

GOVERNMENT OF INDIA
RAILWAY DEPARTMENT
(RAILWAY BOARD)

REPORT
BY THE
RAILWAY BOARD
ON
INDIAN RAILWAYS

FOR
1937-38

Volume I

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DELHI: MANAGER OF PUBLICATIONS
1939

Books and Technical Papers published by the Railway Board.

BOOKS.

- (1) Report by the Railway Board on Indian Railways. Published yearly. Price—Volume I—Report, Rs. 6-4-0 or 10s. Volume II, Rs. 4-12-0 or 7s. (1936-37).
- (2) Classified List of State Railway Establishments and Distribution Returns of Establishment of all Railways. Published yearly. Price Rs. 1-12-0 or 2s.
- (3) History of Indian Railways, constructed and in progress accounted up to 31st March 1937. Published triennially. Price Rs. 6-0-0 or 9s. 9d.
- (4) History of Services of the Officers of the Indian State Railways. Published biennially. Price Rs. 20 or 31s. 6d. (Corrected up to 1st July 1937).

TECHNICAL PAPERS.

- (5) Over 300 papers have been published by 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 Chief Controller, Standardisation, Central Standards Office for Railways, Binn/Cow Delhi. A few of the more important Technical papers are mentioned below:—

Technical Paper.	Name.	Author.
No. 72. The design of well foundations for bridges		(Compiled.)
143. Statistics of railway working expenditure		G. DEUGHARS.
145. River training and control on the gully bank system		F. J. B. SPRING.
211. The Hardinge Bridge over the Lower Ganges at Ben		SIR ROBERT GALER.
219. Technical education in relation to railways in America		H. L. COLE.
229. The central control systems for the scheduling of operations in locomotive repairs workshops in England		H. H. SAUNDERS.
242. Railway Statistics and the Operating Officer		MAJOR F. H. BUDDEN.
243. How to judge the prospects of new railways		Lt.-Col. I. E. HOPKINS.
244. Sleeper spacing and the effect of the New Permissible Axle-loads		A. F. HARVEY.
245. Report of the Indian Railway Bridge Committee on track stresses.		
247. 1st and 2nd interim reports of the Indian Railway Bridge Committee on impact and revision of the Bridge rules.		
249. Operating Statistics and the Divisional Officer		MAJOR F. H. BUDDEN.
250. Axle-loads, wheel diameter and railhead dimensions.		
253. A. E. K. and maintenance of Way Association's Impact tests on Railway Bridges. (Reprinted.)		
Description of the Planning, Progress, Coaling and Engine Repair, Schedule System, introduced on the G. I. P. Railway Loco. shops at Faisal		F. G. S. MARTIN.
No. 256. Notes on the preparation of railway projects		H. L. GLASS.
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262. Note on steps to be taken to permit of running the future large vehicles on Broad Gauge Railways, 1927		A. I. SLEIGH.
263. Note on Composite Index numbers of Indian Railways		W. G. BARKETT.
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272. The Stenographic Survey of the Shaligram		MAJOR KEENEYTH MASON. (Reprint.)
273. A Schedule system for the Control of Operations in Workshops, 1929		H. H. SAUNDERS.
275. An Enquiry into the Preparation of Periodic Financial Returns on the Railways of Great Britain, Egypt and Palestine, 1929		MAJOR WAGSTAFF.
276. Investigation into the Strength of Rail Joints		H. HOWE and I. H. SWAIN.
277. Description of the Cost Accounting Scheme introduced in the locomotive workshops at Moghalpura		A. E. HOWELL.
278. Notes on Tube Railway Construction		E. G. SALMOND.
279. Report on Track Practice on American and Canadian Railways		A. F. HARVEY.
280. The Installation of a Production System in the locomotive workshops at Moghalpura		A. E. HOWELL.
281. The Bolt System of Repairs introduced in the Locomotive Workshops at Kanchrapura		E. DE VEEB IRWIN and J. R. POTTER.
282. Note on "Friders"—A comparison for reconditioning abraded spider holes in Railway Sleepers		S. KRISHNA and Y. P. CHOSE.
283. Description of a system introduced in the Stores Department of the East Indian Railway, and Appendices		F. G. S. MARTIN and A. E. A. HARE DUCK.
284. Wagon Repairs—Notes on Progressive Systems of Wagon Repairs as introduced in North Western Railway Workshops at Moghalpura		B. S. SINDHU.
285. Note on the Methods by which the provisions regarding Rates and Fares embodied in the English Railways Act of 1921 were framed, both from the points of view of the Railway Companies and of the complainants of the Act		E. A. SIMS.
286. Stresses in Fishplates for 90 lbs. Rails (with conclusions affecting the design of standard Rail and Fishplate Sections)		A. M. SIMS.
287. Report on Oil, Burners and Wicks for Signal Lamps		H. E. COX.
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289. The Hump Yard in India		MAJOR H. W. WAGSTAFF, M.C., R.E.
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298. Cost Accounting in English and Indian Railway Workshops		S. V. IYER.
299. The Determination of the Permissible Speeds on Curves		E. PROCTER.
300. Report on Investigation into modern methods of introducing transition curves economically into existing lines of Rly.		E. H. MARTIN.
301. Note on reconditioning of curves		E. STRICK.
302. The Coach Painters Handbook and Guide		Y. VILLIERS.
303. Wear of Rails on curves and check rail clearances required on curves of 4° and sharper		A. M. SIMS.

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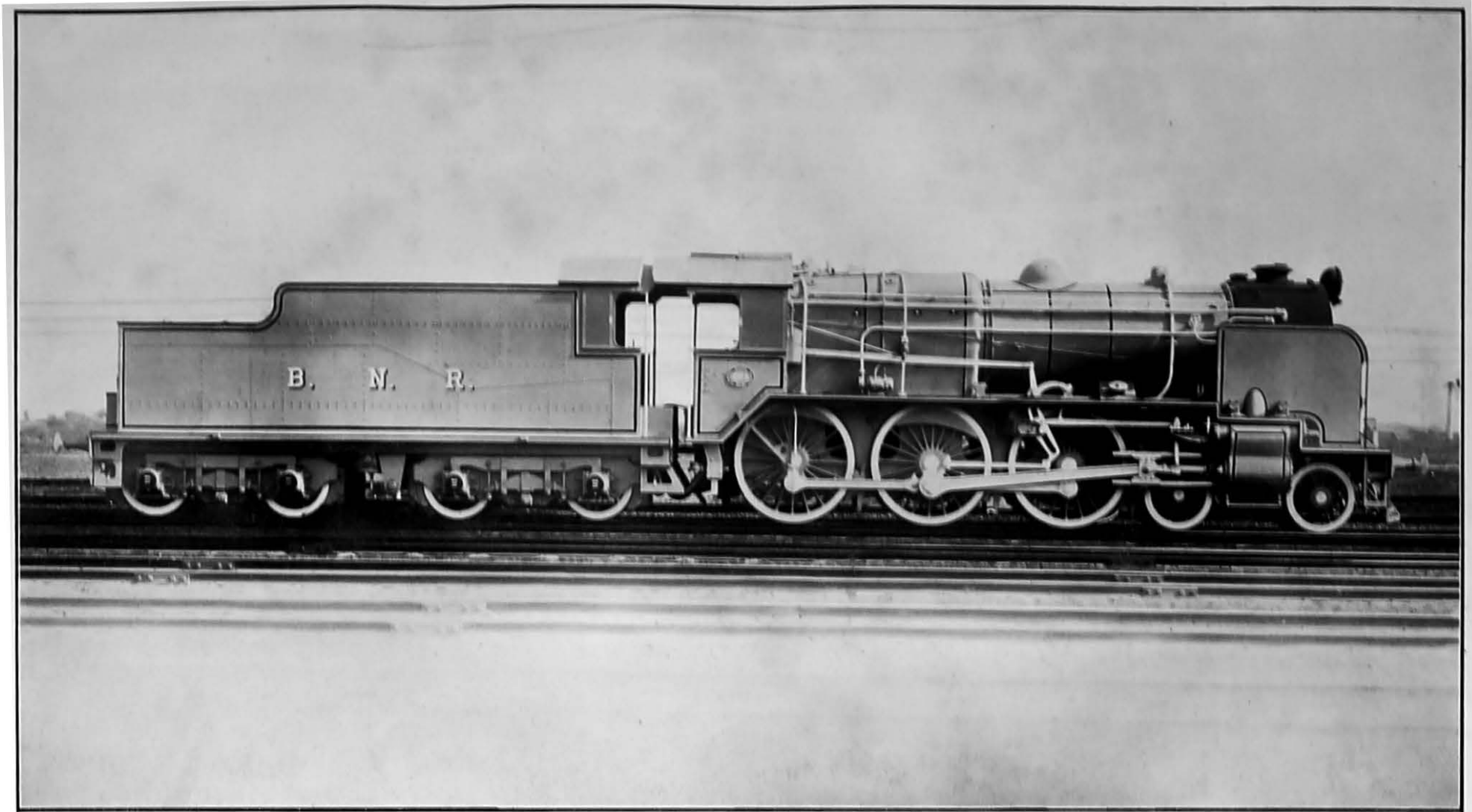
ILLUSTRATIONS

ASSAM BENGAL RAILWAY.



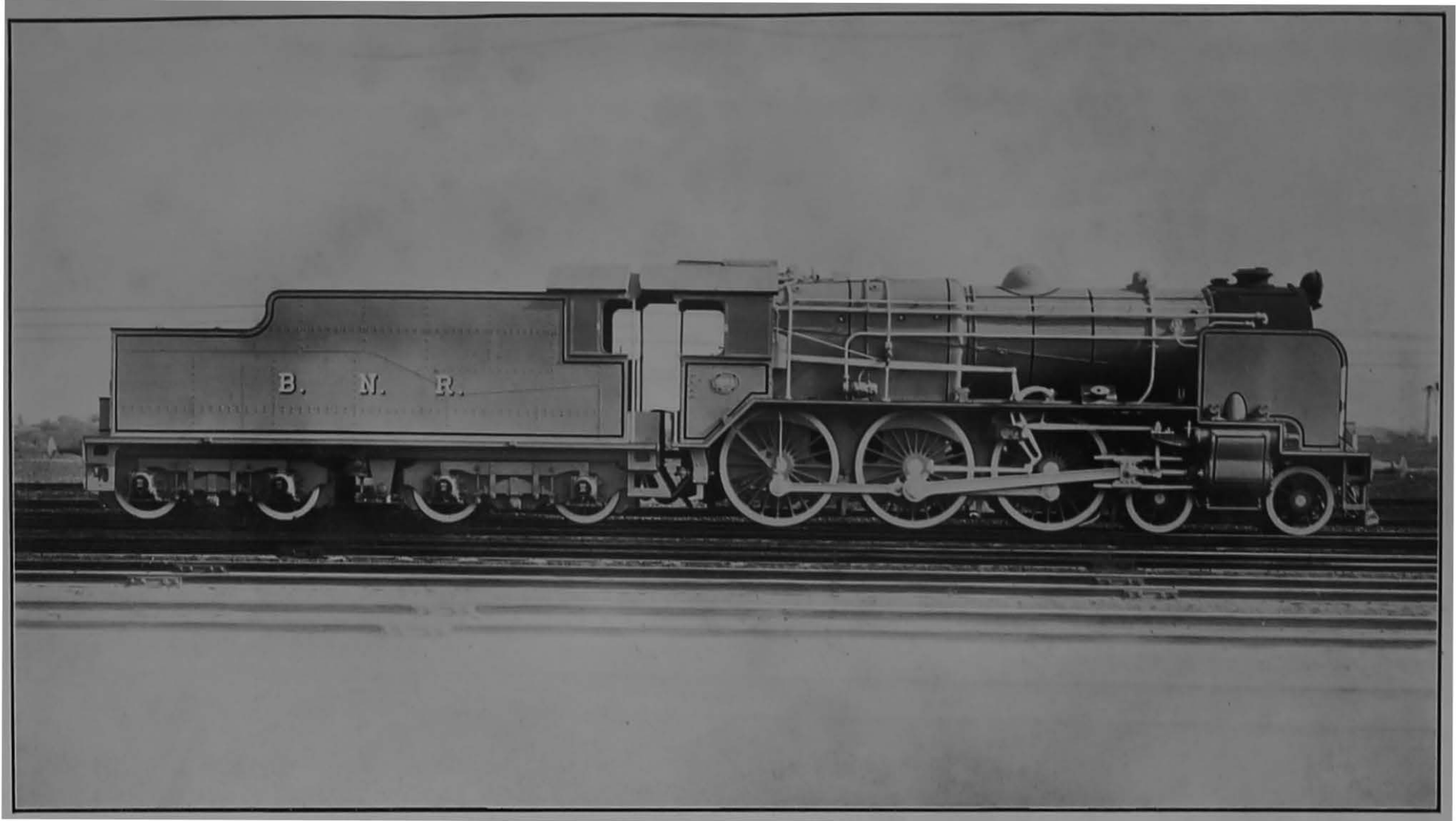
A goods train starting from Bhairab Bazar station under " Caution Aspect " : illustrating the use of double-wire 3-aspect signalling.

BENGAL NAGPUR RAILWAY.



This is a new design of mail engine aiming at obtaining maximum capacity with the 4-6-0 wheel arrangement and 17-ton axle loading.

BENGAL NAGPUR RAILWAY.



This is a new design of mull engine aiming at obtaining maximum capacity with the 4-6-0 wheel arrangement and 17-ton axle loading.

EAST INDIAN RAILWAY.



Newly constructed platform shed at Hardwar station.

NORTH WESTERN RAILWAY.



Platform passenger shelter at Karachi City station, showing the all-welded 50 feet long purlins of angles and round bars.

EAST INDIAN RAILWAY.



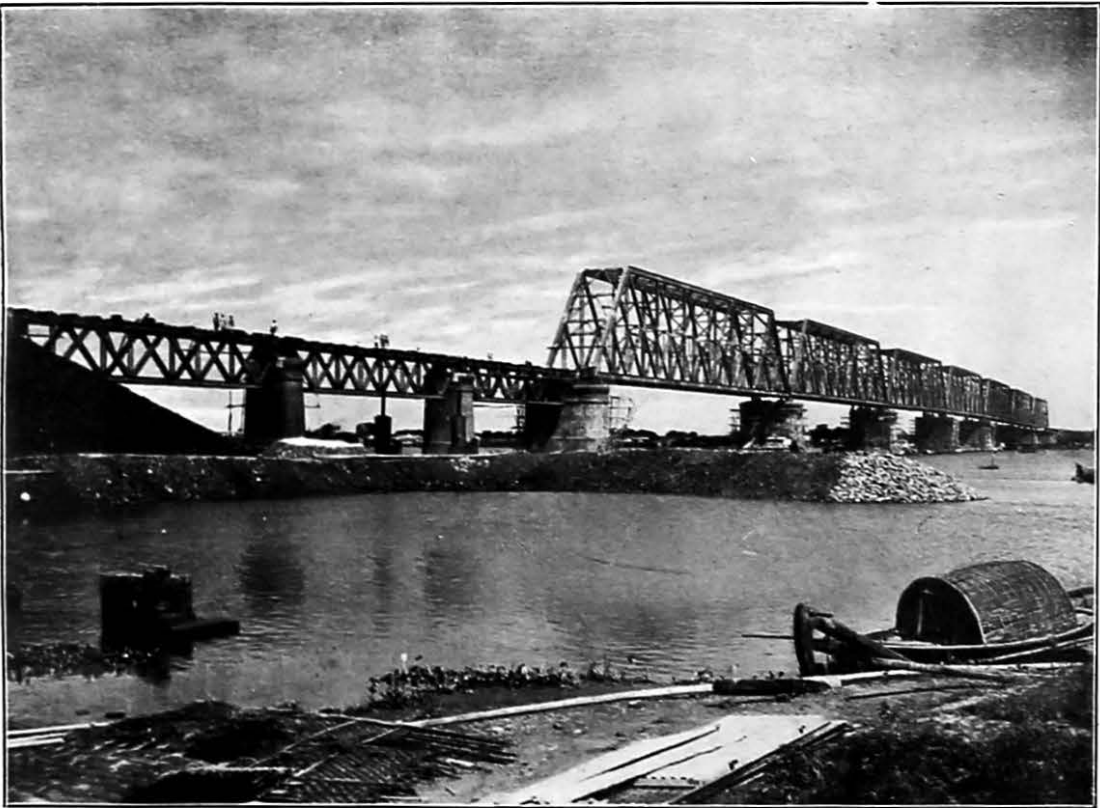
Facade of the new station at Hardwar.

ASSAM BENGAL RAILWAY.

King George the VI Bridge over the Meghna River.

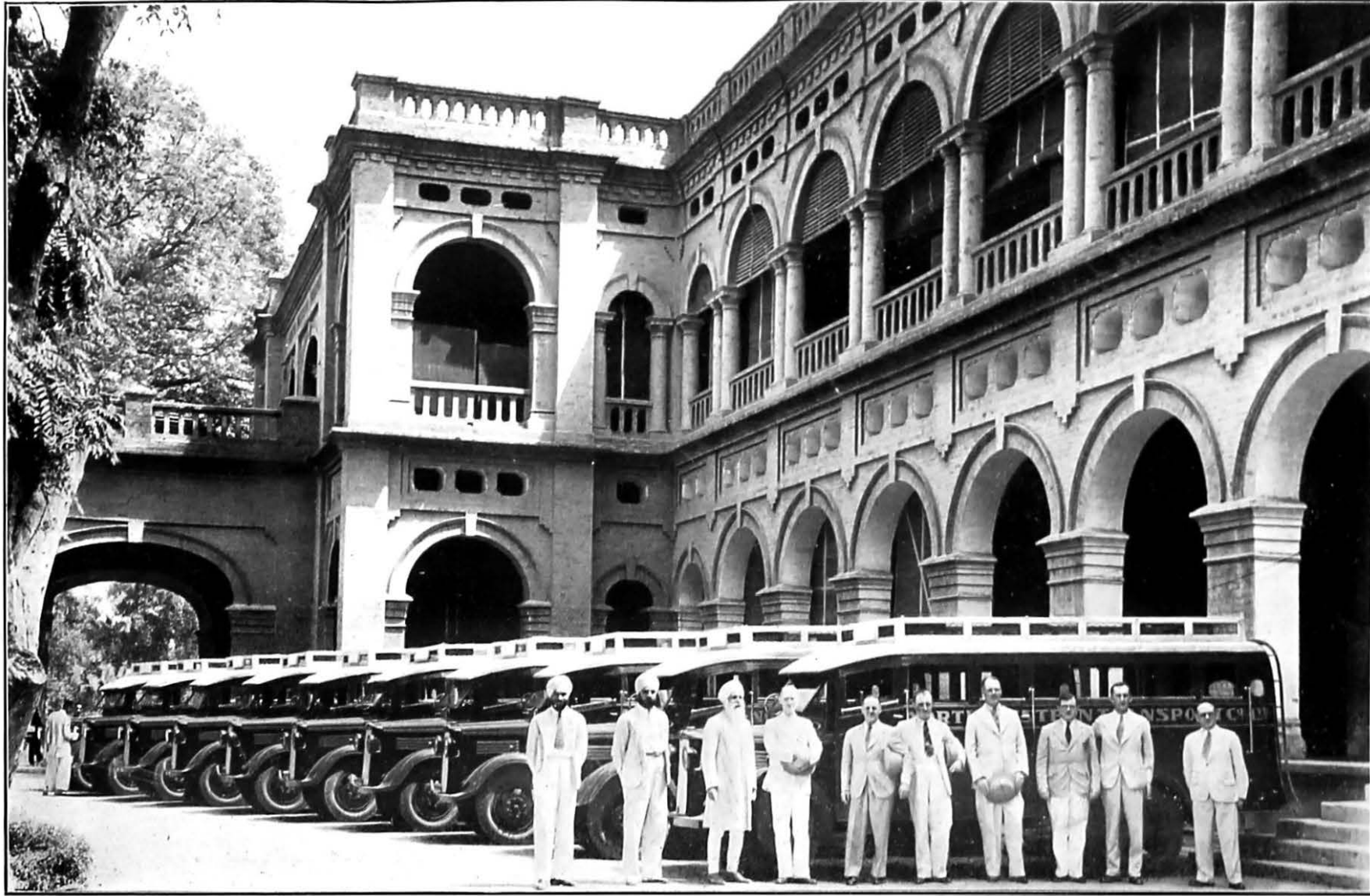


Three spans in the stacking yard ready for removal to bridge site.



Complete view of the bridge from the Ashuganj side.

NORTH WESTERN RAILWAY.



Fleet of buses owned by the North Western Transport Company, in which the North Western Railway holds a predominant share. These buses operate on the Lyallpur-Jhang Road.

MADRAS AND SOUTHERN MAHRATTA RAILWAY.



Aerial view of Tondiarpet Marshalling Yard during floods in November, 1937. The marshalling lines can just be seen under the water. The photograph also shows how vehicles were partially submerged.

EAST INDIAN RAILWAY.



Interior view of the new Information Bureau in the Head Office at Fairlie Place.

BOMBAY, BARODA AND CENTRAL INDIA RAILWAY.



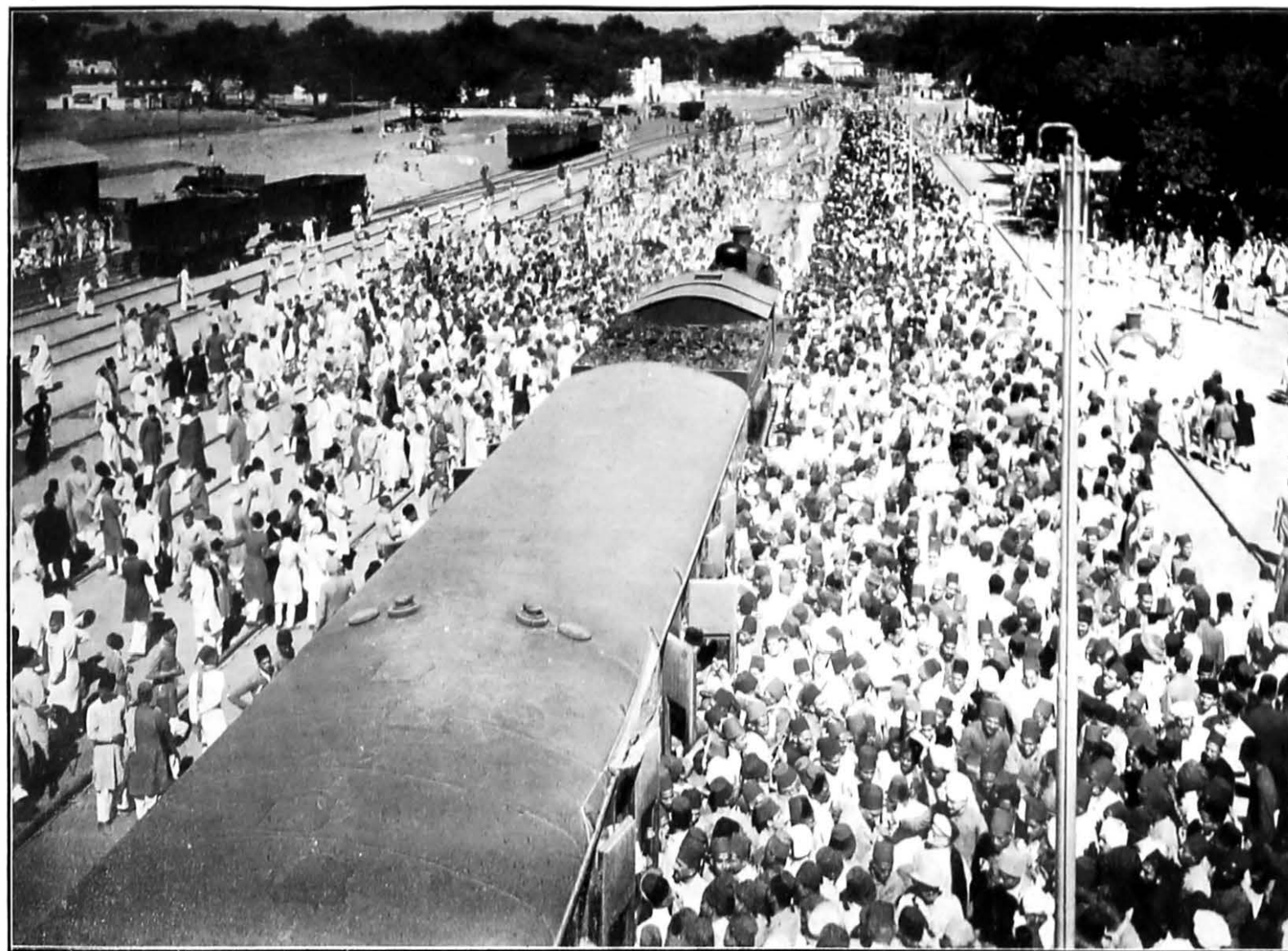
A four-berth compartment in one of the air-conditioned coaches running between Bombay and Delhi.

MADRAS AND SOUTHERN MAHRATTA RAILWAY.



Reinforced concrete Engine Round House under construction at Bitragunta.

H. E. H. THE NIZAM'S STATE RAILWAY.



Mecca pilgrim special leaving Hyderabad broad gauge station for Bombay.

GREAT INDIAN PENINSULA RAILWAY.



One side of the four-berth compartment in one of the air-conditioned coaches running between Bombay and Calcutta.
The two chairs on each side are converted to form beds for the night.

EASTERN BENGAL RAILWAY.



Panoramic view of the hump yard at Naihati.

INTRODUCTORY NOTE.

I. The Railway Board's annual report on Indian Railways is prepared for the financial year, *i.e.*, from 1st April of one year to the 31st March of the year following.

Volume I is a narrative report dealing with the various aspects of railway working such as general administration, financial results, improvements in, and additions to, rolling stock, improved operating methods, recruiting, training and welfare of staff and facilities provided for the convenience of the travelling public.

Volume II contains financial and statistical summaries and statements covering the main heads of capital and revenue accounts and the complete range of railway working.

II. For the information of foreign readers, who are not conversant with the value of Indian currency and the units thereof, the following details are given:—

(a) One *lakh* equals one hundred thousand.

(b) One *crore* equals one hundred lakhs.

(c) One *anna* equals $\frac{1}{16}$ th of a rupee.

(d) One *pie* equals $\frac{1}{32}$ th of an anna.

The approximate value in English coinage of a rupee at the present rate of exchange is one shilling and six pence.

III. For statistical purposes, Indian railway systems have been classified as follows:—

Class I—Railways with gross earnings of not less than Rs. 50 lakhs a year.

Class II—Railways with gross earnings of less than Rs. 50 lakhs a year, but exceeding Rs. 10 lakhs.

Class III—Railways with gross earnings of not more than Rs. 10 lakhs a year.

(A detailed list of the railways in each class will be found in Appendix A of this volume.)

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The main statistics compared for three years. They relate to all railways, *i.e.*, Classes I, II and III.

Items.	1935-36.*	1936-37.*	1937-38.
Gross earnings (crores) Rs. .	100·23	104·37	107·57
Total Working expenses (crores) Rs. .	68·11	67·28	69·63
Operating ratio Per cent .	67·95	64·46	64·73
Number of passengers originating (millions) .	483·13	489·61	521·28
Earnings from carriage of passengers (crores) Rs. .	29·64	29·37	31·08
Average earnings per passenger mile Pies .	3·22	3·17	3·17
Freight tons originating (millions) .	82·95	82·41	87·29
Earnings from carriage of goods (crores) Rs. .	62·19	67·33	68·66
Average earnings per freight ton mile Pies .	6·00	6·22	5·78
Total train miles (millions) .	176·14	181·73	192·20
Gross earnings per train mile Rs. .	5·67	5·72	5·57
Working expenses per train mile Rs. .	3·85	3·68	3·60
Net earnings per train mile Rs. .	1·82	2·04	1·97
Net earnings per mean mile worked Rs. .	7,700	8,911	9,055

* Excluding for purposes of comparison the Burma Railways which passed from the control of the Indian Government on 1st April 1937.

The following is a brief synopsis of some of the major items of interest in this report, together with a reference, in each case, to the page in the report on which the details are given :—

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CHAPTER I.

GENERAL REVIEW.

1. Monsoon conditions and agricultural results.—Though India is becoming increasingly industrial—witness the growth in production of pig iron, iron and steel from 1,502,000 tons in 1924-25 to 3,209,000 tons in 1936-37 and of cotton piecegoods (excluding fents) from 1,970 million yards in 1924-25 to 3,572 million yards in 1936-37—it still remains primarily an agricultural country and the well-being of the community is therefore largely dependent upon the rainfall. The principal rains occur during the south-west monsoon which usually extends from early in June to September. During 1937, there were spells of heavy rain causing floods in parts of northern India, but as a result of a prolonged break in August there was drought in north-west India and the Deccan. Averaged over the plains of India, however, the total rainfall during the monsoon period was in defect of the normal by 1 per cent. During the retreating period, the rainfall was scanty in Orissa, United Provinces west and Gujarat but generally in excess elsewhere. Taking the year as a whole, the rainfall was within 20 per cent. of the normal except in Sind, Berar, Gujarat and Central Provinces west, where it was somewhat in excess.

From the agricultural point of view, the season was not entirely favourable. Compared with the previous year, the outturn of rice declined by 5 per cent., though it was 3 per cent. more than the average of the preceding five years. Sugarcane declined by 19 per cent. due to a reduction in acreage. The jute crop decreased by 11 per cent. due to unfavourable rainfall in the early stage of its growth. The cotton output was 9 per cent. less. On the other hand, the principal oilseeds, groundnuts and sesamum, increased by 21 and 7 per cent. respectively as a result of extended cultivation; and the outturn of the winter oilseeds, linseed and rape mustard improved by 9 and 7 per cent. respectively. The wheat crop of 1936-37 (the commercial crop of the year under review) was also a good one and showed an increase of 4 per cent.

2. Receipts.—The gross traffic receipts of State-owned Railways for the year amounted to Rs. 95·01 as against Rs. 91·79 crores in 1936-37 or an increase of Rs. 3·22 crores. After meeting all charges, including depreciation and interest on capital at charge, the net result of the year's working was a gain of Rs. 276 lakhs. This surplus was placed to the credit of the general revenues of the Central Government in part payment of the annual contribution due under the convention separating railway finance from the general finances.

On all Railways, passenger and goods traffic showed an appreciable improvement. The earnings from passengers carried increased from Rs. 29·37 crores in 1936-37 to Rs. 31·08 crores in 1937-38. The number of passengers carried was 521·3 millions in 1937-38 as compared with 489·6 in the preceding year or an increase of about 32 millions. Likewise passenger miles increased from 17,785 millions in 1936-37 to 18,847 millions in 1937-38.

The total tonnage carried increased from 82·4 millions in the previous year to 87·3 millions in 1937-38, and the earnings from Rs. 67·33 crores to Rs. 68·66 crores. The net ton miles increased from 20,789 to 22,777 millions. The average rate earned per ton per mile for all commodities showed a slight decrease, being 6·21 pies as against 5·78 in 1937-38.

3. Mileage.—35 new miles of line, entirely located within Indian States and constructed at their cost, were opened during the year. The Jessore-Jhenidah Railway comprising 37 miles was closed for traffic on 1st May 1936, but owing chiefly to diversions and linking of ghat shifts on the Bengal and North-Western Railway and to re-alignments on other railways there was a net increase in the total mileage of 45 miles: the total route mileage at the end of the year was 41,076.

(NOTE.—For purposes of comparison all figures given for 1936-37 exclude the Burma Railways as they passed from Indian control on and from 1st April 1937.)

4. Railways and the Legislature.—As in past years members of the Legislative Assembly and the Council of State continued to take a keen interest in the working of the Railway Department. Out of a total of 3,394 questions asked in both Houses during the year 1937-38, 861 or 25 per cent. were answered by the Railway Department.

In addition to these questions, five resolutions were also discussed—four in the Council of State and one in the Legislative Assembly. These are referred to in the following paragraphs. The report of the Indian Railway Enquiry Committee presided over by Sir Ralph L. Wedgwood was also discussed in both the Houses during the Simla session of 1937 and a statement showing the action taken by the Railway Department (Railway Board) on the recommendations contained in Chapters III to XI of the report was issued to members of the Legislature in February 1938.

4.1. Working of the East Indian Railway Press, Calcutta.—On the 15th September 1937, the Hon'ble Mr. Susil Kumar Roy Chowdhury moved the following Resolution in the Council of State:—

“ That this Council recommends to the Governor General in Council that a mixed Committee of officials and non-officials be appointed to enquire into the workings of the East Indian Railway Press in Calcutta with special reference to:—

- (a) the working of the press after amalgamation in 1930 with the Eastern Bengal Railway Press,
- (b) the service conditions of the workers,
- (c) the fixation of initial pay of the workers,
- (d) leave and holidays granted to the workers.”

In the course of his speech, the mover referred to certain alleged grievances of industrial workers and inferior staff of the combined East Indian and Eastern Bengal Railway Press relating to their conditions of service. These had reference to the inadequacy of leave, incorrect fixation of pay of certain staff at the time of the introduction of the monthly rating system, blocks in promotion, inadequacy of wages for the inferior staff, the inadmissibility of certain staff to subscribe to the Provident fund and the non-formation of Works Committees in the press.

In dealing with the resolution the Hon'ble Sir Guthrie Russell, Chief Commissioner of Railways, reviewed the action taken by the Railway Board, since 1930, to improve the service conditions of the workers of the press and pointed out that the mover of the resolution had only generalised and had not put forward any grievance that had not already been inquired into. He, however, stated that after he had seen the printed record of the proceedings of the debate, and if he could trace any grievance that had not been inquired into or any grievances which he thought were justifiable, he would have further investigations made. The resolution was withdrawn.

4.2. Local Advisory Committees of the Bengal Nagpur Railway.—On the 15th September 1937, the Honourable Mr. Sitakanta Mahapatra moved the following resolution in the Council of State:—

“ That this Council recommends to the Governor General in Council that early steps be taken to constitute the Local Advisory Committees of the Bengal Nagpur Railway on the same lines as those of the East Indian Railway.”

In his speech on the resolution, he made two points:—

- (a) that on the Bengal Nagpur Railway's Local Advisory Committees, members were nominated by the Agent instead of being elected by the bodies they represented as was being done on other railways; and

(b) that the number of members on each committee was small in comparison with the members on such committees on other railways.

He desired that conditions on the Bengal Nagpur Railway should be brought into line with those obtaining elsewhere.

The Honourable Sir Guthrie Russell, Chief Commissioner of Railways, in opposing the resolution stated that in the past the Agent of the Bengal Nagpur Railway had nominated representatives of commerce and industry himself, but that he had always written to the Chambers of Commerce asking whom they wished to put forward as their representatives and he had invariably nominated those suggested. To all intents and purposes therefore it was election. The Agent had, however, since agreed that in future there should be an election so that henceforth the Bengal Nagpur Railway's Local Advisory Committees would be on exactly the same footing as on other railways. In regard to the size of the Committees, Sir Guthrie Russell explained that whereas on the Bengal Nagpur Railway there were three committees with a total membership of 21, on the East Indian Railway there were only two committees with a total membership of 26. He contended that, taking into consideration the relative size of the two railways, the representation afforded to commerce and industry on the Bengal Nagpur Railway was adequate. The resolution was withdrawn.

4.3. Loans from the Railway Depreciation fund and arrear contributions to General Revenues.—Notice was given of Government's intention to move in the 1937 winter session of the Assembly a resolution cancelling the loans from the Railway Depreciation fund and the arrear contributions to General Revenues. On account of pressure of other business, however, the resolutions could not be moved in that session. From the various amendments proposed by Hon'ble members, however, it appeared that the resolution was not acceptable to all parties in the House. Two courses of action were proposed in the amendments. The first was that the resolution should be amended so as to cancel the debt to the Depreciation fund only, and the second was to leave the loan from the fund as a first charge on future surpluses. The following resolution was ultimately moved in the Autumn 1937 session of the Assembly, and was accepted by the House:—

“ That this Assembly recommends to the Governor General in Council that Railway Revenues be declared not liable, before the 1st April 1940, or before the fixation under Section 187 (1) of the Government of India Act, 1935, of the sum therein referred to, whichever is earlier, to repay to the Depreciation Reserve fund maintained for Indian State-owned Railways, the balance outstanding on the 1st April 1937, of loans taken from the fund to meet railway deficits or to pay to General Revenues any contributions due under the resolution of this Assembly of the 20th September 1924, in respect of the period beginning on the 1st April 1931, and ending on the 31st March 1937.”

4.4. Construction of a railway between Dacca and Aricha.—A resolution was moved in the Council of State on the 7th March 1938 by the Hon'ble Mr. Kumar Sankar Ray Chaudhury supporting the construction of a railway line between Aricha and any station on the railway line between Dacca and Mymensingh.

In the course of his speech he referred to the objection already raised by the Government of Bengal to the project and tried to prove that the cause of the deterioration of the health of the locality was not the embanked roads as believed by the Government of Bengal and urged that an embankment for the proposed railway line with sufficient openings would not affect the health of the locality but on the other hand might prove beneficial.

The Hon'ble Sir Guthrie Russell, Chief Commissioner of Railways, in opposing the resolution explained that in view of the very definite opinion expressed by the Government of Bengal, the Government of India could not agree to the construction of the line, although they were loath to abandon the project in view of the expected return of 6 per cent. He also referred

to the assurance which had been given to the Government of Bengal to the effect that the Government of India would not commence any line in Bengal until the important question of waterways, headways, general alignment, etc., had been settled in detail with that Government.

The resolution was withdrawn.

4.5. Surcharge on coal freight.—On the 21st March 1938, the Hon'ble Rai Bahadur Lala Ram Saran Das moved the following resolution in the Council of State:—

“ This Council recommends to the Governor General in Council that the surcharge levied on the railway freight for coal and hard coke be abolished forthwith.”

In moving this resolution he explained that when it was originally imposed in January 1932 it was 15 per cent. and then, in April 1935, reduced to 12½ per cent., subject to a maximum of Re. 1 per ton. He stated that the surcharge had all along been considered as a temporary measure to meet the exigencies of railway finance and the coal mining interests had continuously been pressing for its removal. He stated that it was surprising that Railways should have put forward in 1937 a proposal for the introduction of a revised scale incorporating the surcharge when there were definite indications of an improvement in railway revenues. Referring to the Railway Enquiry Committee's recommendation for an enhancement in the surcharge from 12½ per cent. to 15 per cent. he stated that such a recommendation ignored the interests of Indian industry—the greatest consumers of coal. Finally, referring to the circumstances under which the surcharge was introduced and also to the subsequent pronouncements on the subject by Sir Raghavendra Rau in replying to a resolution moved by Sir Abdul Halim Ghuznavi in the Legislative Assembly in 1934, he asked that in view of the betterment of railway revenues Government should honour its pledge and remove the surcharge forthwith.

The Hon'ble Mr. Reid Kay of the Bengal Chamber of Commerce in supporting the resolution expressed pleasure at Government not accepting the Railway Enquiry Committee's recommendation to increase the surcharge to 15 per cent.

The Chief Commissioner of Railways stated that he had every sympathy with the coal industry in the matter but considered that in view of rising prices affecting the cost of both coal and railway stores, the time had not yet come for any major reduction. He explained that in 1934 in view of a slight increase in railway revenues Government had reduced the surcharge from 15 per cent. to 12½ per cent. with a maximum of Re. 1 which cost the Railways approximately Rs. 20 lakhs. He also pointed out that the rates for coal were not unreasonable and that the surcharge had been imposed as coal rates had been reduced in 1926 by 10 per cent. and again in 1929 by from 2 to 12 per cent. for long distance traffic.

He quoted figures of coal traffic and earnings therefrom to show that these did not indicate that the surcharge had affected its movement. The resolution was negatived.

5. Railway Budget.—The Railway Budget for 1938-39 was presented to both Houses of the Legislature on the 14th February 1938, after a detailed discussion in the Standing Finance Committee for Railways at their meetings on the 27th and the 28th January 1938. The Budget was discussed generally in the Legislative Assembly on the 17th February 1938 and in the Council of State on the following day. The voting on the demands for grants in the Assembly occupied four days, *viz.*, 21st to 24th February 1938.

In the course of the general discussion in the Assembly a very large number of matters came under review, the more important of them being the Bihta and Bamrauli disasters, general financial policy (*e.g.*, the share of the

Railway Depreciation fund allotted to Burma, the allocation rules, the method of calculating the contribution to the Depreciation fund, reduction in interest charges and the capital programme), rating policy, road-rail competition, corruption in railway services, policy in regard to the raising of coal by railways, amenities for third class passengers and the appointment of the Conciliation Officer for labour disputes.

Twenty motions for reduction were moved during the debates on the demands for grants. Nine of these were withdrawn after discussion, six negatived and five adopted. Of the motions withdrawn, the three which occupied most of the time of the House related to the policy for increasing the output of State Railway Collieries, paucity of Muslims in railway services and catering arrangements on railways. The motions negatived were in respect of the grant of Provident fund concessions to low paid employees, railwaymen's grievances, direct recruitment to higher grades of drivers and guards, the composition of the staff attached to the office of the Conciliation Officer in Calcutta, policy of rates and freights affecting commerce and industry and economy in expenses of the Traffic Department. The motions adopted pertained to the non-issue of return tickets on the Assam Bengal Railway, the conditions of labour and the system of supplying coolies, failure to Indianise completely the railway services and the Railway Board, the manufacture of locomotives in India and the stores purchase policy.

6. Standing Finance Committee for Railways.—The Committee met seven times during the year. They scrutinised, as usual, the proposals relating to the capital and revenue expenditure to be incurred during 1938-39 and examined the demands for grants for that year prior to their being placed before the Legislative Assembly. They examined also and approved of proposals for the creation of certain superior posts on railways. The Committee further considered proposals regarding the construction of the Khadro-Nawabshah Railway as an extension to the existing Mirpur Khas-Khadro Railway and the raising, doubling and bridging of the main line between Sonapur and Chapra on the Bengal and North-Western Railway.

7. Purchase of the Bezwada Masulipatam Railway.—The Bezwada Masulipatam Railway 51·80 miles in length, was constructed at the cost of the District Board, Kistna in the Madras Presidency. It was opened to traffic in 1908 and was worked by the Madras and Southern Mahratta Railway Administration as an integral part of the system for 45 per cent. of the gross earnings. It was purchased by Government under the terms of the contract on the 4th February 1938 at a cost of Rs. 30,46,747.

8. Meetings with Agents of Railways and Provincial Governments.—During the year under review, the Railway Board held two meetings with the Agents of the principal railways. The first meeting was held at Simla on the 15th October 1937 and the second at New Delhi on the 17th March 1938. Among the subjects discussed at these meetings were:—

- (i) Employment of retired Indian Officers and other ranks of the Indian Army on railways.
- (ii) Placing of an officer on special duty to deal with the recommendations made by the Railway Enquiry Committee on the hot box problem and other matters relating to the maintenance of rolling stock and the need for increasing its usage.
- (iii) Abolition of free zone for the collection of pilgrim tax.
- (iv) Usage of rolling stock.
- (v) Surcharge on goods freights and passenger fares.
- (vi) Amalgamation of first and second class accommodation.
- (vii) Pass rules.
- (viii) Promotion of lower paid employees on State-managed Railways.
- (ix) General policy regarding the reduction of daily allowance after 10 days' halt.
- (x) Filling up of burrow pits as part of a campaign against malaria.

Several visits were paid by the members of the Railway Board to the headquarters of the various railway administrations and Provincial Governments. Copies of the tour programmes were sent in advance to the Press, Provincial Governments and important mercantile associations in order that an opportunity might be afforded for the expression of views on and discussion of problems affecting the Railways and transportation generally.

9. Central Advisory Council for Railways.—A meeting of the Central Advisory Council for Railways was held at Simla on the 2nd October 1937. Meetings were also held at New Delhi on the 26th February and 19th March 1938. The following subjects were discussed at these meetings with the results shown against each:—

Subject.	Result of discussion
(i) Fees payable to members attending meetings of the Local Railway Advisory Committees.	A majority of the Council were in favour of the fee being fixed at Rs. 32.
(ii) Nomination of members of the Central Advisory Council for Railways to serve on the various Local Railway Advisory Committees.	Nominations were made after having been duly proposed and seconded.
(iii) Association of assessors with Magistrates in their enquiries into railway accidents.	<p>The majority of the Council were of the opinion that it should be mandatory on the Central Government to order a judicial enquiry in all cases involving loss of life, and the Chairman agreed to record this but, at the same time, he pointed out that the constitutional position was not altogether clear in this respect and required examination in regard to the position of the Central Government in carrying out a judicial enquiry which implies the assumption of parallel powers with those possessed by the Provincial Government.</p> <p>The minority considered it undesirable to tie Government down to a judicial enquiry on the score of expense and because the cause of the accident may in certain cases be perfectly patent.</p> <p>An alternative suggestion advanced was that Government Inspectors should be given powers to take evidence on oath as is done by inspectors in the United Kingdom and that two non-officials should be associated with the Government Inspector in his enquiries into accidents involving loss of life, the necessity for a judicial enquiry being accepted by Government only if recommended by them.</p> <p>Members asked for circulation of a memorandum on the subject for their information, and the Chairman agreed to do this when the information was available.</p>
(iv) General discussion on the action taken on the Railway Enquiry Committee's proposals as contained in the statement that was supplied to members.	The opinions expressed and the suggestions made by the Council on the various recommendations made by the Railway Enquiry Committee (1937) referred to in the statement were recorded for further examination and necessary action.

10. Local Railway Advisory Committees.—These committees were first constituted in 1923 with a view to establishing closer contact between

Railway administrations and the general public. Twelve of the Class I Railways now have such committees and during the year seventy meetings were held. Particulars of the subjects discussed and of the action taken thereon are contained in pamphlets published quarterly by the Railway Board. The following were among the more important matters considered :—

- (a) Reduction of rates (for particular commodities) and fares :—
 - (i) Holiday concessions.
 - (ii) Issue of cheap return tickets.
 - (iii) Issue of " zone " tickets.
 - (iv) Rates for cattle, vegetables, fruit, tobacco, seeds, bran, copra, cotton, cotton goods, jute, rice, etc.
- (b) Booking arrangements :—
 - (i) Construction of additional booking offices.
 - (ii) Opening of additional windows in booking offices.
 - (iii) Ticket collecting arrangements.
- (c) Improvements in passenger stock :—
 - (i) Provision of taps and mugs in latrines.
 - (ii) Design of third class carriages.
- (d) Train timings :—
 - (i) Acceleration of trains.
 - (ii) Alterations in timings and additional stops.
- (e) Amenities for passengers :—
 - (i) Provision of additional waiting rooms and covered shelters.
 - (ii) Provision of raised platforms.
 - (iii) Better lighting of stations.
 - (iv) Provision of electric fans.
 - (v) Reservation of intermediate and third class accommodation.
 - (vi) Increased provision of Indian restaurant cars.
 - (vii) Increase in the number of Indian refreshment rooms.
- (f) General :—
 - (i) Protection of female passengers.
 - (ii) Overcrowding in trains.
 - (iii) Cleaning of carriages and station premises.
 - (iv) Provision of complaint books in restaurant cars and refreshment rooms.
 - (v) Victimisation of passengers by porters demanding more than the scheduled rates.
 - (vi) Printing of time-tables and names of stations on tickets in the languages of the province.

11. Railway Rates Advisory Committee.—Sir Zahid Suhrawardy continued as the President and Rai Bahadur P. C. Bose as the Railway Member and Secretary of the Committee.

During the year, the following cases were referred to the Committee for investigation :—

- (i) A joint complaint from Messrs. Mackinnon Mackenzie and Company, Managing Agents, the British India Steam Navigation Company, Limited, Messrs. Turner Morrison and Company, Limited, Managing Agents, Asiatic Steam Navigation Company, Limited, and the Scindia Steam Navigation Company, Limited, against the Bengal Nagpur and East Indian Railways, regarding the withdrawal of the refund of 12½ per cent. surcharge on bunker coal consigned to Calcutta.

- (ii) A complaint from Messrs. D. N. Sircar, S. K. Dass, Howrah, against the Bengal Nagpur Railway, alleging that the Railway was showing undue preference to the Tata Iron and Steel Company, Limited, Tatanagar, in regard to rates for iron and steel, Division B, by granting them a rebate on the published freight charges.
- (iii) The question as to whether the rating of coal by the Great Indian Peninsula Railway from stations in the Central Provinces coal-fields for destinations between 251 to 400 miles distant causes undue or unreasonable preference or advantage within the meaning of Section 42 (2) of the Indian Railways Act (IX of 1890).
- (iv) A complaint from the Rai Bahadur Narain Singh Sugar Mills, Limited, owners of a sugar factory at Baraut, against the Shahdara Saharanpur Railway alleging that the Railway had wrongly denied to them reasonable facilities in respect of forwarding and delivering their traffic and had wilfully neglected to provide wagons and locomotives necessary for its conveyance; and that it gave undue and unreasonable preference to the Upper Doab Sugar Mills, Limited, Samli, in the matter of the supply of wagons, freight charges and provisions of sidings and platforms.

In the first case, the Committee were of the opinion that the shipping interests had not succeeded in establishing any of the grounds pleaded by them and they therefore recommended the rejection of the application for exempting bunker coal from the surcharge. The Government of India accepted this recommendation.

The other three cases were still under enquiry at the close of the year.

12. Job Analysis.—The "Job analysis" investigations were continued on both State and Company managed Railways during the year under review. The table below shows the economies effected on each of the more important Railways and the cost of the "Job analysis" organisations for the five years ending 1937-38.

Railways.	1933-34.		1934-35.		1935-36.		1936-37.		1937-38.			Savings effected since the introduction of Job analysis to the end of 1937-38. Recurring only.	
	Cost of Job analysis organisation.	Savings effected.	Cost of Job analysis organisation.	Savings effected.	Cost of Job analysis organisation.	Savings effected.	Cost of Job analysis organisation.	Savings effected.	Cost of Job analysis organisation.	SAVINGS EFFECTED.			
										Recurring.	Non-recurring.		Total.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
East Indian . . .	77,691	7,01,128	92,884	18,14,544	1,13,541	5,82,459	93,009	5,60,700	1,07,778	2,07,512	6,88,250	8,95,768	30,15,977
Great Indian Peninsula.	56,680	4,15,000	64,000	2,04,246	53,574	2,04,859	19,554	9,60,224	17,678	2,29,127	6,745	2,35,872	23,90,611
North Western . .	32,000	12,66,749	46,006	12,37,376	56,729	7,22,202	40,056	33,35,092	60,855	4,09,358	23,16,748	27,26,106	37,04,904
Eastern Bengal . .	63,000	2,17,804	65,995	1,20,508	26,134	41,600	25,960	1,17,152	40,527	2,69,015	Nil	2,69,015	13,25,792
Bombay, Broda and Central India.	58,789	3,52,862	35,300	11,41,596	3,643	2,25,682	247	8,27,666	4,516	3,04,663	1,526	3,06,189	20,12,587
Madras and Southern Mahratta.	8,750	45,220	17,632	1,14,000	4,920	2,56,000	120	1,94,852	10,766	33,137	51,959	85,096	5,62,414
South Indian . . .	19,580	27,400	2,180	25,000	221	8,463	504	7,585	6,580	7,799	8,812	17,611	35,493
Burma	7,500	25,871	26,615	73,352	..	77,591	..	..	..	..	..	..	..
Assam Bengal . . .	12,825	1,31,755	8,208	12,659	1,490	..	7,065	24,146	3,066	4,025	Nil	4,025	1,04,667
Bengal Nagpur . . .	..	..	..	..	17,575	13,66,493	2,617	66,330	9,475	20,634	12,680	33,314	7,36,145

13. Steps taken to improve earnings and reduce working expenses.—An endeavour is made in the following paragraphs to indicate broadly the steps which Railways have taken to improve earnings and to reduce expenses.

The subject is a wide one and certain aspects of it are referred to in more detail elsewhere in this report :—

13.1. Steps taken to improve earnings.—(a) Measures taken by Railways to counteract motor competition, are described in detail in paragraph 59 under Chapter IV.

(b) Railways continued to make such alterations in rates and fares as would lead to increased revenues details of which are given in paragraph 56 under Chapter IV. Special mention may, however, be made of the following :—

- (i) enhancement by a quarter pie per mile in the third class fares over the East Indian Railway for distances over 50 miles;
- (ii) group passenger fares over the Assam Bengal Railway between certain stations and stations on the Tangi-Narayanganj section;
- (iii) reduced fares for third class excursion trains organised by the North Western Railway with a view to develop new traffic;
- (iv) tour tickets issued by the Eastern Bengal Railway to cover journeys from Calcutta by any selected route to any station, the fare over the Eastern Bengal Railway being calculated on the telescopic basis on the total distance over that railway;
- (v) round tour concession tickets at three-fourth fares issued in co-operation between Bombay, Baroda and Central India, Great Indian Peninsula, Madras and Southern Mahratta, and South Indian Railways for first, second and third class passengers for certain sets of standard circular tours;
- (vi) introduction of "go-where-you-please" tickets over the Madras and Southern Mahratta and South Indian Railways for first, second and third classes. For the first time "Combined Travel as you like" tickets were issued over the Madras and Southern Mahratta and South Indian Railways for second and third classes only.

(c) A detailed account of the steps taken by Railways to facilitate the movement of traffic is given in paragraphs 51.3 and 53 in Chapter IV. Special mention may, however, be made of the following :—

- (i) *Oil train from Bombay to Bhusaval.*—This is scheduled to leave Bombay early in the morning reaching Bhusaval, 276 miles away, the same night carrying all oil traffic whether in tank wagons or in tins in wagon loads booked to stations beyond or short of Bhusaval. Up to 31st March 1938, 1,432 vehicles containing oil were despatched; of this number 929 were booked through to Bhusaval and 503 to intermediate stations.
- (ii) *Fast fruit special train from Peshawar to Delhi.*—The train was run by the North Western Railway between 1st June and 22nd August during the fruit season and was timed to provide immediate connection at Delhi with the East Indian and Great Indian Peninsula parcels express trains for Howrah and Bombay and Grand Trunk express for Madras. As many as 3,000 packages a day were loaded from the Peshawar area and a saving of about 22 hours in the transit time of through traffic to foreign lines was effected.
- (iii) Introduction of an express goods train by the Madras and Southern Mahratta Railway.

(d) Special arrangements were made by most railways to carry out surprise checks in regard to the weights and declarations of goods consignments—two sources of leakage of revenue.

(e) The following account of a somewhat unusual investigation carried out by the Assam Bengal Railway is of interest. Its purpose was to ascertain why the third class passenger travels.

Some 10,000 passengers were questioned all over the system and they were asked to say where they were going and why. The results obtained are summarised below under five heads for "reasons" and in four zones according to the lengths of the journeys performed. Under the head "obligatory" are included not only really obligatory journeys, such as to visit dying relatives, but also such as those performed by school boys, college students, Government employees, pleaders, etc., travelling to and from their homes at the beginning and end of vacations—journeys which must be considered optional to some extent. In spite of this only 13 per cent. of travel was found to be "obligatory". Particular attention is drawn to the high percentage of purely "optional" travel and to the fact that such travel is well spread out over all the zones:—

Zones (Miles).	Litigants.	Persons seeking employment.	Traders travelling on business.	Obligatory.	Optional.	Total.
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
1—25	25	..	9	5	12	51
26—50	5	1	3	2	6	17
51—150	1	1	4	2	5	13
151—300	..	1	1	1	2	5
Over 300	..	4	3	3	4	14
Total	31	7	20	13	29	100

* The Railway propose to carry out a detailed investigation into the density and distribution of population throughout the area served. The object of this investigation is two-fold—firstly so that they may be in a position to study passenger traffic figures in relation to density, and secondly so that they may have exact knowledge of the distribution of different communities of the Indian public as a guide when considering questions relating to passenger concessions and publicity, etc. As a preliminary to this investigation it was considered necessary to obtain more information than was previously available in regard to the catchment area of the railway, and so instructions were issued to all station masters to question over a period of a fortnight a few passengers daily and ascertain from them the distance from the station at which their homes are situated. Nearly a quarter of a million passengers were so questioned and the results obtained were summarised by sections. Very little variation was found between the figures for one section and another and the results obtained for the system as a whole are summarised below. These figures demonstrate the relatively narrow strip of country which railways tap really effectively:—

	Per cent.
One mile or less from the station	37
More than one mile but not more than three miles	31
More than three miles but not more than six miles	18
More than six miles but not more than ten miles	9
More than ten miles from the station	5

13.2. Steps taken to reduce expenses.—It has already been stated in paragraph 12 that the job analysis of various phases of railway work was continued and it has been shown that it resulted in considerable savings. In the following paragraphs an indication is given of some of the directions in which this economy was effected, and of the other methods adopted to reduce expenditure:—

(a) *Staff.*—The main reductions under this head were the results of job analysis, *i.e.*, a detailed examination of each man-day's work, and are included in the figures given in paragraph 12. The number and cost of staff at the end of the financial year will be found in Chapter VII.

(b) *Transportation*—

- (i) A detailed analysis of the passenger train services showed that on some railways by re-organization a considerable saving could be effected. For instance on the Eastern Bengal Railway the saving on the broad gauge was estimated at Rs. 2,25,306 per annum; on the North Western Railway by the amalgamation of the rakes of various passenger and mixed trains it was found possible to save three passenger rakes.
- (ii) An examination of the arrangements for transshipment showed that on the North Western Railway four transshipment stations could be closed; on the Eastern Bengal Railway centralisation of repacking of "smalls" at Naihati effected economy; likewise a detailed investigation of "smalls" transit and transshipment work on the East Indian Railway was expected to result in savings as well as much improved service.
- (iii) By remodelling the Calcutta goods yard the Eastern Bengal Railway made an estimated recurring saving of Rs. 55,165.
- (iv) A review of the dress regulations and a levelling up in the issue of uniform to staff on the North Western Railway resulted in a saving of approximately Rs. 60,000 per annum.
- (v) Inspecting officials closely watched the consumption of books and forms at stations and revised the schedule for supply according to the actual requirements. On the North Western Railway a saving of Rs. 1,09,287 was obtained by such curtailment and Rs. 6,516 by the release of surplus stock. Similarly, expenditure on printing was reduced by Rs. 19,708 by standardisation, the adoption of more economical sizes, and the utilisation of paper hitherto regarded as waste. A reduction in the scale of supplies of stationery, consumable stores, clothing, etc., was also found possible on the South Indian Railway. Supplies of oil were made in bulk instead of in tins to certain stations and sections.
- (vi) The consumption of water was closely watched; on the North Western Railway four engine watering stations were closed; on the South Indian Railway systematic throttling of pipes was adopted and metres provided.
- (vii) The East Indian Railway found it possible to reduce accommodation provided in one of their hostels at Howrah and to utilise the spare accommodation as public retiring rooms. The income derived from this source during five months was Rs. 1,398.

(c) *Engineering*—

- (i) On the East Indian Railway considerable economy was effected by revising the terms of agreement for the purchase of electricity at several stations. At Allahabad, Bareilly, Dinapore, Patna Junction and Prayag stations alone the saving in the total cost of electricity under the new rates is estimated to be over Rs. 50,000 per annum.
- (ii) Several railways adopted the "mobile gang system" on certain sections. Under this system a gang is supplied with a suitable

light trolley which enables it to cover a greater area with equal efficiency.

- (iii) On the Bengal Nagpur Railway the re-pressing of worn fish plates was resumed and it was found that these gave satisfactory service with equal efficiency.
- (iv) The Bengal Nagpur Railway also effected very considerable economy by continuing the reconditioning of crossings " *in situ* " by electric welding.
- (v) The Great Indian Peninsula Railway investigated the question of removing signals that were considered redundant in goods yards.

(d) *Mechanical*.—Intensive use of goods engines resulted in a saving of approximately Rs. 38,250 on the East Indian Railway and on the passenger service more intensive use made it possible to cope with an increase in train mileage by the employment of only five additional engines instead of 20 which would normally have been found necessary. On the North Western Railway engine miles per day per engine in use increased from 108 in March 1937 to 113 in March 1938. Intensive usage of locomotives continues with success on the Great Indian Peninsula Railway. Mahoba shed on the Jhansi Division was closed resulting in a considerable saving. On the Assam Bengal Railway two locomotive sheds were closed down resulting in a saving of Rs. 4,000 per annum.

18 locomotives, 18 boilers, 142 coaching units and 201 goods units were condemned on the North Western Railway without replacement, representing a reduction of approximately Rs. 30 lakhs in the capital at charge.

The policy of reducing the number of carriage and wagon examination and repair stations is being pursued. Two such stations have been closed down on the Assam Bengal Railway resulting in an annual saving of Rs. 3,000. Kurla station on the Great Indian Peninsula Railway has been closed as a train examining centre and there has been a general regrading of and consequent reduction in the carriage and wagon examining staff on other sections of this railway. The examination of through trains has been discontinued at a large number of stations on the North Western Railway. On the South Indian Railway Olavakkot has been dispensed with as a train examining station for broad gauge stock and wider spacing of train examining stations has also been proposed as a trial measure at an estimated saving of Rs. 9,888 per annum. On the East Indian Railway the work in connection with train examining and sick line depôts is being concentrated at certain selected points resulting in considerable economies and a quicker turn round of stock. A major portion of running repairs to coaching stock previously carried out at Lilloah shops is now undertaken at Howrah resulting in a quicker turn round of vehicles.

The introduction of the system of " single control " at Raichur, Juhi, Agra and Allahabad has resulted in considerable savings to the railways concerned. The extension of this scheme to Chheoki and Katni and the Great Indian Peninsula Railway's junctions with the Bombay, Baroda and Central India Railway is under consideration.

The repair time in locomotive shops has decreased on His Exalted Highness the Nizam's State Railway and the cost per unit repair of engines and rolling stock has shown an appreciable drop. The Bombay, Baroda and Central India Railway have effected a reduction in expenditure on material and stores due to the reorganisation of heavy and intermediate repairs to engines at Dohad workshops. On the Assam Bengal Railway locomotive repair costs continue to show a downward trend. Further progress has been made with individual analysis of small repair part planning and costing and in small items alone a reduction in manufacturing costs amounting to Rs. 4,600 has been made possible.

Job analysis of underframes and wagon repair shops made on the East Indian Railway is estimated to result in an annual saving of Rs. 1,41,882.

The Bombay, Baroda and Central India Railway have avoided fresh purchases of dog spikes by re-conditioning old ones. On the East Indian Railway savings to the extent of Rs. 47,836 were effected by utilising selected scrap axles in place of steel billets in the manufacture of rolled sections by fitting reclaimed manganese bronze axle boxes instead of new boxes to the driving wheels of engines and by turning down engine and tender tyres to the revised profile gauges. There was also a saving on that railway in capital outlay amounting to Rs. 23,133 due to the manufacture of 3,134 tipped tools which replaced a corresponding number of high speed steel tools.

Drop pits at seven running sheds and carriage depôts on the Assam Bengal Railway have been installed with a view to lessening out-of-service engine hours and to enable loaded wagon hot boxes to be dealt with without transhipment.

On the North Western Railway special measures were taken in connection with carriage and wagon hot boxes and the number of hot boxes was reduced from 1,182 in 1936-37 to 918 in 1937-38 resulting in a saving of Rs. 21,120 approximately. The intermediate oiling of wagons on that railway after an interval of 15 days between six monthly repackings has also been stopped resulting in an annual saving of Rs. 18,780.

Cleaning of engines by contract resulted in a saving of Rs. 8,544 and Rs. 18,500 on the Eastern Bengal and East Indian Railways respectively.

Vacuum testing plants have been installed at three stations on the Assam Bengal Railway saving shunting engine hours and increasing efficiency of vacuum apparatus in train rakes at starting stations.

Metre gauge engineering stores depôts have been centralised at Golden Rock on the South Indian Railway. Arrangements are in hand on the East Indian Railway to close down the Central Shops Stores at Lillooah.

Economies were effected on the South Indian Railway by the following :—

- (a) Standardisation of 1½" paint ground brushes in the place of 2" ones.
- (b) Substitution of furnace oil for liquid fuel for the oil furnaces at Golden Rock.
- (c) Utilisation by conversion of empty mineral oil barrels into receptacles for the storage of oil in place of oil drums which were being purchased previously.

14. Railway Police.—The question of the incidence of the cost of police employed for the maintenance of order on railway premises has been under correspondence between the Provincial Governments, the Central Government and the Secretary of State for a long time. The practice up to 1936-37 was that the State-managed railways did not pay any share of the cost of railway police while Company-managed railways paid a portion of the cost of law and order police in accordance with the provisions of their contracts. The Government of India Act, 1935, lays down that, from the date of the coming into existence of the Federal Railway Authority, that Authority should be responsible for payment to the Provinces and Indian States of the cost of "Order" police provided on Federal Railway premises.

Although the Authority has not yet come into existence, it has been decided to make these payments with effect from the 1st April 1937 in the case of Provincial Governments and the 1st April 1938 in the case of the centrally administered areas. This change in the incidence of the cost of railway police means an additional debit to railway revenues of approximately Rs. 20 lakhs a year.

15. Indian Railway Enquiry Committee.—The Report of the Indian Railway Enquiry Committee under the Chairmanship of Sir Ralph Wedgwood was released for publication simultaneously in England and India on the 28th June 1937. Printed copies of the report were supplied

to all Departments of the Government of India, Provincial Governments, Class I Railways and all important Chambers of Commerce and associations in India.

The many recommendations made by the Committee were carefully considered by the Railway Board and early action taken to implement such of them as could be accepted without further examination. Where special investigation was considered necessary, this was arranged for. Individual railway administrations were also advised that, in addition to the specific orders of the Board on particular recommendations, they should adopt the recommendations of the report to the extent that it was possible for them to do so consistent with the safe, efficient and economical administration of their systems and that they should report to the Board, at intervals of six months, the decisions arrived at and the steps taken.

A statement showing the action taken by the Railway Department (Railway Board) on the proposals in Chapters III to XI of the report was published in February 1938 and copies supplied to the members of the Central Legislature.

CHAPTER II. FINANCIAL RESULTS.

A.—Trade Review.

16. It is obvious that the prosperity of the Railways must, to some extent, depend on the fluctuations of India's trade with other countries. The position in this respect may be appreciated from the following tables showing the exports and imports of principal commodities.

16.1. Exports.—During the year 1937-38, the total value of exports including re-exports amounted to Rs. 189 crores, as compared with Rs. 192 crores in the preceding year, a decrease of Rs. 3 crores or 1.6 per cent. The following table shows the fluctuation in important commodities :—

NOTE.—As a result of the separation of Burma, the trade statistics for 1937-38 given in this table include the trade of British India with Burma and exclude the direct trade of Burma with foreign countries. Figures for the preceding two years have been adjusted as far as available data permit, so as to represent British India excluding Burma.

Commodity.		QUANTITY (IN THOUSANDS).					VALUE.				
		1935-36.	1936-37.	1937-38.	1937-38 compared with 1935-36.	1937-38 compared with 1936-37.	1935-36 (crores).	1936-37 (crores).	1937-38 (crores).	1937-38 compared with 1935-36 (lakhs).	1937-38 compared with 1936-37 (lakhs).
Raw Jute	Bales	4,319	4,505	4,185	-134	-410	Rs. 13-71	Rs. 14-77	Rs. 14-72	-1-01	-5
Metals and ores	Tons	1,400	1,450	1,950	+550	+500	3-35	3-68	6-13	+2-78	+2-45
Pig iron	"	538	574	629	+91	+55	1-24	1-29	2-00	+1-34	+1-31
Pig lead	Cwts.	729	877	1,066	+327	+279	1-32	1-31	2-21	+80	+90
Manganese ore . . . . .	"	..	..	..	..	..	..	..	..	..
Wolfram ore . . . . .	"	..	..	..	..	..	..	..	..	..
Jute cloth	Yds.	1,220,308	1,710,021	1,843,002	+622,694	-64,980	12-27	15-50	15-37	+3-10	-13
Hides and skins	Tons	59	63	75	+16	+12	9-23	11-01	11-49	+2-28	+48
Indian raw wool	Lbs.	49,250	51,897	37,938	-11,270	-13,908	2-10	2-86	2-65	+55	-21
Jute bags	No.	510,273	620,538	612,200	+101,967	-8,278	12-30	13-19	12-17	-87	-2
Food grains	Tons	327	621	878	+551	+257	3-74	6-57	9-49	+5-75	+2-92
Wheat	"	13	235	480	+447	+225	0-12	2-11	4-02	+4-50	+2-51
Barley	"	4	10	35	+31	+25	0-02	0-06	0-29	+27	+23
Wheat flour	"	42	50	62	+20	+12	0-55	0-70	0-90	+34	+18
Rice	"	193	236	223	+23	-8	2-22	2-72	2-62	+40	-10
Paraffin wax	"	4	3	12	+8	+9	0-15	0-13	0-51	+36	+33
Coffee	Cwts.	220	215	125	-85	-80	1-04	0-86	0-55	-49	-31
Cotton manufactures including twist and yarn.	"	..	..	..	..	..	5-64	7-04	9-29	+3-65	+2-25
Indian cotton piecegoods	Yds.	141,756	190,946	241,255	+99,499	+50,309	4-16	5-23	6-59	+2-34	+1-27
Cotton twist and yarn	Lbs.	19,044	21,927	40,126	+21,080	+16,197	0-95	1-11	2-03	+1-08	+02
Wood and timber and manufactures thereof.	"	..	..	..	..	..	0-17	0-26	0-29	+12	+3
Raw rubber	Lbs.	18,047	14,840	17,765	-292	+2,915	0-57	0-53	0-94	+27	+31
Raw hemp	Cwts.	643	769	330	+187	+61	0-60	0-69	0-75	+15	+6
Tobacco	Lbs.	44,600	44,750	52,082	+7,213	+7,332	1-70	1-77	2-00	+30	+23
Coir manufactures	Cwts.	751	808	744	-7	+136	0-94	0-78	1-04	+10	+26
Lac (chiefly shellac)	"	487	531	605	+178	-166	1-58	2-34	1-02	+4	-72
Raw cotton	Bales	3,291	4,140	2,732	-559	-1,408	32-75	42-17	29-03	-3-72	-14-14
Tea	Lbs.	315,961	305,876	324,378	+18,397	+28,502	19-97	20-22	24-30	+4-42	+4-17
Oilseeds	Tons	683	1,162	949	+266	-213	10-49	18-60	14-19	+3-70	-4-41
Linseed	"	143	296	227	+62	-60	2-21	4-36	2-57	+1-36	-79
Groundnut	"	416	740	617	+201	-123	6-72	15-30	9-22	+2-21	-3-37
Rapeseed	"	19	38	32	+13	-5	0-26	0-54	0-45	+20	-5
Castor seed	"	60	43	42	-18	-1	0-83	0-63	0-64	-19	+1
Coal	"	712	726	1,096	+294	+280	0-65	0-63	0-85	+30	+32
Woolen carpets and rugs	Lbs.	9,347	9,006	11,061	+1,714	+1,163	0-61	0-66	1-02	+21	+16
Opium	Cwts.	..	..	..	..	..	..	..	..	..
Fodder, bran and pollards	Tons	8	9	18	+8	+7	0-04	0-04	0-00	+5	+5
Animals	No.	271	219	330	+41	+11	0-10	0-09	0-00	-1	..

As compared with 1936-37, the principal items, showing decreases were raw cotton, oilseeds, lac, raw wool, jute bags and cloth, rice and coffee, while increases were noticed under food grains except rice, metals and ores, tea, hides and skins, cotton manufactures, raw rubber, coal and tobacco.

16.2. Imports.—The total value of the imports of foreign merchandise into British India (excluding Burma) during 1937-38 amounted to Rs. 174 crores, as compared with Rs. 142 crores in the preceding year, an increase of Rs. 32 crores or 22.5 per cent. The following table shows the fluctuation in important commodities:—

NOTE.—As a result of the separation of Burma, the trade statistics for 1937-38 given in this table include the trade of British India with Burma and exclude the direct trade of Burma with foreign countries. Figures for the preceding two years have been adjusted as far as available data permit, so as to represent British India excluding Burma.

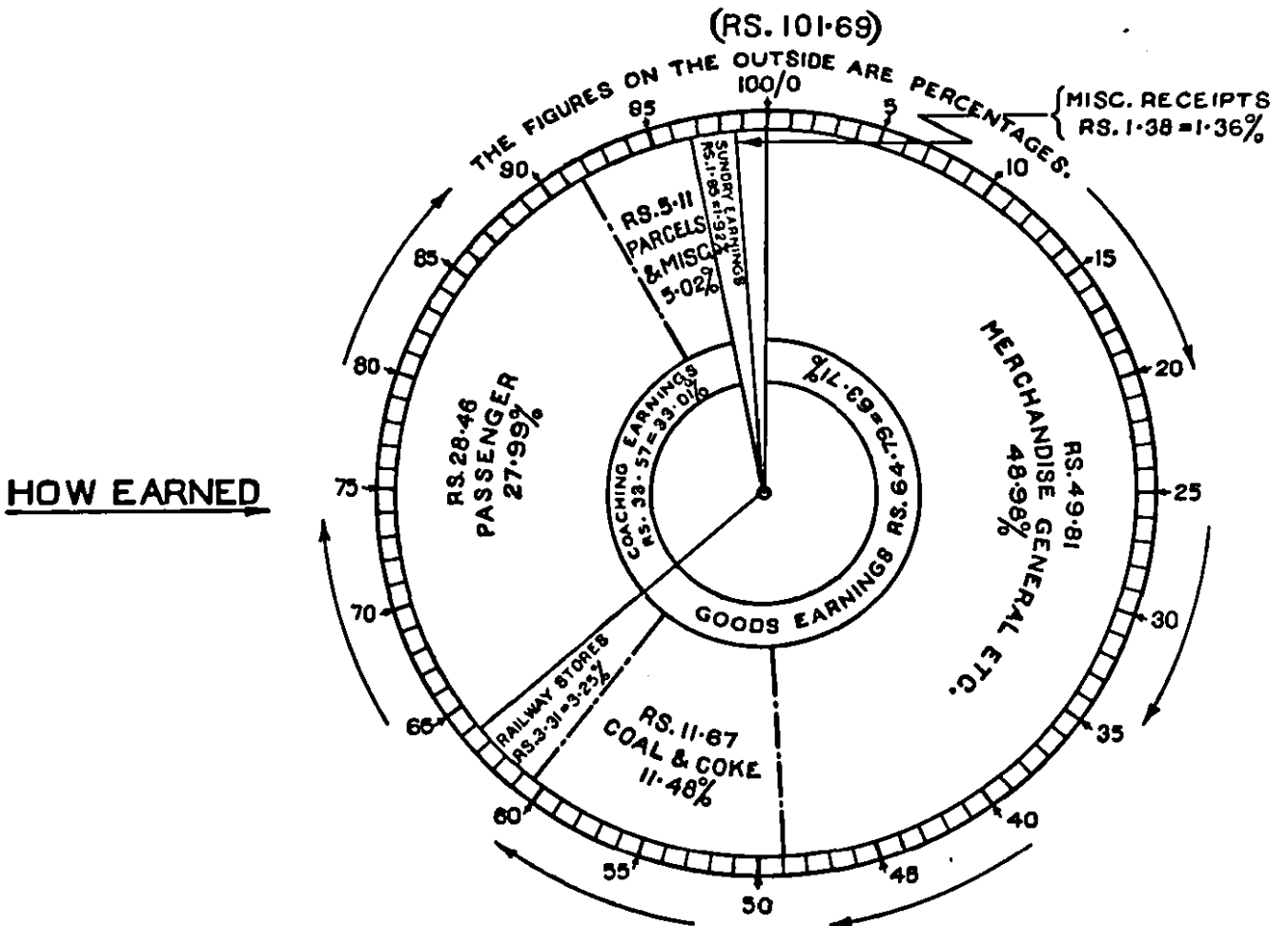
Commodity.		QUANTITY (IN THOUSANDS).					VALUE.				
		1935-36.	1936-37.	1937-38.	1937-38 compared with 1935-36.	1937-38 compared with 1936-37.	1935-36. (crores)	1936-37. (crores)	1937-38. (crores)	1937-38 compared with 1935-36. (lakhs)	1937-38 compared with 1936-37. (lakhs)
Raw cotton	Tons	77	66	134	+57	+68	0.79	5.88	12.13	+5.34	+6.25
Machinery and millwork	..	..	..	..	..	..	12.08	12.76	17.15	+4.52	+4.39
Jute machinery	..	..	..	..	..	..	1.15	0.74	1.06	—0	+32
Electrical machinery	..	..	..	..	..	..	1.92	2.46	2.69	+77	+23
Boilers	..	..	..	..	..	..	0.07	0.80	1.17	+50	+37
Metals and ores	Tons	504	400	433	—66	+33	11.46	9.21	13.39	+1.93	+4.18
Iron and steel	..	415	332	369	—46	+37	6.55	5.36	8.31	+1.66	+2.85
Metals other than iron and steel and manufactures thereof.	..	89	67	69	—20	+2	4.91	3.83	5.16	+25	+1.33
Coal tar dyes	Lbs.	20,139	16,905	20,888	+749	+3,983	3.00	2.01	3.43	+43	+82
Electrical instruments	..	..	..	..	..	..	2.90	2.83	3.47	+57	+64
Paper and pasteboard	Cwts.	2,961	2,989	3,633	+672	+694	2.74	2.60	4.15	+1.41	+1.55
Provisions	..	..	..	..	..	..	2.26	2.27	2.60	+34	+33
Hardware	..	..	..	..	..	..	2.08	2.04	3.31	+33	+67
Chemicals	..	..	..	..	..	..	2.03	2.54	3.33	+40	+79
Wheat	Tons	13	2	23	+9	+20	0.10	0.02	0.24	+14	+22
Fruits and Vegetables Dried, salted or preserved.	..	89	89	93	+4	+4	1.00	1.14	1.10	+10	—4
Rubber manufactures	..	..	..	..	..	..	1.03	1.05	1.89	—4	—6
Textile group	..	..	..	..	..	..	20.65	23.63	27.29	+64	+3.46
Cotton piecegoods	Yds.	552,040	698,835	590,798	—261,242	—108,037	13.88	11.05	11.69	—2.10	—26
Cotton twist and yarn	Lbs.	42,621	27,998	31,998	—20,623	—5,100	3.58	2.44	3.51	—1.07	+7
Wool and woollen goods	..	..	..	..	..	..	2.50	2.60	4.15	+1.05	+1.49
Artificial silk	..	..	..	..	..	..	3.02	3.71	4.87	+1.85	+1.16
Silk piecegoods	Yds.	25,565	20,381	23,871	—2,694	+2,490	0.85	0.78	0.90	+5	+12
Rice (not in the husk)	Tons	1,391	1,419	1,199	—193	—221	11.71	12.35	10.98	—73	—1.37
Soap	Cwts.	55	44	49	—13	—2	0.32	0.25	0.24	—8	—1
Sugar	Tons	185	19	14	—171	—5	1.74	0.20	0.19	—1.55	—1
Motor vehicles (cars and cycles).	No.	14	13	17	+3	+4	2.39	2.30	3.03	+64	+73
Motor omnibuses	..	8	0	13	+7	+0	1.16	1.28	2.07	+91	+79
Mineral oils	Gal.	379,766	406,548	474,946	+95,180	+68,398	15.00	13.98	17.45	+2.45	+2.47
Kerosene oil	..	169,771	181,995	202,646	+32,875	+20,751	7.25	7.14	7.68	+37	+48
Fuel oil	..	113,510	109,529	128,048	+14,538	+18,519	1.84	1.54	1.83	—1	+29
Cotton hosiery	..	..	..	..	..	..	0.36	0.22	0.29	—7	+7
Haberdaasery and millinery	..	..	..	..	..	..	0.49	0.53	0.64	+15	+11
Boots and shoes	Pairs	2,002	1,013	1,163	—819	+170	0.21	0.15	0.23	+1	+7
Precious stones and pearls, unset.	..	..	..	..	..	..	0.41	0.39	1.24	+33	+33
Wood and Timber	..	..	..	..	..	..	2.49	2.49	2.98	+49	+49

It will be observed that as compared with 1936-37, there were increases under most of the important items of imports, except rice not in the husk, cotton piecegoods and rubber manufactures, which showed decreases.

REVENUE RECEIPTS AND EXPENDITURE OF STATE-OWNED RAILWAYS IN INDIA INCLUDING WORKED LINES 1937-38.

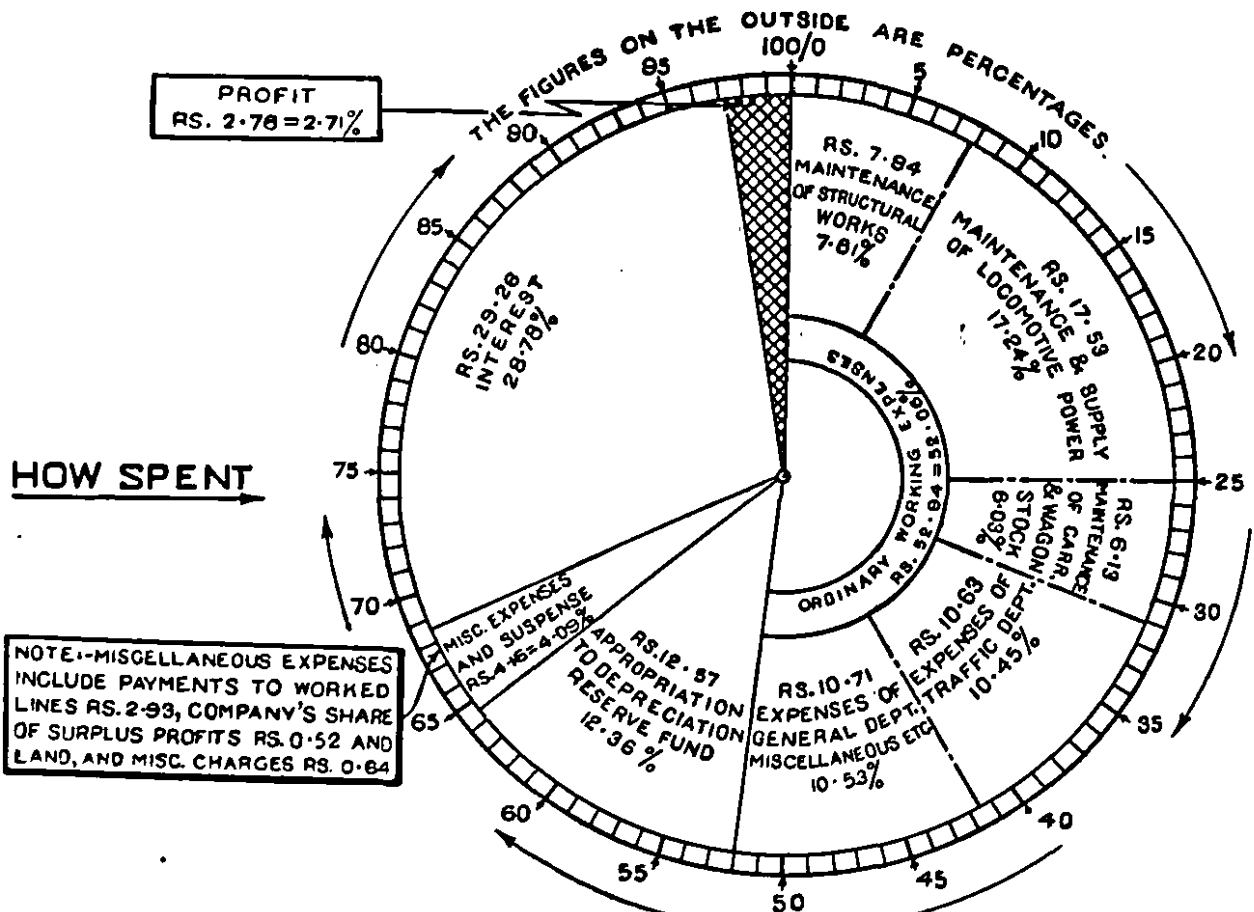
FIGURES IN CRORES.

TOTAL REVENUE RECEIPTS.



TOTAL REVENUE EXPENDITURE

(RS. 98.93)



16.3. Balance of trade.—The visible balance of trade in merchandise and treasure for the year 1937-38 was in favour of India to the extent of Rs. 30 crores, as compared with Rs. 65 crores in the preceding year.

B.—Financial Results of State Railways.

17. Financial results of working.—The improvement in earnings last year continued till September 1937. In October the previous year's level was just maintained, and from November onwards a definite deterioration set in on account of the general slump in trade and the reduction in the movement of wheat and cotton. The net result was that the gross traffic receipts of State-owned railways for 1937-38 amounted to about 95 crores, or about 3½ crores higher than those in 1936-37. Though a greater part of the increase was in passenger earnings, goods traffic contributed no less than a crore towards it.

17.1. Ordinary working expenses, excluding depreciation, amounted to 50·37 crores against 48·16 crores in the previous year or 2·21 crores more.

17.2. The contribution to the Depreciation fund set apart from revenue was 12·57 crores as in the year 1936-37, there being no increase in the capital at charge, on which the contribution is calculated, as compared with the previous year. The working expenses, including depreciation, amounted to 62·94 crores against 60·73 crores in 1936-37.

17.3. Miscellaneous transactions in 1937-38 resulted in a net expenditure of 5 lakhs against 22 lakhs in 1936-37. The improvement of 17 lakhs was due to the realisation of a larger amount of interest on Depreciation fund balances than in the previous year, there being no withdrawals from the fund to meet deficits as in years prior to 1936-37.

17.4. The net revenue amounted to 32·02 crores against 30·84 crores in 1936-37 and was in excess of interest charges by 276 lakhs as compared with 145 lakhs (excluding Burma Railways) in 1936-37. This surplus was paid to the General Revenues as contribution from railways, it having been decided to postpone till 1940 (for three years) the repayment of loans taken in previous years from the Depreciation Reserve fund to meet losses in the working of railways.

17.5. The appropriation to the Depreciation fund was in excess of the amount withdrawn to meet the expenditure on renewals and replacements by 521 lakhs. Of this amount a sum of 32 lakhs was withdrawn to meet the cost of abandoned projects and about 32 lakhs was on account of transfer from capital to depreciation fund of the cost of purchase of certain branch line shares. The balance 457 lakhs was added to the fund. In addition a sum of about 2 lakhs has been credited to the fund on account of accumulated depreciation on press machinery and plant. At the end of 1937-38 the actual balance at credit of the Depreciation Reserve fund was 19·21 crores, and the nominal balance amounted to 50 crores.

17.6. The total works expenditure during the year under review amounted to 851 lakhs of which 52 lakhs was charged to capital and the balance to the Depreciation fund. The gross capital expenditure on Open line works was 57 lakhs (including 31 lakhs paid for purchase of Bezwada Masulipatam Railway) but credits, aggregating 5 lakhs, were received on account of certain adjustments in respect of new constructions. There was an increase of 37 lakhs in the stores balances which at end of 1937-38 amounted to 924 lakhs.

17.7. At the end of 1936-37 the unliquidated liabilities of railways amounted to 62·61 crores. Of this 30·29 crores is the amount of loans taken from the Depreciation fund, and the balance represents the contributions to general revenues which remained unpaid from 1931-32 to 1937-38 after taking into account the amount of surplus of 2·76 crores paid in the year under review.

The details are as follows :—

	(In crores of rupees.)	
	Loans from Depreciation fund.	Unpaid contributions to general revenues.
1931-32	4.25	5.36
1932-33	10.23	5.23
1933-34	7.96	5.21
1934-35	5.06	5.04
1935-36	4.00	4.99
1936-37	-1.21	4.91
1937-38	...	1.58
Total	30.29	32.32

18. The following statement gives the financial statistics of Indian State-owned railways from 1924-25 to 1937-38 :—

(Figures in lakhs of rupees.)

	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Mileage	26,955	27,090	27,664	28,086	29,111	30,378	31,197	31,640	31,642	31,644	31,619	31,733	31,729	29,680*
Capital at charge at end of year (in crores).	635	654	681	714	739	770	783	700	789	787	787	789	789	754
Gross traffic receipts	1,00,13	98,94	98,42	1,03,43	1,03,73	1,02,70	95,10	80,63	84,43	86,63	90,20	90,65	95,49	95,01
Operating expenses	51,85	52,99	52,89	53,06	54,22	55,59	54,39	49,31	49,08	49,50	50,27	50,87	50,23	50,37
Depreciation fund	10,35	10,67	10,89	11,38	12,00	12,59	13,07	13,46	13,77	13,56	13,72	13,25	13,15	12,57
Net Traffic receipts	38,13	35,28	34,64	39,99	37,51	34,52	27,64	23,86	21,58	23,57	26,21	26,53	32,11	32,07
Net Miscellaneous receipts after deducting miscellaneous charges and surplus profits payable to companies.	-1.07	-1.19	-1.27	-87	-37	-2	-11	1	1.10	1.05	58	86	-0	-5
Net revenue	37,06	34,09	33,37	38,12	37,14	34,50	27,53	23,87	22,68	24,62	26,74	27,39	32,02	32,02
Interest charges	23,90	24,81	25,37	27,37	29,33	30,46	32,72	33,07	32,91	32,58	31,80	31,39	30,81	29,26
Surplus	13,16	9,28	7,50	10,75	7,81	4,04	-5,19	-9,20	-10,23	-7,96	-5,06	-4,00	1,21	2,76
Paid as contribution to general revenues,	6,78	5,49	6,01	6,28	5,23	6,12	5,74	..	..	..	..	..	..	2,76
Transferred to railway reserve	6,38	3,79	1,49	4,57	2,58	-2,08	-10,93	-4,95	..	..	..	..	..	..
Ratio of working expenses (excluding Depreciation fund) to Gross Traffic receipts.	51.6%	53.6%	53.7%	51.3%	52.3%	54.1%	57.2%	56.9%	56.7%	55.8%	54.7%	54.0%	51.4%	51.6%
Ratio of working expenses (including Depreciation fund) to Gross Traffic receipts.	61.9%	64.3%	64.8%	62.3%	63.8%	66.4%	70.9%	72.5%	73.0%	71.4%	69.9%	69.5%	65.2%	65.0%
Ratio of Net Traffic receipts to capital at charge.	6.0%	5.4%	5.1%	5.5%	5.1%	4.5%	3.5%	3.0%	2.7%	3.0%	3.3%	3.4%	4.2%	4.2%

NOTE 1.—The figures for the years from 1924-25 to 1936-37 are inclusive of those of the Burma Railways.

NOTE 2.—Credits for materials released from works not charged to revenue were taken in reduction of operating expenses up to 1931-32. From 1932-33 to 1935-36 they were added to receipts and have been included in the above table under net miscellaneous receipts. Since 1936-37, these credits have been taken in reduction of expenditure from the Depreciation Reserve fund. The amounts involved are as follows : 119 lakhs, in 1932-33 and 1933-34, 90 lakhs in 1934-35, and 110 lakhs in 1935-36.

NOTE 3.—For purposes of proper comparison with past years the ratios in the last three lines of the statement with respect to 1932-33, 1933-34, 1934-35, 1935-36, 1936-37 and 1937-38 have been worked out as if the above sums of 119, 119, 90, 110, 115 and 138 lakhs were deducted from operating expenses.

NOTE 4.—Working expenses were reduced in 1930-31 by 166 lakhs by a credit from the Depreciation fund for correction of past accounting adjustments and in 1924-25 by 179 lakhs by certain abnormal refunds of expenditure in previous years.

* Excludes Bezwada Masulipatam Railway.

18.1. Though these statistics show the trend of receipts and expenditure fairly clearly, they do not lend themselves directly to close comparison owing to changes of accounting during the period and certain other special features, the more important of which are mentioned below :—

(a) In the years prior to 1932-33, credits on account of material released from works whether in the nature of repairs or renewals or replacements were taken as reducing the working

expenses but since that year only credits in connection with repairs and maintenance operations are so taken. For comparison with earlier years, the following sums should be deducted from the working expenses of the years 1932-33 and thereafter:—

	<i>(Including Burma Railways). (In lakhs of rupees.)</i>	<i>(Excluding Burma Railways). (In lakhs of rupees.)</i>
1932-33	119	103
1933-34	119	110
1934-35	90	84
1935-36	110	109
1936-37	113	110
1937-38 . . . . .	...	138

- (b) In 1924-25, working expenses were reduced by a refund of customs duty paid in earlier years on stores imported for Company-managed railways amounting to 141 lakhs and by a transfer from reserves of 38 lakhs representing the cost of writing down stores. A sum of 179 lakhs should be added to the working expenses of that year.
- (c) In 1930-31, working expenses were reduced by 166 lakhs by a credit from the depreciation fund for correction of past erroneous adjustments.
- (d) The emergency deductions made from the pay of the staff reduced the working expenses in certain years, namely:—

	<i>Including Burma Railways). (In lakhs of rupees.)</i>	<i>(Excluding Burma Railways). (In lakhs of rupees.)</i>
1931-32	44	41
1932-33	191	132
1933-34	114	110
1934-35	100	96
1935-36	8	8

- (e) Since 1936-37, owing to a change in the allocation rules, certain renewal and replacement expenditure has been transferred from ordinary working expenses to depreciation fund. The net figure in this respect has been 73 lakhs in 1936-37 and is estimated to be about 60 lakhs in 1937-38.

19. Making allowance for these factors, the comparable figures of traffic receipts and working expenses (excluding Burma railways) from 1924-25 are as follows:—

(In crores of rupees.)			
Year.	Traffic Receipts.	Ordinary working expenses including cut in pay.	Ordinary working expenses excluding cut in pay.
1924-25	95-84	51-26	51-26
1925-26	94-01	50-67	50-67
1926-27	93-81	50-49	50-49
1927-28	96-40	50-57	50-57
1928-29	96-78	51-46	51-46
1929-30	97-33	53-02	53-02
1930-31	90-82	53-75	53-75
1931-32	82-89	46-98	47-39
1932-33	81-10	45-85	47-67
1933-34	83-06	46-13	47-23
1934-35	86-48	47-13	48-09
1935-36	87-04	47-52	47-60
1936-37	91-79	47-79	47-79
1937-38	95-01	49-59	49-59

20. The figures show that the steady improvement which started in 1933-34 was still continuing. The statement below gives the net revenue and the interest charges as an average of the capital at charge by the end of the year (excluding Burma railways).

(In lakhs of rupees.)

Year.	Net revenue.	Percentage of net revenue to capital at charge.	Interest charges.	Percentage of interest charges to capital at charge.	Surplus or Deficit.
1924-25	35,71	5.9	22,98	3.8	12,73
1925-26	32,32	5.2	23,82	3.8	8,50
1926-27	32,02	4.9	24,83	3.8	7,19
1927-28	36,35	5.3	26,15	3.8	10,20
1928-29	35,84	5.1	28,10	4.0	7,74
1929-30	32,82	4.5	28,87	4.0	3,95
1930-31	26,02	3.5	31,13	4.2	-5,11
1931-32	22,93	3.0	31,46	4.2	-8,53
1932-33	21,86	2.9	31,40	4.2	-9,54
1933-34	23,69	3.1	31,03	4.1	-7,34
1934-35	25,70	3.4	30,30	4.0	-4,60
1935-36	26,51	3.5	29,92	4.0	-3,41
1936-37	30,84	4.1	29,39	3.9	1,45
1937-38	32,02	4.2	29,28	3.9	2,78

21. The operating ratio of State-owned railways, *i.e.*, the ratio of working expenses to gross traffic receipt was 52 per cent. (excluding depreciation) as in 1936-37, and 65 per cent. (including depreciation) or 1 per cent. less than in the previous year. These percentages have touched the lowest level since 1929-30. In the table below the ratios of earlier years (excluding Burma railways) are given for purpose of comparison.

Year.	Percentage, excluding depreciation.	Percentage, including depreciation.
Average of 5 years, 1924-25 to 1928-29	52.5	63.5
1929-30	54	66
1930-31	57	71
1931-32	56	72
1932-33	57	74
1933-34	56	72
1934-35	55	70
1935-36	55	70
1936-37	52	66
1937-38	52	65

For purposes of comparison certain statistics available for some foreign railways are given below.

22. The gross receipts of the 4 amalgamated British railways in 1937 amounted to £190 million, an increase of £8 million (4 per cent.) over the previous year, but £17½ million (8 per cent.) less than in 1929. Their working expenses amounted to £155 million or £7 million (5 per cent.) more than in the previous year and £13 million (8 per cent.) less than in 1929. The operating ratio was 81·6 per cent. as against 81 per cent. in the previous year and in 1929.

The Canadian Pacific Railway earned 145 million dollars in 1937, 6 million dollars (4 per cent.) more than in the previous year, and 65 million dollars (31 per cent.) less than in 1929. Their working expenses were 121 million dollars—6 million dollars (5 per cent.) more than in 1936 and 46 million dollars (28 per cent.) less than in 1929. The operating ratio, which was 79½ per cent. in 1929 and 83·18 per cent. in 1936, stood at 83·64 per cent. in 1937.

The Canadian National Railways realised 198 million dollars in 1937, 11 million dollars (6 per cent.) more than in 1936 and 70 million dollars (26 per cent.) less than in 1929. Their working expenses rose to 181 million dollars, which was higher by 10 million dollars (6 per cent.) than in 1936 but 40 million dollars (18 per cent.) below that of 1929. The operating ratio of 91·12 per cent. against 91·89 in the previous year and 8¼ per cent. higher than in 1929.

The receipts of the principal railways of the United States were 4,166 million dollars in 1937, which was about 3 per cent. more than in 1936, but 21 per cent. less than in 1930. The working expenses, which were 3,119 million dollars, were 6 per cent. more than in the previous year but 21 per cent. less than in 1930. The operating ratio in 1937 was 74·87 per cent. against 72·33 per cent. in 1936 and 74·45 per cent. in 1930.

The gross receipts of the German State Railways for 1937 were Reichmarks 4,420 million, which showed an increase of Reichmarks 435 million (11 per cent.) over the previous year, but a decrease of Reichmarks 934 million (17 per cent.) as compared with 1929. Their working expenses came to Reichmarks 4,005 million or Reichmarks 492 million (14 per cent.) more than in the previous year but Reichmarks 488 million (10 per cent.) less than in 1929. The operating ratio was 90·6 per cent. against 88·16 per cent. in 1936 and 83·93 per cent. in 1929.

23. Traffic Receipts.—The following table compares the traffic receipts (excluding Burma railways) in detail with the previous years :—

(Crores of rupees.)

	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38
Passenger earnings	23·81	24·34	30·49	27·96	28·01	26·78	27·05	27·17	26·86	28·41
Other coaching earnings	5·99	5·63	5·24	5·10	4·69	4·80	4·79	4·92	5·06	5·16
Goods earnings . .	64·62	62·07	57·89	52·89	51·58	55·68	58·39	58·93	63·79	64·79
Sundry earnings . .	2·01	2·10	1·88	1·74	1·56	1·52	1·56	1·76	2·03	1·95
Suspense	—24	·30	·41	·35	·03	—49	·00	—24	—24	·15
TOTAL	106·19	104·44	95·91	88·06	86·07	88·29	91·88	92·54	97·50	100·46
<i>Less—</i>										
Refunds	·14	·14	·10	·10	·11	·10	·12	·13	·18	..
Earnings of worked lines	7·27	6·47	4·99	5·07	4·86	5·13	5·28	5·37	5·53	5·45
NET	98·78	97·63	90·82	82·89	81·10	83·06	86·48	87·04	91·79	95·01

There has been an improvement, as compared with the previous year under all the various items included in earnings except sundry earnings. Goods earnings made such a very marked improvement that they actually exceeded the earnings for the peak year 1928-29.

23.1. The statement below gives the details of passenger earnings on all Class I Railways (excluding Burma railways) from 1929-30 onwards. Figures are not available separately for State-owned railways alone, but the figures for Class I Railways can be taken as sufficiently representative.

Passenger earnings for Class I Railways.

(In lakhs of rupees.)

Classes.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
First class.	97	88	78	74	72	73	74	77	78
Second class	1,68	1,67	1,43	1,38	1,32	1,33	1,30	1,37	1,39
Intermedi- ate class.	1,56	1,39	1,21	1,13	1,10	1,10	1,10	1,13	1,21
Third class	31,19	27,05	25,47	25,65	24,50	24,72	24,83	24,45	25,94
TOTAL	35,40	31,49	28,89	28,90	27,64	27,88	28,03	27,72	29,32

23.2. The statement below gives details of the various commodities which have contributed to the goods earnings of all Class I Railways (excluding Burma railways) and compares them with similar figures for the past few years.

(Figures in lakhs.)

	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1. Cotton, raw pressed and unpressed.	4,50	3,99	2,41	2,75	3,56	3,40	3,74	4,62	2,98
2. Cotton manufactured	2,36	2,28	2,30	2,37	2,34	2,40	2,48	2,46	2,61
3. Coal for the public	6,68	6,11	5,91	5,88	6,48	7,04	6,87	6,93	8,24
4. Coal for foreign rail- ways and home line construction.	2,77	2,03	2,15	2,24	2,28	2,40	2,45	2,58	2,98
5. Metallic ores	1,33	80	50	36	52	84	1,15	90	1,41
6. Rice	3,25	2,88	2,83	2,87	3,07	3,25	3,06	3,38	3,30
7. Wheat	2,02	2,68	2,15	1,82	1,84	2,09	2,10	2,46	2,67
8. Gram, pulse, jowar, bajra, and other grains.	3,43	3,34	3,40	3,01	2,83	3,27	2,07	3,38	3,48
9. Iron and steel wrought	2,40	2,02	1,78	1,97	2,18	2,30	2,54	2,61	2,49
10. Kerosene oil	1,64	1,46	1,58	1,35	1,43	1,40	1,40	1,60	1,59
11. Jute	1,46	1,36	99	1,14	1,29	1,24	96	1,30	1,17
12. Oil seeds	3,93	3,99	3,50	2,86	3,61	2,94	2,74	3,28	3,04
13. Sugar	2,01	2,02	1,50	1,28	1,66	1,55	1,55	2,27	2,11
14. Gur, jaggree and molasses.	92	95	1,23	1,36	1,18	1,17	1,25	1,27	1,20

The most noticeable improvements in 1937-38 are in coal for the public (131 lakhs), in metallic ores (42 lakhs), in coal for foreign railways and home line construction (40 lakhs), in wheat (21 lakhs), in cotton manufactures (15 lakhs) and in grains (10 lakhs). There is, however, a big deterioration in the movement of raw cotton (174 lakhs), oil seeds (24 lakhs) and sugar (16 lakhs).

23.3. The statement below compares the receipts of individual railways in 1937-38 with the previous years:—

(Figures in lakhs.)

Railways.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Assam Bengal . . .	2,05	1,96	1,84	1,56	1,60	1,80	1,60	1,68	1,76
Bengal Nagpur . . .	9,31	8,17	7,24	6,91	7,39	7,94	8,64	8,38	9,51
Bombay, Baroda and Central India.	11,52	10,90	10,30	10,17	10,61	11,06	11,08	11,89	12,01
Eastern Bengal . . .	6,73	5,86	5,05	4,91	5,07	5,42	5,28	5,74	5,83
East Indian . . .	19,85	18,24	17,36	17,27	17,63	18,71	18,62	19,45	21,00
Great Indian Peninsula	14,58	13,33	11,92	11,94	12,21	12,17	12,40	13,27	13,01
Madras and Southern Mahratta.	8,98	7,98	7,15	6,66	6,84	6,72	6,55	6,68	6,92
North Western (Commercial).	14,39	14,98	13,34	12,74	13,23	13,87	14,16	15,63	15,52
North Western (Strategic)	1,59	1,48	1,31	1,23	1,23	1,23	1,26	1,37	1,45
South Indian . . .	6,33	5,80	5,30	5,51	5,14	5,25	5,00	5,12	5,34
Other Railways . . .	2,50	2,12	2,08	2,20	2,11	2,31	2,47	2,57	2,66

During the year under review all railways showed an improvement in earnings except the Great Indian Peninsula and North Western (Commercial) Railways where there were decreases of 26 lakhs and 11 lakhs respectively. It will be noticed that the receipts of the Bengal Nagpur, the Bombay, Baroda and Central India, the East Indian and the North Western (Commercial) Railways and other railways were better than even those of 1929-30, the last year of prosperity. The largest increase of 155 lakhs on the East Indian Railway was attributable to marked improvement in both passenger and goods traffic. The next largest increase (113 lakhs) was on the Bengal Nagpur Railway. The gross earnings during the year created a record for this railway. Besides the improvement in passenger traffic, the goods earnings from coal and mineral ore mainly contributed to the increase, as the traffic in these commodities was the heaviest ever carried. The next largest increase of about $\frac{1}{4}$ crore was on each of the Madras and Southern Mahratta and South Indian Railways. Reduction in fares, improvement in services and issue of special series of "Travel as you like" and Zone tickets were responsible for the increase in passenger earnings, and movement of coal in goods earnings. There were small increases on other railways, viz., Bombay, Baroda and Central India, Eastern Bengal and North Western (strategic section), and minor railways, aggregating 46 lakhs.

24. Ordinary working expenses.—A comparison of working expenses (excluding depreciation) of all railways (other than Burma Railways) Abstracts is given below.

(In lakhs of rupees.)

Abstracts.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38
Maintenance of Structural Works	8,24	8,45	8,43	7,96	7,94
Maintenance and supply of Locomotive Power	16,16	16,39	16,09	16,24	17,53
Maintenance of Carriage and Wagon stock	5,62	5,90	6,13	5,73	6,13
Maintenance of ferry steamers and harbours	28	30	27	27	29
Expenses of Traffic Department	10,34	10,48	10,42	10,59	10,83
Expenses of General Department	4,66	4,70	4,69	4,67	4,89
Miscellaneous Expenses	4,32	4,21	4,21	4,18	4,33
Electric Service Department	1,20	1,22	1,18	1,16	1,20
Suspense	—2	—0	—5	12	7
Emergency deductions from pay	—1,10	—06	—8	..	..
TOTAL	49,70	50,63	51,29	50,92	53,01
Deduct—Recoveries from worked lines	2,60	2,66	2,68	2,66	2,64
Net Total for State-owned railways	47,10	47,97	48,61	48,26	50,37

24.1. A comparison of the working expenses (excluding depreciation) of each railway with the previous years will be found below:—

(Figures in lakhs.)

	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Assam Bengal	1,13	1,12	1,09	1,02	1,07	1,16	1,12	1,06	1,16
Bengal Nagpur	5,51	5,36	4,83	4,77	4,82	5,06	5,42	5,30	5,53
Bombay, Baroda and Central India	6,07	6,14	5,47	5,38	5,26	5,44	5,33	5,55	5,69
Eastern Bengal	3,84	3,74	3,20	3,16	3,33	3,41	3,62	3,63	3,81
East Indian	10,21	9,95	9,02	8,88	8,78	9,19	9,24	9,23	10,24
Great Indian Peninsula	8,37	8,57	7,13	7,06	6,99	6,78	6,76	6,55	6,77
Madras and Southern Mahratta	3,95	3,88	3,33	3,24	3,30	3,40	3,41	3,26	3,66
North Western (Commercial)	8,47	9,03	7,74	7,23	7,57	7,61	7,50	7,39	8,11
North Western (Strategic)	1,68	1,76	1,38	1,42	1,39	1,43	1,42	1,43	1,41
South Indian	2,79	2,87	2,63	2,76	2,67	2,73	2,74	2,68	2,82
Other Railways	1,00	1,02	98	92	95	1,06	1,12	1,12	1,17

There has been an increase in working expenses on almost all the railways due to the increased movement of traffic, heavy repairs to Rolling Stock, rise in price of coal and contribution to Provincial Governments for cost of order police.

25. **Losses and gains.**—The statement below gives the net gain or loss of the various railways for every year from 1924-25 to 1937-38. For the purpose of calculating these gains or losses, the figures shown in the Companies' accounts have been recast to accord with the Government accounting procedure, *i.e.*, the working expenses include the Appropriation to the Depreciation fund and not the actual expenditure on renewals and replacements which are taken into account in the Companies own accounts.

(In lakhs of rupees.)

	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	TOT.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
<i>State-managed railways.</i>															
Eastern Bengal	16	10	70	80	54	16	-50	-1,23	-1,26	-1,25	-93	-1,18	-79	-78	-5.
East Indian	2,50	2,50	2,67	3,19	2,44	1,61	-18	-24	-13	37	1,14	1,04	1,75	2,39	21.
Great Indian Peninsula.	2,42	47	71	1,41	1,06	8	-1,72	-1,78	-1,68	-1,24	-1,04	-67	46	12	-1.
North Western (Commercial).	2,87	1,76	1,21	1,23	9	-64	-1,16	-1,58	-1,73	-1,36	-70	25	1,53	1,07	2.
North Western (Strategic).	-1,50	-1,47	-1,65	-1,68	-1,74	-1,90	-2,18	-1,99	-2,09	-2,03	-2,03	-2,10	-1,96	-1,85	-26.
<i>Company-managed railways.</i>															
Assam Bengal	-81	-12	-11	4	-6	-24	-39	-52	-74	-73	-80	-84	-75	-75	-6.
Bengal Nagpur	-12	-47	-40	-20	-47	-66	-1,99	-2,48	-2,80	-2,27	-1,86	-1,38	-1,52	-56	-17.
Bombay, Baroda and Central India.	2,92	2,20	1,62	1,58	1,64	1,25	43	45	41	99	1,28	1,56	2,16	2,16	20.
Madras and Southern Mahratta.	1,11	85	63	1,04	1,38	89	1	14	-27	-4	-26	-38	-3	-11	4.
South Indian	97	1,13	1,20	1,25	81	1,19	31	1	6	-21	-10	-32	-11	..	6.
Lucknow Bareilly	9	9	4	10	6	5	6	4	5	5	8	8	10	10	
Tirhoot	62	60	68	56	66	68	24	29	24	25	32	35	41	44	6.

The only railways which show a loss during 1937-38 are Assam Bengal and Eastern Bengal ($\frac{3}{4}$ crore each), the Bengal Nagpur ($\frac{1}{2}$ crore), the North Western—Strategic Section—(2 crores) and the Madras and Southern Mahratta Railway (11 lakhs).

It is interesting to notice that during the 14 years, of which the first six were prosperous, the State has received large profits from 7 railways, *viz.*, 21 $\frac{3}{4}$ crores from the East Indian, 20 $\frac{1}{2}$ crores from the Bombay, Baroda and Central India, about 6 $\frac{1}{4}$ crores from the South Indian; 6 $\frac{1}{2}$ crores from the Bengal and North-Western (Tirhoot); 5 crores from the Madras and Southern Mahratta; 2 $\frac{3}{4}$ crores from the North Western (Commercial lines) and one crore from the Lucknow Bareilly. On the other hand, it had to bear losses on 5 railways. The largest was about 26 $\frac{1}{4}$ crores on the Strategic Section of the North Western Railway, the next largest being 17 $\frac{1}{4}$ crores on the Bengal Nagpur Railway. On the Assam Bengal Railway it amounted to 6 crores. The Eastern Bengal, and Great Indian Peninsula Railways were responsible for losses of 5 $\frac{3}{4}$ and 1 $\frac{1}{2}$ crores respectively.

26. **Capital at charge.**—The statement below shows the capital at charge on all railways (excluding Burma railways) in which the State has financial interest. For purposes of comparison sterling liabilities included

in the capital at charge have been converted into rupees at the statutory rate of exchange :—

	(Crores of rupees.) Capital at charge at the end of the year.		(Crores of rupees.) Capital at charge at the end of the year.
1923-24	595	1931-32	754
1924-25	608	1932-33	754
1925-26	626	1933-34	752
1926-27	652	1934-35	752
1927-28	683	1935-36	754
1928-29	706	1936-37	754
1929-30	735	1937-38	754
1930-31	748		

It will be noticed that the capital at charge at end of 1937-38 is the same as at end of 1936-37 and has increased in 14 years by 159 crores, though the increase has not been uniform. During the first six prosperous years, the average yearly increase was $23\frac{1}{2}$ crores. During the next eight years, it is $2\frac{3}{8}$ crores.

Though the total increase in the capital at charge is 159 crores, the real expenditure during these 14 years is 171 crores since stores balances have been reduced by 12 crores in the period. Of this total, the construction of new lines accounts for 44 crores. 12 crores is due to the acquisition of lines already in existence, but owned by private companies, the most important of which are the Delhi-Ambala-Kalka, Amritsar-Patti-Kasur and the Southern Punjab Railways. The balance of 115 crores represents the expenditure charged to capital on additions to and improvements of the open line such as rebuilding of bridges, relaying of track, improvement of traffic facilities, *e.g.*, expansion of station yards, purchasing of improved rolling stock, reconstruction and modernising of workshops and so on. At the same time 118 crores have been spent from the depreciation fund during the period for the improvement of the open line.

27. Works Expenditure.—The statement below gives the total expenditure (excluding Burma Railways) on works year by year from 1924-25 and shows separately the expenditure on new constructions, open line works, and amounts spent on the purchase of railways.

(In lakhs of rupees.)						
Years.	New constructions.	Open line works.	Purchase of railways and branch line shares.	Total capital.	Depreciation fund.	Total works expenditure.
1924-25	2,61	9,71	..	12,32	6,96	19,28
1925-26	3,97	14,02	..	18,49	7,56	26,05
1926-27	6,21	15,48	4,33	26,02	7,64	33,66
1927-28	9,36	21,18	3	30,57	10,58	41,15
1928-29	8,39	15,25	30	23,94	9,35	33,29
1929-30	5,81	15,32	7,06	28,19	11,26	39,45
1930-31	4,12	8,52	1	12,65	10,69*	23,34*
1931-32	2,53	3,06	..	6,10	8,01	14,20
1932-33	37	—45	..	—8	6,88	5,80
1933-34	13	—2,34	..	—2,21	7,80	5,59
1934-35	17	45	—20	42	8,30	8,72
1935-36	28	1,97	44	2,69	8,89	11,58
1936-37 . . . . .	..	50	..	50	7,45	7,95
1937-38	—5	61	—4	52	7,99	8,51
TOTAL	43,80	104,48	11,93	160,21	113,36	278,57

* Includes a debit of 166 lakhs for correction of past erroneous adjustments.

The total expenditure on works was about $8\frac{1}{2}$ crores and was more by 56 lakhs than the expenditure in the previous year. Of the total, 3 crores was on rolling stock, $3\frac{3}{4}$ crores on renewal of track, and $1\frac{1}{2}$ crores on general engineering works. It also takes into account the credits amounting to

1½ crores on account of the value of materials released from works which it has been decided to adjust under " Depreciation fund " instead of " Earnings " as in the previous years.

28. Stores balances.—The total stores balance at the end of 1937-38 was 37 lakhs higher than in the previous year :—

The table below gives the figures for a number of years :—

(Figures in lakhs.)

	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.	1926-27.	1927-28.	1928-29.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Assam Bengal	25	32	18	12	9	13	12	15	18	22	21	15	14	13	14	17	18
Bengal Nagpur	1.40	1.02	1.48	1.50	1.23	1.17	1.08	1.23	1.36	1.21	1.07	1.02	97	1.01	1.06	1.11	1.02
Bombay, Baroda and Central India.	2.77	2.72	2.33	1.77	1.63	1.48	1.67	1.62	1.61	1.65	1.46	1.30	1.09	1.02	93	87	80
Eastern Bengal	2.52	1.76	1.58	1.22	1.12	84	84	80	77	76	60	55	40	43	57	50	57
East Indian (including Oudh and Rohilkhand).	3.92	4.30	4.11	3.14	2.81	2.48	2.90	3.16	3.04	2.48	2.27	2.09	1.60	1.38	1.44	1.30	1.41
Great Indian Peninsula	4.66	3.38	3.98	2.90	2.30	2.23	2.53	2.42	2.62	2.52	2.15	1.80	1.51	1.27	1.17	1.03	88
Madras and Southern Mahratta.	1.51	1.66	1.51	1.03	84	77	94	83	83	79	76	72	53	50	50	51	56
North Western (Commercial)	3.94	3.93	3.80	2.73	2.44	2.66	3.92	3.70	3.48	2.60	2.27	1.86	1.66	1.46	1.52	1.79	2.08
North Western (Strategic)	58	58	72	63	83	84	92	90	92	94	91	1.02	93	82	75	67	86
South Indian	1.14	1.39	99	77	1.13	1.07	1.24	1.14	1.06	94	80	70	56	47	48	49	51
Other Railways	31	41	42	43	37	39	47	44	53	57	52	47	43	43	44	43	47
TOTAL	23.00	22.66	21.10	16.24	14.93	14.24	16.73	16.68	16.40	14.68	13.14	11.67	9.82	8.92	9.00	8.87	8.94

29. Depreciation Fund.—The amount appropriated to the depreciation fund by debit to the working expenses of State-owned railways and the amount drawn from the fund to meet the expenditure incurred on the replacements and renewals actually carried out on those railways during 1937-38 are given in the statement below :—

Account of Depreciation fund for 1937-38.

(Figures in lakhs.)

Railways.	Opening Balance.	Credits to Depreciation fund in 1937-38.	Amount spent on Replacements and Renewals, etc., and charged to Depreciation fund in 1937-38.	Closing Balance.
1	2	3	4	5
	Rs.	Rs.	Rs.	Rs.
<i>State Lines managed by State.</i>				
North Western	10.42	(a)2.47	1.54	11.35
Eastern Bengal	2.49	86	79	2.56
East Indian (including Tatanagar workshops).	7.79	2.46	1.68	(b)8.59
Great Indian Peninsula	6.72	1.91	67	(b)7.98
<i>State Lines managed by Companies.</i>				
Bengal Nagpur	5.76	1.30	58	6.48
Bombay, Baroda and Central India	4.47	1.23	85	4.85
Madras and Southern Mahratta	2.06	89	39	2.57
South Indian	1.96	76	48	2.24
Other Railways and Miscellaneous	3.33	71	70	(b)3.29
TOTAL	45.00	12.59	7.68	49.91
Withdrawal from Depreciation fund to meet the loss on the working of Railways	—30.29	..	..	—30.29
Shares of branch lines, etc.	..	..	32	—32
Loans to Branch Line Companies	—9	8	8	—9
Net	14.62	12.67	8.08	19.21

(a) Include Rs. 1.69 lakhs on account of press machinery charged to Capital account, North-Western Railway.

(b) Rs. 2.61 lakhs have been transferred from other Railways and " Miscellaneous " to each of the East Indian and Great Indian Peninsula Railways. It includes 32 lakhs written back from Capital to Depreciation fund on account of abandoned assets.

30. An analysis of the financial results of the working of the railways owned by the State is given in the following statement, for the last three years, by each railway :—

(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.	Payment to worked lines.	Net Receipts.	Percentage of Net Receipts on Capital at charge.	CHARGE AGAINST NET REVENUE RECEIPTS.		Gain.	Loss.
										Payment on account of share of Surplus Profits.	Interest, Annuity and Sinking Fund charges.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
<i>State Lines managed by State.</i>													
North Western	1935-36	1,46,92,92	..	1,46,92,92	16,35,12	11,99,28	29,82	4,06,02	2.8	..	5,91,27	..	1,85,25
	1936-37	1,46,84,36	..	1,46,84,36	17,54,10	11,89,01	28,15	5,30,94	3.7	..	5,79,02	..	42,98
	1937-38	1,47,26,99	..	1,47,26,99	17,52,72	12,25,48	28,71	4,98,53	3.4	..	5,76,43	..	77,90
Eastern Bengal	1935-36	51,59,89	..	51,59,89	5,43,89	4,56,56	8,45	78,88	1.5	..	1,96,92	..	1,18,04
	1936-37	51,48,09	..	51,48,09	5,87,46	4,63,40	8,57	1,15,49	2.2	..	1,94,21	..	78,72
	1937-38	51,48,69	..	51,48,69	5,95,93	4,73,29	7,32	1,15,32	2.2	..	1,92,96	..	77,64
East Indian	1935-36	1,47,26,41	1,12,14	1,46,14,27	18,86,33	11,80,64	7,74	6,97,95	4.7	..	5,94,39	1,03,56	..
	1936-37	1,47,70,09	1,12,14	1,46,57,95	19,52,14	11,82,27	7,81	7,62,06	5.2	..	5,87,32	1,74,74	..
	1937-38	1,48,18,38	1,12,14	1,47,06,24	21,07,21	12,73,96	7,73	8,25,52	5.6	..	5,86,87	2,38,65	..
Great Indian Peninsula	1935-36	1,15,03,02	..	1,15,03,02	13,09,86	9,19,39	28,28	3,62,19	3.1	..	4,29,13	..	66,94
	1936-37	1,14,57,77	..	1,14,57,77	13,83,25	8,86,83	31,88	4,64,54	4.1	..	4,18,84	45,70	..
	1937-38	1,14,75,29	..	1,14,75,29	13,57,38	8,97,79	30,67	4,28,92	3.7	..	4,17,32	11,60	..

<i>State Lines managed by Companies.</i>													
Bengal Nagpur	1935-36	77,75,05	10,12,20	67,62,85	8,76,09	6,82,01	1,67	1,92,41	2-5	..	3,30,80	..	1,38,39
	1936-37	77,83,53	9,52,20	68,31,33	8,40,73	6,68,28	1,41	1,71,04	2-2	..	3,23,78	..	1,51,74
	1937-38	77,23,54	7,37,80	69,85,74	9,53,23	6,84,17	1,41	2,67,65	2-5	..	3,24,13	..	56,48
Bombay, Baroda and Central India	1935-36	73,74,05	5,49,00	68,25,05	11,85,51	7,07,10	29,81	4,48,60	6-1	14,79‡	2,78,22	1,55,59	..
	1936-37	73,77,60	5,49,00	68,28,60	12,50,05	7,16,74	27,16	5,00,15	6-9	16,52‡	2,73,68	2,15,95	..
	1937-38	73,83,87	5,49,00	68,34,87	12,64,56	7,29,89	26,31	5,09,16	6-9	20,47‡	2,72,32	2,16,37	..
Madras and Southern Mahratta	1935-36	53,28,73	10,68,25	42,58,48	7,30,45	4,81,50	27,34	2,21,61	4-2	26,77	2,29,01	..	34,17
	1936-37	53,30,57	10,68,25	42,62,32	7,42,88	4,69,50	31,45	2,41,93	4-5	19,39	2,25,09	..	2,55
	1937-38	53,62,08	10,54,18	43,07,90	7,52,89	4,89,63	25,84	2,37,42	4-4	23,96	2,24,82	..	11,36
South Indian	1935-36	45,46,66	6,35,81||	39,10,85	5,28,42	3,70,76	7,11	1,50,55	3-3	6,63	1,75,55	..	31,62
	1936-37	45,67,54	6,35,81||	39,31,73	5,36,33	3,64,81	7,12	1,64,40	3-6	3,61	1,71,42	..	10,63
	1937-38	45,68,61	5,64,76||	40,03,85	5,59,15	3,75,81	7,34	1,76,00	3-9	4,37	1,71,22	41	..
Other railways	1935-36	43,05,98	5,20,91	37,85,07	6,53,58	3,95,52	1,44,45	1,13,61	2-6	2,77	1,66,99	..	58,15
	1936-37	42,90,18	4,21,87	38,77,31	6,85,03	3,98,68	1,58,19	1,28,16	2-9	2,91	1,60,16	..	40,90
	1937-38	41,66,30	4,22,89	37,43,41	7,02,30	4,08,72	1,57,47	1,36,11	3-3	3,75	1,60,21	..	27,85
Adjustments :—													
Net result of adjustment of credits on account of released materials and expenditure on non-wasting assets of company-managed railways under Repairs and Maintenance.	1935-36	..	..	..	..	3,43	..	-3,43	..	..	..	..	3,43
	1936-37	..	..	..	..	..	..	..	..	..	..	..	..
	1937-38	..	..	..	..	..	..	..	..	..	..	..	..
Interest on Depreciation and Reserve Fund balances.	1935-36	..	..	..	42,04	..	..	42,04	..	..	..	42,04	..
	1936-37	..	..	..	55,01	..	..	55,01	..	..	..	55,01	..
	1937-38	..	..	..	80,52	..	..	80,52	..	..	..	80,52	..

(Figures in thousands of rupees.)

Railways.	Year.	Capital at charge.	Deduct amount of capital contributed by Companies, Indian States, and District Boards.	Net Government Capital at charge.	Receipts.	Working Expenses including Depreciation.	Payment to worked lines.	Net Receipts.	Percentage of Net Receipts on Capital at charge.	CHARGE AGAINST NET REVENUE RECEIPTS.		Gain.	Loss.
										Payment on account of share of Surplus Profits.	Interest, Annuity and Sinking Fund charges.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Net Miscellaneous Receipts and Charges not attributable to any one Railway.	1935-36	..	..	..	..	..	..	..	..	..	..	..	8,90*
	1936-37	..	..	..	..	..	..	..	..	..	..	..	18,80*
	1937-38	..	..	..	..	..	..	..	..	..	..	..	20,67*
Total (Central)	1935-36	7,54,10,71	38,98,31	7,15,12,40	93,91,29	63,96,19	2,84,67	27,10,43	3.6	50.05	20,02,28	..	3,41,70
	1936-37	7,54,18,73	37,30,27	7,16,70,46	97,86,98	63,39,52	3,01,74	31,45,72	4.2	42.43	20,39,41	1,45,08	..
	1937-38	7,53,66,85	34,40,77	7,19,26,08	1,01,25,89	65,57,94	2,92,80	32,75,15	4.3	52.55	29,26,28	2,75,65	..
Provincial Railways	1935-36	14,61	..	14,61	(a)1,23	..	..	1,23	..	..	51	72	..
	1936-37	14,61	..	14,61	(a)1,41	..	..	1,41	..	..	50	91	..
	1937-38	(c)14,61	..	(c)14,61	(a)1,98	..	..	1,98	..	..	5	1,93	..
North Western (Commercial)	1935-36	1,12,92,24	..	1,12,92,24	15,00,43	9,02,46	20,82	4,78,15	4.2	..	4,53,75	24,40	..
	1936-37	1,13,04,69	..	1,13,04,69	16,16,70	9,89,06	28,15	5,99,58	5.3	..	4,46,13	1,53,15	..
	1937-38	1,13,26,80	..	1,13,26,80	16,07,85	10,28,27	28,71	5,50,87	4.9	..	4,43,82	1,07,05	..
Non-Commercial (Strategic) (North Western and Aden Railways).	1935-36	34,00,68	..	34,00,68	1,34,89	(b)2,08,68	..	(b)-74,10	-2.2	..	1,37,52	..	2,11,71
	1936-37	33,79,67	..	33,79,67	1,37,31	1,99,95	..	-62,64	-1.9	..	1,33,70	..	1,06,43
	1937-38	33,93,29	..	33,93,29	1,44,87	1,97,21	..	-52,34	-1.5	..	1,32,61	..	1,84,95

	1935-36.	1936-37.	1937-38.
‡ Includes payments to Jaipur Durbar	6,70	7,06	8,01
* Includes recoveries from Travancore Durbar	38	1,08	17

‡ Includes capital expenditure on Tinnevely Quilon (Indian State Section).

(a) Represent figures on account of subsidized Companies.

(b) Includes Aden Railway :-

Column 7	2,08
9	-3,06

(c) Includes 13,22 in respect of Jorhat Railway which has become the property of the Central Government from 1st April 1937.

C.—General results of working of all Indian Railways.

31. Traffic and mileage.—The more important statistical figures of traffic on all Indian Railways are summarised in the table below:—

Particulars.	Year.	Class I Railways.	Other Railways.	Total of all Railways.
(i) Total route mileage.	1933-34	36,242	4,656	40,898
	1934-35	36,235	4,726	40,961
	1935-36	36,307	4,751	41,058
	1936-37	36,125	4,943	41,068
	1937-38	36,134	4,942	41,076
(ii) Number of passengers originating (in thousands).	1933-34	436,288	32,995	469,283
	1934-35	442,275	33,580	475,855
	1935-36	448,865	34,267	483,132
	1936-37	454,743	34,863	489,606
	1937-38	483,933	37,352	521,285
(iii) Number of passenger miles (in thousands).	1933-34	15,929,451	765,667	16,695,118
	1934-35	16,516,075	777,754	17,293,829
	1935-36	16,871,303	801,055	17,672,358
	1936-37	16,950,704	833,982	17,784,686
	1937-38	17,933,580	913,666	18,847,246
(iv) Tons originating (in thousands).	1933-34	68,930	3,562	72,492
	1934-35	76,474	3,854	80,328
	1935-36	78,754	4,195	82,949
	1936-37	78,444	3,962	82,406
	1937-38	83,121	4,168	87,289
(v) Number of ton miles (in thousands).	1933-34	17,834,877	247,161	18,082,038
	1934-35	19,414,104	261,047	19,675,151
	1935-36	19,653,041	258,105	19,911,146
	1936-37	20,525,770	263,367	20,789,137
	1937-38	22,479,591	297,097	22,776,688

NOTE.—With the separation of Burma from the 1st April 1937 the Burma Railways are no longer under the Indian Railway Board. Therefore, in order that the results for 1937-38 may be comparable with preceding years, figures in respect of the Burma Railways have been excluded from the results for 1936-37 and preceding years. The true figures for all Indian Railways (including Burma) for 1936-37 and the preceding years may be found in the Report for 1936-37.

32. Analysis of earnings.—The total earnings of all railways, including those with which the Government of India are not directly concerned, amounted to Rs. 107.57 crores, of which Rs. 68.66 crores or 63.8 per cent. were from goods traffic, Rs. 31.08 crores or 28.9 per cent. from passenger

traffic, and Rs. 7.83 crores or 7.3 per cent. from parcels, luggage and other miscellaneous items.

33. Passenger earnings.—Passenger earnings showed an increase of about 6 per cent. from Rs. 29.37 to Rs. 31.08 crores. The following table shows the numbers of and earnings from passengers separately for each class for the four years previous to the war and for the last seven years. Graphs are also inserted showing the number of passengers carried and of passenger miles by classes from 1923-24 :—

(Excluding Burma Railways.)

Year.	NO. OF PASSENGERS CARRIED (IN THOUSANDS).					EARNINGS FROM PASSENGERS (IN THOUSANDS OF RUPEES).						
	1st class.	2nd class.	Inter-mediate class.	3rd class.	Season and Vendor's tickets.	Total.	1st class.	2nd class.	Inter-mediate class.	3rd class.	Season and Vendor's tickets.	Total.
1910 .	630	2,617	10,702	294,908	23,943	332,800	55,82	74,12	94,99	13,00,22	15,58	16,20,73
1911 .	647	2,775	11,409	308,458	25,215	348,504	63,31	80,60	1,08,88	14,92,49	16,56	17,61,84
1912 .	640	2,840	10,508	331,820	26,320	372,128	59,83	79,84	91,37	16,13,25	17,23	18,61,52
1913-14 .	649	3,029	12,000	362,787	29,362	407,827	65,50	84,56	1,03,48	17,43,30	18,92	20,15,76
1931-32 .	470	5,559	12,354	464,606	*	482,980	79,05	1,47,62	1,22,98	26,87,22	*	30,37,77
1932-33 .	397	4,980	10,871	464,438	*	480,686	75,09	1,41,76	1,15,14	27,06,90	*	30,38,99
1933-34 .	394	4,808	10,557	453,524	*	409,283	73,21	1,37,28	1,11,54	26,00,34	*	29,24,31†
1934-35 .	381	4,563	10,316	460,595	*	475,855	74,00	1,36,88	1,11,92	26,23,75	*	29,46,55
1935-36 .	381	4,498	10,489	467,804	*	483,132	75,21	1,41,07	1,11,35	26,36,49	*	29,64,12
1936-37 .	389	4,329	11,085	473,803	*	489,600	78,26	1,42,00	1,14,54	26,02,32	*	29,37,21
1937-38 .	897	4,217	11,824	505,347	*	521,235	79,16	1,44,40	1,22,17	27,62,69	*	31,08,42

* The number of season and vendors' tickets and their earnings included under the respective classes; the former at the rate of 50 single journeys per month.

† Includes credit of 1.94 received from the East Indian Railway on account of passengers carried over the Delhi-Ghaziabad section for the period April 1925 to May 1931; details under different classes are not available.

NOTE.—(i) In pre-war reports the sum of the numbers of passengers carried on each separate railway was shown as the total number of passengers carried on all railways. Passengers travelling over two or more railways or two or more gauges of the same railway were thus counted as two or more passengers. The actual number of passengers carried on all railways is in fact the same as the number of passengers originating and this figure has been adopted for "number of passengers carried" in the reports from 1923-24 onwards. As the number of passengers originating is not available prior to 1923-24 the figures of pre-war years have been modified.

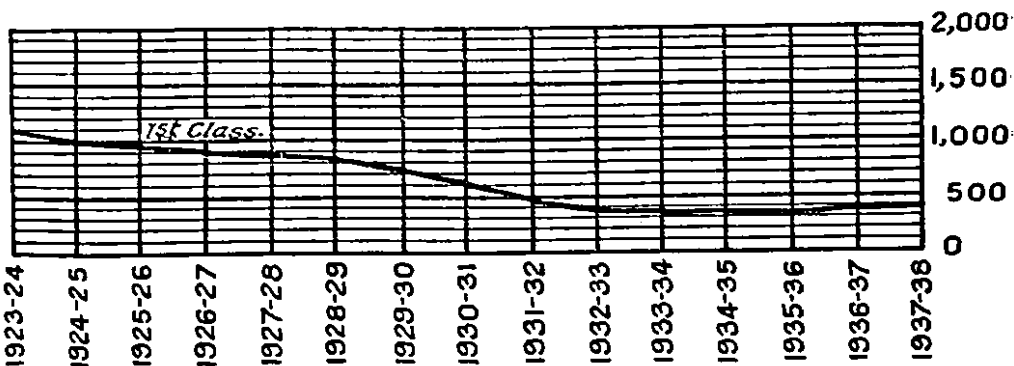
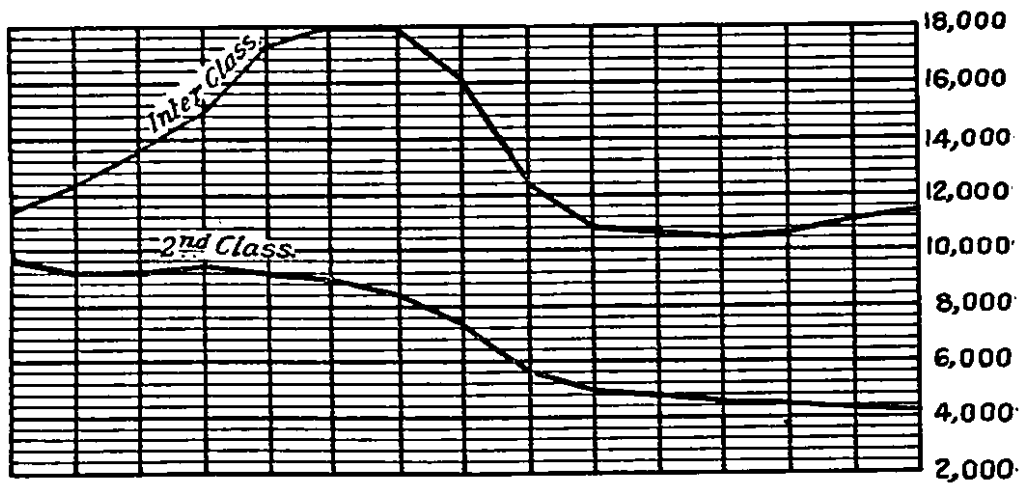
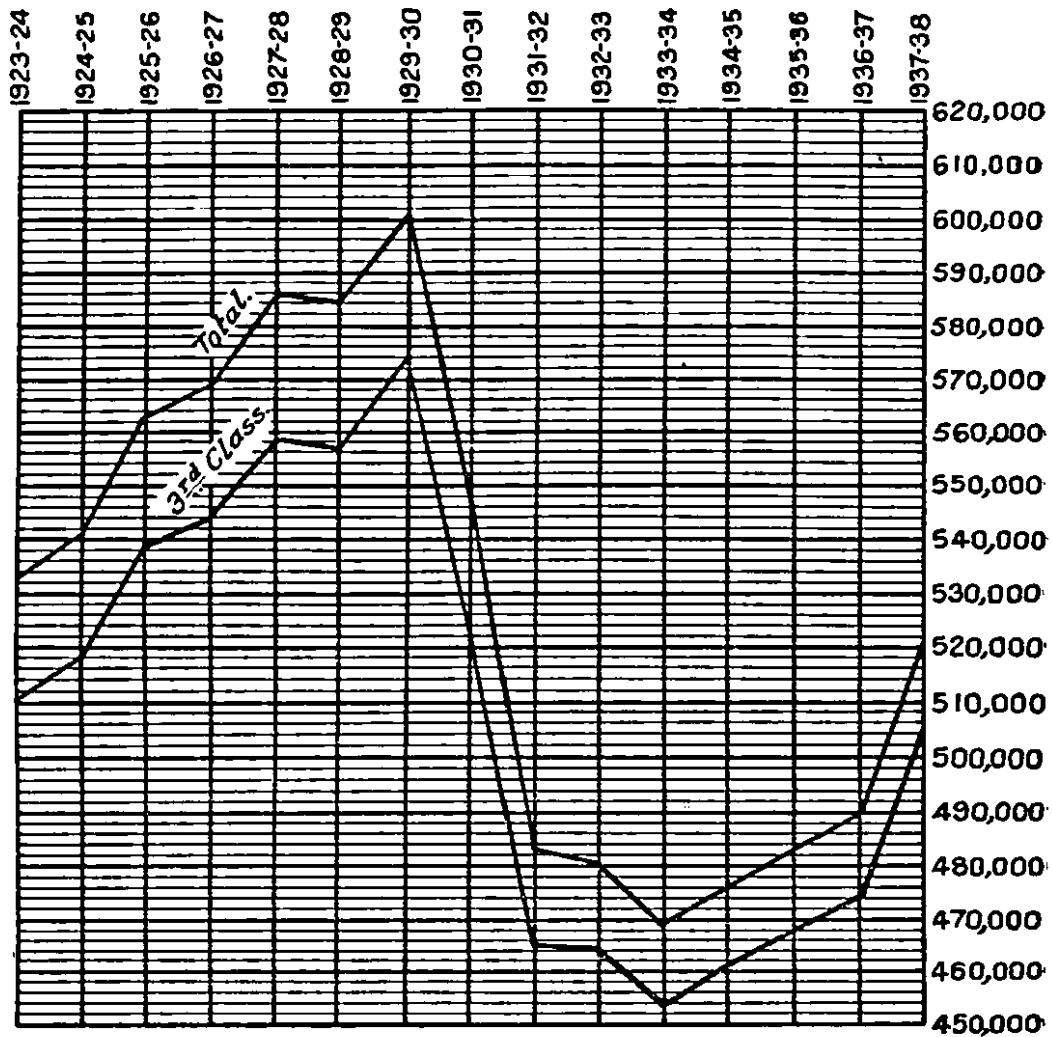
(ii) With the separation of Burma from the 1st April 1937 the Burma Railways are no longer under the Indian Railway Board. Therefore, in order that the results for 1937-38 may be comparable with preceding years, figures in respect of the Burma Railways have been excluded from the results for 1936-37 and preceding years. The true figures for all Indian Railways (including Burma) for 1936-37 and the preceding years may be found in the Report for 1936-37.

33.1. As compared with 1936-37, the number of passengers carried on the Class I Railways increased by 31 millions and the earnings by Rs. 160 lakhs. The following statement shows the variations on each railway :—

Railway system.	Variations in the number of passengers carried as compared with 1936-37.	
	No.	Rs.
Assam Bengal	+ 1,257	+ 4,43
Bengal and North-Western	+ 1,115	+ 9,24
Bengal Nagpur	+ 1,430	+ 13,71
Bombay, Baroda and Central India	+ 5,403	+ 22,01
Eastern Bengal	+ 3,597	+ 17,32
East Indian	+ 3,452	+ 49,01
Great Indian Peninsula	+ 647	+ 4,42
Jodhpur	+ 135	+ 1,50
Madras and Southern Mahratta	+ 2,367	+ 5,17
H. E. H. the Nizam's State	+ 1,009	+ 3,53
North Western	+ 2,536	+ 15,23
Rohilkund and Kumaon	+ 299	+ 1,23
South Indian	+ 7,375	+ 12,96
Total	+ 30,622	+ 1,59,76

NUMBER OF PASSENGERS CARRIED ON INDIAN RAILWAYS (EXCLUDING THE BURMA RAILWAYS.)

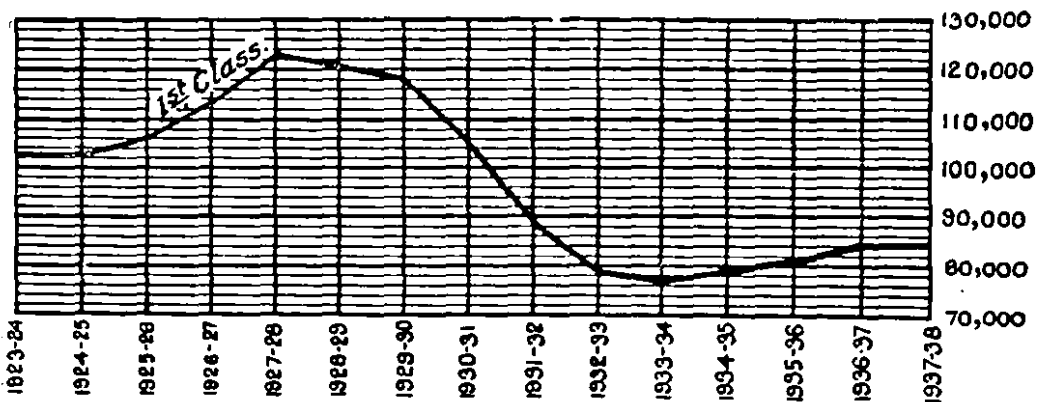
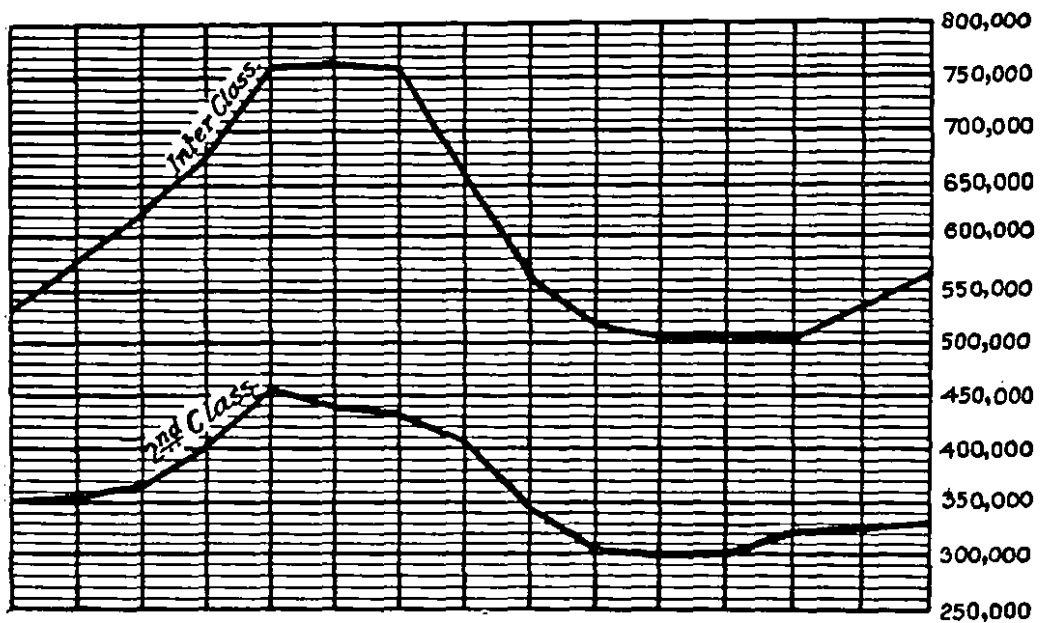
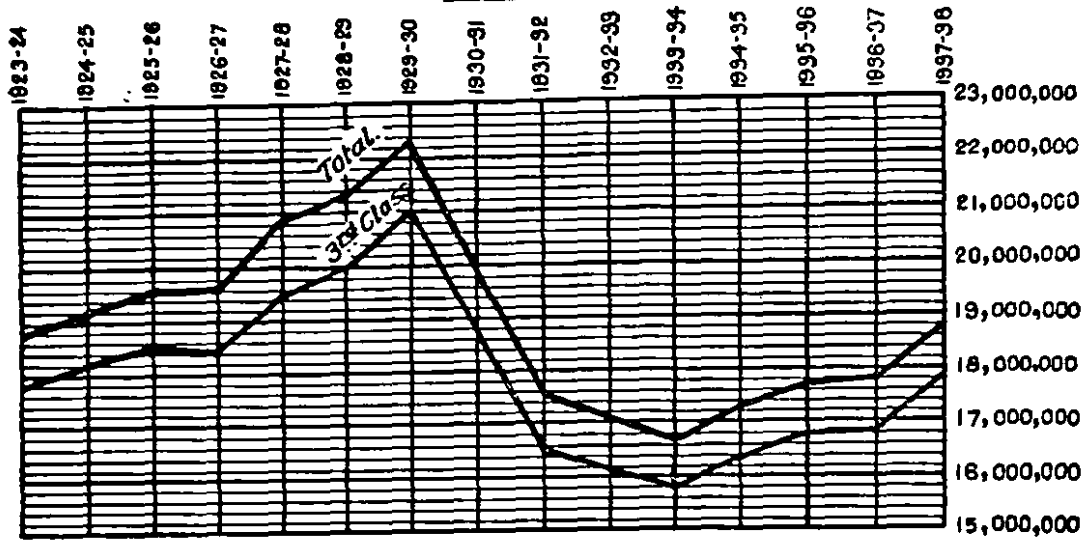
IN THOUSANDS



NOTE.—With effect from 1937-38 the Burma Railways are no longer under the control of the Indian Railway Board. Therefore for purposes of comparison, figures relating to the Burma Railways have been excluded from all the years.

NUMBER OF PASSENGER MILES ON INDIAN RAILWAYS: (EXCLUDING THE BURMA RAILWAYS.)

IN THOUSANDS



NOTE.—With effect from 1937-38 the Burma Railways are no longer under the control of the Indian Railway Board. Therefore for purposes of comparison, figures relating to the Burma Railways have been excluded from all the years.

It will be observed from the statement that the increase was general. This can be ascribed partly to an improvement in economic conditions and partly to the occurrence of an unusually large number of festivals; also to special measures to encourage travel (see Chapter IV, paragraphs 50.3 and 56, pages 45 and 52).

34. Goods earnings.—The earnings from goods traffic on all railways increased by Rs. 133 lakhs, chiefly under fuel (mainly coal), metallic ores, materials and stores on revenue account and wheat. This was offset by a considerable fall under raw and manufactured cotton and under oilseeds.

The tonnage of, and earnings from the principal commodities carried by the Class I Railways during 1937-38 as compared with the preceding year, are shown in the statement below. Apart from the main increases mentioned above, there were also increases under provisions, marble and stone and wood unwrought.

Commodity.	1936-37.*		1937-38.		Increase + Decrease — in earnings. Rs. (in lakhs).
	No. of tons originating (in millions).	Rs. (in crores).	No. of tons originating (in millions).	Rs. (in crores).	
<i>Increases.</i>					
Fuel for public and foreign railways.	20.16	10.35	22.89	12.10	+1.75
Metallic ores	3.23	1.00	3.97	1.41	+41
Materials and stores on revenue account.	11.63	2.58	13.32	2.91	+33
Wheat	1.81	2.46	1.86	2.67	+21
Provisions	1.08	2.71	1.15	2.87	+16
Marble and stone	2.31	0.87	2.70	0.99	+12
Wood, unwrought	1.12	0.79	1.29	0.89	+10
Gram and pulse and other grains.	2.61	3.38	2.57	3.47	+9
Military traffic	0.35	0.32	0.40	0.40	+8
Fodder	0.86	0.58	0.93	0.64	+6
Tobacco	0.29	0.80	0.31	0.84	+4
Live stock	0.16	0.50	0.17	0.54	+4
Petrol	0.28	1.11	0.30	1.14	+3
Fruits and Vegetables, fresh.	3.97	1.32	4.05	1.34	+2
Manures	0.25	0.18	0.27	0.19	+1
Other commodities	9.34	11.23	10.07	11.43	+20
Salt	1.39	1.83	1.40	1.83	..
<i>Decreases.</i>					
Cotton, raw and manu- factured.	2.11	7.07	1.71	5.48	—1.59
Oilseeds	2.62	3.28	2.39	3.03	—25
Sugar, refined and un- refined.	1.15	2.27	1.07	2.11	—16
Jute, raw	1.10	1.30	1.00	1.17	—13
Iron and Steel, wrought	1.37	2.61	1.39	2.49	—12
Rice	3.28	3.38	3.17	3.30	—8
Gur, Jagree, Molasses	0.98	1.27	1.01	1.20	—7
Railway materials	4.22	0.52	2.96	0.45	—7
Kerosene oil	0.77	1.60	0.77	1.59	—1

* Excluding Burma Railways.

CHAPTER III.

NEW CONSTRUCTION AND ENGINEERING WORKS.

35. Capital Expenditure.—At the end of March, 1938, the total capital at charge on all railways, including those under construction, amounted to Rs. 845·68 crores, of which Rs. 753·81 crores was capital at charge on State-owned Railways inclusive of premia paid in the purchase of Companies' lines. The remainder, Rs. 91·87 crores, represented capital raised by Indian States, Companies and District Boards.

The capital at charge of State-owned Railways is composed as follows :—

£	
Liability and debt incurred in purchase of Railways	150,106,630
Less liability and debt cancelled by the operation of Annuities and Sinking Funds	- 29,284,941
Net amount outstanding	120,821,689*
Rs. (omitting 000)	
Direct expenditure by Government	5,92,57,89
The above sterling figure converted into rupees	1,61,03,96*
Total	7,53,66,85
Add Provincial Railways expenditure	14,61†
Grand Total	7,53,81,46

By far the greater portion of this amount, namely Rs. 7,19,40,69,000, is Government Capital and only 1·21st or Rs. 34,40,77,000 is owned by Companies. These figures include Rs. 33·93 crores on account of capital expenditure to the end of March, 1938, on strategic lines.

35.1. The total capital outlay on all railways during 1937-38 was Rs. 1·28 crores, of which Rs. 0·52 crores were spent on State-owned Railways. The following statement shows how this outlay of Rs. 0·52 crores was distributed between open line works, rolling-stock and new line, similar figures being given for the previous four years and for 1913-14.

Year.	OPEN LINES.			New lines.	GRAND TOTAL.
	Works including Stores and general charges.	Rolling-stock.	TOTAL.		
	Rs. crores.	Rs. crores.	Rs. crores.		
1913-14§	9·30	7·31	16·61	1·86	18·47
1933-34§	-0·45	-1·82	-2·27	0·22	-2·05
1934-35§	0·76	-0·69	0·07	0·18	0·25
1935-36§	2·24	0·05	2·29	0·29	2·58
1936-37 { including Burma	1·08	-0·80	0·28	..	0·28
{ excluding Burma	1·16	-0·66	0·50	..	0·50
1937-38	0·63	-0·06	0·57	-0·05	0·52

* £2,575,000 representing share capital of the Great Indian Peninsula Railway paid off during 1925-26 has been converted at the average rate of exchange for that year and the balance of £118,246,689 at the rate of 1s. 6d. to the rupee.

† Includes Rs. 13,22,000 representing old outlay on the Jorhat Railway the property in which vests in the Central Government from 1st April 1937.

§ Includes Burma.

35.2. The distribution of the capital outlay in 1937-38 over the different State-owned lines is shown in the summary below :—

(Figures in lakhs.)

Railways.	OPEN LINES.			New lines.	GRAND TOTAL.
	Works, etc.	Rolling-stock.	TOTAL.		
	Rs.	Rs.	Rs.	Rs.	Rs.
Bengal Nagpur	9	2	11	..	11
Bombay, Baroda and Central India	6	..	6	..	6
Eastern Bengal	-11	15	4	-3	1
East Indian	15	-21	-6	..	-6
Great Indian Peninsula	-21	-6	-27	-4	-31
Madras and Southern Mahratta	44	2	46	..	46
North Western	45	-11	34	2	36
South Indian	13	6	19	..	19
Other Indian Railways	-37	7	-30	..	-30
TOTAL	63	-6	57	-5	52

36. Lines opened during 1937-38.—34.95 miles of railways were opened to public traffic during the year, the whole of this mileage being on the 3' 3 $\frac{3}{4}$ " gauge.

Details regarding the sections opened are given below :—

Name of line.	Gauge.	Mileage.	Owner.	Working Agency.	Date of opening.
Sasangir to Visavadar	3' 3 $\frac{3}{4}$ "	18.62	Indian State Line	Junagad State	1st October 1937.
Anandapuram-Sagara	3' 3 $\frac{3}{4}$ "	16.33	Indian State Line	Mysore State	11th March 1938.

37. Lines sanctioned in 1937-38.—No new line was sanctioned for construction.

38. Lines under active construction on 31st March 1938.—At the end of the financial year 1937-38 the mileage of new lines under active construction was as follows :—

	Miles.
5' 6" gauge	4.31
3' 3 $\frac{3}{4}$ " gauge	118.80
Total	123.11

The lines under active construction are given in the table below, which also show the construction agencies and the progress reached :—

Name of line.	Gauge.	Mileage actually under construction.	Working Agency.	* Progress of work (Proportion completed on 31st March 1938).
Sadulpur-Rewari	3' 3½"	85·83	Bikaner State Railway.	..
Prachi Road-Kodinar	3' 3½"	16·10	Gaekwar's Baroda State Railway.	·99
Bedeshwar-Rozi	3' 3½"	4·83	Jamnagar Dwarka Railway.	·40
Jankampet-Bodhan	3' 3½"	12·04	Nizam's State Railway.	·80
Cochin Railway extension to link with the Harbour Railway.	5' 6"	4·31	South Indian Railway.	0·15
TOTAL . . . .	..	123·11		

* ·30 signifies that 3/10th of the work has been done.
 ·50 signifies that half the work has been done.
 1·00 signifies completion of the work.

39. Surveys.—The following are some of the more important surveys which were either sanctioned or undertaken during the year :—

39.1. Sind Right Bank Feeders Railway.—A final location survey for a line of railway on the 5' 6" gauge from Larkana to Jacobabad *via* Shahdadkote, Garhi Khairo, Ushda and Mouladad, a distance of about 85 miles, was sanctioned in August 1937, and the work completed during the year. The project, which is now known as the Sind Right Bank Feeders Railway, is considered necessary for the provision of adequate transport facilities for the increased volume of agricultural produce obtainable from the area situated on the right bank of the Indus and irrigated by the Lloyd Barrage.

39.2. Khadro-Nawabshah Railway.—A final location survey for a railway on the 3' 3½" gauge, from Khadro, on the Mirpur Khas-Khadro Railway to Nawabshah, a station on the North Western Railway main line, a distance of about 30 miles, which was sanctioned in January 1938, was similarly completed during the year. The extension will provide easy means of transport in an area at present unserved by a railway and will also form a line of through communication.

The Bengal Nagpur Railway carried out during the year an interesting reconnaissance in extension of a survey between Noamundi and Joda which had been completed in 1935-36. The area in question is an extensive iron ore basin, of which Joda forms the centre, and the object of the reconnaissance was to ascertain whether railway lines could be extended to the ore properties to the south near Joribar and to the south-west near Patholi. The survey has established the possibility of building lines in the two directions, but as the country traversed is very hilly and broken, the cost of construction would be exceedingly high.

A sum of about Rs. 50,000 was also spent on a final location survey and the preparation of estimates for a bridge over the Brahmaputra river, between Amingaon and Pandu stations, Eastern Bengal Railway, to provide alternatively for a rail-cum-road bridge and a rail bridge proper.

In Indian States His Exalted Highness the Nizam's State Railway surveyed two lines, one from Nander to Adilabad and the other from Aurangabad to Purli, while the Great Indian Peninsula Railway prepared, on behalf of the Akalkot Durbar, revised engineering and traffic estimates for a line 6½ miles long, from Akalkot Road to Akalkot Town.

40. Important lines under construction.—

40.1. Prachi Road-Kodinar Railway (16·10 miles).—This line was described in the report for 1934-35 and again referred to last year as one on which it

has been difficult to maintain progress on account of the toll taken by malaria on the construction staff. Although only one-fourth of the construction work remained to be done, the line was not completed for opening before the commencement of the new financial year, and was actually opened on 6th April 1938.

40.2. Jankampet-Bodhan Railway (12.04 miles).—This line had been commenced primarily as a siding to serve a sugar factory, but was subsequently constructed to a standard suitable for passenger traffic. The construction of the second section, *i.e.*, from the sugar factory site to Bodhan town as also the staff quarters, station buildings and other works left unfinished from the previous year, were therefore completed expeditiously, but the date of actual opening to passenger traffic has not yet been decided.

40.3. Sadulpur-Rewari Railway (85.83 miles).—The construction of this railway by the Bikaner Government was approved in February 1937. A start on the earthwork was made in the last week of September 1937 and by the end of the year under review nine-tenths of the earthwork on the first portion, 31 miles, from Sadulpur to Loharu had been completed. The supply of rails was also complete but the delivery of sleepers had not begun.

41. Important lines opened during 1937-38.—

41.1. Sasangir-Visavadar Railway.—In spite of the difficulties experienced in construction over the 18½ mile length from Sasangir to Visavadar, good progress was maintained on the work and in accordance with anticipations, this section was completed and opened for traffic on the 1st October 1937.

41.2. Anandapuram-Sagara Railway (16.33 miles).—The Mysore Government completed the construction of this line and opened it for traffic on the 11th March 1938. It serves to develop a tract of country rich in forest produce and minerals, and is expected to bring a certain number of visitors to the famous Gersoppa Falls which are only 18 miles off Sagara station.

42. Important New Works.—

42.1. King George VI Bridge.—The great event of the year for the Assam Bengal Railway and for the Railway Department generally was the opening to traffic on the 12th June 1937, of the new bridge between Ashuganj and Bhairab Bazar, which, by the gracious consent of His Majesty has been named King George VI Bridge. It was opened by the Hon'ble Sir Guthrie Russell, K.C.I.E., Chief Commissioner of Railways, in the presence of the Hon'ble Mr. Fazlul Huq, Premier of Bengal, and several distinguished railway officials and guests.

The bridge affords an alternative route between the southern parts of the Assam Bengal Railway system and Calcutta, as also between the Chittagong and Badarpur districts and the Dacca-Narayanganj area, but it has not been in existence long enough to allow of its effects on passenger traffic to be fully gauged.

42.2. Shoranur-Cochin Railway Harbour Extension.—Mention was made in last year's report of a survey proposed by the South Indian Railway on behalf of the Cochin Government in connection with a realignment of the line at Idapalli. The final location survey was completed in August 1937, all lands were acquired and actual construction work on the link from Idapalli to the Cochin Harbour Railway was commenced during the year.

43. Open Line Improvements.—

43.1. Coral Bridge.—The re-girdering of this bridge was continued during the year and the four spans that remained unfinished from the previous year, were completed except for the cylinder bracings. These will be completed in the next working season. Owing to certain unforeseen difficulties, however, the cost of the work has increased from Rs. 12.70 lakhs reported last year, to Rs. 14.75 lakhs.

43.2. Hardwar Station.—In last year's report it was mentioned that in addition to the works then being undertaken at Hardwar for the immediate provision of better accommodation for the pilgrims flocking to this important centre, there was a scheme in view for the permanent improvement of the

station. An estimate amounting to Rs. 2.33 lakhs was accordingly sanctioned in December 1937, and the work put in hand. Among the various conveniences to be provided for passengers may be mentioned :—

- (a) an entirely new station building with waiting room accommodation for upper and intermediate class passengers, as also retiring rooms for use at other than big *mela* times;
- (b) an additional overbridge, and wider and sheltered platforms;
- (c) improved facilities in the 3rd class passenger hall, with up-to-date vending stall under sanitary conditions;
- (d) refreshment room for Hindus;
- (e) general improvements in the approach to the station, in the passenger enclosures and in the sanitary arrangements in the enclosures as well as in the circulating area;
- (f) an additional platform for dealing with excursion and pilgrim specials, with facilities for the pilgrims, etc., to get on to a separate platform and spread out, cook their food, etc.

43.3. Permanent way renewals and major traffic facilities.—Renewals of permanent way rendered necessary either by age or by the demands of the heavier traffic worked over certain sections, were carried out on all railways to the extent of the funds and material available. The following are some of the large items of renewals :—

- (a) *Bombay, Baroda and Central India Railway.*—The work of relaying about 23½ miles of the Rewari-Delhi metre gauge section with second hand 75-lb. rails and 17 miles of the Bandikui-Achnera section with 60-lb. rails on steel sleepers was completed. A further length of 33 miles of the latter section though programmed for, could not be taken in hand owing to delay in the supply of the necessary steel sleepers.
- (b) *Eastern Bengal Railway.*—An aggregate of about 110 miles of relaying both on the broad and the metre gauge sections was completed at a cost of about Rs. 16 lakhs, while work on a further 30 miles was in progress at the end of the year.
- (c) *East Indian Railway.*—The relaying of 47 miles on the Grand Chord and main line sections with 115-lb. rails was completed, while the renewal of a further 63 miles with the same weight rails was in progress.
- (d) *Madras and Southern Mahratta Railway.*—On this railway 67.2 miles of the north-east line, broad gauge, were relaid with 90-lb. material at a cost of Rs. 24.26 lakhs, while a further 31 miles of the metre gauge length between Guntakal and the Mysore Frontier were relaid with second hand 75-lb. rails at a cost of Rs. 5½ lakhs.

44. Important works sanctioned.—The following are some of the works which were sanctioned by the Railway Board during the year :—

44.1. Re-sleepering 9½ miles of the wooden sleeper road between Abada and Madpur, Bengal Nagpur Railway, with second hand cast iron plate sleepers, and the replacement of some 92,000 cast iron sleepers by new wooden sleepers on the Parbatipur-Siliguri section of the Eastern Bengal Railway. In the latter case the cast iron sleepers had been put in experimentally a few years ago, but owing to a fault in design they did not come up to expectations, but were in fact a source of danger in the track. Their removal was, therefore, a matter of urgency.

On the Bengal and North-Western Railway sanction was accorded during the year to estimates aggregating Rs. 7.68 lakhs for relaying the 50-lb. rails on the main lines with 60-lb. steel rails, in accordance with the accepted policy to lay the main line with the heavier section of rails. The released 50-lb. rails will be utilised in replacing 41½-lb. sections in loops and sidings and in relaying certain branches.

44.2. Replacing signals and providing isolation on the Khargpur-Khurda section—Bengal Nagpur Railway.—The signalling on this busy section was provided

some 30 years ago and though renovated from time to time, had reached a condition which was fast becoming unsafe. In order to minimise delays through the stations and maintain the requisite standard of safety in working, it was therefore necessary to re-interlock the 26 stations affected and also to provide for the isolation of the running lines in those stations. An estimate amounting to Rs. 7.14 lakhs was accordingly sanctioned for this work early in the year.

44.3. Locomotive Shed at Sahebgunj, East Indian Railway.—The intensive use of locomotives, followed as a policy, has enabled the concentration of repairs at one important running shed, minor sheds being either closed or reduced in importance. On the East Indian Railway, it was, therefore, decided to remodel the locomotive running shed at Sahebgunj, eliminate the one at Rampur Haut and reduce the importance of the shed at Azimganj. The sanctioned cost of the work is Rs. 1.75 lakhs but it is estimated that it will enable four passenger and two goods engines to be saved and, therefore, scrapped without replacement, a total recurring saving of Rs. 22,578 per annum.

44.4. Water supply at Kanchrapara.—The provision of an adequate water supply to the large railway area at Kanchrapara was long overdue. The original supply was partly from the river Hooghly and partly from tube wells. Of the five tube wells sunk at Kanchrapara, three had failed completely, the fourth yielded only a very reduced supply and showed signs of total failure in the near future, so that only the fifth was mainly relied on. The quality of the water had also suffered owing to the sub-strata becoming clogged. In order, therefore, to obtain a reliable supply and to avoid the recurring expenditure entailed in sinking further tube wells, a scheme to obtain the whole supply from the river Hooghly was designed to be carried out in phases. The work was put in hand in January 1938 and is estimated to cost Rs. 2.61 lakhs.

44.5. New Locomotive Shed at Bitragunta—Madras and Southern Mahratta Railway.—The engine shed at Bitragunta being very old and out of date, for many years past proposals to modernise it had been under consideration. For various reasons, however, a decision had been postponed, the chief amongst them being the uncertainty as to whether the pooling of locomotives was likely to be adopted or not. In 1935, however, it was felt that it was impossible to defer the modernising of this shed any longer if it was to remain in use. The relative merits of two alternative schemes, *viz.*:—

- (a) to abandon the running sheds at Bitragunta and Rajamundry and concentrate all locomotives on the north-east line at Bezwada,
- (b) to modernise the existing sheds at Bitragunta and Rajamundry, were accordingly examined and the conclusion reached was that the latter scheme was less expensive and had several advantages over the former. Among the disadvantages of Scheme (a) were :—
 - (i) the liability of the East Coast line to be breached both north and south of Bezwada entails serious risks to the maintenance of railway services on the north-east line if all locomotives are concentrated at Bezwada,
 - (ii) locomotives for shunting with a shed and some establishment would continue to be necessary at both Bitragunta and Rajamundry, and
 - (iii) in the event of engine breakdowns delays in the supply of a relief engine might be seriously increased.

It was, therefore, decided to adopt scheme (b) and to modernize the shed at Bitragunta in the first instance at an estimated cost of Rs. 9 lakhs. The work is in progress. The new shed has been arranged on the Round House principle. This means that every engine is ready and available on a pit for repairs under cover as soon as it comes in. It can be dealt with expeditiously. Drop pits will be provided capable of dealing with three locomotives at a time. This is an item of great value in dealing with hot axles and axle boxes generally. A properly equipped and up to date workshop will also be

provided fitted with an electric lifting apparatus for engines and with an overhead crane. The advantages of this are that engines can be quickly attended to and lifted completely when required, another item of considerable value.

44.6. Raising, doubling and bridging the main line between Sonepur and Chupra—Bengal and North-Western Railway.—For some time past the conditions on this single line had been unsatisfactory for the traffic offering and the limit had been reached in the introduction of expedients to postpone the necessity for doubling the line. With as many as 23 trains daily in each direction during busy seasons, the congestion had become acute and had extended to the marshalling yards with consequent delay to traffic and loss in wagon hours. At the same time there was the necessity of protecting the section against breaches during floods, as it runs parallel to the river Ganges and during high floods, a great volume of water is held up by its embankments. Apart from the fact that this tempts the neighbouring villagers to cut the banks in spite of police patrols, the breaches caused by the floods have in the past completely severed communications with resultant heavy losses in earnings to the Railway. To meet these conditions, a scheme was prepared providing for the doubling of the line between Sonepore and Chupra, the construction of additional bridging totalling 1,460 feet of waterway, the raising of formation level to afford headway for the bridging and the remodelling of certain yards to conform to double line working with necessary alterations and additions to signalling and interlocking. The total cost amounted to Rs. 22½ lakhs, but as it was considered to be justified for the safe and efficient working of the railway it was sanctioned and the work taken in hand.

44.7. Katareah Groyne No. 1—Bengal and North-Western Railway.—The river Kosi has for some years been progressing steadily westwards and instead of passing directly through the bridge between Katareah and Kursela, has for a length of 2½ miles upstream of the bridge, been running almost parallel to the railway line. The point where this change of direction takes place is only 4,000 feet from the railway and as an attack from the river may develop at this point, it was decided to provide a substantial protective groyne there 1,500 ft. in length in order to prevent the breaching of the line and the possible outflanking of the bridge which consists of 15 spans of 200 ft. girders. The work was put in hand urgently at a cost of Rs. 4.67 lakhs.

44.8. Additional waterways on the Grand Chord—East Indian Railway.—Following heavy rains in September 1936 which necessitated the closing of this important line for nearly 12 days, it was realised that additional waterways were necessary to safeguard it against being breached, and also the raising of formation level to prevent flood water running into the yard at Palmerganj. The work was taken in hand at a cost of Rs. 3.02 lakhs.

45. Bridge Strengthening Programme.—The following are some of the more interesting works under this head which have been sanctioned or put in hand during the year under review:—

45.1. Assam Bengal Railway.—The use of YD engines on the Assam Bengal Railway was found to cause excessive oscillation on bridges at high speeds, and a restriction of 30 miles per hour had, therefore, been imposed on these engines in the interests of safety. As this did not permit of full use being made of them, it was decided, after investigations, to provide additional stiffeners and sway bracings on all spans of 20 ft., 40 ft. and 60 ft. on the main line, at a cost of Rs. 1.66 lakhs, to allow of these engines being run at 40 miles per hour.

45.2. Bengal Nagpur Railway.—The girders of the bridges on the East Coast section of this railway had suffered from heavy corrosion due to their proximity to the sea, while a large number of rivets were found to be loose and in a deteriorated condition, due partly also to an increase in axle loads on the section. As the condition was one which demanded action in the interests of the public safety, an estimate for Rs. 5.90 lakhs was sanctioned, and the work put in hand. The estimate provides for re-riveting and

strengthening the floor system of 77-100 feet and 59-150 feet girder spans, the work to be completed in three years.

45.3. Bombay, Baroda and Central India Railway—Chambal, Chambala and Cambhir bridges on the Mhow Division.—The girders of these bridges were found to be excessively corroded and would normally have needed complete renewal. On investigation, however, it was found possible to strengthen the girders by electric welding so as to extend their useful life by about 20 years or more, and thus postpone the heavy expenditure entailed in their complete renewal. The cost of the reconditioning of these bridges is Rs. 1.15 lakhs and compares very favourably with Rs. 15.54 lakhs which would have been needed for their replacement by new girders. The work is in hand and will be completed during the coming year.

45.4. Jumna Bridge at Agra.—In this case too a detailed examination had disclosed considerable corrosion of the cross girders and floor system and repairs were, therefore, put in hand at once in the interests of safety. Steps were also taken to replace all defective steel in the girders and to strengthen the floor system so as to eliminate the 5 miles per hour restrictions which had been imposed over the bridge. The strengthening work will cost Rs. 2.60 lakhs as against Rs. 13 lakhs required for the complete renewal of the girders. In other words, the cost of the strengthening is paid for less the saving in the annual interest charges from the postponement of complete renewals by about 6 years, whereas it is anticipated that the strengthened girders will have a useful life of not less than 20 years.

45.5. Palar Bridge, on the South Indian Railway.—Sanction was accorded to an estimate for Rs. 7.02 lakhs for renewing the 13 spans of 150 ft. girders of the Palar Bridge on the Katpadi branch. The designs for the new girders provide for the use of high tensile steel.

46. Hardinge Bridge—Eastern Bengal Railway.—The work put in hand last year on extending the Upstream, Raita and Damukdia protection banks and on reinforcing the Raita Guide Bank was completed during the months of May and June of the year under review. In June the arrangements for patrolling during the flood season were completed, but during that month the rise of the river was less than normal. During the month of August it was reported that the river was gulletting opposite the upstream end of the Raita protection bank where a record depth of 220 ft. was found; the assumed maximum depth at the time of the construction being 100 ft. It also appeared that the Damukdia channel was slowly re-opening.

The peak flood level in the 1937 flood season was nearly 2 ft. lower than for the two previous years. During the year work was started on the extension of the Left Guide Bund in accordance with the recommendations of the Hardinge Bridge Committee. By January 1938, 25 per cent. of the earthwork involved in extending the Left Guide Bund had been completed. There were indications that the river was swinging over towards the left bank and silting between the Right Guide Bank and the Damukdia Bank. There was an attack on the Raita Guide Bank, and proposals for repairing this were put in hand.

47. Closing of unremunerative branch lines.—The possibility of closing down unremunerative branch lines had been engaging the Railway Board's attention for some time but on receipt of the Report of the Indian Railway Enquiry Committee in June 1937, the matter was considered afresh in the light of the observations made therein, and instructions were issued to Railways to re-examine the question of closing branches and/or sections of their systems, the earnings of which were less than the working expenses. General Managers were, however, advised that the decision to close or continue the operation of a branch, which is a losing concern, would rest with the Railway Board and they were asked, therefore, to submit their recommendations for the Board's consideration.

The financial position of several branches was under examination at the close of the year, but no final decision regarding closure had been arrived at.

It may be added that Railways have also since been asked to consult Local Advisory Committees before submitting their proposals.

CHAPTER IV. TRANSPORTATION.

A.—Operating.

48. **Volume of traffic handled.**—The best index to the volume of business handled by railways is “passenger miles” for passenger traffic and “net ton miles” for goods traffic. These terms mean the total number respectively of passengers and tons carried, multiplied by the number of miles over which they are moved. The following table shows that there has been a considerable increase in the volume of traffic carried by Class I Railways as compared with the previous two years. The figures given of net ton miles do not include the tonnage hauled by purely departmental trains, but this was only about 2 per cent. of the total.

(Figures in thousands.)

Particulars.	CLASS I RAILWAYS.			
	1935-36.	1936-37.	1937-38.	Percentage of increase (+) or decrease (—) compared with 1936-37.
Passenger miles	16,871,303	16,060,704	17,988,580	+5.80
Net ton miles	19,160,935	20,088,875	22,004,044	+9.53

NOTE.—In the table above and in subsequent tables the Burma Railways have been excluded from the figures for 1935-36 and 1936-37, so that the results for the three years may be comparable.

49. **Train miles.**—The following table shows the number of train miles run to carry the traffic. Passenger train miles show an increase of 4.26, 8.70 and 2.51 per cent. on the broad, metre and narrow gauges respectively. The goods train miles show an increase of 8.05 per cent. on the broad gauge, 3.01 per cent. on the metre gauge and 5.79 per cent. on the narrow gauge. Full details of the train and engine miles for each Class I Railway are given in Statements 17 and 32 of Volume II and those for each Classes II and III Railways in Statement 37:—

(Figures in thousands.)

Particulars.	CLASS I RAILWAYS.											
	BROAD GAUGE.				METRE GAUGE.				NARROW GAUGE.			
	1935-36.	1936-37.	1937-38.	Percentage of variations with 1936-37.	1935-36.	1936-37.	1937-38.	Percentage of variations with 1936-37.	1935-36.	1936-37.	1937-38.	Percentage of variations with 1936-37.
Passengers (including proportion of mixed) train miles.*	68,878	66,919	71,858	+4.26	28,588	30,327	32,064	+8.70	2,267	2,480	2,491	+2.51
Goods (including proportion of mixed) train miles.†	41,492	42,757	47,280	+8.05	16,530	17,400	17,924	+3.01	1,627	1,676	1,773	+5.79

* Includes mileage of electric locomotives and electric multiple units.
† Includes mileage of electric locomotive trains.

49.1. Considerable other engine mileage was necessary, but of an unproductive nature, *viz.*, shunting, light and assisting engine mileage. This mileage was equivalent to about 19 per cent. of the total engine miles (including departmental). The departmental train and engine mileage—which is also not directly productive—amounted to 9.1 million miles or about 4 per cent. of the total. As shunting miles form the greater proportion of unproductive mileage, the following table has been prepared to show the ratio per 100 train miles on the passenger and goods services of Class I Railways:—

Particulars.	BROAD GAUGE.				METRE GAUGE.			
	1935-36.	1936-37.	1937-38.	Percentage of variations with 1936-37.	1935-36.	1936-37.	1937-38.	Percentage of variations with 1936-37.
Shunting miles per 100 train miles (Passenger and proportion of mixed).	4.94	5.15	5.06	-1.75	4.47	4.43	4.36	-1.58
Shunting miles per 100 train miles (Goods and proportion of mixed).	35.1	34.2	33.3	-2.63	33.3	33.4	33.9	+1.50

49.2. Engine performance.—The work done by engines is indicated by the figure "engine miles per engine per day". This may be calculated either on the number of engines on the line or on the number of engines actually in use—on both counts there was improvement; on the former basis the daily mileage increased from 71 to 77 on the broad gauge and from 71 to 75 on the metre gauge, and on the latter basis the increase was from 111 to 114 on the broad gauge and from 103 to 106 on the metre gauge. On the broad gauge, there was a slight increase in the percentage of engines under or awaiting repairs in mechanical and transportation workshops, whereas on the metre gauge the percentage decreased from 13.3 to 12.6.

50. Passenger trains.—General.—Information in regard to the steps taken by railways generally to improve their passenger train services has been given in some detail in paragraph 103 of Chapter VIII—(Amenities). It will be seen therefrom that the number of through trains was increased, speeds were raised wherever possible and more fast light trains or small power units (see also paragraph 50.3 below) were introduced on branches or short sections to suit local conditions.

50.1. Speeds.—Some of the more outstanding examples of improvement are given below:—

Assam Bengal Railway.—The overall time taken by the Assam Mails between Pandu and Tinsukia was reduced by approximately seven hours in each direction.

The average booked speed of all passenger and mixed trains increased from 14.5 miles per hour to 15.9 miles per hour.

Bombay, Baroda and Central India Railway.—In April, a week-end special fast service between Bombay and Surat was introduced called the "Flying Ranee". It was found to be so popular that from May it was run daily. From October the week-end train was run in two portions—one operating between Bombay and Surat and the other between Bombay and Bulsar. This provided a faster service between Bombay, Bilimora, Navsari and Surat.

Eastern Bengal Railway.—The Up and Down Darjeeling Mails were accelerated by 20 and 15 minutes respectively, the Assam Mails by 20 minutes each way, the North Bengal Expresses by 30 minutes each way and the Barisal Expresses by 44 and 15 minutes in the Up and Down directions respectively.

Madras and Southern Mahratta Railway.—The following comparative statement of the time taken between certain selected stations in 1929 and 1938 is indicative of the results achieved in the endeavour to accelerate train services :—

	April 1929.		April 1938.		Reduction in overall time in 1938.	
	Hours.	Minutes.	Hours.	Minutes.	Hours.	Minutes.
Hubli-Poona	18	10	12	40	5	30
Poona-Belgaum	13	4	8	55	4	9
Poona-Mormugao	22	45	16	35	6	10
Bezwada-Guntakal	19	5	13	25	5	40

North Western Railway.—The speed of certain passenger trains on the following sections was raised as shown below :—

Section.	Speed per hour raised.	
	From Miles.	To Miles.
Ferozepur Cantonment-MacLeod Ganj Road	26	35
Ludhiana-Lohian Khas	25	30
Jakhal-Ludhiana	26	35
Lodhran-Mailsi and Pakpattan	25	35
Kasur-Amritsar	22	30
Bhatinda-Bahawalnagar and Samasata	30	35
Kotri-Dadu and Ruk	28	35
Daud Khel-Mari Indus	18	30

50.2. Punctuality.—The following table shows the percentage of passenger trains not losing time to the total number of trains run on Class I Railways during 1937-38 as compared with 1936-37 :—

	All trains (including electric multiple unit trains).	Mail and important through trains.	Mixed trains.	Suburban trains.	Other passenger trains.
<i>Broad gauge.</i>					
1936-37	84.7	81.4	81.8	83.5	81.6
1937-38	83.5	77.2	82.2	84.9* 82.1 84.7*	79.4
<i>Metra gauge.</i>					
1936-37†	87.7	85.0	87.8	87.8	80.8
1937-38	85.5	81.4	88.7	92.2† 87.0 80.0†	82.2

* Bombay, Baroda and Central India and Great Indian Peninsula Railway's electric multiple unit trains.

† South Indian Railway's electric multiple unit trains.

‡ Excludes Burma Railways.

There was unfortunately a falling-off in punctuality under " Mail and important through trains " and under " Other passenger trains ". To a considerable extent, this must be ascribed to the deterioration in running on the East Indian Railway consequent on the withdrawal of the heavy XB passenger engines from operation on track of 88½ lbs. or less, and their replacement by engines which have not the requisite power for the heavy trains necessitated by traffic requirements. The late running of important trains on the East Indian Railway naturally affected not only branch line trains which had to be delayed to effect connection, but also trains on contiguous railways. Other factors which seriously affected the average figures were :—

Broad gauge.

- (i) the Kumbh mela at Hardwar (East Indian Railway) for which a record number of special trains had to be run (400 inward and 407 outward; in one day the number of outward specials was 43);

- (ii) the movement of traffic in connection with the holding of the Indian National Congress at a station on the Bombay, Baroda and Central India Railway. A large number of additional trains had to be run with consequent dislocation of normal traffic movements;

Metre gauge.

- (iii) the Kumbh *mela* at Brindaban (Bombay, Baroda and Central India Railway) where heavy traffic had to be dealt with;
- (iv) breaches and slips, notably in South India, necessitating diversion of trains and special engineering restrictions;
- (v) a considerable increase in holiday and festival traffic on certain railways.

50.3. Employment of small power units.—The advent of the road motor bus has diverted considerable short distance traffic from the railways and road motor services are constantly being extended diverting further traffic. In some cases, the advantage of road services is overwhelming, but there are many cases where conditions warrant railways competing for this traffic. To do so, however, they must be equipped with a unit which as nearly as possible enables them to provide equally fast and frequent services as their competitors. Existing equipment on Indian Railways consisting of engines and coaching stock cannot profitably be run on short fast services with a small paying load. To meet the special requirements of local traffic certain experiments have been initiated with the use of rail cars.

On State-owned Railways six broad gauge rail cars have been provided and are in service on the Madras and Southern Mahratta Railway and one narrow gauge rail car is in service on the Great Indian Peninsula Railway. Four broad gauge Diesel rail cars and four metre gauge were sanctioned for the South Indian Railway.

The Madras and Southern Mahratta rail cars were put in service in 1935 and are used:—

- (a) on a branch line where they wholly replace the steam service; and
- (b) on the main line where they augment the steam train services.

These rail cars provide fast and convenient services for local traffic and the experiment has met with a certain measure of success in fostering traffic and at the same time has reduced the operating costs of the previous steam train services.

The narrow gauge rail car provided for the Great Indian Peninsula Railway was introduced on the Pulgaon-Arvi Section in 1934, and the improved service together with a reduction in third class fares has regained the passenger traffic of this section. The Diesel unit has also proved its superiority over the steam service previously provided to meet local conditions.

The Madras and Southern Mahratta and Great Indian Peninsula Railways are also experimenting with a smaller and cheaper type of rail car, the power unit being the ordinary Ford V8 motor lorry engine. These cars fall under a different category to the Diesel electric units referred to above, in that the fuel employed is petrol and the life of the engines will be appreciably less than of Diesel engines. The cost of the unit, however, is very much less than the Diesel electric.

To obtain as wide an experience as practicable of the traffic value of small units in combating road competition, experiments are also being carried out with the use of small steam locomotives and light trains.

Steam shuttle services have been introduced on certain sections of the Great Indian Peninsula Railway with a view to examining their earning capacity as compared with that of the rail cars already in service.

The train service on the Dohazari branch of the Assam Bengal Railway was augmented by the introduction of fast light trains each of which consisted of a brake-van third hauled by a small type engine. These trains

were well patronized, and it became necessary to attach an additional third class carriage to each train.

Light fast passenger units operated by small steam locomotives are being used on branch lines of the Bengal and North-Western Railway.

Light train services were introduced on the Kolaghat-Midnapore and Gidni-Khargpur sections of the Bengal Nagpur Railway.

A sentinel coach has also been put on the run between Saoner and Nagpur.

Three metre gauge sentinel coaches continued in use on the Kishengarh-Ajmer-Nasirabad and Indore-Mhow sections of the Bombay, Baroda and Central India Railway. Present indications are, however, that they are heavy in maintenance and repair costs.

On the Mirpur Khas-Chhor and Mirpur Khas-Jhudo sections of the Jodhpur Railway "Omnibus" trains are being introduced. These will carry conductors to issue tickets on the trains and will stop at villages between stations.

Light type of engines with two or three bogie carriages are generally being used on sections of the South Indian Railway where competitive road traffic exists.

51. Goods trains.—Appreciating the necessity for reducing as far as possible the time occupied by goods consignments, whether in full wagon loads or in small consignments, from the time they are tendered for despatch to the time they are delivered, railways not only took steps to improve arrangements for reception, despatch and delivery but also carried out an examination of the goods train services so as to improve running speeds and to eliminate or reduce detentions *en route*.

51.1. Speeds.—The average speed of all goods trains from start to finish of their runs, inclusive of stops *en route*, remained practically the same as last year: the figures being 11·2 miles per hour and 11·1 miles per hour on the broad and metre gauges respectively. Details are given for each railway in Statement No. 20 of Volume II.

Though the *average* speed of all trains remained the same, there was in fact considerable improvement in the speed of certain long-distance services and there was also an increase in the number of such services operated: illustrations of this are given under the heading "Acceleration of services" (paragraph 51.3).

51.2. Loads.—The average net or freight load of broad gauge (steam) goods trains on Class I Railways increased from 389 tons in 1936-37 to 399 tons in 1937-38; on the other hand, the figure for metre gauge lines decreased slightly from 170 tons to 169. Statement No. 23 of Volume II gives the figures for each railway.

The main index figure of goods train working, *i.e.*, "Net ton miles per engine hour" showed an improvement on the broad gauge; being 2,001 as compared with 1,955 in 1936-37: on the metre gauge, on the other hand, it decreased from 869 in 1936-37 to 859.

In a few instances railways reduced train loads so as to increase speeds, but on the whole they found that this step would give little gain in comparison with the disadvantages which would result from the necessity of running more trains.

51.3. Acceleration of services.—The following details referring to certain railways are illustrative of the action taken to speed up long distance goods services. The instances given are by no means exhaustive as other railways have introduced express goods trains and are considering the possibility of extending them.

Assam Bengal Railway.—The average transit time taken by wagons from date of booking at Chittagong Port at one end of the railway to Tinsukia at the other end was four days, representing a daily average of

144 miles. This included transit over the hill section where speeds of trains are slow.

The speed of through goods trains handling petrol and oil tank wagons between Tinsukia and Pandu was accelerated and trains were scheduled to complete the journey of 324½ miles in 18½ hours.

Bengal Nagpur Railway.—The total acceleration of transit time of goods services on the broad gauge amounted to 250 hours. A detailed check was maintained on the performance of individual trains. Faster time tables were introduced for trains carrying important traffic.

Eastern Bengal Railway.—Express goods trains at a speed of 30 miles per hour were introduced during the busy jute season on the Goalundo-Ghewar Bazar-Chitpur and Serajganj Ghat-Chitpur sections.

East Indian Railway.—The transit of traffic between Asansol, Raniganj and Howrah was studied and by making special reception arrangements at goods sheds and by the introduction of a duplicate express train, delivery at Howrah was effected the morning after booking, thereby reducing the overall time by 24 hours.

The Howrah-Delhi Express goods services were continued.

Great Indian Peninsula Railway.—2,544 through goods trains were run as compared with 1,766 in the previous year.

The Bombay-Poona goods trains averaged 19 miles per hour and cotton trains averaged 13 miles per hour for a 514 mile journey. Similarly the Itarsi-Bombay daily train averaged 13 miles per hour for a 463 mile run.

South Indian Railway.—An express goods service was introduced between Madras (Egmore) and Tuticorin (metre gauge) covering the whole distance in 33 hours and 36 hours respectively in each direction. This increase in speed was achieved by reducing the load by approximately 30 per cent.

52. Marshalling Yards and their working.—In the main, little change was made in the equipment of marshalling yards. Railways, however, paid special attention to the working of such yards with a view to reduce detentions to through wagons and to ensure that trains were made up to give the longest unbroken run. Wagon registers received special study and card indexing of certain types of important traffic was introduced. An officer on special duty with the Railway Board carried out an examination of the conditions on a section of one of the Class I Railways, and his report, which dealt largely with the arrangements in marshalling yards, was circulated to other railway administrations with the object of assisting them in making similar detailed investigation through selected operating officers.

The following account of an experiment carried out at Tondiarpet marshalling yard on the Madras and Southern Mahratta Railway is of interest. It was found that the "skids" placed on the rails to control wagons passing over the "hump" (as auxiliaries to hand brakes) caused considerable "stress" to the wagons and a system of run-ways was devised which automatically turned the skids off the rails before the wagon came to a stop. In order to work this system successfully, it was found necessary to mark out certain definite spots at which the skidman should put the skids on the rails and to give him information as to the nature of the loads with which he had to deal and the road on which they were to go. A megaphone was used to supply this information from the top of the hump, but was found to be inadequate. The only satisfactory method of conveying the information was found to be by means of electric loud speakers, which are to be tried experimentally. It is estimated that only a slight reduction in the amount of damages to wagons passing over the hump will be needed in order to pay for the cost of the loud speakers and the run-ways.

53. Quicker transit of "Smalls".—Consignments tendered for despatch by rail in less than wagon loads are referred to as "Smalls". They have to be loaded with other similar consignments, often for various destinations, and in consequence special care is necessary to ensure that

they are subject to no avoidable detention at transshipment points, and that they are given the longest through run possible. The following are brief particulars of steps taken by some of the railways with this object in view :—

Assam Bengal Railway.—The Road Van rules were modified as an experimental measure, the minimum load of wagons being reduced in certain circumstances to ensure quicker transit and fewer transshipments *en route*.

Bengal and North-Western Railway.—The system of section road vans for despatch of small consignments to the next packing station makes ample provision for prompt despatch and speedy transport; any unreasonable delay is specially looked into and taken up.

Bombay, Baroda and Central India Railway.—As a result of special investigations, it was decided to reorganise thoroughly the system for the despatch of “smalls” consignments. Briefly the main feature of the new system is the elimination of all transshipment from wagon to wagon of the same gauge; the sorting and re-packing which was previously done on transshipment platforms being carried out on the run of van goods trains by travelling clerks and hamals.

The results have shown a considerable improvement in the time taken in transit. For example, on the broad gauge, Bombay consignments are being given next day delivery up to Surat, second day delivery from Surat to Anand and third day delivery from Anand to Ahmedabad. On the metre gauge, consignments are reaching Beawar from Ahmedabad in two days instead of six, and Bhiwani from Ahmedabad in four days instead of seven, and consignments from Kalol are reaching Cawnpore in six days instead of eleven. With further experience of the new system other improvements are expected, and considerable economy in wagon usage is being obtained. Merchants everywhere have expressed their appreciation of this speeding up in transit time.

Eastern Bengal Railway.—The policy of arranging quick transit programmes for the transport of seasonal, perishable and urgent traffic initiated in previous years was continued. Several new programmes were brought out for traffic in potatoes, chillies, garlic, onions, grains, pulses, seeds, jagree, tobacco, jute, limestone, piecegoods, etc., moving from producing to consuming centres.

East Indian Railway.—A senior scale transportation officer was placed on special duty with the Organisation Branch to investigate this subject and to re-organise the van goods services. The scheme proposed contemplates a standard of 240 miles a day for “smalls” consignments, but will necessitate the running of separate “work” and “van goods” trains with a consequent increase in train mileage. The time taken in transit of “smalls” between stations on this railway has been appreciably reduced and may be expected to improve still further as the staff become more conversant with the revised system.

Advantage has been taken of this re-organisation to review the transit of “smalls” in exchange with foreign railways and revised programmes for the despatch of through sealed vans have been prepared.

Great Indian Peninsula Railway.—“Smalls” between Wadi Bandar and Raichur have been considerably speeded up and arrangements made for the exchange of through road vans with the Madras and Southern Mahratta Railway at Raichur junction which is the point of interchange: as a result the tranship shed at that station was closed. Investigation was being made with a view to further speeding up “smalls” conveyed in section road vans by tranship trains on the north-east section by which it was estimated that a saving of approximately two days for “smalls” conveyed between Wadi Bundar and Delhi could be effected.

The utilisation of tranship train clerks for the tranship trains running on the main line of the north-east and south-east sections was also under consideration as by this arrangement a considerable saving and more efficient working were anticipated.

Madras and Southern Mahratta Railway.—In August 1937, a “Central Transit Section” was attached to the Chief Operating Superintendent’s

office, the functions of which were to prevent delays to goods in transit, the investigation of the causes of delay where such existed and to suggest ways and means for eliminating them. One of the steps taken by this newly formed section was to issue propaganda to the staff so as to enlist their support in obtaining expeditious movement. In order to arouse the interest of tranship shed and yard staff, two prizes of Rs. 75 each were offered for the best essay written on the subject of avoidance of delay to goods at tranship stations and in marshalling yards. The section devoted itself to the question of delays subsequent to booking, in marshalling yards, at tranship and re-packing stations *en route*, due to bad connections at junctions, the slow overall running time of goods trains, etc., but particular attention was paid to the question of delays at tranship and re-packing stations. As a result of investigations undertaken, with the concurrence of the Great Indian Peninsula Railway, it was found possible to close the tranship shed at Raichur; the goods passing between the two railways being conveyed in through wagons or through tranship vans, thus avoiding the previous detention of from 24 to 36 hours for re-packing. This involved an examination and re-organisation of daily road van services on the north-west line, besides necessitating certain alterations in loading at Jalarpet, Arkonam and Guntakal tranship sheds and at Madras local stations.

Samalkot was also closed as a re-packing station for goods from and to the Cocanada branch and it was hoped shortly to eliminate Gadag, Dharmavaram and Rayapuram as re-packing stations. During the year, 182 pairs of representative stations on both broad and metre gauges were selected and to these were allotted schedule transit times. Each month these stations submitted to the Transit Section statements showing the actual average time taken between the selected points; the results were card-indexed and scrutinised and where the actual transit time was found to be in excess of the schedule, investigations were made by the special staff to ascertain the reasons and to effect improvements.

North Western Railway.—On main line sections fast van goods trains were introduced. In this connection, notices are now displayed conspicuously in goods sheds at important stations stating when consignments will *ordinarily* be available for delivery at their destination. The introduction of sectional vans for handling "smalls" has eliminated delays in transhipment sheds. The re-packing work which was previously being done at these transhipment stations is now being carried out *en route* by staff travelling with the van trains.

Rohilkund and Kumaon Railway.—Road vans are run on regular fast trains to expedite transit, and special watch is exercised at transhipment stations to avoid delays.

54. Vehicle usage.—The extent to which the available wagon stock is utilised may be expressed either in the average number of miles run per wagon per day, both loaded and empty wagons being taken into account, or in the average number of net ton miles carried by a wagon per day. Both these statistical figures, however, indicate the work done by the total number of wagons on railways including those standing empty and stabled during the period when they are in excess of traffic requirements, and not only by the wagons actually in use. The following table shows these results as compared with the previous year:—

Particulars.	CLASS I RAILWAYS.			
	Broad gauge.		Metre gauge.	
	1936-37.	1937-38.	1936-37.	1937-38.
Wagon miles per wagon day	37.0	41.1	28.8	28.9
Net ton miles per wagon day	324	367	145	149

54.1. Stock out of commission.—Goods wagons.—The average number of unserviceable broad gauge wagons in mechanical and transportation workshops and sick lines daily was 5.81 per cent. of the total goods stock on line as compared with 9.53 per cent. in 1936-37—a considerable improvement; the corresponding figure for the metre gauge was 2.81 per cent. as against 3.34 per cent. in 1936-37. This means that an average of 3.72 and 0.52 per cent. more wagons were available for use daily on the broad and metre gauges respectively, which is approximately equivalent to 5,247 broad gauge and 294 metre gauge wagons.

As stated, however, these are average figures and do not really give a proper picture of conditions during the time that it was most essential to have as many wagons as possible available for loading, *i.e.*, the busy season from December to March. The position can perhaps best be illustrated by figures for the East Indian Railway, which carries far heavier traffic than any other line.—during 1937-38 that railway supplied 1,330,664 wagons as compared with 965,160 on the Bengal Nagpur Railway (broad gauge) which was the next highest.

The following table shows for the East Indian Railway during the four busiest months the average number of wagons temporarily out of service as compared with the total stock on line:—

Month.	Average temporarily out of service daily.	Total traffic stock.	Per centage.
December 1937	1,962	49,455	3.9
January 1938	1,652	50,011	3.3
February 1938	1,468	51,560	2.8
March 1938	1,686	50,207	3.3

54.2. Passenger vehicles.—The average number of passenger vehicles under or awaiting repairs also showed a decrease from 11.55 per cent. in 1936-37 to 11.17 on the broad gauge and from 7.94 per cent. to 6.94 per cent. on the metre gauge.

Turning to individual railways, some of the principal features of the year's transportation working are as follows:—

Assam Bengal Railway.—The "net ton miles per engine hour" increased from 673 to 710. The "net ton miles per goods locomotive day on line" and "wagon miles per wagon day" advanced from 5,335 and 26.2 in 1936-37 to 6,010 and 28.0 in 1937-38 respectively. The speed of all goods trains increased from 11.8 to 12.3.

Bengal Nagpur Railway.—The "net ton miles per goods locomotive day on line" and "wagon miles per wagon day" advanced from 14,868 and 36.6 in 1936-37 to 17,638 and 41.3 in 1937-38. The "net ton miles per engine hour" increased from 1,800 to 1,960.

Bombay, Baroda and Central India Railway—(Broad gauge).—The "net ton miles per wagon day" and "wagon miles per wagon day" advanced from 318 and 31.5 in 1936-37 to 340 and 38.5 in 1937-38.

Eastern Bengal Railway—(Broad gauge).—The "shunting miles per 100 passenger train miles" fell from 7.31 in 1936-37 to 6.83 in 1937-38.

East Indian Railway.—The "net ton miles per goods locomotive day on line" and "wagon miles per wagon day" advanced from 16,270 and 36.0 in 1936-37 to 18,137 and 40.1 in 1937-38, respectively.

The total tonnage of goods and coal carried amounted to 26,370,000 as against 24,151,000 in 1936-37. This was in fact a record being nearly two million tons more than the total carried in the previous best year 1929-30. Furthermore, the goods train miles during the year were 13,611,000 as against 13,640,000 in 1929-30. Bearing in mind that nearly 1½ million more passenger train miles were operated in 1937-38 than in 1929-30, and that there were 100 less locomotives and less staff, the value of this performance can be appreciated.

Great Indian Peninsula Railway—(Broad gauge).—The “ net ton miles per engine hour ” increased from 2,191 in 1936-37 to 2,302 in 1937-38. The “ net ton miles per goods locomotive day on line ” and “ wagon miles per wagon day ” advanced from 14,834 and 47·4 to 16,575 and 51·9, respectively. The “ net ton miles per wagon day ” increased from 390 to 446.

Madras and Southern Mahratta Railway—(Broad gauge).—The “ shunting miles per 100 goods train miles ” fell from 31·2 in 1936-37 to 29·7 in 1937-38. The “ net ton miles per wagon day ” and “ wagon miles per wagon day ” advanced from 358 and 45·0 to 421 and 53·3 respectively.

His Exalted Highness the Nizam's State Railway—(Broad gauge).—The “ net ton miles per engine hour ” increased from 1,887 in 1936-37 to 2,000 in 1937-38. The “ net ton miles per wagon day ” and “ wagon miles per wagon day ” advanced from 399 and 43·5 to 484 and 53·8, respectively.

Rohilkund and Kumaon Railway.—The “ shunting miles per 100 passenger train miles ” fell from 4·56 in 1936-37 to 3·45 in 1937-38.

North Western Railway—(Broad gauge).—The shunting miles per 100 passenger and goods train miles fell from 7·37 and 29·3 in 1936-37 to 6·95 and 28·2 in 1937-38, respectively. The “ net ton miles per wagon day ” and “ wagon miles per wagon day ” advanced from 267 and 34·9 in 1936-37 to 293 and 38·5 in 1937-38, respectively.

South Indian Railway—(Metre gauge).—The “ net ton miles per goods locomotive day on line ” and “ wagon miles per wagon day ” advanced from 5,505 and 24·5 in 1936-37 to 7,513 and 27·1 in 1937-38, respectively.

55.1. Wagon Position—(Broad gauge).—The number of public service wagons (in terms of four-wheelers) in use at the end of the year was 2,690 more than at the end of 1936-37.

On the broad gauge the total number of wagons loaded was 4,732,908, being an increase of 289,196 or 6·5 per cent. over the previous year.

At the close of December 1937, demands for wagons commenced to exceed the available supply and this continued to be the position during the following three months. It was necessary, therefore, to resort to measures similar to those adopted in the previous year, namely :—

The suspension of rules regarding periodical overhaul of wagons on all railways (except the Madras and Southern Mahratta and His Exalted Highness the Nizam's State Railways) from the 13th January to the 31st March 1938.

Hitherto, the highest average number of wagons loaded daily in any ten-day period was 14,636 for the ten days ending 20th March 1937. This was exceeded in five periods during the last three months of the year, the highest loading on record being for the 8-day period ending 28th February with a daily average of 15,522 wagons.

The difficulty in meeting demands for stock was intensified by the arrangements which had to be made in connection with the Kumbh *mela* at Hardwar, traffic to which commenced to move in March. Details of the very heavy traffic handled are mentioned elsewhere in this report.

The number of wagons temporarily out of service on all broad gauge railways from December 1937 to March 1938 varied from 6,450 to 8,000 daily, the lowest figure being 4·3 per cent. of the total wagon stock available for public traffic. In this connection, however, attention is invited to the remarks under “ Vehicle Usage ” (paragraph 54).

55.2. Reduction in train examining points.—This subject has already been referred to in Chapter I under the heading “ Steps taken to reduce working expenses ”. It will be seen therefrom that on the Assam Bengal Railway two carriage and wagon examination and repair stations were closed resulting in an annual saving of Rs. 3,000. On the East Indian Railway such work is being concentrated at certain selected stations. On the Great Indian Peninsula Railway, Kurla train examining centre was closed and there was a general regrading and consequent reduction in the carriage

and wagon examining staff on other sections. On the North Western Railway the examination of through trains was discontinued at a large number of stations. On the South Indian Railway, Olavakkot was closed for such work and wider spacing of examining stations has been proposed as a trial measure at an estimated saving of Rs. 9,888 per annum.

55.3. Neutral Examination of Interchanged Stock.—The staff working under the Director of Wagon Interchange continued to examine wagons interchanged between railways at the following junctions :—

Agra Cantonment.	Khanalampura.
Ajni-Nagpur.	New Delhi.
Chheoki.	Waltair.
Ghaziabad.	

B.—Commercial.

56. Alterations in rates and fares.

56.1. Passenger fares.—The bases of passenger fares generally remained unchanged except over the East Indian Railway where the third class fares for distances over 50 miles were enhanced with effect from 1st June 1937 as under :—

Previous.	Pies per mile.	Revised.	Pies per mile.
1 to 50 miles . . .	3½	1 to 50 miles . . .	3½
+ 51 to 300 miles . . .	2¾	+ 51 to 300 miles . . .	3
+ 301 miles and over . . .	1¾	+ 301 miles and over . . .	2

Railways, however, continued to make such alterations as they considered necessary in the interests of their revenues. Most of the alterations were in the direction of reductions in fares partly under the stress of road competition and partly with a view to securing new additional traffic to rail. The following are some of the more important changes that were made during the year :—

(i) *Bombay, Baroda and Central India Railway.*—As a special measure to combat road competition, third class traders' coupon books, for 500 miles travel, were introduced on the Cawnpore-Achnera and Bharatpur-Agra sections.

During Diwali, Christmas and Easter holidays the concession of 1½ fares was extended to intermediate and third class traffic for distances of not less than fifty miles.

(ii) *East Indian Railway.*—(a) From 1st June 1937, the charge for third class tourist cars (loaded journey) was enhanced from 8 annas per mile to 9 annas.

(b) From 1st June 1937, through Rail-cum-road return journey tickets at 1½ single journey fares, from 10 selected stations on the East Indian Railway to Srinagar, available for six months, but not later than 30th December 1937, were introduced for first, second, and intermediate class passengers and for servants of first and second classes.

(c) From the 2nd October 1937 third class holiday concession return journey fares were revised as under :—

Previous.	Revised.
For any distance over 150 miles 1¾ fares.	101 to 150 miles 1¾ fares.
	151 to 250 miles 1¾ ..
	251 to 300 miles 1½ ..
	301 miles and over 1½ ..

(iii) *Madras and Southern Mahratta Railway.*—“ Travel-as-you-like ” and “ zone ” tickets were issued during the Easter and Christmas holidays. An innovation in the issue of these tickets was a joint “ Travel-as-you-like ” ticket arranged with the South Indian Railway and a joint “ zone ”

ticket arranged with the Great Indian Peninsula Railway covering travel to Bombay and Nasik.

(iv) *South Indian Railway*.—(a) "Go-as-you-please" tickets for unlimited travel over that railway (Nilgiri Railway excepted) were issued during the Easter holidays and during the Christmas and New Year holidays at the following fares :—

	Rs. As ^t
1st class	60 0
2nd class	37 8
3rd class	12 8

Similar tickets were issued during the summer holidays in May and June, restricting the issue of third class tickets to students and teachers of recognised schools and commercial institutions and to their wives and children and also to servants of first and second class passengers.

(b) From 1st August 1937, half-yearly and yearly season tickets were introduced in addition to the usual monthly and quarterly season tickets, the basis of fares being as under :—

	Half yearly.	Yearly.
Second class	3½ monthly fares.	6 monthly fares.
Third class	4 " " "	7 " " "

56.2. Goods Traffic.—The following are some of the more important changes made :—

Coal.—(i) From 1st April 1937, the Bengal coal scale of rates, without the surcharge, was introduced for public coal, coke and patent fuel in through booking from all colliery stations on the East Indian and Bengal Nagpur Railways, to stations on the Surma Valley Section of the Assam Bengal Railway, *via* Naihati, Santahar, Fulchhari and Mymensingh and from 1st December 1937, to stations on the Chittagong and Mymensingh Railway Traffic Districts of the Assam Bengal Railway *via* Mymensingh or *via* Tangi.

(ii) From 1st November 1937, the levy of the surcharge of 12½ per cent. on public coal, coke and patent fuel when booked to Narayanganj and Postgolah stations on the Eastern Bengal Railway was discontinued.

Cotton.—A rebate of 20 per cent. of the freight charges was allowed on consignments of cotton (raw), full-pressed booked from any station on the North Western Railway situated north and east of Samasata applicable up to 31st August 1938 to :—

- (i) Cawnpore Central Goods shed and Mill sidings in Cawnpore from 1st November 1937,
- (ii) Morar Road from 1st November 1937, and
- (iii) Delhi, Delhi-Kishanganj or Subzi Mandi from 15th January 1938 subject to the following conditions :—
 - (a) that a minimum of 75,000 maunds of cotton was booked to the stations within the prescribed period,
 - (b) that no consignments were sent by any other means of transport,
 - (c) that freight was paid by the party claiming the rebate,
 - (d) that a previous agreement was made with the railway.

Cattle.—During the period 1st June to 30th September 1937, a reduced rate of As. 2-9 per 4-wheeled wagon per mile at owners' risk, subject to a minimum charge of Rs. 5 per 4-wheeled wagon, was introduced for dry buffaloes and cows when despatched from Bombay to any station on the Great Indian Peninsula Railway.

A rate of two annas per 4-wheeled wagon per mile at owners' risk was introduced for dry cattle in bookings from Karachi to stations on the North Western Railway.

Wheat.—The rebate of 25 per cent. of the freight rates on the North Western Railway for wheat exported to countries west of Aden and east of Singapore, *via* Karachi, was continued during the year.

57. Simplification of tariffs.—Reference was made by the Indian Railway Enquiry Committee (1937) in their report to the diversity of the schedule rates existing on the railways in India. The Committee observed in paragraph 127 of the report that, while it was unreasonable to expect a uniform schedule rate to be applied to each commodity on all railways, particularly in so vast a country as India, it was desirable that, with a view to simplifying the tariffs, railways should reduce the number of schedules applicable to each commodity concerned, to the minimum which could be justified on commercial grounds.

The differences referred to by the Committee have grown up over a long period of years, consequent on each railway introducing schedule rates applicable on its own line to certain traffic, taking into consideration the conditions and circumstances obtaining thereon. The result was that for one particular commodity various schedule rates were quoted on different railways. Railways have, however, been considering this question with a view to assimilating their schedule rates with those in force on neighbouring lines. The question was taken up by the Indian Railway Conference Association in 1935 and in accordance with a resolution of that Conference, railways have examined each of the schedules in force and an endeavour has been made to adopt those which are in most general use or those which are in force over neighbouring railways. Substantial progress has been made in the matter of simplifying tariffs by the assimilation of schedule rates and rating conditions obtaining on neighbouring lines. The matter will continue to receive special consideration.

58. Facilities for dealing with traffic.—The more important of the additional facilities provided by railways for dealing with traffic are summarised below :

Eastern Bengal Railway.—Improvements were made in the goods sheds and additions and alterations were made to yards and loading platforms at 19 stations at a total cost of Rs. 42,831.

East Indian Railway.—(i) Arrangements were made for the delivery of through booked consignments of potatoes direct at the various markets in Calcutta and Howrah.

(ii) Four more stations were opened for booking of various descriptions of traffic and seven additional sidings were provided to serve mills and factories. Certain sidings serving factories which were opened for goods traffic in wagon loads were opened also for goods in small lots.

(iii) Out-agencies were opened at Kailana, Choharpur, Etah and Dumka.

(iv) Collection and delivery service was introduced for goods and parcels traffic within the municipal limits of Hazaribagh town.

Great Indian Peninsula Railway.—City booking offices were opened at Chalisgaon and Jubbulpore for booking of passengers. An out-agency was opened at Basim (served by Akola station) for both inward and outward booking.

Jodhpur Railway.—Arrangements were made for the delivery of goods, live stock and other consignments of an urgent nature even after the usual hours of business in goods offices. Free time for stacking goods within the railway premises for despatch and clearance was extended at stations serving outlying villages with no postal facilities.

Mudras and Southern Mahratta Railway.—A Town Booking office at Narasapur and nine out-agencies were opened.

North Western Railway.—Seven out-agencies were opened serving areas away from the railway line. Arrangements for street collection and delivery of parcels and goods were being gradually introduced in certain important towns. In those towns, however, where octroi is levied, difficulties were experienced in introducing this system owing to the municipal bye-laws giving octroi officials the right to open consignments. Efforts were being

made to find a solution to this problem. A re-arrangement of duty hours of the staff in certain large towns has resulted in the business hours in parcels and goods offices being extended.

His Exalted Highness the Nizam's State Railway.—Out-agencies were opened at Mashirabad (serving station Secunderabad) and at Aurangabad City (serving station Aurangabad).

59. Road motor competition.—Measures continued to be taken by Railway Administrations to meet road competition.

Brief particulars of the position on some of the principal railways and of the measures taken by them during the year, some of which are also referred to in paragraphs 56 and 58 are given in the following paragraphs:—

Assam Bengal Railway.—As a result of an investigation in connection with motor competition, the basis of third class fares on the Katakhal-Lalabazar section was reduced to 2 pies. This step proved satisfactory and passenger earnings increased.

Bengal Nagpur Railway.—Apart from competition from buses, which is widespread, competition for goods traffic between Calcutta and Ranchi by lorries continued throughout the year, and new lorry services also sprang up between Chaibassa and Gaya (East Indian Railway) and between Meramandeli and Sambalpur.

Five additional halts were opened on the Satpura District, and three additional halts on the East Coast section, where bus competition was severe. Light trains were introduced on the Kolaghat-Midnapore and Gidni-Kharagpur sections, and these services proved a success, as they brought additional passengers and earnings to the railway.

A Sentinel Coach was put on the run between Saoner and Nagpur, and four level crossing halts were provided simultaneously in order to attract to the rail route, passengers who would have otherwise travelled by bus. This service has proved a success.

Bengal and North-Western Railway.—Third class tickets at 1½ single fares for a return journey were issued on the Benares-Allahabad section, which is the only section seriously affected by motor competition.

Bombay, Baroda and Central India Railway.—Commercial Officers completed a survey of sections where road motor competition was prevalent, and steps were taken to counter this competition by means of additional services, where necessary, by the issue of return concession tickets, with availability extended according to distance, and by active canvassing and propaganda. Special arrangements were made on the occasion of local fairs to secure traffic to the railway.

Eastern Bengal Railway.—A proposal for acquiring an interest in road transport on roads which compete with the railway was under consideration.

Special facilities for sidings to the business premises of firms were provided to counteract the tendency on the part of these firms to carry their goods by private owned lorries.

East Indian Railway.—There was an increase in the number of buses operating on competitive and short-circuiting routes. Reduced fares were introduced on 45 competitive sections covering approximately half the total mileage of the system in terms of single line route mileage. In the vast majority of cases, the introduction of reduced fares produced satisfactory results.

Road competition for merchandise traffic also intensified during the year, particularly so in the United Provinces, and in respect of through traffic to and from the North Western Railway. This was almost entirely due to the wholesale operation of lorries registered and licensed as private but operating freely as public carriers. As a result reduced rates had to be quoted for several commodities in the areas affected by lorry competition.

The principal development was the action which the North Western and East Indian Railways in conjunction were obliged to take to protect themselves against the apprehended further diversion on a large scale of cotton traffic from stations in the Punjab to Cawnpore. A rebate of 20 per cent. of the total freight charges on all traffic booked between 1st November 1937 to 31st August 1938 was therefore notified to all firms who conformed to the following conditions:—

- (i) Minimum traffic of 75,000 maunds.
- (ii) No traffic to be sent by any other form of transport.

Great Indian Peninsula Railway.—Road competition for passenger and goods traffic continued to be severe. Among the measures adopted to combat this competition were the following:—

- Quotation of reduced rates and fares.
- Granting of rebate on cotton traffic booked from the Punjab to Morar Road on condition that no goods were sent by road.
- Introduction of shuttle services.
- Opening of halt stations.
- Adjustment of train timing and reduction in the time of transit for goods traffic.

His Exalted Highness the Nizam's State Railway.—Owing to the seriousness of road competition a special memorandum was prepared and submitted to the Government which revealed the following disquieting factors:—

- (i) Passenger buses plying for hire on monopoly routes without permits or in violation of the conditions.
- (ii) Over-crowding in buses.
- (iii) Over-loading of lorries.
- (iv) Lorries registered for private use plying for hire.

Road motor competition was seriously felt in the case of high rated commodities like cotton resulting in considerable loss of traffic.

The rail-road co-ordination policy was further implemented during the year under review. The scheduling of services with a view to maintaining suitable connections between road and rail, punctuality in running, and improving the standard of driving and maintenance received constant attention. Suitable connections between rail and road passenger services numbered 238 daily as compared with 195 the previous year.

North Western Railway.—Some of the measures taken during the year to counteract motor competition were:—

- (i) Opening of out-agencies at various places away from the railway line.
- (ii) Revision of duty hours of the staff in all large towns. It was found that without additional expenditure on commercial staff it was possible to extend the hours of business at certain places to enable the public to complete their transactions with the railway later in the day.
- (iii) Efforts were made to find a solution to the difficulties experienced in arranging for street delivery in towns where octroi duty is levied and consignees required by municipal bye-laws to open their consignments in presence of octroi authorities.
- (iv) The running of excursion trains at reduced fares for specific journeys.

- (v) The issue of cheap fares (single and return) on sections where there is road motor competition was continued. During the year under review cheap fares were introduced on 7 additional sections making a total of 128 sections in all where such fares were in force.

Rohilkund and Kumaon Railway.—In order to meet bus competition, return tickets at concession fares were introduced on certain sections. Light passenger trains were run at accelerated speeds between Bareilly and Kathgodam and Bareilly and Lakhimpur Kheri. These measures proved effective.

South Indian Railway.—Reduced fares quoted over certain sections curtailed the activities of bus services considerably, and attracted more passengers with an increase in earnings.

The measures adopted during the previous year such as, speeding up trains, introduction of extra trains, opening of train halts between stations, improving the connection at junctions, etc., were continued during the year under review.

The practice of using small power units with two or three bogie carriages attached, on sections where there was competition, was continued generally.

60. Introduction of passenger road services and the development of feeder services through contractors.—Hitherto, Railways have confined their activities in regard to the provision of road services to agencies with whom arrangements are entered into for the provision of facilities for through booking. Instances of such co-ordinated road and rail services are:—

Passenger—

By the North Western Railway—

between Rawalpindi and Jammu and Kashmir,
between Pathankot and Dalhousie.

By the East Indian Railway—

between Dehra Dun and Mussoorie,
between Patna and Digha Ghat,
between Ranchi Road and Ranchi.

By the South Indian Railway—

between Devakottai town and certain stations,
between Karaikudi and certain stations,
between Pudukottai and certain stations.

A departure from the above practice has recently been made on the North Western Railway by a more direct participation in road services. A company registered under the Indian Companies Act as the North Western Transport Company, in which the North Western Railway Administration is the predominant partner, has been running road motor services between Lyallpur and Jhang. Proposals for the introduction on other railways of services more or less similar to those on the North Western Railway are under examination.

Goods.—The following additional out-agencies were opened during the year:—

Bombay, Baroda and Central India Railway.—Hundi, Deoli and Pushkar.

Eastern Bengal Railway.—Kotchandpur, Sootia, Agamani and Tamarhat.

East Indian Railway.—Kailana, Choharpur, Etah and Dumka.

Great Indian Peninsula Railway.—Basim.

Madras and Southern Mahratta Railway.—Santanutalapadu, Chimakurti, Podili, Kanigiri, Kandukur, Ullapalem, Chilakalurpet and Gollapudi.

His Exalted Highness the Nizam's State Railway.—Mashirabad and Aurangabad City.

North Western Railway.—Shakot, Ramnagar, Nadaun, Gagret, Bhawanain, Jawalamukhi Mandir and Mawana.

South Indian Railway.—Vannanturai, Valparei, Devkottai Town and Kodaikanal.

61. Contact with the business community.—The desirability of closer contact with business communities is fully realized by Railway administrations. Apart from the various Local Advisory Committees which Railways have introduced with a view to ascertaining the requirements of the travelling public and the trade, Railways have taken other steps in this direction which are briefly indicated below:—

Assam Bengal Railway.—Traffic investigators were asked to make special endeavours to render all possible assistance in the way of supplying any information asked for, and to ascertain whether changes in rates were known to the merchants. Commercial Inspectors were also asked to visit traders in the course of their duties. The possibility of increasing the quota of officers in the Commercial Department in order to cultivate closer and better relations with their principal constituents was being considered by the Administration.

Bengal Nagpur, East Indian and Eastern Bengal Railways.—Four joint quarterly informal meetings of the Closer Contact Committees consisting of representatives of the above railways and of the Chambers of Commerce in Calcutta and of the Calcutta Trades Association, were held during the year. Among the more important of the subjects discussed were:—

- (a) Handling of fragile goods.
- (b) Illegal gratifications to staff.
- (c) Illegibility of railway receipts.
- (d) Booking of consignments to mill sidings.

Personal calls were made by the Research Officer of the Eastern Bengal Railway on traders in order to keep in touch with their difficulties, such as delays in transit of piece-goods, damage by rough shunting or handling to kerosene oil consignments, pilferage of cigarettes, etc.

Informal meetings were held by the Chief Commercial Manager, East Indian Railway with up-country Chambers of Commerce or commercial interests to the extent of one meeting at Patna, two each at Cawnpore, Lucknow, Agra and Moradabad. A total of 160 items dealing with a variety of subjects, chiefly rates, were discussed at these meetings.

Bombay, Baroda and Central India and Great Indian Peninsula Railways.—“ Closer contact meetings ” of the nature referred to above were also held between the representatives of these Railways and certain groups of business interests in Bombay. The following were some of the subjects discussed:—

- (a) Reduction in freight rates generally with a view to combating motor lorry competition.
- (b) Re-booking of goods at Wadi Bunder.
- (c) Reduction in freight rates on cotton piece-goods from Bombay to Cawnpore, and Bombay to Delhi and Amritsar.
- (d) Extension of the system of station-to-station rates for Bump Yarn traffic from Bombay to certain important up-country consuming markets.
- (e) Reduction in freight rates on cotton piece-goods from Delhi to certain South Indian stations.

North Western Railway.—Meetings were held between Divisional Commercial Officers, Assistant Commercial Officers and local merchants of all important commercial stations. The Railway was also represented on the important Chambers of Commerce.

His Exalted Highness the Nizam's State Railway.—The Administration was represented on the Hyderabad Chamber of Commerce.

62. Refund on unused tickets.—Railways continued taking steps to ensure more expeditious disposal of claims for refunds on unused or partially used tickets. Mention may, however, be made of the following facilities afforded by two of the railways:—

Eastern Bengal Railway.—In the case of tickets issued from city booking offices refunds were allowed if the tickets were surrendered at the Issuing Office within the period available for the commencement of the outward journey.

North Western Railway.—In urgent cases refunds are allowed on the responsibility of the Commercial branch of the Railway, without a pre-audit of the claims. The claims in such cases are post-audited in the Accounts Office.

63. Claims for compensation and refunds.—The following statements for Class I Railways (except Jodhpur) show for 1937-38:—

- A. *the number of claims in respect to goods or parcels damaged or lost, received and disposed of;*
- B. *the number and value of claims paid in respect of goods or parcels lost or damaged under main causes;**
- C. *the number of court cases in respect of goods or parcels lost, damaged or delayed and their disposal.*

STATEMENT A.

Item No.	Particulars.	A. B.	B. & N.-W.	B. N.	B. B. & C. I.	E. B.	E. I.	G. I. P.	M. & S. M.	N. S.	N. W.	R. & K.	S. I.
1	Number of cases involving compensation for goods or parcels lost, damaged, or delayed carried over as unsettled at the close of the preceding year . . .	111	580	689	635	605	1,017	725	255	155	804	83	130
2	Number of claims received (and re-opened) for compensation on account of goods or parcels lost, damaged, or delayed during the current year . . .	962	2,108	3,265	8,399	3,767	8,720	6,579	3,798	818	5,741	556	2,300
3	Number of claims referred to in items 1 and 2 settled during the year . . .	991	2,378	3,335	8,490	3,805	8,651	6,990	3,827	813	5,671	553	2,287
4	Balance outstanding as unsettled at the close of this year . . .	82	310	619	544	567	1,066	314	226	160	674	66	143
5	Net amount paid in compensation . . . Rs.	6,041	12,606	36,282	25,067	31,062	27,279	53,922	28,430	4,370	78,936	1,943	13,193
6	Percentage sum paid in compensation (item 5) bore to gross earnings.	0-05	0-05	0-04	0-03	0-09	0-02	0-05	0-04	0-02	0-05	0-04	0-02
7	Average time in days taken in settlement of claims shown under items 1 and 2 . . .	44	74	77	19	43	56	32	23-7	53	34	45	39
8	Number of applications received for refunds on goods and parcels overcharged . . .	2,905	3,246	3,982	10,737	8,069	20,093	5,212	5,766	2,060	10,666	587	7,782
9	Average time taken in settlement of claims shown under item 8. Days	34	65	60	89	71	73	58	26	73	28	60	20

STATEMENT B.

Item No.	Particulars.	A. B.	B. & N.-W.	B. N.	B., B. & C. I.	E. B.	E. I.	G. I. P.	M. & S. M.	N. S.	N. W.	R. & K.	S. I.
1	Claims paid on account of goods lost. } No. of Value Ra.	105	335	721	1,666	385	2,560	1,502	129	122	139	61	471
		1,915	5,064	14,777	8,857	8,482	47,729	15,603	1,847	1,518	1,899	424	3,554
2	Claims paid on account of goods stolen. } No. of Value Ra.	175	74	243	231	35	1,358	180	88	24	1,008	19	2
		2,575	4,240	3,020	5,035	969	15,393	4,564	2,219	743	11,264	1,140	422
3	Claims paid on account of goods damaged by wet. } No. of Value Ra.	22	64	807	2,342	350	2,348	3,530	567	76	951	13	333
		516	3,071	11,145	10,727	9,215	22,090	24,827	6,803	614	13,594	139	5,902
4	Claims paid on account of goods damaged by fire. } No. of Value Ra.	1	..	4	6	3	3	5	1	..	..	..	71
		8	..	540	442	2,107	245	204	36	..	..	..	34
5	Claims paid on account of goods damaged by breakage. } No. of Value Ra.	20	9	55	21	0	61	131	51	15	98	1	24
		514	187	1,292	633	639	2,079	3,336	886	147	3,071	240	534
6	Claims paid on account of parcels and luggage lost and stolen. } No. of Value Ra.	35	77	88	195	124	639	269	45	21	94	17	71
		789	1,095	1,803	935	1,935	8,601	1,744	711	281	2,594	196	491
7	Claims paid on account of other causes. } No. of Value Ra.	41	214	356	1,522	702	391	636	1,333	555	2,160	31	121
		826	3,231	15,994	14,877	4,760	10,336	23,946	20,783	1,567	29,933	230	2,214

STATEMENT C.

Item No.	Particulars.	A. B.	B. & N.-W.	B. N.	B., B. & C. I.	E. B.	E. I.	G. I. P.	M. & S. M.	N. S.	N. W.	R. & K.	S. I.
1	Number of suits filed in court (or pending from the previous year) for the recovery of compensation in respect to goods or parcels lost, damaged or delayed.	10	43	52	70	16	117	98	51	5	60	0	4
2	Number of such suits settled out of court.	3	14	10	5	8	10	15	0	2	8	..	1
3	Number of suits dismissed.	2	15	7	8	3	25	30	0	Nil	30	4	3
4	Number of suits decreed.	3	3	2	6	Nil	5	13	16	Nil	1	1	Nil
5	Number of suits pending.	2	11	33	51	5	568	37	20	3	21	1	Nil

64. Commercial Publicity.—The following paragraphs indicate broadly the nature of the work undertaken by the principal railways in the matter of commercial publicity during the year under review.

Assam Bengal Railway.—Wide publicity was given to all *melas*, and important alterations in facilities provided, and rates and fares charged, e.g.:—

- (i) The through running of trains to Narayanganj over the King George VI bridge.
- (ii) The new route to Calcutta *via* Bhairab Bazar, Mymensingh and Jagannathganj.
- (iii) The reduction of third class fares on the Hailakandi-Lalabazar section of the Katakhal-Lalabazar Railway.
- (iv) The visit of the Islington Corinthian Foot-ball team to Dacca, Mymensingh, Comilla and Chittagong.
- (v) The special Christmas concessions for Shillong *via* Sylhet Bazar and Gauhati.

Bengal Nagpur Railway.—A campaign of intensive publicity was launched to acquaint the public with detailed information with regard to

the reduction in fares and other facilities offered for traffic in connection with Durga Poojah, Christmas, New Year and Easter holidays, by means of:—

- (i) advertisements in the principal newspapers, and particularly in those published in the languages of the various provinces;
- (ii) display of posters;
- (iii) free distribution of pamphlets and handbills, and
- (iv) display of cinema slides.

Similarly, adequate publicity was given to all important *melas*, including the Rath Jatra and the Dol Jatra at Puri, the Kartiki *mela* at Ramtek, and the Rajim *mela*. A special feature of the publicity arrangements for the Rath Jatra was an adhesive label, about the size of an Air Mail stamp, depicting the Rath Jatra procession and with legends in English and in the languages of the provinces. These labels were distributed to various firms and individuals who were asked to affix them to letters despatched by them.

A new coloured poster was also designed for the Rath Jatra festival. Pamphlets and handbills were printed in all vernacular languages and distributed to all stations on the home line as well as to all the important stations over foreign railways to attract traffic from those areas to Puri. Cinema slides were also displayed to advertise these festivals.

Bombay, Baroda and Central India Railway.—An elaborate ceremony was held on the 1st May 1937 at Bombay Central for naming "The Flying Raneo"—a train scheduled to run during the week ends between Bombay and Surat—and sending it off on its inaugural run. A film of the ceremony was taken under the direction of the Publicity Officer who also made the running commentary. The film was shown at theatres in Bombay and in other towns adjoining the route of the train.

Encouraged by the success of the week-end service, a daily "Flying Raneo" service was introduced with effect from 24th May 1937 in order to provide what appeared to be a much needed and faster link between Bombay and Surat.

The inaugural ceremony was followed by several others during the year, and the opportunity was taken also on five occasions to adopt a system of reciprocal advertising, by which firms who wished to do so were permitted to give samples of their manufacture away to passengers travelling by the "Flying Raneo" on different Saturdays during the year, and in return the Railway undertook to advertise the fact widely free of charge to the manufacturers.

An attractive 4 coloured match box label was prepared with a picture of the "Flying Raneo" crossing the Bassein Bridges. These were printed by photo litho process and supplied to a match agent for affixing on match boxes.

On the Coronation Day of His Majesty the King, a special cover was printed for the May issue of the monthly time table and special Coronation menu cards were placed in the Dining Cars of the Frontier Mail.

During Christmas, special greeting cards were issued and distributed to passengers travelling on the Frontier Mail.

Eastern Bengal Railway.—22 letter-press and 12 pictorial posters were produced in connection with concessions, *melas* and fairs, race and bazar specials, etc.

About 18,000 letter-press posters, 175,000 handbills advertising the *melas*, 31,500 handbills in connection with the conducted excursions, 5,000 handbills on the reduction of passenger fares and freight on commodities, and 22,000 handbills on special events like the football matches played by the Islington Corinthians, etc., were brought out and widely displayed and

distributed. Some of the 1st and 2nd class waiting rooms as well as refreshment rooms at larger stations were provided with well-framed large photographs of places of interest in India with a view to advertising them.

In addition railway posters continued to be displayed in Post and Telegraph offices, throughout Assam, Bihar, Bengal and Orissa.

The old Bengali booklet "Pujay Bhraman" (Puja Travel) was rewritten in many places and enlarged by the addition of many new photographs on places of historical, religious and cultural importance and was issued to facilitate travel in Bengal with a new title "Banglay Bhraman" (Travel in Bengal).

Cinema slides were prepared and exhibited in different cinema houses in Calcutta and the mofussil drawing attention to the special concessions and facilities offered by the Railway.

The Railway participated in 13 exhibitions. Posters and photographs were displayed and handbills, pamphlets and other publicity literature distributed.

On the occasion of the 6th Anniversary ceremony of the Mulagandha Kuti Vihara at Sarnath, a wide publicity campaign was carried out as in previous years in conjunction with the East Indian and Assam Bengal Railways and Steamship Companies advertising the special concessions offered to Buddhist pilgrims from Chittagong and the Arakan coast.

East Indian Railway.—30,000 copies of pictorial posters were displayed to popularise places such as Gaya and Hardwar as centres of religious interest, Mussoorie as a hill station and health resort, Agra as a centre of historical interest, Calcutta on account of its sight-seeing and other general attractions and such sporting attractions as the Islington Corinthian's football matches, Tilden troupe Tennis exhibition matches, Lord Tennyson's Cricket Eleven matches, dog racing, boxing, wrestling and shooting and fishing facilities.

23,000 letter-press posters, about 1,200,000 handbills and 250,000 folders in English and the languages of the provinces, in connection with various railway facilities and concessions in rates and fares, were distributed.

Other methods of publicity were "Free Press" advertising, reciprocal publicity, cinema slides, radio broadcasts, distribution of literature, preparation of itineraries for tourists and the travelling public, co-operation with steamship companies, religious organizations and educational institutions.

An intensive advertising campaign was launched during the Kumbh *mela* at Hardwar when all the methods of publicity referred to above were adopted, *e.g.*:—

- (a) the distribution of illustrated folders and handbills giving details of concessions and facilities offered;
- (b) a specially designed pictorial poster of Har-ki-pari was put out in collaboration with the Eastern Bengal and North Western Railways;
- (c) pictorial and letter-press slides were screened at cinemas in Calcutta and in the mofussil;
- (d) pictorial-cum-letter-press posters featuring concessions and other facilities were displayed in lower class compartments of all local and through trains;
- (e) coloured paste-on tickets were affixed in letters despatched to Hindu firms or individuals and in addition all letters were franked with Kumbh *mela* slogans.

Full advantage was taken of the Magh *mela* at Allahabad on the 31st January 1938, the most important bathing day. Sandwich board men displaying pictorial and letter-press posters of the Kumbh *mela* were engaged to move in procession, preceded by bandsmen through whom some 150,000 handbills were distributed to pilgrims. A revolving kiosk displaying, on

its panels, pictorial and letter-press posters of the Kumbh *mela*, was erected in a prominent position in the *mela* area.

Great Indian Peninsula Railway.—Advertising in papers other than those published in English was considerably extended, the year's expenditure in this respect being 60 per cent. of the total amount paid for newspaper advertising.

Cinema slides advertising the issue of Zone Season Tickets during Devali, Christmas, and Easter holidays, Poona races, Bombay races and air-conditioned coaches were exhibited in various theatres.

Double Royal Letter-press poster either in English or Indian languages in one or more colours were issued dealing with pilgrim fairs such as Pandharpur, Hindola and Janmashtami, Kumbh *mela* at Hardwar, Alandi fair, zone season ticket schemes, revised train timings on Central Provinces Railway, students' conducted tour to Mysore, Divali, Christmas and Easter holiday concessions, cricket carnival at Bombay and cricket fixtures at Madras. Also a letter-press-cum-pictorial poster was specially designed for the Brindaban fair. Many of these posters were exhibited on country bullock carts, temple walls and other available prominent sites in towns and villages some distance away from the railway.

For various *melas* and fairs, Publicity Inspectors were sent to tour towns and villages, accompanied by drum beaters to make announcements and to distribute handbills and fix posters.

Jodhpur Railway.—An illustrated hand book on Jodhpur was published and a greater number of advertising contracts entered into than formerly.

Madras and Southern Mahratta Railway.—1,282,650 handbills, 145,000 folders and pamphlets were distributed, 12,575 posters and 1,265 press notices were exhibited to give publicity to local festivals and Easter, Christmas and Mysore Dasahra concessions. The reciprocal arrangement with the Postal Department under which railway publicity posters and pamphlets are displayed at post and telegraph offices in the interior in exchange for similar facilities for postal advertisements at stations, was continued.

In addition to the franking of publicity slogans by means of the Neo-Post Franking machine on all letters despatched from the Chief Commercial Manager's office, rubber stamps with similar slogans were supplied to other departments for stamping on the covers of letter despatched.

North Western Railway.—The North Western Railway cinema car continued to be utilised for railway propaganda purposes. One hundred and seventy-three stations were visited and over 350 shows were given. The numbers attending these free cinema shows has been estimated as amounting to 734,000 persons approximately. In February 1938, another cinema lorry was introduced to disseminate railway propaganda in villages away from the railway line. The lorries visited 279 important rural centres and over 800 open air shows, attended by over 400,000 people, were given.

South Indian Railway.—The several fairs and festivals were advertised as usual through posters, leaflets and through the press. Facilities afforded to the public by way of reduced fares, improved train service, opening of train halts, town booking offices and out-agencies were also widely advertised.

A poster in original colour specially designed to advertise the electric train service in the Madras suburban area was also issued and exhibited at stations.

With a view to advertise Cochin and the introduction of the new Cochin Express Service between Madras Central and Ernakulam, an attractive illustrated folder was issued.

A quarterly booklet entitled "Travel Concessions" is being published and distributed free to important firms, traders, associations, clubs, schools, colleges, etc. This has helped to advertise the numerous concessions in fares and other travel facilities afforded from time to time.

Circulars detailing the several concessions and facilities allowed to student excursion parties were addressed individually to all educational institutions.

65. System of ticket checking and prevention of ticketless travelling.—The methods adopted by the various railways have been given in considerable detail in previous reports. In the main there was little change in the organisation, it having been found that the system giving the best results is a combination of "Ticket Collectors" and "Checkers" at stations and "Travelling Ticket Examiners" to make surprise checks on trains. In the following paragraphs therefore attention is drawn to the more important of the special measures undertaken by certain railways and to some changes in organisation.

Bengal and North-Western Railway.—The travelling ticket checking staff are split up into ten sections, with one man in charge of each. There are also supervisors whose duty it is to move about the line and see that the work of the Travelling Ticket Examiners is efficient and that passengers are not harassed.

There is one special gang, with a roving commission, which is sent out to places where systematic fraud is suspected. It is also sent to help the regular staff at stations and on trains during *melas*.

During the year 22 special checking raids were carried out in the United Provinces and 44 in Bihar in conjunction with police and special magistrates, the object being to facilitate and expedite prosecution where this was found to be necessary.

Bengal Nagpur Railway.—The strength of the ticket inspecting staff was increased to 144 by the appointment of two travelling Ticket Inspectors and one Travelling Ticket Checker on the east coast section. Special checks carried out by members of the commercial or transportation staff, occasionally spare from their normal duties, resulted in the detection of 1,678 cases realising Rs. 2,628.

Bombay, Baroda and Central India Railway.—An additional anti-mendicant gang, consisting of staff already in service, was put to work on the Bandikui district. The gang has justified its formation and is proving of value in the suppression of ticketless travel.

Eastern Bengal Railway.—From the 1st August 1937 the Crew Department was amalgamated with the Watch and Ward Department.

During the latter part of the year a system of check called the "Block System" was introduced. Under this system a strong force of the crew staff is deputed to check selected centres of heavy traffic, and a skeleton travelling checking staff is kept on the train to issue "Excess Fare Tickets" and "Handing over Certificates" on the run to such traffic centres where the main crew check is imposed. The "Special Branch" of the department prosecuted 570 passengers for misusing season tickets and 183 passengers for re-selling second halves of return tickets, securing convictions in the majority of cases.

Great Indian Peninsula Railway.—In addition to the ordinary Travelling Ticket Inspectors, a permanent flying squad was employed on the Bombay Division. In other Divisions such squads were formed from the ticket checking staff according to circumstances. In order to deal expeditiously with passengers prosecuted for illicit travel the Provincial Government appointed Railway Magistrates at Katni, Jhansi and Agra, to hold their courts in the station premises.

Madras and Southern Mahratta Railway.—As a result of the retrocession of the Bangalore City-Harihar-Hindupur sections to the Mysore State Railway from the 1st January 1938, a reorganisation of the mofussil squads was necessitated. The number operating was reduced from four to three but the areas were extended to cover practically the same sections as are under the jurisdiction of the Assistant Commercial Managers at Madras, Bezwada and Hubli respectively. The strength of the squads was increased

by men transferred from the sections handed over to the Mysore State Railway.

His Exalted Highness the Nizam's State Railway.—The system in the main remained the same as in the previous year, but in addition special instructions were issued to relieving staff to make surprise checks of trains while returning to, or spare at, headquarters. On a few occasions special squads were instructed to make checks of trains in ordinary clothes, *incognito*, and to entrain at intermediate points for the purpose of making special checks.

At the end of the year the strength of Travelling Ticket Inspectors was increased by 6 men to provide a more frequent check of trains. Two Ticket Inspectors were also deputed to make surprise checks.

North Western Railway.—An experiment was made on the Rawalpindi Division of a cent. per cent. check of passenger trains and proved a success. At any rate for a time it put a stop to irregular travelling and it is hoped that the effect will be lasting. The additional special ticket examiners, about 70 in number, employed on this check were subsequently transferred to the Karachi Division for the same purpose.

Another experiment tried on the Lahore and Rawalpindi Divisions was the deputing of lady ticket examiners by day trains to check compartments occupied by women. This also proved to be justified and these arrangements have been extended, as a permanent measure, to the Delhi, Multan and Karachi Divisions.

An arrangement whereby an intensive check on passengers at certain stations is undertaken jointly by a senior travelling inspector of accounts, his assistants and the headquarters group of special ticket examiners, assisted by divisional special ticket examiners, has also been introduced. The check is in the nature of a surprise raid and, where carried out so far, has been successful in bringing to light many instances of passengers travelling without tickets, and certain irregularities in stamping, nipping and collection of tickets.

South Indian Railway.—From the 1st August 1937 the whole of the ticket checking staff came under headquarters' control and the method of ticket checking was revised.

Six new squads each of four travelling ticket examiners were formed,—the seniormost ticket examiner being in charge. In order to facilitate working and ensure better results the entire system was divided into 33 sections. The squads cover almost all these sections in the course of every month, their movements being controlled by the Deputy Chief Commercial Superintendent, under telegraphic or sealed instructions. The following duties are assigned to them:—

- (i) to concentrate on areas where greater check is deemed necessary;
- (ii) to pay special attention to stations where the percentage of missing tickets is high; and
- (iii) to supplement check of trains at festival centres where large numbers of pilgrims are expected and where pilgrims arrive just prior to, and depart immediately after attending the festivals.

An additional squad of five travelling ticket examiners with an Inspector in charge is deputed for all major festivals.

The main squads of travelling ticket examiners have their headquarters fixed at 11 different centres and work trains to a fixed monthly roster. All important trains are manned from start to finish of the run and other trains are manned alternately. Generally, about 80 to 85 per cent. of all trains are manned.

The following statement shows the total number of passengers detected travelling without proper tickets during the year 1937-38 and the amount due from them:—

Railway.	Number of passengers,	Amount due. Rs.
Assam Bengal	58,398	60,078
Bengal and North-Western	321,917	2,17,571
Bengal Nagpur	185,341	2,61,127*
Bombay, Baroda and Central India	789,725	5,18,591
Eastern Bengal	230,966	1,97,159
East Indian	274,000	4,26,000
Great Indian Peninsula	243,988	2,20,748
Jodhpur	32,888	34,992
Madras and Southern Mahratta	164,476	1,28,348
His Exalted Highness the Nizam's State	10,857	12,614
North Western	376,103	4,46,705
Rohilkund and Kumaon	44,980	40,008
South Indian	140,220	1,27,053*

* These figures are of amounts actually recovered.

C.—General.

66. Meta Traffic.—The large movement of pilgrims each year to places of religious importance requires and receives special study and care. For the more important *melas* the loads of ordinary passenger trains are augmented, special trains are run, reduced fares are quoted, additional booking offices, waiting sheds, medical facilities, sanitary arrangements, etc., are provided; and special arrangements made for an adequate water supply and for the sale of food of good quality. In the following paragraphs mention is made of some of the more important *melas* for which such arrangements were made.

Assam Bengal Railway.—The earnings from pilgrim traffic increased by Rs. 62,000 or 78 per cent. due, in part, to an improvement in the economic conditions in certain districts, but principally to cheaper fares, additional facilities and more intensive propaganda. The results were so satisfactory that the whole question of *mela* concession fares is being made the subject of a special investigation.

Bengal and North-Western Railway.—As in previous years the most important *mela* was the Kartik Purnamashi at Sonapore, Palezha Ghat, Hajipur, Ballia and Ajodhya Ghat for which 185 special trains were run.

Eastern Bengal Railway.—A special publicity campaign was undertaken in connection with no less than 40 out of about 80 principal *melas* held on the system. In connection with the Gangasagar *mela* off Diamond Harbour, an arrangement was entered into with Messrs. Kilburn & Co. to maintain steamer connections at Diamond Harbour with the ordinary and special trains that were run right up to the river bank. Through rail-cum-steamer return tickets were issued for the first time and by these arrangements a pilgrim was in a position to save about Rs. 2 and 10 to 12 hours in journey time. The experiment met with considerable success.

East Indian Railway.—The following were the more important festivals:—

- Piran Kaliar *Mela*, Roorkee—May 1937.
- Pitripukh *Mela*, Gaya—September-October 1937.
- Kartiki *Mela*, Garhmukhtesar—November 1937.
- Magh *Mela*, Allahabad—January-February 1938.
- Kumbh *Mela*, Hardwar—March-April 1938.

The number of passengers carried to and from the first four *melas* mentioned, which are annual gatherings, showed a satisfactory increase over the figures for the previous year. The last named was unique in that it

occurred after an interval of 11 years instead of the usual period of 12 years; it was unique also in the number of pilgrims carried by rail. During the period 12th March to the 13th April no less than 543,755 passengers arrived at Hardwar as compared with 329,166 during the 1927 Kumbh.

The elaborate arrangements made to deal with this very heavy traffic, which included the remodelling of Hardwar station and passenger enclosures, additional facilities at a number of other stations, the provision of four temporary crossing stations, the doubling of 33 miles of line and the provision of a broadcast tower in Rohri Island Settlement in Hardwar town to give information in regard to the running of trains have already been given considerable publicity both in the press and through special communiques so that it is unnecessary to repeat them all here. It will perhaps be sufficient to mention that for the first time return journey tickets were issued in connection with this *mela*, for all classes and at concession rates, and that the majority of passengers took advantage of the facility. Furthermore, no less than 407 outward special trains were run between the 13th March and the 21st April—many for long distances, in addition to the normal train services, the heaviest traffic being from the 13th April onwards. Though this properly does not pertain to the year under review, it is of interest to note that on the 14th April a record was achieved for Indian Railways when as many as 43 loaded special trains were cleared over a single line section. Finally, mention may be made of the use of symbols representing articles or animals familiar to the pilgrims, printed on the reverse of return journey tickets. These symbols were also prominently displayed on booking offices and enclosures so that the pilgrims might have no difficulty in following the correct route to their train.

Great Indian Peninsula Railway.—There were 34 fairs as compared with 15 in the previous year, the most important being the Ashadhi and Kartiki fairs held during the months of July and November at Pandharpur *via* Kurduwadi.

Return tickets at single fares for the double journey were issued from many stations to Pandharpur for the Ashadhi fair: similar tickets were issued from stations south of Itarsi to Pandharpur for the Kartiki fair.

The number of pilgrims who travelled by rail to the Ashadhi fair at Pandharpur compared as follows with the preceding year:—

	Inward.	Outward.
1937	51,198	50,516
1936	8,080	10,957
Increase	<u>43,118</u>	<u>39,559</u>

22 inward and 27 outward special trains were run.

Special arrangements were made for the supply of drinking water to pilgrims. The supply of local water being inadequate for this purpose, drinking water was railed to Kurduwadi from Bhalavni by 12 travelling water tanks. Two water tanks 6' x 6' x 6' with taps on the Barsi Light Railway platform were kept filled with fresh drinking water, and a hand truck on rubber wheels was used to supply water to passengers in trains.

Madras and Southern Mahratta Railway.—7 important *melas* were held at or near stations during the year. In the case of the Narasaravapet feast, 31 special trains were run and in addition the scheduled trains were fully strengthened.

During December 1937 an Eucharistic Congress was held in Madras, largely attended by Roman Catholics from various places in India. The heavy traffic dealt with at Madras Central station in this connection was reflected in the numbers, *viz.*, 3,248 platform tickets issued at that station on the 2nd January 1938, when the visitors were dispersing.

South Indian Railway.—The Mahodayam, a festival of great magnitude, occurred on the 31st January 1938, after a lapse of 17 years and was

celebrated at all religious centres on the sea coast, Dhanushkodi and Point Calimere being the most important. The number of passengers dealt with around the Point Calimere area was 52,177 and around the Dhanushkodi area 69,511.

67. Measures taken to ensure civility and honesty on the part of the Railway staff in their dealings with the public.—It has always been enjoined on the railway staff that they must never fail in courtesy and honesty in their dealings with the public. On those railways on which there are training schools special lectures were given to new recruits to instil in them this essential of their service; such lectures were also given to those attending refresher courses and by special arrangement at various railway centres. Notices were posted in certain stations and in goods sheds stating that the staff are prohibited from taking illegal gratification and requesting the public to bring to notice any case in which it might be demanded.

The following list is indicative of other measures either adopted or contemplated by railways:—

- (i) The issue of a personal appeal to staff whose duties bring them in contact with the public;
- (ii) the introduction of "Complaint or suggestion books" at important stations (in this connection attention is invited to the remarks under paragraph 115 in Chapter VIII);
- (iii) the issue of a quarterly bulletin containing *inter alia* reproduction in general terms of actual complaints;
- (iv) issue of general and departmental circulars and strict orders to staff to pay prompt attention to requests from the travelling public;
- (v) a thorough analysis of complaints from the public;
- (vi) the use on departmental communications of slogans enjoining civility and honesty;
- (vii) issue of instructions to traffic officers to watch station staff with a view to weeding out any employee who is not capable of treating passengers with courtesy and consideration.

When any case of incivility or dishonesty was proved, severe disciplinary action was taken. A modification of the rules regulating discipline and the right of appeal of non-gazetted railway servants so as to authorise Principal Officers or Heads of Departments, Divisional Superintendents, Deputy General Managers and Deputy Heads of Departments to order removal from service in cases of incivility to the public, irrespective of the length of service of the employee concerned, was under consideration. In regard to dishonesty generally, where this involves victimization of the public or leakage of railway revenue or both, serious disciplinary action is taken in any case in which the offence is brought home to the individual concerned.

This question has also been discussed from time to time both by the Railway Board and by the General Managers of Railways with various Chambers of Commerce and mercantile bodies. Local Advisory Committees of certain railways have expressed the opinion that there had been considerable improvement in this matter.

CHAPTER V.

RAILWAY COLLIERIES.

68. Railway Collieries.—The output from the principal Railway Collieries during 1937-38 compares with the previous year's output as follows :—

Colliery.	Owned by	Output (tons).	
		1936-37.	1937-38.
1. Bhurkunda	State	67,167	197,756
2. Kargali	State	576,581	852,790
3. Kurhurbaree and Serampore .	State	665,578	642,287
4. Joint Bokaro	E. I. & B. N.	769,848	1,080,739
5. Joint Sawang	E. I. & B. N.	55,913	68,211
6. Jarangdih	B., B. & C. I. and M. & S. M.	77,273	104,710
7. Talcher	M. & S. M.	158,482	204,062
8. Kurasia	B., B. & C. I.	179,882	293,502
9. Deulbera	B. N.	29,974	130,092
10. Argada	B. N.	259,573	286,838

68.1. State Railway Collieries.

(a) *Bhurkunda Colliery.*—The increased demand for coal from Railway Collieries necessitated an increase in the output of coal from this colliery.

At Nos. 1 and 2 Kurse Inclines pillar extraction and roof dressing were resorted to. Arrangement for sand stowing at the air-pit which was started previously was completed and one gallery was sand stowed.

Nos. 1 and 2 Inclines in the Nakari Seam were reopened and were secured by brick walling and arching.

A steam-driven Calyx Borehole was put down in the dip area to prove the working seams on the other side of the fault encountered in the main dip faces in the Simana and Kurse Seam Inclines. Kurse, Nakari and Simana Seams were successfully tapped in the boreholes at depths of 525, 594 and 717 feet respectively.

Plant and Machinery.—The Power House and all Electric Plant and Machinery were kept in good repairs.

The health and sanitation of the Colliery was good.

(b) *Kargali Colliery.*—Owing to unprecedented shortage of market coal during the year there was heavy demand for coal from Railway Collieries and the despatches from this Colliery alone were 852,790 tons.

Quarries.—In No. 1 Quarry, a steam haulage at the west was installed for transporting of tubs for disposal of over-burden spoils. The weathered coal near the outcrop of the Seam was still burning.

In Quarry No. 2, three bridges were erected for carrying over-burden tubs to the dumping ground.

In Quarry No. 3 a new bridge was erected for disposal of over-burden. A 10 H.P. Ram Pump was installed to dewater the lowest benches in order to recover the floor coal.

Underground workings.—Coal getting from these workings was more than doubled due to abnormal demand of coal.

A self-acting Jig Haulage was installed at No. 6 Rise.

A connection was made from the workings of the Incline to the Main Shafts and this has greatly improved the ventilation of the Incline.

The cutting into the quarry was widened towards the south with a view to re-aligning the broad gauge track and to permitting further development of the quarry towards the dip of the seam.

All buildings, plant and machinery were maintained in good condition.

Labour was scarce and special measures were taken in recruiting them to meet the heavy demand for coal.

The water supply was plentiful and the health and sanitation of the Colliery were generally satisfactory.

(c) (1) *Kurhurbaree Colliery.*—The development of the colliery progressed satisfactorily. Depillaring operations were carried out and the percentage of coal recovered was excellent. The despatches during the year amounted to 304,332 tons.

Ventilation of the mines was maintained satisfactorily.

One 3,000-gallon per hour pump was installed in No. 5 Side South Joktiabad Pit. At No. 18 Side Joktiabad an additional 18,000-gallon per hour pump was installed.

Power House.—All plant and machinery were maintained in good order.

During the year 10,732,145 units were generated.

Labour supply during the year was not satisfactory.

The general health and sanitation were good.

(2) *Serumpore Colliery.*—The development of No. 8 Side, Deep Pit was seriously affected owing to the discovery of fire-damp. Development in No. 7 Side was satisfactory as was also depillaring operations in all the mines. The despatches during the year amounted to 422,423 tons.

Construction of and repairs to side walls in Central Pits, Deep Pit and 16A Pit were undertaken. Ventilation stoppings and water dams underground were built.

The Motor driving the 60,000-gallon per hour pump was overhauled.

All buildings, plant and machinery were maintained in good order and worked satisfactorily.

The attendance of labour during the first half of the year was very poor.

Coke and Bye-Products Plant.—The plant worked satisfactorily, during the year.

The outturn from the plant was as follows:—

	1936-37.	1937-38.
Coke Tons	38,252	55,139
Coal tar „	1,420	2,050
Sulphate of ammonia „	382	534
Benzol Gallons	49,110	56,848
Rectified solvent naphtha „	1,150	3,210

All colliery plant and machinery and buildings were maintained in good order.

The general health and sanitation of the colliery were satisfactory.

(d) *East Indian and Bengal Nagpur Railways' Joint Bokaro Colliery.*—Owing to continued demand for coal from Railway collieries due to shortage of market coal during the year, the raisings were increased from this colliery.

The No. 1 Quarry extension (now called No. 6 Quarry) was opened up during the year and a considerable output was won from this area.

A new pumping shaft at No. 3 Quarry was completed and pumps installed therein. This has released a large block of coal in the neighbourhood of the old pumping shaft.

The fire in No. 5 Quarry which occurred last year was kept under control.

An Isolation Hospital was constructed during the year. All colliery buildings were kept in good repairs.

Plant and machinery were maintained in proper running order.

General health and sanitation of the Colliery were good.

(e) *East Indian and Bengal Nagpur Railways' Joint Sawang Colliery.*—The quarryable coal is now almost exhausted. The development of the underground workings was satisfactory.

Sand stowing in the extreme eastern workings was commenced during the year.

All buildings, plant and machinery were maintained in good order.

The general health and sanitation of the Colliery were good.

68.2. Company-managed Railway Collieries.

(a) *Bombay, Baroda and Central India and Madras and Southern Mahratta Railways' Jarangdih Colliery.*—*Shaft working.*—The Shaft workings remained closed throughout the year and the water level in the shafts on 8th April 1937 was 255 feet above the rail level at the dumper.

By the 1st April 1938 the water had risen a further 444 feet and was 177 feet below surface level of the shaft top.

No. 3 Incline.—The development of this incline proceeded normally, though during the several months of the year, progress was slow owing to inadequate labour supply.

During the last three months of the year faulty ground has been encountered on both sides of the main incline and as the faults are very irregular and the dip of the seam very steep and variable, the difficulties of working have considerably increased.

No. 5 Incline.—Development in this Incline proceeded normally. This Incline is now draining a large area of ground and the 10 H.P. pump which was installed in April 1937 will shortly have to be replaced by a larger pump.

Ventilation.—The ventilating quantity circulated by the Sirocco fan throughout the year was approximately 170,000 c. ft. per minute against a water gauge of one inch.

Plant and Machinery.—There were no additions to plant during the year and all machinery operated satisfactorily throughout the year.

Labour.—The labour attendance at the beginning of the year was very poor as a large number of miners continued to leave the Colliery to work in the Jharia coal-field where higher rates of wages were being paid.

From July 1937, however, when the sliding scale of rates was introduced, the contractor was enabled to recruit more labour during the latter part of the year.

Owing to the small allotment of orders in February and March 1938, the mine worked short time and a large number of newly recruited miners left the Colliery.

In July 1937 the percentage of female labour employed underground was reduced from 8 per cent. to 5 per cent. and women were totally prohibited from the mine from 1st October 1937.

(b) *Madras and Southern Mahratta Railway's Talcher Colliery.—Top Seam.*—Grading, widening and timbering were completed in the North East Gallery. The track was also bonded and the overhead line laid while a drivage of 30 feet was obtained in the two winning roads. The working of this seam was discontinued from 21st December 1937 as the despatch of coal of this seam was stopped by the Chief Operating Superintendent, Madras and Southern Mahratta Railway, Madras.

Travelling roads for labour.—No 1 East Panel Companion road was completed as a travelling road up to No. 7 North East Panel and a temporary booster line installed.

No. 3 North East Panel and Ventilation.—The roads in this panel were graded for opening out beyond the fault and the air crossing for this new section and the necessary stoppings were constructed.

Underground track.—3,360 feet of main line track and two of the new 20 feet radius crossings have been relayed in connection with the installation of the 13 tons Locomotive.

Underground Bore hole.—A new bore hole from Top Seam galleries to Bottom Seam was completed and gave the following data :—

	Ft. in.
Total depth of hole	77 6
Depth of hole to the floor of the bottom seam	72 9
Thickness of the bottom seam	16 4
Strata between the seams	56 5

Plant and Equipment.—The new Goodman Coal Cutter and 13-ton Locomotive were taken underground and put into regular use.

The temporary installation of a direct haulage with 1,000 feet tract was completed for removing the excess slack made in screening.

Both drums were fixed in position and the work of fixing the main headers, etc., is being carried out.

Buildings.—The construction of one block of staff quarters was carried out.

(c) *Bombay, Baroda and Central India Railway's Kurasia Colliery.—Staff quarters and buildings.*—The Locomotive and machine sheds were completed.

The building of the rest house with out-houses, 2 blocks of artisan quarters and one block of senior subordinate quarters was carried out.

Power House.—The erection of new Belliss engines was completed.

Development underground.—The total progress during the year under review is given below :—

	Ft.
No. 2 Incline	227
No. 3 Incline	223

An upthrow fault of six feet was met in the main east of No. 2 Incline and a gallery has been driven through the fault and regraded to allow coal cutters and Locomotives to work in the adjoining faces.

Labour Supply.—The supply of recruited labour was not particularly satisfactory as there is now a tendency for the labour to go to the Jharia coal-field where higher rates of wages are being paid.

General.—The Power House, Stores, General Office, Manager's bungalow, Hospital and Contractor's Office were linked by telephone.

A " Kip " wall at the loading depôt to facilitate the shunting of loaded mine cars to the Tippler was undertaken and completed.

The loop line for empty cars was regraded and the crossing moved 100 feet nearer the Incline mouth.

Banking for widening the surface tram line was also undertaken.

69. Coal mined in India.—In 1937 the coal mined in the various provinces of British India amounted to 22,335,528 tons against 20,583,962 tons in 1936 or an increase of 1,751,566 tons.

70. Quantity of coal despatched—

(i) *By rail.*—The quantity of coal carried by the East Indian and Bengal Nagpur Railways was as follows:—

	Tons.
East Indian Railway	14,801,796
Bengal Nagpur Railway	8,419,733

(ii) *Shipment from Calcutta.*—Shipments including bunker coal from the port of Calcutta to Indian and foreign ports during 1937-38 amounted to 2,546,430 tons of which 42,330 tons were on account of Indian railways as compared with 2,526,644 tons in 1936-37. 144,249 tons of Indian coal was shipped to the Ceylon Government Railway and 238,361 tons to the Burma Railways.

71. Tonnage of coal inspected by the State Railways Coal Department.—The State Railways' Coal Department inspected 8,302,783 tons coal during 1937-38 as compared with 6,713,053 tons in 1936-37.

72. Indian Coal Grading Board.—The Department continued to carry out work on behalf of the Indian Coal Grading Board during the year. The amount of cargo coal shipped under the Indian Coal Grading Board to various ports during 1937 was 1,832,735 tons and inspections were carried out by this department both at the collieries and Kidderpore docks.

CHAPTER VI.

ROLLING STOCK AND MATERIALS.

73. Additions to equipment.—During the year the following rolling stock, including arrears brought forward from previous years, was ordered for broad and metre gauge railways :—

Items.	Broad Gauge.	Metre Gauge.
Locomotives	34	38
Coaching stock	753	682
Goods stock	2,132	2,222

New rolling stock actually placed on the line during the year was as under :—

Items.	Broad Gauge.	Metre Gauge.
Locomotives	4	27
Coaching stock	297	308
Goods stock	2,115	731

The numbers of coaching and goods stock shown are in terms of four-wheelers, a bogie being reckoned as two four-wheelers. These figures do not, however, represent the actual net additions to rolling stock as they also include stock built in replacement of stock which had reached the end of their useful life.

No locomotives, coaching vehicles or goods wagons were obtained as additions during the year but of the number scrapped an adequate proportion was replaced by new stock.

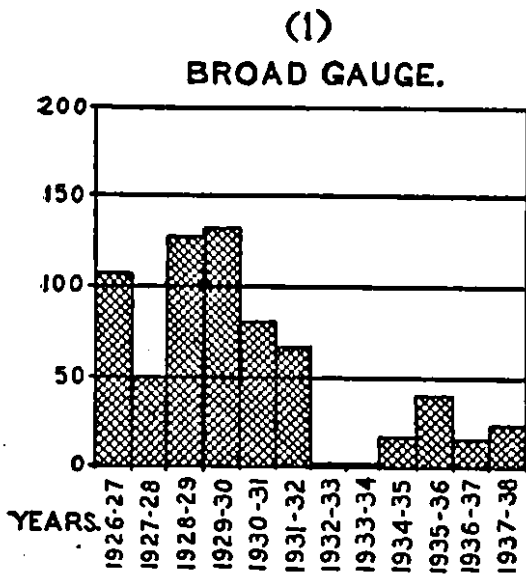
73.1. Engines.—83 broad gauge locomotives were scrapped during the year of which 4 were replaced so that the number on 31st March was 79 less than at the beginning of the year. On the metre gauge 58 locomotives were scrapped and 27 were replaced with the result that at the end of the year there were 31 locomotives less than at the beginning. In the course of the year the average tractive effort per engine rose from 25,862 lbs. to 25,972 lbs. on the broad gauge and from 14,756 lbs. to 14,818 lbs. on the metre gauge.

73.2. Coaching vehicles.—The number of broad gauge coaching vehicles at the end of the year was 191 less than at the start as 488 were scrapped, of which only 297 were replaced. On the metre gauge 368 carriages were scrapped and 308 were replaced.

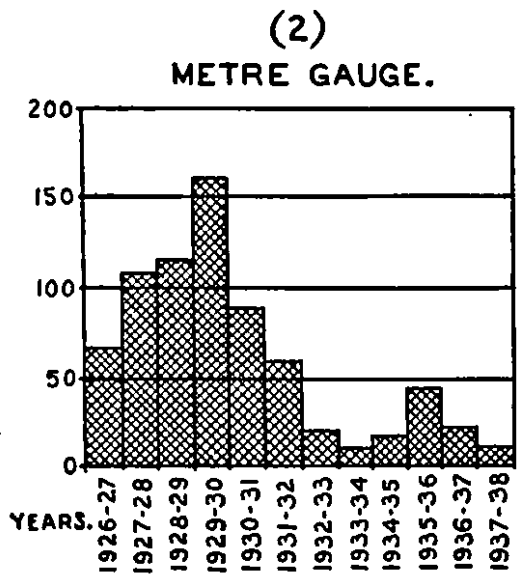
73.3. Wagons.—On the broad gauge 2,174 wagons were scrapped during the year against an addition of 2,115; on the metre gauge 1,445 wagons were scrapped of which 731 were replaced.

73.4. The graphs on the following pages show the total numbers of locomotives, boilers, carriages and wagons provided for in the programmes of Class I railways during the past twelve years. These figures include replacements and renewals.

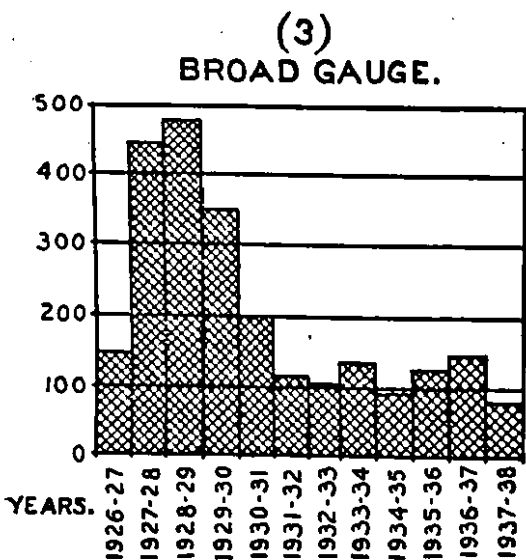
74. Improved utilisation of rolling stock.—This is a matter which has received continuous attention for several years, and the Indian Railway Enquiry Committee focussed attention upon certain aspects of the problem in their Report. This subject covers an extensive field and many of the problems involve issues of considerable complexity. Apart from many investigations that the railways are conducting themselves, an Officer on Special Duty has been appointed, whose energies for the moment have been concentrated upon the increased utilisation of locomotives. A considerable amount of progress has been made up to date and it is probable that by the end of next year, it will be possible, with certainty, to prescribe measures that will virtually eliminate heated bearings, one of the greatest single obstacles to



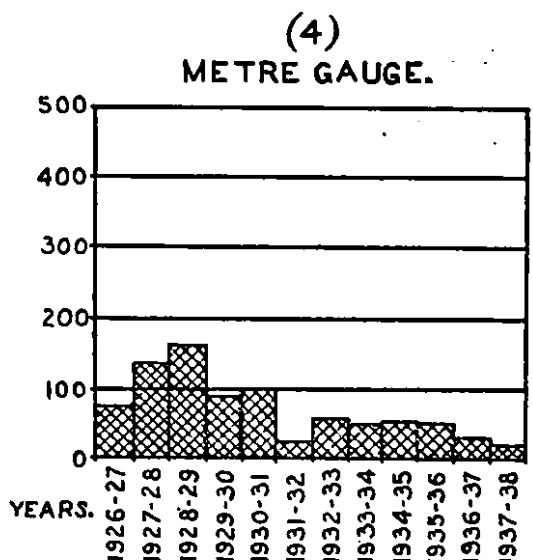
Number of locomotives provided in the rolling stock programme.



Number of locomotives provided in the rolling stock programme.

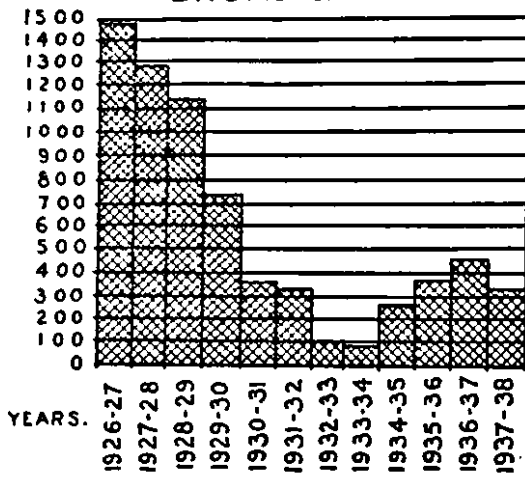


Number of boilers provided in the rolling stock programme.



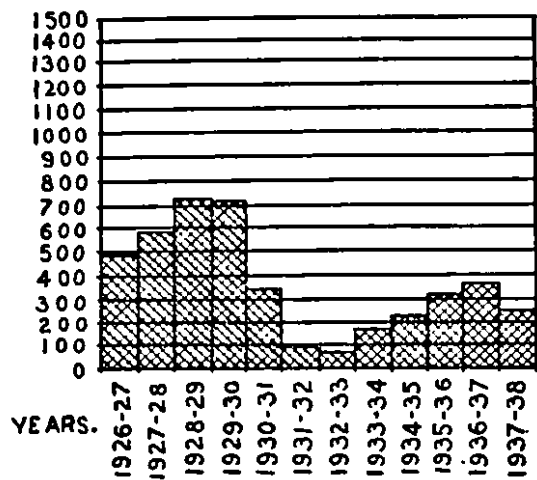
Number of boilers provided in the rolling stock programme.

(5)
BROAD GAUGE.



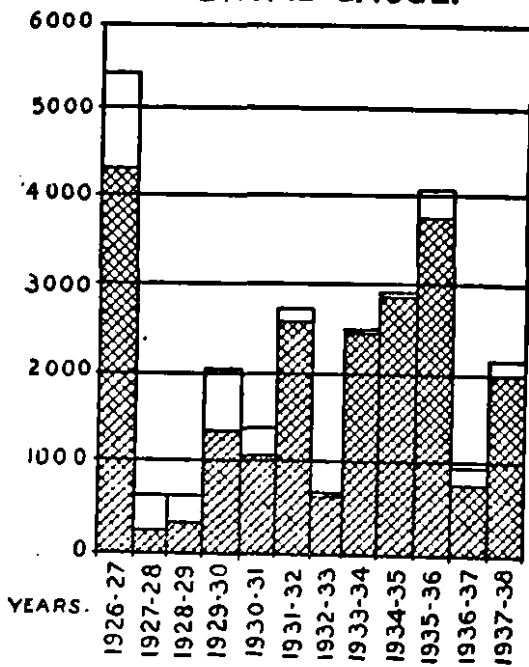
Number of coaching stock units provided in the rolling stock programme.

(6)
METRE GAUGE.



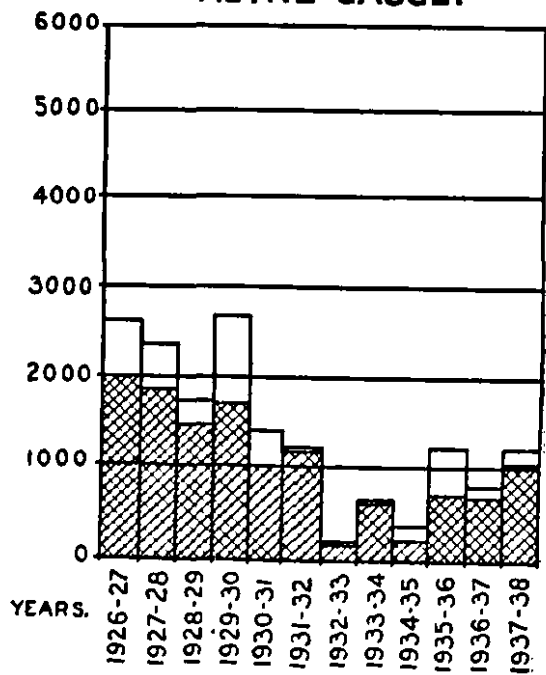
Number of coaching stock units provided in the rolling stock programme.

(7)
BROAD GAUGE.





General service and other types of wagons in units provided in the rolling stock programme.

(8)
METRE GAUGE.



General service and other types of wagons in units provided in the rolling stock programme.

General service wagons shown thus 
Other types shown thus 

intensive locomotive utilisation that exist to-day. The method of attack is a statistical analysis of a large series of technical experiments based upon considerations, the importance of which has not been fully recognised in the past.

With reference to usage of wagon stock, a large scale statistical investigation has just been completed. This investigation has thrown light upon the mechanical reasons which necessitate taking pooled wagons out of traffic for repair purposes. This, and number of subsidiary matters arising therefrom, will be followed up during 1938-39.

75. Reduction of Upper Class accommodation.—As a result of the recommendation of the Indian Railway Enquiry Committee the question of the waste of upper class accommodation was investigated by railways, and it was found that the following afforded avenues for effecting the reduction of surplus upper class accommodation :—

- (i) Amalgamation of first and second classes into one upper class;
- (ii) elimination of upper class accommodation on certain services;
- (iii) cutting down upper class accommodation to actual requirements; and
- (iv) provision of two-berth coupe compartments for first class in place of four-berth compartments.

First and second classes have been amalgamated into one upper class on the Assam Bengal Railway. Possibilities in this direction are under investigation on the Great Indian Peninsula Railway.

First class accommodation is being abolished on the narrow gauge section of the Bengal Nagpur Railway, on the Raniwara and Phalodi branches of the Jodhpur Railway and on certain services of the South Indian Railway. Upper class accommodation has been eliminated from various services on the Bombay, Baroda and Central India Railway, from 11 sections of the East Indian Railway and from 9 branch lines on the North Western Railway. The Madras and Southern Mahratta Railway have decided generally to remove first class accommodation from other than mail and express trains on main lines and first and second class accommodation on branch lines. The possibility of eliminating upper class accommodation on certain branch lines is under consideration by the Great Indian Peninsula Railway.

Upper class accommodation has been reduced on the Assam Bengal, North Western and His Exalted Highness the Nizam's State Railways. 8 broad gauge and 5 metre gauge first, second and intermediate bogie composites were converted into first, second, intermediate and third on the Eastern Bengal Railway, resulting in the reduction of the total seating capacity of first and second classes by 32 and 48 seats, respectively, on the broad gauge and 30 and 20 seats, respectively, on the metre gauge. More conversions of this nature are in hand. On the East Indian Railway, second and intermediate class carriages are being constructed in replacement of first and second composites and first class carriages and first and second class composites are being converted into tri-composites and quadri-composites. On the South Indian Railway 3 bogie first class carriages were converted into composite second and third and one bogie first class into composite first, second and third. The question of altering the designs of certain types of composite coaches to provide accommodation for the various classes more in proportion to actual requirements, is being investigated by the Great Indian Peninsula Railway.

First class two-berth coupes were provided generally in new stock in preference to 4-berth compartments.

76. Supply of rails and fishplates from indigenous sources.—During the year under review orders amounting to approximately 72,487 tons of rails and 2,628 tons of fishplates were placed with Messrs. The Tata Iron and Steel Company, Limited.

77. Purchase of timber for Carriage and Wagon building.—The total value of the timber other than sleepers bought by Class I railways (other than His Exalted Highness the Nizam's State and the Jodhpur Railways) during the year was Rs. 34.94 lakhs, compared with Rs. 42.75 lakhs in 1936-37, Rs. 40.28 lakhs in 1935-36 and Rs. 30.46 lakhs in 1934-35. By contrast, in 1927-28, when construction was active, the expenditure was Rs. 140.6 lakhs.

The price of teak is still too low to justify considering the use of indigenous timbers for construction of carriage stock. A life of no more than 10 years can be expected from indigenous timbers, whereas teak boards remain serviceable throughout the life of a vehicle which is about 30 years. The Lillooah kilns have in the circumstances remained closed throughout the year. They are, however, being maintained in their present condition; for should a national emergency arise it might be difficult to obtain teak squares from Burma and be found necessary again to use indigenous timbers for carriage construction.

The total amount of timber used by all Class I railways other than the Burma Railways, His Exalted Highness the Nizam's State Railway and the Jodhpur Railway in terms of round logs was 41,000 tons in 1936-37 as compared with 38,000 tons in 1935-36, 34,000 tons in 1934-35 and 29,000 tons in 1933-34. The percentage of Burma teak bought in 1936-37 in terms of round logs, was approximately 43, compared with *40 in 1935-36 and *36 in 1934-35. The rise is believed to be due mainly to the increase in new construction, for which Burma teak is in special demand, whilst cheaper woods are used rather for repairs and rough work such as wagon floor boards.

78. Wooden Sleeper Purchase Organisation.—The total purchases of wooden sleepers during the last four years have been :—

	(Number of sleepers in lakhs.)			
	1934-35.	1935-36.	1936-37.	1937-38.
<i>Broad gauge</i>	12.09	12.33	15.05	12.59
<i>Metre gauge</i>	13.90	14.11	14.83	14.28
<i>Narrow gauge</i>	1.51	1.42	1.71	1.61

The relative position of the various kinds of sleepers can be seen from the following percentages, based on the total number of sleepers in the track of Class I railways :—

	1937-38.			
	Wood.	Cast Iron.	Steel.	Other kinds.
<i>Broad gauge</i>	42.2	40.1	17.4	0.3
<i>Metre gauge</i>	70.6	5.6	23.7	0.1

The wooden sleeper track mileage of all gauges on Class I railways on March 31st, 1938, was 27,267 out of a grand total of 53,147 miles.

No wooden sleepers were imported. The prices of *sal* sleepers in the Eastern Group in 1937-38 averaged about Rs. 4-9-7 for broad gauge and Rs. 1-11-7 for metre gauge, compared with Rs. 4-10-10 and Rs. 1-11-3 respectively in 1936-37.

At Dhilwan on the North Western Railway the following soft wood broad gauge and narrow gauge sleepers from coniferous trees were impregnated with a mixture of 40 per cent. creosote and 60 per cent. fuel oil :—

	Fir.	Chir pine.	Kail pine.	Deodar.	TOTAL.
1. Number of sleepers treated (broad gauge)	87,346	248,053	19,505	92,670	447,664
(narrow gauge)	50	100	1	42	193
2. Average absorption of creosote per sleeper (40 per cent. of mixture).	6.052	5.952	5.936	4.176	..
3. Average absorption of liquid fuel (60 per cent. of mixture).	9.078	8.928	8.904	6.264	..
4. Average total absorption per sleeper	15.13	14.88	14.84	10.44	..
5. Approximate average absorption per cubic foot.	4.80	4.80	4.49	3.20	..

* These figures correct the figures shown last year.

The cost of treated sleepers for the year 1937-38 was :—

—	Average cost of untreated sleeper.	Cost of treating per sleeper, including freight of sleeper to Dhilwan.	Sleeper Pool Control charges.	Total average cost of treated sleeper.
	Ra. A. P.	Ra. A. P.	Ra. A. P.	Ra. A. P.
Deodar	4 11 8	0 14 4	0 3 1	5 13 1
Kail pine	3 9 0	1 1 8	0 3 1	4 12 9
Chir pine	3 3 4	1 7 11	0 3 1	4 14 4
Fir	2 12 0	0 15 10	0 3 1	3 14 11

The cost of creosote and liquid fuel this year was slightly higher than last year. This was, however, to some extent, counterbalanced by slightly lower labour charges and lower depreciation and interest charges.

The total amount spent on wooden sleepers on Class I railways (excluding His Exalted Highness the Nizam's State and the Jodhpur Railways) was Rs. 1.03 crores in 1937-38 compared with Rs. 1.12 crores in 1936-37 and Rs. 1.14 crores in 1935-36.

The annual meeting of the Sleeper Pool Committee was held at New Delhi on the 12th November 1937.

79. Value of railway materials purchased.—For the purpose of comparison with the previous year the value of the purchases by the Burma Railways which were included in Class I railways in 1936-37 have been excluded.

The value of stores purchased by Class I railways (excluding His Exalted Highness the Nizam's State and Jodhpur Railways which are mainly the property of Indian States) amounted to Rs. 15.01 crores which is an increase of Rs. 1.85 crores as compared with the previous year. The principal increases, as indicated in the statement below, were under stores such as hardware, copper, tin and zinc ware, etc. (Rs. 95 lakhs), rolling stock (Rs. 88 lakhs), and building materials, water mains, sewage system and track and yard enclosing material, etc. (Rs. 17 lakhs). There were decreases under permanent way material and track tools (Rs. 19 lakhs) and bridge works and its parts, fittings and special fastenings (Rs. 9 lakhs).

(Figures in lakhs of rupees.)

Particulars.	VALUE OF IMPORTED MATERIALS.			Value of indigenous materials.	TOTAL PURCHASES.	
	Purchased direct.	Purchased through agents in India.	Total imported materials.		1937-38	1936-37.*
	Rs.	Rs.	Rs.		Rs.	Rs.
A. Bridge work and its parts, fittings and special fastenings.	3	1	4	7	11	20
B. Engineering plant and components including all hand and power machinery.	1	5	6	2	8	12
C. Workshop machinery, plant and equipment including pneumatic machinery and tools.	7	15	22	4	26	23
D. Permanent way material and track tools	9	7	16	2,38	2,54	2,73
E. Rolling stock	74	1,48	2,22	89	3,11	2,23
F. Building materials, water mains, sewage system and track and yard enclosing materials and signal and interlocking materials, etc.	4	20	24	33	57	40

* Excluding Burma Railways.

(Figures in lakhs of rupees.)

Particulars.	VALUE OF IMPORTED MATERIALS.			Value of indigenous materials.	TOTAL PURCHASES.	
	Purchased direct.	Purchased through agents in India.	Total imported materials.		1937-38.	1936-37.*
	Rs. 12	Rs. 1,27	Rs. 1,39		Rs. 5,32	Rs. 4,37
G. Stores hardware, copper, tin and zinc ware, all leather, canvas and India rubber in bulk, metals, painters' stores, timber and fuel and fuel oil, etc.						
H. Electrical and train and locomotive lighting plants and materials, etc., and telegraph and telephone equipment.	10	58	68	5	73	72
All other stores	5	86	91	1,38	2,29	2,16
TOTAL	1,25	4,87	5,02	9,09	15,01	13,16

* Excluding Burma Railways.

80. Value of stores purchased by State-managed and Company-managed Railways during 1931-32 to 1937-38, value of stores purchased by those railways through the Indian Stores Department and value of stores purchases controlled by the Railway Board for those railways during that period.—A statement is given below showing the value of stores imported direct, imported stores purchased in India and indigenous stores purchased by the State-managed and Company-managed Railways during the years 1931-32 to 1937-38, together with the value of stores purchased by those railways through the Indian Stores Department and also the value of stores purchases controlled by the Railway Board during the same period:—

(Figures in thousands of rupees.)

Railways.	TOTAL VALUE OF STORES PURCHASED.				Value of stores purchased through Indian Stores Department.	Percentage Column 6 to Column 5.	Value of stores purchases controlled by the Railway Board.	Percentage Column 8 to Column 5.
	Stores imported direct.	Imported stores purchased in India.	Stores of Indian manufacture or of indigenous origin.	Total.				
1	2	3	4	5	6	7	8	9
1931-32.								
State-managed	1,03,23	2,91,56	5,47,71	9,42,50	1,18,08	12.63	4,51,48	47.90
Company-managed	1,41,31	1,28,46	3,87,24	6,56,91	7,87	1.20	1,78,73	26.42
TOTAL	2,44,44	4,20,02	9,34,95	15,99,41	1,25,95	7.87	6,25,21	39.10
1932-33.								
State-managed	5,34	2,26,28	3,95,16	6,20,98	1,46,84	23.38	2,01,05	41.44
Company-managed	79,00	1,07,12	2,87,83	4,78,95	4,70	0.99	95,87	20.23
TOTAL	84,34	3,33,40	6,82,99	11,09,93	1,51,54	13.72	2,96,92	32.38
1933-34.								
State-managed	6,81	2,50,63	4,94,51	7,51,95	1,70,08	22.78	3,22,17	42.84
Company-managed	66,36	1,12,71	2,65,56	4,44,63	3,81	0.85	77,58	17.45
TOTAL	73,17	3,63,34	7,60,07	11,96,58	1,74,74	14.60	3,99,75	33.40
1934-35.								
State-managed	6,40	2,57,11	5,42,60	8,05,20	2,53,51	31.48	3,48,19	43.24
Company-managed	1,10,90	1,45,65	3,51,58	6,08,13	6,16	1.01	1,40,18	23.05
TOTAL	1,17,30	4,02,76	8,94,27	14,13,33	2,59,67	18.37	4,88,37	34.55
1935-36.								
State-managed	6,37	3,36,88	6,14,15	9,57,40	2,78,11	29.05	4,05,78	42.38
Company-managed	1,23,99	1,32,21	3,48,68	5,99,88	6,76	1.13	1,40,28	23.38
TOTAL	1,30,36	4,69,09	9,62,83	15,57,28	2,84,87	18.29	5,46,06	35.06
1936-37.								
State-managed	5,31	2,54,65	5,33,26	7,97,22	*3,29,44	41.32	3,17,91	39.88
Company-managed	1,18,12	1,18,13	3,30,41	5,66,66	28,82	5.00	1,10,46	19.49
TOTAL	1,23,43	3,72,78	8,63,67	13,63,88	3,57,76	26.23	4,28,37	30.69
1937-38.								
State-managed	37	3,22,00	5,46,75	8,69,12	13,83,53	44.15	3,06,99	35.32
Company-managed	1,24,71	1,45,30	3,61,52	6,31,53	7,71	1.22	1,34,37	21.27
TOTAL	1,28,08	4,67,30	9,08,27	15,00,65	14,61,24	26.07	4,41,36	29.41

* Purchases to the value of Rs. 97,198 for the Chief Mining Engineer, Railway Board, Rs. 5,043 for the Central Publicity Bureau, Indian State Railways, and Rs. 251 for the Railway Clearing Accounts Office made through the Indian Stores Department during 1936-37 are omitted from this figure.
 † Purchases to the value of Rs. 5,51,611 for Chief Mining Engineer, Railway Board, Rs. 9,001 for the Central Publicity Bureau, Indian State Railways, and Rs. 413 for the Railway Clearing Accounts Office made through the Indian Stores Department during 1937-38 are omitted from this figure.

It will be seen that the value of stores imported direct by the State-managed Railways has decreased from Rs. 103.23 lakhs in 1931-32 to Rs. 0.37 lakhs in 1937-38. This reduction is, however, very largely due to the separation of Burma and the consequent omission of the Burma Railways' purchases from the statement. The percentage of the value of indigenous stores to the total value of all stores purchased by State-managed Railways has increased from 58.11 per cent. in 1931-32 to 62.91 per cent. in 1937-38. The value of stores purchased by these railways through the Indian Stores Department has also been increasing steadily.

In the case of Company-managed Railways the value of stores imported direct during the aforesaid period decreased from Rs. 141.21 lakhs to 124.71 lakhs.

81. Purchase of Stores by railways through the Indian Stores Department.—The total value of stores purchased by all railways through the agency of the Indian Stores Department during the year under review amounted to Rs. 4,08,49,822 of which Rs. 23,46,963 represented the value of textiles and Rs. 3,85,02,859 the value of engineering, hardware and miscellaneous stores. The list of items, the purchase of which by the State-managed Railways through the agency of the Indian Stores Department is obligatory was reviewed and the following items of railway stores were added to it:—

- Blocks, pulley.
- Hydrants, loco.
- Machines, riveting, hydraulic.
- Machines, rock drilling.
- Machines, stone breaking.
- Mills, mortar.
- Mills, pug.
- Mills, soorkee.
- Plant, disinfecting.
- Plants, chlorinating and water treatment other than plant forming part of large water softening and filtration schemes.
- Road rollers.
- Fans and blowers, foundry and forge.
- Furnaces and forges.
- Gauges, pressure (steam, air or water).
- Presses, hydraulic (forging, wheel, etc.).
- Pumps, boiler testing.
- Sand blasting apparatus.
- Shafting, pulleys and shafting fittings.
- Wood working machinery.
- Plates, copper, for locomotive fire boxes.
- Twine and sutlee.
- Webbing.
- Sanitary ware and fittings.
- Lead seals.
- Stoves and cooking ranges other than stoves and ranges required for rolling stock.
- Soda ash.
- Soda, caustic and washing.
- All electrical measuring instruments and meters with accessories.
- Electrical heating appliances, electrical fittings for external lighting including flood lights and flood light fittings.

The value of stores purchased by railways through the Indian Stores Department increased from Rs. 361.63 lakhs during the previous year to Rs. 408.50 lakhs during the year under review.

82. Cost of maintenance and supply of locomotive power and cost of maintenance and operation of carriage and wagon stock.—The results obtained during the year under review and the eleven previous years in regard to the cost of maintenance and supply of locomotive power under the three major heads of accounts (running repairs, workshop repairs and operating expenses) and also of the cost of maintenance and operation of carriage and wagon stock per 1,000 gross ton miles, for both broad and metre gauges of the Class I railways in India, are reproduced in graphic form on the two following pages.

83. Air-conditioned coaches.—Mention was made in the last report of the decision of the Railway Board to initiate an experiment with five first class air-conditioned coaches on the Bombay-Calcutta Mail Service. These coaches were placed in service in November, 1937. In addition, one air-conditioned coach was provided by the Bombay, Baroda and Central India Railway and placed in service in September, 1937, on the Frontier Mail Service between Bombay and Delhi. The results obtained by the end of the year under review indicate that the outlay incurred on these air-conditioned coaches will be amply justified.

84. Central Standards Office for Railways.—(1) *Civil Engineering Branch.*—During the year under review, the Civil Engineering Branch of the Central Standards Office standardized and issued the following drawings:—

Bridges—

- (1) Broad gauge plate girder 60 ft. span of high tensile steel for M.L. loading.
- (2) Broad gauge plate girders 80 ft. and 100 ft. spans of high tensile steel for H.M. and M.L. loadings.
- (3) Metre gauge plate girder 80 ft. span of mild steel for H.M. and M.L. loadings.
- (4) Gangway and trolley refuge for 100 ft. span plate girders.
- (5) Broad gauge masonry-arched bridges of 10 ft. span for H.M. and M.L. loadings and 12 ft., 15 ft. and 20 ft. spans for M.L. loading.

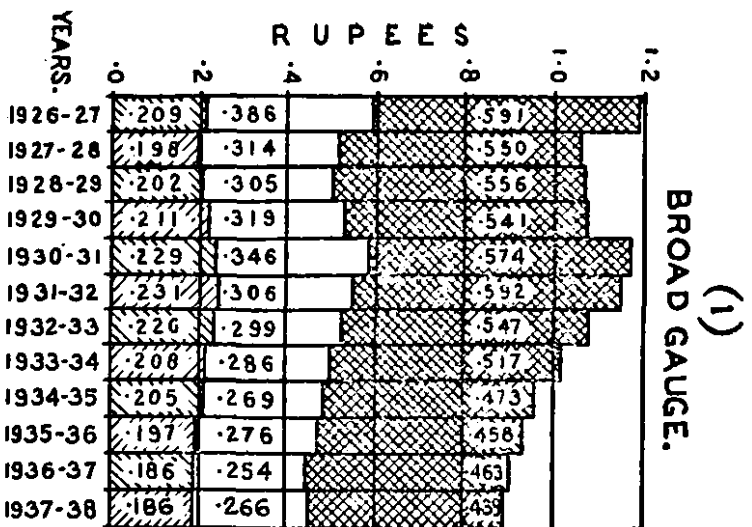
Permanent Way—

- (1) Combination fishplates for 90R-90B.S., 75R-75B.S. and 60R-60B.S. rail section.
- (2) Switch anchors for broad gauge 21 ft. and 15 ft. 6 in. and metre gauge 18 ft. and 13 ft. 6 in. switches.
- (3) 1 in 8½ turnout and 13 ft. 6 in. over-riding switch, metre gauge 75R F.F.
- (4) 1 in 8½ diamond crossing with single and double slips, metre gauge 60R F.F.
- (5) 1 in 8½ scissors crossover 14'-6" track centres, metre gauge 60R F.F.
- (6) Transverse steel sleepers with Mill's spring loose jaws and standard two-way keys for broad gauge 115, 90R, 75R and metre gauge 75R, 60R and 50R F.F. rails.
- (7) Transverse steel sleepers with pressed-up lugs and standard two-way keys for metre gauge 75R, 60R and 50R rails.
- (8) Transverse steel sleepers with C.S.O. type loose jaws and standard two-way keys for broad gauge 115, 90R and 75R rails.

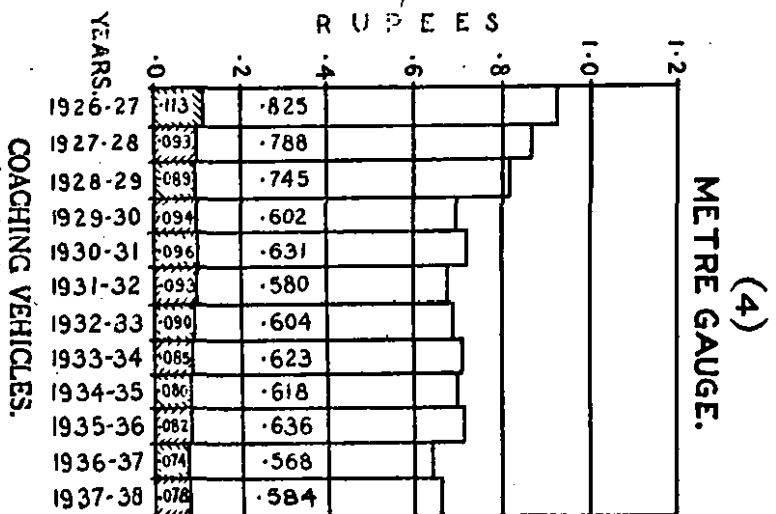
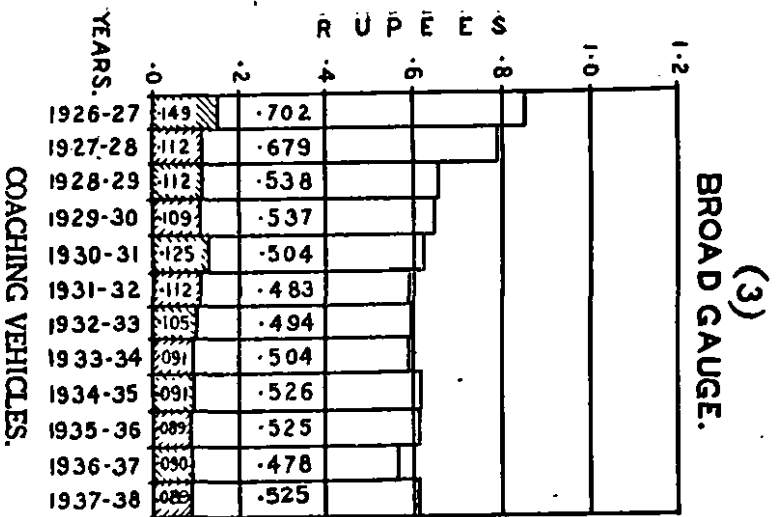
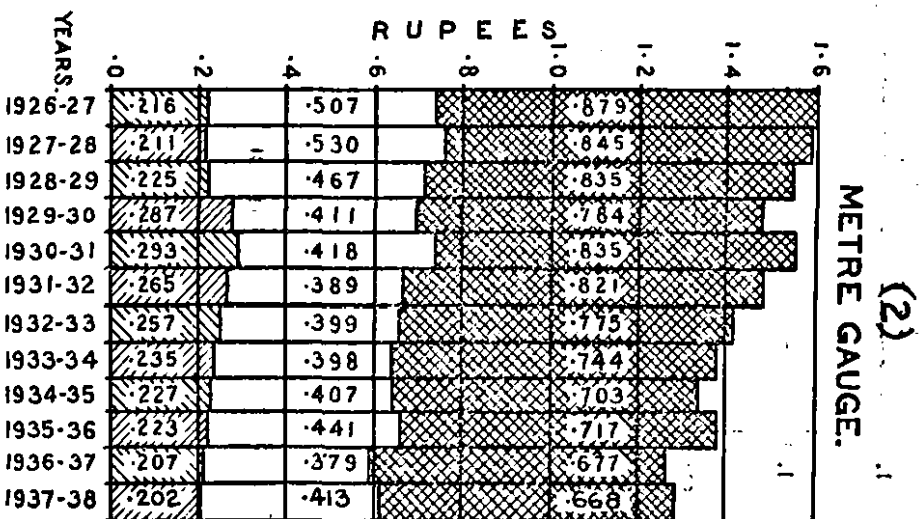
MAINTENANCE REPAIRS SHOWN THUS
 Workshop repairs shown thus
 Operating expenses shown thus






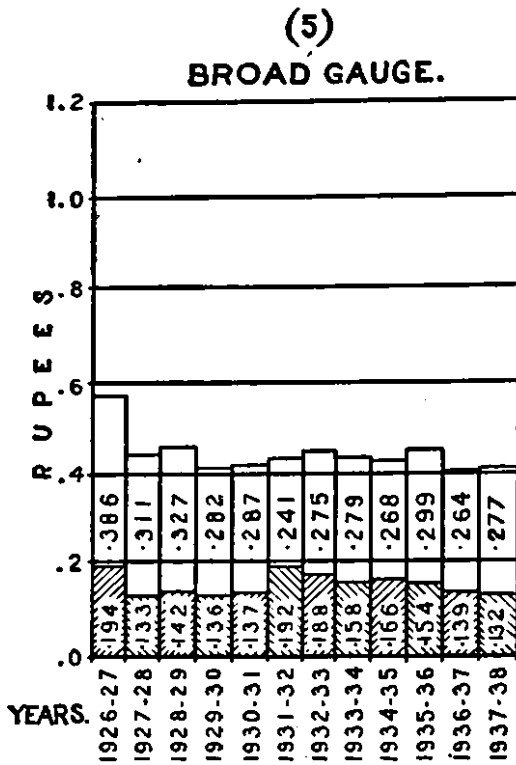
COST OF MAINTENANCE AND SUPPLY OF LOCOMOTIVE POWER PER 1,000
 GROSS TON MILES.



COST OF MAINTENANCE AND OPERATION OF CARRIAGE AND WAGON STOCK
 PER 1,000 GROSS TON MILES.

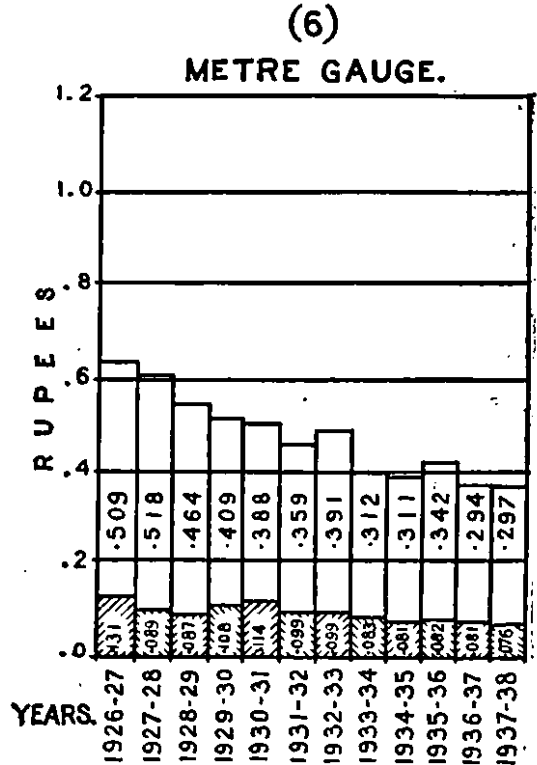


Running repairs shown thus 
 Workshop repairs shown thus 
 Operating expenses shown thus 



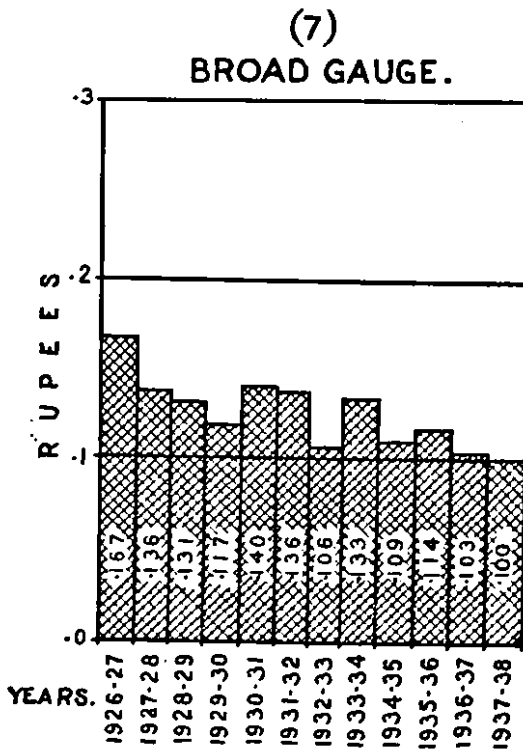
GOODS VEHICLES.

Cost of maintenance and operation of carriage and wagon stock per 1,000 gross ton miles.



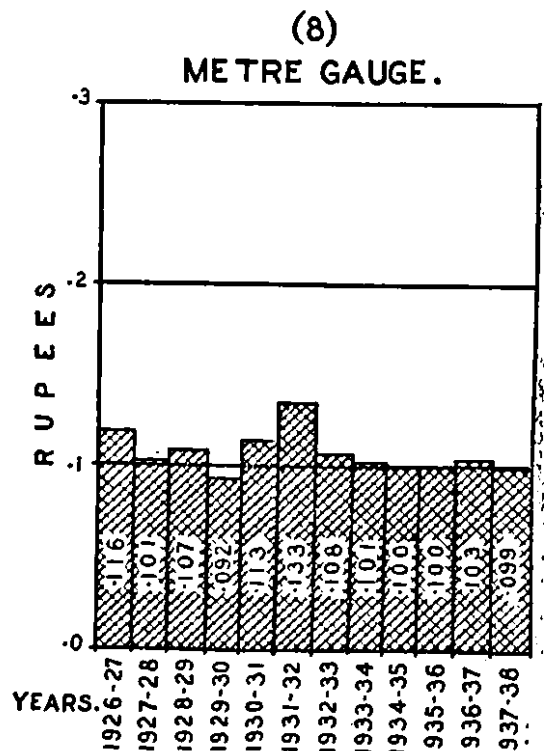
GOODS VEHICLES.

Cost of maintenance and operation of carriage and wagon stock per 1,000 gross ton miles.



OPERATING EXPENSES.

Cost of operation of carriage and wagon stock per 1,000 gross ton miles.



OPERATING EXPENSES.

Cost of operation of carriage and wagon stock per 1,000 gross ton miles.

Permanent Way—contd.

- (9) C.I. anti-creep bearing plate for broad gauge 90R and 90B.S. rails.

Roofs and Sheds—

- (1) Roof over 23 ft., 30 ft., 34ft., 40 ft., 50 ft. and 60 ft. wide island passenger platforms, broad gauge.
 (2) Roof over 20 ft. 2 in. and 37 ft. 2 in. wide island passenger platforms, metre gauge.

Signalling and Interlocking—

- (1) Crank—horizontal 12" × 12" high, medium and low.
 (2) Signals, Dwarf—1 arm and 2 arms and shunt—1 arm and 2 arms.
 (3) Roller guides—1 way to 5 ways.
 (4) Lock bar clips for 115, 90R and 75R rails.

In addition to the above, the following drawings were prepared by the Central Standards Office and issued as tentative standards:—

Bridges—

- (1) Metre gauge plate girder 64 ft. span of high tensile steel for M.L. loading.
 (2) Broad gauge plate girders 10 ft. and 12 ft. spans of mild steel for M.L. loading.
 (3) R.C. slab top 6 ft. and 12 ft. spans for broad gauge M.L. loading.
 (4) R.C. pipe culvert 1'-6" dia. for broad gauge, M.L. loading.

Permanent Way—

- (1) Rail-free Duplex cast iron joint sleeper (flat bottom type) for broad gauge 115 and 90R and metre gauge 60R rails.
 (2) 1 in 12 spring crossing for broad gauge 90R.
 (3) 1 in 8½ diamond crossing with single and double slips for broad gauge 75R.
 (4) 1 in 10 diamond crossing with single and double slips for broad gauge 90R.
 (5) 1 in 12 scissors crossover 14 ft. 6 in. track centres for metre gauge 60R.
 (6) Rolled steel check rails on level crossings for broad gauge 90R and metre gauge 60R rails.
 (7) Cast iron bearing plate for broad gauge 90R and 90B.S.
 (8) Expansion joints for canted and vertical rails for broad gauge 90R for spans up to—
 (i) 100 ft., and
 (ii) 350 ft.
 (9) Combination fishplates for 90R-75B.S., 60R-50B.S. and 60R-50N.S.

Roofs and Sheds—

- (1) Roof over 45 ft. 6 in. wide broad gauge and 27 ft. wide metre gauge island passenger platforms.

Signalling and Interlocking—

- (1) Facing point lock.
 (2) Point adjusting screw.
 (3) Rotary detector.

(2) *Mechanical Engineering Branch.*—The larger part of the work done in the Mechanical Drawing Office was in connection with the minutes of the 19th and 20th meetings of both the Locomotive Standards and Carriage

and Wagon Standards Committees. The recommendations made by these committees were investigated and old standards altered or new ones introduced in accordance with the orders of the Railway Board passed on the different proposals made. In addition, experimental designs were evolved in connection with the heated bearing investigation. Master sets of part drawings relating to wagons, underframes, automatic vacuum brake and track tools were kept up-to-date. Approximately 355 new wagon underframe and C part drawings were issued.

Details regarding the designs of the WL, WM, WV and WW type locomotives were scrutinised and settled in correspondence with the Consulting Engineers.

Advantage was taken of the manufacture of W series locomotives during the year to make a start on locomotive part drawings. An officer of the Central Standards Office on leave in England was instructed to collaborate with the Consulting Engineers and the builders in evolving a suitable system of part-numbering of locomotive parts.

The same officer was also asked to discuss with the Consulting Engineers the question of coupling and connecting rod fractures and a satisfactory formula for the design has now been evolved.

(3) *Specifications Branch*.—During the year under review, the Specification Section of the Central Standards Office standardized and issued new Indian Railway Standard Specifications for the following:—

- (1) Tubular steel signal poles.
- (2) Train lighting dynamo axle pulleys (broad gauge and metre gauge).
- (3) Conditions of contract for electrical wiring of railway buildings.
- (4) Locomotive electric headlight and Lighting equipment (broad gauge and metre gauge).
- (5) Nails, wire.
- (6) Steel plates for inside fire boxes for locomotives (plain and flanged).
- (7) Fang bolts, Indian Railway Standard.
- (8) Carriage body fittings.
- (9) Tender advertisement and tender notice for electrical wiring of railway buildings.

22 I.R.S. Specifications were revised and re-issued, while 8 were modified through the issue of corrigendum or addendum slips. 7 I.R.S. Specifications were cancelled, and Indian Stores Department Standard Specifications for the same adopted in lieu thereof for use on railways. In addition, 39 Indian Stores Department Standard Specifications and 10 British Standard Specifications were adopted for use on railways.

85. Standardization Committees.—The various standardization committees continued to perform valuable work concerning which details are given below:—

85.1. Locomotive Standards Committee.—The Locomotive Standards Committee met in December, 1937. Based on experience in service, a number of modifications to existing designs were recommended and successful trial fittings were standardized. Some of the principal subjects dealt with are detailed below:—

- (i) Review of data regarding hot bearings.
- (ii) Trials on YF type engines with the German type of draft gear, Ferodo-lined slides and limited side movement of hind truck.
- (iii) Consideration of a preliminary report received from Officer on Special Duty and reports from Great Indian Peninsula and North Western Railways on the running of KA, XB and XC class engines fitted with the German type of draft gear,

Ferodo-lined bogie slides and pivot centres and Ferodo-lined hind truck flat slides.

- (iv) Consideration of a report of Officer on Special Duty on the curving of XC and XE class engines.
- (v) Standardization of sizes of steel pipes for I.R.S. locomotives.
- (vi) Consideration of draft specification for locomotive headlights.

85.2. Carriage and Wagon Standards Committee.—The Carriage and Wagon Standards Committee met twice during the year, in July, 1937 and March, 1938. At the July meeting, the committee considered the extent to which railways should be permitted to depart from existing standards and decided that, in view of the latitude in layout now permitted under the Railway Board's orders, standard body construction drawings would only be required for parts unaffected by variations in layout. The future policy of carriage part drawings was examined and recommendations made regarding their retention or otherwise. Recommendations relating to the designing of light weight coaching stock were also made and it was decided that the question should be investigated by the Central Standards Office. At the March meeting, the committee recommended a number of modifications in the design of mechanical and electrical components as a result of experience in service. Among the other subjects dealt with by the committee are the following:—

- (i) Acceptance of high tensile broad gauge underframes for 1939-40 requirements of railways.
- (ii) Desirability of obtaining for trial purposes broad and metre gauge bogies to designs prepared by Messrs. The Schweizerische Wagons and Aufzugfabrik A.G. Schlieren—Zurich.
- (iii) Adoption of semi-steel horncheeks as standard for broad and metre gauge coaching stock.
- (iv) Extensive trials on spring steel re-rolled from tyres.
- (v) Investigation into the design of spring steel bushes for brake gear.
- (vi) Adoption of Tis-cor steel as a permissible alternative for wagon roofs and panels.
- (vii) Saving in weight that can be effected on coaching stock taking into account the economic factor.

85.3. Bridge Standards Committee.—The Committee met in January, 1938, and made recommendations on the following:—

- (i) A standard specification for concrete construction other than reinforced concrete construction.
- (ii) Messrs. Rendel, Palmer and Tritton's remarks regarding the I.R.S. Code of Practice for Bridge and Structural design employing high tensile steel.
- (iii) Design of the most suitable type of substructure, *i.e.*, abutment walls, foundations, etc., for standard reinforced concrete slab top openings.
- (iv) Features, dimensions, etc., to be followed in the preparation of standard designs of masonry bridge foundations, piers and abutments of girder bridges of standard spans.
- (v) A proposal received from the Deputy Chief Engineer, Bridges, North Western Railway, to adopt a modified type of expansion rocker bearing for lattice girder bridges.
- (vi) Tentative standard designs of water tank stagings prepared by the Central Standards Office.
- (vii) A suitable range of spans for reinforced concrete slab top bridges. Designs of slab tops prepared by the Central Standards Office.

- (viii) Designs of reinforced concrete pipe culverts prepared by the Central Standards Office.
- (ix) Pre-stressing of lattice girders and their design.
- (x) Reports on the results of experiments made by the Great Indian Peninsula, Bombay, Baroda and Central India and East Indian Railways on the use of rubber and cast iron sleeper pads.
- (xi) Criticisms of the I.R.S. Code of Practice for the Design of Structural Steelwork other than bridges carrying rail or road traffic.
- (xii) Results of experiments on the effects of arc-welding on to structural members already under stress carried out by the Deputy Chief Engineer, Bridges, North Western and Great Indian Peninsula Railways.
- (xiii) Revised drawing No. B-3030 of standard profile of 350 feet span high tensile steel truss girder.
- (xiv) Suggestion to revise clause 17 of the Bridge Rules in the light of clause 18 of the British Standard Specification No. 153, Parts 3, 4 and 5—1937.
- (xv) Economics of shop welding parts and secondary members in new girder construction.
- (xvi) Application of the "secant" formula for struts adopted in the Code of Practice for Bridge and Structural Design employing high tensile steel to the case of mild steel.

85.4. Track Standards Committee.—The Committee met in December, 1937, and made recommendations on the following :—

- (i) The Signalling and Interlocking Standards Committee's recommendations for the preparation of standard drawings of insulated rail joints.
- (ii) The Signalling and Interlocking Standards Committee's recommendations regarding the standard position for stretcher bars.
- (iii) Report submitted by the Bombay, Baroda and Central India Railway on the rail expansion joint used on the Nerbudda Bridge and designs of rail expansion joints prepared by the Central Standards Office.
- (iv) Designs of combination fish-plates prepared by the Central Standards Office and the question as to what further drawings were necessary.
- (v) Designs of Hadfield's Era manganese steel combination fishplates submitted by Messrs. Balmer Lawrie and Company, Limited, and their suitability for adoption as permissible alternatives to standard designs.
- (vi) Designs of special layouts for 1 in 8½ turnouts to meet the case of gathering lines where the stock rail butts against the crossing prepared by the Central Standards Office.
- (vii) Drawings of the 90R broad gauge spring crossings prepared by the Central Standards Office.
- (viii) The suggestion to locate the leading stretcher bar for diamonds and slips between the 1st and 2nd sleepers instead of its present position between the 2nd and 3rd sleepers from the toe of the switch.
- (ix) Drawings and specimens of tools in use on the North Western and East Indian Railways for opening split cotters used with CST 9 type sleepers.

- (x) Design of guard rails and fittings for level crossing prepared by the Central Standards Office and comments thereon by railways.
- (xi) Modified designs of—
 - (1) the lightest type of broad gauge inspection trolley,
 - (2) a modified type of the above suitable for use by permanent way staff,
 - (3) the lightest type of metre gauge inspection trolley,and a suggestion from the Baldwin Locomotive Works, Calcutta, regarding the insulation of push trolley axles.
- (xii) The drawing of a 90R cast iron bearing plate for use in conjunction with the anti-creep bearing plate prepared by the Central Standards Office.
- (xiii) Reports submitted by railways and the question of preparing special design of rail section for hill railways.
- (xiv) A suggestion to standardize complete layouts for crossovers and the question of preparing standard drawings for crossovers for 14 ft., 15'-6" and 17 ft. track centres suitable for both steel or wood.

A typical layout plan for a broad gauge crossover with track centres at 14 ft. for steel sleepers.
- (xv) Designs for broad gauge and metre gauge Duplex joint sleepers prepared by the Central Standards Office and modified in the light of results of research investigations carried out into the matter of securing uniformity of track depression throughout the track.
- (xvi) Use of chrome rails for points and crossings. Camber, composition and heat treatment of rails.

85.5. Signalling and Interlocking Standards Committee.—The committee met in November, 1937, and made recommendations on the following:—

- (i) Draft new clauses for the Block Signalling Manual.
- (ii) Drawings of signal poles, bracket poles and doll poles and criticisms thereon. Design of bracket signals prepared by the Central Standards Office.
- (iii) Comments on drawings of—
 - (a) 1" point adjusting screw, and
 - (b) Facing point lock,prepared by the Central Standards Office.
- (iv) The Great Indian Peninsula Railway's proposal to standardize the revised design of one day fount, shown on their drawing No. R-6911, for use in lamps SA-2800 and SA-2801 in place of the existing standard fount drawing No. SA-2836.
- (v) The proposal to revise I.R.S. Detector Base drawing on the lines of Great Indian Peninsula Railway drawing and to modify the drawing of point slides for detectors.
- (vi) Drawings of insulated rail joints received from railways and the question of preparing standard drawings.
- (vii) Standard position of stretcher bars fixed by the Central Standards Office.
- (viii) Certain difficulties which had arisen in fixing nipples to signalling and interlocking fittings for grease lubrication.

- (ix) Preparation of standard designs of various signalling and interlocking fittings, drawings of which were collected from various railways.
- (x) Suggestion to adopt South Indian Railway's method of insulating the stretcher bars and to issue their design as an alternative standard design.
- (xi) The question of preparing standard designs of apparatus to comply with the provisions of revised Part I, Section 6 of the Manual of Signalling and Interlocking.
- (xii) Preparation of standard plans for facing point lock layouts.
- (xiii) Specification for kerosenes.
- (xiv) Draft standard specification for armoured cable multicore for signalling purposes, 250 volts, 600 megohm grade.

85.6. Standing Committee on Standards and Specifications for Indian Railways.

—The Committee met in January, 1938. They considered 59 items outstanding from previous meetings and 6 new items, and made recommendations. Amongst the principal subjects considered were :—

- (1) Standardization of hand signal lamps.
- (2) Standardization of crockery and cutlery used on railways.
- (3) Standardization of disinfectants for sanitary purposes.
- (4) Interchange of results of practical test on materials.
- (5) Conditions of contract.—Regarding recovery of freight charges on rejected stores booked for free delivery at destination at R.M.C. rates.

85.7. Electrical Standards Committee.—The Electrical Standards Committee met in Simla on the 30th August, 1937, and continued their work until they adjourned on the 4th September, 1937. They considered 9 draft I. S. D. Specifications for electrical equipment and recommended their adoption for use on railways with certain modifications. They also considered 28 other subjects and made recommendations, the more important amongst them being :—

- (1) Tender notice, Conditions of contract and Specification for electrical wiring of railway buildings.
- (2) Draft I.R.S. Specification for locomotive electric headlight and lighting equipment.
- (3) Standardization of generator and battery equipment of broad and metre gauge passenger rakes.
- (4) Standards for electrical equipment used on railways, which would prevent electrical interference to broadcast reception.
- (5) Investigation into the possibility of improving the general lighting of coaching stock.

86. Research and Development.—A vigorous and active policy in this direction was fully maintained and several new investigations were undertaken. Among the more important items in hand during the year were :—

86.1. Mechanical Branch—

- (i) *Paints.*—Additions were made to the range of exposure test panels prepared in close collaboration with the Industrial Intelligence and Research Bureau and Indian Stores Department (Government Test House) and Madras was included as an exposure station. The condition of the panels at the various stations was recorded at regular intervals by systematic methods. Valuable data regarding the protective properties of various paints under the widely varying climatic conditions in India are being obtained.

It was considered that a stage in the investigation of painting and allied problems had been reached where technical assistance from outside India was essential. The services of a paint technologist were obtained from England, who, during his tour of India, visited not only railway workshops but also the Government Test House and the principal paint factories. His report is expected to be received shortly and it is confidently anticipated that this will be of considerable value and enable economies to be effected, not only in decreased painting and maintenance costs but also through the increased usage of vehicles.

- (ii) *Dynamometer Car.*—The Dynamometer Car Officer continued to meet the officers of the Central Standards Office and amongst subjects discussed were locomotive cylinder performance, boiler performance, reducing pressure drop between the boiler and the steam chest, and rating of standard locomotives. Consequent upon these discussions, it was decided to prepare designs for modernising one Great Indian Peninsula Railway 4-6-0 type engine. It is hoped to bring this engine under dynamometer trials in 1938-39.
- (iii) *Analysis of wagon defects.*—The results of an analysis organised in 1937-38 will be available in 1938-39 and this survey is expected to throw light on the principal causes of maintenance expenditure, both in sick line repairs and periodic overhaul in main workshops and the relation between the age of rolling stock and maintenance.
- (iv) *Heated Bearing problem.*—The Indian Railway Enquiry Committee considered that the usage of rolling stock was susceptible of improvement. Towards the end of 1937 an Officer on Special Duty was deputed to examine the problem, who concentrated first upon the organisation of a statistical survey of the incidence and causes of locomotive heated bearings. A number of experimental designs were evolved for trial by railways and the Central Standards Office. The results of this scheme will be analysed during 1938-39. Preliminary arrangements were completed for large scale lubricating oil trials to be made on the four State-managed Railways. In addition, a Standing Committee of Metallurgists and Chemists was inaugurated in collaboration with the Indian Stores Department, and arrangements were made for this committee in turn to collaborate with the Indian Railway Conference Association's Standing Committee on carriage and wagon hot boxes.
- (v) *Wagon door leakage.*—The question of the design of water-tight wagon doors is under examination and a series of tests to determine the correctness of the view that leakage is induced by airflow are being conducted by the North Western Railway. It is hoped to evolve during 1938-39 designs of door joint baffles or sections that will produce the best results.
- (vi) *Corrosion tests.*—Panel plates of eight types of material, six of Indian and two of foreign manufacture, were prepared in collaboration with the Industrial Research Bureau and the Indian Stores Department (Government Test House) and exposed in Calcutta, Delhi, Lahore, Bombay and Madras. The panels are regularly inspected and their condition systematically recorded. At intervals they will be sent to the Government Test House for derusting and weighment. The object of the tests is to obtain a suitable substitute for a

- material at present imported and at the same time ascertain which material has the best corrosion resisting properties.
- (vii) *Locomotive movements*.—The apparatus originally procured for investigation of stresses in tracks was adapted to record movements occurring in various parts of locomotives and wheel flange stresses. A considerable amount of valuable information has already been obtained and the work is being continued.
- (viii) *Welded Wagons*.—Following the recommendations of the Carriage and Wagon Standards Committee and the Indian Railway Conference Association orders were placed in India for twelve covered wagons of the CR type of welded construction. Six of the wagons are to be of welded construction throughout and six of part welded construction, the underframes being rivetted and the bodies including roofs, sides, ends and floors welded. The Central Standards Office have scrutinized the designs, details of which have been developed by the two contracting firms on lines indicated by the Central Standards Office. The main objective in this development is a reduction of tare weight coupled with increased strength, but other advantages are also likely to accrue.
- (ix) *Trials*.—The progressive policy which is being pursued in standardization is evidenced in the number of trials which are always in hand. At present 37 locomotive trials and 32 carriage and wagon trials are in progress. Special forms are prepared by the Central Standards Office for each trial to ensure that the required data is submitted on a comparable basis. Trial reports are examined in the Central Standards Office and by the appropriate Standards Committee and if the results are favourable the feature will be adopted, either by altering existing standards or introducing permissible alternatives.
- (x) *Patents*.—Particulars of applications for patents as published in Part II of the Gazette are regularly scrutinized in the Central Standards Office. Copies of Patent Specifications likely to be of interest to Indian railways are obtained, indexed and recorded for future reference. Opposition proceedings are undertaken in cases when this is considered necessary in order to protect the interests of the Government of India and Indian railways. Four such cases have occurred during the year under review. One of these has been successfully concluded and the remainder are still pending.

86.2. Civil Engineering Branch—

- (i) *Stresses in track*.—Experimental work has been directed chiefly to the measurement of stresses and deflections in track caused by the lateral oscillations of locomotives by means of measuring instruments located both on the track and on the locomotive.
- Rail and fishplate stress and deflection records have been further examined and new formulae have been evolved for calculating the stresses and deflections due to vertical loads for varying conditions.
- (ii) *Heat-treatment of crossings*.—Six sets of heat-treated crossings have been laid in the track on the East Indian Railway in order to obtain actual experience of what reduction of wear can be obtained by the process on crossing in service. These

are under observation and conclusions will in due course be drawn as to the success of this trial.

- (iii) *Re-conditioning of fishplates.*—In conformity with the recommendations of the Indian Railway Enquiry Committee, railways were addressed to ascertain progress made in the adoption of reconditioned fishplates as already recommended. Substantial progress is reported.
- (iv) *Special joint sleepers.*—The original design has been revised, the base being changed from a rectangular to an 'H' shape. At the same time, the area has been increased. This was done in order that the whole area could be properly packed and to keep the depression at the joint as nearly as possible the same as at other positions in the rail. The ultimate aim is to secure uniformity of support throughout rails and joints and reduce track maintenance costs. The new type is being tried out on the Assam Bengal, East Indian, South Indian and Madras and Southern Mahratta Railways and promises well.
- (v) *Special pocket type C.I. sleepers.*—Reports on the C.S.T. 9' type sleepers received this year are very satisfactory and in all probability this type will be standardized.
- (vi) *Guard rails for level crossings.*—Designs have been prepared using a rolled flat as the "guard rail" which is fixed to the running rail by means of cast iron distance blocks placed between the sleepers. This enables it to be fixed to a cast iron or steel-sleepered road without any special sleepers. This design will be shortly tried out on the Great Indian Peninsula Railway.
- (vii) *Rail expansion joints.*—A series of designs have been prepared for the use on bridges where rail joints are welded throughout the length of the span or where the rails are rigidly attached to the floor of the bridge as in the case where rails are keyed to steel sleepers. These will shortly be tried by the East Indian and Madras and Southern Mahratta Railways.
- (viii) *Improvements in track on bridges.*—Rubber and composition pads between rails and sleepers and between sleepers and girders are being tried out on the Bombay, Baroda and Central India and Great Indian Peninsula Railways. Up-to-date, the results are very satisfactory.
The East Indian Railway will shortly start a trial on steel sleepers in lieu of timber sleepers on a girder bridge.
- (ix) *Strengthening bridges by means of welding.*—Experiments have been carried out to determine the possibilities of welding on to structural members which are already under stress. Further experiments have been found necessary and will shortly be carried out.

CHAPTER VII.

STAFF.

87. Number of staff.—The total number of employees (permanent and temporary) on all Indian Railways and in the office of the Railway Board and other offices subordinate thereto (excluding staff employed on construction) at the end of the year 1937-38 was 692,178 as compared with 687,260* at the end of 1936-37. The total route mileage at the end of the year was 41,076. The following table shows the number of employees by communities on the 31st March 1937 and 1938. A similar statement showing details by railways is given as Appendix C of Volume II of the Report by the Railway Board on Indian Railways for 1937-38.

Date.	Europeans.	INDIANS.								GRAND TOTAL.	
		Hindus.		Muslims.	Anglo-Indians and domiciled Europeans.	Sikhs.	Indian Christians.	Parsis.	Other communities.		
		Hindus other than depressed classes.	De-pressed classes.								
31st March 1937† .	2,948*	400,970*	90,745*	151,612*	12,771*	8,080*	17,053*	1,556*	1,508*	684,312*	687,260*
31st March 1938 .	2,892	395,381	98,891	153,794	12,843	8,114	17,311	1,555	1,597	689,486	692,178

NOTE.—These figures exclude the staff on loan from the Indian Audit and Accounts Service (Deptt.).
* Represents revised figures due to minor corrections made in the figures published last year.
† Excludes Burma Railways which was separated with effect from 1st April 1937.

88. Cost of Staff.—The following statement shows the number and cost of all staff, superior and subordinate (including labourers) permanent and temporary, open line and construction, employed on Class I Railways during the years 1936-37 and 1937-38. Contractors' labour is not included.

Railway Systems.	Year.	NUMBER OF STAFF ON 31st MARCH.							COST OF STAFF.			
		OPEN LINE.			CONSTRUCTION.			Gazetted Officers on loan from the Indian Audit and Accounts Service (Deptt.).	Gazetted Officers.	Non-gazetted employees.	TOTAL.	Total including staff on loan from the Indian Audit and Accounts Service (Deptt.).
		Gazetted Officers.	Non-gazetted employees.	TOTAL.	Gazetted Officers.	Non-gazetted employees.	TOTAL.					
		3	4	5	6	7	8	9	10	11	12	13
									Rs.	Rs.	Rs.	Rs.
Assam Bengal	1937	69	17,027	17,095	..	..	..	..	11,21,043*	67,40,900*	78,71,933*	78,71,933*
	1938	69	17,241	17,310	..	..	..	..	9,95,000	69,07,450	79,02,450	79,02,450
Bengal and North-Western.	1937	73	27,150	27,223	..	..	..	..	11,00,627	78,40,881	89,41,508	89,41,508
	1938	82	28,399	28,481	..	..	..	..	11,95,056	74,48,332	86,43,388	86,43,388
Bengal Nagpur	1937	190	66,253	66,443	..	..	..	..	33,59,189	3,17,16,622	3,50,75,811	3,50,75,811
	1938	196	69,051	69,246	..	..	..	..	33,95,818	3,19,59,619	3,53,55,437	3,53,55,437
Bombay, Baroda and Central India.	1937	170	63,176	63,346	..	297	297	..	80,70,064	3,86,06,308	4,16,76,462	4,16,76,462
	1938	173	63,206	63,379	..	322	322	..	30,73,829	3,87,84,925	4,18,38,754	4,18,38,754

NOTE.—The figures of cost include the salaries and wages of staff, bonus contributions to the provident fund, 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 allowance.

* Represents revised figures for 1936-37 due to changes made by the railway administrations in the figures published last year.

Railway Systems.	Year.	NUMBER OF STAFF ON 31ST MARCH.							COST OF STAFF.				
		OPEN LINE.			CONSTRUCTION.			Gazetted Officers on loan from the Indian Audit and Accounts Service (Deptt.).	Gazetted Officers.	Non-gazetted employees.	TOTAL.	Total including staff on loan from the Indian Audit and Accounts Service (Deptt.)	
		Gazetted Officers.	Non-gazetted employees.	TOTAL.	Gazetted Officers.	Non-gazetted employees.	TOTAL.						
1	2	3	4	5	6	7	8	9	10	11	12	13	
Burma	1937	96	23,142	23,238	..	..	..	1	Rs. 16,16,421	Rs. 1,17,33,190	Rs. 1,33,51,611	Rs. 1,33,93,220
	1938	§	§	§	§	§	§	§	§	§	§	§	
Eastern Bengal	1937	119	52,236*	52,405*	..	..	..	2	Rs. 22,84,829*	Rs. 2,36,17,674*	Rs. 2,59,02,503*	Rs. 2,59,58,641*
	1938	116	53,319	53,335	..	..	..	2	Rs. 21,06,227	Rs. 2,33,75,705	Rs. 2,59,31,932	Rs. 2,60,46,931
East Indian	1937	300	124,710*	125,010*	..	..*	..*	6	Rs. 51,43,915	Rs. 6,09,23,915	Rs. 6,60,72,830	Rs. 6,61,98,705
	1938	287	126,223	126,513	..	..	..	6	Rs. 51,03,755	Rs. 5,11,04,730	Rs. 6,62,08,485	Rs. 6,63,22,049
Great Indian Peninsula.	1937	215	81,842*	82,067*	..	..	..	1	Rs. 40,49,995*	Rs. 4,41,83,054*	Rs. 4,82,33,049*	Rs. 4,82,37,739*
	1938	216	79,490	79,706	..	..	..	1	Rs. 39,73,199	Rs. 4,34,42,402	Rs. 4,74,15,601	Rs. 4,74,24,538
Jodhpur	1937	24*	7,620	7,644*	..	..	..	1*	Rs. 4,20,617†	Rs. 27,25,132	Rs. 31,45,799	Rs. 31,45,799
	1938	27	8,186	8,213	..	..	..	1	Rs. 4,24,717	Rs. 27,94,047	Rs. 32,18,764	Rs. 32,41,233
Madras and Southern Mahratta.	1937	137	50,147*	50,284*	..	..*	..*	..	Rs. 23,74,312	Rs. 2,34,24,765*	Rs. 2,57,99,077*	Rs. 2,57,99,077*
	1938	134	46,890	47,024	..	..	..	..	Rs. 23,07,605	Rs. 2,33,14,623	Rs. 2,56,22,223	Rs. 2,56,22,223
Nizam's State	1937	67	15,675	15,742	1	210	211	..	Rs. 9,55,208	Rs. 60,69,700	Rs. 70,24,908	Rs. 70,24,908	
	1938	75	15,944	15,919	2	183	185	..	Rs. 10,24,593	Rs. 61,25,330	Rs. 71,49,923	Rs. 71,49,923	
North Western	1937	267*	100,394*	100,661*	..	1	1	4	Rs. 45,46,093*	Rs. 5,69,77,627*	Rs. 6,15,23,720*	Rs. 6,15,74,987*	
	1938	274	100,153	100,427	..	1	1	4	Rs. 46,53,347	Rs. 5,75,85,573	Rs. 6,22,18,919	Rs. 6,22,84,353	
Bohilkund and Kumaon.	1937	17	5,534	5,551	..	..	..	..	Rs. 2,20,422	Rs. 15,15,494	Rs. 17,35,916	Rs. 17,35,916
	1938	16	5,676	5,692	..	..	..	..	Rs. 2,33,176	Rs. 15,60,941	Rs. 17,94,117	Rs. 17,94,117
South Indian	1937	124	36,606	36,730	..	23	23	..	Rs. 18,82,645	Rs. 1,64,45,160	Rs. 1,83,27,805	Rs. 1,83,27,805	
	1938	123	36,722	36,954	1	100	101	..	Rs. 18,92,223	Rs. 1,65,61,739	Rs. 1,84,54,037	Rs. 1,84,54,037	
Railway clearing Accounts Office.	1937	5	1,330	1,344	..	..	..	2	Rs. 74,646	Rs. 15,73,631	Rs. 16,48,277	Rs. 16,90,421
	1938	5	1,347	1,352	..	..	..	2	Rs. 72,515	Rs. 15,31,855	Rs. 16,54,370	Rs. 16,94,467
TOTAL	1937	1,872*	672,901*	674,773*	1	531*	532*	17*	Rs. 2,23,13,126*	Rs. 33,36,08,333*	Rs. 36,59,21,459*	Rs. 36,62,42,982*	
	1937†	1,776	649,759	651,535	1	531	532	16	Rs. 3,06,94,705	Rs. 32,18,75,143	Rs. 35,25,69,848	Rs. 35,28,49,712	
	1938	1,901	651,650	653,451	3	606	609	16	Rs. 3,04,51,135	Rs. 32,30,07,780	Rs. 35,34,58,915	Rs. 35,37,54,833	

NOTE.—The figures of cost include the salaries and wages of staff, bonus contributions to the provident fund, 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 allowance.

* Represents revised figures for 1936-37 due to changes made by the railway administrations in the figures published last year.

† Figures are not shown as Burma Railways do not form part of Indian Railways with effect from 1st April 1937.

‡ Excludes figures of Burma Railways.

§ Includes cost of staff on loan from the Indian Audit and Accounts Service (Department).

Distribution of cost of Gazetted Officers and Subordinate staff of the Railway Clearing Accounts Office.

Railway.	Gazetted Officers.		Non-gazetted employees.		Total.		Total including staff on loan from Indian Audit and Accounts (Departments.)	
	1936-37.	1937-38.	1936-37.	1937-38.	1936-37.	1937-38.	1936-37.	1937-38.
1. North Western .	20,263	19,553	4,26,028	4,26,523	4,40,291	4,46,076	4,57,632	4,56,887
2. East Indian .	20,263	19,553	4,26,028	4,26,523	4,40,291	4,46,076	4,57,632	4,56,887
3. Eastern Bengal .	7,508	7,332	1,59,761	1,59,946	1,67,359	1,67,278	1,71,612	1,71,332
4. Great Indian Peninsula.	15,196	14,664	3,19,521	3,19,802	3,34,717	3,34,556	3,43,224	3,42,665
5. Bombay, Baroda and Central India.	11,526	11,413	2,42,343	2,48,971	2,53,869	2,60,384	2,60,321	2,66,696
TOTAL .	74,846	72,515	15,73,681	15,81,855	16,48,527	16,54,370	16,90,421	16,94,467

A comparison of the figures for 1937-38 with those for 1936-37 (excluding Burma Railways) shows that the total number of staff employed on open line on 31st March 1938 increased by 1,916 as compared with that on 31st March 1937, the number of staff on loan from the Indian Audit and Accounts Service continued to be the same while the number of construction staff rose by 77. The total cost of staff including those on loan from the Indian Audit and Accounts Service during 1937-38 increased by Rs. 9,05,174 as compared with 1936-37.

The increase in the number and cost of staff on Railways is due generally to an appreciable rise in the volume of traffic handled. There was an increase in both the number and cost on the Assam Bengal, Bengal and North-Western, Bengal Nagpur, Bombay, Baroda and Central India, Eastern Bengal, East Indian, Jodhpur, His Exalted Highness the Nizam's State, Rohilkund and Kumaon and South Indian Railways, and a decrease on the Great Indian Peninsula and Madras and Southern Mahratta Railways. There was a decrease in the number but an increase in cost on the North Western Railway.

The variations in the case of the Bombay, Baroda and Central India and East Indian Railways are slight and call for no remarks.

On the South Indian Railway the increase in the cost was due to:—

- (i) the restoration of full time working in the workshops at Golden Rock;
- (ii) a greater number of major open line works carried out;
- (iii) increase in the passage allowance paid;
- (iv) payment of gratuity to a larger number of officers and subordinates; and
- (v) normal increments.

On the Bengal Nagpur Railway the increases were due to recruitment for bridge works, relaying, etc., and heavier payment of gratuity, passage and annual increments.

On the North Western Railway the increase in the cost of staff was due mainly to grant of annual increments, the fact that the mechanical workshops were open for 21 days more in 1937-38 than in 1936-37, more overtime paid to workshop labour.

89. Indianisation.—

89.1. State-managed Railways.—(a) Superior Services.—30 appointments were made to the Superior Railway Services both by direct recruitment and promotion. Details are given below :—

Direct Recruitment.

DEPARTMENT.	VACANCIES FILLED BY									
	EUROPEANS.	INDIANS.							TOTAL.	
		Hindus.		Muslims.	Anglo-Indians and domiciled Europeans.	Sikhs.	Indian Christians.	Parsis.		Other communities.
Other than Depressed Classes.	Depressed Classes.									
Agency . . . . .	..	..	..	..	..	..	..	..	..	..
Engineering . . . . .	..	2	..	1	..	..	..	..	..	3
Accounts . . . . .	..	1	..	1	..	..	..	..	..	2
Transportation (Traffic) and Commercial	3	4	..	2	..	..	..	..	..	6
Transportation (Power) and Mechanical Engineering . . . . .	..	3	..	..	2	..	..	1	..	6
Stores . . . . .	..	..	..	..	..	..	..	..	..	..
Other Departments . . . . .	..	1	..	..	..	..	..	..	..	1
TOTAL	3	11	..	4	2	..	..	1	..	18

Percentage { Europeans 14.3
 { Indians 85.7

The percentage of Europeans was less than 25. One officer was to be recruited from the United Kingdom to the Indian Railway Service of Engineers but no suitable candidate was available. The vacancy was therefore carried forward. Moreover, no European was recruited to the Mechanical Engineering and Transportation (Power) Departments during the year.

As regards Indian recruitment the percentages were :—

- 61.1 Hindus.
- 22.2 Muslims.
- 11.1 Anglo-Indians and Domiciled Europeans.
- 5.6 Parsis.

The shortage of Muslim recruitment was due to there being no Muslim candidate amongst the six special class apprentices who were originally recruited in 1931, and were appointed to the Mechanical Engineering and Transportation (Power) Department in 1937 after the completion of six years training. Further adjustments, if necessary, will be made in due course.

It will be observed from the information subsequently furnished in this paragraph that the over-all direct recruitment of Muslims to Superior Railway Services on State-managed and Company-managed Railways concerned was 22.4 per cent.

Promotions.

DEPARTMENT.	VACANCIES FILLED BY									
	EUROPEANS.	INDIANS.							TOTAL.	
		Hindus.		Muslims.	Anglo-Indians and domiciled Europeans.	Sikhs.	Indian Christians.	Parsis.		Other communities.
Other than Depressed Classes.	Depressed Classes.									
Agency . . . . .	..	..	..	..	..	..	..	..	..	..
Engineering . . . . .	..	1	..	..	..	1	..	..	..	2
Accounts . . . . .	..	..	..	..	..	..	..	..	..	..
Transportation (Traffic) and Commercial	1	..	..	..	1	..	..	..	..	1
Transportation (Power) and Mechanical Engineering	3	..	..	..	1	..	..	..	..	1
Stores . . . . .	..	..	..	..	..	..	..	..	..	..
Other Departments . . . . .	..	1	..	..	..	..	..	..	..	1
TOTAL	4	2	..	..	2	1	..	..	..	5

Of a total of 9 officers promoted to the Superior Services, 4 were Europeans, 2 Hindus, 2 Anglo-Indians and Domiciled Europeans and one Sikh.

(b) *Lower Gazetted Service.*—33 promotions were made to the Lower Gazetted Service in the various departments. 10 went to Europeans and 23 to Indians of whom ten were Hindus, one Muslim, eleven Anglo-Indians and Domiciled Europeans and one Indian Christian. Figures by departments were as follows:—

DEPARTMENT.	VACANCIES FILLED BY									TOTAL.
	EUROPEANS.	INDIANS.							Other communities.	
		Hindus.		Muslims.	Anglo-Indians and Domiciled Europeans.	Sikhs.	Indian Christians.	Paras.		
Other than Depressed Classes.	Depressed Classes.									
Agency . . . . .	..	..	..	..	1	..	1	..	..	2
Engineering . . . . .	..	5	..	..	..	..	..	..	..	5
Accounts . . . . .	..	1	..	..	..	..	..	..	..	1
Transportation (Traffic) and Commercial.	3	3	..	1	5	..	..	..	..	9
Transportation (Power) and Mechanical Engineering.	5	1	..	..	1	..	..	..	..	2
Stores . . . . .	..	..	..	..	..	..	..	..	..	..
Other Departments	2	..	..	..	4	..	..	..	..	4
TOTAL	10	10	..	1	11	..	1	..	..	23

89.2. *Company-managed Railways.*—The following tables give a summary of the recruitment made to the Superior Services on Company-managed Railways during the year under review. Part I relates to direct recruitment and Part II to appointments made by promotion. A detailed statement by individual railways will be found in Appendix G-I of this report.

PART I.

Statement showing the number of appointments filled by direct recruitment in the Superior Establishment on (Class I) Company-managed Railways, excluding His Exalted Highness the Nizam's State and Jodhpur Railways during 1937-38.

DEPARTMENT.	VACANCIES FILLED BY									TOTAL.
	EUROPEANS.	INDIANS.							Other communities.	
		Hindus.		Muslims.	Anglo-Indians and Domiciled Europeans.	Sikhs.	Indian Christians.	Paras.		
Other than Depressed Classes.	Depressed Classes.									
Agency	1	1	..	..	..	..	..	..	..	1
Accounts . . . . .	..	1	..	1	..	..	..	..	..	2
Engineering	2	7	..	4	2	2	..	..	..	15
Transportation (Traffic) and Commercial.	2	2	..	3	1	..	2	..	..	8
Transportation (Power) and Mechanical Engineering.	..	6	..	1	2	..	..	1	..	10
Stores . . . . .	..	..	..	..	..	..	..	1	..	1
Other Departments	3	2	..	..	1	..	..	..	..	3
TOTAL	7	19	..	9	6	2	2	2	..	40

Percentage . { Europeans 14.0
 Indians 86.1

PART II.

Statement showing the total number of vacancies in the Superior Establishment on (Class I) Company-managed Railways excluding His Exalted Highness the Nizam's State and Jodhpur Railways filled by promotion from Lower to the Superior Services during 1937-38.

DEPARTMENT.	VACANCIES FILLED BY									TOTAL.
	EUROPEANS.	INDIANS.							Other communities.	
		Hindus.	Depressed Classes.	Muslims.	Anglo-Indians and Domiciled Europeans.	Sikhs.	Indian Christians.	Parsis.		
	Other than Depressed Classes.									
Agency . . . . .	..	..	..	..	..	..	..	..	..	..
Accounts . . . . .	..	..	..	..	..	..	1	..	..	1
Engineering . . . . .	..	2	..	1	..	..	1	..	..	4
Transportation (Traffic) and Commercial.	2	3	..	..	2	..	..	..	..	5
Transportation (Power) and Mechanical Engineering.	1	1	..	..	1	..	..	..	..	2
Stores . . . . .	..	..	..	..	..	..	..	..	..	..
Other Departments . . . . .	..	3	..	..	..	..	..	..	1	4
TOTAL	8	9	..	1	3	..	2	..	1	16

It will be observed from Statement Part I that during the year under review the total number of appointments made by direct recruitment to the Superior Services on Company-managed Railways was 47 of which 7 went to Europeans and 40 to Indians of whom 19 were Hindus, 9 Muslims, 6 Anglo-Indians and Domiciled Europeans, 2 Sikhs, 2 Indian Christians and 2 Parsis. The ratio of Indian to European recruitment was 85·1 to 14·9.

The percentage of European recruitment was less than 25.

The percentage of Indian recruitment in the principal Departments was :—

	Per cent.
Agency	50·0
Accounts	100·0
Engineering	88·2
Transportation (Traffic) and Commercial	80·0
Transportation (Power) and Mechanical Engineering	100·0
Stores	100·0
Other Departments	60·0

Among Indian recruits the proportionate recruitment from each community was as shown below :—

	Per cent.
Hindus	47·5
Muslims	22·5
Anglo-Indians and Domiciled Europeans	15·0
Sikhs	5·0
Indian Christians	5·0
Parsis	5·0

For the over-all direct Indian recruitment to Superior Railway Services on the State and Company-managed Railways, taken together, the percentages were as follows :—

	Per cent.
Hindus	51·7
Muslims	22·4
Anglo-Indians and Domiciled Europeans	13·8
Sikhs	3·5
Indian Christians	3·5
Parsis	5·1

90. Review of the progress made since 1925.—The statements on the following pages will throw further light on the progress made in Indianisation and in the recruitment of the various communities both on State-managed and Company-managed Railways since 1925, as reflected in the relative strength of Europeans and Indians belonging to the various communities. Part I relates to superior staff and Part II to subordinate staff on scales of pay rising to Rs. 250 and over.

PART I.

Statement of gazetted officers on State-managed Railways and Officers of corresponding rank on Company-managed (Class I) Railways (excluding H. E. H. the Nizam's State and Jodhpur Railways) on the 1st April 1925, 31st March 1937 and 31st March 1938.

Name of Railway.	1st April 1925.												31st March 1937.												31st March 1938.												
	Indians.											Total number on the Railway (column 2 plus 11).	Indians.											Total number on the Railway (column 13 plus 22).	Indians.											Total number on the Railway (column 24 plus 33).	
	Europeans.	Other than Depressed classes.	Depressed classes.	Muslims.	Anglo-Indians.	Sikhs.	Indian Christians.	Paria.	Other communit.	Total.	Europeans.		Other than Depressed classes.	Depressed classes.	Muslims.	Anglo-Indians and domiciled Europeans.	Sikhs.	Indian Christians.	Paria.	Other communit.	Total.	Europeans.	Other than Depressed classes.		Depressed classes.	Muslims.	Anglo-Indians and domiciled Europeans.	Sikhs.	Indian Christians.	Paria.	Other communit.	Total.					
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	32	33	34				
State-managed Railways.																																					
Eastern Bengal	79	31	12	46	125	51	47	..	7	12	1	1	68	119	45	48	..	7	14	1	1	71	116				
East Indian	227	49	..	19	..	..	..	..	25	57	314	139	97	..	17	37	4	3	..	..	161	300	129	100	..	16	33	4	..	..	158	287
Great Indian Peninsula	175	18	..	5	..	..	..	..	22	46	221	134	40	..	11	37	..	..	..	..	161	215	125	44	..	14	10	..	..	..	91	216
North Western Railway Board and Miscellaneous Offices.	192	60	..	18	..	..	..	..	28	101	293	123	40	..	23	15	..	..	..	1	81	218	125	83	..	27	17	..	..	..	151	374
	59	8	..	3	..	..	..	..	14	25	84	40	10	..	5	7	2	2	..	..	35	75	37	20	..	6	7	2	..	..	37	74
TOTAL	732	166	..	36	103	305	1,037	467	285	..	68	86	22	18	9	1	489	976	459	295	..	70	93	24	18	8	..	508	967				
Company-managed Railways.																																					
Assam Bengal	52	6	..	1	2	9	61	35	18	..	7	6	1	1	38	68	34	20	..	7	6	1	..	1	..	35	69				
Bengal Nagpur	170	27	..	5	19	51	221	106	43	..	12	22	4	1	84	190	102	47	..	14	25	4	1	2	..	93	196				
Bengal and North-Western	55	3	..	1	..	..	..	..	..	4	59	52	11	..	7	2	..	..	..	..	21	73	58	9	..	8	3	..	..	..	21	82
Bombay, Baroda and Central India	159	14	21	35	194	110	34	..	9	4	69	170	106	35	1	10	4	1	5	10	1	67	173				
Madras and Southern Mahratta	122	16	..	1	..	..	..	..	6	22	144	84	35	..	6	6	5	5	..	..	53	137	78	35	..	1	5	2	..	..	56	134
Rohilkund and Kumaon	12	1	..	..	..	..	..	..	1	13	11	11	3	..	1	1	..	..	..	..	6	17	8	3	..	1	1	1	..	..	8	16
South Indian	93	17	..	1	..	..	..	..	3	21	114	63	49	..	2	8	..	..	..	..	61	124	60	53	..	5	12	..	..	..	73	133
TOTAL	663	83	..	9	51	143	806	481	192	..	39	50	9	13	15	..	318	779	446	205	1	47	56	12	16	18	1	356	802				
GRAND TOTAL	1,395	249	..	45	154	448	1,843	948	477	..	107	136	31	31	24	1	807	1,755	905	500	1	117	149	36	34	26	1	864	1,769				

Statement showing the percentages of the relative strength of Europeans and Indians of various communities.

Europeans	Hindus	Indians	State-managed Railways	Company-managed Railways	TOTAL	1925.*	1937.	1938.	Sikhs	Indian Christians	Paria	Other communities	TOTAL	1925.*	1937.	1938.
						70-59	82-26	75-69						16-01	10-30	13-51	3-47	1-12	2-44	9-03	6-32	8-36	29-41	17-74	24-31
			State-managed Railways	Company-managed Railways	TOTAL	70-59	**49-90	47-47						*	**2-25	2-48
			State-managed Railways	Company-managed Railways	TOTAL	82-26	**59-18	55-61						*	**1-15	1-50
			State-managed Railways	Company-managed Railways	TOTAL	75-69	**54-02	51-16						*	1-76	2-04
	Other than Depressed classes.		State-managed Railways	Company-managed Railways	TOTAL	16-01	**29-20	20-51						*	**1-85	1-86
	Depressed classes.		State-managed Railways	Company-managed Railways	TOTAL	10-30	**24-65	25-66						*	1-07	2-00
			State-managed Railways	Company-managed Railways	TOTAL	13-51	**27-18	28-26						*	**1-76	1-88
			State-managed Railways	Company-managed Railways	TOTAL	†	..	0-13						*	**0-92	0-83
			State-managed Railways	Company-managed Railways	TOTAL	†	..	0-06						*	**1-92	2-24
			State-managed Railways	Company-managed Railways	TOTAL	..	..	0-06						*	**1-37	1-47
	Muslims		State-managed Railways	Company-managed Railways	TOTAL	3-47	**6-97	7-24						*	**0-10	0-18
	Anglo-Indians and domiciled Europeans.		State-managed Railways	Company-managed Railways	TOTAL	1-12	**5-01	5-80						*	..	..
			State-managed Railways	Company-managed Railways	TOTAL	2-44	**6-10	6-61						*	**0-00	0-06
			State-managed Railways	Company-managed Railways	TOTAL	*	**8-81	9-61						*	**50-10	53-53
			State-managed Railways	Company-managed Railways	TOTAL	*	**6-42	6-38						*	**40-82	44-39
			State-managed Railways	Company-managed Railways	TOTAL	*	**7-75	8-42						*	**45-93	48-64

Statement of subordinates on scales of pay rising to Rs. 250 per mensem and over on Class I Railways (excluding H. E. H. the Nizam's State and Jodhpur Railways), on the 1st April 1925, 31st March 1937 and 31st March 1938.

Name of Railway.	1st April 1925.											31st March 1937.											31st March 1938.														
	Indians.										Total number on the Railway (columns 2 plus 11).	Indians.										Total number on the Railway (columns 18 plus 23).	Indians.										Total number on the Railway (columns 24 plus 33).				
	Europeans.	Hindus.		Muslims.	Anglo-Indians.	Sikhs.	Indian Christians.	Parsees.	Other communities.	Total.		Europeans.	Other than Depressed classes.	Depressed classes.	Muslims.	Anglo-Indians and domiciled Europeans.	Sikhs.	Indian Christians.	Parsees.	Other communities.	Total.		Europeans.	Other than Depressed classes.	Depressed classes.	Muslims.	Anglo-Indians and domiciled Europeans.	Sikhs.	Indian Christians.	Parsees.	Other communities.	Total.					
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	32	33	34				
State-managed Railways.																																					
Eastern Bengal	143	106	..	5	..	..	..	..	163	274	417	448	140	..	9	1154	6	2	..	2	1354	1402	50	145	..	10	143	7	3	..	3	351	401
East Indian	859	300	..	25	789	1,114	1,978	1,468	140	..	156	4067	118	21	13	..	2	11,537	14,021	510	519	..	90	143	11	3	..	3	3,511	4,011			
Great Indian Peninsula	286	125	..	29	803	957	1,243	1,187	235	..	26	1,026	111	28	140	..	2	11,095	11,257	185	240	..	36	653	11	93	41	26	1,110	1,245			
North Western	401	328	..	123	..	..	..	..	378	829	1,230	1,223	239	..	..	1,184	106	24	..	..	113	1,247	205	393	..	230	316	106	24	20	0	1,128	1,333
Railway Board and miscellaneous offices.	..	..	..	..	..	..	..	..	..	..	..	51	153	..	186	120	14	16	..	..	1229	1230	1	146	..	28	16	14	..	..	..	218	211
TOTAL	1,689	859	..	182	..	..	..	..	2,188	3,174	4,863	4,793	11,425	8	1,350	12,124	156	1142	145	145	14,309	15,102	701	1,492	8	364	2,138	153	137	64	42	4,393	5,091
Company-managed Railways.																																					
Assam Bengal	22	28	..	4	..	..	..	..	46	78	95	13	42	..	5	42	3	4	..	4	100	113	13	38	1	5	46	4	3	..	2	90	112
Bengal Nagpur	333	140	..	13	408	556	889	119	222	..	21	430	18	14	3	..	3	711	830	77	242	..	21	443	17	14	3	1	741	818			
Bengal and North-Western	31	15	..	2	..	..	..	..	59	76	107	17	22	..	6	58	1	1	..	1	87	104	18	21	..	19	30	..	..	..	1	94	112
Bombay, Baroda and Central India	155	258	..	28	..	..	..	..	506	784	939	170	801	5	35	264	3	42	94	23	771	941	157	314	4	30	270	1	49	94	25	787	941
Madras and Southern Mahratta	85	31	..	1	..	..	..	..	178	205	290	57	89	..	6	175	2	6	4	..	1291	1318	51	72	..	5	102	4	7	4	..	254	305
Rohilkund and Kumaon	6	6	..	1	..	..	..	..	18	19	25	5	2	..	10	..	..	..	..	..	14	19	5	3	..	2	..	..	..	..	16	21	
South Indian	63	78	..	2	..	..	..	..	158	238	296	26	84	..	8	141	..	10	..	..	243	260	22	80	..	8	139	..	13	..	..	240	262
TOTAL	695	540	..	48	..	..	..	..	1,358	1,946	2,641	407	742	5	82	1,122	27	77	101	31	12,187	12,594	343	773	5	81	1,129	26	87	101	29	2,231	2,574
GRAND TOTAL	2,384	1,399	..	230	..	..	..	..	3,546	5,120	7,504	11,200	12,167	8	1,432	13,246	182	1219	166	176	16,496	17,896	1,044	2,265	8	445	3,267	170	224	163	71	6,624	7,664

Statement showing the percentages of the relative strength of Europeans and Indians of various communities.

Europeans	Hindus	Muslims	Anglo-Indians and domiciled Europeans	1925.			1937.			1938.		
				State-managed Railways	Company-managed Railways	TOTAL	State-managed Railways	Company-managed Railways	TOTAL	State-managed Railways	Company-managed Railways	TOTAL
Indians—concd.	Other than Depressed classes.	Depressed classes.		34.73	28.32	31.77	15.54	15.60	15.60	18.76	18.33	18.62
				17.67	20.44	19.04	27.93	28.91	28.42	29.29	30.08	29.54
				†	†	†	0.06	0.10	0.10	0.06	0.19	0.10
				3.74	1.82	3.07	6.86	3.16	5.80	7.15	3.16	5.80
				†	†	†	41.03	48.25	44.64	41.97	43.86	42.61
				†	†	†	42.18	42.61	42.61	42.61	42.61	42.61
	Sikhs	Indian Christians	Parsees	Other communities	†	†	†	†	†	†	3.04	3.00
					†	†	†	†	†	1.04	1.01	
					†	†	†	†	†	2.36	2.33	
					†	†	†	†	†	12.78	12.69	
					†	†	†	†	†	2.97	2.88	
					†	†	†	†	†	12.85	12.99	
†	†	†	†	†	11.28	11.26						
†	†	†	†	†	13.70	13.98						
†	†	†	†	†	12.10	12.16						
†	†	†	†	†	143.86	140.88	143.88					
†	†	†	†	†	151.42	151.20	151.19					
†	†	†	†	†	149.52	149.09	149.08					
†	†	†	†	†	65.27	64.40	64.94					
†	†	†	†	†	78.68	78.31	78.67					
†	†	†	†	†	68.23	68.41	68.38					

* Not available.

† Anglo-Indians, Sikhs, Parsees and Indian Christians included in "Other communities" in 1925.

‡ Not available separately.

§ Revised figures.

90.1. It will be observed that the Indian element in the superior services has risen from 29.41 per cent. on State-managed and 17.74 per cent. on Company-managed Railways in 1925 to 52.53 per cent. on State-managed and 44.39 per cent. on Company-managed Railways in 1938. Among the Indians the percentage increase by communities in 1938 as compared with 1925 is shown below :—

	State-managed.		Company-managed.	
	Percentages.		Percentages.	
	1925.	1938.	1925.	1938.
Hindus { other than depressed classes	16.01†	30.51	10.30†	25.56
Depressed classes	†	..	†	0.13
Muslims	3.47	7.24	1.12	5.86
Anglo-Indians and domiciled Europeans.	*	9.61	*	6.98
Sikhs	*	2.48	*	1.50
Indian Christians	*	1.86	*	2.00
Parsis	*	0.83	*	2.24
Other Communities	9.93*	..	6.32*	0.12

* Anglo-Indians, Sikhs, Parsis and Indian Christians included under " Other communities " in 1925.

† Depressed classes were included among Hindus in 1925.

90.2. Turning to the subordinate staff on scales of pay rising to Rs. 250 per mensem and over, the corresponding figures are as under :—

	State-managed.		Company-managed.	
	Percentages.		Percentages.	
	1925.	1938.	1925.	1938.
Europeans	34.73	13.76	26.32	13.33
Indians --				
Hindus { other than depressed classes.	17.67†	29.29	20.44†	30.03
Depressed classes	†	0.06	†	0.19
Muslims	3.74	7.15	1.82	3.15
Anglo-Indians and domiciled Europeans.	*	41.97	*	43.86
Sikhs	*	3.01	*	1.01
Indian Christians	*	2.69	*	3.38
Parsis	*	1.26	*	3.92
Other Communities	43.86*	0.82	51.42*	1.13
Total Indians	65.27	86.24	73.68	86.67

* Anglo-Indians, Sikhs, Parsis and Indian Christians included under " Other communities " in 1925.

† Not available separately.

91. Representation of minority communities in subordinate railway services.—In the report for the year 1935-36, it was stated that to assist the Railway Board to watch the operation of the orders issued by the Government of India in regard to the representation of minority communities in railway services, an additional officer had been temporarily appointed at the Railway Board's headquarters with effect from the 17th October 1935. This officer continued to perform the duties assigned to his office during the year 1937-38.

During the year under report, the General Managers of State-managed Railways were authorised to make initial recruitment to grades higher than the lowest up to a maximum of 20 per cent. of the vacancies per year in any one group or category of staff subject to the usual communal proportions for direct recruitment to subordinate staff fixed for each railway being observed. The Agents and General Managers of Company-managed Railways were, at the same time, invited to take steps to give effect to this decision.

The figures given in Appendix G-II show, by communities, the number and percentage of subordinate staff (excluding labourers and inferior servants) recruited on State and Company-managed Railways during the year 1937-38.

The following figures show the overall percentage on both State and Company-managed Railways during 1934-35, 1935-36, 1936-37 and 1937-38 :—

	1934-35.	1935-36.	1936-37.	1937-38.
Europeans . . . . .	.. *	0.19	0.2	0.1
Hindus	65.20	57.09	54.1	55.0
Muslims	17.45	28.50	31.2	29.9
Anglo-Indians and Domiciled Euro- peans	12.13	8.33	8.7	9.2
Sikhs	1.03	1.70	2.1	2.3
Indian Christians	2.95	3.49	3.1	2.8
Parsis	0.66	0.32	0.3	0.5
Other communities	0.58	0.38	0.3	0.2
		4.64	5.51	5.5
				5.6

It will be observed from the figures given above that during the year under review direct recruitment to subordinate railway services of the different minority communities for whom percentages have been fixed by the Government of India, was satisfactory.

92. Training of staff.—*Area Schools*—(a) *East Indian Railway School of Transportation, Chandausi.*—During the year, the activities of the School were very much the same as those for the previous year. The total number of staff who attended the Refresher courses was 709 as compared with 823 in the previous year. The decrease was due to there being no refresher courses in March 1938 owing to the Kumbh mela at Hardwar. During the year 7 probationary officers and 193 probationary Assistant Station Masters were trained at the school as compared with 4 probationary officers and 118 probationary Assistant Station Masters in 1936-37.

The expenditure for the year 1937-38 was Rs. 77,645 against Rs. 76,837 in the previous year. The increase was chiefly under the head of school allowance paid to the larger number of probationary Assistant Station Masters. The cost per student day was, however, Rs. 2.2 as compared with Rs. 2.4 in the previous year and this decrease was due to the increase in the number of student days in consequence of there having been more probationary officers and probationary Assistant Station Masters for training in long term courses. The following figures explain the position :—

	1936-37.	1937-38.
Total number of students	945	908
Total number of student days	33,919	36,844
Cost per student day	Rs. 2.4	Rs. 2.2

* In 1934-35 Europeans were not shown separately.

(b) *Walton Training School, North Western Railway, Lahore Cantonment.*—The school continued the training of staff for the North Western Railway. The total number who attended the school in the year was 1,742.

Lectures on civility and politeness to the public and on personnel work now form a part of almost every syllabus. Also practical demonstrations of working at a railway station are given to students, as experience has shown that such visits help them to grasp details explained to them in the class rooms.

The activities of the School are undoubtedly of great advantage to the administration in improving the general standard of efficiency.

93. Stimulation of interest of staff.—In order to inculcate in the staff greater interest in their work and a more active business outlook, the Indian Railway Enquiry Committee recommended in their report the adoption of certain measures such as the introduction of a quota system, the establishment of Suggestion and Invention Committees, publication of magazines, formation of lecture societies and mutual improvement classes and the development of closer relations with the Institute of Railway Transport and Railway Research Service. State and Company-managed Railway Administrations were requested to give consideration to these recommendations and to submit reports intimating the steps taken by them to give effect to it. Complete reports on the subject had not been received from Railway Administrations by the close of the year under review.

94. Improvements in the service conditions of the staff.—(i) *Hours of Employment Regulations.*—In accordance with the decision referred to in paragraph 82 of the Report for the year 1936-37 the Hours of Employment Regulations were given statutory effect on the Bengal and North-Western Railway, with effect from the 1st October 1937. These Regulations were thus in force on the North Western, East Indian, Eastern Bengal, Great Indian Peninsula, Madras and Southern Mahratta, Bombay, Baroda and Central India and Bengal and North-Western Railways during this period. The question of extending these Regulations to the remaining principal railways, *viz.*, the Assam Bengal, Bengal Nagpur, Rohilkund and Kumaon and South Indian Railways, was examined by the Railway Board in consultation with the Agents and General Managers of those railways but no final decision was reached during the period under review.

95. The Payment of Wages Act.—The main objects underlying this measure were to secure that wages were paid to workers reasonably promptly and reasonably fully. It had come to the notice of Government that in both these directions there had been occasional abuses in certain industries. In the textile industry in the Province of Bombay it was noticed that in addition to direct cuts from a man's wages in the form of fines he had to take a substantial part of the rest of his wages in the form of cloth which was spoilt or alleged to be spoilt. It was also found that there existed on a somewhat more widespread scale a practice of fining and of making deductions in an arbitrary fashion. These considerations indicated the need for a measure of the type of the Payment of Wages Act.

So far as railways are concerned, the question of speeding up of payments had already engaged the attention of railway administrations, the aim being to ensure that wages were paid within as few days as possible of the close of the wage period to which they related. The Railway Board some-time ago placed on special duty an experienced personnel officer to examine the question and submit a scheme to ensure prompt payments. According to this scheme, payment of salaries and allowances were made within 7 and 14 days respectively of the close of the month to which they related. So far as fining on railways is concerned, adequate safeguards were provided in the rules to check any abuse. *e.g.*, the power to impose fines was vested in superior officers on most of the Railways and persons fined had a right of appeal to higher authority. From this it would appear that Railways had already taken suitable steps to avoid some of the abuses mentioned above even before the passing of the Payment of Wages Act.

The Government of India addressed Local Governments on the questions of prompt payment of wages and of fines in 1926. On receipt of the Local Governments' opinions, the Government of India proceeded to formulate legislative proposals, but these were eventually deferred because of the decision in 1928, to appoint the Royal Commission on Labour in India. The matter was reviewed by the Royal Commission between 1929 and 1931 and their proposals necessitated a revision of the original proposals of Government. In the light of the opinion expressed on the subject by the Royal Commission a Bill was introduced in the Legislative Assembly in 1933, which was circulated for opinion, but could not be proceeded with during that session and it consequently lapsed. A substantially modified Bill was again introduced in the Legislative Assembly in 1935. This Bill underwent further changes in the Central Legislature and was finally passed in April 1936.

The Payment of Wages Act, 1936, applies in the first instance to persons employed in any factory and to persons employed (otherwise than in a factory) upon any railway by a railway administration or either directly or through a sub-contractor, by a person fulfilling a contract with a railway administration. The Act came into force from the 28th March 1937 and entailed considerable additional work generally on all railways and also in the Railway Board's office as it applies in the case of railways to all staff drawing less than Rs. 200 per mensem whether employed in a factory or not, whereas in the case of other industries it applies to only such staff as are employed in "factories" subject of course to the pay limit referred to above. The observance of the provisions of this Act resulted in considerable administrative difficulties, especially in the initial stages.

96. Welfare.—(i) *Assistance from railway funds to railway employees for the education of their children.*—In the report on the administration of Indian Railways for the year 1930-31 the salient features of the provisional rules issued in September 1930 for the grant of assistance towards the education of the children of railway employees were given. In subsequent reports, mention has been made of the proposals formulated by the Government of India after consideration of the data collected by an officer of the Education Department and of the recommendations made by the Central Advisory Council for Railways on these rules. In accordance with the decision mentioned in the last year's report, no change was made in the provisional rules of 1930 and educational assistance continued to be granted in accordance therewith to employees subject to these rules.

(ii) *Staff Benefit Fund.*—The Staff Benefit Funds established on the various principal railways continued to function during the period under review. As in the previous years grants were made from these funds for the provision of amenities to and for relieving distress amongst the members or ex-members of non-gazetted railway staff, and their families.

(iii) *Railway Sports.*—The tenth annual Inter-Railway Athletic Tournament was held in the Irwin Amphitheatre on the 18th and 19th of March 1938. The Bombay, Baroda and Central India, Bikaner, East Indian, Eastern Bengal, Great Indian Peninsula, Jodhpur, Madras and Southern Mahratta, His Exalted Highness the Nizam's State, North Western and South Indian Railways and the Railway Board entered teams. The North Western Railway won the tournament for the tenth year in succession.

For the field games a hockey tournament was held on the 10th, 12th, 14th and 16th of March 1938. The Bombay, Baroda and Central India, Great Indian Peninsula, Madras and Southern Mahratta, His Exalted Highness the Nizam's State and North Western Railways' teams competed. The Bombay, Baroda and Central India Railway won the tournament; the Great Indian Peninsula Railway being the runners-up.

97. Report of the Royal Commission on Labour in India.—In the Report for the year 1936-37, it was stated that certain recommendations of the Royal Commission on Labour in India concerning railways had yet to

be decided, the more important of them being those relating to the establishment of a Joint Standing Machinery for the settlement of disputes. After careful consideration of the question the Government of India announced, in November 1937, their decision to set up, an additional machinery for the prevention of disputes on railways which consisted of the appointment of a Conciliation Officer (Railways) and of an Industrial Advisory Board, as an experimental measure, for a period of one year in the first instance. The details of this scheme are explained in the following paragraph. Certain other minor recommendations of the Royal Commission on Labour affecting railways were also examined during the period under review.

98. Appointment of a Conciliation Officer (Railways).—In a resolution, dated the 18th November 1937, the Government of India announced the setting up of an additional machinery for the prevention of disputes on Railways, as an experimental measure, for one year in the first instance. The Resolution stated :—

- (i) that a Conciliation Officer would be appointed with headquarters at Calcutta whose duties were to establish contact with the administrations of the railways with which he was concerned, with recognised Unions catering for the employees of those railways, with area committees, workshop committees, railway councils and any other bodies directly concerned in the relations between the administrations and their employees;
- (ii) that the Conciliation Officer would be responsible in connection with any actual or threatened trade dispute, for endeavouring to bring the parties to a settlement and at other times to use his good offices to maintain harmonious relations;
- (iii) after the Conciliation Officer had organised his work the Government of India was to set up an Industrial Advisory Board consisting of a Chairman and two members who were to be selected by the Chairman from panels appointed by the Government of India. This Board was to deal with any case referred to it by the Conciliation Officer, the Chairman summoning his colleagues after conducting certain preliminary investigations with a view to find out that justification for the calling of the Board existed. The decision of the Board was to take the form of a Report. The Resolution also announced that Sir Zahid Suhrawardy had agreed to serve as Chairman, and that Lt.-Col. H. W. Wagstaff would be appointed as the Conciliation Officer, and who was expected to start work early in December 1937, his duties extending to the East Indian and Eastern Bengal Railways;
- (iv) that the Company-managed Railways having their headquarters in Calcutta would be invited to avail themselves of the services of the Conciliation Officer.

The Conciliation Officer (Railways) actually took over charge of his duties early in December 1937, and thus covered only a period of a little over 3 months during the year under review. During this period the Conciliation Officer was mainly engaged in establishing contact with the railway administrations with which he was concerned, and also with the various other bodies such as recognised Unions directly concerned in relations between the two railway administrations and their employees.

99. Security of service—Rules regulating discipline and rights of appeal of non-gazetted railway servants.—The Indian Railway Enquiry Committee recommended in their report that the higher supervisory staff should be encouraged to take immediate notice of any incivility which may come under their observation. In view of the strong public feeling in the matter and the representations received from various chambers of commerce and other public bodies on the subject from time to time, the rules regulating the discipline and rights of appeal of non-gazetted railway employees

were amended during the year under review so as to bring incivility to the public within the category of offences the maximum penalty for which is removal from service. In such cases officers not below the rank of a Deputy Head of a Department were authorised to impose the penalty after application of the procedure laid down in the rules for minor punishments, irrespective of the length of service of the employee concerned.

100. Meetings with the All-India Railwaymen's Federation.—During the period under review the Railway Board met the representatives of the All-India Railwaymen's Federation on two occasions, once in November 1937, and the second time in January 1938. The subjects discussed at the meeting held in November 1937 were:—

- (i) report of the Indian Railway Enquiry Committee, 1937;
- (ii) effect of the Railway Board's orders regarding running parcel clerks and crew staff on the Eastern Bengal Railway;
- (iii) recognition of Unions so far as they relate to State-managed Railways;
- (iv) extension of Provident Fund membership so far as it relates to State-managed Railways;
- (v) avenues for promotion of lower paid employees so far as they relate to State-managed Railways;
- (vi) substitution of contract labour for departmental work so far as it relates to State-managed Railways; and
- (vii) grievances of the Accounts staff.

At the meeting held in January 1938, the following subjects were discussed:—

- (i) revised scales of pay for journeymen and chargemen on the North Western, Eastern Bengal and other State-managed Railways;
- (ii) policy regarding recovery of alleged overpayments paid to staff on State-managed Railways;
- (iii) working of the Payment of Wages Act;
- (iv) accumulation of leave for inferior service staff on State-managed Railways;
- (v) conciliation and Railway Trade Disputes on State-managed Railways; and
- (vi) procedure to be adopted in respect of alleged breaches of accepted policy of State-managed Railway Administrations.

The suggestions put forward by the All-India Railwaymen's Federation at these two meetings are under the consideration of the Railway Board.

101. Mr. Mudie's report on the Bengal Nagpur Railway strike and the Government of India's conclusions thereon.—It will be recalled that in paragraph 87 of the Report for the year 1936-37, it was stated that Mr. R. F. Mudie, C.I.E., O.B.E., I.C.S., was appointed to hold an enquiry into certain matters arising out of the settlement of the strike which occurred on the Bengal Nagpur Railway, in December 1936.

Mr. Mudie started his enquiry on the 21st April 1937, at Calcutta. During the early stages of the enquiry the Union's representatives put in a statement of the Union's case which explicitly referred not to the terms which the Agent had offered on the 6th February 1937, on the basis of which the strike was called off, but to the terms which were offered by the Agent on the 22nd January 1937, and not accepted by Mr. Giri. After carefully going into the statement of the case Mr. Mudie held that the enquiry should be based on the terms offered on the 6th February 1937. Owing to a difference on this point, the Union refused to take part in the enquiry and withdrew. Mr. Mudie, however, continued his enquiry and submitted his report on the 4th May 1937. Copies of this report were supplied to accredited representatives of the Press, etc., a few weeks later.

In his Report Mr. Mudie dealt exhaustively with the various issues which had been referred to him for enquiry and gave his conclusions on each of them. Dealing with the Union's complaints against the administration such as victimisation, Mr. Mudie could trace only two cases in which strikers might possibly have suffered because of their having gone on strike, but considering the large number of strikers he thought that that was a very remarkable result. Mr. Mudie held that the Union was unworthy of recognition and that the Agent's action in withdrawing recognition of the Union "as at present constituted and administered" was fully justified. He recommended that recognition should continue to be withheld. Mr. Mudie also came to the conclusion that the working of short time by which the railway administration intended to reduce employment in the Khargpur area was amply justified.

Mr. Mudie's Report was generally accepted by the Government of India.

CHAPTER VIII.

AMENITIES FOR PASSENGERS.

102. In previous reports it has been stated that the railways have as their object a steady improvement in the standard of comfort and in the conveniences provided. This policy was actively and systematically pursued though unfortunately circumscribed by the extent to which funds could be made available.

In the paragraphs which follow an attempt is made to give some indication of the action taken by the various railways. It will be seen that this broadly falls into two main categories—

- (a) improvements more or less essential—*i.e.*, train services.
- (b) improvements desirable—*i.e.*, general conveniences.

In regard to (a) attention may be drawn to the fact that the passenger and mixed train miles increased by nearly five millions, which even allowing for the increase in the number of passengers carried (about 33 millions) shows extent to which services were augmented to provide greater facilities for travel. Particular attention was paid to providing more through trains on faster timings and fast light services on short sections.

In amplification of the information given below, in respect of the arrangements made by individual railways for the supply of water to passengers it is perhaps desirable to explain that broadly the object of railways is to ensure that there is an adequate supply of good drinking water available at all stations for the use of passengers entraining or alighting, and that there is a concentration of watermen to serve passengers in trains at such intervals as will ensure that adequate service during their halts. The number of watermen employed for this purpose naturally varies according to the type of country traversed, but it should be noted that Class I railways increased their permanent staff by more than 50 per cent. during the hot weather.

103. Passenger train services.

As in previous years many alterations and additions were made in the train services with a view to suit the changing needs of passenger traffic. Briefly stated the more important changes were :—

Assam Bengal Railway.—The Up and Down Assam mail trains between Pandu and Tinsukia were speeded up and the overall time between these two stations reduced by approximately seven hours. These trains connected at Pandu with the Eastern Bengal Railway trains, thus enabling passengers travelling between Calcutta and Upper Assam to reach their destinations after one night's journey instead of two. After the opening of the King George VI Bridge, express trains were introduced between Chittagong and Mymensingh, providing an alternative service between Calcutta and the Chittagong Division; the Assam Bengal Railway's stock running through to Jagannathganj on the Eastern Bengal Railway to connect with the ferry steamer for Sirajganj. The advantage of this service over the alternative route *via* Chandpur is that passengers can arrive in Calcutta in the morning and return by the corresponding train at night, thereby avoiding a night's stay in Calcutta. Through passenger services were also introduced between Chittagong-Narayanganj, Chandpur-Narayanganj and Laksam-Narsinghdi. In all twelve new trains were introduced on different sections, fifteen were cancelled and eleven were extended. The average booked speed of passenger and mixed trains increased from 14.5 miles per hour in March 1937 to 15.9 in March 1938.

Bengal and North-Western Railway.—In order to provide a faster service one mixed train each way between Gorakhpur and Chhitauni Ghat

was converted into a passenger train. A local train each way between Gonda and Pachperwa was extended to and from Barhni.

Bengal Nagpur Railway.—The following additional trains were introduced :—

A light train from Kolaghat to Midnapore for the convenience of court passengers; one train each way between Gidni and Khargpur with connections at Khargpur for the Midnapore and Howrah directions for the benefit of passengers attending Midnapore courts and the trading community transacting business at Howrah; one train from Howrah to Machada on Sundays and other public holidays for the convenience of the local public.

In addition two important passenger trains and four local trains were extended.

In conjunction with the Madras and Southern Mahratta Railway, the Vizagapatam-Puri passenger trains were extended to and from Madras to foster pilgrim traffic from Southern India.

Bombay, Baroda and Central India Railway—(Broad gauge).—A new time table was introduced from the 1st October in which all "Fast trains" were accelerated as much as possible by improving the running time between stations and by reducing stops at stations. The Down Gujarat mail from Bombay to Ahmedabad, the Up and Down Kathiawar mails between Bombay and Viramgam and the Up Frontier mail from Delhi to Bombay were speeded up by a quarter of an hour. Six other trains were also similarly accelerated. Suitable day shuttle services were provided between Ratlam, Shamgarh and Kotah. The timings of branch line trains were generally adjusted so as to afford suitable main line connections. A fast service between Bombay Central and Surat, leaving Bombay on Saturday afternoon, and returning to Bombay on Monday morning, named the "**Flying Ranees**" was introduced from the 17th April 1937, and became so popular as to justify its running daily, with effect from the 24th May. From the 2nd October, the week-end train was run in two portions, one between Bombay Central and Surat and the other between Bombay Central and Bulsar thus providing a faster service between Bombay, Bilimora, Navsari and Surat. The fast mixed train from Bombay to Delhi, which previously was scheduled to halt for the night at Ratlam and Kotah, was converted into a through train: this provided also a faster service for long distance through goods traffic from Bombay to the Punjab.

(Metre gauge.)—With the general increase of the maximum permissible speed, it was possible to accelerate the services on certain sections; the more important trains affected were :—

Two through passenger trains to and from Morvi Railway and two trains from and to Bikaner State Railway which were converted to mail trains.

Two fast mixed trains which were converted to passenger trains.

Four mail and express trains between Delhi and Ahmedabad.

The Up and Down fast mixed trains between Dhandhuka and Ahmedabad.

A fast passenger service (II and III class) was introduced between Ajmer and Sojat Road.

The following additional trains were introduced :—

Two fast passenger trains between Cawnpore Central and Kanauj.

One passenger train from Hathras Junction to Brindaban.

One passenger train from Brindaban to Muttra Cantonment.

Four express trains between Hissar and Delhi.

Two passenger trains between Ajmer and Nasirabad.

One mixed train from Mhow to Indore.

Eastern Bengal Railway.—By raising the permissible speed on certain sections and re-arranging the timings of trains, the passenger services, both

suburban and main line, were accelerated. The following mail and express trains were speeded up:—

Up and Down Darjeeling mails by 20 and 15 minutes respectively.

Up and Down Assam mails by 20 minutes each.

Up and Down North Bengal Expresses by 30 minutes each.

Up and Down Barisal Expresses by 44 and 15 minutes respectively.

The suburban train services on the Budge-Budge, Calcutta-Diamond Harbour, Calcutta-Canning and Calcutta-Lakshmikantapur sections were considerably accelerated.

Moreover 30 additional trains were introduced on 14 sections and one Naihati local train was extended up to Kanchrapara.

East Indian Railway.—Express trains were introduced between Howrah and Delhi *via* Patna, Benares, Lucknow and Moradabad, as well as 28 additional passenger trains (including 12 light trains) on other sections. Twenty-two uneconomical trains were withdrawn. Twenty-five trains were extended and the Bombay and Delhi mails were diverted *via* Bandel and the Howrah-Burdwan chord respectively.

Great Indian Peninsula Railway.—One shuttle train each way was introduced between Jubbulpore and Katni, Orai and Cawnpore Central and two shuttle trains each way between Damoh and Saugor. The carriage of passengers by the Down Parcel trains was extended to the Kalyan-Lonavla section. Three "rail bus" trains each way were introduced between Bhusaval and Jalgaon, and two local trains each way between Bombay and Kurla. No less than 2,544 through trains were 'run' over the following sections as compared with 1,766 in the previous year:—

- Between New Delhi and Jhansi.
- „ Katni Murwara and Ujjain.
- „ Ujjain and Katni Murwara.
- „ Chheoki and Itarsi.
- „ Satna and Itarsi.
- „ Junnor Deo and Ujjain.
- „ Junnor Deo and Bhusaval.
- „ Bhusaval and Junnor Deo.
- „ Kalyan and Shahabad.
- „ Itarsi and Chheoki.
- „ Itarsi and Satna.

The running of the "Deccan Queen" between Poona and Bombay was discontinued.

Jodhpur Railway.—One mixed train was introduced between Hyderabad and Mirpur Khas.

Madras and Southern Mahratta Railway—(Broad gauge).—The Madras-Trivellore Rail bus services (two each way) and the rail car service between Tadepalligudem and Rajahmundry (one each way) were replaced by steam train services. An additional train each way was introduced between Bowringpet and Oorgaum and two existing trains were converted into daily services. One train was added from Madras to Ponneri. A through passenger train was introduced between Madras and Puri which not only reduced the overall time of the journey by about 3 hours but also obviated the inconvenience to which through passengers were subjected by having to change at junctions. During the Christmas holidays two duplicate mail trains were run between Madras and Cocanada to relieve overcrowding in the regular mail trains: the run of the Waltair passenger trains was extended between Gudur and Madras during these holidays.

His Exalted Highness the Nizam's State Railway.—On the metre gauge 6 additional passenger trains were introduced giving a daily increase of 702 passenger train miles.

North Western Railway.—In the course of the year 29 additional trains were introduced over various sections resulting in an increase of about 2,493 train miles per day. Sixteen unremunerative trains accounting for 586 train miles daily were cancelled. The speed of many passenger trains was accelerated as shown below :—

Section.	Speed per hour raised	
	From Miles.	To Miles.
Ferozepore Cantonment-MacLeod Ganj Road .	26	35
Ludhiana-Lohian Khas	25	30
Jakhul-Ludhiana	26	35
Lodhran Mailsi and Pakpattan	25	35
Kasur-Amritsar	22	30
Bhatinda-Bahawalnagar and Samasata	30	35
Kotri-Dadu and Ruk	28	35
Daud Khel-Mari Indus	18	30

Rohilkund and Kumaon Railway.—An additional train was introduced between Lalkua and Kashipur and another between Mailani and Lakhimpur Kheri.

South Indian Railway—(Broad gauge).—6 additional trains were introduced. In order to relieve overcrowding in the Malabar and Blue Mountain Express trains, the Cochin Express was introduced as an experimental measure between Madras Central and Ernakulam.

(Metre gauge.)—17 additional trains were introduced and the runs of 11 trains were extended. On the Madras Suburban Electric Section 59 new trains were introduced and the time of the through journey from Madras Beach to Tambaram (18 miles) was reduced from 45 to 40 minutes.

104. Booking offices and out-agencies.

Assam Bengal Railway.—New booking offices were provided at Nazirhat Ghat and Madhu Road halt stations. Temporary booking offices were opened at six stations during *melas*. (An enquiry office was opened at Chittagong and the booking office at Chandpur was extended.)

Bengal and North-Western Railway.—Fifty temporary booking offices were opened at 10 stations to meet the requirements of pilgrims during *melas*, of these 9 were provided at Sonapore during the Kartic Purnamashi *mela*. Five out-agencies were in service of which two were open for only goods traffic and the rest for parcels and goods.

Bombay, Baroda and Central India Railway—(Broad gauge).—Tantithiya flag station on the Tapti Valley Railway was converted into a regular station for the booking of passengers and other coaching traffic. Nine flag stations and one out-agency at Bundi city were opened.

(Metre gauge.)—Kherol flag station on the Ahmedabad-Parantij Railway was converted into a regular station for the booking of all kinds of coaching traffic. Raila Road flag station was re-opened. Temporary booking offices were opened in connection with important *melas* and fairs namely Mahim Urs, the Kumbh *mela* at Muttra and Khwaja and Pushkar fairs at Ajmer. Two out-agencies were opened at Deoli and Pushkar.

An enquiry office was opened at Ahmedabad, also a city booking office at Cawnpore (Parade).

Eastern Bengal Railway.—Two out-agencies were opened at Kotchandpur and Sootea for all descriptions of traffic, and one each at Agamani and Tamarhat for goods and parcels traffic.

East Indian Railway.—An entirely new station was built at Hardwar, providing up-to-date facilities of all kinds, particularly for those travelling III class. Four new out-agencies were opened and at two of them, *viz.*,

Dumka and Etah, co-ordinated rail-cum-bus services were introduced for passenger traffic.

Great Indian Peninsula Railway.—City booking offices were opened at Chalisgaon and Jubbulpore for booking of passengers. Temporary booking offices were opened for certain big fairs at Datia and Pandharpur city. Additional booking windows were opened in connection with the coconut fair at Victoria Terminus, the Mohurram fair at Kurla, the Sakharam Maharaj fair at Amalner and the Khaja Bande Nawaz fair at Gulbarga. Basim out-agency was opened for all descriptions of goods traffic except live-stock, offensive goods and liquids in bulk.

Madras and Southern Mahratta Railway.—To provide facilities for passengers arriving by canal and to attract additional traffic to the rail, an additional booking office worked by an Agent, was opened at Narasapur town with satisfactory results. The town booking office at Guntur was closed due to poor patronage.

Nine out-agencies were opened at places situated in the interior—some at a considerable distance from the railway—chiefly to develop traffic to and from the interior and partly to counteract competition from road lorry services. They were:—

Out-agency.	Connecting station.
Santanotalapadu	} Ongole Parcels and goods.
Chimakurti	
Podile	
Kanigiri	} Singarayakonda Do.
Kandukur	
Ullapalem	
Satara	Satara Road Do.
Gollapudi	Bezwada Goods.
Chilakalurupet	Narasaravupet Do.

His Exalted Highness the Nizam's State Railway.—Additional booking offices were opened temporarily for important *jattras* and *melas* according to traffic demands.

North Western Railway.—The city booking offices at Lahore, Montgomery and Simla were converted to city booking agencies. City booking agencies were also opened at Batala, Gujrat, Ludhiana, Sialkot, Khanewal, Multan and Hyderabad (Sind). Seven out-agencies were also opened at—

- Shahkot served *via* Sangla Hill station.
- Ramnagar served *via* Akalgarh station.
- Nadaun and Gagret served *via* Hoshiarpur.
- Bharwain and Jawalamukhi Mandir served *via* Jawalamukhi Road station.
- Mawana served *via* Daurala station.

South Indian Railway.—City booking offices were opened at Turaiyur and Pudukkottai town, the former for issue of tickets and transport of passengers to and from Trichinopoly Junction and Trichinopoly Fort, and the latter to and from Pudukkottai station. Transport was also arranged for goods and parcels between Pudukkottai town and the railway station.

- Additional out-agencies were opened at—
- Vannanturai and Valparai served *via* Pollachi.
 - Devakottai served *via* Karaikkudi.
 - Kodaikanal served *via* Kodaikanal Road station.

Additional booking offices were provided at Chetpat, Kodambakkam and Tambaram.

A number of enquiry offices were temporarily opened at important pilgrimage centres during the Mahodayam festival, and special stalls within

the precincts of important Swadeshi and Industrial and Fine Arts Exhibitions held at places served by the railway.

Three train halts were opened on the broad gauge and 13 on the metre gauge. The halt at Tolasampatti (broad gauge) was converted into a flag station.

105. Waiting rooms and waiting halls.

Assam Bengal Railway.—New waiting halls were provided at Borhat, Uttarda, Balakhal, Bhairab Bazar, Ashuganj and Shambhuganj. The waiting halls at Nilambazar, Dohazari, Fenchuganj, Nazirhat Ghat, Mairabari, Hojai and Chaparmukh were extended.

Bengal and North-Western Railway.—A waiting room for upper class passengers was provided at Yusufpur station.

Bengal Nagpur Railway.—An intermediate class waiting room was provided at Jajpur Road. A passenger hall was provided at Charmuria and a ladies waiting hall at Umaria. The third class waiting hall at Raigarh station was extended. The floors of six third class waiting halls were paved with patent stone.

Bombay, Baroda and Central India Railway.—New waiting halls were built at Kim and Ras stations. The existing waiting halls at Virar and Mahim were enlarged and the sheds at Khar and Ajmer were extended. The waiting hall at Chhayapuri was provided with walls and gutters and the extra enclosures at Ajmer used at times of fairs were roofed.

Eastern Bengal Railway.—The following were provided during the year :—

- a ladies waiting hall at Bagerhat college;
- shelters on the platforms at Kushtia and Garia;
- a new station building with Indian ladies waiting room at Changripota;
- an intermediate and third class waiting hall with separate accommodation for ladies at Mymensingh;
- a waiting hall for the general public and a ladies waiting room at Ghograpar;
- intermediate and third class ladies waiting rooms at Hamiltonganj and Setabganj.

East Indian Railway.—During the year the following additional waiting rooms were provided :—

(i) For upper class passengers—one at Guraru.

(ii) Intermediate class waiting rooms—

General public.			Ladies.
Rampore Haut.	Guraru.		Rampore Haut.
Sahibganj.	Bukhtiarpur.		Sahibganj.
Durgapur.	Futwah.		Bareilly.
Salar.	Tehta.		
Mokameh Ghat.	Koilwar.		
Sasaram.	Bareilly.		
Unao.			

(iii) Third class waiting rooms or halls.

General public.		Ladies.
Madhupur.		Taregna.
Taregna.		Futwah.
Arrah.		Bindhachal.
Guraru.		Unchahar.

Great Indian Peninsula Railway.—Third class waiting halls were provided at Savalji, Martur, Hisvahal, Bhadsivni, Bikrampur, Bohani and Salichauka Road.

Jodhpur Railway.—One first class waiting room was provided at Pithoro, and three second class waiting rooms at Tando Jan Mohamed, Jhuluri and Pithoro. A combined upper class waiting room was constructed at Naranpura. Six waiting rooms were built at New Chhor, Jhuluri, Nazikabad, Rajar (Sind), Barani (Sind) and Roshanabad for third class passengers generally and two for ladies at Tando Alahyar and Tando Jam.

Madras and Southern Mahratta Railway.—Shelters for passengers were provided at all halts including Kupvad, Pullampet and Manchili. On certain branches where first and second class carriages were withdrawn from service, intermediate class passengers were allowed the use of upper class waiting rooms.

His Exalted Highness the Nizam's State Railway.—The lighting in the bath rooms of upper class passengers' waiting rooms at Jalna, Purna, Hingoli and Bhiknur was improved. For the convenience of pilgrims, permanent sheds were provided at Purli-Vaijnath station.

North Western Railway.—An upper class and intermediate class waiting rooms were provided at Jammu (Tawi) and Rawalpindi, respectively. General intermediate class waiting rooms were provided at Hyderabad (Sind) and Ferozepore cantonment. Third class waiting halls were provided at Datewas, Shakurbasti, Drigh Road, Mahrabpur, Madrisa, Qasamwala and Qaimpur. The third class waiting hall at Budhlada was extended and more accommodation was provided in the ladies' intermediate class waiting room at Delhi.

Rohilkund and Kumaon Railway.—One upper class waiting room was opened.

South Indian Railway.—A bath room was constructed at Sermadevi, Tuticorin, Manamadurai Junction and Tiruppur were electrically lit and the lighting arrangements at nine other stations were improved.

Waiting rooms and waiting halls.

The following statement summarises the number of waiting rooms and waiting halls provided on each Class I railway for the use of intermediate and third class passengers :—

	A. B.	B. & N. W.	B. N.	B. B. & C. I.	E. B.	E. I.	G. I. P.	Jodhpur.	M. & S. M.	N. S.	N. W.		R. & K.	S. I.
											C.	S.		
Total number of stations open for passenger traffic.	305	352	518	642	453	766	567	159	519	204	266	177	97	609
Number of stations at which waiting rooms or halls have been provided for intermediate class passengers :—														
(i) generally	12	5	16	1	8	112	NG	NG	6	NG	14	3	NG	NG
(ii) for women only	4	10	14	1	3	50	NG	NG	NG	NG	16	2	3	NG
Number of stations at which third class waiting rooms or halls have been provided :—														
(i) generally	260	250	461	479	437	398	473	113	453	204	674	110	95	590
(ii) for women only	125	34	69	2	319	166	13	6	11	2	48	12	12	13
Percentage of stations at which waiting rooms or halls have been provided as compared with the total number of stations open for passenger traffic :—														
(i) for intermediate class, generally	3.93	1.42	3.09	0.16	1.76	14.6	NG	NG	1.16	NG	1.62	1.69	NG	NG
(ii) for intermediate class, women only	1.31	2.84	2.70	0.16	0.66	6.58	NG	NG	NG	NG	1.35	1.13	3.09	NG
(iii) for third class, generally	85.2	71.0	89.0	74.6	95.0	52.0	84.4	71.1	87.3	100.0	77.3	62.2	97.9	96.9
(iv) for third class, women only	41.0	9.66	13.3	0.31	70.0	21.7	2.29	3.77	2.22	1.00	5.64	6.78	12.4	2.13

C. = Commercial. S. = Strategic.

106. Covered and raised platforms.

The following statements show the present position in regard to platforms generally :—

106.1. Number of stations provided with covered platforms.

	A. B.	B. & N. W.	B. N.	B., B. & C. I.	E. B.	E. I.	G.I.P.	Jodhpur.	M. & S. M.	N. S.	N. W.		R. & K.	S. I.
											C.	S.		
Total number of stations open for passenger traffic.	305	352	518	642	453	766	567	159	407*	204	866	177	97	609
(I) Class D (or flag) stations . . .	113	31	67	128	125	134	94	60	82	65	235	38	5	149
(II) Other than class D (or flag) stations.	192	331	451	514	328	632	473	99	415	139	631	139	92	460
(I) Number of stations at which there are two or more platforms.	72	31	83	111	87	303	190	8	53	24	225	12	9	81
(II) Total number of platforms at such stations.	101	76	176	270	232	974	462	25	151	58	532	80	26	218
(III) Total number of covered platforms at such stations.	5	NU	4	176	116	226	125	4	66	12	144	3	10	93
(IV) Percentage of (III) to (II) . . .	3.11	NU	2.27	65.2	49.8	23.2	27.6	16.0	43.7	20.7	27.1	10.0	38.6	42.7
(I) Number of stations other than class D at which there is only one platform.	121	300	378	354	246	301	311	91	362	127	440	132	83	379
(II) Number of such stations at which there are covered platforms.	NU	NU	1	5	NU	59	9	NU	22	NU	8	1	NU	6
(III) Percentage of (II) to (I) . . .	NU	NU	0.26	1.41	NU	19.6	2.89	NU	0.07	NU	1.82	0.76	NU	1.58

O. = Commercial.

S. = Strategic.

* Excludes 22 passenger halts.

106.2. Number of stations provided with platforms above rail level.

	A. B.	B. & N. W.	B. N.	B., B. & C. I.	E. B.	E. I.	G.I.P.	Jodhpur.	M. & S. M.	N. S.	N. W.		R. & K.	S. I.
											C.	S.		
Total number of stations open for passenger traffic.	305	352	518	642	453	766	567	159	407*	204	866	177	97	609
(I) Class D (or flag) stations . . .	113	31	67	128	125	134	94	60	82	65	235	38	5	149
(II) Other than class D (or flag) stations.	192	331	451	514	328	632	473	99	415	139	631	139	92	460
(I) Number of stations other than flag stations at which there are more than one platform.	71	31	76	101	82	309	161	8	53	11	211	12	9	81
(II) Total number of platforms at such stations.	159	76	169	248	220	982	394	25	151	32	504	80	24	218
(III) Total number of platforms at such stations above rail level.	10	62	132	232	185	604	314	18	151	3	383	23	20	148
(IV) Percentage of (III) to (II) . . .	6.29	81.6	83.0	93.5	83.1	64.8	79.6	72.0	100.0	9.39	76.0	70.7	83.3	67.9
(I) Number of stations at which there is only one platform.	196	321	432	491	366	361	344	151	444	130	607	165	87	528
(II) Number of such stations at which platforms are above rail level.	5	158	123	201	181	177	196	7	238	72	188	86	27	279
(III) Percentage of (II) to (I) . . .	2.56	49.2	28.5	40.9	35.8	49.0	56.9	4.64	63.7	40.0	31.0	52.1	31.0	52.3

O. = Commercial.

S. = Strategic.

* Excludes 22 passenger halts.

107. Refreshment rooms for Hindus and Mahomedans.

The table below shows the number of stations on Class I Railways, provided with refreshment rooms separately and jointly for Hindus and Mahomedans on 31st March 1938, and of these the additions that were made during 1937-38.

Name of Railway.	NUMBER OF STATIONS PROVIDED WITH REFRESHMENT ROOMS FOR THE USE OF			NUMBER OF REFRESHMENT ROOMS WHICH WERE PROVIDED DURING THE YEAR.		
	Hindus and Mahomedans.	Hindus only.	Mahomedans only.	Hindus and Mahomedans.	Hindus only.	Mahomedans only.
Assam Bengal	6	6	5	3	..	..
Bengal and North-Western . . . . .	..	10	10	..	..	..
Bengal Nagpur	16	..	..	..	..	..
Bombay, Baroda and Central India . . . . .	..	9	5	..	1	..
Eastern Bengal . . . . .	..	13	8	..	..	..
East Indian	14	5	4	..	1	..
Great Indian Peninsula . . . . .	..	6	5	..	1	..
Jodhpur	3	1	..	..	..	..
Madras and Southern Mahratta† . . . . .	..	29*	5	..	..	..
His Exalted Highness the Nizam's State.	10	..	..	..	..	..
North Western	22	..	..	..	..	..
Bohilkund and Kumaon	1	..	..	..	..	..
South Indian	30	..	4	3	..	..

* Hindu refreshment rooms though run on Hindu lines supplying vegetarian Hindu food are open to other communities also.

† One Indian Christian refreshment room is also run at Mormugao Harbour.

108. Vendors' stalls in waiting halls and on platforms.

Assam Bengal Railway.—Vendors' stalls were in service at 90 stations. Two stalls (one Hindu and one Mahomedan) were provided at new Bhairab Bazar station during the year.

Bengal and North-Western Railway.—Vendors' stalls were open at 39 stations including one opened at Hasanpur Road during the year. In addition tea stalls were in use at 14 stations, including stalls at Mau Junction and Aunrihar Junction opened during the year.

Bengal Nagpur Railway.—Stalls were in service at 65 stations.

Bombay, Baroda and Central India Railway.—Stalls were in use at 92 stations on the broad gauge and 32 stations on the metre gauge. New stalls were opened at Khar, Nagda, Ujjain and Beawar during the year.

Eastern Bengal Railway.—At 79 stations and on three ferry services there were stalls for vending tea, cool drinks and light refreshments. New stalls were opened at Goalundo and Rangiya. At Dinajpur a kitchen was built for the existing Hindu stall.

East Indian Railway.—There were stalls at 120 stations at the end of the year. New stalls were opened at the following eight stations:—

Dankuni.	Allahabad.
Gurup.	Cawnpore Central.
Kodarma.	Etawah.
Mirzapur.	Benares Cantonment.

Great Indian Peninsula Railway.—Sweetmeat, fruit and tea stalls were operating at 133 stations.

Jodhpur Railway.—Vendors' stalls were open at 21 stations. Three stalls were provided during the year one each at Pithoro, Mirpur Khas and Kunri (Sind). In addition two stalls at Mirpur Khas and one each at Pithoro and Jamesabad were opened temporarily.

Madras and Southern Mahratta Railway.—127 stalls were in service at the end of the year.

North Western Railway.—Vendors' stalls were in service at 126 stations. At Golra a stall was provided during the year. At Sukkur and Sakrand shelters were erected over the existing tea stalls.

His Exalted Highness the Nizam's State Railway.—Stalls were in service at 80 stations and platform vendors were available at 70 stations.

Rohilkund and Kumaon Railway.—Vendors' stalls were open at 13 stations.

South Indian Railway.—At the end of the year there were 175 stalls at 99 stations. During the year tea stalls were provided at Negapatam, Dhanushkodi, Paramakkudi, Trichinopoly Junction (Mahomedan stall), Ketti and Chalakudi, fruit stalls at Villupuram and Palni and bunks at 11 other stations.

The following statement summarises the number of stations on Class I railways, at which there were vendors' stalls:—

Railway.	Number of stations at which stalls were in service on 31st March, 1938.	Number of stalls opened during the year.
Assam Bengal	90	2
Bengal and North-Western	39	1
Bengal Nagpur	65	..
Bombay, Baroda and Central India	124	4
Eastern Bengal	79	2
East Indian	120	8
Great Indian Peninsula	133	..
Jodhpur	21	7
Madras and Southern Mahratta	127	..
His Exalted Highness the Nizam's State	80	27
North Western	126	1
Rohilkund and Kumaon	13	..
South Indian	99	8

109. Water supply for passengers.

Assam Bengal Railway.—(a) *Large stations.*—Water taps are provided on the platforms of important stations and English filters of the Berkefeld type are in use at twenty-five stations.

(b) *Small stations.*—Water stored in earthen pots and treated with electrolytic chlorine is available at all such stations.

Watermen are provided at a number of stations to supply water to passengers in trains.

Bengal and North-Western Railway.—(a) *Large stations.*—Hydrants are provided in adequate number on station platforms. Water is also supplied to passengers in trains by watermen provided with wheeled water tanks and buckets.

(b) *Small stations.*—Fresh cool drinking water is kept stored in buckets in station verandahs and supplied to passengers in trains by watermen or other staff specially deputed for the purpose. At engine watering stations there are also hydrants for the supply of fresh water to passengers.

During the year two additional hydrants were provided on the *mela* passenger platform at Bahraich.

One hundred and forty-seven watermen were engaged during the hot weather to supplement the permanent staff.

Bengal Nagpur Railway.—(a) *Large stations.*—Water taps are provided on station platforms and in waiting halls. Watermen also attended passenger

trains with water in drums on wheels: the water was kept cool in specially designed shelters.

(b) *Small stations*.—One hundred and sixty-four drums on wheels were in use for the supply of water through watermen.

During the year, four drinking water shelters were built at Jaleswar, Ballichuk, Sakti and Baraduar and a water tap was provided on the platform near the 3rd class waiting hall at Amgaon.

One hundred and eight additional watermen were engaged during the hot weather.

Bombay, Baroda and Central India Railway.—(a) *Large stations*.—Water taps are generally provided at suitable points on platforms and in waiting halls. Water huts are also erected where cold water is stored in earthenware pots. Hindu and Mahomedan watermen continued to distribute water to passengers in trains.

(b) *Small stations*.—Watermen were employed to supply drinking water, stored in water huts erected on the platforms.

A total of 144 extra watermen was employed during the hot weather.

Eastern Bengal Railway.—During the year tube wells were provided at Poradaha, Raninagar and Tangla and two storage tanks fed by the municipal pipe line were provided at Narayanganj and a water tap at Banmankhi. These facilities supplement the already existing taps and arrangements for the supply of water to passengers in trains through watermen.

East Indian Railway.—(a) *Large stations*.—Drinking water taps and hydrants with collecting masonry base are provided.⁴⁰ Cool drinking water is also stored in a sufficient number of earthen pots and buckets and is distributed by watermen in attendance during train times. On the Allahabad Division, the supply of water to passengers from specially designed trollies carrying *mathkas* was continued. These *mathkas* do not require dippers and thus minimise the risk of contamination by hand.

(b) *Small stations*.—Water is stored in *ghurras* embedded in sand and kept in kiosks. From this stock watermen supply water to passengers at train times.

Six hundred and sixty-four additional watermen were engaged during the hot weather months to assist the permanent staff in supplying water to those in trains.

Great Indian Peninsula Railway.—(a) *Large stations*.—A sufficient number of earthen chatties filled with cool drinking water is kept at all stations and watermen are present on the platforms to meet each train with an ample supply of cool drinking water for distribution to passengers. Instead of *lotas* brass ladles were introduced for dealing out water as being more sanitary. The five water trollies each containing three chatties of water, introduced as an experimental measure at Bhusaval, Nagpur, Itarsi, Jhansi and Jubbulpore, proved very serviceable; the use of such trollies was extended to 15 other important stations.

(b) *Small stations*.—A sufficient number of *kankharies* and chatties containing cool drinking water were placed in shelters.

Three hundred and eighty-five additional watermen were engaged for service to passengers in trains during the hot weather.

Jodhpur Railway.—(a) *Large stations*.—In addition to water taps on platforms, huts for storing cool drinking water were also provided. Charitable organisations were also afforded facilities for supplying water at station platforms, passenger trains and passenger sheds.

(b) *Small stations*.—At the majority of stations, water huts for the storage of cool drinking water were provided with watermen in attendance.

At certain stations additional staff was engaged during the hot weather.

Madras and Southern Mahratta Railway.—Drinking water is supplied to passengers at all stations, the standard arrangement being to place one or more 5-gallon earthenware pots, which are fitted with a brass cock and

a lid, at all stations. Wherever possible water taps are also provided on the platforms. Additional watermen were engaged during the hot weather months, and public bodies were encouraged to help.

His Exalted Highness the Nizam's State Railway.—Water taps are provided at all important stations and also at engine watering stations. During the year water taps were provided on the passenger platform at one more station (Alir) on the broad gauge. In the hot weather months, drinking water was supplied by travelling watermen in all passenger and mixed trains, and additional temporary watermen were posted at 32 stations.

North Western Railway.—Water shelters are provided on platforms containing earthen pots filled with clean and cool drinking water. Separate hand barrows are provided for Hindu and Mahomedan watermen to facilitate supply to passengers in trains. The earthen vessels used for storing water are changed sufficiently often to ensure cleanliness. Water hydrants are provided at certain stations. At large stations separate watermen are deputed to attend to ladies' compartments. At small stations watermen have instructions to give preference to requests from ladies and children. On certain sections, there were travelling watermen for serving passengers in trains. Eight hundred and seventy-five additional watermen were provided during the hot weather months.

Rohilkund and Kumaon Railway.—(a) *Large stations.*—Generally one permanent and one seasonal waterman were employed.

(b) *Small stations.*—Suitable arrangements were in force for the supply of drinking water to passengers at every alternate roadside station. Bhisties were also employed permanently at 10 stations. There are water hydrants at 23 stations.

South Indian Railway.—(a) *Large stations.*—Hydrants are provided on platforms, and in addition water tubs and drums were placed at suitable points. Water carriers were detailed to supply water to passengers in trains.

(b) *Small stations.*—Water stored in drums is kept in a cage or box on platforms. Certain stations are also provided with hydrants.

The water supply arrangements at 7 stations were improved or extended either by the provision of new pipe lines or additional water taps on special occasions such as big festivals, etc.

110. Restaurant or buffet car services.

Assam Bengal Railway.—Dining cars catering in European style were run on the express trains between Chittagong and Bhairab Bazar. Kitchen cars were run on the Up and Down mail trains between Pandu and Tinsukia.

Bengal Nagpur Railway.—Restaurant cars catering in the European style were run on—

Bombay mails between Howrah and Nagpur.

Madras mails between Howrah and Vizianagram.

Bombay, Baroda and Central India Railway.—Restaurant cars catering in the European style were run on the following trains:—

(i) Frontier mails between Bombay and Delhi.

(ii) Ahmedabad-Delhi mails.

(iii) Ahmedabad-Delhi expresses.

Third class carriages with certain compartments set apart for catering in the Indian style were run on—

(i) Kathiawar express trains between Bombay Central and Viramgam.

(ii) Express trains between Bombay Central and Delhi.

A dining car catering in the Indian style was also run on the "Flying Rane" between Bombay Central and Surat.

Eastern Bengal Railway.—Restaurant cars for upper class passengers catering in the European style continued to run between Calcutta and Parbatipur on the Assam mails. On and from the 15th March 1938, a metre gauge restaurant car was run on one service between Sorbhog and Parbatipur for the convenience of upper class passengers travelling to and from Assam.

East Indian Railway.—Restaurant cars catering in the European style were run on the following trains:—

- Delhi mails between Moghal Sarai and Delhi.
- Bombay mails between Moghal Sarai and Chheoki.
- Punjab mails between Howrah and Lhaksar.
- Delhi express between Howrah and Delhi.

Five Indian restaurant cars with separate kitchens and dining compartments for Hindus and Mahomedans were run on the Upper India and Punjab express trains between Moghal Sarai and Delhi and Howrah and Moghal Sarai respectively.

Great Indian Peninsula Railway.—Restaurant cars catering in the European style were run on fourteen daily trains and also on the Deccan Queen and Indian Imperial Mail which ordinarily run only once a week in each direction. Restaurant cars catering in the Indian style were run on two trains. Buffet cars were run on four trains.

Jodhpur Railway.—Restaurant cars catering in the European style were run on mail trains between Marwar and Hyderabad (Sind). Refreshment cars catering in the Indian style were run on the following trains:—

- The Up and Down mails between Marwar-Hyderabad (Sind).
- 11 Up and 12 Down trains between Hyderabad (Sind)-Hyderabad (Sind) *via* Mirpur Khas, Pithoro and Jhudo.
- 9 Up and 10 Down mixed trains between Jodhpur-Hyderabad (Sind).
- 29 Up and 30 Down mixed trains between Sujangarh-Degana.

Indian buffet cars providing light refreshments were run between Jodhpur and Phalodi on 73 Up and 74 Down mixed trains.

Madras and Southern Mahratta Railway.—Restaurant cars catering in the European style were run on the following trains:—

- Madras-Calcutta mails between Bezwada and Samalkot.
- Bombay-Madras mail from Guntakal to Nandalur.
- Madras-Bombay express from Nandalur to Guntakal.
- Bangalore-Guntakal passenger from Dharmavaram to Guntakal.
- Bangalore-Guntakal mail from Guntakal to Dharmavaram.

Restaurant cars catering in the Indian style were operated on the:—

Broad gauge—

- Bangalore expresses between Madras and Bangalore.
- Bangalore passengers between Madras and Bangalore.
- Grand Trunk expresses between Madras and Bezwada.
- Puri passengers between Bezwada and Waltair.

Metre gauge—

- Poona mails between Hubli and Miraj.
- Poona mails between Harihar and Hubli.
- Poona expresses between Miraj and Poona.
- Belgaum passengers between Belgaum and Poona.
- Hubli passengers between Hubli and Miraj.
- Hubli passengers between Guntakal and Hubli.
- Hubli passengers between Bezwada and Guntakal.
- Guntakal passengers between Hindupur and Guntakal.

His Exalted Highness the Nizam's State Railway.—Four bogie Indian buffet cars having separate kitchen and dining arrangements for Hindus and Mahomedans continued to run; two being on the Up and Down Wadi-Bezawada passenger trains and two on passenger trains between Secunderabad and Purli-Vaijnath.

North Western Railway.—Restaurant cars catering in the European style were run on the:—

- Karachi mails between Lahore and Rohri.
- Quetta mails between Rohri and Karachi.
- Frontier mails between Lahore and Rawalpindi.
- Down Punjab-Calcutta mail between Lahore and Jullundur city.
- Dining cars catering in Indian style were run on the Bombay expresses between Lala Musa and Delhi.
- Karachi mails between Lahore and Rohri.

Rohilkund and Kumaon Railway.—Restaurant cars catering in the European style were run on the Up and Down Agra-Kathgodam express trains.

South Indian Railway.—Dining cars were run on the—

- (i) Indo-Ceylon express trains between Trichinopoly Junction and Dhanushkodi.
- (ii) Blue Mountain express trains between Erode and Mettupalaiyam during the Hill Season.

Indian buffet cars, providing light refreshments, were run on:—

- Dhanushkodi Fast passengers between Madras Egmore and Dhanushkodi.
- Trivandrum Fast passengers between Madras Egmore and Shencottah (*via* Chord).
- Shencottah passengers between Madras Egmore and Shencottah (*via* Maniyachi Junction).

The following summarises the number of trains on which restaurant car services were run during 1937-38.

Railways.	Number of trains on which restaurant cars were run, catering in		Number of trains on which buffet cars were run.	Remarks.
	European style.	Indian style.		
Assam Bengal	2	..	2*	* Kitchen cars.
Bengal Nagpur	4	..	..
Bombay, Baroda and Central India	6	6	..	
Eastern Bengal	4	..	..	† Includes up and down Docean Queen and Imperial mail run ordinarily once a week.
East Indian	8	4	..	
Great Indian Peninsula	18†	2	4	
Jodhpur	2	8‡	2	‡ Refreshment cars.
Madras and Southern Mahratta	6	24‡	..	
His Exalted Highness the Nizam's State.	..	..	4	
North Western	7	4	..	
Rohilkund and Kumaon	2	..	..
South Indian	4	..	6	

111. Improvements carried out in existing lower class carriages.

Additional alarm pulls in easily accessible positions were provided in the women's compartments of 87 lower class carriages on the Assam Bengal Railway, 27 carriages on the South Indian Railway and a number of third class carriages on the North Western Railway.

Inter-communicating windows between women's and adjacent compartments were provided in one third class carriage on the Assam Bengal Railway.

Internal door and window catches are being fitted to all intermediate class women's compartments on the Bengal Nagpur Railway as the carriages pass through shops.

Illuminated panels indicating women's compartments were fitted in three intermediate and third class compartments on the Assam Bengal Railway and six third class carriages on the South Indian Railway.

Window bars were provided in women's compartments in six coaches on the South Indian Railway.

An additional light was provided in each of 37 intermediate class women's compartments on the East Indian Railway.

Dynamos were provided in more third class carriages on the Bombay, Baroda and Central India Railway to improve the lighting. External lights have been removed from a number of coaches on the East Indian Railway and placed inside the compartments. In addition 30 watt. lamps are now being used instead of 15 watt. lamps.

Improved type seats were provided in three third class carriages on the Assam Bengal Railway. On the North Western Railway central longitudinal seats were reduced in third class compartments to allow free passage. The width of passages is also being increased in third class carriages on the Rohilkund and Kumaon Railway and improved seats provided.

Seat numbers and reservation label holders for reservation of third class seats were provided in four third class carriages running on the Trivandrum express trains on the South Indian Railway.

A third foot-step and additional hand rails were provided on a number of broad gauge coaches on the South Indian Railway.

Centre double seats were altered to single seats in the intermediate class compartments of all carriages of the North Western Railway which passed through shops during the year.

Rexine covered cushions are being provided in intermediate class carriages on the Assam Bengal, Bengal Nagpur and North Western Railways.

112. Improvements carried out in latrines of lower class carriages.

This subject continues to receive special attention.

Lavatory accommodation was provided in 8 existing non-latrined coaches on the South Indian Railway. Three latrines of standard size were provided in the Rohilkund and Kumaon Railway carriages which came into shops for re-building in addition to two fitted at present. On the Bengal and North-Western Railway non-latrined carriages programmed for re-building were fitted with latrines.

Latrines exceeding the minimum standard in size were provided in all new coaches built on the Bengal Nagpur Railway during the year. On coaches programmed for re-building on the Bengal and North-Western and Rohilkund and Kumaon Railways latrines of the old type have been replaced by improved standard size latrines. Latrines of a number of lower class carriages were enlarged on the Jodhpur and North Western Railways. Standard size latrines are being introduced as bodies of old carriages on His Exalted Highness the Nizam's State Railway are re-built or replaced.

940 tin pots with chains have been provided in the latrines of third class coaches on the South Indian Railway. A tin pot has been attached as an experimental measure to the tap in each of the lavatories of third class compartments of one of the rakes running between Madras and Bangalore city on the Madras and Southern Mahratta Railway.

"Lota" filling taps were provided in the latrines of a number of third class carriages on the North Western Railway.

Removable floors of a special design have been fitted in the third class latrines of one of the rakes on the Madras and Southern Mahratta Railway as

an experimental measure. The floors can be removed on arrival at destination and replaced by floors that have been cleaned and aired during the previous 24 hours.

Stainless steel latrine pans were fitted in a large number of third class carriages of the Great Indian Peninsula Railway.

Improved type of automatic flushing arrangement was provided in 349 intermediate and third class latrines on the Assam Bengal Railway. The flushing arrangements of lavatories of new stock of His Exalted Highness the Nizam's State Railway were improved and brought to the required standard.

Brackets for holding "lota" and soap have been provided in the latrines of 161 intermediate and third class carriages on the Assam Bengal Railway.

Iron coat hooks have been provided in the latrines of a number of third class carriages on the North Western Railway. On the Eastern Bengal Railway coat hooks are being provided in the lavatories of the existing intermediate class through service coaches. The Jodhpur Railway fitted the latrines of 23 carriages with coat hooks.

Wash hand basins and mirrors have been provided as an experimental measure in one intermediate class carriage on the Assam Bengal Railway. All intermediate class lavatories running on Mail and Express trains on the Bengal Nagpur Railway are being provided with wash hand basins. Folding wash basins and mirrors are being provided in all intermediate class through service coaches on the Eastern Bengal Railway. Wash basins and mirrors were provided in a number of intermediate class carriages on the North Western Railway.

113. Arrangements to ensure cleanliness of latrines in passenger trains.

Assam Bengal Railway.—Latrines in carriages were thoroughly cleaned and sprayed with disinfectant at starting stations, also *en route* at junctions at reasonable hours, and at all times when requests were made and there was time available. Train Examiners were instructed to give special attention to this matter and District and Assistant Officers made frequent inspections.

Bengal and North-Western Railway.—Latrines in trains were cleaned and disinfected every morning at carriage examining stations under the personal supervision of Carriage Examiners: this arrangement proved satisfactory.

Bengal Nagpur Railway.—Assistant Officers and Inspectors were strictly directed to observe the working of the staff at stations and to see that latrines in trains were cleaned and disinfected and that water tanks were filled at starting stations as well as at important intermediate stops. At smaller stations the train examining staff was specially directed to make similar arrangements. Thirty-gallon disinfecting tanks mounted on wheels were in use at important stations to facilitate the cleaning of lavatories in third class carriages.

Bombay, Baroda and Central India Railway.—The tanks of carriages were filled at starting stations and replenished at large stations *en route* by special staff. On the broad gauge notices giving the names of stations at which sweepers were specially detailed were exhibited in lavatories of third class carriages, advising the public to inform the guard or station staff where sweepers' services were required. On the metre gauge, lavatories of carriages were cleaned by sweepers provided at selected stations.

Eastern Bengal Railway.—As in previous years the latrines in all carriages were washed, cleaned and disinfected at terminal stations, and special arrangements were made for cleaning at three intermediate stations on the broad gauge and four stations on the metre gauge. Sweepers were also kept in readiness at other stations to attend to latrines of carriages on through trains. Arrangements were made to fill the lavatory tanks of intermediate and third class compartments at 11 stations.

East Indian Railway.—Arrangements were in force at selected stations on all divisions for the general cleaning of latrines of third class carriages and for replenishing roof tanks of trains passing through. In addition sweepers were deputed at all train examining stations to sweep out compartments and to clean latrines on request.

Great Indian Peninsula Railway.—During the "lay off" period between trips all latrines in rakes were thoroughly scrubbed, flushed, disinfected and inspected prior to the commencement of the trip. Water tanks were always filled at starting stations as also at specified stations *en route* and all third class lavatories were fitted with water taps. As far as practicable the station and carriage sweepers were concentrated at selected stations to clean latrines of third class carriages during the stopping time of trains, particularly between 5 and 7-30 in the mornings. At other points the station sweepers were kept in readiness to attend to trains if and when required.

Jodhpur Railway.—Carriage tanks were filled at terminal stations and at intermediate engine changing stations where trains stopped for a sufficiently long time; the sweepers attended to latrines if and when desired by passengers.

Madras and Southern Mahratta Railway.—Carriage tanks on all trains were filled with water and latrines cleaned at starting stations and at suitable stations *en route*. At all important stations sweepers were detailed to attend to each train to clean latrines.

The experiment initiated last year on the Guntakal District for travelling sweepers to accompany trains on their runs in the early hours of the morning was extended to other Districts at an approximate annual cost of Rs. 8,000.

His Exalted Highness the Nizam's State Railway.—The lavatories of passenger carriages were frequently cleaned under the direct supervision of the Senior Subordinate Executive staff.

North Western Railway.—Instructions were issued to the staff from time to time in regard to the need for keeping latrines of third class carriages clean. A regular programme was drawn up so that the latrines in running trains might be attended to in rotation at different stations between 4 o'clock and 7 o'clock in the mornings. The tanks of carriages were filled both at starting stations and *en route*. The latrines in the rakes were also thoroughly cleaned while at stations between trips under the guidance of the supervising staff.

Rohilkund and Kumaon Railway.—At all principal stations whether starting or intermediate, the tanks of passenger and mixed trains were filled. At all carriage examining stations sweepers were posted to clean and disinfect latrines.

South Indian Railway.—The lavatories in all carriages on trains were cleaned at starting stations and at important Junction stations *en route*.

114. Overcrowding in third class carriages.

This subject continued to receive close attention from all Railways. Under the standing orders of the Railway Board, Class I Railways took a census of passenger trains once in the year during the period when passenger traffic was brisk, but in many cases checks were made during several different months. Where some overcrowding was detected it was usually of comparatively small extent and due to causes which could not readily be foreseen, such as a rush of a number of large marriage parties or abnormally heavy attendance at some fair or festival. Where overcrowding was observed, action was generally taken in one or more of the following directions:—

- (a) If it appeared to be due to some unusual rush, a further census was conducted over an extended period to see whether in fact that was the case.

- (b) If it was found to be more or less regular and such as could be rectified by the addition of one or more carriages and the train load permitted this course, it was adopted.
- (c) If the train already carried the maximum load authorised, endeavours were made to adjust the timings of existing trains so as to relieve congestion at certain hours, and in some cases an additional train was introduced.
- (d) If action of the nature referred to in items (a) to (c) above was not possible and the train concerned was an important through train, distance restrictions were imposed so as to relieve that train of any rush of short distance passengers.

The results of the census were placed before Local Advisory Committees together with information in regard to action taken or proposed, for their information and advice.

It may also be mentioned that in the everyday working of Railways, station staff keep a check on the loading of trains and report to their headquarters where trains are running fully loaded and difficulty is experienced in securing accommodation for passengers.

115. Suggestion (or Complaint) Books.

The following is a brief account of the measures adopted on various railways to enable the public to record suggestions or to make complaints in regard to the service rendered :—

Assam Bengal Railway.—Complaint books are provided in refreshment rooms, in dining cars, in vendors' stalls and in hotels, and are also carried by the guards of all passenger or mixed trains. Notices both in English and vernacular are fixed in all carriages advising passengers that guards carry such books, and it is also notified in the public time-table that they are provided at all refreshment rooms. The books provided at vendors' stalls and in hotels are exhibited in a prominent position so that passengers can readily see that they are available.

Bengal and North-Western Railway.—Complaint books are provided at 16 important stations.

Bombay, Baroda and Central India Railway.—A complaint book has so far been provided at one station only and one complaint was recorded during the year. The book is in charge of the ticket collector on duty for checking each train and notices are displayed at various places in the station building advising the public of this and requesting them to record any complaint or suggestion they may have to make.

Eastern Bengal Railway.—A complaint book is kept with the guard of each train carrying passengers. A notice has been displayed in each upper class compartment informing passengers of this fact and steps have been taken to display similar notices in intermediate and third class compartments. Little use has so far been made of these books.

East Indian Railway.—Complaint books are maintained at 57 stations. Notice boards are provided at prominent places in these stations advising the public where and with whom they are to be found. In addition, the names of stations at which these books are maintained are given in public time-table. The books are sent periodically to the Divisional Superintendent's office for inspection and action.

Similar books have also been introduced in the goods sheds at certain stations on two divisions, and the advisability of their introduction at stations on other divisions is being examined.

Great Indian Peninsula Railway.—Such books were maintained as an experimental measure for a year from September 1935 at Bombay (Victoria Terminus), Poona, Sholapur, Nagpur, Jubbulpore and Jhansi. Notices in English, Gujrati and Hindi were exhibited in prominent places at the stations advising the public of their existence and inviting them to record

suggestions or complaints with the assurance that these would receive prompt attention. At the end of the trial year no useful suggestion or reasonable complaint had been recorded and so it was decided to discontinue them. They have, however, since been re-introduced.

Such books have been provided in each of the five air-conditioned coaches and the travelling public have made considerable use of them. Some of the suggestions made have been adopted and others are under investigation.

Madras and Southern Mahratta Railway.—Suggestion (or complaint) books were provided in the waiting rooms, retiring rooms, the Hindu refreshment room, the Mahomedan refreshment room and in Spencer's refreshment room at Guntakal station. The use to which these books were put was carefully watched.

North Western Railway.—Complaint books were maintained in conspicuous places at 22 stations. Near each book was a board bearing the notice:—

“ Complaints or Suggestions.

Please assist the North Western Railway in serving you better
by recording any complaint in the book kept here.”

Inspecting officials examine these books regularly with a view to taking suitable action where this has not already been done.

Rohilkund and Kumaon Railway.—Complaint books have been provided at nine stations and notices are provided to bring their existence to the attention of the public. Arrangements have generally been made to provide for a more extended use of such books.

CHAPTER IX.

MISCELLANEOUS.

116. Accidents.—The year witnessed one of the most serious accidents in the history of Indian Railways. On the 17th July 1937, No. 18 Down Punjab Express was derailed near Bihta (East Indian Railway) resulting in 106 persons being killed and 116 injured. The accident was enquired into by Sir John Thom, Chief Justice of the Allahabad High Court, who was specially deputed for this purpose by the Government of India. His report was received towards the close of the year.

The following are brief details of other important accidents :—

On the 16th August 1937, No. 157 Up passenger collided head-on with No. 170 Down passenger at Santoshpur (Eastern Bengal Railway) resulting in serious injuries to one and slight injuries to 24 passengers and 5 railway employees, including the drivers of the two trains. The cost of damage to rolling stock was Rs. 1,430.

On the 17th September 1937, No. 411 Down mixed derailed between Warora and Majri stations (Great Indian Peninsula Railway) resulting in damage to permanent-way amounting to Rs. 21,800.

On the 14th October 1937, No. 44 Down passenger ran into a motor lorry at a level crossing between Bahawalpur and Samasata (North Western Railway) resulting in the death of 14 passengers in the lorry and injuries to 12. The responsibility for this accident lay with the lorry driver, who was exceptionally careless.

On the 10th December 1937, No. 7 Up Karachi Mail ran into a Stores Special train at Mirpur Mathelo (North Western Railway) resulting in death of one fireman and injuries to the other engine crew of the mail and damage to rolling stock amounting to Rs. 26,000.

On the 16th January 1938, No. 7 Up Express collided in a dense fog with No. 212 Down Goods at Bamhrauli (East Indian Railway) resulting in the death of 3 passengers and 4 railway employees and injuries to 11 passengers and 6 railway employees.

On the 17th February 1938, the engine and six vehicles of No. 582 Down Goods capsized when passing over a bridge between Nailalung and Langcholiet (Assam Bengal Railway) resulting in the death of the driver and injuries to other railway servants and damage to rolling stock, etc., amounting to Rs. 14,500.

On the 19th March 1938, No. 28 Up Allahabad-Bombay Express collided with an empty covered bogie wagon and an engine between Jukehi and Amdara stations (Great Indian Peninsula Railway) resulting in the death of the driver and fireman of the Express and injuries to 17 passengers and 2 railway servants.

117. Review of Accident Statistics.—*So that the results for 1937-38 may be comparable with the preceding years, the figures relating to the Burma Railways which were included up to 1936-37, have been excluded from the following tables.*

(a) The following table shows the number of passengers, railway servants and other persons killed and injured in accidents on Indian Railways,

excluding casualties in railway workshops, during the year 1937-38 as compared with the previous year:—

Cause.	KILLED.		INJURED.	
	1936-37.	1937-38.	1936-37.	1937-38.
<i>A.—Passengers.</i>				
In accidents to trains, rolling-stock, permanent-way, etc.	11	105	67	174
In accidents caused by movements of trains and railway vehicles exclusive of train accidents.	163	214	689	818
In accidents on railway premises in which the movement of trains, vehicles, etc., was not concerned.	2	1	31	14
Total .	176	320	787	1,006
<i>B.—Railway servants.</i>				
In accidents to trains, rolling-stock, permanent-way, etc.	7	18	182	107
In accidents caused by movements of trains and railway vehicles exclusive of train accidents.	171	185	2,406	3,258
In accidents on railway premises in which the movement of trains, vehicles, etc., was not concerned.	16	30	6,835	8,773
Total .	194	233	9,423	12,138
<i>C.—Other than passengers and railway servants.</i>				
In accidents to trains, rolling-stock, permanent-way, etc.	55	61	81	80
In accidents caused by movements of trains and railway vehicles exclusive of train accidents.	2,698	2,714	751	773
In accidents on railway premises in which the movement of trains, vehicles, etc., was not concerned.	30	42	104	114
Total .	2,783	2,817	936	967
GRAND TOTAL .	3,153	3,370	11,146	14,111

(b) Out of the total of 3,370 persons killed, 2,817 or 84 per cent. were other than passengers and railway servants and of this number 2,129 were trespassers, 495 were reported to be suicides and 73 were killed on railway premises otherwise than during the movement of trains, vehicles, etc. As compared with the previous year, the increase of 217 in the total number of passengers, railway servants and other persons killed was principally under the heads "accidents to trains" (111), "trespassers" (77) and "other accidents" (29).

(c) The number of passengers killed increased by 144 and those injured by 219. This increase is mainly attributable to the Bihta disaster on the East Indian Railway. When comparing these statistics it should be remembered that during this year the passenger and mixed train miles, and passenger miles increased by nearly 5 millions and 1,063 millions, respectively.

The following statement shows the number of passengers killed and injured on all Railways in train accidents only, *i.e.*, collisions, derailments, etc., during the last five years as compared with the number of passengers carried.

Year.	* Number of passengers carried (in millions.)	Killed.		Injured.	
		† Number.	Per million passengers carried.	† Number.	Per million passengers carried.
1933-34	493	17	0·03	134	0·27
1934-35	502	14	0·03	63	0·13
1935-36	506	5	0·01	87	0·17
1936-37	512	11	0·02	67	0·13
1937-38	545	105	0·19	174	0·32

* Represents total of numbers carried on all railways.

† Excludes train wrecking and attempted train wrecking.

(d) On Class I Railways the number of railway servants killed in accidents due to the movement of trains and railway vehicles, exclusive of train accidents, increased by 16 and the number injured by 860. As already pointed out, however, there was a considerable increase in train miles and consequently in other vehicle movements.

The following table analyses the main causes of these accidents:—

Cause.	KILLED.		INJURED.	
	1936-37.	1937-38.	1936-37.	1937-38.
Misadventure or accidental	114	126	2,168	3,052
Want of caution or misconduct on the part of the injured person.	47	54	167	147
Want of caution or breach of rules, etc., on the part of servants other than the person injured.	3	..	33	29
Defective apparatus or system of working, dangerous places, dangerous condition of work or want of rules or systems of working.	..	..	..	..
Total	164	180	2,368	3,228

(e) The following statement analyses the accidents which occurred during the last two years, grouped under the principal causes. A statement showing.

the accidents in greater detail for each railway will be found in Appendix D of Volume II of this report :—

	1936-37.	1937-38.
1. Running over cattle	9,074	9,191
2. Derailments not involving passenger trains	3,351	3,361
3. Accidents due to failure of couplings and draw gear	2,114	1,966
4. Accidents due to failure of engines owing to faulty material, workmanship and operation arising from the working of the running staff	1,508	1,671
5. Accidents due to failure of engines owing to faulty material and workmanship in the Mechanical Department	421	429
6. Broken rails	305	316
7. Accidents due to other rolling stock failures	162	274
8. Derailment of passenger trains	274	258
9. Fires in trains or at stations or bridges	219	224
10. Collision involving goods trains or goods vehicles	182	182
11. Running over obstructions on the lines other than those at level crossings	175	157
12. Trains running over obstructions or vehicles at level crossings	74	116
13. Flooding of permanent-way	73	90
14. Attempted train wrecking	77	75
15. Passenger trains running in the wrong direction through points but not derailed	58	53
16. Collisions involving passenger trains	48	48
17. Accidents due to failure of axles	45	46
18. Land slips	58	45
19. Collisions between light engines	23	33
20. Accidents due to failure of brake apparatus	32	22
21. Train wrecking	16	14
22. Accidents due to failure of tyres or wheels	11	12
23. Failure of bridges or tunnels	4	8
24. Miscellaneous	301	319
Total	18,605	18,910

(f) The total number of accidents shows an increase of 305 as compared with the previous year: against this the increase in total train miles was about 10.6 millions :—

(i) "Running over cattle" still accounts for the largest number of accidents, *i.e.*, 49 per cent. of the whole; next in order are—

	Per cent.
Derailments not involving passenger trains	18
Accidents due to failure of couplings and draw gear	11
Accidents due to failure of engines owing to faulty working of the running staff	9
Accidents due to failure of engines owing to faulty materials, etc.	2
Broken rails	2
Accidents due to other rolling stock failures	1
Derailment of passenger trains	1

- (ii) Accidents in railway workshops accounted for the death of 11 and injuries to 8,111 railway servants, or a decrease of 3 in the former and an increase of 904 in the latter head.

118. Damage by floods, fires and other causes.—The year under review was again a fortunate one in that railways were not affected to any very great extent by floods, cyclones and other calamities. The following are brief particulars of the more serious occurrences which affected railways:—

The Assam Bengal Railway was subjected to cyclones on the 19th May 1937, 14th October 1937 and 20th March 1938 which caused damage to roofs of station buildings and quarters at Bhairab Bazar, Noakhali and other stations, but a tidal bore in the river near Noakhali on the 14th October 1937 did little damage although it inundated the floors of the station building, staff quarters and the goods shed at that place.

Bombay, Baroda and Central India Railway.—The Mhow Division of the Bombay, Baroda and Central India Railway experienced an earthquake shock on the 14th March 1938, but beyond causing several cracks in the railway buildings at Mhow and Indore, the earthquake fortunately did no more damage.

A fire which broke out in an accident van at Bayana station due, it is stated, to a tin of petrol being opened near a naked light, caused the death of 2 of the staff and injured 11 others.

There were also several breaches by floods on this railway during June and July 1937, and traffic was interrupted as a result for periods ranging from one to about eight days.

On the Eastern Bengal Railway, storms and floods were responsible for an expenditure of about Rs. 58,000 in repairs, and fires caused damage to the extent of another Rs. 58,000, notably at Cossipore Road station. On the 3rd May 1937 a sudden and violent storm near Dagi station blew over more than 20 wagons of a mixed train, fortunately without injury to any one. The approximate cost of the damage caused was over Rs. 6,000.

Heavy rains in the neighbourhood of Madras from the 16th to 18th November 1937 resulted in the Tondiarpet Marshalling Yard and Madras and Southern Mahratta Railway staff quarters being submerged for several days. The quarters were flooded to a depth of about 5 feet and the staff had consequently to be evacuated and housed in covered wagons until the quarters were ready for re-occupation.

On the Bannu-Laki Marwat Section of the North Western Railway a bomb exploded on a bridge between Bannu and Naurang, on the morning of the 30th March 1938. As a result of this a villager who was crossing the line was killed and four rails were badly distorted. Fortunately, no trains suffered any accident in consequence.

On the South Indian Railway as a result of an exceptionally severe North East monsoon during November 1937, considerable flooding took place accompanied by breaches of the lines and embankments over several sections of the main and branch lines, and through running was suspended for periods ranging from one to fifteen days. The trouble was in many cases aggravated by the bursting of tank bunds in the neighbourhood of the railway.

119. Publicity.—The Central Publicity Bureau working directly under the Railway Board controls offices in London and New York. (In passing it may be mentioned that the office in New York was closed with effect from the 1st July 1938.) The Bureau conducts publicity of an All-India nature in connection with major fairs and festivals and also co-ordinates the efforts of railways in connection with important gatherings that affect the interests of more than one line.

The outstanding feature of the year was a considerable increase in enquiries answered and itineraries prepared for potential tourists by both the New York and the London Offices.

As regards New York the figures show an increase of 113 per cent. in the number of itineraries furnished, 137 per cent. in the number of people covered by such itineraries and 144 per cent. in the total railway value of the itineraries prepared.

As regards London, although under the first two heads the increases were small, the actual value of the itineraries showed an increase of 41 per cent. as compared with the previous year.

World Cruise traffic suffered from the Sino-Japanese war, as some of the extra ships which the travel firms had hoped to engage, had to be cancelled. Nevertheless, three ships visited India and the financial result, although not as good as in the previous year, was satisfactory. The figures for the two years were:—

	Rs.
1936-37 Earnings	2,32,020
1937-38 Earnings	1,99,102

Third Class Traffic.—Three principal festivals engaged the attention of the Bureau. These were:—

- (i) The Rath Jatra at Puri.
- (ii) The Kartiki *mela* at Garhmukhtesar.
- (iii) The Kumbh *mela* at Hardwar.

As regards (i), the result showed a considerable improvement in traffic, amounting to 28 per cent. in passengers and 24 per cent. in earnings over the previous year.

As regards (ii), there was also an increase of nearly 12 per cent. in passengers, and an increase of 13 per cent. in the earnings over the previous year.

As regards (iii), the Kumbh *mela* was the subject of very intensive propaganda, involving not only all the usual methods of dissemination of information, but also the use of aeroplanes for dropping leaflets, canvassing from village to village over an area of nearly 30,000 square miles, and the use of loudspeakers. It is a pleasure to record that very great help was received from the press generally in the dissemination of information. The results obtained were extremely gratifying, as the attendance at the *mela* was a record, amounting to almost double the attendance for the last "Kumbh" ten years ago.

Publicity material of a general nature was widely distributed and in spite of the Far Eastern situation, there was still a large demand.

The following is a brief indication of the nature of the special propaganda undertaken by individual railways:—

Bengal Nagpur Railway.—English and vernacular pamphlets giving information about fairs and festivals, accommodation available in the vicinity of stations, and travel concessions and facilities, were distributed. A feature of the publicity in connection with Rath Jatra festival was the distribution to firms and individuals of a specially designed adhesive label, about the size of an air mail stamp, depicting the Rath Jatra procession and with legends in English and the vernaculars, which they were asked to affix on outgoing letters.

Through the courtesy of the Indian Tea Cess Committee two films on Puri were exhibited at various places in India.

Personal canvassing by the staff was particularly urged and as a result twelve trains were run, the earnings of which amounted to Rs. 77,129. Four passenger canvassers were appointed who will travel about constantly and cultivate personal touch with the travelling public.

Bombay, Baroda and Central India Railway.—The most important step in propaganda was that undertaken in connection with the inauguration of the service between Bombay and Surat, by a train called the "Flying Ranee". The train was at first run only at week-ends but later extended to a daily service. It has a restaurant car, new corridor stock for

third class passengers, an observation car for second class passengers, a telephone and a news bulletin. A film was taken of the ceremony at the inauguration of the service which was shown in Bombay and at various stations adjoining the route it follows.

An intensive campaign was conducted in connection with all fairs and festivals.

Several special trains were run and parties carried in special carriages, largely owing to the special canvassing conducted by the staff.

Eastern Bengal Railway.—A booklet entitled “Bengalay Bhraman” (Travel in Bengal) which is a guide book for all places of interest in the areas served was published. It is priced at annas eight a copy and was so well received, that 3,000 copies were sold out in three months and a further reprint was ordered.

An endeavour was made to establish closer contact with the travelling public by the Publicity Officer having personal discussions with the representatives of several educational institutions and travel organisations. This Officer was also co-opted by the Calcutta University as a member of their newly constituted Travel Board.

The railway participated in thirteen exhibitions at which posters and photographs were displayed and publicity literature distributed. Particular mention may be made of the Calcutta Health Week Exhibition at which photographs illustrative of the action taken by the railway for safeguarding the health of the travelling public and the staff were greatly appreciated by visitors. At Rangpur, the Railway received a first class certificate for its exhibits.

The amount spent on advertisements in newspapers was Rs. 50,077 as against Rs. 37,739 during 1936-37. This increase was due to intensive publicity in local and vernacular papers in connection with the stimulation of lower class traffic generally and the development of *mela* traffic.

East Indian Railway.—No less than 30,000 pictorial posters, 23,000 letter-press posters, about 1,200,000 handbills and 250,000 folders in English and the vernaculars were produced in connection with *melas*, fairs, concessions for coaching and goods services, special trains, etc. There was also special co-operation with Steamship Companies, religious organisations and educational institutions.

On the 10th January 1938, an Information Bureau was opened at the Head Offices (6, Fairlie Place, Calcutta) to deal with the reservation of berths, sale of tickets, sale of publications and posters, preparation of itineraries and distribution of travel literature. It is designed and furnished on modern lines and the visitor will find that apart from the facilities it offers it is an attraction in itself.

In connection with the “Kumbh” *mela* at Hardwar, an intensive advertising campaign was conducted both on the railway itself and in conjunction with the Central Publicity Bureau. For this purpose 485,000 handbills and 50,000 folders in Bengali, Hindi and Urdu were produced and Rs. 1,500 allotted specially for vernacular newspaper advertising.

Great Indian Peninsula Railway.—Most of the expenditure of Rs. 39,564 was on advertising in newspapers or periodicals and the major portion of this was incurred on vernacular insertions.

The output of handbills rose to 1,523,500. The publicity measures embraced a large number of fairs and other gatherings and for many of these a Publicity Inspector was sent to tour towns and villages to make oral announcements, fix posters and distribute handbills accompanied by drum beaters. Much useful information about the wishes and needs of the local population was acquired through this method.

Madras and Southern Mahratta Railway.—More intensive publicity was undertaken, mainly in connection with passenger services but also to advertise the express goods services, reductions in rates, etc. The original

allotment was increased by Rs. 12,000, to a total of Rs. 42,000. The following figures give an idea of the volume of work undertaken :—

Handbills distributed	1,282,650
Folders and pamphlets distributed	145,000
Posters exhibited	12,575
Press notices inserted	1,265

Much greater use was made of the vernacular press.

His Exalted Highness the Nizam's State Railway.—Publicity received considerable attention both in regard to extent and intensity. Special attention was paid to the distribution of handbills and folders to ensure the widest publicity being given to the facilities provided. Brochures on Bidar and the Aurangabad Hotel were produced. Increasing attention was paid to the preparation of advertising media in Urdu and other languages of the State. A Neon sign was erected at Hyderabad and use for advertising excursions and standard concessions. By arrangement with the State Broadcasting Department, interesting talks pertaining to matters of general interest concerning the railway were broadcast periodically.

North Western Railway.—Contracts for space were made with 63 newspapers in place of 57 during the previous year, with a corresponding increase in expenditure. The cinema car visited 173 stations and gave over 350 shows at which approximately 734,000 persons were present. Up to February 1938, the railway had one cinema lorry for railway propaganda in villages away from the railway line. A second lorry was then put into commission. The lorries visited 279 important rural centres and gave over 300 open-air shows at which over 400,000 persons were present.

South Indian Railway.—The several fairs and festivals were advertised as usual through posters, leaflets and the press. Facilities offered to the public by reduced fares, important train services, opening of train halts, Town Booking Offices and Out-Agencies were also widely advertised with encouraging results. Efforts made to encourage students excursions, round tours and tours of small parties were also successful.

A quarterly booklet entitled "Travel Concessions" is being published and distributed free to important firms, traders, associations, clubs, schools, colleges, etc. This helps to advertise the numerous concessions in force and other travel facilities afforded.

NOTE.—See also paragraph 64 in Chapter IV which gives information in regard to other publicity activities with the object of bringing to notice special measures introduced for the convenience of the public.

120. Anti-malarial measures.—During the year under review, anti-malarial measures were continued on railways with good results both to the staff and to the Railway Administrations.

Assam Bengal Railway.—The incidence of malaria throughout the line was not above the average. The control measures instituted at Pahartali continued to show their efficacy. The incidence of malaria at Luming was slightly less than last year.

Bengal Nagpur Railway.—Anti-malarial work was continued by the malariologist and his staff on the various posts of the line with satisfactory results.

Bombay, Baroda and Central India Railway.—Anti-malarial measures were continued during the year over the whole line and more particularly in Freelandgunj-Dohad, Ratlam, Ahmedabad, Kankaria, Ajmer and Muttra Cantonment.

The total number of primary and recrudescent cases of malaria reported amongst employees for the whole line in 1937-38 was 9,182 and 8,197 respectively as compared with 7,900 and 8,900 in 1936-37. Although there is a slight increase in the number of primary cases a small reduction in recrudescent cases is noticeable. The increase in primary cases was due to the abnormal rainfall in Gujerat and Rajputana.

Eastern Bengal Railway.—At fifteen of the stations under malaria control, anti-larval work was extended to a radius of half a mile from the outermost railway quarters on every side. At fourteen other stations the work was confined to railway limits, the areas outside being dealt with by other public bodies. Anti-parasitic measures were taken at seven stations on the Tangla-Rangapara Branch and anti-larval work at the Bakudih quarries was continued during the year.

Malaria was prevalent in an epidemic form in several parts of Bengal. This naturally had its repercussion on the Eastern Bengal Railway staff. It is significant, however, that stations where anti-malarial measures were being carried out, did not show any abnormal increase in the incidence of malaria. Though quinine still continues to be the mainstay in the treatment and prophylaxis of malaria, the use of the new synthetic drugs Atebrin and Plasmochin has been gradually extended. In the three hyperendemic stations Raja Bhat Khawa, Tangla and Majbat, these synthetic drugs were used to a greater extent than quinine with very satisfactory results.

East Indian Railway.—The anti-malaria campaign continues at Barwadih with satisfactory results. There has been a satisfactory decrease in total sickness which is the only criterion of a successful campaign.

Great Indian Peninsula Railway.—The usual anti-malarial measures with a view to systematic destruction of larvæ and prevention of breeding by regular cleaning and oiling of all drains, drainage of pools of stagnant water, where possible filling up of small pits and depression, etc., continued to be carried out.

Special measures were taken in Bhusaval to control mosquito breeding in the Satara Nala which skirts the Railway colony, and considerable improvement resulted therefrom.

Madras and Southern Mahratta Railway.—Anti-malarial work has been continued satisfactorily.

South Indian Railway.—Consequent on the special steps taken to combat the disease in the Ghat Section, there was a decrease in the number of cases reported from the Southern Districts and also from Salem. There was, however, an increase in the number of cases in Erode Colony due to infection from the neighbouring town. The usual prophylactic and curative measures were adopted and a Sub-Assistant Surgeon trained in this work was temporarily appointed to deal with this disease and the results so far, are promising.

APPENDIX A.

Railway Administrations in India alphabetically arranged in three classes according to their gross earnings showing the working agencies, ownership and route mileage open on 31st March 1938.

NOTE.—Indian Railway Systems have been classified under three classes for statistical purposes—

Class I—Railways with gross earnings of Ra. 50 lakhs and over a year.

Class II—Railways with gross earnings of less than Ra. 50 lakhs a year, but exceeding Ra. 10 lakhs a year.

Class III—Railways with gross earnings of Ra. 10 lakhs and under a year.

[NOTE.—Railways under construction or sanctioned for construction on the 31st March 1938, are shown in italics.]

RAILWAY SYSTEM.		LINES COMPRISED IN THE SYSTEM.			
Name.	Worked by	Name.	Gauge.	Route Mileage.	Owned by
1	2	3	4	5	6

CLASS I RAILWAYS.

1. Assam Bengal . . .	Assam Bengal Railway Company.	(a) Assam-Bengal . . .	3' 3½"	1,131	State.
		(b) Chaparmukh-Silghat . . .	3' 3½"	51	Branch line Company under guarantee terms.
		(c) Katakhal-Lalabazar . . .	3' 3½"	23	Do.
		(d) Mymensingh-Bhairab Bazar . . .	3' 3½"	100	Branch line Company under guarantee and rebate terms.
2. Bengal and North-Western.	Bengal and North-Western Railway Company.	(a) Mashrak-Thawe . . .	3' 3½"	39	State.
		(b) Tirhoot . . .	3' 3½"	813	Do.
		(c) Bengal and North-Western . . .	3' 3½"	1,260	Company subsidized by the Government of India*.
3. Bengal Nagpur . . .	Bengal Nagpur Railway Company.	(a) Anuppur-Manendragarh . . .	5' 6"	54	State.
		(b) Bengal Nagpur . . .	5' 6"	2,412	Do.
		(c) Purulia-Ranchi . . .	2' 6"	116	Do.
		(d) Raipur-Dhamtari . . .	2' 6"	57	Do.
		(e) Satpura . . .	2' 6"	626	Do.
		(f) Mayurbhanj . . .	2' 6"	71	Branch line Company under rebate terms.
		(g) Parahimedi Light . . .	2' 6"	56	Private body.
4. Bombay, Baroda and Central India.	Bombay, Baroda and Central India Railway Company.	(a) Bombay, Baroda and Central India . . .	5' 6"	1,035	State.
		(b) Bombay, Baroda and Central India . . .	3' 3½"	1,879	Do.
		(c) Bombay, Baroda and Central India . . .	2' 6"	72	Do.
		(d) Nagda-Ujjain . . .	5' 6"	35	Indian State.
		(e) Petlad-Cambay (Anand-Tarapur Section) . . .	5' 6"	22	Do.
		(f) Petlad-Cambay (Tarapur-Cambay Section) . . .	5' 6"	12	Do.
		(g) Dhrangadra . . .	3' 3½"	40	Do.
		(h) Palanpur State . . .	3' 3½"	17	Do.
		(i) Piprod-Devgad-Baria . . .	2' 6"	10	Do.
		(j) Rajpipla State . . .	2' 6"	58	Do.
		(k) Tapti-Valley . . .	5' 6"	156	Branch line Company under rebate terms.
		(l) Ahmedabad-Parantij . . .	3' 3½"	89	Do.
		(m) Champaner-Shivrajpur-Pani Light . . .	2' 6"	31	Do.
(n) Godhra-Lunavada . . .	2' 6"	25	Do.		
(o) Nadiad-Kapadvanj . . .	2' 6"	28	Do.		

* Receives land only from Government.

RAILWAY SYSTEM.		LINES COMPRISED IN THE SYSTEM.			
Name.	Worked by	Name.	Gauge.	Route Mileage.	Owned by
1	2	3	4	5	6
CLASS I RAILWAYS—contd.					
5. Eastern Bengal	State	(a) Eastern Bengal	5' 6"	847	State.
		(b) Eastern Bengal	3' 3½"	1,039	Do.
		(c) Eastern Bengal	2' 6"	17	Do.
		(d) Cooh Behar State	3' 3½"	33	Indian State.
		(e) Sara-Sirajganj	5' 6"	54	Branch line Company under rebate terms.
		(f) Khulna-Bagerhat	2' 0"	20	Do.
6. East Indian	State	(a) East Indian	5' 6"	4,217	State.
		(b) Cawnpore-Burhwal link.*	3' 3½"	66	Do.
		(c) Hardwar-Dehra	5' 6"	32	Branch line Company under guarantee terms.
		(d) South Bihar ‡	5' 6"	76	Branch line Company.
7. Great Indian Peninsula.	State	(a) Great Indian Peninsula.	5' 6"	3,166	State.
		(b) Darwha-Pusad	2' 6"	43	Do.
		(c) Bhopal-Itarsi	5' 6"	57	Jointly owned by State and Indian State.
		(d) Bhopal-Ujjain	5' 6"	113	Indian State.
		(e) Bina-Goonna-Baran	5' 6"	147	Do.
		(f) Dhond-Baramatl	2' 6"	27	Branch line Company under rebate terms.
		(g) Ellichpur-Yootmal	2' 6"	118	Do.
		(h) Pachora-Jamner	2' 6"	34	Do.
		(i) Pulgaon-Arvi	2' 6"	22	Do.
8. Jodhpur	Indian State	(a) Jodhpur-Hyderabad (British Section).	3' 3½"	230	State.
		(b) Jodhpur	3' 3½"	767	Indian State.
		(c) Mirpur Khas-Khadro	3' 3½"	40	Company subsidized by the Government of India.†
9. Madras and Southern Mahratta.	Madras and Southern Mahratta Railway Company.	(a) Madras and Southern Mahratta.	5' 6"	1,110	State.
		(b) Madras and Southern Mahratta.	3' 3½"	1,600	Do.
		(c) Alnavar-Dandoli (Provincial).	3' 3½"	19	Do.
		(d) Kolar Goldfields	5' 6"	10	Indian State.
		(e) Bangalore-Harihar ‡	3' 3½"	211	Do.
		(f) Hindupur (Yeavampur-Mysore Frontier). ‡	3' 3½"	51	Do.
		(g) Kolhapur State	3' 3½"	20	Do.
		(h) Sangli State	3' 3½"	5	Do.
		(i) Tenali-Repalle	5' 6"	22	District Board.
		(j) Bozwa d a-M a s u l i-patam. ‡	3' 3½"	52	Do.
		(k) West of India Portuguese.	3' 3½"	51	Foreign Country.
10. Nizam's State	Nizam's State Railways.	(a) Bozwada Extension	5' 6"	22	State.
		(b) Dronachellam (Dhonne)-Kurnool-British Frontier.	3' 3½"	36	Do.
		(c) Nizam's State	5' 6"	607	Indian State.
		(d) Nizam's State	3' 3½"	623	Do.

* Under running power agreement, the B. and N.-W. Railway Company run and haul their trains and traffic over this line.

† Receives land only from Government.

‡ Leased to the Government for a yearly sum of £30,000.

§ The working of the line has been transferred to the Mysore Railway with effect from 1st January 1938.

|| Purchased by the Government of India on 4th February 1938.

RAILWAY SYSTEM.		LINES COMPRISED IN THE SYSTEM.			
Name.	Worked by	Name.	Gauge.	Route Mileage.	Owned by
1	2	3	4	5	6

CLASS I RAILWAYS—contd.

11. North Western	State	(a) North Western	5' 6"	5,551	State.
		(b) Kalka-Simla	2' 6"	60	Do.
		(c) Kangra-Valley	2' 6"	103	Do.
		(d) Kohat-Thal	2' 6"	62	Do.
		(e) Mari-Indus Kalabagh-Bannu and Laki-Pera-Tank-Manzai	2' 6"	157	Do.
		(f) Zhob Valley (Fort Roadenna Khanni).	2' 6"	174	Do.
		(g) Bahawalnagar Fort-Abbas-Kut-el-Imara	5' 6"	152	Indian State.
		(h) Jammu and Kashmir (Indian State Section).	5' 6"	16	Do.
		(i) Jind-Panipat (Indian State Section).	5' 6"	28	Do.
		(j) Khanpur-Chachran	5' 6"	22	Do.
		(k) Ludhiana Dhuri Jakhai.	5' 6"	78	Do.
		(l) Rajpura-Bhatinda	5' 6"	108	Do.
		(m) Sirhind Ruper	5' 6"	31	Do.
		(n) Hoshiarpur-Doab (Jullundur Mukerian).	5' 6"	45	Branch line Company under rebate terms.
		(o) Hoshiarpur-Doab (Phagwara-Rahon).	5' 6"	48	Do.
		(p) Mandra-Bhama	5' 6"	47	Do.
		(q) Fialkot Narowal	5' 6"	30	Do.
(r) Jacobabad-Kashmor.	2' 6"	76	Do.		
(s) Larkana-Jacobabad	2' 6"	53	Do.		
12. Rohilkhand and Kumaon.	Rohilkhand and Kumaon Railway Company.	(a) Lucknow-Bareilly	3' 3 1/2"	211	State.
		(b) Rohilkhand and Kumaon.	3' 3 1/2"	250	Company subsidized by the Government of India. †
13. South Indian	South Indian Railway Company.	(a) South India	5' 6"	599	State.
		(b) South India	3' 3 1/2"	1,507	Do.
		(c) Nilgiri	3' 3 1/2"	29	Do.
		(d) Travancore (British Section including Shencottah-Quilon Section).	3' 3 1/2"	108	Do.
		(e) Morappur-Howar	2' 6"	73	Do.
		(f) Tirupattur-Krishnagiri.	2' 6"	25	Do.
		(g) Shoranur-Cochin	5' 6"	65	Indian State.
		(h) Travancore (Indian State Section).	3' 3 1/2"	40	Do.
		(i) Podanur-Pollachi	3' 3 1/2"	25	District Board.
		(j) Tinnevely-Tiruchendur.	3' 3 1/2"	28	Do.
(k) Peralam-Karaikkal	3' 3 1/2"	15	Foreign Country.		
(l) Pondichery	3' 3 1/2"	8	Do.		

CLASS II RAILWAYS.

1. Barri Light	Barri Light Railway Company.	Barri Light	2' 6"	203	Company subsidized by the Government of India and Indian State.*
2. Bengal Dooms	Bengal-Dooms Railway Company.	(a) Bengal Dooms	3' 3 1/2"	40	Company subsidized by District Board.
		(b) Bengal Dooms Extensions.	3' 3 1/2"	121	Company subsidized by the Government of India. †
3. Bhavnagar State	Indian State	Bhavnagar State	3' 3 1/2"	307	Indian State.
4. Bikaner State	Do.	Bikaner State	3' 3 1/2"	796	Do.

* Receives land only from Government and Indian State.

† Receives land only from Government.

‡ Receives land only from Government. The guarantee of interest and subsidy ceased from 1st January 1885 and 31st December 1894 respectively.

RAILWAY SYSTEM.		LINES COMPRISED IN THE SYSTEM.			
Name.	Worked by	Name.	Gauge.	Route Mileage.	Owned by
1	2	3	4	5	6
CLASS II RAILWAYS—<i>contd.</i>					
5. Darjeeling Himalayan	Darjeeling Himalayan Railway Company.	(a) Darjeeling Himalayan.	2' 0"	51	Company subsidized by Provincial Government.
		(b) Darjeeling Himalayan Extensions.	2' 0"	95	Branch line Company under rebate terms.
6. Dibru-Sadiya . . .	Assam Railways and Trading Company.	(a) Dibru-Sadiya † . . .	3' 3½"	86	Company subsidized by Provincial Government.
		(b) Ledo and Tikak-Margherita Colliery.	3' 3½"	5	Unassisted Company.
7. Gaekwar's Baroda State.	Indian State . . .	(a) Gaekwar's Baroda State	3' 3½"	255	Indian State.
		(b) Khijadiya Dhari	3' 3½"	37	Do.
		(c) Prachi Road Kodinar	3' 3½"	16	Do.
		(d) Bodoli Chhota Udapur.	2' 6"	23	Do.
		(e) Gaekwar's Baroda State.	2' 6"	333	Do.
8. Gondal . . .	Do.	(a) Gondal	3' 3½"	119	Do.
		(b) Jetalsar-Rajkot . . .	3' 3½"	46	Do.
		(c) Porbandar State . . .	3' 3½"	41	Do.
9. Jaipur State . . .	Do.	Jaipur State	3' 3½"	180	Do.
10. Jamnagar and Dwarka	Jamnagar and Dwarka Railway Company.	(a) Jamnagar	3' 3½"	54	Do.
		(b) Okhamandal	3' 3½"	37	Do.
		(c) Jamnagar-Dwarka . . .	3' 3½"	66	Branch line Company under guarantee and rebate terms.*
11. Junagad State . . .	Indian State . . .	Junagad State	3' 3½"	229	Indian State.
12. Morvi	Do.	Morvi	3' 3½"	132	Do.
13. Mysore	Do.	(a) Mysore	3' 3½"	338½	Do.
		(b) Kolar District	2' 6"	63	Do.
		(c) Tarikere-Narasimharajapura Light.	2' 0"	27	Do.
		(d) Bangalore-Chik-Ballapur Light.	2' 6"	39	Company guaranteed by Indian State.
14. Shahdara (Delhi) Saharanpur Light.	Shahdara (Delhi) Saharanpur Light Railway Company.	Shahdara (Delhi) Saharanpur Light.	2' 6"	93	Company subsidized by Provincial Government.†
CLASS III RAILWAYS.					
1. Ahmadpur-Katwa . . .	Ahmadpur-Katwa Railway Company.	Ahmadpur-Katwa	2' 6"	32	Branch line Company under guarantee terms.
2. Arrah-Sasaram Light	Arrah-Sasaram Light Railway Company.	Arrah-Sasaram Light . . .	2' 6"	65	Company subsidized by District Board.
3. Bankura-Damoodar River.	Bankura-Damoodar River Railway Company.	Bankura-Damoodar River.	2' 6"	60	Branch line Company under guarantee terms.
4. Baraset-Basirhat Light.	Baraset-Basirhat Railway Company.	Baraset-Basirhat Light . .	2' 6"	52	Company subsidized by District Board.
5. Bengal Provincial . .	Bengal Provincial Railway Company.	(a) Bengal Provincial . . .	2' 6"	33	Unassisted Company.
		(b) Dasghara-Jamalpur-gunj.	2' 6"	9	Branch line Company under guarantee terms.
6. Bukhtiarpur-Bihar Light.	Bukhtiarpur-Bihar Light Railway Company.	Bukhtiarpur-Bihar Light	2' 6"	33	Company subsidized by District Board.
7. Burdwan-Katwa . . .	Burdwan-Katwa Railway Company.	Burdwan-Katwa	2' 6"	32	Branch line Company under guarantee terms.
8. Cutch State	Indian State	Cutch State	2' 6"	72	Indian State.

* Financed on rebate terms given by the Jamnagar Durbar.

† Receives only land from Government.

‡ Subsidy ceased with effect from 1920-21.

§ Does not include the mileage of Bangalore-Harihara and Hindupur (Yesvantpur-Mysore Frontier) branches taken over from the M. & S. M. Railway on 1st January 1938.

RAILWAY SYSTEM.		LINES COMPRISED IN THE SYSTEM.			
Name.	Worked by	Name.	Gauge.	Route Mileage.	Owned by
1	2	3	4	5	6
CLASS III RAILWAYS—<i>concl.</i>					
9. Dehri-Rohtas Light .	Dehri-Rohtas Light Railway Company.	Dehri-Rohtas Light .	2' 6"	26	Company subsidised by District Board.
10. Dholpur State .	Indian State . . .	Dholpur State . . .	2' 6"	55	Indian State.
11. Futwah-Islampur .	Futwah-Islampur Light Railway Company.	Futwah-Islampur . .	2' 6"	27	Branch line Company under guarantee terms.
12. Gwalior Light . . .	Indian State . . .	Gwalior Light . . .	2' 0"	295	Indian State.
13. Howrah-Amra Light .	Howrah-Amra Light Railway Company.	Howrah-Amra Light .	2' 0"	44	Company subsidised by District Board.
14. Howrah-Sheakhala Light.	Howrah-Sheakhala Light Railway Company.	Howrah-Sheakhala Light	2' 0"	20	Do. *
15. Jagadhri Light . . .	Jagadhri Light Railway Company.	Jagadhri Light . . .	2' 0"	3	Unassisted Company.
16. Jorhat	River Steam Navigation Company and India General Navigation and Railway Company.	Jorhat (Provincial) .	2' 0"	32	State.
17. Kalighat-Falta . . .	Kalighat-Falta Railway Company.	Kalighat-Falta . . .	2' 6"	26	Branch line Company under guarantee terms.
18. Kulasekarapatnam Light.	East India Distilleries and Sugar Factories.	Kulasekarapatnam Light	2' 0"	27	Unassisted Company.
19. Matheran Light . . .	Matheran Steam Tramway Company.	Matheran Light . . .	2' 0"	13	Company subsidised by the Government of India. *
20. Tezapore-Balipara Light.	Tezapore-Balipara Steam Tramway Company.	Tezapore-Balipara Light .	2' 6"	20	Company subsidised by District Board.
21. Trivellore Light . . .	T. Namberumal Chetty and Sons.	Trivellore Light . . .	2' 0"	2	Unassisted Company.
22. Udaipur-Chitorgarh .	Indian State . . .	Udaipur-Chitorgarh . .	3' 3½"	146	Indian State.

* Receives land and rebate from Government.

APPENDIX B.

Relations of the Government to Railways in India.

(Reprinted from the Report for 1914-15 and brought up to date.)

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, four [the North-Western,* Eastern Bengal, East Indian (with which has been amalgamated the Oudh and Rohilkhand Railway from the 1st July 1925) and Great Indian Peninsula Railways] are owned and worked by the State; five (the Bombay, Baroda and Central India, Madras and Southern Mahratta, Assam Bengal, Bengal Nagpur and South Indian) are owned by the State but worked on its behalf by companies enjoying a guarantee of interest from the Government; two important lines (the Bengal and North-Western, and Rohilkund and Kumaon) 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 certain 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 Railways, and others; they included the construction of lines by railway companies to be incorporated for the purpose and the guarantee by the 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 offices 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

* Includes the Delhi, Umballa, Kalka and Southern Punjab Railways which were purchased by the Secretary of State on 31st March 1926 and 1st January 1930 respectively.

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, 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, Sind (afterwards, the Sind, 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, 4½ and 4¼ 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 interest 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 capital expenditure on railway 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 Irrawady 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 Commissioner 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 in 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

* Forms part of the Burma Railways which have been transferred to the Government of Burma on 1st April 1937.

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 $3\frac{1}{2}$ per cent. for the first six years and thereafter 3 per cent.

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, the Oudh and Rohilkhand, the Sind-Punjab and Delhi and the Southern Punjab lines were purchased and transferred to State management, the last two 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 the cases of South Indian, 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. This method was adopted also in regard to the East Indian and the Great Indian Peninsula Railways, but the contracts under which they were being worked having terminated on the 31st December 1924 and the 30th June 1925 respectively, the management of these lines has been taken over by the State from those dates. Similarly the management of the Burma Railways was taken over by the State on the termination of the contract with the Burma Railways Company on the 31st December 1928. From 1st April 1937 this railway has passed to the control of the Government of Burma.

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' interest on the termination of old contracts.

When funds are required for further capital expenditure, the Government has the option either of providing them or of calling on the company to provide them. Both the Government and the company usually receive interest at a fixed rate on their capital and surplus profits are divided between the Government and the company in the various proportions provided for by the contracts. The company's share is in most cases only a small proportion of the total amount.

All the contracts 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 powers 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 1942 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 1942, the lines will become the property of the State in 1981 on payment of certain amounts. 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 C.

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 them 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 predominant 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 then reconstituted consisted of the Chief Commissioner as President, the Financial Commissioner and two Members, the Chief Commissioner being Secretary to the Government of India in the Railway Department. The proposal of the Acworth Committee that the Indian Railways should be sub-divided into three territorial divisions with a Commissioner in charge of each was not accepted, and the work of the Members of the Board was divided on the basis of subjects and not on a territorial basis. One Member dealt with technical subjects and the other with general administration, personnel and traffic subjects, the Financial Commissioner representing the Finance Department on the Board and dealing with all financial questions.

The re-organisation carried out in 1924 had for one of its principal objects the relief of the Chief Commissioner and the Members from all but important work so as to enable them to devote their attention to larger questions of railway policy and to enable them to keep in touch with Local Governments, railway administrations and public bodies by touring to a greater extent than they had been able to do in the past. This object was effected by placing a responsible Director at the head of each of the main branches of the Board's work, namely Civil Engineering, Mechanical Engineering, Traffic and Establishment. The former Chief Engineer and the Chief Mechanical Engineer who had been employed mainly in consultative work, became Directors and together with the Directors of Traffic and Establishment have been made responsible for the direct disposal of the work of their branches under the general orders of the Railway Board.

The posts of Joint Secretary and 4 Assistant Secretaries were replaced by 6 Deputy Directors working under the Directors and in charge of branches dealing with Establishment, Works, Projects, Stores, Statistics and Traffic. One Assistant Director was also added to supervise the Technical Branch and the Drawing Office. The disposal of the general work of the Railway Board was provided for by the continuance of the post of Secretary in whose name all letters and orders of the Board are issued. The position of the Board as a Department of Government of India has been maintained and it works under the Member for Commerce and Railways. As already stated the Chief Commissioner is the Secretary to the Government of India in the Railway Department and orders issued by the Board over the signature of the Secretary are orders of the Government of India.

Experience of the working of this organisation during 1924-25 and the decision agreed to by the Legislative Assembly in September 1924 to separate railway finances from the general finances of the country made it necessary to appoint a Deputy Director and an Assistant Director of Finance. An Assistant Director of Statistics was also added during that year. Later a Director of Finance was added to the establishment occupying, as regards disposal of work, the same position as the Directors referred to above.

Further experience of the reduction of work resulting from the large delegation of powers and responsibility to the Agents of State-managed railways and the Board of Directors of Company-managed railways enabled a re-arrangement of work to be made during 1925-26 accompanied by a reduction in the staff. Under this re-arrangement the posts of 3 Deputy Directors, an Assistant Director and the Assistant Secretary were held in abeyance. The personnel work was transferred from the Director of Establishment to the Secretary and a temporary post of Deputy Secretary was created. Further a separate technical office was established to take charge of the technical work of the engineering branches. The Technical Officer also acted as *ex-officio* Secretary to the permanent Standardisation Committees which were appointed to deal progressively with all questions of standards of equipment.

This arrangement was found, however, to be inadequate. In addition to the general increase in work in the Railway Board's office consequent on the taking over of the East Indian, Great Indian Peninsula and Burma Railways under State control labour problems had assumed such importance and were so rapidly increasing in number and complexity that it was not possible to deal with them effectively without the appointment of additional staff. Accordingly it was decided to create an additional post of Member of the Railway Board to deal with staff and labour questions; leaving the Member in charge of Traffic, who had hitherto been dealing with establishment matters, to devote his whole time to questions relating to the Transportation and Commercial aspects of Railway work.

It was also decided to revive the post of Deputy Director, Establishment, so as to free the Director of Establishment from this work, and thus enable him to give his time to the study of problems of railway labour. Of the two posts of Deputy Directors of Traffic and Statistics one was held in abeyance from 1925 and the two posts have since been amalgamated.

In October 1930 the compilation of statistical information which used previously to be done in the Board's office was entrusted to the Controller of Railway Accounts, and

with the transfer of this work, the post of Assistant Director of Statistics was also transferred from the Railway Board's office to that of the Controller of Railway Accounts.

In 1931-32, in view of the decline in traffic earnings and in the number and magnitude of Engineering works owing to financial stringency, the possibility of making temporary reductions in the organisation of the Board was explored and as a result of this examination and with the approval of the Secretary of State for India the following superior posts have been held in abeyance with effect from the dates noted below:—

Member, Traffic—29th March 1932.

Member, Engineering—5th May 1932.

Director, Civil Engineering—4th December 1931.

Director, Mechanical Engineering—1st April 1932.

Deputy Secretary—1st March 1932.

Assistant Director of Finance—31st July 1931.

It was also decided, for so long as the post of Member Traffic, was held in abeyance, to create an additional temporary post of Deputy Director, Traffic, with effect from the 1st April 1932.

The re-organisation was complete in May 1932, and then the superior staff in the office of the Railway Board consisted of the Chief Commissioner, the Financial Commissioner, 1 Member, 3 Directors, 6 Deputy Directors and 1 Secretary.

Shortly after this, however, it was recognised that unless the work was to be seriously delayed, it would be impossible for the Chief Commissioner who had taken over the duties of the Member Engineering, after that post had been held in abeyance, to devote the time that was necessary for the disposal of Civil Engineering business in the Railway Board's office and it was accordingly decided to revive the post of Director of Civil Engineering, which was being held in abeyance since December 1931, with effect from November 1932, from which date the post of Deputy Director, Civil Engineering is being held in abeyance. It was also decided in October 1932 to convert the post of Chief Superintendent to that of Assistant Secretary. The post of Director, Mechanical Engineering has been revived with effect from the 1st April 1935. As the Government of India had for some time felt the need for a whole time Member of the Railway Board devoting himself entirely to Traffic questions, such as competition with alternative means of transport, alterations in fares in order to improve net earnings, etc., the post of Member, Traffic, which was held in abeyance from 29th March 1932 has been revived with effect from the 12th October 1936 as a temporary measure but owing to increase of work in the Traffic Branch it has been decided not to abolish for the present the temporary post of Deputy Director, Traffic.

The existing superior staff in the Railway Board's office consists of the Chief Commissioner, the Financial Commissioner, 2 Members, 5 Directors, 5 Deputy Directors, 1 Secretary and 1 Assistant Secretary.

For the conduct of the work connected with the production of standard designs and specifications for all classes of materials, plant and rolling-stock in use on Indian Railways, a Central Standards Office for Railways was formed in January 1930 for a period of 5 years as an experimental measure, the post of Technical Officer with the Railway Board, being abolished at the same time. The activities of this office towards the introduction of standard designs for railways on an all-India basis having proved successful, it was made permanent in 1935 with an addition to the existing staff, to carry out more extensive technical research to enable Indian Railways to keep abreast with modern development in railway practice.

APPENDIX D.

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 selected 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 subjected 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 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 the direction should be encouraged.

7. The disadvantages pointed out by the Acworth Committee required 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. 10½ 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 high 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. 2½ 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 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 to 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.

15. The proposal set forth in this Resolution is 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 proposal 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

* "Railways and extra-municipal tramways, in so far as they are not classified as provincial subjects under entry 5 (d) of Part II of this Schedule."

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 profit 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.

I.—GAZETTED OFFICERS.

I.—Statement of Gazetted Officers and Officers of corresponding rank employed on Class I Railways, Railway Board and other Railway Offices (excluding H. B. H. the Nizam's State and Jodhpur Railways) on the 31st March 1938 as compared with 31st March 1937.

Item.	A. D.		D. N.		D. & N. W.		D., D. & C. I.		DURMA.		R. B.		M. I.		G. I. P.		M. & S. M.		N. W.		R. & K.		S. I.		Rly. Board and Miscellaneous officers.		TOTAL.		
	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	
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	2	2	4	4	2	5	5	5	5		4	5	5	5	4	4	5	5	7	6	2	2	3	3	3	4	54	53	
1-02. Indians—																													
(a) Hindus—																													
Other than Depressed classes	1	..	2*	2	..	..	..	..	..		2	2	5	2	..	..	..	..	1	2	..	..	3	3	..	..	15	13
Depressed classes
(b) Muslims	1	1	1
(c) Anglo-Indians and domiciled Europeans.		1	1	2	2	..	1	1	1	1	1
(d) Sikhs
(e) Indian Christians	1	1	1
(f) Parsis
(g) Other communities
(h) Total	1	1	3*	3	..	..	1	1	..		3	3	8	8	..	2	..	..	2	4	..	..	4	4	..	..	23	23
1-02. GRAND TOTAL	3	3	7*	7	2	5	9	9	5		7	8	13	10	4	6	5	5	10	10	2	2	7	7	3	4	77	76	
2. Accounts Department—																													
2-01. Europeans	*2	2	5	6	6	6	4	4	2		4	5	0	6	5	5	..	1	1	1	1	3	3	35	37
2-02. Indians—																													
(a) Hindus—																													
Other than Depressed classes	*2	2	4	4	2	2	2	2	1		6	5	7	7	2	2	2	2	*7	9	2	2	5	5	6	7	40	51	
Depressed classes
(b) Muslims	*1	2	2	1	6	5
(c) Anglo-Indians and domiciled Europeans.	*2	2	2	2	2	2	1		4	4	1	1	2	1	1
(d) Sikhs	1	1		1	1
(e) Indian Christians	1
(f) Parsis	2	2
(g) Other communities
(h) Total	*5	5	8	8	2	8	8	9	2		7	9	11	12	5	4	9	9	*10	14	2	2	*8	8	7	8	86	94	
2-02. GRAND TOTAL	*7	7	13	14	8	9	12	11	4		7	9	15	15	11	10	11	10	*15	15	3	3	*11	11	*7	8	134	161	

Figures not furnished due to separation.

*Revised figures.

† The figures in respect of Parsis are negligible.

APPENDIX F—contd.

I.—Statement of Gazetted Officers and Officers of corresponding rank employed on Class I Railways, Railway Board and other Railway Offices (excluding H. E. H. the Nizam's State and Jodhpur Railways) on the 31st March 1938 as compared with 31st March 1937—contd.

Item.	A. B.		B. N.		B. & N. W.		B., B. & C. I.		DURMA.		E. B.		E. I.		O. I. P.		M. & S. M.		N. W.		R. & K.		S. I.		Ry. Board and Miscellaneous officers.		TOTAL.	
	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.
	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
3. Engineering Department—																												
3-01. Europeans	10	9	35	31	16	18	28	27	21		17	15	37	30	*39	38	25	22	40	37	3	2	22	20	*10	9	*30	25
3-02. Indians—																												
(a) Hindus—																												
Other than Depressed classes	7	8	10	10	6	4	16	15	4		12	15	34	34	0	12	17	17	48	47	..	..	14	17	2	2	178	181
Depressed classes . . . . .	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(b) Muslims	3	3	3	4	3	3	..	1	..		2	2	4	4	4	6	..	..	9	9	1	1	..	1	..	1	29	35
(c) Anglo-Indians and domiciled Europeans	1	1	9	10	2	2	1	1	3		1	2	5	6	*3	3	1	1	*10	9	..	..	..	..	*1	1	*37	36
(d) Sikhs	1	1	..	..	..	3	..	..	..		..	..	..	..	..	..	..	..	6	7	1	1	..	..	..	..	8	12
(e) Indian Christians . . . . .	..	..	..	..	..	..	..	1	..		..	..	..	..	5	5	2	2	*1	1	..	1	1	1	..	..	*9	11
(f) Parsis . . . . .	..	..	1	1	..	..	1	2	..		..	..	2	2	3	2	..	..	..	..	..	..	..	..	..	..	7	7
(g) Other communities . . . . .	..	..	..	..	..	..	..	..	1		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
(A) Total	12	13	23	25	11	12	17	20	8		15	10	45	40	*24	28	20	20	74	73	2	3	15	19	*3	4	*269	272
3-03. GRAND TOTAL	22	22	58	56	27	30	45	47	29		32	34	82	76	63	66	45	42	114	110	5	5	37	39	*13	13	*572	540
4. Transportation—																												
4-01. Europeans	*6	5	21	19	9	8	23	24	16		*13	10	29	26	*41	36	*15	14	25	26	3	2	9	8	5	4	*215	172
4-02. Indians—																												
(a) Hindus—																												
Other than Depressed classes	3	5	16	16	3	3	7	8	..		13	12	13	12	*10	10	7	3	11	10	..	..	12	9	2	2	*97	95
Depressed classes . . . . .	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(b) Muslims	2	1	9	10	1	2	4	4	..		4	4	6	5	4	5	..	1	6	7	1	1	1	3	2	2	40	45
(c) Anglo-Indians and domiciled Europeans	*1	1	4	5	1	1	1	1	2		4	4	8	6	*3	6	3	3	2	7	1	1	5	6	2	2	37	43
(d) Sikhs . . . . .	..	..	2	2	..	..	1	1	..		..	..	1	1	..	..	2	2	4	5	..	..	..	..	..	..	10	11
(e) Indian Christians . . . . .	..	..	1	1	..	..	3	3	..		..	..	1	1	..	..	1	1	1	1	..	..	..	1	..	..	7	8
(f) Parsis . . . . .	..	..	..	..	..	..	2	2	..		..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	3	3
(g) Other communities . . . . .	..	..	..	..	..	..	..	..	6		..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	7	..
(A) Total	*6	7	32	31	5	6	18	19	8		21	20	29	25	*18	21	14	16	24	30	2	2	18	19	6	6	*201	174
4. GRAND TOTAL	*12	12	53	53	14	14	41	43	24		*34	30	68	61	*60	57	*20	30	49	66	5	4	27	27	11	10	*416	387

Figures not furnished due to separation.

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	
5. Commercial—																													
5-01. Europeans	*3	4			1	2							7	8	10	11							3	3	*24	25	
5-02. Indians—																													
(a) Hindus—																													
Other than Depressed classes							3	5	11	13							5	7	19	25	
Depressed classes	
(b) Muslims																													
	Included under Transportation.		3	2							1	2	1	1							6	5	
(c) Anglo-Indians and domiciled Europeans.																													
	*1	1									2	3	*2	2							*6	8	
(d) Sikhs																													
	
(e) Indian Christians																													
	1	1							1	1	
(f) Parsis																													
	
(g) Other communities																													
	
(h) Total																													
	*1	1			3	2							6	10	*15	17							5	9	*30	39	
5-03. GRAND TOTAL																													
	*4	5			4	4							18	18	*25	28							8	12	*54	67	
6. Mechanical Engineering—																													
6-01. Europeans																													
	*8	8	*26	24	14	14	28	25	20			13	11	23	23	21	18	18	17	43	44	2	1	16	15	4	4	*241	209
6-02. Indians—																													
(a) Hindus—																													
Other than Depressed classes																													
	*3	2	*6	8	5	5	..			7	7	17	21	4	4	5	5	9	10	6	7	*61	69
Depressed classes																													

(b) Muslims																													
	1	2	1	1	1	..			1	1	4	3	4	4	11	12
(c) Anglo-Indians and domiciled Europeans.																													
	1	1	*3	4	2			2	3	8	6	1	1	1	1	*18	16
(d) Sikhs																													
	1	1	1	1	2	2
(e) Indian Christians																													
			1	1	1	1	1	1	2	2	1	1	6	6
(f) Parsis																													
	..	1	1	1	1	1	1	1	1	1	4	6
(g) Other communities																													
	1			1	..
(h) Total																													
	*5	6	*10	13	..	1	6	6	3			11	12	32	33	7	7	6	6	17	18	5	7	1	1	*103	110
6-03. GRAND TOTAL																													
	*13	14	*36	37	14	15	34	31	23			24	23	60	61	28	25	24	23	60	62	2	1	21	22	5	5	*344	319
7. Stores Department—																													
7-01. Europeans																													
	1	1	5	5	2	1	6	6	2			2	2	6	6	6	4	5	5	5	5	3	3	42	38
7-02. Indians—																													
(a) Hindus—																													
Other than Depressed classes.																													
	2	2	1	1	1			2	2	4	4	..	1	2	2	3	2	2	3	17	16
Depressed classes																													

(b) Muslims																													
	1	1	2	2	1	1	4	4
(c) Anglo-Indians and domiciled Europeans.																													
	2	2	1			3	3	2	1	1	1	1	1	10	8
(d) Sikhs																													
	1	1	1	1
(e) Indian Christians																													

(f) Parsis																													
	1	*1	1	*1	1	*2	3
(g) Other communities																													

(h) Total																													
	4	4	2	3	2			5	5	7	6	*4	4	3	3	4	3	3	4	*34	32
7-03. GRAND TOTAL																													
	1	1	9	9	2	1	8	9	4			7	7	13	12	*9	8	8	8	9	8	6	7	*76	70

Figures not furnished due to separation.

* Revised figures.

APPENDIX F—contd.

I.—Statement of Gazetted Officers and Officers of corresponding rank employed on Class I Railways, Railway Board and other Railway Offices (excluding H. E. H. the Nizam's State and Jodhpur Railways) on the 31st March 1938 as compared with 31st March 1937—concl.

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.		B. & K.		S. I.		Rly. Board and Miscellaneous officers.		TOTAL.		
	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	
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	
B. Other Departments—																													
8-01. Europeans	*3	3	*10	13	2	4	13	12	5		*2	2	23	23	*8	8	*11	10	3	4	..	..	4	5	*18	16	*102	100
8-02. Indians—																													
(a) Hindus—																													
Other than Depressed classes	*2	2	*2	4	..	..	4	3	..		6	5	14	14	3	3	2	4	3	3	1	1	3	2	*9	9	*47	50
Depressed classes . . . . .	..	..	..	..	..	..	..	1	..		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
(b) Muslims	1	1	2	1	2	2	2	2	*7	6
(c) Anglo-Indians and domiciled Europeans . . . . .	..	..	*1	1	..	..	..	..	2		1	1	5	5	*4	4	..	..	..	2	..	..	..	1	4	4	*17	18
(d) Sikhs . . . . .	..	..	1	1	..	..	..	..	..		..	..	1	1	..	..	..	..	2	2	..	..	..	..	2	2	6	6
(e) Indian Christians	1	..	..	..	..	..	..	..	..		..	..	1	..	1	1	2	2	..	..	..	..	..	..	1	1	6	4
(f) Parsis . . . . .	..	..	..	..	..	..	2	3	..		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	3
(g) Other communities . . . . .	..	..	..	..	..	..	..	1	..		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
(A) Total	*3	2	*4	6	..	..	8	9	2		6	6	23	21	8	8	4	6	7	9	..	1	2	3	*18	18	*86	80
8-03. GRAND TOTAL	*6	5	*14	19	2	4	21	21	7		*8	8	46	44	*16	16	*15	16	10	13	..	1	7	8	*36	34	*188	180	
D. Total—																													
9-01. Europeans	35	34	106	102	52	58	110	106	71		51	45	139	129	*134	125	84	78	123	123	11	8	63	60	*40	37	*1,019	905	
9-02. Indians—																													
(a) Hindus—																													
Other than Depressed classes	18	20	*43	47	11	9	34	35	6		47	48	97	100	*40	44	35	38	*82	83	2	3	49	53	*19	20	483	500	
Depressed classes . . . . .	..	..	..	..	..	..	..	1	..		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
(b) Muslims	7	7	12	14	7	8	9	10	..		7	7	17	16	11	14	..	1	28	27	2	2	*2	5	5	6	*107	117	
(c) Anglo-Indians and domiciled Europeans	6	6	22	23	3	3	4	4	11		12	14	37	33	*15	19	6	5	*15	20	1	1	8	12	*7	7	*147	149	
(d) Sikhs	1	1	4	4	..	3	1	1	..		1	1	4	4	..	..	2	2	15	17	1	1	..	..	2	2	31	36
(e) Indian Christians	1	..	1	1	..	1	4	5	..		1	1	3	2	8	9	8	5	*4	4	..	1	2	3	2	2	*31	34	
(f) Parsis . . . . .	..	1	2	2	..	..	8	10	..		..	..	3	3	6	5	5	5	..	..	..	..	..	..	..	..	24	26
(g) Other communities . . . . .	..	..	..	..	..	..	..	1	8		..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	9	1
(A) Total	33	35	*84	93	21	24	60	67	25		68	71	161	156	*81	81	53	56	*144	151	6	8	*61	73	35	37	*832	864	
9-03. GRAND TOTAL	68	69	*190	195	73	82	170	173	96		119	116	300	287	215	216	137	134	*265	274	17	16	*124	133	*75	74	*1,851	1,779	
9-04. Grand Total including staff on loan from the Indian Audit and Accounts Service (Department).	68	69	*190	195	73	82	170	173	97		121	118	306	293	216	217	137	134	*271	278	17	16	*124	133	..	..	..	..

Figures not furnished due to separation.

* Revised figures.

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	
10. Increase (+) and Decrease (—)																													
10-01. Europeans	-1	..	-4	..	+8	..	-4	-8	..	-10	..	-9	..	-8	-2	..	-7	..	-7	..	-1
10-02. Indians—																													
(a) Hindus—																													
Other than Depressed classes . . . . .	..	+2	..	+4	..	-2	..	+1	..	..	+1	..	+3	..	+4	..	+3	..	..	+1	..	+1	..	+4	..	+1	..	+3
Depressed classes . . . . .	..	..	..	..	..	..	..	+1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	+1
(b) Muslims . . . . .	..	..	..	+2	..	+1	..	+1	..	..	..	..	-1	..	+3	..	+1	..	..	-1	..	..	..	+3	..	+1	..	+10
(c) Anglo-Indians and domiciled Europeans . . . . .	..	..	..	+3	..	..	..	..	..	..	+2	..	-1	..	+4	..	-1	..	..	+5	..	..	..	+4	..	..	..	+18
(d) Sikhs . . . . .	..	..	..	..	..	+3	..	..	..	..	..	..	..	..	..	..	..	..	..	+2	..	..	..	..	..	..	..	+5
(e) Indian Christians . . . . .	..	-1	..	..	..	+1	..	+1	..	..	..	..	-1	..	+1	..	..	..	..	..	..	+1	..	+1	..	..	..	+2
(f) Parsis . . . . .	..	+1	..	..	..	..	..	+2	..	..	..	..	..	..	-1	..	..	..	..	..	..	..	..	..	..	..	..	+2
(g) Other Communities . . . . .	..	..	..	..	..	..	..	+1	..	..	..	..	..	..	-1	..	..	..	..	..	..	..	..	..	..	..	..	..
(A) Total . . . . .	..	+2	..	+0	..	+3	..	+7	..	..	+2	..	-2	..	+10	..	+3	..	+7	..	+2	..	+12	..	+2	..	..	+57
10-03. GRAND TOTAL . . . . .	..	+1	..	+3	..	+0	..	+2	..	..	-2	..	-12	..	+1	..	-3	..	+7	..	-1	..	+0	..	-1	..	..	+14
11. Percentage of Total—																													
11-01. Europeans	51.6	40.3	*55.8	52.3	71.2	70.7	64.7	61.3	74.0	45.0	38.8	46.3	44.9	*62.3	57.0	61.3	53.2	*40.1	44.9	64.7	50.6	*50.4	45.1	*57.1	53.1	*55.1	51.2		
11-02. Indians—																													
(a) Hindus—																													
Other than Depressed classes	26.4	20.0	*22.6	24.1	15.1	10.0	20.0	20.2	0.3	29.7	41.4	32.4	34.5	*18.6	20.4	25.5	22.4	*20.7	20.3	11.7	18.6	*20.5	20.2	*23.4	24.1	20.1	22.2		
Depressed classes . . . . .	..	..	..	..	..	..	..	0.6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0.1
(b) Muslims	10.3	10.1	*6.8	7.2	0.6	0.8	5.2	5.5	..	5.3	6.0	3.7	5.6	5.1	6.5	..	0.7	*10.5	0.8	11.8	12.5	*1.6	0.8	*6.0	7.2	5.7	6.0		
(c) Anglo-Indians and domiciled Europeans	3.8	3.0	11.6	12.3	4.1	3.7	2.3	2.3	11.4	0.0	12.1	12.3	11.5	*7.0	3.3	4.4	3.7	*2.6	7.3	3.0	6.3	*6.5	0.0	*3.3	10.3	*7.0	3.4		
(d) Sikhs	1.5	1.5	2.1	2.1	..	3.7	0.3	0.6	..	0.3	0.0	1.2	1.4	..	..	1.5	1.5	5.6	0.2	0.0	0.3	..	..	*2.4	2.4	1.7	2.0	
(e) Indian Christians	1.5	..	0.5	0.5	..	1.2	2.3	2.0	..	0.3	0.3	1.0	0.7	3.7	4.1	*3.7	3.7	*1.5	1.5	..	0.2	1.0	2.3	*2.4	2.4	1.7	1.0		
(f) Parsis . . . . .	..	1.5	1.1	1.0	..	..	4.7	3.7	..	..	..	1.0	1.1	2.3	2.3	*2.6	2.3	..	..	..	..	..	..	..	..	..	1.3	1.4
(g) Other Communities . . . . .	..	..	..	..	..	..	..	0.6	3.3	..	..	..	..	0.5	..	..	..	..	..	..	..	..	..	..	..	..	0.5	0.1

Figures not furnished due to irregularities.

* Revised figures.

APPENDIX F—contd.

II.—SENIOR SUBORDINATES.

II.—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, Railway Board and other Railway Offices (excluding H. E. H. the Nizam's State and Jodhpur Railways) on 31st March 1938 as compared with 31st March 1937.

Item.	A. B.		B. N.		R. & N. W.		B., R. & C. I.		BURMA.		E. B.		R. I.		O.P. P.		M. & S. M.		N. W.		R. & K.		S. I.		TOTAL.			
	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.		
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		
1. Agency Department—																												
1-01. Europeans . . . . .	..	..	..	..	..	..	..	..	..	..	2	2	..*	..	..	..	..	..	..	1	..	..	..	..	..	..	2*	3
1-02. Indians—																												
(a) Hindus—																												
Other than Depressed classes . . . . .	..	..	5	5	1	1	10	9	4	..	18	14	10	7	2	2	3	3	6*	7	..	..	3	3	..	..	50*	51
Depressed classes . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(b) Musslms . . . . .	..	..	..	..	..	..	2	2	1	..	..	..	..	..	..	..	..	..	1	2	1	1	..	..	..	..	5	5
(c) Anglo-Indians and domiciled Europeans	1	1	..	..	1	1	3	3	2	..	..	1	5*	8	2	1	1	1	2*	2	..	..	1	1	..	..	18*	19
(d) Sikhs . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(e) Indian Christians . . . . .	..	..	..	..	..	..	2	2	1	..	..	..	..	..	1	2	..	..	2	1	..	..	..	..	..	..	6	5
(f) Parsis . . . . .	..	..	..	..	..	..	3	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	2
(g) Other communities . . . . .	..	..	..	..	..	..	..	1	1	..	1	1	..	..	1	1	..	..	..	..	..	..	..	..	..	..	3	3
(A) Total	1	1	5	5	2	2	20	19	9	..	14	16	15*	15	6	6	4	4	13*	12	1	1	4	4	..	..	94*	85
1-03 GRAND TOTAL	1	1	5	5	2	2	20	19	9	..	16	18	15	15	6	6	4	4	13*	13	1	1	4	4	..	..	96*	88
2. Accounts Department—																												
2-01. Europeans . . . . .	..	..	..	..	..	..	3	3	..	..	..	..	7*	7	..*	..	..	..	..	..	..	..	..	..	..	..	10*	10
2-02. Indians—																												
(a) Hindus—																												
Other than Depressed classes	6*	6	30	29	5	6	23	24	9	..	30	23	50*	53	22	22	8	8	63	61	..	1	18	18	..	..	254*	251
Depressed classes . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(b) Musslms . . . . .	..	..	1	1	2	3	2	2	..	..	..	..	6*	6	..	..	1	20	19	..	1	1	1	1	..	..	32*	34
(c) Anglo-Indians and domiciled Europeans	1*	1	20	22	6	6	15	14	7	..	4	6	7*	7	15*	15	9*	9	2	2	..	..	3	3	..	..	89*	85
(d) Sikhs . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..*	..	..	..	7	8	..	..	..	..	..	..	8*	9
(e) Indian Christians . . . . .	..	..	1	1	1	..	3	..	1	..	..	..	..	1	2	..	..	..	..	..	..	..	..	..	..	..	6	3
(f) Parsis . . . . .	..	..	..	..	..	..	8	9	..	..	..	..	..	..	..*	1	2	2	..	..	..	..	..	..	..	..	10*	13
(g) Other communities . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	1	1
(A) Total	7*	7	52	53	14	15	49	49	17	..	34	39	64*	67	39*	41	19*	20	82	80	..	2	22	22	..	..	399*	395
2-03 GRAND TOTAL	7*	7	52	53	14	15	52	52	17	..	34	39	71*	74	39*	41	19*	20	82	80	..	2	22	22	..	..	400*	405

Figures not furnished due to separation

* Revised figures.

* The figures in respect of Burmah are preliminary.

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
3. Engineering Department—																										
3-01. Europeans . . . . .	..	1	4	3	3	3	13	5	1		4	3	20*	10	10*	18	6	5	10*	20	1	..	3	3	101*	81
3-02. Indians—																										
(a) Hindus																										
Other than Depressed classes	16	18	52	45	5	3	68	75	24		33*	37	94*	106	57*	65	23	24	100*	102	..	1	10	11	493*	498
Depressed classes . . . . .	..	1	..	..	..	..	1	..	..		..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
(b) Muslims	4	4	5	5	2	4	14	10	3		4*	4	11*	11	12	18	2	2	57*	52	1	..	2	2	117*	117
(c) Anglo-Indians and domiciled Europeans	5	4	23	21	13	14	6	13	23		16*	17	103*	95	55*	58	30	15	46*	40	1	1	9	11	225*	200
(d) Sikhs	2	2	3	3	1	..	1	..	3		3	2	7	6	7*	7	..	..	52*	54	..	..	..	..	59*	55
(e) Indian Christians . . . . .	..	..	..	..	..	..	17	17	..		..	..	..	..	9	9	2	2	1	1	..	..	..	..	29	29
(f) Parsis . . . . .	..	..	..	..	..	..	4	3	1		..	..	..	..	4	3	..	..	1*	1	..	..	..	..	10*	7
(g) Other communities . . . . .	..	..	..	..	..	..	4	3	1		..	..	..	..	4	3	..	..	1*	1	..	..	..	..	10*	7
(A) Total	26	24	96	87	21	21	115	123	62		60*	62	221*	223	15*	165	50	48	240*	244	2	2	23	25	1,079*	1,026
3-03. GRAND TOTAL	26	25	100	90	24	24	127	128	63		64*	64	250*	240	173*	173	56	53	268*	264	3	3	26	29	1,120*	1,107
4. Transportation—																										
4-01. Europeans																										
..	..	..	18	14	3	2	31	29	4		15*	18	67*	71	108*	71	..	..	84*	80	..	..	7	4	227*	220
4-02. Indians—																										
(a) Hindus—																										
Other than Depressed classes	*4	4	74	59	5	5	104	106	13		21*	22	48*	53	82*	39	4*	2	75*	85	1	1	9	7	449*	471
Depressed classes . . . . .	..	..	..	..	..	..	..	..	..		..	..	..	..	1	1	..	..	..	..	..	..	..	..	3	1
(b) Muslims . . . . .	..	..	10	10	1	..	7	7	1		..	..	1*	4	17	16	2	1	30*	41	..	..	1	..	70*	70
(c) Anglo-Indians and domiciled Europeans	13	14	43	59	13	15	32	31	64		45	39	149*	132	440*	461	30	26	77*	73	5	4	14	15	300*	297
(d) Sikhs . . . . .	..	..	6	5	..	..	..	..	..		2	2	2	..	1	1	..	..	17*	16	..	..	..	..	23*	25
(e) Indian Christians . . . . .	..	..	3	3	..	..	17	16	3		1	1	10*	2	51*	51	1	1	3*	9	..	..	..	..	94*	83
(f) Parsis . . . . .	..	..	..	..	..	..	39	38	..		..	..	1*	1	16*	13	..	..	14	13	..	..	..	..	73*	69
(g) Other communities	*1	..	..	..	..	..	2	4	15		..	..	..*	..	15*	14	..	..	2*	1	..	..	..	..	85*	19
(A) Total	*13	13	141	166	13	20	201	202	96		70*	74	211*	212	635*	651	37*	30	232*	224	6	5	24	22	1,625*	1,634
4-03. GRAND TOTAL	*13	13	159	180	21	22	222	221	100		84*	82	278*	233	738*	722	37*	30	316*	314	6	5	21	26	2,025*	1,928
5. Commercial—																										
5-01. Europeans																										
..	..	..	..	..	..	..	..	..	..		..	..	13*	14	..*	..	..	..	4	3	..	..	..	..	17*	17
5-02. Indians—																										
(a) Hindus—																										
Other than Depressed classes	*5	5	..	..	..	1	..	..	..		..	..	21*	29	30*	29	..	..	20*	22	..	..	6	6	93*	102
Depressed classes . . . . .	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(b) Muslims . . . . .	..	..	Includ- ed under Trans- porta- tion.	..	1	1	..	..	..		..	..	3*	3	3*	3	..	..	7	9	..	..	..	..	..	20
(c) Anglo-Indians and domiciled Europeans	..	..	..	..	1	1	Includ- ed under Transportation.	..	..		..	..	22*	18	3*	11	..	..	4*	4	..	..	..	..	55*	54
(d) Sikhs . . . . .	..	..	..	..	..	..	..	..	..		..	..	1*	1	..	..	..	..	6	5	..	..	..	..	7*	6
(e) Indian Christians . . . . .	..	..	..	..	..	..	..	..	..		..	..	..	..	5	6	..	..	..	..	..	..	..	..	..	..
(f) Parsis . . . . .	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(g) Other communities	*1	1	..	..	..	..	..	..	..		..	..	..	..	2	..	..	..	..	..	..	..	..	..	3*	3
(A) Total	*6	6	..	..	2	2	..	..	..		..	..	63*	66	43*	50	..	..	37*	41	..	..	6	6	161*	172
5-03. GRAND TOTAL	*6	6	..	..	2	2	..	..	..		..	..	75*	80	43*	50	..	..	41*	44	..	..	6	6	178*	180

Figures not furnished due to separations.

* Revised figures.

APPENDIX F—contd.

II.—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, Railway Board and other Railway Offices (excluding H. E. H. the Nizam's State and Jodhpur Railways) on 31st March 1938 as compared with 31st March 1937—contd.

Item.	A. B.		B. N.		B. & N. W.		B., B. & C. I.		BURMA.		E. B.		E. I.		G. T. P.		M. & S. M.		N. W.		P. & K.		S. I.		TOTAL		
	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	
	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	
6. Mechanical Engineering—																											
6-01. Europeans	15*	12	80*	43	9	9	113	109	14		26*	27	179*	151	51*	47	48	43	105*	91	4	5	14	14	656*	551	
6-02. Indians—																											
(a) Hindus—																											
Other than Depressed classes	7*	5	28*	35	3	3	49	49	13		44	43	135*	161	26	27	8	11	97*	102	..	..	33	29	443*	465
Depressed classes . . . . .	..	..	..	..	..	..	4	4	..		..	..	2	2	..	..	..	..	..	..	..	..	..	..	6	6
(b) Muslims	1	1	4	4	..	1	9	8	1		3*	3	17*	19	2	2	1	1	75*	83	..	..	3	4	116*	126
(c) Anglo-Indians and domiciled Europeans	15*	19	295*	300	14	14	196	195	98		78*	71	602*	621	95*	98	99	94	214*	213	4	6	110	106	1,823*	1,730	
(d) Sikhs	1	2	9*	9	..	..	2	1	4		1	1	7	6	2	2	1	3	40	39	..	..	..	..	67*	63
(e) Indian Christians	4	3	6*	5	..	..	13	21	2		1	1	3	3	13	13	..	..	7	8	..	..	5	7	53*	58
(f) Parsis . . . . .	..	..	1	1	..	..	20	20	..		..	..	1	1	5	5	..	..	6	6	..	..	..	..	33	33
(g) Other communities	2	1	3	1	..	..	14	15	10		1	2	2	4	2	3	..	..	10	7	..	..	..	..	44	33
(A) Total	30*	31	345*	355	17	18	307	313	128		128*	121	799*	817	145*	150	109	109	440*	455	4	6	151	146	2,585*	2,520	
6-03 GRAND TOTAL																											
	43*	43	425*	398	26	27	420	422	142		154*	148	948*	928	199*	197	157	152	554*	546	8	10	165	160	3,241*	3,071	
7. Stores Department—																											
7-01. Europeans																											
	..	..	..	..	..	..	..	..	..		..	..	3	3	2	2	1	1	6*	7	..	..	1	..	13*	13
7-02. Indians—																											
(a) Hindus—																											
Other than Depressed classes	1	1	10	12	..	..	9	10	3		11	11	15	15	6	6	2	2	18	17	..	..	2	3	76	77
Depressed classes . . . . .	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(b) Muslims . . . . .	..	..	..	..	..	..	1	1	..		..	..	3	4	..	..	..	..	10	10	..	..	..	..	14	15
(c) Anglo-Indians and domiciled Europeans	1	1	11	11	..	..	..	..	..		2	2	22	20	..	..	2	2	8*	7	..	..	1	1	47*	44
(d) Sikhs . . . . .	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..	..	3	3	..	..	..	..	5	3
(e) Indian Christians . . . . .	..	..	2	2	..	..	2	2	1		..	..	..	1	1	..	..	..	1	1	..	..	..	..	7	6
(f) Parsis . . . . .	..	..	..	..	..	..	..	..	..		..	..	..	1	2	..	..	..	1	1	..	..	..	..	2	3
(g) Other communities . . . . .	..	..	..	..	..	..	2	2	..		..	..	..	..	1	..	..	..	..	..	..	..	..	..	3	2
(A) Total	2	2	23	25	..	..	14	15	3		18	18	40	39	9	9	4	4	41*	39	..	..	3	4	152*	150
7-03. GRAND TOTAL																											
	2	2	23	25	..	..	14	15	3		18	18	43	42	11	11	5	5	47	46	..	..	4	4	163	163

Figures not furnished due to expansion.

* Revised figures

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	
8. Other Departments—																											
8-01. Europeans . . . . .	..	..	*17	17	2	4	11	11	..	..	1	1	*30	30	*7	2	2	2	*5	3	..	..	1	1	*33	70
8-02. Indians—																											
(a) Hindus—																											
Other than Depressed classes	*4	4	*23	27	4	5	38	40	30	*15	15	*35	35	*10	0	*23	23	*9	9	1	..	3	3	*234	210		
Depressed classes . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(b) Muslims . . . . .	..	..	1	1	..	1	..	..	2	2	3	10	8	*2	3	..	..	*4	4	..	..	1	1	*22	21	
(c) Anglo-Indians and domiciled Europeans	*6	6	*23	20	8	8	16	14	8	*9	8	*57	58	*8	9	14	15	*4	6	..	..	3	2	*151	146	
(d) Sikhs . . . . .	..	..	..	..	..	..	..	..	4	..	..	..	1	*1	1	1	1	*1	1	..	..	..	..	..	*7	4
(e) Indian Christians . . . . .	..	..	..	..	..	..	3	3	0	..	..	2	2	*6	3	1	1	*3	3	..	..	3	4	*24	21	
(f) Parsis . . . . .	..	..	2	2	..	..	7	7	..	..	..	1	1	*7	0	..	..	..	..	..	..	..	..	..	*17	16
(g) Other Communities . . . . .	..	..	..	..	1	1	1	..	3	..	..	..	..	*2	2	..	..	..	..	..	..	..	..	..	*9	3
(h) Total	*10	10	*49	50	13	15	55	54	40	*26	26	*155	155	*26	38	*23	39	*21	23	1	..	10	10	*464	430		
8-03. GRAND TOTAL	*10	10	*66	67	15	19	76	75	40	*27	27	*191	193	*43	40	*40	41	*26	26	1	..	11	11	*546	509		
9. Railway Board and other Railway offices—																											
9-01. Europeans . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	*1	1
9-02. Indians—																											
(a) Hindus—																											
Other than Depressed classes . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	*153	146
Depressed classes . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(b) Muslims . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	*26	23
(c) Anglo-Indians and domiciled Europeans	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	*20	16
(d) Sikhs . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(e) Indian Christians	*6	0
(f) Parsis . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(g) Other Communities . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(h) Total	229	210
9-03. GRAND TOTAL	*230	211
10. Total—																											
10-01. Europeans	13	13	110	77	17	13	170	167	10	*48	50	*334	310	*137	135	57	51	*223	205	5	5	26	22	*1,210	1,014		
10-02. Indians—																											
(a) Hindus—																											
Other than Depressed classes	42	38	222	242	22	24	301	314	35	180	135	*468	519	*235	249	60	72	*339	393	2	3	34	30	*2,252	2,266		
Depressed classes . . . . .	..	1	..	..	..	..	5	4	..	..	..	2	2	1	1	..	..	..	..	..	..	..	..	..	..	3
(b) Muslims	5	5	21	21	6	10	35	30	3	0	10	*53	60	35	35	5	5	*213	230	2	2	3	3	*410	445		
(c) Anglo-Indians and domiciled Europeans	42	46	430	443	56	59	268	270	292	*154	143	*907	930	*625	653	*175	192	*357	346	10	10	141	130	*3,441	3,267		
(d) Sikhs	3	4	13	17	1	..	3	1	11	6	7	*13	15	*11	11	2	4	103	106	..	..	..	..	..	*103	170
(e) Indian Christians	4	3	14	14	1	..	42	40	17	3	3	*21	11	*33	93	6	7	*24	24	..	..	1	10	13	*236	221
(f) Parsis . . . . .	..	..	3	3	..	..	94	94	..	..	..	*3	3	*40	41	4	4	23	20	..	..	..	..	..	*168	165
(g) Other Communities	4	2	3	1	1	1	23	25	32	2	2	*2	4	*23	25	..	..	*13	0	..	..	..	..	..	*103	71
(h) Total	100	99	711	741	87	94	771	737	355	*354	351	*1,577	1,594	*1,065	1,110	*291	294	*1,124	1,123	14	10	*245	240	*6,371	6,024		
10-03. GRAND TOTAL	113	112	820	818	104	112	941	944	374	*402	401	*1,871	1,904	*1,352	1,345	*318	303	*1,347	1,338	19	11	299	262	*6,970	7,038		

Figures not furnished due to separation.

* Revised figures.

APPENDIX F—concl'd.

II.—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, Railway Board and other Railway Offices (excluding H. E. H. the Nizam's State and Jodhpur Railways) on 31st March 1938 as compared with 31st March 1937—concl'd.

Item.	A. B.		B. N.		B. & N. W.		B., B. & O. L.		BURMA.		E. B.		E. I.		G. I. P.		M. & S. M.		N. W.		R. & K.		S. I.		TOTAL.		
	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	
	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	
11. Increase (+) Decrease (—)																											
11-01. Europeans . . . . .	..	..	..	-42	..	+1	..	-18	..	..	+2	..	-24	..	-52	..	-6	..	-18	..	..	..	..	..	..	..	-156
11-02. Indians—																											
(a) Hindus—																											
Other than Depressed classes . . . . .	..	-4	..	+20	..	+2	..	+18	..	..	+6	..	+51	..	+14	..	+3	..	+4	..	+1	..	..	..	..	..	+105
Depressed classes . . . . .	..	+1	..	..	..	..	..	-1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(b) Muslims . . . . .	..	..	..	..	..	+4	..	-5	..	..	+1	..	+4	..	..	..	..	..	+17	..	..	..	..	..	..	..	+21
(c) Anglo-Indians and domiciled Europeans . . . . .	..	+4	..	+13	..	+3	..	+2	..	..	-11	..	+13	..	+27	..	-13	..	-11	..	..	..	..	..	..	..	+25
(d) Sikhs . . . . .	..	+1	..	-1	..	-1	..	-2	..	..	+1	..	-3	..	..	..	+2	..	..	..	..	..	..	..	..	..	+6
(e) Indian Christians . . . . .	..	-1	..	..	..	-1	..	+7	..	..	..	..	-10	..	+5	..	+1	..	..	..	..	+1	..	..	..	..	+7
(f) Parsis . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	+1	..	..	..	..	..	..	..	..	..	..	..	+7
(g) Other Communities . . . . .	..	-2	..	-2	..	..	..	+2	..	..	+1	..	+2	..	-2	..	..	..	..	..	..	..	..	..	..	..	+147
(A) Total . . . . .	..	-1	..	+30	..	+7	..	+16	..	..	-8	..	+57	..	+45	..	-7	..	+4	..	+2	..	..	..	..	..	..
11-03. GRAND TOTAL . . . . .	..	-1	..	-12	..	+8	..	+3	..	..	..	-1	..	+33	..	-7	..	-13	..	-14	..	+2	..	..	-7	..	..
12. Percentage of total—																											
12-01. Europeans	11.5	11.6	14.3	9.4	10.3	16.1	18.1	16.7	5.1	..	*11.9	12.5	*17.8	16.3	*14.0	10.8	*17.9	16.7	16.8	15.4	26.3	23.8	9.7	8.4	*15.2	13.4	
12-02. Indians—																											
(a) Hindus—																											
Other than Depressed classes	37.1	33.0	23.7	29.6	21.1	21.4	32.0	33.3	22.7	..	*44.8	46.1	25.0	27.2	18.8	20.0	*21.7	23.6	*28.9	29.5	10.5	14.8	31.2	30.5	*27.0	29.4	
Depressed classes . . . . .	..	0.9	..	..	..	..	0.5	0.4	..	..	..	..	0.1	0.1	0.1	0.1	..	..	..	..	..	..	..	..	..	..	0.1
(b) Muslims	4.5	4.5	2.5	2.6	5.8	8.9	3.7	3.1	2.1	..	2.2	2.6	*3.0	3.2	2.9	2.9	*1.6	1.7	*15.8	17.3	10.5	9.8	3.0	3.0	*3.4	3.6	
(c) Anglo-Indians and domiciled Europeans	37.2	41.1	51.8	54.1	53.8	52.6	28.5	28.6	54.0	..	*38.8	36.7	*51.7	51.5	*50.0	52.4	*65.0	63.1	*26.5	25.9	52.7	47.6	52.4	53.1	*42.7	42.6	
(d) Sikhs	2.7	3.5	2.2	2.1	1.0	..	0.3	0.1	2.9	..	*1.5	1.8	*1.0	0.8	*0.9	0.9	0.5	1.3	7.9	7.0	..	..	..	..	..	..	2.4
(e) Indian Christians	3.5	2.7	1.7	1.7	1.0	..	4.5	5.2	4.6	..	*0.8	0.7	*1.1	0.6	*7.0	7.5	1.9	2.3	*1.8	1.8	..	4.8	3.7	5.0	*2.9	2.9	
(f) Parsis . . . . .	..	..	0.4	0.4	..	..	10.0	10.0	..	..	..	..	*0.2	0.1	*3.2	3.3	1.3	1.3	*1.0	1.5	..	..	..	..	..	..	2.2
(g) Other Communities	3.5	1.8	0.4	0.1	1.0	1.0	2.4	2.6	8.6	..	0.5	0.7	*0.1	0.2	*2.2	2.1	..	..	*1.0	0.7	..	..	..	..	..	..	0.9

Figures not furnished due to separation.

APPENDIX G-I.

Statement showing the number of appointments made to the Superior Services on State Railways and of corresponding rank on Companies' Railways (Class I) excluding H. E. H. the Nizam's State and Jodhpur Railways during 1937-38.

Departments.	No. of vacancies actually filled.	FILLED BY									Total.
		Europeans.	INDIANS.							Other classes.	
			Hindus.	Muslims.	Anglo-Indians and Domestic Euro- peans.	Sikhs.	Indian Christians.	Parth.			
1	2	3	4	5	6	7	8	9	10	11	
STATE-MANAGED RAILWAYS.											
1. Agency . . . . .	..	..	..	..	..	..	..	..	..	..	..
2. Accounts	2	..	1	1	..	..	..	..	..	..	2
3. Engineering	5	..	3	1	..	1	..	..	..	..	5
4. Transportation (Traffic) and Commercial.	11	4	4	2	1	..	..	..	..	..	7
5. Transportation (Power) and Mechanical Engineering.	10	3	3	..	3	..	..	1	..	..	7
6. Stores Department . . . . .	..	..	..	..	..	..	..	..	..	..	..
7. Other Departments	2	..	2	..	..	..	..	..	..	..	2
8. TOTAL—											
1937-38	30	7	13	4	4	1	..	1	..	..	23
1936-37	26	8	12	2	4	3	2	..	..	..	23
9. Percentage of Europeans to number of vacancies filled—											
1937-38	23.3	..	..	..	..	..	..	..	..	..	..
1936-37	11.6	..	..	..	..	..	..	..	..	..	..
10. Percentage of Indians to number of vacancies filled—											
1937-38	76.7	..	..	..	..	..	..	..	..	..	..
1936-37	88.5	..	..	..	..	..	..	..	..	..	..
OTHER RAILWAYS.											
<i>Assam Bengal Railway.</i>											
1. Agency . . . . .	..	..	..	..	..	..	..	..	..	..	..
2. Accounts . . . . .	..	..	..	..	..	..	..	..	..	..	..
3. Engineering	3	..	2	1	..	..	..	..	..	..	3
4. Transportation and Commercial	1	..	1	..	..	..	..	..	..	..	1
5. Mechanical	1	..	..	..	..	..	..	1	..	..	1
6. Stores . . . . .	..	..	..	..	..	..	..	..	..	..	..
7. Other Departments	1	..	1	..	..	..	..	..	..	..	1
8. TOTAL—											
1937-38	6	..	4	1	..	..	..	1	..	..	6
1936-37	5	1	2	2	..	..	..	..	..	..	4
9. Percentage of Europeans to number of vacancies filled—											
1937-38	0.00	..	..	..	..	..	..	..	..	..	..
1936-37	20.0	..	..	..	..	..	..	..	..	..	..
10. Percentage of Indians to number of vacancies filled—											
1937-38	100.0	..	..	..	..	..	..	..	..	..	..
1936-37	80.0	..	..	..	..	..	..	..	..	..	..

APPENDIX F—concl'd.

II.—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, Railway Board and other Railway Offices (excluding H. E. H. the Nizam's State and Jodhpur Railways) on 31st March 1938 as compared with 31st March 1937—concl'd.

Item.	A. B.		B. N.		B. & N. W.		B., B. & O. L.		BURMA.		B. B.		B. I.		G. I. P.		M. & B. M.		N. W.		R. & K.		S. I.		TOTAL.		
	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.	
	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	
11. Increase (+) Decrease (—)																											
11-01. Europeans . . . . .	..	..	..	-42	..	+1	..	-13	..	..	..	+2	..	-24	..	-22	..	-6	..	-18	..	..	..	..	..	..	-156
11-02. Indians—																											
(a) Hindus—																											
Other than Depressed classes . . . . .	..	-4	..	+20	..	+2	..	+13	..	..	..	+5	..	+51	..	+14	..	+3	..	+4	..	+1	..	..	..	+105	
Depressed classes . . . . .	..	+1	..	..	..	..	..	-1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	+21	
(b) Muslims . . . . .	..	..	..	..	..	+4	..	-5	..	..	..	+1	..	+4	..	..	..	..	..	+17	..	..	..	..	..	+25	
(c) Anglo-Indians and domiciled Europeans . . . . .	..	+4	..	+13	..	+3	..	+2	..	..	..	-11	..	+13	..	+27	..	-13	..	-11	..	..	..	..	..	7	
(d) Sikhs . . . . .	..	+1	..	-1	..	-1	..	-2	..	..	..	+1	..	-3	..	..	..	+2	..	..	..	..	..	..	..	+6	
(e) Indian Christians . . . . .	..	-1	..	..	..	-1	..	+7	..	..	..	..	..	-10	..	+5	..	+1	..	..	..	+1	..	..	..	7	
(f) Parsis . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	+1	..	..	..	..	-2	..	..	..	..	..	7	
(g) Other Communities . . . . .	..	-2	..	-2	..	..	..	+2	..	..	..	+1	..	+2	..	-2	..	..	..	-4	..	..	..	..	..	7	
(h) Total . . . . .	..	-1	..	+30	..	+7	..	+16	..	..	..	-3	..	+57	..	+45	..	-7	..	+4	..	+2	..	..	..	+147	
11-03. GRAND TOTAL . . . . .	..	-1	..	-12	..	+8	..	+3	..	..	..	-1	..	+33	..	-7	..	-13	..	-14	..	+2	..	..	-7	0	
12. Percentage of total—																											
12-01. Europeans	11.5	11.6	14.3	9.4	10.3	16.1	18.1	16.7	5.1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
12-02. Indians—																											
(a) Hindus—																											
Other than Depressed classes	37.1	33.0	26.7	20.6	21.1	21.4	22.0	23.3	22.7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Depressed classes . . . . .	..	0.9	..	..	..	..	0.5	0.4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(b) Muslims	4.5	4.5	2.5	2.6	5.8	3.9	3.7	3.1	2.1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(c) Anglo-Indians and domiciled Europeans	37.2	41.1	51.8	54.1	53.8	52.6	28.5	28.6	54.0	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(d) Sikhs	2.7	3.5	2.2	2.1	1.0	..	0.3	0.1	2.9	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(e) Indian Christians	3.5	2.7	1.7	1.7	1.0	..	4.5	5.2	4.6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(f) Parsis . . . . .	..	..	0.4	0.4	..	..	10.0	10.0	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(g) Other Communities	3.5	1.8	0.4	0.1	1.0	1.0	2.4	2.6	2.6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Figures not furnished due to separation.

APPENDIX G-I.

Statement showing the number of appointments made to the Superior Services on State Railways and of corresponding rank on Companies' Railways (Class I) excluding H. E. H. the Nizam's State and Jodhpur Railways during 1937-38.

Departments. 1	No. of vacancies actually filled. 2	FILLED BY									Total. 11
		Europeans. 3	Hindus. 4	Muslms. 5	Anglo-Indians and Dominical Europeans. 6	Sikhs. 7	Indians Christians. 8	Parsees. 9	Other classes. 10		
										INDIANS.	
STATE-MANAGED RAILWAYS.											
1. Agency . . . . .	..	..	..	..	..	..	..	..	..	..	..
2. Accounts	2	..	1	1	..	..	..	..	..	..	2
3. Engineering	5	..	3	1	..	1	..	..	..	..	5
4. Transportation (Traffic) and Commercial.	11	4	4	2	1	..	..	..	..	..	7
5. Transportation (Power) and Mechanical Engineering.	10	3	3	..	3	..	..	1	..	..	7
6. Stores Department . . . . .	..	..	..	..	..	..	..	..	..	..	..
7. Other Departments	2	..	2	..	..	..	..	..	..	..	2
8. TOTAL—											
1937-38	20	7	13	4	4	1	..	1	..	..	25
1936-37	26	8	12	2	4	3	2	..	..	..	32
9. Percentage of Europeans to number of vacancies filled—											
1937-38	25%	..	..	..	..	..	..	..	..	..	..
1936-37	11%	..	..	..	..	..	..	..	..	..	..
10. Percentage of Indians to number of vacancies filled—											
1937-38	75%	..	..	..	..	..	..	..	..	..	..
1936-37	89%	..	..	..	..	..	..	..	..	..	..
OTHER RAILWAYS.											
<i>Assam Bengal Railway.</i>											
1. Agency . . . . .	..	..	..	..	..	..	..	..	..	..	..
2. Accounts . . . . .	..	..	..	..	..	..	..	..	..	..	..
3. Engineering	3	..	2	1	..	..	..	..	..	..	3
4. Transportation and Commercial	1	..	1	..	..	..	..	..	..	..	1
5. Mechanical	1	..	..	..	..	..	..	1	..	..	1
6. Stores . . . . .	..	..	..	..	..	..	..	..	..	..	..
7. Other Departments	1	..	1	..	..	..	..	..	..	..	1
8. TOTAL—											
1937-38	6	..	4	1	..	..	..	1	..	..	6
1936-37	5	1	2	2	..	..	..	..	..	..	4
9. Percentage of Europeans to number of vacancies filled—											
1937-38	0-0	..	..	..	..	..	..	..	..	..	..
1936-37	20-0	..	..	..	..	..	..	..	..	..	..
10. Percentage of Indians to number of vacancies filled—											
1937-38	100-0	..	..	..	..	..	..	..	..	..	..
1936-37	80-0	..	..	..	..	..	..	..	..	..	..

APPENDIX G-I—contd.

Statement showing the number of appointments made to the Superior Services on State Railways and of corresponding rank on Companies' Railways (Class I) excluding H. E. H. the Nizam's State and Jodhpur Railways during 1937-38—contd.

Departments. 1	No. of vacancies actually filled. 2	FILLED BY									Total. 11
		INDIANS.									
		Europeans. 3	Hindus. 4	Muslims. 5	Anglo-Indians and domestic Euro- peans. 6	Sikhs. 7	Indian Christians. 8	Paras 9	Other classes. 10		
Bengal and North-Western Railway.											
1. Agency	1	1	..	..	..	..	..	..	..	..	1
2. Accounts	1	..	..	..	..	..	..	..	..	..	1
3. Engineering	5	1	..	1	1	2	1	..	..	..	6
4. Transportation and Commercial	1	..	..	1	..	..	..	..	..	..	1
5. Mechanical	1	..	..	..	..	..	..	..	..	..	1
6. Stores	1	1	..	..	..	..	..	..	..	..	1
7. Other Departments	1	..	..	..	..	..	..	..	..	..	1
8. TOTAL—											
1937-38	9	3	1	2	1	2	1	..	..	..	6
1936-37	6	2	..	2	..	1	..	..	..	..	4
9. Percentage of Europeans to number of vacancies filled—											
1937-38	33.3	..	..	..	..	..	..	..	..	..	..
1936-37	33.3	..	..	..	..	..	..	..	..	..	..
10. Percentage of Indians to number of vacancies filled—											
1937-38	66.7	..	..	..	..	..	..	..	..	..	..
1936-37	66.7	..	..	..	..	..	..	..	..	..	..
Bengal Nagpur Railway.											
1. Agency	1	..	1	..	..	..	..	..	..	..	1
2. Accounts . . . . .	..	..	..	..	..	..	..	..	..	..	..
3. Engineering	5	..	3	1	1	..	..	..	..	..	5
4. Transportation and Commercial	5	1	2	1	1	..	..	..	..	..	4
5. Mechanical	5	..	2	..	1	..	..	..	..	..	3
6. Stores . . . . .	..	..	..	..	..	..	..	..	..	..	..
7. Other Departments	1	1	..	..	..	..	..	..	..	..	1
8. TOTAL—											
1937-38	15	2	6	2	3	..	..	..	..	..	13
1936-37	12*	6*	2	3	..	1	..	..	..	..	6
9. Percentage of Europeans to number of vacancies filled—											
1937-38	13.3	..	..	..	..	..	..	..	..	..	..
1936-37	50.0*	..	..	..	..	..	..	..	..	..	..
10. Percentage of Indians to number of vacancies filled—											
1937-38	86.7	..	..	..	..	..	..	..	..	..	..
1936-37	50.0*	..	..	..	..	..	..	..	..	..	..
Bombay, Baroda and Central India Railway.											
1. Agency . . . . .	..	..	..	..	..	..	..	..	..	..	..
2. Accounts	1	..	1	..	..	..	..	..	..	..	1
3. Engineering	1	..	..	..	..	..	1	..	..	..	1
4. Transportation and Commercial	3	2	1	..	..	..	..	..	..	..	1
5. Mechanical	1	1	..	..	..	..	..	..	..	..	1
6. Stores	1	..	..	..	..	..	..	1	..	..	1
7. Other Departments	1	..	..	..	..	..	..	..	1	..	1
8. TOTAL—											
1937-38	8	3	2	..	..	..	1	1	1	..	6
1936-37	11	4	1	2	1	..	1	2	..	..	7
9. Percentage of Europeans to number of vacancies filled—											
1937-38	37.5	..	..	..	..	..	..	..	..	..	..
1936-37	36.4	..	..	..	..	..	..	..	..	..	..
10. Percentage of Indians to number of vacancies filled—											
1937-38	62.5	..	..	..	..	..	..	..	..	..	..
1936-37	63.6	..	..	..	..	..	..	..	..	..	..

* Revised figures.

APPENDIX G-I—concl'd.

Statement showing the number of appointments made to the Superior Services on State Railways and of corresponding rank on Companies' Railways (Class I) excluding H. E. H. the Nizam's State and Jodhpur Railways during 1937-38—concl'd.

Departments.	No. of vacancies actually filled.	FILLED BY								
		Europeans.	INDIANS.							
			Brahmins.	Muslims.	Anglo-Indians and Familiar- Europeans.	Shikhs.	Indian Christians.	Pariahs.	Other classes.	Total.
1	2	3	4	5	6	7	8	9	10	11
* Madras and Southern Mahratta Railway.										
1. Agency	1	1	1	1	1	1	1	1	1	1
2. Accounts	1	1	1	1	1	1	1	1	1	1
3. Engineering	1	1	1	1	1	1	1	1	1	1
4. Transportation and Commercial	1	1	1	1	1	1	1	1	1	1
5. Mechanical	1	1	1	1	1	1	1	1	1	1
6. Stores	1	1	1	1	1	1	1	1	1	1
7. Other Departments	1	1	1	1	1	1	1	1	1	1
8. TOTAL—	14	14	14	14	14	14	14	14	14	14
1937-38	4	4	4	4	4	4	4	4	4	4
1936-37	10	10	10	10	10	10	10	10	10	10
9. Percentage of Europeans to number of vacancies filled—	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6
1937-38	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6
1936-37	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6
10. Percentage of Indians to number of vacancies filled—	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4
1937-38	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4
1936-37	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4
Ballar and Kurnool Railway.										
1. Agency	1	1	1	1	1	1	1	1	1	1
2. Accounts	1	1	1	1	1	1	1	1	1	1
3. Engineering	1	1	1	1	1	1	1	1	1	1
4. Transportation and Commercial	1	1	1	1	1	1	1	1	1	1
5. Mechanical	1	1	1	1	1	1	1	1	1	1
6. Stores	1	1	1	1	1	1	1	1	1	1
7. Other Departments	1	1	1	1	1	1	1	1	1	1
8. TOTAL—	1	1	1	1	1	1	1	1	1	1
1937-38	1	1	1	1	1	1	1	1	1	1
1936-37	1	1	1	1	1	1	1	1	1	1
9. Percentage of Europeans to number of vacancies filled—	100	100	100	100	100	100	100	100	100	100
1937-38	100	100	100	100	100	100	100	100	100	100
1936-37	100	100	100	100	100	100	100	100	100	100
10. Percentage of Indians to number of vacancies filled—	0	0	0	0	0	0	0	0	0	0
1937-38	0	0	0	0	0	0	0	0	0	0
1936-37	0	0	0	0	0	0	0	0	0	0
South Indian Railway.										
1. Agency	1	1	1	1	1	1	1	1	1	1
2. Accounts	4	4	4	4	4	4	4	4	4	4
3. Engineering	2	2	2	2	2	2	2	2	2	2
4. Transportation and Commercial	2	2	2	2	2	2	2	2	2	2
5. Mechanical	1	1	1	1	1	1	1	1	1	1
6. Stores	1	1	1	1	1	1	1	1	1	1
7. Other Departments	1	1	1	1	1	1	1	1	1	1
8. TOTAL—	11	11	11	11	11	11	11	11	11	11
1937-38	8	8	8	8	8	8	8	8	8	8
1936-37	3	3	3	3	3	3	3	3	3	3
9. Percentage of Europeans to number of vacancies filled—	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7
1937-38	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7
1936-37	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7	72.7
10. Percentage of Indians to number of vacancies filled—	27.3	27.3	27.3	27.3	27.3	27.3	27.3	27.3	27.3	27.3
1937-38	27.3	27.3	27.3	27.3	27.3	27.3	27.3	27.3	27.3	27.3
1936-37	27.3	27.3	27.3	27.3	27.3	27.3	27.3	27.3	27.3	27.3

* Officer candidates who were originally treated as subordinates and whom it has recently been decided to treat as officers, have been included.

APPENDIX G-II.

Statement showing the number of vacancies filled by direct recruitment in the Subordinate Railway Services during the period 1st April 1937 to 31st March 1938.

Name of Service, etc.	Europeans		HINDUS.				MINORITY COMMUNITIES RECOGNISED FOR THE PURPOSE OF COMMUNAL REPRESENTATION.										Other communities		Total.
	No.	Percentage	Hindus other than Depressed Classes.		Depressed Classes.		Muslims.		Domiciled Europeans and Anglo-Indians.		Sikhs.		Indian Christians.		Paras.		No.	Percentage	
			No.	Percentage	No.	Percentage	No.	Percentage	No.	Percentage	No.	Percentage	No.	Percentage	No.	Percentage			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
(I) PERMANENT.																			
I.—Railways—																			
State-managed—																			
Eastern Bengal . . . . .	..	..	204	44.9	5	1.1	213	46.9	29	6.4	1	0.2	2	0.4	..	..	..	..	454
East Indian	1	0.2	280	65.3	1	0.2	114	26.6	23	5.4	..	..	10	2.3	..	..	..	..	459
Great Indian Peninsula . . . . .	..	..	163	61.5	3	1.1	40	15.1	34	12.9	3	1.1	18	6.8	4	1.5	..	..	265
North Western	1	0.3	67	22.9	..	..	174	59.4	13	4.4	36	12.3	2	0.7	..	..	..	..	293
Company-managed—																			
Assam Bengal	2	1.7	63	54.3	1	0.9	35	30.2	14	12.1	1	0.9	..	..	..	..	..	..	116
Bengal and North-Western	6	1.9	229	72.5	2	0.6	61	19.3	15	4.7	..	..	3	1.0	..	..	..	..	316
Bengal Nagpur . . . . .	..	..	181	50.2	..	..	56	15.5	100	27.7	8	2.3	12	3.3	2	0.5	1	0.4	360
Bombay, Baroda and Central India.	1	0.3	154	53.9	3	1.0	48	16.8	34	11.9	4	1.4	25	8.7	11	3.9	6	2.1	286
Madras and Southern Mahratta . . . . .	..	..	138	60.3	1	0.4	27	11.8	50	21.8	..	..	18	6.7	..	..	..	..	229
Rohilkund and Kumaon . . . . .	..	..	13	61.9	..	..	8	38.1	..	..	..	..	..	..	..	..	..	..	21
South Indian	1	0.4	184	67.2	8	2.9	31	11.3	23	8.4	..	..	27	9.8	..	..	..	..	274
II.—Miscellaneous Offices—																			
Central Standards . . . . .	..	..	1	20.0	..	..	2	40.0	1	20.0	1	20.0	..	..	..	..	..	..	5
Chief Mining Engineer . . . . .	..	..	7	78.0	..	..	1	11.0	..	..	1	11.0	..	..	..	..	..	..	9
Central Publicity . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Government Inspectors of Railways. . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Director, Railway Clearing Accounts. . . . .	..	..	18	75.0	..	..	5	20.8	..	..	1	4.2	..	..	..	..	..	..	24
Controller of Railway Accounts . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
TOTAL	12	0.4	1,702	55.2	24	0.8	815	26.5	336	10.9	56	1.8	112	3.6	17	0.6	7	0.4	3,081

APPENDIX G-II.

Statement showing the number of vacancies filled by direct recruitment in the subordinate Railway Services during the period 1st April 1937 to 31st March 1938.

Name of Service, etc.	Europeans.		HINDUS.				MINORITY COMMUNITIES RECOGNISED FOR THE PURPOSE OF COMMUNAL REPRESENTATION.										Other communities.		Total.
	No.	Percentage	Hindus other than Depressed Classes.		Depressed Classes.		Muallims.		Doubtful Europeans and Anglo-Indians.		Sikhs.		Indian Christians.		Paras.		No.	Percentage	
			No.	Percentage	No.	Percentage	No.	Percentage	No.	Percentage	No.	Percentage	No.	Percentage	No.	Percentage			
(H) TEMPORARY.																			
I.—Railways—																			
State-managed—																			
Eastern Bengal . . . . .	..	..	545	48.8	20	1.6	220	48.6	20	6.3	..	..	7	0.8	..	..	1	0.1	1,271
East Indian . . . . .	..	..	1,136	65.6	6	0.1	244	90.1	217	18.8	9	0.6	16	0.9	..	..	..	..	1,732
Great Indian Peninsula . . . . .	..	..	241	74.1	2	1.0	18	6.6	16	4.7	8	1.0	21	9.6	8	2.4	..	..	422
North Western	1	0.1	245	25.2	4	0.4	672	69.6	41	2.6	100	9.1	21	1.8	1	0.1	..	..	1,124
Company-managed—																			
Assam Bengal	2	6.0	15	29.5	..	..	10	20.9	5	16.1	..	..	2	9.1	..	..	..	..	22
Bengal and North-Western . . . . .	..	..	29	21.7	2	1.4	15	15.9	..	..	1	0.9	2	1.8	..	..	..	..	109
Bengal Nagpur . . . . .	..	..	227	61.5	5	1.4	44	12.4	60	17.0	6	2.8	6	1.8	2	0.6	..	..	252
Bombay, Haroda and Central India . . . . .	..	..	121	65.7	6	2.2	24	12.0	6	2.2	2	1.6	17	2.9	12	6.2	1	0.5	190
Madras and Southern Mahratta . . . . .	..	..	95	20.0	..	..	6	5.2	10	2.7	..	..	6	2.2	..	..	..	..	117
Rohilkand and Kumaon . . . . .	..	..	20	75.0	..	..	7	17.5	1	2.5	1	2.5	1	2.5	..	..	..	..	40
South Indian . . . . .	..	..	104	65.6	5	2.7	25	14.0	22	12.4	..	..	22	12.0	..	..	..	..	146
II.—Miscellaneous Offices—																			
Central Standards . . . . .	..	..	17	50.0	..	..	10	29.4	2	5.9	2	14.7	..	..	..	..	..	..	24
Chief Mining Engineer . . . . .	..	..	4	66.7	..	..	2	22.2	..	..	..	..	..	..	..	..	..	..	6
Central Publicity . . . . .	..	..	1	20.0	..	..	1	20.0	2	60.0	..	..	..	..	..	..	..	..	2
Government Inspectors of Railways . . . . .	..	..	..	..	..	..	..	..	..	..	1	100.0	..	..	..	..	..	..	1
Director, Railway Clearing Accounts . . . . .	..	..	65	64.7	..	..	27	26.5	1	1.0	2	7.6	..	..	..	..	..	..	102
Controller of Railway Accounts . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
TOTAL	2	0.1	2,012	55.6	50	0.9	1,700	21.8	422	6.9	141	2.2	122	2.4	22	0.4	7	0.1	2,326
GRAND TOTAL (Both permanent and temporary).	10	0.1	4,716	56.1	74	0.9	2,806	20.0	202	0.2	107	2.0	242	2.2	40	0.3	14	0.2	2,710

Mr. G-II.] NUMBER OF APPOINTMENTS CREATED AND VACANCIES FILLED E.P. 169

APPENDIX H.

Office of the Railway Department (Railway Board) and attached offices on 31st March 1938.

The Hon'ble Sir THOMAS STEWART, K.C.I.E., C.S.I., I.C.S.
Member of Council of the Governor-General.

Railway Board.

The Hon'ble Sir Guthrie Russell, K.C.I.E.	Chief Commissioner of Railways.
Mr. B. M. Staig, C.S.I., I.C.S.	Financial Commissioner of Railways.
Mr. A. E. Tylden-Pattenson	Member (Temporary).
Mr. J. C. Highet, F.C.H., A.M.I.C.E.	Member (<i>Offg.</i>).
Col. H. L. Woodhouse, M.C.	Director, Civil Engineering.
Mr. T. S. Sankara Aiyar, B.A., B.E.	Director, Finance.
Mr. F. D'Souza	Director, Traffic.
Khan Bahadur Muzaffar Hussain	Director, Establishment (<i>Offg.</i>)
Mr. E. Ingoldby, A.M.I.C.E., A.M.I.L.E.	Director, Mechanical Engineering.
Mr. B. L. Cameron	Secretary (Officiating).
Mr. Yaqub Shah	Deputy Director, Finance.
Khan Bahadur Z. H. Khan	Deputy Director, Establishment (I).
Khan Bahadur F. M. Khan	Deputy Director, Establishment (II) (Temporary).
Mr. H. M. Jagtiani	Deputy Director, Traffic (Commercial) (<i>Offg.</i>).
Mr. R. C. Paranjoti, B.A., B.Sc. (LOND.), A.M.I.L.E.	Deputy Director, Mechanical Engineering.
Mr. J. W. C. Holt	Deputy Director, Traffic (Transportation) (<i>Offg.</i>).
Mr. K. Ubaidullah	Assistant Director, Finance (Temporary).
Mr. E. C. Rundlett	Assistant Secretary.

Attached Officers.

Mr. C. W. Scott, O.B.E., D.F.C., B.Sc., I.F.S.	Joint Timber Advisory Officer, Railway and Defence Departments.
Mr. K. C. Srinivasan	Officer on Special Duty with the Railway Board.
Mr. R. C. Case	Officer on Special Duty with the Railway Board.

Attached Offices.

Central Standards Office.

Mr. J. M. D. Wrench, C.I.E.	Chief Controller of Standardization.
Mr. L. H. Swain	Deputy Chief Controller (Civil).
Mr. R. G. Burt	Officer on Special Duty.
Mr. W. A. Nightingale	Assistant Chief Controller (Mechanical).
Mr. W. Douglas Thomson	Assistant Chief Controller (Civil).
Mr. A. Vasudevan	Assistant Chief Controller (Specifications and Records).
Mr. W. E. Gelson	Officer on Special Duty.
Mr. E. A. Blackwood	Officer on Special Duty.

Central Publicity Bureau.

Mr. G. T. Tait, B.Sc. Central Publicity Officer, Indian State Railways.
 Mr. P. W. Sullivan Assistant Publicity Officer, Indian State Railways.

Overseas Bureaux.

Mr. V. L. Dean Resident Manager, Indian Railways Bureau, New York, U. S. A.
 Mr. W. T. Griffiths Manager, Indian Railway Bureau, London.

Office of the Controller of Railway Accounts.

Mr. W. S. Sundaram Controller of Railway Accounts.
 Mr. B. V. Ramchandani Deputy Controller of Railway Accounts.
 Mr. P. N. Bose Assistant Accounts Officer.