

This is one of the most readable books in this field. It is also eminently practical and very well referenced—great advantages to a serious student of the subject.

The machine and instruction code used for the purpose of explanation and illustration—although as the authors say, primitive—is easy to follow and by no means artificial. The authors assume the reader will wish to know something of how computers and data processing equipment works as well as how to use it and to this end there is a useful and clear explanation of logical circuitry.

The flow diagrams are very good and detailed and can certainly be followed by anyone with a little knowledge of programming, without undue effort. The examples of practical applications which are given are also very useful and sufficiently detailed to enable the reader to follow the procedures through and to grasp the computer methods and principles involved. These examples of practical applications are particularly to be appreciated as so many similar books contain merely abstract ideas concerning the application of computers to commercial work.

The chapter on filing contains a very good section on sorting techniques and even experienced

programmers interested in commercial work will find this well worth reading.

Two minor criticisms might be made. The first is that the British reader will be somewhat surprised to read the unqualified statement that for commercial data processing only decimal machines are used, since it is understood that the majority of commercial data processing equipment produced by British computer manufacturers is binary. One would also have appreciated a rather fuller write-up on automatic coding although the authors might well have felt that as this is a highly specialised subject their book was not the place to go in to this subject in very great detail.

This book can be highly recommended to both systems people and potential programmers and indeed is valuable reading for anyone entering this field at any level.

★ ★ ★

**Key to Income Tax and Surtax, 1959/60
(Budget Edition)**

by PERCY F. HUGHES

Taxation Publishing Company Ltd.

Pp. 224. 10s.

The forty-seventh edition of this popular work of reference is as useful as the previous editions have been.

The new provisions of the 1959 Budget are dealt with fully and included is a grossing-up table for the new standard rate. Tax tables at the new rates are also featured.

Every member and student who is called upon to deal with taxation matters will find this book a reliable and easily read guide.

★ ★ ★

Probability and Statistics for Business Decisions

by ROBERT SCHLAIFER

McGraw-Hill Book Company, London

Pp. 732 £4 9s.

Accounting or statistical procedures are only of use if they lead to action. Action takes the form of a decision. A decision implies the selection of one from a number of choices. Naturally the one chosen should be the best for the desired result. During the past decade very intense study has been given to the implications of these four propositions, and new modes of thought are arising that are vital to the cost accountant. The book at present under review deals with the new methods that are emerging. The exposition is very clear, but it would be untrue to say that it is simple. The earlier chapters at least must be read by any accountant who wishes to be in touch with modern ideas affecting his profession.

This approach does not claim to say anything about the facts bearing on the decision. It is accepted

that a given probability of success and a given profit, if successful, attaches to each choice. Further problems arise, however, when an attempt is made to set out the comparisons on paper. Business problems usually involve considering a number of kinds of choices, each of which can be applied to a greater or less extent. When an attempt is made to set out this type of problem it soon becomes apparent that its portrayal on paper is extremely complex. The subject matter of the present volume is to illustrate the ways that have been discovered for setting out such a problem in a sufficiently systematic manner to enable the accountant to see what he is doing, and to allow him to formulate his decision. One of the basic devices is what is known as the 'pay-off table'. At first sight this seems either an unnecessary complication or something that is just too easy, but a little study soon shows that it is a way through difficulties in which one would otherwise be completely lost.

The only possible criticism of this excellent book is that it contains a good deal of statistical analysis that is not an essential part of the main purpose, and this makes it very long.

★ ★ ★

Other Publications Received

Estimating for Printers

British Federation of Master Printers

Pp. 269.

Your Retirement

Engineering Industries Association

Pp. 24. 5s.

The Stock Exchange

The Calcutta Stock Exchange Association Ltd.

Pp. 97.

Films for Industry 1959-60

Central Film Library

Fire Services Statistics 1957/58

Institute of Municipal Treasurers and Accountants and Society of County Treasurers, London and Chester

Pp. 16. 3s. 6d.

Auditing—A C.P.A. Review Manual

by B. Newman, C.P.A.

Chapman and Hall Ltd., London, W.C.2

Pp. 685. £5 2s.

Business Management

by Geoffrey Whatmore

National Book League, Cambridge

Pp. 32. 3s.

Government Pension Proposals

Industrial Welfare Society

Pp. 26. 5s.

LEGAL COMMENTARY

affecting Industry and Commerce

ARBITRATION

Stay of Judicial Proceedings

OLIVER v. HILLIER (1959) 1 W.L.R. 551

One of two partners carrying on business under partnership articles providing for the reference of all disputes to arbitration brought an action for dissolution of the partnership, and the appointment of a receiver and manager, on the ground that dissolution was 'just and equitable' within the meaning of the Partnership Act, 1890, sec. 35, which empowers the court, on application by a partner, to decree dissolution 'whenever in any case circumstances have arisen which in the opinion of the court render it just and equitable'.

The wording of the arbitration clause was sufficiently wide to cover all disputes and issues arising in the action, and the defendant's partner sought an order staying the action under the Arbitration Act, 1950, sec. 4(1), which empowers the court to stay proceedings by one party to an arbitration agreement against another in respect of any matter agreed to be referred, if the court is satisfied that there is no sufficient reason why the matter should not be referred as agreed.

Roxburgh, J. refused to stay the action, adopting the view that the question whether a partnership should be dissolved is not a matter which should be referred to arbitration; and further that the effect of adherence to the arbitration agreement would be to exclude the possibility of the appointment of a receiver and manager by the court, which was asked for in this case.

★

CONTRACT

Frustration

ALBERT D. GAON & CO. LTD. v. SOCIÉTÉ INTERPROFESSIONNELLE DES OLEAGINEUX FLUIDES ALIMENTAIRES (1959)

The Times, 6 June 1959

In October, 1956, the plaintiffs contracted to sell and deliver Sudan groundnuts to the defendants at Nice and Marseilles, but failed to do so by reason that the Suez Canal was closed to navigation between November 2, 1956, and April 9, 1957. They contended that the contract was frustrated by the blocking of the Canal and consequent dislocation of shipping, but an appeal committee of the trade association confirmed an umpire's award that the plaintiffs were liable for breach of contract.

Ashworth, J. dismissed the plaintiffs' appeal from

the award, expressing himself to be regretfully conscious that he was not following the decision in *Carapanayoti & Co. Ltd. v. E. T. Green, Ltd.* (noted in *The Cost Accountant* for January, 1959, at p. 305). Although shipment *via* the Cape would have been inconvenient and much more expensive for the plaintiffs, this did not make the contract commercially impossible, and his Lordship was not satisfied that there was such a change in the nature of the plaintiffs' obligation as would bring the principle of frustration into play. Both before and after the closure of the Canal the thing undertaken was the shipment of goods from Port Sudan to the Mediterranean; after the closure the thing undertaken remained the same, though the manner of performance must be different.

★

FATAL ACCIDENTS ACTS

Assessment of Damages

GREEN v. RUSSELL (1959) 3 W.L.R. 17

The decision of Ashworth, J. in this case (noted in *The Cost Accountant* for September, 1958, at p. 141) has been affirmed by the Court of Appeal.

It was held that the deceased employee had had no legal or equitable right to the moneys paid to his administratrix under the employer's insurance policy, and that such moneys were not deductible from the damages payable under the Fatal Accidents Acts. Although the Court (except Pearce, L.J.) did not accept the view of Ashworth, J. that the expression *any sum paid or payable* on the death of the deceased *under any contract of insurance* in the Fatal Accidents (Damages) Act, 1908, sec. 1, was descriptive of the sum itself received by the administratrix, nevertheless that sum still fell within the Act, because the Act contemplated and extended to any payments contractually made to or on behalf of or for the benefit of employees or dependants. (Leave to appeal to the House of Lords.)

★

NATIONAL INSURANCE

Deduction of Industrial Injury Benefit from Damages

PEREZ v. C.A.V. LTD. [1959] 1 W.L.R. 724

The plaintiff was operating a capstan lathe in the course of his employment at the defendants' factory when he was injured by reason of a breach of their statutory duty to fence securely the chuck of the lathe. When the plaintiff's disability was finally assessed he received a lump sum disablement

gratuity of £140, and the question arose as to the proportion which, under the Law Reform (Personal Injuries) Act, 1948, sec. 2 (1), should be deducted (in respect of this disablement benefit) from the damages awarded to the plaintiff in respect of his loss of earnings.

Edmund Davies, J. held that the proper deduction was such a sum as would bear the same proportion to half the disablement gratuity as that part of the five year period from the accident still unexpired bore to the plaintiff's expectation of life.

In so holding his Lordship did not follow the decision in *ROBERTS v. NAYLOR BROS. LTD.* [1959] 1 W.L.R. 718, where the plaintiff, injured by reason of the defendants' statutory negligence, received a lump sum disablement gratuity, and Paull, J. held that the gratuity had 'accrued' to the plaintiff in respect of his industrial injury within the meaning of sec. 2 (1) of the Act of 1948, and that half that sum should be deducted from the amount of earnings lost in assessing the damages in respect of such loss.

★

FACTORIES ACTS

Dangerous Machinery

NAPIERALSKI v. CURTIS (CONTRACTORS) LTD. (1959) 2 All E.R. 426

The plaintiff was an employee of the company which was the occupier of a woodworking factory. After finishing his day's work and 'clocking off', he voluntarily returned to the factory to help a fellow employee who was making a table for himself as a private job; and while so helping and operating a circular saw which at that time was unfenced, the plaintiff sustained injuries in respect of which he claimed damages for breach of the fencing provisions of the Factories Act, 1937, sec. 14 (1), and the Woodworking Machinery Regulations, 1921.

Havers, J. held that the claim failed. On the occasion of the accident the plaintiff was not employed under any contract of service or for services. Being a mere volunteer he was not 'employed' in manual labour but merely voluntarily engaged in it.

★

AGENCY

Authority of Estate Agents

RYAN v. PILKINGTON AND GEM (1959)
1 W.L.R. 403

Pilkington, an estate agent, having been instructed by Gem to find a purchaser for a certain property, introduced Ryan who agreed with Gem to purchase 'subject to contract'. At Pilkington's request, but without the knowledge of Gem, Ryan paid to Pilkington two sums of £100 each by way of deposit, for which Pilkington signed a receipt for the first sum as 'agent for Mr. and Mrs. Gem', and for the second sum simply as 'agent'. Gem subsequently declined to proceed with the transaction and re-

quested Pilkington to return the deposit to Ryan, which, however, he failed to do, whereupon Ryan sued both defendants for the amount.

The Court of Appeal held that Gem was liable to repay the amount of the deposit to Ryan, because Pilkington in receiving the deposit was acting within the ostensible scope of his authority.

Letter to the Editor

B.U.P.A. ACCOUNTANTS' GROUP

Sir,

Readers may be interested to note that the British United Provident Association Accountants' Group has now been operating for four years and has over 650 contributors, together with members of their families.

B.U.P.A. is a nation-wide non-profit association, under the presidency of the Rt. Hon. Viscount Nuffield, G.B.E., F.R.S., and was formed in 1947 by the amalgamation of a number of provident associations, some of which had already been in existence for many years. The object of the Association is to shield its subscribers against heavy expenses arising from surgical operations and other specialist treatment, as a result of either illness or accident. There is also an optional extension for private treatment by general practitioners.

The Association has no shareholders and the governors give their services without fee or remuneration of any kind.

The Accountants Group enables subscribers to obtain the benefits of membership on terms well below those available to individual subscribers to the Association. Membership of the Group is open to most accountants in practice or in employment, as well as to all grades of staff employed by practising qualified accountants.

Further details of the Association and of the Group will gladly be sent to anyone who may care to write to us.

Yours faithfully,
ROSE, GLUCK & CO.
Hon. Group Organisers
B.U.P.A. Accountants Group

14 Queen Victoria Street,
London, E.C.4.

ELECTRONICS AND AUTOMATION

ELECTRONIC DATA PROCESSING COURSE

'Management Accounting with a Computer'

A WEEKEND seminar for cost accountants with a knowledge of electronic data processing techniques has been arranged by the Electronics Committee of The Institute of Cost and Works Accountants; it will be held at the Randolph Hotel, Oxford, from Friday, 13 to Sunday, 15 November.

Mr. John Diebold, who is well known to members of the Institute as an authority on electronic computers, has kindly agreed to act as guest chairman.

The seminar will divide into three groups to discuss the following aspects of the subject:

1. Recognition of the possibilities.
2. Investigation and planning.
3. Installation and operation.

As hotel accommodation is limited, those members wishing to attend should apply immediately to the Technical Officer of the Institute for an application form. Applications will be dealt with in rotation. The inclusive fee will be 10 guineas.

CALCULATING MACHINE

MADAS model 20BS is a fully-automatic calculating machine with single keyboard setting in both automatic multiplication and division, all factors being set on the one keyboard. Once decimal points are set, they remain correct throughout all calculations.

Successive quotients can be shown individually,

while at the same time being accumulated. Quotients can be automatically transferred for further use in multiplication. The machine can be supplied with extra features, such as full tens-carry in the product register, automatic squaring, and the Madas square-rooting device.

GENERAL PURPOSE COMPUTER

CROSFIELDS AND CALTHROP LIMITED, the Liverpool manufacturers of animal foodstuffs, who employ about 1,000 people, are reported to have signed a contract for an I.C.T. type 1202 computer and ancillary equipment to the total value of £50,000. The new computer installation will take over all the existing punched card work on the office side and will also be used on the production side and in particular for the linear programming of animal foodstuff mixes.

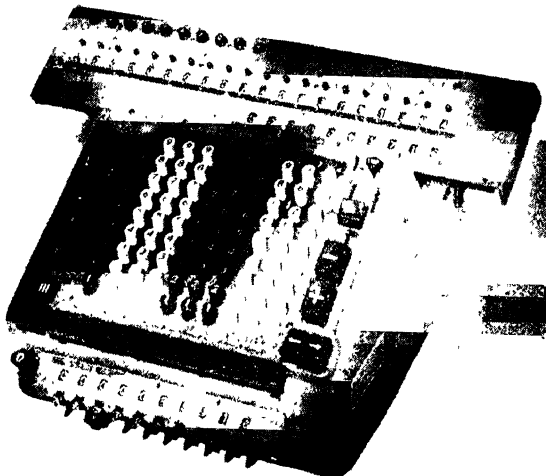
Explaining his company's decision to install the computer, Mr. E. B. Stevenson, managing director, said that to a medium-sized concern the cost of equipment was of some importance.

'In my view,' he continued, 'the value of this computer is that it enables us to integrate our mathematical and accountancy work on both the office and production sides. It is the computer's ability as a general-purpose machine to do these things which has made it an attractive proposition.'

LEO AUTOMATIC OFFICE

BRITISH OXYGEN GASES LTD. are reported to have ordered a Leo II automatic office for use in their Edmonton works to carry out a series of production scheduling and control tasks; it will also give general service to the remainder of the group.

Claimed to be one of the most powerful installations of commercial computing equipment, it will be used to trace, and anticipate, sales trends of 8,000 products ranging from giant oxyplanes to breathing apparatus; calculate production needs by anticipating sales and taking into account known stocks; keep stocks at lowest possible level so that they still meet customer requirements; calculate requirements for raw materials; assess the amount of work for each of the machine groups consistent with demand; arrange the loading on each machine group to avoid peaks one week and low level production the next; calculate the work load for each machine and assembly group; print instructions authorising the factory to set such work in motion; check the work and report on any significant deviation from the original plan and, if necessary, readjust it, or provide for special short notice orders;



invoice depots for the goods received; streamline reports to enable the managements to concentrate only on those matters that really require attention; bring up to date local and central stock records and automatically prepare instructions for replenishments to be sent out to the districts; calculate earnings and prepare pay documents of staff.

In the first instance, it is intended to run certain aspects concerned with standard costing, district sales forecasting and replenishment on a Leo service machine. This will build up an immediate work load for British Oxygen's own computer as soon as it is installed at Edmonton.

* * *

Burroughs have introduced a new model, hand operated adding machine, priced at £27, and a new electric model priced at £60; there have been general price reductions for this company's range of adding machines.

Computer Society Conference

Flow of Orders Slackens

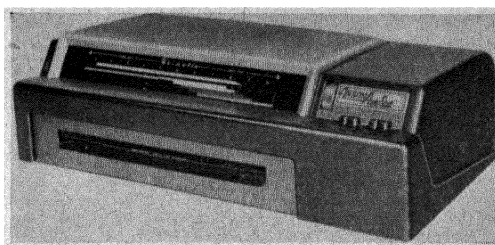
THE flow of new orders for computers for commercial data processing had noticeably slackened over the past few months, according to **Mr. J. A. Goldsmith**, M.A., A.C.A., A.C.W.A., speaking at the Cambridge Conference of the British Computer Society recently. Of the 109 large installations delivered or on order at the present time, 76 had been installed at this date compared with 37 at the same time last year and 15 the year before that.

He suggested that, in this field, potential users were waiting to see what success these early installations achieved before ordering their own machine. There was also a feeling that there might be new developments shortly with a crop of new machines on the market.

There was clearly scope for many more machines to be used in industry although a number of firms had decided to enter the field by installing punched card equipment using electronic calculators and then moving on to computers in a few years' time. Over 300 such calculators had, in fact, been ordered or installed.

Work so far on the larger machines had been unambitious and the achievements disappointing compared with the amount of effort put into their installation. Users of these machines who had attempted to apply them to routine accounting work had generally found that the cost of installation and of preparing the media for the system was greater than had been forecast some years ago. There was still a large gap between top management and the people running computers. He felt that it would be five or 10 years before computers played a full part in helping management to control their organisations really effectively rather than being merely advanced accounting machines.

Reviewing the work of computers in British Universities, **Dr. A. S. Douglas**, Director of the electronic computing laboratory at the university



The new Anson Uni-Matic Auto-Stat is claimed to be capable of copying instantly any original regardless of type of ink, paper, or colour. Operated electrically it will make copies up to 11 inches wide of any length.

of Leeds, gave details of the reliability to be expected from machines working on a service basis and showed that the percentage down-time, once the machine was run in, could be maintained at something in the order of only 1 per cent.

Mr. A. J. Bray, M.A., A.C.A., drew attention to the requirements of the Companies Act and questioned whether information held in computer storage could be accepted as 'proper books of account' or whether it could be claimed that the permission, given by the Act that matters might be recorded 'in any other manner' than bound ledgers, might be stretched to cover, for example, a magnetic drum. He drew attention to the limited experience of the profession so far in auditing large data processing systems and suggested that there was a great deal to be done by external auditors in studying a complete integrated data processing system instead of relying on the routine checking of arithmetical accuracy.

Possibility of Fraud

The question of possible fraud was referred to by **Mr. F. C. de Paula**, T.D., F.C.A., F.C.W.A. He emphasised the need for the auditor to be satisfied that there was proper internal discipline within the machine-room. There should be proper procedures to ensure that the right programmes were used, that the same programme had, in fact, been used throughout one machine run, and that minor error correction during a machine run was properly recorded. He suggested that machines might need to be equipped with devices which would automatically print out a record of all console switch movements, identification of the programme used and, possibly, an automatic record of machine operating times.

Mr. G. S. Galer of the Shell Chemical Company Ltd., describing the application of computer methods to the varied activities of the Royal Dutch/Shell Group, said that optimisation techniques, and especially the technique known as linear programming, were now widely used for the solution of complex economic problems.

A group of petroleum chemical plants, for example, would produce as many as 50 final products from

one base material. The plants might be operated in many different ways, and the production of many products was closely related to that of others. It was known what the potential market was for each product. How should the production and marketing plan of the company be drawn up? If there was a shortage of base material or plant capacity, how should this be allocated between the various sales outlets?

The linear programming approach to these problems consisted in setting up a large number of equations which expressed all the possibilities of sales and production, together with an expression describing the profit to be gained from each combination of possibilities. One was then able to choose, by means of a long calculation, that method of

running the plant and of selling the products which would yield the largest profit.

This calculation, in practical cases, required the resources of the largest and fastest computers available if it was to be carried out within a reasonable period of time. One of the group's plant complexes, however, was now regularly operated on these principles, a planning exercise being carried out every three months, covering the coming five quarter period. The work was done on a large Ferranti Mark I computer by the group's research laboratory in Amsterdam.

There were plans for a wide extension of this work, using the much larger and faster new Ferranti Mercury computer which the group was installing in London.

ABSTRACTS OF ARTICLES in Contemporary Journals

Aiding Progressive Management

by T. S. McALPINE, A.C.W.A., A.A.C.C.A

The Accountant, 6 and 13 June 1959

The function of management is to ensure that the business earns a fair profit on the capital employed. The function of management accounting is to translate the major objective into income, expenditure and profit, and to keep the management informed on all variances between the plan and the performance.

Management accounting is the one medium for giving common expression to the objective in its application to every activity of the business.

★ ★ ★

Rapid Growth of Mail Order Trading

Board of Trade Journal, 19 June 1959

One of the most rapidly growing forms of selling in recent years has been selling by mail order; total sales by mail order houses reported in the Census of Distribution grew from £47 million in 1950 to £128 million in 1957.

★ ★ ★

The Future Development of European Industry

The Purchasing Journal, July 1959

This final article of a series of five examines the likely growth of European industry. It is based on an assumption that some sort of arrangement on tariffs and quotas will be reached between the Common Market countries and the rest of Europe.

Although primarily addressed to purchasing officers, its main concern is with the question of which countries are likely to expand,

In general, the economic integration inherent under the wider plan will tend to encourage specialisation and growth of those industries which are fairly highly specialised.

These considerations are discussed in relation to the iron and steel, the electrical, the chemical and the motor industries.

★ ★ ★

Purposes and Possibilities of Uniform Accounting

by MARTIN O. JAGER, B.COM.

The Australian Accountant, April 1959

In Australia uniform accounting for individual industries has not developed to any great extent, probably because few industries have a central body capable of the necessary organisation. In America in contrast, uniform accounting has been adopted by many industries. American systems supposedly provide the one best way of handling the required accounting information within their areas of application.

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Auditors for Giants

by I. F. GIBSON, PH.D. (ECON.)

The Accountants' Magazine, June 1959

With their subsidiaries, 3,000 large public companies in British industry now earn around 60 per cent. of all corporate profits and 2,200 of these companies provide almost 50 per cent of the total employment in manufacturing industries. Everywhere the large organisation is increasing its share of the total business done.

It is also clear that responsibility for auditing the accounts of the giants is in large measure concentrated

in the hands of a small number of accountancy firms—thus one firm perhaps is solely responsible for auditing the accounts of 15 giants.

★ ★ ★

Tomorrow's Accounting?

by PROFESSOR C. W. BASTABLE

The Journal of Accountancy (New York), June 1959

The author questions the usefulness of traditional methods of asset classification, valuation of inventories and marketable securities, measurement of costs applicable to future periods, and recognition of current costs in the income statement. Forms of balance sheet and income statement are suggested which would present significant figures on both historical and current cost bases.

★ ★ ★

The Theory of Selling Costs

by F. H. HAHN

The Economic Journal, June 1959

A simple technique is outlined which enables one to represent the decisions with respect to selling costs, price and output on a single diagram. The technique is then used to discuss a number of problems in monopolistic competition theory and taxation. A mathematical appendix re-states some of the results somewhat more rigorously.

★ ★ ★

Effective Budgeting Means Controllershship in Action

by GLENN A. WELSH

The Controller (New York), June 1959

This article explains how and why budgeting must be based on competence, research, education and management planning and control.

★ ★ ★

The British Council

Economic Digest, July 1959

In this survey of The British Council, two articles are of general interest; 'The origins of the British Council,' by Harold Nicholson, and 'The British Council now,' by Sir Paul Sinker, Director General of the Council.

★ ★ ★

Organising for Effective Management

by RONALD O. MOORE, C.A.

The Canadian Chartered Accountant, July 1959

One of the most important questions facing many managements today is when to divisionalise. At what point do the advantages of the divisionalised structure, with its tendency towards decentralisation of authority, outweigh the advantages of the functional structure, with its tendency towards highly centralised authority? What are the indications

that it is time for a change? These questions are discussed.

★ ★ ★

Bases for Capital Expenditure Decisions

by K. A. MIDDLETON, B.A., F.A.S.A., F.C.A.A.

The Australian Accountant, May 1959

Methods in use are outlined and compared. These methods include the pay-back method, return on average investment and discounted cash flow.

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Paperwork Simplification

by HENRY GUNDERS

The New York Certified Public Accountant, July 1959

Six illustrative principles of good paperwork procedures are set out in the form of questions which evaluate existing procedures in the light of the standards laid down.

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Education for a Profession

by T. T. PATERSON

The Manager, June 1959

This is an appraisal of the value, both to industry and the individual student, of a new post-graduate course in industrial administration inaugurated at the University of Glasgow.

The course lasts one academic session. The first two terms are given over to intensive teaching. In the third term each man selects an industrial problem and gathers information from factories, firms and trade unions involved. After three months a report is submitted, as it were, to the board of a firm, recommending a course of action. On the basis of examination, and the quality of thinking shown in the report, the Senate grants a certificate in industrial administration.

Publications Cited

- The Accountant* (1s. 9d.) 4 Drapers' Gardens, Throgmorton Avenue, London, E.C.2.
Board of Trade Journal (1s.) H.M.S.O.
The Purchasing Journal (2s. 6d.) Wardrobe Court, 146a, Queen Victoria Street, London, E.C.4.
The Australian Accountant (3s.) 37 Queen Street, Melbourne.
The Accountants' Magazine (2s. 9d.) 27 Queen Street, Edinburgh 2.
The Journal of Accountancy (85 cents) 270 Madison Avenue, New York 16, N.Y.
The Economic Journal (10s.) 21 Bentinck Street, London, W.1.
The Controller (65 cents) 2 Park Avenue, New York 16, N.Y.
Economic Digest (1s. 6d.) 28 James Street, London, W.1.
The Canadian Chartered Accountant (60 cents), 69 Bloor Street East, Toronto 5.
The New York Certified Public Accountant (50 cents), 355 Lexington Avenue, New York, 17, N.Y.
The Manager (3s.) Management House, 80 Fetter Lane, London, E.C.4.

THE INSTITUTE OF COST AND WORKS ACCOUNTANTS

ELECTIONS TO MEMBERSHIP

The following were elected during June 1959.
Employers are shown as at the date of election.

ASSOCIATES

AITCHISON, D. R. Formerly: *Glenboig Union Fireclay Co. Ltd., Glenboig.*
ALCOCK, D. A. *F. Hinde & Sons Ltd., Norwich.*
ALDRED, J. *National Coal Board, Cannock.*
BECK, W. B. *Berry Wiggins & Co. Ltd., London.*
BOULTON, I. J. *U.K. Atomic Energy Authority, Warrington.*
BRADSHAW, J. O. *W.A.A.C. (Nigeria) Ltd., Lagos.*
BRAND, R. J. *Imperial Chemicals Ltd., London.*
CAMERON, I. S. *Wm. Crawford & Sons Ltd., Edinburgh.*
COLLIER, K. A. *Doulton Industrial Porcelains Ltd., Tamworth.*
CONE, M. S. *Le Grand, Sutcliffe & Gell Ltd., London.*
CUTHBERT, K. D. *Baker Perkins Ltd., Peterborough.*
DOUAIDY, M. A. *Mideast Aircraft Service Co. Ltd., Beirut, Lebanon.*
EVERETT, A. W. *Vinten Ltd., London.*
GALLACHER, J. *Cooper, McDougall and Robertson Ltd., Glasgow.*
GANDHI, S. P. *Matchwel Electricals (India) Ltd., New Delhi.*
GARDEN, A. S. *British Tabulating Machine Co. Ltd., London.*
GASKIN, P. N. *Jarrold & Sons Ltd., Norwich.*
GILES, M. *Newbury Laundry Ltd., Newbury.*
GLASCOW, R. E. *Hardinge Machine Tools Ltd., Hanworth.*
GORVIN, G. A. *Imperial Chemical Industries Ltd., London.*
HAINE, J. A. *British-American Tobacco Co. Ltd., London.*
HODGSON, R. *Yorkshire Electricity Board, Bradford.*
HOLBROOK, J. F. *Industrial Administration Ltd., London.*
HOBROOK, F. *British Road Services (Parcels) Ltd., Burnley.*
JENKINS, F. P. *E. Hill Aldam & Co. Ltd., London.*
JOHNSON, P. R. *Caltex Services Ltd., London.*
JOHNSON, R. *Bulawayo City Council, Southern Rhodesia.*
KATESMARK, R. E. *International Chemical Co. Ltd., London.*
KEAN, F. W. *East Kilbride Dairy Farmers Ltd., Glasgow.*
KEARNEY, E. A. *The Cementation Co. Ltd., Doncaster.*
KEIR, J. M. L. *Stewarts & Lloyds Ltd., London.*
LAING, P. M. *South of Scotland Electricity Board, Dumfries.*

MACLEAN, G. *India Tyre & Rubber Co. Ltd., Inchinnan.*
MCWATT, A. *Bruntons (Musselburgh) Ltd., Musselburgh.*
MARSH, S. E. *Charles Bayer and Co. Ltd., Bath.*
MITCHELL, W. C. L. *Barclay, Curle & Co. Ltd., Glasgow.*
MOORE, G. A. *National Coal Board, Nottingham.*
NAYLOR, L. T. *Vickers-Armstrongs Ltd., Crayford.*
PELLING, P. A. *Vickers-Armstrongs (Engineers) Ltd., Crayford.*
PIRIE, I. A. *Personnel Administration Ltd., London.*
POTTS, D. W. *South London Press Ltd., London.*
PRUDENCE, E. J. *R.F.D. Co. Ltd., Godalming.*
ROBERTS, D. T. *Wales Gas Board, Cardiff.*
ROBINSON, D. *Ford Motor Co. Ltd., Dagenham.*
SCOTT, B. C. *Reads Ltd., Liverpool, 9.*
SEARY, C. R. *Reed Transport Ltd., Maidstone.*
SELBY, H. N. *Sheepbridge Alloy Castings Ltd., Sutton in Ashfield.*
SHOOTER, J. G. *General Electric Co. Ltd., London.*
SPERRING, M. J. *Unity Corset Factories Ltd., Bristol.*
SWART, A. M. *Hornsea Pottery Co. Ltd., Hornsea.*
SYRETT, C. R. *Waite Son Ltd., Mitcham.*
TAYLOR, G. F. *International Computers & Tabulators Ltd., Letchworth.*
THOMSON, K. *Nyasaland Electricity Supply Commission, Blantyre, Nyasaland.*
THORPE, T. *U.K. Atomic Energy Authority, Aldermaston.*
TUCKEY, S. A. *Stephens & Carter Ltd., London.*
TURNER, J. A. *Kodak Ltd., Harrow.*
VENKATACHALAM, S. *Mahindra & Mahindra Ltd., Bombay.*
WEBSTER, H. R. *Blackstone & Co. Ltd., Stamford.*
WHITTON, L. G. *Wm. Moorhouse & Sons Ltd., Leeds.*
WISE, J. W. C. *John Heathcoat & Co. Ltd., Tiverton.*

The following were elected during July 1959.
Employers are shown as at the date of election.

FELLOW

PRICE, J. G., *Robson, Morrow & Co., London.*

ASSOCIATES

BAILEY, R. W., *Ericsson Telephones Ltd., Beeston.*
BARNES, G. M. *Associated Ethyl Co. Ltd., Ellesmere Port.*
BESTER, F. J. J., *Consolidated Glass Works Ltd., Pretoria.*
CARRADINE, D., *Belliss & Morcom Ltd., Birmingham.*
COWDREY, H. T., *J. W. Green (Painters) Ltd., London.*

DALTON, P., *Pfizer Ltd., Sandwich, Kent.*
 DARKE, R. G., *Joseph Sankey & Sons Ltd., Bilston.*
 DOVE, K., *Vaal Potteries Ltd., Meyerton, S. Africa.*
 DURRANT, R. A., *J. R. Gordon & Co. Ltd., Chester.*
 FOSTER, R. H., *North Western Electricity Board, Manchester.*
 GOPALKRISHNAN, N. S., *Kumar Jain & Associates, Bombay.*
 HENNIGAN, M. C., *An Bord Lasgaigh Mhara, Dublin.*
 HILLAN, E. F., *Thompsons Bakeries Ltd., Belfast.*
 LOADER, K. P., *President Knitting Mills (1945) (Pty.) Ltd., Benoni, S. Africa.*

MCBREARTY, P. P., *J. S. Lister Ltd., Dublin.*
 MORGAN, C. J. D., *William Mills Ltd., Wednesbury.*
 MUIR, T. B. C., *R. Y. Pickering and Co. Ltd., Wishaw.*
 PETTIGREW, J. B., *Wm. Halley & Sons Ltd., Dundee.*
 PINSON, E. R., *Alvis Ltd., Coventry.*
 RAMAMURTI, T. V., *Tata Locomotive & Engineering Co. Ltd., Jamshedpur, India.*
 SEN GUPTA, A. K., *Ariana Afghan Airlines Co. Ltd., Kabul, Afghanistan.*
 THOMAS, M. V., *Brunei Shell Petroleum Co., Ltd., Seria, Borneo.*
 WILSON, G. H., *English Electric Co. Ltd., Stafford.*

PERSONAL

Mr. A. H. Booth, F.C.W.A., has been appointed Accountant to Roberts & Roberts Limited, Leicester.

★

Mr. N. M. Clatworthy, F.C.W.A., A.C.I.S., has been appointed a Director of Johnson and Phillips South Africa (Pty) Ltd., whilst retaining his position as Secretary. He is also a Director of Johnson and Phillips Transformers (Pty) Ltd.

★

Mr. W. L. Cuddy, F.C.W.A., has been appointed a Director of Wool Combers (Ireland) Ltd., and retains the post of General Manager.

★

Mr. J. O. Davies, F.C.A., A.C.W.A., Chief Internal Auditor of the National Coal Board has been appointed European Regional Vice President of The Institute of Internal Auditors.

★

Mr. J. Dent, A.C.W.A., has been appointed Cost Accountant to Herbert Morris, Ltd., Loughborough.

★

Mr. J. Fairhurst, A.C.W.A., has been appointed Lecturer in Cost Accountancy at the City of Liverpool College of Commerce and will take up his duties in September 1959.

★

Robson, Morrow & Co. of 59 New Cavendish Street, London, W.1. announce that **Mr. John A. Goldsmith**, M.A., A.C.A., A.C.W.A., was admitted as a partner on 1 July, 1959.

★

Mr. A. C. Gupta, B.S.C., B.COM., A.C.A.(INDIA), A.C.W.A., has been appointed Chief Cost Accountant of the Indian Cable Co., Ltd., Tatanagar.

★

Mr. W. F. Harris, B.COM., A.S.A.A., A.C.W.A., A.C.I.S., has been appointed Manager of Production Services, Body Manufacture Group, Ford Motor Company Ltd.

★

Mr. P. I. Harrison, A.C.W.A., has been appointed

Works Accountant at the Chapelcross Works of the Production Group of the United Kingdom Atomic Energy Authority.

★

Mr. J. Hetherington, A.C.W.A., A.S.A.A., A.I.M.T.A., has been appointed Deputy Treasurer of Hornchurch Urban District Council.

★

Mr. P. Higgins, B.COM., A.C.W.A., has been appointed a lecturer in Accounting and Administration in the University of Birmingham.

★

Mr. M. J. Howard, A.C.A., F.C.W.A., has been appointed Assistant Chief Accountant of Unilever Ltd.

★

Mr. G. D. Irving, A.C.W.A., has been appointed Systems and Methods Adviser of Ross Touche & Co., Vancouver, B.C.

★

Mr. D. S. Lea, A.C.W.A., has been appointed Office Manager at William Marsden & Co., Hull.

★

Mr. G. D. R. Leighton, A.C.W.A., has been appointed Secretary/Chief Accountant to Ceag Limited, Queen's Road, Barnsley.

★

Mr. A. M. Moat, B.A., A.C.W.A., has been appointed Commercial Manager of Servomex Controls Ltd., Crowborough.

★

Mr. R. P. Mondal, M.A., B.COM., A.C.W.A., has been appointed Accounts Officer, S.E. Railway, Calcutta.

★

Mr. M. J. Murray, A.C.W.A., A.A.C.C.A., has been appointed Secretary of The Athlone Woollen Mills Co., Ltd.

★

Mr. B. L. Needler, A.C.W.A., F.C.I.S., has been appointed Director of Thermos Ltd., and retains the appointment of Secretary.

Mr. F. Osborn, F.C.W.A., has been appointed Cost Accountant of The Rover Co., Ltd., Solihull.

★

Mr. K. Padmanabhan, A.C.W.A., has been appointed Assistant Accountant of The Indian Copper Corporation Limited.

★

Mr. A. A. Pakenham-Walsh, M.A., F.C.W.A., has been appointed to the new post of Lecturer in Management Studies at Trinity College, Dublin.

★

Mr. J. H. Pinto, A.C.A., A.C.W.A., has been appointed Secretary of M. Wiseman & Co. Ltd., London.

★

Mr. D. Ramaswamy, A.C.W.A., has been appointed Cost Accountant at the Digboi branch of the Assam Oil Company Limited, India.

★

Mr. G. Randsley, F.C.W.A., has been appointed to the Board of British MonoRail Limited. He retains his appointment as a Director of Herbert Morris Ltd., Loughborough.

★

Mr. R. Rea, A.C.W.A., A.C.I.S., has been appointed Secretary/Accountant to Clinch & Co., Ltd., Witney.

★

Mr. R. H. Sitch, B.COM., A.C.W.A., Chief Accountant of Super Oil Seals and Gaskets Ltd., has been appointed Executive Director of the company.

★

Mr. A. Smith, D.S.C., C.A., A.C.W.A., has been appointed Managing Director of The Walter Kidde Company Ltd., Greenford, Middlesex.

★

Mr. K. S. Smith, F.C.W.A., has been appointed General Manager of the British India Corporation Ltd., Cooper Allen & North West Tannery Branches, Kanpur.

★

Mr. S. Sthanumoorthy, A.C.W.A., is now in practice as a Consulting Cost Accountant at Bombay Mutual Chambers, 5th Floor, Room No. 64, 19/21 Hamam Street, Fort, Bombay-1, India.

★

Mr. S. J. Wheeler, F.C.W.A., a Director of The Austin Motor Company Ltd., has joined the Board of the British Motor Corporation.

LIST OF MEMBERS

No further copies of the *List of Members for 1959* are available. Readers are reminded that the conditions under which free copies were issued to members of the Institute were published in the issues of *The Cost Accountant*, dated October and November, 1958.

CRICKET IN SOUTH AFRICA



The annual match between the Cape Centre and the Cape Society of Accountants and Auditors was played recently; rain unfortunately prevented the match from being completed. Pictured above are (left to right) Mr. E. Bouchet, C.A. (S.A.), Secretary of the Cape Society of Accountants and Auditors; Mr. Johnson-Robson, C.A. (S.A.); Mr. H. Sneath; Mr. D. G. Barber, Mrs. B. Cusack; and Mr. G. Dale-Kuys, C.A. (S.A.), A.C.W.A. Mr. Bouchet is seen holding the cup which the National Cash Register Company presented for this fixture.

EXAMINATIONS

December 1959

The December examinations (Intermediate and Final grades only) will be held on Monday, Tuesday and Wednesday, 7, 8, 9 December, 1959, and applications to sit must be made on form C, obtainable from the Institute on receipt of a stamped and addressed gummed label. (Printed rate for home centres, 2d.) Applications, accompanied by the appropriate fees, must be received at Institute headquarters not later than the following dates:

Overseas centres: 10 September 1959.

Home centres: 10 October 1959.

Intending candidates are asked to note the above dates carefully, as **no late entries can be accepted.**

REVISION COURSE

London and District

The London and District Branch is arranging its second one-day revision course for registered students at Regent Street Polytechnic, W.1 on Saturday, 14 November, from 10 a.m. to 4.30 p.m.

Students who are enrolled with the London Branch will automatically receive details of this course, but students who are registered with other branches will be welcomed and should write for further particulars to Mr. E. J. Gee, A.C.W.A., 78, The Avenue, Bruce Grove, N.17, stating the branch to which they belong.

The fee for the course will be 10s., which is inclusive of light refreshments during the morning and afternoon breaks.

COST CONFERENCES

NORTH REGION

A cordial welcome is extended to all members and registered students to attend the North Regional Cost Conference which will take place on Saturday, 17 October, 1959 at the Grand Hotel, Sheffield. The Lord Mayor of Sheffield and the Master Cutler have accepted invitations to attend the luncheon.

The conference will be opened by the President, Mr. Edward Emmerson, A.C.A., F.C.W.A. At the morning session Mr. M. A. Fiennes, Managing Director of Davy & United Engineering Co., Ltd., will speak on 'Accounting within industry'. At the afternoon session Mr. H. H. Norcross, F.C.W.A., will speak on 'Future trends and prospects for industrial accounting'.

Conference registration forms will be circulated by the conference secretary and should be completed and returned to the honorary secretary of the nearest branch or sub-branch. The branches taking part are Sheffield, Manchester, Liverpool, North Lancashire and Leeds together with their respective sub-branches.

LONDON REGION

On Saturday, 21 November, the branches in London and south east England are to combine for a day's conference at The Connaught Rooms. This year they are being invited to hear firstly an eminent economist on the factors which can determine national economic policy; and secondly, a managing director on the problems top management in industry is called upon to solve as a result of such policy.

Mr. Paul Bareau, the distinguished economist and well-known city editor has kindly agreed to give the conference his impressions of the choices open to a Chancellor of the Exchequer and other ministers in the formation of national economic policy.

Mr. Ian T. Morrow, a Past President of the Institute and Chairman and Managing Director of U.K. Optical Bausch & Lomb Limited, will examine the probable consequences for industry and the effects on costs. Conference registration forms will be circulated throughout London and south east England in due course.

JUNE EXAMINATIONS—SUMMARY OF RESULTS

GRADE	PASSED	PASSED	PASSED	PASSED	PASSED	FAILED	NUMBER OF CANDIDATES
	Completing Examination	Intermediate Part I Only	Part A Only	Part B Only	TOTAL		
FELLOWSHIP	21	—	1	6	28	86	114
FINAL							
Parts A & B	32	—	20	26	78	63	141
Part A (Completing Final)	174	—	—	—	174	420	594
Part B (Completing Final)	62	—	—	—	62	65	127
Part A (Only)	—	—	39	—	39	108	147
Part B (Only)	—	—	—	259	259	512	771
Total	268	—	59	285	612	1168	1780
INTERMEDIATE							
Parts I & II	113	155	—	—	268	264	532
Part I	—	596	—	—	596	1082	1678
Part II	468	—	—	—	468	964	1432
Total	581	751	—	—	1,332	2,310	3,642
PRELIMINARY	60	—	—	—	60	174	234
Grand Totals	930	751	60	291	2,032	3,738	5,770

JUNE 1959 EXAMINATIONS

PASS LIST

Fellowship Examination

Passed Fellowship

BATKIN, Richard Michael, *Worcester*
 BURGESS, Albert, *Cheadle, Cheshire*
 CLUETT, Arnold John, *Bexley, Kent*
 DASS, Pathmanaban Narayanaswamy, *Pondicherry*
 DONALD, Archibald Gordon, *Middlesbrough*
 ELDRIDGE, Cyril Henry, *Pinner, Middlesex*
 HUNTER, John Brian, *Bulawayo*
 JURGENS, Christo Andrew, *Durban*
 LADD, Kenneth Peter, *Ruislip, Middlesex*
 LEIGH, Alfred John, *Whitechurch, Glam.*

MILES, John Herbert, *Stoke-on-Trent*
 MORRIS, John, *Upminster, Essex*
 OWEN, Robert Ellis, *Port Elizabeth*
 PEARD, Francis Woodley, *Templeogue, Co. Dublin*
 PERRYER, Leslie Stephen, *Sandbach, Cheshire*
 *ROWLEY, Frank Wallace, *Accra*
 SCOTCHER, Thomas Arthur George, *Durban*
 SHAW, John Calman, *London*
 WALFORD, John Albert Higgins, *Northwich, Cheshire*
 WALLER, Allan Lansley, *Southwold, Suffolk*
 YOUNG, Alexander, *Dundee*

Passed Part A only

VINER, Donald James John, *Allestree, Derbys.*

Passed Part B only

ARCHIBALD, Ernest John, *Edinburgh*
 DAVIES, David Selwyn, *Bridgend, Glam.*
 ELLIOTT, Leslie, *Virginia Water, Surrey*
 LAST, Donald John, *Worthing*
 MOSSOP, Arthur Stanley Waine, *Sutton Coldfield*
 SPICER, James Edmund, *London*

* The Lewton Coronation Prize

114 candidates sat. Of these,
 21 candidates (as listed above) passed, completing the examination
 1 candidate (as listed above) passed Part A only
 6 candidates (as listed above) passed Part B only
 86 candidates failed

Final Examination Parts A and B

First Place (S. Laurence Gill Prize)

GALE, John Frederick Roy, *Welling, Kent*
 BALL, Eric Raymond, *Birkenhead*
 BARR, David Christopher, *Manchester*
 BUNN, Malcolm William, *Dudley, Worcs.*
 DAVIS, Graham Frederick, *Willenhall, Staffs.*
 DAY, John Frederick Felix, *London*
 DROOGAN, Peter, *Eastham, Cheshire*
 EVANS, John Garvin, *Romford, Essex*
 GAMBLE, Richard John, *Alperton, Middlesex*
 HAINES, Victor George, *Birmingham*
 HANSELL, Roy Ernest, *Norwich*

JOYCE, Colin William, *Stoke-on-Trent*
 KIRSHNASWAMY, Narayanaswamy, *Trichinopoly, India*
 LAMING, Brian John, *Enfield, Middlesex*
 LYNN, Richard James, *Antrim*
 MACHIN, John Leonard, *Radcliffe-on-Trent*
 OSBORN, Gerald John, *Pettis Wood, Kent*
 PALMER, Eric Smith, *London*
 PERCIVAL, Willoughby Hugh, *Waltham Abbey, Essex*
 PUGH, Richard Henry Crommelin, *Malvern*
 RICKWOOD, Charles Elliott, *Southall, Middlesex*

ROWE, Alan Frederick, *Pembroke*
 RYALLS, Alan, *Edinburgh*
 SMITH, John Graham, *Birmingham*
 SMITH, Peter William Hodson, *Nottingham*
 SPAIN, Alexander Jerome, *Dublin*
 STUART, Alexander Alfred, *Glasgow*
 TROW, John, *Salford, Lancs.*
 VAN DER BEEK, Johannes Maria, *Johannesburg*
 WATERHOUSE, John Austin Nicholas, *Iver Bucks*
 WINTER, Michael John, *Almondsbury, Glos.*
 WOODHEAD, Geoffrey Fydell, *Montreal*

141 candidates sat. Of these,
 32 candidates (as listed above) passed Parts A and B
 20 candidates passed Part A only { Names included in list
 26 candidates passed Part B only { under that heading
 63 candidates failed to secure any pass

Final Examination Part A (Completing Final)

APPLEBY, John Wallace, *Manchester*
 ARMOUR, Edward, *Leamington Spa*
 ATKINSON, Raymond Arthur, *Manchester*
 ATLEY, Maurice, *Darlington*
 BALFOUR, Dermott Tunney, *Liverpool*
 BALL, Macdonald, *Kirkby-in-Ashfield, Notts.*
 BANERJEE, Basanta Kumar, *Howrah, India*
 BARHAM, Alan Frank, *Horsham*
 BARLOW, George Kenneth, *Warrington*
 BARLOW, John, *Coventry*
 BARNETT, Derek Hulbert, *Swindon*
 BARRATT, William Raymond, *Malvern*
 BARRETT, John, *Wolverhampton*
 BERRY, Charles Reginald Vivian, *Swindon*
 BERRY, John Michael, *Burnley*
 BERY, Jagdishwar Parshad, *Delhi*
 BHOGRA, Karam Singh, *Kharar, India*
 BISSCHOFF, Johannes Frederick, *Benoni, S. Africa*
 BLACKWOOD, James Lindsay, *Glasgow*
 BLOTT, Clifford Gordon, *Biggleswade, Beds.*
 BOLAND, Hugh, *Auchinleck, Ayrshire*
 BOLTON, Norman Hugh, *Wallasey*
 BOWEN, Evan Graham, *Port Talbot*
 BOWEN, James Joseph, *Cork*
 BRACKEN, Edwin, *Manchester*
 BROOKES, Colin, *Wakefield*
 BUFFIN, Douglas Henry Lloyd, *Hillingdon, Middlesex*
 BULLERS, Denis, *Sheffield*
 BURNETT, Gordon Arthur, *Glasgow*
 BURSTON, Leslie Ernest, *Burton-on-Trent*
 CAIRNS, Peter George, *Birmingham*
 CARROLL, Frederick Peter, *Bolton*
 CARROLL, Kevin Albert, *London*
 CHILDRELEY, Harry, *Peterborough*
 CLARKE, Arthur, *Northampton*
 CLARKE, Richard Harry, *Saxilby, Lincs.*
 COOKE, Roderick Peter, *Toronto*
 COOTE, Philip Ernest, *Leicester*
 COREE, Edward Daniel, *Youghal, Co. Cork*
 COTTRELL, Peter Ronald, *London*
 COUCH, Percy George Arthur, *Glasgow*
 COX, John David, *Middlesbrough*
 DANCE, Frederick Royal, *Beaconsfield, Bucks.*
 DEAN, Raymond Alfred, *Brighton*
 DENBY, Colin, *London*
 DEWBERRY, Anthony, *Peterborough*
 DHUPIA, Sukhbir Singh, *Glasgow*
 DOUGLAS, Arthur Arnold, *St. Albans*
 DYER, Leslie Rowland, *Widnes*
 EDWARDS, Evan Derek, *Newport, Mon.*
 ELLIOTT, Lewis, *Scunthorpe*
 ERRINGTON, John William, *Reading*
 EVANS, John, *Bilston*
 FARLEY, John Edward Bernard, *Ingatesone, Essex*
 FINCH, Victor, *Ormskirk, Lancs.*
 FORRESTER, David Alexander, *Roxburgh, Glasgow*
 FOWLER, Harold Lester, *Harrogate*
 FRIEDENTHAL, George Leonard, *Preston*
 GARDNER, Albert Edward, *Pontefract*

GOODWIN, Ernest Reginald, *Leicester*
 GOODWIN, Sidney Thomas Edmund, *Stoke-on-Trent*
 GREEN, Maurice Paul, *Ipswich*
 GREIG, Beryl Joyce Nance, *Cape Town*
 GROOM, Godfrey Frederick, *Scunthorpe*
 GURUMOORTHY, Ramchandran, *Bombay*
 HEAD, Bernard Charles, *Chatham*
 HIGGINBOTHAM, Geoffrey Alan, *Manchester*
 HILTON, Arthur Vivian, *Oldham*
 HODSON, George Henry, *Welwyn*
 HOBY, Robert, *Glasgow*
 HOLMES, Thomas Ralph, *Oldham*
 HOOKER, George Alfred, *Harrogate*
 HORTON, Kenneth Arthur, *Wolverhampton*
 HUMPHREYS, Edward Charles, *Nottingham*
 HUNT, Norman Thornley, *Darwen, Lancs.*
 JACK, Hugh, *Glasgow*
 JACKSON, Darrell, *Chester*
 JAGGER, Brian David, *Bradford*
 JENKINS, David Edward, *Tynemouth*
 JOHNSON, Robert Eric, *Swanley, Kent*
 JONES, Maldwyn, *Penygraig, Glam.*
 JONES, Thomas Henry, *Leamington Spa*
 KIMBER, Norman Gilbert, *Ferndown, Dorset*
 KLESEL, Charles William, *Isleworth, Middlesex*
 LAKSHMINARAYANAN, S., *Ahmedabad, India*
 LANGSTON, Edwin, *Bilston*
 LATURNER, Brian, *Leigh, Lancs.*
 LIDDELL, Eric Alexander, *Edinburgh*
 LIDSTER, Peter, *Hereford*
 LINSKILL, Leon, *London*
 LOCKWOOD, John, *Calabar, Nigeria*
 MACEACHERN, Ian Ferguson, *Alexandria, Duns.*
 MCGREGOR, Henry, *Wallsend-on-Tyne*
 MACKAY, Stuart Campbell, *Birmingham*
 MABER, Harry Edward, *Staines, Middlesex*
 MANNING, William Earl George, *Stanmore, Middlesex*
 MARGHOUB, Mamnoon Ahmed, *London*
 MARRITT, Cyril James, *Greenford, Middlesex*
 MARSHALL, Joseph Harold, *Belper, Derbys.*
 MARTIN, Robert William Francis, *Southall, Middlesex*
 MASEY, Daniel Henry, *Greenock*
 MASSEY, Alan, *Liverpool*
 MERCER, John Keith, *Bolton*
 METTAM, Ronald, *Chesterfield*
 MILLNS, Reginald, *Doncaster*
 MITCHELL, Kenneth, *Penygraig, Glam.*
 MITCHELL, Robert George, *Billerica, Essex*
 MITTEN, Donald Charles, *Alvechurch, Worcs.*
 MOFFAT, George King, *Strathaven, Lanarks*
 MOGER, Stanley James, *Bridgwater, Somerset*
 MONTGOMERY, Clement Harford, *Sale*
 MOOKERJEE, Devabratra, *Howrah, India*
 MOON, Ronald, *Barrow-in-Furness*
 MORLEY, Colin Terence, *Hendon*
 MORTON, Frank Bernard, *Bolton*
 MOTT, Donald Albert Stanley, *Chelmsford*
 MURPHY, Thomas Desmond, *Purley, Surrey*
 MURRAY, Donald William Arthur, *Barnet, Herts.*

NEAVES, Michael John, *Colchester*
 NICHOLS, Albert Eric, *London*
 NOCK, Leonard Roy, *Wellington, Shropshire*
 OSTERLOH, Dennis Raymont, *Gatooma, S. Rhodesia*
 PEARSON, Sylvester McKie, *Newton Aycliffe, Co. Durham*
 POULTNEY, Geoffrey James, *Leicester*
 POUNTNEY, Anne Monica Theresa, *Walsall*
 PRASAD, Lala Sarju, *London*
 PRINCE, Cyril Joseph, *London*
 RADHAKRISHNAN, Chandran, *Rourkela, India*
 REID, Robert, *Glasgow*
 REVELER, Alan, *Liverpool*
 RIDER, Jeffrey, *Bradford*
 ROBERTS, Norman, *Withernsea, Yorks.*
 ROBINS, Alan Donald, *Wallington, Surrey*
 ROBINSON, Cecil Douglas, *London*
 ROWLAND, Peter Charles, *Bristol*
 RUTTER, John Arthur, *Darlington*
 SANFORD, Leonard Thomas, *Wednesfield, Staffs.*
 SEAL, Ernest, *Leeds*
 SHAH, Navinchandra Bhogilal, *London*
 SIMPKIN, William Roy, *Manchester*
 SMITH, Frank Harold, *London*
 SNOWDON, Harry Stanley, *Stockport*
 SPRINGFORD, Harry, *Wembley*
 SRINIVASAN, Varada Iyengar, *Madras*
 STEWART, George Murray, *Bridge of Allan, Stirlings.*
 STOCKLEY, James Alan, *Chesham, Bucks.*
 STOREY, David, *Middlesbrough*
 STROH, George, *Pretoria*
 STUBBS, Ronald James, *Slough, Bucks.*
 SWEENEY, William Francis, *Southport, Lancs.*
 TARN, Ronald Taggart, *Dundee*
 TAYLOR, Arthur John Bannan, *Stourbridge*
 THOMAS, Richard John, *London*
 THRELFALL, David Francis Oak, *Lancaster*
 TURNER, George Anthony, *Barnsley*
 WALLACE, Robert Alfred, *Rochester, Kent*
 WALSH, Claran, *Dundalk, Co. Louth*
 WALTON, John Derek, *Leeds*
 WEBB, Geoffrey Alan, *Solihull, Warks*
 WESTON, Desmond Eric, *Ilford, Essex*
 WHITE, Peter Graham, *Nuneaton*
 WHITE, John Desmond, *Salisbury, S. Rhodesia*
 WILKE, Eric, *Barnsley*
 WILCOCK, James, *Sale*
 WILD, James, *South Shields*
 WILLETS, Bernard Arthur, *West Bromwich*
 WILLIAMS, Grenville Stanley, *Upminster, Essex*
 WILLS, Sydney Baldwin, *Tollerton, Notts.*
 WILSON, John, *Blackburn*
 WOOLLEY, Colin John, *Hayes, Middlesex*
 WOOLTON, Cyril, *Stonall, Staffs.*
 ZAIDI, Hasan Imam, *Swinton, Manchester*
 ZEMAN, Otto Joseph, *Ash Vale, Surrey*
 ZYLSTRA, Brian Anton, *Ewell, Surrey*

594 candidates sat. Of these,
 174 candidates (as listed above) passed
 420 candidates failed

Final Examination Part B (Completing Final)

ADAMS, Thomas Stanley, *Northwood, Middlesex*
 ANDERS, William James, *Southampton*
 ASHRAF, Mahmood, *Karachi*
 BANNERMAN, George Macpherson, *Cumnock, Ayrshire*
 BENNETT, Brian James, *Southampton*
 BOARDMAN, Dennis Charles, *Warrington*
 BRADBURY, William Garth, *Coventry*
 BROWN, Bryan Michael, *Southampton*

CAMERON, Alastair McLaren, *Glasgow*
 CAMILLERI-EBBER, Anthony Henry, *Malta*
 CATTO, Gordon Graham, *London*
 CHATTERJEE, Ranajit, *London*
 CLARKE, John Victor, *London*
 CLISSOLD, Bernard Paul, *Erdington, Birmingham*
 COUNSELL, Robert Elgar, *Birmingham*
 CROOKSTON, Douglas Alexander, *Edinburgh*
 DAVIES, Alwyn, *Cardiff*

DAWSON, James, *Walsall*
 DOWNER, Martin Sylvester, *Pinner, Middlesex*
 ELLIS, Alan Ernest, *Uxbridge, Middlesex*
 EVANS, Eric, *Wolverhampton*
 FARRUGIA, Carmel Lawrence, *London*
 FOX, James Christopher, *Lancaster*
 FRAMPTON, John Terry, *Hertford*
 GILLARD, Thomas James, *Oldbury, Worcs.*

Final Examination Part B (Completing Final)—ContinuedGREGORY, Lionel, *London*HAWKESFORD, Robert Allan, *Birmingham*HEATH, George Frederick, *Hillingdon, Middlesex*HOCKLEY, Peter Frederick, *Newcastle-on-Tyne*JAY, Ronald William, *Bristol*LACY, Douglas Archibald, *West Monkseaton, Northumbs.*LORYS, Jan Jozef, *London*McCORMICK, William Ramsay, *Giffnock, Renfrews.*MARSHALL, Roger Michael John, *Erdington, Birmingham*MARTINDALE, Henry, *St. Helens, Lancs.*MATHERON, Ernest, *Amsterdam*MYINT, Maung Thein, *London*NAGPAL, Bua Das, *Allahabad, India*O'HEA, Desmond Matthew, *Ilford, Essex*OSTICK, James Ernest, *Sutton Coldfield*PAYNE, John Leslie, *Bristol*POLLOCK, Douglas Alexander, *Glasgow*PRECE, Eric, *Leeds*PYATT, Thomas Henry, *Crewe*RAISBROOK, Dennis Ronald, *London*RAYNER, Norman Frederick, *Arkeley, Herts.*REDDOCK, James Brannen, *Glasgow*RICHENS, Bryan John, *Sedgley, Staffs.*SCOTT, Janol, *Newcastle-on-Tyne*SHEPHERD, Frank Terence, *Dursley, Glos.*STRONG, Brian Miller, *London*THAKAR, Anoop Singh, *Glasgow*THOMPSETT, Clive, *Birmingham*TURNER, Ian Stuart, *Southampton*TYLER, Harold Richard Edward, *London*VEITCH, John, *Glasgow*WATERHOUSE, Ronald Daniel, *Bradford*WHATMAN, Amherst Barrow, *Preston*WHATTON, Sidney John, *Bromley, Kent*WILSON, Anthony, *Buckden, Hunts.*WILSON, Peter William, *Rotherham*WOOD, Edward Marshal, *Huddersfield*

127 candidates sat. Of these,
62 candidates (as listed above) passed
65 candidates failed

Final Examination Part A (only)ACKFORD, Brian Edward, *Plymouth*ADAMS, Norman, *Ashton-under-Lyne*ANYA, Agwu, *Glasgow*BACKHOUSE, Brian Douglas, *Nottingham*BARNETT, Francis George, *Portsmouth*BIBLBY, Laurence Jasper, *Worcester Park, Surrey*BRINDLE, Robert James, *Stoke-on-Trent*BUCK, Clifford Harry, *Grimsby*BURGESS, Geoffrey Charles, *Watford*BURT, John, *Johannesburg*CHEW, Raymond William, *London*COOK, Peter Charles Henry, *Sale*COOPER, Dennis David, *London*CRADDOCK, Michael John, *Hednesford, Staffs.*DAY, Geoffrey Brian, *Liverpool*DENNY, Geoffrey Ernest, *Sidcup, Kent*DICK, William, *Bellshill, Lanarks.*DOUGAN, Craigie Miller, *Birmingham*EDGE, Michael John, *Derby*ENTICOTT, Ray, *London*FAIRLEY, Richard John, *Wembley*FAIRWEATHER, Roger, *Derby*FARRAR, Donald, *Huddersfield*GROVE, Clifford Leslie, *London*HALL, William Lindop, *Richmond, Surrey*HARGREAVES, Ronald Paul, *Oldham*HOLLOWAY, Ian Edward, *Bristol*HOLMES, George Herbert, *Nottingham*HOOKER, Michael, *Montreal*HOUSTON, Stanley Boyd, *Brussels**HURRELL, Peter Rex, *Northampton*KELLY, Patrick Joseph, *Dublin*KHAN, Abdur Rahman, *London*LANGDON, Terence Max, *Newbury, Berks.*LEMMON, John Arthur, *Thornton Heath, Surrey*LINCOLN, Edward John, *Aylesford, Kent*MCQUEEN, Douglas Campbell, *Solihull, Warks.*MCRAE, Thomas Watson, *London*MOORE, Walter Edward, *Shoreham-by-Sea*MURRAY, Stanley, *Leeds*MYATT, Anthony John, *Wednesbury*OXENHAM, Henry Bertram, *Birmingham*PARKIN, John Michael, *Barnsley*PRATT, Herbert, *Colchester*QUAYLE, James, *Whitton, Middlesex*RICHARDSON, Alan, *Nelson, Lancs.*ROGERS, William Hywel, *Bridgend, Glam.*ROTHWELL, Alan, *Leeds*SAMEE, Mirza Abdul, *Jauharabad, Pakistan*SAMMONS, Leslie Jack, *Burgess Hill, Sussex*SMITH, Ian Stewart, *Chatham*SMITH, Sidney, *Loughborough*SUTTON, James, *Manchester*THORN, David Bruce, *Ashted, Surrey*THORPE, Howard Arthur, *Leicester*UPPAL, Harkishan Singh, *Glasgow*WALLER, Eric, *Grimsby*WILSON, Frederick Samuel John, *Bulawayo*ZUCKER, Herbert Walter, *London*

* Donald L. Moran Prize for Management—Factory and Distribution

147 candidates sat. Of these,
39 candidates passed (whose names, together with those of 20 candidates who sat
Parts A and B but passed Part A only, making a total of 59 are listed above)
108 candidates failed

Final Examination Part B (only)ACKERLEY, Leslie, *Liverpool*ACOMB, Henry Myers, *York*AHMAD, Saeed, *Rawalpindi, Pakistan*ALI, Syed Vazir, *Harnal, Pakistan*ALLEN, Geoffrey, *Stockport*ALLISON, Bryan, *Sheffield*ANDREWS, Alan Adair, *Dagenham, Essex*ARTHUR, Malcolm, *London*BAILEY, Derek John, *London*BALASUBRAMANIAN, Venkataraman, *Bombay*BANERJEE, Dhirendranath, *Calcutta*BARR, Paul Joseph Bernard, *Southampton*BARRON, Michael Joseph, *Dublin*BATHER, John Edwin, *Cheltenham*BEGLEY, Robert Lodge, *Coatbridge*BELTON, Thomas Gerard, *Drogheda, Ireland*BENNETT, Colston Albert, *Bristol*BENTLEY, Trevor John, *Audenshaw, Lancs.*BERRIMAN, Edward Malcolm, *West Hartlepool*BILLS, Brian Frederick James, *Maldstone*BIRDSHELL, James Mackinlay, *Leeds*BISHOP, Peter John, *Castle Bromwich, Warks.*BLACK, George, *Middlesbrough*BLACK, Malcolm Robert, *Wolverhampton*BLACKBURN, John David, *Preston*BLACKSHAW, Neil, *Cape Town*BOGGO, John Edwin, *Knaresborough*BOTTOMLEY, John Arthur, *Edinburgh*BOVILL, William Wingfield, *London*BOWDEN, William, *Oldham*BOWEN, James, *Eastham, Cheshire*BOYLE, Charles Alexander, *London*BRADBURY, Peter Edward, *Walsall*BRADLEY, Philip Bernard Joseph, *Birmingham*BRIMBLE, Duncan, *Liverpool*BROADBENT, Trevor, *Huddersfield*BROWN, Ronald Bole, *Bombay*BUCKLEY, Allyn, *Sunderland*BULL, Keith John, *Edgware, Middlesex*BURNS, Antony John, *Walsall*BUTTON, David Malcolm, *Letchworth, Herts.*CAREY, George Henry, *West Malling, Kent*CARNIE, John Leslie, *Edinburgh*CARSWELL, Gilbert Landell, *Ralston, Renfrews.*CARTER, Reginald John, *Bilston*CASTLEY, John Anthony, *Chester*CATTERALL, Arthur James, *Hornchurch, Essex*

Final Examination Part B (only)—Continued

CHAMBERLAIN, Paul, *Sutton-in-Ashfield*
CHASE, Alan Geoffrey, *Blackburn*
CLARK, Leslie Robertson, *Waltham Cross, Herts.*

CLARKE, Arthur, *London*
CLEWER, John William, *London*
CLOWE, Thomas Gibson, *Glasgow*
COATSWORTH, Ronald, *St. Helens, Lancs.*
COLDERICK, Kenneth Ivan, *Stoke-on-Trent*
CONIBEAR, Derek, *Bristol*
COOK, Albert William, *Fetcham, Surrey*
COSTELLO, Gordon Henry, *Leeds*
COULTON, John Cameron, *Dalton-in-Furness*
CREIGHTON, Alastair Paul, *Bath*
CRICHTON, Alan McDougal, *Port Elizabeth*
CROOK, Sidney Ronald, *Chippenham*
CRUMP, Peter Charles, *Birmingham*

DABURN, Kenneth George, *Bebington, Cheshire*

DAVIES, Thomas Anthony, *Cardiff*
DAWES, Peter Reginald, *Luton*
DAY, Michael John, *Newport, Mon.*
DE WET, Andreas Hercules, *Johannesburg*
DICK, Robert Graham, *Totton, Hants.*
DONOVAN, Ian Edward, *Birmingham*
DOUGHTY, Peter, *Warrington*
DOYLE, Bryan, *Sunderland*
DREDGE, Keith Sidney George, *Croydon*
DUNSTER, Brian Henry, *Upminster, Essex*
DU TOIT, Rosseau, *Salisbury, S. Rhodesia*

EDWARDS, James Norman, *Liverpool*
ELISTON, Anthony Raymond, *London*
ELSE, James Herbert, *Leeds*
EVANSON, Arthur Walter, *Wombourne, Staffs.*

FAIZI, Fazal Mohammed, *Karachi*
FAULKNER, Herbert Charles, *London*
FELLOWS, William John, *Wednesbury*
FIRTH, William, *Blackpool*
FISHER, Raymond Harry, *Willenhall, Staffs.*
FORD, Colin Edward, *London*
FOSTER, Edwin Lewis, *Wolverhampton*
FREEMAN, Brian Raymond, *Bulawayo*
FROST, Michael John, *Kenton, Middlesex*

GARDNER, William Henry, *Eastbourne*
GEDDES, Brian Malcolm, *Maldstone*
GENT, Graham Ernest, *Wembley*
GHOSH, Arun Kumar, *Toledo, U.S.A.*
GHOSH, Rabindra Nath, *Kanpur, India*
GILLESPIE, Thomas Stafford, *Ballymena, Co. Antrim*

GLENDBENNING, Colin Frederick, *Leeds*
GODFREY, Peter George, *West Wickham, Kent*

GOOD, Charles Horst, *Peterborough*
GRAHAM, Leslie Reginald, *Liverpool*
GRAHAM, William John, *Stirling*
GRANT, Brian David, *London*
GRASEMAN, John Frederick, *Southend-on-Sea*

GRIFFIN, Terence Clarence, *Walsall*

HALL, Leonard Josef, *York*
HANLEY, John, *Dundee*
HARBY, Michael, *Chesham, Bucks.*
HARPER, Leslie Percival, *Newbury, Berks.*
HARRISON, Herbert, *York*
HARRISON, William Arnold, *Bury Port, Carm.*

HARVEY, Keith Adrian, *Hythe, Hants.*
HAW, Alan Bradley, *Mapperley, Notts.*
HAYES, Clifford John, *Luton*
HEATH, Geoffrey Frank, *Biggleswade, Beds.*
HEHIR, John Trainor, *Glasgow*
HEMBURY, Kenneth Stanley, *Bristol*
HESHAM, Peter Gordon, *Manchester*
HIGGINS, Anthony Claude Edward, *Harlow, Essex*

HILL, Alan, *Derby*
HOLLAND, William Charles, *Gillingham, Kent*

HOLT, Leslie John, *London*
HORNE, Andrew, *Chester*
HUGHES, Donald, *Birmingham*
HUGHES, Terence Martin, *Sawtry, Hants.*

ISAACS, Edward, *Childer Thornton, Cheshire*
ISON, Russell George, *London*

JACKSON, John Arthur, *Oldbury, Worcs.*
JACKSON, Ronald, *Darlington*
JAGANNATHAN, Ayalvadi Vedachalam, *Calcutta*
JARVIS, John Michael, *Johannesburg*
JEFFS, Roland George, *Hornchurch, Essex*
JEWELL, Ronald William, *Waltham Cross, Herts.*

JOHNSON, John Edmund, *Chesterfield*
JOHNSON, William Michael, *High Wycombe, Bucks.*

JONES, Leslie Harry, *Coseley, Staffs.*
JONES, Peter, *Nottingham*
JORDAN, John, *Leicester*
JORDAN, John Douglas, *Renfrew*

KAYE, Alan, *Bolton*
KENDELL, Jeffery Michael, *Eastcote, Middlesex*
KILLICK, Roy Leslie, *Burton-on-Trent*
KIRK, Peter Donald, *Rochester, Kent*
KLAGES, Hennig August Wilhelm, *Cape Town*
KRISHNASWAMY, Nurani Parasuramaier, *Bombay*
KRUGER, Jacob Petrus, *Port Elizabeth*
KUMAR, Hukam Chand, *Manchester*
KUNDU, Bimal Krishna, *Birmingham*

LAMBARD, Bernard Nelson, *Dersingham, Norfolk*

LANCASTER, Anthony William George, *Godalming, Surrey*

LAUGHTON, David, *York*
LAWRENCE, Keith Edwin Philip, *Greenford, Middlesex*

LEE, Colin Leonard, *London*
LEFTLY, Norman Edward, *London*
LINSDELL, John Arthur, *Bulawayo*
LISS, Raymond Waldemar, *Boksburg, S. Africa*

LISTER, Thomas Raymond, *Sheffield*
LOADER, Francis Roy, *Solihull, Warks.*
LUCY, Terence, *Bilbrook, Staffs.*
LUXON, Kenneth Frederick Ernest, *London*
LYNE, Richard Michael, *Manchester*
LYON, Dennis Archibald, *Durban*
LYONS, Peter John, *Maldstone*

MCADAM, Thomas, *Glasgow*
MACDONALD, Lovat Bruce, *London*
MCGILL, Edmund Alan, *Weybridge, Surrey*
MACLEOD, James Drummond, *Southampton*
MCMILLAN, Leslie William, *Cumnock, Ayrshire*

MCMILLAN, Malcolm Terrence, *Croydon*
MACNULTY, Patrick, *Dublin*
MALTBY, Edward, *Hull*
MANLEY, Geoffrey Keith, *Bootle, Lancs.*
MARTIN, Silas Owen, *Uford, Essex*
MARWICK, Courtenay Tut Barry, *Petermaritzburg*

MATTHEWS, Edward, *Higham, Derbys.*
MEDDINGS, Allan Anthony, *Wolverhampton*
MENON, Naduviladath Kunjikav Ramankutty, *Bombay*

MILLER, John Blackstock, *Dumbarton*
MILNER, Terence Brian, *Preston*
MILSON, Richard Hector, *Croydon*
MITCHELL, Frank Edward, *Shipley, Yorks.*
MORGAN, Gordon, *Redditch*
MORLEY, Kenneth John, *Greenford, Middlesex*

MORRIS, Antony Brian, *Rickmansworth, Herts.*
MORRIS, Bryan, *Glasgow*

MORRIS, Richard, *Hatch End, Middlesex*
MOSS, Edward Lionel, *Worcester*
MURTHY, Holenarasipur Subbarao Krishna, *Bombay*

MUTCH, John, *North Shields*

NANDI, Santi Bhusan, *Leeds*
NELSON, Neil Herbert Graham, *Bournemouth*
NEWELL, Roy Archibald, *Burgess Hill, Sussex*

NEWMAN, Frederick William, *London*
NEWMAN, Geoffrey John, *Bristol*
NICHOLLS, Keith, *Maldstone*
NORTON, John Edward, *Retford, Notts.*

O'BRIEN, Matthew, *Newbridge, Co. Kildare*
O'LEARY, Kenneth, *Dublin*
OLIVER, Robert, *Glasgow*
OLVER, Albert Henthorn, *Durban*
O'NEIL, Derek Thomas, *London*
ORME, Alan Edward, *Watford, Herts.*

PARDOE, Alan Percy, *London*
PARSONS, David Edwin, *Tiverton, Devon*
PAY, John Edward Charles, *Gillingham, Kent*

PEARCE, Noel Carter, *London*
PEDLAR, Brian, *Chadwell Heath, Essex*
PELMEAR, Christine Janet, *Bristol*
PHILLIPS, Gilbert, *St. Helens, Lancs.*
POCOCK, Barrington, *Bristol*
POOLE, Clive, *Gateshead*
PREECE, Ronald, *Middlesbrough*

RAE, James, *Glasgow*
RICHARDSON, Harold, *Beverley, Yorks.*
RIDING, Ernest, *Liverpool*
RIDPATH, Brian Leslie, *Erith, Kent*
RIMMINGTON, Michael, *Derby*
ROBBINS, Kenneth Ernest, *Orpington*
ROBERTS, Arthur Joseph, *London*
ROBERTS, Bryan Alexander, *London*
ROBERTS, Eric, *Sutton-in-Ashfield*
ROBSON, Richard Ian, *Bristol*
RUSHTON, David Roy, *London*
RUSSELL, Raymond Frederick, *New Addington, Surrey*
RYAN, James, *Glasgow*
RYAN, Michael Joseph, *Ennis, Co. Clare*

SAHA, Nani Gopal, *London*
SANDERS, Geoffrey Armytage Haydn, *Wokingham, Berks.*

SANDERSON, Colin Rutherford, *South Shields*
SCOON, John Emmanuel Norbert, *London*

SEN, Santi Ranjan, *London*
SETHURAMAN, T. N., *Calcutta*
SHARP, Alan, *Halifax*
SHARP, John Blamire, *Stokesley, Yorks.*

SHERRY, Leslie Roy, *Birkenhead*
SILK, Thomas Leslie, *Warrington*
SILVER, David, *Crawley, Sussex*
SINDERSON, Alan Charles, *Liverpool*
SMITH, Alan John, *Cannock, Staffs.*

SMITH, Bertram, *Sheffield*
SMITH, George, *London*
SMITH, Leslie, *Leeds*
SOANES, Brian Peter, *London*
SOUTHERN, George Irving Brian, *Cheadle, Cheshire*

SPICER, William, *Kilmarnock*
STANLEY, Peter Louis Francis, *Amersham, Bucks.*

STEVEN, Ian Lauchlan, *Vereeniging, S. Africa*
STOKES, Alfred, *Hounslow, Middlesex*
STRANGE, Charles Edward, *Gateshead*
SUREKA, Sajan Kumar, *Jaipur, India*
SUTTON, Donald Charles, *Rugby*

TARLING, Richard Charles, *Hounslow, Middlesex*
TAYLOR, Harold, *Bolton*
TAYLOR, Lionel, *Moreton, Cheshire*

Final Examination Part B (only)—Continued

THOMAS, Michael, *Whitwick, Lelcs.*
 THOMPSON, Edward Victor, *Bedford*
 TIMLIN, Brian Royston, *Birkenhead*
 TREDGETT, Michael Charles, *London*
 TUTT, Benjamin Stephen, *Dartford*
 VAN LELYVELD, Louis William, *Vereeniging, S. Africa*
 VENKATESAN, Krishna, *Jamshedpur*
 WADE, John Stephen, *Newcastle-on-Tyne*
 WAINWRIGHT, Andrew John Harpham, *Basingstoke, Hants.*
 WALE, Michael Henry, *Harrow*
 WALKER, Cyril John Michael, *Wotton-under-Edge, Glos.*

WALKER, Leonard, *Sheffield*
 WALLY, Noel Richard, *Crewe*
 WALTON, William, *Newcastle-on-Tyne*
 WARBURTON, Garnett, *Sheffield*
 WARNER, Richard John, *Bath*
 WARR, John Martin, *Mangotsfield, Glos.*
 WATSON, Andrew, *Glasgow*
 WEBB, Michael James, *Luton*
 WEIDEMAN, Solomon Stephanus, *Port Elizabeth*
 WEST, Dennis, *Todmorden, Lancs*
 WHITBREAD, Alan John, *Maidenhead*
 WHITE, Sylvester Anthony, *Ashton-under-Lyne*
 WHITEHOUSE, David William, *Dudley, Worcs.*

WILLETT, Peter Frederick, *Bexleyheath, Kent*
 WILLIAMS, Michael Lewis, *Coventry*
 WILLIAMSON, Thomas Leslie Mankin, *Chichester, Sussex*
 WILSON, Rex Dennis, *Manchester*
 WOOD, Barrie Lancelot, *Warrington*
 WOOD, Ronald, *Maitlock*
 WORTHINGTON, Michael James, *Sutton Coldfield*
 WRIGHT, Eric Victor, *Ilford, Essex*
 YOUNG, David, *Juniper Green, Midlothian*
 †YOUNG, Derek, *Cardiff*

† *Leverhulme Prize for Cost Accountancy*

771 candidates sat. Of these,
 259 passed (whose names, together with those of 26 candidates who sat Parts A and B but passed in Part B only, making a total of 285 are listed above)
 512 candidates failed

Intermediate Examination Parts I and II*First Place (George Russell Memorial Prize)*

PROBERT, David Henry, *Birmingham*

ALLIBONE, Rupert Henry, *Leicester*
 ANNIS, Reginald Charles, *Yarmouth*

BARMAN, Jonathan Henry, *Farnham, Surrey*
 BEAMER, George Bryan, *Bebington, Cheshire*

BEDE, Jarvis John, *Karachi*
 BENBOW, John Andrew, *B.F.P.O., Germany*

BENTLEY, Keith, *London*

BOLAND, John Trevor, *Huddersfield*

BRADLEY, Robert William, *Birmingham*

BRAILSFORD, John Samuel, *Leeds*

BRAZIER, Richard George, *Wellington, Shropshire*

BRICK, Meyer Frank, *Cape Town*

BRIDGEWATER, Richard Douglas, *Birmingham*

BROOKING, Douglas Lang, *Salisbury, S. Rhodesia*

BROWN, Ross, *Currie, Midlothian*

BUTTERWORTH, John Lee, *Oldham*

CALLAN, George, *Ferryhill, Co. Durham*

CANNON, Brian John, *Wallington, Surrey*

CLARKSON, William Ernest, *Birmingham*

COLLINS, John Rhodes, *Salisbury, S. Rhodesia*

COLLIS, Edward Terence, *Johannesburg*

CRAMP, Oliver Kenneth, *Horley, Surrey*

CUNNINGHAM, Joseph Mullan, *Belfast*

DANIELS, Charles James, *Bromsgrove, Worcs.*

DAVIS, Brian Michael, *Buckhurst Hill, Essex*

DIXON, George Spraggon, *Glasgow*

DODD, Antony John Christopher, *Haywards Heath, Sussex*

DORKIN, Bernard Leslie, *Durban*

DOUGLAS, Kenneth Shepherd, *Abbots Langley, Herts.*

DREVER, Ian Keith, *Dundee*

DUGGAN, Brian John, *Daventry*

DUNCAN, Alexander, *Corby, Northants.*

EADE, David Derrick, *Leicester*

FORBES, Johnstone David, *Edinburgh*

FYFE, Ian Robert, *Kenley, Surrey*

GALLACHER, James, *Brussels*

GAMMAGE, Antony Marshall, *Liverpool*

GANTER, Peter Paul, *Dublin*

GARDINER, Patrick Arthur Trevor, *Wimbledon*

GILLESPIE, Archibald, *B.F.P.O., Germany*

GLEN, George McGregor, *Beith, Ayrshire*

GODDARD, Terence Ivor, *Leamington Spa*

GREEN, Nicholas Francis Norton, *London*

HARRISON, Brian Stephen, *Stockport*

HAYES, Robert Alexander, *Dublin*

HAYLING, Arthur John, *Northwich, Cheshire*

HAZLEWOOD, Herbert, *Birmingham*

HEATH, Albert Howard, *London*

HELLAWELL, John Leonard, *Bradford*

HINTON, Donald Thomas, *Newcastle-under-Lyme*

HOPWOOD, Graham Lewis, *Hindhead, Surrey*

HORRELL, Paul John, *Birmingham*

HOWSON, Trevor, *Blackburn*

HUNT, James, *Blackburn*

HUTCHINSON, Paul, *Consett, Co. Durham*

INGRAM, William, *Kilmarnock*

JONES, Charles Stuart, *Dudley, Worcs.*

JONES, William Leonard, *Princes Risborough, Bucks.*

KENDAL, Ronald William, *Darwen, Lancs.*

KILLINGLEY, John Herbert, *Harrow*

LAWRENCE, Gordon Charles, *Chelmsford*

LEES, Bryan Hall, *Ashton-under-Lyne*

LEITCH, Alexander Walker, *Middlesbrough*

LOVERING, Graham Rodney Warman, *Ipswich*

MALAN, Robert Hendrik, *Durban*

MALLINSON, Graham Douglas, *Bradford*

MARCHANT, John Stephen, *Birmingham*

MATHIESON, Charles, *Dumbarton*

MITCHELL, Gordon Goff, *St. Albans*

MONK, Brian, *Manchester*

MOOREY, Timothy John, *Rochester*

MUTCH, Brian Noel, *Johannesburg*

NAPTHINE, Alan, *Birmingham*

NEWTON, Jeffrey William, *Sutton-in-Ashfield*

NICHOLSON, John Robert, *Cheadle, Cheshire*

OGDEN, Frank Vernon, *Leeds*

OLDROYDE, John Derrick, *Basingstoke, Hants.*

OOSTHUIZEN, Hermanus Foulds, *Johannesburg*

O'SULLIVAN, Michael Anthony, *Dublin*

OWEN, Antony Trevor, *Stoke-on-Trent*

PAIGE, Andrew, *Southampton*

PARKER, Collin David, *B.F.P.O., Germany*

PARSONSON, Christopher John, *Port Elizabeth*

QUAIL, Norman William, *Preston*

RAMAKRISHNAN, Krishnamurthy, *Madras*

RANKIN, David, *Glasgow*

REILLY, Patrick Leslie, *Bristol*

ROSS, Alexander James, *Helensburgh, Duns.*

ROWE, Arthur, *Northampton*

SARMA, Pothukuchi Venkatalakshmi

Narasimha, *Madras*

SECKER, Kenneth John, *Hillingdon, Middlesex*

SHACKLEY, David Richard, *Solihull, Warks.*

SMITH, Kenneth, *Godalming, Surrey*

SNAPE, Roy, *Glasgow*

SPEED, Brian Neville John, *Birmingham*

SPEIRS, Robert Westwater, *Glasgow*

STRACHAN, James Roger, *London*

SYMONS, Kenneth Andrew, *Port Elizabeth*

TAYLOR, Allan, *Bolton*

TINDALE, Raymond, *Cleethorpes*

TITLEY, Raymond, *Stoke-on-Trent*

TOMLEY, Thomas Harry, *Birmingham*

TRIMBLE, Thomas William, *Runcorn*

UNWIN, Peter Henry, *London*

VAN CUYLENBURG, Alan, *Ashtead*

VAN DER LINDEN, Jozef Thomas, *Stevenage, Herts.*

WADE-WEST, John, *Ulverston, Lancs.*

WARD, William Hugh, *Willenhall Staffs.*

WEBB, Terence John, *Coatbridge*

WHITE, John, *Uppminster, Essex*

WILSON, David Gareth, *Leamington Spa*

WYATT, John Adolphus, *Coventry*

532 candidates sat. Of these,
 113 candidates (as listed above) passed Parts I and II
 155 candidates passed Part I only (their names are included in the list under Part I)
 264 candidates failed

Intermediate Examination Part I

- ADAMS, Cyril William, *Ruislip, Middlesex*
 ADAMS, John David, *Bebington, Cheshire*
 ADDY, Thomas William, *Leicester*
 ADENUGA, Bernard Olayinka, *Ibadan*
 AGYEI-ACHAMPONG, Alexander, *London*
 AHMED, Niyaz Uddin, *Karachi*
 AHSAN, Mohammad Mubeen, *Quetta, Pakistan*
 AIRE, Bernard Irabor, *Agor, Nigeria*
 ALDERSON, Colin, *Birtley, Co Durham*
 ALDRICH, Christo, *Johannesburg*
 ALFORD, William Gordon Henry, *Elmbridge Court, Glos*
 ALI, Saiyid Mohammed, *Karachi*
 ALLEN, Anthony Frederick, *Danbury, Essex*
 ALLEN, Frank, *Burnley*
 ALLEN, Peter Anthony, *Farnham Common, Bucks*
 ALLEN, Robert, *Corby, Northants*
 AMBIDGE, Gordon Frederick, *Bedford*
 AMOAKO, Daniel Aym, *London*
 ANDERSON, James Mackay, *Glasgow*
 ANDREWS, John Beresford, *Barnley*
 ANTHONY, Robert Henry, *Birmingham*
 ARBUCKLE, Rodrick McKinnon, *Edinburgh*
 ARYIBI, John Akintonde, *London*
 ARMSTRONG, Ernest Deas, *Londonderry, Ireland*
 ARMSTRONG, Hugh Francis, *Salisbury, S Rhodesia*
 ARORA, Subhash Chandra, *London*
 ATKINSON, Melvin, *Ashington, Northumbs*
 ATKINSON, Paul John, *Leeds*
 AUSTIN, Wilfrid Anthony, *Manchester*
 AVERIES, Anthony Frank, *Swindon*
 AVERY, Leonard John, *Loughton, Essex*
- BADEJOKO, Timothy Oyejemi, *London*
 BADENHORST, Cornelius Jacobus, *Port Elizabeth*
 BAGULFY, Robert Harold, *Manchester*
 BAIN, William, *Greenock*
 BAINBRIDGE, Leonard Anthony, *Stalybridge*
 BAINBRIDGE, Robert Henry, *South Shields*
 BAKER, Carl Frederick, *Liverpool*
 BALDWIN, Keith Stuart, *Cwmbran, Mon*
 BALL, Trevor Austin, *Tilbury*
 BANHAM, Denis, *Doncaster*
 BANISTER, Robert John, *London*
 BARBER, Albert Anthony, *Oldham*
 BARKER, John, *Wigan*
 BARNES, Keith Austin, *Bolton*
 BARNES, Norman Frank, *Tilbury*
 BARNES, Thomas Hamer, *London*
 BARTLETT, Reginald Robert, *Cleveland, S. Africa*
 BASU, Moni Lal, *Calcutta*
 BAXIER, Frank Beverley, *Manchester*
 BAYLIS, Rodney Edward, *Bromley, Kent*
 BEAN, Christopher Robin, *Gorleston-on-Sea, Norfolk*
 BELL, Leonard Albert Bowring, *Port Elizabeth*
 BELL, Peter Langston, *Slough, Bucks*
 BELLAMY, Roy, *Sheffield*
 BENDREY, Michael Leslie, *Bristol*
 BENHAM, Douglas Roy, *Ashford, Kent*
 BENNETT, Peter Frank, *Birmingham*
 BHATTIA, Gurcharan Singh, *Glasgow*
 BHATTIA, Krishan Lal, *Delhi*
 BHATTACHARJEE, Sitaram, *Calcutta*
 BHATTI, Mohammad Anwar, *Karachi*
 BILSBOROUGH, Derek Arthur, *Blackpool*
 BIRCHALL, James Alan, *St. Helens, Lancs*
 BISWAS, Sanjay Kumar, *Birmingham*
 BLACKBURN, Roy, *Leeds*
 BLAIR, James, *Dunfermline*
 BLOOMFIELD, Alan, *Sheffield*
 BLOOR, Michael Ernest, *Leicester*
 BOKHARI, Syed Arif Ali, *Glasgow*
 BOLUS Frederick, *Staines, Middlesex*
 BOOTH, Ian, *Batley, Yorks*
 BOSE, Pranab Kumar, *London*
 BOWD, Anthony Michael, *Uttoxeter, Staffs*
 BOWERS, Archibald, *Buckharn, Fife*
 BOYCE, David John, *Leeds*
 BRACEGIRDLE, Neville George, *Macclesfield*
 BRADY, John, *Manchester*
 BRADY, John William, *Leeds*
- BRASS, Alfred, *Spennymoor, Co. Durham*
 BRETTELL, Thomas William, *Harlow, Essex*
 BRIDSON, John Michael, *Northwood, Middlesex*
 BRISTOW, Robert James, *Colchester*
 BROOKS, Terence James, *Cardiff*
 BROWN, David Gordon, *Luton*
 BROWN, Herbert Joseph Patrick, *Enfield, Middlesex*
 BROWN, John Siddoway, *Sherwood*
 BROWN, Michael Jeffrey, *Wolverhampton*
 BROWN, Peter, *Epworth, Lincs*
 BULLEN, Sylvester Ryall, *Calcutta*
 BULLENT, Ivan Gordon, *Gorleston-on-Sea, Norfolk*
 BUNKER, Keith James, *Ipswich*
 BURROWS, James, *Glasgow*
 BUTCHERS, Robert James, *Normanton, Derbys*
 BUTLER, Francis Harold, *Romley, Cheshire*
- CAMPBELL, Brian Joseph, *Birmingham*
 CARLILE, David Alan, *Beverly, Yorks*
 CARPENTER, Colin John Victor, *Swindon*
 CARPENTER, William John Richard, *Crumlin, Mon*
 CARRIER, Francis Henry, *London*
 CATER, John, *Upminster, Essex*
 CAVEN, Samuel Rathburn, *Belfast*
 CHADWICK, Neville, *Littleborough, Lancs*
 CHAKRABORTI, Arun Bikas, *Calcutta*
 CHANDRASEKHARAN, Thunduparambil, *Qatar, P Gulf*
 CHANT, Edward Clive, *Abingdon, Berks*
 CHARNOCK, John Roger, *Poulton-Le-Fylde, Lancs*
 CHEATER, Donald Gordon, *Dorchester*
 CHEVALLIER, Michael John Mayne, *London*
 CHIPPENDALE, Hugh, *Blackburn*
 CHORLEY, John Edward, *London*
 CHRISLEY, Dennis, *London*
 CHURCHMAN, Albert Richard, *Clacton-on-Sea*
 CLARK, Lewis James, *Houghton, Hunts*
 CLARKE, Patrick Joseph Michael, *Luton*
 CLARKE, William Arthur, *Aldershot*
 CLAYTON, Michael John, *Maidstone*
 CLAYTON, Raymond Donald, *Newton-Le-Willows, Lancs*
 CLEERE, William Peter Raymond, *Bristol*
 CLEGG, Gordon, *Rochdale*
 CLIFFORD, Michael John, *Burgess Hill, Sussex*
 CLINCH, Anthony, *Birkenhead*
 CLOSE, Edwin, *Bristol*
 COATES, David Alan, *Rotherham, Yorks*
 COATES, Laurence Arnold, *Ferry Hill, Co. Durham*
 COBB, Peter, *Peterborough*
 COCHRANE, William, *Strathaven, Lanarks*
 COCKBILL, George John, *Walsall*
 CODLIN, Robert William, *Southampton*
 COB, David, *Neville, Sale*
 COETZEE, Dirk Jacobus, *Pretoria*
 COFFIN, Thomas Augustus, *Devizes*
 COLES, John Warren, *Stratford-on-Avon*
 COLLARD, Robert William James, *Swindon*
 COLLIE, Ashley George, *Newport, Mon*
 COLLINS, William Anthony, *Manchester*
 CONNOR, Thomas Richard, *Sale*
 CONROY, Thomas Henry, *Manchester*
 COOK, James Mitchell, *Barton-on-Humber*
 COOK, William MacDonald Stuart, *Dumbarton*
 COOPER, John Eric, *Bishop Auckland*
 COOPER, Michael, *Romford, Essex*
 COPLAND, John Hutton, *Edinburgh*
 COPLAND, Stuart McInnes, *Wigston, Leics*
 CORBETT, Richard John, *Walsall*
 CORNELL, Vernon Leslie, *Epsom*
 COTTRELL, Michael Austin, *Christchurch, Hants*
 COUCH, William John Derek, *Par, Cornwall*
 COUPE, Bernard, *St. Helens, Lancs*
 COURTNEY, Denis Cecil, *Bebington, Cheshire*
 CRABTREE, Noel John, *Cheltenham*
 CRACKNELL, Gordon Frederick, *Southsea, Hants*
 CRAIG, James, *Lairg, Sutherland*
- CRAWFORD, Gordon Page, *Johannesburg*
- DAGMORE, George Arthur, *London*
 DAI AL, Vijaykant Nanlal, *Bombay*
 DALTON, John, *Halifax*
 DALTON, Kenneth William, *Warrington*
 DALY, Daniel Joseph, *London*
 DAREVSKY, Solomon, *London*
 DASGUPTA, Ansuman, *Calcutta*
 DAVID, Ellis, *London*
 DAVIES, Arthur Alec, *Llanelli, Carmar*
 DAVIES, John Malcolm, *Port Talbot*
 DAVIES, Leonard, *Birmingham*
 DAVIES, Malcolm Parry, *Neath*
 DAWES, John George, *Dudley, Worcs*
 DAWES, Richard Antony, *Solihull, Warks*
 DAY, Albert William, *London*
 DAY, Donald Francis George, *Stevenage, Herts*
 DEAN, Brian George, *Prestwich*
 DELAY, Cornelius, *London*
 DENHOLM, Robert Hamilton, *Hamilton, Lanarks*
 DE NIEDERHAUSEN, Graham John, *Southall, Middlesex*
 DEVENPORT, Colin, *Manchester*
 DEWITT, Michael James, *Burton-on-Trent*
 DODDS, William Stewart, *Harrow*
 DODGE, Ronald Alfred, *West Malling, Kent*
 DONALDSON, John, *Glasgow*
 DONOVAN, James, *Enfield, Middlesex*
 DOWELL, Albert Henry, *Upminster, Essex*
 DOUGLAS, David Ladlow, *Romford, Essex*
 DOWLING, Robert Alan Bruce, *Salisbury S Rhodesia*
 DOWSON, Kenneth, *Thornley, Co. Durham*
 DRABBLE, Brian, *Widopen Northumbs*
 DREW, Edward Thomas Hamilton, *Hayes*
 DUNBAR, Murray Hansell, *Sirathaven, Lanarks*
 DUNBOBBIN, John Howell, *Warrington*
 DUNKS, Geoffrey, *Chesterfield*
 DUNNE, Martin, *London*
 DUTTA, Jitendra Nath, *London*
 DYMYTT, Michael William, *Southampton*
- EATON, Peter Robert, *Hendon*
 EDGAR, John, *Glasgow*
 EDWARDS, Christopher Brian, *Watford, Herts*
 EDWARDS, Roy Jeffries, *Marlborough, S. Rhodesia*
 ELLABY, William Harry, *Whitstable, Kent*
 ELLIOTT, Jack, *St. Helens, Lancs*
 ELLIS, Derek George, *Devizes*
 ENNUSON, Robert Atta, *Cardiff*
 EVANS, Gerald Leslie, *Wednesbury*
 EVANS, John Robert, *Dundee*
 EVANS, John Vincent, *Wallasey*
 EVANS, Joshua Gordon Aurelius, *Aberdare*
 EVANS, Thomas Philip, *Port Talbot*
 EVENNETT, David Ernest, *Weybridge, Surrey*
 EVERSLEY, Frank Egbert, *London*
- FAIRWEATHER, John Gerrard, *Dundee*
 FAIZI, Mushtaq Ahmed, *London*
 FAWBERT, Keith John Asa, *Chesterfield*
 FERGUSON, Derek, *Stockton-on-Tees*
 FIELD, William Edward, *Slough, Bucks*
 FINLAY, John Livingstone, *Batigate, West Lothian*
 FINNEY, Eric Wilson, *Liverpool*
 FINNIE, Peter McDonald, *Maybole, Ayrshire*
 FISHER, John, *Goodmayes, Essex*
 FOSTER, Brian Thomas, *Swansea*
 FOWLER, Robert Brian, *Devizes*
 FRATER, Ian MacLean, *Kilmarnock*
 FREE, Ian Edward Theodore, *Marlborough, Wilts*
 FROGGATT, Robert Leonard, *Erdington, Birmingham*
 FROST, James Malcolm, *Stretford, Manchester*
- GAFFNEY, Peter Anthony John, *Birmingham*
 GAINNS, David Gordon, *Kirkcaldy, Fife*
 GALBRAITH, George, *Bootle, Lancs*
 GALLAGHER, James Smith, *Peebles*
 GALLIGAN, Andrew G., *Dublin*
 GARNER, John Richard, *Nantwich, Cheshire*

Intermediate Examination Part I—Continued

- GARTSIDE, Neville William, *Knaresborough*
GAUCI, Peter Paul, *Harrow*
GIBSON, James Sinclair, *Dundee*
GIBSON, Peter Graham, *Liverpool*
GILBERT-JOHNS, Anthony, *Sevenoaks*
GLASS-WATSON, Hector John, *Newhaven, Sussex*
GODDEN, Roy Kenneth, *Sheffield*
GOLDING, Victor Julian, *Hull*
GOODALL, Alan, *Glossop, Derbys*
GOODFELLOW, Robin James, *Uxbridge, Middlesex*
GOODHIND, Francis George, *Bristol*
GOVINDARAJ, Rajamadam Vaidyanathan, *Madras*
GRAINGER, Colin, *Darlington*
GRAINGER, Edward, *Liverpool*
GRAY, Michael Edward, *West Hartlepool*
GRAY, Peter Lachlan Munro, *Rochester*
GREATBANKS, William Noel, *Bebington, Cheshire*
GREENFIELD, Colin Charles, *Chester*
GREENING, Charles William Douglas, *Newport, Mon.*
GREGORY, Brian Richard Brendon, *Newbridge, Co Kildare*
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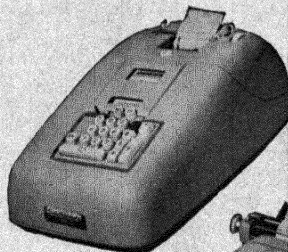
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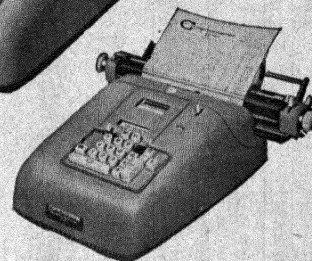
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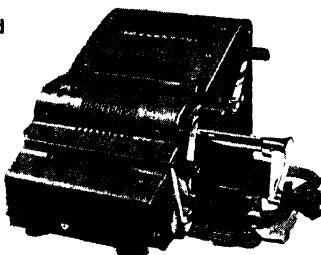


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 TAOI, Muhammad, *Karachi*
 TASKER, Arthur Harry John, *Liverpool*
 TATTERSALL, Reginald Frederick, *Portsmouth*
 TAVERNER, Raymond Thomas, *Northolt, Middlesex*
 TAYLOR, Brian, *Heald Green, Cheshire*
 TAYLOR, Frank James, *London*
 TEAGUE, Edward Noel Peter, *Thornaby-on-Tees*
 TEALL, Donald Alan, *Swindon*
 TENNANT, David Frank, *Coventry*
 THAKER, Asikant Chimanlal, *Delhi*
 THOMAS, Cyril David, *Leeds*
 THOMAS, Kemoy Herman, *London*
 THOMPSON, Anthony Charles, *Windlesham, Surrey*
 THOMPSON, Brian, *Bromsgrove, Worcs.*
 THOMSON, Francis Wilfred Morris, *Ruislip, Middlesex*
 THORNFIELD, Anthony, *Edware, Middlesex*
 THORNTON, Edward, *Thornley, Co. Durham*
 THORNTON, Richard George, *Peterborough*
 THORPE, Alan, *Bolton*
 TILYARD, David Victor, *Ilford, Essex*
 TIPPLE, David Malcolm, *Halifax*
 TOLLEY, John Gilbert, *Birmingham*
 TOMLINSON, Geoffrey, *Rotherham*
 TOWNSEY, Desmond, *Mansfield*
 TOWNSON, David, *Oldham*
 TRACE, Harold Griffith, *Birkenhead*
 TREACY, Brendan, *Dundrum, Co. Dublin*
 TRIBE, Roger Geoffrey, *Guildford*
 TRUFFITT, Ian Theaker, *Chelmsford*
- UDONGWO, Edward Ibanga, *London*
 UMERI, Francis Onyuka, *Ibadan*
 UREN, Donald Murdoch, *Leicester*
 USMAN, Mohammed, *Peshawar, Pakistan*
- VAHIDY, Mustafa Suhaib, *Karachi*
 VAIDYANATHAN, Pattabirama Iyer, *Calcutta*
 VEERARAGHAVAN, Thalavai, *Madras*
 VETCH, Geoffrey Hamilton, *Grahamstown, S. Africa*
- WAGLE, Prabhakar Ramchandra, *Bombay*
 WALFORD, Kenneth George, *Birmingham*
 WALDEN, Alfred Derrick Preston

Intermediate Examination Part I—Continued

WALKER, Alan John, *London*
 WALKER, Robert, *Langley Park, Co. Durham*
 WALLIS, Donald Reginald, *Wokingham, Berks.*
 WALSH, John Lawrence, *Dublin*
 WALSH, Walter Francis, *Dublin*
 WALTERS, Maurice Haywood, *Leeds*
 WALTON, Edward George, *Stockton-on-Tees*
 WARBURTON, James Stones, *Manchester*
 WARREN, George Oliver, *Dagenham, Essex*
 WATSON, George Harry, *Bexleyheath, Kent*
 WATSON, Ian Geoffrey, *Egham, Surrey*
 WATSON, Robin, *Hull*
 WATTS, David Anthony, *Birmingham*
 WATTS, David Ivan, *Birmingham*
 WEBB, Derek Arthur, *Cheltenham*

WEBB, James Graham, *Cannock, Staffs.*
 WEBBER, Anthony Francis, *Exeter*
 WEBSTER, Thomas, *Kirkcaldy, Fife*
 WEGG, Michael Arthur, *Gillingham, Kent*
 WEIDEMANN, John Simon, *London*
 WHALLEY, Frederick William, *St. Helens, Lancs.*
 WHEELER, Charles Antony, *Barnet, Herts.*
 WHELAN, Colin, *Leeds*
 WHITAKER, James, *Elm Park, Essex*
 WHITTLE, Stanley Baverstock, *Johannesburg*
 WICKS, Nigel Leonard, *Beckenham, Kent*
 WILBY, Stanley Edward, *Norwich*
 WILKINSON, Lawrence, *Oswaldtwistle, Lancs.*
 WILLIAMS, Douglas Alexander, *London*
 WILLIAMS, Gerald Alexander, *Swindon*
 WILLIAMS, Ronald, *Swansea*

WILLIAMSON, Bruce Lamond, *Dundee*
 WILSON, Jack, *St. Helens, Lancs.*
 WILTSHIRE, Robert Christopher, *London*
 WINFROW, Brian Russell, *Sheffield*
 WINNING, Ian Hay, *Glasgow*
 WINWOOD, Bernard Leonard, *London*
 WISBEY, Frank Robert, *Purley, Surrey*
 WISE, Keith Richard, *Leicester*
 WISHART, Peter Ramsay, *Castle Douglas, Kirkcudbright*
 WONG, Jack, *Salford, Lancs.*
 WOOD, Peter William, *Stammore, Middlesex*
 WOOD, Stanley John, *Macclesfield*
 WOODHOUSE, Douglas, *South Shields*
 WORRALL, Derek Edwin, *Grays, Essex*
 WORT, Graham Steven, *St. Albans*
 WYLIE, John Bell Speirs, *Paisley*

1,678 candidates sat. Of these,
 596 candidates passed (whose names, together with those of 155 candidates who sat
 Parts I and II but passed Part I only, making a total of 751 are listed above)
 1,082 candidates failed

Intermediate Examination Part II

ABEL, Alfred Cyril, *Surbiton, Surrey*
 ADHICARY, Sunirmal, *London*
 ALALADE, Daniel Okunola, *Leeds*
 ALDERSON, John Alan, *Derby*
 AMEY, Eric Peter, *Woodford, Essex*
 ANDERSON, Ronald Gordon, *Wednesbury*
 ANDERSON, Vincent, *Billingham, Co. Durham*
 ANDREW, Peter James, *Durban*
 ANDREWS, Stanley, *Hull*
 ANJARIA, Sadik Ali, *London*
 ANSARI, Kamal Uddin, *London*
 ARMSTRONG, George Rutherford, *Durlington*
 ASHTON, Sydney, *Manchester*
 ATHERTON, Brian, *Blackheath, Worcs.*

BACK, Denis Cyril, *Sittingbourne, Kent*
 BALKHAM, Anthony William, *Guildford*
 BALLANTYNE, Hugh Bryson, *Blythswood, Renfrews.*

BAMBERRY, John James, *Boness, West Lothian*

BAMFORD, Alan George, *Ilford, Essex*
 BARBER, Irvine, *Ellesmere Port, Cheshire*
 BARGH, Fred, *Rossendale, Lancs.*
 BARLOW, Frank, *Bolton*
 BARNES, David Michael, *Sutton Coldfield*
 BARNETT, Patrick Roger, *Horsham*
 BARR, Samuel, *Sutton, Surrey*
 BARRON, Kenneth, *Bishop Auckland*
 BARROW, Derek, *Neath*
 BATES, Peter Leonard, *Basildon, Essex*
 BAUGHEN, Thomas Wilfred, *Bourne End, Bucks.*

BAXENDALE, Raymond, *Oldham*
 BAXTER, Kenneth Hugh, *Swindon*
 BAYLEY, Kenneth James, *Stammore, Middlesex*

BEAMAN, Donald George, *Wolverhampton*
 BEARD, Lindsay, *Harrogate*
 BEAUMONT, George Greenwood, *Halifax*
 BEECH, Colin Joseph, *Chilwell, Notts.*
 BELLETTY, John Patrick, *London*
 BENSON, William Danson, *Manchester*
 BERTRAM, Arthur, *York*
 BILLSBOROUGH, Brian Frank, *Preston*
 BIRCH, Ronald George, *Greasby, Cheshire*
 BISHENDEN, Leonard Frank, *Sittingbourne, Kent*

BLAND, Keith Victor Francis, *Shefford, Beds.*

BLINKINSOP, Terence, *Barnsley*
 BONNETT, John, *Baldock, Herts.*
 BOULTER, Jack, *Blackpool*
 BOWKER, Harold, *Warrington*
 BOWN, Maurice William, *Bristol*
 BRAZIER, David John, *Wolverhampton*
 BRERETON, Robert William, *St. Helens, Lancs.*
 BRITTEN, Roger James, *Llanelli, Carm.*

BROCK, Anthony Pickford, *Manchester*
 BROOKS, Christopher Arnold, *Ottershaw, Surrey*

BROOKS, David John, *Solihull, Warks*
 BROOKS, Donald Ernest, *Rayleigh, Essex*
 BROWN, Arthur John, *Wembley*
 BROWN, Derek Cunliffe, *Runcorn*
 BROWN, Matthew James Walker, *Glasgow*
 BROWNING, John Gifford, *Greenford, Middlesex*

BRUCE, Ivan Gordon, *St. Helens, Lancs*
 BUCK, Geoffrey Gordon, *Spalding*
 BURGESS, Roy, *Newbury, Berks.*
 BURTON, Jack, *Urmston, Lancs.*
 BYRNE, Desmond Gerard, *Dublin*
 BYRON, John Ridyard, *Upton, Cheshire*

CAMP, Colwyn Douglas Boyett, *Sevenoaks*
 CAMPBELL, Arthur, *Middlesbrough*
 CARLY, John Glen, *Airdrie*
 CARRUTHERS, John Alexander, *Armley, Leeds*

CARTWRIGHT, Laurence Skidmore, *Birmingham*

CARVER, Arthur Edward, *Chesterfield*
 CASSIDY, David James, *Solihull, Warks*
 CAVELL, David Anthony, *Southall, Middlesex*
 CHAMBERS, Charles William Sidney, *Castle Bromwich, Warks*

CHAMBERS, Walter Kenneth, *Burton-on-Trent*

CHANDRA SHEKAR, Bondal, *Salem, S. India*

CHILDS, Claude Harry, *Letchworth, Herts*
 CHISHOLM, Peter Stenhouse, *Edinburgh*
 CLARK, Donald Smith, *Dundee*
 CLARKE, David Henry, *York*
 CLARKE, Leonard, *Reading*
 CLENNETT, John, *St. Owen, Jersey*
 COCKING, James Owen, *Ellesmere Port, Cheshire*

COLE, Kenneth Edward, *Bristol*
 COLE, Norman, *Dagenham, Essex*
 COLEMAN, Donald Leonard, *London*
 COLLETT, Brian Francis, *Colchester*
 COMPTON-JAMES, Edmund Giles, *Pietermaritzburg*

CONNELL, Roger John Robert, *Northwood, Middlesex*

CONNOLLY, George Henry, *Dublin*
 CONVERY, William George, *Gateshead*
 COOK, Anthony George, *Nazeing, Essex*
 COOKE, Eric Samuel, *Dublin*
 COOPER, Raymond Maurice, *London*
 CORBETT, Joseph, *Poole*
 CORLETT, Harold Stanley, *Wallasey, Cheshire*
 COUGHLAN, Donald John, *Bradford*

COWLEY, Royston Norman, *Bristol*
 COWNDEN, Francis William James, *Brentford, Middlesex*

CRAGGS, Geoffrey Thomas, *Stockton-on-Tees*
 CRICHTON, David Reith Robertson, *Aberdeen*
 CROININ, James Brian, *Stone, Staffs*
 CUMMINGS, James, *Peterlee, Co. Durham*
 CUMMINGS, Ronald, *Chester-le-Street Co. Durham*

CURRAN, Gerald Joseph, *Swinton, Manchester*

DALE, Peter Edward, *London*
 DAVIES, John Hugh, *Great Sutton, Cheshire*
 DAVIES, Norman, *Irby, Cheshire*
 DAVIS, Anthony Philip Meredith, *Teddington, Middlesex*

DE, Debaprasad, *Calcutta*
 DE BEYER, Paul James Gerhardt, *Johannesburg*

DEENY, James Patrick, *Rickmansworth, Herts.*

DE KLERK, Jacobus Nicholas Donald, *Johannesburg*

DE MOOR, Derrick Herbert, *London*
 DEVASIA, C. Philipose, *Sindri, India*
 DICKERSON, Peter James, *London*

DILLON, Laurence Germaine, *Bolton*
 DOBBIE, Michael, *Liverpool*

DOLAN, Peter, *Dublin*

DORAN, Francis Andrew, *Doncaster*
 DOUGLAS, Keith, *Bradford*

DOWNIE, Alfred, *Polmont, Stirlings.*

DOWNING, Roger Alan, *Walsall*
 DRUCE, Peter Kenneth, *Pietermaritzburg*

DRURY-BYRNE, Julian Louis Mario, *Swindon*
 DRYE, William John, *Erdington, Birmingham*

DULSON, Kenneth Charles, *Maidstone*
 DURHAM, John Stanley, *Romford, Essex*

DYKES, Andrew McCartney, *Troon, Ayrshire*

EASTWOOD, David John, *West Malling, Kent*

EDWARDS, Albert Peter, *Stoke-on-Trent*
 ELLIOT, James Drummond, *Coatbridge*

ELSLEY, William Eric, *Cheltenham*
 ERLIN, Peter Hans, *Spalding*

FARRELL, Joseph, *Doncaster*
 FARROW, Michael Frederick, *Ilford, Essex*

FAWCETT, Robert Raymond, *Gillingham, Kent*

FAWKES, Eric, *Warrington*
 FISHER, John Richard, *Mytholmroyd, Yorks.*
 FLECKNELL, Charles Emyln, *Chesterfield*
 FORD, Leslie, *Wolverhampton*

Intermediate Examination Part II—Continued

FORDHAM, Peter Ralph, *Colchester*
 FORRESTER, Robert, *Brenford, Middlesex*
 FOSTER, James Colin, *York*
 FOULIS, Thomas George, *Basingstoke*
 FRASER, Roy Stuart, *Bradford*
 FREEMAN, Frederick Henry, *Leicester*

GALLOWAY, Ralph, *Barnsley*
 GAME, David, *Loughton, Essex*
 GAME, Derek, *Tilbury, Essex*
 GANGULY, Sibamay, *London*
 GARGA, Rajeshwar Prasad, *Calcutta*
 GERRARD, Peter Barton, *Liverpool*
 GETTING, Raymond Owen, *Port Talbot*
 GIBLIN, Edward, *Seaham, Co. Durham*
 GILCHRIST, Iain Johnston, *Glasgow*
 GINN, Liam Leyshon, *Guildford*
 GLASSPOOL, James Edward, *Portsmouth*
 GODDARD, Donald George, *Birmingham*
 GOGARTY, Niall James, *Dublin*
 GOOD, Patrick Kevin, *Cardiff*
 GORDON, Alasdair Peter, *Harrow*
 GORMAN, Alan Richard, *South Shields*
 GOUGH, Ralph William, *Walford*
 GOWAN, Alistair Henry, *Airdrie*
 GRANDAGE, Colin, *Preston*
 GREEN, David William, *Cadnam, Hants.*
 GREGORY, Alan Brian, *Leicester*
 GREGORY, Robin Bamford, *Ilkeston, Derbys.*
 GROCOCK, Henry, *Ashington, Northumbs.*
 GUTHRIE, Thoms Elliot, *Glasgow*

HAIGH, David Julian, *Gainsborough*
 HAINES, John Kingsley, *Birmingham*
 HALL, David, *Dewsbury, Yorks.*
 HALL, Leonard, *Reading*
 HALLIGAN, John William, *Coventry*
 HALPIN, Thomas Francis, *Cork*
 HAMILTON, John Stewart, *Glasgow*
 HANDEL, Richard John, *London*
 HANNAH, Ian Robertson, *Kilmarnock*
 HARDMAN, Derek Fontaine, *Edinburgh*
 HARPER, Alexander Hurry, *Glasgow*
 HARRIS, Richard Turner, *Northampton*
 HARRISON, Bernard Thomas, *London*
 HASTIE, Malcolm, *Ashton-under-Lyne*
 HAWKER, Kenneth Alfred Paul, *Stratford-on-Avon*
 HAWKINS, Kenneth, *Cardiff*
 HAWKINS, Ronald Frank, *Totton, Hants.*
 HAYES, Alan George, *Beeston, Notts*
 HAZELWOOD, Rodney James, *West Malling, Kent*

HEMPSON, Alan George, *Wisbech, Cambs.*
 HENDRY, Joy Valerie, *Bristol*
 HEPBURN, Edward Baldwin Robertson, *Dunfermline, Fife*
 HEWISON, George, *Newcastle-on-Tyne*
 HEWITT, Norman, *Rockdale*
 HICKIE, Ronald, *Wolverhampton*
 HICKS, Peter Marvin, *Camberley, Surrey*
 HILL, Alan, *Barnsley*
 HILL, Henry, *Chesterfield*
 HILLS, Thomas James Marshal, *Ashford, Middlesex*

HODGE, Stanley Bertrand John, *Greenock*
 HODGSON, Robert, *Consett, Co. Durham*
 HOLLIDGE, Terence John, *Leicester*
 HOLLIGAN, Francis, *Dundee*
 HOLMES, Alan, *Billingham, Co. Durham*
 HOPKINS, Raymond David, *Coventry*
 HORNE, Charles John, *Portsmouth*
 HOVEY, Robert Leigh, *Sale*
 HOWLETT, Geoffrey Charles, *Brigg, Lincs.*
 HOSWAM, William Godfrey, *Barnsley*
 HOYE, Arundel James, *Leichworth, Herts.*
 HUDSON, Gerald, *Salisbury, Yorks.*
 HULMES, Alan, *Manchester*
 HULSE, Charles Cyril, *Whitehaven, Cumbs.*
 HUNTER, Charles Peter, *Leigh, Lancs.*
 HUNTER, William Buchanan, *Glasgow*
 HURFILL, Peter Leonard Sidney, *Tiptree, Essex*

HUSAIN, Masarrat, *Karachi*
 HUTCHINS, Brian Norman, *Gravesend*
 HUTCHINSON, Harold, *Sheffield*

INGRAM, Alexander, *Birmingham*

JAMES, David Perry, *Southampton*
 JARVIS, David, *Gillingham, Kent*
 JENKINS, Michael Burton, *Billerica, Essex*
 JETHWANI, Bhagwan Khemaldas, *Bombay*
 JOHNSON, Daniel Bryan, *Blackburn*

JOHNSON, John Alan, *Manchester*
 JONES, Andrew Norman, *London*
 JONES, Derek, *Birmingham*
 JONES, Eric, *Birkenhead*
 JONES, Harry, *Llanelli, Carmar.*
 JONES, Richard Albert, *Liverpool*
 JONES, Thomas Henry, *Hendon*

KANE, James, *Alexandria, Dumbs.*
 KEATING, Robert Sydney, *Luton*
 KELLY, John Francis, *Cork*
 KEMP, Michael Robert, *London*
 KENYON, John, *Luton*
 KHAN, Sahibzada Amanullah, *Karachi*
 KITCH, Vernon Arthur, *Harrow*
 KITCHING, Harold, *Ipswich*

LANCASTER, Alan, *Darlington*
 LAST, Maurice, *Stowmarket, Suffolk*
 LATIMER, Robert Francis, *Kilcullen, Co. Kildare*
 LEIGHTON, Ronald, *Keighley*
 LEVER, Barbara Ann, *Fleetwood*
 LEWIS, Gerald, *Willenhall, Staffs.*
 LILLINGTON, Colin Ronald, *Castle Bromwich, Warks*

LISTER, Derek, *Doncaster*
 LIVINGSTONE, Cochran Evans Gillespie, *Paisley*

LOASBY, William, *Sheffield*
 LOMAS, Brian Thomas, *Thornton Heath, Surrey*
 LONGDEN, William, *Walsall*
 LOOMES, James, *Glasgow*
 LOOSE, Christopher John, *Crawley, Sussex*
 LOURENS, Roy Martin Curgenven, *Johannesburg*
 LOWDEN, Leslie John, *Surbiton, Surrey*
 LOWE, Brian, *Derby*
 LUETHCHORD, James Edward, *Doncaster*
 LUMB, John Felix, *Ormskirk, Lancs*
 LYNCH, John Noel, *Nenagh, Tipperary*
 LYONS, Norman, *Tonypandy, Glam*
 LYSONS, Clifford Kenneth, *Prescot*

MCCULLOCH, James, *Gayton, Cheshire*
 McDONOUGH, Albert Reginald Thomas, *Southall*

MACKGREGOR, Roy Henderson, *Edinburgh*
 MCHARDY, James Alistair, *Edinburgh*
 MACKEY, Charles, *Wishaw, Lanarks.*
 MACKENZIE, Alan Alastair, *London*
 MCKINNON, Robert Harrison, *Greenock*
 McLACHLAN, Austin Michael, *Liverpool*
 MCCLAREN, Sidney James, *Pietermaritzburg*
 MAFE, Olawunmi Michael, *London*
 MAGENNIS, Conna, *Newry, Co. Down*
 MAKIN, Allan Edward, *Pretoria*
 MALE, Henry Jocelyn Hicks, *Windsor*
 MALONE, Richard Francis, *Waterford, Ireland*

MANWELL, John, *Thornliebank, Renfrews.*
 MARCHANT, William John, *Eastham, Cheshire*

MARES, James Cedric, *Blackburn*
 MARSHALL, Brian Frederick, *Chelmsford*
 MARSHALL, Richard George, *Pinner, Middlesex*

MARTIN, John William, *Luton*
 MARTIN, Ronald Henry, *Southampton*
 MATTHEWS, Eric Cyril, *Rochester, Kent*
 MAWSON, John George, *North Shields*
 MIAL, George Henry, *London*
 MILLAR, William John Horsburgh, *Glasgow*
 MILLER, Robert Green, *Hornchurch, Essex*
 MOIR, Norman Dower, *London*
 MOORE, Geoffrey Lawrence, *Middlesbrough*
 MORAN, William Vincent, *Grimsby*
 MORGAN, Bernard, *Glasgow*
 MUKUNDAN, Kaipillyl, *Bombay*
 MUNNOCH, Keith Barclay, *Edinburgh*
 MURPHY, Derek, *Altrincham, Cheshire*
 MURTY, James, *Clevedys, Lancs.*

NICHOLSON, Derek Robert, *Gateshead*
 NIXON, Brian, *Stoke-on-Trent*
 NOON, John Edward, *Manchester*
 NOON, Terence, *Glasgow*
 NORMAN, Donald Albert, *Pinner, Middlesex*
 NORTHCOOTE, Edward Frederic, *Tilbury*

O'DELL, Richard Sinclair, *Purley, Surrey*
 O'DONNELL, John Dermot, *Dublin*

O'DUFFY, Francis Joseph, *Dublin*
 O'GORMAN, William Vincent, *London*

PARKINSON, Harry, *York*

PARNELL, Roy, *Warrington*
 PARRY, Gareth, *Eccles, Lancs.*
 PARTINGTON, Stanley, *Manchester*
 PEARSON, Ronald Ian, *Teddington, Middlesex*

PHIN, Philip Arthur, *Glasgow*
 PICKEN, Michael Henry, *Birmingham*
 PLATT, John Stewart, *Sale*
 PLAUWER, Douglas Albert, *Stanley, Co. Durham*

POCOCK, Brian John, *Bristol*
 POLES, James Alfred, *West Hartlepool*
 POOLE, Derek Brian, *Norwich*
 PORRITT, Thomas William, *Ashington, Northumbs*
 PORTER, Harold Keith, *Worthing*
 POTTS, Maurice Arthur, *Burton-on-Trent*
 PRATT, Norman Henry, *Leamington Spa*
 PRESTON, Peter John, *Gravesend*
 PROVINS, David John, *Heanor, Derbys.*
 PUGSLEY, Ronald Charles, *Bridgewater, Som.*

QURESHI, Maqbool Ahmad, *Lahore*

RAJAN, Thiruvengadath, *Bombay*
 RAMAN, Gopalan, *Calcutta*
 RAO, Velliyur Nott Subba, *London*
 RAUF, Syed Abdul, *London*
 REAY, Ian Victor, *Liverpool*
 REFFELL, Malcolm John, *Barnstaple*
 REGAN, John Wilfred, *St. Helens, Lancs.*
 RETFORD, John Richard, *Leigh, Lancs.*
 RICHARDS, William Samuel Clive, *Sutton Coldfield*

RICHARDSON, Derek, *Tibshelf, Derbys.*
 RIGBY, Robert, *Prescot, Lancs.*
 RILEY, Charles Anthony, *Solihull, Warks.*
 RILEY, George, *Tipton, Staffs.*
 RILEY, Jack, *Nelson, Lancs*
 RIMAN, Bryan, *Coventry*
 ROBERTS, Alfred, *Oldham*
 ROBERTS, Alun, *Wimbledon*
 ROBERTS, Richard Graham, *Hyde, Cheshire*
 ROBEY, Denys Lavers, *York*
 ROBINSON, Stuart, *Leeds*
 ROBSON, Alan Peel, *Iver Bucks*
 ROGERS, Kenneth William, *Rushden, Northants*

ROSENZWEIG, Alexander, *Luton*
 RUSSELL, John, *Middlesbrough*
 RUSSELL, Samuel John, *Hemel Hempstead, Herts*
 RYDER, Robert Fraser, *Sutton Coldfield*
 RYELAND, Richard William, *Adlestone Surrey*

SAMS, Henry Wallace, *London*
 SAMSON, William Arthur, *Roodepoort, S. Africa*
 SANDERS, Bruce, *Durban*
 SANDERS, Gordon George Ernest, *Swinton, Manchester*
 SARFAS, Gordon Alan, *Slough*
 SCALDWELL, Henry Victor, *Birmingham*
 SCHAFFER, Gerald Lawrence, *London*
 SEN GUPTA, Sudhi Ranjan, *Chittagong, East Pakistan*

SEBAGHEREKA, Samuel Kato, *Birmingham*
 SHAH, Syed Ghaleb, *Karachi*
 SHAW, Alan John, *Stockport*
 SHAW, Bryan, *Wigan*
 SHAW, Ronald Thomas, *Bromborough Port, Cheshire*
 SHIRT, Eric, *Oldham*
 SHORE, Bryan Frederick, *Bolton*
 SIDDIQUI, Khursheed Ahmad, *London*
 SIMMONS, John, *Gloucester*
 SIMPKINS, Ronald William, *Salisbury, S. Rhodesia*

SIMPSON, James Robert, *Southampton*
 SIMS, Francis William, *London*
 SIMS, Gerald, *Chesterfield*
 SINGH, Ghaniya, *London*
 SIZER, John, *Grimsby*
 SKIDMORE, Derek John, *West Bromwich*
 SMITH, Albert Edward, *Burton-on-Trent*
 SMITH, Arthur Brian, *Rochdale*
 SMITH, Robert William, *Cobham, Surrey*
 SNATT, Ronald Albert Harry, *Eastbourne*

Intermediate Examination Part II—Continued

SNEESBY, Ronald Edward, *London*
 SOLOMAN, Charles, *Dagenham, Essex*
 SOULSBY, Edward Emmerson, *Orley, Yorks.*
 STEER, Peter James John, *London*
 STEHLI, Peter Henri, *London*
 STEPHENS, John Leonard, *Birmingham*
 STEVENS, John William Patrick *Eastleigh, Hants.*
 STEVENSON, John Alan, *Baldock, Herts.*
 STONE, Ralph Sheridan, *Salisbury, S. Rhodesia*
 STOPS, Barry Reginald, *Escombe, S. Africa*
 SUMMERSIDE, Matthew William, *Sunderland*
 SUNDARAM, S. Raghunatha Minakshi, *Madinagar, India*

TAMARAL, John Joseph, *Reading*
 TAYLOR, Colin, *Sutton Coldfield*
 TAYLOR, Richard John, *Manchester*
 TEMPERTON, Peter, *Doncaster*
 TETLEY, Eric, *Halifax*
 THOM, Gordon, *Edinburgh*
 THOMAS, Barry, *Stockport*
 THOMAS, Cherikal Verghese, *Calcutta*
 THOMAS, Frederick Austin, *Aberdare*
 THOMAS, Richard, *Edgware, Middlesex*
 THOMPSON, Knowles, *Blackpool*
 THOMPSTONE, Philip, *West Bromwich*
 THOMSON, Ian McEwan, *Glasgow*
 THORNTON, Leslie Michael, *Leamington Spa*
 THORPE, Gerald William, *Aldridge, Staffs.*
 THRUSH, Brian Edward, *Wolverhampton*
 THWAITES, Jeffrey, *Leeds*
 TIERNEY, Daniel Peter Nicholas, *Dublin*
 TILLEY, Gerald, *Neston, Cheshire*

TIWANA, Alla Dad, *Hadali, W. Pakistan*
 TODD, Ronald, *Ryton-on-Tyne*
 TRUNKFIELD, Joseph Kenneth, *Uttoxeter, Staffs.*
 TUGNAIT, Krishan Lal, *London*
 TURNER, Barry John, *Coventry*
 TURNER, Charles Edward, *York*
 TURNER, Harry William, *Waltham Abbey, Essex*

VANCE, Denis Victor, *Swindon*
 VEASEY, John Robert, *Sheffield*
 VECK, Alec Frederick, *Eastleigh, Hants.*
 VINE, Philip James, *Buntingford, Herts.*

WAINWRIGHT, Norman Arthur, *Liverpool*
 WALD, Jack, *London*
 WALSH, Colette Catherine, *Bristol*
 WALSH, Eric Gordon, *London*
 WALSH, William Anthony, *Dublin*
 WALSH, William Macarten, *London*
 WALTER, Robert Ernest, *Birmingham*
 WALTON, David Humphries, *London*
 WARREN-SMITH, Clive Jeremy, *Berkhamsted, Herts.*
 WARWICK, Leslie Arthur, *Broadstairs, Kent*
 WATSON, Harold Eric, *London*
 WATSON, Ian Dunbar, *Glasgow*
 WATSON, Robert Young, *Motherwell*
 WEBLEY, Kenneth George, *Sutton Coldfield*
 WEBSTER, Aubrey Basil, *Salisbury, S. Rhodesia*
 WELLS, Alan John, *Walsall*
 WELLS, Alun Harold, *Luton*
 WESTWOOD, Michael Frederick, *Welwyn*

WHALLEY, John, *Littleborough, Lancs.*
 WHINNERAH, Kenneth, *Sale Moor, Cheshire*
 WHITEHEAD, Cyril, *Mirfield, Yorks.*
 WHITEHEAD, Leslie, *Oldham*
 WIDDOWSON, John Lees, *Plumtree, Notts.*
 WILLIAMS, Arnold Howell, *Caerphilly, Glam.*
 WILLIAMS, Brian Charles, *Newport, Shropshire*

WILLIAMS, Gwyn, *Cardiff*
 WILLIAMS, Robert Albert, *Bristol*
 WILLIAMSON, Denis Edward, *Mirfield, Yorks.*
 WINDER, Dennis Laurence, *Chandlers Ford, Hants.*

WINDOW, John McEwen, *Shortlands, Kent*
 WOLFE, Bernard James, *London*
 WOLFE, Ronald Arnold, *Southend-on-Sea*
 WOOD, John Arthur, *Kirkby-in-Ashfield, Notts.*

WOOD, Lester, *Maidstone*
 WOOD, Peter Charles, *Bolton*
 WOODCOCK, Robert Anthony, *Chigwell, Essex*

WOOLLARD, Peter William, *Letchworth, Herts.*

WORKMAN, Hugh David, *London*
 WORSLEY, Albert, *St Helens, Lancs.*
 WOTHERSPOON, David, *East Kilbride, Lanarks*

WRIGHT, William, *Kirkcaldy, Fife*

YELLAND, David Alan Douglas, *London*
 YOUNG, David Thomas, *London*

ZAHID Mohammed Shamsuddin, *Karachi*

1,432 candidates sat. Of these,
 468 candidates (as listed above) passed
 964 candidates failed

Preliminary Examination

ALLEN, Brian, *South Shields*

BAIRD-TAYLOR, William Donald, *Glasgow*
 BARKER, Ernest Gordon, *Rugby*
 BEASLEY, Colin William, *Coventry*
 BEATTIE, David, *Preston*
 BECK, Arthur Albert, *Poole*
 BOAK, David Alexander, *Perth*
 BOYCE, Brian Michael, *Guildford*
 BOYD, James, *Alloa, Clackmannans.*

CANAVAN, Ian Thomas, *Cowdenbeath, Fife*
 CARLING, Robert, *Doncaster*
 CARTLIDGE, Keith, *Pudsey, Yorks.*
 CLARK, Mervyn John, *Bristol*
 CONNOR, Maurice, *Manchester*
 COVENTRY, John Alan, *West Drayton, Middlesex*
 CUNNINGHAM, Robert Elder, *Paisley*

DAVIDSON, Hugh, *Kelty, Fife*
 DICKINSON, Peter James, *Gillingham, Kent*
 DOBLE, Timothy John Cambrai, *Brighton*
 DONALDSON, William Watson, *Freuchie, Fife*

EDGAR, Adam Fairbairn, *Falkirk*

FOSTER, John Edward, *Tadworth, Surrey*

GARVEN, David James, *Paisley*
 GURNHILL, Paul, *Sheffield*

HAMER, Gordon, *Towcester, Northants*
 HARDWICK, Florence Louise Alice, *Hilton, Derbyshire*

HETHERINGTON, Robert, *Glasgow*
 HINDLE, Geoffrey Samuel, *Preston*
 HOLT, Derek, *Stoke-on-Trent*
 HOWELLS, Derek John, *Blaina, Mon.*
 HUTSON, John Dennis, *Sheffield*

INNS, Henry James, *London*

KELLAND, Christopher Charles Alexander, *Bristol*

LARRISSY, Patrick Joseph, *Dublin*

MCBRIDE, Robert, *Howwood, Renfrews*
 MARSHALL, Cyril Raymond, *Crawley, Sussex*
 MARSHALL, Dean John, *Nuneaton*

O'NEILL, Vernon John, *Glasgow*

PATERSON, Wilson, *Glasgow*
 PERRY, George Herbert, *London*

PRYDE Ronald Andrew, *Buckhaven, Fife*

RANKIN, John Henry, *Edinburgh*
 RAY, Charles Gordon, *Liverpool*

SIMPSON, John Cairn, *Renfrew*
 SMITH, Graham, *Coventry*
 SPIKINGS, Maurice Frank, *Leicester*
 STAFFORD, John, *Bolton*
 STEED, David, *Birmingham*
 STEPHEN, John Buchan, *Peterhead, Aberdeenshire*
 STEWART, Ronald Allan Young, *Dundee*

TALBOT, Roy William, *Feltham, Middlesex*
 TALBOTT, Derrick Malcolm, *Castle Cary Somerset*

WADDELL, George Ronald, *Methil, Fife*
 WEATHERALL, Alexander Parker, *Belfast*
 WEBBER, Brian, *Birmingham*
 WEIR, James, *Glasgow*
 WHITE, William Kirkwood, *Cumnock, Ayrshire*
 WHITFIELD, Paul Christopher, *Liverpool*
 WIGGINS, Anthony John, *Hitchin, Herts.*
 WILLIAMS, John Leonard, *Chester*

234 candidates sat. Of these,
 60 (as listed above) passed
 174 failed

FOR SUMMARY OF RESULTS SEE PAGE 581

FORTHCOMING EVENTS

MEMBERS' DINNER

Members' Dinner, on 20 October, at Quaglino's, Bury Street, St. James's, London, S.W.1.
Reception 7.30–8 p.m. Dinner 8.15 p.m.

COST CONFERENCES

North Regional Cost Conference: 17 October, *Accounting within industry* by M. A. FIENNES, Managing Director, Davy and United Engineering Co., Ltd., and *Future trends and prospects for industrial accounting* by H. H. NORCROSS, F.C.W.A., at the Grand Hotel, Sheffield.

London Regional Cost Conference: 21 November, *Effects of national economic policy on costs* by PAUL BAREAU and IAN T. MORROW, C.A., F.C.W.A., at The Connaught Rooms, Gt. Queen Street, London.

REVISION COURSE

London and District Branch and London Students Society: 14 November, at the Regent Street Polytechnic, W.1.

BRANCH MEETINGS

Aberdeen Students Society: 17 September, *An address* by DEREK DU PRÉ, Secretary of the Institute, at the Royal Hotel, Union Street, Dundee, at 8 p.m.
29 September, *Incorporation of companies* by J. A. HUGHES, A.C.W.A., F.C.I.S., at The Institute of Bankers Rooms, Union Street, Aberdeen, at 7.30 p.m.

Brighton and District Sub-Branch: 14 October, *Safety in the factory* by G. K. WILEY, H.M. Inspector of Factories, at the Y.M.C.A., Old Steine, Brighton, at 7.45 p.m.

Bedford and Luton Branch: 17 September, *Changing price levels* by R. WARWICK DOBSON, C.A., F.C.W.A., at the Committee Room, Town Hall, Bedford, at 7.30 p.m.

1 October, *Works Visit*, Meltis Ltd., Miller Road, Bedford, at 2.15 p.m.

16 October, *Work Study* by W. G. HOWES, F.C.W.A., at the Committee Room, Bedford, at 7.30 p.m.

Chelmsford Sub-Branch: 17 September, *Works Visit*, E. K. Cole Ltd., Southend.
14 October, *Control of quality in medium quantity production* by L. AYRE, Technical Sales Manager, The Sigma Instrument Co., Letchworth, at the Golden Fleece Hotel, Duke Street, Chelmsford, at 7.15 p.m.

Chester and North Wales Sub-Branch: 25 September, *Works Visit* Kelvinator Ltd., Bromborough, Wirral, at 2.30 p.m.

8 October, *Budgetary control* by C. F. HOWELL, F.C.W.A., at the Queen Hotel, Chester, at 7.0 p.m.

Croydon and District Branch: 18 September, *Material matters—the financial aspect* by C. G. S. JENNINGS, F.C.W.A., at The Greyhound Hotel, High Street, Croydon, at 7.15 p.m.

16 October, *Interfirm comparison for management* by L. TAYLOR HARRINGTON, British Institute of Management, Joint meeting with The British Institute of Management (South London Branch) and The Chartered Institute of Secretaries at The Greyhound Hotel, at 7.15 p.m.

Dundee Branch: 17 September, *An address* by DEREK DU PRÉ, Secretary of the Institute, at the Royal Hotel, Union Street, Dundee, at 8 p.m.

Edinburgh and District Branch: 15 September, *An address* by DEREK DU PRÉ, Secretary of the Institute, at the North British Hotel, Edinburgh, at 7.15 p.m.

10 October, *Works Visit* Scottish Agricultural Industries Fertiliser Works, Leith.

Eltham and District Branch: 8 October, *Machine tools and their use in industry* by F. L. BRODIE, A.M.I.PROD.E., at the Sherrard Hall, Court Road, Eltham, S.E.9, at 7.30 p.m.

14 October, *Works Visit*, G. A. Harvey & Co., (London) Ltd.

Enfield and District Sub-Branch: 15 September, *Company finance—take-over bids, business mergers and related aspects of City life* by GEO. R. THOMPSON, City Editor, *Sunday Dispatch*, at the Eastern Gas Board's Lecture Rooms, Sydney Road, Enfield, at 7.30 p.m.

13 October, *Market research and costs*, at the Eastern Gas Board's Lecture Rooms, at 7.30 p.m.

Glasgow and District Branch: 16 September, *An address* by DEREK DU PRÉ, Secretary of the Institute, at the St. Enoch Hotel, St. Enoch Square, Glasgow at 7.15 p.m.

Hampshire Branch: 24 September, *Costing and budgetary control of a research and development programme* by P. A. BUNDY, F.C.W.A., A.A.C.C.A., at the Station Hotel, Basingstoke, at 7.30 p.m.

2 October, *The accountant's and the office manager's views on electronic computers* by P. A. BUNDY, F.C.W.A., A.A.C.C.A., and I. R. HOPKINSON, at the Central Electricity Authority's Conference Rooms, 111 High Street, Portsmouth, at 6.15 p.m.

7 October, *Organisation and methods* by W. HYDE, F.C.W.A., A.A.C.C.A., at the Southern Gas Board's Show Rooms, 136 Old Christchurch Road, Bournemouth, at 7.30 p.m.

8 October, *Film—Refinery at work* followed by a paper *Costing problems in a refinery* by L. W. RICE, B.SC. (ECON.), F.C.W.A., A.C.I.S., at the Esso Refinery, Fawley, Southampton, at 7.0 p.m.

15 October, *What the engineer expects from the cost accountant* by J. E. POTTER, A.M.I.MECH.E., at the Station Hotel, Basingstoke, at 7.30 p.m.

Harrow and District Branch: 9 October,
Production planning and control by J. K. FAWCETT, A.C.W.A., at Harrow Technical College, Station Road, Harrow, at 7.15 p.m. for 7.30 p.m.

High Wycombe and District Sub-Branch: 13 October,
Marginal and opportunity costs by C. A. HERRING, B.SC., F.C.W.A., at the Swan Hotel, Paul's Row, High Wycombe, at 7.30 p.m.

Hull and District Sub-Branch: 16 September,
Films—Conveyors as your servants: Steel: A new approach to production improvements, at the Imperial Hotel, Paragon Street, Hull, at 7.30 p.m.

Ilford and District Branch: 30 September,
Practical standard costing by G. E. SAUNDERS, F.C.W.A., at 'The Angel', 109 High Road, Ilford, at 7.30 p.m.
14 October, Works Visit Cape Asbestos Co., Ltd., Barking, at 2.15 p.m.

Kingston and District Branch: 18 September,
Taxation as it affects company policy by ROBERT Y. KENNEDY, C.A., F.C.W.A., at The Three Compasses, 31 Eden Street, Kingston upon Thames, at 7.45 p.m.
7 October, Works Visit Albert E. Reed & Co., Ltd., Aylesford Paper Mills.
16 October, For and against decentralisation of accounts, at The Three Compasses, at 7.45 p.m.

Leeds and District Branch: 6 October,
Managers' problems we have not yet answered by J. A. SCOTT, C.A., F.C.W.A., at the Hotel Metropole, Leeds, at 7.15 p.m.

Leicester and District Branch: 22 September,
Costing in a chemical plant by W. L. WITHERS, F.C.W.A., of British Celanese Ltd., at the Bell Hotel, Humberstone Gate, Leicester, at 7.15 p.m.

Liverpool and District Branch: 30 September,
Costing and the plant engineer—the accountant by H. E. BETHAM, A.C.A., Head of Management Planning and Control Section, Organisation Division, Unilever Limited, at the Liverpool Chamber of Commerce, Old Hall Street, Liverpool, at 6.45 p.m.

Liverpool and District Students Society: 16 September,
Chairman's evening and film show, joint meeting with the Liverpool Students' Society, The Chartered Institute of Secretaries, at Radiant House, Bold Street, Liverpool, at 7.15 p.m.
14 October, Demonstration of office machinery at Radiant House, at 6.15 p.m.

London and District Branch and London Students Society: 25 September, Projecting the profit—a combined operation by F. G. S. ENGLISH, M.I.PROD.E., Director and General Manager, Torjan Limited, at the Lancaster Room, Caxton Hall, Westminster, London, S.W.1, at 7.0 p.m.

Maidstone and District Sub-Branch: 24 September,
Reducing paper work by D. LOGAN, at the County Technical School, Fort Pitt, New Road, Chatham, at 7.30 p.m.

Northampton and District Sub-Branch: 13 October,
Education for management by H. SAXON, Education Officer, The Ministry of Labour and National Service, at the Granville Hotel, Wellingborough, at 7.30 p.m.

North East Coast Branch: 29 September,
Works Visit Galashiels, Peter Anderson Ltd., Tweed Mills.

13 October, Costing of factory services by F. H. PRITCHETT, F.C.W.A., at the Royal Station Hotel, Newcastle upon Tyne, at 7.0 p.m.

Nottingham, Derby and District Branch: 15 September,
Debate—The departmental application of factory overhead should give place to a general factory rate, at the Midland Hotel, Derby, at 7.15 p.m.

15 October, Organisation—the keystone of management by W. FRANK, DR. JUR. (PRAGUE), LL.B., M.SC.(ECON.), B.COM., at the Black Boy Hotel, Nottingham, at 7.15 p.m.

Oxfordshire Sub-Branch: 24 September,
Interpretation of accounts by G. T. MAYNARD, F.A.C.C.A., A.C.W.A., F.C.I.S., at the Royal Oxford Hotel, Oxford, at 7.15 p.m.

Peterborough and District Sub-Branch: 15 September,
Payment by results by J. STAFFORD, F.C.W.A., at the Grand Hotel, Peterborough, at 7.30 p.m.

St. Helens Sub-Branch: 17 September,
Film at Radiant House, Church Street, St. Helens, at 7.30 p.m.

1 October, Works Visit The St. Helens Reporter, College Street, St. Helens, at 7.0 p.m.

14 October, Inventory control by J. BORSAY, F.C.W.A., a Past President of the Institute, at the Lion Hotel, Bridge Street, Warrington, at 7.30 p.m.

Slough and District Sub-Branch: 1 October,
Fact finding from figures by H. KIRKHAM, F.C.W.A., Ferranti Ltd., at Slough Community Centre, Farnham Road, Slough, at 7.30 p.m.

13 October, Market Research by T. CORLETT, British Market Research Bureau Ltd., at Huntley & Palmer Reception Hall, Gasworks Road, Reading, at 7.30 p.m.

Watford and District Sub-Branch: 18 September,
British Federation of Master Printers' costing system by H. W. G. KENDALL, F.C.W.A., at Watford Town Hall, at 7.30 p.m.

9 October, Drafting reports for management by G. T. MAYNARD, A.C.W.A., F.A.C.C.A., Chairman, Oxfordshire Sub-Branch, at Watford Town Hall, at 7.30 p.m.

Wolverhampton and District Branch: 2 October,
Some aspects of insurance for industry by WALTER R. HARRIS, Director for Midlands, Sedgwick, Collins & Co., Ltd., Incorporated Insurance Brokers, at the George Hotel, Stafford Street, Wolverhampton, at 7.15 p.m.

THE COST ACCOUNTANT

Editorial and advertising offices:—63 Portland Place, London, W.1 (Tel. LANGham 6542).

Subscription rate: 18s. per year, post free. Single copies, 1s. 10d., post free.

Published each month by The Institute of Cost and Works Accountants.

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Printed by Straker Brothers Ltd., 194–200 Bishopsgate, London, E.C.2.

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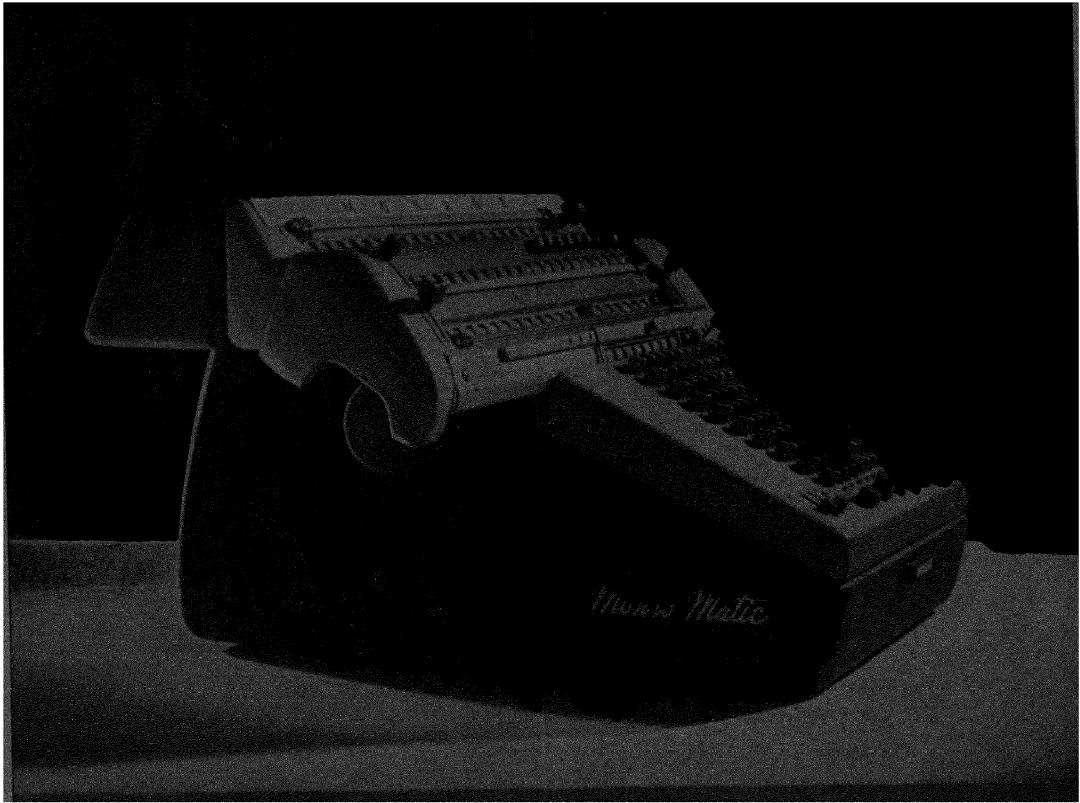
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