



Newsletter of THE PALMERSTON NORTH MODEL ENGINEERING CLUB INC

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TRACK RUNNING

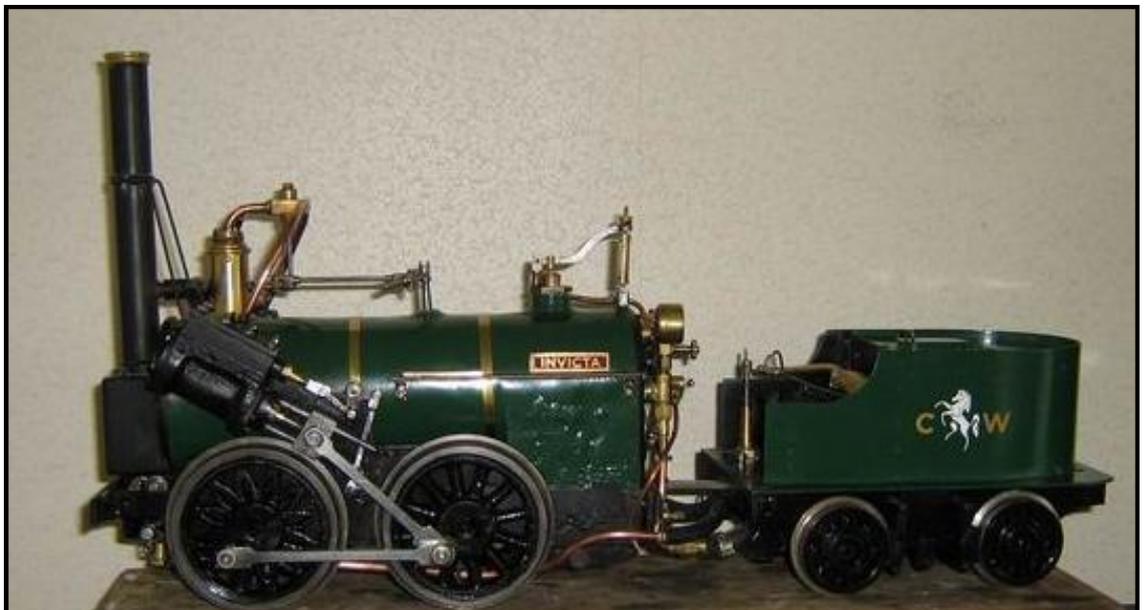
This is held on the FIRST and THIRD Sunday of each month, from 1 pm to 4 pm Summer and 1 pm to 3 pm during the Winter. All club members are welcome to attend and help out with loco coaling, watering and passenger marshalling - none of the tasks being at all

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
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here

This Months Featured Model



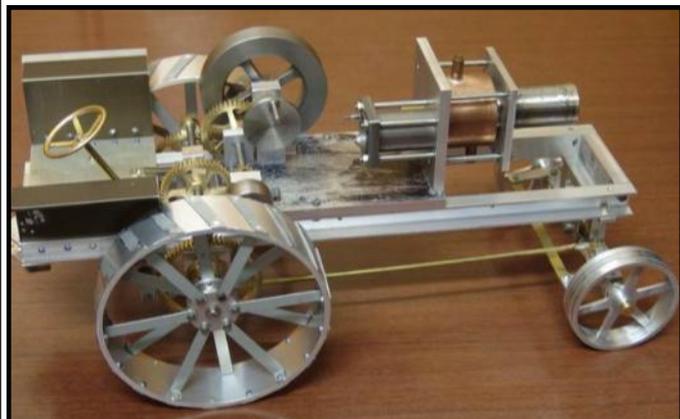
Report on the March Meeting.

Robert Edwards had put all the movie clips he had taken at the Whangarei Convention on a DVD and along with the 'still' photos taken by **Murray Bold**, members were able to get a very good idea of the 'goings on'.

The members who attended the Convention were able to help the members who had not been to Whangarei understand the layout of the track, which at first seemed quite complicated.

Richard Lockett showed some photos of a party of trampers being ferried into the Ranges behind Table Flat by RNZAF Iroquois, and there gathering up stoat traps which were then re-baited and laid out in a different area. The trampers had to be winched down and once the task was completed, then winched up again. The task was organised by the Department of Conservation.

Graeme Hall showed us progress on his 'hot air' tractor which is similar to the one Bruce Geange made some years ago.



AGM - April Club Night

This Month is the AGM.
You will need to vote for the
"Members of the Incoming Committee
and Executive"
also the
"Clubman of the Year"
7:30pm, Thursday 26 April 2012
Hearing Association Rooms
Church Street, Palmerston North

COMING EVENTS

Track running at Marriner Reserve Railway

May 6th from 1pm to 3pm
May 20th from 1pm to 3pm

Open Weekends

Thames Small Gauge Railway
May 19th & 20th

For Sale

Highly detailed scale model of a South African Railways Class 19D. complete with a twelve wheel buckeye bogie tender. Engine and Tender measure approx 10'- 5" long 5" Gauge. Copper Boiler. Full write up and photos in the Model Engineer Vol. 197. No 4287 24th Nov - 7th Dec.2006. also photo in the Australian Model Engineering Issue 155. March - April 2011

Please contact Tony Mackay
Tel No. 07 823 7478

If you would like to receive notification when **The Generator** is published send your email address to pnmec@trains.net.nz with "**Generator**" in the subject line. Members of other clubs are also welcome, in which case please include your name and club affiliation, along with your email address.

The closing date for the next issue of The Generator is Friday 11th May

THIS MONTH'S FEATURED MODEL

By Doug Chambers

Towards the end of last year Richard Lockett was asked by a friend, Ian Foster, if he would be prepared to complete a model locomotive that his late father had been building. Richard declined the task but told Ian that he had a friend in Palmerston North who does a lot of that sort of work and that he might be interested.

So a wooden box was brought to me by Richard and in it were parts of LBSC's 'Canterbury Lamb'. This was the engine known as 'Invicta' that ran between Canterbury and Whitstable in England about 1830.

The following article tells of the history of the full-sized 'Invicta' so for now we will continue with the model.

The late Harley Foster who worked for the NZR had made good progress with his model which was about 70% complete. The tender required one more brake shoe and the tank soldering up. The chassis was nearly ready to run on air and the boiler was complete and ready for hydraulic testing. Most of the backhead boiler mountings were made.

Richard made it clear that the engine was to be glass-cased, to be kept by Ian as a memento of his father's work.

I was determined that it should be finished as a working model although an engine that small is going to be of little use hauling passengers on a Sunday afternoon.

I started off by carrying out a hydraulic test which it passed with nary a 'drip'. Then the chassis received my attention, the valves were set and after a little further adjustment the engine ran both forwards and backwards on air. The valve gear is 'slip eccentric' and I had believed this to be simple to set up but found that there is more to it than I originally thought!!!!

The boiler fittings, throttle and superheater, safety valve etc were duly made and fitted. The engine was then painted and this caused me some concern. LBSC had made the boiler as big in diameter as possible and there was not enough room between the cylinders to fit any cladding to the barrel. This meant that the paint had to be applied to the boiler shell and I did worry that when the engine was steamed, the paint may change colour or peel off. As it turned out my fears were unfounded and the paint was unaffected by the heat. Soon, the

tender was completed and painted and a steam accumulation test was carried out. That being satisfactory, arrangements were made to borrow Ian McLellan's very small driving truck for a trial run at Marriner Reserve Railway. Attempts to steam up the 1:100 grade past the store shed failed so the engine was turned and it was found to run happily downhill.

During running it was noticed how the wheels on the driven axle tended to lift off the rails when the engine was put under load.

This occurring to the left and right wheels as the respective piston, connecting rod lifted the wheel-axle up the axlebox causing the engine to slip. This would have happened to the full-size 'Invicta' no doubt restricting its ability to haul loads up the grades. Soon after 'Invicta' was built, locomotives such as the 'Lion' were fitted with their cylinders horizontal to the track thus avoiding that problem.

I weighed the engine, less tender on the bathroom scales and found it weighed just 7½ kg. Ian's driving truck would weigh about 20kg and me 90kg so I felt that the little 'Invicta' had not done too badly.

In February Ian came down to Palmerston North and he was able to experience the same short downhill run after which I took the engine home and polished it up before handing it over to him. I have to admit that seeing the delight on Ian's face made the work I had put in seem very worthwhile.

INVICTA 1830

By Doug Chambers

In 1824 a group of local businessmen engaged George Stephenson as the company's engineer. The line between Canterbury and Whitstable was to be 6 miles and 1 chain long with steep gradients, embankments, cuttings, a half mile long tunnel and two bridges. Steam winches would be used to haul the train up the two steep inclines. George Stephenson spent little time on the project before handing it over to his son Robert who designed 'Invicta'. An accurate history of Canterbury and Whitstable Railway (or the Crab and Winkle Railway as it was often known) is not easy to come by as dates and events have become confused due to not being recorded correctly at the time. It is known that 'Invicta' cost 635 pounds. 'Invicta' was transported by sea to Whitstable from Newcastle-on-Tyne arriving about April 26th 1830, only one week before the

scheduled opening day. The harbour facilities had not been completed by then and the 6¼ ton 'Invicta' must have been unloaded off a flat bottomed Thames barge by means of a ramp across the mudflats to the beach.

Robert Stephenson steamed 'Invicta' for a trial run on the 2nd of May and reached a speed of 17 mph. The next day the official opening took place and it is believed that three hundred people were to travel in the wagons during the day. Speed while drawn by the winding engines was between 9 to 15 mph and free-wheeling downhill but under the control of brakes, up to 25 mph.

This then, was the beginning of the first scheduled train service in England. However events in the North of England were to over-shadow the "Crab and Winkle Railway". There was more freight and coal to be moved in the North and the major advances were made there.

"Invicta" was modified during its working life. Originally it appeared to have had a strange two wheeled tender, later replaced with a larger four wheeled type. In 1836 due to the loads of freight (mainly coal) increasing, the boiler received some alterations. The three copper tubes were replaced with a single cast iron flue. This change as you would expect reduced the boilers capacity to steam and by 1839 the 'Invicta' was offered for sale. It didn't sell and that is why it still

exists today. For many years it was on a plinth outside the Canterbury City walls. Later restored in the York Railway Museum where it has had wood cladding added to the boiler, something it never had originally, it has now returned to the Whitstable Museum where it is displayed with one of the winding engines.

Some known facts of the engine.

Boiler Pressure 40psi , Width 5 feet, Height 11 feet, Length 10 feet. The wheels were 4 feet in diameter and only the front wheels were cast. Cast wheels were yet to be proven in those days and the rear wheels are wooden with tyres shrunk on. This explains the difference in spoke pattern from front to rear.

Letter from England

By Stan Compton

Some years ago a member of the Hereford Model Engineers, bought a kitset to build a 5" gauge 'King Arthur' locomotive. Time slipped by and he heard of so many men having problems with the Modeltech Kits (the company later went bankrupt) and he disposed of the kit at a big financial loss. This is when I found a local man had taken on the project and was finding out again (it being his second kit from the same source) all the problems involved.

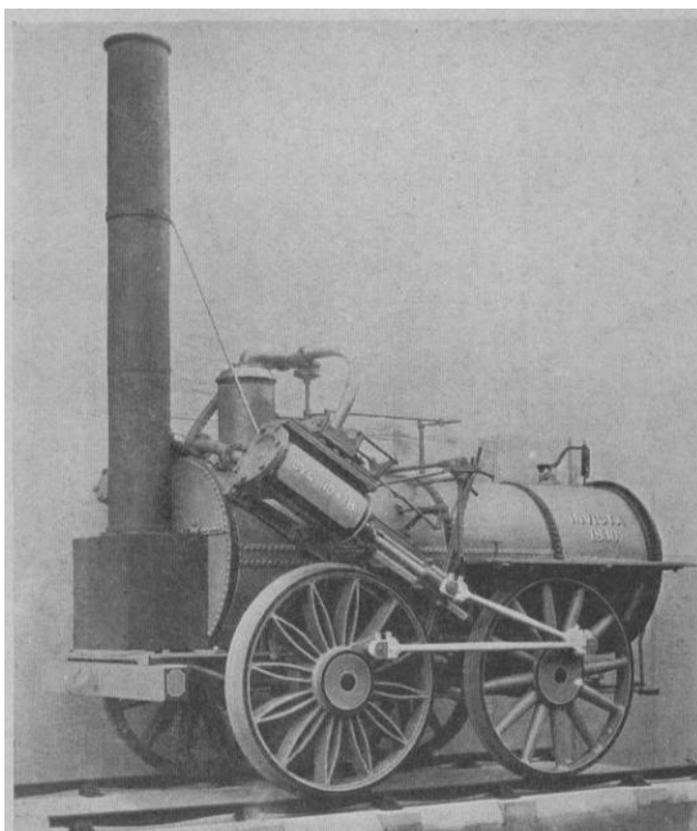
He got it assembled, with some help, but found it too heavy for him to handle and he sold out of the club, also losing money on the deal.

Another year goes by and now I hear that an experienced club member has taken on the project of a complete rebuild of this engine. Rather him than me even for the money offered, I suspect it will be sold on later.

Years ago I happened to be at a cage-bird show in Cuba Street, Palmerston North, N.Z. and found a schoolboy standing by a cage containing a farmyard hen who had just laid an egg.

That boy was ecstatic, "Look she laid an egg! I wish she were mine." I wonder how many boys of today would react like that? When I travel to Hereford on the bus I notice that school children don't talk to each other, they spend all their time texting messages to their friends.

An item from 'Old Glory' magazine about 'Bressingham museum' of railways was about to close down, but the Garden centre will carry on. About three years ago when we visited the site I got the feeling that this would happen, two volunteers were doing their best to cope with the visitors. Twenty years before when Alan Bloom,



the founder, was alive it was a lively place. Now he is gone it has all changed. Museums take a lot of effort and money to operate and like restored railways the small ones cease to operate when volunteers get older and the novelty of running a railway has worn off. I find it hard to grasp that two million pounds can be found to restore a vessel that was built to take passengers out to board the ill-fated 'SS Titanic'. Built by the White Star Line in 1912 and called 'SS Nomadic' it is now in a sorry state and the money will only preserve the hull outline. But anything to do with the 'Titanic' is fair game, but I do wonder who will pay to see a restored hull.
(www.nomadicpreservationsociety.org)

Any of you who have travelled in the UK will recall how narrow the streets are in our market towns. The one I live in is a classic case. Built many years ago the roads and bridges only had to cope with horse-drawn vehicles. The Romans built straight highways, some upgraded are still in use. But towns grow outward and existing roads are restricted by buildings that are part of the heritage of an old country. An example is a cross-road junction in town; on one corner is a timber framed property known as 'the house on stilts'. The oak timbers support the upper storey. Regularly the drivers of large semi-trailers try to turn into the main street and the overhang of the trailer catches the base of the posts nearly bringing down the building. To eliminate the problem the road was narrowed and steel posts erected to protect the building and now the steel posts get damaged instead.

This takes me back to Wartime Britain when the American Forces arrived bringing with them Diamond T tank transporters. I have just read that one thousand of them were ordered from



the makers and ultimately six thousand were built. Visualise the scene in one of our country towns, one of the transporters being driven by a young American serviceman, a cigar in his mouth, and used to the open spaces of the USA, and the trail of damage left behind as the convoy passed through.

I recall hearing about one of our specialist road haulers on the lookout for suitable vehicles, finding himself following a Diamond T being used in civilian life. At one point the Diamond T driver slapped his brakes on leaving eight patches of rubber on the road surface, (those Westinghouse Air Brakes were very good). "Those Diamond T trucks will do me!!" was the road hauler's comment.

There is one still in use locally as a breakdown vehicle, those small cabs were very cramped



compared to the ones built in the USA these days.

Doug has told me of the cause of the helicopter crash in Auckland, lucky no one was killed, but what an expensive Christmas tree!!!!

A pity about the Hot Air balloon crashing near Carterton, all those years of safe operation and for this to happen, I do feel sorry for the relatives and friends of the deceased.

I have just read a section of a book describing the work some of our young women did during WW2. One girl who had worked in a hand-bag factory was told to attend a course on overhauling diesel engines. Now any of you experienced in that trade know how filthy they can be internally, no detergents then, or soap supplied as it was so short in supply even though it was rationed. The women who worked assembling aircraft were very useful at getting into the confined spaces of 'Spitfires' etc, those were the days when most girls were slim!!

Two of our members were observed doing time in the world of 12" to the Foot scale



Stuart Anderson (in the HV jacket) working on the Feilding Steam Rail NZR "F"



Scott Bleackley supervising a female steers woman during the Feilding Christmas parade.

VIADUCT RE-PAINT

By Doug Chambers

It is now twenty-two years since the two

steel bridges were built and erected on the extension of the Marriner Reserve Railway. The steel had come from the 'clip on' cycle track that had been fitted to the old Fitzherbert Avenue Bridge over the Manawatu River. The steel had been well painted but with the years passing, some rust was becoming evident and prevention being better than leaving it until a much larger task would be required, a re-paint was in order. Rust spots were chipped with hammers, wire brushed and then treated with a 'rust kill'. Then a coat of undercoat metal primer followed by a coat of Pewter Grey top coat. The picture shows the first stage receiving its top coat being applied by Laurie Perkins, John Tweedie, Richard Lockett and Doug Chambers who had to stop painting to take the photo.



During the morning John had asked how long since the bridge had been painted and on being told 22 years, he was heard to comment that as he is now seventy he wouldn't be painting it again in another 22 years. Laurie and myself said that it would be unlikely that we would be taking part in the re-painting in another 22 years which left Richard now 50 with a concerned look on his face. Another 22 years would see him 72, the same age as some of today's workers so he might be doing it again!!!!