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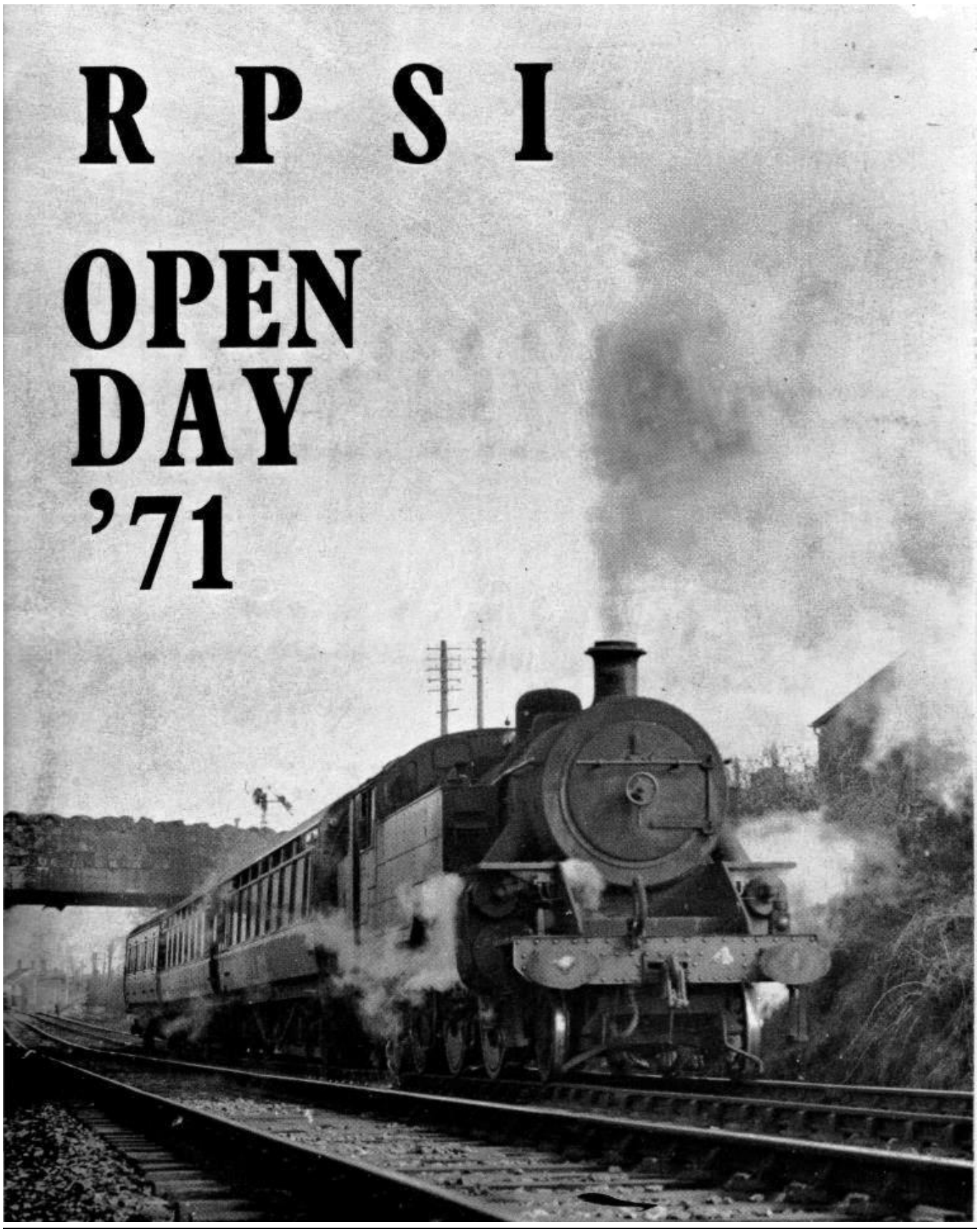
OPEN DAY '71



RAILWAY PRESERVATION SOCIETY OF IRELAND

SOUVENIR BROCHURE OF OPEN DAY 1971

3rd July 1971

CONTENTS:

Front Cover: Ex LMS (NCC) WT class 2-6-4T No.4 leaving Clipperstown Halt with the three coach 14:35 Carrickfergus to Belfast (York Road) on Easter Tuesday 1970, the last day of steam-hauled service trains in the British Isles. The two coaches nearest the engine are survivors of stock built for the North Atlantic Express. (Charles P. Friel)

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From J.H. McGuigan, Society Chairman

When the possibility of starting a railway preservation society here was first mooted seven years ago, those present were painfully aware that our field for fund raising was restricted to a population of 1½ million compared to the much larger potential in Great Britain and elsewhere and it was only due to generous financial help from a few members, and the co-operation both financial and otherwise from the Irish railway companies and a few firms that a society got off the ground. Since then public interest has grown, largely through publicity and the running of a series of well-organised tours. Most of the participants do not appreciate the terrific amount of work involved in organising a tour; the endless correspondence, negotiation and planning as well as the hours of physical and dirty toil at Whitehead shed by the Society's "Black Squad" in overhauling and pointing engines.

This is your opportunity to show your appreciation of these efforts by making a generous donation to our funds. In any case, I hope you have an enjoyable day and tell your friends of our activities.

From John A. Lockett, Society Site Officer

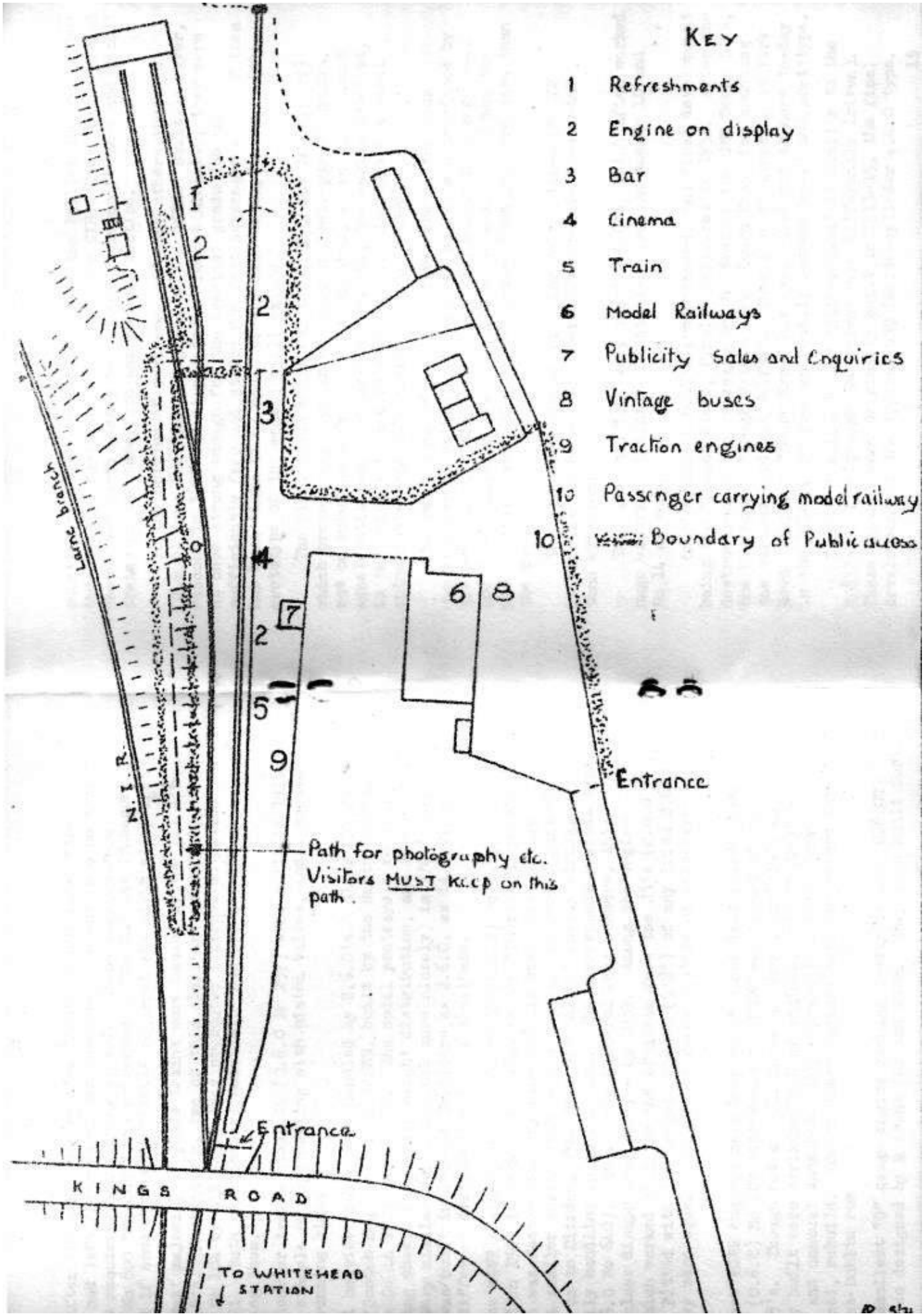
You are very welcome to Open Day 1971. This is our third Open Day and we are hoping that today's will be the best yet. We hope, too, that you will find many new and interesting items; some of our attractions have been changed while a few new ones have been added.

This year, our Open Day has received much backing from our friends in Arthur Guinness, Son and Company and I would like to record here our indebtedness to them.

I would like to remind you that our trains and the traction engines on display could be dangerous if not treated with caution and I would ask you to obey our Marshal's instructions; that way everyone can enjoy their day.

Open Day is our chance to show you what the Society does and how it does it - in the hope that you will want to join in our activities, perhaps you will want to come on a tour or support our aims in some other way. In any case, enquire at the marquee on the platform.

I hope you have a very enjoyable afternoon.


KEY
1 Refreshments
2 Engine on display
3 Bar
4 Cinema
5 Train
6 Model Railways
7 Publicity Sales and Enquiries
8 Vintage buses
9 Traction engines
10 Passenger carrying model railway
10 Boundary of Public access
Lame branch
N.I.R.
Entrance
Path for photography etc.
Visitors MUST keep on this path.
Entrance
KINGS ROAD
TO WHITEHEAD STATION

RAILWAYS AT WHITEHEAD

The history of railways about Whitehead really began when the Carrickfergus and Larne Railway was opened in October 1862, although there had been a railway there for some time before then.

The town of Whitehead is situated between the headlands of Black Head and White Head; the latter being a limestone outcrop near the present railway tunnel. All this limestone has, however, been quarried out leaving the darker rock exposed. The limestone was transported to White Harbour by a light railway which consisted of four sidings at the quarry with two lines running to the Harbour. When the Carrickfergus and Larne Railway was built, it was carried over the quarry lines on four low arches which are still to be seen at the Whitehead end of the tunnel.

When the Carrickfergus and Larne was opened, there was no station at Whitehead, although a halt platform with an old railway carriage body on it was later provided on the Kilroot side of the tunnel to serve the quarry and a brickworks there.

At first there were only four trains each way on weekdays and two each way on Sundays. The weekday trains were one passenger, two "mixed" (i.e. conveying both passengers and goods) and a boat express. The engines and rolling stock were provided by the Belfast and Ballymena Railway who owned the line between Belfast and Carrick.

Whitehead got its station on 1st June 1877 when a new station was opened on the site of the present one. It had a level crossing at the Larne end connecting Victoria Avenue and Chester Avenue.

In July 1890 the Carrickfergus and Larne was bought by the Belfast and Northern Counties Railway (successors to the Belfast and Ballymena) who opened up the Black Head and White Head district for tourists by constructing pathways, footbridges and picnic areas along the shore and cliffs in 1892. Bathing boxes (separate for Ladies and Men, of course) were provided and a promenade built from railway sleepers. Groynes were built out from the promenade into the sea to hold the sand, much of which was brought by the railway company in goods trains from Portrush (!). On the promenade was built a bandstand (complete with the B&NCR's initials). The bands which played there were given a free pass by the Company who also provided them with refreshments. "Waterloo Night" was the highlight of the season when four or five bands provided the music and there was the added attraction of a fireworks display.

In 1902, in order to have a quicker turn round and follow up of excursion trains, a new loop was provided beyond Briggs Point (halfway between Whitehead and Kilroot) which was known as Briggs Loop. The line at that time was single to Carrickfergus and was only doubled in the early 1930s.

The famous Gobbins path was started in August 1902 and the paths and bridges were extended in 1904 and 1906.

In 1902, also, the level crossing, which had proved troublesome, was closed. The railway company built King's Road Bridge to take its place and, in order to get clearance for the bridge, the line was lowered between the station and Slaughterford Bridge (at the present golf course).

In 1903 the railway company became even more ambitious in its investment in Whitehead and work was started on the building of what has now become the Society's base. The work included the construction of platforms, the engine shed, water tower and goods shed (now known as the Pavilion and today housing our model railways) as well as the public lavatories near the Pavilion, the railway cottages which back onto the platform (for the use of locomotive staff) and the stables near the engine shed. Part of the stables accommodated the horses while the other part housed the jaunting cars used for tours of Islandmagee (operated by the railway company). A new signal cabin was built to control the movements into the new platforms which were known as the "excursion platforms". The new cabin was called "Whitehead North" and was situated on the station side of the King's Bridge. At that time the water tower (beside the shed) was kept full by a windmill (since demolished) to the left of the shed.

With all these amenities the railway company were often almost overwhelmed with passengers; thousands came to Whitehead on cheap day trips while at holiday times it was quite common to see trains of excursionists unloading at both excursion platforms as well as at the station itself while other trains awaited their turn at Briggs Loop and Kilroot. As fast as they were unloaded, the trains were worked back to Belfast to make more trips.

About this time, there were two engines based at Whitehead, Nos. 22 and 50. No.22 was a 2-4-0 dating back to 1878 while 50 was a D class 4-4-0 dating from 1895 (it was later rebuilt and named "Jubilee"). The D class engines had the distinction of having the largest driving wheels (seven feet in diameter) ever used in Ireland.

The 1914/18 war, however, saw the curtailment of the heavy excursion traffic; although revived after the war, it never fully recovered. The motor car and omnibus took their toll; there were new excitements to be sampled after that "war to end all wars". The excursion platforms were no longer needed, the North Cabin was demolished and the lines used only for storage purposes or for goods trains too long for the loop. Later the engine shed, too, was closed - the rush was over.

The early 1930s saw an upsurge in excursion traffic again. Under the management of Major Spier, the NCC ran sixpenny night trips to Whitehead every week, and again the excursion platforms were used to deal with the numbers of trains required. The new traffic soon dwindled, however, and was almost gone by the mid-thirties.

It took another war and the advent of the blitz to reopen Whitehead engine shed. In April 1941, the main railway yards, station and engine shed at Belfast (York Road) were severely damaged in air raids and as part of the safeguards taken later, three engine were allocated to

Whitehead, together with a couple of sets of coaches and these were later joined by an ambulance train.

The engines based here during the War were mostly 4-4-0s (the same wheel arrangement as the Society's No.171). The engines included No.74 "Dunluce Castle" which now reposes in the Transport Museum at Witham Street in Belfast, resplendent in her maroon livery. While at Whitehead, she was kept very clean and she was one borrowed for a directors' train as she was the cleanest engine on the line. Another engine which had a reputation for cleanliness while here was No.79 "Kenbaan Castle", of the same class as 74. These engines were joined, from time to time, by other engines in need of overhaul or heavy repair awaiting a place in the York Road shops.

When the War was over, the need for scattering engines to country sheds was gone and so Whitehead closed early in October 1946, although it continued to house surplus engines for many years after that. Until the early sixties, engines were "mothballed" here for the winter months. During the late spring they were hauled back to Belfast and prepared for the heavy Sunday School and excursion traffic. Not all the engines stored here came back to life, some were only awaiting the next auction when they would be consigned to the scrap merchants.

During the years after 1946 the area of the excursion platforms fell into disuse and decay set in - the weeds took over, the sleepers rotted, lines were lifted and the shed lost its roof. But a new awakening was at hand, for the RPSI took over the excursion platforms and shed in 1966 and has made many improvements since then, but you can read of these in the next article in this brochure.

The author wishes to acknowledge with thanks the detailed information supplied by Mr J.H. Houston, without his help this account could not have been written.

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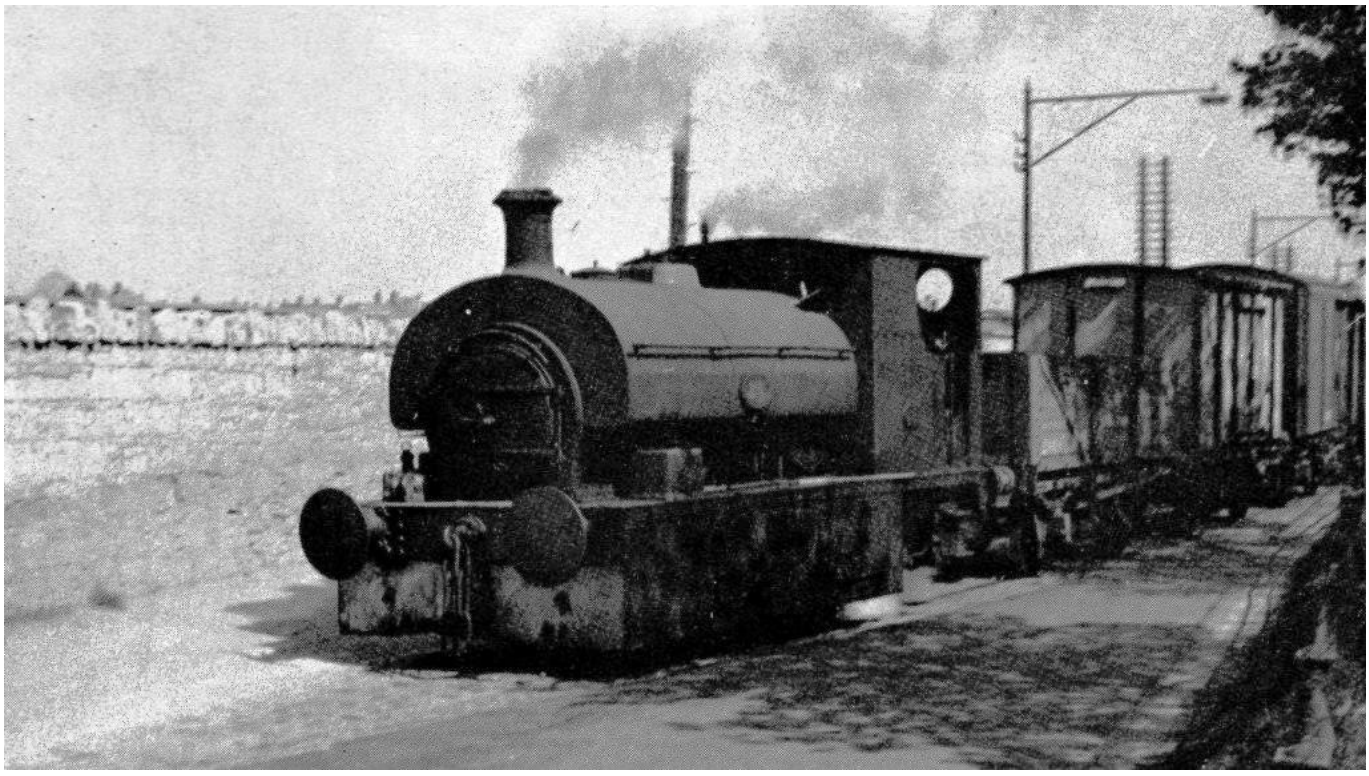
THE SOCIETY

The Railway Preservation Society of Ireland is seven years old this summer. The realisation of this came as a shock to a group of us, a few weeks ago, when we reflected on those seven years. When the Society was founded, in 1964, there were still plenty of steam engines in the country - certainly in the North at least. But things were changing quickly; there were the pending closures of the Warrenpoint and Derry lines as well as the withdrawal of goods services and it seemed the days of steam were numbered.

About this time, groups of enthusiasts in England showed what could be done in the line of railway preservation; many were buying engines and some were running them on special trains whilst others were embarking on more ambitious, and costly, projects involving the purchase of a length of closed line. The whole preservation movement caught the steam enthusiast's imagination and, in due course, steam enthusiasts in this country banded together in the RPSI to save some, at least, of the remaining Irish steam locos from being cut up and forgotten.

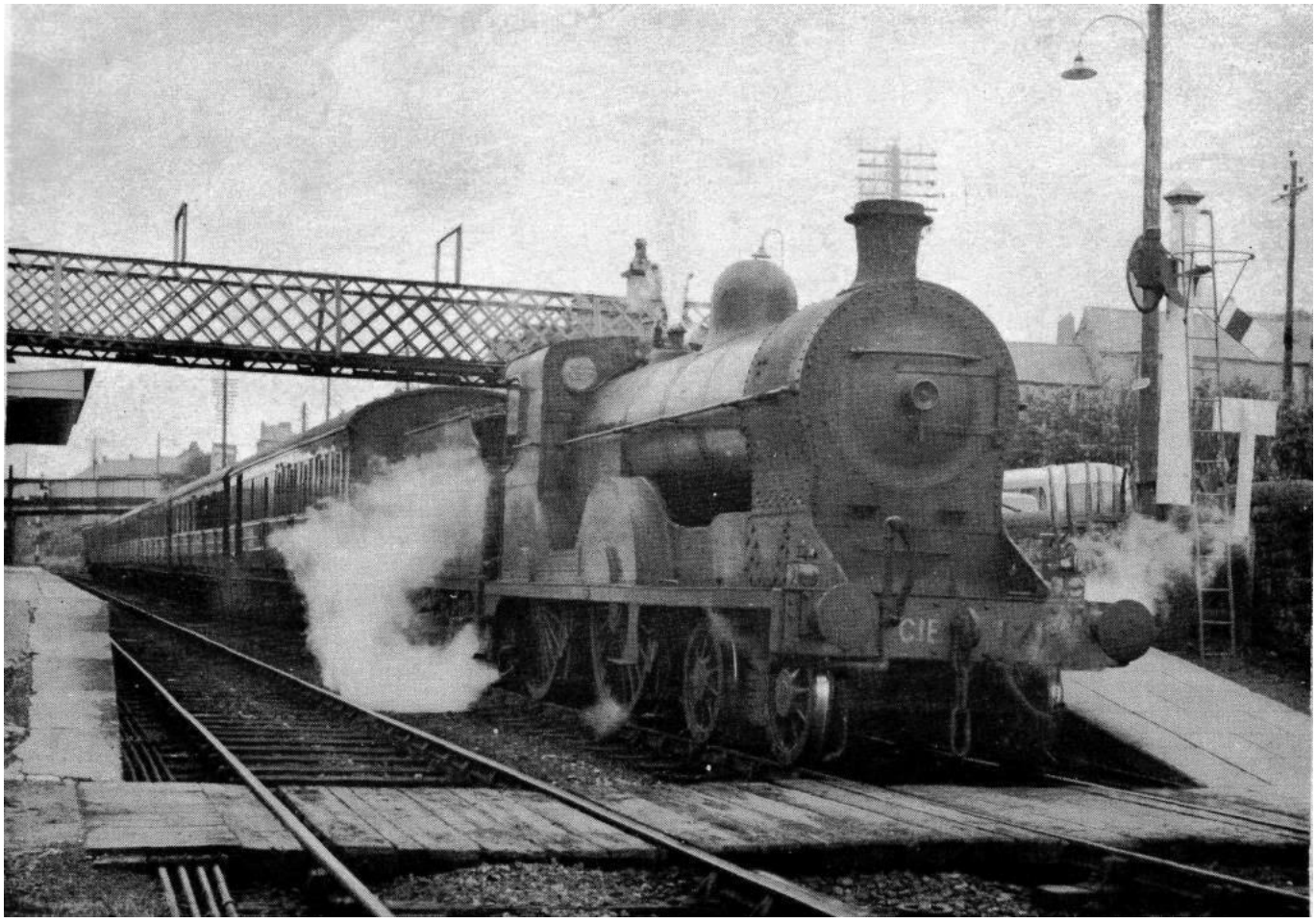
The Society acquired its first engine soon after being formed when Messrs Arthur Guinness, Son & Company Ltd of Dublin presented us with one of their standard gauge steam locos. The engine was one of two used by the Brewery to transfer its famous product from the Brewery at St James's Gate to Kingsbridge goods yard for distribution far and wide; one of our illustrations shows No.2 on this duty (q.v.). The Society's engine was the Brewery's No.3, and was built in 1919 (five years after No.2). It is an 0-4-0 saddle tank (i.e. the water is carried in a tank "saddled" on top of the boiler) and since being acquired by the Society has had the nameplate "Guinness" added to the tanks. Other alterations carried out here include the removal of the skirts which once hid the wheels and motion (these were required by law, as the engine travelled on the public road on a tramway between the Brewery and goods yard) and the engine has had its dark blue livery relieved with gold lining, blocked out in black. No.3 is now the regular shunting engine at Whitehead, and is in steam about once a month in connection with our work on the other engines; she had a break from this duty in 1968 when she worked a tour over some of Belfast's Dock lines.



Guinness Brewery 0-4-0ST No.2 approaches Kingsbridge goods yard (Dublin) along the St John's Road tramway with a train of beer on 20th April 1965. Note the skirts below running plate. (John A. Lockett)

Just eighteen months after taking delivery of No.3, the Society was presented with its second loco. This was No.186, which, the Board of Córas Iompair Éireann kindly presented to us. She is one of the last of Ireland's most numerous class of J15 0-6-0s, mixed traffic engines the building of which lasted from 1866 to 1903. Our engine was built by Sharp Stewart in 1879 and rebuilt twice (the last time was about 1932 when she received a new boiler and frames). Since coming into Society hands, 186 has been hard worked on our railtours, having

covered over two thousand miles on tour duty so far, and can still show a clean pair of heels to some of the much newer diesels, despite her great age. She is not on show here today as she is temporarily transferred to Dublin where she is awaiting her next railtour duty on 11th and 12th September. On the 11th she will work a special from Dublin to Arklow and back, followed by a tour of many of Dublin's North Wall lines and goods yards. On the 12th she will set her face to the north and work a special to Belfast, visiting the Howth branch and Dundalk goods lines en route. Why not treat yourself to a weekend of steam? Ask at the marquee for details, we'll be delighted to have you on board.

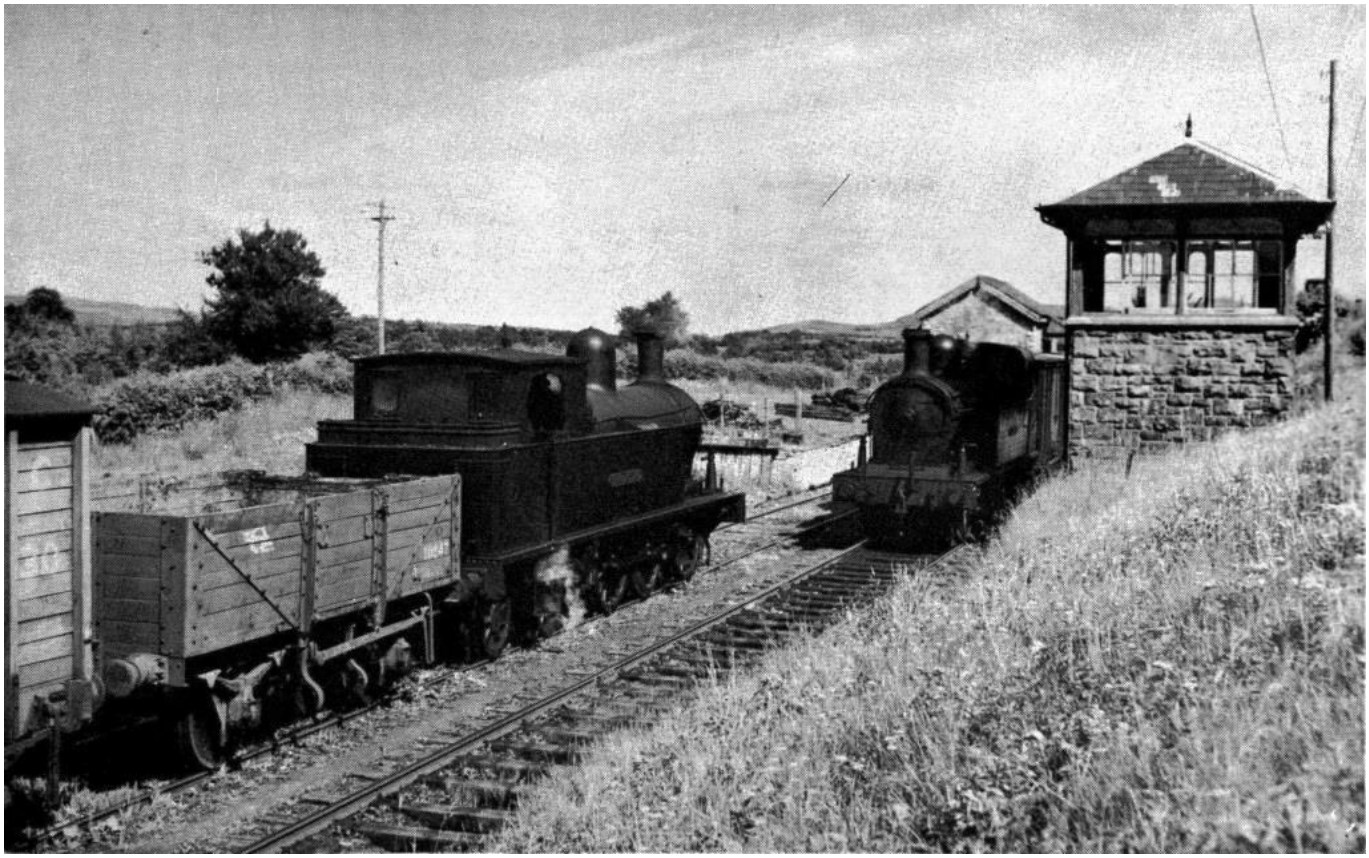


S class 4-4-0 No.171 "Slieve Gullion" gets the right away from Dungannon Up starter while working the 10:15am from Derry (Foyle Road) during the summer of 1964. The "CIE" letters on the buffer beam are a reminder that this engine went to Córas Iompair Éireann on the break-up of the GNR in 1958. She was bought, together with others, by the UTA in June 1963 and worked mostly from Adelaide shed before being preserved by the RPSI. Note the smaller tender with which the engine was paired. (A. Donaldson)

But to return to our engines - the apple of the Society's eye is surely No.171 "Slieve Cullion", last of the fabled S class of Great Northern 4-4-0s. This engine was built by the Great Northern in 1938 at Dundalk for express passenger trains and is held by the Society on lease from the NI Transport Holding Company. She has, after a heavy overhaul in Harland & Wolff's, been restored to the GN's famous sky

blue and red livery. She has, like 186, been equipped with a larger tender to increase her range on railtours between water stops.

The third engine in steam today is not one of the Society's but is privately preserved by our past Chairman - Roy Grayson. The engine is "Lough Erne", a 0-6-4T built in 1949 for the Sligo Leitrim and Northern Counties Railway. After that line closed in 1957, the engine was bought by the UTA and was, together with sister engine "Lough Melvin" (shown in one of our illustrations), employed as shunter in Belfast's various goods and passenger yards. Until early 1970 she was the regular station pilot at York Road station. While still in "Company" service, she was used on two RPSI specials (one of these occasions being the subject of one of the films on show today) and hopes are high that will be seen again at the head of a tour train.



On the Sligo Leitrim and Northern Counties Railway, at Glenfarne. 0-6-4T "Enniskillen" (on the left) on 11:15am goods from Sligo, crosses 0-6-4T "Lough Melvin" on 2:00pm goods from Enniskillen. The latter engine, next the signal cabin, is a sister engine of "Lough Erne". The date was 8th June 1957. (Lance King)

The Society is hoping to add another engine to its books in the very near future. It is just over a year since NIR stopped using the last of their steam engines, the well-known and well-loved WT class of 2-6-4Ts (the Jeeps). It is the Society's firm resolve not to let the last of these rugged and efficient machines go to scrap. Introduced by the LMS (NCC) from 1946 onwards, these capable engines have worked all over their native system and on the Bangor line (where they caused something of a revolution) as well as putting in much sterling work on the Great Northern after 1958. On RPSI railtours, No.4 of the class

worked as far afield as Enfield, Co. Meath and as far south as Cork and Limerick on the notable "Brian Boru" railtour in 1969. We look forward eagerly to our next Jeep run, but first we need the funds to purchase her. This a job where you can help, please do.

As well as preserving steam engines, you will see here some examples of preserved items of goods rolling stock; we hope, eventually, to add some passenger coaches as well. The wagons are mostly examples of privately owned vehicles - in a couple of instances the companies concerned have made substantial grants towards the painting and renovation of the vehicles.

"Pride of the fleet" at the moment are the newly-painted 20-ton Great Northern bogie vans - those large vehicles which today house a cinema and bar. The latter is appropriate as one of the vehicles has been repainted as a Guinness van. Originally built for transporting barrels of porter, inter alia, they were later rebuilt as grain hoppers and have recently had new doors fitted on one side to permit their use here today. Another example of a type of wagon very common before the advent of large road lorries, is our Irish Shell wagon, at present in black undercoat awaiting restoration to its former livery. Our Brake Van, at the rear of our "goods train" was destroyed in a vandal's fire last winter and is still in the process of being rebuilt. It was built in 1918 in Belgium for the Great Northern at a time when materials were scarce in this country; it is unusual as it runs on six wheels instead of the more normal four. Of the other vehicles on the site, little may be said, other than that the underframe behind the Jeep is all that remains of a County Down Horsebox which suffered severe vandalism during our first winter here and the flat wagon (painted grey) formerly carried an Inglis bread container which is now in a permanent position near the shed and in use as a store for permanent way tools.

Most of the Society's work is directed at its railtour programme. Our tours are now the only steam-hauled main line tours in the British Isles; in England British Rail has banned all steam locos and steam is now only to be seen in action on private lines like the Bluebell or Worth Valley. Our Tours, however, enjoy the freedom of the open road and the map in the enquiry marquee will show you just how much of the country we have covered. The tours are usually run in March and April, September and October and usually number three or four each year. We try to make one or two of these two-day events, thus making sure not only of a really high steam mileage but also making it possible to go further afield to routes not covered by a steam train for perhaps ten or fifteen years, and there are even some now lines not yet covered by a steam train at all – yet! To help our participants get as much as possible out of the tours, the Society designs each tour to include as many photographic stops, runpasts, etc., as possible and we have recently introduced lineside buses which have greatly increased the photographic opportunities for our travellers. For each tour, the Society publishes a souvenir brochure and some from past tours are on sale at the marquee. Each tour is characterised by the name of a geographical feature, mediaevalist or mythical character associated

with the area being visited. Non-members are always very welcome on our tours, but it's cheaper if you're a Society member.

Membership of the Society, as well as making tours easier on the pocket, brings our half-yearly magazine "Five Foot Three" with articles and illustrations (mostly previously unpublished) of Irish steam, past and present as well as Society news. Copies are on sale at the marquee.

In the previous article in this Brochure, you read of the building and use of the site in the early years of this century. The Society took over the area in 1966 from Whitehead UDC, to whom the lands, etc., passed from the UTA. Since then the shed, which was described as a "stargazer's delight" (it had no roof!) has had a new roof provided and the windows bricked up to make the premises more secure. The former offices at the rear of the shed have been converted into a mess room (complete with cooking facilities and a hot water supply), a store and dorm with bunks for the accommodation of overnight workers (very useful in the preparations for Open Day or when preparing engines for boiler insurance examinations). The shed itself is now equipped for handling the lighter repair jobs needed to keep our engines on the road, though the repairs we are able to ha handle seem to become more ambitious each year. Since last Open Day, we have installed a large lathe (mostly paid for by a small group of members) which has greatly increased the scope of our work, while another recent addition has been some very useful welding equipment. At the same time, our stock of everyday tools continues to grow but, despite our many acquisitions, we are always on the look-out for more equipment (the current list of desirables, for instance, includes an air compressor) while, with the closure of York Road running shed, items like steam coal, engine and cylinder oil are now more difficult and costly to obtain.

Apart from the shed, the past year has seen much hard work on other parts of the site. The water tower is now equipped with two electric pumps working in tandem while a new access road has been provided right up to the shed doors and a group of members have provided a tractor with a front loader for use on earth works, ballasting, etc., as well as coaling engines.

The site and our engines are subject of much work by our members, mostly on Saturdays, and here we would like to record our debt to them for all their hard work, very often in unpleasant conditions and without really suitable equipment.

As mentioned earlier in this article, the Society hopes, to acquire a Jeep within the immediate future and in order to accommodate it, the Society will have to erect an extension to the present engine shed. A model of the shed is on show at the marquee and we would ask you to give your support to our appeals for help with these projects. Your every purchase of books, badges, slides, etc., in the marquee will help towards our goals.

The success of the Society's aims depends on a large and enthusiastic membership - from the above you will see that our work is still far from complete. The steam engine deserves living preservation, not only for its intrinsic past but also its active and rewarding future.

To complete our work, whether housing, restoring or using our engines we need your co-operation. Will You Help?

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GAUGE O MODEL RAILWAY DISPLAY

The mainspring of railway preservation is not, as is sometimes supposed, a desire to put the political or social clock back to a time when "God's in His heaven, all's right with the (bourgeois) world" - it is, rather, a practical reaction to the loss of the sorely-missed facility of going to a station and booking to travel on a steam train. The more obvious method of restoring the situation is to run steam railtours. You will find details of these both in this brochure and in the marquee on the platform. We hope you will try them for yourself. But it is always difficult to collect enough enthusiasts to make the tours run at a profit, and, in addition, they are subject to unforeseen snags outside the Society's control.

Some of us therefore prefer to have an alternative reminder which is independent of these vagaries - models. You decide which year was best for steam on your favourite line and reproduce the workings involved. Of course you have to start preparing whilst your pet prototypes are still in existence as careful measuring up is essential for accurate detail.

Those whose work is shown here today have chosen 7mm scale ($^1/_{44}$ full size) since the larger scales require too much space for the complex operations desired; while the smaller do not give an adequate impression of the large mass in motion which a train constitutes.

They have furthermore chosen clockwork propulsion because, besides being reliable and suitable for complicated and intensive timetable working, it behaves in many ways like steam; the stops, for example, can be very realistic. Careful design, including phosphor bronze and PTFE bearings, enables prototype, or greater, loads to be hauled with ease over adequate distances.

The largest stud of locomotives was, naturally, that of CIÉ. The limited amount of money available for capital expenditure in steam days long kept an immense variety of steam locos in service, providing paradisiac conditions for the enthusiast, if headaches for the motive power staff. There were at one time one hundred classes, some with several varieties.

The largest constituent company was the Great Southern and Western which is represented as follows:

Class D17 4-4-0 No.98, built 1887. The earlier members of this class had been mainline express engines, but a larger class had appeared

before No.98 was built. She represents the original appearance of the class, practically unchanged.

Class D14 4-4-0. These were the principal express engines from 1885 to 1900, and worked for a time on the famous Killarney Express, Ireland's fastest train at the end of last century. Even as late as 1951, one of them appeared on a main line express and kept time comfortably. No.63 represents the original, 61 a superheated rebuild of the 1930s, with the same boiler as our own No.186.

Classes D11 (301), D12 (306) and D2 (321) 4-4-0s illustrate successive attempts by R. Coey (a Belfast man who "ruled" at Inchicore 1899-1912) to cope with the increasing weight of trains, especially in view of the steep climb out of Dublin and Cork. No.328 of the class D2 was responsible for a remarkable run on the Irish Convention Special in 1917. If the Convention failed to settle anything, that wasn't 328's fault, for she covered the 164.7 miles from Cork to Island Bridge, Dublin, in 155 minutes, including a stop for water. This effort was probably equal in merit to the immortal exploit of Mark Foley with No.402 (see Class B2 below) in running from Cork to Dublin (165.3 miles) non-stop in 147 minutes in 1937.

No.322 of the same class ran in trials between Dublin and Belfast in 1911 against a (smaller) GNR QL class 4-4-0.

D4 4-4-0 No.343 was a 1936 re-hash of another Coey design - a small-wheeled engine for heavily-graded branch lines.

Class B2 (4-6-0 No.409) of 1921 would need a book to itself, so many metamorphoses did it undergo. The model shows the final successful two-cylinder rebuild. (The originals were four-cylinder.) This class often took the "Enterprise" forward to Cork in the 1950s.

Class B1 (4-6-0 No.502) were built in 1924 and their success, even on fast trains in spite of their small wheels, led to the conversion of the foregoing.

Class B1a (4-6-0 No.801 "Macha" and No.802 "Tailte") were by far the largest and most powerful engines ever seen in Ireland, and of all the 4-6-0s in Western Europe they were only eclipsed by the GWR "King" class. They were called after queens/goddesses (the distinction is blurred) of Celtic Mythology. Built at Inchicore in 1939, they scorned assistance up the steep grades out of Dublin and Cork and made the hardest tasks, in speed and haulage, look like childsplay, till the fuel crisis of 1941-6 compelled drastic reductions in speed, loads and train services. Though some sparkling performances were recorded after the war, arrears of maintenance due to wartime shortages had left their mark, and there were in any case no longer any trains requiring the running of which these engines were capable. No.800 "Maedhbh" was presented to the Belfast Transport museum and if some financial miracle occurred she might steam again.

The vast majority of goods trains were hauled by the 111 J15 class 0-6-0s. Fortunately, two of this class are preserved, saturated No.184

by CIÉ while they presented superheated No.186 to the RPSI. Both versions are modelled – Nos. 133 and 181 representing them.

For heavier trains class J4 (0-6-0 No.259) were built in 1914, a pioneer example of superheating with piston valves, and a popular and free-running class.

Still heavier trains were handled by 2-6-0s. Class K3 (361) were the "Scotch Engines" of the GS&WR, built by the North British Locomotive Co in 1903 as 0-6-0s. The model portrays a rebuild with leading wheels for better weight distribution, and larger boiler. Very similar (till you look more closely) is 370 (Class K4); she was built in 1909 at Inchicore as a 2-6-0, as is obvious from the different distribution of her wheelbase.

Of the MGWR engines, we have Class D5 (4-4-0) No.545, introduced in 1903 to work such trains as the "Tourist Express"; this train was faster than anything running over this section today. A smaller engine took over at Galway and worked part of the train on to Clifden. The D5s were exceptionally strong, occasionally handling up to 400 tons. The corresponding goods type was J2 (0-6-0 No.648). As it only numbered four members, this powerful class disappeared early - by 1939. Among the engine classes which worked till the end of steam were the J5s (0-6-0 No.635). Fitted with the largest wheels (5'8") of any Irish 0-6-0 class, they were equally suited for goods, cattle or passenger trains.

Two new MGWR engines have been built since last year's Open Day. J19 (0-6-0) No.609 represents the MGWR equivalent of the famous J15s. Though not as well-known as these, the J19s as originally built were striking looking engines, with their flyaway cabs and unusual smokebox, 609 represents a later, more conventional, rebuild. One of these engines held the record for the Athlone-Dublin run.

The smallest "O" gauge engine running today is J26 (0-6-0T) No.562, also designed by M. Atock for the MGWR. They were built for shunting the heavy cattle trains at the Ballinasloe Fairs, but through time found their way all over CIÉ. They distinguished themselves particularly by hauling enormous "bucket and spade" trains on the Waterford and Tramore section.

In the opinion of enginemen and many others the K2s (2-6-0) were the finest engines of the D&SER. Built by Beyer, Peacock in 1922 and stored for a time at Adelaide, they were at once strong enough for the heaviest goods job and sufficiently free and steady for fast passenger - one of them has been timed at 67 mph. We are glad to say that No.461 (the prototype of the model) still exists.

The final class built for the CB&SCR was B4 (4-6-0T) which proved very popular not only on their parent system, but on suburban work in the Dublin area, where their smart acceleration was most useful. No.464, the engine modelled, is the rebuilt form with superheater. She worked several enthusiasts' specials around Cork in 1960-61.

The excellence of the locomotive work on the B&CDR was familiar to enthusiasts, but not so fully appreciated by the general public. Most trains were worked by a very neat and free-running class of 4-4-2Ts, of which No.20 was the pet engine - she had 5 lb per square inch pressure more than the rest.

The B&CDR were famous for their Baltic tanks (No.22 is represented here) which were however more ornamental than efficient.

They also had four very smart 0-6-0s, which often worked huge excursion trains to Newcastle. You can see No.10 and No.14 at work.

On the SL&NCR 0-6-4Ts predominated, the final development being the "Lough" class, finally delivered in 1951. After the destruction of the railways to the West of the GNR Derry Line, the UTA bought "Lough Melvin" and "Lough Erne" for shunting the various yards at Belfast. They both finished up at York Road. Happily "Lough Erne" has been saved and is here today in the "flesh" so you can readily compare model and prototype.

Class S 4-4-0 No.192 "Slievenamon" is similar to the RPSI's No.171 (though the valves were differently driven). These engines were originally built in 1913-15, the final development of the typical GNR inside-cylinder 4-4-0 type. Their boiler pressure was actually raised in the 1920s to enable them to cope with the increased weight of trains, but by 1931 they had reached their limit and the reconstruction of the Boyne Viaduct made possible the famous Compounds (see below). The latter were, however, very heavy on coal and oil, while the S's were always popular, so it was decided to renew them. This was done from 1938 onwards. The renewed engines, which more strongly built and had longer valve travel, put up some remarkable performances - perhaps the best for their size anywhere - including 60 mph start to stop times with 300 tons and top speeds of 90 mph.

These model notes, so far, have been contributed by A. Donaldson. The NCC models on display were lent by F. Graham, J. Crozier and W.T. Scott. Mr Scott has contributed the following notes on the engines on display.

The GNR in its 1932 summer timetable introduced Ireland's first 60 mph train worked by the new compound locomotives which were introduced by G.T. Glover in that year. Our model of No.87 shows them as rebuilt in 1948 with a new boiler. In their all-too-brief heyday, these engines turned in some of the fastest running ever seen in Ireland, speeds of 85 mph being within their capabilities on little more than level road. Their work was such as to attract English enthusiasts to Ireland for the first time for many years and to earn them an honourable niche in the history of British express 4-4-0s. Walter Smith, originator of the compound system used in them many years before, would surely have been pleased to see this last example of his genius.

After the war the GNR forsook compounding and introduced the five VS class simple expansion 4-4-0s. These were their last express engines and after some teething troubles settled down to some fifteen years of

hard reliable work. The Enterprise Express, making a non-stop run between the two capitals, was introduced by the GNR in 1947 and the brunt of this working fell to the VS 4-4-0s though, of course, the compounds worked it at first. Unfortunately, due to arrears of maintenance which had accumulated during the war, the new train was allocated 2¼ hours, and as the fifties rolled on financial problems seemed to drain the spirit away from the GNR so the time was never tightened. Such a timing left little opportunity to see that the new engines could do, though this question was partially answered when the Tolka bridge was under repair. No extra time was allowed the Enterprise and the VS 4-4-0s responded magnificently, making up the lost time with the best post-war running seen on the GNR. On other isolated occasions they gave us a glimpse of their real ability but for the most part they remained a thoroughly competent engine on all work with a huge reserve of power. Our model, No.210, is a fine example of all that was best in GNR express power.

Turning now to the Northern Counties, we look first at the Mogul, No.100, a representative of a class of engines built for the NCC from 1932 onwards at Derby, former engineering works of the Midland Railway who purchased the Belfast and Northern Counties Railway in 1902, renaming it Midland Railway (Northern Counties Committee). Engines of this type worked the North Atlantic Express, which was the fastest train in Ireland for its sprint in from Ballymena at an average of 60 mph. This was the longest lived 60 mph timing by steam in Ireland and to this day stands as the fastest service ever offered to or from Portrush, the journey being accomplished in 73 minutes inclusive of the Ballymena stop. At the other end of the scale, the Mogul proved equally successful on the GNR hauling goods trains over the difficult GN Derry Road. Speculation is pointless, but one is always left with the question “Was this not the sort of engine for Ireland’s railways, rather than the specialist express and goods engines which lasted to the end of steam?”

“Scotch” engine No.83 is a model of the last and best of the NCC 4-4-0 engines. Decked out in the glorious NCC maroon, probably tying with the GNR blue as the most handsome livery ever given to an engine, she reminds us of the days when the railways of Northern Ireland were reaching their peak, in the 1930s. The finest work, was probably done on the Larne boat train, timed to an average of almost 50 mph over a line with two severe speed restrictions and a trying bank. These 30 minute boat trains were a post-war extravagance never to be seen again, though there is no doubt that to the last NCC engines, the 2-6-4Ts (one of which the RPSI is straining every nerve to buy), they would have been easy meat.

NCC goods engines are represented by No.14, in post-war black and No.54, again in maroon. No.14 is another Derby product dating from 1923, as rebuilt by York Road in 1951 and re-classed V1. These were among the most free-running 0-6-0s in Ireland and regularly worked on passenger trains - so regularly that for a time it seemed that the NCC worked goods with four-coupled engines and passenger with six-coupled.

No.54 is an example of a very rare bird for Ireland - a compound goods engine - she and her sister engine No.53 were built for the B&NCR in 1892 by Beyer Peacock. She was an extremely economical engine but not always popular with drivers due to her uncertain starting habits. Nevertheless, she worked turn and turn about with 53 on the Derry goods for over a quarter of a century and her useful life lasted over 50 years, not at all bad on a railway whose mandate in the thirties was "scrap and build".

The weakest prototype was of NCC class J 2-4-0ST No.47, their tractive effort being only 8,925 lbs. No.47 was built by Beyer Peacock (Manchester) for the Belfast and Northern Counties in 1882 as a side tank and rebuilt at York Road with a saddle tank in 1914, to increase the adhesion weight. She worked on the Limavady - Dungiven and Ballyclare branches as well as on the Larne line. Sometimes these small engines were used (up to 1914) to haul the mainline trains out to Greenisland, where the mainline engine took over for the run to Derry or Portrush. At that time the Bleach Green - Monkstown section was not built and all trains for the north travelled over the "Back Road" between Greenisland and Monkstown; this involved a reversal at Greenisland.

Our last NCC model is No.55 "Parkmount" which has claim to many unusual distinctions. She started life as a 2-4-0 but was soon converted to a 4-4-0, still retaining the 7' wheels, the largest ever fitted to an Irish engine. She was a well-loved engine by drivers in her first 25 years because of her very smooth riding and in spite of her playful compound habits and relative weakness up the bank. In later years the NCC acquired engines which could make fast times up the banks but in compound days times were made downhill and here the 7' engines excelled. In the twilight of her life Parkmount was relegated to working Portrush branch trains and finally to shunting in Belfast - a job at which she was least useful but nevertheless she earned a final distinction by hauling a vast load out of Belfast during the blitz.

We conclude this account of the 7mm scale engines with the following paragraph, contributed by J.A. Cassells.

U class 4-4-0 No.203 "Armagh", built by E.H. Gilmore, was one of a class of five (201-205) built by Beyer peacock for the GNR(l) in 1948 and named after Irish counties along the Great Northern main line. Like their sister engines, 196-200 (which dated back to 1915) they were designed for secondary passenger work and spent a good deal of their working lives on the Irish North section and the Bundoran branch of the GNR. At the dissolution of the GNR in 1958, 203 and 204 were transferred to CIÉ ownership, and 203 was the first of the class to be withdrawn in 1962. 201, 202 and 205 passed to the UTA, and all three survived until 1965. The whole class was painted in the Great Northern passenger livery of blue lined out in black and white with vermillion frames, the same livery as the Society's No.171.

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RAILWAY FILM SHOW

This part of our Open Day programme is being provided by Macha Film Studios, a group of entirely amateur railway enthusiasts who came together in 1966 to capture in sound and vision the last days of Irish steam. It has transpired that steam's twilight has been mostly provided by RPSI outings, and in the programme are two railtour films together with a film of Jeeps at work on Portrush trains in 1966.

Macha relies on close co-operation with the RPSI's Railtour Committee and from them receive a copy of the tour arrangements so that the coverage of the event can be planned in advance. Each of the three road-borne filming teams are supplied with a full set of maps, together with a shot list setting out timings, mileages, etc. With the benefit of a practice run over the roads beforehand, each team then films the train at a series of chosen locations.

Each team consists of a cameraman and a sound recordist and as well as being reasonable cameramen, they must be competent map readers, navigators and, above all else, safe drivers.

After an outing has taken place, there are many hundreds of man-hours of work put in editing and sound tracking the completed film. All this 'back-room' work is done at the Studios at Otterglen near Markethill.

Macha provides annual film shows at Society meetings in Belfast and Dublin as well as shows to other interested groups. Would your club or a group of your friends be interested? There are over ten hours of railway film from which to select the programme!

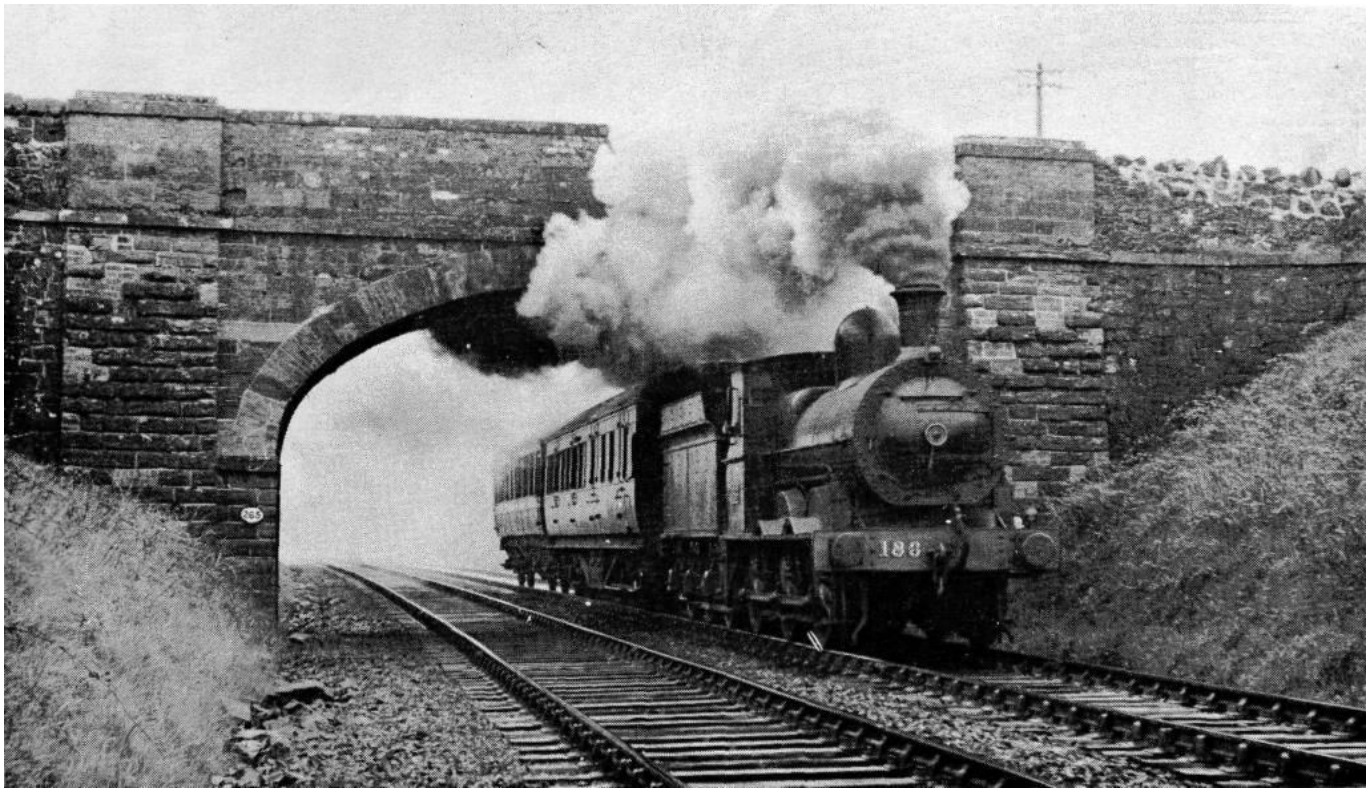
The three films about to be described here are chosen to demonstrate the more important aspect of the Society's activities and one which cannot be readily sampled here today. We refer, of course, to the Society's railtour programme, of which there have been many mentions in the Brochure. The films are shown in the hope that they will encourage you to sample a tour at first hand; there are many aspects of tours which cannot be captured or conveyed by ciné film - the thrill of fast running or the noisesome efforts of an engine against a heavy bank, the chance of taking your own Irish steam photos or the chance hearing of steam tales from your fellow travellers. These are the intangible things which help to make our tours the feast days of the steam enthusiast's liturgical year.

Our first film concerns the OLDERFLEET RAILTOUR which ran from Belfast (York Road) to Larne Harbour. The name of the outing is taken from that of the sixteenth century castle around which the modern town has grown. The motive power was 0-6-4T No.27 "Lough Erne", last of the Sligo Leitrim's engines now happily preserved and on show today.

Leaving Belfast on a wet, drizzling and foggy March morning in 1968, 27 made a brisk run to Larne stopping only at Magheramorne to cross the boat train (diesel). Our film shows her at Whitehouse. Bleach Green Viaduct, Carrickfergus, Downshire Park, Eden, Whitehead Tunnel, Magheramorne and then skirting Larne Lough on causeways and arriving at Larne. Having run round and shunted the train, 27 took water before

raising the echoes of the Harbour as she began the return journey, stopping at Ballycarry before paying a visit to our premises here. This section of film contains some very interesting filming done from high above Larne Town station, at Glynn and alongside the train as 27 sped along the lower reaches of the Lough. Re-starting from here, a stop was made at Greenisland and again 27's crisp exhaust was a joy to hear as she began the final part of her run. This section of line was filmed at the old Whitehead Harbour, Kilroot, Downshire, Clipperstown, Bleach Green and Belfast (York Road). Considering her role as a shunter, we must record our thanks to NIR for allowing the engine to work this tour, giving us the opportunity of seeing, hearing and relishing the last of Egan's engines at work.

The second film of our trilogy, covers the SLIEVE CUALANN RAILTOUR; the name refers to the mountain that is Bray Head. The ancient name for the area was Cuala and the Head was known as Slieve (the mountain) Cualann (of Cuala), but is now unimaginatively known as the Sugar Loaf.



J15 class 0-6-0 No.186 at Kerr's Bridge (between Lurgan and Moira) near Milepost 96, returning from working RPSI "Slieve Cualann" railtour on 5th May 1968. The coach next the engine is an NCC brake and behind that is Directors' Saloon 150. For information on 186 and the Railtour see text. One of today's films covers the Slieve Cualann railtour. (A. Donaldson)

Before departure for Wicklow (the turning point of the outing) our hard-worked No.186 was formally handed over to the Society by Mr Collins of Córas lompair Éireann. Leaving Dublin (Connolly), 186 ran high over Dublin's tangled traffic problems, through Landsdowne Road, Sandymount and along the edge of Blackrock Park, Salthill, Dún Laoghaire (Mallin) and through Dalkey tunnel to stop at Killiney

station. Restarting from there on the rising grade, 186 ran to Bray (Daly) before negotiating the breath-taking cliff ledges and tunnels of Bray Head to Greystones, Kilcoole and Newcastle to arrive in Wicklow Goods Yard (Wicklow's original passenger station). The train then reversed out of the goods yard and set forward again to the passenger station where 186 ran round. For operating reasons we had to have a diesel loco pilot 186 as far as Bray (Daly) where 186 was turned before setting off for Dublin. Our film closes with shots at Killiney and Salthill.

You are particularly recommended to see this, film as it covers part of the route to be covered by our tour on 11th September (see above, and ask for details at the marquee on the platform).Our third film PORT TO PORT was one of the last 'proper' railway films that Macha had the opportunity of making. Filmed in May and June of 1966, it depicts what was the last regular steam working over the Great Northern - the Sunday School excursions from Portadown to Portrush. These trains were worked exclusively by ex-NCC Jeeps (see above) and the film is included here to let you see and hear a Jeep in full cry in the confident hope that it will encourage you to support the Society's Jeep Appeal (for which, as I am sure you must be aware, the Society is accumulating funds). The film starts with the empty train arriving in Portadown from Belfast and then traces the journey to Lisburn, Antrim and finally to Portrush. The film carries a commentary and proper sound effects, so we need detail little here. The film closes with a sequence of leaving Portrush on the return journey, as the fiery red shadows of a summer sunset cast long shadows of exhaust steam on the sides of the cuttings above Portrush.

By supporting our Appeal, you can help re-create these idyllic experiences and enjoy them yourself on an RPSI tour.

We hope you have enjoyed these films and trust they have given you a better idea of just what an RPSI tour involves and whetted your appetite for steam travel. The Society's outings have covered only a small part of Ireland's railway systems - why not take the weekend away from home and come around at least part of Ireland behind Irish steam? It'll do both you and our engines good to get out on the open road again.

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THE NORTH DUBLIN MODEL RAILWAY GROUP

The Group, who are newcomers to our Open Day, was formed in April 1970 by a group of modellers who felt that Irish locations and outlines should be modelled more often in 4mm scale to reasonably acceptable standards.

Irish prototypes are a relatively neglected field in this scale - the easy availability of commercial items of British and European origins leads many Irish modellers to a species of inspirational emigration. Yet the Irish railway scene is all around us and, like so many other

aspects of life, we take it for granted and overlook the great potential and real worth in modelling terms.

The Group comprises four members and three associate members, each of whom specialise in a particular aspect of modelling and from experience it has been found that flexibility and intensive effort in working can be achieved with a small group.

The layout shown here today is in the form of a rectangle eighteen feet by seven feet. One long side features Malahide station in county Dublin and will be familiar to those who travel on the former Great Northern main line. The excellence of its floral decorations and high standard of maintenance of station buildings and fixtures have ensured its success in winning first prize in the Bord Fáilte competition over many years. The model seeks to convey the unique atmosphere of Malahide which handles express passenger, local suburban and local and long distance freight traffic. The sidings south of the station and the short siding on the up side, which catered for soft fruit, were very busy in Great Northern days, but are little used nowadays, save for the storage of scrapped goods wagons.

The opposite long side of the layout comprises a development based on Dromin, County Louth, which is, in contrast to Malahide, situated in a sparsely populated area between Dunleer and Castlebellingham, again on the Great Northern main line. Except for its being the junction for the Ardee branch, it would have no local significance. Nevertheless it is an interesting station necessitating much civil engineering in the original construction - the most important feature being the three-arched viaduct over the River Dee to the north of the station. The branch has long since lost its passenger service, but its freight traffic, though never heavy, still survives in the shape of a daily train each way.

The locomotive, coach and wagon stock is indeed a varied collection - reflecting the period 1958 to 1964 on the Great Northern main line when the latest CIÉ designs shared the road with the more traditional GNR outlines.

The construction of the complete layout and rolling stock represents approximately 1,000 hours work over three years by the Group members and associates.

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THE ULSTER MODEL RAILWAY CLUB

The Ulster Model Railway Club provides a meeting place for those with a common interest in model railwaying in an atmosphere of friendly chat and expert advice. The Club has a large 4mm scale (OO gauge) line at its premises at Roseland Place, off Donegall Road, Belfast - in the basement of the Donegall Road branch library. The Club meets every Wednesday between 19:45 and 22:00 when members' models are run on the Club track which incorporates a large through station on a double track loop. It is planned to extend to two termini and the work on one of these is almost complete.

The layout in use today was specially constructed for exhibition work and is built in six sections - each three feet by two feet - for easy carriage and setting up. The rolling stock on show is all provided by members of the Club.

As well as providing a Club room and a large layout on which to exercise the members' models, the Club keeps in touch through its monthly "Bulletin" which carries news, views and articles of interest. It is produced jointly with the Dublin-based Model Railway Society of Ireland.

The Club welcomes visitors to its Clubroom at any time during opening hours; if you are interested please contact one of the Club's members at the stand today or call at Roseland Place any Wednesday night between 19:43 and 22:00.

IRISH STEAM PRESERVATION SOCIETY (Ulster Branch)

The Irish Steam Preservation Society (Ulster Branch) was formed less than four years ago. On 14th October 1967, fifteen members met in the Midland Hotel, Belfast with the aim and object of preserving and restoring steam road vehicles and hold an annual rally.

The first rally was held the following year when eight local engines took part, and some "guest" engines attended, including a showman's engine and two fairground organ. The rally was a great success and has been followed by equally successful rallies each summer since. Each rally has produced new additions of fully restored engines, some rescued from scrap merchants' yards.

This year's rally will be presented as an Ulster '71 event, and will be held on 16th and 17th July in Lord O'Neill's estate at Shane's Castle on the Antrim to Randalstown road. The site is adjacent to the privately owned narrow gauge steam railway of Lord O'Neill, a terrific attraction in itself. We can visualize an exchange of whistle greetings between "Shane" of the rails and the veterans of the road.

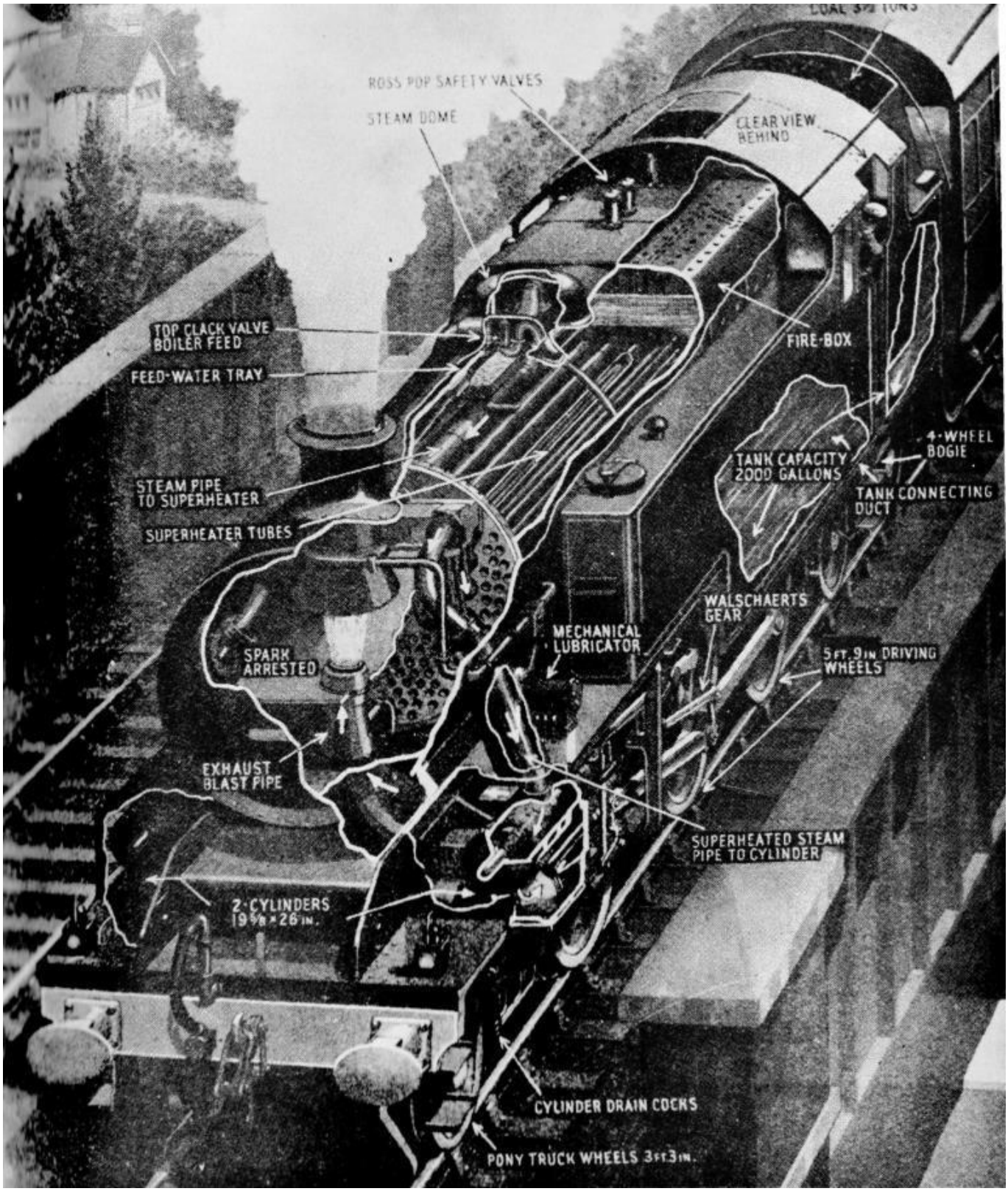
A most ambitious programme has been arranged for this year's special event, with something to interest everyone present. The Society would particularly like to invite all railway enthusiasts to join them in the nostalgic atmosphere of smoke and steam. Members of both Societies are dedicated to the same cause, the preservation of our steam servants, and to hand down to posterity these noble relics of the steam age, fitting memorials to the superb craftsmen who built them many years ago with such love and pride. As the Scotsman would say, "Lang may their lums reek!"

THE STEAM ENGINE (Its Generation And Use Of Steam)

John A. Friel

All conventional steam locomotives incorporate two basic principles in design without which they would have been too inefficient. The first

principle is the use of a multi-tubular boiler and the second is the use of exhaust steam to improve the draught on the fire.



Cut-away diagram of LMS 2-6-4T, similar to the Northern Counties Jeeps. See the article in this brochure for information on the working of the boiler, cylinders, etc.

In order to explain how steam is generated and used to drive the wheels of the engine, it is necessary to take each step of the process in order. The detailed description which follows refers to the cut-

away diagram inside this brochure. The engine shown is one of a class of LMS 2-6-4T engines which were very similar to the WT (Jeep) class of NIR.

The locomotive boiler consists of a long barrel divided into three regions. At the rear (next the cab) is the firebox, the barrel is in the centre while at the front is the smokebox. The firebox is further divided into an inner and outer box. The coal fire is located inside the inner firebox and water is circulated between the inner and outer fireboxes (the arrow on the diagram actually points to the outer box).

Intense heat from the fire causes the water surrounding it to boil and steam is formed which collects at the top of the boiler around the steam dome. As the amount of steam increases, the level of water in the boiler falls. If it were allowed to fall below the top, or crown, of the inner firebox, the crown would become red hot, being in contact with steam rather than water. The crown would become distorted and would perhaps burst, causing an explosion were it not for the following precautions.

Gauge glasses are fitted to the back of the boiler, and these show the crew whether the water level in the boiler is below the crown or not. As a further safely measure, a plug of easily fusible metal is fitted in the crown so that, if the latter overheats, the plug will melt. This would allow a jet of steam to blow downwards on to the fire, damping it down and eventually putting it out and preventing the build-up of steam which might otherwise lead to a boiler explosion.

The front plate of the inner firebox, known as the tube-plate, is pierced with a large number of holes and tubes are fitted into these which go right through the barrel to a similar tube-plate in the smokebox. This latter tube-plate can be seen in the diagram.

Smoke and hot gases from the firebox pass through these tubes before being exhausted through the chimney. By means of the tubes, heat is brought to as many layers of water as possible and very efficient and even heating results.

A strong draught is needed to draw the gases of combustion through the tubes and into the smokebox. This is neatly provided by directing the exhaust, after it has done its work in the cylinders, up the chimney. The puffs of steam are ejected through the blastpipe (which is marked on the diagram) and the latter is tapered so that the exhaust steam creates as great a draught as possible. The gases, etc., from the firebox are screened by a fine wire mesh “spark arrester” which removes sparks, etc., which could start lineside fires.

It can be appreciated that the harder an engine is worked, the greater is the rate of use of steam from the boiler. We see from the above that the draught on the fire increases as a result. Consequently the fire burns brighter, generating more heat which in turn generates more steam; in this way the increased demand for steam is met and a full head of steam is maintained in the boiler.

In older engines, the steam used in the cylinders was at a temperature only just above the boiling point of water. This was because once the steam was formed, it collected at the top of the boiler and was no longer in contact with any heating surfaces. Engineers decided that there would be much to be gained by raising the temperature of the steam well above the boiling point of water. Much more work could be obtained from the same volume of steam were its temperature raised, and the extra heat used to do this was only going to waste in any case, so this raising in temperature could be achieved without using any more fuel.

The practice of further heating the steam is referred to as superheating, and the engine in the illustration has a superheater incorporated. The superheater consists of a nest of small steam tubes led to and fro in the larger fire tubes. Steam from the top of the boiler passes through these as shown, on its way to the cylinders.

The passage of steam from the steam dome, through the cylinders and out through the blast pipe and chimney is indicated in the illustration by the short white arrows.

In the cylinders, the thermal energy of steam is converted into mechanical energy - making the wheels turn. The steam forces the piston back and forth in the large lower cylinder. This piston is connected to the wheels by a series of rods in such a way as to make the wheels rotate (i.e. it “drives” the wheels). The supply of steam to the cylinder is controlled by the small piston valves immediately above the driving cylinder.

The series of rods between the piston and the wheels is referred to as the “motion” of the engine. The engine shown in the illustration has “Walschaert Gear” type motion, which is just one of many types developed by steam engineers.

The illustration shows a side tank, sectioned, in which a reserve of water is carried. In many engines this water is carried in a separate truck, or tender, immediately behind the engine (as in the case of 186 and 171). An engine of this sort is referred to as a “tender engine”, while the type shown is called a “tank engine”.

Finally, the Ross Pop safety valves above the firebox (a design invented by a Coleraine man working in York Road shops) are valves which are set so that, when the steam pressure in the boiler reaches a certain maximum level (usually around 175 pounds per square inch) they open and the excess steam is released or “blown off”. Thus the steam pressure cannot exceed the maximum value desired, thereby safeguarding the boiler (and the crew) from risk of explosion, etc. Because of the pressure involved, “blowing off” is a noisy business, as you might witness here this afternoon.