January 2017
No 429

THE GENERATOR

Newsletter of THE PALMERSTON NORTH MODEL ENGINEERING CLUB INC
Managers of the **"MARRINER RESERVE RAILWAY"**
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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 difficult. We may even offer you a cuppa.

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,
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Place stamp here

This Months Featured Model

Report on the November Club Dinner

About 30 members and partners met at the PN Cosmopolitan Club at the end of November 2016 for an evening of good food and club fellowship.

It was good to catch up with partners as many only come to that event.

We also farewelled Dave and Leslie Newstead who left for a new life in Rangiora, just outside Christchurch. Dave has been a committee member of the PNMEC for about 10 years. It will be sad to see him leave.

By the time you receive this newsletter Christmas will be over and a New Year has begun – hope it is a good one for everyone.

Janice Hall

COMING EVENTS

Track running at Marriner Reserve Railway

February 5th	1pm-4pm
February 19th	1pm-4pm
March 4th & 5th	10am-4pm
March 19th	1pm-4pm

Locomotion 2017

4 & 5 March

10 am to 4 pm Saturday and Sunday

Whangarei MEC
Open Weekend 28-29th January

Hutt Valley MEC
Open Weekend 4-6th February

Manakau Live Steamers
'New Zealand Railways Day'
February 4th.

Thames Small Gauge Railway
Open Weekend 25-26th February

The January Club night will be the
Presidents BBQ
Thursday 26 January 2017
It is the same location as last year.
All members, partners and kids are welcome from 4.30pm
See the following map for directions.

Robert and Margaret's Home is at the junction of Hansens Line and Te Arakura Road.
This is off the end of Milson line.

The Driveway to the BBQ.
Please park on the street if able bodied.

The closing date for the next issue of The Generator is Friday 10th February

Letter from England

By Stan Compton

Recently I heard about one of our members whose oil pump on his locomotive failed to function properly. These pumps are called lubricators in the Railway World, and this one was of the LBSC design. Basically an oscillating steam engine operated by a lever driven from the axle pump eccentric, driving a ratchet wheel with two ratchet pawls. Properly made they function well often providing excess oil and forming a ring of oil inside the chimney.
It is important to be able to crank the ratchet-wheel to put a pressure onto the check valve ball before raising steam. In my early days with my first locomotive I wondered why steam would get past the check valve and displace the oil out of the reservoir. This is problem No. 1 and may be overcome by using an aircraft quality 'Schrader valve' for the check valve and I have used one from a car tyre with success. You can obtain one from a tyre fitter and the brass ones used on a truck tyre are best as they are easy to modify to fit.

Problem No. 2 is the press fit of the ratchet wheel, supplied by Reeves and Co, on to the silver steel pump spindle; it must be a really tight fit.

Problem No.3 is the pawls that are best made from gauge plate hardened in oil or mild steel case-hardened is an alternative. The pawl pivots must be secure and the action must see them move past the next tooth on the ratchet wheel. The spring loading on the pawls must be adequate and LBSC claimed he tested his pumps to 500psi, way above our needs but I keep a pressure gauge for this as it is important to watch the pressure rise while pumping with a slow action. A crank fitted on the pump spindle can be watched while the locomotive is on the move to make sure the pump is working if the pump is mounted on a walk-way.

Problem No.4 is another cause for failure of these pumps. LBSC specified 'valve twist' to pack the gland on the pump ram and this material can shred in use; an O ring is better. An alternative is the hydrostatic lubricator where steam is used to condense and displace the steam oil into the cylinders. One of our members uses them with success. I have never had any joy with them an I always recommend using a mechanical pump driven by roller clutches. The roller clutches must be fitted into a strong body to take a press fit to compress each clutch by a one thou interference fit. This is a design feature and must be used to achieve success. I made test plugs to check the bore size. If correct a roller clutch from www.arceurotrade.co.uk will drive the .125" silver steel spindle with only a small movement. I have a tool fitted with a .250" roller clutch used on sockets made from Allen Cap Screws. The handle is about four inches long and can be used in awkward places where you can get only minimal movement.

For the last thirty years I have used roller clutch lubricators having a positive drive by a 'scotch crank' on top of a ,125" silver steel spindle with a quarter inch stroke and a polished end that operates between two .125" O rings spaced apart to obtain a known volume of steam-oil. The lower O ring has a spring loaded ball and this acts as a check valve that never fails. I believe that 'Polly Models' retail a similar pump capable of feed adjustment. Talking about pumps never re-pack a water-pump with PTFE thread tape, use an O ring but allow it to roll and radius the corners of the slot.

I have been reading a book on the history of tram-cars in Birmingham, my home town. Nowadays we have modern versions of what was an efficient transport system. One night in Birmingham after a heavy snowfall the tracks in the groove in the road became ice-bound and a double-decker de-railed on a curve and ended up in the drive of an expensive property. We are not told of the reaction of the maid who came out to clear the snow off the front porch next morning!!!!! The book tells that plain bearings are in common use, roller bearings have been used but any replacement needs skilled workmanship compared to the simple plain bearing. One day a tramcar had a seized axle on one bogie, the driver waited until the following tram caught up with him and the defective tram was pushed back to the depot. The hill got steeper and steeper and a second tram had to assist and before the depot was reached a third was called in to help and finally the depot was reached. A fitter came out with a watering can and soaked the track into the work area and then he got on board and drove the tram powering the good bogie; pushing the defective one which now had flats on the wheel treads. Three days later the wheel-set had been replaced and the tram was ready to put back into

service. If a tram was found to have noisy helical gears in the drive train it was cured by adding used tram tickets to the lubricating oil!!!

Usually compressed air powered the brakes on these tram-cars. A simple way of looking for air leaks was to apply a soap solution with a shaving brush. This takes me back to my early days in the Royal Navy in 1943. Razor blades were in short supply so I learnt to shave with the cut-throat razor supplied as there was no excuse for not being clean- shaven. To grow a beard one had to apply for (permission to grow) and if given one's beard had to be inspected by the Duty Officer to see if it was acceptable.
What happens these days with 'designer beards' I have no idea.

Model Display of the Month

by Cynthia Cooper

Since retiring a couple of years ago I have been a volunteer at the Te Manawa Museum here in Palmerston North.

In December 1918, in an effort to lift spirits after the war, Collinson and Cunninghame opened Santa's Cave in the basement of their shop. This was later taken over by Farmers Department Store.

When Farmers moved into the Plaza in 2010 they decided that Santa's Cave would not move with them and it was given to Te Manawa.
It was in rather sad shape when it arrived at Te Manawa and they have been repairing and upgrading it ever since.
It is open to the public in December and early January each year.

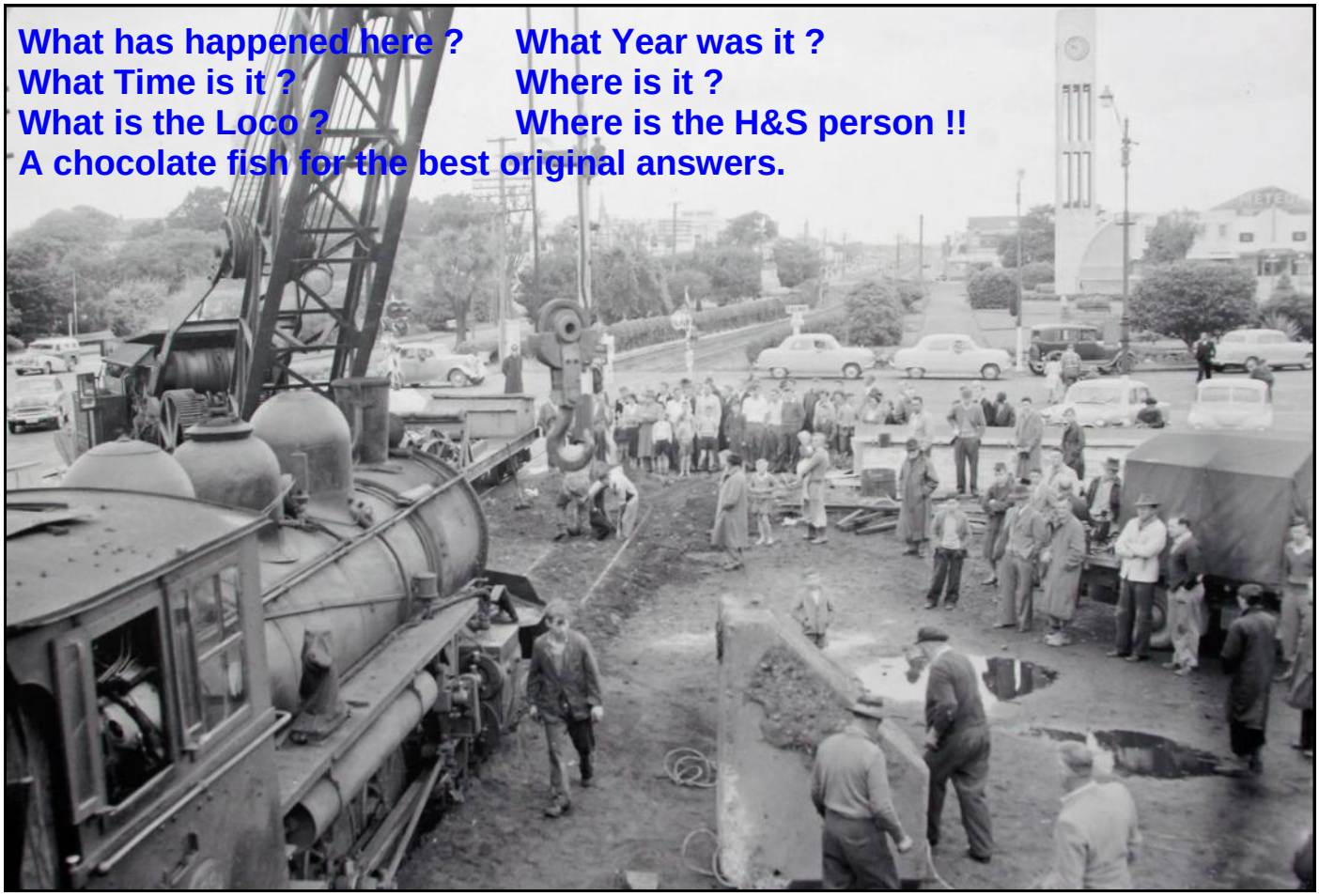
I recommend visiting the Cave. Santa is there until Christmas Eve. After that the Cave stays open until the middle of January, but without Santa or the Elves. It is still lots of fun though.

On the left hand side leading into the Cave is a model train chugging around. On the right hand side is a set of display windows. Different items are put on show each year.

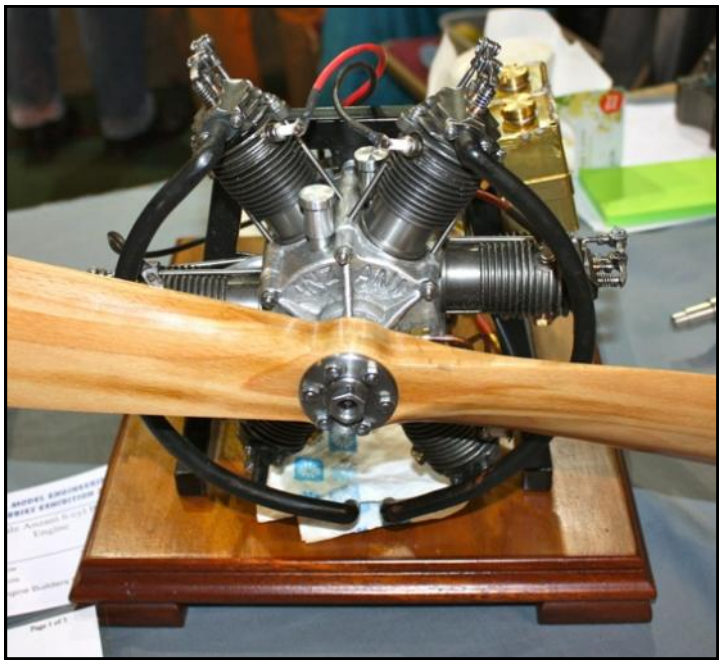
This year, on behalf of our club, Bruce Geange gathered together from among our members a variety of 97 models, toys and sundry other items. In keeping with the old time feel and history of Santa's Cave, we set these up to represent a toy shop window of the 1950's.

Bruce has also set up a display at Santa's Cave in the Little Theatre, Feilding.

Thank you Bruce for putting together such great displays.

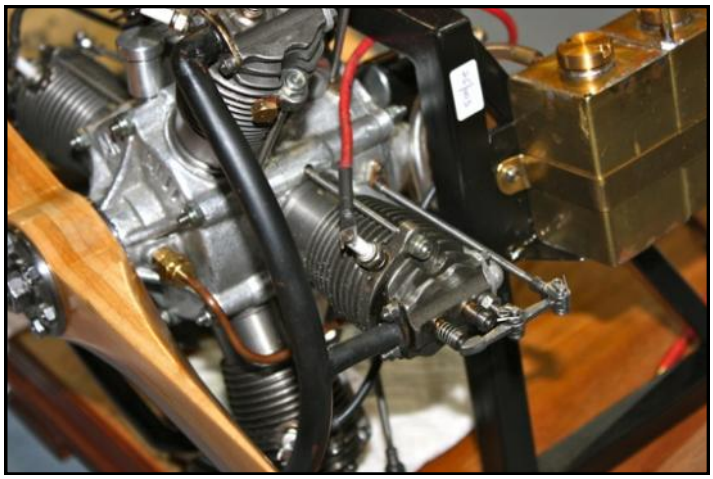


An ANZANI SIX CYLINDER RADIAL AERO ENGINE by Mike Cole



www.modelengineeringwebsite.com/Anzani_6_cylinder.html
for more info and photos

Graeme Hall first met Mike Cole at the Bristol Model Engineering Show in August 2016. He has built a number of aero engines, including 3 Anzani type engines.
I have been in contact and Mike has supplied castings for a '3 cylinder' Anzani Engine, which I am currently building.



So in another month or two we will see it completed, or maybe even running at Locomotion 2017. Ed.

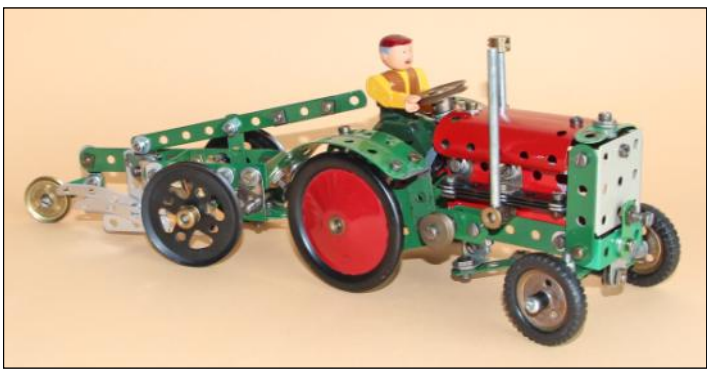
Meccano Models I have Built

Bruce Geange

I have always been interested in Meccano and other Binns Road products. I had a small set when young and this was put away during most of my working life. It wasn't until the late 1980s that Meccano came out again after being asked to be part of a new Meccano Club. This became known as the MWT (Manawatu Wanganui Taranaki) Meccano Club. From here on I started looking for second hand Meccano and would purchase anything that came my way. Today I have a reasonable collection of Binns Road and French Meccano.

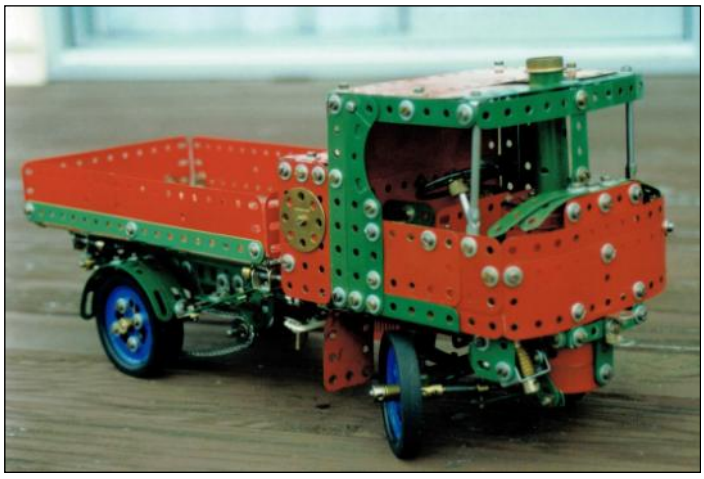
My Meccano models, usually of my own Design, are mainly of the wheels or track type vehicles, although other models have been built and are of small to medium size with a lot of these having building instructions written for them with photos taken during the build of the model. These model descriptions are used in our local Meccano Magazine and other magazines around the world.

The first model is of an early Fordson Tractor driven by the Meccano Clockwork Magic Motor. Steering and pivot front axle are included. Several types of this model



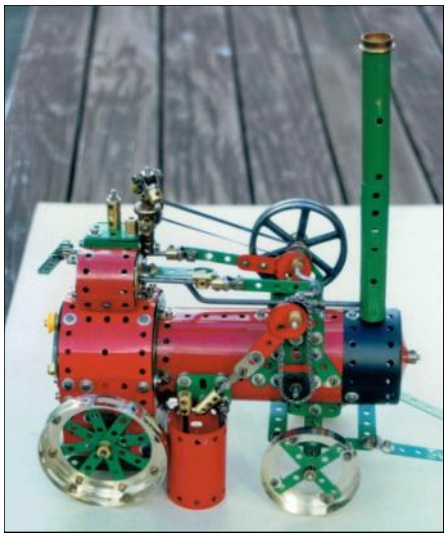
have been built with the latest being a push along model with a two furrow plough in tow.

Steam has always been of interest and several steam models have been

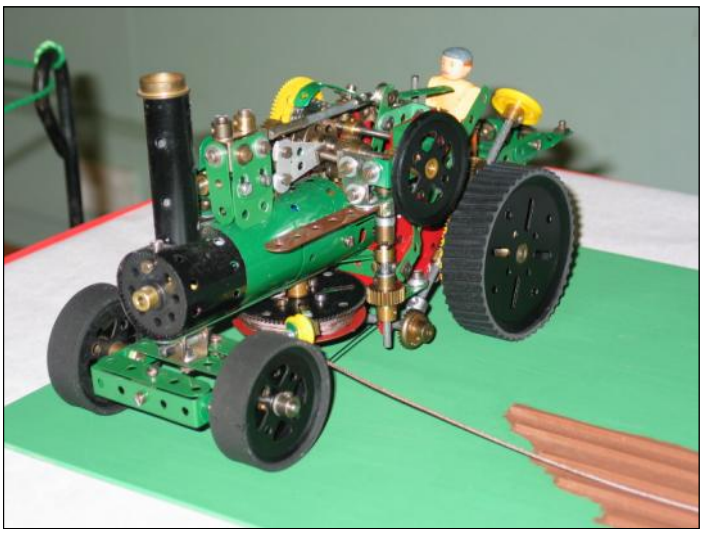


designed and built. The next picture is of a Garrett under type Seam Waggon with a three way tipper body.
An electric motor drives all functions on the model.

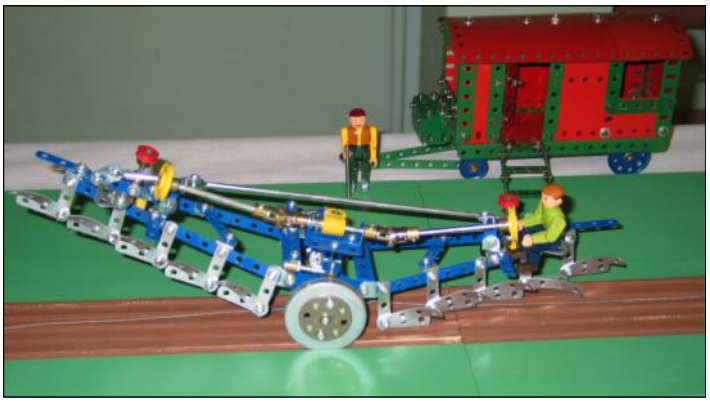
The Portable Engine is based on a single cylinder engine and has the motor and batteries in the boiler. The regulator lever controls the model. These engines only run in one direction. Water supply is from a drum beside the engine.



A pair of Ploughing engines were built and a balance five furrow plough to tow between them by the winch on each engine. These engines have a winch mounted under the boiler with a dog clutch on the vertical shaft. A DC motor hides in the firebox with batteries in the boiler.



The forward reverse lever operates a switch to control the model.
Rubber has been added to the wheels.
These models were based on the Fowler Ploughing engines. The balance plough has a seat at either end for the person steering the plough with the tow cables



being connected near the axle. Large blocks of land were ploughed with this method. Another use for the ploughing engine was dredging.

Don't forget to bring your
Put-Put Boat
for the test running at the
Presidents BBQ
on 26 Jan 2017

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