



# NARROW GAUGE NEWS

PUBLISHED BY

The Narrow Gauge Railway Society

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## London & Southern Area:

Meetings Secretary: N.Howell, 3, Hamilton Road, Wimbledon, London. S.W.19.

Meetings are held at Caxton Hall, London. S.W.1. ( Nearest underground station St.James Park ) at 7.00 p.m. for 7.30 p.m. start.

Wednesday: 21st October. Dr. Brian Rogers will present a showing of films of the Irish Narrow Gauge.

Wednesday: 18th November. Subject to be announced.

Clapham Museum. Arrangements have been made for a special Sunday opening of the Museum of British Transport, on Sunday, November 1st., from 2.00 p.m. to 5.30 p.m. for members of Societies only. This opening is purely for enthusiasts interested in the development of transport, and a special rate of admission has been agreed, being 5/- for adults and 2/6 for children.

If you are interested in joining the N.G.R.S. party please advise Tony Deller, 8, Holland Road, South Norwood, LONDON. S.E.25 immediately.

There will be ample opportunity for photographs and examination of the various exhibits so we urge you all to take this opportunity of spending an interesting day.

## Yorkshire Area.

Area Secretary: R.N.Redman, 11, Oliver Hill, Horsforth, Nr. Leeds.

Meetings are held in Headingley Hill Church Rooms, Headingley Lane, Leeds.6, at 7.45 p.m. for 8.00 p.m. start unless otherwise stated.

Friday: October 9th. "A Welsh Quarry Evening". Illustrated with slides and cine film by M.Swift, R.Schofield, and I.Stephenson.

Friday: November 6th. "The Llandudno & Colwyn Bay Light Railway", an illustrated talk on this famous narrow gauge tramway system by E.G.Cope.

Friday: December 4th. The annual informal night out at the home of Mr. & Mrs. R.P.Lee, with the usual grand selection of colour slides and films of the narrow gauge world. If you would like to be in on this please drop a line near the date to Peter at The Sycamores, Golcar, Huddersfield, Yorks.

The Society is displaying a stand at the Leeds Model Railway Society Exhibition on Thursday - Saturday, October 29th - 31st. Setting up night is October 28th, and as usual assistants are required for staffing the stand. If you are able to assist please contact R.Schofield, 98, Green Lane, Cookridge, Leeds.16. Phone Leeds 672654.

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## Brockham Museum to Close?

J.L.Townsend.

At a recent meeting of the Museum Committee I put forward the suggestion that it was completely impractical to continue the work of building up a narrow gauge museum at Brockham, and that in the light of three years experience we should consider that what has been done in the circumstances is remarkable, but that no fruitful future was foreseeable. Of course this produced a heated discussion, which resulted in the Committee agreeing that under the present circumstances, this was in fact the case.

We are faced with two alternatives (a) to close the museum ( or rather cease the work of building it); or (b) drastically alter its present structure and organisation and hope that members will respond to a final appeal. The Committee are obviously very reluctant to recommend that former to the Society as it will mean the loss of all the relics as well as ensuring the scrapping of many items which we had hoped to obtain. However, unless there is a drastic reappraisal of the situation by members it will be physically impossible to continue.

I put the problem to you. Until now the Museum has been organised and built up almost entirely by the younger members of our Society. This is to be expected, and is a feature of most bodies of this type, but a stage in expansion has been reached when these younger members, of whom I am one, have neither the knowledge, experience or authority to know the best ways to tackle the future. Enthusiasm alone is not enough.

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If it was we should have the finest museum in the country. Unless we see the museum ultimately becoming something akin to the tramway museum at Crich, and on that scale of activity, then it will never become more than a backyard fad. Brockham could become a unique museum fulfilling a useful purpose in the documentation of Britain's industrial history or it could, and will unless something drastic happens, be a picking ground for scrap merchants.

Maybe our whole approach to you, the member, has so far been wholly wrong. If so we must know and do something about it. Maybe you have not considered our problems. If not this may be the last chance. For these reasons we are holding an informal meeting on Saturday, November 21st at Caxton Hall, Westminster, London. S.W.1, starting at 7.00 p.m. to obtain criticisms, suggestions, and we hope, offers of help. If you cannot attend personally, but feel that there is something you would like to say about the running of the museum, please write to me at 21, Blackhorse Lane, Addiscombe, Croydon, Surrey before this date.

Let me summarise the questions that are causing such concern so that you might think about them before the meeting.

- (1) How can we best attract people to the Museum who are prepared to take a share in the actual organisation of it? (We need someone prepared to undertake publicity as well as others to help with the planning of building work.)
- (2) How can we ensure a steady, reliable income?
- (3) How can we best organise volunteers on site?
- (4) How can the museum be given a firm foundation with national recognition and support?

I do hope that all members of the London and Southern Area, and others from further afield will make a special effort to attend this meeting, or make their views known if they have any ideas on the matter. It is realised that a proportion of members have no interest in preservation, but their views may be just as valuable, in fact probably more so, than the regular volunteer because they can see the problem from the outside, with no preconceived ideas. The museum is not for prospective firemen and drivers anymore than Clapham is for drivers of horsetrams or budding bus conductors. It is for EVERYONE who has interest in the narrow gauge railway.

The meeting is informal, but let me stress in all seriousness that unless it receives good support in the area then the museum must close before the end of the year. Please note the time and date now: SATURDAY, NOVEMBER 1st., Caxton Hall at 7.00 p.m.

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#### Baldwin Narrow Gauge Locomotives: Part V. New Zealand's only "Mikado".

I. Stephenson.

The only 2-8-2 type locomotive to work in New Zealand was the Wellington & Manawatu Railway Company's No.17.

This huge machine was built by the Baldwin Works in 1901 as works progressive number 19796, and was for many years the most powerful engine in New Zealand. When No.17 was built the Mikado type was about three years old, the first example of the type having been built for the Imperial State Railways of Japan by Baldwin.

The W. & M. Mikado was a Vaucrain compound and had two  $11\frac{1}{2}$ " x 20" high pressure cylinders and two 19" x 20" low pressure cylinders. Perhaps a word should be said about the Vaucrain system of compounding. It was designed by Baldwin's Chief Engineer, Samuel M. Vaucrain, who was later to become President of the Baldwin Loco. Works. In the Vaucrain System the low pressure cylinder is placed above the high pressure cylinder, and the pistons of both are connected to the same crosshead. The high and low pressure cylinders are usually part of the same casting. Steam at boiler pressure is admitted to the high pressure cylinder, and then exhausted into the low pressure cylinder which is larger in diameter in order to obtain the same force on the piston as that obtained in the high pressure cylinder, but with a lower steam pressure. The system could only be used economically when heavy trains were to be hauled at low speeds. In standard gauge engines it was usual for the HP cylinder to be placed above the LP, but with low slung narrow gauge engines the opposite course was taken in order to provide clearance from platforms and objects on the ground. In the U.S. such engines were called 'upside down compounds'.

When placed in service in 1901 No.17 was allowed to haul a maximum of 150 tons on the 1 in 36 out of Wellington's Thorndon Yard. On a ruling grade of 1 in 56 No.17 could take 280 tons, but once set a record by hauling a train of 349 tons.

This large engine was fitted with the same design of boiler and wide firebox as fitted to the N.Z.G.R. Q class pacifics which had preceded No.17 through the Philadelphia plant. No.17 was a great favourite of the engine crews and the loco foreman. It was said of the latter worthy gentleman that he would not allow No.17 out if it was raining as he did not want the loco to get wet!

In 1908 No.17 and the 'Jumbo' hauled a special train from Wellington to Auckland chartered for members of the New Zealand Parliament who were on their way to welcome a United States Naval Squadron visiting Auckland. The two Baldwins hauled the train to Longburn, where 'Government power' took over for the last stretch to Auckland.

When the Manawatu line was bought by the N.Z.G.R. in 1908, No.17 became class Bc and was given the running number 463. The new owners kept 463 on the Wellington - Paekariki section until almost the end of her life, her last duties being at Thomdon. The loco was finally withdrawn in 1926, a victim of standardisation, and was cut up. A sad end for a hard worker which ran 109,871 miles in her seven privately owned years. However, No.17 is not forgotten for her brass bell now hangs on a platform at Wellington Station.

Dimensions of W. & M. R. Co. No.17:

Cylinders: HP (2) 11½" x 20"	Weight: Engine 45t.8cwt.
LP (2) 19" x 20"	Bogie tender 26t.
Boiler Pressure: 200 lb/sq.in.	Tender capacity: Coal 5 tons.
Driving wheels: 4'3" dia.	Water 2000 galls.
Grate Area: 25 sq. ft.	
Heating Surface: 1491 sq. ft.	

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"Fair Maid of Foyers" to be preserved.

British Aluminium Co.Ltd.

The 3'0" gauge Andrew Barclay 0-4-OT locomotive formerly at Foyers Works has been presented to the Scottish Railway Preservation Society and transferred to the B.A.Co. rolling mill at Falkirk where it will be given a temporary home where members of the Society can make a start on reconditioning it. The Society hopes to transfer the locomotive to a permanent museum of Scottish railway history at a later date.

The loco has an interesting history which is worth recounting in detail. It was built in 1899 as Andrew Barclay No.840, and sold for £475 to Morrison & Mason Ltd., the Glasgow contractors. As Morrison and Mason No.5, it was put to work in May 1899 at Bucknell, Shropshire, on the Ludlow section of the Elan Valley Waterworks scheme, where an aqueduct was being built to connect up reservoirs under construction near Rhyader with similar installations to take water from various lakes for Birmingham Corporation. The loco was on this job for some nine years, and in 1908 was transferred to the Ystradfellte Reservoir in the Breconshire mountains north of Hirwaun, where it worked on a scheme for the Rhondda Valley Water Board. When Morrison & Mason completed this job in May 1915, the loco was sold together with other surplus plant, and purchased by C.D.Phillips Ltd., of Newport, Mon., who took the loco into stock and overhauled it.

In November 1916 the loco was purchased by the British Aluminium Co. for its Foyers factory. Foyers was the cradle of the British aluminium industry, ingots having been first produced there in 1896. The factory was also served by the first industrial hydro electric scheme to be developed in Britain. All raw materials were brought in, and aluminium ingot moved out by water through the Caledonian Canal, and the factory had a busy quay on Loch Ness. Horse drawn wagons having proved inadequate for the traffic, the locomotive was acquired and track laid. When the loco arrived at Foyers it was christened "The Fair Maid of Foyers", although there is no record of it ever having carried a plate to this effect.

For more than forty years "The Fair Maid" served the factory, running over track more than a third of a mile from the pier head to the plant, and then in a loop right round the buildings. This loop was later broken when the buildings were extended to the west. The rolling stock consisted mostly of open wagons, which were reconstructed or rebuilt on their original wooden frames to form a fleet of 51 miscellaneous wagons to carry metal, alumina, and other supplies. In 1917 twelve steel tip wagons were supplied by Dick Kerr & Co., of Kilmarnock, for carrying coal.

The loco underwent few changes during its working life, other than the provision of a powerful acetylene headlight to allow working on the quay during the night. In 1938 a new boiler, cylinders and pistons were fitted, and new side tanks, eccentric pulleys and straps fitted in 1949.

In 1954 the Foyers factory was converted to the refining of super-purity aluminium smelting being carried out at the larger and more modern works at Fort William and Kinlochleven. The railway was no longer needed, as all materials were moved by road, and the track was lifted later. However, rather than allow the locomotive to go for scrap it has been decided to preserve it as an interesting example of Scottish railway history.

Dimensions:

Cylinders: 6½" x 12".	Wheelbase: 3'6"
Boiler Pressure: 120 lb/sq.in.	Length over buffers: 12'9½"
Heating surface: 124.5 sq.ft.	Width overall: 5'6"
Grate Area: 3.5 sq. ft.	Weight - empty: 6 tons.
Driving wheels: 1'10" dia.	" - in W.O.: 7½ tons.
	Tank capacity: 110 galls.

Isle of Man Railway.

D. Staling.

In addition to the notes in the last News from Mike Swift, Mr. D. Staling has provided the following additional material.

Locomotives 2, 4, 7, and 9 are permanently withdrawn, and 2 and 7 have been dismantled. 4 and 9 due for scrapping. 3, 6, and 13 are in the carriage shed at Douglas, and require new boilers, and 14 and 15 are in Douglas loco shed as spares.

The Sunday trains to Kirk Braddan are now worked by one engine, which takes the stock of the first train to Union Mills, runs round, and propels it out of the loop towards Crosby; it then runs light to Douglas to pick up the second train which it also takes to Union Mills, runs round and propels it onto the first train, couples the two together and brings them back to Kirk Braddan. The railcar meanwhile arrives with the late comers. After the service the railcars leave first followed by the loco with the first half of the train. It then returns light for the second half.

Of the service trains, the 11.45 ex. Douglas, and the 10.35 or 11.50 ex. Port Erin are the most likely to be mixed on the South line, and the 12.00 ex. Douglas, 2.25 ex. Peel, and 1.45 ex. Ramsey carry goods traffic on the North lines.

Little of the goods stock remains. Goods vans G1, 5, 7-9, 11, 12, 14, 15, 17, and 19 are in use, together with another one (G16 or 18) unidentified. Vans G2-4 and 6 await scrapping, and all other G vans have gone. So far as can be seen, no H series wagons survive, and only about two dozen M series wagons still exist. The only cattle vans are K1, 13, 25, and K18 with a G series body, which are in the scrap sidings at Douglas together with E1 and E5, the last of the brake vans.

The saloon coaches are rarely used nowadays, the Sunday trains being their only workings, and apart from the Port Erin run, the F70-75 series of coaches made up from two four wheelers do not seem to be used extensively. The Manx Northern six wheelers still remain at St. Johns, with F39 (the 'Foxdale Coach') in the carriage shed there.

In spite of the rather depressing appearance of the locomotives, especially MANNIN, which looks as if it will not last much longer, traffic is still heavy, especially on the morning trains. There are only two consistently clean locos on the line, No. 10 G.H. WOOD of Port Erin shed, and No. 5 MONA, although No. 11 MAITLAND, and No. 12 HUTCHINSON are usually quite clean. The only spotless dome is on No. 10, while MANNIN is in a disgusting state, and FENELLA and SUTHERLAND little better.

One interesting point about the railcars is that their couplings are still at the County Donegal height of 2'10½" - 7½" higher than the Isle of Man stock.

Welshpool & Llanfair.

J.R. Brooks.

On a visit at the beginning of August THE EARL was in steam hauling a train made up of the ex. C. & U. Brake van; ex. C. & U. toastrack; closed coach rebuilt from ex. C. & U. toastrack; and the combination car. The present terminus at Sylfaen is somewhat unusual in not possessing a run round loop. Brake van No. 2 is parked permanently on the end of the siding and serves as a somewhat crude booking office, cum station building. The van is fitted with a telephone wired directly into the main telephone cable.

The general mode of working is that:-

- (1) UPNOR CASTLE runs light to Sylfaen before the first train and goes into the siding.
- (2) Train hauled by a steam loco runs in and halts at the station.
- (3) UPNOR CASTLE backs onto the train and draws it onto the main line clear of the siding point.
- (4) Train engine goes into siding.
- (5) UPNOR CASTLE propels the train back into the station, then returns back up the main line clear of the siding point.
- (6) Steam loco leaves siding and backs onto train.
- (7) UPNOR CASTLE returns to siding.

This method of working is reminiscent of the F.R. in 1955, but without the chain shunting which was employed to run round at the Boston Lodge Yard siding, but it has many disadvantages. In the event of a steam loco failure requiring a diesel to run the service, this would only leave the small RAVEN to carry out the shunting at Sylfaen.

The ride on the line is not uncomfortable, although care is needed when leaning out of the coaches as some additional lineside clearance is required in places. Some form of barrier would appear to be needed on the door openings of the toastracks, as on both up and down runs some of the more adventurous young lads spent most of the time walking up and down the ample footboards.

Ex. C. & U. bogie wagons were in the loops at Castle Caereinion and Heniarth, and W. & L. wagons and vans in the loop at Cyfronydd, where also was "HANDYMAN" sheeted over but somewhat battered and in need of a coat of paint. At Llanfair a coal stage is being built alongside the former coal siding at the Welshpool end of the station. The geared Sentinel loco "NUTTY" has been dismantled prior to regauging, and two weeks later was having its boiler tested.

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At Welshpool little trace remains of the former terminus, and the exchange siding has completely disappeared. The loco shed has gone but the goods shed and former carriage shed remains. All track in the yard has been lifted and only a pile of rotting sleepers remains. A short length of dual gauge track still survives in the cattle dock siding in the standard gauge yard. Most of the rails between the yard and Raven Square are still in position, except where the main road crossing has been taken out, and at a point near the quarry, where a couple of lengths have been lifted, the formation widened, and a corrugated iron Salvation Army hut erected on the track-bed! The new terminus consists of merely a run round loop, and is effectively separated from the rest of the system but a massive R.E. constructed stop block.

#### Ffestiniog Railway.

J. R. Brooks & F.R.S.

On Saturday, August 15th, LINDA was working the train service with a six coach set. The new 4 wheel brake van ( more below ) was in service attached to the second train. Saloon coach No.24 had not at that time entered service although it could be seen just inside the loco shed at Boston Lodge works. The other working locos were standing in the loco coal road with PRINCE (in steam) at the inner end, followed by MERDDIN EMRYS and BLANCHE ( both dead). BLANCHE has been adapted somewhat similar to LINDA, but the cab back sheet has been retained, but with a central opening. She is still in black livery.

A newsiding is being laid in at Minffordd, in the angle between the long siding beside the main line, and the yard branch. Work is in progress on the site, with old van No.1 in use as a P.W.brake. At Tan-y-Bwlch the yard trackshave been lifted and a new siding was being put in on the site of the former siding beside the main line. The riding of the F.R. stock has now improved considerably, although how much is due to track improvements, and how much due to stock improvements it is not possible to say. A considerable amount of additional clearance along the track side has opened up even finer views.

The new four wheel brake van mentioned above has been built by the Midland Group of the F.R.S., and has recently been delivered to the line. The vehicle has a welded steel underframe, and a hardwood body frame with plywood panels inside and out to give a very rigid construction. Most of the body frame was built in Cardiff, and sent to Birmingham for erection. The wheels and bearings came from an old quarrymens coach, and the couplings from an ex. Ashover Light Railway bogie wagon. The interior is equipped with upholstered seats from Birmingham buses, covering the lockers and vacuum cylinder, and give a comfortable ride to the guard and staff when the van is required for maintainance trains. Other fittings include louvre light windows, and fire fighting equipment.

On September 21st a meeting was held at Tan-y-Grisiau at which representatives of the F.R.Co.; C.E.G.B.; Merioneth County Planning Dept.; and the Ffestiniog Urban Council, to discuss the effect of the proposed extension of the F.R. into the district. Two schemes were dealt with at the meeting, the one which has been fully described, whereby the railway will run along the top of the dam, and an alternative scheme with a viaduct across the valley downstream of the presnt dam. The railway company has appointed Mr. Clough Williams-Ellis, the eminent Welsh architect, to advise on the problems of landscaping the line, particularly in the vicinity of the dam, but also on the rest of the deviation.

Passenger traffic on the line has agin shown an apprecaible increase over last year, and by mid September was about 140,000, 10% up on the 1963 figures at the same period.

#### Oldham Corporation Sewage Works, Chadderton.

P.J.Burkill.

This system, once an extensive railway with almost four miles of track, has now shrunk to a bare 900 yds. or so. It dates from 1901, when horses hauled  $\frac{1}{2}$  cu.yd. wagons on a 20" gauge line. During the construction period 1899-1901 a 3'0" gauge line, also horse worked, was in use. About 1921 the line was relaid to 60 cm. gauge and an ex.W.D. Baguley petrol loco obtained. This appears to have had four cylinders, and to be more akin to a motor car than a locomotive. With the completion of the nearby power station built by the Corporation a McEwan Pratt loco was obtained. This still exists, as reported in the April News, and is to be preserved by our member R.P.Morris. The third loco was of course a four cylinder Hudswell Clarke petrol loco, scrapped two years ago, but the two latest locos are still in existance.

The ea rlier one is a Hunslet 16 h.p. works number 2320, built in 1943. This has been on the line since 1946, but has been rarely used in recent years, being kept as spare to the new loco, a 21 h.p. Hunslet No.6012, built in 1960.

Ten wagons exist (just about), but although the railway has but 5-6 years of life left some new wagons are on order and these are expected soon. The remains of four other wagons lie near the loco shed. These are all  $\frac{3}{4}$  cu.yd., though 1 cu.yd. wagons were used at one time.

C.E.G.B. Connahs Quay.

J. R. Brooks.

A new line of ? 2'0" gauge has been in use here for about two months. The ash from the power station is used for land reclamation, and the line is used for carrying pipes out onto the land to be reclaimed where ditches are being replaced by pipelines. The track is of light flat bottom rail, spiked to timber sleepers.

The rolling stock consists of one cableless diesel loco - not a Simplex or Ruston, though very similar to these types - one or two long wheelbase flats, several Jubilee flats, and at least one bolster wagon, which has a Jubilee type frame and two bolsters.

The pumping of the pulverised fuel ash, mixed with water, onto the site has commenced while the work of laying culverts is still in progress, and the whole area is just a wet grey mass. In such conditions a narrow gauge railway is the only possible means of transport.

Penrhyn Quarries - END OF RAIL TRANSPORT IN SIGHT!

R. Schofield & R. Bridge.

We never thought that Penrhyn would dispense with rail transport in our time, but the present economic outlook is very different from that when the quarry was being developed. Earlier this year Sir Alfred McAlpine & Sons.Ltd., the well known contractors, secured a large shareholding in the quarry company - we believe a majority shareholding, and by the end of August bulldozers and dump trucks had been moved in to build roads through the quarry. The main access road starts on the B.4366 road to Bethesda just below the workshops, and strikes up onto the main working level alongside the present rail incline. From the main level it then runs straight up the side of the mountain striking through slate tips, tracks, buildings, and ends above the top level, where WINIFRED normally works on the tip. The fact that this road was built in TWO WEEKS will give some idea of the manner in which the job has been tackled. The track in most places is now in a terrible state, as dumpers and bulldozers are driven over it continuously, and gangs of men are spending all their time replacing damaged track to allow trains to pass. Even then by the time the train has to return, the track is invariably torn up again. Reports of how long the railway is likely to remain in operation vary from six months to two years. Bob Schofield reckens that about 18 months is the official figure, but this may not be adhered to. Not only the railway is going, but many other things as well, many buildings, old inclines, and other familiar landmarks have been swept away, and it seems likely that even the most observant enthusiast may have difficulty in finding his way round in the near future.

The present loco position is as follows: The workshops contain GLYDER and NESTA which have been repainted and are in immaculate condition. However, in view of the present situation they seem unlikely to return to the quarry. Ruston No.24 was also in shops. Most of the workshop staff are now on dumper and bulldozer maintenance, so the railway will obviously be left to fall to pieces.

The depleted scrap line held only the frames of BRONLLWYD, KATHLEEN, STANHOPE, the 4w brake van, and LILLIAN. SGT. MURPHY has been sold to Colin Pealling, and delivered to his home in Kingswinford. The 'long shed' held the following locos:- PAMELA, ALAN GEORGE, HUGH NAPIER, GWYNEDD, GEORGE SHOLTO, MARGARET, and SYBIL MARY. Parts have been robbed from most of these, presumably to keep the other locos going. There are also three or four wheel coaches in here.

There is now no steam loco on the main level, four Rustons doing all the work. The second level (tip only) has been unaffected by the road, and OGWEN is still at work. On the next level the track was in a terrible state, but CEGIN was working trains out to the tips, and MARCHLYN working from the quarry to the cutting sheds. On the top level WINIFRED was at work during the first week in September, but was expected to cease work on September 4th, and be replaced by a diesel. However, two weeks later WINIFRED was out of use on the top, as the road construction works had broken the water supply to the shed, and prevented the loco from being used. Although there was no diesel on the level it is believed that one was brought up the incline when required.

This then is the present position. We should also add that with all this work being carried out that company are no longer so keen to have visitors as they were formerly. In fact before long visits may be stopped entirely.

John Baker & Bessemer Ltd., Kilnhurst.

M. Swift.

The recent much publicised closure of the above concern has included the closure of one of Yorkshires lesser known, and shortest, narrow gauge lines. At one end of the Forge at Bakers, a 2'6" gauge line, consisting solely of a straight single track, ran partway down the side of the shop, out through a rubber door to a section laid in concrete running between buildings, to terminate in the works yard where the line was accessible to road vehicles. The line was about 80 yds long. Its sole traffic was axles, which were carried on a steel flat modified from a 'Jubilee' frame. The one loco is an early battery job, English Electric 705/26. This is a low, 4 wheel machine, with the usual end cab, and solid outside frames extending almost to rail level.

C.F.Franco-Ethiopian.

This metre gauge line, which connects the capital Addis-Ababa, with its port on the Red Sea - Djibouti is nearly 490 miles long serving inhospitable country and has been entirely worked by diesel traction during recent years. All the former varied steam locos have been withdrawn from traffic, except for C.F.E. 421-6, 'McArthur' type 2-8-2 locos built by Davenport in 1946 which are being retained as spares. The line has recently taken delivery of three new bogie railcars from the well known firm of Billard, together with six trailer cars built by Soule, of Bagneres-de-Bigarre. The railcars are 73'10" long overall, and seat 20 1st class, and 26 2nd class passengers. They weigh 44tons, and have a 550 h.p. diesel engine and electric final drive. The trailers are shorter and lighter and seat 81 passengers. On a trial run one of the cars made a high speed downhill run over the line and reached speeds of 65/70 m.p.h., quite unprecedented on such lightly laid track.

Motive Power in East Africa.

In 1955 the E.A.R. & H. commenced the elimination of steam power from its system, undoubtedly one of the most impressive metre gauge lines in the world. Since that date 25 main line, and 35 shunting diesel locos have been put into traffic, and it is anticipated that the Nairobi - Nakuru line, in the interior of Kenya, will be fully dieselised next year. However, the line from Nairobi to the coast at Mombasa is very heavily loaded, and the administration have discovered that it is cheaper to operate freight trains of 1400 tons ( about the maximum allowed by the 'chopper' type coupler) with a single Garrett locomotive, than two diesels, which would otherwise be required. Because of this the line will remain steam worked for at least ten years.

The locomotives involved are the 58th and 59th class. The former are of the 4-8-4+4-8-4 type, built since the War, and are oil fired. They have been fitted with Giesl ejectors which has increased their power output by some 14%, and they handle 650-700 ton passenger trains with ease. The 59th class are 4-8-2+2-8-4 type, built in 1954-5, and are the most powerful metre gauge locos in the world. They are oil burners, and manned by two crews can achieve annual mileages of around 60,000 with an availability and economy only slightly less than the less powerful diesels. They are also fitted with Giesl ejectors and are exclusively employed on freight haulage. In order to lessen wear on the track, they have recently had their maximum speed reduced from 40 to 35 m.p.h.

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New Zealand Locomotives. ( cont.)

<u>A class 4-6-2.</u>		( hp (2) 12"x 22"	
Simple:-	Cylinders : 18"x 22"	Compound:-	Cylinders ( 1p (2) 19"x 22"
	Boiler pressure: 190 lb/sq.in.		Boiler pressure: 225 lb/sq.in.
	Driving wheels : 4'6" dia.		Driving wheels : 4'6" dia.
	Weight - engine: 52 tons.		Weight - engine: 51 tons.
	Tender: 28.5 tons.		Tender: 27.2 tons.

Fifty seven compound A's were built, seven by Addington in 1906-8; 20 by A.G.Price in 1907, and another 30 by Price in 1910-14. De-Glehn's system of four cylinder compounding was used in place of the conventional two cylinder simple expansion system. The first of the Addington engines ( four in all ) had Stephenson's link motion to actuate the valves of the inside cylinders and Walschearts gear for the outside cylinders. All the other locos had Walschearts gear through out. The four Stephenson link motion engines were said to be faster on the level, but not so good at hill climbing than the other engines.

In 1941 a start was made to convert the locos to two cylinder simple engines. This was a popular decision, as they had all been fitted with new superheater boilers from 1925 onwards. All were converted during 1941-49, and this made it possible to reduce the boiler pressure from 225 lbs. to 190 lbs., but the tractive effort was increased from 17,000 lb. to 26,064 lb. Most of the class are still in use today on branch line services.

Ww class 4-6-4T

Cylinders	: 15½"x 22"	Boiler pressure:	180 lb/sq.in.
Driving wheels:	3'9" dia.	Weight - engine:	51.8 tons.

Fifty of these locos were constructed at Hillside workshops between 1943-9. They were allocated for many years to North Island for suburban services at Auckland and Wellington, and also worked short distance main line services. Three were allocated to the Westport section for the haulage of coal trains.

Ten superheated Wg 4-6-4T's, the predecessors of the Ww, were rebuilt to Ww's between 1940-2 and commencing in 1949 four saturated Wg's were rebuilt with a new type of boiler. This has a deeper firebox, larger heating surface, new chimney, dome and cab, and the locos bunker capacity was increased from 2 to 2½ tons.



Bb class 4-8-0.

Cylinders : 17"x 22"      Weight - engine: 43.4 tons.  
 Driving wheels : 3'6½"      tender: 24 tons.  
 Boiler pressure: 175 lb/sq.in.

Twenty of these engines were initially ordered from A.G.Price, and a further ten were ordered later. All were delivered between 1915-8.

The Bb was very similar to the Ba class, but had cylinders 1" larger with an increase in tractive effort to 20,940 lb. From 1932-8 the entire class was equipped for shunting duties, as they had been displaced from main line work by an increase in the size of trains, and the advent of more powerful locos.

Wab class 4-6-4T

Cylinders : 17"x 26"      Weight: 74.3 tons.  
 Driving wheels : 4'6"  
 Boiler Pressure: 200 lb/sq.in.

This was a tank engine version of the famous Ab, the prototype of which appeared in 1917 and was first classified W. The Wab proper was introduced in 1918, both types being built at Addington workshops. Between 1923-7 a further 28 locos of both types were built at Hillside workshops and by A.G.Price.

The principal dimensions were identical for both classes, and the main differences were the position of the sand domes, and the distribution of the weight. The W's were intended for suburban work, and the Wab's for short distance main line hauls. This different classification was retained until 1932-5 when the W's were reclassified Wab.

Eight of the ten locos stationed in South Island were rebuilt to Ab's in 1947-8, and the other two were transferred to North Island. One of these was sold to the Chai Railway in 1955 for hauling coal trains.

(To be continued)

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Books available

See list enclosed with this News for details of the many books available from the Society Publications Officer.

'Handbook for Steam Locomotive Enginemen.' This book has recently been made available by the British Railways Board to members of interested Societies, and is a very good buy. It has 200 pages of text, plus 89 detailed diagrams. Chapters include Combustion, boiler operation, valve gears, pistons, lubrication, braking, and A.W.S. It is a must for anyone with an interest in steam power.

Price: 12/6. Please enclose a further 1/- post and packing, and order from the Secretary, N.G.R.S., M. Swift, 13, Quarry Close, Brockholes, HUDDERSFIELD, Yorks. not later than NOVEMBER 7th. This will enable us to place a bulk order.

N.G.R.S. Publications.

The first printed book to be produced by the Society is going to press this week! "The Sand Hutton Light Railway", by K. E. Hartley is a model history of a short lived but well known narrow gauge line. The book tells the full story of rails round Sand Hutton from the early 15" gauge garden railway, and the later 18" gauge line which followed it. The book will have some 80 pages, about a dozen photos, maps, gradient profiles, plans and drawings of locos and stock.

Price to members only - 6/6d. post free. (Price to non members 8/6d. post free). Publication November 1st. Order from:- H. Holdsworth, 76, Tower Lane, LEEDS. 7.

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New Members: We enclose with this issue a full list of Society members to date, but have pleasure in welcoming the following who enrolled too late for inclusion.

J.C.MARTINS, 8, Trosworth Ave., Virginia Water, Surrey.  
 P.V.SKEHAN, 117, Wellington Road, East Brisbane, BRISBANE, Queensland, Australia.  
 P.WILLIAMS, 144, New Park Ave., Palmers Green, LONDON. N.13. (Junior)

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STOP PRESS: Information Wanted.

B. Webb, 3, Cambridge Place, Falsgrave, SCARBOROUGH, Yorks, has discovered a small van in a field at Weaverthorpe on the York-Scarborough railway. This has double doors on each side, a ridge roof - not curved - and is timber with steel corner and diagonal strapping. It is 10'9" lg., 4'6" wide; 5'6" high, and has no undergear at all. It bears the very faded letters " R. O. (?) D ". Can any member throw light on its origin? Replies to Brian at the above address please.