

LIONSHEART

Number 41

February 1997

Mike Parrott

You will all have heard by now of the tragic death of Mike Parrott on Boxing Day, following an industrial accident. That he was a popular and well known figure in our own club goes without saying. However, he was considered an extremely competent engineer by all who knew him, both in the model world and in full size, being Chairman of Swansea MES and an active member of the Tal-y-llyn Railway. He had worked for many years above and below ground as a mining engineer for the National Coal Board and had helped to set up and commission the plant and machinery at his latest place of work. Never one to accept that traditional methods and procedures were necessarily the sole or best way to achieve results, his approach to problems won him respect among engineers at home, in Finland, Sweden and Germany.



Mike as most OLCO members knew him - accepting the Chairman's trophy yet again, this time at Sutton Coldfield, 1995. (Photo - John Hawley.)

Charles Taylor-Nobbs and I attended Mike's funeral at the overflowing Aberpergwm church in Glyn Neath on 7th January, a very moving service. As a reminder to those who knew him and as an introduction to those who didn't, I feel a few notes on his history within OLCO would not come amiss....

Mike joined OLCO in July, 1985, shortly before the very first Lionsmeet, which was held at Guildford on 25th August. He was already a member of Loughborough MES (his university town), possessing a 5" gauge Lion which he had built whilst still at school in Rugby, under the watchful eye of mentor and later great friend John Groom of the then Rugby Society of Model & Experimental Craftsmen, nowadays known as the Rugby Model Engineering Society Ltd.

Though unsuccessful at that particular competition, thanks to a slipping eccentric, Mike had laid down a marker. He was the youngest OLCO member at that time to have finished building a locomotive. It was remarked in Charles Taylor-Nobbs' subsequent report that his performance while running could have placed him up with the leaders. The following year was inconclusive, Mike coming third of only four competitors. However, in 1987, he achieved third place again, but this time against five other competitors.

1988 was not contested, for reasons given by Mike in Lionsheart No. 40.

In 1989, Mike was Elected Modellers' Representative, a position he held until 1994. At Lionsmeet 1989, he proved true to expectation, beating the old hands and the locals on their own track at Cheltenham to take first place. To prove this was no flash in the pan, he won convincingly at Warrington and District MES the following year. It was at this event that son Edward, still only seven years old, took part in his first Lionsmeet. He had to retire at just over the halfway stage due to a shortage of steam, but it was a good start.

Falconwood was the venue for Lionsmeet 1991. Only two locos took part, but both put up extremely good figures for work done, Mike beating David Neish by a comfortable margin due to taking a higher load and pulling it further. Surely, he could be beaten by a determined effort? Well, he could, and David was the winner at Chesterfield in 1992, though all contestants returned remarkably low figures, due to wet rails. Bob Davies won hands down the following year at High Wycombe MES. Perhaps Mike's supremacy was at an end? Not a bit of it. He stormed back to win in 1994 at Frimley and Ascot Locomotive Club, even reaching a higher work done figure than Peter Gardner's 7 1/4" Lion. He also won, by a narrow margin, the following year at Sutton Coldfield, in spite of the worst warm up morning he had suffered at any Lionsmeet. During the actual run, he needed fresh supplies of water on every lap, due to a badly leaking tender.

How did he fare in 1996? Read the report on page 3.

Though a notably successful competitor, Mike did not keep it all to himself. He wrote the Lionpower series of technical articles for our newsletter, the last of which appears in this issue. He sent me this shortly before the publication of the last Lionsheart, and I had intended it to be printed in this issue, which, with Susy's permission, I have (See page 14). He was also generous in letting others drive his engine, even as competitors! Indeed, on learning that I had never driven a loco, he offered to teach me to drive at his home track, in time for the 1996 Lionsmeet, in order that I could take part. Now of course, I regret not making time for that valuable opportunity.

Mike's accident occurred on December 4th. He put up a typically valiant struggle against overwhelming odds, but finally accepted defeat with dignity and in peace, with his wife Susy at his side. He was just 39 years of age. We extend our deepest sympathies to Susy, sons Edward (14), David (8) and brother Chris, whom we also met frequently at Lionsmeets.

Chris writes to advise that the Mike Parrott Memorial Train leaves Tywyn Wharf station on the Tal-y-llyn Railway at 1.30pm on Saturday, March 8th, possibly hauled by 'Peter Sam', (which Mike was modelling for David). The full length train runs via Brynglas (to run round) to Rhydyronen for a 1/2 hour Memorial Event before returning to Tywyn Wharf at about 3.00pm, where refreshments will be available. All OLCO members are invited.

Susy tells me that donations to the Burns Unit Charitable Fund at Morriston Hospital have been most generous. It is a comfort to her to think that out of this tragedy, the donations may help to save someone in the future from suffering as Mike did.

Lionsmeet 1996

Lionsmeet 1996 took place on Saturday, August 17th at the Ashton Park track of the Bristol Society of Model and Experimental Engineers. As seems standard with this event, in my experience at least, the weather was absolutely grand. However, I was rather nervous, since this was my home track and I was to be under the eagle eyes of my BSMEE colleagues, whom I had invited/cajoled into attendance. August is a very busy month for the club, with public running every Sunday (Hence our change to a Saturday) and I was keen that those who had taken the trouble to open up, switch on, unlock, turn on, fill up and the thousand and one jobs that need doing even for a small event would go home at the end feeling that it was all worth while. I was also concerned that in spite of cheerful assurances, there would be a dearth of OLCO competitors.

Imagine my relief then, when on arrival, late as usual, blowers were blowing, boilers boiling and competitors - well they were just raring to go. But first, a look at the side shows.

Locos other than Lions are invited, even encouraged, to attend Lionsmeet, provided they are pre 1851 (The year of the Great Exhibition). Thus they set the scene and impart a generally Victorian atmosphere.

This year, though, there were only three non Lion locos in attendance, though very fine models they were.

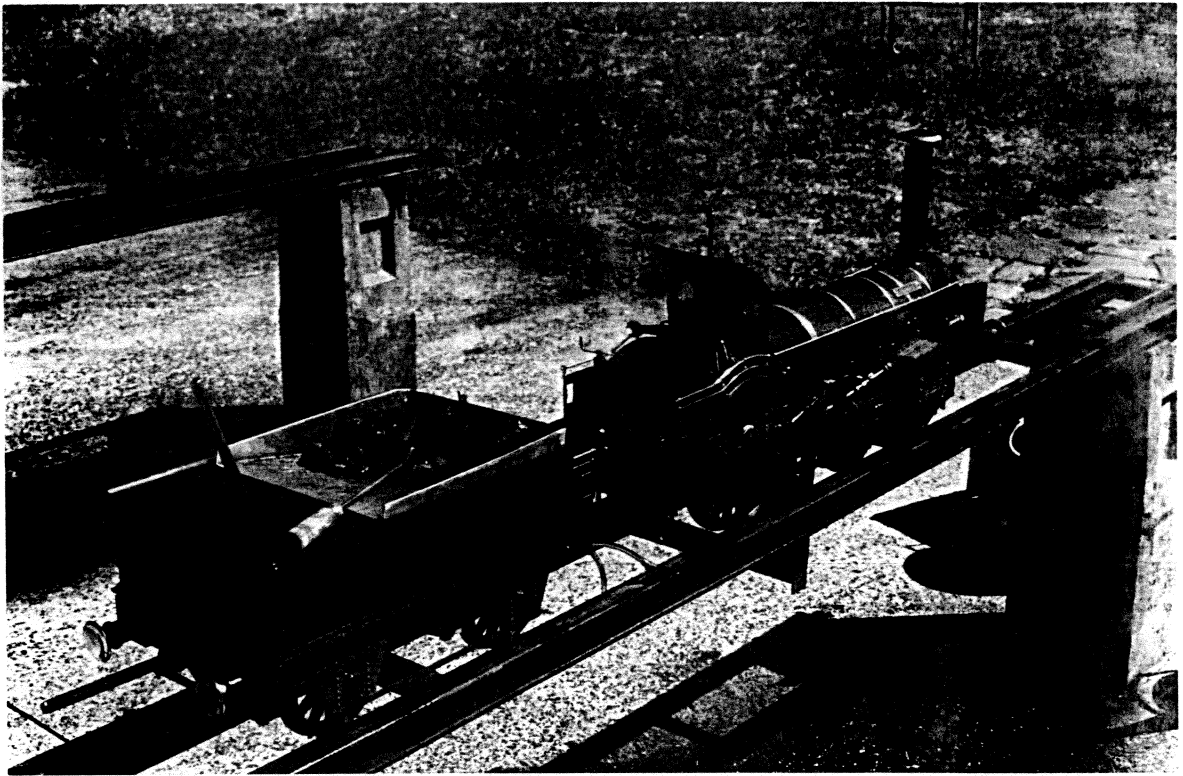
There was Colin MacEke's (BSMEE) 5" Crampton, Kimberley, resplendent in red frames and wheels, green and black superstructure and, familiar to Lion owners, a wooden lagged boiler. Colin tells me this model is based on the Die Pfalz locomotive, a beautiful replica of which stands in the Nuremberg Transport Museum. The original, built in 1853 (pretty close to our deadline), by J A Maffei of Munich, ran on the Bavarian Imperial railway until about 1880. Colin built the model with a valve gear design taken from the London and North Western Railway's Liverpool, built in 1848 by Bury, Curtis & Kennedy. This departure was "for aesthetic reasons". A good runner and painstakingly detailed, though on this day, Colin was experiencing regulator problems.

Also running was Bryan Woolston's 3 1/2" mogul Nicholanna, the woodburning prototype of which was built in 1872 by New Jersey Rail Road & Transportation Co. The model won Second Prize at the Curly Memorial Bowl meeting at Bromsgrove last October. Started in 1964, Nicholanna was finished in 1995, being delayed by the construction of 5" (woodburning prototype) 4-4-0 General D'Arcy and a 5" CN mogul.

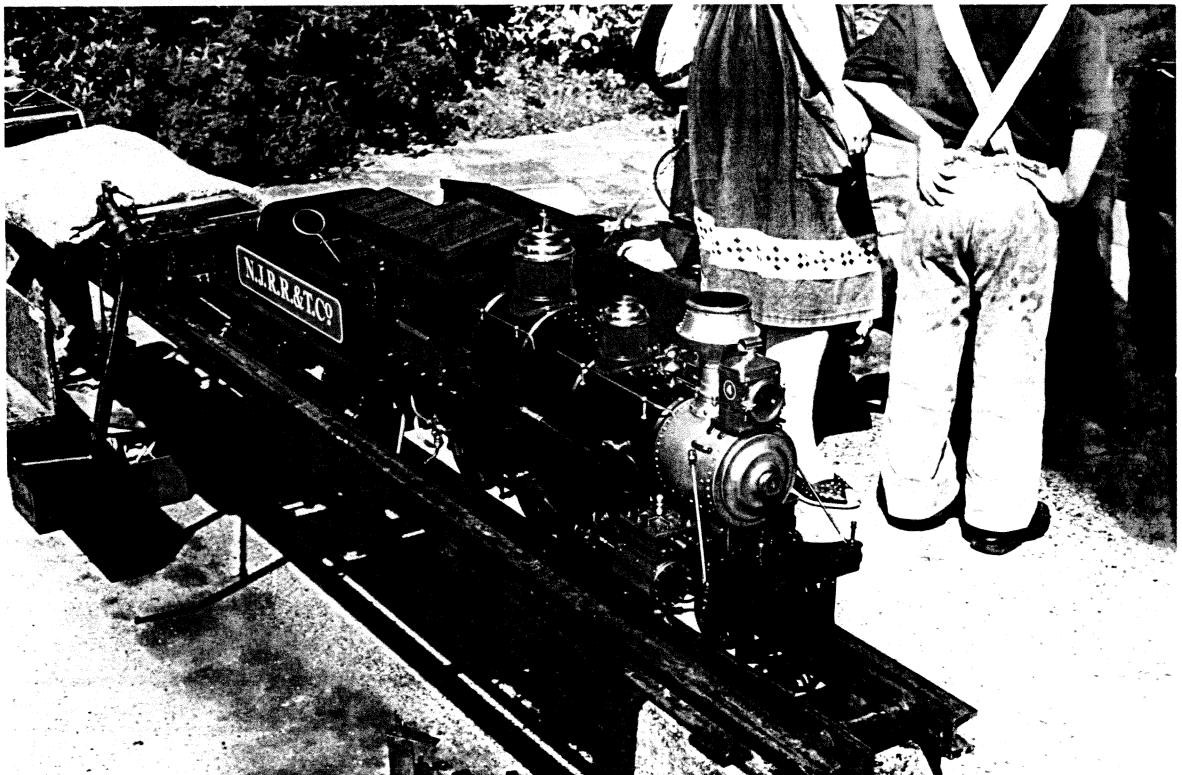
Nicholanna was built from a small outline drawing giving basic dimensions only. She has 1/4" thick bar frames, ball bearing coupled axles and Virginia wheel castings. Only the swing link pony truck is sprung, the driving and trailing wheels being compensated to it. The leading axle is centrally suspended to absorb track twists. The 1 5/16" x 1 5/8" cylinders were cut from a bronze block (That must have been a fun job. Ed). Valve gear is as per Willoughby, from ME Vol 77, 1937. The 90 psi wagon top boiler has 21 3/8" dia tubes and two 3/4" dia flues for the radiant stainless steel superheater and is fitted with a pull out slide valve regulator. The 2 1/8" x 6" firebox is fitted with a double hopper ashpan, while the foundation ring sits on the frames (inspired by LBSC's 2-8-0 'Lady Kitty' in ME dated 1929!)

Boiler feed is by crosshead pump and small injector (Built by Mr Grimmet, Isle of Wight). A hand pump fitted below the stainless steel tender tank and fed via expanded foam filters (Jim Ewins design) completes the feed system. Steam operated cylinder drains, brakes, hydrostatic lubrication via sight feed glass and liberal use of 'O' seals make this a fairly technically advanced model.

Finally, but earliest of the whole lot, was a very interesting static model of Stephenson's Locomotion, built for the Stockton & Darlington railway in 1825. This model, though complete in every way, will not be steamed, according to builder Stan Compton. Beside the model were patterns for various castings used in the model, which was built to Henry Greenly drawings. The motion could be operated by means of a small handwheel, mounted underneath the loco/tender coupling. Stan is currently in New Zealand, taking some Lion outline drawings with him (and, I hope, recruiting another overseas member to OLCO).



Colin MacEke's (BSMEE) Crampton 'Kimberley, based on the Die Pfalz, but with Liverpool eccentrics and valve gear. (Photo - John Hawley)



Bryan Woolston's Nicholanna. Though later than our Lionsmeet deadline for prototype build year, this was a welcome visitor which created some considerable interest - Good chime too!
(Photo - John Hawley)

The Track (See Lionsheart No 40)

The Ashton Park Railway has ground level 7 1/4" of 1543 ft length and raised 5" and 3 1/2" tracks of 1644 ft. Running was anti-clockwise. For Lionsmeet, competitors started halfway between the station and the steaming bays on a 1:150 down grade, well away from the oil associated with those two areas. Having passed the steaming bay a right hand curve leads uphill to a 135 degree left hand bend in a cutting, past a high point in the track, then downhill on a short straight, followed by another sweeping downhill 135 degree lefthander onto the back straight, half of which is at 1:250 up, then level. A long left bearing uphill section leads to the station area, following which the track continues left, downhill to the start point. During the event it was noticeable how the oil at the station caused even our Lions, with their relatively low power, a fair degree of wheelspin. The steaming bay was also a bit of a problem, though at this point speed was fairly high. Just past the steaming bay and the following right curve, the track is straight for a short distance. At the transition between the curve and the straight, we had at least two instances of the passenger truck becoming derailed.

Somehow, I found myself responsible for observing the runs and recording the results, yet I could have sworn that Peter Gardner had got it all sussed earlier. Perhaps he had...! Anyway the dyno car was pretty fresh back from IMLEC at Northampton and we needed a few minutes to get it sorted for our range of pulling power.

The Competition

First to go was Jon Swindlehurst with his immaculate 1995 LBSC Memorial Bowl and First Prize winning loco. He elected to take just two adult passengers. The run was preceded by the re-enactment of that famous line in Titfield Thunderbolt - "She won't couple!" Indeed as far as I can remember, Jon's tender was equipped with the genuine article - a chain coupling, whereas the dyno car, as I had warned in the preceding Lionsheart, was fitted with a trunnion style bracket. Anyway, quick action on the part of our hosts produced the sort of solution that the Reverend Weech would have approved of. I think a padlock was involved somewhere!

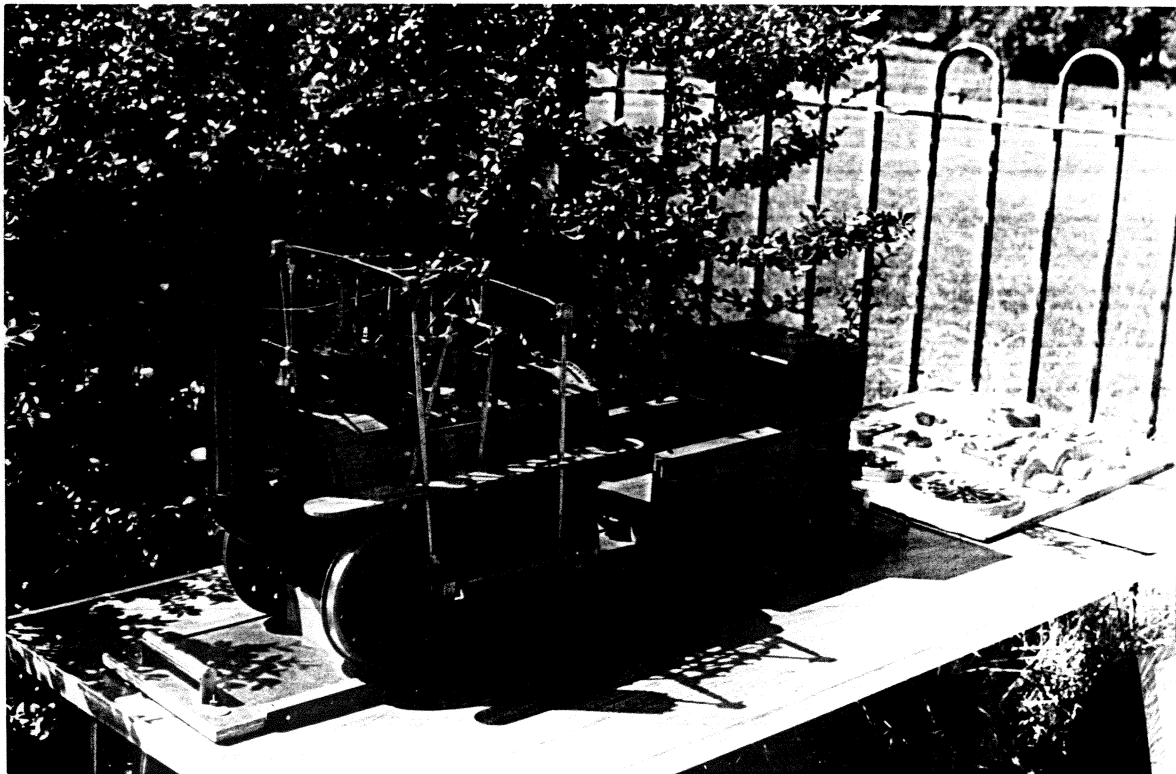
We had a derailment on the second lap, followed quickly by the loss of the water bottle spout. Nevertheless, Jon put up a performance which I thought would be hard to beat - good steady speed with plenty of pull. The exhaust note was crisp and regular.

David Neish was next up, with three passengers. The exhaust note on this engine was without the solid beat of Jon's and I wondered if the slide valves were seated properly. David was never able to get into his stride, coming to a halt at the end of the second lap, dropping off a passenger on the fourth and suffering an unnerving derailment on the fifth.

David's Lion was built in 1974 to LBSC's design, but with modifications to make it look more like the prototype. Indeed, David was the first to site his lubricator under the footplate, as reported in Model Engineer Vol 145, pages 784 - 787. His engine won the Bronze Medal at the ME Exhibition in 1977 and has run there several times on the portable track. David also won the first Lionsmeet, in 1985 at Guildford. I'm sure he will be a very determined competitor next time.

Third man to go was Bob Davies, winner at High Wycombe in 1993 by a considerable margin. He bravely took four passengers. A brief history of this machine appears in Bob's letter on page 9. Sadly, though, steaming problems did no good for results on this run. The letter says it all! Peter Carr, of BSME was observer on this run. Pete, by the way, is the builder of the 7 1/4" boilers owned by David Neish, Geoff Wright and myself. Geoff's is the only Lion so far to have completed building and he has nothing but praise for the boiler's steaming capacity. I think in the next few years we will see several more "large" Lions with this boiler competing at Lionsmeets.

Mike Parrott was next to try for the prize. No doubt he felt some relief that two previous trophy holders had achieved rather modest results, but Jon's figures were something else! Mike's loco started with a good steady pull and soon he was 'going like a train'. Suddenly, disaster struck. Lion locked solid just as we got onto the back straight and we slid unceremoniously to a halt. Since he



Stan Compton's excellent Locomotion with Patterns. Mounted on blocks, the motion could be operated by means of a small handwheel. Peter Gardner writes to say that Reeves are producing a new design for a 7 1/4" Locomotion to fine scale. Also, Japanese model suppliers OS are producing a 'kit' for a 5" Rocket. More news if I hear.
(Photo - John Hawley)



Mike prepares his Lion with Susy and David looking on. Edward was elsewhere, eyeing up the competition, perhaps? (Photo - John Hawley)

had completed only about a third of his timed run I decided that if the fault could be rectified and our hosts were willing, I would allow a re-run. In the meantime it was Sarah's turn....

Sarah is Bob's daughter. She has been driving various steam machines since she was three years old. This run, like Dad's started with great promise and three passengers. The starting pull on the dynamometer car gauge was by far the highest yet (About 35lbs pulsing on every beat, Mike's about 25lbs), and I looked forward to a good result. Sadly though this father/daughter team had not yet twigged the cause of the lack of steam and her brave effort came to nought. During this run I noticed that the dynamometer car brake was binding slightly, so I held it off to minimise the effect, later realising that the pull was being registered anyway so it didn't really matter.

Sarah collected an eyeful of cinders during her run. Having had a couple land on and burn through my record sheet during the day, I can only guess at her discomfort. Luckily, no real harm done, though a trip to the Bristol Eye Hospital was necessary.

Having secured a loose piston(A repeat of Sutton Coldfield 1995?), Mike's second attempt went smoothly throughout, though it was not until the last lap or so that I had a clue as to the outcome of this meeting.

Having allowed Jon and David a minute each for their derailments, the final (corrected) results were as follows;-

Driver	Load (inc driver)	Distance (ft)	Ave Speed (mph)	Work Done (ft lbs)
Jon Swindlehurst	3A	15803	8.99	105420
David Neish	2A + 2C	7470	4.20	45500
Bob Davies	4A + 1C	8220	4.67	69500
Sarah Davies	4A	8060	4.58	46600
Mike Parrott	3A + 1C	16230	9.22	112600

'Load' is at start of run and includes driver. A = Adult; C = Child.

I am pleased to report that Susy and the boys fully intend to keep up the tradition of 'offering' the Trophy a more or less permanent home. We wish them success in their quest and I'm sure, will offer them every assistance in the manner to which we are accustomed.

Observations

As Peter Gardner commented last year on the Guildford Dynamometer car, the Bristol vehicle hardly registered the pull produced by our small engines. By far the largest single weight behind the engines was the cars themselves, rather than the 'load', though I felt that the drag was less than that experienced at Sutton Coldfield.

I would prefer the 'absolute' method of measuring load, as used at Sutton Coldfield in 1995, since the variation in weight among adults and among children can be considerable, notwithstanding the work done figures delivered by the dynamometer car at the end of each run. So, please could someone bring some bathroom scales to Peterborough?

Sadly, due to a planned hospital trip, Geoff Wright was unable to attend, so for the second year running, there was no 'Battle of the Giants'. Peter was left to cruise around the ground level track with little to stimulate him. When he got home though, he found that one wheel and every crank axle joint was loose. He has now fitted extra pins and has since tested his engine successfully.

In the event, Geoff's hospital visit was cancelled - a thoroughly frustrating day all round for the 'big boys'. Still, that's the problem with the best laid plans. On balance though, a very enjoyable day. OLCO would like to express their thanks to the Bristol Society of Model and Experimental Engineers for their warm hospitality, ready availability of various consumables(coal, oil, water and of course, the engineman's rocket fuel, a superb brew served in the only size recognised by man - large!). Special mention should be made of Person in Charge, Bob Dearnning; Roger Sykes, the



New OLCO member Ray Wiggin studies the finer aspects of the Davies' Lion. This engine had by far the highest tractive effort of any on the day. Pity about the lack of 'stamina'.
(Photo - John Hawley)



Peter Gardner(right) with his 7 1/4" Lion and much admired driving 'trolley'. If there had been some real competition for Peter that day, I would have suspected that the earnest and unknown(to me) admirer was trying to persuade him to 'throw' the result! (Photo - John Hawley)

dynamometer car expert; Gerald May for transfer of packs of coal and water on the run(Like the old travelling Post Office, he was); Joan (the tea) Caseley and husband David for producing a superb video of the day's events(See below). The dynamometer car should not be forgotten either, an invaluable piece of equipment. This latter, by the way, was the subject of articles in Model Engineer Nos 3922 and 3924. Finally, and I must not forget this, my wife for letting me play on our Wedding Anniversary. Thanks Jill, I may not let you drive my Maxi, but you can drive my Lion, when I get it built.

Also 'observed' were Richard Black and Ted Barker, from Peterborough, where this year's event is to be held(See page 16). They were no doubt on hand to see what a bunch of ruffians they've let themselves in for.

The Lionsmeet Video

The David Caseley(BSMEE) video of Lionsmeet '96 runs for 29 minutes and is of professional quality. David has very kindly donated several copies in aid of the Fund set up in memory of Mike. These are for sale at £7.50 each, inc pp, which is good value indeed when compared to commercial videos of similar duration. There is no commentary, simply a note of introduction. The action and background noises tell it all.

The video is a useful introduction to the many Lion owners who are perhaps unaware of the pleasure to be had on the occasion of Lionsmeet, or are perhaps unsure of what the event is like. If you would like to order, use the loose slip enclosed. Remember, all proceeds are for the Burns Unit Charitable Fund at Morrision Hospital, Swansea.

Readers' Letters

From Bob and Sarah Davies..

Bexleyheath.

We both had a very enjoyable day at Bristol. Congratulations on organising such wonderful weather. It was nice to meet a friendly group of people. Our thanks to the tea ladies who kept us supplied all day with mugs of the brown nectar.

Our thanks for the directions to the Bristol Eye Hospital, which we found without trouble. The problem was a small piece of coal lodged in the corner of the eye along with scratches on the white of the eye. Sarah was walking around for a few days with a large eye patch which caused amusement, but now all is well.

A short tale of how not to prepare the engine. My darling daughter decided that she would light the fire in our Lion. She filled the fire box with meths and charcoal omitting to connect the blower. She also forgot to light the first shovel full before loading the fire box. Thus when a flame was introduced to the fire hole there resulted a loud bang, flame shot up the chimney causing bystanders to retreat rapidly. Another fire ball escaped from the ash pan and the final fire ball came from the fire hole blowing all the contents off the shovel over the tender, causing even more bystanders to beat a rapid retreat. No harm was done and a lesson was learnt.

On our way home we discussed the events of the day and remarked how well Lion ran during the morning and to the 7 laps continuous running just before lunch. We felt that all was ready for the competition. It was later realised that due to running Lion for our local club the blast nozzle was changed to suit the up and down short distance running on the portable track. This was not changed for the meet and as a result when I started the first run in the competition with a load of one driver, one observer, three large passengers and a draw bar pull between thirty to thirty five pounds the coal fragmented and blocked first the smoke box then the tubes causing a loss of steam. After retirement we cleaned the loco and started again not realising the problem of the blast nozzle and Sarah's run was again affected by blockages in the tubes. Lesson number two was learnt. This did not detract from a most enjoyable day.



I thought of a caption competition for this one, but felt I'd only get a 'patchy' response!
Sarah and Bob Davies after the event. (Photo - John Hawley)

Note on our Lion.

Some time ago we were approached by our local newsagent and asked if we would help a customer's family to dispose of a model engineer's tools, work shop and models. We duly agreed to assist giving advice on where to advertise the goodies. On a visit to his workshop, the door of which was held shut by a brick, we found under a pile of junk a sad and dirty Lion. We were offered the Lion for our services along with a token payment which kept all parties happy.

When the Lion was taken into our workshop some parts were missing, others broken. Therefore a set of drawings were obtained along with all the articles from the Model Engineer starting 1953. It is believed that this Lion was built around this time as the family remember running Lion in the back garden as children. We have tried to keep everything as original, this will account for the general scruffy appearance as no refinements have been added. As you know, on its first outing with OLCO she won the competition.

We hope to see you at Peterborough next year (with suitable blast nozzle and safer firing methods)... Lesson three, as a safety feature we would now recommend the use of safety goggles for drivers as Sarah's experience, although painful, may be a lesson for us all.

From Keith Hickton
(This is a plea for assistance, so I hope for some replies..Ed).

Nottingham.

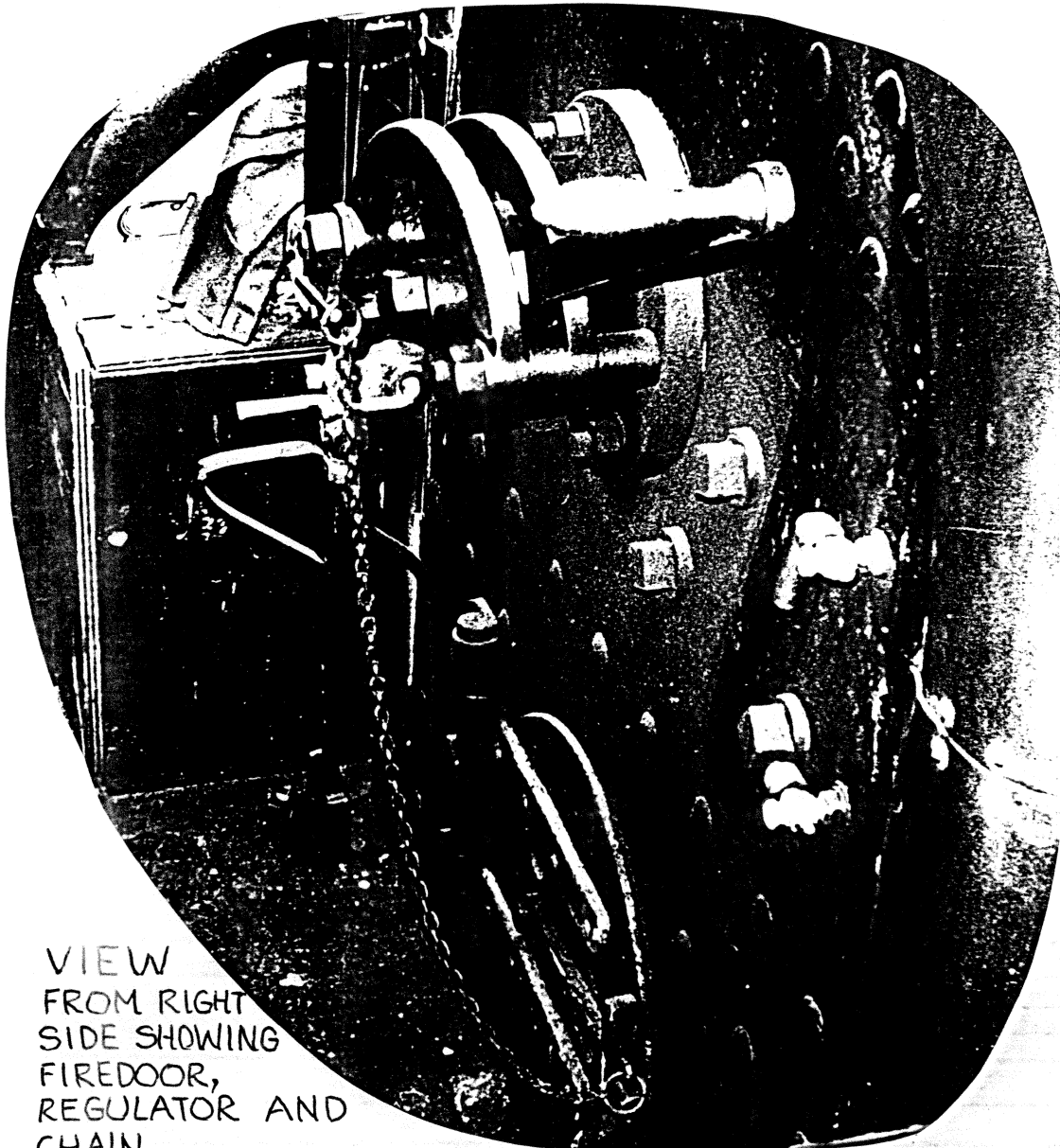
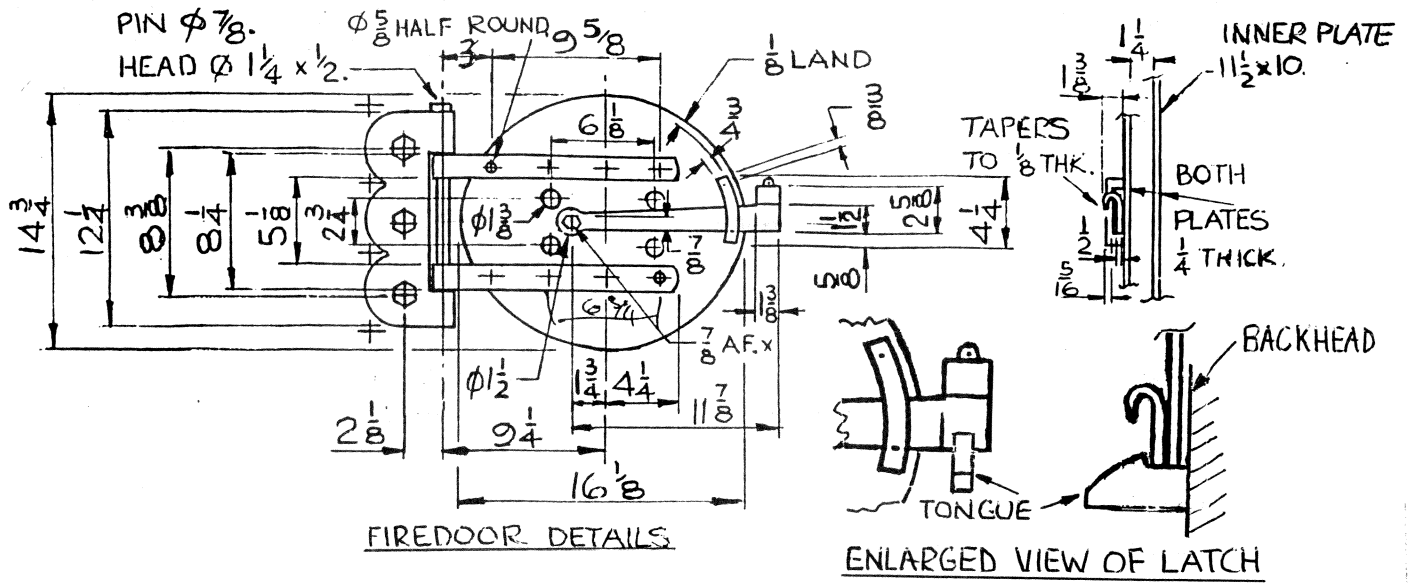
LBSC's drawing shows a spring clip on the fire box door. Is this correct?

The Nottingham Society will not allow me to run on their track with LBSC's safety valves, as they feel that the design is unreliable and therefore I must use a conventional one. Any help or advice would be appreciated.

In reply to your first question, Keith, the answer is 'No'. The mechanism for holding the door closed is a simple latch, rather like the old fashioned cottage door device. I show below the details I have

drawn up so far from my measurements of Lion and also a photo taken by Charles Taylor-Nobbs. This is not very good, due to being photocopied, but gives the general idea. I have no details of the 'tongue', which is fastened directly to the boiler backhead, but I have sketched a likeness of it. Note the chain. I hope this is of some help.

Now, would anyone like to help with the second query?



VIEW FROM RIGHT SIDE SHOWING FIREDOOR, REGULATOR AND CHAIN. (PHOTO CHARLES TAYLOR-NOBBS)

In the general discussion after the AGM, you raised the question of Loctiting wheels on to axles in full size practice. EFC commented that this was not allowed by BR as there was no proof of the force needed to fix them, and therefore no guarantee of security. I was discussing this with my brother, who does a lot of work on the Tal-y-llyn engines, on the way home. The two Fletcher Jennings locos, Talyllyn and Dolgoch, both have their wheels loctited on. Because the wheel centres are cast IRON, it is impossible to get sufficient resistance to press fit the wheels, the iron just stretches. In order to prove the security of fit, they are put in the wheel press, which is set to pull them off. Provided that they withstand a pull equal to the force that should have been necessary to press them on, the inspector passes them. Admittedly, with a top speed of 15 MPH this is not the same as a Britannia doing 90, but at least it shows it can be done.

You also questioned how to produce a blueish colour on the inside of the chimney top flare. Here is my recipe. Polish out all machining marks and finish with Brasso to a high polish, both inside and out. Assemble loco, and fill boiler to half a glass. Place on track, and light a fire in the firebox. Simmer gently until the pressure reaches 80psi (approx 10minutes). Ensure tender is full of coal and water, and that track is clear. Attach driving trolley, and sit on it. Thrash round for ½ hour at warp mark 6. Remove smuts from eyes and observe chimney. Repeat until desired hue is achieved!

The Cruel Train (See Lionsheart No. 36)

I have just watched this sordid tale of human greed, deception and murder. I had not imagined it to be quite so brutal, I must confess. I think the plot was believable though and there was an overall sense of desperation among those suffering the privations of war in what must have been pretty awful conditions. The atmosphere in "Brighton" and "Victoria" stations was well contrived, even though the train and platform lengths left a lot to the imagination. But what an awful end for my beloved Minnie Driver, who played Flora, the mute girl so hurt by the engine driver's betrayal of her affections.

Considering that the whole film was shot inside a factory building, the overall impression was pretty realistic. Not a sign of our Jan though.... Still, I bet it wasn't a patch on the original French film 'La Bete Humaine', with among others, Jean Gabin as the driver (Anyone know what loco was used in that film and where the film was made?).

Subscriptions

The OLCO financial year ends on March 31st, so subscriptions are due on April 1st. We do hope you can stay with us. I have added a separate slip in with this issue for you to complete and return with your remittance. We are always on the look out for new members, so please pass on our details to anyone who you feel may be interested. If you know anyone who has a Lion planned, or partly built, point out that we have a host of information on Lion herself, drawings, sources of castings, nameplates, the wooden lagging, history, photographs and so on. For those who have completed building, we have our annual Lionsmeet competition, (see report in this issue). Membership rates have not increased for some years(since 1993 in fact), so you are getting better value for money as time goes on.

Subscription rates are as follows-:

- Individual..... £8.00
- Family..... £10.00
- Institutions..... £15.00

On the Titfield Trail

On the Sunday after Lionsmeet, a small party of us met up at The Titfield Thunderbolt pub, at the junction of the B3115 and A367, about three miles from the centre of Bath. We went to visit the old Camerton branch line upon which the film Titfield Thunderbolt was shot, back in 1953. We were surprised to find some of the bridges carrying extremely narrow country lanes over the old trackbed to be in very good condition, some being filled in, it must be said, if the bridge was over a cutting. We also found the remains of the old Somerset coal canal.

Our first nostalgic stop was at Midford, where as the film opens, the Bullied hustles over the high level viaduct with the local train to Titfield passing below on its own almost small scale viaduct. Both these still exist, though of course, with drastic changes. The smaller structure is 'sawn off' at each end, while the larger, though complete, ends in a pub car park! I cannot work out though, where the camera was sited for this shot. Further on, near Monkton Combe, Beales farm, where there was the mad panic for water containers of all sorts, is visible across the valley. Just below the farm is, I'm sure, the field in which at one point in the film, a horse gallops along with the train. On 'our' side of the valley, as we look at the farm, can be seen the line of the railway and the site of the water tower which the opposition peppered with shot. The trackbed is neatly grassed for a short stretch! In Monkton Combe itself, the as new cast iron posts upon which swung the gates to the station are still in existence, rather sadly flanking a modern up and over garage belong to a nearby private house. I found the church and a tall chimney, but could not make them fit the film. It was while we explored this village that we met with the Bates family, on holiday from Cleveland, also on the Titfield trail. During conversation, they told us that filming had also taken place in Freshford. I was sceptical, believing firmly that the village of Titfield was Monkton Combe. Anyway, we parted, each going in the opposite direction and telling what to look out for.

Our next stop was a road viaduct on the A36, spanning the Midford Brook at the bottom of Brassknocker Hill. The cricket pitch on which a game was interrupted as the 'Thunderbolt' passed by is still used for the same purpose by Monkton Combe school. A few yards from the viaduct is the Bath - Salisbury main line, which the 'Titfield' branch line joined at this point. Standing near the site of the junction and looking back, one can see the viaduct on the left, the branch line bridge coming through it on the right and between the two, the short hill down which the Pearce & Crump coach raced the train on the way to the public enquiry at Mallingford.

We finished off the day with a visit to a bookshop situated in the now disused Limpley Stoke station. The shop is known as - yes, you've guessed it, The Titfield Thunderbolt, run by Simon Castens. He carries a wide range of publications, mainly railway, but also maps, cards, books on local walks, etc. Tel 01225 723039 for a newsletter and booklist. All in all, a very satisfactory day of exploration.

It was several weeks later that I was in the area again, getting inspiration for this article. I still could not match the church and chimney to the film, but they are so much part of it, with those commuters coming out of every doorway and alley. I had to search further afield and thought I would try Freshford, just in case. I could hardly believe it. There, on an unpromising corner in the village, next to the church, were the very opening scenes from the film. Standing on one spot, one could look down the hill to the house with the porch with, on the right, the prominent stone gateway. Turning through 180, with the church steps and lantern on the right, was 'that chimney' on the skyline. It's still there! Unspoilt! You can almost sense the bit part players in the film lurking just out of sight, waiting for the moment when they emerge from their homes and make for the station. This view is of course the very opening scene of the film. I had wanted to put it on the Christmas card I sent you, but the shot was a bit dark and by the time it had been scanned into the computer and printed, the chimney was almost invisible. So I used the next best thing, the view in the other direction, which is shown seconds later in the film. I take my hat off to the Bates family. They were right all along. Incidentally, opposite the prominent gateway is a lane which really does lead down to a station - Freshford, where one has to flag down the train by hand. It's that 'local'.

Jill and I explored the village, but could recognise no other parts from the film. Inside the church, though, the visitors' book tells a story. There are several entries - "In search of Titfield", etc. It is a beautiful, quiet place - almost unchanged since the film was made and in a lovely part of the country. Come and visit one day. Give us a ring and we'll show you round.

Lionpower

by Mike Parrott

Perhaps the area where I have made the biggest departure from the LBSC drawings is the valve gear. The first and most obvious departure is that the reverser is moved to its correct position and operates 'back to front'.

However, there are a lot of subtle differences hidden away under the boiler. I think it is quite well known that the LBSC version is a mechanical nonsense, and is virtually incapable of being reversed. The main problems are that there is insufficient vertical clearance between front and back gear rods to allow one to disengage before the other tries to move the rocker pin into its new position, and that the back gear lifting links have a very large angle of swing. I think it was L. Saxby who first wrote up his modifications to the gear in Model Engineer. He solved the problem by making the fore gear lifting links longer, giving more space between the gabs. I have also found it necessary to move the weighshaft further back and lower down, to equalise and reduce the angle of swing of the backgear lifting links to more reasonable proportions. This does put the weighshaft in a rather vulnerable position, as described last time.

The other major weakness of the LBSC design is his support of the valve spindle. This is only supported by the gland at the rear of the steamchest, and is subjected to considerable up and down thrusts from the die block at the top of the rocker. L. Saxby suggested enclosing the top of the die block slots, to increase their strength, which I have done, but I have also extended the valve spindles back and provided additional guides. These comprise angle irons bolted to the inside frames, with $\frac{1}{4}$ " diameter bore brass bushes fitted to guide a rearward extension of the fork around the dieblock. The front of the fork is tapped oversize for the valve spindle, and a differential threaded bush is used to give infinite adjustment of the rod length for valve setting.

Because I have a device for milling large radius curves for expansion links, I used it for cutting the little parallel section of the slot in the gabs. This ensured that all four rods are the same length from centre of eccentric to pin, and also that as the gabs rise and fall on the pins, the length is unchanged. The variation with straight slots is not significant, but as I had a simple means of eliminating it, I did!

It is the eccentrics themselves that are the most revolutionary part of the design (pun intended!). The only visible differences are that the joint line in the strap is inclined at an angle, as per full size, to give a lot more clearance under the boiler, suggested to me by Charles T-N, and that the oil box is underneath. A long time ago I came to the conclusion that the biggest cause of wear in model locomotives is people oiling them. That should have upset a few tribologists! But think about it for a few moments. How do we actually oil our engines? The rod ends and eccentric straps are usually designed with an open oil well on the top. Because it is so cramped under the boiler, it is impossible to clean the rods. We then poke the end of an oil can into the gloom and hopefully squirt some oil into the hole. Some will probably go in, but it will also take a load of grit and ash that has been blown up off the track with it. What actually gets into the bearing is in fact not oil, but grinding paste. So if we didn't have to oil the bearings, they wouldn't wear out so quickly. Fortunately, a friend at my local club showed me how to get round the problem. The solution is to use ball bearing eccentrics. These are quite easily made, as follows.

Start by making the strap, split and bolted back together in the usual way, with embryo oil box underneath. In order to ensure a truly circular bore, the strap **MUST** be clipped to the faceplate, not held in the four jaw chuck. I used a piece of plate bolted to the faceplate, with small dog clamps to hold the strap. Bore out to size, and then in the centre of the width, bore a semicircular profiled groove. I used $\frac{1}{8}$ th balls, and theory says that the groove should be 10% larger than the balls. The tool therefore needs to be 0.137" diameter. If you don't have a cutter grinder, don't despair, a slice of silver steel brazed to a mild steel shank works quite well. You may have problems with tool chatter, in which case it is permissible to move the tool sideways a few thou as the cut progresses, coming back to centre for the final depth. Try and get the depth exactly half the BALL diameter, and a good smooth finish.

Because I was retro-fitting these on my Lion, the sheaves had to be split, which makes life more complicated. The two halves are tongued and grooved about their vertical centre line, and then superglued together. Then bore and keyway to suit the axle. I put the keyway on the joint centreline, and cut four keyways in the axle. It should be possible to cut two keyways in the axle in line with the crank, and then offset the keyway in the sheave to make pairs of sheaves, as is often done for Stephenson's gear. This is probably easier if you are making solid sheaves. A jig is now needed for turning the outside of the sheaves. Again I used a piece of plate, this time with a stub of axle material sticking out of the face. Key the stub into the plate, and extend the keyway out into the projecting part. It must point truly to the axis of rotation when the jig is set with the correct throw. Each sheave in turn can now be bolted to the jig (drill for one bolt in each half of the sheave, and use countersunk screws). Turn them down to 5 thou in diameter less than the straps, to ensure that it is the balls that take the load, not the narrow lands either side of the groove. It was at this point that I had a minor disaster making my sheaves. I went straight on to turn the groove in each sheave, but because I was using cast iron, as the cut got deeper, the first sheave snapped through the bore and bits went flying in all directions. I therefore had to bore a recess about 15 thou deep in the face of the jig, and make a cover for the outer face also with a recess 15 thou deep, and a deep centre on the other side. The recesses should be a tight fit on the sheave, and the whole unit can then be clamped up with a live centre in the tailstock. Thus secured I was able to complete four sheaves. I agree that it doesn't leave a lot of room for turning the groove, but there is enough. Turn the groove half the ball diameter, LESS 5 thou. Use the straps with balls in them as a gauge when you get close. Aim to have the groove marginally too small rather than too large, as this will give a slight pre-load to the bearing, resulting in a really smooth action. If you do overdo it, then file or machine a whisker off the joint face as if it was a conventional strap. That is another good reason for machining the sheave with clearance!

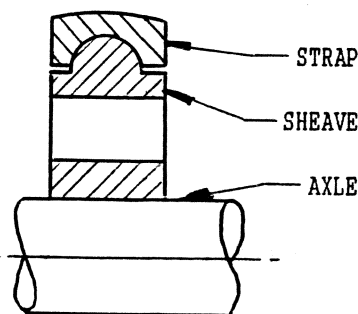
To complete the oil box, drill a blind hole and tap 6BA. From the bottom, drill the smallest hole you dare, aiming to break out into the SIDE of the groove, so the balls don't run over the hole. Fit a 6BA grub screw to keep the dirt out. I lightly grease them once a year, and after two years running there is no wear. It is most noticeable that they remain clean as they are not covered in sticky oil.

You may have realised that I haven't said anything about how the two halves of the sheave are secured together on the axle. Quite simply, they aren't! They rely on a good fit in the tongue and groove, and the strap. Because there isn't any wear, they cannot open out and override the key. The key ensures that they cannot slip on the axle, and also sets the valve timing. If you do happen to get a wrong angle on either the axle or a sheave, the key can be made with a step in it to correct it.

I hope that by now you have worked out why the oil box is underneath the strap!

I think that completes the description of the more interesting points of my Lion. I had hoped that there would have been some comment from other builders on how they had overcome problems with their models, but so far there seems to have been a deathly silence. I certainly do not claim that my solution is the only way to do it, and in fact several of the ideas have been cribbed from other people. I look forward to hearing other peoples comments.

I don't know how intimately Mike knew the details of Lions eccentrics, but he is remarkably close to the truth, in the geometry at least, if not in the actual mechanics(See sketch). I have measured and seen Lion's sheaves and straps. In cross section, the shape of the strap is as though ball bearings were intended. Of course, the object is to prevent sideways movement, but I would have thought that a square profile would have done the job just as well and been easier to machine. Why is the section semi-circular? Do any of our older, wiser colleagues have the answer? Ed.



On the point about other builders' comments, I hope that Mike's Lionpower articles will encourage others to write in. Now that Lion is out of steam for a while, we are tending towards the modelling side a bit more and our membership list reflects that. We have had Geoff's 'Notes on a 7 1/4 inch Lion'(Lionsheart No 31), Jon's 'Lion's Chimney' and Desmond's Proposal for Lion's Front Axle(Both in Lionsheart No 40). Desmond has sent me another, which will appear in the next issue, but that's about all. I will stick my neck out and have a look at laser cut coupled wheels as a topic.

The Editor's Bit.

I cannot apologise enough for the excessive delay in getting this publication out. It was intended before Christmas, but pressure of work in other directions started to cause the date to 'slip to the right'. Then there was the awful news about Mike. Finally, my old and trusted BBC computer gave up the ghost and I've had to arrange access to a modern machine. I was fond of the Beeb, but I'm now getting used to the alternative and it has some good points, even though the software is a bit long in the tooth. The good news though is that I can take letters from you on 3 1/2" disc, in Microsoft format, I understand.

With regard to the promised article on The Titfield Thunderbolt, I realise that it's too big a project to slip in just like that, so it will come later.

OLCO AGM '97.

Our Annual General Meeting is on Saturday, May 10th at Liverpool Museum, in a room right next to Lion herself. The meeting is in the afternoon, but we will finish in plenty of time for the return journey, although we are planning a visit on the Sunday for those who would like to make a weekend of it. We will be taking advantage of the 'Live it up in Liverpool' offer of reduced hotel rates and half price admission to many attractions in the area. Phone 0151-708 8838 for an information pack. This year we must elect a new Chairman and Treasurer and there are some proposals we wish to put before you regarding subscription rates, etc., so do come and exercise your vote, meet other members, see Lion, Liverpool and a host of other things. More information closer to the date.

Lionsmeet '97.

Our annual get together and 'thrash' will be at the track of the Peterborough Society of Model Engineers at Thorpe Hall, Longthorpe, just off the A47. Again more details nearer the time. This is another of our events that is well worth coming along to, especially if you have or are constructing a Lion. If yours is finished of course, join in the fun and have a go for the Trophy.

For Sale

7 1/4" Lion chassis, by experienced model engineer. Virtually complete in every detail, save tie bars between horns and horns and flitch plates. Needs painting. Based on LBSC design, with gab gear. An ideal opportunity for those who wish to get mobile quickly, this represents the saving of many hours work. The owner, Mr Bell, may be willing to exchange for narrow gauge equipment. Tel: 01527 857034.

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MEMBERSHIP RENEWAL/APPLICATION

I hereby apply for membership of OLCO for the year ending 31st March, 1998.

Name.....

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Remittance enclosed.. * £8.00. Individual Membership.

*Delete where * £10.00. Family Membership.

inapplicable. * £15.00. Institutional Membership.

New members please note - There is no joining fee.

(Cheques should be made payable to the Old Locomotive Committee, not to individuals).

Main Interests(New members):

In order that we may have some idea of OLCO members' interests, we would like to hear of your current project and scale or whether you have an existing model, either finished or under construction. This information would, of course be treated as confidential. However, feel free to write an article, no matter how short, for inclusion in the newsletter if you so wish.

Current Project and Scale...

Current Model and Scale.....

Please send this completed form, with your remittance, to: Mr G E Wright,
Treasurer - OLCO,
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Orchard End,
Weybridge,
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THE LIONSMEET VIDEO

I would like to order a copy of the Lionsmeet Video @ £7.50, including Post and Packing.

Cheques should be made payable to: THE BURNS UNIT CHARITABLE FUND.

Please send your cheque to me, John Hawley, at: Rock House,
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On receipt of your remittance I will despatch the video to you, with a receipt and forward the cheque on to Morriston hospital.

