GOVERNMENT OF INDIA

RAILWAY DEPARTMENT

(RAILWAY BOARD)

REPORT

BY THE

RAILWAY BOARD

ON

INDIAN RAILWAYS

1924-25

Volume I

CALCUTTA : GOVERNMENT OF INDIA
CENTRAL PUBLICATION BRANCH
1925

Government of India Publications are obtainable from the Government of India Central Publication Branch, 8, Hastings Street, Calcutta and from the following Agents:—

EUROPE.

OFFICE OF THE HIGH COMMISSIONER FOR INDIA,

42, GROSVENOR GARDENS, LONDON, S.W. 1.

And at all Booksellers.

INDIA AND CEYLON.

Provincial Book Depôts:

MADRAS:—Office of the Superintendent, Government Press, Mount Road, Madras.

BOMBAY:—Office of the Superintendent of Government Printing and Stationery, Poona.

SIND:—Library attached to the Office of the Commissioner in Sind, Karachi.

BENGAL:—Office of the Bengal Secretariat Book Depôt, Writers' Buildings, Room No. 1, Ground Floor, Calcutta.

UNITED PROVINCES OF AGRA AND OUDH:—Office of the Superintendent of Government Press, United Provinces of Agra and Oudh, Allahabad.

PUNJAB:—Office of the Superintendent, Government Printing, Punjab, Lahore.

BURMA:—Office of the Superintendent, Government Printing, Burma, Rangoon.

CENTRAL PROVINCES AND BERAR:—Office of the Central Provinces Secretariat, Nagpur.

ASSAM:—Office of the Superintendent, Assam Secretariat Press.

BIHAR AND ORISSA:—Office of the Superintendent, Government Printing, Bihar and Orissa, P. O. Gulzarbagh, Patna.

COORG:—Office of the Chief Commissioner of Coorg, Bangalore.

NORTH-WEST FRONTIER PROVINCE:—Office of the Manager, Government Printing and Stationery, Peshawar.

Thacker, Spink & Co., Calcutta and Simla.

W. Newman & Co., Ltd., Calcutta.

R. Cambray & Co., Calcutta.

S. K. Lahiri & Co., Calcutta.

The Indian School Supply Depôt, 309, Bow Bazar Street, Calcutta, and 226, Nawabpur, Dacca.

Butterworth & Co. (India), Ltd., Calcutta.

Rai M. C. Sarcar Bahadur & Sons, 90-2A., Harrison Road, Calcutta.

The Weldon Library, 17, Park Street, Calcutta.

Standard Literature Company, Limited, Calcutta.

Association Press, Calcutta.

Chukervertty, Chatterjee & Co., Ltd., 13, College Square, Calcutta.

The Book Company, Calcutta.

Higginbotham & Co., Madras.

V. Kalyanarama Iyer & Co., Madras.

P. R. Rama Iyer & Co., Madras.

Rochouse and Sons, Madras.

Bright & Co., Trivandrum.

V. S. Swaminathan, Bookseller, West Tower Street, Madura.

Thacker & Co., Ltd., Bombay.

D. B. Taraporevala, Sons & Co., Bombay.

Sunder Pandurang, Bombay.

Ram Chandra Govind & Sons, Kalbadevi, Bombay.

N. M. Tripathi & Co., Booksellers, Princess Street, Kalbadevi Road, Bombay.

Proprietor, New Kitabkhana, Poona.

The Manager, Oriental Book Supplying Agency, 15, Shukrawar, Poona City.

R. S. Gondhalekar's Book Depôt, Publisher and Bookseller, Budhwar Chawk, Poona City.

Managing Director, Co-operative Bookstall, Booksellers and Publishers, Poona City.

The Standard Bookstall, Karachi, Rawalpindi, Murree, Lahore, Peshawar and Quetta.

Karsandas Narandas & Sons, Surat.

Mangaldas & Sons, Booksellers and Publishers, Bhaga Talao, Surat.

A. H. Wheeler & Co., Allahabad, Calcutta and Bombay.

N. B. Mathur, Supdt., Nazir Kanun Hind Press, Allahabad.

The North India Christian Tract and Book Society, 18, Clive Road, Allahabad.

Ram Dayal Agarwala, 184, Katra, Allahabad.

Manager, Newal Kishore Press, Lucknow.

The Upper India Publishing House, Ltd., 41, Aminabad Park, Lucknow.

Munshi Seeta Ram, Managing Proprietor, Indian Army Book Depôt, Juhi, Cawnpore.

Rai Sahib M. Gulab Singh & Sons, Mufid-i-Am Press, Lahore and Allahabad.

Rama Krishna & Sons, Booksellers, Anarkali, Lahore.

Puri Brothers, Booksellers and Publishers, Katcheri Road, Lahore.

The Tilak School Book-Shop, Lahore.

Manager of the Imperial Book Depôt, 63, Chandney Chawk Street, Delhi.

Oxford Book and Stationery Company, Delhi.

Supdt., American Baptist Mission Press, Rangoon.

Proprietor, Rangoon Times Press, Rangoon.

The Modern Publishing House, Ltd., 30, Phayre Street, Rangoon.

The International Buddhist Book Depôt, Post Box No. 971, Rangoon.

Burma Book Club, Ltd., Rangoon.

Manager, The "Hitavada," Nagpur.

S. C. Talukdar, Proprietor, Students & Co., Cooch Behar.

Times of Ceylon Co., Ltd.

The Manager, Ceylon Observer, Colombo.

The Manager, The Indian Book Shop, Benares City.

B. C. Basak, Esq., Proprietor, Albert Library, Dacca.

The Srivilliputtur Co-operative Trading Union, Ltd., Srivilliputtur, (Satur, S. I. R.).

Banwari Lal, Esq., Pakariya Street, Pilibhit, United Provinces.

The Standard Book Depôt, Lahore, Lucknow, Nainital, Mussoorie, Dalhousie, and Ambala Cantonment.

Books and Technical Papers published by the Railway Board.

BOOKS.

(1) Report by the Railway Board on Indian Railways. Published yearly. Price—Vol. I—Report, Rs. 3-8-0 or 5*s*. 10*d*. Volume II, Rs. 3-12-0 or 6*s*.

(2) Classified List and Distribution Return of Officers of all Indian Railways. Published half yearly. Price Re. 1.

(3) History of Indian Railways, constructed and in progress corrected up to 31st March 1923. Published quinquennially. Price Rs. 5-12-0.

(4) History of Services of the Officers of the Engineer and Superior Revenue Establishment of State Railways. Published yearly. Price Rs. 2-8-0.

(5) Pocket Edition of the Schedule of dimensions to be observed on 5′ 6″ and 3′ 3⅜″ and 2′ 6″ gauge railways in India, 1922, Rs. 1-8-0 for the 5′ 6″ and 3′ 3⅜″ gauge edition and Re. 1-0-0 for the 2′ 6″ gauge edition.

(6) Preliminary Abstract of Statistics of Indian Railways. Published yearly. Price Rs. 1-4-0 or 2*s*.

(7) Railway Statistics—Class I Indian Railways. Published monthly. Price Rs. 1-6-0 or 2*s*. 2*d*.

TECHNICAL PAPERS.

(8) Over 200 papers have been published by the Technical Section of the Railway Board's office. The papers comprise:—

(*a*) Original descriptions of railway works and studies of railway problems in India and elsewhere.

(*b*) Reprints of articles from foreign engineering magazines.

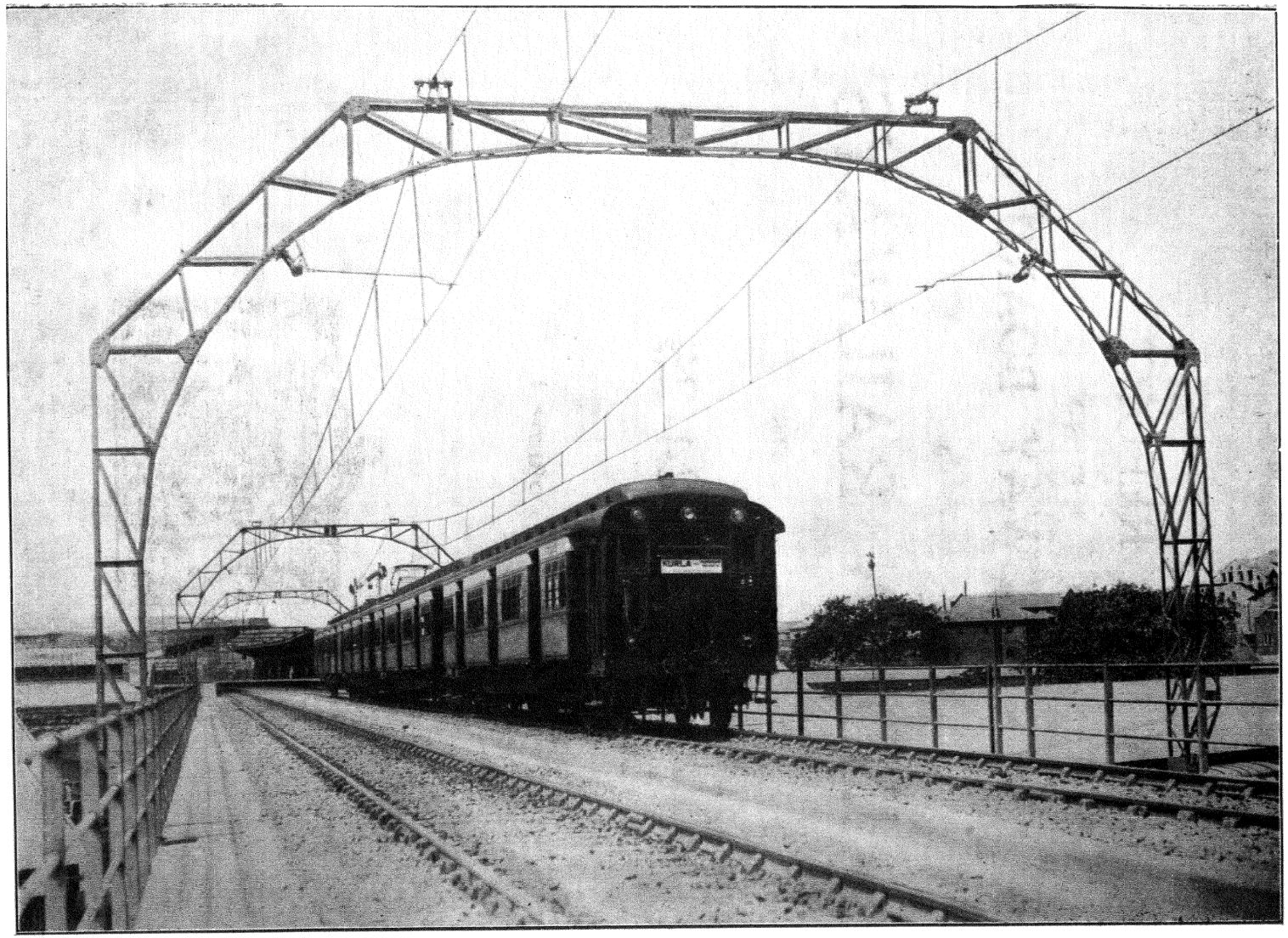
(*c*) Reprints or abstracts of reports received by the Government of India on subjects connected with railways.

A complete list of the papers can be obtained *gratis* from the Secretary, Railway Board. A few of the more important Technical papers are mentioned below:—

Name.	*Author.*
The design of well foundations for bridges .	(Compiled.)
Statistics of railway working expenditure .	G. DEUCHARS.
River training and control on the guide bank system	F. J. E. SPRING.
Mountain railways	G. DEUCHARS.
Rules for the preparation of railway projects	.....
Oil fuel trials on the North Western Railway of India, 1913—16	.....
The central control systems for the scheduling of operations in locomotive repairs workshops in England	H. H. SAUNDERS.
The Hardinge Bridge over the Lower Ganges at Sara	SIR ROBERT GALES.
Technical education in relation to railways in America	H. L. COLE.
Indian Standard Locomotives (5′ 6″ gauge)	H. L. COLE.
Railway Statistics and the Operating Officer	MAJOR F. H. BUDDEN.

The prices of the papers vary from Annas Four to Rupees Eight.

The books and papers can be bought from the Government of India, Central Publication Branch, 8, Hastings Street, Calcutta.



Great Indian Peninsula electric train on Wadi Bundar Viaduct.

1924

GOVERNMENT OF INDIA

RAILWAY DEPARTMENT

(RAILWAY BOARD)

REPORT

BY THE

RAILWAY BOARD

ON

INDIAN RAILWAYS

FOR

1924-25

Volume I

CALCUTTA: GOVERNMENT OF INDIA
CENTRAL PUBLICATION BRANCH
1925

CONTENTS.

CHAPTER I.—GENERAL ADMINISTRATION.

CHAPTER II.—FINANCIAL RESULTS OF THE YEAR'S WORKING.

CHAPTER III.—NEW CONSTRUCTION AND ENGINEERING WORKS.

CHAPTER IV.—ROLLING STOCK AND MATERIALS.

CHAPTER IV.—STAFF.

CHAPTER VI.—MISCELLANEOUS.

APPENDICES.

CHAPTER I.

GENERAL ADMINISTRATION.

General Review.

This report deals with the financial year 1924-25. During the year trade showed a distinct revival and the improved conditions throughout the country had a decided effect on the gross earnings of railways which reached a figure higher than ever before recorded. The various administrations without exception have handled this additional traffic at a cost which represents a substantial lowering of the operating ratio.

2. The most notable event of the year was the acceptance by the Legislature of the scheme for the separation of railway finance from the general finances of the country. Following on this acceptance the Railway Budget was prepared separately for the first time and was introduced on 20th February 1925 by the Hon'ble Railway Member in the Legislative Assembly and by the Chief Commissioner of Railways in the Council of State. The new procedure has already resulted in a definite improvement in the railway outlook, and while the general revenues are now assured of a stable annual return from railways, the Railway Board is enabled to carry out a continuous policy of improvements based on the responsibility for obtaining a fixed dividend coupled with an assurance of adequate funds for any operation which will secure such dividend. They have the further security that surpluses will be available for railway purposes and particularly for building up reserves and a depreciation fund. Considerable progress was made with new construction, and although only 233 miles of new railway were opened for traffic, at the close of the year, there were 1,201 miles under construction, representing a programme which when completed will result in an addition of some 2,285 miles to the present system.

3. Following the decision of Government referred to in last year's report the management of the East Indian Railway was taken over from the Company by the Railway Board on 1st January 1925. The arrangements which had been previously made for the transfer of the staff to Government service enabled the transfer to be made smoothly and without any change in the services rendered to the public.

During the year the reorganisation of the North Western Railway, the East Indian Railway and the Oudh and Rohilkhand Railway on a divisional basis, was carried into effect on the lines indicated in the report for last year.

The opening of the first electrified railway in India—the new Harbour Branch of the Great Indian Peninsula Railway at Bombay—on 3rd February by H. E. the Governor of Bombay was one of the notable events of the year for Indian Railways. This work is the precursor of the introduction of electric traction on a more extended scale both for suburban traffic and for long distance traffic.

The annual meeting of the Indian Railway Conference Association which took place in Simla on 9th October 1924, was honoured by the presence of H. E. the Viceroy for the first time in the history of the Conference. The speech made by His Excellency on this occasion is printed as appendix F. to this Report.

Separation of Railway from General Finances.

4. The close of last year saw the proposals of Government for separating railway finance from the general finances of the country remitted by the Legislative Assembly to a committee of the House for further consideration. The committee, and a sub-committee which it appointed, recommended that the contribution to general revenues should be raised from the five-sixths of one per cent. on the capital at charge on commercial lines originally proposed, to one per cent. on the capital at charge with, as before, an addition of one-fifth of any surplus profits; and they also recommended that, if the amount available for transfer to the railway reserve after payment of the contribution should exceed in any year three crores of rupees, one-third of the excess over three crores should accrue to general revenues. Apart from these changes, they accepted the proposals of Government on the financial side; but they asked, in addition, for an alteration in the constitution of the Central Advisory Council, so as to provide for the selection of its members from panels elected by the Council of State and the Legislative Assembly from among their members, and for the creation of a Standing Finance Committee for Railways, consisting in the main of members elected by the Legislative Assembly from their body, the members of the Standing Finance Committee for Railways to be *ex-officio* members of the Central Advisory Council. They further proposed that the estimates of railway expenditure should be discussed with the Standing Finance Committee for Railways prior to the discussion of the demands for grants, and that, if possible, the railway budget should be presented to the Legislative Assembly in advance of the general budget, with an allotment of separate days for its discussion. They also suggested that these arrangements should be subject to periodical revision, but should be tried for at least three years.

5. All these proposals were accepted by Government but the question was raised whether as a condition of the acceptance of the proposals by the Assembly, Government should not give assurances with regard to Indianisation, representation of Indians on the Railway Board, and the purchase of stores for railways, and should not also give an undertaking that no railway would be handed over to a private company without the prior approval of the Legislative Assembly. When the report of the committee came before the Assembly in the middle of September, these questions were the subject of much debate but an agreement was finally reached on the 20th September. Government undertook that the arrangements for separation should hold good only so long as the East Indian Railway, the Great Indian Peninsula Railway, and the existing State-managed railways remain under State management; that no negotiations for the transfer of any of these railways to company management should be concluded until facilities had been given for the discussion of the whole matter in the Assembly; and that, further, if any of the above railways were transferred to company management against the advice of the Assembly, the Assembly should be at liberty to terminate the arrangements for separation. Apart from the convention establishing the separation of railway finance, the Assembly also recommended the rapid Indianisation of the railway services, the appointment of Indians as Members of the Railway Board as early as possible, and the purchase of stores for State railways through the organisation of the Stores Purchase Department of the Government of India. The resolution recommending

the separation of railway from general finances was then passed without a division in the form which is given in Appendix C to this report, and this desirable and important reform became an accomplished fact.

Institution of depreciation fund.

6. The separation of the railway from the general finances made it possible to introduce several other reforms recommended by the Acworth Committee for which the Railway Board had previously worked out proposals, but the introduction of which was contingent upon the carrying out of the separation. The most important of these are the revision of the rules for the allocation of expenditure between capital and revenue and the institution of a depreciation fund. The alterations in the rules of allocation of expenditure on renewals between capital and revenue, as stated in paragraph 16 of the report of last year, can only be applied at present to State-managed railways; on the other hand the depreciation fund has been instituted on all State-owned lines, but the institution of the depreciation fund with regard to the Company-managed railways involves no alteration in the existing arrangements with the Companies, nor does it appear in the accounts of the Companies. In the Government accounts, however, the depreciation fund will, for Company-worked railways, as for State-worked railways, be credited with the annual contribution representing the annual depreciation of the year, and will, as for State-worked railways, ensure that the original cost of any particular asset will be in the fund by the time its useful life expires. Under the rules of allocation previously in force, which rules still remain in force on the Company-managed lines, the broad principle adopted was that revenue should pay for the cost of replacing or renewing property to the same standard of effectiveness as first provided out of capital funds; and that only when there was a genuine improvement of that standard should a measure of the betterment, determined in many cases by elaborate formulæ, be met from capital. Under the operation of this principle, capital, broadly stated, is still charged with the equivalent of the expenditure on the property as installed for the first time and without regard to subsequent replacements thereof from time to time. Under the new arrangements the allocation of expenditure follows the standard of original cost. When an article is replaced at a cost higher than the original cost of such article, the original cost is charged to revenue (depreciation fund) and the excess over the original cost to capital. The " standard of original cost " principle of allocation, coupled with the fundamental conditions that capital will be relieved of (*a*) the original cost of all property abandoned or destroyed and not replaced, and (*b*) the difference between the original cost of a property and the cost of its replacement, whenever the latter happens to be lower than the former, will operate to bring the amount of charge to capital into consonance with the actual cost incurred on existing structures and equipment. These conditions will counteract any drawbacks of the " original cost " principle in the direction of over-capitalisation.

7. The depreciation fund will be credited annually with an amount equal to the total expenditure to the end of the previous financial year on all units of each class of asset divided by the number of years assumed as the normal life of that class of asset, which credit continues year by year in each case until the period assumed for the normal life of each unit has expired. At the end of the assumed normal life of each unit the depreciation fund will

thus have received credit for the original cost of each asset. When any such unit has to be renewed the original cost of the article replaced will then be available in the depreciation fund. The depreciation fund has been constituted only for the purpose of providing for the cost of renewals of complete units of wasting assets. The introduction of the new rules of allocation and of the depreciation fund took effect from the 1st of April 1924, and the details of the rules will be found in Appendix D. These rules have received the approval of the Standing Finance Committee for Railways.

Construction of branch and feeder lines.

8. As stated in last year's report, proposals had been put forward in 1923-24 by the Railway Board in connection with the recommendation of the Acworth Committee regarding branch and feeder lines. These proposals received the approval of the Central Advisory Council during the year under review and were notified for public information in a resolution dated 19th February 1925 a copy of which is shown as Appendix E. The Acworth Committee had commented severely upon the system under which the money required for financing the construction of branch and feeder lines to be constructed and worked by State-owned railways was raised and pointed out that this system, while it has enabled lines to be built that otherwise could not have been built, had no other merit, and recommended that the Government, so far from approving of the continuance of this system, should aim at reducing the number of existing Companies. The Government of India, in the resolution referred to, have abolished the previous system and are now prepared themselves to find the capital required for the construction of extensions or branches to existing main systems. In the same resolution Government also announced their readiness to consider the question of constructing branch or feeder lines which were not expected to be remunerative from the point of view of railway earnings upon a guarantee against loss from a Local Government or local authority which might desire to have such lines constructed for purely local reasons or on account of administrative advantages likely to accrue in particular areas. This proposal was put forward as affording a suitable method of reconciling the interests of the Central and the Local Governments and of providing for local bodies and for Local Governments a method of securing the construction of railways which may be required for purely local reasons and which, while not likely to prove remunerative on purely railway earnings, are likely to give such benefits to Local Governments and local bodies as will more than repay the amounts paid under the guarantee. Some such arrangements have already been made with Local Governments particularly in Burma and Madras.

Decentralisation.

9. It was stated in paragraph 18 of last year's report that the question of the delegation of increased powers to local Railway Administrations could not be dealt with in a full and comprehensive manner until a final decision had been arrived at on the proposals for the separation of the railway finances. Delegation had been made to Agents in matters relating to establishment, and during the year under report a further delegation has been made to Agents in connection with works with a view to empowering Agents to settle numerous details which under the previous rules had to be referred to higher authority.

Transfer of the East Indian and

10. The State took over the management of the East Indian Railway on the termination of the Company's contract with effect from the 1st January

1925 and the Government of India have, with the approval of the Secretary of State, retained the services of Mr. G. L. Colvin, C.B., C.M.G., D.S.O., as Agent of the line. With a few exceptions all the employees of the Company in India have also been taken over by Government and will, excluding the staff of the Audit and Accounts Department, remain under the rules and conditions of the East Indian Railway, as they stood on the 31st December 1924, in regard to pay and allowances, provident fund, gratuity and leave. The employees of the Audit and Accounts Department have for the present been taken over for one year only on the existing terms and conditions of their employment, pending a settlement of certain administrative questions affecting the position of the Indian Audit Department and its cadre. The Agent of the Railway has been invested with the powers of an Agent of a State Railway and such of the functions of the Home Board of the Company as have come under the direction of the Government of India have been assigned to the High Commissioner for India. The contract of the Great Indian Peninsula Railway Company will terminate on the 30th June 1925, and similar arrangements are being made to take over in the service of the State the staff of that Railway.

Great Indian Peninsula Railways to State management.

11. In last year's report reference was made to some of the defects and weaknesses of the departmental system of administration and the introduction of the divisional system on the North Western, Oudh and Rohilkhand and East Indian Railways was foreshadowed. During the year under review the Secretary of State sanctioned the reorganisation of the North Western Railway on a divisional basis and the new system was introduced on that railway with effect from the 1st October 1924. In accordance with this system the railway has been divided into seven divisions with headquarters at Lahore, Rawalpindi, Karachi, Quetta, Multan, Ferozepore and Delhi, each under a Divisional Superintendent who has been invested with extensive powers of control and is entirely responsible for all the executive work of the railway in his division. The Divisional Superintendents are in each case assisted in matters of accounts and finance by an Audit Officer and for this purpose Divisional Audit Offices have been formed under the control of the Chief Auditor. A corresponding change has been made at headquarters where the distribution of duties has been altered. A new post of Chief Operating Superintendent has been created and this officer has taken over all the responsibilities associated with operating which were formerly divided between the Traffic Manager and the Loco. and Carriage Superintendents. The commercial side of the work is now entrusted to a Chief Commercial Manager and Mechanical Engineering subjects including the administration of workshops to a Chief Mechanical Engineer. The new system is working well and promises to effect a marked improvement in the general efficiency of the transportation arrangements of the line.

Reorganisation on Railways.

12. The East Indian and Oudh and Rohilkhand Railways have also been similarly reorganised with effect from the 20th February 1925, the East Indian Railway being divided into four divisions with headquarters at Howrah, Asansol, Dinapur and Allahabad and the Oudh and Rohilkhand Railway into two divisions with headquarters at Lucknow and Moradabad.

Steps are also being taken to introduce the divisional system on the Eastern Bengal Railway.

Amalgamation of East Indian and Oudh and Rohilkhand Railways.

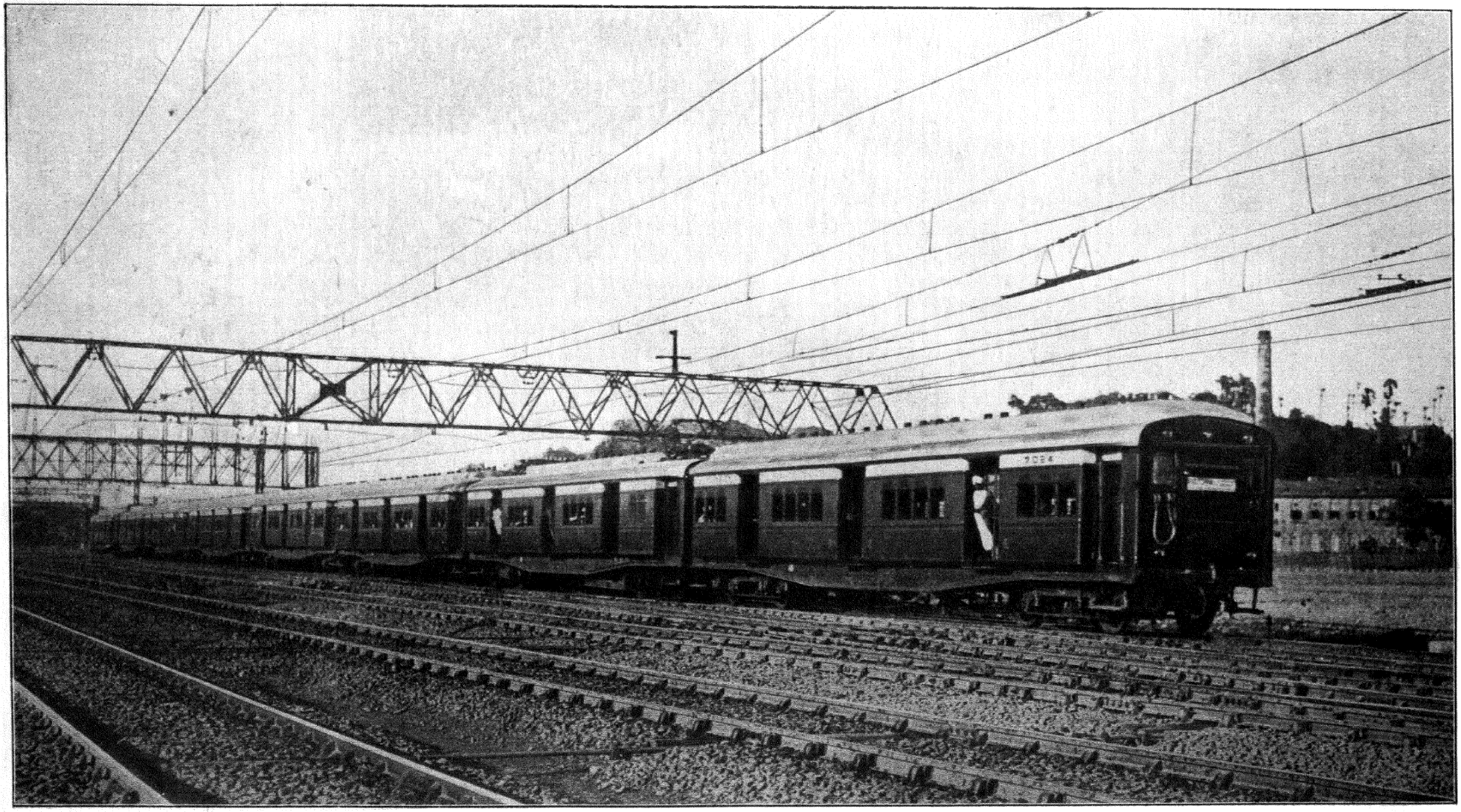
13. Another important administrative change sanctioned by the Secretary of State during the year under review is the amalgamation of the East Indian and Oudh and Rohilkhand Railways which it is hoped to effect from the 1st July 1925. This measure is one which is from every point of view desirable. The economy which must follow from the abolition of a separate central administration requires no demonstration and in respect to efficiency the advantages of the unified control of the alternative routes traversing the Gangetic Valley are almost equally obvious. Apart from this, pooling of rolling-stock and repair facilities and stocks of reserve material should provide means both for actual economy as well as more efficient working.

14. As a sequel to the acquisition and the reorganisation of the East Indian Railway, and with a view to securing the operative, administrative and economic advantages which accrue from assigning clearly defined zones to different railway administrations, it has been decided with the sanction of the Secretary of State that the East Indian Railway shall terminate at Saharanpur and Ghaziabad (with running powers from Ghaziabad to Delhi). Accordingly the Delhi-Ghaziabad Section as well as the working agency of the Delhi Umbala Kalka Railway was transferred to the North Western Railway on the 1st April 1925; and it is intended to transfer the Jubbulpore-Allahabad Section to the Great Indian Peninsula Railway on the 1st October 1925 after the latter railway has been taken over by the State.

Medical Organization.

15. The question of the adequacy of medical and sanitary arrangements on State railways engaged the attention of the Railway Board during the year under review. The existing systems for the provision of medical staff and control on State lines are different and appear in each case to have been gradually evolved as the result of successive changes to meet special difficulties rather than from any considered design. The North Western Railway is at present dependent for direct medical services on the Civil Surgeons of the districts traversed and for administrative and consultative advice on the Inspector General of Hospitals, Punjab. The subordinate medical staff are lent by the Medical Department of the province for the purpose. The position on the Oudh and Rohilkhand Railway is somewhat similar. The Eastern Bengal Railway, on the other hand, has its own Chief Medical Officer who is assisted by two District Medical Officers and apart from these officers depends for direct medical services on the Civil Surgeons and the subordinate medical staff posted to the line by the Surgeon General to the Bengal Government. The East Indian Railway and the Great Indian Peninsula Railway have each a regular medical service of their own.

The existing systems have served their purpose in the past but with the expansion of mileage and the extension of State management to the East Indian Railway and Great Indian Peninsula Railway the need for a more uniform co-ordinated procedure has become apparent. The preservation of the health of the staff and the prevention of epidemic diseases have a very important bearing on the efficient and economic working of railways and apart from the humanitarian aspect of the question an efficient medical organisation is of direct financial interest in railway administration.



Eight coach electric train approaching Kurla.

1924

As a preliminary measure the Railway Board have secured the services of Colonel R. A. Needham, C.I.E., D.S.O., I.M.S., to examine the present system in respect to medical and sanitary arrangements on the North-Western Railway and suggest such measures as will conduce to improvement. Colonel Needham has already completed his preliminary investigation and it is expected that he will be able to submit his definite proposals during the current year.

Revision of railway risk notes.

16. As the result of a resolution passed in the Legislative Assembly in March 1922, the Government of India appointed a Committee to consider the revision of railway risk notes. The Committee, after obtaining the views of Local Governments, Railway Administrations, Chambers of Commerce and other public bodies, recommended certain alterations in risk note forms, A, B, D, G, and H. The recommendations of the Committee were considered by the Government of India in consultation with their legal advisers, and revised forms, imposing on railways a measure of responsibility greater than previously existing in respect of loss of or damage to consignments booked thereunder, were introduced on 1st October 1924.

Meetings with Agents and Local Governments Inspections.

17. During the year the policy of holding meetings of the Board with the Agents of all the principal railways for the purpose of discussing outstanding problems of importance was continued and meetings were held in October 1924 and March 1925. These meetings combined with visits paid by the Chief Commissioner and Members of Railway Board to the headquarters of Local Governments and Railway Administrations have made it possible to arrive at decisions more quickly on matters under consideration. During the year the headquarters of every Local Government and of all railway administrations have been visited either by the Chief Commissioner or a Member, and the total number of such visits paid was 31 to Local Governments and 47 to railway headquarters. Whenever a Member of the Board visits the headquarters of a Local Government that Government is informed beforehand and asked to bring up any matters which may be usefully discussed. The Governor of the Province is also informed and many opportunities have thus been given for both informal and formal discussions of railway matters. Further, visits of the Chief Commissioner and Members to Presidency towns and other important centres are notified to Chambers of Commerce and other public bodies and are advertised in the press. Besides these visits the Chief Commissioner and the Members have travelled on inspection over practically the whole of the main lines of the principal railways at different times in company with the Agents and principal officers of the railways and can claim to be in very much closer touch with the technical and other problems of the several railways than their predecessors had any opportunity of becoming.

In the course of these visits and tours, while the particular Member is able to deal with the problems put before him in a general way as representing the Board, very great advantage is found in practice in having each Member specially concerned with a particular aspect of railway working. For instance the Financial Commissioner deals specially with financial questions wherever they arise and from his knowledge of similar problems on other railways he can simplify discussions and assist in settling questions on a uniform basis. Similarly the Technical Member acquires knowledge

of the technical questions on all the railways, and can deal with current problems on a uniform basis knowing the Board's policy about standards and the co-ordination of equipment. The General Member who specialises in traffic working and personnel questions can similarly on his tours deal with such questions broadly, knowing the conditions on other railways and acting on the general policy of the Board in such matters.

Railways and the Legislature.

18. The interest shown in the previous year by the Council of State and the Legislative Assembly in the working of railways was continued during 1924-25 and of the total number of questions asked 1,237 or nearly 29 per cent. referred to railways. The majority of the questions dealt with grievances of railway employees, recruitment of staff on railways, Indianisation and stores indents and purchases.

19. The Resolution regarding the separation of Railway from General finance has already been dealt with, and the only other resolution which requires separate mention was one dealing with the grievances of railway employés. After an interesting debate lasting for two days, the resolution was carried against Government in an amended form. It recommended that the investigation should be made under the authority of the Central Advisory Council for Railways or by a sub-committee of the Council. A private Bill to amend the Indian Railways Act was also carried in the Assembly. The object of the Bill was to prohibit the reservation of compartments in railway trains for the exclusive use of persons belonging to any particular community, race or creed. The Bill was thrown out in the Council of State.

As a result of the passing of the Steel Industry Protection Bill, it is estimated that railway expenditure will be increased by approximately Rs. 33 lakhs per annum of which Rs. 20 lakhs will be a charge to the capital account and Rs. 13 lakhs to the revenue account.

Central Advisory Council.

20. During 1924-25 four meetings of the Central Advisory Council were held, two in the September session and two in the February-March session. At the meetings in the September session the following subjects were discussed :—

(1) North Western Railway contract for sleepers,
(2) Stores balances,
(3) Purchase of stores,
(4) Termination of the East Indian Railway Company's contract,
(5) Recruitment of Assistant Traffic Superintendents.

At the first meeting the reports submitted by the sub-committee appointed in March 1924, to examine the question of the North Western Railway contract for sleepers were considered and the Council made certain recommendations as to the future policy to be followed in dealing with sleeper contracts.

At the second meeting the Council approved of Government's proposals to clear off the balance outstanding to write down stores to the market value of to-day in one year. The general policy of the Government of India regarding the purchase of stores was explained by the Chairman and details were given of the action which the Railway Department had already taken on the new stores rules.

In regard to the determination of the contract of the East Indian Railway Company, the question of the re-engagement of the staff under the State was discussed and the reasons for the action taken by Government were explained.

A proposal was put forward that, until the permanent scheme of recruitment for Assistant Traffic Superintendents was brought into operation, future recruitment should be made by a Committee consisting of the Railway Board and representatives of the Central Advisory Council but it was pointed out that it was unlikely that any further recruitment would be made before the scheme was introduced. It was agreed, however, that the suggestion made would be considered.

21. At the meetings held in the February-March session the following subjects were discussed :—

(1) Railway School of Transportation at Chandausi,
(2) Financing Branch lines,
(3) Locomotive building in India,
(4) Sleeper question,
(5) Recruitment,
(6) Rates tribunal,
(7) Further tenders for the supply of wagons under bounty,
(8) English Stores Indents.

At the first meeting the work which it was proposed to carry out at the Railway School of Transportation at Chandausi was briefly explained. It was pointed out that it was considered essential that the very best possible instruction should be given at the school and economy in this matter was a purely secondary consideration as the essential object was to afford adequate training to employees in the lower ranks of the railway service to equip them for promotion to more responsible duties.

The reason for the change of policy concerning the financing of branch lines was explained to the Council and it was pointed out that the present arrangement for financing branch lines was most expensive and involved great waste of public money; by the nature of the agreements for working these lines, whereby the parent lines had in almost all cases to work these branch lines at from 45 to 50 per cent. of the gross earnings although the actual cost of working the parent lines was often 60 to 75 per cent., the profits of the branch lines were increased at the expense of the parent lines. The policy to be followed about District Board railways, the purchase of the existing branch lines and building of unremunerative lines under guarantee was explained and by a majority of 13 to 7 the new proposals for branch lines were carried.

The reasons for the decrease in the number of locomotives required in India were explained and it was stated that it was proposed to depute the Director of Mechanical Engineering with the Railway Board, who was shortly proceeding to England on leave, to study the question of locomotive manufacture in England and to verify the conclusions arrived at by the Tariff Board of the number of locomotives which it would be necessary to construct in this country in any one year to make the industry a success.

The future policy as regards the purchase of sleepers was explained to the Council who approved of a proposal to appoint a Forest Officer to assist railways in the purchase not only of sleepers but of all Indian timber required on railways.

At the second meeting the question of the future recruitment for Indian railways was discussed and the preliminary scheme put forward by the Railway Board was examined. It was decided that the proposed scheme should be further examined with a view to avoiding all discrimination in the methods of recruitment between Indian and English recruits, to providing for legitimate prospects of promotion from the local service and to deciding on the best age for recruits and their method of training.

The question of the rates tribunal was considered at length but no final decision was arrived at.

The action taken by the Board as regards the further supply of wagons under bounty and the arrangement made with the Chief Controller of Stores concerning English stores indents were explained.

Standing Finance Committee for Railways.

22. In accordance with the resolution passed by the Assembly, a Standing Finance Committee for Railways was constituted consisting of one nominated official member of the Legislative Assembly as Chairman (the Financial Commissioner of Railways) and 11 members elected by the Legislative Assembly from their body. This Committee met four times; on the 24th January and the 6th, 7th and 13th February 1925.

At the first meeting the Committee discussed the form of the budget and the number of separate demands for grants into which the vote for railway expenditure should be divided, and recommended that the total vote for Railways should be divided into fifteen different demands. This division was made for the purpose of securing that each separate demand should present an occasion for a well defined and clear cut discussion of one particular side of railway activities. The budget was prepared in accordance with the recommendations of the Committee. It was pointed out that, as explained in the original memorandum on the separation of the finances, while the division of the total vote into several grants restricted the powers of the Railway Board to make reappropriations from one demand to another, yet since railway estimates are merely the best forecast that can be made in advance of the operations of the railways during a particular year, the Railway Board would continue to sanction expenditure in excess of any individual grant subject to the liability of having to defend such action before the Standing Finance Committee for Railways and the Legislative Assembly; and the Standing Finance Committee approved of this procedure.

23. At the meeting on the 6th of February 1925 the Committee discussed the draft rules relating to the establishment of a depreciation fund and the revised rules governing the allocation of expenditure between capital and revenue. These are referred to in paragraphs 6 and 7 above. The Committee made several changes in the original draft rules, and the rules shown as Appendix D are in the form recommended by the Committee.

At the same meeting the Committee considered the programme for construction of new railways and discussed various questions of policy and the

methods to be adopted for estimating the cost and working out the financial results of such new constructions. They then dealt in detail with the individual items in the programme and approved generally of all the new projects. The consideration of the programme of open line capital expenditure and of the expenditure from the depreciation fund was taken up at the same meeting but the discussion was not completed and was postponed to the following day when the Committee finally approved of the programme put up by the Railway Board.

At the meeting on the 13th February the Committee dealt with the individual demands. These were generally agreed to, but the Committee asked that certain questions of principle raised during the discussion should be considered at future meetings of the Committee.

Budget debate in the Assembly and Council of State.

24. One of the main advantages which may be claimed for the separation of railway from general finance lies in the new budget procedure which it has rendered possible. Formerly, the Railway budget was only a part of the general budget, and the Railway demands for grants merely occupied a part of the six days set aside for the discussion of all the demands of the various Departments of the Government of India. As the result of separation, a new procedure was inaugurated in the year with which this report deals. The Railway budget was introduced on 20th February, in advance of the general budget, by the Railway Member in the Legislative Assembly and by the Chief Commissioner in the Council of State. In both Houses a separate day was set aside for the general discussion of the budget, and in the Assembly four days were allotted for the discussion of the Railway demands for grants. The budget, moreover, was not merely a departmental compilation. The contribution to general revenues being fixed, there was no longer the same necessity for keeping the Railway Budget secret, and before being presented to the Legislature, it was discussed in detail with the Standing Finance Committee for Railways. The new procedure imposes a considerable strain on those charged with the duty of defending the estimates, but there can be no doubt as to the value of the reform. It resulted in almost every branch of the Railway Administration being brought under the scrutiny of the Assembly, and numerous questions of policy were brought up for discussion by the expedient of motions for nominal reductions. In the demands upwards of 25 motions for reduction were moved, the most important being a motion to omit the whole demand for the Railway Board. This motion was defeated. Other subjects discussed were the strength of the Railway Board and of its establishment, the Indianisation of the Railway Board, the appointment of a Rates Tribunal, the reduction of third class railway fares, new Branch Line policy, the reduction of coal freights, the attitude of the Railway Board in regard to the grievances of the general public, the duties of Government Inspectors, railway accidents, level crossings, the separation of Audit from Accounts, the recommendations of the Inchcape Committee and the Lee Commission, the Indianisation of higher Railway Services, the London Boards' establishments, the arrangements for third class passenger traffic and the attitude of the Railway Administrations towards Railway Unions. Most of these motions were withdrawn, but in a few cases they were carried against Government. The most important

cuts made were one of Rs. 77,000 in the demand for the Railway Board and its establishment, one of Rs. 10 lakhs in the provision for coaching stock in order to emphasise the need for more lower class carriages and another of Rs. 10 lakhs in the provision for staff quarters.

CHAPTER II.

FINANCIAL RESULTS OF THE YEAR'S WORKING.

25. The principal results of the working of railways are summarised in the table below :—

		Class I Railways.	Other Railways.	Total of all Railways.
(*i*) Total route mileage open for traffic.	1923-24	34,762	3,277	38,039
	1924-25	34,425	3,845	38,270
(*ii*) Number of passengers originating.	1923-24	537,048,000	30,274,800	567,322,800
	1924-25	543,982,100	32,482,100	576,464,200
(*iii*) Number of passenger miles.	1923-24	18,687,862,000	778,017,000	19,465,879,000
	1924-25	19,102,445,000	807,905,000	19,910,350,000
(*iv*) Tons originating . .	1923-24	69,885,000	2,930,000	72,815,000
	1924-25	74,628,000	3,168,000	77,796,000
(*v*) Number of ton miles .	1923-24	18,638,313,000	189,560,000	18,827,873,000
	1924-25	21,063,684,000	205,007,000	21,268,691,000

Trade review.

26. The monsoon of 1924 came late especially in north-west India but gave fairly well distributed rain over most of the country. The winter rains were unusually heavy in the United Provinces, Punjab and Rajputana, and taking the year as a whole, the rainfall was normal or in excess over the plains of India the largest deficit occurring in Orissa and Hyderabad north and amounting to about 15 per cent.

In spite of a small decrease in the outturn of wheat and winter oilseeds crops during 1924-25 the exports of wheat during the year increased from 638,000 tons to 1,112,000 tons while the export of oilseeds increased by 70,000 tons. The total production of rice was 10 per cent. higher than that of the preceding year. The outturn of the jute crop was 5 per cent. less than in 1923-24 although the exports of raw jute increased by 36,000 tons and those of jute manufactures including yarn by 65,000 tons. The yield of the cotton crop was higher by 17 per cent. but the exports of raw cotton showed a fall of 33,000 tons while cotton yarn and manufacture showed a small improvement. Sugar yielded 23 per cent. less than in 1923-24.

Imports of private merchandise showed an increase of Rs. 19 crores or 8 per cent., the largest increase being in cotton yarn and manufactures (Rs. 14·84 crores), sugar (Rs. 5·45 crores), cotton raw, woollen goods, provisions and oilman stores, oils and iron and steel. These increases were partly set off by heavy decreases under machinery of all kinds (Rs. 4·34 crores) and railway plant and rolling stock (Rs. 5·65 crores). The visible balance of trade as measured by the statistics of merchandise and treasure only was Rs. 61 crores in favour of India as compared with Rs. 96 crores a year ago. The year was, therefore, a favourable one for trade generally and

this is reflected in the fact that the total earnings of all railways increased by the phenomenal figure of nearly 7 crores, *viz.*, from Rs. 107·80 crores to Rs. 114·75 crores.

Financial results of working.

27. This figure of Rs. 114·75 crores, however, includes railways owned by Indian States and Companies for which the Government of India has no direct financial responsibility. The figures of receipts and expenditure for railways with which the Central Government are directly concerned are as follows :—

	(Omitting 000.) 1923-24. Rs.	1924-25. Rs.
Traffic receipts from Government railways	94,65,52	1,01,04,56
Interest on Depreciation and Reserve Fund balances	...	21,22
Government share of surplus profits from Subsidized Companies' railways	23,64	30,16
TOTAL	94,89,16	1,01,55,94
Working expenses including depreciation	61,05,28	62,90,78
Surplus profits paid to Companies	1,14,46	1,42,28
Interest on Government debt	22,43,61	21,27,30
Sinking Fund	47,75	...
Interest on capital contributed by Companies	3,09,95	2,67,17
Land and subsidy to Companies	5,40	3,09
Miscellaneous	15,40	13,22
TOTAL CHARGES	88,41,85	88,43,84
Net gain	6,47,31	13,12,10
Contribution from Railway to General revenues	...	6,76,97
Railway reserve	...	6,35,13

28. After meeting all interest charges, Government therefore received a net profit of Rs. 13·12 crores as against a profit of Rs. 6·47 crores in 1923-24. On the Capital at charge of the State lines, the net receipts, that is, the gross receipts *minus* the working expenses, have in recent years given the following return :—

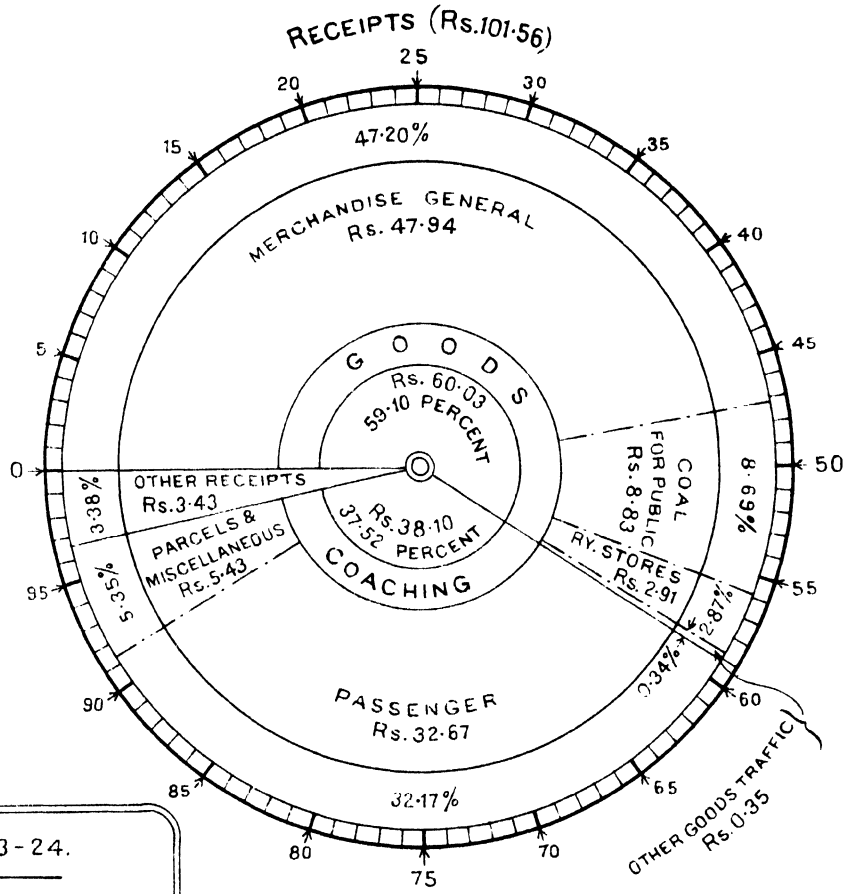
	Per cent.
1913-14	5·01
1921-22	2·64
1922-23	4·38
1923-24	5·24
1924-25	5·85

29. The contribution from the railway to the general revenues is shown in the preceding paragraph at Rs. 6,76,97. This figure is arrived at in the following manner :—

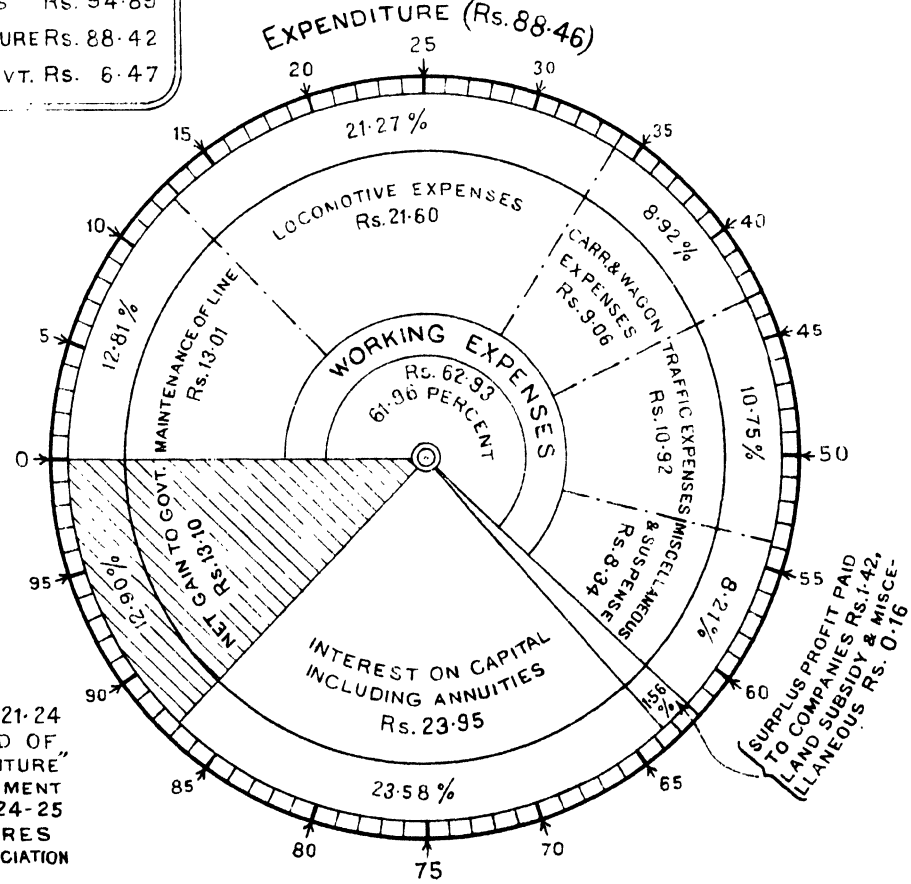
Under the convention accepted by the Legislative Assembly the railway revenues have to meet the interest charges on all capital sunk in the commercial lines, and in addition have to pay a contribution of 1 per cent. on the capital at charge plus one-fifth of the surplus profits of the penultimate year. But for the first year the contribution is paid on the results of the year 1923-24. One per cent. on the capital at charge in the year 1923-24 amounted to Rs. 5,40,42. The surplus profits of the year 1923-24 after allowing for the 1 per cent. contribution amounted to Rs. 4,50,13 and one-fifth of this amount is Rs. 90,03. The total contribution is therefore Rs. 6,30,45. In addition to these payments the railway revenues have to pay to the central exchequer one-third of the excess over 3 crores of any surplus remaining to the railways after making this payment, and this amounted to

RAILWAY RECEIPTS AND EXPENDITURE ON STATE OWNED LINES IN INDIA IN 1924-25.

FIGURES IN CRORES.



IN 1923-24.	
TOTAL RECEIPTS	Rs. 94·89
TOTAL EXPENDITURE	Rs. 88·42
NET GAIN TO GOVT.	Rs. 6·47



NOTE

THE DIFFERENCE OF Rs. 21·24 LAKHS IN "RECEIPTS" AND OF Rs.13·13 LAKHS IN "EXPENDITURE" AS COMPARED WITH STATEMENT No. 4 OF VOLUME II FOR 1924-25 IS DUE TO REVISED FIGURES FOR INTEREST AND DEPRECIATION CHARGES.

Rs. 1,67,56, so that the total payment made in the year under report to general revenues from the profit of commercial lines amounted to Rs. 7,98,01. The figure of Rs. 6,76,97 is the net figure after allowing for the losses on strategic lines.

This, however, does not represent the payment that will have to be made ultimately to the State in connection with the profits for the year 1924-25. The capital of the State invested in commercial lines at the end of the year under report amounted to approximately 577 crores, and the 1 per cent. contribution on this will amount to 5·77 crores. The total gain after payment of interest charges on commercial lines in the year under report amounted to Rs. 14·70 crores, leaving a balance after payment of the 1 per cent. contribution of 8·93 crores. The State has to receive one-fifth of this, or 1·79 crores, the total contribution thus amounting to 7·56 crores. In addition to this there will have to be paid one-third of any surplus over 3 crores that will remain available after paying this contribution from the revenues of the year 1926-27. If the net revenues of 1926-27 at all approximate to the figures of 1924-25, the actual contribution from the commercial lines in respect of profits of the year under report will be approximately 8·94 crores.

30. In comparing the figures of 1924-25 with those of the previous year, the effect of two important changes in procedure which were given effect to from the 1st April 1924 must not be overlooked. One of the changes is the inclusion in the account of working expenses of the full depreciation of the year and not only the actual expenditure on renewals and replacements as in the past. The table below compares, by individual railways, the charges to the working expenses account during 1924-25 for depreciation with the actual expenditure on renewals and replacements in 1923-24 and 1924-25.

(Figures in thousands of rupees.)

Railways.	Amount spent on renewals and replacements in 1923-24.	Debit to working expenses on account of depreciation in (1924-25).	Amount spent on renewals and replacements in 1924-25.	Larger debit to working expenses in 1924-25 under new system.	Increased charge to working expenses in 1924-25 as compared with actuals of 1923-24.
State lines worked by State.					
North Western	1,60,88	2,11,97	1,25,87	86,10	51,09
Oudh and Rohilkhand	52,26	45,36	45,03	33	—6,90
Eastern Bengal	43,39	73,27	50,78	22,49	29,88
East Indian	1,27,73	1,55,18	1,38,57	16,61	27,45
State lines worked by Companies.					
Bengal Nagpur	35,61	1,02,70	41,26	61,44	67,09
Bombay, Baroda and Central India	74,60	1,07,04	70,28	36,76	32,44
Burma	38,03	41,67	32,90	8,77	3,64
Great Indian Peninsula	93,77	1,35,58	92,39	43,19	41,81
Madras and Southern Mahratta	56,91	71,08	69,48	1,60	14,17
South Indian	34,11	46,56	17,13	29,43	12,45
Other Railways	26,58	44,59	45,32	—73	18,01
TOTAL	7,43,87	10,35,00	7,29,01	3,05,99	2,91,13

It will be seen that the new procedure, which is designed to secure that the revenue account of each year includes a full and proper charge representing the equivalent of the depreciation in the property that has occurred during the year in place of the actual expenditure of the year on renewals and replacements, resulted in an additional charge to revenue of 3·06 crores.

The other important change, which has also been given effect to as a part of the arrangements for the separation of the railway from the general finances, is the relief to the railway revenue account of that portion of the annuity and sinking fund payments, forming part of the purchase price of acquired railways, which relates to the repayment of capital. The amount involved is Rs. 2·40 crores.

But before a final comparison is made of the results of the two years, it is necessary to refer to a special credit which the Railway received during the year 1924-25 from General Revenues. Prior to 1920, Railway Companies which worked State-owned railways were paying customs duty on stores imported by them for the working of the railways. In May 1920, the Great Indian Peninsula Railway raised the question that stores imported by the Company for use on the railway or otherwise for the purpose of the undertaking were "goods belonging to Government" and as such should be exempted from payment of customs duties under the proviso to Section 20 of the Sea Customs Act, 1878. The Government of India disputed this contention, and it was agreed mutually in 1922 that a case should be stated for the decision of the Bombay High Court under Order XXXVI of the Civil Procedure Code. Meanwhile other guaranteed Railway Companies similarly moved the Government of India and the Secretary of State for the exemption from payment of customs duty on stores imported by them for use on their undertakings, and it was accordingly arranged that the decision reached on the Great Indian Peninsula Railway case should be held to govern the cases of other Companies managing State-owned lines. In April 1923, the Bombay High Court gave a decision in favour of the Great Indian Peninsula Railway and on an appeal being taken to the Privy Council by the Secretary of State against this decision, the Privy Council in December 1924, upheld the decision of the Bombay High Court. As a consequence of this decision, various Railway Companies working State-owned Railways became entitled to a refund of the Customs duty paid by them from various dates and they have accordingly been paid the following amounts and these payments have been adjusted in the accounts of the Companies concerned during 1924-25 :—

——	Capital.			Revenue.			Total.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Assam Bengal Railway .	3,98,076	0	0	31,763	0	0	4,29,839	0	0
Bombay, Baroda and Central India Railway.	10,24,681	8	0	31,34,772	15	0	41,59,454	7	0
Bengal Nagpur Railway .	28,77,363	0	0	4,47,614	0	0	33,24,977	0	0
East Indian Railway .	25,02,179	0	0	21,01,614	3	0	46,03,793	3	0
Great Indian Peninsula Railway.	10,03,732	2	0	56,08,879	15	0	66,12,612	1	0
Madras and Southern Mahratta Railway.	3,66,267	0	0	14,41,829	0	0	18,08,096	0	0
South Indian Railway .	8,12,128	0	0	13,29,769	0	0	21,41,897	0	0
	89,84,426	10	0	1,40,96,242	1	0	2,30,80,668	11	0

Certain refunds have been left over for adjustment in 1925-26 as it was not possible to verify the details of the claim before the accounts for 1924-25 were closed. The amount involved is about 5½ lakhs.

While the true commercial gain from the railways during the year under report, amounted to Rs. 13,12 lakhs reduced by Rs. 141 lakhs (being the adventitious gain due to the refund on account of customs duty paid in previous years) or Rs. 11,71 lakhs, in order to bring out a true comparison of the figures for 1923-24 and 1924-25 it is necessary to eliminate the disturbing elements due to the changes in the accounting system referred to above and to re-write the table in paragraph 27 of this report by making allowance for the change in the system. The working expenses for 1924-25 (Rs. 62·91 crores) should be reduced by Rs. 2·51 crores (*i.e.*, Rs. 2·91 crores, the amount by which the depreciation charges for the year exceeded the actual revenue outlay on renewals and replacements of the previous year, less Rs. 40 lakhs, being the estimated transfer of charges from Revenue to Capital on account of the alteration of the rules for allocation of expenditure) and increased by 1·41 crores (the refund of customs duty) and should, thus, for purposes of comparison be shown as Rs. 61·81 crores. Similarly the expenditure on account of interest and other payments in the year 1923-24 (Rs. 26·22 crores) should be reduced by Rs. 2·40 crores, being the portion of the annuity and sinking funds representing the repayment of capital and should stand at Rs. 23·82 crores. The resultant figures are shown in the following table :—

[Figures in lakhs.]

—	1923-24.	1924-25.	Increase.
	Rs.	Rs.	
Total receipts	94,89	1,01,56	6,67
Deduct—			
(*a*) Working Expenses . . .	61,05	61,81	76
(*b*) Surplus profits	1,15	1,42	27
(*c*) Interest and other payments . .	23,82	24,11	29
Total charges	86,02	87,34	1,32
Net gain	8,87	14,22	5,35

31. The net result of the year's working, therefore, was better than that of the previous year by Rs. 5,35 which is chiefly due to the very large increase of Rs. 6,67 in gross earnings of the railways as compared with an increase of only Rs. 76 lakhs in working expenses. While the above table gives a correct comparison of the net results of the years in question for the railways as a whole, the change in the accounting system and the adventitious reduction of working expenses owing to the refunds of customs duty affected individual railway systems in very different degrees. An analysis of the financial results of the year of individual railways is given in the statement below :—

Financial results of the working of Railways owned by the State.

(Figures in Thousands of Rupees.)

Railways.	Year.	Capital at charge.	Deduct amount of capital contributed by Companies and Indian States.	Net Government Capital at charge.	Receipts.	Working Expenses including Depreciation.	Net Receipts.	Percentage of Net Receipts on Capital at charge.	Charges against Net Revenue Receipts.		Gain.	Loss.	Interest charges included in Col. 11 but excluding Sinking Fund and Annuity charges involved in redemption of Capital.	Resultant.	
									Payment on account of share of Surplus Profits.	Interest, Annuity and Sinking Fund charges.				Gain.	Loss.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
State Lines worked by State.															
North Western	1922-23	1,08,48,80	...	1,08,48,80	14.50,50	12.29,32	2,21,18	2·0	...	4,32,12	...	2,10,94	4,01,18	...	1,80,00
	1923-24	1,10,84,37	...	1,10,84.37	15,18,11	11,00,99	4,17,12	3·8	...	4,46,21	..	29,09	4.15,06	2,06	...
	1924-25	1,12,67,76	...	1,12,67,76	16,99,22	11,48,21	5,51,01	4·9	...	4,22,90	1,28,11	...	4,22,90	1,28,11	...
Oudh and Rohilkhand	1922-23	30,50 07	...	30,50,07	3,84.93	2,61,65	1,23,28	4·0	...	1,03,41	19,87	...	1,03,41	19,87	...
	1923-24	31,41,87	...	31,41.87	3,63,06	2,37,50	1,25,56	4·0	...	1,06,36	19,20	...	1.06,36	19,20	...
	1924-25	32,39,70	...	32,39,70	3,68,30	2.72,30	96,00	2·9	...	1,07,25	...	11,25	1,07,25	...	11,25
Eastern Bengal	1922-23	42,76,42	...	42,76.42	5,24,51	4,40,77	83,74	2·0	...	1,58,84	...	75,10	1,52,04	...	68,30
	1923-24	43,43,71	...	43,43,71	5,34,7[illegible]	3,95,74	1,39,04	3·2	...	1,62,26	...	23,22	1,55,56	...	16,52
	1924-25	43,64,68	...	43,64,68	5,99,16	4,28,71	1,72,45	3·9	...	1,56,07	16,38	...	1,56,07	16,38	...
East Indian	1922-23	94,28,78	27,66,99	66,61,79	15,55,59	10,01,22	5,54,37	5·8	3,53	4,53,24	97,60	...	3,78,12	1,72,72	...
	1923-24	97,27,06	27,66,99	69,60,07	16,23,67	9,98,40	6,25,27	6·4	7,41	4,57,61	1,60,25	...	3,82,48	2,35,38	...
	1924-25	98,97.78	...	98,97,78	17,22,27	10,30,54	6,91,73	7·0	10,05	3,80,75	3,00,93	...	3,80,75	3,00,93	...

State Lines worked by Companies.																
Bengal Nagpur	1922-23	57,16,31	14,18,99	42,97,22	7,70,71	4,43,17	3,27,54	5·7	—3	2,42,90	84,67	...	2,42,90	84,67	...
	1923-24	60,51,98	13,45,21	47,06,77	7,70,94	5,11,28	2,59,66	4·3	5,72	2,60,28	...	6,34	2,60,28	...	6,34
	1924-25	63,83,54	13,16,87	50,66,67	8,39,15	5,77,16	2,61,99	4·1	4,76	2,69,00	...	11,77	2,69,00	...	11,77
Bombay, Baroda and Central India.	1922-23	61,65,39	2,49,00	59,16,39	11,75,19	8,24,17	3,51,02	5·6	10,46	2,10,01	1,30,55	...	2,10,01	1,30,55	...
	1923-24	63,31,71	2,49,00	60,82,71	11,95,42	7,14,87	4,80,85	7·5	13,61	2,20,69	2,46,55	..	2,20,69	2,46,55	...
	1924-25	65,29,72	2,49,00	62,80,72	12,39,54	7,07,61	5,31,93	8·0	14,65	2,25,17	2,92,11	...	2,25,17	2,92,11	...
Burma	1922-23	23,46,72	6,69,67	16,77,05	4,06,98	2,43,96	1,63,02	6·9	17,39	74,46	71,17	...	74,46	71,17	...
	1923-24	26,03,69	6,69,67	19,34,02	4,11,38	2,52,26	1,59,12	6·1	34,24	83,67	41,21	...	83,67	41,21	...
	1924-25	27,09,44	6,69,67	20,39,77	4,29,89	2,62,30	1,67,59	6·4	32,97	92,41	42,21	...	92,41	42,21	...
Great Indian Peninsula	1922-23	99,27,34	4,87,97	94,39,37	14,82,10	11,11,08	3,71,02	3·7	...	4,25,04	...	54,02	3,34,62	36,40	...
	1923-24	1,00,40,27	4,87,97	95,52,30	14,51,05	9,60,03	4,91,02	4·9	...	4,25,82	65,20	...	3,36,11	1,54,61	...
	1924-25	1,01,40,79	4,87,97	96,52,82	15,29,68	9,55,09	5,74,68	5·6	4,46	3,32,24	2,37,98	...	3,32,24	2,37,98	...
Madras & Southern Mahratta	1922-23	48,63,53	11,52,59	37,10,94	7,30,03	4,75,26	2,54,77	5·2	30,79	2,18,56	5,42	...	1,95,45	28,53	...
	1923-24	49,25,75	11,23,43	38,02,32	7,39,55	4,34,21	3,05,34	6·2	46,25	2,16,43	42,66	...	1,93,83	65,26	...
	1924-25	49,99,18	11,23,43	38,75,75	7,92,89	4,36,58	3,56,31	7·0	60,86	1,86,84	1,08,61	...	1,86,84	1,08,61	...
South Indian	1922-23	24,38,61	4,83,36	19,55,25	5,10,29	3,59,09	1,51,20	6·2	2,76	93,29	55,15	...	93,29	55,15	...
	1923-24	25,22,49	4,83,36	20,39,13	5,27,06	3,04,75	2,22,31	8·8	2,92	96,22	1,23,17	..	96,22	1,23,17	...
	1924-25	25,86,59	4,48,39	21,38,20	5,14,78	3,12,00	2,02,78	7·7	9,60	96,54	96,64	...	96,54	96,64	...
Other Railways	1922-23	31,58,40	3,65,89	27,92,51	3,31,31	2,06,47	1,24,84	3·9	4,50	1,18,69	1,65	...	1,18,69	1,65	...
	1923-24	32,99,24	3,65,89	29,33,35	3,30,50	1,95,55	1,34,95	4·1	4,31	1,25,76	4,88	...	1,25,76	4,88	...
	1924-25	33,82,05	4,39,90	29,42,15	3,69,68	1,62,37	2,07,31	6·1	4,93	1,25,30	77,08	...	1,25,30	77,08	...
Net of Miscellaneous Receipts and Charges not attributable to any one Railway.	1922-23	...	...	...	...		...	...	..	...	...	4,02	...	...	4,02
	1923-24	...	...	...	...	...	...	...	...	...	2,84		...	2,84	...
	1924-25	...	...	...	...	...	...	...	...	...	13,85	...	...	13,85	...
Interest on Depreciation and Reserve Fund balances.	1924-25	...	...	...	21,22	...	21,22	...	...	...	21,22	...	...	21,22	...

Financial results of the working of Railways owned by the State—concluded.

(Figures in Thousands of Rupees).

Railways.	Year.	Capital at charge.	Deduct amount of capital contributed by Companies and Indian States.	Net Government Capital at charge.	Receipts.	Working Expenses including Depreciation.	Net Receipts.	Percentage of Net Receipts on Capital at charge.	Charges against Net Revenue Receipts.		Gain.	Loss.	Interest charges included in col. 11 but excluding Sinking Fund and Annuity charges involved in redemption of Capital.	Resultant.	
									Payment on account of share of Surplus Profits.	Interest, Annuity and Sinking Fund charges.				Gain.	Loss.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Total (Central)	1922-23	6,22,20,27	75,94,46	5,46,25,81	93,22,14	65,96,16	27,25,98	4·4	69,40	25,30,56	1.22.00	...	23,04,17	3,48,39	...
	1923-24	6,40,72,14	74,91,52	5,65,80,62	94.65,52	61,05,28	33,60,24	5·2	1.14,46	26,01,31	6,47.31	...	23,76.32	8,72,30	...
	1924-25	6,55,01,23	47,35,23	6,07,66,00	1,01,25.78	62.90.78	38.35.00	5·8	1,42,28	23,94,47	13,12,10	...	23,94,47	13,12,10	..
Provincial Railways	1922-23	1,28,76	...	1,28,76	2.33	2,17	16	0·1	..	5,18	...	5,02	5.18	...	5,02
	1923-24	19,32	...	19,32	4,03	3,29	74	3·8	...	3.95	...	3,21	3.95	...	3,21
	1924-25	19,90		19,90	2,59	2,66	—7	0·7	...	84	...	91	84	...	91
Grand Total (Central and Provincial).	1922-23	6,23,49.03	75.94,46	5.47,54.57	93.24.47	65,98,33	27.26,14	4·4	69.40	25,35.74	1,16.98	...	23,09,35	3.43,37	..
	1923-24	6.40,91.46	74,91.52	5,65.99.94	94,69,55	61,08,57	33,60,98	5·2	1,14,46	26,05,26	6.44,10	...	23.80,27	8,69,09	...
	1924-25	6.55,21,13	47,35,23	6,07,85,90	1,01,28,37	62,93.44	38,34,93	5·8	1,42,28	23,95.31	13,11,19	...	23,95,31	13,11,19	...
North Western (Commercial Lines).	1922-23	83,16,30	...	83,16,30	12,95,24	10,06.98	2,88.26	3·5	...	3,36,83	..	48,57	3,05.89	...	17,63
	1923-24	84,61,79	...	84,61,79	13,46,96	9,13,78	4,33.18	5·1	...	3,43,83	89,35	...	3,12,68	1,20,50	...
	1924-25	82,28,05	...	82,28,00	15,39,35	9,52,44	5,86,91	7·1	...	3,00,13	2,86,78	...	3,00,13	2,86,78	...
Non-Commercial (Strategic Lines).	1922-23	25,32,50	...	25,32,50	1,55,26	2,22,34	—67,08	—2·6	..	95,29	...	1,62,37	95,29	...	1,62,37
	1923-24	26,22,58	...	26,22,58	1,71,15	1,87,21	—16,06	—0·6	...	1,02,38	...	1,18,44	1,02.38	...	1,18,44
	1924-25	30.39,71	...	30.39,71	1,59,87	1.95,77	—35,90	—1·2	...	1,22,77	...	1,58,67	1,22,77	...	1.58,67

32. It will be observed that there was a very substantial improvement in net earnings upon every railway system with the exception of the Oudh and Rohilkhand, Bengal Nagpur, and the South Indian Railways. The unfavourable results on the Oudh and Rohilkhand Railway were almost entirely due to the abnormal expenditure on repairs owing to flood damages and the serious loss of earnings from interruptions to the traffic occasioned by the floods which are described in the last chapter of this report. Approximately 25 lakhs were spent during the year on making good the damage by floods, and the loss of earnings due to the same cause is estimated at approximately the same figure.

The increase in the loss on the working of the Bengal Nagpur Railway of some 5½ lakhs is entirely due to the charging against the revenue of the year of the depreciation instead of the actual expenditure on renewals and replacements. The contribution to the depreciation fund exceeded the expenditure on renewals and replacements by 67 lakhs and while there was an abnormal reduction in working expenses of 4½ lakhs owing to refund of customs duty, there was actually a net improvement in the receipts of the line of about 57 lakhs.

On the South Indian Railway gross earnings decreased by about 12 lakhs almost entirely in passenger traffic, and while the working expenses show an increase of 7 lakhs, it will be seen that there was actually an improvement in the working of the line as the debit to the depreciation fund was 29 lakhs higher than the amount actually spent on renewals and replacements.

33. *Passenger earnings.*—Of the total earnings of Rs. 114·75 crores, Rs. 38·76 crores or 33·78 per cent. were from passenger traffic and Rs. 66·83 crores or 58·24 per cent. from goods traffic. The earnings from passengers carried increased from Rs. 38·09 crores to Rs. 38·76 crores or 1·76 per cent. **Analysis of earnings.**

The following table shows the numbers of and the earnings from passengers carried separately for each class for the four years previous to the war and for the last four years.

Two sets of figures are given for 1923-24 and 1924-25; one gives the number of passengers and earnings as shown in the previous years and the other includes under each class the number of and earnings from season and vendors' traffic.

Graphs are also inserted in the report showing the progressive increases in the numbers of passengers carried and of passenger miles by classes from the year 1900 onwards.

Indian Railways.

Year.	Number of passengers carried (in thousands)					Earnings from passengers (in thousands of rupees).				
	1st class.	2nd class.	Inter.	3rd class.	'Season' and Vendor's tickets.	1st class.	2nd class.	Inter.	3rd class.	'Season and Vendor's tickets.
						Rs.	Rs.	Rs.	Rs.	Rs.
1910 . .	778	2,962	11,033	332,462	24,341	58,82	77,23	94,99	14,65,16	15,85
1911 . .	799	3,135	11,762	348,479	25,687	66,38	83,88	1,08,88	15,73,15	16,85
1912 . .	796	3,223	10,883	375,567	26,810	62,90	83,31	91,87	17,01,35	17,55

Year.	Number of passengers carried (in thousands).					Earnings from passengers (in thousands of rupees).				
	1st class.	2nd class.	Inter.	3rd Class.	Season and Vendor's tickets.	1st class.	2nd class.	Inter.	3rd Class.	Season and Vendor's tickets.
						Rs.	Rs.	Rs.	Rs.	Rs.
1913-14 .	812	3,461	12,371	419,960	30,114	68,94	88,70	1,03,48	18,37,03	19,36
1920-21 .	1,148	7,129	11,750	490,280	48,939	1,20,48	2,26,49	1,91,19	28,91,25	37,24
1921-22 .	1,125	6,404	9,264	500,515	52,376	1,38,47	2,28,87	1,45,11	28,75,29	41,58
1922-23* .	917	5,133	8,129	502,776	55,665	1,39,72	2,11,77	1,38,80	32,20,85	48,58
1923-24* .	817	4,538	8,095	512,974	58,084	1,29,80	1,95,99	1,37,88	32,91,78	51,70
1924-25 .	756	4,383	8,438	524,182	54,592	1,21,62	1,85,51	1,44,48	33,73,71	50,07
1923-24 .	1,369	10,080	12,044	572,184	†	1,31,17	2,02,73	1,41,10	33,32,82	†
1924-25 .	1,246	10,301	12,617	581,804	†	1,22,93	1,92,00	1,48,01	34,12,45	†

* Excludes the Mayurbhanj and Parlakimedi Light Railways for which detailed information is not available.
† Included under the different classes at the rate of 50 single journeys per month.

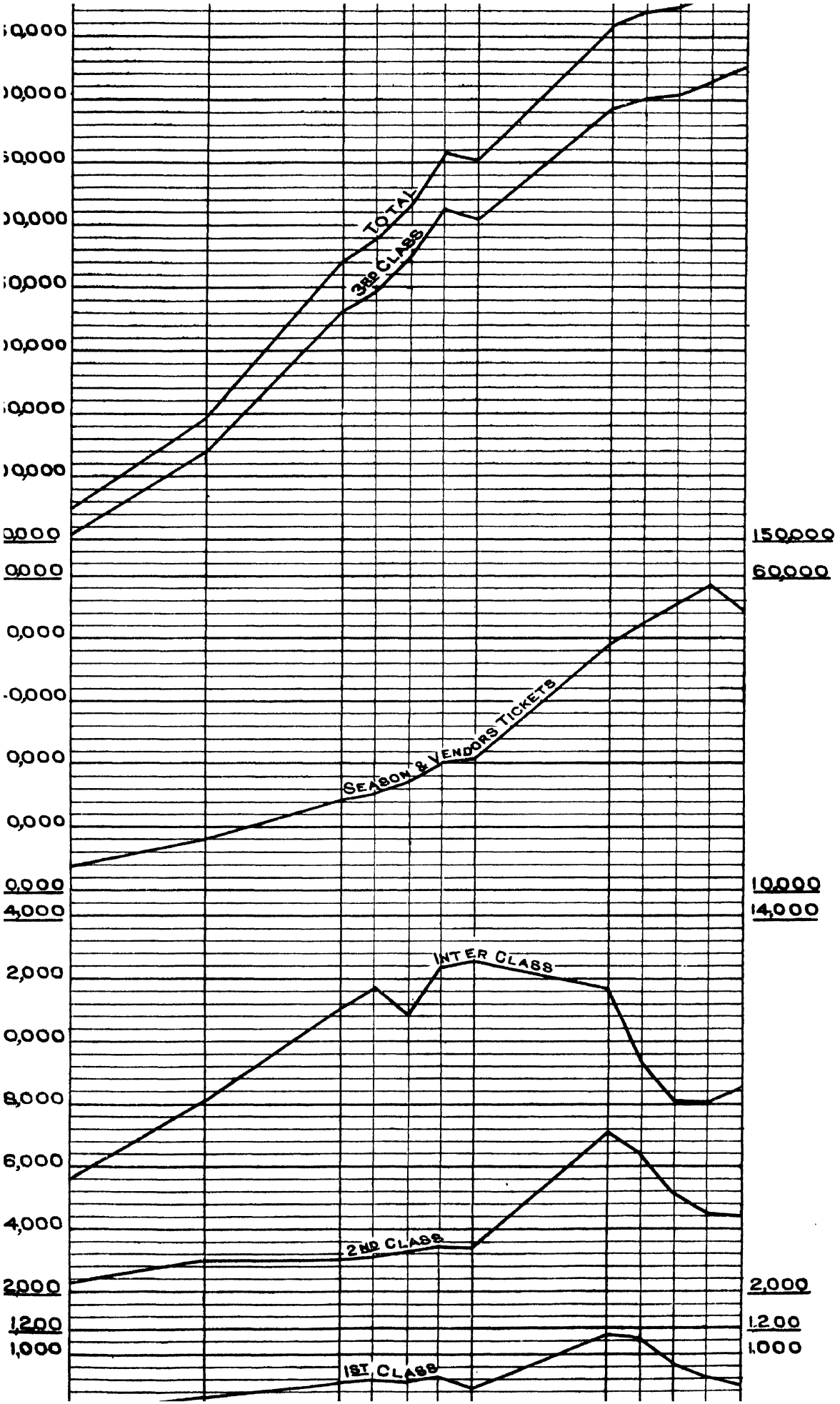
34. The numbers of, and earnings from, first and second class passengers carried still continue to decrease but the numbers of and earnings from inter class passengers show increases for the first time for some years. Third class passenger traffic continues to show increases.

35. Steps are being taken on the majority of railways to increase the number of, and earnings from, first class passengers carried by reducing fares and by introducing concessions, but the results obtained so far have not been satisfactory. During the year the East Indian Railway reduced their first class fares from 30 pies per mile to 24 pies per mile and their second class fares from 15 pies per mile to 12 pies per mile from the 1st of April 1924 and the Bombay, Baroda and Central India, Great Indian Peninsula and Madras and Southern Mahratta Railways made similar reductions from the 1st of October 1924. Other Railways have reintroduced the issue of return tickets at reduced fares or of concession tickets for periods of the year when the public are likely to travel.

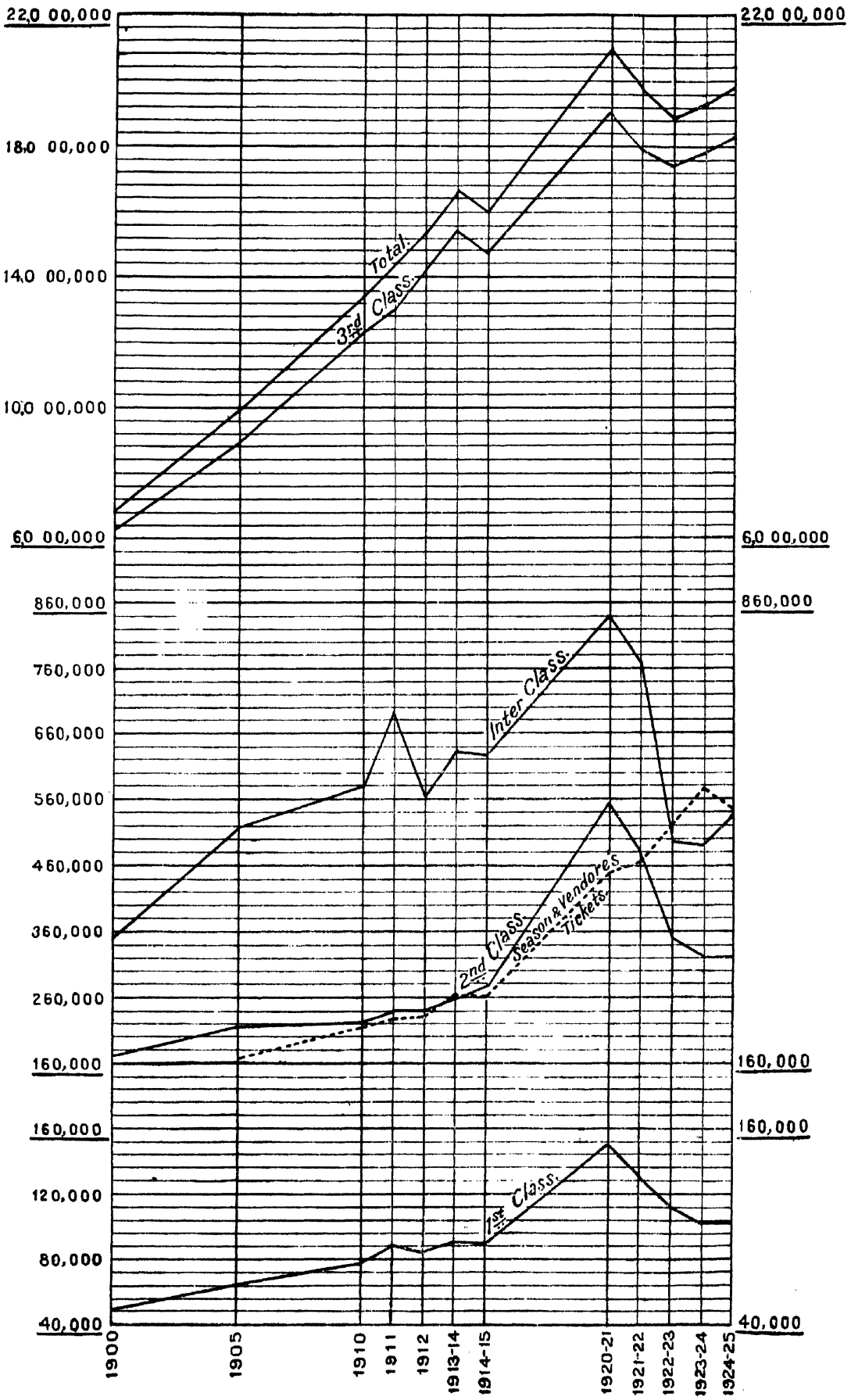
Concessions have also been given on some of the more important railways for inter class passengers while inter class fares were reduced on the Bombay, Baroda and Central India Railway during the year. The reductions on the Madras and Southern Mahratta Railway in March 1924 had the desired effect of increasing the numbers of and earnings from inter class passenger traffic and the steps taken as a whole on railways have increased the numbers of and earnings from inter class passenger traffic.

Third class passenger traffic continues to show increases both in numbers and earnings but railways are carefully watching this traffic and wherever necessary are introducing concessions or reduced fares.

36. In 1923-24 the number of passengers found travelling without tickets amounted to $2\frac{3}{4}$ millions and on every railway action has been taken to avoid the serious loss of revenue that these figures indicate. As an illustration of the results obtained by the employment of special staff it may be mentioned that on the Assam Bengal Railway a special ticket examining staff costing Rs. 20,000 was employed during the year, and collected fares and


TOTAL
3RD CLASS
SEASON & VENDORS TICKETS
INTER CLASS
2ND CLASS
1ST CLASS
150,000
60,000
10,000
14,000
2,000
1.200
1,000

PASSENGER MILES
(IN THOUSANDS)
INDIAN RAILWAYS.



penalties amounting to Rs. 23,250 during the year, and detected 14,538 cases of irregular travelling and booking of luggage. Steps are being taken upon this railway to increase the staff on the Noakhali branch where, as a result of the examiners being kept for a complete month, the number of passengers booked increased by 10,000 per mensem. It has been ascertained that in the year under report 2½ million passengers were found travelling without tickets and it will probably be necessary to again refer to the Central Advisory Council, on the statistics available for the year 1924-25, the question as to whether an amendment to the law is not required in order to stop the heavy leakage of railway revenue from this source.

37. *Goods earnings.*—The following statement shows by commodities the number of tons of freight originating on Class I Railways and the earnings from freight carried during the last two years :—

Commodity.	1923-24.		1924-25.	
	Tons originating on Home Line in millions.	Rs. in crores.	Tons originating on Home Line in millions.	Rs. in crores.
(1) Coal and Coke	14·67	8·22	16·39	9·17
(2) Railway Stores	21·97	3·23	27·05	3·72
(3) Wheat	1·76	2·75	2·55	4·08
(4) Rice in the husk and rice not in the husk.	3·98	3·85	4·42	4·35
(5) Grain and Pulse, Jowar and Bajra and other grains and pulses.	3·54	5·48	3·99	6·06
(6) Marble and Stone	2·16	0·78	2·65	0·77
(7) Metallic ores	2·02	1·05	2·32	1·12
(8) Salt	1·12	1·43	1·66	2·22
(9) Wood, unwrought	1·53	1·62	1·43	0·94
(10) Sugar, refined and unrefined . .	0·56	1·22	0·70	1·64
(11) Oil-seeds	2·29	3·56	2·53	3·85
(12) Cotton, raw and manufactured . .	1·49	5·69	1·50	5·76
(13) Jute, raw	0·89	1·27	0·98	1·42
(14) Fodder	0·77	0·60	0·83	0·62
(15) Fruits and vegetables, fresh . .	0·72	0·71	0·86	0·82
(16) Iron and Steel, wrought . . .	0·78	1·58	0·88	1·87
(17) Kerosine Oil	0·76	1·67	0·89	1·79
(18) Gur, Jagree, Molasses, etc. . .	0·83	1·35	0·72	1·16
(19) Other commodities	10·70	13·01	11·67	13·56
TOTAL .	72·54	58·47	84·02	64·92

38. Receipts from goods earnings increased from Rs. 58·47 crores in 1923-24 to Rs. 64·92 crores in 1924-25. Increases are found under nearly every commodity, the largest being under coal and coke and wheat. Part of the increase under coal and coke is probably due to the rebate on the export of coal and coke booked from collieries on the East Indian and Bengal Nagpur Railways to Calcutta introduced from the 1st of January 1924 as exports of coal increased from 132,517 tons in 1923-24 to 228,127 tons in 1924-25. The exports of wheat also increased from 638,252 tons in 1923-24 to 1,111,691 tons in 1924-25 and this had a marked effect on the earnings of the North Western Railway.

Analysis of working expenses.

39. The summary below shows the distribution of working expenses between the various departments:—

(Rupees in crores.)

Department.	Work.	Amount spent in	
		1923-24.	1924-25.
Engineering	Maintenance of way, works and stations	12·28	13·04
Locomotive	Maintenance and renewal of engines, cost of fuel and running stores and other expenses relating to provision of motive power.	21·73	21·31
Carriage and Wagon	Maintenance and running of carriages and wagons.	7·99	8·92
Traffic	Commercial and transportation sides of traffic working, *i.e.*, booking of passengers and goods and arrangements for transport.	9·77	10·93
Agency and others	Agent's office expenses, audit, stores, medical and police charges, etc.	4·47	4·20
Ferry	Steam boat expenses	0·26	0·34
Difference between contribution to depreciation fund and the actual expenditure on renewals and replacements on Company-worked lines.	.....	...	1·83
Miscellaneous	Law charges, compensation, contribution to Provident Fund, etc.	4·74	2·79
Suspense and adjustments	.....	— 0·19	— 0·43
	Total	61·05	62·93

Economies effected during the year.

40. The campaign in economy and reduction was continued during the year and was much facilitated by the use of the new statistics now available. It is impossible in this report to give a complete record of the economies effected on every individual railway, but the following are given as illustrations of the action taken which contributed materially to the exceptionally good financial results of the year.

On the Madras and Southern Mahratta Railway a special staff was employed to control the coal consumption at a cost of approximately Rs. 69,000 per annum. As a result of their efforts, while the gross ton mileage increased by 114½ million ton-miles the fuel consumption actually showed a reduction of 15,000 tons. The saving in the coal during the year, therefore, amounted to approximately 23,300 tons representing a saving of over Rs. 4½ lakhs, or, deducting the cost of the additional staff employed, a net saving of approximately Rs. 4 lakhs.

On the Assam Bengal Railway the consumption of fuel per 1,000 gross ton-miles dropped from 224 lbs. to 188 lbs.

On the Bengal Nagpur Railway the monthly consumption of oil on the broad gauge stock decreased from 229,000 pints in March 1924 to 107,000 pints in March 1925.

The average gross weight of trains including engines on the Assam Bengal Railway increased from an average of 269 tons in the three preceding years to 316 tons.

41. The following figures illustrate the result of the more accurate compilation of statistics and of the pressure applied by utilisation of these statistics on the Eastern Bengal Railway :—

		Quarter ending June 1924.	Half year ending September 1924.	Nine months ending December 1924.	Year ending March 1925.
Wagon miles per wagon day	B.G.	13·7	17·4	19·8	20·1
Do. Do.	M.G.	16·9	18·0	20·1	21·6
Net ton miles per engine hour	B.G.	610·8	716·7	797·9	819·5
Do. Do.	M.G.	532·2	556·8	576·1	573·9
Net ton miles per wagon day	B.G.	104·5	114·2	127·4	133·2
Do. Do.	M.G.	78·3	81·5	87·1	90·0
Shunting miles per 100 train miles Goods	B.G.	176·2	135·1	114·8	112·1

42. The table below gives similar figures for the East Indian Railway which show that in spite of heavier goods traffic goods trains were getting through with fewer detentions, engine power was being used more economically, fewer trains were being run to move an equivalent number of wagons and wagons were being turned round more quickly :—

	April 1924.	March 1925.
Average speed in miles per hour of main line goods trains	8·97	9·51
Total goods train miles per train engine hour	8·73	9·28
Total goods train miles per engine hour	3·70	3·95
Average number of vehicles per main line goods train	47·9	50·9
Wagon miles per shunting engine hour	503·0	587·9
Wagon miles per engine hour	165	191
Net ton miles per engine hour	1,537	1,579·9
Wagon miles per wagon day	38·9	45·5

43. On the Great Indian Peninsula Railway there was a considerable improvement in the wagon user figures during the year under review. The net or freight ton-miles per wagon-day increased from 364·5 in the year 1923-24 to 404·9 in 1924-25, or an increase of 11·1 per cent. This represents a saving of approximately 19·6 lakhs. This improvement was brought about by an increase in the loads of wagons and the wagon-miles per wagon-day. The former advanced from 12·6 tons per loaded wagon in 1923-24 to 13·6 tons per loaded wagon in 1924-25, and the latter from 39·0 miles per day in 1923-24 to 43·5 miles per day in 1924-25.

Further advantages from the use of statistics should be possible during the year 1925-26, as the monthly figures available will enable the railways to compare their own monthly results with those of the corresponding months of 1924-25.

Stores balances.

44. Considerable progress was made during the year in reducing still further the stores balances. There was a decrease of 4½ crores in the stores balances on all railways as shown from the following statement:—

Stores balances (in thousands)

Railways.	1921-22.	1922-23.	1923-24.	1924-25.
	Rs.	Rs.	Rs.	Rs.
Assam-Bengal	24,81	31,48	18,38	12,30
Bengal-Nagpur	1,40,26	1,61,88	1,48,09	1,49,44
Bombay, Baroda and Central India	2,76,83	2,72,43	2,33,25	1,77,39
Burma	66,62	84,85	98,71	84,62
East Indian	3,07,15	3,55,82	3,23,41	2,40,14
Eastern Bengal	2,51,63	1,76,20	1,57,85	1,21,99
Great Indian Peninsula	4,66,49	3,88,35	3,97,77	2,89,49
Madras and Southern Mahratta	1,50,52	1,66,09	1,50,91	1,02,86
North Western	3,94,12	3,92,69	3,79,78	3,24,39
Oudh and Rohilkhand	85,35	83,37	87,25	63,96
South Indian	1,14,45	1,38,66	99,02	77,04
Other Railways	41,13	46,96	63,50	54,94
Central Indian Coalfields	...	...	...	10,09
TOTAL	23,19,36	22,98,78	21,57,92	17,08,65

45. A special Stores Officer was appointed by the Railway Board to investigate the stocks of stores and materials on State-worked Railways with a view to deciding what are surplus to their present requirements, to arranging transfers between railway administrations of their surplus stocks, and fixing the prices at which such transfers should be made, and taking generally action for the reduction of stores balances. The administrations of Company-worked Railways were informed that his services would be available for the benefit of such railways, as might desire to avail themselves of his experience.

46. As a result of the action taken during the last two years, it will be seen that the total holdings of stores were reduced by 6 crores from the figure to which attention was drawn by the Inchcape Committee resulting in an annual saving of from 30 to 35 lakhs in interest charges.

47. A further substantial reduction was effected during the year in the amounts paid under this head as will be seen from the following statement :— **Compensation claims for goods lost or damaged.**

Claims for goods lost or damaged paid by Class I—Railways (excluding Jodhpur Railway) during 1922-23, 1923-24 and 1924-25.

Railways.	1922-23.	1923-24.	1924-25.
	Rs.	Rs.	Rs.
Assam-Bengal	23,085	17,669	17,587
Bengal and North-Western	1,70,516	1,62,461	80,680
Bengal-Nagpur	1,98,972	2,63,703	2,01,889
Bombay, Baroda and Central India	15,68,572	6,44,678	6,03,064
Burma	45,183	29,319	33,662
Eastern Bengal	1,98,554	1,77,020	1,68,020
East Indian	53,02,013	40,44,089	29,07,558
Great Indian Peninsula	19,68,436	16,17,133	6,63,609
Madras and Southern Mahratta	2,21,125	1,54,162	85,518
Nizam's Guaranteed State	38,222	24,206	17,022
North Western	16,89,608	4,78,339	6,84,162
Oudh and Rohilkhand	4,97,212	2,28,531	1,53,793
Rohilkund and Kumaon	45,105	16,681	21,860
South Indian	63,951	44,502	32,045
TOTAL	1,20,30,554	78,96,893	56,70,499

The results would have been even more substantial had it not been for the unsatisfactory position on the East Indian Railway where the payments were still greater than those made on all other railways put together. There has, however, been a decided improvement on this line and during the year there was a reduction of over Rs. 11 lakhs in the payments made. The actual decrease would have been larger had it not been for the fact that during the year the number of outstanding claims cases were reduced.

All railways except the Assam-Bengal, Burma, North Western, and Rohilkund and Kumaon Railways showed decreases in the amounts paid during the year. The increases on these railways except the North Western Railway are trifling and that on the North Western Railway is partly due to the amounts paid for goods lost and damaged in the Pano Akil accident.

This satisfactory reduction of about 64 lakhs in the amounts paid as compensation for goods lost and damaged as contrasted with the figures for 1922-23, to which the Inchcape Committee directed attention, is due to the special measures referred to in last year's report involving greater attention to the custody of goods in transit, and more particularly to the action taken for fixing the responsibility in individual cases upon the staff whose duty it is to see that such losses do not occur, followed by punishment or dismissal of the staff concerned.

CHAPTER III.

NEW CONSTRUCTION AND ENGINEERING WORKS.

Capital expenditure.

48. The total capital at charge on all railways including those under construction, up to the end of March 1925 amounted to Rs. 740·68 crores of which Rs. 655·21 crores represented the capital at charge on the State-owned railways inclusive of premia paid in the purchase of Companies' lines, the balance having been provided by Indian States, Companies and District Boards.

The capital at charge in regard to State-owned railways for which Government is responsible is made up as follows :—

	£
Liability and debt incurred in purchase of railways	150,109,299
Less liability and debt cancelled by the operation of Annuities and Sinking Funds	29,223,926
Net amount outstanding	120,885,373

	Rs. (omitting 000)
Converted at Rs. 15 = £1	1,81,32,81
Direct expenditure by Government	4,73,88,32
TOTAL	6,55,21,13

Of this amount Rs. 6,07,85,90 is Government capital and Rs. 47,35,23 the capital of Companies.

49. The total capital outlay on all railways during 1924-25 was Rs. 15·50 crores of which Rs. 13·47 crores were spent on State-owned railways. The distribution of this latter figure between open line works, rolling stock, and new lines, with the figures for the previous three years and for 1913-14, is given in the following table :—

Year.	Open lines.			New lines.	Grand Total.
	Works including Stores.	Rolling stock.	Total.		
	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.
1913-14	9·30	7·31	16·61	1·86	18·47
1921-22	11·20	10·02	21·22	2·11	23·33
1922-23	6·77	9·52	16·29	2·74	19·03
1923-24	7·69	9·51	17·20	2·51	19·71
1924-25	4·66	6·42	11·08	2·39	13·47

50. The distribution of the expenditure over the various lines is shown in the summary below :—

Railway.	Open lines.			New lines.	Grand Total.
	Works, etc.	Rolling stock.	Total Open lines.		
	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.
Bengal-Nagpur . . .	0·80	1·52	2·32	1·00	3·32
Bombay, Baroda and Central India.	1·28	0·59	1·87	..	1·87
Eastern Bengal . . .	0·05	0·14	0.19	..	0·19
East Indian	0·32	1·81	2·13	0.18	2·31
Great Indian Peninsula . .	0·21	0·63	0·84	0·04	0·88
Madras and Southern Mahratta	0·25	0·39	0·64	..	0·64
North Western . . .	—0·18	0·66	0·48	0·57	1·05
South Indian	0·52	—0·5	0·47	0·12	0·59
Other Railways . . .	1·41	0·73	2·14	0·48	2·62
Total .	4·66	6·42	11·08	2·39	13·47

(1) Lines opened or under construction.

Lines opened during 1924-25.

51. A total mileage of 233·48 miles was opened during the year and consisted of :—

81·91 miles . . . . . 5′ 6″ gauge.
149·90 miles . . . . . 3′ 3⅜″ gauge.
1·67 miles . . . . . 2′ 0″gauge.

The following is the detailed list of the more important new lines opened :—

Name of line.	Gauge.	Length.	Owner.	Working Agency.	Date of opening.
Dangoaposi Gua Section .	5′ 6″	18·37	State . .	B. N. Ry. Co. .	20th February 1925.
Harbour Branch overhead connection.	5′ 6″	2·54	State . .	G. I. P. Ry. Co.	3rd February 1925.
Amla-Narkher Section . .	5′ 6″	50·16			4th September 1924.
Pedapalli-Ramgundum Section	5′ 6″	10·84	H. E. H. the Nizam's Govt.	N. G. S. Ry. Co.	1st July 1924.
Koth-Gangad Dhandhuka Section.	3′ 3⅜″	27·37	State . .	B., B. & C. I. Ry. Co.	1st March 1925.
Moulmein-Ye.					
Kalawthat-Thanbyuzayat Section.	3′ 3⅜″	8·60	Burma Govt. .	Burma Rys. Co.	25th April 1924.
Thanbyuzayat-Karokpi Section.	3′ 3⅜″	8·46			1st July 1924.
Karokpi-Tinyu Section .	3′ 3⅜″	7·59			23rd October 1924.
Tinyu Lamaing Section .	3′ 3⅜″	18·43			17th January 1925.
Pyinmana Taungdwingyi Lewo Kantha Section.	3′ 3⅜″	5·82	Burma Govt. .	Burma Rys. Co.	27th April 1924.
Kantha-Dalangyun Section .	3′ 3⅜″	20·23			23rd January 1925.
Dalangyun-Taungdwingyi Section.	3′ 3⅜″	30·48			10th March 1925.
Nawalgarh-Jhunjhunu Section	3′ 3⅜″	22·92	Jaipur Durbar .	B., B. & C. I. Ry. Co.	1st August 1924.

52. The following lines which had been previously opened for goods traffic were opened for passenger traffic also during the year :—

Name of line.	Gauge.	Length.	Owner.	Working Agency.	Date of opening.
Sibsagar Road Naginwara Section.	3′ 3½″	8·68	State . .	A. B. Ry. Co. .	4th April 1924.
Alnavar Dandeli . . .	3 3½″	19·12	Bombay Govt.	M. & S. M. Ry.	3rd November 1924.

53. A length of 116·70 miles of single line was doubled and opened for traffic and details are given in the following statement :—

Name of the line.	Gauge.	Length.	Working Agency.	Date of opening.
Kasunda to Dhanbad . . .	5′ 6″	2·28	E. I. Railway .	22nd April 1924.
Hazaribagh Road to Sarmatand . .	5′ 6″	18·59	E. I. Railway .	Opened in sections in April and May 1924.
Gya to Phalgu West block hut . .	5′ 6″	1·04	E. I. Railway .	30th January 1925.
Sone East Bank to Dehri on Sone .	5′ 6″	3·10	E. I. Railway .	6th March 1925.
Purulia to Kandra . . .	5′ 6″	42·46	B. N. Railway Co.	Opened in sections between April and November 1924.
Khargpur to Cossye	5′ 6″	5·32	B. N. Railway Co.	28th July 1924.
Pyuntaza to Penmegon . . .	3′ 3½″	26·47	Burma Railways .	Opened in sections between September 1924 and March 1925.
Falaknuma to Bolaram . . .	3′ 3½″	17·44	H. E. H. the Nizam's Guaranteed State Railway.	1st April 1924.

54. The following alterations of gauge were made during the year :—

Name of the line.	Gauge.	Length.	Date of opening.
Wankener Morvi Section, Morvi Railway.	Converted from 2′ 6″ to metre gauge	15·83	19th June 1924.
Santahar Parbatipur Section, E. B. Railway.	Converted from 3′ 3½″ to 5′ 6″ gauge	60	1st July 1924.

The line between Kilokri to Delhi New Capital a length of 6·59 miles —was diverted and opened on 17th December 1924.

55. A total of 1,200·76 miles of lines was under construction at the end of the year, consisting of the following :— **Lines under construction on 31st March 1925.**

658·56 miles 5′ 6″ gauge.
488·69 miles 3′ 3½″ gauge.
53·51 miles 2′ 6″ and 2′ 0″ gauges.

56. The following table shows the progress reached on certain lines as well as the names of the constructing agencies :—

Name of line.	Gauge.	Length.	Constructing Agents.	Progress of Work on 31st March 1925. Proportion completed.
Barabil Branch . . .	5′ 6″	4·43	Bengal Nagpur Railway Company.	·50
Argada Branch . . .	5′ 6″	1·60	Bengal Nagpur Railway Company.	·80
Dharmband-Kharkharee . .	5′ 6″	2·50	Bengal Nagpur Railway Company.	Construction recently sanctioned.
Guttitangar Branch . .	5′ 6″	7·23	Bengal Nagpur Railway Company.	·14
Bokharo-Ramgarh (Bermo-Duneya).	5′ 6″	18·75	Bengal Nagpur Railway Company.	·99 on Bermo swang. ·98 on Swang-Duneya.

Name of Line.	Gauge.	Length.	Constructing Agents.	Progress of work on 31st March 1925. Proportion completed.
South Karanpura (Duneya to a point near Damoodar river).	5′ 6″	19·26	Bengal Nagpur Railway Company.	·85
Hesla-Chandil . . .	5′ 6″	76·07		·55 on first 36·44 miles. ·42 on the remaining portion.
Talcher Coalfields . . .	5′ 6″	61·00		·70
Central Indian Coalfields . .	5′ 6″	300·00	State Agency . . .	·03 on 167·52 miles.
Chandrapura Gomoh Chord .	5′ 6″	9·97	East Indian Railway . .	·53
Majri-Rajur	5′ 6″	13·22	Great Indian Peninsula Railway	·94
Kazipett Bellarshah (Ramgundum) Tandur Section	5′ 6″	149·50	Nizam's Guaranteed State Railway Company.	·70 on Ramgurdum Goliara section. ·07 on Goliara Tandur section.
Karipalli-Kothagudium . .	5′ 6″	24·52		·85
Rikhikesh Road Rikhikesh	5′ 6″	7·12	Oudh and Rohilkhand . .	·01
Khyber (Jamrud Landikhana) .	5′ 6″	26·35	North Western Railway . .	·90
Shoranur Nilambur . .	5′ 6″	41·28	South Indian Railway Co. .	·15
Sibsagar Road Khowang . .	3′ 3⅜″	38·79	Assam Bengal Railway Co. .	·33
Pharendra Nautanwa Extn. .	3′ 3⅜″	25·26	Bengal and North Western .	·55
Ramnagar Suratgarh with a branch from Bugia to Anupgarh.	3′ 3⅜″	115·00	Bikaner Railway.	·7
Hanumangarh-Sirala. . .	3′ 3⅜″	71·06		·06
Bauktaw-Mingaladon. . .	3′ 3⅜″	11·00	Burma Railways Company.	30
Taungdwingyi-Kyankpadang .	3′ 3⅜″	71·00		Construction recently sanctioned.
Moulmein-Ye . . .	3′ 3⅜″	89·00		·90
Segyi-Ye-U	3′ 3⅜″	23·54		·56
Pegu-Kayan	3′ 3⅜″	36·93		·40
Heho-Tayow Extn. . .	3′ 3⅜″	9·00		Construction recently sanctioned.
Marwar-Sanderao . . .	3′ 3⅜″	77·83	Jodhpur Railway . .	·46 on Marwar Jujawar section. ·13 on Jujawar Desuri section.
Nanjangud-Hardanhalli . .	3′ 3⅜″	33·00	Mysore State Railways . .	·05
Halvad-Maliya Extn. . .	3′ 3⅜″	26·00	Dhrangadhra Durbar . .	Construction recently sanctioned.
Gadwal-Kurnool . . .	3′ 3⅜″	39·50	Nizam's Gauranteed State Railway Co.	·91
Prachi Road Janwda . .	3′ 3⅜″	7·50	Junagad Railway . . .	·37
Villupuram-Trichinopoly . .	3′ 3⅜″	110·50	South Indian Railway	·02
Virudunagar-Tenkasi . .	3′ 3⅜″	76·32		·05
Pandharpur-Miraj Extn. . .	2′ 6″	82·34	Barsi Light Railway .	Construction recently sanctioned.
Dholpur-Rajakhera . . .	2′ 0″	22·34	Dholpur Bari Railway .	·16
Bilimora-Kala-Amba-Jharia .	2′ 6″	2·44	Gaekwar's Baroda Railways .	·86
Anjar Bachau	2′ 6″	23·75	Cutch State Railway .	·03
Parlakimedi-Gunupur Extn. .	2′ 6″	31·63	Parlakimedi Light Railway .	Construction recently sanctioned.
Extensions and realignments round Lashkar Gwalior and Moror	2′ 0″	19·00	Gwalior Light Railway . .	Extensions round Lashkar opened and the remaining lines are under construction.

57. The following are brief notes on some of the more important lines opened or under construction during the year excluding lines in Burma and Southern India which are dealt with separately.

Itarsi-Nagpur Railway.

The Amla-Narkher section was opened for traffic on the 4th of September 1924 and this marked the completion of the Itarsi-Nagpur Chord which opens up a part of the Central Provinces particularly rich in minerals. This chord is about 185 miles in length and reduces the distance from Delhi to Nagpur by about 250 miles and in conjunction with the Balharshah Extension Railway, which is being constructed by His Exalted Highness the Nizam's Guaranteed State Railway, will give direct southerly communication with Madras and will reduce the distance between Delhi and Madras by over two hundred miles.

The Balharshah Extension Railway is now open for traffic from Kazipet to Ramgundam south of the Godavery river, the section from Ramgundam to Pedapalli having been opened to passenger traffic on 1st July 1924. There still remain about 92 miles of construction to complete the project and this includes the crossings of the Godavery and Wardah rivers and also of a difficult track of country between these rivers.

Ahmedabad-Dholka Railway.

The section Koth Kangad-Dhandhuka forms the last portion of the Dholka-Dhandhuka Extension which places Ahmedabad in through metre gauge connection with Botad, a station on the Bhavnagar State Railway. This new connection is expected to benefit considerably the trade of the Bhavnagar State in South-East Kathiawar.

Alnavar-Dandeli Railway.

The Alnavar-Dandeli line was constructed in 1918 by the Madras and Southern Mahratta Railway as a light railway on behalf of the Government of Bombay for the purpose of exploiting the forests of the north Kanara District. It was opened for goods traffic on the 1st February 1919 and for passenger traffic on the 3rd November 1924.

Khyber Railway.

The construction of the Khyber railway is approaching completion and the line is expected to be ready for opening to all kinds of traffic in November 1925.

Central Indian Coalfields Railway.

This consists of the Daltonganj-Barwadih (formerly Daltongunj-Hutar) Section, the Barwadih-Barka Kana (formerly Hutar-Hesla) Section and the Anuppur-Semra Section.

The Daltongunj-Barwadih length is an extension of the Sone East Bank-Daltongunj Branch of the East Indian Railway and connects this Branch with the Barwadih-Barka Kana line now under construction. This connection will form an outlet for coal obtained from the South Karanpura Coalfields to the industrial centres of the United Provinces and the Punjab *vid* the East Indian Railway Grand Chord and Moghalsarai.

The Barwadih-Barka Kana Section (97 miles in length) connects Barwadih with the Hesla-Chandil Railway now under construction by the Bengal Nagpur Railway Administration and will form, in conjunction with the Daltongunj-Barwadih Extension, another outlet for coal obtained from the West Bokharo and South Karanpura Coalfields; this will obviate the necessity for such traffic adding to the congestion at Gomoh Junction and passing over the steep inclines of the East Indian Railway Grand Chord Line. It will also eventually form part of a through line extending to Anuppur, on the Bilaspur Katni Branch of the Bengal Nagpur Railway which will reduce considerably the distance coal has to be carried from the above-named collieries to the west of India, when the prospects of traffic offering warrant its construction. The line generally follows the valley of the Auranga river from Barwadih up to the water shed near Chandwa and then descends the valley of the Damuda river to Barka Kana. Progress has been satisfactory in view of the fact that the country traversed contains no roads, sparse population and scanty food supplies.

The Anuppur-Semra Section (some 50 miles in length) is at present only a branch line starting from Anuppur, a station on the Bilaspur and Katni Branch of the Bengal Nagpur Railway, and running due east into the Feudatory State of Korea, but will eventually form part of the through route from Barwadih referred to above. The immediate object of this branch is to open up the coal deposits found in the Korea State. So far little progress has been possible owing to the formalities necessary in obtaining possession of the land.

Helsa Chandil Railway.

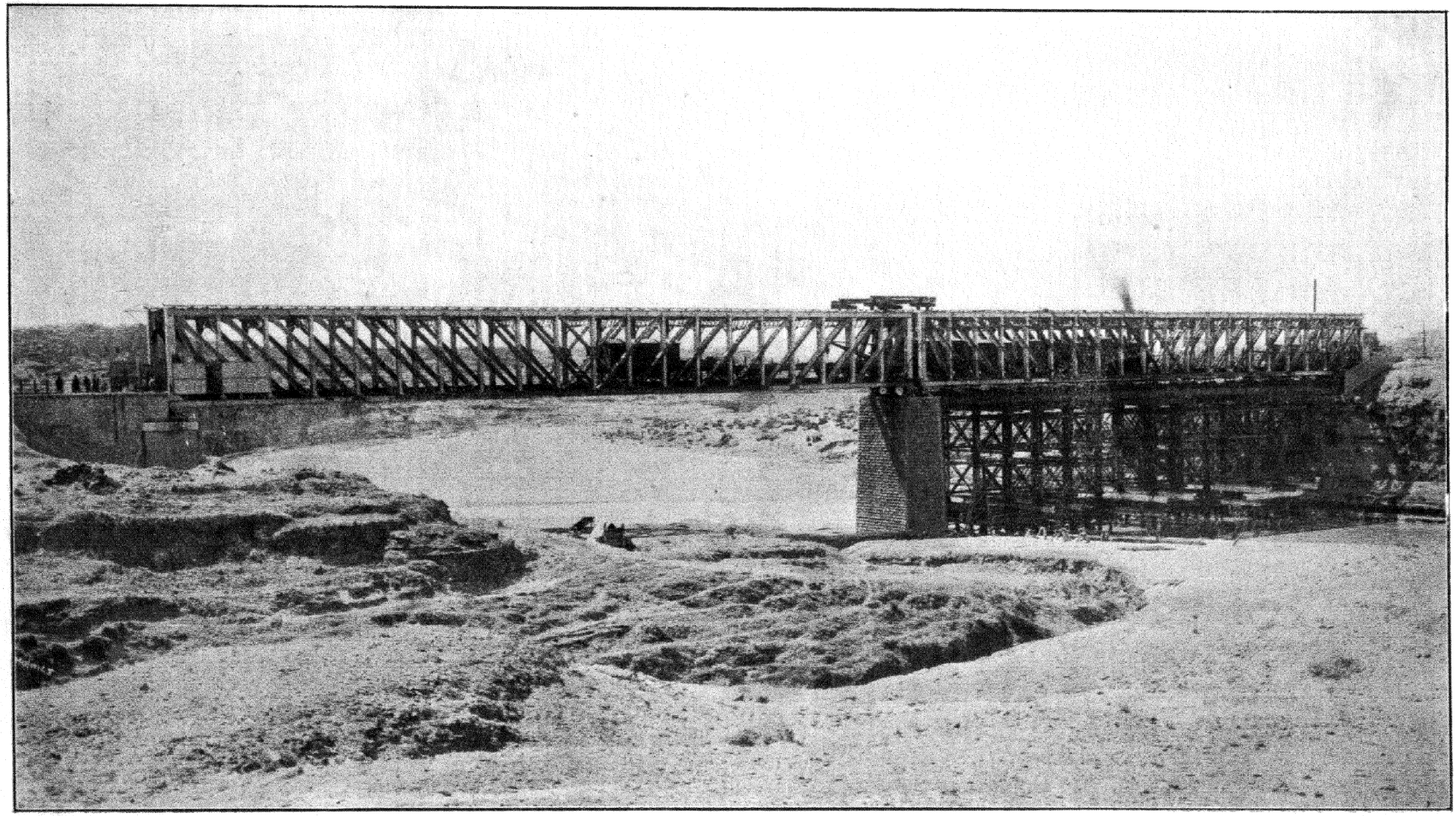
This line starts from Hesla (now Barkakhana the terminus of the South Karanpura Railway) and joins the Bengal Nagpur Railway main line at Chandil on the Purulia-Sini section. The object of the line is to afford an alternative outlet to the south for coal from West Bokharo and the South Karanpura coalfields. The line will be about 76 miles long and by the end of the year about 55 per cent. of the work had been completed on the first 36·44 miles and about 42 per cent. on the remaining portion.

Talcher Coalfields Railway.

This line takes off the main line between Kapilas Road and Jagatpur on the east coast section of the Bengal Nagpur Railway and will serve the Talcher coalfields. It is about 61 miles in length. Good progress has been made with the construction of this line which commenced in November 1922, and about 70 per cent. of the work has been finished. Some difficulty has been experienced with the foundations of the Bangursinga and Nondara bridges, in both of which well sinking has had to be resorted to.

Karepalli-Kothagudium Railway.

Good progress has been made on this Branch line which is 24½ miles long and connects with the broad gauge Dornakhal-Singareni Collieries branch line at Karepalli.



Strengthening of Haro Bridge, North Western Railway (in progress), to carry standard III loads.

1924

Barsi Light Railway.

Sanction was given to start work on the Pandharpur Miraj Extension on 1st January 1925, but the only work done up to the end of March consisted of marking out the land for acquisition. The object of this extension is to open up the district between Pandharpur and Miraj which in parts is very badly provided with roads, and this lack of communications prevents the ryots in this area transporting at reasonable rates their surplus produce to the market towns of Miraj and Sangli at one end, and Pandharpur and Sangola at the other end. This extension will also provide railway communication for pilgrims coming from the Southern Mahratta country to Pandharpur the chief pilgrimage centre for Mahrattas in the Bombay Presidency.

Nanjangud-Hardanhalli.

The construction of this railway, 33·11 miles in length, which forms part of the Nanjangud Erode railway, has been held in abeyance since 1921 owing to lack of funds but work was resumed in March. The line will be taken for the present up to Chamarajanagar, a distance of 22·12 miles from Nanjangud.

Delhi New Capital (Railway) Works.

A diversion of the Agra-Delhi Chord Railway, which was opened for passenger traffic on 17th December 1924, forms part of the project known as the Delhi Railway Works Scheme which had its inception in a consideration of the railway requirements of the New Imperial Capital. The original proposals have been revised more than once and the project as so far carried out has been confined to (1) the Agra-Delhi Chord Diversion, which has been constructed as for a double line as regards sub-grade, except on the reinforced concrete arched bridges in the new city area where provision has been made for a quadruple line; (2) the first phase in the building of the new interchange passenger station, which includes (*a*) A platform 800′ × 20′ for ceremonial purposes, (*b*) The State Entry Road and formation of the site for the ceremonial reception of the Viceroy, (*c*) A dock platform for unloading motors, horses and carriages.

(2) Extensive new construction programmes in certain areas.

58. In last year's report it was stated that the Railway Board had under investigation the prospects of a large number of projected railways. This investigation has been continued during the year under review and most of the schemes previously postponed for lack of funds besides a number of new schemes have been examined. It has been decided to push forward the construction of all schemes likely to prove remunerative and the programme of new lines, the construction of which will be put in hand by the end of 1925-26, comprises 2,144 miles. The areas which are recognised to be among those requiring the most urgent development by means of railway extensions are Burma, South India, and the coalfields area in Bihar and the Central Provinces. The progress of railway construction in the coalfields area in Bihar and the Central Provinces has already been described above, and the following paragraphs describe what is being done in Burma and South India and also the more important of other lines under consideration.

(a) New Railways in Burma.

Burma presents an interesting study in the progress which results from railway construction and the history of the various lines which have been built shows invariably a rapid increase in financial returns after the first few years.

Certain aspects of the problem must, however, be borne in mind in order that the situation may be properly appreciated. Climatically the country may be divided into three main zones, the southern portion being hot and damp, the central portion hot and dry, and the northern portion cold and wet. This, however, is a generalization which requires qualification from the topographical point of view, for the country essentially consists of a number of parallel valleys running roughly north and south with ridges of rough hill country between them. These valleys support large paddy crops in the south and north, and dry crops such as oilseeds and groundnuts in the central zone, while the hills are well forested and supply timber and other forest products besides affording opportunities for fruit culture. Speaking generally, the development of Burma waits on population, while one of the reasons for the sparseness of population is the difficulty of intercommunication and transport between the valleys.

The work of railway extension naturally falls into three main divisions. Firstly, there is the opening up of valleys which at present have no communications. Secondly, there is the provision of feeders, branches and loops within the area already served so as to cheapen the cost of bringing traffic to the main line. And thirdly, there is the question of connections with India, China and Siam, each of which has its own special problems.

During the year under review the following sections of railway were opened :—

(1) Moulmein Ye.

43·08 miles of this line were opened for traffic in addition to the 26·61 miles already being worked. Rails had been linked through to Ye by the 31st March and preparations made to open early in 1925-26. This line will probably at some future date form part of the main route from Rangoon to Bangkok but it is at present an isolated branch line separated from the remainder of the system by the estuary of the Salween. It is being boult under a guarantee from the Burma Government.

(2) Pyinmana-Taungdwingyi.

By March 31st, 1925, this line was opened for passenger and goods traffic as far as Dalangyun while the last section Dalangyun to Taungdwingyi was opened for goods traffic. This alignment forms part of one of the proposed routes for a possible Indo-Burma connection railway.

Various other branches are under construction including :—

(1) *Segyi-Ye-U.* 23·54 miles in length, is an extension of the Sagaing-Segyi branch and its construction is nearing completion.

(2) *Pegu-Kayan.* 36·93 miles in length. Construction has been carried on throughout the year but though the work is well advanced it has not yet been possible to open any of it to traffic.

Other important railways which are proposed include :—

(1) the extension of Pyinmana-Taungdwingyi line through Natmauk to Kayoukpadaung,
(2) the Taungdwingyi-Magwe line.

Other lines of less importance are the Mandalay-Madaya suburban railway and the extension of the Malagaon-Bauktow line to New Cantonment East in the neighbourhood of Rangoon.

Surveys will be necessary before further construction can be undertaken and perhaps the most important group of lines to be surveyed are those to serve the Pakhoko District west of the Irrawady. The extension of the Taungdwingyi line to Kayoukapadaung and to the river in the neighbourhood of Pagan will provide, with a ferry across the river a possible starting point for a line to serve these districts, while the extension to Magwe, with a ferry across to Minbu will afford an alternative route to the same area.

Another valley which appears to offer opportunities of development is the fertile valley running northwards from the Inle lake to the neighbourhood of Hsipaw in the Northern Shan States.

A survey is at present proceeding for the extension of the Moulmein Ye line to Tavoy and Sinbyubin and in view of the possibilities of development at Mergui and in the neighbourhood this survey will be carried on to that place. The country lying between Tavoy and Mergui is said to be rich in timber and minerals and is suitable for rubber cultivation but is practically debarred from development by lack of communications.

As regards international connections the question of railway connection with China has been much debated in the past and there has been support for three possible routes. The first is the Bhamo-Tengyueh line which would more or less follow the caravan route to Talifu in Yunan and assist the caravan traffic to the Irrawady at Bhamo. The second is the extension from Lashio to Kunlong ferry on the Salween river. The third is the extension of the proposed Ta Hapalai Namtu line to Muse on Sweli river opening up the thickly populated Namkham valley. This question, however, is not one which can be examined at present.

The connection with India presents very considerable difficulties. The surveyed route through the Hukong valley is not a practical financial proposition and it may be ruled out of consideration. The question of the construction of the Chittagong-Akyab line has been examined but at present would not be remunerative. From the coast to the existing railway system in Burma there is no easy route but a search is being made for what is known as " Sawbwa's route " a traditional way through the mountains of south Arracan, which has been abandoned and forgotten. There is also the possibility of a connection with Siam to be considered.

In considering the problem of future extensions it must be remembered that it is not possible to rely on indigenous labour and that all labour has to be imported. This necessity must limit the rate of construction at any rate in the early stages because the labour force has to be gradually built up, and if construction is to be done on economical lines it is essential that it should not be spasmodic but continuous.

(*b*) *South India.*

The problem of railway development in South India was discussed at some length in last year's report and considerable progress has been made during the year under review towards the improvement of existing facilities in this part of the country and in starting the construction of new lines. A comprehensive construction programme for South India to be executed during the next few years has been drawn up and it is hoped to be able to work up to a construction programme which will result in the addition of 250 miles of new railway a year over a period of six years.

(*1*) *Shoranur-Nilambur Railway.*

The estimate for this extension on the 5′ 6″ gauge which will run through the Moplah country was sanctioned in May 1924 and work was taken in hand in the following September. This line will be about 41 miles in length and is an important measure for the reconstruction of Malabar. It is being constructed under a guarantee from the Madras Government.

(*2*) *Villupuram-Trichinopoly Chord Railway.*

The final location and land acquisition for this line which will form an alternative route between Madras and Trichinopoly are in progress, and necessary arrangements are being made to start construction.

(*3*) *Virudunagar-Tenkasi Railway.*

The final location and land acquisition for this line which will be about 76 miles in length are in progress.

Other important projects are under examination and of these it has been decided to proceed at once with the construction of the Dindigul Pollachi line, 74 miles in length, with a view to providing direct communication between the West Coast and the Madura District and to opening up the intervening district. The other important projects in this area, which it is hoped will be undertaken shortly, include :—

(*a*) Arantangi-Karaikudi-Manamadura Railway.
(*b*) Trichinopoly-Pudokottai-Karaikudi Railway.
(*c*) Salem-Attur-Vriddhachalam-Cuddalore Railway.
(*d*) Madura-Bodinayakanur Railway.
(*e*) Tinnevelly-Nagercoil Railway.
(*f*) Erode-Satyamangalam Railway.
(*g*) Nanjangud-Tellicherry Railway.

(*4*) *Raipur-Parvatipur Railway and the development of Vizagapatam as a major port.*

The construction of the Raipur-Parvatipur section—260½ miles in length—of the Raipur-Vizianagram Railway and the development of Vizagapatam as a major port were sanctioned by the Secretary of State in March 1925. The proposed Raipur-Parvatipur Railway will traverse near its centre the largest remaining area of India which is devoid of railway communication. This triangular area which measures some 125,000 square miles is bounded on the north by the Bengal-Nagpur Railway and the Great Indian Peninsula Railway, on the west by His Exalted Highness the Nizam's

Guaranteed State Railway and on the south-east by the Madras and Southern Mahratta and Bengal-Nagpur Railways along the east coast.

The construction of a line between Raipur and Vizianagram has been under consideration for many years. A reconnaissance was made in 1881-82 and a detailed survey was carried out in 1897-98. The Secretary of State sanctioned the project in 1905. Work was commenced between Vizianagram and Parvatipur and this section—49 miles in length—was opened for traffic on the 1st of April 1909. Lack of funds, however, prevented the work being proceeded with beyond Parvatipur. Since then the estimates have been carefully revised and this construction is now linked with the development of Vizagapatam as a major port.

The commercial value of the scheme as a whole may be summarised as follows:—

(1) the development of the East Central Provinces by providing a shorter and cheaper lead to a seaport,
(2) the development of the Northern Circars which at present have no adequate port,
(3) the provision of an alternative and probably cheaper port for Upper India particularly the Jubbulpore, Allahabad and Cawnpore area,
(4) the provision of an additional port on the east coast of India which now has no safe harbour for 900 miles between Calcutta and Madras,
(5) the relief of congestion at the port of Calcutta, and also, to some extent at Bombay and on the railways leading to them,
(6) the provision of railway communications through an area of 125,000 square miles,
(7) direct railway communication between the neighbouring provinces of the Central Provinces and Madras which at present are only connected by a long detour *viâ* Khargpur on the one side and *viâ* Manmad on the other,
(8) the opening of a through railway route between Madras and Upper India *viâ* Bilaspur and Katni and then,
    (*a*) *viâ* Allahabad, and
    (*b*) *viâ* Bina and Jhansi.

The development of Vizagapatam will be undertaken by the Central Government through an Engineer-in-Chief in direct control and with this officer an Advisory Board constituted as far as possible on the lines of a Port Trust will be associated. Grants for the capital outlay for this work will be allotted by the Legislative Assembly apart from railway funds.

(*c*) *Other Projects.*

Of other projects in different parts of India the construction of the Furkating-Badulipara Railway in Upper Assam has been decided on and of those at present under examination the more important are:—

(1) Agra-Bah Railway.
(2) Karimganj-Longai Valley Railway.
(3) Calcutta Chord Railway.

(4) Ghordewa Coalfield Railway.
(5) Narowal Amritsar Railway.
(6) Nadidavolu-Narasapur Railway.
(7) Gudivada-Bhimavaram Railway.

New open line schemes.

59. The following new open line schemes were sanctioned during the year under review :—

(1) Remodelling Trichinopoly Junction and Fort Stations—South Indian Railway.
(2) Remodelling of Parbatipur station yard in connection with the conversion to broad gauge of the Parbatipur-Siliguri Section of the Eastern Bengal Railway.

The undermentioned new schemes were under consideration :—

(1) Marshalling Yard at Tondiarpet, Madras and Southern Mahratta Railway.
(2) Victoria Terminus Remodelling—Great Indian Peninsula Railway.
(3) Terminal facilities at Grant Road for the Bombay, Baroda and Central India Railway.

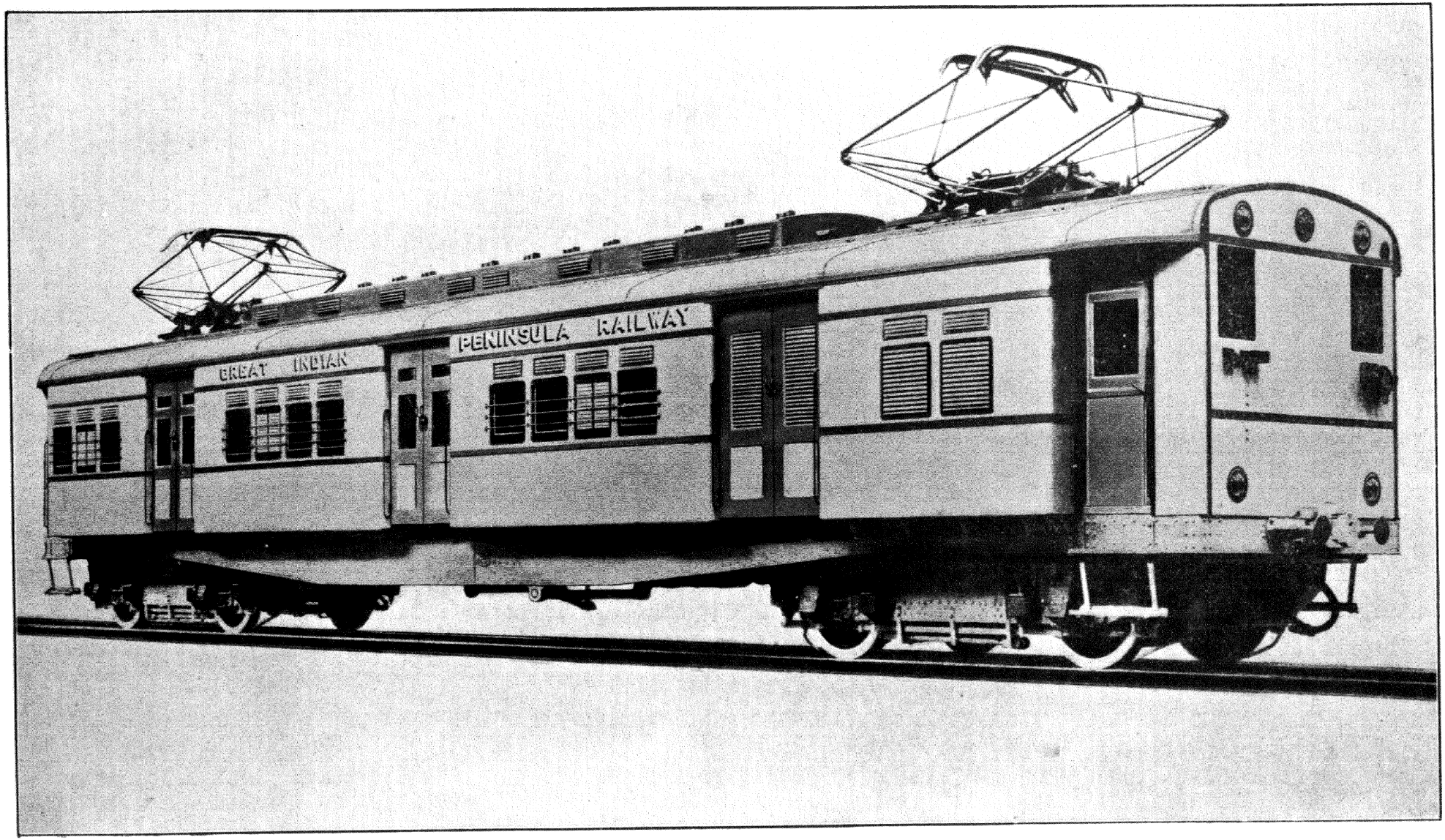
60. Considerable progress was made during the year in improving the facilities of workshops on railways. The following are the more important :—

(1) *Trichinopoly—South Indian Railway.*—Construcion of new shops.
(2) *Perambur—Madras and Southern Mahratta Railway.*—Remodelling of existing shops.
(3) *Mytinge Workshops—Burma Railways.*—Remodelling and extension of existing shops.
(4) *Kanchrapara—Eastern Bengal Railway.*—Revised estimates were under preparation for completion of the remodelling of these shops.
(5) *Dohad Workshop—Bombay, Baroda and Central India Railway.*—The commencement of the work on these shops was authorised at the end of the year.
(6) *Charbagh Workshop—Lucknow—Oudh and Rohilkhand Railway.*—The question whether the building of a new workshop in Lucknow was necessary in view of the amalgamation of the East Indian and Oudh and Rohilkhand Railways was examined and it was decided that the existing workshops at Charbagh could be remodelled and re-arranged to deal with all the work which will be required at Lucknow.

Electrification of Railways.

Opening of the first electric railway in India.

61. On the 3rd of February 1925 the Governor of Bombay declared open the first electric railway in India and this marked the beginning of a new era in rail transport as far as India is concerned. The section opened is known as the Harbour Branch Extension of the Great Indian Peninsula Railway from Victoria Terminus to Kurla and consists of 8·45 miles of double track.



Electric Motor Coach, Great Indian Peninsula Railway.

The electrification of the Harbour Branch Extension forms only part of the various schemes at present in progress for electrification of the suburban and main line services in Bombay which on the Great Indian Peninsula Railway include the electrification of the main and suburban lines to Kalyan and on the Bombay, Baroda and Central India Railway electrification of the lines between Church Gate and Borivli.

62. The scheme for the electrification of the suburban services has been under consideration for a considerable period. Prior to the War the Bombay railway administrations found it necessary to consider how the rapid expansion of suburban traffic could best be met. Messrs. Merz and McLellan, Consulting Engineers, were asked to examine the question and in 1913 submitted a report the consideration of which had to be postponed on account of the War. In 1919 the same firm submitted revised reports, one dealing particularly with the electrification of the suburban lines of the Great Indian Peninsula Railway. This revised report showed that the electrification of the suburban lines was feasible and while increasing the capacity of these lines would at the same time reduce working expenses. In short the electrification of the suburban lines of Bombay will provide the rapid transit essential to the success of the various development schemes designed for the relief of overcrowding in the city.

The Secretary of State for India's sanction was obtained in 1920 to the commencement of work but the scheme was delayed for want of funds and in 1922 a modified scheme, providing for electric services between Victoria Terminus and Thana and on the Harbour Branch to Kurla and Mahim was adopted. Subsequently this scheme was further modified so as to include electrification between Thana and Kalyan and the Secretary of State's sanction was obtained in November 1923. The work is in hand and it is expected that the scheme will be completed shortly.

The opening of these new electric services are of significance not only in its bearing on the transportation problem of Bombay but of all the railways in India. Cheapness of travel is a very important factor in the life of a people and a member of the public who desires to travel daily to Kurla and back will be able to buy a season ticket at rates which allow him to travel over 11 miles for one anna. This rate has probably no equal in cheapness in any other country in the world.

The services on the Harbour branch and Mahim Chord are designed to provide for an entirely new passenger traffic which is expected to result from the development of the Sewri-Wadala, Dadar-Matunga and Sion-Matunga housing schemes of the Improvement Trust of Bombay for the relief of overcrowding in the city.

New rolling stock has been provided for these services. The coaches are 68′ long and 12′ wide equipped with centre buffer couplers and vacuum brakes, and 6½ rakes are being provided. Each rake consists of two sub-units of 4 bogie coaches each. The sub-unit comprises one motor coach, two single driving trailers, and one non-driving trailer. Each rake will accommodate 1,000 passengers or 33⅓ per cent. more than the steam hauled rakes, at present in use for the suburban services. This rolling stock is

being built to the new standard of dimensions and though not the largest, these coaches are probably the widest in the world.

The estimated cost of electrification is :—

	Rs.
Harbour Branch	42,28,850
Mahim Chord	4,53,000

One interesting feature in the work is the steel viaduct carrying the Harbour Branch line over the Wadi Bunder Goods depôt. It, with its high level station, contains 2,788 tons of steel, is 1,728 feet long and cost 20 lakhs to complete.

The working costs for the electric services (including power, train staff, maintenance of stock and equipment and train running expenses) are estimated at 29·00 annas per train mile as against 37·79 annas per train mile for steam services. The physical conditions of the Harbour Branch are such that it is doubtful whether an adequate and efficient steam service could have been provided; the chief difficulties are the 1 in 30 grade and the extra track accommodation required for the steam services. Moreover apart from the saving in working expenses, the advantages of the electric services are so obvious that they do not need repetition here.

Electric power is being supplied by the Associated Tata Hydro-Electric Supply Companies at sub-stations at Wadi Bunder and Kurla: the power is received at 22,000 volts and transformed down to 1,500 volts D.C. at the sub-stations. The cost of power is rupees fifty per annum per Kilowatt of maximum demand in addition to a rate of ·425 anna per Board of Trade unit of actual consumption.

Other schemes for electrification.

63. The other electrification scheme to which a brief reference has already been made is the electrification of the Bombay Local Lines of the B., B. & C. I. Railway from Church Gate to Borivli. It is being found necessary to electrify this section on account of the large and continuous increase of passenger traffic over these lines. Satisfactory progress has been made during the year on this work and it is hoped to inaugurate an electrified service on this portion of the line in the near future.

64. Other schemes of electrification which are being considered are :—

(1) the electrification of main line of the G. I. P. Railway to Igatpuri on the northern line and to Poona on the South East Line,

(2) the electrification of the suburban lines in Calcutta,

(3) the electrification of the suburban lines in Madras.

Due to the presence of a Ghât section on each of the main lines of the G. I. P. Railway the introduction of electrification will result in a general acceleration of passenger traffic, in a considerable saving of time in the working of goods trains, and, as the ruling grade on the Ghât sections is 1 in 37, in a reduction of working expenses the present cost of working the traffic being very high. The acceleration of passenger trains between Bombay and Poona will undoubtedly help considerably in the expansion of this important town as there will be a saving in time of about 1½ hours for mail trains between Bombay and Poona.

Other improved facilities on Open Lines.

65. Good progress was made during the year in providing improved facilities for handling traffic and these included about 117 miles of double track, the provision of crossing stations, new marshalling yards and improvements to existing yards, etc. Many railways as a result of the steps taken during the last few years are now in a position to handle more traffic than is offering at present. For example, the E. I. Railway from July until the end of the financial year, except for one or two very brief periods, was in a position to handle more traffic than was offered although previously the traffic on this line was congested. It is not possible to include a complete list of all these works in this report but the principal works on the more important railway systems are summarised below.

Bombay, Baroda and Central India Railway.

A large number of important works are in hand of which the most important are connected with the improvement of traffic facilities in and around Bombay. These include :—

(1) *The electrification of the Bombay Local and Suburban section.*—This project at present provides for the equipment of only two main lines between Grant Road and Bandra;
(2) *Quadrupling the line between Bandra and Borivli.*—This work is progressing well and it is hoped to complete it by January 1926;
(3) *Quadrupling the line between Grant Road and Bandra.*—Sanction to certain expenditure on this work was given in November 1924 and the earth work is in progress;
(4) *DeLisle Road and Dadar Road Overbridges.*—These works are nearing completion;
(5) *Terminal arrangements at Bandra.*

Works completed during the year include the provision of crossing stations between Manglamaudi and Jekot and between Chanchelao and Godhra, the installation of telephone train control on the Shamgarh-Kotah and Kotah-Agra East Bank Sections, additions and alterations to the yards at Miyagam and Dohad, the provision of extra turn-tables at three engine changing stations and the building of a new power house at Ajmer.

The work of rebuilding the Bassein bridges is in progress but it has been found that this will take a longer time to carry out than was expected.

Other works in progress include the remodelling of the yards at Bulsar, Ahmedabad and Kankaria, the strengthening of the piers of various major bridges which were weak, the installation of telephone control on the Ahmedabad-Ajmer section, the remodelling of Mehsana and Achnera yards and the supply of electric power to stations, yards, offices and shops.

Considerable damage was done to certain sections of the line by floods in August and September and the total cost of repairing these damages exceeded Rs. 3 lakhs.

Burma Railways.

Considerable progress was made with the construction of new lines of which about 220 miles were under construction at the beginning of the year.

The doubling of the main line between Pyuntaza and Pyu was completed and opened for traffic during the year and good progress was made with the doubling between Pyu and Kyungon.

All weak type triangulated girders between Prome and Mandalay were replaced by standard girders and of the 150 miles on the main line—Prome to Mandalay—that still had to be relaid with 60 lb. rails all but 24½ miles were completed by the end of March 1925.

The remodelling of Mandalay and Kemmendine stations and the construction of a sub-way at the latter to take the place of the level crossing were also completed.

The construction of a large marshalling yard at Hteedan is well in hand.

Eastern Bengal Railway.

The conversion of the Santahar-Parbatipur section—60 miles in length—from metre to broad gauge was finished and the broad gauge opened to traffic on 1st July 1924. This completed the first portion of the extension of the broad gauge through to Siliguri, the second portion from Parbatipur to Siliguri having been started just before the close of the year under review. The provision of a broad gauge North-South line obviates transhipment of heavy traffic between the Calcutta terminals and the large producing centres of Northern Bengal and also the inconvenience of the double change to which passengers proceeding to and from the hill stations of Darjeeling and Kurseong have been subjected.

The conversion of the 2′ 6″ gauge line from Churni Ghât to Santipur was nearly completed at the end of the year. Santipur is a big commercial and pilgrimage centre and this broad gauge connection will meet a long felt want.

Considerable progress has been made in the improvement in working facilities and these include :—

(*a*) the remodelling of yards at Parbatipur, Katihar, Ishurdi, Ranaghat and Ballygunge;
(*b*) additional sidings or crossing facilities at five stations;
(*c*) the provision of interlocking at Ishurdi, and at Tiljala for trac-circuiting;
(*d*) the extension of train control in the Calcutta area and from Santahar to Saidpur;
(*e*) strengthening or replacing weak girders on the Forbesgunge-Jogbani and the Khulna Sections;
(*f*) completion of a heavy wagon lifting shop at Kanchrapara.

An interesting experiment tried on this railway was the external lighting of passenger trains by electricity. The lights, which give a brilliant illumination on both sides of the train, come on automatically when the train is stopped at or outside a road-side station and are intended to minimise running train thefts.

East Indian Railway.

Steps taken during 1924-25 and in the previous years to improve the carrying capacity of this railway have at length borne fruit as is shown by the fact that from July until the end of the financial year except for one or two very brief periods this line was in a position to handle considerably more

Nagpur Station, Great Indian Peninsula Railway, opened January 1925.

traffic than was offered. The number of tons of coal carried during the year also constitutes a record and amounted to slightly over 13½ million tons.

During the year the extension of the yards at Pathardih, Katrasgarh and Barakar and the provision of new yards at Moghalsarai and Gya were completed.

The doubling of the track over the Sone bridge between Sone East Bank and Dehri-on-Sone was also completed and good progress was made with strengthening the girders on the Lower Sone Bridge.

A large amount of extra mileage was opened for traffic including the double line from Dhanbad to Katrasgarh, the second up track between Asansol and Sitarampur, the doubling between Dhanbad and Gya except over the Phalga bridge, and the extension of the Toposi-Baraboni chord line to Baraboni station by means of which two through lines are provided between Toposi and Baraboni.

Works in progress include the provision of new yards at Asansol and Ondal, the remodelling of yards at Kasunda, Jherriah, Dhanbad, Gomoh and Burdwan; the construction of the Chandrapura-Gomoh Chord and the provision of extra lines on other sections of the railway.

A train control office was opened during the year at Dinapore with control over three sections but the location of this office here is only temporary and these circuits will eventually be controlled from Moghalsarai. The train control office for the Howrah-Burdwan Chord will be ready shortly and when this is opened the entire Main and Grand Chord lines of the East Indian Railway will be worked on the train control system.

Great Indian Peninsula Railway.

The most important works completed during the year were the Harbour Branch Extension Railway from Reay Road to Victoria Terminus, New Electric Service from Victoria Terminus to Kurla, and the final section of the Itarsi-Nagpur Railway, a description of which will be found earlier in the chapter.

Other items of interest include the opening of the new passenger station at Nagpur on the 15th January 1925 by H. E. the Governor of the Central Provinces and Berar, the installation of Traffic Train Control from Bina to Agra and between Sholapur and Wadi, and the inauguration of trials of Roe's patent train stop apparatus between Itarsi and Jubbulpore. This apparatus automatically applies the vacuum brake if the driver passes the advance starting signal without the correct line clear token for the section ahead. It also automatically applies the vacuum brake if a train passes the outer signal of a station when at danger. Trials are still continuing.

Madras and Southern Mahratta Railway.

Good progress was made in the remodelling of the important yards and stations of Arkonam and Ghorpuri. At Arkonam which is an important junction of the South-West and Bombay lines through which mail and other important trains pass, two additional platform faces are being provided and increased marshalling and stabling lines are being laid; signalling arrangements are also being brought up-to-date.

Ghorpuri is a new transhipment station between the G. I. P. and M. & S. M. (metre gauge) railways just outside Poona. The existing facilities for dealing with the traffic at Poona have been inadequate for some time and the work is now to be transferred to Ghorpuri where new transhipment facilities and a metre gauge marshalling yard are being laid out.

Progress was also made with the inauguration of an improved water supply for Hubli which is the centre of the metre gauge system and the site of its workshops. It has been decided that the water supply should be obtained by impounding water in a separate catchment area at Devargudihalli about 7 miles from Hubli.

The construction of office and quarters for staff at Bezwada station which has now become a district head-quarters of this railway instead of Waltair owing to the handing over of the Gopalapatam-Waltair-Vizagapatanam section of the B. N. Railway is now in progress.

North Western Railway.

Further progress was effected during the year in improving the capacity of some of the more important sections on this railway. For example :—

(1) five additional crossing stations were opened on the Lahore, Multan and Ferozepore Divisions;
(2) the conversion of six flag stations on the Ferozepore Division into crossing stations was completed;
(3) loops were extended at 18 stations;
(4) yard lighting was improved at four stations.

Other works completed during the year included the remodelling of Kotkapura, the interlocking of Rajpura yard and the electrification of Sibi station and yard.

Arrangements for dealing with goods were also improved by the provision of additional goods platforms at seven stations and of sheds on goods platforms at three stations.

On the Raewind-Khanewal section six stations are being enlarged or remodelled to meet the increased requirements which have resulted from the irrigation of this tract by the Lower Bari Doab Canal. The provision of improved goods yards at these stations is practically complete and work is progressing on the new passenger stations.

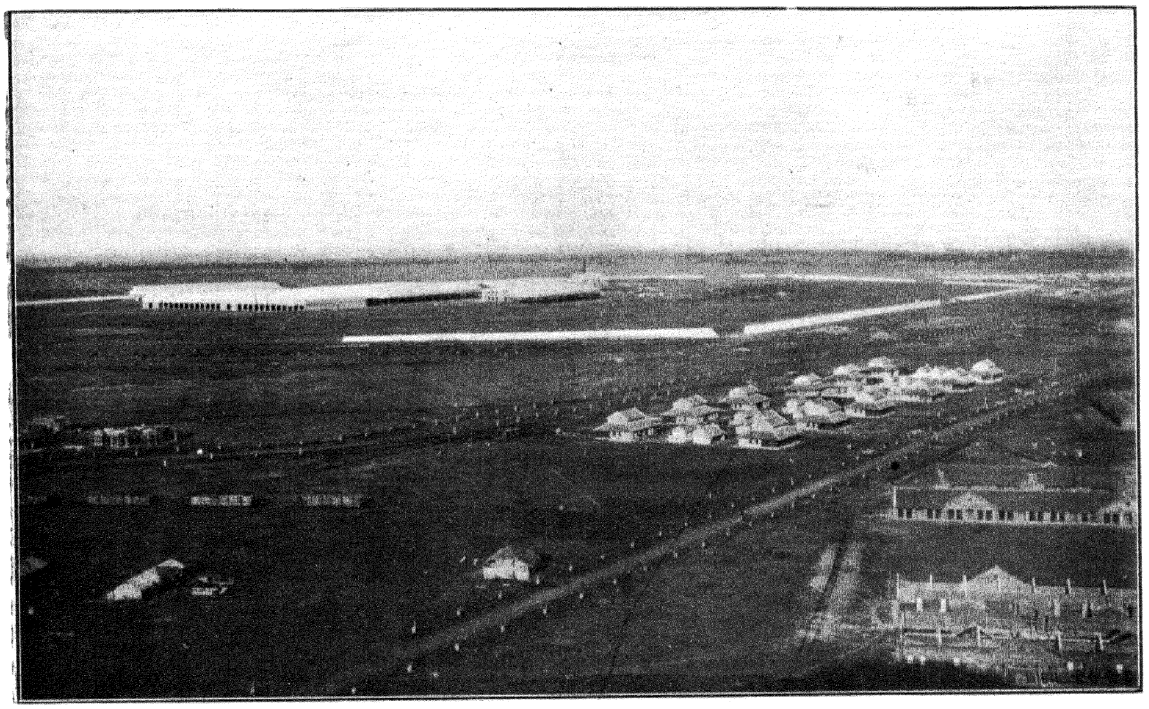
Progress is being made with the strengthening of bridges between Shahdara-Lalamusa and the light 11′ spans which were under-strength for H. G./S engines have been replaced by 11′ arch viaducts and rail concrete slabs.

The Down line track of the Ravi bridge has also been strengthened and schemes for strengthening the bridges over the Chenab, Jhelum and Indus rivers at Wazirabad, Jhelum and Attock respectively are under investigation.

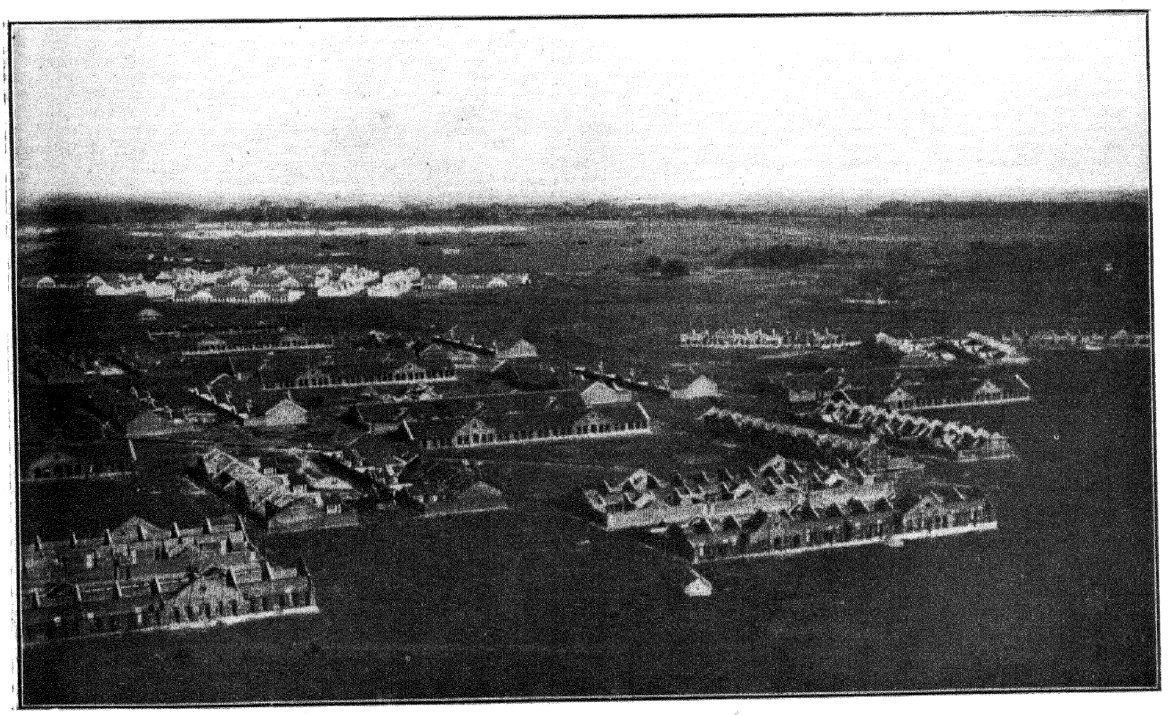
South Indian Railway.

The improvement of traffic facilities by the construction of new lines was an important feature on this railway and the steps taken during the year have already been described.

SOUTH INDIAN RAILWAY WORKSHOPS, TRICHINOPOLY.



Bird's-eye view of Workshops under Construction.



Bird's-eye view of Staff quarters under Construction.

Good progress was made with the building of Central Workshops at Trichinopoly. The renewal of weak girders on the Arkonam branch was completed and of those on the Erode branch was in progress. The construction of new bridges across Ferok and Kallayi was put in hand during the year.

Special attention was paid to the improvement of facilities for traffic working and estimates for the remodelling of ten stations were under preparation, additional loops or through lines at stations and additional signalling and interlocking arrangements were provided, train control was extended and additional crossing stations were provided.

CHAPTER IV.

ROLLING-STOCK AND MATERIALS.

Additions to equipment.

66. Summaries No. VIII—Summary of Equipment—and No. IX—Summary of net additions—in Volume II of this report summarise the equipment and the net additions to equipment during 1924-25. Statements Nos. 10, 11, 33 and 34 give this information in more detail for individual lines.

During the year the following items of rolling-stock were on order for the broad and metre gauge railways :—

Item.	Broad gauge.	Metre gauge.
Locomotives	207	69
Coaching stock	2,311	705
Goods stock	9,951	4,289

Against these orders the numbers placed on the line by the end of the year were as follows :—

Item.	Broad gauge.	Metre gauge.
Locomotives	137	18
Coaching stock	1,008	440
Goods stock	4,835	1,656

The numbers of coaching and goods stock are stated in terms of four-wheeler units. These numbers shown as placed on the line do not, however, represent the actual net additions to the rolling-stock on railways, as some of the units were required to replace vehicles which had reached the end of their useful life.

67. The following statement shows the net additions to or reductions of rolling-stock on Class I Railways during 1923-24 and 1924-25 :—

—	5′ 6″ gauge.		3′ 3½″ gauge.	
	1924-25.	1923-24.	1924-25.	1923-24.
Locomotives—				
Number	—6	168	—4	65
Total increase in tractive effort in pounds, during the year.	1,737,252	8,566,257	187,144	1,537,834

	5′ 6″ gauge.		3′ 3½″ gauge.	
	1924-25.	1923-24.	1924-25.	1923-24.
Coaching stock—				
Passenger carriages—				
Number	366	237	153	127
Seats.				
1st	145	524	80	456
2nd	604	1,379	—61	634
Inter	2,511	3,082	377	—109
Third	33,445	30,369	11,825	14,605
Other coaching vehicles—				
Number	228	85	11	35
Goods stock—				
Wagons—				
Number	1,626	6,233	816	2,631
Increase in capacity in tons	30,210	117,619	12,796	31,158
Other goods vehicles—				
Number	532	545	230	421

68. It will be noticed that there was an actual decrease in the number of locomotives on Class I Railways during 1924-25 in spite of an increase in the work done as measured by net ton miles (13·0 per cent.) and passenger miles (2·22 per cent.) and this was due to the better use which railways made of their rolling-stock during the year. Coaching stock, however, showed a considerable increase and there was an actual net addition of 45,270 seats in the third class accommodation provided on Class I Railways. The number of units of coaching stock placed on the line on broad and metre gauge railways, namely, 1,448 units, also compares favourably with 685 units of coaching stock placed on the line during 1923-24. In addition to these the large number of units of coaching stock on order and still under construction at the end of the year will be placed on the line during 1925-26.

Standardisation of rolling stock.

69. In the report for the last year, it was mentioned that this subject continued to have the attention of the Railway Board during 1923-24, and that with regard to locomotives a permanent standing Technical Committee had been formed to consider the co-ordination of requirements in respect of existing and future types of locomotives and to be the committee to whom all suggestions for modifications and improvements are to be referred. It was explained how the policy of progressive standardisation, as a continuous process, was to be carried out. During May of the year under review, the Locomotive Standards Committee submitted their report which contained recommendations as to modifications in existing types, together with specifications and diagrams of new types. This report was forwarded to the Consulting

Engineers to the India Office and to the Railway Administrations for criticisms on the suggestions made. The Consulting Engineers have discussed these suggestions with technical authorities and manufacturers of locomotives in the United Kingdom. Sir Seymour Tritton, one of the partners in the firm of the Consulting Engineers, visited India during the cold weather and has further discussed matters in great detail with Railway Administrations, the Locomotive Standards Committee and the Railway Board. Designs, as finally approved, will now be taken in hand and as a result it is hoped that more suitable and efficient locomotives will be under trial on railways in India before the close of the year 1925-26, with a view to their final adoption as the new standard types. It is anticipated that, as a result of thorough trials, some modifications in the original designs may be necessary.

It was also mentioned in the report for 1923-24 that the Railway Board intended to appoint a separate technical committee to revise details of existing standard designs of carriage and wagon stock, and to prepare diagrams and general specifications for new types of wagons, and that the policy of continuous progressive standardisation adopted would be the same as in the case of locomotives. This committee was appointed in November 1924 and their report, with recommendations, is expected to be ready three months after the close of the financial year under review.

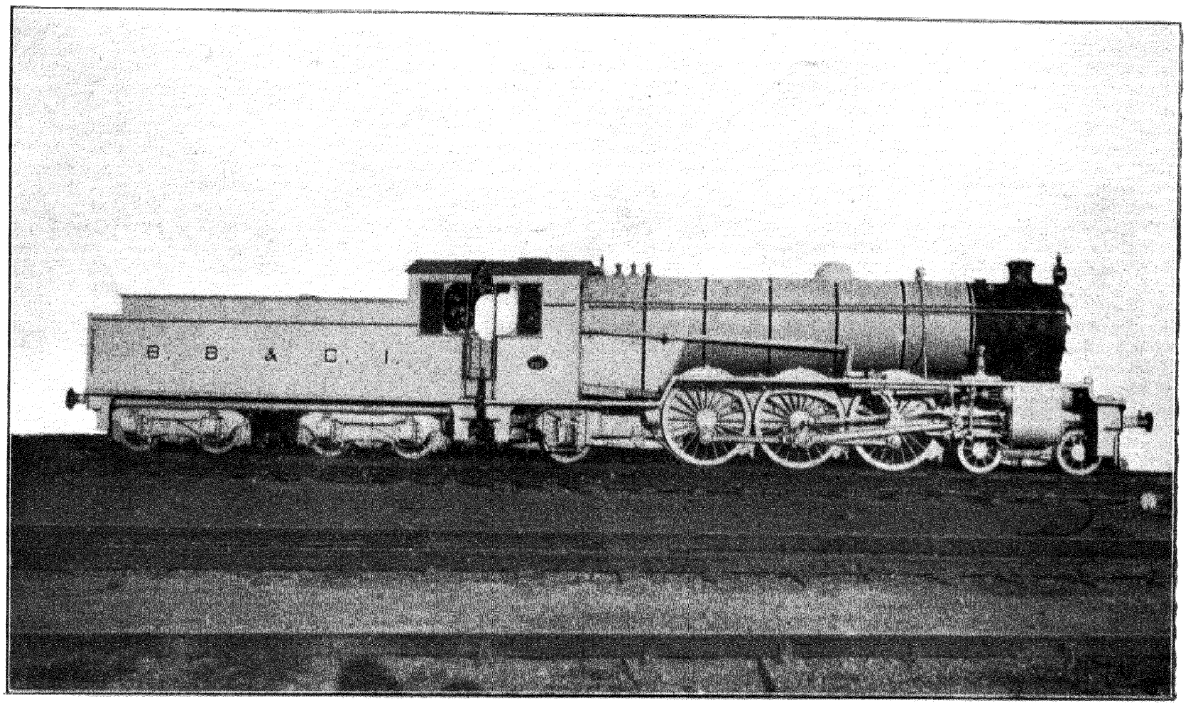
New types of rolling stock.

70. Reports are being received periodically from the North Western Railway regarding the working of the special Mallet engine that was obtained for trial on the heavy grades of the Quetta district, particulars of which were referred to in last year's Administration Report. It is too early yet to form a definite opinion as to whether this engine is the most suitable type for hauling trains over the heavy grades on that railway, as competitive trials have yet to be made with the Garratt Locomotive which was received towards the close of the year under review. Other designs of the Garratt Locomotive are also to be tried out on the heavily graded sections of the Bengal Nagpur and Burma Railways.

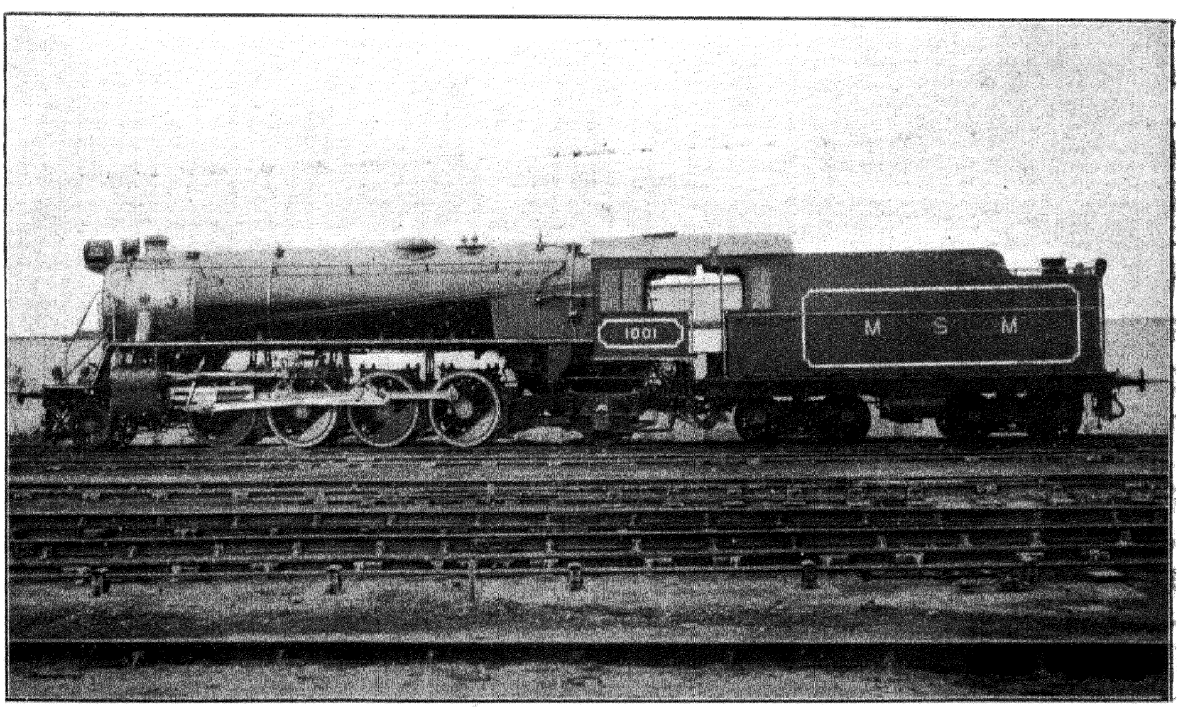
The Board have had under consideration the economical and more efficient working of passenger and mixed train services on sections where coaching traffic is light and have come to the conclusion that self-propelled steam rail coaches could probably be utilised with advantage in substitution of part or the whole of certain passenger services, and as supplementary to existing passenger services, where road competition is strong. They have accordingly decided to experiment with a few such coaches, with and without trailers, on certain sections and branch lines of the North Western and Bengal Nagpur Railways. Sanction has been given to the North Western Railway to acquire three coaches and two trailers, and to the Bengal Nagpur Railway to acquire five coaches and five trailers, two for the 5′ 6″ gauge and three for 2′ 6″ gauge.

Automatic Centre Buffer Coupler.

71. The Railway Board await reports from the railways, which are experimenting with transition devices, and it is too early yet to say what the results of the experiments will be. Some of the coupler manufacturers are also concentrating on the design of suitable gear for use with the automatic coupler during the transition period and it is hoped that a solution, of what is perhaps the most difficult problem in the adoption of the automatic coupler, will be arrived at shortly. In the meantime provision has been made in the railway budget for 1925-26 for expenditure on the



4-6-2 passenger engine, Bombay, Baroda and Central India Railway.



2-8-2 goods engine, Madras and Southern Mahratta Railway.

provision of depôts at certain centres, where the work of conversion of the existing goods stock will be carried out, and on investigating the alterations, if any, that will be necessary in the existing rolling-stock, before the vehicles can be fitted with the centre buffer coupler.

Working of the wagon pool.

72. During the year ended 31st March 1925 the wagon pool was continued on standard gauge railways under the control of the Director of Wagon Interchange appointed by the Indian Railways Conference Association. The wagon control was carried out satisfactorily and the distribution of wagons to meet the demands of the various broad gauge railways was effected without any serious hitch except during October and November 1924, when, owing to breaches on the Oudh and Rohilkhand Railway and East Indian Railway. traffic between the North West of India and Bengal had to be diverted as far as possible *viâ* the Great Indian Peninsula Railway through Agra. The results obtained by railways in the loading of wagons show a progressive improvement in the use of stock.

The Car Record Section of the Director's office has proved most useful during the year in detecting inaccuracies in junction records and in such ways as (1) tracing pooled wagons stencilled with Non-Pool marks; (2) tracing non-pooled wagons moving without Non-Pool stencil marks; (3) tracing wagons with duplicate numbers; (4) tracing wagons restricted to local loading only which were moving on foreign lines; (5) detection of bogie wagons shown as four wheelers and *vice versâ*; (6) detection of coaching vehicles shown as goods stock and interchanged as goods vehicles at junctions.

This section had also to deal with an increasing number of enquiries from junctions and from the commercial departments of railways. For example, the total number of enquiries received from railways increased from 7 in April 1924 to 331 in March 1925. It was also possible to check the results obtained at the yearly census held in September and a total of 1,048 discrepancies were quickly reconciled; all railways' goods stock registers are being brought up to date and will very shortly, when the remaining discrepancies are reconciled, become complete and accurate records which has not been the case in the past.

Wagon supplies in the coal fields

73. Reference was made in last year's report to the arrangement under which preference in wagon supply for coal loading was given to specific public utility concerns and to such consumers as could arrange to take coal supplies in rakes of 50 or half rake of 25 wagons at a time. It was found, however, in practice that the intensive application of the half rake system favoured the larger collieries and for this reason the balance of wagons left over after meeting locomotive demands on Sundays and on alternate Mondays was given to collieries with less than half rake sidings. This measure was continued up to the end of June 1924 when wagons became freely available and rendered any further continuance of the measure unnecessary.

From July onwards the general coal wagon situation was uniformly satisfactory except in regard to a few routes which were subject to periodical restrictions. The route *viâ* Mokameh ghat was principally affected by these restrictions while other routes were those *viâ* Waltair, *viâ* Shalimar Ferry, *viâ* Naihati and *viâ* Santahar. Careful attention was given to the coal travelling *viâ* these routes by the Coal Transportation Officer who worked in co-operation with the railway authorities and consumers.

74. The number of wagons actually supplied to collieries during 1923-24 and 1924-25 on the East Indian and Bengal Nagpur Railways compares as follows :—

	1923-24.	1924-25.
East Indian Railway	656,327	716,009
Bengal Nagpur Railway . . .	244,968	279,632
TOTAL .	901,295	995,641

The average number of wagons supplied daily on the two railways for the two years was approximately as follows :—

	1923-24.	1924-25.
East Indian Railway	1,800	1,962
North Western Railway	670	766
TOTAL .	2,470	2,728

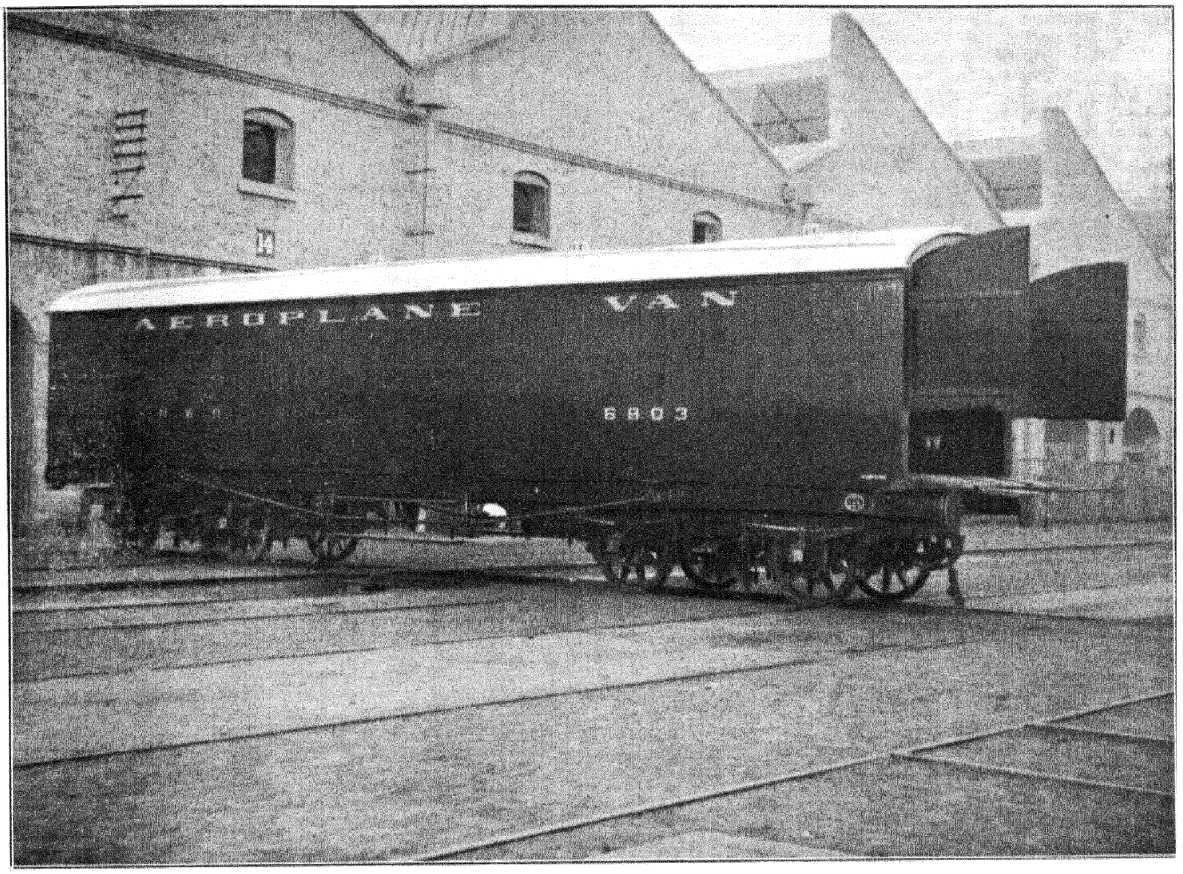
During 1924-25 therefore an average of nearly 260 wagons a day was supplied on the two railways in excess of the number supplied in 1923-24. This excess was to some extent due to the fact that during the year 1924-25 the coal wagon situation was not affected by serious breaches such as occurred in the previous year. Other contributing factors however were (1) the additional transport facilities provided by the railways themselves; (2) the intensive application of the half rake system; (3) the efforts of the Coal Transportation Officer and his Advisory Committee to persuade large consumers to build up stocks of coal during the " slack " monsoon months of 1924 against the busy winter season which normally commences about December each year.

Investigation of the working of junctions of interchange.

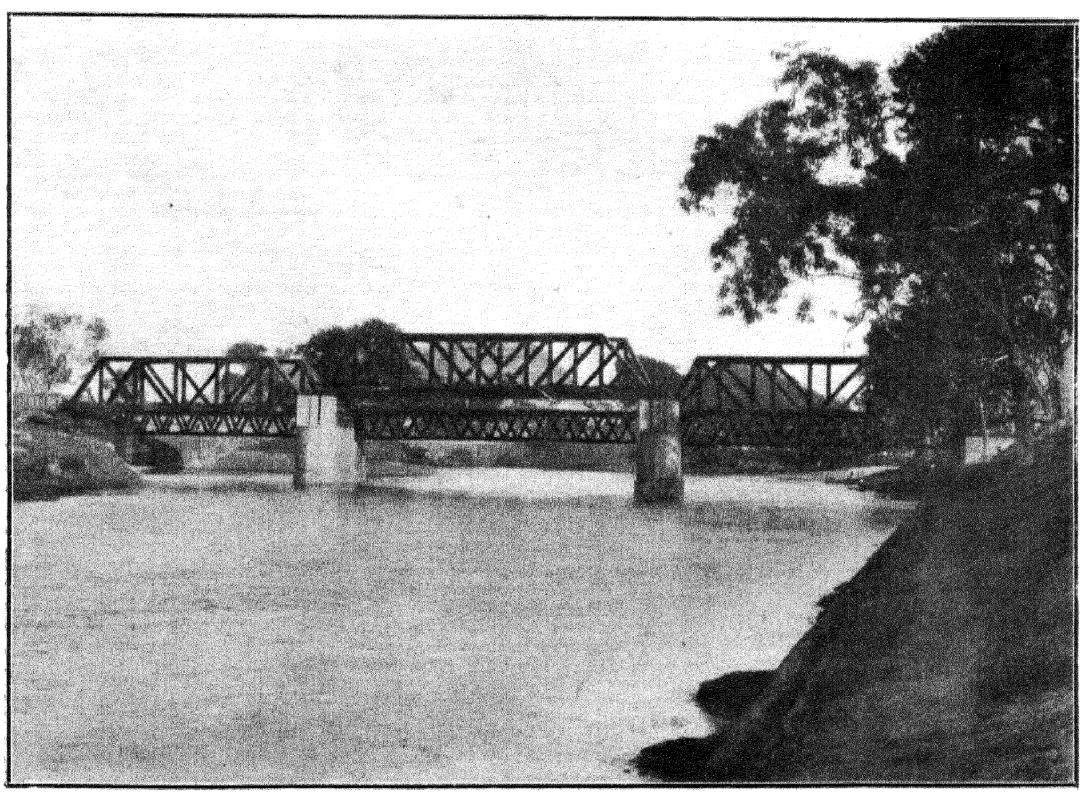
75. Signs were not wanting at the beginning of the year of a probable improvement in trade and a consequent increase in goods traffic, notably over the main lines in Upper India. The Railway Board accordingly had been devoting special attention to the movement of goods stock, particularly with reference to those important pivotal points, where interchange between railways was considerable or where inter-yard work, transhipment, and handling of goods were generally heavy. As a result of their observations, the Railway Board decided that an investigation should be made by an independent officer into the working of certain large junctions, and an officer was, with the concurrence of the railway administrations concerned, deputed to report on the working at Moghalsarai, Naihati, Cawnpore and Agra. His reports were carefully examined by the Railway Board and the railway administrations concerned and suitable action was taken on the recommendations made. The investigation brought out certain weak points in the machinery for dealing with interchanged traffic and disclosed causes of delays to stock and in the opinion of the Railway Board the reports have been of considerable value.

Value of railway materials purchased.

76. The value of materials purchased by Indian Railways in 1924-25 excluding coal, coke, stone, bricks, lime, ballast, etc., showed a decrease of Rs. 6·23 crores as compared with the figures for 1923-24. This was largely due to a decrease in the value of rolling-stock (locomotives) bought during the year and to the attention paid to the reduction in the stores balances during the year. There was a reduction of Rs. 6·33 crores in the value of imported stores purchased and an increase of Rs. 10 lakhs in the value of indigenous stores,



Bogie Aeroplane Van, North Western Railway.



Central Span of Kistna Eastern Canal Bridge on North-Eastern line of the Madras and Southern Mahratta Railway ready for lowering.

The table below gives details of the purchases under the various classes of stores :

	Value of imported material.			Value of indigenous materials	Total purchases 1924-25.	Total purchases 1923-24.
	Purchased direct.	Purchased through Agents in India.	Total imported materials.			
	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.	Rs. crores.
Rolling stock	5·27	0·48	5·75	0·37	6·12	10·86
Tools and stores	0·96	2·12	3·08	3·28	6·36	7·06
Permanent way	0·60	0·27	0·96	4·49	5·45	5·88
Electric Plant	0·74	0·36	1·10	0·01	1·11	0·89
Building and station materials and fencing	0·22	0·23	0·45	0·16	0·61	0·58
Bridge work	0·43	0·03	0·46	0·05	0·51	0·82
Workshop machinery	0·34	0·11	0·45	..	0·45	0·78
Engineer's plant	0·11	0·10	0·21	0·01	0·22	0·19
Total	8·76	3·70	12·46	8·37	20·83	27·06

New stores rules and purchase of Indian manufactured articles.

77. Revised rules for the purchase and supply of articles for the public service were issued by Government in May 1924. The policy underlying these new rules is to encourage the industries of the country, so far as is consistent with economy and efficiency with a more definite preference for stores produced and manufactured wholly or partly in India. The formation of the Indian Stores Department is a direct outcome of that policy and, as that Department are in a position to advise railways as to available sources of supply of indigenous railway stores, all State-worked Railways have been instructed to send copies of all their foreign indents to the Indian Stores Department for scrutiny, with a view to obtaining their advice regarding any articles, included in such indents, which are manufactured and can suitably be purchased in India. The services of the inspection and testing branches of that Department are employed by State-worked Railways and Company-worked Railways have also been advised to make greater use of these facilities. Further the Agents of State-worked Railways have been requested to make the fullest use of the Indian Stores Department as a purchasing agency in all cases in which it is considered that their services can advantageously be utilised.

Wagon bounties.

78. Early in 1924-25 the Legislative Assembly passed the Steel Industry (Protection) Act, section 4 of which authorises certain bounties for wagons built in India. In July 1924, shortly after the passing of this Act, the Railway Board called for tenders for the construction in India of 1,050A-2 and 1,250 C-2 type wagons. They received in response tenders for A-2 wagons at prices from Rs. 479 to Rs. 593 per wagon in excess of those for wagons ordered abroad in the previous February; and for C-2 wagons at prices Rs. 886 and Rs. 458 in excess of the February prices. But the tendering firms could only offer delivery of a maximum number of 320 A-2 wagons and 395 C-2 wagons in the year; or actually, if the orders were placed in the most advantageous manner to Government, only of 320 A-2 and 225 C-2 wagons.

A position of some difficulty therefore arose. In the first place the railways required in 1924-25 the full number of 1,050 A-2 and 1,250 C-2 wagons in order to handle the traffic which they expected. They had therefore in any case to order abroad 730 A-2 and 1,025 C-2 wagons, which the Indian tendering firms could not deliver to them in 1924-25. But at the same time the Indian firms could naturally not be expected to accept orders for only 320 A-2 and 225 C-2 wagons at prices which they had quoted for a much larger number, nor would so limited an order have fulfilled the object of section 4 of the Steel Industry (Protection) Act of establishing the wagon building industry. It was necessary therefore to give the firms orders involving an extension of delivery into 1925-26. The Railway Board overcame this difficulty by anticipating to some extent their requirements for 1925-26, and placing with the tendering firms orders for the delivery of 850 A-2 and 1,250 C-2 wagons, of which 320 A-2 and 225 C-2 wagons were expected to be delivered in 1924-25 and the balance in the following year.

But this by itself did not solve the problem. Section 4 of the Steel Industry (Protection) Act limits the amount payable as bounty to 7 lakhs in each financial year and does not allow of any sum remaining unspent in one year being added to the bounty that can be given in the following year. If the prices quoted by the tendering firms had been accepted as they stood, the amount payable as bounty in 1924-25 would, owing to the small deliveries which the firms could make in that year, have been only some Rs. 2,70,000, while the bounty payable in 1925-26 on the 530 A-2 and 1,025 C-2 wagons to be delivered in that year, would have been about Rs. 7,40,000. In order to keep the bounty payable in 1925-26 within the permissible limit of 7 lakhs it would in any event have been necessary to reduce by negotiation either the numbers to be delivered, or the prices to be paid in that year; but what was much more serious was that unless the Indian firms could tender for further orders in 1925-26 at competitive prices with foreign firms, they might find themselves without orders after November or December 1925, since the bounty for 1924-25 would have already been exhausted. With this prospect in front of them, it seemed most unlikely that the firms would be prepared to take vigorous action to set the industry going.

79. The Railway Board met this difficulty in the following way. They rejected all the tenders and negotiated jointly with the firms concerned, offering them a higher price for wagons delivered in 1924-25 than for wagons delivered in 1925-26, and fixing those prices so that the total amount received by each firm for the whole order should correspond as closely as possible to the total amount which it would have received for the same number of wagons, had its tender been accepted.

80. These proposals were accepted by the firms with the following result :—

(*i*) Contracts were let for 850 A-2 wagons, at a rate of Rs. 4,750 per wagon for deliveries in 1924-25, which were anticipated to amount to 320 wagons, and at a rate of Rs. 4,200 per wagon for deliveries in 1925-26. The total payment due under these contracts, if deliveries in 1924-25 had come up to expectations would therefore have been Rs. 37,46,000 against Rs. 37,79,300 for the same number of wagons, had the tenders been accepted. Similarly a contract was let for 1,250 C-2 wagons, at a rate of Rs. 4,450 per wagon for

deliveries in 1924-25, expected to be 225 wagons, and at a rate of Rs. 4,000 per wagon for deliveries in 1925-26. The total payments due under this contract, if deliveries had come up to expectations, would have been Rs. 51,01,250 against Rs. 51,15,000, had the tender been accepted. The method adopted by the Railway Board was therefore calculated to result in a saving of Rs. 47,000 to Government, against which the firms obtained the advantage of larger payments at the earlier stages of delivery. The prices fixed represented bounties of Rs. 800 per wagon in 1924-25 and Rs. 300 per wagon in 1925-26. They meant, therefore, had deliveries been distributed as was expected between the two years, a payment of Rs. 4,36,000 in 1924-25 and Rs. 4,66,500 in 1925-26 by way of bounty, leaving Rs. 2,33,500 for bounties in 1925-26 on subsequent orders for wagons for delivery in that year.

(*ii*) In the event, however, the firms failed to deliver the full anticipated numbers of wagons in 1924-25, only 407 wagons being delivered up to 31st March 1925, as against 545 expected to be delivered during the year. This resulted in a total sum of Rs. 3,25,600 being earned by wagon-building firms, on account of bounties on wagons supplied during the year under review, as compared with Rs. 4,36,000 originally estimated as likely to be paid in that year. Of the former amount only Rs. 2,85,600 could be paid before 1st April 1925 owing to wagons being delivered daily up to 31st March 1925, which made it possible to pass and pay all the bills for the wagons by midnight of that date, and on this account a sum of Rs. 40,000 had to be carried over for payment in the year 1925-26. This carry over, coupled with the shortage in delivery against the number of wagons due under the contracts, has had the effect of reducing the balance available for payment of bounties for orders placed in 1925-26 to Rs. 1,52,100, as compared with the original estimated balance of Rs. 2,33,500.

81. In the month of October the Railway Board again invited tenders for the supply of wagons. For purposes of giving effect to the terms of the Steel Industry (Protection) Act, 1924, on this occasion also, the Board selected the A-2 and C-2 types of wagons for orders to be placed in India under the bounty scheme. The numbers of these two types, included in the call, were 515 A-2 and 425 C-2, being the balance of the requirements of these types of wagons in the year 1925-26 of railways joining in the call for tenders. The demand for 515 A-2 type was, however, subsequently reduced to 480 A-2. On examination of the tenders received from wagon building firms in India, it was found that only one firm had adhered to all the terms of the call and had tendered for the supply of 215 A-2 and 115 C-2 wagons at Rs. 3,898 and Rs. 3,800 per wagon respectively. These prices happened to be the lowest of all the quotations received from wagon building firms in India, but they were Rs. 475 for an A-2 and Rs. 700 for a C-2 wagon in excess of the costs of similar wagons based on the lowest satisfactory tenders received from abroad. These sums of Rs. 475 and Rs. 700 per wagon were consequently fixed as the bounty per wagon for A-2 and C-2 type respectively, to be attached to orders placed in India. The Railway Board had no hesitation in accepting the tender for 215 A-2 type wagons, referred to above. With regard to the balance of their requirements, *viz.*, 265 A-2 and 425 C-2 wagons they had to consider how to distribute the orders to the best advantage, taking into consideration the fulfilment of the object of the Steel Industry (Protection) Act, 1924, *viz.*, establishing the wagon building industry

in India, the manufacturing capacity of the firms, the fact that they had in hand orders previously placed for certain types of wagons, and the best financial advantage to the State. The firm, whose tender for 215 A-2 wagons was accepted, was already in possession of an order for 500 A-2 wagons, and the Board, therefore, thought it expedient to make a further offer of the balance of 265 A-2 wagons to that firm, at the same price as tendered for the 215 A-2 wagons. This offer was accepted by the firm. As regards the 425 C-2 wagons it has already been mentioned that the lowest quotation for this type was also from the same firm, who got the order for 480 A-2 wagons. But it was for a small number of wagons, *viz.*, 125 C-2, and moreover it was not considered in consonance with the policy of establishing the wagon building industry in India to give all the orders to one firm. Further, from the reports received from the Indian Stores Department regarding the manufacturing capacity of this firm, it was evident that the firm could not cope with any further orders during the year 1925-26 and might even fail to complete the delivery of all the A-2 wagons ordered from them. At the same time, however, the Board were not prepared to pay more for this type than the lowest tender price received from Indian firms. The Board, therefore, made an offer to another firm, whose tender appeared to correspond very closely to the lowest tender price (*viz.*, Rs. 3,800 per wagon) for C-2 wagons referred to above. This firm had already in hand a large previous order for C-2 wagons. This offer was also accepted. The two firms, which have received the orders for these wagons, are the only two which are engaged solely on wagon building, and the orders were, therefore, most suitably placed, both in consonance with the policy of establishing the wagon building industry in India and also to the best financial advantage to the State. As, however, it was uncertain whether the firm, which got the order for 480 A-2 wagons, would be able to deliver more than 100 A-2 wagons in 1925-26, in addition to those due against previous orders, and as the 480 A-2 wagons ordered from them were urgently required to carry the traffic offering, the Board placed an additional order for 380 A-2 wagons abroad. They felt quite safe in doing so, because they had no doubt that their wagon requirements in 1926-27, in respect of the two types in question, will not be less than the probable output of Indian firms during that year. Apart from the question of the distribution of orders, the Board had to consider also the more difficult question of payment of bounties out of the small amount expected to be available during the year 1925-26, *viz.*, Rs. 2,33,500. At Rs. 475 per wagon the bounty on 480 A-2 wagons alone would amount to Rs. 2,28,000 or practically the full amount expected to be available in 1925-26, and with the further addition of Rs. 2,97,500, at Rs. 700 per wagon, on 425 C-2 wagons the total amount required would be Rs. 5,25,500 altogether, as against the anticipated available balance of Rs. 2,33,500. This latter sum has since been reduced, as already mentioned, to Rs. 1,52,100.

On their past experience the Board were very doubtful whether the firms would actually be able to deliver in 1925-26 all the wagons ordered from them. In any case, the Board felt certain that such balance as might eventually be available during 1925-26, would be sufficient to cover the amount that might fall due on the portion of the total order for A-2 wagons likely to be delivered during the year. The only other question for consideration, therefore, was how to liquidate the amount of bounty due on the order for

425 C-2 wagons and the Board solved this by stipulating when placing the order for these wagons, that although the wagons must be delivered during the year 1925-26, payments for them will be made during that year to the extent of Rs. 3,100 per wagon only and the balance of Rs. 700 per wagon will be paid in April 1926. This stipulation has also been accepted by the firm concerned. It will, however, be clear from the above explanations that the wording of the Act gives rise to considerable difficulties and the question of the best way of avoiding them was under consideration at the end of the year.

Rails and structural steel.

82. During the year under review there was a considerable improvement in the supply of rails from indigenous sources. Demands for a very large quantity of rails and fish-plates, amounting to 113,038 tons and representing almost the entire demands of both State and Company-worked Railways, have been met in the year 1924-25 by the output of the Tata Iron and Steel Company. This is due to large extensions of the works of that Company having come into operation during the course of the year. For several years, on representations received yearly from the firm, Government had agreed to increase the price of steel rails, supplied to the State-worked Railways, under the seven year contract with the Company, but during the year under review no such increase has been necessary owing to the relief afforded by bounties on rails under the Steel Protection Act (1924). This has resulted in a saving of approximately Rs. 6,63,500 to the State-worked Railways, as compared with the preceding year during which an increase of Rs. 26 per ton over the contract price for rails was granted to the Steel Company.

Investigation of sleeper supply.

83. The present arrangement, by which railways purchase wooden sleepers jointly, in each recognised producing area, under the control of a conference of Chief Engineers, was introduced with the object of eliminating competition between railways, reducing prices and distributing surplus supplies from one area to railways that might be unable to obtain their full requirements from other areas. Recent changes, in the conditions governing the supply of sleepers, have, however, resulted in certain difficulties, which could not have been foreseen and for which the remedy is not easy to find. The Reforms have altered the financial position of the provincial Forest Departments and the clash of interests between them and the railways has become more marked. Moreover, as the demand for sleepers increases with the railway mileage and there appeared to be a tendency on the other hand for indigenous supplies of wooden sleepers to diminish, it became necessary to consider the possibility of opening out new forest areas, of substituting new varieties of indigenous timber, suitably treated if necessary for the sal, deodar and other sleepers that have been used in the past, and of using more largely steel, cast-iron and ferro concrete sleepers, in place of timber.

The Railway Board, with a view to making a comprehensive enquiry into the sources of supply of timber sleepers in Burma and India, the possibility of development of such sources, the best methods of arranging for the purchase and also for the reduction of costs of timber sleepers, and the necessity for and advisability of using steel, iron and ferro concrete substitutes, appointed a committee, consisting of a senior Railway Officer and a senior Forest Officer, in October 1923, to investigate the whole subject. The

Committee made an extensive tour throughout India and Burma and submitted their report about the middle of the year 1924. The recommendations made by the committee were carefully considered by the Railway Board and the attention of the administrations of all Class I Railways was drawn to them. The chief recommendations of the Sleeper Committee were in respect to ways and means by which to bring about co-operation between the provincial and other Forest Departments and the railways. These recommendations were considered by the Board, in conjunction with the Inspector General of Forests, as a result of which the Board have decided that a further examination of the best arrangement for purchasing such sleepers should be carried out by a special Forest Officer, attached to the Railway Board's organisation. This officer is to act as adviser to the various groups of the " sleeper pool " and as intermediary between the various groups of the pool and Forest owners. Other recommendations of the committee concerned the possibility of increasing the supply of indigenous wooden sleepers by investigating the financial and practical prospects of the treatment of suitable timbers, which are not fit for use as sleepers without treatment. In this connection the installation of sleeper treating plants in N. E. Assam and South India is under consideration. It is hoped that, when the recommendations of the committee have been given effect to and co-operation is established between the provincial and other Forest Departments, and the railways, the result will be to ensure ample supplies of sleepers for all Indian Railways at reasonable prices.

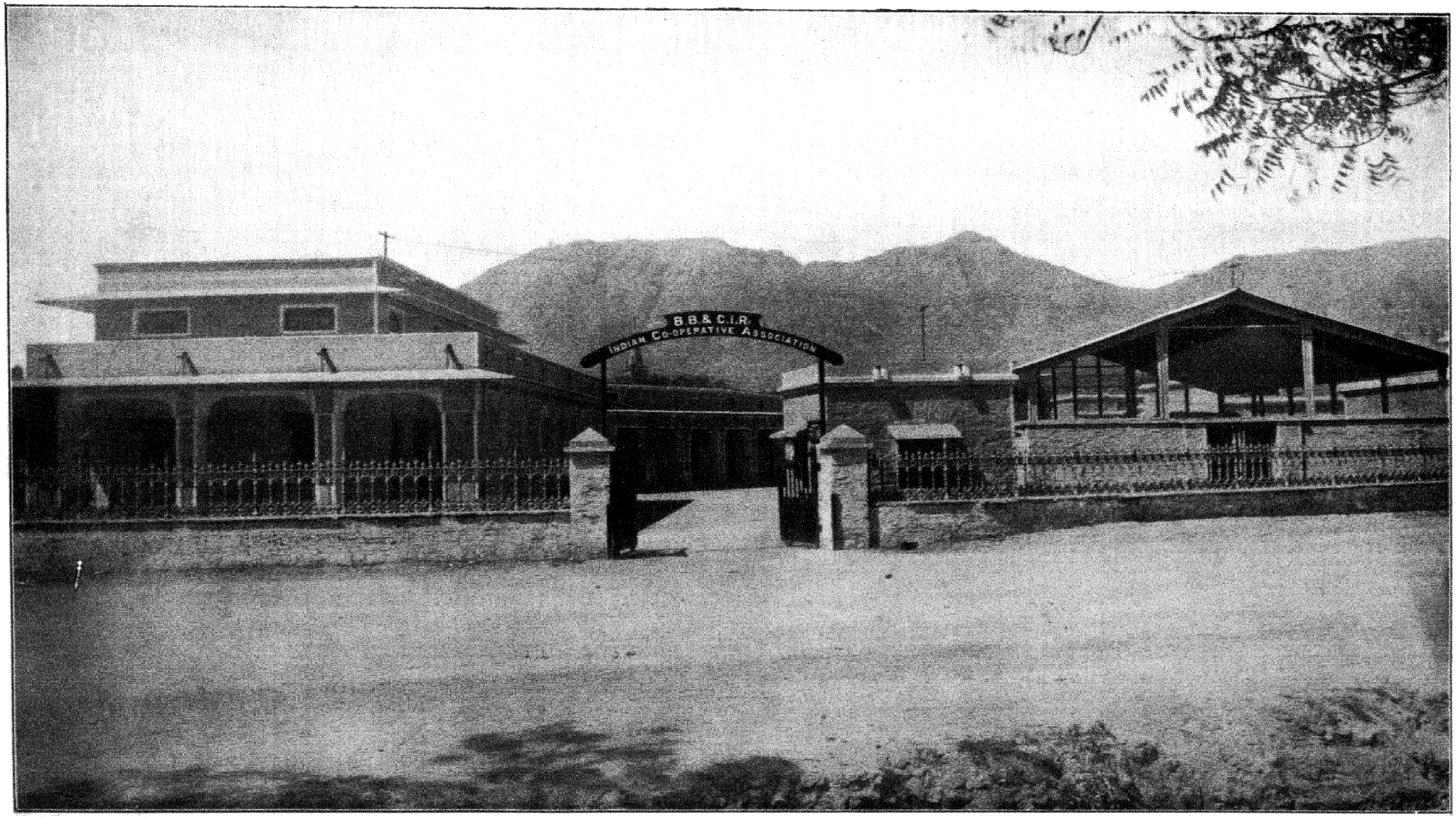
Investigation of timber supply for railway carriages.

84. The Railway Board have also had under consideration the possibility of utilizing the cheaper kinds of Indian timber in the manufacture of railway carriage bodies and with a view to coming to a decision on this subject, an officer was placed on special duty to investigate the matter. He has also investigated the effects on timber of the recognised preservative treatments, as well as the possibilites of reducing timber stocks in railway depôts by the adoption of artificial methods in the seasoning of timber, and other cognate matters. His investigation has been completed and his report is under print. It will be circulated to the Chief Railway Administrations and other authorities concerned, with a view to instituting trials of the recommended species of timber and of the methods of artificial treatment and seasoning of those timbers, which require such treatment or seasoning.

Indian Coal Committee.

85. The Legislative Assembly by a resolution adopted in February 1924, recommended, on economic grounds, the imposition of a countervailing duty on South African coal imported into India. As a result of this, Government decided to ask the Tariff Board to investigate whether the Indian coal trade was in need of protection either against coal from South Africa or against imports of foreign coal generally, and if so, whether, having regard to all the interests concerned, protection should be accorded to it. It was found, however, that the competition, from which the Indian coal industry was suffering, was not so much in the Indian market as in the overseas markets, such as Colombo and Singapore, and it was clear that the overseas markets could not be recovered by the protection of the Indian market. At the same time it was considered possible that the measures necessary to recover the overseas market might also be sufficient, without further protection, to enable Indian coal to meet competition in the home market.

Since such measures were likely to include the grading and transport of coal, which are highly technical subjects, and to deal with which the Tariff



Bombay, Baroda and Central India Railway Indian Co-operative Association building in Ajmer.

1924

Board was not fully equipped, Government decided to appoint an expert Committee, called the Indian Coal Committee, to consider this side of the question and report (1) generally what measures could be taken to stimulate the export of suitable coal from Calcutta to Indian and foreign ports; and (2) in particular, whether effective measures could be taken for the pooling and grading of Indian coal for export and for bunkering.

The Committee commenced its sittings in October, 1924, and its report had not been received at the end of the year.

86. In 1921 contracts for the supply to railways of 4,173,000 tons, 4,227,000 tons and 4,305,000 tons of rail-borne coal during 1922-23, 1923-24, and 1924-25 respectively, were placed at the following rates :— **3-year coal contracts.**

Class of coal.	Rates per ton f.o.r.		
	1922-23.	1923-24.	1924-25.
	Rs. a. p.	Rs. a. p.	Rs. a. p.
Desherghur	11 0 0	11 12 0	12 8 0
Selected Jherria	9 8 0	10 4 0	11 0 0
1st class Jherria	8 12 0	9 8 0	10 4 0
2nd class Jherria	6 8 0	7 0 0	7 8 0

In addition to the above, contracts for sea-borne coal were also placed for the supply of 240,000 to 248,000 tons of coal annually to the Madras and Southern Maharatta and Burma Railways at Rs. 17-1, Rs. 17-13 and Rs. 18-9 respectively per ton f.o.b. Calcutta, during the same three years. In 1921, the price of coal was rising steadily owing to (1) the heavy foreign demand for the better classes of coal, due to the world wide shortage, (2) the decreased output of collieries working the best seams, due to the shallower portions of the mines becoming exhausted and the deeper areas not being opened up, and (3) the large quantities of coal taken off the market by big industrial concerns. It was anticipated at that time that the price of coal would increase still further in future and that the supply of good quality coal would decrease, until such time as the Bokaro and Karanpura coal fields were fully opened up. It was due to such fears that the contracts, mentioned above were placed.

These fears were amply justified in the first two years of the contract period. In the years 1922-23 and 1923-24, the contract rates compared very favourably with those current in the market during that period and supplementary purchases necessary during these two years were made at considerably higher prices than those in the contracts. Further in 1921-22, in order to meet the shortage of Indian coal, 710,066 tons of foreign coal were imported by Class I Indian railways at prices ranging between £2-14 and £3-16 per ton delivered in India. Again in 1922-23 foreign coal to the extent of 693,108 tons was purchased by Indian Railways, owing to the shortage and high prices of Indian coal.

At the beginning of the year 1924-25, however, the conditions in the coal market changed and the prices of coal fell considerably. Moreover, at the commencement of the year, the deliveries, under the 3-year contracts for rail-borne coal, were in arrears to the extent of over 2¼ million tons. Railways were well stocked with coal and they were liable under the contracts to take over 4 million tons in 1924-25, at the rates fixed for that year in the contracts. The railways did not require any of the arrears and the Railway Board were advised that under the terms of the contracts, they were not obliged to take them. It was proposed therefore to cancel the arrears, but representations were immediately received from the coal trade protesting against this action and in consequence two Members of the Railway Board and the Chief Mining Engineer met the officials of the Indian Mining Association and Federation in conference at the beginning of July 1924 and arrived at the following arrangement :—

(*i*) The cancellation of past arrears, amounting to over 2¼ million tons,

(*ii*) Coal supplied against these contracts in 1924-25 to be paid for at prices Rs. 2 less per ton than the contractual rates for Deshurgarh and Rs. 1-4-0 less per ton than the contractual rates for coals of other description;

(*iii*) Contractors accepting this arrangement to be given contracts for the requirements of railways in 1925-26 at rates 4 annas per ton less than the revised rates fixed for 1924-25, and for quantities based on the quantities provided for in the 1924-25 contracts and determined in the following manner. Where a contractor was in no way in default, that is to say, where responsibility for the arrears of previous years could in no way be attributed to him, his contract for 1925-26 is for the full contractual quantity for the year 1924-25; in other cases the contract for 1925-26 is for 75 per cent., 50 per cent., 25 per cent. or exceptionally *nil*, according to the measure of the contractor's responsibility for the default which has produced the arrears;

(*iv*) The contractual quantities for 1924-25 and 1925-26 to be taken at the revised prices without cancellation of any arrears remaining to be delivered after the termination of each year.

The net result of the revision of these contracts by mutual agreement is that the Government have effected a saving during 1924-25 of about 65 lakhs of rupees, and have contracted for rather over 3 million tons during 1925-26 which is about a million tons less than the contractual quantity for 1924-25.

Coal supply.

87. The summary below shows the total quantities of Indian coal consumed on Indian Railways during the last three years and the quantities obtained from railway-owned collieries :—

Year.	Indian coal consumed on Indian Railways.	Quantity obtained from railway-owned collieries.
1922-23	5,476,041	1,628,034
1923-24	6,060,693	1,692,876
1924-25	6,594,875	2,033,468

Good progress was made with the development of the three collieries mentioned in last year's report. The Madras and Southern Mahratta and Bengal

Nagpur Railways have both made investigations in the Talcher coalfield, south of Calcutta, where good coal has been proved, but negotiations for leases had not been finally concluded at the end of the year. This is a particularly favourable situation for collieries for these two railways and will save a long distance in haulage of coal for the Madras and Southern Mahratta Railway and the East Coast Section of the Bengal Nagpur Railway.

CHAPTER V.

STAFF.

Number of staff.

88. The total number of railway employees at the end of the financial year 1924-25 was 740,854 as compared with 720,754 in the previous year. This is an increase of 20,100 in number as compared with 1923-24 but a decrease of 8,826 as compared with 1922-23 inspite of an increase in mileage of over 650 miles during the last two years. The following table shows the total number of European, Anglo-Indian and Indian employees for 1924-25 as compared with 1923-24, 1922-23 and 1913-14 :—

Year.	European.	Anglo-Indian.	Indian.	TOTAL.
1913-14	7,986	10,437	614,882	633,305
1922-23 . . .	6,883	12,129	730,668	749,680
1923-24* . . .	6,565	11,500	702,689	720,754
1924-25 . . .	6,299	11,965	722,590	740,854

* Revised figures.

Cost of staff.

89. The following statement shows the cost of staff employed on Class I Railways (excluding Jodhpur Railway) during 1923-24 and 1924-25 :—

Railway system.	1923-24.	1924-25.
Assam-Bengal	35,32,482	35,97,779
Bengal-Nagpur	2,30,87,810	2,63,72,735
Bengal and North-Western	66,36,387	67,90,257
Bombay Baroda and Central India . . .	4,11,97,265	4,13,66,581
Burma	1,34,55,687	1,37,98,830
Eastern Bengal	2,19,21,272	2,23,42,598
East Indian	4,82,42,619	5,07,25,142
Great Indian Peninsula	4,63,95,505	4,70,15,264
Madras and Southern Mahratta . . .	2,17,68,565	2,25,83,292
Nizam's Guaranteed State	53,22,513	53,70,297
North-Western	5,19,21,215	5,44,90,108
Oudh and Rohilkhand	1,32,38,637	1,43,32,093
Rohilkund and Kumaon	16,28,778	15,40,679
South Indian	1,58,15,273	1,61,44,604
TOTAL .	31,41,64,008	32,64,70,254

The figures of the cost of staff shown this year for 1923-24 differ from those quoted in last year's report and they now include salaries, wages, gratuities, overtime allowances and all other allowances which are of the nature of extra pay and which are not granted to meet some definite expense incurred in the performance of duty such as travelling allowances. All railways except the Rohilkund and Kumaon Railway show small increases in the expenditure on staff chiefly due to the large increase in traffic during the year.

Indianisation.

90. The progress made during the year under review in the more extended employment of Indians in the higher grades of Railway services is shown in the following statement which gives the details of the total number of superior staff employed on State and Companies' lines on the 1st April 1925 as compared with the 1st April 1924 :—

Details of the numbers of officers in each department will be found in Appendix G.

Statement of gazetted officers and officers of corresponding rank employed on Class I railways (excluding Nizam's Guaranteed State and Jodhpur Railways) on the 1st April 1925 as compared with 1st April 1924.

Name of Railway.	1st April 1924.					1st April 1925.					Increase + Decrease—				
	Europeans.	Anglo-Indians.	Muslims.	Non-Muslims.	Total.	Europeans.	Anglo-Indians.	Muslims	Non-Muslims.	Total.	Europeans.	Anglo-Indians.	Muslims.	Non-Muslims.	Total.
A. B. . . .	53	2	1	5	60	52	2	1	6	61	...	...	...	+1	+1
B. N. . .	162	14	6	24	206	171	15	5	28	219	+9	+1	—1	+4	+13
B. & N. W. .	51	...	1	3	55	55	...	1	3	59	+4	...	...	...	+4
B. B. & C. I. .	155	6	1	22	184	162	6	...	25	193	+7	...	—1	+3	+9
Burma . .	91	7	...	5	103	91	7	...	7	105	...	..	...	+2	+2
E. B. . . .	83	10	3	35	131	81	6	3	35	125	—2	—4	...	...	—6
E. I. . . .	189	11	5	32	237	184	13	5	34	236	—5	+2	...	+2	—1
G. I. P. .	195	9	4	22	230	185	6	5	25	221	—10	—3	+1	+3	—9
M. & S. M. . .	117	4	1	18	140	122	4	1	17	144	+5	...	...	—1	+4
N. W. . .	204	15	11	48	278	194	19	11	55	279	—10	+4	...	+7	+1
O. & R. . .	54	2	8	14	78	52	2	7	17	78	—2	...	—1	+3	...
R. & K. . .	13	..	...	2	15	12	...	...	1	13	—1	...	...	—1	—2
S. I. . . .	82	4	1	12	99	93	3	1	17	114	+11	—1	...	+5	+15
State Railway Officers not previously included.	62	5	2	3	72	62	4	5	13	84	...	—1	+3	+10	+12
Total .	1,510	89	44	245	1,888	1,516	87	45	283	1,931	+6	—2	+1	+38	+43

Statement showing percentages of total officers employed.

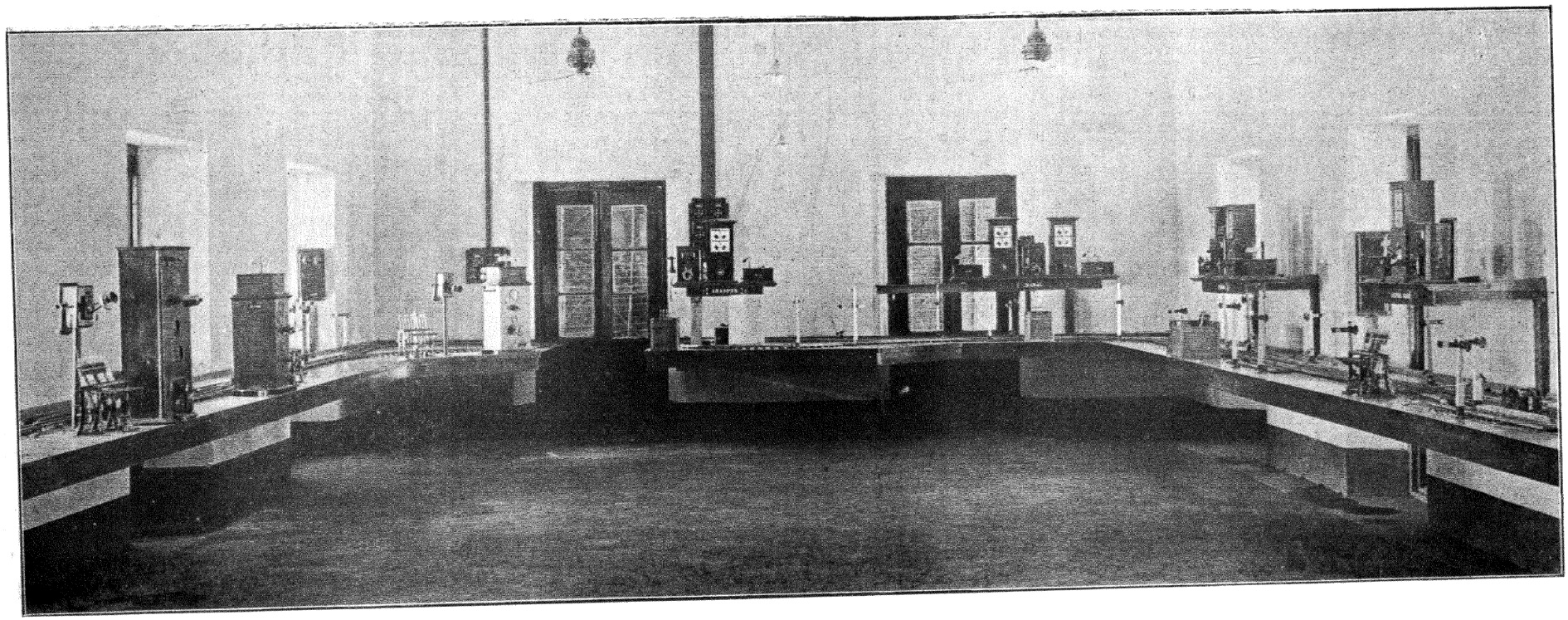
	North-Western, Oudh and Rohilkhand and Eastern Bengal.		Total Class I Railways (excluding Nizam's Guaranteed State and Jodhpur Railways).	
	1st April 1924.	1st April 1925.	1st April 1924.	1st April 1925.
Muslims	4·52	4·36	2·33	2·33
Non-Muslims	19·92	22·20	12·98	14·66
Total Indians	24·44	26·56	15·31	16·99
Anglo-Indians	5·54	5·60	4·71	4·50
Europeans	70·02	67·84	79·98	78·51

91. In the year ending the 31st March 1925 the number of Indians in superior appointments rose from 378 to 415.

On State-worked Railways other than the East Indian Railway which was taken over on the 1st January 1925, Indians fill about 27 per cent. of the posts in the superior cadre. During the year one probationary Assistant Traffic Superintendent and 4 apprentice Assistant Traffic Superintendents were appointed all of whom were Indians. One temporary post of Locomotive Officer was filled by an Indian who has since been confirmed. Five Assistant Executive Engineers were recruited of whom 3 were Indians. One Assistant Engineer was appointed and he too was an Indian. Six Indian Officers held appointments on the staff of the Railway Board. As regards the future, the Government of India have accepted the recommendation of the Lee Commission that " the extension of the existing training facilities (in India) should be pressed forward as expeditiously as possible in order that the recruitment of Indians may be advanced as soon as practicable up to 75 per cent. of the total number of vacancies in the Railway department as a whole, the remaining 25 per cent. being recruited in England ". Measures are being devised which will enable practical effect to be given to this principle.

92. The extended employment of Indians in the higher subordinate grades of Railway Service also received close attention during the year. The following statement shows details of the higher paid subordinate staff employed on the State and Companies' lines on the 1st April 1925 as compared with the 1st April 1924 :—

Details of the numbers in each department will be found in Appendix G.



Traffic Model Room, Chandausi Transportation School.

Statement of Subordinates, drawing Rs. 250 per mensem and over or on scales of pay rising to Rs. 250 per mensem and over on Class I Railways (excluding Nizam's Guaranteed State nd Jodhpur Railways) on the 1st April 1925 as compared with 1st April 1924.

Name of Railway.	1st April 1924.					1st April 1925.					Increase + Decrease —				
	Europeans.	Anglo-Indians.	Muslims.	Non-Muslims.	Total.	Europeans.	Anglo-Indians.	Muslims.	Non-Muslims.	Total.	Europeans.	Anglo-Indians.	Muslims.	Non-Muslims.	Total.
A. B. . . .	24	43	4	20	91	22	45	4	24	95	—2	+2	...	+4	+4
B. N. . . .	292	314	9	124	739	358	379	11	143	891	+66	+65	+2	+19	+152
B. & N. W. .	32	51	2	12	97	34	56	2	15	107	+2	+5	..	+3	+10
B. B. & C. I. .	308	315	27	375	1,025	283	255	25	382	945	—25	—60	—2	+7	—80
Burma . .	38	160	9	95	302	35	171	9	103	318	—3	+11	...	+8	+16
E. B. . . .	128	165	5	117	415	144	151	5	111	411	+16	—14	...	—6	—4
E. I. . . .	857	675	15	182	1,729	780	670	12	207	1,669	—77	—5	—3	+25	—60
G. I. P. . .	456	350	17	184	1,007	508	472	36	270	1,286	+52	+122	+19	+86	+279
M. & S. M. . .	83	161	1	31	276	85	171	1	33	290	+2	+10	...	+2	+14
N. W. . .	438	290	112	297	1,137	412	294	138	359	1,203	—26	+4	+26	+62	+66
O. & R. . .	87	108	12	74	281	79	119	13	93	304	—8	+11	+1	+19	+23
R. & K. . .	9	9	1	7	26	7	10	1	7	25	—2	+1	...	..	—1
S. I. . . .	66	145	2	66	279	63	156	2	75	296	—3	+11	..	+9	+17
Total .	2,818	2,786	216	1,584	7,404	2,810	2,949	259	1,822	7,840	—8	+163	+43	+238	+436

Statement showing percentages of total senior subordinates employed.

	North-Western, Oudh and Rohilkhand and Eastern Bengal.		Total class I Railways (excluding Nizam's Guaranteed State and Jodhpur Railways)	
	1st April 1924.	1st April 1925.	1st April 1924	1st April 1925
Muslims	7·04	8·13	2·92	3·30
Non-Muslims	26·62	29·36	21·39	23·24
Total Indians	33·66	37·49	24·31	26·54
Anglo-Indians	30·72	29·40	37·63	37·62
Europeans	35·62	33·11	38·06	35·84

93. These statements show that during the year under review the number of Indians (including Anglo-Indians) in the higher subordinate grades rose from 4,586 in 1924 to 5,030 in 1925, while on State Railways the number of Indians rose from 1,180 to 1,283.

94. The question of devising suitable means to enable Indians to rise from the lower to the higher subordinate grades was considered at a meeting of the Railway Board with the Agents of the principal railways and the conclusion arrived at was that the main requisite was a definite scheme of training for the higher subordinate appointments, of which Indians may be able to avail themselves in order to qualify for such appointments.

Training of Staff.

95. Mention was made in last year's report of the measures which were in progress for the inauguration of a Transportation School at Chandausi. These measures have since been brought to completion and the school was opened on 2nd March. The inauguration of this school marks an entirely new departure in the important matter of the training of Railway Officers and senior subordinates in India and a full description will be given in next year's report.

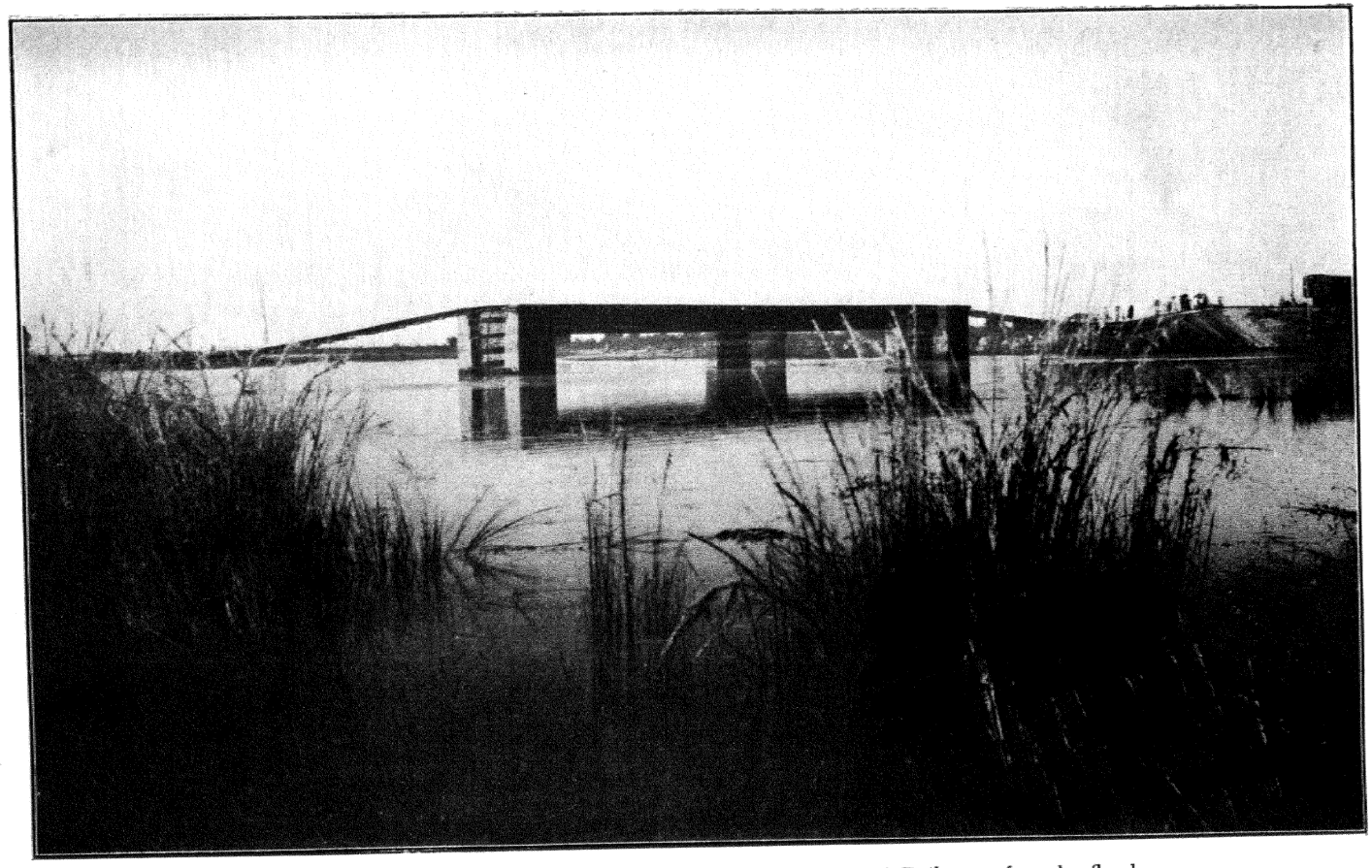
Recruitment.

96. The question of the recruitment and training of superior staff in India, which has now acquired special importance owing to the policy of progressive Indianisation adopted by Government on the recommendations of the Royal Commission on the Superior Civil Services in India, continued to occupy the attention of the Railway Board during the year under review. They have drawn up a provisional report embodying their conclusions and intend to issue a communiqué on the subject as soon as possible after the report is discussed with the Central Advisory Council and finally approved by the Government of India.

Strikes.

97. In June 1924 there was a strike by the Loco. firemen at a few stations on the South Indian Railway, but it was of brief duration.

On the 26th March 1925 some of the staff in the Rawalpindi Locomotive shops on the North-Western Railway refused to work. The ostensible cause of the strike was the discharge of a fitter for disobedience of orders but this incident was not so much as mentioned in the statement of 'ultimate demands' issued early in April by the strike leaders. The real cause must be sought for in the internal affairs of the North-Western Railway Union. Three leaders who are said to have forcibly seized the Union Offices, made use of this incident in order to establish their position and without any ballot being taken, a general strike was proclaimed apparently solely on the authority of the working committee. This strike spread to various parts of the line and continued for some time during the next financial year.



60′ girder bridge at mile 480, main line, Oudh and Rohilkhand Railway, after the floods.

CHAPTER VI.

MISCELLANEOUS.

98. In last year's report a brief summary was given of what each railway had done during the year in increasing the facilities for lower class passengers as it was realised that this was one of the most important problems which Indian Railway Administrations have to face. Further progress has been made during the year under review in the provision of extra facilities and the advice of the Local Advisory Committees has been found useful in helping to decide what extra facilities are most urgently required. In this connection it is interesting to note that the demand for refreshment cars for lower class passengers is by no means general as the Great Indian Peninsula Railway which introduced a refreshment car for Indian passengers on the Bombay-Delhi express have had to discontinue its running as it was found that it was not patronised. The same difficulty has been found with refreshment rooms on some lines, *e.g.*, a refreshment room for Hindus at Hardwar has had to be closed as no contractor will accept the work owing to the want of patronage by the travelling public.

Increased facilities for lower class passengers.

99. A brief summary is given below of the steps taken on the more important railways during 1924-25 to improve the facilities for lower class passengers.

Assam-Bengal Railway.

Shuttle trains have been introduced on the Noakhali and Jharia Jhanjail branches and two extra trains on each of the Sylhet and Naginimora Branches.

Extra inter class accommodation has been provided on a large number of trains and electric lights, better seating and latrine accommodation are being provided for 3rd class passengers.

Extra facilities for water have been provided at six stations and extra food stalls or tea rooms for Hindus at five stations and for Muhammadans at four stations.

Waiting sheds for 3rd class passengers have been built at 22 stations and for female passengers at five stations.

Bengal and North-Western Railway.

The design of the new 3rd class coaches has been improved by the provision of electric lights in the latrines.

3rd class waiting sheds have been provided at six stations and Indian ladies waiting rooms at ten stations.

Vendors' shops have been provided at three stations and the construction of Indian refreshment rooms at Barauni Junction and Gonda is in hand.

Bengal-Nagpur Railway.

Two additional local trains have been introduced on the Howrah-Khargpur section and the Howrah-Machada service has been extended to Panchkura.

A new design for 3rd class carriages has been approved in which provision is made for two small compartments in addition to two large compart-

ments. All compartments will be provided with upper berths and bundle racks. Improvements have been made in the design of latrines, lighting and water supply.

A Hindu refreshment room has been opened at Waltair and estimates have been sanctioned for providing Indian refreshment rooms, stalls, etc., at a large number of stations.

A 3rd class waiting shed has been opened at Chatrapur and sheds are under construction at three stations.

Burma Railways.

Electric lighting has been provided in 53 third class carriages.

Extra facilities for water have been provided at three stations.

Vendors' stalls have been provided at one station and are under construction at 25 other stations.

Vendors' stalls have been provided at 24 stations on newly opened lines.

Extensions to waiting sheds have been carried out at 15 stations.

Bombay, Baroda and Central India Railway.

An additional goods train with 3rd class carriages has been provided between Nagda and Shamgarh for six months on the broad gauge and six extra trains have been provided on the metre gauge; the running of four existing trains has been extended.

A new design for 3rd class carriages on the broad and metre gauges has been adopted and this provides for small compartments which can be reserved.

Extra facilities for water have been provided or are in course of erection at 31 stations. Extra stalls for the supply of refreshments to Hindus and Muhammadans are being provided at seven stations and are under consideration at eight other stations.

Extra waiting sheds for 3rd class passengers have been provided at seven stations and existing sheds have been extended at five stations.

The provision of high level platforms, the improvement of the lighting on trains and the provision of extra facilities for the supply of food on trains and its supervision by special Indian Catering Inspectors are in hand.

Eastern Bengal Railway.

Twelve extra trains on the broad gauge and three extra trains on the metre gauge in addition to a shuttle service between Siliguri and Jalpaiguri have been introduced.

Arrangements are being made to provide small inter and third class compartments on long distance trains for small parties requiring reserved accommodation and the size of the latrines and water capacity in third class carriages are being increased.

Tube wells have been provided at six stations and gravity water supply at two other stations while extra facilities for the supply of water have been arranged at Sealdah main station.

Four inter and third class ladies waiting rooms have been provided and extensions made to the inter and third class ladies waiting rooms at Sealdah and to third class waiting sheds at three other stations.

A new station Ultadanga is under construction near Calcutta.

Sanction has been accorded to the provision of a second platform and foot over-bridge at Krishnagar City and to the extension of Up and Down platforms at Dum Dum Junction.

East Indian Railway.

Four extra trains have been introduced during the year.

Thirty bogie 3rd class carriages with small compartments have been placed on the road and these contain improved latrine arrangements and electric lighting.

Extra facilities for water are being provided at 15 stations and a 3rd class compartment on 6 expresses has been fitted for the supply of water to passengers travelling by those trains.

The building of refreshment rooms for Hindu and Muhammadan passengers at Howrah was completed during the year and the provision of such rooms at Mokameh and Patna City is under consideration.

Plans have been drawn up for the provision of raised platforms, over-bridges, waiting halls, covered platforms and zenana enclosures during the next five years and will be carried out as funds permit.

Great Indian Peninsula Railway.

Three trains each way have been run on the Itarsi-Nagpur railway from September 1924.

Twenty-five electric trains each way between Kurla and Victoria Terminus have been introduced from 4th February 1925.

One extra train each way between Bandra and Gowari has been run from February 1925.

Four extra trips each way have been run on the Kurla-Chembur Branch from 1st March 1925.

Extra facilities for the supply of water have been provided at nine stations.

Hindu and Muhammadan refreshment rooms have been opened at Badnera, Murtajapur and Jhansi.

New 3rd class waiting sheds have been provided at 17 stations and are under construction at 22 other stations. Existing sheds have been extended or altered to provide additional accommodation at nine stations, and extensions are in progress at four other stations. New waiting rooms for Indians have been built at Jhansi.

Extra facilities in the form of food stalls and cook houses for 3rd class passengers have been provided at 16 stations. The license fees for the sale of Indian food and fruit, etc., at stations have been reduced to a nominal figure and the prices of fruits and food, etc., have been appreciably reduced; three additional food Inspectors have also been provided to ensure that a good quality of food is provided.

Additional latrine accommodation has been provided at nine stations and benches at stations where the traffic warranted such provision.

Jodhpur Railway.

Additional facilities for the supply of water have been provided at six stations and passenger sheds for 3rd class passengers have been provided at Tando-Jam and Jamrao.

Madras and Southern Mahratta Railway.

Eleven extra trains have been introduced on the broad gauge including a fast express train between Madras and Bangalore and the running of other trains has been extended. Six extra trains have been introduced on the metre gauge including four for the busy season between Poona and Miraj and Hubli and Gadag and the running of other trains has been extended. Through carriages have been arranged to run between Miraj and Hubli and, for the convenience of passengers to and from Shimoga, to Bangalore and Birur.

An improved type of bogie 3rd class carriage has been introduced in which upper bunks are provided for sleeping and also for use as parcel racks during the day; luggage racks are provided only over the centre bunks.

Sixteen electric lights are provided in the place of six lights and the water capacity in these carriages has been doubled.

Extra facilities for the supply of water have been provided at six stations.

Indian refreshment rooms have been provided at five stations.

A 3rd class waiting shed has been built at Dundur and extensions to existing sheds have been provided at nine stations.

Latrine accommodation has been improved at six stations.

Nizam's Guaranteed State Railway.

Increased waiting accommodation for 3rd class passengers has been provided at Secunderabad, Tandur, Dharmabad and Umdanagar and the question of extending the waiting accommodation for 3rd class passengers at nine other stations and of providing extra waiting rooms for Indians at Parbhani and Jalna is under construction.

North-Western Railway.

Eighteen extra passenger trains have been introduced on the North Western Railway during the year.

Twenty-one bogie inter and 3rd class and 28 bogie 3rd class carriages have been placed on the line during the year. These carriages each include two small compartments suitable for reservation by small parties. The water capacity for use in the latrines has been increased from 50 to 75 gallons.

Steps have been taken to improve the supply of cool drinking water for Indian passengers at all stations and cool drinking water storage tanks have been provided at Montgomery.

A Hindu refreshment room has been provided at Hyderabad and a Hindu and Muhammadan refreshment room at Khanewal.

3rd class waiting halls have been provided at 21 stations and existing halls have been extended at three sations. An inter class ladies waiting room has been provided at Ludhiana.

Oudh and Rohilkhand Railway.

A through express train has been introduced between Sealdah and Lucknow for the benefit of 3rd class passengers from the 1st March 1925. Other additional trains have been arranged between Moghal Sarai and Allahabad, and Jaunpur and Janghai.

Tanks for drinking water have been provided at Kashi and Benares Cantonment and extra water taps at some other stations.

Hindu refreshment rooms have been opened at Bareilly and Benares Cantonment and a refreshment room for Hindus has been built at Hardwar but for want of patronage by the travelling public no contractor will accept the work and the room had to be closed down.

3rd class passenger sheds have been provided at six stations during the year and waiting rooms for Indian ladies at five stations.

A booking office has been opened at Hardwar for the convenience of 3rd class passengers and extra facilities for the booking of 3rd class passengers have been provided at three stations.

Rohilkund and Kumaon Railway.

Extra passenger halls have been constructed at Haldwani and Kathgodam and one for Mailani is under consideration.

3rd class bogie stock has been introduced in the place of six wheeled stock on certain trains.

South Indian Railway.

Twenty-four extra shuttle and through trains have been introduced on the broad and metre gauge sections while the running of four other trains has been extended.

Additional water facilities have been provided at ten stations and watermen have been concentrated at those stations where trains halt 10 minutes or longer.

New Indian refreshment rooms are being built at Calicut and Mettupalaiyam.

The existing waiting shed accommodation for 3rd class passengers has been extended at eight stations and new accommodation provided at three stations.

Station platforms have been extended at ten stations and sanction has been accorded to the provision of extra waiting shed accommodation at a number of stations.

As an experimental measure an Indian catering department has been formed and has undertaken the management of the Indian refreshment rooms at six of the larger stations.

Flood damages.

100. Indian railways during 1924-25 again suffered severely from the effects of floods although the damage was limited to fewer railways. The worst floods occurred in Sourthern India in July and in Northern India in September and October. The former were due to an unusually heavy burst of the south west monsoon in Southern India during the second half of July, which resulted in floods of unprecedented severity and caused severe damage to many sections of the South Indian Railway. The latter were due to very heavy rain-fall in the foot hills of the Himalayas, where the Ganges debouches

from its gorge on to the plains, and in the Siwalik range of hills between Roorkee and Dehra Dun; this resulted in extensive floods which laid waste large areas of country and washed away long lengths of railway. The railway mainly affected was the Oudh and Rohilkhand Railway although the East Indian, North-Western and Rohilkund and Kumaon Railways also suffered from these floods. The effects of some of these breaches lasted for considerable periods owing to the extensive damage caused, long lengths of line having been practically destroyed in some places. Details are given of the more important damages suffered by railways during 1924-25.

South Indian Railway.

The sections mainly affected by the floods in the second half of July 1924 were the broad gauge line between Olavakkot and Calicut, the Shoranur-Ernakulam branch, the Travancore branch, the Erode Trichinopoly branch, and the line between Tanjore and Chidambaram. Traffic had to be suspended on the several sections for periods ranging from a few days to about two months.

Olavakkot-Calicut.—Owing mainly to the Ponnam river overflowing its banks, extensive breaches occurred on this line between 16th and 17th July and a 20′ girder bridge was washed away. The section from Olavakkot to Shoranur was repaired by the 26th of July but much of that work was carried away by a further rise of the river, and mail trains only resumed running on the 30th of July. Communications between Shoranur and Calicut took longer to restore, but by the 19th of August it became possible to work traffic through except that transhipment was necessary for a long time at the Poorapooramba River between Tanur and Parpanangadi stations, the bridge over the river (3 spans of 64 feet) having been carried away.

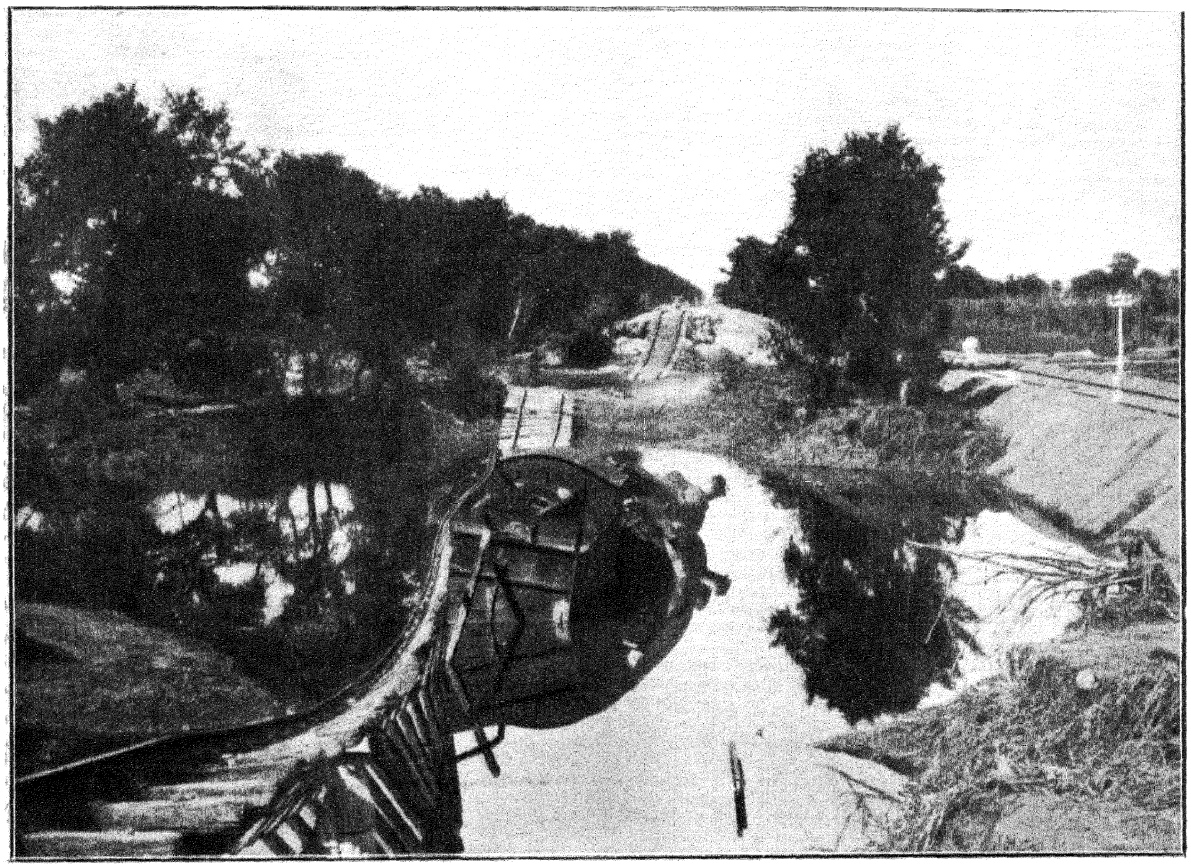
Erode-Salem.—The running of trains over the Cauvery Bridge near Erode had to be suspended on the 27th of July owing to a rise of 37 feet in the river, which is 7 feet greater than any high flood level previously known. The floods began to subside on the 28th, when trains were again allowed to pass over the bridge.

Shoranur-Ernakulam Railway.—There were several breaches on the Shoranur-Ernakulam Railway between Trichur and Ernakulam and a large portion of the bridge over the Ponnani river was also carried away.

Metre gauge main line.—The line between Kumbakonam and Darasuram on the main line was breached as a result of the floods in the Cauvery on July 20th and after being repaired was breached a second time and through running was only restored on the 1st of August. North of Mayavaram the breaches were extensive and a steamer service had to be arranged between Cuddalore and Negapatam for passengers and mails to and from Madras.

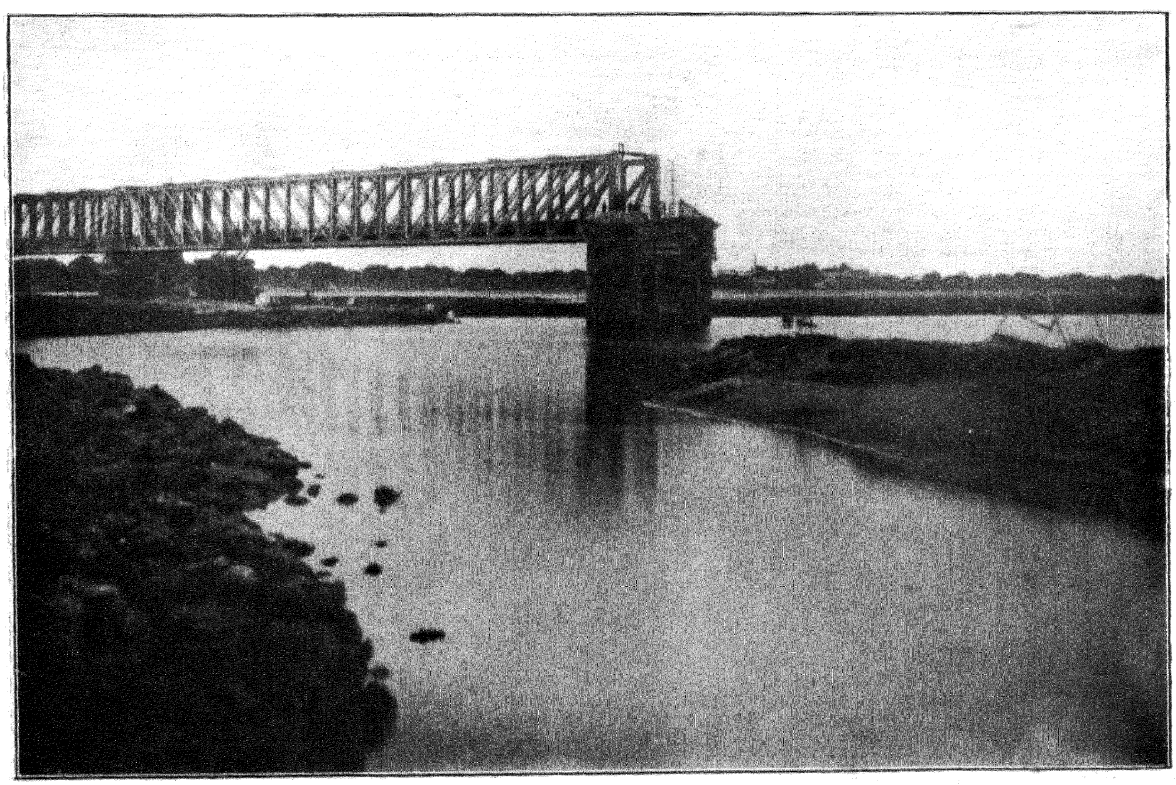
Travancore Branch.—Extensive slips and landslides occurred on the Travancore branch and the line was engulfed in several places between Tenmalai and Aryan kavu. Near Aryan kavu, a length of line of about 5 furlongs completely disappeared owing to a subsidence.

The floods in the Cauvery were also responsible for extensive breaches in the section between Trichinopoly Fort and Kulitalai.



Engine in breach near Lhaksar, Oudh and Rohilkhand Railway, during the floods.

1924



Left abutment of Ramganga bridge on the Moradabad main line, Oudh and Rohilkhand Railway, after the floods.

1924

Oudh and Rohilkhand Railway.

The Oudh and Rohilkhand Railway suffered more severely than other railways as the result of extensive floods towards the end of September and the beginning of October and the photographs opposite pages 67 and 73 of this report will give some idea of the damage caused. In some areas the railway was almost wiped out and it was only after some months that communication could be restored.

On the Hardwar-Dehra Branch the line was breached in 3 places and there was a continuous series of slips between miles 25 and 27 and heavy slips just north of the tunnel at mile 18¼. The rain was so heavy that the water courses could not carry off the water which consequently spread out over the hill side and ran down at such a pace that it stripped first the soil, then the trees and finally the boulders underneath not only filling the culverts but smothering them and the track in a regular avalanche.

Very extensive damage was also done to the railway line in the neighbourhood of Lhaksar where in a stretch of 15 miles the line crosses the Ganges, Banganga, Hardwar and Solani rivers. At one time there was an uninterrupted sea of water 15 miles in extent from Balawali nearly to Landhaura and all the flood openings were being heavily over-worked. In this area it can be said that the railway more or less ceased to exist, bridges and embankments being demolished.

Some gallant actions were done during this period of which that of a permanent way mate named Dallu deserves mention. While patrolling the line this man found that the embankment had subsided under a few sleepers, and while he was attempting to repair the damage the water suddenly rose and breached the bank. Knowing that a passenger train was expected he made a plucky attempt at the risk of his life to cross the breach, but while he was crossing he saw the light of the engine approaching and waved his red light. The breach increased and he was left hanging with both hands on to the rails with his lamp held in his teeth still showing the red light to the approaching engine. The driver saw the light but went forward in order to find out what was the matter. He soon found out for although he proceeded cautiously, his engine subsided into the breach. He and the fireman climbed out over the tender but the Assistant Station Master who was travelling on the engine to find out the cause of the interruption to the telegraph communication was carried away by the flood. Fortunately he caught hold of the branch of a tree as he was being swept away and managed to swim ashore when it was light in the morning.

The floods in the Ramganga River caused extensive damages in the neighbourhood of Moradabad and the left abutment of the Ramganga Bridge on the main line was washed away while other breaches completely isolated Moradabad from the outside world.

Many breaches occurred on the Delhi branch and the worst part of these breaches was the difficulty of obtaining earth to repair them. Some idea of the amount of earth required will be realised from the fact that one breach required 4 million cubic feet of earth to repair it. No. 70 Down Passenger from Delhi had an exciting experience as after it arrived at Kankhather station the line was breached on both sides and the train was cut off on an island; further, owing to a break in the telegraph line nobody knew it was

there. The only food available was in the small private stores of the station staff and this did not go far among 300 passengers. There were a large number of cattle on the island and a communal riot nearly arose owing to the Muhammadans in the train desiring to kill a cow as they did not see why they should starve in the presence of so much potential food. The situation was saved by the Guard discovering that one of the 2nd class passengers was in possession of a gun and a few cartridges and with these he killed a few unfortunate hog deer which were observed dragging themselves out of the water in an exhausted condition.

Considerable damage was also done on the Aligarh and Cawnpore Branches and it was only after many days that through running was resumed.

East Indian Railway.

At Delhi the first indication of an approaching flood was observed at about 3 o'clock in the afternoon on the 28th September 1924, when the water in the Jumna river commenced to rise very rapidly. By noon the following day the water had risen sufficiently to spill over the east bank and submerge the adjoining cultivation. This was followed by an interval of apparent rest lasting about 18 hours; but about 6 o'clock on the morning of 30th a second flood came, which on the 2nd November at 6 P.M. reached the highest level ever recorded in the history of the Jumna river at Delhi.

The result of the excessive rise in the Jumna was that the railway embankment was breached in a number of places over a length of about 4 miles. At the crossing of the East Jumna Canal a skew bridge of three 20 feet arches was completely destroyed and a breach was made in the embankment for a length of about 300 feet to a depth of 55 to 60 feet, below formation. The two tracks of the permanent way were left suspended over the breach and were utilised for a time as a suspension bridge for trollies to run across the gap before a temporary bridge was constructed. Other breaches varied from 80 feet to 500 feet in length and between the breaches the embankment was so badly damaged that it would be more correct to say that there was no embankment left. The energy of the water rushing through the gaps was so violent that holes were scoured from 15 to 35 feet in depth, below the base of the embankment. Repair work was started as soon as possible immediately the flood began to subside but about two months passed before even single line working could be introduced.

Rohilkund and Kumaon Railway.

Exceptionally heavy rains in the Kumaon and Sewalik Hills at the end of September caused record flood levels on the three principal rivers, the Ganges, Ramganga and Sardah, which cross the areas served by the Rohilkund and Kumaon Railway System.

Flood levels were registered which in some cases were 3½ feet higher than any previously recorded in the annals of the Railway extending over forty years.

Floods swept over the country side in a mass of water several miles in width carrying away trees and villages; extensive damage was caused to the Moradabad-Ramnagar and Bareilly-Soron Sections of the Railway and also on the Dudwa Branch. The railway embankments were breached in more than seventy places and four bridges damaged. As

soon as the floods subsided the minor breaches were filled in and temporary lines laid round the larger breaches and by these means railway communication was restored without delay.

North Western Railway.

In addition to several less important breaches at different times during the year, two bridges between Jagadhri and Kalanour on the Ambala-Saharanpur section were washed away on September 29th, 1924, and another breach occurred on the same day between Sarsawa and Kalanour. Further breaches also occurred between Ambala City and Sambhu and passenger and goods traffic had to be diverted. Through booking of coaching traffic was resumed from 16th of October and goods booking from the 20th of October. About the same time the Kalka-Simla Railway was breached in several places.

101. The following table shows the numbers killed and injured separately under passengers, railway servants and other persons for 1924-25 as compared with 1923-24 for the three main groups under which railway accidents are classified :— Accidents.

	Killed.		Injured.	
	1924-25.	1923-24.	1924-25.	1923-24.
A.—Passengers.				
(1) Accidents to trains, rolling-stock, permanent-way, etc.	117	63	206	214
(2) Accidents caused by movements of trains and railway vehicles exclusive of train accidents.	295	300	1,085	1,038
(3) Accidents on railway premises in which the movement of trains, vehicles, etc., were not concerned.	6	9	21	20
Total .	418	372	1,312	1,272
B.—Railway Servants.				
(1) Accidents to trains, rolling-stock, permanent-way, etc.	36	21	168	374
(2) Accidents caused by movements of trains and railway vehicles exclusive of train accidents.	386	355	721	585
(3) Accidents on railway premises in which the movement of trains, vehicles, etc., were not concerned.	44	41	600	461
Total .	466	417	1,489	1,420
C.—Other persons.				
(1) Accidents to trains, rolling-stock, permanent-way, etc.	19	65	34	39
(2) Accidents caused by movements of trains and railway vehicles exclusive of train accidents.	2,016	1,945	764	678
(3) Accidents on railway premises in which the movement of trains, vehicles, etc., were not concerned.	26	19	59	38
Total .	2,061	2,029	857	755
GRAND TOTAL .	2,945	2,818	3,658	3,447

102. The total number of passengers killed and injured show increases of 46 and 40 respectively over the figures of last year but this is mainly due to the Harappa accident in which 107 passengers were killed and 88 injured and of which details are given later. The following statement shows the numbers of passengers killed and injured during the last four years :—

Year.	Killed.	Injured.
1921-22	728	1,569
1922-23	405	1,368
1923-24	372	1,272
1924-25	418	1,312

103. There were also increases in the numbers of railway servants killed and injured during the year and the following table shows the main causes of such accidents on Class I Railways :—

Cause.	Number killed.		Number injured.	
	1924-25	1923-24.	1924-25.	1923-24.
1. Misadventure or accidental	217	181	484	354
2. Want of caution or misconduct on the part of the injured person.	148	153	165	183
3. Want of caution or breach of rules, etc., on the part of servants other than the persons injured.	7	11	38	22
4. Defective systems of working, dangerous places, dangerous conditions of work or want of rules or systems of working.	1	2	2	1
5 Defective apparatus, appliances, etc., or want of sufficient appliances, safeguards, etc.	1	...	2	2
Total	374	347	691	562

Agents of railways have since been addressed about the importance of ensuring safe methods of working and of bringing prominently to the notice of the staff the necessity for " safety first."

104. Out of a total of 2,945 persons killed, 1,665 were trespassers and 262 committed suicide.

105. A brief description of the more important accidents is given below :—

Harappa Accident.

On 29th August 1924, a serious collision occurred on the North Western Railway between Nos. 43 Up and 24 Down Passenger trains at mile 644/2

between Harappa Road and Mirdad Muafi stations on the Lahore-Khanewal section.

These trains were due to cross at Harappa Road and this had been arranged, but, owing to No. 24 Down running late, " Control " subsequently altered the point of crossing to Mirdad Muafi. On receipt of these orders, the Assistant Station Master, Mirdad Muafi, cancelled the line clear he had obtained for No. 24 Down and gave line clear to Harappa Road for No. 43 Up, stating that he was detaining No. 24 Down at his station. He did this, however, without first recovering and securing in his own possession the " authority to proceed " issued for No. 24 Down, and which he had sent out to the facing points to be picked up by that train. Nor did he place the signals, which he had lowered for No. 24 Down to run through his station, to danger in time. As a result No. 24 Down ran through Mirdad Muafi, picking up the " authority to proceed ", and collided with No. 43 Up, which had meanwhile left Harappa Road.

The engines were interlocked and seriously damaged, and four bogie coaches next to the engine of No. 24 Down were telescoped. One bogie coach next to the engine of No. 43 Up was smashed and one other bogie coach was slightly damaged. The casualties amounted to two railway servants and 107 passengers killed, and 5 railway servants and 88 passengers injured.

The Assistant Station Master, Mirdad Muafi, was prosecuted and was found guilty and sentenced to two years rigorous imprisonment.

Mahlaing Accident.

On April 26th, 1924, there was an unusual accident on the Burma Railways, No. 58 Down Mixed train being struck by a tornado shortly after leaving Mahlaing station. The force of the wind was so great that part of the train was blown off the track, with the result that one II class and five III class carriages were capsized and one I class carriage and one brake-van derailed. The accident occurred on a portion of the line where the bank is 25 feet high. The small number of casualties, namely, one III class passenger killed and six III class passengers slightly injured, was surprising in view of the number of carriages capsized, and was probably due to the foresight of the driver, who had reduced speed, as a precaution, to about 8 miles per hour, before the full force of the tornado struck the train.

Accident on Kalabagh-Bannu Railway.

On the 25th of September 1924 while No. 1 Up Mixed train was passing between Laki Marwat and Gambila Serai stations on the Kalabagh-Bannu Railway three vehicles next to the engine were blown off the line on a curve and capsized due to an exceptionally heavy storm. No one was injured and the block was cleared the next day.

Local Advisory Committees.

106. In last year's report it was stated that by the end of March 1924, Local Advisory Committees had been formed on all Class I State Railways with the exception of the Great Indian Peninsula, Bombay, Baroda and Central India and Bengal-Nagpur Railways. Early in 1924-25 Committees were formed on the Great Indian Peninsula and Bombay, Baroda and Central

India Railways and the following statement shows the number of meetings held during 1924-25 :—

Railway.	Number of meetings held during 1924-25.
Assam Bengal	3
Bengal and North-Western	1 Gorakhpur and 3 Muzaffarpur.
Bombay, Baroda and Central India	8
Burma	5
Eastern Bengal	8
East Indian	11 Calcutta and 2 Cawnpore.
Great Indian Peninsula	10
Madras and Southern Mahratta	3
North-Western	11 Lahore and 4 Karachi.
Oudh and Rohilkhand	11
Rohilkund and Kumaon	1
South Indian	4

The work of Local Advisory Committees has been of considerable value to Agents and members have shown great interest in railway working and many suggestions put forward by the members have been acted upon. One Agent reported that he found the Committee a most useful and business-like body and that the results of the members' labours had been of mutual advantage to the railway and the public.

Some of the Committees have visited the railway workshops; interest has also been shown in the design of 3rd and inter class carriages and the advice given has often been of use in helping to decide what improvements can be introduced in the arrangements of seating, etc., in carriages.

Other subjects discussed at the meetings included such questions as facilities for 3rd class passengers, concessions in fares, modifications of time-tables, arrangements for lower class passengers to obtain suitable refresh-ments, payment of claims and conditions for the booking and weighment of consignments, etc.

APPENDIX A.

Notes on the relation of the Government to Railways in India.

(Reprinted from the Report for 1914-15.)

Diversity of Relations between the State and Railways.

One of the special features of the Indian Railway system is the diversity of conditions that prevails in the relation of the State to the various lines in respect of ownership and control. Of the important lines situated in British India or in which the Government of India is interested, three (the North-Western, Eastern Bengal and Oudh and Rohilkhand Railways) are owned and worked by the State; eight* (the East Indian, Great Indian Peninsula, Bombay, Baroda and Central India, Madras and Southern Mahratta, Assam-Bengal, Bengal-Nagpur, South Indian and Burma) are owned by the State but worked on its behalf by companies enjoying a guarantee of interest from the Government; three important lines (the Bengal and North-Western, Rohilkund and Kumaon and Southern Punjab) and many of less importance are the property of private companies, some being worked by the owning companies and some by the State or by the companies that work State-owned systems; several minor lines are the property of District Boards or enjoy a guarantee of interest granted by such Boards.

The diversity of conditions is in certain respects less important than might at first appear for the following reasons:—

The Government of India exercises under the Indian Railways Act, 1890, in respect of all railways in British India (and also, by virtue of arrangements with Indian States, in respect of the chief railways passing through such States), certain general powers. Thus a railway may not be opened until a Government Inspector has certified that it has been constructed so as to comply with requirements laid down by the Government and can be used for the public carriage of passengers without danger to them. The Government of India can also, in the interest of the safety of passengers, require a railway to be closed, or the use of particular rolling-stock to be discontinued, or may prescribe conditions for the use of the railway or the rolling-stock. They can appoint a Railway Commission to investigate complaints on certain matters such as the withholding of reasonable traffic facilities or the grant of undue preference.

In addition, the Government of India (or in some cases Local Governments) exercise under the provisions of contracts detailed control over the management of all Railways in British India greatly exceeding that which is secured by the Indian Railways Act. They also have a certain financial interest in all companies in British India, and a preponderating interest in most of the railways which are of the first importance.

History of Relations of the Government and Companies.

The main causes which have led to the present diversity of conditions in regard to the agency by which railways are managed, and the relations of the Government with the various classes of companies now in existence, are summarised in the following paragraphs:—

The first proposals for the construction of railways in India were submitted in 1844 to the East India Company in England by Mr. R. M. Stephenson, afterwards Chief Engineer of the East Indian Railway, and others; they included the construction of lines by railway companies to be incorporated for the purpose and the guarantee by the

*The East Indian and Great Indian Peninsula Railways have since been taken over by the State and are now owned and worked by the State.

East India Company of a specified return. A contract for the construction by the East Indian Railway Company of an experimental line of 100 miles from Calcutta towards Mirzapore or Rajmehal at an estimated cost of 1,000,000*l.* was made in 1849, and a return of 5 per cent. was guaranteed by the East India Company on the Capital; and a similar contract was made in the same year with the Great Indian Peninsula Railway Company for a line from Bombay to Kalyan at an estimated cost of 500,000*l.* But the policy of entrusting generally the construction of Indian railways to guaranteed companies was not adopted until 1854 on the recommendation of Lord Dalhousie, who, in a minute, dated 20th April 1853, explained his reasons for preferring the agency of companies, under the supervision and control of the Government, to the construction of lines on behalf of the Government by its own officers. He held that the State Engineer officers would make railways as well, and possibly as cheaply, and as expeditiously as companies; but that the withdrawal from other duties of the large number of officers required would be detrimental to the public interest, that the conduct of commercial undertakings did not fall within the proper functions of any Government and least of all within the functions of the Government of India, since the dependence of the population on the Government was, in India, one of the greatest drawbacks to the advance of the country, and that the country would therefore benefit by the introduction of English energy and English capital for railway purposes, with the possibility that such energy and capital would in due course be encouraged to assist in the development of India in other directions.

Old Guaranteed Railways.

The policy supported by Lord Dalhousie was adopted, and between 1854 and 1860 contracts for the construction of Railways in India were made by the East India Company, or (after 1858) by the Secretary of State for India with the East Indian, Great Indian Peninsula, Madras, Bombay, Baroda and Central India, Scinde (afterwards, the Scinde, Punjab and Delhi), Eastern Bengal, Great Southern of India (afterwards, when amalgamated with the Carnatic Railway Company—see below—the South Indian) and Calcutta and South-Eastern Railway Companies. Under these contracts the railway companies undertook to construct and manage specified lines, while the East India Company (or the Secretary of State for India) agreed to provide land and guaranteed interest on the capital, the rate fixed being in various cases 5, 4¾ and 4½ per cent. according to the market rates prevailing when the various contracts were made. Half of any surplus profits earned was to be used towards repaying to the Government any sums by which it had been called upon to supplement the net earnings of any previous period in order to make good the guarantee of interest; and the remainder was to belong to the shareholders. In practically all matters of importance except the choice of staff, the companies were placed by the contracts under the supervision and control of the Government which had power to decide on the standard and details of construction; the rolling-stock to be provided, the number, time and speed of trains; the rates and fares to be charged; the expenditure to be incurred; the standard of maintenance; and the form of accounts. The railways were to be held by the companies on leases terminating at the end of 99 years, and on such termination the fair value of their rolling-stock, plant and machinery was to be paid to them. But provision was also made to enable the Government to purchase the lines after 25 or 50 years on terms calculated to be the equivalent of the companies' interests therein and also to enable the companies to surrender their lines to the Government and to receive in return their capital at par.

Early Attempts to Secure Funds for Railway Construction without a Guarantee.

An attempt to secure the construction of railways in India, on terms more favourable to the Government than those of the contracts with the original guaranteed companies, was first made in 1862, when a subsidy, but not a guarantee, was granted to the Indian Branch Railway Company which proposed to make feeders to the trunk lines in Northern India, and did actually make one such line. Similar assistance was granted later to the Indian Tramway Company, which made a short line in Madras. In 1864, the terms granted to the two companies mentioned were taken as a standard for general adoption

with a view to the encouragement of similar companies. The chief provisions were that the Government, besides giving the necessary land free of costs, would grant an annual subsidy for 20 years at a rate not exceeding £100 per mile of line, with an addition in respect of large bridges costing more than £10,000. These terms failed to attract capital, and the two unguaranteed companies which had begun work found themselves after a few years unable to proceed without further assistance from the Government. Consequently, in 1867, a contract was entered into with the Indian Branch Railway Company (which soon after changed its name to the " Oudh and Rohilkhand Railway Company ") by which the company was guaranteed interest at 5 per cent. per annum on the cost of certain lines to be carried out by it, on conditions similar to those laid down in the contracts of the period 1854—1860. Similarly, the Indian Tramway Company, after having been given in 1868 a guarantee of 3 per cent. per annum, went into liquidation in 1870, and became absorbed in a new company called the Carnatic Railway Company (afterwards amalgamated with the Great Southern of India Railway Company to form the South Indian Railway Company), with which the Secretary of State entered into a contract guaranteeing interest on its capital at 5 per cent. per annum. In 1869, Sir John Lawrence summed up the result of the experiment of the construction of railways by unguaranteed companies as follows:—" The Government of India has for several years been striving to induce capitalists to undertake the construction of railways in India at their own risk, and on their responsibility with a minimum of Government interference. But the attempt has entirely failed, and it has become obvious that no capital can be obtained for such undertakings otherwise than under a guarantee of interest fully equal to that which the Government would have to pay if it borrowed directly on its own account."

The attempt to encourage unguaranteed companies having thus been unsuccessful, it became necessary to decide whether the old practice of relying on guaranteed companies, of the type that had provided capital for, and had constructed, the first railways in India, should be continued. The Government of India expressed their objections to this course. They doubted whether their power of control over such companies secured the greatest possible economy in construction. They also disliked the arrangements under which they guaranteed the interest on the capital of companies, and thus became responsible for loss on working while having only a comparatively remote prospect of profiting by the result of successful working. Two important changes were consequently made in the practice that had been followed since the beginning of railway construction in India:—

1. Arrangements were made with some of the most important of the guaranteed companies that, in lieu of the provision that half of any surplus profits was to be applied in repayment of sums advanced by the Government under the guarantee of interest, half of the surplus profits for each half-year should be the property of the Government. In consideration of this modification, the Government relinquished, in the case of three companies, the Great Indian Peninsula, the Bombay, Baroda and Central India and the Madras, its right to purchase the lines at the end of the first 25 years from the dates of the respective contracts.

2. It was decided by the Secretary of State that the time had arrived when in both raising and expending such additional capital as might be required for new lines in India, the Government should secure to itself the full benefit of its own credit and of the cheaper methods which it was expected that it would be able to use. Accordingly, for several years after 1869, the chief capital expenditure on railways was chiefly incurred direct by the State and no fresh contracts with guaranteed companies were made except for small extensions. Among the lines constructed or begun by State agency and from State capital between 1869 and 1880 were the Indus Valley, Punjab Northern, Rajputana-Malwa, Northern Bengal, Rangoon and Irrawaddy Valley and Tirhoot.

Progress in the Construction of Railways.

By the end of 1879, in about 25 years from the introduction of railways in India, 6,128 miles of railway had been constructed by companies which had expended, approximately, £97,872,000 (these figures include the Calcutta and South-Eastern and Nalhati Railways which were constructed by companies but were purchased by the Government in 1868 and 1872, respectively). By the same date 2,175 miles of railway had been constructed by the Government at a cost of £23,695,226.

Introduction of Modified Guarantee Terms.

In 1880, the necessity for great and rapid extension of the railway system was urged by the Famine Commissioners, appointed after the great famine of 1878, who estimated that at least, 5,000 miles were still necessary for the protection of the country from famine. It was held by the Government of the time that a limit was necessary on the capital borrowed annually; and it was clear that the limit fixed was not high enough to allow of such progress in railway construction as was desirable. With reference to this difficulty the Famine Commissioners remarked: "that there would be manifest advantages in giving free scope to the extension of railways by private enterprise if it were possible; and, though the original form of guarantee has been condemned, it may not be impossible to find some substitute which shall be free from its defects, and may secure the investment of capital in these undertakings without involving the Government in financial or other liabilities of an objectionable nature."

Action of the direction suggested by the Commission was taken by the formation of three companies without a guarantee (the Bengal Central in 1881 and the Bengal and North-Western and Rohilkund and Kumaon in 1882), and three new guaranteed companies (Southern Mahratta in 1882, the Indian Midland in 1885, and the Bengal-Nagpur in 1887). The Bengal and North-Western and the Rohilkund and Kumaon Railway Companies are referred to more fully, in a later paragraph. The Bengal Central Railway Company's operations were not successful at the outset, and a revised contract was entered into with the company, with effect from the 1st July 1885, under which the Secretary of State guaranteed interest at 3½ per cent. on the company's capital, the balance of net earnings remaining after payment of interest on advances by the Secretary of State and debenture capital (but not the share capital) being divided between the Secretary of State and the company in the proportions of three-quarters to the former and one-quarter to the latter. The new contract gave the Secretary of State the right to take possession of the line on the 30th June 1905, or subsequently at intervals of 10 years, on repaying the company's capital at par. The rate of interest guaranteed to the Southern Mahratta Railway Company was also 3½ per cent.; in this case the balance of net earnings remaining after payment of interest on advances by the Secretary of State (but not on share or debenture capital) was divisible in the same way as in the case of the Bengal Central Railway Company. The guarantee to the Indian Midland and Bengal-Nagpur Railway Companies was 4 per cent.; and the Secretary of State was entitled to three-quarters of the surplus profits in excess of all interest charges. The lines constructed by the three companies last mentioned were declared to be the property of the Secretary of State, who had the right to determine the contracts at the end of approximately 25 years after their respective dates, or at subsequent intervals of 10 years, on repaying at par the capital provided by the companies.

The Assam-Bengal Railway Company was formed on similar lines in 1892, except that any surplus profits were to be divided between the Secretary of State and the company in proportion to the capital provided by each. The rate of guarantee in this case was 3½ per cent. for the first six years and thereafter 3 per cent. The Burma Railways Company was formed in 1897 to manage and develop the line in that Province that had been constructed by the State. Interest at 2½ per cent. was guaranteed on the share capital raised by the company, and the surplus profits were originally divisible in the proportion of four-fifths to the Secretary of State and one-fifth to the company, but since 1908 the division has been proportional to the capital invested by each in the undertaking. The contract with the Burma Railways Company is terminable by the Secre-

tary of State in 1928, or on subsequent occasions, on repayment of the company's capital at par.

The terms of guarantee given to the companies formed since 1880 have thus been much more favourable to the Government than in the case of those formed before 1869.

Termination of Contracts of the Old Guaranteed Companies.

In dealing with the guaranteed companies formed before 1869 and with those formed in 1881 and subsequently, it has been the practice (except in the cases mentioned above, when the purchase of some of the old guaranteed lines was postponed in order to secure to the Government a share in surplus profits) to use in some way or other at the earliest possible date the right reserved by the Government of terminating the contracts of the various companies. The method of making use of this right has differed in different cases. The Eastern Bengal, Oudh and Rohilkhand and Scinde-Punjab and Delhi lines were purchased and transferred to State management, the last named now forming part of the North Western Railway. Similarly, the Bengal Central line was purchased and made part of the Eastern Bengal Railway. The Madras and the Indian Midland lines were acquired but left, after acquisition, under the management of companies working other lines with which it was advantageous to amalgamate them. In all other cases (East Indian, South Indian, Great Indian Peninsula, Bombay, Baroda and Central India, Southern Mahratta, and Bengal-Nagpur), the course adopted has been to arrange for the continuance of management by the original company (or by a new company closely related to the old one), but to secure more favourable financial conditions for the State by one or more of the following methods:—reduction of the amount of capital retained by the companies in the undertakings, reduction of the rate of interest guaranteed by the State on such capital, and modification in favour of the Government of the clauses relating to the division of surplus profits.

Arrangements between the Government and Companies at present.

The relations between the Government and the guaranteed companies now working railways may be summarised as follows:—

The lines that they work are the property of the State.

The greater part of the capital is the property of the Government, either through having been originally supplied by it or through the acquisition by the Government of the greater part of the companies' interests on the termination of old contracts.

When funds required for further capital expenditure, the Government has the option either of providing them or of calling on the company to provide them. The company receives guaranteed interest at a fixed rate on its capital; and similar payments out of the earnings are made to the Government. If, after these have been made, surplus profits remain, they are divided between the Government and the company in the various proportions provided for by the contracts. The company's share is in all cases only a small fraction of the Government's share.

All the contracts, except one, which is for a fixed term of 25 years, are terminable at the option of the Secretary of State, at specified dates; and on termination the company's capital is repayable at par.

The administrative control exercised by the Government over the companies is as follows:—

The company is bound to keep the line in good repair, in good working condition, and fully supplied with rolling-stock, plant, and machinery; to keep the rolling-stock in good repair and in good working condition; and to maintain a sufficient staff for the purposes of the line;—all to the satisfaction of the Secretary of State.

The Secretary of State may require the company to carry out any alteration or improvement in the line, or in the working that he may think necessary for the safety of the public or for the effectual working of the line.

The Secretary of State may require the company to enter into agreements, on reasonable terms and conditions, with the administrations of adjoining railways for the exercise of running powers, for the supply to one another of surplus rolling-stock, for the interchange of traffic and rolling-stock and the settlement of through rates, and for additions and alterations to, or the redistribution of, existing accommodation in junctions or other stations in view to their convenient mutual use.

The train service is to be such as the Secretary of State may require. In order to secure a general control over the rates quoted by companies, the Secretary of State has retained power to settle the classification of goods and to authorise maximum and minimum rates within which the companies shall be entitled to charge the public for the conveyance of passengers and goods of each class.

The company has to keep such accounts as the Secretary of State may require, and these are subject to audit by the Secretary of State.

In all other matters relating to the line the company is made subject to the supervision and control of the Secretary of State, who may appoint such persons as he may think proper for the purpose of inspecting the line, auditing the accounts, or otherwise exercising the power of supervision and control reserved to him. In particular, the Secretary of State has the right to appoint a Government Director to the Board of the company, with a power of veto on all proceedings of the Board. All the moneys received by the company in respect of the undertaking, whether on capital or revenue account, have to be paid over to the Secretary of State.

All expenditure by the company has to be stated and submitted for the sanction of the Secretary of State.

Thus, the Government has the preponderating financial interest in the lines worked by the two classes of guaranteed companies, those formed before 1869 and retained as working agencies with reduced capital after purchase, and those formed on terms more favourable to the State after 1880; it has exceedingly wide control over the methods of working; and it has the right of taking possession of the lines at specified times on repayment at par of the capital of the companies.

Other Lines worked by Companies.

In addition to the lines referred to above, and apart from lines constructed by Branch line companies, District Boards and Indian States, two lines of some importance have been constructed by companies which receive no direct assistance by the Government, namely, the Bengal and North-Western Railway and the Rohilkund and Kumaon Railway. (The Rohilkund and Kumaon Railway Company was guaranteed interest at 4 per cent. during construction and received for 10 years thereafter a subsidy of Rs. 20,000 per annum. This ceased in 1894.) While, however, these companies have no guarantee or other direct payment from the Government, they derive some advantage (partly through direct participation in profits and partly through reduction of expenses) from the fact that the working of certain State lines has been entrusted to them, the Tirhoot Railway to the former company and the Lucknow-Bareilly Railway to the latter. Their lines can be purchased by the State in 1932 on terms which are different in respect of the different sections of the lines, but are, on the whole, much more favourable to the companies than those provided for in the contracts with the guaranteed companies. Failing purchase in 1932, the lines will become the property of the State in 1981 on terms much less favourable to the companies. The general administrative control exercised by the State over these companies and the control over expenditure are similar to that which is exercised, as explained above, over guaranteed companies.

APPENDIX B.

The Organisation for Government control.

The initial policy of the Government of India for the construction and working of railways was the establishment of guaranteed railway companies of English domicile. Control over the operations of these companies was at first secured through the appointment of a Consulting Engineer of Guaranteed Railways. Some years later local Consulting Engineers were appointed for the exercise of control over guaranteed railways and over State-owned railways in the construction of which the State had been financially interested and which had been leased to companies for working. These officers combined the duties of supervision and control on behalf of the Government of India and of an Inspector under the Government of India Railway Act. The Government of India were not directly concerned with the ownership of railways until 1868 when the Calcutta and South Eastern Railway was surrendered to the Indian Government under the terms of the contract between the Secretary of State and the Company.

Owing to the Government of India having in 1869 definitely adopted the policy of direct construction and ownership of railways, a period of rapid development of railway construction ensued and it became necessary to relieve the Public Works Department Secretariat of the Government of India in some measure of the detailed control of railways. Accordingly in 1874 a State Railway Directorate was established and the greater portion of the State Railway establishment and business connected with State Railway Administration was transferred to the control of the Director of State Railways, an officer who functioned on much the same lines as the head of a department under the Government of India. The Consulting Engineer to the Government of India for State Railways was at the same time associated with him but all important matters had still to be referred to the Public Works Department. A special Deputy Secretary in the Railway Branch of the Secretariat of the Public Works Department was also appointed to conduct the correspondence between the Government of India and these officers.

Early in 1877 a further change was made in the organisation responsible for the administration and control of State Railways and in the place of one Director of State Railways, three Directors of territorial systems and one Director of State Railways Stores were appointed. These territorial divisions comprised the following systems:—

Central	1,179 miles.
Western	927 miles.
and North Eastern	830 miles.

This division of the administration on a territorial basis proved unsatisfactory in practice as it resulted in the issue of conflicting orders as far as the management of open lines was concerned although no difficulty was experienced in the supervision of new construction.

As the number of lines under construction had decreased and in order to remedy the defect just mentioned, it was decided in 1880 to abolish the Directors of the Central and Western Systems and to transfer the work allotted to them to the Consulting Engineers of the neighbouring guaranteed railways. The abolition of these two appointments resulted in an increase in the administrative work of the Secretariat and it was found necessary to raise the status of the Deputy Secretary to whom the powers previously exercised by the Directors had been entrusted, to that of Director General of Railways.

In the revised organisation the Consulting Engineer to the Government of India for State Railways was associated with the Director General of Railways and assisted the latter primarily in an advisory capacity in matters of civil engineering while the

Director of Stores similarly acted in matters concerning stores and rolling stock and at the same time was an adviser in matters affecting establishment. The Director of Traffic was appointed at the same time as an adviser on traffic problems and the accounts work of the department was placed under the Accountant General, Public Works Department.

Government control and supervision of the Guaranteed Railways continued to be exercised by the Local Consulting Engineers to Government. There were five such officers at the time with headquarters at Bombay, Madras, Calcutta, Lahore and Lucknow. The Consulting Engineers at Madras and Bombay worked directly under the Government of these Presidencies, while those at Calcutta, Lahore and Lucknow were under the immediate orders of the Government of India. Under this arrangement practically all powers affecting the finances and day to day management of the railways were vested either in the Consulting Engineers or in the Government, both for the guaranteed railway companies and later on for State Railways which had been leased for working to railway companies.

The following is a list of the administrative appointments that existed in 1881:—

1. Member of the Governor General's Council, Public Works Department.
2. Secretary, Public Works Department.
3. Deputy Secretary, Railway Branch.
4. Under Secretary, Railway Branch.
5. Consulting Engineer of State Railways.
6. Director General of Railways.
7. Director of Construction.
8. Accountant General, Public Works Department.
9. Director of State Railways, Stores.
10. Three Assistants to the Director General of Railways.
11. Consulting Engineers for Guaranteed Railways at Calcutta, Lahore and Lucknow.
12. Deputy Consulting Engineers for Guaranteed lines, Calcutta, Lahore and Lucknow.

Madras and Bombay.

13. Joint Secretary, Railway Branch and Consulting Engineer for Railways.
14. Deputy Secretary, Public Works Department.

Punjab.

15. Secretary, Public Works Department.

By this time also Local Governments and Administrations had been induced to take a practical interest in the management of railways and in a few cases short extensions had been constructed from funds the interest of which Local Governments had accepted responsibility to pay. Such lines were controlled by the Local Governments concerned under the general supervision of the Government of India.

After 1881 further alterations of a more or less detailed character were made in the administrative organisation and by 1890 the following changes had taken place. Instead of a Deputy Secretary and Under Secretary, Railway Branch, there were then only an Under Secretary and an Assistant Secretary, Railways in the General Branch. The posts of Director of State Railways Stores, and Director of Construction had disappeared and in their place there was an Under Secretary, who was an *ex-officio* Deputy Director General of Railways. The post of Accountant General, Railways, had also been abolished and the Accountant General, Public Works Department, was once more made responsible for this work.

Further changes were made in 1897. In that year the post of Director General of Railways was abolished and the post of a Secretary to the Government of India in the Public Works Department was created in its place. The other administrative

and secretariat appointments at the headquarters of the Government of India at the time were:—

(1) Director of Railway Construction and Deputy Secretary, and *ex-officio* Director of Stores.
(2) Director of Railway Traffic, and Deputy Secretary and *ex-officio* Director of Railway Statistics.
(3) Two Under-Secretaries.
(4) Two Assistant Secretaries.
(5) One Mechanical Assistant.

The post of Consulting Engineer for State Railways was also abolished and his duties transferred to the two Directors. The supervision of the accounts work of the Department, however, still remained under the Accountant General, Public Works Department, who was also an *ex-officio* Deputy Secretary to the Government of India.

In October 1901, Sir Thomas Robertson, C.V.O., was appointed by His Majesty's Secretary of State for India in Council as Special Commissioner for Indian Railways to enquire into and report on the administration and working of Indian Railways. In his report, which became available in 1903, Sir Thomas recommended that the administration of the railways in India should be entrusted to a small Board consisting of a President or Chief Commissioner who should have a thorough practical knowledge of railway working, and should be a member of the Viceroy's Council for railway matters, and two other Commissioners who should be men of high railway standing and should have a similar training to that of the President. He recommended that the Board should, in addition to the necessary office establishment, be provided with—

(1) A Secretary who should have received a suitable training in the practical working of railways, and who should be *ex-officio* a Secretary to the Government of India.
(2) A Chief Inspector of Railways, to advise on all technical, engineering and mechanical questions.
(3) A suitable number of Government Inspectors.

Sir Thomas Robertson's recommendations were carefully considered by the Governor General in Council and the Secretary of State, and early in 1905 it was decided that the Railway Branch of the Public Works Department of the Government of India should be abolished and that the control of the railway systems in India should be transferred to a Railway Board consisting of three persons, a Chairman and two Members. The Chairman of the Board was vested with the general control of all questions committed to the Railway Board with power to act on his own responsibility subject to confirmation by the Board. The Railway Board were authorised to delegate to the Chairman or a Member the power of settling questions which might arise on any tour of inspection, such decision to be recorded subsequently as an act of the Railway Board. The Board was made subordinate and directly responsible to the Government of India in the Department of Commerce and Industry.

The Railway Board assumed office in March 1905 and were provided with the following establishment:—

1. Secretary.
2. Examiner of Accounts.
3. Under Secretary, Construction.
4. Under Secretary, Traffic.
5. Registrar.
6. Director of Railway Construction.

Certain changes were, however, made in the following year and the establishment then consisted of:—

1 Secretary.
3 Assistant Secretaries; one each for Establishment, Construction and Traffic.

1 Registrar.
1 Director of Railway Construction.
1 Railway Accounts Officer.

Sir Thomas Robertson had further suggested in his detailed recommendations that extended powers both administrative and financial should be delegated to Boards of Directors of Companies, that the appointments of Consulting Engineers should be abolished and that the work which they performed under the Railways Act should be entrusted to a body of Government Inspectors to be appointed for the purpose. These recommendations were given effect to in a modified form in 1908.

Within a short time after the constitution of the Railway Board, it was found that work was being hampered by having the Commerce and Industry Department between the Railway Board and the Governor General in Council and in October 1908 on the recommendations of the Railway Finance Committee presided over by Sir James Mackay (now Lord Inchcape), the following changes were introduced:—

1. The appointment of the Chairman of the Railway Board was changed into that of President of the Railway Board and enhanced powers were vested in the President.
2. The Board with its staff became collectively the Railway Department distinct from and independent of the Department of Commerce and Industry, though remaining under the administrative charge of the Hon'ble Member, Commerce and Industry Department, as the Railway Member.
3. The President of the Board was given direct access to the Viceroy as if he were a Secretary to the Government of India.

At the same time in consequence of the amalgamation of the Public Works Department Accounts and Civil Audit Establishments under the control of the Finance Member of the Government of India the appointment of Accountant General, Public Works Department, was abolished and the appointment of Accountant General, Railways, was revived.

In 1909 the post of Director of Railway Construction was abolished and the appointment of Chief Engineer with the Railway Board for the purpose of advising the Railway Board on technical matters connected with Civil Engineering was created.

In January 1914, it was decided that the importance of financial and commercial considerations in connection with the control of Indian railway policy justified a modification of the rule that the President and Members of the Railway Board should all be men of large experience in the actual working of railways. It was then decided that in future one Member who equally with the others might be appointed President should be selected for commercial and financial experience and a member with the necessary qualifications was appointed.

This arrangement was, however, altered in 1920 when it was decided that all the three members of the Board should possess railway experience. To assist the Board, however, in the consideration of financial questions, the post of Financial Adviser to Railway Board was created.

Owing to the expansion of railways in India and the increased work thrown on the Board a second Assistant Secretary, Engineering, was appointed in 1914, and in 1916 the duties of the Construction Branch were divided between one branch dealing with Projects under an Assistant Secretary and a second branch dealing with Way and Works which was sometimes under a separate officer and at other times under the Secretary or Chief Engineer. In 1922 the charge of the Way and Works branch was divided between the Assistant Secretary in charge of Projects and the Assistant Secretary in charge of Stores.

In November 1922, the Board's establishment was strengthened by the appointment of a Chief Mechanical Engineer. This appointment was created to enable the Board to have at headquarters a reliable adviser on matters connected with mechanical engineering.

During 1921 a Committee presided over by Sir William Acworth visited India and one of the questions referred to was the evolution of a satisfactory authority for the administration of the varied functions which the Railway Board had to perform as:—

(*a*) the directly controlling authority of the three State-worked systems aggregating 9,028 miles,

(*b*) representative of the predominent owning partner in systems aggregating 22,949 miles,

(*c*) the guarantor of many of the smaller companies,

(*d*) the statutory authority over all railways in India.

The Acworth Committee recommended in their report:—

(1) that a new Department of Communications responsible for railways, ports and inland navigation, road transport and posts and telegraphs under a Member of Council in charge of Communications should be created,

(2) that under the Member of Council for Communications there should be a technical staff consisting on the railway side of a Chief Commissioner and four Commissioners and that of the four one should be in charge of finance and the organisation and staff of the office and the other three Commissioners should be in charge of three respective divisions, Western, Eastern and Southern,

(3) that the technical staff attached to the Commission should be strengthened specially on the traffic side.

The Government of India, though they did not accept the first recommendation of the Acworth Committee, agreed to the re-organisation of the Railway Board being undertaken on the principles underlying the report of the Acworth Committee. The appointment of a Chief Commissioner was accordingly sanctioned in November 1922 and in accordance with the recommendations of the Acworth Committee he is solely responsible, under the Government of India, for arriving at decisions on technical questions and advising the Government of India on matters of Railway policy; he is not liable to be over-ruled, as the President was, by his colleagues in the Railway Board.

The first duty of the Chief Commissioner was to work out detailed proposals for the re-organisation of the Railway Board and as a first step he made recommendations to the Government of India for the immediate appointment of a Financial Commissioner. This recommendation was strongly endorsed by the Indian Retrenchment Committee and the appointment of the Financial Commissioner was made in April 1923 with the sanction of the Secretary of State. The further proposals of the Chief Commissioner for the re-organisation of the Railway Board were accepted by the Government of India and the Secretary of State and were introduced from the 1st April 1924. It was decided, however, for reasons connected with the present statutory position of the Railway Board, and to avoid confusion with the provisions for a Railway Commission under Chapter V of the Railways Act, to retain the name "Railway Board" for the headquarters organisation of the Railway Department instead of "Railway Commission" as recommended by the Acworth Committee.

The Railway Board as now constituted consists of the Chief Commissioner as president, the Financial Commissioner and 2 Members. The Acworth Committee proposed that the Indian Railway System should be sub-divided into three territorial divisions and that a Commissioner should be allocated to each Division. Careful consideration was given to this recommendation of the Committee, but it was found that it would involve a good deal of overlapping of subjects and duplication of duties and would also, by interposing another officer between the Railway Department and the Agents, give rise to delays in work and lack of promptness in giving decisions. It has, therefore, been decided to allot the duties of the two Members on the basis of subjects rather than on a territorial basis. This has the incidental advantage enabling the work to be done by two Members instead of three, as recommended by the Acworth Committee. In view, however, of the importance of the question involved, it was decided to introduce this system tentatively and to consider, after it had been in force for one year,

whether it should be retained or altered in favour of division of work on a territorial basis. Further experience has however shown that this system works satisfactorily and there is at present no intention to alter it.

The re-organisation provides for arrangements to relieve the Chief Commissioner and Members from all but important work by the appointment of responsible Directors at the head of each of the main branches of work, namely, Civil Engineering, Mechanical Engineering, Traffic and Establishment. It is expected that the re-arrangement of the disposal of current work under this organisation will free the Chief Commissioner and the Members to devote their attention to larger questions of railway policy and enable them to tour over the various railway systems to a greater extent than they have been able to do in the past. By this means they will keep in touch with local Governments, Railway Administrations and public bodies to an extent which will largely meet the principal object of the Acworth Committee in recommending the appointment of Territorial Commissioners. As a general rule it will be possible for either the Chief Commissioner or one of the Members to visit the headquarters of every major Local Government and every important Railway Administration at least once a year. Such visits have in effect been carried out during the past year with very beneficial results in the disposal of business.

Two of the four Directors were already in existence in the form of the Chief Engineer and the Chief Mechanical Engineer. Hitherto these officers have been employed mainly in consultative work, but under the re-organisation the scope of their duties is being enlarged so as to entrust them with the direct disposal of such matters dealt with in their branches as do not raise large questions of policy.

The posts of one Joint Secretary and four Assistant Secretaries were replaced by six Deputy Directors of similar status and one Assistant Director. Of these one officer is required to reconstitute the post temporarily discontinued in the Project branch of the office, as it has been found impossible to carry on the current work relating to projects and open lines with a single Assistant Secretary in view of the very large number of projects which now have to be examined by the Railway Board. The other additional Deputy Director is required for dealing with statistics and the need for a whole time officer for this subject has been very forcibly brought out by the criticisms to which the former statistics and their use have been subjected both by the Acworth Committee and the Retrenchment Committee.

Provision was also made for an addition to the junior officers in the appointment of an Assistant Director, whose duties will be to supervise the technical branch of the office and the drawing office, which is becoming of considerable importance in view of the progress which is being made towards standardisation in technical matters.

Experience of the working of this organisation during 1924-25 brought out the fact that sufficient staff had not been provided on the financial side and when the Legislative Assembly agreed to the separation of the railway finances from the general finances of the country in September 1924, it was found necessary to appoint at once with the sanction of the Secretary of State a Deputy Director and an Assistant Director of Finance, and the question of the appointment of a Director of Finance is also under consideration.

It was also found necessary to strengthen the statistical branch of the office by the appointment from January 1925 of an Assistant Director of Statistics in charge of compilation, whose duty it will be to supervise the checking of the returns received from railways, to carry out a test audit of the compilation of statistics on railways and to exist railways to introduce revised and up to date methods of compilation.

APPENDIX C.

Resolution regarding the separation of Railway from General Finances, adopted by the Legislative Assembly on the 20th September 1924.

" This Assembly recommends to the Governor General in Council that in order to relieve the general budget from the violent fluctuations caused by the incorporation therein of the railway estimates and to enable railways to carry out a continuous railway policy based on the necessity of making a definite return to general revenues on the money expended by the State on Railways.

(1) The railway finances shall be separated from the general finances of the country and the general revenues shall receive a definite annual contribution from railways which shall be the first charge on the net receipts of railways.

(2) The contribution shall be based on the capital at charge and working results of commercial lines, and shall be a sum equal to one per cent. on the capital at charge of commercial lines (excluding capital contributed by companies and Indian States) at the end of the penultimate financial year *plus* one-fifth of any surplus profits remaining after payment of this fixed return, subject to the condition that, if in any year railway revenues are insufficient to provide the percentage of one per cent. on the capital at charge surplus profits in the next or subsequent years will not be deemed to have accrued for purposes of division until such deficiency has been made good.

The interest on the capital at charge of, and the loss in working, strategic lines shall be borne by general revenues and shall consequently be deducted from the contribution so calculated in order to arrive at the net amount payable from railway to general revenues each year.

(3) Any surplus remaining after this payment to general revenues shall be transferred to a railway reserve; provided that if the amount available for transfer to the railway reserve exceeds in any year three crores of rupees only two-thirds of the excess over three crores shall be transferred to the railway reserve and the remaining one-third shall accrue to general revenues.

(4) The railway reserve shall be used to secure the payment of the annual contribution to general revenues; to provide, if necessary, for arrears of depreciation and for writing down and writing off capital; and to strengthen the financial position of railways in order that the services rendered to the public may be improved and rates may be reduced.

(5) The railway administration shall be entitled, subject to such conditions as may be prescribed by the Government of India, to borrow temporarily from the capital or from the reserves for the purpose of meeting expenditure for which there is no provision or insufficient provision in the revenue budget subject to the obligation to make repayment of such borrowings out of the revenue budgets of subsequent years.

(6) A Standing Finance Committee for Railways shall be constituted consisting of one nominated official member of the Legislative Assembly who should be chairman and eleven members elected by the Legislative Assembly from their body. The members of the Standing Finance Committee for Railways shall be *ex-officio* members of the Central Advisory Council, which shall consist, in addition of not more than one further nominated official member, six non-official members selected from a panel of eight elected by the Council of State from their body and six non-official members selected from a panel of eight elected by the Legislative Assembly from their body.

The Railway Department shall place the estimate of railway expenditure before the Standing Finance Committee for Railways on some date prior to the date for the discussion of the demand for grants for railways and shall, as far as possible, instead of the expenditure programme revenue show the expenditure under a depreciation fund created as per the new rules for charge to capital and revenue.

(7) The railway budget shall be presented to the Legislative Assembly if possible in advance of the general budget and separate days shall be allotted for its discussion, and the Member in charge of railways shall then make a general statement on railway accounts and working. The expenditure proposed in the railway budget, including expenditure from the depreciation fund and the railway reserve, shall be placed before the Legislative Assembly in the form of demands for grants. The form the budget shall take after separation, the detail it shall give and the number of demands for grants into which the total vote shall be divided shall be considered by the Railway Board in consultation with the proposed Standing Finance Committee for Railways with a view to the introduction of improvements in time for the next budget, if possible.

(8) These arrangements shall be subject to periodic revision but shall be provisionally tried for at least three years.

(9) In view of the fact that the Assembly adheres to the resolution passed in February 1923, in favour of State management of Indian Railways, these arrangements shall hold good only so long as the East Indian Railway and the Great Indian Peninsula Railway and existing State-managed railways remain under State management. But if in spite of the Assembly's resolution above referred to Government should enter on any negotiations for the transfer of any of the above railways to Company management such negotiations shall not be concluded until facilities have been given for a discussion of the whole matter in the Assembly. If any contract for the transfer of any of the above railway to Company management is concluded against the advice of the Assembly, the Assembly will be at liberty to terminate the arrangements in this Resolution.

Apart from the above convention this Assembly further recommends—

(*i*) that the railway services should be rapidly Indianised, and further that Indians should be appointed as Members of the Railway Board as early as possible, and

(*ii*) that the purchases of stores for the State railways should be undertaken through the organisation of the Stores Purchase Department of the Government of India.

APPENDIX D.

Rules relating to allocation of expenditure and to depreciation fund.

Classes of wasting assets on railways with the assumed normal life of each class.

	Class of asset		Normal life.
1.	Bridge work-	Steel work	60 years.
2.	,,	Masonry	100 ,,
3.	Permanent-way	Rails and fastenings including points and crossings	60 ,,
4.	,,	Sleepers—Wood	15 ,,
5.	,,	,, Cast iron and ferro concrete	40 ,,
6.	,,	,, Steel trough	30 ,,
7.	Buildings—Masonry		200 ,,
8.	,,	All others	50 ,,
9.	Station machinery		10 ,,
10.	Plant		20 ,,
11.	Ferries		10 ,,
12.	Rolling stock-	Locomotives—Engines and tenders	35 ,,
13.	,,	,, Boilers	25 ,,
14.	,,	Carriage and Wagon—Coaching vehicles	30 ,,
15.	,,	,, Goods vehicles	40 ,,
16.	Motor vehicles	Rail	20 ,,
17.	,, ,,	Road	10 ,,
18.	Electric instruments and telephones		13 ,,
19.	,,	Power Stations and Sub-stations Buildings	30 ,,
20	,,	,, ,, Plant	20 ,,
21.	,,	Locomotives	35 ,,
22.	,,	Overhead equipment of track	50 ,,

Rules governing the allocation of expenditure to capital, to the depreciation fund, and to revenue.

1. Capital bears:—

(*i*) the first cost of construction and equipment of the line;

(*ii*) the cost of maintaining a section of the line not opened for working;

(*iii*) the cost of any addition to the line or the equipment of the line when estimated to cost more than Rs. 2,000, except of a temporary or experimental work;

(*iv*) any excess in the cost of replacing a work or article of equipment (except a temporary or experimental work or a work originally estimated to cost Rs. 2,000 or less) over the cost at debit to capital of the work or article replaced;

NOTE 1.—If a temporary or experimental work is replaced by a permanent work, the whole cost of the permanent work is charged to capital, if estimated to cost more than Rs. 2,000.

NOTE 2.—The total cost of replacing a work originally estimated to cost Rs. 2,000 or less is charged to capital, if estimated to be over Rs. 2,000.

(*v*) the cost of any appointments specifically created for the supervision or construction of a work chargeable to capital, and a proportionate share of the cost of any such appointments, where the cost of work is chargeable partly to capital and partly to the depreciation fund or to revenue;

(*vi*) the cost of land.

2. Capital is credited with:—

(*i*) the difference between the cost at debit to capital of a replaced work or article and the cost of replacement, where the cost of replacement is less than the cost at debit to capital;

(*ii*) the cost at debit to capital of any work or article of equipment which is abandoned or disposed of without being replaced.

3. The depreciation fund bears:—

(*i*) the original cost of any of the units shown under the following classes of assets when a unit is replaced:—

Class of asset.	Normal life.	Unit.
	Years.	
1. Bridge work—Steel work	60	1. An entire span of girders.
		2. Steel work on an individual bridge originally costing more than Rs. 10,000.
2. Bridge work—Masonry	125	An entire abutment pier, or arch.
3. Permanent-way—Rails and fastenings including points and crossings.	60	Rails and fastenings, points and crossings.
4. Permanent-way Sleepers—Wood	15	Sleepers, wood.
5. Permanent-way—Sleepers—Cast iron and ferro concrete.	40	Sleepers, cast iron and ferro concrete.
6. Permanent-way Sleepers—Steel trough	30	Sleepers steel trough.
7. Buildings—Masonry	200	1. An entire building.
		2. A part of a building when the part originally cost more than Rs. 25,000.
8. Buildings—All others	50	1. An entire building.
		2. A part of a building when the part originally cost more than Rs. 25,000.
9. Station machinery	40	An entire unit of station machinery.
10. Plant	20	An entire unit of plant or an entire machine.
		Note—Loose hand tools do not constitute a unit.
11. Ferries	40	An entire vessel, engine or boiler.
12. Rolling stock—Locomotives—Engines and tenders.	35	1. An entire engine.
		Note—The depreciation fund bears the cost of rebuilding an engine if the work is undertaken as one operation.
		2. An entire tender.
13. Rolling Stock—Locomotives—Boilers	25	An entire boiler.
14. Rolling Stock Carriage and Wagon—Coaching vehicles.	30	An entire vehicle.
15. Rolling Stock—Carriage and Wagon—Goods vehicles.	40	Ditto.
16. Motor vehicles—Rail	20	Ditto.
17. Motor vehicles—Road	10	Ditto.
18. Electric instruments and telephones	13	All articles.
19. Electric Power stations and Sub-stations—Buildings.	30	1. An entire building.
		2. A part of a building when the part originally cost more than Rs. 25,000.
20. Electric Power stations—Plant	20	An entire unit of plant or entire machine.
21. Electric Locomotives	35	An entire Locomotive.
22. Electric overhead equipment of track	50	All articles.

(*ii*) the credit to capital under rule 2 when a complete unit as described in clause (*i*) of this rule is replaced, abandoned, or disposed of.

NOTE.—The credit to capital is given when the unit is replaced, abandoned or disposed of.

4. The depreciation fund is credited annually with an amount equivalent to the total expenditure to the end of the previous financial year on all the units of each class of asset as described in rule 3(*i*), divided by the number of years assumed as the normal life of that class of asset in Annexure A to these rules; provided that no

credit shall be given on account of any unit after the period assumed for its normal life has expired. The effect of the rule prescribed in this paragraph is that when a unit is replaced or abandoned or disposed of before the expiry of its assumed normal life the credit on its account to the depreciation fund continues until the expiry of its assumed normal life. But in exceptional cases, where replacements, involving substantial amounts are undertaken many years before the expiry of the assumed normal life of a unit or units, a revision of the entries in the record of depreciation may be made so as to avoid double payments into the depreciation fund in respect of such units, both on the original cost of the unit and on the cost of replacement. All such cases should be referred for the specific orders of the Railway Board.

No credits or debits should be made to the depreciation fund on account of temporary or experimental works, or additions costing Rs. 2,000 or less.

5. Revenue bears all other charges including:—

(*i*) the cost of temporary and experimental works;

(*ii*) the cost of any addition to the line or the equipment of the line, when estimated to cost not more than Rs. 2,000;

(*iii*) such portion of the cost of any appointments specifically created for the supervision or construction of a work chargeable partly to capital and partly to the depreciation fund or to revenue as is not borne by capital under rule 1 (*v*);

(*iv*) the credit to capital under rule 2 when it is not borne by the depreciation fund under rule 3 (*ii*);

(*v*) the original cost of any work or article of equipment replaced, when it is not borne by the depreciation fund under rule 3 (*i*);

(*vi*) the credit to the depreciation fund under rule 4.

6. Revenue is credited with any amount received from the disposal of a work or article of equipment.

Record of Depreciation.

Class of Assets———————Normal life———————

Year.	Contribution of the year.	Add depreciation on capital and replacement expenditure of the year.	Deduct depreciation which ceases in the year.	Contribution of the ensuing year.
1	2	3	4	5

(1) The total amount spent in the year on complete units, as detailed in rule 3 (*i*), will be divided by the assumed normal life of the class of assets, and the result entered in column 3, a similar amount shall be entered in column 4, against the year after that in which the assumed normal life expires. For example, if in 1924-25, 20 lakhs have been spent on additional wagons, and 20 lakhs on the purchase of wagons to replace worn out stock, one lakh will be entered against the year 1924-25 in column 3 and one lakh against the year 1965-66 in column 4.

APPENDIX E.

Government of India, Railway Department Resolution No. 2131-F., dated the 19th February 1925, on the subject of the financing of branch lines of railways.

The Governor General in Council, with the sanction of His Majesty's Secretary of State for India, is pleased to issue the following orders on the subject of Financing of Branch Lines, in supersession of all previous orders on the subject.

1. Branch and Feeder Lines are constructed under an agreement by which the State guarantees a minimum return on the capital, or alternatively, undertakes that the line shall receive, out of the earnings of the main line from traffic contributed by the branch, such a sum, known as a rebate, as will make up the total earnings of the branch to a given sum, while the branch in each case shares with the main line any profits exceeding the guaranteed minimum.

2. This method of encouraging the construction of lines originated 30 years ago simply because the Government of India was unable to furnish the necessary capital.

3. The Acworth Committee pointed out that this method, while enabling lines to be built which would otherwise not have been built, has no other merit. The financial terms usual before the war are now quite inadequate and if the system is to continue they will have to be revised. All the witnesses before the Committee who asked for a revision of the terms admitted that, if the main line were in a position to build a given branch itself, they would prefer that it should be done by the main line rather than that it should be done as a separate undertaking.

4. Amongst the disadvantages pointed out by the Committee are the following:—

(*i*) The Branch Line Company is usually a fifth wheel to the coach. It implies in some cases a separate construction staff; it always implies a separate Board of Directors, and separate accounts.

(*ii*) Where the branch is worked by the main line, if its Directors feel that the management is unsatisfactory, they not only make representations to the main line administration, but in the last resort can appeal to the Railway Board which does not make for harmony.

(*iii*) Capital raised by a small private undertaking, even with a Government guarantee, will cost more than money raised by the State.

(*iv*) Inconceivable confusion results from the multiplication of independent Railway Companies—each company, small or great, desires to reserve for itself a separate sphere of influence; and jealously demands that, if any new-comer intrudes into that sphere, he shall pay toll to the original concessionaire. This only complicates a situation which ought to be considered solely from the point of view of the public interest. New proposals for the extension or connection of lines by small independent companies are either refused owing to protests by the old company or only permitted on a basis of elaborate accounting between the new company and the old for the profits which hypothetically would have belonged to the old line had the new line not been opened.

5. The only arguments urged in favour of the Branch Line Companies were:—

(*i*) That money had been raised which the Government of India was unable to furnish.

(*ii*) That a claim was made that the Branch Line Company obtained from local sources money that would never be subscribed to a Government loan.

(*iii*) That there may be cases of a Branch Line of smaller gauge *worked independently*, which the Branch Line Company can operate more economically than a main line.

6. The Acworth Committee, therefore, so far from approving of this system considered that the aim of the Government should be to reduce by amalgamation the number of existing companies and that it should only be in cases where the State cannot or will not provide adequate funds that private enterprise in this direction should be encouraged.

7. The disadvantages pointed out by the Acworth Committee require to be even further amplified. The existing Branch Line Companies have ceased for some time to raise additional capital for capital requirements. They have either obtained overdrafts from various Banks for this purpose at heavy rates of interest or issued debentures at special rates of interest (usually about 7 per cent.) or in several cases asked for money to be advanced to them by the Railway Board. So far, therefore, from reducing the amount that the Government of India have to raise in the open market, they are at present increasing that amount.

8. Another serious disadvantage which is not mentioned by the Acworth Committee is that the main line usually works the Feeder or Branch Line for a remuneration which, in most cases, is limited to a maximum of a fixed percentage of the gross earnings of the Branch Line (usually 40 per cent. or 50 per cent.)—terms of remuneration which at present are grossly inadequate. The result of this arrangement is that many of the main lines whose working expenses are from 60 to 80 per cent. of the gross earnings are saddled with heavy expenditure which ought to have been debited to Branch Line Companies. Where the Branch Line Companies are "successful," that is, where the shares stand at a high figure, their profits are inflated owing to their working expenses being thus artificially reduced. Again, where in the case of less "prosperous" Branch Line Companies, the Government has to make a direct subsidy in order to make up the guaranteed interest on the capital, the amount paid by way of subsidy does not reveal the true loss of the Government in connection with the Branch Line Company. To this subsidy should be added also the additional loss incurred from the main line working the Branch Line at less than the actual cost. Even this, however, does not give a complete statement of the loss sustained by Government in connection with these Companies. These Companies have been supplied with land free of charge and the cost of such land is not taken into account either in the Capital or the Revenue Accounts of the Companies concerned.

9. The only real argument in favour of these Companies is that they must be utilised in cases where the Government itself is unable or declines to raise the necessary amount of capital for new constructions. It is doubtful whether such a position is likely to recur in the future. It is admitted that to use the agency of these Companies is a far more expensive method of raising money for the construction of railways than direct Government loans can ever be. The amount of assistance given by Branch Line Companies in the past has been trivial; the total amount of capital raised through the agency of Branch Line Companies has only been about Rs. $10\frac{3}{4}$ crores—an amount which in itself is less than the lapse that occurred last year in the provision for capital expenditure in the Railway Budget.

10. The difficulties and complications now experienced in connection with these Branch Line Companies are out of all proportion to the insignificant financial facilities offered by the Companies. The Government of India have therefore decided that the Branch line policy should be abandoned and that an endeavour should be made to reduce the number of the existing Branch Line Companies. If on any occasion the Government of India should be unable to find funds for construction (which is not the case at present), and should it be considered advisable to tap fresh sources for subscription to railway loans by offering terms different from those given to the ordinary Government loans, that is, by offering not only a fixed rate of interest but a share in the profits of a particular Branch Line, there appears to be no particular advantage of using a financial half-way house specially to float a loan on such terms; there appears to be no reason why the Government should not float the loan direct. But it will probably be found sufficient to raise short term debentures at a high rate of interest—to be liquidated when the loan market is favourable—a procedure adopted

now by the Branch Line Companies, but at a higher rate of interest than would be necessary for the Government.

11. There remains the case of the District Board Railways for which some of the capital or the security for the capital is secured by a special cess levied by the District Board throughout the district.

The Acworth Committee pointed out that where a District Board was the promoter of a new Branch Line, considerations other than purely commercial came into play with the result of further complications and confusion. In a footnote to the report they referred to the views expressed by the Madras Government who had drawn attention to a case in which, although no short-circuiting was involved, there had been a delay of over 10 years in arriving at a decision in regard to the terms for working a District Board Railway by the South Indian Railway Company. The amount of capital raised by District Boards for such lines has been only Rs. 137 lakhs while the amount raised by Company lines subsidised by District Boards amounts to Rs. 2¼ crores. These amounts are insignificant as compared with the total capital raised by the Government and it is clear that the relief afforded to the Government of India in raising the loans is quite disproportionate to the great complications which have resulted in the working of the railway administration. Loans raised direct by the District Boards do not relieve the market of the Government of India; the money is ultimately borrowed from the Government of India.

12. The legal position regarding the powers of District and Local Boards in the matter of railway construction and management depends in part on the Indian Railways Act, 1890, which, in the absence of express exclusion of its application, extends to all District Board railways and, in part, on the nature of the provision made in the matter in the District or Local Boards Act of the province concerned. It is only in the Madras Presidency that the question has assumed prominence and it will suffice to indicate briefly the nature of the provisions contained in the Madras Local Boards Act, 1920. Action under section 113 of that Act can only be taken "with the previous sanction of the Government of India." Having obtained such sanction, a District Board may either itself construct and maintain a railway within, or partly within, the local area under the control of the Board, or may subscribe to any debenture loan raised by the Government of India or by any other local authority or by any company for the construction or maintenance of any railway which the Board considers likely to be of benefit to the district, or may guarantee the payment from the district fund of such sums as it shall think fit as interest on capital expended on any such railway (that is, whether the railway is constructed by the Government of India or by any other local authority or by a Company).

Section 236 of the same Act provides that the accumulations of a local railway cess may be utilised for all or any of the purposes specified in section 113, including the guaranteeing of payment of interest on capital spent on a railway.

A District Board in Madras, therefore, can guarantee the payment from the district fund of the money sufficient to make up the minimum interest on capital expended on a railway within its area whether such railway is constructed by the Government of India or by a Company, the only disadvantage attaching to this particular form of guarantee being that the Act does not make the payment of the guaranteed interest a first charge on the District Board Fund.

13. The Government of India could not reasonably use their powers under the Indian Railways Act, 1890, or under *e.g.*, section 113 of the Madras Local Boards Act, 1920, to prevent a District Board or a local body from constructing a light railway or a tramway which had no physical connection with any existing main line and which that local body proposed to work itself or through a local company. But as things stand at present there is no reason for continuing the practice under which District Boards are allowed to make money out of Branch Lines connected with a main line when they themselves cannot make any arrangements for the working of the lines and require to have them run by the main lines.

14. These District Board railways must not be confused with the light and feeder railways which constitute a provincial subject under the Devolution Rules. The provincial subject in question comprises " light and feeder railways and extra-municipal tramways in so far as provision for their construction and management is made by provincial legislation." That is to say, it comprises only individual light or feeder railways or extra-municipal tramways for the construction and management of which specific provision has been made by an Act of the local legislature of the province concerned. Hitherto, no such legislation has been enacted with the result that the entry in question in the provincial schedule, as also the qualifying words in entry 5(*a*)* in the central schedule, have no operation, and all existing railways of every description are included in the central subject defined in the last-named entry. It should also be observed that the provincial subject in question is " subject to legislation by the Indian Legislature in the case of any such railway or tramway which is in physical connection with a main line or is built on the same gauge as an adjacent line," the effect being that a provincial bill designed to provide for the construction of a light or feeder railway or extra-municipal tramway in physical connection with a main line or built on the same gauge as an adjacent main line would require the previous sanction of the Governor General under clause (*f*) of sub-section (3) of section 80 A of the Government of India Act; and it may be presumed that few occasions are likely to arise in which provision will be made by local legislation for the construction of a light or feeder railway not answering one or other of these descriptions.

* " Railways and extra-municipal tramways, in so far as they are not classified as provincial subjects under entry 6(*d*) of Part II of this schedule."

15. The proposals set forth in this Resolution are not designed to evade the legitimate operation of the legal position described, in the case of District Board railways, in paragraph 12 and in the case of provincial light and feeder railways, in paragraph 14; but it follows from the proposals that Local Governments and District or Local Boards should not, in the absence of special circumstances, be encouraged to build branch or feeder lines. In other words, the normal procedure will be the construction by the Government of India, or, at its cost, by a Company, of a branch line which a District Board or Local Government desires to have constructed and is prepared to guarantee. But, should the railway programme not permit the construction of such a line within a reasonable time, the possibility of permitting a District Board or Local Government to construct it from its own funds would require consideration.

Unremunerative Lines.

16. The above proposals relate to the procedure adopted in the past and the procedure which it is proposed to adopt in the future for the financing of the construction of branch or feeder lines expected to prove remunerative from the point of view of railway earnings only. But there are cases where the Local Governments or local authorities may desire that a line should be constructed which will not be remunerative on railway earnings and the construction of which is desired by them for purely local reasons on account of the administrative advantages it is likely to confer or for the development of a particular area. It is proposed that in future the Railway Board in such circumstances should have power to arrange for the construction of the line from railway funds if the Local Government or the local authority guarantees the Railway Board against loss. The guarantee would be to the effect that the local authority would make up the difference between the net earnings and the interest and other charges payable. As it is not desirable that the Central Government should make any profit out of such contributions by local authorities, it is also proposed that where contributions have been made by a local authority for this purpose the repayment of such contributions should be a first charge on any net profits subsequently realised from the line, should the line prove remunerative.

17. The Central Government must, however, retain the power to decide whether a line is to be built or not; the proposals in the preceding paragraph must not be

taken to imply that a Local Government by giving a guarantee can require the Railway Board to construct a line. Proposals of a Local Government might run counter to the general railway policy or might take the form of short-circuiting railway traffic and so lead to a reduction of receipts from existing lines.

18. These proposals have been circulated to Local Governments and have been generally welcomed by them as affording a suitable method of reconciling central and local interests and of providing for local bodies and Local Governments a method of securing the construction of railways which may be required for purely local reasons, and which, while not likely to prove remunerative on purely railway earnings, are likely to provide such indirect benefits to Local Governments and local bodies as will more than repay the amounts paid under the guarantee. Several such arrangements have already been made with Local Governments.

APPENDIX F.

His Excellency the Viceroy's address to the Indian Railway Conference Association at the opening of the 1924 session.

His Excellency the Viceroy delivered the following address to the Association in the Legislative Assembly Chamber, Simla, in the presence of the Governor of the Punjab, the Commander-in-Chief, the Members of Council, representatives of the Council of State and of the Legislative Assembly, and a large gathering of Civil and Military officers.

GENTLEMEN,

I greatly value this opportunity of welcoming the members of the Indian Railway Conference Association. This meeting enables me in the first place to express my warm appreciation of the very valuable results obtained from the meetings of the Association. The Association has, I understand, now been in existence for nearly a quarter of a century. Its primary function was to frame arrangements for the management of traffic interchanged between the different railways; but it also considers and advises upon all other questions of railway management referred to it by its members or by the Government of India and this aspect of its activities has naturally grown in importance. The full Conference only meets once in twelve months; but its functions are carried on throughout the year by technical sub-Committees whose recommendations come before the full meetings of the Association at this annual Conference. I attribute the greatest importance to both the formal and informal aspects of these deliberations. I cannot estimate too highly the value to the Government of India of the expert assistance and advice received from this experienced body. Both the public and the Government owe a debt to the Association for the sustained efforts which are made at these Conferences to perfect the harmonious working of railways in India and to conduce to improved efficiency in the service of the public. I am aware that during your discussions many questions are satisfactorily decided which would otherwise only come to a decision after lengthy consideration by the Railway Board of the representations of different railway administrations; and last but not least I attach the highest importance to the opportunities which these meetings afford to the Agents and principal officers of all the railways in India for coming together for the purpose of informal discussion and interchange of views. These meetings must be of the greatest value to them; and they also afford the officers of my Government an opportunity for discussions with them of the same nature which, I know, are very greatly prized.

I value the opportunity of this meeting also because I am enabled thereby to address those who are directly responsible for the working of the great railway systems of India. I need not dwell on the great importance of the latter to this country. From small beginnings—I believe the first railway opened in India over seventy years ago was a modest project running for 21 miles only—a vast and complex system has been built up. The total mileage now exceeds 38,000 miles; and last year nearly 600 million passengers and 100 million tons of goods were carried on the system. The staff employed on railways numbers nearly $\frac{3}{4}$ million persons. On budget lines alone this year the earnings may be expected to attain a total of 97 crores of rupees. The magnitude of the changes which the railways have brought about in the social and economic life of the Indian people in the last half century can hardly be estimated. The expansion of the railway system has silently but surely made for the spread of civilization, for a general increase in material prosperity, for greater happiness and for greater unity among the people of India and for wider possibilities in public and private life. Those who have helped to build up and expand the system may well take pride in the achievement. I fully realise the great responsibilities and the heavy burden of work which lies upon those entrusted with

the working of this vast and complex system; and for this reason and on account of the great importance to India of the duties they perform, it is a special pleasure to me to meet here to-day those principally responsible for the management of Indian railways.

Apart from my keen interest in railways generally on account of their connection with development and progress in India, circumstances place me in an even more intimate relation in regard to them. In India a very large portion of the railway system is owned by Government, and in consequence my Government is vitally interested and directly concerned in the efficient and economical management of the railway system. The difficulties which have had to be faced during the past war period are well known; and I need not explore their causes. The brief boom of 1919-20 was succeeded by a period of severe trade depression. There was leeway to make up in repairing wastage while the cost of material had risen in an unprecedented fashion and the wages bill had swelled owing to the abnormal increase in prices and cost of living. In 1921-22 and 1922-23 the railways were unable to pay interest charges and a situation of great difficulty had arisen. The only solution of the problem was to introduce a policy of retrenchment and rigorous economy in working charges while at the same time making a reasonable increase in rates and fares. My Government greatly appreciate the loyal manner in which the railway administrations and their staff co-operated in the execution of this policy. The fruit of their labours is already apparent. Last year the railways made a net contribution to the State of more than six crores and paid a net return on capital invested of more than 5 per cent. It is too early to prophesy as regards the present year and it is necessary to make allowance for the damage, not yet fully estimated, caused by the recent disastrous floods; but the prospects are hopeful; and with the gross receipts up to the end of last August in excess of those of the corresponding period of last year by 309 lakhs, a confident view may be taken. I have on various occasions expressed my opinion that a slow but steady revival of trade is taking place; and the railway returns, which act as the barometer of trade, point to the indicator moving in that direction. The capital expenditure of the last few years is beginning to take effect in increased capacity and better facilities for handling traffic. In addition, in spite of greatly increased traffic and earnings, the ordinary working expenses for the early portion of the year stand at a lower figure than last year. The fall in prices is without doubt a contributing factor, but the main credit must be given to the Agents and their staff without whose continuous efforts and close attention to economy these satisfactory results could not have been secured.

Some portion of the improvement effected may also be attributed to the process of overhauling the railway organization in the Central Government. The Acworth Committee and the Inchcape Committee offered my Government valuable advice both on the financial and administrative side of railway policy. The suggestions of the Inchcape Committee have borne fruit in resulting economies without loss of efficiency. The reorganisation of the Railway Department, which formed the subject of one of the recommendations of the Acworth Committee, has been energetically carried out by Sir Charles Innes. The Railway Board has been strengthened by the inclusion of a Financial Adviser and by addition to the Staff of a number of technical officers; and under Mr. Hindley's able guidance the central directorate is now approximating more and more to the ideal of a general staff for railways. Time will not permit of my dwelling on all the benefits which have been derived from these new activities; but the public may rest assured that in the Railway Board they now possess a scientific and practical body constantly engaged in the study of the railway problem of India as a whole and in devising improvements and developments on a comprehensive scale.

Great as the progress has been, nevertheless owing to the size of India, development necessarily lags behind the needs of the continent. I am tempted to dwell at length on the fascinating subject of productive expenditure in India. In my view, after the completion of the rehabilitation of the existing railway system, a well con-

sidered plan for the extension of cheap but efficient railway transport is a primary necessity in India; and no step is more likely to conduce to an increase in trade and industry and in the general prosperity of the country. I am glad to be able to state that we have already made some progress in this direction; projects for nearly 1,000 miles of new lines have been sanctioned and little difficulty is anticipated in future in finding money for new projects of a remunerative nature.

My Government have also approved in consultation with Local Governments of a new policy from which good results are anticipated. Where a Local Government for administrative or other reasons attaches importance to a local railway project which cannot be brought within the four corners of the definition of a commercially remunerative scheme, the Government of India will be prepared to construct and work a line desired by the Local Government provided the Local Government guarantees a specified rate of interest on the Capital outlay and the scheme does not conflict with more extensive projects. This policy will, I trust, operate to associate the Local Governments with railway development and adjust the general policy to local conditions. I trust Agents will keep in touch with Local Governments in exploring local needs and advise them in regard to promising local projects which can suitably be taken up under the new policy.

The Acworth Committee gave prominence to the vexed question of the comparative merits of state and company management of railways. This question also aroused considerable interest in the Indian Legislature. As the outcome of the discussions on the subject, the Government of India, as you are aware, have decided to take under direct management the East Indian Railway from the 1st of January next and the Great Indian Peninsula Railway from next July.

These changes will involve the transfer to service under the Government of India of a number of officers and several thousands of employees now working under companies on these lines. The members of these staffs are naturally apprehensive of the manner in which the change of management may affect the staff. I take this opportunity of assuring them that the officers and men of the two railways need have no fears that the change will affect them adversely in the conditions of their pay, service or prospects.

The most comprehensive change to which immediate effect is to be given arising out of the consideration of the Acworth Committee's report, lies in the domain of finance. In the past in this aspect the Railway Department occupied the same position as that of other Departments of the Government of India. In spite of the possession of special powers and of the theoretical advantage of treatment on a commercial working basis, in practice the Railway Department was crippled for development purposes by the restrictions inherent in the system. Railways depended for finance upon money voted each year and the net earnings of the railways went into the general exchequer. I need not dwell on the weak points of this system. The inevitable tendency, especially apparent during the war, was to expect railways to contribute more than their just share to general revenues and to class the powers of recovery through railways as a potentiality for adding to revenue from taxation. This tendency killed the incentive to economy in working and continuity in railway policy and definitely operated to discourage initiative in commercial management and real increase in efficiency in the public service obtained by results in the working of the railways themselves.

The Acworth Committee's recommendations put the situation in a new light and directed a fresh angle of vision towards the principle involved in the system. A step in advance was made when with the approval of the Legislative Assembly a capital programme was guaranteed to the railways over a period of years. The spirit of reform progressed to a logical conclusion during the last session of the legislature when a convention received approval separating railway Finance from general Finance.

I congratulate the Assembly on the wisdom of the decision arrived at. For a time during the debates on the subject, the decision was in jeopardy. Non-official

amendments were moved the purpose of which was to subject the change to other conditions wholly unconnected with the principle involved. Had these conditions, which included the complete subordination of all initiative in executive action of the Executive Government to the Legislature, been pressed, Government would have been obliged to have abandoned the project for separation. It would not have been possible as a condition of the latter to have given up a constitutional principle of first importance. Fortunately wiser counsels prevailed; I desire to express my appreciation of the able services of the officers who presented the Government case and of the public spirit of those members of the Assembly who assisted in bringing about an acceptance of the proposals. I realise that in some cases their support was given to a government measure of benefit to the interests of India notwithstanding political differences with Government on other subjects; and the resolution as finally framed and passed represents on the chief point involved in the debate a compromise honourable to both parties in the discussion. Government has agreed to a provision by which the Legislative Assembly are at liberty to terminate the arrangement in the event of a State-managed line being handed over to a Company against the advice of the Assembly while the main question of a convention to separate railway from general finance has been accepted. The matter now rests on a proper basis. The importance of the reform cannot be over-estimated. The State will continue to receive a fair and constant return from the money spent on railways, while communications will no longer run the risk of being taxed unfairly through the railways. General revenues may be expected to gain from stabilization of railway revenue. The railway administration will now possess a real incentive to economy in working on commercial lines. Proper arrangements can now be made for depreciation and for building up railway reserves. Continuity and regular growth in railway policy has become possible; and it is hoped that in due course the public will pay less for the existing service of the railways, while railway facilities will be largely increased without addition to the burden of general taxation.

During the debates great stress was laid on Indianization and the resolution in its final form incorporated the views of the Assembly in this point though these views formed no part of the actual convention regarding railway finance. The Lee Commission had made recommendations on this question which were in accordance with the general policy of His Majesty's Government as expressed in the preamble of the Government of India Act, and before the debate on railway finance in the Assembly, the Government of India had decided to accept these recommendations which have the effect of pressing forward as rapidly as possible the extension of existing facilities in order that " the recruitment of Indians be advanced as soon as practicable up to 75 per cent. of the total number of vacancies in the railway department as a whole."

In view of doubts expressed in the press as to the manner in which this policy may affect a community now widely represented among the ranks of the railway staff, I desire to make it clear that I fully recognise that the Anglo-Indian Community have played a very considerable part in working the railways in the past; and for this reason among others the Anglo-Indian community may rest assured that in the execution of the policy of increasing Indianization their interests will receive the most careful consideration and stand in no danger of being overlooked.

The separation of railway finance, which within limits constitutes the Agents as masters in their own house, increases their responsibility. Each year whatever the conditions, the contribution has to be paid into general revenues. Any deficit which may occur cannot merely be passed on to those revenues. So long as the convention subsists, the Agents have to depend on their own resources and contrive to succeed within these limitations. The closest supervision and most careful attention to economy and efficiency in working will in consequence be called for.

I appreciate the difficulties of the task which lies ahead and the strain which the Agents and their staff will be called upon to bear; but I am confident that the basis on which railway finances have now been placed is sound in principle and in view of

the success of the efforts of the last two years I have no doubt that the fullest reliance can be placed on the railway administrations to produce the most satisfactory results as the outcome of their new responsibilities and the wider field of initiative now before them.

I know that the task will be undertaken in the right spirit and that those engaged in it will derive encouragement from the great importance to India of the duties they perform. If they succeed, as I am confident they will, I shall be the first to rejoice with them in the issue of their labours and to offer my contribution of praise to their success.

I have referred to the fact that the railways touch almost every aspect of the lives of the people of India. It is inevitable in the circumstances that with growing consciousness and the spread of responsible institutions among the people railway administration should be a common target of attack and criticism. Much of the latter may be ill-founded and due to misapprehension; and for that reason it must at times be irksome to the railway staff who are performing their duties in difficulties little understood by the general public. Nevertheless in my view Railway Administrations may derive satisfaction from the attention so continuously, if embarrassingly, directed towards them by the legislatures and the public. It places the importance of the railways in the eyes of the public beyond all doubt; and the administrations may take a just pride in this recognition of their position by the public as a great national utility service.

I have dwelt on the great part railways have played in the development of India, how they have spread civilization and material prosperity and changed the economic and social life of the Indian people as they have advanced and how they have in a great measure contributed to the conditions which make it possible to-day to think of India as a united entity with common national aspirations.

Those who have been for many years connected with railway administration in India can look back with satisfaction on the steady course of this advance. They can recall with pride the practical difficulties which have been overcome, the administrative problems at one time appearing insoluble which have been solved, and the technical triumphs by which bridges have spanned the great rivers of India and baffling gradients have been surmounted. Their thoughts naturally turn towards what the future has in store. As far as it has been possible to contrive, the necessary machinery for the development of railways has been set up and the ground has been cleared for expansion; but this expansion from which nothing but benefit can accrue to India must depend in a large measure on the peaceful and steady progress of the people of India with which the railways are so closely bound up and to which they directly react.

It is my earnest hope that all that tends to retard that progress may be eliminated, that the distressing communal differences unhappily so prominent at the present time and so fatal to moral and material well-being may be composed. It is the unceasing preoccupation of myself and Government to discover means to allay the intensity, and, I deeply regret to say, the bitterness of feeling between members of the two great communities. No graver problem confronts India at this moment; none deserves closer attention; none more urgently calls for the whole-hearted co-operation and good-will of all sections of Indian opinion. I also trust that all influences unfortunately now existing which operate to set back the ordered course of the constitutional advance of this great country towards the goal of responsible self-government in the Empire may disappear, and that the day may not be far distant when a keen sense of public duty and a desire to serve the true interests of India will rise superior to all sectional considerations and lead to union in whole-hearted efforts for the progress and prosperity of her people.

APPENDIX G.

Statement of Gazetted Officers and Officers of corresponding rank employed on Class I Railways (excluding Nizam's Guaranteed State and Jodhpur Railways) on the 1st April 1924 as compared with 1st April 1925.

Item.	A. B.		B. N.		E. & N. W.		P., B. & C. I.		Burma.		E. B.		E. I.		G. I. P.		M. & S. M.		N. W.		O. & R.		R. & K.		S. I.		State Railway officers not previously included.		Total	
	1924.	1925.	1924.	1925.	1924.	1925.	1924.	1925.	1924.	1925.	1924.	1925.	1924.	1925.	1924.	1925.	1924.	1925.	1924.	1925.	1924.	1925.	1924.	1925.	1924.	1925.	1924.	1925.	1924.	1925.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1. *Agency Department*—																														
1·01. Europeans	2	2	4	4	2	2	7	7	3	3	3	3	8	7	7	7	4	4	6	7	2	2	2	1	2	3	..	..	52	52
1·02. Anglo-Indians	..	..	1	1	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
1·03. Muslims	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1·04. Non-Muslims	..	..	1	1	..	..	..	..	..	..	..	..	2	3	..	1	2	2	2	1	..	..	..	..	1	1	..	..	8	9
1·05. Total	2	2	6	6	2	2	7	7	4	4	3	3	10	10	7	8	6	6	8	8	2	2	2	1	3	4	..	..	62	63
2. *Engineering Department*—																														
2·01. Europeans	20	21	61	72	19	21	53	59	35	34	29	28	46	44	67	62	42	46	76	68	16	16	5	5	35	43	47	47	551	566
2·02. Anglo-Indians	..	..	12	12	..	..	..	..	3	3	3	1	1	2	2	2	1	1	7	4	1	..	..	..	..	..	5	3	35	28
2·03. Muslims	1	1	4	3	..	..	1	..	..	..	..	..	1	1	4	4	..	..	1	2	..	..	..	..	1	1	2	4	15	16
2·04. Non-Muslims	1	1	10	11	..	..	8	11	1	2	18	18	9	10	6	7	4	4	31	32	9	10	..	..	6	9	3	13	106	128
2·05. Total	22	23	87	98	19	21	62	70	39	39	50	47	57	57	79	75	47	51	115	106	26	26	5	5	42	53	57	67	707	738
3. *Traffic Department*—																														
3·01. Europeans	11	10	36	34	13	14	36	35	22	23	24	23	46	64	59	58	23	24	44	50	15	15	2	2	18	18	8	8	357	378
3·02. Anglo-Indians	1	1	1	2	..	..	2	2	2	2	1	1	6	7	7	4	2	2	1	2	1	1	..	..	1	1	..	..	25	25
3·03. Muslims	..	..	2	2	1	1	..	..	..	..	2	2	3	3	..	..	1	1	9	8	7	6	..	..	..	..	..	1	25	24
3·04. Non-Muslims	1	1	9	10	2	2	7	7	2	3	10	10	12	14	7	8	5	4	7	9	..	1	..	..	3	3	..	..	65	72
3·05. Total	13	12	48	48	16	17	45	44	26	28	37	36	67	88	73	70	31	31	61	69	23	23	2	2	22	22	8	9	472	499
4. *Locomotive and Carriage and Wagon Departments*—																														
4·01. Europeans	8	8	29	28	10	10	30	32	17	17	19	18	37	16	25	24	22	22	57	52	13	12	3	2	14	16	4	4	288	261
4·02. Anglo-Indians	..	..	..	..	..	..	1	1	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	2	2
4·03. Muslims	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1
4·04. Non-Muslims	1	1	..	1	..	..	..	..	..	..	2	2	4	3	2	3	..	..	..	1	..	..	..	..	..	..	..	..	9	11
4·05. Total	9	9	29	29	10	10	31	33	17	17	21	20	42	19	27	28	22	22	57	54	13	12	3	2	14	16		4	299	275

5. Stores Department—																															
5·01. Europeans	1	1	6	8	1	2	7	7	2	2	3	3	5	5	8	9	5	6	10	10	4	3	..	..	3	3	3	3	58	62
5·02. Anglo-Indians	..	..	..	..	..	..	..	..	1	1	4	2	..	..	..	..	..	..	..	..	..	..	..	..	2	2	..	1	7	6
5·03. Muslims	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
5·04. Non-Muslims	..	..	1	1	..	..	..	..	1	1	1	1	..	..	..	..	..	..	2	2	1	2	..	..	..	..	..	..	6	7
5·05. TOTAL	1	1	7	9	1	2	7	7	4	4	8	6	5	5	8	9	5	6	12	12	5	5	..	..	5	5	3	4	71	75
6. Other Departments—																															
6·01. Europeans	10	10	26	25	6	6	22	22	12	12	5	6	47	48	29	25	21	20	11	7	4	4	1	2	10	10	..	..	204	197
6·02. Anglo-Indians	1	1	..	..	..	..	3	3	.	..	2	2	3	4	..	..	1	1	7	12	..	1	..	..	1	..	.	..	18	24
6·03. Muslims	..	..	..	..	..	..	..	..	.	..	1	1	1	1	..	..	..	..	1	1	1	1	..	..	..	..	..	..	4	4
6·04. Non-Muslims	2	3	3	4	1	1	7	7	1	1	4	4	5	4	7	6	7	7	6	10	4	4	2	1	2	4	..	..	51	56
6·05. TOTAL	13	14	29	29	7	7	32	32	13	13	12	13	56	57	36	31	29	28	25	30	9	10	3	3	13	14	..	..	277	281
7. Total—																															
7·01. Europeans	52	52	162	171	51	55	155	162	91	91	83	81	189	184	195	185	117	122	204	194	54	52	13	12	82	93	62	62	1,510	1,516
7·02. Anglo-Indians	2	2	14	15	..	..	6	6	7	7	19	6	11	13	9	6	4	4	15	19	2	2	..	..	4	3	5	4	89	87
7·03. Muslims	1	1	6	5	1	1	1	..	..	..	3	3	5	5	4	5	1	1	11	11	8	7	..	..	1	1	2	5	44	45
7·04. Non-Muslims	5	6	24	28	3	3	22	25	5	7	35	35	32	31	22	25	18	17	48	55	14	17	2	1	12	17	3	13	245	283
7·05. TOTAL	60	61	206	219	55	59	184	193	103	105	131	125	277	235	230	221	140	144	278	279	78	78	15	13	99	114	72	84	1,888	1,931
8. Increase + Decrease —																															
8·01. Europeans	..	..	..	+9	..	+4	..	+7	..	..	..	—2	..	—5	..	—10	..	+5	..	—10	..	—2	..	—1	..	+11	..	..	..	+6
8·02. Anglo-Indians	..	..	..	+1	..	..	..	..	..	..	..	—1	..	+2	..	—3	..	..	..	+4	..	..	..	..	..	—1	..	—1	..	—2
8·03. Muslims	..	..	..	—1	..	..	..	—1	..	..	..	..	..	..	..	+1	..	.	..	..	..	—1	..	..	..	..	..	3	..	+1
8·04. Non-Muslims	..	+1	..	+4	..	..	..	+3	..	+2	..	..	..	+2	..	+3	..	—1	..	—7	..	+3	..	—1	..	+5	..	10	..	+38
8·05. TOTAL	..	+1	..	+13	..	+4	..	+9	..	+2	..	—6	..	—1	..	—9	..	+4	..	—1	..	..	..	—2	..	15	..	+12	..	+43
9. Percentage of Total—																															
9·01. Muslims	1·67	1·64	2·91	2·28	1·82	1·69	0·54	..	..	..	2·29	2·40	2·11	2·12	1·74	2·23	0·71	0·69	3·95	3·94	10·3	8·97	..	..	1·01	0·87	2·8	6·0	2·3	2·3
9·02. Non-Muslims	8·33	9·83	11·7	12·8	5·45	5·08	12·0	12·9	4·86	6·67	26·7	28·0	13·5	14·4	9·56	11·3	12·9	11·8	17·3	19·7	17·9	21·8	13·3	7·69	12·1	14·9	4·2	15·5	13·0	14·7
9·03. Total Indians	10·0	11·5	14·6	15·1	7·27	6·78	12·5	12·9	4·85	6·67	29·0	30·4	15·6	16·5	11·3	13·6	13·6	12·5	21·2	23·6	28·2	30·8	13·3	7·69	13·1	15·8	6·9	21·4	15·3	17·0
9·04. Anglo-Indians and Indians.	13·3	14·8	21·4	21·9	7·27	6·78	15·9	16·1	11·7	13·3	36·6	35·2	20·3	22·0	15·2	16·3	16·4	15·3	26·6	30·5	30·8	33·3	13·3	7·69	17·2	18·4	13·9	26·2	20·0	2 ·5

APPENDIX G—*concluded.*

Statement of Subordinates, drawing Rs. 250 per mensem and over or on scales of pay rising to Rs. 250 per mensem and over, employed on Class I Railways (excluding Nizam's Guaranteed State and Jodhpur Railways) on 1st April 1924 as compared with 1st April 1925.

Item.	A. B.		B. N.		B. & N. W.		B., B. & C. I.		Burma.		E. B.		E. I.		G. I. P.		M. & S. M.		N. W.		O. & R.		R. & K.		S. I.		Total.	
	1924.	1925.	1924.	1925.	1924.	1925.	1924.	1925.	1924.	1925.	1924.	1925.	1924.	1925.	1924.	1925.	1924.	1925.	1924.	1925.	1924.	1925.	1924.	1925.	1924.	1925.	1924.	1925.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1. Agency Department—																												
1·01. Europeans	..	..	1	2	..	..	1	1	.	..	4	3	1	1	4	4	..	..	2	1	1	1	..	..	..	..	14	13
1·02. Anglo-Indians	1	1	1	..	1	1	1	1	6	5	2	2	..	1	..	..	1	1	..	..	1	..	..	..	1	1	15	13
1·03. Muslims	..	..	..	..	..	..	2	2	..	..	..	..	..	..	..	..	.	..	3	2	..	..	..	..	..	..	5	4
1·04. Non-Muslims	4	4	3	4	1	1	8	8	3	3	2	3	9	9	3	5	2	2	4	7	2	2	1	1	3	4	45	53
1·05. Total	5	5	5	6	2	2	12	12	9	8	8	8	10	11	7	9	3	3	9	10	4	3	1	1	4	5	79	83
2. Engineering Department—																												
2·01. Europeans	5	4	11	11	7	6	14	18	2	1	15	14	70	63	42	48	12	14	48	56	13	11	4	3	13	11	256	260
2·02. Anglo-Indians	7	6	45	44	19	19	12	14	31	40	23	20	96	97	18	29	26	27	38	38	20	22	..	1	15	24	350	381
2·03. Muslims	3	3	5	7	..	..	11	10	3	2	3	3	8	3	15	17	..	..	58	52	..	3	1	1	1	1	108	102
2·04. Non-Muslims	5	7	46	52	4	4	108	121	44	47	38	35	80	77	46	55	14	13	103	101	21	29	..	..	14	21	523	562
2·05. Total	20	20	107	114	30	29	145	163	80	90	79	72	254	240	121	149	52	54	247	247	54	65	5	5	43	37	1,237	1,305
3. Traffic Department—																												
3·01. Europeans	6	4	32	30	9	10	46	58	4	5	39	53	180	454	276	322	9	9	142	127	32	30	1	1	10	12	786	1,115
3·02. Anglo-Indians	10	12	77	77	7	7	23	26	38	39	52	42	143	412	249	349	17	17	71	78	25	24	5	5	5	5	722	1,084
3·03. Muslims	..	..	2	2	1	1	7	6	1	1	..	1	3	7	..	15	..	..	10	13	7	6	..	..	1	1	32	73
3·04. Non-Muslims	2	4	14	13	2	1	114	117	11	14	23	21	30	51	71	120	1	1	38	46	18	31	..	..	10	12	331	431
3·05. Total	18	20	125	122	19	19	190	207	54	59	114	117	356	924	596	797	27	27	261	264	82	91	6	6	26	30	1,874	2,683
4. Locomotive and Carriage and Wagon Departments—																												
4·01. Europeans	11	11	197	264	14	12	232	191	30	27	68	72	531	168	107	108	57	56	238	219	39	33	3	2	42	39	1,569	1,202
4·02. Anglo-Indians	20	20	133	192	16	14	248	186	78	80	61	61	395	111	68	84	103	112	163	163	54	62	4	4	117	111	1,460	1,208
4·03. Muslims	1	1	1	1	1	1	1	1	..	..	2	1	2	..	2	4	1	1	23	41	2	2	..	..	..	..	36	73
4·04. Non-Muslims	3	3	10	19	..	1	54	50	5	5	13	15	18	11	27	39	2	2	77	82	6	7	4	4	18	18	237	256
4·05. Total	35	35	341	476	31	28	535	428	113	112	144	149	946	290	204	235	163	171	501	505	101	104	11	10	177	176	3,302	2,719

5. Stores Department—																														
5·01. Europeans	..	..	6	6	..	..	1	1	..	..	2	2	15	12	8	4	2	2	7	6	..	..	..	..	..	..	41	33
5·02. Anglo-Indians	1	1	4	4	1	1	3	3	..	..	5	5	7	5	1	1	2	2	5	5	3	7	..	..	2	2	34	36
5·03. Muslims	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	7	7	2	1	..	..	..	..	10	9
5·04. Non-Muslims	..	..	6	6	..	..	8	7	3	3	5	5	4	5	4	6	2	2	20	20	5	5	..	..	1	1	58	60
5·05. TOTAL	1	1	16	16	1	1	13	12	3	3	12	12	26	22	13	11	6	6	39	38	10	13	..	..	3	3	143	138
6. Other Departments—																												
6·01. Europeans	2	3	45	45	2	6	14	14	2	2	..	..	60	82	19	22	3	4	1	3	2	4	1	1	1	1	182	187
6·02. Anglo-Indians	4	5	54	62	7	14	28	25	7	7	22	21	34	44	14	18	12	12	13	10	5	4	..	..	5	5	205	227
6·03. Muslims	..	..	1	1	..	..	5	5	5	6	..	..	2	2	..	..	..	..	11	23	1	1	..	..	..	..	25	38
6·04. Non-Muslims	6	6	45	49	5	8	83	79	29	31	36	32	41	54	33	45	10	13	55	103	22	19	2	2	20	19	387	460
6·05. TOTAL	12	14	145	157	14	28	130	123	43	46	58	53	137	182	66	85	25	29	80	139	30	28	3	3	26	25	769	112
7. Total—																												
7·01. Europeans	24	22	292	358	32	34	308	283	38	35	128	144	857	780	456	508	83	85	438	412	87	79	9	7	66	63	2,818	2,510
7·02. Anglo-Indians	43	45	314	379	51	56	315	255	160	171	165	151	675	670	350	472	161	171	290	294	108	119	9	10	145	156	2,786	2,949
7·03. Muslims	4	4	9	11	2	2	27	25	9	9	5	5	15	12	17	36	1	1	112	138	12	13	1	1	2	2	216	259
7·04. Non-Muslims	20	24	124	143	12	15	375	382	95	103	117	111	182	207	184	270	31	33	297	359	74	93	7	7	66	75	1,584	1,822
7·05. TOTAL	91	95	739	891	97	107	1,025	945	302	318	415	411	1,729	1,669	1,007	1,286	276	290	1,137	1,203	281	304	26	25	279	296	7,404	7,840
8. Increase + Decrease —																												
8·01. Europeans	..	—2	..	—66	..	+2	..	—25	..	—3	..	+16	.	—77	..	+52	..	+2	..	—26	..	—8	..	—2	..	—3	..	—8
8·02. Anglo-Indians	..	+2	..	+65	..	—5	..	—60	..	+11	..	—14	.	—5	..	+122	..	—10	..	+4	..	+11	..	+1	..	+11	..	+163
8·03. Muslims	..	..	..	+2	..	..	..	—2	..	..	..	..	..	—2	..	—19	..	..	..	+26	..	—1	..	..	.	..	..	+43
8·04. Non-Muslims	..	+4	..	+19	..	—3	..	+7	..	+8	..	—6	..	+25	.	+86	..	—2	..	+62	..	—19	..	.	.	+9	..	+238
8·05. TOTAL	..	+4	.	+152	..	+10	..	—80	..	+16	..	—4	..	—89	..	+279	..	+14	..	+66	..	+22	..	+1	..	+17	..	+436
9. Percentage of Total—																												
9·01. Muslims	4·4	4·2	1·22	1·23	2·06	1·87	2·6	2·65	2·00	2·83	1·10	1·22	0·87	0·72	1·69	2·8	0·36	0·37	9·85	11·5	4·27	4·28	3·85	4·00	0·71	0·67	2·92	3·30
9·02. Non-Muslims	22·6	25·3	16·8	16·0	12·4	14·0	36·6	40·4	31·5	32·4	28·2	27·0	10·5	12·4	18·3	21·0	11·2	11·4	26·1	29·8	23·3	30·6	26·9	28·0	23·7	25·4	21·4	23·2
9·03. Total Indians	26·4	29·5	18·0	17·3	14·4	15·9	39·2	43·1	34·4	35·2	29·4	28·2	11·4	13·1	20·0	23·8	11·6	11·7	36·0	41·3	30·6	34·9	30·8	32·0	24·4	26·0	24·3	26·5
9·04. Anglo-Indians and Indians	73·6	76·8	60·5	59·8	67·0	68·2	69·9	70·0	87·4	89·0	69·1	65·0	50·4	53·3	54·7	60·5	69·9	70·7	61·5	65·8	69·0	74·0	65·4	72·0	76·3	78·7	58·5	64·2

APPENDIX H.

List of officers of the Railway Department (Railway Board) on the 31st March 1925.

The Hon'ble Sir Charles Innes, K.C.S.I., C.I.E., I.C.S., Member of Council of Governor General.

Railway Board.

Mr. C. D. M. Hindley	Chief Commissioner of Railways.
Mr. F. A. Hadow, C.V.O.	Member.
Mr. P. C. Sheridan, C.M.G.	Member.
Mr. G. G. Sim, C.I.E., I.C.S.	Financial Commissioner.

Officers.

Lt.-Col. L. E. Hopkins, D.S.O., R.E.	Director, Civil Engineering.
Mr. A. J. Chase, O.B.E.	Director, Mechanical Engineering (on leave).
Mr. J. H. D. Wrench	Offg. Director, Mechanical Engineering.
Mr. S. C. Tomkins	Director of Establishment.
Mr. S. D. Manson	Director of Traffic.
Mr. P. H. Maflin, O.B.E., M.C.	Offg. Secretary.
Mr. A. M. Hayman, O.B.E.	Deputy Director, Finance.
Mr. B. Stanley	,, ,, Establishment (on leave).
Mr. J. H. Carpenter	Offg. Deputy Director, Establishment.
Mr. A. F. Harvey	Deputy Director, Stores.
Major F. H. Budden, M.C., R.E.	,, ,, Statistics.
Mr. Muzaffar Hussan	,, ,, Way & Works.
Mr. R. N. Nicolls, O.B.E.	,, ,, Traffic.
Mr. K. C. De	Assistant Director, Technical.
R. S. B. D. Puri	,, ,, Finance.
Mr. F. C. Malhan	,, ,, Statistics.
Mr. R. Thomas	Assistant Secretary (on leave).
Mr. E. C. Rundlett	Offg. Assistant Secretary.

Officers on Special Duty.

Mr. M. D. Sheikh.
K. S. Barkat Ali.
Mr. P. B. Chandwani.

Accountant General, Railways.

Mr. G. W. V. deRhe Philipe, O.B.E., V.D.	Accountant General, Railways (on leave).
Mr. J. M. Hartley	Offg. Accountant General, Railways.
Mr. J. Kaul	,, Dy. Accountant General.
Mr. C. H. Ricketts	,, Assistant Accountant General.

MGIPC—L—IX-27—17-12-25—1,350.