# FEDERATED MALAY STATES RAILWAYS.

# ANNUAL REPORT FOR THE YEAR 1924.

#### REVIEW OF THE YEAR'S WORKING.

The working of the Federated Malay States Railways during the year 1924 produced a net profit of \$3,278,428 compared with \$1,710,349 in 1923, representing 1.67 per cent. on the total capital expenditure against .89 per cent. last year.

- 2. Gross receipts have increased by \$1,535,096. To some extent this is attributable to the improved trade conditions in the country.
- 3. The new tariff book came into operation from the 10th January, 1924, and part of the increase has been produced by the new rates which have imposed additional charges, falling mainly on short distance traffic.
- 4. Passenger fares for 2nd and 3rd class were reduced from 1st July, 1924, to the old standard rates of three cents and two cents per mile. It is a little difficult to trace the actual trend of passenger traffic as the additional number carried is comparatively small, yet the falling off in revenue has not been serious. It appears, therefore, that additional long distance passengers have been gained rather than short distance as a result of the reduction.

#### MILEAGE OF LINES.

5. The section Tanah Merah to Krai (20 miles 55 chains) was opened for traffic on 21st July, 1924.

The doubling of the line between Abattoirs and Salak South Junction (2 miles 63 chains) was completed and brought into use on 1st August, 1924.

The Kuala Kubu Deviation (4 miles 77 chains) was completed and opened for public use on 1st August, 1924.

The total mileage of running lines (reduced to single track) open on 31st December, 1924, was 1,071 miles 72 chains (including Johore leased lines) and of running lines and sidings 1,236 miles 78 chains (as compared with 1,044 miles 24 chains and 1,202 miles 47 chains at the end of 1923).

#### STATIONS AND HALTS.

- 6. The following stations were opened for traffic during the year:
  - (a) New stations:

Mandai (new station) opened from 3rd February, 1924. Sungei Kusial opened from 21st July, 1924. Temangan opened from 21st July, 1924. Sungei Nal opened from 21st July, 1924. Krai opened from 21st July, 1924. Kuala Kubu Road opened from 15th September, 1924.

- (b) Halts converted into permanent stations: Taboh Naning from 1st February, 1924. Chigar Perah from 1st August, 1924.
- (c) New halts were opened as under:
   Simpang (formerly station) from 1st January, 1924.
   Londah from 7th February, 1924.
   Bukit Betong from 10th April, 1924.
   Merbau from 25th June, 1924.
- (d) The following stations were closed during the year:

Simpang from 1st January, 1924. Mandai (old station) from 3rd February, 1924. Tanah Merah Riverside from 21st July, 1924.

Belengo Halt was closed for traffic on 1st May, 1924, and at Londah Halt trains stopped on Sundays only, as from 1st August, 1924.

The name of Kreh station on the Kedah line was altered to Tassek Glugor on and from 1st August, 1924.

7. On the 31st December, 1924, there were open for traffic 243 permanent stations and 28 passenger halts.

#### CAPITAL ACCOUNT.

#### (See STATEMENTS 1 AND 2.)

8. The total expenditure under capital account to 31st December, 1924, is \$195,771,142, of which \$22,933,399 has been provided from Loan Funds. The net addition to total capital expenditure during the year was \$3,796,037 as compared with \$5,183,234 in 1923. The actual Construction Department expenditure was \$3,918,237, i.e., \$1,863,593 on new works and \$2,054,644 on widenings and additions, but considerable credits realised by the absorption or sale of materials, etc., standing on capital account has resulted in a net credit of \$122,200 so far as open line is concerned.

#### REVENUE RECEIPTS AND EXPENDITURE.

#### (See STATEMENT No. 3.)

- 9. The receipts from all sources amounted to \$16,210,202 compared with \$14,675,106 for 1923, an increase of \$1,535,096 (10.46 per cent.).
- 10. The revenue expenditure on all accounts amounted to \$12,931,774 compared with \$12,964,757, a decrease of \$32,983 (.25 per cent.).

#### RAILWAY WORKING.

#### (See STATEMENTS No. 4, VIII, IX, X.)

#### RECEIPTS.

- 11. The passenger receipts have decreased by \$25,647 (.44 per cent.). The number of ordinary passengers carried shews an increase of 158,202 (1.5 per cent.) compared with 1923.
- 12. Parcels and other traffic by passenger train shew a decrease of \$66,451 over 1923. Part of this reduction may be attributed to the operation of revised rates for perishable traffic which is now carried normally at half parcels rates, but on account of the considerable charges thus arising, such of this traffic as is carried by mixed trains, and even in certain cases some that is carried by passenger trains, is charged only at goods rates.
- 13. There is a total increase on goods train traffic of \$1,347,950 (20.25 per cent.). Merchandise shews an increase of \$907,263, and there are increases in all other classes of goods traffic with the exception of "Other Minerals". The increase in revenue for merchandise traffic is partly due to the greater tonnage carried, there having been an increase in tonnage of 62,658 or 9.5 per cent. This accounts for approximately \$417,000, the balance being attributable to the operation of the increased rates.
- 14. The decrease in the revenue under "Other Minerals" is due to the completion of the work at Prai and Johore which had involved considerable stone traffic in the previous year.

  Expenditure.
- 15. The total expenditure shews a decrease of \$13,751 (.12 per cent.) as compared with 1923, and the percentage to the total traffic receipts has decreased from 86.22 per cent. to 78.62 per cent.
- 16. There is an increase under Maintenance and Renewal of Ways and Works (Abstract A) of \$57,480 (2 per cent.). Special expenditure on revenue account under this head is lower by about \$96,000 amounting to \$649,428 as compared with \$553,286. Included in this sum is \$200,000 on account of arrears of maintenance compared with \$232,700 in the previous year, and other important items are:

\$49,100, Relaying part of Taiping pass section.

\$51,472, Renewal of steelwork in existing bridges.

\$89,505, Rebuilding bridges at Ulu Yam damaged by flood.

- 17. Maintenance and Renewal of Rolling Stock shews in total an increase of \$143,594 on last year.
- 18. Abstract B (1), locomotives, is down by \$43,000 owing to a reduction of \$86,000 in materials which is set off by increases in wages.
- 19. Abstract B (2), carriages, shews an increase of \$35,000 mainly due to replacements of stock.
- 20. Abstract B (3), wagons, shews an increase of \$152,000, of which \$78,000 is also for replacements of stock.
- 21. There is a heavy increase of \$60,000 for materials under repairs and partial renewals of wagons.
- 22. There is an increase in total of \$47,713 only (1.9 per cent.) under locomotive running expenses in spite of an addition of 452,000 engine miles (9 per cent.).

- 23. The total cost of fuel is actually less and the cost per engine mile has decreased from 30 cents in 1923 to 27 cents in 1924. The total running costs per engine mile were 48 cents in 1924 compared with 51 cents in 1923.
- 24. Traffic expenses (Abstract D) shew an increase of \$89,285, salaries and wages are up \$70,000, clothing \$9,000, cleaning, etc., vehicles \$19,000, but printing, advertising, etc., charges are down \$20,000.
- 25. The items shewn under general charges again shew considerable variations in comparison with the previous year. Salaries have increased by \$28,000, pensions by \$72,000, passages of officers by \$42,000 and temporary allowances by \$15,000. Included in this Abstract for 1923 was an amount of \$550,000 for writing down the value of stocks. A sum of \$27,700 only appears under this head in 1924.

#### STEAMER AND FERRY SERVICES.

26. These services shew a net profit of \$66,571 compared with \$76,140 in 1923. Receipts and expenditure are both reduced owing to the closing of the Johore Bahru-Woodlands services in 1923.

#### DOCKS, HARBOURS AND WHARVES.

- 27. This account shews a net profit of \$254,179 compared with a loss of \$6,240 in 1923. Receipts are up by \$267,763 while expenditure has increased by \$7,345 only.
- 28. The operation of the new rates introduced in December, 1923, and the increase in traffic handled are responsible for this result.

#### ELECTRIC POWER AND LIGHT ACCOUNT.

29. This account shews an increase in total of \$18,233. The unit rate has increased from 17.1 cents to 18.1 cents.

#### MISCELLANEOUS.

30. Rents received shew an increase of \$20,000 compared with 1923, but the net return from property is less owing to increased expenditure on upkeep. This figure, however, includes \$76,000 for arrears of maintenance and approximately \$40,000 for the provision of new quarters at the cost of revenue account.

General interest shews an increase of \$89,000.

# TRAFFIC DEPARTMENT.

THROUGH TRAFFIC, F.M.S. RAILWAYS AND SIAM.

- 31. There was a noticeable increase in passenger and parcels traffic, and also in the total volume of goods traffic between the Federated Malay States Railways and Siam.
  - 32. Particulars of traffic for the last three years are given below:

No.	23. 1924. 10. No. 1880 850
하고 보면 하는 이번 살으면 하는 사람이 되어 있다면 하나 있다면 하는 사람들이 되었다면 하는 것이 되었다.	880 850
Through passenger ) 1st class 835	
	0.014
traffic, F.M.S.R. 2nd ,, 1,545 1,6	$342 \dots 2,214$
to Siam ) 3rd ,, 17,008 18,0	
19,388 21,1	25,396
1922.	
No, N	o. No.
Through passenger ) 1st class 1,071 1,3	25 1,348
	$588 \dots 3,142$
F.M.S.R ) 3rd ,, 16,253 19,0	010 22,163
$19,331 \dots 22,7$	23     27,253
	_
Goods traffic. Pkls. Pkl	s. Pkls.
F.M.S.R. to Siam 70,797 87,4	67 79,133
Siam to F.M.S.R 205,247 386,2	610,011
Parcels traffic. No. N	o. No.
F.M.S.R. to Siam 1,622 3,4	82 4,008
Siam to F.M.S.R 309 1,1	24 1,214

33. The double line between Salak South Junction and Abattoir Siding Cabins was brought into use on and from 1st August, 1924.

- 34. In connection with the visit of the British Special Service Naval Squadron to Malaya in February, 1924, the Railway Administration ran 83 special trains. Officers and men from the ships were conveyed free from Penang, Port Swettenham and Singapore to any station on the Federated Malay States Railways. It is estimated that 306,013 visitors were conveyed to and from the ships. This event heavily taxed the resources of the Railway Department. All demands for transport were however satisfactorily met.
- 35. In connection with the ceremonial opening of the Johore Causeway by His Excellency the High Commissioner on 28th June, 1924, special arrangements were made for conveying guests to and from Johore Bahru.
- 36. On 19th July, 1924, special trains were run from Tumpat to Tanah Merah River Crossing and back for the convenience of guests invited to attend the ceremonial opening of the "Guillemard" railway bridge over the Kelantan River by His Excellency the High Commissioner.
- 37. On and from 1st September, 1924, the ordinary train service between Johore Bahru and Tank Road was withdrawn and a revised time-table was introduced, giving a more frequent passenger service between Tank Road and Johore Bahru. This service was inaugurated to attract passengers to the railway and specially reduced 2nd and 3rd class return tickets between Tank Road and Johore Bahru were introduced. The result, however, has not been satisfactory.
- 38. With effect from Sunday, 2nd November, 1924, the Sunday train service in Kelantan was withdrawn and trains run the same as on week-days.
- The 2nd and 3rd class passenger fares by train were reduced from 1st July, 1924, as shown below:

2nd class from  $3\frac{3}{4}$  cents per mile to 3 cents per mile 3rd ,,  $2\frac{1}{2}$  ,, , , 2 ,,

the exceptions being:

IPOH-TRONOH BRANCH.

1st class 5 cents per mile } For local bookings only. 2nd ,,  $2\frac{3}{4}$  ,, ,, 3rd ,,  $1\frac{1}{2}$  ,, ,,

SULTAN STREET—SUNGEI BESI—AMPANG BRANCHES.

1st class 5 cents per mile

,, For local bookings only.  $,, 1\frac{1}{2}$ 

- 40. Concession rates for the transport of race horses running at race meetings at various centres in the country were granted during 1924.
- 41. His Majesty the King of Siam and suite visited Malaya during September-October, 1924. In connection with the Royal visit the Federated Malay States Railways arranged the running of His Majesty's special train from Padang Besar to Singapore and back. All arrangements were satisfactorily carried out and His Majesty, when leaving Malaya, expressed his appreciation of the arrangements made during the visit.
  - 42. A revised tariff book was brought into operation on 10th January, 1924.

#### TRAFFIC AT PORT STATIONS.

43. The following is a comparison of goods and mineral traffic dealt with at the port stations during the last ten years:

Date.		Per	ang.	Pr	ai.	Port Weld.		
		Received via Prai.	Forwarded via Prai.	Received by rail.	Forwarded by rail.	Received by rail.	Forwarded by rail.	
7.03		Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	
1915		 11.213	23,512	4,180	40.691	550	59,012	
1916		 13,204	27,123	12,754	23,288	716	64,524	
1917		 18,758	30,714	13,521	9,930	1,735	47,022	
1918		 22,280	37,913	20,324	12,238	746	57,656	
1919		 30,388	31,076	57,030 *	28,071	2,482	81,451	
1920		 27,549	28,168	62,989 *	52,110	3,807	80,277	
1921		 22,617	27,837	106,923 *	44,142	2,737	74,832	
1922		 21,166	28,159	122,030;*	35,789	7,000	70,124	
1923		 25,351	25,013	37,674 *	28,308	8,370	114,598	
1924		 29,308	31,436	14,994	26,397	7,104	131,980	

<sup>\*</sup> Includes stone traffic in connection with construction of new wharves.

			Teluk An	son Wharf.	Port Swe	ettenham.	Port Dickson.		
	Date.		Received by rail.	Forwarded by rail.	Received by rail.	Forwarded by rail.	Received by rail.	Forwarded by rail.	
		0.1	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	
1915			41,713	125,406	53,542	171,345	5.780	32.212	
1916			42,516	122,699	58,670	158,537	7,038	35,335	
1917			41,798	109,244	64,228	144.267	8,291	26,865	
1918			43,905	87,962	60,157	135,420	7,999	21,425	
1919			43,080	76,924	68,505	141,875	9,904	28,403	
1920			40,012	62,379	68,317	183,675	10,786	17,054	
1921			41,334	37,343	63,415	140,934	7,958	14,565	
1922			47,525	33,322	69,271	134,764	10,505	10,324	
1923			50,214	46,903	71,716	184,660	8,538	12,520	
1924			50,209	59,546	74,537	229,436	10,226	15,122	

These figures do not include fuel, stores, or railway material for the Railway Department carried free. Practically all traffic forwarded from Penang is transhipped at Prai and forwarded by train, so that the figures for the two stations should be added together to obtain the total tonnage forwarded from Prai.

### OCEAN STEAMERS CALLING AT PORT SWETTENHAM.

44. During 1924, 230 ocean steamers called at Port Swettenham with import cargo as against 203 during 1923, and 207 ocean steamers called for export cargo as against 175 during 1923.

The ocean steamers calling at Port Swettenham include the following:

						alling with port cargo.	Calling for xport cargo.
Ben Line			·			 26	 5
Glen Line						 19	 - 0
Blue Funnel						 35	 66
Shire Line						 7	 - N _ N _ S
P. & O. Steam	Nav	igation	Compa	any		 3	 16
British India	Steam	m Navi	igation	Comp	any	 77	 27
Ellerman and	Buc	knall I	ine			 3	 32
Asiatic Petrol	eum	Compa	ny's O	il Boa	ts	 24	 _
Others		150				 36	 63
					Total	 230	 207

### TELEGRAMS.

45. The total number of telegrams dealt with in 1924 amounted to 950,769, an increase of 69,412 as compared with 1923.

# ACCIDENTS, DERAILMENTS, ETC.

46. Thirty-seven fatal accidents were recorded during 1924. Of these, five were railway servants, two passengers and the remainder trespassers. The persons killed were of the following nationalities:

				Railway servants	Others	1 1 1 1 1	Total.
Tamils	T	V		 5	 8		13
Chinese			.,.	 	 15		15
Malays				 _	 9		9
			Total	 5	 32		37
					-		

47. Seventy-two cases of personal injury were recorded during 1924 as detailed below:

Railway servants           54         Passengers           6         Trespassers            12						m-4-1	70
	Trespassers			 	 		 12
Railway servants 54	Passengers		****	 ***	 		 6
	Railway serv	ants		 	 		 54

48. There were 154 derailments during 1924 as under:

rucio	were for ac	, anni	mus are	 ULL CO	CALLET .			
	ines			 				35
	ds vehicles			 				99
Pass	senger coach	es		 				4
Bral	ke vans			 				16
						m-4-1		154
						Total	• • • •	154

49. Level crossing gates were run into and damaged on nineteen occasions during 1924 as under:

By trains	 	 		 6
By motor cars or lorries	 	 		 13
			Total	 19
				_

- 50. One case was recorded in 1924, where a trolly was run into by a train, but fortunately was unattended with any personal injury.
  - 51. Ten joint enquiries into derailments, collisions, etc., were held during 1924.
- 52. A total sum of \$3,528 was paid out as claims compared with \$8,017 in 1923; of this amount \$1,052 was recovered.
- 53. Rents for hotels, restaurant cars, and food stalls realised \$98,212 as against \$90,989 in 1923.

# WAYS AND WORKS DEPARTMENT.

54. The permanent way was maintained in efficient working order during the year, and amongst the renewals made were the following:

0					1 0 15
Rails	 	 	 	 	1,947
Points	 	 	 	 	110
Crossings					

55. The length of sidings put in, extended or taken over from the Construction Department in 1924, was 6 miles 78 chains and 25 links, and the length of sidings taken out during the year was 15 chains 19 links.

Ways and Works Depôt.

56. The depôt continued to recondition materials and to manufacture such articles as were within its resources.

#### LEVEL CROSSINGS.

57. One public level crossing and eight occupation crossings were provided during the year, whilst one public level crossing was closed.

One level crossing was converted into an occupation crossing and two occupation crossings were converted into public level crossings during the year.

### BRIDGES AND CULVERTS.

- 58. The girders of 234 bridges were painted; 104 longitudinal timbers were renewed; 4 new bridges and culverts were built and 56 bridges were renewed and strengthened. FENCING.
- 59. Three hundred miles of fencing were maintained during the year, 21 miles of new fencing were erected, and 6,317 fencing posts were renewed. Seven miles 33 chains of fencing were removed and 320 concrete fencing posts were erected.

### WHARVES AND JETTIES.

60. All wharves and jetties were maintained in good repair during the year. Renewals of piles and timbers were carried out as required. The quay and the wharf frontage at the close of the year amounted to 3,554 lineal feet.

#### SLIPS AND FLOODS.

- 61. There were 84 slips, washouts or floods reported during the year.
- On May, 1924, owing to heavy rain the line was flooded between Rawang and Sungei Tampeian, the water rose to 12" to 18" over rails at Rawang and at 2164 and 2184 miles. There was little damage to permanent way and the floods quickly subsided.

On the evening of 23rd May, 1924, after abnormally heavy rain the water rose to several feet above rail level between Sungei Tampeian and Rasa and completely washed away 50-feet span bridge No. 835 at T.P. 209/13 and 20-feet span bridge No. 842 at T.P. 211/5. The flood also caused several minor washouts between Sungei Tampeian and Rasa.

The line was completely blocked for traffic from 5 p.m. on 23rd May, 1924, till 7 p.m. on 25th May, 1924, when traffic was restored, the gaps being spanned by temporary sleeper crib bridges.

Passengers, parcels and mails were conveyed between the points of obstruction by motor transport at the expense of the Railway Department.

#### RELAYING.

62. Relaying was carried out from Telegraph Post 67/18 to Telegraph Post 68/6, 68/20 to 68/28, 68/33 to 68/44 and 68/47 to 69/28, Pass Section.

#### MAINTENANCE.

63. The total length of running line was 1,071 miles 72 chains and sidings 165 miles 6 chains. The running lines and sidings were maintained at a cost of \$1,199 per mile per annum. Compared with 1923 the cost of maintenance shews a decrease of \$53,312.

#### REST-HOUSES AND HOTELS.

64. All the rest-houses and hotels were maintained during the year in efficient condition.

### ANTI-MALARIAL WORKS.

65. Anti-malarial works have been carried out during the year in the following places: Bukit Mertajam, Padang Besar, Gang Line Nos. 11, 31, 32, Bukit Ketri, Ayer Kuning North, Bukit Berapit, Ipoh, Pumpan Halt, Bidor, Kepong, Pengkalan Kundang, Kuala Kubu Road, Sungkai, Bikam, Tampin, Port Dickson, Gang Line 131, Gemas, Jerantut, Kuala Krau, Johore Bahru, Labis, Woodlands, Bukit Timah, Tumpat and Bungsar Road.

#### SPECIAL SERVICES.

66. The value of the special service works carried out during the year by this department was \$580,917 on revenue account, and \$87,889 on capital account as compared with \$669,329 and \$95,609, respectively, during the previous year. The principal items of expenditure were:

Relaying 63rd to 71st mile, main line	\$49,100
Strengthening all steel span bridges to carry 12-ton axle	
loads and Teluk Anson and Port Dickson branches to	
$10\frac{1}{2}$ -ton axle loads	51,472
Arrears of maintenance, Ways and Works	234,993
Repairs to line damaged through flood between Sungei	
Tampeian and Kuala Kubu	89,506

#### LOCOMOTIVE DEPARTMENT.

#### LOCOMOTIVE, ROLLING STOCK, ETC.

- 67. All locomotives, carriages, wagons, steamboats, tongkangs, machinery and other plant were maintained in an efficient state during the year.
- 68. In statement VII details are given of the number of locomotives and other rolling stock renewed and repaired during the year.

#### LOCOMOTIVES.

- 69. No new locomotives were added to the stock.
- 70. One tank engine No. 71 (A Class) was sold to the Siam Coal Mine & Co.
- 71. Three open line tank engines, eight tender engines, two steam rail motors and three Construction Department tank engines (A Class) were condemned during the year.
- 72. The open line stock of locomotives, including the two steam rail motors, was 218 on the 31st December, 1924, as against 232 at the end of 1923. The number of Construction Department locomotives was 21, three less than at the end of 1923.

# MILEAGE OF ENGINES AND TRAINS.

- 73. The total engine mileage, including maintenance ballast miles, for the year was 5,480,408 as compared with 5,028,925 in 1923, an increase of 451,483 miles or 8.98 per cent.
- 74. The train mileage was 3,895,350 as against 3,588,034 in 1923, an increase of 307,316 miles or 8.57 per cent.
- 75. The increase both in engine and train miles over the previous year is due to additional train services.

#### RUNNING COSTS.

76. The total running cost per engine mile for the year 1924 was 48 cents (vide Abstract C) as compared with 51 cents in 1923.

#### FUEL.

77. The following table gives particulars of firewood and coal consumed by locomotives during the year:

Description of fuel.  Jungle firewood—	Weight.	In terms of Rawang coal. Tons. Cwt.Qrs.Lbs.				
Converted at a ratio of 1 passang to 1 ton of Rawang coal  Rawang coal  Imported coal—	575.36 passangs  Tons. Cwt.Qrs.Lbs.	575 7 0 22 173,271 9 2 9				
Converted at a ratio of 1 to 1.6 of Rawang coal	5,811 0 2 0 Total					

The consumption of fuel in 1924 per engine mile and train mile works out at lbs. 74.84 and 105.32 as compared with 75.93 and 106.42, respectively, in 1923, in terms of Rawang coal.

#### MACHINERY.

- 78. All machines were maintained in good order throughout the year.
- 79. One centre lathe with gap bed, one box bed radial drilling machine and one single geared crank shaping machine were installed during the year.
- 80. Three pneumatic drills were added to the boiler shop machinery and one portable engine and shafting was installed at Gemas Running Shed.
- 81. All tanks and water columns, turntables, weighbridges, weighing machines, cranes and pumps were maintained in good order during the year.
- 82. An additional pump was installed at Prai and new pumping plant installed at Chigar Perah, Bahau and Rasa.

#### COACHING VEHICLES.

- 83. The details of coaching stock are shewn in statement II C.
- 84. No new bogie passenger carriages were built at the works during the year.
- 85. Twenty bogie coaches were condemned as unfit for further service.
- 86. One four-wheeled coach, six luggage vans and four fish vans were condemned during the year.
  - 87. Fourteen fish vans were built at the works and turned out to traffic.
  - 88. Four Construction Department inspection saloons were added to the stock.
- 89. Two hundred and fifty-two coaching vehicles of all types passed through the shops for heavy and light repairs during the year as compared with two hundred and fifty-nine in 1923, at an average cost of \$1,358 per vehicle as compared with \$1,314 in 1923. The figure of 252 includes 47 vehicles which are shewn in statement VII (Abstract B) under the heading "Other Coaching Vehicles". Details of repairs are given in that statement.

#### GOODS VEHICLES.

- 90. Detail of goods vehicles are given in statement II D and E.
- 91. The total number of bogic goods vehicles on 31st December, 1924, was 202 as compared with 204 at the end of 1923.
- 92. Fifteen Canadian bogie underframes were reconditioned and used as temporary wagons for transporting pipes for the Singapore Municipality.
  - 93. Two bogie firewood trucks were condemned as unfit for further service.
- 94. Twenty goods brake vans (18-ton), twenty wooden high sides (12-ton) and twenty wooden firewood trucks (10-ton) were built at the works and turned out to traffic.
- 95. Six covered goods (8-ton) were converted into workmen vans, and three timber trucks (12-ton) were converted into six-wheeled oil tank wagons.

- 96. One hundred and fifty-nine vehicles were condemned as unfit for further service during the year.
- 97. One thousand one hundred and thirty-two wagons of all types passed through the shops for heavy and light repairs during the year as compared with 1,017 in 1923.

#### STEAMBOATS, ETC.

- 98. The s.s. "Singapore" was sold to Teo Lang Huang, Muar.
- 99. Eleven steam launches, four at Prai, five at Port Swettenham and two at Kota Bahru (Palekbang), maintained the passenger ferry and tug services during the year
- 100. s \( \tau \). "Betty" and s.s. "Johore" were awaiting disposal at the end of the year.
- 101. Thirty-nine tongkangs were repaired on the foreshore and sixteen on the slipway at Port Swettenham.
  - 102. Ten lighters were sent to Singapore for repairs during the year.
- 103. The total stock of steel and wooden lighters in service was 51 and 26 as compared with 53 and 26, respectively, in 1923.
- 104. The fleet of ferry and tug boats, including the wagon ferries on 31st December, 1924, was 15, one less than at the end of 1923.
- 105. The mileage of ferry boats plying between Penang and Prai, Kota Bahru and Palekbang was 64,645 as compared with 79,397 in 1923, the mileage of launches at Port Swettenham not being reckoned.

#### ELECTRICAL BRANCH.

- 106. All electrical installations and plant were maintained in good working order during the year.
  - 107. Train lighting on the whole was satisfactory.
- 108. One 20-h.p. motor to driving power hammer of the Smith Shop at Bungsar Road was installed.
- 109. One hundred and one coaches were overhauled as they passed through the shops and three coaches were fitted with electric light.

#### STORES DEPARTMENT.

- 110. The tendency of prices during the early part of the year was to fall, but during the latter part to rise slightly.
- 111. Progress towards general stabilisation, after the abnormal trade conditions during and since the war, was well maintained throughout the year.
- 112. Generally speaking, purchase prices of materials shewed more stability, with consequent possibility of reasonable estimation, than for many years past.
- 113. During the year under review, payment was made in respect of stores and materials purchased to the amount of \$1,304,271, being an increase of \$338,770 as compared with 1923.
  - 114. The former figure is made up as follows:

Crown Agents Purchases from other Gov	 vernment	depart	tments	 $$676,461 \\ 12,002$
Other local purchases				 614,240
Australia				 1,568
			Total	 \$1,304,271

- 115. Value of total sales of stores amounted to \$1,582,631 as compared with \$1,680,741 in 1923. The volume of such sales, on the contrary, shewed a considerable increase.
- 116. Stores and materials stocked on R.S.A. account on 31st December, 1924, amounted to \$1,242,846, a decrease of \$253,219 as compared with the previous year.
- 117. In addition, materials to the value of \$354,468 were on hand in Australian Suspense Account on 31st December, 1924.
- 118. Indents to the number of 115 and of an estimated value of \$868,635 were despatched to the Crown Agents as compared with 66 indents of an estimated value of \$450,450 despatched in 1923.

- 119. The Stores Department executed 14,130 indents in 1924 as compared with 13,153 in 1923.
- 120. Shipments of stores and materials from Crown Agents aggregated 2,727 tons as against shipments of 1,219 tons in 1923.
  - 121. The tailoring and watch repairing shops continued throughout the year.
  - 122. During the year a complete verification of stocks was made.

#### SIGNAL AND TELEGRAPH DEPARTMENT.

#### TELEGRAPHS.

- 123. The total length of railway telegraph, telephone, tablet, bell and repeater wires on 31st December, 1924, was 4,579 miles 64 chains, an increase of 224 miles 44 chains on the previous year.
- 124. Seven new telegraph offices were opened during the year, viz., Pantai, Teluk Gadong, Parit Chabang, Batang Kali, Taboh Naning, Chigar Perah, Kuala Kubu Road and one disconnected at Simpang, making a total of 265 telegraph stations.
- 125. All telegraph instruments and batteries were maintained in good working order.

### TELEPHONES.

- 126. The line work in connection with the extension of the Control Telephone was completed from Kuang to Batu Arang and from Sungei Gadut to Batang Malaka.
- 127. The Control Telephone extends from Ipoh to Batang Malaka and worked very satisfactorily during the year.
  - 128. A twenty line switchboard was installed at Gemas.
- 129. The electric motor signals and telephonic communication between Johore Bahru Signal Cabin and Woodlands in connection with the Johore Causeway rolling lift bridge "safe working" were maintained and worked satisfactorily.

### ELECTRIC TRAIN TABLETS.

- 130. Six tablet instruments were installed for the sections Pantai-Petaling, Pantai-Port Swettenham Junction, Kuala Kubu Road-Kerling, Kuala Kubu Road-Kuala Kubu, Kuala Kubu Road-Rasa, and two dismantled, Abattoir Siding and Salak South Junction.
- 131. All the tablet instruments and batteries were cleaned and maintained in good working order during the year.
- 132. The total number of tablet failures during the year throughout the railway was 162, compared with 220 in 1923.

# Posts and Telegraphs Department Wires on Railway Poles.

- 133. The total length of Posts and Telegraphs and other wires on railway poles on 31st December, 1924, was 215 miles 63 chains, a decrease of 152 miles 63 chains, which length was dismantled during the year.
- 134. The Posts and Telegraphs Department and other lines on railway poles were maintained and kept in working order.

#### SIGNALLING AND INTERLOCKING.

- 135. Signalling installations at Mandai New Station, Pantai, Tiroi, Salak South Junction and from Tanah Merah to Krai were completed and brought into use. The signalling and interlocking at Tampin North End and Kuala Kubu Road Deviation were brought into use. An alteration, of the position of the cross-over road at Prai South Platform was completed.
- 136. Nine new signals were erected. One hundred and twenty-six signal posts were renewed and 17 signals were removed to fresh sites.

#### SIDINGS.

137. Eleven sidings were interlocked and two were dismantled during the year.

#### SIGNAL AND TELEGRAPH WORKSHOPS AND STORES.

- 138. The machinery in the workshops worked satisfactorily. As usual, a fair percentage of signalling and other materials necessary for departmental use was made.
  - 139. An extension of four bays was erected to the saw-mill.

#### POLICE DEPARTMENT.

- 140. The approved and actual strengths on 1st January and 31st December, 1924, were 819 and 803, respectively.
- 141. Recruiting of Indians was suspended during the year and only Malays were engaged.
- 142. During the year, 78 men were struck off the strength. Of these 8 died, 10 retired on pension or gratuity, 10 were dismissed, 14 were discharged, 22 resigned and 14 deserted.
- 143. The discipline of the force has been maintained satisfactorily. Two hundred and eighty-six men were dealt with departmentally as compared with 284 in 1923. The fines imposed amounted to \$410 as compared with \$473 in the previous year. Twenty-three constables were charged before the Magistrates for various offences, and of these 9 were convicted and 14 were discharged.
- 144. The detective branch of the force was kept at full strength during the year and did useful work in investigation and detection.

#### PROSECUTIONS.

145. There were 1,144 prosecutions during the year, classified as under:

1.	Offences under Railway Enactments		/	599
	Thefts			 172
	Possession of stolen property		1	 77
4.	Criminal breach of trust			 6
	0: : 1 : : : : : : : : : : : : : : : : :			 16
	Cheating			 3
7.	Abetting the offence of giving an illegal	grat	ification	 6
	Assault and voluntarily causing hurt			70
	Other offences			195
			Total	 1,144

- 146. The prosecutions under the Railway Enactments shew an increase of 68 over 1923.
  - 147. Out of the total number of prosecutions 915 resulted in conviction.
- 148. The total fines imposed by the Courts in purely railway cases amounted to \$6,040, a decrease of \$353 compared with 1923.
- 149. Fines imposed by the Courts for breach of Customs Regulations on the railways amounted to \$32,230.

#### HEALTH DEPARTMENT.

- 150. During the year under review, one Health Officer was seconded from the Medical Department and was in charge of the whole of the line.
- 151. There were no epidemics amongst railway staff. The sickness returns from district dressers were satisfactory, while the malaria rate has decreased.
- 152. A new dispensary was opened at Kuala Lipis and another dispensary built at Tapah Road.
- 153. The clerical staff of the Federated Malay States Railways were examined for tuberculosis and out of 925 examined in the Head Office five "suspects" on re-examination proved negative. Out-station staffs were examined locally or at the nearest hospital.
- 154. Health conditions at Central Workshops have been much improved by the installation of a "Vacuum Exhaust Draught" in the saw-mill shop, and by the removal of the office to outside the building; also by the process of cell charging and lead burning being carried out in a specially ventilated chamber, well removed from all other buildings.
  - 155. Anti-malarial work has been carried out in many parts of the system.
- 156. Three oiling gangs were at work, one in Johore, one in North Perak, and one at Padang Besar. These gangs mainly deal with isolated stations and gang lines where local arrangements are not possible.
- 157. Anti-malarial surveys have been carried out and oiling gangs maintained at various places in Kelantan and Pahang where construction work is in progress.
- 158. The Railway Hotels at Kuala Lumpur and Ipoh were inspected during the year, also food stalls at the larger stations.

### CONSTRUCTION DEPARTMENT.

159. The total expenditure during the year on construction work and surveys of new lines in the Federated Malay States, Straits Settlements and Johore amounted to \$3,918,237 as compared with \$6,788,784 for the year 1923.

EAST COAST RAILWAY: KELANTAN SECTION.

160. This railway starts from Tumpat and proceeds southwards towards Kuala Lipis in Pahang, the distance from Tumpat to the Pahang-Kelantan boundary being 140<sup>4</sup> miles.

The line from Tumpat to Tanah Merah (32 miles) was opened for traffic on 1st July, 1915, and from Tanah Merah to Krai (20 miles 55 chains) on 21st July, 1924.

The official opening of the "Guillemard Bridge" over the Kelantan River took place on the 19th July, 1924. This bridge which is the largest in the Peninsula and is situated about 35 miles from Tumpat was commenced in 1920. It is 2,166 feet long over all being composed of five clear spans of 250 feet and five spans of 150 feet. The height from the river bed to the under side of girders is 55 feet.

The quantity of concrete and brickwork in abutments and piers is about 20,000 cubic yards and the total weight of steelwork in the girders is 2,776 tons.

Floods in January-March-November caused a certain amount of damage and delay. The rainfall for the year at Tanah Merah was 112.1 inches.

Earthwork between Tanah Merah and Kuala Pergau excavated during the year was 569,753 cubic yards of earth and 118,247 cubic yards of rock for main line; 21,823 cubic yards of earth and 2,258 cubic yards of rock in stream diversions; 93,685 cubic yards in stations yards and 85,200 cubic yards were filled in at Tebbing Tinggi Bund.

Platelaying reached the 63rd mile from Tumpat southwards.

In addition to the Kelantan Bridge the following large bridges were completed during the year. Sungei Bedal Bridge, one span of 100 feet; Sungei Nal Bridge, two spans of 100 feet and two of 250 feet; Sungei Durian Bridge, one span of 150 feet; Sungei Krai Bridge, two spans of 100 feet each. The main bridges now under construction are the Lebir Bridge, two spans of 250 feet and three of 100 feet each; Pahi Bridge one span of 150 feet and two of 100 feet; Sungei Chanih Bridge, one span of 100 feet and Sungei Pria Bridge, one span of 150 feet.

Stations and the necessary quarters were opened at Sungei Kusial, Temangan, Sungei Nal and Krai.

The headings of tunnels Nos. 1 and 2 at mile 69½ were driven through and good progress made towards lining. A decauville track was laid from Manek Urai (63 miles) to the entrance of the tunnel.

The expenditure during the year amounted to \$1,388,697.

EAST COAST RAILWAY: PAHANG SECTION.

161. The work beyond Chigar Perah,  $163\frac{1}{2}$  miles from Gemas, was recommenced in December, 1923.

Good progress was made on earthwork and jungle felling, some 247.97 acres of jungle being felled; 361,325 cubic yards of earth and 116,164 cubic yards of rock being excavated on main line; 27,341 cubic yards in stream diversions of which 4,472 cubic yards were rock; 13,266 cubic yards of earthwork were done in station yards, temporary yards and sidings and 1,687 cubic yards removed on account of slips.

Platelaying was completed to 170 miles and  $5\frac{1}{4}$  miles of track were lifted and packed.

Locomotive water supply tanks and pump house at Chigar Perah were in course of erection.

Work on the tunnel at 171st mile has been started.

All bridges from Chigar Perah, 165½ mile to 171st mile, have been completed.

The expenditure during the year amounted to \$476,614.

WATER SUPPLY FOR PRAI.

162. Beyond the maintenance of plant and stores no work was done. There was a credit balance of \$10,181 at the close of the year.

NEW ENGINE, CARRIAGE SHED AND GOODS YARD, IPOH.

163. The work of metalling the Kuala Kangsar Road Deviation was almost completed at the end of the year and a considerable amount of excavation and filling was done in the new goods yard.

The expenditure during the year amounted to \$49,136.

#### KUALA KUBU DEVIATION.

164. This work, which was in progress at the end of 1923, was completed in July, and handed over to Open Lines on the 1st August, 1924.

Seventy-three thousand four hundred and eighty-four cubic yards of main line earthwork, one bridge of 150 feet span over the Selangor River and two (one of 40 feet and one of 60 feet span) over the Rasa River, together with station buildings, goods shed platform and loading dock and approach roads to the station and goods shed at Kuala Kubu Road were completed during the period.

The expenditure during the year amounted to \$15,114.

#### PORT SWETTENHAM DOUBLING.

165. Construction work on the new bridge near the existing Connaught Bridge was started during May.

Plans have been completed and indents for steelwork and caissons sent to the Crown Agents.

Boring was carried out at six different places at the site of the new bridge, the average depth of the bores being 80 feet.

The expenditure during the year amounted to \$55,811.

Doubling Line, Batu Junction to Kuala Lumpur and Sungei Besi.

166. The doubling work, which was suspended between Batu Junction and Kuala Lumpur in 1920 and between the Abattoirs and Sungei Besi in 1923, was reopened in January.

The double line was opened to traffic between the Abattoirs and Salak South Junction on 1st August, and the new down main line between Salak South Junction and Sungei Besi was finished on the 19th November, the old main line between these points being regraded.

Steady progress was made on the Kuala Lumpur and Batu Junction Section, the heading through the tunnel being completed on the 1st November. Swettenham Road Bridge was completed and work was started on the Residency Road and Club Road Bridges.

The total amount of earthwork executed during the year was 80,397 cubic yards and 4,076 cubic yards of rock.

The expenditure during the year amounted to \$294,573.

CARRIAGE AND ENGINE SHEDS AND GOODS YARD, SEREMBAN.

167. The filling up of the locomotive and carriage yard sites was practically finished.

Contracts were let for the completion of the engine and carriage sheds.

All roads and fences in connection with this work have been handed over to Open Lines.

Pipe drains were put in hand; also sidings to the engine yard and are nearing completion.

The engine turntable was erected.

The expenditure during the year amounted to \$77,678.

Doubling Line, Singapore Railway (Woodlands Railway Deviation and Marshalling Siding).

168. Singapore Doubling.—No work was executed during the year in connection with doubling the line, but credits amounting to \$18,225 accrued as a result of transfer of materials to other construction works.

Land Acquisition, Singapore.—In this connection an outlay of \$5,058 was incurred.

Woodlands Deviation.—The deviation and marshalling yard at Woodlands, also completion of the reinforced overhead bridge on the Kranji Road were under construction at the end of the year, the expenditure being \$75,753.

PRAI DOUBLING, WHARVES, ALTERATIONS AND ADDITIONS, ETC.

169. The Federated Malay States Railways took over the maintenance of Prai as from 23rd July, 1924.

CAUSEWAY ACROSS THE STRAITS OF JOHORE.

170. The Johore State Railway, leased to the Federated Malay States Railway System, was opened to traffic in the year 1909, and coincident with this opening a ferry service between Johore Bahru and Woodlands for purposes of carrying goods across the Straits was brought into use. Ferry boats carrying six goods wagons at a time for transhipment were also started.

It had been anticipated by the first General Manager of Railways, Mr. C. E. Spooner, c.m.g., that the time would not be far distant when the volume of traffic across the Straits would become so great that some means other than ferry boats would be required and it was his suggestion in 1904 that the Straits between Johore Bahru and Singapore Island should be bridged. After consideration of this and other schemes for a period of some years, Mr. W. Eyre Kenny, then Acting Colonial Engineer, Singapore, made the suggestion that a rubble causeway should be substituted for a bridge. After examination of all the suggestions, Messrs. Coode, Fitzmaurice, Wilson and Mitchell, Consulting Engineers, Westminster, were asked

to prepare plans and estimates for the construction of a causeway.

These plans finally shewed a causeway, 60 feet wide on the top—carrying two tracks of railway and a 26 feet roadway—with a total length of 3,465 feet—the greatest depth crossing the Straits being 77 feet—and the average depth of water being 47 feet at low tide. Provision has been made at the Johore end of the causeway for the passing of small local craft by the provision of a lock, 510 feet long from end to end—which lock is provided with a double set of gates spaced 170 feet apart with a width inside the gates of 45 feet and outside 32 feet. This lock has been crossed by a Schiller roller bridge with three girders. The total width of this bridge is 57 feet, carrying two lines of railway and a clear roadway of 24′ 6″—the lift bridge 570 tons in weight and the tide gates being operated electrically.

One million six hundred and forty-one thousand seven hundred and twelve cubic yards of granite were used in the construction of the causeway, the total cost

of which was \$124 millions approximately.

The roller bridge selected for the crossing of the lock is the only one of its type in this part of the world and it is believed that the causeway itself is the first work of this magnitude anywhere adopted.

The ceremonial opening was performed by His Excellency the Governor and High Commissioner in the presence of Their Highnesses the Sultan of Johore and the Rulers of the Federated Malay States, and the Chief Secretary to Government, Federated Malay States, on the 28th of June, 1924, and the causeway has been in continual use from that date.

The result has greatly facilitated the working of railway transport; it has also tended very materially to increase motor transport as between Singapore and the mainland, and although the original idea for the construction of this causeway was enunciated by railway authorities for the purpose of facilitating its own transport and increasing its revenue, yet it cannot be wholly said that this has actually resulted, for the receipts between Johore Bahru and Singapore previously taken by the railway have been reduced by some \$5,000 a month, as a result.

Mr. P. A. Anthony, c.m.c., was General Manager and Chief Engineer of the Railways during the designing and constructing of the causeway and Messrs. Topham,

Jones and Railton, London, were the contractors.

The expenditure during the year amounted to \$1,015,830.

#### STORES.

171. During the year stores and materials for the Railway Construction Branch were purchased to the value of \$328,030, of which the amount paid through the Crown Agents was \$137,361. Value of the stores in hand at the close of the year was \$248,443.

Indents to the number of fifteen of an estimated value of \$378,148 were despatched to the Crown Agents for the Colonies.

#### GENERAL.

Mr. P. A. Anthony, c.m.g., General Manager and Chief Engineer, proceeded to England on special duty on 5th May, 1924, and retired from the service with effect from 31st December, 1924.

Mr. P. H. Henshaw, Traffic Manager, acted as General Manager from 1st March, 1924, and was so acting at the end of the year.

Mr. F. Titcombe, Senior Assistant Secretary to General Manager, who proceeded on long leave on 2nd August, 1923, returned and resumed duty on 9th March, 1924.

Mr. G. L. Miller, Assistant Secretary to General Manager, proceeded on long leave on 15th March, 1924, and returned and resumed duty on 9th November, 1924.

Mr. A. Allan, Assistant Secretary to General Manager, proceeded on long leave cn 1st November, 1924, and was still on leave at the end of the year.

Mr. H. B. Polglase, who was appointed Deputy Accountant, with effect from 6th November, 1922, assumed duty on 1st August, 1924. He proceeded on long leave on 18th December, 1924.

Mr. C. H. Rowe, Construction Accountant, acted as Deputy Accountant, with effect from 18th December, 1924.

Mr. R. P. Walker, Assistant Accountant, who proceeded on long leave on 7th February, 1924, returned and resumed duty on 19th November, 1924.

Mr. F. L. Dennis, Assistant Accountant, who proceeded on long leave on 4th July, 1923, returned and resumed duty on 19th January, 1924.

Mr. D. Philp, Assistant Accountant, proceeded on long leave on 5th June, 1924, and was still on leave at the end of the year.

Mr. A. E. Hawkins, Audit Inspector, was appointed as Assistant Accountant, with effect from 1st May, 1924. He proceeded on long leave on 20th November, 1924, and was still on leave at the end of the year.

Mr. D. Simpson, Stock Verifier, was appointed as Assistant Accountant, with effect from 1st May, 1924.

Mr. J. D. Pearce, Stock Verifier, who proceeded on long leave on 19th January, 1924, returned and resumed duty on 9th October, 1924.

Mr. A. E. Edwards was appointed as Audit Inspector and assumed duty on 12th September, 1924.

Mr. P. W. Redfearn, Assistant Accountant, Locomotive Department, who proceeded on long leave on 16th February, 1924, returned and resumed duty on 16th October, 1924.

Mr. J. A. Ball, Assistant Accountant, Construction Department, proceeded on long leave on 15th August, 1924, and was still on leave at the end of the year.

Mr. P. G. Beal, Deputy Traffic Manager, acted as Traffic Manager from 1st March, 1924, and was so acting at the end of the year.

Major W. H. Elkins, Assistant Traffic Manager, acted as Deputy Traffic Manager from 1st March, 1924, to 12th November, 1924.

Mr. J. Ross, Assistant Traffic Manager, acted as Deputy Traffic Manager, with effect from 13th November, 1924, and was so acting at the end of the year.

Mr. T. E. Wells, Assistant Traffic Manager, who proceeded on long leave on 5th May, 1923, returned and was seconded for duty in the General Manager's Office with effect from 15th February, 1924.

Mr. C. E. Rooke, Assistant Traffic Manager, who proceeded on long leave on 10th July, 1923, returned and resumed duty on 16th March, 1924.

Mr. A. F. Bidnell, Station Superintendent and Traffic Inspector, who proceeded on long leave on 22nd May, 1923, returned and resumed duty on 14th February, 1924.

Mr. A. S. Stokes, Station Superintendent and Traffic Inspector, who proceeded on long leave on 30th July, 1923, returned and resumed duty on 1st February, 1924.

Mr. W. G. Adams, Wharfinger, who proceeded on long leave on 1st August, 1923, returned and resumed duty on 28th March, 1924.

Mr. G. W. Bell, Station Superintendent and Traffic Inspector, who proceeded on long leave on 30th August, 1923, returned and resumed duty on 9th April, 1924.

Mr. W. G. Stewart, Assistant Traffic Manager, who proceeded on long leave on 14th March, 1924, returned and resumed duty on 8th November, 1924.

Mr. H. E. Clayton, Station Superintendent and Traffic Inspector, who proceeded on long leave on 14th March, 1924, returned and resumed duty on 10th October, 1924.

Mr. J. Ross, Assistant Traffic Manager, who proceeded on long leave on 8th April, 1924, returned and resumed duty on 13th November, 1924.

Mr. T. P. Speakman, Station Superintendent and Traffic Inspector, who proceeded on long leave on 9th May, 1924, was still on leave at the end of the year.

Mr. W. A. Griffin, Assistant Traffic Superintendent, who proceeded on long leave on 26th April, 1924, returned and resumed duty on 19th December, 1924.

Mr. C. Murray, Station Superintendent and Traffic Inspector, who proceeded on long leave on 3rd June, 1924, was still on leave at the end of the year.

Mr. W. R. Brearley, Station Superintendent and Traffic Inspector, who proceeded on long leave on 27th October, 1924, was still on leave at the end of the year.

Major W. H. Elkins, Assistant Traffic Manager, proceeded on long leave on 9th November, 1924, and was still on leave at the end of the year.

Mr. E. G. Browne, Assistant Engineer, who proceeded on long leave on 15th January, 1924, returned and resumed duty on 12th September, 1924.

Mr. W. Bunch, District Engineer, who proceeded on long leave on 19th January, 1924, retired from the service with effect from 31st December, 1924. Mr. W. Cosier, Chief Permanent Way Inspector, who proceeded on long leave

on 29th February, 1924, returned and resumed duty on 23rd October, 1924.

Mr. A. R. Johnson, Senior District Engineer, proceeded on long leave on 1st February, 1924, and was still on leave at the end of the year.

Mr. J. Willet, Chief Permanent Way Inspector, who proceeded on long leave on 1st February, 1924, retired from the service with effect from 1st June, 1924.

Major J. C. G. Spooner, Senior District Engineer, who proceeded on long leave on 29th February, 1924, returned and resumed duty on 7th November, 1924.

Mr. W. J. Haskins, Senior District Engineer, who proceeded on long leave on 15th March, 1924, returned and resumed duty on 7th November, 1924.

Mr. T. P. Sargent, District Engineer, Grade I, who proceeded on long leave on 25th April, 1924, returned and resumed duty on 5th December, 1924.

Mr. G. S. Helps, District Engineer, Grade II, who proceeded on long leave on 25th April, 1924, returned and resumed duty on 9th October, 1924.

Mr. A. E. Fawcett, Assistant Engineer, who proceeded on long leave on 10th May, 1924, was still on leave at the end of the year.

Mr. A. H. Short, Chief Permanent Way Inspector, proceeded on long leave on 22nd May, 1924, and was still on leave at the end of the year.

Mr. G. R. Hedges, Chief Permanent Way Inspector, who proceeded on long leave on 5th November, 1924, was still on leave at the end of the year.

Mr. A. W. Maxwell, District Telegraph Engineer, who proceeded on long leave on 29th March, 1923, returned and resumed duty on 4th February, 1924.

Mr. F. A. Punter, Signal and Telegraph Engineer, proceeded on long leave on 8th November, 1924, and was still on leave at the end of the year.

Mr. A. W. Maxwell, District Telegraph Engineer, acted as Signal and Telegraph Engineer, with effect from 8th November, 1924, when Mr. Punter proceeded on leave.

Mr. F. R. Mahony, Assistant Telegraph Engineer, who proceeded on long leave on 26th February, 1924, returned and resumed duty on 22nd December, 1924.

Mr. C. L. Parsons, District Signal Engineer, who proceeded on long leave on 6th March, 1924, returned and resumed duty on 3rd November, 1924.

Mr. J. H. Webb, Storekeeper, proceeded on long leave on 25th April, 1924, and was still on leave at the end of the year.

Mr. F. W. Stones, Stores Superintendent, who proceeded on long leave on 7th December, 1923, returned and resumed duty on 25th July, 1924.

Mr. K. C. Caldicott, District Engineer, Grade I, who acted as Stores Superintendent during Mr. Stones' absence on long leave, returned to the Engineering Department on 25th July, 1924.

Mr. W. E. Williams, Storekeeper, was appointed as Stores Assistant with effect from 26th March, 1924.

Mr. L. P. Watts, Storekeeper, proceeded on long leave on 21st June, 1924, and was still on leave at the end of the year.

Mr. J. F. Edington, Works Assistant, who proceeded on long leave on 29th February, 1924, returned and resumed duty on 9th October, 1924.

Mr. A. E. A. Ridgway, Electrical Assistant to Locomotive Superintendent, who proceeded on long leave on 22nd March, 1924, retired from the service with effect from 6th September, 1924.

Mr. J. C. Lapage, Running Superintendent, proceeded on long leave on 10th May, 1924, and was still on leave at the end of the year.

Mr. P. Wilson, Chief Draftsman, who proceeded on long leave on 27th September, 1924, was still on leave at the end of the year.

Mr. H. H. Leigh, Running Assistant, who proceeded on long leave or 12th April, 1923, returned and resumed duty on 5th January, 1924.

Mr. E. Hibberd, Assistant Locomotive Superintendent, who proceeded on long leave on 29th August, 1923, returned and resumed duty on 12th April, 1924.

Mr. A. W. S. Graeme, Works Manager, who acted as Locomotive Superintendent from 1st January, 1924, was confirmed in the appointment with effect from 19th March, 1924.

Mr. B. Davies, Locomotive Foreman, was promoted to Running Assistant with effect from 1st January, 1924.

Mr. A. E. Holmes Brown, District Locomotive Superintendent, acted as Running Superintendent from 10th May, 1924, to 31st December, 1924.

Mr. J. O. Sanders was appointed as Works Manager and assumed duty on 13th July, 1924.

Mr. G. H. Day-Lewis was appointed as Assistant Locomotive Superintendent and assumed duty on 9th April, 1924.

Mr. F. W. Latham assumed duty as Locomotive Foreman with effect from 18th January, 1924.

Mr. J. Holland assumed duty as Carriage Shop Foreman with effect from 22nd April, 1924.

Mr. J. W. Dunlop assumed duty as Train Lighting Foreman with effect from 21st November, 1924.

- Mr. L. J. Lawson, Locomotive Foreman, proceeded on three months' leave on 28th January, 1924, prior to retirement.
- Mr. C. H. Wyatt, Assistant Commissioner, Railway Police, who proceeded on six months' medical leave on 14th June, 1923, returned and resumed duty on 15th February, 1924.
- Mr. W. A. Newman, Chief Inspector, Railway Police, proceeded on long leave on 26th May, 1924, and was still on leave at the end of the year.
- Mr. D. O'Mahony, Inspector of Railway Police, who proceeded on long leave on 24th April, 1924, was still on leave at the end of the year.
- Mr. T. Grieve, Engineer for Construction, who proceeded on long leave on 9th February, 1923, returned and resumed duty on 19th January, 1924.
- Mr. H. S. Haskins, Section Engineer, who proceeded on long leave on 3rd October, 1923, returned and resumed duty on 6th June, 1924.
- Mr. S. Halford, Assistant Chief Surveyor, who proceeded on long leave on 28th December, 1923, returned and resumed duty on 28th August, 1924.
- Mr. J. S. Rogers, Section Engineer, proceeded on long leave on 23rd April, 1924, and was still on leave at the end of the year.
- Mr. H. E. Marnie, Section Engineer, who proceeded on long leave on 17th May, 1923, was still on leave at the end of the year.
- Mr. J. Inglis, Section Engineer, proceeded on long leave on 21st June, 1924, and was still on leave at the end of the year.
- Mr. D. W. Brisbane, Divisional Engineer, resigned from the service on the 31st May, 1924.
- Major J. W. Revell, Section Engineer, resigned from the service on the 19th June, 1924.
- Mr. J. F. Hay, Section Engineer, resigned from the service on the 26th September, 1924.
- Mr. R. P. Kittow, Divisional Engineer, resigned from the service on the 31st December, 1924.

### PUBLIC OFFICERS' GUARANTEE FUND.

The number of officers in the Railway Department contributing to the Public Officers' Guarantee Fund was 2,531 as compared with 2,321 at the end of the previous year. The entrance fees and contributions amounted to \$5,128.

### WIDOWS AND ORPHANS' PENSION ENACTMENT.

There were 1,006 railway contributors under the W. and O. Pension Enactment at the end of 1924 as compared with 899 at the end of 1923.

### RAILWAY SERVANTS' BENEFIT FUND.

The total receipts on account of the Railway Servants' Benefit Fund during the year amounted to \$3,640, a decrease of \$1,481 on 1923. The payments from the Fund totalled \$2,140, leaving a balance to the credit of the Fund on 31st December, 1924, of \$12,713.

### STATION AUDITS.

One thousand seven hundred and fifty-three station audits were held during the year comprising 1,513 complete, 126 partial and 114 surprise audits. There were in addition 134 complete and 26 partial inspections carried out by Audit Inspectors.

# VERIFICATION OF STORES.

Forty-one examinations of stores were made during the year, composed of 30 complete and 11 partial verifications.

# TICKET PRINTING.

During the year 12,354,669 ordinary tickets were printed and issued to stations. The percentages to classes were:

Di			212,009	 1.71	per cent
First	 	 		10.06	
Second	 		1,243,259		,,
			10,861,800	 87.92	,,
Third	 	 	35,478	 .29	
Bicycle	 	 		 	,,
Maton or			2,123	 .02	,,

In addition special tickets were printed for week-end, privilege and other concession arrangements.

#### SCHEME FOR RECRUITING AND TRAINING MALAYS.

#### TRAFFIC DEPARTMENT.

The scheme for Malay Station Masters came into operation in November, 1922, and so far as one can judge at present has been a success.

During the year under review it continued to attract more Malays to the Traffic Department, and at the end of the year there were 25 qualified Malay Station Masters in charge of stations and 15 under training. With the exception of Mentakab, Mengkarak and Triang, all stations on the Pahang line up to and including Padang Tungku and Kuala Pilah branch were in charge of Malay Station Masters. In addition there were 19 Malay Ticket Collectors and 15 Signalmen compared with 14 and 11, respectively, at the end of 1923.

# MENIAL STAFF.

The number of Malays increased in this branch during the year, the noticeable increase being amongst porters. At the end of the year there were 286 Malays in the various grades of porters, pointsmen, messengers, peons, etc., as compared with 196 at the end of 1923.

#### POLICE DEPARTMENT.

Forty-nine Malays recruited during the year 1923 for the uniform branch of the Railway Police Force were posted to stations on the Kuala Selangor and Port Swettenham lines upon completion of their six months' training. At the small stations they have generally given satisfaction, but at Port Swettenham after an extended trial it was found necessary to reduce the hours of duty by one-third of the total required of the Indian police constables formerly stationed there. After this change had been effected the situation improved.

During 1924 a further 40 men were recruited and posted to the Police Depôt for training.

The following is a comparative statement of Malays employed in the Traffic, Police and Engineering Departments during 1923 and 1924 and the total establishment:

		4	Dece	mber, 1923.	Dece	mber, 1924.
Appointments.			No. of Malays.	Total Establishment.	No. of Malays.	Total Establishment
TRAFFIC DEPARTMEN	T.					
Peons and punkah-pullers			6	24	7	24
Station Masters and Clerks, inclu	ding M	alay				
Station Masters qualified	and ]	Pro-				1.0
bationers			30	933	52	964
Signalmen			11	89	15	103
Pointsmen			36	434	50	451
Gatemen			10	192	12	199
Head luggage porters			1	13	1	15
Porters			131	377	200	389
Messengers			11	31	14	35
Guards			10	149	10	148
Ticket Collectors			14	50	19	55
Train Porters				22	1	22
Yard Foremen		7 1	1	22	i	23
Shunting porters			î	46	i	48
Monthly paid and coal clerks			2	66	2	65
	Total		264	2.448	385	2,541
			-01	2,110		2,011
Police Department	г.	9 9		Para San		THE WHOLE
Railway Police			53	798	90	780
Engineering Departm	ENT.					
Technical Subordinates			4	75	4	74
Clerks			2	96	9	95
Permanent Way Overseers			3	127	1	135
Gatemen			8	108	8	106
Peons			8	20	7	18
Punkah-pullers			3	6	4	6
Chainmen			1	3	1	3
	Total		29	435	27	437

#### RAILWAY BOARD.

The following gentlemen constituted the Board at the close of the year:

The General Manager of Railways (Chairman);

The Treasurer, Federated Malay States;

The Director of Public Works, Federated Malay States;

The Hon'ble Mr. Choo Kia Peng, M.F.C.;

The Hon'ble Mr. V. Gibbons, M.L.C.;

The Hon'ble Mr. D. A. M. Brown, M.L.C.;

Mr. H. B. Egmont Hake;

Mr. D. H. Hampshire;

Mr. G. E. Teale (on leave);

Mr. D. F. Topham (acting);

The Chief Accountant, Federated Malay States Railways.

The Board met on nine occasions, in addition to which, five sub-committee meetings were held.

This body constitutes and in effect performs all the duties of a Board of Directors—and from its ranks is drawn the standing Rates and Fares Advisory Committee.

This Committee sat on seven occasions and at the close of the year consisted of the following personnel:

The Hon'ble Mr. D. A. M. Brown;

The Hon'ble Mr. Choo Kia Peng;

Mr. H. B. Egmont Hake;

Mr. D. H. Hampshire;

The Chief Accountant, Federated Malay States Railways;

Mr. J. Ross (Assistant Traffic Manager);

Mr. T. E. Wells (General Manager's Department).

The signatory to this report feels that it is incumbent upon him to record that though it falls to his lot to attach his signature to it—yet was the whole of the administration and managership for the year 1924 controlled by other officers—Mr. P. A. Anthony, c.m.g., General Manager and Chief Engineer, being responsible up to 29th February, and from that date to the end of the year Mr. P. H. Henshaw.

GENERAL MANAGER'S OFFICE, KUALA LUMPUR, F.M.S., 15th May, 1925. J. P. SWETTENHAM, Acting General Manager, F.M.S. Railways.

## INDEX TO APPENDICES.

#### FINANCIAL ACCOUNTS .-

- No. 1.—Receipts and expenditure on capital account.
- ,, 2.—Details of capital expenditure for the year ending 31st December, 1924.
- ,, 3.-Revenue receipts and expenditure of the whole undertaking.
- ,. 4.—Receipts and expenditure in respect of railway working.
  - Abstract A.-Maintenance and renewal of way and works.
    - B.—Maintenance and renewal of rolling stock:
      - (1) Locomotives,
      - (2) Carriages,
      - (3) Wagons.
    - ., C.-Locomotive running expenses.
    - ,, D.—Traffic expenses.
    - , E.—General charges.
- ,, 5.-Receipts and expenditure in respect of steamer and ferry services.
- ,, 6.—Receipts and expenditure in respect of docks, harbours and wharves.
- ,, 7.-Electric power and light account.

### STATISTICAL STATEMENTS.

- I .- Mileage of lines:
  - A .- Mileage of lines open for traffic,
  - B.-Mileage of lines authorised but not opened for traffic.
- II .- Rolling Stock:
  - A .- Steam locomotives and tenders,
  - B.-Rail motor vehicles,
  - C .- Coaching vehicles,
  - D.-Merchandise and mineral vehicles,
  - E.—Railway service vehicles.
- III.—Road vehicles.
- IV.—Steam boats.
- V.-Docks, harbours and wharves.
- VI.-Maintenance and renewal of way and works (Abstract A).
- VII.—Maintenance and renewal of rolling stock (Abstract B).
- VIII.—Engine mileage.
  - IX.-Railway passenger traffic and receipts.
  - X.—Railway goods traffic and receipts.
  - XI.—Summary of financial results secured in comparison with previous years.
- XII.—Net profit earned by Federated Malay States Railways between 1885 and 1924, inclusive.
- XIII.-Monthly railway earnings on coaching and goods traffic.
- XIV.—Statement showing dates on which the various sections were opened for traffic.
  - XV.—Statement showing staff and labour force in the Railway Department.

To Expenditure.	Amount expended to 31st December, 1923.	Amount expended during year as per No. 2.	Transfers from Lines not open for traffic to Open Line account.	Amount expended to 31st December, 1924.	By Receipts.	Amount received to 31st December, 1923.	Amount received during year.	Total.
	\$ c.	\$ c.	\$ c.	8 c.		\$ c.	\$ c.	\$ c.
Lines open for Traffic	106,532,452 24	28,900 62	10,050,774 88	116,612,127 74	Received from Federal Government—	173 061 106 44	Cr 223 363 45	172,837,742 99
Lines not open for Traffic— New Lines	14,548,083 93	1,863,593 48	Cr. 6,513,707 44	9,897,969 97			4,019,399 99	
Widenings and Additions	26,041,469 30	2,054,643 86	Cr. 20,692,973 44	7,403,139 72	1921—	10,915,939 47	4,013,333 33	22,330,033 40
Lines Leased	604,408 13	Cr. 97 89		604,310 24				
Rolling Stock	29,567,907 92	Cr. 136,555 51	134,910 00	29,566,262 41				
Manufacturing and Repairing Works and Plant	3,607,381 84	8,947 82	20,996 00	3,637,325 66				
Total Capital Expended on Railway	180,901,703 36	3,819,432 38	Cr. 17,000,000 00	167,721,135 74				
Steamer and Ferry Service	740,103 45	Cr. 15,942 50		724,160 93				
Docks, Harbours and Wharves	6,469,240 46	Cr. 16,679 23	17,000,000 00	23,452,561 23				
Hotels	654,606 82			654,606 82				
Electric Power Stations	125,554 08	3		125,554 08				
Land and Property not forming part of the Railway or Stations		9,225 89		3,001,621 33				
Saw-mill	91,502 3	2		91,502 32			in the	
Total Expenditure	191,975,105 9	3,796,036 54		195,771,142 45	Total Receipts	191,975,105 91	3,796,036 54	195,771,142 45

12

No. 2.—DETAILS OF CAPITAL EXPENDITURE FOR THE YEAR 1924.

Lines Not Open for Traffic.   2   East Coast Railway—Kelautan   Do. do. Pahang   476,613 93   59 85   14   15   East Coast Railway—P. Mas to R. Panjang Extension   13,707 44   11   Final payment by the Government of Straits Settlements of the purchase price of Penang Hills Railways   Cr.   14,573 83   Cr.   910 42   1,863,593	Item Nos. in 1924 Estimates.	Votes chargeable.	Loan Account.	Ordinary Capital Account.	Total.
Tist mile		LINES OPEN FOR TRAFFIC.	8 c.	S c.	\$ c.
Rantai   Crossing Loop   8   8   Port Swettenham. Reconstruction of the Engine Shed with Turn-tables, etc.   9   Bahau   Loov Water Supply   2   12   Renewal of Steelwork in existing bridges now under standard loading   3/23   Additional Passenger and Goods Accommodation, Tampin   3/23   Additional Passenger and Goods Accommodation, Tampin   3/24   Additional Passenger and Corriage Shed and Goods Passenger and Goods   3/24   Additional Passenger and Goods   3/24   Additional Passenger and Goods   3/24   Additional Passenger Passenger   3/24   Additional Passenger Passenger Passenger   3/24   Additional Passenger Pa	3	Taiping Pass Section—Relaying Main Line 63rd-			
Section   Port Swettenham. Reconstruction of the Engine Shed with Turn-tables, etc.   2   138 abau   120	7	Pantai—Crossing Loop			
Bahau — Loco Water Supply   Renewal of Steelwork in existing bridges now under standard loading	8	Port Swettenham. Reconstruction of the Engine Shed			
Standard loading		Bahau—Loco Water Supply			
3/23   Additional Passenger and Goods Accommodation, Tampin   44 41		standard loading	52,350 06		
Sale of Land to Trade and Customs Department   New Railway Offices for District Officers, Kuala Lumpur—cost of 140,000 concrete bricks   Cr. 4,200 00	5/23	Marshalling, Siding, Engine and Carriage Sheds, Gemas Cr.			
New Railway Offices for District Officers, Kuala Lumpur—cost of 140,000 concrete bricks   Value of Bridge Girders, etc., returned to Way and Works Depôt Sundry Credits   Adjustment of Credit in error for cost of boilers ex Johore   Lines not Open for Traffic.		at Ulu Yam			
Cr. 4,200 00   Value of Bridge Girders, etc., returned to Way and Works Depôt   Cr. 12,040 00   Cr. 2,728 07	- 22	New Kailway Offices for District Officers, Kuala Lumpur—		Cr. 20,822 00	
Works Depot   Sundry Credits   Adjustment of Credit in error for cost of boilers   Cr.   12,040 00   Cr.   2,728 07   Cr.   2,040 00   Cr.   2,728 07   Cr.   2,040 00   Cr.   2,728 07   Cr.   600 00   28,900   Cr.   600 00   Cr.   600 00   28,900   Cr.   600 00   Cr.   600 00   28,900   Cr.   600 00   Cr.		cost of 140,000 concrete bricks		Cr. 4,200 00	
Adjustment of Credit in error for cost of boilers ex "Johore"  LINES NOT OPEN FOR TRAFFIC.  2		Works Depôt	<b></b>	The state of the s	
LINES NOT OPEN FOR TRAFFIC.  2		Adjustment of Credit in error for cost of boilers			
2   East Coast Railway—Kelantan   Do.   do.   Pahang     476,613   93   59   85   14   14   11   14   11   15   East Coast Railway—P. Mas to R. Panjang Extension   13,707   44   11   11   11   11   11   11   1				Cr. 600 00	28,900 62
13   13   14   15   15   16   17   17   17   17   18   18   14   11   11   11   11   11	9				
13   Surveys and Estimates of New Works	3	Do. do. Pahang	1,388,696 51 476,613 93		
Final payment by the Government of Straits Settlements of the purchase price of Penang Hills Railways   Cr.   Sundry Credits	14	East Coast Railway—P. Mas to R. Paniang Extension	59 85		
Wider Supply for Prai	11	of the purchase price of Penang Hills Railways Cr. Sundry Credite	14,573 83	040.40	
Water Supply for Prai			•••	Cr. 910 42	1,863,593 40
New Engine and Carriage Shed and Goods Yard, Ipoh   49,136 38   15,114 49   15,114 4	4	W-1- C 1 C D :	10 100 05		
Port Swettenham Doubling		New Engine and Carriage Shed and Goods Yard, Ipoh	49,136 38		
Sungel Besi Carriage and Engine Shed, etc., Seremban Doubling Line, Singapore Railway, New Station, Fort Canning, etc. Cr. Woodlands Railway Deviation and Marshalling Siding Prai Doubling Wharves, alterations, etc Causeway across Johore Straits Sundry Credits  LINES LEASED.  Value of Rails returned to W. and W. Depôt from Johore Bahru  Replacement of 20 ten-ton Goods Brake Vans to be broken up One set Superheater Gear for "H" class Engine Sale of Engine No. 71 to Siam Coal Mine Sale of Materials from Paid-up Steck  Sungel Besi 294,573 20 77,678 11  18,225 33 5,057 88 75,753 01 494,282 84 1,015,830 48 Cr. 187 50 2,054,643  Cr. 97 89  Cr. 97  Cr. 4,500 00 Cr. 141,855 84 Cr. 136,556	7	Port Swettenham Doubling			
Wt. 20/24   Do.   do.   Acquisition of Land   Hard   Har	8	Sungel Besi	294 578 20		
Wt. 20/24   Do.   do.   Acquisition of Land   So.	9	Carriage and Engine Shed, etc., Seremban			
Woodlands Railway Deviation and Marshalling Siding   75,753 01   75,753 01   494,282 84   494,282 84   1,015,830 48   Cr. 187 50 2,054,643	W+ 90/94	Canning, etc. Cr.	18,225 33		
11   12   Causeway across Johore Straits   494,282 84   1,015,830 48   1,015,830 48   Cr. 187 50 2,054,643	10	Woodlands Railway Deviation and Marshalling Siding			
Sundry Credits		Conserver agrees Tales Starting Starting	494,282 84		
Value of Rails returned to W. and W. Depôt from Johore Bahru		Sundry Credits		Cr. 187 50	2,054,643 86
Rolling Stock.   Cr. 97 89   Cr. 97   Rolling Stock.   Cr. 97 89   Cr. 97   Rolling Stock.   Replacement of 20 ten-ton Goods Brake Vans to be broken up   Cr. 97 89   Cr. 97   Cr. 97   Sale of Engine No. 71 to Siam Coal Mine   Cr. 4,500 00   Cr. 141,855 84   Cr. 136,556   Cr. 136,556   Cr. 141,855 84   Cr. 141,8		LINES LEASED.			
Replacement of 20 ten-ton Goods Brake Vans to be broken up					20
Replacement of 20 ten-ton Goods Brake Vans to be broken up One set Superheater Gear for "H " class Engine Sale of Engine No. 71 to Siam Coal Mine		Danry		Cr. 97 89	Cr. 97 89
17 One set Superheater Gear for "H" class Engine Sale of Engine No. 71 to Siam Coal Mine Sale of Materials from Paid-up Stock					
One set Superheater Gear for "H" class Engine Sale of Engine No. 71 to Siam Coal Mine	14	Replacement of 20 ten-ton Goods Brake Vans to be broken up			
Sale of Materials from Paid-up Stock	17	One set Superheater Gear for "H" class Engine			
01. 141,000 04 01.1001		Sale of Materials from Paid-up Stock		Cr. 4,500 00 Cr. 141.855 84	Cr. 136,555 51
					3,810,484 56
Carried over 3,810,404		Carried over			3,810,404

# No. 2.—DETAILS OF CAPITAL EXPENDITURE FOR THE YEAR 1924—(cont.)

Item Nos. in 1924 Estimates.	Votes chargeable.	Loan Account.	Ordinary Capital	Total.
		\$ c.	\$c.	\$ c.
	$Brought  forward  \dots$			3,810,484 56
	Manufacturing and Repairing Works and Plant.			
6	Structure for charging Train Lighting Cells, Central Workshops	3,032 16		
15 16	Additional Machinery and Plant for Central Workshops Machinery for Loco Shop at Gemas	738 24 5,177 42		
				8,947 82
	STEAMER AND FERRY SERVICE.		a trabancan	
	Sale of s.L. "Singapore" per Messrs. Drew and Napier, Singapore Value of Boilers ex "Johore,"-Adjustment		Cr. 15,342 50 Cr. 600 00	
	Docks, Harbours and Wharves.			Cr. 15,942 50
	Sale of Slipway at Port Swettenham to Penang Harbour Board		Cr. 8,366 68	
	returned to W. and W. Depôt Value of Materials from Prai Wharves returned to		Cr. 1,232 18	
	W. & W. Depôt		Cr. 7,080 37	Cr. 16,679 2
	Land, Property, etc., not forming part of the Railway or Stations.			07.10,073 22
$\frac{1}{2}$	Padang Besar—Staff Quarters (1 unit) Sungei Patani—Quarters for Traffic Staff (3 units) and	1,475 00		
t. 14/24	Menial Staff (3 units) Batu Arang—Additional Staff Quarters Purchase of Land for Railway Quarters at Tanjong Malim	2,210 69 2,104 00		
t. 96/24	Menial Staff Quarters at Gemas (unprovided)	6,690 08 746 12		
	Sale of Quarters at Taiping to Perak Government		Cr. 4,000 00	9,225 89
	Total			3,796,036 54

# No. 3.—REVENUE RECEIPTS AND EXPENDITURE OF THE WHOLE UNDERTAKING.

See						1923.	
State- ment.		Gross Receipts.	Expenditure.	Net Receipts.	Gross Receipts.	Expenditure.	Net Receipts.
		\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ 0
4 5 6	Railway Steamer and Ferry Service Docks, Harbours and Wharves	14,762,624 30 253,926 69 644,551 15	187,356 04	3,264,169 94 66,570 65 254,178 59	13,509,912 92 348,237 80 376,788 25	11,512,205 64 272,097 89 383,027 91	1,997,707 28 76,139 91 Dr. 6,239 66
	Total	15,661,102 14	12,076,182 96	3,584,919 18	14,234,938 97	12,167,331 44	2,067,607 53
	Miscellaneous Receipts— Rents from Houses and La Rents from Hotels Other Rents  Less Upkeep of Property General Interest		313,599 36 54,275 00 45,989 49 413,863 85 372,271 51	41,592 34 135,235 91			298,629 54 51,300 00 43,801 84 393,731 38 311,226 96 82,504 42 46,435 57
	Tota	al Net Income		3,761,747 43			2,196,547 52
	Deduct—Rentals and Fixed Ch Rents Payable Rent on Leased Lines		126,319 62 357,000 00	483,319 62			129,198 67 357,000 00 486,198 67
	То	tal Net Profit		3,278,427 81			1,710,348 85

See Abs-	To Expenditure.	1924.	1923.	Percenta Traffic R		By Gross Receipts.		1924.	1923.	Percen Traffic I	
tract.				1924.	1923.	3.				1924.	1923.
		\$ c.	\$ c.					\$ c.	\$ c.		
(A)	Maintenance and Renewal of Way and Works	2,933,045 57	2,875,565 72	20.08	21.55	Passenger Train Traffic— Ordinary Passengers, 1st Class	700.920 18		682,726 25		
(B)	,, ,, ,, Rolling Stock— (1) Locomotives , 835,142 48		878,960 07			2nd ,,	1,131,111 28 3,871,500 04 18,930 19		1,125,513 03 3,983,898 50 12,888 93	2	
	(2) Carriages 403,786 14 (3) Wagons 492,771 26		368,311 21 340,834 63					5,722,461 69	5,805,026 71	39.17	43,50
(C)	Locomotive Running Expenses 2,548,050 91	1,731,699 88	1,588,105 91 2,500,337 30	11.85	11.90	Season Tickets, 1st Class 2nd ,, 3rd ,,	2,356 62 20,489 10 75,450 51		3,544 51 26,855 85 10,977 88		
(D)	Traffic Expenses 2,681,954 14		2,592,669 56	18.36	19.43	ord "	75,450 51				
		5,230,005 05	5,093,006 86	35.80	38.17	Total Receipts from		98,296 23	41,378 24	0,67	0.31
						Passengers		5,820,757 92	5,846,404 95	39.84	43.81
(E)	General Charges	1,530,644 32 1,112 35	1,887,868 63 3,128 13	10.48 0.00	14.15 0.02	Mails Parcels and Other Merchan-	74,852 44		65,072 95	0.51	0.49
	Assessment on Tamil Labour Compensation	56,402 85 2,476 16	50,740 00 6,965 19	0.39	0.38	dise by Passenger Train	708,300 53		774,751 60	4.85	5.81
						Total Passenger Train		783,152 97	839,824 55	5.36	6.30
	Total Traffic Expenditure	11,485,386 18	11,505,380 44	78.62	86,22	Receipts Goods Train Traffic—		6,603,910 89	6,686,229 50	45,20	50.11
						Live Stock Tin and Tin-ore Rubber	354,637 91 1,100,330 76		4,021,952 59 225,527 83 230,918 58 1,068,152 85	33.74 1.54 2.43 7.53	30.13 1.69 1.73 8.01
				123		Coal, Coke and Firewood Other Minerals	1,132,933 68 264,352 99		795,582 37 315,633 34	7.75 1.81	5.96 2.37
	Johore Causeway Lock	13,068 18	6,825 20			Total Goods Train Receipts	=	8,005,717 88	6,657,767 56	54.80	49.89
	Miscellaneous					Total Traffic Receipts		14,609,628 77	13,343,997 06	100.00	100.00
	Total Expenditure Net Receipts	11,498,454 36 3,264,169 94	11,512,205 64 1,997,707 28			Mileage, Demurrage and Wagon Hire, etc Johore Causeway Lock Miscellaneous		Dr. 9,594 78	Dr. 1,359 40 13 75 167,261 51		
	Total	14,762,624 30	13,509,912 92			Total		14,762,624 30	13,509,912 92		

2

# ABSTRACT A.—MAINTENANCE AND RENEWAL OF WAY AND WORKS.

	1	924.	1923.
1.—Superintendence—	\$ c.	\$ c.	3 0
Salaries	441,452 29		412,487 8
Office Expenses	17,431 69		16,702 1
Onice Bapenses	11,101 00	458,883 98	10,.02 1.
2.—Maintenance of Roads, Bridges and Works—		100,000 00	
	71,673 31		70.040 5
Earthworks Bridges, Tunnels, Culverts, Retaining Walls, River	11,015 51		72,042 5
Bridges, Tunnels, Culverts, Retaining Walls, River			
Improvements and Other Works	135,330 51		107,402 5
Roads and Fences	37,588 20		33,512 5
		244,592 02	
3.—Maintenance of Permanent Way—			
Renewals of Running Lines and Sidings-			
\$ c.			
F 070 F07			0 9.798 6
	49,100 00		88,658 3
Materials 42,813 31	49,100 00		
Engine Power 933 10)			( 2,580 2
Repairs of Running Lines and Sidings -			
			c 001.010 A
Wages 890,830 15)	1 400 500 54		( 821,912 4
Materials 525,124 63	1,483,523 74	***	3 661,006 6
Engine Power and Wagon Repairs 67,568 96)			53,916 5
		1,532,623 74	
4.—Maintenance of Signalling		183,795 69	125,654 8
5.— ,, Telegraphs		209,012 81	179,781 9
6.—Maintenance of Stations and Buildings—			
Stations, Depôts and Offices	173,156 44		151,226 7
Engine and Carriage Sheds	19,477 80		16,984 82
Locomotive Carriage and Wagon Workshops	23,902 81		7,031 63
Other Buildings	4,895 79		
Over Littlings	2,000 10	221,432 84	2,923 2
7.—Miscellaneous		82,704 49	111,941 98
7.—Miscellaneous	***	02,702 43	111,011 00
Total		2,933,045 57	2,875,565 7
10041	***	=,000,010 01	2,010,000

# ABSTRACT B.-MAINTENANCE AND RENEWAL OF ROLLING STOCK.

# (1) LOCOMOTIVES.

_					1924.			1923.					
1.—Superintendene	ee-					\$	c.	\$	c.	8	c.	\$	c
Salaries Office Expens	ses					93,635 1,681				88,220 2,223			
2.—Complete Rene	wals_							95,316	73			90,443	5
Wages Materials	***												
3.—Repairs and P	ontial	Damassa	1										
Wages Materials		nenewa 				413,976 268,068		vi v		377,862 354,656			
4.—Purchase of Ne	w Loce	omotive	s					682,044	21			732,518	4
5Workshop Expe	enses-							•					
Repairs and Plant Other Expens	Rene	wals of 		chinery	and 	39,058 48,306		18-11		32,599 48,329			
								87,364	15			80,928	9
Deduct Engin	e Pow	er Supp	lied				5. " 2. "	864,725 29,582				903,890 24,930	
						Total		835,142	48			878,960	o

### (2) CARRIAGES.

	19	24.	1923.			
1.—Superintendence—	\$ c.	\$ c.	\$ c.	\$ c		
Salaries	37,686 36		35,597 60			
Office Expenses	733 16		992 97			
	7.00 10	38,419 52	992 91	36,590 57		
2.—Complete Renewals—		05,415 02		30,390 37		
Wages	4,507 32					
Materials	28,154 95					
	20,10 2 00	32,662 27				
3.—Repairs and Partial Renewals—		32,002 21				
Wages	166,618 62		150 450 50			
M	127,986 53		152,470 76	100 P 7 P		
Materials	121,000 00	201 005 15	143,106 86	000 000 000		
4 Providence of New Comingree		294,605 15		295,577 62		
4.—Purchase of New Carriages	A SHEET R			***		
F W 1 1 1 12	Language Division					
5.—Workshop Expenses—						
Repairs and Renewals of Machinery and						
Plant	17,033 10		14,559 03			
Other Expenses	21,066 10		21,583 99			
	-	38,099 20		36,143 02		
	Total	403,786 14		368,311 21		

#### (3) WAGONS

	19	024.	19	23.
1.—Superintendence—	, \$ c.	\$ c.	\$ c.	\$ c
Salaries Office Expenses	33,788 12 857 09	34,645 21	30,954 43 1,100 91	32,055 34
2.—Complete Renewals—		04,040 21		32,000 39
Wages	10,440 04 67,945 59			
B Panaina and Pantial Panasala		78,385 63		
3.—Repairs and Partial Renewals— Wages	149,372 36	A Section	132,583 27	
Materials	185,829 17	335,201 53	124,440 74	957 004 0
4.—Purchase of New Wagons	*	000,201 00	77.7	257,024 01 11,683 68
5.—Workshop Expenses—				
Repairs and Renewals of Machinery and Plant	19,912 11		16,141 53	
Other Expenses	24,626 78	44,538 89	23,930 07	40,071 60
			,	
	Total	492,771 26	***	340,834 63

# ABSTRACT C.-LOCOMOTIVE RUNNING EXPENSES.

		1924.	1923.
1.—Superintendence—	8 c.	\$ c.	S c.
Salaries	122,378 22		121,951 5
Office Expenses	6,959 59		5,491 6
		129,337 81	0,101 0
2.—Steam Train Working—			
Wages connected with the running of Locomotives	793,035 87		714,676 4
Fuel	1,465,586 28		1,497,768 6
Water	113,176 04		97,432 5
Lubricants	84,228 66		84,027 9
Other Stores, including Clothing	21,778 59		26,732 8
Miscellaneous	13,333 95		13,293 2
		2,491,139 39	
		2,620,477 20	2,561,374 83
Deduct Engine Power S	Supplied	72,426 29	61,037 5
	Total	2,548,050 91	2,500,337 3

# ABSTRACT D.—TRAFFIC EXPENSES.

									1924.		1923.	
.—Salaries and W	nores —						\$	c.	8	c.	8	c
Superintender							321,650	32			326,450	5
Station Maste							987,996				942,896	
Signalmen an					***		240,973				226,339	
Porters, etc.							219,237				197,819	
Police							146,244				153,613	
Guards							214,010				215,631	
Shunting							58,251	73			56,491	
									2,188,364	66	2,119,243	3
Fuel, Lighting,	Water	and Ge	neral	Stores					183,427	32	172,855	6
									47,557	39	38,132	9
Printing, Adver	tising,	Station	ery a	nd Tiel	kets				74,535	45	94,838	1
Cleansing, Lubi	icating	and L	ightin	g of V	ehicles	***			181,385	12	162,817	3
.—Miscellaneous			/						6,684	20	4,782	1
							Total		2,681,954	1.1	2,592,669	

# ABSTRACT E.—GENERAL CHARGES.

								1924.		1923,	
								S	c. )	3	c.
Salaries of G.M.R., C	A. and	Staff									
Salaries				111				 384,384	40	356,084	3
Office Expenses		***					1.17	 11,919		12,107	
Medical Expenses							115	 55,421		51,017	
							***	 500	00	400	0
Pensions and Gratui	ies une	der Pe	nsion	Laws				 248,575	95	176,316	4
Passages of Officers						411		 128,935	58	87,137	
Education Fees for t							ables	 280	50	342	5
Temporary Allowand								 648,093	93	632,994	8
Fees to Unofficial M	embers	of Ra	ilway	Board			***	 10,000	00	10,000	0
Travelling Expenses	in con	nection	with	the Ra	ilway 1	Board		 4		475	0
Railway Institutes a	nd San	atoria			111		***	 3,541	56	2,836	9
Loss incurred by wr	iting de	own va	lue of	Equip	nent fo	or Hote	s	 14.84		10,589	5
,,				200				 27,709	05	539,735	
Sundries	***	111				***	***	 11,282	19	7,831	
							Total	 1,530,644	32	1,887,868	6

# No. 5.—RECEIPTS AND EXPENDITURE IN RESPECT OF STEAMER AND FERRY SERVICES.

Dr. 1924. 1923. 1923. To Expenditure. By Gross Receipts. 1924, c. 1. Salaries and Wages 136,488 38 55,087 06 13,446 27 65,977 55 180 00 126,475 02 34,920 77 1,150 76 84,997 88 12 45 160,483 90 32,009 97 103,092 57 28,353 45 7,474 43 1. Passengers 2. Fuel ... 3. Stores, Lubricants, Water, etc. 2. Parcels and other Coaching Traffic 3. Mails 1,375 54 4. Repairs
5. Harbour Fees and Light Dues 48,030 09 180 00 4. Goods 150,051 23 746 13 3,571 03 5. Live Stock ... 6. Miscellaneous 225 50 918 63 6. Miscellaneous 6,369 81 272,097 89 76,139 91 187,356 04 66,570 65 Balance 253,926 69 348,237 80 Total 253,926 69 348,237 80 Total

# No. 6.—RECEIPTS AND EXPENDITURE IN RESPECT OF DOCKS, HARBOURS AND WHARVES,

To Expenditure.	1924.	1923.	By Gross Receipts.	1924.		1923.
	\$ c.	\$ c.		s	c.	\$ c4
uperintendence	4,075 21	2,543 97	1. Wharfage	535,107	20	321,178 0
laintenance—Wharves, etc.	61,814 88	38,963 46	0 7 1 1 1 1 1 1 1 1 1	60,750	65	6,978 7
Do. Tugs and Tongkangs	89,285 79	100,359 26		36,798		39,576 2
Orking Expenses Tugs and Tong.	00,200 70	430,000	4. Miscellaneous	11,894	97	9,055 2
kangs—Salaries	15,667 93	12,571 87				
Other Charges	17,429 49	31,932 61				
ages not included in above	185,378 14	183,325 10				
rages not included in above Predging	474 70					
discellaneous	16,246 42	13,331 64				
	390,372 56	383,027 91	Total Receipts .	. 644,551	15	376,788 2
Balance	254,178 59		Balance .			6,239 6
Total	644,551 15	383,027 91	Total .	644,551	15	383,027 9

	192	24,	19	23.		19	024.	19	23.
	\$ c.	\$ c.	\$ c.	\$ c.		Number of Units.	\$ c.	Number of Units.	\$ c.
1.—Superintendence— Salaries	773 11		48,879 08 847 20	49,726 28	Current Supplied— For Power ,, Lighting ,, Other Consumers	814,073	103,007 09 147,313 91 10,724 98	548,195 805,372	93,883 61 137,927 77 12,728 03
2.—Generation—  Maintenance of Buildings of Plant, Machinery and Tools  Maintenance of Feeders, Cables and Accessories	7,255 87		7,496 93		Train Lighting— Superintendence		14,752 86		13,025 97
Wages Fuel Oil, Waste, Water and Stores Total Generation	24,289 34 33,156 70 9,589 97	74,291 88	21,379 88 37,517 93 12,819 78	79,214 52					
3.—Distribution—  Maintenance of Feeders, Mains and Apparatus  Maintenance of Meters, Switches, Fuses, Lamps, etc.			16,274 79						
Wages	46,647 31	68,437 87	33,604 46	49,879 25					
4.—Purchase of Current	Total	83,892 85 275,798 84		78,745 33 257,565 38		Total	275,798 84		257,565 38

33

31

# I.-MILEAGE OF LINES.

# A.—Mileage of Lines Open for Traffic.

			Running	z Line	·s,		Sidin	gs	Total		Year I Total	
MALAY STATES RAILWAYS.	Length Road Singl Trac	le	Seco Trac		Total M reduce Sing Trac	d to le	reduce Sing Trac	le	Sing Trac includ Sidin	k ling	Sing Trac includ Sidin	k ling
Main and Principal Lines— Prai to Gemas Bukit Mertajam to Padang Besar Kuala Lumpur to Port Swettenham Gemas to Chegar Perah Johore Bahru to Pasir Panjang	M. 351 99 25 163	c. 17 04 52 09 38	M. 39 5 2 3 2	6. 29 07 06 34 06	M. 390 104 27 166 21	c. 46 11 58 43 44	M. 85 6 16 5 6	c. 54 21 31 84 57	M. 474 110 44 172 28	c. 20 32 09 47 21	M. 461 110 43 172 27	c. 55 32 69 40 41
Kelantan	723	07		10	778	17	123	15	901	32	867	$\frac{26}{23}$
Minor and Branch Lines— Port Weld Tronoh Teluk Anson Batang Berjuntai Batu Caves Kuala Selangor Sultan Street, Ampang and Salak South Port Dickson Malacca Kuala Pilah	7 15 18 14 5 29 8 24 20 13	40 29 11 10 38 56 24 20 72 07	1 1 1 1 1 1	24 31 72 60 70 67 25 38 13 24	7 16 19 15 6 31 9 25 22 13	64 60 03 70 28 43 49 58 05	1 1 3 2 16 4 1 1	82 38 19 39 69 04 48 23 79 32	9 18 22 18 23 35 11 27 24 13	66 18 22 29 17 47 17 01 04 63	9 17 22 18 23 35 10 27 24 13	77 91 22 29 17 43 76 01 04 63
Leased Line— Total	120	69	4 71	55	125	44 72	6	38	132 1,236	02 78	132	01

# B.—Mileage of Lines Authorised but not Open for Traffic.

Innes owned by the Federated Malay States	Mile Author			structed but not for Traffic.	Miles under Construc- tion.	Miles not Commenced or in Abeyance.
Railways.	Lengt Roa		Length o Road.		Length of Road.	Length of Road.
17	м.	c.	м. с	м. с.	м. с.	М, С.
New Lines—						
East Coast Railway, Kelantan Section	87	40			87 40	
Mal ", Pahang Section	23	*72		100	23 72	
Malacca to Gemas Railway	45	51				45 51
The state of the s	21	00			•••	21 00
Videnia						
Doubling Singapore Line	14	71				14 71
Doubling Line, Port Swettenham Junction to	14	11			17	14 /1
Post G	25	36				25 36
Anala T	0	52	3 5	2 4 12		
Batu Junction-Kuala Lumpur Deviation and Doubling Bukit Kuing Levistion Klang	2	48	1.7		2 48	
Bukit Kuing Deviation, Klang Raising or Deviation of Line between Ulu Yam and		44			44	
Raising or Deviation of Line between Ulu Yam and Sungei Chob		110				
Sungei Choh	15	54				15 54

# II.—ROLLING STOCK.

# A.—Steam Locomotives and Tenders.

	Description				Number 1924.	Total.	Year 1923, Number.
Tender Engines	- diff 1				Alleres :	ainarg9 s	ha en en e
4 4 0 Wheel	Type		1.111)		12	- 11.70	18
160	,		100		40		42
1 6 9	,				112		112
0660	,				2		2
9.6.0	,				$-10^{-}$		10
	,				10	176	and I found to a
Tank Engines-	181 ( ) 61 P					170	
0 6 0 Wheel	Type				10		11
0 6 4					31	arrado apenas	31
4 4 0			A	190	19		24
1 1 9			#1 <u>5</u> _		1.0		
T T 4 ,			***		1	01	2
						61	
		Total	Engineer		1250	395	050
			Engines			237	252
		- ,,	Tenders			176	184

# B.—Rail Motor Vehicles.

	Yea	r 1924.	Year 1923.		
	Number.	Carrying Capacity.	Number.	Carrying Capacity.	
	d-alg	Seats.	Lidebia	Seats.	
Steam Power	2	150	4	300	
Internal Combustion Service Vehicles	5	LT*	5		

# C.—Coaching Vehicles.

		eeled			Seats	or Berths		Ye	ear 1923.
	Bogie.	Four Wheeled.	Number.	1st Class.	2nd Class.	3rd Class.	Total in 1924.	No.	Seats or Berths.
Passenger Carriages.	14								
Carriages of Uniform Class	201	11	212	713	1.839	11,467	14,019	230	15,100
Composite Carriages	173	8	181	977	1,822	4.107	6,999	189	7,102
Restaurant Carriages	13		13	297			204	13	267
Miscellaneous	13		13	127	17	68	212	8	120
Total	400	19	419	2,114	3,678	15,642	21,434	440	22,589
Sleeping Cars	11		11	176			176	11	176
Total Passenger Carriages			430				21,610	451	22,765
OTHER COACHING VEHICLES.									
Post Office Vans Luggage, Parcel and Brake	2		2					2	
Vans	11	8	19					25	
Carriage Trucks		36	36					36	
Horse-Boxes		29	29					29	
Miscellaneous	3	66	69					59	
TOTAL OTHER COACHING									
VEHICLES			155					151	
Total Coaching									
VEHICLES			585					602	

# D.—Merchandise and Mineral Vehicles.

There is a second of the secon					Bogie Stock.	4-wheeled Stock.	Number 1924.	Number 1923.
Open Wagons—								
TT 1 0 1						.8	8	13
0 1 10					- 6	1,885	1,891	1,910
Over 12 and up to 20 tons					7		7	9
Over 20 tons (other than s	pecial)				-33		33	33
							The off	
Covered Wagons—								
TT 1 0 1						38	38	38
8 and up to 12 tons					1	2.183	2,184	2,245
10 and up to 00 tons							1	
0							1.040	
						4.	- 7.664	- 7.3
Mineral Wagons—								
II. Jan O tana								
0 10 1 1 00 1								
0 20 1					125		125	126
Special Wagons (for loads of	except	ional	dimension	ons				
and weight)						10	10	10
Cattle Trucks						230	230	252
Rail and Timber Trucks (incl	uding	Twin	Trucks)			283	283	291
Brake Vans					4	121	125	114
Miscellaneous								
			m . 1	-	150	150	1.001	~ 044
			Total		176	4,758	4,934	5,041

# E.—Railway Service Vehicles.

	5			Number 1924.	Number 1923.
					400
Ballast Wagons	 	 	 	 282	280
Mess and Tool Vans	 	 	 	 7	7
Break-down Cranes	 	 	 	 3	3
Travelling Cranes	 	 	 	 37	37
Construction Wagons	 	 	 	 448	444
Miscellaneous	 	 	 	 64	60
			Total	 841	831

# III.—ROAD VEHICLES.

	Num		mber .923.
Service Vehicles—  Lorries Open Line		3 8	28
		11	10

# IV.—STEAM BOATS.

Na	me of Boa	t.		Date of Con- struction.	Indicated Horse- power.	Registered Tonnage. Tons.
S.S. "Johore"			 	1902	150	48
" "Penang"				1899	200	57.18
" " Perak"				1899	200	57.18
" "Ibrahim"				1912	220	.72
S.L. " Kinta "				1906	325	60
* S.T. " Martha"				1906	70	11
* ,, "Edith"				1911	250	30
* ,, "Mary"				1920	180	_
* ,, "Prince"				1920	750	273
* ,, "Betty"				1919	140	31
S.W. " Iris "				1899	40	45.75
" "Thistle"				1919	55	20.75
Wagon Ferry No. 1				1909	150	84
Do. No. 2				1911	200	105

<sup>\*</sup> Used in connection with the wharf service statement V.

# V.—DOCKS, HARBOURS AND WHARVES.

Nam	e.		Length of Quay Lineal feet.	No. of Tong- kangs.	Other Craft.
Prai		 	123		3 hopper barges.
Penang Tunggal		 	120		barges.
Port Weld		 	125		
Teluk Anson	***	 	549		
Port Swettenham		 	1,840	77	5 tugs
Port Dickson		 	180		
Tumpat		 	312		1 life boat
Kota Bahru (Palek	bang)	 	264		
Kota Bahru Town		 	40		
Johore Bahru		 	-		1 concrete barge

# VI.—MAINTENANCE AND RENEWAL OF WAY AND WORKS—(ABSTRACT A).

Ballast			aterials		 	 Cubic y	ards	75,285
Fencing					 	 ; A		300
Rails					 	 		526
Sleepers					 		mber	153,530
Miles Main	ained-							М. С.
Miles of B					 	 		1,000 63
	red	luced to	single to	rack-				
			ing lines		 	 		1.071 72
		Siding	gs		 	 		165 06
Miles of Tr	ack rer				 	 		Nil.
Relaying do	ne dur	ing the	vear		 	 		2 10

# VII.—MAINTENANCE AND RENEWAL OF ROLLING STOCK—(ABSTRACT B).

								In Railway Workshops. Total.	Year 1923 Total.
Locomotives—									
Renewed							11	/ [] ·	
Repaired—									
Heavy repairs								83*	79
Light ,,								23*	24
Under or awaiting	repairs	at end	of year					46†	53
							F 64		
Rail Motors—									
Renewed								: 23	
Repaired—									
Heavy repairs									
Light "			•••			•••		1	1
Under or awaiting	repairs	at end	of year					1	3
Coaching Validas									
Coaching Vehicles—							77		
(a) Carriages— Renewed									
Repaired—									
Heavy repair	rs							192	199
Light ,,								13	18
Under or await	ing rer			vear	4			41	83
	81			,					00
(b) Other Coaching	Vehic	eles—							
D 1								14	
Repaired—								11.00	
Heavy repair	rs							46	37
Light ,,								1	5
Under or await	ing rep	pairs at	end of	year				25	25
Wagons-							May		
Renewed								. 60	
Repaired—								1 000	
Heavy repairs		•••		•••				1,083	958
Light "		1		•••	•••			49	59
Under or awaiting r	epairs :	at end	or year					366	435

## VIII.—ENGINE MILEAGE.

		19	924.			19	923.	
	Train Miles, including empty trains.	Shunting Miles.	Other Miles (Assisting Light, etc.)	Total Engine Miles.	Train Miles, including empty trains.	Shunting Miles.	Other Miles (Assisting Light, etc.)	Total Engine Miles.
A.—Miles run in relation to Railway Traffic Receipts	5,000,000	893,154	268,617	5,057,121	3,588,034	899,291	179,210	4,666,535
B.—Miles run in relation to Railway Expenditure	1,001,01-	911,593	330,873	5,480,408	3,875,971	916,509	236,445	5,028,925
C.—Miles run by Federated Malay States Railways Engines— Steam Tender and Tank Engines Rail Motors		911,593	330,622 251	5,464,524 15,884	3,869,251 6,720	916,509	236,373 72	5,022,133 6,792
Total	4,237,942	911,593	330,873	5,480,408	3,875,971	916,509	236,445	5,028,925

# IX.—RAILWAY PASSENGER TRAFFIC AND RECEIPTS.

			1924.			1923.	
		Number.	Receipts.	Average Fare per Passenger.	Number.	Receipts.	Average Fare per Passenger
Ordinary—			\$ c.	\$ c.		\$ c.	\$ c.
1st Class		 159,001	700,920 18	4 41	194,858	682,726 25	3 50
2nd ,,		 1,015,430	1,131,111 28	1 11	978,098	1,125,513 03	1 15
3rd ,,		 9,610,896	3,871,500 04	40	9,464,047	3,983,898 50	42
Immigrants		 29,259	18,930 19	65	19,381	12,888 93	67
	Total	 10,814,586	5,722,461 69	58	10,656,384	5,805,026 71	54
Season Tickets—				wall to	- wangs w		
1st Class		 170	2,356 62	13 86	187	3,544 51	18 95
2nd "		 2,132	20,489 10	9 61	3,545	26,855 85	7 58
3rd ,,		 12,471	75,450 51	6 05	8,252	10,977 88	1 33
	Total	 14,773	98,296 23	6 65	11,984	41,378 24	3 45

# X.—RAILWAY GOODS TRAFFIC AND RECEIPTS.

			1924.				1923.	
		Tonnage.	Receipts.		Average Receipt per ton.	Tonnage.	Receipts.	Aver Rece per
			\$	c.	\$ c.		\$ c.	
Merchandise Tin and Tin-ore Rubber Coal, Coke and Fin	  rewood	 720,547 $58,322$ $105,048$ $596,212$	4,929,215 354,637 1,100,330 1,132,933	91 76	6 84 6 08 10 47 1 90	657,889 48,648 113,716 485,698	4,021,952 59 230,918 58 1,068,152 85 795,582 37	
Other Minerals		 380,975	264,352		69	538,238	315,633 34	
	Total	 1,861,104	7,781,470	72	4 18	1,844,189	6,432,239 73	:
Live Stock		 No. of Tons. 1,762				No. of Tons. 1,638		
,,		 No. of Heads. 86,414	224,247	16	Per Head. 2 60	No. of Heads. 112,832	225,527 83	Per H

# XI.—SUMMARY OF FINANCIAL RESULTS SECURED.

	1924.	1923.	1922.	1921.	1920.	1919.	1918.	1917.	1916.
	8	8	\$	8	\$	8	\$	s	\$
Total Expenditure on Capital Account Gross Receipts from businesses carried	195,771,142	191,975,106	186,791,872	173,983,371	144,134,625	123,681,858	108,972,124	105,388,013	102,211,994
on by the Railway (No. 3) Revenue Expenditure on businesses	15,661,102	14,234,939	13,483,304	15,912,285	17,059,659	14,730,878	12,890,408	12,989,046	11,429,909
carried on by the Railway (No. 3) Net Receipts from businesses carried	12,076,183	12,167,331	11,112,377	14,893,173	15,822,694	10,762,983	8,743,117	7,775,944	7,335,367
on by the Railway (No. 3)	3,584,919	2,067,608	2,370,927	1,019,112	1,236,965	3,967,895	4,147,291	5,213,102	4,094,542
Miscellaneous Receipts (Net) Total Net Income Rentals and fixed charges Contribution to Imperial Government	176,828 3,761,747 483,320	128,940 2,196,548 486,199	120,335 2,491,263 487,258	Dr. 201,465 817,647 316,095	Dr. 367,292 869,673 306,488	Dr. 72,242 3,895,654 224,312	12,892 4,160,183 223,818	37,902 5,251,004 225,539	52,969 4,147,511 120,282
for War Purposes	3,278,428 1.67%	1,710,349 0.89%	2,004,005 1.07%	501,552 0.29%	563,185 0.39%	360,895 3,310,447 2.67%	537,007 $3,399,358$ $3.12%$	857,143 4,168,322 3.95%	4,027,229 3.94%

XII.—NET PROFIT EARNED BY FEDERATED MALAY STATES RAILWAYS BETWEEN 1885 AND 1924, INCLUSIVE.

Year.	Perak.		Selangor.	Remarks.
	\$	c.	\$ c.	
1885	15,080	46		First section in Perak opened on 1st June, 1885.
1886	18,363			First section in Selangor opened on 15th September,
1887	21,923		57,703 46	1886, for light traffic only; earnings, \$9,579.18 only
1888	38,357		199,724 27	to 31st December, 1886, but no statistics kept.
1889	37,878		194,078 36	to 51st December, 1000, but no statistics kept.
1890	30,211		221,369 82	
1891	30,113		187,452 30	
1892	15,469		231,064 65	
1893	30,597		329,775 46	
1894	72,224		387,033 43	[1] - P. CHA - Mark - CHA
1895	165,419		425,291 87	# 그리고 아이들이 그는 그들은 그 것이 없는데 하다.
1896	251,314		309,405 22	[[[[ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [
1897	238,770		280,514 43	[10] 강영() : - '라마스 라마스 라마스 라마스 아니는 항공하는
1898	233,089	74	248,613 28	[[] [[[ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [
1899	372,346	72	376,076 55	[1] [경우] [경우 이 마다 그렇게 내고 있다니다 그 있다.] [1] [2]
1900	503,510	87	531,857 96	[18] 하고 하는 [4] 남자, 남자 [18] [18] [18] [18] [18]
1901	502,551		576,566 39	
1902	714,210	95	624,082 37	8 c.
	3,291,433	07	5,180,609 82	= 8,472,042 89
			Federal—	
			1903	1,881,685 11
			1904	1 474 011 07
			1905	1 200 040 15
			1906	1 579 997 51
			1907	1 550 617 74
			1908	1 000 120 00
			1909	1 400 949 94
			1910	2,247,073 79
			1911	3,281,274 91
			1912	2,666,345 23
			1913	2,707,696 23
			1914	2,029,187 22
			1915	2,636,397 93
			1916	4,027,228 54
			1917	4,168,322 06
			1918	3,399,358 19
			1919	3,310,446 62
			1920	563,185 49
			1921	501,552 08
			1922	2,004,005 07
			1923	1,710,348 85
			1924	3,278,427 81
			Total	58,245,966 43

XIII.—MONTHLY RAILWAY EARNINGS, COACHING AND GOODS TRAFFIC, 1924.

		Passengers numbers.	Coaching		Goods.	1	Total.	
			s	· c.	\$	c.	8	c.
January		 871,774	551,262	42	679,875	93	1,231,138	3
February		 1.025,407	618,734		599,941	33	1,218,675	68
March		 820,952	601,311	68	695,987	94	1,297,299	62
April		 866,566	564,866	77	628,554	07	1,193,420	
May		 945,118	593,558	75	668,883	56	1,262,442	
June		 822,347	537,014		655,704	62	1,192,719	40
July		 878,899	501,781	94	687,965		1,189,747	5:
August		 918,195	543,522	86	714,732	79	1,258,255	
September		 869,098	491,874	23	664,734	99	1,156,609	2:
October		 902,284	530,300	34	644,500	06	1,174,800	40
November		 873,008	507,454	65	683,501	85	1,190,956	50
December		 1,020,938	562,228	12	681,335	16_	1,243,563	28
	Total	 10,814,586	6,603,910	89	8,005,717	88	14,609,628	7

# XIV.—STATEMENT SHOWING THE DATES ON WHICH THE VARIOUS SECTIONS WERE OPENED FOR TRAFFIC.

							. 1
	Date of opening	ŗ.		From where open	ed.	To where opened.	Distance.
7						o Promoni	
	1-4 T					La company	M. CH.
١	1st June, 1885	•••		Taiping		Port Weld	8 6
	6th May, 1890	•••		Taiping	•••	Kamunting	3 50
ı	1st July, 1892			Kamunting	•••	Ulu Sa'petang	5 22
	7th November, 1892			Batu Junction		Rawang	)
ı	10th July, 1893			Rawang		Serendah	<b>\</b> 36 33
	6th October, 1894	•••	••••	Serendah	• • • • •	Kuala Kubu	)
	19th May, 1893			Teluk Anson	• •••	16th mile	16 00
	6th September, 1893 17th October, 1893	•••	•••	16th mile		Tapah Road	1 12
			•••	Batu Gajah	•••	Ipoh	8 72
	27th April, 1894			Kota Bharu		Batu Gajah	5 44
	29th September, 1894	•••	•••	Tapah Road		Talam	7 17
ı	18th March, 1895		•••	Talam	•••	Kampar	2 19
١	1st May, 1895 1st June, 1896			Kampar	•••	Kota Bharu	8 48
	27th November, 1896			Ipoh	•••	Tanjong Rambutan	8 25
ı				Tanjong Rambut	an	Chemor	4 66
	5th July, 1897		•••	Chemor		Sungei Siput	7 72
	1st July, 1898			Sungei Siput		Enggor	7 79
١	1st July, 1899			Prai		Bukit Mertajam	6 40
١	1st September, 1899			Ulu Sa'petang		Pondok Tanjong	3 48
ı	1st November, 1899			Krian River		Bagan Serai	11 8
١	1st September, 1900			Bukit Mertajam		Nebong Tebal	13 70
١	15th September, 1900			Enggor	•••	Kuala Kangsar	5 34
١	1st November, 1900			Perak Boundary		Tanjong Malim	7
١	1st August, 1900			Kuala Kubu	•••	Kalumpang	} 14 47
١	1st November, 1900			Kalumpang		Tanjong Malim	)
ı	1st May, 1901			Bagan Serai		Alor Pongsu	4 68
١	1st July, 1901			Kuala Kangsar		Padang Rengas	6 26
١	1st February, 1902			Alor Pongsu		Pondok Tanjong	10 55
١	1st May, 1902			Taiping		Bukit Gantang Bidor	5 4
ı	1st May, 1902			Tapah Road	• • • •	T' D'	7 58
١	1st May, 1902			Nebong Tebal		Krian River	31
١	15th July, 1903			Bukit Gantang	•••	Padang Rengas	7 36
ı	15th July, 1903			Bidor		Sungkai	8 8
ı	15th July, 1903			Slim River		Tanjong Malim Slim River	13 51
١	15th August, 1903			Sungkai		Batu Road	14 39
١	15th February, 1905	•••		Batu Junction		Pater Come	36
ı	1st December, 1905			Batu Road		Trongh	4 65
1	15th October, 1908			Ipoh		m 1 25	} 15 50
1	11th September, 1909			Tronoh Junction-Teluk A	nson	NT TITE	)
	24th March, 1909			Kuala Lumpur		771	53
1	15th September, 1886					Klang Port Swettenham	} 26 77
1	1st January, 1899			Klang Kuala Lumpur		D . T	)
1	7th November, 1892			Kuala Lumpur Kuala Lumpur		D. 1.1.	2 33
1	1st June, 1893					C	10 70
1	1st March, 1895			Pudoh Sungei Besi		77 .	16 76
1	14th August, 1897			** 1		Dan and	6 10
1	14th June, 1902		•••			Datana Ponon	6 40
1	1st February, 1903			Bangi Batang Benar		Comombon	5 00
1	2nd April, 1903			Seremban		Tompin	17 23
1	15th July, 1905	•••	***			Malagas II.	30 22
	1st December, 1905					Coman	21 13
-	1st October, 1906			Tampin Seremban		D. + D' 1	
1	28th July, 1908			~		Dahan	24 66
1	4th April, 1910		{	Gemas Bahau	/	Wash Dilah	10 40
1			(	Danad		Kuaia Filan	12 78
١.			-				

XIV.—STATEMENT SHOWING THE DATES ON WHICH THE VARIOUS SECTIONS WERE OPENED FOR TRAFFIC—(cont.)

Date of opening		From where opened.	To where opened.	Dist	ance
				М	. с
1st October, 1910	 	Bahau	Triang	32	7
1st August, 1911	 	Triang	Semantan	20	0.
1st March, 1912	 	Semantan	Kuala Krau	16	4
16th November, 1912	 	Kuala Krau	Kuala Teh	18	3
15th May, 1913	 	Kuala Teh	Tembiling	6	0
1st February, 1913	 {	Connaught Bridge } Junction	Kapar	11	6
1st June, 1913 '	 	Kapar	Jeram	7	6
1st September, 1913	 	Jeram	Assam Jawa	5	4
1st September, 1913	 {	Port Swettenham } Junction	Salak South Junction	5	4
15th February, 1914	 	Assam Jawa	Kuala Selangor	4	3
1st May, 1914	 	Ampang Junction	Ampang	3	6
4th May, 1914	 	Tumpat	Tanah Merah	31	7
19th October, 1914	 {	Bukit Mertajam } Junction	Pinang Tunggal	14	6
1st March, 1915	 	Pinang Tunggal	Gurun	19	1
1st July, 1915	 	Tanah Merah	Riverside	1	4
1st September, 1915	 	Kuang Junction	Batu Arang	6	7.
4th October, 1915	 	Gurun	Alor Star	22	1
15th October, 1917	 	Alor Star	Bukit Ketri	30	0
15th October, 1917	 	Tembiling	Kuala Lipis	24	1
1st February, 1918	 	Batu Arang	Batang Berjuntai	7	6.
1st March, 1918	 	Bukit Ketri	Padang Besar	11	6
1st September, 1920	 	Pasir Mas	Rantau Panjang	11	3
16th March, 1921	 	Kuala Lipis	Padang Tungku	5	25
1st November, 1921	 	Rantau Panjang	Siamese Boundary		1.
17th September, 1923	 	Johore Bahru	Woodlands		54
15th November, 1923	 	Padang Tungku	Chigar Perah	16	6
21st July, 1924	 	Tanah Merah	Krai	20	5

# XV.—STATEMENT SHOWING STAFF AND LABOUR FORCE EMPLOYED IN THE RAILWAY DEPARTMENT ON 31st DECEMBER, 1924.

Departments.	Europeans.	Eurasians.	Indians and Ceylonese.	Chinese.	Malays.	Japanese.	Siamese.	Others.	Total.
1 0 115 1 00									
1. General Manager's Office	5		27	3	2	1			38
2. Chief Accountant's Department	17*	3	100	31	16			41.	100
0 m m D	28	37	$\frac{122}{2,231}$	375	385	1	1		189
4 TO : : - TO :	31	14	5,962		126		1	7	3,059
P T	63	132	3,570	150	235				6,290
a Ctanas	5		124	725	9	1			4,726
7. Signal and Telegraph Depart-			124	4	9				142
	9	2	526	42	63				210
8 Police Department	3	-	713	12	91				642
9. Railway Health Department				12	91			1	820
	99		1 500	0 700	100				22
10. Construction Department	32	9	1,509	2,592	592			2	4,736
Total	193	197	14,806	3,934	1,519	3	1	11	20,664

<sup>\*</sup> Includes six Departmental Accountants.