

MECCANO



(TRADE MARK 296321)

INSTRUCTIONS

FOR OUTFITS Nos. 0 to 3

1/-

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No. 24A

ENGLISH EDITION

A TALK WITH NEW MECCANO BOYS



MECCANO OUTFITS contain accurately-made and highly-finished engineering parts with which every movement known to mechanism may be reproduced in model form. With Meccano you can accomplish more than with any other constructional toy, for no other system has its possibilities. No study is needed to enable you to build models with Meccano—the genius is in the Meccano parts.

You never come to the end of Meccano fun. There is always more ahead—always some new, ingenious and interesting model to build. Each one, as it is completed, "tuned up," and set going, brings a joy and satisfaction beyond anything that you have ever previously experienced.

As you progress in Meccano you obtain a greater variety of parts, gear wheels, pulley wheels, worm wheels, couplings, cranks, and all manner of perfectly-made real engineering parts. These enable you to construct complicated mechanical movements without any difficulty. The most wonderful feature of Meccano is that it is *real engineering*; it is fascinating

and delightful and yet so simple that even an inexperienced boy may join in the fun without first having to study or learn anything.

THE LIFE OF A MECCANO BOY

A MECCANO boy is the happiest boy in the world. He builds models from the Meccano Instruction books; invents new models; joins the Meccano Guild and a Meccano Club and by wearing the Guild badge proclaims himself to be the friend of millions of other Meccano boys all over the world. He reads the *Meccano Magazine* regularly and corresponds with his friend the Editor when he feels like it. Time never hangs heavily on his hands and he is too busy and happy to grumble.

The *Meccano Magazine* is the Meccano boy's newspaper. It tells him of the latest Meccano models; what Meccano Clubs are doing; how to correspond with other Meccano boys; the Competitions that are running, etc. It contains interesting articles on engineering and electrical subjects, and deals with many other topics of interest to boys, including suggestions from Meccano boys for new Meccano parts and correspondence columns in which the Editor replies to his readers' enquiries. Write to the Editor, *Meccano Magazine*, Binns Road, Liverpool, and he will send you a copy FREE. It is sent regularly to subscribers at the rate of 1/6 for six issues, or it may be purchased from any Meccano dealer, price 2d. per copy.



THE MECCANO GUILD



MECCANO GUILD
CLUB CERTIFICATE.

THE MECCANO GUILD is an organisation for boys, started at the request of boys and conducted as far as possible by boys. The Guild is a great fraternal organisation of which all Meccano boys should become members, for its primary object is to bring them together. The Guild makes these boys feel that they are all members of a great brotherhood, each trying to help the others to get the very best out of life and it cannot fail to have a profound effect for good on the lives of its members.

MECCANO CLUBS

MECCANO CLUBS are founded and established under the guidance of the Guild Secretary at Headquarters and at the present time there are active Clubs in over one hundred towns and villages in the United Kingdom and in many countries Overseas. Each Club has its Leader, Secretary, Treasurer, and other officials all of whom, with the exception of the Leader, are boys. Write for information how to form a club, if there is no club near you.

Special awards are given to Club members for good work in connection with their Club and medallions are awarded in connection with the Recruiting Campaign, full particulars of which will be sent on request.

HOW TO BUILD WITH MECCANO

FOLLOW the instructions closely at first, and build the models just as you see them. Then take each model and try to improve our design. Every model can be made in a dozen different ways. Screw up all the nuts and bolts firmly and you will find that you can play with the trucks, cranes, signals, etc., and obtain many hours of fun.

Meccano is sold in nine different Outfits, numbered 00 to 7. All parts are of the same high quality and finish, the larger Outfit containing a greater quantity and variety.

Each Outfit may be converted into the one next higher by the purchase of an Accessory Outfit. Thus, a No. 2 may be converted into a No. 3 by adding to it a No. 2A. A No. 3A would then convert it into a No. 4, and so on. In this way, no matter with which Outfit you commence, you may by degrees build up your Outfit to a No. 7.



SPECIAL MERIT
MEDALLIONS.



RECRUITING MEDALLION.

Particulars and Prices of Meccano Parts

3

No.	Perforated Strips, 12 $\frac{1}{2}$ " long	s. d.
1.	" 8 $\frac{1}{2}$ "	0 9
1a.	" 7 $\frac{1}{2}$ "	0 8
2.	" 5 $\frac{1}{2}$ "	0 6
2a.	" 4 $\frac{1}{2}$ "	0 5
3.	" 3 $\frac{1}{2}$ "	0 4
4.	" 2 $\frac{1}{2}$ "	0 3
5.	" 2"	0 3
6.	" 1 $\frac{1}{2}$ "	0 3
6a.	" 1"	0 3



No.	Angle Girders, 24 $\frac{1}{2}$ " long	s. d.
7.	" 18 $\frac{1}{2}$ "	0 8
7a.	" 12 $\frac{1}{2}$ "	0 6
8.	" 9 $\frac{1}{2}$ "	1 3
8a.	" 7 $\frac{1}{2}$ "	1 2
8b.	" 5 $\frac{1}{2}$ "	1 0
9.	" 4 $\frac{1}{2}$ "	0 10
9a.	" 3 $\frac{1}{2}$ "	0 8
9b.	" 3"	0 8
9c.	" 2 $\frac{1}{2}$ "	0 7
9d.	" 2"	0 6
9e.	" 1 $\frac{1}{2}$ "	0 6
9f.	" 1"	0 6



(10)



(11)

10.	Flat Brackets	each	0 2
11.	Double Brackets	each	0 1



(12)



(12a)

12.	Angle Brackets, 1 $\frac{1}{2}$ " x 1 $\frac{1}{2}$ "	doz.	0 6
12a.	" 1 $\frac{1}{2}$ " x 1"	each	0 1
12b.	" 1 $\frac{1}{2}$ " x 1 $\frac{1}{2}$ "	"	0 1



No.	Axle Rods, 11 $\frac{1}{2}$ " long	s. d.
13.	" 8 $\frac{1}{2}$ "	0 3
13a.	" 6 $\frac{1}{2}$ "	0 2
14.	" 5 $\frac{1}{2}$ "	0 2
15.	" 4 $\frac{1}{2}$ "	0 1
15a.	" 3 $\frac{1}{2}$ "	0 1
16.	" 3"	0 1
16a.	" 2 $\frac{1}{2}$ "	0 1
16b.	" 2"	0 1
17.	" 1 $\frac{1}{2}$ "	0 1
18a.	" 1"	0 1
18b.	" 1"	0 1



19.	Crank Handles	each	0 3
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No.	Wheels, 3" diam., with set screws	s. d.
19a.	each	0 8



20.	Flanged Wheels	each	0 6
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Pulley Wheels.

19b.	3" dia. with centre boss and set screw	each	0 8
19c.	6" " " " " " "	"	2 6
20a.	2" " " " " " "	"	0 6



(22)



(22a)

21.	1 $\frac{1}{2}$ " dia. with centre boss and set screw	each	0 6
22.	1" " " " " " "	"	0 4
23a.	1" " " " " " "	"	0 4
22a.	1" " without	"	0 2
23.	1" " " " " " "	"	0 2



(24)



(26)

24.	Bush Wheels	each	0 6
25.	Pinion Wheels, 1 $\frac{1}{2}$ " diam.	"	0 6
26.	" " " " " " "	"	0 4



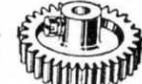
(27)



(28)

Gear Wheels.

27.	50 teeth to gear with 1 $\frac{1}{2}$ " pinion	each	0 9
27a.	57 " " " " " " "	"	0 9
28.	Contrate Wheels, 1 $\frac{1}{2}$ " diam.	"	0 9
29.	" " " " " " "	"	0 6



No.	(30)	(31)	s. d.
30.	Bevel Gears	each	0 10
31.	Gear Wheels, 1", 38 teeth	"	1 0



(32)



(33)

32.	Worm Wheels	each	0 6
33.	Pawls (complete)	"	0 4
33a.	Pivot Bolts with Nuts	"	0 2
34.	Spanners	"	0 2
34b.	Box Spanners	"	0 3



35.	Spring Clips	per box (doz.)	0 3
36.	Screw Drivers	each	0 3
36a.	" Extra Long	"	0 6
37.	Nuts and Bolts	per box (doz.)	0 6
37a.	Nuts	"	0 3
37b.	Bolts	"	0 3
38.	Washers	"	0 1
40.	Hanks of Cord	2 for	0 3
41.	Propeller Blades	per pair	0 4
43.	Springs	each	0 2

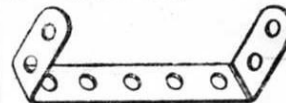


(44)



(45)

44.	Cranked Bent Strips	each	0 1
45.	Double Bent Strips	"	0 1

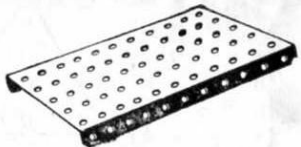


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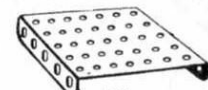


(50)

46.	Double Angle Strips, 2 $\frac{1}{2}$ " x 1"	1 doz.	0 6
47.	" " " " " " "	"	0 9
47a.	" " " " " " "	"	1 0
48.	" " " " " " "	"	0 4
48a.	" " " " " " "	"	0 5
48b.	" " " " " " "	"	0 6
48c.	" " " " " " "	"	0 9
48d.	" " " " " " "	"	0 9
50.	Eye Pieces	each	0 2



No.	Perforated Flanged Plates, 5 $\frac{1}{2}$ " x 2 $\frac{1}{2}$ "	s. d.
52.	each	0 5
52a.	Flat Plates, 5 $\frac{1}{2}$ " x 3 $\frac{1}{2}$ "	" 0 5

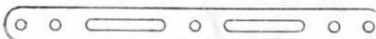


(53)



(54)

53.	Perforated Flanged Plates, 3 $\frac{1}{2}$ " x 2 $\frac{1}{2}$ "	each	0 3
53a.	Flat Plates, 4 $\frac{1}{2}$ " x 2 $\frac{1}{2}$ "	"	0 3
54.	Perforated Flanged Sector Plates	"	0 3



55.	Perforated Strips, slotted, 5 $\frac{1}{2}$ " long	each	0 2
55a.	" " " " " " "	"	0 1
56.	Instruction Manuals, Complete	"	2 6
56a.	" " No. 0-3	"	1 0
56b.	" " No. 0	"	0 4



(57)



(57b)

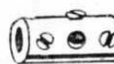


(59)

57.	Hooks	each	0 1
57a.	" (scientific)	"	0 1
57b.	" Loaded	"	0 5
58.	Spring Cord	per length	0 9
59.	Collars with Set Screws	each	0 2
61.	Windmill Sails	"	0 2



(62)

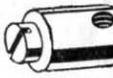


(63)

62.	Cranks	each	0 3
62a.	Threaded Cranks	"	0 4
63.	Couplings	"	0 6
63a.	Octagonal Couplings	"	0 8
63b.	Strip Couplings	"	0 8



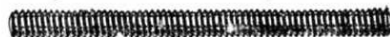
(63c)



(64)

63c.	Threaded Couplings	each	0 6
64.	Threaded Bosses	"	0 2
65.	Centre Forks	"	0 2
66.	Weights, 50 gramme	"	1 0
67.	" 25	"	1 0
68.	Wood screws, 1 $\frac{1}{2}$ "	doz.	0 3
69.	Set Screws	"	0 4
69a.	Grub Screws, 5/32"	"	0 4
69b.	" 7/32"	"	0 6

No.			s.	d.
70.	Flat Plates, $5\frac{1}{2}" \times 2\frac{1}{2}"$	each	0	3
72.	" " $2\frac{1}{2}" \times 2\frac{1}{2}"$	"	0	2
76.	Triangular Plates, $2\frac{1}{2}"$	"	0	2
77.	" " $1"$	"	0	1



No.			s.	d.
78.	Screwed Rods, $11\frac{1}{2}"$	each	0	6
79.	" " $8"$	"	0	5
79a.	" " $6"$	"	0	4
80.	" " $5"$	"	0	3
80a.	" " $3\frac{1}{2}"$	"	0	3
80b.	" " $4\frac{1}{2}"$	"	0	3
81.	" " $2\frac{1}{2}"$	"	0	2
82.	" " $1"$	"	0	1



No.			s.	d.
89.	Curved Strips, $5\frac{1}{2}"$	each	0	2
90.	" " $2\frac{1}{2}"$	"	0	1
94.	Sprocket Chain	per length	0	6

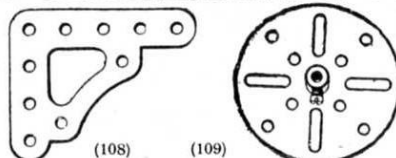


No.			s.	d.
95.	Sprocket Wheels, $2"$ diam.	each	0	5
95a.	" " $1\frac{1}{2}"$	"	0	4
95b.	" " $3\frac{1}{2}"$	"	0	6
96.	" " $1"$	"	0	3
96a.	" " $2"$	"	0	3



No.			s.	d.
97.	Braced Girders, $3\frac{1}{2}"$ long	$\frac{1}{2}$ doz.	0	9
98.	" " $2\frac{1}{2}"$	"	0	6
99.	" " $12\frac{1}{2}"$	"	1	9
99a.	" " $9\frac{1}{2}"$	"	1	6
100.	" " $5\frac{1}{2}"$	"	1	0
101.	Healds, for looms	doz.	0	9
102.	Single Bent Strips	each	0	1
103.	Flat Girders, $5\frac{1}{2}"$ long	$\frac{1}{2}$ doz.	1	0
103a.	" " $9\frac{1}{2}"$	"	1	6
103b.	" " $12\frac{1}{2}"$	"	2	0
103c.	" " $4\frac{1}{2}"$	"	0	9
103d.	" " $3\frac{1}{2}"$	"	0	7
103e.	" " $3"$	"	0	6
103f.	" " $2\frac{1}{2}"$	"	0	5
103g.	" " $2"$	"	0	4
103h.	" " $1\frac{1}{2}"$	"	0	3
104.	Shuttles, for looms	each	4	0
105.	Reed Hooks, for looms	"	0	4

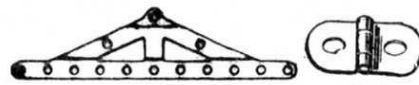
No.			s.	d.
106.	Wood Rollers	each	1	3
106a.	Sand Rollers	"	1	6
107.	Tables for Designing Machines	"	1	0



No.			s.	d.
108.	Architraves, $1\frac{1}{2}"$	each	0	2
109.	Face Plates, $2\frac{1}{2}"$ diam.	"	0	4
110.	Rack Strips, $3\frac{1}{2}"$	each	0	2



No.			s.	d.
111.	Bolts, $\frac{3}{8}"$	each	0	1
111a.	" " $\frac{1}{2}"$	2 for	0	1
111b.	" " $7/32"$	doz.	0	4



No.			s.	d.
113.	Girder Frames	each	0	2
114.	Hinges	per pair	0	4



No.			s.	d.
115.	Threaded Pins	each	0	2
116.	Fork Pieces	"	0	3
117.	Steel Balls, $\frac{1}{2}"$ diam.	doz.	0	6



No.			s.	d.
118.	Hub Discs, $5\frac{1}{2}"$ diam.	each	1	3



No.			s.	d.
119.	Channel Segments (8 to circle, $11\frac{1}{2}"$ diam.)	each	0	4



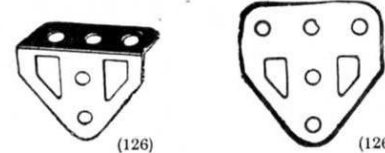
No.			s.	d.
120.	Buffers	each	0	2
120a.	Spring Buffers	per pair	0	8



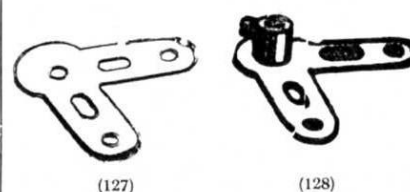
No.			s.	d.
121.	Train Couplings	each	0	4
122.	Miniature Loaded Sacks	"	0	2
123.	Cone Pulleys	"	1	3



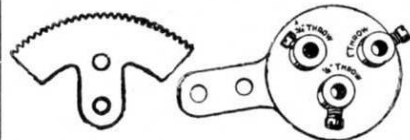
No.			s.	d.
124.	Reversed Angle Brackets, $1\frac{1}{2}"$	$\frac{1}{2}$ doz.	0	10
125.	" " $1"$	"	0	6



No.			s.	d.
126.	Trunnions	each	0	3
126a.	Flat Trunnions	"	0	2



No.			s.	d.
127.	Simple Bell Cranks	each	0	3
128.	Boss Bell Cranks	"	0	4



No.			s.	d.
129.	Rack Segments, $3"$ diam.	each	0	6
130.	Triple Throw Eccentrics	"	1	3



No.			s.	d.
131.	Dredger Buckets	each	0	2



No.			s.	d.
132.	Flywheels, $2\frac{1}{2}"$ diam.	each	2	3
133.	Corner Brackets	"	0	3



No.			s.	d.
134.	Crank Shafts, $1"$ stroke	each	0	3
135.	Theodolite Protractors	"	0	3



No.			s.	d.
136.	Handrail Supports	each	0	3
137.	Wheel Flanges	"	0	4
138.	Ship's Funnels	"	0	4



No.			s.	d.
139.	Flanged Brackets (right)	each	0	2
139a.	" (left)	"	0	2



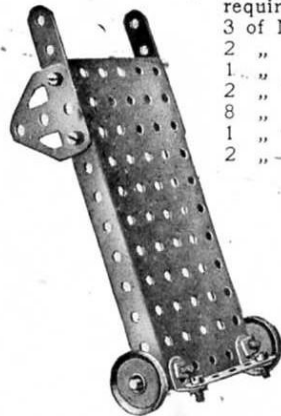
No.			s.	d.
140.	Universal Couplings	each	0	9
141.	Wire Lines (for suspending clock weights)	"	0	9
142.	Rubber Rings	"	0	4
143.	Circular Girders	"	1	0

These Models can be made with MECCANO Outfit No. 0.

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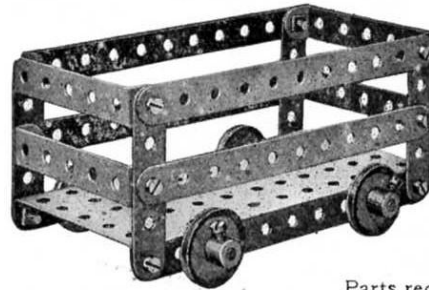
Trucks and Luggage Carts

Model No. 1
Flat Truck



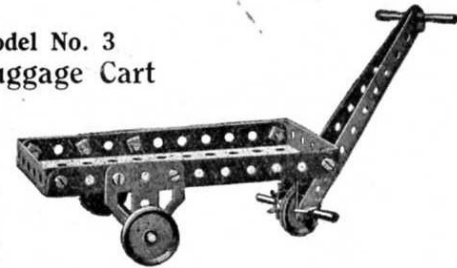
Parts
required :
3 of No. 5
2 " " 12
1 " " 16
2 " " 22
8 " " 37
1 " " 52
2 " " 126A

Model No. 2
Truck with Sides



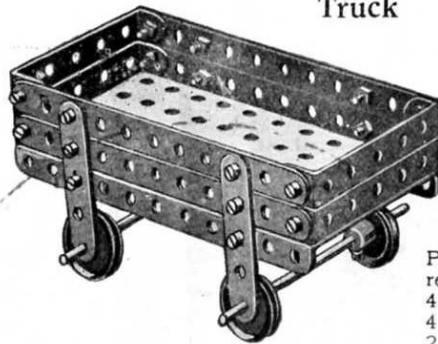
Parts required :
4 of No. 2 | 4 of No. 22
4 " " 5 | 12 " " 37
2 " " 16 | 4 " " 48A
1 of No. 52

Model No. 3
Luggage Cart



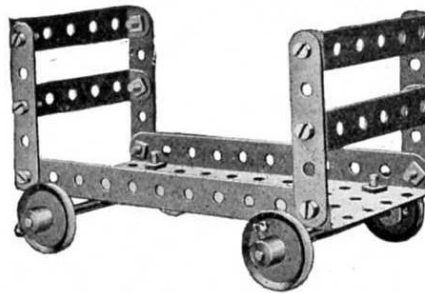
Parts required :
2 of No. 2 | 9 of No. 37
1 " " 16 | 1 " " 44
2 " " 17 | 2 " " 48A
3 " " 22 | 1 " " 52
4 " " 35 | 2 " " 126A

Model No. 4
Truck



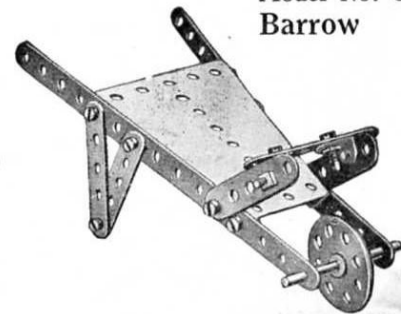
Parts
required :
4 of No. 2
4 " " 5
2 " " 16
4 " " 22
16 " " 37
4 " " 48A
1 " " 52

Model No. 5
Luggage Truck



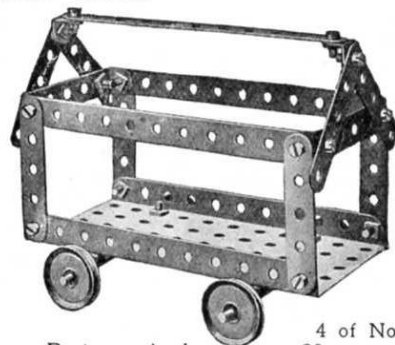
Parts required :
4 of No. 5 | 16 of No. 37
2 " " 16 | 4 " " 48A
4 " " 22 | 1 " " 52

Model No. 6
Barrow



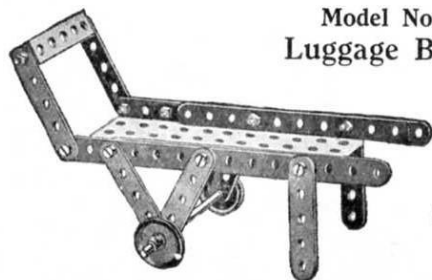
Parts required :
2 of No. 2 | 1 of No. 24
9 " " 5 | 2 " " 35
2 " " 12 | 14 " " 37
1 " " 17 | 1 " " 54

Model No. 7
Covered Truck



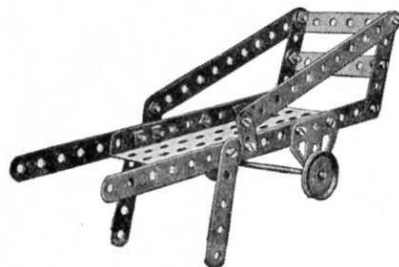
Parts required:
 4 of No. 22
 3 of No. 2 | 2 of No. 12 | 4 " " 48A
 8 " " 5 | 2 " " 16 | 1 " " 52

Model No. 10
Luggage Barrow



Parts required:
 2 of No. 2
 8 " " 5
 1 " " 16
 2 " " 22
 10 " " 37
 1 " " 48A
 1 " " 52

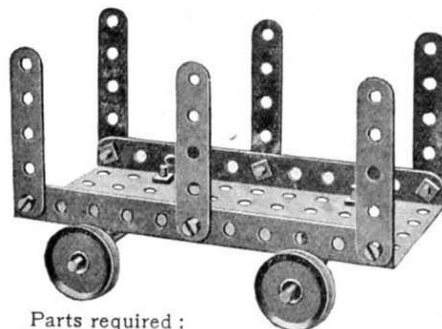
Model No. 13 **Coster's Barrow**



Parts required:
 4 of No. 2
 4 " " 5
 1 " " 16
 2 " " 22
 16 " " 37
 2 " " 48A
 1 " " 52
 2 " " 126A

Trucks and Luggage Carts *(continued)*

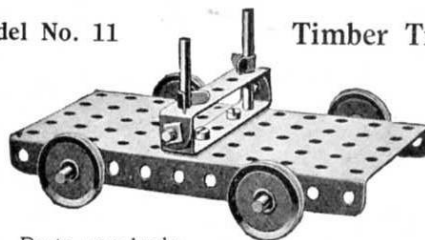
Model No. 8 **Timber Truck**



Parts required:
 6 of No. 5 | 10 of No. 37
 2 " " 16 | 2 " " 48A
 4 " " 22 | 1 " " 52

Model No. 11

Timber Truck



Parts required:
 2 of No. 16 | 4 of No. 35
 2 " " 17 | 4 " " 37
 4 " " 22 | 2 " " 48A
 1 of No. 52

Model No. 14 **Timber Drag**



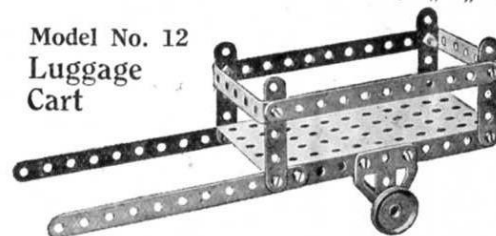
Parts required:
 4 of No. 2 | 2 of No. 16 | 8 of No. 37
 2 " " 11 | 4 " " 22 | 4 " " 48A

Model No. 9
Flat Truck



Parts required:
 2 of No. 16
 4 " " 22
 1 " " 52

Model No. 12
Luggage Cart



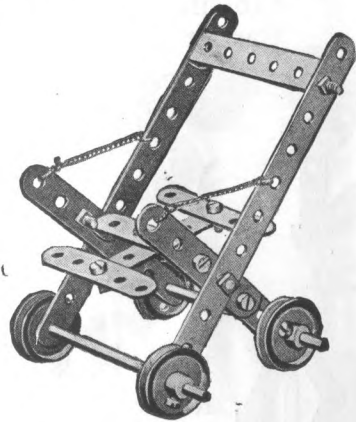
Parts required
 4 of No. 2 | 14 of No. 37
 4 " " 5 | 2 " " 48A
 1 " " 16 | 1 " " 52
 2 " " 22 | 2 " " 126A

Model No. 15
Bath Chair



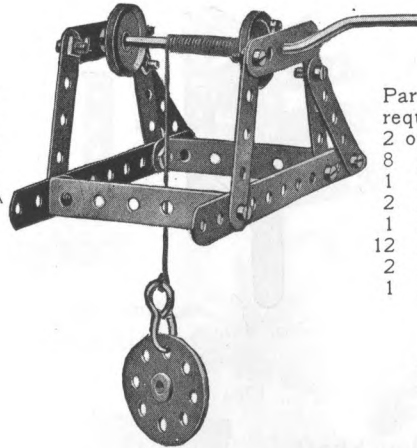
Parts required:
 2 of No. 2 | 2 of No. 17 | 13 of No. 37
 6 " " 5 | 3 " " 22 | 1 " " 44
 1 " " 16 | 4 " " 35 | 3 " " 48A
 1 " " 52

Model No. 16 Go Chair



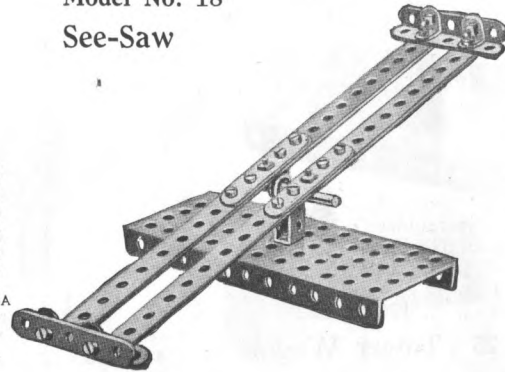
Parts
required :
2 of No. 2
7 " " 5
2 " " 16
4 " " 22
11 " " 37
2 " " 48A

Model No. 17 Well Windlass



Parts
required :
2 of No. 2
8 " " 5
1 " " 19
2 " " 22
1 " " 24
12 " " 37
2 " " 48A
1 " " 57

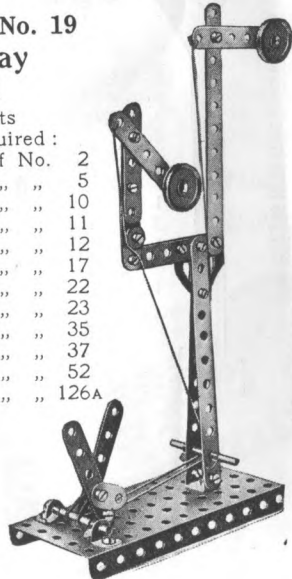
**Model No. 18
See-Saw**



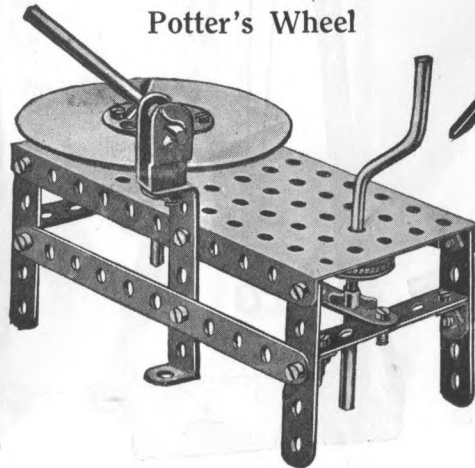
Parts
required :
4 of No. 2
6 " " 5
6 " " 12
1 " " 17
15 " " 37
1 " " 44
1 " " 52

**Model No. 19
Railway
Signal**

Parts
required :
3 of No. 2
7 " " 5
2 " " 10
2 " " 11
2 " " 12
2 " " 17
2 " " 22
1 " " 23
4 " " 35
21 " " 37
1 " " 52
1 " " 126A



**Model No. 20
Potter's Wheel**



**Potter's Wheel
(underneath view)**

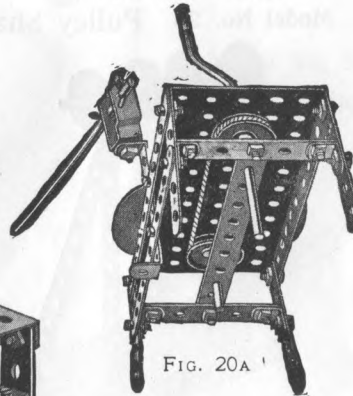
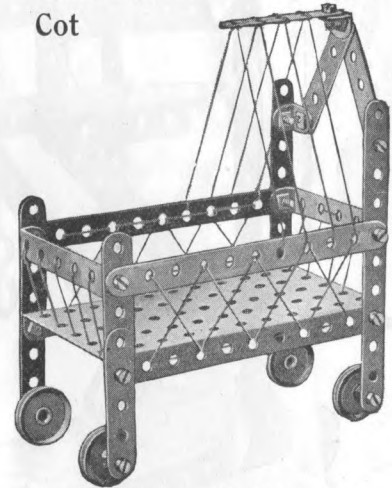


FIG. 20A

Parts required :
3 of No. 2 | 1 of No. 24
4 " " 5 | 2 " " 35
1 " " 16 | 17 " " 37
1 " " 19 | 1 " " 44
2 " " 22 | 3 " " 48A
1 of No. 52

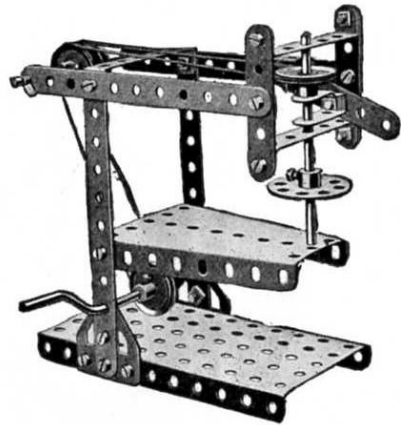
**Model No. 21
Cot**



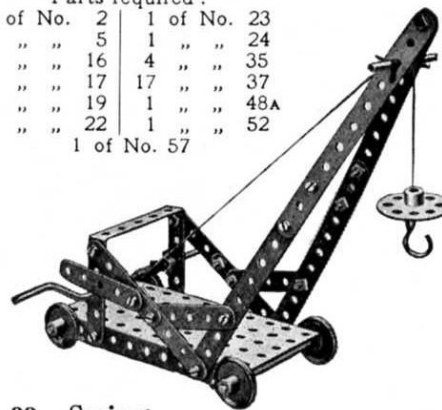
Parts required :
4 of No. 2 | 4 of No. 22
7 " " 5 | 18 " " 37
3 " " 12 | 2 " " 48A
1 of No. 52

These Models can be made with MECCANO Outfit No 0

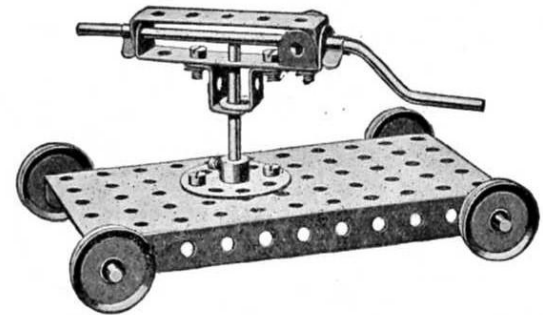
9

Model No. 29 Drilling Machine

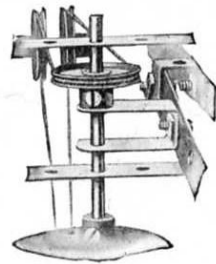
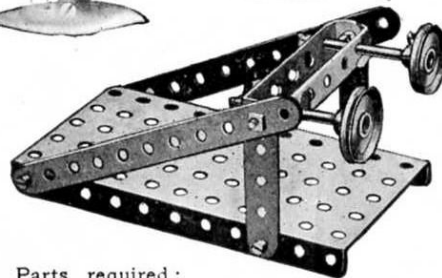
Parts required :		
4 of No.	2	
3 " "	5	
1 " "	11	
2 " "	16	
1 " "	19	
4 " "	22	
1 " "	24	
4 " "	35	
19 " "	37	
1 " "	44	
3 " "	48A	
1 " "	52	
1 " "	54	
2 " "	126A	

Model No. 30 Jib Crane

Parts required :		
4 of No.	2	1 of No. 23
9 " "	5	1 " " 24
2 " "	16	4 " " 35
1 " "	17	17 " " 37
1 " "	19	1 " " 48A
4 " "	22	1 " " 52
1 of No. 57		

Model No. 31 Rock Drill

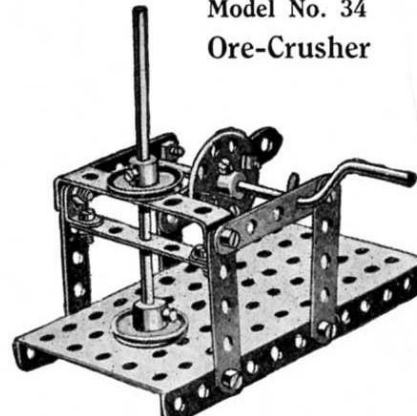
Parts required :		
2 of No.	16	4 of No. 22
1 " "	17	1 " " 24
1 " "	19	2 " " 35
		2 " " 125
		4 of No. 37
		2 " " 48A
		1 " " 52

FIG. 29A.
(Detail of
Drilling
Machine)**Model No. 32
Buffers**

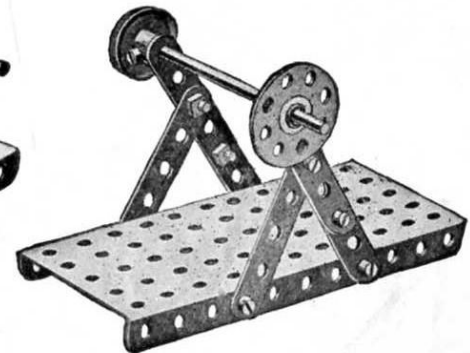
Parts required :		
2 of No.	2	2 of No. 35
2 " "	5	6 " " 37
2 " "	17	2 " " 48A
" "	22	1 " " 52

Model No. 33 Swing

Parts required :		
4 of No.	2	20 of No. 37
4 " "	5	1 " " 48A
6 " "	12	1 " " 52

**Model No. 34
Ore-Crusher**

Parts required :		
6 of No.	5	1 of No. 24
2 " "	10	2 " " 35
1 " "	16	10 " " 37
1 " "	19	2 " " 48A
2 " "	22	1 " " 52

**Model No. 35
Buffing Spindle**

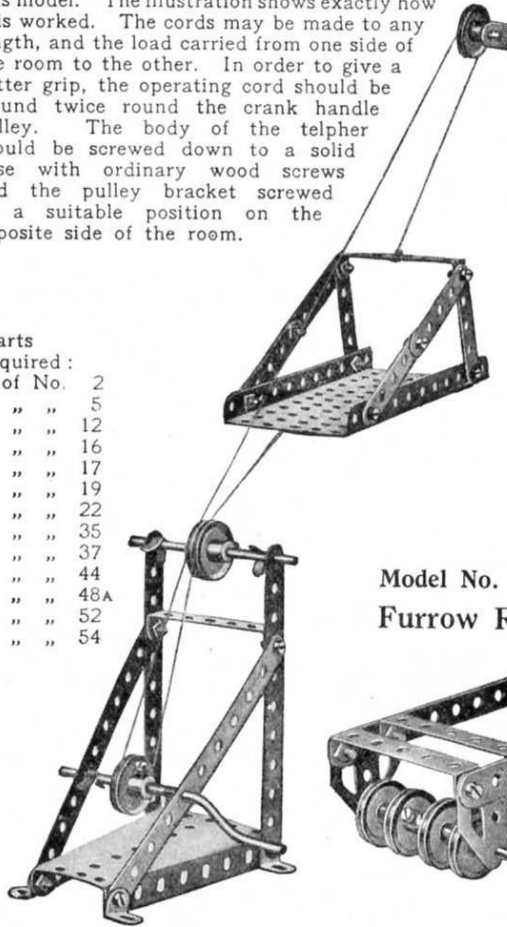
Parts required :		
6 of No.	5	1 of No. 24
1 " "	16	8 " " 37
1 " "	22	1 " " 52

Model No. 36 Telpher Span

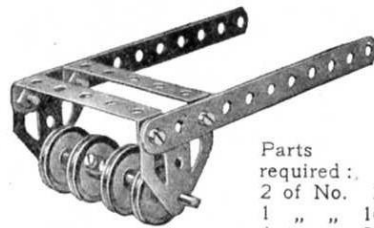
Many hours of enjoyment may be obtained from this model. The illustration shows exactly how it is worked. The cords may be made to any length, and the load carried from one side of the room to the other. In order to give a better grip, the operating cord should be wound twice round the crank handle pulley. The body of the telpher should be screwed down to a solid base with ordinary wood screws and the pulley bracket screwed in a suitable position on the opposite side of the room.

Parts required:

4 of No.	2
6 " "	5
4 " "	12
1 " "	16
1 " "	17
1 " "	19
4 " "	22
6 " "	35
14 " "	37
1 " "	44
2 " "	48A
1 " "	52
1 " "	54



**Model No. 39
Furrow Roller**



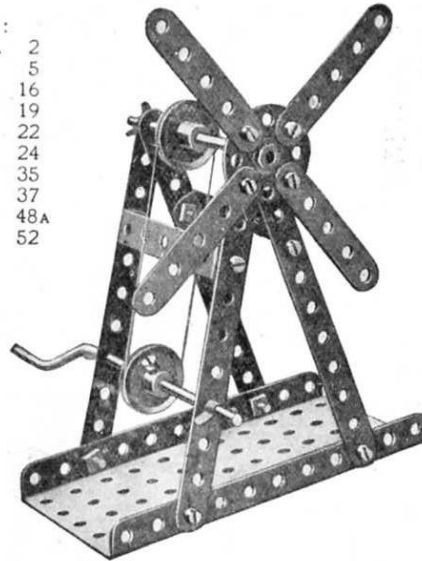
Parts required:

2 of No.	2
1 " "	16
4 " "	22
4 " "	37
2 " "	48A
2 " "	126A

Model No. 37 Windmill

Parts required:

4 of No.	2
4 " "	5
1 " "	16
1 " "	19
2 " "	22
1 " "	24
4 " "	35
12 " "	37
2 " "	48A
1 " "	52



**Model No. 40
Lawn Mower**



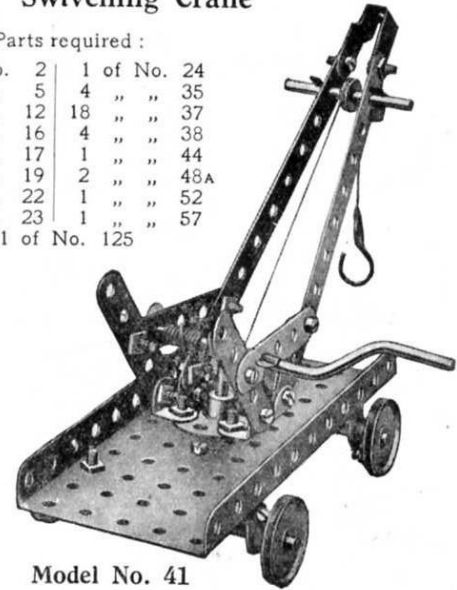
Parts required:

4 of No.	2	1 of No.	17
7 " "	5	4 " "	22
2 " "	11	19 " "	37
2 " "	16	1 " "	44
3 of No. 48A			

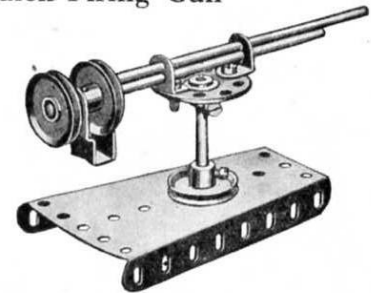
Model No. 38 Swivelling Crane

Parts required:

2 of No.	2	1 of No.	24
4 " "	5	4 " "	35
4 " "	12	18 " "	37
2 " "	16	4 " "	38
2 " "	17	1 " "	44
1 " "	19	2 " "	48A
4 " "	22	1 " "	52
1 " "	23	1 " "	57
1 of No. 125			



**Model No. 41
Quick-Firing Gun**



Parts required:

2 of No.	12	1 of No.	24
2 " "	16	4 " "	37
1 " "	17	1 " "	44
1 of No. 54			

These Models can be made with MECCANO Outfit No. 0.

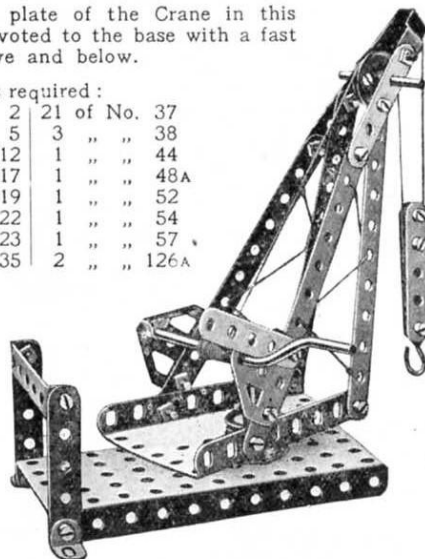
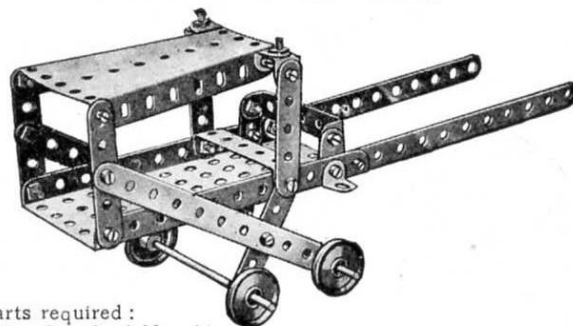
11

Model No. 42 Swivelling Crane

The sector plate of the Crane in this model is pivoted to the base with a fast pulley above and below.

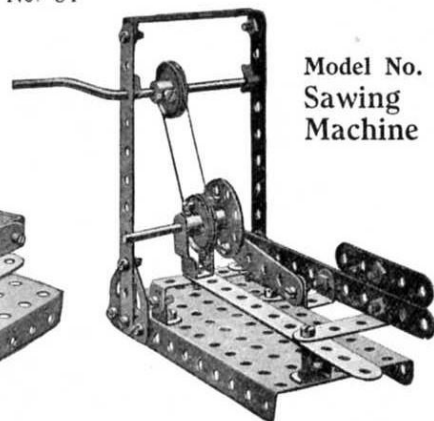
Parts required:

4 of No.	2	21 of No.	37
7 " "	5	3 " "	38
2 " "	12	1 " "	44
2 " "	17	1 " "	48A
1 " "	19	1 " "	52
4 " "	22	1 " "	54
1 " "	23	1 " "	57
2 " "	35	2 " "	126A

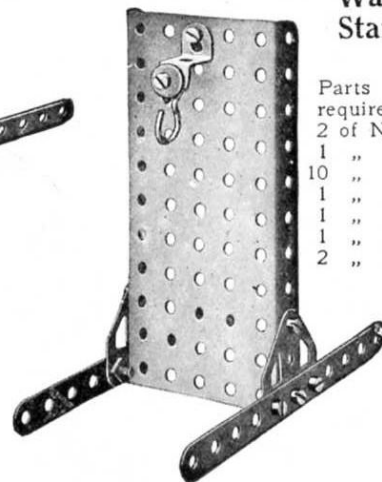
**Model No. 43 Ticca Gharry**

Parts required:

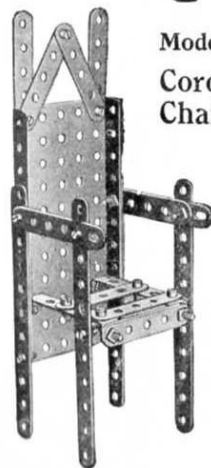
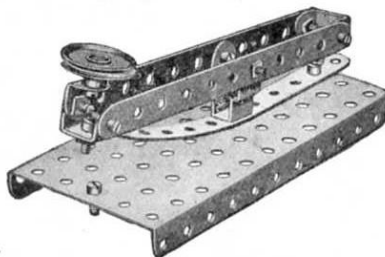
4 of No.	2	2 of No.	16
6 " "	5	4 " "	22
2 " "	10	22 " "	37
6 " "	12	1 " "	52
		1 of No.	54

**Model No. 47 Sawing Machine****Model No. 44****Watch Stand**

Parts required:
2 of No. 2
1 " " 23
10 " " 37
1 " " 52
1 " " 57
1 " " 125
2 " " 126A

**Model No. 45 Coronation Chair**

Parts required:
4 of No. 2
9 " " 5
2 " " 10
2 " " 12
19 " " 37
2 " " 48A
1 " " 52

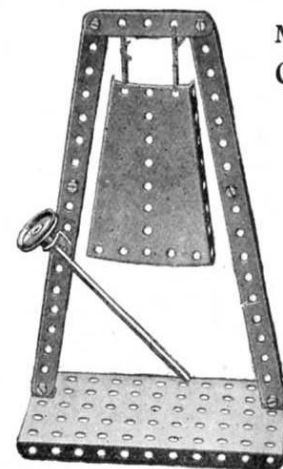
**Model No. 46 Telegraph Key**

Parts required:

3 of No.	2	1 of No.	22
1 " "	10	11 " "	37
2 " "	11	1 " "	44
1 " "	12	1 " "	52

Model No. 48 Gong

Parts required:
4 of No. 2
1 " " 5
3 " " 12
1 " " 16
1 " " 22
7 " " 37
1 " " 52
1 " " 54

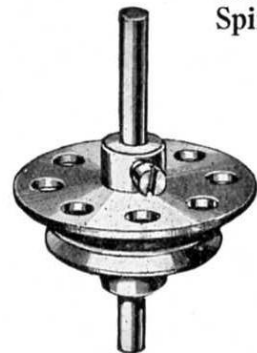


Parts required:

4 of No.	2	1 of No.	24
3 " "	3	2 " "	35
4 " "	12	23 " "	37
1 " "	17	1 " "	44
1 " "	19	2 " "	48A
2 " "	22	1 " "	52
		2 of No.	126A

These Models can be made with MECCANO Outfit No. 0.

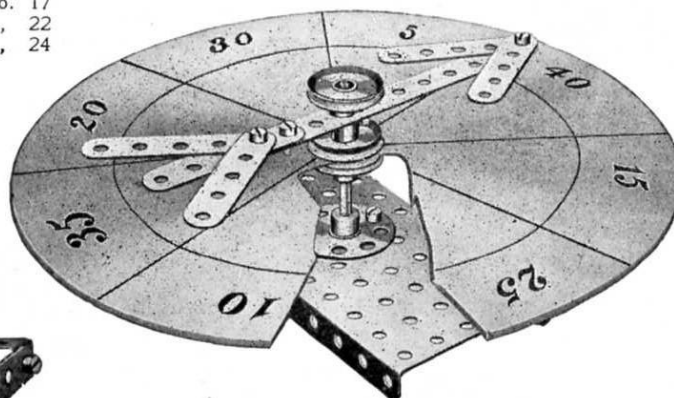
**Model No. 49
Spinning Top**



Parts
required:
1 of No. 17
1 " " 22
1 " " 24

Model No. 50 Roulette Wheel

Parts required:
1 of No. 2 1 of No. 16 1 of No. 24
5 " " 5 3 " " 22 5 " " 37
1 " " 52



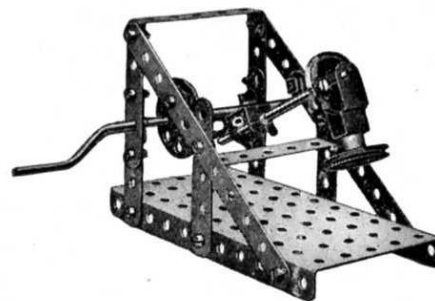
Cut out a circular piece of cardboard and mark as shown to form scoring board. This is clamped between two 1" pulley wheels. The pointer revolves freely on the upright spindle and is held in position by another 1" pulley wheel.

Model No. 53 Settee



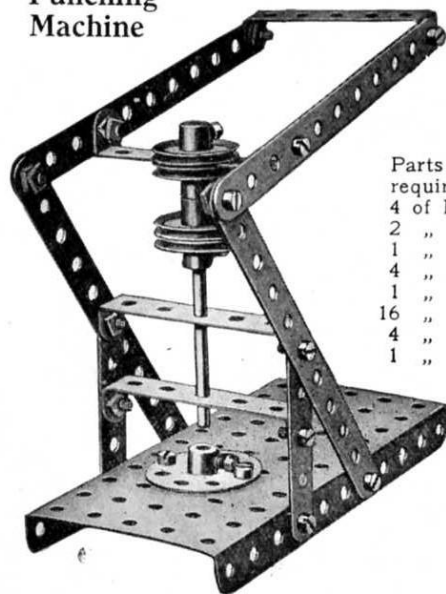
Parts
required:
2 of No. 2
8 " " 5
3 " " 10
15 " " 37
2 " " 48A
1 " " 52

**Model No. 51
Mechanical Hammer**



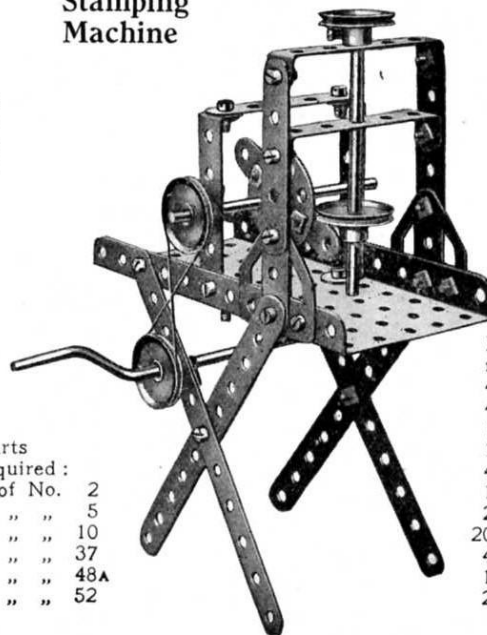
Parts
required:
2 of No. 2
6 " " 5
1 " " 11
1 " " 12
1 " " 16
1 " " 19
2 " " 22
1 " " 24
4 " " 35
18 " " 37
1 " " 44
3 " " 48A
1 " " 52

**Model No. 52
Punching
Machine**



Parts
required:
4 of No. 2
2 " " 5
1 " " 16
4 " " 22
1 " " 24
16 " " 37
4 " " 48A
1 " " 52

**Model No. 54
Stamping
Machine**



Parts
required:
4 of No. 2
4 " " 5
1 " " 16
1 " " 19
4 " " 22
1 " " 24
2 " " 35
20 " " 37
4 " " 48A
1 " " 52
2 " " 126A

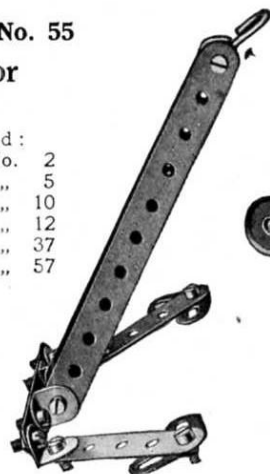
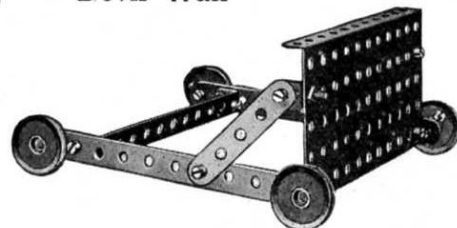
These Models can be made with MECCANO Outfit No. 0.

13

Model No. 55
Anchor

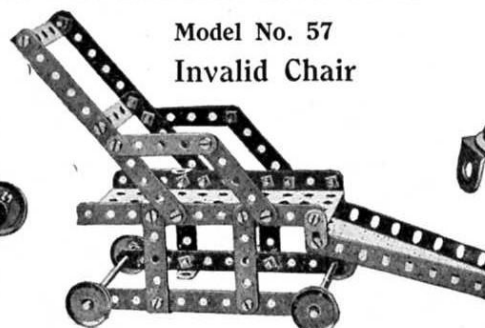
Parts
required :

2 of No.	2
3 " "	5
4 " "	10
4 " "	12
11 " "	37
1 " "	57

**Model No. 56**
Devil Wall

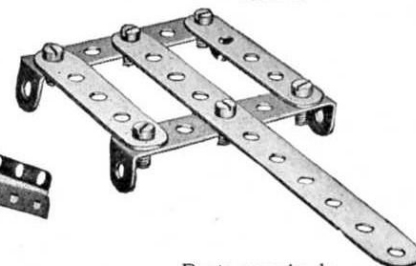
Parts required :

3 of No.	2	4 of No.	22
2 " "	5	18 " "	37
6 " "	12	1 " "	52

Model No. 57
Invalid Chair

Parts required :

4 of No.	2	2 of No.	16	4 of No.	48A
6 " "	5	4 " "	22	1 " "	52
2 " "	10	24 " "	37	1 " "	54

Model No. 58
Grill

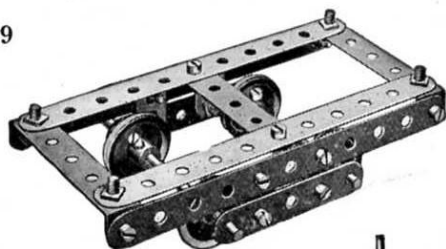
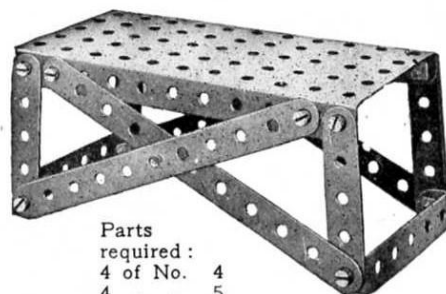
Parts required :

1 of No.	2	6 of No.	37
2 " "	5	2 " "	48A

Model No. 59
Bogie Car

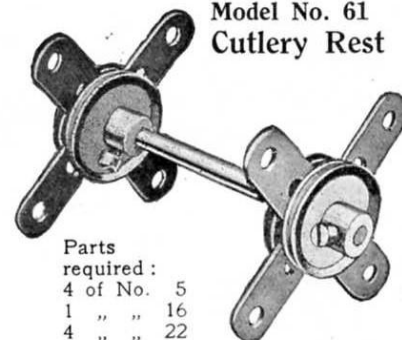
Parts
required :

4 of No.	2
3 " "	5
4 " "	10
2 " "	16
4 " "	22
18 " "	37

**Model No. 60** **Fire Stand**

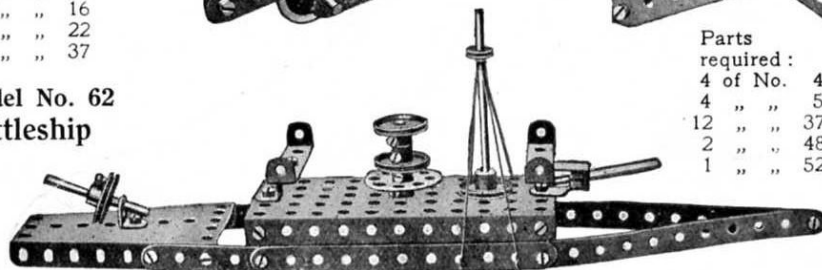
Parts
required :

4 of No.	4
4 " "	5
12 " "	37
2 " "	48A
1 " "	52

Model No. 61
Cutlery Rest

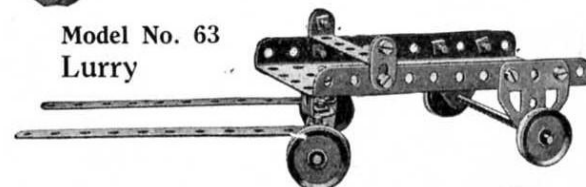
Parts
required :

4 of No.	5
1 " "	16
4 " "	22

Model No. 62
Battleship

Parts required :

4 of No.	2	1 of No.	16	1 of No.	24	2 of No.	48A
3 " "	5	2 " "	17	3 " "	35	1 " "	52
4 " "	10	4 " "	22	19 " "	37	1 " "	54
1 " "	12	1 " "	23	1 " "	44	1 " "	125

Model No. 63
Lorry

Parts required :

2 of No.	2	2 of No.	16	2 of No.	48A
2 " "	10	4 " "	22	1 " "	52
1 " "	11	12 " "	37	2 " "	126A

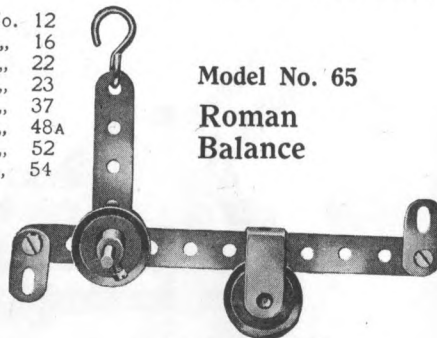
These Models can be made with MECCANO Outfit No. 0

Model No. 64
Sailing
Boat



Parts required :		6 of No. 12
4 of No. 2	2	2 " " 16
6 " " 5	4	4 " " 22
1 " " 10	1	1 " " 23
	20	20 " " 37
	2	2 " " 48A
	1	1 " " 52
	1	1 " " 54

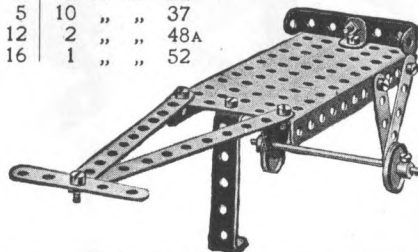
Model No. 65
Roman
Balance



Parts required :		
1 of No. 2	2	3 of No. 22
1 " " 5	3	" " 37
2 " " 10	1	" " 44
1 " " 17	1	" " 57

Model No. 68 **Shipyards** **Bogie**

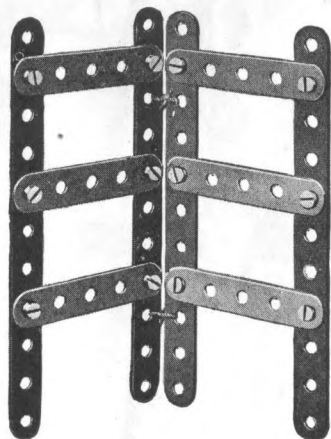
Parts required :		
2 of No. 2	2	2 of No. 22
5 " " 5	10	" " 37
1 " " 12	2	" " 48A
1 " " 16	1	" " 52



Model No. 69

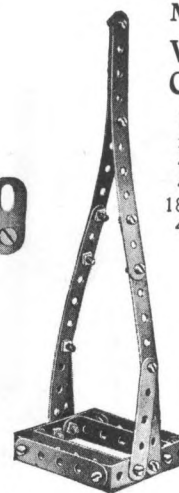
Clothes
Horse

Parts required :	
4 of No. 2	2
6 " " 5	5
12 " " 37	37



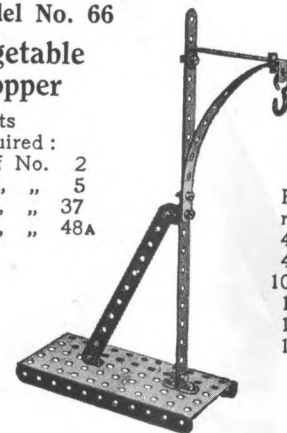
Model No. 66
Vegetable
Chopper

Parts required :	
4 of No. 2	2
4 " " 5	5
18 " " 37	37
4 " " 48A	48A



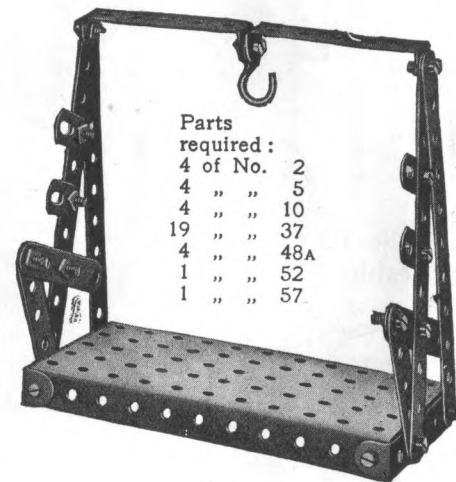
Model No. 67
Mail-Bag
Hanger

Parts required :	
4 of No. 2	2
4 " " 12	12
10 " " 37	37
1 " " 48A	48A
1 " " 52	52
1 " " 57	57



Model No. 70
Pen Rack

Parts required :	
4 of No. 2	2
4 " " 5	5
4 " " 10	10
19 " " 37	37
4 " " 48A	48A
1 " " 52	52
1 " " 57	57



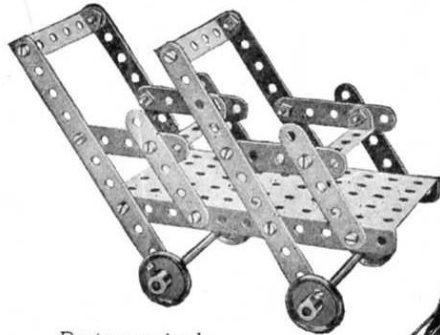
HOW TO CONTINUE

This completes the Models which may be made with MECCANO Outfit No. 0. The next Models are a little more advanced, requiring a number of extra parts to construct them. The necessary parts are all contained in a No. 0A Accessory Outfit, the price of which will be found in the list at the end of the Manual.

These Models can be made with MECCANO Outfit No. 1, or No. 0 and No. 0A.

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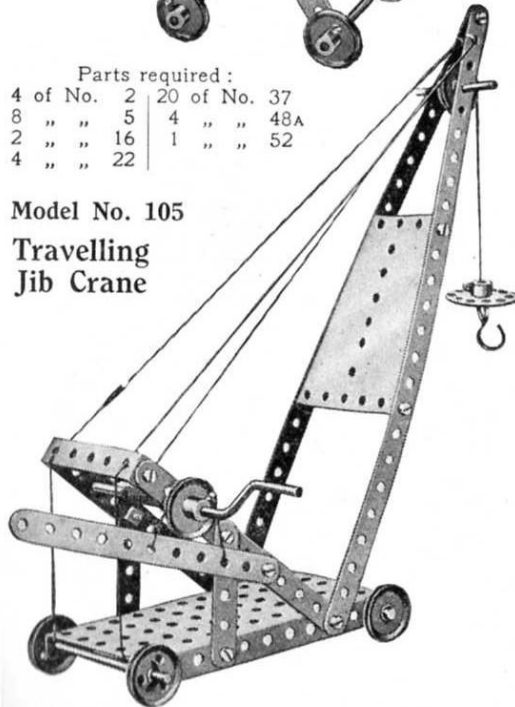
**Model No. 101
Tandem Car**



Parts required :

4 of No. 2	20 of No. 37
8 " " 5	4 " " 48A
2 " " 16	1 " " 52
4 " " 22	

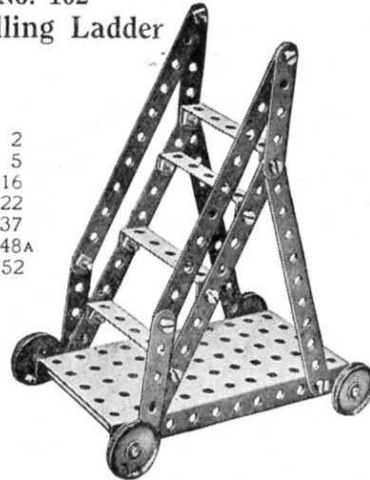
**Model No. 105
Travelling
Jib Crane**



Parts required :

2 of No. 1	
3 " " 2	
2 " " 5	
2 " " 16	
1 " " 17	
1 " " 19	
4 " " 22	
2 " " 22A	
1 " " 24	
5 " " 35	
15 " " 37	
1 " " 48A	
1 " " 52	
1 " " 54	
1 " " 57	

**Model No. 102
Travelling Ladder**



Parts required :

6 of No. 2	
4 " " 5	
2 " " 16	
4 " " 22	
16 " " 37	
4 " " 48A	
1 " " 52	

**Model No. 103
Step Ladder**



Parts required :

4 of No. 2	10 of No. 37
3 " " 5	4 " " 48A
2 " " 12	

**Model No. 106
Swing**

Parts required :

4 of No. 1	
1 " " 2	
6 " " 5	
4 " " 12	
12 " " 37	
3 " " 48A	
1 " " 52	



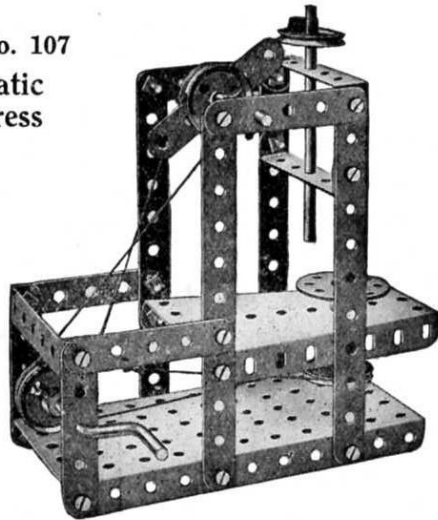
**Model No. 104
Swivelling Crane**



Parts required :

2 of No. 1	2 of No. 17	18 of No. 37
6 " " 2	1 " " 19	1 " " 44
1 " " 3	4 " " 22	3 " " 48A
4 " " 5	2 " " 22A	1 " " 52
1 " " 11	1 " " 24	2 " " 54
1 " " 16	4 " " 35	1 " " 57

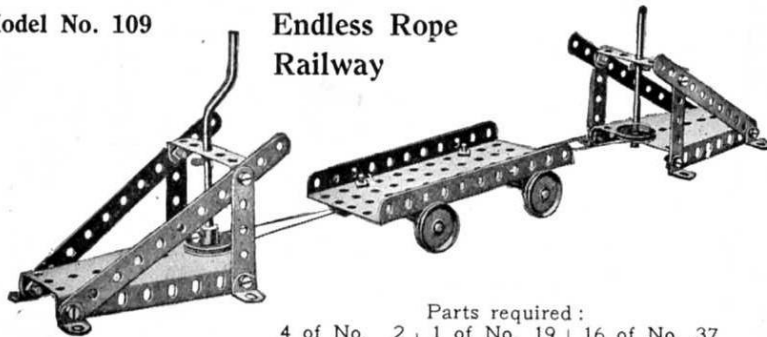
Model No. 107
Automatic
Dial Press



Parts required:		
4 of No. 2	1 of No. 19	18 of No. 37
7 " " 5	4 " " 22	3 " " 48A
2 " " 16	2 " " 22A	1 " " 52
1 " " 17	1 " " 24	1 " " 54
	7 " " 35	

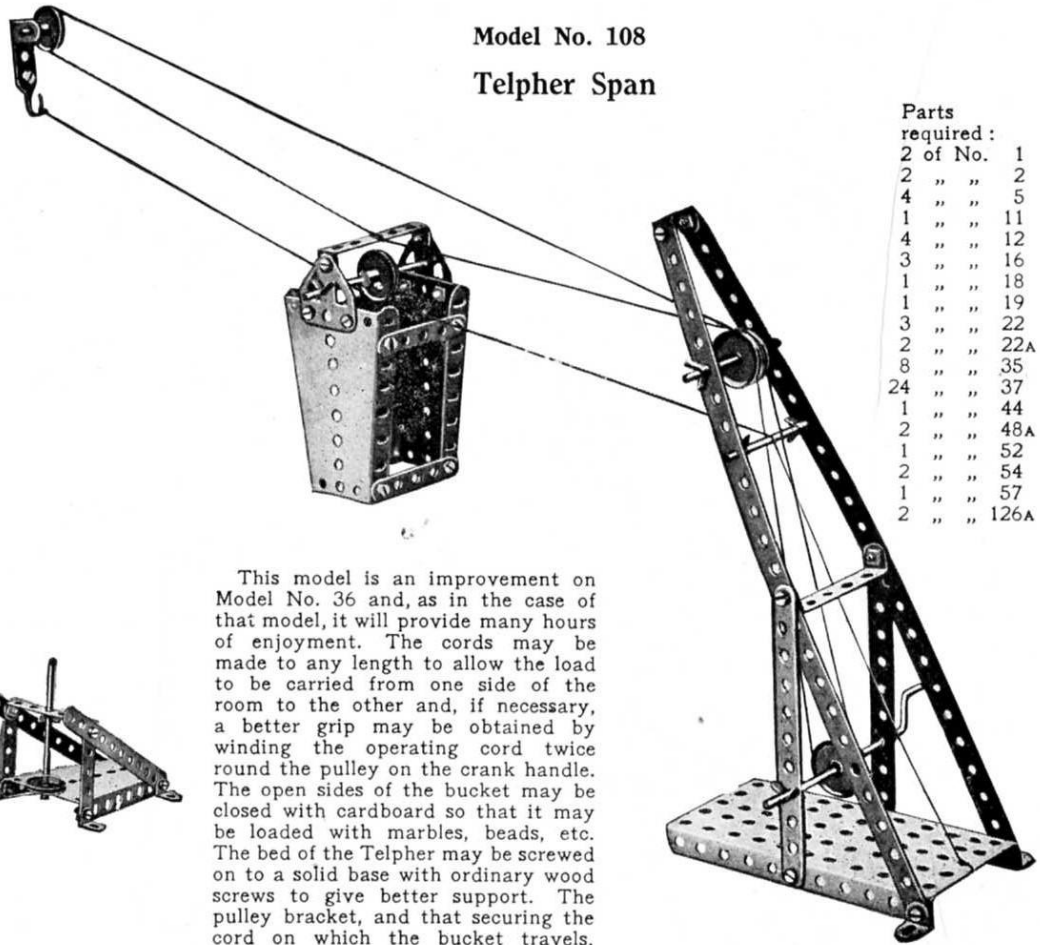
Model No. 109

Endless Rope
Railway



Parts required:		
4 of No. 2	1 of No. 19	16 of No. 37
4 " " 5	4 " " 22	4 " " 48A
8 " " 12	2 " " 22A	1 " " 52
3 " " 16	4 " " 35	2 " " 54

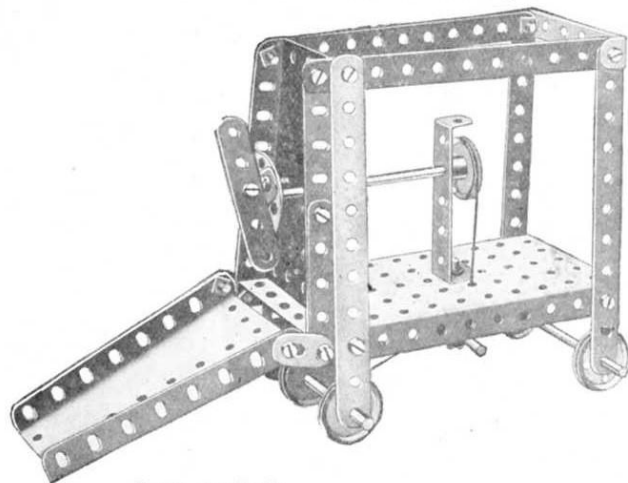
Model No. 108
Telpher Span



Parts required:		
2 of No. 1		
2 " " 2		
4 " " 5		
1 " " 11		
4 " " 12		
3 " " 16		
1 " " 18		
1 " " 19		
3 " " 22		
2 " " 22A		
8 " " 35		
24 " " 37		
1 " " 44		
2 " " 48A		
1 " " 52		
2 " " 54		
1 " " 57		
2 " " 126A		

This model is an improvement on Model No. 36 and, as in the case of that model, it will provide many hours of enjoyment. The cords may be made to any length to allow the load to be carried from one side of the room to the other and, if necessary, a better grip may be obtained by winding the operating cord twice round the pulley on the crank handle. The open sides of the bucket may be closed with cardboard so that it may be loaded with marbles, beads, etc. The bed of the Telpher may be screwed on to a solid base with ordinary wood screws to give better support. The pulley bracket, and that securing the cord on which the bucket travels, should be screwed in a suitable position on the opposite side of the room.

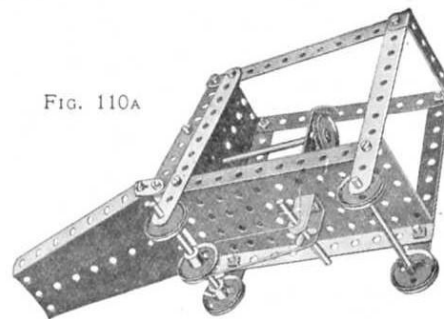
Model No. 110 Snow Plough



Parts required :

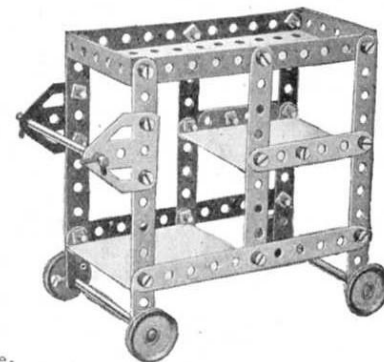
6 of No. 2	1 of No. 24
3 " " 5	4 " " 35
2 " " 10	19 " " 37
1 " " 12	1 " " 44
3 " " 16	2 " " 48A
1 " " 17	1 " " 52
4 " " 22	2 " " 54
2 " " 22A	

Fig. 110A



The construction of the framework of this model presents no difficulty. The sector plate forming the plough is loosely pivoted on the bolts (1). The axle (2) is mounted in the front sector plate and the $2\frac{1}{2}$ " double angle strip (3). A $2\frac{1}{2}$ " strip (4) is bolted by angle brackets to a bush wheel on the front of the axle and forms a dispersing propeller for the snow after it has risen up the inclined sector plate. A continuous cord (5) is passed round a 1" pulley (6) and round the short axle (7) and a 1" pulley on the propeller axle. In this way, as the plough is moved along the ground, the propeller is revolved.

Model No. 111 Dinner Wagon

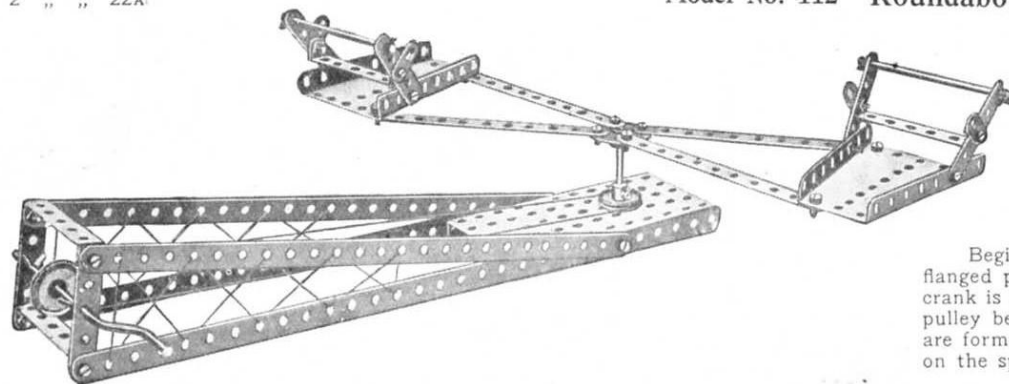


Parts required :

6 of No. 2	2 of No. 35
8 " " 5	22 " " 37
4 " " 12	4 " " 48A
3 " " 16	1 " " 52
4 " " 22	2 " " 126A

The two lower platforms are constructed out of pieces of ordinary cardboard, their outer edges resting on $2\frac{1}{2}$ " bent strips and their inner edges on angle brackets.

Model No. 112 Roundabout



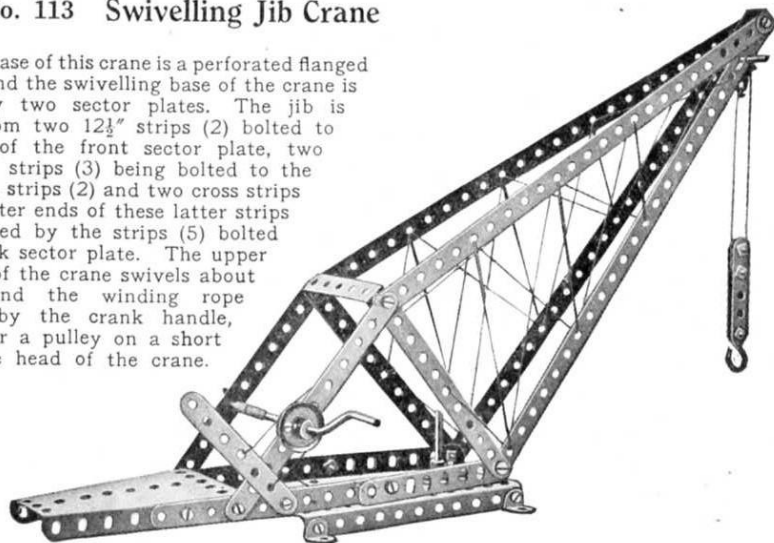
Parts required :

4 of No. 1	1 of No. 17	22 of No. 37
4 " " 2	1 " " 19	4 " " 48A
6 " " 5	3 " " 22	1 " " 52
4 " " 10	1 " " 24	2 " " 54
2 " " 16	6 " " 35	

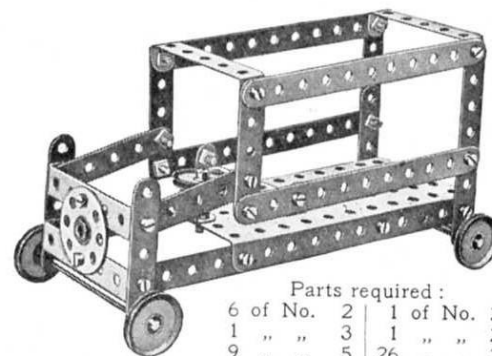
Begin to build this model by making the platform from a flanged plate and $12\frac{1}{2}$ " strips. The drive from the pulley on the crank is taken to a 1" pulley fast on a spindle (2), another similar pulley being secured to the spindle beneath the plate. The arms are formed of four $5\frac{1}{2}$ " strips and bolted to a bush wheel (1) fast on the spindle.

Model No. 113 Swivelling Jib Crane

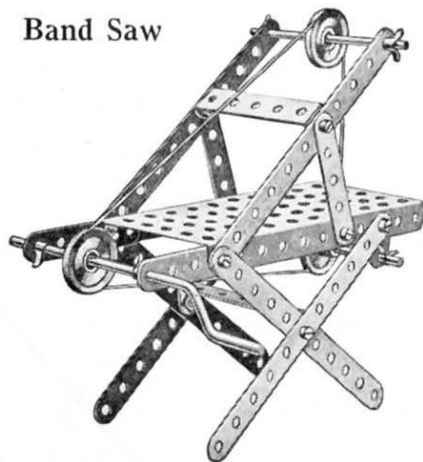
The fixed base of this crane is a perforated flanged plate (1) and the swivelling base of the crane is formed by two sector plates. The jib is formed from two 12½" strips (2) bolted to the ends of the front sector plate, two other 12½" strips (3) being bolted to the tops of the strips (2) and two cross strips (4), the outer ends of these latter strips being stayed by the strips (5) bolted to the back sector plate. The upper structure of the crane swivels about a rod, and the winding rope operated by the crank handle, passes over a pulley on a short rod in the head of the crane.



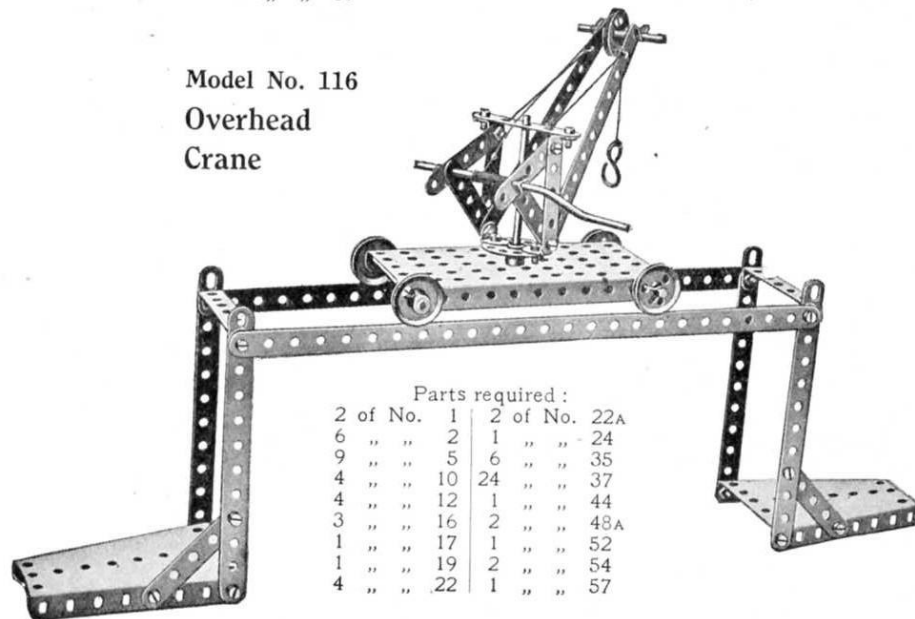
Parts required:	
4 of No.	1
6 "	2
1 "	3
2 "	5
1 "	10
1 "	11
4 "	12
2 "	17
1 "	19
3 "	22
1 "	22A
1 "	23
3 "	35
20 "	37
3 "	38
1 "	48A
1 "	52
2 "	54
1 "	57

Model No. 114 Motor Van

Parts required:			
6 of No.	2	1 of No.	22A
1 "	3	1 "	24
9 "	5	26 "	37
1 "	11	5 "	48A
2 "	16	1 "	52
4 "	22		

Model No. 115**Band Saw**

Parts required:	
6 of No.	2
4 "	5
2 "	10
2 "	16
1 "	19
3 "	22
6 "	35
10 "	37
2 "	48A
1 "	52

Model No. 116**Overhead Crane**

Parts required:			
2 of No.	1	2 of No.	22A
6 "	2	1 "	24
9 "	5	6 "	35
4 "	10	24 "	37
4 "	12	1 "	44
3 "	16	2 "	48A
1 "	17	1 "	52
1 "	19	2 "	54
4 "	22	1 "	57

These Models can be made with MECCANO Outfit No. 1, or No. 0 and No. 0A.

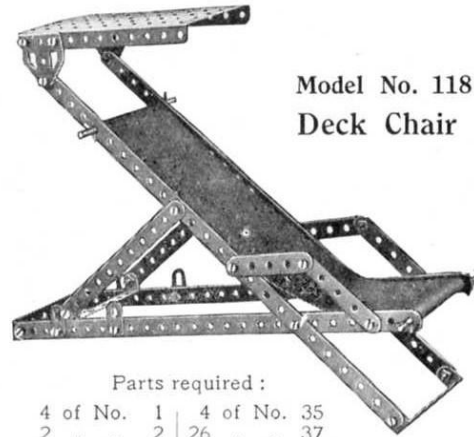
19

Model No. 117 Windmill



Parts required :

4 of No.	1	2 of No.	22
4 "	2	1 "	24
7 "	5	4 "	35
2 "	12	20 "	37
1 "	16	3 "	48A
1 "	19	1 "	52



Model No. 118
Deck Chair

Parts required :

4 of No.	1	4 of No.	35
2 "	2	26 "	37
4 "	5	3 "	48A
4 "	10	1 "	52
2 "	16	2 "	126A

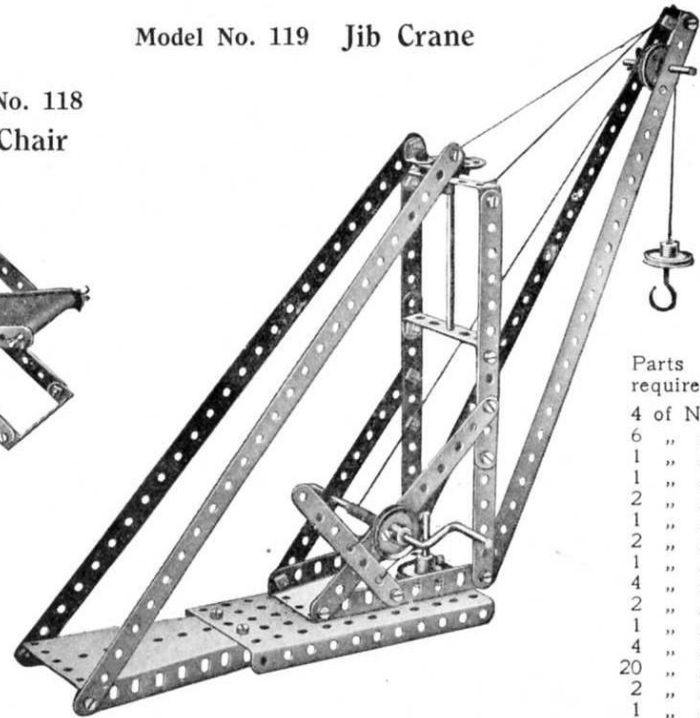
Model No. 120
Bed Table



Parts
required :

3 of No.	2
1 "	3
1 "	5
1 "	11
5 "	12
2 "	16
1 "	17
4 "	22
1 "	24
21 "	37
4 "	48A
1 "	52
1 "	126A

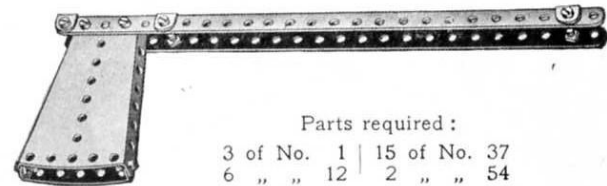
Model No. 119 Jib Crane



Parts
required :

4 of No.	1
6 "	2
1 "	3
1 "	11
2 "	12
1 "	16
2 "	17
1 "	19
4 "	22
2 "	22A
1 "	24
4 "	35
20 "	37
2 "	48A
1 "	52
2 "	54
1 "	57

Model No. 121 Hatchet

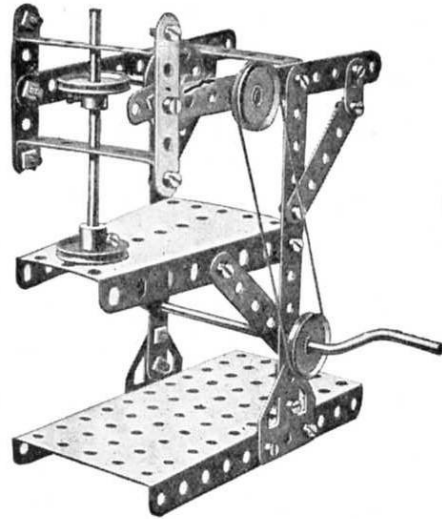


Parts required :

3 of No.	1	15 of No.	37
6 "	12	2 "	54

These Models can be made with MECCANO Outfit No. 1, or No. 0 and No. 0A.

Model No. 122 Drop Stamp



Parts required:			
4	of No.	2	
6	" "	5	
3	" "	10	
2	" "	16	
1	" "	19	
4	" "	22	
1	" "	24	
2	" "	35	
27	" "	37	
3	" "	48A	
1	" "	52	
1	" "	54	
2	" "	126A	

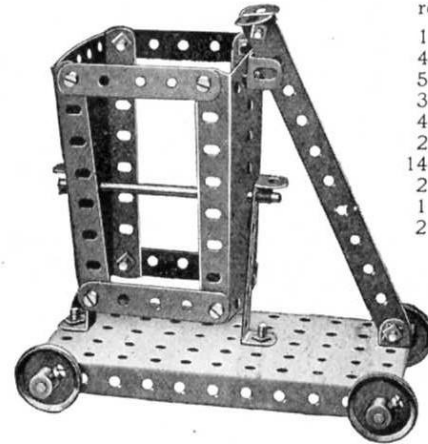
Model No. 123 Lathe



Parts required:

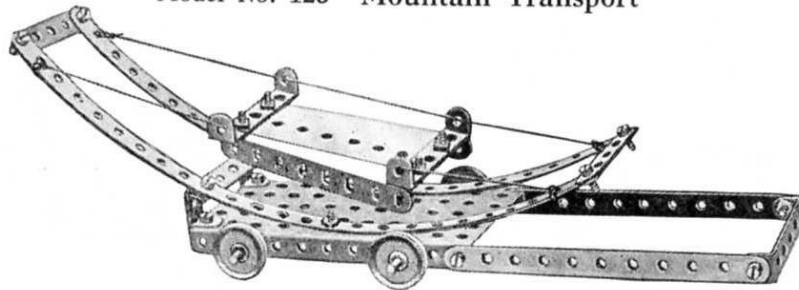
6	of No.	2	1	of No.	24
4	" "	12	17	" "	37
1	" "	17	1	" "	44
1	" "	19	2	" "	48A
3	" "	22	1	" "	52

Model No. 124 Tip Wagon



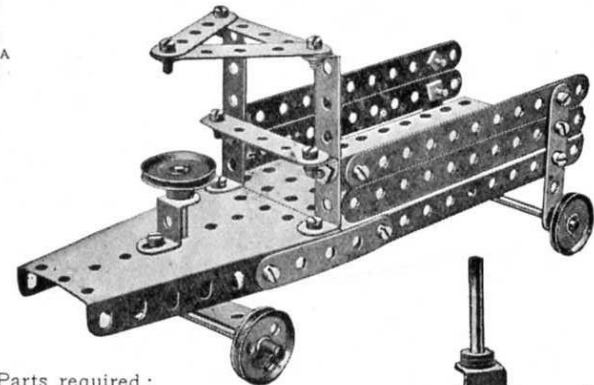
Parts required:			
1	of No.	2	
4	" "	5	
5	" "	12	
3	" "	16	
4	" "	22	
2	" "	35	
14	" "	37	
2	" "	48A	
1	" "	52	
2	" "	54	

Model No. 125 Mountain Transport



Parts required:					
2	of No.	1	3	of No.	5
2	" "	2	4	" "	12
2	" "	2	4	" "	22
2	" "	2	4	" "	22
18	of No.	37	2	" "	48A
1	of No.	52	1	" "	54

Model No. 126 Motor Lorry



Parts required:					
4	of No.	2	3	of No.	22
8	" "	5	2	" "	22A
4	" "	12	1	" "	24
2	" "	16	2	" "	35
1	" "	17	25	" "	37
3	of No.	38	3	" "	48A
1	" "	52	1	" "	52
1	" "	54	1	" "	54
2	" "	125	2	" "	125

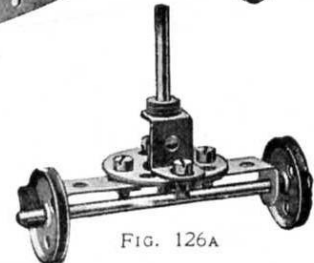


FIG. 126A

These Models can be made with MECCANO Outfit No. 1, or No. 0 and No. 0A.

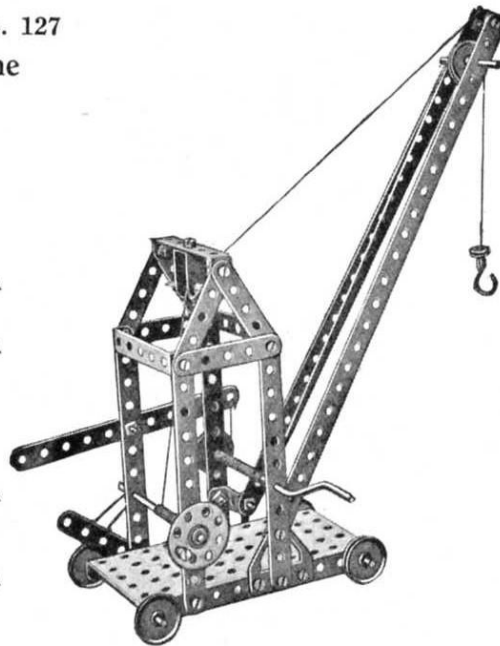
21

Model No. 127

Jib Crane

Parts required:

2	of No.	1
5	" "	2
7	" "	5
1	" "	11
3	" "	16
1	" "	17
1	" "	18A
1	" "	19
4	" "	22
2	" "	22A
1	" "	23
1	" "	24
6	" "	35
22	" "	37
2	" "	38
1	" "	44
3	" "	48A
1	" "	52
1	" "	57
2	" "	125
2	" "	126A



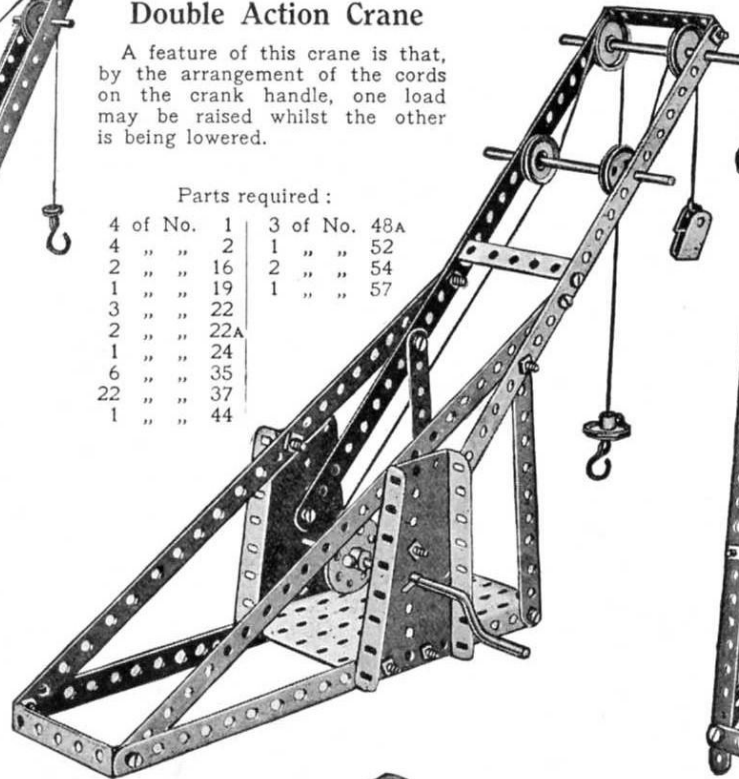
Model No. 128

Double Action Crane

A feature of this crane is that, by the arrangement of the cords on the crank handle, one load may be raised whilst the other is being lowered.

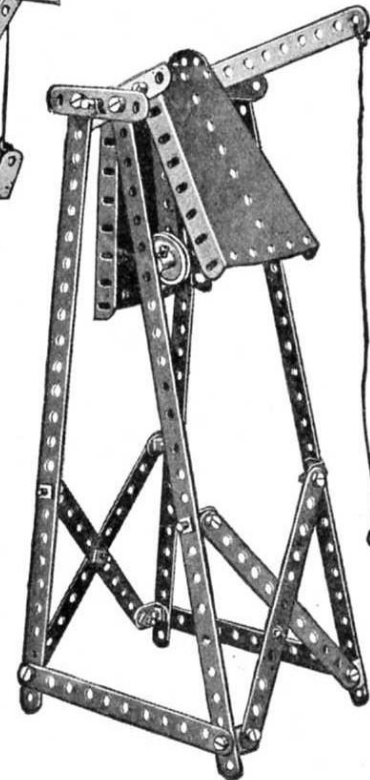
Parts required:

4	of No.	1	3	of No.	48A
4	" "	2	1	" "	52
2	" "	16	2	" "	54
1	" "	19	1	" "	57
3	" "	22			
2	" "	22A			
1	" "	24			
6	" "	35			
22	" "	37			
1	" "	44			

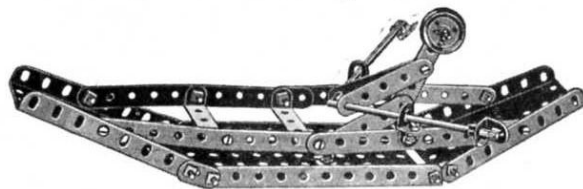


Model No. 129

Fire Alarm

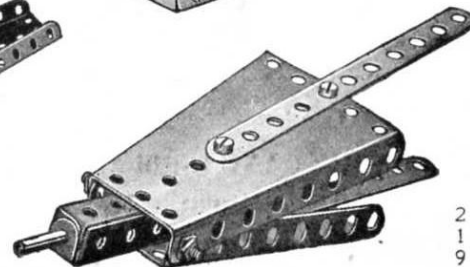


Model No. 130 Rowing Boat



Parts required:

4	of No.	2	2	of No.	16	4	of No.	38
5	" "	5	1	" "	18A	3	" "	48A
4	" "	10	2	" "	22A	1	" "	52
7	" "	12	4	" "	35	2	" "	54
			24	" "	37			



Model No. 131

Bellows

Parts required:

2	of No.	2	4	of No.	48A
1	" "	17	2	" "	54
9	" "	37			

Parts required:

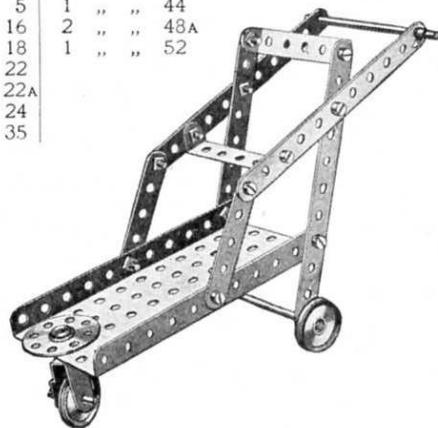
4	of No.	1	1	of No.	22
7	" "	2	1	" "	24
1	" "	3	4	" "	35
3	" "	5	27	" "	37
8	" "	12	2	" "	54
1	" "	16			

These Models can be made with MECCANO Outfit No. 1, or No. 0 and No. 0A.

Model No. 132 Invalid Chair

Parts required :

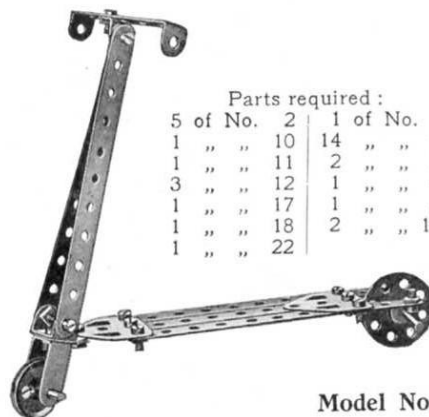
4 of No. 2	13 of No. 37
2 " " 5	1 " " 44
2 " " 16	2 " " 48A
1 " " 18	1 " " 52
2 " " 22	
1 " " 22A	
1 " " 24	
4 " " 35	



Model No. 133 Foot Cycle

Parts required :

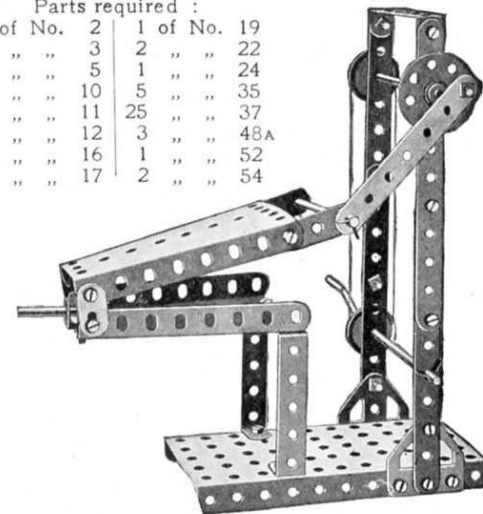
5 of No. 2	1 of No. 24
1 " " 10	14 " " 37
1 " " 11	2 " " 38
3 " " 12	1 " " 44
1 " " 17	1 " " 48A
1 " " 18	2 " " 126A
1 " " 22	



Model No. 134 Forge Bellows

Parts required :

4 of No. 2	1 of No. 19
1 " " 3	2 " " 22
2 " " 5	1 " " 24
2 " " 10	5 " " 35
1 " " 11	25 " " 37
2 " " 12	3 " " 48A
2 " " 16	1 " " 52
1 " " 17	2 " " 54

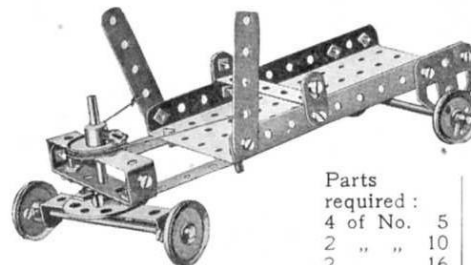
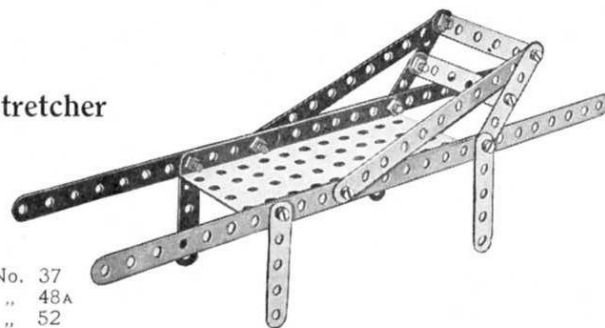


Model No. 136 Steering Truck

Model No. 135 Stretcher

Parts required :

2 of No. 1	10 of No. 37
2 " " 2	2 " " 48A
6 " " 5	1 " " 52



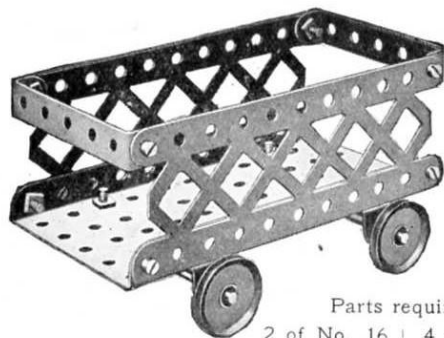
Parts required :	1 of No. 17	18 of No. 37
3 " " 22	2 " " 38	
4 of No. 5	2 " " 22A	4 " " 48A
2 " " 10	1 " " 24	1 " " 52
2 " " 16	2 " " 35	2 " " 126A

HOW TO CONTINUE

This completes the Models which may be made with MECCANO Outfit No. 1. The next Models are a little more advanced, requiring a number of extra parts to construct them. The necessary parts are all contained in a No. 1A Accessory Outfit, the price of which will be found in the List at the end of the Manual.

These Models can be made with MECCANO Outfit No. 2, or No. 1 and No. 1A.

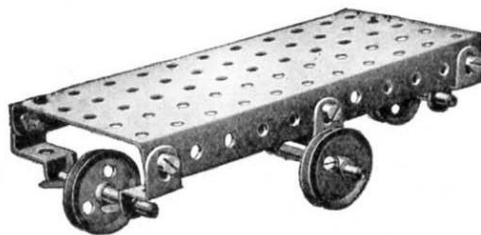
Model No. 201 Truck



Parts required :

2 of No. 16	4 of No. 48A
4 " " 22	1 " " 52
12 " " 37	2 " " 100

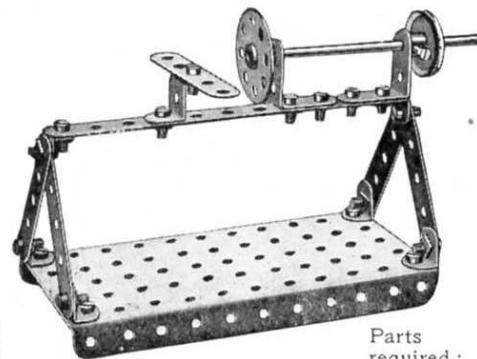
Model No. 202 Revolving Truck



Parts required :

2 of No. 10	2 of No. 22	6 of No. 37
1 " " 16	2 " " 22A	1 " " 52
2 " " 17	4 " " 35	4 " " 125

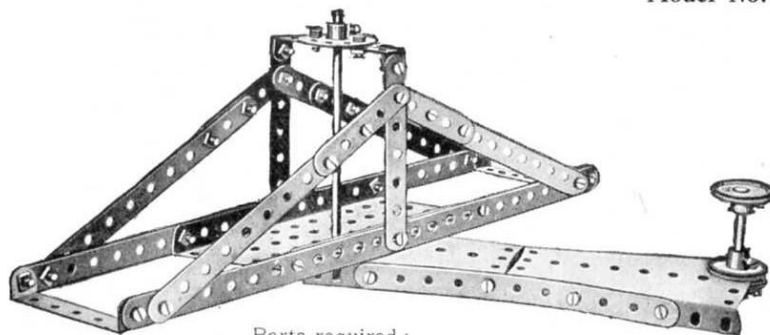
Model No. 203 Lathe



Parts required :

1 of No. 2
5 " " 5
6 " " 12
2 " " 12A
1 " " 16
1 " " 22
1 " " 24
17 " " 37
1 " " 52
1 " " 125

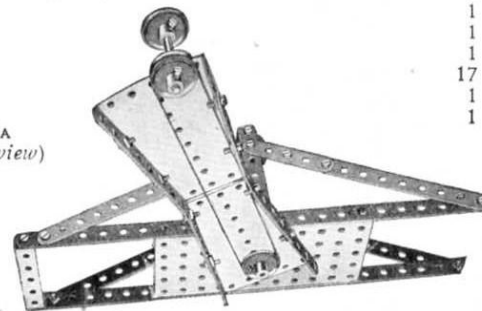
Model No. 204 Turntable Gangway



Parts required :

2 of No. 1	4 of No. 22
6 " " 2	1 " " 24
2 " " 3	34 " " 37
4 " " 5	3 " " 48A
1 " " 15A	1 " " 52
1 " " 17	2 " " 54

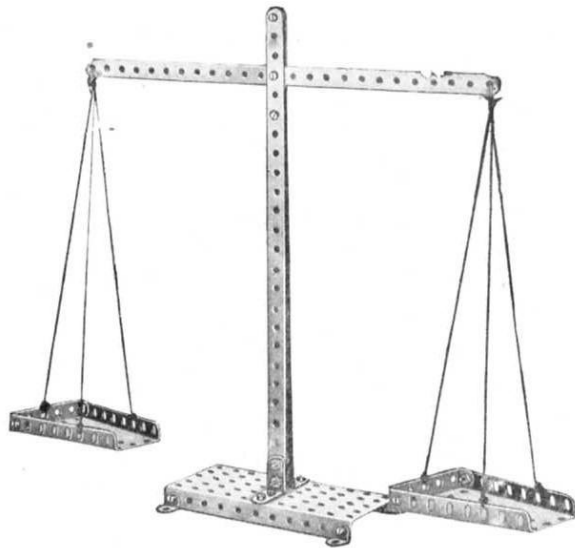
FIG. 204A
(underneath view)



The side frames of the gangway are made of $12\frac{1}{2}$ " strips bolted by means of $2\frac{1}{2}$ " bent strips to parallel strips below. The side frames are connected by a perforated flanged plate, to the underside of which is bolted a bush wheel fitted with a rod on which is mounted a 1" pulley (See Fig. 204A). The rod passes through one of the end holes of the sector plate which is connected by diagonal strips to another sector plate. Through the end hole of the latter a rod is threaded carrying two 1" pulleys from one of which an operating cord passes through the pulley mounted on the under side of the flanged plate. In this way the Gangway may be rotated by an operating spindle.

These Models can be made with MECCANO Outfit No. 2, or No. 1 and No. 1A.

Model No. 205 Scales

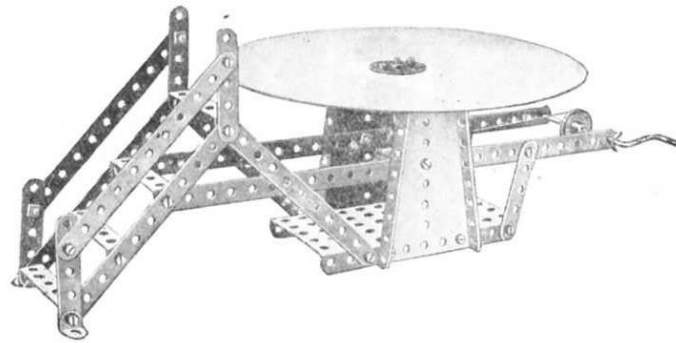


Parts required :

3 of No. 1	4 of No. 38
4 " " 12	2 " " 48A
2 " " 12A	1 " " 52
19 " " 37	2 " " 54

The slot is formed by inserting 2 washers on the bolts above and below the beam. These washers hold the strips composing the standard at the required distance apart to give the beam free play.

Model No. 206 Joy Wheel



The driving mechanism and construction of the framework of this model are clearly brought out in Fig. 206A. Cut out a circular piece of cardboard, 8" in diameter, and in the centre of the disc fix a bush wheel by nuts and bolts. The eye of the bush wheel is then threaded over the top of a vertical spindle, and secured by its set-screw.

Parts required :

2 of No. 1	1 of No. 22A
6 " " 2	1 " " 24
6 " " 5	2 " " 35
2 " " 12	28 " " 37
1 " " 15A	5 " " 48A
1 " " 19	1 " " 52
3 " " 22	2 " " 54

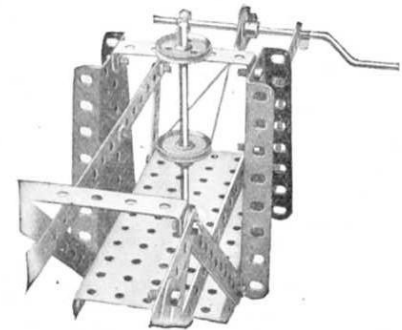
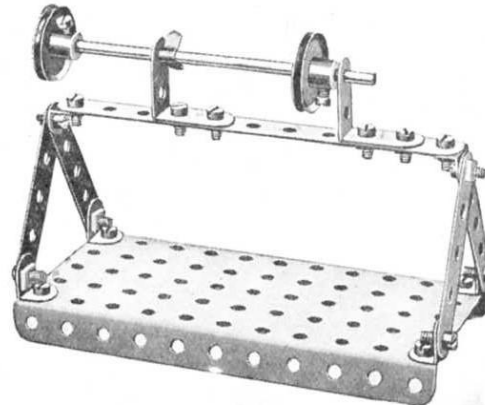


FIG. 206A

Model No. 207 Polishing Spindle



Parts required :

1 of No. 2	1 of No. 15A
4 " " 5	2 " " 22
6 " " 12	1 " " 35
2 " " 12A	16 " " 37
	1 of No. 52

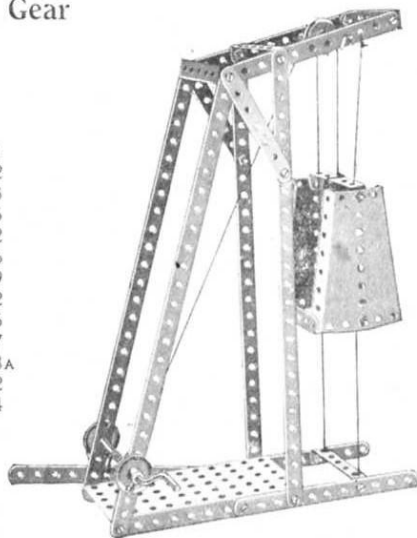
These Models can be made with MECCANO Outfit No. 2, or No. 1 and No. 1A.

25

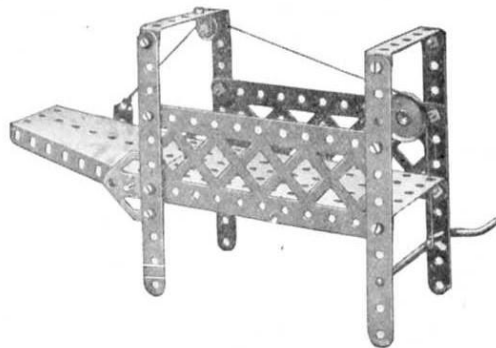
Model No. 208
Pit Head Gear

Parts
required :

4 of No.	1
5 " "	2
2 " "	3
2 " "	5
2 " "	12
1 " "	16
1 " "	19
3 " "	22
2 " "	35
25 " "	37
5 " "	48A
1 " "	52
2 " "	54



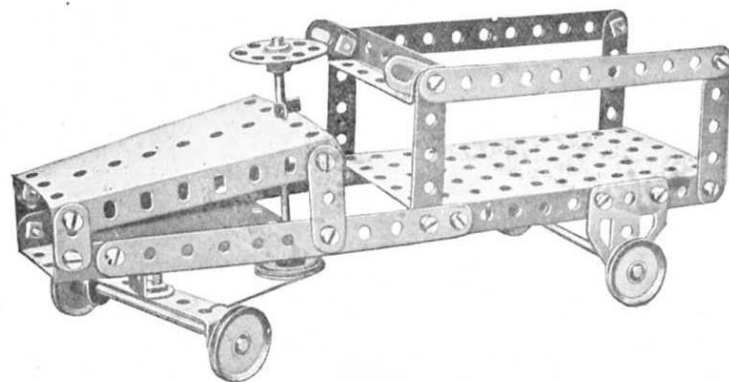
Model No. 209
Gangway



Parts required :

4 of No.	2	1 of No.	22	1 of No.	52
1 " "	10	1 " "	23	1 " "	54
1 " "	12	4 " "	35	2 " "	100
1 " "	16	17 " "	37	2 " "	126A
1 " "	19	2 " "	48A		

Model No. 211 Motor Cart



Parts
required :

4 of No.	2
4 " "	5
2 " "	6A
4 " "	10
1 " "	11
3 " "	16
3 " "	22
2 " "	22A
1 " "	24
3 " "	35
26 " "	37
3 " "	48A
1 " "	52
2 " "	54
2 " "	126A

Model No. 210
Ladder on Wheels



Parts required :

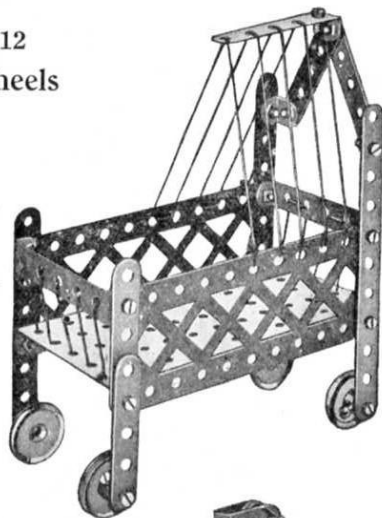
6 of No.	1	24 of No.	37
4 " "	5	6 " "	48A
2 " "	16	1 " "	52
4 " "	20		

These Models can be made with MECCANO Outfit No. 2, or No. 1 and No. 1A.

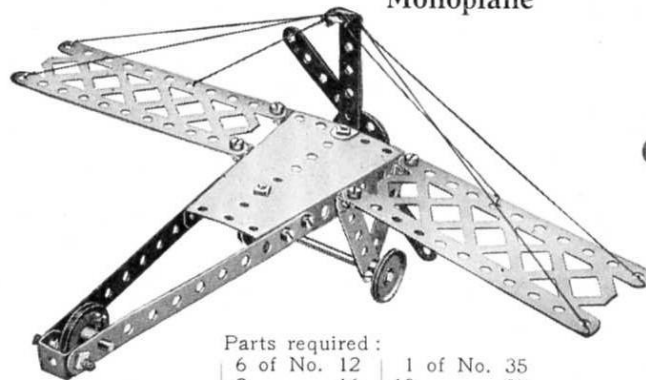
Model No. 212 Cot on Wheels

Parts
required :

2 of No.	2
7 " "	5
3 " "	12
4 " "	22
18 " "	37
2 " "	48A
2 " "	100



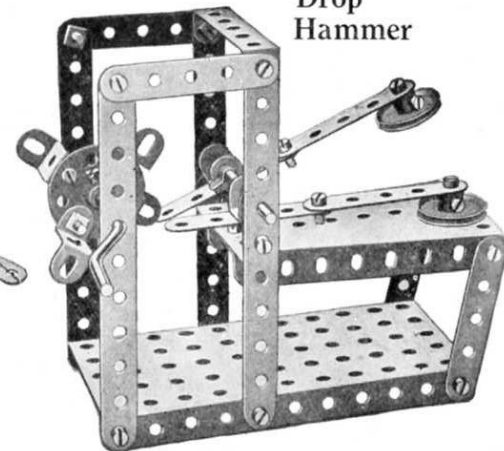
Model No. 213 Monoplane



Parts required :

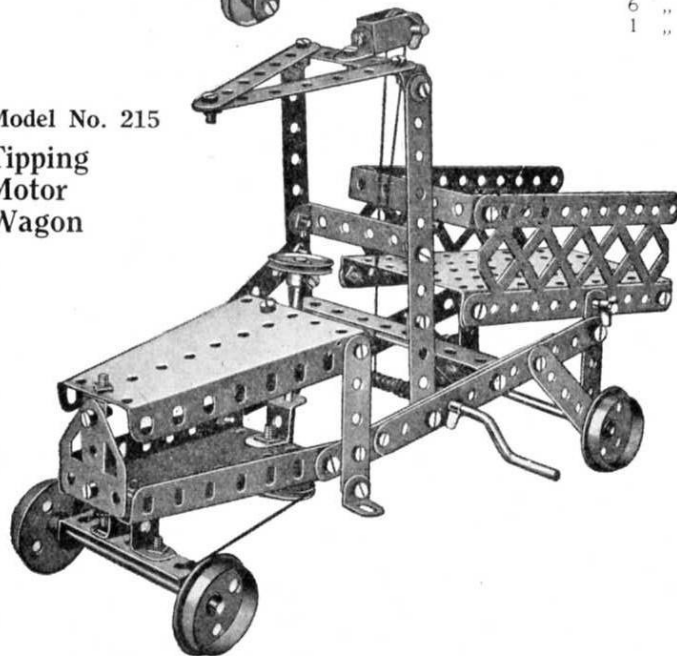
6 of No.	12	1 of No.	35
2 " "	16	18 " "	37
2 of No.	2	1 " "	18A
6 " "	5	3 " "	22
1 " "	11	1 " "	24
		2 " "	100

Model No. 214 Double Drop Hammer



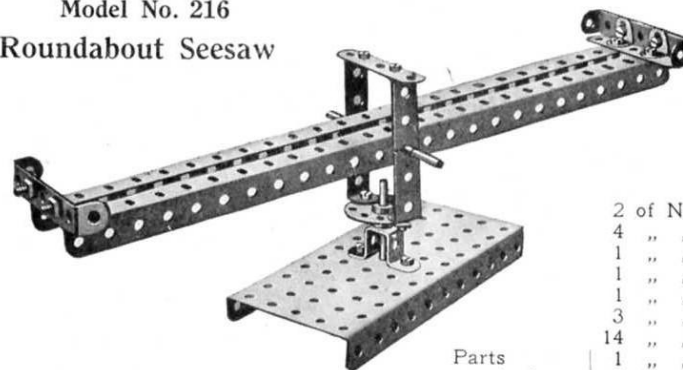
Parts required :		1 of No.	16	25 of No.	37	
		1	" "	19	2 " "	48A
4 of No.	2	2	" "	22	1 " "	52
8 " "	5	1	" "	24	1 " "	54
2 " "	11	6	" "	35	4 " "	125

Model No. 215 Tipping Motor Wagon



Parts required :	6 of No.	2
	2 " "	3
	7 " "	5
	1 " "	10
	4 " "	12
	4 " "	16
	1 " "	18A
	1 " "	19
	4 " "	20
	2 " "	22
	1 " "	23
	7 " "	35
	43 " "	37
	2 " "	38
	1 " "	44
	1 " "	45
	6 " "	48A
	1 " "	52
	2 " "	54
	2 " "	100
	2 " "	125
	1 " "	126A

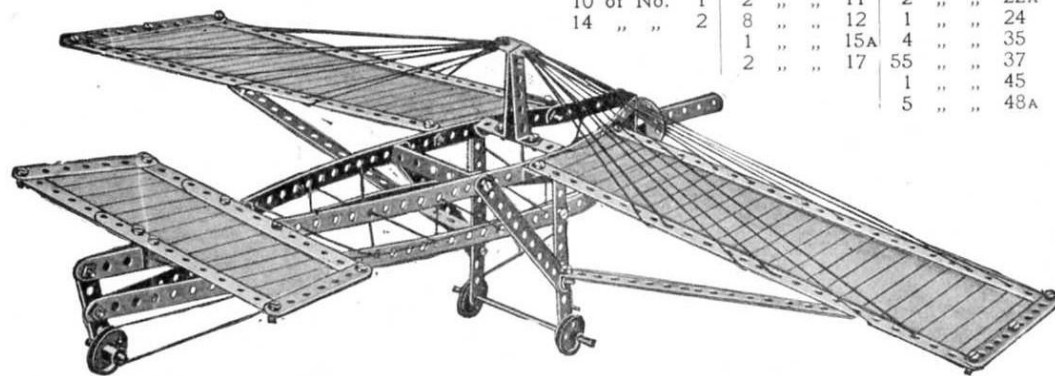
Model No. 216 Roundabout Seesaw



2 of No.	8
4 " "	12
1 " "	16
1 " "	17
1 " "	24
3 " "	35
14 " "	37
1 " "	45
4 " "	48A
3 of No.	5
1 " "	52

These Models can be made with MECCANO Outfit No. 2, or No. 1 and No. 1A.

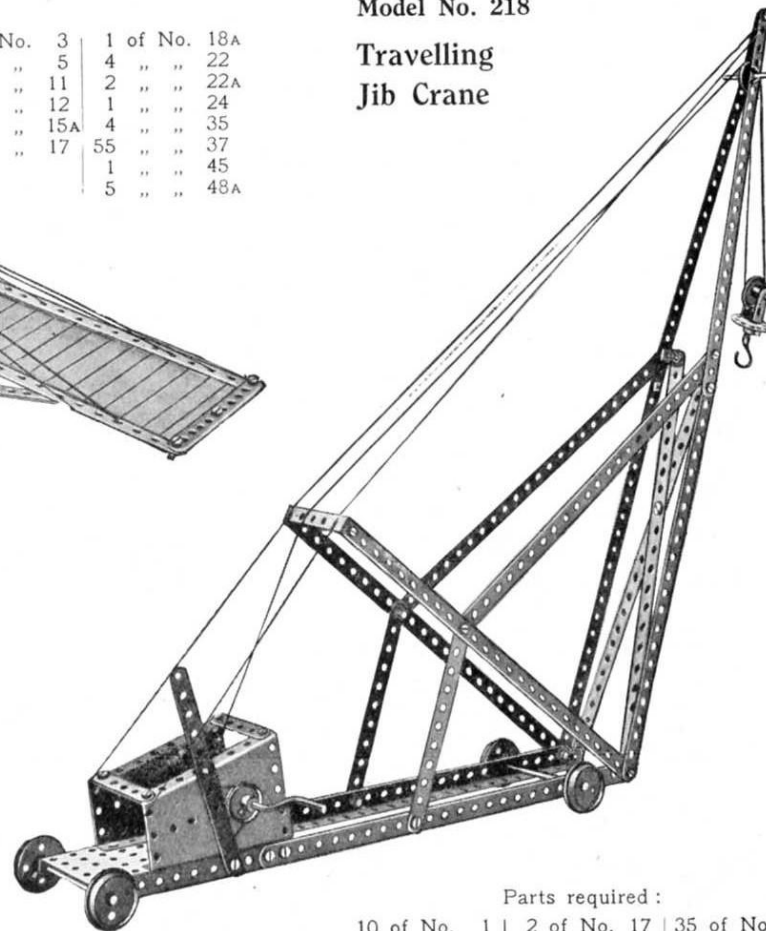
Model No. 217 Monoplane



Parts required :	2 of No.	3	1 of No.	18A		
10 of No.	8	" "	5	4	" "	22
14 " "	2	" "	11	2	" "	22A
	8	" "	12	1	" "	24
	1	" "	15A	4	" "	35
	2	" "	17	55	" "	37
				1	" "	45
				5	" "	48A

Model No. 218

Travelling Jib Crane



		Parts required :					
10 of No.	2	2 of No.	17	35 of No.	37		
3	1	1	19	1	44		
3	5	4	20	1	48A		
2	8	2	22	1	52		
4	12	1	22A	2	54		
2	16	1	24	1	57		
		5	35				

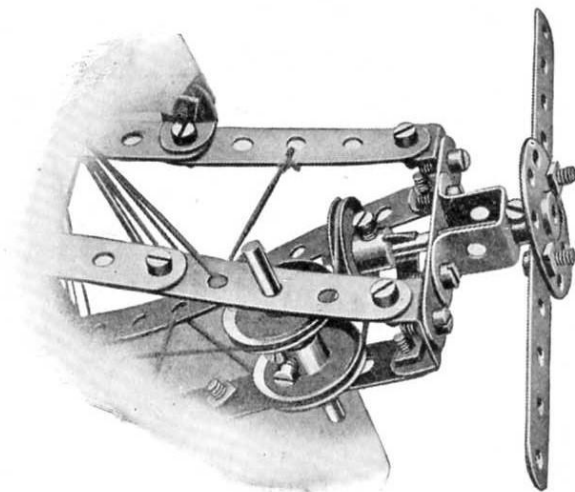
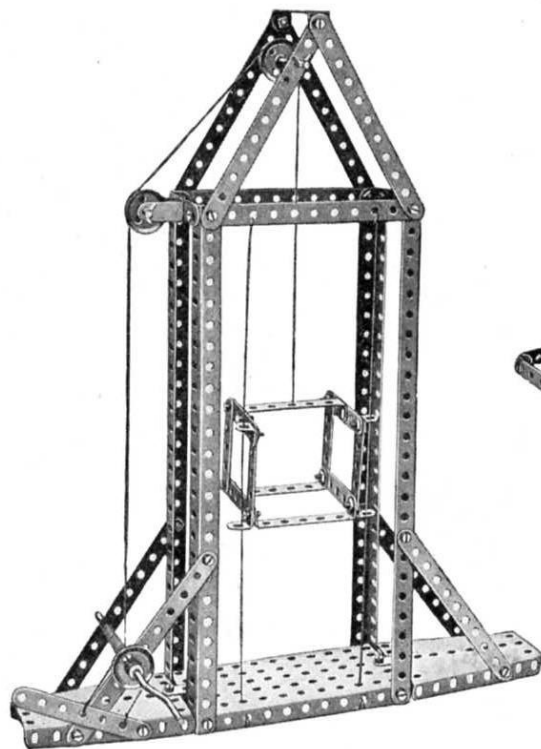


FIG. 217A

These Models can be made with MECCANO Outfit No. 2, or No. 1 and No. 1A.

Model No. 219

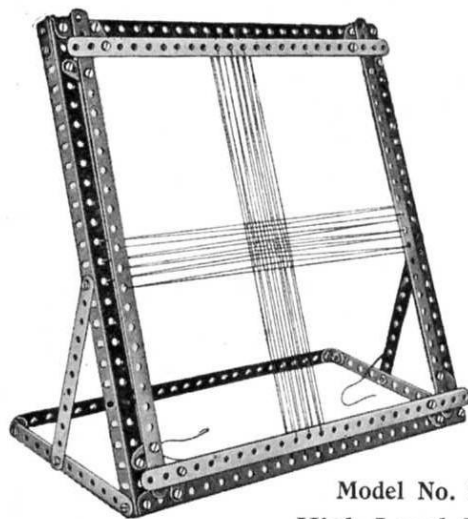
Elevator



Parts required :

10 of No. 2	1 of No. 16	38 of No. 37
1 " " 3	1 " " 18A	1 " " 44
10 " " 5	1 " " 19	4 " " 48A
4 " " 8	1 " " 22	1 " " 52
2 " " 10	2 " " 22A	2 " " 54
4 " " 12	5 " " 35	

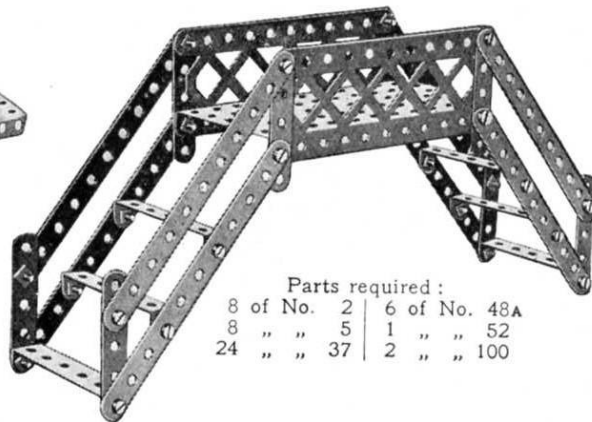
Model No. 220 Mat Frame



Parts required :	
5 of No. 1	
4 " " 2	
4 " " 8	
8 " " 10	
2 " " 12	
2 " " 12A	
36 " " 37	

Model No. 222

High-Level Bridge



Parts required :

8 of No. 2	6 of No. 48A
8 " " 5	1 " " 52
24 " " 37	2 " " 100

Model No. 221

Windmill

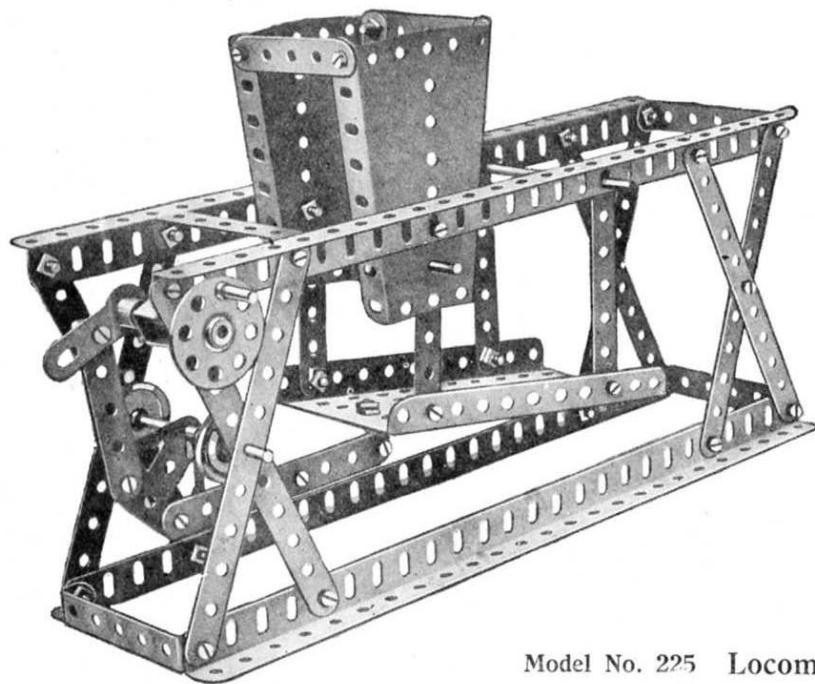


Parts required :

10 of No. 1	4 of No. 8	1 of No. 24
14 " " 2	1 " " 15	4 " " 35
2 " " 3	1 " " 19	45 " " 37
2 " " 5	2 " " 22	2 " " 54

These Models can be made with MECCANO Outfit No. 2, or No. 1 and No. 1A.

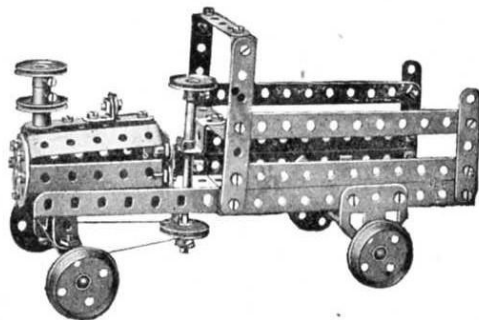
Model No. 223 Coal Sifter



Parts required :

8 of No.	2
2 " "	3
7 " "	5
4 " "	8
1 " "	12
3 " "	16
1 " "	17
2 " "	22
1 " "	24
6 " "	35
38 " "	37
1 " "	45
4 " "	48A
1 " "	52
2 " "	54
1 " "	62
1 " "	115
1 " "	126A

Model No. 225 Locomotive



Parts required :

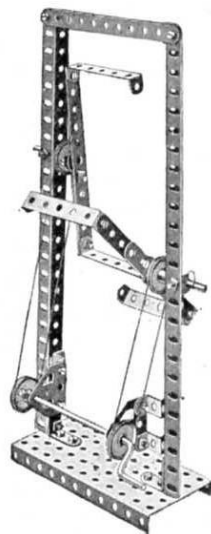
4 of No.	2	1 of No.	24
2 " "	3	2 " "	35
6 " "	5	47 " "	37
3 " "	10	1 " "	45
7 " "	12	6 " "	48A
3 " "	16	1 " "	52
1 " "	17	1 " "	54
4 " "	20	1 " "	62
4 " "	22	2 " "	125
1 " "	23	2 " "	126A

Model No. 224
Try-your-strength Machine

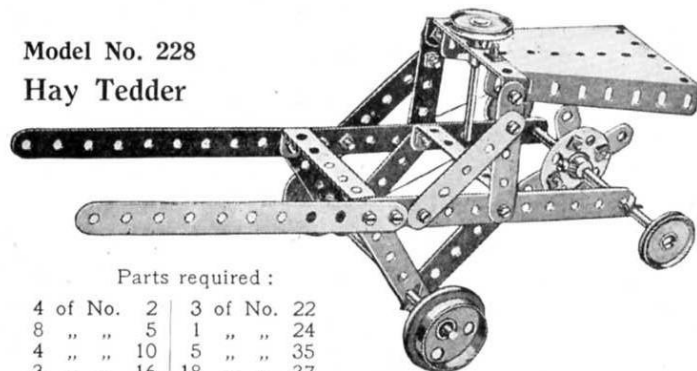


Parts required :

2 of No.	1	1 of No.	17	12 of No.	38
5 " "	2	1 " "	18A	1 " "	45
2 " "	3	4 " "	22	4 " "	48A
2 " "	8	1 " "	24	1 " "	52
1 " "	11	4 " "	35	1 " "	54
2 " "	16	30 " "	37	1 " "	126A

Model No. 226 Candy PullerParts
required :

3 of No.	2
2 " "	8
2 " "	12
2 " "	12A
2 " "	17
1 " "	19
4 " "	22
2 " "	35
26 " "	37
10 " "	38
4 " "	48A
1 " "	52
2 " "	62
4 " "	125
2 " "	126A

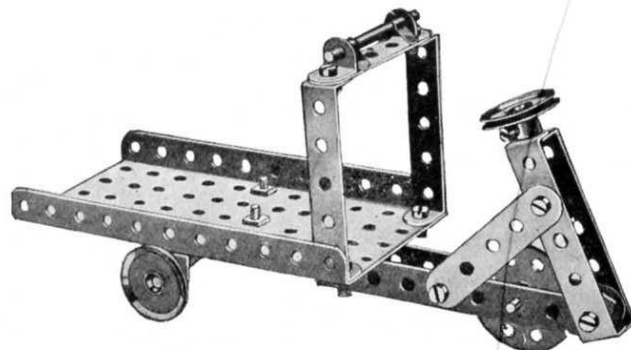
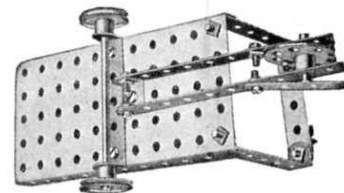
**Model No. 228
Hay Tedder**

Parts required :

4 of No.	2	3 of No.	22
8 " "	5	1 " "	24
4 " "	10	5 " "	35
3 " "	16	18 " "	37
1 " "	17	3 " "	48A
2 " "	20	1 " "	54

Model No. 227 Carrier TricycleParts
required :

2 of No.	2
3 " "	5
1 " "	11
2 " "	12
1 " "	16
1 " "	17
1 " "	18A
3 " "	22
1 " "	24
2 " "	35
15 " "	37
5 " "	48A
1 " "	52

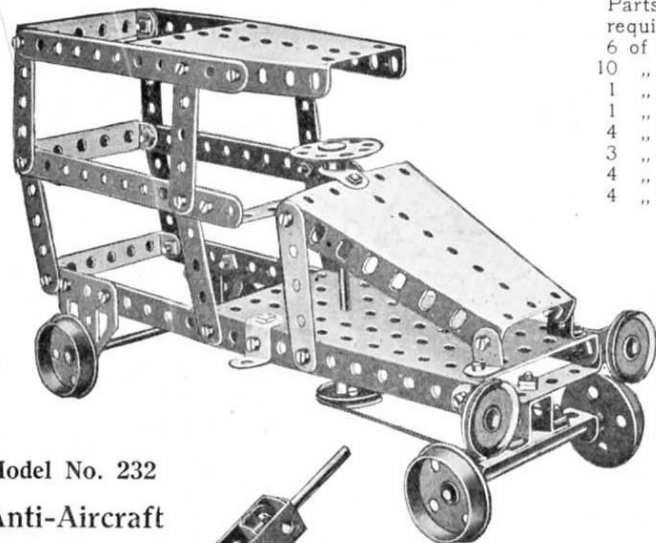
**Model No. 229
Baby Chair**FIG. 227A
(underneath view)Parts
required :

8 of No.	2
2 " "	3
12 " "	5
6 " "	12
2 " "	17
4 " "	22
31 " "	37
6 " "	48A

These Models can be made with MECCANO Outfit No. 2, or No. 1 and No. 1A.

31

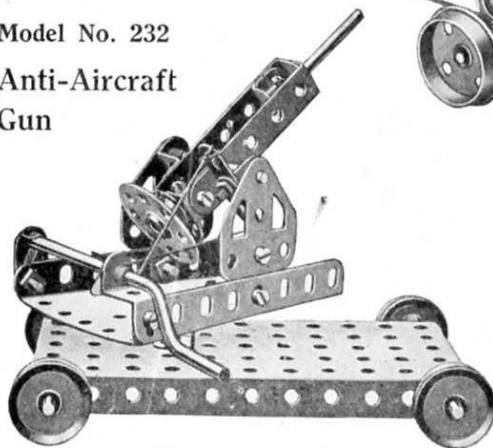
Model No. 230 Motor Van



Parts
required :
6 of No. 2
10 " " 5
1 " " 10
1 " " 11
4 " " 12
3 " " 16
4 " " 20
4 " " 22

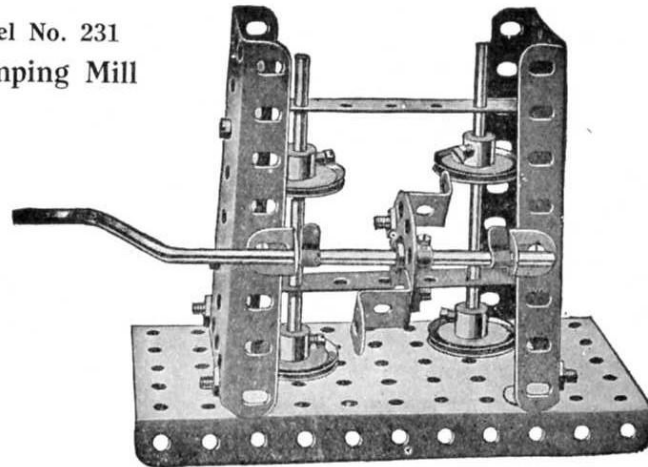
1 of No. 24
38 " " 37
1 " " 44
6 " " 48A
1 " " 52
2 " " 54
2 " " 125
2 " " 126A

**Model No. 232
Anti-Aircraft
Gun**



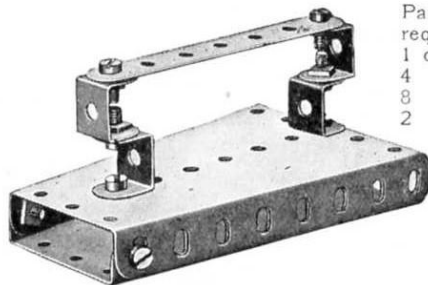
5 of No. 10	4 of No. 22	1 of No. 52
2 " " 11	1 " " 24	1 " " 54
2 " " 16	4 " " 35	4 " " 125
2 " " 17	12 " " 37	2 " " 126A
1 " " 19	2 " " 48A	

**Model No. 231
Stamping Mill**



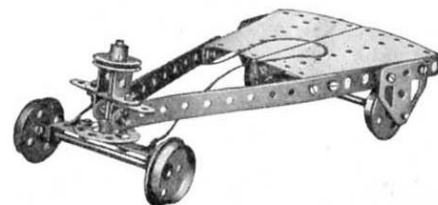
2 of No. 3	4 of No. 22	1 of No. 52
10 " " 12	1 " " 24	2 " " 54
2 " " 16	2 " " 35	2 " " 125
1 " " 19	16 " " 37	

Model No. 233 Smoothing Iron



Parts
required :
1 of No. 3
4 " " 11
8 " " 37
2 " " 54

Model No. 234 Coaster



2 of No. 2	1 of No. 17	6 of No. 38
1 " " 5	4 " " 20	1 " " 45
2 " " 12	1 " " 22	1 " " 48A
1 " " 15	1 " " 24	2 " " 54
1 " " 16	16 " " 37	2 " " 126A

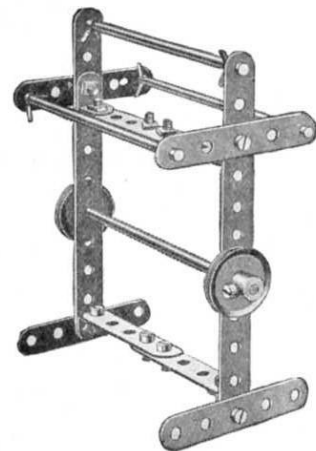
These Models can be made with MECCANO Outfit No. 2, or No. 1 and No. 1A.

Model No. 235



Needlework Basket

Parts required :		
6 of No.	1	
6 " "	2	
2 " "	3	
6 " "	5	
12 " "	12	
46 " "	37	
3 " "	48A	
1 " "	52	

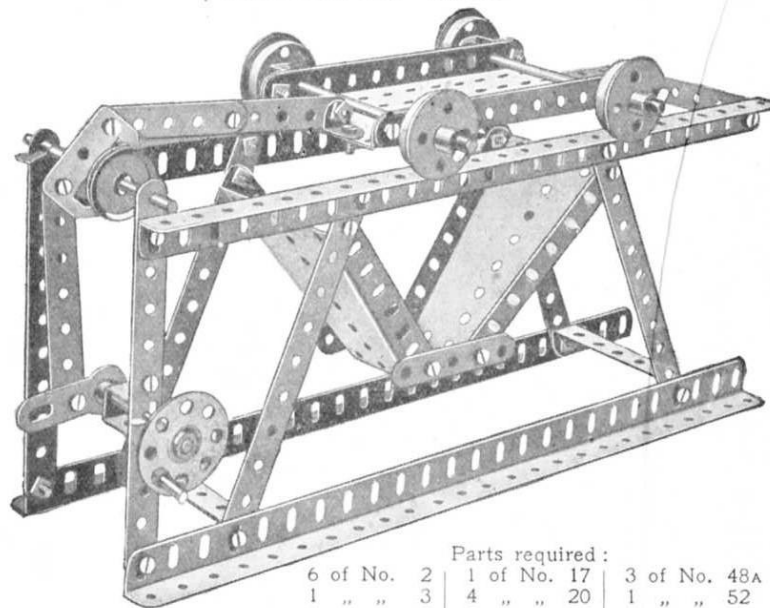


Model No. 237

Towel Rail

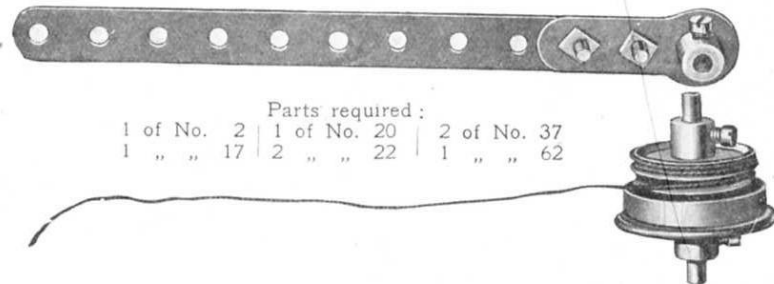
Parts required :		
2 of No.	2	
8 " "	5	
4 " "	12	
1 " "	15	
4 " "	16	
2 " "	22	
6 " "	35	
12 " "	37	

Model No. 236 Sifter



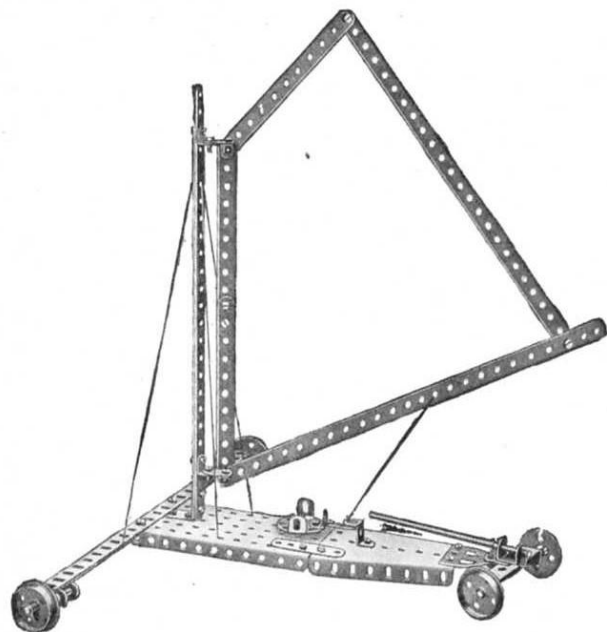
Parts required :		
6 of No.	2	1 of No. 17
1 " "	3	4 " "
4 " "	5	2 " "
4 " "	8	1 " "
1 " "	12	7 " "
2 " "	15	34 " "
1 " "	16	1 " "
		3 of No. 48A
		1 " "
		2 " "
		1 " "
		1 " "
		4 " "
		1 " "

Model No. 238 Spinning Top



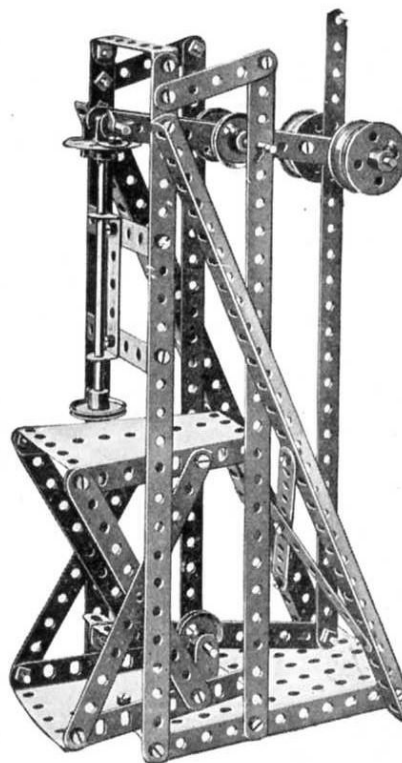
Parts required :		
1 of No.	2	1 of No. 20
1 " "	17	2 " "
		2 of No. 37
		1 " "

Model No. 239 Seashore Aeroplane



Parts required :

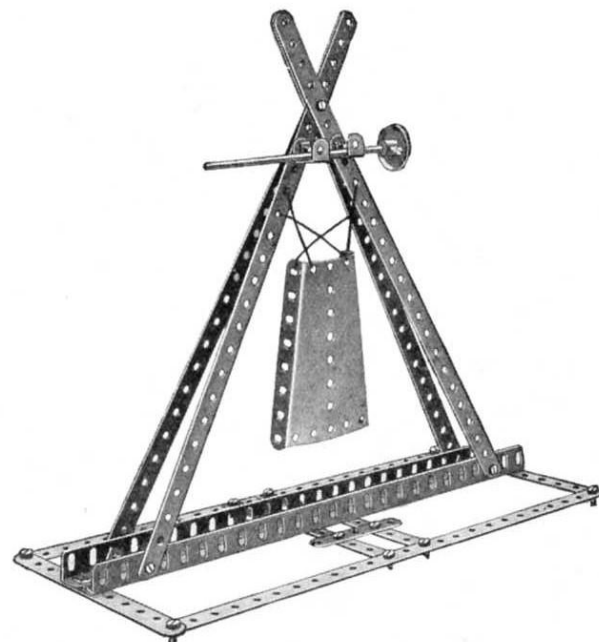
4 of No.	1	1 of No.	12A	33 of No.	37
3 " "	2	1 " "	15	1 " "	38
2 " "	5	1 " "	16	1 " "	48A
1 " "	8	2 " "	17	1 " "	52
3 " "	10	4 " "	20	1 " "	54
3 " "	11	1 " "	24	1 " "	125
7 " "	12	6 " "	35	1 " "	126A

Model No. 240
Embossing Machine

Parts required :

5 of No.	1	2 of No.	16	44 of No.	37
9 " "	2	1 " "	17	1 " "	44
2 " "	5	1 " "	18A	4 " "	48A
2 " "	8	4 " "	20	1 " "	52
2 " "	11	4 " "	22	2 " "	54
4 " "	12	1 " "	24		
1 " "	15	4 " "	35		

Model No. 241 Dinner Gong

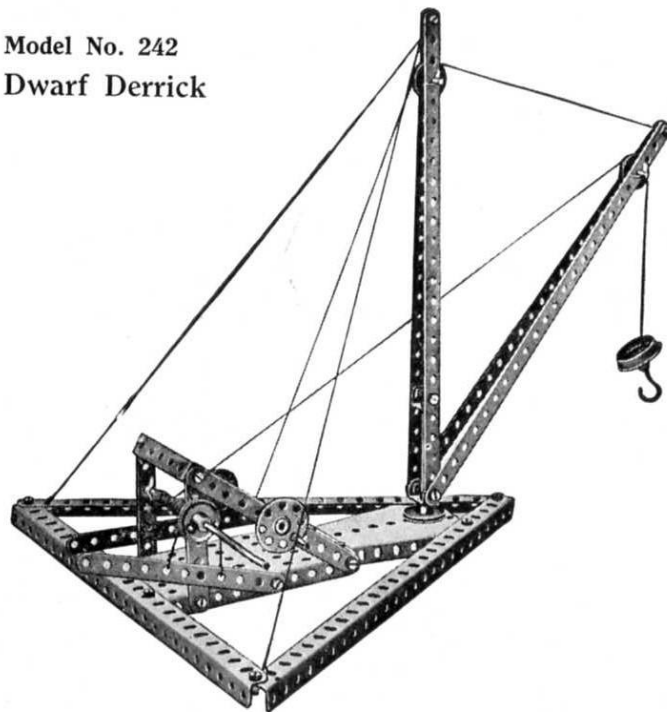


Parts required :

6 of No.	1	1 of No.	15
4 " "	2	1 " "	22
2 " "	5	27 " "	37
2 " "	8	1 " "	54
2 " "	11		

These Models can be made with MECCANO Outfit No. 2, or No. 1 and No. 1A.

Model No. 242 Dwarf Derrick



Parts required :

4 of No.	1	2 of No.	22A
4 "	2	1 "	24
2 "	3	6 "	35
3 "	8	23 "	37
2 "	11	4 "	38
2 "	16	1 "	48A
2 "	18A	1 "	52
1 "	19	1 "	54
1 "	20	1 "	57
4 "	22	1 "	115

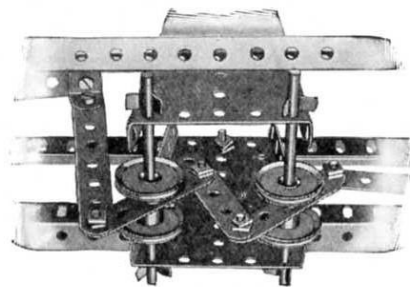
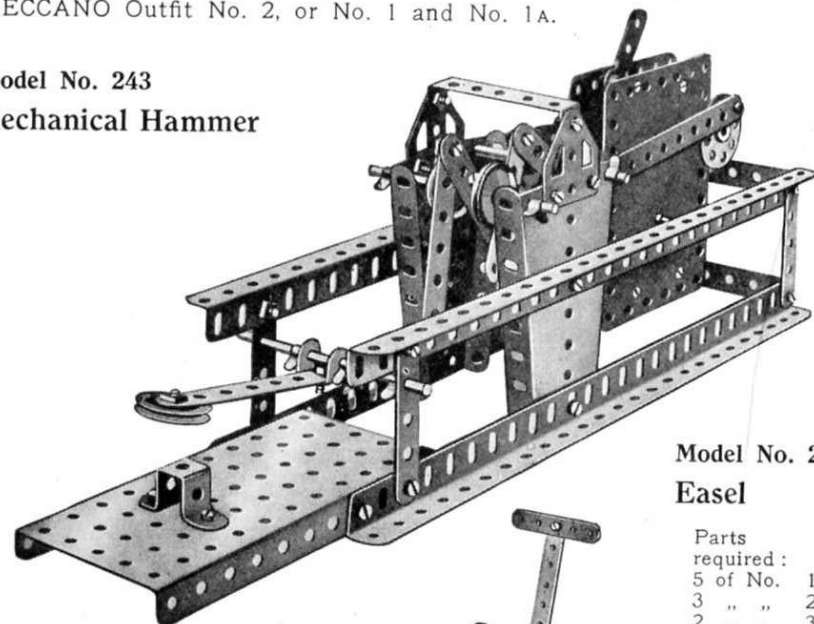


FIG. 243A

Model No. 243 Mechanical Hammer



Parts required :

2 of No.	2
1 "	3
6 "	5
4 "	8
1 "	11
1 "	12
3 "	16
4 "	22
1 "	22A
1 "	24
8 "	35
32 "	37
1 "	45
3 "	48A
1 "	52
2 "	54
2 "	126A

Clockwork Motor
(not included in Outfit).

Model No. 244 Easel

Parts required :

5 of No.	1
3 "	2
2 "	3
3 "	5
4 "	12
2 "	12A
1 "	15A
2 "	22
19 "	37
4 "	38



Model No. 245 Extending Ladder on Running Carriage

Parts
required:

2	of No.	1
8	" "	2
1	" "	3
7	" "	5
4	" "	8
5	" "	12
4	" "	16
1	" "	18A
1	" "	19
4	" "	20
4	" "	22
1	" "	22A
1	" "	24
6	" "	35
47	" "	37
2	" "	38
1	" "	44
1	" "	45
7	" "	48A
1	" "	52
2	" "	54
1	" "	115
2	" "	125
2	" "	126A

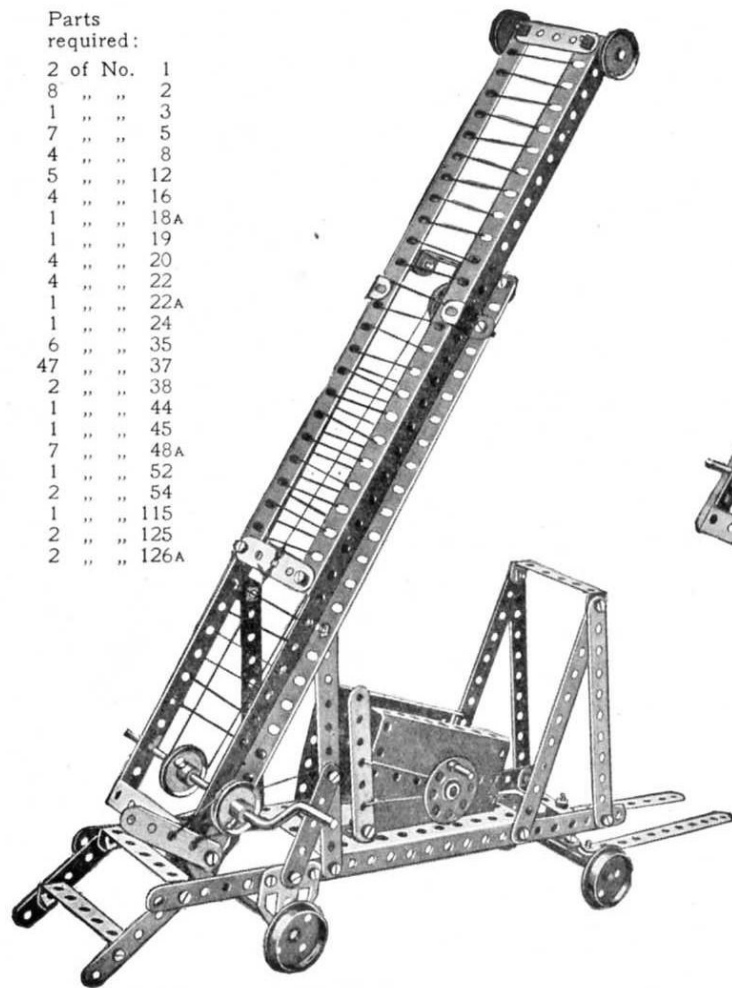


FIG. 245A

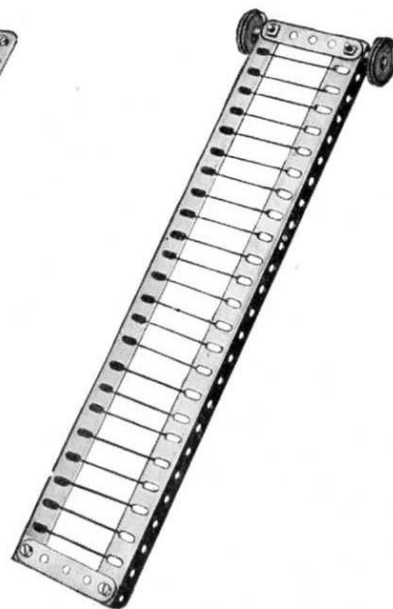


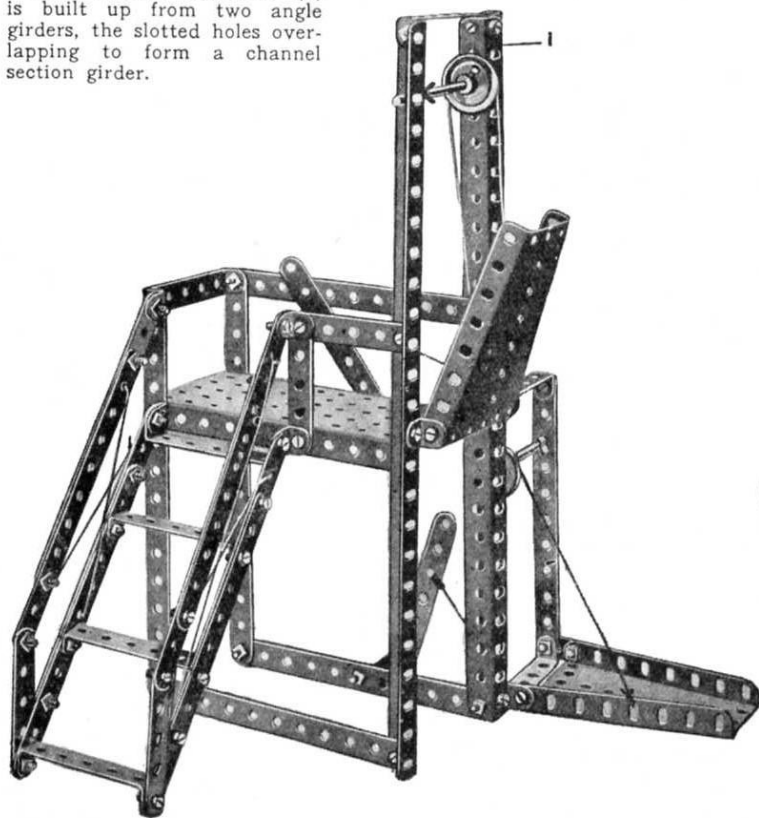
FIG. 245B

The bed of the lower carriage framework is formed by bolting two $12\frac{1}{2}$ " strips to the sides of a large flanged plate, and two sector plates bolted to the flanged plate by their flanges to form the sides, and a bearing for the spindle carrying the operating cord attached to the bottom of the ladder to raise it from a horizontal position: and the strips (1) form a support for the ladder when in this horizontal position. Angle brackets (2), Fig. 245A, form pivots for the lower part of the ladder, and are carried from the supports (3). The upper part of the ladder, Fig. 245, is slideably guided and retained on the lower ladder by reversed brackets (4). The extension of the ladder is effected by the cranked spindle round a pulley on which (and another pulley at the top of the framework) the cord is passed, the ends being secured to the lower part of the slideable ladder.

These Models can be made with MECCANO Outfit No. 2, or No. 1 and No. 1A.

Model No. 246 Ferry Gangway

The vertical standard (1) is built up from two angle girders, the slotted holes overlapping to form a channel section girder.



Parts required:		
14 of No. 2	6 of No. 12	1 of No. 45
2 " " 3	2 " " 16	8 " " 48A
6 " " 5	2 " " 22	1 " " 52
3 " " 8	2 " " 35	2 " " 54
2 " " 10	54 " " 37	

Model No. 247

The Acrobat

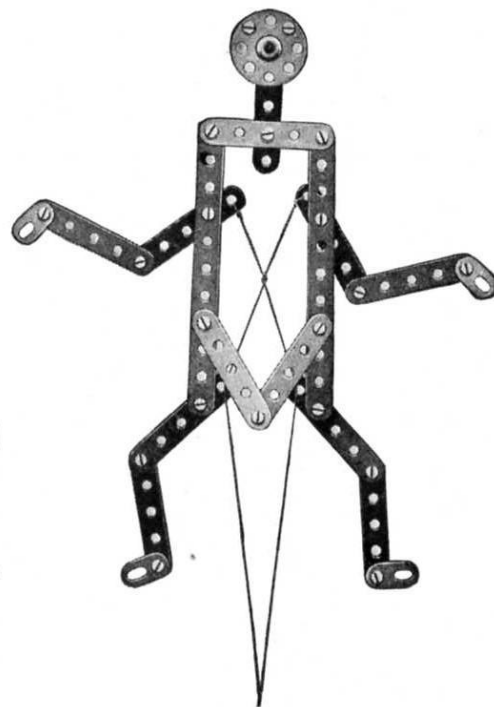


Parts required:

2 of No. 2	1 of No. 22A
8 " " 5	2 " " 35
2 " " 10	21 " " 37
6 " " 12	1 " " 52
1 " " 19	2 " " 62

Model No. 248

Jumping Jack



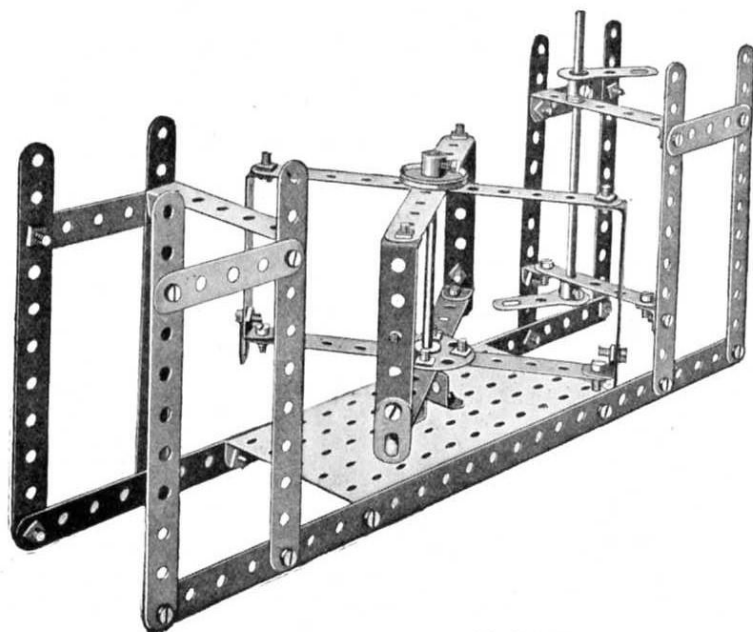
Parts required:

2 of No. 2
12 " " 5
4 " " 10
1 " " 24
18 " " 37

These Models can be made with MECCANO Outfit No. 2, or No. 1 and No. 1A.

37

Model No. 249 Turnstile



Parts required:			
2 of No.	1	1 of No.	24
10 "	2	42 "	37
9 "	5	2 "	38
4 "	10	1 "	45
2 "	12	6 "	48A
1 "	15	1 "	52
1 "	15A	2 "	62
2 "	22		

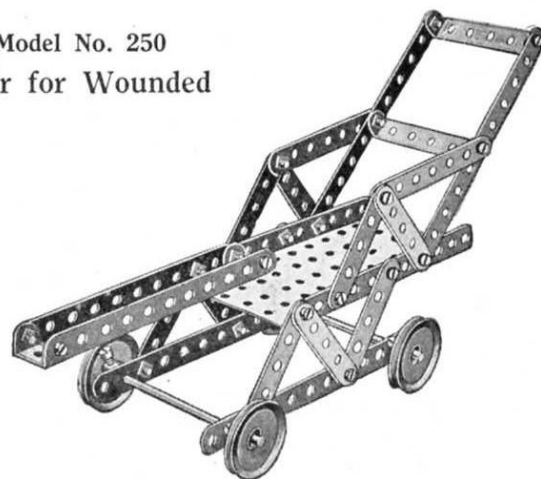
Model No. 251
Cutting
Machine

Parts required:	
7 of No.	2
1 "	3
1 "	5
4 "	12
14 "	37
1 "	48A
1 "	52



Model No. 250
Chair for Wounded

Parts required:	
6 of No.	2
2 "	3
10 "	5
2 "	11
2 "	16
4 "	22
21 "	37
2 "	48A
1 "	52



Model No. 252
Magic Sector Plates

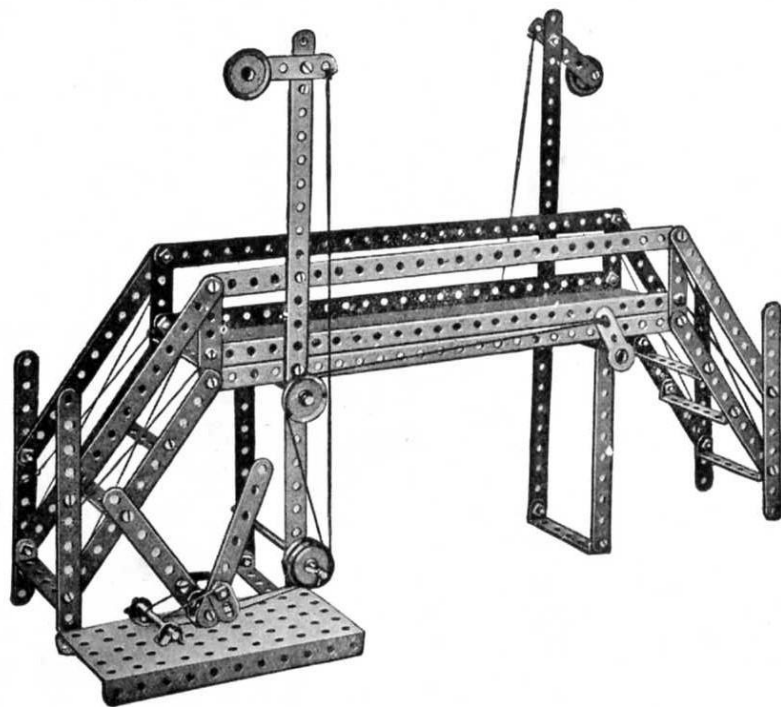
Parts required:	
2 of No.	11
1 "	17
2 "	35
6 "	37
2 "	54



When the cord is held vertically the magic sector plates will fall or stop at the bidding of the owner. If the cord is held without tension the plates will fall, but the instant the cord is tightened they will stop dead. The cord is wrapped once around the rod which passes through the centre holes of the sector plates.

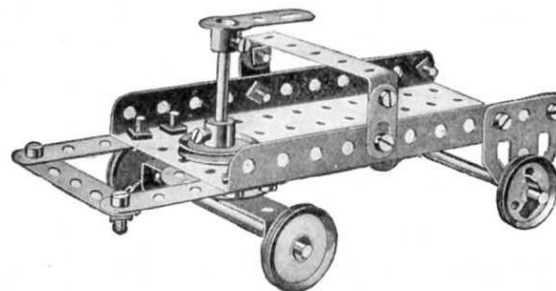
These Models can be made with MECCANO Outfit No. 2, or No. 1 and No. 1A.

Model No. 253
Railway Foot Bridge and Signals



Parts required :					
4 of No.	1	1 of No.	11	2 of No.	22A
14 " "	2	2 " "	12	6 " "	35
2 " "	3	1 " "	15A	50 " "	37
8 " "	5	2 " "	16	8 " "	48A
2 " "	8	1 " "	17	1 " "	52
2 " "	10	3 " "	22	1 " "	62

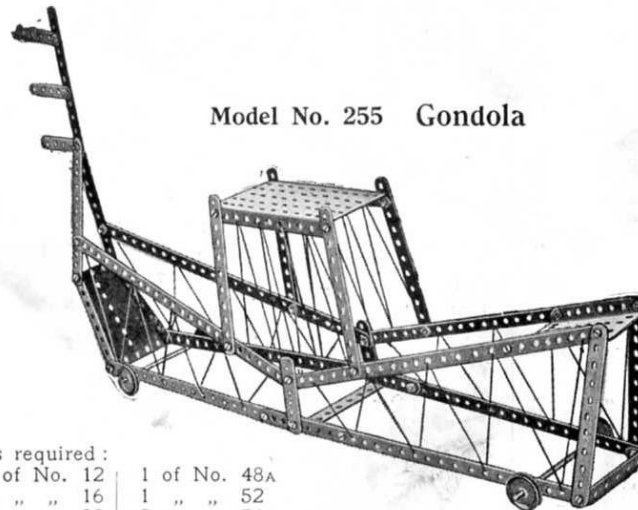
Model No. 254 Motor Van



Parts required :

3 of No.	5	2 of No.	22A	2 of No.	48A
2 " "	10	1 " "	24	1 " "	52
2 " "	16	2 " "	35	1 " "	62
1 " "	17	16 " "	37	2 " "	126A
3 " "	22	2 " "	38		

Model No. 255 Gondola

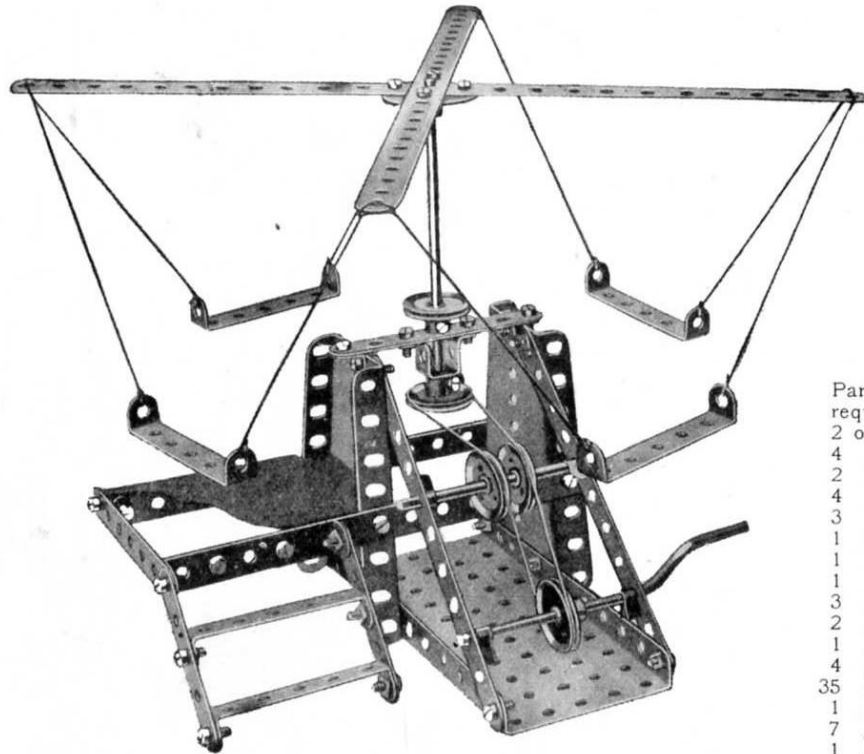


Parts required :					
8 of No.	1	2 of No.	12	1 of No.	48A
9 " "	2	2 " "	16	1 " "	52
1 " "	3	4 " "	22	2 " "	54
5 " "	5	29 " "	37		

These Models can be made with MECCANO Outfit No. 2, or No. 1 and No. 1A.

39

Model No. 256 Roundabout



Parts required :		
2 of No.	1	
4 " "	2	
2 " "	3	
4 " "	5	
3 " "	12	
1 " "	15	
1 " "	16	
1 " "	19	
3 " "	22	
2 " "	22A	
1 " "	24	
4 " "	35	
35 " "	37	
1 " "	45	
7 " "	48A	
1 " "	52	
2 " "	54	

Model No. 257 Beam Scales



Parts required :		
5 of No.	1	6 of No. 12
6 " "	2	2 " "
7 " "	5	2 " "
4 " "	8	6 " "
		48 " "
		17
		22A
		35
		37
5 of No.	48A	
1 " "	52	
2 " "	54	
2 " "	126A	

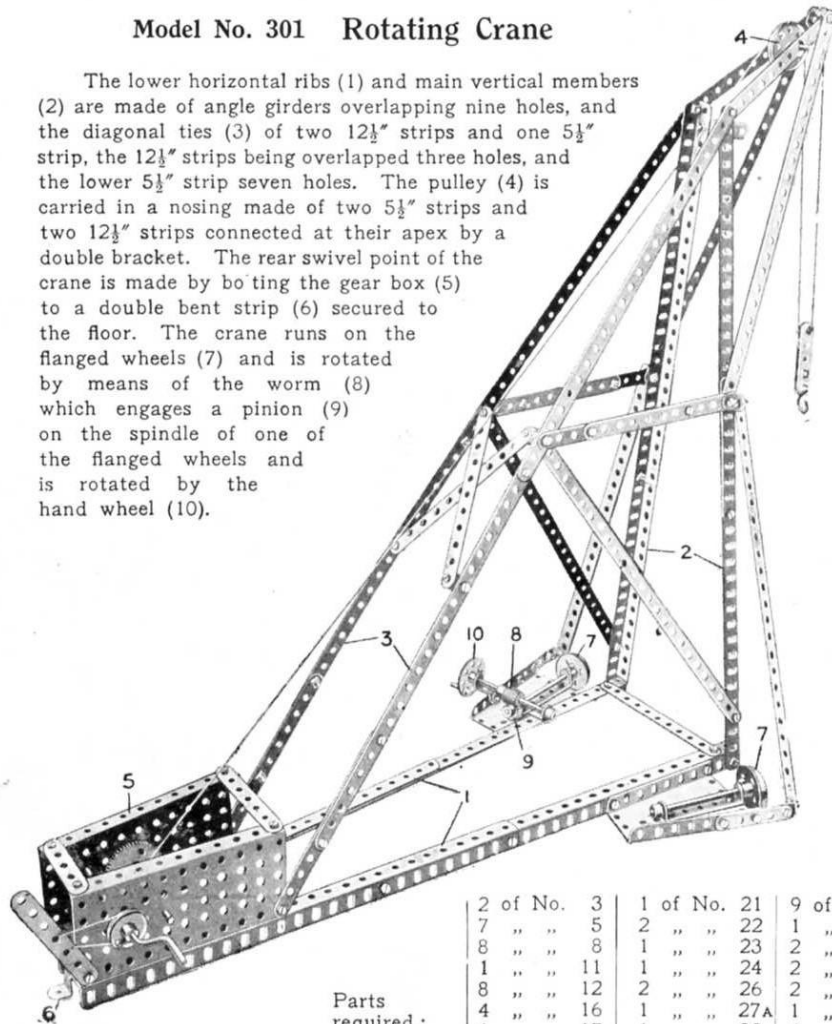
HOW TO CONTINUE

This completes the Models which may be made with MECCANO Outfit No. 2. The next Models are a little more advanced, requiring a number of extra parts to construct them. The necessary parts are all contained in a No. 2A Accessory Outfit, the price of which will be found in the List at the end of the Manual.

These Models can be made with MECCANO Outfit No. 3, or No. 2 and No. 2A.

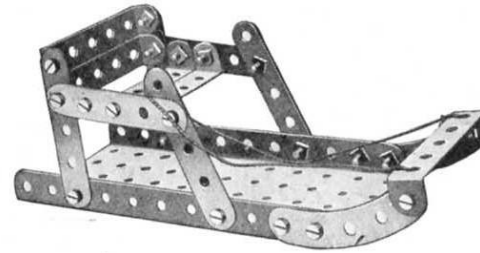
Model No. 301 Rotating Crane

The lower horizontal ribs (1) and main vertical members (2) are made of angle girders overlapping nine holes, and the diagonal ties (3) of two $12\frac{1}{2}$ " strips and one $5\frac{1}{2}$ " strip, the $12\frac{1}{2}$ " strips being overlapped three holes, and the lower $5\frac{1}{2}$ " strip seven holes. The pulley (4) is carried in a nosing made of two $5\frac{1}{2}$ " strips and two $12\frac{1}{2}$ " strips connected at their apex by a double bracket. The rear swivel point of the crane is made by bolting the gear box (5) to a double bent strip (6) secured to the floor. The crane runs on the flanged wheels (7) and is rotated by means of the worm (8) which engages a pinion (9) on the spindle of one of the flanged wheels and is rotated by the hand wheel (10).



Parts required :	2 of No. 3		1 of No. 21		9 of No. 38	
	7	" "	5	2	" "	45
	8	" "	8	1	" "	23
	1	" "	11	1	" "	24
	8	" "	12	2	" "	26
	4	" "	16	1	" "	27A
	1	" "	17	1	" "	32
	1	" "	19	2	" "	35
	10 of No. 1	1	" "	2	" "	37
	11	" "	2	70	" "	37
						125

Model No. 302 Toboggan



Parts required :			
6 of No.	5		
20	" "	37	
5	" "	48A	
1	" "	52	
2	" "	90	

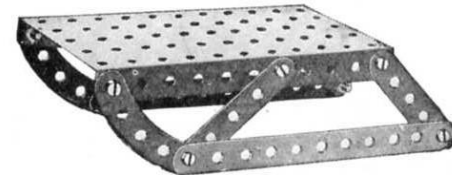
Model No. 303 Horse Sleigh



Parts required :

3 of No. 2	13 of No. 37	1 of No. 57
4 " " 5	1 " " 48A	2 " " 90
1 " " 23	1 " " 52	1 " " 126A

Model No. 304 Sleigh



Parts required :

2 of No. 2			
4 of No. 5	1 of No. 52		
10 " " 37	2 " " 90		

This Model can be made with MECCANO Outfit No. 3, or No. 2 and No. 2A.

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Model No. 305 Tower Wagon

Parts required :		
6 of No.	1	
2 "	"	4
10 "	"	5
8 "	"	8
2 "	"	12
2 "	"	15A
4 "	"	16
4 "	"	20
1 "	"	22A
1 "	"	24
1 "	"	26
1 "	"	32
4 "	"	35
72 "	"	37
8 "	"	38
10 "	"	48A
2 "	"	52
3 "	"	59
1 "	"	98
2 "	"	100
1 "	"	115
2 "	"	126A

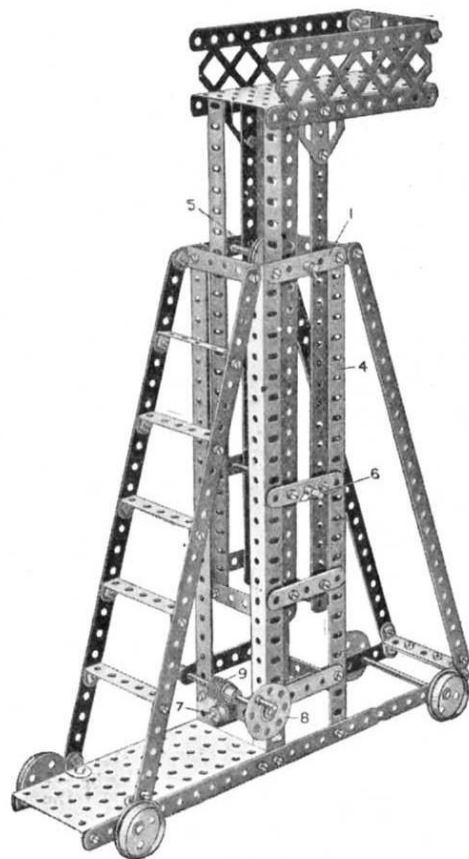


FIG. 305

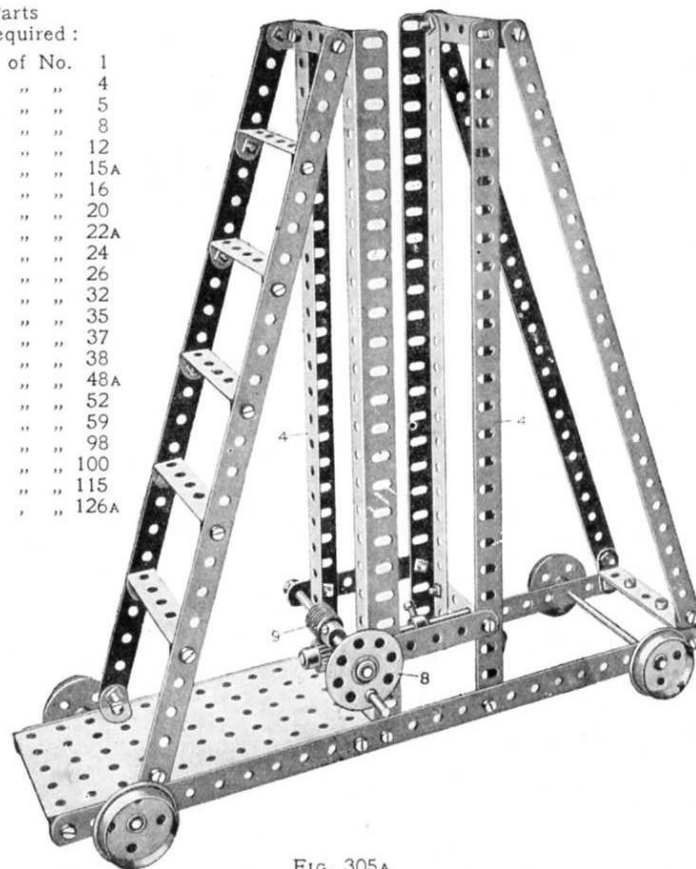


FIG. 305A

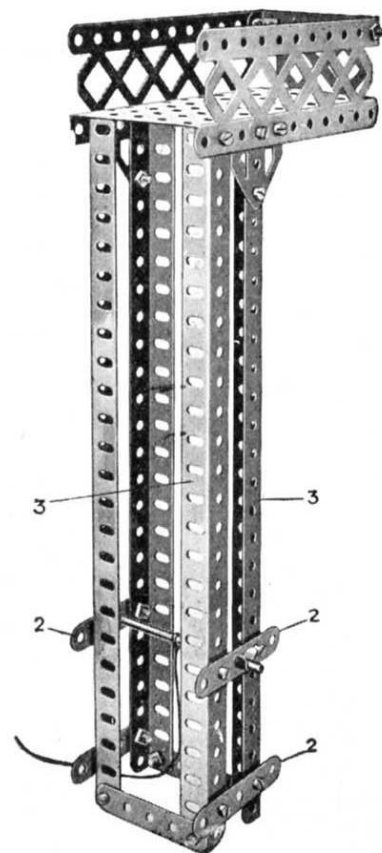
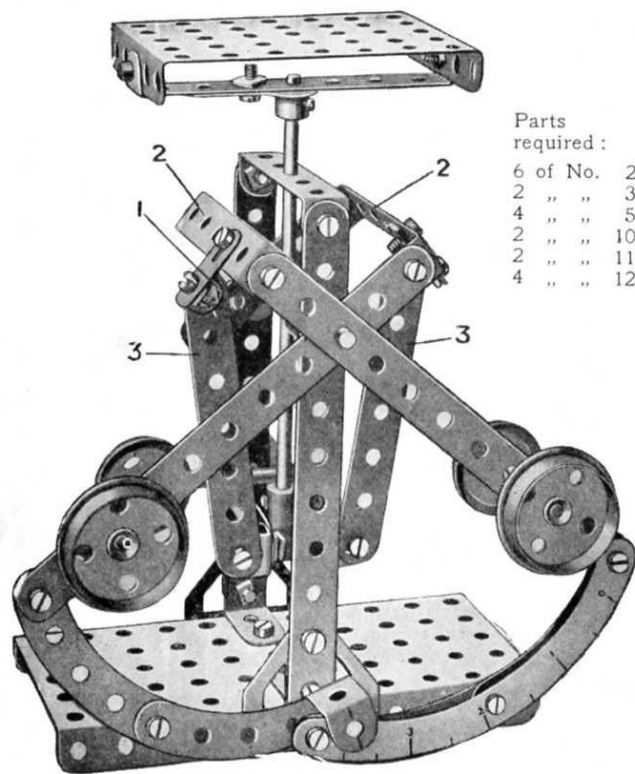


FIG. 305B

Begin the construction of this model by building up the platform, Fig. A, the tie strips (1) being left off as shown in order to be able to insert the rising and falling tower, Fig. B. The strips are then bolted on. The guide strips (2) are bolted to the girder (3) of the tower with washers beneath the strips. This gives the necessary clearance and enables the strips to rise easily up the faces of the girders (4) of the fixed lower part of the tower. The tower is raised by means of a cord which passes over a pulley (5) and is fastened to a rod (6), the other end of the cord winding on a rod (7) rotated by a hand wheel (8) on the spindle of the worm (9).

These Models can be made with MECCANO Outfit No. 3, or No. 2 and No. 2A.

Model No. 306 Letter Balance



The connection at (1) of the rocking arms (2) to the thrust strips (3) is locknuttied to give a free pivotal action, and similarly the pivotal connections (5) of the strips (3) to the lever strips (4) are locknuttied to give free play

Parts
required :
6 of No. 2
2 " " 3
4 " " 5
2 " " 10
2 " " 11
4 " " 12

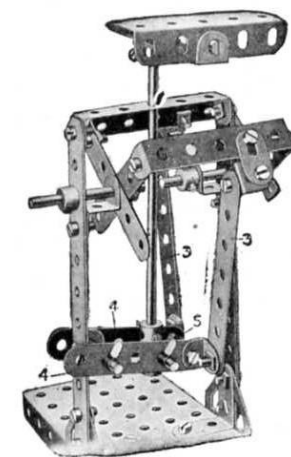
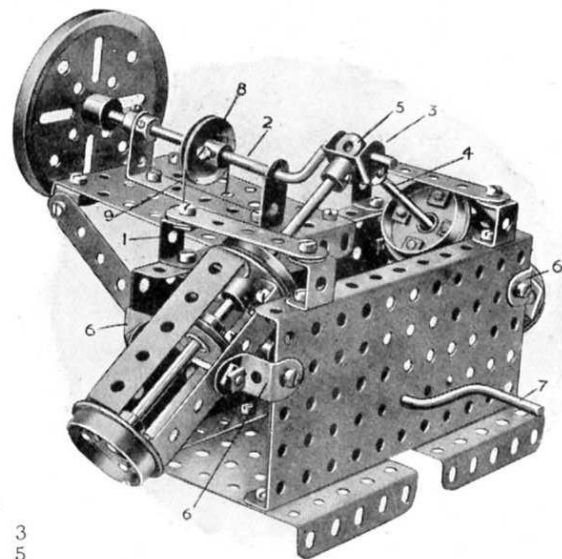


FIG. 306A

2 of No. 12A
1 " " 15
2 " " 17
2 " " 18A
2 " " 20
2 " " 22
4 " " 35
40 " " 37
6 " " 38
3 " " 48A
1 " " 48B
1 " " 52
1 " " 53
4 " " 59
1 " " 62
1 " " 63
4 " " 90
2 " " 125
2 " " 126A

Model No. 307 Oscillating Steam Engine



Parts
required :
2 of No. 3
2 " " 5
4 " " 11
4 " " 12
2 " " 12A
2 " " 15
2 " " 19
1 " " 19B
4 " " 20
4 " " 22
3 " " 35
50 " " 37
6 " " 48A
2 " " 52
3 " " 53
2 " " 59
1 " " 63
1 " " 102
1 " " 116
4 " " 125

The piston rod (1) of one cylinder is pivotally connected to the crank rod (2) by means of a fork piece (3), and the piston rod (4) of the other cylinder is pivoted to the crank rod by a coupling (5). The cylinders consisting of four strips are enclosed by flanged wheels at the ends, and are pivoted on $\frac{1}{2}$ " reversed brackets (6). The model is operated from the handle rod (7), a pulley on the rear end of which is coupled to the pulley (8) by a cord (9).

These Models can be made with MECCANO Outfit No. 3, or No. 2 and No. 2A.

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Model No. 308 Railway Wagon Swivel Crane

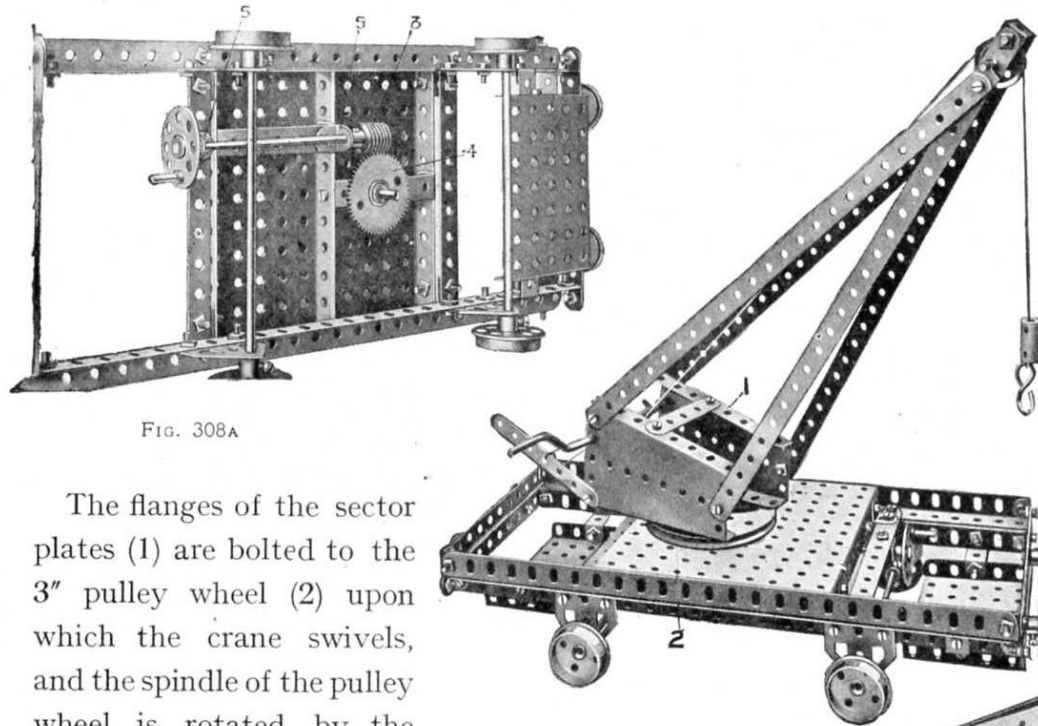


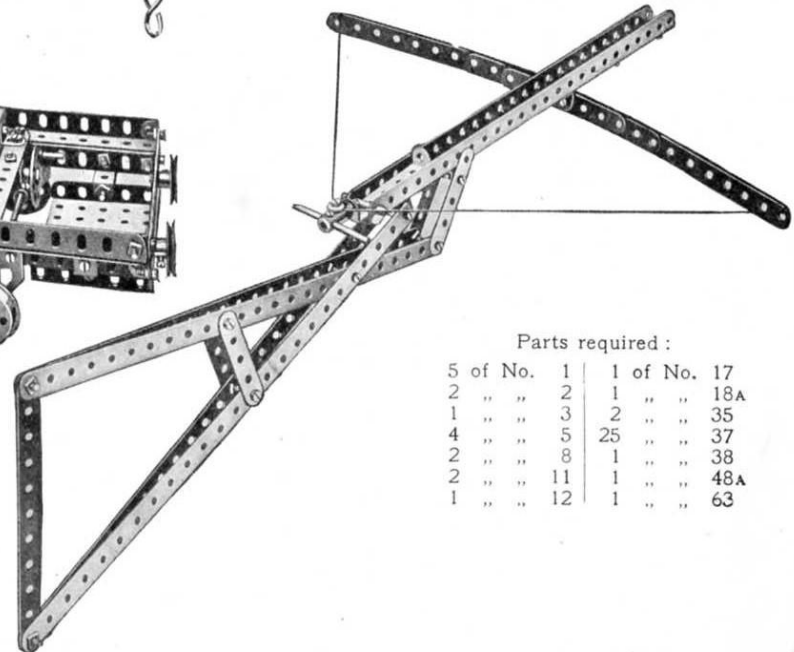
FIG. 308A

The flanges of the sector plates (1) are bolted to the 3" pulley wheel (2) upon which the crane swivels, and the spindle of the pulley wheel is rotated by the worm (3) engaging the gear wheel (4) on the spindle. In order to bring the worm centrally over the teeth of the gear wheel (4), washers are placed between the angle brackets (5) in which the spindle of the worm is journalled.

Parts required:

4 of No.	1	1 of No.	19	2 of No.	38
6 "	2	1 "	19B	2 "	48A
1 "	3	4 "	20	2 "	52
2 "	5	4 "	22	2 "	53
4 "	8	1 "	22A	2 "	54
1 "	11	1 "	24	1 "	57
14 "	12	1 "	27A	3 "	59
2 "	15	1 "	32	1 "	63
1 "	15A	3 "	35	1 "	115
2 "	17	70 "	37	4 "	125
				4 "	126A

Model No. 309 Crossbow



Parts required:

5 of No.	1	1 of No.	17
2 "	2	1 "	18A
1 "	3	2 "	35
4 "	5	25 "	37
2 "	8	1 "	38
2 "	11	1 "	48A
1 "	12	1 "	63

These Models can be made with MECCANO Outfit No. 3, or No. 2 and No. 2A.

Model No. 310 Bob Sleigh



Parts required :

7 of No. 2	55 of No. 37
6 " " 3	2 " " 38
12 " " 5	1 " " 45
2 " " 8	2 " " 52
2 " " 11	3 " " 53
1 " " 17	2 " " 54
1 " " 21	1 " " 63
1 " " 24	4 " " 90

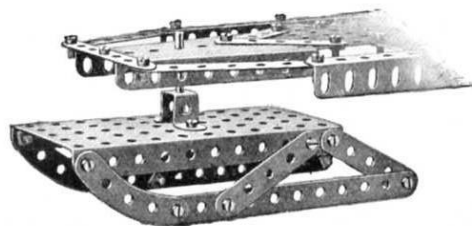
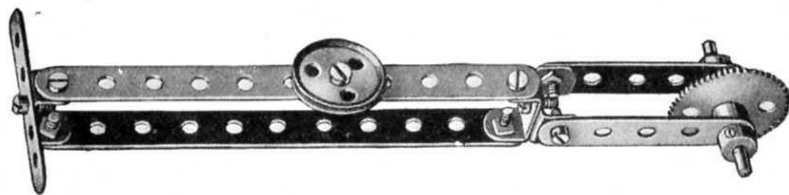


FIG. 310A

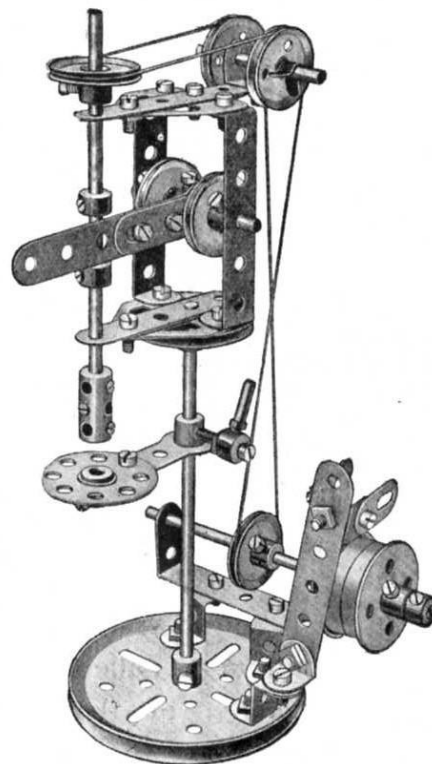
Model No. 311 Pastry Designer



Parts required :

2 of No. 2
3 " " 5
3 " " 11
1 " " 17
1 " " 22A
1 " " 27A
9 " " 37
2 " " 59

Model No. 312 Drilling Machine

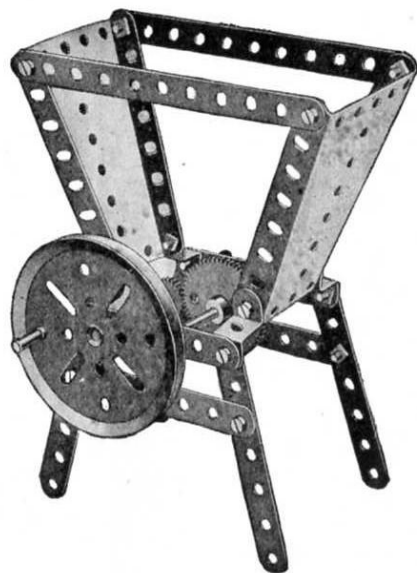


Parts required :

2 of No. 4	2 of No. 20	2 of No. 48A
2 " " 5	1 " " 21	5 " " 59
2 " " 10	4 " " 22	2 " " 62
2 " " 11	2 " " 22A	1 " " 63
1 " " 12	1 " " 24	1 " " 111
1 " " 15	2 " " 35	1 " " 115
2 " " 15A	21 " " 37	3 " " 125
2 " " 17	1 " " 44	2 " " 126A
1 " " 19B	1 " " 46	

These Models can be made with MECCANO Outfit No. 3, or No. 2 and No. 2A.

Model No. 313 Coffee Grinder



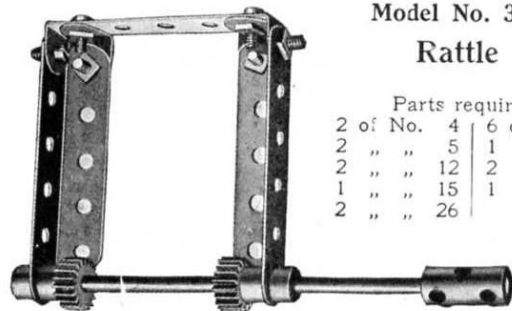
Parts
required :

2 of No.	2
6 " "	3
2 " "	4
2 " "	16
1 " "	19B
1 " "	26
1 " "	27A
16 " "	37
2 " "	54
3 " "	59
1 " "	115
4 " "	125

Model No. 315 Rattle

Parts required :

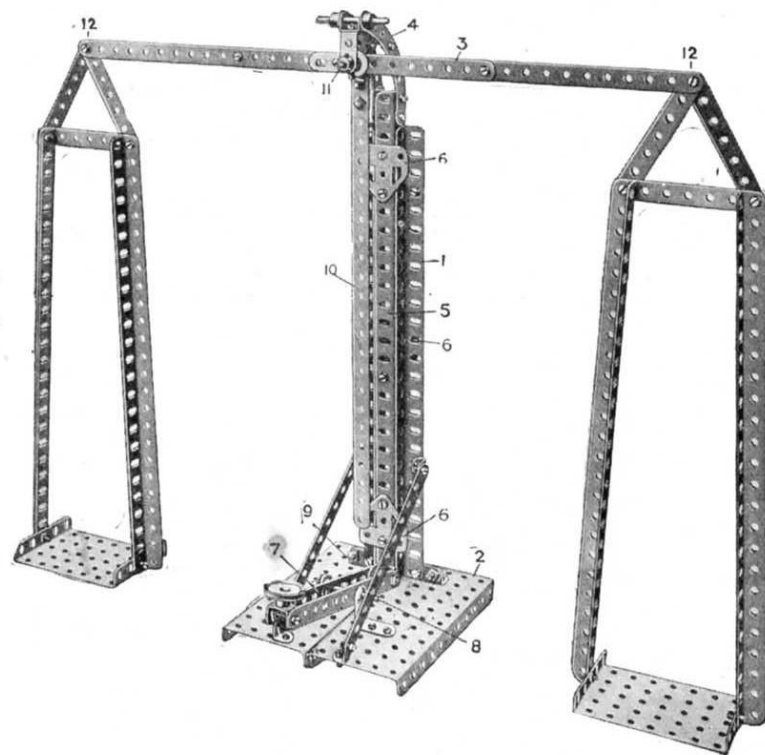
2 of No.	4	6 of No.	37
2 " "	5	1 " "	48A
2 " "	12	2 " "	59
1 " "	15	1 " "	63
2 " "	26		



Model No. 314 Demonstration Scales

Parts
required :

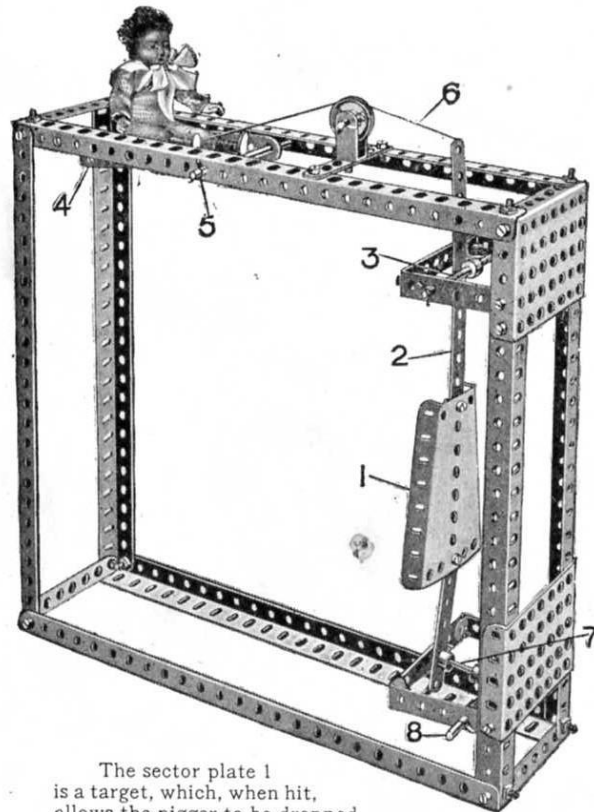
3 of No.	1
4 " "	2
6 " "	3
1 " "	4
2 " "	5
8 " "	8
4 " "	11
6 " "	12
2 " "	12A
2 " "	17
1 " "	18A
1 " "	22
2 " "	35
58 " "	37
1 " "	44
2 " "	52
2 " "	53
2 " "	59
2 " "	62
4 " "	90
1 " "	125
3 " "	126A



The only feature of this model which needs description is the standard, which is built up of two angle girders (1) bolted to the base (2) by angle brackets and spaced apart at the top by a 2½" strip obliquely disposed. The balance lever (3) is pivotally carried in curved strips (4) bolted to the top of two angle girders (5) sliding between the girders (1). The girders (5) are themselves bolted together and in order to guide them as they slide vertically flat trunnions (6) are bolted at the front and rear. The balance is raised by depressing the lever (8) pivoted at 9 and pivotally connected at 11 to the vertically sliding girders (5). The indicator (10) is bolted to a crank at the rear, the boss of which is fitted on the pivot rod (11). The connections at 12 are lock-nutted to allow free action.

These Models can be made with MECCANO Outfit No. 3, or No. 2 and No. 2A.

Model No. 316 Drop the Nigger

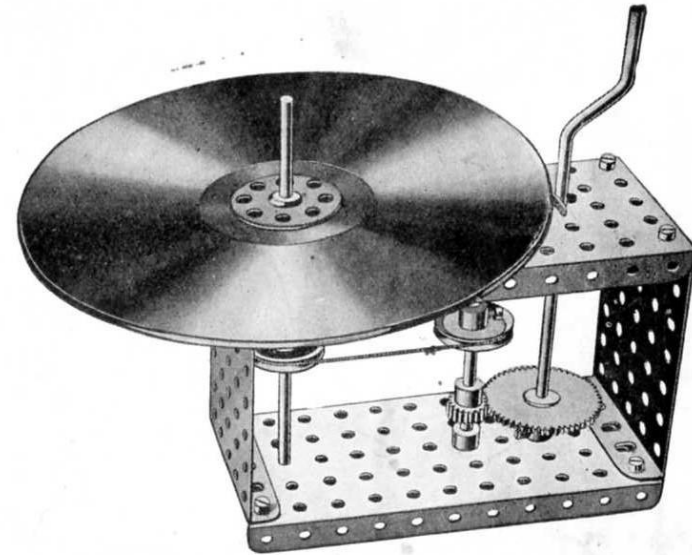


Parts
required :

1	of No.	1
6	" "	3
8	" "	8
1	" "	12
3	" "	15A
1	" "	17
1	" "	22
6	" "	35
33	" "	37
1	" "	44
4	" "	48A
2	" "	53
2	" "	54
3	" "	59
1	" "	63

The sector plate 1 is a target, which, when hit, allows the nigger to be dropped. The plate 1 is carried on the strip 2 pivoted at 3, and the weight of the nigger supported on another sector plate 4 pivoted at 5 by means of the cord 6 keeps the lower end of the strip 2 hard against a short rod 7 pivoted at 8. When the target is hit and knocked back the rod 7 is released and falls about its pivot, allowing the sector plate 4 with the nigger to drop.

Model No. 317 Newton's Disc



Parts required :

1	of No.	15	1	of No.	24	8	of No.	37
1	" "	15A	1	" "	26	2	" "	52
1	" "	19	1	" "	27A	2	" "	53
2	" "	22	2	" "	35	4	" "	59

This is a model to show that white light is made up of the three primary colours—red, yellow, blue. Sectors of these three colours are mounted or painted on the disc, which, if then quickly rotated, shows as white.

This Model can be made with MECCANO Outfit No. 3, or No. 2 and No. 2A.

Model No. 318 Railway Breakdown Crane

Parts required:

2 of No.	1	1 of No.	22A	2 of No.	48B
4 "	2	1 "	23	2 "	52
4 "	11	1 "	24	3 "	53
1 "	12	2 "	26	1 "	54
3 "	15A	1 "	32	1 "	57
1 "	16	1 "	33	2 "	59
2 "	17	4 "	35	1 "	63
1 "	19	36	37	1 "	115
1 "	19B	5 "	38	4 "	126A
4 "	20	2 "	48A		

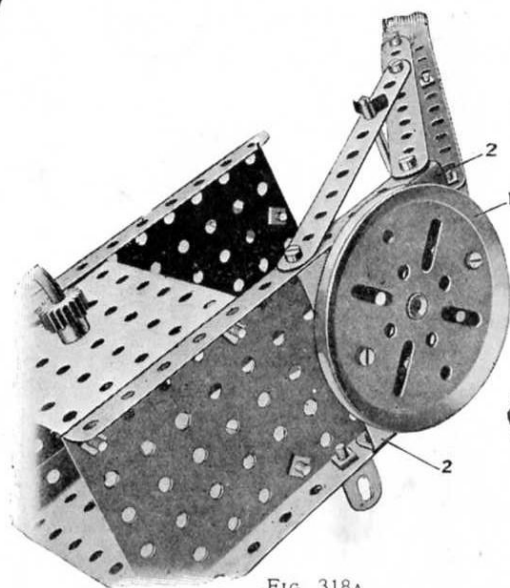
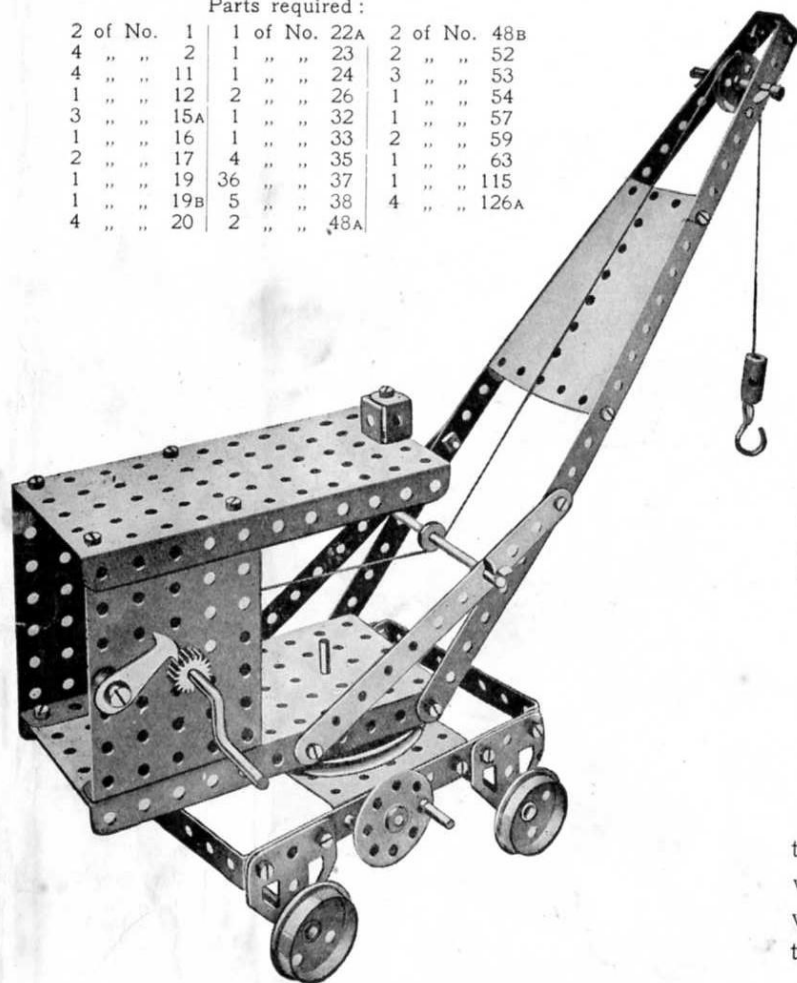


FIG. 318A

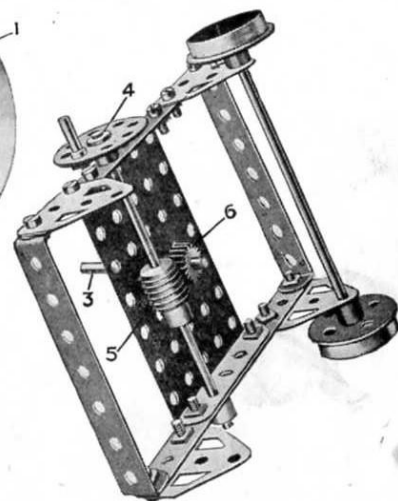


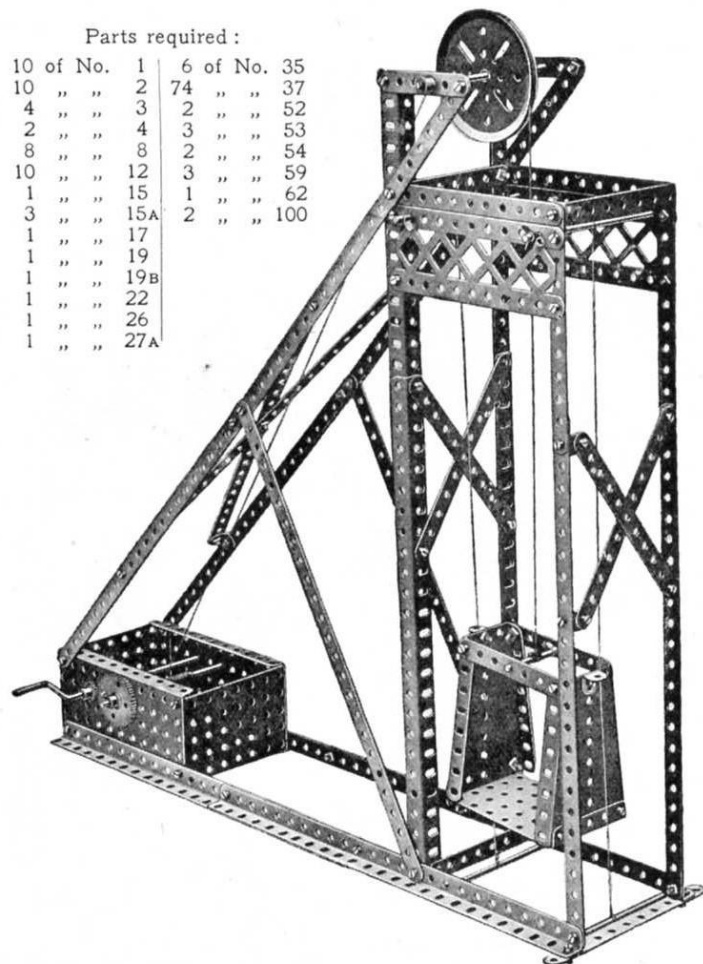
FIG. 318B

The swivelling action is obtained by bolting a 3" pulley (1) to double angle strips (2) on the jib frame. The boss of this wheel fits over the rod (3) and is secured to the rod. The hand wheel (4) rotates the worm (5), engaging the pinion (6) to swivel the jib.

Model No. 319 Pit Head Gear

Parts required :

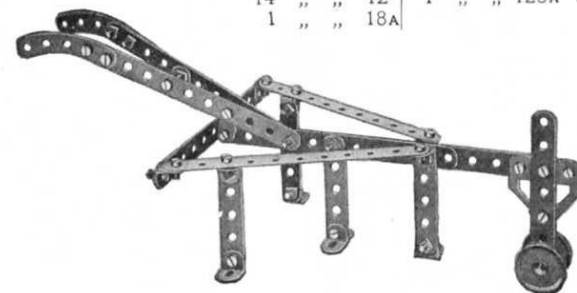
10 of No.	1	6 of No.	35
10 "	2	74 "	37
4 "	3	2 "	52
2 "	4	3 "	53
8 "	8	2 "	54
10 "	12	3 "	59
1 "	15	1 "	62
3 "	15A	2 "	100
1 "	17		
1 "	19		
1 "	19B		
1 "	22		
1 "	26		
1 "	27A		



Model No. 320 Scarifier

Parts required :

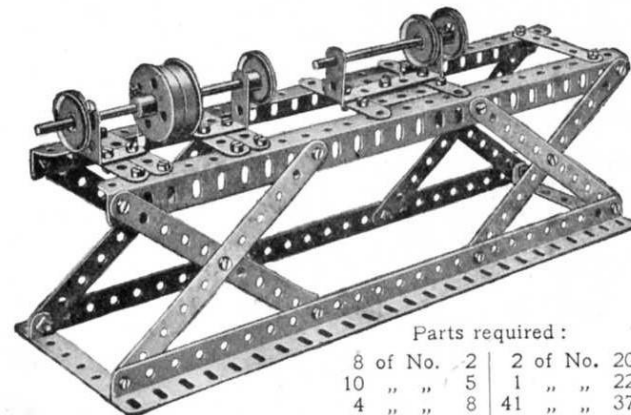
7 of No.	2	2 of No.	22
1 "	3	31 "	37
4 "	5	2 "	38
1 "	10	2 "	90
14 "	12	1 "	126A
1 "	18A		



Model No. 321 Lathe

Parts required :

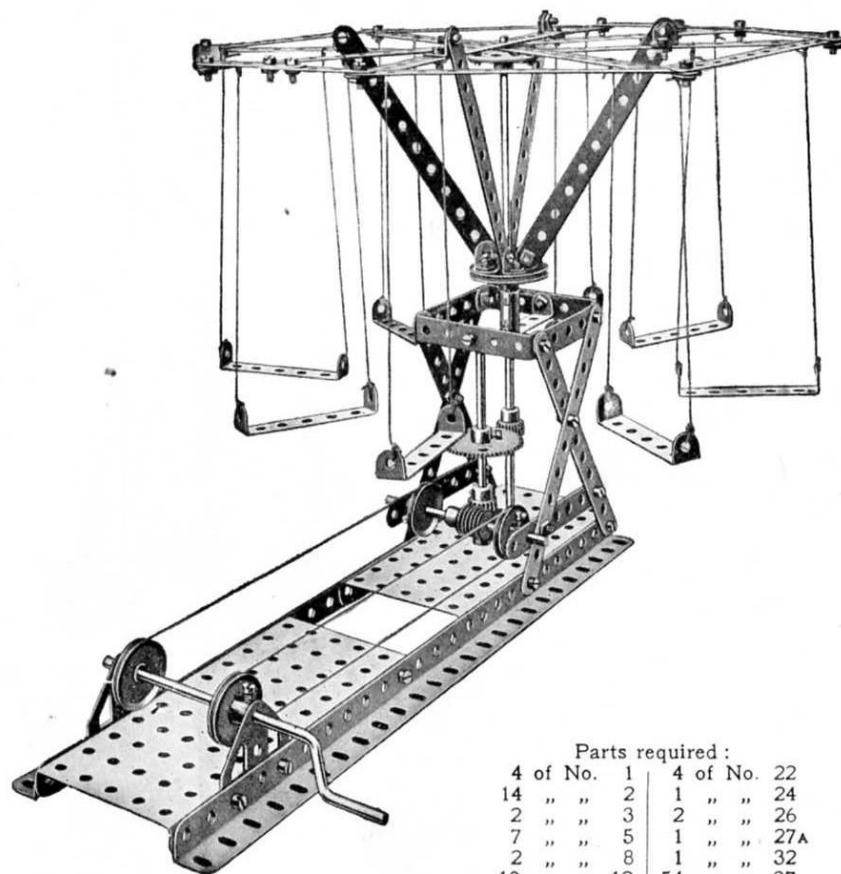
8 of No.	2	2 of No.	20
10 "	5	1 "	22
4 "	8	41 "	37
2 "	12A	1 "	46
1 "	15A	2 "	48A
1 "	16		



These Models can be made with MECCANO Outfit No. 3, or No. 2 and No. 2A.

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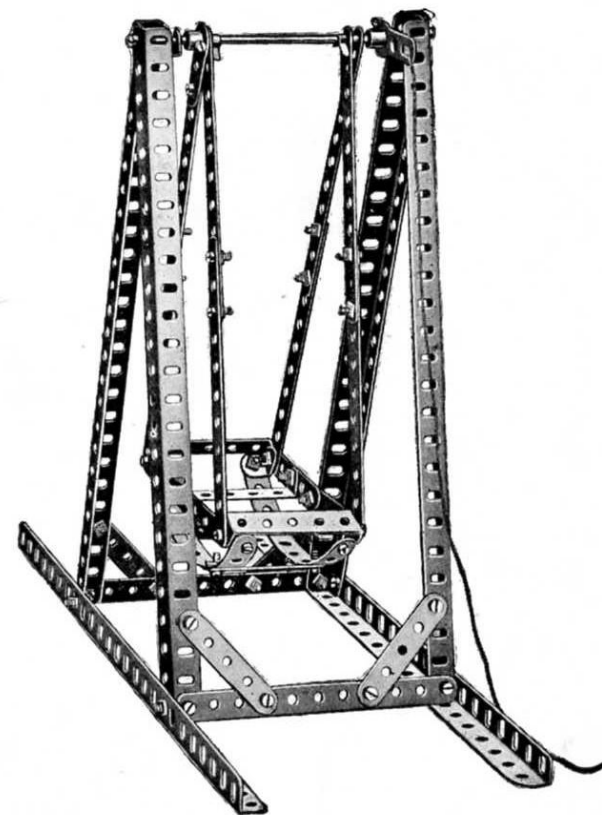
Model No. 322 Roundabout



Parts required :

4 of No.	1	4 of No.	22
14 " "	2	1 " "	24
2 " "	3	2 " "	26
7 " "	5	1 " "	27A
2 " "	8	1 " "	32
10 " "	12	54 " "	37
2 " "	15	10 " "	48A
1 " "	15A	2 " "	52
1 " "	16	3 " "	59
1 " "	19	1 " "	63
1 " "	21	2 " "	126A

Model No. 323 Swing

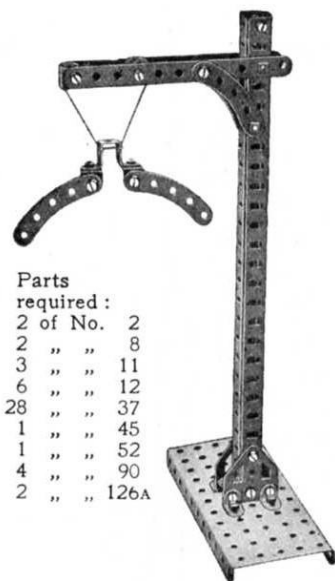


Parts required :

12 of No.	2	1 of No.	15
9 " "	5	2 " "	35
6 " "	8	43 " "	37
2 " "	11	4 " "	48A
4 " "	12	2 " "	62

These Models can be made with MECCANO Outfit No. 3, or No. 2 and No. 2A

Model No. 324 Railway Gauge



Parts

required :

2	of No.	2
2	" "	8
3	" "	11
6	" "	12
28	" "	37
1	" "	45
1	" "	52
4	" "	90
2	" "	126A

Parts

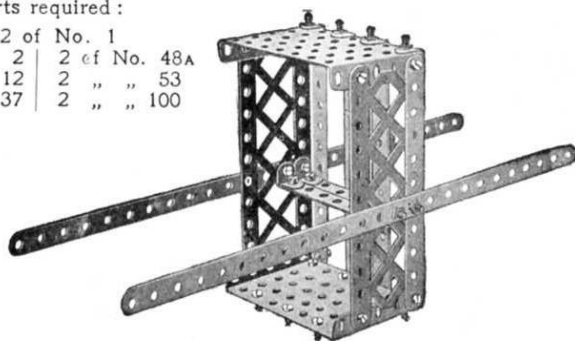
required :

6	of No.	2
1	" "	3
2	" "	5
2	" "	8
3	" "	11
12	" "	12
2	" "	15
3	" "	15A
2	" "	19
4	" "	20
1	" "	24
2	" "	26
1	" "	27A
3	" "	35
50	of No.	37
1	" "	45
2	" "	48A
2	" "	52
3	" "	53
4	" "	59
2	" "	62
4	" "	126A

Model No. 325 Chinese Palanquin

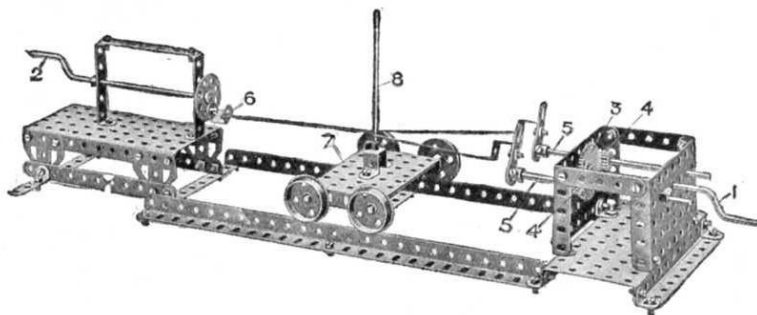
Parts required :

2	of No.	1
4	of No.	2
8	" "	12
30	" "	37
2	of No.	48A
2	" "	53
2	" "	100

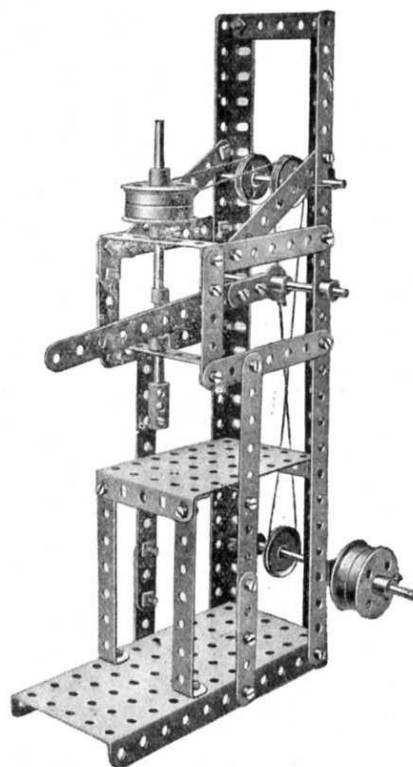


Model No. 327 Wire Rope Maker

The strands are twisted from both ends by the handles 1 and 2 of the fixed parts. The handle 1 rotates through a large gear wheel 3 two pinions 4 on the rods 5 carrying cranks to which the strands are attached. The other ends of the strands are connected to a double bent strip 6 on a bush wheel which is rotated in the opposite direction by a crank handle 2. The carriage 7 runs on rails and the vertical rod 8 is kept just at the formation of the twisted rope and so controls the tightness of the twist.



Model No. 326 Hand Punch



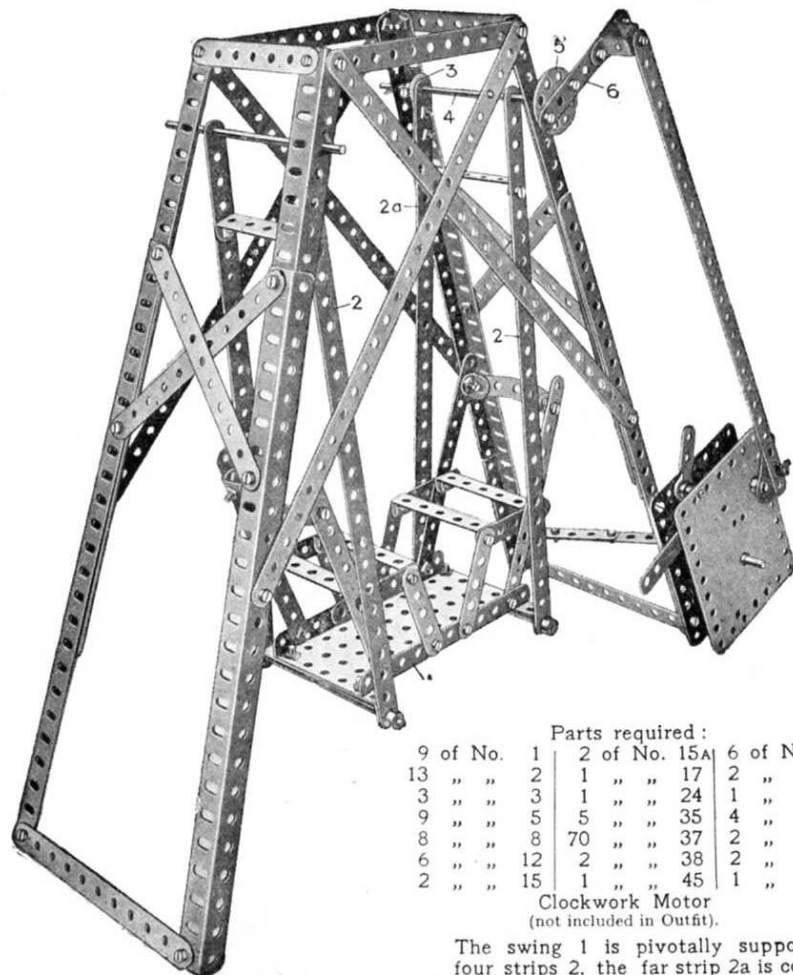
Parts required :

3	of No.	2
6	" "	3
5	" "	5
2	" "	8
2	" "	11
2	" "	15
2	" "	16
4	of No.	20
1	" "	22
2	" "	22A
3	" "	35
38	" "	37
1	" "	46
2	" "	48A
2	of No.	48B
1	" "	52
1	" "	53
4	" "	59
37	" "	62
1	" "	63

These Models can be made with MECCANO Outfit No. 3, or No. 2 and No. 2A.

51

Model No. 328 Lawn Swing

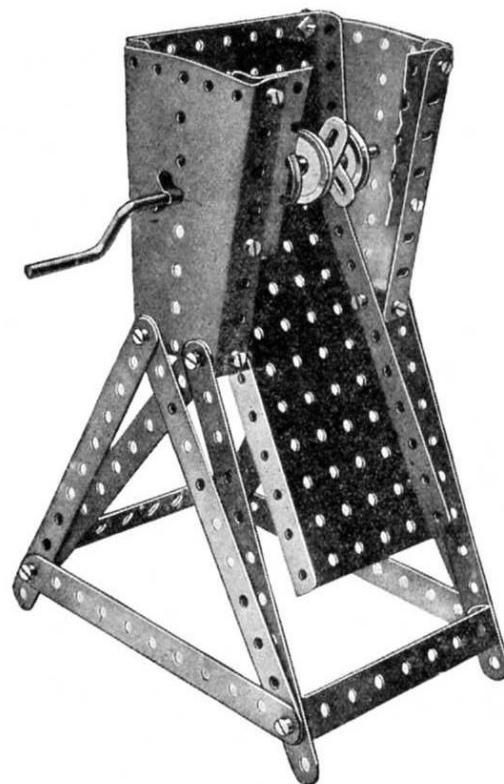


Parts required:					
9 of No.	1	2 of No.	15A	6 of No.	48A
13 " "	2	1 " "	17	2 " "	48B
3 " "	3	1 " "	24	1 " "	52
9 " "	5	5 " "	35	4 " "	59
8 " "	8	70 " "	37	2 " "	62
6 " "	12	2 " "	38	2 " "	90
2 " "	15	1 " "	45	1 " "	115

Clockwork Motor
(not included in Outfit).

The swing 1 is pivotally supported on four strips 2, the far strip 2a is connected at the top to a crank 3 which is bolted to a rod 4 and at the front end of this rod is a wheel 5 to which is bolted a strip 6 to the motor spindle.

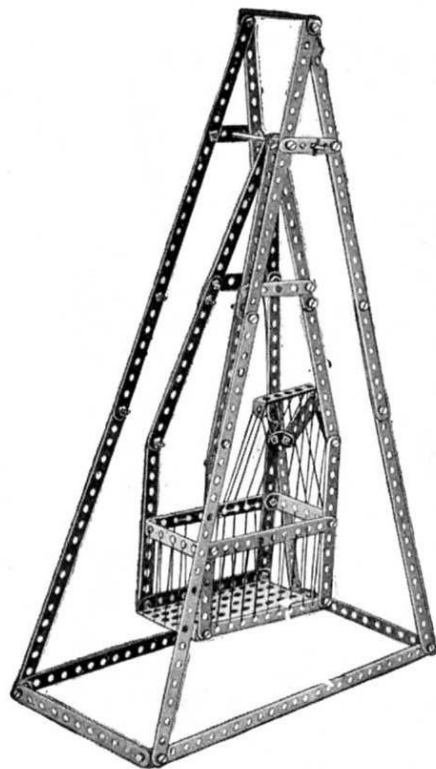
Model No. 329 Oil Cake Chopper



Parts required:					
10 of No.	2	2 of No.	35		
4 " "	10	20 " "	37		
2 " "	12	2 " "	48B		
1 " "	19	1 " "	52		
4 " "	22	2 " "	53		
	2 of No.	54			

These Models can be made with MECCANO Outfit No 3, or No. 2 and No. 2A

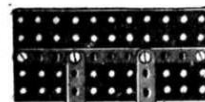
Model No. 330 Swinging Cot



Parts required :		
10 of No.	1	
16 "	2	
6 "	5	
6 "	12	
1 "	15A	
4 "	35	
45 "	37	
4 "	48A	
1 "	52	

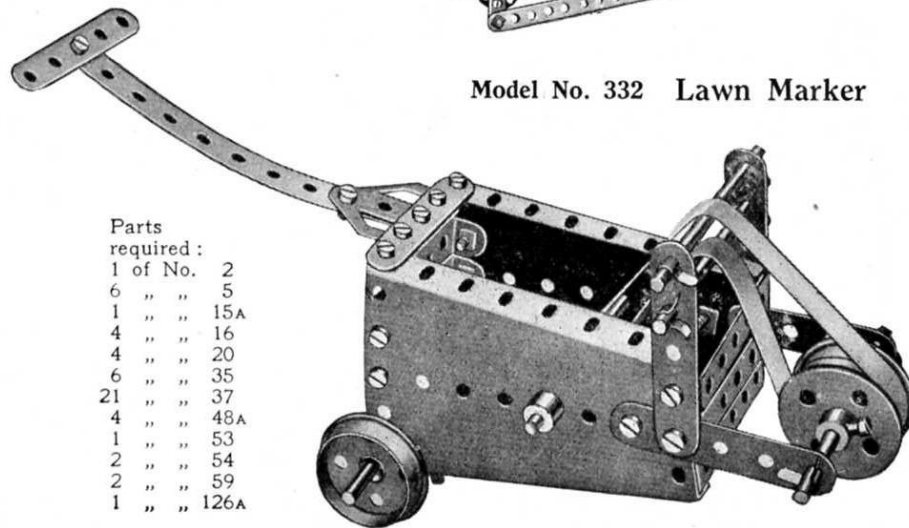
Model No. 331

Drafting Machine



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

Model No. 332 Lawn Marker



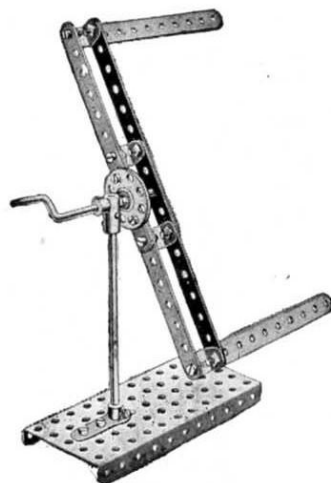
Parts required :		
1 of No.	2	
6 "	5	
1 "	15A	
4 "	16	
4 "	20	
6 "	35	
21 "	37	
4 "	48A	
1 "	53	
2 "	54	
2 "	59	
1 "	126A	

These Models can be made with MECCANO Outfit No. 3, or No. 2 and No. 2A.

53

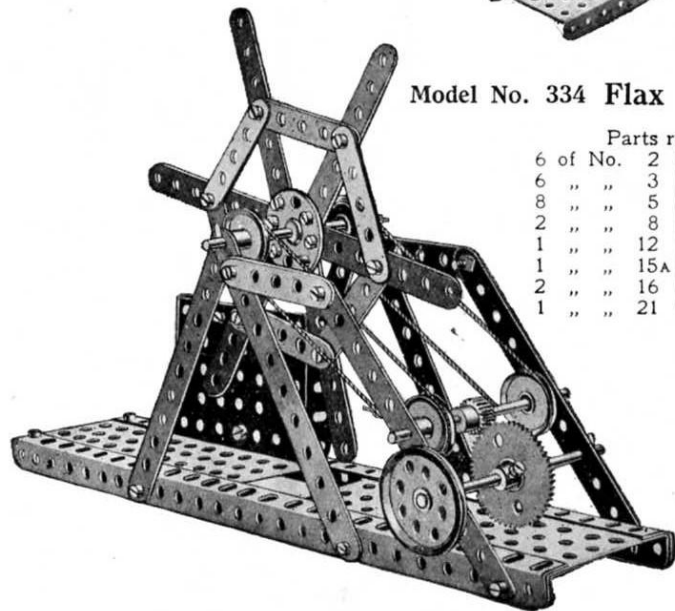
Model No. 333 Lace Jennier

Parts
required:
8 of No. 2
4 " " 11
1 " " 15
1 " " 19
1 " " 24
14 " " 37
1 " " 52
1 " " 59
1 " " 62
1 " " 63

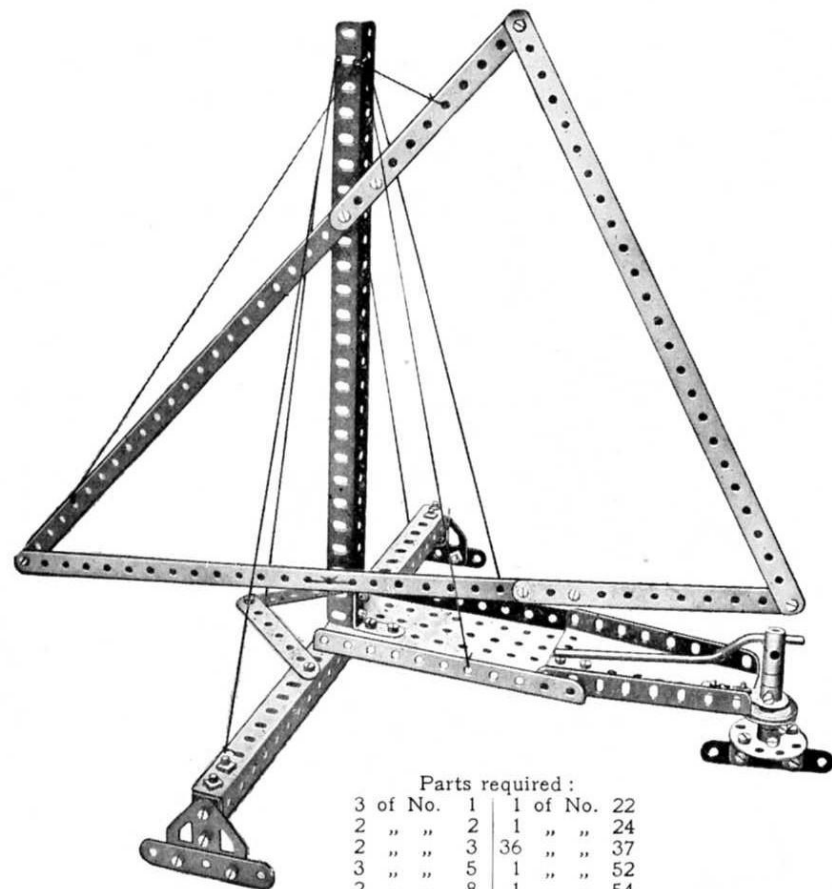


Model No. 334 Flax Cleaner

Parts required:
6 of No. 2
6 " " 3
8 " " 5
2 " " 8
1 " " 12
1 " " 15A
2 " " 16
1 " " 21
4 of No. 22
1 " " 24
1 " " 26
1 " " 27A
4 " " 35
26 " " 37
2 " " 52
1 " " 53



Model No. 335 Ice Boat

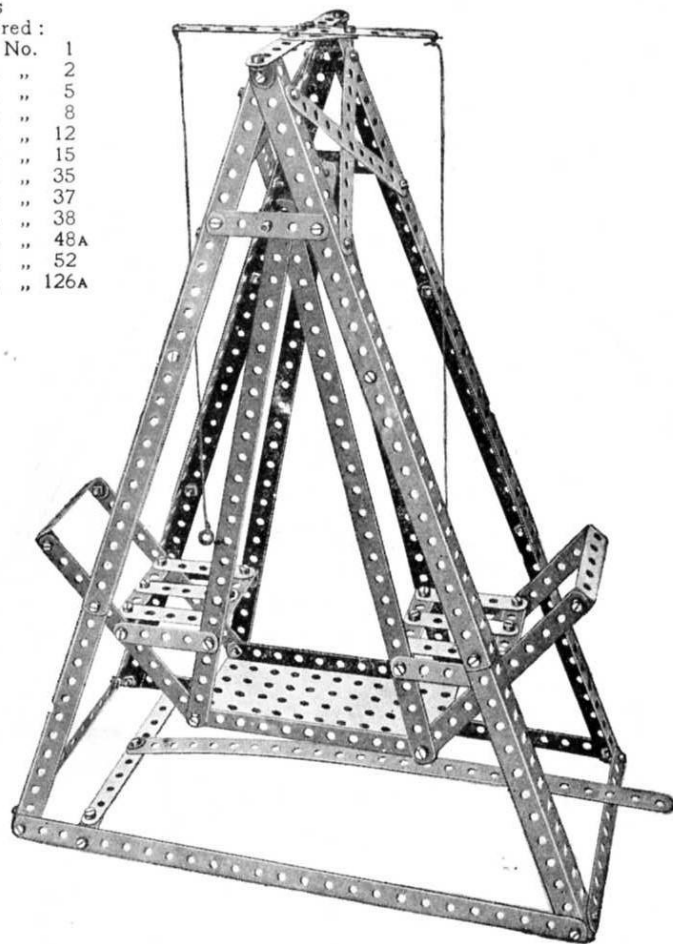


Parts required:
3 of No. 1
2 " " 2
2 " " 3
3 " " 5
2 " " 8
2 " " 12
3 " " 12A
1 " " 17
1 " " 19
1 of No. 22
1 " " 24
36 " " 37
1 " " 52
1 " " 54
1 " " 59
1 " " 62
1 " " 63
2 " " 126A

These Models can be made with MECCANO Outfit No. 3, or No. 2 and No. 2A.

Model No. 336 Swing

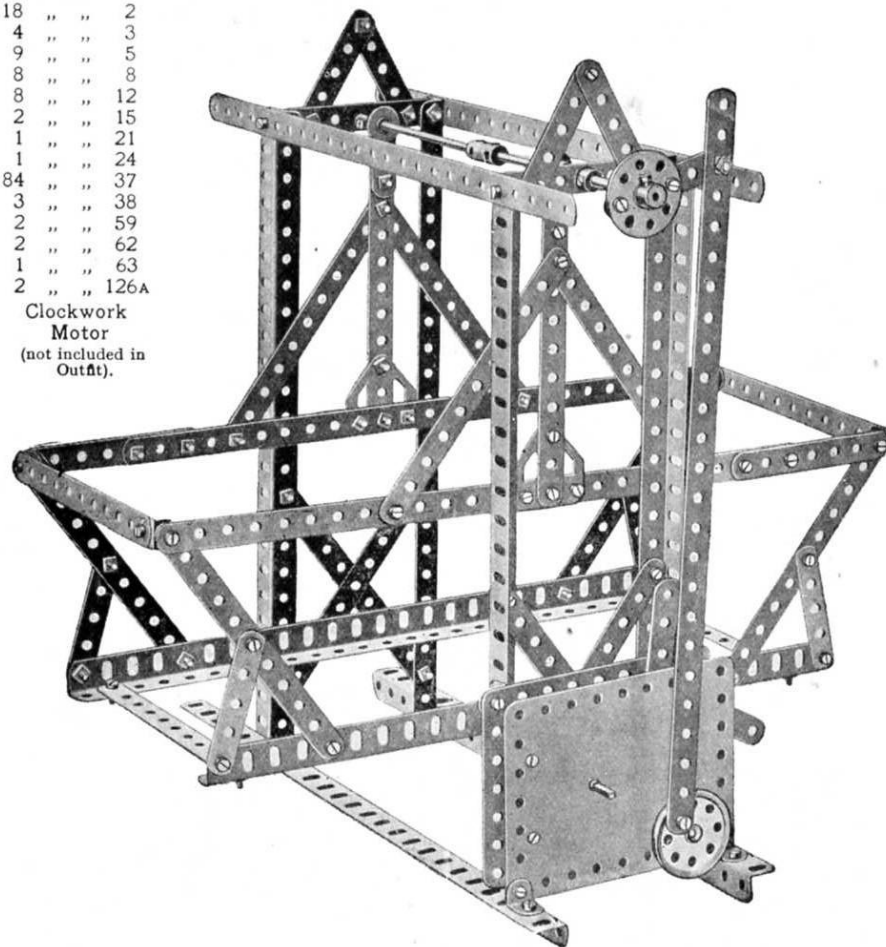
Parts required:		
7 of No.		
13	"	2
12	"	5
8	"	8
4	"	12
1	"	15
6	"	35
69	"	37
4	"	38
6	"	48A
1	"	52
1	"	126A



Parts required:		
5 of No.		
18	"	2
4	"	3
9	"	5
8	"	8
8	"	12
2	"	15
1	"	21
1	"	24
84	"	37
3	"	38
2	"	59
2	"	62
1	"	63
2	"	126A

Clockwork
Motor
(not included in
Outfit).

Model No. 337 Automatic Swing Boat



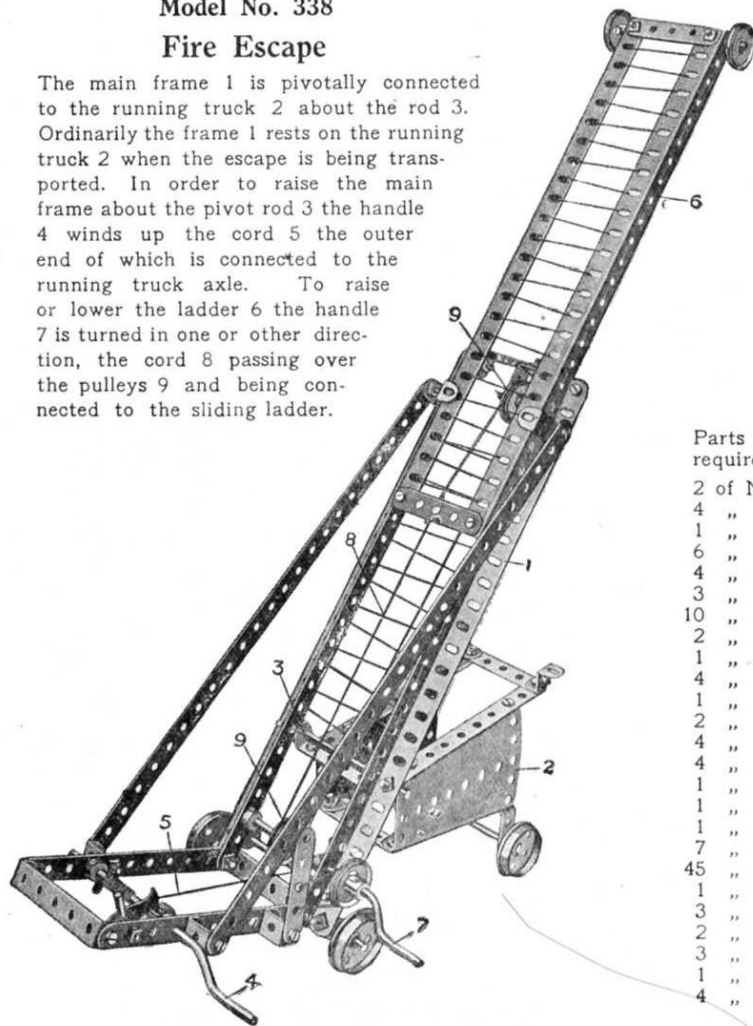
These Models can be made with MECCANO Outfit No. 3, or No. 2 and No. 2A.

55

Model No. 338

Fire Escape

The main frame 1 is pivotally connected to the running truck 2 about the rod 3. Ordinarily the frame 1 rests on the running truck 2 when the escape is being transported. In order to raise the main frame about the pivot rod 3 the handle 4 winds up the cord 5 the outer end of which is connected to the running truck axle. To raise or lower the ladder 6 the handle 7 is turned in one or other direction, the cord 8 passing over the pulleys 9 and being connected to the sliding ladder.

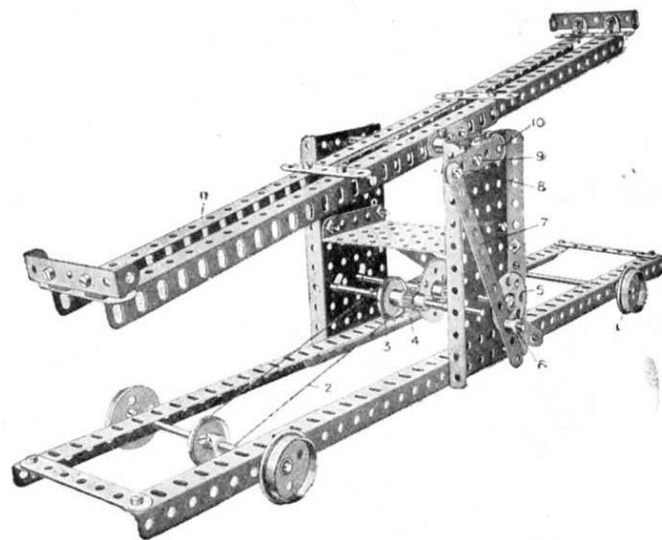


Parts required:

2 of No.	1
4 " "	2
1 " "	3
6 " "	5
4 " "	8
3 " "	11
10 " "	12
2 " "	12A
1 " "	15A
4 " "	16
1 " "	18A
2 " "	19
4 " "	20
4 " "	22
1 " "	22A
1 " "	26
1 " "	33
7 " "	35
45 " "	37
1 " "	44
3 " "	48A
2 " "	54
3 " "	59
1 " "	115
4 " "	125

Model No. 339 Actuated See-Saw

The see-sawing is actuated by the travelling action of the wheels 1. The spindle of the wheels is connected by the cord 2 to the pulley 3 on the spindle of the pinion 4 which drives a gear wheel on the spindle of the bush wheel 5. A threaded pin 6 on this wheel engages the strip 7 coupled to a lever strip 8 pivoted at 9 which rocks the pivot rod 10 of the see-saw 11.

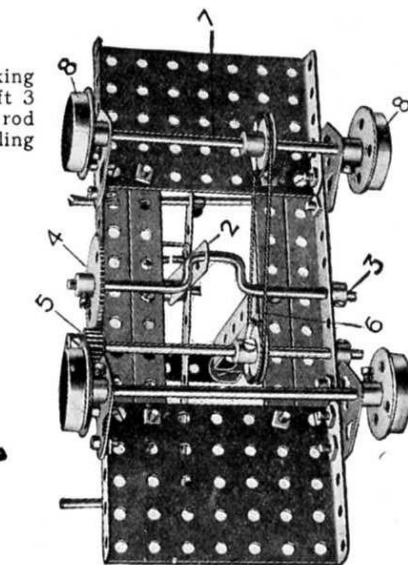
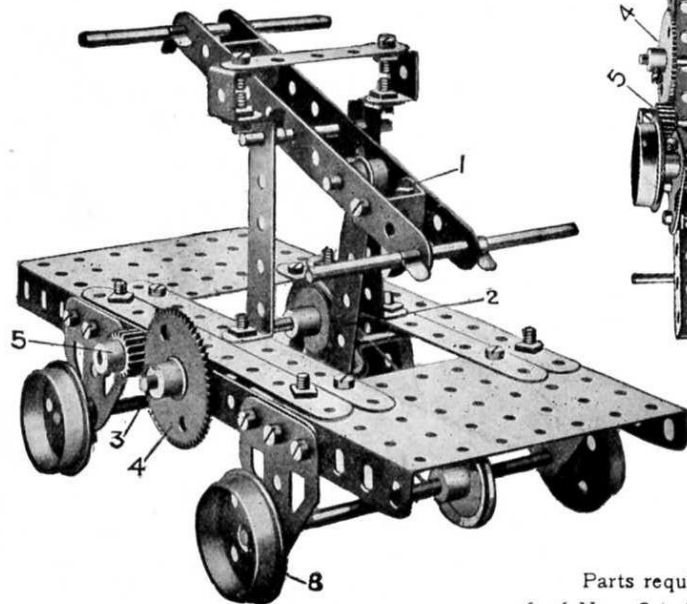


Parts required:

3 of No.	2	4 of No.	20	2 of No.	48A
2 " "	3	2 " "	22	2 " "	52
5 " "	5	1 " "	24	1 " "	53
8 " "	8	1 " "	26	3 " "	59
4 " "	12	1 " "	27A	2 " "	62
2 " "	15	4 " "	35	1 " "	115
3 " "	15A	36 " "	37		

Model No. 340 Hand Trolley

The trolley is caused to travel by working the rocking lever 1 which is connected by a strip 2 to a crank shaft 3 a gear wheel 4 which meshes a pinion 5 on a rod coupled by a cord 6 to an axle rod 7 of the travelling wheels 8.



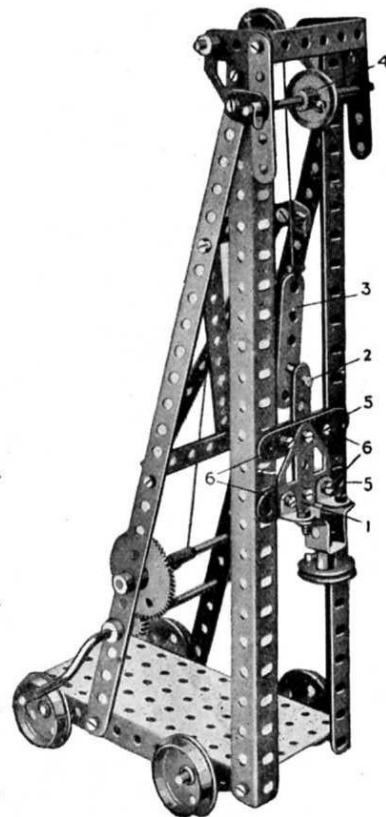
Parts required :

8 of No.	2	2 of No.	22
1 "	4	1 "	26
1 "	5	1 "	27A
4 "	11	6 "	35
3 "	15A	30 "	37
2 "	16	2 "	48A
1 "	17	2 "	53
1 "	18A	4 "	59
4 "	20	4 "	126A
1 of No. 134			

Model No. 341 Pile Driver

Parts required :

2 of No.	1
2 "	2
10 "	5
2 "	8
2 "	10
2 "	12
2 "	15A
3 "	16
1 "	19
4 "	20
3 "	22
1 "	26
1 "	27A
2 "	35
26 "	37
4 "	38
1 "	45
3 "	48A
1 "	52
4 "	59
1 "	115
3 "	126A



The driving head 1 is raised by means of a threaded pin 2 on two $2\frac{1}{2}$ " strips 3, the pin engaging in the first hole of the driving head. As the head is raised, the strip 3 makes contact with a pulley 4 and the latter pushes the strip rearwardly, disengaging the pin from the hole on the driving head, permitting it to fall. The cross strips 5 of the driving head are duplicated behind, spacing washers being inserted between them on the bolts 6 to allow free movement up and down the guide girders.

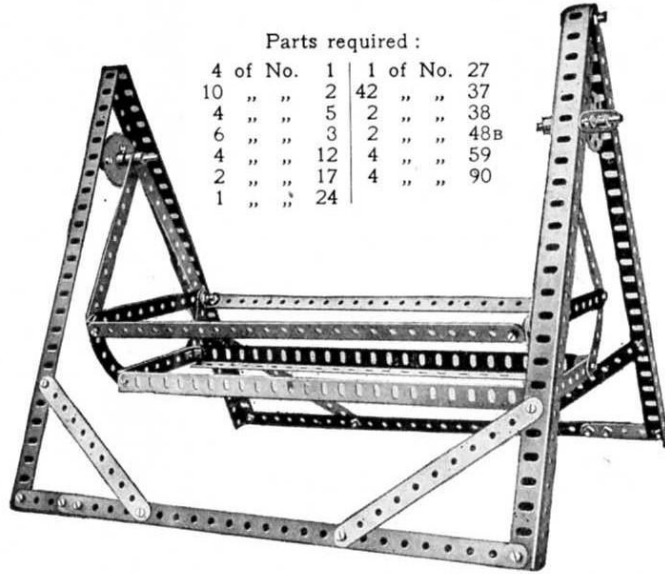
These Models can be made with MECCANO Outfit No. 3, or No. 2 and No. 2A.

57

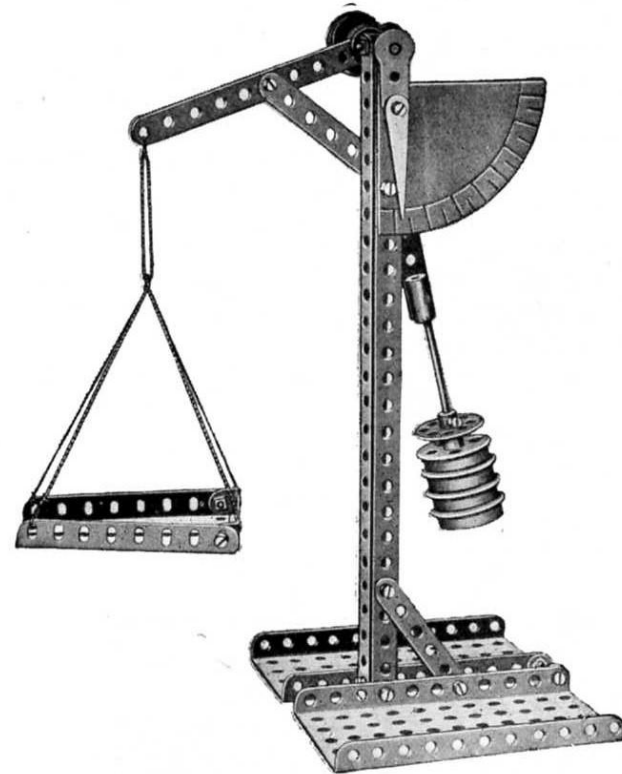
Model No. 342 Swing Cot

Parts required :

4 of No.	1	1 of No.	27
10 " "	2	42 " "	37
4 " "	5	2 " "	38
6 " "	3	2 " "	48 ^B
4 " "	12	4 " "	59
2 " "	17	4 " "	90
1 " "	24		



Model No. 343 Scales



Parts required :	
2 of No.	2
1 " "	3
2 " "	4
1 " "	5
2 " "	8
1 " "	11
1 " "	15
1 " "	17
4 " "	20
1 " "	22
1 " "	24
15 " "	37
1 " "	48 ^A
2 " "	52
1 " "	54
2 " "	62
1 " "	63
1 " "	90

HOW TO CONTINUE

This completes the Models which may be made with MECCANO Outfit No. 3. The next Models are a little more advanced, requiring a number of extra parts to construct them. The necessary parts are all contained in a No. 3A Accessory Outfit, the price of which will be found in the List at the end of the Manual.

MECCANO ACCESSORY OUTFITS AND MOTORS



Meccano Accessory Outfits

Our illustration shows one of the Meccano Accessory Outfits. As has already been explained, these Outfits connect the main Outfits from No. 00 to No. 7, making it possible for a boy who commences with one of the earlier Outfits to build up his equipment by easy stages, until he is the possessor of parts that cover the entire system. For prices see page 62.

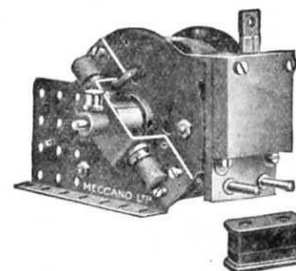
Electrical Outfit

All Meccano boys are fascinated by electricity and never become tired of learning more about this wonderful subject. The application of electricity to the Meccano system adds a further and wonderful charm, and the joys of model-building are now increased by the fascinating pastime of carrying out delightful electrical experiments.

The Meccano Electrical Outfit contains a number of specially designed electrical parts which may be used in conjunction with any of the regular Outfits.



For price see page 62.



4-Volt Motor

The 4-volt motor is also specially designed to build into Meccano models. It is a most reliable and powerful model and when properly geared will lift over 30 lbs. dead weight. It may be run by a 4-volt accumulator, or by employing a suitable transformer, direct from the main, fitted with reversing motion, provided with stopping and starting controls, and the gearing is interchangeable.

For price see page 62.



4-Volt Accumulator

This new and excellent type of accumulator has been adapted to drive the Meccano Electric Motor. It has been subjected to the severest tests and has proved itself to be the most suitable accumulator for use with any type of electric motor. It is non-spillable, has remarkable recuperative powers, and will continue to supply current when nominally exhausted.

For price see page 62.

Clockwork Motor

How splendid it is, after spending hours in building a model, to be able to set it in motion with a motor, just as do real engineers! The Meccano Clockwork Motor is specially made for this purpose and is a fine piece of mechanism—simple, powerful, and reliable. It is fitted with starting and stopping levers, and has a reversing movement.

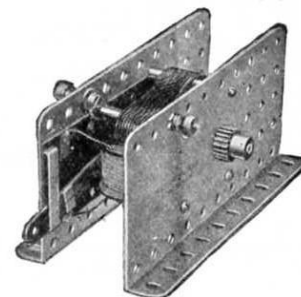
For price see page 62.

100-230-Volt Electric Motor

This Electric Motor may be employed for any purpose for which a small motor is suitable, but it is specially adapted for driving Meccano models. The side plates are perforated with standard equidistant holes, thus allowing the motor to be built into any Meccano model. The motor is specially designed for connection with the electric-light main. It is supplied for 100-120 volts or 200-230 volts (alternating or direct), and is fitted with 6 ft. length of flex, an insulated plug for connection with the motor terminals, and an adapter for connection with an ordinary lamp socket.

A suitable resistance is required when the motor is run with a 200-230 volt current, and this is supplied by connecting a 20-watt lamp in series with the motor. A board on which are mounted a suitable lamp-holder (lamp not included) and a switch is provided separately.

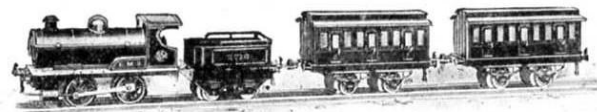
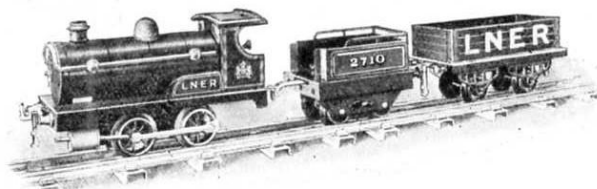
For prices see page 62.



HORNBY CLOCK WORK TRAINS

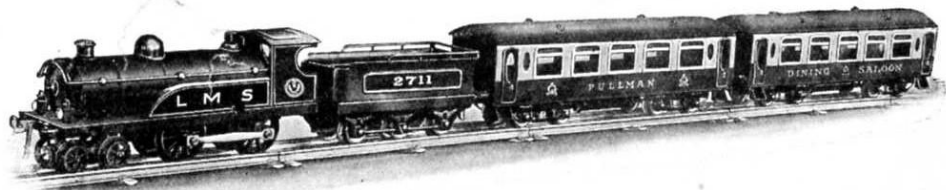
THE HORNBY TRAINS are manufactured by Meccano Ltd., and they are built on the Meccano principle. All the parts are standardised and any lost or damaged part may be replaced with a new one. *A Hornby Train lasts for ever!* The Hornby Train is a beautiful piece of workmanship, with perfect clockwork mechanism, ensuring smooth running. Each Train is guaranteed by Meccano Ltd.

No. 1 PASSENGER SET.—Gauge 0. Each Set contains Loco, Tender and two Coaches, with Rails for a 2ft. diameter circle and two straights. The Loco is fitted with reversing gear, brake, and governor. In colours to represent the L.M.S. or L.N.E.R. Companies' rolling stock. Complete in brown leather-finished gold-embossed box. *For price see page 62.*



No. 1 GOODS SET.—Gauge 0. This Set is similar in every way to No. 1 Passenger Set, except that it contains Loco, Tender and one Wagon. Complete in strong attractive gold-embossed box. *For price see page 62.*

No. 2 PULLMAN SET.—This Set includes Loco and Tender of a larger type, measuring 17" in length. A superior mechanism has been adopted, making this the most attractive and satisfactory clockwork train yet produced. The Coaches are beautiful, both in colour and finish. Each Set includes Loco, Tender, one Pullman and one Dining Coach, as illustrated, with set of Rails making a 4ft. diameter circle. Gauge 0. In colours to represent the L.M.S. or L.N.E.R. Companies' rolling stock. The Loco is fitted with reversing gear, brake and governor. Complete in gold-embossed box. *For price see page 62.*



No. 2 GOODS SET.—Similar to No. 2 Pullman Set but two Wagons in place of Coaches. Complete in gold-embossed box.

SEND FOR SPECIAL LIST OF RAILS, POINTS AND CROSSINGS (*See page 60*).

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HORNBY TANK LOCOS

No. 1 LOCO



A strong and durable Loco capable of any amount of hard work; richly enamelled and highly finished; fitted with reversing gear, brake and governor.

Gauge 0, in colours to represent L.M.S. or L.N.E.R. Companies' locos.

For price see page 62.

No. 2 LOCO

The Hornby No. 2 Tank Loco is a powerful model embodying all the characteristics of the Hornby Train. It is 11 1/2 in. in length and is fitted at both ends with a four-wheeled bogie.

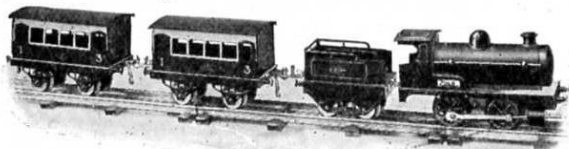
Beautifully finished in colours to represent L.M.S. or L.N.E.R. Companies' locos. Fitted with reversing gear, brake and governor.

For price see page 62.



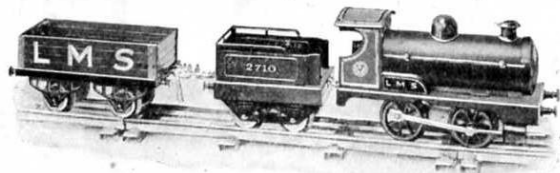
ZULU CLOCK WORK TRAINS

Fine and durable mechanism and strength of construction of all parts are the main characteristics of this new type of clockwork train. The Zulu is a well-designed and efficient train and will give excellent and long service. Richly enamelled and highly finished; fitted with brake and governor; non-reversing.



Each Set contains Loco, Tender, two Passenger Coaches and Set of Rails, including a 2ft. diameter circle and two straights. Gauge 0, in colours to represent the L.M.S. or L.N.E.R. companies' rolling stock. Packed in strong cardboard box.

For price see page 62.



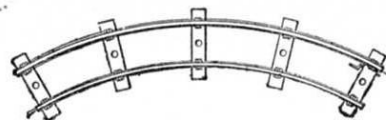
The Goods Set is the same as the Passenger Set but contains one Wagon in place of Passenger Coaches. Gauge 0, in colours to represent the L.M.S. or L.N.E.R. Companies' rolling stock. Packed in strong cardboard box.

For price see page 62.

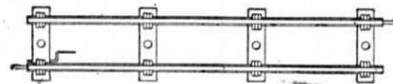
RAILS, POINTS AND CROSSINGS

(HORNBY SERIES)

The range of Rails, Points and Crossings is now very comprehensive and a special leaflet is published (price 4d. post free) showing some of the combinations of rail designs to which the Rails, etc., lend themselves. The curved rails are made in both 1ft. and 2ft. radius (to form circles of 2ft. and 4ft. diameter respectively). For those interested in electric railways these rails are also made with a third rail. Send for the latest illustrated price list.

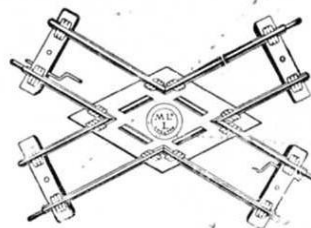


Curved Rail.

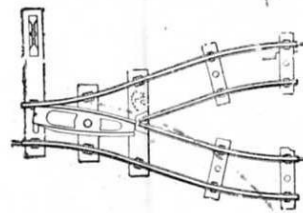


Straight Rail.

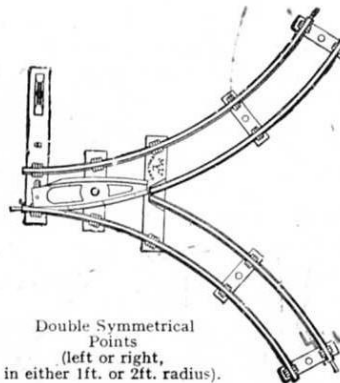
(Also made in half and quarter lengths).



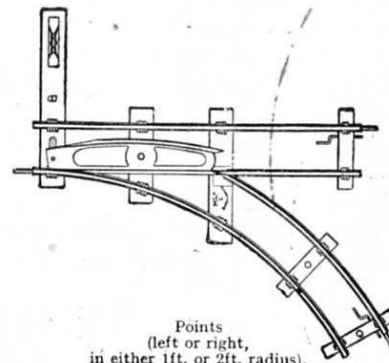
Acute Angle Crossing.



Parallel Points (left or right).



Double Symmetrical Points
(left or right,
in either 1ft. or 2ft. radius).



Points
(left or right,
in either 1ft. or 2ft. radius).

Rolling Stock and Accessories for Trains

(Hornby Series)

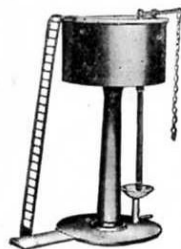
(Hornby Series)



* **BRAKE VAN**
Finished in grey and black.
Price 4/-



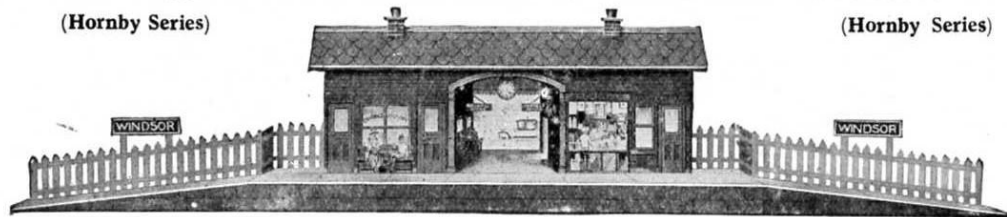
* **No. 1 CATTLE TRUCK**
Fitted with sliding door.
Very realistic design. Price 4/-



WATER TANK
Brightly coloured. Stands 8 1/2 in. high. Fitted with flexible tube and valve lever ... Price 6/6



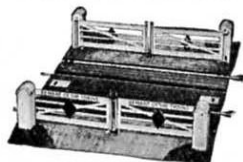
BISCUIT VAN
(Jacob's, Crawford's, Carr's).
Finished in colour. Price 4/-



RAILWAY STATION
Excellent model, beautifully designed and finished. Dimensions: Length 2ft. 9in., breadth 6in., height 7in. Price 12/6



* **GUARD'S VAN**
Realistic design, fitted each side with doors as shown. Price 5/-



LEVEL CROSSING
Beautifully designed in colour. Measures 11 1/2 x 7 1/2 in. with Gauge 0 rails in position. Price 6/6



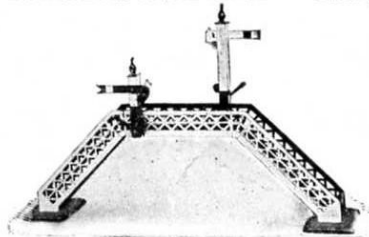
ROTARY TIPPING WAGON
Finished in grey and green.
Price 4/-



MINIATURE LUGGAGE & PORTER'S BARROW
FOR TOY RAILWAYS.
No. 1. Miniature Luggage. Price per set 2/-



SIGNAL CABIN
Dimensions: Height 6 1/2 in., Width 3 1/2 in., Length 6 1/2 in. Finished in colour and lettered "Windsor." Roof and back open to allow signal levers to be fitted inside cabin if desired. Price 6/6



FOOTBRIDGE
No. 1. With detachable Signals Price 6/-
No. 2. Without Signals ... 3/6
Signals only ... per pair 2/9



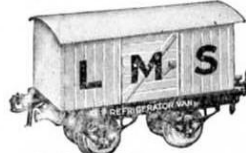
MINIATURE PLATFORM ACCESSORIES
No. 3. Platform Machines, etc.
Price per set 2/-



TUNNEL
Realistic and finished in colours.
Price 7/6



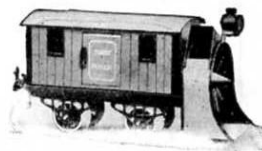
SECCOTINE WAGON
Beautifully finished in blue. Lettered white ... Price 4/-



* **REFRIGERATOR VAN**
Enamelled in white, lettered black. Price 4/-



MINIATURE MILK-CANS WITH TRUCK
FOR TOY RAILWAYS.
No. 2. Milk Cans and Truck. Price per set 2/-



* **SNOW PLOUGH**
With revolving plough driven from front axle ... Price 5/6



SIDE TIPPING WAGON
Excellent design and finish.
Price 3/6



JUNCTION SIGNAL
Signal arms operated by levers at base. Very realistic mode standing 14in. in height. Price 5/6



* **GUNPOWDER VAN**
Finished in red. Price 4/-

There are now 50 items of Rolling Stock and Accessories in the Hornby Series, some of which are illustrated and described above. Send for a complete illustrated price list.

* Lettered L.M.S. or L.N.E.R.

Meccano Price List

MECCANO OUTFITS

No. 00	Meccano Outfit	..	..	..	..	3/6
" 0	"	"	"	"	"	5/-
" 1	"	"	"	"	"	8/6
" 2	"	"	"	"	"	15/-
" 3	"	"	"	"	"	22/6
" 4	"	"	"	"	"	40/-
" 5*	"	"	(Carton)	"	"	55/-
" 5*	"	"	Presentation Outfit	..	..	85/-
" 6*	"	"	Outfit (Carton)	..	..	105/-
" 6*	"	"	Presentation Outfit	..	..	140/-
" 7	"	"	"	"	"	370/-

ACCESSORY OUTFITS

No. 00A	Meccano Outfit	..	..	..	1/6
" 0A	"	"	"	"	4/-
" 1A	"	"	"	"	7/6
" 2A	"	"	"	"	8/6
" 3A	"	"	"	"	18/6
" 4A	"	"	"	"	15/-
" 5A*	"	"	(Carton)	..	50/-
" 5A*	"	"	(Wood)	..	80/-
" 6A	"	"	"	"	210/-
Meccano Clockwork Motor					7/6
" Electric Motor (100-120 or 200-230 Volts)					32/6
" " (4 Volts)					12/6
Lamp Board (with lamp-holder and switch)					4/6
Meccano Electrical Outfit					42/-
Meccano Accumulator					17/6

*Outfits Nos. 5, 5A and 6 are supplied in neat and well-made cardboard boxes (cartons) or in superior oak cabinets, with lock and key.

Clockwork Train Price List

HORNBY

No. 1	Passenger Set complete	..	..	..	..	..	30/-		
" 2	Passenger	"	..	..	..	..	60/-		
" 1	Goods	"	..	..	..	..	22/6		
" 2	Goods	"	..	..	..	..	37/6		
No. 1	Loco	..	..	15/-	No. 2	Loco	..	..	22/6
"	Tender	..	..	2/6	"	Tender	..	..	3/6
"	Passenger Coach	..	..	5/-	"	Pullman or Dining Car	15/-		
"	Wagon	..	..	2/6	"	Wagon	..	..	3/6
"	Tank Loco	..	..	12/6	"	Tank Loco	..	..	30/-

ZULU

Passenger Set complete	..	22/6
Goods	"	17/6
Loco	..	10/6
Tender	..	2/-
Passenger Coach	..	4/-
Wagon	..	2/6

Contents of Outfits

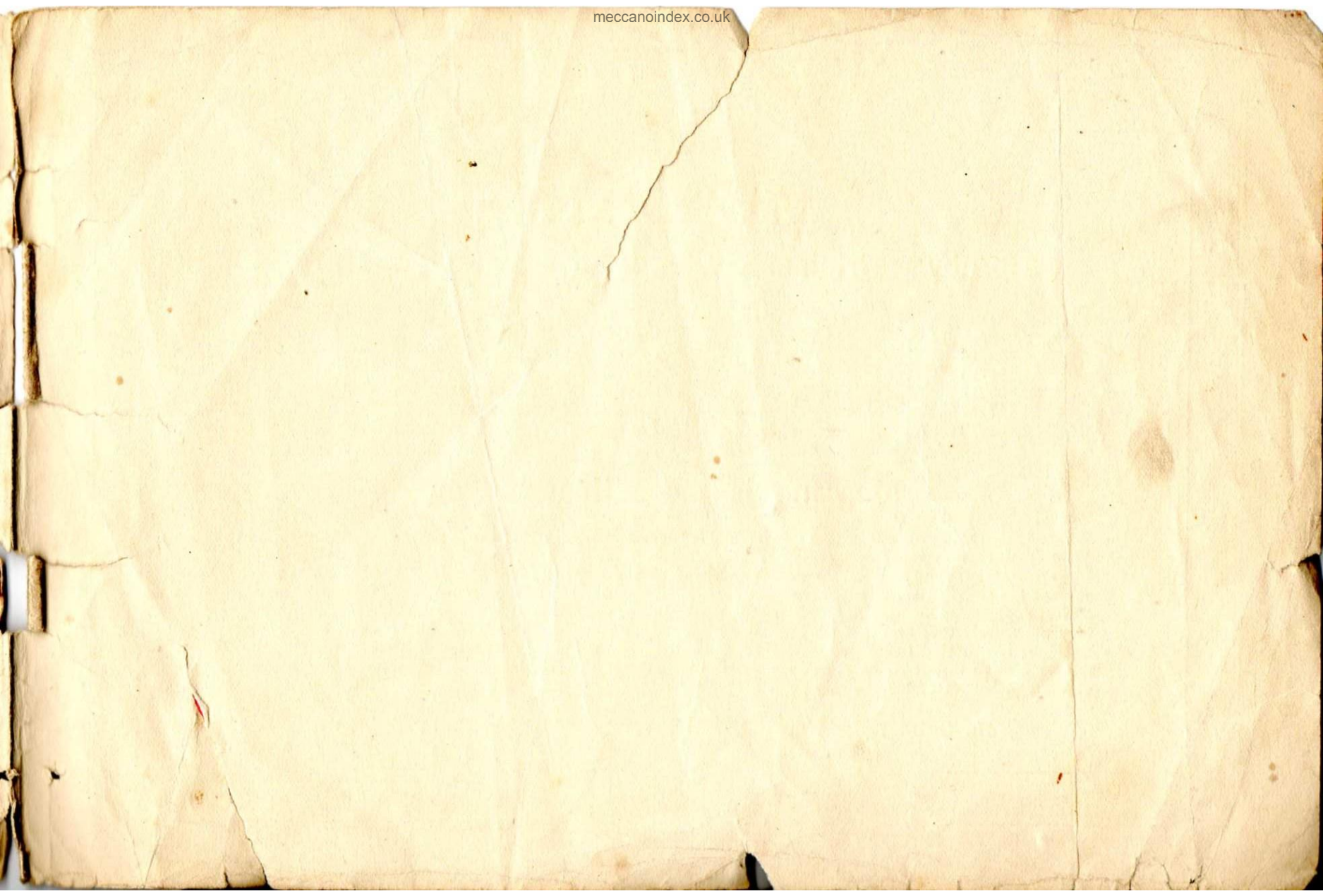
No.	DESCRIPTION OF PART	00	0A	1	1A	2	2A	3	3A	4	4A	5	5A	6	6A	7
1	Perforated Strips, 12"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1A	" " 9"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	" " 5"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2A	" " 4"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	" " 3"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	" " 2"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	" " 1"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	" " 1"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6A	" " 1"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	Angle Girders, 24"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7A	" " 18"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	" " 12"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8A	" " 9"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9	" " 5"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9A	" " 2"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10	Flat Brackets...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11	Double Brackets	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12	Angle Brackets, 1" x 1"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12A	" " 1" x 1"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12B	" " 1" x 1"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
13	" " 11"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
13A	" " 8"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14	" " 6"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15	" " 5"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15A	" " 4"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16	" " 3"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16A	" " 2"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
17	" " 2"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18	" " 1"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18A	" " 1"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18B	" " 1"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19	Crank Handles	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19A	Wheels, 3"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19B	Pulley Wheels, 3"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20	Flanged Wheels	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20A	Pulley Wheels, 2"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
21	" " 1"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
21A	" " 1" (Fast)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
22	" " 1" (Loose)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
22A	" " 1" (Loose)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
23	" " 1" (Fast)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
23A	" " 1" (Fast)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
24	Bush Wheels...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
25	Finion Wheels...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
26	Gear Wheels, 50 Teeth	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
27	Contrate Wheels, 1"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
27A	" " 1"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
28	Bevel Gears	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
29	Gear Wheels, 38 Teeth	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
30	Worm Wheels	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
31	Pawls (complete)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
32	Pivot Bolts with Nuts	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
33A	Spanners	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
34	Spring Clips	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
35	Screw Drivers	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
36A	" (extra long)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
37	Nuts and Bolts	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
37A	Bolts, 5/16"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
38	Washers	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
40	Hank of Cord	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
41	Propeller Blades	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
43	Springs	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
44	Cranked Bent Strips	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
45	Double Bent Strips	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
46	Double Angle Strips, 2 1/2" x 1 1/2"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
47	" " 2 1/2" x 1 1/2"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
47A	" " 1 1/2" x 1 1/2"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
48	" " 1 1/2" x 1 1/2"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
48A	" " 2 1/2" x 1 1/2"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
48B	" " 3 1/2" x 1 1/2"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
48C	" " 4 1/2" x 1 1/2"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
48D	" " 5 1/2" x 1 1/2"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
50	Eye Pieces	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
52	Perforated Flanged Plates, 5 1/2" x 2 1/2"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
52A	Flat Plates, 5 1/2" x 3 1/2"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
53	Perforated Flanged Plates, 5 1/2" x 2 1/2"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
53A	Flat Plates, 4 1/2" x 2 1/2"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
54	Perforated Flanged Plates (Sector)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
56	Instruction Manuals	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
57	Hooks	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
57A	" (Scientific)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
57B	" (Load)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
58	Spring Cord, 40" length	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
59	Collars with Set Screws	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
61	Windmill Sails	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

[CONTINUED OVERLEAF]

Contents of Outfits—continued

No.	DESCRIPTION OF PART	00	00A	0	0A	1	1A	2	2A	3	3A	4	4A	5	5A	6	6A	7
62	Cranks...	...	...	...	...	...	2	2	...	2	...	2	...	2	2	4	11	15
62A	Threaded Cranks	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9	4	13
63	Couplings	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
63A	Octagonal Couplings	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	5	3
63B	Strip Couplings	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	5	5
64	Threaded Bosses	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	4
65	Centre Forks	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	5	5
66	Weights, 50 Gramme	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	5	4
67	Flat Plates, 5 $\frac{1}{2}$ " x 2 $\frac{1}{2}$"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	4
70	Flat Plates, 5 $\frac{1}{2}$ " x 2 $\frac{1}{2}$"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	4	4
72	Triangular Plates, 2 $\frac{1}{2}$"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3	10
76	"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	2
77	Screwed Rods, 11 $\frac{1}{2}$"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2
78	"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	2
80	"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2
80A	"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	2
81	"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2
81A	"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	2
82	"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2
83	"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	2
89	Curved Strips, 5 $\frac{1}{2}$"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	2	4
90	Sprocket Chain	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10	16	16
94	Sprocket Wheels, 2 $\frac{1}{2}$"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8	17	23
95	"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
95A	"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	3	3
95B	"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
96	"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	1
96A	"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
97	Braced Girders, 3 $\frac{1}{2}$"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	1
98	"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
99	"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	3	3
100	"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	3
101	Heads for Looms	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	4	8
102	Single Bent Strips	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	7	8
103	Flat Girders, 5 $\frac{1}{2}$"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	14	16
103A	"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	48	48
103B	"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	6	6
103C	"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
104	Shuttles for Looms	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	1
105	Reed Hooks	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
106	Wood Rollers	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	1
106A	Sand Rollers	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	8	8
107	Designing Tables	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	10	18
108	Architraves	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	14	16
109	Face Plates, 2 $\frac{1}{2}$"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	48	48
110	Rack Strips, 3 $\frac{1}{2}$"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	6	6
111	Bolts, 3 $\frac{1}{2}$"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
111A	"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	1
111B	"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
112	Girder Frames	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	1
113	Hinges	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
114	Threaded Pins	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
115	Fork Pieces	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	2
116	Miniature Loaded Sacks	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
122	Cone Pulleys	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
123	Reversed Angle Brackets, 1 $\frac{1}{2}$"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	2
124	"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
125	Trunnions	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	4	4
126	Flat Trunnions	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	2
126A	Bass Bell Cranks	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
129	Rack Segments	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	2
130	Triple Throw Eccentrics	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
131	Dragger Buckets	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	4	4
132	Flywheels, 2 $\frac{1}{2}$"	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
133	Crank Shafts, 1 $\frac{1}{2}$ " stroke	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
134	Headed Bolt Protractors	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
135	Hand Rail Supports	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
136	Ship's Frames	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
138	Circular Girders, 5 $\frac{1}{2}$ " diam.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
143	Robbins	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
301	Busbars, Insulating	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
302	Washers	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
303	8 B.A. Screws	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
304	6 B.A. Nuts	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
305	Terminals	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
306	Contact Screws	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
307	Pole Pieces	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
308	Coil Cheeks	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
309	Lamp Holders	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
310	Lamps	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
311	27 Gauge B.I. Wire, 30" Coil	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
312	26 " S.C.C. Wire Reel, 50 yds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
313	Bare Copper Wire, 4 yd. Coil	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
314	Electrical Manual	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
315	Loom Leaflets	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
...	Chassis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
...	Charging Board Leaflets	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
...	Clockwork Motors	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
...	Electric Motors	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1
...	Accumulators...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1

GOKUP 2 d. 0



MECCANO

Hornby's Original System, First Patented 1901

PATENTS AND DESIGNS, GREAT BRITAIN :

3,869/14	139,125	671,212	682,208	699,653
4,183/14	170,785	671,484	682,209	699,654
4,564/15	177,430	671,485	682,934	
20,535/13	577,207	671,534	683,011	
21,117/12	577,272	671,790	686,112	
22,962/13	648,958	680,416	698,054	

Meccano is more than a Toy

IT is important to remember that when a boy is playing with MECCANO he is using engineering parts in miniature, and that these parts act in precisely the same way as do the corresponding engineering elements in actual practice. No other system of model construction can be correct, and other toys which attempt the same object by other methods must avail themselves of constructive elements which are not correct engineering elements. Consequently, though a boy may succeed in building playthings with them, they are merely toys and nothing else, and his mind, as regards proper mechanical construction and methods, is distorted instead of instructed. He thus learns wrong principles, and when his ambition tempts him to invent or construct more elaborate models, he will find that he cannot do so because of the deficiencies of his non-mechanical system.

No Outfit is genuine unless it bears the Trade Mark MECCANO