

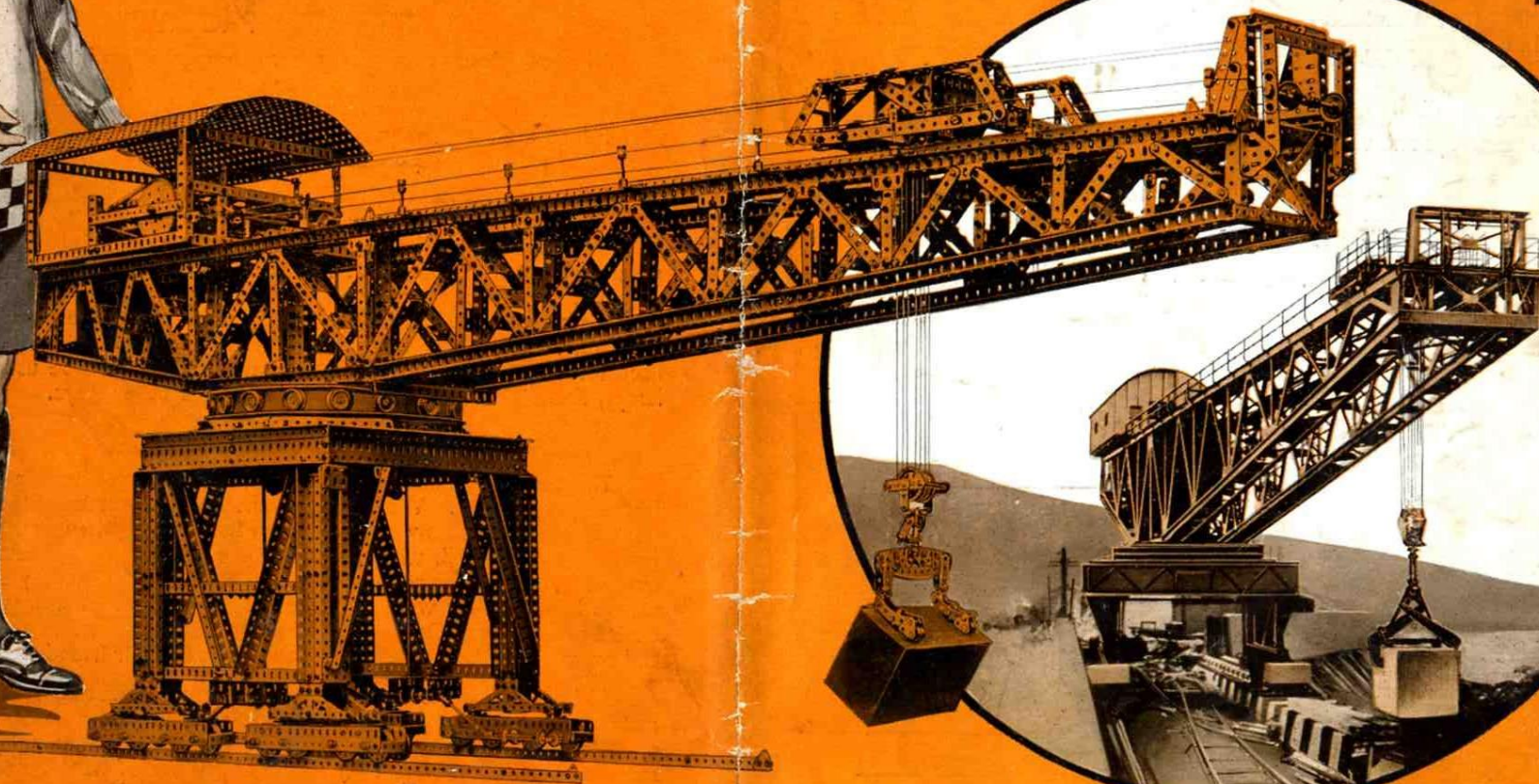
MECCANO

HORNBY'S ORIGINAL SYSTEM — FIRST PATENTED 1901

INSTRUCTIONS FOR OUTFIT Da

PRICE

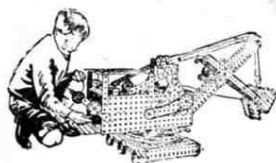
2d.



34Da

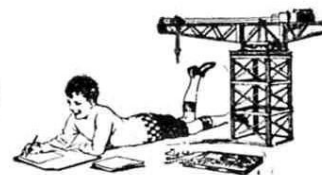
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MECCANO

HORNBY'S ORIGINAL SYSTEM — FIRST PATENTED 1901



REAL ENGINEERING IN MINIATURE

The Meccano Accessory Outfit Da converts your Outfit D into an E, and enables you to build the additional models illustrated in this Manual. As a Meccano enthusiast you will realise that our examples do not exhaust the scope of your Outfit. It is no exaggeration to say that the possibilities of Meccano are limitless—there is always something new that you can invent and build, and most models can be constructed in many alternative ways. In addition to the fascination and satisfaction obtained by building new models, you can enter them in the model-building competitions that are a regular feature of the "Meccano Magazine." These competitions are open to all Meccano boys and valuable prizes are offered in each class.

THE "MECCANO MAGAZINE"

The "Meccano Magazine" is essential to the full enjoyment of the Meccano hobby. A section of it is devoted to the Editor's replies to his readers' enquiries; the progress of Meccano clubs throughout the world is

reported; and full details are given of the latest model-building achievements. In addition, a wealth of informative articles on all subjects of interest to boys is included in every issue. The publishing date is the first of each month. If you are not already a reader of the "Meccano Magazine" write to the Editor for full particulars, or order a copy from your Meccano dealer or newsagent.

HOW TO PROGRESS

When you desire to make further progress and to build bigger and better models, it is only necessary for you to purchase an Accessory Outfit Ea which will convert your E into an F. In turn, an Accessory Outfit Fa will convert your F into a G, and so you go on, until finally your ambition is realised and you are the proud possessor of an L Outfit.

ELECTRIC LIGHTING OF MECCANO MODELS

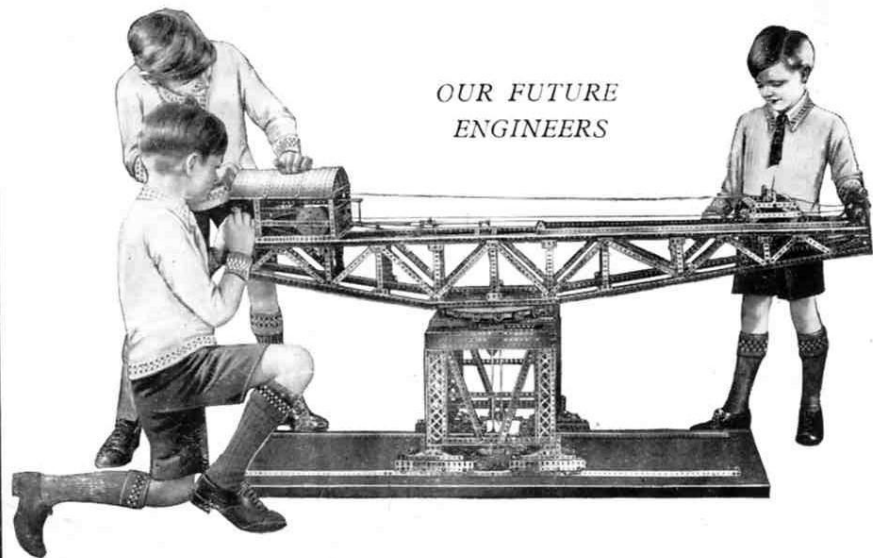
It is great fun to illuminate your Meccano models by electric light, and a special Meccano Lighting Set may be obtained from your dealer for this purpose. This consists of two spot lights with plain and coloured imitation glass discs, one stand lamp, two special brackets, and two pea lamps, operated from a 4-volt flashlamp battery (not included in the set). The stand lamp is used for decorative purposes, and the spot lights can be used as car head-lamps, floodlights on cranes, and in countless other ways.

MECCANO SERVICE

The service of Meccano does not end with selling an Outfit and an Instruction Manual. When you want to know something more about engineering than is now shown in our books, or when you strike a tough problem of any kind, write to us. We receive over 200 letters from boys every day, all the year round. Some write to us because they are in difficulty, others because they want advice on their work or pleasures, or about the choice of a career. Others, again, write to us just because they like to do so and we are glad to know that they regard us as their friends.

Although all kinds of queries are put to us on all manner of subjects, the main interest is, of course, engineering. The wonderful knowledge of engineering matters possessed by our staff of experts is unique. This vast store of knowledge, gained only by many years of hard-earned experience, is at your service. *We want the Meccano boy of to-day to be the famous engineer of to-morrow.*

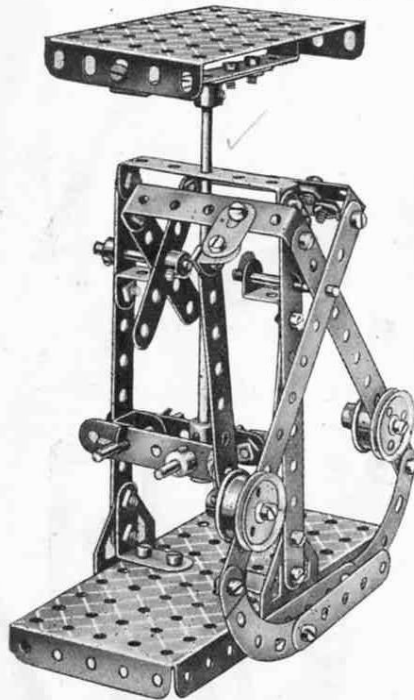
OUR FUTURE
ENGINEERS



IMPORTANT:—Meccano Parts may be bought separately at any time in any quantity from your Meccano dealer

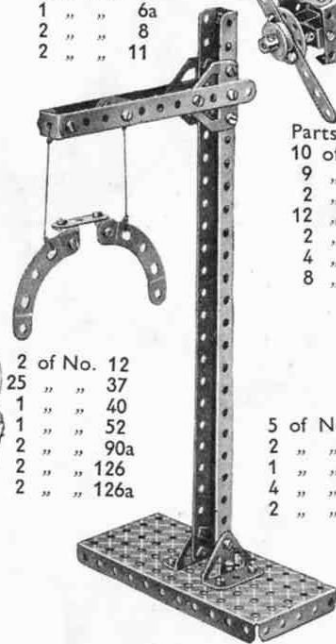
E1. Letter Balance

4 of No.	2	Parts required	2 of No.	18a	1 of No.	53
2	3	2	20b	4	59	
5	5	2	22a	1	62	
2	10	4	35	1	63	
1	11	37	37	2	90a	
4	12	6	37a	2	111	
2	12a	2	48a	4	111a	
1	15	1	48b	2	125	
2	17	1	52	2	126	



E2. Railway Gauge

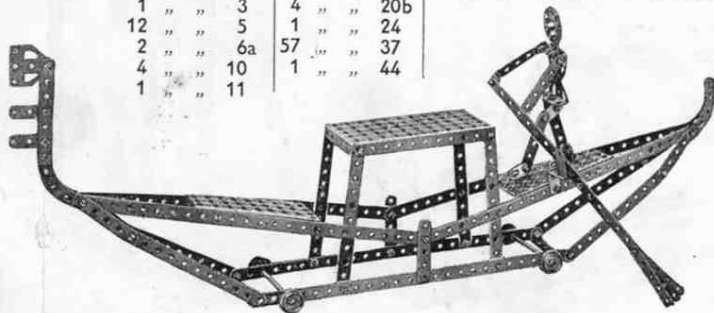
Parts required	2 of No.	2
1	6a	
2	8	
2	11	



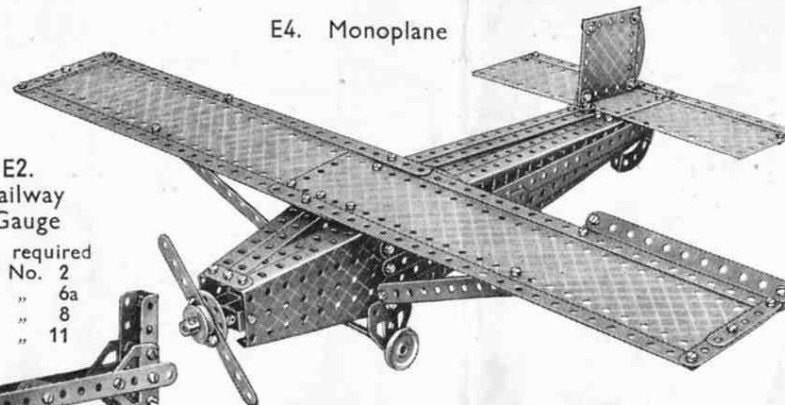
2 of No.	12
25	37
1	40
1	52
2	90a
2	126
2	126a

E3. Gondola

Parts required	5 of No.	12	2 of No.	48a	4 of No.	90a
6 of No.	1	2	12a	1	126	
10	2	2	16	2	126a	
1	3	4	20b			
12	5	1	24			
2	6a	57	37			
4	10	1	44			
1	11					



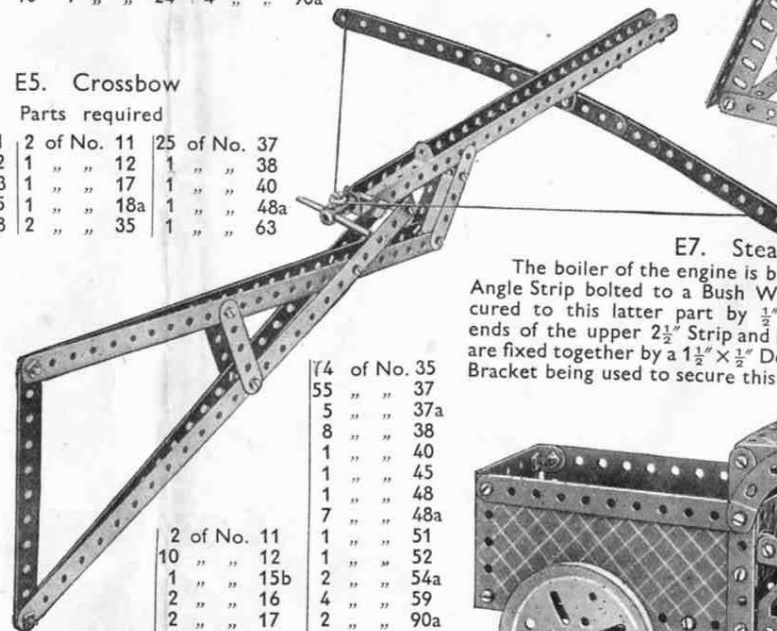
E4. Monoplane



Parts required	6 of No.	12	65 of No.	37	6 of No.	111c
10 of No.	1	4	12c	8	2	125
9	2	1	13	7	2	126a
2	3	1	16	1	1	186
12	5	2	20b	1	1	190
2	6a	2	22	1	2	195
4	8	1	23	2	2	197
8	10	1	24	4		

E5. Crossbow

Parts required	5 of No.	1	2 of No.	11	25 of No.	37
2	2	1	12	1	38	
1	3	1	17	1	40	
4	5	1	18a	1	48a	
2	8	2	35	1	63	



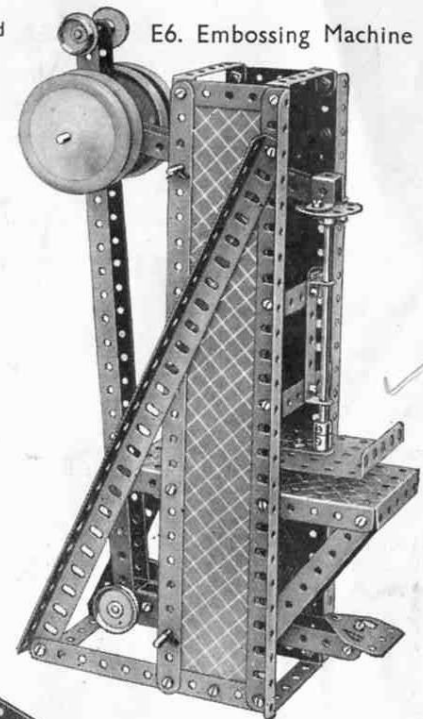
Parts required	2 of No.	11
2 of No.	2	3
11	5	1
2	6a	1
2	10	1

2 of No.	11
10	12
1	15b
2	16
2	17
1	18a
2	19b
4	20b
1	22
1	22a
1	23
1	24

Parts required

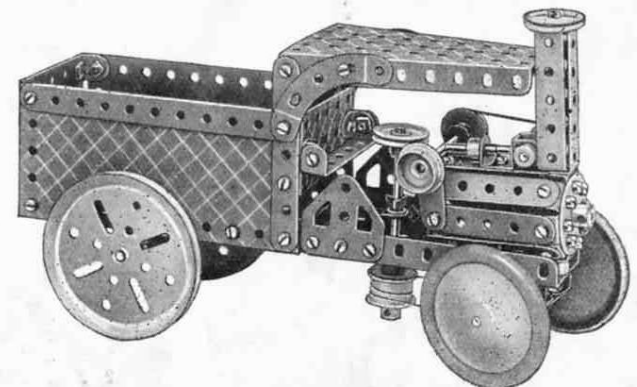
4 of No.	1
8	2
2	5
4	8
3	11
1	15
3	16
2	18a
2	20b
2	22
1	24
8	35
37	37
6	38
1	45
7	48a
1	52
1	53
3	59
1	62
1	126a
4	187
2	197

E6. Embossing Machine



E7. Steam Lorry

The boiler of the engine is built up from one $2\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strip bolted to a Bush Wheel, and seven $2\frac{1}{2}''$ Strips are secured to this latter part by $\frac{1}{2}'' \times \frac{1}{2}''$ Angle Brackets. The inner ends of the upper $2\frac{1}{2}''$ Strip and lower $2\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strip are fixed together by a $1\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strip, a $\frac{1}{2}'' \times \frac{1}{2}''$ Angle Bracket being used to secure this part to the floor of the cab.



74 of No.	35
55	37
5	37a
8	38
1	40
1	45
1	48
7	48a
1	51
1	52
2	54a
4	59
2	90a
4	111c
1	125
2	126a
2	186
2	187
1	190
2	195

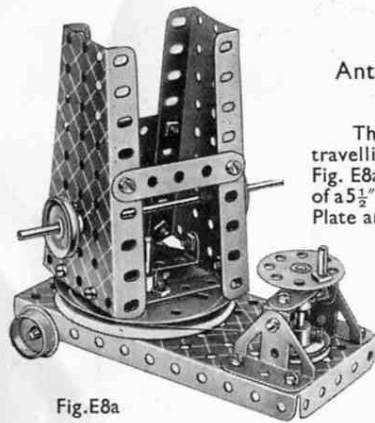


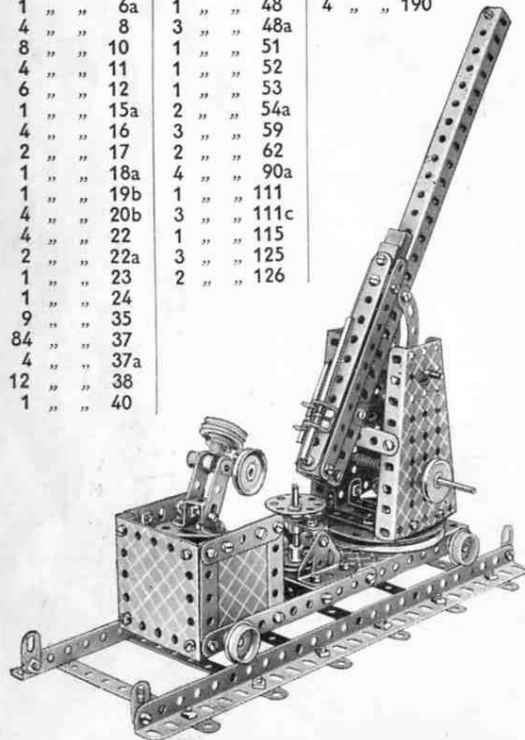
Fig. E8a

searchlight is pivoted to its platform by a $\frac{3}{8}$ " Bolt, lock-nutted in place, and the gun is free to swivel on a 3" Pulley.

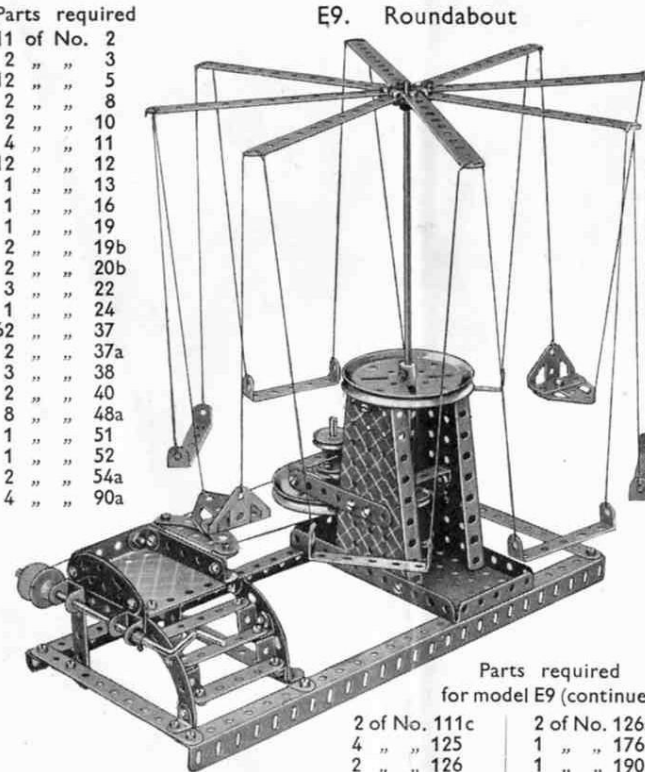
E8. Anti Aircraft Gun

The base of the travelling portion Fig. E8a is composed of a $5\frac{1}{2}$ " \times $2\frac{1}{2}$ " Flanged Plate and a $3\frac{1}{2}$ " \times $2\frac{1}{2}$ " Flanged Plate, these two parts being secured together by two $5\frac{1}{2}$ " Strips and two $\frac{1}{2}$ " \times $\frac{1}{2}$ " Angle Brackets. The

Parts required		
11 of No. 2	1 of No. 44	1 of No. 126a
9 " " 5	1 " " 45	1 " " 176
1 " " 6a	1 " " 48	4 " " 190
4 " " 8	3 " " 48a	
8 " " 10	1 " " 51	
4 " " 11	1 " " 52	
6 " " 12	1 " " 53	
1 " " 15a	2 " " 54a	
4 " " 16	3 " " 59	
2 " " 17	2 " " 62	
1 " " 18a	4 " " 90a	
1 " " 19b	1 " " 111	
4 " " 20b	3 " " 111c	
4 " " 22	1 " " 115	
2 " " 22a	3 " " 125	
1 " " 23	2 " " 126	
1 " " 24		
9 " " 35		
84 " " 37		
4 " " 37a		
12 " " 38		
1 " " 40		



Parts required		
11 of No. 2	2	
2 " " 3		
12 " " 5		
2 " " 8		
2 " " 10		
4 " " 11		
12 " " 12		
1 " " 13		
1 " " 16		
1 " " 19		
2 " " 19b		
2 " " 20b		
3 " " 22		
1 " " 24		
62 " " 37		
2 " " 37a		
3 " " 38		
2 " " 40		
8 " " 48a		
1 " " 51		
1 " " 52		
2 " " 54a		
4 " " 90a		



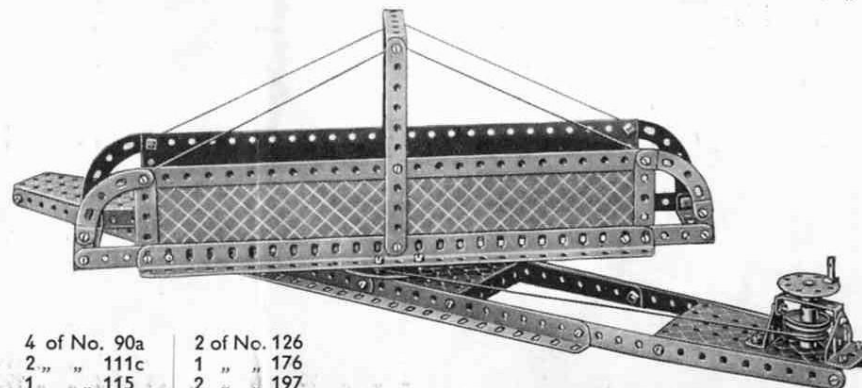
E9. Roundabout

Parts required for model E9 (continued)		
2 of No. 111c	2 of No. 126a	
4 " " 125	1 " " 176	
2 " " 126	1 " " 190	

E10. Turntable

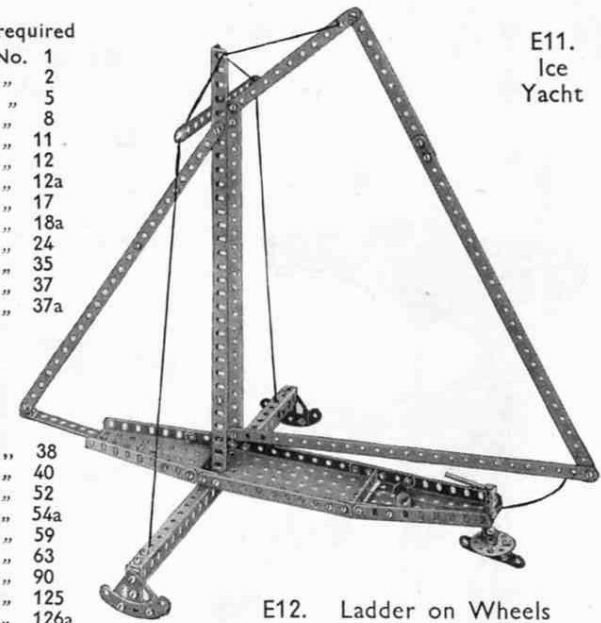
The turning section of the model is mounted on a 3" Pulley carried on a 2" Rod that is held in place by a 1" fast Pulley secured below the base of the model. Turning is effected from a $\frac{3}{4}$ " Flanged Wheel and 1" fast Pulley as shown.

Parts required		
6 of No. 1		
2 " " 2		
2 " " 3		
8 " " 5		
4 " " 8		
4 " " 10		
1 " " 17		
1 " " 18a		
1 " " 19b		
1 " " 20b		
2 " " 22		
2 " " 24		
54 " " 37		
2 " " 37a		
8 " " 38		
1 " " 40		
1 " " 48		
5 " " 48a		
1 " " 52		
2 " " 54a		



4 of No. 90a	2 of No. 126
2 " " 111c	1 " " 176
1 " " 115	2 " " 197

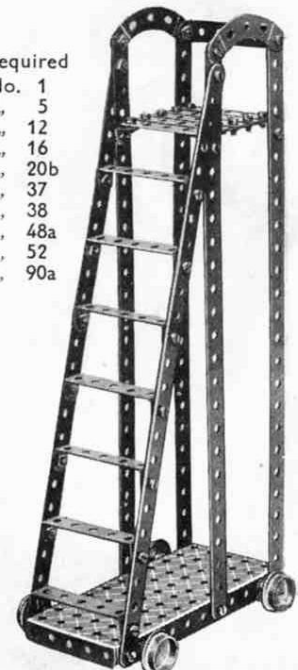
Parts required		
4 of No. 1		
5 " " 2		
5 " " 5		
4 " " 8		
1 " " 11		
3 " " 12		
2 " " 12a		
2 " " 17		
1 " " 18a		
1 " " 24		
2 " " 35		
54 " " 37		
1 " " 37a		



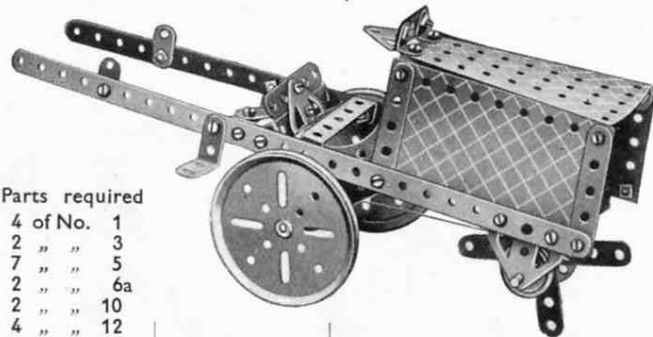
E11. Ice Yacht

E12. Ladder on Wheels

Parts required		
6 of No. 1		
7 " " 5		
4 " " 12		
2 " " 16		
4 " " 20b		
40 " " 37		
4 " " 38		
8 " " 48a		
1 " " 52		
4 " " 90a		



E13. Hay Tedder



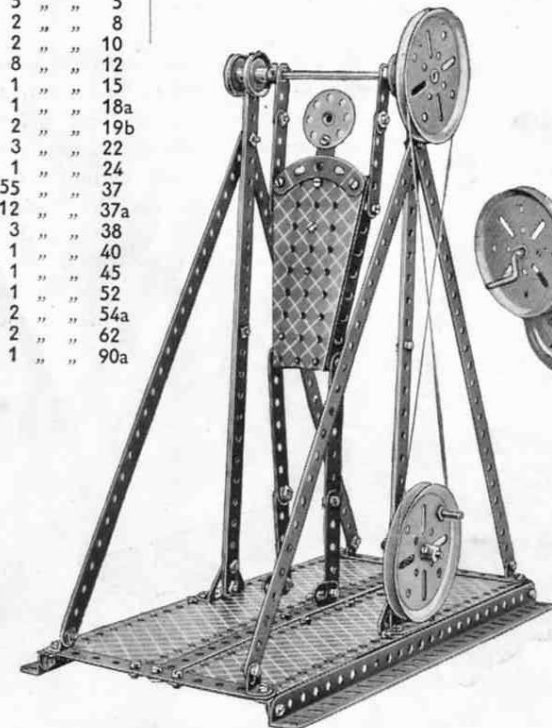
Parts required

4 of No. 1			
2 " " 3			
7 " " 5			
2 " " 6a			
2 " " 10			
4 " " 12			
2 " " 12a	3 of No. 22	1 of No. 40	6 of No. 111c
1 " " 15d	1 " " 24	3 " " 48a	2 " " 126
1 " " 16	30 " " 37	1 " " 54a	2 " " 126a
2 " " 19b	6 " " 37a	4 " " 59	2 " " 191
1 " " 20b	8 " " 38	3 " " 90a	

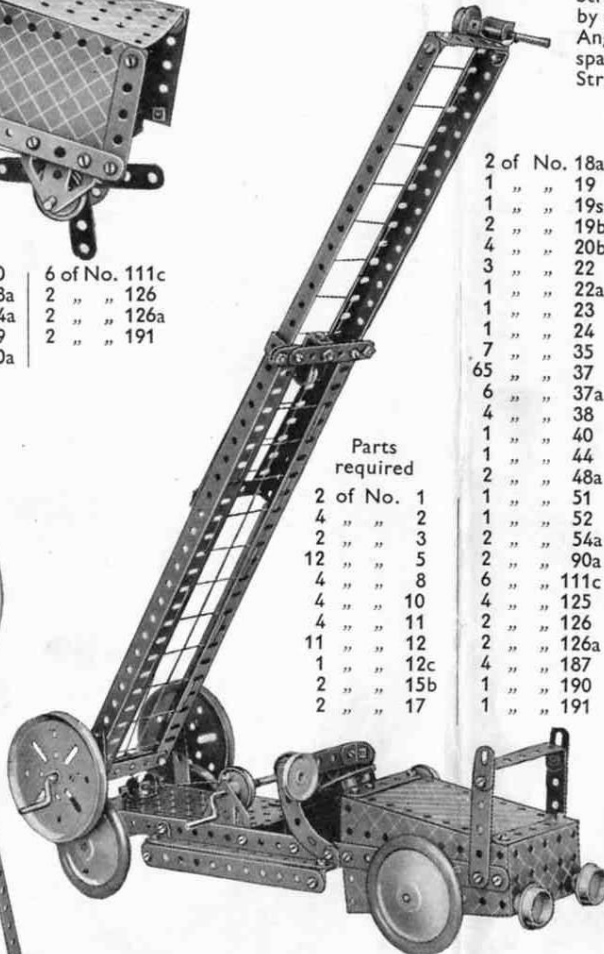
E14. Acrobat

Parts required

9 of No. 1	6 of No. 111c	1 of No. 176
2 " " 2	1 " " 115	2 " " 197
2 " " 3	2 " " 126	
5 " " 5		
2 " " 8		
2 " " 10		
8 " " 12		
1 " " 15		
1 " " 18a		
2 " " 19b		
3 " " 22		
1 " " 24		
55 " " 37		
12 " " 37a		
3 " " 38		
1 " " 40		
1 " " 45		
1 " " 52		
2 " " 54a		
2 " " 62		
1 " " 90a		



E15. Fire Engine



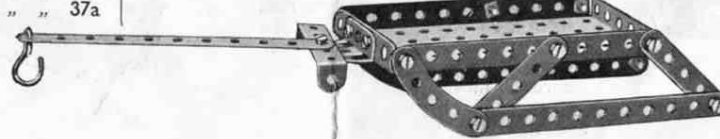
Parts required

2 of No. 1	
4 " " 2	
2 " " 3	
12 " " 5	
4 " " 8	
4 " " 10	
4 " " 11	
11 " " 12	
1 " " 12c	
2 " " 15b	
2 " " 17	

E16. Horse Sleigh

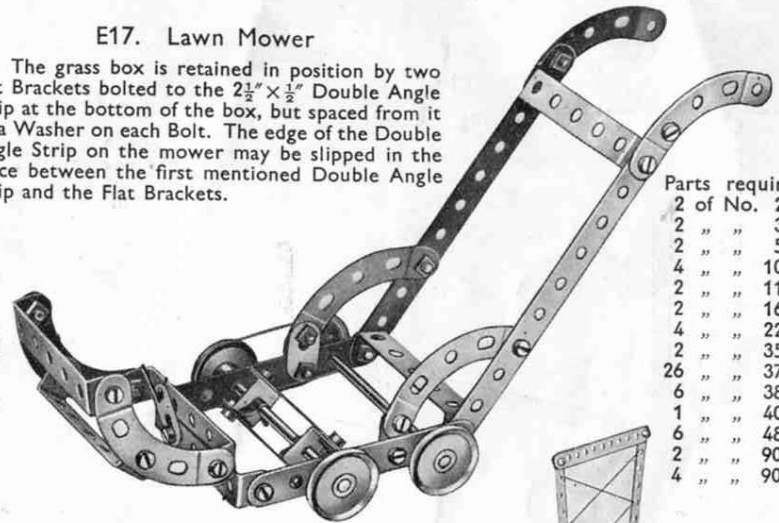
Parts required

3 of No. 2	1 of No. 48a	2 of No. 90
4 " " 5	1 " " 52	1 " " 111c
1 " " 23	1 " " 57c	1 " " 126
12 " " 37		
2 " " 37a		



E17. Lawn Mower

The grass box is retained in position by two Flat Brackets bolted to the $2\frac{1}{2} \times \frac{1}{2}$ Double Angle Strip at the bottom of the box, but spaced from it by a Washer on each Bolt. The edge of the Double Angle Strip on the mower may be slipped in the space between the first mentioned Double Angle Strip and the Flat Brackets.



Parts required

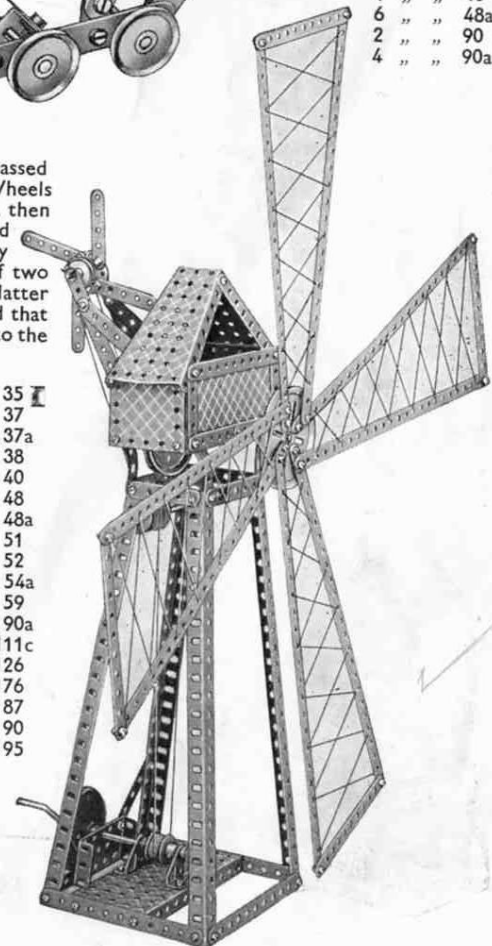
2 of No. 2	
2 " " 3	
2 " " 5	
4 " " 10	
2 " " 11	
2 " " 16	
4 " " 22	
2 " " 35	
26 " " 37	
6 " " 38	
1 " " 40	
6 " " 48a	
2 " " 90	
4 " " 90a	

E18. Windmill

The operating cord is passed twice round the Flanged Wheels at the bottom of the model, then round a 3" Pulley on the Rod carrying the sails, and lastly twice round a second set of two Flanged Wheels. These latter Flanged Wheels rotate a Rod that in turn is connected by cord to the wind vane.

Parts required

8 of No. 1	70 of No. 35
14 " " 2	4 " " 37
2 " " 3	4 " " 37a
2 " " 4	9 " " 38
12 " " 5	1 " " 40
4 " " 8	1 " " 48
2 " " 12	2 " " 48a
1 " " 15	1 " " 51
1 " " 15b	1 " " 52
1 " " 16	2 " " 54a
1 " " 17	4 " " 59
1 " " 19	4 " " 90a
2 " " 19b	4 " " 111c
4 " " 20b	2 " " 126
2 " " 22	1 " " 176
1 " " 23	1 " " 187
1 " " 24	2 " " 190
	2 " " 195





E19.
Drafting Machine

Parts required

4 of No. 1	2 of No. 5
3 " " 2	1 " " 24
1 " " 4	15 " " 37
1 of No. 52	



E20.
Scarifier

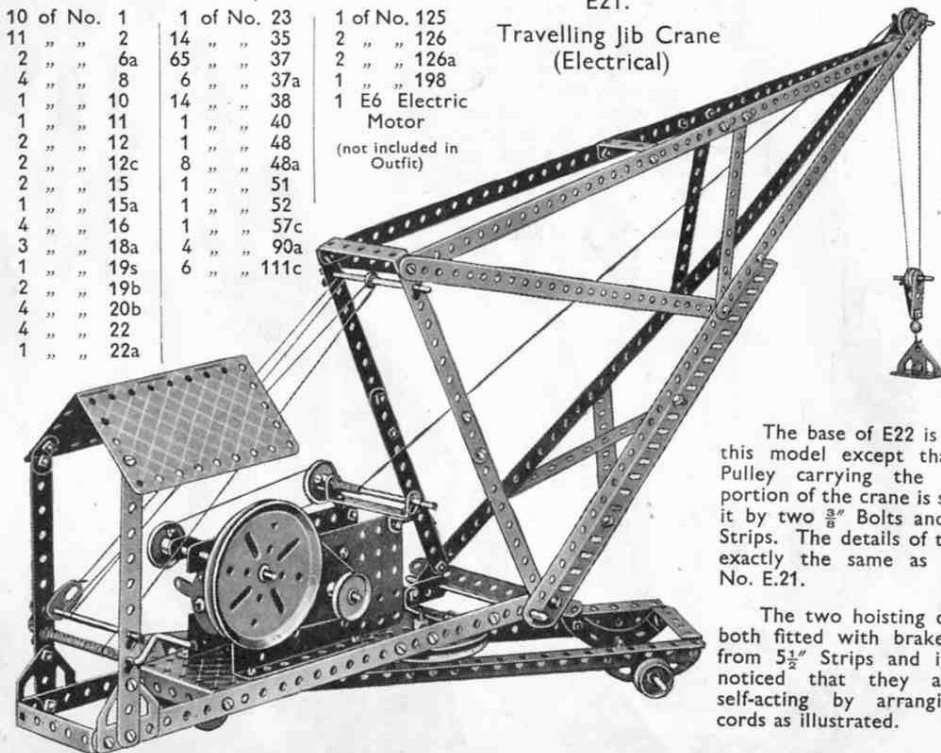
Parts required

7 of No. 2	1 of No. 18a
1 " " 3	2 " " 22
4 " " 5	29 " " 37
1 " " 10	2 " " 38
1 " " 11	2 " " 90
11 " " 12	1 " " 126a

Parts required

10 of No. 1	1 of No. 23	1 of No. 125
11 " " 2	14 " " 35	2 " " 126
2 " " 6a	65 " " 37	2 " " 126a
4 " " 8	6 " " 37a	1 " " 198
1 " " 10	14 " " 38	1 E6 Electric Motor
1 " " 11	1 " " 40	(not included in Outfit)
2 " " 12	1 " " 48	
2 " " 12c	8 " " 48a	
2 " " 15	1 " " 51	
1 " " 15a	1 " " 52	
4 " " 16	1 " " 57c	
3 " " 18a	4 " " 90a	
1 " " 19s	6 " " 111c	
2 " " 19b		
4 " " 20b		
4 " " 22		
1 " " 22a		

E21.
Travelling Jib Crane
(Electrical)



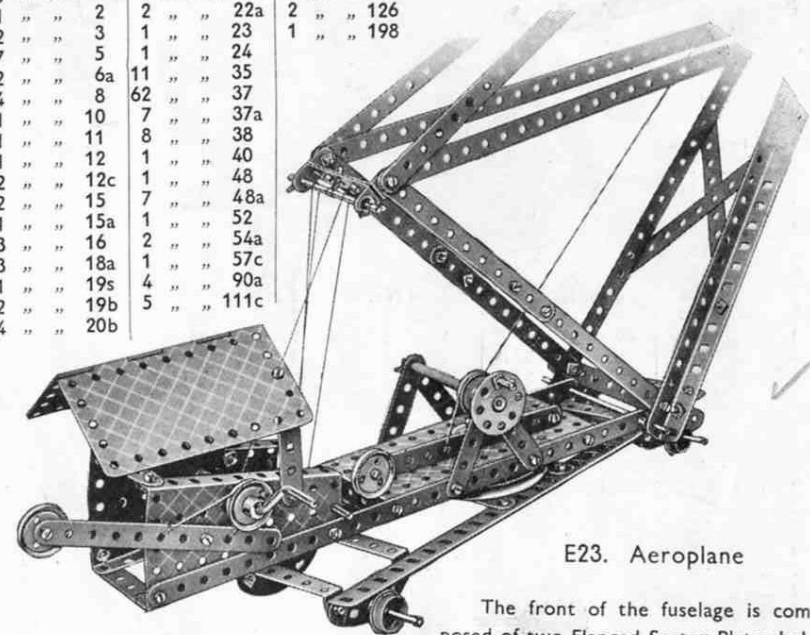
The base of E22 is similar to this model except that the 3" Pulley carrying the swivelling portion of the crane is secured to it by two $\frac{3}{8}$ " Bolts and two $3\frac{1}{2}$ " Strips. The details of the jib are exactly the same as in Model No. E21.

The two hoisting drums are both fitted with brakes formed from $5\frac{1}{2}$ " Strips and it will be noticed that they are made self-acting by arranging their cords as illustrated.

E22. Travelling Jib Crane (Hand)

Parts required

10 of No. 1	4 of No. 22	1 of No. 115
11 " " 2	2 " " 22a	2 " " 126
2 " " 3	1 " " 23	1 " " 198
7 " " 5	1 " " 24	
2 " " 6a	11 " " 35	
4 " " 8	62 " " 37	
1 " " 10	7 " " 37a	
1 " " 11	8 " " 38	
1 " " 12	1 " " 40	
2 " " 12c	1 " " 48	
2 " " 15	7 " " 48a	
1 " " 15a	1 " " 52	
3 " " 16	2 " " 54a	
3 " " 18a	1 " " 57c	
1 " " 19s	4 " " 90a	
2 " " 19b	5 " " 111c	
4 " " 20b		

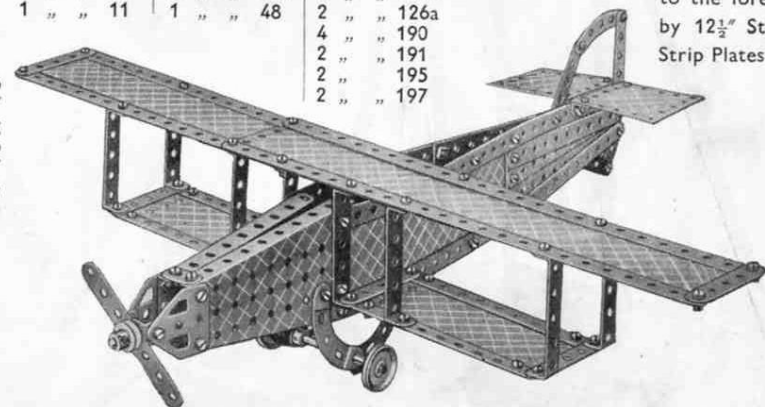


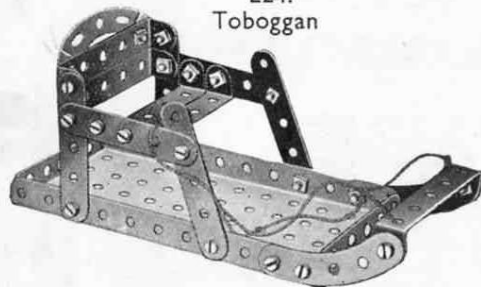
E23. Aeroplane

The front of the fuselage is composed of two Flanged Sector Plates held together at the fore part by two Flat Trunnions and a Double Bracket, this latter part forming a mounting for the propeller. The rear of the fuselage consists of eight $5\frac{1}{2}$ " Strips held together as shown, and when complete is attached to the fore section by $12\frac{1}{2}$ " Strips and Strip Plates.

Parts required

6 of No. 1	6 of No. 12	8 of No. 48a
14 " " 2	1 " " 16	2 " " 54a
2 " " 3	2 " " 22	3 " " 59
2 " " 4	1 " " 23	2 " " 90
12 " " 5	2 " " 35	4 " " 90a
1 " " 6a	76 " " 37	1 " " 111
3 " " 10	8 " " 37a	6 " " 111c
1 " " 11	1 " " 48	2 " " 126a
		4 " " 190
		2 " " 191
		2 " " 195
		2 " " 197

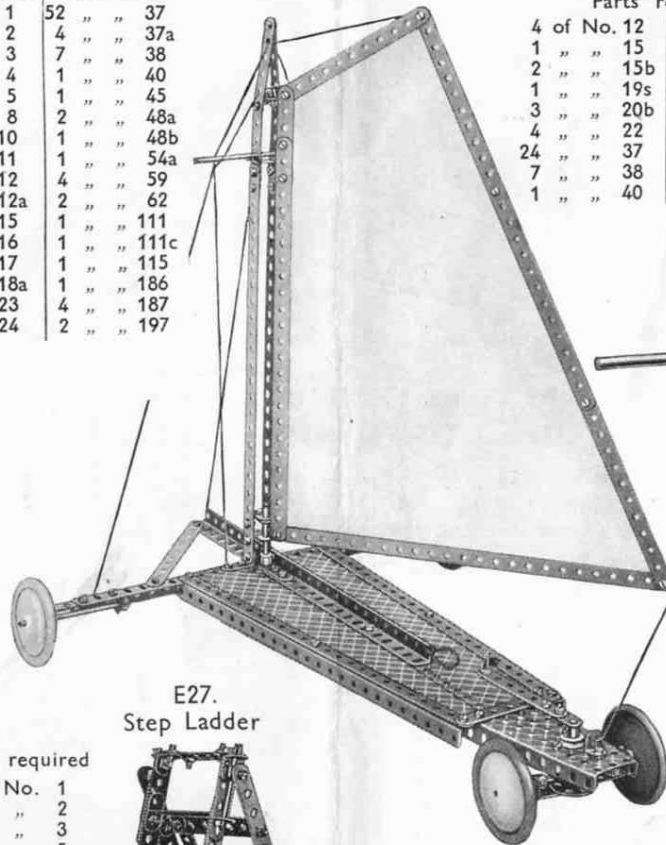


E24.
Toboggan

Parts required		
6 of No. 5	5 of No. 48a	2 of No. 90
22 " " 37	1 " " 52	1 " " 90a
1 " " 40		

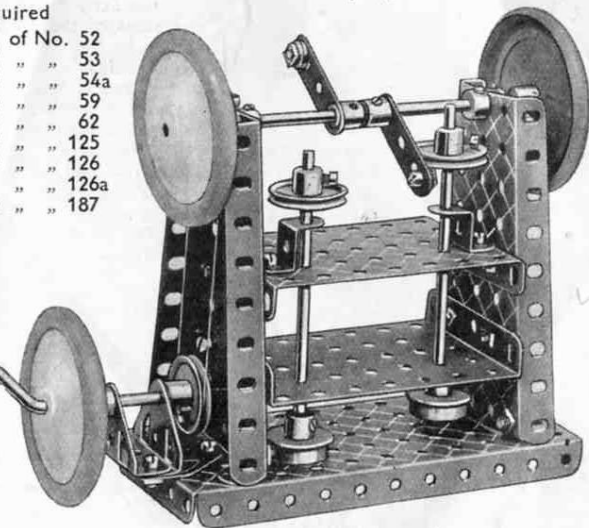
Parts required		
8 of No. 1	4 of No. 35	
5 " " 2	52 " " 37	
2 " " 3	4 " " 37a	
1 " " 4	7 " " 38	
2 " " 5	1 " " 40	
4 " " 8	1 " " 45	
2 " " 10	2 " " 48a	
4 " " 11	1 " " 48b	
6 " " 12	1 " " 54a	
1 " " 12a	4 " " 59	
1 " " 15	2 " " 62	
2 " " 16	1 " " 111	
2 " " 17	1 " " 111c	
2 " " 18a	1 " " 115	
1 " " 23	4 " " 186	
1 " " 24	4 " " 187	

E26. Land Yacht



Parts required		
4 of No. 12	1 of No. 52	
1 " " 15	2 " " 53	
2 " " 15b	2 " " 54a	
1 " " 19s	3 " " 59	
3 " " 20b	2 " " 62	
4 " " 22	2 " " 125	
24 " " 37	2 " " 126	
7 " " 38	1 " " 126a	
1 " " 40	3 " " 187	

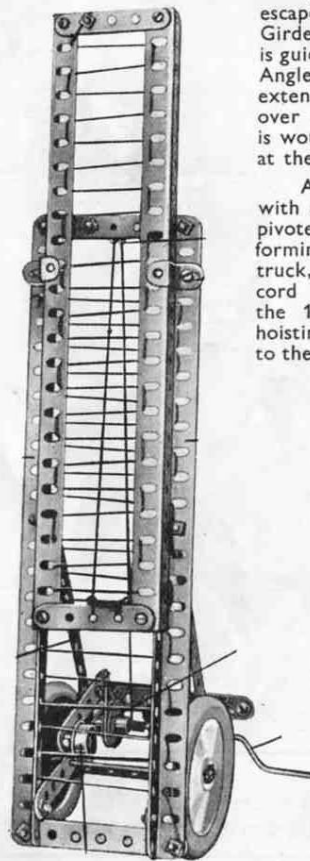
E28. Stamping Mill



E25. Fire Escape

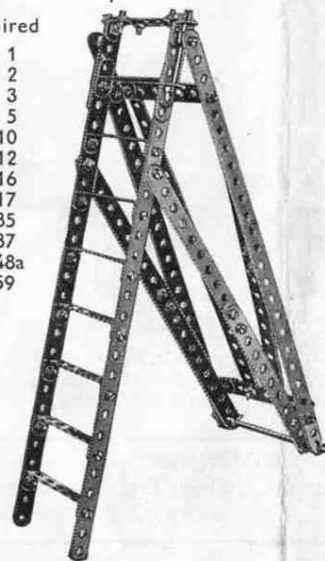
The moving portion of the escape slides on the 12½" Angle Girders of the fixed ladder and is guided by two ½" Reversed Angle Brackets. The cord for extending the ladder passes over a ½" loose Pulley and is wound on the Crank Handle at the base of the model.

A 3" Strip, weighted with a ¾" Flanged Wheel, is pivoted to the 5½" Strip forming one side of the escape truck, and a short length of cord is passed round the 1" Pulley on the hoisting shaft, and tied to the Strip.



Parts required	
4 of No. 2	
3 " " 3	
1 " " 4	
2 " " 5	
4 " " 8	
3 " " 12	
1 " " 16	
1 " " 19s	
1 " " 20b	
1 " " 22	
1 " " 23	
26 " " 37	
6 " " 37a	
5 " " 38	
2 " " 40	
2 " " 48a	
3 " " 59	
5 " " 111c	
2 " " 125	
1 " " 126a	
2 " " 187	

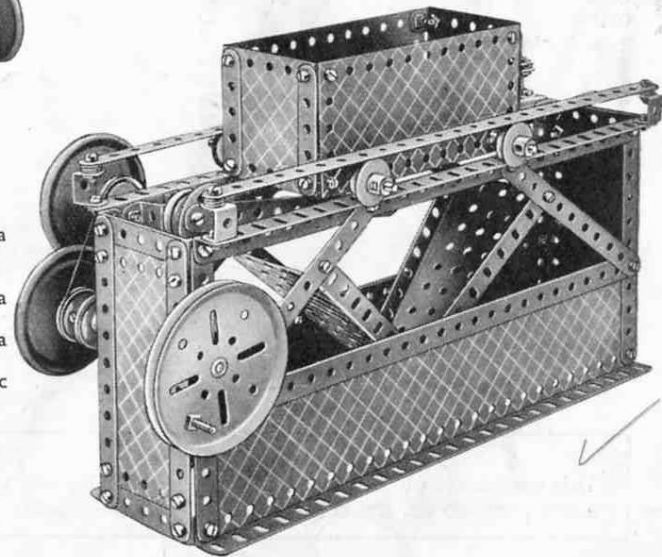
Parts required	
4 of No. 1	
8 " " 2	
2 " " 3	
3 " " 5	
2 " " 10	
10 " " 12	
1 " " 16	
2 " " 17	
10 " " 35	
38 " " 37	
8 " " 48a	
2 " " 59	

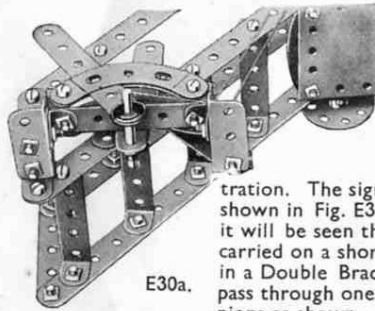
E27.
Step Ladder

Parts required	
4 of No. 1	12 of No. 37a
13 " " 2	1 " " 38
4 " " 5	6 " " 48a
4 " " 8	1 " " 52
2 " " 10	2 " " 54a
4 " " 11	4 " " 59
1 " " 12a	5 " " 111c
2 " " 15	1 " " 115
1 " " 15a	1 " " 176
1 " " 16	1 " " 186
1 " " 19b	2 " " 187
4 " " 20b	2 " " 190
4 " " 22	2 " " 191
1 " " 24	2 " " 195
64 " " 37	2 " " 197

E29. Sifter

The truck is vibrated by a 5½" Strip attached to the under side of this section of the model by a 1"×1" Angle Bracket and to a Bush Wheel by a lock-nutted Bolt. This Bush Wheel is operated through a Driving Band from a 3" Pulley carrying a Threaded Pin, shown in the illustration.



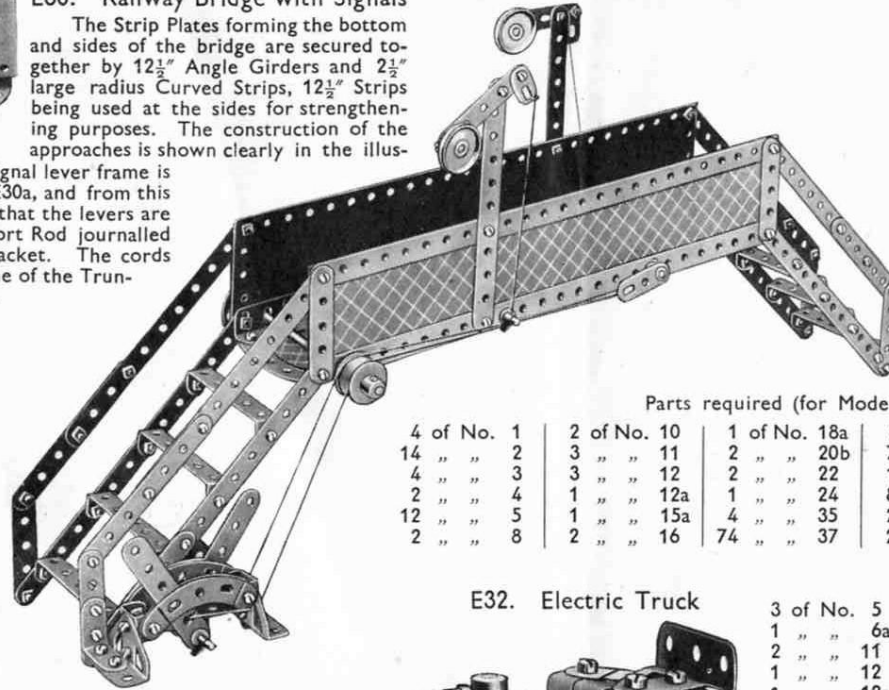


E30a.

E30. Railway Bridge with Signals

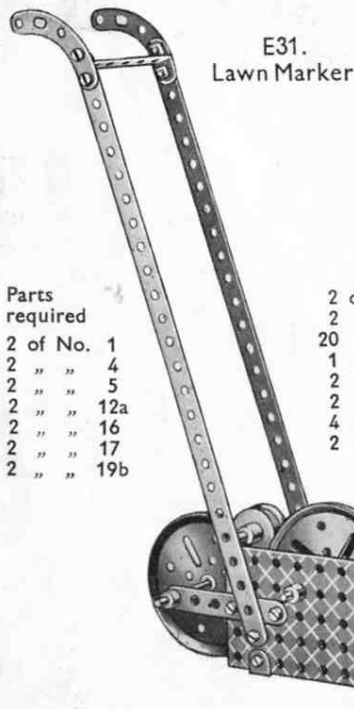
The Strip Plates forming the bottom and sides of the bridge are secured together by $12\frac{1}{2}$ " Angle Girders and $21\frac{1}{2}$ " large radius Curved Strips, $12\frac{1}{2}$ " Strips being used at the sides for strengthening purposes. The construction of the approaches is shown clearly in the illustration.

The signal lever frame is shown in Fig. E30a, and from this it will be seen that the levers are carried on a short Rod journalled in a Double Bracket. The cords pass through one of the Trunnions as shown.



Parts required (for Model E30)

4 of No. 1	2 of No. 10	1 of No. 18a	2 of No. 37a	4 of No. 90a
14 " " 2	3 " " 11	2 " " 20b	7 " " 38	2 " " 111c
4 " " 3	3 " " 12	2 " " 22	1 " " 40	2 " " 126
2 " " 4	1 " " 12a	1 " " 24	8 " " 48a	1 " " 190
2 " " 5	1 " " 15a	4 " " 35	2 " " 62	2 " " 195
2 " " 8	2 " " 16	74 " " 37	2 " " 90	2 " " 197

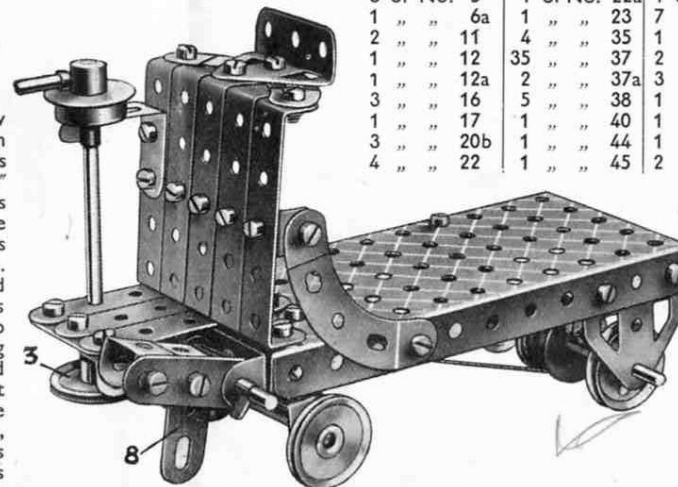
E31.
Lawn Marker

Parts required

2 of No. 1
2 " " 4
2 " " 5
2 " " 12a
2 " " 16
2 " " 17
2 " " 19b

2 of No. 20b
2 " " 22
20 " " 37
1 " " 38
2 " " 48a
2 " " 53
4 " " 59
2 " " 90a

An underneath view of the truck is shown in Fig. E32a. The front axle is journalled in a $1\frac{1}{2}$ " x $\frac{1}{2}$ " Double Angle Strip that is free to turn on a Double Bent Strip, from which it is spaced by a $\frac{1}{2}$ " loose Pulley. A length of cord is wrapped round the 1" Pulley as shown, that is secured to the end of the steering column, and then passed through a Cranked Bent Strip and secured to the Double Angle Strip, mentioned earlier, as shown. The brake cord is attached to the Double Bent Strip, wrapped several times round two $\frac{3}{4}$ " Flanged Wheels, passed through an Angle Bracket, and is finally attached to a Crank. The operating pedal consists of Double Brackets bolted to another Crank that is secured to the same Rod as the first mentioned Crank.

E32. Electric Truck

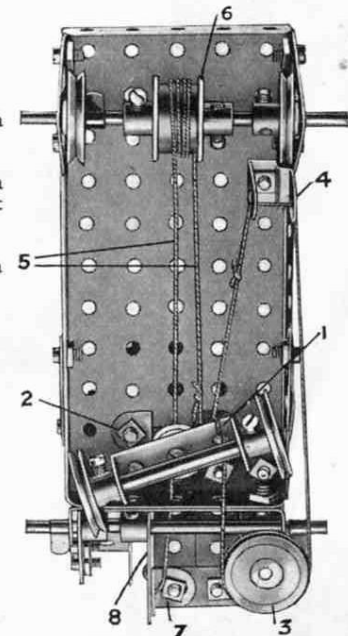
3 of No. 5	1 of No. 22a	1 of No. 48
1 " " 6a	1 " " 23	7 " " 48a
2 " " 11	4 " " 35	1 " " 52
1 " " 12	35 " " 37	2 " " 62
1 " " 12a	2 " " 37a	3 " " 90a
3 " " 16	5 " " 38	1 " " 111c
1 " " 17	1 " " 40	1 " " 115
3 " " 20b	1 " " 44	1 " " 126
4 " " 22	1 " " 45	2 " " 126a

E33. Spinning Top

The drum on which the cord is wound consists of two $\frac{3}{4}$ " Flanged Wheels butted together. While the cord is being pulled, the top is held steadily on some smooth surface by means of the handle shown above. The handle is then lifted off, allowing the top to spin freely.

Parts required

1 of No. 2
1 " " 16
2 " " 19b
2 " " 20b
2 " " 37
1 " " 40
1 " " 62



E32a.

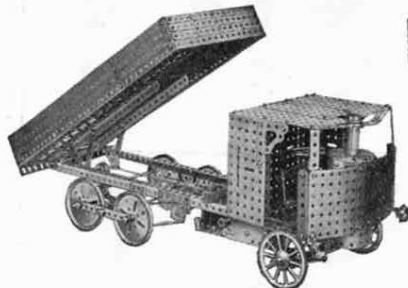
HOW TO CONTINUE

This completes our examples of models that may be made with MECCANO Outfit E (or D and Da). The next models are a little more advanced, requiring a number of extra parts to construct them. The necessary parts are all contained in an Ea Accessory Outfit, the price of which may be obtained from any Meccano dealer.

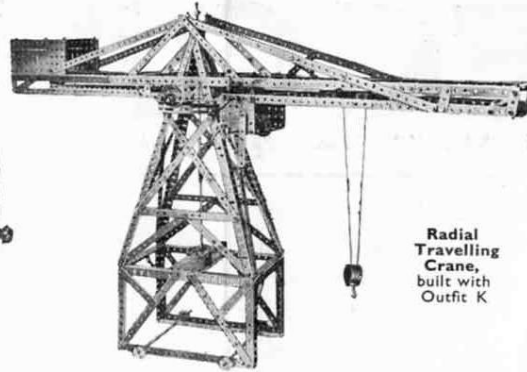
Build Bigger and Better Models



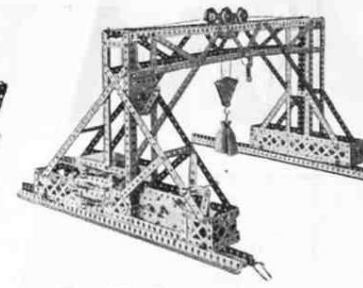
Platform Scales, built with Outfit K



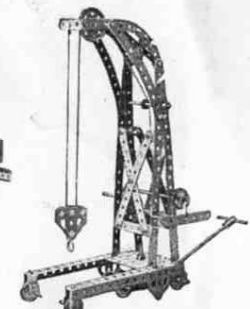
Tipping
Steam Wagon,
built with Outfit H



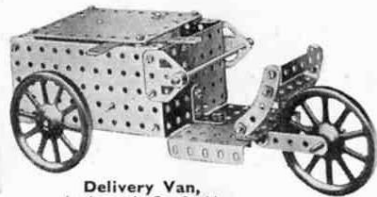
Radial
Travelling
Crane,
built with
Outfit K



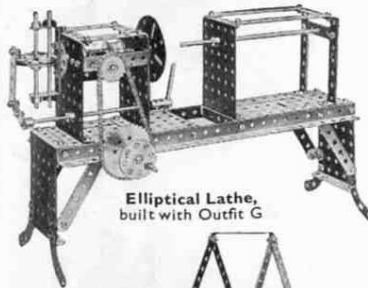
Travelling Gantry Crane,
built with Outfit L



Portable
Crane,
built with
Outfit K



Delivery Van,
built with Outfit H



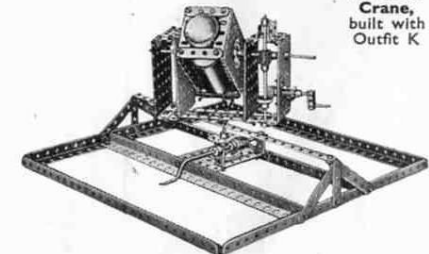
Elliptical Lathe,
built with Outfit G

Keep adding to your Outfit

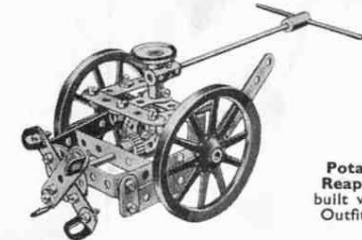
The more Meccano parts you have, the bigger and better the models you are able to build. Keen and enthusiastic model-builders keep adding to their Outfits, until they are able to build all the wonderful models shown in the Meccano Manuals.

The model-building possibilities of the Meccano System are limitless. All the fine models illustrated on this page are examples of the types you will be able to build as your Outfit develops.

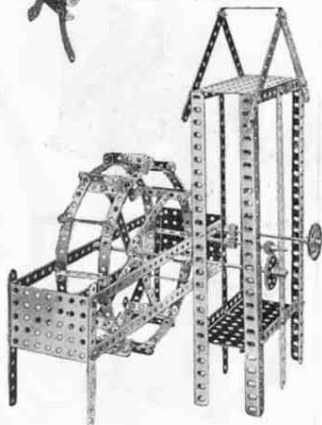
You can purchase separate Meccano parts as you require them, or, if you prefer, you can purchase Accessory Outfits that connect all the main Outfits.



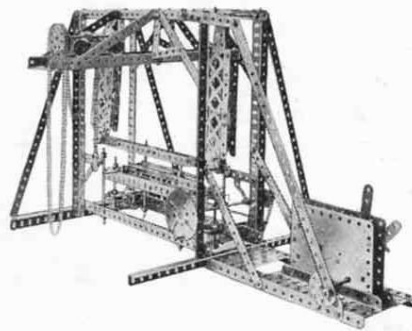
Searchlight, built with Outfit K



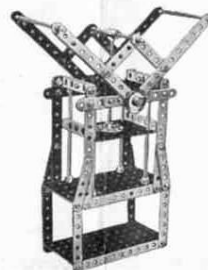
Potato
Reaper,
built with
Outfit H



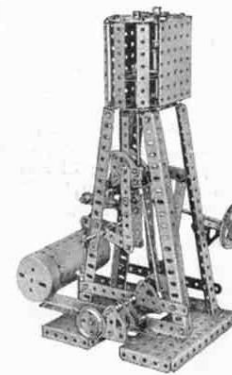
Belgian Water Wheel, built with
Outfit H



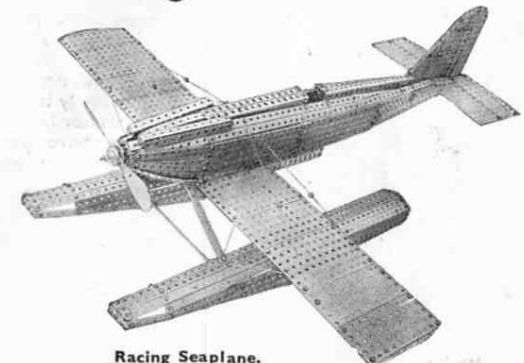
Stone Sawing
Machine,
built with Outfit K



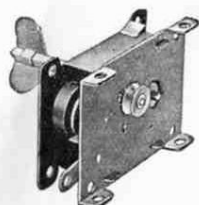
Bale Press, built with Outfit G



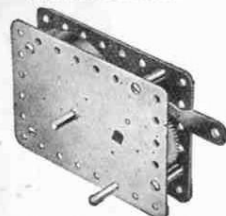
Vertical Marine Engine,
built with Outfit H



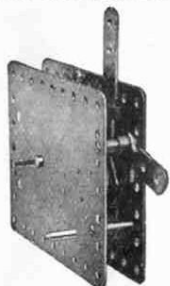
Racing Seaplane,
built with Outfit L



X Clockwork Motor



No. 1 Clockwork Motor



No. 2 Clockwork Motor



Resistance Controller



6-volt 20-amp. hr. Accumulator

MECCANO

POWER UNITS FOR OPERATING MECCANO MODELS

If you want to obtain the fullest enjoyment from the Meccano hobby you should operate your models by means of one of the Meccano power units described on this page. You push over the control lever of the clockwork or electric motor and immediately your Crane, Motor Car, Ship Coaler or Windmill commences to work in exactly the same manner as its prototype in real life.

The side plates and bases of each motor are pierced with the standard Meccano equidistant holes, which enables the motor to be built into any Meccano model in the exact position required.

Meccano Clockwork Motors

These are the finest clockwork Motors obtainable for driving models. They have exceptional power and length of run and their gears are cut with such precision as to make them perfectly smooth and steady in operation.

X SERIES CLOCKWORK MOTOR. A fine Motor specially designed to drive with ease any of the X Series models. It is non-reversing.

No. 1 CLOCKWORK MOTOR. An efficient and long-running Motor fitted with a brake lever. It is non-reversing.

No. 1a. CLOCKWORK MOTOR. This Motor is more powerful than the No. 1 Motor and is fitted with reversing motion. It has start, stop and reverse levers.

No. 2 CLOCKWORK MOTOR. This is a Motor of super quality. Brake and reverse levers enable the Motor to be started stopped or reversed, as required.

Meccano Electric Motors

The five Meccano Electric Motors detailed below provide smooth-running power units for the operation of Meccano models. The 6-volt Motors may be operated either from a 6-volt Accumulator, or through a Transformer direct from the mains providing that the supply is alternating current. They cannot be run satisfactorily from dry cells. The 20-volt Motors are most conveniently operated through a 20-volt Transformer from alternating current supply mains.

No. E1 Electric Motor (6-volt). Non-reversing.

No. E6 Electric Motor (6-volt). Reversing.

No. E120 Electric Motor (20-volt). Non-reversing.

No. E20A Electric Motor (20-volt). Non-reversing.

No. E20B Electric Motor (20-volt). Reversing.

Meccano Transformers

A Meccano Transformer provides a convenient and safe means of driving a Meccano Electric Motor from the mains supply where this is alternating current.

There are six Transformers in the series, all of which are available for the following A.C. supplies:—100/110 volts, 50 cycles; 200/225 volts, 50 cycles; 225/250 volts, 50 cycles. Any of the Transformers can be specially wound for supplies other than these at a small extra charge. When ordering a Transformer the voltage and frequency of the supply must always be stated.

No. T6 Transformer (Output 25 VA at 9 volts) for 6-volt Electric Motors. Fitted with speed regulator.

No. T6M Transformer (Output 25 VA at 9 volts) for 6-volt Electric Motors. This is similar to No. T6, but is not fitted with a speed regulator.

No. T6A Transformer (Output 40 VA at 9½ volts) for 6-volt Electric Motors. Fitted with speed regulator and separate circuit for supplying current for eighteen 3½-volt lamps.

No. T20 Transformer (Output 20 VA at 20 volts) for 20-volt Electric Motors. Fitted with 5-stud speed regulator.

No. T20M Transformer (Output 20 VA at 20 volts) for 20-volt Electric Motors. This is similar to No. T20, but is not fitted with speed regulator.

No. T20A Transformer (Output 35 VA at 20½ volts) for 20-volt Electric Motors. Fitted with speed regulator and output sockets for lighting lamps.

Accumulators

The 6-volt 20-amp. hr. Accumulator is specially suitable for running Meccano 6-volt Motors and Hornby 6-volt Electric Trains.

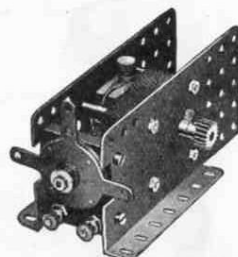
The 2-volt 20-amp. hr. Meccano Accumulator is supplied for converting 4-volt Accumulators to 6-volt.

Resistance Controller

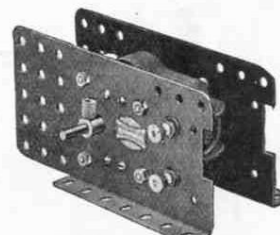
This Controller enables the speed of Meccano 6-volt and 20-volt Motors and Hornby 6-volt and 20-volt Electric Trains to be regulated as desired.



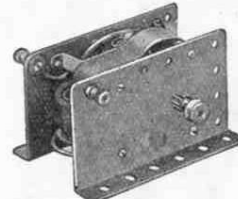
No. E1 Electric Motor (6-volt)



No. E6 Electric Motor (6-volt)



No. E20a Electric Motor (20-volt)



No. E1/20 Electric Motor (20-volt)



No. T20 Transformer

Ask your dealer for a complete price list

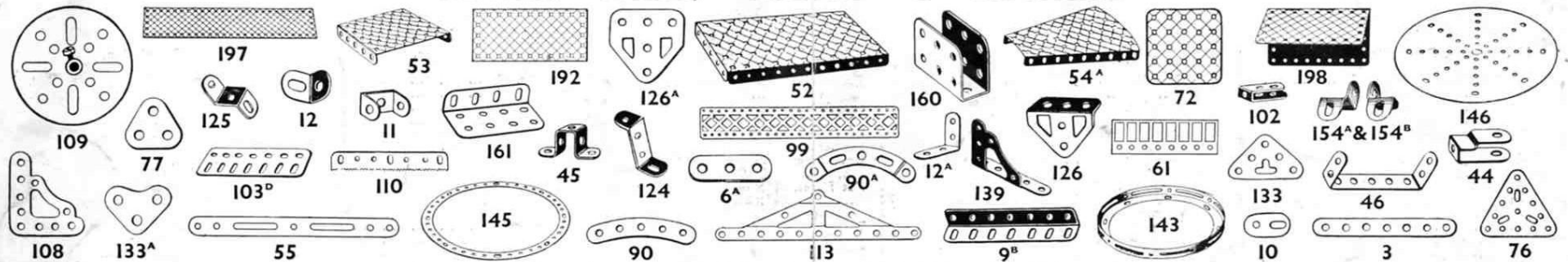
MECCANO PARTS AND ACCESSORIES

No.	Description.	No.	Description.	No.	Description.	No.	Description.	No.	Description.
1	Perforated Strips, 12"	27	Gear Wheels 50 teeth ...	64	Threaded Bosses ...	111	Bolts, ...	154a	Corner Angle Brackets, R.H.
1a	" " 9"	27a	" 57 " " " "	65	Centre Forks ...	111a	" " " " " "	154b	" " " " " " L.H.
1b	" " 7"	27b	Gear Wheels, 133 teeth 3" diam.	66	Weights 50-gramme ...	111c	" " " " " "	155	Rubber Rings, 8" " " "
2	" " 5"	27c	" 95 " " " "	67	" 25 " " " "	113	Girder Frames ...	156	Pointers, 2 1/2", with boss ...
2a	" " 4"	28	Contrate Wheels, 1 1/2" diam.	68	Wood screws, 1" " " "	114	Hinges ...	157	Fans 2" diam. ...
3	" " 3"	29	" " " " " " " "	69	Set Screws ...	115	Threaded Pins ...	158a	Signal Arms, Home ...
4	" " 3"	30	Bevel Gears, 26 teeth ...	69a	Grub Screws, 5/32" " " "	116	Fork Pieces, Large ...	158b	" " " " " " Distant ...
5	" " 2"	30a	" " 16 " " " "	69b	" 7/32" " " " "	116a	" " " " " " Small ...	160	Channel Bearings, 1 1/2" x 1 1/2" x 1 1/2" " "
6	" " 2"	30c	" " 1 1/2" 48 " " " "	70	Flat Plates, 5 1/2" x 2 1/2" " " "	117	Steel Balls, 5/8" diam. ...	161	Girder Brackets, 2 1/2" x 1 1/2" x 1 1/2" " "
6a	" " 1 1/2" " " " "	31	Gear Wheels, 1", 38 teeth ...	72	" " 2 1/2" x 2 1/2" " " "	118	Hub Discs, 5/8" diam. ...	162	Boiler with ends, complete ...
7	Angle Girders, 24" " " "	32	Worms ...	73	" " 5" x 1 1/2" " " "	119	Channel Segments (8 to circle) ...	162a	Boiler Ends ...
7a	" " 18" " " " "	34	Spanners ...	76	Triangular Plates 2 1/2" " " "	120	Buffers ...	162b	Boilers without Ends ...
8	" " 12" " " " "	34b	Box Spanners ...	77	" " " " " " " "	120a	Spring Buffers ...	163	Sleeve Pieces for Cyclinder ...
8a	" " 9" " " " "	35	Spring Clips ...	78	Screw Rods, 11" " " "	120b	Compression Springs ...	164	Chimney Adaptors ...
8b	" " 7" " " " "	36	Screwdrivers ...	79	" " 8" " " " "	121	Train Couplings ...	165	Swivel Bearings ...
9	" " 5" " " " "	36a	" " extra long ...	79a	" " 6" " " " "	122	Miniature Loaded Sacks ...	166	End Bearings ...
9a	" " 4" " " " "	36b	Screwdrivers Special ...	80	" " 5" " " " "	123	Cone Pulleys ...	167	Geared Roller Bearings ...
9b	" " 3" " " " "	37	Nuts and Bolts, 7/32" " " "	80a	" " 3" " " " "	124	Reversed Angle Brackets, 1" " " "	167a	Roller Races, Geared, 192 teeth
9c	" " 3" " " " "	37a	Nuts ...	80b	" " 4" " " " "	125	" " " " " " " "	167b	Ring Frames for Rollers ...
9d	" " 2" " " " "	37b	Bolts, 7/32" " " " "	81	" " 2" " " " "	126	Trunnions ...	167c	Pinions, 16 teeth ...
9e	" " 2" " " " "	38	Washers ...	82	" " 1" " " " "	126a	Flat Trunnions ...	168	Ball Bearings, 4" diam. ...
9f	" " 1 1/2" " " " "	40	Hanks of Cord ...	89	Curved Strips 5" " " "	127	Simple Bell Cranks ...	168a	" " Races, Flanged Disc ...
10	Flat Brackets ...	41	Propeller Blades ...	89a	" " 3" Cranked ...	128	Boss Bell Cranks ...	168b	" " Toothed ...
11	Double Brackets ...	43	Springs ...	89b	" " 4" " " " "	129	Rack Segments, 3" diam. ...	168c	Ball Casings complete with Balls
12	Angle Brackets, 1" x 1" " " "	44	Cranked Bent Strips ...	90	" " 2" " " " "	130	Triple Throw Eccentrics ...	169	Digger Buckets ...
12a	" " 1" x 1" " " " "	45	Double Bent Strips ...	90a	" " 2" Cranked length ...	131	Dredger Buckets ...	170	Eccentrics 3" throw ...
12b	" " 1" x 1 1/2" " " " "	46	Double Angle Strips, 2 1/2" x 1" " " "	94	Sprocket Chain 40" length ...	132	Flywheels, 2 1/2" diam. ...	171	Socket Couplings ...
12c	Obtuse Angle Bracket 1 1/2" x 1 1/2" " " "	47	" " " " " " " "	95	" " Wheels, 2" " " " "	133	Corner Brackets, 1 1/2" " " "	172	Pendulum Connections ...
13	Axle Rods, 11 1/2" " " " "	47a	" " " " " " " "	95a	" " 1 1/2" " " " "	133a	" " " " " " " "	173	Rail Adaptors ...
13a	" " 8" " " " "	48	" " " " " " " "	95b	" " 1" " " " "	134	Crank Shafts, 1" stroke ...	174	Grease Cups ...
14	" " 6" " " " "	48a	" " " " " " " "	96	" " 1" " " " "	135	Theodolite Protractors ...	175	Flexible Coupling Units ...
15	" " 5" " " " "	48b	" " " " " " " "	96a	" " " " " " " "	136	Handrail Supports ...	176	Anchoring Springs for Cord ...
15a	" " 4" " " " "	48c	" " " " " " " "	97	Braced Girders, 3" " " "	136a	" " Coupling ...	177	Shafting Standard, Large ...
15b	" " 4" " " " "	48d	" " " " " " " "	97a	" " 3" " " " "	137	Wheel Flanges ...	178	" " Small ...
16	" " 3" " " " "	50a	Eye Pieces with Boss ...	98	" " 2" " " " "	138	Ship's Funnels ...	179	Rod Socket ...
16a	" " 2 1/2" " " " "	51	Perf. Flanged Plates, 2 1/2" x 1 1/2" " " "	99	" " 12" " " " "	138a	" " Raked, Cunard ...	180	Gear Ring 3 1/2", 133 teeth ext., 95 teeth int.
16b	" " 3" " " " "	52	" " 5 1/2" x 2 1/2" " " " "	99a	" " 9" " " " "	139	Flanged Brackets, Right ...		
17	" " 2" " " " "	52a	Flat Plates, 5 1/2" x 3 1/2" " " " "	99b	" " 7" " " " "	139a	" " Left ...	181	Bobbin ...
18	" " 1 1/2" " " " "	53	Perf. Flanged Plates, 3 1/2" x 2 1/2" " " "	100	" " 5 1/2" " " " "	140	Universal Couplings ...	182	Insulating Bush, 6 BA ...
18a	" " 1" " " " "	53a	Flat Plates, 4 1/2" x 2 1/2" " " " "	100a	" " 4" " " " "	141	Wire Lines (for clock-weight) ...	183	Lamp Holders ...
18b	" " " " " " " "	54	Perf. Flanged Sector Plates, 4" " " "	101	Healds for Loom ...	142	Rubber Rings, 3" " " " "	184a	Lamps, 2 1/2" volt ...
19	Crank Handles, 5" Shaft ...	54a	" " " " " " " "	102	Single Bent Strips ...	142a	Motor Tyres, 2" " " " "	184b	" " 3 1/2" " " " "
19a	" " 3 1/2" " " " "	55	Perf. Strips, Slotted, 5 1/2" " " "	103	Flat Girders, 5 1/2" " " "	142b	" " 3" " " " "	184c	" " 6" " " " "
19b	Pulley Wheels, 3" with set screws	55a	" " 2" " " " "	103a	" " 9" " " " "	142c	" " 1" " " " "	184d	" " 10" " " " "
19c	" " 6" " " " "	57	Hooks ...	103b	" " 12" " " " "	142d	" " 1 1/2" " " " "	184e	" " 20" " " " "
20	Flanged Wheels 1 1/2" diam. ...	57a	" " Scientific ...	103c	" " 4" " " " "	143	Circular Girders, 5 1/2" diam. ...	185	Steering Wheel 1 1/2" diam. ...
20a	Pulley Wheels 2" with set screws	57b	" " Loaded ...	103d	" " 3" " " " "	144	Dog Clutches ...	185	Driving Bands ...
20b	Flanged Wheels 3/4" diam. ...	57c	" " Small ...	103e	" " 3" " " " "	145	Circular Strips, 7 1/2" diam. ...	187	Road Wheels ...
21	Pulley Wheels 1 1/2" with set screws	58	Spring Cord ...	103f	" " 2 1/2" " " " "	146	" " Plates, 6" diam. ...	188	Flexible Plates, 2 1/2" x 1 1/2" " " "
22	" " 1" " " " "	58a	Coupling Screws for Spring Cord ...	103g	" " 2" " " " "	146a	Circular Plates, 4" diam. ...	189	" " 5 1/2" x 1 1/2" " " "
22a	" " 1" " " " "	58b	" " Hooks ...	103h	" " 1 1/2" " " " "	147	Pawls with pivot bolt and nuts ...	190	" " 2 1/2" x 2 1/2" " " "
23	" " 1 1/2" " " " "	59	Collars with Grub Screws ...	103k	" " 7" " " " "	147a	Pawls ...	191	" " 4 1/2" x 2 1/2" " " "
23a	" " 1 1/2" " " " "	61	Windmill Sails ...	104	Shuttles for Looms ...	147b	Pivot Bolt with 2 Nuts ...	192	" " 5 1/2" x 2 1/2" " " "
24	Bush Wheels ...	62	Cranks ...	105	Reed Hooks ...	147c	Pawl, without Boss ...	193	Strip ...
25	Pinion Wheels, 2" diam., 1/2" wide	62a	" " Threaded ...	106	Rollers for Looms, Wood ...	148	Ratchet Wheels ...	194	" " 3 1/2" x 2 1/2" " " "
25a	" " " " " " " "	62b	Double Arm Cranks ...	106a	" " Sand ...	149	Collector Shoes for Locos ...	195	" " 5 1/2" x 2 1/2" " " "
25b	" " " " " " " "	63	Couplings ...	107	Tables for Designing Machines ...	150	Crane Grabs ...	196	" " 9 1/2" x 2 1/2" " " "
26	" " " " " " " "	63a	" " Octagonal ...	108	Architraves ...	151	Pulley Blocks, 1 Sheave ...	197	" " 12 1/2" x 2 1/2" " " "
26a	" " " " " " " "	63b	" " Strip ...	109	Face Plates, 2 1/2" diam. ...	152	" " 2 Sheaves ...	198	Hinged Flat Plates 4 1/2" x 2 1/2" " " "
26b	" " " " " " " "	63c	" " Threaded ...	110	Rack Strips, 3 1/2" " " "	153	" " 3 Sheaves ...		
				110a	" " 6 1/2" " " " "				

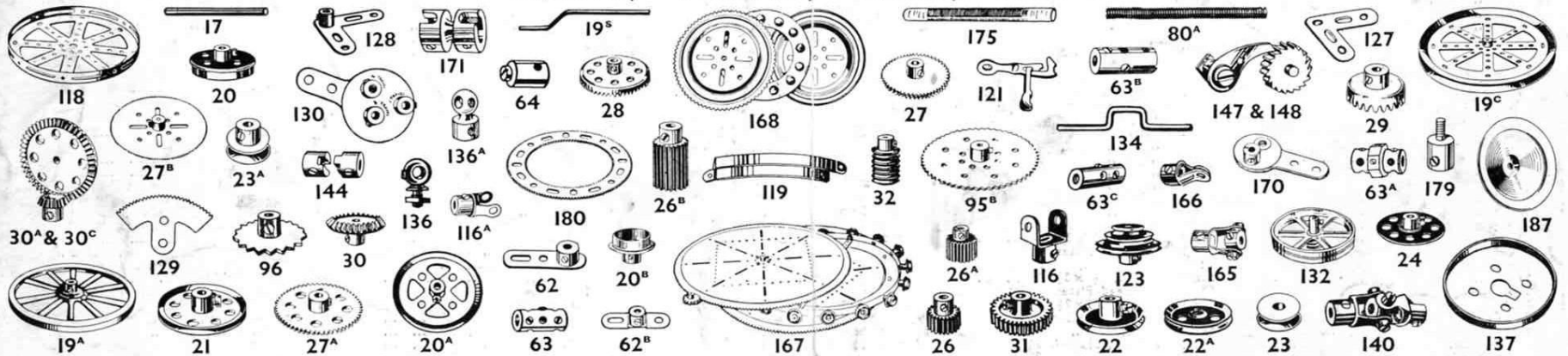
Ask your dealer for an illustrated price list of Meccano Parts and Accessories

MECCANO PARTS & ACCESSORIES

PLATES, STRIPS, GIRDERS & BRACKETS



WHEELS, PULLEYS, GEARS, ETC.



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