



NZFMM MAGAZINE

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November 2021

Club reports
NZFMM constitution
DIY Meccano power supply
100 Years ago in the MM
Meccano in the States
Cryptic Crossword



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From the Editor

Tena kotua, fellow Meccanopeople,

The times, they are a-changing. But sadly, not necessarily for the better in the 5/32 world. The necessary lockdowns have disrupted our activities in many parts of the country. **Gary Higgins** of AMG describes how to keep our hobby alive in a Covid festooned universe.

Stephen Westmoreland (WMC) quite rightly calls into focus an oft neglected item in modern Meccano modelling—the power supply. His answer is to build your own.

Of course we have the regular club reports and our President **Reg Barlow** champions the brand spanking new NZFMM Constitution.

Viv Alexander, Meccano historian extraordinaire, discusses the variation between those products available 'in the colonies', compared with the original UK offerings. There are subtle differences that may surprise you.

Speaking of history, when he is not bringing back to life early New Zealand locomotive history, **Peter Winter** (MWT) turns back the pages of the Meccano Magazine to see what was trending a century ago.

Speaking of scientific advances, I understand NASA may soon have an answer to the two most important questions facing humanity; why does gravity get stronger and time speed up as you get older? Sigh.

Anyway, a Very Merry Christmas to you all, and may all your stockings be overflowing with St Frank's favourite product.

Best wishes
Richard (MWT)

CONTENTS

Build a DC power supply	3
Paper plane maker	5
President's page	7
NZFMM Constitution	8
Meccano Magazine A Century ago.....	9
Meccano in the USA	10
MWT Club reports	12
WMC reports	16
CMC report.....	18
AMG Club report	25
Information and notices.....	27

BUILD YOUR OWN
DC(in)-DC(out) 7 Output Power Supply.
 2x permanent switched,
 5x mom pb (non-latching)
 Fwd/Rev & speed control

By Stephen Westmoreland, WMC

1/Outputs

Please refer to *figure 2 overleaf* – the top view of the power supply.

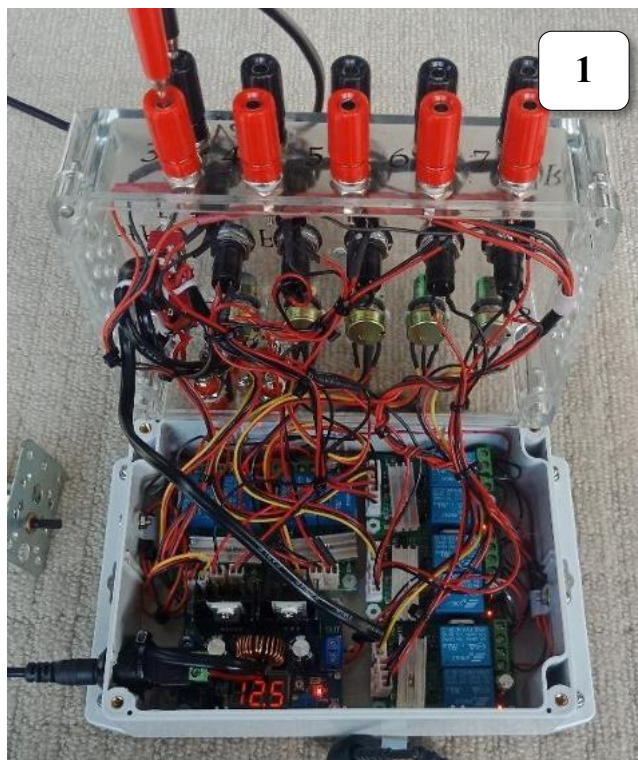
The 2 switches to the left are for permanently switched operation.

i.e. (see lettering on the lid) Top on/off switch (1) to power lights etc., and (2) bottom reverse/off/forward switch (\$5.50 ea., DPDT 5A rated miniature switches – centre off) for a permanently on large motor such as a display model to be left unattended. Both of these outputs are intended for high current like 2-3A and as such are wired with 8A wire (\$19.90 10 m roll twin core black cable)– see photo 2-the internal power supply layout and wiring.

The 5 (3) – (7) switches to the middle/right are momentary pushbutton switches x 10 with green=forward and red=reverse. They are non-latching i.e.. Power is provided to the motor only when pressed and doesn't latch (doesn't fix on) (interestingly the pb datasheet shows the PCB's with latching relays necessary because without them if both green and red switches were pressed at the same time the PCB electronics would be damaged). The top knobs are for speed control (PWM) with off to the right and max speed to the left (where the knobs are now). If you look closely at photo 1 there are 2 dots on the clear plastic lid beneath the knobs for these two positions. I realized after I had finished the top panel lettering etc. that the knobs are upside down but left them fastened this way because of the dots were already protectively coated with polyurethane and also if someone else was to use the power supply they would only switch the motors off when moving the knob around to the right (a good thing!). Up to 5 motors can be controlled by each individual push button speed controller PCB (\$11.95 each) per each output - necessary for large-motorized models.

2/ Inputs

The photos show an adapter lead that is plugged in to a plug on the bottom left. An adapter is needed to provide the input voltage to the DC-DC step down buck converter PCB (says \$11.95 each but I think I paid \$20 see datasheet from **Stan Baker** or '**chirpy**' on *Trade Me*). Specs are 5-40v DC in so my power supply is future proofed being able to power a high torque 24V motor (just use a 24V adapter), 12v motors (12v adapter), 7.5v for **Arduino** circuits or any voltage in between i.e.. See photo 2 – and also photo 1 where at the bottom of the lid is Vadj and a hole so that the small PCB mounted potentiometer can be adjusted to vary the PCB output voltage. The PCB is rated for 8A short term (momentary) or 5A continu-



ous current so a cheap 2A adapter is shown in the photo but I also have a bigger 5A adapter (\$30) too. The specifications of the mom pb switched PCB's are compatible with the DC-DC converter PCB.

3/ Performance -

Voltages measured

- at the 2A adapter output = 12.5 V.
- at the DC-DC converter PCB output = still 12.5V with one mom p/b circuit on load with a motor p/b pressed for fwd.
- at the motor = 12.38 V only 0.12 V drop by the PWM PCB circuit with speed control knob turned to max i.e. 100% PWM (on).

4/ Design

i/ I thought about having 2 x DC-DC converter PCB's so that I could have for example the 2 permanent switches on one voltage and the 5 mom p/b on another (lower) voltage (for 1A Meccano 12v motors), but there was not enough room in the enclosure as can be seen – fitting all six PCB's in was very tight and this is the largest enclosure that **Jaycar** had with a clear lid. External dimensions are 171 x 121 x 80mm (+ flanges) and internal dimensions 145 x 112 x 70mm (inside four mounting stands at the enclosure corners) (\$34.90). Also there are other considerations like the two large black heatsinks (and five smaller heatsinks on the mom p/b PCB's) above the display mean that I was wary of heat buildup on higher currents too so limit the number of PCB's. Also I wanted to be able to pick the power supply up with one hand and operate the p/b switches for the other for large multi-motorised models so the enclosure I have is about the right size. Thirdly having 5 x mom p/b switched output's I thought was more important than a second voltage supply. Lastly – budget!



ii/ A clear lid enclosure was utilized so that there was no need to take the lid off for adjustment.

iii/ Possible heat buildup was alleviated by drilling many holes in the power supply side panels as can be seen. (and there are small holes in the lid too). Some holes are used to attach p clips for tidying up the wiring.

iv/ With reference to photo 2 a large black ring can be seen below the bottom side panel of the enclosure. This is a reusable cable tie (\$8/pk8) with the idea being that that 5x2=10 banana plug leads coming out of the bottom panel could be tied through this ring for strain relief & then all go under the enclosure coming out at the top side panel towards the model. The power supply is raised as there is feet on the enclosure flanges. (so there is room for both the cable tie and cables to be hidden away.) There is a similar reusable cable tie for the 2 x 2 top leads strain relief.

4/ Wiring

Silicon wire – heat resistant (\$13.90 each 8m roll) was used to wire up the rest of the power supply (8A wire for perm. switches and Stan's medium current wiring already wired to the p/b switches and speed control knobs). The wire is thin and about 1-2A—ok for mom operation on 12v Meccano motors as can be seen around the edges of their PCB's. The 5 PCB's inputs are all wired in with all +ves & 0vs in series. There are only two wires in each DC-DC converter output chocolate block screw—one thick wire for the perm. switches (see thick 2 core black wire), and a silicon wire to the first mom p/b switched PCB. All of the mom p/b PCBs input supply and output to banana sockets wiring were done with the 5 PCB's on the bench to prevent stray threads of such fine multi strand wire and the sub assembly carefully transferred into the enclosure.

5/ Assembly

The green adapter input socket (\$6.90) was first fit in the enclosure left side panel using a 10mm LED bezel (\$5.80 pk 5) and was a good tight fit (in a 13.5mm hole and shortened). Next the top, side and front panel lettering and numbers were placed with a surgical scalpel. Letraset was used and this method was learnt at the DSIR as a trainee science technician where you simply rub the symbols off their sheets using the round edge at the top of a ball point pen. Rust-oleum polyurethane (Mitre 10) for plastics was then sprayed on to protect the symbols.

3mm nylon nuts, bolts and standoffs (\$3.90 x 3 x 2 pkts 10) were used to mount the PCB's, and the 7x2 output 4mm banana sockets (binding posts with spade connection option \$3.35ea) are also attached (the already pre-measured and cut to length fine wiring can then be soldered to each earth lug). (The 2 x wired permanent switches are already attached on the lid.) Also \$1.35ea x 14 plugs are needed for flying leads.

Lastly the DC-DC converter PCB and wired-up mom p/b PCB's are fit on their standoffs and the above wiring completed by connecting the input socket +ve and 0v outputs to the converter PCB inputs; and the converter outputs to the permanent switches and 1st mom p/b PCB. All connections made to wire this power supply use chocolate block screws—a design feature! Cable ties (\$5.90 pk100) fasten Stan's PCB's (pb/knobs able to be removed from PCB's too-white connectors in photo) wiring – especially to avoid being near heatsinks – and the length of Stan's leads was only just long enough to enable the lid to be raised as shown.

6/ Cost

The complete parts cost is around \$300 (includes banana plugs and the rest of the twin core cable roll to make 7 flying leads). Other minor parts like rubber feet (\$5.90 pk8), 4mm solder lugs (\$6.90 pk 50) for attaching the output silicon wires to the banana plug sockets, heat-shrink (\$2.50 ea. 3mm x 1.2m), 5mm p clips (cable clamps \$2.50 pk 6) and metal 2.5mm nuts, screws and washers for attaching the reusable cable ties are extra. (also extra cost for Letraset symbols and scalpels – I brought a pack of 100 blades, and the polyurethane spray can, are around \$100).



ERRATUM

Stephen Westmoreland points out a correction required for his article on an 'Automatic Reversing System' we presented in the last issue: "My original writeup should be read as one line not two. And then the parts are consistent with my notes on page 7 i.e.. a thick washer either side of the 3/4" bolt head.—viz:
1/2" pinion - 2 x thin washers + 1 thick washer - bottom hole 1/2" strip - thin washer + thick washer - 3/4" bolt head - thick washer - 1" gear wheel

Paper plane maker by Stephen Styles, CMC

(Model inspired by a model by Laurent Chat'e
 The **YouTube** link is (<https://www.youtube.com/channel/UCdGimTpQR9Y0QZcCgy8IC-w>)

The purpose of the model is to take a piece of paper and fold it into paper plane and fly it into the room!!!

The plane maker is powered by a 12-volt system wired like a car with negative earth and positive through to switches, relays and motors.

Special features are the timing drum (*opposite*) and the plunger which form the spine of the plane.

The Timing drum (fruit tin) is insulated from the negative charged body of structure.

The timing drum is rotated by a 10-rpm motor which is geared down to .24 rpm, it has 5 wiper arms on it. One to supply positive power and the other four to feed the motors and relays. The timing of the program is then controlled by sections of insulation tape which interrupt the circuit and connect the circuit at the end of the strip of tape. This controls five functions. (Some are operating at the same time).

- 1 Folding of nose of plane
- 2 Moving plane to next Function
- 3 Plunger forms spine of plane
- 4 Moving plane to launch Function
- 5 Launch wheels which fire plane into the air

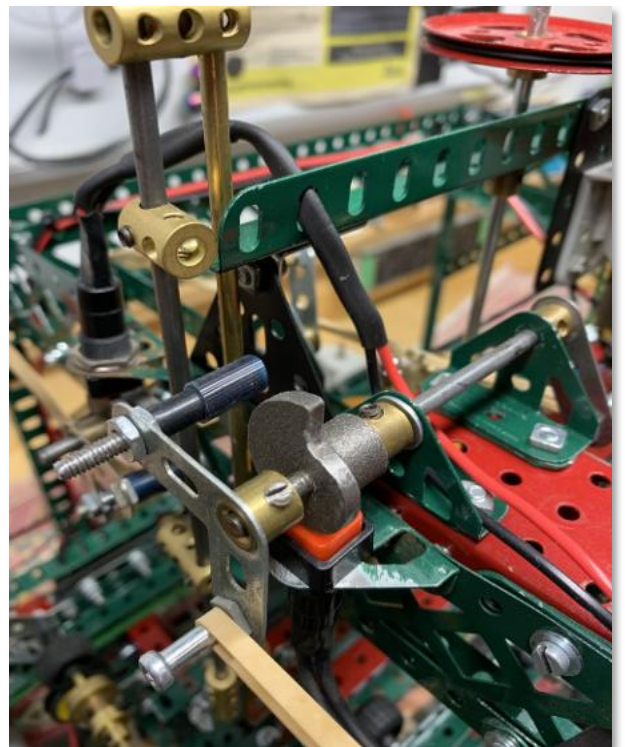
The Plunger is powered by one motor, up and down, achieved by reversing the polarity of the motor through two pulse micro switches, one pulse on and one pulse off.

As the plunger moves up and down two toggles on plunger shaft move two double armed cranks linked to two cams triggering the switches one at the top and one at the bottom of the movement required.

As this happened the power on/off pulses went through 2 DPDT relays set up to reverse the polarity of power to the motor.

A Double Pole Double Throw (DPDT) switch is a switch that has two inputs and four outputs; each input has two corresponding outputs that it can connect to. Each of the terminals of a double pole double switch can either be in 1 of 2 positions. I intend to bring it to 2023 convention.

I would like to put out a challenge to all Meccano builders to come with their versions of plane makers, I would love to see what you come up with!



Trevor Adam - Obituary.

I was in Hawkes Bay recently and sadly noticed in a Newspaper the passing of Trevor on the 4th of March this year.

Trevor was a stalwart of the HB Model scene, organising Model shows and Swap Meets, and supporting schools with fundraising displays. His interests included Meccano, "Fun-Ho" model collecting, and supporting his grandchildren with "K-Nex". Additionally Trevor was a keen motorcyclist and proudly showed me his Norton and his pre-WW2 Douglas speedway racer. Indeed Trevor enjoyed speedway, competing in Napier and Palmerston North over many years.

MWT Members will recall meeting at Trevor's Napier home and the auction of part of the late Jim Crarer's collection. At some of Trevor's displays he included Jim's models.

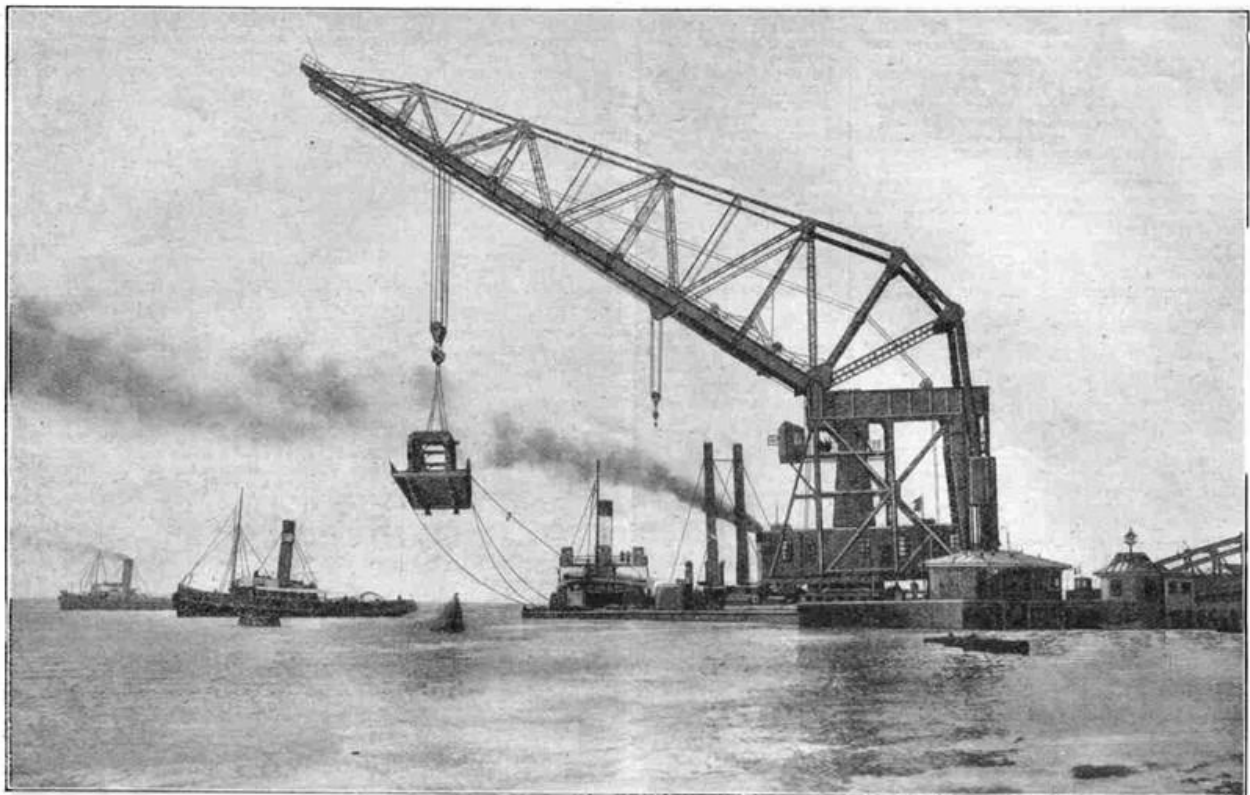
The feature of Trevor's extensive displays was his



huge Ferris Wheel, pictured above, complemented by plenty of motorised marine and steam engine models to entertain people. Trevor was ably supported by his late wife Sue.

rota volvitur - the wheel turns.

David Glenday.



THE 200-TON FLOATING CRANE "MAMMOTH," LIFTING A BRIDGE WEIGHING 152 TONS, AT NEW BRIGHTON FERRY.

Above: The prototype "Mammoth" crane referred to in Peter Winter's article on page 9 about what was trending in the November issue of Meccano Magazine exactly one hundred years ago.

President's letter to NZFMM members.

At our Biennial meeting earlier this year, I was tasked, as your newly elected President, to undertake the task of formulating a Constitution for the NZFMM. This is a covering letter to explain the process and the outcome.

First, I would like to thank the Presidents of the affiliated clubs, who, after discussing with their members, have replied to me with their thoughts, ideas and comments. Thankfully, they were all similar in theme, with only a few differences, which is what I was expecting. I also had some chats with other members as well.

Overall, there were some good relevant discussions, and I have studied them all. No one wants it to sound like a legal document, we have survived for quite some time without one, with no ill effects, so this was my reasoning, in what I have put together. The KISS principle applies, always remembering why we are together - Meccano!

I am only too well aware that I will not be able to please all of the people all of the time, but hopefully some of the people some of the time. So if your own ideas are different from what will be our constitution, I apologise that you may not be completely satisfied, but all I ask you to do is to accept it and remember Meccano has to be the winner.

Please read the published Constitution with an open mind, and if you are not happy, the process to address this would be to raise your points under General Business at our next Biennial meeting. I am not open to any more conversations, especially from individual members. All discussions, if there are any, must come from the Presidents of your club.



The next challenge will be to set the guidelines for the trophies. There was quite a mix-up at the last convention. This was caused by my own misunderstanding, and also I had been given misleading information, which only went to show that I wasn't the only one who didn't understand. I have asked several long standing members to tell me their understanding on what each trophy is for and how it is judged / decided, and from there we will set out the rules for eligibility to be able to enter your model for judging.

I am sure you are all looking forward to our next Convention and planning / building models, and to continue the robust conversations that we started at the Waikeanae convention.

Happy modelling.

Reg Barlow President NZFMM



Above: Christchurch Meccano Club members display their models—please see page 18 for text

Constitution for the New Zealand Federation of Meccano Modellers

1. Name

The name of the organisation is the **New Zealand Federation of Meccano Modellers**, referred to here as the Federation.

2. Purpose

The purposes of the Federation are:

- To be a single contact point for the Meccano hobby in New Zealand. For this purpose the Federation maintains a web site using the domain, nzfmm.org.nz with information about the Federation and the affiliated clubs.
- To ensure that a national Convention is held every two years.
- To publish a magazine.
- To promote the Meccano hobby in New Zealand, through public exhibitions and other means.

3. Constitution

The Federation consists of the five currently existing affiliated Meccano clubs, namely Auckland Meccano Guild, (AMG), Greater Waikato Meccano Club, (GWMC), Manawatu Wanganui Taranaki Meccano Club, (MWT), Wellington Meccano Club, (WMC), Christchurch Meccano Club, (CMC), and any other Meccano club that may be formed and become affiliated.

Each club may have its own set of guidelines and sets its own agenda for frequency of meetings, election of officers, and subscriptions if warranted.

4. Membership

Every member of an affiliated club is a member of the Federation. Every person who subscribes to the Federation magazine is a member of the Federation. (This includes overseas subscribers.)

5. Officers

The Federation has the following three (3) officers:

A) President, B) Treasurer, C) Magazine Editor.

The term of office of each officer is nominally two years, i.e. from one Convention to the next. The term of the President may be extended once, to a maximum of four years. The terms of the Treasurer and Magazine Editor may be extended indefinitely.

Officers are elected or confirmed at each Biennial General Meeting.

6. Decision making

Decisions about the conduct of the Federation may be made

- By a Biennial General Meeting.
- At any time by the President, in consultation with the Presidents of the affiliated clubs.

7. Conventions

A Convention open to all members of the Federation takes place every two years, in odd-numbered years.

The Convention is hosted by one of the affiliated clubs.

A public exhibition forms a part of each Convention.

8. Biennial General Meeting

A general meeting of the Federation takes place as part of each Convention.

The meeting is chaired by the current President. Minutes of the meeting are kept by the Secretary of the club who is running the convention.

Any member of the Federation may attend the meeting and vote.

The Treasurer will prepare and circulate a financial statement before the meeting, or published in the preceding magazine.

The President will prepare and circulate an agenda before the meeting, either through publication in the magazine, or through the Presidents, any additional items for the agenda, must be notified, in writing, in advance to the President of the Federation. Items which may appear on the agenda are:

- The President's report.
 - The financial statement.
 - Reports from the clubs.
 - General Business. Any discussion points must be notified, in writing, to the President in advance of the meeting, as stated above.
 - Election or confirmation of officers. This will have been discussed between the Presidents previously and nominations received, and the nominated person has agreed, therefore at the Biennial meeting it is announced who is the successful candidate.
- If, in the case of more than one nomination, a private vote between the Club Presidents to determine who will be the successful candidate and then announced at the Biennial meeting
- A decision on the club to host the next Convention.

9. Finances

The Federation has no finances except those associated with the production of the magazine.

100 Years Ago – “Meccano Magazine” November 1921

By
Peter Winter (MWT)

In Spring 1916, Frank Hornby, who had been receiving letters from boys of all ages worldwide, decided that he needed some method of communicating with them in return, and a vehicle for his vision of Meccano Clubs and the Meccano Guild - And so the Meccano Magazine was born.

At first little more than an advertising leaflet for sets and models, it also included the Story of Meccano, and answers to Meccano Boys letters, and eventually blossomed into the premier boy's hobby magazine. During its tenure from 1916-1981, it not only chronicled the fortunes of Meccano Inc, but the decline of steam power, the progress of aviation, and obliquely the fall of the British Empire as well.

In 1921, the newly appointed advertising manager, Ellison Hawks became the editor, but it took a couple of more issues before he had the time to produce the magazine he wanted. The Nov/Dec issue 1921 shows on the front page the Meccano Boy building the Eiffel? Blackpool? Tower. He is wearing his typical patterned wool jersey, later produced by Jaeger woollen garments, who incidentally are still in existence (since 1884) now owned by Marks and Spencer.

The motto “*To Help Meccano Boys to Have More Fun Than Other Boys*” was in this very issue (ref letter on the back page) challenged by Master Laurence Edwards of Hull as being selfish (I always thought so) and although defended by the editor in his answer, curiously lasted only one more issue.

The front page shows the super model, the New Meccano Loom, a fearsomely complicated construction (well to me at least) which demonstrates how far the toy had come by 1921. I would be interested to hear from anyone who was game enough to build it. (*Hugh?*)

The ‘Story of Meccano’ is continued within the magazine describing Frank Hornby's 9-year battle against the ‘American Model Builder’ and the tribulations of WWI. An editorial alludes to the success of the motor-car chassis leaflet, the introduction of Hornby Trains and new accessory parts (illustrated), including the new 19 tooth pinion and matching 57 tooth gear, and short flat girders. For Hornby train fans there was the lattice girder bridge and electrical third rail conversion kits. Also advertised was the frightening Meccano Charging Board for motors and accumulators!

The popular engineering marvel articles were reprised with a further, a description of “Mammoth”, at that time the largest floating crane in the world and I'm

sure the subject of many Meccano Models. (*See photo on page 7*). Meccano was also very keen on competitions and sponsored many, and a winning story is reproduced here, a little smacking of one-upmanship and public schoolish to my taste.

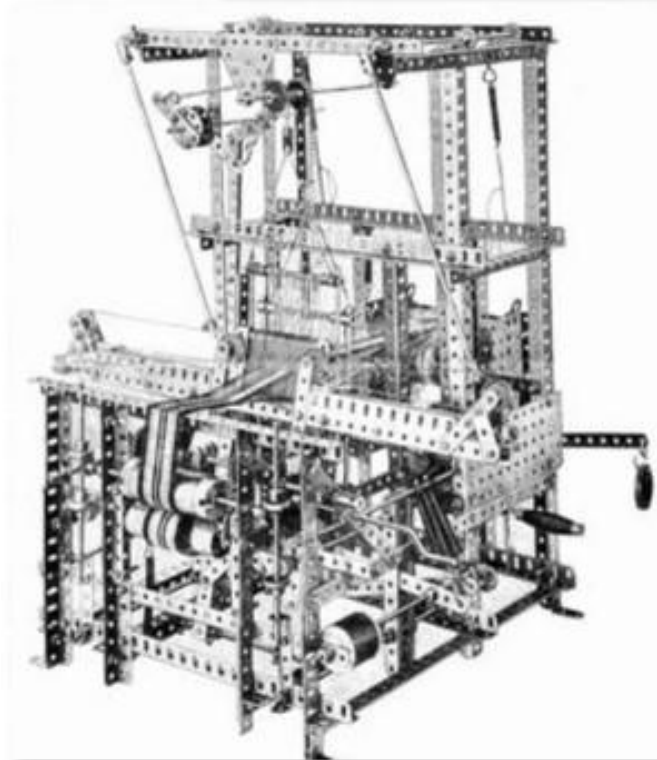
A couple of pages are devoted to Hornby's beloved Meccano Guild and Clubs the standout item being the affiliation of the Clay Girls Club, with an astounding 48 members!

The letters section provides interesting reading. As well as the one quoted above there are many suggestions in regard to improved parts and to the doings of Meccano Boys and their Clubs. One letter in particular, from Master FG Smith of London, asks why the Meccano crank shaft could not be fitted with a strip coupling to make it more useful – I have often wondered this myself. Also, A Morrod of Newcastle-on-Tyne was soon rewarded with his ratchet wheel whilst J Hemsley of Littlehampton has had to wait a lot longer to get a short single arm crank, albeit a reproduction.

Delving into the old Meccano Magazines is a joy as you get to read history as it was happening, and gain insight into the mores and attitudes driving the times, as well as following the development of the toy as it reflected these.

Peter Winter
MWT

Below: Model loom featured on the front page of the November /December 1921 issue of Meccano Magazine



Meccano in USA and Canada.

A Brief Survey.

By

Viv Alexander (MWT)

First, information on sales and progress in the America's is not very plentiful. However, in 2004, Mr Bisset of Louisville sent me a draft copy of his investigations in this area, which contained a lot of useful information, for which I am very grateful.

As we know, Meccano was invented in 1901. Mr Hornby was an astute business man, and was always trying to increase his sales. So he sold his invention abroad as well as in GB. Sales in America were small until 1909, when Frank made a trade agreement with The Embossing Company of Albany, N.Y., a firm which specialised in toys with an educational basis. As Mr Hornby had always promoted the educational side of engineering with Meccano, the combination fitted quite well. The first sets sold in 1909 included British manuals with the English address obliterated and American details overprinted on them. Thereafter, from 1910, the appropriate American address was used.

Over the next 10-12 years, sales must have increased rapidly, as Meccano built a factory in Elizabeth, New Jersey which opened in 1922. As with Meccano in France, the American arm was largely independent, so they produced their own parts, boxes etc. American boxes were brighter than their English counterparts, having more red on them. However, the quality of the parts were inferior, being tin-plated instead of nickel, and they discoloured with age. However, there was a major difference in the sets. Electric motors were introduced as early as 1913, initially high voltage, but soon replaced by low voltage types. I am not sure when they were included in sets, but sets as low as No. 1 had them quite early in the piece. These were labelled 1x, 2x etc. US sets with motors were much more common than in the U.K.

Meccano USA produced their own magazines for the local market, these were much smaller than their English counterparts, both in size and contents. Around 1928-29, Hornby had litigation problems with Mr Gilbert, of Erector fame, which had a much larger share of the US market than Meccano. Eventually Mr Hornby sold out to him, including the factory. Mr Gilbert continued to use the Meccano brand name well into WWII. From that point onwards, (1929) he seems to have diversified Meccano products to include many types of microscopes, brick building sets, miniature glass houses, etc. He even introduced snap fasteners to replace nuts and bolts in some sets!! (There is an article on the microscopes in the June 1999 issue of Constructor Quarterly)

It was at the US factory that radio receiver sets including Meccano parts were first invented. They had just

been finished before Frank made his American trip, and he listened to the quite good reception they gave. As a result, he took one back to England, and so the short-lived radio sets became available.

I have a rather unusual item, a 1916 American manual, which has a sheet of prices for the Australian market, with Australian prices, pasted inside the back cover. Is this original, or has the page been inserted by a later owner?

Meccano in Canada.

Much less is known about the situation in Canada. There must have been reasonable sales, as there was both an office and warehouse in Toronto. And, when Mr Hornby visited on his American trip in 1922, a new headquarters had just been opened. However, Canada seems to have been supplied from GB, not USA. The same with magazines. These were English versions, not the smaller US ones. I have displayed two magazines for Dec. 1934. These are identical except for two things. There have been four pages of adverts for Canadians added at the front and the back, and there is a 10c price tag on the front cover. Everything else is absolutely identical, including all the interspersed ads with English prices.

Well, I hope you find this as interesting as I do.

Viv Alexander - MWT



When is Meccano not Meccano?

A selection of Meccano and related objects produced in the United States and Canada, mostly during the nineteen-thirties.

Top right: UK and US Meccano Magazine covers for November 1934. Can you spot the difference?

Below left: Early US Instruction Manual, printed in Great Britain.

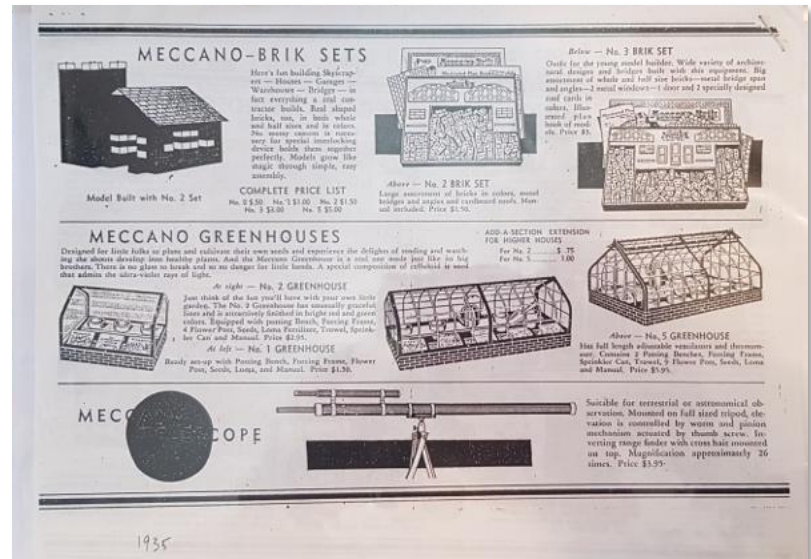
Bottom: Meccano Microscope sets from different eras.

Opposite: Tin-plated US made set.

Opposite lower: Variety of other Meccano branded items from the US.



≠





MWT Meccano Meeting 14 August 2021

Model Tour

Model Challenge: A bridge that spans at least 1 metre and can support not less than 1 Kg.

Peter Winter: transporter bridge.

Hugh Ramage: NZ rail bridge. (3)

Richard Feltham: railway bridge.

Bruce Durdle: Rewa-Rewa bridge.

Chris Morton: railway bridge.

John Freer: like topsy, it just grew, bridge.

Daryl Anderson: plastic Meccano bridge. (2)

Stuart Lindsay: Wanganui railway bridge.

Peter Winter won the challenge, with his ingenious and detailed transporter bridge based on the original in Europe. (Fig 1, Below)

The **Lindsay Bond** Trophy was on display.



Other models on display .

Chris Morton: Along with his bridge were also some Hornby 0 gauge wagons and some Lionel track.

Hugh Ramage: A land yacht with radio control of the sail and wheel steering independently.

Richard Feltham: Along with his bridge was a Twin Trix train. A Meccano based construction of a revolving structure that produced varying colours electronically from a light globe.

Bruce Durdle: A variety of models some of which were not Meccano but had nice crawler track mechanisms for adoption to Meccano. His work in progress ping-pong ball lifter showed further improvement..

Viv Alexander: As always, an exotic Meccano display. This time showcasing USA Meccano products with a couple of Canadian market sets as well. 3 Microscope sets. The different Meccano Magazines. Parts clipped onto mounting card in sets. **Structo** appear to have made USA Meccano parts. USA bolt size and thread not 5/32 Whitworth. USA Meccano independent to UK 1909 to 1929. Erector took over then. A strange combination of an Australian market Meccano price list in a USA market catalogue.

Daryl Anderson: Showed some mid 1960's Meccano Plastic Sets. 1971 saw the plastic girders introduced. The later French manufacture plastic series does not conform with this earlier Binns Road product.

Brian Peterson: had some Meccano for sale and had made the current Mercedes and Ferrari car sets.





1



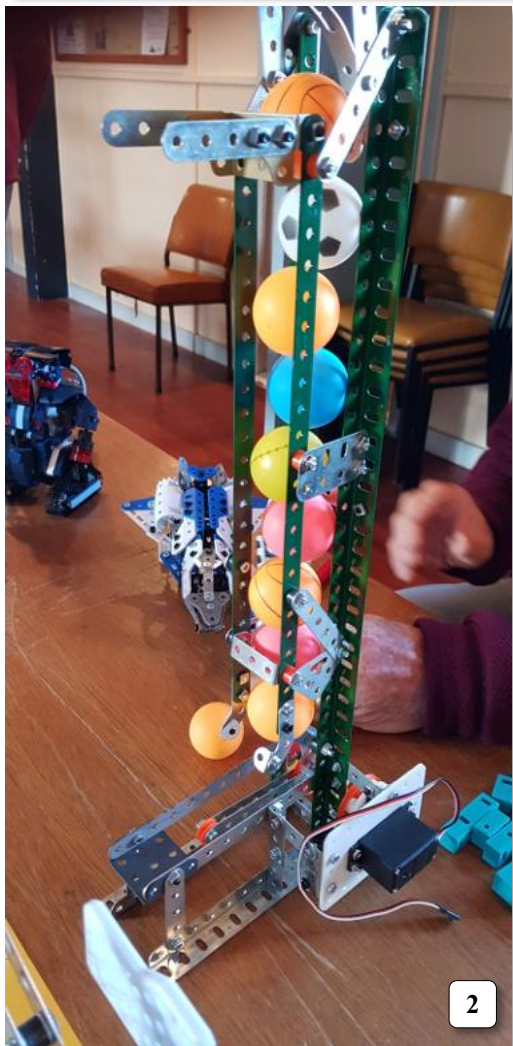
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1. Bruce Durdle Rewa-Rewa bridge & ping-pong lifter (2)
3. Peter Winter transporter
4. Chris Morton 0 gauge bridge
5. Hugh Ramage sand-yacht
6. Robin Rye thinking
7. Richard Feltham orb
- 8,9. Various displays
10. John Freer bridge

DRAMA
IN 3
ACTS...

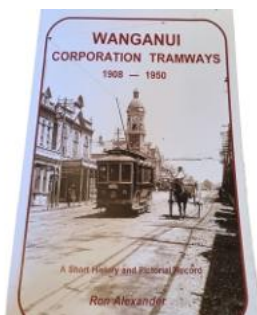




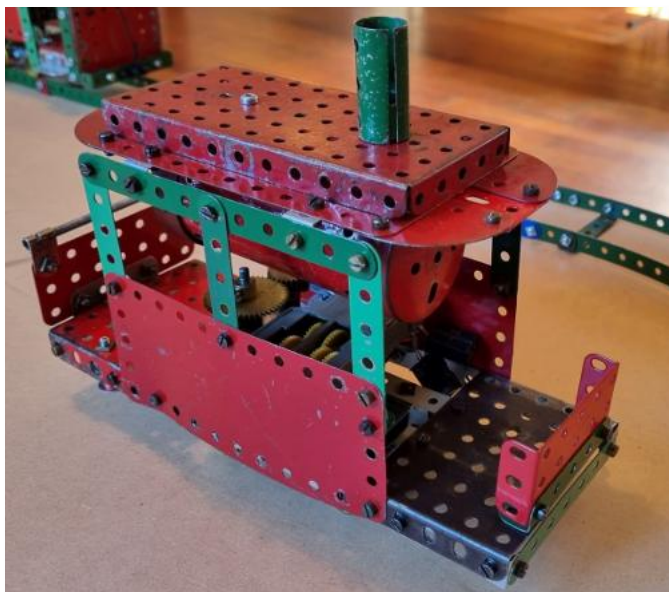
MWT Meeting 11th October 2021

Model challenge: Issued by the previous winner, **Peter Winter**, was to create a functional marionette. However, as no qualifying entries were brought forward it was decided to extend the challenge to the next meeting.

Model Tour.



Hugh Ramage had created a delightful three tram set based on those used in Wanganui up until 1950. His display included a track. A feature was the bell that rang as the automatic stopping mechanism was activated. The oldest tram modelled a steam tram from the early 1900s.



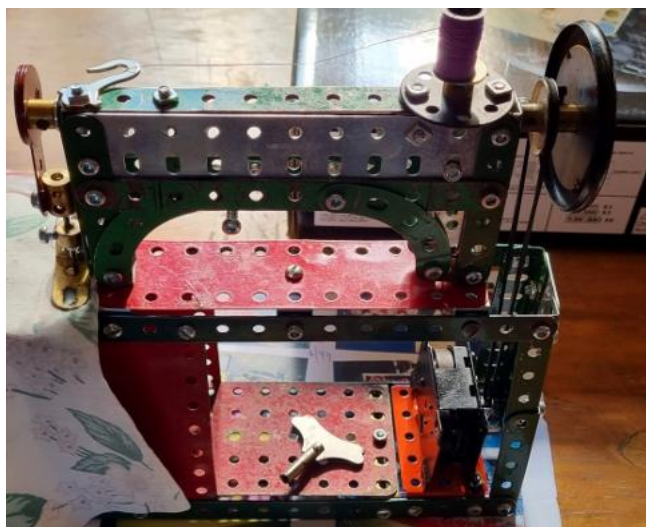
Richard Feltham displayed the first third of his naughts and crosses playing robot. Each triangular 'face' was moved by a stepper motor to the desired orientation. Considerable discussion arose around how to divide the native 512 steps of each motor evenly into the required 120 degree rotation. (See opposite page with furrowed brows aplenty)

Peter Winter had his newly finished West Coast forestry 12 wheeler locomotive from 1910. He built the entire model from 1 photograph. (See opposite page)

Daryl Anderson had a model from the late **Al Tong** of Hawera. This is a Sellers Display Model, representing vehicles crossing a bridge. A chain mechanism drives the Dinky trucks around on an endless loop.



Brian Petersen produced a delightful functional wee Singer sewing machine run by a Magic Motor. (Below) He also offered a selection of sets and parts for sale.



Viv Alexander showed a pristine boxed Plane Set from about 1935. Made in France for sale in Belgium, it reflected the commercial freedoms of the day. (see top opposite page)





Peter Winter's detailed and working 12 wheeler forestry locomotive from the early 1900s

The Wellington Meccano Club

Report

Reporter – Stephen Westmoreland

Photos – Reg Barlow

Editor – Max George

Meeting Date: Friday 6th August 2021 at 7:30pm at Campbell Morrison's place, Silverstream.

The theme for the meeting was to create a model using only odd numbered parts, nuts, bolts, and washers not included.

We only got 2 models, so it has been extended to next meeting, and if this stretches the brain matter too much, create an Insect instead, motorised if possible.

Stephen Westmoreland: Managed to achieve this lovely flower.



Simon Moody: Made a millipede, or is a centipede?



Brian Petersen: Brought along two model racing cars. Ferrari set no 18303 and Mercedes, set no 15303. Good models from that era of Meccano production, but surely cloth? An interesting choice of material.



Ferrari set no 18393.



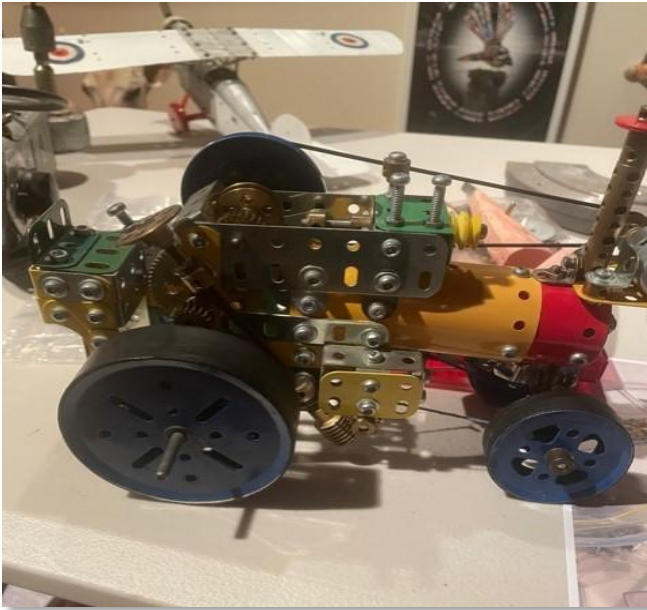
Mercedes set no 15303.

Bevel gears connected to the rear axle meant that when the car moved, the motor pistons moved up and down realistically. Another set of bevel gears connected to the central driving camera so that steering was facilitated. The cloth coverings are genuine Meccano parts.



Spare Parts:

We also had several boxes of well used Meccano that had been donated to the club, to either give away or anyone willing to make a small donation to the Club's coffers.



Campbell Morison:

A lovely steam engine which belonged to dearly departed **Lou Nicholls**, and Campbell has done some fine tuning to make it even better. Campbell added a wheel with drive band at the side and made a new standoff to mount the front part with steering. A comment was that to make this change, the whole front part had to be pulled to bits and reassembled because all sub-assemblies were interconnected. The steering was modified with a bolt and spring so that the front wheels were connected to the chassis and steering wheel.

All of Lou's models have been distributed amongst members, with the proviso that they be kept in working order and available, for any public displays.

Have a guess as to what this is in figure 1?

I'll put you out of your misery, it is a modified motor to assist in painting roundels. Look at the following pictures of planes with painted roundels.



Out of Campbell's archives came this well-preserved **Lott's Brick** building set for building houses. This prompted a lot of conversation.



Campbell commented that his final aim is to make a Tiger Moth aeroplane.



Christchurch Meccan Club

Report by Roland Jaspers

Quiet, quiet, quiet. This sums up the state of the Christchurch Meccano Club over the last three months. The September meeting was cancelled due to Covid restrictions at the RSA. The August and October meetings were well attended (as are all meetings) with brief business and lots of socializing. Some early planning for Convention 2023 is under way and progress will be reported when appropriate.

Models (open model for August, Construction model for October) were again of a very high standard with a stand-out model by **Stephen Styles**, (as pictured on page 7.) The Club gained new members this year and current membership stands at 32.

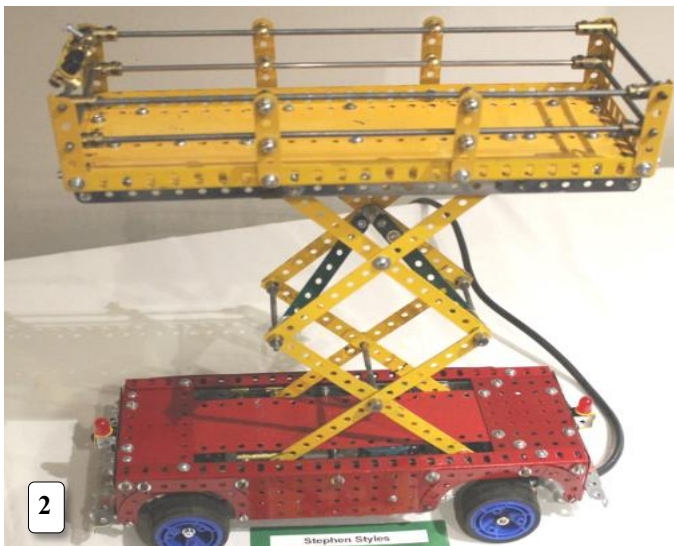
On 5 December most members will be part of a rural experience as the year-end barbeque will be held at **Murray Scandlyn's** home in Balcairn, North of Rangiora.

We wish all our fellow modellers a pleasant festive season and good health, free of Covid.

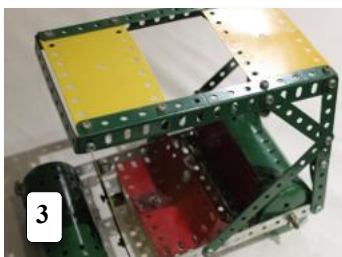
Roland Jaspers
CMC



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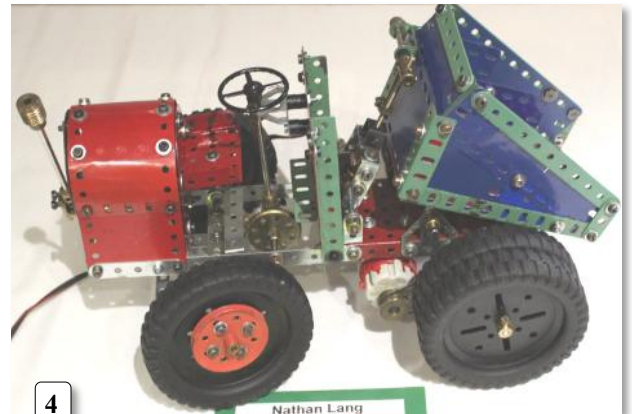


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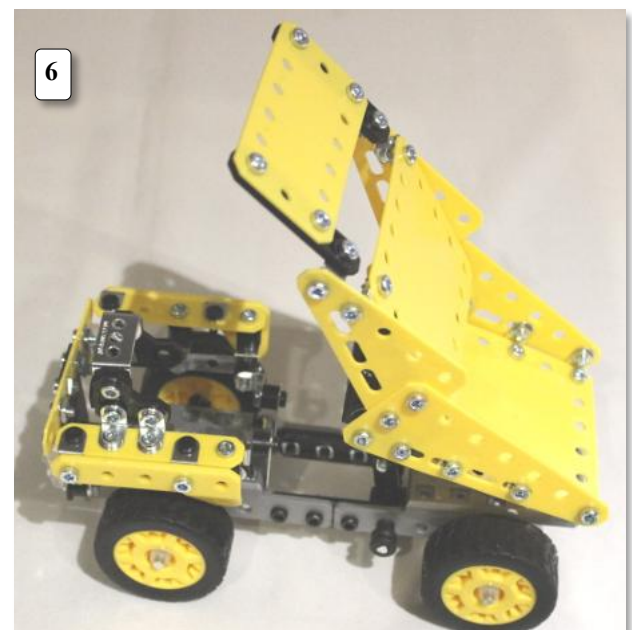
Kevin's 10 wheeler (WIP)
Stephen's scissor lift
Graham's truck
Nathan's tipper
Linda's graders
Thomas' dump truck
Dene's cart



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The Wellington Meccano Club

Report

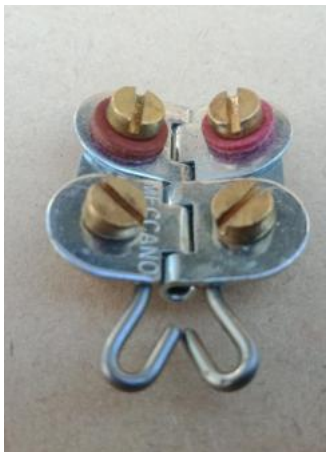
Reporter – Max George

Photos – Club members own

Meeting Date: Friday 3rd September 2021 at 7:30pm.

Because of Covid-19 lockdown we kindly thank **Reg** for organising this Zoom meeting. There were eight members in the Zoom session with another two who failed to connect. Otherwise, a very successful meeting.

The theme for the meeting was to create an insect of some sort. There was fun displaying the models and so it was easier for each person to supply photos for the newsletter.



Stephen Westmoreland: Created a small butterfly.

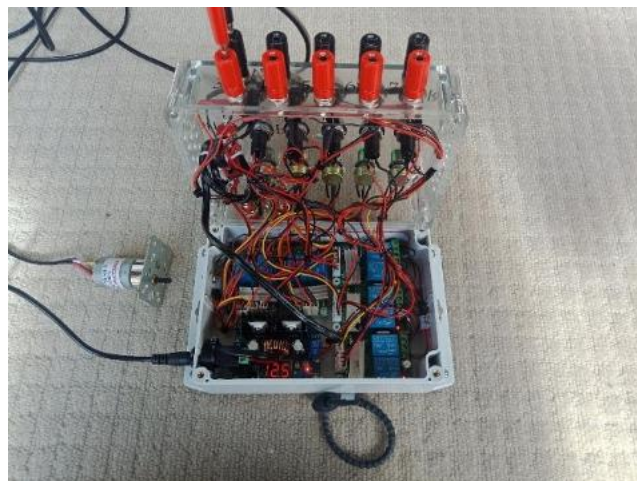
Which he added to his flower that he made for the previous meeting. (Above)

He also built the six-wheel lorry from instructions in the recent NZFMM magazine. (Below) As he had al-



ready built a small tractor (with encouragement from Bruce Geange), he added it to the lorry.

Stephen is building up a seven-outlet power supply which can control up to seven motors, five with button control and the other two with switches. Rather than write about it here, he has been asked to write a separate article for the magazine. (See page 3)



Inside of the Controller.



Top view of the controller.

Simon Moody: Made a millipede, or is a centipede?



Ross Quayle: Was very busy making four insects – all very realistic. Grasshopper, weta, bumblebee. And caddisfly.



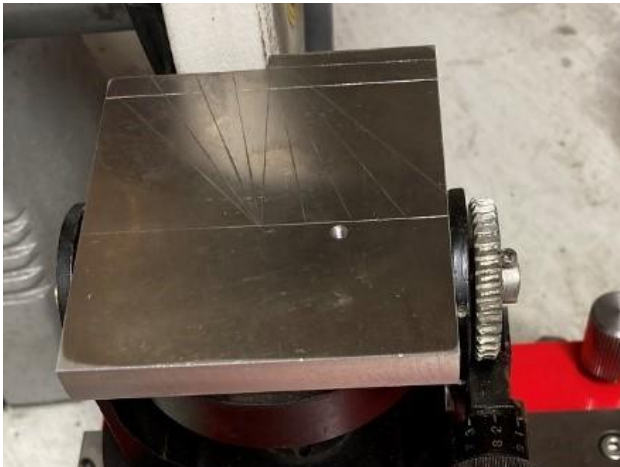
Max George: Instead of building an original insect he made use of a set he has for the school group and made a butterfly from set #16205. (Top right)

There are instructions for a dragonfly and a moth that can be built from the same set.

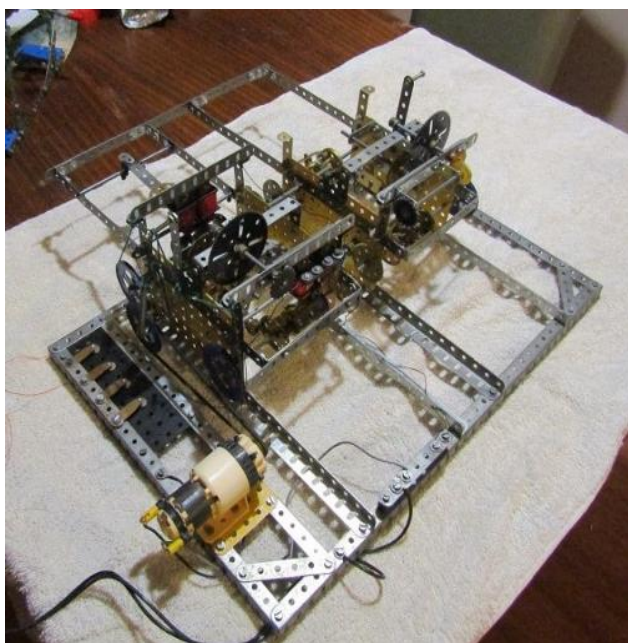
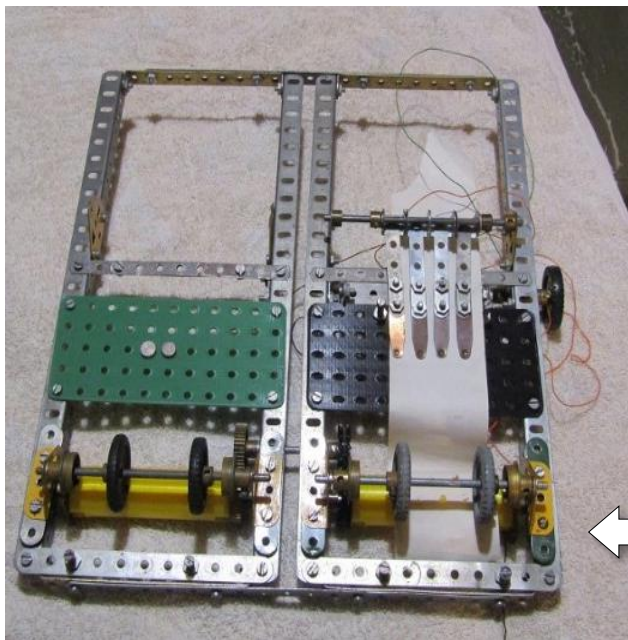


Insects, by **Ross Quayle, WMC**
(Left, From top to bottom:)

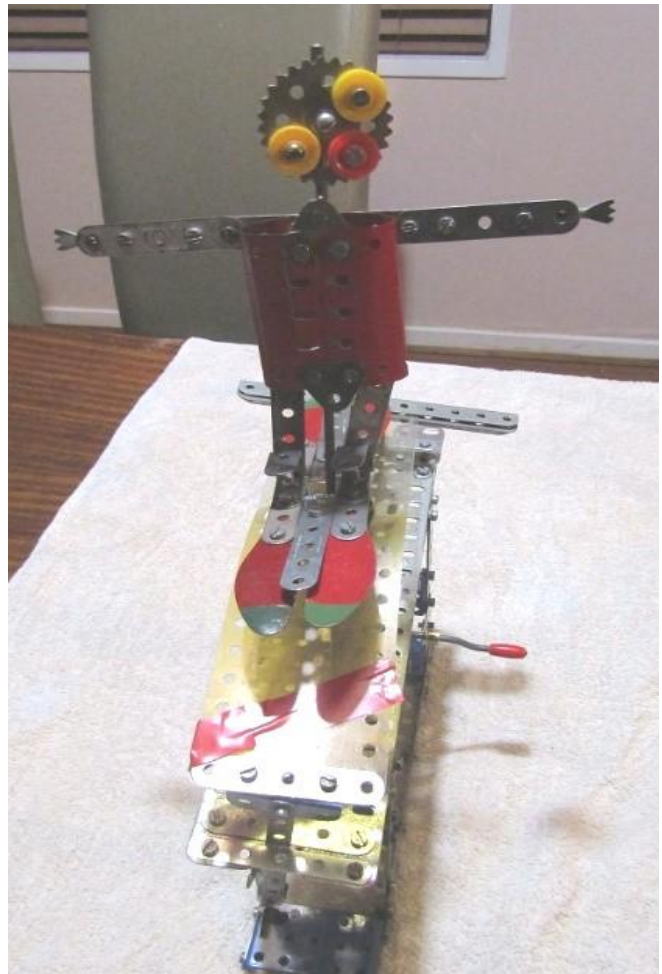
- Grasshopper (*omocestus viridulus*)
- Weta (*hemianthus jacinda*)
- Bumble-bee (*bombus vulgaris*)
- Caddis-fly (*trichopteran intergripalpia*)



Campbell Morrison: Gets involved in making things easier for himself and this week brought along nozzles for attaching to a Bernina oil can to make oiling parts easier. Grinder he uses to remove the sharp tip of the needle.



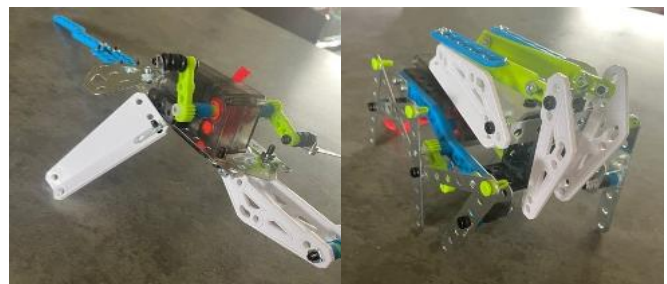
Paul Roberts: Is very involved in building a Plotter. This is taking some time as it is using Meccano Electric kit parts, many of which he has made himself.



Two different parts of Paul's Plotter.

Using the theme for the previous month's model, Paul made a surfer using odd numbered parts. (Above)

Reg Barlow: Was delightfully original in constructing a couple of insects. (Below)



Grasshopper. The wings spun around very fast. To see them in action, go to our Facebook page 'Wellington Meccano Club' to watch the videos.

RailX at Taita: We have been invited to display Meccano models again this year at the Taita RailX being held on the 20th and 21st of November at the Walter Nash Stadium in Lower Hutt. Max will also be displaying his Little Joe and Tricky Track.

The Wellington Meccano Club

Report

Reporter – Max George

Meeting Date: Friday 1st October 2021 at 7:30pm at Keith McCallum's, Khandallah.

Next Meeting: The theme is something at an airport or what you have made for RailEx at Taita. It will be at Stephen Westmoreland's place, Paraparaumu on Friday 5th November 2021.

There was no actual theme for the meeting but bring along anything you have made.

Reg Barlow: Displayed his beetle from last month's Zoom meeting. Unfortunately, it is not working properly due to it being dropped.



Paul Roberts: Brought along three very different models.

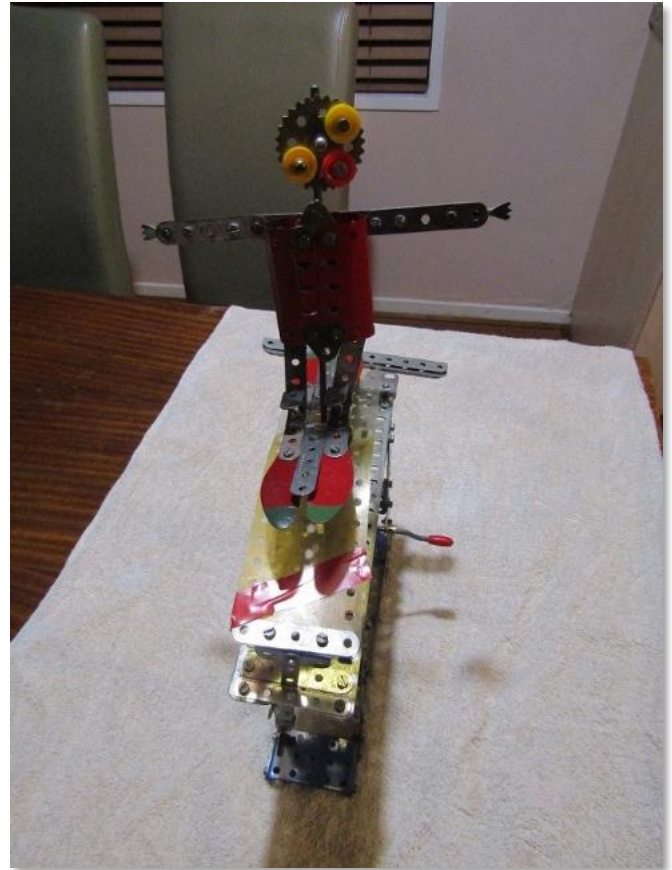
The first being Meccano speakers that he played music from the radio through. He had looked on-line for speakers but in the end used plastic pudding bowls as the cones for the speakers. You could hear the music from them.

The second model was his Surfer made from last month's Odd Part number challenge. Unfortunately,

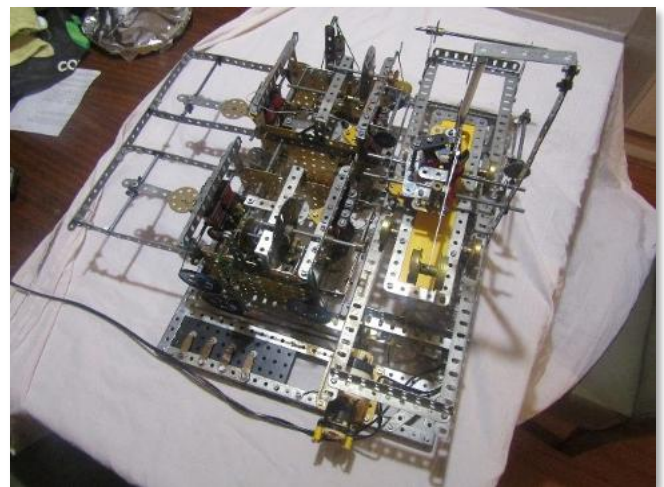


the clear plastic surf had become brittle and cracked in transit to the meeting.

His third model was his ambitious, still in construction, plotter to print the word MECCANO. The model works with only one motor, numerous solenoids, some he has made and 6 differentials. A very ambitious model.



Ross Quayle: Brought along his very realistic insects



he showed on the Zoom meeting we held last month.

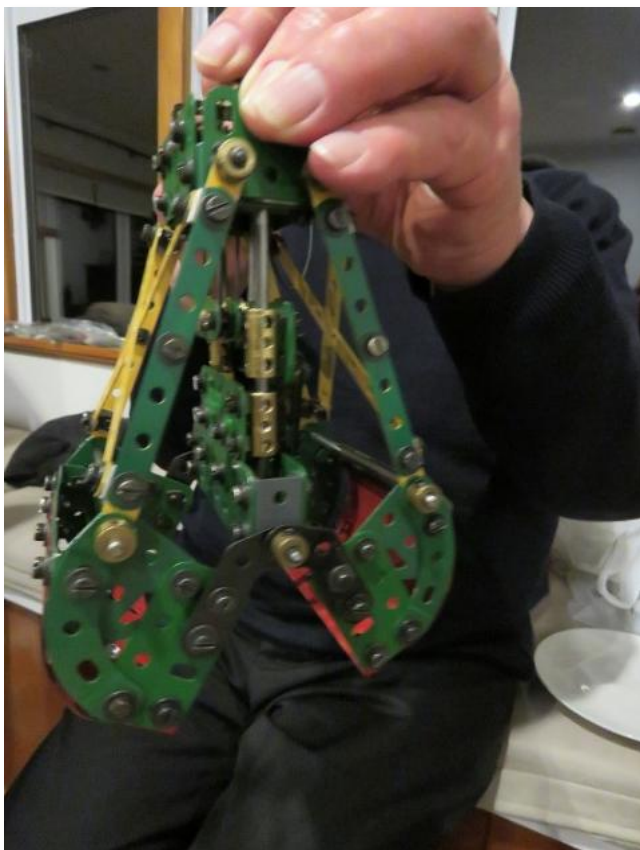
(See page 20 for photos)

Stephen Westmoreland: Displayed his DC power supply he has built up with seven different outputs. Five are controlled with variable voltages with both forward and reverse. The other two are off / On circuits. The power supply took three months to design and three months to build.

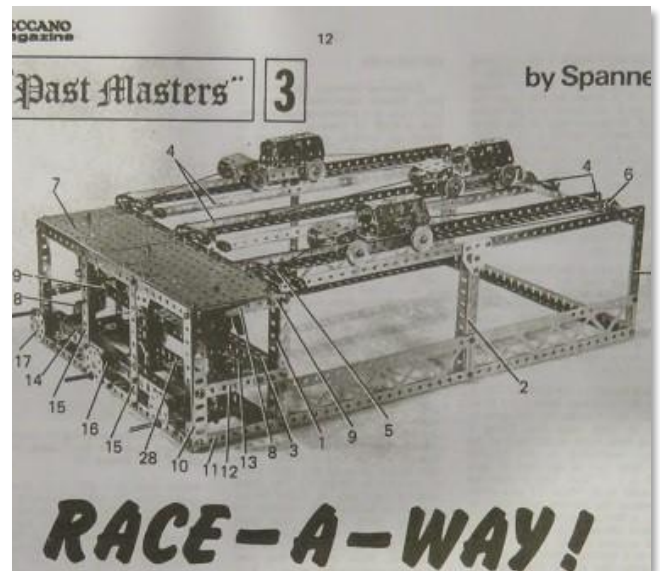


He also displayed his flower and Tractor and Truck from the Zoom meeting.

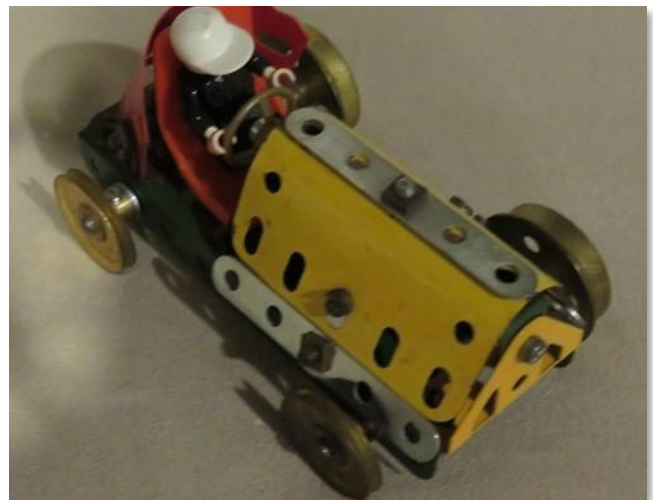
Simon Moody: Has rebuilt his Suspension Grab based on the Super Model that Paul Roberts drew many years ago. It works very smoothly.



Brian Petersen: Brought along a Governor that is part of a Race-a-Way Car model he is constructing. He couldn't work out how it works but was happy after it had been explained to him.



Instructions Brian is building from. ↗

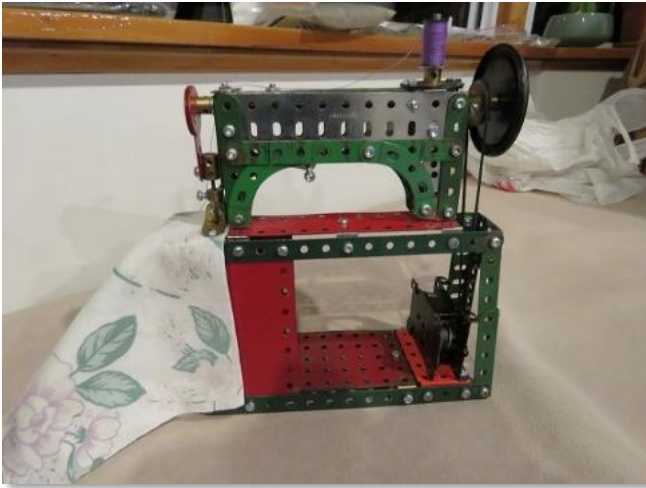


One of the small cars already made.

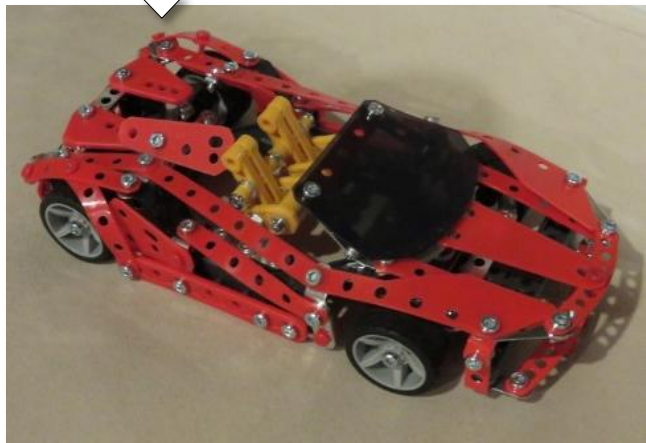


Brian built an aeroplane by making use of parts from the Aerial rescue Set #16211.

Building from a previous model theme of something used in the house, he designed a sewing machine driven by the Magic Motor. (Photo on the next page)



Trevor Green: Built a 488 Spider Racing Car from set 16309



He talked about a **Juneero** tool that he is bidding for on Trade Me. It is a multi-purpose tool that can be used to make Meccano parts.

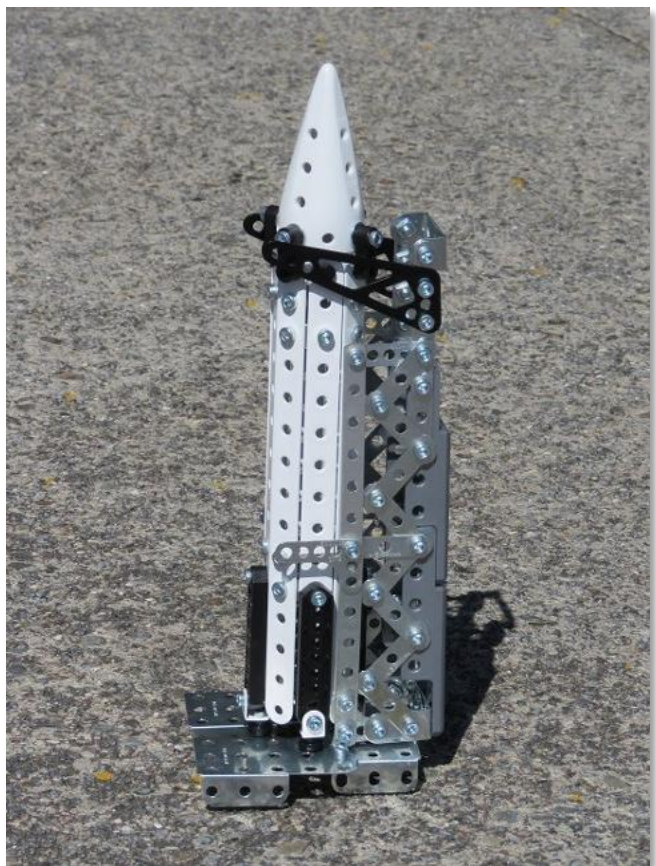


Vintage-JUNEERO-Multi-Purpose-Model-Making-Tool. (Photo from the Web).

Max George: Brought along models built by his U3A Meccano building group.



Windmill built from set #7550.



Rocket and launchpad from Space Quest set #15205

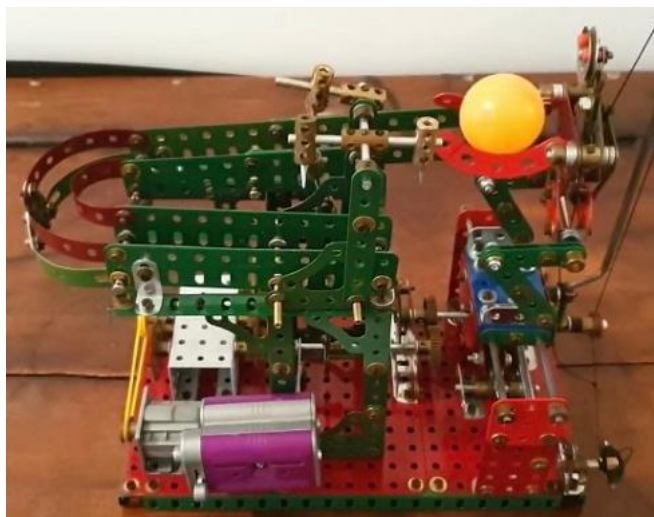
Meccano in the time of Covid.

By
Gary Higgins AMG

It has been a fairly dry time for the Auckland Meccano Guild in recent times. Covid 19 has put any ideas of getting together to celebrate our hobby to rest. We were due to have a meeting in early August which was postponed due to the illness of our host and after that Covid took over with level 4 and then level 3 lockdowns from which we have been constrained to live in our bubbles and not to congregate. For those who have access to the web there has been a lot of activity which has helped to drive our Meccano enthusiasm and keep us amused.

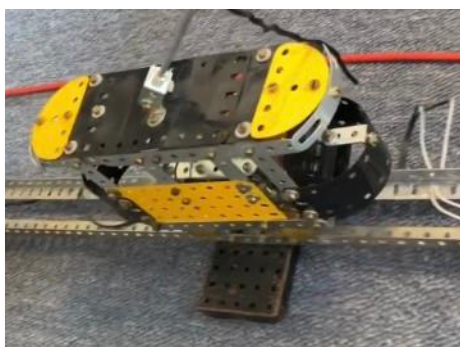
I did ask AMG members to post anything of interest they were creating onto the Auckland Meccano Guild site and we had models submitted by **Rick Vine**, **Kegan** and **Holly Wrightson** and yours truly so this will form the basis of this write up. Things are not looking any better for our next meeting due in early November so I am afraid it may be more of the same.

Rick Vine submitted a model called "Percy Ping Pong Porter". (Below) Rick says he spent quite some time in getting it working correctly. He bends his knees, which are made from fork pieces in couplings, to lower himself down to scoop up the ball and return it to the chute. A clever model. Video is available on the AMG Facebook pages.



Kegan Wrightson has built an *Arduino* tram designed by **David Couch** modelled in Y/B/Z and he added a random wait time at each end. (Above, right) He was surprised that with a little perseverance it is amazing what is actually achievable with this versus what Meccano is actually doing. Again video is available on the AMG Facebook pages. Not to be outdone, **Holly Wrightson** has built a small Eiffel tower complete with added visual effects. (Fig 2, over)

I (Gary) have been busy with a number of projects over this period all of which have been posted on the



AMG Facebook group pages. I started with a prancing horse created using a clockwork motor as the source of power - this was based

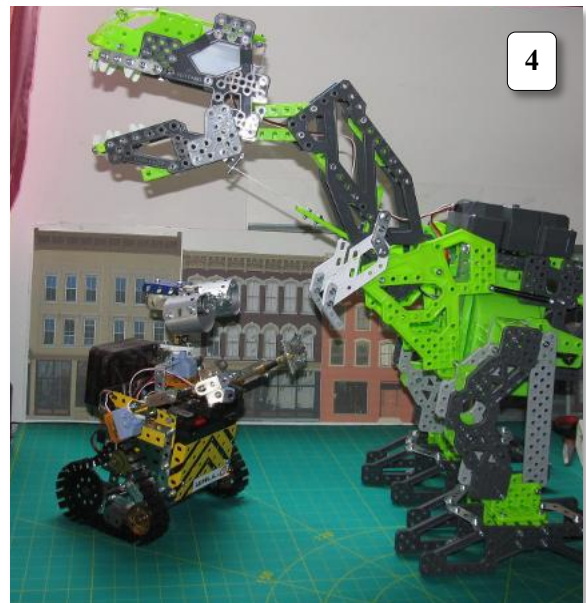
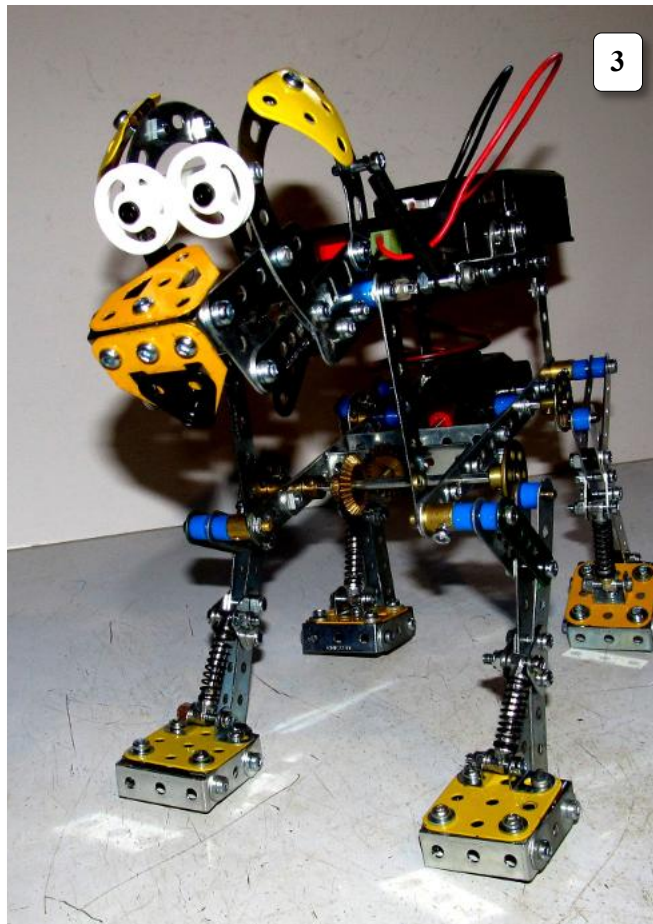
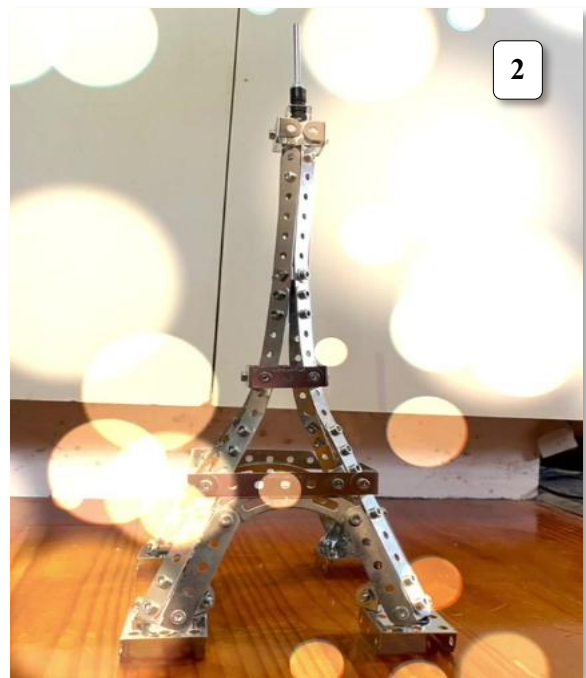
on a design in the **Meccano Magazine** of August 1968 and modified by **Antoni Gual**. My version was created along these lines and after dropping out the rod driving gear, alternative drive gears were fitted. After much trial and error, I got the horse to prance quite realistically. I next decided to try and recreate the walking dog made by Fabian Kaufmann - based on an original Lego model. I used parts from the new robotics construction set to run the model and after much fiddling about, mainly with leg linkages I got it to work ok. It has a nice swaying gait and I still may fit a servo to the head. (Fig 3, overleaf)

I picked up a couple of extra *Micronoids* quite cheaply and found that they work together as group, creating a very amusing scene in Autonomous mode. They can be individually programmed so probably room for further investigation.

I have rebuilt a 6 wheel all in 1 terrain vehicle with a digger from the 'Futuremaster' set outfit 8600 from 2001. An interesting set with the knobby wheels and unique digger blade. Two of the rear wheels can move up and down over obstacles in the vehicles path. One of the more interesting models to build. (Fig 1, over)

I created a new model from the 25 in 1 supercar set 18211 modifying it to create a dragster. I did not find this set to be good value as the motor is not well designed and the batteries are placed inside the unit making it difficult for replacement. I also harvested the parts of one of the smaller Meccano robot sets I picked up cheap and scored a total of 4 servos, two drive motors and a colour changing LED as well as a *Meccabrain*. They all operate when tested and will also work with the Meccano robotics set brain, which is a useful finding. These sets were expensive when put out but now go very cheaply especially as Meccano is no longer supporting the software.

My final purchase was the Meccano 'Meccasaur' which I got at the steal price of \$30.00. I was surprised to find no servos in this unit, just one big motor and an LED for the eyes. After a lot of time spent on assembly and testing it now works very well and will no doubt delight the crowds once we get to see them again. (Fig 4, overleaf) Sorry to spend so much time on my models, however it is what it is and hopefully, come Christmas we may get out of this situation and back to some sense of normality. I doubt however if it will ever be quite the same.



Meccano March Madness 2022

**Saturday, 5th March 2022,
9.00am to 4.00pm.**

St Andrews Anglican Church, 91 Titiraupenga Street
\$10.00 Hall hire cover charge. Tea and bikkies provided.
Dinner at Cozzie Club afterwards

Clockwork Motor Challenge:

Leonardo da Vinci Machine powered with any Standard Meccano Clockwork Motor.
Contact: Simon Moody

New Zealand Club Diary 2021

Auckland Meccano Guild

President: David Wall, Tel. (09) 426 1965
Secretary: Gary Higgins, Tel. (09) 832 4292
Meetings: Meetings are held quarterly in February May August and November on the second Saturday at 2 pm.

MWT Meccano Club

Chairman: Chris Morton, Tel. (06) 323 8001
Secretary: Robin Rye, Tel. (06) 764 8670
Meetings: Second Saturday of every second month, at 2pm. Held at St. Luke's Church Hall, Corner Cornfoot and Manuka Streets, Castlecliff, Wanganui.

Wellington Meccano Club

President: Reg Barlow, Mob. 021 955 488
Secretary: Max George, Tel. (04) 232 4200
Contact: Stan Baker, Tel. (04) 566 7150
Meetings: Begin 7:30pm on first Friday every second month.

Christchurch Meccano Club

President: Neil Pluck, Tel. (03) 382 0411
Secretary: Roland Jaspers, Tel. (03) 351 4389
Meetings: Start at 7:30pm on first Friday every month (except January) at Papanui RSA Club, 55 Bellevue Ave or No. 1 Harewood Road, Christchurch.

Greater Waikato Meccano Club

Contact: Graeme Wrightson, (Mob) 027 671 6004
Meetings: These are held on the first Saturday of every second month, except January. Most meetings are held in the Central Waikato area starting at 2 pm. Contact Graeme Wrightson on 027 671 6004, Matamata.

Other Meccano Contacts

Hamilton: Don McClelland, Tel. (07) 843 4198
Tauranga: Barry McKey, Tel. (07) 576-1623
Hawera: Daryl Anderson, Tel. (06) 278 7666
Palmerston North: Bruce Geange, Tel. (06) 357 0566
Nelson: John Stark, Tel. (03) 545 1025

Articles, etc. for the February 2022 issue of NZFMM Magazine should be sent to Richard Feltham before the 20th January 2022. at: richard.feltham174@gmail.com

Back Numbers: NZFMM Magazines from April 2001 are available. Please contact Bruce Geange.

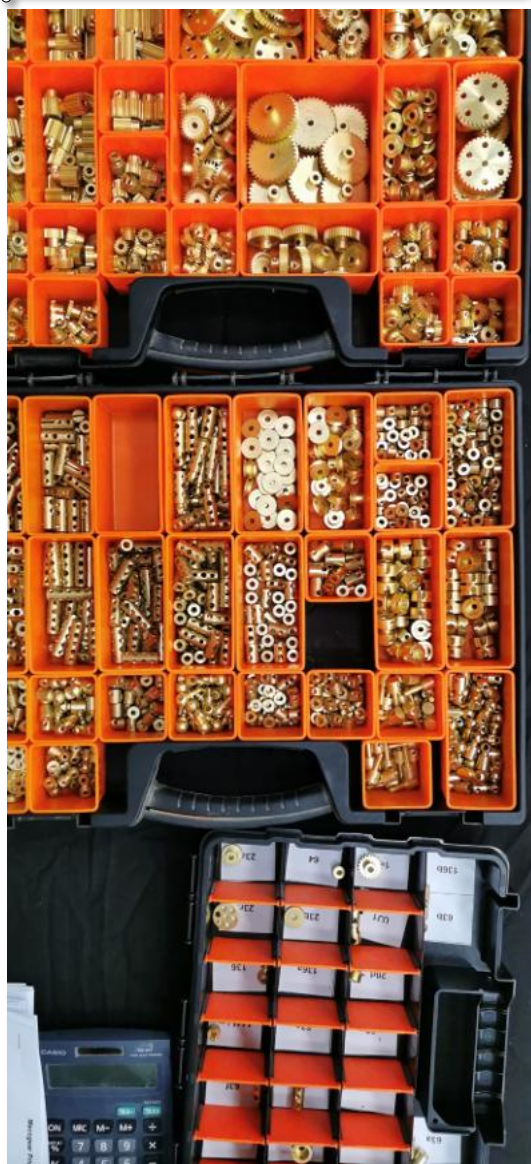
WANTED

Wanted; x4 136a Handrail couplings, x200 Brass cheese-head bolts, x200 Brass nuts. In average or better condition
 Post to Auckland or pickup from Auckland / Waikato (Covid level depending)

Please contact

Kegan Wrightson
 s4ndv1p3r@icloud.com
 Ph: 022 048 1447

Buy, Sell, Auction & Exchange



MECCANO GEARS and BRASS PARTS

Contact Jeff Clark
jeff@kjd.co.nz
 021 743 080
sales@meccgear.co.nz

WHEN THE WORLD WAS SLOWER

