The NARROW GAUGE

No. 70 WINTER 1975-76

NARROW GAUGE RAILWAY SOCIETY

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(FOUNDED 1951)

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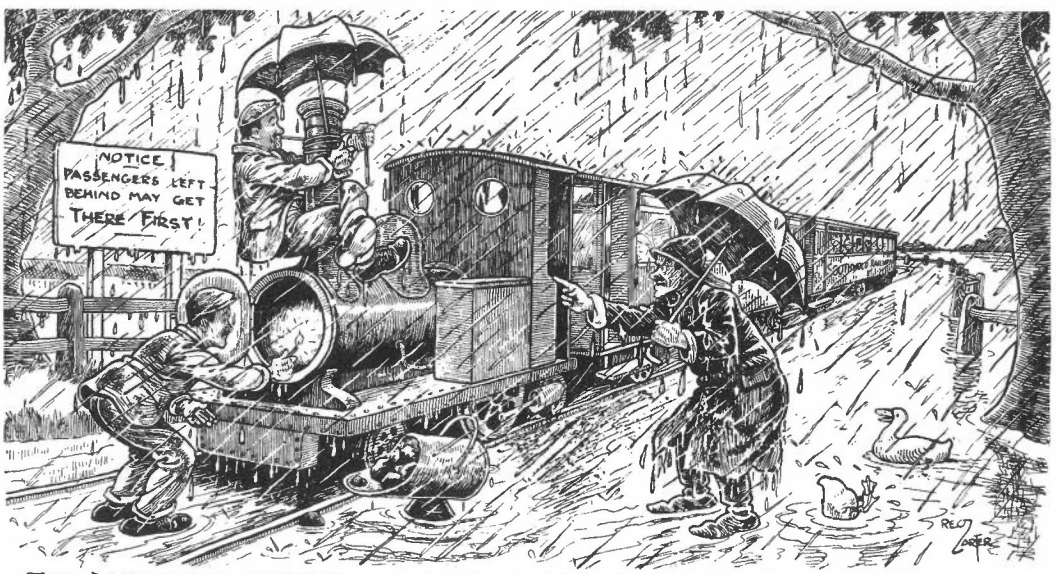
Well, we're out at last! While we haven't had quite the same problems as the Southwold Railway's train crew depicted in Reg Carger's classic cartoon seem to be having, the problems associated with changing over editors has been rather greater than usual, hence the long delay in producing this magazine. Anyway, we trust you will find the result of all our labour makes interesting and enjoyable reading.

It is our intention to produce a lively enjoyable and well illustrated magazine with a balanced coverage of all aspects of the narrow gauge scene, past and present, and at home and abroad, but obviously this relies on you, the reader, contributing suitable material. Already, we have received a gratifyingly large quantity of articles but more will constantly be required. Two particular needs are for more articles on British industrial lines and for good, sharp black and white photos, preferably at least post card size, to use for illustrations. Also I hope that those of you undertaking original research on any aspect of the narrow gauge will let me have an article on the results whenever you feel able to, so that everyone's knowledge may benefit.

One final thing, please let me have your comments on this, my first effort at editing a magazine, as well as any points in the way of corrections or further information you may have on the articles herein. We hope that a correspondence page will be a regular feature from Magazine No. 71 on, but this depends entirely on you.

Cover Photo: MAID MARION and train at Llangower, Bala Lake Railway (Photo — Bala Lake Railway).

Sorry we're late, but .....



THE SOUTHWOLD EXPRESS - A HEAVY RAIN PUTS THE FIRE OUT - THE DRIVER FIXES A PASSENGERS' UMBRELLA - THE FIREMAN LIGHTS THE FIRE - THE GUARD DISREGARDFUL OF OF THE WEATHER BRAVELY SUPERINTENDS THE WHOLE UNPLEASANT OCCURRENCE.

THE NARROW GAUGE NO. 70, WINTER 1975.

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NARROW GAUGE ALONG LAKE BALA.

John Roberts

Many enthusiasts will have pleasant memories of the Ruabon-Barmouth line of the former G.W.R. running as it did along the side of Bala Lake and through the beautiful Vale of Llangollen. Sadly, in January 1963, British Railways gave notice of their intention to close the line and during the subsequent public enquiry the local T.U.C.C. over-ruled the many objections to the closure, it being held that the Crosville Bus Co. could operate a reasonable substitute service.

The line actually closed on January 15th 1965 but a clause in the conditions of closure stated that the track was to remain intact for two years. Hence, if the replacement bus services proved inadequate then the line could possibly be re-opened, but sadly, this was not to be. July 1967 saw the first B. R. Type 2 diesel locomotives over the line hauling the demolition train and so, almost exactly 100 years since the opening of the line, the trackbed reverted back to nature.

However, living in the area were one or two enthusiasts who proposed that the part of the track bed that lay alongside Bala Lake be used for a narrow gauge railway. Buildings were in fair condition at Llanuwchllyn and it was decided that this would make an ideal place to start the construction of the line. Indeed, Mr. George Barnes, who subsequently became the new Manager of Rheilfford Llyn Tegid, had already bought the old signal level frame from there, thus saving it from the scrapman's torch.

Mr. Barnes' interest in such a scheme came to the notice of Mr. Thomas Jones J. P. of the then Merioneth County Council who was a native of Llanuwchllyn and a son of a former G.W.R. inspector. Mr. Jones was most enthusiastic and called a public meeting at Bala to see what interest there was in the area. The meeting was attended by about 40 persons and it was decided to appoint a steering committee to investigate the viability of the scheme. With the full support of the Merioneth County Council it was decided that initially the land would be leased from Llanuwchllyn to Penybont and that the new line would be of two foot gauge. A company was then formed and named Rheilffordd Llyn Tegi Cyt (incidentally the Company has the unique honour of being the first company to be registered wholly in Welsh). Funds were raised in the form of Company Shares with many local people amongst the new shareholders, an indication of strong local interest, and a voluntary society formed to assist in the day to day running of trains and maintenance.

During the winter of 1971 Mr. Barnes had purchased the first rolling stock in the form of an ex Ffestiniog Quarry Gun Powder Van and ten old slate quarry wagons. There was also the generous donation from Mr. Glyn Williams, Oakley Quarry, Blaenau Ffestiniog, of a small Ruston diesel locomotive.

Easter 1972 saw Mr. Barnes in a new role, that of a builder at work, re-roofing a part of the old waiting room at Llanuwchllyn and with the aid of a student on vacation, the painting and cleaning of the interior of the buildings was also undertaken.

In May 1972 the first employee was engaged. Mr. Howel Jones was a former B. R. permanent way man with experience in other work. He soon put this experience into practice — repairing the old G.W.R. water supply and track laying. By now second hand rails had been bought and sleepers obtained.

Track laying commenced on Whit Monday 1972 and progress was steady. July 1972 saw the line's second employee engaged — Mr. Jack Hughes a former G.W.R. permanent way inspector. With his valuable experience and the assistance of two students saw 1 ¼ miles of track to Pentre Piof Halt ready for commencement of train services by August 10th 1972.

Two open coaches seating 36 passengers each had been purchased from Severn Lamb and with the little Ruston diesel loco at the front, the 14th of August produced the first train over the 1 ¼ mile section. Whilst the services were operating over this section the four track men were busily engaged in construction towards Llangower and by September 15th were ready to extend the journey thereto. During this short period of operation no fewer than 4,000 passengers used the service.

The winter of 72-73 saw work on construction of a workshop and engine shed at Llanuwchllyn, together with an examination pit. By Easter of 73 the first covered carriage had arrived, also a steam engine named HELEN KATTRYN. This loco was of German origin and proved unsuitable without modification. As a new diesel loco had been ordered, this was no set back. MEIRIONNYDD, as it is named, arrived and took the most anti diesel enthusiast by surprise as to its immaculate design and operational ability. Work had also taken place on connecting the points to the Signal Box at Llanuwchllyn and a platform built at Llangower Halt using materials recovered from Bontnewydd and Penmaenpool platforms. This season saw growth in passengers to 23,000 from the 4,000 during 1972.

Summer 1975 — MAID MARION in passenger service. *(Photo — Bala Railway).*

In 1974 a Cafe had been opened at Llanuwchllyn, this being annexed to the old Ladies Waiting Room and constructed from materials recovered from Morfa Mawddach Station. The opening of this establishment proved to be an additional attraction.

During winter 1974 owing to the increased length of trains, the platform at Llangower had to be extended and a new signal cabin built, thereby enabling the point and lock to be operated by two levers. A home signal was also installed and connected.

The Company were by now ready to extend the track by one mile to Pant yr hen Felin, this extension being first used on May 20th this year.

During late summer 1974 rumours were whispered that the Maid Marian Locomotive Society and Rheilffordd Llyn Tegid Cyf had come to an agreement that the famous loco MAID MARIAN was to run on L.T. metals. Rumours were proved correct with the arrival of this famous locomotive at Llanuwchllyn at Easter 1975. With a steam brake fitted MAID MARIAN'S trials proved beyond doubt that she would be able to operate admirably.

Both employees of the Company were trained to operate Maid Marian and to-day Jack Hughes and Howel are gaining experience daily and are proving excellent enginemen, with great pride in the job.

Now that the 1975 season is well in being, the coming winter will see the staff of R.L.T. forging their way towards Penybont. An enormous amount of work lies ahead, 2 miles of growth clearance and track laying is the aim so that the people of Bala will, after eleven years, see and hear the sound of a steam locomotive skirting the shores of the Lake at Bala as did the trains of the former G.W. Railway for nearly 100 years.

Long may we steam!

THE VIVARAIS REVIVAL

Peter R. Lemmey

The month of November 1968 saw the closure of the Chemins de Fer Departmentaux's 100-mile Reseau du Vivarais, one of France's last remaining great metre-gauge railways. Running through spectacular hill country on the eastern flank of the Massif Central, engineered on the grand scale, and operating some impressive steam power in the shape of 0-6-6-0 Mallet articulated tank engines, the Vivarais was held in high esteem by light railway enthusiasts everywhere, and its demise was a loss mourned by no means only in the hill towns of Ardeche and the Haute-Loire that the line once served.

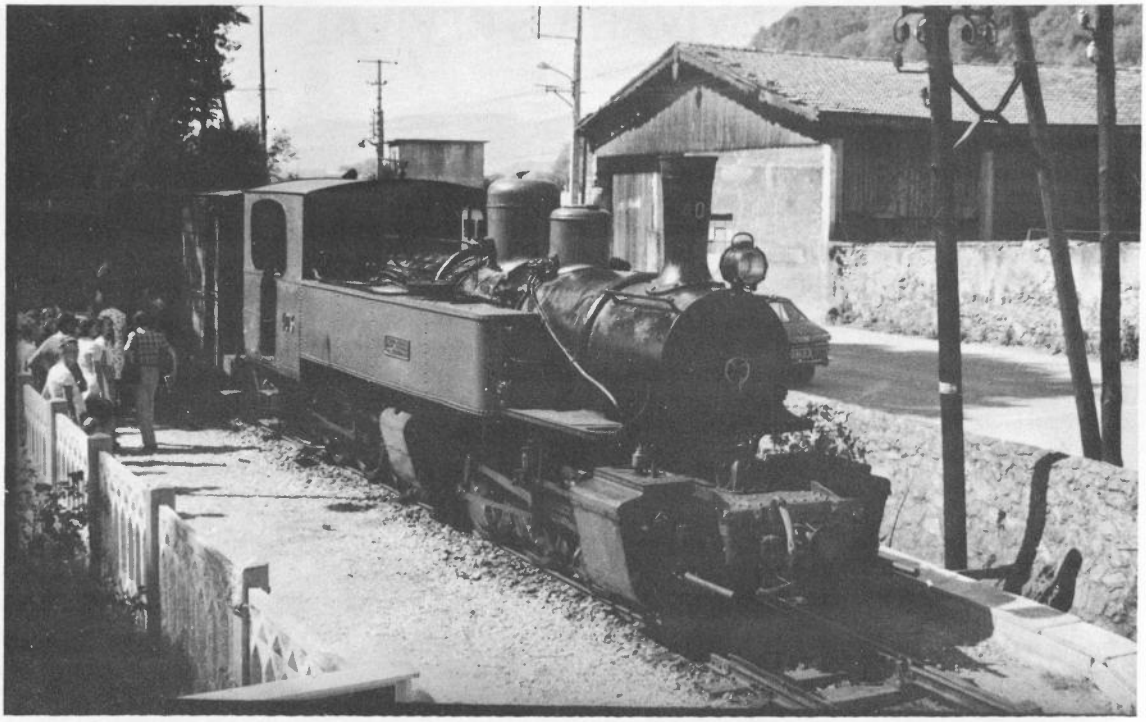
Many British railway enthusiasts developed a great affection for the Reseau du Vivarais in its declining years, an affection nurtured to some degree by a little judicious encouragement from the pens of such authors as Bryan Morgan and P.B. Whitehouse. The extent of British interest in the line was evinced by the popular week-end rail tour on the system run by the Continental Railway Circle only a few months before its closure, and which was described in W.J.K. Davies's article *Farewell to the Vivarais* in *Railway World* for November 1968.

The native French *amis des chemins de fer* also appeared in large numbers on various steam-hauled special trains towards the end. However, even as the Mallets were making what looked then like being their last forays from the Reseau's headquarters at Le Cheylard out along the twisting lines into the hills, a number of enthusiasts began to consider whether the example shown by light railway preservation groups elsewhere in Europe might perhaps be emulated on the Vivarais system. And so plans were laid which resulted, following the closure by the CFD, in two preservation schemes being mooted, involving separate sections of the railway differing considerably in scenic character.

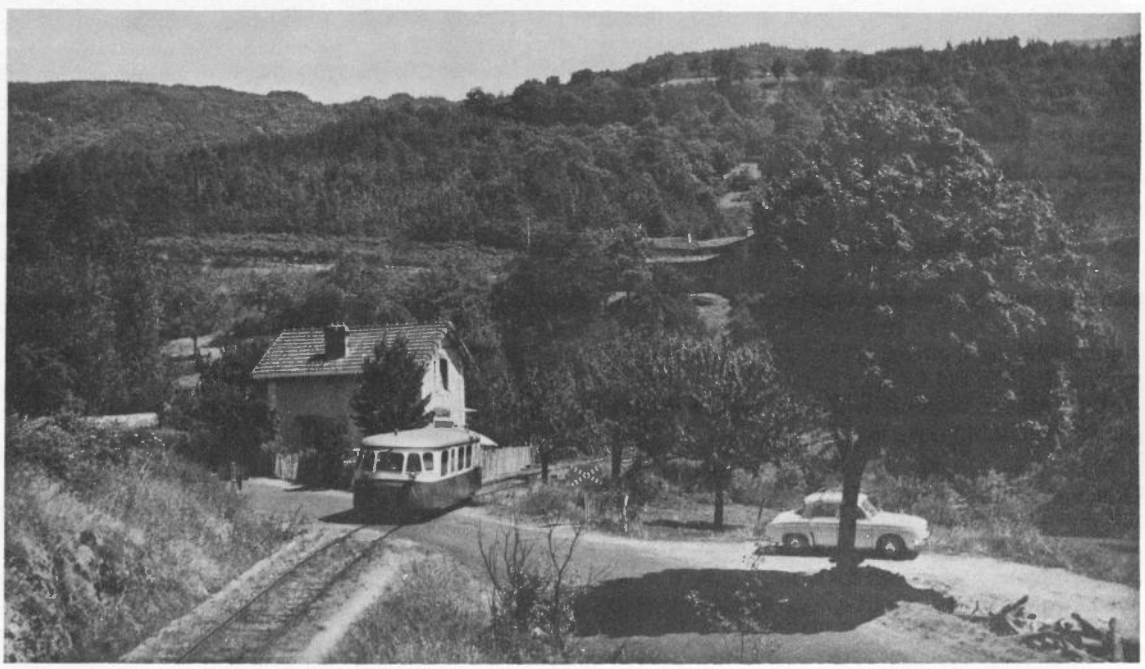
Firstly, in 1969, the Chemin de Fer Touristique de Meyzieu organisation, who were a group of narrow gauge enthusiasts based in Lyon and who had made a modest success of the short 60-cms gauge line they had established in the eastern suburbs of that city, expressed their interest in restoring rail services on the Doux Valley route. An agreement was eventually reached with the state and *departmental* authorities concerned by which the CFTM would operate the 20 miles of track from Tournon up through the craggy gorges to Lamastre. In view of their wider involvement which now includes not only the Meyzieu and Vivarais lines but a funicular over near Grenoble as well, the CFTM have recently re-styled themselves the Chemins de Fer Touristiques et de Montagne, and the Tournon — Lamastre line is now their Chemin de Fer du Vivarais. For the CFV they were able to acquire several of the better-maintained 0-6-6-0T Mallets from Le Cheylard together with various autorails and assorted items of coaching stock, and more recently a score or so bogie coaches have been obtained from defunct metre-gauge lines elsewhere.

Away to the north on the Velay Plateau, the 25 miles of the old Vivarais system that linked Dunieres with St. Agreve attracted the attentions of the second preservation scheme, instituted by a group of local enthusiasts. For this project a company called the Chemins de Fer Regionaux was formed, under whose aegis trains began operating out of Dunieres in 1970, at first using some of the older ex-CFD Billard and De Dion Bouton autorails which now provide a week-end service from May to September, daily during August. The CFR's attempts to acquire steam power came rather late in the day as far as the CFD Mallets were concerned, although one long-stored specimen has now been secured and is awaiting a major overhaul. However, the CFR were able, through the good offices of the FACS, to obtain a 0-4-4-0T Mallet in running order which until 1969 had worked on the SNCF's PO-Correze metre-gauge railway in Limousin. For the future, the CFR plan to restore their Vivarais Mallet, together with an even larger 0-6-6-0T from the Reseau Breton and some lighter tank engines recently brought from East Germany.

The Chemins de Fer Regionaux's trains over the most northerly section of the Vivarais system, connecting at Dunieres with the SNCF branch from St. Etienne, are probably the first contact that a traveller from our shores will make with the revived Vivarais, and I was lucky enough to see one of their Sunday steam working on the 14th July 1974. The narrow gauge station at Dunieres adjoins the SNCF yards, and well before the *Quatorze Juillet* trippers had arrived for their journey *a vapeur* into the hills, the little 0-4-4-0T was being eased out of its shed into the grassy metre-gauge yard, to take on water and briquettes and have its sand dome filled. This locomotive, which retains its POC number 101, was built by the Blanc Misseron company in 1906, and for the following sixty years or so it was uneventfully employed hauling freight trains among the wooded hills of Correze. Shortly before the POC shut down in 1970 it enjoyed some brief moments of glory when hauling two special trains, again chartered by the Continental Railway Circle, of London; and then when the PO-Correze closed, No 101 was overhauled at Tulle before eventually being transferred to the CFR.



C.F. Vivarais. Mallet No. 403 with train at Tournon. *(Peter Lemmey)*



C.F. Vivarais. A Billard 80h.p. diesel auto-rail on a Lamastre to Tournon service near Monteil.
(Peter Lemmey)

The route south out of Dunieres towards St. Agreve begins with a twisting climb out of the valley and up onto the plateau. Once the Mallet and its three coach train had passed the little station of Dunieres — Ville at the back of the town, the loco crew were faced with an unrelenting five mile climb at 1 in 50 all the way to Montfaucon, and the driving technique favoured on this occasion was to thrash the 0-4-4-0T as hard as possible all the way up the hill. For almost the entire length of the CFR the rails lie beneath a carpet of grass which presents adhesion problems on the inclines, and at several points on this initial gradient the engine slipped almost to a halt, although we reached Montfaucon without coming anywhere to a complete stand. Once this first major bank has been surmounted the line heads off on a winding course across the plateau, curving steeply up and down over the rolling countryside of upland pastures and scattered pinewoods, with the Meygal Mountains looming on the western horizon all the way.

A stop at Tence allowed the passengers to inspect a collection of elderly rolling stock crumbling away in the yard, whilst the engine took water and further supplies of sand were obtained. Not far beyond Tence a further halt was necessary to take on a party of children from a nearby Summer Camp, and several attempts were required to restart the train on the 1 in 40 gradient, success only being achieved after the fireman had perched himself on the front of the loco with a bucket of sand, where indeed he remained for the rest of the climb through the woods to St. Chambon-sur-Lignon-Le-Mazet, where the steam train crossed an autorail heading back to Dunieres. Onwards to St. Agreve there are more rattling descents and steep climbs, and at Devesset (3,500 ft.) the train reaches the summit of the entire Vivarais system, the line here being sheltered on its eastern side by snow-fences.

St. Agreve is the southern terminus of the CFR, and on arrival there the train's passengers lost no time in heading up the hill away from the station towards the town's hotels in search of the lengthy mid-day meals without which, it seems, no French day out is complete. The Mallet, meanwhile, busied itself on some extended shunting movements to remarshal its train for the return journey, an involved exercise complicated by a road-widening scheme which has obliterated part of the track layout in the station, including the south end of the run-round loop.

The return journey to Dunieres on that July afternoon was accomplished in much the same casual way as the outward trip. This pleasant steam run to St. Agreve and back takes place on most Sundays during the summer, and affords plenty of fun both to the passengers and the amateur railwaymen. And indeed, this amateur aspect seems very much the key-note of the whole affair. However, there is a long tradition of European light railways operating creaking stock over shaky track, and while the CFD Reseau du Vivarais did not itself generally subscribe to this sort of raffishness, a number of other French narrow gauge lines did so unashamedly, and it is their example that for the time being the CFR so engagingly follows.

From St. Agreve the track-bed of the old lifted line leads on down round horse-shoe curves and over abandoned viaducts to Le Cheylard, once the hub of the system, where the station still transacts CFD road - transport business and where gleaming buses now are parked in the old railway sheds. Eastward from Le Cheylard the grassy paths of the lifted lines can still be seen, the one heading away south-east down the Eyrieux vally to La Voulte-sur-Rhone, the other climbing steeply up over the Col de Nonieres and thence downhill to Lamastre and the other preserved section of the system.

The CF du Vivarais which runs up the Doux Valley to Lamastre has its operating headquarters at Tournon, the lower terminus on the west bank of the Rhone. The Vivarais station at Tournon adjoins the SNCF's premises (now deprived of passenger trains), at the back of the town beneath the Cevennes undercliff, and the metre-gauge yards now contain the CFV's varied collection of stock, some in working order but a fair proportion awaiting overhaul and restoration. The depot at Tournon houses the ex-CFD Mallets which power the steam trains on the line, which run on four days of the week in high summer, with two or more steam workings on most Sundays, when things tend to get very busy indeed. In addition there is a Sunday autorail service over the line from March to November, increasing to daily diesel cars in July and August.

The old Reseau du Vivarais 0-6-6-0T Mallets fell broadly into two types : a class of eight locos built by SLM at Winterthur during the first decade of this century, and a second batch of six heavier engines from SACM which were delivered between 1927 and 1932. When the Reseau closed in 1968, only Nos 403 and 404 which were of the earlier type remained in use. The CFV obtained these two examples along with No 402 of the Swiss engines, and two of the later French-built Mallets as well. At the time of my visit to the line in July 1974 No 403 (SLM 1903) and No 414 (SACM 1932) were sharing the steam workings, while No 404 (SLM 1903) was away for over-haul at the CFTA works at Gray-sur-Saone. A Corpet Louvet 0-8-0T acquired from an industrial concern was also in steam at Tournon acting as yard pilot. Mainstay of the passenger rolling stock at the moment is a rake of restored ex-Reseau Breton end-balconied coaches, and the Mallets appear to have little difficulty in hauling a train of as many as a dozen of these vehicles up the valley to Lamastre.

Swiss-built Mallets Nos. 403 and 404 outside Tournon Shed. *(Peter Lemmey)*

The journey from Tournon begins with a mile or so's run northwards on mixed-gauge track shared with the SNCF line. Once across the girder bridge spanning the R. Doux, the metre-gauge swings away towards the west through S. Jean-de-Muzols station and heads along the valley into the hills. Beyond Doux-Plage halt the sides of the valley crowd steeply in on either side of the route, and after Troye and its viaduct over the river the line begins to climb in earnest at a steady 1 in 50 up the rocky gorge. For much of the way up to Colombier-le-Vieux the railway runs along a ledge, with the river far below on one side and the towering cliffs rising steeply on the other. A warm day in July can see the temperatures in these parts way up in the nineties, and the coach balconies are usually crowded with passengers surveing the passing scenery and basking in the sun.

The Mallet's steady and surefooted progress up the valley eventually brings the train to Boucieu-le-Roi station, overlooked by its village perched high on a rocky bluff. Here the Mallet usually pauses for water, and for a few minutes the refreshment stall on the platform and the cafe near the level-crossing are overwhelmed with custom. Once more under way, the train runs through open country for a while before the valley sides close in again and the gradient steepens, the climb through more impressive scenery thence continuing without respite until Le Garnier, where the countryside becomes more pastoral with orchards and farms, and the engine-crew can ease their mount a little for the last few miles into Lamastre. And it is a fine thing to sit out on the coach-steps somewhere near the back of the train as it makes this final run in to Lamastre along the rocky banks of the Doux, and as the old tank engine at the head end smoothly takes yet another curve, to watch the sun glinting on the green tanks and brass fittings and catching the two sets of rods and motion.

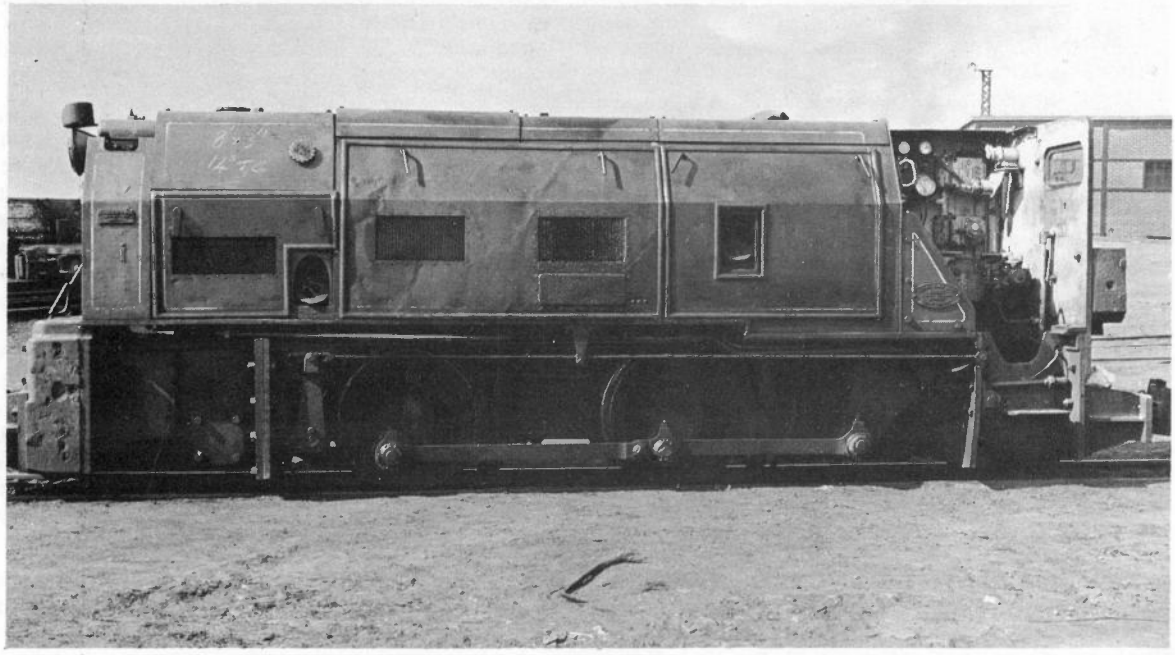
As a destination for their trains, the CFV could not have wished for anything better than Lamastre, a busy market town set among fine scenery and boasting some of the best hotels and restaurants in the region. Long years before anyone had thought of reviving its steam trains, Lamastre was an established centre for holiday-makers and week-end visitors, and so the CF du Vivarais has from its inception been a marked success.

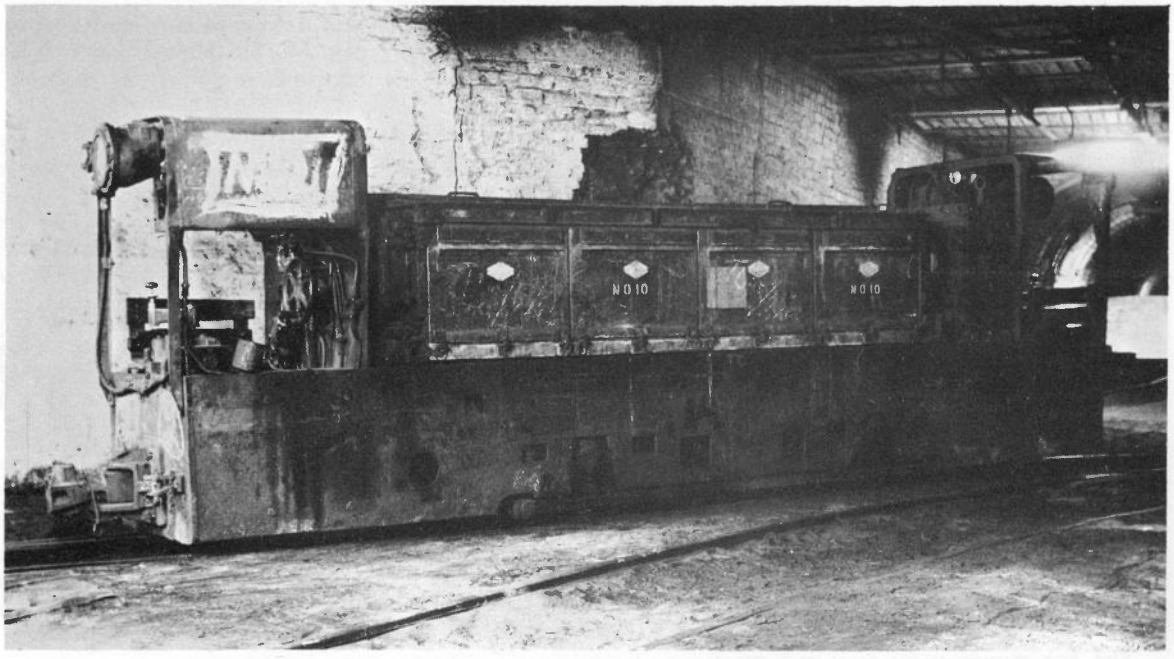
There must be few people who, after taking the train from Tournon up the valley to Lamastre, remain unimpressed by the air of efficiency that pervades the CFTM's Vivarais line, particularly in view of the apparently ever-increasing traffic and the relatively long distance over which the trains run. It is much to their credit that the CFTM have expanded their service on this line to cope with the growing tourist traffic without sacrificing too much of the authentic *secondaire* atmosphere of pre-preservation days.

And so, while the yards at Le Cheylard may be given over forever to Omar's old image of dereliction, along the Doux and across the Velay plateau at least, the rails are still bright and the autorails' air-horn fanfares and the answering whistles of the Mallets can still be heard. May the CFR and the CVF long afford us the opportunities of travelling through some of France's finest country on the narrow gauge.

KENT COLLIERY NARROW GAUGE

(Collection C.G. Down).





ABOVE AND BELOW ground in the Kent Coalfield about 1960: Hudswell Clark 0-4-0 DM686 of 1948 on the surface 2ft gauge lines at Tilmanstone Colliery; and an unidentified 4w battery loco by English Electric, underground at Betteshanger Colliery. (collection C.G. Down)

THE 10¼ IN GAUGE SURREY BORDER & CAMBERLEY RAILWAY.

(Text from Booklet on the line issued in 1938 in collection of P.S. Halton).

Any day, morning or afternoon, when you are wondering what to do, why not come and ride on this miniature railway, which can be reached by either rail or road.

A visit to this unique little railway does not present many difficulties. BY RAIL the Southern Railway will take you to Frimley, a mere hundred yards away, and what is more they will issue you a special cheap combined ticket from all stations named on the opposite side of this page. For the one fare you can reach the Miniature Railway, have a ride along its length and back, and spend the afternoon anywhere in its hundred acres of park and woods. BY ROAD it is just as easy. Coming from London, via the Great West Road, Staines and Bagshot, you can take either road forking at the 'Jolly Farmer' and arrive at the railway; the right fork for Camberley Station (3 miles) and the left fork for Farnborough Green Station (3 miles). From the south you run through Aldershot and Farnborough; from the west, Basingstoke, Hartford Bridge Flats to the York Town end of Camberley.

Farnborough Green is the largest station on the new line. This station is situated on the main London, Staines and Aldershot road. Coming from London, the imposing entrance is on the right-hand side shortly after passing through Frimley, and there is a large car park where hundreds of cars are daily parked free of charge. The station buildings are most impressive. They include an entrance hall, a booking office, a large waiting room and a Station Master's office. After purchasing your ticket you go on to the concreted platforms, convered by a glass roof which is 60 feet long by 40 feet wide. There are three arrival platforms and three departure platforms. You will probably be directed on to platform No. 3 if you are travelling de luxe in the Pullman, or to platform No. 4 if you are travelling in the open carriages.

Both these trains are waiting to depart with their miniature locomotives making steam at their head. As you probably have five minutes before departing, you are certain to walk down the platform to the head of the train and look at the engine. These engines are real steam locomotives, built and operated exactly like their big sisters, but are one-sixth the size. You will probably see the engine driver, who incidentally is fireman as well, stoking the real fire with real steam coal, and you will be amused to hear the same noise that you hear in a real station when the engine is preparing to depart. If you happen to look inside the cab you may be particularly surprised to see that the pressure gauge is recording 140 lbs. Although the modern steam engine now has a pressure of up to 250 lbs, there are still many full-size locomotives operating on a pressure of only 160 lbs.

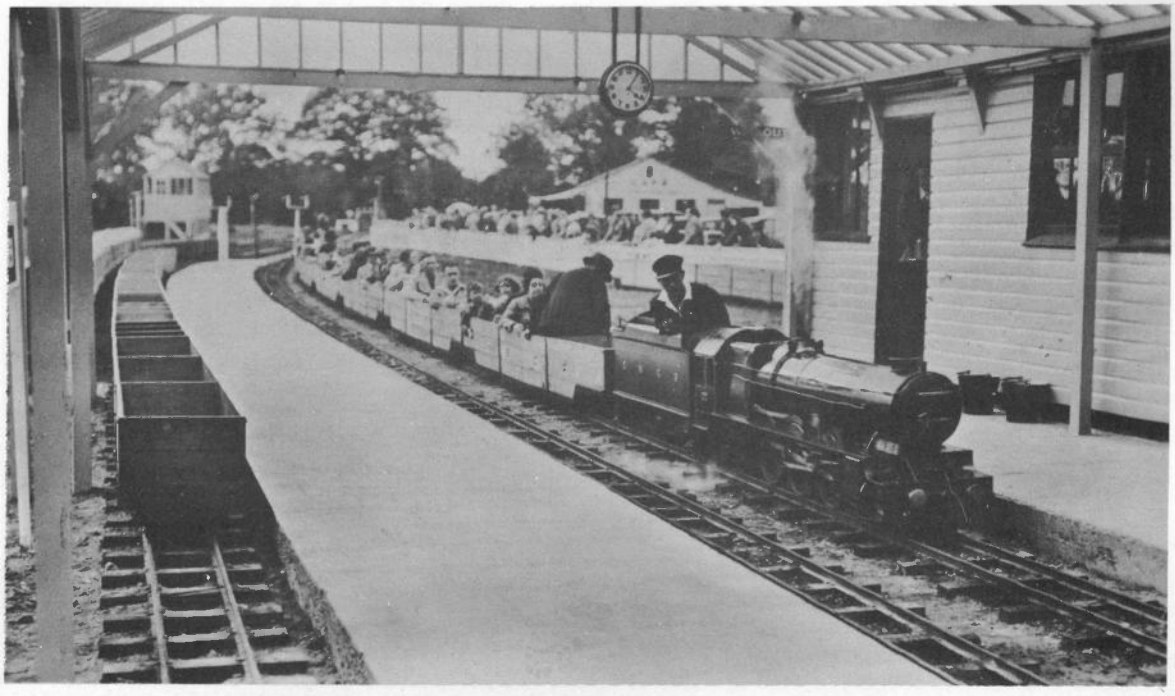
At that moment you will probably hear a whistle in the distance and looking down the tracks you will see an incoming train, and that the signal has denoted that it will come in on No. 1 platform. As it rides over the points and crossings you will wonder how it will ever come into the right platform, but it does and, on its arrival, its fifty or sixty jolly passengers alight and walk towards the barrier, where the ticket collector collects their tickets. He will have a difficult job in emptying the platform, as so many of the enthusiasts will stop to have a last look at the little engine that has just completed a four-mile trip. Just then a whistle blows and you hurry to take a seat to commence your journey.

The guard waves his flag, the engine whistles, and slowly and smoothly, with your fifty odd fellow passengers, you start on this new thrill. As you pull out of the station, past the platform signal which is 'off', you hear the same familiar rattle going over the points that you have heard so many times when travelling in the big trains. On your left is the Farnborough Green Signal Box with its forty levers.

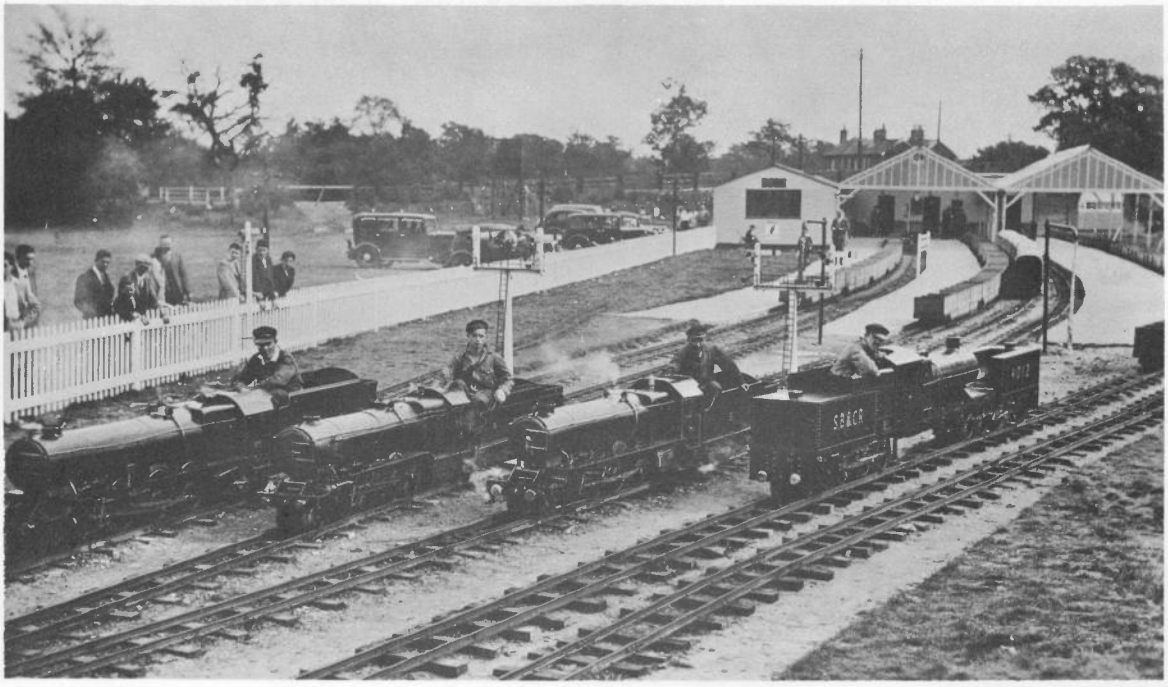
A little further on the left are the engine shed and turntable. One engine is probably being turned. On the right you see the tea house with its pretty garden running down to the railway, where many people are having tea while watching the trains. Here you go over a level crossing and into the open country.

The first part of your journey is double-tracked and you are on the down line. Like the big railways in England, this one keeps to the left. The little train winds alongside the River Blackwater towards Cove Wood, which is your first stop. Suddenly, you hear another whistle and you see a train coming towards you on the up line. It passes you with a roar, which again reminds you of the big railways.

The line curves away from the Blackwater and you see a little gradient post on the left-hand side, indicating that the train is now going up a grade of 1 in 150. You pass along an embankment which is five feet high and took fifty men six weeks to complete. The next moment you are crossing the Blackwater and you can see the river beneath you, after which you run down into the wood on a slight curve, pulling up at

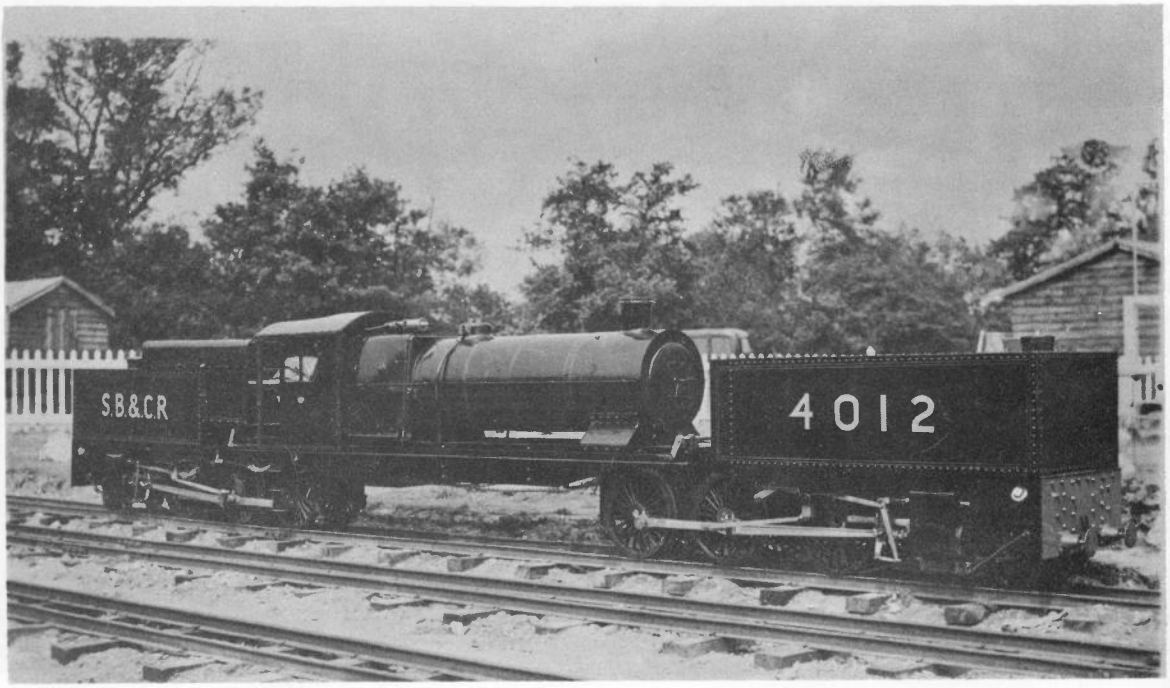


Arrival at Farnborough Green Station. Trains ran from 10.30 am to 10.05 pm daily during the summer months — *(collection R.N. Redman)*



Line up of 10¼ in gauge motive power at Farnborough Green. For an extra 1/6d. :7½p) you could drive one of them!! *(collection:- R.N. Redman)*

A light load departing from Farnborough Green Station. That double slip point on the right hand side cost £250 in 1938! *(collection:- R.N. Redman.)*



10¼ in gauge Super Power, one of the two Kitson built 2-6-0 & 0-6-2 Garratt built 1938 with 4 cylinders 3½ in x 5in. Weight 2ton 5cwt capable of hauling trains of 100 passengers.
(collection:- R.N. Redman).

Cove Station. This is the end of the double track. Your tickets are examined while your train waits for another, which is at present occupying the single track to Watchetts Wood Junction.

It does not keep you long, however, and soon you are away with a clear run to Watchetts Wood. The line through Cove Wood is fairly straight, with big oaks standing on either side of you intermixed with holly and silver birch, and the ground is all covered with fern. You probably wish that you had broken your journey at Cove Wood Station, which you could have done, and had a stroll through this lovely wood. Why not do so on the return journey ?

The engine has gathered speed by now and you are soon out of the wood and in the open country again, running alongside the Ascot-Aldershot branch of the Southern Railway. The big train as it passes you blows its whistle and your little engine answers the salute with two blasts.

Watchetts Wood Junction comes in view. This at present is a junction to nowhere, but a branch line is being laid to Blackwater, which will be open to you next year.

More passengers alight here, either to spend the afternoon anywhere in the 100 acres of park or to catch the next train back to Farnborough Green. You are away again on the last lap of your journey to Camberley. Here the engine has to exert itself as the train winds through Watchetts Wood up a long severe grade of 1 in 200. Unlike Cove Wood, the line is so winding that at times you lose sight of the engine entirely as it snorts up the incline.

You emerge out of Watchetts Wood and the town of Camberley appears — a cluster of houses with a church steeple in the background. More signals, more points and finally you come to rest at Camberley Station.

Camberley is very unlike Farnborough. Here you will find the main locomotive shed and workshops where locomotives are repaired and built. Also you will see sidings where carriages are stored when not in use. If you choose to leave your train, a short walk will take you to the main London road which skirts the grounds of the Royal Military College. However, you may want to return to Farnborough Green, in which case you stand and watch the little engine being uncoupled from its train and run on to the turntable, where it is turned round to face the return journey. It will fill up with water in the same way as you have seen it done many times on the main lines. Having backed on to the other end of your train, the guard will blow his whistle and off you will start again, back to Farnborough Green.

Once more through Watchetts Wood — this time you are going down hill and you fairly whiz round the curves: through Watchetts Wood Junction into Cove Wood; once more over the Blackwater and finally you approach Farnborough Green — the signals give you the right of way and, passing over the points, you pull into No. 1 platform, having travelled through four miles of lovely scenery on the most unique railway in the world.

Do not hurry away without reflecting a little on what time and thought have been necessary and what money needed to give you that pleasant half-hour.

Eight engines, each costing over £500, have to be cleaned and oiled and kept in running repair — and do not forget the little carriages in which you rode. Each wheel must be examined, each axle carefully greased and the carriages themselves kept clean. 3 miles of track have to be patrolled and kept in order to ensure your safe passage. Nearly fifty points have to be carefully oiled and adjusted to avoid derailments. Thousands of gallons of water are consumed by these engines daily and the ground is honeycombed with hidden pipes.

Power for the pumps and the workshops and light for the station is provided by three electric generating plants, which have to be run daily and require constant supervision.

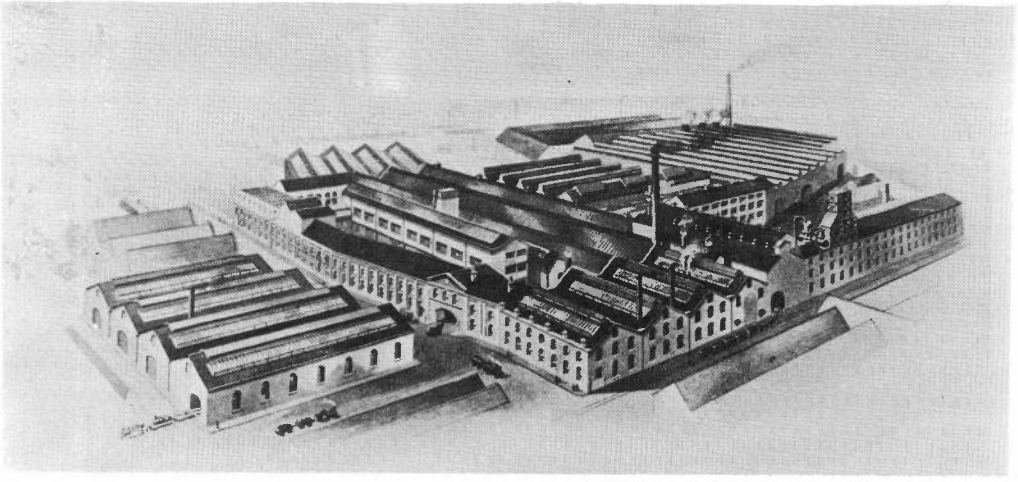
Because of the heavy rains in winter and the proximity of the Blackwater, the whole land over which the railway runs has to be kept drained, and men are working all the year round cleaning out ditches, making paths through the woods, clearing fallen timber, all for your enjoyment and amusement.

Lastly, do not go away without enjoying an excellent tea in one of the tea gardens by the track and, while watching these little trains run past you, make a mental resolution to pay us another visit.

The Surrey border was under the control of the wealthy merchant banker Alexander D. Kinloch and worked all the year round until the outbreak of war in 1939 when the line closed and was dismantled.

REQUIEM FOR THE STEAM PLOUGH AND LOCOMOTIVE WORKS, HUNSLET, LEEDS.

Ronald N. Redman.



During the past few months another slice of Leeds steam history has passed away with the demolition and clearing of the site of John Fowler and Co. (Leeds) Ltd. Another site of historical importance will no doubt in time finish up as another light industrial estate. They spring up these days with their characterless uniformity to swallow up just about all of the heavy industrial heritage of South Leeds.

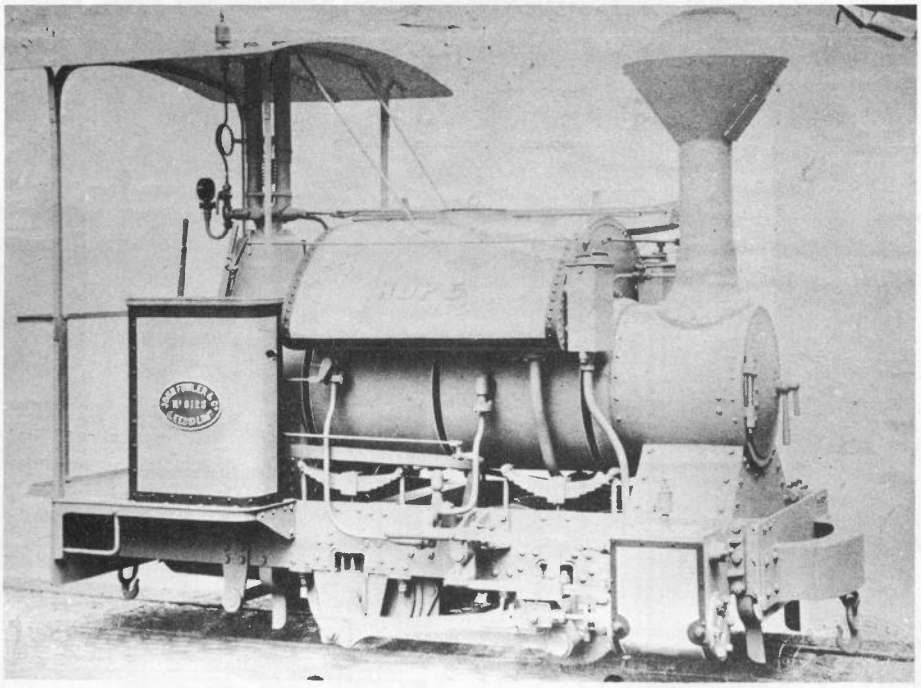
John Fowler established the steam plough works in 1862 in Leathley Road on land adjoining Kitson, Thompson and Hewitson, Locomotive Builders, William Hewitson in fact joining forces with Fowler in the new enterprise, and probably the introduction of locomotive construction can be attributed to Hewitson, an ex-locomotive draughtsman with Robert Stephenson & Co.

The two founders were never to see the fruits of their labours for both died before the first locomotive left the works in 1866. The name 'Fowler' became justifiably world famous for the production of steam ploughing engines and equipment but to the narrow gauge enthusiast the name will be for ever synonimous with the sugar plantations of the world.

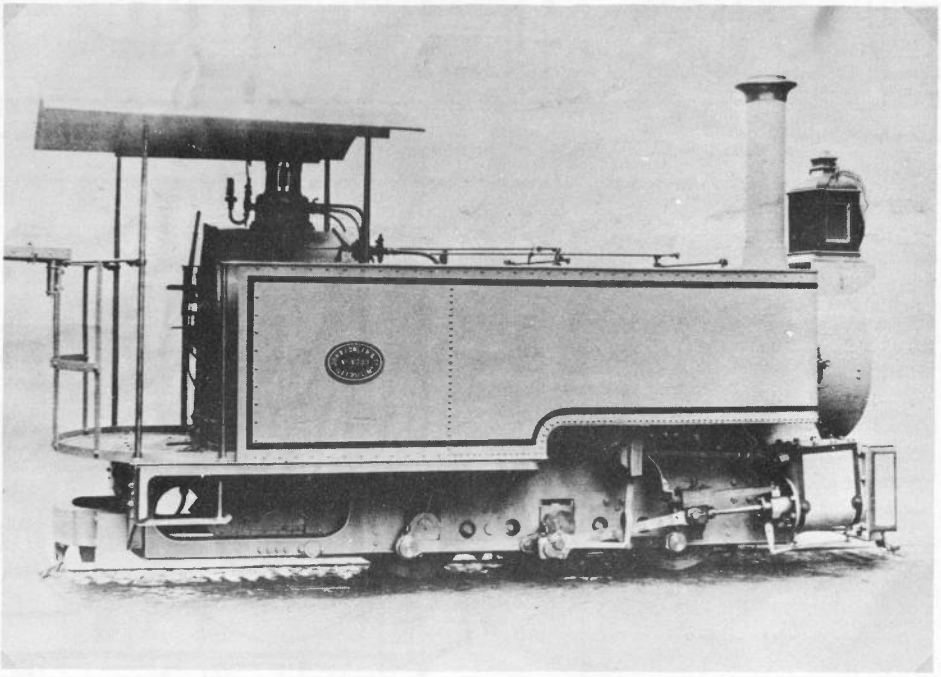
If you have any doubts on that try 'Balloon Stacks and Sugar Cane', for its superb coverage of the 2 ft gauge cane lines of Fiji, published in New Zealand in 1961 and long out of print.

The first two locomotives to work in Fiji were an 0-4-0T No. 5406 of 1887 and an 0-4-0ST No. 5429/1887, and Fowlers built many more machines until 1911 when Hudswell Clarke & Co., took over most of the future orders. Even with small plantation locomotives, development was essential and by 1907 the standard Fiji engine had expanded to an 0-6-2 sidetank with 8½in by 12in cylinders, tipping the scales at 15 ton in working order. They were popular machines destined to give around 50 years active service on not the best tracks in the world, so its not surprising they ordered 10 to the design in the first two years.

It is estimated that Fowlers built in the region of 500 steam locomotives between the years 1866 and 1937, most of which were narrow gauge and 2 ft at that! The exact number will never be known due to the loss of official records years ago, but the works list reached vast proportions with its varied entries, rollers, tractors, locomotives, ploughing tackle, stationary engines and even the supply of complete sets of light railway equipment. No job was too big for the John Fowler works. The best example of 'the Package Deal' they offered in all parts of the world would be the equipment shipped out to the Sena Sugar Estates Ltd., with their vast estates along the lower reaches of the Zambesi in Mozambique. The Sena empire had no less than 52 miles of 3 ft gauge main line as well as three large estates with 2 ft gauge tracks. For the main line Fowlers built three 0-6-2 tank locos nos. 16021-3 in 1923. In 1926 when Fowlers issued their last full steam catalogue, two pages were given to the Sena main line engine and gave details of the performance of the 'Big Fowlers' with their 12in x 16in cylinders. They had performed well over the 1924 season hauling 608 ton trains at 12½ m.p.h. over the full length of the Caia-Marromeu 52 mile line. Smaller Fowlers wer exported to the estate lines, plus stationary engines and at least 6 pairs of ploughing engines and tacke to rip out the jungle for cultivation.



Fowler No. 8123 "HOPE" of 27/5/1898. 2ft gauge 0-4-0 ST with 5½in x 10in cylinders built for working on 18lb rail. To the order of W.J. Mirlees, Tongatt, South Africa.



Fowler 8733 of 30/3/1900. 2ft gauge 0-6-0T with 8½in x 12in cylinders for Queensland Government, Port Douglas Divisional Board named Faugh-a-Ballagh (literally clear the way). To Mossman Central Sugar Mill, Queensland, 1959.

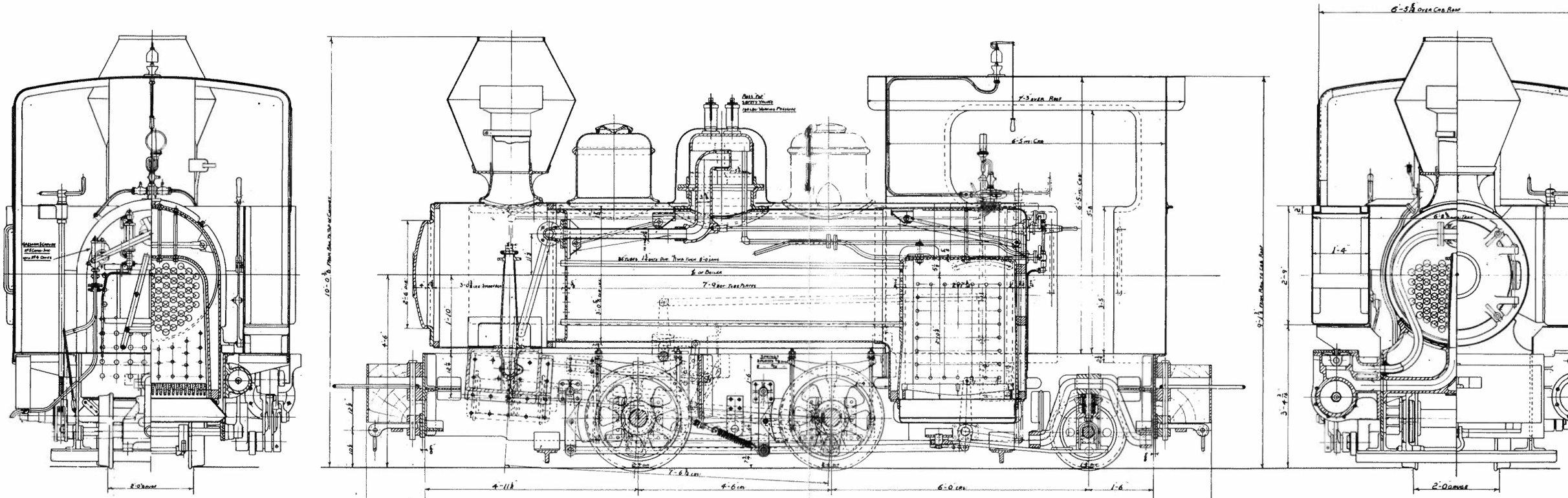
1705
GENERAL ARR:

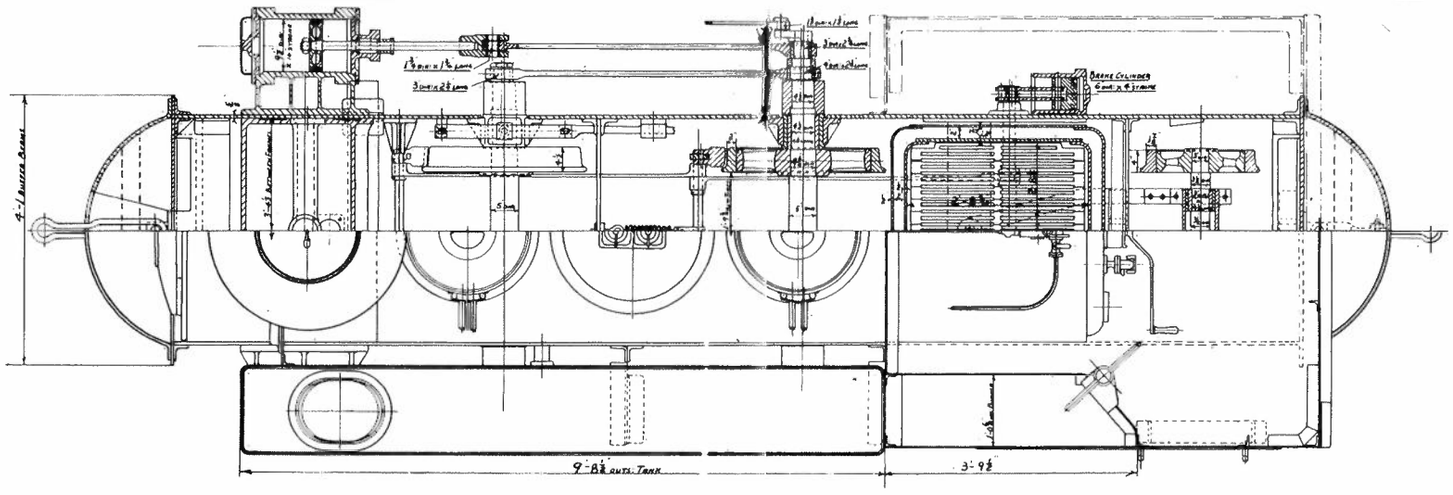
25-1 - 39
R. KITCHING
R. KITCHING

GENERAL ARRANGEMENT DRAWING FOR THE LAST STEAM LOCOMOTIVE BUILT IN LEEDS TO FOWLER'S DRAWINGS.

HUDSWELL CLARKE & CO. LTD. WORKS NO. 1705/38 WHICH CARRIED A FOWLER WORKS NO. 22752

(Collection of R.N. Redman)

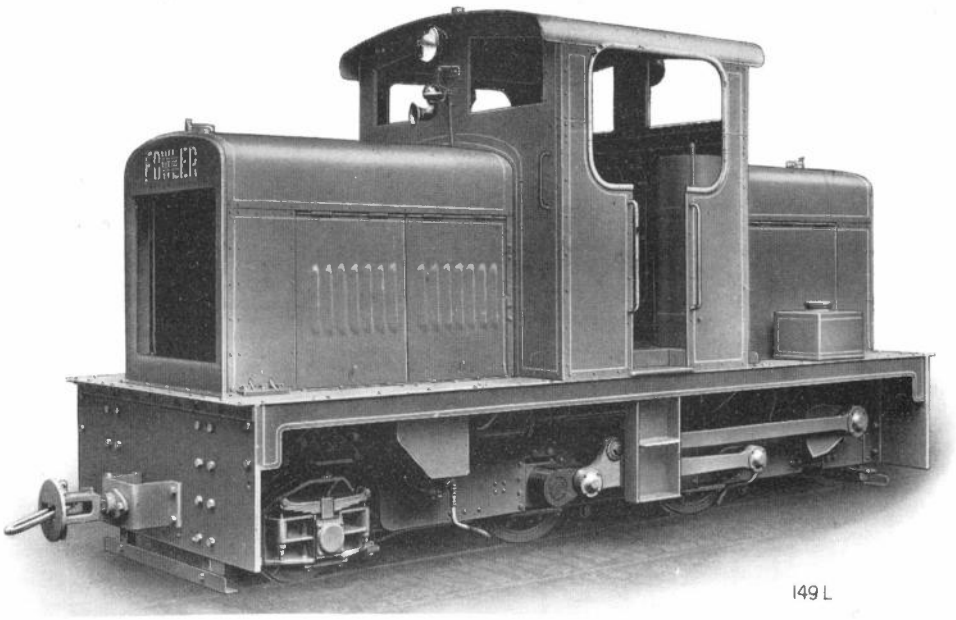




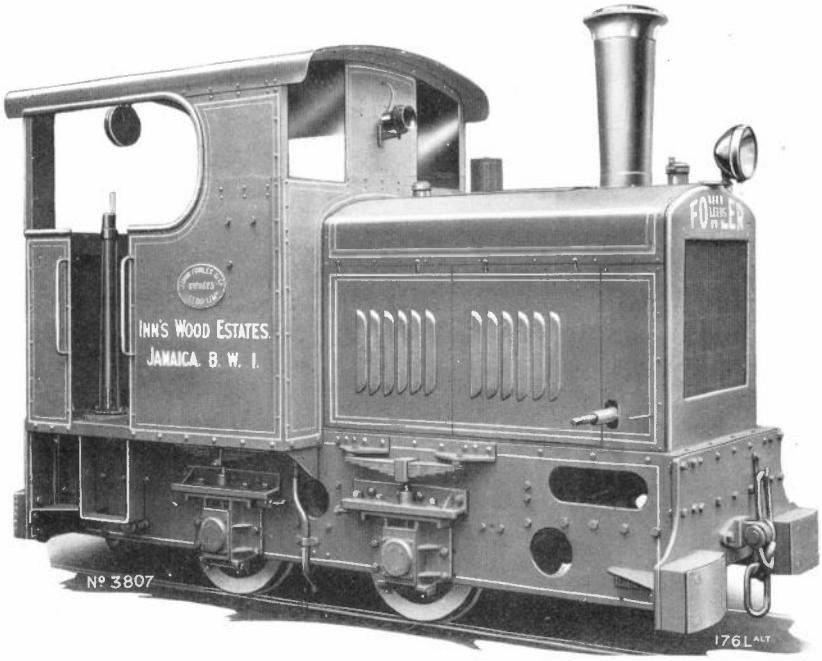
	Tons.	Cwts.	Qrs:
WEIGHT EMPTY	6	1	0
WEIGHT FULLY LOADED	6	0	0
	1	9	0
TOTAL	13	10	0
TOTAL			

HEATING SURFACE

TUBES	=	302 SQ FEET
FIREBOX	=	34 " "
TOTAL	=	336 " "
GRATE AREA	=	7·2 " "
WORKING PRESSURE	=	180 LBS/SQ INCH
WATER CAPACITY	=	400 GALLONS
FUEL CAPACITY	=	25 CUBIC FEET
ADHESIVE WEIGHT	=	
TRACTIVE EFFORT	=	6090 LBS:



85h.p. 2-4-0 Diesel of 17 tons for Natal estate work in 1934.
(From Motor Locomotives Catalogue of 1935)



Works No. 20523. A 30h.p. 5 ton 4 wheel Diesel supplied 1934 to Inns Wood estate. B.W.I. Jamaica.
(From Motor Locomotives Catalogue of 1935)

Fowler 9463 of 1903. A standard 60h.p. 2ft gauge 0-6-0TT "LAUTOKA No. 4" photographed at South Pacific Sugar Mills, Fiji, December 1964 — B.D. Whebell.

Another early side line involving narrow gauge steam was the Fairground Circular Railway, a very popular late Victorian attraction; three of these were built during 1895.

The first one, Works No. 3688, had a tiny 0-4-2 tank 'Pioneer' with 4in x 7in cylinders and was supplied to the order of J. W. Waddington of Leeds. The other two were more elaborate in design with 2 ft gauge 0-4-2 locomotives powered by 4 ½ in by 8in cylinders, No. 7528 named 'Nockalong' went to a Mr. Burke of London and the last 'Pride of the Tyne' was despatched to the Richardson Bros. of Darlington. Has any member photographs? Being a progressive company from the start it was inevitable that other forms of traction to boiling water in an enclosed space should be tried out, and in 1923 a standard gauge 0-4-0 petrol shunting locomotive was supplied to Nelson Corporation Gasworks in Lancashire. In the new Fowler 'Motor' Loco catalogue of 1935 they illustrated diesel, paraffin and alcohol powered designs. Many were narrow gauge and as early as 1925 they were supplying 35 H.P. 2ft 6in gauge petrol locomotives for estate work in Australia and India.

The Leeds works did not produce large numbers of narrow gauge diesels but they designed a vast quantity of variations and soon incorporated their own make of diesel engines. Probably the most distinctive feature on most of the I.C. locos up to the mid 1930's was the capped steamer type chimney which incorporated the engine exhaust pipe. This gave some designs a very vintage look!

The end of steam locomotive production at the Leathley Road plant came in the late 1930's, probably the last built being a 2 ft gauge 0-6-2 Tank No. 20763 for an Australian sugar estate. The final pair to Fowler drawings were actually built by other companies, 21648 a 2 ft gauge 0-4-0 well tank for the Uganda Sugar Factory Ltd was built by Kitsons to their Works No. 5475 in 1946. The last of all was a 2ft gauge gleaming black 0-4-2 Tank engine No. 22752 erected by Hudswell Clarke & Co. Ltd., as their Works No. 1705 in December 1938 and shipped to Queensland. Even this was not the end of the story, for after the war the Bundaberg Foundry in Australia built a further eight locos for the various Queensland sugar cane lines to Fowler's designs.

Diesel locomotive carried on (after a late change in 1957 to hydraulic from mechanical transmission) until 1968, the last locomotive leaving the works on a low loader on 24th January 1968. A 31 ½ ton 4 coupled shunter for the standard gauge system of the Cargo Fleet IronWorks at a reported cost of £13,000 it was the last of a batch of four on order. The locomotive shops changed over to provide more space for the company's main product, crawler tractors and now all that has gone. Over 1.000 men at Marshall Fowler have lost their jobs, and rated a few column inches in the local press. No doubt the name of Fowlers will live for ever in the hearts of steam enthusiasts, and narrow gauge 'fans' will find a lot to their liking in the products of 102 years of locomotive building at the steam plough works in Hunslet. We shall not see their like again.

R.I.P.

We are grateful for the assistance given in compiling this article by the Industrial Railway Society who are at present compiling a publication on Fowler built locomotives. Any help that members can give towards this project will be gratefully received.

— NARROW GAUGE AT BLAENAU — THE END OF AN ERA.

ANDREW NEALE MAPS BY C.G. DOWN.

To the narrow gauge enthusiast the town of Blaenau Ffestiniog means two things — the northern terminus of the Ffestiniog Railway and the various slate quarry systems that connected with the F.R. Now, as construction of the F.R. steadily advances towards Blaenau, the use of narrow gauge in the quarries has virtually finished and by the time the F.R. reaches Blaenau in 1978 it is likely that the only quarry narrow gauge left will be the museum railway of Quarry Tours, and over 140 years of industrial narrow gauge operation at Blaenau will have finally come to an end.

Although steam locos disappeared from the Blaenau quarries shortly after World War II (with the exception of KIDBROOKE at Oakley and the remains of MARGARET at Llechwedd, both out of use for many years before finally being preserved) Blaenau Ffestiniog has remained an area of great interest to the enthusiast until quite recently, the decline having begun with the closure of the Votty & Bowydd quarries on 5th October 1962. The real fascination of the Blaenau area has been the length and remoteness of the tramways and the great variety of electric and i/c locos employed on them. The extremely complicated locomotive history of these quarries has been fully covered in the Industrial Railway Society's Pocket Book F and the purpose of this article is not to try and rival this excellent publication but to give a general picture of the whole narrow gauge network of the Blaenau area, with an indication of what remains for the enthusiast to see, and is based on a number of visits made to the area by the author over the last eleven years.

Starting from the west, the first quarries to be considered are those with connections off the Ffestiniog Railway between Tanygrisiau and Blaenau. The most important of these were the Cwmorthin and Conclog slate quarries served by a branch which left the F.R. by a steep incline immediately to the east of Tanygrisiau Station. Both quarries closed in the 1930's, but there is still plenty to see.

As far as is known, no locos were ever employed here but the track-bed is still intact and indeed when I visited here in August 1969, there was still quite a lot of track in situ, particularly around Cwmorthin quarry itself, while a solitary F.R. slate wagon stood in splendid isolation at the top of the incline from Tanygrisiau. Further towards Blaenau there are still substantial remains of the Groby Granite Company's line to be seen, which wound its way around the southern edge of Blaenau, and the site of the F.R. line to the original terminus at Dinas is also traceable.

Finally, while not strictly relevant to this article it is worth noting that for seven months during 1952/3 the late W.O. Williams of Harlech worked his own trains over the derelict F.R. between Moelwyn and Tanygrisiau using an ex M.O.S. Ruston diesel. This traffic was in connection with the removal of scrap during the clearance of Moel Ystradau (Brooke's) quarry. Does any member have any further information or photos of this little known episode in the F.R's history?

Turning now to Blaenau itself, the first two quarries to be considered are Oakley and Llechwedd which lie to the north of the town. Oakley was the largest of all the Blaenau quarries, the line starting from extensive exchange sidings in the former L.M.S. goods yard, up a short incline and across the L.M.S. line and the F.R's former Dinas Station on a viaduct — a most impressive piece of engineering, and then up a longer incline to the main office and mill level. From here an incline ran down sharply into the quarry from whence a further series of inclines descended into the mine. The quarry was also reached direct from the viaduct via a long tunnel. Inclines from the office level ran up to a series of higher levels but for some years before closure only the first of these levels was in use, mainly for tipping waste, being worked by a solitary Ruston diesel (latterly 20h.p. type RH182137/36). However for many years the second level was host to Baguley 774, one of the standard 0-4-0 petrol/paraffin locos built for military use in the 1914-18 war, which lay immured in a blocked up slate mill until rescued for preservation by Rodney Weaver in 1967, an operation which involved demolition of a considerable portion of the disused mill!

Alone amongst the Blaenau quarries, Oakley originally had quite a number of steam locos but by the 1930's these had been replaced by a fleet of Ruston diesels, although one, the Bagnall 0-4-0ST KIDBROOKE, lay out of use at the back of the loco shed on the main level until bought for preservation in 1961. One interesting relic of steam days which survived right till the end was the cab of CLIFFORD, a Hudswell 0-4-0WT, which was used as a workmen's hut. Oakley achieved another distinction in 1959 when in a fit of modernisation they took delivery of RH 432652, a LAT class 4 w D and the only air cooled Ruston in the whole of North Wales. This loco is now in service on the Bala Lake Railway, described elsewhere in this issue.
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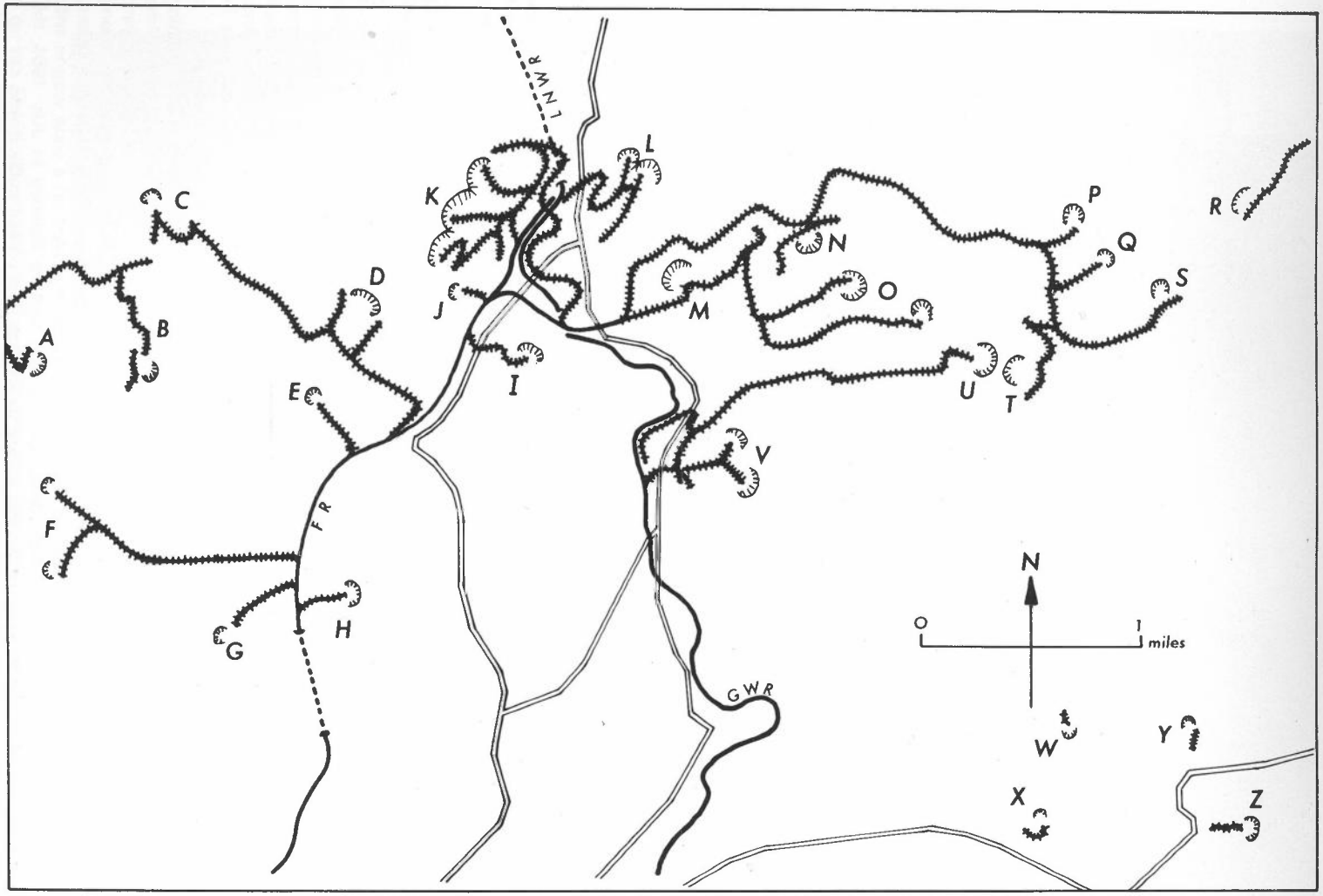
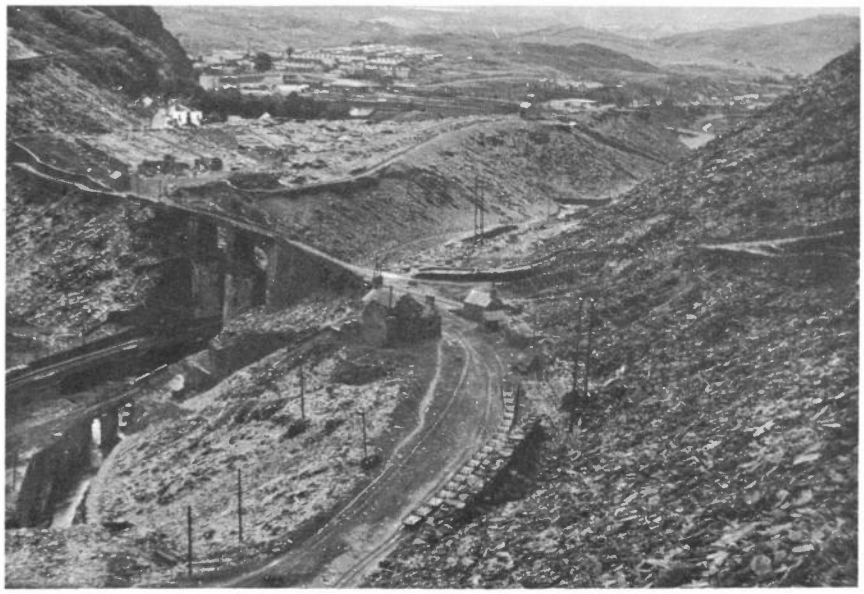


KEY TO MINES AND QUARRIES ON MAP

A CROESOR SLATE
B RHOSYDD SLATE
C CONCLOG SLATE
D CWMORTHIN SLATE
E WRYSGAN SLATE
F MOELWYN SLATE
G MOELWYN LEAD/ZINC/COPPER
H MOELWYN GRANITE
I GROBY GRANITE
J NIDD Y GIGFRAU SLATE
K OAKELEY SLATE
L LLECHWEDD SLATE
M VOTTY & BOWYDD SLATE
N MAENOFFEREN SLATE
O DIPHWYS CASSON SLATE
P CWT Y BUGAIL SLATE
Q BLAEN Y CWM SLATE
R PENMACHNO SLATE
S RHIWBACH SLATE
T MANOD SLATE
U CRAIG DDU SLATE
V MANOD GRANITE
W DRUM SLATE
X UNIDENTIFIED SLATE QUARRY
Y FOEL GRON SLATE
Z GROESDDWY AFON SLATE



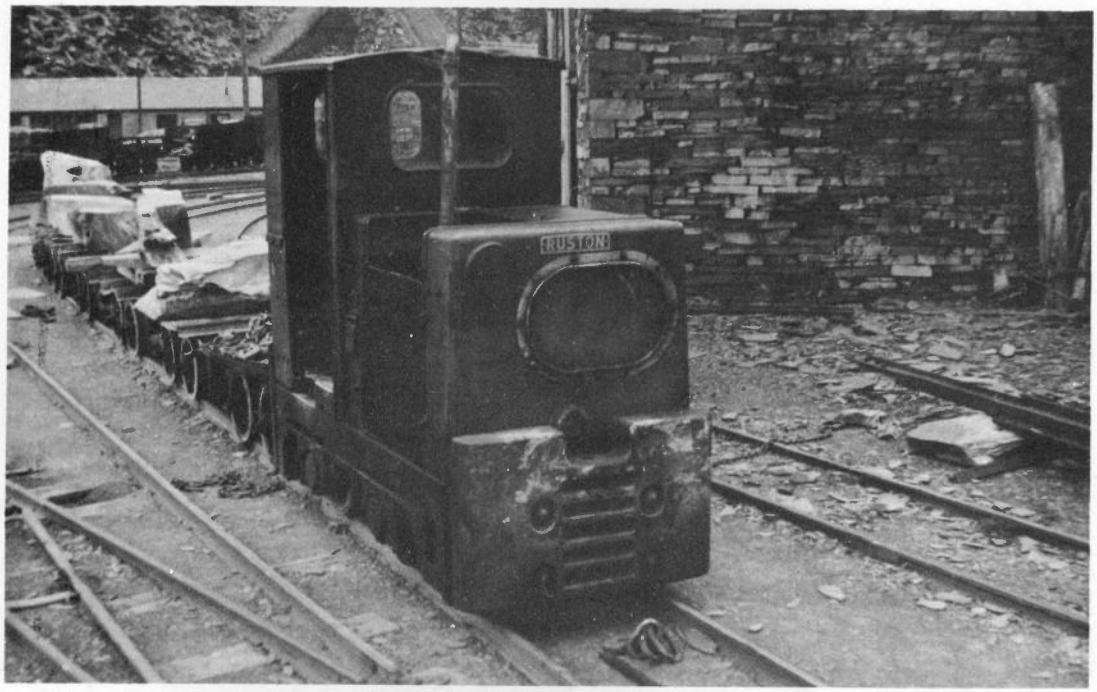
Oakley, April 1965. General view showing viaduct and line down to L.N.W. YARD.
(Andrew Neale)

Oakley closed in 1970 and has since been turned into a tourist museum on similar lines to Quarry Tours. Unfortunately by this time almost all the railway system had gone and visitors are shown around by road.

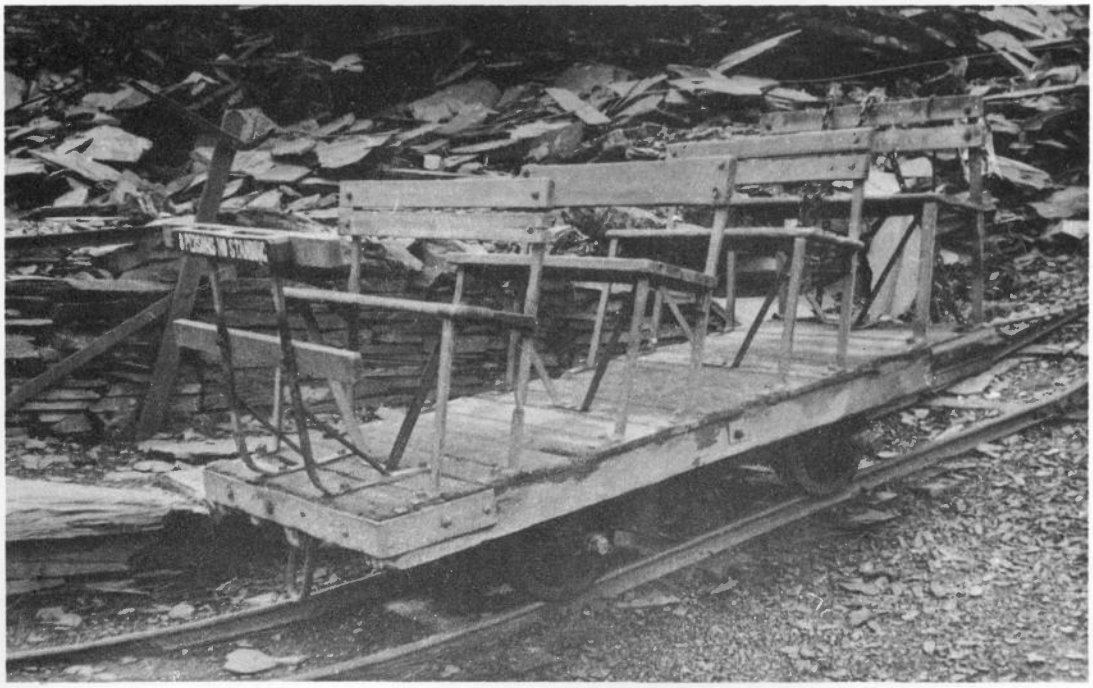
Across the valley from Oakley are the Llechwedd quarries, well known to most members as the home of the two unique steam to electric locomotive conversions. Appropriately these two locos, converted from Bagnall saddletanks in the quarry workshops in the late 1920's, were named THE COALITION and THE ECLIPSE. I have spent many a happy hour here riding on these locos as they lurched round the rough track, sparks flying from the trolley pole as it wobbled up and down on the rather rickety overhead wire. For most of their life THE COALITION worked around the slate mill on the main (No.5) level, while THE ECLIPSE shunted the tips on the top (No. 7) level, a somewhat windswept location on anything but a calm day. Towards the end, after thieves had stolen a considerable portion of the wiring on the top level, this was not replaced but THE ECLIPSE was brought down to the mill level to replace THE COALITION, being re-built with the latter's drive motor after its own one had failed.

However, these were not the only interesting things here. Llechwedd possessed the last working balanced incline in the country, which ran down to a siding off the LMS at the foot of the Oakley viaduct and closed in 1966, while the rest of the loco fleet was equally interesting. A ramshackle shed on the main level contained the remains (frame, bunkers etc.,) of MARGARET, the third Bagnall, which was dismantled about 1930 to make a third electric loco but never completed, and WELSH PONY, a small Wingrove and Rodgers overhead wire loco, while shunting in the mine and on the main and tip levels was performed by four early Wingrove battery locos, two of which date from 1922 and must be the oldest Wingroves still in existence. Finally, locked away in the disused slate mill on the tip level was a petrol loco built up in the quarry shops using the engine, gearbox, radiator and cab of an early 30's Morris Commercial on a home made frame, which, despite its Heath Robinson appearance, put in a prodigous amount of work while this mill was in use.

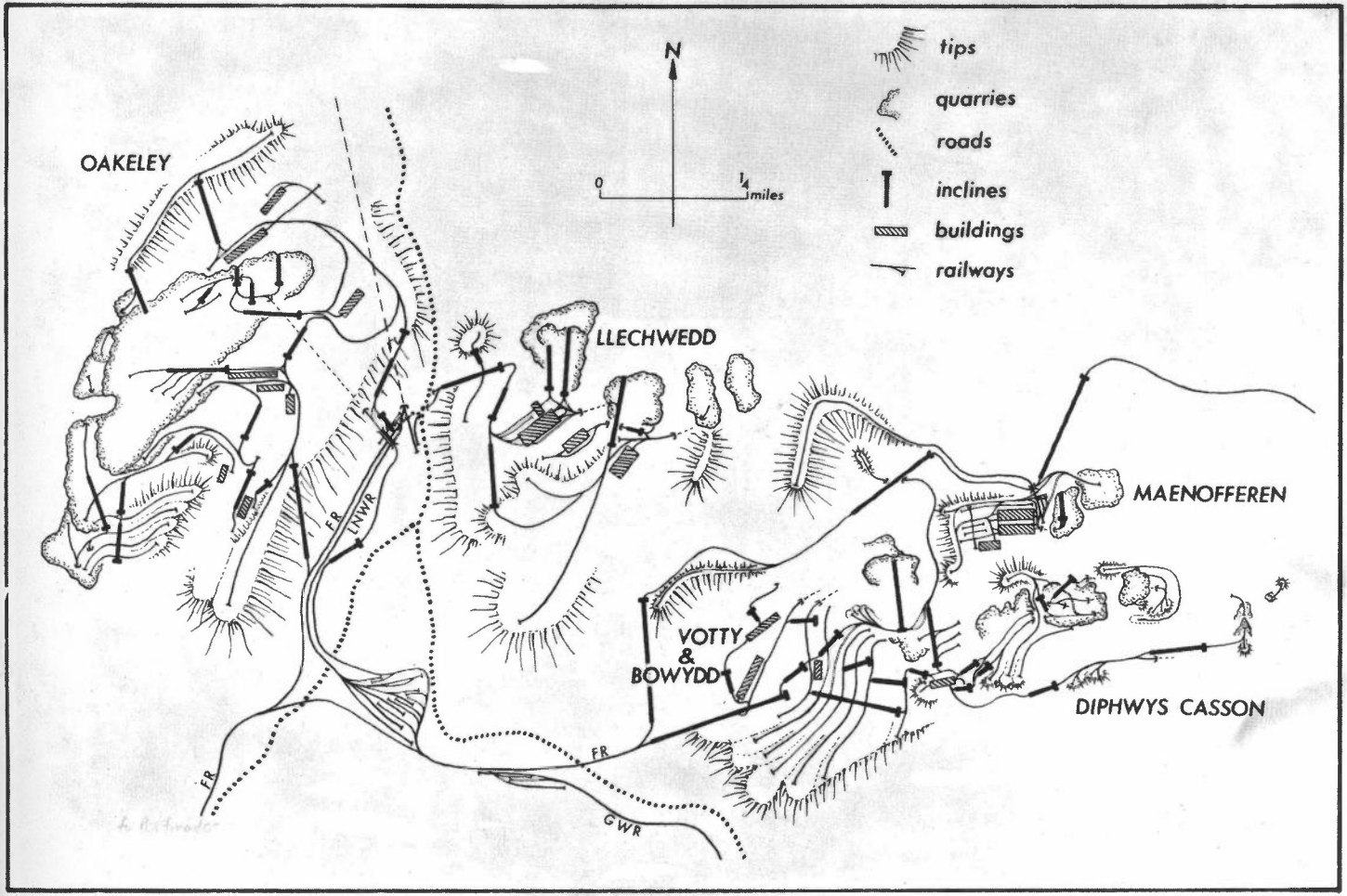
Immediately beyond Duffws, the far terminal of the Ffestiniog Railway were two inclines. One, running straight ahead, served the Votty & Bowydd Quarries, whilst the other, which curved around sharply to the left, served Maenofferen Quarry, and the Ffestiniog Mineral Extension. For shunting the Great Western yard at Blaenau, together with that portion of the F.R. between Duffws and the L.M.S. yard that the quarry companies leased after the Ffestiniog closed Maenofferen used a petrol loco acquired from Rhiwbach Quarry and built in the latter's shops. This consisted of an old Fordson farm tractor mounted on a slate wagon with the two connected by a rather lethal looking chain drive. On my first visit to Balenau in July 1964, this quaint old relic still lay out of use in its shed under the bridge by Duffws Station but sadly it was cut up a few months later.



Oakley, April 1965. Modern motive power — air cooled LAT class RH432652 shunts the main level. *(Andrew Neale)*



Oakley, April 1965. Incline man-riding car. One of these wagons has subsequently been preserved at Brockham Museum. *(Andrew Neale)*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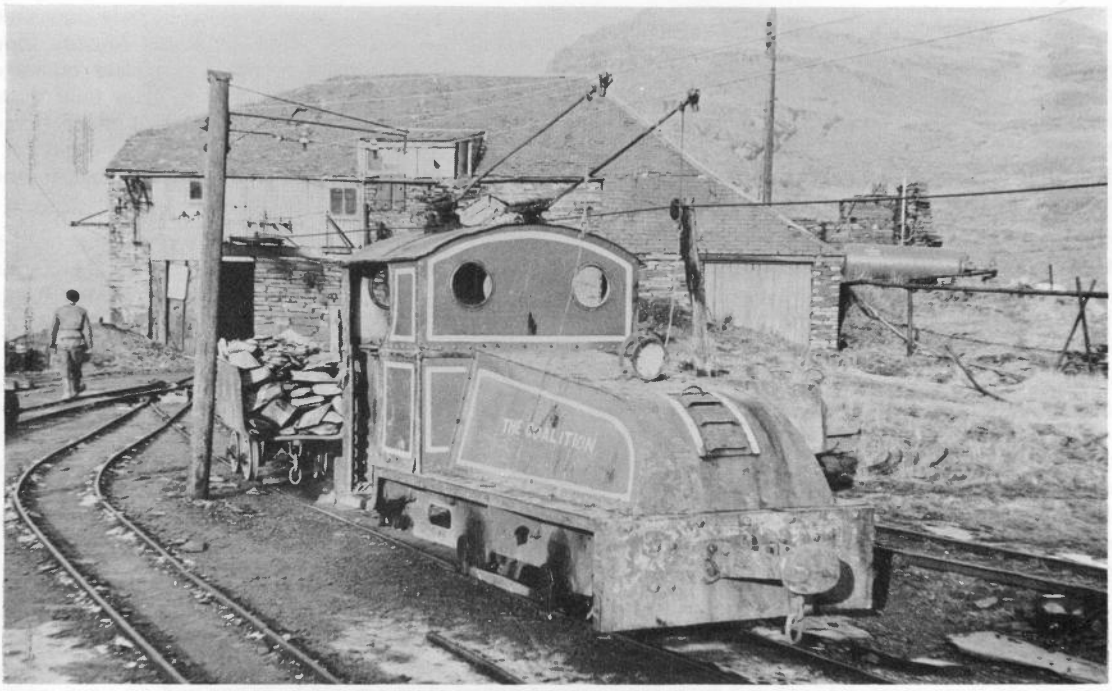


Llechwedd, December 1970. THE COALITION in use on the main (No. 5) level. (Chris Down)

Llechwedd, September 1966. General view of trackwork on main (No. 5) level. The line in the right foreground leads to a very narrow tunnel into which THE COALITION could only just fit! (Andrew Neale)

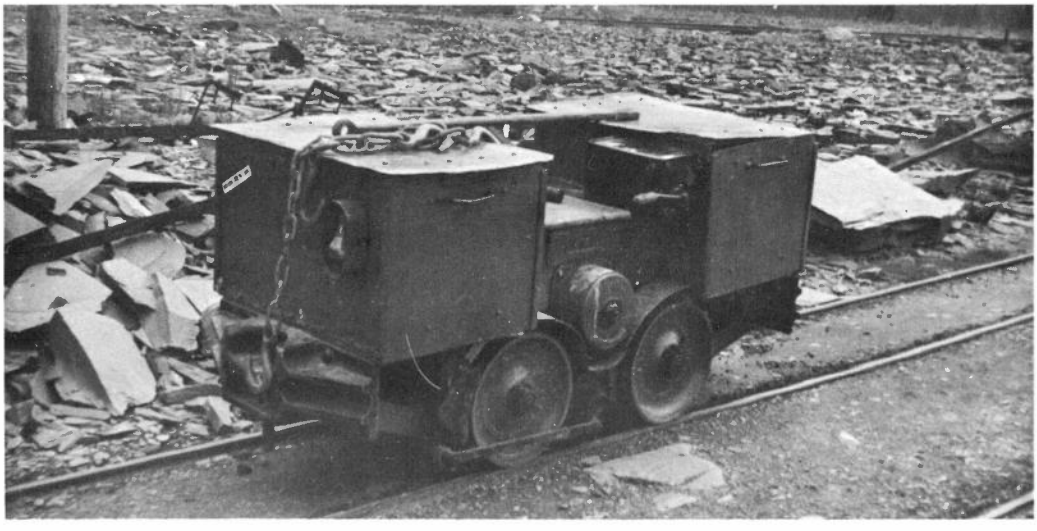
As noted earlier, Votty & Bowydd was the first major Blaenau quarry to close. The layout here consisted of a mine reached by an adit off the main office level together with a series of levels (mostly long abandoned) up the hillside. Votty pioneered the use of internal combustion locos in the slate quarries, buying its first Deutz petrol/paraffin loco as early as 1912, and a second a year later. It later built three battery locos in its own workshops using various parts taken from withdrawn locos. One of these home made locos utilised part of the frames of TAFFY, the 0-4-0T built by Vulcan Foundry in 1878 to the design of Charles Spooner. After the closure this and another of the home made battery locos were sold to the Aberllefenni quarries at Corris, the first locos this quarry has ever had.

The pioneer Deutz survived to the end, lying out of use in a dis-used mill on the first level, but latterly the work was done by the battery locos and a fleet of Ruston diesels. One of these, RH. 171902, a diminutive 10h.p. type, was used by the scrap merchants after the closure, hauling train loads of scrap out from the mine. Demolition took nearly two years as Votty, like all good slate quarries, never threw anything away. RH.171902 was amongst the last items to go, being scrapped early in August 1974.

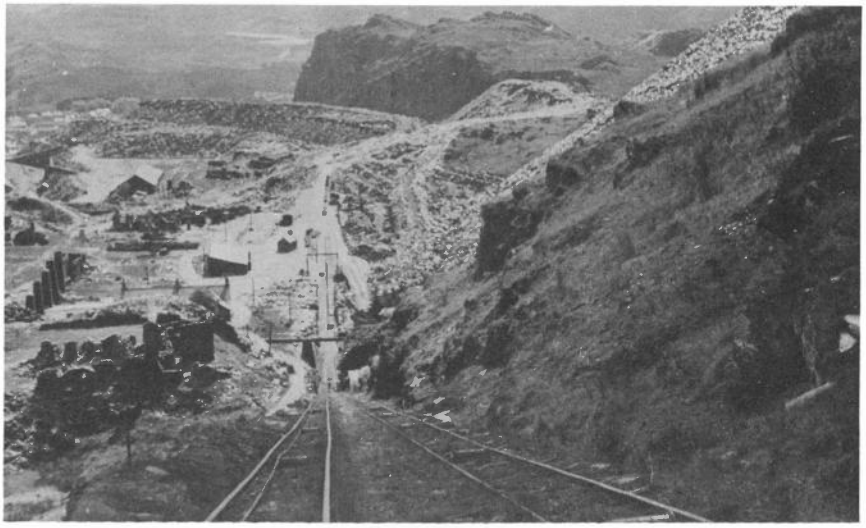
Returning now to Duffws, from the top of the left hand incline a line (lifted in two stages about 1964) ran for half a mile to a second incline, this section being worked by a Simplex which was stabled in a shed half way along the line. This second incline is still in use, as there is no road access to Maenofferen beyond this point, and from its head the line winds around the hillside on a ledge for a further half mile reaching the Maenofferen slate mills via a reversing point and a final short sharp bank. For much of its length this line is parallelled by another one (now dis-used) at a higher level serving a waste tip. From the mill an incline descends steeply down into the mine, and there is a considerable track network on the surface including a fascinating selection of stub pointwork necessitated by the double flanged wagons used here.

Since the sale of SANFORD and SKINNER to Penrhyn in 1929, Maenofferen has relied on a fleet of rather elderly Simplexes and Rustons for motive power, many of which have lain around out of use for up to twenty years, gradually being stripped of useful parts to keep the others going. Finally, in a big clear out late last year six old locos were dragged out from their various hiding places in old buildings and dis-used mine tunnels, the best (?) three being sold to John Crosskey for preservation and the others going for scrap, leaving the mine and the mill with one Ruston apiece and one spare — an act which seems to place far greater faith in the ability of Ruston's excellent workmanship to go on withstanding decades of rough usage than I would care to have !

At the point where the wastetip line crosses the main line into Maenofferen on a short girder bridge, the remains of an incline can be seen leaving the latter on the left hand side. This is the beginning of the Ffestiniog Mineral Extension, probably the most remote and fascinating of all the North Wales slate quarry tramways, and of which despite the fact that it was still in intermittent use until about 1960, relatively little is known.



Llechwedd, September 1966. 1922 built BEV battery loco outside disused mill, top (No. 7) level. *(Andrew Neale)*



Maenofferen, August 1964. View down incline. In the middle background can be seen Votty's derelict slate mills and waste tips on the left and the former line to Duffws on the right.
(Andrew Neale)

From the incline head the line runs for about 1 ½ miles across the desolate mountainside, past the lakes of Llyn Newydd and Llyn Bowydd until reaching the first quarry it served, the Cwt-Y-Bugail. The tramway was apparently worked by a Simplex which was kept stabled at the incline head until its shed was blown away in a gale, a quite believable story in view of the bleakness of the area.

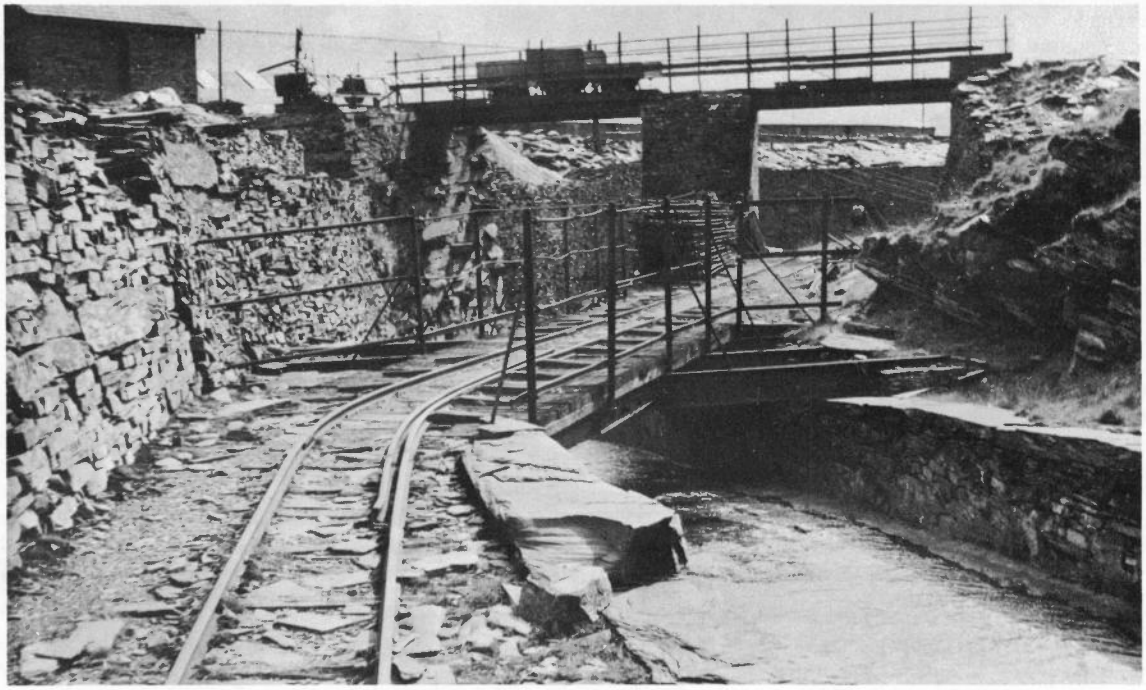
Cwt-Y-Bugail was served by a short branch from the main tramway. Originally a subsidiary of Maenofferen, it was later (about 1956) worked by a small group of independent quarrymen before closing for good about 1965. The first loco was a Planet petrol loco of the 'bonnetted' type which after being replaced by a 20 DL Ruston borrowed from Maenofferen was abandoned alongside the main line in a water logged cutting, gradually sinking beneath the water until sold for scrap in 1960. The scrapmen cannot have been very aquatically minded, however, for when Rich Morris and friends bought the Hunslet diesel from here, they found the Planet's gearbox still lying at the bottom of the pool and triumphantly salvaged it for further use.

The 20 DL carried on unaided until about 1961 when its flywheel parted company with the engine. Rather than repair it a second hand Hunslet diesel was obtained, but, sadly, this was too large to enter the tiny mine adit. Funds must have run out at this point for traffic was handworked for the last few years. Since closure, the Ruston has been stripped for spares by Maenofferen and the Hunslet dragged over to the nearby Manod quarry to await collection, the bare Ruston frame still lying here.

From Cwt-Y-Bugail the mineral extension passes the long dis-used Blaen-Y-Cwm quarry which contains an interesting relic in the form of the very rotten firebox and smokebox from a narrow gauge loco boiler. As no locos are known to have been here the boiler may have been bought from another quarry (Llechwedd or Votty ?) for stationary use.

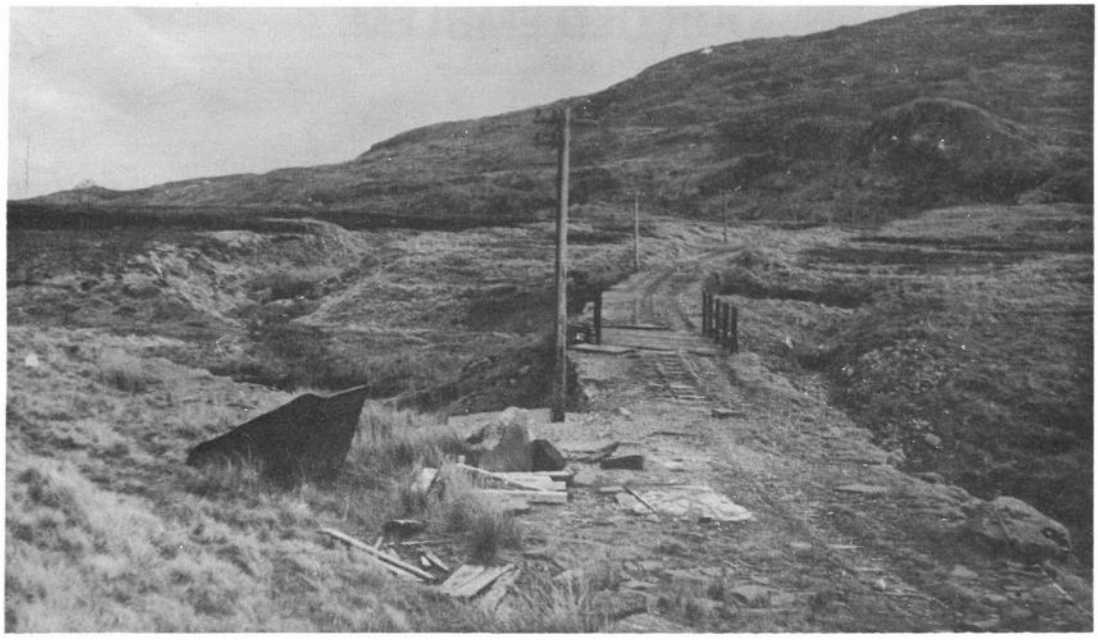
A short way on is Manod quarry whose system is still in use and likely to be the last line in Blaenau to be so. Output now goes by road to Ffestiniog, and rail usage is confined to a short tramway from the mill up a short incline and into the mine, worked by a very vintage Brush battery loco. Until recently the remains of a second such loco lay out in the yard while a Hunslet diesel stood derelict on the tip, but both these locos have been acquired by Rich Morris, the Hunslet being cannibalised for spares and the Brush moved to Brockham for storage. The Hunslet was actually owned by the M.O.S. who used the mine to store valuable items during the 1939-45 war, including art treasures and the Crown Jewels !

Finally at the end of the tramway is Rhiwbach quarry, once a large thriving concern with its own housing, chapel and school as it was so remote, but now long since closed and derelict. Originally the tramway was planned to continue to Penmachno quarry and the earthworks were in fact laid out, but construction was never finished and Penmachno (which had its own system and closed in 1963) had to send its output by road.



Maenofferen, July 1964. Main line to incline down to road interchange point in foreground with disused line from cutting sheds (on left) to tip crossing it on bridge. (Andrew Neale)

Maenofferen, April 1970. Unidentified Ruston (probably 18/21h.p. RH174542) cautiously shunts two wagons up to the incline head, an operation requiring some care since on one occasion, about 1965, RH175138 ran away down the incline and was damaged so badly that it had to be scrapped. (Chris Down)



The course of the Ffestiniog Mineral Extension looking east towards Llyn Bowydd, April 1965. Note V-skip body in left foreground, a type of wagon rarely found in the slate quarries despite its widespread use elsewhere. *(Andrew Neale)*

Apart from this main network, there were the isolated Drum, Foel Grou and Groesddwyafon quarries, all long since gone, although their tramways can still be followed, and the series of inclines connecting Craig Ddu Quarry with the G.W.R. at Manod, closed years ago, but making a fine walk for the energetic enthusiast.

Recent events in the area will make the working narrow gauge lines almost non existent. Since Quarry Tours took over Llechwedd's last mine, working there has been by opencast and the use of narrow gauge confined to a solitary battery loco shunting the mill with another spare. Now Llechwedd have taken over Maenoffferen and are building a road between the two with the eventual aim of opening out the mine there and making it open cast. Once this is done commercial narrow gauge operation at Blaenau, with the possible exception of Manod, will finish. Nevertheless, for the enthusiast who enjoys exploring old remains and walking trackbeds through beautiful countryside, the Blaenau area will be of great fascination for many years to come.

In conclusion my grateful thanks are due to Chris Down for illustrations and the map and Vic Bradley for permission to quote from Pocket Book F.

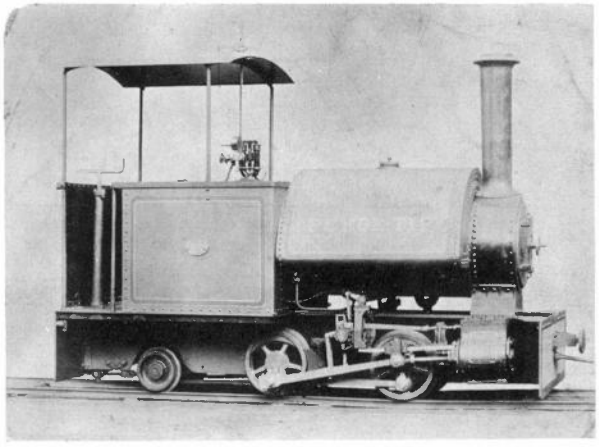
Postscript. *Since this article was written Chris Down reports that the road between Llechwedd and Maenofferen is due for completion by Easter 1976 so anyone wanting to see North Wales last slate quarry incline in use had better hurry. However, in view of the disappointing results from open cast working at Llechwedd the management are having second thoughts about opening out Maenofferen mine. Additional men have been taken on to work underground at Maenofferen and the workings extended into the old Craig Ddu area and so for the time being at least this part of the Maenofferen system may enjoy a reprieve.*

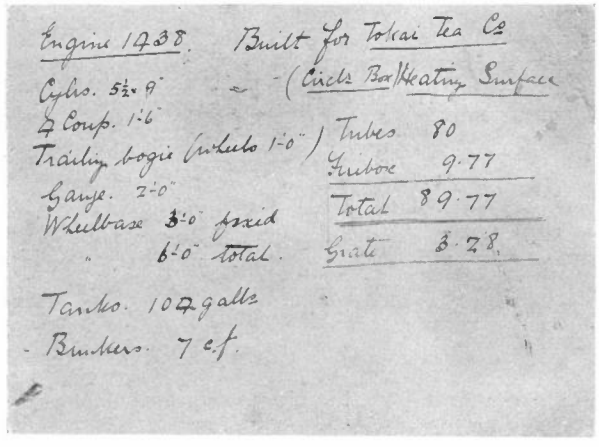
THE WOOSUNG RAILWAY (From a Shanghai paper of 1876)

'In consequence of the crowds of people who assemble daily to stare at the progress of the tramway, the Municipal Council very wisely desire that rifle practice at The Butts shall cease for the present. Any accident would not only be regrettable in itself, but in the last degree unfortunate from a political point of view, under the circumstances. If no misfortune happens, and the people are not interfered with, they will gaze their fill, and go home with their curiosity satisfied and a clear idea that railways are not very awful things after all.'

OUR OLD EMBLEM.

By C. Rodney Weaver.



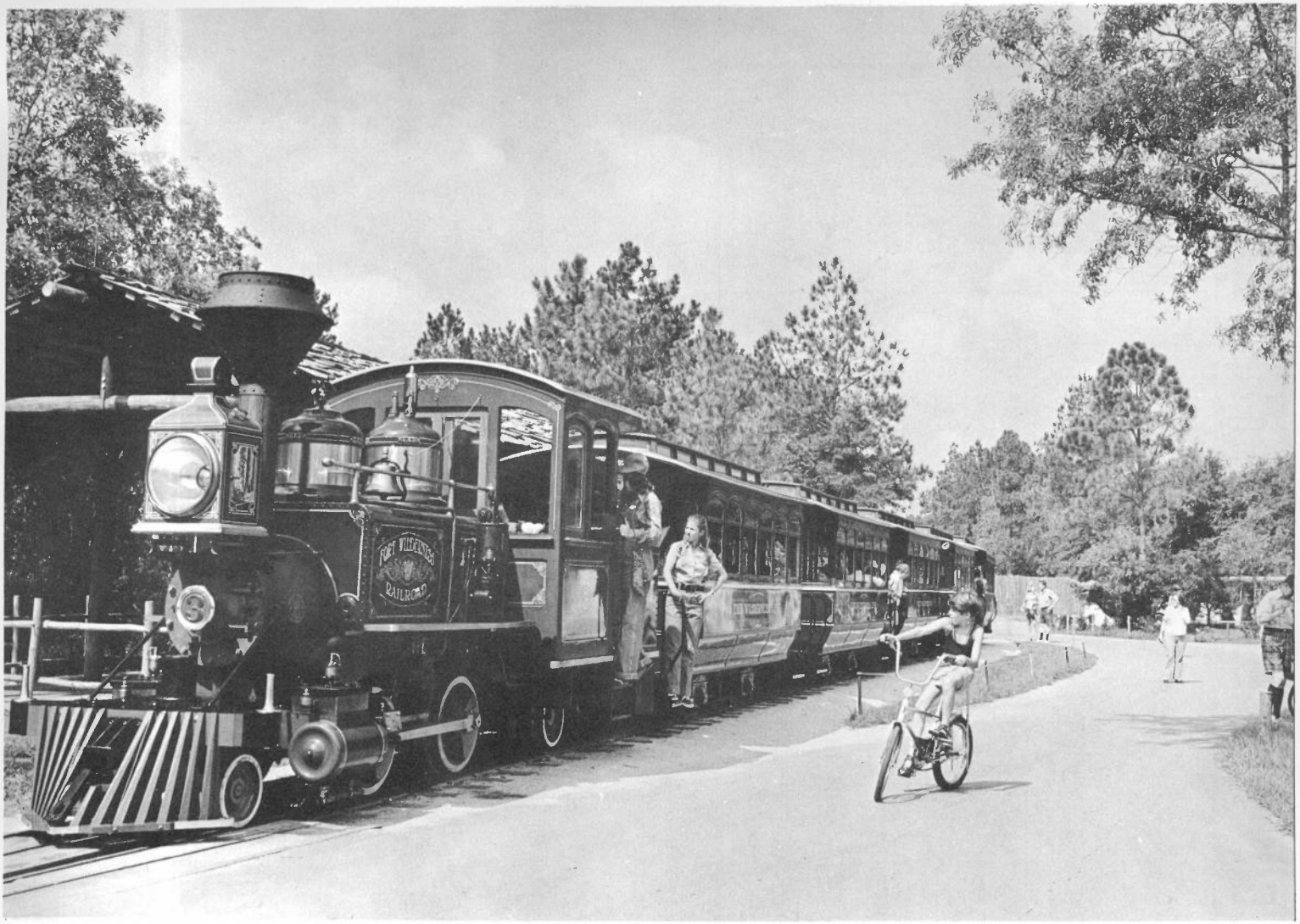


When I joined the NGRS, the Society's emblem, which appeared on "Narrow Gauge" as well as "Narrow Gauge News", was a small engraving of PEKOE TIP, Bagnall 1438 of 1894. Some time ago, while searching through the photographic archives of Baguley-Drewry Ltd, I found a works photograph of PEKOE TIP which had once formed part of the personal photographic collection of Ernest E. Baguley, who as Chief Draughtsman of W.G. Bagnall Ltd. was responsible for the design of their characteristic narrow gauge locomotives with circular fireboxes. PEKOE TIP was one of the first of these "new look" Bagnalls, supplied to the Jokai (Assam) Tea Co. Ltd, and came immediately after a pair of similar locomotives for the Margherita mines in Assam of which one at least was still in service as recently as 1971.

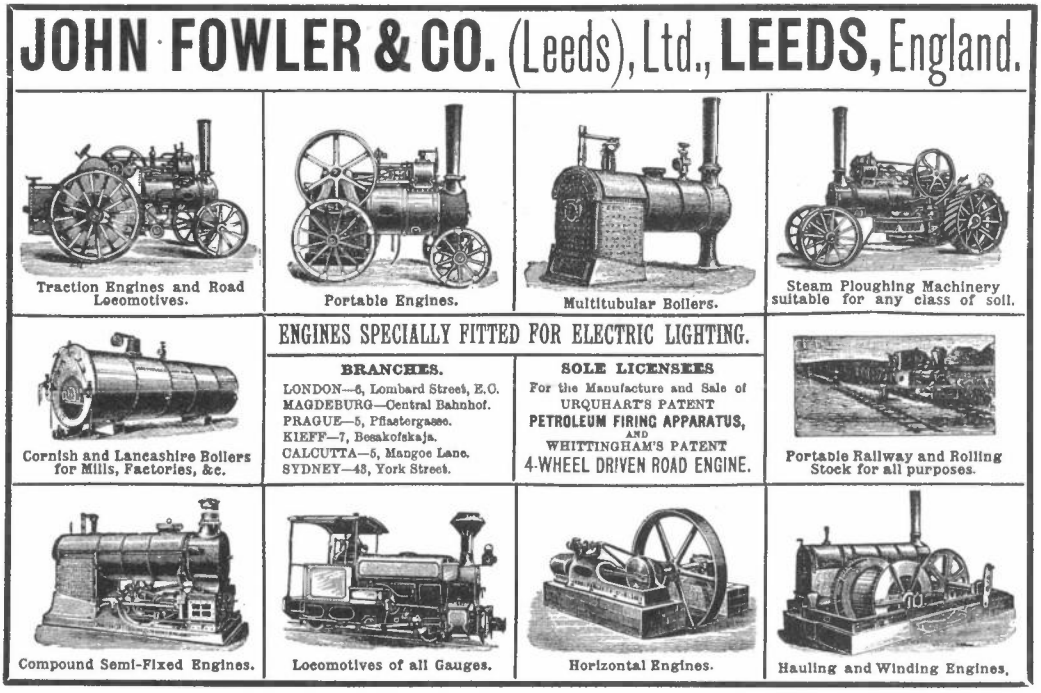
Perhaps the most interesting thing about this photograph is the back, however, for here one finds the basic dimensions of the locomotive written in the designer's handwriting. The missing details are the boiler pressure - 140psig - and the weight which was about six tons. The locomotive was one of the first to be built with Baguley's patented radial valve gear and, like several of its contemporaries, was provided with a trailing truck to permit a longer footplate to be fitted. This was a mixed blessing: the extra room was appreciated but the tendency of the lightly loaded truck to derail was not ! Many of these light 0-4-2s finished their days as 0-4-0s for this reason.

The Jokai Tea Co,pany bought few, if any, steam locomotives after PEKOE TIP as they were early converts to internal combustion power and having purchased a number of McEwan Pratt locomotives during that firm's short independent career became regular purchasers of Baguley locomotives when E.E. Baguley set up his own firm in 1911. Baguley's first locomotive, No 534 of 1914, was in fact purchased by the Jokai Tea Company.

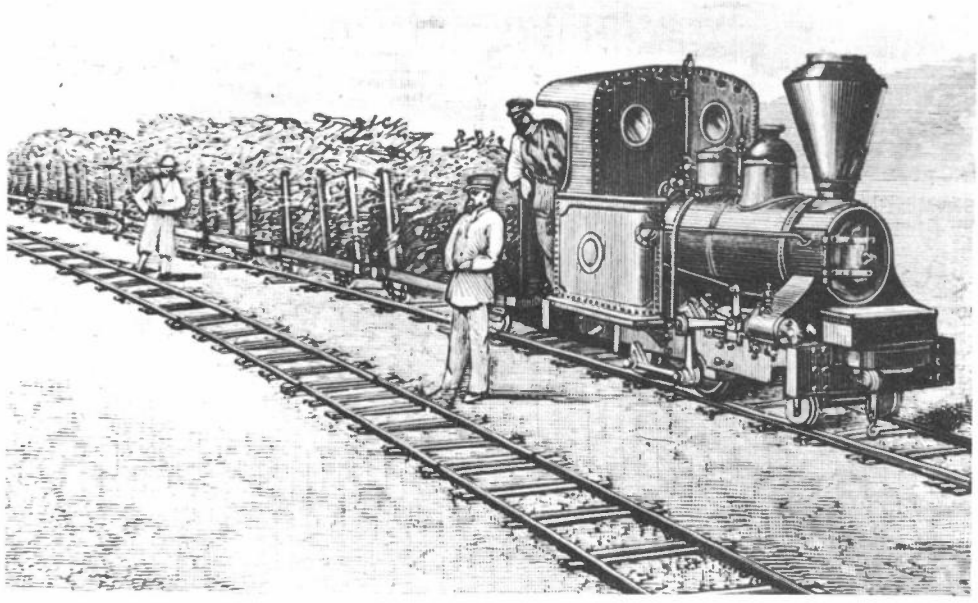
The railways of Assam, particularly the industrial ones, are virtually unknown to the average enthusiast, so if 1894 vintage Bagnalls still survive at the Margherita mines it is beyond the bounds of possibility that PEKOE TIP and some of those early petrol locomotives might also survive on a remote tea plantation ?



ABOAAARD -- Train number 3 of the Fort Wilderness Railroad takes on passengers at one of numerous stations located throughout wilderness camping area. Trains of the Wilderness Line at Walt Disney World cover more than 3 miles of narrow gauge track connecting campsites with beach, shopping and recreation areas.



Fowler Advert for January 1888. *(collection R. Martin)*



Reproduction of early wood cut from 1920 Fowler catalogue.
"Fowler Light Railway Machine supplied about half a century ago to Sugar Plantation in the Sandwich Islands (Honolulu). Train on portable lines from Plantation to Mill."