



NARROW GAUGE RAILWAY SOCIETY



# NARROW GAUGE RAILWAY SOCIETY



## SOCIETY ADMINISTRATION.

HON. SECRETARY : Mike Swift, 47 Birchington Avenue, Birchencliffe, Huddersfield, Yorks. HD3 3RD
HON. MEMBERSHIP SECRETARY : Ralph Martin, 27 Oakenbank Crescent, Huddersfield, Yorks. HD5 8LQ
HON. TREASURER : Geoff Welsh, 9 Derwent Crescent, Kettering, Northants.
HON. PUBLICATIONS (SALES) OFFICER : Ron Cox, 11 Frederick Road, Stapleford, Notts. NG9 7FT
HON. LIBRARIAN : Peter Lee, The Sycamores, Golcar, Nr. Huddersfield, Yorks.
HON. MODELLING SECRETARY : Bill Strickland, 55 Whitestile Road, Brentford, Middx. TW8 9NR
HON. EDITOR "NARROW GAUGE ILLUSTRATED" : Rich Morris, 193 Main Road, Longfield, Dartford, Kent.
HON. EDITOR "NARROW GAUGE NEWS" : Ivan Stephenson, 23 Highcliffe Road, Morley, Leeds, Yorks. LS27 9LX
HON. RECORDS OFFICER (BRITISH ISLES) : Pete Nicholson, 17 Crosslands Road, West Ewell, Epsom, Surrey.
ASSISTANT H.R.O. (OVERSEAS) : Jim Hawkesworth, 27 Haverhill Crescent, Rise Park, Bestwood, Nottingham.

HON. CORRESPONDENCE SECRETARY (RECORDS & MAGAZINE) : Andrew Wilson. HON. AUDITOR : Brian Kilner INDEX COMPILATION : Pete Briddon and Michael Jacob.

#### **BRANCH SECRETARIES** :

## ' NEWS-DESK HOTLINE' 01-393 9520

EAST MIDLANDS AREA : Graham Holt, 22 Exton Road, Leicester. LE5 4AF LONDON & SOUTHERN AREA : \*Don Boreham. 135 Mandeville Road, Northolt, Middx. NORTH STAFFORDSHIRE AREA : Keith Rogers, 68 Maythorne Road, Blurton, Stoke-on-Trent, Staffs. SOUTH WESTERN AREA : Alan Mazanowicz, 187 Exwick Road, Exeter, Devon. EX4 2DB YORKSHIRE AREA : Ron Redman, 14A Oliver Hill, Horsforth, Leeds, Yorks. LS18 4JF (\* Acting Secretary)

SEE "N.G. NEWS" FOR DETAILS OF REGULAR MEETINGS, VISITS ETC – TO WHICH ALL MEMBERS (AND PROSPECTIVE ONES I) ARE ALWAYS MADE VERY WELCOME.

## The NARROW GAUGE -- Illustrated.

(Published by the Narrow Gauge Railway Society.)

COMPILATION, EDITING & ADVERTISING : Rich Morris, 193 Main Road, Longfield, Dartford, Kent. (Longfield 3792)

ASSISTED BY : Michael Jacob, Pete Nicholson & Andrew Wilson.

DISTRIBUTION TEAM : Cliff & Doreen Lawson, 11 Okeley Lane, Highfield Estate, Tring. Herts. (Tring 4780) ASSISTED BY : Ken Bettis.

N.G.I. No. 60 : March 1972, Copyright N.G.R.S.

PRESS DATE FOR N.G.I. No. 61 : 15th April 1972.

PRINTED BY : Hadfield Print Services, 41/43 Pikes Lane, Glossop, Derbys. SK13 8ED

## Affiliated to :-BROCKHAM NARROW GAUGE & INDUSTRIAL RAILWAY MUSEUM (Founded by N.G.R.S. 1961) THE TRANSPORT TRUST

## NEW ZEALAND RAILWAY & LOCOMOTIVE HISTORICAL SOCIETY

And associated with other information and preservation organisations throughout the World.

## **OUR FRONT COVER :**

SHANES CASTLE RAILWAY. A commercial project in Northern Ireland; 1½ miles being opened to the public on 30/4/71. 3ft gauge Peckett 1026, a 1904 0-4-0T ex British Aluminium Company, Larne, now designated "No. 1 TYRONE"; depicted here (1/72) hauling newly constructed passenger stock from Antrim (S.C.R.) to Shanes Castle. (N.G.N. : 67/10, 70/8, 71/10) (The Lord O'Neill)



#### 'FEATURE - FINDER'

Ye Olde Companies	2
The Narrow Lines of Industry	4
In The News	8
British N.G. Locomotive Register	11
Ex Works	15
Collector's Piece	16
Research Department	17
The Small Companies	18
Narrow Gauge Pictorial	Centre Pages
Narrow Gauge International	24
The Narrow Gauges	30
Tram Depot	32
Dusty Catalogues	33
Retrospect	33
Narrow Gauge Modeller	34
Correspondence Junction	35

N.G.I. 59 would appear to have been VERY favourably received by members and it is most reassuring to have received scores of complimentary letters (plus three un-complimentary !) which would certainly confirm that our new editorial policy is following an approved course. It is quite impossible to print them all as they would fill up most of this issue, however we have chosen to publish a few comments from certain recognised notable sources (see page 37). Members letters on the subject will be on hand at the forthcoming A,G.M for inspection by those persons interested. A VERY SINCERE "THANK YOU" TO ALL WHO HAVE WRITTEN.

We are grateful for having received some constructive advice and where practicable certain changes have been instituted in this issue. Other improvements will progressively be incorporated in future magazines but the 'style is set' with this issue – this general format will be continued by the present Editor, but of course with differing content in each issue.

A lot of credit is due to our Printers who do a really marvellous job-turning the text, photographs and drawings, eagerly thrust upon them, into a high quality publication. We trust that the end product will ensure the N.G.R.S. being amongst the

highest respected of railway societies.

Sales outside the Society have exceeded our most optimistic expectations and hope that this will reflect in membership figures during the coming year. With the increased circulation and income we can hopefully look forward to presenting N.G.I. with full colour illustration on the front cover in the not to distant future.

No.59 was, as our Editorial stated, 'somewhat experimental' and inevitably our first-attempt was not without fault. We must therefore apologise for the illustrations on pages 34 and 35 being transposed, failing to acknowledge Graham Fairhurst as co-author of the West Lancs article (NGI.59/2) and Philip Hindley as draughtsman of the Vulcan loco drawing – (which was not lacking in accompanying text-this being included as a 'bonus' item).

With the new series of our Magazine it is suggested that the more lengthy material should be submitted for consideration as suitable for the Society 'Handbook Series'. Whilst the first of these, Nos 1 to 4 were of necessity, somewhat austere printings, No.5 (Sand Hutton) was a major breakthrough and we can look forward to continuing and improving on that high quality with future editions. The manuscripts of a potential No.6 and No.7 are currently under revue.

Entries for the Photo Competition are now invited (see inside of back cover for full details). If you enjoy N.G.I. please do give the Competition YOUR support. It is most important that we have a successful Competition with a large number of entries.

It is hoped that members will understand that your Editor is quite unable to answer letters personally and to ensure the continued smooth running of the Editorial Department, letters requiring a reply will receive this from our Correspondence Secretary, Andrew Wilson.

We look forward to meeting **you** at the A.G.M. Do come along, support your Society – and your N.G.I ! [R.P.M: 1/72]

STOP PRESS : N.G.I.59 SOLD OUT-REPRINT ORDERED !

**Please note** We can only publish the material we have to hand at respective Press Dates – future issues are therefore largely in YOUR hands. Articles should be relatively short and whenever possible accompanied with GLOSSY, CONTRASTY, BLACK & WHITE PHOTOGRAPHS – (and DRAWINGS where applicable). If you have material relating to Railways between 7¼ ins and 4ft 7¼ ins gauge, it will be best appreciated in N.G.I. – the Magazine for the N.G. specialist.

# Pe Olde Companies

"LEW" OF THE LYNTON & BARNSTAPLE RAILWAY (incorporating information from RICH LEITHEAD) by MICHAEL JACOB



The N.G. enthusiasts of Britain are 'homing in' on LEW believed still extant in Brazil. The legendary EI88 is seen here receiving an 'oil-up' at BarnstapleTown before another liesurely  $1\frac{3}{4}$  hrs run to the resorts of Lynton and Lynmouth 19<sup>4</sup>/<sub>4</sub> miles away. (Today a  $\frac{3}{4}$  hr car journey!)

(Real Photographs Co. Ltd.)

This article is intended to piece together all available information regarding this still well-loved locomotive, which disappeared from our shores in 1936 to an unknown destination in Brazil. Since then nothing has been heard of LEW and one can only speculate as to her fate — that is, if she ever had one.

2-6-2T LEW was built in 1925 by Manning Wardle & Co. Ltd. of Leeds (Works No. 2042). She was the 5th loco for the then Southern Railway's 1ft 11½ ins Lynton & Barnstaple line in N. Devon, and was subsequently numbered E188. ('E' for Eastleigh Works – place of repair; 188 in S.R. stock).

She worked on the L & B until 1935, when the railway came to an abrupt end, after the S.R. revealed that they had lost £60,000 on the railway since they had acquired it in 1923 (which when added to the purchase price, made this £100,000). On Sunday, 29th September, 1935 the last passenger train was hauled by LEW and YEO, and the equipment was duly auctioned 2 months later.

The coaches went for £9 to £13.50 each, and

However, LEW survived the scrap-man's torch, unlike her sisters, and worked the demolition trains – until her final run on the line in 1936.

three of the locos (YEO, TAW and LYN) realised

£50 each. EXE went for £34 and LEW for £52.

LEW was loaded at Barnstaple Town transfer sidings on 15th September, 1936, travelling on a standard gauge wagon to Swansea, where she was subsequently shipped out – on 28th September 1936, in the M.V. "SABOR" bound for Pernambuco (now Recife), Brazil, the loco being accompanied by a number of coach and wagon underframes also ex L & B. The front of her side tanks was inscribed "A.L.C. Pernambuco. Lot 1. Kilos 22,353" (NB. New loco in W.O. weighed approx. 27¼ tons). The "Southern Railway Magazine" for November 1936 shows 2 photos – captioned "Off to Brazil" – of the Exmouth Junction (Exeter) steam crane loading the loco, (still in S.R. Livery and with S.R. number,) at Barnstaple Town. Although some references state LEW was overhauled by Manning Wardle in 1936, these are incorrect, (Mannings ceased trading in 1926), and in fact some 'minor alterations' were undertaken at Barnstaple, prior to shipment, — by a fitter from Kitsons, (they having obtained the Manning Wardle goodwill).

Despite the fact that virtually every published opinion is that the loco went to a coffee plantation it is far more likely to have gone to a sugar plantation; these are certainly more predominant in that part of North Brazil.

British Railways Historical Relics Dept. at Clapham Museum do not seem to have any record of the sale of LEW, which is very unfortunate. They were probably burnt or destroyed like so many other valuable records all companies seem to succeed in losing. The auctioneers ought to have a record of the purchaser, but unfortunately again I have been unable to trace the firm's name – (if indeed they still exist). Furthermore, as it is now 35 years since she arrived in Brazil she could have changed owners many times.

British Railways suggested starting up enquiries through the British Chamber of Commerce in Rio or with the British Consul in Recife, if there is one. The docks at Recife should also have something on record about LEW's arrival there ?

In 1967-68 it came to Rich Leithead's notice that an American group had discovered LEW and were to preserve her. However, further enquiries spread over almost 2 years failed to confirm this, and it turned out to be a Baldwin loco that the American group were interested in – but, note, it was rescued from the American Lumber Co. – A.L.C. !! – A TIMBER plantation ! . . . . . . . . . . could it be . . . . . . ? An article in the R.C.T.S. "Railway Observer" (date not known, but not recent) ended with the comment that the loco was believed to have been scrapped in 1959!

We understand that Geoff Drury of York went out to Brazil on a business trip at the end of 1971 and is believed to have been sponsored to locate LEW and arrange for her return to this country.

This is all that I have been able to put together regarding the disappearance of LEW, except to add that a few years ago a society looked into the possibilities or reopening the L & B, but faced with realities of the magnitude of work and finance involved, eventually gave up the idea, so there can be little likelyhood of ever seeing her back in Devon.

One can have no doubts as to what would be done if LEW was discovered; the costs of buying and shipping her back should certainly not discourage such a project ! I hope this article entices comments from members, which perhaps will help to solve the 'mystery' and (-wishful thinking?) lead to her triumphant return home.

References : N.G. 37/14, 38/25. N.G.N. 57/11, 65/3. MIKE SWIFT adds a late note . . . . . . .

Geoff Drury has returned to this Country, unfortunately he was not able to locate LEW. In the short time available it was quite impossible to even visit the area. Contact was however made with the main suppliers of engineering equipment to the plantations and their resources may be able to turn up the location of LEW. Certainly equipment seems to last for a very long time in Brazil so success is possible .....



"Service temporarily suspended" ... Footbridge below Glan-y-Pwll, Festiniog Railway. In the background the Oakeley Slate Tips at Blaenau Ffestiniog." (Pete Briddon)

## THE NARROW LINES OF INDUSTRY



## "SYLVASPRINGS" - The Watercress Railways

by PAT HENSHAW

(BEDFORD & JESTY LTD.,

BERE REGIS AND SPETISBURY DORSET)

The loco built by Mr. Jesty (with Austin 7 engine) passes under the cattle bridge en route to Doddings Farm from the main bunching station.

(Pete Nicholson)



## BERE REGIS

Doddings Farm was first started in 1894 and today the entire farm covers some 900 acres. The earliest record of rail transport comes just after the First World War when the system was laid down with war surplus track. In these pioneering days it was only half its present length, running from what are still the main beds, to a packing shed at the farm, then for a short distance northward serving another bed. After the last war the system was relaid to its present course from the main beds to Doddings Farm. The original track was re-used, plus some more that came from a V-weapon launching site in Germany.

In more recent years, a larger and more up to date packing, or 'bunching' shed, was constructed near the village and main road. The track was extended across the open fields to serve this building, the total length of the line then becoming more than one mile.

Today we find the system varies somewhat in construction. The 1' 6" gauge track is laid tramway style in concrete around the packing shed area, while prefabricated Jubilee track is used where the line runs on narrow causeways through the beds. The third form of track uses F.B. rail on hardwood sleepers, 3" x 2" spaced at 18" centres. The line looks highly professional, especially the length running through the fields, with perfectly spaced sleepers, neat clean ballast and smooth curves. Civil engineering features include a 3ft deep cutting, two steel bridges across the river, and a well constructed overbridge to permit cattle to cross the line. Most of this excellent work was carried out by the company's own staff, as is track and fence maintenance.

Motive power first appeared on the line about 1928 with a machine incorporating a Dodge engine on a wagon chassis. This gave place in the early 1930s to two steeple-cabbed four wheeled petrol machines, one built round a Dodge engine and the other with a Rover (?) engine. Very little can be discovered about these early machines, although one is known to have had a wooden frame ! A later machine, utilising the present Austin 7 engine was built by Mr. B.J. Fry of Dorchester, about 1936. According to recent research, the present loco was not constructed by Fry but by Mr Jesty himself (in conjunction with Mr. Fry) in 1948/9, using certain parts (including the engine) from the 1936 machine, which was subsequently scrapped on the site. B.J. Fry's plate somehow found its way onto the new loco (perhaps the side sheets were re-used ?), hence the confusion over who built it. No drawings were prepared for the

new loco; the design evolved through a series of discussions, as construction proceeded.

Of compact and neat appearance, this present locomotive has been highly successful, with plenty of power, and speeds up to 30 miles per hour (!). The transmission includes two separate gearboxes. one providing three speeds, and the other to change direction-driving by chain to all four wheels (the 1936 loco drove to two wheels only and suffered from excessive wheelslip). It is recalled that when this machine was new, its owner did not seem to think it very fast. "It should be" said Mr. Fry, perhaps the driver is wary of it. I'll have a go". So saying, he climbed in and careered off down the line (which he did not know) in top gear. Finding himself bucking and rolling along the narrow causeway with water on both sides, he jammed on the brakes and with all wheels locked, the loco skidded across the junction near Doddings Farm (then a turntable) miraculously coming to rest still on the metals beyond !

The Austin 7 engine, providing 15 horsepower, has an unusually high compression ratio, having come from a rally-type sports car. The transmission has been altered in recent years, following a breakdown, and with the difficulty in finding spare parts, the engine now drives through 4th gear on the first gearbox, to a Ford unit providing two speeds and reverse, (this second gearbox being positioned under the drivers seat.) The locomotive runs better on certain parts of the line, when facing a particular way, and thus it always works facing Bere Regis, pulling loaded trucks in and propelling empties out.

Like the track, the locomotive is kept in excellent condition. Livery is dark green, with the framing and cab roof in light grey. The bonnet sides formerly carried large white "Sylvasprings" motifs, but these were painted over when the line was being televised – they caused difficulties over advertising.

Rolling stock includes 3 or 4 Jubilee skips, one low sided wagon used for ballast, and five flat wagons, one of which has been fitted with seating for four persons.

Mr. Jesty says that the railway provides a more economical transport for his produce than lorries (which could in fact be used as a rough road is available between the beds and the bunching shed). The railway has the added advantage that, at busy times, any unskilled man can be put on as driver.

The tourist potential of the line is appreciated by Mr. Jesty but as the main demand would be in the summer when the beds are looking their worstawaiting cleaning and replanting-he feels it would be bad publicity. I visited Bere Regis on 25th May 1969, with a small party from the Creekmoor Light Railway Group, Poole, and Mr. Jesty and his young driver spared no effort to make our trip a success. We were given a tour of the whole line as passengers on the seated flat truck and a second flat with boxes to sit on. Photo stops being arranged as required. The ride is as smooth as many miniature lines, but a little nerve-wracking on the bridges and causeways where one looks straight down into water on both sides !

The line is in use at least one day a week between August and May – a usual train consisting

of two flats, each of which carries two plastic containers filled with watercress. The train runs into the bunching shed between two platforms level with the flat trucks and here the full containers are duly exchanged for empties.

I understand that the firm is considering the use of track circuits for automatic operation in the (distant) future and that the existing petrol loco would be adapted for this purpose. It seems perfectly practicable as almost the whole length of the line is 'reserved track' — either on causeways or otherwise well fenced through the fields.



Members Doug Semmens & Stan Robinson cautiously crossing the river Nr. Doddings Farm one September evening in 1967. (Note loco sporting the SYLVASPRINGS motif – subsequently removed). Bere Regis in distant background – behind cows! (Pete Nicholson)

## SPETISBURY

The Spetisbury system, again in Dorset, is situated off the Blandford Forum to Poole (A350) road, behind the ex-S. & D.J.R. embankment — the turning is a small lane by Spetisbury Church, passing under the railway.

Unlike Bere Regis, automatic operation is in use here and also a different type of motive power in the form of a motorised flat trolley. This vehicle is 5' 6" long by 3' 0" wide with an exposed petrol engine mounted off-centre at one end. The motor is a single cylinder, air-cooled unit by Briggs and Stratton of Milwaukee, Wisconsin, U.S.A. (No.270004), which originally did duty in a farm elevator. Drive is by belt to one axle, which in turn is coupled to the other axle by chain giving it 4 powered wheels. This trolley was built by Bedford and Jesty Ltd. about 1964.

For automatic control, the trolley is fitted with a pivotted bar, hanging between and just above the rails, and when this hits a special 'trip' (or an obstruction) it operates a linkage to short circuit the ignition and so stop the vehicle.

In normal use, the engine is started-and after the drive has been engaged (by moving the engine unit back on its framework, so tightening the belt) the trolley is allowed to move off unmanned. It travels at walking pace to wherever the gang is working, where it is halted manually or by a portable 'trip' placed between the rails. After loading, it is restarted and returns to the bunching shed where it is again stopped automatically. A small turntable is used for reversing it at the bunching shed end. Permanent way is again of 1' 6'' gauge and consists of F.B. rail spiked to 3'' by 2'' hardwood sleepers at about 2' 3'' centres, partly laid in ballast and partly set flush in concrete. The whole of the 1/3 mile line is very neatly laid and main-in the best B. & J. tradition.

The track layout is very simple, with just the one turnout where the main line returns on itself, and the turntable at the bunching shed end - no sidings so any spare rolling stock is just lifted off the line.

A few skips and flat wagons (for cress bins) are in evidence here, together with an odd low sided wagon and a peculiar wooden framed chassis, but these are seldom used – since the introduction of the petrol trolley and a reduction in the number of cress beds owing to labour shortages in the area.

I found the railway in operation on 20th March 1968, - they were 'cressing' as they say, I found the method of operation most fascinating and watched the driverless trolley set in motion from the packing depot with an empty cress basket aboard and make its; own way over a concrete bridge and alongside a stream towards the cress beds where the pickers duly heard it approaching and 'accosted' it. The empty basket was replaced by a full one and the trolley set off back from whence it had come. It is most uncanny to watch this little 'phantom' trundling past the half-way point where no operators are in sight. It is, incidentally, also used by the men themselves for travelling to and from the beds (and can thus be driven' by one of them.

At both Bere Regis and Spetisbury there are smaller beds with short lengths of 1ft gauge track

(rails of angle iron) and these act as feeders to the light railway. They are hand worked, with small wooden flat wagons.

Watercress farming must surely be one of the most unusual uses for narrow gauge railways. However, this remarkably efficient system really does exist today, undertaking a unique job quite unsuited to road vehicles As you enjoy your meal, garnished with "Sylvasprings" watercress, remember that only a few hours previously it started the journey to your table by narrow gauge railway.

Subject to prior notification of intended visit, permission to explore and photograph the line will usually be granted by the management of Messrs Bedford and Jesty Ltd who we gratefully acknowledge for their co-operation and assistance in the preparation of this article.

Thanks are also due to the following members for additional material etc :- Kerry Clifford, Mike Jackson, Rich Morris, Pete Nicholson and Andrew Wilson. (N.G.N. Refs. 60/16, 71/8.) EDITORS NOTE. It is regretted that this article, written in 1969, has been a very long time in the "editorial pipeline". However, members can be assured that BEDFORD & JESTY and the WATERCRESS RAILWAYS continue operations as detailed above-the only reports emanating from the period 1969-1972 being of an unfortunate derailment and "ducking" of the loco at Bere Regis in 1970, and as many members have reported, the arrival of a PRIVATELY OWNED "Historic Exhibit" - also in 1970. We are however, respecting the owners wishes on this and regret further details cannot yet be released for publication in N.G.I.



The 'Phantom' motor-trolley at Spetisbury; with the prominently mounted Briggs & Stratton Petrol engine to the fore. The automatic 'control-bar' can be seen hanging beneath the frame at the rear (Pete Nicholson)

## IN THE NEWS



Society members Mike Swift, Ralph Martin, Trevor Polding and Vic Melling, also of the Hunslet Engine Co. Ltd., look on as the Erecting Shop Foreman, R. Woodhead, prepares for a test run, 16/11/71. (Yorkshire Post Newspapers Ltd)

## A NEW SOLUTION TO AN OLD PROBLEM - STEAM IN 1971.

(Mike Swift.)

Nearly 160 years ago Matthew Murray designed and built in Leeds one of the first steam locomotives to provide an economical and reliable replacement for the horse – at that time costly to feed because of the high price of horse fodder resulting from the Napoleonic Wars.

During the intervening years the Leeds locomotive building industry has continued to provide steam diesel and electric power to many of the worlds railways, and under present conditions the need for economy and reliability is even more important than it was in Murray's time.

The Indonesian State Forestry Department operates a lengthy 750 mm. gauge line for hauling logs from the cutting zones to the mill, and finished timber forward to the river for transhipment into barges and eventual distribution. The line has been worked by German diesel locomotives, but these suffer from the lack of skilled maintenance, and the remote location of the line results in imported diesel fuel costs of over £1 a gallon. Quite obviously, the solution to this unusual problem was the replacement of the diesels by simple steam locomotives, which could be maintained by unskilled labour, and burn waste wood which is both plentiful and cheap. The Hunslet Engine Co. Ltd. received an enquiry through Robert Hudson Ltd. for the supply of a suitable steam locomotive. A "Brazil" class 0-4-2ST, was offered, and in 1970 an order was received for one locomotive which was allocated serial number 3902.

The basic design of the "Brazil" class dates back to 1919, and the last example of the type was built in 1941. The original design was little modified :- A round top saddle tank was fitted instead of the square pattern; the characteristic Kerr Stuart cab front sheet was retained; large sand boxes were provided to feed sand to each coupled wheel, (a neccesity for work on the damp greasy rails,) and a turbo generator was mounted on the frame to power large lights at front and rear – for work at night.

No. 3902 soon began to take shape in the erecting shop. Steam testing completed, the loco lost its grey primer under a livery of mid areen. with red frames, buffer beams and (Hackworth) valve motion, - and black smokebox.

The completion of a new steam locomotive aroused considerable interest and the Company decided to hold a viewing day on Friday, 26th November, Invitations were issued to the Press, and local T.V. - and to some enthusiasts, and on the appointed day a large gathering in the works vard saw 3902 put through its paces. The weather was far from ideal - a damp West Riding day when steam locomotives disappear under clouds of exhaust - but with a good fire of scrap wood 3902



(Photo Robert Pritchard)

was able to commute up and down the test track before the cameras.

After being prepared for shipment, the locomotive left the Jack Lane Works on December 9th for shipment to Indonesia through Birkenhead. By the time you read this article, it will probably be at work, and if there, circumstances continue favourable to steam traction we may yet see 3902 followed by others.

I wish to express appreciation to The Hunslet Engine Co. Ltd., for the hospitality extended to members, and particularly to Vic Melling and Geoff Horsman for assistance during the visit, and the provision of information included in this article. [N.G.N : 74/18]

Specification :	
Cylinders	9in x 15in
Driving wheels	2ft 6in dia.
Trailing wheels	1ft 6in dia.
Fixed wheelbase	3ft 9in
Total wheelbase	9ft
Water capacity	270 galls
Grate area	5.4 sq.ft
Working Pressure	160 psi
Weight empty	10.5 tons
Weight in working order	13.25 tons
Tractive Effort @ 75% W.P.	4860 lbs

600mm gauge Schwartzkopff 9124 of 1927 (0-4-0WT) arrived at Bressingham Steam Museum, Nr. Diss, Norfolk from the Schmalspur-Und Kleinbahn Betroebsgesellschaft (S.K.B.G) W. Germany in June 1971. (NGN 71/12 9124 previously saw use at the Norrddeutsche Affinerie, Hamburg before preservation by the S.K.B.G. who numbered it '2' (NGI. 59/22). Seen here at Holm-Seppensen 11/10/70 - a slight mishap during the move on temporary track from the D.B. main line to the S.K.B.G. centre.

(Mike Spellen)



## IN THE NEWS ... continued



WELSHPOOL ARRIVAL – (1) Continuing the tradition of well chosen diesel units, the latest acquired by the Company is a 50HP Hunslet, No. 2251 of 1940 from Cranes & Commercials (Exports) Ltd., Dealers of Bishops Waltham, Hants. It is fitted with 'flame-proofing' and 'exhaust conditioning' (hence 'chimney') as it originates from the Royal Naval Armament Depot at Dean Hill, Wiltshire. Its designation of YARD No. 86 is retained but is now finished in dark red livery. (NGN 73/7) (Pete Nicholson)



## WELSHPOOL ARRIVAL - (2)

Repatriation of Kerr Stuart 'Matary' class No. 4404 – an 18 Ton 0-6-2T, numbered '7' and named JOAN by the Antigua Sugar Company at their Gunthorpes Sugar Mill in the West Indies (to where she was despatched new from Stoke-on-Trent in 1927). JOAN was unloaded from the vessel BOOKER VALIANSE at Liverpool Docks on 26/11/71 and arrived in rural Montgomeryshire the following day. (Restoration to working condition – in the original red livery – is scheduled for completion by 1973.) (NGN 74/8) (W.L.L.R.)

## BRITISH NARROW GAUGE LOCOMOTIVE REGISTER

## PART 2. ORENSTEIN & KOPPEL A.G. DREWITZ, BERLIN, GERMANY.

In 1876 Benno Orenstein and Arthur Koppel entered into a partnership and founded what was to become one of the largest manufacturers of railway equipment in the world. However, it was not until 1892 that the first locomotive was produced, a 900mm gauge 0-4-0T which was built by a works established by Max Orenstein at Schlachtensee under the name Maerkische Lokomotiv-Fabrik. In 1898 this works was bought out and from then on locomotive production was centred on a new works at Drewitz and trading with the name – Orenstein & Koppel.

The firm established itself throughout the world, with branches in many countries. Following the First World War it became the first German owned enterprise to be sold by the Alien Property Custodian in the U.S.A. All its plant and properties, including patents and facilities were taken over by the Koppel Industrial Car & Equipment Co. At first this was a wholly owned subsidiary of Pressed

## (COMPILED BY THE SOCIETY HON RECORDS OFFICER)

Steel Car Co. Inc., Pittsburgh but later merged with the parent company.

Well-tanks of both 0-4-0 and 0-6-0 types were built in several sizes : 20HP, 30HP, 40HP, 50HP and 60HP, — these could be supplied to burn wood, coal or crude oil fuels.

Until 1939 sales in the British Isles were handled by William Jones Ltd. of 154/5 Upper Thames Street, London. E.C.4. who built locos under licence (these are understood to have been assembled from parts supplied from Germany). Wm. Jones' works were originally at Granite Wharf, Banning Street, Greenwigh but this was later moved to Westmoor Street, Charlton. The 'under licence' arrangement applied to petrol and diesel locos which were marketed as 'Montanias' and carried William Jones plates.

Production of a wide range of railway equipment, excavators, diesel engines etc has continued since the Second World War by Orenstein-Koppel Und Lubecker Maschinenbau A.G. with works at Berlin-Spandau, Bochum and Dortmund-Dorstfeld but no new locomotives have been supplied to the British Isles.

Class	(i)	30HP	(ii)	50HP	DN9	(iii)
Horse Power	—	30	-	50	-	-
Туре	0-4-0WT	0-4-0WT	0-4-0WT	0-4-0WT	0-4-0WT	0-8-0
Length (over buffers)	13ft 9½in	12ft 10in	12ft 8in	17ft 5in	17ft 5in	33ft 11½in *
Width	4ft 9in	5ft 4in	4ft 11in	4ft 9in	5ft 3½in	6ft 8½in
Height	9ft 4½in	9ft 2in	8ft 4in	9ft 10in	8ft 9in	9ft 6in
Weight	-	6.5T	7T	8T	8.6T	16T+8.5T *
Wheel Diameter	2ft	1ft 7½in	1ft 7%in	1ft 10½in	1ft 11½in	2ft 1½in
Wheelbase	3ft 7in	3ft 4in	3ft 11¼in	3ft 11¼in	4ft 71/8"in	7ft 10½in
Cylinders	_	6½x12in -	6x11in		8¼x11¾in	12¾x11¾in
Tractive Effort	-	2,240lbs (60%)	-	- 1	-	11,754lbs

## STEAM LOCOMOTIVES :

\*Loco and tender.

## **INTERNAL COMBUSTION LOCOMOTIVES :**

Class	М	MD1	MD2	RL1A	RL1BRL1C	RL3	
Horse Power	81/2	11	22	11	11 14	35	
Туре	4wPetrol	4wDiesel	4wDiesel	4wDiesel	4wDiesel	0-4-0Diesel	
Length (o.b.)	7ft 10in	7ft 0½in	8ft 10¼in	8ft 9¾in	8ft 0¼in	13ft 10in	
Width	4ft	3ft 5½in	3ft 7¼in	4ft 1¼in	4ft 1¼in	3ft 2in	
Height +	5ft 4in	4ft 3¼in	5ft 3½in	5ft 1½in	5ft 1½in	5ft 5in	
Weight	2.3T	2.2T	4.5T	3T	3T	7T	
Wheel Diameter	1ft 6in	1ft 1¾in	1ft 5¾in	1ft 6in	1ft 6in	1ft 6in	
Wheelbase	2ft 7½in	2ft 3½in	2ft 9¼in	2ft 6¾in	2ft 6¾in	3ft 3½in	
No. of Speeds	2	2	3	2	31	4	
Engine	1cyl.0&K.	1cyl.O&K.	2cyl.0&K.	1cyl.0&K.	1cyl.0&K.	(Not known.)	
+ To top of bonnet from rail level							

+ To top of bonnet from rail level.

† RL1C can be of either 2 or 3 speed.



No. 5668 (30HP) hauling a train of Penrhyn slate wagons on the occasion of the N.G.R.S. visit to Coley Pits Farm, Wychbold, Worcs. on 14/9/68. This loco having been beautifully restored by G.J. Mullis was subsequently sold to A.J. Hills of Llanberis and recently exchanged for No. 12722. of Bressingham. (Pete Nicholson)

Number & Class not known. A rare shot, probably taken in the 20's, of the 0-4-0 Well-Tank working at Newlyn Harbour, Penlee Quarries Ltd. The loco as now preserved there by A.R.C. has a different cab, is minus the sandbox mounted on the boiler behind the dome and no longer carries the name PENLEE. (Peter Dale Collection)





No. 5834 was presented to Sir Peter Allen by Solvay & Cie, Alkali Works, Barreda, Nr. Torrelavega, Santander Province, Northern Spain and shipped to England in 1963. Following storage at Welwyn Garden City and Battle, Sussex it was moved to the L.B.N.G.R. on 31/10/70. It was in action on Boxing Day 1971 driven by Father Christmas – himself !

(Pete Nicholson)

No. 6193 (MDI) is one of the very few remaining examples of the 'Midget' type. It was used until recently on the 'continuous-track' of Redland Pipes Ltd., Ripley, were photographed 7/4/68 but is now stored out of use. (Pete Nicholson)





No. 20777 (RL3) the future of which is still uncertain (1/72) despite the interest of several preservation bodies. It was out of use by Summer 1970 when this photo was taken.

(Pat Henshaw)

No. 4372 (RL1A) stands derelict in a picturesque setting beside the flooded pit of Llandudno Junction Brickworks. This site is now occupied by a firm of car breakers and it is feared that their activities may have been extended recently to include a locomotive ! (Pete Nicholson)



No.	YEAR	CLASS	GAUGE	OWNER, LOCATION & RUNNING IDENTITY (JANUARY 1972.)
	c1900	(i)	2ft	Amalgamated Roadstone Corp. Ltd, Penlee Quarry, Newlyn, Cornwall
5668	1912	30HP	1ft10¾in	Bressingham Steam Museum, Diss, Norfolk. [No.1 EIGIAU]
5834	1912	(ii)	600mm	Sir P.C. Allen c/o Leighton Buzzard N,G. Rly, Beds. [P.C. ALLEN]
7529	1914	50HP	600mm	J.L. Butler, 5 Heath Rise, Grove Heath, Ripley, Surrey. [2]
12518	1934	(iii)	600mm	Vale of Rheidol Equipment Ltd, Carnforth, Lancs. [99.3462]
12722	1936	DN9	600mm	A. J. Hills, Gilfach Ddu, Lanberis, Caerns.
2563	c1929	M	2ft	George Watson & Sons, Middlemuir, New Pitsligo, Aberdeens,
3685		RL1A	2ft 💡	P.C. Vallins, 15 Smith Road, South Park, Reigate, Surrey.
4013		RL1A	2ft	Hampshire Light Railway & Museum Co. Ltd, Durley, Hants.
4372		RL1A	2ft	J.C. Hartley, Llandudno Junction Brickworks, Caerns.
4470	c1931	M	2ft	P.D. Nicholson c/o Brockham Museum, Dorking, Surrey.
4805		RL1B	2ft	Redland Bricks Ltd, Warnham Brickworks, Sussex.
5125	c1933	RL1B	2ft	Hampshire Light Railway & Museum Co. Ltd, Durley Hants.
5129	c1933	RL1B	2ft	Chigwell U.D.C., Thaxted Road, Loughton, Gr. London. [LD181]
5926	c1935	RL1B	2ft6in	Cape Universal Building Products Ltd, Uxbridge Works, Gr. London.
6193		MD1	2ft	Redland Pipes Ltd, Ripley Works, Surrey.
6703	c1936		1ft8in	P.J. MacKinnon, 36 Luton Road, Wilshamstead, Beds.
6705	c1936	RL1B	2ft	The Oxted Greystone Lime Co. Ltd. Oxted, Surrey. [1]
6931		RL1	2ft	Peter Court Ltd, Butchers Meadow, Balscott, Oxon.
7269	1936	RL1C	3ft2¼in	Brockham Museum Association, Dorking, Surrey. [MONTY]
7371	c1937	RL1C	2ft	The Oxted Greystone Lime Co. Ltd, Oxted, Surrey.
7595		MD1	2ft	A.M. Keef, Cote Farm, Cote, Oxon.
7600		RL1C	2ft	The Oxted Greystone Lime Co. Ltd, Oxted Surrey. [2]
7728	1938	RL1C	2ft6in	Cape Universal Building Products Ltd, Uxbridge Works, Gr. London.
7732		1. J	2ft	Dawson's, Hellesdon, Norwich, Norfolk. [1952]
7734	c1937	RL1C	2ft	Peter Court Ltd, Butchers Meadow, Balscott, Oxon.
7741	1937	RL1C	2ft	Brockham Museum Association, Dorking, Surrey. [THE MAJOR]
8986	1221023	MD2	2ft	P. Hodges c/o Leighton Buzzard N.G. RIy, Beds. [PAM]
	1000000	RL1C	2ft	Rugby Portland Cement Ltd, Barrington Cement Works, Cambs.
— ·			2ft	Bord Solathair an Leictreachais (Electricity Supply Board), Eire.
-			2ft	Bord Solathair an Leictreachais (Electricity Supply Board), Eire.
20777	1936	RL3	600mm	English China Clays Ltd, Norden Clay Mines, Dorset.
21160		RL3	600mm	English China Clays Ltd, Norden Clay Mines, Dorset.

## NOTES.

5668 was regauged from 600mm in 1929.
6703 and the two locos belonging to E.S.B., Eire are all 4-wheel Diesels. (The latter two are used on temporary lines as required).
6931 is a 3-speed loco of either RL1B or RL1C type.
7269 was rebuilt from 2ft gauge by Wm Jones in 1945.
7728 was re-engined in late 1971 with a 2-cylinder Lister diesel unit.

#### FURTHER REFERENCES :

Industrial Railway Record No.40. (I.R.S.) Dec. 1971.

### ACKNOWLEDGEMENTS TO :

Bressingham Steam Museum, P.C. Dale, P. Henshaw, D.J. Holloway, G. Horsman, Leighton Buzzard N.G.R.S., S.A. Leleux, R.P. Morris, A.S.R. Parsons, R. Pearman, E.Scott, J.B. Snell, P.C. Vallins and B. Webb.

COPYRIGHT :- N.G.R.S.

#### NEXT ISSUE (SUMMER 1972) PART 3 -

**PECKETT.** All contributions relating to this builder to the H.R.O as soon as possible please, (remembering that the series is restricted to existing locos in the British Isles).



## EX WORKS . . . 1921

# EX WORKS .

BAGULEY CARS LTD No.s 2006 & 2007

2ft Gauge



2006 Masquerading as WINNIE - in primer and carrying LIGHT RAILWAYS LTD. plates

## INFORMATION FROM RODNEY WEAVER

The 10 h.p. "Flanders" class was the smallest steam locomotive built by Baguley Cars Ltd. Only two were made, works Nos. 2006/7.

No. 2006, depicted in ex-works condition, was ordered on 6th, February 1919 and left the works on 18th, June 1921, (the delay in building the locomotive was probably due to the time taken in preparing the design, Light Railways, Ltd. having comissioned the "Flanders" range at a time when Baquley had not built a single steam locomotive). It was not delivered to Light Railways, however, but to the Yorkshire Engine Co., with whom Baguley had a mutual arrangement whereby n.g. Yorkshire steam locos. would be built in Burton and s.g. Baguleys in Sheffield. 2006 was therefore sold to the Derwent Valley Water Board as Yorkshire No. 1878. It worked on the original Ladybower Reservoir contract and continued in use there until 1939 at least, this being the last date on which spares were ordered.

No. 2007 was ordered on 7th, July 1919 and delivered on 28th, November 1921. It was sold via Light Railways Ltd, to Calcutta Waterworks where it was used to haul ash wagons until about

1950 when it was replaced by men (!). It was discovered derelict but largely intact by Mr. M.G. Satow in 1963. (see NGI. 59/9 and NGN. 71/12, 74/11).

The design was undoubtedly by Major Baguley himself, as it is a modernised version of the classic Bagnall n.g. tank locomotive which he had designed nearly thirty years earlier, embodying a circular firebox and outside radial valve gear.

#### Leading dimensions are as follows : -

Cylinders :	4" x 8"
Driving wheels :	15½" diameter.
Working pressure :	150 p.s.i.g.
Heating surfaces :	Firebox, 11½ sq.ft.
-	Tubes, 61 sq.ft
	Total, 72½ sq.ft.

Nominal Tractive Effort: 960 lb. Weight in Working Order: 3½ tons.

In my opinion this is one of the most attractive n.g. locomotives ever produced and it is extremely fortunate that one has survived.

ACKNOWLEDGEMENTS : Baguley – Drewry Ltd. Ken Plant.

## **COLLECTORS PIECE**

ITEMS 7 - 10, SOME HISTORICAL GEMS.

(8)

EA	STER	ARRAN	GEME	NTS
3.01	.m. Train u	Saturday, ill not leave Derry and will run corre throwphout.	in Carn	donash
S	PECIAL	PASSENGER	TRA	April INS
For	Gallin Callin Further Partic	MONDAY, 2nd /	At 7.30 p. Statistics them	m.
Derry, I the the the the the the the the	dep. 90 arr. 948 dep. 109 arr. 948 dep. 109 arr. 948 dep. 109 arr. 105 arr.	ILL RUN SUNDER Rathmullan, Bally Lie 12 Chardense 112 12 Chardense 112 12 Chardense 112 12 Chardense 1216 112 Rathmullar 1240 125 Faban 140 425 Derry Letterkenny an	diffin, Car CP TRAIN Motor Boat Burtono Burtono Snatona re Stationa re Matter any of S.	ndonagh 55 58 58 58 58 58 59 50 50 50 50 50 50 50 50 50 50
INCRANA INCRANA THMULLAY By all NOTICE 1	First chan 1/4 1/6 2/- Trains Availat 8 ALSO OIVES NO cted at any of	ROM LONDONDERRY Third class To 96 CLONMANY BALLYLIPF 1/9 CARNDON Male for return on day V that on MONDAY.	First els TN 3.3 GH 3.4 all Trains of Issue and APRIL NESS ns or Lepots	ass. Third class 3 2/- 9 2/6

ITEM. 7. Londonderry & Lough Swilly Rly. Ireland.

A handbill (dark red paper) detailing the Train Service alterations for the Easter Holiday 1934. Buncrana-Carndonagh was closed the following year (2/10/35) and all rail traffic on the L. & L.S.R. ceased 10/8/53. (Gauge 3ft)

**ITEM. 8. London & South Western Railway.** Typical design of L.S.W.R. luggage label – this one with destination Lynton – involving consignment of goods 19¼m over the Lynton & Barnstaple (1ft 11½in gauge) Railway, Devon. Line opened to traffic 1898, bought by the S.R. in 1923 and closed 1935.

London and South Western Rly. From TO Via BARNSTAPLE TOWN. (9) **Clogher Valley Railway** Available only on day of some, and surject to the Company's Kuiss and Kegulaciona Third Class. Fare - 28.6d. FINDERMORE MACURE'S RKITE Findermore-Maglige (10)(106) SOUTHWOLD RAILWAY. WENHASTON to Carriage Paid. NOTICE. - The Company are not responsible for any Parcel above the value of fill, unless DECLARED AS SUCH AT THE TIME

**ITEM. 9. Clogher Valley Railway. N. Ireland.** Third class single Edmondson card ticket (offwhite colour) issued at Findermore. 3ft line opened 1887 and closed 1941.

or sooking, and entered and paid for accordingly.

#### ITEM. 10. Southwold Railway, Suffolk.

"Carriage Paid" Parcel label (white paper) as issued at Wenhaston which was the first station on the branch 2m from Halesworth – where the line joined the main G.E.R. (later L.N.E.R.) line to Beccles. Open 1879 to 1929, 3ft. gauge.

(7)

## **RESEARCH DEPARTMENT** THE BRITISH N.G. INTERNAL COMBUSTION LOCOMOTIVE.

"THE PREMIER LOCOMOTIVE"

**Brian Webb** 

MAIN DIMENSIONS ETC.

Length (over buffers)	8ft 5in
Width	3ft 8in
Height : to top of silencer	4ft 11in
Height : when fitted with cab/canopy	7ft 6in
Wheel diameter	1ft 6in
Wheelbase	2ft 11in
Fuel – Paraffin	15 galls
Fuel – Petrol	1 gall
Weight (depending on gauge & ballasting)	2½ to 5 tons

A Makers Photograph – JAMES C. KAY & CO. LTD, "PREMIER", Petrol/Paraffin loco demonstrating its capabilities. (Brian Webb Collection)

The use of the name PREMIER to denote its locomotive range was chosen by a firm who, although not exactly obscure in this work, could hardly be said to have occupied a Premier position, namely James C. Kay & Co. Ltd. of the Phoenix Foundry, Bury, Lancashire.

It seems that they started locomotive work in the late 20's and continued the work until about 1934/5 having by then, as far as can be seen, only a handful of locomotives of two basic types; one was for rail gauges up to one metre and the other for metre gauge upwards.

The smaller type is our subject here and it appears that in practice the larger example was only built in gauges from 4ft 8½ in upwards.





It is probably the unusual appearance of the Kay locomotive which arouses most interest, although the circular bonnet casing was used by Baguley in their McEwan Pratt locomotive work and before that by Saundersons of Bedford.

It was powered by a 35HP American Waukesha type V 4-cylinder 'in-line' engine with 4in x 5in cylinders and fitted with Ricardo patent heads. Ignition was by H.T. magneto and the engine had three point suspension. This drove via a dry multiple plate clutch to a Kay patent two speed gearbox giving speeds of 2½ or 3¾ mph in low gear and 6½ or 9 mph in high gear. Twin roller chains drove to the leading axle, both axles being coupled by a further chain.

The underframe was built up from rolled steel channels to form a shallow box structure and was filled in with cast iron weight blocks machined and bolted to the channels. Removable cast iron ballast blocks of up to 11 cwt in weight could be fitted to give extra adhesion. The suspension was semi elliptic leaf springs and the axle boxes were fitted with tapered roller bearings. The bonnet housed the engine, fuel and water tanks.

No.4 of Leeds Corporation (1ft. 11½in. gauge). This Kay loco (depicted here at Knostrop Sewage Works 9/5/62) had a special cut-down cab. Scrapped in early 1966 it was the last British survivor of its make.

(Brian Webb)

## COLLECTION 'X'

Messrs J. Britton, P. Rampton and Co. have at least a dozen 600mm gauge locos stored in the Godalming area of Surrey (some at Loxhill). These arrived in 1968/69 from France, Spain and South Africa (NGN57/10). Eight are from the Spanish coal company Hulleras de Sabero y Anexas, and we depict two of these.

No. 3 OLLEROS 0-6-2T Couillet 1318 of 1900 at Sabero Screens in September 1967. (Ron Cox)

No. 7 SOTILLOS 0-6-2T Borsig 6022 of 1906 (Previously of San Miguel Copper Mines) seen here at Sabero Village M.P.D. in September 1967. (Ron Cox)



# THE SMALL COMPANIES

The Wey Valley Light Railway, (1970-72)

## SITUATION : FARNHAM, SURREY. GAUGE : 2ft. by Pete Briddon

The 'Wey Valley' started in 1970 as an activity for the 16-22 year old Moor Park Venture Scouts, and is laid on land surrounding the scout's building (an old pumping station, but don't let that put you off !). It is situated off Guildford Road, Farnham, on the Surrey-Hampshire border. The line opened on 26/9/70, and at that time comprised just a straight length of track laid in very light rail (from Selbourne Brick & Tile Co.), with one 4-wheel 'coach' & a loco from Bredonvale Products, Defford, Worcs.

Since then things have been considerably extended and improved; the Selborne rail has

given way to the usual 'Jubilee' track with 20 - 25lb rail, and trains are handled by locos more conventional than the Bredonvale !

'The Bredonvale' almost defies description, but must surely be unique in that it has virtually three frames. The first, of wood, carries the inside bearings for the wheels (12'' disc). The second in 'I' section girder, caries the buffer beams, and the third crowns the concoction, — this being the front half of a 1924 'Gwynn' car chassis, complete with engine and gearbox ! The latter, now with only one gear forward and one reverse, drives through an open worm and wheel reduction under the driver's seat (it is believed to have come off a combine harvester) to motorcycle chains that provide the drive to both axles. It has been 'Undergoing overhaul' since December 1970. Faced with this monstrosity, it was hardly surprising that the scouts looked for further motive power, — as well as track. The next arrivals were two Wickham target carrying trollies, nos. 2971 and 3287, from Southern Counties Demolition & Trading Co., of Bedhampton, Hants. (NGN 62/18). Not being suitable for towing or carrying passengers, little has been done to them, but it is intended that 2971 will be converted into a brake van, and 3287 will be re-engined, and converted into a loco with a 'Lister' loco gearbox obtained from Alan Keef; the scouts are still looking for a suitable single cylinder engine to power it.

The line's first 'proper loco' arrived in February 1971, and is the property of Pete Briddon. It is Ruston 189972 of 1938, one of the 'front tank' type which was the smallest of Ruston's standard designs at that time. It came from the works of the Gillingham Pottery, Brick & Tile Co., Dorset, where it was heavily used during its working life. On arrival at Farnham it was discovered that neither the engine nor gearbox contained substances that could correctly be termed oil, but although the exhaust was a little smokey, no



The next loco followed the 'Home-made' tradition set by the Bredonvale - but is a considerably better job. The 'Thakeham' was acquired in April, 1971. It has a single cylinder petrol engine by Petter which drives a simple 4-wheel chassis through a Trojan epicyclic gearbox, (another ex-motorcar creation !) Its advantages are cheapness to run, and its ease of transportation. Since owned by the Wey Valley it has provided motive power at two temporary railways operated by the scouts. The first, in July, was at a Fair run by the Weyburn Engineering Co. at Elstead, where a short straight track with the Thakeham loco and two 4-wheel coaches hauled some 144 passengers. In August a more elaborate scheme was operated over Bank Holiday Weekend at the Farnham Town Show, carrying some 938 passengers (NGN 73/11).



The "Bredonvale" loco pictured at Defford in Worcestershire, 23/5/65 (NGN 50/14) Made by Mr. Messenger of Bredonvale Products out of parts he 'happened to have handy' and although rather crude in construction, it was the Wey Valley's first loco and helped to get things moving (literally !)

FARNHAM (SCOUT HUT)
то 🎦
AND RETURN
na - Ini ang
 WEY VALLEY LIGHT RAILWAY
One Return Souvenir Ticket
at
FARNHAM TOWN SHOW

At about the time of the Thakeham's arrival, the scouts were offered a loco by Sheffield Corporation, being a sister loco to the one on the West Lancs. Light Railway (NGI. 59/2). It is Hibberd 1757 of 1927 from Langsett Reservoir, and is one of their 'Planet 20' type, the design similar to the standard Motor Rail Simplex arrangement. It has a 20hp Dorman 2JOR petrol engine. At the time of writing, only superficial restoration work has been undertaken, though it seems to be in reasonable condition.

Another loco on the line at present is Lister 6299, which has had a protracted holiday from Brockham Museum having been loaned by the owner Pete Nicholson. It arrived in August to assist the Thakeham loco at the Town Show, and was the first time 6299 had been in operation for many years. It then came to the main system at Guildford Road, and was employed at an Open Day on the 9th October. At the time of writing it is still at Farnham, but its return to Brockham is imminent.

Rolling stock comprises some 15 - 20 skips and skip frames – two built by Allens of Tipton, the rest by Hudson. 6 short frames came from Swallows Tiles, Cranleigh, two with  $13\frac{1}{2}$  cu.ft. buckets. The remaining Hudson frames were bought from the Ministry of Public Building & Works, Caesar's Camp, Upper Hale, near Farnham, – along with a quantity of rail. One of the short frames was converted into the original coach, while another frame was crowned with another complete skip to from an end tipping version. The large Hudson frames (27 cu.ft.) have been used to form two more 'coaches' & a 'tank wagon' for carrying water to the nearby allotments; several remain available for future conversions.

The final track plan envisages both 'out-andback' and 'continuous run' arrangements around the scouts' H.Q. About a ¼ mile (a little over half that proposed) has already been laid, though further supplies of rail and sleepers will be required before the line can be completed.



FARNHAM TOWN SHOW, FARNHAM, SURREY. (NGN 73/11) The temporary line operated by the W.V.L.R. was a valuable source of publicity for the W.V.L.R. AND the N.G.R.S.! The Railway being a group member of the Society proudly displayed a beautifully painted sign to that effect during the three day event. One of the two petrol locos used, Lister 6299, passes the siding containing spare stock. (Pete Nicholson)

## LOCOMOTIVE LIST (AS AT JANUARY 1972).

(Compiled N.G.R.S. - H.R.O.)

"Bredonvale" Built c1950 Bredonvale Products Ltd, 4-wheel Petrol, Gwynn car engine. Undergoing restoration. Ex Bredonvale Products Ltd, Defford, Worcs. 9/70.

"Thakeham" Built c1946 Thakeham Tiles Ltd, 4-wheel Petrol, 4HP single cylinder Petter stationary engine Light green livery. Ex R.P. Morris, Longfield, Kent, 9/4/71. Originally Thakeham Tiles Ltd, Nr. Storrington, Sussex.

F.C. Hibberd ("Planet-Simplex") No. 1757 Built 1931, 4-wheel Petrol, 20HP Dorman 2JOR engine. Awaiting restoration. Donated by Sheffield Corporation Water Works Dept., Langsett Reservoir, Yorks. 12/6/71.

Ruston & Hornsby No. 189972. Built 1938, 11/13HP, 4-wheel Diesel, 2 cylinder Ruston 2VTHL engine. Fitted with cab, blue and black livery. Ex Gillingham Pottery, Brick & Tile Co. Ltd, Gillingham, Dorset, 20/2/71. (Owned by P.M. Briddon.)

Lister 6299 Built 1935 'R' Type, 4-wheel Petrol, single cylinder J.A.P. engine. Green livery. Ex Trocoll Industries Ltd, Houghton, Northumb. (On temporary loan from P.D. Nicholson c/o Brockham Museum, Surrey since 22/8/71.)

Wickhams No.2971 and No.3287 4-wheel Petrol Target Trolleys, 2-cylinder J.A.P. engine. Ex Southern Counties Demolition & Trading Co. Ltd, Bedhampton, Hants.

One project for the future will be the construction of a vertical boilered steam loco (a boiler for this is already to hand), but this is very much a long term project, and will depend in part on a suitable loco chassis becoming available. By the time this article appears it is hoped that 189972 will have been completely overhauled, (including rewheeling with axles and other parts off the illfated 166015 at Brockham — these having been kindly donated by Pete Vallins), and possibly the Hibberd will be running as well. Planning permission is currently awaited for a loco shed.

From the start of the railway project the Scout Group has been a 'group member' of the N.G.R.S., and is grateful to have received much help and assistance from numerous members. Acknowledgement must also be given to Farnham U,D.C. (owners of the land) and particularly to Sir John Verney and other members of Farnham Council, who have assisted in helping to establish the Wey Valley Light Railway.

We are always pleased to welcome visitors to our Guildford Headquarters but this must be by PRIOR ARRANGEMENT PLEASE.

Trains (or locos !) run as required-travel at your own risk-tickets (as illustrated) are generally issued on Open Days only, but at other times by request. Further information and arrangements for visits etc, send S.A.E. to :- Michael Hayter, No.1 Heather View Cottages, Shortfield Common, Frensham, Farnham, Surrey. (Tickets and Badgessee N.G.I. Classified Ads.)

NGN Refs: 69/12, 70/10, 71/11 & 73/11 N.B.: Track Plan - see supplementary drawing sheet.

> 'Front Tank' Ruston 189972 taking a rest under the trees at the Guildford Road H.Q.

(Pete Briddon)



## NARROW GAUGE PICTORIAL



No. 3 SHANE – Barclay 2265, an O-4-OWT of 1949 (lately LM45 of Bord Na Mona). This machine has been completely refurbished by our member The Lord O'Neill, (on the footplate!) and we feature it here operating on his Shanes Castle Railway, in Northern Ireland. (The Lord O'Neill)



# NARROW GAUGE International

## U.S.A.



"32 TONS ON 2 TRUCKS" Grinding along the Pine Creek Railroad at Farmingdale, N.J. in September 1968; No. 6 of the Ely-Thomas Lumber Co. - 3ft. gauge LIMA 3314 of 1927 (Alan Bowler)

"N.G. INTERNATIONAL" LOCO ROSTER No. 1 :- NARROW GAUGE SHAY LOCOMOTIVES IN THE U.S.A. (1971) Supplied by RON COX.

BUILDER	No.	YEAR	CLASS (TONS)	TYPE	GAUGE	ENVIRONMENT
LIMA	122	1884	17	2 TRUCK	3ft	On display at MICHIGAN CALIFORNIA LUMBER CO. OFFICES, CAMINO, CALIFORNIA
.,	1896	1907	37			On display at CALIFORNIA STATE N.G.R.R. MUSEUM, CAMINO, CALIFORNIA
. "	2194	1909	24			On display on U.S. HIGHWAY 93.466, BOULDER CITY, NEVADA
"	2465	1911 -	60	3 TRUCK		On display in CITY OF SONORA, CALIFORNIA
	2519	1912	32	2 TRUCK	3ft 6in	Stored in MARYVILLE, TENNESSEE
10	2593		42		3ft (Orig. Std.)	Operates on ROARING CAMP & BIG TREES N.G.R.R. FELTON, CALIFORNIA
· · · ·	2645	1913	60	3 TRUCK	3ft	Stored at FIBREBOARD CORP. MILL YARD TUOLOMNE, CALIFORNIA (Unserviceable)
"	2835	1916		"		Operates on CAMINO CABLE & NORTHERN R.R., CAMINO, CALIFORNIA
	2940	1917	-	2 TRUCK		Stored privately in ANN ARBOR, MICHIGAN
	3118	1920	-	"	2ft	(Derelict on embankment, South side of U.S. Highway 72., 2 miles East of Cherokee, Alabama).
	3176	1922	70	3 TRUCK	3ft	Operates on SOUTH PARK & SUNSET STEAM R.R., BANKS, OREGON
	3199	1923		"	"	Stored at McMILLAN PARK MOUNT PLEASANT, IOWA (Serviceable)
	3288	1925	24	2 TRUCK	"	On display at ALLEN COUNTY MUSEUM, LIMA, OHIO
	3302	1927	60	3 TRUCK		(As 2645)
	3314		32	2 TRUCK	"	Operates on PINE CREEK R.R., ALLAIRE STATE PARK, FARMINGDALE, NEW JERSEY
	3315	1928	-	3 TRUCK	"	Operates at/SWISS MELODY INN, HIGHWAY at 41, FISH CAMP, CALIFORNIA
	3345	1929	60			Operates on BLACK HILLS CENTRAL R.R., HILL CITY, SOUTH DAKOTA
	- ?	-	-	2 TRUCK	"	On display at OLD SHAY INN, STATE HIGHWAY 63, SOUTH OF McCLURE, VIRGINIA

## **South Africa**

FUNKEY can claim a long line of South African 'firsts'.

In 1940, the first underground locomotives with diesel power for the Reef Mines; In 1958, the first underground locos with air controls and torque converter; In 1960, the first flame-proof underground diesel loco; in 1963, the first 30-ton locos to be fitted with cardan shaft drive instead of side-rods...... and in 1968......

#### PLASTIC-BODIED DIESELS

Yes, plastic-bodied . . . G.R.P. – Glass Reinforced Plastic. It is self-coloured, corrosion-proof, insulated against changes in temperature, and, by incorporating all stiffening pieces in the body-shell, free of all the fabrication necessary with sheetsteel bodywork.

The start lay with Consolidated Diamond Mines of S.W.A. Ltd., and their troubles with the overhead wires in the Namib Dersert. Corrosion of the copper meant replacement at frequent and uneconomic intervals. The electric locos themseves had a long life ahead of them . . . and the engineers decided that the most practical solution to the problem was to provide each electric loco with a separate tender carrying a powerplant. So an order was placed with Messrs. Barlow's Tractor & Machinery Co. for the necessary powerpack cars : Barlow's supplied the machinery and sub-contracted with Messrs. Funkey for the construction of the glass-bibre body shell being undertaken by Messrs. Halmatic S.A. (Pty.) Ltd.

As Consolidated Diamond Mines are users of diesel-electric as well as straight electric locomotives, Funkey was in due course asked to produce a pair of diesels for the 2'0''gauge tracks at Orangemund. The work they had to handle was shifting diamondiferous concentrates, tenwagon trains with a gross loading of 300 tons, to be hauled twenty miles. This called for a little more than three hundred horse-power, provided by Caterpillar 'straight six' super-charged diesel engines and delivered to the rail wheels by means of a G.M. Allison CRT 5631 Hydraulic Transmission unit, 'Funkey' gearboxes and cardan shafts.



CONSOLIDATED DIAMOND MINES OF S.W. AFRICA LTD. No. 2 (Built by FUNKEY Ltd.) heading a train over once electrified trackage from which the wire has been removed. (Photo by F.M. Beresford for Messrs. C.D.M. of S.W.A. Ltd.)

The Allison Transmission consists of a single stage 'rotating static' torque converter, driving a three speed forward and three speed reverse gearbox of the epicyclic type. This transmission unit bolts to the bell-housing of the engine, so that power and transmission form one unit, carried on resilient mountings on the main-frames. The selection of gear-ratios is controlled by means of multi-plate steel and sintered bronze hydraulically operated clutches, and gears can be changed whilst under full engine horse-power and revs, without declutching. The drive from the change-speed box is taken through a drop-box (forming part of the transmission unit) to cardan shafts leading to the forward and rear bogies.

The cardan shafts drive the inner sets of wheels, via a 'Funkey' gearbox, and a further cardan shaft and gearbox couple the outer wheels. These gearboxes are 'Funkey' in both design and manufacture. The first reduction is by means of spiral helical gears, with the second reduction pinion mounted on the shaft of the spiral bevel wheel and the final reduction gear being on the axle.

Plastic plays a part in the running gear as well as in the body-work, for the brake-shoes are of a patented plastic insert held in standard brake-shoe 'holders'.

Since the locomotives are not turned for the return trip, a duplicate set of controls has been fitted : for forward running, a control desk is set in the right-hand wall, while reverse running is handled from a similar desk against the rear cab wall on the left-hand side. Apart from this facility

Portugal

for the driver, his comfort is looked after in other ways : the inner and outer walls of the cab are separated by two inches of polyurethane foam for heat insulation, and the cab is fitted with both heaters and fans.

Though these 27-ton CDM locomotives have been designed for a maximum speed of twenty-five miles an hour, Messrs, Rhodesia Chrome Mines only called for a speed of fifteen when ordering a similar unit for hauling chrome ore from the Peak mine to the station at Selukwe, where the loads are discharged into the wagons of the 3'6" gauge Rhodesian Railways. Power is supplied by a six-cylinder 'in-line' turbo-charged engine, but the h.p. required is less, being 245 at 2,200 r.p.m. This locomotive works over a relatively short line, but the six-mile route is complicated by the fact that the full loads are handled on the up-grade over practically continuous curves. However, it is not called on to deal with the shunting duties, these being performed by a pair of Funkey 7-ton diesels, at either end of the run.

In addition to these three locomotives, Messrs. Funky have produced a pair of 35-ton units for African Explosives & Chemical Industries; a similar pair for Highveld Steel & Vanadium Corp., and a single loco for Consolidated Glass Works, all being of 3'6" gauge ..... and all with GRP body-work !

[Written from information supplied by Messrs. C.H. Funkey & Co., (Pty.) Ltd.,]

#### SYDNEY MOIR.



.... at Sernada da Vouga, May 1970. Typical early four wheel coach, of which a number can be found lying around the metre gauge system-out of use but possibly destined for intended museum. Mainly supplied by Malignes, Belgium in the 1883-7 (?) period and now defying decay in a very hot climate. Note : No brakes ! (J.I.C. Boyd)

India



## DEHRI ROHTAS LIGHT RAILWAY No. 19 – A Ransomes & Rapier discovery at Dehri – on – Son: 1967

#### FRANK JUX.

This 2'6" gauge line is well known for its variety of secondhand rolling stock, and we visited it in 1967 with some knowledge of what we would find. Arriving at Dehri-on-Son station, we scaled the footbridge over the main line as a vantage point from which to espy the narrow gauge. Sure enough, a small decrepit station could be seen, with black smoke pouring from the long chimney of a small decrepit locomotive, which was idly shunting some rather more modern trucks. The picture was intriguing if not inspiring, as the outline of the loco resembled nothing we had ever seen. Closer inspection was therefore needed, and the loco obligingly did not perform the disappearing trick which their kind are wont to inflict on perspiring railway photographers. However, the inspection revealed no plates, and subsequent enquiry of the Engineer brought only the claim that the 'Railway had built it themselves'. Although the collection of machinery in the works yard bore evidence to the fact that they did amazing things to their locos - there was a "Haig" class Kerr Stuart 0-6-0T which has been converted from 2' 0" gauge into a 2' 6" gauge 0-6-2T, as well as the remains of a steam shunting vehicle which seemed to owe its origin to a Sentinel steam lorry the idea of their workshops turning out a complete loco was unlikely in the extreme ! There the matter rested until a later check-up on records back in the U.K. revealed that some narrow gauge lines in that area had once had some Ransomes and Rapier 0-6-0T's. Against this exciting possibility, a subsequent visitor found from their boiler records that the railway attributed the loco to Ruston & Proctor ! However, comparison of the accompanying photograph with the rear cover of "NG". 58, leaves no doubt whatever that the loco came from Ipswich. What an opportunity for the preservationists !

#### HUGH HUGHES adds .....

I have been able to trace only four Ransomes & Rapier 0-6-0T's in India; these were built in 1880 for the KAUNIA – DHARLLA State Railway (2'6" gauge) in Bengal, being numbered 1 - 4. Later this became part of the Eastern Bengal State Railway system and in due course these locos became No's. 9 - 12. No. 11 was sold in 1911, the other three being used on the construction of the Lower Ganges Bridge at Sara – these three later turning up on various light railways managed by McLeod & Co. of Calcutta. The Dehri – Rohtas engine may well have been one of these Kaunia – Dharlla locos – unless Ransomes & Rapier built a fifth engine for somebody else !

## Austria

## "STEAM ALONG THE STEYRTAL" O.B.B. - AUSTRIAN FEDERAL RAILWAYS (STEYRTALBAHN)

#### Peter Lemmey.

The historic city of Steyr – in days gone by, the capital of the Austrian province of Styria – lies at the confluence of two rivers, the Enns and the Steyr; the latter flowing down from the Totes Gebirge range of mountains which lie to the South-West. Along its valley (the Steyrtal) a 760mm gauge railway was built; opening to traffic on 20/8/89. By 1909 it linked Garsten (a suburb of Steyr) with Klaus, a town about 25 miles up the valley on the Linz – Selzthal main line. In addition, a branch headed off from Pergern, near Steyr, westward through Sierning to Bad Hall.

The Steyrtalbahn is today part of the O.B.B. system, and is of particular interest because it still remains faithful to steam haulage for its trains. True, only one of the line's original Krauss, 0-6-2T's No. 298.104) remains at work, but there are a further five similar 0-6-2T's of the 'standard' 298.0 class shedded at Garsten and these handle most of the traffic.

The trains up the valley start from a bay on the West side of the main standard gauge route at Garsten, the station almost overshadowed by the twin golden onion-domed spires of a nearby church. The narrow-gauge route leads away South from here; whilst the track in the opposite direction curves sharply round to terminate after a short distance at the line's main loco depot. It is from here that the chunky little 0-6-2Ts, in workaday black livery with scarlet wheels and rods, steam out to assemble their trains in the platform at Garsten before setting off up the valley.

Leaving Garsten station the line immediately veers round to the West on an embankment above neat back gardens, and then climbs steeply along the side of a wooded bluff to Sarning, a halt shaded by chestnut trees among the villas and bungalows of suburban Steyr. Beyond Sarning, the line winds on through the outskirts of the town, eventually curving round in a cutting which brings it into Stevr Lokalbahn station, overlooking the Steyr valley. The station buildings here are typical of the more substantial stops on the line, being faced with stucco and with a verandah at the front. In common with several other places on the line, the platform seat takes the form of a circular wooden bench built round the bole of a large tree growing on the platform, in this case a horse Beyond the station, the line drops chestnut. steeply through woodland into the valley itself, the incline taxing the locomotive of Stevr-bound come blasting towards trains which up Lokalbahnhof with their exhaust shooting up through the trees.



Garsten Shed, Steyrtalbahn – O.B.B. 0-6-2Ts 298.14, 298.25 and 298.51, an early morning scene in June 1966. (Ron Cox)

Trains continue on up the valley, along the wooded banks of the river through stations like Pergern, where the now-lifted branch line to Sierning and Bad Hall once ran off over a bridge to the North. The line then approaches Aschach station (overlooked by a strange flat-topped grassy escarpment) across wide meadows which in Spring are a mass of vivid wild flowers. Aschach is the destination of an early morning train from Garsten on weekdays, and the engine of this working returns as pilot of the 07.06 ex Grunberg train, forming the lines only regular double-headed passenger train.

Grunberg is the next place of any size on the line, a pleasant town made even more agreeable by the 760mm line running on the bank of the river through the town centre. The hills on either side of the valley begin to close in on the river here, and the town clusters steeply on either bank. The station, which is hung with climbing plants, is at the Steyr end of the town, and if you stay at the Gasthaus on the opposite bank of the river you can watch the morning arrivals and departures at the station from your bedroom window.

Since 1968 the passenger service between Klaus and Molln, has been worked by buses and as Grunberg is the limit of morning passenger operation, this bus is extended into Grunberg as well during the forenoon. However, the afternoon trains run on to Molln, (and the freight train from Garsten at 08.13 runs right through to Klaus.)

Beyond Grunberg the line winds on up the valley, passing small farms and orchards until, near Leonstein, the train clatters out onto an area of flat prairie on which both Leonstein and Molln stand, surrounded by high hills.

Timber comprises the greater part of the line's livelihood in this area, and at Molln there is an extensive timber yard in addition to the normal goods yard. Molln also has a small loco shed near the level-crossing where the 0-6-2Ts are coaled and watered on their journeys up and down the line. Officially, the line onwards up the valley from Molln is open only for freight; I am unable to substantiate the rumoured continuance of the first the last passenger train of the day from Garsten onwards from Molln to Klaus unadvertised. If one can hitch a lift on a train over this section of the line, the journey would not be wasted, as the scenery, judging by what can be seen from the parallel road, is well worth seeing.

The freight service is usually headed by the last of the Steyrtal's original series of 0-6-2Ts, No. 104, and the ascent from MolIn up to Klaus with a string of timber wagons sets the loco quite a task. The line climbs up over an enormous concrete bridge at Steyrbuchbrucke and then winds through a succession of reverse curves with the river in a ravine below. About a mile off Klaus, the highlands fall back and the woods give way to fields for the last few hundred yards drag up beside the road into Klaus station.

There is a dual-gauge yard at Klaus, where the diminutive 0-6-2Ts may be seen shunting in company with giant 52 Class 2-10-0s on the standard gauge line to Selzthal.

The parallel motor-road up the Steyrtal is in places narrow and twisting, and although a roadwidening scheme is under way it has not progressed very far as yet. It would seem that the end of the narrow gauge might come when this road is eventually completed.

The line has survived a number of closure rumours, but happily, in May 1971, the rails were still bright and the little trains still ambling along among the buttercups. During the Summer of '71, the good people of Steyr (itself a town worth visiting) seemed to have realised the potentials of the Steyrtalbahn, and the local Tourist Board are now promoting a 'ride up the valley' as one of the attractions of the area. A local brewery has also 'got in on the act' by fitting out one coach with a bar, (the "LINZER BRAUEREREI".) and this is included in week-end trains.

This bodes reasonably well for the future, and by the time the widening of the main road up the valley is complete one hopes that the railway will be recognised for the institution it is, and will not be allowed to close down.

For if it does finally succumb, it will not just be the Steyr Valley's loss, but yours and mine too – the Steyrtalbahn is a narrow gauge gem among railways.

Loco status as of Nov. 1st 1971 – (Supplied by Ron Cox)								
298.25 Staatseisenbahn	2998	1902	0-6-2T					
*298.27 "	3062	1903	0-6-2T					
298.51 Krauss	3709	1898	0-6-2T					
298.52 "	3710	1898	0-6-2T					
298.56 Floridsdorf	1354	1900	0-6-2T					
298.104 Krauss	2256	1890	0-6-2T					
* Derelict.								

(NGN References : 19/5, 20/6, 37/10, 43/10. 45/13, 46/8, 53/10, 54/9, 58/9, 59/11, 60/11, 64/10, 70/13, 73/18)

NB: Map of system — see supplementary drawing sheet.

# THE NARROWER GAUGES



ON THE FIFTEEN INCH – (1) The trials undertaken by member Michel Jacot's 4-wheel petrol/paraffin loco. REDGAUNTLET a few years ago are recalled by this scene at Dalegarth, R. & E.R., 28/10/67. (N.G.N. 50/8, 75/9) (Pete Nicholson)

## A PROTOTYPE FOR THE AUSTRALIAN 74" GAUGE.

As a result of a visit to Britain and Italy in 1969 and spending time with fellow gricers interested in both prototype narrow gauge and 714" gauge miniature locomotives I became adamant upon my return to Australia that I would build a Heywood type locomotive to work on our extensive railway (this ultimately became our No. 6 DENIS P MOORE). The 100 p.s.i. boiler is one of our steel stayless type with a coil in the firebox. 11 produces steam beyond anyones wildest dreams, and only takes hours to build - not weeks ! (A drawing of the boiler accompanies this article and gives some idea as to its construction.) I first saw this type of boiler on a locomotive built by a Mr. Briggs in the U.K. and described in the 'Model Engineer' about 1949.

The 'Klien – Lindner' Axle (see N.G. 50/27) was decided upon after deliberation on what other types were available. It is capable of moving  $1\frac{3}{4}$ " off centre to allow the 42" wheelbase to negotiate a 20ft. radius curve. A piece of heavy steel pipe 5" O.D. x 3" I.D. was obtained and machined, two 1" slots were cut radially along three quarters of its length, and two bronze die blocks made to fit in. The 8" diameter wheels



ON THE FIFTEEN INCH – (2) FAIRBOURNE RAILWAY, Merioneth. SIAN, 2-4-2 built by Guest Engineering & Maintenance Co. Ltd., No.18 of 1963, backs down to the coaling stage at Fairbourne, 12/7/67.

(Pete Nicholson)

#### Keith Watson

were pressed on and covers made to prevent the ingress of dirt into the slots. The axle was machined from a high carbon steel and a  $2\frac{1}{2}$  carbon steel ball from a ball valve provided the spherical seat at the centre. Through this a  $\frac{5}{8}$  silver steel pin was passed to drive in the die blocks and slots of the main housing. Spherical seatings maintain the annular location of the axle and carry the load from the axle to the housing. On the ends of the axle are the journals and seats for the flycranks.

At 08.00hrs.on Friday, 14th August 1970, just twelve months since my return from the U.K., I lifted No. 6 from its building stand and lowered it onto the workshop rails for the first time. It was so stiff that I had to bar it out of the works with a jarrah sleeper — after removing the door ! The boiler was filled through the safety valve with rain water, and at 08.45 exactly, my young son Christopher lit the fire by lighting a kerosene soaked rag in the firebox. The blower turned on, and pieces of pine added, soon had us a roaring fire and within fifteen minutes the shell was too hot to touch throughout its length. At 09.10hrs the pressure gauge showed 10 p.s.i. and on opening the blower the first leak was discovered ! After fifteen minutes the nut was retapped, the offending nipple rethreaded, and we continued. By this time the pressure was up to 50 p.s.i., and the water steady in the big 5/16" diameter gauge glass — no leak there. At 09.30 I climbed onto the footplate and opened the regulator. Immediately the snifting valve sealed and the cylinder drain cocks roared forth steam and water. The loco moved quietly forward, and with ease performed the same in reverse.

Then came the real test, negotiating a 20ft. radius reverse curve. I approached gingerly, expecting to leave the rails for some reason I had overlooked, but the engine moved on round the test track-without hesitation. Passing over some 20ft. radius points, made from 2" square material, proved no problem — even in reverse. I was highly elated ! Removing the cab floor to observe the 'Klien — Lindner' axle, I was amazed at the easy way in which it moved from side to side to accomodate the curves, returning to a central position on straight track.

The engine proved very stable and gave the feeling of riding on a full size locomotive footplate. Control was easy and the sound coming from the tall stack has to be heard to be believed.

Temporary feed arrangements brought the usual troubles of muck getting into the injector, and the lubricator getting filled with debris as we passed beneath certain plants in the garden. (Looks like I shall have to do some gardening !)

A leak in the main steam pipe was later discovered in the smokebox, but this was cured with a new flanged joint.

After working most of the night on a special coupler, and on a different temporary feed connection, the loco was loaded onto the trailer next day. This took the load, though it did seem a little heavy. Off loading at the Castledare track presented no problem and after using a very primitive method of filling the boiler, steam was raised again and No. 6 moved off round the track. Without doubt it i. the nearest I have come to feeling the same sensation as on a full size locomotive, and as the footplate is 27 inches wide it gives a very stable feeling. In fact it is possible to walk round the footplate, which hardly tilts the loco !

After a run with two wagons, we returned to the loco shed, and had a beer to celebrate, then we christened No. 6 "DENIS P. MOORE", before retiring to blow the boiler down. Loading and unloading proved just a little harder than handling a small 7%" gauge locomotive.

DENIS P. MOORE has since proved to be extremely satisfactory-after twelve months service, and its hauling capacity has to be seen to be believed !

\*See also supplementary drawing with this issue.



7%" Gauge 0-6-0T No. 6 DENIS P. MOORE. Member Keith Watson designed this delightful coal-burner in 1969 and had it running in 1970! It has a heavy duty boiler and incorporates the ingenious 'Klien-Lindner' axle. (Keith Watson)

# TRAM DEPOT

**BIRMINGHAM CORPORATION :** 3ft 6in gauge, 72.74 Route Miles. System opened 4/4/04, closed 4/7/53. 825 cars – livery blue and cream.



A line-up of double deck cars in Navigation Street on 25/6/52. Nos. 531,522,811 and 627 all ran on two "Burnley" Maximum Traction bogie trucks. The "Burnley" truck consisted of one driving and one guiding (pony) axle. The pony axle being held down on the rails by compression springs thus giving bogie car riding qualities whilst utilizing the economy of only two motors per car. The truck was designed by H. Mozley, Manager of Burnley Corporation Tramways and an example is on display in the Museum of Science & Industry, Newhall St., Birmingham. – as is also Car No. 395, a 4 wheeler of 1911. (Photo : L.W. Perkins)

and . . . . at THORVERTON !



G.D. Massey, 57 Silver Street, Thorverton, Devon. (NGN 67/7) If one is sufficiently enthusiastic about practical N.G. work such things as a shortage of space should not deter you — as Mr. Massey has proved. In his small back garden he operates a 2ft gauge home-built battery electric tram on a circuit of track which cannot have a total length of more than about 100 feet ! The tram (built on a skip frame) is based on a Belgian "Autorail" and is in S.N.C.V. cream livery.

(Pete Nicholson)

# - GENOSSENSCHAFT E.G. m.b.H. of \*Konigsberg, East Prussia.

MASCHINEN (Katalog Nr. 80; c1915)

[\*now Kaliningrad, U.S.S.R]



SCHMALSPUR-MOTOR-DRAISINE A four seater 'Draisine' with 8HP 2-cylinder water cooled petrol engine. Drive is through epicyclic transmission – allowing speeds of between 5 and 45km per hr. in either direction, Pressed steel chassis; Weight in working order 380kg.

## RETROSPECT

PIKE BROS, FAYLE & CO. LTD, FURZEBROOK CLAY MINES, NR. WAREHAM, DORSET.



INDUSTRIAL NOSTALGIA – 1954 : 2ft 8in gauge locos at Furzebrook shed: 0-4-2ST SEXTUS (Peckett 1692 of 1925) and 0-4-0ST QUINTUS (Manning Wardle 1854 of 1914); with veteran TERTIUS (Manning Wardle 999 of 1886; 0-6-0ST) lurking in the gloom of the shed. All were (Ivo Peters) scrapped following the closure in July 1957.

## **NARROW GAUGE MODELLER** EDITED BY BILL STRICKLAND, NGRS : HON MODELLING SECRETARY.



A 3-footer by David Pinniger : Cavan & Leitrim 4-4-0T No.2 KATHLEEN (Stephenson 2613 of 1887) c1905 livery. This is to 7mm scale and has a Plastikard body on a Triang chassis

The invitation for modellers to make full use of their own page has brought in a number of photos and a larger number of letters. All approved of the idea and most suggested it be a pictorial page, rather than articles which they can read in the National modelling press – and this agrees with opinions expressed by my regular correspondents. So modellers it's up to you ! This page is for exhibiting **your** work.

The question of possible supplying of kits was again mentioned in several letters. If all modellers would please advise me of their interests – for evaluation – it may be possible to determine enough common interest for a viable proposition to be made and a kit produced. At the moment I am being 'persuaded' to make my own projected model of the V.of R. engines available as a set of patterns for castings. As this would involve me in considerable extra work (and extra cost, – of moulds etc) I should like to know how many sets would be taken up by Members before I commit myself. This model would be 16.5mm gauge.

[W.A.D.S. 1/72.]



Working model of a Listowe! & Ballybunion Railway 0-3-0. 16mm scale loco built by Don Boreham, who preferred to attach SIEGLINDE name plates to his finished work. (The L & B was a Lartique monorail with 2ft 4in gauge guide rails, it closed in 1924). [prototype information see 'N.G.' 50/2] (Michael Andress)
# **Correspondence Junction**

# IVOR GOTHERIDGE writes . . . on OLDEST N.G. WANGONTRY

At the Duke of Rutland's Belvoir Castle – (pronounced 'Beevor') – west of Grantham in Leicestershire – can be found some 4ft 4½ in gauge wooden coal wagons. These were built c1815 – probably by the Butterley Ironworks Co. (they have "B.B. & Co." on the axle hole covers ?) each has four 2ft diameter cast-iron wheels – these with eight spokes.

They were built for use on a 2 mile 'Iron Plateway' (iron fish-bellied rails 3ft long, the ends of which were supported on square stone sleepers) which ran Ilkeston coal from a barge wharf at Muston Gorse on the Grantham Canal, to the cellars of the Castle. The loaded wagons were drawn by two horses and they used a very primitive form of braking – a wooden pole being hinged to the back of the last wagon and which trailed the trackbed behind thus preventing the train running backwards down the inclines !

The last journey was made in May 1918 and although prior to the last war there was still a line of wagons at the canal sidings most of these were collected up about 1941, and the metal parts melted down to help the war effort. The illustration shows the remains of one surviving at Muston Gorse 13/3/55. (Photo : Jim Hawkesworth)



There are now only three complete wagons remaining at the Castle (in the 'Beer Tunnel') plus the one in the B.R. Museum at York. Perhaps these four relics have the doubtful honour of being the oldest N.G. wagons in existence ? Are there any contestants .....?

## KEITH STRETCH sends corrections on ..... "" "N.G. INTERNATIONAL" – East Germany (NGI. 59/23)

Deutsche Reichsbahn 99.3312 is NOT ex DFB. This is the "odd one out" among the Muskauer Waldbahn 0-8-0T's. Nos 99.3310, 3311 and 3313 to 3316 are ex Feldbahn locos, by various builders, but 99.3312 was built new for the Muskauer Waldbahn (taken over by the DR in 1949) and its dimensions are slightly different from the 'standard' Feldbahn type. (See Obermayer's "Pocket Book of German Narrow-gauge steam locos", pages 114-117).

## FRED PUGH replies .....

## re "N.G. INTERNATIONAL" - Italy (NGI. 59/24)

The Tranvia Bari-Barletta (S.A. Ferrotranviaria Italiana) ran for 65km between the towns of its title. Opened 1881, it survived World War II, but by June 1958 the 32km between Ruvo and Barletta had been closed. The remainder was closed in late 1958 or early 1959. I have no record of which locomotives survived to the end, but the roster in 1946 was :-

1 BARI, 2 BITONTO, 3 ANDRIA, 4 BARLETTA, 5 GRAVINA, 6 TERLIZZI, 7 CORATO, 8 RUVO, 9 ALTAMURA, 10 TRANI, 11 CANOSA. All these were 0-6-2T by St. Leonard, 1881. Works numbers 537-542, 564, 543, 565, 535/6 respectively. 12 was a 4-6-0T, Hunslet 1308 of 1918 originally ROD 2336, which arrived in 1928 via Glauco Greco, dealers. 13 was an 0-8-0T by Wiener Neustadt, 4800 of 1908, which also arrived second hand in 1928.

The line was replaced by a standard gauge electric tramway, constructed between 1954 and 1965, in stages.



## THE TALYLLYN RAILWAY CO.

## sends us a ticket . . . . .

This ticket is for a journey between two stations which are only 300yds. apart ! However, the route taken is slightly longer and it is, of course, a ticket issued for the "Corris Circular Tour" of the Talyllyn Railway. After a Talyllyn journey from Towyn to Abergynolwyn a special road service is used via Corris to Machynlleth, (following the course of much of the former Corris Railway), where passengers connect with British Rail trains for Towyn. (Tywyn).

This tour will again be operating in 1972 with two departures on Wednesdays during the peak season.

(D. Woodhouse)



## MIKE SWIFT replies . . . . .

#### re the NARROW GAUGE INN (NGI. 59/33)

I raised this question with the Neath Antiquarian Society in October 1971 and checked old maps for any traces of lines in that vicinity. No lines are traceable, and the theory has been voiced that it was a house originally – where men working on the construction of the Vale of Neath Railway lodged. This line was built 1847-51, and was to be a broad gauge line from the start. I am wondering if they meant the 4'  $8\frac{1}{2}$ '' Neath & Brecon ? Certainly Narrow Gauge was common terminology at that period for the Stephenson gauge, lines of lesser gauge usually being termed 'dramroads' or 'tramroads.'

ROD WEAVER also comments . . . . . !

The name almost certainly commemorates the conversion of the South Wales Railway from 7ft 0<sup>1</sup>/<sub>2</sub> in gauge to 4ft 8<sup>1</sup>/<sub>2</sub> in gauge in 1872. Our ancestors rightly considered that there was only one real railway gauge (those of us born in the Brunel Country still do !) and it is only a weaker generation that has accepted second-best as "standard". Hence in 1872 4ft 8<sup>1</sup>/<sub>2</sub> in was "narrow gauge". The building appears to date from the right period for this to be the origin of the name.



SYDNEY LELEUX writes about .... EX WORKS-Bagnall No. 1941. (NGI. 59/8)

I disagree with the statement that TEJON was Bagnall's only N.G. inside cylinder locomotive and in confirmation of this enclose an engraving (Courtesy Brian Webb) which should be of interest. No. 210 of 1878, 1ft 8in gauge, cylinders (inside, behind leading axle and driving onto it), 4in x 6in. Delivered new to Beckenham & Penge Brickworks Ltd., Kent where named "BRICK".

Yet another inside-cylinder Bagnall was No. 265 of 1879, 3ft gauge, cylinders 6in x 9in. Built for H. Fothersby & Son.

P.A. DAVEY also says . . . .

Mr. A. Travis in "The West Somerset Mineral Railway" by Roger Sellick (David & Charles) suggests that one of the locos used on the 2ft gauge between Colton and Brendon Hill was Bagnall 210 of 1877. Pages 92/93 state that 210 was inside cylinder and the photo opposite page 81 substantiates this. The Somerset Mineral Syndicate had the loco overhauled by the builders before putting it into use in 1907. It had originally been built for Beckenham & Penge Brickworks Ltd, to a gauge of 1ft 8in.

## From : THE TALYLLYN RAILWAY COMPANY 4/1/72 .....

"Congratulations on your new magazine; this is indeed excellent and if you can keep up the standard I am sure that the futire will be very good. The shop people are also very impressed . . . . " (D. Woodhouse)

## From : THE LINCOLNSHIRE COAST LIGHT RAILWAY 4/1/72 . . . . .

"We congratulate you on a very first rate production and wish you all success with it in the future. It is a very far cry from those issues from 1953 to 1956, which I had the doubtful privilege of cutting the stencils and duplicating, on a borrowed typewriter and duplicator, in a borrowed office !"

(W. Woolhouse). From : THE NARROW GAUGE RAILWAY MUSEUM TRUST 12/1/72.....

"On behalf of the Trustees and Members of the Narrow Gauge Railway Museum Trust I congratulate the Narrow Gauge Railway Society on the publication of the 'Narrow Gauge Illustrated'.

It is indeed a "big step forward" and, I am sure, one which will be much appreciated by all those interested in Narrow Gauge Railways. I wish the Society every success with this new venture". (W.J. Milner).





# BROCKHAM MUSEUM ASSOCIATION

Hon. Secretary : J. L. Townsend, Didley Cottage, New Mills, Clehonger, Nr. Hereford.

#### **BROCKHAM MUSEUM**

2 miles from Dorking North Station along the A25 Reigate Road

A large collection of industrial narrow gauge railway relics.

The Museum will be open to the public on Sundays 16th April, 21st May, 18th June, 16th July, 20th August and 17th September 1972. Trains will run from 10,30. am. to 5,30.pm.

For further details write to Exhibition Secretary J.R. Fennell, 131, Harbut Road, Battersea, London. SW11 2RD.

## "BROCKHAM BOOKSTALL"

BROCKHAM MUSEUM LIST of Preserved Locos & Rolling-Stock . . 30p

Colour Slides : (Sets of four) "Brockham Museum Exhibits" . . 50p "Traction Engines" . . . 37½p

Black & White Slides : "Guinness" ...... 30p, set of four.

Pens, Pencils ..... 4p each. Fibre Pens-all colours ..... 5p each.

(All available from Exhibition Secretary.)

# Bicton Woodland Railway

This unique 18in. narrow-gauge line runs through BICTON GARDENS – EAST BUDLEIGH near EXMOUTH, DEVON.

The line is open to the public EVERY AFTERNOON from 26th MARCH to 15th OCTOBER 1972

## STEAM AND DIESEL LOCOMOTIVES

The story of this 18in.-gauge line is contained in a second edition of 'THE BICTON WOODLAIND RAILWAY' price 13p, post free. Copies may be ordered, with remittance, from :-

THE AGENT, ROLLE ESTATE OFFICE, EAST BUDLEIGH, BUDLEIGH SALTERTON, DEVON.

from whom full particulars regarding
BICTON GARDENS and the COUNTRYSIDE MUSEUM
may also be obtained.



# M.E. Engineering Limited

LIGHT RAILWAY MATERIAL AND CONTRACTORS PLANT

457 Finchley Road, London, N.W.3. Telephone : 01-435 7481, 7482, 7483. Telegrams : Mengilim, London, NW3.

Directors : V.G.B. Atwater, T.G. Boddy.

WORKS : Edgware Rd., (Opposite Humber Rd.,) Cricklewood N.W.2.

#### FOR ALL LIGHT RAILWAY MATERIAL 10%" to 3'6" gauge

We manufacture turnouts, turntables, bogies, tipping wagons and all types of rolling stock. Stockists of New and S/H rail, track and fittings, sleepers, fishplates, clips and clip bolts, fishbolts, dogspikes etc.....

Layouts designed or made to customers' requirements. S/H Locos of various H.P. for sale or hire.

Established : 35 years.

R. H. LEITHEAD'S 1972 STOCKBOOK OF LIGHT RAILWAYS, MINIATURE RAILWAYS, PRESERVED LOCOMOTIVES AND TRAMCARS.

Many readers will be familiar with this annual booklet by Society member Rich Leithead and the new 1972 edition is available at Easter. Includes details of all N.G. Steam in Britain, all N.G. Passenger Lines, all Public Miniature Lines, 7½ in gauge and over, as well as all S.G. Preserved Locos and Lines, Tramcars and Electric Railways. ....

Price 45p from R. H. LEITHEAD, 18 RANNOCH RISE, ARNOLD, NOTTS.



Open Saturdays, Sundays and Bank Holidays. Easter to mid-October, 14.00 – 18.00 hrs. 23 MILES OF TRACKBED PURCHASED (subject to contract) "RUSSELL" UNDERGOING HER FINAL REPAIRS AT "STEAMTOWN"

THAT'S THE NEWS FROM

WELSH HIGHLAND LIGHT RLY (1964) LTD. SALES ITEMS.

HISTORIC B/W SLIDES :- (30p set of 4, plus 3p post). Welsh Highland (2 sets); Leek and Manifold (2 sets); Lynton and Barnstaple (2 sets); Corris (2 sets); Groudle Glen (1 set).

**POST CARDS** :- (33p post free, set of eight). Sets 1,2,3, & 4 available.

NEW !! Set 5 (4 new views) - price 19p.

## LAYOUT DRAWINGS :-

"Gowrie" (3 sheets) price 58p post free, "Beddgelert" price 30p post free.

Orders and information :--102 Northumberland Avenue, Cleveleys, Lancs.

## Hilton Valley Railway

HILTON HOUSE, Nr. BRIDGNORTH, SHROPSHIRE.

Narrow gauge enthusiasts NEVER FAIL TO ENJOY A VISIT :--

5 Active Steam Locomotives, Diesel and Electric Locos, Large-Scale Passenger Cars of unique riding quality.

Automatic Colour Light Signals.

Electric and Automatic Points. Regular Interval Service of Several Trains on Single Line with Passing Loops.

One Mile Journey Through Rural Scenery,

#### **REFRESHMENTS.**

SUNDAYS AND BANK HOLIDAYS, EASTER TO OCTOBER.

A454 WOLVERHAMPTON 9 MILES, BRIDGNORTH 4 MILES.



# The Sittingbourne and Kemsley Light Railway

ENJOY A TRIP ACROSS THE MARSHES ON THE ONLY PRESERVED NARROW GAUGE STEAM WORKED RAILWAY IN SOUTH EAST ENGLAND

FREE CAR PARK – SOUVENIRS – REFRESHMENTS.

THE "KENTISH EXPRESS" WILL RUN THROUGHOUT THE SEASON; DEPARTING SITTINGBOURNE AT 14.00

FURTHER DETAILS FROM (S.A.E.) : MR, G. STICKLER, LITE HJEM; WOODLANDS ESTATE, BLEAN, NR. CANTERBURY, KENT.



COTTAGE ACCOMODATION Towyn – Merioneth. Fully modernised cottage, "Within easy reach of the TALYLLYN RAILWAY"

Sleeps 4 persons. (Cot and pushchair available) Full details on request From : Mr. W. J. Milner, 1 Clifford Drive, Lache Lane, Chester, CH4 7PA, or Tel. Chester 29103.



If you are interested in; RAILWAY OPERATION STEAM and DIESEL ENGINEERING CARPENTRY BUILDING DECORATING ELECTRICAL WORK then the

LEIGHTON BUZZARD

NARROW GAUGE RAILWAY

is

THE PLACE FOR YOU

Full membership details from: D. BARROW, 7, St.ANDREW'S Rd., BLETCHLEY, Bucks.

## SOUTH AMERICAN STEAM

First in the field ! Details, Maps, 104 Photographs — and Journey descriptions on the Narrow Gauge and other lines, in this 'Gold Mine of a Continent' :

Price : £1.85 Post free.

From : RON COX, 11 Frederick Road, Stapleford, Notts.

or ROY CHRISTIAN, 1691 Wilshire Drive, Aptos, California, 95003, U.S.A.

(U.S. Price \$3.95)

## Light Railway Equipment For Business or Pleasure, For Sale or Hire. Locomotives Diesel and occasionally steam. Rolling stock Contractors skips, flats etc. Track Jubilee track, including turnouts or rail only. Miniature turnouts made to order. Proprietor of Cotswold Light Railways, South Cerney, Glos. MALAN M. KEEF COTE, BAMPTON, OXFORD, OX8 2EG, Telephone : Bampton Castle 260 (STD 099-385)

## **Bed & Breakfast** at

## GLAN-Y-BALA (N.G.I. Recommended) LLANBERIS

CAERNARVONSHIRE

MRS. J.M. HILLS **LLANBERIS 555** 

EVENING MEAL.

**BROCHURE ON REQUEST**, **OPEN ALL YEAR.** 

SNOWDON MOUNTAIN RAILWAY. OPPOSITE TO LLANBERIS LAKE RAILWAY. ADJACENT TO

18 STEAM AND 9 DIESEL LOCOMOTIVES SHEDDED WITHIN ½ MILE !



Old MODEL TRAINS WANTED :	CAST IRON RAILWAY NOTICES FOR SALE.
BING, MARKLIN, BASSETT-LOWKE. Good	South Eastern & Chatham Trespass Notice and
prices paid :- Brian Goodchild, 65 Regent Street,	Southern Railway "Beware of Trains" £4 each.
Leamington Spa. Tel. 24076.	Buyer collects. (S.E. England) Box No. 6006.
"WEY VALLEY LIGHT RAILWAY" LAFEL	N.G.R.S. PUBLICATIONS WANTED !
BADGES now available @ 5p each plus S.A.E. –	Highest prices paid for pre-1966 N.G. NEWS
W.V.L.R., No. 1 Heather View Cottages, Shortfield	(No. 38 and prior), pre-1965 MAGAZINES (No.36
Common, Frensham, Farnham, Surrey.	and prior) and HANDBOOK – "Dorking
WANTED – redundant pre-1969 N.G.N.s (No. 57	Greystone Lime Co." Raise cash for those
and prior) in any condition. Please state price and	tempting "North American Publications" – and
send details to Box No. 6005.	help the H.R.O. ! ! 17 Crosslands Road, West
RUSTON GEAR-BOX AND CAB (both in good	Ewell, Surrey. Tel. 01-393 9520.
order) ex No. 168437 (20/30HP), no reasonable offer refused, chains and other small spares also available — Lincolnshire Coast Light Railway, Humberston, Lincolnshire.	For sale – Motor Rail 20/28HP Dorman engined DIESEL LOCOMOTIVES – 2ft gauge, in running order – can be inspected by appointment. Offers over £100 each please. Box No. 6004.
WANTED; Any PHOTOS/INFORMATION etc.	"Wey Valley Light Railway" TICKETS – limited
(1957-1966) relating to B.R. Loco ZM32 of	number, definitely 'first come-first served'.
HORWICH LOCO WORKS TRAMWAY (1ft 6in	10p with S.A.E. Box No. 6001.
gauge RUSTON Diesel, L.A.T. 416214.) Rich	Wanted – Ian Allan's NARROW GAUGE ALBUM
Morris, 193 Main Road, Longfield, Kent.	(Whitehouse) – a VERY good price will be paid
Wanted Always:- TICKETS, DOCUMENTS ETC:	for this publication. Box No. 6002.
from 'The Old Companies'–Closed British & Irish	** Special Offer : JANES ALL THE WORLDS
especially – any items considered (N.G. ONLY	RAILWAYS, 1954 - 1960 at £3 . 50 each.
and NOT Overseas) Good prices paid for rare items.	Limited stocks only ! Available from N.G.R.S.
Rich Morris, 193 Main Road, Longfield, Kent.	Publications Officer.

In addition to this Magazine, members receive our specialist News Journal . . . .

**NARROW GAUGE NEWS** "The recognised news centre of N.G. railways" – regularly published the first week in February, April, June, August, October and December. Each issue has at least 18 pages, crammed with news from a world of 'great little trains'.

Edited by Ivan Stephenson and including material compiled by the Hon. Records Officer, Pete Nicholson.

Accuracy is the envied reputation of 'NGN' - A fact today's writers of literature on N.G. railways cannot ignore !

Our members read the facts ! — and read them FIRST in 'NGN'; always ahead with news direct from our roving reporters — 'in the field'.

"20 years of narrow gauge reporting ......"

Shortly available! NGN INDEX – compiled by Pete Briddon and Michael Jacob, fully crossreferenced and giving members the unique opportunity of access to their own complete encyclopaedia of reference to worldwide events on N.G. railways – since the formation of the Society – 1951-1971.

\* Only a limited number will be printed, so place your order **now** to avoid disappointment. Orders to Pete Briddon, 30 Avenue South, Surbiton, Surrey. KT5 8PJ.

## "EASIBINDERS" ..... @ £1.

New Binders for N.G.I. will shortly be ordered. If you require one (or two !) please send 50p deposit to Ron Cox NOW, so that an idea as to the total number required can be estimated.

## NARROW GAUGE ILLUSTRATED:

#### ISSUED FREE TO MEMBERS £1.50 P.A. TO NON-MEMBERS

The N.G.R.S. invites subscriptions to N.G.I. from our new readers. Send £1.50 to Ron Cox, Hon. Publications Officer, 11, Frederick Road, Stapleford, Notts. NG9 7FT.

To enjoy the many facilities we offer ... N.G.I. Quarterly; N.G.N. Bi-monthly; use of our extensive specialised Library; information from the Records Dept; the services of our Modelling Secretary and participation in Meetings and Visits ... please address your letters to : Ralph Martin 27 Oakenbank Crescent, Huddersfield, Yorks, HD5 8LQ – enclosing £1.50 – FULL MEMBERSHIP FEE. (Adding 20p if LAPEL BADGE is required.





## KLIEN – LINDNER – WATSON DRIVING AXLE

K WATSON 1970



## ALL STEEL WELDED BOILER

Keith Watson 1969/70 Redrawn by Fred Harris 1971



## **N.G.I. Grand Annual Photographic Competition**

This 'old favourite' has now been expanded into a number of different sections – so allowing more members to be eligible for some worthwhile prizes.

All entries submitted must be Black & White (not colour), glossy prints, ideally of at least postcard size and fully captioned on the reverse. All entries will be subject to inclusion in "N.G.I." at any time following declaration of the competition results – and unless their return is specifically requested, will be retained for inclusion in the Society's Photographic Library.

Entries can be submitted from -N.G. Passenger - Pleasure - Miniature - Industrial or Contractors Lines - Builders Works - Private Preservation or Museums

- British or Overseas -

- Current or Historical -

- In use, out of use, or even derelict !

Categories open to entries, 1971/72 (Prizes subject to minimum of 6 entries in respective categories)

- A) Scene depicting N.G.Steam.
- B) Scene depicting N.G. I/C (Diesel, petrol, etc . . .)
- C) Scene depicting N.G. Electric (inc. N.G. Tramcars.)
- D) Scene depicting an item of N.G. Rolling Stock.
- E) Scene depicting A 'permanent fixture' of N.G. interest. (Building/Trackwork/Signalling, etc...) (All photos must have been taken personally by the member submitting the entry)

We would particularly like to hear from any member, group, society or company willing to sponsor any of the prizes for the above categories.

Judging will be a highlight of the Society A.G.M. to be held in Leeds on 13th or 20th May 1972 and it is hoped this will become a regular feature of subsequent A.G.M's. Winning entries will be selected by those members present, and the presentation of prizes will be by a well known N.G.R.S. personality – by invitation.

"The success of the competition is dependent upon YOUR entry" ! ! . . . . . .

\*ENTRIES MUST BE RECEIVED AT THE EDITORIAL ADDRESS NOT LATER THAN THE END OF APRIL.

## FOR YOUR AMUSEMENT AND EDUCATION ..... "KNOW YOUR KNARROW GAUGE"

## "K.Y.K.G." N.G.I. 59 - The Answers :

a) R.A. LISTER & Co. Ltd. – Rear of engine unit on No. 4404 (1932) – one of the few petrol engined survivors. (2ft. gauge).

b) BRITISH RAILWAYS (!) 3ft. gauge Service Loco; Bagnall 1889 of 1911 – was at BEESTON SLEEPER WORKS, 1956 – 1962. 'No.1' is still extant, privately owned and stored at Haddenham in Cambridgeshire.

"K.Y.K.G. " N.G.I. 60

Identify this well-known loco. \_\_\_\_\_ (Answer next time)









## N.G.I. 60 :- NORTH AMERICAN PUBLICATIONS

All prices quoted are post free, and are subject to alteration, charges due will be those ruling at time of despatch. (Order acknowledgements will only be sent if an SAE is enclosed.) + = Limited edition.

Articulated Locomotives. (Wiener) - Reprint of the 1930 classic.	£4.75p
Camelback Locomotives Paperback picture study of 'camelbacks' on 14 roads.	. 80p
Colorado Road. (Wagner) $-$ A huge 400 pages on the C & S and other lines.	£6.80p
The Edaville Story.(Viekman) – 25th anniversary edition.	£1.10p
Narrow Gauge in a Kingdom. (Conde) – NG railways in Hawaii	£2.00p
Pine across the Mountain. (Hanft) - Standard Gauge Mc.Cloud River RR.	£6.00p
Rails in the Mother Lode. (Gutohrlein) – Pickering and West Side Lumber Cos.	£6.50p
The Rio Grande Pictorial. – 100th anniversary of the Rio Grande lines +.	£8.80p
Illustrated History of the Panama Railroad. (Otis) - De Luxe edition +.	£3.70p
Rip Van Winkle Railroads. (Helmer) - NG in the Catskill mountains	£3.70p
The Shay Locomotive, Titan of the Timber. (Koch) – THE Shay book. +	£8.80p
Steel Rails to Victory. (Zeil) - Wartime railroading of WW II.	£6.70p
Unitah Railway. (Bender) – One of the last NG lines built in the Rockies.	£4.50p
Rails West. (Abdill) - Railroading in the Western States.	£2.40p
Railroads of the Black Hills. (Fielder) – NG Ore carrier lines.	£2.40p
Logging Railroads of the West (Adams).	£2.40p
Civil War Railroads. (Abdill) – Toil and trouble during the civil war.	£3.00p
The Virginian Railway. (Reid) – 1961 edition – History of Standard Gauge line.	£5.70p
They Felled the Redwoods. (Johnston) - NG logging lines.	£3.40p
Trains we Rode. (Beebe & Clegg), VOL. 1. & VOL. 2.	
Rare and hitherto unpublished material in classics.	£6 . 75p each.
Ships and Narrow Gauge. (Best) - An Empire from Alaska to Mexico.	£3.00p
Slim Princess. (Hungerford) – Southern Pacific narrow gauge line.	. 80p
Rio Grande Main Line. (Beebe & Clegg) - Beautiful photographs on the main line	£4.75p
Rails Sagebrush & Pine. (Ferrell) – Story of the NG Sumpter Valley Railway.	£4.25p
Railroads of Nevada. (Myrick), VOL. 1. – The Northern Lines.	
VOL. 2. – The Southern Lines.	£6.00p each.
Railroads of the Yosemite Valley. (Johnson) - 4 lines and 40 years operation.	£4.00p
Pino Grande. (Polkinghorn) – Story of the Michigan California Lumber Co.	£3.70p
Pacific Coast Shay. (Ranger) – The ultimate in Shay development.	£3.80p
Narrow Gauge to the Redwoods. (Dickson) - NG steam and paddle wheel ferries.	£3.80p
Narrow Gauge in the Rockies. (Beebe & Clegg) - Colorado Narrow Gauge Pictorial.	£4.75p
Narrow Gauge to Silverton. (Hungerford) - Story of the D & RGW's Silverton line	. 75p
Nevada Country Narrow Gauge. (Best) - From 1847 to 1942 on the NG.	£3.70p
Mexican Narrow Gauge. (Brett) – Present day operations.	£3.70p
The Maine Scenic Route. (Crittenden) - 2' gauge Sandy River & Rangeley Lakes RR.	£3.70p
Maine Two Footers. (Moody) $-$ 18 different 2' gauge lines in Maine.	£3.00p
	•

## Full commercial publications sales service always available.

Orders please gentlemen;

to, Hon. Publications Officer, Ron Cox, 11 Frederick Road, Stapleford, Notts. NG9 7FT.