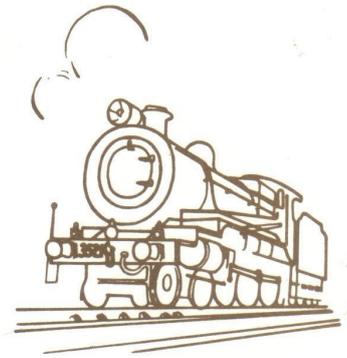


Sydney Live Steam Locomotive Society

Anthony Road, West Ryde, N.S.W.

'Newsletter'

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Max Gay back on the footplate after some running gear repairs gets Henry's R into its stride before passengers arrived for the first running day of the year.

November Running Day.

This was our Redkite running day with all our takings being forwarded to that organisation. The weather turned out as forecast with the cloud clearing early to leave us with a pleasant day. It was not too hot but a change from the very cold day we had on the previous Friday. There were some very big party groups especially the one that filled the top of the grounds near the elevated station. We had a couple of Redkite volunteers who looked after the gate and they were kept very busy till well into the afternoon. Many of our visitors were having such a good time that many did not seem to want to go home, there were still long queues approaching 5.00pm.

Down early for setting up were Barry M., John Hurst, Vic, and very early Mark Gibbons. Mark checked the point's operating systems and then headed for Thirlmere. Jim Leishman finished the remedial work on the BBQ, the door has been replaced with an improved support system.

On the elevated railway we ran three trains. Gary Buttell had "Impala" 4-6-0 out for a run having recently done some work to improve the adhesion of the locomotive. He ran as train engine with visitor Mark Robinson and his 0-4-0 Blowfly in front. Now the Blowfly was meant to be a simple design, but, if you get the chance have a look at the backhead details on Mark's locomotive, very impressive! Right at the end of the afternoon Mark took



Peter Wagner and Barry Tulloch as Mountaineer leaves loco.

his loco back to the depot and Gary had a few laps on his own with passengers to end the day. Gary was very happy with the locomotive's performance with a good load, none of the slipping that had limited its capabilities previously. Our five car train ran with John Hurst, 2-8-0

Ray Lee & 3803 passes V1224 loading passengers on the November running day.



"Nigel Gresley" as train engine and my Z1915 0-6-0 in front. David Thomas had B10, 2-6-0, as attached banker. We ran all afternoon with our last load just after 5.00pm. We had a few laps with nearly all children but for most of the day we carried very good loads. Paul Taffa ran a two car train with his Hunslet. While he had the services of new member Neil Bates as guard he hauled two loaded cars but reverted to only filling one car when Neil transferred to Gary's train as guard. Before the run John H. and myself put some char into the coal bin, we underestimated the volume needed and by the end of the run we were right down to the fines that had gone through the sieve. David Thomas and I both thought that our fires did look like what you saw in a full size firebox but I found that on the last run my fire had clinkered badly.

On the outer main Barry Tulloch ran "Mountaineer" 2-6-2 on one of the trains. Barry spent most of the afternoon at the regulator but had a spell late in the day when Peter Dunn took over. The second train on the outer was a three car one hauled by the Ted Herbert 2-8-2 that has recently changed depots from Lionel's to Arthur Hurst's. The locomotive had undergone several hours of work to adjust the axle box springing in John H.'s workshop. The results were very good. Lionel looked very happy riding guard on this train, I am sure he was pleased to see it running so well. Arthur was pretty pleased as well with how the afternoon went. On the inner main Warwick took one train with WAGR V1224 running consistently all the afternoon. The second inner train started a bit late as Ray Lee was a bit late starting. He ran C3803 on this train. There was some problem with the cars on the set Ray was hauling and after a spell in the head shunt one car was cut out and running continued without trouble till the end of the day.

Brian Rawlinson and Mick and Barry shared the signal box duties, while Dianne, Margo, Liz and Lee attended to the kiosk. Brian Hurst was ticket seller. It was good to see Vernon at the grounds later on. Emily had a much improved day today attending to some self inflicted and non operating injuries!

Rides went until 5pm and we hauled 2526 passengers. This is again well above the November average, we are on target for our best year ever. Another 248 rides and we will beat it (27291 in 2004).

December Running Day

We had a relatively mild day for our first summer running day for the season. There was cloud and partial sunshine, mid afternoon



Arthur Hurst and the heritage 2-8-2 doing a mighty job on the December running day.

grounds again this year. They were well set up early at the top end of the grounds near the elevated station.

On the elevated track we had Garry Buttel with "Impla" 4-6-0 leading John Hurst and "Nigel Gresley" 2-8-0 on 6 cars. Gary has spent some time working on this locomotive and it is now running much better. They ran very well all afternoon and the two green LNER locomotives looked extremely nice running together. A highlight was at the end of the day when the local pre-school with their red shirts and Santa hats took Santa for a ride complete with bell. They had a great time! I ran Z1915 with one car as I needed to make an early departure for a family birthday party. My pack up was well timed for the rain started just as I drove out of Park Lane. Paul Taffa ran his Hunslet 0-4-0 with

two cars and also finished running mid afternoon. On the ground level an extra locomotive or two would not have gone astray. On the outer track one train was hauled by 2-6-2 "Mountaineer" with Barry T. Barry was assisted with the driving by Martin and Peter D. Ray Lee ran the second train with C3112, 4-6-4 tank engine. With only the 30 class the train was reduced to four cars which ran well all afternoon. Arthur had his 2-8-2 set for a run but had some difficulties with a full car set. David T. assisted with the B10, 2-6-0 at first as banker and then up the front. The train was shortened to four cars with the B10 banking and this ran well till another troublesome truck was removed reducing the train to three cars. Warwick steamed V1224, 2-8-2 on the second inner train and ran without incident all afternoon but took a short break in the siding to escape the rain downpour. Following the rain the track was a bit slippery but Barry M. applied some sand and the problem was solved. While we had reduced capacity the service

we had some heavy rain for a short time but it cleared and soon it was blue sky again. There had been a lot of extra preparation for this running day. Even though the gardening team had worked very hard the previous Saturday, Brian M., John H. Arthur and Lionel had put in some time on the day before to mow, trim and generally tidy the grounds. With the rate at which the vegetation is growing at the moment this was a much needed effort and it certainly had the grounds looking great. Arthur re-erected the temporary fencing around the new station worksite, this time with a rope to assist, and this survived much better than last time. John L. swept the new platforms and with some of the soil back in place the site looked much better. The early starters were Barry M. John H. Arthur, Vic and Mark. There are always a lot of tasks to be completed before we are ready to run, we should not just take it for granted, extra help is always appreciated. Mark G. reinstalled no. 23 point motor. We knew that we would have a good crowd as the West Ryde pre-school was having their Christmas party at our

Trains everywhere! Plenty of capacity for the light loadings in December.





was rain very early at Seven Hills and more as I loaded the locomotive and running gear into the wagon. As the day progressed it cleared to be warm and very humid. The grass had grown a fair bit since it was cut the week end before but the general public area had been given a run over by Arthur on the Friday. There were a few party groups, they made sure the shady spots were filled. Much of the setting up for the day was looked after by Barry M., Arthur, Vic and John H. In the previous week Mark Gibbons upgraded another point machine, and Warwick replaced the signal box flasher, which after 24 years or so, decided not to flash any more. (Yes it has been that long!) Max

**Above: The Kindergarten group made a colourful display with Santa!
Photo: Peter Wagner.
Below: 1915 & John Lyons heads a short consist uphill on the January running day.**

was adequate for the loadings and in all it was a good afternoon.

We finished with a record December day with 1489 rides (250 had been pre-sold) the best December we have ever had. This produced 28529 rides for the 12 months which also is the best yearly figure we have ever had. This was helped along by above average numbers every day this year and no days lost due to weather or fire bans. I think we have all realised this through the year, no wonder we have felt exhausted after running days.

Thanks to Signalmen Mick M, Barry M, Brian R and Steve B. There was a good role up in the kiosk too with Di, Liz, Joy, Lee, and Margo and also Emily our first aider.

Many thanks to all the other members who were guards or station masters. Max, Mark, Neal Bates, Tony E. and Henry.

After the run quite a lot of members went across to the bowling club for tea as well.

January Running Day

Our first public running day for 2011 did not have a promising start. The morning was rather dismal, there



had taken the magnet valves from the banner signal home to re-cut the seats. They were leaking a bit and causing the compressor to cut in more often than it should.

Some concerns over the signal box power supply were expressed. A simple but effective solution was to relocate the wall fan to blow cooling air directly on them!

Mick showed us his Shay reverser as well as some very nice builders and suppliers plates produced using the Andrew Allison method (see last newsletter!)

On the ground level inner Warwick, V1224, was out first hauling the Pullman set. Steve Border, the guard, had to wet the seats down as the soft covers became very hot with the direct sun on them. Interestingly the cars with the plain boards were cooler.

Also on the inner were Barry Tulloch and Martin Yule with "Mountaineer" on the other train. Both trains spent sometime in the

Graeme Kirkby 2401 leads Mark Gibbons on Henry's R class into the outer main station on the January running day.



sidings awaiting traffic requirements, but the V's injector was playing up, and was better running with the pumps. Eventually Warwick took the V came off leaving Barry T and Ray Lee on the outer on the Central West set with Guard Lionel to carry the small loadings on offer. The other outer main train was Henry's 4-6-2 TGR R class which double headed with Graeme Kirkby's 2401 Pacific. There were a variety of drivers on the R class including Max Gay, back on the footplate after his hip replacement, Mark Gibbons and Ross Bishop.

On the elevated we had a six car train, John H. had 2-8-0 "Nigel Gresley" as train engine and Arthur ran "Betty Blowfly" in the lead. Paul had the 0-4-0 Huntslet on a two car train and I ran Z1915 with one car. With the light passenger offering on hand and following the six car train I often had to circulate without anyone on board. Mid afternoon Paul took a break in the loop and when he was coming back to running I returned my car to the carriage shed siding and returned to loco. Garry had bought his 4-6-0 "Impala" and it spent the afternoon in the elevated locomotive depot as Gary was on the gate. Brian K. was here for the day and was on duty as elevated station master.

There were 1154 rides given overall for the afternoon which is 56 rides above the January average, but well below last year's figures which were around 1500. This is no doubt due to the less attractive weather conditions, and perhaps also because we were early in the month, some thinking the running day is the following week.

Thanks to the kiosk crew of Lee, and Margo supported by Wendy and special mention to John Tulloch who spent a day assisting the ladies. Some people will do anything to keep out of the heat. Emily had no work today that is how we like it.

The signal box was operated by Brian R., Mick and Barry M. while Neal, Steve, Martin and Bernie acted as guards during the afternoon. At the end of the day the picket fence panels that were to be replaced due to incorrect supply were moved to the shed as the replacement ones were due to be delivered the following Wednesday.

December Members Day & Christmas Party

Our Christmas BBQ and run did not enjoy the best of the weather. The day remained cloudy and there was the odd drop of rain, but nothing more than that. The grounds were very wet



Warwick and his latest acquisition having a steam test on the Christmas party day.

under foot but that did not dampen the festivities. There were a few work tasks completed in the early part of the day. Ray was down very early to do some more painting of the ground level locomotive depot steel work. This has certainly made the depot look very smart. Warwick attended to a couple of point motors that were not doing the right thing and then did some formwork adjustment for the elevated station concrete pour the following

Brian Muston and his Planet passes Mick Murray and Tinkerbelle on their Christmas run.



SLSLS CHRISTMAS PARTY SCENES



run running on the axle pump only. After a few laps and much whistle blowing the loco was retired to the depot and prepared for home. Mick bought along his Ruston Hornsby "Tinkerbell" and some of his rolling stock and enjoyed an easy run on the inner main, Brian M. was running on the outer. All diesel ground level running! Later in the afternoon Arthur steamed the 2-8-2 and ran it on the outer main. Arthur has made a track cleaning car, a modified S truck, and was noted pushing the car in front of the 2-8-2. Graeme K. was free from XPT driving duties and was able to enjoy the club day. Graeme bought along his collection of goods rolling stock and end platform car to run a mixed goods hauled by his 2-8-0 D5035 running on the inner main. The D50 was driven by a number of members and visitors. Editor's note. I was one of the people who enjoyed a drive of D5035, it was great

Above: Arthur and his heritage 2-8-2 cleaning the rails while Alice the Hunslet has a run.
 Right: Graeme Kikby & 5035. Photo John Lyons.
 Below: Peter Spencer, Martin Yule and Emily New enjoying the day.

weekend. The studs for the station posts were wrapped in aluminum foil by John L. and while looking very decorative it was going to keep the threads clean when the concrete was poured.

After lunch it was time for some locomotive running. It was almost a Maxitrak convention with two of their products on the track. Brian Muston had his Planet Diesel running with some of his cars. Warwick had his Alice class Hunslet along for a steam test and despite a couple of leaking nipples David T. was able to issue a certificate. Warwick then took to the elevated track for a trial



running at an appropriate scale speed, especially on the inner main with its bridge and reverse curves occasionally glancing back to view the string of wagons following behind the riding truck, thank you Graeme for the experience. John H. has rebuilt the valve gear on his 4" scale Foden steam truck and gave it a trial run during the afternoon. By the smile on John's face it was clear that the effort was well worthwhile. In the clubhouse we were given a look at Bernie's blowfly chassis. The workmanship is first class and with most of the components completed it should not be too long before we see it in steam. We had 40 people for the BBQ dinner which was consumed at tables under cover just in case! It was good to see Bill Richards who came along. The rejuvenated BBQ, thanks to Jim L., worked well successfully handling a heavy load of sausages and other delicacies. Eve-



Editorial.

When we look at our diary till the end of July we can see we have more opportunities to enjoy some running time and social activities. This will make a pleasant change from the busyness of our public running days. On the matter of our public running days we could always do with a few extra members on the grounds to help lighten the demands of serving our patrons, they do provide us with the means to continue to develop our railway. I would also like to make a request for articles to be published in the Newsletter, I would like to keep it as interesting as possible.

John Lyons.



From the top:

- **The BBQ is a popular place.**
- **Tullochs and Wagners and Hursts behind.**
- **John packing up his Foden.**
- **Graeme Kirkby and 5035 with Stuart Kean.**

ryone had a good time, and it was one of our better Christmas gatherings even with the poor weather.

New Years Eve Run and BBQ.

About 30 members and friends of the Society gathered at the grounds on New Year's Eve for a run and BYO BBQ tea. After a rather hot humid day we were fortunate to be able to enjoy a very pleasant evening. Brian H. had done some mowing on the pervious Wednesday so the area around the club house was trimmed and tidy.

On the elevated we had Arthur and Betty Blowfly. He has done some work on the plumbing and the locomotive ran well. Not so Warwick's Hunslet, to start with, it had another fractured steam nipple. Fortunately Neal turned up with his plumber's truck and some makeshift silver soldered repairs were done on the spot. At least this enabled the engine to have a go! Warwick had fitted the loco with a new char grate and steaming with it was very good. The engine ran quite well until there was some trouble with the hand pump, so it was returned to the steaming bay. By this time it was time for tea! Some people told Warwick they thought the whistle was a bird! Brian M. ran his Planet and some rolling stock on the outer main and later when some of his friends arrived we suddenly had double headed Planets, they can get along at a fair speed. Neal Bates had a drive later in the evening, this was his first run on our tracks.

Simon had his 0-6-0 Simplex out for a run on the ground level. He had a run on the outer, then ran wrong direction around the inner. He has a new ground level driving car and was trying it out. With his crouched over driving position he reminded us of a jockey urging his steed to the winning post. Simon enjoyed the run and also gave Nick a go. Mark Gibbons had a very nice Blowfly buffer to show, while Wayne had his 34 class boiler for inspection, as well as a laser cut and CNC milled Baldwin tender tank frame angle section. There

Diary

1 March	Directors meeting
5 March	Members Day
19 March	Public Running Day.
2 April	Visit to Brian Carter's track at Marulan
5 April	Members meeting
16 April	Public Running Day
22-25 April	AALS Convention at Lake Macquarie LSLS
28 April	Post convention run
3 May	Directors meeting
7 May	President's Breakfast and Red Kite Day
14-15 May	Blowfly Rally Mudgee
21 May	Public Running Day & next newsletter!
4 June	Member's Day
30 July	Interclub Visit at SLSLS



New Years Eve at SLSLS



seems to be an epidemic at the moment of Baldwin tender building or planning. Wayne has been considering this approach for some time now and with careful planning and modern CNC technology he has produced a very smart component, well done. Warwick had on show an On30 model of a South Australian Coffee Pot. Thanks to Stuart Kean for taking some of the photos of the event.

Locomotive and Rolling Stock News.

Mark Gibbons had his Blowfly tanks complete with brass nameplates while Mick has shown us a nice Westinghouse pump sourced from overseas. Ray Lee brought along his Victorian A2 to check it on the curves. It certainly looks great, and attracted some attention. Jim and Dominic had the "green machine" 3901 down for a boiler test for which David Thomas officiated.

At our Christmas run we saw Bernie's blowfly chassis as mentioned in that report it is very well made and we look forward to having it completed. Wayne F. Is making steady progress with the re-boiling of the Mackellar built 3½" gauge C34 class. Wayne showed us the frame angle for the Baldwin tender tank to go behind his 2-6-0. As talked about in the NYE report it is a great piece of CNC application to a model engineering problem. With this technology available chain drilling, cold chisels, hacksaws and filing will be a lost art.



David also undertook hydraulic and steam tests for two O gauge tram locos boilers built by Andrew. These would be the first 'sub-miniature' boilers passed by the club. Later Andrew ran the finished tram up and down the east side of the grounds using the gap between the 3½ inch gauge rail and the 5 inch rail. Apart from a few unground welds that produced some derailments it ran very well indeed (the best it ever has) so he was impressed! (Maybe these welds might get dressed!)

Max brought along his 3½ inch gauge 38 class tender bogie. He is using Michelangelo techniques and is carving the bogie frame out of solid steel. This will give a very good representation of the cast frames as used on the full size 38's



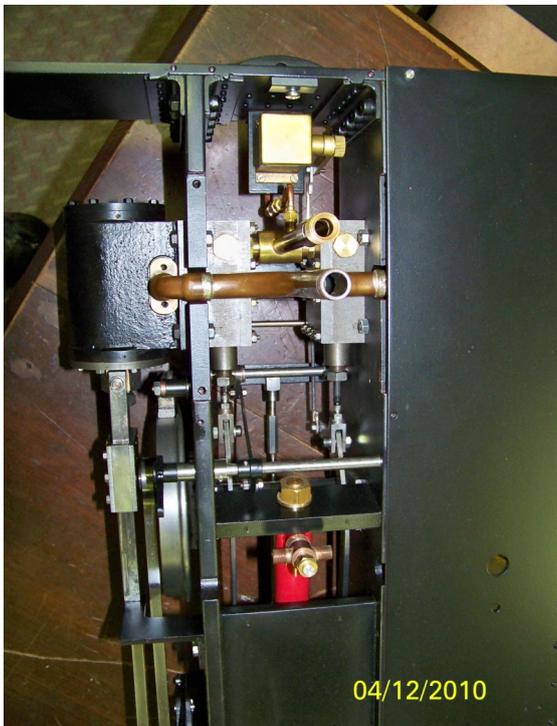
Locking gates.

There have been a number of incidents where the main gate has been left unlocked. To avoid this in the future would anyone using the gate please lock it immediately, and unlock it and re-lock it again to come back. If the gate is kept locked, we won't tend to think someone else is doing it (because they don't or they forget!)



From the Top:

- John Lyons, Neal Bates and Barry Millner get the BBQ underway.
- Twin 0-4-0s of Warwick and Arthur are supervised by John Hurst.
- Nick Kane gets a drive with Simon and his Simplex.
- Dinner time!



04/12/2010



Bernie Courtenay's Blowfly being inspected by Brian Hurst (left) Allan Mackellar (centre) and Bernie (right).



29/01/2011

Below: Wayne Fletcher shows his Baldwin tender corner angle which was laser cut then CNC milled!



22/01/2011

Above Left: Mark Gibbons Blowfly tank & Mick's pump viewed by Mark, John Lyons and Jim Leishman.
Above: Max Gay's 3½ inch gauge tender bogie under construction.

Below: A new boiler for Wayne Fletcher's 3½ inch gauge 34 class.



31/12/2010



31/12/2010



Jim Leishman repairing the Trevor Collet Memorial BBQ.

ning and a BBQ lunch. This year we will have an extra club day on the first Saturday in June.

Grounds

This time of the year has proved to give a big effort from members. The recent rains and sunshine between has spurred the grass and plants onto new heights! (literally!) Members have been mowing weekly so we don't get lost in the grass and good roll ups for gardening day (although not always those on the roster!) have really helped. The upshot of all this is that the grounds look really good and a credit to all.

Jim has undertaken to fix the broken seat at the top of the grounds (this used to be Allan Cottrell's specialty!) Hopefully Jim has picked up some clues from Allan on how to do it! This will involve new timber and bolts and a bit of painting.

Club News

The next club day is 5th. March. If anyone has a 'theme' or activity they think may be of interest, please talk to Mick Murray. These days have been very good, NO heavy work just the chance to enjoy some relaxed run-

Ray Lee has cleaned and repainted the ground level loco depot.



David Thomas has continued to lead the gardening crews and has even had some helpers on occasion! Simon's garden behind the ticket office is really looking great too! This gets regular watering from the tank. The roses have looked magnificent and I know the public have appreciated this 'station garden'.

A reminder that all the running day paraphernalia is now stored in the ticket office rather than the club house. This building was built as a storage facility and providing it is neatly stacked and leaves room for the ticket seller, is the place for all the things we put out and put away.

The ganger's huts which had lost their roofs have had their roofs replaced.

We have a new vacuum cleaner. The old Hoover upright is an heirloom. It would be terrible to throw it out. If anyone wants it, please see Warwick or John H. or Simon. Thanks to Simon for finding a perfect machine (and using it! -others can too!)

Hopefully Jim has picked up the clues

Name Badges

Finally the name badges have arrived and very smart they are too. Eventually we obtained them for 43 members and helpers. If you ordered one and have not yet received it please see Warwick with your money!

Visit to Brian & Sue Carter's.

Some of our members have already enjoyed a day in the country at the Carter's country estate. Brian has finished his track (for the time being). A club day to Brian Carter's track is planned for Saturday 2 April 2011.

Duty Roster.

March. H.Spencer, A.Allison, M.Gibbons, W.Fletcher, G.Kirkby, B.Muston, J.Noller, P.Sayer, I.Tomlinson.
 April. W.Allison, N.Amy, S.Collier, G.Buttel, B.Millner, M.Murray, S.Murray, P.Ryan, V.Sciicluna, G. Tindale.
 May. B.Courtenay, G.Croudace, S.Larkin, N.Lyons, L.Pascoe, S.Sorensen, D.Thomas, D.Lee, G.Gunning.
 June. J.Hurst, A.Hurst, J.Leishman, J.Lyons, D.Mulholland, J.Mulholland, B.Rawlinson, M.Tyson, M.Yule.

Gate Roster.

March. Bernie Courtenay. April. Greg Croudace May. Tony Eyre. June. Wayne Fletcher

Election of our 2011 Board – Request for nominations

As required by our Rules, all current members of the board retire at the Annual General Meeting held in June each year. Nominations are required for all board positions for the incoming year.

Nominations need to be in writing, and provided well in advance so that all members can be advised of who is standing for election to the board.

Nomination forms are available in the clubhouse, and will be provided to all members for whom we have an email address. A form can be provided by mail on request to any Board member.

The nomination form gives an overview of the roles and responsibilities of each position. Each nomination must be signed by two members, and the person being nominated. The completed form must be provided to Simon Collier by Saturday, 7th May.

If you wish to stand, or intend to nominate another member to stand, you must follow this process. At the meeting itself, nominations from the floor will not be accepted, unless there are insufficient formal nominations. A vote will only be taken where there are more nominations than required for a position. There are a total of seven board positions: President, Vice President, Secretary, Treasurer, and three Directors.

Details of all nominees will be provided to all members with the formal Notice of Annual General Meeting, sent a few weeks before the meeting itself. Should there be multiple nominations for any position, a Proxy Form will also be included, enabling you to vote for your Board even if you can not physically attend the meeting.

Of the current board, the following have or intend to nominate for next year:

- | | | | |
|-------------------|-----------|-----------------|----------------|
| • Warwick Allison | President | • Mick Murray | Vice President |
| • Simon Collier | Secretary | • John Hurst | Treasurer |
| • Henry Spencer | Director | • Barry Tulloch | Director |
| • Mark Gibbons | Director | | |

Members News.

It was good to see Alan Cottrell who dropped in for morning tea one Wednesday. He was looking Ok and it was good to see him. At the December meeting the members present voted Peter Wagner as a full member of the Society. Congratulations Peter! Alan Mackellar has called in a few times when down from the Northern Tablelands.

Bill Richards has had an operation in Concord Hospital and is now on the mend and back at the nursing home. We wish him well.

Chris Hurst was set to help in the canteen on the January running day but finished up in hospital with a rather serious lung problem. At the time of putting these notes together Chris is at home and on the mend so we all wish her well.

You will probably see young Nick Kane around. He has offered to volunteer around the grounds and is keen as mustard!

Works Reports.

Ground level track.

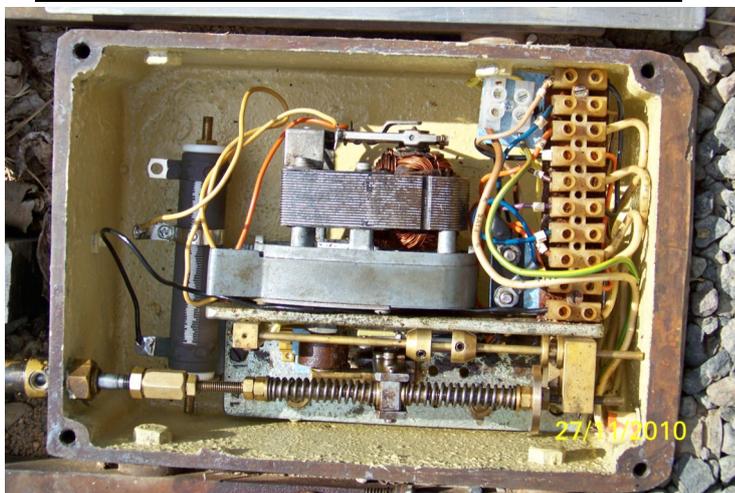
Following the concern expressed in the last running day report Peter W, Mick and Henry have been hard at work installing the modified power supplies in the signal box. Peter has modified our main supply and it now sports a large heat sink and a fan on the side of the grill to assist in cooling. Mick has installed air vents in the end of the console, and all the work is looking very professional. In the signal box current readings were taken to confirm that the system is well within capacity. Some defective relay contacts were changed and some

new resistor banks to replace the old ones that were a little cooked have been installed.

Max Gay has done a marvellous job on the air operated banner signal. Max has manufactured new coned springs on a specially made coned mandrel and machined the sealing faces. This signal now has no leaks and operates as quiet as a mouse. Max would be the only person who knows in detail how a 1920s Signal Branch EP banner signal works!

However the compressor pressure is still falling. John Hurst has investigated this in detail and located the problem area which Jim Leishman has attended to. However John H. traced a further air leak to the pressure gauge on

A Mark Gibbons' revamped point motor.





Simon's garden behind the ticket office with its colourful display of flowers.

tors and at this time he has completed seven and has only five to go

Elevated track.

John L. has installed a new length of elevated track (about 1.3m) he welded up to replace a damaged portion that had a tree branch fall on it in days past. Slowly but surely the elevated track issues are being addressed! Following a report earlier in this Newsletter it seems that the elevated track upgrade may have to include cleaning some welds to allow O gauge running.

The platform concrete pour underway.



the compressor and this will probably be remedied by the fitting of a new 0-200psi. gauge that John L. just happened to have in his garage.

Mark Gibbons, Barry Tulloch and Peter D. have some components to upgrade some of the older hand operated mechanical points.

Ray Lee has painted the ground level loco with some nice new grey paint. It hasn't looked this flash for years! Mick has done some bogie maintenance. Some of the bogies have been taken home by Barry T to upgrade which has included wheel turn and bearing replacement. For some of the bogies this has been about six hours work. Others had diaphragms replaced and brake beams renewed where these were broken. Generally we have had a big increase in braking power! A new water blaster has been purchased to clean the bogies and we all had a go! We have also straightened the long coupling beams which were looking a bit worse for wear.

Mark Gibbons has continued his work on the ground level point machine upgrade. He cleans and paints the inside of the boxes, replaces the resistor and micro switches, installs new diode mounts, and terminals and also some snubbing to the micro-switch contacts. Mark needs to spend about six hours on each of the point mo-

David and Mick attend to some bogie repairs. Behind them is work on the new platform.



Elevated Station

Since the last Newsletter Lionel and Arthur have spear headed the elevated station formwork and concreting. The pour occurred (unusually) on a nice sunny day. Henry arranged 2 trucks one at 9.30 and the next at 10.30. The crew of Arthur, Lionel, Steve M, Brian M, Peter W, and David Thomas did the hard work while Henry arranged the paperwork. We had a bull float to smooth the wide surface, and David Thomas spread some extra concrete under the fences at the bottom of the ground to discourage the wandering jew. The weather made the concrete go off faster than in previous days and by lunchtime the job was effectively over. After lunch Arthur gave it a straw broom finish.

Despite having the white picket fencing arrive before Christmas, it was discovered to be the wrong type! Eventually the proper stuff was delivered in January following our running day and many thanks to those who took the time and effort to come down and assist in its unloading and storage (despite it being many hours late!)

The fencing has now been installed and the big effort in this was Arthur and Lionel's installation of a white post over a ground frame support. This took the best part of a day, but as soon as it was in, the rest of the fencing went



first Saturday, with a very early start to beat the heat, some picket fence panels went in on the ground level depot side beside the incline down to the track. Arthur and Lionel were the early starters with John L. arriving later. This now gives a lead in to the level crossing gates. Warwick and Mark fitted the gate near the lever frame and Brian M. was busy with a paint brush freshening up all of the black iron work on the lever frame. This whole area will look very attractive when we have it complete. It will also be much easier starting loaded trains on a down grade than having to haul half of the load over the summit of the elevated track.

in fairly quickly. This was the case of fitting a square post over a round post.

Some concrete between the tracks has been removed and David Lee formed up new boxes ready for new concrete between the elevated and loop tracks. These will permit steel plates to go across the gaps needed for the point operating rods and provide a level walking surface from one end to the other. One can now get a feel for what the station is going to look like! John L. has swept the platform surfaces before the December and January running days to make it look less like a construction site.

Henry and Warwick took some level measurements of the new station to confirm post heights and fall. No changes to post lengths are required from design so this will allow Martin to now proceed to obtain the RHS and weld up the columns.

Martin had a rest from work and came along and drilled our tank water drain into the main drain. He is now arranging to have the decorative station brackets zinc plated.

Simon and Brian M did some excavation beneath the elevated track between the platform slabs cleaning it out and transferring the dirt to Simon's garden. This area will be lined with fabric to let water through but stop weed growth and filled with gravel. In early February on the



Top: Andrew showing David and Jim his O gauge steamer.
Above: Peter Wagner and Henry Spencer working on the Signal Box power supplies.
Below: Max at work on the EP magnet valves in the banner signal.
Below Left: The new concrete platform.



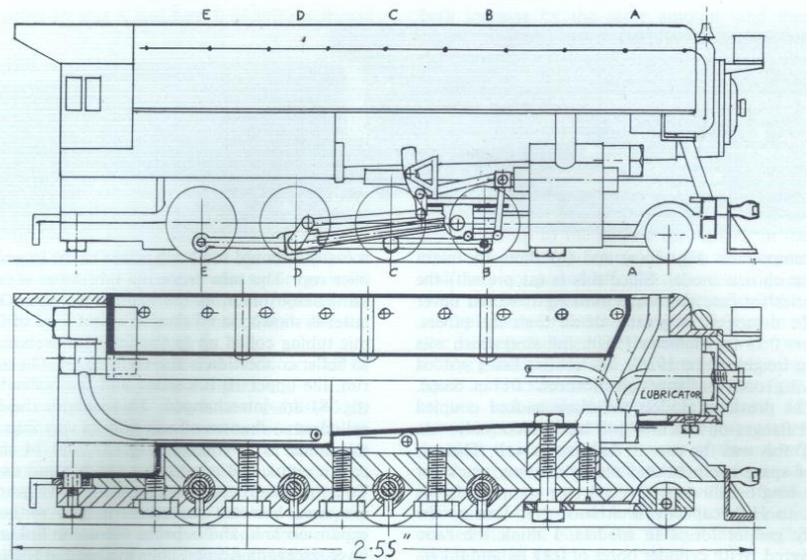
FEATURES

Orthopaedics and a Model Engineer. John Lyons

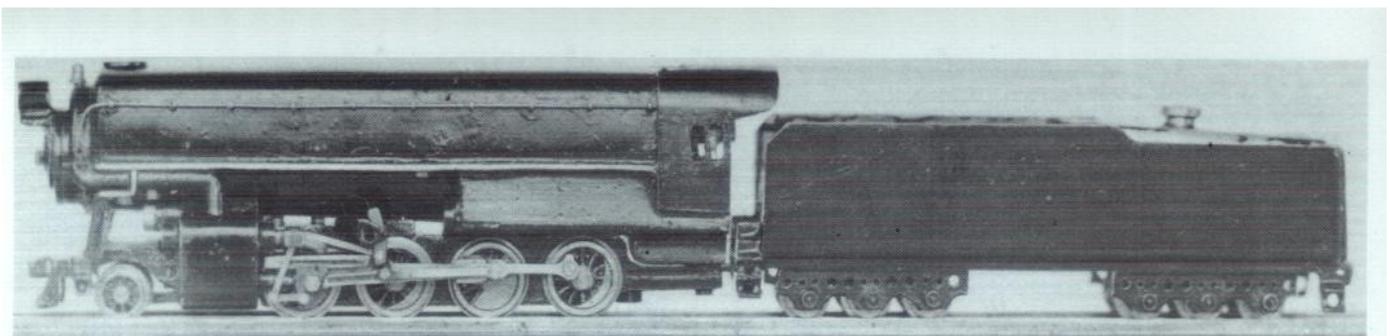
Over a period of time I have been reading through the Societies collection of Model Engineer magazines. I have found that going through complete volumes gives you a continuity that is lacking with single issues. You will often find a solution to a current problem or, on the other hand, you will discover that your latest brilliant piece of model engineering design has probably used by one or another of the magazine's contributors in years past. In one of the ME's for early 1966 I found an article by the late Arthur Sherwood that contained a special surprise as it involved a Lyons family member.

Arthur Sherwood would have been known to many of the members of the SLSLS through his modelling activities. Arthur came to Australia in the early 1950's to work at the University of Sydney in the Mechanical Engineering faculty. My father and grandfather were both members of the SSME located, at the time, at Ashfield on Parramatta Rd. I can recall meeting Arthur with them and being enthralled at the sight of a small hard chine hull power boat navigating the water in the lid of a 44 gallon drum, it was driven by a tiny internal combustion engine. There was also a very small hydroplane that ran tethered in the same water. A few years later at a Sydney University Open Day I came across a magnificent mallet locomotive running on a circle of track connected to a compressed air source. I cannot remember the exact gauge but I am certain that it was smaller than "O" gauge. There were some other small locomotives on display, all examples of Arthur's work. While at Teachers College I discovered that the library received the Model Engineer Magazine each fortnight. During 1960 Arthur had contributed an article covering the construction of a live steam 2-8-0 tank engine for "00" gauge. The design was based on the big GWR 2-8-0 tank locomotives widely used on coal and other goods traffic. There were two versions, a "simple" one and a second that was a bit more advanced. Arthur had contributed many articles to ME. He gave details of an "O" gauge coal fired articulated locomotive capable of hauling a driver. I believe that Alan Mackellar has actually driven this locomotive. On at least one occasion Arthur had a display at the AMRM model railway exhibi-

tion when it was still held in the lower hall of the Sydney Town Hall. At this exhibition there were a collection of his models now including very tiny electric powered locomotives. Other articles appeared in ME including how to make small ball races as Arthur had used in his "O" gauge mallet. In the 1980's a series of articles were written for the Don Young produced magazine Locomotives Large and Small, the title, "Live Steam in 1/240 scale". Now keep in mind that HO scale is 1/87 scale, this was a considerable achievement. He chose some of the large American locomotives as his prototypes for these projects. This gave him a locomotive 2 1/2" to 3" long with cylinder diameter of 1/10", the large size tenders gave a reasonable



capacity for the butane gas tank that fired the boilers. In later years as a complete turnaround Arthur built a pair of 5" gauge 0-6-0 American style switcher locomotives. Some of their details were published in the ME magazine and once again there were some unique features. One was a continuous feed cylinder lubrication system where the oil was fed from its cylindrical tank by a piston slowly advancing till the oil supply was exhausted. One of these locomotives is now owned by Alan Mackellar and has run on our grounds at West Ryde. Some of Arthur's work at Sydney University involved research and development with one of the leading Orthopaedic surgeons in Sydney into methods of correcting spinal curvature. The engineering involved can be simplified to look at it in this way, move the vertebra back into line and provide a method of preventing them moving out of align-



ment again. (fig. 1) It is, of course, not that simple when it comes to working on someones spine as there are many aspects to be considered. The problem presented to the engineers was to devise a mechanical restraint, or implant, to be attached to the vertebra along the convex side of the deformity. The "can be attached" requirement also meant that the design problem extended to the tools needed to attach the device. The requirements of the implant were as follows. It must be capable of transmitting a force of about 50lb. between the vertebrae, this was the surgeon's estimated figure. It must be small enough to not cause any undue obstruction to any organ of the body. The material of the implant must be chemically inert to the body over a period of several years. The time required to insert, and if necessary remove the implant must be operationally feasible. The implant must be flexible enough to follow the



hoped for straightening of the spine. The only metal that could be used was titanium, the use of plastic was ruled out because of the forces involved. (this was the mid 1960's) Each screw had an eye in the head (fig 2) through which a cable could be threaded to provide the tension force to correct the problem. It was determined that the best way to attach the cable to the head was to swage the eye closed on to the cable.

It was first considered that the swaging tool would be hand operated. Tests were carried out on mild steel screws and cables before the titanium components were made. It was found that a force of 3000lb. was necessary to swage the screw head on to the cable to withstand a tensile force of 250lb. The hand operated tool was found to be too bulky and cumbersome so another design was followed incorporating a hydraulic jack that operated at 1500 psi. It was now compact enough to get at all the swages required but presented a problem when it came to the sterilisation of the components.

The tool to tension the cable was lever operated and was able to grip the cable, pull it through the eye in the screw and lock in place while the swaging tool was used. It was then released and moved on to the next position. This tool was modified as work was carried out over a two year period and further after the first operation mid 1965. The two vertebra where the cable started and finished each had two screws fitted and a metal plate to provide a better anchor system (fig. 3) The final result is shown (fig. 4) the vertebra have been straightened with the cable holding everything in line.

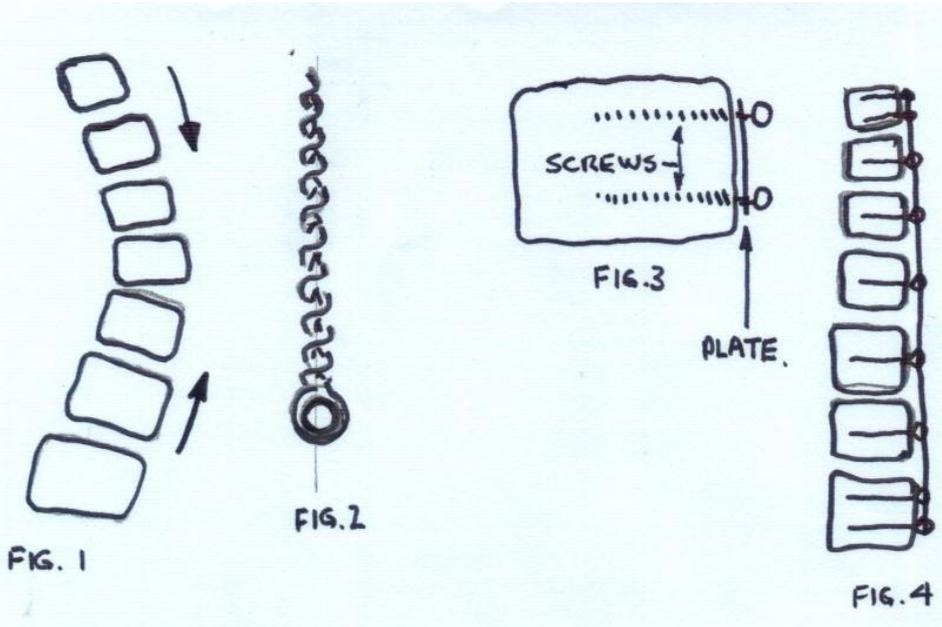
The sterilisation of the swaging tool presented a problem as the jack could not be heated as many of the other components were. It was determined that a chemical sterilisation process would be necessary. The jack and its hose were placed in a plastic bag for the process to take place and before the operation the jack was taken out of that bag and placed in another bag that had been sterilised in its own right. The necessary forces did not tear the PVC sheet that the bag was made from.

Arthur writes that this was the first of a number of medical engineering studies undertaken by the Mechanical Engineering faculty of the University of Sydney. He gives credit to Mr. Alex Laws who made most of the components in the faculty's workshop and to Mr. H.Freeland of Duly and Huntsford Ltd. for valuable assistance in the matter of the material and heat treatment of the highly stressed swaging jaws.

In his article Arthur showed a before and after x-ray of the patient from the second of these operations carried out in late August 1965. This was my sister, you could understand my surprise at seeing family x-rays in a model engineering magazine. The operation appeared to be successful but shortly after the issue of the magazine was in the newsagents in Australia my sister passed away as the result of a severe asthma attack. You never know what links you can have with people over a life time.

References. Model Engineer Vol.132 No. 3288. Locomotives Large and Small No. 30

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Above: Ray Lee's 3112 rests during a quiet moment on the December running day.
 Below: Mark Robinson and his Blowfly leads Garry Buttel and Impala out of the station on the November running



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Track location is Anthony Rd, West Ryde adjacent to the car park behind West Ryde shops. 33° 48' 15.99" S; 151° 05' 12.78" E

Telephone: (02) 9874 8696. **Postal Address:** The Secretary, PO Box 124, West Ryde, NSW, 1685

Web Page Address: <http://www.slsls.asn.au>

Public Running Day is the **THIRD** Saturday in each month from 1.30pm. Entry is \$2 adults, \$1 children. Rides are \$1 each.
 To ride on the trains, enclosed footwear must be worn.