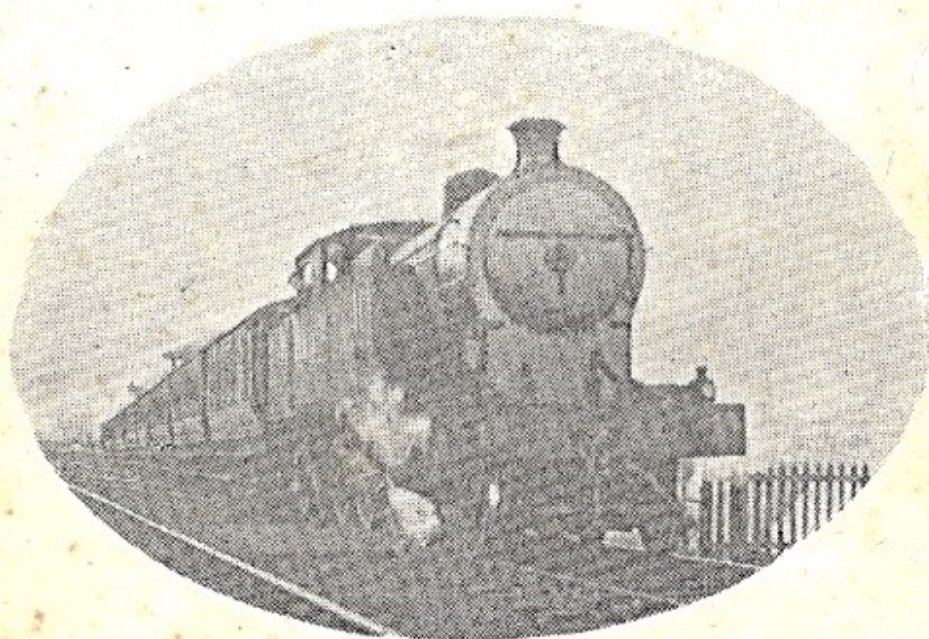


MAIN LINE RAILWAYS



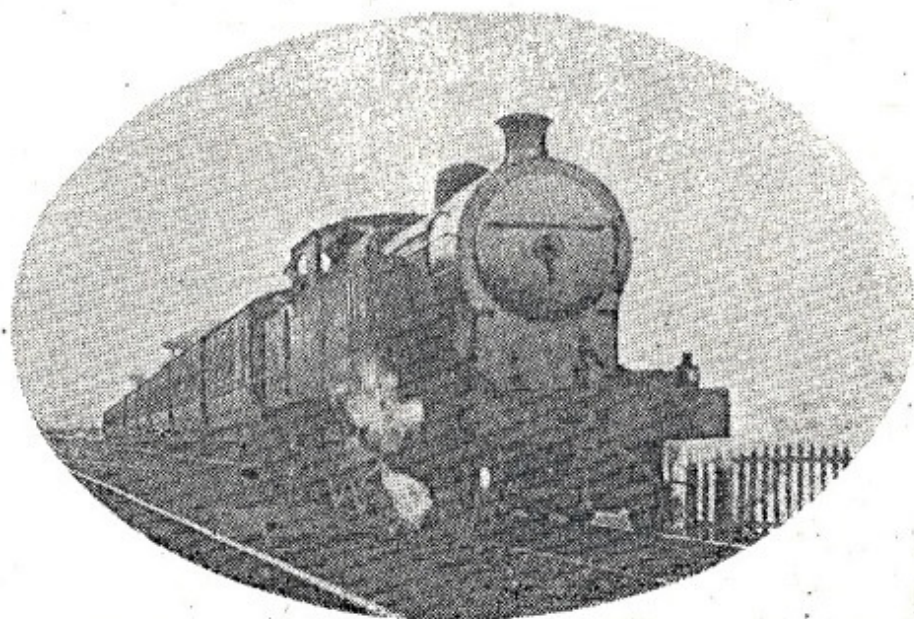
OF
NORTHERN IRELAND

W. P. McCormick

2/6

Q. W. Lowell

MAIN LINE RAILWAYS



Belfast-Bangor Train hauled by 4-6-4T No. 22
leaving Holywood, B.C.D.R.

OF
NORTHERN IRELAND

W. J. McCormick

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Preface

THE success which attended my previous booklet "The Railways of Northern Ireland and their Locomotives" has prompted the present publication, which I trust will be found of value to the many people interested in Northern Ireland railways, not only in the British Isles but throughout the world.

A White Paper issued by the Northern Ireland Government in 1946 stated that "The Government, after the most careful consideration, has reached the conclusion that, only the merger into a single undertaking of the Road Transport Board, the Belfast and County Down Railway, the system of the Northern Counties Committee of the London, Midland and Scottish Railway, and the system of the Great Northern Railway (Ireland) in Northern Ireland, offers any reasonable prospect of obtaining an efficient and solvent system of public transport."

The position of the Northern Ireland railways before the war was very precarious, but when the call of war came in 1939 they were not found lacking, and without their aid the movement of troops, workers, and war materials in Northern Ireland would have been extremely difficult, if not impossible. The Government recognise this in the White Paper and state: "The Railway Companies' war record emphasises their importance as an integral part of the transport system, and in the view of the Government there is no practicable alternative."

The co-ordination of road and rail services in Northern Ireland was foreshadowed as long ago as 1935, when the Road and Railway Transport (Northern Ireland) Act was passed, but the only action taken under this was the formation of the Northern Ireland Road Transport Board by the amalgamation of the different bus companies (including those operated by the railway companies), and the position was, therefore, much as before, i.e. road and rail competing against each other for traffic which was insufficient for both.

With the falling-off in traffic consequent on the return of peace-time conditions, the position of the Railways is rapidly approaching that of the pre-war era, and it is therefore to be hoped that the Government will bring into effect at an early

date the proposed merger to prevent a repetition of the cut-throat competition between road and rail transport in Northern Ireland which prevailed in pre-war years.

When the proposed merger comes into operation the Railway Companies will, presumably, lose their separate identities, and I hope, therefore, that I will succeed in some small way to record their activities as different concerns. The Northern Counties Committee is referred to herein as the “L.M.S. - Northern Counties Committee” for convenience, although consequent on the nationalisation of railways in Britain it is known as the “Railway Executive - Northern Counties Committee”.

In conclusion, I would like to express my appreciation of the great help and assistance which I have received from the officials of the three Railway Companies and without which it would not have been possible for me to produce this book.

W. P. McCORMICK

Islandvale,
King's Road,
Belfast.
January, 1948.

RAILWAYS OF NORTHERN IRELAND



GREAT NORTHERN RAILWAY (IRELAND)

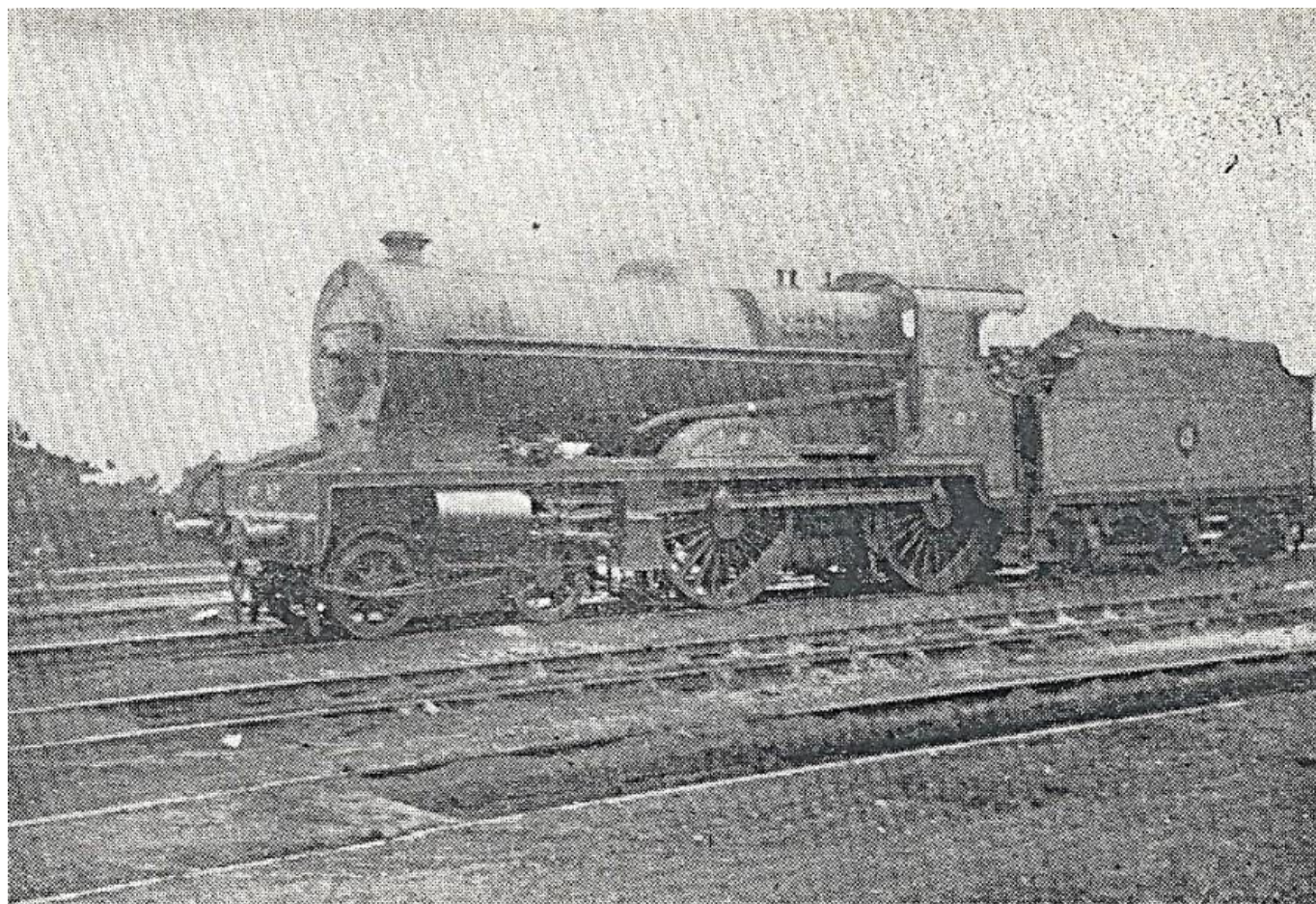
The four main constituents of the Great Northern Railway (Ireland) were: 1, The Ulster Railway; 2, The Dublin and Drogheda Railway; 3, The Irish North-Western Railway; 4, The Dublin and Belfast Junction Railway. The Dublin and Drogheda Railway amalgamated with the Dublin and Belfast Junction Railway on the 1st March, 1875, to become the “Northern Railway Company (Ireland)”. They were joined by the Irish North-Western Railway on 1st January, 1876, and the Ulster Railway on 1st April, 1876, when the title was changed and the Great Northern Railway (Ireland) formed.

Returning to the separate Companies, we see that the Ulster Railway was first on the scene, being incorporated on 19th May, 1836, when construction of a line from Belfast to Armagh was authorised. The first portion of line to be opened for the conveyance of passengers was from Belfast to Lisburn on 12th August, 1839. The section from Lisburn to Portadown was not opened until September, 1842, and by that time the Act of Parliament authorising the construction of the Portadown-Armagh section had lapsed. This was not renewed until 1845, and on 1st March, 1848, Armagh was linked with Belfast by rail. Other extensions built by the Ulster Railway were from Armagh to Clones, opened on 2nd March, 1863, and Clones to Cavan on 1st April, 1862, the cost of the latter being also borne by the Dublin and Drogheda and Dublin and Belfast Junction Railways.

Railways were completed from Portadown to Dungannon in April, 1858, and between Dungannon and Omagh in September, 1861. The Portadown, Dungannon and Omagh Railway was leased to the Ulster Railway in 1861 and absorbed by it on 1st January, 1876. In addition, the Dublin and Antrim Junction Railway, the Banbridge, Lisburn and Belfast Railway, and the Banbridge Extension Railway were leased by the Ulster Company.

It is of interest to note that the first section of the Ulster Railway was laid to a gauge of 6 ft. 2 ins. and later altered to the Irish standard gauge of 5 ft. 3 ins.

The Dublin and Drogheda Railway was formed in 1836, although construction did not commence until 1838 and on 24th May, 1844, the line between Dublin and Drogheda was opened for passenger traffic. The branch from the main line to Howth (4 miles) was opened on 29th May, 1847. A line from Drogheda to Navan was opened on 15th February, 1850, and extended to Oldcastle in May, 1863.



G.N.R.(I.) CLASS V 4-4-0 No. 87 "KESTREL"

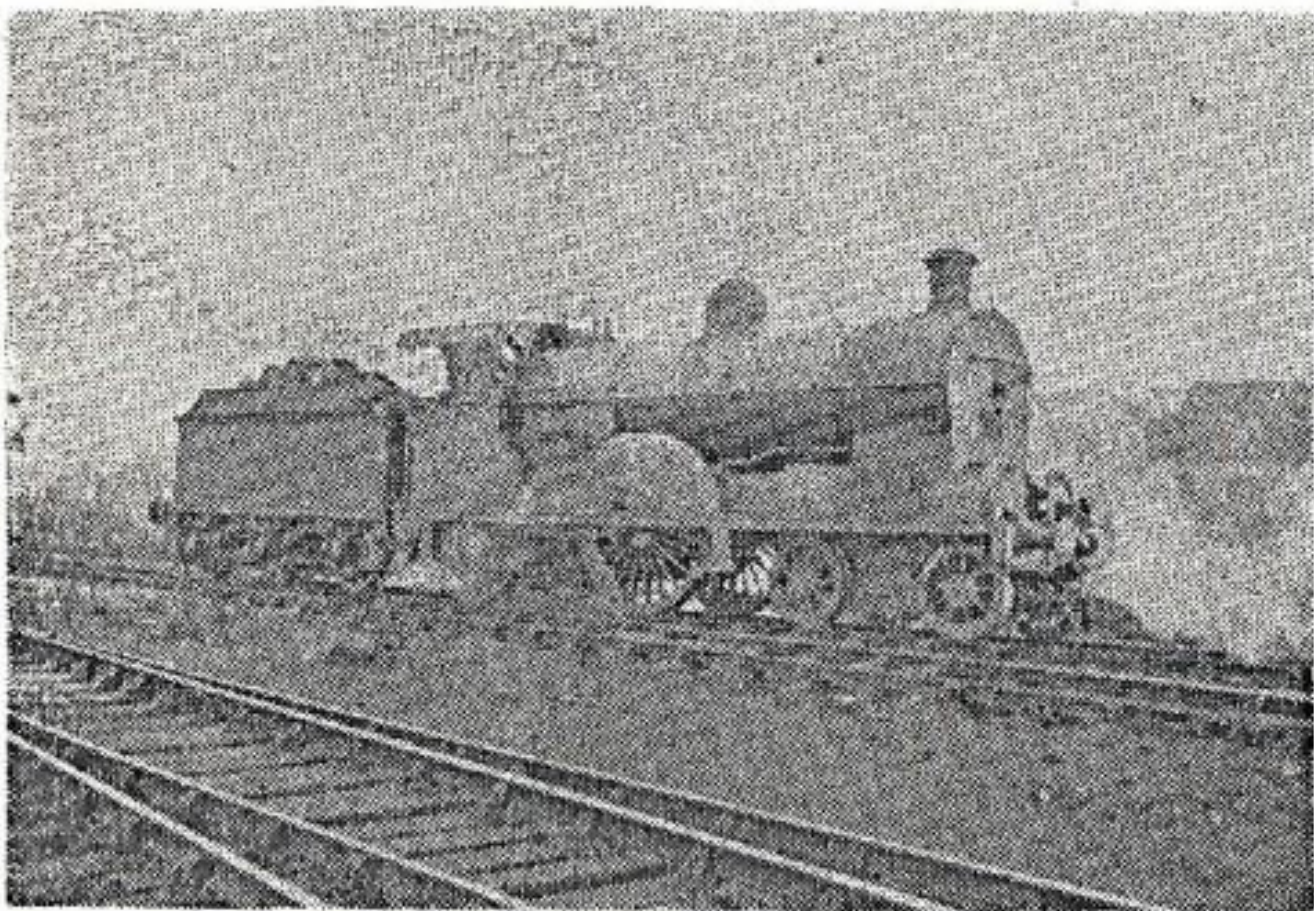
Cylinders—h.p. $17\frac{1}{4}$ ins. x. 26 ins., l.p. 19 ins. x 26 ins.; Coupled Wheels 6 ft. 7 ins. diameter; Boiler Pressure 215 lbs. per sq. in.; Grate Area 25.22 sq. ft.; Total Heating Surface 1,244 sq. ft.; Water Capacity 3,500 galls.; Coal 6 tons; Weight of Engine and Tender 103 tons 11 cwt.; Tractive Effort 20,435 lbs.

On 15th October, 1845, construction commenced on the Irish North-Western Railway (known then as the Dundalk and Enniskillen Railway); but, as usual, after the first wave of enthusiasm had passed progress was slow, and it was not until February, 1859, that the line was completed from Dundalk to Enniskillen. In 1860 a branch was opened from Ballybay to Cootehill (9 miles). The Londonderry and Enniskillen Railway which operated a line between these points, and which was incorporated in 1845, was leased by the Irish North-Western Company. This section included with it the short Fintona branch. In addition, the Irish North-Western Railway operated the Dundalk, Newry and Greenore Railway, the Enniskillen and Bundoran Railway and the Finn Valley Railway, the latter running from Strabane on the I.N.W. line to Stranorlar, Co. Donegal, now headquarters of the County Donegal Railways Joint Committee, of which it forms part. It is interesting to note that this section of line was one of the few, if not the only, built to the standard gauge of 5 ft. 3 ins. and later altered to narrow (3 ft.) gauge.

The last remaining important railway company which formed the present Great Northern system, the Dublin and Belfast Junction Railway, was the connecting link between the Dublin and Drogheda and the Ulster companies and thus between Dublin and Belfast. Its lines extended from Drogheda to Portadown, and were opened from Drogheda to Dundalk in February, 1849, and to Portadown in June, 1852. A branch was constructed from Dundalk to Castleblayney and opened in February, 1849. This Company also operated the Banbridge Junction Railway between Scarva and Banbridge. It was not until 25th June, 1853, that the Dublin-Belfast route was completed, as the bridging of the River Boyne was not completed until that time.

Such were the four main Companies which formed the Great Northern Railway (Ireland). Following amalgamation in 1876 several small Companies were absorbed, among them the Newry and Armagh Railway (opened 1865), the Newry, Warrenpoint and Rostrevor Railway (opened Newry-Warrenpoint 1849), the Dungannon and Cookstown Railway (opened 1879), the Castleblayney, Keady and Armagh Railway (opened 1910), and the Belfast Central Railway. The latter Company is of special interest and a brief account of its objects and activities might not come amiss at this stage.

Formed in 1864, one of the objects of the Belfast Central Railway was to connect all the main line termini in Belfast with one large central station. Owing to various reasons, including objections by traders in York Street (along which it was proposed to run trains), and shortage of capital, the scheme fell through and the Belfast Central Railway was purchased by the Great Northern Railway Company in 1885 with the Belfast and Northern Counties Railway and the Belfast and County Down Railway contributing. The Belfast Central leaves the main Great Northern line at Central Junction between Belfast and Adelaide, and runs through numerous bridges to Maysfields cattle depot. Here, at East Bridge Street Junction, one line runs to Donegall Quay (adjacent to the cross-Channel steamers) and thence via the Belfast Harbour Railways to the L.M.S.-N.C.C. goods yards, and the other crosses the River Lagan to Ballymacarrett Junction on the Belfast and County Down system, connections being made to Queen's Quay mainly for the working of coal supplies. Between Ballymacarrett Junction and East Bridge Street Junction the line is single, operated on the electric train staff principle, and during the summer season there are numerous through excursion trains between Bangor and Dublin, etc.



Class S 4-4-0 No.172 "Slieve Donard"

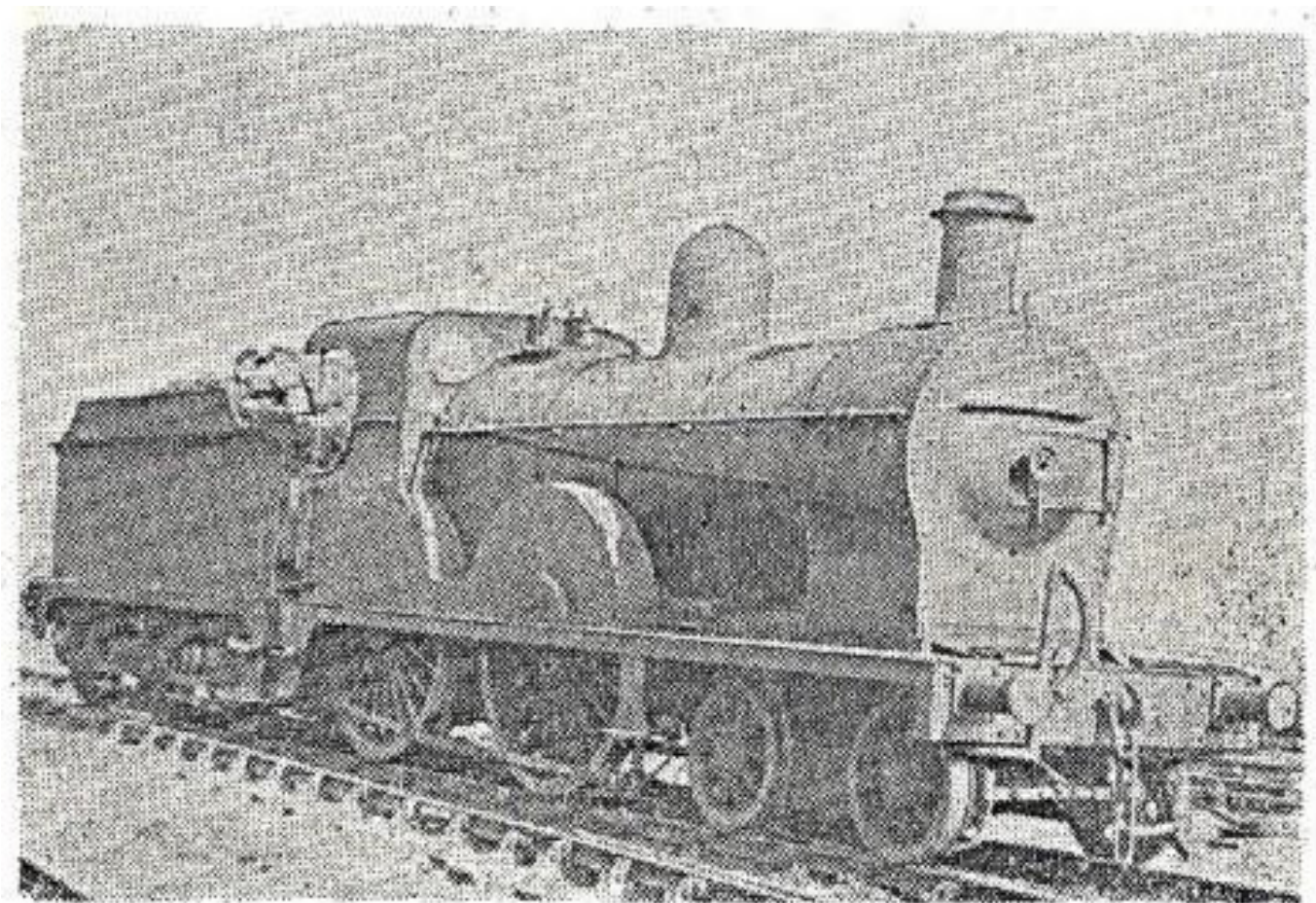
It will, therefore, be seen that while the original plans of the Belfast Central Railway did not materialise its lines now provide a very important connecting link for the Northern Ireland Railways, both for goods and passenger traffic.

In addition the following lines were constructed by the Great Northern Company: Belturbet branch (1885), Carrickmacross branch (1886), and Ballyroney-Castlewellan (1906).

The Great Northern Railway (Ireland) is the second largest railway system in Ireland and the main connecting line between North and South. The L.M.S.-N.C.C. and the B.C.D.R. do not operate in Eire, but the Great Northern Railway crosses the border at no less than ten points. The total track mileage is 537 miles 67 chains, and a summary of traffic is given below:

YEAR	PASSENGERS (excluding season ticket holders)	FREIGHT (Tons)	LIVESTOCK (Head)
1938	5,005,581	779,381	531,477
1944	10,915,420	1,737,123	639,732
1946	8,636,380	1,598,424	681,996

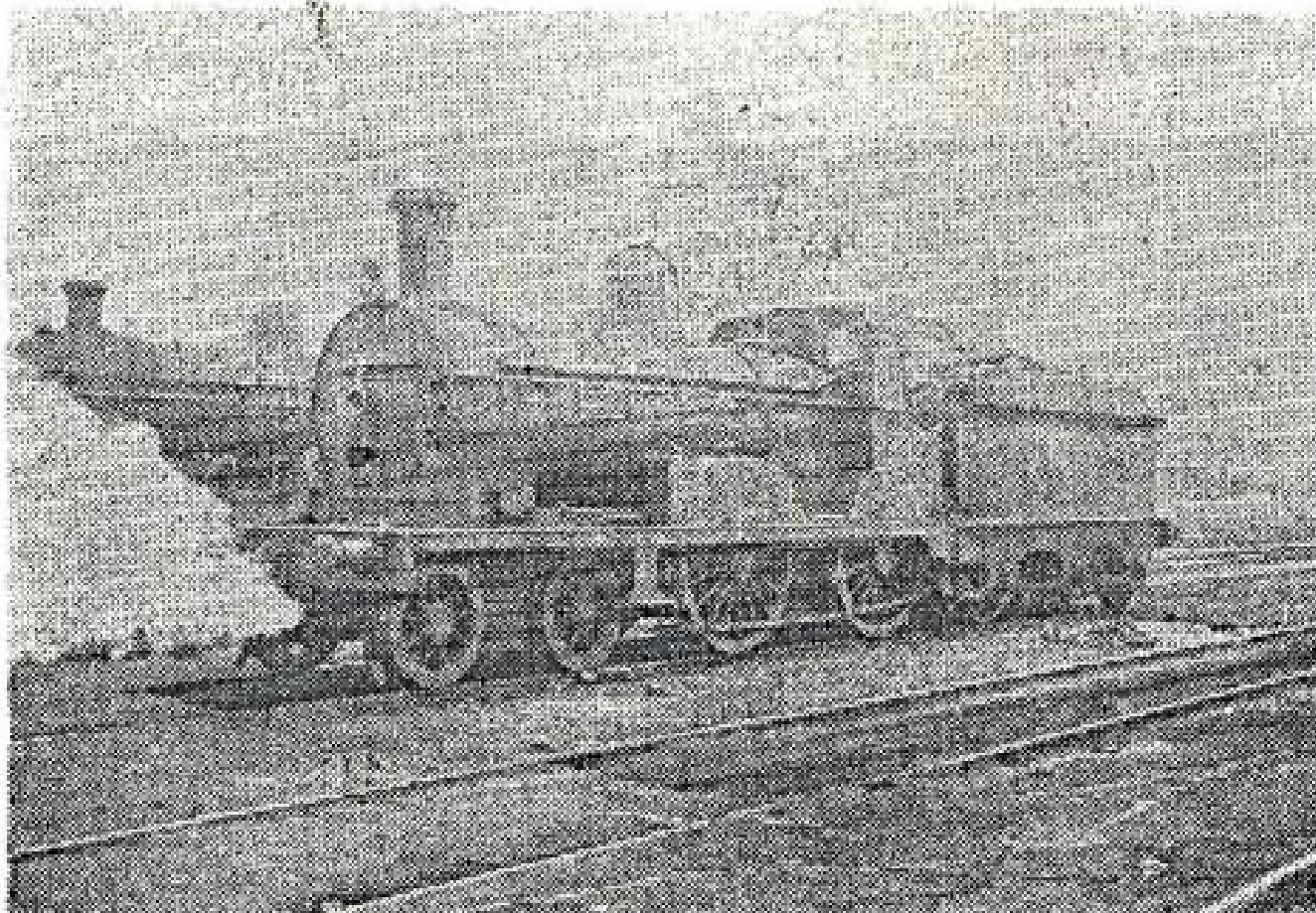
Main line services on the Great Northern system have been very considerably improved by the recent introduction of the "Enterprise" express. This train, with a weight of over 200 tons behind the tender, runs non-stop between Belfast and Dublin and is timed to cover the 112½ miles between the two capitals in 2¼ hours - an average speed of 50 m.p.h. Customs examination takes place at the termini. The train leaves Belfast at 10.30 a.m. every weekday, returning from Dublin at 5.30 p.m., and consists of seven coaches - two first, two third, two third-brake, and a buffet car fitted with cocktail bar. Incidentally a glance at the wine list reveals that a bottle of champagne will cost 59s 6d in Northern Ireland, but if we can stave our thirst off until the train crosses the border the cost will be 45s. Other trains between Belfast and Dublin are allowed 3 hours 15 minutes to cover the journey, with four intermediate stops and Customs examination at Goraghwood and Dundalk.



G.N.R. Class PPs 4-4-0 No. 46

On the Londonderry line the fastest timing is the 8.25 a.m. ex Belfast, allowed 3 hours 7 minutes for the 100½ miles with six intermediate stops. Particularly during the summer months through coaches operate between a number of points including Dublin-Londonderry, Dublin-Bundoran, Dublin-Enniskillen.

The extensive locomotive carriage and wagon workshops of the Company are at Dundalk, where there is also a section for the construction and repair of road buses. Railcars belonging to the Dundalk, Newry and Greenore and Sligo, Leitrim and Northern Counties Railways are also maintained here. The premises (employing over 900 men) are situated adjacent to the Dublin-Belfast main line. During the recent war some repairs were effected to L.M.S.-N.C.C, locomotives.



G.N.R. Class Ps 4-4.0 No.54

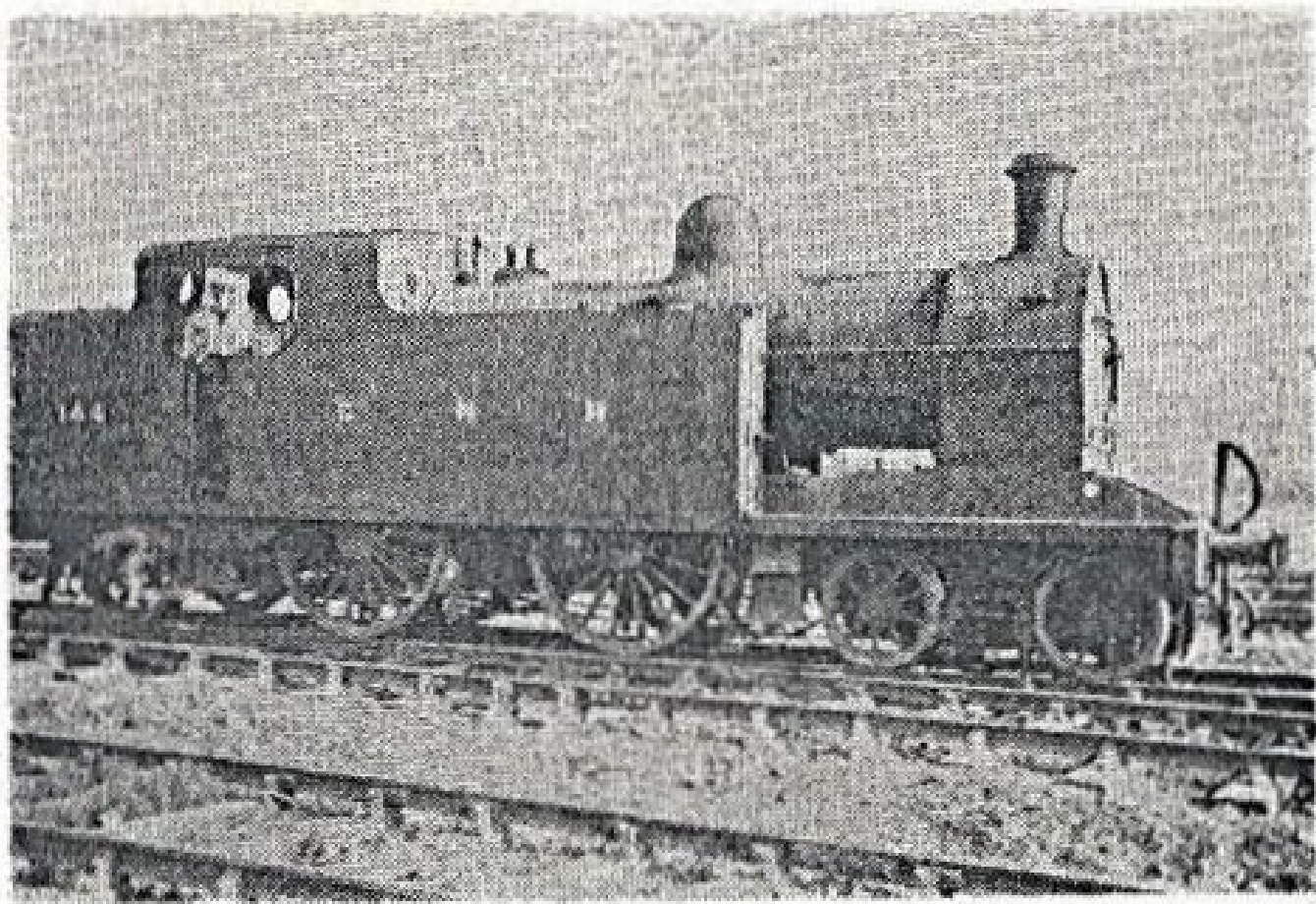
Locomotive running sheds are at Adelaide (Belfast), Portadown, Dundalk, Drogheda, Dublin, Newry, Clones, Enniskillen and Londonderry. The well-designed sheds at Adelaide, Belfast, with eleven lines of track and capable of accommodating 60 locomotives, were constructed in 1909-10 on reclaimed bog land. Coaling is carried out by means of a stage, up to which wagons are shunted. Turning is by means of a triangle, and nearby is a large marshalling yard. An additional line is provided between Adelaide and Belfast passenger station.

Other important undertakings of the Company are, briefly, as follows: Maysfields cattle depot, Belfast; Granite Quarry, Goraghwood; large hotels at Bundoran, Rostrevor and Greenore. Extensive improvements have been carried

out at the main termini of Belfast and Dublin, and indeed throughout the system modernisation and improvement is continually taking place.

The main line of the Great Northern Railway runs from Dublin to Belfast (112½ miles) via Drogheda, Dundalk and Portadown. The line is double track, with the exception of that portion over the Boyne Viaduct, and the stiffest gradient is 1 in 91 between Dundalk and Mountpleasant.

The outstanding engineering features on this line are the Boyne and Bessbrook Viaducts. The former was reconstructed in 1930-2 at a cost of £39,000. It consists of three girder spans with a length of 550 ft. and carried 100 feet above the River Boyne. The Bessbrook (or Craigmore) Viaduct with its eighteen arches has the distinction of being the highest bridge in Ireland (137 feet). Incidentally, the Bessbrook and Newry Electric Tramway (unfortunately recently closed) passed underneath one of the spans.



G.N.R. Class T2 4-4-2T No.144

The Londonderry line diverges from the main line at Portadown and goes via Dungannon, Omagh and Strabane. The Cavan line also diverges at Portadown, running via Armagh and Clones. At Knockmore Junction (9¼ miles outside Belfast) the lines to Antrim (via Crumlin) and Castlewellan (via Banbridge)

branch off in opposite directions. From Dundalk a line goes inland via Clones and Enniskillen joining the Londonderry line at Omagh with a branch from Bundoran Junction to Bundoran (120 miles from Belfast). Other branch lines run as follows: Dungannon-Cookstown, Scarva-Banbridge, Goraghwood-Newry-Warrenpoint, Inniskeen-Carrickmacross, Shantona-Cootehill, Ballyhaise-Belturbet, Fintona Junction-Fintona, Drogheda-Navan-Oldcastle, Howth Junction-Howth, Armagh-Keady, Goraghwood-Markethill and Dromin-Ardee, the last three open for goods traffic only. The Fintona branch is noteworthy for the fact that it is still operated by a horse tram which makes the half-mile journey seven times a day in each direction, first and second class passengers are carried in the lower closed saloon while third class ticket holders have to brave the elements "on top."

In addition to the Dublin-Belfast main line; the Howth branch, the Londonderry line from Portadown to Trew and Moy and the Armagh and Cavan line between Portadown and Richhill are double track; all other sections are single line controlled by the electric train staff system. The most severe gradient on the system is 1 in 58 between Annaghmore and Vernersbridge on the Londonderry line.

Locomotive Stock

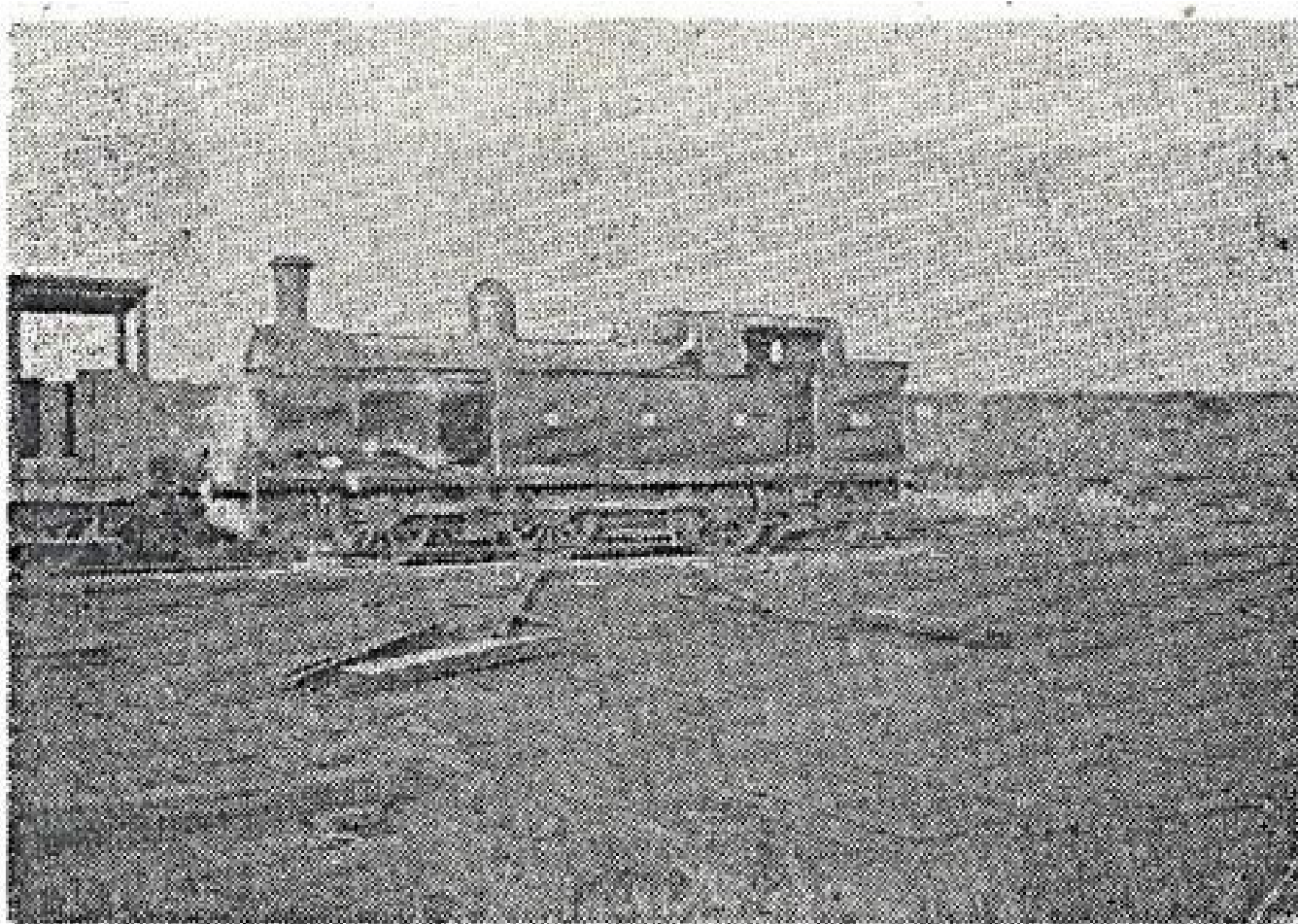
The locomotive stock of the Great Northern Railway (Ireland) consists of 201 steam engines. In addition there are 8 diesel railcars and 2 diesel rail-buses in service. The standard locomotive livery is black with red lining with the exception of the express passenger engines, classes S and V and also class U, which are painted blue.

The most numerous type are 4-4-0 and 0-6-0. In the former are included the 3-cylinder compound express engines Nos. 83-87, which work the main line Dublin-Belfast trains. These engines were introduced in 1932 and have proved very successful in working the heavy traffic on this line and maintaining the "Enterprise" express schedule. Owing to their heavy axle load, these engines are confined to the Dublin-Belfast main line. All were originally provided with round top fireboxes as is G.N.R. practice, but recently are being fitted with boilers having Belpaire type. Further dimensions of this class are: Fire-grate area = 25.22 sq. ft.; total heating surface = 1,244 sq. ft.; coal capacity, 6 tons; water, 3,500 gallons.

A lighter type of passenger engine is class S (Nos. 170-174 and 190-192); these were built at Dundalk in 1938 replacing their predecessors of 1913-15. They

have the same coal and water capacity as Class V, but the grate area in this case is 22.9 sq. ft. and total heating surface 1,046 sq. ft.

In 0-6-0 engines the most numerous class is LQGs, which number thirteen. The most recent class, UG (Nos. 78-82 and 145-149), were introduced in 1937 and have proved very successful for use in both passenger and goods traffic with their 5 ft. 1 in. coupled wheels and tractive effort of 21,671 lbs.



G.N.R. Class QGTs 0-6-2T No.98

Turning to tank engines we find that the Great Northern operate quite a number of these (in fact the most numerous G.N.R. class is T2, 20 engines), mainly working in and about Belfast and Dublin, but also further afield (e.g. Belfast-Armagh). There are also a number of tank engines employed for shunting and dealing with the Belfast interchange and riverside traffic (Class RT, Nos. 22, 23, 166, 167; class QGTs, Nos. 98, 99; class QGT2, Nos. 168, 169). No.195 is an interesting example of a now rather unusual type - 4-4-0T. It has survived from the Belfast Central Railway.

The Great Northern Railway is going ahead with plans for the conversion of engines to oil burning, and so far the following numbers have been converted: 1, 2, 115, 116, 119, 159.

Railcars

The dimensions of Great Northern railcars and rail-buses are shown in the attached list. All were constructed by the Company at Dundalk and since their introduction in 1932 have proved very successful in operating lines on which traffic is light and where steam trains would be uneconomical. The latest railcars are of the three unit articulated type. In the case of Nos. D and E the central power unit is carried on six coupled wheels, but in Nos. F and G the method adopted was for each of the two engines to drive one axle, the wheels not being coupled. The two rail-buses in service are actually converted road buses with the flanged wheels fitted over the rubber tyres.

Rolling Stock

The rolling stock of the Great Northern Railway consists of 337 passenger coaches, 183 other coaching vehicles, and 5,691 goods wagons. The passenger stock consists mainly of bogie vehicles although there is still a small number of six-wheeled carriages in use. The construction of the latest coaches is of steel panelling (the majority are panelled with varnished mahogany) and the entire stock panelled with varnished mahogany) and the entire stock is electrically lit. It is noteworthy that the Great Northern was the first railway in Ireland to introduce restaurant cars (in 1895).

Goods stock comprises quite a variety of types for dealing with different consignments; among which it is interesting to note the use of double deck vans for carrying sheep. The standard goods stock is, of course, the 4-wheeled open wagon and the 4-wheeled covered van, but there is also in use a number of 20-ton vans carried on two 4-wheeled bogies.

G.N.R. (I.)—No. and Class List

No.	Class	No.	Class	No.	Class	No.	Class
1	...	T2 53	...	Ps 104	...	Ps 156	... QLs
2	...	T2 54	...	Ps 105	...	Ps 157	... QLs
3	...	T2 55	...	AL 106	...	PPs*158	... LQGs
4	...	T2 56	...	AL 107	...	PPs 159	... LQGs
5	...	72 57	...	AL 108	...	LQGs 160	... LQGs
6	...	SG3 58	...	AL 109	...	LQGs 161	... LQGs
7	...	SG3 59	...	AL 110	...	LQGs 162	... LQGs
8	...	SG3 60	...	A 111	...	LQGs 163	... LQGs
9	...	NQGs 62	...	T2 112	...	NQGs 164	... LQGs
10	...	PGs 63	...	T2 113	...	QLs 165	... LQGs
11	...	PGs 64	...	T2 115	...	T2 166	... RT
12	...	PPs 65	...	T2 116	...	T2 167	... RT
13	...	SG3 66	...	T2 117	...	SG3 168	... QGT2
14	...	SG3 67	...	T2 118	...	SG3 169	... QGT2
15	...	SG2 68	...	A 119	...	LQGs 170	... S
16	...	SG2 69	...	T2 120	...	Qs 171	... S
17	...	SG2 70	...	PPs 121	...	Qs 172	... S
18	...	SG2 71	...	PPs 122	...	Qs 173	... S
19	...	SG2 72	...	Ps*123	...	Qs 174	... S
20	...	SG3 73	...	Ps*124	...	Qs 175	... SG
21	...	T2 74	...	PPs 125	...	Qs 176	... SG
22	...	RT 75	...	PPs 126	...	QLs 177	... SG
23	...	RT 76	...	PPs 127	...	QLs 178	... SG
24	...	QLs 77	...	PPs 128	...	QLs 179	... SG
25	...	PPs 78	...	UG 129	...	PPs*180	... SG2
26	...	Ps* 79	...	UG 130	...	Qs 181	... SG2
27	...	Ps* 80	...	UG 131	...	Qs 182	... SG2
28	...	A 81	...	UG 132	...	Qs 183	... SG2
29	...	AL 82	...	UG 133	...	Qs 184	... SG2
30	...	T2 83	...	V 134	...	Qs 185	... T1
32	...	AL 84	...	V 135	...	Qs 186	... T1
33	...	A 85	...	V 136	...	Qs 187	... T1
35	...	AL 86	...	V 138	...	C 188	... T1
36	...	AL 87	...	V 139	...	T2 189	... T1
37	...	E 88	...	Ps 140	...	AL 190	... S2
38	...	NQGs 89	...	Ps 141	...	AL 191	... S2
39	...	NQGs 90	...	JT 142	...	T2 192	... S2
40	...	SG3 91	...	JT 143	...	T2 193	... E
41	...	SG3 92	...	JT 144	...	T2 194	... E
42	...	PPs 93	...	JT 145	...	UG 195	... BP
43	...	PPs 94	...	JT 146	...	UG 196	... U
44	...	PPs* 95	...	JT 147	...	UG 197	... U
45	...	PPs 96	...	SG3 148	...	UG 198	... U
46	...	PPs* 97	...	SG3 149	...	UG 199	... U
47	...	SG3 98	...	QGTs 150	...	A 200	... U
48	...	SG3 99	...	QGTs 151	...	PGs 201	... U
49	...	SG3 100	...	PGs 152	...	QGs 202	... U
50	...	PPs 101	...	PGs 153	...	QGs 203	... U
51	...	Ps 102	...	PGs 154	...	QGs 204	... U
52	...	Ps 103	...	PGs 155	...	QGs 205	... U

G.N.R. (I.)—Locomotive Stock

Class	Type	Date of Introduction	Weight of Engine and Tender		Boiler Pressure	Cylinders Diameter and Stroke		Driving Wheels	Tractive Effort Lbs.
			Tons	Cwts.					
A	0-6-0	1882	54	6	165	17 ins. x 24 ins.	4 ft. 7½ ins.	17,686	
AL	0-6-0	1893	58	11	175	17 ins. x 24 ins.	4 ft. 7½ ins.	18,758	
BP	4-4-0T	1880	42	6	165	16 ins. x 20 ins.	5 ft. 0 ins.	11,968	
C	0-6-0	1872	54	2	175	17 ins. x 24 ins.	5 ft. 0 ins.	17,195	
E	0-6-0	1871	57	0	175	17 ins. x 24 ins.	5 ft. 0 ins.	17,195	
JT	2-4-2T	1895	45	13	175	16 ins. x 22 ins.	5 ft. 7 ins.	12,504	
LQGs	0-6-0	1906	80	1	175	19 ins. x 26 ins.	4 ft. 7½ ins.	25,385	
NQGs	0-6-0	1911	78	3	175	19 ins. x 26 ins.	4 ft. 7½ ins.	25,385	
Ps*	4-4-0	1892	74	19	175	18 ins. x 24 ins.	6 ft. 7 ins.	14,641	
Ps	4-4-0	1892	72	13	175	18 ins. x 24 ins.	5 ft. 7 ins.	17,264	
PGs	0-6-0	1899	70	5	175	17½ ins. x 24 ins.	4 ft. 7½ ins.	19,879	
PPs*	4-4-0	1911	73	3	175	18 ins. x 24 ins.	6 ft. 7 ins.	14,641	
PPs	4-4-0	1896	75	11	175	18 ins. x 24 ins.	6 ft. 7 ins.	14,641	
Qs	4-4-0	1899	79	15	175	18½ ins. x 26 ins.	6 ft. 7 ins.	16,755	
QGTs	0-6-2T	1905	55	6	175	18½ ins. x 26 ins.	4 ft. 7½ ins.	24,080	
QGT2	0-6-2T	1911	60	0	175	18½ ins. x 26 ins.	4 ft. 7½ ins.	24,080	
QGs	0-6-0	1903	73	7	175	17¾ ins. x 26 ins.	4 ft. 7½ ins.	22,054	
QLs	4-4-0	1904	80	10	175	18½ ins. x 26 ins.	6 ft. 7 ins.	16,755	
RT	0-6-4T	1908	56	0	175	17 ins. x 24 ins.	4 ft. 3 ins.	20,230	
S	4-4-0	1913	91	16	200	19 ins. x 26 ins.	6 ft. 7 ins.	20,198	
S2	4-4-0	1915	91	16	200	19 ins. x 26 ins.	6 ft. 7 ins.	20,198	
SG	0-6-0	1913	79	10	175	19 ins. x 26 ins.	5 ft. 1 in.	22,887	
SG2	0-6-0	1915	79	10	175	19 ins. x 26 ins.	5 ft. 1 in.	22,887	
SG3	0-6-0	1920	91	0	175	19½ ins. x 26 ins.	5 ft. 1 in.	24,107	
T1	4-4-2T	1914	65	15	175	18 ins. x 24 ins.	5 ft. 9 ins.	16,763	
T2	4-4-2T	1921	65	15	175	18 ins. x 24 ins.	5 ft. 9 ins.	16,763	
U	4-4-0	1915	74	17	175	18 ins. x 24 ins.	5 ft. 9 ins.	16,763	
UG	0-6-0	1937	84	2	200	18 ins. x 24 ins.	5 ft. 1 in.	21,671	
V	4-4-0	1932	103	11	215	17½ ins. x 26 ins. h.p. 19 ins. x 26 ins. l.p.	6 ft. 7 ins.	20,435	

No. 31 is a 0-6-0T service locomotive, fitted with crane.

Named Engines of the G.N.R. (I.)

No. 83	Eagle	No. 174	Carrantuohill
" 84	Falcon	" 190	Lugnaquilla
" 85	Merlin	" 191	Croagh Patrick
" 86	Peregrine	" 192	Slievenamon
" 87	Kestrel	" 201	Meath
" 170	Errigal	" 202	Louth
" 171	Slieve Gullion	" 203	Armagh
" 172	Slieve Donard	" 204	Antrim
" 173	Galteemore	" 205	Down

G.N.R. Railcars

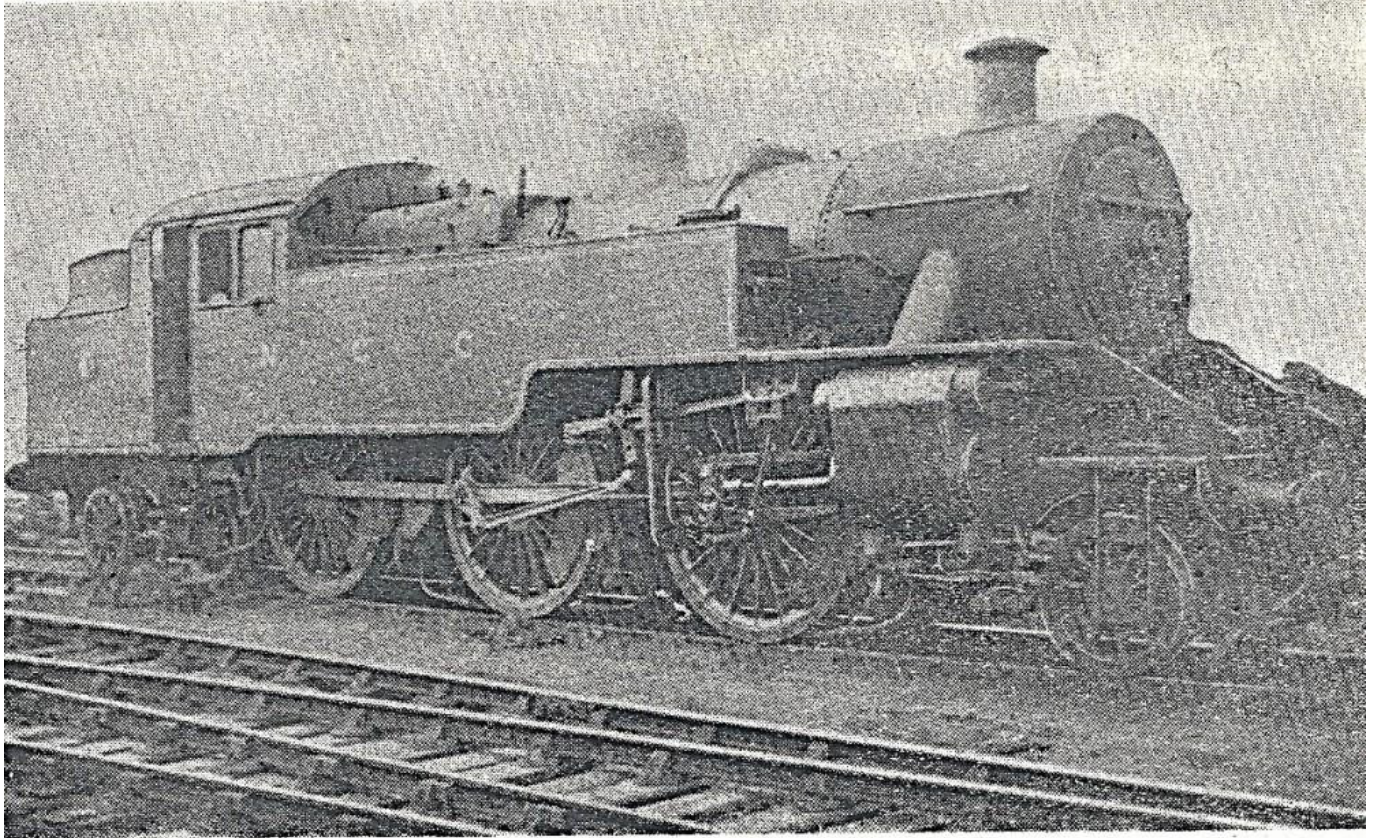
No.	Seating Capacity (Total)	Gardner Engine	Weight (tons)
A	48	6 L.W. = 102 H.P.	19
B	38	6 L.3 = 115 H.P.	21
C1	50	6 L.W. = 96 H.P.	14¼
C2	48	6 L.W. = 102 H.P.	15
C3	46	6 L.W. = 102 H.P.	15
D	159	6 L.3 = 153 H.P.	39½
E	159	6 L.3 = 153 H.P.	39½
F	164	Two 6 L.W. = 204 H.P.	41¼
G	164	Two 6 L.W. = 204 H.P.	41¼

G.N.R. Railbuses

2	24	4 L.W. = 62 H.P.	6
3	31	4 L.W. = 62 H.P.	6

L.M.S. - NORTHERN COUNTIES COMMITTEE

The title L.M. & S. - Northern Counties Committee was adopted following the English Railway grouping of 1923. Prior to this it had been the Midland Railway (N.C.C.), which system was, of course, amalgamated into the present L.M.S. Railway. The Midland Railway acquired the line from the Belfast and Northern Counties Railway on 1st July, 1903.



L.M.S.—N.C.C. CLASS WT 2-6-4T No. 6

Cylinders 19 ins. x 26 ins.; Coupled Wheels 6 ft. 0 ins. diameter; Boiler Pressure 200 lbs. per sq. in.; Grate Area 25.00 sq. ft.; Total Heating Surface 1416.75 sq. ft.; Water Capacity 2,500 galls.; Coal 3½ tons; Weight 87 tons; Tractive Effort 22,160 lbs.

The first action to be taken in constructing railways in the area now served by the N.C.C. was the passing of the Belfast and Ballymena Railway Act, 1845. This Company was incorporated on 21st July, 1845, its objects being the construction of a line from Belfast to Ballymena, with branches to Carrickfergus and Randalstown. The line was opened on 11th April, 1848. The double line from Belfast to Greencastle was opened November, 1862, and extended to Greenisland in September, 1863. It must be remembered that at this time the line to Ballymena went via Greenisland, the Viaducts and loop line not being opened until 1934. At the other end of the present N.C.C. system the year 1845 also saw the birth of the Railway, the Londonderry and Coleraine Railway Act being

passed in that year. This Act authorised the construction of a line from Londonderry to Coleraine, the section to Limavady being opened in December, 1852, and to Coleraine in July, 1853. Although generally this was an easy section to complete from the point of view of engineering features, tunnels had to be constructed between Downhill and Castlerock, where the railway runs close to the sea.

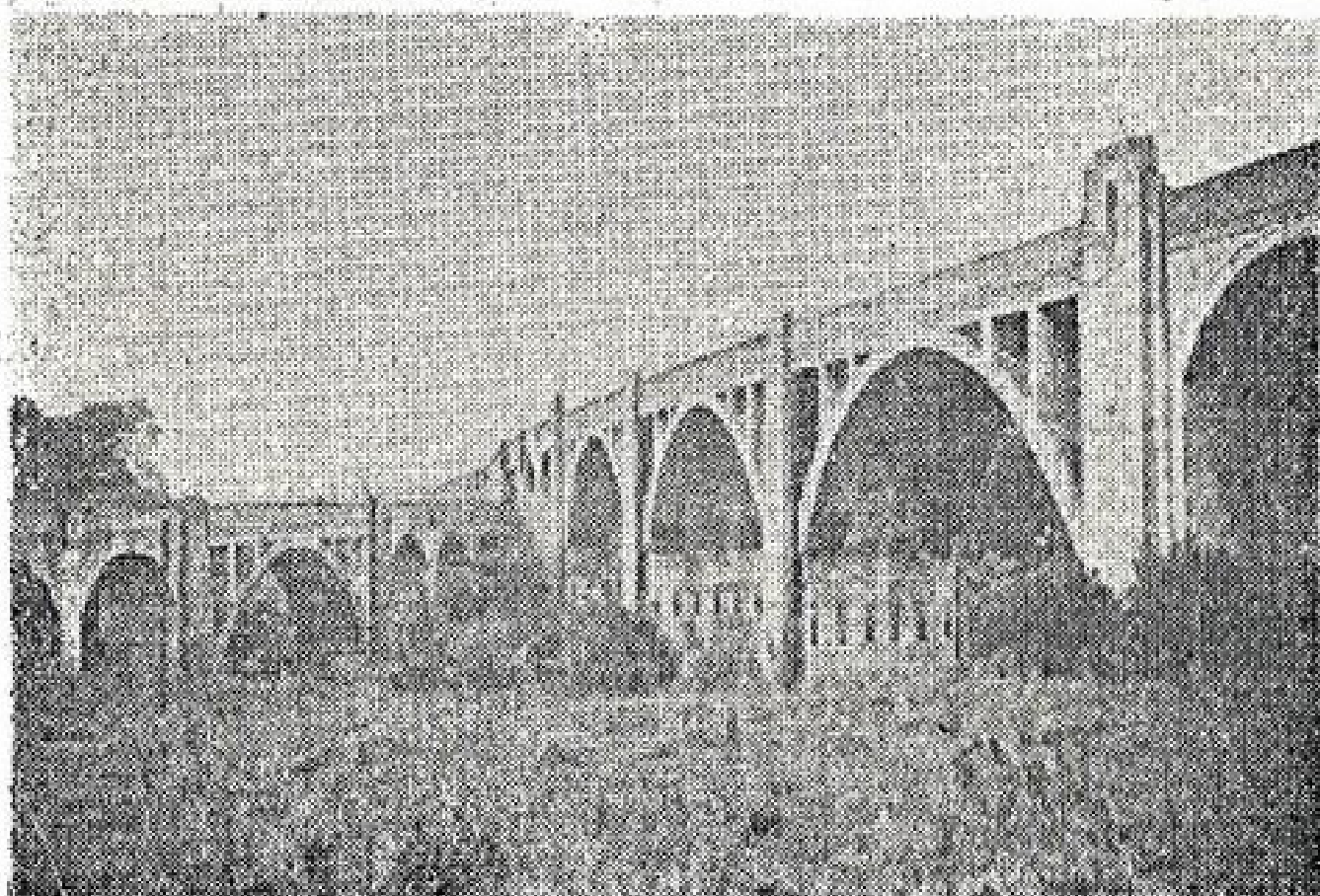
The Belfast and Ballymena Company were by this time looking for fresh fields to conquer, and the Belfast and Ballymena Railway Extension Act of 1853 authorised the construction of a line from Randalstown to Cookstown, which was opened in November, 1856. It should be mentioned here that prior to August, 1858, Cookstown Junction was known as Drumsough Junction.

The Ballymena, Ballymoney, Coleraine and Portrush Junction Railway, whose objects were the construction of a line from Ballymena to Portrush, was formed in 1853 and the line opened on 7th November, 1855. The scattered remnants of lines were now taking shape, and with the construction of a line between the Ballymena, Ballymoney, Coleraine and Portrush Junction Railway, and the Londonderry and Coleraine Companies over the River Bann in November, 1860, Belfast and Londonderry were linked by rail. The original bridge over the River Bann was replaced by a new structure in 1924.

The Belfast and Ballymena Railway disappeared in May, 1860, when the title was changed to the Belfast and Northern Counties Railway Company, and in January of the following year the Ballymena, Ballymoney, Coleraine and Portrush Junction Railway was absorbed. At this time another Company, the Carrickfergus and Larne Railway, was proceeding with the construction of a line between these points, which was opened in October, 1862. The Belfast and Northern Counties Railway, now operating lines between Belfast and Portrush, Cookstown and Carrickfergus, was further extended by the acquisition on 24th July, 1871, of the Londonderry and Coleraine Railway Company.

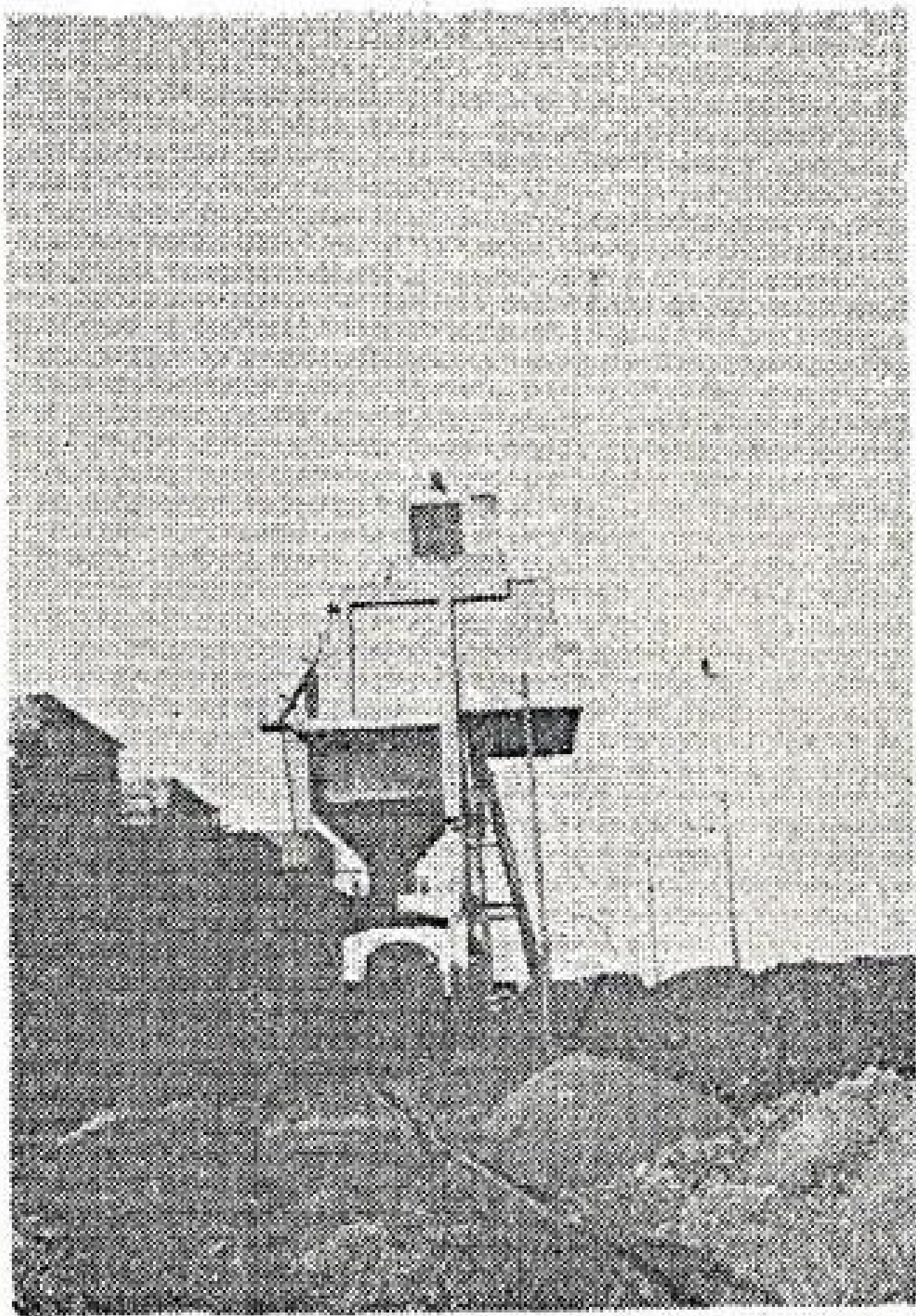
The Ballymena and Larne Railway Act of 1874 provided for the construction of a narrow gauge line between Ballymena and Larne Harbour and incorporated the provisions of the Larne and Ballyclare Railway Act of 1873, under which no construction had been commenced. The Ballymena and Larne Company subsequently amalgamated with the Belfast and Northern Counties Railway in 1889.

February, 1880, saw the opening of the line between Magherafelt and Coleraine by the Derry Central Railway. This was authorised by an Act of 1875, and a further Act of 1877 enabled the Belfast and Northern Counties Railway to subscribe to the funds of the Derry Central Company. Between 1880 and 1883 lines were opened by separate companies between Ballymoney and Ballycastle (narrow gauge), Magherafelt and Draperstown and Limavady to Dungiven.



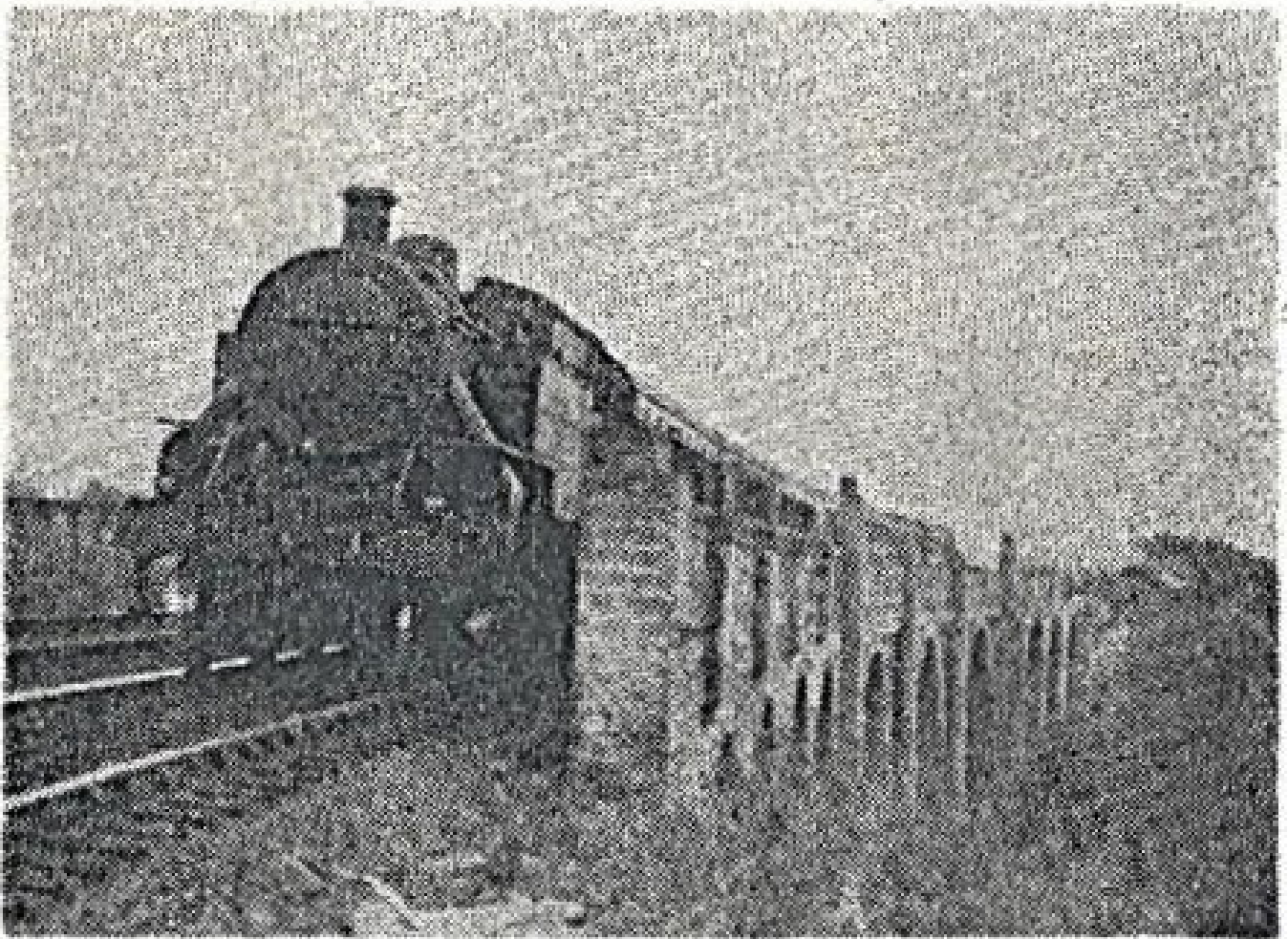
*GREENISLAND VIADUCTS, L.M.S.-N.C.C.
(main line to right, down Larne line to left)*

The Belfast and Northern Counties Railway Acts of 1881 and 1882 authorised construction of the Ballyclare branch and powers to subscribe to the funds of the Carrickfergus Harbour Junction Railway Company, the latter line being opened in June, 1887. The narrow gauge Ballymena, Cushendall and Red Bay Railway Company was vested in the Belfast and Northern Counties Railway under an Act of 1884. The lines of this Company never actually reached the two latter towns in its title - one wonders how it was ever expected to, considering there is a drop of 950 feet in the last four miles. The farthestmost point to which this line extended from Ballymena was (very significantly!) Retreat, and particularly on the latter part there were frequent sections with an incline of between 1 in 36 and 1 in 40. The entire line has since been closed.



L.M.S. - N.C.C. Coaling Plant, Belfast

Its services provide connection between, the two principal cities of Northern Ireland - Belfast and Londonderry - with branches serving a number of important sea side and inland towns. The L.M.S.-N.C.C. was possibly connected with Ulster's war effort more than any other transport system owing to the facts that (a) the entire system is within Northern Ireland, and (b) trains provided connection at Larne Harbour with numerous points in the Six Counties, this route being very extensively used by the armed forces during the war, and through running between Larne Harbour and stations on the G.N.R. and B.C.D.R. systems became very frequent. The boat train from Larne Harbour to Londonderry sometimes consisted of as many as seventeen bogie coaches.



Belfast-Londonderry Train hauled by N.C.C. No.1 crossing Greenisland Viaducts

During all these operations the joint stations of Antrim and Cookstown giving connection between N.C.C. and G.N.R. systems proved invaluable, as trains could not be run off the N.C.C. line to G.N.R. and B.C.D.R. points via Belfast. While on this subject it should be mentioned that during the visit of Their Majesties King George VI and Queen Elizabeth and H.R.H. Princess Elizabeth

on 19th July, 1945, a special train was prepared to convey the Royal party between Lisburn and Lisahally (near Londonderry) via Antrim had the weather been unfavourable for flying.

As it was, the train, consisting of N.C.C. and G.N.R. saloon coaches hauled by N.C.C. engine No.101, bearing the nameplate “King George VI” for the occasion, conveyed Their Graces the Duke and Duchess of Abercorn.

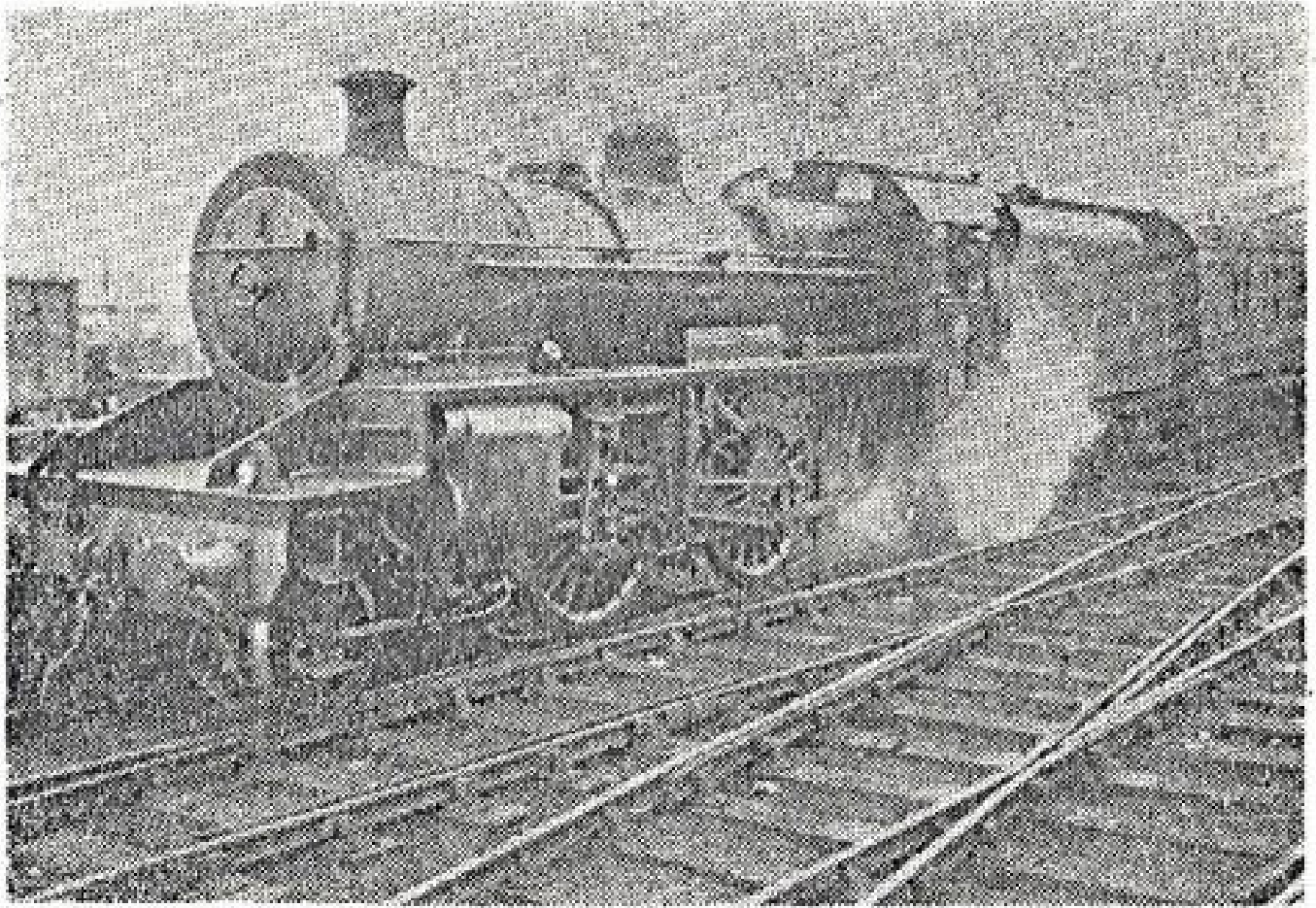
The N.C.C. maintain a fast and frequent service between Belfast, Londonderry and Portrush. Taking as an example the 1947 summer timetable, we see that the fastest trains between Belfast and Londonderry were the 8.25 a.m. and 5.25 p.m. ex Belfast, each train covering the 92¾ miles in 2 hours 15 minutes (41.2 m.p.h.) with five intermediate stops. Other examples of fast running are the 8.25 a.m. Belfast-Coleraine, 59¼ miles in 1 hour 22 minutes; 5.25 p.m. Belfast-Portrush (Saturdays only), 65¼ miles in 1 hour 37 minutes; and the 9.45 a.m. Belfast-Portrush in 1 hour 42 minutes. The running time between Belfast and Ballymena (31 miles) for a number of trains is 40 minutes. On the Larne line the 6.25 p.m. train from Belfast was timed to cover the 24¼ miles in 35 minutes and a number of others were allowed 40 minutes.

The Company own hotels at Belfast (Midland Station), Larne (Laharna), and Portrush (Northern Counties).

The following table shows the number of passengers and tons of freight carried in three typical pre-war, war, and post-war years:

Year	Passengers (excluding season ticket holders)	Merchandise (tons)	Minerals (tons)	Livestock (head)
1938	2,711,518	287,814	114,805	151,225
1944	6,248,213	566,502	242,531	152,058
1946	4,692,809	428,706	179,775	177,647

Adjacent to the York Road Station, Belfast, are the main locomotive sheds and workshops, together with coaling plant. The station itself suffered extensive damage in the air raids on Belfast during 1941. Many of the offices and the hotel were burnt out, twenty carriages and some 204 wagons were destroyed. So great was the damage that the station was closed for three days following the severe attack on the night of 4th May, 1941. Only recently has the work of reconstruction started in earnest.

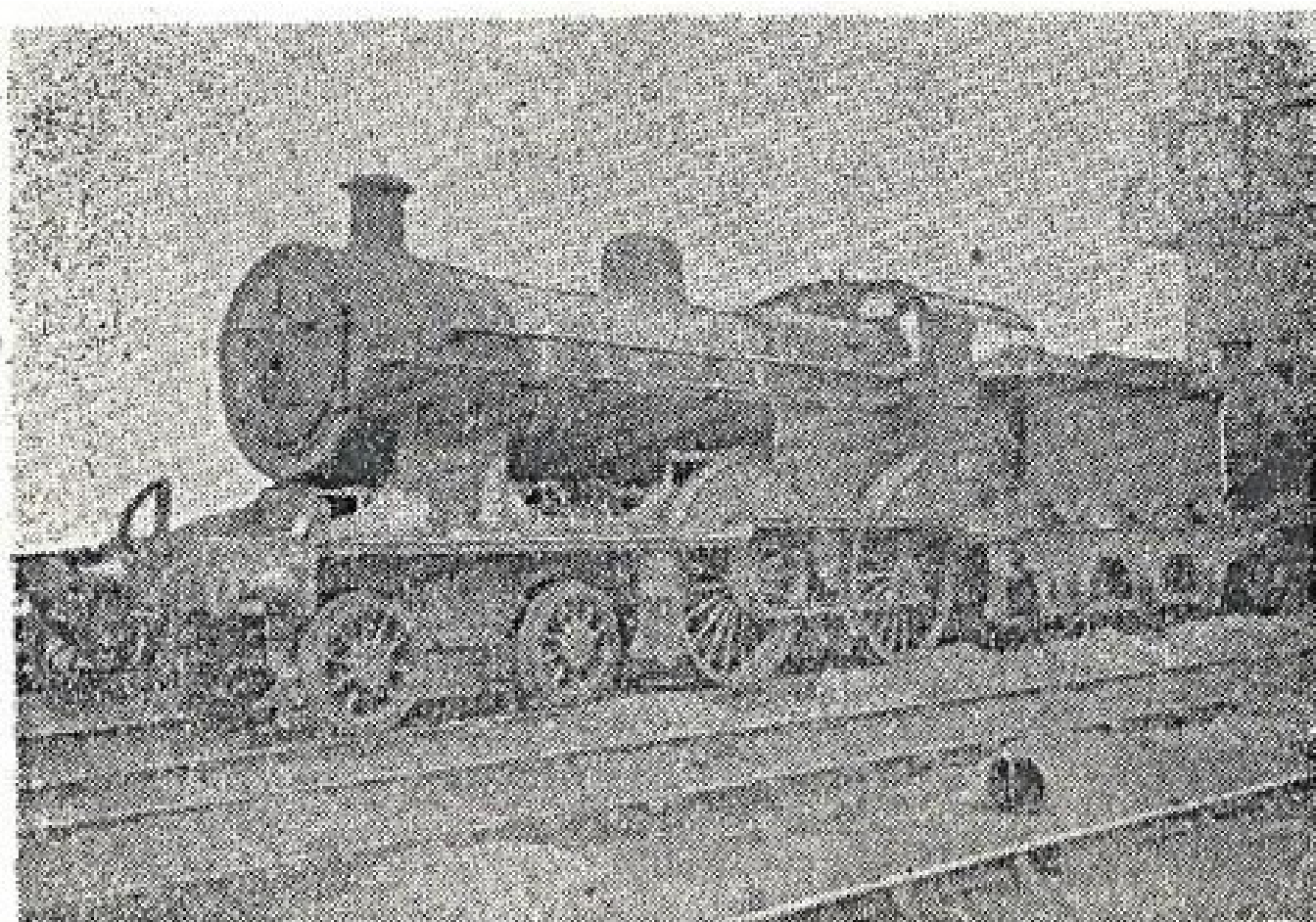


L.M.S.-N.C.C. Class W 2-6-0 No.100 "Queen Elizabeth" at Belfast

The main line of the L.M.S.-N.C.C. leaves York Road Station, Belfast, and runs in a north-easterly direction along the northern shore of Belfast Lough to Bleach Green Junction (4½ miles) where the Larne line diverges and the main line is carried over Valentine's Glen by the famous Greenisland Viaducts. The Viaducts were completed in 1934 at a cost of £200,000 and incorporate a flying junction by means of which the main line passes over the down Larne line. The main arches have a span of 89 feet each, and the main line is 70 feet and the Larne line 40 feet above ground level. Previous to the construction of the Viaducts it was necessary for all main line trains to be reversed at Greenisland, and the opening of the new loop line effected a considerable saving of time. The Greenisland-Monkstown line is still used for goods traffic and Larne-Londonderry boat trains.

With a rise of 1 in 75 the section over the Viaducts the loop line is the most heavily graded portion of the main line, which continues to Antrim (where connection is made with the G.N.R.). Northwards from Antrim the next important station is Ballymena, where are situated the extensive carriage and wagon workshops. Up to this point the track is double, controlled between

Belfast and Monkstown by two aspect colour light signals and between Monkstown and Ballymena by Tyer's block instruments, beyond Ballymena the line is single controlled by Tyer's tablet instruments - all main line engines and tablet stations are fitted with apparatus for exchanging tablets at speed. The main line continues north-west to Ballymoney and Coleraine. It is of interest to note that the portion between Macfin and Coleraine while single line is track circuited, track occupation being indicated in Coleraine cabin. From Coleraine the line runs close to the sea and under the Downhill tunnels to Londonderry - $92\frac{3}{4}$ miles from Belfast.



L.M.S.-N.C.C. Class U2 4.4-0 No. 86

As already mentioned, the Larne line diverges at Bleach Green Junction, running via Carrickfergus and Whitehead. The distance is $24\frac{1}{4}$ miles, and between Whitehead and Larne Harbour is single track controlled by Tyer's tablet instruments. Connection is made with the Larne-Stranraer daily cross-Channel steamers. The Cookstown branch leaves the main line at Cookstown Junction and runs via Magherafelt. The G.N.R. line is joined at Cookstown. The Derry Central line diverges at Magherafelt and runs via Kilrea to join the main line at Macfin. Both the Cookstown and Derry Central lines are single and controlled

by Tyer's tablet instruments. The short branch serving the important holiday resorts of Portstewart and Portrush leaves the main line at Coleraine. When traffic is heavy during the summer months the Derry Central is used as a "relief" line for Portrush trains.

The smaller branch lines and method of working can be briefly described as follows:

Ballymoney-Ballycastle, narrow (3 ft.) gauge. Train staff and ticket system. The rise from Ballycastle is very severe - 1 in 47.

Limavady Junction-Limavady-Dungiven. Between Junction and Limavady Tyer's tablet instruments and between Limavady and Dungiven train staff and ticket - the latter section is open for goods traffic only.

Londonderry-Strabane, narrow gauge. Electric train staff operated for the N.C.C. by the County Donegal Railways Joint Committee.

Kingsbog Junction-Ballyclare, goods only. Tyer's tablet instruments.

Magherafelt-Draperstown, goods only, one engine in steam principle.

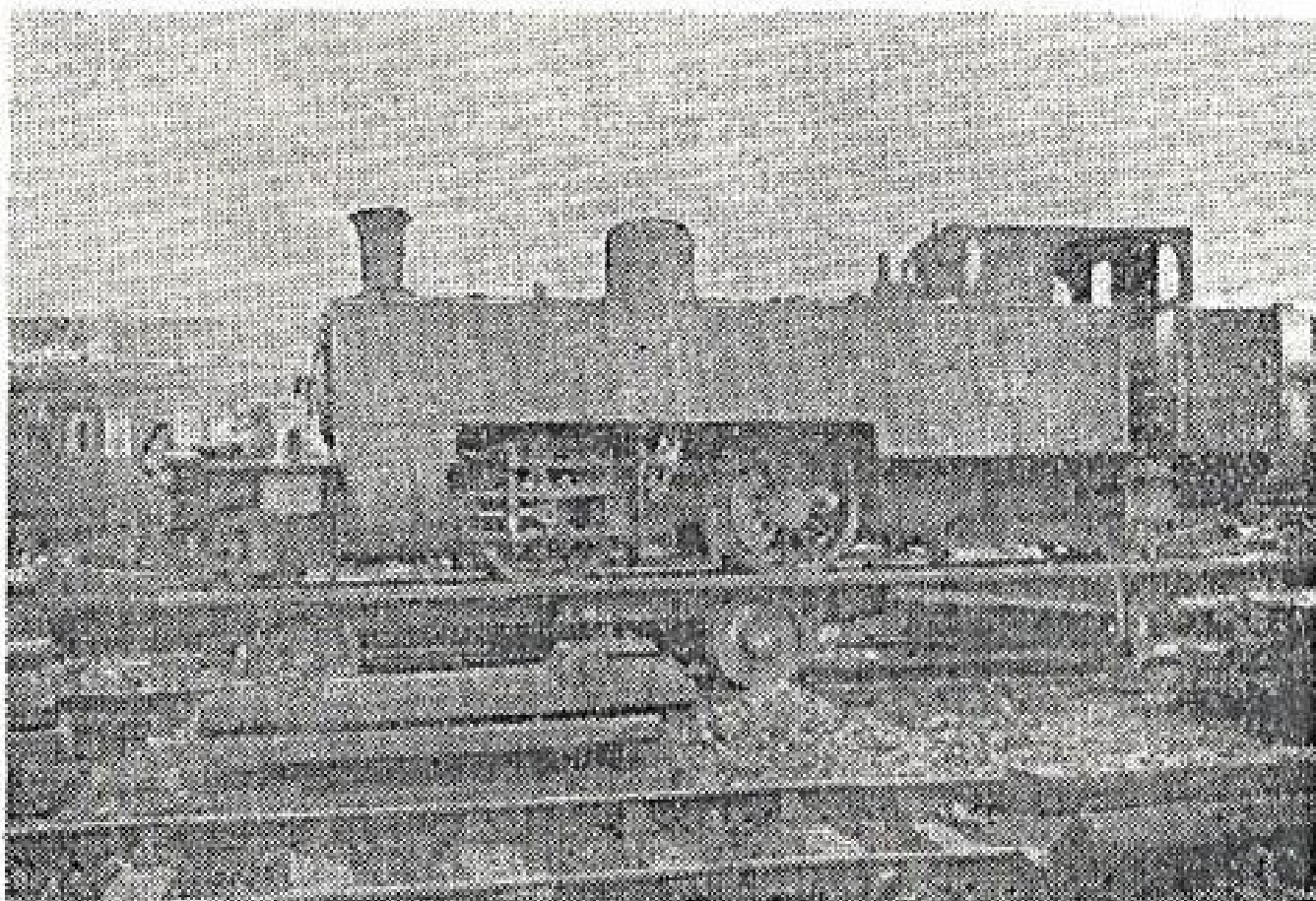
Larne Harbour-Ballyclare, narrow gauge, goods only, one engine in steam principle. It is interesting to note that this section includes the stiffest gradient of the system - 1 in 36 between Larne and Kilwaughter.

Locomotive Stock

To operate its services the L.M.S.-N.C.C. have a stock of 65 locomotives - including four narrow (3 ft.) gauge. Pre-war N.C.C. engines were painted the standard L.M.S. maroon, they still, however, retain, the war-time black, an exception is the new class WT painted in the new L.M.S. colours, black with straw lining. It is interesting to note that the fluting of the motion is now being painted red on N.C.C. engines - creating a rather good effect.

The principal type of N.C.C. engines are the class W 2-6-0 "Moguls" (Nos. 90-104). Since their introduction in 1933, these engines have done very good work on practically all sections of the N.C.C. system. The later engines of this class (Nos. 99-104) are fitted with a larger high-sided tender with coal and water capacity of 7 tons and 3,500 gallons respectively. These engines have a fire grate area of 25 sq. feet and total heating surface of 1,437 sq. feet. The latest type of N.C.C. engine, class WT (2-6-4T Nos. 1-10), are similar in many respects to the 2-6-0 "Moguls", and in fact are really a tank version of the class W. Since their introduction in 1946 they have proved very satisfactory in service and the Larne

line is now almost entirely worked by engines of this type. Their design is based on the Fowler L.M.S. parallel boiler 2-6-4 tanks, they have a grate area of 25 sq. feet, total heating surface of 1416.75 sq. feet, and incorporate some of the latest L.M.S. features including self-cleaning smokebox, rocking firegrate and self-emptying ashpan. They have a water capacity of 2,500 gallons and hold 3½ tons of coal.



L.M.S.-N.C.C. Narrow Gauge Class S1 No.42 on Broad Gauge Transporter Truck

The most numerous type of N.C.C. locomotive is the 4-4-0 class U2 (Nos. 70-87) mostly named after castles in the Province and capable of working over any section of the system. The remainder of the N.C.C. engine stock consists of a number of lighter types of 4-4-0s, etc, and some steam and diesel shunters. The introduction of the class WT has meant the disappearance of a number of interesting old engines (including No.50 “Jubilee” and No.55 “Parkmount”, both with 7 ft. 0 ins. coupled wheels and the latter a compound). No.28 is an interesting example of diesel electric traction. Used frequently for local passenger services, it is provided with a heating van equipped with an entirely automatic oil-fired boiler for heating purposes.

So far two engines have been converted to oil burning - Class W, Nos. 100 and 101.

Rolling Stock

Passenger rolling stock is painted maroon and consists entirely of bogie vehicles giving a high standard of comfort; the most numerous type of coach in service has nine third class compartments with accommodation for 108 passengers. A number of ex Belfast and Northern Counties Railway coaches are still in use. The following is a list of the vehicles in service: Passenger coaches - broad gauge 179, narrow gauge 6; other coaching vehicles, broad gauge 52. Goods stock number 2,118 broad gauge and 169 narrow gauge vehicles.

L.M.S.—N.C.C. Locomotive Stock								
Class	Type	Date of Introduction	Weight of Engine and Tender tons	Weight of Tender cwts.	Boiler Pressure lbs.	Cylinders Diameter and Stroke	Driving Wheels	Tractive Effort lbs.
A1	4-4-0	1901	75	4	160	18" x 24"	6' 0"	14,688
N	0-4-0ST	1914	31	1	130	16" x 22"	4' 0 $\frac{1}{2}$ "	12,707
S*	2-4-2T	1892	31	17	160	14 $\frac{3}{4}$ " & 21" x 20"	3' 9"	13,150
S1*	2-4-2T	1908	33	0	160	14 $\frac{3}{4}$ " & 21" x 20"	3' 9"	13,150
U1	4-4-0	1924	82	16	170	18" x 24"	6' 0"	15,696
U2	4-4-0	1914	84	9	170	19" x 24"	6' 0"	17,388
V	0-6-0	1923	76	12	170	19" x 24"	5' 2 $\frac{1}{2}$ "	20,031
W	2-6-0	1933	110	6	200	19" x 26"	6' 0"	22,160
WT	2-6-4T	1946	87	0	200	19" x 26"	6' 0"	22,160
X	0-6-0	1936	49	0	330 b.h.p.	Diesel	4' 0 $\frac{1}{2}$ "	24,000
Y	0-6-0T	Built 1928 Ex L.M.S.	49	10	160	18" x 26"	4' 7"	20,830
No. 22	0-6-0	Built 1934 Ex H. & W.	27	3	225 b.h.p.	Diesel	3' 2"	15,000
No. 28	2-2+2-2	Built 1937 Ex B.C.D.R.	48	18	500 b.h.p.	Diesel	3' 7"	10,000

* Narrow Gauge.

L.M.S.—N.C.C. Number and Class List

No.	Class	No.	Class	No.	Class
1	WT	41	S1	83	U2:
2	WT	42	S1	84	U2:
3	WT	43	S	85	U2:
4	WT	58	A1	86	U2:
4a	U1	62	A1	87	U2:
5	WT	64	A1	90	W:
6	WT	65	A1	91	W:
7	WT	66	A1	92	W:
8	WT	69	A1	93	W:
9	WT	70	U2	94	W:
10	WT	71	U2	95	W:
13	V	72	U2	96	W:
14	V	73	U2	97	W:
15	V	74	U2	98	W:
16	N	75	U2	99	W:
17	X	76	U2	100	W:
18	Y	77	U2	101	W:
19	Y	78	U2	102	W:
22	—	79	U2	103	W:
28	—	80	U2	104	W:
33	A1	81	U2	111	S:
34	A1	82	U2		

Named Engines of the L.M.S.-N.C.C.

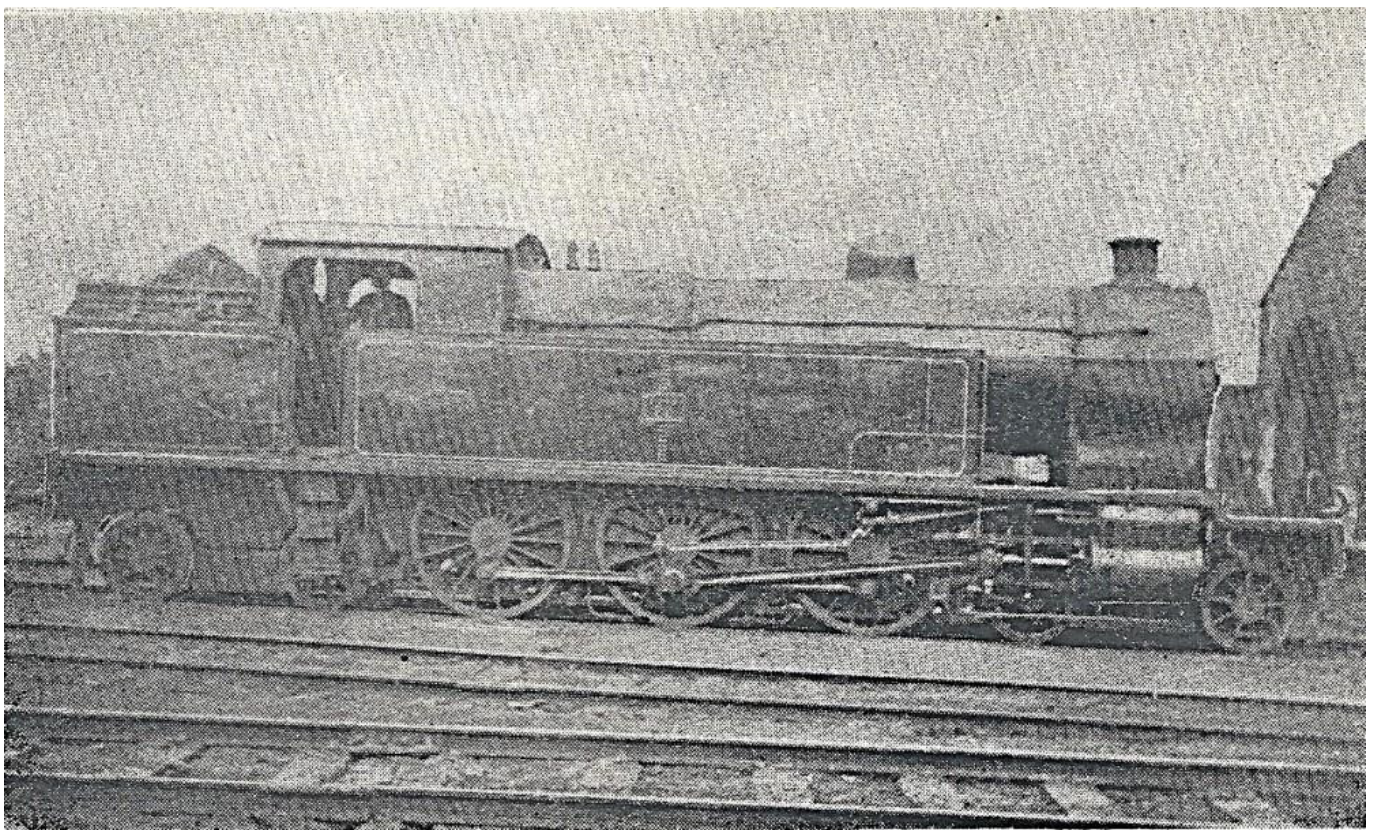
No. 4a—Glenariff.	No. 82—Dunananie Castle
„ 33—Binevenagh.	„ 83—Carra Castle
„ 34—Knocklayd	„ 84—Lissanoure Castle
„ 62—Slemish	„ 87—Queen Alexandra
„ 64—Trostan	„ 90—Duke of Abercorn
„ 65—Knockagh	„ 91—The Bush
„ 66—Ben Madigan	„ 92—The Bann
„ 69—Slieve Bane	„ 93—The Foyle
„ 71—Glenarm Castle	„ 94—The Maine
„ 74—Dunluce Castle	„ 95—The Braid
„ 75—Antrim Castle	„ 96—The Silver Jubilee
„ 76—Olderfleet Castle	„ 97—Earl of Ulster
„ 78—Chichester Castle.	„ 98—King Edward VIII
„ 79—Kenbaan Castle	„ 99—King George VI
„ 80—Dunseverick Castle	„ 100—Queen Elizabeth
„ 81—Carrickfergus Castle	„ 103—Thomas Somerset

N.C.C. Railcars

No.	Seating Capacity (total)	Leyland Engine	Weight (tons)
1	61	Two Diesel=260 h.p.	30½
2	80	„ „ =260 h.p.	21½
3	72	„ „ =260 h.p.	26
4	72	„ „ =260 h.p.	28¾

BELFAST AND COUNTY DOWN RAILWAY

The Act of Parliament incorporating the Belfast and County Down Railway was passed on 26th June, 1846, and authorised the construction of a railway from Belfast to Downpatrick, with branches to Holywood, Newtownards and Donaghadee. The first portion of the line, from Belfast to Holywood, was opened on 2nd August, 1848, and the line from Belfast to Comber and Newtownards on 6th May, 1850. A subsequent Act of 25th May, 1855, again authorised the construction of railways from the Newtownards branch to Bangor and Donaghadee and to continue the main line from Comber to Downpatrick with a branch line to Ballynahinch. The portion from Comber to Ballynahinch was opened on 10th September, 1858; the extensions to Downpatrick on the 23rd March, 1859, and from Newtownards to Donaghadee on 3rd June, 1861. The proposed line from Newtownards to Bangor was abandoned under an Act of Parliament dated 25th May, 1860.



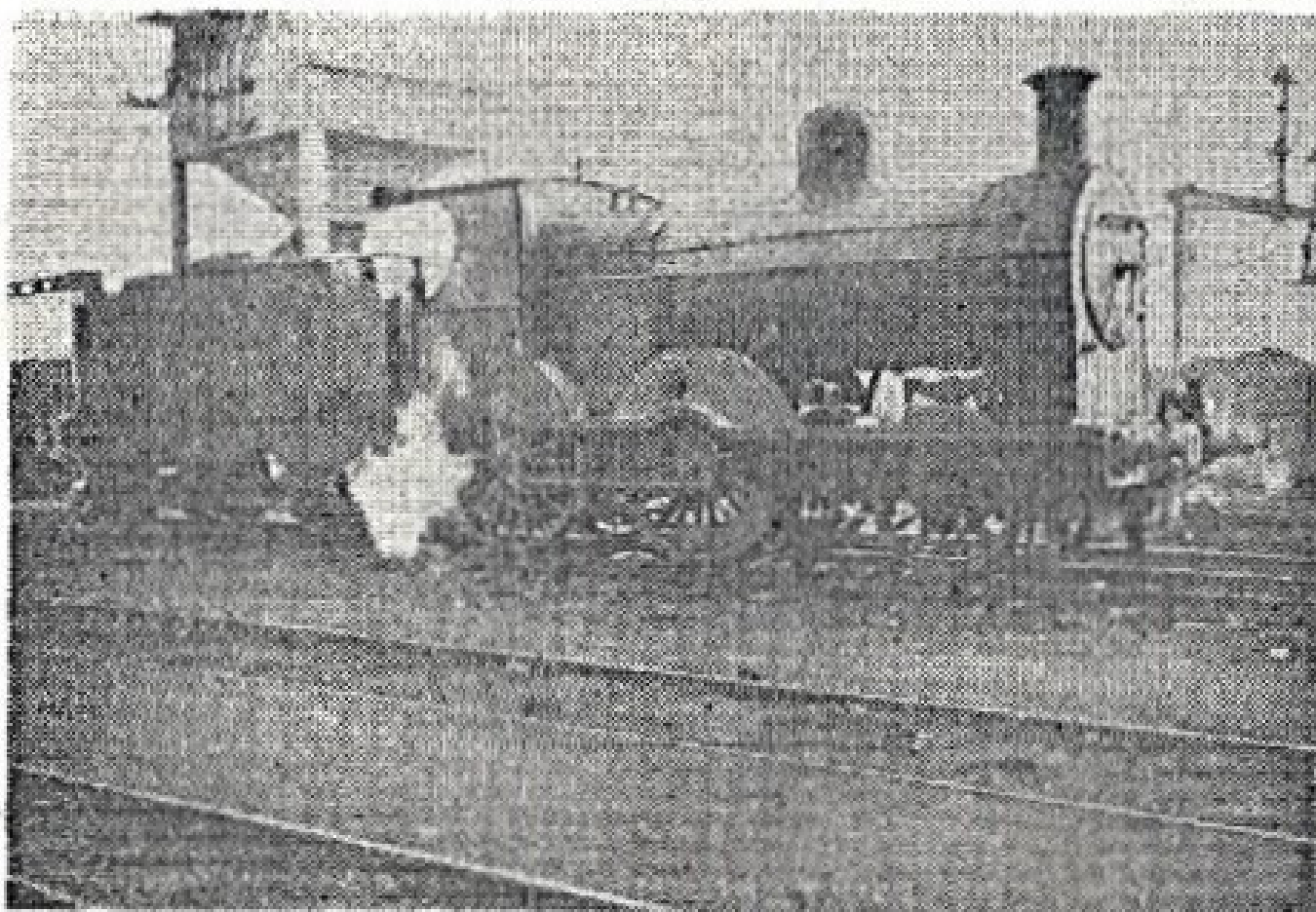
B.C.D.R. 4-6-4T, No. 25

Cylinders 19 ins. x 26 ins.; Coupled Wheels 5 ft. 6 ins. diameter; Boiler Pressure 170 lbs. per sq. in.; Grate Area 24.6 sq. ft.; Total Heating Surface 1621.5 sq. ft.; Water Capacity 2,000 galls.; Coal 4 tons; Weight 81 tons 12 cwt.; Tractive Effort 19,340 lbs.

The Belfast, Holywood and Bangor Railway Company, which was incorporated by an Act of Parliament dated 25th May, 1860, constructed the

line from Holywood to Bangor, which was opened on 1st May, 1865, and in the same year they purchased the line from Belfast to Holywood from the B.&C.D.R. Under an Act of 14th July, 1884, the Belfast, Holywood and Bangor Railway was itself transferred to the Belfast and County Down Railway.

The line from Downpatrick to Newcastle was opened on 25th March, 1869. This line was originally owned by a separate Company, the Downpatrick, Dundrum and Newcastle Railway, and was worked by the Belfast and County Down Railway. It was transferred to the latter Company under an Act of 22nd August, 1881, the consideration being the payment of £12,000 in cash and the issue of £38,000 of Debentures to the Newcastle Company.



B.C.D.R. 2-4.0 No.6

Of the remaining lines, the branch from Downpatrick to Ardglass and the loop line at Downpatrick were opened on 8th July, 1892, and the branch from Newcastle to Castlewella on 24th March, 1906.

On the 25th and 27th July, 1903, Their Majesties King Edward VII and Queen Alexandra travelled between Bangor, Belfast and Newtownards by Royal train; the stations were lavishly decorated for the occasion. The train consisted of the

Royal Saloon together with two further saloons, two coaches and a brake van, drawn by engine No.6 (Driver J. Hulse).

The B. & C.D.R. operated a steamboat service between Belfast and Bangor with Lough cruises to Larne and Donaghadee; it was inaugurated in May, 1893, and ceased in 1915.

The Belfast and County Down Railway operates 80 miles of track, comprising main line Belfast-Newcastle and five branch lines. As the Company serves several popular Co. Down seaside resorts a considerable proportion of the revenue is from holiday traffic, although there is also a large proportion of season ticket travellers.

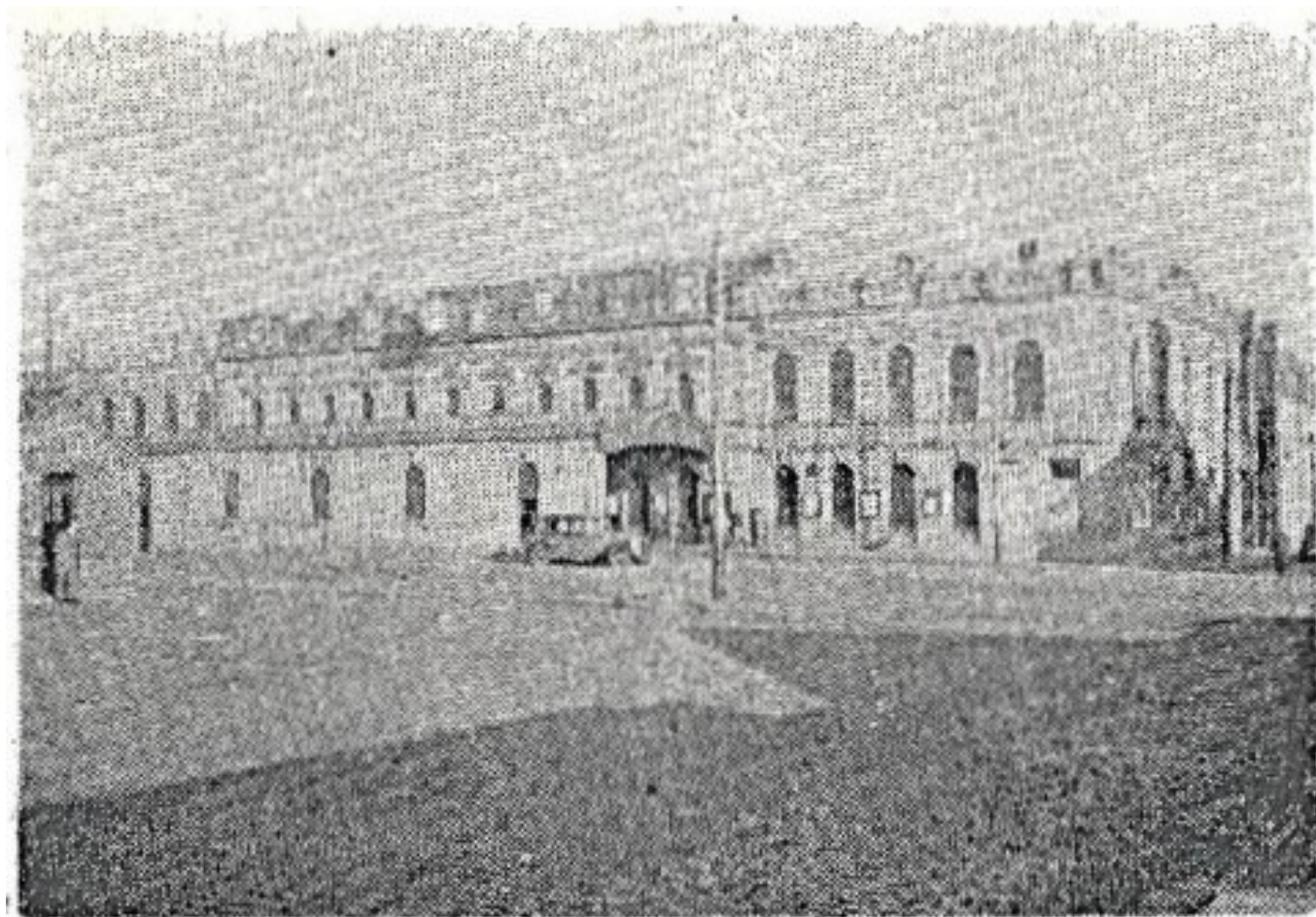
This Company, in common with others, saw a tremendous increase in all types of traffic during war-time as will be plainly seen from the following figures:

YEAR	PASSENGERS (excluding season ticket holders)	FREIGHT (tons)
1938	2,947,699	80,411
1944	7,240,190	217,262
1946	4,619,380	114,875

As previously mentioned, there is a considerable amount of holiday traffic on the B.&C.D. system, and consequently services are augmented during the summer months, when there is a fast and frequent service of trains on the Bangor branch - a number being timed to do the 12¼ miles in 22 minutes. On the main line during summer, 1947, the 2.30 p.m. train (Saturdays only) was timed to do the journey between Belfast and Newcastle (38 miles) in 65 minutes with one stop, and the 5.40 p.m. was allowed 32 minutes between Belfast and Crossgar (21 miles). On the up line the fastest timing was the 6.50 p.m. (Saturdays only) from Newcastle to Belfast in 69 minutes including five stops.

An unfortunate accident occurred on the Bangor branch between Victoria Park and Ballymacarrett Halts on 10th January, 1945, in which 22 persons lost their lives and a number were injured when a Bangor-Belfast train consisting of 13 six-wheeled coaches hauled by a 4-6-4T locomotive was run into from behind by a steam rail-motor. The accident occurred during darkness and fog. It is remarkable that this was the first fatal accident involving passengers on this system since the year 1871.

The main locomotive carriage and wagon workshops and engine sheds of the Company are situated at Belfast. The workshops are situated on one side of the main line, parallel with it, and the engine sheds (with 4 roads and a turntable) on the other.



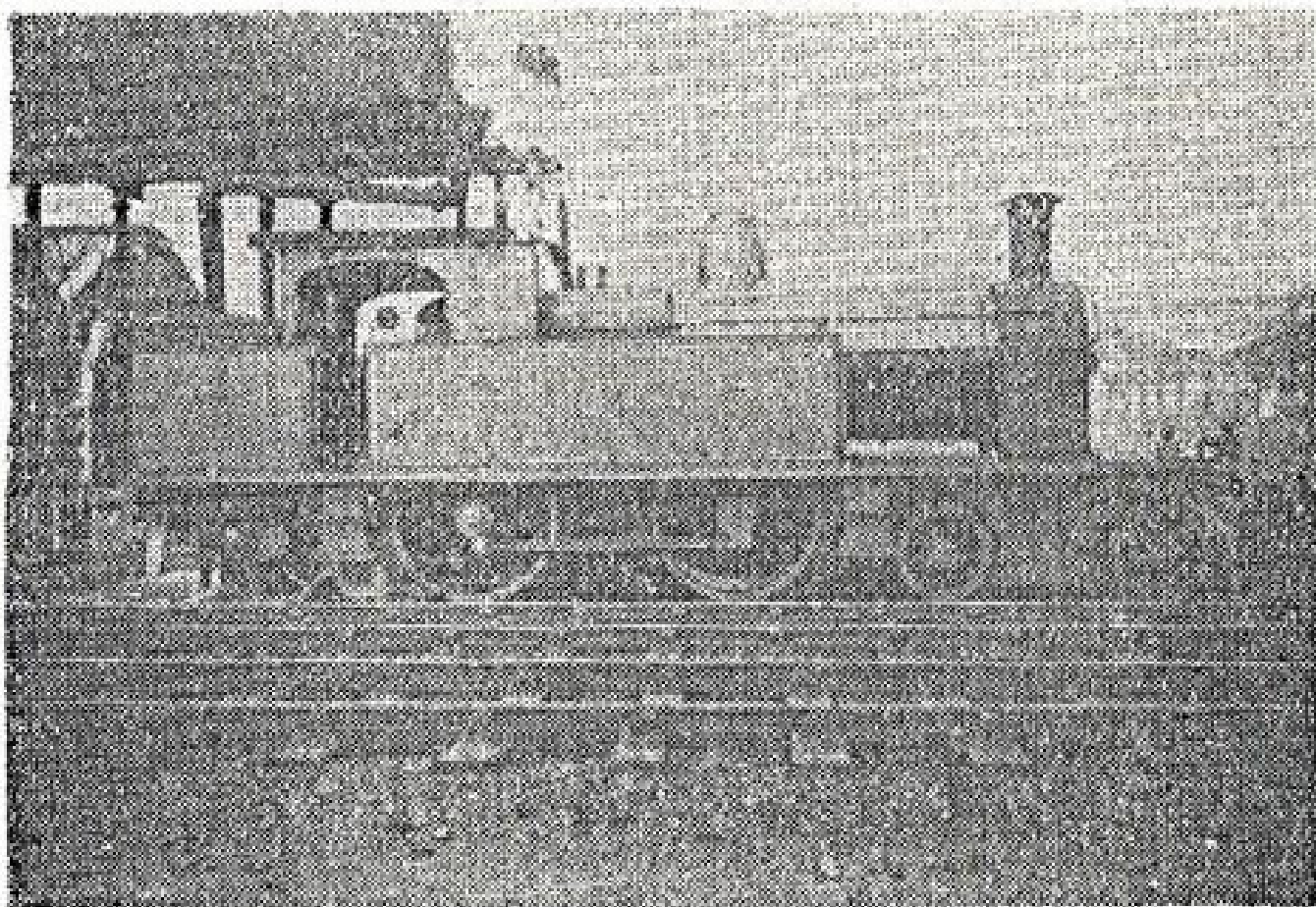
Queen's Quay Station, B. & C.D.R., Belfast

The present Queen's Quay station, rebuilt in 1910-1914 at an approximate cost of £26,000, is spacious and well designed. There are five platforms with a middle line between each pair. A new coaling plant has recently been completed in Belfast yard, previously coaling was carried out by means of a steam crane.

The main line of the B C.D.R. runs from Belfast to Newcastle, a distance of 38 miles; there are no particularly severe gradients. Immediately outside Belfast the line starts to rise at 1 in 124 and continues south-east to the important rail junction of Comber (8 miles from Belfast). It is at this point that the Donaghadee line diverges. Between Belfast and Comber the track is double and is worked under Tyer's absolute block instruments; beyond this it is single controlled by Tyer's tablet instruments. All stations between Comber and Newcastle, with the exception of Tullymurry (which is not a tablet station), are provided with tablet exchanging apparatus thus enabling trains to be run non-stop between Belfast

and Newcastle. Most stations beyond Comber are also provided with passing loops. The largest stations are Ballynahinch Junction where, as the name suggests, the Ballynahinch branch leaves the main line, and Downpatrick where the Ardglass branch diverges. Main line trains either run into Downpatrick station, where the engine has to be run round the train before leaving, or travel via the loop line, in which case (if the train is stopping) connection is made with Downpatrick by the branch train.

The Quoile Bridge, which carries the line over the River Quoile just before Downpatrick, is the only engineering feature of any size. At Newcastle (where the Company own a large hotel adjacent to the station) connection is made with the Great Northern system by the Castlewellan branch, the line between Newcastle and Castlewellan is joint thus enabling the G.N.R.(I.) to afford connection via Banbridge.



B.C.D.R. 4-4-2T No.17

Turning to branch lines, we find that the B.&C.D.R. system has five - Bangor, Donaghadee, Ballynahinch, Ardglass, Castlewellan. The Bangor branch is 12¼ miles in length, and serving as it does the heavily populated shore of Belfast Lough and the towns of Holywood and Bangor - the latter termed the “Brighton”

of Northern Ireland, population 20,000 - traffic is heavier than on any other section of the system. As an example of this, during the July holiday week, 1947, 79,059 people (equivalent to 158,118 journeys) travelled between Belfast and Bangor. The branch, double track, is continuously track circuited and controlled by automatic signals, mainly of the two-position banner type. The gradient leaving Holywood on the down line is 1 in 81 (hardening to 1 in 73) and is a severe task for, say, a 14 (six-wheeled) carriage train starting from that station.

The longest branch, to Donaghadee (14 miles), is single line, operated between Comber and Newtownards under Tyler's tablet instruments and between Newtownards and Donaghadee under Wise's train staff. Traffic over this line during the summer months is quite heavy.

The Ballynahinch branch is of short length (3½ miles) single track and controlled by Wise's patent train staff (this is a development of the train staff and ticket system in which metal tickets, which are locked in the staff, are used instead of paper tickets). The branch is usually operated by diesel locomotive No.2, the maximum load for which is 4 six-wheeled passenger coaches.

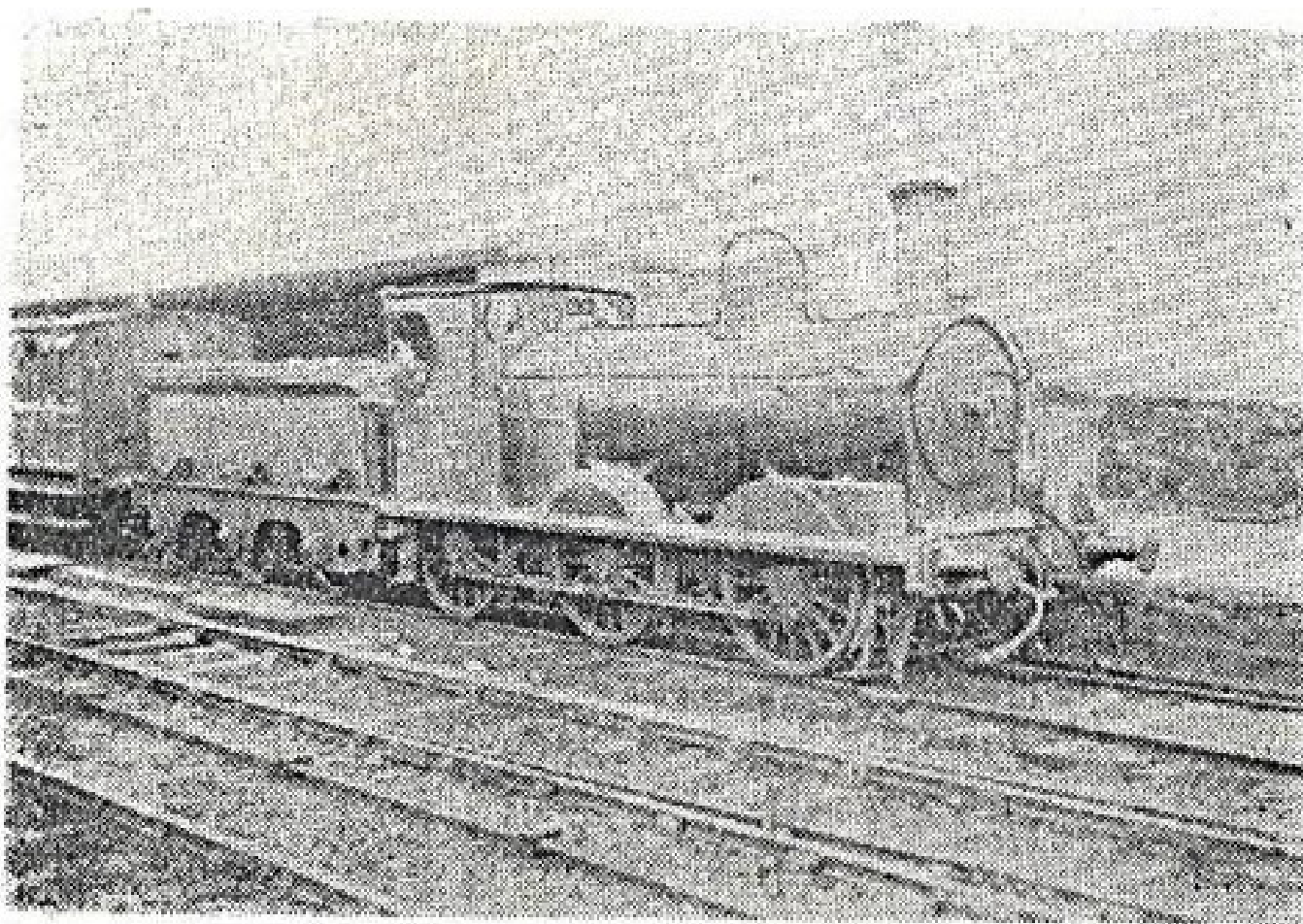
The Ardglass branch is notorious for having the stiffest gradient on the B.C.D.R. system - 1 in 50. This line, controlled by Wise's train staff, is usually worked by engines of the 2-4-2T type.

As already mentioned, the Newcastle-Castlewellan branch is jointly operated with the Great Northern Railway.

Locomotives and Rolling Stock

The locomotives of this Company look very smart in their dark green livery lined out in red and white; they number 29-28 steam and 1 diesel electric. As would be expected from the size of the system, tank engines easily outnumber the tender type. From the attached list it will be seen that the most numerous type of locomotive employed by this Company is of the 4-4-2T type, divided into two classes: (1) Nos. 1, 3, 11-13, 15, 17-21, 30, and (2) Nos. 8, 9 and 16. The former are to be found at work on all parts of the system; the latter, a heavier version, are used mainly for the heavy Bangor traffic but can work over all sections of the line with the exception of the Ballynahinch and Ardglass branches. Nos. 22-25 are unique in being the only 14-wheeled broad gauge tank locomotives in Ireland, and probably in the British Isles. Their working is confined to the Bangor branch where the high tractive effort is needed in tackling the heavy trains and severe gradients typical of this line. Further dimensions of these

engines are: coal capacity, 4 tons ; water capacity, 2,000 gallons ; fire-grate area, 24.6 sq. ft.; total heating surface, 1621.5 sq. ft. Outside Walschaerts valve gear is fitted, all other B.C.D.R. locomotives having Stephenson gear.



B.C.D.R. 0-6-0 No.26

Passenger rolling stock number 181 carriages and 25 other coaching vehicles. They are of the non-corridor type, mainly gas-lighted. The majority are six-wheeled with either six third, six second, or four first class compartments, and weighing on an average 14 tons. In bogie stock Nos. 120 and 121 represent a modern type of coach, with electric lighting, first, second and third class compartments and weighing 29 tons. They were built in 1937. Nos. 175-178 are ex Belfast and Northern Counties Railway coaches (as the axle boxes still indicate) and were purchased from the N.C.C.; they have 8 third class compartments or 2 first and 5 second. Other bogie stock has 4 first and 3 second compartments or 8 third and brake. As second and third compartments seat 5 to a side, it will be seen that the standard six-wheeler seats 60 passengers and the bogie type 80.

Goods stock consists mainly of 4-wheel covered vans and wagons although there are a number of six-wheeled fish vans in service. The total number of wagons is 629 and there are 54 service vehicles.

Belfast and County Down Railway—Locomotive Stock

No.	Type.	Built by.	Date.	Weight.			Driving Wheels.	Cylinders.	Boiler Pressure.	Tractive Effort lbs.
				T.	C.	Q.				
1	4-4-2T	Beyer Peacock	1909	56	15	0	5 ft. 6 ins.	17 ins. x 24 ins.	160	14,292
2	2-4-0	Harland & Wolff	1933	33	4	0	270	h.p. Diesel Electric		8,096
3	4-4-2T	Beyer Peacock	1901	56	15	0	5 ft. 6 ins.	17 ins. x 24 ins.	160	14,292
4	0-6-0	" "	1921	70	16	2	5 ft. 0 ins.	18 ins. x 26 ins.	160	19,094
5	2-4-2T	" "	1896	48	13	3	5 ft. 6 ins.	16 ins. x 24 ins.	160	12,660
6	2-4-0	" "	1894	60	13	0	6 ft. 0 ins.	17 ins. x 24 ins.	160	13,101
7	2-4-2T	" "	1896	48	13	3	5 ft. 6 ins.	16 ins. x 24 ins.	160	12,660
8	4-4-2T	" "	1924	66	0	0	5 ft. 6 ins.	18 ins. x 26 ins.	170	18,443
9	4-4-2T	" "	1944	66	0	0	5 ft. 6 ins.	18 ins. x 26 ins.	170	18,443
10	0-6-0	" "	1914	70	16	2	5 ft. 0 ins.	18 ins. x 26 ins.	160	19,094
11	4-4-2T	" "	1904	56	15	0	5 ft. 6 ins.	17 ins. x 24 ins.	160	14,292
12	4-4-2T	" "	1904	56	15	0	5 ft. 6 ins.	17 ins. x 24 ins.	160	14,292
13	4-4-2T	" "	1921	56	15	0	5 ft. 6 ins.	17 ins. x 24 ins.	160	14,292
14	0-6-0	" "	1904	65	18	1	5 ft. 0 ins.	18 ins. x 26 ins.	160	17,971
15	4-4-2T	" "	1901	56	15	0	5 ft. 6 ins.	17 ins. x 24 ins.	160	14,292
16	4-4-2T	" "	1924	66	0	0	5 ft. 6 ins.	18 ins. x 26 ins.	170	18,443
17	4-4-2T	" "	1909	56	15	0	5 ft. 6 ins.	17 ins. x 24 ins.	160	14,292
18	4-4-2T	" "	1921	56	15	0	5 ft. 6 ins.	17 ins. x 24 ins.	160	14,292
19	4-4-2T	" "	1921	56	15	0	5 ft. 6 ins.	17 ins. x 24 ins.	160	14,292
20	4-4-2T	" "	1909	56	15	0	5 ft. 6 ins.	17 ins. x 24 ins.	160	14,292
21	4-4-2T	" "	1921	56	15	0	5 ft. 6 ins.	17 ins. x 24 ins.	160	14,292
22	4-6-4T	" "	1920	81	12	0	5 ft. 6 ins.	19 ins. x 26 ins.	170	19,340
23	4-6-4T	" "	1920	81	12	0	5 ft. 6 ins.	19 ins. x 26 ins.	170	19,340
24	4-6-4T	" "	1920	81	12	0	5 ft. 6 ins.	19 ins. x 26 ins.	170	19,340
25	4-6-4T	" "	1920	81	12	0	5 ft. 6 ins.	19 ins. x 26 ins.	170	19,340
26	0-6-0	" "	1892	58	18	0	5 ft. 0 ins.	17 ins. x 24 ins.	160	15,721
27	2-4-2T	" "	1897	48	13	3	5 ft. 6 ins.	16 ins. x 24 ins.	160	12,660
29	0-6-4T	" "	1923	55	10	0	4 ft. 0 ins.	17 ins. x 24 ins.	160	19,584
30	4-4-2T	" "	1901	56	15	0	5 ft. 6 ins.	17 ins. x 24 ins.	160	14,292

Facts about Northern Ireland Railways

Northern Ireland Railways:

1. Operate 291 steam locomotives, 4 diesel locomotives, 14 railcars, 963 passenger and 8,607 goods vehicles.
 2. Have a route mileage of 862.
 3. Use flat-bottom rails extensively.
 4. Have three classes - first, second and third.
 5. Had receipts of *£1,187,000.
 6. Passenger journeys numbered *13,822,000.
 7. Passenger miles numbered *276,000,000.
 8. Employed a staff of *5,194.
 9. Had one fatal accident to a passenger during the past four years, in which passengers travelled more than *one thousand million miles.
 10. Carried over *1,100,000 mail bags and parcel post receptacles in a year.
- * These figures are in respect of the year 1938, and refer, in the case of the Great Northern Railway, to the portion of that system in Northern Ireland. They are quoted from the booklet "What the Railways mean to Northern Ireland", published by the Railway Companies in 1939.