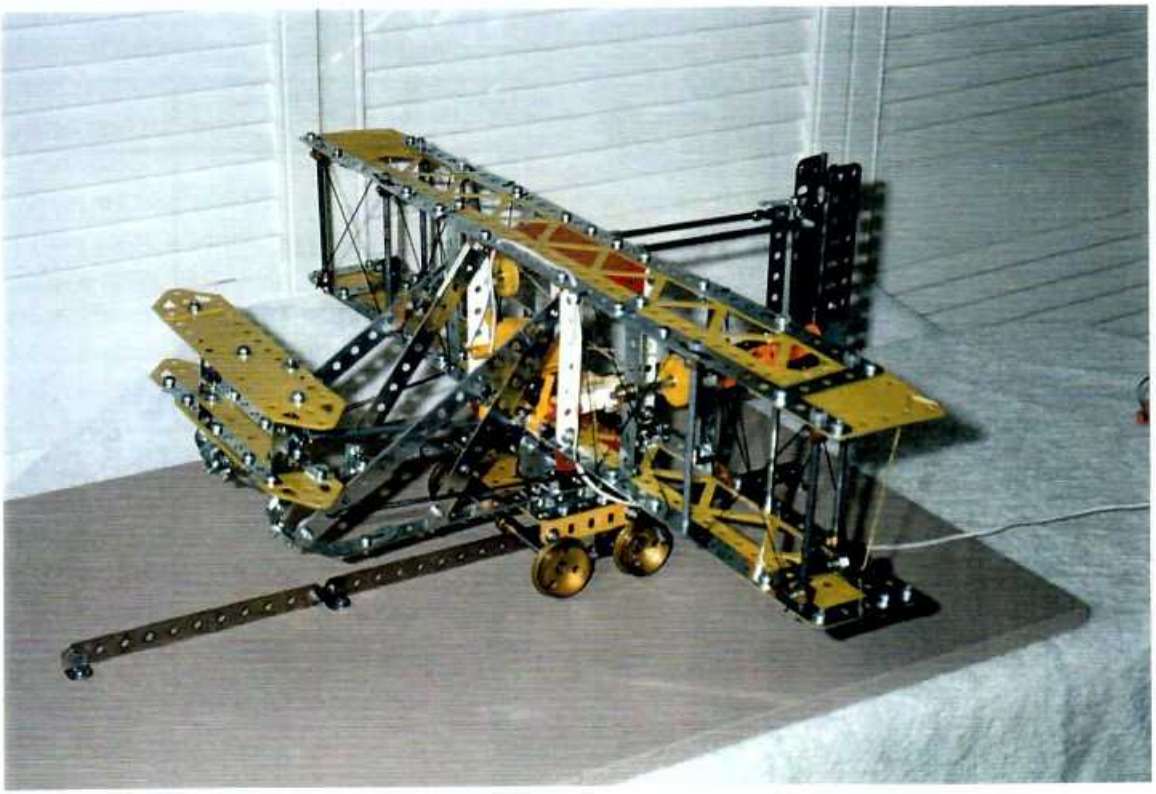
NZFMM Magazine

Volume24 Issue 1 FEBRUARY 2000



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COVER: Photos of Donald Malcolm's Mustang. Bob Prescott's model of the Wright Bros plane. And photos from MWT meeting

EDITORIAL

Welcome to this issue of your magazine, a good selection of articles this time, including some taken from other club's magazines, members had asked me to do this - what do you think?
We have an article on one of the convention models from Donald Malcolm, now is the time for some of you to put pen to paper, or fingers to the keys, and send YOUR article on a model for the next issue.
You will find a subscription renewal form with this issue, please check your details and return to Max George as soon as possible. The subscription has been kept at the same as last year as we are now only producing every three months, this saves on postage and offsets the cost of the colour cover etc.
Remember also that the 2001 convention in Wellington is not far away, have you started your model yet? And are you planning to be here for it? We will print details of local accommodation in the next issue along with approx costs.
And finally to the few of you who check every word for correct spelling – don't complain to me if you find any ***Complain to the proof reader!!!***

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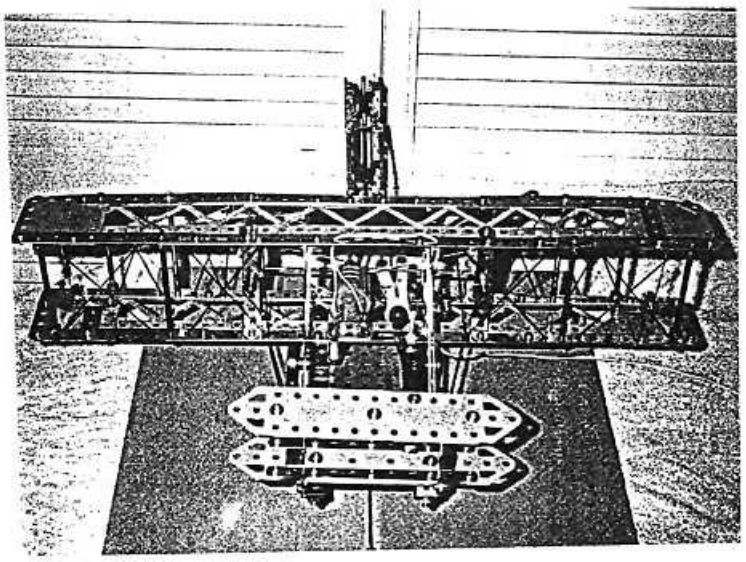
PROJECT ORVILLE AND WILBUR

From Bob Prescott

It started when I was reading "Meccano and the history of Aviation", an excellent article by Brian Williams in the July 1979 edition of the Meccano Magazine. I decided to build the 1/24th scale model of the Wright brothers' Flyer III.

After a while I found the building instructions rather confusing and apart from that, I wanted to produce a model more like the real thing. Brian Williams had not included the wing warping mechanism in his model and I considered this to be an important feature, so without any disrespect to Mr Williams I decided to do my own thing.



The basic construction is straight forward and this can be seen from the photographs. The wings are constructed of perforated strips, braced girders, axle rods, double angle strips and cord. The fuselage uses perforated strips, axle rods and the odd flanged plate. The twin rudders use flat girders and the elevators use strip plates and flat trunions.

Both the elevators and rudders are controlled by levers close to the pilot's hands driving an axle rod, rod and strip connectors and bush wheels connected to the control surfaces. Yes, the elevators are at the front of the aircraft and the rudders are at the rear.

And now to tackle the wing warping, but first some explanation. To be able to turn the aircraft the pilot needs to lift a wing i.e. to turn right the left wing needs to be lifted in the airflow, and to turn left the right wing. The Wright brothers studied the buzzards and how they turned and I guess that is why they originally flew their aircraft lying in a prone position.

As you can see from the photographs Orville (or Wilbur depending who won the toss of a coin!) lies in a cradle which I made from a bent 2½" perforated strip tipped with red plastic spacers and mounted on a rubber grommet.

To turn right the pilot leans to the right in the cradle, this lowers the trailing edge of the left wing by way of a yellow cable (to colour match the braced girders), from the left edge of the cradle, by way of a pulley system and this lifts the left wing in the airflow. I made the wing tips from my own plastic plates because they bend easier.

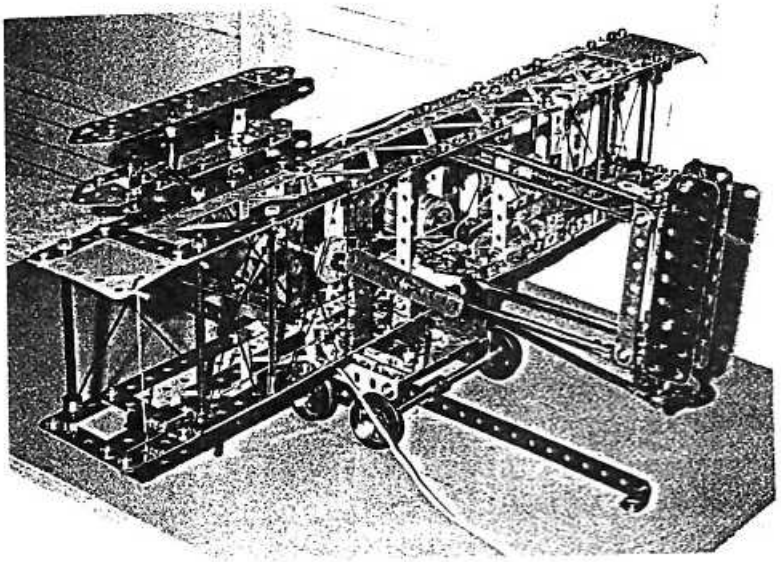
The reverse happens when the pilot leans to the left i.e. the right wing is lifted in the airflow. In addition the pilot controls the elevators with his left hand to climb or descend and the rudders with his right hand to assist turning and for stability.

During my research I found nothing about the construction of the trolley so I used a flanged plate sitting on flanged wheels guided on perforated strip runners by two collars on the trolley axles. The Flyer III sits with its skids on the trolley.

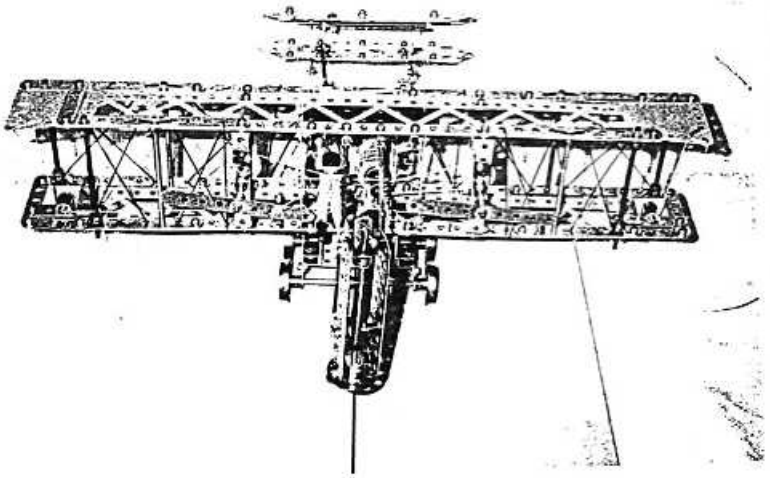
The two propellers are driven by a 4.5v motor with two rubber grommets on its shaft arranged to rotate the props in opposite directions which counteracts any torque produced and ensures the aircraft flies "straight". The motor is slightly offset and the pilot's body is also slightly offset to balance the weight.

Having spent my whole working life involved in aviation I was well aware of the Wright brothers'

achievements in aviation but my research on this project has proved to me just how brilliant these guys, Wilbur and Orville, were. They couldn't go to the local library to borrow a book about building aircraft. Certainly some flying machines had already been built but communication wasn't what it is today. It was a bit of a do-it-yourself situation - trial and error. The Wright brothers who supported their aviation interests with money made from the design and manufacture of the "Wright Special" bicycle, were the first to use a wind tunnel - they were the first to research propeller technology and make their own propellers - they designed the 12 hp water-cooled engine which powered their aircraft.



They first got airborne in 1903 with their gliders of which there were three. Next came powered aircraft Flyer I and II but this was the development stage with a lot of controlled and uncontrolled crashes. Then came Flyer III - let's look at its record. It can be certainly called the first truly practical aircraft. It made an impressive number of flights over 15 minutes with two of over 30 minutes and one of 38 minutes 3 seconds on 5 October 1905. With this machine Orville and Wilbur Wright completed some 40 flights without any major damage.



Flyer III sitting on its trolley was tethered to the centre rail. The engine was started and when it was running at full power the tether was released. The aircraft moved along the rail until flying speed was achieved when it lifted off its trailer into the air. After a (hopefully) successful flight the aircraft would be landed on its skids.

Although I don't want to get into the argument of who flew first, in some ways New Zealand's Richard Pearse was way ahead of this time. He not only designed his own engine but built it too. He never thought about wing warp, he had designed ailerons more akin to today's control surfaces. Pity they didn't work too well, after all, he perfected the uncontrolled gorse hedge landing technique!!

The success of Flyer III however was not a guarantee of business success. The Wright brothers offered the machine to both the US Defense Department and the British War Office and both turned it down. So discouraged were Orville and Wilbur that they stopped all flying and development and locked their aircraft in a shed for the next 2½ years and America's lead in aviation was lost.

A wonderful although in the end sad story and Meccano allows us to re-create history.

P51D MUSTANG

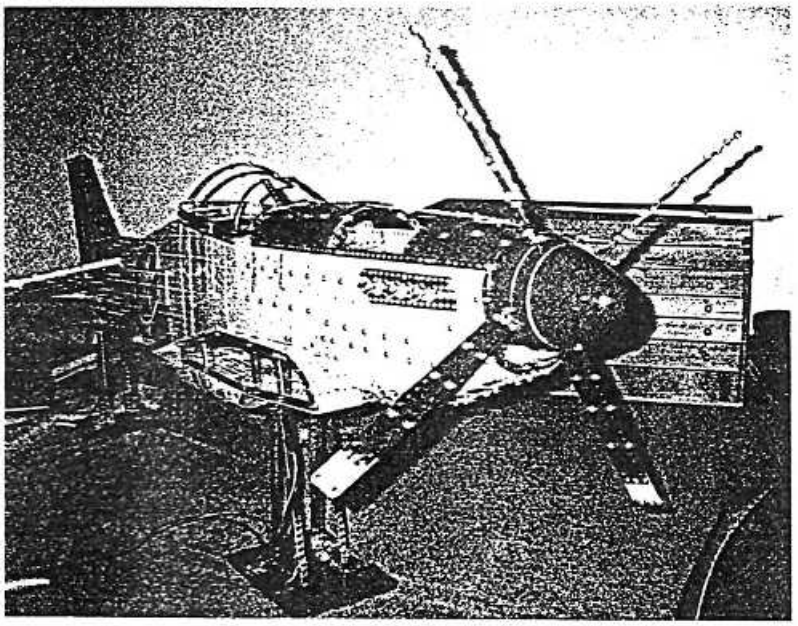
From Donald Malcolm

This model is my fourth Meccano model and by far my most ambitious to date. The inspiration to build it came from seeing Don Wilson's awesome submarine at the '97 Fielding Convention. The plans came from a relative who builds large scale radio controlled model aircraft, and these plans were 1½"- 1', which was perfect as the landing wheels was perfect as the ashtray tires which I wanted to use for the wheels were the exact diameter. Using a roll of newsprint paper, I traced the outlines of the plane, fuselage section and about half of the wing section's and landing gear, as this was all I needed to build the outer shell. I then set about making the fuselage, building it in the same way a modeller would build a balsa wood one. Part 89S was a handy new part as I used 15 of them in the plane and along with the other standard curved strips made up all of the shapes for the fuselage, making sure to use as many short angle girders for the straight side pieces as I could, so as not to exhaust my supply of single bent strips which I knew would soon disappear in the wings. Once these were completed I joined them together with 12½" perforated strips. The front of the fuselage was part No 118, hub disc, which luckily was also the right diameter, and with the bottom air intake bolted onto the bottom of it I then covered the fuselage right back to the cockpit with yellow plates and left the top part for the blue plastic plates off to install the propeller motor, clutch and drive etc. The rear wings and tail were built next making sure that all the flaps worked via three eccentrics on one shaft which was then chain driven by one motor. I then made the rear landing wheel and mechanism, this was built in a frame, tested and then transplanted into the fuselage as a complete unit, I needed to modify two section to get it in, and this took quite a bit of time as spare space was at a premium, it consisted of a rack segment, driven by a plastic worm wheel. When the wheel was driven up the rack segment drove right off the worm so that if the motor overran it simply made a "clunk clunk" noise but no damage would be done. When the wheel was run down however it would fall off the worm due to gravity, so I had to spring load it so that it would restart if the motor was reversed to bring it back up. The large bottom air duct was built next, and then working from the back of the plane forward, the fuselage was then plated. The decals were then drawn up and made using thin white plastic sheet with the decals drawn on a computer and cut out on a special machine at the local signwriter's place, and stuck onto the plastic. The holes were then marked and drilled and the awkward job of bolting them on began. A nose cone was then machined from three pieces of rimu and four slots for the blades were then cut on the back piece on an inclined bandsaw table to get a pitch for the blades. The three pieces were then rescrewed and glued, then painted. With the exhaust manifolds and part of the blue motor cover on the plane really started to take shape. This was the first winters worth of work and marked the half way stage of the project.

Being such a large model the wings would obviously have to be made removable so I decided to make them detach about 1½" out from the fuselage. The reason for this was that this middle section of the fuselage would have to be very strong as most of the planes (approx 65Kgs) weight would bear down on the central stand and it would want to buckle. A lot of heavy plating went into this section, I built the stands as lightly as I thought I could get away with so as not to be too overbearing on the overall appearance of the model.

The wings were attached by sliding over ten 1¼" bolts which stuck out of the fuselage like studs from the wing section and nuts screwed on from inside the wings via the landing gear holes under the wings. The sections and frame were made first in the same way as the fuselage, and the top of the wings were covered. Surprisingly this was the hardest part to make and took me about six weeks, and five attempts, before I was happy with the result. The decal for the top left wing was then drilled and installed, two special 11 x 5 hole plates with three 11mm holes punched in them were made up by Bruce Geange to house the three light bulbs used to represent the guns as I hate butchering genuine Meccano parts. These.

when painted and installed with the lights really looked the part. The landing gear was made next and installed but attempts to get it working soon ground to a halt, so I decided to install the wing flaps, rods and cover the bottom of the wings whilst pondering a solution. The main problem was the weight of the wheels and no room in the wings for a counterweight. Spring loading the wheels wasn't successful, nor was using keyed rods and gearboxes. I finally decided to make a powerful winding drum mounted in under the front of the cockpit and lift, using string, both wheels up at once. A ½" pulley was installed directly above the wheel when the assembly was lifted up and the string tied to the bottom sleeve piece just above the wheel. This seemed to work very smoothly and reliably and was only completed the night before we were due to leave for Auckland to the exhibition. The exhibition was the first time the plane was fully assembled with both wings on it and I was a bit worried that the central stand might collapse under the strain, but it held up well. The next stressful moment was testing the landing gear for the first time with both wheels attached to it but they also worked very well and only after a day of solid running did I need to adjust it as the strings had started to stretch. The only other problem I encountered all weekend was an out of balance propeller caused through someone hitting it. It was equipped with a built in clutch, using a faceplate and a 2' pulley and tire. It also had a built in ratchet system so that when the propeller motor was turned off it wound down without stressing the drive chain or axles. On Sunday morning I pinched John Ince's Meccano crutch and used it as a guide to find the high spot and straighten it again. The plane was also moved back from the front of the table.



As a whole I found the project most enjoyable but couldn't believe how many plates it took to cover the model (more than 4 x No 10's) but I'm glad I built it as I can't buy light yellow plates now as the colour has now changed so I now shouldn't be needing any more. In case you're interested it took over 3000 nuts and bolts, 150 x Pt 192, 76 x Pt 197, 80 x Pt 191, 74 x Pt 200 and so on and so on.

The only down sides were the fact that I had a bad case of the flu that weekend and couldn't be besides the model for more than 20 minutes at a time as all the noise from the models would give me a headache, but I still enjoyed myself all the same. A lot of people also didn't realise that the flaps worked at a slow realistic speed and weren't easily noticed. Nevertheless I had a lot of positive feedback from the public including an interesting talk with a gentleman who used to fly the real ones. The planes next stop was at an old peoples retirement home were I was to display it for a couple of days before breaking it up. It ended up being there for about 10 days as visitors kept commenting on it and families and doctors from other practices were coming to look at it. I eventually ended up giving a small speech on it and demonstration of it all working before taking it home and dismantling it, this took almost a week.

My next model will be a large scale tugboat, but will be built in Perth, Australia, as this is where I intend to now live. I will miss the boys from the MWT club along with other fellow enthusiasts I have met in the last six years, but will keep in touch with some of you.

New address :

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5211 South Australia

THE LITTLE BLACK 6 VOLT MOTOR

From Meccanotes June 1999

The new little black motor that came out about five years ago has turned out to be very strong and durable. I have built trucks with this motor that weigh over two kilos and are able to climb a 20 degree slope at more than 30 cm a second. Right now I have a seven kilo vehicle whose performance is almost as good. These models are powered by just one of these motors. I have seen models powered by "monster" motors that perform worse.

So what's the secret?

There are four secrets, three mechanical and one electrical.

Secret No 1:

The mechanical transmission between the motor and the movement must have the best possible throughput; that is, most of the mechanical power provided by the motor must reach the movement.

In Meccano, the best throughput is obtained by straight gear trains. Driving bands don't have a great throughput, and can slip if a large torque is being transmitted. The tension has to be just right. On the other hand, they are very quiet. Bevel gears always transmit poorly because their positioning requires fine adjustment, which Meccano doesn't permit. Helical gears aren't great since the meshing involves slippage, and they have a large axial thrust. The throughput is still poor even when an excellent lubricant and axial thrust bearings with ball races or stacked washers are used.

Worms give the worst throughput of all. For the same reasons as with helical gears (slippage and axial thrust), most of the available power is lost in the transmission. When several worms are used in series, the first one wastes a lot of power, the second one wastes much of what is left, and so on. Worms are acceptable only when an irreversible movement is wanted (a winding drum for example). To minimise the losses due to friction and axial thrust, the worm must be placed in the reduction gearing. That's where the speed is greatest and the torque lowest. The rest of the gear train comprises gearing that has good throughput. A worm "mustn't" be mounted directly on the shaft of the electric motor because it can't withstand the prolonged axial thrusts. Accordingly, you should mount a straight gear of the smallest possible diameter (11 or 15 teeth) on the motor shaft because, once oiled, a larger diameter gear will throw off the oil due to it's larger centrifugal force.

Try to use straight gears or contrate wheels as much as possible, and make sure that the movement is reversible even when very geared down. That means that, with the power turned off, you can turn the movement by hand and see the motor turn. For a vehicle, you can roll it along manually, it isn't blocked as it would be if there was a worm in it somewhere.

Secret No 2:

The entire gear train and all bearings (axle rods in plate holes or in shaft collars) need to be sufficiently oiled, but no more.

In fact the secret is that the mechanism should move without oil when you turn it by hand. That proves that the movement is free of any unwanted friction. Good performance isn't obtained with oil. Good performance must come from proper construction. Oil allows the mechanism to work silently, while minimising axle wear in the bearings. It lets everything work without vibration or parasite resonances that sometimes appear at certain speeds in an un–oiled movement. It improves the meshing of straight gear trains, where the profile of the teeth and the meshing don't always ensure a non – slip contact.

Secret No 3:

Only relevant for a vehicle. The vehicle must have a working flexible suspension (no leaf springs made of Meccano strips, which are infinitely stiff and are added to make the model pretty.

The wheels may or may not be independently suspended, that's not important. The suspension filters out shocks and among other things spreads the mechanical effort due to the weight of the vehicle over all the wheels, rather than leaving it only on one wheel that encounters an obstacle as happens with a vehicle that has no suspension.

There is a sort of "gear down" effect (that depends on speed) of the leverage effort the wheel must provide.

.A vehicle having no suspension, but with a "three point" articulation (like a front wheel assembly of a farm tractor, for example) isn't as bad as a vehicle with no suspension. This is because all the wheels remain in contact with the ground. Even so the effort will be less well spread out when surmounting an obstacle than if it had an efficient suspension.

Secret No 4:

Electricity supply to the little black motor.

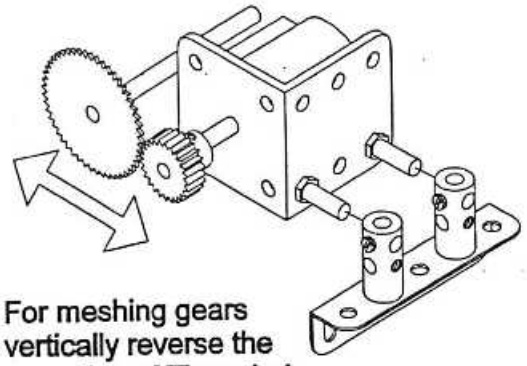
This motor runs on 6 volts. You might think that any assortment of electric batteries giving a voltage of 6V is adequate. That's true as long as you don't expect the motor to deliver the max power it can give. For example, the little vehicles weighing two kilos that were mentioned at the beginning of this article work very well with the four battery pack. If you start asking the motor to deliver more power, it will draw more current, always at six volts. Round LR or AA batteries, even alkaline ones, can't deliver the current demanded by the motor for several minutes. The motor is actually too powerful for the batteries intended for it. Really!!!

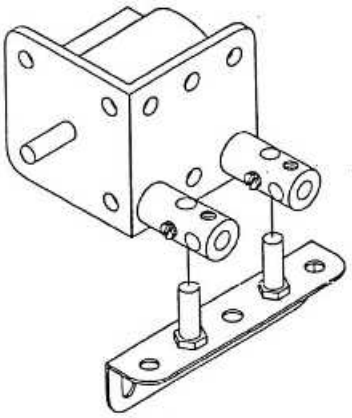
The solution is to replace the battery box four flashlight batteries with a six volt dry cell (1, 2 or 4 amp/hour) or a cheap lead acid battery. You can find them in all model shops. They're heavier than flashlight batteries, but you don't make airplanes that fly out of Meccano. You'll be surprised to see that this seemingly pathetic motor is actually very powerful once it has an ample six volt supply.

If you use the infrared remote control, you have to find a way to connect the battery into the receiver in the place of the original four battery pack (the battery box for the nine volt battery isn't affected).). You can cut the existing cable and connect the battery to the original small round plug by putting spade lugs on the end of the cut cable. You may have to lengthen the cable with a connector and another length of cable. Instead, you can make up your own cable wit two spade lugs for the battery end, and a small round plug you can buy in an electronics components shop on the other end. Take the plug with you to the store because there are several different sizes of hole inside. You'll have to shorten the plastic cover that screws onto the metal part of the plug you brought, because the standard everyday model is too long and can't be plugged properly into the Meccano receptor jack. It has to be shortened by several millimetres on the side that screws in, while leaving enough thread to screw with. Your battery box will then still be intact with it's plug, and thus reusable.

Mounting method for the 700 series motors.
by Peter Matthews.

Attach Parts 115 Threaded Pins long or short to the motor and mount Parts 63c Threaded Couplings to the body of the model. The pins are now inserted into the Threaded Couplings and fine adjustments may be made for correct meshing of gears.





For meshing gears vertically reverse the mounting of Threaded Pins and Threaded Couplings.

This method can also be used for final tensioning of a drive belt.

New Part No.64a Short Threaded Coupling may be used instead of Part 63c

MY INITIATION INTO MECCANO

From John Slattery

It all started in 1934 when I received from an Auntie in Dunedin a very small much used collection of parts for my birthday. I managed to get nuts and bolts from a local Meccano dealer at 4 pence a dozen.
Some of the older readers who were around in the thirties know times were tough, money tight. However my father brought me some angle girders and strips and flanged plates. This boosted my building capacity quite some. One birthday my mother brought me some chain and sprockets etc. The buying of parts to any extent was out, improvisation was in. While wandering one day I saw a stack of used hacksaw blades outside a railway workshop, I used these in conjunction with 3" pulleys to build a ferris wheel. I had enough strips to circle the outside rim, around this rim I put 5½" braced girders cut from cardboard and painted green. They had no structural responsibility only a facade. The whole thing was driven by a hand crank as I had no motor.

One day I came into possession of an old alarm clock, I took the gear train out and cut two metal plates to fit each side, these I made to the dimensions from an advertising pamphlet from the Meccano shop, I used the hands spindle as the drive shaft. It worked well on small cars with rubber wheels. The only thing was the spring was not really long enough.

I had a friend who used to come in and say "Lets have a game with the tin and screws". By this time war was upon us, I knew parts would become scarce or non existent so I decided to try making angle girders. I made 24½" and 18½" angle girders from flat iron, this was difficult with only a punch and hand drill. They were crude, but served their purpose. I built the railway breakdown crane once and high speed ship coaler from a No 10 advertising pamphlet., although they were crude they worked, not to today's standard of course. I used to take the odd trip to the dump, I found quite a number of parts there. One Christmas, I asked my family to give me money rather than presents and I brought a mechanised army outfit, 1-10-0 ($3).

The boy next door was also a Meccano fan, he rushed in one day and said they have clockwork motors at the shop, I went straight up and got the last one. By this time I was working so I could now afford parts if available, while in Auckland I bought two No 3 Mechanix (NZ built – fairly rough). Another holiday while in Rotorua I bought an electric motor and transformer, this of course enhanced the model building.
One day I had to dump a truck of rubbish from the firm I worked for and when I arrived I saw everything had been bulldozed over the edge, all over the cleared area was scattered the best part of a No 6 outfit, I wasted no time in recovery.
Sometime later I sent over to Bunkers in Hastings and bought a dozen 24½" and a dozen 18½" angle girders, plus 6 x 6" circular plates, four hub discs and 2 circular girders. Another time while in New Plymouth I bought a No 7 set, they had a No 10 set but I couldn't afford it at the time. In 1963 I managed to purchase a No 8 and No 8A sets, this was the last big purchase I made except for a couple of gears outfits.
One day some years later when I was local branch manager for a large firm one of my workers said to me " you have some boys in your family, I have a Meccano set at home I'll bring it in", he did so it was a No 6. That about gives a run down on my Meccano experience, the other day I picked up some Marklin parts for a couple of dollars at a school gala.
That's the build up of my Meccano world, it has been a lot of fun and a little educational.

With this issue you will receive an account for subs for the 2000/01 year. We are now only printing 4 issues per year, due to the lack of material being supplied, however you will get about the same number of pages – less the covers – as before. BUT you will get colour covers. The increased cost of printing the newsletter with colour is covered by the saving on postage, thus we do not have to raise the subs this year, they have been the same for the last three years.

MORE WISDOM OF KEITH CAMERON

From Lloyd Spackman

AUGUST 1988: The new Marklin bolt is an attractive idea and one has to admire their innovative ideas in this and other areas, but I wonder how much it will cost. Ordinary bolts are not cheap and I imagine these new ones are probably at least twice the price of the ordinary ones. I think I'll go on using my true and tried ones and spend the money I save on something else. Something else? Yes, I have a new 4" gear wheel and 5½" toothed circular strip, both from Argentine, both beautifully made of course, and nickel plated. The latter should be excellent for the final drive to the rear wheels of a large tractor or road locomotive.

DECEMBER 1988: Hobbies flourish, Mura working away at her weaving and I am finding that computers and Meccano do still mix – building a machine that plays a mean game of Noughts and Crosses. The Super Meccanograph from Holland has been rebuilt and learning LOGO language has become a major pursuit.

APRIL 1989: I'm naturally proud to have my (modified) penguins appear on another Meccano cover. Those Penguins certainly seem ubiquitous! And a bit pesky too. Funnily enough I never had any trouble with the chain (drive) but I can see how it might be a nuisance and the alternative solutions described by you and Mike certainly have a neater appearance. I like yours for it's simplicity and I wonder whether the backlash of all Mike's gears (11 intermediate stages) might prove a problem. Evidently not otherwise he'd have mentioned it. But when you have what is essentially a type of locomotive connecting rod (the moving stair) you require rather positive action at the two points during rotation where the connecting rod falls across the diagonals. I would mention that I have just received from Jack Partridge some pictures of outstandingly beautiful Lego models at a Lego art exhibition at Bradford. Meccano needs to learn marketing techniques from it's extremely enterprising competitors who exploit every chance of promoting their product in every possible way and angle and in all places.

Now both Marklin and Meccano seem to agree that the same something needs to be done about those nuts and bolts, ie. Change the slot to a hexagon head. This seems a desperate last fight against the arch enemy (Lego – not the slots) Marklin chooses to have the best of both worlds and their new bolt has a slot and a hex. But do either of these bolts change anything? I very much doubt it. If you can't be bothered to bolt a model together you are a sorry specimen! And the type of bolthead is not going to alter your attitude much. Once you've succumbed to the fatal enhancement of little plastic blocks and their snap, crackle and pop, you have left engineering altogether.

NOVEMBER 1989: The Super Meccanograph from Holland is still around and I can't bear the thought of dismantling it. Jack Partridge's Conical Pendulum Clock graces our living room, keeps accurate time in total silence, and will act as our Christmas tree. In May we went to Fort Lauderdale. It's a different world over there on the east coast of Florida where millionaires are a dime a dozen. It's always a bit strange to get back down to earth in plain old Spring Hill! But even this place is growing fast and the roads are being widened and we now have plenty of traffic lights and lots of traffic accidents and emergency rooms so we must be getting civilised at last.

Did you notice that Meccano sets were shown in the Toyworld Christmas catalogue last year?

They priced and illustrated the single model sets, 5 model sets, 10 model and 20 model sets.

Also Dick Smith Electronics had Evolution 3 sets for $49 in their catalogue, although the Dick Smith shop in Lower Hutt had Evolution 2 sets for $25 and Evolution 3 sets for $35. They had a large stack of sets as you walked in the door.

AN ENGINEER'S APPROACH TO THE SANTA CLAUS ENIGMA

From Paolo Caravanni
Reprinted from WLMS Newsletter No 61

For those of you who expected to receive a Meccano No 10 set last Christmas from Santa, I am sorry you were disappointed but I received the following information and felt that I should share it with you. Anyway I wish you all the best for you and your families.

1. There are approximately two billion children (persons under 18) in the world. However since Santa does not visit children of Muslim, Hindu, Jewish or Buddhist religions, this reduces the workload for Christmas night to 15% of the total, or 378 million (according to the Population Reference Bureau) At an average (census) rate of 3.5 children per household, that comes to 108 million homes, presuming that there is at least one good child in each.
2. Santa has about 31 hours of Christmas to work with, thanks to the different time zones and the rotation of the earth, assuming he travels east to west (which seems logical). This works out to 967.7 visits per second. This is to say that for each Christian household with a good child, Santa has around 1/1000 th of a second to park the sleigh, hop out, jump down the chimney, fill the stockings, distribute the remaining presents under the tree, eat whatever snacks have been left for him, get back up the chimney, jump into the sleigh and get to the next house.

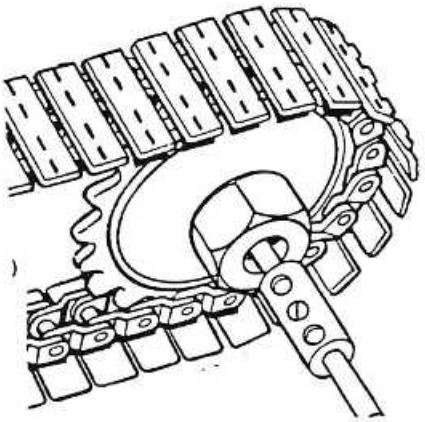
   Assuming that each of these 108 million stops is evenly distributed round the earth (which, of course, we know to be false, but will accept for the purpose of our calculations), we are now talking about 0.78 miles per household; a total trip of 75.5 million miles, not counting bathroom stops or breaks. This means that Santa's sleigh is moving at 650 miles per second – 3000 times the speed of sound. For purposes of comparison, the fastest man made vehicle, the Ulysses space probe, moves at a poky 27.4 miles per second, and a conventional reindeer can run (at best) 15 miles per hour.
3: The payload of the sleigh adds another interesting element. Assuming that each child gets nothing more than a medium sized Lego set (two pounds) the sleigh is carrying over 500 thousand tons, not counting Santa himself. On land, a conventional reindeer can pull no more than 300 pounds. Even granting that the "flying" reindeer could pull ten times the normal amount, the job can't be done with eight or nine of them – Santa would need 360,000 of them. This increases the payload, not counting the weight of the sleigh, another 54000 tons, or roughly seven times the weight of the Queen Elizabeth (the ship, not the monarch). As any half decent Meccano set weighs in rather heavier than this you can see we are not exaggerating.
4: 600.000 tons travelling at 650 miles per second creates enormous air resistance – this would heat up the reindeer in the same fashion as spacecraft re-entering the earth's atmosphere. The lead pair of reindeer would absorb 14.3 quintillion joules of energy per second each. In short, they would burst into flames almost instantaneously, exposing the reindeer behind them and creating deafening sonic booms in their wake. The entire reindeer team would be vaporised within 4.26 thousandths of a second, or right about the time Santa reached the fifth house on his trip. Not that it matters, however, since Santa, as a result of accelerating from a dead stop to 650 miles per second in 0.001 seconds, would be subjected to acceleration forces of 17,500 g's. A 250 pound Santa (which seems ludicrously slim) would be pinned to the back of the sleigh by 4,315,015 pounds of force, instantly crushing his bones and organs and reducing him to a quivering blob of pink goo.

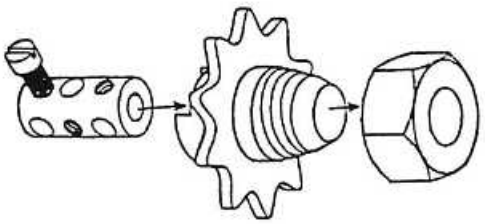
5. **THEREFORE IF SANTA DID EXIST, HE'S DEAD NOW!!**

THE B.G. AND MWT TRACTOR

From Lloyd Spackman

Like many others I have built Bruce Geange's tractor from NZFMM magazine, August 1999 issue.
This drawing puzzled me. It shows a coupling with a bolt to be inserted in the plastic sprocket and locked with the collet nut. No way are standard couplings long enough. Would you use long couplings P/No 63F?
My solution is shown in the second drawing. Lock the coupling with a 3 mm grub screw. Then push sprocket and nut over the coupling, tightening the nut to clamp the sprocket on to the coupling.
Now, have I missed something, or was the drawing incorrect? (Drawing supplied by RBN)ed.





George Ovenden, who also built the tractor, says he used a non – Meccano pulley (smaller than ½") to drive from the motor to a 1½" pulley. I didn't try it as I had track support rollers where the 1½" pulley would have gone. With a 4 AA battery pack my tractor ran too fast. I found a 2 battery pack was adequate to drive it slowly.

Bits and Pieces.

An American investment banker was at the pier of a coastal village in Mexico when a small boat with just 1 fisherman docked. Inside the boat were several large Tuna. The American congratulated the Mexican on the quality of the fish and asked how long it took to catch them. "Only a little while" the Mexican replied

"Why then, didn't you stay out longer and catch more fish" asked the American.

"I have enough to support my family's immediate needs"

"But what do you do with the rest of your tim" asked the American.

"I sleep late, fish a little, play with the children, take a siesta with my wife Maria, stroll into the village each evening where I sip wine and play my guitar with my amigos. I have a full and busy life"

"Well I have a Harvard MBA and could help you" said the American. "You should spend more time fishing and with the proceeds buy a bigger boat and with the proceeds from that you could buy several boats. Then instead of selling your catch to the middleman you could sell directly to the processor and eventually open your own cannery. You would control the distribution and need to leave this village and move to Mexico City, then LA, where you would run your expanding enterprise"

"But how long would all this take" asked the Mexican

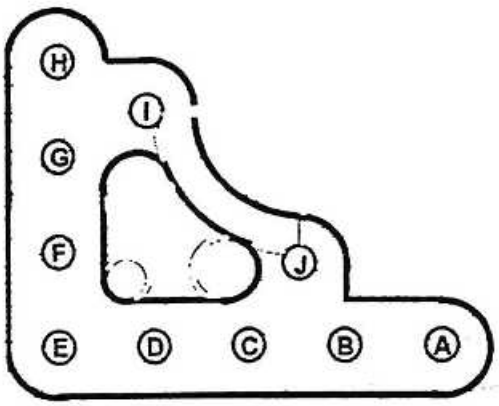
"About 15 – 20 years, but then when the time is right you would sell your company stock to the public and become rich – you would make millions"

"Millions? - then what"

"Then you would retire, and move to a small fishing village where you would sleep late, fish a little, play with your kids, take a siesta with your wife, stroll into the village in the evenings where you could sip wine and play your guitar with your amigos"

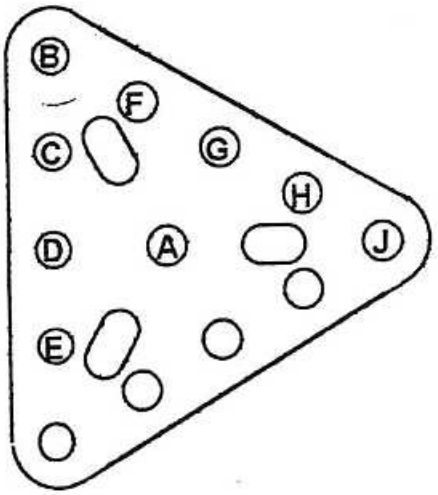
MECCANO GEARING
MESHING AT NON – STANDARD SPACINGS

From Graeme O'Neill



GEAR MESHING BETWEEN POINTS

Points	or	teeth	gears that mesh
I –A		150	38/112, 56/95, 75/75
I – B	J – H	125	30/95, 50/75
I – C	J – G	105	10/95, 30/75, 45/60, 50/55
I – D	J – F	95	20/75, 30/65, 38/57, 45/50
I – E	J – E	100	38/60, 40/60, 45/55, 50/55
I – F	J –D	67	12/55, 13/55, 15/50, 22/45, 30/38
I – G	J – C	86	STANDARD ½" PITCH
I – J		86	10/75, 20/66, 25/60, 30/56, 38/50



A –C	A – E	57	19/38, 25/33
A – D	A – G	44	11/33, 19/25, 15/30
A – B	A – J	87	25/60, 30/57, 38/50
C – F	B – C	38	STANDARD ½" PITCH
C – G	D – F	67	12/55, 13/55, 15/50, 22/40
C – H	D – H	100	33/66, 38/60, 45/55, 50/50
C – J	E – J	135	40/95
D – G	B – D	76	STANDARD 1" PITCH
D – J		133	38/95
E – H	B – E	114	STANDARD 1½" PITCH
B – J		152	STANDARD 2" PITCH

A Thank You

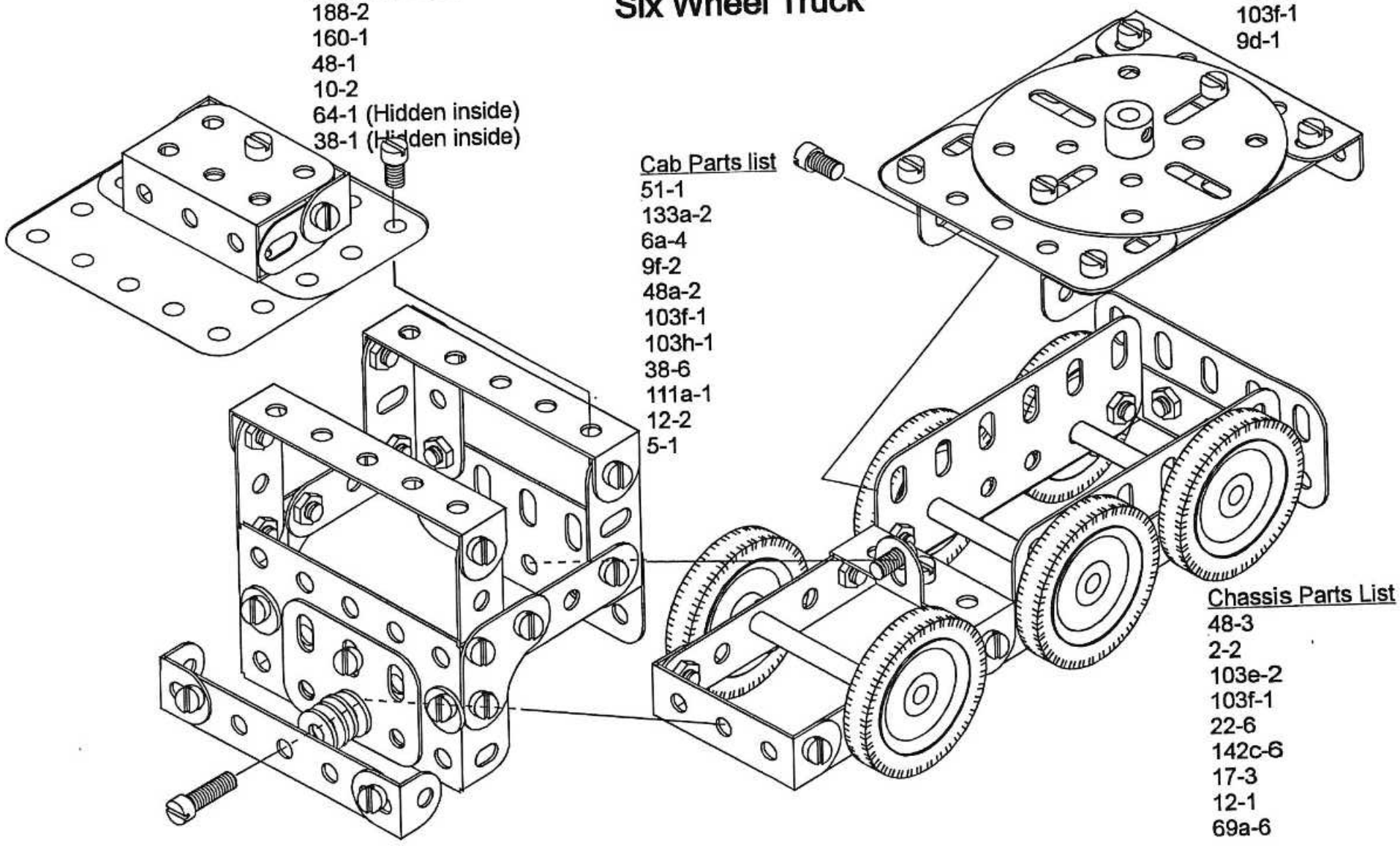
This is to record the generosity of Wayne Blakely Meccano who donated boxed Meccano sets as the prizes of the Model Building Section at the 116th Summer Show of the Hawera Agricultural and Pastoral Association November 1999.

MWT Meccano Club through Daryl Anderson has supported this display for a number of years to preserve a piece of history as this A & P Show is the old fashioned style and includes sections for models, home baking, garden produce, flowers, knitting, etc. and when the previous Model Building Section sponsor pulled out, Wayne came to the rescue.

The delicious little sting in the tail is that one of eight classes in this section is for L*g* so we have infiltrated one home with a superior product.

Thank you Wayne.

Six Wheel Truck



Roof Parts list
188-2
160-1
48-1
10-2
64-1 (Hidden inside)
38-1 (Hidden inside)

Cab Parts list
51-1
133a-2
6a-4
9f-2
48a-2
103f-1
103h-1
38-6
111a-1
12-2
5-1

Deck Parts list
9c-2
109-1
103f-1
9d-1

Chassis Parts List
48-3
2-2
103e-2
103f-1
22-6
142c-6
17-3
12-1
69a-6

BITS AND PIECES

From Lloyd Spackman

QUOTATION; "A meccano set, that well known route into model building, was an early Christmas present. Starting with simple windmills I moved up to complex cranes and other items of mechanical handling equipment when I got the No 9 and 9A outfits." Anthony Watson, Assistant editor of "Model Engineer" 16/7/99

IMPORTANT SURVEY INFORMATION; From a Y2K readiness Commission public opinion survey – "Of those who received our fridge magnet, 70% have placed it on the fridge. NZ Infotech Weekly.

TAKE YOUR MECCANO ON HOLIDAY; At the Much Markle Steam Rally held in Herefordshire, in England, one of the exhibitors was 14 year old Henry Phillip from Blairgowrie in Scotland. He showed a large gantry crane which took him 6 – 7 months to build. Henry and his father were on holiday and had brought the model with them. Model Engineer, 18/6/99

KIDS SPEAK; "Water is composed of two gins, Oxygin and Hydrogin. Oxygin is pure gin. Hydrogin is gin and water." From TMG Newsletter

NEWS OF OUR WES;; For the winter meeting of the SCM&E club held at Palo Alto, California, Mr and Mrs Dalefield flew in from Kansas. Wes displayed his miniaturised gearbox for the small scale version he is building of the meccano Giant Walking Dragline. SCM&E Newsletter 1st Qtr 1999

PART CHANGE; P/No 321, Multikit small steering wheel, used to be 41 mm (1 5/8") diameter. It is now 46 mm (1 7/8") dia. TMG Newsletter

WHO STOLE THEM? ; Wellington City Library has, among it's Meccano literature, a copy of the New Cavindish Vol 7 "The Meccano Magazine, 1916 – 1981". Unfortunately pages 113 to 132 have been torn out and stolen. They contained photos of the front cover pages of the first 27 copies of the MM, 1916 – 1922. I'm ashamed to say that the only person with an interest in Meccano – a modeller or a collector – would have carried out this vandalism. If whoever it was reads this, what about taking your photocopies and returning the missing pages to me, anonymously? I will see that they are safely returned to the library.

QUOTATION; Peter Johnstone thinks of Wellington's Westpac Trust Stadium as a huge concrete Meccano set. The reason is simple. As the engineer responsible for the structural building of the stadium, fitting together the various pieces was a big challenge. All the hard work is now behind him. Looking over the results at the site, he mused over the role of the engineering profession. "The engineers work gets covered up. The architect makes things look pretty but we have to make it stand up". Paul Moran in the Dominion 16/12/99

SOUTH CHINA MORNING POST INTERVIEW; This Hong Kong newspaper features an interview each week. One, early last year, was with Arthus Gomes, MBE, who was captured and held in a Japanese POW camp from 1941 to 1945. Asked by the interviewer when he had been happiest, Mr Gomes said it was the day in August, 1945, when weeping he saw the British flag "going up like a ball and bursting out in all it's glory on the mast in the camp". Mr Gomes sat in silence for a while thinking. Then unprompted he said "I was very happy one day when I was about eight years old, when my grandfather took me to a shop and told me to choose anything I wanted. I chose a Meccano set. Those were my happiest days as a child and as a man".
Thanks to Mike Stuart for this item. If anyone would like to read the full interview, please contact me.

LEADERSHIP BY EXAMPLE; A young executive was about to go home when he found the CEO standing in front of the shredder with a piece of paper in his hand. "This is a very sensitive and important document and my secretary has left," said the CEO. "Can you work this thing?" "Certainly" said the young man. He switched on the machine,

CHRISTCHURCH MECCANO CLUB

From Ian Torrens

It was a cool and wet evening for the November 1999 meeting of the Christchurch Meccano Club, at which twelve members were present and brought with them eleven models. Eight in Meccano and three in K Nex.

John Hamlyn came along with his windmill which operated well , pistons pumping away in great style and the sails rotating at a brisk pace.

Graeme O'Neil brought **Kingsley's** garden setting model which has many Meccano flowers, hedges and statues etc. A fine and interesting model.

Ian Torrens displayed his beam engine which looked well as the beam rocked up and down. He also had a racing car that looked good in yellow flexible plates.

Dave Lang and Dannell Sampson showed us the three K Nex models, Dave having an alien spider with a man riding on it's back. He also had a man winding two 6" wheels with great gusto. This unit was powered by two solar cells using a lamp as the power source.

Dannell Sampson presented a neat land yacht modeled from KNex which looked very good indeed.

Dave and Dannell, as our new kitchen staff made a good job of preparing supper at 2130 hrs after which the meeting concluded.

In the afternoon of 23 October 1999, members of the Christchurch Meccano Club gathered at Ferrymead Historic Park (Heathcote, Christchurch) to set up the Labour Weekend Meccano display. This was held in the Hall of Wheels and was upstairs on a Mezzanine floor, 16' wide. A good number of members turned up and with much huffing and puffing, many cases, cartons and armsful of models were carried upstairs and by 1600 hrs the area was resembling quite a good display.

In attendance at the display were Graeme O'Neil, Cameron McFarlane, Alex Julius, John Hamlyn and Ian Torrens. There was a constant flow of about 10 people viewing almost all the time, so quite a large number of people viewed the 75' length of our display.

On show were 28 metal Meccano models, 6 plastic Meccano models, 25 empty Meccano cartons of various sizes Meccano sets and 20 K Nex models, in all 54 models were shown. These were; a tram, grandfather clock, hammer head crane, locomotive, beam engine, pile driver, naval frigate, tow truck, Harley Davidson motorcycle, articulated lorry, dragster, lifting bridge, south facing chariot, garden setting model, gondola, racing car, 2x windmills, 2x ferris wheels, railway engine, 2x double decker buses, fire truck, Meccano man, chair o plane, round about, plus 15 small models in K Nex.

Altogether a very presentable display. Clean up time was 1600 hrs on the 25th October after which we attended a BBQ put on by Ferrymead officials which was most welcomely received. Thus ended a very pleasant and interesting Labour weekend display.

Bits and Pieces, from P 15

inserted the paper and pressed the start button. "Excellent", said the CEO as his paper disappeared inside the machine. "I just need one copy".
From Mainline and Contact.

CONFUSION?;

Passengers at London's Heathrow Airport were confronted by a sign which said "PA system out of service. Please listen for announcements"

In Switzerland three official languages are very much in evidence, with most foodstuffs being labelled in all three. Each carton of milk. For instance, has on it "Milch lait latte". Unfortunately, in the local German dialect this means "Milk lays you flat"

. Thanks to George Ovenden for this confusion.

WELLINGTON MECCANO CLUB

From Bryan Jones

The meeting held on 11th October was attended by 11 members, and we welcomed two visitors: John Ince and Andrew Walbran. Also welcomed was Lloyd Spackman, attending the first meeting since his move from Auckland.

The following items were displayed:
John Ince had a delightful collection of small models labelled "The Kennel Club", cleverly capturing the appearances of four dogs: dachshund, german shepherd, fox terrier with pups, and shaggy dog.

Bryan Jones brought along a selection of recent magazines from the club library, being the copies of overseas club magazines received by the editor of our own magazine.

Simon Moody showed the calendars which he has produced as a fundraising venture for our Convention. The calendars had 18 months of pages, and came with a choice of six header pages, which were photos of manual covers.

Lou Nichols brought an interesting model of a kinetograph, which was an early form of "moving pictures". While winding a crank handle to rotate a drum, one looked into a viewer to see through slots in the side of the drum to see a succession of pictures depicting a galloping horse.

Brian Peterson produced the first models for his railway diorama. These were an 0-6-0 tank loco and a high-sider four wheeled wagon, built to run on O gauge track. The models were set up in a display which included a signal mast with semaphore signal, one of the Hornby accessories.

Paul Roberts had Version 1.0 of his AutoCAD-based Meccano part software on CD-ROM on display. It also had a very good manual included, and both items were finished to a high standard. Paul was ready to release the software on the market, but was awaiting copyright release from Meccano S.A.

Lloyd Spackman displayed the North Midlands Meccano Guild Magazine mascot- a seated figure made mainly of polished brass parts, the construction details for which were reproduced on the back cover of the April NZFMM Magazine. He had finished it by attaching it to a varnished wooden base.

Andrew Walbran brought along his collection of five monsters. These were alien figures of individual design and colour, which showed some unusual uses for a variety of parts.

Further discussion was held on ideas in preparation for the 2001 Convention. Colin Croft showed some designs he had produced for a badge and for colour and black-and-white posters. Simon Moody advertised his calendars (the details appeared in the November magazine), and Brian Peterson reported that the Hornby Trains club had been contacted and had shown interest in taking part. John Ince reported that he had received a letter from Michael Adler (founder of the International Society of Meccanomen) saying that he was intending to visit New Zealand, and suggested that he should receive an official invitation to attend the Convention.

Ten members attended the meeting held on December 3rd. A small collection of models were on display this month:

Mike Highley showed his Electric Truck, of a design similar to a baggage handling truck or a milk float.

Brian Peterson returned with his railway diorama, now increased to three wagons for the locomotive to pull, and the lineside accessories also included a platform crane.

Lloyd Spackman brought two models; a very nice small blocksetting crane, and the Motion System Set No 1513 "Crazy Machine", with its purple plastic parts (reviewed in the November NZFMM magazine).

Simon Moody reported on the confirmation of space requirements for the 2001 Convention requested by members of the MWT club, and of an offer of assistance with advertising through Paul Lambert of the Upper Hutt Information Centre.

The end of year dinner had been booked at the Old Flame Restaurant at Petone, and was held on 12th December.

Next meeting: Friday 4th February, St. Lukes, Wadestown.

MECCANO - 100 YEARS YOUNG IN 2001 - A LIFETIME HOBBY

For those of you still thinking; Simon Moody has a few of the WMC calendars for sale.

The cost: $17.00 each

AUCKLAND MECCANO CLUB

From David Wall

Meeting held 13th November 1999 at George and Joan Ovenden's 19 Richard Ave Milford

In the absence of Peter Hancock due to an important family commitment I have assumed the temporary role of secretary.
A brief review of the models:-

Andrew Cathie; A Murray's Hypocycloidal Steam Engine which looked splendid in it's all chrome finish

Michael Geary; A compact strip bender and a most interesting model of the Western Viaduct (Auckland) lifting bridge which featured an unusual rack and pinion deck raising mechanism.

John Denton; (a new member) A neatly crafted model of a Morgan three wheeler with a "V" twin engine which he assured me was Matchless.

Frank Price; A motorised snow sled (which I am reliably informed are known as "Skidoos") and a front end loader from the Action Control series.

George Ovenden; A small bulldozer based on a Bruce Geange design, a truck – tractor unit and a nearly completed goods warehouse with electric elevators (SML #!). George also displayed three attractively presented Meccano outfits that he has for sale (2x No 9 and 1x No 10)

David Wall; A Maltese cross intermittent rotary motion mechanism SM-710 as used in cinema projectors.

William Irwin; Presented a most interesting mini lecture on Meccano packaging systems which, unbeknown to most of us involved a complex colour coding system. William also had a selection of boxed spare parts for sale at most reasonable prices.

The WMC "countdown" calenders were offered for sale (six sold). Also John Ince's replica price lists were distributed.

The dates and venues for next year's meetings were confirmed and are as follows:-
February 12th – David Wall
May 13th – Peter Hancock
August 12th – Neil Carey
November 11th – George Ovenden
In each case a Saturday commencing at 2.00pm.

Amongst other matters discussed were;
The future of metal construction systems in the light of the massive staff layoffs by Meccano France and the cessation of Marklin Metal production. Perhaps confirmation that the electronic age has finally usurped the mechanical age.

Poor service from MW Models, this topic was raised by John Ince and confirmed by several Auckland members who have had similar experiences recently.
The whereabouts of the October issue of our Magazine, this has since been resolved.
Our newly appointed treasurer, Graham Wrightson, presented us with a more profitable investment opportunity for our club funds which was accepted.
Finally high praise indeed for our hostess who provided a sumptuous repast which was greatly appreciated by all. Thank you George and Joan for your hospitality.
Compliments of the season to you all and I hope that the Y2K Bug will be merciful.

MWT

From Bruce Neilson

President - John Hansen, 131 Camp Rd, RD 4, Linton, Palmerston North. (06) 325 8211
Sec/Treasurer - Bruce Neilson, PO Box 1009, Palmerston North. (06) 355 0776
Meetings - First Saturday in each quarter i.e. 12/2/2000, 6/5/2000, 5/8/2000.

Meeting report for Saturday 6th November 1999.
Meeting model - an animal.
Members gathered at Wanganui and presented the following:-

Viv Alexander. A 1963 Ezybilt No 2 set which is about equivalent to a Meccano No 1 set and therefore pretty restrictive.

Daryl Anderson. A prototype forklift able to lift loads up to 13 feet.
A 3 speed Meccano parts tumbler able to take parts up to 18½". The tumbler container was a plastic concrete mixer bowl.
Animal - a small snake using P/N 94 sprocket chain and a black tomcat.

Bert Blakely. A partly completed SML 4 blocksetter. Although the model is driven using one motor, Bert has decided to use two.
Animal - a small elephant and horse.

Wayne Blakely. The MM acrobatic monkey.

Tony Ercolano. A partly completed chassis of a DAF 3000 truck. Tony is moving to Melbourne shortly and will complete the project there.

Bruce Geange. A small dachshund using several pawls and a two horse and cart driven by a magic motor.

John Hansen. A collection series giraffe and a fairground roundabout.

John Ince. His grandson's dragster built from a 4036 set.
Meccano postcards which can be purchased in the shop at Te Papa.

Animal - A menagerie consisting of a kangaroo, giraffe, butterfly and dogs.

Bruce Neilson. A beam engine driven by a David Auld steam engine.
A 1972 MM steam driven large blocksetter which has been a long term project. (Photo)
A CQ baby blocksetter manually driven.
Animal - A North Midlands Newsmag climbing monkey using a MR long motor.

Bob Prescott. Wright brother's Flyer 3 aircraft which was the first practical aircraft capable of fully controlled flight.
Animal - A Konkoly centipede which walked slowly with a limp!

Robin Rye. An army multikit truck crane with loading ramp, tipping body and winch.

Alistair Tong. A 1970s No 10 leaflet No 3 coal tippler which was almost complete using restored parts.
Animal - An owl sitting on a branch .(Photo)

Paul Vodanovich. The 1950s 9.16 Blackpool Tower using a clockwork motor.
A 5.16 Military tank and a car and caravan. (Photo)

Lou Nichols. The 3.50 Kinetograph designed to display animal animation, but unfortunately due to some design fault did not do so!

The next quarterly meeting to be held on the 12 February 2000 will be a journey to Marton and Feilding visiting the Blakely, Morton and Prescott Meccano kingdoms.

THE TOOLS ON MY MODELLING TABLE
SCREWDRIVERS

From Bruce Neilson

Screwdrivers come in a variety of flavours for the Meccano modeller. I counted six different types on my table which are in regular use during model building.

(1)The most used (and favourite) is an old mechanics screwdriver with a round fluted plastic 20mm (¾") diameter and 75mm (3") long handle. I find that for long periods of work there is sufficient bulk in the handle to minimise cramp and the smooth finish allows palm and thumb to slide comfortably as the blade is rotated. The handle is coloured a distinctive yellow and red which helps me find it amongst the clutter on my table. The blade is only 90mm (3½") long but I find that the short length minimises the wobble when trying to line up the blade with the slot of a cheese head bolt. The tip is 5mm (6/32") wide which utilises the full width of 6mm (7/32") of the slot in a normal cheese head bolt. The thickness of the tip of the blade has been ground down to an even 1mm (less than 1/32") to get the tip completely into a slotted grub screw which has a 1/32" deep and 1/32" wide slot. This allows the threading and tightening of 90% of grub screws without a change of screwdriver. The tip is also hardened so that maximum pressure can be applied without the tip deforming. This screwdriver weighs in at 40 grams (1½ oz). Don't laugh, that weight has to be manipulated for extended periods of time and as trampers know, every gram counts.

(2)The displaced favourite screwdriver was the real Meccano one with the wooden handle (DMS 1829). It has a round wooden 22mm (7/8") diameter and 92mm (3 5/8") long handle. The blade is 92mm (3 5/8") long. The tip is 4mm (5/32") wide being the same diameter of the shaft of the screwdriver and surprise , surprise , slightly less than the diameter of a Meccano hole. The thickness of the tip of the blade is a tight fit into a standard bolt and only partly gets into a slotted grub screw slot. I retired this screwdriver when the shaft started to rotate in the handle when pressure was applied and the brass ferrule became loose. I think old age has caught up with it but I still need it for those times when a bolt head is only accessible through and behind a Meccano hole and I need to get the full length of the shaft through the hole. The tip is hardened. This screwdriver weighs in at 30 grams (1oz).

(3)For those times when I need an extra long screwdriver for difficult positions, I have a chain saw file (available from The Warehouse for about NZ$8) mounted in a wooden handle. This answer to a Meccanoman's prayer is 5/32" diameter which means it can be fed through Meccano holes and is 185mm (7¼") long. The tip has been ground to comfortably fit into a grub screw slot. Being a file , this tool has a dual purpose to open out those tight Meccano holes and help get axles to revolve freely.

(4)At the other end of the spectrum I have a little screwdriver (actually I bought 20 at a closing down sale) whose only purpose in life is to tighten 69c, the 7/64" grub screw. The important part here is the blade tip which is only 3mm (7/64") wide allowing it to get down inside the thread hole to fully tighten the short grub screw.

(5)This is a gripping screwdriver designed to grip the slot of a cheese head bolt so that the bolt can be held at any angle without falling off.. This particular screw driver consists of two thin crossed blades enclosed in a sliding sleeve. When the sleeve is slid forward , the blades are forced together , become fatter and jam themselves into the slot of the bolt. The screwdriver is only used to get the bolt in position and the first turn of the nut. After that a normal screwdriver is used to fully wind on the nut and apply pressure for a tight finish. The blade length is

135mm (5½").

(6)Is a mini version of (5) able to deal to grub screws. The blade length is 55mm (2 1/8").

A literature search brings out the following additional suggestions on the use of screwdrivers:-

(1)Bert Love's book "Meccano Constructors Guide" - A clean square end which is a snug fit into the slot of the bolt and never sharpen the blade to a cutting edge.

(2)Alan Partridge's booklet "The Techniques of Meccano" - An insulation sleeved electrical screwdriver makes a good long screwdriver after the sleeve has been removed. If the shaft is only 1/8" diameter, this will pass obliquely through other parts. The bent rod type Meccano screwdrivers can be

a) cut to a ½" long shaft for tight places
b) Grind the tip down to a drift point
c) Bend the shaft to 15 or 30 degrees to get around corners

(3)Lloyd Spackman in NZFMMM 8/1988 "To magnetise a screwdriver , rub it with a magnet on the blade in one direction only".

(4)P.G.Rodway in MJ13 suggests an extra long screw driver from a series of 11½" Meccano axles connected by couplings, a handle from coupling and small axle rods, and a tip filed into the end of the axle rod.

(5)Lloyd Spackman in NZFMMM 10/1990 - Cordless rechargeable screwdrivers particularly useful when dismantling large models.

(6)Charles Hatfield in SMG 13 - A 6" length of brass tube into which a bolt head will just fit. A thin bit of thin steel has been tightly inserted into a saw cut in the end and this engages with the slot in the bolt head.

(7)R. Le Rolland MJ 36 - A rubber / plastic sleeve over the tip of the screwdriver holds a bolt head in place.

So, have a look at your old screwdriver and consider if you are putting up with an inferior product.

(To be continued)

NOT ALL IS LOST

Great concern has been expressed recently about the future of Meccano in the hands of it's new owners. They took over a firm that had suffered a down turn in trade, but this applied specifically to the North American market. Some years ago, in a sensible marketing ploy, Meccano bought the rights to the Erector name, and for some time enjoyed considerable business there as a result. But the large multiples can be fickle in their buying choices, and Meccano found themselves sidelined. However sales elsewhere have held up remarkably well, especially with the latest range of sets. The new owners have great faith in Meccano. They intend to invest in new machinery to improve production efficiency. In the light of loss of the American market, staffing levels have to be adjusted to the requirements of current sales. But, rest assured, the firm is very much alive. We have just received our Christmas quota of sets covering the current range, with no shortages or "to follows". In addition, on the we go to press (this article was Nov 1999) many thousands of pounds of spares will be en route from Calais to us (MW Models).

From MW Models November 1999 Newssheet.

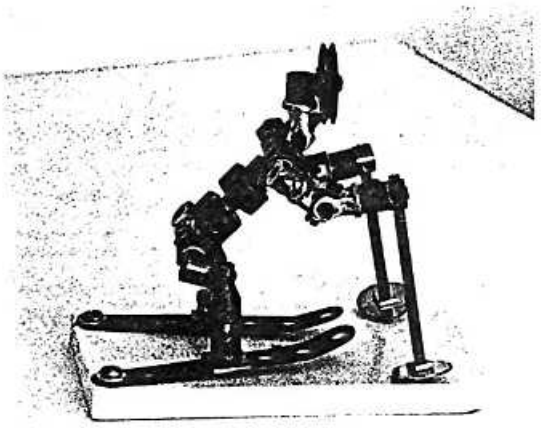
Enthusiasts of Meccano, the venerable metallic construction set, will be saddened to learn that the company has declared "suspension of payments", meaning it is unable to meet it's financial obligations – in a sign that it is in financial difficulty. The trade tribunal at Calais, said yesterday that court ordered recovery proceedings known as "redressment judiciaire" had been ordered. Under the proceedings, a judicial administrator has been nominated to work with management for a six month period. The tribunal said that at the end of this time, options included a further "observation period" for a max of 20 months, a new recovery plan, a sell off and official receivership.

From WLMS December 1999

NMMG MASCOT GOES SKIING

From Lloyd Spackman

I hope Anne Coles won't mind that I have turned the NMMG Newsmag mascot into a skier speeding down the slopes of our Turoa ski – field.
Inspired by the excellent CAD drawing on the back cover of our NZFMM magazine, April 1999, I built the model as in the drawing except for a few extra washers. Then I decided it was a good basis for a model skier. Alterations I made are as follows;



1; Change the face to a P/N 22A held in the boss of a swivel bearing, boss on top. This allows the face to be turned up so that he can see where he is going.

2; Change the support rod to a 2½" one.

3; The body, arms and legs down to the lower coupling remain the same.

4; Instead of fishplate feet the leg rods go into the centre holes of 3½" strips which are slightly bent up at the front tips. These are the skis.

5; Using wood screws, fix the skis by their rear holes to a small wooden base. Mine was 5" x 3", painted white.

6; Take off the fork piece hands.

7; Substitute ½" pieces of rod. On the outer end of each fix a standard collar, grub screw on top.

8; Underneath each collar screw in a 2½" threaded rod. These go down to the base at the appropriate angles into holes drilled for their ends to fit into.

9; About ¼" from the lower end of each ski pole place a ¾" washer held firmly by a nut each side.

10; Make sure your skier is crouching in the proper stance for his downhill journey.

THE CREATION

In the beginning God made the world
Out of a No 83 Meccano set
Which is the biggest Meccano set
In all of the world
Which God made out of it
And which was model No 46.

Then God made Adam, who is model No 98,
In his own likeness
And Adam saw the world and it was good
And Adam said to God,
Who made this world. For it is good
And God said to Adam
It was I who made it
Out of a No 83 Meccano set.
And Adam said to God
Who made the No 83 Meccano set?
And God said to Adam
Meccano Ltd
Binns Road
Liverpool 13.
And Adam gave great thanks to God and said.
But, Lord I am alone.

And God said
Let there be Hornby Trains.
And there were Hornby Trains.,

From Newsmag 85.

Written by: Allen E Baker
The Old Vicarage
Pytchley
NN14 1EP
England

COMMING EVENTS

MEETING ADDRESS;

WMC:
ST LUKES CHURCH HALL
55 PITT STREET
WADESTOWN

MWT:
ST LUKES CHURCH HALL
CORNFOOT ST
WANGANUI

CMC:
ST JOHNS HALL
FERRY ROAD
WOOLSTON

FEBRUARY 2000

4th –WMC – St Lukes hall

4th – CMC – St Johns Hall

12th – MWT – St Lukes Hall

12th – AMC – David Wall's

MARCH 2000

3rd – CMC – St Johns Hall

APRIL 2000

7th – WMC – St Lukes Hall

7th – CMC – St Johns Hall

MAY 2000

5th – WMC – St Lukes Hall

5th – CMC – St Johns Hall

6th – MWT – St Lukes Hall

13th – AMC – Peter Hancock's

REPLICA PARTS SUPPLIERS

SIMON MOODY
BLUE MOUNTAINS ROAD
UPPER HUTT

BRASS PARTS

BRUCE GEANGE
4 WINCHESTER ST
PALMERSTON NORTH

NARROW STRIPS
STRIP PLATES

PETER KING
P.O. BOX 2753
CHRISTCHURCH

HELICAL GEARS

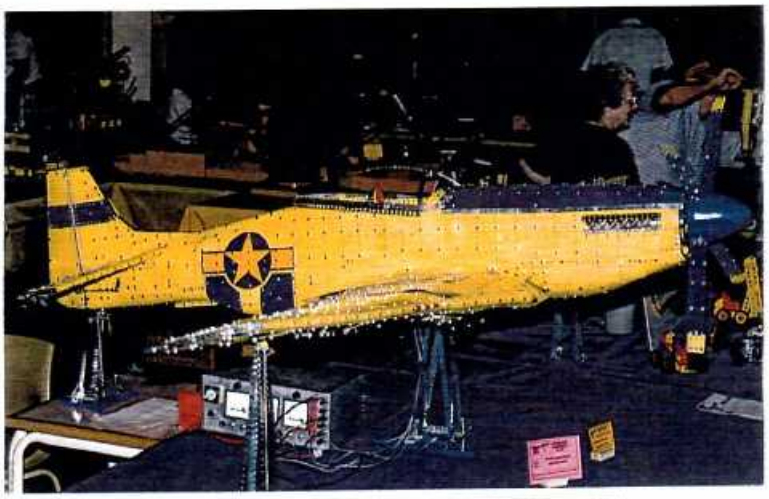
ASHOK BANERJEE
P O BOX 4149
NAVRANGPURA
AHMEDABAD – 380 009
INDIA

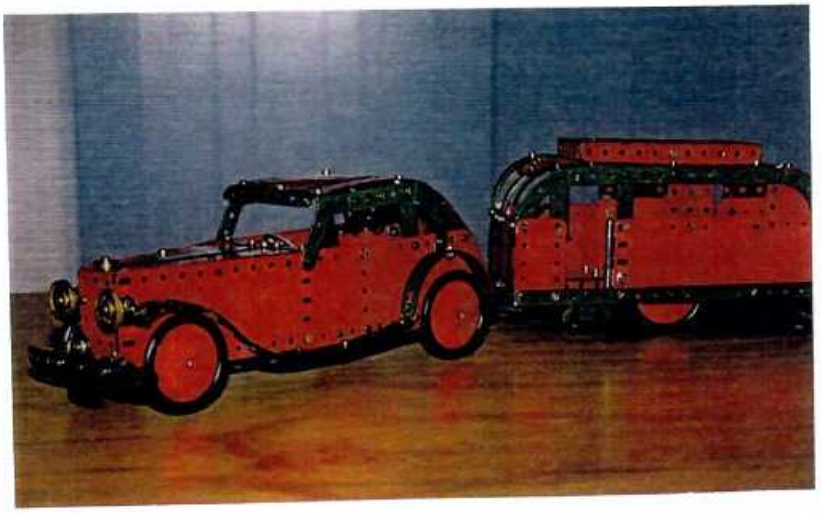
GEARS
BRASS PARTS
PLATES
STRIPS AND GIRDERS

FOR SALE

I have received a letter from Steven Reid of Greymouth who has a selection of Meccano parts of various ages for sale. If you are interested contact him direct at the following address;

Steven Reid
82 Marsden Road
Greymouth






MECCANO