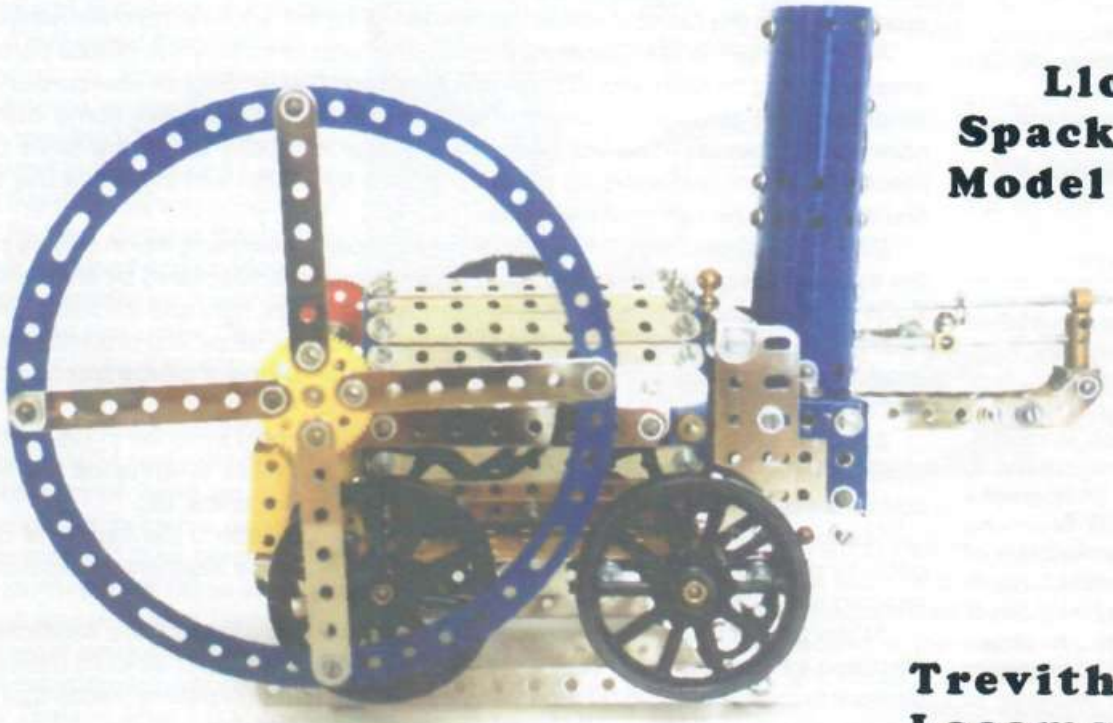
NZFMM MAGAZINE

Volume 26 No 2 April 2002

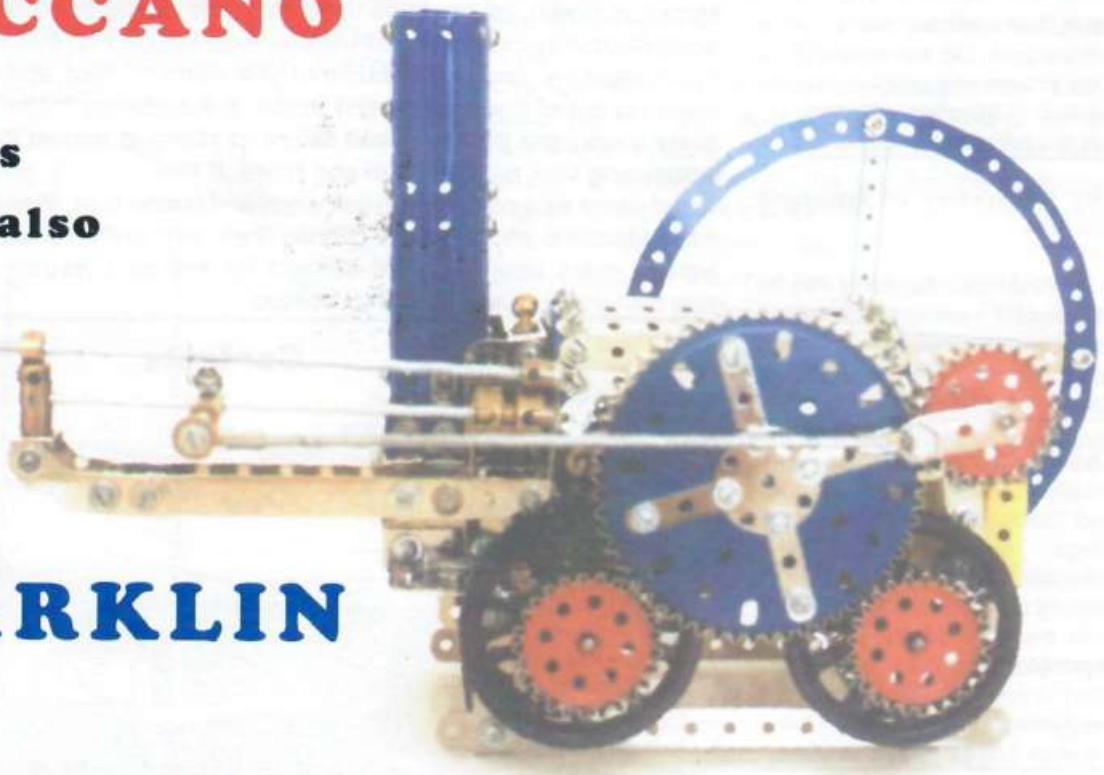


Lloyd Spackman's Model of the Trevithick Locomotive includes

MECCANO

Parts

and also



MÄRKLIN

Parts

Published by The New Zealand Federation of Meccano Modellers

NZ Federation of Meccano Modellers Magazine

Editor: Bruce Neilson,
P O Box 1009,
Palmerston North. 06 355 0776
Email: <rbneilson@infogen.net.nz>

Compositor: John Ince,
5 Lennox Place, Feilding. 06 323 7075
Email: <johnince@ihug.co.nz>

Roving Reporter: Bob Prescott,
9 Eastview Place, Feilding. 06 323 9963
Email: <rjp@xtra.co.nz>

The NZFMM Magazine is published six times a year in February, April, June, August, October and December. The publisher is the NZ Federation of Meccano Modellers. The purpose of the magazine is to publish articles and photographs about Meccano and Meccano models, to report the meetings of New Zealand Meccano Clubs, to print letters expressing the views of Meccano modellers, to keep members informed of future events and to print advertisements of Meccano related things. The views expressed in the magazine are not necessarily those of the editor or of the Federation.

Letters are welcome and may be sent by post or by email. The author's name and address must be supplied. Publication of letters will be at the editor's discretion.

Subscriptions are payable annually in March. Please send to: Lloyd Spackman, Villa 22, Redwood Village, Main Road, Tawa, Wellington, New Zealand.
Cheques and bank drafts should be made payable to the "NZFMM magazine account".

New Zealand	$23.00pa
Overseas Airmail	$33.00pa

NZFMM Internet site hosted by Wes Dalefield
<www.dalefield.com/nzfmm>

The Slings and Arrows of Outrageous Fortune.

The life of an Editor is not an easy one; included in the burden he carries are the ones of health and personal attacks by way of abusive correspondence from enraged readers and others. I am sorry to record the withdrawal of Paul Joachim, editor of *The International Meccanoman* (IM), from IM and the Meccano hobby for those reasons. The growth, content and style of the current IM is the lasting tribute to Paul Joachim's work. A growing trend among the Meccano fraternity is the attempted widening of the boundaries of what constitutes "the Meccano hobby" - like the political spectrum from the far right conservatives to the far left socialist revolutionaries.

At the far right is the Meccano traditionalist who uses only the official parts that were produced by Meccano Ltd at Binns Road and Calais. Slightly less conservative modellers will also use replicas of official Meccano parts from home made or commercial sources. The conservative modeller will build within the limits of the Meccano system and solve his model problems by design and ingenious use of the Meccano parts he has chosen to use.

Middle spectrum modellers will use in their models new parts which closely reflect the existing designs of Meccano Ltd but were never manufactured by Meccano Ltd. Such parts as smaller hub discs, different size gear rings, right and left hand helicals, washers in various thickness, extended range of narrow strips and brackets come to mind. Slightly more radical modellers will accept the cutting of official Meccano parts into different shapes.

At the left hand side of the hobby is the modeller who includes in his models a small amount of "off the shelf" items needed to complete or enhance his model: curtain track, wire netting, tubing, "wet" hydraulics, electronics, etc.

Going further left there are modellers who wish to extend the variety of official parts by making totally new parts with the criteria that it be Meccano compatible i.e. spacing and diameter of holes, pitch of teeth, etc.

At the far left there are modellers who find that their models have exceeded the Meccano system and have such essential integral building parts as extra thick axles, unusual numbers of teeth on gear wheels, etc. and non-compatible pieces that need to be made up or cast, usually by an engineering workshop.

How you and I make a model is entirely our own business and rightly so. How far we extend to the left and are still able to say that our model is a "Meccano" model is the question. Perhaps a criteria would be " If I write up a modelplan describing my Meccano model, list the parts used, send the modelplan to a Meccano enthusiast in another country, is there a reasonable expectation that that enthusiast can recreate my model now, and in one hundred years time?". Also adding to the movement of breaking out of the traditionalist mode, is the current Nikko policy of not releasing spare parts, and the perceived failure of Nikko to extend the Meccano system by introducing new parts in steel and brass. If Nikko is only going to use the Meccano brand name as a cash cow to sell wood and plastic toys, then there is an incentive for adult Meccano modellers to choose their own path. Where will "we" be in ten or twenty years time? A good subject for the next issue's editorial. Keep those screwdrivers turning - R. Bruce Neilson.

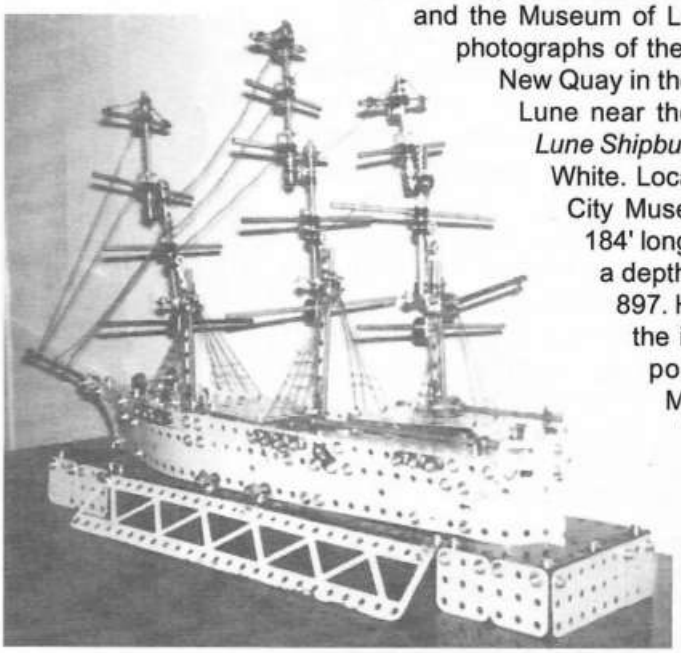
Contents

The Clipper Ship "Wennington"

by Lou Nichols

My wife's mother, Alice MacKenzie (nee Price), like many thousands of New Zealanders, had grandparents who emigrated to New Zealand in the age of sail to find a better life. They sailed from the port of London to Port Nicholson, Wellington in the clipper ship "Wennington". The journey from England in 1874 took 17 weeks and five days. By way of contrast the Air New Zealand flights that leave Auckland and London just before midnight each day do the journey in just under 36 hours, which includes the stop-over in Los Angeles to refuel and take off and put on passengers. Travel in 1874 really did give the impression of living on a very large planet because most people who emigrated knew once they left their homeland they would not be making the journey back home in a hurry or maybe never at all. Home was now New Zealand, whether they liked it or not. And most emigrants did make a good go of settling into a new environment and country and doing their bit to make New Zealand what it is today.

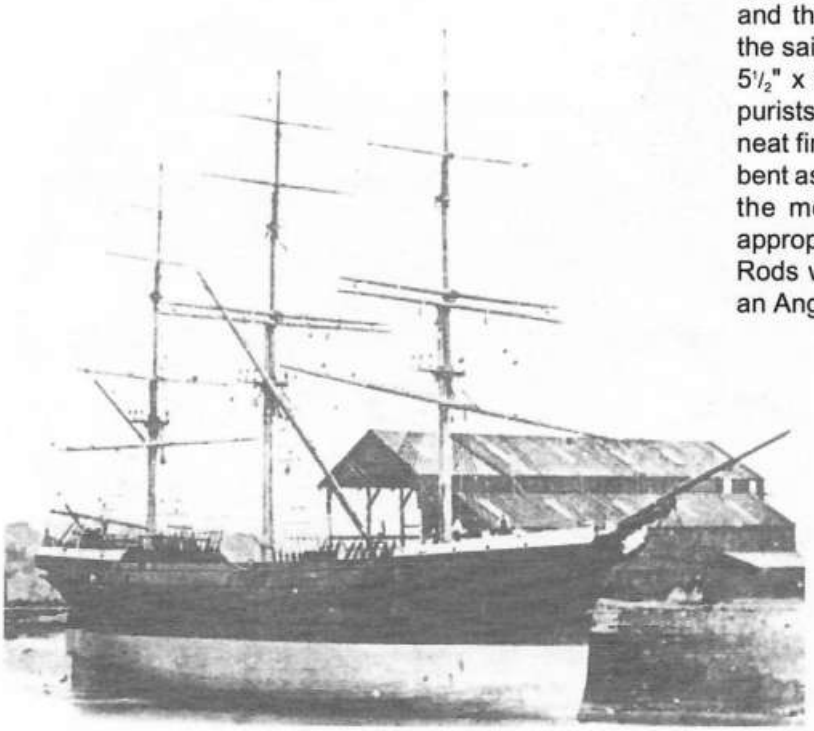
So, on 30 January 2000, in Queen Elizabeth Park in Masterton 267 people, all descendants of Masterton settlers Stephen and Evelyn Price, gathered for a very nice family reunion - a happy day of renewing friendships and meeting for the first time family members who now live in other parts of New Zealand and also Australia.



One of my sisters-in-law, Yolande, carried out the research in obtaining the details of the clipper ship "Wennington" and the Museum of Lancaster was able to give photographs of the ship on completion at the New Quay in the builders' yard on the river Lune near the City of Lancaster. ("*The Lune Shipbuilding Company*" by Andrew White. Local Studies No 2, Lancaster City Museums). The ship itself was 184' long, with a beam of 32'.3" and a depth of 20'.9" and a tonnage of 897. Having these facts gave me the incentive to build as far as possible a scale model in Meccano of the "Wennington". The model was used at the reunion by sitting on the table along with the celebration cake specially baked for the occasion.

The photographs that the museum supplied did not give a really good idea of the hull shape when viewed from above, or the actual shape of the sails but I had publications on my own bookshelves that helped considerably towards the construction of the model. As you can see from the photographs, construction was reasonably straightforward once I had the dimensions worked out.

The following comments describe how I tackled some of the construction. I used the reasonably new P/N 23c Rubber Bush extensively in the making of the masts and cross spars. By using these in conjunction with Double Brackets, the pair could be slid into position on the mast with the cross spar pushed into position between the two. The Rubber Bushes were also used at the end of the cross spars where I had the sails. Cord was tied around the bush and then threaded through the appropriate end holes of the sails. To represent the rudder I simply bent to shape a 5½" x 2½" Flexible Plate. I know this doesn't please the purists, but in this instance bending the Plate gave a very neat finish to the stern. Once I have bent a Plate, I leave it bent as usually it can be used again in the future. I attached the model to the base by sliding Axle Rods through appropriate holes on the bottom of the hull and these Axle Rods were held in place by placing a Collar each side of an Angle Bracket fixed to the base.

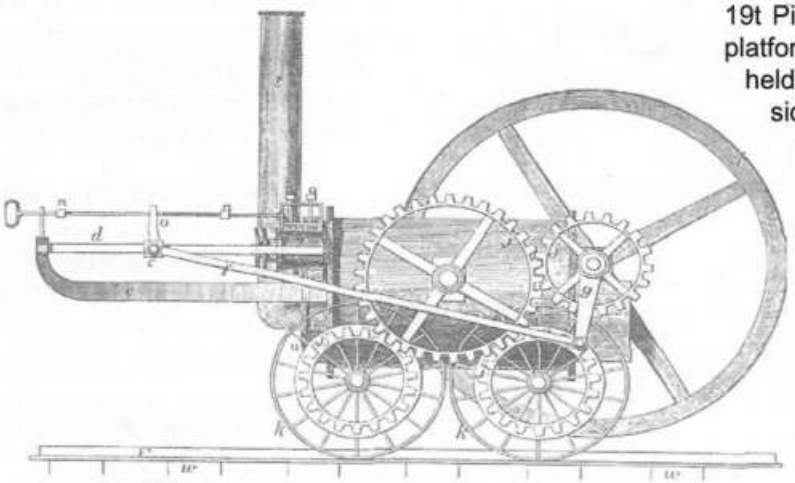


The Wennington was an iron ship (not Meccano!) and was launched in March 1865. Originally owned by Wilson & Chambers, Liverpool she was sold in 1867 to the Lancaster Shipowners Co. The ship was lost in the Java sea in 1878.

THE 1803 TREVITHICK LOCOMOTIVE

Model description and photos by Lloyd Spackman

This locomotive was the first steam loco in the world to actually work on rails. It was the original Trevithick "New Castle", noteworthy for its immense flywheel and very large gears. I based my model partly on Roger Le Rolland's in GMM No 39. However, my main guide was the prototype drawing shown here. It is from a book "The Cornish Giant" by L.T.C. Rolt.



Prototype from the righthand side - Front >>>>>>>

The flywheel end is the FRONT. Left and right are as looking from the rear.

Mr. Le Rolland used Plastic Gears, P80 and P82. I tried 3" and 1½" Sprockets. In the end I used 95mm and 38mm Märklin pulleys with their gear rings.

The flywheel is a Circular Strip with four 3½" Strips bolted as spokes to a central 1½" Gear.

The main frame has a 9½" Angle Girder at each side, round holes out and down, joined by a 3½" Flat Girder at the rear. Fix the Angle Girders out as far as their slotted holes will allow. Bolt a 3½" Double Angle Strip across at hole 3 from the front and a 3½" Strip across at hole 11. To the three middle holes of these, bolt 5½" Strips lengthways. This leaves a gap at the side for the chain drive between the wheels.

The stand has a pair of Corner Gussets at one end and vertical 2" Strips at the other, joined at the bottom by 3½" Double Angle Strips across and 7½" Strips lengthways, and bolted at the top to the main frame.

The boiler has a 3½" Circular Girder P/N 143a (available from MW Models) at each end, joined by standard and narrow 4½" Strips except for the bottom five holes. Fix it to the middle one of the lengthways 5½" Strips at the points where the 3½" Strips cross. Use short Bolts from underneath into Threaded Bosses. The middle side Strips on the boiler protrude one hole to the front, the other ends are held by Fishplates to the next Strips.

The motor is a PDU set at 60:1. Fix it high up inside the boiler so that the Worm on the output shaft is ABOVE the 19t Pinion. Fix a 2½" x 2" Flat Plate, (home-made, or a platform from 2½" and 2" strips), inside the boiler, low down, held by four Obtuse Angle Brackets bolted to the lowest side Strips at holes 5 and 7 from the rear. Bolt the motor to the Flat Plate, offset one hole to the left, leaving room for a chain drive to the rear axle. Support the motor with Spacers on each of four long Bolts to get a good mesh with the Pinion.

To carry the **large gear,** journal a 2" Axle Rod in a Double Bent Strip bolted outside the boiler centrally on the middle side Strip.

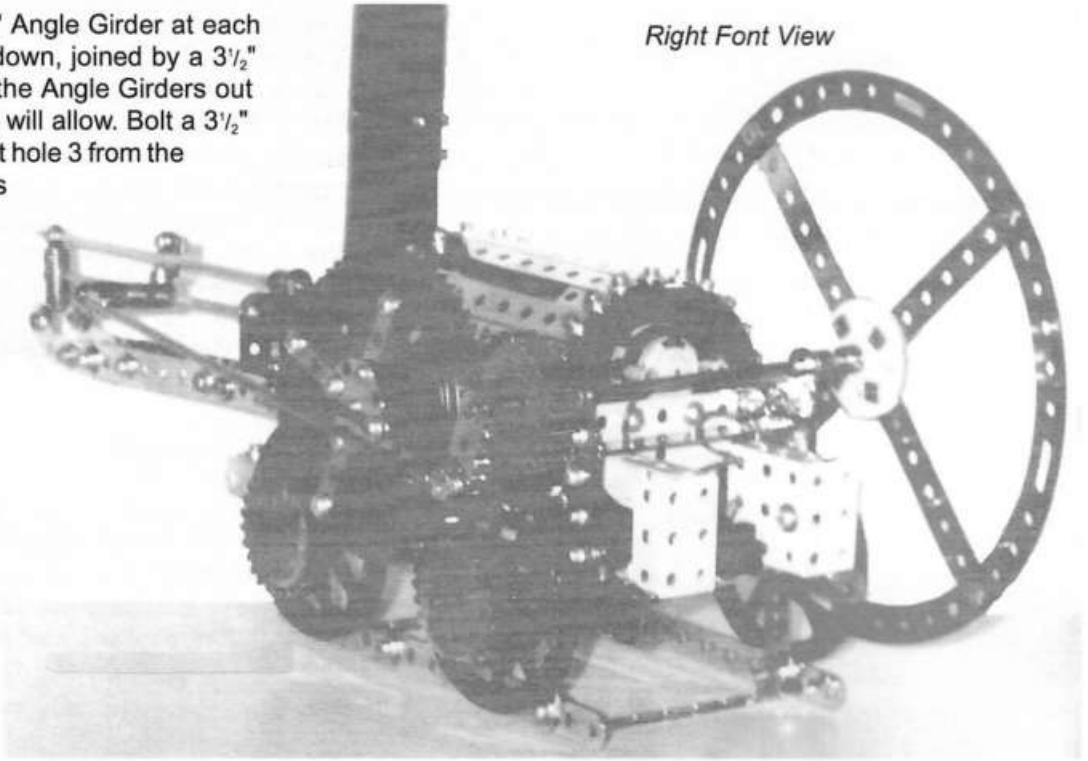
The **19t Pinion** driven by the Worm is on a 4½" Axle Rod in the centre side holes of the rear Circular Girder. This Axle Rod carries a 1" Sprocket with the chain drive to a 1" Sprocket on the rear axle.

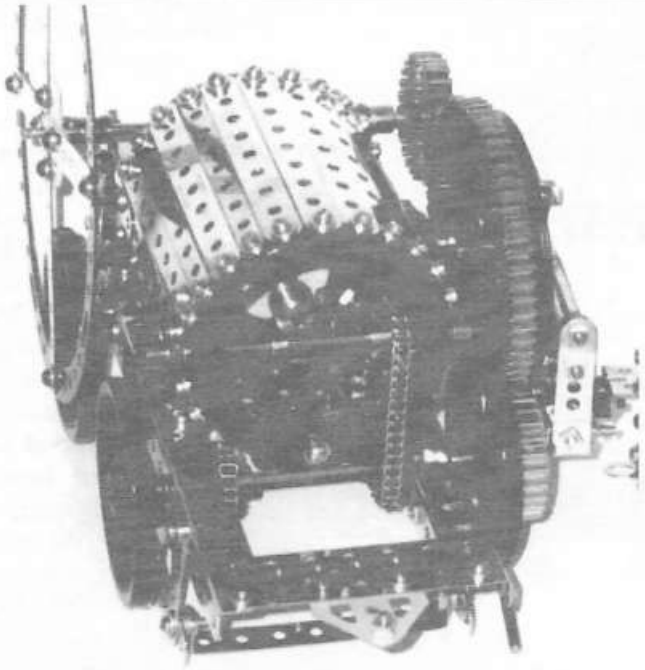
Power wires to the motor go down to a joiner block at the front centre between the two boxes.

Wheels are four 3" Spoked Wheels on 6" Axle Rods. The Axle Rods protrude at the right side to carry the smaller driving gears. (These smaller gears drive the large one which, in turn, drives the gear on the flywheel shaft).

Front of boiler (flywheel end) The lower half of the end is

Right Font View





Rear View with Funnel Removed

covered by a Semi Circular Plate on a 3½" Strip held by Bolts into Threaded Bosses in the centre side holes of the Circular Girder. The top is left open for access to the motor switch. Bolt a 3½" Narrow Strip across at the 2nd holes of the Angle Girders. Bolt to this the two dummy boxes (built from P/N 51a and P/N 51b) and the joiner block.

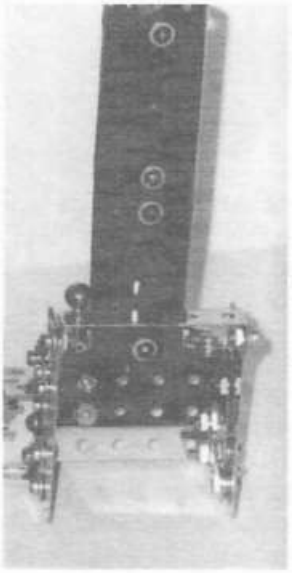
Flywheel bearings: To get a good mesh between the large & small gears use 2" Slotted Strips and 2" Strips vertically and horizontally. Bolt a 3½" Double Angle Strip across at the 3rd hole down.

Drive shaft : From the right, this 6½" Axle Rod carries a single arm Crank, 1½" Gear, Collar, Washers, support Strips(top holes) each side, Washers, Collar and the flywheel.

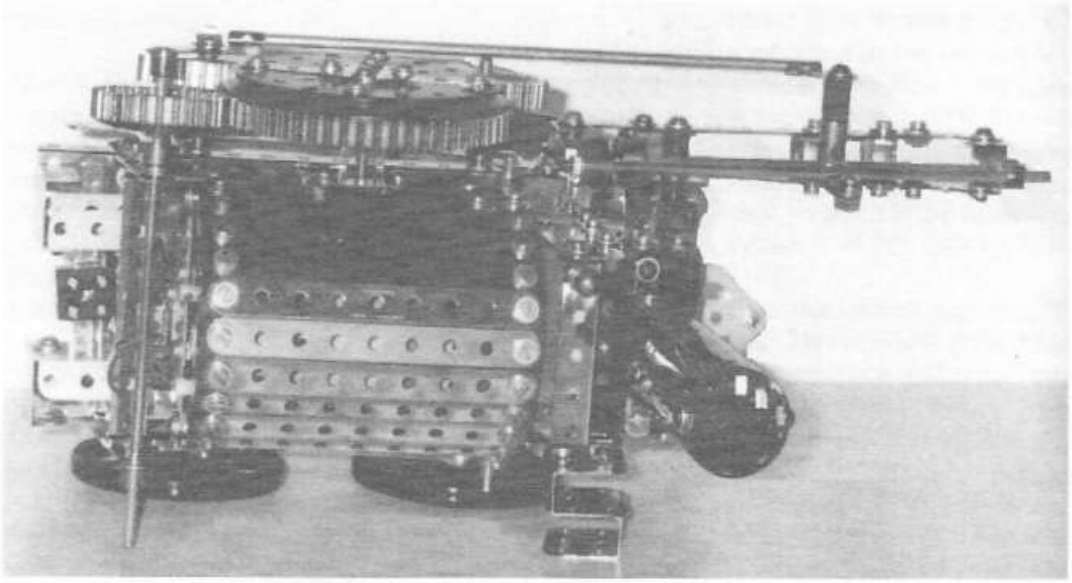
[The chimney, firebox & valve gear are one detachable unit].

The chimney is two 4½" x 2½" blue Plastic Plates curved to overlap one hole, butted together and secured by Narrow Strips inside.

The **firebox** under the chimney is a pair of 2½" x 1½" Flanged Plates bolted together at right angles with a P/N 74 Flat Plate each side. Below the vertical P/N 51 Flanged Plate fix a 2½" x 1½" Double Angle Strip across. Then at EACH SIDE bolt a 3" Flat Girder to the horizontal P/N 51 Flanged Plate, to the Flat Plate and to the end hole of the lug of the Double Angle Strip. These bolts also hold a P/N 12 Angle Bracket by which this unit is fixed to the main frame at its second from end holes. Bolt a 2½" x ½" Double Angle Strip across the top round holes of the two Flat Girders and secure the chimney to the top P/N 51 Flanged Plate with Narrow Angle Brackets.



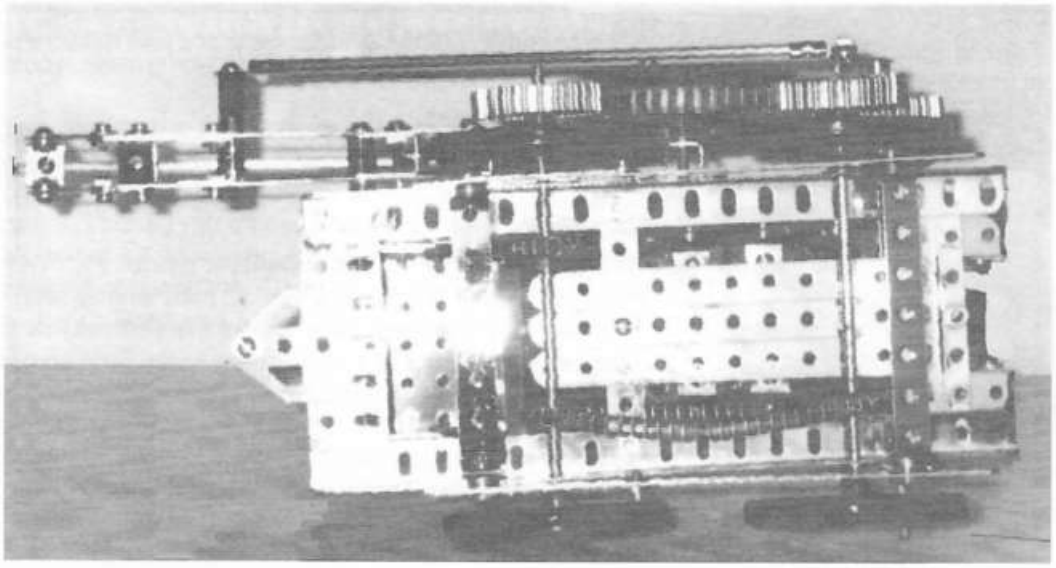
Valve gear & slide bars: This extends a long way behind the chimney. The support is two 5½" Strips joined by a P/N 11 Double Bracket and a P/N 11a Double Bracket at holes 3 and 4. The centres of these are vertical and face the boiler. At the outer end bolt a pair of P/N 133c Obtuse Corner Brackets overlapped two holes. Join these at their top end by another P/N 11 Double Bracket, centre hole on top. Bolt a Threaded Coupling to that and fix a Collar on edge on top of the Coupling. The centre hole of the Coupling and the top Collar hold the outer ends of the SLIDE BARS (6½" and 5½" Axle Rods).



Top View of Model

At the inner end bolt a vertical 1½" Strip to the P/N 11a Double Bracket and a 2" Strip to the inner P/N 11 Double Bracket. The 2" Strip carries a Rod Socket in each of its top two holes. These Rod Sockets hold the inner ends of the slide rods which must be parallel. Fit a Socket Coupling on the lower Axle Rod between the two Strips.

The support is then spaced from and joined to the side of the firebox. Bolt two P/N 11 Double



View of the Underside

Brackets side by side to the middle holes of the flange of the P/N 51 Flanged Plate and the P/N 74 Flat Plate. Then two 1¼" Bolts go through the 5½" Strips and the lugs of the P/N 11a Double Bracket, a Spacer and Washers before being bolted to the outer lugs of the (side by side) P/N 11 Double Bracket.

Valve mechanism drive: An 8" Axle Rod connects the Single Arm Crank with the mechanism using a Rod and Strip Connector at each end. Locknut the inner one to the Crank. The outer one is held under the head of a 1" Bolt, then Spacers and a Nut before the Bolt is screwed into a Threaded Coupling and locked there. This Threaded Coupling slides on the lower Axle Rod. Bolt a Narrow Angle Bracket to the top hole of the Coupling, packing with Washers to make sure it doesn't bind on the Axle Rod. Use a round head Bolt and Washers to make a bearing sliding on the upper Axle Rod. Oil both Axle Rods well.

Buy, Sell, Auction, & Exchange Information

The annual subscription for NZFMM Magazine covers the six issues, April, June, August, October, December and February. Late subscribers are sent back numbers of issues commencing with April to give them their full entitlement and ensure that all subscriptions finish in February.

For the new subscription year, April 2002 to March 2003, the number of times that an advertisement is published will be changed. The first insertion will be printed in full. A subsequent IDENTICAL advertisement will have another insertion (max. one) and may be abbreviated to fit space available.

The greatest impact of an advertisement is the first time, and freshly worded advertisements keep readers interested. Advertisements remain free but any donations gratefully received.

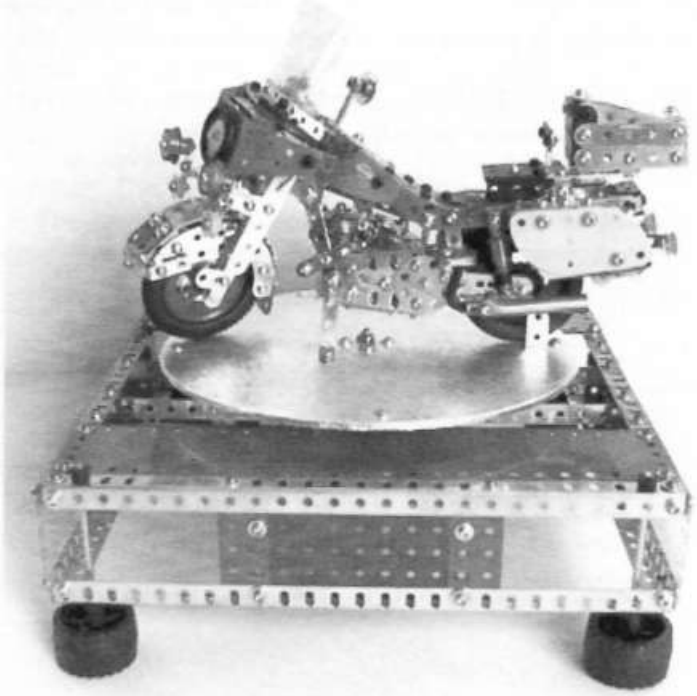
New Zealand Federation of Meccano Modellers Magazine Income and Expenditure - April, 2001 to March, 2002.

Cash Book Balance April 1, 2001		**1628.65**
Income:		
Subscriptions - New Zealand	**2392.00**	
Subscriptions - Overseas	**860.82**	
Subscriptions in Advance for 2003 and 2004	**354.02**	
Casual Sales (Back copies)	**76.50**	
Equipment sold	**20.00**	
Advertising paid	**20.00**	**3723.34**
		5351.99
Expenses		
Printing 6 issues	**2046.63**	
Printing extra (back) copies	**156.32**	
Printing Members List	**14.85**	
Postage 6 issues + back copies	**1021.60**	
Plastic wraps - 3 issues	**27.50**	
Equipment for compositor	**165.95**	
Bank charges, Photos, & Sundry	**59.95**	**3492.80**
Cash Book Balance, March 8, 2002		**1859.19**

SO YOU WANT A SIMPLE TURNTABLE?

Text and photographs by Bob Prescott

Having built Philip Webb's Harley-Davidson Electra Glide motorcycle, I agreed with his comments that you really need to show off both sides! He suggested either mirrors or a slow moving turntable.

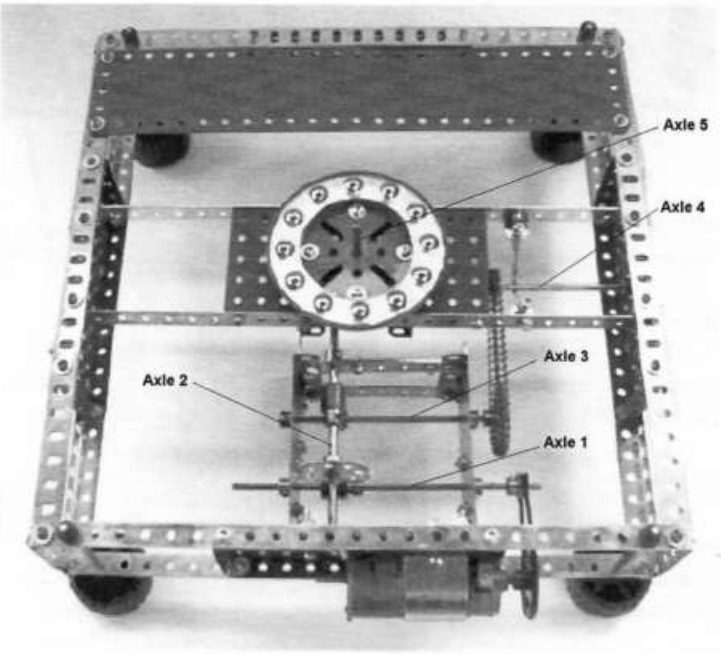


Back View of Turntable

I decided on a turntable which needed to be of solid construction because the motorcycle model weighed nearly 1.4kg. Ideally it would turn at about one revolution per minute to allow the public to view all aspects of the model's construction. Obviously gear reduction would be an important feature.

After looking at a couple of model plans for ideas, I constructed the framework of the turntable from two 12½" Angle Girders (P/N 8) for each of three sides and two 12½" Perforated Strips (P/N 1) on the motor side. The Angle Girders and Perforated Strips on each side were joined by a 5½" x 2½" Flanged Plate (P/N 52), the flange inwards on the Angle Girder sides and outwards on the Perforated Strip motor side.

Rather than use a PDU or French MO motor turning continuously for about 6 hours a day I decided to use a 12 volt "Brevel" motor I bought at a Meccano Club meeting for NZ$1, origin unknown. I powered the motor through a 6 volt 400 milliamp transformer. The motor was strapped to the Flanged Plate on the motor side with a metal bracket from a dismantled VCR and I put some sponge rubber between the motor and the Flanged Plate to reduce any vibration and noise.



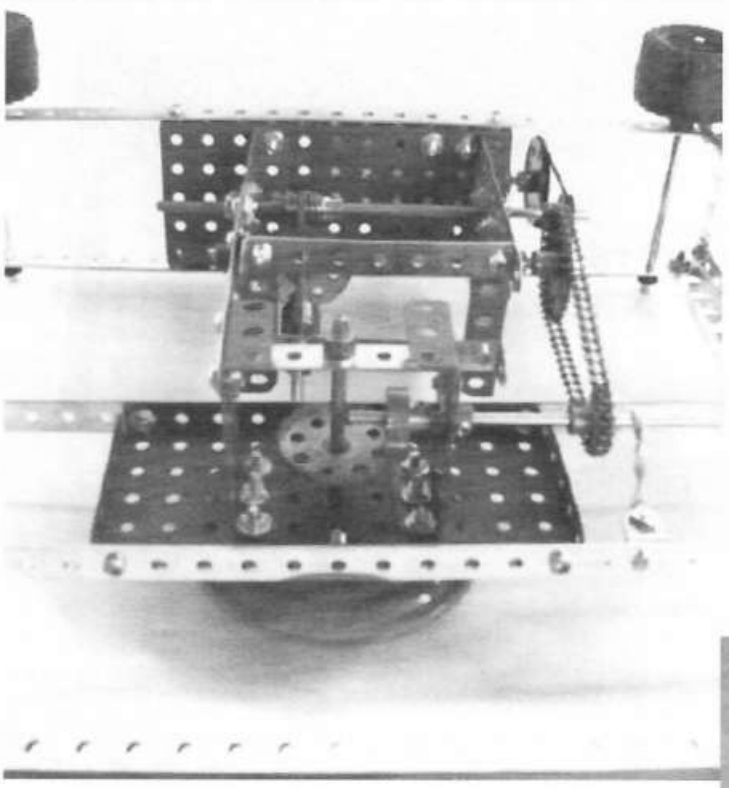
Front View with Motor and Reduction Gearing

A colleague suggested a Worm (P/N 32) driving a 57 tooth Gear Wheel (P/N 27a) driving a Worm driving another 57 tooth Gear Wheel as the main reduction unit to give a reduction of 3249:1. This can be seen in Fig 2. This reduction unit was built within two 3½" x 2½" Flanged Plates (P/N 53) and Perforated Strips, and the bearings for the Axle Rods were reinforced with additional Perforated Strips.

The motor was fitted with a Pulley and a Driving Band to drive a Pulley on Axle Rod 1 holding the first Worm. Axle Rod 2 holds a 57 tooth Gear Wheel (P/N 27a) and the second Worm. Axle Rod 3 holds the second 57 tooth Gear Wheel and a Sprocket Wheel (P/N 96a) which, via a Sprocket Chain (P/N 94), drove a Sprocket Wheel on the horizontal Axle Rod 4 of the central mechanism.

The central mechanism consisted of two 12½" Perforated Strips (P/N 1) and a 5½" x 2½" Flanged Plate (P/N 52) connected to the top Angle Girders on either side. The vertical Axle Rod 5 was housed within two 2½" x 1½" Flanged Plates (P/N 51) underneath the Flanged Plate. Transfer of revolutions between the horizontal and vertical Axle Rods was via a 19 tooth Pinion (P/N 25), which is kept in position by collars (P/N 59) and a 1½" Contrate Wheel (P/N 28). See fig 3.

Over the vertical Axle Rod 5, the following are threaded:-
Ball Thrust Race (P/N 168a) bolted to the 5½" x 2½" Flanged Plate and raised on spacers.
Ball Cage (P/N 168c).
Ball Thrust Race (P/N 168c) bolted through a 9½" Perforated Strip (P/N 1a) bolted through a Double Arm Crank (P/N 62b) with Grub Screw (P/N 69a) and finally bolted to the platform with the boss of the Double Arm Crank poking through the platform.
A further two 4½" Perforated Strips (P/N 2a) are bolted to the platform at right angles to the 9½" Perforated Strip to



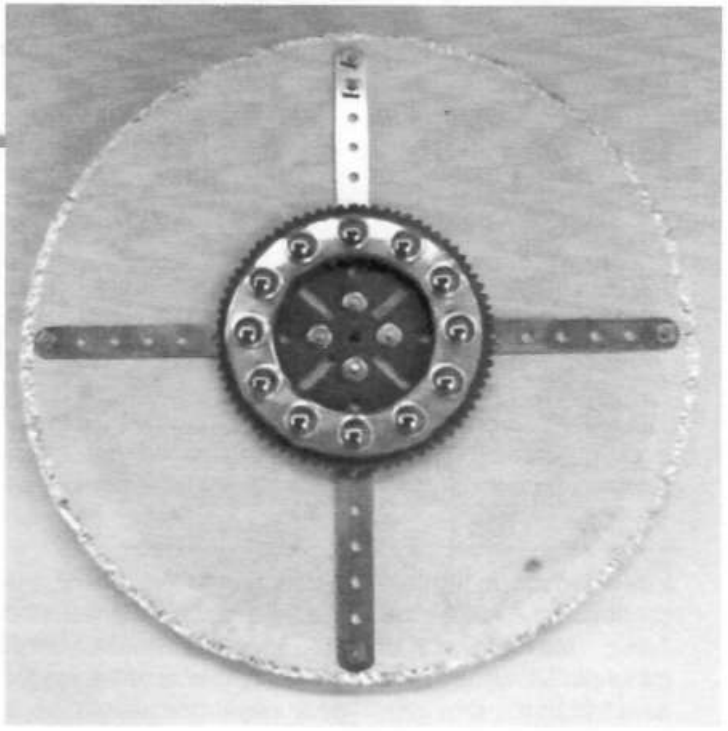
Underside View Showing Central Mechanism

support the platform.
The Grub Screw in the collar of the Crank secures the platform etc. to the revolving vertical Axle Rod 5.
The platform itself was a 10" foil-covered cake board which can be purchased from any cake accessory shop for a couple of NZ dollars.

Having decided to use the 3249:1 reduction unit, it was a matter of experimenting with
(a) the Pulleys between the motor and the reduction unit and
(b) the Sprocket Wheels between the reduction unit and the horizontal Axle Rod of the turntable mechanism.
I kept the pinion/contrate turntable drive static although you could change them if required. With this particular motor and power supply, I was initially using further reduction i.e. a $^1/_2$" to a 1$^1/_2$" Pulley Wheel,and then $^1/_2$" to a 1$^1/_2$" Sprocket Wheels which gave one revolution every 24 minutes! Obviously I needed to gear up rather than gear down so the gearing was reversed which then produced one revolution every 75 seconds which was ideal for my purposes. You have the flexibility of achieving any speed you require by changing the pulleys and/or sprockets.

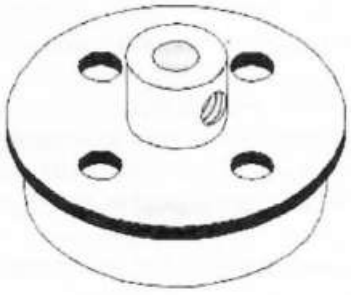
You will notice a rubber band kept taut around the horizontal Axle Rod 4. When first completed and working there was a noticeable jerkiness in the rotation of the platform and motor cycle. A knowledgeable colleague explained that this could be the result of "backlash" produced by the lack of constant forward pressure on the turning Axle Rods. After some study, the simplest solution was to use a twisted rubber band taut on Axle Rod 4 - it worked!

As the pictures show, the model was completed by covering part of the top with 12$^1/_2$" x 2$^1/_2$" Flexible Plates (P/N 197). The sides were covered with Transparent Plates to display the model's workings and the whole model stood on French Tyres (P/N 331n). On the platform I positioned a 1" Double Bracket (P/N 11a) to hold the rear wheel of the motorcycle and a bolt to secure the footrest.



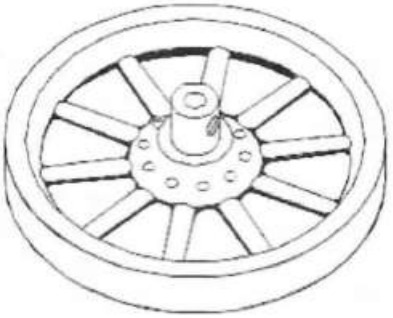
Ball cage, Ball Thrust Race, 9$^1/_2$"and 4$^1/_2$" Perforated Strips, Double Arm Crank (invisible), and platform

All in all, a successful model which turned continuously for over 6 hours on each day of the Wellington Centennial Convention.



Reminder - 12 Months to Go.

New Zealand 2003 Convention.
18-19-20 April 2003.
Community Centre, Albion Street, Hawera.
Organiser - Daryl Anderson.
Email <meccano2003nz@bitworks.co.nz>.
$200 Wind Power Challenge.
$800 15" Cube Competition.



The NZFMM 2003 Convention 15 Inch Cube Model Competition

1st NZ$ 500 cash
2nd NZ$ 200 cash
3rd NZ$ 100 cash

The prizes are sponsored by Peter Hancock, David Wall, and Bruce Neilson who will also be the judges.

1. The competition is open to all registered exhibitors.
2. Registered exhibitors must be personally present at the convention.
3. The model must be present at the NZFMM 2003 Convention, fully assembled and operating, and **fit inside a fifteen inch cube.**
4. The model must be made only of Meccano or Meccano replicas. This includes motors but not washers.
5. The judges will be looking for:- **Originality of design, Quality of parts used, Quality of construction, Constructional mechanical skills and Super detailing**.
6. A minimum of five photographs showing interior details of the model are to be given to the judges for publication in the NZFMM Magazine.
7. The decision of the judges shall be in the spirit of the competition, final, and no correspondence shall be entered into.

The NZFMM 2003 Convention $200 Meccano Wind Powered Model Challenge

The challenge made by Brian Hickson to fellow Meccanomen to produce a WIND POWERED land vehicle is being carried through to the 2003 Convention with the prize of $200 cash.

The scene is that the world is facing a fossil fuel shortage and a vehicle is needed to travel areas such as the steppes of Russia, the plains of America, or the Sahara desert. You have been asked to develop a "Wind Powered" land vehicle to meet these needs.

Rules

1 - The parameters set for the development of this prototype model which is to be made from Meccano are:-

a - The vehicle shall be a wind powered land vehicle.

b - The tractive effort is to be applied through either wheels or tracks or a combination of both.

c - The model must be capable of controlled changes of direction regardless of wind direction.

d - The model when placed on a reasonably level playing field or car park in a 10 -15 kph plus breeze, will demonstrate that it is able to move and change direction i.e. 'do its thing'.

2 - All competition models must meet the specified criteria to be eligible for judging.

3 - Brian Hickson will be the sole judge, and no correspondence shall be entered into.

4 - The model must be made from Meccano or Meccano pattern parts, with the following exceptions

a) Rubber bands.

b) Protective devices, e.g. if you are using 6" diameter pulleys for wheels you may use large "O" rings as tyres to protect the pulleys from damage.

c) Springs. I feel the Meccano range of springs is rather limited.

Brian Hickson - June 2001

Additional Notes - October 2001

Arising from queries from interested contestants, the following notes are clarifications to the rules published in the June 2001 issue:-

A few things to take into consideration when using the wind as power.

1) Wind strength varies quite a lot, it is seldom ever constant, some form of variable gearing would be an advantage.

2) Wind often comes in strong gusts, some form of energy or shock absorption mechanism would be an advantage.

3) Varying wind strength will result in changing torque loadings which will affect models using horizontal blade shafts driving a vertical shaft, some sort of compensating mechanism would be an advantage.

4) The further above ground level you get the cleaner the wind flow - so a reasonably large model is going to perform MUCH more satisfactorily than a small model.

5) Rule 1.c. states "The model must be capable of controlled changes of direction regardless of wind direction". Apply the KISS theory - a controlled change of direction can be as simple as arranging the wheel or wheels so the model travels in a large (say 30 m diameter) fixed circle. This would demonstrate the model's ability to work in wind from any direction most admirably. However, neatly made, effective mechanisms are always more exciting!

6) Rule 4 is very important - I shall reiterate it here - "The model must be made from Meccano or Meccano pattern parts" (with the following exceptions etc. etc., see the magazine.) The exceptions do NOT include devices such as radio control or strings, cables, etc. with a man on the end of it!

Brian Hickson - October 2001

Additional Notes - April 2002

I have just received a list of queries/questions from a fellow Meccanoman with regard to the wind machine competition. One of the questions was "In 1999 why did the models not meet conditions?" The answer - "If I remember rightly, there were only 2 models, both of which were far too small to actually work in their own right. It was also most unlikely that either could or would work if translated to a larger model or a life-size reconstruction. Remember, the object of the exercise is to create (within the parameters of the Meccano System), a working model. By definition a working model is "a model of a machine that can do, on a smaller scale, the same work as the machine" (Chambers English Dictionary, 1990.). So I guess the best guide to plan by would be "will it work full size?". Meccano, of course, has a history of being used by engineers to model various constructions before proceeding with the real thing in the days previous to computer aided design."

This is the neatest definition I think I can come up with regard to the aims and objectives of the competition, I feel it sums it up in a nutshell.

Brian Hickson - April 2002

CHRISTMAS CRAZY

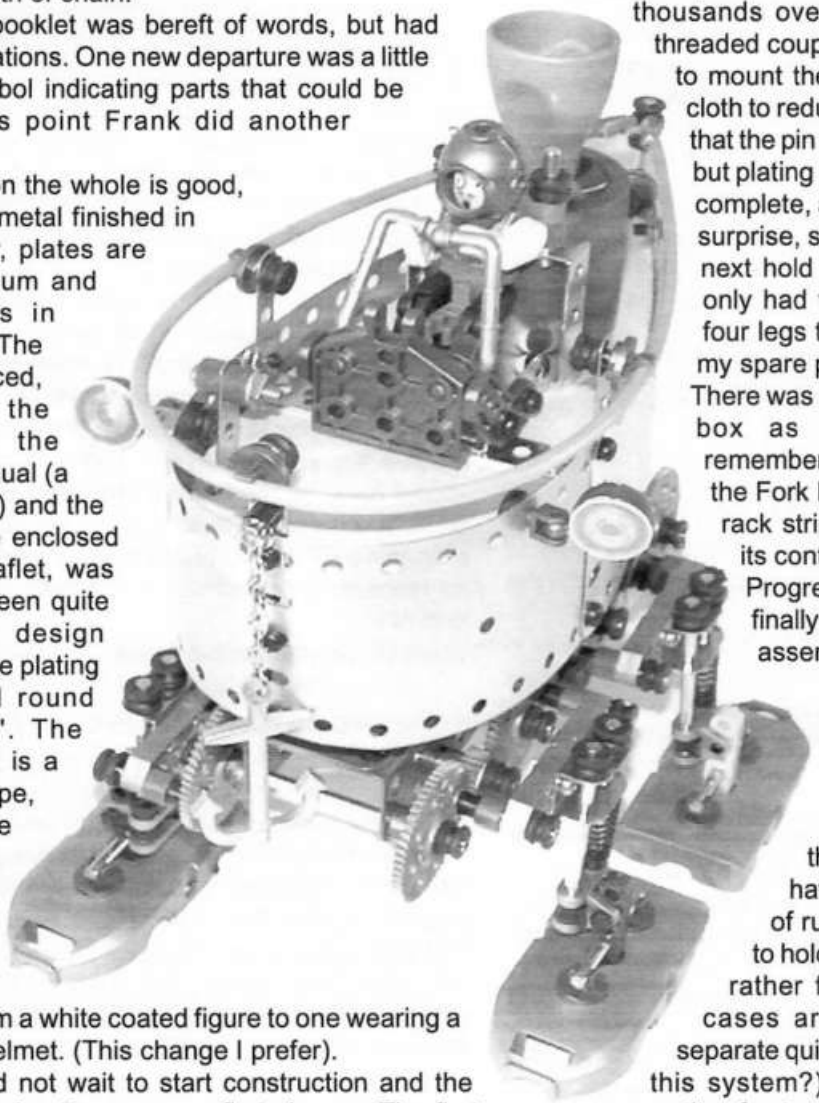
by Ken Wright

A delightful Christmas present from my son Nicholas this year was the Crazy Inventors Model 8650, the Walking Boat. Since seeing the advertising for the crazy inventors series earlier in the year, I had been eagerly awaiting their arrival in the shops, so you can see how pleased I was to have one in my hands.

My first impressions on opening the box were 'how marvellous, a set for a confirmed heretic'. A moulded expanded polystyrene tray contained a combination of plastic push together parts. Thin plywood parts, all ready impressed in the sheet, rather on the style of ribs in a flying aeroplane kit. Strange Meccano parts, some metal, some plastic. 57 tooth gears without boss, which appeared to be brass but in fact were brass coloured plastic. Even a sea anchor on a length of chain!

The instruction booklet was bereft of words, but had good CAD illustrations. One new departure was a little paint brush symbol indicating parts that could be painted. At this point Frank did another revolution!

Finish on parts on the whole is good, with plastic and metal finished in a bronze colour, plates are sprayed aluminium and Meccano strips in bright zinc plate. The first thing I noticed, comparing the illustration on the cover of the manual (a term I use lightly) and the illustration in the enclosed model range leaflet, was that there had been quite a change in design features. The side plating is now 2½" all round instead of 1½". The funnel in the kit is a grey conical shape, whereas the leaflet shows a rather nice black and red ships style. The driver has changed from a white coated figure to one wearing a bronze diver's helmet. (This change I prefer).



I obviously could not wait to start construction and the evening after Boxing Day saw my first chance. The first problem I encountered was with the Allen key. No way would it fit the black screws and it could only just be forced into the plated ones. Out came the Swiss file and after trimming the end to fit, work could commence. The battery box motor and gearbox went together OK. I found the slots to retain the square nuts in the plastic housing excellent.

The main frame of the model is a 1" x 1½" x 1" channel section 5½" long. This is finished in a thick bronze colour paint, which closes the holes somewhat. As the axles are of the three flat type I found they could be used as a makeshift reamer (ouch). Progressing further, the drive to the four legs is via pairs of the 57 tooth gears without boss, onto which is fixed a long threaded pin. The pin is a new design, with a very thin flange that has two flats in place of the square nut. Pairs of the gears are connected by means of a plastic coupling rod. This is where the next problem occurred. The mating hole in the plastic was a very tight fit on the threaded pin. Never mind, I pressed on in the name of research. I completed all the drive assembly and, of course, it was impossible to turn. I can imagine a young person getting to this point and smothering it in oil in an attempt to free things. I shudder to think what this would do to all the rubber grommets, which Meccano now seem to use in place of collars. At this point it was time to call a halt to the evening.

The first job the next day was to check the diameter of the threaded pins and they were found to be two to three thousands oversize on axle rod diameter. A threaded coupling in the electric drill was used to mount the threaded pin, and then emery cloth to reduce the diameter. It would appear that the pin diameter was to size when made, but plating gave it the oversize. Rectification complete, assembly resumed and surprise, surprise, switching on the motor it ran. The next hold up was caused when I found I only had three plastic links to couple the four legs to the feet. It was no use raiding my spare parts drawers for a replacement. There was no little blue guarantee slip in the box as yesteryear either. Then I remembered I had bought a little set 2512 the Fork Lift Truck, mainly to examine the rack strip and gear it contained. Yes, in its contents was the part I was short of. Progress continued with the legs and it finally would walk. The remainder of the assembly presented no problems.

Observations of the model:

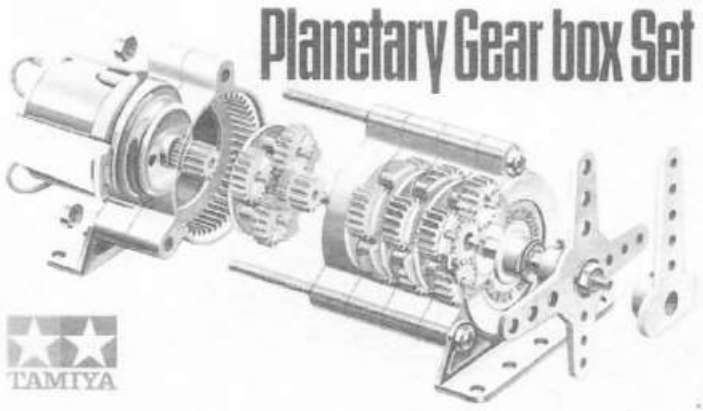
I think a young person would have been very frustrated with the threaded pin problem and may have given up at that point. The use of rubber grommets in lieu of collars to hold parts together makes the model rather flimsy. Plastic parts in several cases are just pressed together and separate quite easily. (I wonder who else uses this system?) The model uses a minimum quantity of nuts and bolts, and there is not a brass part in sight. When the model is complete, to change the batteries it is necessary to dismantle part of the model.

The finished model has quite a lot of appeal, especially when working. I am tempted to tidy it up with proper Meccano parts, but I will leave it as built for you to see it at the next Guild Meeting.

Reprinted by permission of Ken Wright and the Midlands Meccano Guild - Bulletin March 2002

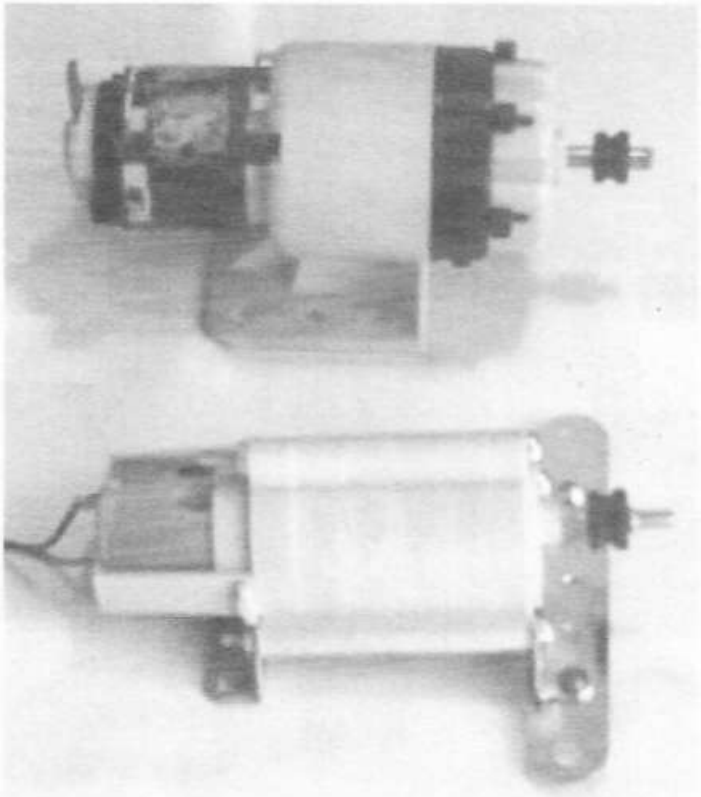
TAMIYA PLANETARY GEARBOX SET "ROAD TEST"

by Bob Prescott



It was mentioned on "Spanner" recently that this motor and gearbox was available at Dick Smith's stores here in New Zealand and that it was possibly a replacement for the Power Drive Unit (PDU) in some applications.

PDUs are becoming scarce and expensive (approximately NZ$90 from Mike Rhodes), so another gearbox that could be used in its place would be really useful. I obtained my Tamiya Gearbox from Dick Smith's in Palmerston North for $29.95.

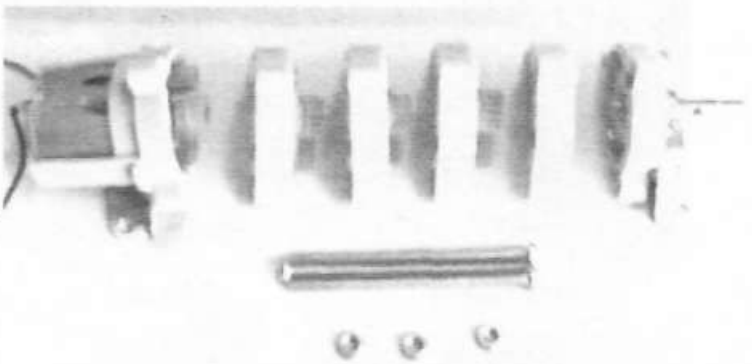


The Meccano PDU and the Tamiya Gear Set compared

The Tamiya Planetary Gearbox Set comes in kitset form with a motor. The gears and casing must first be parted from their plastic pressings and any surplus plastic carefully removed from the parts. The instructions for the assembly of the gearbox are clear with both text and diagrams provided.

Assembling the gearbox gear sets in various combinations creates eight different gear ratios, 4:1, 5:1, 16:1, 20:1, 25:1,80:1, 100:1 and 400:1. The motor provided with the kit is an "RC260". For the technically minded, at 3 volts the motor draws a current of 500ma when driving all the gears. The pamphlet claims that it produces 15 kg of torque. What does that mean?

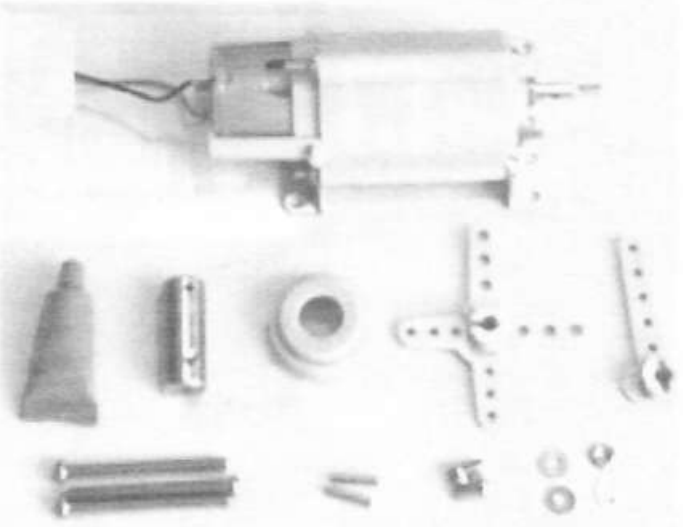
I assembled the full gearbox, 400:1 ratio, (which I really



enjoyed), and ran the motor from a 3 volt 500 mA transformer. It produced an off-load speed of approximately 28 rpm. The kit motor is shown being driven by a 3 volt battery box; the box provided with the MO motor would be ideal.

The gearbox has a 4 mm output shaft and it is therefore suitable for normal Meccano pulleys or the P/N 23c rubber grommet for a driving band. The gearbox mount holes line up with Meccano holes although 6BA bolts and nuts will need to be used.

The set comes with several accessories and ideas on pulley



drives, changing rotation to rectilinear movement, using a cam for vertical movement and both flexible and direct drive.

I ran my motor/gearbox for over an hour and a colleague did the same, both in forward and reverse with the motor and gearbox getting a little warm (as you would expect). An inspection by a qualified electrician proved the unit to be of good quality and was of the opinion that it should run for eight hours a day without difficulty. All in all, a useful motor/gearbox for Meccano use.

Are You in

Barry Babbage - 1999
Is that a camera?

Peter Hancock - 1997
"Mr Fixit"

Mike Edkin at Stoneleigh, UK - 1987

Neil Carey - 1999
"The Tramcar Man"

Simon Moody - 1999
Damn! It still won't go.

Don Malcolm - 1997
In the driver's seat?

Doug King - 1989

Unless otherwise n
are the Easter
1989 - Low
1991 - Wai
1995 - Chr
1997 - Feil
1999 - Auc
The photos are from Lou Nichol

David Wall - 1989

Bob Prescott - 1999
(on the right)

Bert Lory, (Omarama), Neil Pluck, Ian Torrens & Graeme
Oct. 1996 at Doug Muff's place in Geraldine

the Picture?

Kelvin Liggett, Robin Rye & Jerry Dubois, (Canada) - 1991

Don Blakeborough - 1999
Is it really Meccano?

Brian (live steam) Hickson - 1997

The contemplative figure of Lou Nichols, who conceived this page.

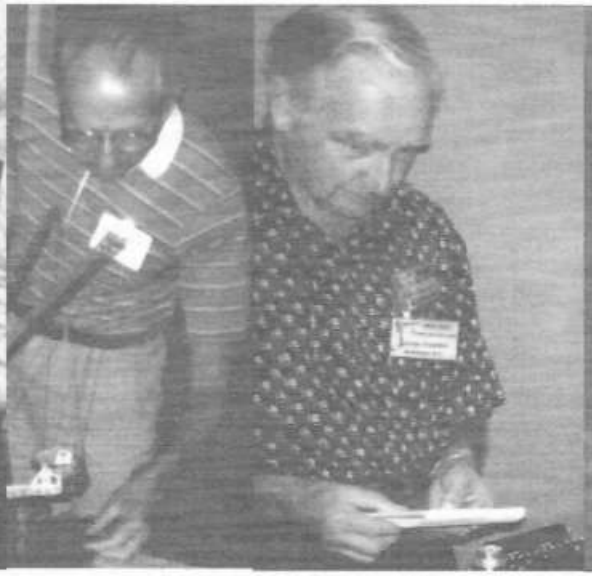
noted the locations
er Conventions
ower Hutt;
anganui;
nristchurch;
ilding;
uckland.
ols' and John Ince's collections.

Geoff Wright at Henley - 1991,
Yes, it is outside 4 Greys Road

John Jordan - 1995
(its Wes's Blocksetter)

John Hamlyn - 1995
Please move the crane, Simon

e O'Neill



John Ince - 1989

George Ovenden - 1999 mmmmm!

Ernie Chandler at Skegex - 1987

Chris Morton - 1999
Finished at last!

We strike GOLD (and Blue)!!

by the Editor

Following on from the February 2002 issue and the articles on Gold and Blue painting, I had an offer of a follow-up article from Juan C. Rovetta, director of EXACTO, Argentina. Exacto manufactures Meccano parts in both existing and new forms under their own name of EXACTO, offer the parts in a variety of Meccano colours, and have had to solve the Blue / Gold paint difficulties. They have succeeded!. The Exacto Internet site is being built and as a temporary measure, Juan is offering to send .jpg pictures by email to Meccanomen who email him. The pictures give an indication of the blue / gold colours and the precision of the gold line hatching.

Exacto company address is:- Arce 957 2º B,
C1426BSO Buenos Aires, ARGENTINA
Fax: +54 11 47 76 24 12
e-mail <info@exactosystem.com>
The website is under construction right now but you can bookmark
<http://www.exactosystem.com>
Some pictures available at the CMAMAS website at <http://www.memeshadow.net/cmamas/meccano/cmnversand/repro/bgsamples.html>
William Irwin´s note on Alberto Richini at <http://users.actcom.co.il/~anthias/richini1.htm>

How to reach Exacto and terms of business.
"We dispatch to every country world wide. You can have an Exacto price list and you can submit your orders by mail, fax, or e-mail. This will be also possible in our website soon. Payment can be done by electronic bank transfer to our account. Another safe and economical option is by mailing a bank draft, money order, or travellers' cheques, as "value declared".

The above addresses relate to the article below.

EXACTO BLUES

by Juan Carlos Rovetta

Old times nostalgia and a quest for blue and gold

When reading the February issue of NZFMM I found the contributions of Neil Pluck and John Ince. I could not avoid remembering Alberto Richini, founder and former manager of Exacto, while hand-drawing the gold lines of the cross-hatched plates for the L sets he specially prepared now and then for his special customers. You do not sell many of those, and each set is almost one of a kind. He was an outstanding mechanical engineer and draftsman, and those gold lines displayed all the beauty of their unspoiled and yet vibrant symmetry.

I have noticed that blue and gold has the ability to arouse strong feelings and perplexing enigmas. Many, most I feel, consider it is something to be placed at the acme of Meccano aesthetics. Others always took it for granted that "gold" was nothing but an optimistic way of calling those yellowish greenish and sometimes faded lines criss-crossing the plates. Well, they had been tricked by Binns Road, but not quite as much as some like myself. As a kid I had to bear the sufferings of growing up wondering about those mysterious lines that the manuals showed so distinctly in all the models, ... but had vanished away from the parts! Why was it that mine looked so plain red? It was not until I grew well over 30 that an older and wiser man showed me the truth. It was like an epiphany. Yes, there was something else, glorious and yet unseen! There was a world in which strips and girders were golden like wheat, and plates blue like the deepest sea with their surfaces pierced by rays from the sun. It was the real blue and gold world!

Getting into technicalities

Somehow this was the seed of the quest, and it rested still until last year when we decided to redesign all our finishing processes. Although we considered that Exacto was already offering an excellent finish, we wanted to offer the best finish available, and would not settle for less. Not quite unexpectedly, we put blue and gold in the centre of the project and made it something as the main challenge.

At an early stage of this development we defined our design requisites and determined that certain characteristics should be maximized: corrosion resistance, adherence, flexibility, colour stability, colour repeatability. And, above all, it should be very affordable.

We studied and tested several processes, drawing information mainly from the experience of the car building industry. We concluded that a three-stage process would satisfy all our design requisites. Going from the inside out, it consists of the following layers: electrolytic zinc coating with chromate passivation, wash primer, and two-component polyurethane coating.
Zinc gives sacrificial protection to the base metal when it is exposed and the chromate passivation gives the needed corrosion resistance. Wash primer assures adhesion of polyurethane paint, which is the first barrier to environmental aggression. This coating is of the kind used on luxury cars, and its resistance and colour stability is excellent.
We have been partially applying this process for the first months of 2002, and it will be fully available as from April 2002 for all our new production. We also decided to mark all our new production with the "Exacto" logo as from June 2002, which for some obscure reason we had never done before. In the future our current stock, not subjected to the new finishing process and not marked with our logo, will be sold with a small discount on the FOB prices.

The excitement of colour hunting

So far we had solved the structural aspects of the finishing process, but what about the aesthetic issues?

Colour matching and repeatability were no big technical deal with computerized equipment. In fact, the availability of this process for liquid paints is what decided us against electrostatic powder coating, which offers too many chromatic restrictions.

The real problem was making a decision on the "right" blue and the "right" gold.

After evaluating over a dozen original samples of blue we discarded the paler shades. These were probably more a result of pigments fading due to low stability than a consequence of low ex-factory repeatability. The choice was made for a deep "cobalt" blue, and seemingly many have already fallen in love with it.

For gold it was not quite the same. Choosing from original samples that ranged from shades of molasses brown to copper red was one easy thing if compared to obtaining a natural finish with deep light reflection. We had to try and discard many formulations. They just looked fake, a sad resemblance of gold, a poor plastic imitation. So much for car body painting products. After additional research we turned to the graphic arts industry. The product that we finally selected turned out to be the closest one can get to grinding a gold ingot into powder. Wow! The thing gave a deep glitter and an excellent match with our chosen samples. We had hit the target.

We also found a solution for cross-hatching in the graphic arts industry. Hand drawing was out of the question if we wanted affordable costs and consistent quality. One thing we had in mind was assuring the alignment of the cross-hatching with respect to the holes, so that big models would not be spoiled by shaky lines. After trials and errors we could succeed in adapting to our needs a printing technique that met all these criteria. Furthermore, in order to enhance the results, we decided on two-component epoxy inks in order to assure the highest resistance for the gold lines.

We are aware that a picture is worth a thousand words, and we have had more than a few words already. For those interested, we can e-mail you colour pictures of these finishes if you send us your address. Some pictures are also available at the CMAMAS website too, and will also be at our own website when we finish its set-up (scheduled for July 2002).

Exacto, a love story with Meccano

Some, tending to be brief, say Argentina is a country founded by Spaniards, and inhabited by Italians that speak English. It is a fact that the cultural and economical bonds with Europe have been much stronger than those with USA through the 19th and 20th centuries. Perhaps here lies an origin for the widespread taste for Meccano in this country, to the point that local production was feasible and several attempts took place as early as 1948. Exacto was the first serious and high quality effort to succeed.

Almost half a century ago two young men and lifelong friends, Alberto Richini and Carlos Rovetta, borrowed some money and were able to start a business of their own. They had a taste for mechanical engineering and had acquired experience in metallurgical processes. Import restrictions and an active industrial policy then were an opportunity that they would not lose, so they set up a small workshop and started the production of car parts for the car building industry, and of Meccano spares. Production and sale of Meccano spares started as early as 1955. Business grew as the market demanded for more and more. By 1966 Alberto Richini controlled 100% of the company and had moved the activities to a location of his own.

Here I would like to quote William Irwin, who presented a faultless brief story of Exacto in July 1999 to a Spanner asking about the history of Meccano and wanting to know "where did the Exacto Argentine plant fit in" and whether it was "always a bootleg operation". William replied:

Exacto SRL was formed in November 1959 to overcome import restrictions of Meccano into Argentina at that time. Four outfits and about 100 different parts were manufactured. In 1966 an agreement was signed with Meccano Ltd. of Liverpool, and in 1967 they commenced manufacturing under the name "Meccano - Industria Argentina". It was therefore not a bootleg operation, but an officially recognised Meccano factory. They eventually marketed all sets up to no. 8. All parts were stamped "Meccano Argentina". This continued into the 1980s, as the licence was never revoked. However when Marc Rebibo took over the Meccano trade mark in 1985, Meccano S.A., who now owned the trade mark, revoked the license and then Exacto had to drop the Meccano name.

After that, operations have continued uninterrupted until the present day. Quoting William once again,

The quality of the Argentinean parts was top class and exceeded that of both Binns Road and French manufacture. Alberto (Richini) was more attuned to the needs of the adult modeller than any other manufacturer and constantly strove to enhance the system by introducing useful parts such as six-holed helical gears 214b, long couplings, larger flat plates and others. In recent years, since he reverted to the Exacto name, Alberto concentrated mainly on parts manufacture for the enthusiast and expanding the system with innovative additions such as his large axle subsystem.

Past and future

We feel very proud of our heritage. It is almost two years now since Alberto Richini passed away, but the founding spirit is alive and strong. "The main purpose of my life", he wrote in CQ No. 3, "is to follow Frank Hornby's trail, with a profit, if I can, at a loss, if I must."

Now we seem to be the only survivors among Binns Road's licensees. We do feel uneasy when we are mistaken for manufacturers of reproductions or imitations. Hey, we are the real stuff! We strive to keep up a tradition, and are particularly keen on improving and evolving.

We have a vision to pursue: expanding the system and recovering some of the favour our hobby has been deprived of among the younger generations. To accomplish this we are working on new sets, starting with a crane set similar to the one of the 70s. Progressive sets will follow. New parts and elements for the system will be introduced, and our policy will be to validate such designs with the worldwide Meccano community.

How to reach us

We dispatch to every country worldwide. You can have an Exacto price list and you can submit your orders by mail, fax, or e-mail. This will be also possible in our website soon. Payment can be done by electronic bank transfer to our account. Another safe and economical option is by mailing a bank draft, money order, or travellers' cheques, as "value declared".

Bruce's Choices From Around The World

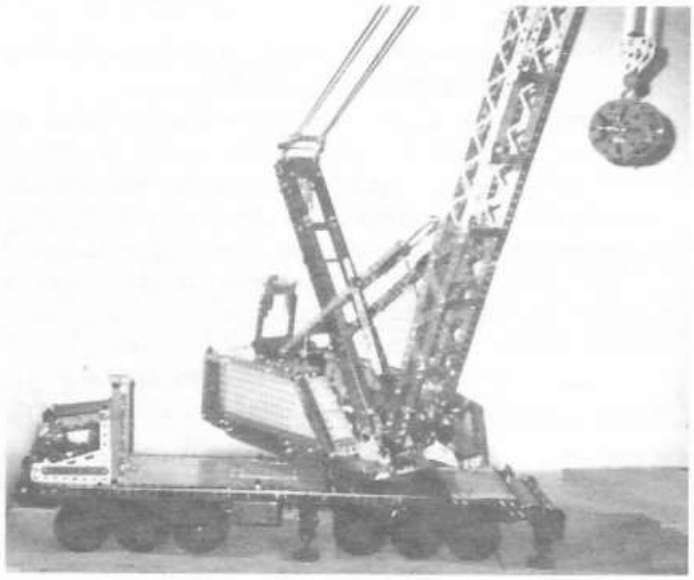
by Bruce Neilson

Southern California Meccano & Erector Club Newsletter - March 2002

Pick of the articles - Plastic Meccano Track Link P/N P91 as rack railway track by Anton Calleia.

Clamp the Track Link between Flat Girders bolted to 2½" Flat Plates with Angle Girders serving as the outside main rails. The locomotive will need a P/N 84 or P/N 85 Sprocket Wheel mounted in the middle of the locomotive and adjusted so that the "cogwheel" will engage the "rack". This system has been tested at an 8.3% incline.

Blake Huffam also featured with his 1:24 scale model of Link-Belt HC-268 six axle Truck Crane and a picture is set out below. The jib extends out to 68" on a 29" lorry base.



Sheffield Meccano Guild Journal - March 2002

Pick of the articles - Side plate MO Motors by Bob Watson. Every so often I see an idea which makes you say to yourself "Why didn't I think of that!!??". A lot of the old model plans use an E15R or E20R motor as an integral part of the design and is also the motive power. These motors also require a particular transformer. The modern equivalent is to place a French MO black motor between two Flat Plates, use Threaded Rods as spacers, add Angle Girders for the base, reinforce the bearing holes with additional Plates or Strips and include two stage reduction gearing of 15:60 then 19:57 to give an output at three volts of about 12:1. Additional gearing can be added as necessary for a particular model. Add the appropriate plate for the electrical wiring and terminal studs at the end of the motor plates. Judicious oiling of bearings and greasing of gear wheels finishes the job.

Also worth cross referencing is an article on "Modifications to the 1937 - 41 Model No 9.21 - Factory". This model building contains a drill, trip hammer, engine, mechanic at his bench, and The Boss.

(continued at the bottom of the next column)

What Readers Think

1917 American Magazine

I was particularly interested to read the transcript of the 1917 American Magazine. Whilst I had a complete set of all the UK Meccano Magazines (MMs) ever published, I had only ever seen a few of the American editions and it is years since I read them. I was particularly struck by the "hustling" type of content intended to make sure that the American Meccano Boy ONLY bought genuine Meccano merchandise. Whilst it is also many years since I sold my collection of MMs I don't recall the UK Editions being quite so blatant in their "brainwashing" the readership, but I could be wrong of course. Except for the use of "archaic" language which would never appeal to modern youth one could think the articles were the result of modern high pressure targeted salesmanship.

Bill Inglis, Victoria, Australia

Snippets of Praise

Thank you for the latest issue of the magazine which was received safely last week and, as usual, devoured avidly and finished all too soon, which is also as usual. Perhaps if you did not make such a good job of it, it would last longer.
Bill Inglis, Victoria, Australia.

Keep up the good work.
Stuart Glass, Hamilton.

I think the quality, content and presentation of our magazine is a credit to all involved.
Peter Hancock, Howick.

Keep up the good work with your "Bits and Pieces".
George Ovenden, Milford.

Thanks for renewing my passion for Meccano. I wish the Magazine and Federation well for the future.
Brian Ward, Tirau.

(continued on page 20)

The Meccano Newsmag - March 2002

Pick of the articles - Postcards and The World of Meccano by Pete Pyefinch.

One of the more unusual Meccano collectibles are postcards featuring the products of Binns Road. Aeroplane and Motor Car construction sets, Meccano Manual covers, Meccano Magazine covers, Hornby box covers and Book of Train covers, Hornby Dublo product range, Dinky Toys, Barcelona Meccano Exhibition, and a wartime poster featuring a lad with his railway breakdown crane have been reproduced in 22 known postcards which are reproduced in colour on Page 2 and written up on Page 4.

The question now arises as to how many other Meccano postcards are out there in the world?

Subscription rates, addresses, etc., for the above publications are available from the Editor, NZFMM Magazine.

QUOTATION: "Enclosed is a subscription for my father. He is a Meccano Maniac."
(Perhaps she should remain anonymous).

STRING THEORY:
Law 1 - The string on hand is always an inch shorter than the piece you need.
Law 2 - The length required is always double that specified in all models, real or theoretical.
(Ronald on 'Spanner')

ODE TO P/N 40:
String
Is a very important thing.
Rope is thicker,
But string is quicker.
(By Spike Milligan, quoted by Geoff Carter, UK)

I LIKE THIS PHRASE: I know it's just a *peanut correction*, but the Dutch Mail can be very strict. All mail is selected and allocated by computers and if they don't 'see' what they are expected to see, mail can (at least) be very belated.
(Kees Trommel, Holland)

NOT A MECCANO CAT: Who said cats are intelligent? I have one who killed a mouse. Not unusual you say, except that it was my computer mouse. The stupid animal chewed through the wires that connected the mouse to the CPU.
(Colin Hoare, Canada)

HE SHOULDN'T BE IN MENSA: "Re your bit about Mensa in the last issue; some years ago I sold a large Meccano set to a Mensa member. He later re-sold it in favour of an advanced Lego Technics system." (Anonymous)

TURN WHICH WAY?: During discussion on 'Spanner' about the Van der Graaf generator, Reg Hall said, "I recall building the Wimshurst machine, using a couple of LP's. I spent quite some time trying to get a spark out of it, without success. I was at a meeting somewhere and apologised to the lady I found looking at it, that it did not work. 'Oh,' she replied, 'It worked beautifully for me'. When I asked what she had done, she said, 'I just turned the handle and it sparked like mad'. So I asked her to show me, and discovered she turned the handle right to left !!!"

QUOTATION: " Respect is love in plain clothes".
(Deborah Trengrove, 'The Dominion', 14/3/02)

2002 SETS: Quoted by Frizinghall in the UK -The Locomotive Set, £64.99 (NZ$ 213).

'GOLDEN DEEDS' TO THE U.S.A.: New Zealand writer Catherine Chidgey's novel 'Golden Deeds' has been published in the USA. In NZ and the UK it had a hatched blue/gold Meccano cover design and a Meccano theme as one of its strands. However, for the US edition, the Meccano cover has been replaced by a more modern 'thriller' design. The book also has a different title, but Miss Chidgey assured me 'Meccano' in the text *will not* be changed to 'Erector'. She recently won the New Zealand Prize in Modern Letters for her first two novels.

QUOTATION:
In 'Golden Deeds' *I was using the Meccano imagery to talk about the way a story can be constructed and the way different elements, different pieces, can be brought together and joined together to make, hopefully, what works as a whole.*
(Catherine Chidgey on Radio NZ's Bookmark programme, 2/4/02).

USES FOR DISHED WASHERS: By stacking them, the pile can be varied in width by either nesting or alternating the curves. Thrust can be enhanced by placing them the correct way against the stationary surface. They can be used under a bolt head with the curve up to protect paint, or to span a slotted hole with the curve down.
(Tony Press, Melbourne).

ALL-PLASTIC MECCANO !!: Joe Attard in Malta has been told by his local dealer that Nikko appears to be heading towards all-plastic Meccano and that the traditional metal parts are no longer being produced.

FROM FRANK DAVIS:
I have started on a model of a caterpillar tractor with metal treads running on 2" tyres. Lots of fishplates locknutted to double angle strips attached to $2^1/_2$" x $1^1/_2$" flat plates. The tread goes around OK when pushed on the carpet. But will I be able to generate enough geared-down power to drive it ?

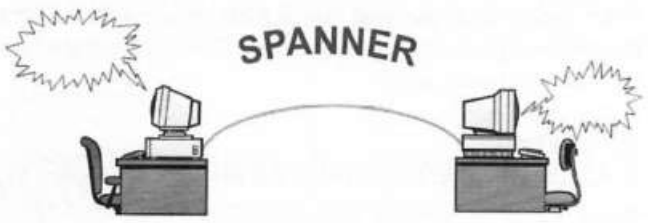
DID YOU KNOW ?: The 27 inch high America's Cup won't hold liquid. It has no bottom.

EXORBITANT PRICES : A US Internet retailer called 'Neat Stuff' quoted US$ 222 for a Meccano Set 9550. This is about NZ$ 520. In 2000 I paid NZ$ 170 for my 9550 Set. Prices for other Meccano/Erector sets were similarly extremely high at 'Neat Stuff'.

MECCANO, WOOD AND PINK WOOL: "The Clangers" is a UK children's TV series. The figures in it are made from wood and pink wool, with Meccano used extensively for the 'props'. A character called 'Chicken' is made entirely from Meccano (mostly P/N 55) but many pieces are mutilated.
(Thanks to Marion Cotterill & Gareth Tulliett for this one).

SCAN YOUR APPLE: Adam Hunt, ENZA's CIO says that, before long, supermarket shoppers in Europe and elsewhere will be able to wave an individual apple past a scanner and see on a screen a picture of the tree on which it was grown.
('NZ Infotech', 4/2/02)

BEVEL DRIVES: As well as driving its twin bevel, P/N 30 is good for driving pinions. They seem to mesh more smoothly than with contrates.



The use of email from the Spanner group is acknowledged.

Hints and Tips

1. - Jigs for repetitive modules of a model.

Having to reproduce many times a flat sub assembly of parts to build multiple identical cabins of a Ferris Wheel, I used a device that may be useful to others. I cut (mutilated?) one of the multiple French Meccano 3mm Allen wrenches that I have in order to obtain segments of 8mm long (if I did it again I would have cut shorter). I glued each of them with crazy glue in the socket of a bolt. Holding them with nuts in the appropriate position in a flat plate I could hold, point up, all the bolts of the flat sub-assembly. Now I could build these sub-assemblies upside down and fasten each nut with ease, as I had several hands to hold the bolts simultaneously in place (nothing to do with Kaiser's construction of Liberty ships). That really improved the quality and the speed of my construction. As the Allen wrench bits are glued to bolts they can be used in the future for other similar jobs bolting them in the necessary positions. P.S. The Allen wrench is hard but can be cut with a hack saw. I drilled a narrow fit hole of the desired length in a brass bar as a template for the segments. I stuck the remaining wrench rod into the hole, held the bar in the vice, and cut the rod flush to the surface of the bar. Before proceeding I would finish the remaining end of the wrench with a grinder and sander so that, after the new cut, each segment would have one end ready to fit in any bolt. (Edmundo Veiga, Rio, Brazil.)

2. - Missing Manual pages

Replacement manual pages of a model (NOT complete manuals) are offered on the CANAMMC web-site <www.canammc.com/bulletins> to anyone who may be missing a page or two. My manual data is mostly from 1947 to 1996 but I would be interested to hear from others who may have earlier manuals that they want to lend, sell or trade in order to complete this project. This service is being offered free for personal use only. (Jim Picton, Maple Ridge, B.C ,<jpicton@uniserve.com>)

3. - Transformers for Motors

To power most Meccano DC motors I find used model train controllers are just fine. They have basic speed (voltage) control and a reverse switch. They are to be found at swap meets and garage sales (boot sales) cheap. The smaller ones are good for smaller "plastic" motors that use only a fraction of an amp - Emebo, Crane and small French types from Meccano or Steel Tec. For larger DC motors, look for larger power packs!! Check the rating stamped or printed on the pack. One amp (1000 ma) will handle most single Meccano type motors up to about 12 volts. For AC/DC side-plate motors, look for AC controllers from tinplate train sets - Lionel, American Flyer or Marx are common in North America. If you are not good with things electrical get someone to check them over for you. Check with your nose when you buy! I usually replace any dubious power cords with a 3 wire one and ground (earth) the metal case etc. Heat is the factor that will destroy any power supply so run the motor/power supply under normal loading for a time, checking for high temp. or burning smell. Clouds of black smoke can also be a clue! My experience is that those switch-able voltage transformer/rectifier units are intended more for running small audio items such as personal radios and Walkmans etc. and they often come with suitable adapter plugs. They usually are current self limiting (in case of shorts or misuse) and won't hold the voltage well when starting motors under load. (Allan Barton, California)

4. - Zinc Corrosion

4a - Be also warned of storing Zinc parts in storage units made of MDF (chipboard) with a melamine surface. I have bad zinc corrosion on my 70's parts. However, I have stored more recent zinc parts in a MDF box and ithey are corroding! The parts aren't even a year old. But parts stored in the same room in a metal drawer unit are fine - no corrosion. I have now removed all parts from the MDF box and put them in a steel cabinet. I've got a big restoration project ahead of me! I recommend using latex or similar gloves when handling parts, particularly zinc. It stops finger prints contaminating the zinc thereby reducing corrosion from the acids etc. on the hands. (Gareth Tuttiett).

4b - I must say that the glove solution does not appeal to me although it seems an effective solution to stop the ugly fingerprints. Did anyone try coating zinc parts with a thin layer of transparent lacquer? (Francisco Fraga, Portugal)

4c - The coating of zinc with lacquer, paint, etc., must be done only if proper adhesion is assured in order to avoid the peeling of these outer layers. The zinc is applied by electrolysis and normally passivated by a chromate conversion coating which has an extremely low rugosity. Thus, there is just no grip for the lacquer or paint, and the standard solution is the previous application of a wash primer. (Juan Carlos Rovetta, "Exacto", Buenos Aires).

4d - The problem with zinc corrosion is that zinc is put there in order to do that. Thus zinc coating behaves "like a good boy" and "sacrifices" itself for the benefit of the steel underneath, corroding itself before the parts preserved do, and taking the punishment of the more or less aggressive environmental conditions that do their work through the years. Such conditions include humidity, saltiness, chemicals in the air, even the peculiar composition of the owner's perspiration. There are not many different qualities of zinc coating, and what allows for their extended duration are two factors namely: an adequate thickness, and a correct passivation in the case of electrochemical zinc coating. The protective capacity of zinc coatings - and of other coatings as well - is technically specified by defining the number of hours that they withstand in a certain standardised aggressive condition (a salt spray chamber), before corrosion starts to show as white marks of zinc oxide. When reddish marks start to show, then the steel has started to corrode because the zinc has taken up all the corrosion it can take (mind that these may be localised phenomena within any single part).

The main processes for the application of zinc coatings are:
Hot-dip galvanising, mostly used for more aggressive conditions: outdoors, marine, industrial and other chemically aggressive atmospheres.
Cold electrochemical coating, used in less severe conditions: household artefacts, cars, and Meccano.
When parts have started to corrode, particularly if the steel is oxidising, there is nothing to be done other than stripping the coating in acid baths and zinc coating again. This is because oxidation in steel is autocatalytic: once it starts, it does not stop. (Juan Carlos Rovetta, Buenos Aires).
4f - Please take into account that hot-dip galvanising does not give a nice to see and touch surface. The appearance is rough, the feel is of high rugosity, and an uneven pattern is clearly seen due to growth of the zinc crystals. Moreover the layers of zinc and zinc alloys formed in the process are quite thick. Its widespread use is mainly for large structural elements that must withstand many decades of outdoors service (high tension towers, for example). During the process the parts must be prepared (cleaned and pickled) and immersed in molten zinc after fluxing.
The electrochemical process is more subtle and yields a smooth surface. It is done by electrolysis, immersing the parts in zinc-containing solutions after proper preparation (cleaning and pickling). As in all electrolytic processes, the current passing through the baths and the concentration of these allow for a fine control of the result. If you go for re-plating your parts, then I suggest you ask for a "heavy" layer of zinc (specify 0,01mm = .0004", please). In order to increase its resistance, you must also require the passivation of the zinc coating. This is accomplished by a chromate conversion coating, clear in your case (unless you want your parts to be olive green, black, or iridescent yellow, which I guess you do not!).(Juan Carlos Rovetta, Buenos Aires).

5. - Oil on Gear Teeth

5a - It is good Meccano practice to clean axles where they pass through strips or plates, make sure they are free to turn and then keep well oiled. But is it good or bad practice, or even necessary, to oil the gear teeth faces? (Bob Thompson UK).
5b - I would suggest using white grease, or one of the grease products intended for model trains. This works better than oil as it is thicker and will tend more to stay on rather than be thrown off like oil. (Charlie Pack).
5c - A light coat of light grease is a good practice. Oil will run and make a mess. Oil dries up faster. It will improve your model operation and as it will silence most of the "grinding" too, it will enhance the overall experience of watching your Meccano model operate. For example I greased my Traction Engine's differential about 18 months ago, and it still runs smoothly today. Of course, in theory, perfectly cut gears at a perfect spacing and at a perfect angle would not need any lubrication - the teeth profiles are such that they are supposed to "roll" on each other without any friction. But Meccano gears are far from perfect as we all know and this is not a Meccano "privilege"! I repair Marklin and other model trains for a living: some of them are coming to me noisier than a circular saw! (Jacques Vuye, California).
5d - Daryl Anderson put me onto silicone spray. He used it to great effect on his marvellous roller coaster. He had a different brand than the one I have found locally in Nelson, but I find Selleys Ezy Glide very good. It is in a 150g spray can and on the can is described as a 'dry non-oily lubricant'. It 'provides a highly slippery coating to the surfaces it is sprayed on.' As a clock builder where friction is the No. 1 enemy, I find that a dry lubricant that does not attract dust is great. It works wonders on pivot bolts/rods. You can't see it either and it doesn't drip oil spots all over the place. There is a warning that it may not be compatible with 'some' plastics. I have avoided spraying it onto plastic Meccano parts, so can't say whether that's a problem for the type of plastic they're made from. I used to use "3 in 1" oil, simply because it was readily available, but as other Spanners have pointed out previously, that's messy and seems to attract dust. There's no way I'll use 3 in 1 oil again! However, I gather that there are other, much better, oils around that are OK for use with Meccano, but they're all bound to be messier than silicone spray (John Stark, New Zealand)
5e - Simple answer - Yes. Meccano Gears are fairly 'crude' (sorry, but there it is) and usually subject to a lot of sliding (especially the Worm) so lubrication is vital. I have tried no lubricant and the usual result is 'gold' dust (brass more likely). Not too much oil though or the clock maker's enemy, dust, mixes with the oil and produces 'gunk', which with a little silicon (sand) makes a grinding paste. Extended use requires a stable lubricant (one which won't break down or dry out) - synthetics appear to be the best bet here. The Hornby train people have a few preferred lubricants (trains tend to stay together for some time). So-called Dry lubricants are also useful, although I have some problems with graphite, Molybdenum Disulphide may be better.
(Tony Press, Melbourne, at one time Chief Engineer, Lube Marketing, Mobil Oil Australia)
5f - I like EP 90 or EP 140 hypoid oil. It stinks, but it sticks to the teeth beautifully and results in almost silent running. (Paul Joachim, UK).
5g - I wouldn't - made for steel on steel hypoid gears and uses very aggressive additives and can attack brass! Use old non EP 90 or EP 140 gear oil made for vintage cars with brass bushes. (Tony Press, Melbourne).

6. - Mending Split Teeth (Not Dentistry)

Recently I found a 'split' pinion (P/N 26) in my French collection of parts. The tooth area was loose on the brass boss due to a crack through the base of the plastic tooth profile. What to do ? Firstly I removed the tooth piece, pried the crack open (very carefully) and applied Selleys Supa Glue Gel. This product is suitable for metal and plastic so appropriate for this job. Left over night to cure. Next morning I reduced the diameter of the boss to plastic surface. Without a lathe I made use of what I had in my workshop in the form of an electric drill mounted horizontally in a drill press. Mounting the brass boss on a 2" axle which then fitted into the chuck I was able to spin the assembly. Using a small flat file I was able to carefully remove enough brass to provide a smooth fit of plastic to brass. Applying a little more Supa Gel to the mating surface has given the pinion a new lease of life.(I had to use a three cornered file to remove a trace of gel at the base of the tooth profile that had been glued). (Alistair Tong, New Zealand).

Some Non-MECCANO Sets - Part I

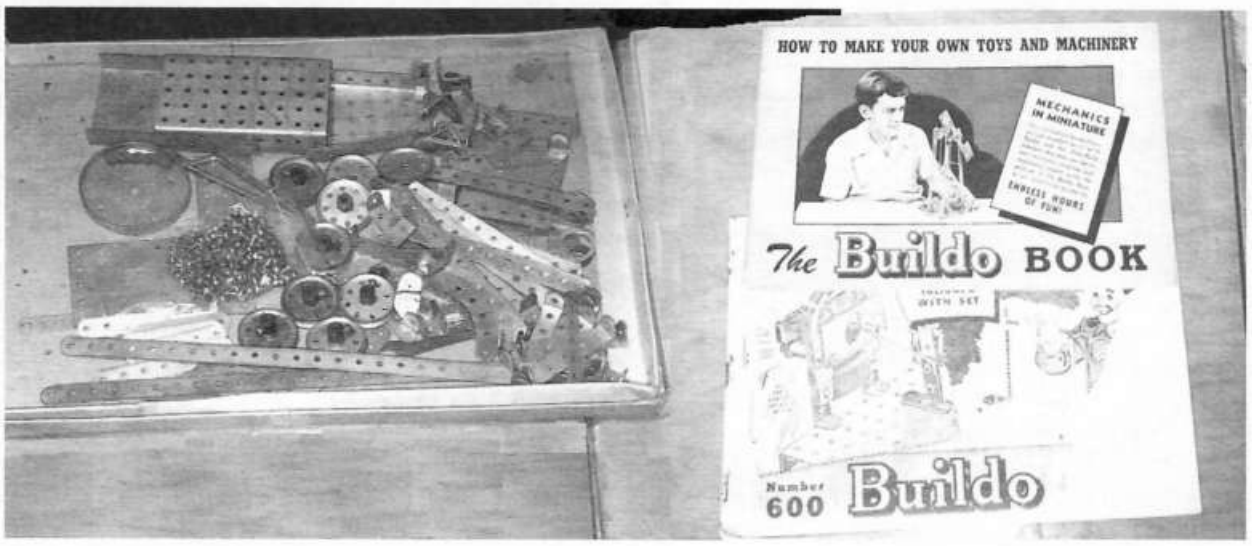
The American Model Builder *appeared in USA from 1913 until the 1920s. It is compatible with Meccano.*

Bral *was manufactured in Italy during the 1970s and 80s. The size and spacing of the holes makes it compatible with Meccano*

Meccano standard hole spacing is 1/2" (12.7mm) and the hole diameter is 4.1mm to accomodate the 8 gauge (4.064mm) axle size. The three examples illustrated on this page are from the collection of Don Blakeborough. His collection contains a about forty boxed sets of MECCANO imitations produced in the 20th century. He has loose parts of a further 100 brands out of a known 400 odd brands worldwide which have been made at various times.

Further examples of these sets will be published from time to time.

Photographs on this page are by Daryl Anderson



Buildo *was made in USA from 1944 to 1947. Hole spacing is the same as Meccano but they are only 3.8mm diam.*

John's "eBay Auction" Column.

by John Hansen.

Welcome to what I hope will be a regular column in the NZFMM Magazine. Most of you will probably have met me at various Meccano meetings and exhibitions; the MWT Meccano Club members know me as I have been a regular club member for nearly ten years. I live just outside Palmerston North where my wife Carol and daughters Sarah and Natasha enjoy the life on a small farm.

I have been taking a keen interest in items being sold through "eBay Auction" on the Internet (Meccano, Dinky and Hornby) for the last four to five months and I am slowly building up a data base of these items. Here are some interesting offerings I have seen.

MECCANO SETS

1912 Royal in lithographed tin box.

"Very rare Meccano set for the coronation in 1911/12. In very good condition but has lost some of the gilt, the red lettering and picture of the boys is good. Small initials are scratched in the top right but are not obtrusive. The nickel parts are original and in good condition. Included are the special bush wheel and key fixing pulleys - also the special keys. Small card box with nuts and bolts and also original card of cord. No instructions manual."
These are the words of the seller and it is a good accurate description .This set did not attract a bid. Reserve was NZ$2525.

1916 1X Meccano Set.

"Meccano 1x Engineering in Miniature - Copyright 1916 - American Edition - original box (great condition, some light edge wear) - original instructions Book No. 1 / No. 16 (cover front is off, but book in terrific shape - lightly read) with tons of designs, parts, and information - looks like it is all there - Meccano Co. New York - great graphics on front of box. Parts and Manual look great."
Sold for NZ$230.

1959 No 6 Meccano Set.

"This is the era of Meccano I really love. Box is about 80% of very good parts and manual excellent."
Sold for NZ$282. 7 bids.

Pocket Meccano Set.

"The box is in good condition and the parts are bright and clean."
Sold for NZ$50.

LITERATURE

Meccano Hornby Book of Trains 1939-40.

"In good condition, a difficult book to find these days."
Sold for NZ$121. 2 bids.

Meccano Standard Mechanisms Book 1929.

"Condition very good near mint. A very fine example."
Sold for NZ$114. 5 bids.

Meccano Magazines 1966 Full year.

"All complete and in excellent condition."
Sold for NZ$46.

Well, that's it for this time. Hope you enjoyed reading this. Any feed-back would be appreciated. If you are looking for something special, perhaps I can help. Just let me know your requirements by emailing me at <onaccem@paradise.net.nz> .

(continued from page 16)

What Readers Think (cont)

I am amazed that you can produce such a high quality, informative, stimulating magazine and post it to me for just $23. I really appreciate your efforts.
Ian Falconer, Waihi.

Great magazine. Most enjoyable reading.
Ray Gunter, Takanini.

I look forward to receiving and enjoying your most interesting magazine.
J Devault, Quebec, Canada

A world class publication; my congratulations to all concerned.
David Wall, Orewa.

The magazine is great these days. I look forward to it.
Barry Babbage, Tauranga.

My letter to the Editor (abbreviated) :- I was going to. And I may well do. But I haven't written it yet. So I can't really. Despite the best of intentions.
Robin Rye, Eltham.

Congratulations to the team who produce the Gazette, a joy to read.
Ernie Chandler, Warwickshire, England.

I've enjoyed reading the current issues very much and I'm now looking forward to read the coming year's issues, to increase my Meccano knowledge and inspiration to my model building. So keep the interesting articles being published and well done to the NZFMMM.
Albert Howse, Yorkshire, England.

Thanks for the well produced magazine.
Duncan Hall, Wellington

MWT MECCANO CLUB

Meeting Report for 13 April 2002

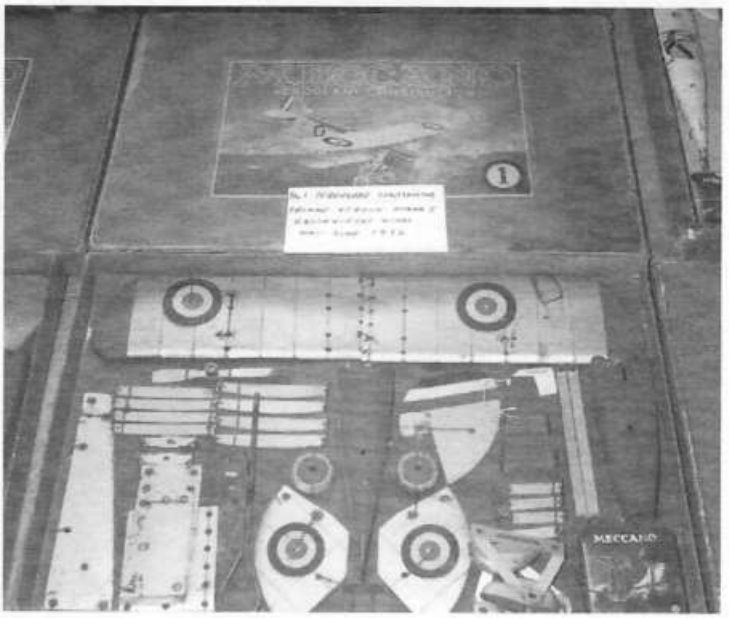
by Bruce Neilson; photos by Daryl Anderson

Tom Pittams, the Grand Marshall (Tom is the real MWT President)

The April meeting was a cornucopia of collections, a salad of sets, a harmony of Hornby and a munificence of Meccano. In other words 18 club and family members were treated to a Grand Tour of what Wanganui members have collected and accumulated in the Meccano hobby with a couple of diversions.

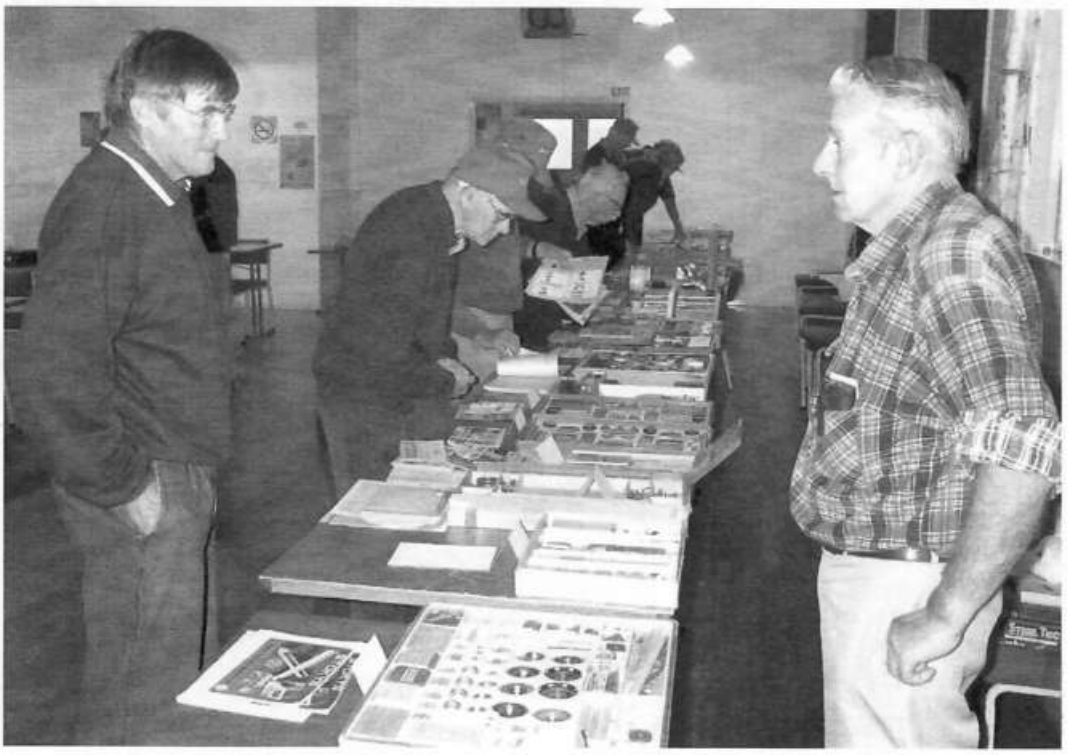
Led by the Grand Marshall, Tom Pittams, and his special revolving hat (by courtesy of Robin Rye), we viewed, touched (very carefully) and drooled over some very choice items. Strung Meccano Red and Green sets, large wooden chest with drawers stuffed to overflowing, Basset Lowke 'O' gauge locomotives mostly of 4-6-2 and 4-4-0 wheel arrangements, Princess Elizabeth locomotive in it's red box, Meccano sets from 1912, 1919, 1954 in original cardboard and wooden boxes, etc., Elektron set, No 1 and No 2 Aeroplane Constructor sets from 1932, 1934 and 1936, Exley and Carette coaches. Another deep breath. Refurbished sets starting at Mechanics Made Easy, sets from all periods restrung and gleaming, examples of the three varieties of Sprocket Chain, Clips with tongues etc, a 5ft high metal storage chest with drawers on roller bearings full of building parts, K oil can, No 10 set in wooden chest in 'one model built' condition, SP3 Steam engine, and then 40 feet of tables laid out with 35 boxed sets of Other Systems (the other 70 samples were left at home) ranging from Bral to Vogue and all the other alphabetical names in between. Pictures speak a thousand words.

We started the day at 2pm, were treated to afternoon tea during the tour and finished the day with an evening meal at the hall. and the discussions was still going on when the writer set off for home at 7pm. Overall quite a day!



A Fine Example of a No 1 Aeroplane Set.

Photographs on this page are by Daryl Anderson



John Jordan discussing the display of sets with Don Blakeborough

Christchurch Meccano Club at the Sefton Country Show 31 March 2002

by Ian Torrens

On a fine day which cooled a bit at 1215 hours, Graeme O'Neill, Doug King, and Ian Torrens, set up a fourteen foot table and a three foot table to accommodate the Easter 2002 Meccano display at Sefton. This is held at the Kowhai Domain, 23 miles north of Christchurch.

Ian Torrens with the Sefton report under way!

There were five Plastic Meccano models on show being a Hammerhead Crane, Helicopter, two Trucks, and a Ferris Wheel. As well there were five boxes of Plastic Meccano parts, which gave the public a good idea of that system. Twenty one metal Meccano models were displayed covering a wide range of subjects such as: Naval Ship, Oil Tanker, Ferry Boat, 2,500,000:1 Reduction Gearbox, South Facing Chariot, Four Speed and Reverse Gearbox, Motorcycle, Trucks, Traction Engines and Differentials. The display attracted great interest from the public with many comments and questions being asked and answered. Unfortunately rain started at 1430 hours and though the rain was not for long, it caused us to pack up and head for home.

In spite of the weather, a pleasant and interesting time was had by all.

Christchurch Meccano Club Meeting Report for March 2002

by Ian Torrens

For our meeting, held on 1 March 2002, seven members were present. Graham O'Neill brought his computer with Meccano programs on it, and showed us the display at Skegness, England, and also our Sefton display. These were in full colour, edited nicely, and made very good viewing.

Cameron McFarlane showed three Acto models, two being previously viewed, and a new model of a Robot. This model was 15" high x 9" wide and 9" deep. It looked very good. Cameron also had the carton of a Meccano Future Master set which made three models and he had the Caterpillar Tracked Bulldozer from this product for viewing. This model was 7" long x 4.5" wide x 5" high. He also had a Gadget Fun Fork Hoist. This was a neat model from that interesting construction set.

Our usual conversation continued, during which news was given that our annual display will occur at Sefton during Easter. We look forward to that. An interesting and pleasant evening, which was enjoyed by all, concluded at 2140 hours.

This ship at Sefton is a long way from the sea.

** ** **** ** *** ** **2003 Subscription to NZFMM Magazine** * ** *** *** *** ***

If your address label shows March 2002, you have not renewed your subscription to March 2003. No further magazines will be posted. Do you really want that to happen?? Send your subscription form and money NOW.

New Zealand Club Diary 2002

Auckland Meccano Club.
Contact - David Wall - Ph 09 426 1965.
Meetings at 2 pm on second Saturday every third month.
11 May 2002 - Peter and Jan Hancock, 1 Orangewood Drive, Northpark, Howick, Auckland. Ph 09-535-5355.
10 August, 9 November,

MWT Meccano Club.
Contact - Bruce Neilson - Ph 06 355 0776.
Meetings at 2pm on second Saturday every second month at St. Luke's Church Hall, cnr Cornfoot and Manuka Streets, Wanganui.
8 June, 10 August, 12 October.

Wellington Meccano Club.
Contact - Lou Nichols Ph 04 973 6177.
Meetings at 7.30 pm on first Friday every second month at ?? (contact Lou to get place of meeting).
31 May (in lieu of 7 June), 2 August, 4 October, 6 December.

Christchurch Meccano Club.
Contact - Graeme O'Neill Ph 03 322 7456.
Meetings at 7.30 pm on first Friday every month (except January) at St John's Hall, cnr St John St. and Ferry Rd., Woolston, Christchurch.
3 May, 1 June, 5 July, 2 August, 6 September, 4 October, 1 November, 6 December.

Additional Meccano Contacts
Hamilton - Don McClelland Ph 07 847 4503.
Wanganui - Tom Pittams Ph 025 274 8486.
Palmerston Nth - Bruce Geange Ph 06 357 0566.
Napier - Trevor Adam Ph 06 843 4837.

Internet sites
International Society of Meccanomen (ISM)
< www.actcom.com.il/~anthias/>
Meccano Webring <www.meccanoweb.com/meccring>

Articles etc. for the June issue of NZFMM Magazine should be sent to the Editor well before 14 June 2002.

Wanted - Autobiographies from Meccanomen for the "Meet the Meccanoman" series. 1200 words and a facial photo plus. Record yourself for posterity. Contact the Editor.

Back Numbers - NZFMM Magazines from April 2001 are available. Contact the Editor

Reminder - 12 Months to Go.
New Zealand 2003 Convention, 18-19-20 April 2003.
Community Centre, Albion Street, Hawera.
Organiser - Daryl Anderson.
Email <meccano2003nz@bitworks.co.nz>.

Bruce Baxter Estate - Meccano Collection

Arising from an inquiry about this Meccano collection, I have been advised by Nigel Boyle, collector and dealer who operates Toy & Model Collectors' (TMC) Market, Christchurch, New Zealand:
"If members are interested in buying Meccano ex-Bruce Baxter's collection or from other sources, they can email me at <oldtoys.tmc@xtra.co.nz> ."

Buy, Sell, Auction, & Exchange.

Advertisements in this section are free.
First insertion will be printed in full.
Subsequent identical insertions (max. one) may be abbreviated to fit space available.

For Sale - WRI Replica Channel Segments P/N 119.
Models which show my Channel Segments in use are shown on my Internet site <www.meccanonut.com/wri/>
Available in Nickel Plate, @ A$30-00 per set of 8 (= one circle) plus postage and packing.
All enquiries to: Bill Inglis, P.O. Box 620, Myrtleford, Victoria 3736, Australia. Telephone. +61 (03) 5751 1846. Email <inglis@netc.net.au>

Wanted - NZFMM Magazine Back Numbers
Prior to April 2001. Ashok Bannergee. Email to <shardulad1@sancharnet.in>

Wanted - Meccano Set - No 10 preferably
Kelvin Davies, 6 Sanctuary Point, Pakuranga, Auckland.
Phone (09) 576 4616. Email <Hel_Kel@xtra.co.nz>

For Sale - Index to Meccano Literature - Vols. 1 and 2.
Trying to find that model or mechanism in your Meccano Magazines??
Vol. 1 - Meccano Company Literature 1913 to 1981.
Vol. 2 - Non Company literature 1960 to 1991 and Meccano Company Literature 1982 to 1991.
Two Volumes post paid, NZ$60, US$30, UK£20
Bruce Neilson, PO Box 1009, Palmerston North.
Email <rbneilson@infogen.net.nz>

For Sale - Meccano Centennial Commemorative Stamps by Michael Adler, ISM 1 and Doug Harris, ISM 158. Featured is the Giant Blocksetting Crane, with a portrait of Frank Hornby. 'Meccano Centennial' is printed at the top, 'Frank Hornby' below. The stamp is orange, black and white. (Page 18, Oct 2001 NZFMM Magazine). A full colour version may be seen on my website: <www.geocities.com/hornbymeccano>, also my Meccano and Hornby posters. NZ$20 posted for 5 sheets of 20 stamps, overseas prices on the website. Order there or from Doug Harris at Box 82 323, Auckland. email <digbee@xtra.co.nz>

For Sale - Replica & Meccano Parts
Girders and plates: These parts are made by Newton Engineering, Christchurch. Please refer to the February mag.

Bolts, etc:

Nuts & bolts ZP	1000	$150.00	400	$65.00
Bolts ZP cheese head 1¼"	25	$3.00		
Bolts ZP c.h. ⅜", ½" & ¾"	50	$5.00		
Washers 4mm x 9mm ZP	200	$6.00		
Grub Screws, slotted	50	$7.00		

Please order from John Ince, 5 Lennox Place, Feilding.
Phone: 06 323 7075 Email: <johnince@ihug.co.nz>
Prices are in NZ$ and do not include packing and postage.

Printed for the publisher by Carrington Print Ltd., 11 Stafford Street, Feilding, New Zealand.