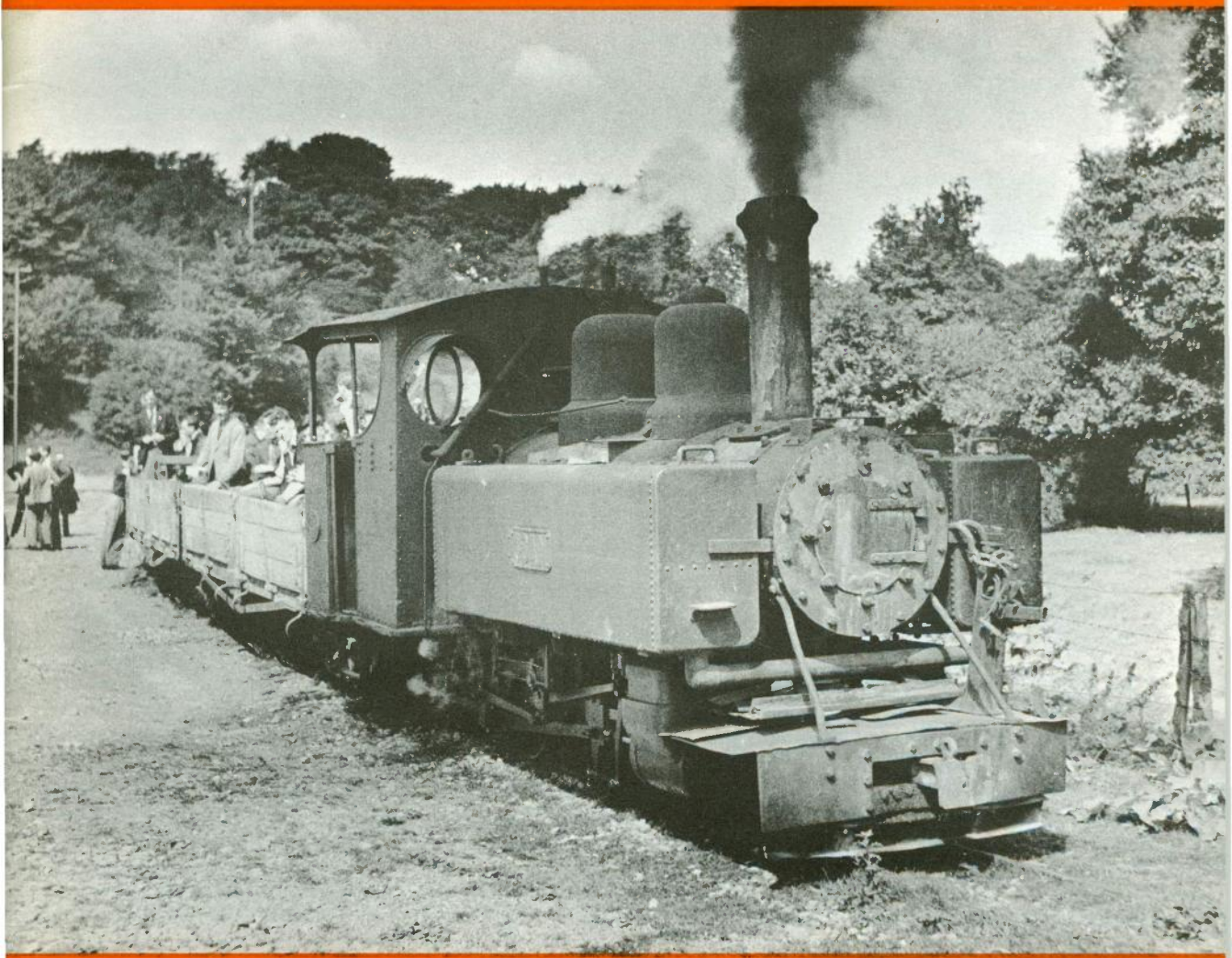
THE NARROW GAUGE

No. 80



NARROW GAUGE RAILWAY SOCIETY

NARROW GAUGE RAILWAY SOCIETY

Serving the narrow gauge world since 1951

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The Society was founded in 1951 to encourage interest in all forms of narrow gauge rail transport. Members interests cover every aspect of the construction, operation, history and modelling of narrow gauge railways throughout the world. Society members receive this magazine and Narrow Gauge News, a bi-monthly review of current events on the narrow gauge scene. An extensive library, locomotive records, and modelling information service are available to members. Meetings and visits are arranged by local areas based in Leeds, Leicester, London, Malvern, Stoke-on-Trent and Warrington. Annual subscription £4.00 due 1st April.

THE NARROW GAUGE

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A range of back numbers, and binders for eight issues are available from the address above.

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EDITORIAL

No. 80 SUMMER 1978

Although there is obviously a lot of past narrow gauge railway history in this country still to be uncovered it is generally accepted that very few previously unknown locomotives are still to be found, other than possibly the odd diesel or battery-electric locomotive in a river authority or contractor's plant yard. However, one exception to this is the field of miniature railways. Possibly because less interest has been taken in them, more probably because these locomotives are often privately built, so no builder's records are available for them, and may well have been extensively rebuilt one or more times since, but no comprehensive details appear to be available for all the miniature locomotives that have been built in this country. Nowadays, 7¼ in gauge (the commonly accepted lower limit for miniature railways) locomotives are being privately built in large numbers in the U.K. but leaving these aside our knowledge of earlier locomotives is somewhat scanty. For instance do we know how many miniature locomotives Bassett Lowke built, and what about all the Surrey, Border & Camberley locomotives and in particular is that line's second Garratt in India, the U.K. or scrapped?

Sydney Leleux's fascinating article on Stanley Battison in N.G.78 has brought news of the present homes of his locomotives (we intend featuring a "follow up" in our next issue) while not far from here a 7¼ in gauge Bassett "Royal Scot" complete with period garden railway reputedly slumbers away in someone's garden, untouched for many years, so what else may a little diligent research uncover?

Cover: JOAN at Ashover on 24th August 1947 with the last passenger train, a special organised by the Birmingham Locomotive Club. This was one of the first special trains for a railway society following the end of the Second World War, and is well remembered by those who participated because of the scorching weather and the lack of draught beer at the "Miners Arms," Milltown! *(W.A. Camwell)*

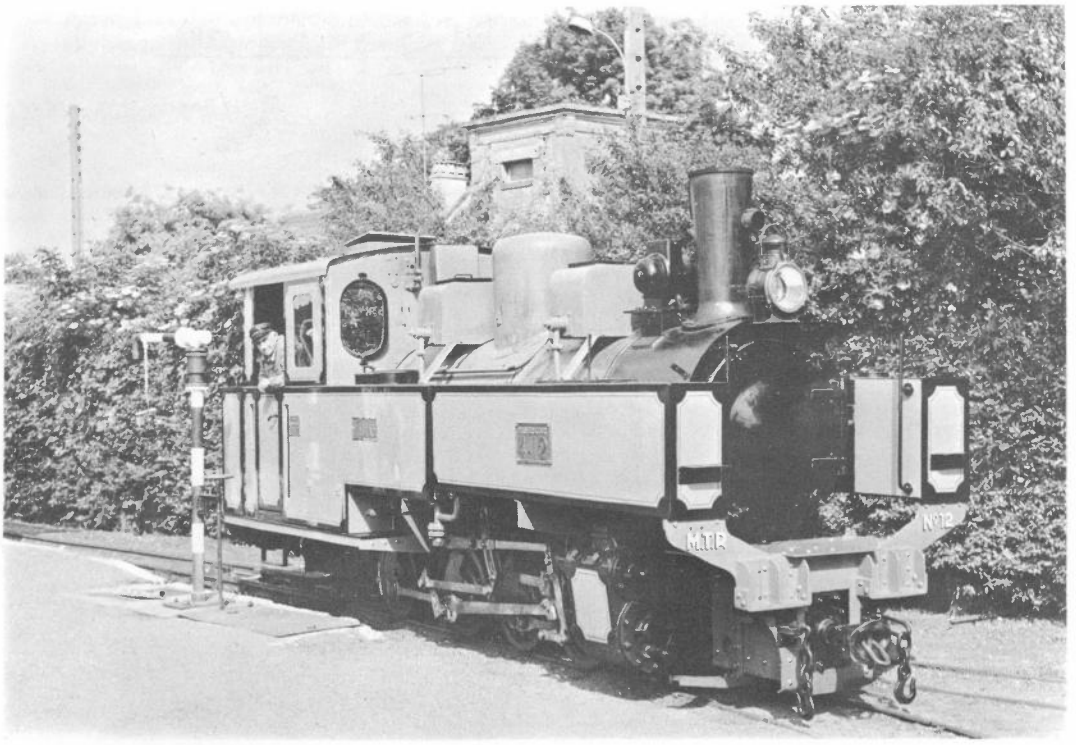
RECENT DEVELOPMENTS AT PITHIVIERS

J. Claveau—Président, A.M.T.P.

The Association du Musée des Transports de Pithiviers (A.M.T.P.), was the first railway preservation group in France to reopen a closed line. In April 1966 passenger services commenced operation over the 3.5 km. section of the former Tramway de Pithiviers à Toury between Pithiviers and Orme, and the museum and demonstration railway have since been progressively developed. The original terminus at Orme was beside the road, in common with most of the route, and was dangerous for passengers. The line was therefore extended in 1969 to a new terminus 0.5 km. away, clear of the roadside, named Bellebat. A loop, sidings and later a triangle were installed at this station.

Most of the development was centred on the museum. This is unique in France and although the premises are restricted the Association has a very comprehensive collection. This includes standard and metre gauge locomotives, electric trams and rolling stock in addition to the extensive range of 60 cm. gauge equipment. Standards of restoration are extremely high, and in the words of the French Ministry of Tourism, in their brochure on tourist railways—"At Pithiviers you can find gleaming little engines". This is an image which is greatly prized by the A.M.T.P., but one which is justly deserved.

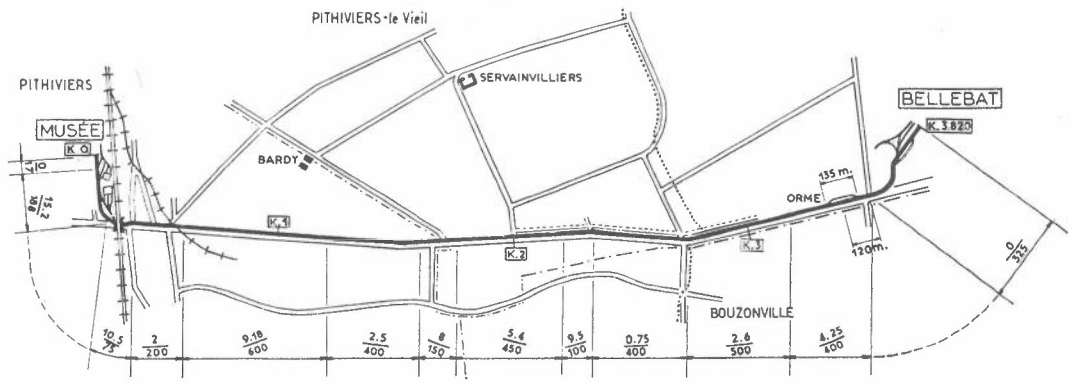
Activities have continued at the museum during recent months, so let us take stock of our achievements. The most important event this year is the recommissioning of MTP No.12, the 0-8-0 tank built by Franco—Belge (No.2843) in 1945. This locomotive had not operated since 1965, when it took part in dismantling the Pithiviers—Toury line. Since it returned from the workshops at Gray last November, we have continued with all the work necessary to return it to service, finally completing the painting, lining and lettering. The engineering work was carried out by Messrs. Baty, Gauvin and Marchais, the professional skills of the latter, who has participated in our work for many months without pay being particularly appreciated.



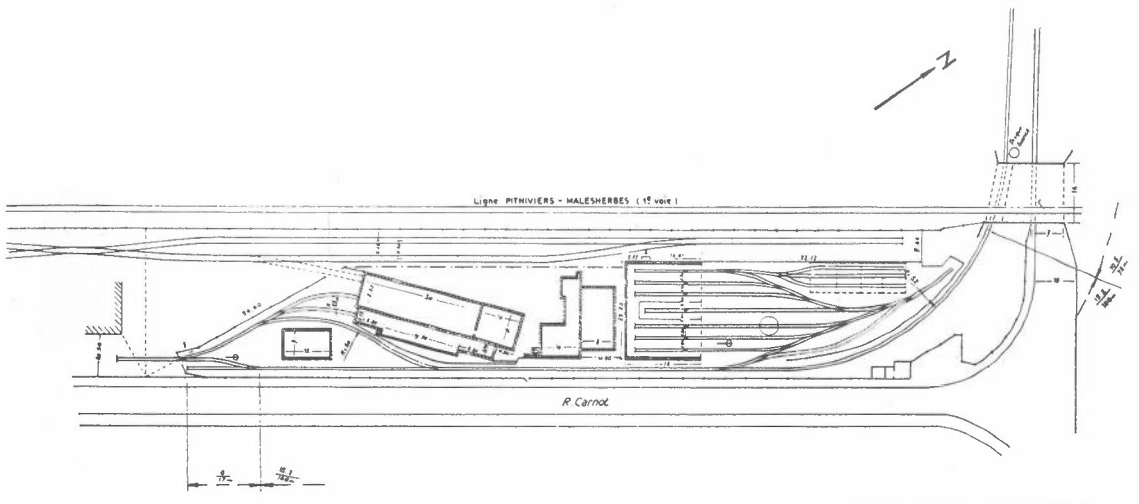
Almost unrecognisable as a wartime 0-8-0 tank, M.T.P. No.12 (Pithiviers-Toury 4-12) was built by Franco-Belge 2843/1945. Now carrying the name PITHIVIERS, and sporting this elaborate livery it poses outside the museum last May. *(M. Geiger)*

The Franco-Belge was first steamed in the depot on May 17th, and tested out on the line during the following day on the occasion of a special train, allowing checks to confirm that it was fully operational. The official inauguration took place on May 27th in the presence of the regional authorities who had given us their support, and on May 28th it went into service. This relatively modern machine, very heavy and powerful for the work we are demanding of it, is proving flexible and quiet. It is at ease on the line but a little hard on tight curves. Its fuel consumption is reasonable. The museum now has two extremes of 60 cm. gauge locomotive; one of the most recent (1945), and the heaviest (20 tonnes) in the No.12, compared with the oldest (1870) the lightest (3 tonnes) in the tiny Schneider 0-4-0 tank.

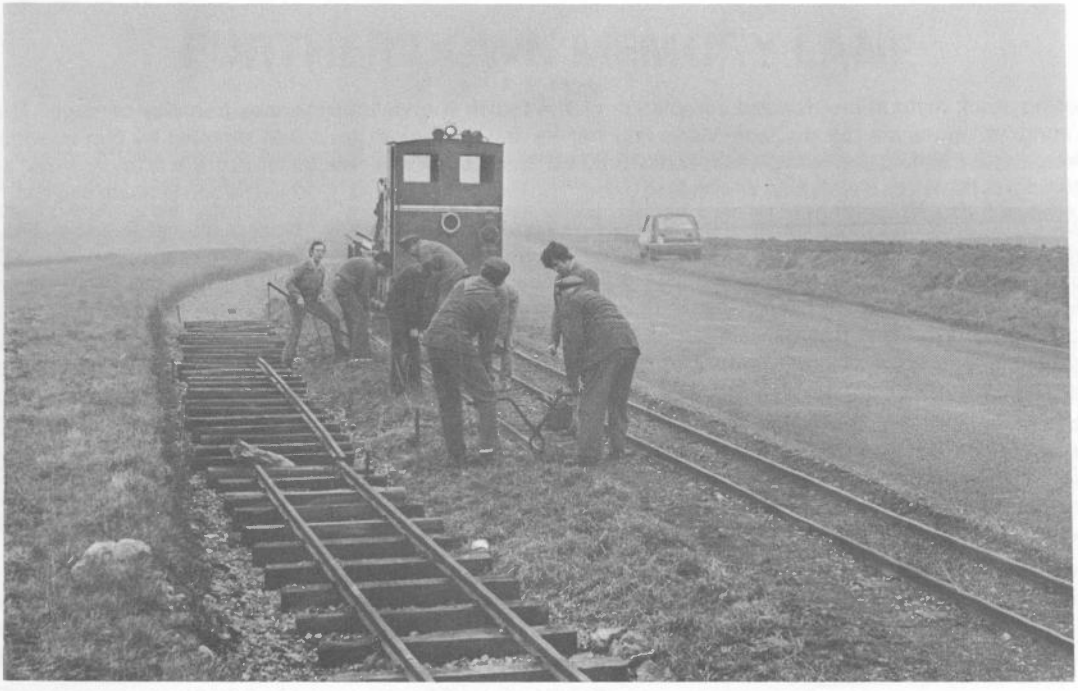
Other work on the locomotives has included repairs to No.5, the Blanc Misseron 0-6-0 tank; No.9, the Meuse 2-6-0 tank; No.4 the Feldbahn 0-8-0 tank; and No.3, the Decauville 0-6-0 tank after the visit of the Association des Proprietaires d'Appareils a Vapeur et Electriques (APPAVE). The Decauville 0-4-0 tank has been approved for further work by the Mines Service.



A.M.T.P. Demonstration line Pithiviers Museum—Ballebat



Pithiviers Museum and Depot



One cold, damp Sunday morning last winter, a group of AMTP members at work on the passing loop in the middle of the line, named Les Carrieres. The Gmeinder 0-6-0 diesel loco stands on the main line with the work train. (M. Geiger)

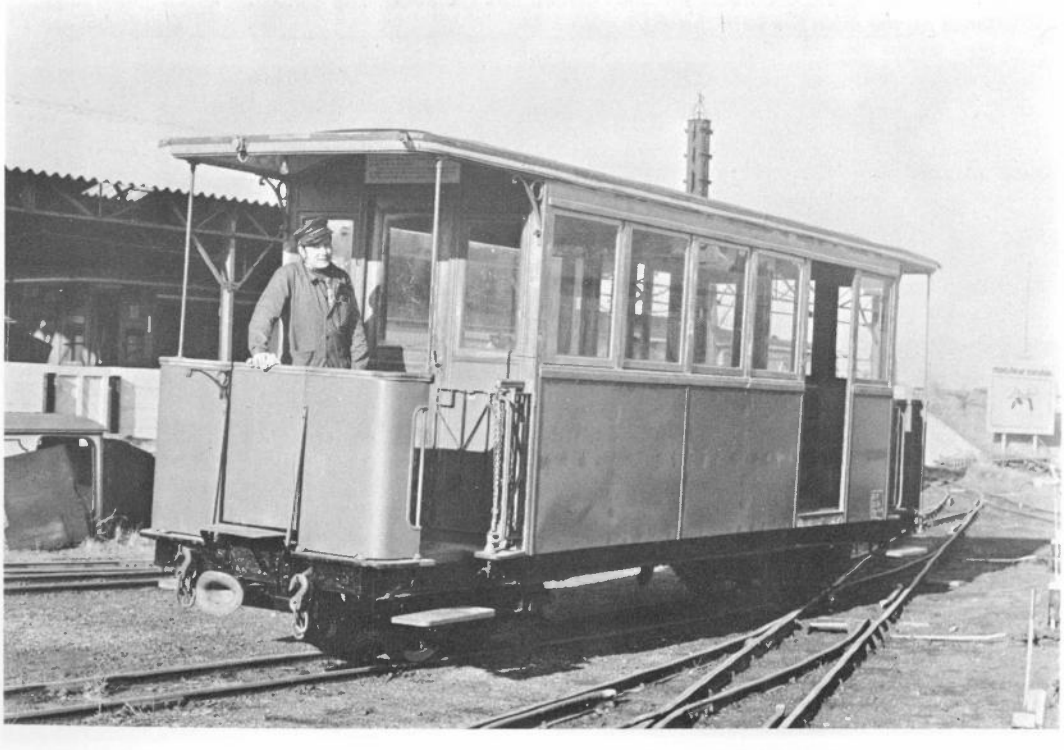
A very typical French light railway scene. The renovated section of line, showing the new sleepers and original rails before the track was ballasted and lined. March 1978. (M. Geiger)

Rolling stock restoration included completion of the fourth former Valenciennes tramway carriage. Thanks and congratulations are due to Jean-Marie Foucher for this mammoth task, well directed by him in about 75 working days. Painting and lining was recently finished. Installation of a new trailer carriage is in progress, and a brakevan has been fitted with new wheels and axles. The metre gauge P.O. Correze saloon is being painted.

Apart from routine track maintenance, the loop set up half way down the track is almost finished. The late arrival of pointwork meant that we could not site it as we wished until May 20th. The renovation of a 300 m. section of track decided upon by the council has been completed. This work, carried out on the most worn part, consisted of changing ballast and sleepers while retaining the still useful rails. It was done by Orleanaise Margueritat and the high price (30000 fr. = £3560) explains its limited character. I hope that we will be able to undertake such work every year as well as changing rails, so that in about five years we will be running on completely new track.

The operating season has started well with many special trains and sustained attendance. Fears which might have arisen due to the creation of new working methods have not been realised, and most of our volunteer operators have again taken up their tasks with a smile. We have sometimes been hindered by lack of help to operate special trains during the week, and although new members are keen the number is not always enough. However, our little business is going well.

Overseas visitors are always welcome at the museum, which is located 80 km. south of Paris and can be reached by the S.N.C.F. or by road. Four or five return trains operate on Sundays and holidays between 14.30 and 18.00 from May 1st to the end of October.



The former Valenciennes carriage in March 1978 after the completion of restoration, but before final painting. Jean-Marie Foucher, who directed the work, stands on the balcony.
(M. Geiger)

FURTHER DOWN MEMORY LANE

K.P. Plant

It's some fifteen years or so since Bill Banner told me of an un-nerving experience he'd had when working a passenger train from Ashover to Clay Cross with locomotive GUY one Friday (not Thursday, as on page 26 of my book, *"The Ashover Light Railway"*—Oakwood Press, 1965). Harold Skinner was firing, Charlie Maycock was the conductor and quite by chance manager Harry Wilbraham was riding in the train. Supposedly they'd stopped before crossing Clay Lane and had just restarted when a motor-cyclist suddenly came into view on the right. He was travelling at a fair speed along the road from Clay Cross with his head down and, as he seemed oblivious of the train, Bill applied the brakes. Unfortunately, the rider failed to stop, collided with GUY and was thrown from his machine. He was taken home by the Clay Cross Company's ambulance but later removed to the Chesterfield Royal Hospital for examination. It had been an eventful day for an unemployed man collecting his "dole". His spine was injured and he was later obliged to wear a surgical collar. When he brought a claim for damages against the ALR, the case was reported at some length in the issue of the *"Derbyshire Times"* dated Saturday, 19th March 1932. This is reproduced below, and in view of the conflicting remarks regarding distances and speeds it is not surprising that the Judge came to the conclusion he did. Incidentally, the Levi Clegg mentioned was a disabled Clay Cross Company employee with an artificial leg who was in charge of the coal office at Stretton.

COLLIDED WITH TRAIN—Littlemoor Man's Claim Against Ashover Light Railway.

A claim for £250 damages in respect of an accident on May 30th, 1930, was made by Arthur Freeman (25), Littlemoor, Ashover, against the Ashover Light Railway Company at Chesterfield County Court on Friday.

The case was one which had been remitted from the High Court.

Mr Norman Winning, instructed by Messrs B. Mather & Co., solicitors, Chesterfield, represented the plaintiff, and Mr. F.W. Beney, instructed by Messrs. E. King Manning and Co., solicitors, Nottingham, appeared for the respondents.

Clay Lane level crossing and telephone box (a former Dick Kerr petrol electric locomotive cab), looking north, in 1951 shortly after the track was lifted. Clay Cross town is to the right of the picture. *(collection K.P. Plant)*

It was stated that the claim arose from personal injuries sustained by Freeman and damage caused to his motor-cycle when he came into collision with a train owned by the company.

Mr Winning said the only question was one of liability as the amount of damages had been agreed. It was his submission that in the case of a railway company which was exempted from the necessity of erecting crossing gates they should give warning to traffic by sending a man with a red flag into the road. The respondents had adopted some such method since the accident.

Freeman said he was riding along Clay Lane, Clay Cross, in the direction of Handley at about 25 miles per hour and when near the crossing of the railway line and the road he slowed down to about 12 miles per hour, knowing the existence of this crossing. He was four yards away from the line when without warning an engine drawing a passenger coach and trucks appeared in front of him. He shut off the engine of his A.J.S. motor-cycle and braked, but was unable to avoid colliding with the train, sustaining among other injuries a broken bone in the spine.

Cross-examined, plaintiff denied that he could have seen the engine earlier if he had been keeping a good look-out or that the train was stationary when the collision occurred. He estimated the speed of the train at about 10 miles per hour.

Charles Edwards, a farmer, Stretton Hall Farm, Clay Cross, said he was leading a stallion along the lane at the time when Freeman passed him at a moderate speed. He saw the engine come out of the cutting at about the same pace, but did not hear any whistle from it. The IMPACT WAS ON THE CARRIAGE and not on the engine of the train.

Another eye-witness, Andrew Martin, 100, Clay Lane, Clay Cross, a miner at Pilsley Colliery, corroborated.

Evidence was also given by Ernest Bennett, Clay Lane, Clay Cross, miner at Holmewood, who said the train was travelling fast.

Cross-examined by Mr. Beney, witness was unable to reconcile his evidence with a statement containing entirely contradictory facts, given to a police constable at the time of the accident and when pressed denied that the officer's report of his statement was a correct one.

George Henry Wilbraham, Market Street, Clay Cross, Manager of the railway, gave evidence of the statutory requirements to which the company had to conform and said that by chance he was also travelling on the train at the time of the accident and was a witness of the occurence. The train could not go faster than about seven miles per hour and it stopped before the level crossing, delivered a whistle and proceeded across the road. The motor-cyclist then appeared "like a flash of lightning", the train stopped again and the collision occurred.

Mr. Winning said that according to the witness the train was going at six miles per hour and the motor-cyclist at 40 miles per hour. He admitted that the maximum speed of the train was about seven miles per hour on that gradient and said the actual speed at the time was about 1 ½ miles per hour.

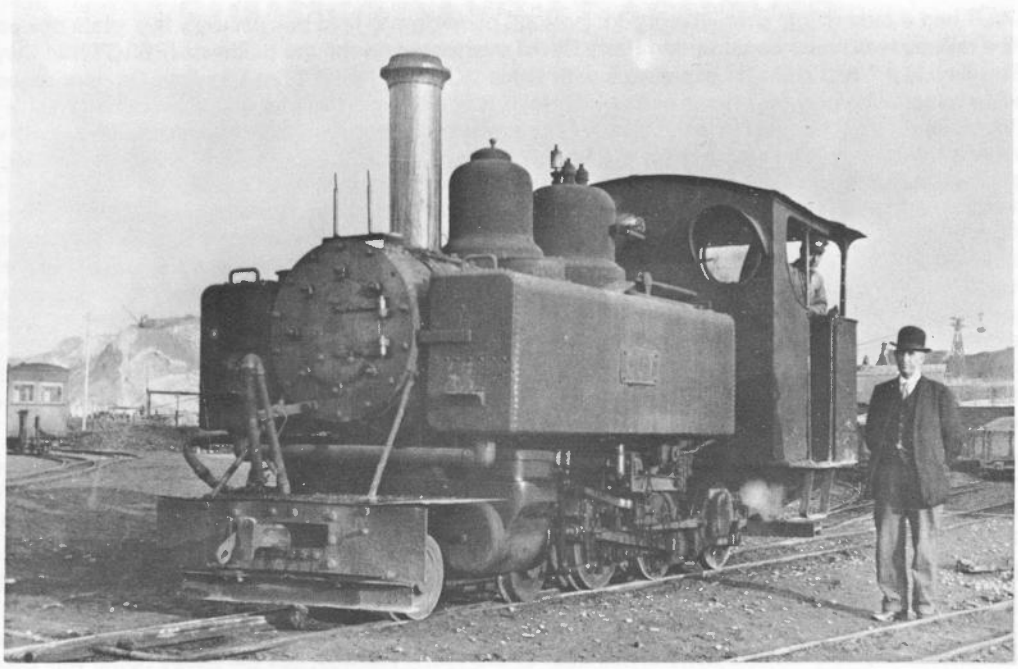
P.C. R. Cope said he was stationed at Clay Cross at the time and was early on the scene of the accident. He took a statement from Bennett which was signed and he examined the marks on the cylinder of the engine on the following day. From his examination he concluded that these were the marks caused by the impact.

The driver of the locomotive, John Banner, Ashover, said he looked down the road and whistled before starting from a standstill to cross the road. Witness then saw the motor-cyclist coming at a "terrific speed" over the brow of the hill. He showed no sign of stopping so witness applied his brakes and stopped the train. The impact took place while the locomotive was stationery and the point of collision was on the cylinder of the engine. Witness had left sufficient room for the motor-cyclist to proceed round the front of the engine.

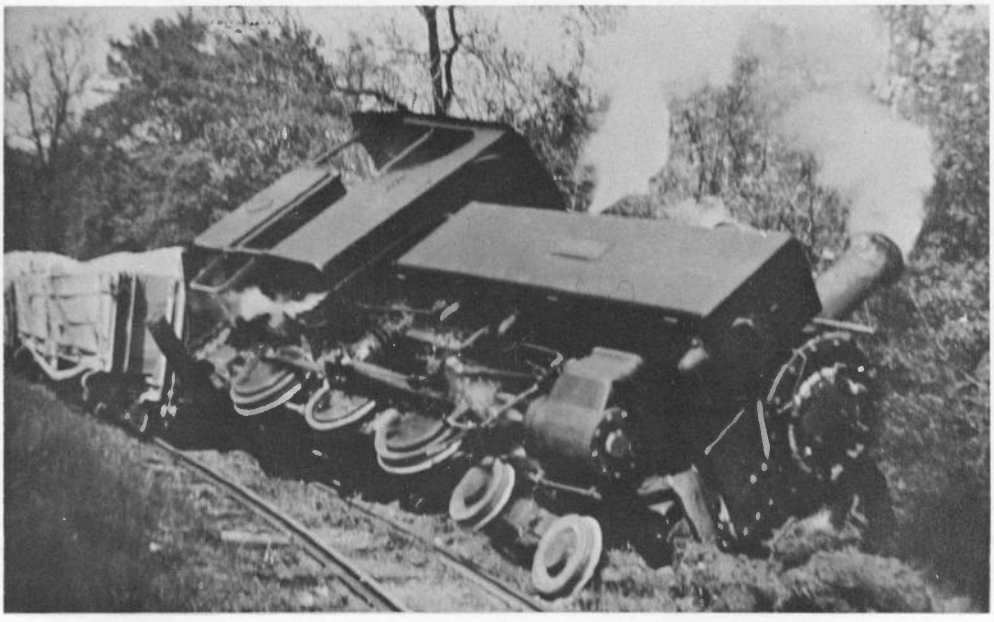
Harold Skinner, Hope Cottage, Stretton, the driver's mate, Charles Maycock and Levi Clegg, passengers, gave evidence.

Summing up the case for the respondents Mr. Beney said that under statutory law it was not necessary to have crossing gates and when this was discovered by the plaintiffs they had dropped that plea. Negligence was alleged but evidence of the whilstling and stopping of the train, and the existence of a warning notice board had been given, and consideration must also be given to the question—did the plaintiff, if there was no negligence, take reasonable precautions to avoid the consequences of that negligence?

His Honour Judge Longson said there was a wide discrepancy in the evidence, but he had come to the conclusion that the plaintiff had failed to discharge the onus of putting the blame on the respondents, and therefore judgement would be given for the latter."



GUY at Clay Cross about 1934 with driver Skinner (notice the A.L.R. cap badge) and manager Wilbraham. It will be seen that GUY's water lifting gear has been removed. (Robinson collection, courtesy Industrial Railway Society)



GUY in trouble again after colliding with a lorry loading stone at Milltown.
(collection K.P. Plant)

The ALR had a remarkable safety record for not one person was killed in its twenty five years of operation. When the railway was under construction Harry Revell overturned on the the Baldwins (PEGGY?) at Clay Lane, and "Staveley Jack" had a similar experience with either JOAN or HUMMY at Woolley. On another occasion there was a minor collision with a horse and cart at Holmgate, and Jack Grassick is said to have run into a Foden steam lorry when it was loading stone at Fallgate. The same thing happened to Bill Banner when he was working four wagons of stone to Clay Cross. Harold Skinner was again firing, and Charlie Maycock was riding on the footplate making out his journal. They had left Fallgate and were approaching Milltown where several hundred tons of stone had been stockpiled alongside the line. An old malthouse on the east side of the line, long since pulled down, further restricted vision on the curve and at the last minute Bill saw that a Clay Cross Company lorry had backed off the road to be loaded up with stone. Harold and Charlie jumped off as Bill slammed on the brakes just too late to prevent a collision. Slowly the little Baldwin toppled over, and the result can be seen in the accompanying photograph which unfortunately is just a little out of focus. The nameplate cannot be read clearly but it appears to be JOAN. Both Bill and Harold, however, recall that the Baldwin concerned was GUY, Bill's regular engine until he finished "main line" driving when passenger services ceased in 1936. Against that I've been told that, whilst GUY had a full length canopy covering both cab and bunker, JOAN had only a short one until quite late on.

There have been several changes at Fallgate in recent years (some duly recorded in *Narrow Gauge News)* and I have suggested to the Editor that he may wish to summarise these as a follow-up to this article. With his permission I am including here some addenda and corrigenda to my book *(The Ashover Light Railway, Oakwood Press, 1965).*

Dr Hollick tells me that the steam navvy used on construction work (page 16) was still dumped at the back of Clay Cross shed in September 1930. On page 54 the building date of BRIDGET should read 1.1.1917, this locomotive being named (page 57) after the youngest daughter of General Jackson. He lived in Birkenhead (page 22) as he was Chairman and General Manager of the Wirral Railway, but the family home was Clay Cross Hall, not far from Clay Cross and Egstow station. "Where the Rainbow Ends" was the title of a play staged at a Liverpool theatre (possibly about 1925) and the name was adopted by General Jackson, not John May, for the ALR's cafe (page 49): Miss Joan Jackson told me that the General sketched out the general design on the back of an envelope and the builder's drawings derived from this sketch. Stubben Edge Hall (page 45) was taken over in August 1921 (not about 1922) by the Sheffield Works Convalescent Association and opened as a convalescent home on 20th July 1922.

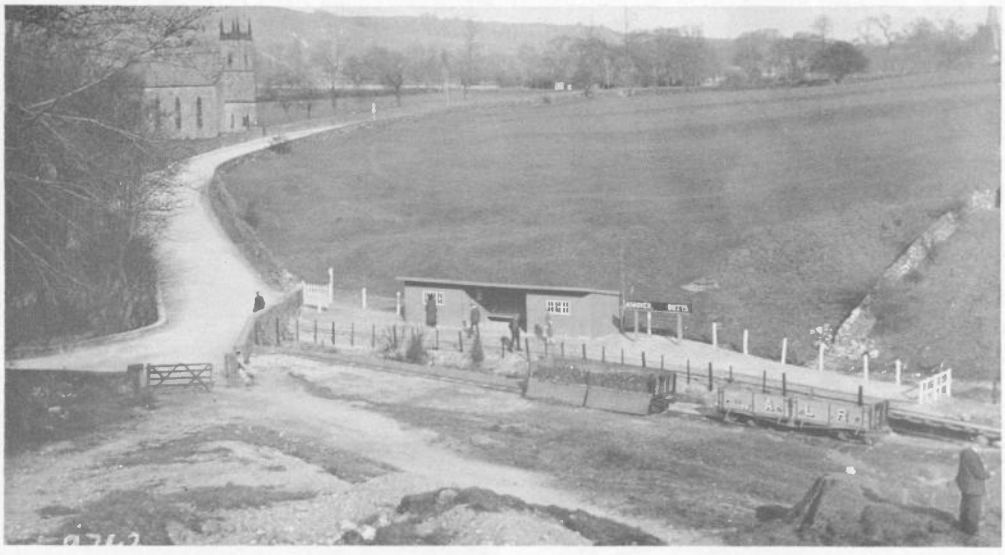
When a *Railway Gazette* reporter wrote of gravity working of mineral traffic (page 25) he was no doubt thinking of the abortive *Railway No. 2* to Alton Colliery which would have been too steeply graded to have been operated by locomotives.

Rodney Weaver is of the opinion that the Fordson machine (page 58) could well have been another locomotive by Muir-Hill as they used "Fordson" components. Andrew Neale, while agreeing that Muir-Hill is the most likely candidate, adds that Fordson tractor engines and transmissions were also used by Robert Hudson for their "Go-Go" petrol/paraffin locomotives. Lake & Elliott of Braintree is another possible contender, and at least one of the handful of "Premier" paraffin locomotives built by James C. Kay of Bury is thought to have been fitted with a Fordson engine. The later "Planet" locomotive (Hibberd 3307) is now preserved at the East Anglia Transport Museum at Carlton Colville, near Lowestoft, having been transferred there from R.G. Odell Ltd., Canvey Island about October 1972. Ruston & Hornsby 437367 (page 62) was built in 1959 but did not arrive at Fallgate until 1963: when railway operation ceased there in 1968 it lay out of use for some time until transferred to Clay Cross Works for storage. In the autumn of 1971 it was purchased by Alan Bloom, and taken to Bressingham. The Ransomes & Rapier diesel (page 61) lay derelict at Fallgate until late 1969, when it disappeared, presumably for scrap.

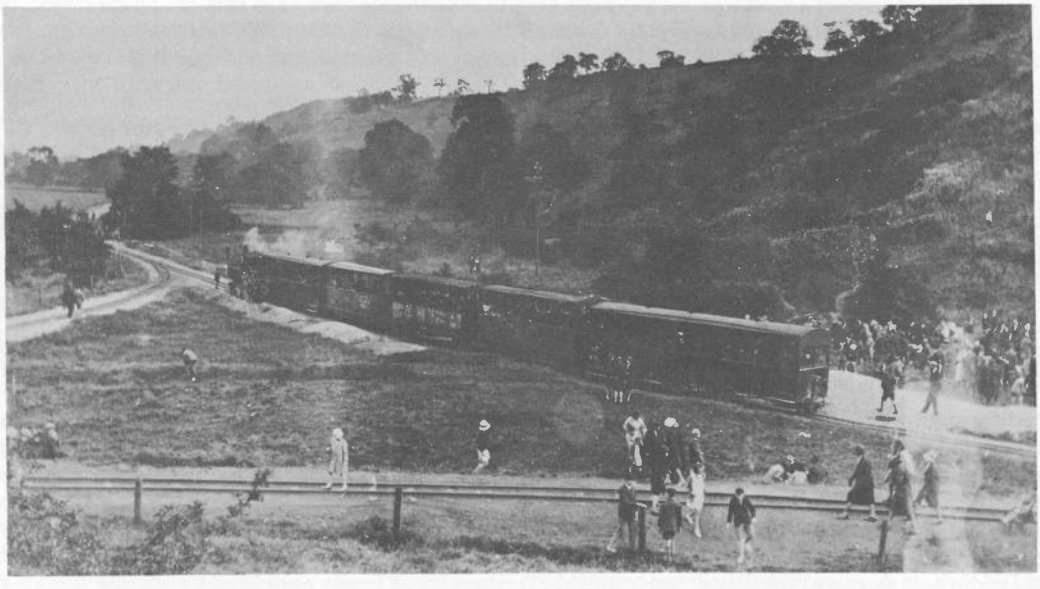
On page 51, the boiler length of the Baldwin locomotive should read 6ft 11in, and not 19ft 6 1/8in which is the overall length of the locomotive. So far as the works numbers of the Baldwins are concerned (page 54) I consider that those quoted for August 1925 should be deleted, because they are believed to be erroneous.

As mentioned on page 50, wooden tubs were in use latterly at Butts Quarry, and these seem to have replaced the earlier V-shaped steel double-side tipping wagons. I have not been able to locate the stock totals for wagons in the years 1940 to 1946 (page 69) and would welcome any authentic information members might have.

SUMMER DAYS AT ASHOVER



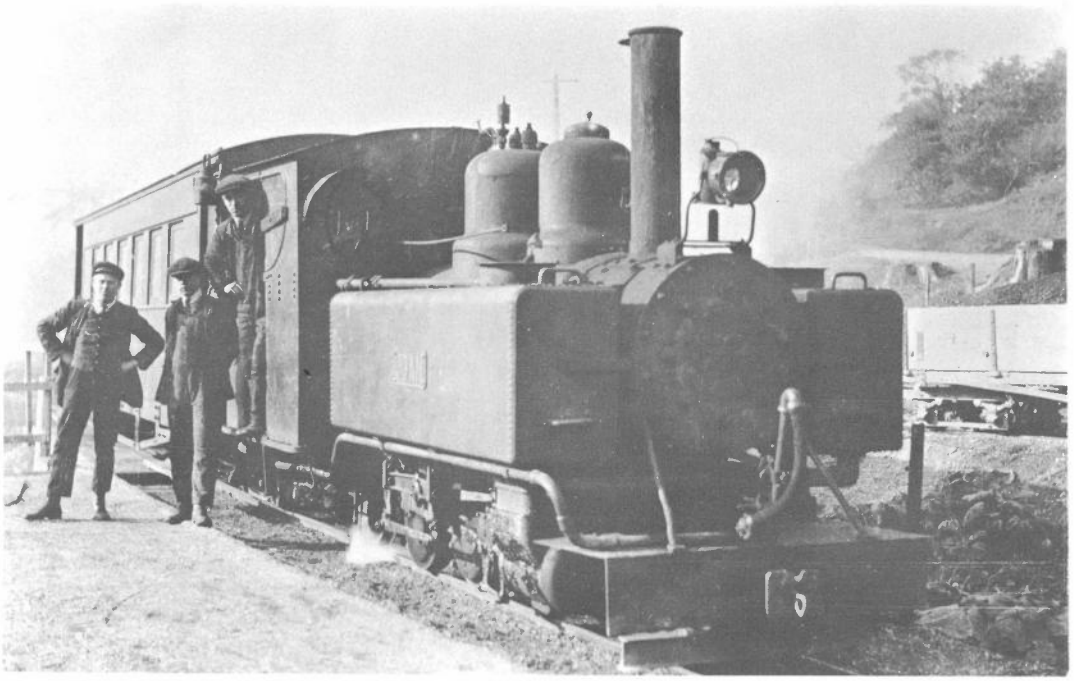
Ashover Butts 1925. A scene taken in the early summer of 1925 soon after the line was opened. Compare with plate II in "The Ashover Light Railway" and note that Jack Holmes' ice cream stall (only open during the summer of 1925), and the coal office were not yet erected. "Where the Rainbow Ends" cafe was built some distance away to the right.
(Locomotive Publishing Company)



The original of this view is captioned "Ashover Butts in the late 1920's" and shows a train on the long side of the triangle leading to Butts Quarry which was often used for heavy trains on summer weekends. This train of two Gloucester coaches and three Wembley coaches showing signs of weathering caused by open storage during the winter is clearly too long for the station. Notice that all the passengers appear to be in "Sunday best", essential at that time even for an afternoon trip to Ashover. *(N.G.R.S. Library)*

THE ASHOVER LIGHT RAILWAY BALDWINS

D. Clayton



JOAN at Ashover (Butts) on a train from Clay Cross. The conductor is Bert Robinson (left), fireman Harold Skinner and driver Bill Banner (on loco). 23rd October 1926.
(Real Photographs Co. Ltd.)

The Clay Cross Co. Ltd. purchased six Baldwin 4-6-0 tank locomotives for service on the Ashover Light Railway, but in recent years it has become apparent to locomotive historians that the true identity of these locomotives could be open to doubt. Resolving this puzzle is complicated by evidence of names being exchanged between certain locomotives.

A total of 495 examples of this type were built for the W.D. by the Baldwin Locomotive Works (BLW), and in military service carried the following identification:
BLW construction number on the oval cast iron works plates fitted to the bunker.
Class designation and serial number, usually stamped on the tail end of the Walschearts valve gear expansion link. In this case the class was 10-12-D, and the sequential serial numbers in the class ran from 12 upwards.
W.D.L.R. running number on large cast iron plates bolted to the side tanks. These were in the series 501-545, and 701-1150 originally, but the gap was later filled by renumbering locomotives from the 1000-1150 series.

In his excellent history *(The Ashover Light Railway, Oakwood Press 1965)* Mr. K.P. Plant states that four locomotives were originally purchased and used on the construction of the railway, retaining their WDLR number plates. In 1924 name plates were made with fixing holes which matched the original number plates. The names chosen were HUMMY, GUY, JOAN and PEGGY, those of General Jackson's children. Construction work wore out one of the locomotives and in 1925 two more were obtained, one being named BRIDGET and the other received the GUY plates from the first locomotive of that name, although it was originally intended to be named TOMMY. In August 1924 Clay Cross recorded that three name plates were fixed to HUMMY(BLW 45227), GUY (44370) and PEGGY (44743). JOAN was also recorded as fixed, presumably to BLW 44720. The BLW numbers of the other two 1925 locomotives were 44695 and 44737. However, an article in the *Locomotive Magazine* of 15th May 1925 quotes the stock as named BRIDGET, GUY, JOAN, PEGGY, HUMMY and GEORGIE, the names of General Jackson's children. Then the *Railway Magazine* of October 1925 gives the same list of names but significantly qualified by stating that they are General Jackson's children and daughter-in-law. Unfortunately neither magazine quotes the BLW numbers.

A short article in the *SLS Journal,* June 1943 relating to a visit by Mr. I.G.T. Duncan resulted in a series of notes in the August 1943 to February 1944 issues. The outcome was a number of claims relevant to the identity problem, but these were edited in a way which makes a summary difficult. In November 1943, Mr. L.W. Perkins is quoted as suggesting that: "GEORGIE, the first A.L.R. locomotive to be dismantled, never actually carried the name. Five were given names connected with the Clay Cross family and the sixth would have been named TOMMY had that gentleman still been alive but the locomotive was left nameless, possibly for sentimental reasons (according to an A.L.R. driver). This requires confirmation as the locomotive has always been referred to as GEORGIE in lists of the line." Subsequently Mr. E.W. Hannan wrote in December 1943 that: "GEORGIE was the oldest of the locomotives and had been dismantled by 1937 at which date I could not find the nameplates. The inference is that GEORGIE was an unofficial name not carried on the locomotive. Hitherto this fact has not been mentioned and it would be interesting to know whether anyone saw this locomotive in working order between 1926 and 1936." Note that so far no works numbers have been quoted. This brought a reply in February 1944 from Mr. K.A.C.R. Nunn stating: "At the time of his visit on 29/30th August 1925 the stock consisted of BRIDGET (44370), GUY (44695), JOAN (44720), GEORGIE (44737), PEGGY (44743) and HUMMY (45227), all dated 1917 except BRIDGET which was dated 1916. GEORGIE certainly carried a nameplate then. All except BRIDGET and GEORGIE were in steam during this period. The WD numbers were 525, 790, 815, 832, 838 and 645 in the light railway series."

Curiously, that is as far as the discussion was then carried despite the fact that the BLW numbers quoted differed from those given in the *R.C.T.S. Stock Book* correction slip of 1938. The original *Stock Book* gave the same numbers as Mr. Nunn and subsequent issues the different combination of numbers as in the 1938 correction list.

Having long been intrigued by the reputed inconsistancies in the numbering and naming of the A.L.R. locomotives I took the opportunity to check on the BLW serial numbers on 4th November 1950 before the locomotives were broken up. The serial number stamped on the tail rod extension of the expansion link was easy to find if the motion was complete, but in this case required a search in the locomotive shed pits to locate the expansion links among the large number of bits and pieces lying there. These are as noted in the chart below and though various publications have sometimes given different groupings of the WDLR and works numbers it became clear that the six locomotives were, at least when obtained, nominally complete as originally built, or if parts had been exchanged in France then appropriate WDLR numbers were given. Certainly the BLW numbers agree with the serial numbers as detailed in the notes on the chart. However, it seems possible that there is no specific evidence that the WDLR numbers were so noted on these locomotives, but that these are simply those appropriate to the BLW numbers.

None of this really helped explain the apparent random switching of names and BLW plates, these one would expect to remain with the cab sides. When reading *The Ashover Light Railway* one notices that apart from the four original locomotives which were already named JOAN, PEGGY, GUY and HUMMY, and whose identity is reasonably certain it is a curious fact that for the two new locomotives three names were apparently considered—TOMMY, GEORGIE and BRIDGET. This stalemate remained until it was recalled when following up some research on De Winton locomotives about 1958. Mr. G.Henson, a former driver at the Crich quarry, stated quite positively that the Cranford Ironstone locomotive WILLIAM was named BRIDGET when it came to Crich, but that later the name TOMMY was transferred from the De Winton locomotive to this locomotive, and the BRIDGET name plates put on one of the A.L.R. locomotives. Certainly the BRIDGET plates did not match the previous four plates in style, but would TOMMY's have been new to match and did GEORGIE'S match the style already used on the Baldwins?

It could be that in 1924 when names were being allocated to the four 4-6-0 tanks the purchase of further locomotives was not envisaged, and the latest locomotive at Crich was named BRIDGET so as to include her name on a locomotive like the other children. Subsequently therefore, when two further locomotives were obtained her name was not immediately considered, but only those of GEORGIE and TOMMY, the latter from the De Winton locomotive at Crich which was presumably then out of use, having been replaced by the recent arrival from Cranford. However, the foregoing appears to eliminate the name BRIDGET from those considered for the two new locomotives, leaving only TOMMY and GEORGIE. Had this latter name not been considered would plates have been cast anyway? There are also the lists in *Locomotive Magazine* and *Railway Magazine,* both including GEORGIE. It seems definate that this name **was** considered for an A.L.R. locomotive. With the statement that the new locomotive (BLW 44695), intended to have been TOMMY was given the name GUY from BLW 44370, then the other new locomotive (BLW 44737) must have been named GEORGIE leaving 44370 temporarily without a name. It is just conceiveable that had TOMMY plates turned up they would have been fitted to 44370, but the decision was made to retain the name TOMMY at Crich so that BRIDGET plates turned

up instead and were simply put on 44370, the only locomotive available, though at that time it may not have been decided not to repair it. However, when this decision was taken the BRIDGET plates were switched onto 44737 instead of GEORGIE so that these plates were never fitted to the now stored 44370. This exchange must have taken place, one clue given in the first typescript edition of *The Ashover Light Railway (Gotheridge/Plant, 1955)* is the statement that Bridget wanted to see her engine, presumably at work, and another possible reason for bringing the plates to Clay Cross. Mr. K.P. Plant has discounted this possibility in correspondence with the author, who nevertheless feels that it may be founded in fact.

BLW number	*WDLR number*	*Serial number (1)*	*Name in 1924*	*Intended name early 1925*	*Actual name fitted 1925*	*Revised name after 8/1925*	*Notes*
44695	790	146 (2)	Not yet purchased	TOMMY	GUY	GUY	(5)
44370	525	36 (3)	GUY	GUY	BRIDGET	—	(6,7)
44737	832	188 (4)	Not yet purchased	GEORGIE	GEORGIE	BRIDGET	(8)
44720	815	171	JOAN	JOAN	JOAN	JOAN	
44743	838	194 (2)	PEGGY	PEGGY	PEGGY	PEGGY	(9,10)
45227	645	451	HUMMY	HUMMY	HUMMY	HUMMY	(11)

Notes:

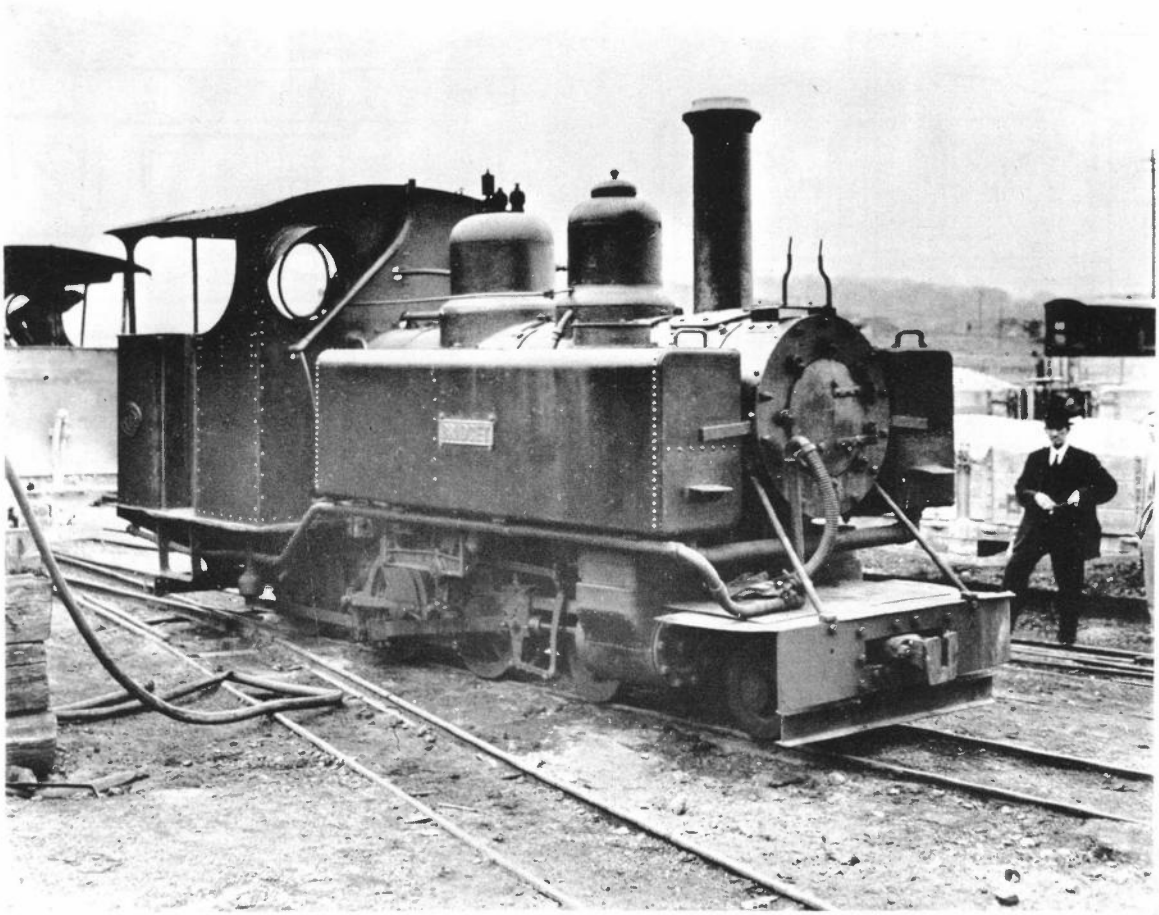
(1) The serial numbers listed are those originally associated with the BLW number.
(2) Parts bearing this number were in the pits 4/11/1950.
(3) Parts bearing this number were on PEGGY (BLW 44743) 4/11/.1950.
(4) parts with this number were on the remains of BRIDGET (BLW 44737) but were badly stamped and rusty and first thought to be 186.
(5) TOMMY not fitted. Partly dismantled from c.1940, boiler fitted to PEGGY 1943 and remainder broken up in 1943.
(6) Frames fitted to PEGGY c.1928.
(7) GEORGIE not fitted. From c.1928 44370 ceased to exist as a locomotive, and the bunker at least was transferred to HUMMY c.1928 or later.
(8) Boiler fitted to PEGGY in 1948.
(9) Frames of 44743 stored with parts of other locomotives until broken up.
(10) Received frames from 44370 c.1928, with motion bearing serial number 36.
(11) Received bunker at least from 44370 c.1928 or later, and subsequently carried the incorrect BLW works plates 44370.

*Notes 5, 6, 8 and 9 are based on references in *The Ashover Light Railway.*

This sequence of names relative to the available works numbers was worked out before a copy of the *S.L.S. Journal* of February 1944 was available to me. When the chart was checked with Mr. Nunns notes of his visit in August 1925 it was found that the actual names listed tallied exactly.

Mr. E.W. Hannan kindly checked his notes of a visit in August 1937, when HUMMY carried plates BLW 44370, and the locomotive in the carriage shed consisted only of a frame, wheels and boiler, but no motion work. A cab lettered A.L.R. and a pair of water tanks were in the nearby sand house. None of these parts carried any identification, and neither GEORGIE name plates nor BLW 45227 plates could be found. Incidently any attempt to change a boiler would result in major surgery because the cab was supported on brackets from both the frame and boiler. Changing cylinders would also be a very difficult job because of the form of construction. It was obviously easier to transfer the complete frame of 44370 to PEGGY when the left hand cylinder fractured. PEGGY therefore acquired the serial number 36 with the relevant motion.

A note relating to GUY (the first) from *The Ashover Light Railway* states: "A visitor to the A.L.R. in August 1925 contends that this particular engine was named GEORGIE (after "Hummy" Jacksons wife, Georgina), and enthusiasts have subsequently referred to it as such. But the staff are quite adamant that although two GEORGIE plates were actually cast they were never carried by the engine. "The notes refer of course to BLW 44370, and the visitor was presumably Mr. Nunn. However, as can be seen from the *S.L.S. Journal* Mr. Nunn did say only that there was a locomotive named GEORGIE. He quotes the BLW number as 44737, but he never did say that the first locomotive named GUY (44370) did carry the name. In later years the staff certainly said that GEORGIE's plates were never fitted to this virtually derelict locomotive (44370), or after about 1928 the collection of parts that replaced it in the carriage shed and elsewhere. Surely they were not referring to the other one (44737) on which they could have been fitted as Mr. Nunn claimed. GEORGIE's plates were removed from 44737

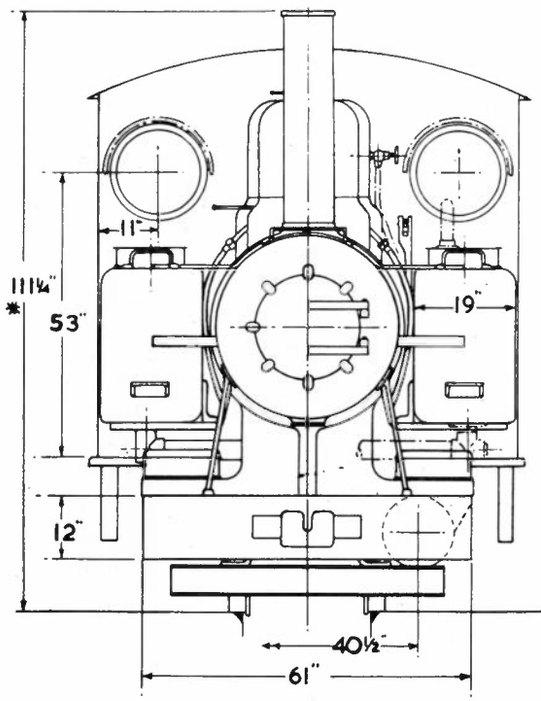


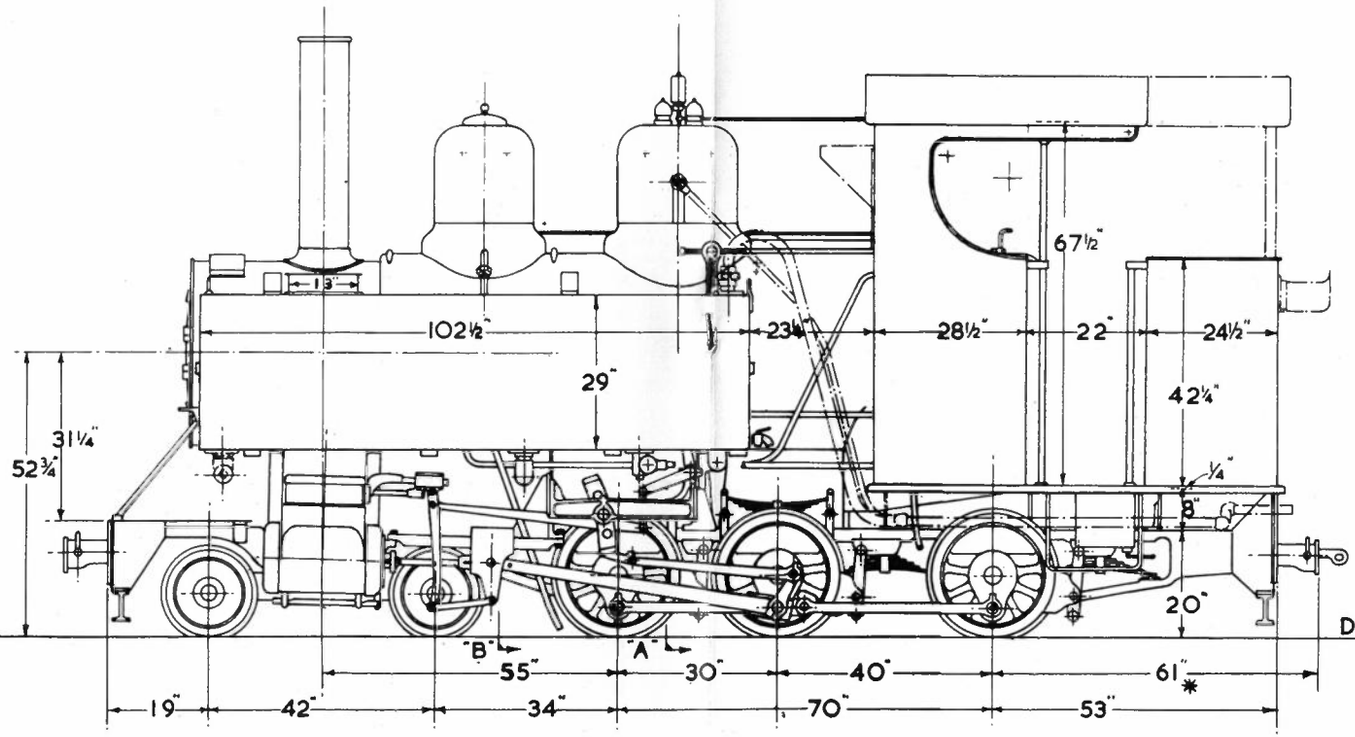
BRIDGET outside Clay Cross shed on 26th August 1937. Note the different pattern of nameplate, and the vacuum pipe beneath the side tank and cab. (W.A. Camwell)

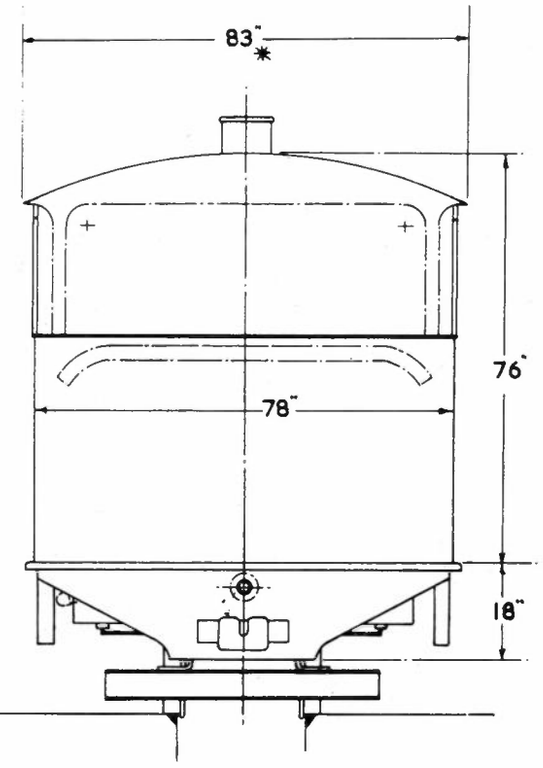
some time later and replaced by BRIDGET's from 44370 leaving this nameless and stored. It eventually became just a collection of bits and pieces to which it would hardly be correct to allocate a BLW number, let alone a name. The mystery has almost certainly been compounded by enthusiasts who, seeing the locomotives later and finding five named as agreed were insisting that because one was named GEORGIE in the early days then the sixth one must have been so named, despite the denials of the staff and presumably without realising that it did not carry the BLW number as claimed by Mr. Nunn. The curious situation seems to have been that from some time after August 1925 only five of the locomotives actually carried names. The sixth was by then definately nameless after being originally GUY, then for a brief period BRIDGET, but probably never intended to be GEORGIE!

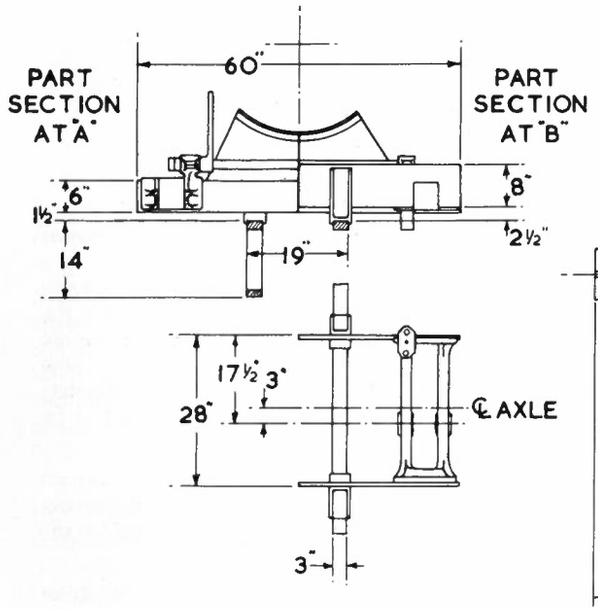
Anyway, this personal theory appears to be a valid solution to the mystery of which locomotive was which on the A.L.R. The preceding notes at least reconcile the previously conflicting accounts of the naming sequence, brought about it seems by people referring to different locomotives due to the use of the name only, and not the BLW number.

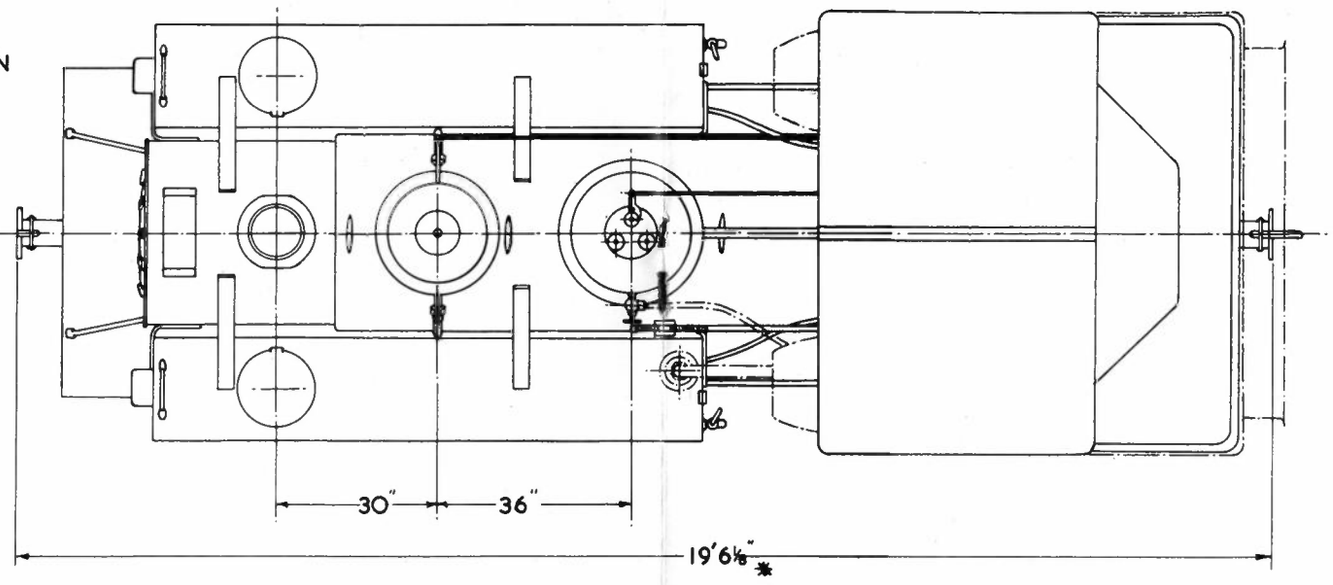
Towards the end of operations in the years 1943 to 1948 there were four locomotives working. PEGGY, BLW 44743, serial 36; JOAN, BLW 44720, serial 171; HUMMY, BLW 44370, serial 451, and BRIDGET, BLW 44737, serial 188. From the chart it will be seen that most of the locomotives retained their original identity for the whole of their working lives, though HUMMY appears to have acquired a replacement cab or bunker quite early, bringing with it the BLW 44370 plates formerly applying to GUY. It is just possible that only the plates were changed, but there would be no reason for that. Possibly HUMMY then also obtained the extended cab roof

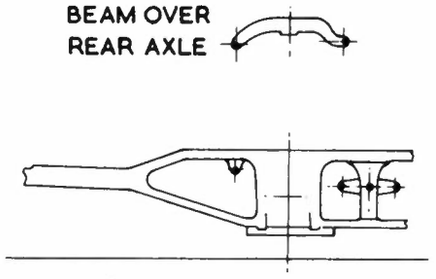


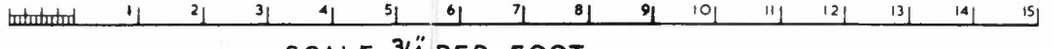










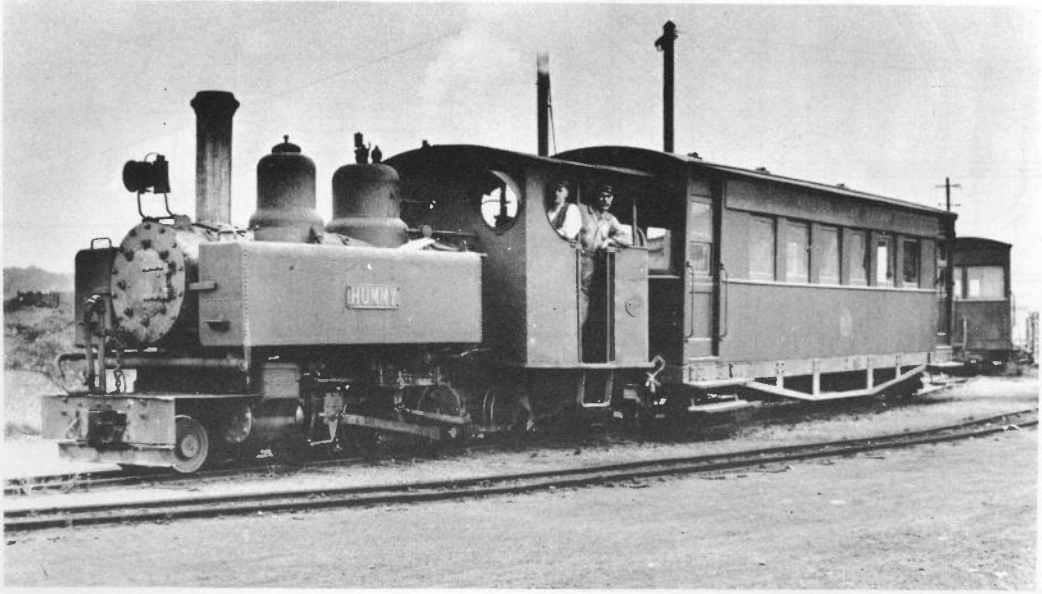


SCALE 3/4" PER FOOT

BALDWIN 4-6-0T 60 C/M GAUGE

D. CLAYTON.
6/1957

HUMMY at Stretton about 1930. Apart from the addition of vacuum brake equipment and a new water tank equalising pipe, and removal of the chimney flap, HUMMY was then essentially as built. *(collection K.P. Plant)*



HUMMY at Clay Cross & Egstow on 26th August 1937. By this date a new chimney had been fitted, the water lifter and front buffer beam struts removed. *(W.A. Camwell)*

similar to those on BLW 44737 and 44695 when they arrived. JOAN subsequently obtained an extended cab roof, the parts coming from one of the two new locomotives, and Mr. Plant also records that JOAN received the left hand tank from BRIDGET to extend its working life. PEGGY was quite a hybrid, curiously it obtained the frames from the first GUY (BLW 44370), then the boiler from the second GUY (BLW 44695), then later still the boiler from BRIDGET. Apparently by then only the cab and tanks were original. Moreover there is still a slight puzzle over this locomotive. The cab should have had shields over the spectacles, but a 1925 photograph shows it without, a detail variation which should only have applied to BLW 44370 of the earlier series. GUY (BLW 44370) was one of the early batch built without water lifter so that if PEGGY received the frames from this locomotive there should not have been a hole in the rear buffer beam for the hose connection. However, when the water lifter was refitted the pipe was taken to the hole in the correct position. Was this perhaps made when the water lifter was fitted? These variations can be seen on the drawing and on photographs. None of the A.L.R. locomotives seem to have retained the flexible hose carrier on the back of the bunker, though PEGGY did have two brackets which served the same purpose. The water balance pipes between the side tanks were moved from the original position under the boiler to a point in front of the smokebox saddle. In their years of service many other modifications were made, and most are visible on photographs. Many are also described in *The Ashover Light Railway.*

Now to refer to the drawing. This was prepared from details obtained in August 1946 from Snailbeach District Railway No. 3 (WDLR 538) with some minor reference to A.L.R. locomotives. It is arranged to show features which were common to all the BLW 4-6-0 tanks, but includes some later detail variations. The size and shape of small parts such as pipes and brackets were obtained from photographs, and these did vary during the life of the locomotive. Apart from cab fittings the main details not shown are the chimney flap, the steam brake cylinder located between the frames behind the smokebox saddle, brake rigging and the drain plug under the boiler. The original large headlamps did not survive long, and are omitted. Details of the tank filler lid hinges and rear sand pipes were unobtainable. The injector feed and discharge pipes have been broken to avoid obscuring the hand brake and reversing lever brackets.

Dimensions marked * were obtained from a small W.D. diagram, and not noted from the locomotives. This however, shows the boiler centre as 52.7/8in above rail level. Mr. J. Morley kindly supplied a drawing from a French concern and the dimensions, after conversion, matched my own with the sole exception of the boiler centre line—given as 1324mm (52.1/8in). After my own drawing was completed Mr. C. Pealling kindly supplied a copy of BLW erecting drawing No. 8963 which generally confirms the details, although it does show a locomotive of somewhat different appearance to that built. However, this is by no means unknown in the engineering industry, and it is of interest to note that there are greater differences in the position of certain items between the A.L.R. locomotives than between this drawing and the BLW drawing.

The cab roof extension, shown in chain dot lines, was fitted before delivery to the second GUY (44695) and BRIDGET (44737). The vertical angles and horizontal cab roof support had bolt holes for fixing a cab back plate. JOAN subsequently received a cab extension of this type during the 1940's, presumably from GUY or BRIDGET after they were taken out of use. The water lifters and piping were removed and replaced at various times on most of the A.L.R. locomotives. The BLW drawing refers to water lifters being fitted to class 10-12-D57 onwards (WDLR 701 onwards), but makes no mention of the cab window shields which seem to have been fitted from 701. On the A.L.R. JOAN, GUY (44695), HUMMY and BRIDGET had the shields, PEGGY did not.

Different style chimneys were fitted to A.L.R. locomotives in later years, and vacuum brake equipment was also fitted. These modifications are described in *The Ashover Light Railway.*

It should be noted that the cylinder centre line is slightly above the centre of the driving axle, and the cylinder centres may be 41in according to another BLW source. Curiously, all publications where the dimensions are tabulated show the wheelbase as 12ft 4in, but the BLW drawing and measurements show that it was 12ft 2in! The odd boiler pressure of 178 lb/sq.in. is the conversion from 12 atmospheres. All the tabulated data are taken from the WDLR diagram book. Many publications show wide variations in water capacity (396 to 476 gallons), coal capacity and weight, possibly caused by confusion between Imperial and U.S. systems of measurement.

Because none of the official drawings, or those published elsewhere (except for that in *The Ashover Light Railway* which was based on this drawing) show the locomotives as actually built this drawing is offered as a record of the actual form and to be of use to intending modellers. For individual details however, it is important to study appropriate photographs.

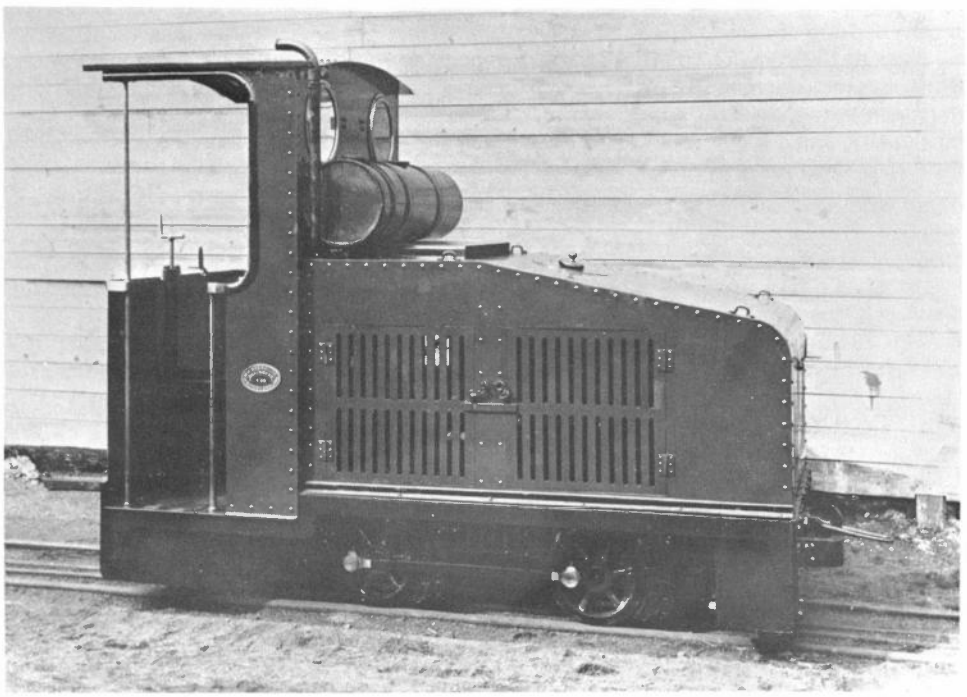
Finally the author gratefully acknowledges the assistance of those already named and especially Mr. H.L. Goldsmith, Mr. K.W. Clingan, Mr. V.J. Bradley, and Mr. E.S. Tonks for information and advice.

BAGNALL PETROL LOCOMOTIVES

Allan C. Baker

In the period from 1912 to 1925 eight narrow gauge industrial shunting locomotives fitted with petrol/paraffin engines appeared from the Castle Engine Works of W.G. Bagnall Ltd. They were the builders first entry into this field and their only petrol engined locomotives. Subsequent internal combustion engined locomotives built at Stafford were fitted with compression-ignition (Diesel) oil engines. These eight locomotives were constructed during an era when many other British private locomotive builders were experimenting similarly, and all the Bagnall examples seem to have been reasonably successful although orders were slow coming in. Having said that, it does not appear that any really concentrated effort was made to sell this type of traction, confined as it was to an artists impression of such a locomotive in one catalogue. Surprisingly, despite the fact that the first two locomotives were photographed, this impression was based on a steam locomotive!

On 11th November 1911 Bagnalls received an order for a 2ft gauge internal combustion engined locomotive from the Eastern Assam Company for use on their tea plantations in Upper Assam, India. The Castle Engine Works design team, at that time led by William Sydney Edwards—Chief Draughtsman, set about designing the locomotive. Of course, non-steam locomotive design work was nothing new to Bagnalls because they had already been involved with design work in connection with mechanical parts for various electric locomotives, notably in conjunction with the British Westinghouse Electric Co. Ltd., the Siemens Brothers & Co. Ltd., which were eventually erected at Stafford. For this order they designed, very much on a steam locomotive frame, a small four wheeled machine fitted with a four cylinder (86mm bore × 110mm stroke) four stroke 20 B.H.P. (nominal at 1000 r.p.m., 23 B.H.P. at 1400 r.p.m.) Coventry-Simplex petrol/paraffin engine. This type of prime mover would be started from cold on petrol and, when warm, would subsequently run on much cheaper paraffin due to its low compression ratio. Engine cooling was accomplished by means of an engine driven pump and a 100 gallon circulating tank; there was no radiator in the accepted sense.

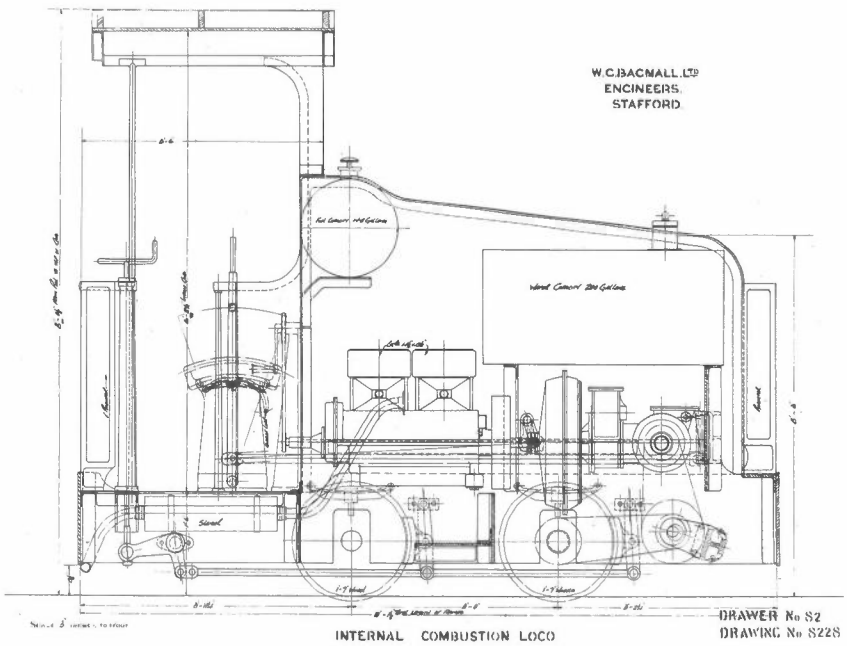


P50 at Castle Engine Works clearly shows its steam locomotive origin from the frame, wheels and cab. The exhaust pipe from the rear-mounted engine is turned over the edge of the cab roof. The circular fuel tank in front of the cab is divided into two sections, one for petrol and one for paraffin. *(collection A.C. Baker/T.D.A. Civil)*

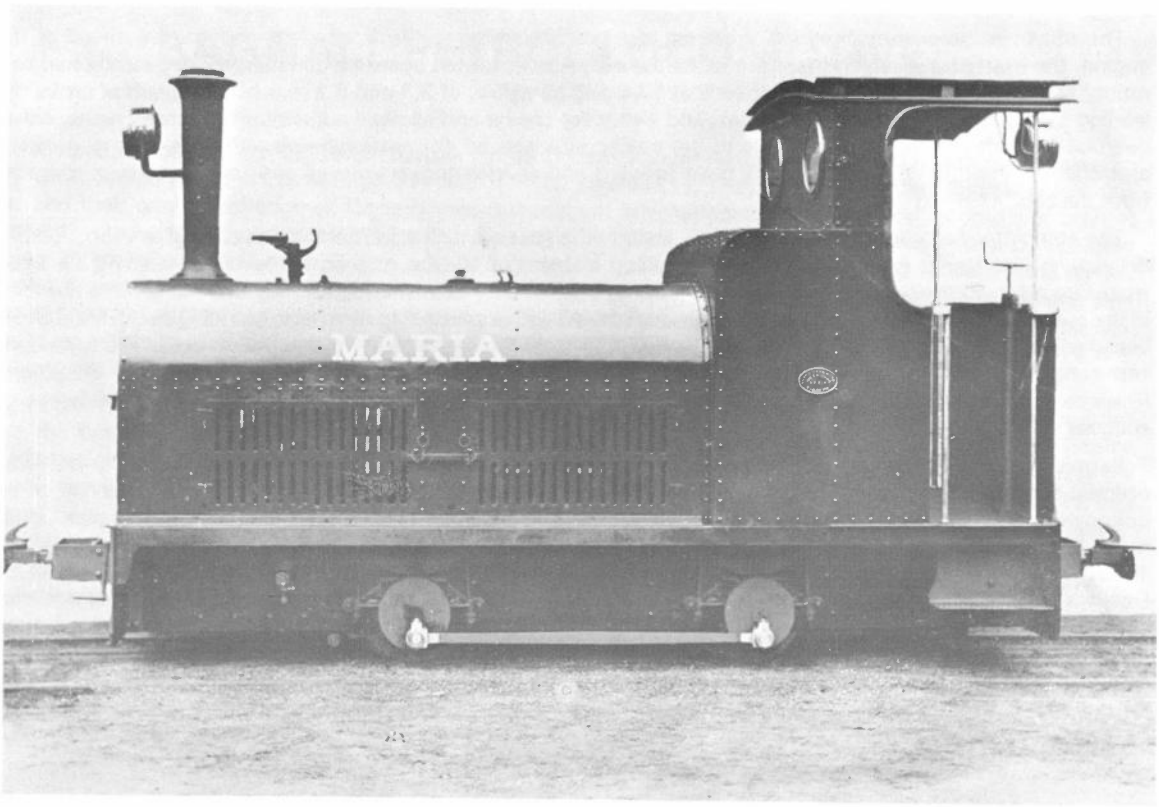
The transmission was mechanical of course, the gearbox being at the front of the locomotive ahead of the engine, the front end of which therefore faced the cab. A cone clutch operated constant mesh gearbox had two ratios, 14.5 and 5.5 to 1 giving road speeds at 1000 engine r.p.m. of 3.1 and 8.2 m.p.h. The gearbox drove the leading axle through an intermediate shaft and two roller chains and allowed adjustment of these chains, either gearbox to shaft or shaft to axle. Drive to the trailing axle was by conventional side rods. A simple dog-clutch arrangement integral with the gearbox gave forward and reverse movement, all controls were lever operated from the cab.

The completed locomotive was extensively tested on a specially laid track behind Castle Engine Works before delivery. It was found to be capable of maintaining a speed of 10-12m.p.h. on the level and hauling six 1 ton trucks up a 1 in 40 grade at 5m.p.h. For reasons that are not now clear this locomotive was not given a number in the main "works list", instead a new series was started with a prefix P (presumably standing for Petrol), and it became P50. Why Bagnalls omitted to use the figures 1 to 49 also remains a mystery but no doubt many readers can conjecture on this. P50 was delivered in 1912 but nothing seems to be known of it after despatch. However, because a repeat order came along in 1923, one can only assume that it operated with some degree of success.

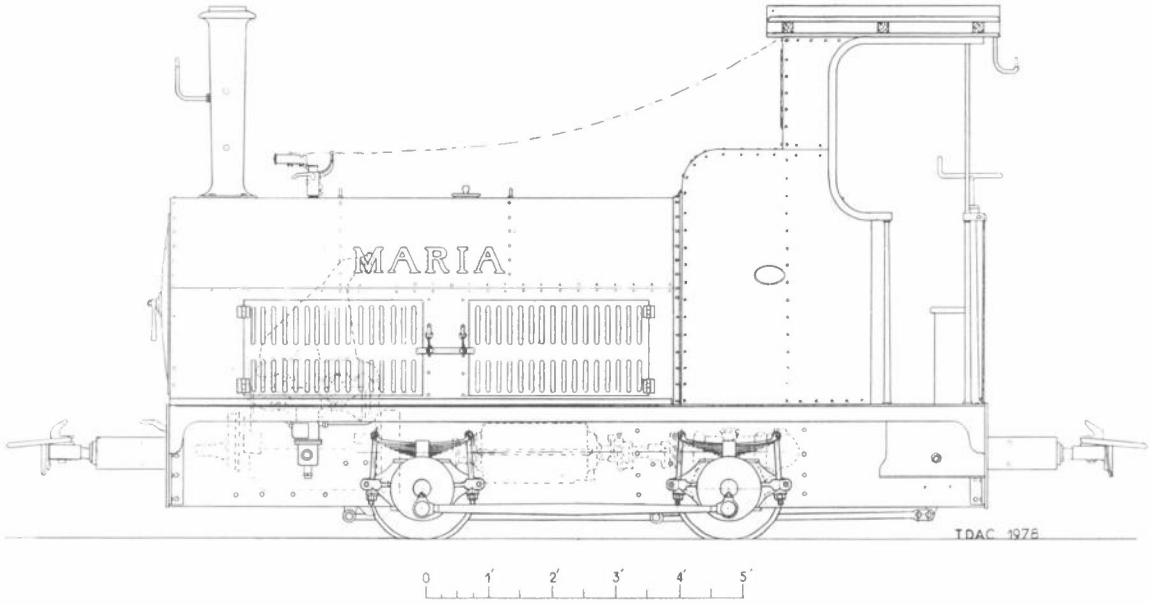
Bagnalls second internal combustion locomotive took the next number in the new series, P51, and was ordered for 1ft 11.5/8in gauge on 12th March 1912 by Gloag & Sommers, a Glasgow agent, on behalf of an unknown customer in the Philippine Islands. This locomotive differed considerably from its predecessor, being much larger and powered by a four cylinder (120mm bore × 140mm stroke) four stroke 40 B.H.P. (nominal at 1000r.p.m., 45 B.H.P. at 1200 r.p.m. maximum) Dorman 4 JO petrol/paraffin engine built locally by W.H. Dorman & Co. Ltd., of Stafford. The drive was through an exposed friction plate clutch and fully enclosed two speed crash gearbox, final drive and forward/reverse being obtained by a completely separate dog-clutch mounted on the trailing axle, and shaft driven from the gearbox. No chains were involved and the engine was mounted right at the front of the locomotive facing the correct way, side rods transmitted the drive to the leading wheels which, unlike P50, were inside the frames.



An early proposal drawing dated 3/1912 for a locomotive similar to P50 and P52. This clearly shows the disposition of the engine, gearbox and chain drives. A 200 gallon water tank is shown, and a radiator on the front buffer beam.
(collection A.C. Baker/T.D.A. Civil courtesy G.E.C. Traction Ltd.)



P51 MARIA at Stafford. This photograph and the accompanying drawing show the conventional engine and transmission layout, double roof cab, exhaust pipe and whistle. The lid on the bonnet is the water tank filler. *(collection A.C. Baker/T.D.A. Civil)*



A different water cooling system was used, and claimed to be an improvement on the previous type. A large cylindrical tank with a capacity of 113 gallons was mounted in the centre of the locomotive above the gearbox. This contained no less than 56 tubes, 1.1/16in outside diameter by 4ft 8in long, which were used to promote the circulation of fresh air through the tank to cool the water. Described as a thermo-syphon the water circulated of its own volition, though how the air managed to do likewise is not clear because no fan seems to have been fitted despite reference to one in an article published in *The Locomotive* on April 15th 1913, page 80. A smokebox type door at the front of the engine compartment, together with removeable side sheets gave access to the engine. An exhaust operated whistle, steam locomotive type chimney containing exhaust pipe and silencer, a double cab roof and acetylene lights fore and aft completed the picture. Sommers, and not Bagnalls name appeared on her Bagnall style builders plates. Named MARIA, P51 left Stafford during July 1913 and like P50 little has been heard about her from that day to this. However Gloag & Sommers did order a set of new cylinder blocks in June 1916 quoting the locomotive number P51. Bagnall duly supplied these, having acquired them from Dorman.

Unfortunately even less is known about the history of the next locomotive, P52, almost identical to P50 and ordered on 12th May 1912 by G. Wilson, another Glasgow agent. This was built to 1ft 11.5/8in gauge and delivered in 1913.

No more internal combustion engined locomotives were built at Stafford until some time after the first World War. This is somewhat strange in view of the proximity of the W.H. Dorman works and the good working relationship between the two firms. Dormans were proven designers and builders of both petrol and diesel engines with a high reputation. However, not until 1923 did Bagnalls again deviate from steam practice when on 5th October a repeat order was received from the Eastern Assam Company. For this order it was decided to disband the seperate numbering system and include internal combustion locomotives in the main works list. Hence this locomotive, intended for use on the 2ft gauge tracks of tea plantations in Assam, carried the number 2220 and was almost identical to P50 and P52. The most significant variation was the use of a four cylinder, four stroke 20 B.H.P. (nominal) Ford petrol engine instead of the Coventry-Simplex used previously. Costing £400, 2220 was delivered free-on-board at Liverpool on 1st April 1924.

An interesting entry appears in the manufacturers notes relative to this order: "Old Baldwin tyres used", presumably referring to the use of tyres left over from work carried out by Bagnalls during the war, for the Ministry of Munitions. Many of the American built 4-6-0 tank locomotives used by the W.D.L.R. were rebuilt or repaired at Stafford, some being sold later to various users in this country and overseas. Strange to relate the usually quoted dimension for the 4-6-0 tank wheel diameter is 1ft 11¼in, but 2220 had wheels only 1ft 3¼in in diameter!

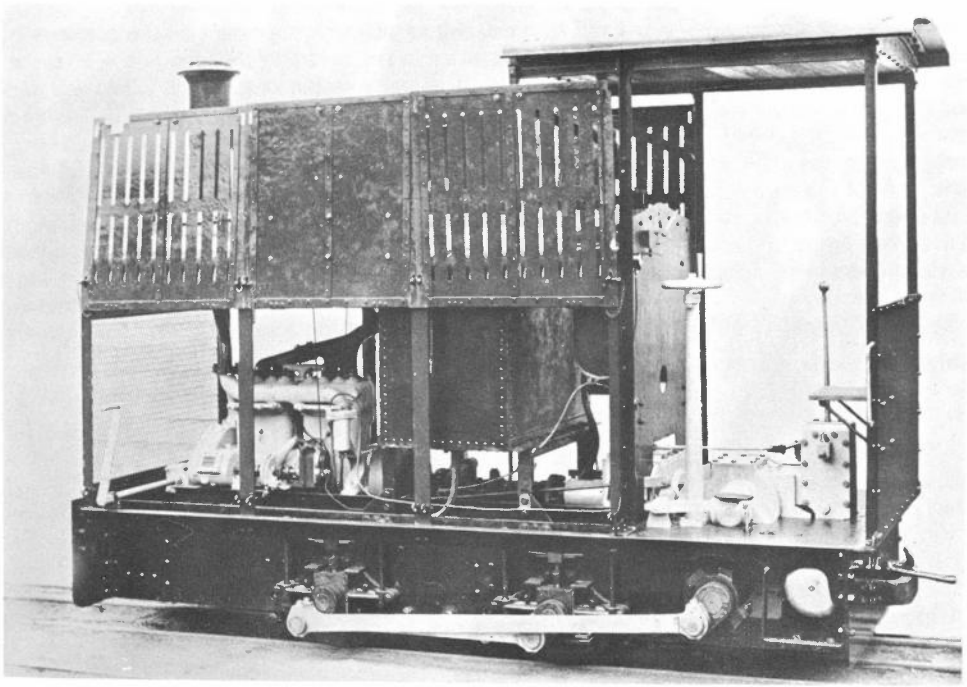
Works number 2273 followed, identical in all respects except gauge to 2220 and ordered on 17th June 1925 by Sir John Norton Griffiths & Co. Ltd. on behalf of British Controlled Oilfields Ltd. Built to 2ft 6in gauge, name BUCHIVACOA, and costing £500, this locomotive was delivered free-on-board Liverpool on 28th August 1925 for shipment to Maracaibo in Venezuela.

The last three locomotives were almost identical but slightly more sophisticated versions of P51, also being ordered by Sir John Norton Griffiths & Co. Ltd. for delivery to the British Controlled Oilfields Ltd. Dorman 4JO engines were fitted, and an identical gearbox to P51, but this time a final jackshaft drive was mounted behind the trailing axle and drove through connecting rods to the leading axle, then by side rods as before. This allowed a much shorter wheelbase, but outside frames were again used. All gears used in the transmission were of David Brown manufacture but the actual gearbox and final drive assemblies were both made and assembled at the Castle Engine Works, no mean achievement for a steam locomotive builder at this period.

The engine cooling arrangement was altered somewhat, a square tank containing 97 tubes 1¼in outside diameter being substituted for the circular one, but in this case the tubes were only 2ft 0¾in long. On the last locomotive air circulation was promoted by two 18in diameter four bladed fans. The exhaust gases were still conducted away through a steam locomotive pattern chimney, but the smokebox type door was replaced by a more conventional grill.

Two of these locomotives were delivered in 1925, works number 2274 named PRESIDENTE BOLIVAR, and 2275 named PRESIDENTE GOMEZ. The third, 2304, was delivered the following year named EL MENE. All were supplied free-on-board at Liverpool for shipment to Venezuela.

The engines in all the locomotives described in this article were fitted with magneto ignition and hand starting. Manual brakes only were fitted, with one brake block on each wheel operated from a screw handle in the cab. Other controls were of the simplest form.



Bagnall 2274 or 2275 at Stafford showing the excellent access provided to the engine and transmission. The outside frames and hornblocks are similar to MARIA, but more substantial side rods are fitted. Note the simple hand throttle, brake wheel, gear lever and foot clutch.
(collection A.C. Baker/T.D.A. Civil)

The relevant details of each locomotive are tabulated below.

Works Number	**P50**	**P51**	**P52**	**2220**	**2273**	**2274/5**	**2304**
Engine :	Coventry-Simplex 20 B.H.P.	Dorman 4JO 40 B.H.P.	Coventry-Simplex 20 B.H.P.	Ford 20 B.H.P.	Ford 20 B.H.P.	Dorman 4JO 40 B.H.P.	Dorman 4JO 40 B.H.P.
Transmission :	Chain & side rods	Shaft & side rods	Chain & side rods	Chain & side rods	Chain & side rods	Shaft, Jack-shaft & rods	Shaft, Jack-shaft & rods
Wheel diameter :	1ft 3¼in	1ft 7in	1ft 3¼in	1ft 3¼in	1ft 3¼in	1ft 7in	1ft 7in
Wheelbase :	3ft	4ft 10in	3ft	3ft	3ft 6in	3ft 6in	3ft 6in
Nett Weight :	3T 13 cwt		3T 13 cwt	3T 5 cwt	3T 7 cwt	5T 12 cwt	5T 12 cwt
Weight in working order :	4T 5cwt		4T 5 cwt	3T 5 cwt	4T	6T 5 cwt	6T 5 cwt
Fuel—petrol :	3 galls	2.8 galls	3 galls	3 galls	3 galls	3 galls	3 galls
paraffin :	24 galls	21.8 galls	24 galls	24 galls	24 galls	24 galls	24 galls
Cost :	£600			£400	£500	£1320 (the pair)	£635
Date ordered :	1/11/1911	12/3/1912	12/5/1912	5/10/1923	17/6/1925	17/6/1925	26/4/1926
Date delivered :	1912	6/1913	1913	1/4/1924	28/8/1925	12/10/1925 (2274) 22/10/1925 (2275)	11/9/1926
Gauge :	2ft	1ft 115/8in	1ft 11 5/8in	2ft	2ft 6in	2ft 6in	2ft 6in

So ends this brief resume of Bagnalls only petrol engined locomotives, the next internal combustion machine, built in 1933, had a diesel engine.

In conclusion I would like to thank T.D. Allen Civil, my co-author in *Bagnalls of Stafford (Oakwood Press 1973)* for his assistance.

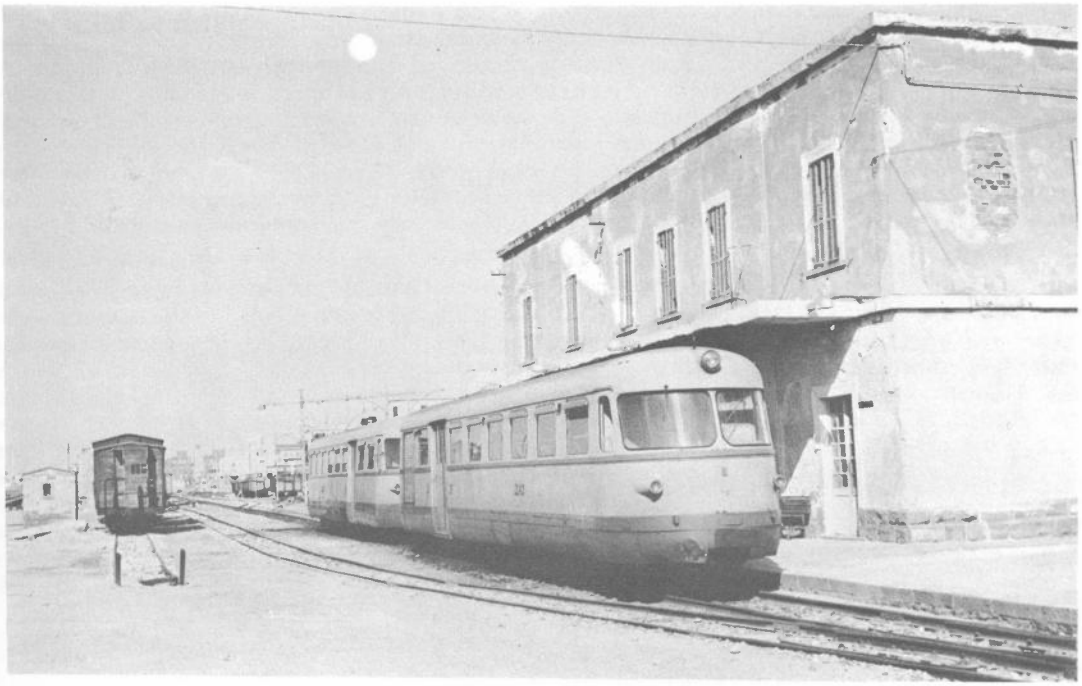
EASTER IN SARDINIA

K. Taylorson

The recent steam tour over the Sorgono—Mandas—Cagliari line in Sardinia has reminded British enthusiasts of the existence of an extensive network of secondary lines on the island. Although steam working is restricted to such special events, Sardinia is still attractive to those with an interest in independent railways and spectacular scenery, and the following impressions are based on a short tour of the island at Easter 1978.

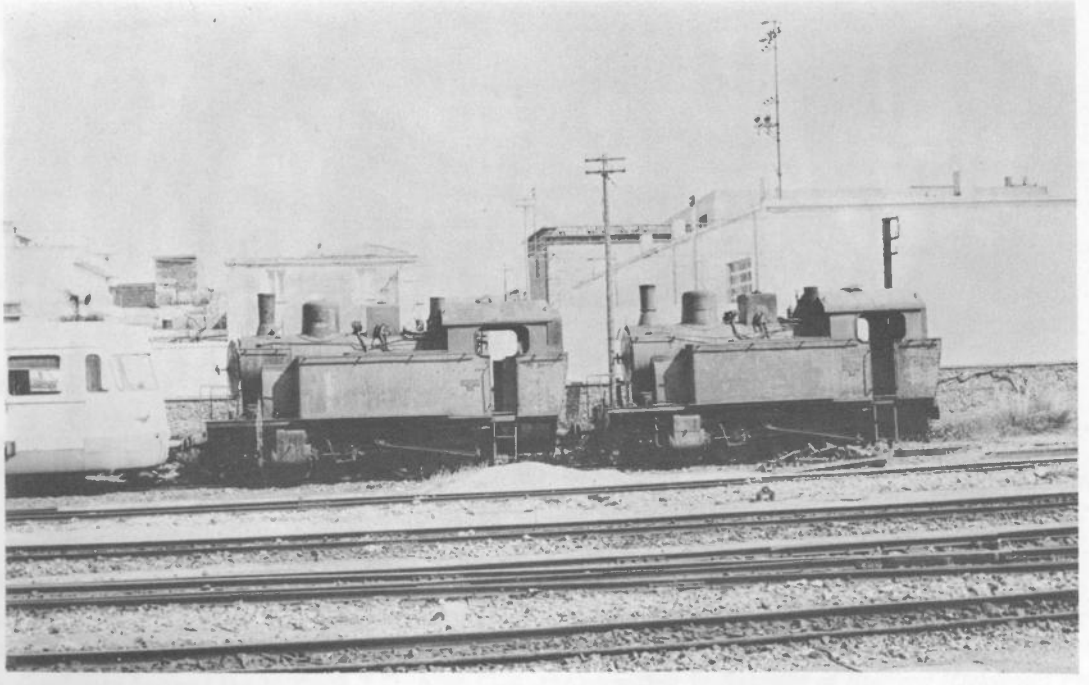
After a stormy crossing from Genova, I took the train from Porto Torres to Sassari, where the first of Sardinia's two surviving 95cm gauge networks, the Strade Ferrate Sarde (SFS), interconnects with the State Railways. The third 'railway', the Ferrovie Meridionali Sarde (FMS) ceased to operate train services after 1971 but continues in being as a bus operator, serving the south west corner of the island. The SFS operates three routes fanning out from Sassari; a 35km branch south-west to Alghero, an 11 km branch to the north coast port of Sorso, and the 150 km 'main line' due east to Tempio, where the line turns north to the ferry port of Palau. Services on all three lines are worked by Fiat diesel railcars in orange and cream livery, normally running coupled to a trailer. There are no known workable steam locos on the system, but some derelict 2-6-0tanks were found at Sassari and Tempio during the GRAF tour in 1976. I booked a return to Sorso for 400 lire (about 25p), and caught the 09.30 from the SFS bay at the north-east end of the station. Palau trains also leave from this bay, but Alghero trains start from a stretch of mixed gauge track in one of the through roads. The train was about a quarter full and the passengers obviously locals, chattering away in one of the impenetrable Sardinian dialects. The journey to Sorso was uneventful and through a landscape best described as rolling, the only notable engineering works being two short but spectacular curving viaducts between Funtana Niedda and Sorso. At Sorso I found SFS steam loco No. 6, a 2-6-0tank built by CEMSA (947) in 1931, dumped among some decaying wagons.

In the afternoon I sampled a ride on the Alghero branch, in a train again composed of a Fiat railcar and trailer. The Alghero line is rather more important than the Sorso branch, because Alghero is being developed as a holiday resort (you can even get a package tour there from London) and there are some substantial local



A Strade Ferrate Sarde (SFS) Fiat railcar and trailer wait to leave Alghero for Sassari on 25th March 1978. *(K. Taylorson)*

Storm clouds gather over the FCS junction station at Macomer as two TIBB railcars wait to leave for Bosa and Nuoro on 26th March 1978. *(K. Taylorson)*



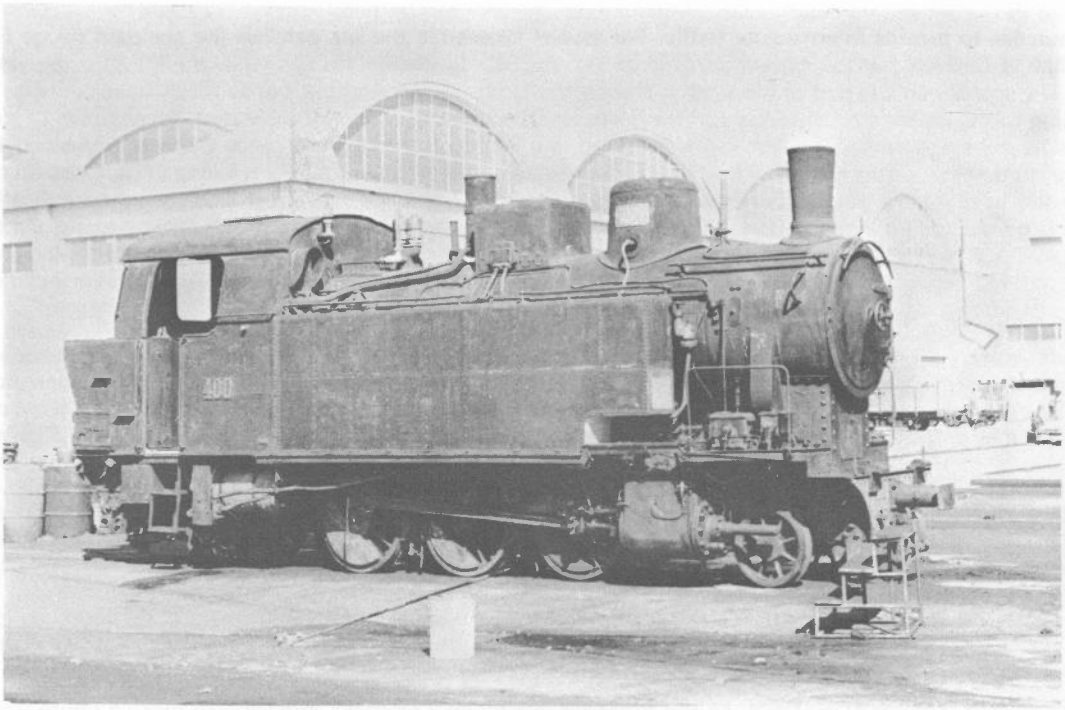
These Breda 2-6-0 tanks lay out of use at Macomer on 26th March 1978. FCS 5 (Breda 1542/1914) on the left and FCS 4 (Breda 1540/1914) on the right. *(K. Taylorson)*

communities to provide intermediate traffic. For several kilometres the line parallels the standard gauge FS main line to Chilivani but the narrow gauge cuts into the hillside Rheidol-fashion while the FS hugs the valley floor. The scenery on this part of the route is first dominated by rocky outcrops, but suddenly opens out into an imposing rolling landscape reminiscent of the Settle to Carlisle route in upper Ribblesdale—even down to such details as dry-stone walls. The last kilometre or so is a further dramatic surprise as the line runs along the sea wall to terminate right in the middle of the yacht marina. Unfortunately the SFS is failing to capitalise on this prime site because the station building is unbelievably scruffy and, on the street side, bears no indication that it is a station. One doubts if most tourists visiting Alghero are even aware that the railway exists. On the brighter side it was pleasing to see some freight traffic in evidence, including a FS wagon on "rollbocke". The return journey to Sassari took one minute less than the 47 minutes booked, good going for 35 km including eight stops.

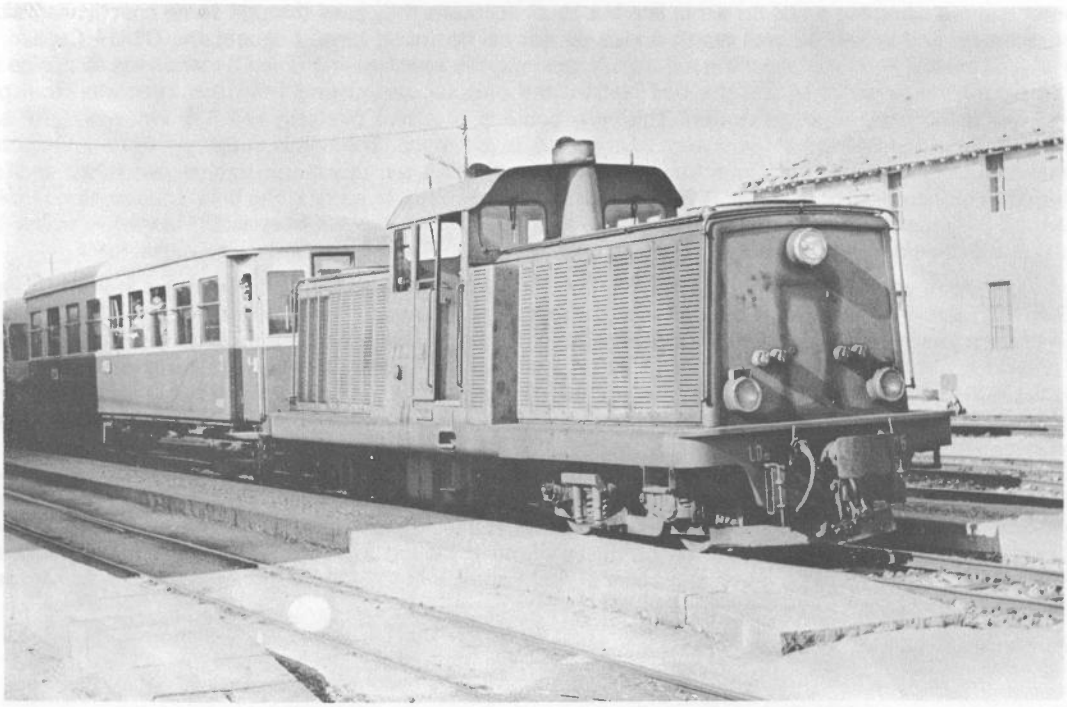
The following morning I continued south over the FS main line, changing at Chilivani, to arrive at Macomer just before midday. Macomer is the hub of another 95 cm gauge network, owned by the Ferrovie Complementari della Sardegna (FCS), with branches radiating westwards to the coastal town of Bosa, and eastwards to Nuoro, Sardinia's second largest town. Services are operated by Tecnomasio Italiano Brown Boveri (TIBB) diesel railcars, supplemented by FCS buses, although the timetable shows an unbalanced locomotive-hauled train from the Nuoro line arriving in Macomer at 08.12. This is presumably worked by one of the railways TIBB Bo-Bo diesels, two of which were standing idle at the FCS station, 200 metres from the FS establishment. Dumped in the FCS yard were two identical Breda 2-6-0tank locos built in 1914, works numbers 1540 and 1542. I had planned an afternoon run to Bosa, but the much reduced Easter Sunday service would have meant traversing most of the line in darkness, and a very late return to Macomer. I had to be content with a look round the deserted depot, well stocked with railcars in off-white livery, noting at the same time a sharply curved loop which enables some FCS trains to start from their own bay at the FS station, calling at the FCS station two minutes later.

I reported back at the FCS station on the following bitterly cold morning, intending to make a return trip to Nuoro, but found holiday services still in operation. My phrase book, although free with such everyday expressions as "that's all bunkum (tosh)" and "mind the jellyfish" was of little help in resolving the confused operation pattern, complicated even further by buses substituting for trains and vice versa. I therefore left Macomer without sampling a ride on either line but by all accounts they pass through some spectacular, albeit barren, scenery, and would be well worth a visit on normal operating days. I caught the Olbia—Cagliari 'all stations' (287 km in 7½ hours) reaching the islands capital in the early evening. The FS station lies alongside the main port, and the air terminal and the bus station, the only facility missing from this integrated transport complex being the narrow gauge station. This now consists of a two platform halt 1½ km away in Piazza Republica, totally inconspicuous if you were unaware of its existence. The halt is supposed to be a temporary terminus, the original 'town' terminus having been closed about ten years ago and its workshop facilities transferred to Monserrato, 5 km away. A new route from Monserrato, bypassing the built-up area, to a terminal beside the FS station has largely completed earthworks but no track has yet been laid. Meanwhile trolley-bus routes C and 5 (the tramway network being closed) connects the FS and FCS stations in Cagliari itself.

Next day, after a visit to the FS depot (where I found 2-8-0 740.303 in steam and five others stored) I caught the 13.45 FCS service to Mandas, junction for two straggling branches to Sorgono and Arbatax. The timetable makes a return journey from Cagliari to either destination impracticable except for those prepared to set out at 05.50 and return, in the case of Arbatax, at 20.10, but the 2½ hour journey to Mandas gives a good idea of the terrain the FCS has to traverse, with many sharp curves and continuous changes of gradient. The hinterland is very sparsely populated, with the stations 10-15 km apart and often out of sight of any habitation. The Mandas train was hauled by a TIBB diesel loco LDe604, and for the last two stations consisted of a single coach with six passengers—five of whom were FCS railwaymen! Motive power apart, Mandas is a classic echo of a remote Irish junction, the station perched on a headland from where one can watch the TIBB diesels growling off into the wilderness with their one-coach trains. There is also an imposing stone-built loco shed, now used to service the diesels, but with six derelict steam locomotives dumped behind it. Although stripped of numbers and worksplates one appeared to be a 2-6-2tank of the '400' series, and there was an interesting six-coupled tank with Caprotti valve gear.



The last operational steam locomotive on the FCS is this 2-6-2 tank, here being prepared at Monserrato works on 29th March for the April special train. *(K. Taylorson)*

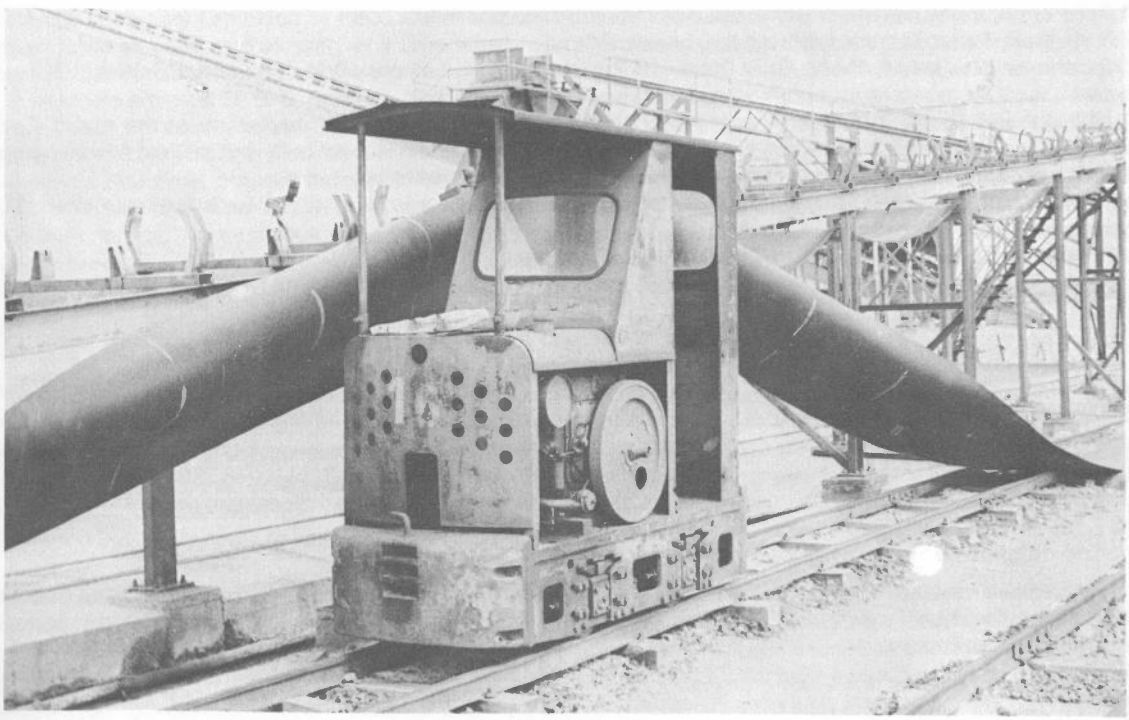


FCS diesel-electric loco LDe605 (TIBB 1958) with a train for Cagliari at Mandas on 28th March 1978. *(K. Taylorson)*

On the way back to Cagliari the following morning I alighted at Monserrato 'works' station which is rather confusingly sited about 2 km north of the original station of Monserrato-Pirri and is not shown in the timetable. Presumably the 'works' station will not be formally opened until the new route to Cagliari is commissioned, and in the meantime its clientéle consists of railwaymen employed at the works and visiting enthusiasts. The works is an imposing complex covering several acres and permission to look round was granted without hesitation. Along with the usual TIBB locos and railcars were two Orenstein & Koppel four-wheel diesel shunters and twelve steam locos, nine of them derelict, including two Schwarzkopf 0-4-4-0 Mallet tanks and two OK "Luttermoller" 2-8-0tanks. Stored in good condition were another 0-4-4-0Mallet tank, a 2-6-0tank carrying an 1894 Swiss Loco & Machine plate, and being repaired in preparation for the April railtour was 2-6-2tank 400, built by Officine Meccaniche Milano (134) in 1931.

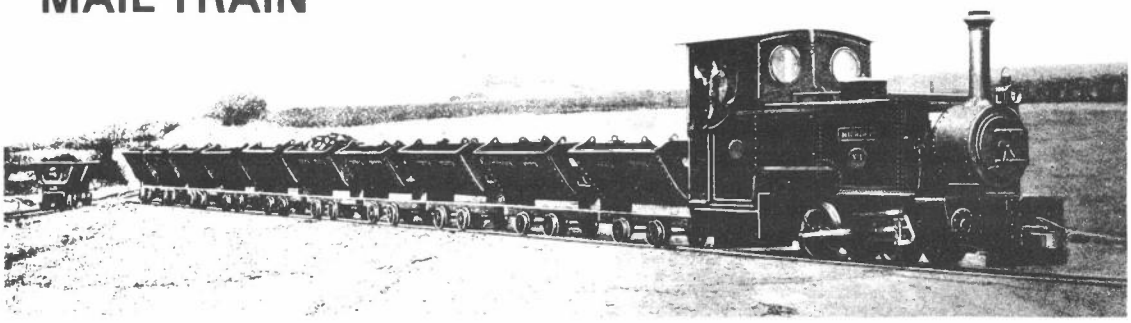
My final day in Cagliari allowed time for a visit to the 60 cm gauge railway which serves the saltpans east of the city, on the road to Poetto. The railway is laid out on a grid pattern with tracks laid at regular intervals between the individual pans, very reminiscent of the layout of narrow gauge lines serving sewage and water works in Britain. The whole complex was deserted, possibly closed for the winter, with the track, and indeed all the equipment, very heavily corroded. The only loco visible, a Jenbacker-Werke four-wheel diesel numbered 16, was in similar condition. I was unable to find the shed but a 1977 visitor who did so found sixteen JW diesels and four more modern Greco diesels, one built as recently as 1976. A note on these appears in *Narrow Gauge News 108.*

From Cagliari I caught the Tirrenia Line MV "Napoli" on the direct sailing to Palermo, Sicily, where I went on to spend a couple of days on the steam worked FS narrow gauge line based on Castlevetrano, but that, as they say, is another story.



Sale di Sardegna, S.p.A., Cagliari. Jenbacher Werke diesel loco 16 at the saltworks screening plant. The extended cab roof is to prevent salt from covering the bonnet when the loco passes under loading conveyors. *(K. Taylorson)*

MAIL TRAIN



WEST GERMAN PEAT BOG RAILWAYS

Following my article in No. 75 I visited Meppen again on 21st May and noted the following changes: —

1) ?, Fehndorf The works is now closed and mostly demolished, and all track has been lifted. Diema 2087 has gone, but 2592 is dumped in the shed.
3) ?, Provinzialmoor This is now connected to the Griendtsveen Torfstreu system (4), and may always have been owned by them.
(4) Griendtsveen Torfstreu, Schöninghsdorf The line turning east across the canal is now disused. Locomotives 1(?); 4 Schöma 720); 5 (Diema 1618) and 'HL' (Schöma 3229) were in the yard.
5) ?, Schöninghsdorf Still in use, but the owner is still unknown!
7) G. Strenge, Versener Moor Still in use, with the same locomotives.
8) Gebr. Brill, Twist This site has been completely cleared.
9) Emsmoor Dungetorf, Twist Only Diema 1687 appeared to be in use. One Jung and a Schöma (?) were disused, the Kröhnke derelict, and the Gmeinder dumped in the yard.
10, 13) Johann Dues, Twist & Georgsdorf These sites have been cleared. Just north of the site of Twist operation is a modern factory belonging to Johann Dues. There is no railway here, but several narrow gauge diesels are dumped in the yard and have probably come from the closed sites.
12) Emsmoor Dungetorf, Georgsdorf Rail traffic has ceased here and most of the track has been lifted. The locomotive is dumped behind the works.
15) Torfwerke Minke, Georgsdorf The site has been cleared.
16) Gebr. Brill, Georgsdorf This system is still operating. Locomotives 4, 5, 8, 11, 14 & 15 were outside, and five more locked in the shed.
17) ?, Georgsdorf This mystery line is still in use and a new track has been laid out onto the moor. No locomotives could be found, but these may be at a works somewhere on the moor.
18/19) Mainka/Wintershall, Rühlermoor This operation is now known as Gewerkschafften Brigitta-Elwerath, Betriebe Rühlermoor and still uses rail transport in the oilfield. There was no sign of the locomotives of A. Mainka, but south of the road, near the central depot (18) was a yard with three green Schöma diesels belonging to the oil company. There was a white diesel outside the yard (4wDM Schöma 2139 (?)/58 28PS 4t), but this may belong to a contractor. The oil company also had at least one green Schöma in their eastern depot (19).
20) ?, Rühlerfeld This site appears to be closed and only a little track remained.
21) Trio, Rühlerfeld This site has been completely cleared.

I noticed two mistakes in my original article: Gmd is the abbreviation for Gmeinder & Go. GmbH. Map 1 shows the line from Heseper Torfwerke (22) ending alongside the DB in Meppen, whereas in fact it ends on the west bank of the River Ems.

I also mentioned that there were probably peat railways across the border in Holland, and on this trip I discovered three close to the road from Coevorden to Meppen. Griendtsveen Turfstrooisel Mij BV. have a large 900mm system at Schoonebeek, with five Schöma 4wDM locomotives. At Weiteveen is the 700mm line of NV Purit Mij., with three Diema and two Motor Rail 4wDM. The same company also have another works nearby, on the road to Klazienaveen. All rail operations have finished here and the track has been lifted, but the buildings are still used as a workshops, and three Diema locomotives were standing in the yard.

GURNEY SLADE. Nr. BATH **BRIAN RUMARY**

OVERSEAS PRESERVATION

The Pechot-Bourdon 0-4-4-0 T locomotive illustrated in Narrow Gauge No. 74 came to Dresden from Magdeburg, where it was employed after the Second World War on rubble clarance. How it came to be in Magdeburg is a mystery, but it was presumably captured in France by the Germans during the war. During a visit to the Museum in Dresden in 1973 I examined the loco, and found the number 209 stamped on the motion. This is probably the Baldwin class number (Baldwin numbered all the locos they built of each type from 1 upwards), and from the list given by Abbott in his book *The Fairlie Locomotive* the loco should therefore be Baldwin 43980 of 1916, French Military Railways No. 283.

I can also offer a little extra information about the 0-4-0 T preserved at Siliguri in India, illustrated in Narrow Gauge No. 76, p.8. It has been suggested that this is Krauss 1628 or 1997, both of which were supplied to Arthur Koppel about 1888, but from the photo it is clear that the loco is more recent than this. Despite the alterations made (saddle-tank etc.) the loco can be identified as a Orenstein & Koppel product. Further identification is not possible at this stage, as the O&K list contains literally hundreds of 600mm gauge 0-4-0 T's delivered to Calcutta, without further details of the actual customer.

BRISTOL **MARTIN MURRAY**

I have read with interest Michael Satow's letter about the mystery locomotive at Siliguri (NG 76 p. 28). Comparing the data in this letter with those in earlier publications on the same subject (*Indian Narrow Gauge Railways* by Frank Jux and *Light Railways* by W.J.K. Davies) there are some points which would appear to contradict Mr. Satow's statements concerning this locomotive. I suggest the locomotive has been "faked" to appear older than it actually is.

My reasons for saying this are as follows:

The locomotive is stated to carry a boiler plate stamped 1888. Frank Jux (p. 22, op. cit.) gives the date as 1881. Both dates seem quite improbable, as Frank Jux supposes the plate to have been mounted for the Indian Railways Centenary Exhibition in 1953, and in any case it is doubtful if any German builder turned out 600mm gauge locos as early as that year, at a time when most German engineers regarded such a narrow gauge as suitable only for short hand or horse worked contractor or mining lines. Again, the locomotive is not a Krauss, but looks like a typical O. & K. product. (See my letter re O. & K., Freudenstein and Krauss locos in NGN 100). I even doubt the connection of this locomotive with the Teesta Valley Branch, as in this case it must have been built before 1914. This is unlikely as it is fitted with "pop" safety valves, which were a typical feature of O. & K. locos after that time, but rare before 1914. Again, the Heusinger (or Walschaert) valve gear was not used by O. & K. before 1914. The D.H.R. style coal bunker and saddle tank are presumably 1953 additions to make the loco look "typical" in much the same vein as the phoney diamond stacks on so many American "preserved" locomotives.

I can also provide a little information on the Pechot-Bourdon locomotive illustrated in NG 74. A locomotive of this type was apparently sold from France to Jugoslavia in the 1920's and is reported to have worked in an open-cast coal mine at Kostolac near Belgrade until the late 1940's or early 1950's. It was stored at Belgrade MPD in about 1960 and is now reputed to be in a closed locomotive shed at Vrdnik, north of the capital.

GUTERSLOH, WEST GERMANY. **PETER KUNTZE**

(Can anyone provide any more details of the subsequent fate of any of the other 380 Pechot-Bourdon locomotives built by North British or Baldwin? One, possibly the one now at Dresden, was apparently used by a German contractor before the War, and Baldwin despatched spares for several more to Algeria in the late 1920's, but other than this they appear to have disappeared without trace. — AN).

THE DARJEELING—HIMALAYAN RAILWAY GARRATT

Heartiest congratulations on NG No. 79, particularly the Darjeeling—Himalaya content. When is someone going to do that definitive book on the subject?? Another (poorly reproduced) picture of the Garratt in action at Agony Point is given—uncredited—in that excellent boys' book *The World's Railways and How They Work* published by Odhams (1947); the Editor/Compiler is also not credited. It shows the loco on a short train and the double page spread makes three of the spirals visible (pp 14-15).

Many years ago I had a booklet *Darjeeling and Its Railway* —alas, long since lost. Could any reader provide us with a bibliography to the DHR? Also, has any modeller prepared rolling stock drawings from any period of the line's history? Since John Ahern's version of the B-class loco, through to Mr. Back's famous 16mm "Sherpa" many B-class locos have been built, but one sees little stock—yet many of the earlier vehicles glimpsed in photos of Kelland and the Das Studios, Darjeeling, look most attractive, and would well repay modelling.

IVER, BUCKS. **D.G. ROWLANDS**

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Clay Cross						6	9	10	10	10	1s.	1s.	1s.
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Holmgate } **Springfield** } ...							8	8	10	10	11d.	11d.	11d.
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Stretton	6								6	6	8d.	8d.	8d.
Hurst Lane ...	9	9	8	8	7							7d.	7d.
Woolley	10	10	8	8	7								
Dale Bank } **Milltown** } ...	10	10	10	10	8	6							
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Clay Cross & Egstow dep.	7 20	8 55	1015	1135	2 35	4 37		8 30	9 25	9 55	1 55	3 50	5 50	7 55
Chesterfield Road ,,	7 22	8 57	1017	1137	2 37	4 39	——	8 32	9 27	9 57	1 58	3 53	5 53	7 58
Holmgate ... ,,	7 28	9 3	1023	1143	2 43	4 45	6 30	8 38	9 33	10 3	2 3	3 58	5 58	8 3
Stretton ... arr.	7 34	9 11	1031	1151	2 51	4 51	6 37	8 46	9 39	1010	2 10	4 5	6 5	8 10
Stretton ... dep.	7 35	9 38	1045	12 2	3 6	4 53	6 48	8 47	9 48	1018	2 11	4 6	6 6	8 11
Ashover ... arr.	8 7	1012	1121	1235	3 41	5 27	7 20	9 17	1021	1050	2 41	4 37	6 35	8 40
DOWN TRAINS.				p.m.										
Ashover ... dep.	8 40	1030	1150	2 15	4 0	5 33	7 30	9 35	1030	11 0	2 55	4 45	6 45	9 0
Stretton ... arr.	9 12	11 7	1224	2 52	4 40	5 59	8 1	1010	11 4	1133	3 23	5 17	7 17	9 32
Stretton ... dep.	9 39	11 8	1239	3 7	4 54	6 18	8 2	1011	11 9	1134	3 24	5 22	7 28	9 33
Holmgate ... ,,	9 47	1116	1246	3 14	5 2	6 25	8 10	1020	1117	1142	3 34	5 30	7 36	9 41
Chesterfield Road ,,	9 52	1121	1253	3 20	5 9	——	8 17	1026	1122	1147	3 37	5 35	7 40	9 47
Clay Cross & Egstow arr.	9 55	1125	1256	3 23	5 12		8 20	1029	1125	1150	3 40	5 38	7 43	9 50

Trains at Stretton, L. M. & S. Railway.—For Chesterfield and the North—Weekdays :—7-19, 9-34, 11-58 a.m., 3-2, 6-15 (Sats. excepted), 6-44 and 7-39 p.m. Sundays :—7-43 a.m. and 7-25 p.m.

For Derby and the South—Weekdays :—7-7, 9-17, 10-40 a.m., 12-36, 2-58, 4-46, 6-2, and 7-5 p.m. Saturdays only 9-43 p.m. Sundays :—10-14 a.m. and 5-20 p.m.

Chesterfield and Clay Cross Omnibuses :—Passengers by these 'Buses join the trains at Chesterfield Road Station. 'Buses run about every half-hour.

Matlock and Matlock Bath.:—Convenient 'Bus service daily passing Kelstedge (about 10 minutes walk from Ashover Butts) to and from Chesterfield and Matlock.

To Matlock:—Monday to Friday, pass Kelstedge about 9-55, 10-55 a.m., 12-55 p.m., and every hour until 6-55 p.m. then 8-55 and 9-55 p.m. Saturdays:—8-55, 9-55 a.m, then every hour to 10-55 p.m. Sundays:—10-55 a.m. 1-55 p.m. then every hour to 9-55 p.m.

From Matlock:—Monday to Friday, pass Kelstedge about 8-15, 11-30 a.m., 12-30 and 2-30 p.m., and every hour until 8-30 p.m. then 10-30 p.m. Saturdays :—8-15 and 10-30 a.m. then every hour until 10-45 p.m. Sundays:—12-30 p.m. and 2-30 p.m., then every hour until 10-30 p.m. The journey between Kelstedge and Matlock Bath takes about 45 minutes.

Manager's Office, Clay Cross, June 12/25. **JOHN MAY, Manager.**

JOS. SPRIGGS, ALMA PRINTING WORKS, HOLMGATE ROAD, CLAY CROSS.

The hills and surroundings of Ashover may still be looking their best this summer, but you can no longer take a cheap day trip on the Ashover Light Railway, as you could in the summer of 1926. (collection K.P. Plant)