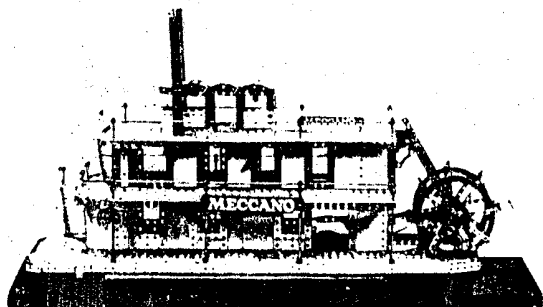


# SMG

# NEWS



CHAIRMAN:  
Charles Hatfield,

TREASURER:  
Stephen Parkin,

SECRETARY/NEWSLETTER ED.:  
Mike Beadman,

JOINT NEWSLETTER ED.:  
Rob Mitchell,

## THE SHEFFIELD MECCANO GUILD

MARCH 1990

No. 29

IN THIS ISSUE we are pleased to give first news of a new hydraulic system intended primarily for use with Meccano.

Polytech Developments of Neepsend, Sheffield, intend to sell the system in a choice of two sets, by direct mail to reduce the cost. Details, such as are available at present, inside!

It is most regrettable that the next two Guild meetings have been found to clash with a major swapmeet and a Hornby Railway Collector's Association meeting. These events were not known of at the Guild A.G.M. last year, and it is recognised that many members, including our dealer friends, will probably attend these events. As Charles explains in his Norton Notes, changing the meeting dates may only lead to further confusion, if indeed it were possible to obtain the hall on other weekends. We extend our apologies to all members who are inconvenienced by this 'clash', and would ask for anyone who has advance information about such events to contact the Guild Secretary.

Also inside: details of a mechanism by Frank Singleton which has been described as a 'single tooth gear'; a Distance Indicator for use on maps, by Rob Mitchell; and, thanks to Jim Gamble, who distributed copies of Atlascraft's 1990 trade brochure to eager Meccanofolk at Oxton, we have news of Meccano's present range of sets, which includes some welcome newcomers.

By the time this Newsletter drops through your letterbox, all arrangements for the Kelham Island Exhibition should be finalised. The media have been appraised of our activities, and all that remains is to say, 'Come along and enjoy yourselves'.

ROB AND MIKE

## NORTON NOTES

On Saturday 27th January, several of us made the trip to Oxton, for the North Midlands Meccano Guild meeting, where we renewed some acquaintances and admired many excellent models.

During the course of the meeting, one SMG member informed me that the date we have booked for our next Norton meeting, April 21st., clashes with an important Swapmeet, which will be attended by Meccano dealers and many enthusiasts.

My first reaction was that we should try to alter our date, although this was not likely to be easy, as Norton Church Hall is of course used for many parish activities, particularly at that time of the year. I conferred with the other committee members, and their opinion was that as the date had been fixed at the A.G.M., it should be adhered to. The North Midlands Meccano Guild officers told us they had a rule whereby they never alter a date that has been booked. We therefore think it wise to keep to the date that was approved at the A.G.M. and has been published - especially as some of our members were confused when we altered the date of our last meeting in October and turned up on the wrong day.

We hope this decision will meet with the approval of our members.

I would like to thank those who expressed good wishes on hearing that I was to have a small operation. The doctors decided that it would not be necessary for me to have a head transplant, much as this was recommended by my nearest and dearest. It was more in the nature of a decarbonising operation, and I am now firing on all cylinders!

Charles Hatfield

## THE TYPEWRITER STRIKES BACK.....

NORTH MIDLANDS MECCANO GUILD members will probably recall Anne Coles' dire warnings about the impending expiry of the Guild's elderly computer. The SMG's Newsletter is produced on two electric typewriters, one belonging to the Mitchell tribe; the other, an elderly 'Golfball' IBM, belonging to the Secretary, recently had a touch of the collywobbles!

Busily typing away one dark and stormy night, without warning the letters appearing in type no longer bore any resemblance to the keys being pressed.....it would have been no surprise if it had printed out 'take me to your leader' or some such. The reason was of course quite ordinary and familiar to a Meccanoman - a drive belt had slipped - but at the time it was well spooky!

It is most encouraging to see Meccano being sold in Woolies, competing on fair and even terms with the 'moulded menace' LEGO in the sense that they are both equally in the public eye after so many years in the wilderness. Perhaps now people may no longer approach Meccanofolk at exhibitions and say 'is it still made?'.

This year, expect to see, as well as the standard Junior and metal Meccano sets, new introductions known as the Construction and Agricultural Series. These are excellent miniatures, two of which are shown here; and a careful scrutiny (screwtiny?) of these illustrations is worthwhile, because some of the parts used are unusual. Note the 1" Girder and Flat Girder, and use of locking Washers! This last feature is particularly worthy in a model aimed at children, who would take exception to their vehicle shaking apart during play. However, at least some of these sets are worth the serious attention of the adult modeller, in my opinion, since the best of the bunch would not look out of place at any exhibition; quite splendid miniatures, indeed; and such a contrast to the Binns Road 'Action Packs'.

'Beginners' Sets (1-4) now come with Allen headed bolts, but it would seem that the larger sets still use dome headed slotted bolts. Likewise, the larger sets still use hex nuts, the smaller sets having square ones. One other development of note is that, although the Atlascraft brochure shows Motors MO and MR available in sets only, with battery boxes and gears, MW Models list these motors as being available without the 'tranklements'.

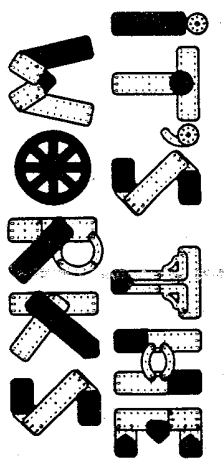
The Ten-set soldiers on, although at a thousand pounds it must surely be considered as something of a dinosaur....although again: MW list a 10. Set without cabinet for about £810.

Although most British modellers must surely wish Meccano were still made in it's home country, the French do seem to be serious about their product. If no earth-shattering improvements are being produced, progress is being made with the Construction and Agricultural Series.

OF INTEREST IN THE HOBBY'S ANNUAL.....

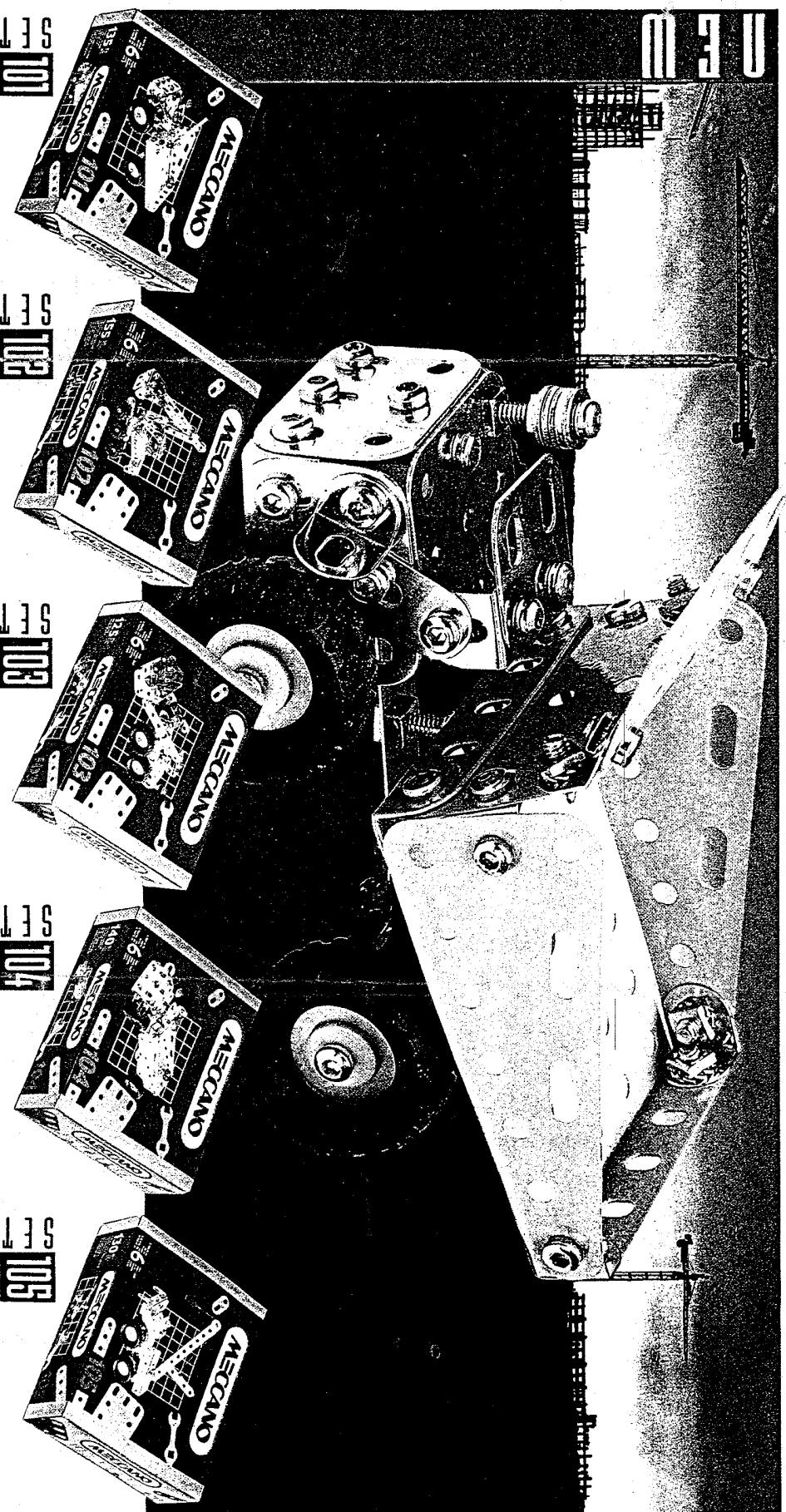
HOBBY'S Annual 1990 (available from most model shops) has, among it's usual mixture of the useful and the just plain tacky, several items of interest to Meccano modellers. In among the doll's house fittings are some useful electrical bits; flex connectors as supplied with the Electronic set; a 3 volt flashing bulb; and bulb paint in four colours. Page 69 has got Meccano on it! Although it does not admit to this, the Sprocket Chain and wheels even retain their original Meccano Parts numbers, as do the axles. Prices for Meccano in mufti are high, though- £4.25 for a metre of Sprocket Chain.

Your attention is also drawn to the Transparent Laquer for Metal on p.122. This sounds like a possible alternative to re-painting Meccano, and at £1.35 for a 4oz. jar is cheap enough to experiment with. Watch this space for a product report.



1990 sees the continuous evolution of the Meccano System with the introduction of a new range of metal sets. As an alternative introduction to metal Meccano, the Construction and Agricultural Series use standard parts. For children six years and upwards simple step by step pictorial illustrations enable the builder to construct these simple models and then use them in

# CONSTRUCTION



ST 101

**DUMP TRUCK**  
135 parts make this tipping model.  
Model Size L. 5 1/2" x H. 3" x W. 3"

ST 102

**MECHANICAL DIGGER**  
There are 155 parts in this set. Digger swivels and the jib moves fore and aft.  
Model Size L. 3" x H. 3" x W. 3"  
Jib Length 9"

ST 103

**BULLDOZER**  
125 parts enables this wheeled bulldozer to move around your imaginary building site.  
Model Size L. 5 1/2" x H. 2 1/2" x W. 3"

ST 104

**MOTOR SCRAPER**  
140 parts in this heavy machine.  
Model Size L. 7 1/2" x H. 2" x W. 3"

ST 105

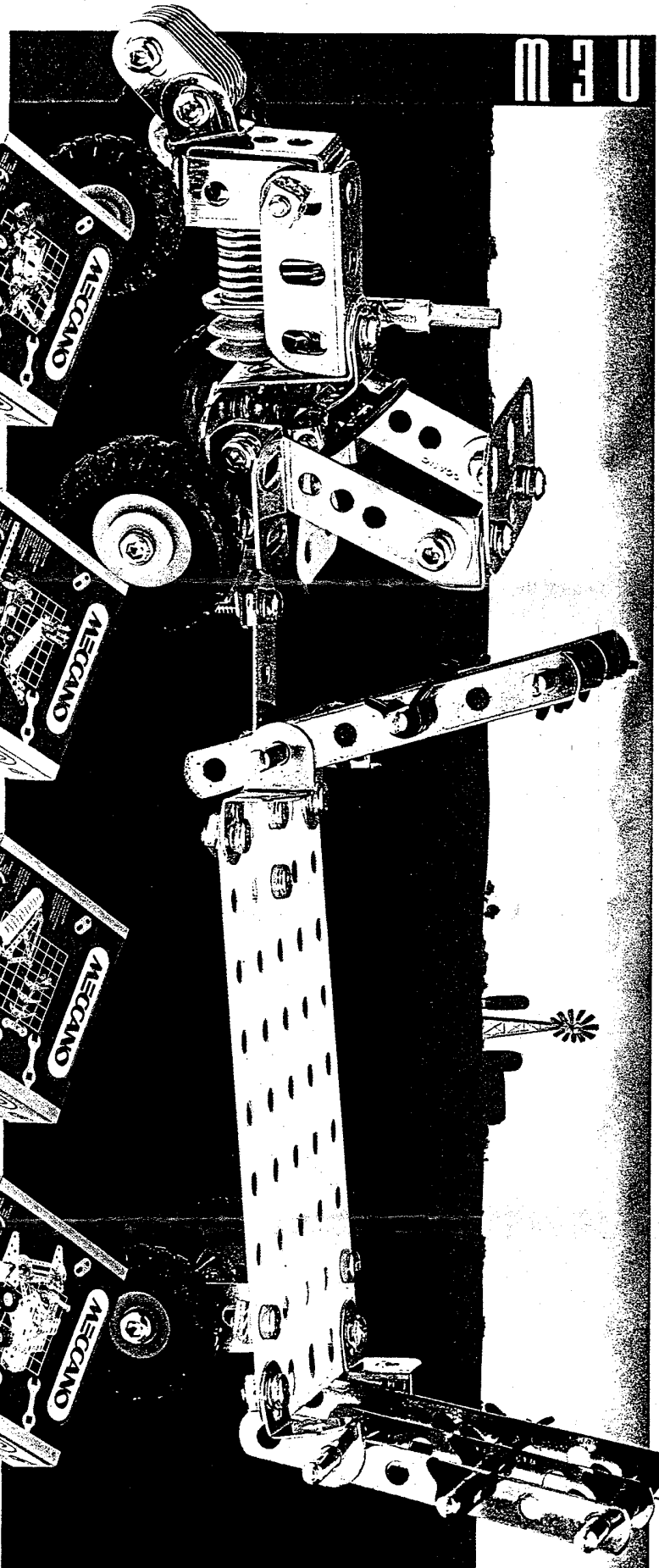
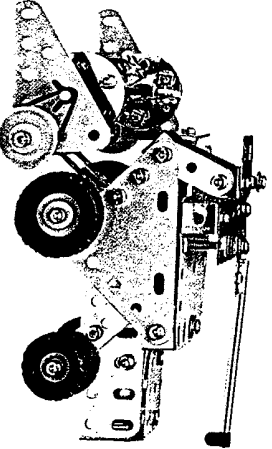
**LORRY MOUNTED CRANE**  
130 pieces can make this working crane with moving jib.  
Model Size L. 5" x H. 3" x W. 3"

SERIES

All sets build the model depicted on the pack. All sets include the allen key system (see page 8). No batteries required. All Dimensions are approximate.

traditional play - whether it be the imaginary quarry, building site or farm.

There are nine different models comprising five construction vehicles and four agricultural vehicles or group of implements. A great range to collect, a great range to play with - and a great range to learn the Meccano construction system along the way.



**ST 201**

**TRACTOR WITH CABIN**  
140 pieces make this realistic prime mover.  
Model Size L. 4" x H. 3" x W. 3"

**ST 202**

**TRAILER AND SPRAYER\***  
Add to your collection with these great farm implements. Both units fix to Series 201 tractor.  
Trailer Length 6"  
Max Sprayer Width 12"

**ST 203**

**PLOUGH AND ROLLER\***  
Further agricultural implements to go with 201 tractor.  
Plough Length 5".  
Roller Width 5"

**ST 204**

**COMBINE HARVESTER**  
The largest of all the models. 215 parts make up this working model.  
Model Size L. 7" x H. 4" x W. 6"

\*Tractor not included.

'HYDRO-ACTION' - A Meccano-compatible hydraulic system.

POLYTECH DEVELOPMENTS of Sheffield have produced a most interesting system for hydraulic actuation of models. Although having clear uses for scratch builders and other modelling systems, Hydro-Action is primarily intended for use with Meccano, having parts with half inch pitched mounting holes.

The Managing Director of Polytech Developments, called upon the Secretary to give much appreciated hands on experience of the product- and Rob Mitchell dropped by as well, equally curious about this very promising system.

The quality of the parts stands out. Mostly made in clear acrylic, the system consists of a nine volt pump, control valve, pressure relief valve, cylinder and piston, reservoir tank- the system uses water as its operating fluid- connecting rods of various kinds to transmit the piston movement to the model, piping, and a pressure gauge.

The cylinders are double acting, ie, powered in both directions, and give about a three inch movement. No power figures were available, but we were told in graphic terms that power was quite adequate. A set has been promised to the Guild, when a full evaluation will be given.

Although the set shown us was a pre-production job, we are given to understand that only the instructions and packaging, and perhaps the odd change- such as improved mounting for the pressure gauge- are needed before production starts. The set consisted of 450 parts, the main items being 6 cylinders, 6 control valves and relief valves, and the one pump and tank, plus lots of piping and end fittings for the pistons. It really is a solid, strong job, no modified medical syringes here, and with the exception of the German pump (which, interestingly, houses a British motor), is entirely made at Polytech's Neepsend works.

Price for this set is expected to be £80 or less, with a smaller set with three cylinders and valves to be priced at around £40. A full spares backup is assured, and the sets are to be sold by mail order to cut out the middlemen. Based on what we have seen, Rob and myself wish Polytech the best of luck with this product; perhaps we will very soon see adverts in CQ and other magazines.... but remember where you heard of it first!

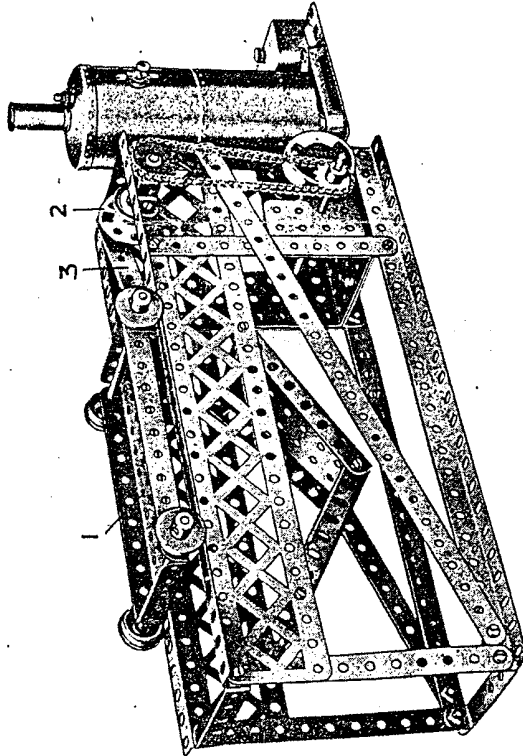
HAVE YOU cracked a walnut with a sledgehammer recently? Meccano were doing just that in the 'twenties with the Steam Driven Models Manual supplied with the vertical boilered Steam Engine.

Ernest Palmer was kind enough to send Rob a photocopied page as an example from this Manual, as part of other correspondence concerning steam engines and Rob's infamous 'Steamerpillar' in particular.

Apparently these very simple models are typical of the Manual offerings, and completely fail to do justice to an engine costing 21/- (£1.05), a week's wages for some people in those days. Note also the strange siting of the relatively large engine on the Gantry, providing a dangerously high centre of gravity!

MECCANO STEAM-DRIVEN MODELS

Model No. S21 Steam-driven Sifter



The sifting container 1 is agitated by the Bush Wheel 2 connected by a 5 1/4" Strip 3, one end of which is secured by a lock-nutted bolt to a Trunnion on the under-side of the Plate 1, while the other end is attached pivotally to the Bush Wheel 2 by a lock-nutted bolt.

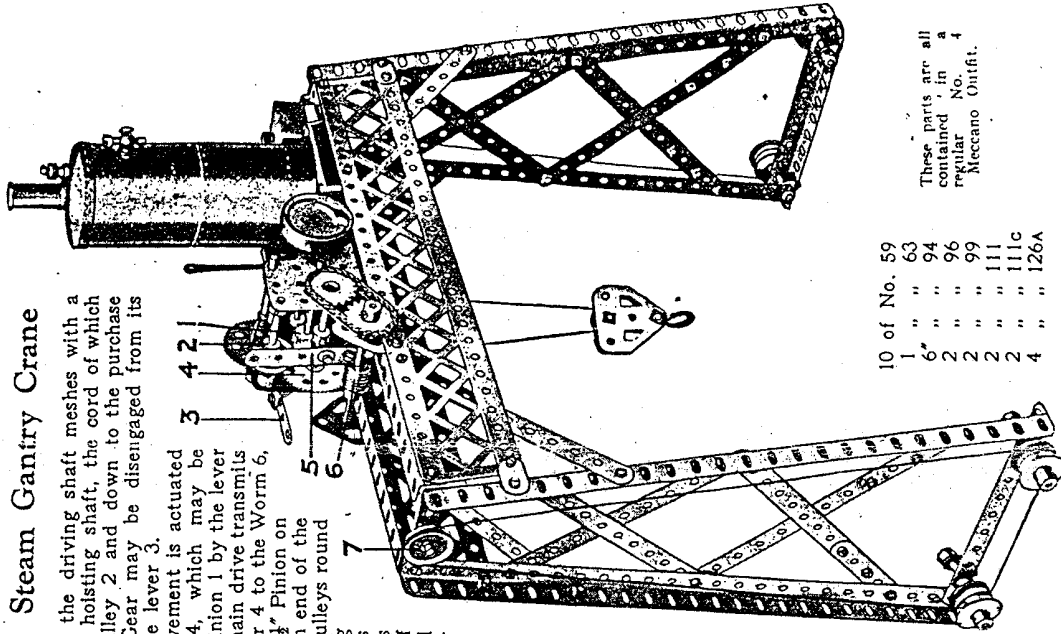
Parts required:		
2 of No. 1	1 of No. 24	5 of No. 48A
5 " " 2	4 " " 35	1 " " 52
4 " " 3	30 " " 37	2 " " 54
3 " " 4	15A " " 37A	1 " " 59
4 " " 4	20B " " 38	9 " " 94
1 " " 22	1 " " 45	1 " " 96

These parts are all contained in the regular No. 3 Meccano Outfit with the exception of 9" of No. 94, 1 of No. 86 and 1 of No. 96A. These may be obtained from any Meccano dealer.

Model No. S22 Steam Gantry Crane

A 1/2" Pinion 1 on the driving shaft meshes with a 57-teeth Gear on the hoisting shaft, the cord of which passes over the 1" Pulley 2 and down to the purchase block. The 57-teeth Gear may be disengaged from its Pinion by means of the lever 3.

The travelling movement is actuated by a 57-teeth Gear 4, which may be disengaged from the Pinion 1 by the lever 5. A short Sprocket Chain drive transmits the motion of the Gear 4 to the Worm 6, which is in mesh with a 1/2" Pinion on the 1 1/2" Rod 7. Each end of the latter carries 1" fast Pulleys round which the cord driving the 1/2" Flanged Wheels is passed; the cord is wrapped round each of the Flanged Wheels and 1" Pulleys twice in order to increase its grip.



Parts required:		
12 of No. 2	2	10 of No. 59
6 " " 5	5	1 " " 63
6 " " 8	8	6 " " 94
2 " " 9	9	2 " " 96
4 " " 10	10	2 " " 99
6 " " 12	12	2 " " 111
1 " " 13	13	2 " " 111c
2 " " 15A	15A	4 " " 126A
4 " " 16	16	
4 " " 17	17	
8 " " 20B	20B	
3 " " 22	22	
1 " " 23	23	
2 " " 26	26	
2 " " 27A	27A	
1 " " 32	32	
1 " " 35	35	
61 " " 37	37	
10 " " 37A	37A	
5 " " 38	38	
1 " " 40	40	
2 " " 48A	48A	
1 " " 57	57	

These parts are all contained in a regular No. 4 Meccano Outfit.

# Anti-Parallel Cranks

-Submitted by FRANK SINGLETON (Grimsby)

If you make up a simple assembly of two Face Plates joined by a strip to represent a single crank (as in a 0-4-0 locomotive) and try to drive the second Face Plate from the first via the crank, you will find that it is impossible. (See Fig.1) At the "dead points", the motion of the second Face Plate is unpredictable. Locomotive engineers get round the problem by setting the crank on the opposing pair of wheels at 90 degrees to that on the first pair (Fig.2).

Some time ago, I came across a passage in a book "Elements Of Mechanism" by Schwamb and Merrill (Lindsay Publications 1984), which addressed this problem and provided a drawing. As described, I couldn't visualise how the mechanism worked (see Fig.3), so I started to experiment.

The simple model described below demonstrates a way of using the mechanism to pass the "dead points" whilst still only using a single pair of wheels and a single crank. It should be noted that the second shaft revolves in the opposite direction to the first and not with a constant velocity. In case you're wondering, I cannot think of a practical use for this setup, either! However, I found it intriguing to assemble.

The model consists basically of two contra-rotating assemblies built up on Face Plates, mounted on a suitable framework (see Fig.6). One assembly is driven by its mounting axle from below and the other is driven by the arrangement of pins, gabs and the single crank, in the opposite direction.

Each of the mirror-image assemblies consists of a 4½" strip mounted symmetrically across a Faceplate which in turn is mounted on an axle rod journalled as required in the supporting framework. Using a 1"x½" bracket bolted under one end of the 4½" strip, a double bracket with two obtuse angle brackets fitted inside it, is fixed to form the 'gab' (a sort of catching socket). At the other end of the 4½" strip are fitted a coupling, with a handrail coupling attached with a short internal axle rod, which form the 'pin' which engages in the 'gab' of the opposing assembly as the whole mechanism rotates.

Fixed two holes in from the 'gab' end of the strip is an adaptor for screwed rod which forms the mounting pin for the single connecting crank (GH in Fig.3). The crank consists of two handrail couplings joined by a 4½" axle rod. In practice, I had to use an axle which was 4½" long, but shush..... there are purists listening!

See Figs. 4 and 5 for rough details- Roy Everitt I am not!

The two assemblies are mounted in the supporting framework and a simple driving arrangement is linked to one of the carrying axles. (I used a pair of large/small bevels, propelled via a driving band from one of the small rectangular French motors).

After the inevitable fiddling and careful adjustment, the driven wheel should contra-rotate the second wheel quite effectively. Probably useless, but novel to me!

## SUGGESTED ESSENTIAL PARTS REQUIRED

2 of no. 2a	2 of no. 18b
2 of no. 11	2 of no. 63
2 of no. 12b	2 of no. 109
4 of no. 12c	2 of no. 136a
1 of no. 15a	2 of no. 173a

Nuts, bolts and washers as required.



## ANTI-PARALLEL CRANKS (1)

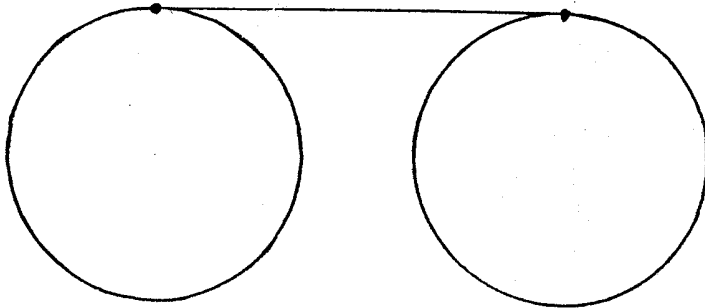


Fig. 1.

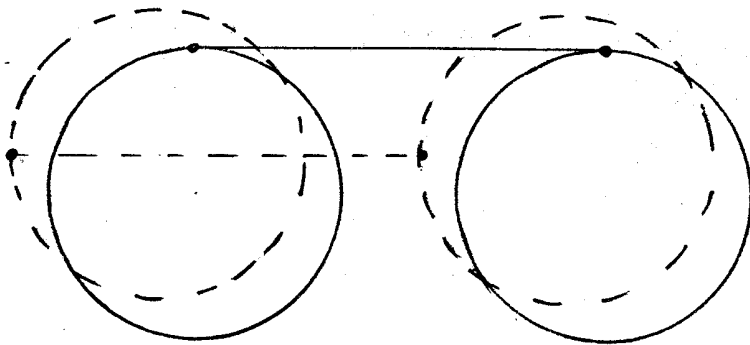


Fig. 2.

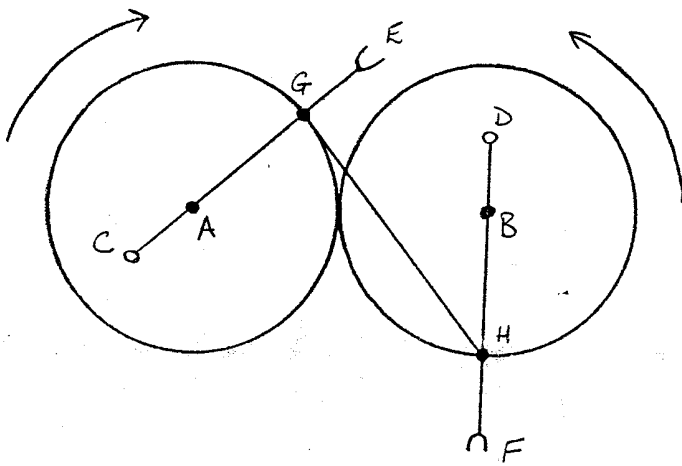


Fig. 3.

A and B are the centres of the two wheels.  
C and D are pins which engage in the gabs E  
and F.

G and H are pins linked by connecting rod GH.  
CE and DF are strips fixed rigidly to the  
carrying wheels.

ANTI-PARALLEL CRANKS (2)

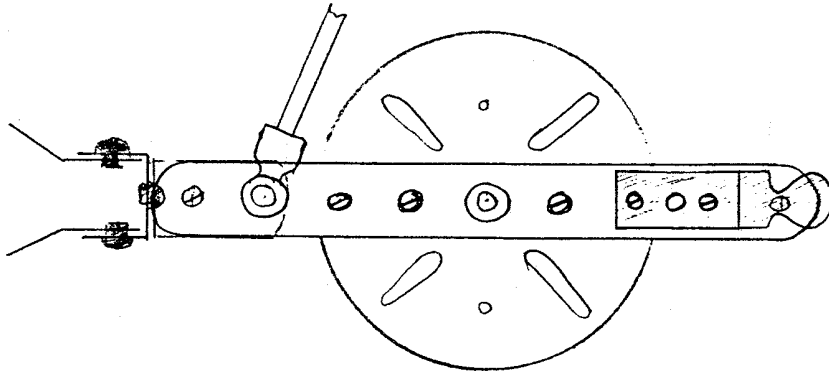


Fig 4  
Plan  
(284)

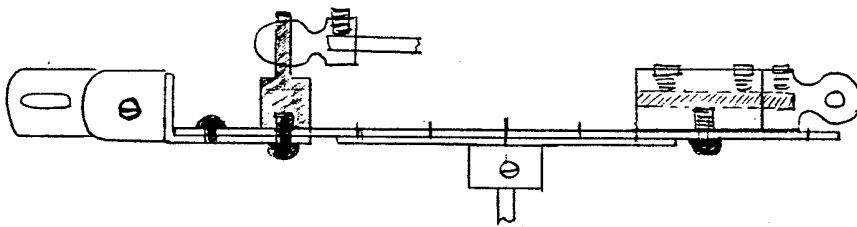


Fig 5.  
Elevation.  
(284)

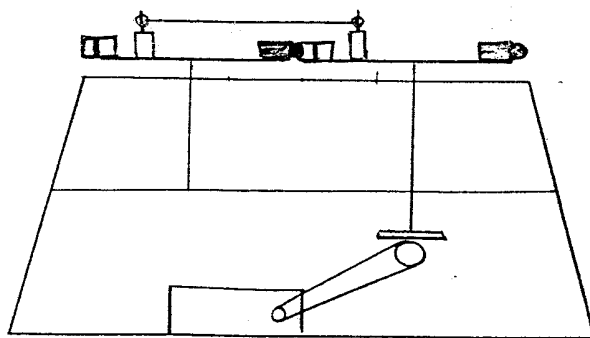


Fig 6.  
Schematic elevation of  
Side Model.

## NORTH MIDLANDS MECCANO GUILD

SKEGEX '90

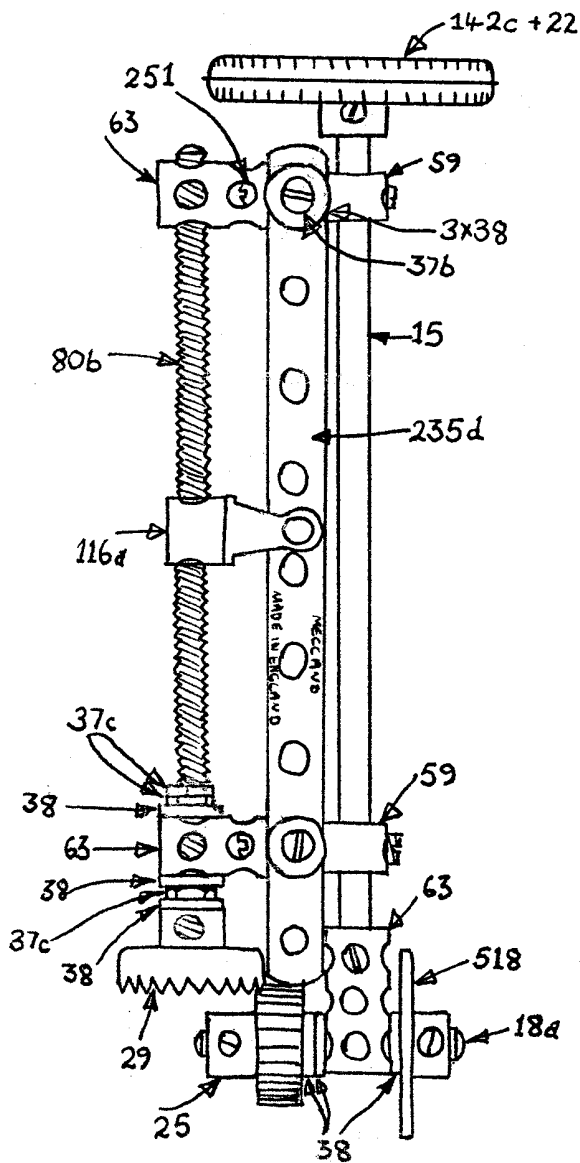
- \* Exhibition Days are Friday 6th July- an 'Enthusiasts' Day' for early arrivers to set up their models and enjoy the town; and Saturday 7th and Sunday 8th July, for public viewing.
- \* The Venue The Festival Centre, Skegness, which provides a very large modern hall at ground level. It is very central, near the beach, and there is a tea bar, a licenced bar, and plenty of chairs and tables.
- \* Car parks surround the hall, and vehicles can be driven up to it for loading and unloading.
- \* All Meccano modellers will be welcome to show their work. If your model has special requirements (for space or otherwise), please contact the Exhibition Organiser. Historical displays will also be welcome, and there will be some space for individuals to sell or trade Meccano parts by prior arrangement with the Exhibition Organiser. It is suggested that exhibitors should bring some form of table covering with them.
- \* Exhibition Organiser is Mike Cotterill, 37 Park Avenue, Skegness, Lincolnshire PE25 2TF. Tel. Skegness (0754) 4544 after 6pm. Contact him if you need further information. If you would like a free car park pass send an SAE to Mike after May 1st. 1990.
- \* A Meccano modelling competition will be held, with prizes of MW Models vouchers.
- \* Accommodation for details of local accommodation write to the Foreshore Office, Embassy Centre, Skegness for a free Town Guide.
- \* Mike Cotterill and Family will be 'at home' to all Meccano enthusiasts on Saturday evening, 8th July.

## KELHAM ISLAND EXHIBITION

- \* The museum will be open on the Friday afternoon for early setting up of models, if required, from 4P.M., and on the Saturday and Sunday from 9A.M.
- \* Exhibitors will be eligible to win the SMG award, the coveted trophy currently held by Rob Mitchell.
- \* It would be helpful if you could bring along an extension lead.

This is a simple Meccano version of a map distance indicator, and can also be used for 1:1 measuring with a change of scale. It is fairly low geared, so it may be better on larger scale maps (e.g. - Ordnance Survey 'Outdoor Leisure' Maps)

Construction begins by assembling the 1" bush wheel, coupling, & 25t pinion onto a 1½" axle rod, allowing free rotation in the bottom coupling bore. Next add the 5" axle rod. Lock-nut a 25t contrate wheel onto one end of a 4½" screwed rod, and add another coupling, in which the screwed rod is free to rotate but is retained by a locknut. The coupling is tightened onto a pallet pin set in a collar, and the collar is then adjusted for height on the 5" axle rod to give a smooth mesh with the 25t pinion. A small fork piece is threaded onto the screwed rod by it's tapped bore, and the top of the rod is journaled in another coupling-pallet pin-collar assembly. A 4½" narrow strip spaces the couplings apart, and is held by two bolts, each with three washers under their heads, screwed into the threaded bores of the couplings. The narrow strip lies within the arms of the small fork piece and prevents it from rotating; the fork piece serves as an indicator, the narrow strip as a scale. A 1" pulley fitted with a tyre is added to form a convenient handle. A strip of paper fixed on the narrow strip can be calibrated with an appropriate scale, read through the hole in the fork piece.



PARTS REQUIRED.....

- |              |                                      |               |
|--------------|--------------------------------------|---------------|
| 1 of no. 15  | 2 of no. 37b                         | 1 of no. 80b  |
| 1 of no. 18a | 4 of no. 37c                         | 1 of no. 116a |
| 1 of no. 22  | 9 of no. 38                          | 1 of no. 142c |
| 1 of no. 25  | 2 of no. 59                          | 1 of no. 235d |
| 1 of no. 29  | 3 of no. 63                          | 1 of no. 518  |
|              | 2 of no. 251 (clock kit pallet pins) |               |

Ashton	F.B.
Bader	John
Beadle	Jack
Beadman	Mike
Bennett	G.
Bingham	Richard
Brown	John.R.
Burgess	M.J.
Carr	Russell
Clark	Fred
Croft	D.
Dalton	David
Dyke	B.
Evans	Eric
Fretwell	Ted
Gines	Les
Gower	Harry
Grant	F.
Grimshaw	A.
Harper	Brian
Hatfield	Charles
Howe	Albert.G.
Jennings	Roy.C.
Johnson	Robin
Kent	J.M.
Kent	R.J.
Kohler	Hellmuth
Linder	John
MacDonald	John
Mason	Peter
McKenzie	Iain
Mitchell	Robert
Palmer	Ernest
Parkin	Stephen
Partridge	Alan
Penney	Dave
Platts	E.J.
Portess	D.K.
Pyefinch	P.
Rowbotham	B.
Sage	Bernard
Sammans	D.J.A.
Schoolar	Joyce
Schoolar	Robin
Singleton	Frank
Stancliffe	Wayne
Stephenson	George
Taylor	Vernon
Tomlinson	Geoff
Turnbull	E.
Turner	Peter
Wagstaff	B.
Weston	Clive
Whiting	M.H.B.

Wooliscroft Phillip  
 Wooliscroft Willise  
 Wright Dennis  
 Yates D.

End of File

## CALENDAR OF NATIONAL EVENTS

JANUARY	27TH	:	North Midlands Meccano Guild, Club Meeting, Oxton
FEBRUARY	24TH	:	Henley Society of Meccano Engineers, Club Meeting, Henley
MARCH	3RD	:	North East London Meccano Club, Club Meeting, Barkingside
MARCH	10TH	:	West London Meccano Society, Club Meeting, Greenford.
MARCH	17TH/18TH	:	Sheffield Meccano Guild Exhibition, Kelham Island Industrial Museum, Sheffield. Details from Mike Beadman (0909) 567015.
MARCH	31ST	:	Midlands Meccano Guild, Club Meeting, Alcester
MARCH	31ST	:	South East London Meccano Club, Exhibition, Eltham.
APRIL	21ST	:	Sheffield Meccano Guild, Club Meeting, Norton.
APRIL	28TH	:	Holy Trinity Meccano Club, Club Meeting, Hildenborough
MAY	19TH	:	North Midlands Meccano Guild, Club Meeting, Oxton
MAY	26TH	:	Henley Society of Meccano Engineers, Club Meeting, Henley
JUNE	16TH	:	West London Meccano Society, Club Meeting, Greenford
JUNE	23RD	:	North East London Meccano Club, Club Meeting, Barkingside
JULY	6TH/8TH	:	Skegex '90
JULY	28TH	:	Henley Society of Meccano Engineers, Club Meeting, Henley
AUGUST	4TH	:	Sheffield Meccano Guild, Club Meeting, Norton
AUGUST	31ST)	:	
SEPTEMBER	1ST)	:	Henley Exhibition
SEPTEMBER	15TH	:	North Midlands Meccano Guild, Club Meeting & A.G.M. Oxton
SEPTEMBER	22ND	:	West London Meccano Society, Club Meeting, Greenford
OCTOBER	20TH	:	Sheffield Meccano Guild, Club Meeting & A.G.M., Norton
OCTOBER	23RD/28TH	:	Telford Town Centre Exhibition - details from John Linder
OCTOBER	27TH	:	Holy Trinity Meccano Club, Club Meeting, Hildenborough
NOVEMBER	6TH	:	Midlands Meccano Guild, Club Meeting, Alcester
NOVEMBER	17TH	:	West London Meccano Society, Club Meeting, Greenford

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