NZFMM MAGAZINE

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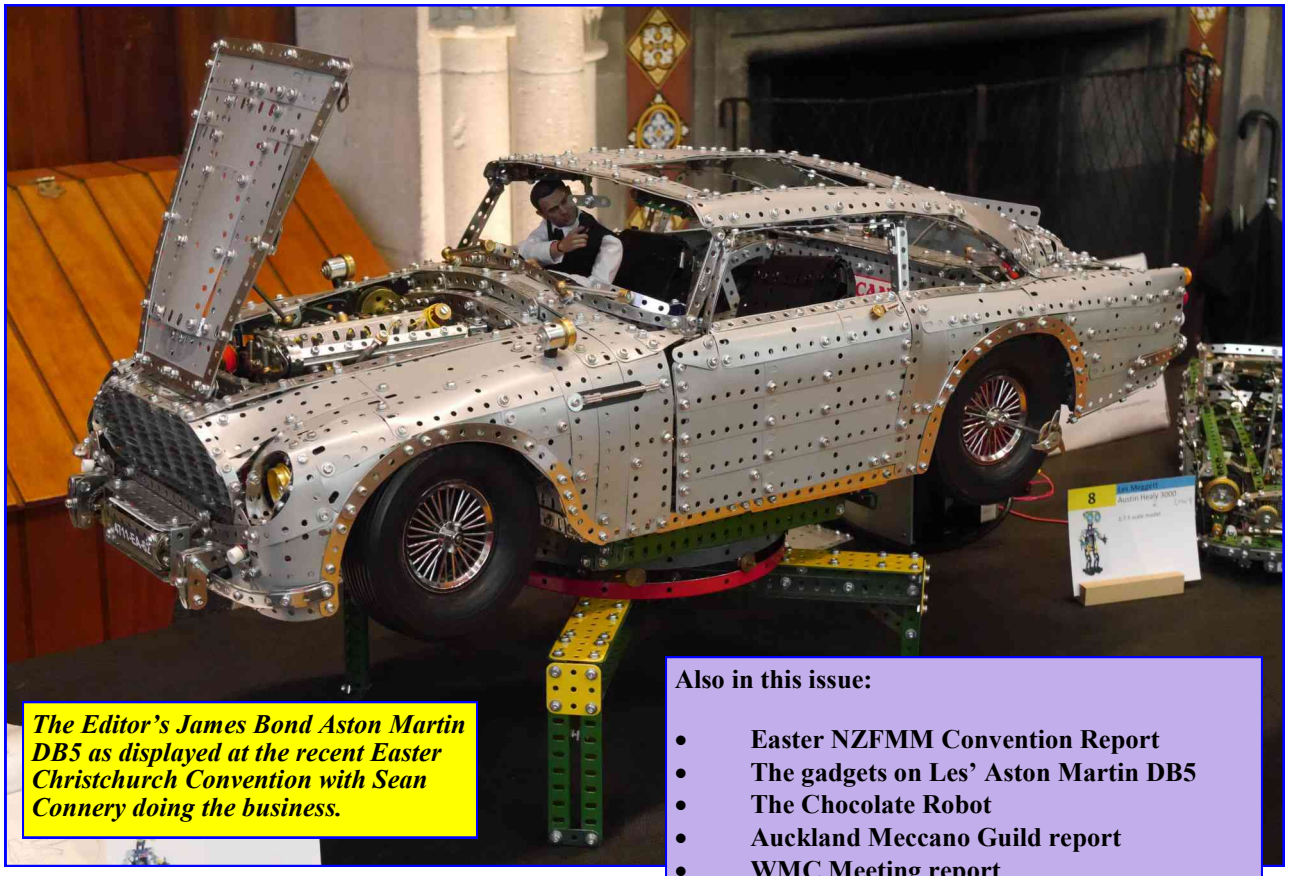
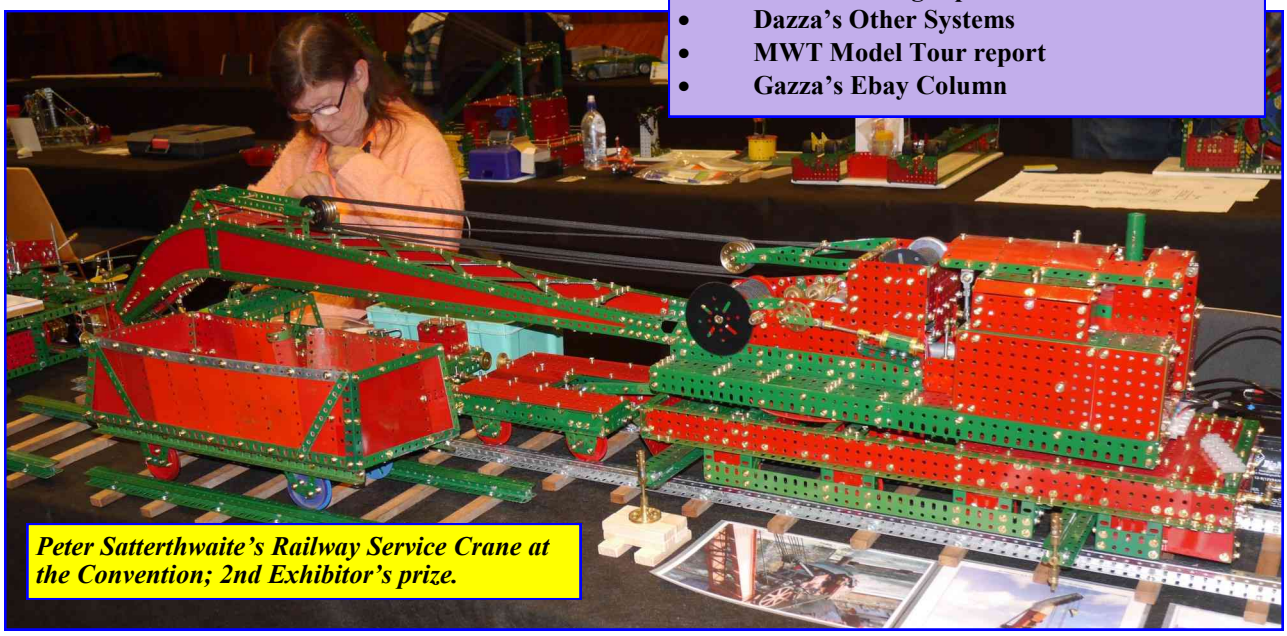


The Editor's James Bond Aston Martin DB5 as displayed at the recent Easter Christchurch Convention with Sean Connery doing the business.

Also in this issue:



Peter Satterthwaite's Railway Service Crane at the Convention; 2nd Exhibitor's prize.

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The NZFMM Magazine is published four times a year in February, May, August and November. 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.

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EDITORIAL

I write this editorial after recently returning from the Easter Christchurch Convention. The Convention was enjoyable and was more like Conventions of the past, rather than an all-out Exhibition. It was a pity that so few exhibitors north of Christchurch didn't make the trip south and having no one there from the Wellington MC was indeed disappointing. I fear for the future of our biennial Conventions and I'm guessing the 2019 event at New Plymouth could be the last. I would love to be proven wrong on that.

I was surprised to find that only 7 of the Christchurch based exhibitors (out of 17) subscribe to this Magazine. If you are reading the club's copy at a CMC club night how about outlaying the sub for your own copy. Note that a pdf version costs only $14/ year, by far the cheapest in the world for what is rated the 3rd or 4th best Meccano based magazine!

I refuse to concede that our hobby is dying but with a couple of parts dealers retiring I can see the day coming when *Ashok* will be the only dealer worldwide offering a full range of Meccano and compatible parts. Also the world has lost several active Mecanomen over the last few years and we don't appear to be replacing them with many younger active builders and collectors.

As is now normally the case I have *nothing* in my in-tray for the next issue so please put pen to paper or fingers to the keys and write/type an article about your models perhaps. Otherwise this Magazine will go the way of the parts dealers I'm afraid. A couple of the editors of the better Meccano club magazines are hoping to retire and are looking for someone to put their hand up and take over. I also don't plan to carry on as editor for too much longer and I'm hoping one of our members will be keen to take this seat in a year or two. This is a heads-up so it won't be a shock when I say I'm out of here, probably at the next Convention. The way I look at it, 10+ years as your editor is plenty.

Les M

Contents

James Bond's Aston Martin DB5

PART 2: THE 007 GADGETS

The film company producing *Goldfinger and Thunderball* persuaded Aston Martin to lend them the prototype DB5 to be modified with all the gadgets, only some of which were seen in the movies. The Aston was partially dismantled and about £25,000 of gadgets were added to a car worth only about £4,500 when new. Being over 50 years ago, prior to the current electronic age many of the added bits and pieces were mechanically or hydraulically driven and thus used up any spare space within the bodywork. The aim was to make the gadget crammed car look like a standard DB5 to the viewer.

1. Revolving Number Plates: The Bond car had revolving number plates, front and rear, so that 3 different numbers could be individually displayed depending on the country you were in (England, France or Switzerland). This was done by a 3-positon switch lever in a new console positioned between the front seats with a padded hinged top to make it look like an arm rest.

In the model I've used a geared 6V motor with a 38t gear driving a 57t gear (0.667 reduction). The axle with the 57t gear drives the number plate mechanism by sprocket and chain, see Fig. 1. Two micro-switches (at 180 degrees apart) are used to turn the motor power on and off, a half revolution of the motor producing a one third revolution of the number plates. These micro-switches are activated by a bolt in the boss of the 38t Gear. The plate holder uses three $3^1/_2$" Flat Girders bolted to 1" *Elektrikit* Bush Wheels using Angle Brackets to form an equilateral triangle. In the prototype the plate changing used Bowden cables between the console lever and the "clockwork like" gear and spring plate mechanism. The rear plate holder is near the bottom of the boot lid using an identical mechanism but I have separate go-stop-go switches for the front and back plates (another Bowden cable in the movie car). Thus I can have a different plate showing front and back which isn't correct but might fool a few traffic wardens! The front bumper was adapted to take the central chrome box which housed the plate mechanism and a hole was cut in the boot lid. I've kept all the gadget switches remote from the car, the mock central console having only black and silver bolt heads to represent the switches, Fig. 14.

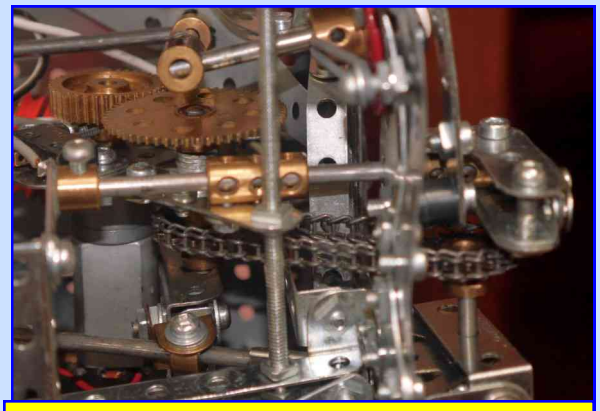


Fig. 1: Front revolving number plate mechanism. from below showing motor (left centre), gear reduction pair and chain drive to 3-number plate box.

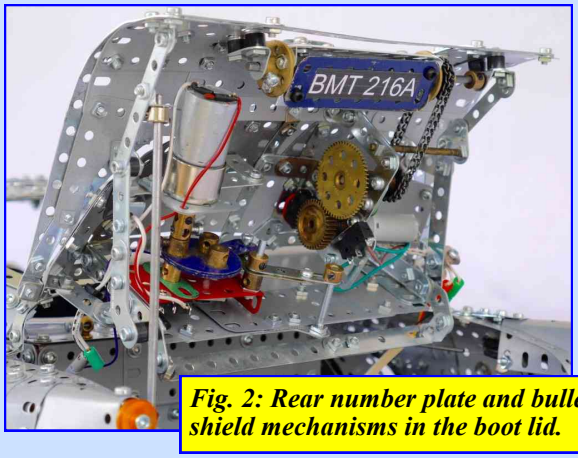


Fig. 2: Rear number plate and bullet shield mechanisms in the boot lid.

2. Rear Bullet Shield: This devise was designed to rise out of the boot-lid to protect the driver by shading the rear window with a quarter inch thick steel shield. In reality the shield was made from duralumin and wouldn't stop a high speed bullet if it tried. The shield ran in near vertical runners welded to the inside of the boot-lid and was initially hydraulically powered but finally by an electric window motor and its associated levers. In the model (Fig. 2) I used another geared motor driving a Triple Throw Eccentric (on 1" throw). This was linked to the Flexible Plate shield by a Bell Crank with Boss with a $1^1/_2$" slotted Narrow Strip on its free end. Thus the shield can be raised about $1^1/_2$" out of the boot. Again micro-switches were wired in to start and stop the shield at its down and up positions. It took a few design permutations to get this to work well without the shield twisting and jamming half way up its runners (pairs of 5-hole Angle Girders). The top of the shield should have the curved profile of the boot so it is near invisible when retracted but this proved impossible without cutting the two $4^1/_2$" by $2^1/_2$" Flexible Plates, as there was no space for nuts and bolts to pass through the narrow slot made in the boot-lid. So the shield rests about a quarter of an inch above the boot-lid but you don't really notice it with all the bolt heads holding the multitude of plates of the hemispherical boot hump. The raised bullet shield is seen in Fig. 8.

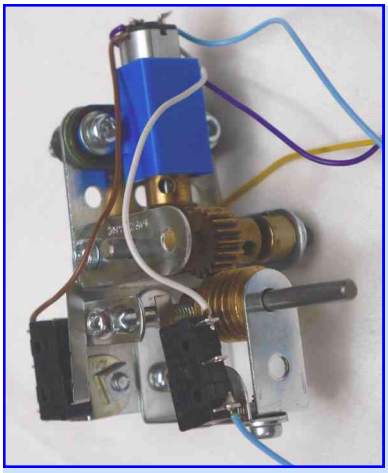
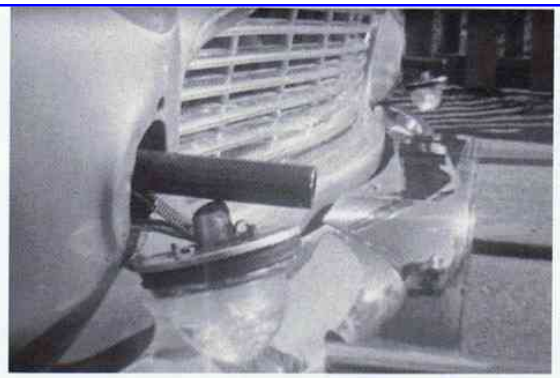


Fig. 3: The model's machine gun mechanism. The gun barrel is the horizontal axle (rod connector to be fitted). The long bolt in the worm's boss passing through the narrow slotted 1" by 1" Angle Bracket stops it rotating and controls the start and stop micro-switches.

3. Front Machine Guns:

The 007 DB5 had mock Browning machine guns fitted behind the front indicator/parking lights. When a couple of switches are operated the machine guns move out pushing the bottom hinged lights out of the way. In the movie car the emergence of the gun barrels is accompanied by machine gun firing noises (rat-a-tat) and sparks. In the model a low geared mini-motor with a Worm drives a 19t Pinion which meshes with another Worm acting as a rack to move the gun barrel (Axle Rod with a Rod Connector) in and out about $^{3}/_{4}$". Micro-switches again switch the power on and off to the motor. A 1" Driving Band pulls the indicators back into position when the gun barrels retract through a Large Axle Bush Wheel. The mechanism is shown in Fig. 3. The left hand mechanism is fitted behind the front panel beside the grill just in front of the wheel but because the RH space had been taken up with the plate changing mechanism I had to put the gun mechanicals *behind* the right front wheel and use a convoluted series of axles to get to the front. The indicator/parking lights are white Plastic Spacers glued to the hinges so that the barrel would not jamb on the nut originally holding the "lens" in place, Figs 4a & 4b.

The machine gun rat-a-tat sound was added late using a small version (Fig.5) of the diesel sound mechanism first described in CQ26. A small 6V motor drives a 1" bush wheel with six $^{3}/_{8}$" bolts which trigger 2 piano wire strikers which produce the sound as they hit a $1^{1}/_{2}$" axle rod anvil. A red push button on the control panel "fires" the guns.



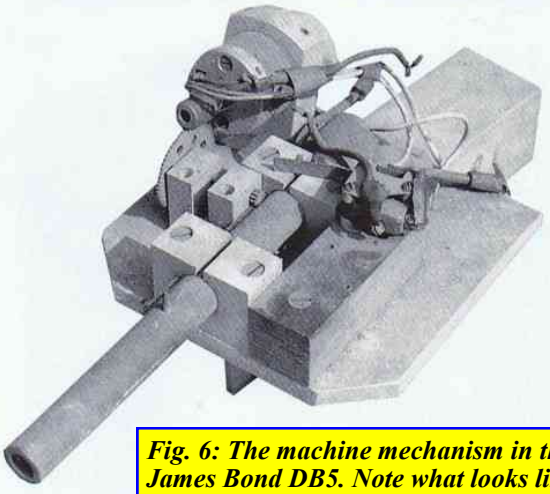


Fig. 6: The machine mechanism in the James Bond DB5. Note what looks like a Meccano Worm and Gear driving the rack. **Taken from "The Most Famous Car in the World" by Dave Worrall.**

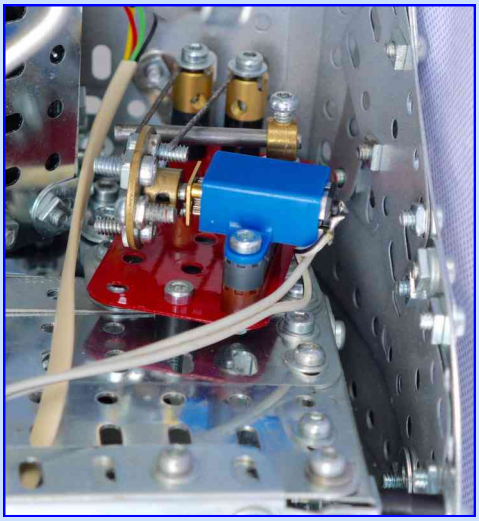


Fig. 5: Machine gun noise simulator inside the left front guard, seen from below.

Fig. 4a: Machine gun hidden behind indicator light.

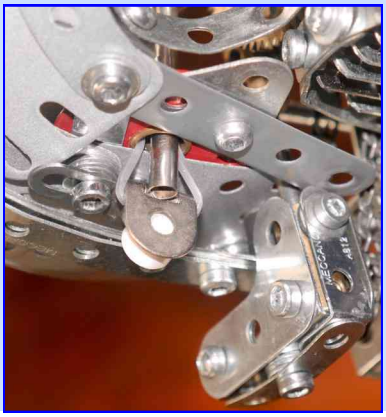


Fig. 4b: Machine gun out and ready for action.

Fitting all these extra mechanisms within the car was a challenge as I only had a fifth of the volume of the movie car and they had similar problems. The electric rack mechanism used for the guns in the movie car is very similar to mine (see Fig. 6) and even appears to use a Meccano 57t gear and worm (drilled out for a larger shaft).

4. Tyre Slasher: The Worrall book contains a drawing of how this devise was to be built. A 24" long shaft would be pushed out from each differential rear half-shaft (I presume mechanically) with a 3-legged scythe on its end, which when retracted would partially hide within an enlarged 3-eared wheel knock-on. I believe the scythe was to rotate in the opposite direction to the wheel* but that would have involved epicyclic gears within the half -shaft. However the extending shaft and hollow half-shaft would have failed under driving stresses (the book says) so that scheme was abandoned. Instead for the filming the extension + scythe was *bolted* onto the half shaft's hub and made to look the part by careful cutting of the film during editing. It was used in the sequence where it cuts through the tyre of the Ford Mustang.

I was able to do it better than the movie makers by having a short half-shaft with a large-axle coupling on its outer end into which a 3" hollow large axle was fixed. This hollow shaft ran through the brake back plate (Face Plate without boss with $^{3}/_{8}$" diam. central hole) and the wheel rim was fixed to it, the inner wheel bearing being a large axle Bush Wheel. The extending shaft was a 4" Tri-axle which could slide in the spoked wheel hub but was held from

Fig. 7: Tyre slasher extended and ready for action.

rotating by a locked Bolt in the wheel's hub. Thus the scythe (3-Pawls without boss bolted to a 1" Bush Wheel, Fig.7) could be pulled out about 3" manually. I only did this on the left hand side as the model was to be usually displayed with the LHS towards the onlookers.

5. Extending Bumper Over-riders: This was accomplished in the movie's DB5 by using gas cylin-

Fig. 8: Bullet shield raised and rams extended.

ders housed in the boot. In my case I used a 2 triple eccentrics in the boot (1" throw) driven by a geared motor through a set of helical gears (in the tyre well) and then a series of levers to move the over-riders, see Figs. 8 & 9. In the front a vertical geared motor is squeezed between the radiator front and the grill. This drives a bush wheel linked to a 15 hole narrow angle girder which has the rods with the over-riders at its ends. The over-rider shafts must pass through the bodywork and the bumpers so careful positioning was necessary. I didn't bother with micro switches with these mechanisms but used momentary toggle switches.

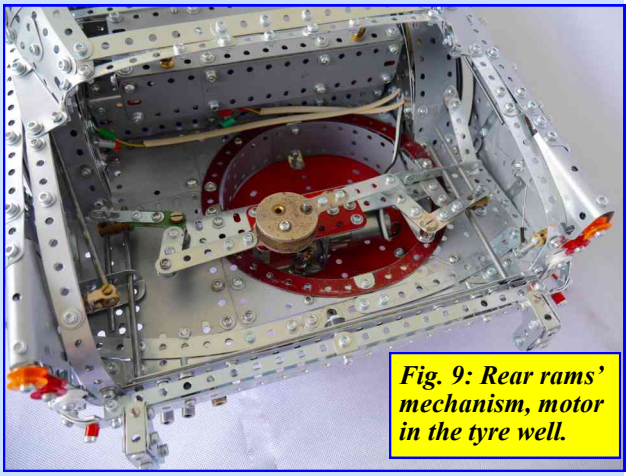


Fig. 9: Rear rams' mechanism, motor in the tyre well.

6. Ejector Seat: This is the most remembered gadget on the *Thunderball* Aston Martin. When a red button hidden under a hinged cap in the top of the gear knob was pushed it released a large roof panel and activated the compressed air propulsion of the passenger's ejector seat. This seat was only used once in the movie with a lightweight seat and dummy. It was too dangerous to retain in the car, even though the roof panel remained along with the red button.

*Note that the tyre slashers are facing the wrong direction as they revolve with the wheel. This was changed in Chch.

I soon realised that it would take some very strong Meccano spring mechanism to propel a figurine through the roof "skylight". I did have some success with a mock up using vertical compression springs under a light seat in sending one of my son's small Batman characters across the room but resetting it was very difficult! However to eject a 12" figure (scaled 5ft tall *Oddjob*) from a relatively heavy seat would take more firepower than a couple of large tension springs would provide. When I thought about it an acceleration of about 2g upwards was required. The Corgi model works because *Oddjob* weighs only a couple of grams and the seat and sprung lever system employs a trebuchet type action fitted in the rear seat/boot area. I didn't want the ejector seat to be obvious so the springs are horizontally under the seat, which is identical to James Bond's seat. The seat was raised by a scissor type mechanism when the springs are released, see Figs. 10 & 11.

To reset the seat I ended up using a ratchet locked block and tackle system which was wound up by a tri-axle "key" passing through the gap between the front guard and the front door edge into a 4-hole long coupling. I guess I could have motorised the seat reset but the forces are large and it would be sure to fail at the most inconvenient time.

A mini red push button in the gear knob (a Collar) was out of the question so a series of levers released the ratchet but the lever, at Bond's LH knee, does have a red knob on it!

The ejector seat took the most time to invent and getting it to work reliably took a lot of trial and error. The passenger's foot well was partly full of the mechanism but who cares as *Oddjob* was very short.

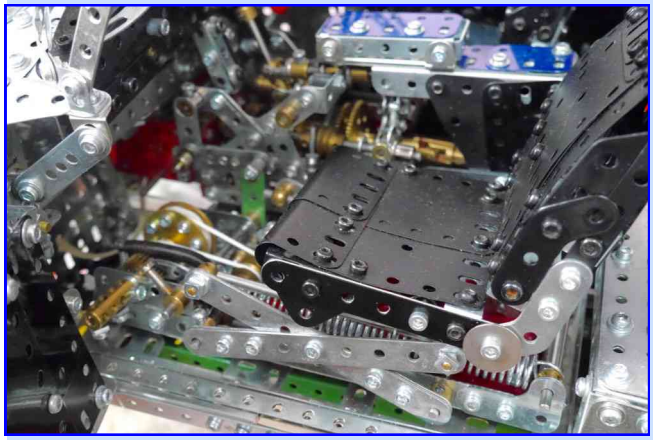


Fig. 10: The ejector seat in its normal position. The reset key goes into the 4-hole coupling seen at the lower left.

7. Private radio-telephone: Although not seen in the movies the driver's door had a hidden telephone receiver behind a hinged inner door panel. I modelled this using Meccano plastic parts and a tension spring as the coiled cord. This resided within the door depth behind a $1^1/_2$" by $2^1/_2$" hinged flexible plate as seen in Fig. 12.

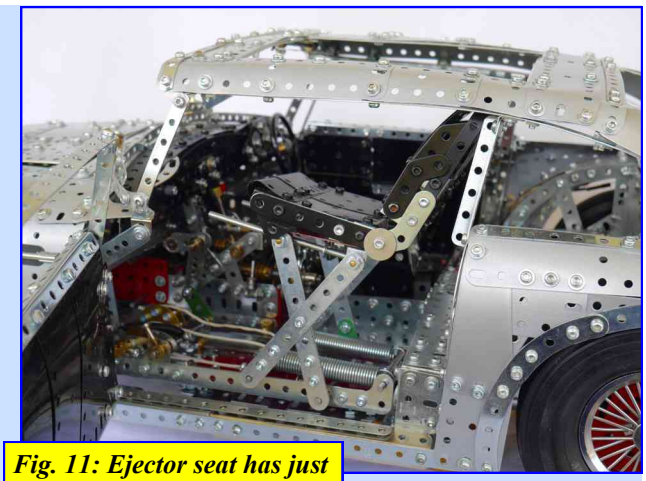
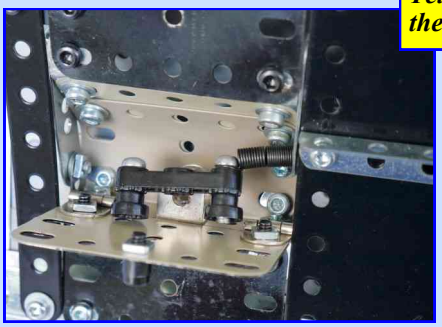


Fig. 11: Ejector seat has just catapulted the passenger through the "sunroof".

Fig. 12: Radio-Telephone within the driver's door.



8. Weapons tray: Under James Bond's seat there was a weapons tray containing his tools of trade: a Mauser revolver with silencer, a rifle stock, a knife, and a hand grenade. All items were fibreglass in the *Goldfinger* DB5. My weapons are Meccano, of course, resting in a sponge rubber layer within a $3^1/_2$" by $2^1/_2$" flanged plate tray which slides forward from under the seat (Fig. 13).

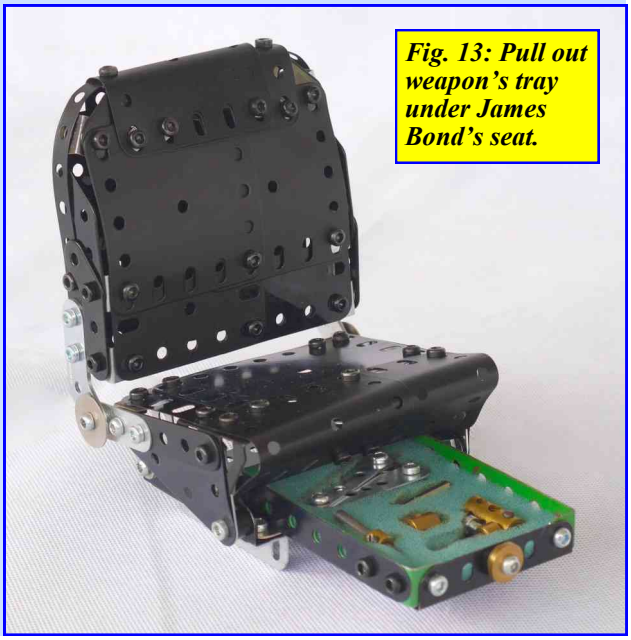


Fig. 13: Pull out weapon's tray under James Bond's seat.

9. Radar screen: The central console on the real DB5 was redesigned so that a fake radar screen could be positioned under the heater controls, where the radio speaker was originally. The radio was repositioned vertically to the left of this screen. The screen had a pull down plastic blind to hide it. In the RHS driver's mirror there was a 3 disk revolving radar detector, which I haven't tried to model (shame). In my case the radar screen is a large washer in a black small flanged plate directly in front of the gear lever, see Fig. 14.

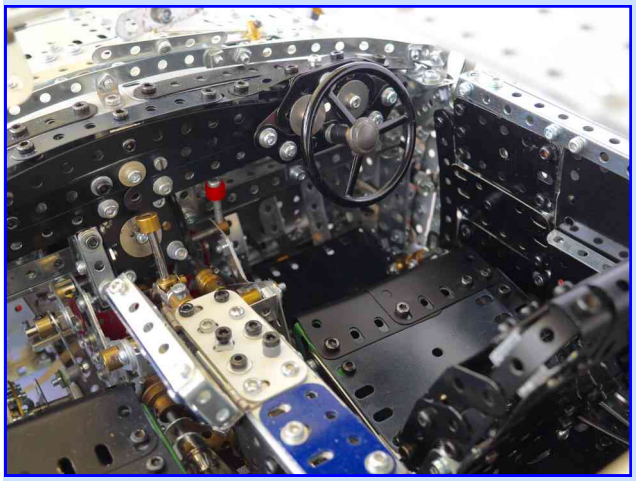


Fig. 14: Hinged mock gadget control panel between seats. Radar screen in front of the gear lever. Red knobbed lever is the ejector seat release. The lever to open the rear lights to eject nails is to the far right just in front of the driver's seat.

10. Oil Spray and Nails: The movie Aston had fold down rear light clusters so that an oil spray could be fired from the LH one and caltrops, which have 4 pointed legs so that one leg would always point upwards, when catapulted from behind the RH lights. I modelled the RH lights to fold down (Fig. 15) to reveal a box for the "nails". This was manually operated via a Bowden cable, the lever of which was positioned just inside the driver's door sill, as on the prototype (just forward of the handbrake). I didn't model the LH oil jet contrivance.

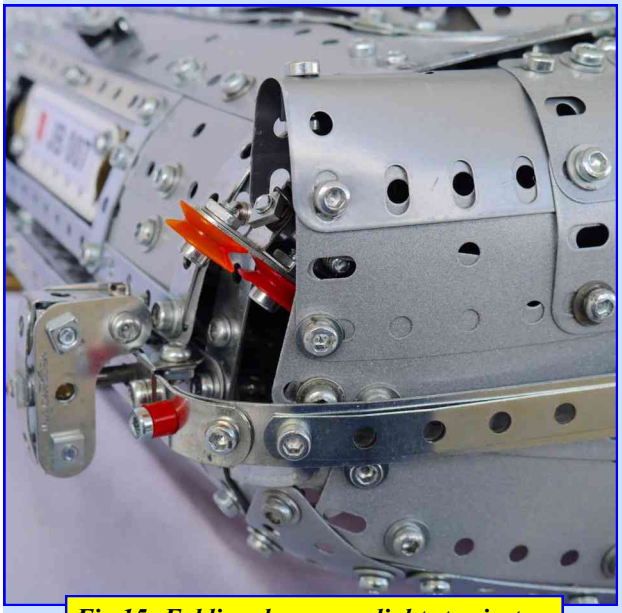


Fig.15: Folding down rear lights to eject caltrops on the road.

11. Smoke Screen canister: This was positioned under the car near the exhaust pipes and the smoke canister was loaded from a little hatch in the boot floor. When the two Astons toured the world the driver delighted in operating the smoke screen in public and often by mistake! The button for it was in the central console with all the other switches. I put a Threaded Coupling under the rear of the model to represent the canister container. Miniature smoke canisters don't seem to be available.

It is easy to see that all these gadgets required a lot of equipment to operate them which used up a lot of space, limited the steering lock and made the car sluggish compared with the unequipped DB5. The book says a flame thrower was also thought about but good sense prevailed!

Model Display: To best display the model I built a stand with a roller bearing so the car could be revolved to show all its attributes. The gadget control box was put below the car on the passenger's side and all wires had plug connectors (Märklin) so that the stand and car could be separated for travelling. Shirley purchased a 12" Sean Connery figurine to display with the model and she had much delight in changing its pose every day, gun in hand awaiting the action. I had thought about fitting LED head and tail lights but decided that would be over the top, there is plenty going on.

Conclusions: Three of the 4 cars still exist and one fetched £2.9 million at a London auction in 2010! The original car was given back to Aston Martin minus the gadgets but AM sold it (restored) for a very low price and the new owner refitted most of the bits and pieces, thus increasing its value tremendously. It was stolen from its garage in an airport hanger in Florida in June 1997 and has never been seen since. One theory is it was "stolen" for the insurance and perhaps dumped 75 miles off the Florida coast. The car had been over insured for $US4.2 million and the insurance company paid out. There was a court case between the estranged co-owners about how much each should get from the insurance; more like a movie script than reality. Is it the most famous car in the world? A *Motor Trend* article I read thought that the Lincoln limo that JFK was shot in is the most famous. I will leave it for you to decide but I won't be modelling the Lincoln.

Building this model was a lot of fun and all the info in the book made me feel I was almost creating (in my daydream) the real Bond car.

Auckland Meccano Guild Meeting

11th February 2017

Reporter & Photos: Gary Higgins

Held at the home of **David and Elizabeth Wall** in Orewa.

Gary Higgins had brought some of the new Spin-Master sets including the Boeing Superliner which was built mostly from pre-formed parts with very little that could be used in other models. Gary says "It was while building this that I noticed the new locknut parts shaped like a coloured nut they screw on where you would normally have used a Nyloc nut or in earlier times two nuts together. These achieve the same result with one thin nut, most useful, I actually ignored them during the set build as I did not know what they were."

Gary also brought his *La Ferrari* (there were two more there) and his Meccano renditions of Thunderbird 1 and 3. Thunderbird 3 was based on a Meccano proposal which never eventuated, however it was not difficult to guestimate the construction details and produce one.

He had also made up the *Lambourghini Aventador*, another Spin Master model and looks a little better thought out than the *La Ferrari,* for a similar price. (Les and Gary have done a write up on these two models in the previous club magazine)

David Glenday had made up a very nice looking Diesel D series locomotive on a rail bridge in red and green Meccano.

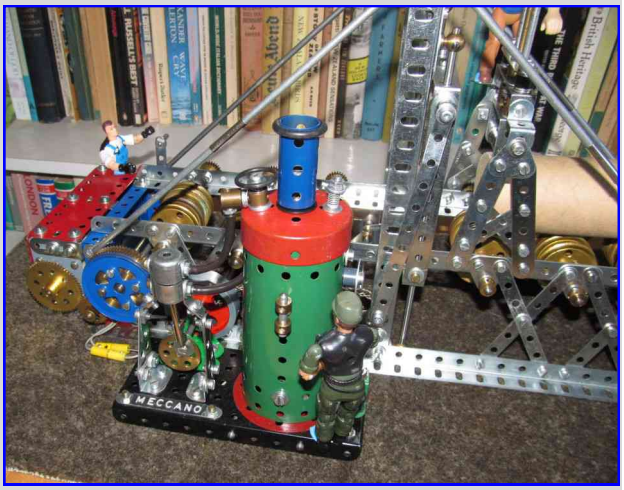
Henry Porter had constructed a somewhat lethal attack tractor, suitable for after the apocalypse, as well as a bulldozer, a tracked Komatsu backhoe, a cone crusher MCO9EVO with elevators, all which worked as they should. I could just imagine Henry driving his tractor through town with the circular saw blade whizzing about cutting up and down while the whirling blades at the front were acting as knee choppers.

Henry Porter

Henry also had a neat model of a Tuk Tuk as seen in the Philippines. He based his model on a small Dinky Toy sized prototype.

David Wall had made a very nice model of a breaking down saw complete with logs of wood. He became most defensive when it was pointed out that real logs would suffice, as he had carefully constructed perfectly symmetrical ones from cardboard. The machine worked as it should and was a good working model of the real saw pulling the logs through the sawblades. It was operated by a small vertical steam engine, which I suspect had a small electric motor hidden inside the whole thing which was operated by a team of small plastic people, David has a whole box of these hidden away!

David also had a small locomotive on display.

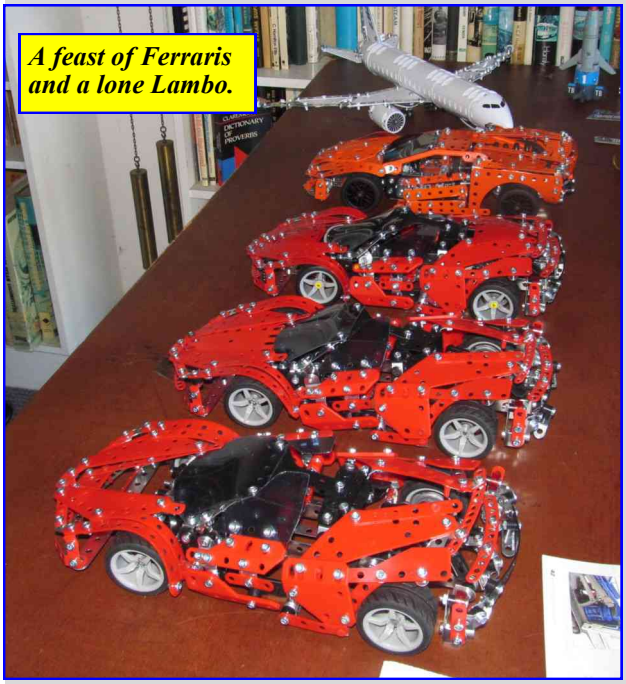


David Wall's steam log saw.

Rick Vine had brought along an interesting *Bayko* set No. 15 (made by Meccano) in a complete box with instructions and his examples of a Meccano bacon slicer, a Stephenson's Rocket and a small biplane. These were all modelled in mini format.

Anthony Caldwell was another modeller who brought along his version of the *La Ferrari.*

Les Megget was yet another modeller who brought along a *La Ferrari* (make it stop!). So we lined all three of them up as a comparison because each builder had changed things to suit, Les had opened up the clearance under the front mudguards and had placed panelling in the open bonnet space of the car (see his fix in the last magazine). Gary had added extra panelling all over the bonnet and boot and rear fender, Anthony had stuck with the original design. It just shows that if you throw a bunch of Meccano enthusiasts together with the same kits they will come up with different results.



A feast of Ferraris and a lone Lambo.

Les has his prize model hidden away prior to the Convention. This is of course the James Bond Aston Martin DB5 special. However we did get to see it during construction.

Allan McCracken had constructed a press punch from Meccano. Perhaps it could be used to punch out Meccano holes, the spacing appeared correct.

Stefan Henton had made an agricultural tiller with green Meccano and a nice set of red spoked wheels; he also had a lifting jack

Gerald Hart

Brian Cotton had his *Hornby* display on show along with period signage and some very nice rolling stock in excellent condition.

Brian's daughter **Ainsley** had constructed an excellent model of a lifting bridge and a small steam car complete with driver; I am sure she helps dad with his models as well.

Gerald Hart had a realistic working model of a side loader forklift, having seen the real things in operation. I was impressed with how well it operated. This was based on a model plan.

William Irwin had returned from overseas and had brought a number of magazines from other clubs as well as tales of his travels.

Neil Carey who still has his large loco coming together in his shed at home, no rail to Orewa yet, at least not in a suitable gauge for Neil to run on.

Graham Mills also attended.

The meeting concluded with an excellent afternoon tea hosted by the Meccano ladies. (I hope they don't object to this). I'm sure they all appreciate Meccano and they certainly support the Guild members.

Ainsley Cotton

Hello again as winter starts to set in, what happened to summer? Rose and I had a great trip to the Christchurch Convention to display our models and meet local modellers – many for the first time. Thank you to those who discussed OS with me, it helps to know the information is useful.

In this issue we feature one of my favourite systems - **TRIX.** Originally produced in 1930 in Germany, in 1932 a London company was formed with Bassett-Lowke (the model railway company) to challenge Meccano in the UK. They must have been successful as TRIX parts often turn up in collections. Meccano then responded to the challenge in the same year by introducing the X-series of similar parts which also turns up in collections. (The X-series only lasted from 1932-36) The parts are often confused but are quite different.

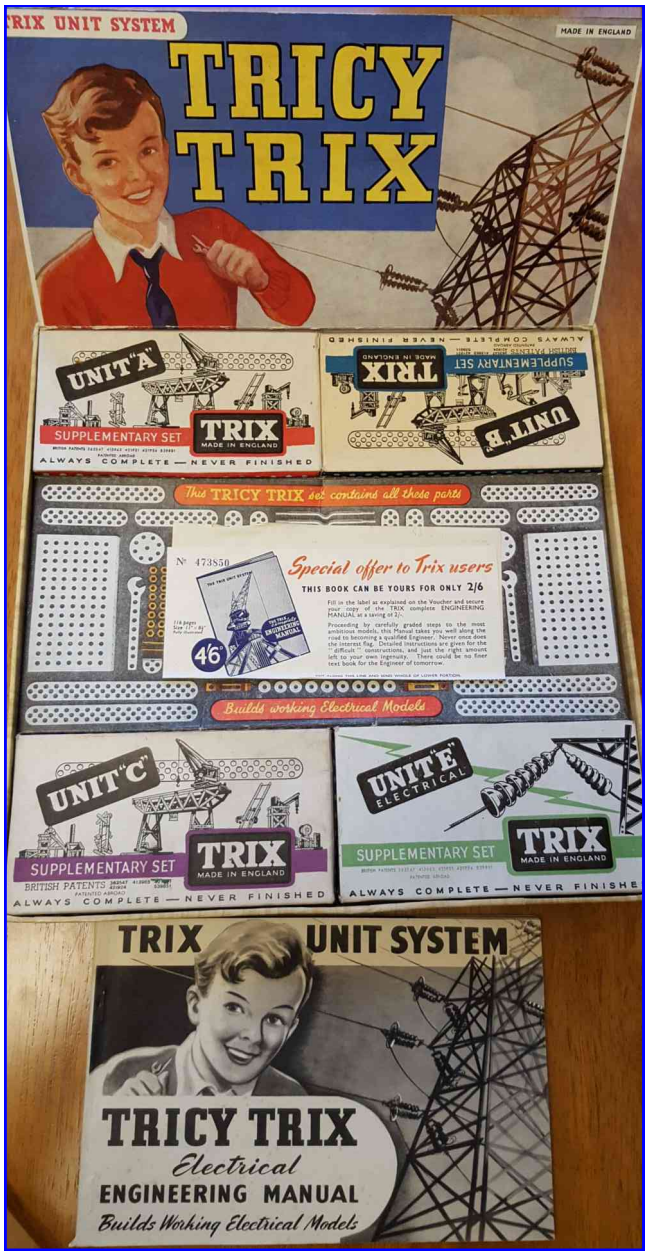
Please study the close-up photo, the TRIX parts are in the foreground and are narrower being 15.38mm (0.605”) and X-Series ¾” (0.75” or 19.05mm), all my measurements, so almost 4mm narrower but the main difference is the holes in the TRIX system are on a diagonal pattern and X-series straight across. This should hopefully end all confusion at Meccano gatherings!

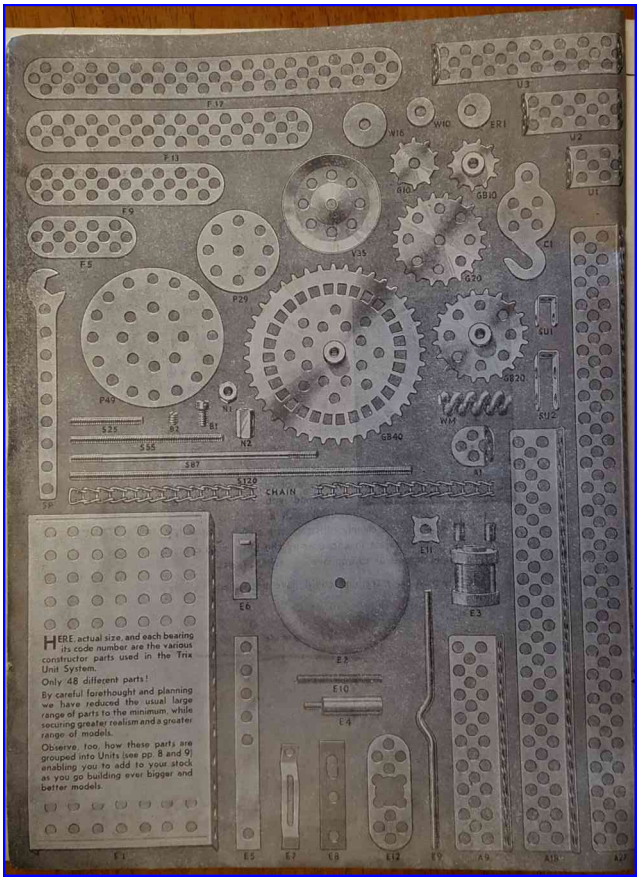
Trix holes are smaller diameter than Meccano, the original thread was 4BA and axles 3.5mm, later the bolts were changed to 3.5mm and the hex nuts are 6mm A/F. The hole spacing is 5/16” (7.8mm)

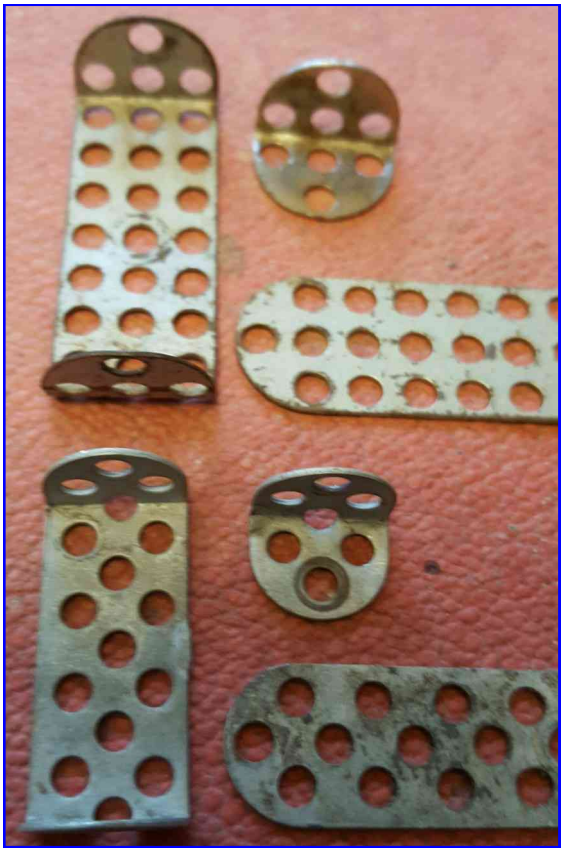
There were only 48 parts in the original system, the number of parts was expanded in later years and included an electric motor and electrical experimental parts (similar to Meccano Elektrikit), this is called ‘Tricy Trix’ one of the reasons the system appeals so much to me. The manual for this outfit is dated 1949.

There were various parts and box styles, modernised as the years advanced, also very compressive manuals to rival Meccano ones, the ‘Complete Engineering Manual’ of 114 pages was first published in 1947 and the two examples I have are dated 1952 and 1958.

The yellow boxed outfit pictured is a gears set 7 and is dated 1985. The parts are very well made and a large number of sets sizes were made including conversion sets. This system ceased manufacture in 1998 so lasted 67 years.







The MWT have appointed Daryl Anderson as the Chairman of the Convention Committee for the 2019 NZFMM Convention to be held in New Plymouth, I presume at Easter, April 19-21. Mark up your 2019 diary NOW (if you have one).

Meccano Top, Trix at Bottom.

AM I THERE YET?
2017 Easter Convention, Christchurch

by Les Megget

It is a long way driving from Auckland to Christchurch and back (about 2400 km) when the weather is poor, the roads narrow and the traffic heavy. Well that was the case during my 3-day trip south as Cyclone Cook bore down on NZ and it seemed everyone was trying to get away on their Easter break before the storm struck. With the South Island Kaikoura coast road still out of action since the November earthquake the Murchison – Springs Junction road is just coping with the extra 700 odd trucks a day as well as all the Picton ferry traffic.

Anyway I made it safely to Chch with James Bond and the Aston Martin DB5 in the back of Shirley's people mover, arriving late Wednesday evening. I spent Thursday morning looking around the half rebuilt city before turning up at the Great Hall in the rebuilt and strengthened Arts Centre about 2pm to find most of the tables ready to accept the models. Park on the footpath near the entrance, drop off the models and park the car on the metered parking around the Arts Centre, at $3.10/hour would you believe? Then return to the Hall to set up. That being accomplished I chatted to a few CMC members and then went back to my motel to relax for the evening.

With the Cyclone passing to the east it was wet but not windy on Good Friday morning as the exhibitors assembled at the Hall for the H & S talk. We were told *NOT* to run outside in the event of an earthquake as we were in one of the strongest buildings in the city. As a seismic structural engineer I'm dubious of such statements but when 2 of my former structural design students arrived for a quick look and one told me she had worked on the Hall's strengthening, then I was almost convinced!

There was an excellent turnout of CMC members exhibiting a very wide range of models from the very small to the large. Unfortunately there were only 9 exhibitors from outside Christchurch **John Stark** and **David Couch** from Nelson, **Daryl Anderson** (Hawera), **Chris Morton** (Feilding), **Robin Rye** (Eltham), myself (Papakura), **David Wall** (Orewa) and **Graham & Mary Jost** (Melbourne). Where were the Wellington MC members?

The Friday crowd wasn't great and I doubt if they paid for the excessive daily hall hire. However there was plenty of time to chat to other exhibitors like some Conventions of the past.

Daryl & Rose Anderson finally arrived about lunchtime on Saturday and set up his fascinating *Meccano Virtual Reality* show. You really need to see a video of it because so much is going on.

David Couch introduced Saturday's proceedings with a "Show and Tell" for an hour before the public were allowed in. We used to do this but over the past few Conventions there wasn't time or the inclination. Each exhibitor was asked to stand on the stage and give a brief description of his/her models. The doors opened at 10am and a better crowd inspected the models and voted for their personal favourites.

Daryl Anderson's Virtual Meccano Show gained 3rd place in the Exhibitor's voting. There was heaps of detail, lots of things happening and it required close examination, several times.

Shortly after the doors closed at 5pm we had the biennial NZFMM General Meeting where **Chris Morton** was introduced as the new President, I did my usual urging for magazine articles and we had a general discussion about future Conventions. The next is set for New Plymouth probably over Easter 2019 but after that the spacing and locality of conventions is uncertain. An increase to 3-yearly conventions was suggested but the 4 clubs need to consider this and come back to the 2019 Convention with a proposal or two.

David Couch with his modified Rubik's Cube Solver (Public vote winner).

Just prior to the GM out-going President **Neil Pluck** announced the award winners, "the easy part" he said.

The Exhibitor's Senior Trophy; **Les Megget**, James Bond's Aston Martin DB5;

2nd: **Peter Satterthwaite**, Railway Breakdown Unit;

3rd: **Daryl Anderson**, Meccano Virtual Reality.

Public Voting Trophy: **David Couch**, Rubik's-Cube Solver;

2nd: **Les Megget**, Aston Martin DB5;

3rd: **Donald McKenzie**, Star Ship Enterprise.

Star Ship Enterprise by Donald McKenzie.

Club Trophy: Christchurch MC.

Following the GM we trooped outside to have the group photo taken in fading light. Unfortunately several exhibitors and partners weren't present (gone home to change for dinner?). We then walked around the block to the newly restored *The Villas* Restaurant for a lovely dinner. It took some time for it to be served but there was more time for chatting. I toddled off to my bed about 10pm.

Stephenson's "Rocket" by Roger Keey.

Easter Sunday produced a nicer day and a good crowd to view the models. I did get tired of being asked how long it took to build the Aston? I should have told them to ask "Q" about that.

Pack-up started right on 5pm and it is amazing in how short a time a hall can be cleared. The tables were being folded up by about 5:30pm.

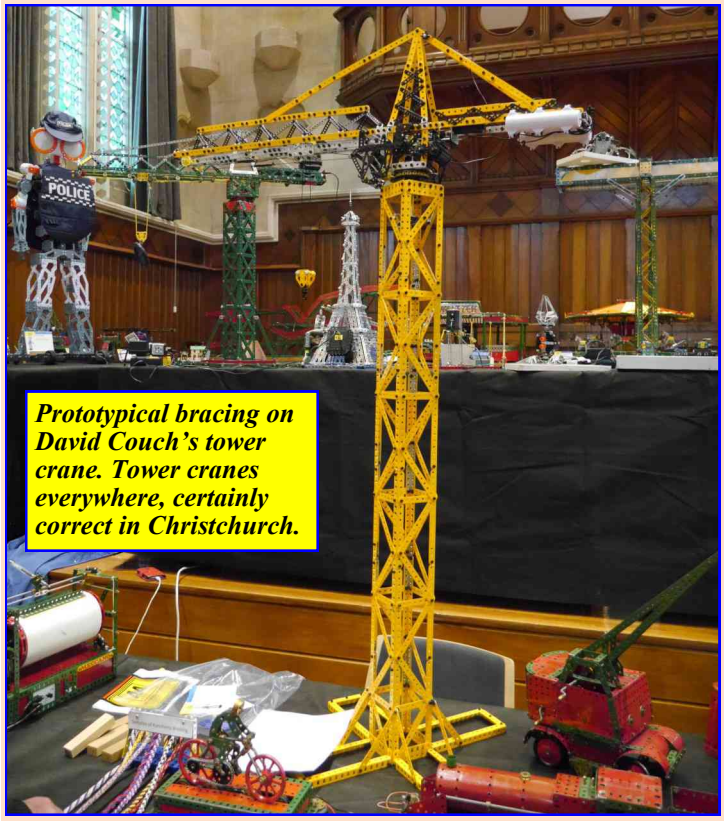
My trip home was much more pleasant and I took 4 days over it with little rain the whole way. My thanks to **Roland Jaspers, Neil Pluck** and the CMC organising team for a memorable Convention. The low key, low stress conventions are much nicer than the never-ending displays with a constant throng of viewers with little time to chat with other exhibitors.

Neil Pluck's NZR KA Class Loco.

Cranes were a very popular model at the Convention. Here are some of them.

Nathan Lang (12) Märklin Break-down crane.

Link-Belt 250t 6-axle Mobile crane by Neil Pluck.



Prototypical bracing on David Couch's tower crane. Tower cranes everywhere, certainly correct in Christchurch.

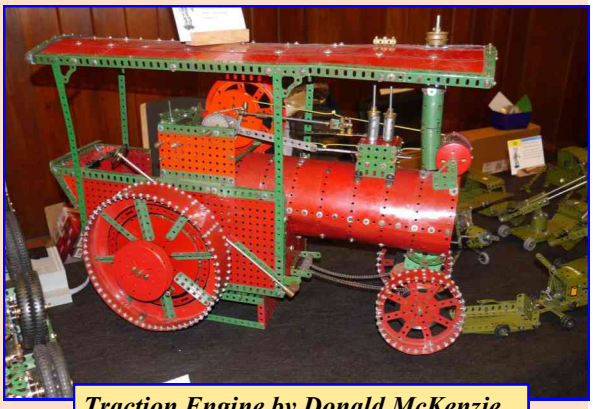
Roland Jaspers and John Stark adjust Roland's "Temsi" Tower Crane.

Ship Building Gantry Crane by Graeme O'Neill.

Kevin Downie's GBS crane with modern gear-box with geared motors driving each motion.

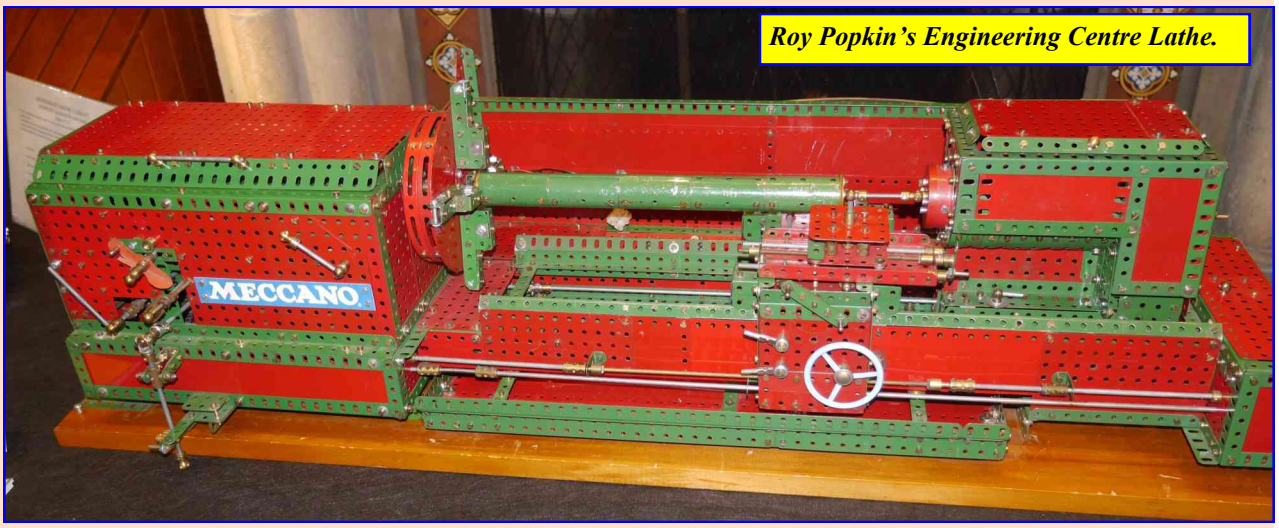
Alan Bensley's Luffing Tower Crane.

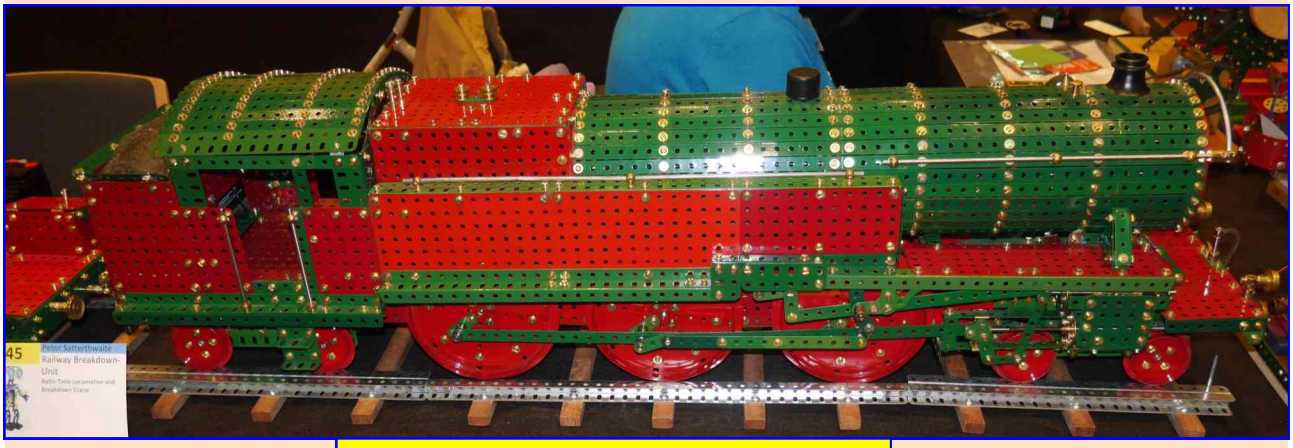
Bob Prescott's Steam Wagon



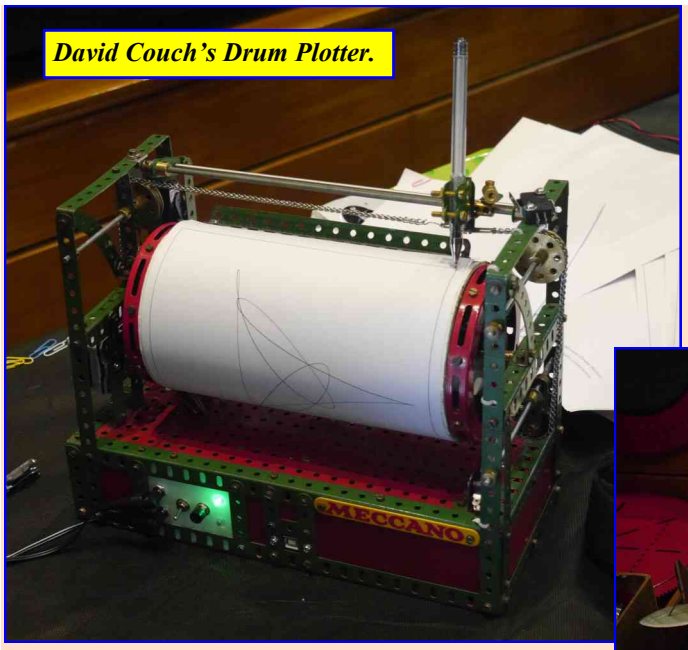
Traction Engine by Donald McKenzie

Roy Popkin's Engineering Centre Lathe.





Baltic (4-6-4) steam loco by Peter Satterthwaite.



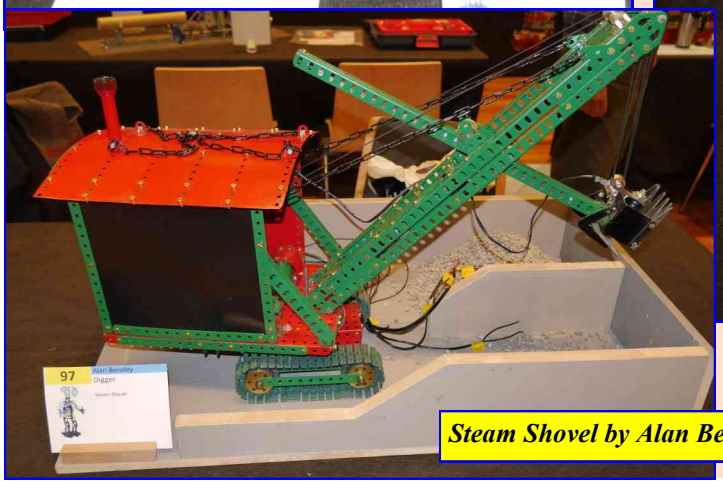
David Couch's Drum Plotter.

Austin-Healey 3000 by Les Megget.

Part of Mike Howse's Mecano collection on display.

A Little Bit of Bling by Mary Jost.

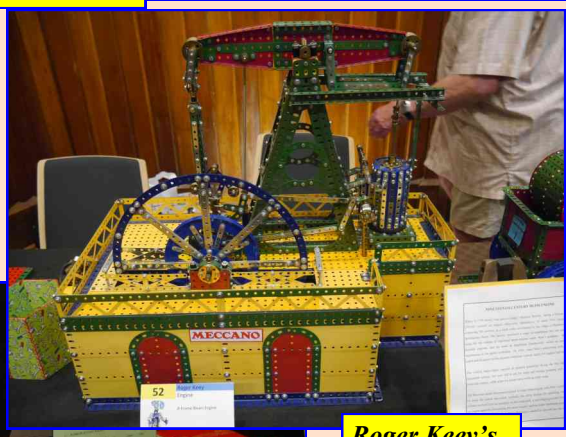
Graham Jost's Linear Braiding Machine from Melbourne.



Steam Shovel by Alan Bensley.

Two of John Stark's clocks.

Mike Howse



Roger Keey's A-frame Beam Engine.

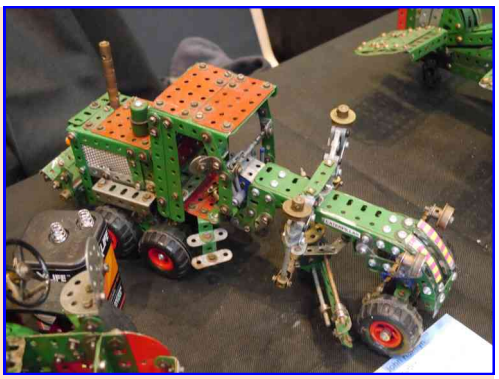
Dinky Toy collection by Alan Tunnicliffe.

David Littlefair and his Dodgems (above), Waltzer (below) and Fairground Galloper (far right).

John Hamlyn Traction Engine.

Plastic Meccano by Robert McFarlane.

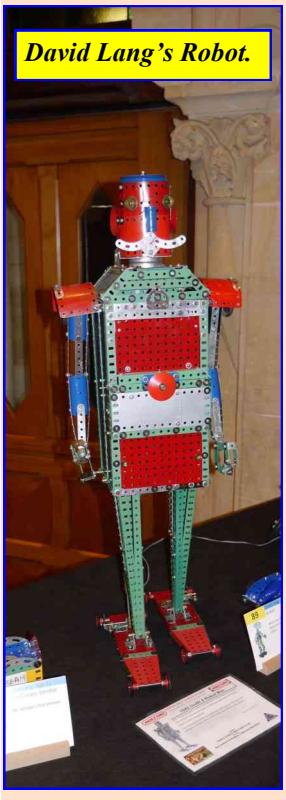
Dragline by Kevin Downie.



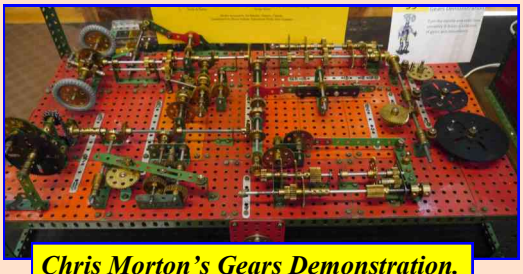
John Hamlyn's Road Grader.

1922-24 Meccano Radio Set shown by Mike Howse.

Raylene Turner & Joffre Marshall with their wide range of models.



David Lang's Robot.



Chris Morton's Gears Demonstration.

Hornby Train display by Neil Pluck.

THE CHOCOLATE ROBOT: Some lessons in human psychology

by David Couch

I hate "Do not touch" signs at Meccano exhibitions, though I realise they are necessary for some models, and I strongly believe that there should be at least some hands-on models at every show. When I was contemplating what to build for my first Meccano exhibition, the 2011 NZFMM Convention in Palmerston North, I thought about those coin-in-slot grab machines you see in shopping malls. I started building one as a sort of gantry crane, but then realised that child operators could be relied on to get strings and pulleys into a tangle. So instead I had the idea of building a robot arm. I started with ModelPlan no. 153, called A Simple Meccano Robot, and made some substantial improvements to it, as you do. I built a box around the robot with Perspex windows on three sides, which provided an effective psychological barrier against operators simply reaching in and grabbing the prize. Five control levers were placed at the front of the box, moving small toggle switches to operate the robot's five movements. The housing for the levers had to be very solid, as the young operators seemed to think they could make the machine work better or faster by pushing the levers harder.

There had to be a prize, and I decided that an ideal prize would be the small individually-wrapped chocolate-coated bars, such as Moro and Kit-Kat, that are sold in bags of ten or twelve in supermarkets. The operator's aim was to control the robot arm to pick up a chocolate bar from a box at one side and drop it down a chute at the other side, which delivered it out of the front of the box. Most people were familiar with the commercial machines and knew that one very seldom won anything from them. My motto was "Everybody wins." So there was no time limit and almost no age limit. I let people work it out for themselves as far as possible, but prompted them if they got stuck.

As far as I can recall it all went pretty well in Palmerston North. I had a small crowd of children around the machine most of the time, though clearly they were far more interested in chocolate than in Meccano. Nearly every one succeeded in getting their chocolate, taking an average of about five minutes. I can recall only one child who gave up and walked away. One aspect of human psychology that showed up was the great variation in children's ability and willingness to tackle this unfamiliar problem. A six-year-old would stand in the queue and carefully watch the person in front operating the machine. When his turn came he knew exactly what to do and operated it expertly. By contrast, a child of ten would sit down in front of the machine and just look at me and say "What do I do?" It did not occur to him to try the levers and see what happened. In general girls did as well as boys. I found that adults, especially women, were mostly very reluctant to try it, and I suspect that had a lot to do with a fear of failing and looking foolish.

The robot had its second outing at the Christchurch Meccano Club's "Meccano Magic" exhibition in Nelson in 2012. Again there were few problems, the main difficulty being to prevent the same children from coming back for several turns.

Since some of the switches I used in the control levers had died and were difficult to replace, I decided to try a completely different means of control, using an Arduino microcontroller. In theory this gave proportional control, the speed of the motor depending on how far the lever was moved. However, in practice the operators seldom discovered this because they just pushed the levers to the limit.

The robot's third outing was to the CMC's biennial exhibition in Christchurch in 2014. The customers here included a lot of young children, and things got more difficult. A determined-looking mother would plonk her four-year-old down in front of the machine and demand that he be allowed to operate it. Of course he hadn't a clue what to do, and I would have to talk him through it step by step. "Push the green lever … the green one … no, the other way … a bit more … a bit more …" and so on. By the end of three long days I was very weary of this. Then you got the parent or older child who was going to "help" a young child to work it. They usually ended up doing the whole job themselves while the child sat and watched. I remember in particular a crane driver who was sure he knew exactly how to drive this thing, and he was going to "teach" his son how it was done. That kid didn't stand a chance. As John Stark succinctly put it, some parents' attitude is "I'm determined my child will succeed even if I have to do it for him."

An aside here: it seemed to me that there were a lot of young children, some very young, at this exhibition, and very few teenagers. I suspect the reason was that parents thought a Meccano exhibition was a toy show which would amuse young children. Also, when you reach the age of 11 it is not cool to be seen in public with your family. At the Te Papa exhibition *Elephanta's* strategy of sending out fliers to schools worked brilliantly, and we got a lot more teenagers. But did even one of them say to anybody "How do I get into this?"

David supervises the Chocolate Robot.

The robot's fourth outing was to the NZFMM Convention at Te Papa in 2015. I made the mistake of taking too many models that required attention, but fortunately Ross Smith, one of our Australian visitors, volunteered to look after the robot. This time I had a notice saying that the minimum age was eight, but some parents are extremely pushy and simply ignore a rule like that, which led to trouble later. Another problem was that children who won a chocolate bar proceeded to open and eat it right away, which is a no-no in the museum. So we had to put up another sign and individually tell each child not to open the chocolate until they had left the museum.

The final lesson came a few days after the Te Papa exhibition. I got an email from Stan Baker telling me that the museum had received a formal complaint from an Asian woman who had been at the exhibition with her young son. She wanted him to operate the robot, but Ross told her he was too young. She saw a European child, whom she judged to be under eight, having a turn, so she decided this was racial discrimination. To us this was patently absurd, but we had to go through all the motions, and it left a sour taste. This is the thanks you get for putting on a free show for the public!

So the robot had four public outings, during which at least 500 children successfully operated it, got their chocolate and went away happy. It had been seen in Palmerston North, Nelson, Christchurch and Wellington, and was taking up a lot of space in my Meccano room. So I decided it was time to dismantle it, with the complaint business providing the final impetus.

I still believe in interactive models at exhibitions, but perhaps my next effort will be simpler and not involve chocolate.

BRIEF CMC QUARTERLY REPORT

The theme for all meetings was preparation for the Convention at Easter. All aspects of preparation have gone smoothly with great cooperation from club members and suppliers of services and products. Competition models were open for February and a maximum of 20 parts for March. While the restriction of 20 parts does not result in grand models, it does show the inventiveness and fantasy required and shown to make meaningful models.

There was no competition for April, to allow members to concentrate on exhibition models.

On a more sombre note; we have learnt that Bob Boundy (a club member of long standing) has suffered a serious setback in his fight against cancer. It was in remission but has now come back strongly.

The Club thanks all participants in the Convention for making it a truly enjoyable experience.

Roland Jaspers

Gazza's Ebay Column, April 2017

First an apology, I listed the *Dan Dare* rocket set as sold in the previous magazine when in fact it did not sell. In fact it has not sold for over a year now due to the high price the seller is asking for. It is currently still for sale at $613.07 NZ if you are really keen. Number 391700163163

I am listing all the eBay numbers from now on so those who are interested can follow up on items as a lot of listings sit for quite a time before selling, the above set is such an example.

This time we have a number of interesting items for sale starting with item no 311806445967, described by the seller as a model of a morse code machine. It appears to have various solenoids and electrical parts and there are some written details on the model itself, whether it operates or not is unknown. It appears to be mainly a European system with perhaps some Meccano as well. There is one bid on it at present for $133.28 NZ.

We have a very nice vintage Meccano Car, this is of the built-up or non constructor type as there are no bolts fastening body parts, it comes with a wind up motor and key and appears to be in good condition. Sold for $588.20NZ, with 6 bids, No. 292035076643.

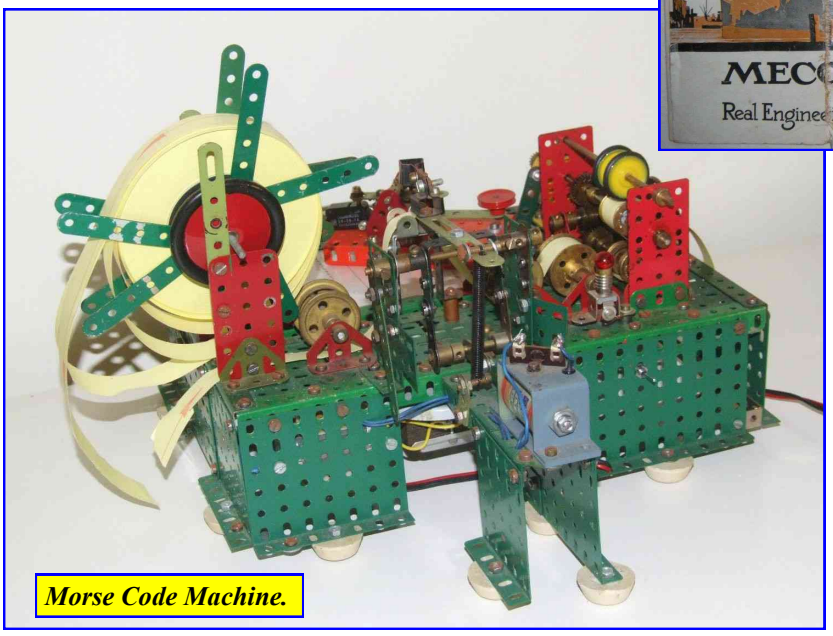
Next is a Meccano aero constructor set 0 in wartime livery and in original box with original parts package. It appears mostly intact, there appears to be a wing strut and propeller missing. Sold for $284.32NZ, which is cheap for a boxed version, No. 152444774782.

There is a Meccano land pamphlet which had been folded over while placed in the box, usually about 1915 or so. Lots of replicas of these available cheap but this is original with fold marks on the cover and sold for $35.52 not a bad price for an original, No. 262872658169.

An early 1912 set with some of the early parts still intact, rusty nickel parts and no manual with a dirty box cover sold with 6 bids for $60.42, No. 132123275720.

Now one of the best sets I have seen for some time is in very good/ almost unused condition. A no 5 1931 set in red green in original box/parts boxes and presentation card. The parts include green sprockets and red artillery wheels, a very colourful set which sold for $419.39 NZ, with 3 bids, No. 192114578368.

And how about something a little different the walking giant Erector set, one of the largest sets produced at the time from 1948 (an excellent year) described as partially restored and looks to be in good condition. These sets weigh a ton , I have one from 1949 with a few differences but cost a fortune in postage to get it to NZ and postage is more expensive now. This set sold for $620.20NZ, with 20 bids so a lot of interest there, No. 311825233990.



Morse Code Machine.

Next up is another aero constructor set made up model of a triple engine aircraft which appears to be in good condition. The aircraft did not sell so perhaps the price was excessive or maybe it was a repaint. The buyer asked $488.65 so it is still there if you want it, No. 192125562966.

Here is another made up aircraft, this time a set 0 float plane in red and silver. I have never seen this colour combination before and suspect the red may be repainted but aero collectors will know. Looks like it is all there and sold with 10 bids for $259.45NZ, No. 232269393568.

Something a little different is a shop display of a working windmill complete with Meccano signage. Displays are usually snapped up quickly but not this one. Perhaps the price is why. Still on buy now for $799.66NZ, probably a little steep for most. No. 311811513780 if you want it.

And to end here is an item said to be from “the Meccano Museum” he does not say which one. It is described as an unopened mint set but the picture shows an opened box? It is a set 00 from the 1930s and is certainly unused and with all the packing materials, pamphlets, warranty’s that came with the set. Definitely for a collector not a builder, and the price only $2,844.94 if you want to snap it up, No. 122340679951.

Gary Higgins

Shop Display working windmill.

Wellington Meccano Club

Meeting Report

Date: 3rd March 2017, 7:45pm

Reporter: Max George

Held at Lou Nichol's place, Summerset Village, Paraparaumu.
Present: Keith McCallum, Lou Nichols, Max George, Reg Barlow, Sam Tansley, Simon Moody, Stan Baker.
Apologies: Brian Petersen, Trevor Green

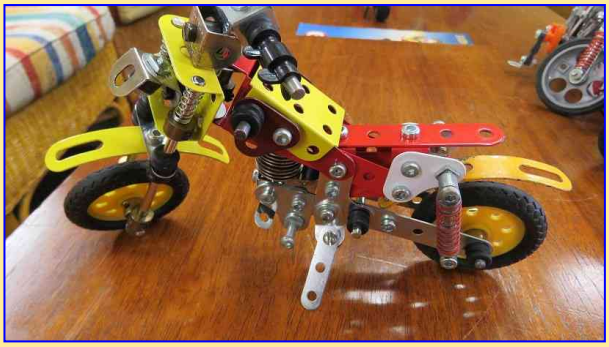
Meeting:
A suggestion was for wives to come to the meeting and so **Gillian George, Susan Moody, and Emma McCallum** came along and chatted away together while the Meccanomen had their meeting and displayed their models.

Models:
The theme for this meeting was a Motorbike. This was suggested by our newest club member **Sam Tansley** at the last meeting.

Reg Barlow – Brought along a couple of models. The first was an Evolution Chopper Motorbike model 4200.

The second was the most interesting model of the evening, the Micronoid 'Switch', one of a series of 3 Micronoids available. You build the Micronoid a body to help him get around. Then you program how he moves. With push button programming Micronoid can walk, turn and smash through obstacles. He also interacts with other Micronoids and even dances when music plays. Micronoid is your new robot best friend. (Information about it from the web).

Lou Nichols – Built the Dynamic 4015 series motorbike. Three motorbikes can be built from this set. It also came out as Dynamic 4016 which had

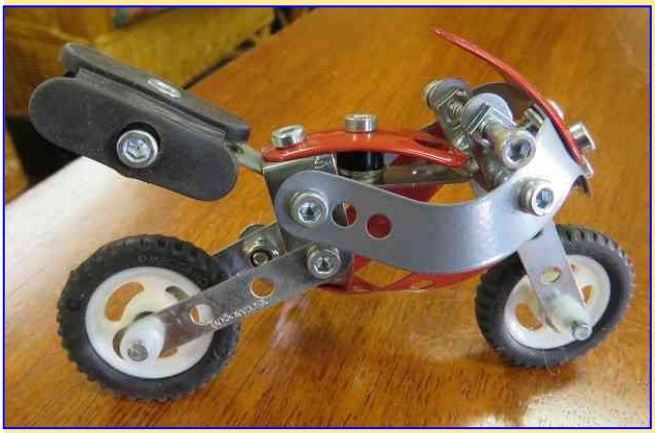


instructions for 7 motorbikes and 3 other models.

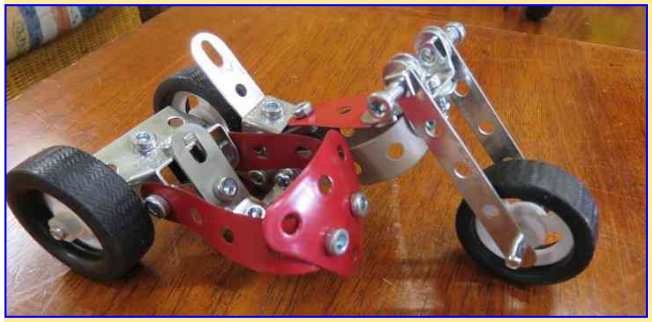
Simon Moody – Displayed the start of his crane Mickey he is designing to fit into the Sodor theme in the Thomas the Tank Engine. He brought along the boom and the core of the base explaining how the contacts for the many movements of the crane will be made preventing having wires all over the

place. He is working towards a large Thomas the Tank Engine Display of Sodor.

Max George – Brought along numerous motorbikes from various sets. The small motorbike and motorbike and side car are from the series of sets used at the Te Papa Expo in 2015. These are two of the small models that he gets schoolchildren to construct at a local primary school as part of their Inspirational Friday where the pupils get to do various activities for 1½ hrs/week for 6 weeks. In this case it is Meccano modelling. One thing about these small models is that the pupils have trouble with the hand movements required for nuts and bolts. They are so used to pressing pieces together in Lego.



Design Starter 2735 motorbike.



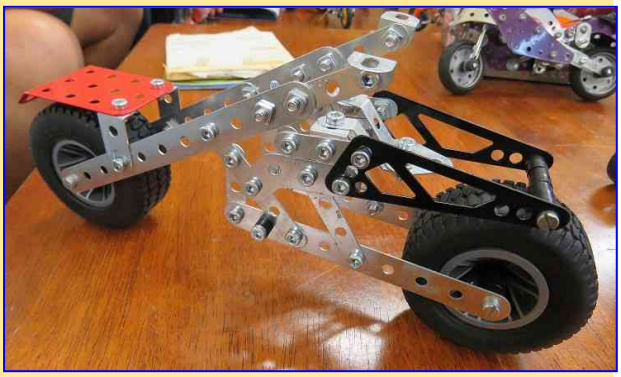
Design Starter 2711 Motorcycle and sidecar.

Multimodels 3550 motorbike (5 model set).

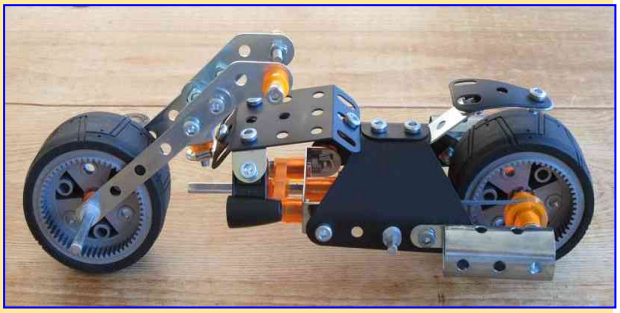
Design 4700 motorbike (3 model set).

Max also had a bicycle from the Multimodels 5 models set 3501 that he had brought along to a previous meeting.

Sam Tansley – Our newest member brought along a motorbike from the Desert Adventure 20 model set.



Keith McCallum – Brought along a motorbike built from the Multimodels 5550, 10 model set.



General Business:
At this stage it appears only Reg may be going to the Christchurch Convention.

We discussed what to do with Meccano parts from Eldon Porter's estate. Keith and Max to make up a list of parts for sale.

July Meeting:
Suggestion for the **1st July** meeting is for a Pot Luck Lunch followed by the meeting. Location to be advised after the next meeting.

MWT MODEL TOUR for 11th February 2017

Article by Richard Feltham, Photos by Bruce Geange

There was a good turn-out for our first meeting of 2017. **John Freer,** enthusiastic as ever, produced three entries for the current model challenge, which was to produce a self-propelled vehicle that would climb a 3:1 gradient on G scale (45mm), railway track. His Mk I magic motor powered minimalist jigger, a Flying Hamburger replica aero service car (Mk II), and a well detailed, battery driven, Hi-Riser truck (Mk III) all performed well. He modified an 'Evolution' truck/crane as the basis for the Hi-riser. It featured working steering, tipping tray, and was able to run on both rails and flat surface.

Chris Morton produced a No 1 clockwork motor powered challenge entry that easily climbed the gradient. His entry sported working connecting rods ingeniously driving part 20 flanged wheels. He illustrated the technique for quartering the con rods to allow even impulses to each side. He also showed several related magazine articles.

Tom Pittams displayed a collection of differentials he has produced over the years, as well as his current project, a large dinosaur, still a work in progress.

Daryl Anderson exhibited a fragment of his forthcoming magus opus for the 2017 National Convention, a tower crane that uses a latching relay board. These differ from conventional relays by having two coils, thus allowing two independent, positive actions from a single micro-switch. Several colour changing LEDS gave visual indication of the varying functions. He also displayed several recent Meccano purchases from the Taranaki region. Boxed and largely complete 8, 8a and a rare 9a set from the early 1950s. Some discussion ensued around the likely date of these sets, as the round end holes of the large flat plates would seem to suggest an earlier provenance.

Bruce Geange exhibited a meticulously built sulky from the No 3 manual; a timely reminder of just how appealing simple models can be. His challenge entry was a 6 person jigger. Electrically driven and radio controlled it ran with the smoothness we are accustomed to seeing with his models, although brakes could have been helpful!

Peter Winter showed his Christmas Dinner efforts, namely a large Christmas tree and a (modified) Supermodel plan Ferris wheel. His collection of Meccano Magazines is now almost complete, and he was able to demonstrate the only two issues that have ever shown women on the cover - in December 1971 and 1972. His challenge model was a well performing Manawatu-Wanganui-Taranaki-Railways engine, loosely based on the 1925 Meccano Magazine plan. It included genuine spring buffers and working pistons.

Richard Feltham produced a radio controlled 4-2-4 engine, with 19a 3" spoked wheels as the single drivers. He also showed his current non-Meccano project in the form of a live steam 0-6-2 G scale Fowler engine.

Viv Alexander showed his latest auction purchases in the shape of original and apparently unused B and 3a Mechanics Made Easy tinned sets. His Sherlockian analysis as to the likely dates of these sets as 1906 and 1907 was as entertaining as it was informative. He also deduced, from the placement of the stickers, that Frank Hornby was left handed.

Hugh Ramage demonstrated his Christmas holidays wet weather project – an intricate automated Meccanograph. Based on the design of Dr. ir. A.H.Boerdijks, this produces a stream of unique patterns on a roll of paper. The model plan uses two independent gearboxes linked to a pen arm working over a rotating table over which the roll of paper passes. Hugh reported the manual left much to be desired in terms of detail, and that he had been forced to make several design changes to improve reliability and performance. The end result was delightful, yet another manifestation of his unrivalled grasp of complex mechanisms. His challenge entry was a hybrid, self-adjusting jigger that ran well up the grade.

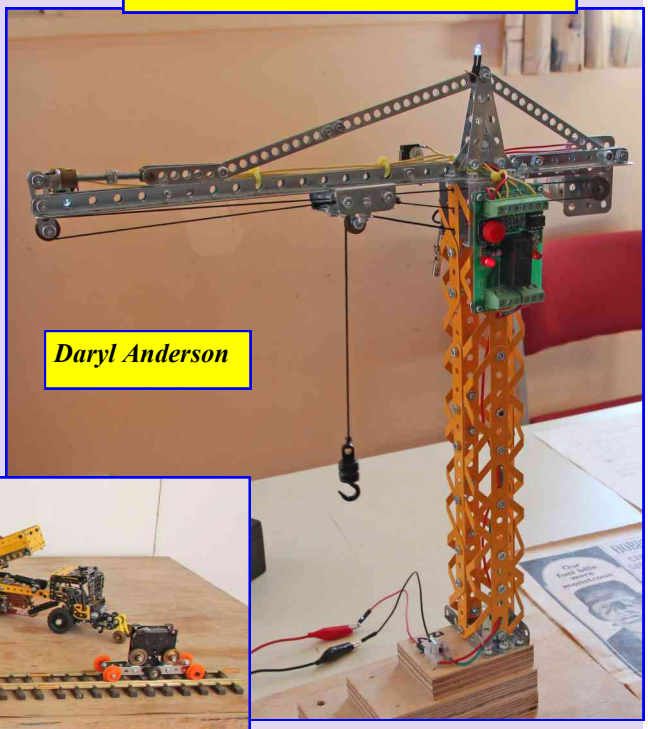
Paul Vodanovich used 3" wheels driven by a magic motor for his challenge model. The mechanical advantage gave it a good top speed up the incline. He demonstrated a number of restored archival items showing different boss sizes, as well as some mystery items, subsequently identified as links in a crawler tractor track.

Geoff Chowles showed his soldering station – a useful tool when faced with a large number of joints to complete.

As all models successfully completed the challenge, a tight fought race saw Peter Winter just edging out John Freer as the Challenge Winner.

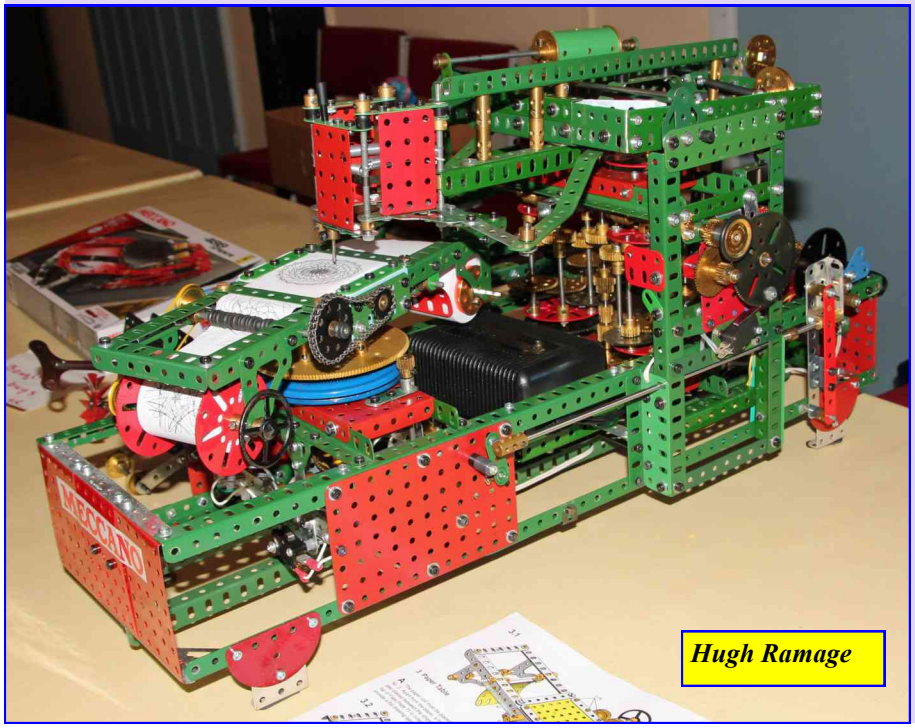
Peter Winter

Viv Alexander; contents shown below.



Daryl Anderson

Model Challenge models



Hugh Ramage

New Zealand Club Diary 2017

Auckland Meccano Guild

President: David Wall, Tel. (09) 426 1965

Secretary: Gary Higgins, Tel. (09) 832 4292

Meetings at 2pm on second Saturday every third month. The next meeting will be held on **Saturday 12 August at Neil Carey's**, 23 Eaton Road, Hillsborough starting at 2pm.

MWT Meccano Club

Chairman: Chris Morton, Tel. (06) 323 8001

Secretary: Robin Rye, Tel. (06) 764 8670

Meetings at 2pm. Next meeting: **Saturday 10th June** at St. Luke's Church Hall, Corner Cornfoot and Manuka Streets, Wanganui.

Wellington Meccano Club

President: Stan Baker, Tel. (04) 566 7150

Secretary: Max George, Tel. (04) 232 4200

Contact: Lou Nichols, Tel. (04) 297 1515

Meeting at 7:30pm on first Friday every second month. However Next event: **Pot Luck Dinner, Saturday 1st July at Simon Moody's, 1122 Blue Mountains Road, Silverstream,** followed by the meeting.

Christchurch Meccano Club

President: Neil Pluck, Tel. (03) 389 8134

Secretary: Roland Jaspers, Tel. (03) 351 4389

Meetings at 7:30pm on first Friday every month (except January) at Papanui RSA Club, 55 Bellvue Ave or No. 1 Harewood Road, Christchurch.

Additional Meccano Contacts

Hamilton: Don McClelland, Tel. (07) 843 4198
Tauranga: Barry McKey, Tel. (07) 576-1623
Hawera: Daryl Anderson, Tel. (06) 278 7666
Napier: Trevor Adam, Tel. (06) 843 4837
Palmerston North: Bruce Geange, Tel. (06) 357 0566
Nelson: John Stark, Tel. (03) 545 1025

Articles, etc. for the August 2017 issue of NZFMM Magazine should be sent to Les Megget before the 1st August 2017.

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

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Roland Jasper's Floating Sheerleg Crane on display at the Easter Convention.

NZFMM EASTER CONVENTION
Exhibitors & General View in the Great Hall

Easter Christchurch Convention exhibitors and partners: ***Top Left Chris Morton (new NZFMM President), Kevin Downie, David Wall, Roland Jaspers, Roy Popkin, David Couch, Neil Pluck, Graham Jost, Graeme O'Neill, Robin Rye, Les Megget, Daryl Anderson, Rose Anderson, John Stark, Mike Howse. Front Left: Joffre Marshall, Hilary Satterthwaite, Anne Prescott, Lorraine Hilton, Raylene Turner, Grace Pluck, Roger Keey, Alan Bensley, Bob Prescott, David Littlefair, Peter Satterthwaite and Mary Jost.***

Other Exhibitors included: ***Alan Tunnicliffe, Donald McKenzie, John Hamlyn, David, Nathan (12), Alex (11) and Sam Lang (9) and Robert McFarlane (all from the CMC).***