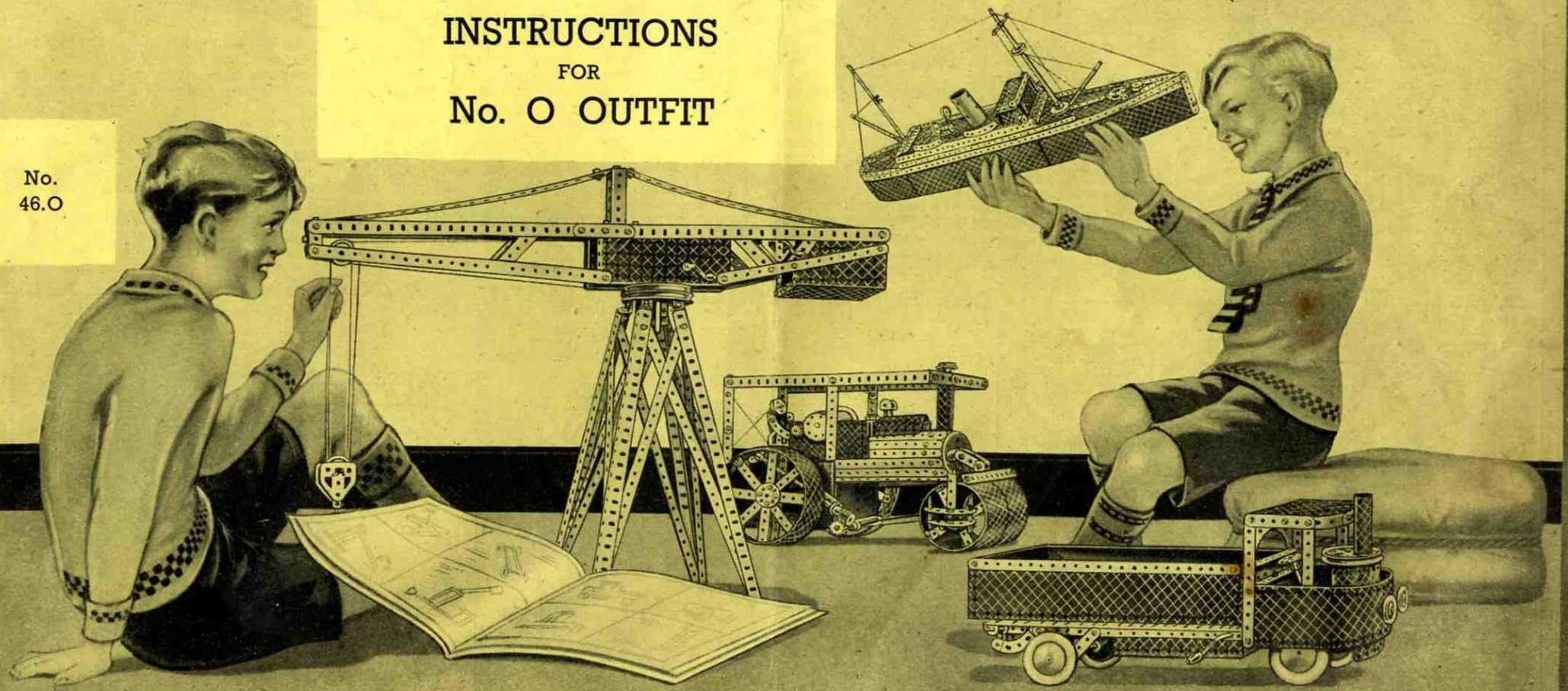
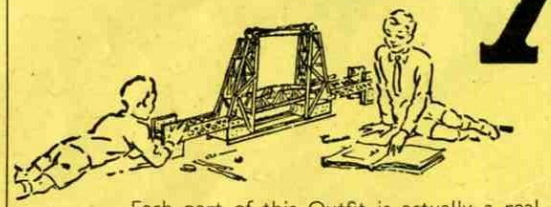
MECCANO

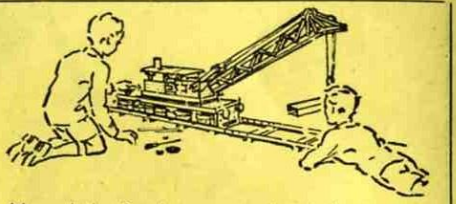
INSTRUCTIONS
FOR
No. O OUTFIT

No.
46.O





MECCANO



REAL ENGINEERING IN YOUR PLAY HOURS

HOW TO BEGIN

Each part of this Outfit is actually a real engineering part in miniature. The only tools required for fitting them together and making the splendid models illustrated in this book are a Spanner and a Screwdriver, both of which you will find in the Outfit.

First select the model you want to build, and then lay out on the table all the parts detailed in the " Parts Required " list. The illustrated list below will help you.

Take Model No. O.5 as an example. Begin by bolting the Flat Trunnions that support the uprights of the swing to the Flanged Plate. Then bolt the uprights themselves to the Trunnions and join their upper ends with a $2\frac{1}{2}" \times \frac{1}{2}"$ Double Angle Strip as shown. The Strips that form the backstays to the uprights, and the swing seat, can then be added.

In some models it is necessary to join certain parts together so that, although they cannot come apart, they are free to pivot or move in relation to one another. To do this the parts are bolted together as usual but the nut is not screwed up tightly, so that the parts are not gripped. Then, to prevent the nut from unscrewing, a second nut is screwed up tightly against it, the first nut being held with a spanner. This method of using a second nut is known as lock-nutting.

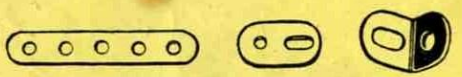
When you have built all the models illustrated in this Manual the fun is not over but is just beginning ! Now comes the chance to make use of your own ideas. First of all rebuild some of the models with small changes in construction that may occur to you ; then try building simple models entirely of your own design. In doing this you will feel the real thrill of the engineer and the inventor.

Several of the illustrations in this Manual show how miniature figures and various small articles can be introduced to add realism to the models. These are not included in the Outfit. Many of them are Meccano Dinky Toys that can be bought separately from your Meccano dealer.

If you ever meet with any small difficulty, or if you wish to have further information on any point in connection with your model-building, write to Meccano Ltd., Binns Road, Liverpool 13, and your letter will be answered fully and promptly.

The Meccano Plates (Flanged, Flat, Curved, etc.) are shown in the Manual models with white lines. In the new Meccano Outfits these parts are plain.

CONTENTS OF MECCANO NO. O OUTFIT



5 10 12

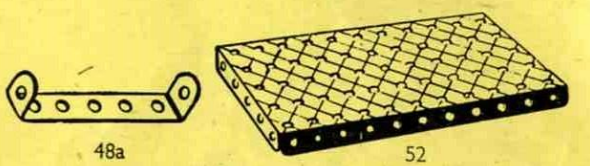
No.	Description	Quantity
2	Perforated Strips, $5\frac{1}{2}"$	4
5	,, ,, $2\frac{1}{2}"$	2
10	Fishplates	4
12	Angle Brackets, $\frac{1}{2}" \times \frac{1}{2}"$	4

17 19s

16	Axle Rods, $3\frac{1}{2}"$	1
17	,, ,, 2"	1
19s	Crank Handles, $3\frac{1}{2}"$ shaft	1

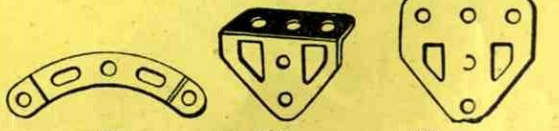
22 24 35

No.	Description	Quantity
22	Pulleys, 1" with boss and screw	2
24	Bush Wheels	1
34	Spanners	1
35	Spring Clips	4
36	Screwdrivers	1
37a	Nuts	20
37b	Bolts, $\frac{7}{32}"$	18
38	Washers	2



48a 52

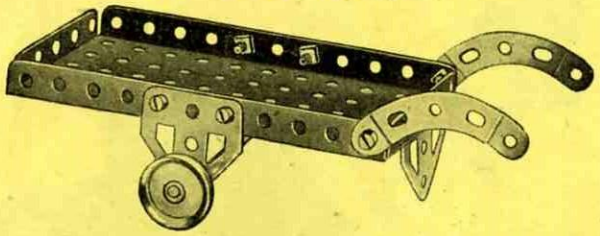
No.	Description	Quantity
48a	Double Angle Strips, $2\frac{1}{2}" \times \frac{1}{2}"$	2
52	Perforated Flanged Plates, $5\frac{1}{2}" \times 2\frac{1}{2}"$	1



90a 126 126a

90a	Curved Strips, $2\frac{1}{2}"$ stepped	2
111c	Bolts, $\frac{3}{8}"$	2
126	Trunnions	2
126a	Flat Trunnions	2
155	Rubber Rings to fit 1" Pulleys	2

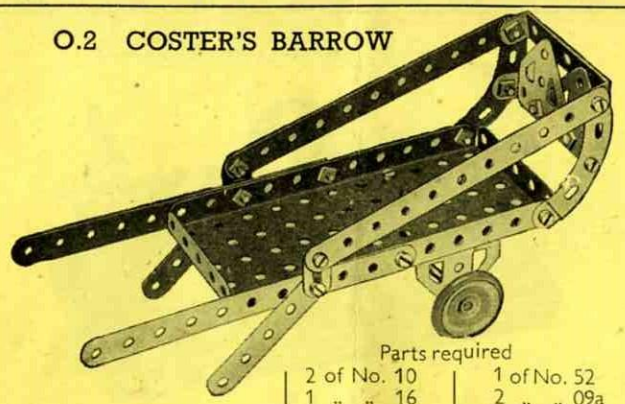
O.1 HAND CART



Parts required

1 of No. 16	1 of No. 52	2 of No. 126a
2 „ „ 22	2 „ „ 90a	2 „ „ 155
8 „ „ 37	1 „ „ 126	

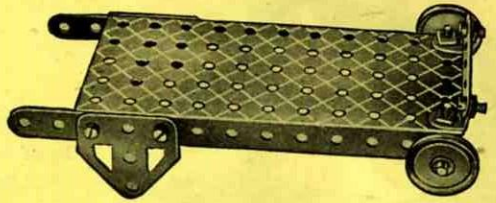
O.2 COSTER'S BARROW



Parts required

	2 of No. 10	1 of No. 52
	1 „ „ 16	2 „ „ 09a
	2 „ „ 22	2 „ „ 126
4 of No. 2	16 „ „ 37	2 „ „ 126a
2 „ „ 5	2 „ „ 48a	2 „ „ 155

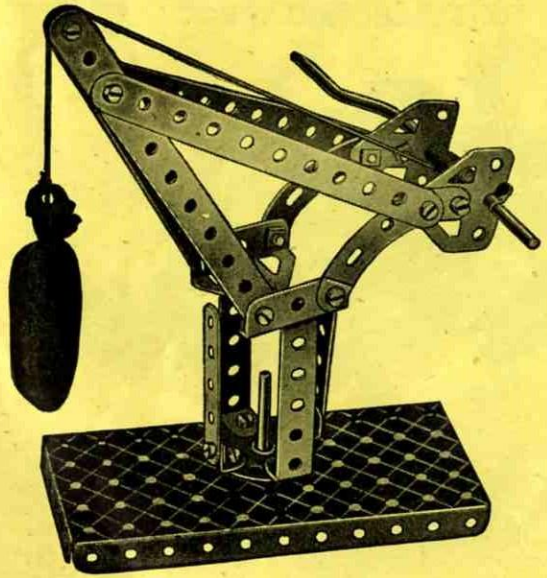
O.3 FLAT TRUCK



Parts required

2 of No. 5	2 of No. 22	1 of No. 90a
2 „ „ 12	8 „ „ 37	2 „ „ 126a
1 „ „ 16	1 „ „ 52	2 „ „ 155

O.4 DOCKSIDE CRANE



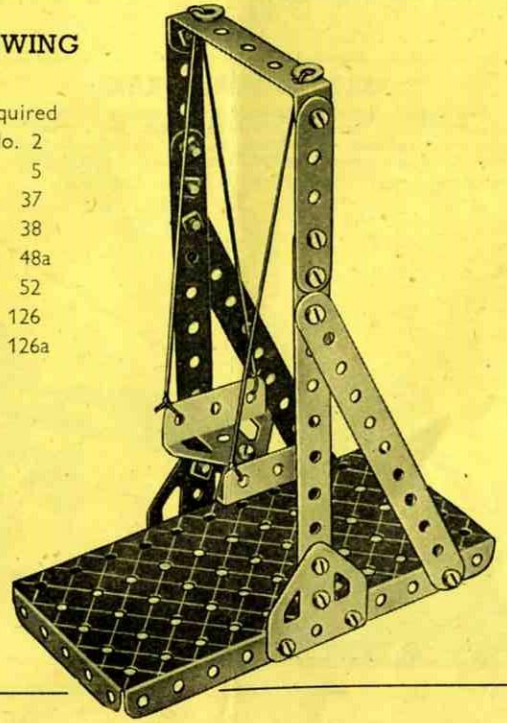
Parts required

4 of No.	2
2 „ „	5
3 „ „	12
1 „ „	17
1 „ „	19s
1 „ „	22
1 „ „	24
2 „ „	35
18 „ „	37
2 „ „	37a
2 „ „	38
2 „ „	48a
1 „ „	52
2 „ „	90a
2 „ „	111c
2 „ „	126
2 „ „	126a

O.5 SWING

Parts required

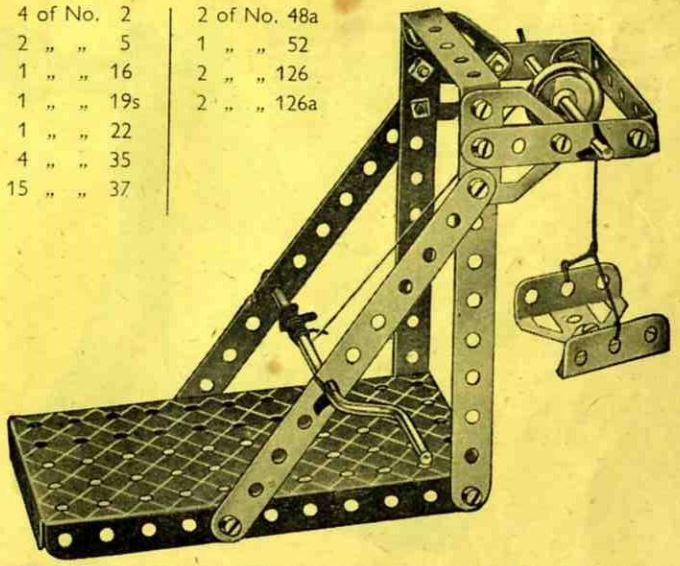
4 of No.	2
2 „ „	5
18 „ „	37
2 „ „	38
1 „ „	48a
1 „ „	52
2 „ „	126
2 „ „	126a



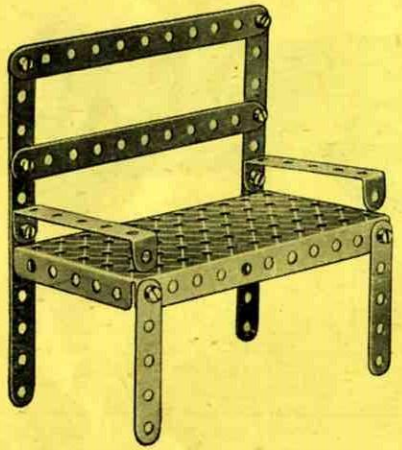
O.6 ELEVATOR

Parts required

4 of No.	2
2 „ „	5
1 „ „	16
1 „ „	19s
1 „ „	22
4 „ „	35
15 „ „	37
2 of No.	48a
1 „ „	52
2 „ „	126
2 „ „	126a

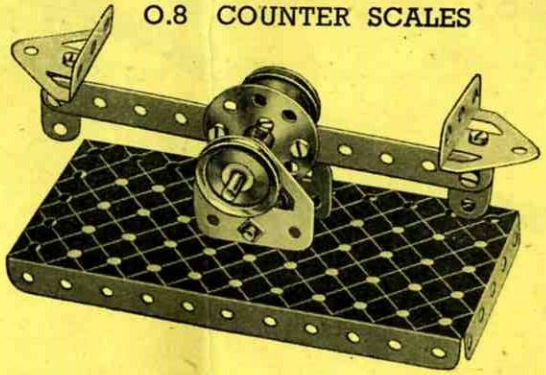


O.7 GARDEN SEAT



Parts required
- 4 of No. 2
- 2 „ „ 5
- 10 „ „ 37
- 2 „ „ 48a
- 1 „ „ 52

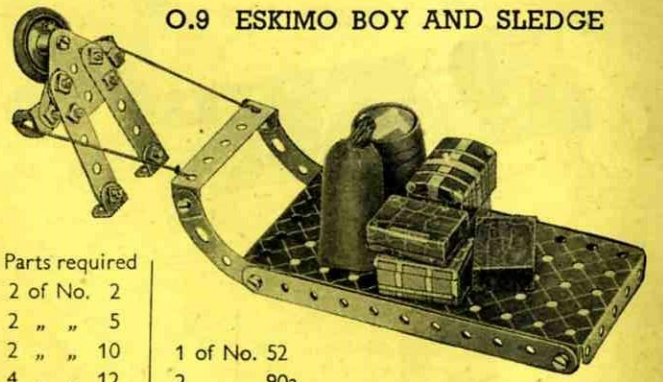
O.8 COUNTER SCALES



Parts required

1 of No. 2	2 of No. 22	1 of No. 52
2 „ „ 10	1 „ „ 24	2 „ „ 126
4 „ „ 12	9 „ „ 37	2 „ „ 126a
1 „ „ 17	2 „ „ 38	

O.9 ESKIMO BOY AND SLEDGE



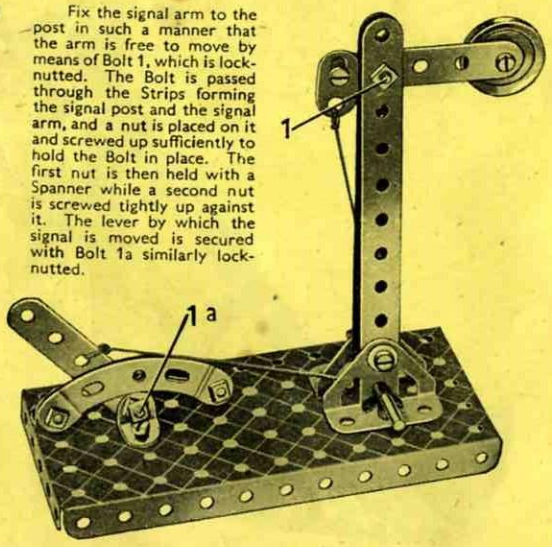
Parts required

2 of No. 2	1 of No. 52
2 „ „ 5	2 „ „ 90a
2 „ „ 10	1 „ „ 111c
4 „ „ 12	1 „ „ 126a
1 „ „ 22	1 „ „ 155
14 „ „ 37	
1 „ „ 48a	

O.10 SIGNAL

Parts required
- 2 of No. 2
- 2 „ „ 5
- 1 „ „ 10
- 3 „ „ 12
- 1 „ „ 17
- 1 „ „ 22
- 2 „ „ 35
- 11 „ „ 37
- 3 „ „ 37a
- 2 „ „ 38
- 1 „ „ 52
- 2 „ „ 90a
- 2 „ „ 111c
- 2 „ „ 126

Fix the signal arm to the post in such a manner that the arm is free to move by means of Bolt 1, which is lock-nutted. The Bolt is passed through the Strips forming the signal post and the signal arm, and a nut is placed on it and screwed up sufficiently to hold the Bolt in place. The first nut is then held with a Spanner while a second nut is screwed tightly up against it. The lever by which the signal is moved is secured with Bolt 1a similarly lock-nutted.

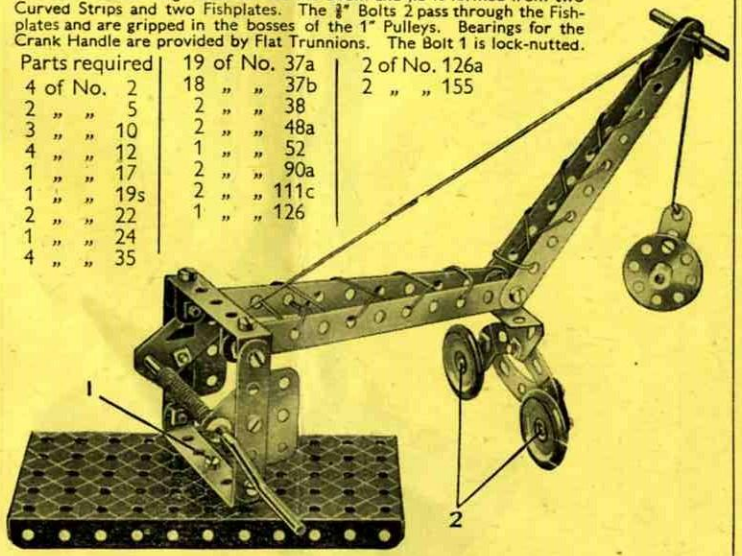


O.11 RADIAL CRANE

The wheeled bogie that carries the boom and jib is formed from two Curved Strips and two Fishplates. The ⅜" Bolts 2 pass through the Fish-plates and are gripped in the bosses of the 1" Pulleys. Bearings for the Crank Handle are provided by Flat Trunnions. The Bolt 1 is lock-nutted.

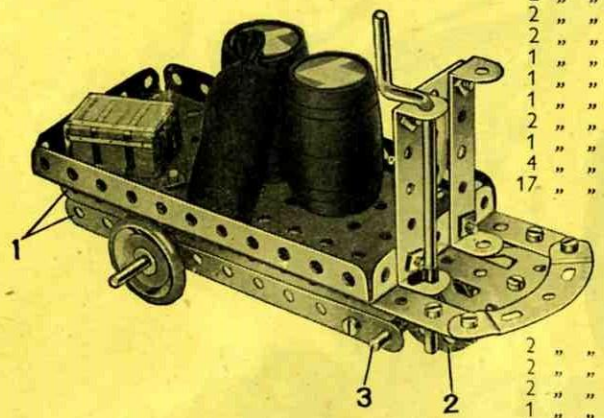
Parts required

4 of No. 2	19 of No. 37a	2 of No. 126a
2 „ „ 5	18 „ „ 37b	2 „ „ 155
3 „ „ 10	2 „ „ 38	
4 „ „ 12	2 „ „ 48a	
1 „ „ 17	1 „ „ 52	
1 „ „ 19s	2 „ „ 90a	
2 „ „ 22	2 „ „ 111c	
1 „ „ 24	1 „ „ 126	
4 „ „ 35		



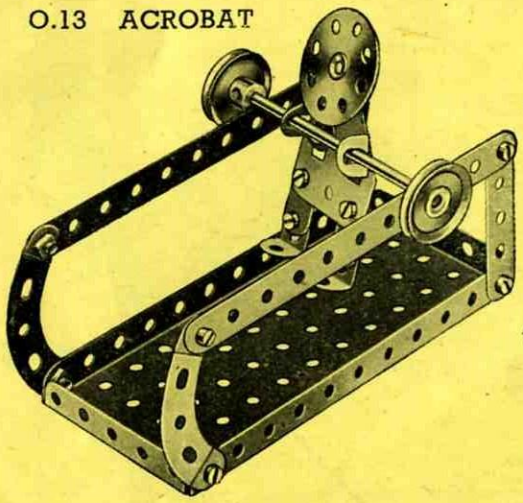
O.12 ELECTRIC TRUCK

Parts required
- 4 of No. 2
- 2 „ „ 5
- 2 „ „ 10
- 2 „ „ 12
- 1 „ „ 16
- 1 „ „ 17
- 1 „ „ 19s
- 2 „ „ 22
- 1 „ „ 24
- 4 „ „ 35
- 17 „ „ 37
- 2 „ „ 37a
- 2 „ „ 38
- 2 „ „ 48a
- 1 „ „ 52
- 2 „ „ 90a
- 2 „ „ 111c
- 2 „ „ 126
- 2 „ „ 126a
- 2 „ „ 155



The two 5½" Strips 1 are fastened to the Flanged Plate by two Trunnions secured to the Plate on its underneath side. A Bush Wheel 2 is fixed on the Axle Rod 3, which passes through the end holes of the 5½" Strips that form the sides of the truck frame.

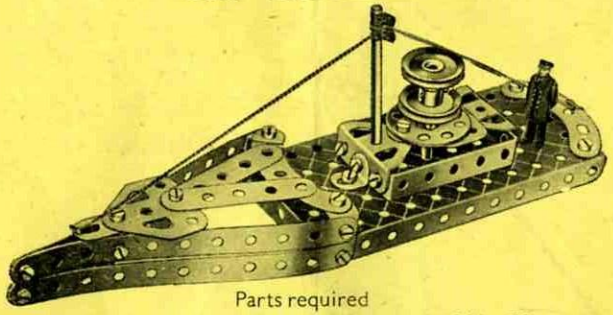
O.13 ACROBAT



Parts required

2	of No.	2
2	„ „	5
3	„ „	10
4	„ „	12
1	„ „	16
2	„ „	22
1	„ „	24
15	„ „	37
1	„ „	52
2	„ „	90a
1	„ „	111c
1	„ „	126a

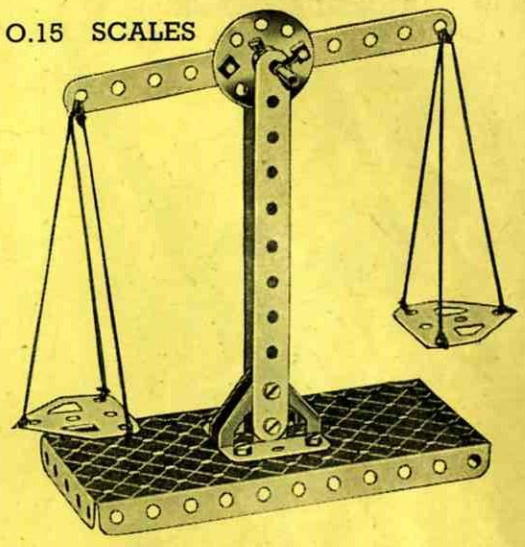
O.14 BATTLESHIP



Parts required

4	of No.	2
2	„ „	5
3	„ „	10
4	„ „	12
1	„ „	16
1	„ „	17
2	of No.	22
1	„ „	24
3	„ „	35
18	„ „	37
1	„ „	37a
2	„ „	48a
1	of No.	52
2	„ „	90a
1	„ „	111c
2	„ „	126
2	„ „	126a

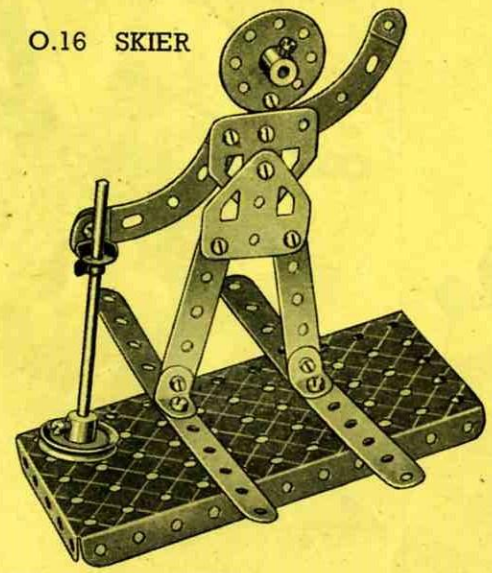
O.15 SCALES



Parts required

3	of No.	2
1	„ „	17
1	„ „	24
2	„ „	35
10	„ „	37
1	„ „	52
2	„ „	126
2	„ „	126a

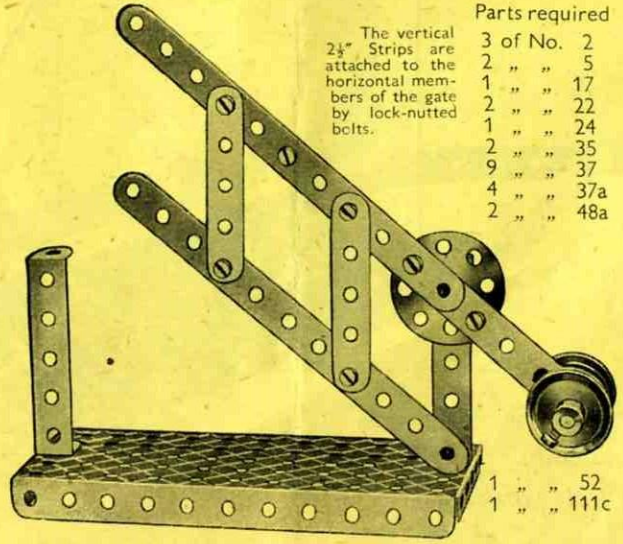
O.16 SKIER



Parts required

2	of No.	2
2	„ „	5
1	„ „	10
3	„ „	12
1	„ „	16
1	„ „	22
1	„ „	24
2	„ „	35
1	„ „	37
1	„ „	52
2	„ „	90a
2	„ „	126a

O.17 LEVEL CROSSING BARRIER

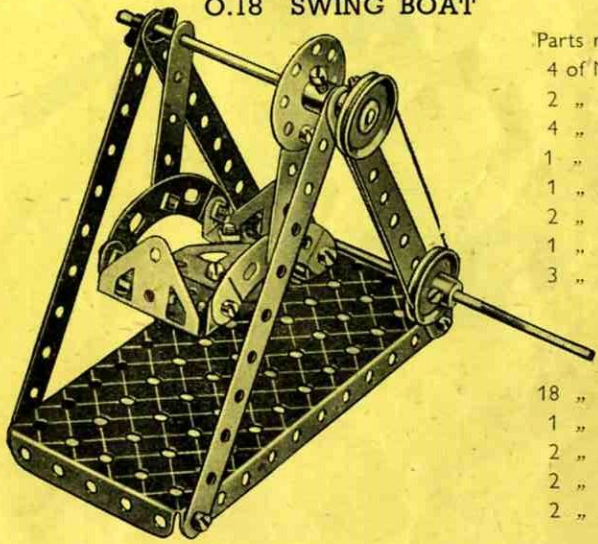


The vertical 2½" Strips are attached to the horizontal members of the gate by lock-nutted bolts.

Parts required

3	of No.	2
2	„ „	5
1	„ „	17
2	„ „	22
1	„ „	24
2	„ „	35
9	„ „	37
4	„ „	37a
2	„ „	48a
1	„ „	52
1	„ „	111c

O.18 SWING BOAT

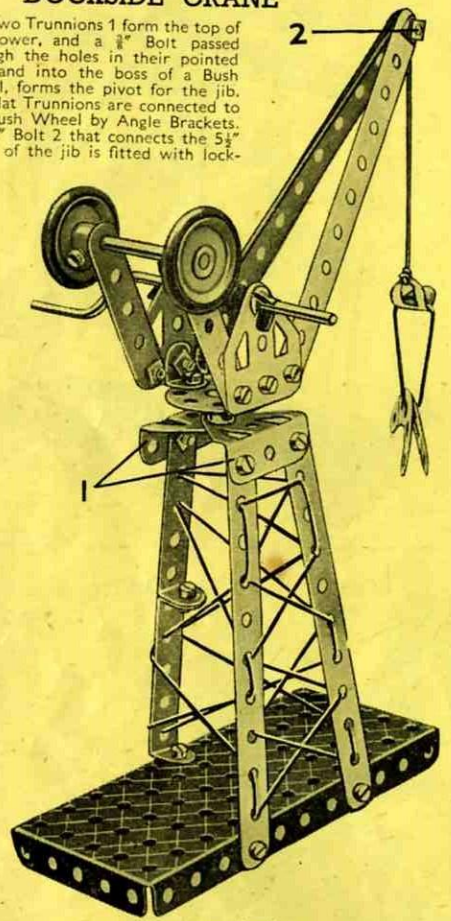


Parts required

4	of No.	2
2	„ „	5
4	„ „	12
1	„ „	16
1	„ „	19s
2	„ „	22
1	„ „	24
3	„ „	35
18	„ „	37
1	„ „	52
2	„ „	90a
2	„ „	126
2	„ „	126a

O.19 DOCKSIDE CRANE

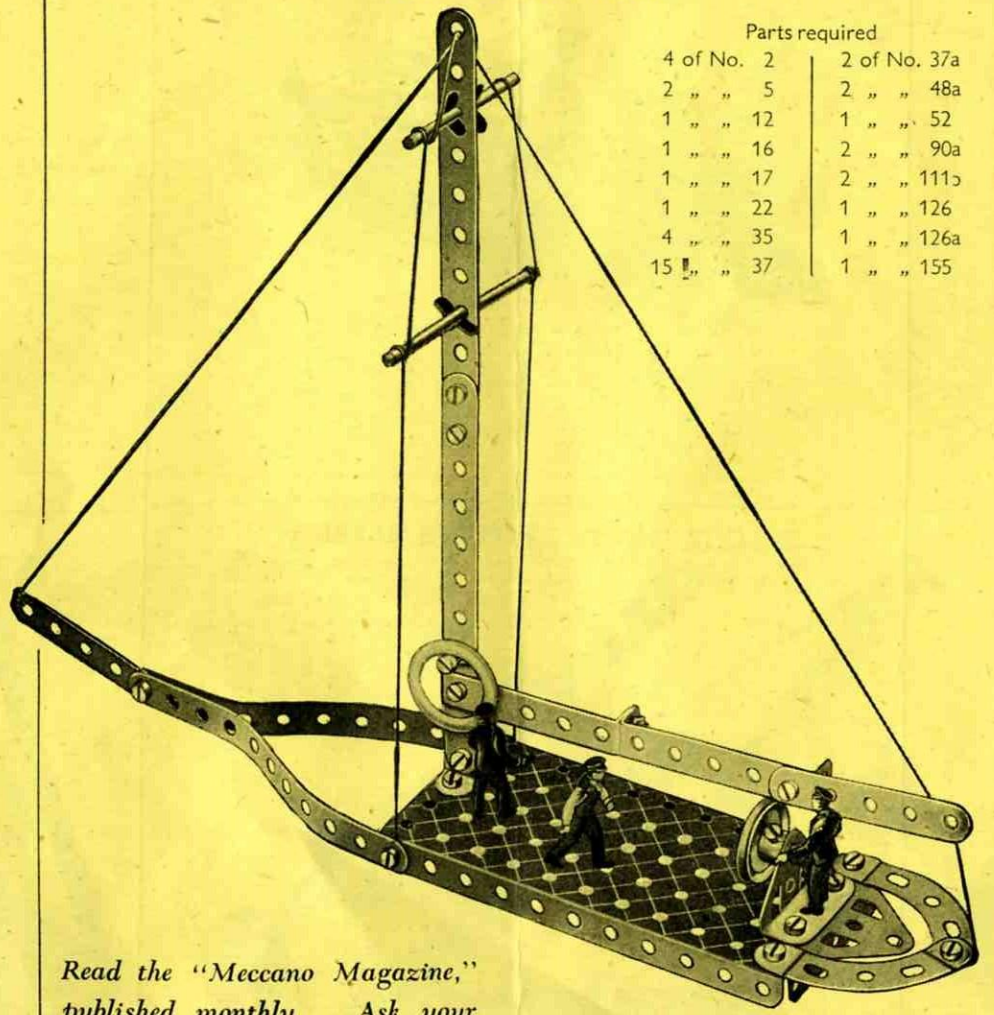
Two Trunnions 1 form the top of the tower, and a ⅜" Bolt passed through the holes in their pointed ends and into the boss of a Bush Wheel, forms the pivot for the jib. The Flat Trunnions are connected to the Bush Wheel by Angle Brackets. The ⅜" Bolt 2 that connects the 5½" strips of the jib is fitted with lock-nuts.



Parts required

4 of No. 2	1 of No. 24	1 of No. 52
2 „ „ 5	2 „ „ 35	2 „ „ 90a
3 „ „ 12	17 „ „ 37a	2 „ „ 111c
1 „ „ 17	15 „ „ 37b	2 „ „ 126
1 „ „ 19s	2 „ „ 38	2 „ „ 126a
2 „ „ 22	2 „ „ 48a	2 „ „ 155

O.20 SAILING BOAT



Parts required

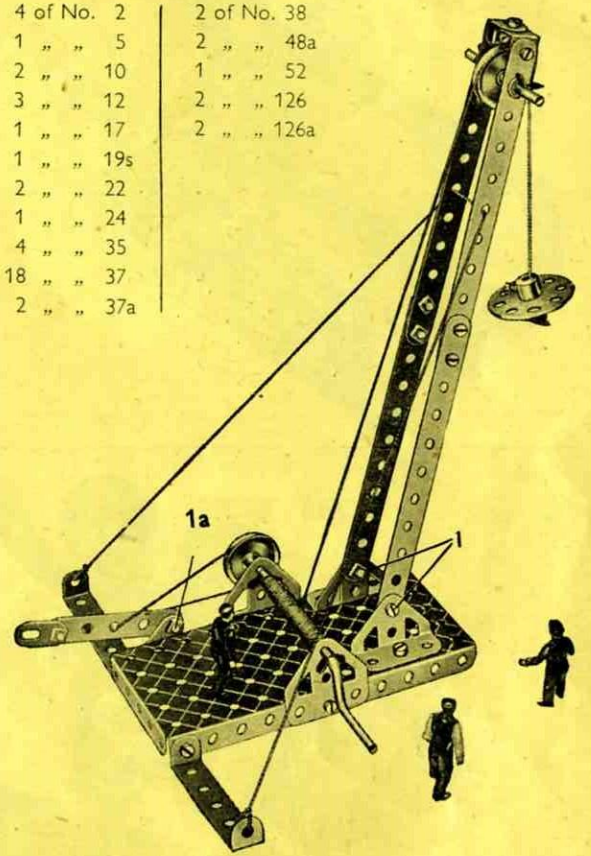
4 of No. 2	2 of No. 37a
2 „ „ 5	2 „ „ 48a
1 „ „ 12	1 „ „ 52
1 „ „ 16	2 „ „ 90a
1 „ „ 17	2 „ „ 111c
1 „ „ 22	1 „ „ 126
4 „ „ 35	1 „ „ 126a
15 „ „ 37	1 „ „ 155

Read the "Meccano Magazine," published monthly. Ask your dealer for full particulars.

O.21 DERRICK CRANE

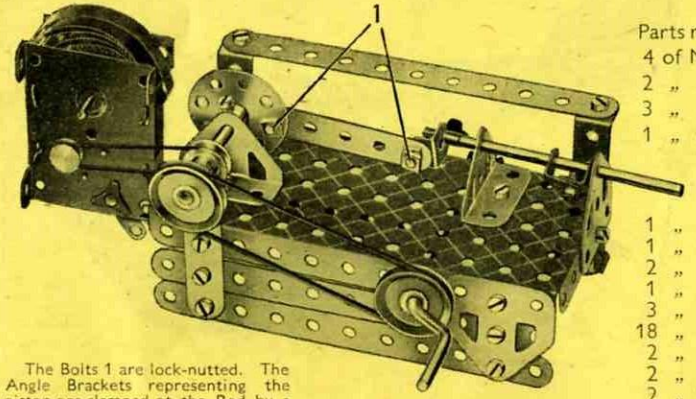
Parts required

4 of No. 2	2 of No. 38
1 „ „ 5	2 „ „ 48a
2 „ „ 10	1 „ „ 52
3 „ „ 12	2 „ „ 126
1 „ „ 17	2 „ „ 126a
1 „ „ 19s	
2 „ „ 22	
1 „ „ 24	
4 „ „ 35	
18 „ „ 37	
2 „ „ 37a	



The construction of the model is commenced by bolting the Trunnions and Flat Trunnions that support the jib and Crank Handle respectively, to the 5½" × 2½" Flanged Plate that forms the base of the model. The jib is then assembled and fastened to the Trunnions by means of the lock-nutted Bolts 1. The brake lever is a 2½" Strip extended by a Flat Bracket, and is fastened to a second Flat Bracket bolted to the Flanged Plate by means of a Bolt 1a, the Nut of which is left sufficiently loose to allow the Strip to move. A length of Cord is fastened to the lever and then passed round the 1" Pulley on the Crank Handle.

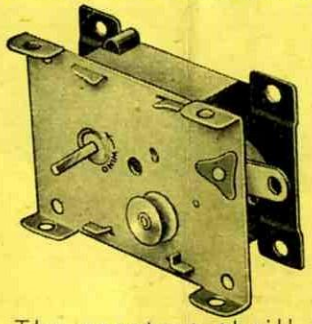
O.22 STATIONARY STEAM ENGINE



The Bolts 1 are lock-nutted. The Angle Brackets representing the piston are clamped ot the Rod by a Nut and Bolt fastened in their elongated holes.

Parts required
4 of No. 2
2 „ „ 5
3 „ „ 12
1 „ „ 16
1 „ „ 17
1 „ „ 19s
2 „ „ 22
1 „ „ 24
3 „ „ 35
18 „ „ 37
2 „ „ 37a
2 „ „ 38
2 „ „ 48a
1 „ „ 52
2 of No. 126
2 „ „ 126a
Magic Motor (not in Outfit.)

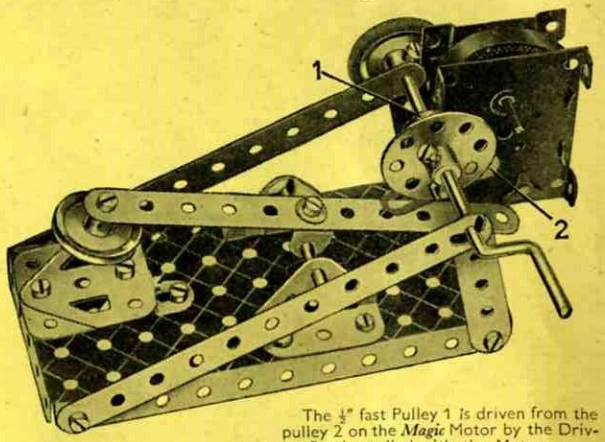
THE MECCANO *MAGIC* MOTOR



The greatest thrill in Meccano model-building is experienced when a model is set to work by means of a Meccano *Magic* Motor. The illustrations on this page show how the *Magic* Motor can be fitted without any difficulty to No. O Outfit models of various types. Fit the model you have just built with one of these wonderful Motors, and enjoy the fun of watching it work just like the real thing!

The Motor is not included in the Outfit.

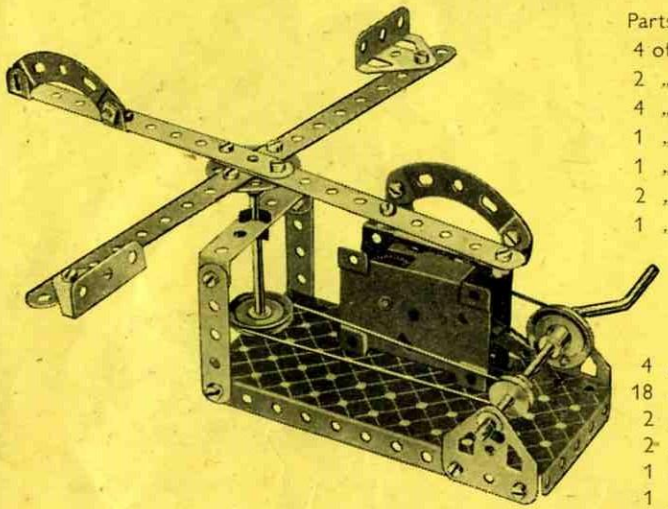
O.23 MECHANICAL HAMMER



The ½" fast Pulley 1 is driven from the pulley 2 on the *Magic* Motor by the Driving Band supplied with the Motor.

Parts required
3 of No. 2
2 „ „ 5
1 „ „ 10
4 of No. 12
1 „ „ 17
1 „ „ 19s
2 „ „ 22
1 „ „ 24
3 „ „ 35
15 „ „ 37
1 „ „ 38
1 „ „ 52
1 „ „ 111c
2 „ „ 126
2 „ „ 126a
1 „ „ 155
Magic Motor (not in Outfit.)

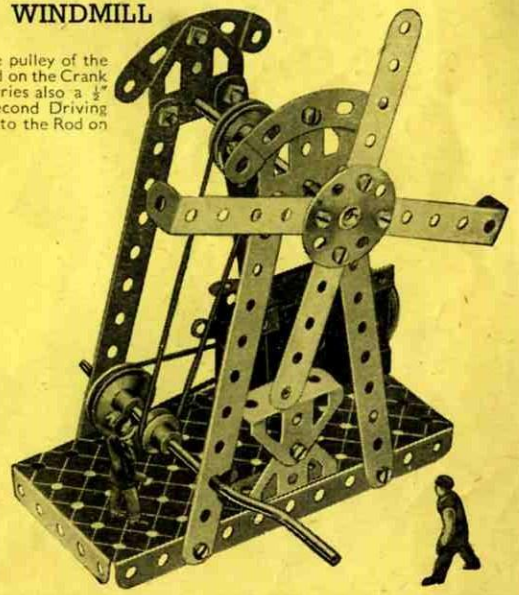
O.24 MERRY-GO-ROUND



Parts required
4 of No. 2
2 „ „ 5
4 „ „ 12
1 „ „ 16
1 „ „ 19s
2 „ „ 22
1 „ „ 24
4 „ „ 35
18 „ „ 37
2 „ „ 37a
2 „ „ 38
1 „ „ 38a
1 „ „ 52
2 „ „ 90a
2 of No. 111c
2 „ „ 126
2 „ „ 126a
Magic Motor (not in Outfit.)

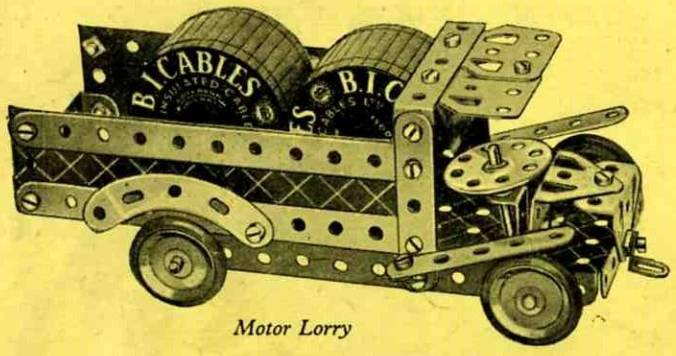
O.25 WINDMILL

A Driving Band connects the pulley of the *Magic* Motor to a 1" Pulley fastened on the Crank Handle. The Crank Handle carries also a ½" Pulley, which is connected by a second Driving Band with a further 1" Pulley fixed to the Rod on which the sails are mounted.

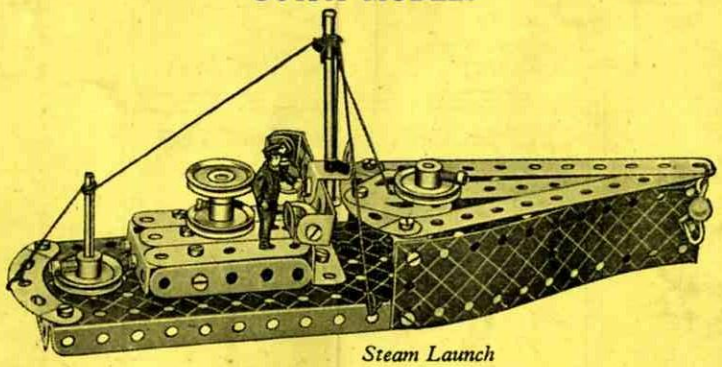


Parts required
4 of No. 2
2 „ „ 5
1 „ „ 16
1 „ „ 19s
2 „ „ 22
1 „ „ 24
3 „ „ 35
18 „ „ 37
2 „ „ 38
2 „ „ 48a
Magic Motor (not in Outfit)
1 of No. 52
2 „ „ 90a
2 „ „ 126
2 „ „ 126a

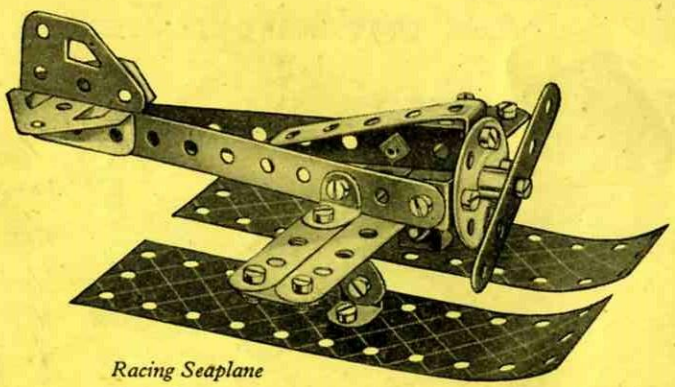
A SELECTION OF MECCANO NO. 1 OUTFIT MODELS



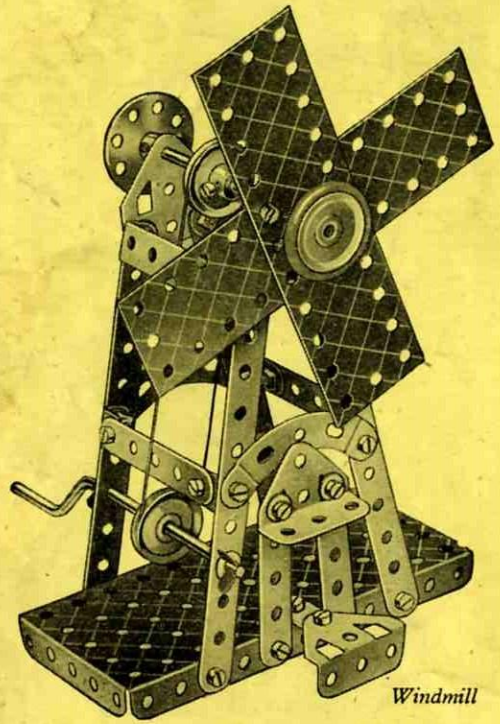
Motor Lorry



Steam Launch



Racing Seaplane



Windmill

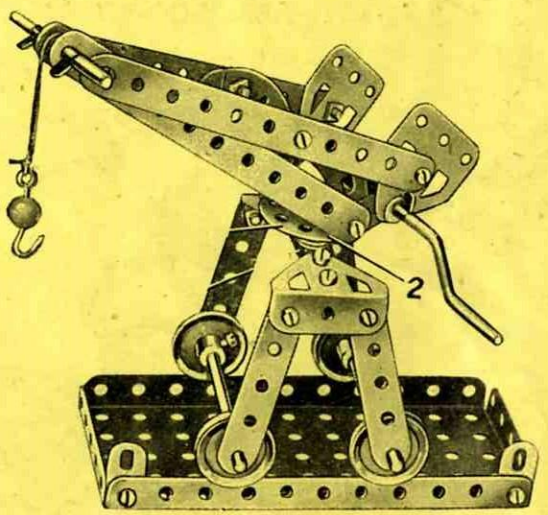
HOW TO CONTINUE

When you have built all the models shown in this Manual you should obtain a copy of the No. 1 Manual from your dealer, together with the selection of Meccano parts listed below. These additional parts will convert your No. O Outfit into a No. 1 Outfit, with which it is possible to build larger and more attractive models similar to those illustrated on this page.

Part No.		Quantity
5	Perforated Strips, 2½"	2
12	Angle Brackets, ½" × ½"	4
16	Axle Rods, 3½"	1
17	Axle Rods, 2"	1
22	Pulleys, 1" diam. with boss and screw	2
34	Spanners	1
37a	Nuts	8
37b	Bolts, 3/16"	6
38	Washers	2
40	Hanks of Cord	1
57c	Hooks, Loaded, Small	1
111c	Bolts, ⅜"	2
125	Reversed Angle Brackets, ½"	1
155	Rubber Rings for 1" Pulleys	2
189	Flexible Plates, 5½" × 1½"	2

The more Meccano parts you have, the bigger and better the models you are able to build. Keen and enthusiastic model-builders keep adding to their Outfits, until they are able to build all the wonderful models shown in the Meccano Manuals.

Remember that the model-building possibilities of the Meccano System are unlimited.



Travelling Crane