



Newsletter of **THE PALMERSTON NORTH MODEL ENGINEERING CLUB INC**

Managers of the "MARRINER RESERVE RAILWAY"

Please address all correspondence to :- 22b Haydon St, Palmerston North.

PRESIDENT

Richard Lockett
(06) 323-0948
pnmec_president@trains.net.nz

SECRETARY

Stuart Anderson
(06) 357-7794
pnmec_secretary@trains.net.nz

TREASURER

Murray Bold
(06) 355-7000
pnmec_treasurer@trains.net.nz

EDITOR

Doug Chambers
(06) 354-9379
pnmec_editor@trains.net.nz

**July 2009
No 347**

PNMEC Home Page www.pnmeec.org.nz
Email:- pnmeec@trains.net.nz

TRACK RUNNING

This is held on the **FIRST** and **THIRD** Sunday of each month, from 1 pm to 4 pm Summer and 1 pm to 3 pm during the Winter. All club members are welcome to attend and help out with loco coaling, watering and passenger marshalling - none of the tasks being at all

Visiting club members are always welcome at the track, at the monthly meeting, or if just visiting and wishing to make contact with members, please phone one of the above office bearers.

Sender:- PNMEC
22b Haydon St,
Palmerston North

Place
stamp
here

**T
H
E

G
E
N
E
R
A
T
O
R**

This Months Featured Model



REPORT on the June Meeting.

Our guest speaker was **John McDonald**, and he talked about the history of knives, their uses and how they are manufactured. He described the different steels available, the processes of manufacture and the final tempering. The different types of material used for the handles and finally the making of the leather pouch.

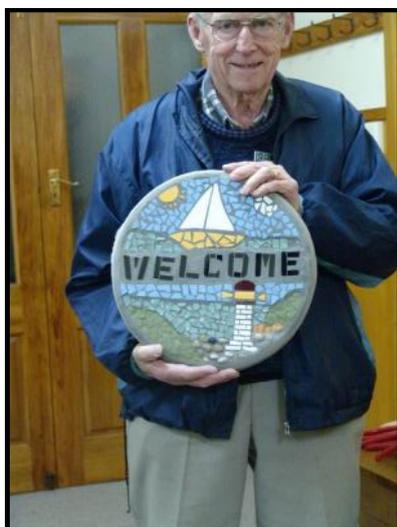
While most of us will be content to buy a knife if we require one, I believe that all those listening to John would have gone home knowing more of the processes involved in making the knife than they did before.



There were two articles on the table for us to look at.

Fred Kent had the now completed Ark, built mainly for his grand-daughter to house her collection of scale animals, and the O gauge 'Flying Scotsman' which has now progressed a little further.

Les Fordyce has been attending night classes for Mosaic manufacture. He displayed a variety of pliers required for the



task and showed us a 'stepping stone' which will eventually be set into the lawn outside his house.

July Club Night

7:30pm, Thursday 23 July 2009
Hearing Association Rooms
Church Street, Palmerston North

Once again the cerebral faculties of your committee have been in high gear. After expending great mental energy we present you with the theme for the July Club Night.

Bring along for **Show and Tell** your most interesting

Picture, photo, sketch, drawing, diagram, chart, graphic, image, illustration, print, icon, depiction, portrait, likeness, rendering, representation, sign, symbol, portrayal, emblem or logo.

That gives you all plenty of scope, so we expect to have a good turn out of items.

No lollies or chocolate biscuits for those of you who don't bring something along.

COMING EVENTS

Mid Week Run at Marriner Reserve Railway

28th July between 10.00 am and 2 pm
25th August between 10.00 am and 2 pm
Please contact Doug Chambers beforehand.

Track running at Marriner Reserve Railway

August 2nd from 1pm to 3pm
August 16th from 1pm to 3pm

Open Weekends

Auckland 50th Celebrations 2nd - 4th October
Havelock North 24th - 26th October Labour Weekend
New Plymouth 24th - 26th October Labour Weekend
Tauranga Miniature Railway 7th - 8th November

The closing date for the next issue of The Generator is Friday 14th August

Te Papa is hosting a special exhibit "Formula One The Great Design Race" on loan from the Design Museum in London England featuring nine formula cars from a 1958 Lotus 16 to 2006 McLaren MP4-21. This may be of interest to a few of you. If so we can put on a trip down to Wellington for it on a wet weekend Saturday or Sunday. If you would be interested please contact Richard Lockett ph 323 0948 or via email. pnmecc_president@trains.net.nz

FOR SALE

Shaublin Collet Chuck No2 Morse Taper. with Imperial 1/8", 1/2" and Metric 4mm, 6mm, 10mm + 12mm Collets includes spanner - Offers See treasurer for viewing. Ph 355 7000

THIS MONTH'S FEATURED MODEL.

Those of us who know Mike Barnes are aware that his interests lie in 12" to the foot scale models, be they steam locomotives or traction engines.

The photo on the front cover shows Mike and others of the Feilding Rail Heritage group trying to remove the 19 bolts that hold the Wab's cylinder block to the frames. These bolts are 1 1/8 diameter and are fitted to reamed holes, which means they are effectively big dowels and take a lot of work to remove.

Mike explains why the cylinder had to be removed.

"Over the years the cast iron cylinders were exposed to heating and cooling and this has resulted in cracks forming. This was a fault common to Ab's and Wab's, particularly after the original bores in the cast iron had become worn and sleeves had been fitted. The problem was overcome after World War 2 when replacement cylinders were cast in steel. However the Wab in Feilding retained her original cast iron cylinders with sleeves and two years ago it was found that they had both developed cracks. The cylinder on the left hand side was replaced with a spare and the right hand side was repaired in situ at that time. Unfortunately the repair started to 'let go' again and this time it was decided to remove the cylinder to allow Triple R Engineering to carry out further repairs with hopefully a better chance of success.

The cylinder is now back on the engine and the Wab should be back in service hauling the Overlander up to Taihape and back on the 19th of July."

LETTER FROM ENGLAND

by Stan Compton

There is some correspondence these days in 'Model Engineer' about junior members of our societies. We have two High School boys at Hereford, one had a letter published in March giving his thoughts on the subject. He came to me for some instruction on the Club 'Myford' and listened to my words of wisdom. He told me that there were no tool bits for the School 'Boxford' so I ground a few spare high speed tool bits for his own use. Sensibly he is working on three small projects. These gained him a third prize in the Junior Section and was up against young apprentices, at the last Midlands Exhibition organised by 'Engineering in Miniature'.

Our other Junior Member is too ambitious and started to build a 'Simplex' locomotive, he does work hard but would not listen to my advice. He is very involved with sports besides school work, he will be off to University and will have only a bare chassis to show for his efforts. He must have rushed his machining of the axle-box bores because I found them to be oversize, worn-out in effect before the engine gets to be put in use.

You are all aware, I imagine of a small kitset tender locomotive called 'Polly'. One of our members built one years ago but it was not being used so I suggested he loan it to someone who is keen to build his own locomotive, but has limited spare time. While giving this engine a boiler test, I was able to examine it closely and would like to congratulate the designer on producing a good simple basic engine with no frills, that does all it is intended to. Built with a simple open cab, substantial water gauge fittings, everything on the backhead is accessible, and a smokebox door that shuts with a clunk. The Stephenson Link valve gear with lovely valve beats on opening the throttle. The oversize cylinders that can cope with low steam pressure and a simple four wheel tender with cast frames. All far more practical than the usual 0-6-0 tank that has side tanks and a restricted cab.

We had a very interesting talk by Derek Goddard about the history of the hydraulic

power company who supplied London's Docks etc. with power to operate dock gates and cranes. He brought with him a model of a dockside crane of 1864 that he uses to demonstrate the principle used with water at high pressure, created with the use of an accumulator. Now the gist of the talk was that this power was obtained free by using a natural 'head' of water from a source higher than sea level.

He was also building a model of a winding engine from a drawing of an original engine that worked at a mine for many years, there being a permanent water supply at the site.

Later one of our members asked me how did the London firm get the higher pressure required to raise the accumulator. A good question, so I wrote to Derek and his reply was that steam engines were used for that purpose, so all that power was not free.

At our last Club Day, where members can run their locomotives without the public being present, usually I am called on to test boilers for the annual steam test. One thing I am always insistent on is to blow down the gauge glass. On checking a very nice 3 1/2" gauge GWR 'Hall', I found it screwed up tight against leakage, and I was told that if I tried to release it the fitting will move in the backhead and break the gauge glass !!! I bet he used thread tape instead of a copper washer to make the seal.

It was the first big public run for this season yesterday. The public started arriving at 12.00am and it was full loads until 5pm at \$3 a ride. It is the ground level who do most of the work and we were lucky to have a fine day because the Easter holiday is usually wet. The gauge 1 and 0 gauge track does not draw much interest but the 00 gauge in the clubhouse is very popular with the children who can also have a go themselves on a track provided for that purpose. We hear stories about children being dragged away in tears when it is time to go. With refreshments available and picnic tables with umbrellas for shade, we are getting very popular and our parking area is soon full up.

The new Honda powered GWR parcels railcar built by Wally, one of our stalwart workers, is a real success and ran all day with no problems. His sheet metal work is first class as is the paint finish. For someone new to our group he amazes the old hands with his productivity. I think he only took three months to complete this project so full marks to Wally. When I asked him

for some hardwood to make the frame to carry my Turret clock now set up in the house, he arrived a week later with some teak cut from an old table-top, planned to size and cut to length!!!

MODEL MEE EXHIBITION

We are having a Model Engineering Exhibition in the Leisure Centre, Fergusson Street, Palmerston North over the weekend of August 22nd - 23rd. Members are asked to let the committee know what they have and are prepared to put on display. All members are invited to put something on show and remember it doesn't have to be finished. Works in progress remind the public that the models are not bought at the 'Warehouse', and that they are made from 'scratch'. If you haven't filled in the form for the committee you will find one attached.



A couple of photos from the last Model Mee in 2006

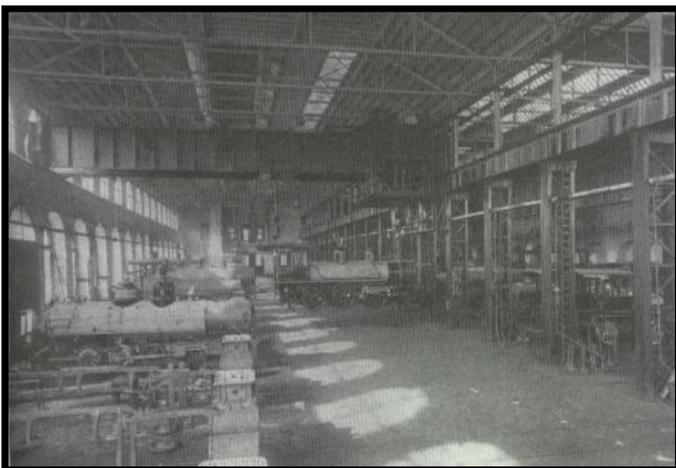
PICTURES OF RAILWAY WORKSHOPS IN STEAM DAYS

By Doug Chambers

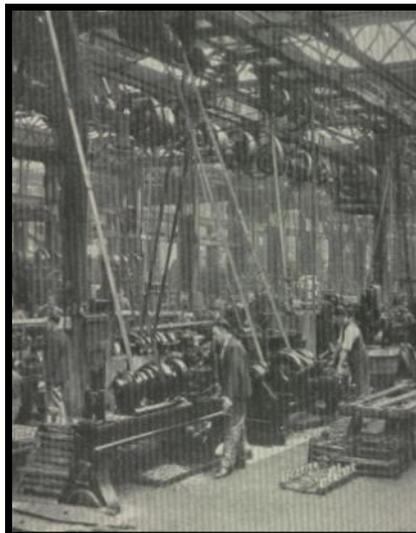
I have always been fascinated with pictures, photos taken in the Railway Workshops in the days of the steam locomotives. The huge travelling cranes with a complete locomotive suspended under them, or lifting the chassis off the wheelsets or boilers being lifted on or off the frames never fail to impress me. I was never able to visit Hutt Railway Workshops, the closest I got was into Moore Road Machinery Workshops in Melbourne where some large diesel shunters were being built.

I have had a hunt through some books I have to find some of the photos taken inside the 'Works' and I hope they interest you too.!!!

Photo1 shows Baldwin's erecting shop in 1890. Prominent in both pictures are the Sellars electric travelling cranes.



This scene shows a 90 ton 'Pacific' locomotive suspended from a crane in the North British Locomotive erecting shops. Note further locomotives in various stages of completion.

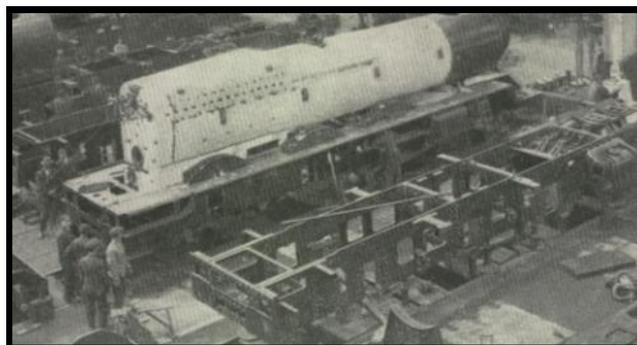


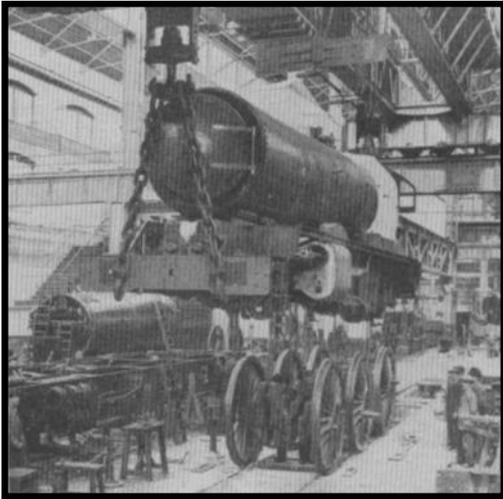
A scene in Southern Railways works at Eastleigh. Turret lathes producing bolts screws and pins an other small components used in building steam locomotives.

A connecting rod or coupling rod being formed under the steam hammer in the Smithy at W.G. Bagnall's works



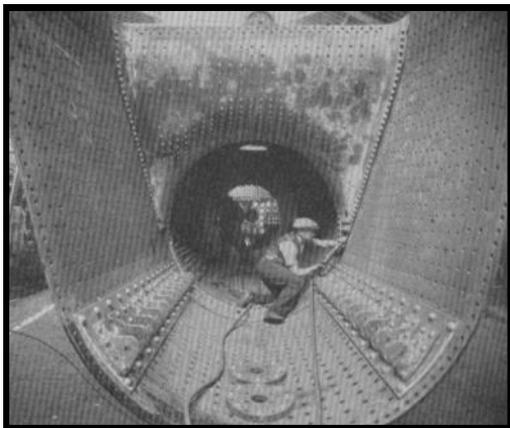
The Great Western Railway erecting shops in the Swindon Works. Two 'King' class locomotives can be seen, one with frames and cylinders, the other with the boiler mounted.





Also in the Swindon Works. Here a 'King' class locomotive chassis and boiler is being lowered onto the driving wheels.

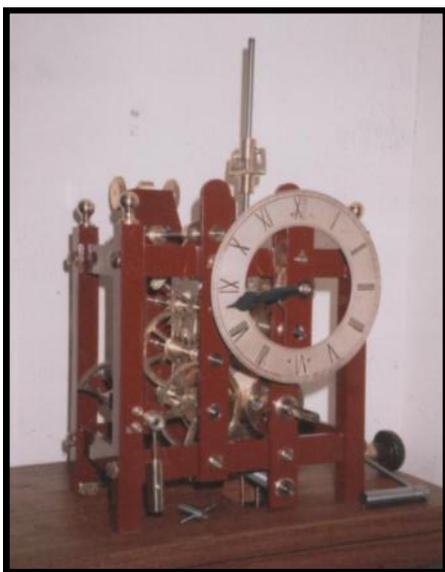
The picture shows the outer firebox for an A4 'Pacific' being built for the LNER. Probably in the North British Works.



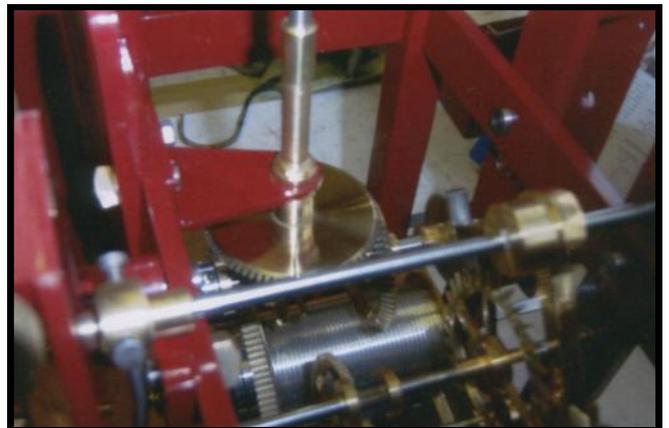
This shows the bevel drive gears that drive the vertical aluminium shaft. A Teflon washer had to be added to keep the friction to a minimum, as the weight of the ten foot long aluminium rod was enough to slow and stop the clock running.

STAN COMPTON'S TURRET CLOCK

Stan has sent some photos of his turret clock, now very nearly completed. The first shows the clock in the dining room.



The second shows the 35 lb weight and the aluminium drive shaft that extends up through the ceiling into a cupboard in the bedroom.



This last photo shows the nylon drive gears that change the drive to horizontal taking the drive to the outside of the house where there is a large clock face.

