The Chairman's Notes

We are in the process of obtaining a strimmer and lead for use at our Finchley headquarters. This will allow those members who are in regular weekly use of the building to keep the weeds at bay without getting equipment from Colney Heath.

I would like to congratulate the Marine Section on arranging the vintage model boat day at Colney Heath. There were some lovely boats in operation and lots of nostalgia.

The Garden Railway Section had its first open day, which saw a number of visitors and a super collection of visiting locos. Although our new layout was a success we were able to identify where some improvements need to be made and these will be put in hand this month.

The Loco Section ran a very large and successful party and it was a credit to those who organised and took part in running it.

The steamroller has successfully taken part in two rallies and a twenty two-mile road run with the "Big Juniors" who are now large enough, old enough and licensed enough to steer it on the road. Ian, Alex and Peter have all done a great job on its smart appearance and shown great attention to road safety. We were also happy to provide tea for a total of fifteen society members at one rally and twenty-three at the second.

Its a busy time of year at Colney Heath and much effort goes into keeping the site tidy, so thanks to all those who put the effort in. Without these members who refurbish and maintain it, it wouldn't be nearly as nice to be at Colney Heath as it is.

On a final note, our Garden Railway Section Leader John Milloy is in the throws of moving to Staffordshire to live the rural life with his daughter and on behalf of us all I wish him well in his new home. As a result John has stood down as GR Section Leader and I have been elected to take his place. So in my capacity as GR Section Leader may I thank John for the considerable amount of time and effort he put in to the creation of our very successful Garden Railway Section. John has decided to keep up his membership and we expect to see him running his locos at Colney Heath from time to time. So its goodbye John, good luck and see you soon.

John Squire

Secretary's Snippets

The Society has received the June Newsletter of The Southern Federation of Model Engineering Societies. It is on the notice board in the Colney Heath carriage.

We have also received details of:

The Bristol Model Engineering and Hobbies Exhibition on 15, 16, 17 August.

A weekend event at the Frim1ey Lodge track on 15,16, 17 August. We are spoilt for choice!!

The much-needed refurbishment/rebuilding of the catering facility at Colney Heath is progressing well.

David Harris

Treasurer Twittering and Subscriptions

Not much to report on the finances. The usual expenses are rolling in and we have nearly finished collecting subscriptions.

At the time of writing we still have a number of subscriptions outstanding.

Bernard Lambert

From the Membership Secretary

This month we have one new member to welcome.

Brian Church,

Bernard Lambert

Marine Mutterings
by Bernard Lambert

First the good news – the Vintage Toy Boat day was a great success. For a whole day the Lake was occupied by a fascinating collection of ancient model boats. A full report by John Morgan appears elsewhere in the News Sheet.
Now the bad news – blanket weed and other unwanted algae have re-appeared in the Lake. Algaecide has been ordered and by the time you read this the water should be crystal clear again. Enjoy the boating.

Bernard Lambert

Vintage Model Yacht Group Visit 25th May 2003
By John Morgan

Back last year Bernard was approached by David and Graham of the Vintage Model Boat Group with a possibility of being host to this group who do not have any water of their own. In fact the members are scattered all over the southeast - more of an association than a society or club. They visited us and announced that our lake was ideal for their, mostly, uncontrolled models, all sides having access and not vary far to walk. So a date was eventually fixed for May 2003.

Having an idea of what was to arrive at Colney Heath was not really of any use. Once the two David's, Brenda, Trevor, Graham, Vic and Anthony were in place with their collection, the mind just, well, boggled! 65 models from 1920 to 1947 and 4 built in the 1980's and manufacturers, I have to confess unknown to me, like Bowman from Luton, Sutcliffe and Southern Junior Aircraft Co (!), who produced a 1948 steam speed boat.

The Star Company, of which I have heard for their sailing boats, also produced clockwork-powered models, a speedboat, diving submarine (called Unda-Wunda! And yes it really worked.) and fishing coaster were on display to prove it.

The examples from Bowman included an electric and steam speedboats, a 1931 Seahawk and 1948 Seajay. Their steam engine was a unique design, with fixed cylinders, not an oscillator, but no slide valves either. So how did it work? Easy the pistons rotated as they moved up and down, exposing each inlet and exhaust port in turn. All the steam plants in these vintage boats were meths fired.

Hornby and Triang were represented, of course, fine examples - cabin cruiser and liner. Unexpected, well by myself, a Stuart Turner 1926 steamer, a Mamod powered speed boat circa 1947 and two Basset Lowke electric speed boats.

Examples from overseas included a 1920s Czechoslovak electric speed yacht, two 1980s radio controlled Italian made US Navy ships and clockwork models from America. An electric oil tanker from Texaco, yes the oil company, originally for display at petrol filling stations. For those who had no water to play with, it came fitted with 4 road wheels!

Prices have now gone completely mad, forcing many collectors to abandon expanding their collections. Boats that used to sell for £40 now demand 3 and 4 times that. Even the stands used by retailers to display Sutcliffe models that were sold off for just £1 now have a £80 price tag!!!

The members from the VMBG were obviously very enthusiastic about their hobby, very knowledgeable and energetic(!), chasing, turning and collecting their items. However in the afternoon they had not a little help from the young visitors, nice to see. At one time I counted 19 boats on the water, none controlled by radio.

Our visitors were extremely impressed with our site and its amenities expressing an eagerness to return next year on “two or may we have three” Sundays!

My only disappointment is that more North London members did not turn out to support our guests, not necessarily with their own models on the water, but to have a look at the collection. If it was not for the general public in the afternoon it might have been embarrassing.

Tyttenhanger Gazette
by Roger Bell

The June Loco Meeting was held at the track as a barbecue and running evening and without a specific topic to report, I write these notes as much for perpetuity than content.

It was a bright sunny evening and four steam locos ran on the main line. Smaller gauge interest was reflected in one steam and one battery loco running on the Garden Railway. The paint finish on the commercially built loco always seems to outshine those on the main line. On the lake, two craft manoeuvred under radio control whilst we enjoyed chatting in groups and sharing our common interest.

I find that it does not matter how long one has been associated with engineering there is always some new useful tip one can learn. I picked up one that evening and so will pass it on. Suppose two pieces of sheet material have to be joined together without any fasteners being visible: clamp the two pieces together, drill through and tap for 10BA with a taper tap that does not pass right through the hole, so that the screw locks up tight in the hole. The screw can now be filed flush with the metal both sides and one has an invisible join.

Tyttenhanger Committee

At the May Loco Section the six members who will represent the Loco Section on the Tyttenhanger Committee, were elected.

On the 3rd June 2003 the new Tyttenhanger Committee held its first meeting, when it was decided that the Committee needed to report back in the News Sheet on a regular basis: hence this column.

- It has been drawn to our attention that the pond currently has a small problem with 'blanket weed'. Efforts are in hand to obtain some pond cleaner which should eradicate the problem before it gets out of hand.

- The Society is still holding birthday parties on certain Saturdays each month, and with Ian M organising the successful running of these.

- Each year the Loco Section has invitation days at Colney Heath for some of the Societies around the country to visit our track. With this in mind the Tyttenhanger Committee has started to organise these dates for the 2004 running season. It is proposed to have an invitation day, an invitation weekend, and a weekend for the Society to celebrate our 60th Anniversary. The dates are still to be confirmed so watch this space.

- Now that we have the Ground Level track up and running with it being successfully used on Sundays and at birthday parties, the Tyttenhanger Committee are investigating the acquisition of some 71/4" passenger cars. More details will be published as and when they become available.

- The Tyttenhanger Committee is pleased with the progress, which has been made at Colney Heath in general but would like to thank in particular Allan Hudnott for his efforts on the Class 37 body shell and Peter Weeks for his efforts on the coach and station canopy.

Donal Corcoran

Slot Car News

By Steve Francis

It has been a busy time for the Section recently, with the National finals in May and our very own Walmington team travelling to Holland for the second round of the European Endurance championship. (The report on this will appear in next month's News Sheet –Ed.) On the home front racing is well under way at our club track and trying to learn the fastest way round on the still slippery surface is proving quite a challenge. Talking of the Nationals congratulations go to Paul Harwood for winning the Saloon championship and his brother Greg for the F.1. Championship. Greg also won the constructors championship for all his hard work in building the winning cars. The fortnightly Scalextric evening will start up again on Fri. 20th and it will be

interesting to see how they perform on the new track. Dig out your old cars from the loft and come and join in the fun. We have just returned from a very hot Le Mans with Dan, Tony, John and myself celebrating Bentley's one- two. A good weekend was had by all and especially Dan as the team he works for won the GT class with a Ferrari.

John Secchi has added another date to his excellent Tottenham Retro races. It is to be on July 13th. and all are welcome at Headquarters. Doors open at 7.30 am

Calendar for July
3rd. 1/32 Team race
10th Saloon
13th Tottenham Retro
17th Fl and production
20th Scalextric
24th Sports
31st 1/24 Gp 12

Editorial

At the risk of sounding like advertising, I nevertheless thought it might be useful to pass on the following couple of bits of information that some readers may find useful.

Doug Hewson and Winson Kits

I've recently been looking for a couple of ready-made dummy mudhole doors for my B17. This is in line with my policy of never making any fittings if I can buy them off the shelf. Doug Hewson's catalogue is always on my list for searching and sure enough he had them. In 'phoning him I found that his, although for 5" gauge BR standards, might just do the trick if I bashed them about a bit. (And so it turned out).

Now Doug is one of those most pleasant of gentlemen who is only too willing to talk model engineering and is completely free with advice, help and goodwill. In our conversation I learnt that he is taking on Winson Britannia kits, at whatever stage of completion and is prepared to sort them out so they run and look like scratch-built locos. Doug is a specialist on the BR standards and he can fit all his detailing bits and pieces to achieve this high standard although it is not essential to have everything. He mentioned fundamental faults which mean that on the Britannia the valves cannot be set correctly straight out of the box. Not only does he sort out Britannias, he will also take on any Winson engine and put it right.

Incidentally he mentioned that the new company – Model World – is totally different to the old Winson one – 'like chalk and cheese,' he said. Now I know that some members of the Society have some experience of the new company's workmanship so I would still advise asking around for several opinions before committing yourself. I asked Doug about his prices and he replied, 'You can't get your car serviced for £20 an hour and that's what we charge.'

A Railway Screensaver

In updating my computing facilities I've hit upon and set up a new and delightful screensaver. In fact it's so good that I'm in danger of spending my time watching it instead of getting on with News Sheet work.

The programme can be obtained by logging onto: http://www.railway32.ndo.co.uk and the website is called Railway 32 by Mark Goodspeed. Its a graphics programme and you are observing passing trains from the lineside. The web site gives you a demo version of it which in order to be a proper screensaver you need to buy for about £9. (Please don't ask me to give you a free copy because I believe everyone should be paid for their work and that includes even computer software authors!)

I think the £9 is worth it because most screensavers are pretty boring things and this definitely is not. Furthermore, not only are you purchasing the basic core module, which admittedly, as its name suggests is a bit basic, but you then have the option to download additional modules which are in an altogether superior class with scenic backgrounds such as, UK Steam, UK Modern, UK Narrow Gauge and USA. From the UK Steam module for instance you can download the following scenes at present: A GWR branch scene, an LMS Jinty, Metropolitan 4-4-0 and electric locos, Mid Hants Railway showing all four stations, Grayrigg, Rugby Central, North Eastern steam and diesel, Challow – a GWR station, Hull Paragon and to me the best of all, South of Grantham showing High Dyke and Kings Cross.

Even though there is plenty to criticise from the purist's viewpoint I defy any railway enthusiast to find this screensaver anything other than fascinating. And by the way, ignore comments from computer anoraks like, 'Only a railway enthusiast would pay money for a screensaver!'

Good points

1) The notes say there are over 40 different locos, although I would say there are many more than this.
2) You can while away hours just sitting 'trainspotting', looking at your screensaver!
3) The locos and trains appear randomly and so do the scenes so you don't easily get bored.

Bad points

1) The programmes are quite big in terms of taking up disc space (e.g. South of Grantham is 1420K). Certainly you will need to ensure your computer is 'man enough' to handle them.
2) I have found that the screensaver will hang, (and therefore become not a screensaver) if you have loaded all the locations (or it may be caused by just one of the modules) so it is best to load one or two locations at first and add to them until you find a problem. Swapping to new programmes is an option when you get bored.

3) I couldn’t download the thing properly myself, being somewhat computer illiterate, so you too may need a friendly ‘computer expert’ – usually found in most families these days.

Additional Comments

1) Woe betide anyone who accidentally knocks your mouse while you’re waiting for an East Coast express to pass High Dyke.
2) Instead of relaxing in your garden in the summer sunshine with a beer in your hand you find yourself indoors in front of the computer with a beer in your hand.
3) The screensaver can invite ridicule from other family members, especially wives.

Final Verdict

A fascinating timewaster.

Grahame Ainge

Insurance Services

The Society has received the following details of insurance services offered by the Southern Federation of Model Engineering Societies. Any member of the NLSME wishing to extend their own personal insurance cover may contact the Southern Federation directly.

David Harris

I say, I say, I say

"Doc, I can't stop singing 'The green, green grass of home'."
"That sounds like Tom Jones syndrome."
"Is it common?"
"It's not unusual."

A guy walks into the psychiatrist wearing only cling film for shorts.
The shrink says, "Well, I can clearly see you're nuts."

Two hydrogen atoms walk into a bar.
One says, "I think I've lost an electron."
The other says, "Are you sure?"
The first replies, "Yes, I'm positive..."

I went to buy some camouflage trousers the other day but I couldn't find any.

A man walks into the doctor's.
"What seems to be the problem?" asks the doc.
"It's... um... well... I have five penises." replies the man
Blimey!" says the doctor, "How do your trousers fit?"
"Like a glove."

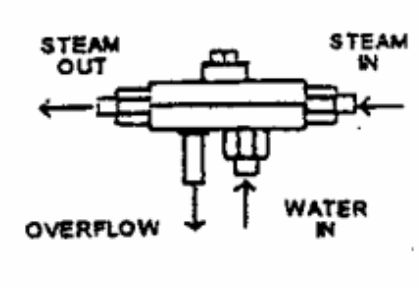
Supplied by Jim Robson

The Trouble with Injectors!

The running season for the Loco Section is now in full swing and with it the usual crop of drivers with injectors either ‘ playing-up’ or plain ‘not-working’. It is fortunate for us that Frank Hills during the ‘closed season’ read a couple of contributions in ***The Lobby***, The Journal of the Brighton and Hove Society of Miniature Locomotive Engineers, which he felt will be of interest to members. Frank, a member of the Brighton and Hove Club, obtained permission from the authors and the notes are gratefully reproduced here.

The extensive notes are by Eric Masters of the Brighton Club and really do address the problems in detail and in a very readable, most authoritative way. I particularly recommend these articles because I too have had many injector troubles. I had a problem last season which was not due to any of faults mentioned. After trying everything including blaming my wife, I found that a union in the injector water line was not properly done up and air was therefore getting in. This problem is generally not mentioned in advice about injectors, probably because no one expects a model engineer to be so stupid! (Ed)

Injector Problems
by Eric Masters



When I received the last copy of The ***Lobby,*** I read the little snippet on injector problems with some trepidation and, good as it is for initial diagnosis, it only scratches the surface as far as the non-working of injectors on our miniature locos are concerned. To a point, these so-called tips are a bit of a smokescreen to mask one of the biggest causes of an injector problem when you find that it does not work when you first buy it. To date, I have not yet managed to buy a good working injector in four attempts in the injector market, know another club member who bought an

injector from the same source. It did not work and he never did get any satisfaction. I tried it on my loco and on my rig and it still did not work. So, to my mind, 40-50% of the injectors that do not work, never worked when you bought them. I think the main cause of this is that the manufacturers only test a small percentage of their production. One can understand this. It is very time consuming to set up and test an injector on a rig and if we insisted that they were all tested before dispatch they would cost a lot more money than they do now. Having disposed of probably the biggest single cause of injector frustrations, what about the loco induced ones?

1. Insufficient Water

Let's take item one on the list of checks. The advice is, "hold a container of water above the loco so that you can see the feed working". That will only prove that it will work for the time it is flooded - it's only half the test. When you have satisfied yourself that it works flooded repeat the test with the container of water lower than the injector. If it will not pick up in a dry condition, it will not lift and in sonic instances this is trouble. I will explain. I have done a lot of tests on this; let's take the worst scenario. Using a 26oz injector, the size most people seem to go for, it needs a pint and a quarter of water for every minute it is feeding. Try putting a container of water with an outlet through a 3/16th. pipe as used to feed your injector and measure the amount of water you get through in one minute in your wife's kitchen measuring jug (but don't tell her if you value your model engineering days). You will be lucky to get 8-10 oz. So how does the injector get the other l6ozs? It's got to be a lifter, or in other words produce a vacuum or suction to get those l6ozs and it is vital with a long flat supply such as a tender engine. The only remedy is to put the water on first and wait for the injector to flood before turning on the steam. In a number of cases, with either an air lock or slow delivery, if you do not wait long enough for the injector to flood and turn the steam on, it will not pick up. The result is you get a jet of steam out of the overflow: a case of a half-working injector.

2. Check Valve

Item two. As to this check I can only say one thing, remove the ball from the angle check valve on the side of the boiler and fit an inline clack in some inconspicuous place in the feed line. You may ask 'Why is Eric saying this?" Well, if you have ever dumped your boiler full of water back through a faulty clack, or seen it happen to someone else, you will know why. The reason for this with injectors is that, with a pump feed, the ball is pulsating up and down in rhythm with the pump feed stroke. With an injector, once the feed starts, the ball is suspended in the air on top of the water and, if the injector knocks off suddenly, the boiler pressure can smack the ball against the clack side wall and stop it returning to its seat, so letting your water past and there is not much you can do about it except try to block the overflow pipe with something. Of course, not all clacks are likely to malfunction in this way. The ones most at risk are those where the ball seat is fairly level with the outlet, or has too high a lift. Clacks for injectors are not suitable for pump feed and vice versa, pumps need a higher lift. There are no working boiler mounted clacks on my locos. They are all dummies.

3. Insufficient Steam

Item three. This is an easy check. Just uncouple the steam feed pipe from the injector and open the steam valve. I think this is a fairly unusual fault except in the case of a first time steamer where silver solder and flux hanging about can block pipes. I've been there, I am sorry to say. There is a simple remedy for this. Blow, through your new pipe into a cup of water to check it is free before fitting it to the loco. If there is a suspicion that the steam supply is not quite what it should be, an answer could be to fit a slower feeding injector. They don't need so much steam. It may get you out of trouble. That also holds good for a poor water supply.

4. Injector Will Not Run Dry

Item four. In this one I reckon the writer is being somewhat cagey. He starts off by saying "in some cases", but what about the one that he fails to mention; that there is a fault in the manufacture or design. Too much water is getting into the "works" in the first place; the steam supply cannot digest it all, so it dumps it out through the overflow. In this case, if you increase the steam supply to digest the water, the delivery cone would be overwhelmed, with the same affect; water dumping out of the overflow. There is no quick cure for this. It requires a change of steam cone O/D where it enters the combining cone. This will reduce the annulus between the two cones to restrict the water - not for the faint hearted.

5. Overflow Water Sprays Out
6. Overflow Water Necks Down

Items five and six. I think these two items are one and the same thing and are two stages of the same cause. This is the opposite of No 4, that not enough water is getting into the 'works' and is caused by the annulus previously mentioned in item 4 being too small. It is possible, in some cases, to cure this by the use of shims between the steam jet and the injector body, say 10-15 thou. but this also affects other parameters such as range and pick up pressures. You are quite likely to cure one problem and cause another. Those are not the only causes of failure of new injectors. I am certain there are more and of course the worst one to try and cure is a combination of problems, which, in their own right, only cause poor performance but, in combination, result in failure.

I will now deal in what I think is the cause of injector failure in which it works perfectly well on the rig and lifts but will not work on the engine and of course they are all the straightforward ones in items listed. But what about the ones that are temperamental, that work sometimes but not others. I would put these into two causes why they possibly fail.

The injectors that start the day reasonably well then performance falls off until they will not feed at all, these are the ones you see drivers pouring cold water over in an attempt to make them work, sometimes with a fair amount of success. This is mainly an exclusive pastime of tank engine drivers and can easily be cured by feeding the injector from a separate supply on the driving car. So, what causes it to happen? An injector has a range of parameters, one of which is the temperature of the feed water it can handle. Several years ago Laurie Lawrence, an acknowledged authority on

injectors, described how to make them over about 15 articles in MODEL ENGINEER, at the end of which he published figures of injector performance he could obtain on the rig. He also asked three or more other prominent model engineers to make some to his instructions and he compared the performance of those against his. No-one could get near Laurie's figures but it did prove that any fairly competent model engineer could make successful injectors. The figures for Laurie's injector were that it could feed up to a water temperature of around 108^0F and that was with expert manufacture and on ideal conditions on a rig. I would guess that the true figure for home manufacture and the mass production methods of our suppliers is much lower that that, probably around 90^0F. Some years ago I took some tests of water temperature from my domestic tap after running it for a while and I was very surprised to find it was around 70^0F in the summer. This told me that I only had an effective range of 20^0F for feeding on my loco, so after running a while with my Sweet Pea I tested the water in my top tank. It was quite tepid and was over 120^0F. No wonder I could not get the injector to feed. I worked out the effect the Sun had on my top tank and came to the conclusion that it worked out to about a 300-500 watts electric fire Now I know that was very hit and miss and that those figures are open to challenge and I would welcome figures from others. There is, of course, the effect of radiation from the firebox on a bunker tank and the boiler in general on the side tanks.

I am sure this is the problem of a breakdown in feed with our injectors. In a nut shell, the feed water is too hot and that is where holding a container of water above the injector to test it falls down, you fill the container up from the cold tap, it's not a fair test it only tells you part of the story. The only answer is to carry a separate supply of cold water on your driving car. I put this to another club member to try and cure his injector problems and I was told that full size engines did not have to resort to that so why should he do it. Well my reply is, when full size loco wants water in the boiler you do not see the fireman jump up on top of the tank push a long lever in the tank top and waggle it back and forth do you? If you must involve full size in the equation, what looks the most ridiculous out of the two? A lot of locos carry their water in a separate tank anyway and most people call it a tender.

The other main cause is what I call a 'creeping failure'. It is a build up of deposits on the outside of the steam cone nozzle. The hot steam flowing though the cone leaches out the lime in the feed water onto the outside of it. This build up slowly makes the water annulus between the two cones smaller, until the amount of water passing though the annulus is not enough to condense all the steam. This uncondensed steam in the water starts to eject out of the outflow as described in Item No.5 and, as it gets worse, it takes on the description as Item 6, i.e. more steam than water until it fails to deliver. The best cure for this is to immerse the injector in a very hot solution of kettle de-scaler or vinegar and make sure that you get no airlocks inside the thing or it will not clean properly. If I can get it out I soak the steam cone separately, but the cones have a mind of their own and weld themselves in the body, so it is easy to cause damage getting them out. If that is not possible I put a bit of plastic tube over the overflow pipe and very gently suck the air out but be careful don't suck too hard - it's not a nice taste.

To finish I would like to point out that where we fall down is that we feed our boilers far too fast. The easiest injectors to make are the 26oz ones. Typical drill sizes are around 28-30 thou. for the smallest cone whereas for an 11-13 oz one, the smallest

cone is around 18-20 thou. and the margin of error is greater. Therefore the market is steered towards 26oz injectors, which feed a pint and a quarter of water a minute. At this speed, it is almost impossible to feed without a very pronounced drop in boiler temperature, which results in a fall in steam pressure. I reckon it takes an average of about 4 to 5 minutes to go round our track. In that time the injector is capable of feeding around 5 to 6 pints of water into the boiler, whereas you probably only use 2 pints, so you would only have the injector on for less than 50% of the time.

Take the case of say an LNER A4 on a trip of 400 miles. It uses around 14 to 15 thousand gallons of water at an average of around 35 gallons to the mile. Now, of the two injectors the live steam one has a feed rate of 35 gallons a minute whilst the exhaust steam one feeds 25 gallons a minute. For economy one would think the exhaust steam one was on all the time with the live steam being used on a make-up basis. The exhaust steam injector would not cut out when the regulator was shut. There is a valve in the steam cone line which, all the time the exhaust steam pressure was positive, around 5 lb sq in the valve, was held shut against boiler pressure, but when the driver shut the regulator the pressure dropped, the valve then opened to boiler pressure and the injector then carried on working as a live steam one. The process was reversed when the regulator was opened again: it was a fully automatic action. From those figures you will see that the injectors (one or the other) are feeding the boiler for nearly the whole journey, obviously there are times when the track demands such as gradients need more feed just the same as they could be turned off while coasting on down grades.

We should in theory be using slower feeding injectors turned on for longer periods. In practice I think most loco owners would rather have a fast feeder to raise the water level quickly to protect their crown sheets if they let the water get too low. Ever heard of a fusible plug? No miniature boiler should be without one! I would not dream of building a boiler without a fusible plug. After all, it only means an extra bush in the top of your crown sheet with a bit of screwed hexagon bar, a hole through the centre with copper rivet soldered in it, put the rivet in the right way though so it blows out, not trapped inside the boiler. What’s hard about that? Can anyone make out a case why they are not necessary?