

GREAT WESTERN RAILWAY.

GENERAL OFFICES.

PADDINGTON STATION, LONDON, W. 2.

DIRECTORS.

(Number Authorised—25.)

- R. F. HON. VISCOUNT CHURCHILL, G.C.V.O. (Chairman), Carlton Club, Pall Mall, S.W. 1.
 SIR S. ERNEST PALMER, Bart. (Deputy-Chairman), 10, Grosvenor Crescent, S.W. 1.
 MAJOR THE HON. J. J. ASTOR, M.P., 18, Carlton House Terrace, S.W. 1.
 SIR PERCY E. BATES, Bart., G.B.E., Hinderton Hall, Neston, Cheshire.
 SIR JOHN CADMAN, G.C.M.G., Westfield, West Hill, Highgate, N. 9.
 THE HON. E. C. G. CADOGAN, C.B., M.P., 11, Ilchester Place, Holland Park, W. 14.
 LAURENCE CURRIE, 67, Lombard Street, London, E.C. 3.
 DAVID DAVIES, 44, Queen Victoria Street, E.C. 4.
 RT. HON. LORD DULVERTON, O.B.E., Batsford Park, Moreton-in-Marsh, Gloucester.
 RT. HON. THE EARL OF DUNRAVEN, C.B., D.S.O., Adare Manor, Adare, Limerick, Ireland.
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 CHAS. J. HAMBRO, 18, New Cavendish Street, W. 1.
 RT. HON. SIR ROBERT HORNE, G.B.E., K.C., M.P., 72, Devonshire House, W. 1.
 RT. HON. THE EARL OF INCHCAPE, G.C.S.I., G.C.M.G., K.C.I.E., 4, Seamore Place, Mayfair, W. 1.
 CYRIL EDWARD LLOYD, Broome, Near Stourbridge, Worcestershire.
 GEOFFREY F. LUTTRELL, Dunster Castle, Dunster, Somerset.
 HAROLD MACMILLAN, M.P., 14, Chester Street, S.W. 1.
 SIR HENRY MATHER JACKSON, Bart., C.B.E., St. Mary's Hill, Abergavenny.
 RT. HON. LORD MILDMAI OF FLETE, Ermington S.O., South Devon.
 RT. HON. EARL OF MOUNT EDGCUMBE, Mount Edgecumbe, Plymouth.
 LT.-COL. SIR WYNDHAM R. PORTAL, Bart., M.V.O., D.S.O., Kingsclere House, near Newbury.
 SIR HENRY B. ROBERTSON, Palé, Llandderfel, North Wales.
 SIR WILLIAM JAMES THOMAS, Bart., Birchwood Grange, Penylan, Cardiff.
 SIR WATKIN WILLIAMS-WYNN, Bart., C.B., Wynnstay, Ruabon.
 RT. HON. JOHN W. WILSON, Perrycroft, Malvern.

OFFICERS.

(Unless otherwise stated, the addresses of the Officers are at the General Offices, as above.)

- General Manager—SIR JAMES MILNE, C.S.I.
 Principal Assistant—J. F. LEAN.
 Assistant—H. WHEELER, A.M.Inst.T.
 Secretary—F. R. E. DAVIS, O.B.E.
 Assistant Secretary—S. B. COLLETT.
 Chief Clerk—J. L. EDWARDS.
 Chief Goods Manager—A. MAYNARD.
 Principal Assistant to Chief Goods Manager—C. BASSAGE, M.Inst.T.
 Assistant to Chief Goods Manager and Development Agent—F. W. LAMPITT.
 Mineral Traffic Manager—O. J. WHITE.
 Assistant Mineral Traffic Manager—C. FURBER.
 Assistant Goods Manager (Rates)—J. H. SMITH.
 Superintendent of the Line—R. H. NICHOLLS, C.B.E., M.Inst.T.
 Assistant Superintendent of the Line—H. L. WILKINSON, M.Inst.T.
 General Assistant to Superintendent of the Line—F. R. POTTER, M.Inst.T.
 Chief Clerk—E. ROBINSON, M.B.E.
 Commercial Advertising and Publicity Agent—K. W. C. GRAND.

Chief Accountant—R. COPE.

Assistant Accountant—C. R. DASHWOOD, O.B.E.

Assistants to Chief Accountant—T. B. COX, N. R. MURRAY, A. G. POLLARD, H. T. FORTH.

Chief Mechanical Engineer—C. B. COLLETT, O.B.E., M.Inst.C.E., M.I.Mech.E., Swindon.

Principal Assistant to Chief Mechanical Engineer—J. AULD, M.I.Mech.E., Swindon.

Assist. to Chief Mech. Engineer—F. W. HAWKSWORTH, M.I.Mech.E., Swindon.

Locomotive Running Superintendent and Outdoor Assistant to Chief Mechanical Engineer—F. C. HALL, Swindon.

Electrical Assist. to Chief Mech. Engineer—J. R. W. GRAINGE, A.M.I.E.E., Swindon.

Chief Draughtsman—S. J. SMITH, Swindon.

Chief Clerk—J. KELYNACK, Swindon.

Manager, Locomotive Works—R. A. G. HANNINGTON, Swindon.

Manager, Carriage and Wagon Works—E. T. J. EVANS, Swindon.

Chief Engineer—R. CARPMAEL, M.Inst.C.E., M.I.Mech.E.

Assistant Chief Engineer (Works and Structures)—E. G. G. MATHESON, O.B.E. M.Inst.C.E.

Assistant Chief Engineer (Permanent Way and Docks)—A. S. QUARTERMAINE, M.C., M.Inst.C.E., B.Sc.

Steelwork Assistant—J. S. NICHOLAS.

Architect to the Company—P. E. CULVERHOUSE, F.R.I.B.A.

Chief Clerk—F. C. WARREN, A.M.Inst.T.

Chief Docks Manager—C. S. PAGE, Bute Docks, Cardiff.

Deputy Chief Docks Manager—J. H. SWALLOW, Bute Docks, Cardiff.

Assistant Chief Docks Manager—B. CARPENTER, Bute Docks, Cardiff.

Marine Manager—W. J. THOMAS, Bute Docks, Cardiff.

Chief Clerk—W. H. VICTORY, Bute Docks, Cardiff.

Dock Managers—W. N. THOMPSON, Cardiff and Penarth Docks; H. W. MORGAN Swansea Docks; H. B. SMITH, Newport Docks; G. G. V. PENNINGTON, Barry Docks; E. V. SWALLOW, Port Talbot Docks; E. C. EDWARDS, Plymouth Docks.

Harbour Master and Marine Assistant, Fishguard—CAPT. A. EVANS.

Traffic and Marine Agent, Weymouth—P. BOYLE.

Signal Engineer—C. M. JACOBS, Reading.

Assistant Signal Engineer—S. HUTT, Reading.

Assistant to Signal Engineer—H. F. D. PAGE, Reading.

Assistant to Signal Engineer—G. H. CROOK, Reading.

Stores Superintendent—A. C. COOKSON, Swindon.

Assistants, to Stores Superintendent—{ F. H. DASHWOOD, F. T. WILLIS, H. R. WEBB, } Swindon.

Stationery Superintendent—W. H. JARVIS.

Surveyor and Estate Agent—F. W. SHOWERS, F.S.I.

Assistant Surveyor and Estate Agent—F. C. E. HOCKRIDGE, F.S.I.

Valuation Assistant—D. J. JONES.

Estate Assistant—R. G. SCARSBROOK.

Superintendent of Road Transport—F. C. A. COVENTRY, O.B.E.

Horse Superintendent—W. H. E. HUMPHREY.

Motor Car Assistant (Slough)—B. HUMPHREY.

Commercial Assistant and Chief Clerk—B. F. TEE.

Chief Cashier—J. TYRRELL

Registrar—W. HEDITCH.

Registrar of Deeds—C. BUSH.

Hotels, Refreshment Rooms and Restaurant Cars Manager—G. J. WALKER.

Assistant Manager—P. G. ROBINSON.

Manager, G. W. Royal Hotel and Paddington Refreshment Rooms—F. P. SEALEY.

Solicitor—A. G. HUBBARD.

Principal Assistant to Solicitor—S. WITHERINGTON.

Assistants to Solicitor—M. A. BULKLEY, C. H. WHITELEGGE, P. W. PINE, and A. E. BOLTER.

Auditors—RT. HON. LORD PLENDER, G.B.E., The RT. HON. EDWARD SHORTT, K.C.

Medical Officers—W. SALISBURY SHARPE, M.D., F.R.C.S.I., Consulting Surgeon, Paddington; H. H. CAVENDISH FULLER, M.D., M.B., Ch B., Chief Medical Officer, Paddington. A. W. C. BENNETT, M.R.C.S., L.R.C.P., Swindon; E. W. JOSCELYNE, M.D., Cardiff.

Divisional Superintendents.

W. E. Hart, Birmingham.
 R. G. Pole, Bristol.
 F. G. Wainwright, Cardiff.
 J. R. Morris, Chester.
 A. E. Hicks, Exeter.
 S. F. A. Morris, Gloucester.

T. Roberts, Newport.
 H. R. Campfield, Paddington.
 E. H. Dannatt, Plymouth.
 J. Lea, Swansea.
 R. W. Higgins, Worcester.

District Goods Managers.

F. K. Pelley, M.Inst.T., Birmingham.
 F. W. Tyler, Bristol.
 H. E. Cracknell, Cardiff.
 C. J. Challenger, Exeter.
 R. H. K. Blackwell, Gloucester.
 T. Martin, Liverpool.
 A. S. Mills, 23, Newgate Street, London, E.C. 1.

H. W. Payne, Newport.
 J. H. Parker, Plymouth.
 W. H. Hall, Shrewsbury.
 W. Davis, Swansea.
 E. W. Mauger, Worcester.

District Traffic Managers.

R. G. J. Barefoot, Manchester.

H. Warwick, Oswestry.

Traffic Manager for Ireland.

F. S. Veltom, 11, Nassau Street, Dublin.

General Agent for United States and Canada.

C. Rayner-Smith, 500, Fifth Avenue, New York.

Divisional Engineers.

S. W. Moore, A.M.I.C.E., Bristol.
 J. C. Blundell, A.M.I.C.E., M.S.A., Cardiff.
 F. J. Tyley, A.M.I.C.E., Gloucester.
 J. E. S. Griffith, Neath.
 S. A. Blackall, Newport.
 H. A. Alexander, Oswestry.

R. C. Y. Kirkpatrick, M.C., M.I.C.E., Paddington.
 H. S. B. Whitley, M.I.C.E., M.S.E., Plymouth.
 A. A. Davis, A.M.I.C.E., Shrewsbury.
 H. E. Daman, Taunton.
 R. C. Sikes, M.I.C.E., B.A., B.E., Wolverhampton.

Divisional Docks Engineer.

M. C. Harrison, Newport, Cardiff, Barry and Penarth Docks.

Resident Docks Engineer.

T. R. Dovell, Swansea and Port Talbot Docks.

Canals Engineer.

C. W. Scott, M.I.C.E., Bath.

CHIEF MECHANICAL ENGINEER'S DEPARTMENT.**Divisional Assistants.**

W. N. Pellow, Bristol.
 C. T. H. Riches, M.I.Mech.E., Cardiff.
 W. E. Baines, Neath.
 E. G. Ireland, M.I.Mech.E., Newport.
 A. W. H. Christison, Newton Abbot.

J. W. A. Kislingbury, A.M.I.Mech.E., Old Oak Common, London.
 E. Colclough, M.I.Mech.E., Oswestry.
 E. G. Wainwright, Wolverhampton.
 R. J. Armstrong, Worcester.

Docks Mechanical Engineers.

H. J. Roberts, M.I.Mech.E., Barry Docks.
 C. J. T. Billingham, M.I.Mech.E., Cardiff, Penarth and Newport Docks.

D. E. Cameron, M.I.Mech.E., Swansea and Port Talbot Docks.

Divisional Electrical Assistants.

V. N. Jolliffe, A.M.I.E.E., Cardiff.
 H. C. Hollingsworth, A.M.I.E.E., Fishguard.
 A. J. Youell, Plymouth.

T. W. Smith, A.M.I.E.E., Park Royal, London.
 D. Fulton, M.I.E.E., Swansea and Port Talbot.

Bankers.

Bank of England, E.C.	Lloyds Bank, Ltd., Birmingham, Cheltenham, Oswestry, Plymouth, Westbury (Wilts), and Worcester.
Messrs. Glyn, Mills & Co., Lombard Street, E.C. 3.	District Bank, Ltd., Manchester.
Midland Bank, Ltd., Prince's Street, E.C. 2, Jersey, Leeds, Port Talbot.	National Bank, Ltd., Waterford.
Lloyds Bank, Ltd. (Capital and Counties Branches), Gloucester and Swansea.	National Provincial Bank, Ltd., Bristol, Barry Docks, Cardiff and Newport (Mon.)
Barclay's Bank, Ltd., Penzance, Plymouth and Reading.	Westminster Bank Ltd., Bristol and Chester.

Telegraphic Addresses and Telephone Numbers of Principal Departments.

General Manager	<i>Manager, Paddington Station...</i>	Paddington 7000.
Secretary	<i>Secretary</i> " "	" "
Superintendent of the Line	<i>Traffic</i> " "	" "
Chief Goods Manager	<i>Transit</i> " "	" "
Chief Engineer	<i>Engineer</i> " "	" "
Chief Mechanical Engineer	<i>Loco, Swindon</i>	Swindon 711.
Chief Docks Manager	<i>Coordinate, Cardiff</i>	Cardiff 6360.

HISTORICAL SKETCH.

THE Great Western Railway Company alone retains its old name and identity under the amalgamated arrangements authorised by the Railways Act, 1921. It was constituted the amalgamated Company of the Western Group, and the other constituent Companies in that group amalgamated with it as from the 1st January, 1922, were:—Barry, Cambrian, Cardiff, Rhymney, Taff Vale and Alexandra (Newport and South Wales) Companies. The historical sketches given below relate to the component lines of the Western Group prior to amalgamation or absorption.

The subsidiary Companies were absorbed in the group as follows:—As from 1st January, 1922.—Cleobury Mortimer and Ditton Priors Light, Penarth Harbour, Port Talbot, Princetown and Rhondda and Swansea Bay Companies. As from 1st July, 1922.—Brecon and Merthyr Tydfil Junction, Burry Port and Gwendreath Valley, Lampeter, Aberayron and New Quay Light, Neath and Brecon, Ross and Monmouth, Vale of Glamorgan, West Somerset and Wrexham and Ellesmere Companies. As from 1st January, 1923.—Gwendreath Valleys, Liskeard and Looe, Llanelly and Mynydd Mawr, Mawddwy, Penarth Extension, South Wales Mineral, Teign Valley, Van and Welshpool and Llanfair Light Companies. As from 1st July, 1923.—Didcot, Newbury and Southampton, Exeter, Forest of Dean Central and Midland and South Western Junction Companies. As from 4th August, 1930.—Corris Railway Company.

Great Western Railway.

Originally incorporated in 1835 for a railway from London to Bristol, but by amalgamations and the construction of new lines it has grown to its present dimensions. Amongst the railways forming part of the G. W. Ry. are the Bristol and Exeter, opened throughout May 1st, 1844, amalgamated in 1876; South Wales, opened 1850 to 1856, amalgamated 1863; West Midland group, including the Oxford, Worcester and Wolverhampton, Worcester and Hereford, Newport, Abergavenny and Hereford, opened 1850, 1852, 1853 and 1858-60, amalgamated 1863; South Devon, opened 1846 to 1849 (worked on the atmospheric system), and amalgamated 1878; Cornwall, opened May 4th, 1859, leased to G. W. 1861, amalgamated 1889; Monmouthshire, incorporated (as a canal undertaking) in 1792, amalgamated 1880; and the Manchester and Milford, amalgamated 1911. Owing to the difference in gauge between the G.W. and associated railways, many sections were laid to the mixed gauge, and in 1874 the mixed gauge had been extended westward as far as Exeter. Meanwhile a gradual process of conversion from broad to narrow gauge rail had commenced, beginning in May, 1872, with the section between Swindon and Gloucester and South Wales. Eventually the directors resolved upon the entire abolition of the 7-ft. gauge, the final section of line wholly broad gauge being converted to narrow on May 21st and 22nd, 1892. The following are dates of interest: London to Maidenhead, June 4th, 1838, and various sections until Bristol was reached in 1841; Bristol and Exeter Rly., 1841-44; South Wales Rly., 1850-6;

South Devon Rly., 1846-9; Torquay and Kingswear, 1849-64; Cornwall Minerals Rly. opened 1874, working agreement with G. W. Rly. 1877, amalgamated 1896; Didcot and Birmingham, 1844, 1850, 1852; Shrewsbury and Hereford, 1852; New Paddington Station brought into use, 1854; Salisbury branch, 1851 and 1856; Weymouth line, 1848 and 1857; Saltash Bridge completed, 1859; Torbay, 1868; Falmouth line, 1863; Severn Ferry route via Portskewet to South Wales, 1863; West Cornwall Rly., 1852, amalgamated 1878; Milford Haven reached 1863 and G. W. Rly. steamers to Ireland introduced 1865; Severn Tunnel route opened 1886; third-class passengers conveyed by all trains from October 1st, 1890; compulsory stop at Swindon abolished October 1st, 1895. More recent additions were opened as follows:—Stert and Westbury route, 1900; South Wales and Bristol Direct route via Badminton, 1903; Castle Cary and Langport, July 1st, 1906; Birmingham and Bristol via Stratford-on-Avon and Honeybourne, July 1st, 1908; Ashendon and Aynho, to improve the London-Birmingham route, July 1st, 1910; Swansea District lines, 1912-13, and the Neath Loop, 1915; the Kingswinford line, May 11th, 1925. On August 30th, 1906, the Fishguard-Rosslare route was opened, providing the shortest sea passage between England and Ireland. Since that date Fishguard has also been used as a port of call for various lines of steamers. For particulars of docks, harbours, steamships, etc., see later.

Statistics (1921) immediately prior to amalgamation with Welsh lines.

Mileage.—Owned, 2,658 miles; share of joint lines, 126½ miles; lines leased or worked, 194¼ miles; share of lines leased or worked jointly, 26¼ miles; total route mileage, 3,005 miles.

Rolling Stock.—3,148 locomotives; 65 steam rail motor cars; 20 electric motor cars; 40 electric trailer cars; 8,681 coaching vehicles; 80,693 freight vehicles; 8,062 service vehicles.

Alexandra (Newport & South Wales) Docks and Railway.

Incorporated as the "Alexandra (Newport) Dock Company" in 1865, the above title being substituted under an Act of 1882, there being a short length of statutory railway connecting with the Brecon and Merthyr Railway at Bassaleg. In 1897 the Alexandra Dock Company took over the Pontypridd, Caerphilly and Newport Railway, which undertaking was incorporated on the 8th August, 1878. Running powers were exercised over various railways. About 100 miles of sidings are in use in and about the Alexandra Docks. For particulars of docks see later.

Statistics (1921) immediately prior to amalgamation with G. W. R.

Railway Mileage.—Owned, 9 miles 20 chains; worked, 1 mile 5 chains; total, 10 miles 25 chains.

Rolling Stock.—38 locomotives; 4 coaching vehicles; 677 freight vehicles; 13 service vehicles.

Barry Railway.

Incorporated by Act of 14th August, 1884, for the construction of a dock at Barry Island, 8½ miles from Cardiff, and the construction of railways of about 26 miles in length from the docks to the Rhondda Valley, with access by junctions with the existing and authorised railways to all the other great mineral-producing districts of South Wales. Various other Acts were passed whereby additional powers were obtained and new lines constructed. The original railways were opened in 1889. The system comprised the main line from Barry to Trehafod and branches from Tonteg to Treforest Junction, Cadoxton to Cogan Junction, from Tynycaeu to Penrhos, Energlyn, Barry (B. and M.), and St. Fagan's Junctions, and from Drope to Peterston Junction, and the extension from Barry to Barry Island and the steamer pontoon to the west of the dock entrance. Most of the passenger services ran through to sections of the Great Western, Taff Vale, and Rhymney lines. The docks are considered later.

Statistics (1921) immediately prior to amalgamation with G. W. R.

Mileage.—Owned, 47 miles 16 chains; leased or worked, 20 miles 53 chains; total, 67 miles 69 chains.

Rolling Stock.—148 locomotives; 194 coaching vehicles; 1,563 freight vehicles; 573 service vehicles.

Cambrian Railways.

The system of railways was an amalgamation of various lines as follows:—Oswestry and Newtown, 30 miles, incorporated 26th June, 1855, opened 1860-61; Llanidloes and Newtown, 12¼ miles, incorporated 4th August, 1853, opened 1859; Newtown and Machynlleth, 23 miles, incorporated 27th July, 1857, opened 1863; Oswestry, Ellesmere and Whitchurch, 18 miles, incorporated 1st August, 1861, opened 1863-64; Aberystwyth and Welsh Coast, 86 miles, incorporated 22nd July, 1861, opened 1863-69; Mid-Wales, 46½ miles, incorporated

1st August, 1859, opened 1st September, 1864; Vale of Rheidol, 12 miles, incorporated 6th August, 1897, opened August, 1902; and Tanat Valley, 15 miles, incorporated 4th January, 1899, opened January, 1904. These amalgamations were brought about by Acts of Parliament in 1864, 1865, 1904, and 1913. The Cambrian Rys. also worked the Van Ry., a short mineral branch connecting the celebrated Van lead mines at the foot of Plynlimmon with the Cambrian main line. In 1895 a further extension from Ellesmere to Wrexham, called the Wrexham and Ellesmere Ry., was opened. This was worked by the Cambrian Rys. and formed an important extension of the system, being a connecting link between Liverpool (via the Mersey Tunnel), Lancashire, and South Wales. The Welshpool and Llanfair Light Ry., which was opened for traffic on 4th April, 1903, was worked by the Cambrian Rys.: length, 9 miles; gauge, 2 ft. 6 in. Also the Mawddwy Light Ry., re-opened for traffic on 31st July, 1911; length, 6¾ miles; ordinary gauge. The Cambrian connects with the L. M. & S. Ry. at Whitchurch, Welshpool, Builth Road, and Afon Wen. Connection is made with the main Great Western section at Oswestry, Buttington, Aberystwyth and Dolgelly; also with the Brecon and Merthyr, Rhymney, Taff Vale, and Barry lines in South Wales; via the Wrexham and Ellesmere line with the Great Central Railway; and at Three Cocks with the Midland Ry., which has running powers over the Mid-Wales line between that junction and Talylyn.

Statistics (1921) immediately prior to amalgamation with G. W. R.

Mileage.—Owned, 241 miles 25 chains; leased or worked, 38 miles 79 chains; total, 295 miles 24 chains.

Rolling Stock.—Locomotives, 97; coaching vehicles, 441; freight and service vehicles 2,274.

Cardiff Railway.

Constructed to provide facilities for the traffic to and from Bute Docks. In 1897 after a strenuous fight with opposing interests, Parliamentary powers were obtained by the Bute Docks Company for the construction of five branch railways some 12 miles in extent, and thus the Cardiff Railway was inaugurated. Authorised mileage about 24½ miles. The dock railways, located within an area of 1½ square miles, comprise a system of some 120 miles. The main line commences at Heath Junction. Powers exist for extending the main line from Heath Junction so as to give direct access to the Bute Docks. Passenger traffic was commenced, on certain sections of the railway on 1st March, 1911.

Statistics (1921) immediately prior to amalgamation with G. W. R.

Mileage (exclusive of Dock Lines).—Owned, 11 miles 38 chains; share of joint lines, 20 chains; total, 11 miles 58 chains.

Rolling Stock.—Locomotives, 36; coaching vehicles, 8; freight vehicles, 43 (not including dock rolling stock).

Rhymney Railway.

Incorporated 1854, for the construction of a railway from Rhymney, in the County of Glamorgan, to a point of junction with the Newport, Abergavenny and Hereford Railway at Hengoed. In the following year an Act was obtained for the purpose of extending the railway farther south in the direction of Cardiff to join the Taff Vale Ry. at Walnut Tree Bridge, and including running powers from that point over the Taff Vale Ry. to the town of Cardiff in order to reach a branch line 1¼ miles long (power to make which was obtained in the same Session), commencing by a junction with the Taff Vale Ry. at Cardiff, and terminating at the New Dock, then in course of construction by the trustees of the Marquis of Bute, and called the East Dock, by the powers contained in the two Acts referred to, a means of through communication from Rhymney to the Docks at Cardiff, a distance of about twenty-five miles, was established with a junction with the Newport, Abergavenny and Hereford Ry. at Hengoed. Opened from Rhymney to Hengoed in January, 1858, and to Walnut Tree Bridge in February. In 1865 the Bargoed-Rhymney Branch, giving access to the Brecon and Merthyr Ry., then under construction, was completed, thus opening a route to the Mid-Wales section of the Cambrian Rys. and the Midland Ry. at Talylyn and Three Cocks. In 1864 powers were obtained for an independent railway into Cardiff from a point nine miles north of Cardiff Docks. In the same Session powers were also obtained to extend the Rhymney Ry. northward from Rhymney to Nantybwhch to join the Merthyr, Tredegar and Abergavenny line of the London and North Western Ry., this portion of the railway being afterwards made the joint property of the London and North Western and Rhymney Rys. This extension gave the Rhymney Ry. access to the large iron works and collieries situated at the extreme north of the coalfield, and the London and North Western Ry. direct access to Cardiff by means of running powers over the Rhymney system. The London and North Western Ry., after completion of the Rhymney Ry. into Cardiff, opened a goods depôt at the Bute Docks at Cardiff. In April, 1871, the railway from Caerphilly to Cardiff was completed

and opened, and in September of the same year the extension from Rhymney to Nantybwhc was brought into operation. In the same month a short branch from Ystrad Mynach to Penallta Junction was opened, by means of which the Rhymney Railway obtained access to the rich mineral district of the Aberdare Valley by an exchange of running powers with the Great Western Rly. On 1st January, 1876, the Taff-Bargoed Ry., belonging to the Great Western and Rhymney Rys. jointly, which was authorised in 1867, was opened, giving access to the large iron works and collieries of the Dowlais Iron Company (now Guest, Keen & Nettlefolds) at Dowlais. In 1882 another joint line with the Great Western Ry. was authorised in the Taff Valley from Quaker's Yard to reach the Cyfarthfa Collieries and Iron Works of Messrs. Crawshay Brothers, at Merthyr Tydfil, and the Merthyr Vale Colliery of Messrs. Nixon's. This branch was opened in 1886. The Aber Branch, for the development of the Aber Valley north of Caerphilly, was authorised in 1890, and opened in 1894, and another branch for the development of the Cylla Valley immediately north of Ystrad Mynach was authorised in 1895.

Statistics (1921) immediately prior to amalgamation with G. W. R.

Mileage.—Owned, 38 miles 43 chains; share of joint lines, 10 miles 12 chains; leased or worked, 1 mile 39 chains; share of lines leased or worked jointly, 70 chains; total, 51 miles 4 chains.

Rolling Stock.—Locomotives, 123; coaching vehicles, 131; freight vehicles, 1,046; service vehicles, 148.

Taff Vale Railway.

Incorporated 21st June, 1836, for a railway from Merthyr Tydfil to Cardiff Docks, and opened for passenger traffic 8th October, 1840. The following railways have been amalgamated with the Taff Vale:—Cowbridge, incorporated 29th July, 1862; opened February, 1865; amalgamated 26th August, 1889. Dare Valley, incorporated 21st July, 1863; opened 1866; amalgamated 26th August, 1889. Llantrisant and Taff Vale Junction, incorporated 7th June, 1861; opened December, 1863; amalgamated 26th August, 1889. Rhondda Valley and Hirwain Junction, incorporated 12th August, 1867; opened June, 1878; amalgamated 26th August, 1889. Treferig Valley, incorporated 21st July, 1879; opened April, 1883; amalgamated 26th August, 1889. Cardiff, Penarth, and Barry Junction, incorporated 6th August, 1885; opened December, 1887; amalgamated 26th August, 1889. Cowbridge and Aberthaw, incorporated 12th August, 1889; opened 1st October, 1892; amalgamated 1st January, 1895. Aberdare, opened August, 1846; amalgamated 1st July, 1902. The following lines were leased by the Taff Vale Ry.:—(1) Penarth Harbour, Dock and Railway, 9½ miles; opened June 10th, 1865; leased January 1st, 1864. (2) Penarth Extension, 1¼ miles; opened February 20th, 1878; leased January 1st, 1878.

Statistics (1921) immediately prior to amalgamation with G. W. R.

Mileage.—Owned, 112 miles 3 chains; share of joint lines, 19 chains; leased or worked, 12 miles 20 chains; total 124 miles 42 chains.

Rolling Stock.—271 locomotives; 400 coaching vehicles; 2,372 freight vehicles; 368 service vehicles; 4 rail motor cars.

Subsidiary Companies.

Brecon and Merthyr Tydfil Junction.—Incorporated 1859; opened, Brecon to Pant, 1863; Pant to Aberbargoed authorised 1861, but constructed only to Deri Junction, running powers being exercised thence to Bargoed South Junction. Merthyr branch authorised 1862. The old Rhymney Railway (authorised 1821, and opened in 1836, with combined rails for flange or flat wheels) was organised 1863, giving access to Bassaleg and thence by running powers to Newport (High St.), Great Western station. Other sections are: Pant to Dowlais, Aberbargoed to Rhymney, and Machen to Caerphilly. The section between Morlais Junction and Merthyr Junction was joint with the London and North Western Railway under agreement made in 1879. Length: 59 miles 66 chains. Rolling stock before amalgamation: 47 locomotives; 115 coaching vehicles; 636 freight vehicles.

Burry Port and Gwendraeth Valley.—Incorporated 5th July, 1865, to connect the Kidwelly and Llanelly Canal with a railway opened for passenger traffic, 2nd August, 1909. Extended to Cwmmawr, 29th January, 1913. Length: 21 miles. Rolling stock before amalgamation: 15 locomotives; 31 coaching vehicles; 18 freight vehicles; 1 service vehicle.

Clebury Mortimer and Ditton Priors Light.—Incorporated 1901; opened for goods traffic 19th November, 1909. Length: 12 miles. Rolling stock before amalgamation: 2 locomotives; 4 coaching vehicles; 24 freight vehicles.

Corris.—Incorporated as the Corris, Machynlleth and River Dovey Tramroad by act of July 12th, 1858. Corporate name changed to Corris Railway Company by act of July 25th, 1864. Length 11 miles.

Didcot, Newbury and Southampton.—Authorised in three sections, Newbury, Southern and Southampton; amalgamated 1883, and above title adopted. Incorporated under various Acts, 1873-1903. Opened Didcot to Newbury, 13th April, 1882; Newbury to Winchester, 4th May,

1885. Connected with London and South Western Railway under Act of 1888. Worked by Great Western Railway, from Winchester to Didcot, and by London and South Western Railway between Winchester and Shawford Junction. Length : 42 $\frac{3}{4}$ miles.

Exeter.—Incorporated 1883, for a line from St. Thomas (Exeter) to Chagford. As constructed, however, it runs from Exeter to the Teign Valley line at Ashton, opened 1st July, 1903. Worked by Great Western Railway. Length, 8 $\frac{3}{4}$ miles.

Forest of Dean Central.—Opened for traffic 25th May, 1868. Worked by Great Western Railway. Length, 5 miles.

Gwendraeth Valley.—Incorporated 1864. Extends from Kidwelly (G. W. R.) to Mynyddygarreg, 3 miles.

Lampeter, Aberayron and New Quay Light.—Incorporated by Light Railway Order, 1909. Opened 12th May, 1911. Worked by Great Western Railway. Length, 12 miles.

Liskeard and Looe.—Original line opened 1843 for goods and mineral traffic. New company incorporated 1858, Moorswater in Liskeard to Looe Bridge. Passenger traffic inaugurated 11th September, 1879. Leased to Great Western Railway 1909. Length, 9 miles.

Llanelly and Mynydd Mawr.—Incorporated by Acts of 19th July, 1875, and 29th June, 1880. Extends from Cross Hands to Llanelly. Opened 1883. Length, 13 miles 5 chains. Rolling stock before amalgamation : 8 locomotives, 12 coaching vehicles, 39 freight vehicles.

Mawddwy.—Incorporated 5th July, 1865. Extends from Cemmes Road (Cambrian Railways) to Dinas Mawddwy. Worked by Cambrian Railways. Closed in 1909; reconstructed and reopened as a light railway, 31st July, 1911. Length, 6 $\frac{3}{4}$ miles. Closed except for Goods traffic January 1st, 1931.

Midland and South Western Junction.—Formed by the amalgamation in 1884 of the Swindon, Marlborough and Andover (incorporated 1873), and the Swindon and Cheltenham Extension (incorporated 1881) Railway Companies. The railway was opened for traffic as follows :—Swindon to Marlborough, 27th July, 1881; Grafton to Andover, 1st May, 1882; Swindon to Andover, 5th February, 1883; Swindon to Cirencester, 18th December, 1883; Cirencester to Cheltenham, 1st August, 1891; Marlborough to Grafton, 1st July, 1898. Until 1st July, 1898, the Great Western Railway was traversed between Marlborough and Wolfhall, but in 1896 an Act was obtained authorising the construction of the Marlborough and Grafton Railway, which was opened for traffic on 1st July, 1898. The Marlborough and Grafton Ry. Co. was amalgamated with the M. & S. W. J. Ry. in August, 1899. Mileage : Owned, 60 miles 57 chains; leased or worked, 2 miles 33 chains; total, 63 miles 10 chains. Rolling stock before amalgamation : 29 locomotives; 134 coaching vehicles; 260 freight vehicles; 119 service vehicles.

Neath and Brecon.—Incorporated under Act of 29th July, 1862, for a mixed gauge line from the Vale of Neath to collieries in Brecknockshire. Extensions covered by Acts of 1863 (when the present title was adopted) and 1864. Opened 2nd September, 1864, the Swansea Vale and Neath and Brecon Junction Railway, authorised 1864, was amalgamated with the Neath and Brecon in 1869;—partially worked by the Midland Railway until December 31st, 1930. Length, 40 miles. Rolling stock before amalgamation : 15 locomotives, 43 coaching vehicles, 120 freight vehicles.

Penarth Extension.—Opened 20th February, 1878. Leased to Taff Vale Railway. Length, 1 $\frac{1}{4}$ miles.

Penarth Harbour, Docks and Railway.—Incorporated as the Ely Tidal Harbour and Railway, opened 10th June, 1865. Extends from the Taff Vale Railway at Cardiff to Penarth Docks. Leased to Taff Vale Railway. Length, 9 $\frac{1}{2}$ miles.

Port Talbot Railway and Docks.—Incorporated 31st July, 1894, to acquire the existing harbour and docks at Port Talbot, to build a new dock and to construct a railway from Port Talbot to Maesteg, etc.; opened 1st September, 1897. Ogmore Valleys Extension authorised 20th July, 1896, also acquisition of the Morfa and Cefn and Pyle Railways; opened 19th December, 1898. Connections with the South Wales Mineral and Whitworth Railways (opened 14th November, 1898) authorised and the latter taken over 1896. The Port Talbot Railway, in conjunction with the South Wales Mineral Railway (combined length 35 miles), was worked in connection with the Great Western Railway, but had before amalgamation 44 locomotives, 1 steam rail motor car, 22 coaching vehicles, 411 freight vehicles.

Princetown.—Incorporated 1878 for a line from the South Devon and Tavistock Railway, near Yelverton Siding, to Princetown. Worked by Great Western Railway. Agreements with the Plymouth and Dartmoor Company. Opened for traffic 11th August, 1883. Length, 10 $\frac{1}{2}$ miles.

Rhondda and Swansea Bay.—Incorporated 10th August, 1882. Opened from Aberavon to the Rhondda Valley, 2nd July, 1890; Aberavon to Briton Ferry, for mineral traffic, 30th December 1893; thence to Swansea, including swing bridge over the River Neath

14th December, 1894. Passenger traffic over both latter sections inaugurated 14th March, 1895. Danygraig to Swansea, opened 7th May, 1899. Junction with the Great Western Railway at Neath river bridge and improved connections at Court Sart opened 1915. Running powers exercised by Great Western Railway since 1906 and the line partly worked thereby. In operation before amalgamation, 28 miles 63 chains. Rolling stock: 27 locomotives, 90 coaching vehicles, 858 freight vehicles.

Ross and Monmouth.—Incorporated 5th July, 1865. Opened 3rd August, 1873. Worked by the Great Western Railway. Length, 12½ miles.

South Wales Mineral.—Incorporated 15th August, 1853. Worked by Glyncoerwrg Colliery Company until 1st January, 1908, when the Port Talbot Railway and Docks Company took over the working and management. Passenger traffic commenced between Cymmer and Glyncoerwrg, 28th March, 1918. Length, 13 miles.

Teign Valley.—Opened 9th October, 1882. Worked by Great Western Railway. Length, 7¾ miles.

Vale of Glamorgan.—Incorporated 26th August, 1889. Worked by Barry Railway. Opened 1st December, 1897. Length, 20 miles 53 chains.

Van.—Constructed to connect the Van lead mines with the Cambrian Railways at Caersaws. Opened for mineral traffic 14th August, 1871, for passengers 1st December, 1873. Leased to the Cambrian Railways in 1907. For many years the Company was in the hands of a Receiver. Length, 6¾ miles.

Welshpool and Llantair Light.—Incorporated under Light Railway Orders of 1899-1905. Extends from Welshpool to Llanfair Caereinion. Gauge, 2 ft. Length, 9 miles. Opened 4th April, 1903. Previously worked by Cambrian Railways.

West Somerset.—Incorporated 1857; opened 31st March, 1862. Leased to Great Western Railway, 1871, but only part is now used. Length, 14½ miles.

Wrexham and Ellesmere.—Incorporated 31st July, 1885. Opened 2nd November, 1895. Length, 12¾ miles. Previously worked by Cambrian Railways.

Joint Railways.

See also "Joint Railways" section later.

A.—Between Companies now Included in the Great Western Railway.

Quaker's Yard and Merthyr.—Mileage 6. Jointly opened by Great Western and Rhymney Railways, 1885.

Taff Bargoed.—Constructed and opened jointly by the Great Western and Rhymney Railways, 1st February, 1876.

B.—Joint with other Grouped Companies.

Birkenhead.—Mileage 56½. Opened Chester to Birkenhead, 30th December, 1840; Chester to Walton Junction, 18th December, 1850; Hooton to Helsby, 1st July, 1863; Hooton to Parkgate, 1st October, 1866; Parkgate to West Kirby, 19th April, 1886. Vested (1861) in and jointly worked by the Great Western Railway and the London Midland and Scottish Railway, as successor to the London and North Western Railway.

Brecon and Merthyr and L. & N. W. Joint.—Mileage 6. Owned and worked jointly by the Great Western Railway, as successor to the Brecon and Merthyr Tydfil Junction Railway, and the London Midland and Scottish Railway, as successor to the London and North Western Railway. Date of vesting, 1875.

Brynmawr and Western Valleys.—Mileage 1.1. Owned and worked by the Great Western Railway and the London Midland and Scottish Railway, as successor to the London and North Western Railway. Opened 28th May, 1906.

Clee Hill.—Mileage 6. Owned and worked by the Great Western Railway and the London Midland and Scottish Railway, as successor to the London and North Western Railway. Joint ownership dates from 1893.

Clifton Extension.—Mileage 9. Owned and worked by the Great Western Railway and the London Midland and Scottish Railway, as successor to the Midland Railway.

Easton and Church Hope.—Mileage 3½. Opened for goods traffic, October, 1900; for passenger traffic, 1st September, 1902. Jointly worked (from 5th August, 1897) by the Great Western Railway and the Southern Railway as successor to the London and South Western Railway.

Fishguard and Rosslare Railways and Harbours.—Mileage 105. Jointly leased to the Great Western Railway and the Great Southern Railways (Ireland). Opened 30th August, 1906.

Great Western and Great Central Joint.—Mileage 41. Leased and worked by the Great Western Railway and the London and North Eastern Railway, as successor to the Great Central Railway. Joint arrangement dates from 1899.

Halesowen.—Mileage 6. Owned and worked by the Great Western Railway and the London Midland and Scottish Railway, as successor to the Midland Railway. Joint arrangement dates from 1906.

Hammersmith and City.—Mileage 3. Owned and worked by the Great Western and Metropolitan Railways. Joint electric rolling stock used. Joint arrangement dates from 24th June, 1867.

Nantybuch and Rhymney.—Mileage 3. Owned and worked by the Great Western Railway, as successor to the Rhymney Railway, and the London Midland and Scottish Railway, as successor to the London and North Western Railway. Joint arrangement dates from 1867.

Severn and Wye Joint.—Mileage 39. Owned and worked by the Great Western Railway and the London Midland and Scottish Railway, as successor to the Midland Railway. Joint arrangement dates from 1894. Section north of Lydney closed for passenger traffic as from July, 1929.

Shrewsbury and Hereford (1870), Shrewsbury and Wellington (1857), and Shrewsbury and Welshpool (1865).—Mileage 82½. Opened Shrewsbury to Ludlow, 21st April, 1852; Ludlow to Hereford, 5th December, 1853; Wellington to Shrewsbury, 1st June, 1849. Owned and worked by the Great Western Railway and the London Midland and Scottish Railway, as successor to the London and North Western Railway. Joint arrangements date from 1857, 1865 and 1870, as given above.

Tenbury.—Mileage 5. Opened 1st August, 1861. Owned and worked by the Great Western Railway and the London Midland and Scottish Railway, as successor to the London and North Western Railway. Joint arrangement dates from 1st December, 1868.

West London.—Mileage 2½. Owned and worked jointly by the Great Western Railway and the London Midland and Scottish Railway, as successor to the London and North Western Railway. Joint arrangement dates from 1844.

West London Extension.—Mileage 5.1. Owned and worked by the Great Western Railway (1 share), Southern Railway (1 share, as successor to the London and South Western and London, Brighton and South Coast Railways), and London Midland and Scottish Railway (1 share, as successor to the London and North Western Railway). Joint arrangement dates from 1859.

Vale of Towy.—Mileage 11. Jointly leased (1868) by the Great Western Railway and London Midland and Scottish Railway, as successor to the London and North Western Railway. Opened 1st August, 1858.

Weymouth and Portland.—Mileage 5½. Opened 16th October, 1865. Leased to the Great Western Railway and the Southern Railway, as successor to the London and South Western Railway. Each company works its own goods traffic and the Southern Railway work the passenger trains on behalf of both companies.

Wrexham and Minera.—Mileage 3. Leased and worked by the Great Western Railway and the London Midland and Scottish Railway, as successor to the London and North Western Railway.

Victoria Station and Pimlico.—Opened 1st October, 1860. This company is now amalgamated with the Southern Railway. The Great Western Railway was, however, a party with the London, Chatham and Dover Railway to the lease.

GENERAL PARTICULARS.

Shortest Routes from London.—Distances and quickest journeys are :—Windsor, 21½ miles, 30min.; Reading, 36 miles, 40min.; Oxford 63½ miles, 1hr. 10min.; Leamington Spa, 87¼ miles, 1hr. 30min.; Birmingham, 110½ miles, 2hrs.; Wolverhampton, 123 miles, 2hrs. 25min.; Shrewsbury, 153 miles, 3hrs. 3min.; Bath, 107 miles, 1 hr. 45min.; Bristol (Temple Meads), 118¼ miles, 2 hrs.; Taunton, 143 miles, 2hrs. 22min.; Torquay, 199¾ miles, 3hrs. 30min.; Plymouth, 225¾ miles, 4hrs.; Gloucester, 114 miles, 2hrs. 7min.; Newport, 133½ miles, 2hrs. 24min.; Cardiff, 145¼ miles, 2hrs. 45min.; Swansea, 191 miles, 4hrs. 3min.; Worcester, 120½ miles, 2hrs. 19min.; and Waterford, Cork, Killarney, Limerick and Southern and South West Ireland, via Fishguard and Rosslare.

Other Principal Towns Served, Distances, and Quickest Trains.—Exeter, 173¾ miles, 2hrs. 55min.; Chester, 195 miles, 4hrs. 15min.; Birkenhead, 210 miles, 4hrs. 47min.; Liverpool, 211 miles, 5hrs. 0min.

Principal Main Line Services.—London to Penzance, St. Ives, Falmouth, Newquay, Plymouth, Torquay and Kingswear, Ilfracombe, Minehead, Weymouth, Weston-super-Mare, Bristol, Bath, Cheltenham Spa, Gloucester, Newport, Cardiff, Swansea, Llanelly, Carmarthen, Pembroke, Milford Haven, Fishguard, Birmingham, Wolverhampton, Shrewsbury, Aberystwyth, Barmouth, Pwllheli, Chester, Birkenhead. Also between Bristol, Birmingham, Plymouth, Newport, Cardiff, and Swansea, and other provincial towns, and between all towns in South Wales.

Through Services are run to and from London suburban stations and Liverpool Street (Met.); Southampton and Portsmouth via Salisbury and via Reading; Southampton via Newbury and Winchester; West of England and South Wales and the North of England, Liverpool, Manchester, Glasgow, etc., via the Severn Tunnel; Penzance and Newcastle, Edinburgh, etc., via Banbury, and between the West of England, Bristol and Birmingham, and Wolverhampton, via the Cheltenham Spa and Honeybourne Line and Stratford-on-Avon; between Aberystwyth and Shrewsbury, Liverpool (Lime Street), and Manchester (London Road). Other through services are: Birkenhead, Chester, Shrewsbury, Wolverhampton and Birmingham and Bournemouth, Southampton, Portsmouth, Folkestone, Dover, Margate, Brighton and Hastings; Portsmouth, Southampton, etc., and Cardiff; Swansea, Barry, Cardiff, Newport, etc., and Newcastle-on-Tyne; Cardiff, Newport, Bristol, etc., and Brighton.

Saloon Cars.—Last summer the company put into service a number of super saloon cars for use in the London-Plymouth ocean liner services. Pullman cars were run in these services from June 18th, 1929, to September, 1930, as well as in the former Torquay Pullman Express between Paddington and Torquay from July 12th, 1929, to September, 1930.

Train Service Standardisation.—With the introduction of the Summer Train Service for 1924, the departure times of certain of the main line through expresses from London and from the Provinces to London, with a few exceptions, were standardised. For instance the trains to Birmingham and the North were timed to leave Paddington at 0.10 minutes past the hour, to Bristol at 0.15 minutes past the hour, to the West of England and Weymouth at 0.30 minutes past the hour, to Worcester and the West Midland line at 0.45 minutes past the hour, and to South Wales at 0.55 minutes past the hour. From the Provinces to London the trains from the North were booked to leave Birmingham at the hour, *i.e.*, 0.00, from Bristol at 0.15 and Cardiff 0.15 minutes past the hour.

Longest Non-Stop Runs and Fastest Times.—See pages 21-26.

Fastest Runs, start to stop.—See page 25.

Restaurant Car Services.—On all standard routes, also between Liverpool and Plymouth; Birkenhead and Bournemouth; Birkenhead and Margate; Newcastle and Oxford; York and Bournemouth; Newcastle and Swansea; York and Swindon; Cardiff and Brighton, etc., in association with other railways. See also page 27.

Seat Reservation.—The Company reserve seats in all the principal trains at a charge of 1/- per seat.

Sleeping Car Services.—First and third class between London, Plymouth, and Penzance, and between London, Cardiff, Swansea and Neyland, and first class between London and Fishguard Harbour.

Slip Coach Services.—See page 29.

Running Powers are exercised over sections of the Metropolitan, Southern, London and North Eastern and London, Midland and Scottish Railways.

Electric Working.—G. W. and Met. Joint Line (Hammersmith and City Ry.), and to and from Kensington (Addison Road). Through electric trains are run between Ealing Broadway (G. W.) and Liverpool Street (C. L. R.) via the Ealing and Shepherd's Bush Ry. opened August 3rd, 1920.

Train Control.—The establishment of Train Control Offices for the purposes of better supervision and more efficiently meeting traffic requirements commenced in the year 1909 by the opening of an office at Newport, provided with a complete system of telephone communication with all points on the Eastern and Western Valleys of Monmouthshire, which enabled the heavy mineral traffic over those lines to be worked to the best advantage. From Controls of a local character the system has been gradually extended until to-day Control Offices are functioning both divisionally and locally. The Superintendent of the Line is in direct telephone communication with the Divisional Control Offices as follows:—[The name of the Division is first given, (a) indicates where the Divisional Control Offices are situated and (b) covers Local Control Offices in the Division]: London—(a) Reading, (b) Acton; Bristol—(a) Bristol, (b) Westbury; Exeter—(a) Exeter; Gloucester—(a) Gloucester; Cardiff—(a) Cardiff Queen Street, Tondy; Swansea—(a) Swansea, (b) Swansea Docks; Newport—(a) Newport (High Street); Worcester—(a) Worcester; Birmingham—(a) Birmingham.

Road Motor Services.—The G.W.R. was the pioneer among railways in utilising road motor vehicles as feeders to its system, commencing with the Helston-Lizard service in 1903. Important developments have recently taken place as a result of the acquired Road Powers. So far as the Passenger Road Services are concerned, the services formerly operated by the Great Western cars are being merged into important road companies with which the Great Western Railway are associated. The following associated road companies now

operate in the territory of the G. W. Rly.:—Western National Omnibus Company; (of which the Bristol Tramways and Carriage Company and Greyhound Motors are subsidiary undertakings); Western Welsh Omnibus Company; Devon General Omnibus and Touring Company (Jointly with Southern Railway); Birmingham and Midland Motor Omnibus Company (Jointly with L. M. & S. Railway); City of Oxford Motor Services; Western Transport Company; Black and White Motorways by reason of the G. W. Company's interest in parent companies. The policy of inaugurating railhead services for general merchandise has been largely extended, and Great Western Railway motor lorries now provide a link between the trains and practically the whole of the territory covered by the Great Western system. For arrangements with omnibus undertakings, see also page 31.

Containers.—The use of containers, which are transferable from rail to road vehicles, and *vice versa*, has been largely developed in the last few years.

Railhead Depots.—The company has developed a system of railhead depots to which goods are consigned in bulk and whence they can be redelivered by road or rail in small quantities.

Land Cruises.—These represent a tourist development which has achieved considerable favour. Those in operation include: (1) Oxford, Wye Valley, Cambrian Coast and Shakespeare's Country; (2) Torquay, Land's End, the "Cornish Riviera" and Plymouth; (3) Cheddar Gorge, Exmoor, the "Lorna Doone" Country and Torquay. (4) Chester, Vale of Llangollen, Snowdon, Lleyn Peninsula, Bala and Shrewsbury.

Country Lorry Services.—From many country centres lorry services are now operated, for agricultural produce, milk, grain, feeding stuffs and general merchandise traffic.

Hump Yards.—Bristol East Depot: Brought into use in 1923; situated on up side of main line, and has a capacity of 599 wagons. Banbury: Brought into use in 1931; situated on up side of main line, and has a capacity of 2,032 wagons. Rogerstone: Brought into use in 1931; situated on up side of main line, and has a capacity for 1,270 wagons.

Rail Motor-Cars and auto trains are in extensive use for branch and local traffic. The G. W. R. was a pioneer in this respect, and has for many years operated rail services on an extensive basis. The list of services is, however, too lengthy for inclusion here, and readers are referred to the fuller time tables.

Largest Station.—Paddington, the London terminus, was designed by Brunel. Completed in 1854, at a cost of £650,000, it has since been enlarged, and, including the hotel and goods depôt, now covers an area of more than 72 acres. There are now 13 platforms. The extensive general offices of the Company adjoin. Among other G. W. stations are Bristol, Cheltenham Spa, Gloucester, Exeter, Cardiff, Bath, Penzance, Reading, Oxford, Taunton, Plymouth (Mill Bay), Truro, Birmingham (Snow Hill), Wolverhampton, Newport, and Swansea.

Total length of platform faces at which trains can come alongside at the largest stations.—Paddington, 12,760 ft.; Birmingham (Snow Hill), 6,275 ft.; Newton Abbot, 5,890 ft.; Bristol (Temple Meads), 5,000 ft.; Exeter, 4,725 ft.; Taunton, 4,670 ft.; Plymouth (North Road), 4,660 ft.; Cardiff, 4,300 ft.

Largest Power Signal-box.—Birmingham North; 176 working and 48 spare levers.

Largest Mechanical Signal-box.—Reading Main Line West; 180 working and 30 spare levers.

Water Troughs are situate at the following points:—On the main line to the West—near Goring, between London and Didcot; near Keynsham, between Bath and Bristol; near Creech, between Bridgwater and Taunton; and at Exminster, near Exeter. On the main line to Birmingham—near Denham, near King's Sutton, between Oxford and Banbury; near Lapworth, between Warwick and Birmingham; between Charlbury and Ascott-under-Wychwood, Oxford-Worcester section. Between Aldermaston and Midgham, Berks and Hants section; near Westbury, on the Westbury-Castle Cary Section; Chipping Sodbury, Badminton section; and on South Wales section, near Severn Tunnel Junction; and between Ferry-side and Carmarthen; near Ludlow, on the Shrewsbury and Hereford Joint Line.

Steepest Gradient.—1 in 27 for 1 mile 70 chains on the North Pembrokeshire Branch at Maenclochog; 1 in 40 for 2 miles 20 chains on the Taff-Bargoed Section. 1 in 30 for 1,738 yards on Welshpool and Llanfair Branch; and on the Kerry Branch, falling towards Abermule, 1 in 43 for 1,467 yards. On the Taff Vale section the steepest gradients over which passenger trains run are 1 in 40 for a distance of 1 mile 10 chains, at Quaker's Yard, falling towards Abercynon; 1 in 40 for a distance of 50 chains between Penarth Town and Penarth Dock stations; 1 in 40 for a distance of 1 mile 60 chains on the Nelson Branch; 1 in 40 for a distance of 30 chains between Cross Inn and Maesaraul Junction, falling towards Maesaraul; 1 in 40 for a distance of 1 mile between Llantrisant Junction and Church Village, rising towards Church Village; 1 in 40 for a distance of 30 chains between Clydach Court Junction and Windsor Siding, rising towards Windsor Siding; and a short length varying from 1 in 36 to 1 in 51 between Ferndale and Maerdy. The steepest gradient on a goods or mineral line is 1 in 13 for a distance of 40 chains, at Blaenelydach, falling towards Pwllyrhebog Junction. Worked by locomotives, assisted by a wire rope counterbalance.

Permanent Way.—Bull-head section rails, 97½ lbs. and 95 lbs. B.S. per yard; sleepers, 9 ft. and 8 ft. 6 in. by 10 in. by 5 in.; chairs, 52 lbs. and 46 lbs. B.S. each 95 lbs. and 85 lbs. R.B.S. bull-headed 60 ft. rails are now standard.

Longest Tunnels.—Severn, 4 miles 628 yds. Chipping Sodbury, 2 miles 924 yds.; Rhondda, 1 mile 1,683 yds.; Box, 1 mile 1,452 yds.; Merthyr, 1 mile 737 yds.; Llangyfelach, 1 mile 193 yds.; Caerphilly, 1 mile 181 yds.; Wenvoe, 1 mile 112 yds.; Sapperton, 1 mile 95 yds.

Mile Posts and Gradient Boards.—On up side of line.

Summit Level.—Princetown station, 1,373 ft. above Ordnance datum.

Locomotive, Carriage and Wagon Works.—These works, which collectively are amongst the most extensive in the world, are situated at Swindon, Wiltshire. They occupy an area of 323 acres, 72 acres being roofed, and in normal times give employment to upwards of 13,000 hands. There are also several extensive out-station repair shops, and most of the amalgamated companies had workshops which are still maintained to meet local requirements.

Road Motor Vehicle Shops.—The principal establishment is situated at Slough, auxiliary shops being at Paddington, Birkenhead, Birmingham, Bristol, Exeter, Cardiff and Oxford. These deal exclusively with the maintenance and repair of the Company's fleet of nearly 1,600 motor road passenger and goods vehicles, which range from 1 to 12 tons carrying capacity.

Colours of Engines and Rolling Stock.—Locomotives green. Passenger engines are lined in black and yellow and have copper-capped chimneys. Passenger stock windsor brown, with cream upper panels.

Driver's position on the footplate.—Right hand.

Principal Locomotive Depots.—Engines attached to each bear 3-inch indicating letters inside the cab as follows:—PDN, Old Oak Common; RDG, Reading; SHL, Southall; SDN, Swindon; OXF, Oxford; DID, Didcot; BAN, Banbury; GLO, Gloucester; WES, Westbury; BL, Bristol (Bath Road); BL, Bristol (S.P.M.); TN, Taunton; WEY, Weymouth; NA, Newton Abbot; PLY, Plymouth (Mill Bay); PLY, Plymouth (Laira); EXE, Exeter; SBLZ, St. Blazey; TR, Truro; PZ, Penzance; NPT, Newport (Ebbw Junction); PILL, Pill; CDF, Cardiff; PPL, Pontypool Road; ABDR, Aberdare; STJ, Severn Tunnel Junction; NEA, Neath; SED, Swansea; LLY, Llanelly; LDR, Landore; CAR, Carmarthen; WPN, Wolverhampton; BHD, Birkenhead; CHR, Chester; TYS, Tyseley; SALOP, Shrewsbury; WPN, Oxley; STB, Stourbridge; CNYD, Croes Newydd; WOS, Worcester; HFD, Hereford; CHEL, Cheltenham; TDU, Tondy; LTS, Llantrisant; FGD, Fishguard; WTD, Whitland; CRW, Crewe; LMTN, Leamington; WLN, Wellington (Salop); PT, Port Talbot-Duffryn; DNG, Rhondda and Swansea Bay; NEY, Neyland; SAL, Salisbury; OSW, Cambrian Section; BCN, Brecon; MCH, Machynlleth; CV, Cardiff Valleys.

Dimensions of Vehicles.—Longest passenger coaches are 70 ft. in length over bodies. Largest goods or mineral vehicles measure 43 ft. long, but there are special vehicles which measure up to 86 ft. 6 ins. in length over headstocks.

Brake.—Automatic Vacuum. A few locomotives and certain passenger vehicles are also provided with Westinghouse brake equipment.

Automatic Train Control.—The Great Western Railway system of automatic train control operates in conjunction with the automatic vacuum brake and is installed on the following routes (double line section except where otherwise stated):—Paddington and Didcot (four lines); Henley Branch; Reading and Plymouth via Westbury; Westbury and Salisbury; Thingley Junction and Bradford North Junction; Bathampton and Westbury; Castle Cary and Weymouth; Newton Abbott and Paignton; Didcot and Taunton via Bath; Swindon and Swansea via Gloucester; Wootton Bassett and Bristol and Severn Tunnel Junction; Old Oak Common and Wolverhampton; Didcot and Aynho Junction; Oxford and Stourbridge Junction via Worcester; Handsworth Junction and Stourbridge Junction; Stourbridge Junction and Wolverhampton; Tyseley and Gloucester; Worcester and Newport; and Fairford Branch (single line.)

Colours of Tickets.—First-class, white; third-class, buff.

Hotels owned by the Company.—Great Western Royal Hotel, Paddington; Fishguard Bay Hotel, Fishguard Harbour, Pem.; Tregenna Castle Hotel, St. Ives Cornwall; and Manor House Hotel, Moretonhampstead, Devon.

Canals.—The G. W. Ry. owns 182 miles 12 chains of canals and 30 miles 28 chains of river navigations, making together a total length of 212 miles 40 chains, as follows:—Kennet and Avon Navigations; River Kennet Navigation, 18 miles 40 chains; Kennet and Avon

Canal, 57 miles ; River Avon Navigation, 11 miles ; total, 86 miles 40 chains. Bridgwater and Taunton Canal, 14 miles 14 chains ; River Tone Navigation, 68 chains ; Grand Western Canal, 11 miles 18 chains ; Stover Canal, 1 mile 69 chains ; Stratford-on-Avon Canal, 25 miles 34 chains ; Stourbridge Extension Canal, 2 miles 67 chains ; Monmouthshire Canal, 19 miles 69 chains ; Brecon and Abergavenny Canal, 33 miles 34 chains ; and Swansea Canal, 16 miles 27 chains.

Education of Employés.—Signalling Schools for the instruction of the staff in the Rules and Regulations affecting the safe working of railways and appliances used in connection therewith, at Paddington, Reading, Bristol, Truro, Cardiff, Swansea, Newport, Worcester, Birmingham, Oswestry, and Builth Wells ; also courses of tuition by correspondence at these centres, and at Exeter, Plymouth, Gloucester and Chester ; Station Accountancy Classes at Paddington, Reading, Bristol, Exeter, Plymouth, Cardiff, Swansea, Gloucester, Worcester, Birmingham, Shrewsbury, Oswestry and Liverpool. Classes are held at Paddington for clerical staff, in conjunction with L.C.C. Education Department ; subjects include Shorthand, Typewriting, Mathematics, Bookkeeping and Accountancy, and English. Arrangements also exist for the admission of members of the staff to lectures on railway subjects at the London School of Economics and technical colleges at certain large provincial towns. In addition classes are held at the following Road Motor Depôts giving instruction to the Company's motor drivers in the mechanism of their cars viz:—Paddington, Birmingham, Bristol, Cardiff, Exeter and Oxford ; and at centres throughout the system for instruction to the Company's permanent way staff in the theory and practice of permanent way maintenance. Facilities are also afforded to the Signal Department wages staff for extending their knowledge of the various types of signal and telegraph apparatus by courses of instruction arranged at suitable centres throughout the system. Early in 1921 a scheme was announced providing for a course of training in all branches of railway working, open to recommended members of the salaried staff. The Company also encourage technical efficiency among their engineering apprentices, and offer free studentships to specially selected students at Swindon, Wolverhampton, Cardiff and Newport. Ambulance classes are held at Paddington and elsewhere under the Gt. Western centre of the St. John Ambulance Association, the Company bearing the cost.

Official Publication.—"Great Western Railway Magazine."

Publications.—"History of the Great Western Railway," Vol. 1 (two parts) and Vol. 2 ; "Holiday Haunts' Guide," "Cathedrals," "Abbeys," "Castles," "The Cornish Riviera," "Glorious Devon," "Somerset Ways," "Cotswold Ways," "Pembrokeshire and South West Wales," "Rambles in the Chiltern Country," "The 'King' of Railway Locomotives," "Locomotives of the Great Western Railway," "G.W.R. Engines—Names, Numbers, Types and Classes," "The Swindon Works of the Great Western Railway," "The Ocean Coast," "Through the Window: Paddington to Penzance," "Holidays," "Oxford and Shakespeareland," "Camping Holidays," and many booklets, folders, Jig-Saw Puzzles, etc. Apply to the Superintendent of the Line, Paddington Station, W.2. "Great Western Ports" (annual), "South Wales Sailing List" (monthly), "Docks of the G.W.R." Apply Chief Docks Manager, G.W.R., Cardiff.

Clubs, Institutions, etc., supported by the Company.—Athletic Associations Literary, Debating, and Musical Societies, Rifle Club at Paddington and other parts of the system, also Mechanics' Institution and Engineering Society at Swindon.

Lantern Slides.—Scenic slides lent free, subject to borrower paying any expense incurred for carriage outside the usual delivery area. Well-written lecture notes accompany slides. Apply : Superintendent of the Line, Great Western Railway, Paddington Station, London, W.2.

Steamship Powers not Exercised.—The Cambrian Railways Company had Parliamentary powers (52 and 53 Vict. cap. lxxi.) to own and work steamboats between Aberdovey, Aberystwyth, Portmadoc, and Pwllheli and Wexford, Rosslare, Waterford, Wicklow, and Arklow. Under the Act of 1901 (cap. lxxix. 1 Edw. VII.) the Company were further authorised, with a view to the development of their tourist traffic, to own and work steamboats between Aberystwyth, Aberdovey, Barmouth, Pwllheli, Portmadoc and Porthdinlleyn. They were also authorised to convey goods. The Barry Railway Company also held powers for working steamers between Barry and Ilfracombe, etc.

Docks and Harbours.

Aberdovey Harbour.—Pier and Wharf previously owned by Cambrian Railways. Length, 480 ft. ; quayage, 480 ft.

Barry Docks.—Previously owned by Barry Railway. Opened 1889. A special feature is a low-water lock, opened 1897, the only one of its kind in the Bristol Channel. There is also a passenger pier, pontoon, and station for steamer traffic. No. 1, 73 acres ; No. 2, 34

STEAMSHIPS (over 250 tons net.)

Name.	Date built.	Builders.	Engined by	Type.
Great Southern ..	1902	Laird Bros.	Laird Bros.	T.S.
Great Western ..	1902	Laird Bros.	Laird Bros.	T.S.
S.S. Fishguard (ex St. Andrew*) ..	1908	J. Brown & Co.	J. Brown & Co.	Turbine
S.S. Rosslare ..	1906	J. Brown & Co.	J. Brown & Co.	Turbine
(ex St. David*) ..				
Sir Francis Drake ..	1908	Cammell Laird & Co. ..	Cammell Laird & Co. ..	T.S.
Sir Richard Grenville	1931	Earle's Shipbuilding and Engineering Co. ..	Earle's Shipbuilding and Engineering Co. ..	T.S.
Sir Walter Raleigh ..	1908	Cammell Laird & Co. ..	Cammell Laird & Co. ..	T.S.
Sir John Hawkins ..	1929	Earle's Shipbuilding and Engineering Co.	Earle's Shipbuilding and Engineering Co.	T.S.
The Mew	1908	Cox & Co.	Cox & Co.	T.S.
Roebuck	1925	Swan, Hunter, and Wigham Richardson	Swan, Hunter, and Wigham Richardson	T.S.
Sambur	1925	Swan, Hunter, and Wigham Richardson	Swan, Hunter, and Wigham Richardson	T.S.
St. Julien	1925	John Brown & Co., Ltd.	John Brown & Co., Ltd.	Turbine
St. Helier	1925	John Brown & Co., Ltd.	John Brown & Co., Ltd.	Turbine
St. Patrick*	1930	Alex. Stephens & Sons ..	Alex. Stephens & Sons ..	Turbine

* Fishguard and Rosslare Railways and Harbours Company
T.S. = Twin Screw.

acres; No. 3 (basin), 7 acres. Timber float, No. 1, 6 acres; No. 2, 35 acres. Lady Windsor Lock, 647 ft. in length. Entrance channel from the breakwater heads to Deep Lock gates 1,500 ft. There are three graving docks connected with Dock No. 1, two belong to a private company and one to the Railway Company. The docks are fitted with the most modern equipment, including 40 coal hoists, 7 of which are capable of dealing with 20-ton wagons and 55 cranes. Large transit sheds and warehouses, Quayage: No. 1 Dock, 14,570 ft.; No. 2 Dock, 7,430 ft.; No. 3 Dock (Basin) 2,040 ft.; passenger pontoons and jetties, 1,810 ft. One hundred miles of sidings.

Cardiff, Bute Docks.—Bute West Dock, constructed 1839; Bute East Dock, 1859; Roath Basin opened 1874; Roath Dock completed 1887. Transferred from Lord Bute's Trustees to Bute Docks Company, 1887. Cardiff Railway Company constituted 1897. Queen Alexandra Dock, opened by King Edward VII., July, 1907. Water areas and quayage: West Dock and Basin, 20½ acres, 8,950 ft.; East Dock and Basin, 46½ acres, 9,480 ft.; Roath Dock and Basin, 26 acres, 9,885 ft.; Queen Alexandra Dock, 52 acres, 9,315 ft. Ten dry docks, 1 pontoon 4 gridirons, 2 slipways. The entrance channel has 2 passenger pontoons. Timber float, 22 acres. Forty-two coaling cranes and hoists, 13 of which are capable of dealing with 20-ton wagons; over 100 other cranes; 25 warehouses and sheds; 2 cold stores. Cattle lairs and abattoirs. One hundred and forty miles of sidings. In addition to the cranes mentioned at the respective docks, the company have also a 125-ton floating crane, located at Cardiff (Bute) Docks, which is available for use at any of the principal South Wales ports.

Trading between	Length.	Breadth.	Depth.	Gross Tonnage.	H.P.	Speed.	Passenger accommodation.
	Ft.	Ft.	Ft.			Knots	
Fishguard and Ireland	275.8	36.3	15.2	1,224	3,250	16	684
Fishguard and Ireland	275.8	36.3	15.2	1,225	3,250	16	685
Fishguard and Ireland	351.1	41.1	16.5	2,495	8,000	20	1,000
Fishguard and Ireland	350.8	41.1	16.5	2,457	8,000	20½	1,000
Tender at Plymouth	145.8	38.6	14.1	478	1,600	12	400
Tender at Plymouth	172.5	42.7	14.7	896	1,750	13	800
Tender at Plymouth	145.9	38.6	14.1	478	1,600	12	508
Tender at Plymouth	172.5	43.1	14.6	930	1,700	13	500
Kingswear and Dartmouth ..	90.2	22.4	8.3	117	250	10	543
Weymouth and Channel Islands	201.2	33.7	15.3	776	1,350	12½	—
Weymouth and Channel Islands	201.2	33.7	15.3	776	1,350	12½	—
Weymouth and Channel Islands	282.2	40.0	16.3	1,885	4,350	18	1,047
Weymouth and Channel Islands	282.2	40.0	16.3	1,885	4,350	18	1,048
Fishguard and Ireland	281	41.0	16.3	1,922	4,720	19	1,004

Fishguard.—Constructed by the Fishguard and Rosslare Railways and Harbour Company. Worked by the Great Western Railway. Opened 30th August, 1906. Used by turbine and other steamers and the Fishguard and Rosslare and other Anglo-Irish passenger, mail, cattle and cargo services. Quayage, 1,793 ft.; 11 electric cranes.

Newport. Alexandra Docks.—Previously owned by Alexandra (Newport and South Wales) Docks and Railway. The Alexandra North Dock was opened in 1875 with 28½ acres. A South Extension of 20 acres was opened in 1893 with a fine lock entrance 503 ft. long by 72 ft. wide. Another 48 acres of the South Dock were brought into use in 1907, and a further 27 acres in 1914, which gave the South Dock a combined water area of 95 acres. A further lock entrance was opened in July, 1914, by Prince Arthur of Connaught. This lock entrance is 1,000 ft. long by 100 ft. wide. Quayage: North Dock, 7,066 ft.; South Dock 17,189 ft.; River Coaling Jetties, 300 ft.; River Wharves, 473 ft.; Twenty-two hydraulic coal hoists, 13 of which are capable of dealing with 20-ton wagons; 72 hydraulic, electric and steam cranes. Timber float, 14 acres. Commercial dry dock, 523 ft. long and 74 ft. wide, entrance 49 ft. Also seven privately owned dry docks. Hundred miles of siding accommodation. Passenger landing stage outside new lock entrance. Nine warehouses of large size.

Penarth Docks.—Penarth Harbour, Docks and Railway Company promoted 1856, leased to Taff Vale Railway 1863, opened 1865. Penarth Docks: 23 acres; basin, 3½ acres; quayage

8,485 ft.; 11 hydraulic coaling hoists; 4 movable coaling hoists, which are capable of dealing with 20-ton wagons; floating pontoon. Harbour: 55 acres; quayage, 1,191 ft.; 3 hydraulic coaling tips. Twenty-five miles of sidings.

Plymouth, Great Western Railway Docks.—Total area 44½ acres; comprising outer harbour, area 31¼ acres; inner basin 1,200 feet long, 500 ft. wide, having entrance 80 ft. wide, area 13 acres; capable of taking vessels up to 27 ft. 6 in. draught low water on spring tides; dry dock, 454 ft. long; total quayage 7,510 ft. Five miles of railway sidings; transit sheds and warehouses for all classes of traffic; hydraulic and steam cranes up to 25 tons. Great Western tenders meet ocean liners anchoring in Plymouth Sound. Waiting rooms and Customs warehouses are provided. The Great Western Railway also serves and has accommodation at Sutton Harbour.

Port Talbot Docks.—Previously owned by Port Talbot Railway and Docks Company, Old dock: 39 acres; quayage, 6,670 ft.; 3 coal hoists, 1 of which is capable of dealing with 20-ton wagons; 1 belt conveyor; 17 hydraulic cranes. New dock: 28 acres; quayage, 3,965 ft.; 5 coal hoists, 3 of which are capable of dealing with 20-ton wagons; 2 belt conveyors, both of which deal with 20-ton wagons; cranes and warehouses. Graving dock within New dock. Entrance dock, 60 ft. wide and 460 ft. long. Fifty miles of sidings.

Swansea.—Previously owned by Swansea Harbour Trustees. The South Dock was opened in 1859, and the first portion of the Prince of Wales Dock in 1879. The King's Dock was commenced in 1904, when His Majesty King Edward VII. cut the first sod, and was opened in 1909. This dock, which is the largest of the Swansea docks used for general purposes, has an excellent entrance lock, 875 ft. long, by 90 ft. wide. In 1920 the Queen's Dock was opened and is entirely confined to the use of the oil refinery, which was commenced in that year by the Anglo-Persian Oil Company. The Dock has been equipped with pipelines and storage tanks, and the imports and exports of oil through Swansea now reach nearly 2,000,000 tons per annum. Water areas and quayage. King's Dock: 71 acres, 14,050 ft. quayage. North Basin: 2½ acres, 5,500 ft. quayage. South Dock and Basin: 18½ acres, 6,550 ft. quayage. Prince of Wales Dock: 28 acres, 6,872 ft. quayage. Queen's Dock: 150 acres, 2,400 ft. quayage; Swansea Docks have 20 coal hoists, 10 of which are capable of dealing with 20-ton wagons, 105 cranes. Eighty miles of sidings.

The Great Western Railway also owns or leases docks and other premises at Brentford (quayage, 3,194 ft.), Bridgwater (quayage, 2,155 ft.), Briton Ferry (quayage, 2,584 ft.), Burry Port (quayage, 504 ft.), Chelsea (quayage, 1,390 ft.), Dunball (quayage, 1,025 ft.), Llanelly (quayage, 1,520 ft.), Lydney (quayage, 1,368 ft.); Newquay (quayage, 1,090 ft.), and Saltney (quayage, 574 ft.), while accommodation of an extensive character is provided at the ports served by the G. W. Ry., as at Fowey, Bristol, Birkenhead, Liverpool and Neyland.

STATISTICS: Year Ending December 31st, 1931.

Capital Issued (including nominal additions or deductions)—

5 per cent. Rent Charge Stock	£7,708,241
5 per cent. Consolidated Guaranteed Stock	23,816,537
5 per cent. Consolidated Preference Stock	29,427,984
5 per cent. Redeemable Preference Stock (1950)	6,000,000
Consolidated Ordinary Stock	42,929,732
Loans and Debenture Stocks	37,543,907
	<u>£147,426,401</u>

Capital Expenditure—Year ending December 31st, 1931

Total to December 31st, 1931 £3,793,838

£179,423,866

Revenue Receipts and Expenditure of the Whole Undertaking—

	Gross Receipts.	Expenditure.	Net Receipts.
Railway	£26,893,480	£21,809,167	£5,084,313
Road Transport	68,763	67,036	1,727
Steamboats	316,109	309,215	6,894
Canals	15,850	43,220	Dr. 27,370
Docks, Harbours and Wharves	2,276,557	2,105,599	170,958
Hotels, Refreshment Rooms and Restaurant Cars	707,093	660,593	46,500
Collection and Delivery of Parcels and Goods	861,778	1,058,154	Dr. 196,376
Total	<u>£31,139,630</u>	<u>£26,052,984</u>	<u>£5,086,646</u>
<i>Add</i> —Jointly Owned and Jointly Leased Lines (Company's Proportion) (see below)			£140,941
Miscellaneous Receipts (Net)			1,162,541
			<u>6,390,128</u>
<i>Deduct</i> —Miscellaneous Charges			707,732
Net Revenue			<u>£5,682,396</u>

Houses and Dwellings Owned.—305 labouring-class dwellings, 2,163 houses and cottages for railway servants, 1,395 other houses and cottages.

Traffic.—

				Totals carried.	Of which originated on system.
Nos. of Passengers—	1st Class	..	..	1,020,986	898,681
	3rd Class	..	..	87,421,727	75,336,921
	Workmen	..	..	25,872,176	21,923,353
	Total	..	..	114,314,889	98,158,955
Nos. of Season Tickets—	1st Class	..	..	5,030	3,882
	3rd Class	..	..	68,716	61,809
	Total	..	..	73,746	65,691
Goods Tonnage—	Merchandise (excluding Classes 1-6)	..	..	12,438,617	8,855,006
	Minerals and Merchandise (Classes 1-6)	..	..	9,572,180	6,853,473
	Coal, Coke and Patent Fuel	..	..	43,363,358	35,375,091
	Total	..	..	65,374,155	51,083,570
Head of Live Stock—	..	..	..	2,986,005	2,302,041

Train mileage.—Traffic: coaching (steam), 38,897,077; electric traction, 357,006; rail motor cars, 349,277; goods, 23,066,536; total, 62,669,896. Shunting miles: coaching, 2,677,434; goods, 19,791,392; assisting, light, etc., 7,237,108. Total engine miles, 92,375,830.

Electric Power and Light Account (15,480,638 units) £80,442

