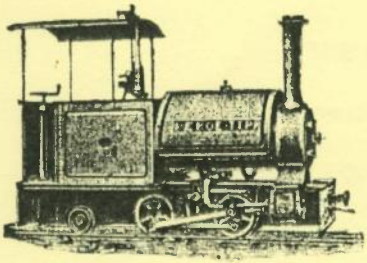
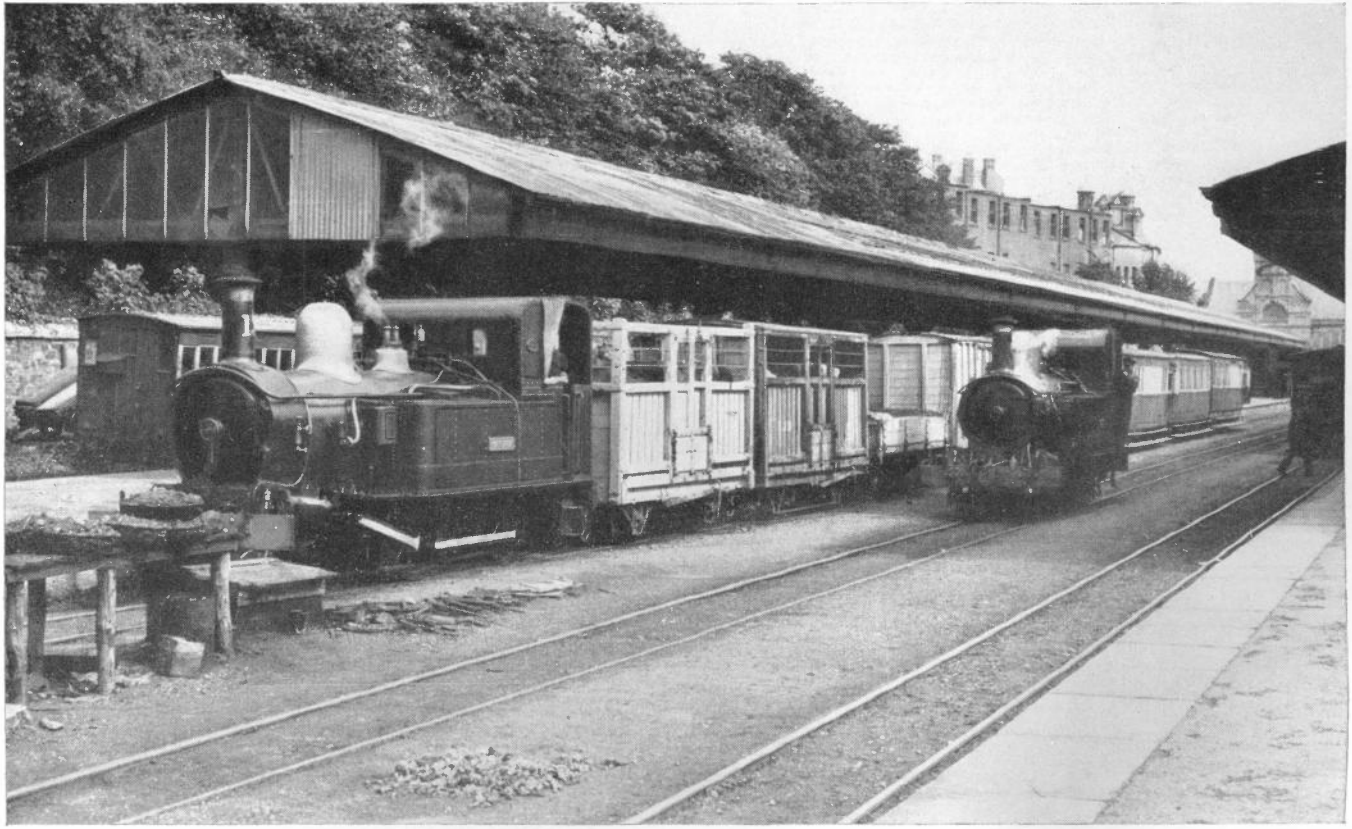


THE NARROW GAUGE

THE NARROW GAUGE RAILWAY SOCIETY

No. 33 SUMMER 1962



THE NARROW GAUGE.

(Official Magazine of the Narrow Gauge Railway Society.)

Editor ..... P.Myatt.
17,Gloucester Road,
North Harrow,
Middlesex.

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Illustrations.

Cover: A mixed train of ex-Chattenden & Upnor Rly. stock hauled by The Earl on the Welshpool & Llanfair Light Rly. Block: Welshpool & Llanfair Light Rly. Preservation Co.Ltd., Photo: B.Roberts.

Inside Front Cover: Isle of Man Rly. Scene at Douglas with No. 13 Kissack shunting a mixed train and No. 6. Peveril on the centre road. Block: Rly.Magazine. Photo: N.Browne.

Inside Rear Cover: Andrew Barclay well tank 1431 of 1918. Douglas,Talyllyn Rly. Photo & Block: Talyllyn Rly.Co.

Acknowledgements: We are especially grateful to the photographers,companies and magazine mentioned above for permission to reproduce their photographs and use their blocks.

EDITORIAL

As members will have seen from the last issue of The Narrow Gauge, Keith Davies has found it necessary to relinquish the editorship of this magazine. Keith has edited The Narrow Gauge since 1958 and it is unnecessary for me to mention the high standard to which it has risen under his care. I am sure that members will join me in thanking him for the hard toil which he has put into this magazine and in wishing him well for the future.

Whether the high standard which has been set for his unfortunate successor can be maintained will remain to be seen. The difficulties which beset us over the lack of suitable blocks to illustrate articles still remain and there will have to be a substantial increase in membership before we can afford to pay for new blocks to be made. In an attempt to reduce costs the duplicated pages of the magazine are now being produced by a member who has also made possible the purchase of a new duplicator for the Society.

Reverting to an old editorial hobby-horse, articles are still very much needed. Most enthusiasts have their own pet subjects. Why not gather all that information together and write an article for us? How about some authoritative articles on 18" gauge industrial locomotives, the development of the petrol and diesel narrow gauge locomotive, the history of the Woosung Tramway or narrow gauge railway station buildings, or what have you .....

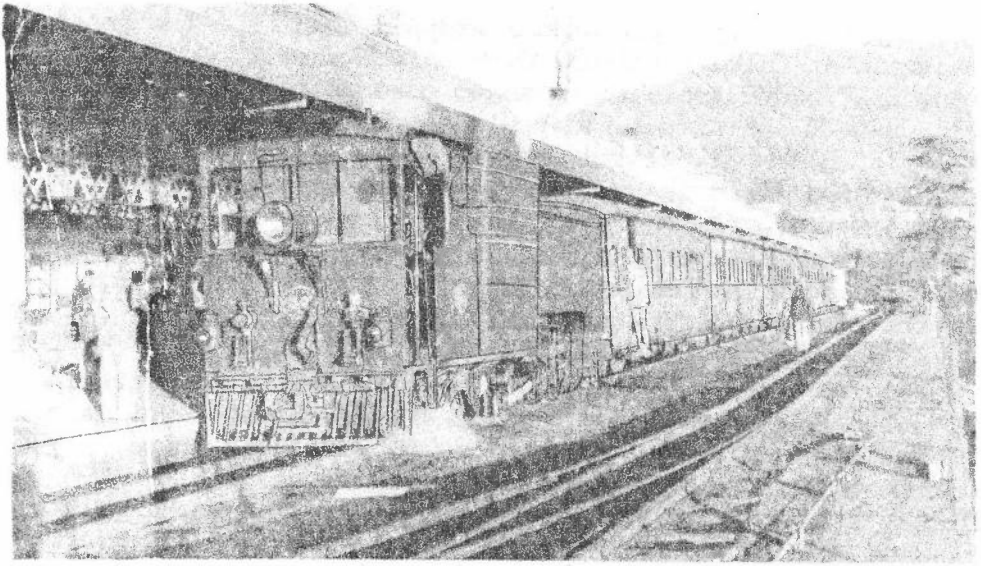
A JOURNEY ON THE KALKA-SIMLA RLY. - by S.C.Haynes.

It was 6.30 a.m. when I stepped down from the broad gauge train at Kalka terminus. Over on the narrow gauge side was the 2'6" gauge train that was to take me to Simla, an odd-looking 2-6-2T and five bogie vehicles. The locomotive was a Henschel of class ZF, dating from 1904. In front of it was a diesel railcar and in another platform a similar train.

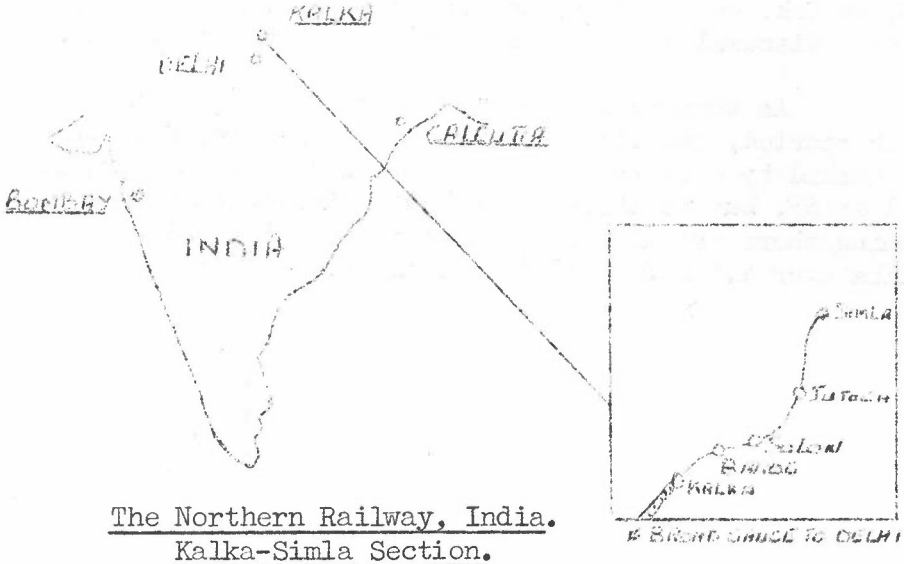
After 'bagging' a seat in the last carriage I proceeded to take notes on the train's weight and make-up, while the station staff watched me very suspiciously.

The train departed at 7.37 by my watch. The diesel railcar had gone on sometime before. There is some doubt as to which train I was on as according to the timetable there should have been a train (5KS) that departed at 7.15 following the diesel railcar. We were either that running late, or we were train number 1KS and 5KS had been cancelled,which seems the most likely explanation. However, 1KS is a mail train, and we had no mail-van nor did we make any stops for setting down mail. It seems likely therefore that all the mail went in the railcar and that 1KS only carries mail when there is a large quantity. I suppose the solution would have been to ask, but my Hindi and their English would not stand up to a discussion on the finer points of the timetable.

As soon as we had cleared the station yard the climb started, and like all subsequent changes of gradient was marked by a sharp change in speed. The average gradient is 1 in 65, but as there are several stretches of downhill running there are also large amounts of 1 in 33.33. The line climbs over 4,500 feet in the 60 miles.



Class K locomotive & train at Simla.
Photo: S.C.Haynes.



The Northern Railway, India.
Kalka-Simla Section.

The gently sloping fields changed to a rocky landscape, and the curves and cuttings gave a taste of what was to come. There were already some hair-pin bends that would do justice to a tramway. I am told that the minimum curve is of 2.4 chains radius; it certainly looked that in places. Occasionally there was a fine view of the line below.

We passed Taksal. Rather than cross a 'side valley' at the mouth by a bridge, the line would sweep in and across the head by a small bridge and then run out again onto the side of the main valley. The mountain sides were getting steep and we were soon passing through the first tunnel. There are some 103 overstructures, of which the majority are tunnels.

There were now, from time to time, fine views of Kalka and the plains. Already there were stone retaining walls above and below the track and most of the journey from now on was on a shelf carved in the hillside. There were several more tunnels, and just before Gumman the sun rose bathing everything in a glorious golden light. The riding of the carriage was remarkably steady although the wooden seat tended to transmit each rail joint to my spine.

There were more tunnels and the valley was getting deeper. Immediately after the passing loop at Koti the train dived into a 2276 foot long tunnel. At Jabli we stopped for water. The station reminded me of Aberffrwd on the Rheidol line. It looked idyllic in the morning sun and a huge column of brown smoke rose into the still air. There were several more tunnels and at times the drop to the valley floor was almost vertical. At Sonwara we passed an up Simla bound goods train.

It was hauled by a class K 2-6-2T. These are Hunslets and Kitsons dating from 1911.

Soon after Sonwara there was a long viaduct of fourteen arches, and after three more tunnels we emerged on flatter terrain. Another tunnel and we were in a new valley rather flatter than before.

Dharampore Punjab Station was passed and six more tunnels brought us to Kumarhatti Dagshai Station. More tunnels and then a steeper valley - then came a tunnel of 3752 feet and we emerged at Barog Station. Here a stop was made for coal and water while the passengers refreshed themselves. I had a welcome snack of poories - a sort of pancake - and vegetable curry eaten with the fingers out of large leaves. The snow covered Himalayas could be seen ahead.

After Barog the country was generally flatter with some downgrades, but the inevitable tunnels remained. A brief stop was made at Solon, while crowds of people gathered round the locomotive with buckets to get hot water. There was one of the new German Bo-Bo diesel locomotives built by Jung in a siding. In a few more years time the hot water will be no more!

There were more downgrades and tunnels, and Solon Brewery and Salogra were passed. We kept on 'changing valleys' by means of tunnels. Just before Kandaghat there was one of the new diesels in a siding. It had been in head-on collision with something very solid, for one end was very well telescoped. At Kandaghat we stopped for water and an ashpan clean out. We also passed a down goods headed by a class K locomotive, and in another siding was a diesel locomotive, this time apparently in good health.

Soon after the station we passed over the town on a high viaduct. More tunnels and then a valley which again reminded me of the Rheidol. At Kanoh an up goods headed by a class K was passed. On some of the curves I had an almost full view of the locomotive. She looked very impressive with the outside balance weights fairly flying around and a huge plume of smoke, steam and ash rose from the chimney as she tackled a 1 in 33.3 grade.

We were now passing through pine woods. Kathleeghat and Shogi were passed and the terrain became more rugged. At Tara Devi we stopped for water and passed a down train of passenger empties hauled by a class K locomotive.

After more tunnels we suddenly ground to a halt on a 1 in 33 grade in the middle of a pine wood. We waited for some five minutes. The locomotive had great difficulty in restarting and slipped violently while the train dragged her backwards for a while. We soon passed into tunnel 97 where the reason for stopping became apparent. There were cement mixers and air-compressors at the far mouth and repairs were in progress. We reached Summer Hill where we passed a down passenger train. We were now in pine woods and after several more tunnels, the last one being 1137 feet long, we reached Simla at 13.46 hours.

The line was opened in 1904 to assist the Government, which in British days moved to Simla in the Summer to escape the heat of Dehli. As can be seen the journey takes about six hours but the railcar manages it in four. Diesel locomotives are appearing gradually and seem to be used mostly for shunting. Doubtless the steam locomotives will eventually disappear and the valleys will no longer echo to the exhaust of a locomotive being thrashed up a 1 in 33 grade

A NOTE ON THE GOODS STOCK OF THE I.O.M. RLY.

by D.A.Boreham.

The following note, which is exceedingly incomplete and scrappy, but correct as far as it goes, is offered in the hope that it may, in spite of its incompleteness, be of use to those whose records of this fascinating line are even more chaotic and incomplete than the writer's.

Anyone who has read the previous articles on the Isle of Man Railway will know that the various classes of passenger stock were lettered from A to F. Goods stock started at G, and comprised the following classes:-

G. Covered vans.
H. Open waggons with 3-plank sides and drop doors.
K. Cattle Vans.
L. 4 timber waggons.
M. Open waggons with 2-plank sides. Fish waggons. Fixed 2-plank sides, labelled "Fish Wagon No..." There were six of these.

It is quite impossible to sort out these vans and waggons into any semblance of order. This is due to two causes: firstly, because of variations within each class, due to slightly differing design when later batches of vehicles were obtained; and secondly, when the 4-wheeled coaches were turned into bogie coaches the frames were re-used for goods stock.

Classes G,H,K, and M all occur in two lengths, depending whether they were built on waggon frames constructed as such, or on the longer ex-coach frames. In the case of classes G,H, and M, the majority are short; in the case of class K the reverse is true.

Class G also had a variant (short form) with louvred ventilators (? ex-MNR). For example, the following were noted:-

G. 1 - 5, 7, 8.	Short, not ventilated.
G. 10.-12,14.	Short, ventilated.
G. 15 -19.	Long, not ventilated.

Class M consisted of 78 waggons, on two distinct types of underframe (apart from those on the coach underframes). The earlier type, in use prior to 1911 and comprising Nos. 1-42, is distinguished by having inside bearing springs. The later type, delivered at intervals since 1911 by the makers, the Metropolitan Carriage & Wagon Company were as follows:-

1911	12 waggons	Nos. M43-54
1924	6 waggons	" M55-60
1925	12 "	" M61-72
1926	6 "	" M73-78

The following goods stock,the list of which is not claimed to be exhaustive, is known to have been carried on ex-coach underframes:-

Number.	Year	Coach	Remarks
Fish 1	1909	A9	
Fish 2	1909	C13	
Fish 3	1910	E4	Do not confuse this this with the present van E4, which was formerly E1.
Fish 4	1914	A2	
Fish 5	1914	C2	Information about Fish 6, which was said to be carried on an ex-coach frame, seems to be lacking.

G15	1915	B19	
G16	1915	C1	
G17	1916	B22	
G18	1916	C7	
G19	1921	E3	
K1	1921	C11	
K2	1921	B6	
K5	1924	E7	
K13	1912	B12	
K14	1912	C5	It looks as though this van had <u>two</u> ex-coach underframes during the course of its career. Broken up (frame) 1925. See next entry.
K14	1925	B7	
K15	1912	B3	Broken up in 1918 after unspecified accident at Foxdale. See next entry.
K15	1920	B16	Is this a new frame or a completely new vehicle?
K16	1912	B5	
K17	1914	B2	
K18	1914	C6	
K19	1920	B16	
K20	1920	B21	
K21	1921	B11	
K22	1921	B15	
K23	1923	B4	
K24	1923	B17	
K25	1923	B13	
K26	1923	B24	
-	1920	A5	Used for crane runner. Details of second runner lacking
-	1920	A4	Used for rail waggons.
-	1920	D1	" " "
-	1923	A7	" " "
-	1923	C10	" " "

These rail waggons were used by the P.W.Dept for carrying replacement rails, and are said to have been fitted with short lengths of rail fastened across them, in order to facilitate this task. They are also said to have worked in conjunction with class L.

In addition to the above, certain members of classes H and M were carried on ex-coach underframes. The above list accounts for 35 coach frames, whereas there were 52 of them, excluding those in the E series, which provided a further 5. Even allowing for the fact that some were broken up as unfit for further service, (ex. E2 frame, 1924; E6 frame, 1909), there were still five frames on hand in 1944, so there must have been others available, and it is known that, as stated above, they were used for certain members of classes H and M. No further information, however, is available.

Some of the H class were fitted with timber rails, nearly doubling their effective height, e.g., H8. They were then used for sheep traffic.

The remainder of the goods stock is or was as follows:-

1. Two hand-cranes on 4-w chassis, each with a match truck (one of which was A5 as stated above; what the other was is not known.) One of these is described as an 8-ton travelling crane, the height of which is 16'6" from rail level to the centre of the pulley on top of the jib, with a total length of 60' of lifting chain; the other is a small travelling crane, capable of lifting 30 cwt.

2. One 4-w well wagon for the transport of machinery, built in the shops at Douglas.

Perusal of the list of G and K stock given above suggests the following tentative history. There were originally 14 vehicles in the G series. This number was increased by five, built onto coach frames. This is borne out by the fact that the first 14 were short, the remainder long (see above.) The same process of reasoning suggests there were originally 12 K series vehicles,which number was increased to 26 between 1912 and 1923, by building onto the redundant coach frames. This, too, is supported by the fact that the majority of the K stock is of the long form. At the same time nos. K1, K2 and K5 were found to be in need of overhaul and their original frames were replaced in 1921 and 1924. This would account for their position in the accompanying table, but does not explain how a presumably short body would be accomodated on a long frame!

This completes the information at my disposal about the good stock of the IMR. It is incomplete, tantalisingly so at times, but it comes from a reliable source and is correct as far as it goes. If anyone can supplement the foregoing, from personal observation or from written records, he is requested to do so in a future issue of the magazine.

AN INTERESTING INDUSTRIAL LINE - by the Editor.

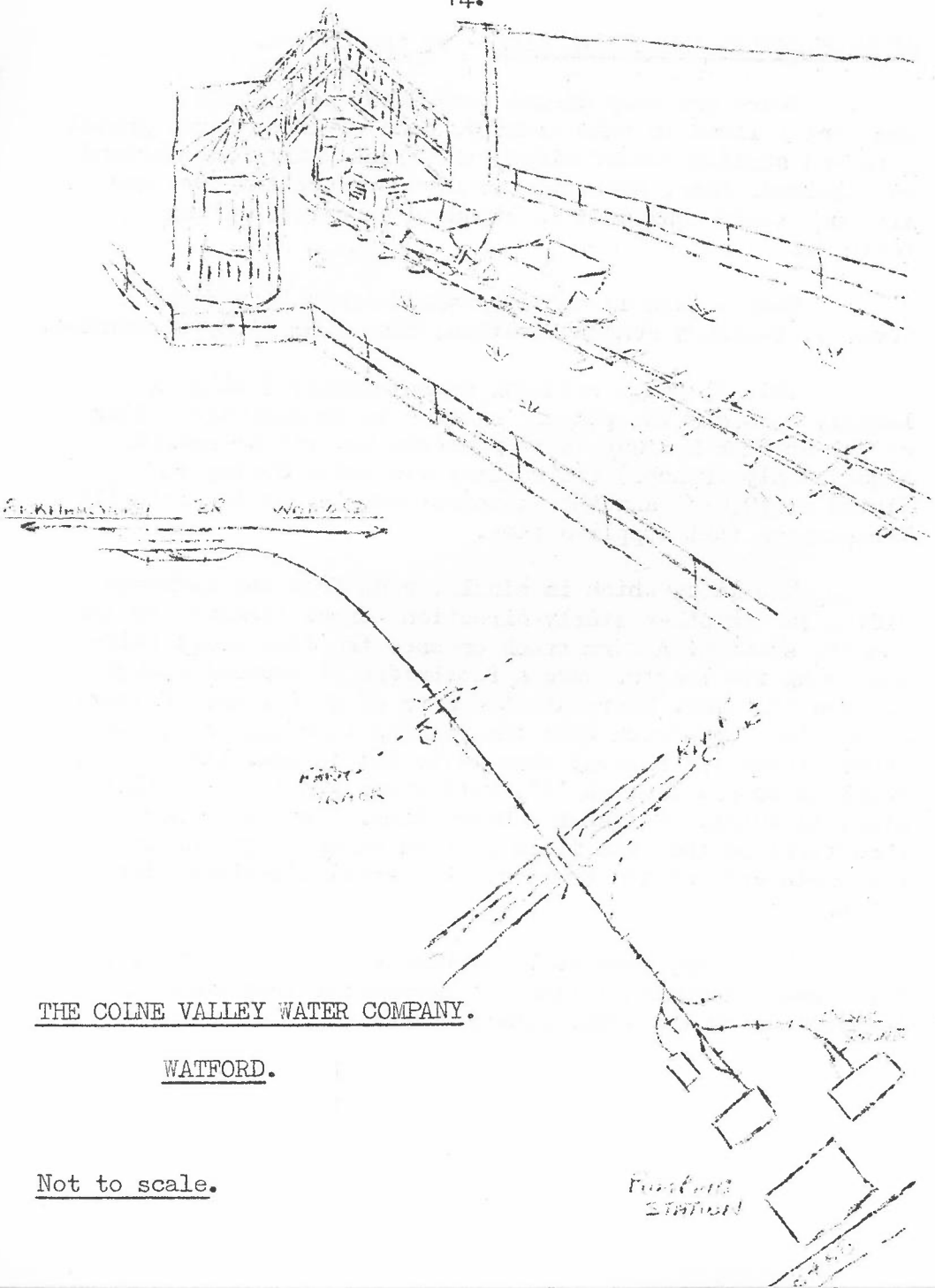
There are many diesel worked two foot gauge industrial lines in this country. Some of these serve gravel pits and similar undertakings, the track being moved around as required. Some, however, are of a permanent nature and although their equipment is standard have interesting features.

Such a line is owned by the Colne Valley Water Company, Eastbury Pumping Station, near Watford,Hertfordshire.

This 2' gauge railway, approximately $\frac{5}{8}$ mile in length, connects the pumping station to an exchange siding on the British Railways Watford-Rickmansworth branch.(Now a goods-only branch.) The railway was built during the Winter of 1930/31 and the equipment now in use is virtually the same as that supplied then.

The line, which is single, runs from the exchange siding in a south-easterly direction across farmland to the pumping station. A farm track crosses the line about half-way along its length. Here a footbridge of unusual design crosses the line. There are two sets of gates, one of these closes the farm track when the railway is being used, the other closes the railway when it is not in use. The bridge, which is shaped like an 'A', with steps running up either side, is mainly of timber construction. Like the other structures on the line it is painted an apple green. On the south side of the crossing is a small six-sided signal cabin.

These may seem to be elaborate crossing arrangements for a small industrial line but apparently they were insisted on by the local County Council.



THE COLNE VALLEY WATER COMPANY.

WATFORD.

Not to scale.

Near the signal cabin was a passing loop but this has now been removed. The fence bordering the line still bulges to show the loop's position. Further on the line crosses the River Colne by a 65' single span bridge. At one time a siding ran off just south of the bridge to the river bank where ashes from the pumping station boilers were dumped. Nearer the pumping station lines branch off to the right, to the building where the locomotives and other equipment are kept, and left to a wagon storage siding. A short way on another line branches off to the left. This is known as the 'coal road' and leads to the coal store. At this junction there was at one time a disc point indicator. Just past this junction the 'main line' divides into a passing loop and then runs into the softening house.

The line was supplied with two Ruston and Hornsby diesel locomotives and these are still in use today.No. 1 is a 16h.p. machine of the slow speed type and was built in 1932, being works' number 166015. This locomotive was delivered on 8th. September 1932.

No. 2, also a 16h.p. machine, is a fast speed model, being works' number 166024 of 1933. This locomotive was delivered on 11th April 1933. It may be of interest to record that this locomotive was exhibited at the British Industries Fair in Birmingham during February 1933. Both locomotives are fitted with cabs, the entrance on No. 1 being 'keyhole' shaped, that on No. 2 having straight sides. Both locomotives are painted in unlined green with red buffer beams.

The wagons, which were built by Robert Hudson & Co., are of the normal contractors' metal side-tip variety.

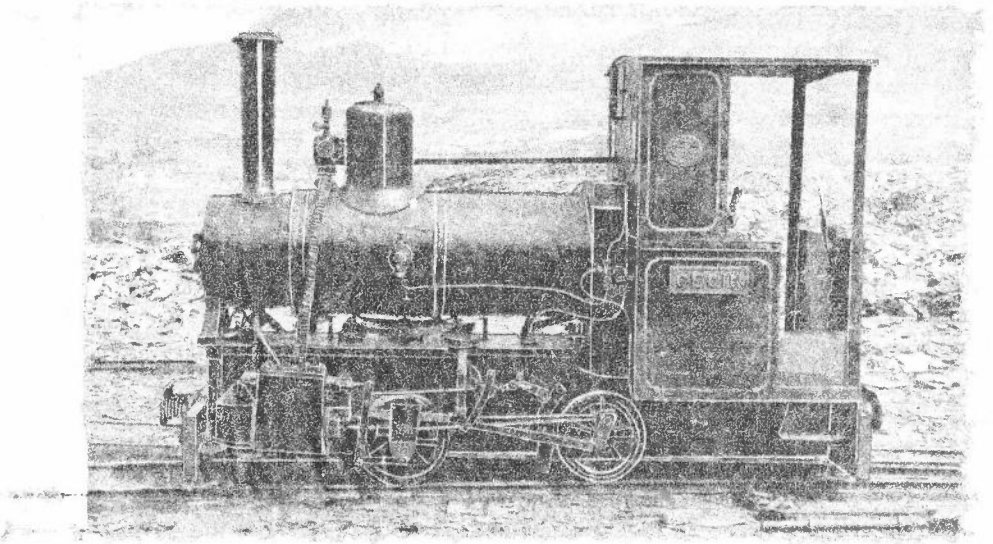
Some of these have been converted to carry chlorine drums, the bodies and end supports being removed and planks laid on the chassis. The other item of rolling stock is the workmens 'coach'. This is also converted from a side tip wagon. It has planks laid on the chassis and a bench-type seat mounted either end facing inwards.

At one time the line carried coal, salt and chlorine drums. Now only salt is carried, although chlorine drums are carried on a small portion of the track in the precincts of the pumping station. The pumping station changed over from steam power, with some of the most modern beam engines ever built, to diesel in about 1956/7 and since the chlorine drums are now brought in by road the railway's usefulness has decreased.

Originally the line was equipped with a bell signalling system to control the movement of the two trains. Bells and signal keys were provided at both ends of the line and in the signal cabin at the crossing. At present only one locomotive is used at a time and the signal wires from the crossing to the exchange siding have been removed. The line is usually working three days every week.

I am very grateful to Mr.J.Christie, Chief Engineer of the Colne Valley Water Company for granting me permission to inspect the railway, and also for reading the draft of this article; also to Mr.Allmark, Deputy Station Foreman, and Ruston & Hornsby, Ltd., for information.

ANDREW BARCLAY WELL TANK LOCOMOTIVES - by the Editor.



CEGIN, Penrhyn Quarries. Photograph by P.Myatt.

The saddle tank locomotive has always been the predominant type on British narrow gauge industrial railways. On the Continent, however, a common type was and perhaps still is, the well tank locomotive. Many of these locomotives, although built by various makers, bear a family likeness with their oval or oblong cab windows, a large dome just behind the smokebox and a sandbox, usually square, mounted on the boiler between dome and cab.

Curiously enough, well tank locomotives of this basic pattern have been built by British builders. Andrew Barclay, Hudswell Clarke and Fowlers have all built examples of this type. Many of these locomotives were built for use overseas, especially in the Colonies where their simple design and construction and lack of water tanks obstructing access to the boiler were an asset.

During the 1st World War Andrew Barclay, Sons & Co. Ltd. built twenty-five 0-6-0 well tank locomotives for the War Department. These were builder's numbers 1518-42 and they were delivered during February and March 1917 to an unknown destination. Their W.D. numbers were 601-625. All were renumbered in late 1917 but the new numbers are not known. W.D. 607 is known to have been derelict at Becker et Fils et Cie, Ballast Pits, Soissons, Aisne, in 1954. Of the others not much appears to be known. However the Birmingham Locomotive Club's new pocket-book on the Industrial Locomotives of Northern France records that up to ten of these Barclays are reported to have been seen on the 60cm. gauge system at Vis en Artois, Pas de Calais. During the 1st. World War these locomotives were used by the Australian Imperial Force in and about Poperinghe. A contemporary report has this to say: " .... They proved so serviceable and so efficient for the work for which they were specially designed that the Australians would have no others and would not part with them".

These locomotives had cylinders $6\frac{3}{4}$"x$10\frac{3}{4}$", 1'10" coupled wheels and 4'4" wheelbase. Total weight in working order was 6 tons. 7cwt. 2qrs. It is recorded that when the locomotives were tested at the builder's works they were required to ride without derailment over 1" diameter steel bars laid at intervals across the track!

After the War Barclays had a sales drive for their well tank locomotives. Many of these were destined for India via Barclay's agents, Parry & Company of Calcutta. Barclays built two designs of well tank locomotives. One was a four-coupled design known as class E and the other a six-coupled design known as class F.

Class E was comprised of three types, i.e. locomotives with 6"x10" cylinders, 1'9" coupled wheels and 3'3" wheelbase, those with 7"x11" cylinders, 1'10" coupled wheels and 3'11¼" wheelbase, and those with 8½"x12" cylinders, 2' coupled wheels and 4'4" wheelbase. Class F comprised two types, those with 7"x11" cylinders, 1'10" coupled wheels and 3'11¼" wheelbase and those with 8½"x12" cylinders, 2' coupled wheels and 4'4" wheelbase.

The following is a provisional list of Barclay well tanks known to me. Undoubtedly it is very deficient, and if anyone can add to it I should be grateful.

No. Date.	Gauge.	Type.	New to:
1413/17	2'	E	Cowie Harbour Coal Co.Ltd.
1428/20	2'	E	Parry & Co. Calcutta.
1429/20	2'	E	" " "
1430/20	2'	E	" " "
1431/18	2'	E	R.N.A.S. (Admiralty.) Calshot Lt. Ry. to Abelson,Sheldon 4/49. To Talyllyn Ry. 4/53.
1432/18	2'	E	R.N.A.S. (Admiralty.) Calshot Lt. Ry. to Abelson,Sheldon 4/49. Scrapped '56.
1433/18	2'	E	R.N.A.S. (Admiralty.)
1450/20	2'	E	Parry & Co. Calcutta.
1451/20	2'	E	" " "
1452/20	2'	E	" " "
1453/18	2'	E	R.N.A.S. (Admiralty.)
1454/18	2'	E	" " Worked at Air Ministry, Kidbrooke. To T.J.Williams, Rotherhithe for scrap.
1455/18	2'	E	R.N.A.S. (Admiralty.)
1494/17	2'	F	Parry & Co. Calcutta.
1691/20	2'	E	Lever Bros.Port Sunlight.No. 4.
1694/20	2'	E	Kensal Green Gas Works. Scr '48.
1728/21	2'	E	Parry & Co. Calcutta.
1729/21	2'	E	" " "
1730/21	2'	E	Inns & Co. St.Mellons.Cardiff.

No.	Date.	Gauge.	Type.	New to:
1731/21		2'	E	Parry & Co. Calcutta.
1732/21		2'	E	" " "
1733/21		2'	E	" " "
1734/21		2'4⅝"	E	Threlkeld Granite Co.Ltd.Keswick.
1855/31		2'	E	Durham County Waterboard. To Roads Reconstruction Ltd. Gravesend Quarry. To Cranmore Depot 4/49 Scr.
1991/31		2'	E	Durham County Water Board. To Penryhn Quarries 10/36. 'Cegin'.
1994/31		2'	E	Durham County Water Board. To Penryhn Quarries 1/38. 'Glyder'.
1995/31		2'	E	Durham County Water Board. To Raisby Hill Limestone Co. To Padarn Quarries, '48.
2024/37		2'	F	Conservator of Forests.
2263/49		3'	E	Bord na Mona.
2264/49		3'	E	" " "
2265/49		3'	E	" " "

In addition to those shown above the Durham County Water Board were supplied with one other Barclay, probably a well tank. Our member Lionel I.Heath remembers seeing an E class locomotive, number unknown, in the yard of Mellville,Dundas and Whitson on their Main Sewer Contract near the Mumbles in about 1932-3.

We cannot hope to cover the full history of these locomotives in the space available but perhaps this short survey will encourage members to fill in the empty gaps, especially as regards the fate of the W.D. locomotives and details of any Barclays abroad which may be known to them.

My thanks are due to Andrew Barclay Sons & Co.Ltd., and Messrs W.J.K.Davies, L.I.Heath, and R.P.Lee for information. Also to Eric Tonks and the Records Officer of the Birmingham Locomotive Club and their invaluable pocket-books.