

THE

INDIAN RAILWAYS:

THEIR HISTORICAL, ECONOMICAL AND ADMINISTRATIVE ASPECTS

BY

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Retired Assistant Traffic Superintendent, B. E. & C. I. Railway,

President, All-India Railwaymen's Conference 1921.

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TO

THE SACRED MEMORY OF

ONE WHOSE

Kindly guidance and generous help in early years,

no tribute of mine can ever Repay—

MY LAMENTED COUSIN

Narayan Sewak Tiwari,

WHO DIED AT THE AGE OF 69 YEARS,
ON KARTIKA KRISHNA 5TH SAMVAT 1950 VIKRAM
AT RAWULPINDEE.

BY THE SAME AUTHOR.

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PREFACE.

THE subjects of Railway administration and Railway Economics are very large and will occupy a number of volumes of this size. I have written this book for the information of the Indian people, only touching briefly some of the elementary subjects and some of the matters which vitally affect the economic condition of the country at present. My object is to bring about a healthy reform in the administration of the Indian railways which are the largest and most vital among the national properties of the country. The book is especially interesting as it deals prominently with the question of State *versus* Company management, which has been occupying the public mind in India for more than a generation.

This is the first book of the kind, giving expression as it does, to the Indian view of the matter. It gives a very moderate account of Indian Railway economics, administration, finance and management including Rates and Fares, Constitution of the Companies, their working results, the economic effects they have produced, and the problems now facing the country.

In the Prefatory Note to his pamphlet on "Indian Railway Finance," 1912, the Hon'ble Sir Dinshaw Eduljee Wacha emphasized the "eminent necessity of a complete narrative of railway finance which shall inform us as to what the gain or loss there has been from year to year, with the causes which have led to it." The absence of such a book has been generally felt in India; it is hoped that that want will be fully met by this volume.

The financial narratives are supported by statistics giving the annual losses and gains to the State from different classes of the

Railways from 1848-49 to 1919-20, see appendices 2 to 8, These tables have been compiled for the first time and form an important record not easily obtainable.

The historical facts put together and compared with subsequent events in India and with corresponding practice of other countries, combined with the personal experience gained in the actual working, enable us to see the defects and draw-backs of the prevailing systems. With such lights, suggestions have been made for important reforms summarized at pages 538-40. Having fully discussed the matter of public wants, comforts and conveniences, requirements of trade, commerce and industries, efficiency of the service, and railway economics, I confidently hope that the book will meet the requirements of railway administrators as well as railwaymen, students of Indian economics, railway promoters, commercial men, leaders of political thought, investors of capital, members of the reformed Councils, and the public generally; while the Princes and officials of the Indian States will welcome it as a safe guide in organizing an economical administration for their own Railways.

Apart from the experience of actual working of railways, gained during an active service of over 37 years, on railways worked both by the Government and by one of the principal companies in India, I made a special study of the subject soon after the issue of the Report of the Select Committee of 1884. My first observations appeared in the first Hindi Daily—the late “*Hindosthan*” of Kalakankar, under the headings “Our Railways,” “Our Guaranteed Railways,” “Indian State Railways,” etc., during the years 1889 and 1890, under the distinguished Editorship of Pandit Madan Mohan Malaviya. I resumed the subject in 1915, when my contributions appeared in several Journals like the “*Leder*” of Allahabad, the “*Modern Review*” of Calcutta, the “*Servant of India*,” Poona, the “Journal of the Indian Economic Society.” Bombay.

It was intended to publish this book in 1919, and most of the Statistics previously compiled were revised in that year; but owing to unavoidable circumstances the narrative could not be completed till now. The facts and figures given herein are mostly for the period up to the year 1917-18, except where otherwise stated. In important places the figures for the two subsequent years have been added, making them complete for the whole period for which the accounts have been published by the Government of India.

It is difficult to give a continuous narrative of the State Railways, as many of them have been largely extended or amalgamated and their administrations have undergone important changes.

An effort has, however, been made to give the main epochs of the Railway History. The first epoch is narrated at pages 205-45, the second epoch from page 246, and the third epoch from page 331. But as the railways of one class overlapped the other classes and there were many changes and amalgamations among the individual lines or systems, it was not possible within the compass of this volume, to give a progressive account of individual lines.

Many of the railways, originally built and worked by the direct agency of the Government, have been subsequently leased to Companies; while several lines, taken over from the Companies, have been merged into the systems worked by the Government. These changes and interchanges have complicated the historical records and accounts of the individual lines.

Records for the old Guaranteed Companies' lines were, however, kept distinct for the whole period of their operations from 1848 to 1907. Their transactions, dealt with in Chapter III, form the worst record in the whole history.

The State-management, which followed the old Guaranteed Companies in 1869, did not have that chance which it deserved, as the best of the State Railways, after a successful working, were snatched away by the influential Companies from 1879 and

1885, leaving the unprofitable lines for the Government to manage. The accounts of *all* State Railways are, however, lumped together in the Finance and Revenue Accounts of the Government.

Moreover an accurate comparison of the different railways cannot well be made from the statistics alone, as the factors governing the costs of working differ considerably in the various parts of the country.

For these reasons I have not attempted to closely examine in detail the working results of the State railways entrusted to the Agency Companies. A comparison of some of the working results of the individual systems is, however, possible and may be useful ; but this would involve the compilation of elaborate statistics for each of the Companies' and the Government administrations for the whole period of over 66 years. Single-handed as I have worked, I could not possibly attempt that work. It is, however, hoped that such a comparison of the railway details may some day be completed by some energetic Railwaymen.

I had two main disadvantages to contend with. One with the language, which is not my mother tongue, and I have no pretension of having that command over the English language which is necessary to write an important book like this. But this difficulty could not be avoided, as English is the only medium between the people of the various provinces in India.

The second disadvantage is that I have not had at my disposal some of the material necessary for a complete history. In my humble way I have made an attempt to put together such facts and figures as I have come across and been able to collect. They cover most of the ground. There may, however, be some links missing. Readers will therefore make an allowance for these difficulties and will overlook any omission or inaccuracy in expression. Any errors pointed out to me will at once be noted for the next edition.

Railways are truly called the vital organs of industry and commerce and the very main-springs of material progress. If

PREFACE.

properly worked and fully taken advantage of by the people, railways should transform the whole country; but unfortunately the people of India were not sufficiently educated to make full use of the railways for their benefit, and a good deal has been lost on that account. It is hoped, however, with the general enlightenment now spreading in the country and with the reforms suggested herein, the people of India will soon be able to make up for what they have lost in the past, and will take care to prevent any further losses in the future.

There are serious defects in the administrative machinery of the State Railways, resulting in losses both in costs and in the effects on general industries, trade and commerce of the country. Suggestions have therefore been put forward for a reorganisation of the whole system of administration and working, with special provision for a systematic training of railway officials and subordinates.—

- (1) To improve the status of the men and to ensure a maximum of efficiency with a minimum of labour and cost;
- (2) To utilize the railways to best advantage in supplying transportation and in mechanical training for Scientific Agriculture and manufacturing industries of all kinds, Chapter I, Section 8, and Chapter II-5.
- (3) To remodel the present system of working, so as to prevent the same work being done several times over, Chapter II-6.
- (4) To make retrenchments in the costs of working.

The agencies employed for the State Railways come under two heads, *viz*:—

- (1) Companies' administrations and
- (2) Government "

The main controversy is which of these two agencies is the better. The History of the Indian Railways is decidedly in favour of the Government agency and against that of companies, see Chapters II, III, VI and VIII. Wherever faults have been

found with the State-management, they are attributable to the system of government. As that system is being changed, the State-management under the reformed Councils will make headway and meet the public requirements satisfactorily. It is now recommended by the Railway Committee that this system will be adopted for all State railways as and when the existing contracts of the Companies fall in.

For nearly three quarters of a century the Railways in India have been exclusively under the direction and control of Englishmen. They have constructed a fine system of railways, based on the Socialistic principle of State ownership—a system in advance of the Company ownership still in force in England, but in many important respects they have ignored the requirements of the Indian people. To meet these requirements, the railways must be brought under the control of the people.

My best thanks are due to the administrative authorities of the Continental Railways for the courtesies shown to me during my travels over their lines in 1911 and 1914 and for the statistics they have been good enough to furnish me with. My thanks are also due to the Minister of the Japanese Government, to the Indian Railway Board, and the Financial Secretary to the Government of India for supplying me with certain publications.

It is far from my desire to cast reflections against any person. Deeply should I regret if a single expression of mine were found unfair or likely to wound just sensibilities.

My work is a labour of love in the Service of the Motherland. I have written it as a duty I owed to my fellow beings. My privilege is to work and the fruit belongs to Him, who rules the Universe. If the conditions under which millions of my country men and women are daily suffering, are remedied, my labours will be amply rewarded.

CHANDRIKA PRASADA TIWARI.

Ajmer, 26th September 1921.

P. S.—At pages 430 and 549, we have referred to average rates of passenger fares on the Japanese State Railways.

Since writing that we have received the Tariffs of those Railways. Their passenger fares as well as goods rates are on sliding scales. The ordinary 3rd class fares are calculated as follows:—

		Per mile.	
		Sen.	Pies.
For first 50 miles or under	...	2·5 equal to	7·200
„ 51 to 100 miles	...	2·1 „	6·048
„ 101 to 200 „	...	1·7 „	4·896
„ 201 to 300 „	...	1·4 „	4·032
„ 301 to 400 „	...	1·2 „	3·456
„ 401 to 500 „	...	1·1 „	3·168
„ over 500 „	...	1·0 „	2·880

They work out as under:—

	Rs. a.	Pies per mile.
For 500 miles	11 9	4·435
„ 600 „	13 1	4·176
„ 700 „	14 9	3·991
„ 800 „	16 1	3·852
„ 900 „	17 9	3·744
„ 1,000 „	19 1	3·657

The second class ordinary passenger fares are twice, and the first class ordinary passenger fares are thrice, the 3rd class ordinary passenger fares.

A small extra charge is made for Express trains and for 1st class and 2nd class sleeping berths.

A reduction of 20 to 50 per cent. is made off 2nd and 3rd class fares for Schools and Colleges, for public meetings of corporations, etc., and of 10 to 60 per cent. for special and ordinary parties of 50 or more persons travelling together.

The goods tariff is very simple, occupying 79 pages of this size only, with Rules, Classification, and one general Rate List

for distances of 5 to 2,200 miles, for the five ordinary classes of goods. There are two sets of rates, one for small consignments, and the other for Car loads. For a haul of 1,000 miles, the Car load rates give the following charge per ton per mile :—

1st Class goods 8·8992 pies.

2nd „ „ 6·6816 „

3rd „ „ 5·2128 „

4th „ „ 4·320 „

5th „ „ 3·744 „

The following are the goods rates, per 100 *kin* of about 133 lbs. English, for smaller consignments, the last column giving the rate *per maund* for the *lowest class* :—

	1st Class.	2nd Class	3rd Class.	4th Class.	5th Class.	
					Sen per 100 kin.	Pies per maund.
For 100 Miles.	Sen. 70	Sen. 54	Sen. 48	Sen. 35	29	61
„ 200 „	110	88	65	52	42	75
„ 300 „	143	108	84·5	67	54	95
„ 400 „	176	133	104	82	66	118
„ 500 „	208	156	122	95·5	77	135
„ 600 „	236	178	139	109	88	155
„ 700 „	266	201	157	123	99	175
„ 800 „	296	223	174	136	110	196
„ 900 „	324	244	190	149	120	213
„ 1000 „	352	265	206	161	130	231
„ 1300 „	436	328	254	199	160	255
„ 1600 „	520	391	302	236	190	287
„ 1900 „	604	454	350	274	220	322
„ 2200 „	688	517	398	311	250	348

A Sen is equal to about 2·88 pies with exchange at 1s. 4d. per rupee.

11th October 1921.

C. P. T.

CORRIGENDUM.

Page.	Line	Incorrect.	Correct.
ii Preface	32	Leder	Leader.
7	15	Appendix 17	Appendix 16.
19	17	clause 4	clause 7.
24	20	Section 5	Section 5A
31	7	67,402,203	867,402,209.
42	14	go	goes.
43	Foot note.	Accounts No.	Account No.
44	19	periods	period.
135	9	land	land.
187	31	recommendation	recommendation.
141	35	to the	to be,
148	8	qualification	qualification.
154	21	few and are	few and rare.
184	20	hind	kind.
292	11	caes	causes.
304	22	philanthropic	philanthropic.
"	34	principals	principles.
"	37	the avoid	to avoid.
299	5	Itatics	Italica.
316	16	such arduous	much arduous.
319	26	pressure.	pressure.
323	15	devolve.	Devolves.
327	29	Stch	such.
xliii	Heading	1920-21	1919-20.
391	10	160	1-60.
427	5	para. 435	page 435.
430	33	7. Average Coaching passengers per vehicle	7. Average number of passengers per vehicle.
434	17	3 pies to 3-61 pies	3 pies to 18-61 pies.
456	22	draw	drew.
473	14	belong	belonging.
490	34	Statutory	Statutory.
509	32	wite	with.
533	33	inconsiderable	in considerable.
79	15	Omit full-stop between "like" and "On," and change the capital O of "On."	
99	16	Insert semi-colon between "Railways" and "on."	
263	Foot notes	Exchange the star and dagger marks of the two foot-notes.	
xxviii	...	Delete "Re," from columns 2 to 3.	
xxx	...	Ditto ditto ditto.	
xxxii	...	Ditto ditto 2 to 6.	
470	19 20	Transpose word "heard" from line 19 to line 20 between first and second words.	

APPENDIX 1.

ORIGIN OF RAILWAY IN ENGLAND.

THE story of the invention of the iron-road and of the Locomotive Steam Engine and the consequent development of the Railway system, with the wonderful changes, it has produced in the life of the people and conditions of the world, is of a deep interest to mankind. Before we give an account of the Indian Railways, it will be interesting to give a brief sketch of the early history of the rail-road and of the Locomotive in England and of the conditions which prevailed in that country before the advent of the Railway.

Prior to the invention of the railway in England, conditions in that country were much the same as in India, for human nature is much the same all over the world, although we find varying grades, styles, or forms of civilizations in different countries at the same or different times.

We take the following extracts from Volume I of "a History of the English Railway" by John Francis 1851, quoting its pages only from where the matter has been taken.

In the days of dark ages, roads in England were beset with danger and delay. Outlaws dwelling in forests, suddenly came on the traveller deprived him of his all and suddenly retreated with the booty they had won. Long journeys were necessarily performed on horse-back or by coaches which ran 20 miles a day. Markets were inaccessible for months together and fruits of the earth rotted in one place, while a few miles off the supply fell far short of the demand. Coal, manure and grain could only be carried on the backs of cattle (pages 2-5). The roads were also exceedingly tortuous. If the hill which crossed his path were

high, the passenger traversed its base ; if the river were deep, he sought a shallower fording place ; if the path were too rugged, he tried a longer but smoother passage. The travelling merchants . . . moved in company with their fellows. From town to town, through wood and through glade, they wandered in pleasant association, seeking in each other's society mutual aid and mutual protection. Pilgrims also availed themselves of the safety and society of the trader's convoy (pages 6-7).

Streets of London.—The kites, crows and other ravenous birds were the only scavengers of the busy streets. The traffic was comparatively so slight that the mud which collected in the uneven roads proved no inconvenience to shop-keepers. Holborn, the great artery of Modern Babylon, through which pours in quick succession one loud, busy, rattling stream of life and commerce, was not paved till the commencement of the fifteenth century (pages 7-8).

Some of the minor streets were scarcely passable. Narrow lanes, with hedges broken only here and there by a struggling house, were the primitive Wood-streets, Grays In-lanes, and Aldgate-streets of modern times : some would venture to traffic in them in the day but few would risk such perilous thoroughfares at night. Along such dangerous paths the traveller at night had to grope his way about town in total darkness, except he was near enough to be guided by the lanterns on the steeple of Bow Church, which served as the only land-mark to the bewildered stranger (pages 8-9).

London was a great myth to the villager. It was the place where kings reigned and ministers decreed justice, whence wars and rumours of war emanated. Queens died and new dynasties succeeded without the fathers of the village knowing or caring for the change. Their luxuries were from their own vineyard, and their own orchards ; their necessities were the produce of their own farms. Their sons and daughters intermarried, children were

born to them, inheriting their prejudices along with their acres; and had it not been for the gradual improvement in the roads during the eighteenth and nineteenth centuries, the ignorance of the country would have remained unchanged, and the innocence of country life been still an article of faith (pages 12-13).

It was not until the sixteenth century that the roads of England were made the subject of legislative enactment. In the reign of Mary, it was decided that the various parishes should maintain their own roads. Surveyors were chosen, and by means of forced labour, the first step was taken in that fine system which has at once caused and increased the commerce of England (page 9).

In the seventeenth century, further but not very successful efforts were made to improve travelling, and the roads remained eminently bad. The charge of conveyance amounted in many instances to a prohibition (page 13).

Coal, even then, was rarely seen, save in the neighbourhood of the district which produced it. Pack-horses—strong, enduring animals, the breed of which is now extinct—were employed to carry the produce of the weaver's patient skill, the pottery of Staffordshire, and even the coals of New-Castle. Labouring along heavy roads, toiling beneath a burning sun, winding their way through bare, bleak moors, down steep descent, by dangerous rivers, on narrow tongues of land, between masses of mire and mud, so deep as to be dangerous if they entered (a leading horse bearing bells to intimate the approach of the party he heralded), the group formed a most picturesque accompaniment to the wild, weird scenes it enlivened. With such difficulties before them, few persons left their homes but those who were called by some most special reason. Travellers went in fear of their necks, dukes were obliged to walk in muddy roads; and the carriages of reigning princes were only saved from falling by their subjects' support (pages 13-15).

The serious difficulties which beset travelling produced stage coaches, and great was the innovation when in 1659, sanctioned by the doctors of the University of Oxford, the flying coach undertook to perform the journey from that place to London between the rising and the setting of the sun (page 15).*

In April 1706 a stage coach was established between London and York,† doing the single journey in four days. The journey to Cambridge about that period, and probably in a stage coach, was described by a passenger in the following terms:—

“I resolved, since the season of the year proved dry and pleasant to make a short journey to Cambridge. By the time I got to the place of starting, the country tub-driver began to be impatient, all the company, but myself, being already come, and had taken up their stations in the dirty, lumbering, wooden hovel, being more in shape like a tobacco hogs-head than a coach, belling out like the stern of a Dutch fly-boat, and was built more for burthen and the horses’ ease than to commodate travellers. The rest of the company being most of them pretty burly, had made a shift to leave me a nook in the corner in the back part of the coach, not much wider than a chair for a jointed baby.” “In this tub drawn by half-a-dozen bony hacks,” the essayist proceeded, “stopping at Ware, twenty miles from London, to dine, and at Barley, thirty-seven miles off, to sup and sleep; from thence through Saffron Walden, at an ass’s gallop (pages 17-18). He reached Cambridge, a place so abominably dirty that Old Street, in the Middle of a winter’s thaw, or Bartholomew fair after a shower of rain, could not have more occasion for a scavenger than the Miry Streets of this famous corporation, most of them so very narrow that should two wheelbarrows meet in their largest thoroughfare, they are obliged to stop half-an-hour before they can clear themselves of one another.”

* 77 Miles by L. & N. W. Ry., two hours journey by rail.

† Four hours journey by rail.

This was the mode of journeying by coach to and such was Cambridge about the beginning of the eighteenth century.

In 1712 a stage coach service was established between London and Edinburgh, passing Durham, New Castle and Berwick, with a fare of £4-10s. per passenger, the single journey taking 13 days (page 19).†

Highwaymen, another danger incidental to the infancy of locomotion, must not be passed over. Though night-fall saw the traveller duly housed, daylight was often no safeguard against the marauder. A crowded coach was a temptation to an Abershaw. Rash and daring, a bold and skilful horseman, it was no uncommon circumstance for the Claude Duval of the day to attack and rob, single-handed, a stage full of passengers. The arms of the riders were no alarm to him. The coachman stopped his cattle at his approach; the Postilion was often in his pay. He created tremor in the minds of all as they came near his reputed haunts. The gentleman thanked heaven if he escaped a visit on Finchley—common; the lady ejaculated her delight as she passed the confines of Hounslow; the wild heath which graces Shooter's hill was a terror to the traveller; and more fervent prayers were heard for safety on huge, desolate Salisbury plain than were ever breathed in its fine cathedral" (page 26).

"Notwithstanding the establishment of turnpikes on roads in 1763," goes on the chronicler, "it is certain that by 1770 no great improvement had been effected. Language fails to describe the internal roads in Lancashire in that year . . . Ruts four feet deep, floating with mud, were common even in summer: being primitively mended by rolling in large loose stones, which jolted the carriage or broke the springs. It is noticeable that in 18 miles of execrable memory, a traveller passed three carts broken down through these and similar causes; and this was in that Lancashire which encouraged Watt, which enriched Arkwright, which gave the earliest important rail-road to the world, and

† 9. hours journey by Express train in 1911.

which is ever first and foremost in commercial enterprise (pages 27-28).

With the invention of Macadam in 1825 (page 29), the roads in England acquired that perfect condition in which they are found in that beautiful country in the modern days; but the unprecedented revolution in human affairs which is seen there now is not so much due to the improvements in the ordinary roads as to the introduction of the rail-roads, which the geniuses of England have brought about.

Necessity is the mother of invention. It was the requirements of the mining districts, which prompted the people to invent easy roads for the carriage of their mineral produce. Improvements were made gradually step by step. The heavy roads were made easy and smooth for carts by laying rails of timber, *i.e.*, by providing wooden tracks or tram-roads⁽¹⁾ between the years 1602 and 1676. The wooden tracks were replaced by iron-rails, first for the same cart traffic hauled by horses. Later on the steam engine was invented during the latter half of the eighteenth century. About the same time canals were provided for the carriage of goods by water. Among these canals, is the Manchester—Liverpool canal, the power for the construction of which was applied for by the Duke of Bridgewater in 1758 (page 34). About the year 1676 the Marquis of Worcester observed the expansive power of moisture rarified by heat; after many experiments he succeeded in constructing a rude steam engine, which he called a fire-water-work, and which he pronounced to be an admirable and most forcible instrument of propulsion. But the Marquis was suspected to be a madman and known to be a Papist; his invention therefore found no favourable reception (page 43).

(1) The timber wheel tracks obtained the name of trams or tramroads—supposed to have been a popular abbreviation of the name of a Mr. Outram who either originated or at an early date was extensively connected with their employment. Page 222 of "Ways and Works in India by C. W. MacGeorge 1894.

The revolution of 1688, which developed the resources of the English nation in a remarkable degree, was also indirectly the promoter of the rail-road. It gave an impulse to commerce and a security to property. The demand for the produce of the coal mines rendered quick transit important. By 1750 A.D., there was scarcely an important mine which had not its accompanying rail-road. It was tolerably certain that upto 1738 there was no other improvement in the tramroad than in the form or the quality of the wood. The iron way was not even thought of at the time (pages 44-45).

The precise origin of rail-roads is unknown, but the earliest approximation to the modern railway was the wooden tramroad. The first change was from the heavy road to the smooth tram, seeing that the rut of the common way rendered the work of the cattle easier, the people applied that principle to the reduction of labour, and took the initiative in the modern system of rail-roads. Acting on this inspiration, logs of wood, placed in a parallel line, bore the mineral product of the mine to its place of deposit. The idea, though simple was effective, as the horse which previous to this rude tramroad, could only draw 17 Cwts., was enabled after its formation to draw 42 Cwts., without extra fatigue. This change occurred between 1602 and 1649 or 1676. The manner of the carriage was by laying rails of timber, exactly straight and parallel, and bulky carts were made with four rowlets fitting these rails, whereby the carriage was so easy that one horse drew down 4 or 5 Chaldron of coals (pages 41-43).

In 1738 cast iron rails were first substituted for wooden ones, but owing to the old wagons continuing to be employed, which were too heavy for the cast iron, they did not completely succeed on the first attempt. However, about 1768, a simple contrivance was attempted, which was to make a number of smaller wagons and link them together, and, by thus diffusing the weight of one large wagon into many, the principal cause of the failure was removed, because the weight was more divided upon the iron (page 45).

The following description which evidently proves that wood was still in common use, was given of the wooden tramroad in 1765:— "When the road has been traced at six feet in breadth, and where the declivities are fixed, an excavation is made of the breadth of the said road, more or less deep according as the levelling of the road requires. There are afterwards arranged along the whole breadth of the excavation, pieces of Oakwood of the thickness of 4, 5, 6 and even 8 inches square, these are placed across and at the distance of two or three feet from each other; these pieces need only be squared at their extremities, and upon these are fixed other pieces of wood, well squared and sawed, of about 6 or 7 inches breadth, by 5 inches depth, with pegs of wood; these pieces are placed on each side of the road along its whole length; they are commonly placed at four feet distance from each other, which forms the interior breadth of the road" (page 46).

The first piece of wood, measuring six feet long by 4 to 8 inches square, served the purpose of modern sleeper, while the rails were made of 6 or 7 inches width and 5 inches depth, the interior of the road being 4 feet between the rails.

In 1765 the common rail-road was of wood, but from 1767 the idea of using iron rails was practically entertained. According to Robert Stephenson, cast iron rails were first made in the great iron works at Colebrook Dale in Shropshire and six tons of rails were cast there on the 13th November 1767 as an experiment. A claim to this novelty was made also by Curr, who said that the making and use of iron rail-roads were among his first inventions and were introduced into the Sheffield Colliery about the year 1776 (page 47).

By 1776 the discovery of steam had been variously applied, and reflective men were employed on that power which had been pioneered by Dr. Black's discovery of the power of latent heat, and which Watt rendered applicable by experiments which

attained an unintermitted supply of steam and a continuous rotary motion.

In 1759 he was engaged in forming an engine and in 1769 he expressly mentioned the possibility of applying the steam engine to domestic improvement. By 1787 the discovery had so far proceeded that Mr. Symington, who had claims to the invention of the steam-boat, exhibited the model of a steam carriage in Edinburgh, at the house of Mr. Gilbert Meason. In 1802 Mr. Trevithick took out a patent for an invention and brought into use a machine of this nature on the rail-road of Merthyr Tydvil in South Wales, and the first locomotive in England was then and there employed for a short time (pages 48—49).

The first locomotive therefore was first in use in 1804 on a Welsh Railway, drawing as many carriages as would contain ten tons of bar iron, at the rate of 5 miles an hour. The principle was perfect, the triumph was complete, a locomotive was in absolute work, and yet for years was the fallacy established in men's minds as fixedly as an article of faith that it could not draw heavy loads, that the adhesion of the smooth wheels of the carriage to the smooth rails of the iron must be so slight that though the wheels would move round, the carriage would not move with them. There was no doubt of this imaginary defect in the minds of scientific persons. Men published treatises, formed plans, made new discoveries, argued, wrote, pleaded and finally took out patents to overcome a difficulty which had no existence save in their own minds. Mr. Trevithick endeavoured to provide for it by certain projections in his wheels. Mr. Blenkinsop was granted a patent. One gentleman tried to form machinery which should imitate the action of the hind legs of a horse, while another was nearly successful in producing both the fore and hind legs, when in 1811 the important difficulty was partially overcome; and Mr. Blenkinsop of Middleton Colliery conveyed coals, by the aid of engines with toothed-wheels worked

into a tooth-rack. This plan was very objectionable but as it surmounted the fancied evil, great were the rejoicings. In only two years after, the evil itself was discovered to be a figment of the brain, and the efforts to overcome it a waste of time (pages 50—51).

To Mr. Blackett of Wylam Railway, the credit was due of destroying that theory. Being in possession of one of Trevithick's engines, he acted like a sensible man, formed another of greater power, similar to it, and then tested its capacity. To his delight he found that nature was not at fault but that, by virtue of one of her beautiful and unerring laws, the carriage actually moved rapidly along the road, however great the weight (pages 51—52).

Experiments were made in various places, the nature of the machinery was more perfectly comprehended; its operations were better understood. Constant experience suggested successive experiments, and on the Lillingworth railway, on 25th July 1814, with an engine constructed under the superintendence of George Stephenson, was the triumphant success of the principle proved, by a carriage moving on a slight ascent, drawing after it eight loaded carriages, all weighing 20 tons. The principal improvement made was the introduction of two cylinders instead of one, which acting at different portions of the wheels, produced a more regular motion and abolished a fly-wheel previously used. Lord Ravensworth was called a fool for advancing the money and Mr. Stephenson laughed at as a coxcomb, for attempting that which others in their superior wisdom declared impossible. Mr. Stephenson, however, declared that there was no limit to the speed of such an engine, provided the works could be made to stand. His first engine was named "My Lord" (pages 52-53).

The first railway opened for public traffic is the Liverpool-Manchester line, the first iron road on which the locomotive was used as the moving power for the carriage of passengers. Its

Engineer was Mr. Stephenson, its originator was Mr. Edward Pease (pages 53-54).

The first iron road was established in 1801 from Wandsworth to Croydon with a branch to Carshalton—about 9 miles in length. Upto 1825 there were 29 railways of short lengths with a total mileage of about 400 miles (pages 56-64).

In addition to the social advantages which accrued from increased communication, there were the development of commerce and the increased importance of the various places through which it passed. A new trade in lime arose; the price of coal fell from 18s. to 8s. 6d (page 56).

It is evident that the facilities of the tram-road were brought into use from the beginning of the seventeenth century; that the power of steam was known and applied in the eighteenth century and the iron road was commenced from about the middle of the latter century.

Each line diminished labour, increased profits and lowered prices.

Improvements in appliances have been continually made, enterprising men joined their capital together, money of the commercial man and the mind of the inventive genius were employed to produce the desired results. From the year 1830 every year and almost month, witnessed some improvement either in the road, in the carriages, the engines or safety appliances. Nor must it be imagined that a finality in railway improvements has even yet been achieved.

APPENDIX 2.

Direct Financial Results of the transactions connected with the old Guaranteed Railways in India from commencement to the year 1882-83 as per India Office Statement printed at page 706 of the Report of the Select Committee on Indian Railways of 1884, with 4 per cent. per annum simple interest.

Year.	Net Traffic Receipts.	CHARGES.			Net Charge (Cols. 5 minus 2.)	Simple interest at 4% per annum up to 31st March 1917 on column 6.	Number of years up to 31st March 1917.
		Interest on Capital, Surplus profits, Supervision, and cost of land.	Loss by Exchange on Capital transactions.	Total.			
1	2	3	4	5	6	7	8
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
1848-49	...	...	—1,22,485	—1,22,485	—1,22,485	—3,33,159	68
1849-50	...	92,437	—1,66,122	—73,685	—73,685	—1,97,476	67
1850-51	...	2,35,457	4,496	2,39,953	2,39,953	6,33,476	66
1851-52	...	5,37,725	1,33,305	6,71,030	6,71,030	17,44,678	65
1852-53	...	6,88,927	2,00,131	8,89,058	8,89,058	22,75,988	64
1853-54	77,695	8,69,858	3,78,785	12,48,643	1,17,09,48	2,950,789	63
1854-55	1,54,342	15,68,625	—3,34,722	12,33,903	1,07,95,61	26,77,311	62
1855-56	6,52,658	36,62,464	12,47,768	49,10,232	4,25,75,74	1,03,88,480	61
1856-57	12,68,520	60,43,560	16,25,140	76,68,700	6,40,01,80	1,53,60,432	60
1857-58	16,39,658	72,43,770	22,89,948	95,33,718	7,89,40,60	1,86,29,982	59
					2,24,06,154		
1858-59	21,31,200	92,72,446	31,95,343	1,24,67,789	1,03,36,589	2,39,80,886	58
1859-60	43,96,985	1,53,23,376	42,21,645	1,95,45,021	1,51,48,036	3,45,37,522	57

1860-61	...	42,48,142	1,58,94,408	46,86,874	2,05,81,282	1,63,33,140	3,65,86,234	56
1861-62	...	42,67,222	1,91,51,299	41,67,274	2,33,18,573	1,90,51,351	4,19,12,972	55
1862-63	...	68,24,890	2,30,77,127	34,60,064	2,65,37,191	1,97,12,301	4,25,78,570	54
1863-64	...	89,62,340	2,68,55,799	27,74,279	2,96,30,078	2,06,67,738	4,38,15,605	53
1864-65	...	1,23,25,650	3,07,35,622	23,65,041	3,31,00,663	2,07,75,013	4,32,12,027	52
1865-66	...	3,12,65,630	3,14,48,577	29,78,677	3,44,27,254	31,61,624	644,9,713	51
1866-67	...	2,46,92,340	3,50,26,979	18,14,595	3,68,41,574	1,21,49,234	2,42,98,468	50
1867-68	...	2,25,04,540	3,82,29,623	9,68,084	3,91,97,707	1,66,93,167	3,27,28,607	49
1868-69	...	2,44,00,600	4,28,79,997	5,75,790	4,34,55,787	1,90,55,187	3,65,85,959	48
1869-70	...	2,93,70,400	4,42,38,214	13,18,013	4,55,56,227	1,61,85,827	3,04,29,603	47
1870-71	...	2,86,28,620	4,77,64,577	-6,34,674	4,71,29,903	1,85,01,283	3,40,42,361	46
1871-72	...	3,18,80,890	4,78,31,940	1,85,181	4,80,17,121	1,61,36,231	2,90,45,216	45
1872-73	...	2,86,03,770	5,09,88,120	-1,92,850	5,07,95,270	2,21,91,500	3,90,57,040	44
1873-74	...	3,61,31,140	5,18,69,740	-3,91,954	5,14,77,786	1,53,46,646	2,63,96,231	43
1874-75	...	4,13,15,640	5,48,18,850	-1,26,096	5,46,92,754	1,33,77,114	2,24,73,552	42
1875-76	...	4,25,93,200	5,43,54,760	9,73,164	5,53,27,924	1,27,34,724	2,08,84,947	41
1876-77	...	5,08,76,410	5,77,33,160	19,45,360	5,96,78,520	88,02,110	1,40,83,376	40
1877-78	...	6,59,34,590	6,18,07,210	-23,118	6,17,84,092	-41,50,498	-64,74,777	39
1878-79	...	5,20,13,060	6,60,96,890	12,63,839	6,73,60,729	1,53,47,669	2,33,28,457	38
1879-80	...	4,62,25,840	6,37,68,900	-11,14,474	6,26,54,426	1,64,28,586	2,01,74,297	37
1880-81	...	2,91,33,130	4,33,48,210	-1,28,469	4,32,19,741	1,40,86,611	2,02,84,720	36
1881-82	...	3,61,56,250	4,35,12,610	8,53,420	4,43,66,030	82,09,780	1,14,93,692	35
1882-83	...	3,58,20,460	4,63,39,340	-7,76,356	4,55,62,984	97,42,524	1,32,49,832	34
Total	...	70,44,95,812	1,04,33,10,597	3,96,14,896	1,08,29,25,493	37,84,29,681	71,92,85,611	...

NOTE.—1877-78 was the only year in which the Guaranteed Railway showed a profit, while in all the other years of their working, they incurred losses. In 1877-78 the extraordinary result was due to the large income made from the famine traffic and from traffic to and from the Delhi Durbar of 1877.

APPENDIX 3.

AIX

True Financial Results to the Revenues of India of the guarantee of interest upon the Capital of Guaranteed Railway Companies as per Table of Commercial and Financial Statistics appended to the annual Financial Statements of the Government of India, with 4 per cent. per annum simple interest.

Year.	Open Mileage at end of official year.	Gross Traffic Receipts.	EXPENDITURE.							Net loss to the State (columns 3 minus 10)	Simple interest at 4 per cent., per annum up to 31st March 1917 on net loss.	Number of years up to 31st March 1917.	Percentage of working expenses on gross traffic receipts.
			Working Expenses.	Guaranteed interest.	Companies' share of surplus profits.	Land and Supervision.	Interest on Revenue Balances.	Loss by Exchange.	Total (columns 4 to 9.)				
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Miles.	In Thousands of Rupees.											
1883-84	4,636	7,83,60	4,14,79	4,04,72	56,99	6,73	19	8,67	8,92,10	1,08,49	1,43,28	33	52.86
1884-85	4,528	7,60,67	4,12,84	4,02,87	43,15	6,15	19	—	10,8,65,08	1,04,41	1,33,65	32	54.27
1885-86	3,921	7,80,95	4,08,45	4,23,17	39,71	6,96	14	4,80	8,84,23	1,03,27	1,28,06	31	52.30
1886-87	3,896	7,28,05	3,63,34	3,72,19	53,46	6,62	18	11,53	8,07,33	79,28	95,13	30	49.91
1887-88	3,912	7,24,15	3,60,48	3,85,29	66,26	5,14	23	7,87	8,25,27	1,01,13	1,17,31	29	49.78
1888-89	3,241	7,40,34	3,75,26	3,95,91	50,72	4,43	33	8,69	8,41,65	1,01,30	1,13,46	28	50.68
1889-90	3,243	6,53,46	3,36,59	3,39,53	44,19	3,10	...	14,27	7,37,68	84,23	90,96	27	51.50
1890-91	2,588	6,75,30	3,25,17	3,13,09	47,33	4,30	...	8,75	6,98,65	23,35	24,29	26	48.15
1891-92	2,588	6,84,64	3,35,33	3,06,94	73,77	1,93	...	13,20	7,31,16	46,52	46,52	25	48.98
1892-93	2,587	6,30,19	3,05,75	3,43,86	58,19	2,94	...	14,54	7,25,29	95,10	91,29	24	48.52
1893-94	2,587	6,46,10	3,07,72	3,55,75	57,13	3,40	...	13,35	7,37,35	91,25	83,95	23	47.63

1894-95	2,587	6,12,42	3,07,39	3,95,38	60,07	3,15	...	7,43	7,73,41	1,60,99	1,41,67	22	50-19
1895-96	2,587	6,25,51	2,97,99	3,80,67	50,15	2,88	...	8,73	7,20,68	1,14,90	96,52	21	47-64
1896-97	2,588	5,68,52	3,05,10	3,59,72	44,73	2,81	...	8,31	6,82,70	1,52,16	1,21,83	20	53-67
1897-98	2,588	5,41,46	3,21,32	3,37,71	11,03	1,59	...	11,05	7,13,02	1,41,24	1,07,34	19	59-34
1898-99	2,588	6,38,10	3,29,83	3,25,20	36,18	3,64	...	18,17	7,38,30	74,92	5,39,4	18	51-69
1899-00	2,612	6,26,02	3,39,93	3,25,85	42,04	9,47	...	21,02	4,45,76	1,12,30	76,36	17	54-30
1900-01	1,305	3,78,26	1,80,73	2,38,41	25,82	-16	...	97	2,99,43	67,50	43,20	16	47-78
1901-02	1,334	2,65,90	1,28,65	1,51,43	23,16	-1,01	...	-2,80	3,10,75	33,54	20,12	15	48-38
1902-03	1,349	2,82,67	1,40,74	1,54,03	13,34	-95,96	...	3,60	3,36,49	28,09	15,73	14	49-79
1903-04	1,408	2,99,01	1,57,79	1,54,92	15,28	3	...	8,47	3,43,94	37,47	19,49	13	52-77
1904-05	1,408	3,23,13	1,61,91	1,57,10	19,08	1,13	...	4,72	3,25,62	20,81	9,99	12	50-11
1905-06	904	2,81,37	1,43,08	1,57,94	17,73	1,20	...	5,66	1,92,81	44,25	19,47	11	50-85
1906-07	904	1,52,03	92,21	87,71	9,05	-2,80	...	6,63	1,92,81	40,77	16,30	10	60-65
1907-08	905	1,17,53	83,24	86,49	1,29	47	...	59	1,72,08	54,55	19,64	9	70-82
1908-09	...	4	18	...	1,83	86	...	4	2,14	2,10	67	8	...
1909-10	...	...	...	...	-97	...	...	...	-97	-97	-17	7	...
to 1913-14	...	...	...	...	...	...	...	...	...	...	...	...	...
Total 1883-84 to 1913-14.	...	1,35,19,43	69,85,81	73,55,89	9,67,03	74,23	1,25	2,08,16	1,55,42,38	20,22,95	18,29,94		
Total from 1848-49 to 1882-83.	...	70,44,96*	*		1,04,33,11		...	3,96,15	1,08,29,25	3,78,4,29	71,92,85		
Grand Total for entire period.	...	2,05,64,39	...	...	...	...	...	...	2,63,71,63	58,07,24	90,22,79		

* The figure given in column 8 represents net traffic receipts after deduction of the working expenses from the gross traffic receipts.

(a) The Bellary Branch of the Madras Railway 33 miles, transferred to the S. M. Railway.

(b) The S. P. & D. Railway 691 miles, purchased by the State on 1st January 1886.

APPENDIX 3A.

Total loss borne by the Revenue of India on account of the old Guaranteed Railway Companies with 4 per cent. per annum Compound interest.

XXVI

INDIAN RAILWAYS.

Year.	Net loss during each year as per Statements Nos. 2 & 3.	Interest at 4 per cent, per annum on the total loss at end of previous year.	Total loss including interest at end of each year.	
1	2	3	4	
	Rs.	Rs.	Rs.	
1848-49	—1,22,485	.....	—1,22,485	
1849-50	—73,685	—4,899	—2,01,069	
1850-51	2,39,953	—8,043	30,841	
1851-52	6,71,030	1,234	7,03,105	
1852-53	8,89,058	28,124	16,20,287	
1853-54	11,70,948	64,811	28,56,046	
1854-55	10,79,561	1,14,242	40,49,849	
1855-56	42,57,574	1,61,994	84,69,417	
1856-57	64,00,180	3,38,777	1,52,08,374	
1857-58	78,94,060	6,08,335	2,37,10,769	
1858-59	1,03,36,589	9,48,431	3,49,95,789	
1859-60	1,51,48,036	13,99,832	5,15,43,657	
1860-61	1,63,33,140	20,61,746	6,99,38,543	
	6,42,23,959	57,14,584	6,99,38,343	
1861-62	1,90,51,351	27,97,542	9,17,87,436	
1862-63	1,97,12,301	36,71,497	11,51,71,234	
1863-64	2,06,67,738	46,06,849	14,04,45,821	

1864-65	...	...	2,07,75,013	56,17,833	16,68,38,667
1865-66	...	...	31,61,624	66,73,547	17,66,73,838
1866-67	...	...	1,21,49,234	70,66,954	19,58,90,026
1867-68	...	...	1,66,93,616	78,35,601	22,04,18,794
			17,64,34,387	4,39,84,407	22,04,18,794
1868-69	...	...	1,90,55,187	88,16,752	24,82,90,733
1869-70	...	...	1,61,85,827	99,31,629	27,44,08,189
1870-71	...	...	1,85,01,283	1,09,76,327	30,38,85,799
			23,01,76,684	7,37,09,115	30,38,85,799
1871-72	...	...	1,61,36,231	1,21,55,432	33,21,77,462
1872-73	...	...	2,21,91,500	1,32,87,098	36,76,56,060
1873-74	...	...	1,53,46,646	1,47,06,242	39,77,08,948
1874-75	...	...	1,33,77,114	1,59,08,358	42,69,94,420
1875-76	...	...	1,27,34,724	1,70,79,776	45,68,08,920
1876-77	...	...	88,02,110	1,82,72,356	48,38,83,386
1877-78	...	...	—41,50,498	1,93,55,335	49,90,88,223
1878-79	...	...	1,53,47,669	1,99,63,528	53,43,99,420
1879-80	...	...	1,64,28,586	2,13,75,976	57,22,03,982
1880-81	...	...	1,40,86,611	2,28,88,159	60,91,78,752
			86,04,77,377	24,87,01,375	60,91,78,752
1881-82	...	...	82,09,780	2,43,67,150	64,17,55,682
1882-83	...	...	97,42,524	2,56,70,227	67,71,68,433
1883-84	...	...	1,08,49,220	2,70,86,737	71,51,04,390
1884-85	...	...	1,04,41,350	2,86,04,176	75,41,49,916
1885-86	...	...	1,03,27,390	3,01,65,997	79,46,43,303
Carried over	...	...	41,00,47,641	38,45,95,662	79,46,43,303

APPENDIX 3A.—(Continued.)

Total loss borne by the Revenue of India on account of the old Guaranteed Railway Companies
with 4 per cent. per annum Compound interest.

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INDIAN RAILWAYS.

Year.	Net loss during each year as per Statement No. 3.	Interest at 4 per cent. per annum on the total loss at end of previous year.	Total loss including interest at end of each year.	
1.	2	3	4	
	Rs.	Rs.	Rs.	
Brought forward ...	41,00,47,641	38,45,95,662	79,46,43,303	
1886-87 ...	79,27,520	3,17,85,732	83,43,56,555	
1887-88 ...	1,01,12,830	3,33,74,262	87,78,43,647	
1888-89 ...	1,01,30,360	3,51,13,746	92,30,87,753	
1889-90 ...	84,22,630	3,69,23,510	96,84,33,893	
1890-91 ...	23,35,260	3,87,37,359	1,00,95,06,512	
	44,89,76,241	56,05,30,271	1,00,95,06,512	
1891-92 ...	46,51,880	4,03,80,260	1,05,45,38,652	
1892-93 ...	95,09,520	4,21,81,546	1,10,62,29,718	
1893-94 ...	91,24,870	4,42,49,179	1,15,96,03,767	
1894-95 ...	1,60,99,407	4,63,84,151	1,22,20,87,325	
1895-96 ...	1,14,90,185	4,88,83,493	1,28,24,61,003	
1896-97 ...	1,52,16,002	5,12,98,440	1,34,89,75,445	
1897-98 ...	1,41,23,676	5,39,59,018	1,41,70,58,139	
1898-99 ...	74,92,306	5,66,82,326	1,48,12,32,771	

1899-1900 ...	1,12,29,754	5,92,49,311	1,55,17,11,836
1900-01 ...	67,50,285	6,20,68,473	1,62,05,30,594
	55,46,64,126	1,06,58,66,468	1,62,05,30,594
1901-02 ...	33,53,635	6,48,21,224	1,68,87,05,459
1902-03 ...	28,08,815	6,75,48,218	1,75,90,62,486
1903-04 ...	37,47,247	7,03,62,499	1,83,31,72,232
1904-05 ...	20,80,823	7,33,26,889	1,90,85,79,944
1905-06 ...	44,24,354	7,63,43,198	1,98,93,47,496
1906-07 ...	40,77,335	7,95,73,900	2,07,29,98,731
1907-08 ...	54,54,854	8,29,19,949	2,16,19,73,534
1908-09 ...	2,10,025	8,64,54,941	2,24,80,38,500
1909-10 ...	—26,456	8,99,21,540	2,33,79,33,584
1910-11 ...	—10,642	9,35,17,343	2,43,14,40,285
	58,07,84,116	1,85,06,56,169	2,43,14,40,285
1911-12 ...	.....	9,72,57,611	2,52,86,97,896
1912-13 ...	.....	10,11,47,916	2,62,98,45,812
1913-14 ...	—59,707	10,51,93,832	2,73,49,79,937
1914-15 ...	.....	10,93,99,197	2,84,43,79,134
1915-16 ...	.....	11,37,75,165	2,95,81,54,299
1916-17 ...	.....	11,83,26,172	3,07,64,80,471
1917-18 ...	.....	12,30,59,219	3,19,95,39,690
	58,07,24,409	2,61,88,15,281	3,19,95,39,690
1918-19 ...	.....	12,79,81,587	3,32,75,21,277
1919-20 ...	.....	13,31,00,851	3,46,06,22,128
Total ...	58,07,24,409	2,87,98,97,719	3,46,06,22,128

APPENDIX 4.—Purchase of old Guaranteed Railways by Government. See Section 6 of Chapter III.

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APPENDIX 4

Name of Company.	Length of line in miles.	Date of purchase.	Capital subscribed by Company.		Rate p.c. on share capital.	Purchase Price for share Capital.	
			Share.	Debenture.		Total Price.	How discharged.
	Miles.		Pounds.	Pounds.		Pounds.	Pounds.
East Indian ...	1,504	31-12-79	26,200,000	4,450,000	125	32,750,000	By India Stock 7,282,366
Eastern Bengal ...	160	1-7-84	2,255,480	1,023,658	150-38½	3,391,917	" Annuity 25,467,634
S. P. & D. ...	737	1-1-86	11,075,320	.....	126-49	14,009,124	" India Stock 542,070
Oudh & Rohilkhand	548	1-1-89	4,000,000	5,300,000	125-9012	5,036,049	" Annuity 2,849,847
South Indian ...	655	1-1-91	3,208,280	1,495,000	131-0116	4,197,557	" India Stock 4,911,216
					for 5% shares		" Annuity 9,097,908(a)
					124-558½ for		" 3% India Stock.
					4½ % shares.		" India Stock 3,197,557
G. I. P. ...	1,288	1-7-1900	20,000,000	5,922,350	174-296	34,859,218	" Capital deposited by new Company 1,000,000
							By Annuity 33,109,218(b)
							" New Company Stock 1,750,000
							in exchange for part of annuity of £67,047,17s. 9d.
B. B. & C. I. ...	461	31-12-05	8,745,056	2,391,300	133-625	11,635,581	By India Stock 9,685,581
							" New Company Stock 2,000,000
Madras ...	905	1-1-08	10,257,630	2,144,600	124-977	12,819,558	By Annuity 11,319,558
							" New Company Stock 1,500,000
Total ...	6,258	...	85,741,766	22,726,908	138-49	118,749,004	

(a) Annuity of £4-1-7 6398 per cent.

(b) Annuity of £368,516 payable up to 17th August 1948.

APPENDIX 5.

**Charges borne by General Revenues of India on account
of the Subsidized Railway Companies, *vide* Heads
H-40 and H-XXVIII, in the abstracts of Expen-
diture and Revenue of the Government
of India.**

APPENDIX

*Charges borne by General Revenues of India on account of the
in the abstracts of Expenditure and*

Year.	Cost of land, advances of interest, etc., as per Head H 40.			Repayment of advances, profits, etc.,	
	Imperial.	Provincial.	Total.	India.	Eng- Pounds.
	Rs.	Rs.	Rs.	Rs.	Pounds.
1881-82	1,56,506	...	1,56,506	...	...
1882-83	3,82,689	...	3,82,689	...	...
1883-84	8,55,000	...	8,55,000	...	...
1884-85	8,42,000	...	8,42,000	...	...
1885-86	2,72,760	1,68,490	4,41,250	1,190	...
1886-87	c. 3,06,800	1,45,630	4,52,430	16,160	...
1887-88	2,90,110	1,46,160	4,36,270	2,47,640	...
1888-89	1,36,320	1,44,890	2,80,710	4,27,680	...
1889-90	5,45,570	1,45,730	6,91,300	4,90,120	63
	37,87,755	7,50,400	45,38,155	11,82,790	63
1890-91	2,16,620	1,46,260	3,62,880	3,05,050	735
1891-92	1,89,240	1,42,060	3,31,300	3,15,670	£995
					R. 432
1892-93	1,23,830	1,66,430	2,90,260	1,78,830	...
1893-94	67,660	1,42,340	2,10,000	3,40,540	...
1894-95	26,050	1,40,890	1,66,940	4,16,940	...
1895-96	81,340	1,01,170	1,82,510	2,52,520	...
1896-97	7,49,570	1,00,630	8,50,200	2,40,520	...
1897-98	10,35,770	1,01,830	11,37,600	1,29,900	1,266
1898-99	9,42,140	1,01,910	10,44,050	4,87,150	296
1899-1900	5,31,339	40,094	5,71,433	3,95,755	1,023d
	77,51,314	19,34,014	96,85,328	41,95,665	4,810
1900-01	2,59,359	1,854	2,61,213	3,20,134	1,591
1901-02	1,99,562	2,049	2,01,611	4,85,876	1,361
1902-03	6,31,098	2,096	6,33,194	4,82,880	17,870
1903-04	4,49,953	7,537	4,57,490	4,88,845	7,222
1904-05	7,49,583	3,965	8,53,548	5,66,840	9,525
1905-06	4,59,489	99,495	5,58,984	3,71,618	17,853
1906-07	4,31,378	86,009	5,17,387	3,88,746	30,272
1907-08	2,03,408	17,323	2,20,731	2,08,839	38,683
Carried over	1,11,35,144	21,54,342	1,32,89,486	75,09,443	129,187

3.

*Subsidized Railway Companies, vide Heads H-40 and H-XXVIII,
Revenue of the Government of India.*

Interest, Surplus Head H-XXVIII.		Net charge.	Interest at 4 % per annum on balance outstanding.	Balance out- standing at end of each year.
land.	Total.			
Equi- valent in Rs				
R.s.	R.s.	R.s.	R.s.	R.s.
...	...	a. { 1,56,506	...	1,56,506
...	...	3,82,689	6,260	5,45,455
...	...	8,55,000	21,818	14,22,273
...	...	b. { 8,42,000	56,891	23,21,164
...	1,190	4,40,060	92,847	28,54,071
...	16,160	4,36,270	1,14,163	34,04,504
...	2,47,640	1,88,630	1,36,180	37,29,314
...	4,27,680	-1,46,970	1,49,173	37,31,517
...	4,91,030	2,00,270	1,49,261	40,81,048
910				
910	11,83,700	33,54,455	7,26,593	40,81,048
9,750	3,14,800	48,080	1,63,242	42,92,370
}	14,270	3,29,940	1,360	44,65,425
...	1,78,830	1,11,430	1,78,617	47,55,472
...	3,40,540	-1,30,540	1,90,219	48,15,151
...	4,16,940	-2,50,000	1,92,606	47,57,757
...	2,52,520	-70,010	1,90,310	48,78,057
...	2,40,520	6,09,680	1,95,123	56,82,860
19,790	1,49,690	9,87,910	2,27,315	68,98,085
4,450	4,41,600	6,02,450	2,75,924	77,76,459
15,345	4,11,100	1,60,333	3,11,059	82,47,851
64,515	42,60,180	54,25,148	28,22,703	82,47,821
23,865	3,43,999	-82,786	3,29,914	84,94,979
20,415	5,06,291	-3,04,680	3,39,799	85,30,098
2,68,050	7,50,930	-1,17,736	3,41,204	87,53,566
1,08,330	5,97,175	-1,39,685	3,50,143	89,64,024
1,42,875	7,09,715	43,833	3,58,561	93,66,418
2,67,795	6,39,413	-80,429	3,74,657	96,60,646
4,54,080	8,42,826	-3,25,439	3,86,426	97,21,683
5,80,245	7,89,084	-5,68,353	3,88,865	95,42,145
19,30,170	94,39,613	38,49,873	56,92,272	95,42,145

APPENDIX

*Charges borne by general revenues of India on account of the
in the abstracts of Expenditure and*

Year.	Cost of land, advances of interest, etc., as per Head H.-40.			Repayment of advances, profits etc.	
	Imperial.	Provincial.	Total.	India.	Eng- Pounds.
	Rs.	Rs.	Rs.	Rs.	Pounds.
Brought forward...	1,11,35,144	21,54,342	1,32,89,486	75,09,443	129,187
1908-09	10,19,065	43,916	10,62,981	2,39,585	56,231
1909-10	5,87,818	18,359	6,06,177	2,20,641	43,587
	1,27,42,027	22,16,617	1,49,58,644	79,69,669	229,005
1910-11	3,79,498	44,616	4,24,114	2,03,920	25,751
1911-12	8,96,204	13,190	9,09,394	1,92,296	44,825
1912-13	4,91,071	14,031	5,05,102	2,35,088	57,501
1913-14	7,88,791	38,396	8,27,187	2,44,967	76,770
1914-15	14,69,850	...	14,69,850	3,50,940	47,295
1915-16	24,30,669	9,965	24,40,634	2,98,385	71,522
1916-17	24,23,158	13,603	24,36,761	4,37,631	69,560
1917-18	9,50,814	10,107	9,60,921	3,52,757	70,479
	2,25,72,082	23,60,525	2,49,32,607	1,02,85,653	692,698
1918-19	3,01,684	10,112	3,11,796	1,78,845	94,344
1919-20	3,61,973	10,112	3,72,085	1,93,470	218,088
Total ...	2,32,35,739	23,80,749	2,56,16,488	1,06,57,968	1,005,130

- a. Taken from page 706 of Report of Select Committee of 1884.
- b. See Section H, para. 120 of Appropriation Report on the Accounts of India for 1885-86.
- c. The figures for columns 2 to 8 have been extracted from the Annual Accounts of the Government of India. Column 9 represents the difference between columns 4 and 8. The figures in columns 10 and 11 have been worked out by the compiler.
- d. From 1899-1900 pounds were converted at Rs. 15 each.

5—(Continued.)

*Subsidized Railway Companies, vide Heads H-40 and H-XXVIII
Revenue of Government of India.*

ces of interest, Surplus Head H. XXVIII.		Net charge.	Interest at 4 per cent. per annum on balance outstanding.	Balance out- standing at end of each year.
land.	Total.			
Equi- valent in Rs				
Rs.	Rs.	Rs.	Rs.	Rs.
19,30,170	94,39,613	38,49,873	56,92,272	95,42,145
8,43,465	10,83,050	—20,069	3,81,686	99,03,762
6,53,805	8,74,446	—2,68,269	3,96,150	1,00,31,643
34,27,440	1,13,97,109	35,61,535	64,70,108	1,00,31,643
3,86,265	5,90,185	—1,66,071	4,01,266	1,02,66,838
6,72,375	8,64,671	44,723	4,10,674	1,07,22,235
8,62,515	10,97,603	—5,92,501	4,28,890	1,05,58,624
11,51,550	13,96,517	—5,69,330	4,22,345	1,04,11,639
7,09,425	10,60,365	4,09,485	4,16,466	1,12,37,590
10,72,830	13,71,215	10,69,419	4,49,504	1,27,56,513
10,43,400	14,81,031	9,55,730	5,10,261	1,42,22,504
10,57,035	14,09,792	—4,48,871	3,80,380	1,41,54,013
1,03,82,835	2,06,68,488	42,64,119	98,89,894	1,41,54,013
14,15,160	15,94,005	—12,82,209	5,66,160	1,34,37,964
32,71,320	34,64,790	—30,92,705	5,37,518	1,08,82,777
1,50,69,315	2,57,27,283	—1,10,795	1,09,93,572	1,08,82,777

APPENDIX 6.

Miscellaneous Railway Expenditure, Head H-41 in the Abstract of Expenditure of the Government of India.

Year.	Imperial.	Provincial.	Local.	Total.
	Rs.	Rs.	Rs.	Rs.
1883-84	26,75,370	(¹)—47,33,670	...	(²)—20,58,300
1884-85	37,77,110	10,74,330	...	(²) 48,51,440
1885-86	9,12,350	80,390	...	9,92,740
1886-87	8,12,700	1,31,290	...	9,43,990
1887-88	4,25,980	92,490	...	5,18,470
1888-89	5,43,980	1,62,360	...	7,06,340
1889-90	12,92,310	1,98,930	...	14,91,240
1890-91	11,90,800	3,01,170	...	14,91,970
	1,16,30,600	—26,92,710	...	89,37,890
1891-92	8,02,230	1,18,370	...	9,20,600
1892-93	1,08,600	.....	...	—1,08,600
1893-94	10,22,530	11,860	...	10,34,390
1894-95	10,11,040	—7,440	...	10,03,600
1895-96	7,16,230	260	...	7,16,490
1896-97	6,36,900	2,110	...	6,39,010
1897-98	1,54,750	7,540	...	1,62,290
1898-99	5,48,420	—5,050	...	5,43,370
1899-1900	6,34,671	4,571	...	6,39,242
1900-01	7,04,061	17,700	...	7,21,761
	1,77,52,832	—25,42,789	...	1,52,10,043
1901-02	10,72,997	1,12,773	...	11,85,770
1902-03	7,89,597	85,447	8,803	8,83,847
1903-04	7,21,235	85,285	9,096	8,15,616
1904-05	6,38,164	77,502	8,103	7,23,769
1905-06	4,89,263	19,639	23,819	5,32,721
1906-07	5,84,037	8,613	20,379	6,13,029
Carried over	2,20,48,125	—21,53,530	70,200	1,99,64,795

APPENDIX 6—(Continued.).

Miscellaneous Railway Expenditure, Head H-41 in the Abstract of Expenditure of the Government of India.

Year.	Imperial.	Provincial.	Local.	Total.
	Rs.	Rs.	Rs.	Rs.
Brought forward	2,20,48,125	—21,53,530	70,200	1,96,64,795
1907-08	12,10,766	16,197	105	12,27,068
1908-09	2,93,969	82,777	...	3,76,746
1909-10	5,40,198	20,601	...	5,60,799
1910-11	4,78,990	8,184	...	4,87,174
	2,45,72,048	—20,25,771	70,305	2,26,16,582
1911-12	2,62,400	10,100	...	2,72,560
1912-13	9,86,632	3,999	...	9,90,631
1913-14	—6,87,945	—465	...	—6,88,410
1914-15	13,08,375	.....	...	13,08,375
1915-16	2,55,889	14,424	...	2,70,313
1916-17	43,657	14	...	43,671
1917-18	7,95,692	297	...	7,95,989
	2,75,36,748	—19,97,342	70,305	2,56,09,711
1918-19	44,24,379	571	...	44,24,950
1919-20	80,64,357	1,059	...	80,65,416
	4,00,25,484	—19,95,712	70,305	3,81,00,077

(1) Writes-back of expenditure incurred up to 1882-83 upon four Provincial Railways which were subsequently classed as Productive.

(2) State Ry. —39,43,270
S. M. Ry. 8,55,680
Frontier Railways 10,29,290
Total ... —20,58,300

(3) State Rys. 19,50,910
S. M. Ry. 15,13,530
Frontier Railways 13,87,000
Total ... 48,41,440

STATEMENT 7.

Financial result from the working of the British Indian State Railways.

In Thousands of Rupees.

xxviii

INDIAN RAILWAYS.

Year.	Gross Receipts.	Revenue Expenditure.					Net loss — Net gain +
		Working Expenses.	Surplus profits paid to Companies.	Interest on Capital.	Annuities.	Total.	
1	2	3	4	5	6	7	8
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1868-69	.....	4,10	...	...	...	4,10	—4,10
1869-70	81	3,88	...	...	...	3,88	—3,07
1870-71	76	5,22	...	...	...	5,22	—4,46
	1,57	13,20	...	...	...	13,20	—11,63
1871-72	38	6,85	...	...	...	6,85	—6,47
1872-73	1,65	11,30	...	...	...	11,30	—9,65
1873-74	3,99	22,35	...	...	...	22,35	—18,36
1874-75	13,10	37,05	...	...	...	37,05	—23,95
1875-76	29,28	60,35	...	...	...	60,35	—31,07
1876-77	38,07	81,67	...	...	...	81,67	—43,60

1877-78	58,21	1,09,18	...	...	...	1,09,18	-50,97
1878-79	97,68	1,65,39	...	...	...	1,65,39	-67,71
1879-80	2,72,64	2,49,25	...	* 4,13	...	2,53,38	+19,26
1880-81	6,52,20	4,47,09	...	* 1,60,71	...	6,07,80	+44,40
	11,67,20	11,90,48	...	* 1,64,84	...	13,55,32	-1,88,12
1881-82	7,26,71	4,57,51	...	* 1,91,98	...	6,49,49	+77,22
1882-83	7,24,77	5,00,18	...	* 1,92,29	...	6,92,47	+32,30
1883-84	8,44,15	3,79,82	20,96	1,83,41	1,20,31	7,04,50	+1,39,65
1884-85	8,41,92	4,10,10	19,13	2,00,50	1,22,06	7,51,79	+90,13
1885-86	9,95,89	4,73,31	16,90	2,92,11	1,74,08	9,56,40	+39,49
1886-87	10,82,90	4,97,40	24,59	3,67,56	2,30,86	11,20,41	-37,51
1887-88	10,87,19	5,32,92	26,50	4,00,83	2,39,08	11,99,33	-1,12,14
1888-89	11,82,71	5,82,26	23,67	4,54,83	2,47,42	13,08,18	-1,25,47
1889-90	13,38,79	6,61,68	24,77	5,06,21	2,44,52	14,37,18	-98,39
1890-91	13,70,32	6,55,16	22,04	5,07,56	2,24,30	14,09,06	-38,74
	1,01,95,35	51,50,34	1,78,56	32,97,28	16,02,63	1,02,28,81	-33,46
1891-92	16,41,20	7,73,26	48,19	5,65,92	2,42,88	16,30,25	+10,95
1892-93	15,81,48	7,56,29	38,20	6,19,37	2,71,74	16,85,60	-1,04,12
1893-94	16,87,91	7,77,91	48,49	6,48,39	2,79,75	17,54,54	-66,63
1894-95	18,15,21	8,33,19	45,91	6,97,93	3,11,93	18,88,96	-73,75
1895-96	18,55,87	8,59,89	44,19	7,01,07	3,00,11	19,05,26	-49,39
Carried over	85,81,67	40,00,54	2,24,98	32,32,68	14,06,41	88,64,61	-2,82,94

* Include Surplus profits and Annuities.

STATEMENT 7.—(Continued.)

*Financial result from the working of the British Indian State Railways.***In Thousands of Rupees.**

Year.	Gross Receipts.	Revenue Expenditure.					Net loss — Net gain +
		Working Expenses.	Surplus profits paid to Companies	Interest on Capital.	Annuities.	Total.	
1	2	3	4	5	6	7	8
Brought forward...	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
	85,81,67	40,00,34	2,24,98	32,32,68	14,06,41	88,64,61	—2,82,94
1896- 97	17,63,96	8,43,66	38,30	7,07,24	2,84,43	18,73,63	—1,09,67
1897- 98	19,04,45	8,71,34	48,78	7,18,23	2,67,67	19,06,02	—1,57
1898- 99	19,61,39	9,45,64	52,89	7,30,98	2,57,45	19,86,96	—25,57
1899-1900	21,97,98	10,09,21	62,96	7,55,95	2,57,79	20,85,91	+1,12,07
1900- 01	25,43,07	12,16,59	53,27	7,96,73	3,53,56	24,20,15	+1,22,92
	1,89,52,52	88,86,98	4,81,18	69,41,81	28,27,31	1,91,37,28	—1,84,76
1901-02	28,91,28	13,76,49	47,36	8,44,87	4,49,67	27,18,39	+1,73,19
1902-03	28,70,64	14,30,04	44,04	8,78,94	4,49,88	28,02,90	+67,74
1903-04	30,86,49	15,07,11	49,61	9,11,92	4,50,69	29,19,33	+1,67,16

1904-05	34,35,06	16,40,84	53,48	9,49,51	4,51,39	30,95,22	+3,39,84
1905-06	35,44,43	16,87,61	62,85	10,00,26	4,52,07	32,02,79	+3,41,64
1906-07	38,73,19	19,31,18	59,45	10,45,14	4,52,75	34,89,15	+3,84,04
1907-08	41,01,51	22,01,05	64,54	10,85,41	4,53,51	38,04,51	+2,97,00
1908-09	40,19,98	24,88,83	48,14	11,49,59	5,14,14	42,00,70	-1,80,72
1909-10	43,38,61	24,32,15	48,37	12,03,22	5,28,44	42,12,18	+1,26,43
1910-11	45,94,46	24,48,55	69,60	12,41,25	5,29,34	42,88,74	+3,05,72
	3,67,55,95	1,91,44,48	5,47,44	1,03,10,11	47,31,88	3,47,33,91	+20,22,04
1911-12	50,36,87	25,89,46	72,30	12,73,51	5,30,25	44,65,52	+5,71,35
1912-13	55,02,96	28,02,31	1,06,45	13,38,99	5,31,32	47,79,07	+7,23,89
1913-14	56,31,92	29,35,91	66,13	13,88,34	5,35,69	49,26,07	+7,05,85
1914-15	54,15,77	29,52,87	1,08,64	14,84,80	5,33,58	50,74,89	+3,40,88
1915-16	57,26,42	29,53,00	90,57	15,23,17	5,34,99	51,01,73	+6,24,69
1916-17	62,94,69	29,96,86	1,15,57	14,83,02	5,52,19	51,47,64	+11,47,05
1917-18	68,92,13	31,35,81	1,49,16	15,62,87	5,53,67	54,01,51	+14,90,62
	4,05,00,76	2,03,66,22	7,03,82	1,00,54,70	37,71,69	3,48,96,43	+56,04,33
1918-19	76,25,70	37,07,67	1,89,64	15,71,68	5,40,07	60,09,06	+16,16,64
1919-20	79,09,94	45,46,75	2,00,92	16,35,90	5,41,99	69,25,56	+9,84,38
	5,60,36,40	2,86,20,64	10,94,38	1,32,62,28	48,53,75	4,78,31,05	+82,05,35
Grand Total	12,31,08,99	6,30,06,12	23,01,56	3,39,76,32	1,40,15,57	11,32,99,57	+98,09,42

APPENDIX

Charges borne by Indian Revenues
In Thousands

Year.	Loss on account of old Guaranteed Railways as per State-ments Nos. 2 and 3.	Charges on account of Subsidized Companies as per State-ment No. 5.	Misc Expenditure on Surveys etc. as per Statement No. 6.	Construction of Pro- tective Railways out of	
				Famine Insurance Fund.	Revenue.
1	2	3	4	5	6
	Rs.	Rs.	Rs.	Rs.	Rs.
1848-49 to } 1860-61 }	6,42,24	...	...	...	...
1861-62 to } 1067-68 }	11,22,10	...	...	...	...
1868-69 ...	1,90,55	...	...	...	...
1869-70 ...	1,61,86	...	...	...	58
1870-71 ...	1,85,01	...	...	...	79
Total decade	16,59,53	...	...	...	1,37
Total to date	23,01,77	...	...	...	1,37
1871-72 ...	1,61,36	...	...	...	28
1872-73 ...	2,21,92	...	...	...	1,08
1873-74 ...	1,53,47	...	...	...	3,28
1874-75 ...	1,33,77	...	...	...	10,52
1875-76 ...	1,27,35	...	...	...	6,63
1876-77 ...	88,02	...	...	...	2,73
1877-78 ...	—41,50	...	...	...	7,14
1878-79 ...	1,53,48	...	...	...	22,08
1879-80 ...	1,64,29	...	...	...	1,80,58
1880-81 ...	1,40,87	...	...	...	1,52,19
Total decade	13,03,01	...	...	...	3,86,51
Total to date	36,04,77	...	...	...	3,87,88
Carried over.					

8.

on account of Railways.
of Rupees.

Loss by Exchange on Capital Expen- diture in England for State Rys.	Add Loss + or deduct gain - from working of State Railways as per Statement No. 7.	Total charges as per columns 2 to 8.	Interest at 4 per cent. per annum on outstanding total at end of previous year.	Total of columns 9 and 10 to end of each year.
7	8	9	10	11
...	...	6,42,24	57,14	6,99,39
...	...	11,22,10	3,82,70	(a) 22,04,19
1,28	+ 4,10	1,95,94	88,17	24,88,29
26	+ 3,07	1,65,76	99,53	27,53,58
33	+ 4,46	1,90,60	1,10,14	30,54,33
1,87	+ 11,64	16,74,40	6,80,54	...
1,87	+ 11,64	23,16,64	7,37,69	30,54,33
39	+ 6,47	1,68,50	1,22,17	33,45,01
1,65	+ 9,64	2,34,29	1,33,80	37,18,10
6,93	+ 18,36	1,82,04	1,48,52	40,43,66
9,44	+ 23,95	1,77,69	1,61,75	43,83,09
8,17	+ 31,07	1,78,21	1,75,32	47,31,63
10,52	+ 43,61	1,44,87	1,89,27	50,65,77
21,23	+ 50,97	37,84	2,02,63	53,06,23
14,71	+ 67,70	2,57,97	2,12,25	57,76,45
11,41	- 19,26	3,37,01	2,31,06	63,44,52
15,28	- 44,40	2,63,93	2,53,78	68,62,23
99,72	+ 1,88,12	19,77,35	18,30,55	...
1,01,59	+ 1,99,76	42,93,99	25,68,24	68,62,23

APPENDIX

Charges borne by Indian Revenues

In Thousands

Year.	Loss on account of old Guaranteed Railways as per Statements Nos. 2 and 3.	Charges on account of, Subsidized Companies as per Statement No. 5.	Miscellaneous Expenditure on Surveys etc. as per Statement No. 6.	Construction of Protective Railways out of	
				Famine Insurance Fund.	Revenue.
1	2	3	4	5	6
1881-82 ...	82,10	1,56	...	61,46	1,06,54
1882-83 ...	97,43	3,83	...	—12,90	58,30
1883-84 ...	1,08,49	8,55	—20,58	62,65	—39,43
1884-85 ...	1,04,41	8,42	48,51	89,81	19,51
1885-86 ...	1,03,27	4,40	9,93	58,90	63,21
1886-87 ...	79,28	4,36	9,44	20,00	18,31
1887-88 ...	1,01,13	1,89	5,18	...	8,09
1888-89 ...	1,01,30	—1,47	7,06	...	2,24
1889-90 ...	84,23	2,00	14,91	...	50
1890-91 ...	23,25	48	14,93	...	48
Total decade	8,84,99	34,03	89,38	2,79,91	2,36,77
Total to date	44,89,76	34,03	89,38	2,79,91	6,24,65
1891-92 ...	46,52	1	9,21	48,48	...
1892-93 ...	95,10	1,11	1,09	98,45	33,95
1893-94 ...	91,25	—1,31	10,34	1,06,10	7,39
1894-95 ...	1,60,99	—2,50	10,04	...	1,96
1895-96 ...	1,14,90	—70	7,16	52,99	77
1896-97 ...	1,52,16	6,10	6,39	...	1,27
1897-98 ...	1,41,24	9,88	1,62	...	38
1898-99 ...	74,92	6,02	5,43	69,03	15

8.—(Continued.)

on account of Railways.
of Rupees.

Loss by Exchange on capital Expen- diture in England for State Railways.	Add Loss + or deduct gain - from working of State Railways as per Statement No. 7.	Total charges as per columns 2 to 8.	Interest at 4 per cent. per annum on outstanding total at end of previous year.	Total of columns 9 and 10 to end of each year.
7	8	9	10	11
14,14	—77,22	1,88,59	2,74,49	73,25,31
—15,43	—32,30	98,91	2,93,01	77,17,23
... (d)	—1,39,65	—19,98	3,08,69	80,05,94
...	—90,13	1,80,54	3,20,24	85,06,72
...	—39,49	2,00,22	3,40,27	90,47,21
...	+ 37,51	1,68,89	3,61,89	95,77,99
...	+ 1,12,14	2,28,43	3,83,12	1,00,29,54
...	+ 1,25,47	2,34,61	4,07,48	1,08,31,63
...	+ 98,39	2,00,03	4,33,26	1,14,64,93
...	+ 38,74	77,01	4,58,60	1,20,00,53
—1,29	+ 33,46	15,57,25	35,81,05	...
1,00,30	+ 2,33,22	58,51,24	61,49,29	1,20,00,53
...	—10,95	93,27	4,80,02	1,25,73,82
...	+ 1,04,12	3,31,64	5,02,95	1,34,08,42
...	+ 66,63	2,80,40	5,36,34	1,42,25,15
...	+ 73,75	2,44,24	5,69,01	1,50,38,40
...	+ 49,39	2,24,51	6,01,54	1,58,64,43
...	+ 1,09,67	2,75,59	6,34,58	1,67,74,62
...	+ 1,57	1,54,69	6,70,98	1,76,00,29
...	+ 25,57	1,81,13	7,04,01	1,84,85,43

APPENDIX

Charges borne by Indian Revenues

In Thousands

Year.	Loss on account of old Guaranteed Railways as per Statements Nos. 2 and 3.	Charges on account of, Subsidized Companies as per Statement No. 5.	Misc. Expenditure on Surveys, etc. as per Statement No. 6.	Construction of Protective Railways out of	
				Famine Insurance Fund.	Revenue.
1	2	3	4	5	6
1899-1900	1,12,30	1,60	6,39	...	35
1900-01 ...	67,50	—83	7,22	...	—12
Total decade	10,56,88	19,40	62,72	3,75,04	46,10
Total to date	55,46,64	53,43	1,52,10	6,54,95	6,70,75
1901-02 ...	33,54	—3,05	11,86	...	—10,01
1902-03 ...	28,09	—1,18	8,84	24	8,20
1903-04 ...	37,47	—1,40	8,15	14,49	3,98
1904-05 ...	20,81	44	7,24	14,57	94
1905-06 ...	44,24	—80	5,33	8,29	1,08
1906-07 ...	40,77	—3,26	6,13	52	13
1907-08 ...	54,55	—5,68	12,27	98	3
1908-09 ...	2,10	—20	3,77	1	6
1909-10 ...	—26	—2,68	5,61	1,80	19
1910-11 ...	—11	—1,66	4,87	5,54	12
Total decade	2,61,20	—19,47	74,07	46,44	4,72
Total to date	58,07,84	33,96	2,26,17	7,01,39	6,75,47
1911-12 ...	...	45	2,73	6,64	12
1912-13 ...	...	—5,93	9,91	6,21	64

B.—(Continued.)

on account of Railways.
of Rupees.

Loss by Exchange on capital Expen- diture in England for State Railways.	Add Loss + or deduct gain— from working of State Railways as per Statement No. 7.	Total charges as per columns 2 to 8.	Interest at 4 per cent. per annum on outstanding total at end of previous year.	Total of columns 9 and 10 to end of each year.
7	8	9	10	11
...	—1,12,07	8,58	7,39,42	1,92,33,43
...	—1,22,92	—49,15	7,69,34	1,99,53,62
...	+1,84,76	17,44,90	62,08,18	.....
1,00,30	+4,17,98	75,96,14	1,23,57,47	1,99,53,62
...	—1,73,19	—1,40,85	7,98,14	2,06,10,91
...	—67,74	—23,55	8,24,44	2,14,11,80
...	—1,67,16	—1,04,45	8,56,47	2,21,63,81
...	—3,39,84	—2,95,85	8,86,55	2,27,54,52
...	—3,41,64	—2,83,51	9,10,18	2,33,81,19
...	—3,84,04	—3,39,74	9,35,25	2,39,76,70
...	—2,97,00	—2,34,85	9,59,07	2,47,00,91
...	+1,80,72	+1,86,46	9,88,04	2,58,75,41
...	—1,26,43	—1,21,78	10,35,02	2,67,88,65
...	—3,05,72	—2,96,96	10,71,54	2,75,63,23
...	—20,22,04	—16,55,08	92,64,70	.....
1,00,30	—16,04,06	59,41,06	2,16,22,17	2,75,63,23
...	—5,71,35	—5,61,41	11,02,53	2,81,04,35
...	—7,23,89	—7,13,05	11,24,17	2,85,15,47

APPENDIX

Charges borne by Indian Revenues

In Thousands

Year.	Loss on account of old Guaranteed Railways as per Statements Nos 2 and 3.	Charges on account of, Subsidized Companies, as per Statement No. 5.	Misc. Expenditure on Surveys, etc., as per Statement No. 6.	Construction of Protective Railways out of	
				Famine Insurance fund.	Revenue.
1	2	3	4	5	6
1913-14 ...	—60	—5,69	—6,88	1,29	21
1914-15 ...	...	4,09	13,08	—20	7
1915-16 ...	...	10,69	2,68	—3	19
1916-17 ...	...	9,56	44	—7	33
1917-18 ...	...	—4,49	7,96	...	—11
Total decade	—60	8,68	29,92	13,84	1,45
Total to date	58,07,24	42,64	2,56,09	7,15,23	6,76,92
1918-19 ...	...	—12,82	44,25	...	81
1919-20 ...	...	—30,93	80,65	...	1,04
Grand Total	58,07,24	—1,11	3,80,99	7,15,23	6,78,77

(a) As per Appendix No. 4.

(b) The figures for the years 1848-49 to 1882-83 have been taken from the Column 2, from column 11 of the India office Statement at page 706 of Column 3, from column 25 of the Indian office Statement at page 707 of Columns 5 and 6, from pages 744—45 of above mentioned Report.

Column 7, from columns 14, 22 and 26 at page 707 of the same Report.

(c) Column 4 for the above period is left blank, as the figures of above noted Summaries.

(d) Loss by Exchange on account of the State Railways for the years after

8.—(Continued.)

on account of Railways.
of Rupees.

Loss by Exchange on capital Expen- diture in England for State Railways.	Add Loss + or deduct gain - from working of State Railways, as per Statement No. 7.	Total charges as per columns 2 to 8.	Interest at 4 per cent. per annum on outstanding total at end of previous year.	Total of columns 2 and 10 to end of each year.
7	8	9	10	11
...	—7,05,85	—7,17,53	11,40,62	2,89,38,56
...	—3,40,88	—3,23,83	11,57,54	2,97,72,27
...	—6,24,69	—6,11,16	11,90,89	3,03,52,00
...	—11,47,05	—11,36,79	12,14,08	3,04,29,29
...	—14,90,62	—14,87,27	12,17,17	3,01,59,29
...	—56,04,33	—55,51,04	81,47,00	.....
1,00,30	—72,08,39	3,90,04	2,97,69,17	3,01,59,21
...	—16,16,64	—15,84,40	12,06,37	2,97,81,18
...	—9,84,38	—9,33,62	11,91,24	3,00,38,80
1,00,30	—98,09,41	—21,27,98	3,21,66,78	.....

following :—

Report of Select Committee of 1884.

Report of Select Committee of 1884.

Miscellaneous Expenditure on Surveys, etc., were not separately shown in the
1882-83 was not traceable.

APPENDIX

Progress in railways of all classes in India from

Year.	Mileage open to end of year.	IN THOUSANDS OF RUPEES.				Gross earnings per mile per week.
		Capital outlay on open lines.	Gross earnings.	Working expenses.	Net earnings.	
1853	20	37,96	90	41	49	87
1860	838	26,66,00	66,67	37,08	29,59	153
1870	4,771	90,00,50	6,66,67	3,63,15	3,03,52	269
1880	8,996	1,28,56,91	12,86,55	6,48,00	6,38,55	282
1881	9,858	1,40,80,80	14,32,31	7,07,12	7,25,19	285
1890	16,404	2,13,67,04	20,67,01	10,30,89	10,36,12	243
1900	24,752	3,29,53,34	31,54,32	15,09,31	16,45,01	245
1910	32,099	4,39,04,73	51,14,22	27,15,12	23,98,50	306
1914-15	35,285	5,19,22,13	60,42,01	32,74,10	27,67,91	329
1915-16	35,833	5,29,98,29	64,66,04	32,91,95	31,74,09	347
1916-17	36,286	5,35,27,97	70,68,42	33,40,32	37,28,10	375
1917-18	36,333	5,41,79,90	77,36,39	35,36,87	41,99,52	409
1918-19	36,616	5,49,74,45	86,28,68	41,80,17	44,48,51	463
1919-20	36,735	5,66,37,77	89,15,32	50,65,65	38,49,67	467

No. 9.

commencement and main results of their working.

Percentage of working expenses to gross earnings.	Percentage of net earnings on capital outlay.	PASSENGERS.			GOODS.		
		Number carried in thousands.	Earnings in thousands of rupees.	Average rate charged per mile in pies.	Quantity carried in thousands of tons.	Earnings in thousands of rupees.	Average rate charged per ton per mile in pies.
45-56	1-29	...	...	...	...	...	...
55-61	1-11	...	...	...	...	...	...
54-47	3-37	...	...	...	...	...	...
50-37	4-97	...	...	...	...	...	...
49-37	5-16	54,764	3,79,23	2-78	13,214	9,55,97	7-95
49-87	4-85	114,082	6,25,81	2-51	22,613	12,99,52	7-11
47-85	4-99	176,308	8,95,07	2-51	42,896	20,36,52	5-88
53-10	5-46	371,580	17,12,04	2-45	65,600	30,43,17	4-83
54-19	5-33	451,086	20,35,29	2-44	80,972	35,09,18	4-43
50-91	5-99	464,381	20,98,57	2-44	82,499	38,75,79	4-34
47-26	6-96	486,030	23,08,19	2-48	86,242	41,43,00	4-01
45-72	7-75	430,268	25,23,15	2-99	85,472	44,49,54	4-08
48-45	8-09	459,732	28,97,78	3-08	91,161	49,13,89	4-28
56-81	6-80	520,027	33,16,29	3-09	87,630	47,11,60	4-43

APPENDIX No. 10.—General results of Working of some of the Indian Railways for the two half-years of financial year 1915-16.

xiii

INDIAN RAILWAYS.

Railway.	Mean-mileage worked.	Capital outlay per mile open in 2nd-half year.	Total earnings per mile per week.		Percentage of total working expenses upon total earnings.		Percentage of net earnings on capital outlay.		Average cost of hauling a passenger one mile.			
			1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.		
5 ft. 6 ins. Gauge.			Mile.	Rs.	Rs.	Rs.					Pies.	Pies.
Bengal-Nagpur	1,894.06	1,82,677	380	461	50.14	38.45	2.47	3.71	1.09	0.86		
B. B. & C. I. Railway	1,343.06	2,09,063	555	670	53.25	40.47	3.09	4.77	1.42	1.06		
Eastern Bengal	560.14	3,74,554	733	745	57.53	56.85	2.01	2.03	1.61	1.47		
East Indian	2,772.50	2,65,373	730	771	38.75	35.94	4.25	4.71	0.78	0.72		
G. I. P. Railway	3,142.23	2,16,631	505	681	65.02	48.99	2.03	4.04	1.99	1.70		
M. & S. M.	1,043.02	1,70,702	472	487	49.97	49.41	3.33	3.45	1.16	1.16		
Nizam's Guaranteed	354.70	1,65,423	346	408	49.77	57.74	2.88	2.82	1.50	1.56		
North Western	5,043.11	1,73,862	365	363	52.39	55.97	2.40	2.12	1.37	1.34		
Oudh and Rohilkhand	1,672.14	1,30,967	267	276	47.08	49.25	2.65	2.64	1.07	1.27		
South Indian	445.94	1,57,225	352	381	48.47	44.11	2.91	3.33	1.06	0.98		
8 ft. 3½ ins. Gauge.												
B. and N. W. Railway	1,055.46	84,476	165	192	39.38	35.17	2.91	3.64	0.78	0.69		
Bhavnagar State	247.95	52,516	127	127	48.23	47.07	3.10	3.22	1.35	1.30		
B. B. & C. I. Railway	2,231.51	81,011	262	321	50.90	43.28	3.92	5.59	0.96	0.86		
Barmah	1,598.46	1,30,768	251	278	59.47	55.29	1.90	2.32	1.67	1.53		
Eastern Bengal	1,117.63	1,12,383	216	248	64.37	55.63	1.45	2.22	1.62	1.25		
Gondal-Portbandar	219.75	46,240	122	137	46.40	48.94	3.56	3.72	1.49	1.57		
Jodhpur-Bikaner	1,302.48	27,800	110	129	48.61	42.00	5.04	6.60	0.82	0.87		
Rohilkhand and Kumaon.	567.13	63,303	120	133	58.10	42.19	2.31	3.06	1.31	1.14		
South Indian	1,135.95	1,04,200	387	366	44.78	50.25	4.76	4.05	0.75	0.86		
2 ft. 6 ins. Gauge.												
Gondia-Chanda and Extensions	631.95	64,535	63	65	91.93	92.03	0.30	0.20	2.23	2.39		
Kalka-Simla	59.92	3,30,327	470	393	49.86	40.67	1.85	1.83	6.55	3.35		

APPENDIX 10 A.—Duty performed by Carriage and Wagon Stock on principal Railways during second half-year of 1920-21.

Railways.	Items.	Coaching vehicle units.			Goods vehicle units.			
		Number on line.	Vehicle units hauled one mile in thousands	Average miles run per vehicle.	Number on line.	Vehicle units hauled one mile in thousands	Average miles run per vehicle.	percentage of freight upon capacity hauled.
1		2	3	4	5	6	7	8
'5-6" Gauge.								
B. N. ...	...	1,415	27,010	19,099	16,198	108,682	6,709	53.83
B. B. & C. I. ...	...	1,361	38,090	27,987	9,946	66,098	6,645	49.84
E. B. ...	...	1,135	21,523	18,963	7,637	37,643	4,929	31.21
G. I. P. ...	...	2,905	79,522	27,374	36,320	346,774	9,548	46.45
M. & S. M. ...	...	2,967	82,978	27,967	19,508	165,275	8,472	51.08
N. W. ...	...	1,021	21,917	21,466	4,862	46,641	9,593	44.55
O. & R. ...	...	4,185	85,341	20,392	30,339	126,709	4,506	61.92
S. I. ...	...	1,325	26,476	19,982	8,206	29,871	3,640	61.86
		485	7,625	15,722	1,739	8,711	5,009	52.35
Total ...	...	16,799	13,90,485	23,899	134,755	946,404	7,023	...
Average run per day per vehicle ...	...			131.31	...	...	38.58	...
Ditto. per hour ...	...			5.47	...	...	1.60	...
Metre-Gauge.								
A. B. ...	...	681	12,523	18,389	4,259	18,345	4,307	43.69
B. & N. W. ...	...	1,400	45,876	32,758	8,576	44,488	5,187	45.08
R. M. ...	...	2,150	48,142	22,391	10,139	82,610	8,147	48.82
Burma ...	...	1,546	29,832	19,296	8,322	58,898	7,076	53.10
E. B. ...	...	1,313	21,829	16,625	6,415	26,224	4,087	42.44
M. & S. M. ...	...	1,425	25,618	17,977	6,968	43,888	6,298	49.62
S. I. ...	...	2,225	29,500	13,255	5,539	36,479	6,585	47.42
J. B. ...	...	365	10,827	29,800	2,431	16,405	6,776	41.42
R. & K. ...	...	322	5,777	17,941	2,057	7,889	3,835	47.42
Total ...	...	11,428	229,124	20,058	54,696	335,216	6,128	...
Average run per vehicle per day ...	...			110.20	...	...	33.67	...
Ditto. per hour ...	...			4.59	...	...	1.40	...

Note.—Columns 6 and 7 include empty haulage.

APPENDIX

Coaching

1. Average earnings in pies per coaching
2. Average cost of hauling a coaching
3. Average profit on working a coaching

Name of Railway.	Item No. as per heading.	First Class Passenger.				Second Class Passenger.			
		1912.		1915-16.		1912.		1915-16.	
		1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.
5-6' Gauge.—									
Bengal Nagpur Ry.	1	18.35	13.81	11.34	14.84	18.84	19.79	15.77	19.43
	2	16.01	16.00	18.02	14.64	16.01	16.00	18.02	14.64
	3	2.34	-2.19	-6.68	0.20	2.83	3.79	-2.25	4.79
B. B. & C. I. Ry. ...	1	17.52	18.24	13.47	18.67	21.24	18.82	19.29	22.92
	2	22.15	27.24	26.70	20.46	22.15	27.24	26.70	20.46
	3	-4.63	-9.00	-13.23	-1.79	-0.91	-8.42	-7.41	2.46
Eastern-Bengal Ry.	1	18.73	15.01	11.93	12.83	23.53	22.15	19.49	21.92
	2	24.93	27.48	20.13	24.68	24.93	27.48	20.13	24.68
	3	-6.20	-12.47	-8.20	-11.85	-1.40	-5.33	-0.64	-2.76
East-Indian Ry. ...	1	17.27	14.96	12.58	14.84	12.89	13.62	11.59	14.27
	2	12.66	12.57	13.07	11.37	12.66	12.57	13.07	11.37
	3	4.61	2.39	-0.49	3.47	0.23	1.05	-1.48	2.90
G. I. P. Ry. ...	1	14.38	13.84	10.55	13.27	18.76	19.13	25.32	27.48
	2	23.86	25.29	27.17	22.89	23.86	25.29	27.17	22.89
	3	-9.48	-11.45	-16.62	-9.62	-5.10	-6.16	-1.85	4.59
M. & S. M. Ry. ...	1	23.86	22.47	17.69	19.32	26.54	25.17	22.33	22.85
	2	26.73	26.81	26.87	26.27	26.73	26.81	26.87	26.27
	3	-2.87	-4.34	-9.18	-6.95	-0.19	-1.64	-4.54	-3.42
Nizam's Guaranteed State Ry.	1	16.34	14.02	12.09	13.78	20.00	20.13	20.76	23.49
	2	21.50	25.00	29.33	36.61	21.56	25.00	29.33	36.61
	3	-5.22	-10.98	-17.24	-22.83	-1.56	-4.87	-8.57	-13.12

(a) The administration Report has 95.34 but that is evidently wrong.

No. 11.

Traffic.

vehicle per mile items, 56-60 of Analysis.

vehicle with its load one mile, item 78 Analysis.

vehicle one mile, items 82-86 Analysis.

Third or Inter Class.				Fourth or Lowest Class.				Other Vehicles..				Remarks.
1912.		1915-16.		1912.		1915-16.		1912.		1915-16.		
1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	
14-36	20-26	20-36	24-84	54-14	57-55	56-83	57-44	78-05	63-50	55-51	66-43	
16-01	16-00	18-02	14-64	16-01	16-00	18-02	14-64	16-01	16-00	18-02	14-64	
-1-65	4-26	2-34	10-20	38-13	41-55	38-81	42-80	62-04	47-50	37-49	51-79	
...	...	...	...	52-83	48-76	53-77	55-02	57-22	60-57	44-89	53-34	
Not	pro	vided		22-15	27-24	26-70	20-46	22-15	27-24	26-70	20-46	
...	...	...	...	30-68	21-52	27-07	34-56	35-07	33-33	18-19	32-88	
29-56	32-40	25-24	30-15	61-64	49-17	40-26	56-67	45-39	49-65	29-30	33-54	
24-93	27-48	20-13	24-68	24-93	27-48	20-13	24-68	24-93	27-48	20-13	24-68	
4-63	4-92	5-11	5-47	36-71	21-69	20-13	31-99	20-46	22-17	9-17	8-86	
27-67	25-77	21-37	24-26	56-53	55-10	53-63	50-23	46-06	38-24	38-64	39-44	
12-66	12-57	13-07	11-37	12-66	12-57	13-07	11-37	12-66	12-57	13-07	11-37	
15-01	13-20	8-30	12-89	43-87 (a)	42-53	40-56	38-86	33-40	25-67	25-57	28-07	
30-36	41-01	35-67	34-64	71-48	45-34	42-67	40-16	63-32	63-96	76-96	88-58	
23-86	25-29	27-17	22-89	23-86	25-29	27-17	22-89	23-86	25-29	27-17	22-89	
6-50	15-72	8-50	11-75	47-62	20-05	15-50	17-27	39-46	38-67	49-79	65-69	
23-74	23-81	56-34	64-25	64-76	58-13	69-49	66-33	70-78	72-64	52-51	64-22	
26-78	26-81	26-87	26-27	26-73	26-81	26-87	26-27	26-73	26-81	26-87	26-27	
-2-99	-3-00	29-47	37-98	38-03	31-32	42-62	40-06	44-05	45-83	25-64	37-95	
...	...	...	...	56-67	58-05	69-67	68-78	96-91	83-72	86-06	91-22	
Not	Pro	vided		21-56	25-00	29-33	36-61	21-56	25-00	29-33	36-61	
...	...	...	...	35-11	33-05	40-34	32-17	75-35	58-72	66-73	54-61	

APPENDIX

Coaching

1. Average earnings in pies per coaching
2. Average cost of hauling or coaching
3. Average profit on working a coaching

Items. Name of Railway.	Item No., as per head, ing.	First Class Passenger.				Second Class Passenger.			
		1912.		1915-16.		1912.		1915-16.	
		1st half	2nd half	1st half	2nd half	1st half	2nd half	1st half	2nd half
5'-6" gauge									
N.W. Ry. ...	1	10.15	8.95	7.97	10.19	14.85	13.22	17.77	17.66
	2	19.54	21.07	22.64	23.16	19.54	21.07	22.64	23.16
	3	-9.39	-12.12	-14.67	-12.97	-4.69	-7.85	-4.87	-5.50
Oudh and Rohilkhand Ry.	1	14.83	16.10	12.24	12.62	19.77	27.37	20.58	20.68
	2	17.18	21.36	18.97	20.11	17.18	21.36	18.97	20.11
	3	-2.35	-5.26	-6.73	-7.49	2.59	6.01	1.61	0.57
South-Indian Ry.	1	26.14	19.05	22.53	20.57	34.75	27.35	30.97	28.22
	2	25.98	27.42	23.50	21.62	25.98	27.42	23.50	21.62
	3	0.16	-8.37	-0.97	-1.05	8.77	-0.07	7.47	6.60
3'-3½" Gauge.									
B. & N.W. Ry.	1	1.73	1.77	1.75	2.18	3.49	3.54	4.60	4.92
	2	7.25	6.41	8.52	8.12	7.25	6.41	8.52	8.12
	3	-5.52	-4.64	-6.77	-5.94	-3.76	-2.87	-3.92	-3.20
Rajp.-Malwa Ry.	1	9.90	6.96	4.96	6.76	13.45	12.47	13.40	14.63
	2	13.04	15.57	15.67	13.28	13.04	15.57	15.67	13.28
	3	-3.14	-8.61	-10.71	-6.52	0.41	-3.10	-2.27	1.35
J.-B. Ry. ...	1	5.79	6.77	4.66	8.41	12.51	14.06	14.28	14.66
	2	12.55	12.29	12.86	11.87	12.55	12.29	12.86	11.87
	3	-6.76	-5.52	-8.20	-3.46	-0.04	1.77	1.42	2.79
Rohilkhand and Kumaon Ry.	1	15.19	14.02	14.74	9.19	29.69	28.87	20.66	16.34
	2	12.91	13.65	16.81	14.16	12.91	13.65	16.81	14.16
	3	2.28	0.37	-2.07	-4.97	16.78	15.23	3.85	2.18

No 11.—(Continued).

Traffic.

vehicle per miles.

vehicle with it load one mile.

vehicle one mile.

Third or Inter Class.				Fourth or Lowest Class.				Other Vehicles.				Remarks.
1912.		1915-16.		1912.		1915-16.		1912.		1915-16.		
1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	
22-25	21-88	20-07	21-69	50-04	49-41	57-80	55-77	52-18	59-73	73-06	114-98	
19-54	21-07	22-64	23-16	19-54	21-07	22-64	23-16	19-54	21-07	22-64	23-16	
2-71	0-81	2-57	1-47	30-50	28-34	35-16	32-61	32-64	38-66	50-42	91-82	
27-74	28-62	38-18	31-91	62-41	70-30	57-68	52-67	47-13	48-75	37-26	37-08	
17-18	21-36	18-97	20-11	17-18	21-36	18-97	20-11	17-18	21-36	18-97	20-11	
10-56	7-26	19-21	11-80	45-23	48-84	38-71	32-56	29-95	27-39	18-29	16-97	
...	...	...	...	57-91	54-36	52-40	52-38	85-59	121-23	41-46	45-20	
} Not Provided	...	...	...	25-98	27-42	23-50	21-62	25-98	27-42	23-50	21-62	
	...	...	...	31-93	26-94	28-90	30-76	59-61	93-81	17-96	23-58	
6-36	6-06	6-97	8-42	27-42	25-07	27-77	29-26	98-45	118-55	108-47	98-52	
7-25	6-41	8-52	8-12	7-25	6-41	8-52	8-12	7-25	6-41	8-52	8-12	
-0-89	-0-85	-1-55	0-20	20-17	18-66	19-25	21-14	91-20	112-14	99-95	90-40	
63-63	...	...	...	34-66	33-40	35-87	33-92	44-83	42-00	46-84	48-28	
13-04	} Discontinued	...	...	13-04	15-57	15-67	13-28	13-04	15-57	15-67	13-28	
50-59		...	...	21-62	17-83	20-20	20-64	31-79	26-43	31-17	35-01	
18-50	20-76	17-98	15-39	27-26	31-64	38-46	35-46	53-05	60-86	48-41	44-73	
12-55	12-29	12-86	11-87	12-55	12-29	12-86	11-87	12-55	12-29	12-86	11-87	
5-95	8-47	5-12	3-52	24-71	19-35	25-60	23-59	40-50	48-07	35-55	32-86	
10-64	10-84	18-76	14-47	39-03	37-63	32-63	31-58	89-58	83-99	96-81	72-75	
12-91	13-65	16-81	14-16	12-91	13-65	16-81	14-16	12-91	13-65	16-81	14-16	
-2-27	-2-81	1-96	0-31	26-13	23-98	15-82	17-42	76-67	70-34	80-00	58-59	

APPENDIX

Goods

1. Average sum in pies received
2. Average cost in pies of hauling
3. Average profit in pies on working

Name of Railway.	Item 1 as per heading.			
	1912.		1915-16.	
	1st half.	2nd half.	1st half.	2nd half.
5'-6" Gauge.				
Bengal-Nagpur	Pies. 3-93	Pies. 3-53	Pies. 3-17	Pies. 3-37
B. B. & C. I.	6-10	5-39	5-71	5-81
Eastern Bengal	6-02	7-08	6-49	6-14
East Indian	3-14	3-02	2-88	2-81
G. I. P.	5-51	4-54	4-27	4-68
M. & S. M.	5-92	5-58	4-88	4-75
Nizam's Guaranteed	5-86	5-96	5-77	5-99
North-Western	4-92	4-54	4-31	4-08
Oudh and Rohilkhand	4-74	4-75	4-71	5-12
South Indian	6-41	6-43	6-23	6-11
3'-3½" Gauge.				
B. & N. W.	5-38	5-40	5-29	5-84
Rajputana-Malwa	5-73	5-50	5-68	6-41
Jodhpur-Bikaner	6-51	6-35	5-13	6-03
Rohilkhand and Kumaon	5-49	6-05	6-17	7-25
South Indian	7-14	6-91	6-35	6-18
Bhavnagar State	9-33	8-48	7-83	7-33
Gondal-Porbandar State	10-07	8-61	8-37	7-49
Jamnagar State	13-52	12-92	12-54	14-44
Junagadh State	10-73	6-29	8-90	9-12
2'-6" Gauge.				
Kalka-Simla	30-66	29-89	9-64	11-57
Gondia-Chanda & its Extensions	6-56	4-66	5-46	5-61.

(a) Doubtful but the figures are

No. 12.

Traffic.

*for carrying a ton one mile, item 93 of Analysis.**one ton one mile, item 115 of Analysis.**one ton one mile, item 118 of Analysis.*

Item 2.				Item 3.			
1912.		1915-16.		1912.		1915-16.	
1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.	1st half.	2nd half.
Pies.	Pies.	Pies.	Pies.	Pies.	Pies.	Pies.	Pies.
1.79	1.81	1.76	1.41	2.14	1.72	1.41	1.96
2.50	2.92	2.81	2.23	3.52 _a	2.47	2.90	3.58
3.73	3.91	3.36	3.31	2.29	3.17	3.13	2.83
1.22	1.25	1.28	1.13	1.92	1.77	1.60	1.68
2.44	2.69	2.79	2.22	3.07	1.85	1.48	2.46
3.04	3.07	2.58	2.47	2.88	2.51	2.30	2.28
2.25	2.71	2.77	3.33	3.61	3.25	3.00	2.66
3.37	2.42	2.45	2.60	1.55	2.12	1.86	1.48
1.90	2.54	2.52	3.67	2.84	2.21	2.19	2.45
2.92	2.96	2.45	2.21	3.49	3.47	3.78	3.90
1.91	1.87	2.27	2.23	3.47	3.53	3.02	3.61
2.71	3.10	3.10	2.82	3.02	2.40	2.58	3.59
3.08	3.28	2.94	2.66	3.43	3.07	2.19	3.37
2.51	3.07	3.77	3.34	2.98	2.98	2.40	3.91
3.61	4.36	3.32	3.50	3.53	2.55	3.03	2.68
4.54	5.19	4.22	3.75	4.79	3.29	3.61	3.58
4.99	5.33	4.13	4.05	5.38 _a	3.28	4.24	3.44
8.40	8.68	7.63	8.04	5.12	4.24	4.91	6.40
5.33	5.21	5.40	4.85	5.40	1.08	3.50	4.27
36.59	23.69	8.86	12.56	-5.93	6.20	0.78	-0.99
4.82	4.39	5.37	5.16	1.75	0.27	0.09	0.45

from the Railway Board's Report.

APPENDIX No. 13.

State Railways worked by the State—Establishment employed on 30th June 1912.

Service.	Items.	Minimum and maximum monthly pay.	Europeans and Anglo-Indians.		Indians.	
			No.	Monthly pay.	No.	Monthly pay.
Superior Officers.						
Permanent Engineers	...	1750--2750	9	29,250	...	...
Permanent Engineers	...	250—1,500	153	1,08,746	15	10,300
Temporary Engineers	...	200—1,100	54	26,850	11	4,400
Management	...	1750—3000	6	13,375	...	...
Traffic Department	...	1100—2000	21	28,200	...	...
Traffic Department	...	200—1,000	66	35,275	12	5,525
Locomotive	...	400—2,000	52	40,300	...	...
Carriage and Wagon	...	300—1,750	14	9,800	...	...
Stores Departments	...	200—1,100	18	10,250	1	950
Miscellaneous officers	...	350—1,900	30	20,662	...	...
Examiners of Accounts	...	700—1,800	21	26,250	} a3	3,750
Deputy Examiners of „	...	400—600	8	4,000		1,500
Travelling Auditors	...	200—300	3	750		...
Total Superior Officers...	...	...	455	3,53,708	45	26,425
Upper Subordinates.						
Sub-Engineers	...	250—400	8	2,700	12	3,400
Supervisors	...	150—200	14	2,400	17	3,000
Overseers	...	60—100	1	100	14	1,100
Management Department	...	250—700	5	1,720	3	1,400
Permanent Way Inspectors	...	250—500	43	15,642	4	1,325
Signal Inspectors	...	300—500	13	4,445	...	...
Traffic Inspectors	...	250—550	69	22,810	5	1,750
Locomotive Foremen	...	230—600	150	50,965	...	...
Carriage and Wagon	...	230—500	41	13,105	...	...
Stores and Miscellaneous	...	250—600	9	3,050	2	650
Medical	...	...	11	(a) 2,200	...	...
Accountants and Travel- ling Inspectors	...	80—450	61	(a) 16,165	107	28,355
Total upper Subordinates	...	...	425	1,35,302	164	40,980

(a) Pay was not given in the Classified List. Figures given here are approximate.

APPENDIX No. 14.

Superior Establishment on Railways worked by Companies and Indian States on 30th June 1912.

Items. Service.	Minimum and maximum pay.	Officers.			
		European and Anglo-Indian.		Indian.	
		No.	Monthly pay.	No.	Monthly pay.
<i>Railways.—</i>	Rs.		Rs.		Rs.
Assam-Bengal Ry. ...	250—2,500	43	31,687		...
B. & N. W. Ry. ...	300—2,750	70	47,575		...
Bengal-Nagpur Ry. ...	250—3,000	129	99,759	7	3,362
B. B. & C. I. Ry. ...	250—3,500	135	1,08,175	3	1,275
Burma Ry. ...	325—3,000	96	71,580	1	325
East Indian Ry. ...	250—3,500	184	1,54,695	4	1,595
G. I. P. Ry. ...	150—3,500	183	1,47,107	3	1,350
H. H. Nizam's Gd. Ry.	400—2,850	34	29,505	2	1,235
M. & S. M. Ry. ...	250—3,500	108	86,845	6	2,300
R. & K. Ry. ...	150—1,800	20	11,800	...	...
South Indian Ry. ...	250—3,000	86	70,075	2	850
Total Companies ...		1,088	8,58,803	28	12,292
<i>Departments.—</i>	Rs.		Rs.		Rs.
Agency ...	350—3,500	41	63,362	3	1,800
Engineering ...	150—2,500	439	3,15,952	6	2,667
Traffic ...	150—2,500	233	1,69,049	5	1,995
Loco. & Carriage ...	300—2,500	178	1,53,481	...	...
Stores ...	250—1,750	42	27,677	1	325
Medical ...	250—1,750	43	37,340	3	900
Audit and Accounts...	250—2,500	84	71,902	10	4,605
Collieries, Jetty, Marine, Printing & Electrical.	350—1,800	28	20,040	...	...
Total principal Coys.		1,088	8,58,803	28	12,292
Minor Companies ...	250—2,500	19	13,207	3	1,250
Barsi Light Ry. Coy.	...	4	...	...	...
J. B. Ry. ...	300—1,500	16	10,895	1	450
Other Indian States...	75—1,050	16	10,090	10	2,730
Grand Total ...		1,143	8,92,995	42	16,722

APPENDIX No. 16.

Railway Administrations in India and original names of Railways comprised in each administration on 31st March 1918.

Serial No.	Name of administration and of Railways comprised in each system.	Classified head.	Route-miles on 31st March 1918.				
			5'—6" Gauge.	3'—3½" Gauge.	2'—6" Gauge.	2'—0" Gauge.	Total.
1	I.—GOVERNMENT ADMINISTRATIONS.	I					
	<i>Eastern-Bengal State Railway:—</i>						
	Eastern Bengal	(a) I	413·57	.....	.....	.....	.....
	Calcutta and South-Eastern	(a) I	28·00	.....	.....	.....	.....
	Bengal Central	(f) I	127·69	.....	.....	.....	.....
	Sara-Sirajganj	(e) IV	53·12	.....	.....	.....	.....
	Northern Bengal	(b) I	.....	977·72	.....	.....	.....
	Cooch Behar	(c) XII	.....	33·09	.....	.....	.....
	Mymensingh-Jamalpur-Jagannathganj.	(e) IV	.....	56·05	.....	.....	.....
	Ranaghat-Krishnagarh	(f) I	.....	.....	20·25	.....	.....
	Teesta-Kurigam	(b) I	.....	.....	14·85	.....	.....
			622·38	1,066·86	35·10	.....	1,724·34
2	Jorhat (Assam Provincial Administration).	(b) I	.....	.....	.....	32·50	32·50
3	<i>North-Western State Railway:—</i>	I					
	S. P. and D.	(a) I	737·00	.....	.....	.....	.....
	Panjab Northern	(b) I	420·00	.....	.....	.....	.....
	Indus Valley	(b) I	653·00	.....	.....	.....	.....

Sindh-Sagar	...	...	(b) I	342-91	.....	.....	.....	.....
Sindh-Pishin	...	...	(b) I	336-75	.....	.....	.....	.....
Amritsar-Pathankot	...	...	(b) I	66-70	.....	.....	.....	.....
Other extensions and branches	...	...	(b) I	1,133-91	.....	.....	.....	.....
Jammu-Kashmir	...	...	(c) XII	16-01	.....	.....	.....	.....
Rajpur-Bhatinda	...	...	(c) XII	108-04	.....	.....	.....	.....
Amritsar-Patti	...	...	(e) IV	54-26	.....	.....	.....	.....
Mandra-Bhaun	...	...	(e) IV	46-38	.....	.....	.....	.....
Jullandhar Mukerian	...	...	(e) IV	44-81	.....	.....	.....	.....
Khanpur-Chachran	...	...	(c) XII	22-02	.....	.....	.....	.....
Ludhiana-Dhuri-Jakhal	...	...	(c) XII	78-65	.....	.....	.....	.....
Phagwara-Rahon	...	...	(e) IV	45-21	.....	.....	.....	.....
Sialkot-Narowal	...	...	(e) IV	38-16	.....	.....	.....	.....
Southern Panjab—Main line	...	...	(e) IV	425-92	.....	.....	.....	.....
Jullundar-Doab Extension	...	...	...	130-19	.....	.....	.....	.....
Ludhiana Extension	...	...	...	152-04	.....	.....	.....	.....
Jacobabad-Kashmor	...	...	(e) IV	.....	.....	76-70	.....	.....
Kohat-Thal	...	...	(b) I	.....	.....	61-75	.....	.....
Nowshera-Dargai	...	...	(b) I	.....	.....	40-40	.....	.....
Trans-Indus (Kalabagh-Bannu)	...	...	(b) I	.....	.....	135-38	.....	.....
Kalka-Simla	...	...	(f) I	.....	.....	59-92	.....	.....
				4,851-96	.....	374-15	.....	5,226-11
<i>Oudh and Rohilkhand State Railway:—</i>			I					
Oudh and Rohilkhand	...	...	(a) and (b) I	1,509-77	.....	.....	.....	.....

APPENDIX No. 16.—(Continued).

Railway administrations in India and Railways comprised in each administration on 31st March 1918.

Serial No.	Name of administration and of Railways comprised in each system.	Classified head.	Route-miles on 31st March 1918.				
			5'—6" Gauge.	3'—3½" Gauge.	2'—6" Gauge.	2'—0" Gauge.	Total.
	Hardwar-Dehra	(e) III	32·04	.....	.....	.....	.....
			1,541·81	.....	.....	.....	1,541·81
	Total head I ...		7,016·15	1,066·86	409·25	32·50	8,524·76
	II.—INDIAN STATES' ADMINISTRATIONS.	XI					
5	Bhavnagar Durbar—Bhavnagar State Railway	(c)	.....	206·31	} .....	.....	249·02
	Dhrangadhara State Railway	(c)	.....	42·71			
6	Cutch Durbar—Cutch State Railway ...	(c)	.....	36·78	.....	.....	36·78
7	Dhoulpur Durbar—Dhoulpur-Bari State Railway	(c)	.....	.....	36·38	}	51·63
	Mohari-Barauli	(c)	.....	.....	15·25		
8	Gondal-Porebunder Durbars—Gondal-Porebunder State Railway	(c)	.....	148·01	} .....	.....	231·44
	Jetalsar-Rajkot State Railway	(c)	.....	46·21			
	Khijadia-Dhari	(c)	.....	37·22			
9	Gwalior Durbar—Gwalior Light Railway	(c)	.....	.....	.....	249·96	249·96

10	<i>Jodhpur Bikaner Durbars—Jodhpur</i>							
	State Railway	(c)	.....	608.75	.....	.....	1,355.57	
	Bikaner State Railway	(c)	.....	497.66	.....	.....		
	Pipar-Bilara	(c)	.....	.....	.....	25.25		
	Jodhpur-Hyderabad	(b) II	.....	123.98	.....	.....		
	Mirpurkhas-Jhudo	(e) VI	.....	50.43	.....	.....		
	Mirpurkhas-Khudro	(e) VI	.....	49.50	.....	.....		
11	<i>Junagarh Durbar—Junagarh State Ry...</i>	(c)	.....	120.90	.....	.....	120.90	
12	<i>Morvi Durbar—Morvi State Railway ...</i>	(c)	.....	73.94	18.89	.....	92.83	
13	<i>Mysore Durbar—Kolar District Railway.</i>	(c)	.....	.....	63.51	.....	231.80	
	Tarikere-Narsimha Rajpura	(c)	.....	.....	.....	26.60		
	Bangalore-Chik Ballapur Light Railway.	(e) XIII	.....	.....	38.74	.....		
	Mysore-Arsikere	(c)	.....	102.95	.....	.....		
14	<i>Navanagar Durbar—Jamnagar State Ry.</i>	(c)	.....	54.22	.....	.....	54.22	
15	<i>Udaipur Durbar—Udaipur-Chitorgarh...</i>	(c)	.....	67.30	.....	.....	67.30	
	Total head II ... ..	...	.....	2,266.87	172.77	301.81	2,741.45	
	III.—COMPANIES ADMINISTERING RAILWAYS ON BEHALF OF GOVERNMENT.	II						
	A. OLD GUARANTEED COMPANIES WITH REVISED CONTRACTS.							
16	<i>East Indian Railway Company—</i>	II						
	East Indian Railway	(a) II	2,340.53	.....	.....	.....	.....	
	Nalhati Railway	(f) II	27.23	.....	.....	.....	.....	
	Patna-Gaya State Railway	(b) II	57.68	.....	.....	.....	.....	
	Dildarnagar-Ghazipur	(b) II	12.00	.....	.....	.....	.....	

Railway administrations in India and Railways comprised in each administration on 31st March 1918.

Serial No.	Name of administration and of Railways comprised in each system.	Classified head.	Route-miles on 31st March 1918.				
			5'—6" Gauge.	3'—3½" Gauge.	2'—6" Gauge.	0'—0" Gauge.	Total.
17	Tarkessur	(f) II	22.21	.....	.....	.....	.....
	Delhi-Umbala-Kalka	(e) VI	206.40	.....	.....	.....	.....
	South-Bihar	(e) IV	79.19	.....	.....	.....	.....
	Jind-Panipat	(c) XII	25.90	.....	.....	.....	.....
	Devghur Branch	(f) II	4.12	.....	.....	.....	.....
	Total		2,775.26	.....	.....	.....	2,775.26
	<i>South Indian Railway Company—</i>	II	} 445.94	881.49	.....	.....	.....
	Great Southern of India	(a) II					
	Carnatic Railway	(a) II					
	Indian Tramway Company	(f) II					
	Nilgiri Railway	(f) II					
	Peralam-Karaikkal	(e) XIV	.....	28.96	.....	.....	.....
	Podanur-Pollachi	(g) IX	.....	14.65	.....	.....	.....
	Pondicherry	(e) XIV	.....	25.04	.....	.....	.....
	Shoranur-Cochin	(e) XIV	.....	7.85	.....	.....	.....
	Tanjore District Board Railway	(c) XII	.....	64.75	.....	.....	.....
	Tinnevely-Quilon (Travancore)—British Section	(g) IX	.....	111.94	.....	.....	.....
		(b) II	.....	50.41	.....	.....	.....

	Travancore State	...	...	(c) XII	.....	95-96	.....	.....	.....
	Morapur-Hosur	...	...	(d) II	.....	.....	73-40	.....	.....
	Tirupattur-Krishnagiri	...	...	(d) II	.....	.....	25-38	.....	.....
	Surmangalam-Salem	...	...	(g) IX	3-86	.....	.....	.....	.....
	Total	...	...		449-80	1,281-05	98-78	.....	1,829-63
18	<i>G. I. P. Railway Company—</i>			II					
	G. I. P. Railway	...	...	(a) II	1,536-32	.....	.....	.....	.....
	Dhond-Manmad	...	...	(b) II	145-44	.....	.....	.....	.....
	Khamgam-Amraoti	...	...	(b) II	13-46	.....	.....	.....	.....
	Wardha Coal State Railway	...	...	(b) II	45-39	.....	.....	.....	.....
	Sindhia State Railway	...	...	(b) II	76-49	.....	.....	.....	.....
	Bhopal-Itarsi—British Section	...	...	(b) II	12-66	.....	.....	.....	.....
	Bhopal State Section	...	...	(c) XII	44-56	.....	.....	.....	.....
	Indian Midland	...	...	(d) II	736-03	.....	.....	.....	.....
	Agra-Delhi Chord	...	...	(b) II	125-88	.....	.....	.....	.....
	Baran-Kotah	...	...	(b) II	40-29	.....	.....	.....	.....
	Bhopal-Ujjain	...	...	(c) XII	113-28	.....	.....	.....	.....
	Bina-Guna-Baran	...	...	(c) XII	147-07	.....	.....	.....	.....
	Cawnpore-Banda	...	...	(b) II	75-71	.....	.....	.....	.....
	Dhond-Baramati	...	...	(e) IV	.....	.....	27-26	.....	.....
	Ellichpur-Yeotmal	...	...	(e) IV	.....	.....	117-66	.....	.....
	Matheran Light Railway	...	...	(e) VI	.....	.....	.....	12-61	.....
	Pulgaon-Arvi	...	...	(e) IV			21-83		
	Total	...	...		3,112-58		166-75	12-61	3,291-94

APPENDIX No. 16.—(Continued).

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Railway Administrations in India and Railways comprised in each administration on 31st March 1918.

INDIAN RAILWAYS.

Serial No.	Name of administration and of Railways comprised in each system.	Classified head.	Route—miles on 31st March 1918.				
			5'—6" Gauge.	3'—3½" Gauge.	2'—6" Gauge.	2'—0" Gauge.	Total.
19	B. B. & C. I. Railway Company:—	II					
	B. B. & C. I. Railway	(a) II	391.30	39.05	.....	.....	.....
	Patri State Railway	(b) II	22.12	.....	.....	.....	.....
	Godhra-Rutlam-Nagda	(b) II	141.14	.....	.....	.....	.....
	Nagda-Muttra	(b) II	339.10	.....	.....	.....	.....
	Bayana-Agra	(b) II	50.61	.....	.....	.....	.....
	Baroda-Godhra Chord	(b) II	43.67	.....	.....	.....	.....
	Nagda-Ujjain	(c) XII	32.51	.....	.....	.....	.....
	Petlad-Cambay:—	(c) XII					
	Baroda-State	...	21.42	.....	.....	.....	.....
	Cambay State	...	12.36	.....	.....	.....	.....
	Tapti-Valley Railway	(e) IV	155.72	.....	.....	.....	.....
	Rajputana-Malwa State Railway ...	(b) II	9.18	939.90	.....	.....	.....
	Holkar-State Railway	(b) II	.....	86.89	.....	.....	.....
	Sindhia-Neemuch	(b) II	.....	156.48	.....	.....	.....
	Western Rajputana	(b) II	.....	82.36	.....	.....	.....
	Rewari-Fazilka	(b) II	.....	262.45	.....	.....	.....
	Cawnpore-Achnera including Muttra-Hathras Light Railway, and Cawnpore-Farukabad State Railway ...	(b) II	.....	254.48	.....	.....	.....

Palanpur-Deesa	...	...	(b) II	.....	17-28	.....	.....	.....
Ahmedabad-Dholka	...	...	(e) IV	.....	33-54	.....	.....	.....
Ahmedabad-Prantelj	...	...	(e) IV	.....	88-70	.....	.....	.....
Gaekwar's Mehsana	...	...	(c) XII	.....	162-63	.....	.....	.....
Jaipur State Railway	...	...	(c) XII	.....	108-04	.....	.....	.....
Vijapur-Kalol-Kadi	...	...	(c) XII	.....	46-11	.....	.....	.....
Billimora-Kalamba	...	...	(c) XII	.....	.....	34-93	.....	.....
Broach-Jambusar	...	...	(b) II	.....	.....	29-69	.....	.....
Gaekwar's Dabhoi	...	...	(c) XII	.....	.....	153-94	.....	.....
Kosamba-Zankhvav	...	...	(c) XII	.....	.....	26-10	.....	.....
Bodoli-Chhota Udaipur	...	...	(c) XII	.....	.....	22-56	.....	.....
Petlad-Vaso	...	...	(c) XII	.....	.....	19-25	.....	.....
Rajpipla State Ry.	....	..	(c) XII	.....	.....	39-24	.....	.....
				1,219-13	2,277-91	325-71	.....	3,822-75
Total head III A				7,556-77	3,558-96	591-24	12-61	11,719-58
III. B.—NEW COMPANIES FORMED AFTER 1882.								
20	Madras and S. M. Railway Company—			II				
	Madras Railway	...	(a) II	1,031-73	.....	.....	.....	.....
	Kolar Gold Fields	...	(c) XII	9-88	.....	.....	.....	.....
	Tenali-Repali	...	(g) IX	21-50	.....	.....	.....	.....
	Southern Marhatta	...	(d) II	.....	1,518-13	.....	.....	.....
	Bezwada-Masulipatam	...	(g) IX	.....	51-80	.....	.....	.....
	Birur-Shimoga	...	(c) XII	.....	37-92	.....	.....	.....

APPENDIX No. 16.—(Continued).

Railway Administrations in India and Railways comprised in each administration on 31st March 1918.

Serial No.	Name of administration and of Railways comprised in each system,	Classified head.	Route-miles on 31st March 1918.				
			5'—6" Gauge.	3'—3½" Gauge.	2'—6" Gauge.	2'—0" Gauge.	Total.
	Dhone-Kurnool	(b) II	.....	32·00	.....	.....	.....
	Hindupur	(c) XII	.....	51·35	.....	.....	.....
	Kolhapur State Railway	(c) XII	.....	29·27	.....	.....	.....
	Mysore-Nanjangarh	(c) XII	.....	15·80	.....	.....	.....
	Mysore State Railway	(c) II	.....	296·28	.....	.....	.....
	Sangli State Railway	(c) XII	.....	4·90	.....	.....	.....
	W. I. Portuguese Railway	(e) XIV	.....	51·10	.....	.....	.....
	Total	...	1,063·11	2,088·55	.....	.....	3,151·66
21	Bengal Nagpur Railway Company—	II					
	Nagpur-Chhattisgarh	(b) II	145·26	.....	.....	.....	.....
	Katni-Umaria	(b) II	35·88	.....	.....	.....	.....
	East-Coast, Northern Section	(b) II	321·55	.....	.....	.....	.....
	Bengal-Nagpur	(d) II	1,385·95	.....	.....	.....	.....
	Gondia-Chanda Extension	(d) II	.....	.....	217·25	.....	.....
	Jubbulpur-Gondia Extension	(d) II	.....	.....	311·81	.....	.....
	Mourbhanj State Railway	(c) XII	.....	.....	32·41	.....	.....
	Nagpur-Chhindwara	(d) II	.....	.....	97·20	.....	.....

	Parlaki Medi Light Railway	(c) XII	.....	.....	24.62	.....	.....
	Purulia Ranchi Branch	(d) II	.....	.....	115.30	.....	.....
	Raipur-Dhamtari Branch	(d) II	.....	.....	56.94	.....	.....
	Tumsar-Tirodi Light Railway	(b) II	.....	.....	.....	51.10	.....
	Total	...	1,888.64	.....	855.53	51.10	2,795.27
22	<i>Assam-Bengal Railway Company—</i>	II					
	Assam-Bengal Railway including						
	Noakhali Branch	(d) II	.....	869.41	.....	.....	.....
	Mymensingh Bhairab Bazar	(e) V	.....	87.93	.....	.....	.....
	Total ... ..	...	.....	957.34	.....	.....	957.34
23	<i>Burmah Railways Company—</i>	II					
	Burmah Railways including Rangoon						
	and Irrawadi Valley State Railway.	(b, d) II	.....	1,341.85	.....	.....	.....
	Extensions	(d) II	.....	186.93	.....	.....	.....
	Southern Shan States Railway	(d) II	.....	69.68	.....	.....	.....
	Total ... ..	...	.....	1,598.46	.....	.....	1,598.46
	Total head III B	...	2,951.75	4,644.35	855.53	51.10	8,502.73
	Total head III	...	10,508.52	8,203.31	1,446.77	63.71	20,222.31

-- APPENDIX No. 16.—(Continued).

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Railways Administrations in India and Railways comprised in each administration on 31st March 1918.

INDIAN RAILWAYS.

Serial No.	Name of administration and of Railways comprised in each system.	Classified head.	Route—miles on 31st March 1918.				
			5'—6" Gauge.	3'—3½" Gauge.	2'—6" Gauge.	2'—0" Gauge.	Total.
	IV.—COMPANY GUARANTEED BY AN INDIAN STATE.						
	<i>The Nizam's Guaranteed State Railway Company—</i>						
	N. G. State Railway	(c) XIII	330·13	.....	.....	.....	.....
	Bezwada Extension	(b) II	21·47	.....	.....	.....	.....
	Hingoli Branch	(c) XII	.....	50·31	.....	.....	.....
	Hyderabad-Godawari Valley Ry.	(e) XIII	.....	391·13	.....	.....	.....
	Secunderabad-Gadwal	(c) XII	.....	103·30	.....	.....	.....
	Total	...	351·60	544·74	.....	.....	896·34
	V.—SUBSIDIZED COMPANIES WORKING STATE RAILWAYS JOINTLY WITH THEIR OWN LINES.						
25	<i>B. & N. W. Railway Company—</i>						
	B. & N. W. Railway	(e) VI	.....	1,241·65	.....	.....	.....
	Tirhut State Railway	(b) II	.....	785·28	.....	.....	.....
	Sagauli-Raxaul	(f) II	.....	18·72	.....	.....	.....

	Cawnpore-Burhwal	...	...	(b) II	.....	80-34	.....	.....	.....
	Oudh and Rohilkhand	...	...	(b) II	.....	2-18	.....	.....	.....
	Total	...	...	...	.....	2,128-17	.....	.....	2,128-17
26	<i>Rohilkhand and Kumaon Railway Co.—</i>								
	Rohilkhand and Kumaon Railway	...	...	(e) VI	.....	258-72	.....	.....	.....
	Lucknow-Bareilly	...	...	(b) II	.....	312-43	.....	.....	.....
	Powayan Light Railway	...	...	(e) VI	.....	.....	38-86	.....	.....
	Total	...	...	...	.....	571-15	38-86	.....	610-01
	Total head V	...	...	...	.....	2,699-32	38-86	.....	2,738-18
	VI.—COMPANIES ADMINISTERING THEIR OWN RAILWAYS—								
27	Ahmadpur-Katwa Railway Company	...	...	(e) III	.....	.....	32-26	.....	32-26
28	Arrah-Sasaram	...	...	(e) X	.....	.....	65-16	.....	65-16
29	Assam Railways and Trading Co:—								
	Dibru-Sadiya	...	...	(e) VII	.....	86-02	.....	.....	.....
	Ledo and Tikak Margherite Colliery	...	...	(e) VIII	.....	5-50	.....	.....	91-52
30	Bakhtiarpur-Bihar	...	...	(e) X	.....	.....	33-00	.....	33-00
31	Bankura-Damoodar	...	...	(e) III	.....	.....	59-95	.....	59-95
32	Baraset-Basirhat	...	...	(e) X	.....	.....	52-24	.....	52-24
33	Barsi Light Railway	...	...	(e) VI	.....	.....	117-50	.....	117-50

APPENDIX No. 16.—(Concluded).

Railway administrations in India and Railways comprised in each administration on 31st March 1918.

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INDIAN RAILWAYS.

Serial No.	Name of Administration and of Railways comprised in each system.	Classified head.	Route—miles on 31st March 1918.				
			5'—6" Gauge.	3'—3½" Gauge.	2'—6" Gauge.	2'—0" Gauge.	Total.
34	Bengal Doars Railway Company ...	(e) X	.....	36·40	.....	.....	.....
	Extensions	(e) VI	.....	116·56	.....	.....	152·96
35	Bengal Provincial Railway Coy.—	VIII	.....	.....	33·27	.....	.....
	Dasghara-Jamalpur Ganj	(e) III	.....	.....	8·31	.....	41·58
36	Burdwan-Katwa	(e) III	.....	.....	32·52	.....	32·52
37	Darjeeling-Himalayan	(e) VII	.....	.....	.....	51·00	.....
	Extension	(e) IV	.....	.....	.....	95·44	146·44
38	Dehri-Rohtas	(e) VI	.....	.....	23·83	.....	23·83
39	E. I. Distilleries Sugar Factories Limited, Madras	(e) VIII	.....	.....	.....	18·00	18·00
40	Guzerat Railways Company:—						
	Champaner-Shivrajpur—Pani Light Railway	(e) IV	.....	.....	32·40	.....	.....
	Godra-Lunavada	(e) IV	.....	.....	25·45	.....	.....
	Nadiad-Kapadvanj	(e) IV	.....	.....	28·01	.....	85·86
41	Howrah-Amta	(e) X	.....	.....	.....	43·87	43·87
42	Howrah-Sheakhala	(e) X	.....	.....	.....	19·75	19·75
43	Jagadhri Light Railway	(e) VIII	.....	.....	.....	3·31	3·31
44	Jessore-Jhenida	(e) X	.....	.....	36·75	.....	36·75
45	Kalighat-Falta Railway Company ...	(e) III	.....	.....	25·33	.....	25·33

46	Madaya Light Railway	...	...	(e) VIII	.....	.....	16-00	.....	16-00
47	Shahdara-Saharanpur	...	...	(e) VI	.....	.....	92-50	.....	92-50
48	Tezapore-Balipara	...	...	(e) X	.....	.....	20-10	.....	20-10
Total head VI				...	.....	244-48	734-58	231-37	1,210-43
Grand Total I to VI				...	17,876-27	15,025-58	2,802-23	629-39	36,333-47
49	Calcutta Port Commissioners' Ry.	...	...	...	15-34	.....	.....	.....	15-34
50	Bombay Post Trust Railway	...	...	...	6-00	.....	.....	.....	6-00
					17,897-61	15,025-58	2,802-23	629-39	36,354-81

(a) Old Guaranteed Companies' lines purchased by Government with or without extensions made by Government.

(b) State Railways constructed by Government.

(c) Indian State Railways.

(d) State Railways constructed through Agency Companies.

(e) Other Companies' lines under classified heads.

(f) " " " purchased by Government.

(g) District Boards' Railways.

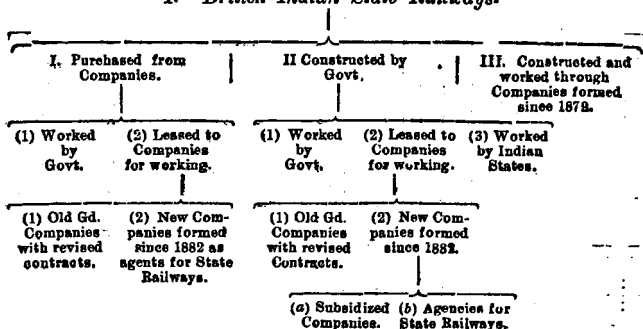
a, b, d, f, are State Railways.

NOTE 1.—The Roman figures in Column 3 indicate the head of classification by the Railway Board as shown in Appendix 17.

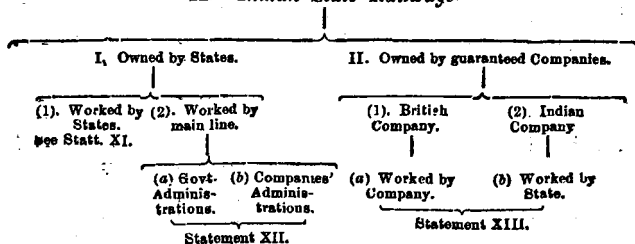
NOTE 2.—424 Miles of open line track were dismantled during the year 1917-18, in order to provide rails for the war. The lines dismantled were the whole of the Sutlej Valley Railway and small portions of N. W., E. I., M. & S. M. and O. & R. Railways (Administration Report, Vol. I page 29 for 1917-18 and page 14 for 1919-20).

APPENDIX 15.

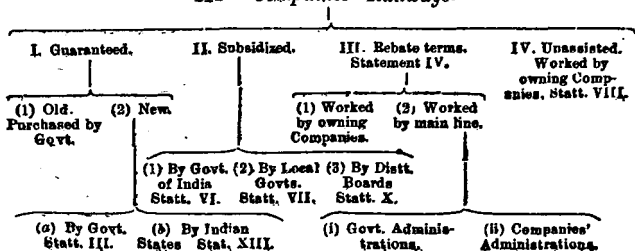
I.—British Indian State Railways.



II.—Indian State Railways.



III.—Companies' Railways.



APPENDIX 17.—Mileage and Capital cost of Indian Railways on 31st March 1918.

Classification of Railways.	Open mileage.	Capital liability for State Railways & capital cost in thousands of rupees provided by—				REMARKS.
		Government and Local Bodies.	Indian States.	Companies.	Total.	
I. State Rys. worked by State.	7,112.07	1,61,47.14		...	1,61,47.14	(a) Total of Appendix 5 to Ry. Board's Administration Report ... 367,436,689 Less share of Travancore State... 461,557 £366,977,132 = = Rs 5,50,46,56,980
II. Ditto worked by Companies	19,071.87	2,97,86.49	.....	91,12.94	3,88,99.43	
III. Companies under guarantee	26,183.44	4,59,33.63	.....	91,12.94	5,50,46.57	
IV. " on Rebate Terms	190.41	..	.....	1,23.28	1,23.28	
V. " on guarantee and Rebate	1,828.04	...	.....	14,22.01	14,22.01	
VI. Companies subsidized by Government of India	87.93	...		99.23	99.23	Totals of heads III to XIV given in Appendix 4 to Railway Board's Administration Report for 1917-18 = Rs. ... 66,04,56,000
VII. Companies subsidized by Local Governments	2,208.56	...	.....	16,08.87	16,08.87	
VIII. Unassisted Companies	137.02	...	.....	1,63.45	1,63.45	
IX. District Board Railways	76.08	...	.....	33.50	33.50	
X. Companies subsidized by District Boards	214.14	1,07.61	.....	...	1,07.61	
XI. I.S. Rys. worked by I.S.	307.27	...		1,46.51	1,46.51	Add South Behar Company included in (b) ... 1,19,77,000 Add Share of Travancore State included in (c) ... 1,67,42,000 68,91,77,000 Add (a) 5,50,46,56,980 Total 6,19,38,38,980
XII. " worked by Main Line.	2,478.80	...	9,50.29	...	9,50.29	
XIII. Companies guaranteed by Indian States	1,788.18	...	11,61.35	...	11,61.35	
XIV. Rys. in foreign territories worked by British Companies	760.00	...	.....	8,68.27	8,68.27	
	73.60	...	.....	2,07.40	2,07.40	
Total	36,833.47	4,60,41.24	21,11.64	1,37,85.46	6,19,38.34	

APPENDIX 17.

Lxvii.

APPENDIX I.

State Railways worked by the State

Name of Railway.	Mileage open on 31st March 1918.	Capital liability on 31st March 1918.	Percentage of net earnings on capital outlay for last three years.
1. Eastern Bengal—		£	
Broad-gauge ...	569.26	25,745,757.	{ 4.04
Metre-gauge ...	977.72		{ 4.34
2'-6" Gauge ...	35.10		{ 3.57
	1,582.08		{ 3.67
2. North Western—			
Broad-gauge ...	3,690.27	60,878,448	{ 4.41
2'-6" gauge ...	297.45		{ 5.94
	3,987.72		{ 7.90
3. Oudh & Rohilkhand.			
Broad-gauge ...	1,590.77	18,851,052	5.28
Metre-gauge ...	Shown in Appd. II.		7.02
4. Jorhat (Assam Provincial Ry.)			
2'-0" gauge ...	32.50	74,150	{ 5.04
Miscellaneous Expenditure ...	.....	2,472,791	{ 5.62
			{ 2.07
Total ...	7,112.07	£107,647,626	
Equivalent in rupees at £1 = Rs.15.		= Rs. 1,614,714,390	

APPENDIX II.—*State Railways worked by Companies*

RAILWAY.	Open mileage 31st March 1918.	Gauge.	CAPITAL LIABILITY IN THOUSANDS OF POUNDS.		Working Company.
			Total.	Subscribed by Company.	
E. I. Ry. System	2,464	5'-6"	55,844	D.18,500	E.I.Co.
S. I. Ry. System	{ 446 881 25	{ " 3'-3 3/8" 2'-6"	{ 12,672	{ S. 1,000 D.2,766	S. I. Co.
Tinnevely-Quilon	50	3'-3 3/8"	117	D. 114	Do.
Nilgiri ...	29	"	287	.....	Do.
Dharampuri- Hosur	73	2'-6"	142	.....	Do.
G. I. P. Railway	{ 2,553	{ 5'-6"	{ 57,232	{ S. 2,575 D. 3,500	G. I. P. Co.
Indian midland	126	5'-6"	3,243	.....	Do.
Agra-Delhi-Chord	40	"	991	.....	Do.
Baran-Kotah ...	13	5'-6"	328	.....	Do.
Itarsi- Hoshangabad	76	"	273	.....	Do.
Cawnpore-Banda			533	.....	Do.
B.B. & C.I. Ry.Syst.	{ 997 1,822	{ 5'-6" 3'-3 3/8"	{ 35,724	{ S. 2,000 D.1,000	B. B. & C. I. Company.
Palampur-Dessa	17	"			
Broach-Jambusar	30	2'-6"			
M.&S.M.Ry.System	{ 1,032 1,518	{ 5'-6" 3'-3 3/8"	{ 30,290	{ S. 5,000 D.4,825	M. & S. M. Company
Mysore State Ry.	296	"	1,200	D. 1,200	Do.
Dhone-Karnool Railway ...	32	"	68	.....	Do.
B. N. Ry. System	{ 1,889 798	{ 5'-6" 2'-6"	{ 28,499	{ S. 2,995 D.7,874	B. N. Co.
Tumsar-Tirodi...	51	2'-0"			

with Boards in London, vide Section 6 (a) of Chapter VI.

Dates of principal Contracts.	FIXED INTEREST ON CAPITAL		SURPLUS PROFITS.		Expiry of Contract.	REMARKS.
	of Government.	of Company.	Government Share.	Company's Share.		
22-12-1879 14-11-1899	4%	4%	$\frac{1}{15}$	$\frac{1}{15}(a)$ $\frac{1}{15}(b)$	31-12-1924	a. Profits up to 25 lakhs b. Excess beyond 25 lakhs. Chairman- Lt. Col. R. Gardiner
24-11-1890 2-3-1909 21-12-1910 ...	3½%	Guarantee 3½% plus ½% surplus in 1911 to 1913	In proportion to Capital subscribed by each		31st December 1945	Chairman— Sir. H. Kimber, Bart. M. P., Managing Director—Mr. N. Priestley.
21-12-1900						Chairman—Col. F. Firebrace R.E.
5-2-1909						
19-3-1909						
21-12-1900 8-5-1914	3%	3%	$\frac{1}{20}$	$\frac{1}{20}$	30th June 1945 30th September or 31st March in any year. 30-6-1925 30th September or 31st March in any year.	
1-4-1907 24-10-1913	4 % if earnings admit of it	3 per cent., guaranteed with 1 per cent. extra if earnings admit of it.	In proportion to capital subscribed by each		31-12-1941 or any succeeding 5th year	Chairman—Major A.D. Shelley.
1-6-1882 26-6-1908 ...	..... ..... .....	3½ % guarantee in gold.	{ Do.		31-12-1937	Chairman—Col. W. V. Constable R.E.
15-9-1911	.....	.....	whole	Nil.	30th June or 31st December of any year.	See Section 6 of Chapter VI.
9-3-1887 5-11-1912	3½%	3½%	$\frac{1}{4}$	$\frac{1}{4}$	31-12-1950	Chairman—Robt. Miller Esq., Managing Director—Sir. T. R. Wyne K.C.S.R. K.G.E.E.

APPENDIX II.—(Contd.)—State Railways worked by Companies

RAILWAY.	Open Mileage on 31st March 1918.	Gauge.	Capital liability in thousands of £		Working Company.
			Total.	Subscribed by Company.	
Assam-Bengal Ry.	869	3'-3 $\frac{3}{8}$ "	10,637	{ S 1,500 D. 906 }	A. B. Co.
Burma Railway ...	1,342	"	11,685	{ S 3,000 D 1,250 }	Burma Rys. Company.
Burma Railway Extensions	187	3'-3 $\frac{3}{8}$ "	2,491	.....	Do.
Southern Shan States Railway	69	3'-3 $\frac{3}{8}$ "			
Tirhut State Ry.	804	3'-3 $\frac{3}{8}$ "	5,341	.....	B. & N. W. Ry. Coy.
O. & E. Railway Cawnpore- Burhwal	80	"	Included in Appendix I.	.....	Do.
Benares Cantt. to City ...	2	"			
Lucknow—Bareilly State Railway	312	"			
Jodhpur-Hyderabad British Sec- tion ...	124	"	301	.....	J. B. Ry.
Bezwada Exten- sion ...	21	5'-6"	83	.....	N. G. S. Ry. Company.
Total ...	19,071	...	259,329	{ 18,270 42,483 60,753 }	Shares Debentures
Thousands of Rs.	...	...	3,88,99,43	91,12,94	.

with Boards in London, vide Section 6 (a) of Chapter VI, p. 344-50.

Dates of principal Contracts	Fixed interest on Capital		Surplus profits.		Expiry of Contract.	Remarks.
	of Government.	of Company.	Government Share.	Company's Share.		
26-4-1892	3 p.c.	3%	In ratio of Capital expended by each.		31-12-1921	Chairman Sir F. R. Upcott, K.C.V.O., C.S.I. Chairman—Col. A. G. Begbie. Managing Director—W. Home Esq., C.I.E.
9-3-1897	2½ per cent. on assumed Capital of £5,750,000	2½ per cent. on £3,000,000 Share Capital			31st December 1928.	
22-2-1907	3½ p.c.	...			30-6-1919 or a subsequent fifth year.	
7-4-1913		...				
Contract	not published.		...	...		See page 355.
18-2-1890	5 %	...	Up to ten lakhs	...	31st December 1919.	
14-12-1905			Excess beyond ten lakhs.	...		
21-2-1902	...	...	...	...	...	See Chapter VI, Section 6 (a)
8-9-1890	4 %	4 %	In ratio of their respective shares of capital		31st December 1932.	
5-2-1901					1st April or 1st October in any year.	
22-12-1900	...	...	...	...	1 January or 1st July in any year on six months' notice from either side	
6-4-1909	...	...	whole	...	...	

APPENDIX III.—*Railway Companies under new
see Section 6 (c) of Chapter VI, page 361.*

NAME OF COMPANY.	Contract date.	First opening.	Length Miles	Gauge.	Capital Cost in Thousands of rupees.	Dividend per cent. earned.
				ft. in.		
Hardwar-Dehra (1) ...	26-3-97	1900	32	5—6	30,40	9.15
Burdwan-Katwa ...	1-12-15	1917	33	2—6	17,98	3.75
Ahmadpur-Katwa ...	.....	1917	32	2—6	19,50	2.33
Bankura-Damodar River	.....	1916	60	2—6	35,57	2.31
Kalighat-Falta ...	.....	1917	25	2—6	17,37	5.03
Dasghara-Jamalpur-ganj	.....	1917	8	2—6	2,46	5.38
Total ...	.....	...	190	...	1,23,28	...

IV.—*Railway Companies under Rebate Terms, vide Section 6*

South Bihar ...	7-8-95	1899	79	5—6	1,19,77	4.38
	11-12-06					
Southern Panjab—						
Main line ...	13-8-95	1897	426	5—6	2,73,85	11.20
Ludhiana Extension	4-10-05	1905	152	5—6	93,30	5.37
Sutlej valley ...	24-6-09	1910	208	5—6	1,53,12	5.77
Jullundar-Doab ...	9-7-12	1912	130	5—6	1,32,44	5.82
Mymensing-Jamalpur						
Jagannathganj (2)	6-1-97	1898	56	3—3½	26,80	11.35
Darjeeling-Himalayan						
Extension	25-4-14	1914	95	2—0	53,77	3.09
Central Provinces						
Ry. Co.						
Elichpur-Yeotmal	27-3-16	1913	118	2—6	83,86	3.76
Pulgaon-Arvi	.....	1917	22			
Dhond-Baramati ...	.....	1914	27	2—6	11,62	5.03
Carried over ...	.....	...	1,313	...	9,48,53	...

*guarantee from Government of India. For further particulars,
Land given free by Government in all cases.*

Working agency,	Working Expenses P. & C. of gross Receipts	Rebate per cent. of gross Receipts.	Guaranteed interest per cent.	Surplus profits,		Expiry of Contract.	Purchase Price,	Agents or Chairman,
				Government Share.	Company's Share.			
O. & R. Ly.	50	...	3	1/2	1/2	31-12-19 31-3-46	25 times average yearly net earnings for preceding 8 years, subject to a Maximum of 120 and Minimum of 100 per cent of Capital expenditure.	(1) Messrs. Gillanders, Arbuthnot & Co., Calcutta.
Owning Company.	...	...	3 1/2 to 5	1/2	1/2	published.		
	...	...	Contracts not					
	...	...						
	...	...						
	...	...						

(d), Chapter VI, p 362-68 Land given free by Government in all cases.

E. I. Ry.	45	30	4	Nil.	whole	30-6-19	£ 684,580 as subscribed Capital.	Sir H. S. Canning ham, London.
N. W. Ry.	52	As much as whole.	$3\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	31st Dec. 1929, or 1934, or 1944, or 1954. (a)	Same as in appendix III, average of 5 years, instead of 8. (a) Capital expenditure only.	Sir Bradford Leslie K.C.I.E., London.
			$3\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$			
			$3\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$			
			$4\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$			
E. B. Ry.	45	As much as whole.	$3\frac{1}{2}$	Nil.	whole	31-12-19	Same as in Appendix III.	(2) Demolition trans- ferred from Calcutta to London in 1919.
D. H. Ry. Coy.	50		5	$\frac{1}{2}$	$\frac{1}{2}$	31-3-46		
G.I.P. Ry.	45	As much as whole.	6	$\frac{1}{2}$	$\frac{1}{2}$	31-3-45		
G.I.P. Ry.	...		Contract	not	published.			
.....	...	...	...	...	...			

APPENDIX IV.—(Continued)—*Railway Companies under
Chapter VI, pages 362-68. Land*

NAME OF COMPANY.	Contract date,	First opening	Length, Miles	Gauge Ft. inch	Capital Cost in thousands of rupees.	Dividend per cent. earned.
Brought forward ...	.....	...	1313	...	9,48,53	...
Ahmedabad-Prantelj	13-3-96	1897	89	3—3 $\frac{3}{8}$	37,23	9.50
	24-11-10					
Tapti Valley ...	28-8-96	1898	156	5—6	1,32,37	8.50
	1-3-21					
Ahmedabad-Dholka...	25-3-02	1903	34	3—3 $\frac{3}{8}$	11,18	6.20
	12-11-08					
Amritsar-Patti ...	22-5-05	1906	54	5—6	34,06	7.75
Guzrat Rys. Company						
Godhra-Lunavada	30-4-14	1913	25	2—6	12,97	0.95
Nadiad-Kapadvanj	30-4-14	1913	28	2—6	14,89	7.92
Champaner-Shivraj- pur-Pani	1-4-15	1911	33	2—6	16,25	2.15
Mandra-Bhon ...	15-10-14	1915	46	5—6	23,97	4.75
Sara-Sirajganj (3) ...	14-4-16	1915	53	5—6	86,49	...
Upper Sind Light Ry.						
Jacobabad-Kashmor	29-7-16	1914	77	2—6	21,85	4.55
Hoshiarpur Doab Ry.						
Jallundar-Mukerian	2-2-17	1915	45	5—6	28,89	2.28
Phagwara-Rahon	2-2-17	1915	45	5—6	25,76	4.87
Sialkot-Narowal ...		1915	38	5—6	27,57	4.87
Total ...	.....	...	2036	...	14,22,01	...
Deduct Sutlej Valley dismantled in 1917-18	.....	...	208	5—6	.....	...
Total ...	.....	...	1828	...	14,22,01	...

* Guzrat Rys. Co.—25 times the average net earnings of the last preceding 3 years.

V.—Branch line Companies under

Mymensingh-Bhairab Bazar		1917	88	3—3 $\frac{3}{8}$	99,23	...
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Rebate Terms. For further particulars, see Section 6 (d) of given free by Government in all cases.

Working agency.	Working Expenses P. a. of gross Receipts.	Rebate per cent. of gross Receipts.	Guaranteed interest per cent.	Surplus profits.		Expiry of Contract.	Purchase Price.	Agents.
				Government Share.	Company's Share.			
B. B. & C. I. Railway	44	10	5	Nil.	Whole.	31-12-30	25 times the average yearly net earnings during last preceding 5 or 3 years, Maximum 120, Minimum 100% of total Capital outlay.*	Messrs. Killick Nixon & Co., Bombay.
	55	10	8			31-12-31		
	44	45	4			30-6-22		
N.W.Ry.	45	45	5	$\frac{1}{2}$	$\frac{1}{2}$	31-12-35		
Owning Company	...	as much as whole.	5	$\frac{1}{2}$	$\frac{1}{2}$	31-12-44		
	50		5	$\frac{1}{2}$	$\frac{1}{2}$	31-3-47		
N.W.Ry.	50		5	$\frac{1}{2}$	$\frac{1}{2}$	31-3-46		
E.B.Ry.	50		5	$\frac{1}{2}$	$\frac{1}{2}$	31-3-45		
N.W.Ry.	45		5	$\frac{1}{2}$	$\frac{1}{2}$	31-3-45		
N.W.Ry.	50		5	$\frac{1}{2}$	$\frac{1}{2}$	31-3-46		
N.W.Ry.		Contract	not	published.				
.....	...	...	...	...	...			
.....	...	...	...	...	...			
.....	...	...	...	...	...			

or 115 per cent. of the total capital expenditure, whichever may be greater.

Guarantee and Rebate combined.

A.B.Ry. Company	...	...	Contract	not	published.	
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Appendix VI.—Companies' Railways subsidized by the Govern-

NAME OF COMPANY.	Date of contract.	Year of first opening.	Length.		Gauge.	Capital Thousands of Rupees.	Dividend earned. per cent. on Capital.
			Miles.	Ft. In.			
R. & K. ...	12-10-82	1884	259	3-3 $\frac{3}{8}$		1,68,16	7.42
B. & N. W. ...	12-12-82 22-2-86	1884	1242	3-3 $\frac{3}{8}$		9,78,24	6.81
D. U. K. ...	12-2-89 9-6-97	1891	206	5-6		1,95,27	9.67
Powayan ...	18-12-89 1-7-01	1890	39	2-6		8,95	4.47
Barsi Light Ry.	1-8-95	1897	118	2-6		86,03	4.83
Bengal Doars Ex- tension ...	2-3-98 6-7-16	1901	116	3-3 $\frac{3}{8}$		1,08,54	7.15
Shahdara-Sahranpr	11-10-05	1907	92	2-6		44,63	8.31
Dehri-Rohtas ...	13-10-07	1911	24	2-6		6,70	20.77
Matheran ...	30-10-09	1907	13	2-0		11,43	2.32
Sind Light Ry— Mirpur-Khas Jhudo	13-7-11	1909	50	3-3 $\frac{3}{8}$		7,32	11.21
Do. Khadro	9-6-13	1912	50	3-3 $\frac{3}{8}$		8,23	6.22

ment of India, see Section 6 (b) of Chapter VI, pages 350—61.

Government aid.	Working Agency.	Working expenses per cent. of Gross receipts.	Fixed interest per cent.	Surplus Profits.		Expiry of Contract.	Purchase price.
				Government Share.	Company's Share.		
Land free and Subsidy	Owning Company	...	6	$\frac{1}{2}$	$\frac{1}{2}$	31-12-32	25 times the average yearly net earnings less Government share of Surplus 3 or 5 years preceding purchase.
Land free	Owning Company	...	6	$\frac{1}{2}$	$\frac{1}{2}$	31-12-32	Chairman—Alex. List Esq., C.I.E.
Land free	E. I. Ry.	48	$3\frac{1}{4}$	Nil	whole	31-12-26	25 times ditto. See Kalka Simla Ry. page 860.
Free use of Govt. road.	R.&K. Ry	60	...	...	whole	31-12-27	Value of property as a dividend earning investment, with an additional bonus of 20 per cent. over such value.
Land mostly free.	Owning Company	...	...	...	whole	1-1-44	Par value in British territory; 5 per cent. in excess of capital expenditure in Nizam's territory.
Land free	"	...	...	...	...	31-12-19 30-6-26	Chairman—G.A. Anderson, Esq. 25 times annual average earnings. Maximum 120, Minimum 100 per cent. of capital outlay.
Land and portion of local road free.	"	...	4	$\frac{1}{2}$	$\frac{1}{2}$	15-10-18 15-10-25	Chairman—Robt. Miller Esq. Ditto. Maximum 125. Agents—Messrs. Martin and Co. Calcutta.
Free use of road.	"	...	...	...	whole	13-10-28	20 times ditto. Maximum 125. Agents—Messrs. Octavius Steel & Co., Calcutta.
Govt. Land free	G.I.P. Ry.	Actual expenses	...	...	"	On six months' Notice.	25 times ditto. No Maximum or Minimum.
Land free	J.B. Ry	40	...	...	"	31-12-28	25 times ditto. Maximum 120.
						1-1-33	

Appendix VII.—Companies subsidized by

Name of Company.	Date of Contract.	Year of first opening.	Length. Miles	Gauge.	Capital cost in thousands of Rupees.	Dividend earned.	Government aid.
Darjeeling-Himalayan ...	8-4-79	1890	51	Ft. In. 2-0	46.07	6.43	Land free & cash Subsidy.
Dibru-Sadiya ...	26-5-80 28-10-14	1882	86	3-3½	1,17.38	3.97	Do.
Total ...	...	...	137	...	1,63.45	...	.....

VIII.—Unassisted Companies.

Ledo and Tikak Margherita Colliery Ry. ...	30-7-81 26-2-03	1884	5½	3-3½	16.94	2.18	Mines and premises leased to the Coy. at a fixed rental.
Bengal Provincial Ry.	16-10-90	1894	33	2-6	11.98	3.78	Part of land allowed free.
Jagadhri State Ry. ...	15-12-09	1911	3-3	2-0	1.12	1.40	.....
Kulasekara-patnam-Light Railway ...	19-6-14	1915	18	2-0	3.46	15.82	Government land at annual rental of Rs. 10 per mile.
Madaya Light Ry. ...	13-2-06	1912	16	2-6	...	...	Land rented at Rs. 250 annually per track-mile for 3 years and Rs. 400 per mile thereafter.
Total ...	...	...	76	...	33.50	...	.....

Local Governments. Every one working its own Railway.

Fixed interest per cent.	Surplus profits.		Expiry of Contract.	Purchase price.	Agents.
	Government share.	Company's share.			
5	...	whole.	4-5-09 or at intervals of 10 years thereafter.	20% in excess of the value as a dividend paying investment.	Messrs: Gillanders Arbuthnot & Co., Calcutta.
5	½	½	5-2-21 or ditto.	Ditto.	Assam Ry. and Trad- ing Coy., London.
...	...	...	...	...	...

Every one working its own Railway, pages 368-69.

...	...	whole.	Not specified.	Fair value.	Assam Railways and Trading Company.
...	...	do.	After 4 January 1917.	2/5ths in excess of capital outlay.	
...	...	...	11-8-82.	25 times average an- nual net earnings. Maximum 120 Minimum 100 per cent. of capital outlay.	
...	...	whole.	19-6-1964.	.....	
...	...	do.	13-2-1948.	Fair market value.	
...	...	...	...	...	

Appendix IX.—Railways belonging to District

Name of Board and Railway.	Date of first open- ing.	Length. Miles.	Gauge. Ft. In.	Capital cost in thousands of rupees.	Divi- dend per cent 1915-16 1916-17.	WORKING-	
						Agency.	Date of Agree- ment.
TANJORE DISTRICT.							
Mayavaram-Arantangi ...	2-4-94	112	3-3½	66.21	7-85 6-58	S. I. Ry. Co.,	22-7-97
KISTNA DISTRICT.							
Bezwada-Masulipatam ...	4-2-08	52	5-3½	22.29	10-40 9-45	M & S M Ry. Co.,	4-2-08 26-6-08
GUNTUR DISTRICT.							
Tenali-Repali ...	18-3-16	21	5-6	14.86	0-18 3-75	"	...
SALEM DISTRICT.							
Surmangalam Salem ...	1-6-17	4	5-6	4.72	...	S. I. Ry.	...
COIMBATORE DISTRICT.							
Podanur-Pollachi ...	15-10-15	25	3-3½	11.37	3-08 7-82	"	...
Total ...	...	214	...	1,19.45	...	...	...
Calcutta Port Commis- sioners' Railway ...	1-11-75	15	5-6	...	...	...	...
Bombay Port Trust Ry. ...	1-1-15	6	5-6	...	...	...	...

Boards and Port Trusts.

ARRANGEMENTS.		Remarks.
Terms for working.	Expiry of Agreement.	
Working expenses charged at the same percentage on gross receipts as is incurred on S. I. Ry. plus cost of any damage, plus 5 per cent. of gross receipts for use of rolling stock.	31st December in any year, on 12 months' previous notice.	Half of the funds have been provided by the Madras Government from Provincial sources and the other half by the District Board by enhancing the local land cess from 8 to 12 per rupee and by debenture, loan at 4 per cent. interest.
Working expenses charged at 45 per cent. of the gross earnings, plus cost of New Minor Works. Rebate up to 10 per cent. of the Main Line earnings from traffic interchanged with the Branch, to make up a return of $3\frac{1}{2}$ per cent. on capital outlay.	31st December 1937 or any succeeding fifth year.	Government gave the land free of cost, reserving their right to acquire the railway after 30 years at a price of 25 times the average net earnings, not exceeding 120, nor less than 100 per cent. of capital cost.
Contract not published.		
" " "		
" " "		
Owned and worked by the Port Trust. Calcutta Trust pays a quit rent of Rs. 37,292 per annum for the land.		
Owned and worked by the Port Trust.		

Appendix X.—Railway Companies subsidized by

Name of District Board and Railway.	Date of Contract	Date of First opening	Length. Miles	Gauge. Ft. In.	Capital Cost in thousands of Rupees.	Dividend per Cent. last 3 years.	Subsidy.
JALPAIGURI DIST. Bengal Doars ...	27.4.91	15.1.91	86	3—3½	83.15	7.07 7.37 7.15	Free land and annual Subsidy of Rs. 4,000.
Howrah-Amta ...	26.3.95	1.7.97	44	2—0	26.52	9.68 10.15 10.40	Free use of roads for 20-21 years and cash Subsidy to make up 4 per cent. per Annum.
Howrah-Sheakhala	26.3.95	2.8.97	20	2—0	7.64	8.06 8.56 8.55	
TEZPORE DISTRICT. Tezporé-Balipara Steam Tramway	1.6.95	9.8.94	20	2—6	4.87	9.12 9.55 6.16	
24 PARAGANAS. Baraset-Basirhat ...	14.12.97	1.2.05	52	2—6	93.85	6.40 5.69 3.89	Land mostly free, free timber from Govt. forests for sleepers for first construction, Subsidy of Rs. 5,000 yearly up to 1914.
PATNA DIST. Bakhtiarpur-Bihar	21.8.99	1.7.03	83	2—6	18.84	8.08 4.57 6.09	Free use of District Road & Cash Subsidy to make up 4 per cent. on Capital.
SHAHABAD DIST. Ara-Sasaram ...	15.10.09	6.3.11	65	2—6	22.67	3.46 4.42 6.01	Ditto.
JESSORE DISTRICT. Jessore-Jhenidah ...	26.5.13	1.10.13	37	2—6	13.97	...	Ditto.
Total ...	...	...	307	...	1,46.51	...	.....

District Boards, Each Company working its own line.

Fixed rate of interest per cent.	Surplus profits.		Expiry of Contract.	Purchase Price.	Agents.
	District Board's Share.	Company's Share.			
5	...	...	31-12-19	1 $\frac{1}{2}$ ths of invested Capital.	Board in London.
4	$\frac{1}{2}$ $\frac{1}{2}$	$\frac{1}{2}$ $\frac{1}{2}$	26th March 1916 or at end of every seven years thereafter.	Value as a dividend earning invest- ment with a bonus of 20 per cent. thereon. Value of whole line plus a bonus of 20 per cent., by District Board, Howrah; if purchased by D. B. Hooghly, 15 per cent. bonus.	Messrs. Walsh Lovett & Co., Agents of Bengal District Roads Tramway Company.
...	Nil.	Whole	1909 there after at terms of 7 years each.	Same as Howrah Amta Railway.	.....
4	$\frac{1}{2}$	$\frac{1}{2}$	15-5-24	Twenty times the average annual net profits during 4 years preced- ing purchase, with a bonus of 20 per cent. thereon.	Messrs. Martin & Co., Calcutta.
4	$\frac{1}{2}$	$\frac{1}{2}$	25-6-22	Ditto.	Ditto.
4	$\frac{1}{2}$	$\frac{1}{2}$	8-9-34	Ditto. average of 8 years.	Ditto.
4	$\frac{1}{2}$	$\frac{1}{2}$	31-3-43	Ditto. Ditto.	.....
...	...	...			

Appendix XI.—Indian State Railways worked by Indian

Name of Railway.	Date of first opening.	Length. Miles.	Gauge. Ft. In.	Capital cost in thousands of Rupees.	Dividend per cent. in 1915-16.
Morvi State Railway	11-3-80	74	3-3½	53.77	9.15
	24-3-87	19	2-6		
Bhavnagar State Railway	20-12-80	206	3-3½	1,23.82	6.45
Dhrangadhra State Railway	1-6-93	43	"	14.12	5.13
Gondal-Porebandar	19-6-81	148	"	76.48	7.21
Jetalpur-Rajkot	12-4-93	46	"	16.53	14.18
Jodhpur State Railway	24-6-82	609	"	2,04.44	13.07
Pipar-Bilara	25-11-10	25	2-0	2.90	4.30
Bikaner State Railway	9-12-91	498	3-3½	1,21.04	8.66
Junagad State Railway	1-9-88	121	"	73.58	5.33
Udaipur-Chitorgarh	1-8-95	67	"	22.84	6.77
Jamnagar State Railway	8-4-97	54	"	24.26	6.08
Gawalior State Railway	2-12-99	250	2-0	75.92	3.42
Cutch State Railway	18-5-05	37	2-6	11.43	4.82
DHOLEPUR STATE RAILWAYS.					
Dholpur-Bari	2-42-08	36	2-6	12.93	2.44
Mohari-Berauli	10-2-17	15			
BARODA STATE.					
Khijadiya-Dhari	1-3-13	37	3-3½	19.54	0.14
MYSORE STATE RAILWAYS.					
Kolar District	15-12-13	64	2-6	18.74	0.87
Tarikere-Narsimharajapura	15-1-15	27	2-0	5.14	...
Mysore-Aasikere	3-1-18	103	3-3½	81.12	...
Total	...	2,473	...	9,58.40	...

States—the owning States except where otherwise remarked.

REMARKS.

Originally constructed on 2 ft.—6 in. gauge; converted to 3 ft. 8½ in. on 4th March 1905.

Worked by the Bhavnagar Durbar.

Worked by the Gondal—Porebandar States.

Constructed and worked jointly by the two Durbars under agreements dated 18th and 30th July 1889 between the Government of India and the Durbars (Appendices M and N to the Administration Report for 1889—90, Part II).

Worked by the G. P. Ry. for 35 to 40 per cent. of gross earnings (subject to a biennial revision) plus actual expenditure on maintenance of Way, Works and Stations, Police charges, joint expenses at Khajadia Junction, and 5 per cent. of gross earnings for hire of Rolling Stock.

Owned jointly by the Mysore Durbar and the Kolar District Board.

Appendix XII.—Indian State Railways worked

Name of State and of Railway.	Date first opening.	Length. Miles.	Gauge. Ft. In.	Capital cost in thousands of Rupees.	Dividend per cent. in 1915-16.	Work- ing Agency.	Date of Work- ing Agreement.
1 BARODA STATE.							
Dabhoi Railway ...	8.4.73	153.94	2—6	62.60	5.17	B. R. & C. I. Ry. Company.	1.1.97
Bodeli-Chhota—Udaipur ...	1.12.17	22.56	„		...		
Kosamba-Zankhvat ...	1.5.12	26.10	„	13.29	Loss.		6.12.15
Petlad-Vaso ...	10.12.14	19.25	„	9.00	1.67		17.11.14 17.6.15
Bilimora-Kalamba ...	23.7.14	34.93	„	15.53	0.22		23.10.14
Mehsana lines ...	21.3.87	162.63	3—3½	69.04	5.75	„	17.6.93
Vijapur-Kalol-Kadi ...	10.6.02	46.11	„	16.32	5.21	„	17.6.93
Petlad-Cambay (Anand- Tarapur) ...	5.5.90	21.42	5—6	12.84	11.52	„	5.5.90 16.5.10
2 MYSORE STATE.							
Mysore-Nanjangad ...	1.12.91	15.80	3—3½	6.61	6.85	M. & S. M. Ry. Company.	14.12.99
Birur-Shimoga ...	1.12.99	37.92	„	24.38	„		2.12.99
Hindupur (Yeshwantpur)	15.12.92	51.35	„	25.26	„		2.12.90
Kolar Gold Fields ...	1.6.94	9.88	5—6	12.13	5.80		1.7.02
3 BHOPAL STATE.							
(a) Bhopal-Itarsi ...	1.6.82	44.56	5—6	50.00	6.86	G. I. P. Co.,	16.9.80 30.6.87 2.12.90 21.12.00
(b) Bhopal-Parbati Section of Bhopal-Ujjain Railway ...	11.11.95	31.28	5—6	* 79.00	* 6.39	„	4.8.96 31.1.11

by the Main Line.

Terms for Working.	Termination of Working Agreement.	Remarks.
The Company work the lines for actual cost plus 10 per cent. of total working expenses but not less than Rs. 1,100 per mensem in the half-year for Superintendence.	30th September or 31st March in any year on one year's notice.	
Excepting cost of extraordinary damages which is chargeable to capital, for maintenance and working including hire of Rolling Stock, the lines are debited with the same percentage of their gross earnings as may be incurred in the half-year on the entire system of B. B. & C. I. Ry. 5 ft. 6 in. & 3 ft. 3½ in. gauges, and with cost of New Minor Works costing Rs. 2,000 or less.	Do.	
With certain reservations, the working expenses for these lines are calculated at the same ratio to their gross earnings as the working expenses of the entire system of the company bear to the total gross earnings of that system.	On 1st January or 1st July in any year on 6 and 12 months' notice.	
For working and stocking the line, the G. I. P. Company receive a sum which bears same proportion to total working expenses of company's undertaking as the gross earnings of the Bhopal State Ry. bear to the gross earnings of that undertaking.	30th June 1925.	Of the capital 50 lakhs were contributed by the Bhopal State and the balance by the Govt. of India. The net earnings or losses are divided by the State and the Govt. in proportion to the capital contributed by each.
Do. do. do.	On 30th June or 31st December of any year on 12 month's notice by either party.	* For the whole line of 113.27 miles from Bhopal to Ujjain.

Appendix XII Continued.—Indian State Railways

Name of State and of Railway.	Date first opening.	Length. Miles.	Gauge. Ft. In.	Capital cost in thousands of Rupees.	Dividend per cent. in 1915-16.	Working Agency.	Date of Working Agreement.
4 SCINDIA (GWALIOR) STATE.							
(a) Ujjain-Parbati ...	11.11.95	82.00	5-6	Included, in 3 (b)		G. I. P. Co.	{ 4.8.96 20.3.11
(b) Bina-Guna-Chhabra ...	23. 9.95	110.07	"	1,00.54	* 2.50	"	{ 15.7.96 20.3.11
() Nagda-Ujjain ...	15. 7.96	32.51	"	22.55	8.29	BB & CI Ry. Co.	15.7.96
5 PATIALA STATE.							
Rajpura-Bhatinda ...	1.11.84	108.04	"	75.78	11.04	N. W. Ry.	30.1.93
6 JAMMU & KASHMIR STATE.							
State frontier to Tawi River ...	15. 3.90	16.01	"	10.60	5.76	"	21.4.13
7 KOLHAPUR STATE.							
Miraj-Kolhapur ...	21. 4.91	29.27	3-3½	23.26	6.72	M & S M Co.	17.7.91
8 Coosh Bihar State	15. 9.93	33.09	"	19.77	7.18	S.B. Ry.	25.2.07

Worked by the Main Line.

Terms for Working.	Termination of Working Agreement.	Remarks.
Worked for 50 per cent. of gross earnings, except Guna Chhabra Section which is charged same percentage of its gross earnings as the working expenses of the whole system of the Company bear to the gross receipts of that system.	30th June or 31st December in any year on 12 months' notice.	* For whole line of 146 miles from Bina to Baran. See item 10.
The State is debited with a share of the working expenses of the Company's system in proportion to the total earnings, of the Nagda-Ujjain Railway in each half-year.	31st March or 30th September in any year on 12 Months' notice.	
The Railway is managed, maintained, stocked and worked for 62 per cent. of its gross earnings.	On 1st January or 1st July in any year on 6 months' notice.	
Ditto for 55.50 per cent. ditto. The N. W. Ry. allow a rebate out of their own earnings from traffic interchanged with the Branch to make up, together with its net earnings, a dividend of $3\frac{1}{2}$ per cent. per annum.	Terminable on six months' notice after 1st January 1917.	
Same as in the case of Mysore State Railways No. 2 above.	Six months' notice from either party.	
For management, working and maintenance, the E. B. Ry. retains 40 per cent. of the gross earnings, except when stock of E. B. Ry. is used on the Branch, the E. B. Ry. takes upto 45 per cent. of the gross earnings obtained from the use of such stock.	Do.	

Appendix XII. Continued.—Indian State Railways

Name of State and of Railway,	Date first opening.	Length. Miles.	Gauge. Ft. In.	Capital cost in thousands of Rupees.	Dividend per cent. in 1915-16.	Work ing Agency.	Date of Work- ing Agreement.
9 RAJPIPLA STATE.							
Anklesvar-Nandod ...	1-7-97	89-24	2-6	17,13	3-99	BB & CI Ry. Co.	19-3-00
10 KOTAH STATE.							
Chhabra-Baran ...	15-5-99	37-00	5-6	Included	in 4 (b)	G. I. P. Co.	20-2-99 20-3-11
11 PARLAKIMEDI							
Nanpada-Parlaki-medi ...	1-4-00	24-62	2-6	7,67	0-11	B. N. Ry. Co.	24-1-05
12 JHIND STATE AND MALER KOTLA STATE.							
(a) Ludhiana-Dhuri- Jakhod ...	10-4-01	78-65	5-8	43,17	10-26	NW Ry.	6-9-99
(b) Jhind-Panipat ...	1-11-16	25-90	„	16,74	...	E. I. Ry. Co.	Under consi- deration
13 CAMBAY STATE.							
Tarapur-Cambay ...	20-6-07	12-36	„	8,81	4-07	BB & CI Co.	17-5-02 10-5-10
14 COCHIN STATE.							
Shoranur-Ernakulam ...	16-7-02	64-75	3-3½	71,08	4-55	S. I. Ry. Co.	1-1-08
15 MOURBHANJ STATE.							
Rupsa-Baripada ...	20-1-05	32-41	2-6	7,27	2-24	B. N. Ry. Co.	10-3-05

Worked by the Main Line.

Terms for Working.	Termination of Working Agreement.	Remarks.
Actual cost of working plus 2½ per cent on total working expenses (not less than Rs. 800 per mensem nor more than Rs. 800 per mensem) in the half-year for supervision.	At end of any financial year on one year's notice.	
Worked for the same percentage of its gross receipts as the working expenses of the whole system of the G. I. P. Railway bear to the gross receipts of that system.	31st March or 30th September in any year on 12 months' notice.	
Worked for actual working expenses.	31st December in any year on 3 months' notice.	
Worked for 52 per cent. of its gross earnings and the balance is paid to the Jhind and Maler-Kotla Darbars in the ratio of ⅔ and ⅓ respectively.	1st January or 1st July in any year on 6 months' notice.	
Managed, maintained, stocked and worked as part of the B. B. & C. I. Railway system.	At any time on 12 months' notice.	
Working expenses are made up of actual cost of renewals plus gross earning proportion of non-renewal expenses incurred, for whole system. Net earnings in excess of 2 p. c. on capital cost in any year are deemed "surplus profits" divisible ⅔ to the Darbar and ⅓ to the Company.	12 months' notice expiring on 30th September or before 31st March in succeeding year.	
Actual working expenses including cost of maintenance are deducted from gross receipts and the balance is paid to the State.	On 31st December in any year on 3 months' notice.	

Appendix XII. Continued.—Indian State Railways

Name of State and of Railway,	Date first opening.	Length. Miles.	Gauge. Ft. In.	Capital cost in thousands of Rupees.	Dividend per cent. in 1915-16.	Work ing Agency.	Date of Work- ing Agreement.
16 JAIPUR STATE.							
(a) Sanganer—Sawai Madhopur ...	10-11-05	72.84	3-3½	40.97	4.58	B. B. & C. I. Co.	11-9-06
(b) Jaipur—Reengus ...	19-12-16	85.20 108.04	3-3½				
17 SANGLI STATE.							
Miraj—Sangli ...	1-4-07	4.90	3-3½	1.83	11.46	M. & S. M. Co.	17-7-07
18 BAHAWALPUR STATE.							
Khanpur—Chachran ...	2-7-11	22.02	5-6	14.00	1.17	N. W. Ry.	21-8-12
19 NIZAM'S STATE.							
(a) Hingoli Branch ...	15-5-12	50.31	3-3½	32.06	1.82	N. G. S. Ry. Co.	1-3-10
(b) Secunderabad— Gadwal ...	1-2-16	103.80	3-3½	82.85	...	Ditto.	...

worked by the Main Line.

Terms for Working.	Termination of Working Agreement.	Remarks.
Managed, maintained, stocked and worked as part of B. B. & C. I. Ry. system. Rebate up to 10 per cent. of net earnings of B. B. & C. Ry. 2-3½ gauge from traffic interchanged with Jaipur State Railway allowed to make up, together with net earnings of J. S. Ry, a return of 3½ per cent. per annum on Capital cost.	Upon opening of extensions, it is open to Government to terminate the arrangement on six months' notice.	The following extensions were under construction :— 1. Reengas to Sikar 31 miles. 2. Sikar to Jhunjhuno 40 miles.
Worked for same percentage of working expenses upon gross receipts as is incurred on Company's system, actuals being charged in both cases for New Minor Works and Government Supervision.	At end of any year upon six months' notice.	
The railway is managed, maintained, stocked and worked for 50 per cent. of its gross earnings. Rebate is allowable from main line net earnings to make up 3 per cent. on Capital outlay.	After 1935.	
The line is worked for the same percentage of its gross earnings as is incurred on the Company's Metre gauge system, PLUS 5 per cent. of the gross receipts of the Branch for use of Rolling Stock, PLUS any extraordinary maintenance charges due to causes other than wear and tear.	30th June or 31st December in any year on 12 months' notice.	
Terms not published.		

Appendix XII.—Indian State Railways

Name of State and of Railway.	Date first opening.	Length. Miles.	Gauge. Ft. In.	Capital cost in thousands of Rupees.	Dividend per cent. in 1915-16.	Work- ing Agency.	Date of Work- ing Agreement.
20 TRAVANCORE STATE.							
Tinnevely—Quilon Ry. ...	1-6-04	95-96	3—3½	1,67.42	2-12	S. I. Ry. Co.	27-6-01 21-12-10
Total ...	...	1,788	...	11,61.85	...		

Appendix XIII—Companies' lines

Nizam's Gd. St. Ry. ...	9-10-74	330-13	5—6	5,34.24	5-87	N. G. S. Ry. Co.	27-12-86
Hyderabad-Godavari Valley Railway ...	21-10-99	391-13	3—2½	2,22.46	6-55	Ditto.	16-3-97
Bangalore-Chick Light Railway Company ...	5-2-14	38-74	2—6	11.57	1-81	Mysore State Ry.	"
Total ...	...	760	...	8,68.27	...		

Worked by the Main Line.

Terms for Working.	Termination of Working Agreement.	Remarks.						
The line is worked for the same proportion of its gross receipts of each half-year as obtains on the whole of the Company's undertaking. The net earnings after meeting interest on debentures, etc., are treated as surplus divisible between the Govt. and the Company in proportion of assumed capital as in the case of S. I. Ry. The Durbar has underwritten the guarantee of interest on capital cost of portion of line in its territory and it has been agreed that the surplus obtained by the Govt. of India, shall be divided between them in proportion to the respective lengths of the British and State Sections of line, and that the share of any deficiency attributable to the State Section shall be borne by the Durbar, while that attributable to the British Section may be recovered from the Company's share of surplus due from the S. I. Ry. for the same or next half-year.	31st December 1945 or at end of any succeeding fifth year.	Debentures raised by the company:— <table><tr><td>3½ per cent.</td><td>£ 29,517</td></tr><tr><td>4½ " </td><td>£ 418,274</td></tr><tr><td></td><td> £ 447,791</td></tr></table>	3½ per cent.	£ 29,517	4½ "	£ 418,274		£ 447,791
3½ per cent.	£ 29,517							
4½ "	£ 418,274							
	£ 447,791							

guaranteed by Indian States.

Indian company with 4 per cent. guarantee by the Mysore Durbar. Railway constructed and worked by the State.	1st January 1934. Ditto.	See Chapter V, pages 283—85. Ditto.
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Appendix XIV.—Indian Railway Lines in

Name of Railway.	Date of contract.	Date of first opening.	Length of line open on 31st March 1918	Capital cost on 31-3-1918.	Percentage of net yearly earnings on capital outlay for 1915-16 & 1916-17.	GOVERN.
						Land.
GAUGE 3 ft.—3½ in.						
Pondicherry Railway Company	30th Decr. 1890.	15th Decr. 1879.	7.85	5.69	9.26 8.34	Not Specified.
West of India Portuguese Railway Co., London ...	18th April 1881. 9th Decr. 1892.	17th January 1887.	51.10	1,94.47	1.69 1.51	Free by Portuguese Govt.
Peralam-Karaikkal Railway belonging to French Colonial Government ...	27th March 1902.	14th March 1898	14.65	7.24	3.18 3.06	Free by both Governments
Total ...	...	...	73.60	2,07.40	...	...

foreign territory worked by British Companies.

MENT AID.		PURCHASE BY GOVERNMENT.		Remarks.
Subsidy.	Working terms by Main-line.	Date of expiry of contract.	Price payable to the Company.	
Nil.	Worked by S.I. Ry. Co., at the same percentage of working expenses on gross earnings as incurred on S. I. Railway.	On six months' notice by either party.	Nil.	French territory. Head office of the Company is in England.
Guarantee of interest at 5p.c. per annum on company's capital by Portuguese Govt. in consequence of cessation of annual subsidy of 4 lakhs of rupees which was formerly paid by the British Govt.	Worked by the M. & S. M. Railway working expenses are divided in proportion to respective gross earnings. Net earnings belong entirely to the West of India P. O. Portuguese company surplus profits in any year are to be divided equally between the Portuguese Govt. and the W. I. P. Coy.	1 At any time by six months' notice by either party. 2 After 30 years from date of first opening.	1 Portuguese Govt. to pay to the company full capital cost of Railway and works plus 10 per cent. and the value of rolling stock, machinery, etc. 2 Ditto less 10 per cent. if the company surrender. If Portuguese Govt. take over, the market value of shares, debentures & stock of the company during the three preceding years is to be paid. 3 After 99 years the line becomes the property of the Portuguese Government but the rolling stock and movable machinery, etc. have to be paid for at their fair value.	
Nil.	Constructed and worked by S. I. Ry. Co. Working expenses are charged at the same proportion of gross earnings as obtained on S. I. Ry., plus cost of repairing extraordinary damages and of New Minor Works & 5p.c. for use of rolling stock & 5p.c. per annum on Rs. 30,000 for use of workshops, etc.	On twelve months' notice by either party, expiring on 30th June or 31st December of any year.	Purchase not stipulated.	The line is partly in British & partly in French territory.

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