MECCANO

(TRADE MARKS 296321, 501113, 76, 12633, 10274, 55/13476, 569/13, 884/25, 2913, 4174, 91687, 83171, 137149)

HORNBY'S ORIGINAL SYSTEM—FIRST PATENTED IN 1901

INSTRUCTIONS

FOR OUTFITS

Nos. 00 to 3

Price 2/-

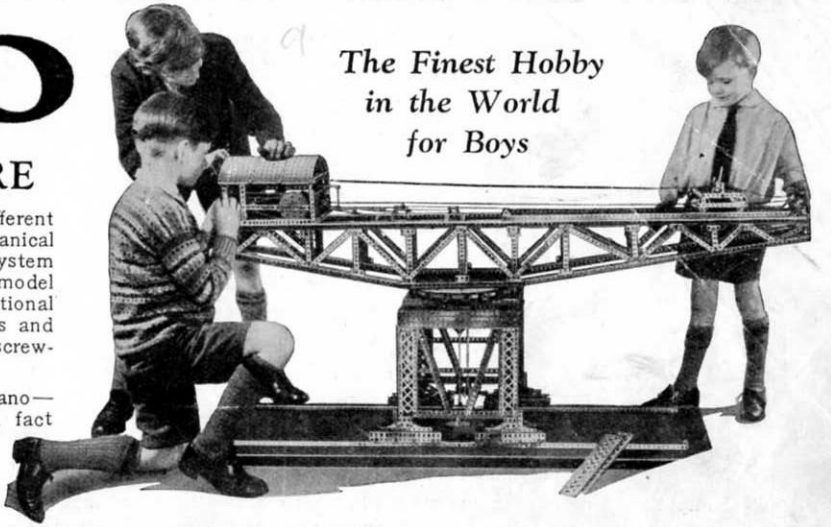
No. 30A

ERSEAS EDITION

430/12 (1) M

MECCANO

The Finest Hobby in the World for Boys



REAL ENGINEERING IN MINIATURE

The Meccano system is composed of over two hundred and fifty different parts, mostly made of steel or brass, each one of which has a specific mechanical purpose. These parts combine to form a complete miniature engineering system with which practically any mechanical movement may be reproduced in model form. More can be accomplished with Meccano than with any other constructional toy, for no other system has such possibilities. The genius is in the parts and you can commence to build models as soon as you get your Outfit home. A screwdriver, provided in the Outfit, is the only tool necessary.

There is no limit to the number of models that can be built with Meccano—Cranes, Clocks, Motor Cars, Ship-Coalers, Machine Tools, Locomotives—in fact everything that interests boys. The most wonderful feature about the system is that it is *real engineering;* it is fascinating and delightful and it gives you a satisfaction beyond anything that you have ever previously experienced.

HOW TO BUILD WITH MECCANO

Make the simple models first—there is loads of fun in them—and then try to improve them. Every model can be made in a dozen different ways. It is important to screw up all the nuts and bolts tightly to ensure that your models will be strong and firm when they are completed. When you have built all the models shown in this book you will want to build others of a more advanced type, and you cannot do better than purchase a copy of the No. 4-7 Manual from your dealer. This Manual contains illustrations of a fine selection of models, a large number of which you will be able to build by adding a few extra parts to your equipment.

Meccano is sold in nine different Outfits, numbered 00 to 7. All Meccano parts are of the same high quality and finish, but the larger Outfits contain a greater quantity and variety of parts, making possible the construction of more elaborate models. Each Outfit may be converted into the one next higher by the purchase of an Accessory Outfit (see page 125). Thus a No. 00 may be converted into a No. 0 by adding to it a No. 00A. A No. 0A then converts it into a No. 1 and so on up to No. 7. In this way, no matter with which Outfit you commence, you may build it up by degrees until you possess a No. 7. It is important to remember that Meccano parts may be bought separately at any time in any quantity.

All models shown in this Manual are numbered and for reference purposes each model number is preceded by the number of the Outfit with which it may be built. Thus, for example, model No. 00.60 may be built with No. 00 Outfit, and model No. 2.20 with No. 2 Outfit.

MECCANO SERVICE

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

Although all kinds of queries are put to us on all manner of subjects, the main interest is, of course, engineering. No one has such a wonderful knowledge of engineering matters as that possessed by our staff of experts. This vast store of knowledge, gained only by many years of hard-earned experience, is at your service. *We want the Meccano boy of to-day to be the famous engineer of to-morrow.*

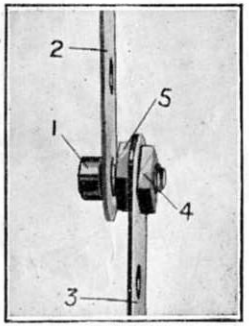
THE "MECCANO MAGAZINE"

The *Meccano Magazine* is the Meccano boy's own 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 splendid articles on such subjects as Railways, Famous Engineers and Inventors, Electricity, Bridges, Cranes, Wonderful Machinery, Aeronautics, Latest Patents, Radio, Stamps, Photography, Books and 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. The Magazine is published in England on the first of each month. Write to the Editor, *Meccano Magazine*, Liverpool, England, enclosing 6d. in stamps, and giving the names and addresses of three of your chums who are not Meccano boys. He will then forward a specimen copy of the "*M.M.*" post free. If you wish to become a regular subscriber the rates are 4/– for six issues or 8/– for twelve issues, post free. If you prefer to do so, you may order the Magazine from your Meccano dealer or from any newsagent or bookstall, price 6d.

MECCANO STANDARD MECHANISMS

There are many Meccano movements that have to a certain extent become standardised; that is to say they may be applied to more than one model, in most cases without any alteration, but in some few instances with only slight alterations to the original movement. These have been collected and classified, and may be obtained in the form of a Manual entitled " Meccano Standard Mechanisms." This Manual describes in detail various belt and rope mechanisms, roller and ball bearings, screw mechanisms, gear boxes and gear ratios, etc. Every Meccano experimenter has need of this useful book.

You may obtain a copy of the " Standard Mechanisms " Manual from your dealer, price 1/6, or direct from Meccano Ltd., Old Swan, Liverpool, England, price 1/7½ post free.

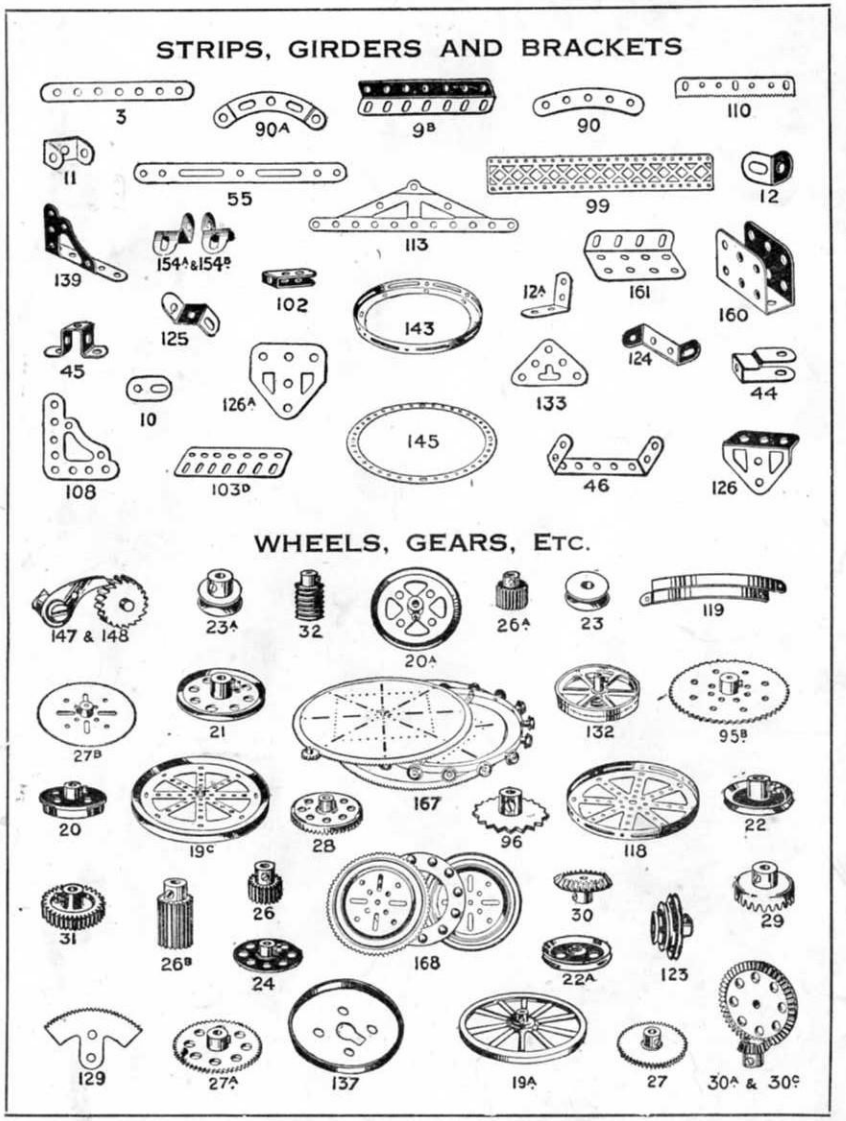


S.M. 262

SIMPLE MECCANO PIVOTS

In building Meccano models it is frequently required to attach two parts together so that one or both are quite free to swivel. A very simple way to do this is shown under detail number 262 in the " Meccano Standard Mechanisms " Manual, and for the benefit of those readers who are unable to consult the special Manual, we have reproduced this detail. As will be seen, it consists of a simple type of pivot or swivel bearing formed by a bolt and two nuts. The bolt is secured rigidly to a Strip or Plate, etc., by means of the nuts, which are secured tightly against opposite sides of the Strip, sufficient space being left beneath the head of the bolt to permit another Strip to turn freely about its shank.

A somewhat similar form of swivel-joint, also widely used, consists of a bolt and lock-nuts (Standard Mechanism No. 263). The two Strips to be connected pivotally are placed on the bolt and held in position by two nuts locked together on the shank. The Strips must be allowed a certain amount of play so that they can pivot independently about the bolt. These pivoting devices will be found equally valuable in the simplest and the most elaborate models.



Particulars and Prices of Meccano Parts

No.		s.	d.
	Perforated Strips		
1.	12½″ ½ doz.	1	6
1a.	9½″ „	1	2
1b.	7½″ „	1	0
2.	5½″ „	0	9
2a.	4½″ „	0	8
	Angle Girders		
7.	24½″ each	1	0
7a.	18½″ „	0	9
8.	12½″ ½ doz.	2	6
8a.	9½″ „	2	0
8b.	7½″ „	1	8
9.	5½″ „	1	4
10.	Flat Brackets ... ... „	0	3
11.	Double Brackets ... ... each	0	1
12.	Angle Brackets, ½″×½″ ... ... doz.	0	4
12a.	„ „ 1″×1″ ... ... ½ doz.	0	6
12b.	„ „ 1″×½″ ... ... „	0	4
	Axle Rods		
13.	11½″ each	0	3
13a.	8″ „	0	3
14.	6½″ „	0	2
15.	5″ „	0	2
15a.	4½″ „	0	1
16.	3½″ „	0	1
19.	Crank Handles, Large... ... ... each	0	3
19s.	„ „ Small ... ... „	0	3
19a.	Wheels, 3″ diam., with set screws „	0	8
20.	Flanged Wheels, 1½″ diam. ... „	0	7
20b.	„ „ ¾″ „ ... „	0	6
	Pulley Wheels		
19b.	3″ dia. with centre boss and set screw each	0	10
19c.	6″ „ „ „ „ „ „	2	10
20a.	2″ „ „ „ „ „ „	0	7
21.	1½″ „ „ „ „ „ „	0	6
22.	1″ „ „ „ „ „ „	0	5
23a.	¾″ „ „ „ „ „ „	0	5
22a.	1″ „ without „ „ „ „	0	3
23.	½″ „ „ „ „ „ „	0	3
24.	Bush Wheels ... ... „	0	6
25.	Pinion Wheels, ¾″ diam., ½″ wide „	0	8
25a.	„ „ ½″ „ ½″ „ „	0	11
25b.	„ „ ½″ „ ½″ „ „	1	2
26.	„ „ ½″ „ ½″ „ „	0	6
26a.	„ „ ½″ „ ½″ „ „	0	8
26b.	„ „ ½″ „ ½″ „ „	0	11
	Gear Wheels		
27.	50 teeth to gear with ¾″ pinion ... each	0	8
27a.	57 „ „ „ ½″ „ ... „	0	8
27b.	133 „ „ „ ½″ „ (3½″ diam.) „	1	9
28.	Contrate Wheels, 1½″ diam. ... „	1	0
29.	„ „ ¾″ „ ... „	0	8
30.	Bevel Gears, ¾″, 26 teeth ... ... „	1	0
30a.	„ „ ½″, 16 „ } *Can only be* „	0	8
30c.	„ „ 1½″, 48 „ } *used together* „	2	3
31.	Gear Wheels, 1″, 38 teeth ... ... „	1	5
32.	Worms ... ... „	0	7
34.	Spanners ... ... „	0	3
34b.	Box Spanners ... ... „	0	6
35.	Spring Clips ... ... per box (doz.)	0	4
36.	Screwdrivers ... ... each	0	4
36a.	„ Extra Long' ... ... „	0	8
36b.	„ Special ... ... „	1	5

No		s.	d.
37.	Nuts and Bolts, 7/32″ per box (doz).	0	6
37a.	Nuts ... ... „ „	0	3
37b.	Bolts, 7/32″ ... ... „ „	0	3
38.	Washers ... ... „	0	1
40.	Hanks of Cord ... ... each	0	2
41.	Propeller Blades ... ... per pair	0	6
43.	Springs ... ... each	0	3
44.	Cranked Bent Strips ... ... „	0	2
45.	Double „ „ ... ... „	0	2
46.	„ Angle Strips, 2½″×1″ ... ½ doz.	0	9
47.	„ „ „ 2½″×1½″ ... „	1	0
47a.	„ „ „ 3″×1½″ ... „	1	2
48.	„ „ „ 1½″×½″ ... „	0	6
48a.	„ „ „ 2½″×½″ ... „	0	7
48b.	„ „ „ 3½″×½″ ... „	0	9
48c.	„ „ „ 4½″×½″ ... „	1	0
48d.	„ „ „ 5½″×½″ ... „	1	2
50a.	Eye Pieces, with boss ... ... each	0	6
52.	Perforated Flanged Plates, 5½″×2½″ „	0	7
52a.	Flat Plates, 5½″×3½″ ... ... „	0	7
53.	Perforated Flanged Plates, 3½″×2½″ „	0	5
53a.	Flat Plates, 4½″×2½″ ... ... „	0	5
54.	Perforated Flanged Sector Plates „	0	5
55.	„ Strips, slotted, 5½″ long „	0	3
55a.	„ „ „ 2½″ „ „	0	2
56.	Instruction Manuals, No. 4-7 ... „	2	0
56a.	„ „ No. 00-3 ... „	2	0
56b.	„ „ No. 0 ... „	0	9
56c.	Meccano Standard Mechanisms Manual „	1	6
56d.	Book of New Models ... ... „	0	9
56f.	Bound Manual ... ... „	9	6
57.	Hooks ... ... „	0	1
57a.	„ Scientific ... ... „	0	2
57b.	„ Loaded ... ... „	0	4
58.	Spring Cord ... ... per length	1	2
58a.	Coupling Screws for Spring Cord doz.	0	9
59.	Collars with Set Screws ... ... 2 for	0	5
61.	Windmill Sails ... ... each	0	2
62.	Cranks ... ... „	0	4
62a.	Threaded Cranks ... ... „	0	6
62b	Double Arm Cranks ... ... „	0	4
63.	Couplings ... ... „	0	8
63a.	Octagonal Couplings ... ... „	1	0
63b.	Strip Couplings ... ... „	1	0
63c.	Threaded Couplings ... ... „	0	8
64.	„ Bosses ... ... „	0	3
65.	Centre Forks ... ... „	0	2
66.	Weights, 50 grammes ... ... „	1	5
67.	„ 25 „ ... ... „	1	5
68.	Woodscrews, ½″ ... ... doz.	0	4
69.	Set Screws ... ... „	0	4
69a.	Grub Screws, 5/32″ ... ... „	0	6
69b.	„ „ 7/32″ ... ... „	0	8
70.	Flat Plates, 5½″×2½″ ... ... each	0	6
72.	„ „ 2½″×2½″ ... ... „	0	3
76.	Triangular Plates, 2½″ ... ... „	0	3
77.	„ „ 1″ ... ... „	0	2
	Screwed Rods		
78.	11½″ each	0	4
79.	8″ „	0	5
79a.	6″ „	0	3
80.	5″ „	0	2
80a.	3½″ ... each	0	4
80b.	4½″ ... „	0	5
81.	2″ ... „	0	3
82	1″ ... „	0	2

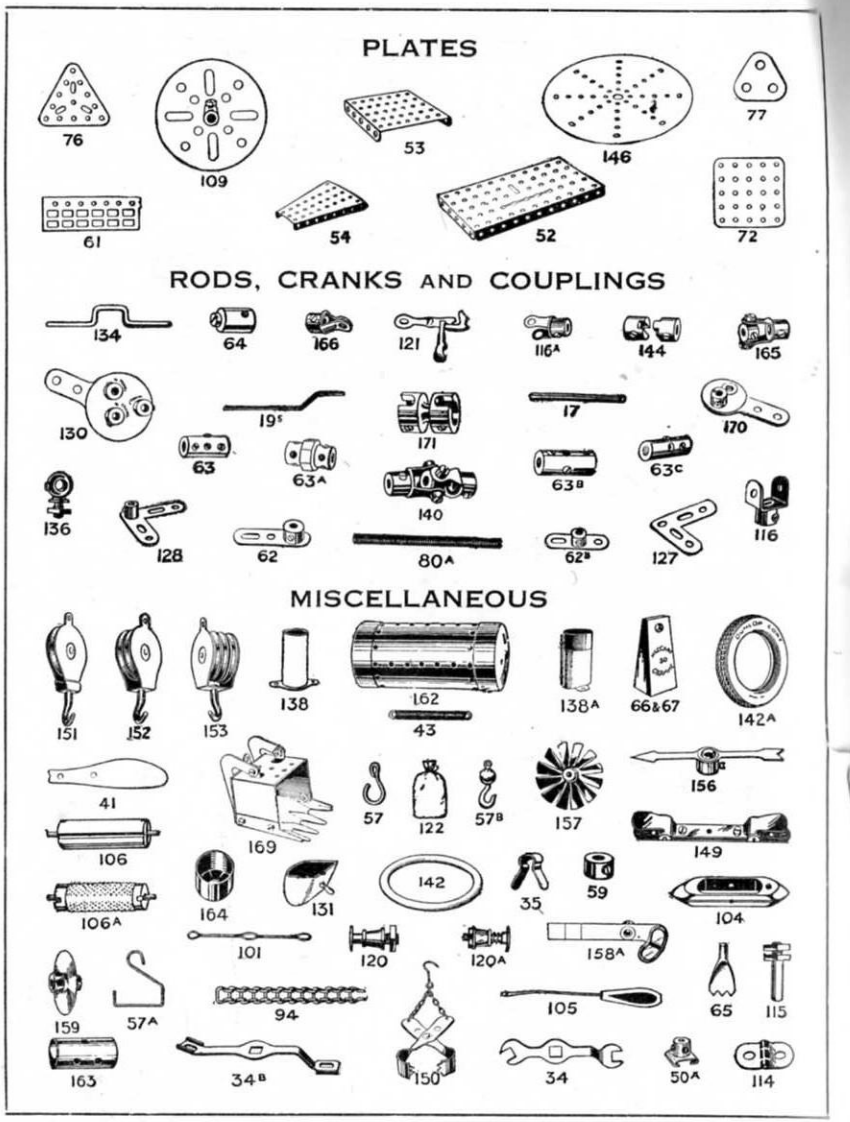
Particulars and Prices of Meccano Parts (*continued*)

No.		s.	d.
89.	5½" Curved Strips, 10" radius ... each	0	3
89a.	3" " " cranked, 1¼" radius, 4 to circle "	0	3
90.	2½" " " 2⅜" radius ... "	0	2
90a.	2½" " " cranked, 1⅜" radius, 4 to circle "	0	2
94.	Sprocket Chain ... ... per 40" length	0	8
95.	" Wheels, 2" diam. ... each	0	7
95a.	" " 1½" " ... "	0	6
95b.	" " 3" " ... "	0	9
96.	" " 1" " ... "	0	5
96a.	" " ⅝" " ... "	0	4
97.	Braced Girders, 3½" long ... ... ½ doz.	1	3
97a.	" " 3" " ... ... "	1	0
98.	" " 2½" " ... ... "	1	0
99.	" " 12½" " ... ... "	3	9
99a.	" " 9½" " ... ... "	2	10
99b.	" " 7½" " ... ... "	2	10
100.	" " 5½" " ... ... "	1	6
100a.	" " 4½" " ... ... "	1	3
101.	Healds, for looms ... ... doz.	1	0
102.	Single Bent Strips ... ... each	0	2
103.	Flat Girders, 5½" long ... ... ½ doz.	1	2
103a.	" " 9½" " ... ... "	1	8
103b.	" " 12½" " ... ... "	1	9
103c.	" " 4½" " ... ... "	1	0
103d.	" " 3½" " ... ... "	0	10
103e.	" " 3" " ... ... "	0	8
103f.	" " 2½" " ... ... "	0	7
103g.	" " 2" " ... ... "	0	6
103h.	" " 1½" " ... ... "	0	6
103k.	" " 7½" " ... ... "	1	5
104.	Shuttles, for looms ... ... each	7	3
105.	Reed Hooks, for looms ... ... "	0	6
106.	Wood Rollers ... ... "	2	2
106a.	Sand Rollers ... ... "	2	6
107.	Tables for Designing Machines "	2	2
108.	Architraves ... ... "	0	3
109.	Face Plates, 2½" diam. ... ... "	0	6
110.	Rack Strips, 3½" ... ... "	0	3
110a.	" 6½" ... ... "	0	5
111.	Bolts, ⅜" ... ... "	0	1
111a.	" ½" ... ... 3 for	0	2
111c.	" ⅝" .... doz.	0	4
113.	Girder Frames ... ... each	0	5
114.	Hinges ... ... per pair	0	6
115.	Threaded Pins ... ... each	0	3
116.	Fork Pieces, Large ... ... "	0	5
116a.	" " Small ... ... "	0	5
117.	Steel Balls, ¾" diam. ... ... doz.	0	9
118.	Hub Discs, 5½" " ... ... each	1	9
119.	Channel Segments (8 to circle, 11½" diam.) ... ... "	0	6
120.	Buffers ... ... "	0	3
120a.	Spring Buffers ... ... per pair	1	0
120b.	Compression Springs ... ... each	0	2
121.	Train Couplings ... ... "	0	3
122.	Miniature Loaded Sacks ... ... "	0	3
123.	Cone Pulleys ... ... "	1	9
124.	Reversed Angle Brackets, 1" ... ½ doz.	0	6
125.	" " " ½" ... "	0	4
126.	Trunnions ... ... each	0	3
126a.	Flat Trunnions ... ... "	0	2
127.	Simple Bell Cranks ... ... "	0	2

No.		s.	d.
128.	Boss Bell Cranks ... ... each	0	5
129.	Rack Segments, 3" diam. ... ... "	0	7
130.	Eccentrics, Triple Throw ... .. "	1	5
131.	Dredger Buckets ... ... ½ doz.	1	5
132.	Flywheels, 2½" diam. ... ... each	2	9
133.	Corner Brackets ... ... "	0	2
134.	Crank Shafts, 1" stroke ... ... "	0	3
135.	Theodolite Protractors ... ... "	0	3
136.	Handrail Supports ... ... "	0	5
137.	Wheel Flanges ... ... "	0	5
138.	Ships' Funnels ... ... "	0	5
*138a.	" " (Raked) ... ... "	1	2
139.	Flanged Brackets (right) ... ... "	0	3
139a.	" " (left) ... ... "	0	3
140.	Universal Couplings ... ... "	1	2
141.	Wire Lines (for suspending clock weights) ... ... "	1	0
142	Rubber Rings, 3" rim ... ... "	0	5
142a.	Dunlop Tyre to fit 2" diam. rim ... "	0	7
142b.	" " " 3" " ... "	0	9
142c.	" " " 1" " ... "	0	4½
142d.	" " " 1½" " ... "	0	6
143.	Circular Girders, 5½" diam. ... "	1	5
144.	Dog Clutches ... ... "	0	9
145.	Circular Strips, 7" diam. over all "	1	1
146.	" Plates, 6" " ... ... "	1	5
147.	Pawls, with pivot bolt and nuts... "	0	5
147a.	Pawls ... ... "	0	3
147b.	Pivot Bolt with 2 nuts ... ... "	0	3
148.	Ratchet Wheels ... ... "	0	9
149.	Collecting Shoes, for Electric Locos "	2	3
150.	Crane Grabs ... ... "	0	10
151.	Pulley Blocks, Single Sheave ... "	1	0
152.	" " Two " ... "	1	2
153.	" " Three " ... "	1	5
154a.	Corner Angle Brackets, ½", right hand ... ... ½ doz.	0	8
154b.	Corner Angle Brackets, ½", left hand "	0	8
155.	Rubber Rings, ⅝" ... ... each	0	2
156.	Pointers, 2½" over all, with boss "	0	6
157.	Fans, 2" diam. ... ... "	0	6
158a.	Signal Arms, Home ... ... "	0	8
158b.	" " Distant ... ... "	0	8
159.	Circular Saws ... ... "	1	5
160.	Channel Bearings, 1½" × 1" × ½" ... "	0	3
161.	Girder Brackets, 2" × 1" × ½" ... 2 for	0	5
162.	Boiler complete with ends ... ... each	1	5
162a.	" ends ... ... "	0	5
162b.	" without ends ... ... "	0	8
163.	Sleeve Pieces ... . per pair	0	8
164.	Chimney Adaptors ... ... each	0	3
165.	Swivel Bearings ... ... "	0	9
166.	End " ... ... "	0	5
167.	Geared Roller Bearings ... ... "	28	6
167a.	Roller Races, geared, 192 teeth ... "	6	6
167b.	Ring Frames for Rollers ... ... "	4	3
167c.	Pinions for Roller Bearings, 16 teeth "	1	5
168.	Ball Bearings, 4" diam. ... ... "	4	3
168a.	" Races, flanged disc ... ... "	0	9
168b.	" " toothed " ... ... "	1	1
168c.	" Casings, complete with balls "	2	6
169.	Digger Buckets ... ... "	3	0
170.	Eccentrics, ½" throw ... ... "	1	2
171.	Socket couplings ... ... "	1	2

* *The series includes 26 funnels in the correct designs and colours of leading shipping companies.*

As new parts are frequently added to the Meccano system, the foregoing list is not necessarily complete. The latest illustrated list is obtainable free from your dealer on request.



WHAT THE GUILD MEANS

BADGE OF MEMBERSHIP

GUILD LEADER'S BADGE

THE Meccano Guild is an organisation for boys, started at the request of boys, and conducted as far as possible by boys. In joining the Guild a Meccano boy becomes a member of a great brotherhood of world-wide extent, every member of whom has promised to observe its three great objects :—

(1) *To make every boy's life brighter and happier.*
(2) *To foster clean-mindedness, truthfulness, ambition, and initiative in boys.*
(3) *To encourage boys in the pursuit of their studies and hobbies, and especially in the development of their knowledge of mechanical and engineering principles.*

HOW TO BECOME A MEMBER

MEMBERSHIP of the Guild is open to every boy possessing a Meccano Outfit, or Hornby Train Set, who satisfactorily fills in the prescribed application form. The only conditions are that members promise to observe the objects of the Guild and to wear their badges on all possible occasions.

The price of the Guild membership badge is 7d. post free in the United Kingdom, and 1/- post free overseas. Boys overseas should ask their dealers for the name and address of the Meccano Agent in their country, who will be pleased to enrol them. A remittance for the necessary amount should be sent along with the form of application. The Guild badge is beautifully enamelled in blue and white and is made for wearing in the lapel of the coat.

MECCANO CLUBS

MECCANO CLUBS are founded and established under the guidance of the Guild Secretary at Headquarters and at the present time there are nearly 250 affiliated Clubs in various towns and villages throughout the world. 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.

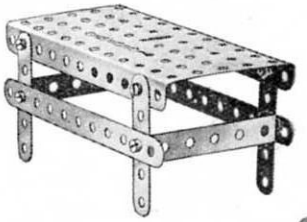
Special awards are given to Club members for good work in connection with their Club and medallions are awarded in connection with the Recruiting Campaign, full particulars of which will be sent on request.

MECCANO GUILD MEMBER'S CERTIFICATE

RECRUITING MEDALLION

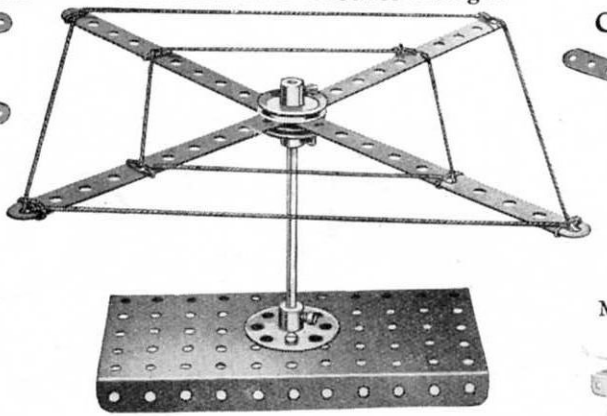
SPECIAL MERIT MEDALLION

Model No. 00.1 Table



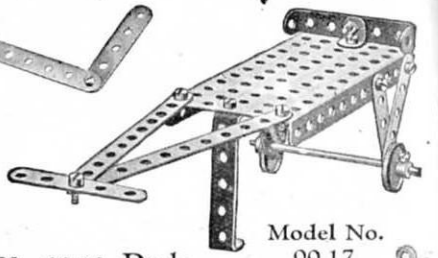
Model No. 00.3 Dividers

Model No. 00.8 Clothes Hanger



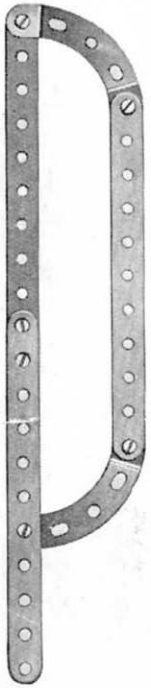
Model No. 00.12 Carpenter's Square

Model No. 00.16 Shipyard Bogie



Model No. 00.4 Bench

Model No. 00.2 Meat Saw

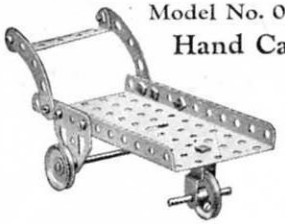


Model No. 00.13 Desk

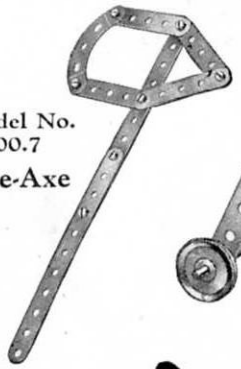
Model No. 00.17 Rifle with Bayonet

Model No. 00.18 Farm Sight

Model No. 00.5 Hand Cart



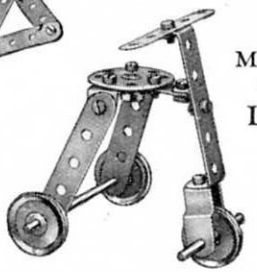
Model No. 00.9 Velocipede



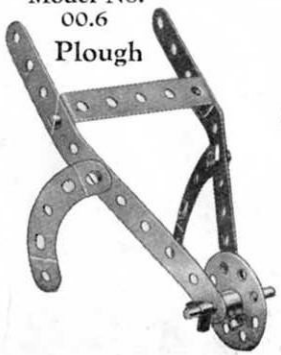
Model No. 00.10 Ladder

Model No. 00.14 Trowel

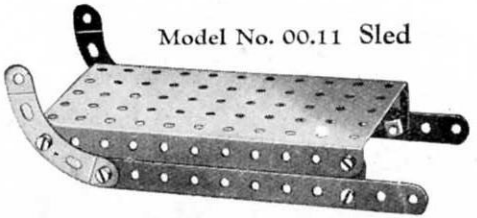
Model No. 00.7 Fire-Axe



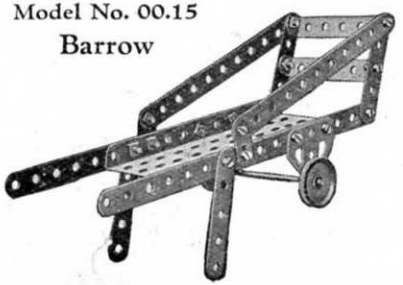
Model No. 00.6 Plough



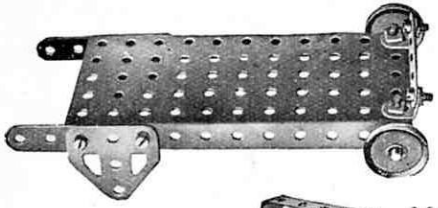
Model No. 00.11 Sled



Model No. 00.15 Barrow

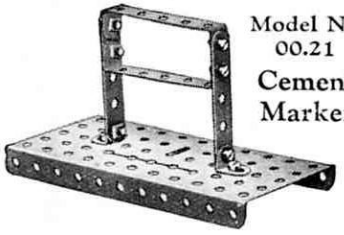


Model No. 00.19 **Flat Truck**



Model No. 00.20 **Spade**

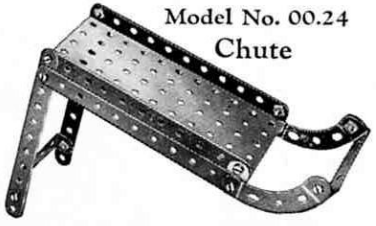
Model No. 00.21 **Cement Marker**



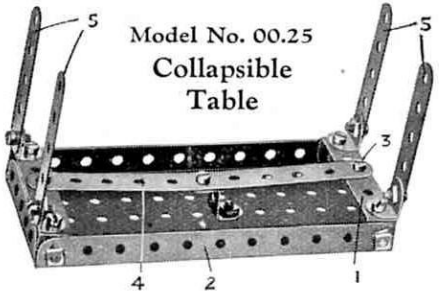
Model No. 00.22 **Motor Boat**

Model No. 00.23 **Plasterer's Hawk**

Model No. 00.24 **Chute**



Model No. 00.25 **Collapsible Table**



The $2\frac{1}{2}" \times \frac{1}{2}"$ Double Angle Strips 1 are attached to the $5\frac{1}{2}" \times 2\frac{1}{2}"$ Flanged Plate 2 by lock-nutted bolts, as in Standard Mechanism No. 263. The Bolts 3 are secured to the $5\frac{1}{2}"$ Strip 4 and their shanks engage with the centre holes in the $2\frac{1}{2}" \times \frac{1}{2}"$ Double Angle Strips 1, thus maintaining the legs 5 in an upright position. When it is desired to fold up the legs 5, it is only necessary to raise the ends of the Strip 4, thus freeing the Double Angle Strips 1. The table is shown in the folded position in Fig. 00.25A.

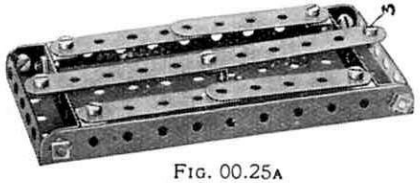
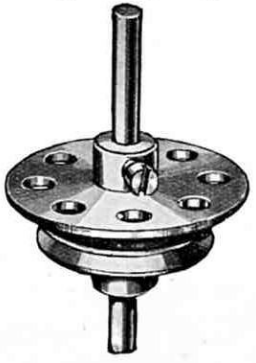


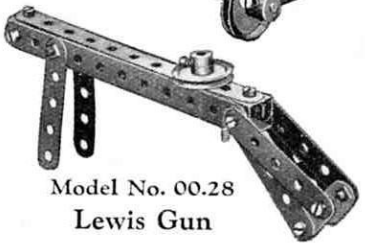
FIG. 00.25A

Model No. 00.26 **Spinning Top**

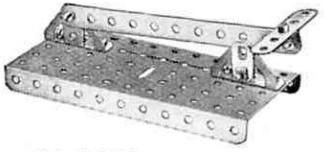


Model No. 00.27 **Trolley**

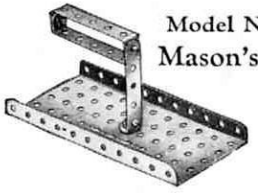
Model No. 00.28 **Lewis Gun**



Model No. 00.29 **Switch**

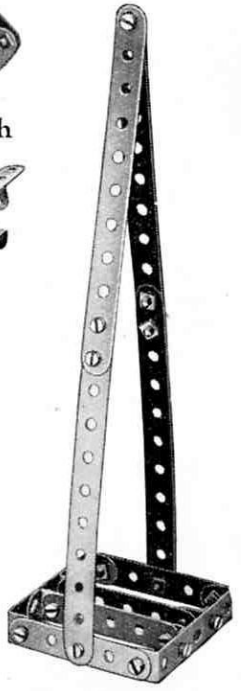


Model No. 00.30 **Mason's Trowel**

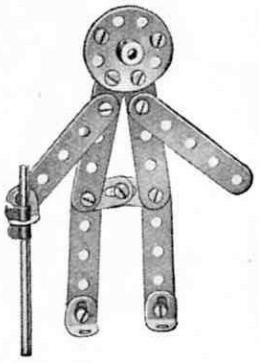


Model No. 00.31 **Baggage Cart**

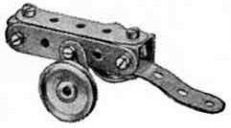
Model No. 00.32 **Potato Chopper**



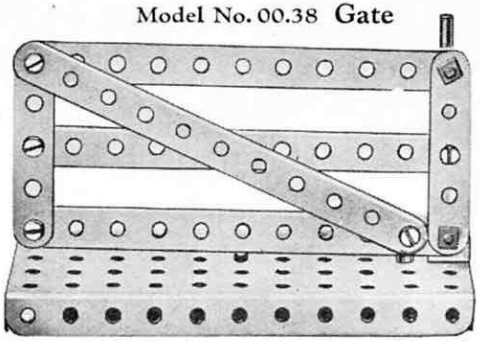
Model No. 00.33
Meccano Man



Model No. 00.36
Cannon



Model No. 00.38 **Gate**

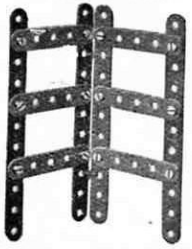


Model No. 00.42
Violin

Model No. 00.44
Friction Grip Tongs

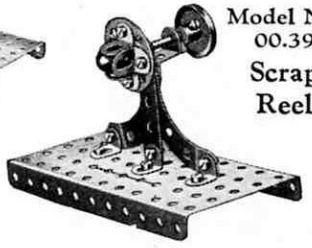
Model No. 00.37
Birdcage Stand

Model No. 00.43
Clothes Horse



Model No. 00.34
Track Gauge

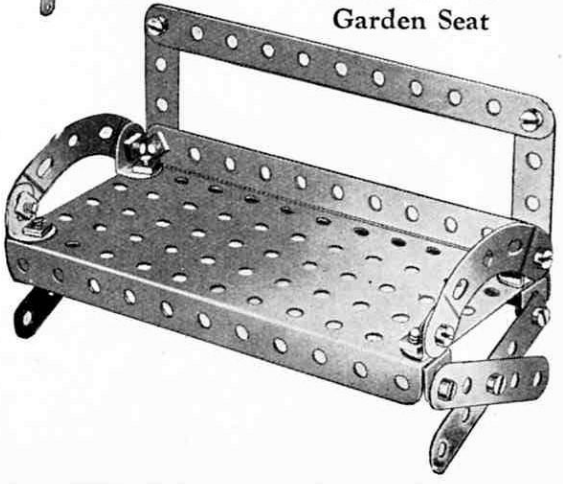
Model No. 00.39
Scrap Reel



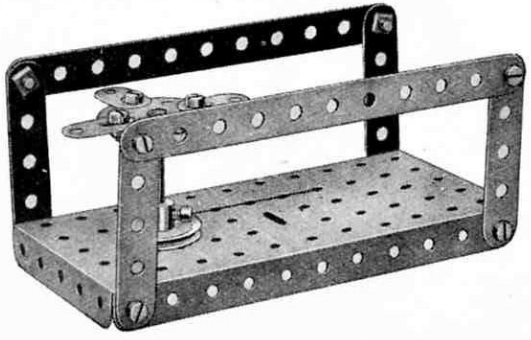
Model No. 00.40
Bed

Model No. 00.45
Rake

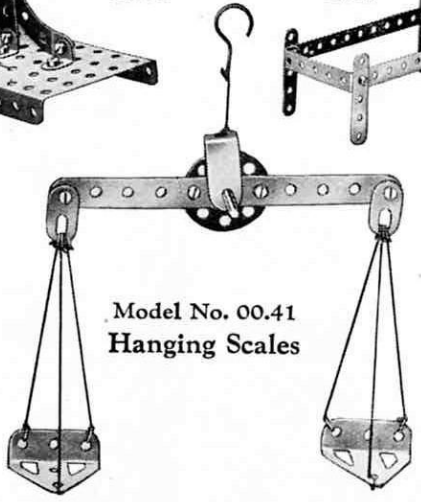
Model No. 00.46
Garden Seat



Model No. 00.35 **Turnstile**

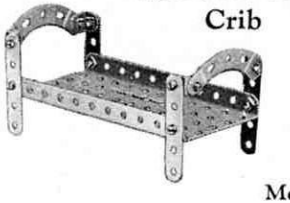


Model No. 00.41
Hanging Scales

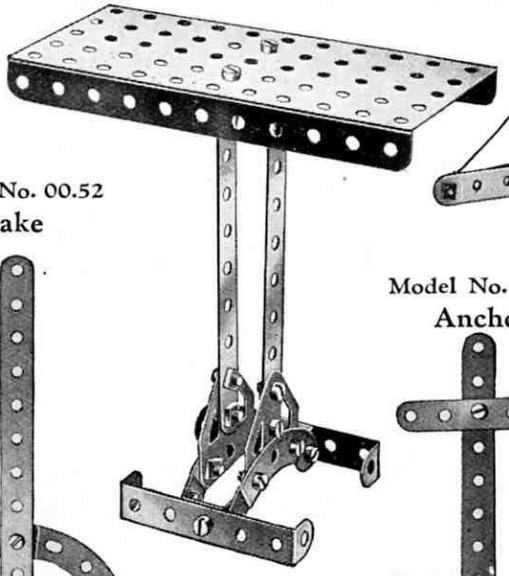


Model No. 00.47
Step Ladder

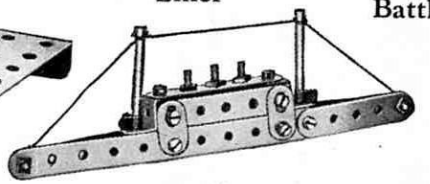
Model No. 00.50
Crib



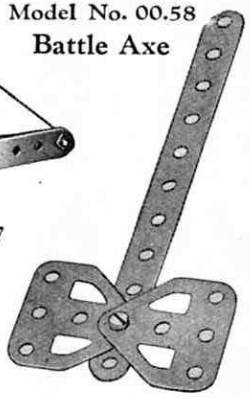
Model No. 00.53 Table



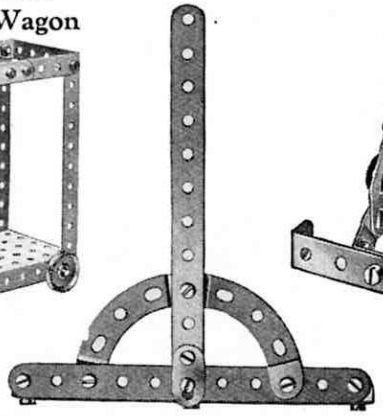
Model No. 00.55
Liner



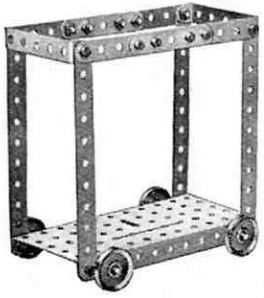
Model No. 00.58
Battle Axe



Model No. 00.52
Rake

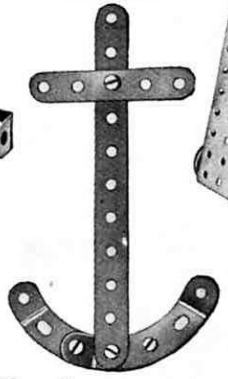


Model No. 00.51
Refreshment Wagon

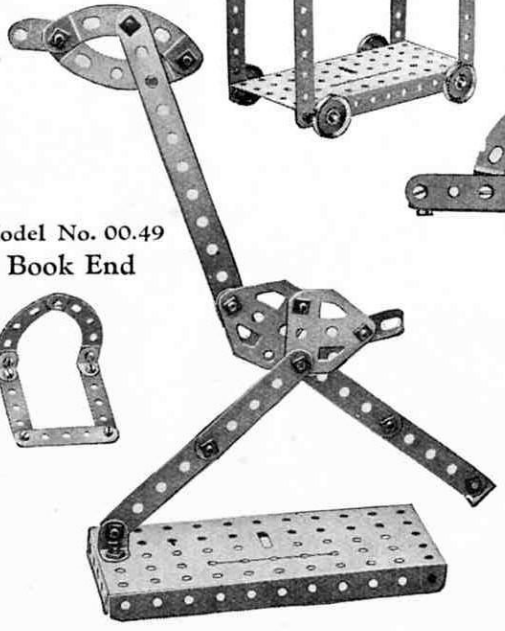


Model No. 00.57
Gravel Sifter

Model No. 00.56
Anchor

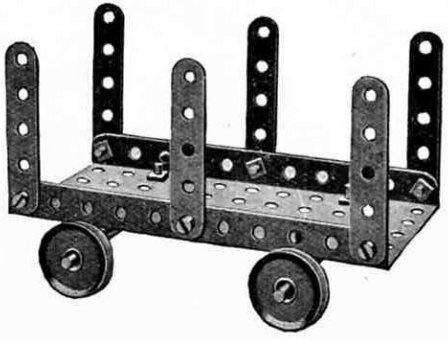


Model No. 00.48
Ostrich



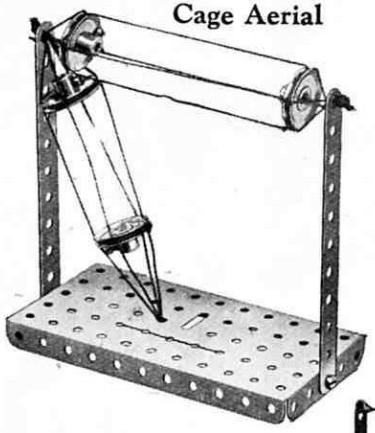
Model No. 00.49
Book End

Model No. 00.54 Timber Truck

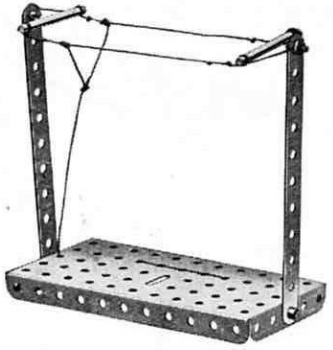


Model No. 00.59
Mail
Bag
Hanger

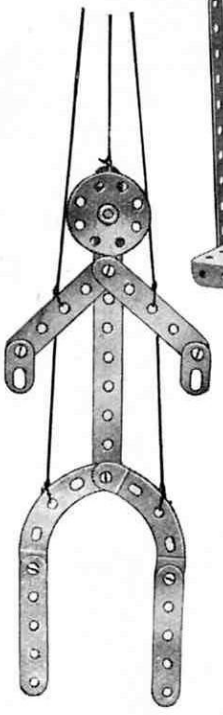
Model No. 00.60
Cage Aerial



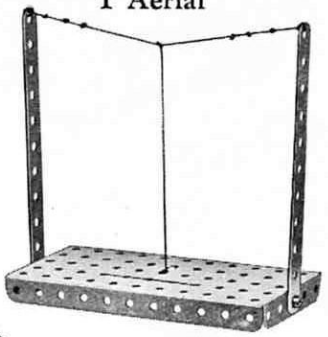
Model No. 00.62 **Double Wire L Aerial**



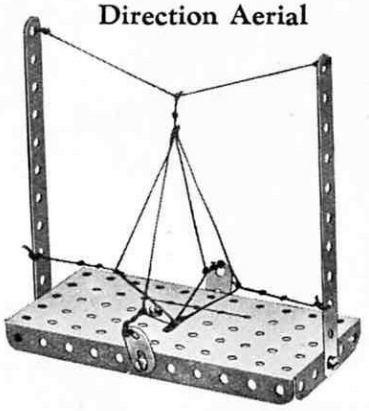
Model No. 00.64
Jumping Jack



Model No. 00.66
Single Wire T Aerial

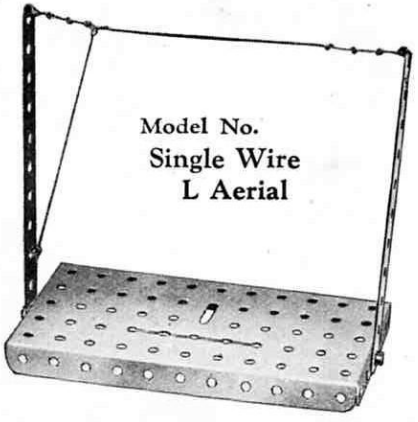


Model No. 00.68
Direction Aerial

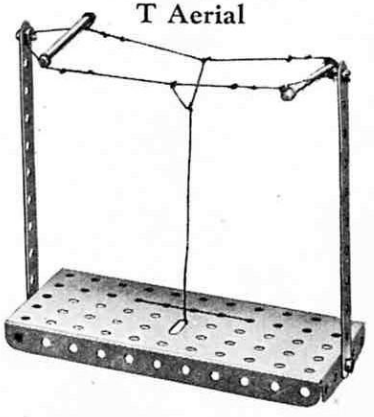


Model No. 00.61
Revolving

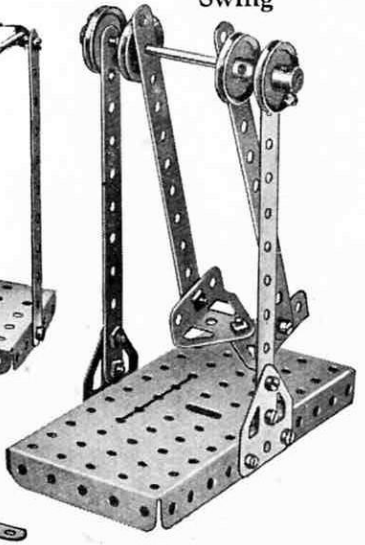
Model No. **Single Wire L Aerial**



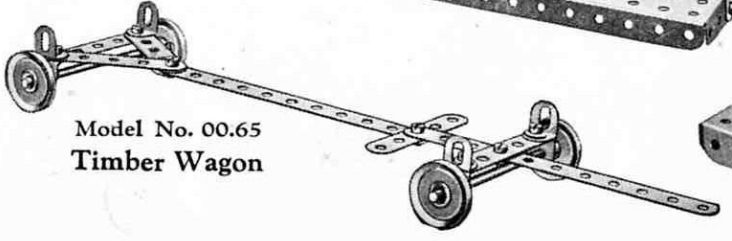
Model No. 00.67
Double Wire T Aerial



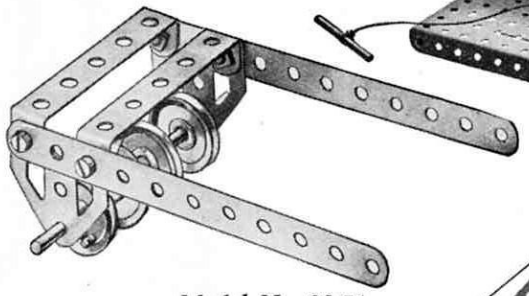
Model No. 00.69
Swing



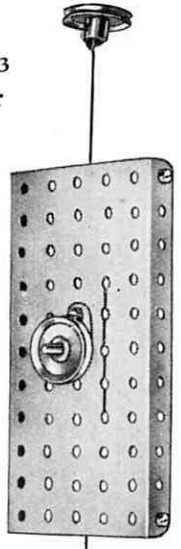
Model No. 00.65
Timber Wagon



Model No. 00.70 **Field Roller**

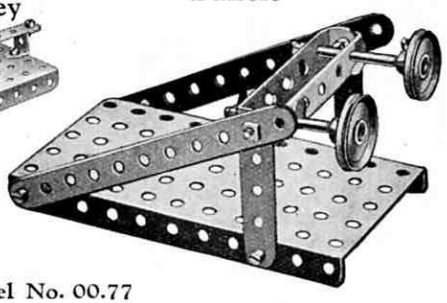


Model No. 00.73
Cheese Cutter

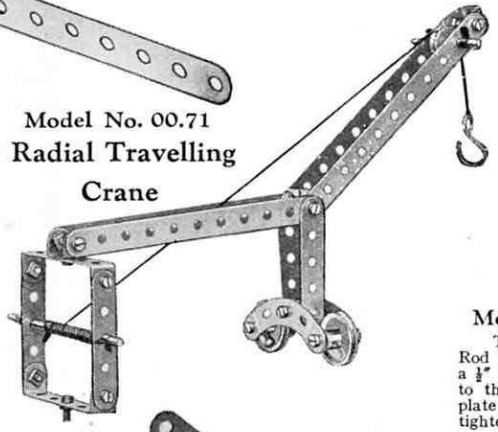


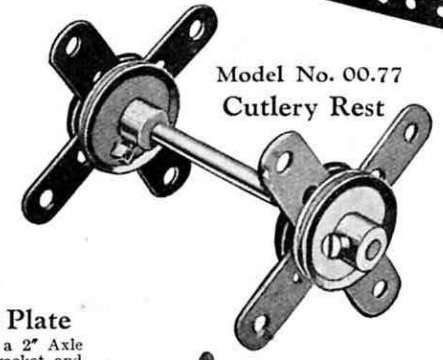
Model No. 00.76
Telegraph Key

Model No. 00.79
Buffers



Model No. 00.71
Radial Travelling Crane



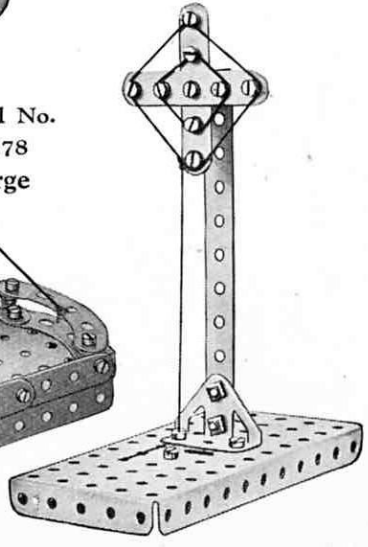


Model No. 00.77
Cutlery Rest

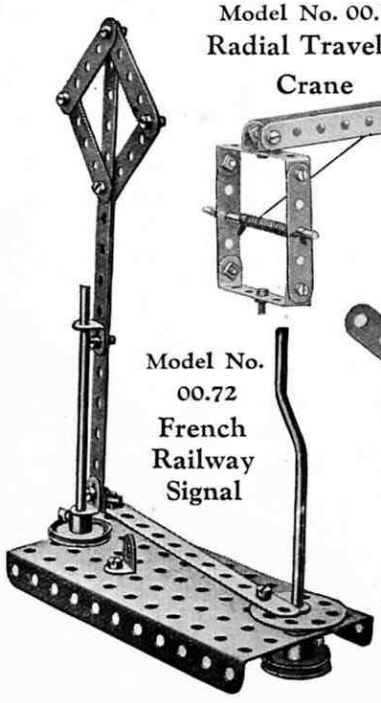
Model No. 00.74 **Magic Plate**

The cord is wound once round a 2" Axle Rod that is journalled in a Flat Bracket and a ½" Reversed Angle Bracket, which are bolted to the Plate. If the cord is held loosely the plate will drop, but as soon as the cord is tightened the plate becomes immovable.

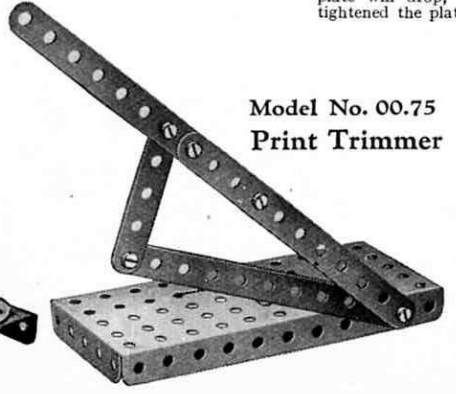
Model No. 00.80
Frame Aerial



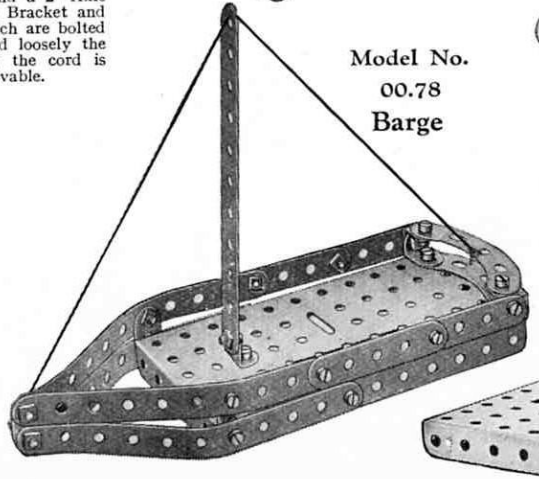
Model No. 00.72
French Railway Signal



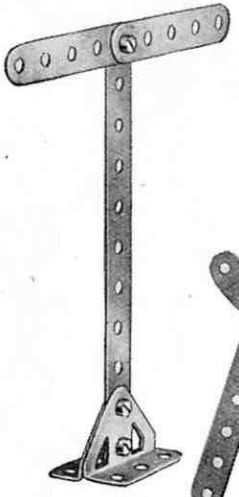
Model No. 00.75
Print Trimmer



Model No. 00.78
Barge

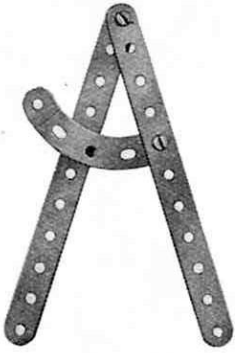


Model No. 00.81
2-way Sign Post

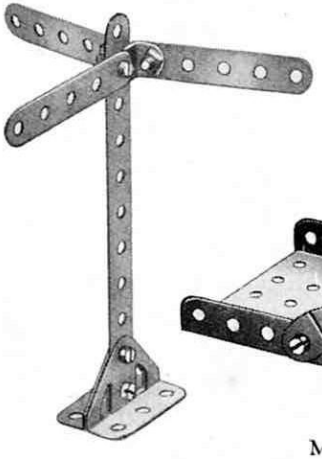


Model No. 00.83 Tweezers

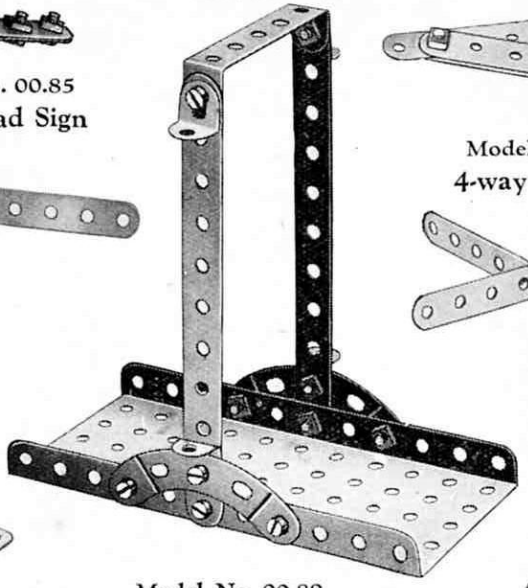
Model No. 00.84
Dividers



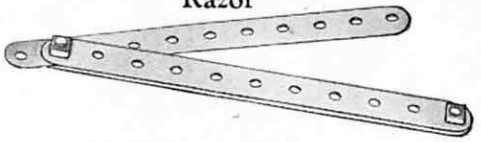
Model No. 00.85
3-way Road Sign



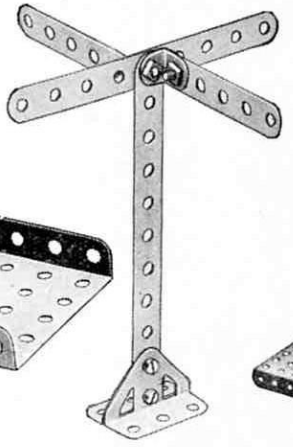
Model No. 00.88
Elevator Car



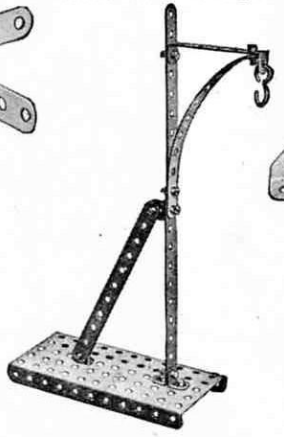
Model No. 00.90
Razor



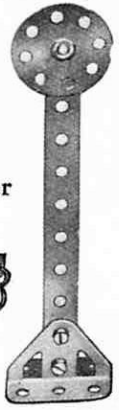
Model No. 00.91
4-way Road Sign



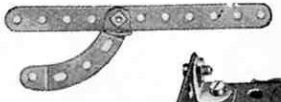
Model No. 00.92
Mail Bag Hanger



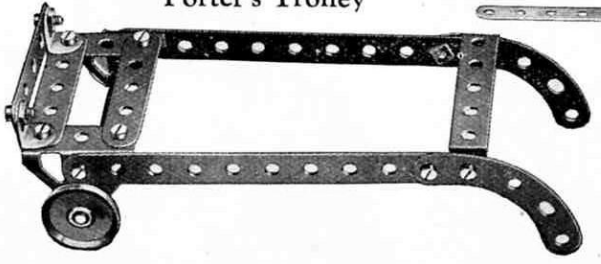
Model No. 00.94
Road Sign



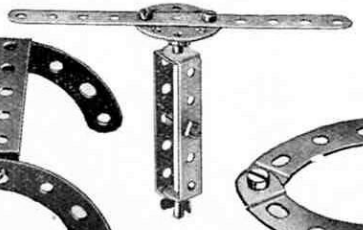
Model No. 00.82
Tin Opener



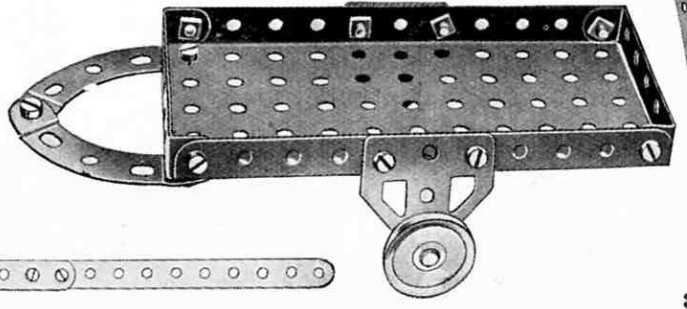
Model No. 00.86
Porter's Trolley



Model No. 00.89
Propeller

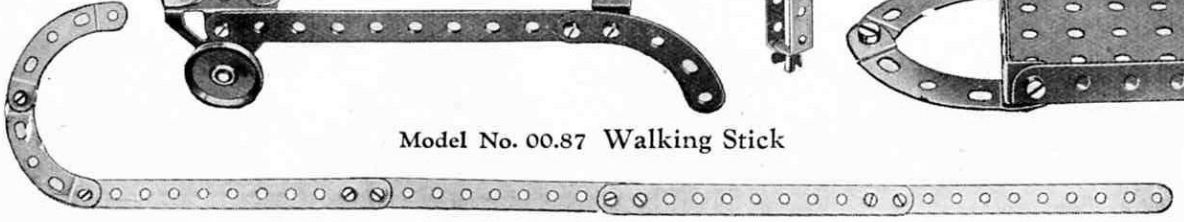


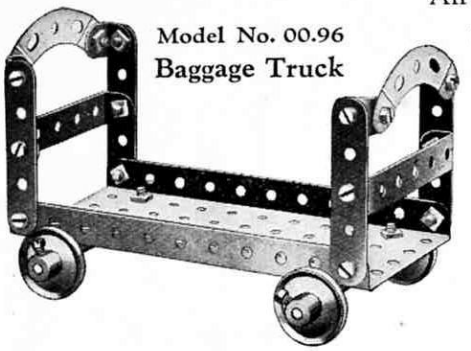
Model No. 00.93 Hand Truck



Model No. 00.95
Street Lamp

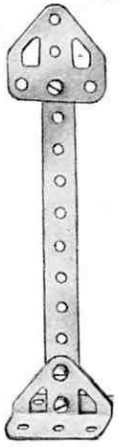
Model No. 00.87 Walking Stick



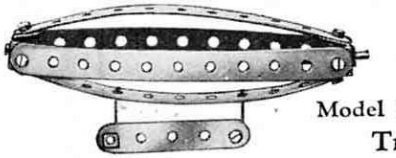


Model No. 00.96
Baggage Truck

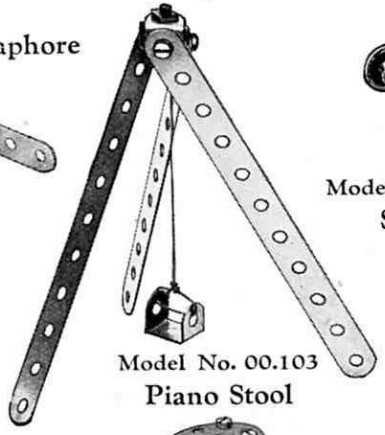
Model No. 00.99
Road Sign



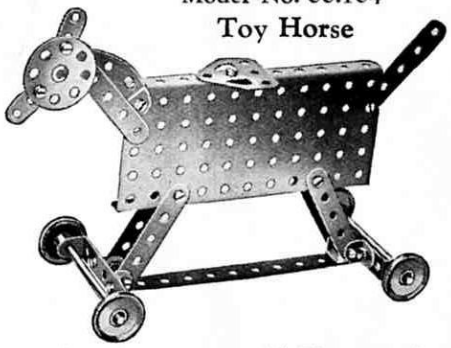
Model No. 00.100 **Airship**



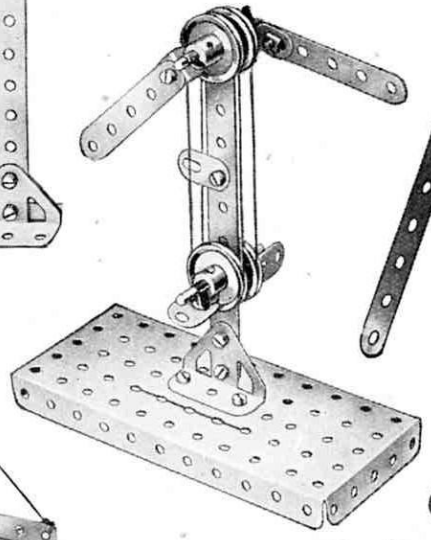
Model No. 00.102
Tripod



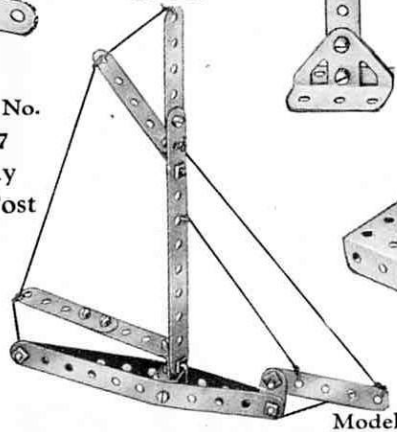
Model No. 00.104
Toy Horse



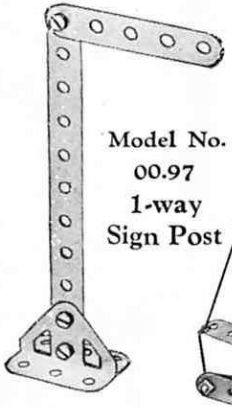
Model No. No. 00.101 **Semaphore**



Model No. 00.98
Yacht

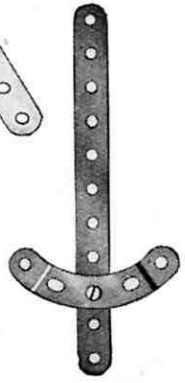


Model No.
00.97
1-way
Sign Post



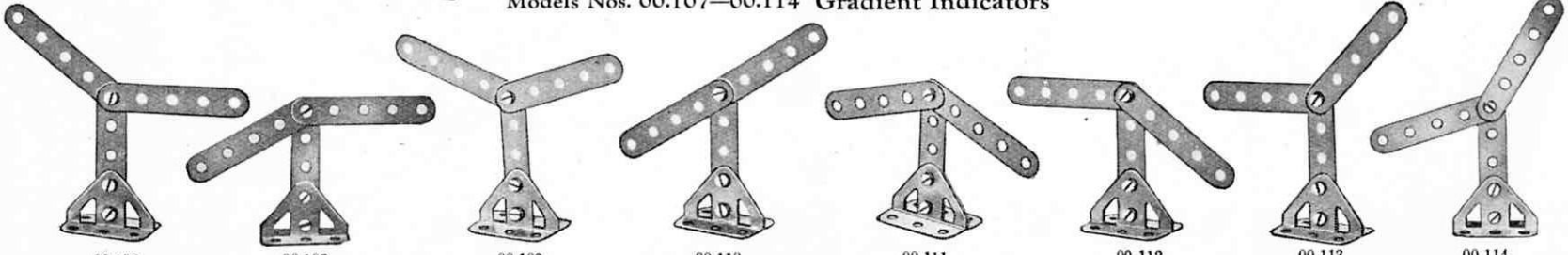
Model No. 00.103
Piano Stool

Model No. 00.105
Sword



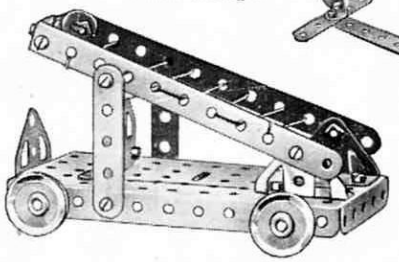
Model No. 00.106
Umbrella Stand

Models Nos. 00.107—00.114 **Gradient Indicators**

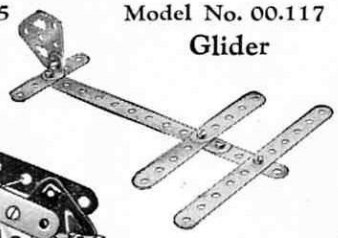


00.107 00.108 00.109 00.110 00.111 00.112 00.113 00.114

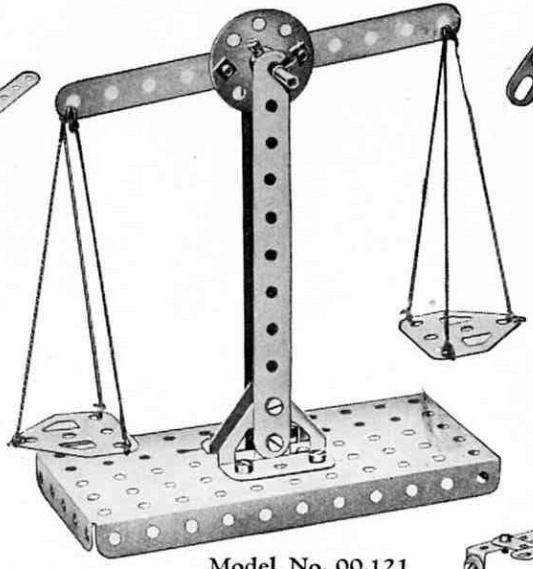
Model No. 00.115
Fire Escape



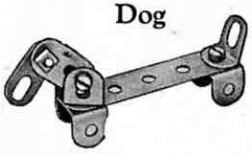
Model No. 00.117
Glider



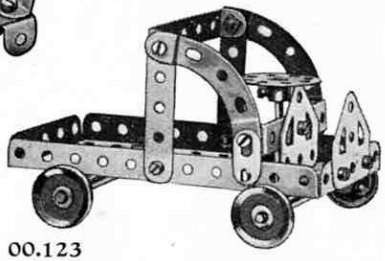
Model No. 00.120 **Scales**



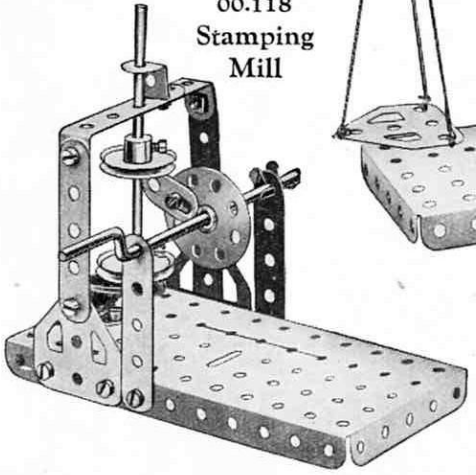
Model No. 00.122
Dog



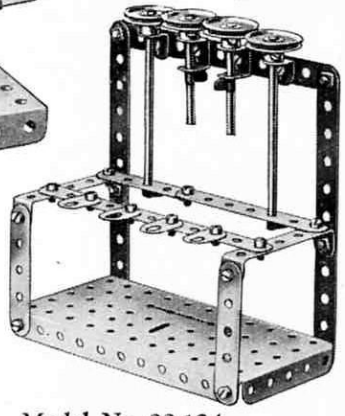
Model No. 00.125
Motor Car



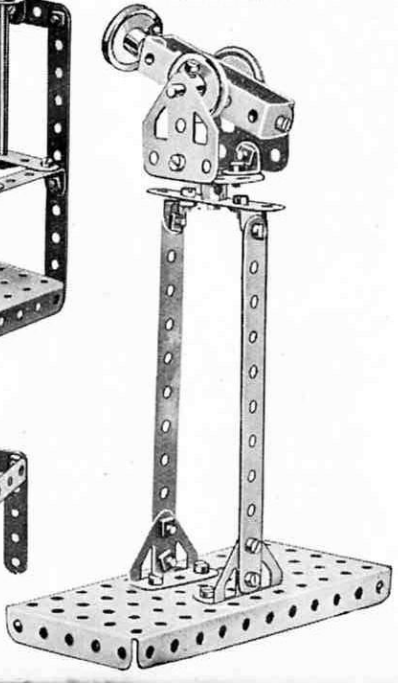
Model No. 00.118
Stamping Mill



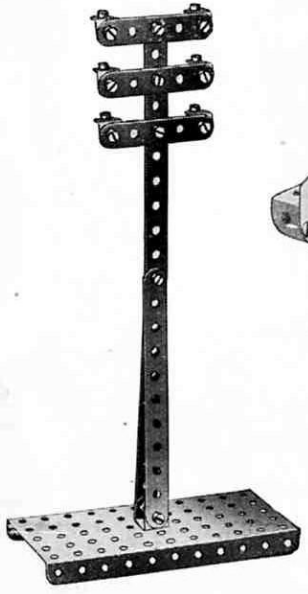
Model No. 00.123
Organ



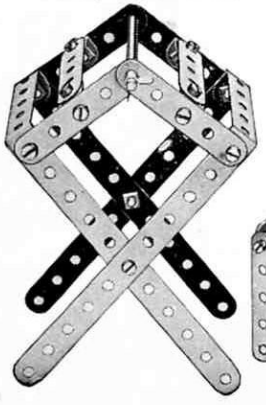
Model No. 00.126
Searchlight



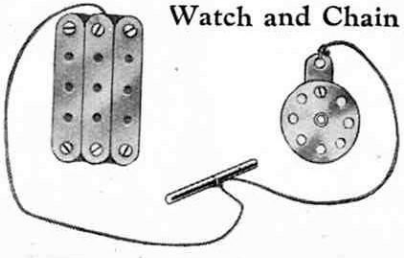
Model No. 00.116
Telegraph Pole



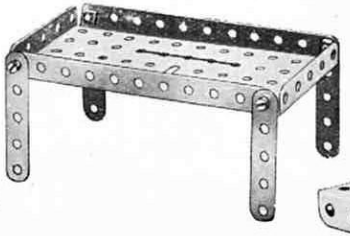
Model No. 00.121
Clothes Drying Frame

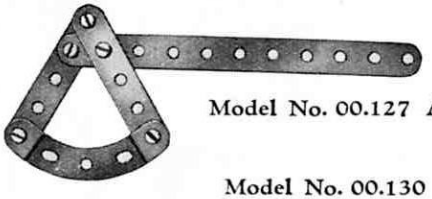


Model No. 00.119
Watch and Chain



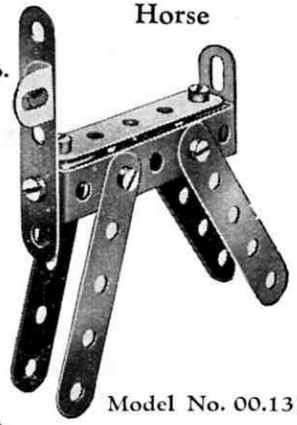
Model No. 00.124
Drinking Trough





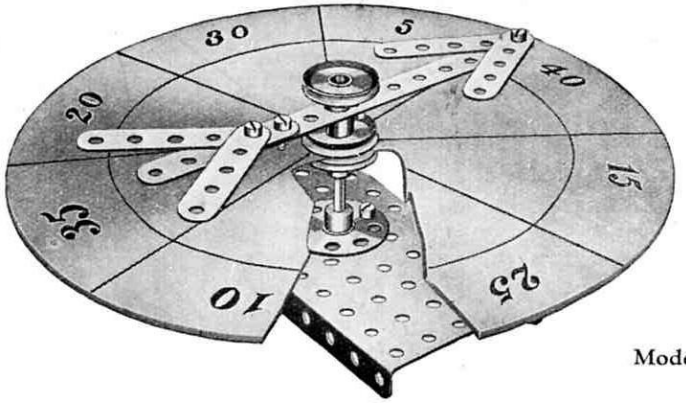
Model No. 00.127 **Axe**

Model No. 00.130
Horse



Model No. 00.128
Fork

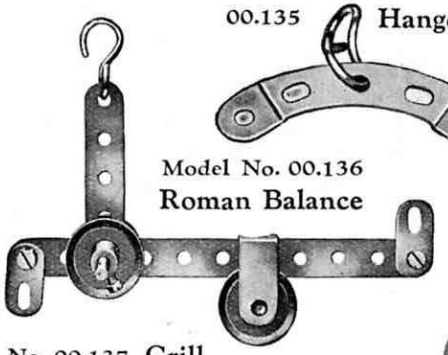
Model No. 00.132 **Roulette Wheel**



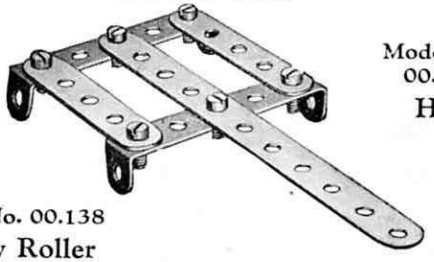
Cut out a circular piece of cardboard and mark as shown to form scoring board. This is clamped between two 1" Pulley Wheels. The pointer revolves freely on the upright spindle and is held in position by another 1" Pulley Wheel.

Model No. 00.135 **Coat Hanger**

Model No. 00.136
Roman Balance

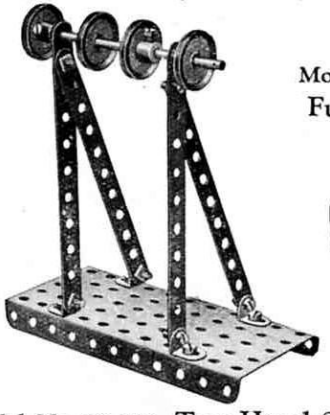


Model No. 00.137 **Grill**

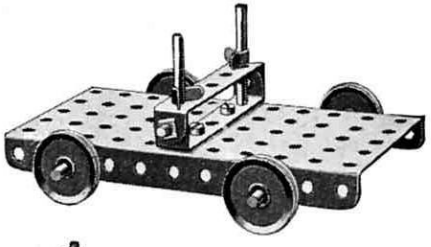


Model No. 00.139
Hoe

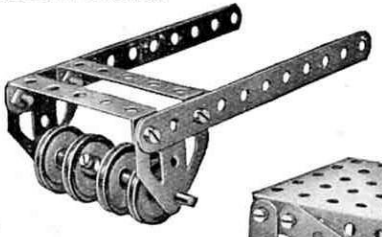
Model No. 00.133 **Pulley Shafting**



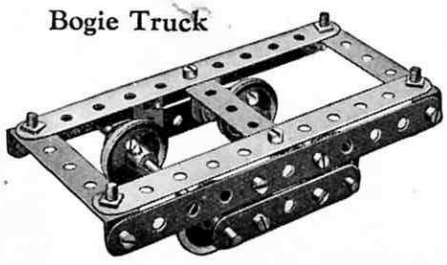
Model No. 00.131 **Lumber Truck**



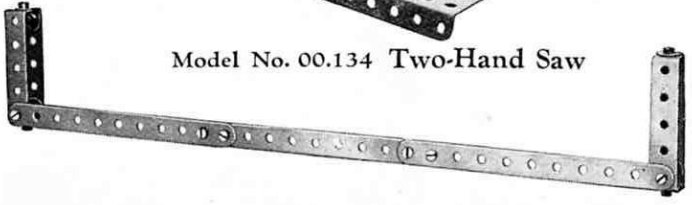
Model No. 00.138
Furrow Roller



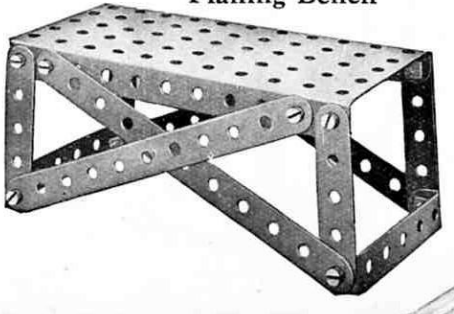
Model No. 00.129
Bogie Truck



Model No. 00.134 **Two-Hand Saw**

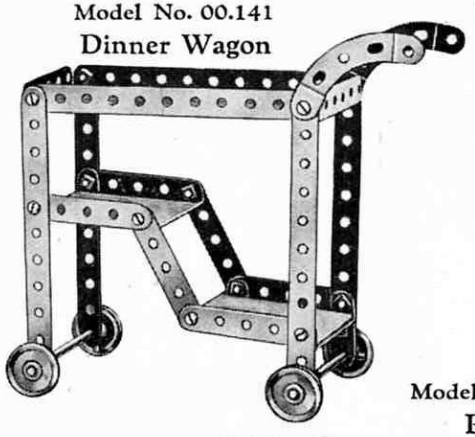


Model No. 00.140
Planing Bench

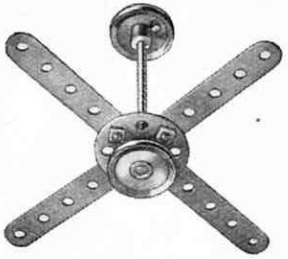


All these Models can be built with MECCANO Outfit No. 00

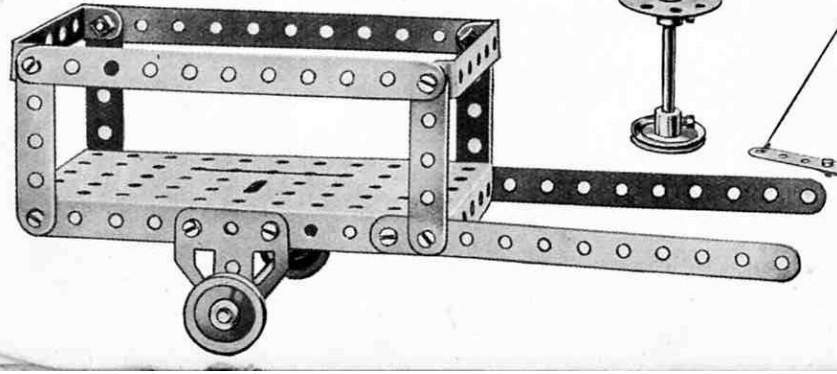
Model No. 00.141
Dinner Wagon



Model No. 00.142 Ceiling Fan

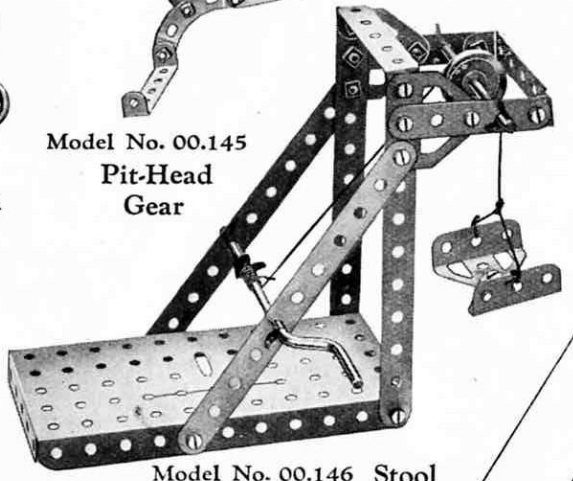


Model No. 00.143 Cart

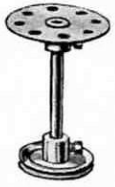


Model No. 00.144 Lumber Truck

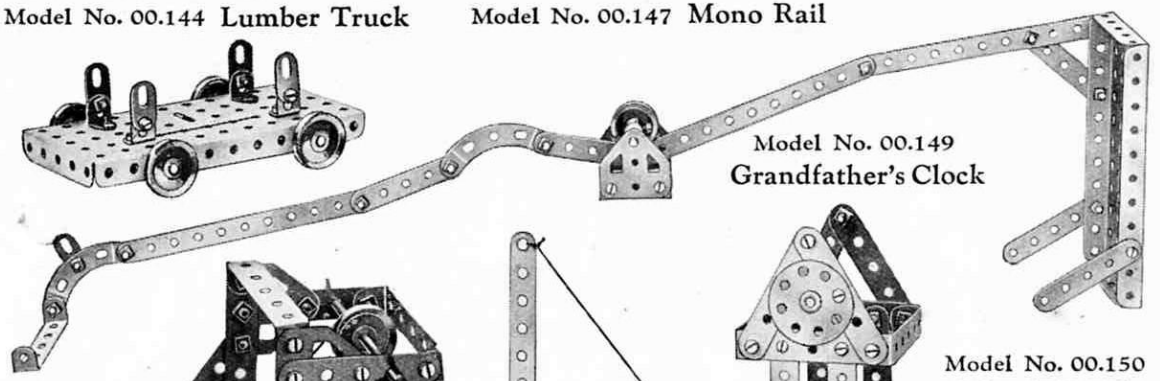
Model No. 00.145
Pit-Head
Gear



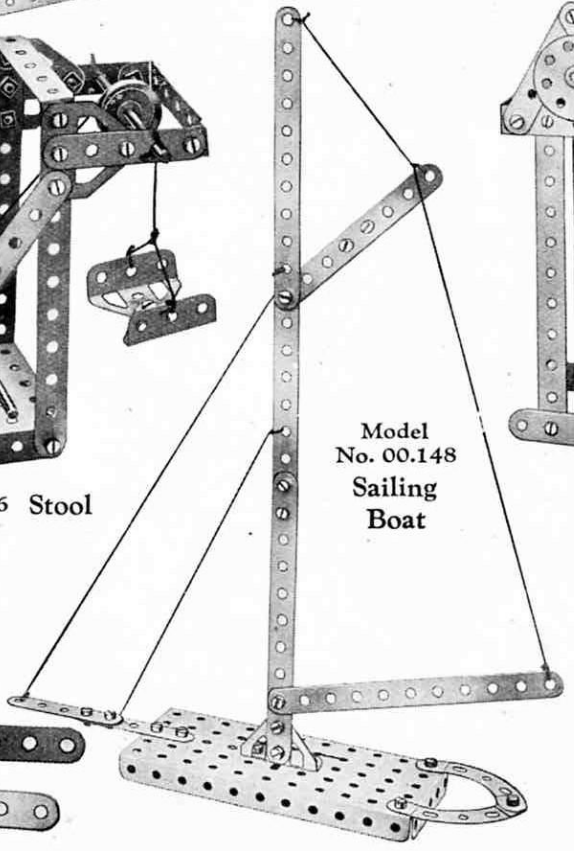
Model No. 00.146 Stool



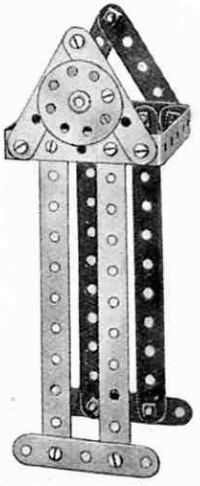
Model No. 00.147 Mono Rail



Model No. 00.148
Sailing
Boat

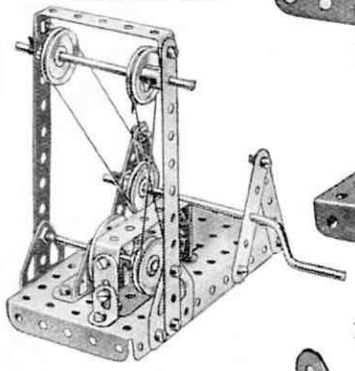


Model No. 00.149
Grandfather's Clock

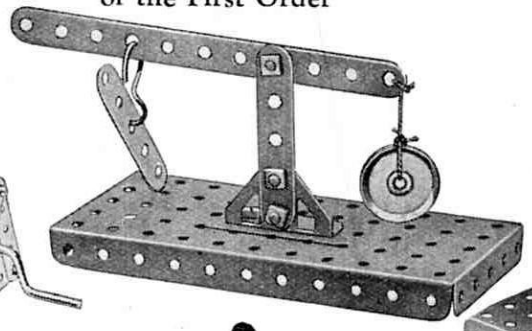


Model No. 00.150
Watch Stand

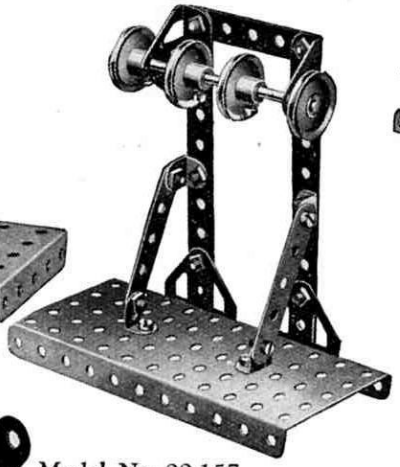
Model No. 00.151
Circular Saw



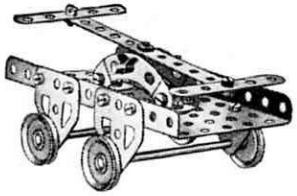
Model No. 00.154 Lever of the First Order



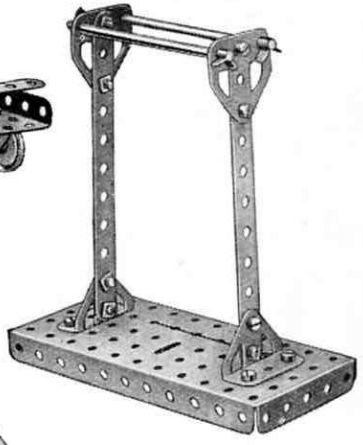
Model No. 00.156 Pulley Shafting



Model No. 00.159
Hand Car

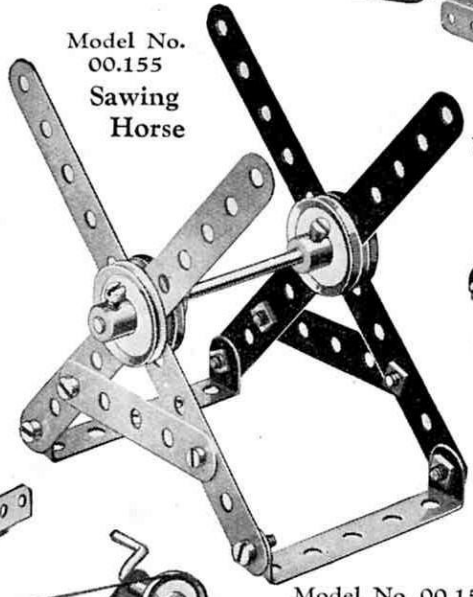


Model No. 00.161
Towel Horse

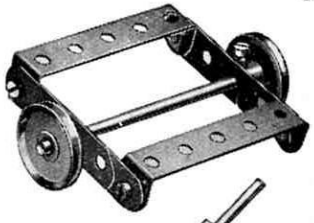


Model No. 00.152
Pen Rack

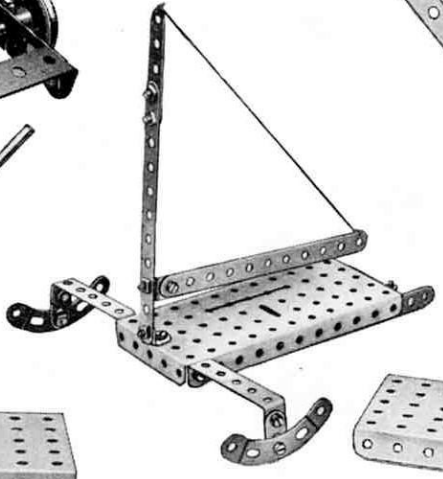
Model No. 00.155
Sawing Horse



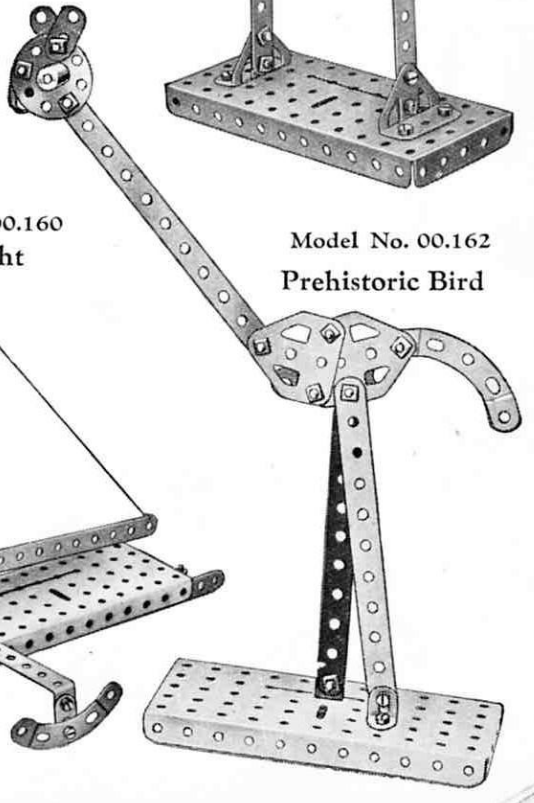
Model No. 00.157
Trolley



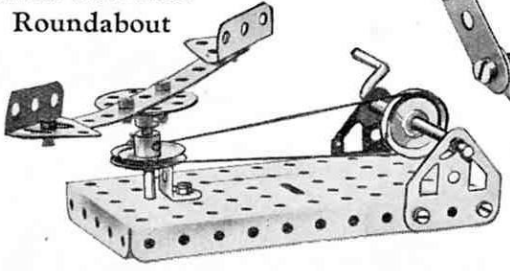
Model No. 00.160
Ice Yacht



Model No. 00.162
Prehistoric Bird



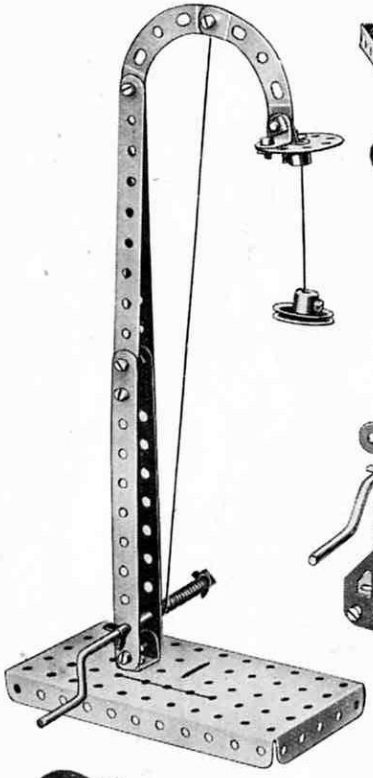
Model No. 00.153
Roundabout



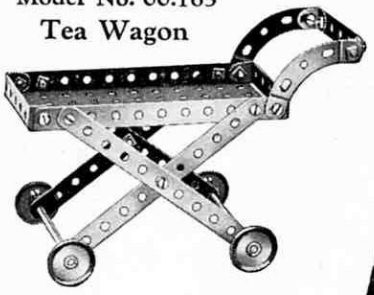
Model No. 00.158
Anti-Aircraft Gun

All these Models can be built with MECCANO Outfit No. 00

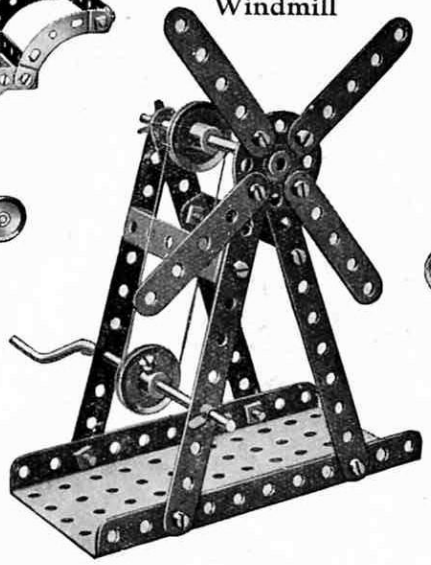
Model No. 00.163
Arc Lamp



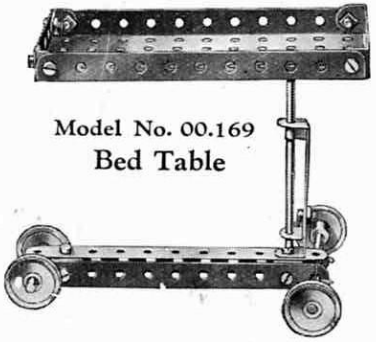
Model No. 00.165
Tea Wagon



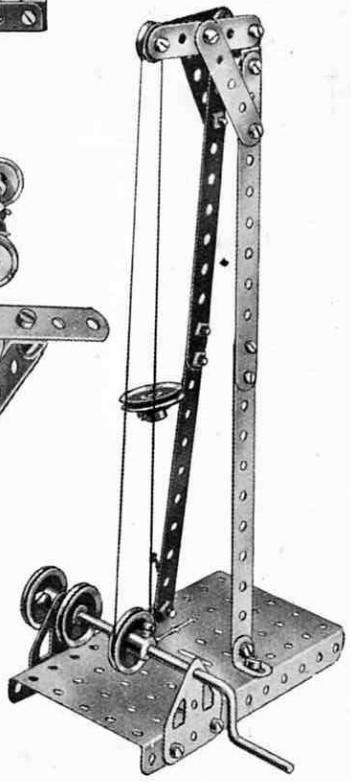
Model No. 00.167
Windmill



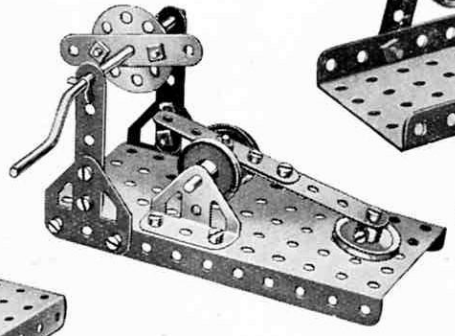
Model No. 00.169
Bed Table



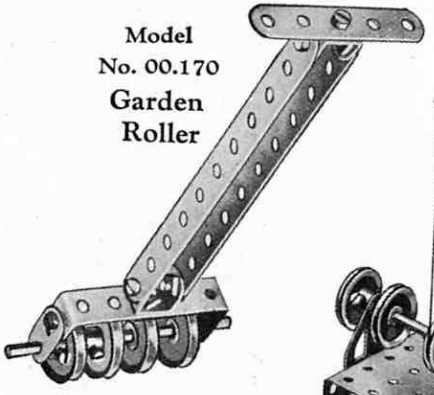
Model No. 00.171
Airship Mooring Mast



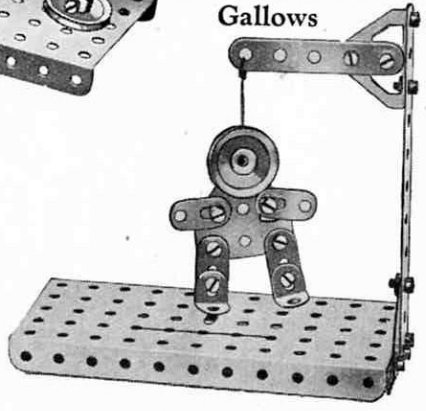
Model No. 00.166
Trip Hammer



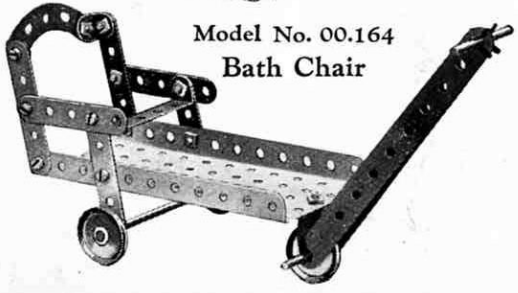
Model
No. 00.170
Garden
Roller



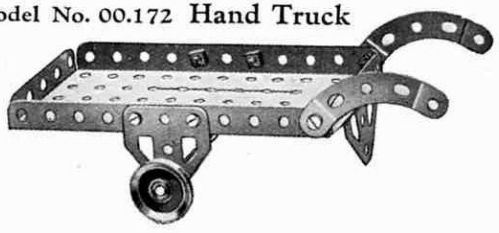
Model No. 00.168
Gallows



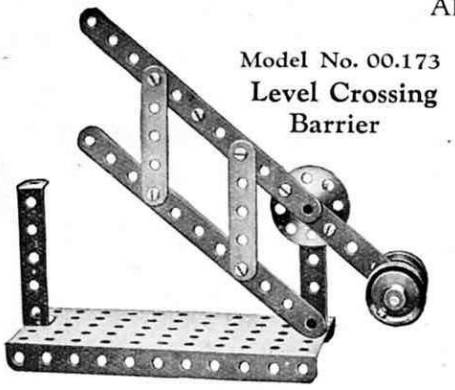
Model No. 00.164
Bath Chair



Model No. 00.172 Hand Truck

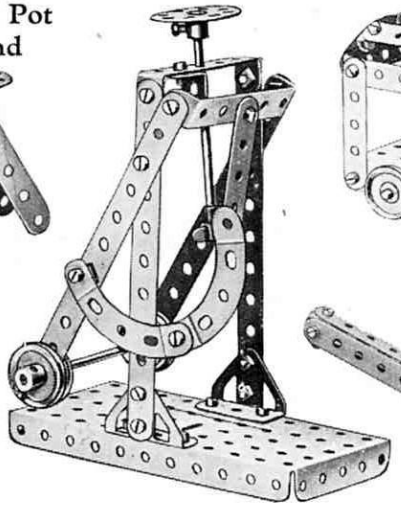


Model No. 00.173
Level Crossing Barrier

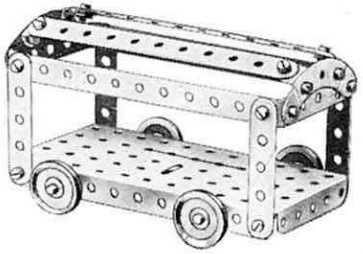


Model No. 00.175
Flower Pot Stand

Model No. 00.177
Letter Balance

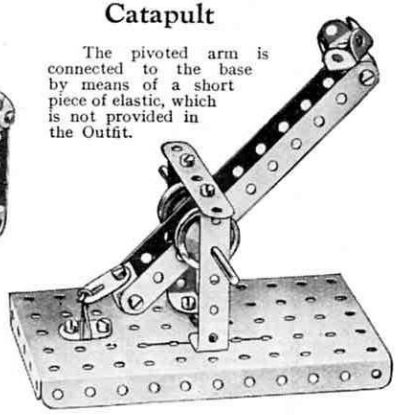


Model No. 00.179
Pullman Car

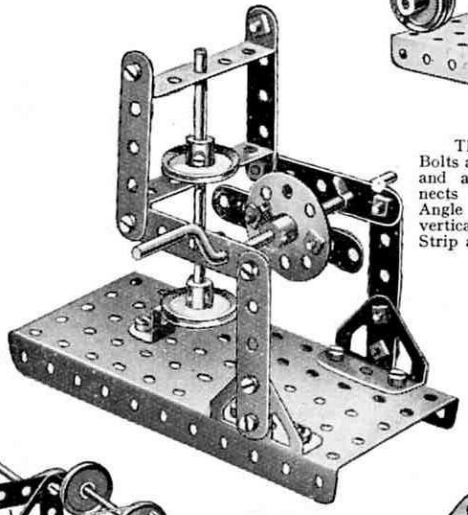


Model No. 00.181
Catapult

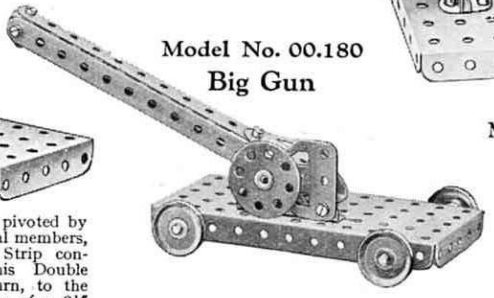
The pivoted arm is connected to the base by means of a short piece of elastic, which is not provided in the Outfit.



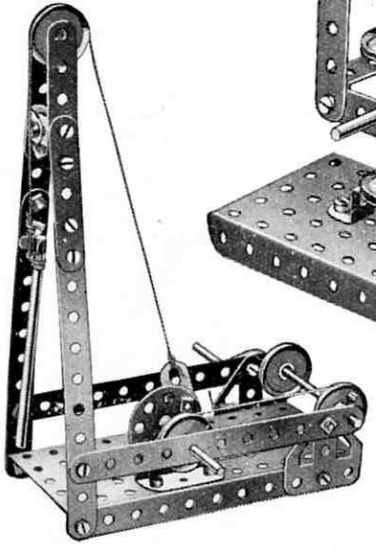
Model No. 00.176
Ore Crusher



Model No. 00.180
Big Gun

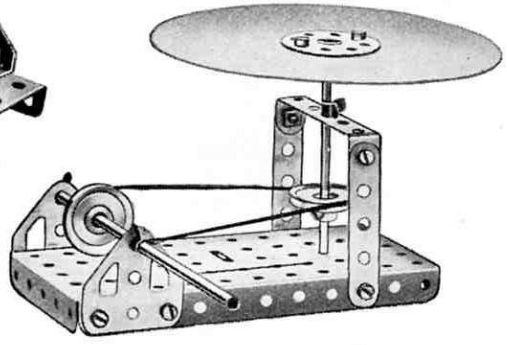


Model No. 00.174
Well Driller

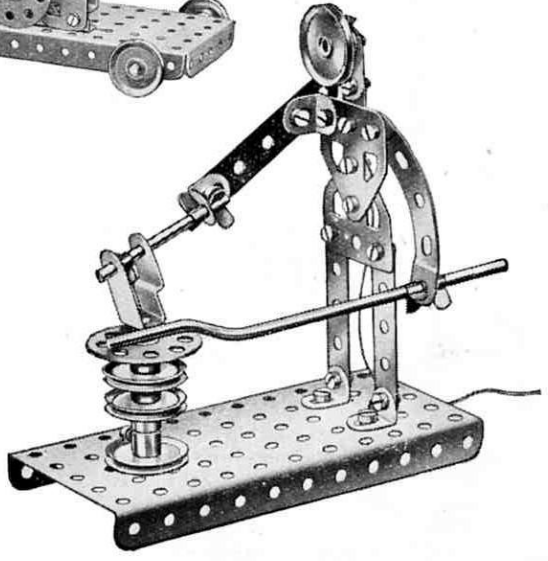


The weighted 5½" Strips are pivoted by Bolts and lock-nuts to the vertical members, and a 2½" × ½" Double Angle Strip connects their upper ends. This Double Angle Strip is connected, in turn, to the vertical 3½" Axle Rod by means of a 2½" Strip and an Angle Bracket.

Model No. 00.178 **Joy Wheel**

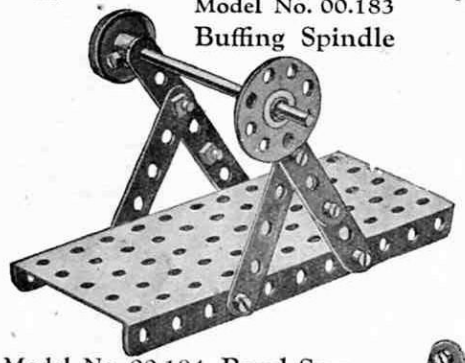


Model No. 00.182
Blacksmith

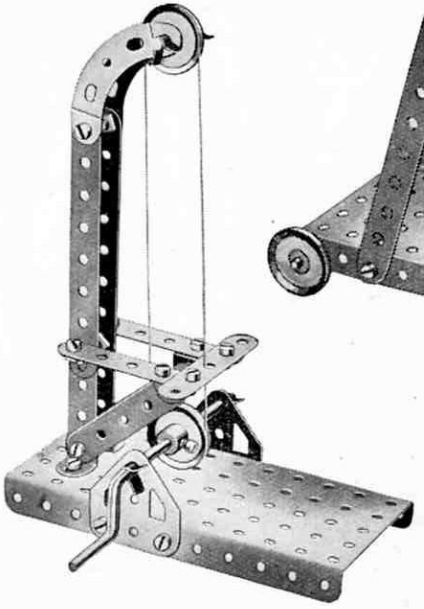


All these Models can be built with MECCANO Outfit No. 00

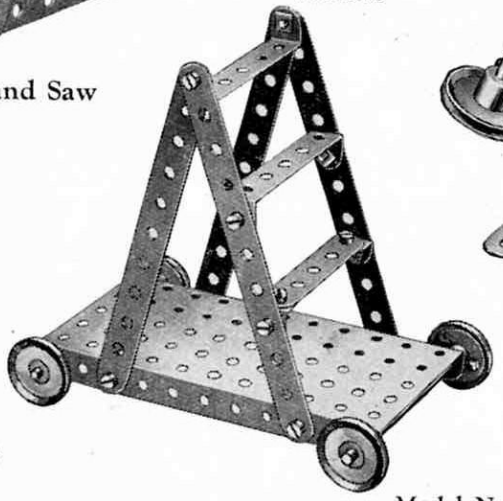
Model No. 00.183
Buffing Spindle



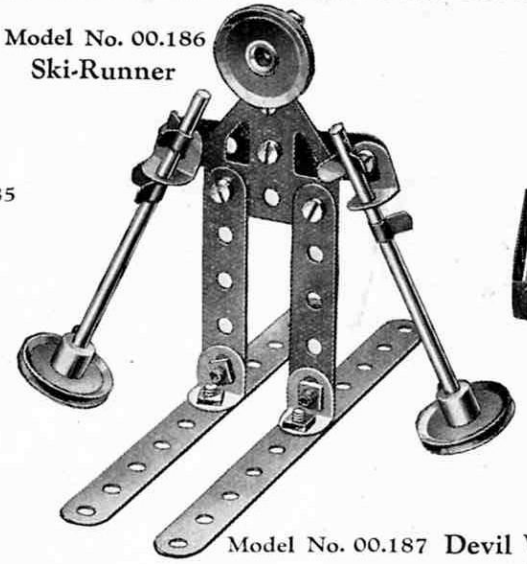
Model No. 00.184 Band Saw



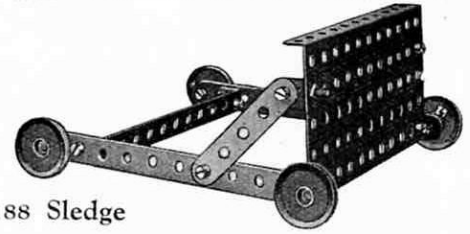
Model No. 00.185
Ladder on
Wheels



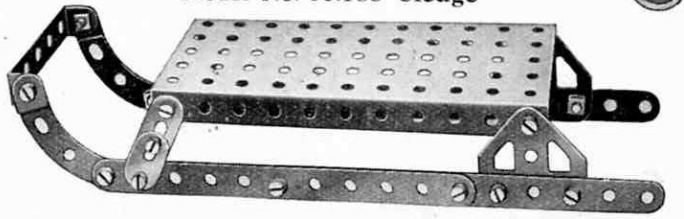
Model No. 00.186
Ski-Runner



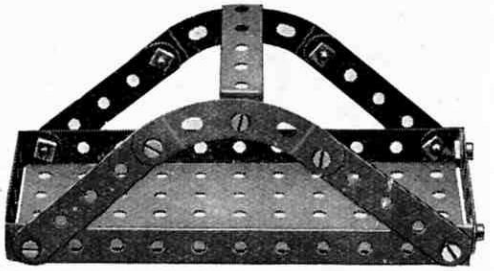
Model No. 00.187 Devil Wall



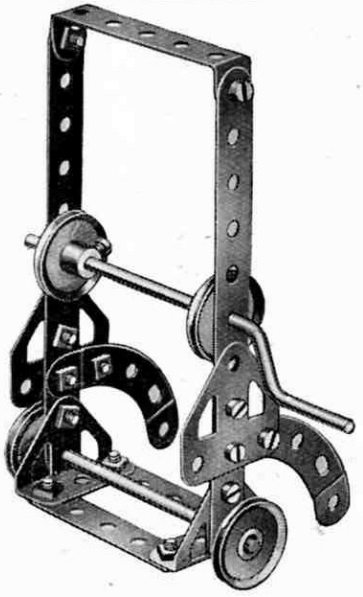
Model No. 00.188 Sledge



Model No. 00.189 Cutlery Basket



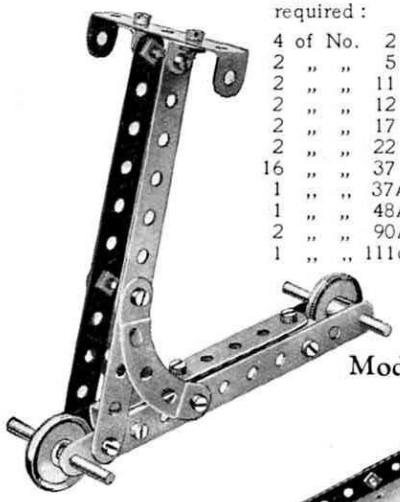
Model No. 00.190
Garden Hose Reel



HOW TO CONTINUE

This completes our examples of models that may be made with MECCANO Outfit No. 00. 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. 00A Accessory Outfit, the price of which will be found in the list at the end of this Manual.

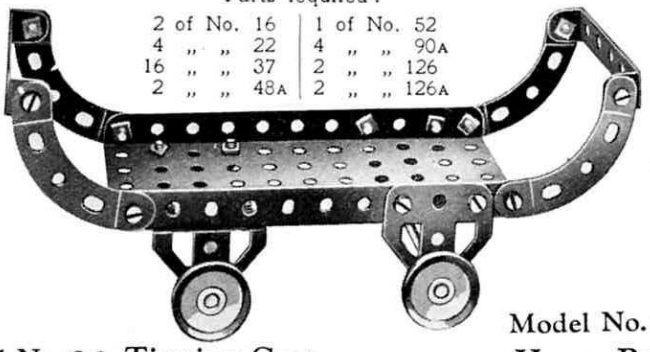
Model No. 0.1 Scooter



Parts required :

4	of No.	2
2	„ „	5
2	„ „	11
2	„ „	12
2	„ „	17
2	„ „	22
16	„ „	37
1	„ „	37A
1	„ „	48A
2	„ „	90A
1	„ „	111c

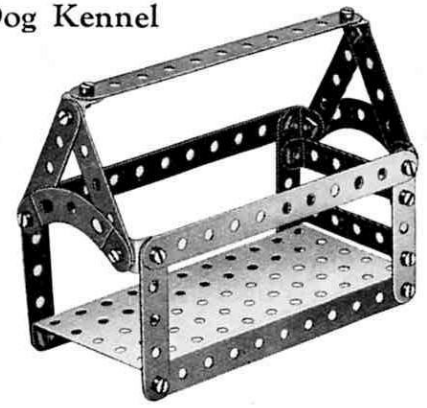
Model No. 0.4 Push Cart



Parts required :

2	of No.	16	1	of No.	52
4	„ „	22	4	„ „	90A
16	„ „	37	2	„ „	126
2	„ „	48A	2	„ „	126A

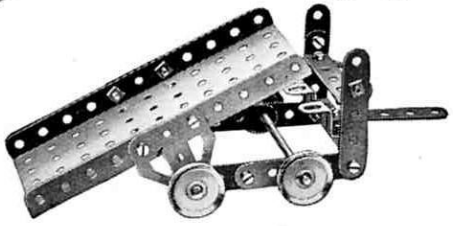
Model No. 0.7 Dog Kennel



Parts required :

3	of No.	2
8	„ „	5
6	„ „	12
16	„ „	37
4	„ „	37A
2	„ „	48A
1	„ „	52
2	„ „	90A
4	„ „	111c

Model No. 0.3 Tipping Cart

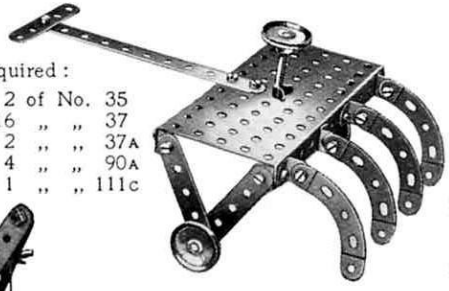


Parts required :

7	of No.	5	15	of No.	37
2	„ „	16	2	„ „	48A
4	„ „	22	1	„ „	52

1	of No.	90A
2	„ „	125
2	„ „	126A

Model No. 0.5 Horse Rake



Parts required :

1	of No.	2	2	of No.	35
5	„ „	5	16	„ „	37
8	„ „	12	2	„ „	37A
1	„ „	17	4	„ „	90A
3	„ „	22	1	„ „	111c

Model No. 0.8 Chaff Cutter

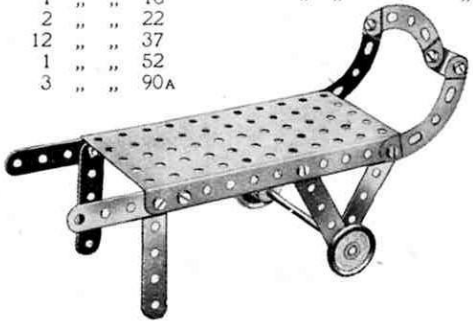
Parts required :

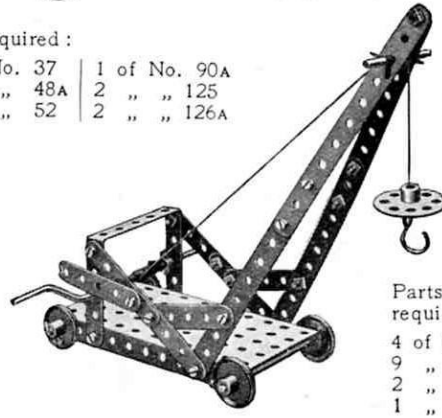
2	of No.	2	1	of No.	24
8	„ „	5	2	„ „	35
1	„ „	11	16	„ „	37
2	„ „	12	5	„ „	37A
1	„ „	16	1	„ „	52
1	„ „	19s	5	„ „	111c
2	„ „	22	2	„ „	125

Model No. 0.2 Luggage Truck

Parts required :

2	of No.	2
6	„ „	5
2	„ „	12
1	„ „	16
2	„ „	22
12	„ „	37
1	„ „	52
3	„ „	90A

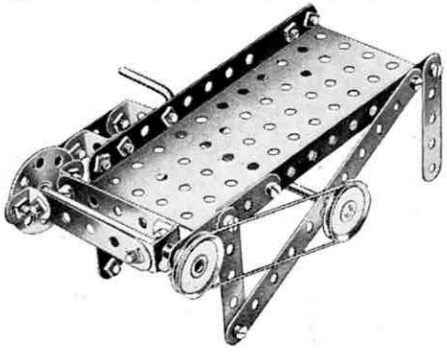




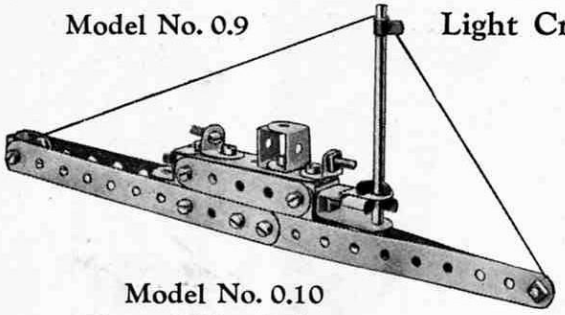
Model No. 0.6 Jib Crane

Parts required :

4	of No.	2
9	„ „	5
2	„ „	16
1	„ „	17
1	of No.	19s
4	„ „	22
1	„ „	23
1	„ „	24
4	„ „	35
16	„ „	37
1	„ „	37A
1	„ „	40
1	„ „	48A
1	„ „	52
1	„ „	57
1	„ „	111c



Model No. 0.9 Light Cruiser



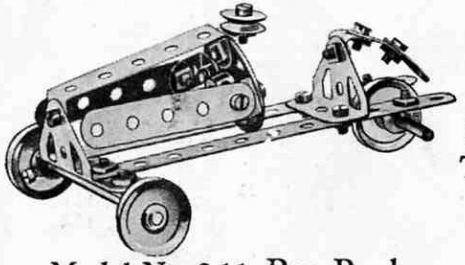
Parts required :

4	of No.	2			
3	„ „	5			
4	„ „	10			
2	„ „	11			
7	„ „	12			
1	„ „	16			
3	„ „	35			
16	„ „	37			
6	„ „	37A			
1	„ „	44			
6	„ „	111c			
1	„ „	125			

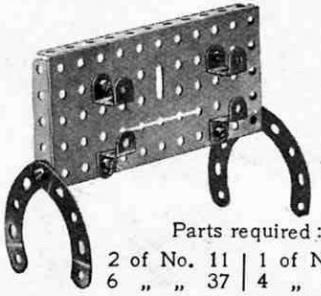
Model No. 0.10 Three-Wheel Auto

Parts required :

2	of No.	2	1	of No.	17	2	of No.	37A
3	„ „	5	3	„ „	22	1	„ „	48A
2	„ „	10	1	„ „	23	2	„ „	111c
8	„ „	12	1	„ „	24	2	„ „	126
1	„ „	16	16	„ „	37			



Model No. 0.11 Pen Rack



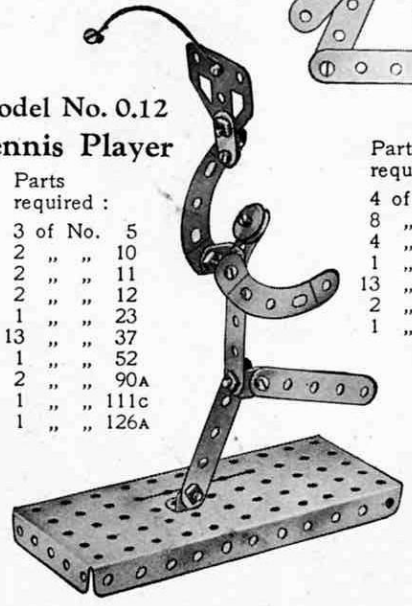
Parts required :

2	of No.	11	1	of No.	52
6	„ „	37	4	„ „	90A
2	of No.	125			

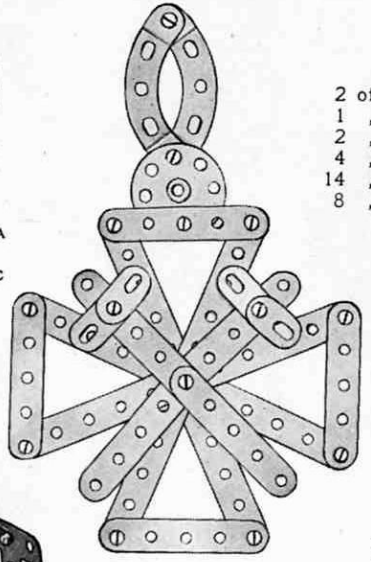
Model No. 0.12 Tennis Player

Parts required :

3	of No.	5
2	„ „	10
2	„ „	11
2	„ „	12
1	„ „	23
13	„ „	37
1	„ „	52
2	„ „	90A
1	„ „	111c
1	„ „	126A



Model No. 0.13 Medal



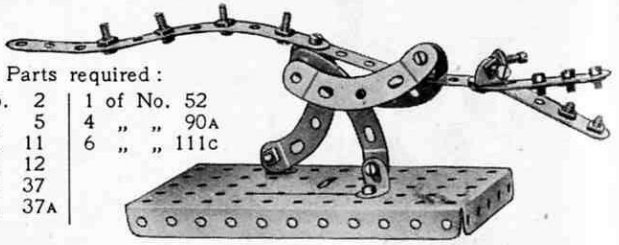
Parts required :

4	of No.	2
8	„ „	5
4	„ „	10
1	„ „	24
13	„ „	37
2	„ „	90A
1	„ „	111c

Model No. 0.14 Prehistoric Bird

Parts required :

2	of No.	2	1	of No.	52
1	„ „	5	4	„ „	90A
2	„ „	11	6	„ „	111c
4	„ „	12			
14	„ „	37			
8	„ „	37A			

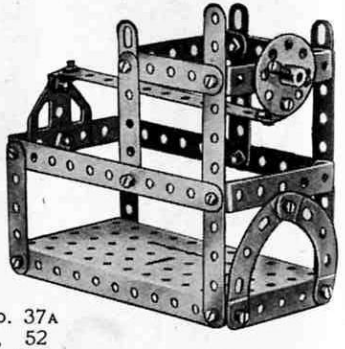


Model No. 0.16 Church

Parts required :

4	of No.	2	2	of No.	12	6	of No.	37A
8	„ „	5	1	„ „	24	4	„ „	48A
3	„ „	10	16	„ „	37	1	„ „	52

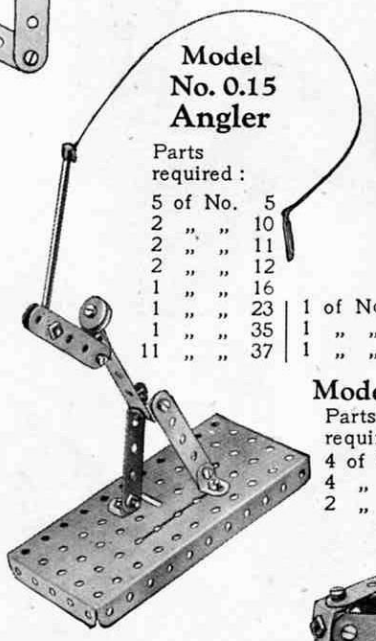
2	of No.	90A
6	„ „	111c
1	„ „	126A



Model No. 0.15 Angler

Parts required :

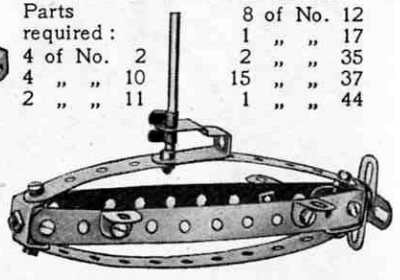
5	of No.	5	1	of No.	37A
2	„ „	10	1	„ „	52
2	„ „	11	1	„ „	111c
2	„ „	12			
1	„ „	16			
1	„ „	23			
1	„ „	35			
11	„ „	37			



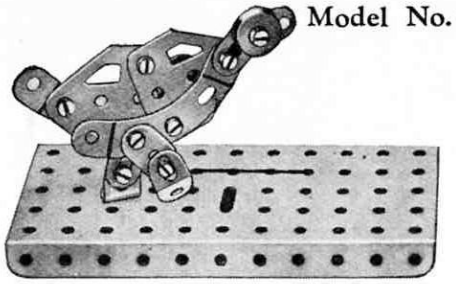
Model No. 0.17 Submarine

Parts required :

4	of No.	2	8	of No.	12
4	„ „	10	1	„ „	17
2	„ „	11	2	„ „	35
			15	„ „	37
			1	„ „	44



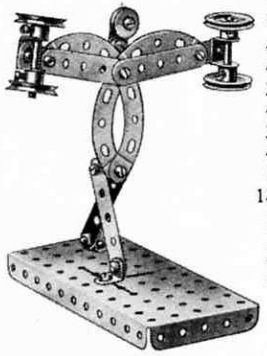
Model No. 0.18 Goose



Parts required :

4	of	No.	10
2	„	„	12
1	„	„	23
8	„	„	37
1	„	„	37A
1	„	„	52
2	„	„	90A
1	„	„	111c
2	„	„	126A

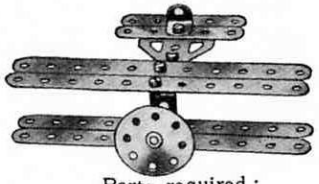
Model No. 0.19 Strong Man



Parts required :

4	of	No.	5
4	„	„	10
2	„	„	11
4	„	„	12
2	„	„	17
4	„	„	22
1	„	„	23
13	„	„	37
1	„	„	37A
1	„	„	52
4	„	„	90A
1	„	„	111c

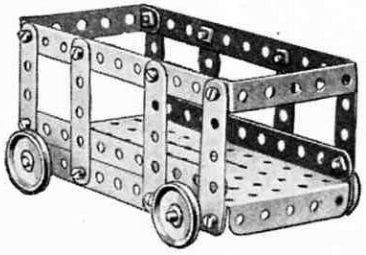
Model No. 0.20 Aeroplane



Parts required :

4	of	No.	2	8	of	No.	37
3	„	„	5	1	„	„	111c
2	„	„	12	2	„	„	125
1	„	„	24	1	„	„	126A

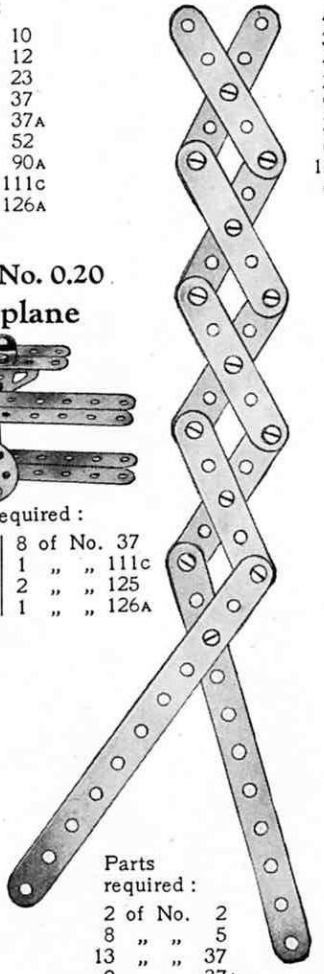
Model No. 0.21 Cattle Truck



Parts required :

4	of	No.	2
8	„	„	5
2	„	„	16
4	„	„	22
16	„	„	37
2	„	„	37A
2	„	„	48A
1	„	„	52
2	„	„	111c

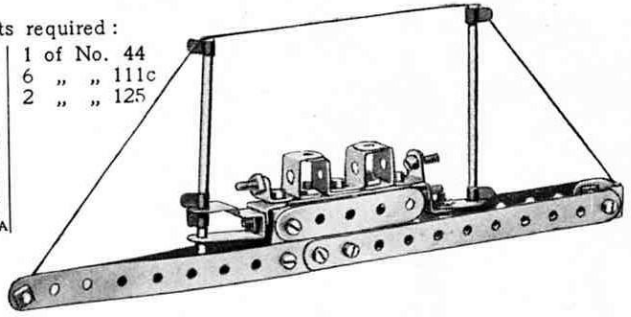
Model No. 0.22 Lazy Tongs



Parts required :

2	of	No.	5
8	„	„	37
13	„	„	37A
9	„	„	126A

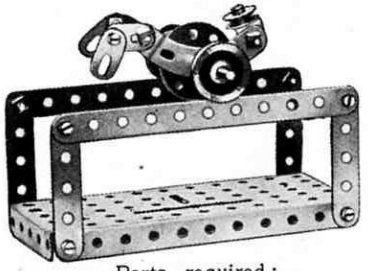
Model No. 0.23 Battleship



Parts required :

4	of	No.	2	1	of	No.	44
3	„	„	5	6	„	„	111c
4	„	„	10	2	„	„	125
2	„	„	11				
9	„	„	12				
2	„	„	16				
6	„	„	35				
16	„	„	37				
6	„	„	37A				

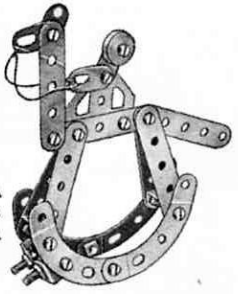
Model No. 0.24 Gymnast



Parts required :

2	of	No.	2	1	of	No.	24
4	„	„	5	12	„	„	37
4	„	„	10	1	„	„	37A
1	„	„	12	1	„	„	52
1	„	„	16	1	„	„	90A
2	„	„	22	1	„	„	111c
1	„	„	23				

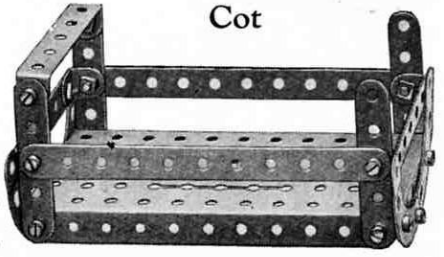
Model No. 0.25 Rocking Horse



Parts required :

7	of	No.	5
4	„	„	10
2	„	„	11
2	„	„	12
1	„	„	23
13	„	„	37
4	„	„	90A
3	„	„	111c
1	„	„	126A

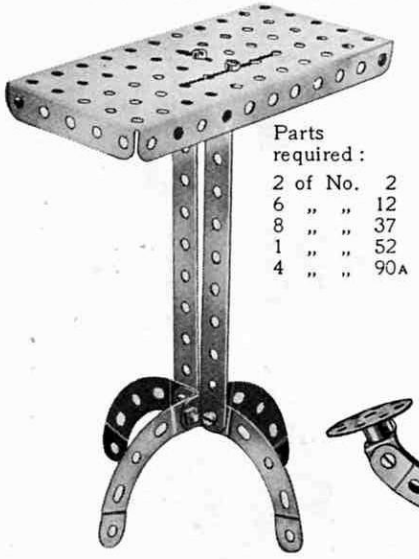
Model No. 0.26 Cot



Parts required :

2	of	No.	2
6	„	„	5
2	„	„	12
16	„	„	37
2	„	„	48A
1	„	„	52
4	„	„	90A

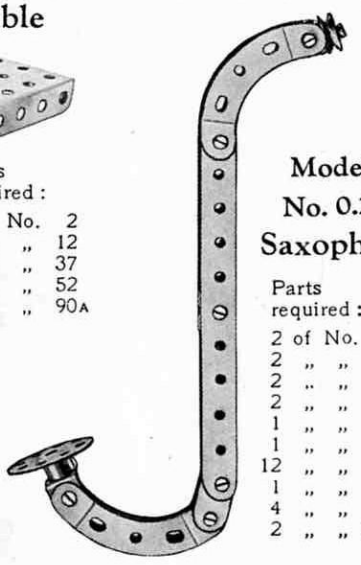
Model No. 0.27 Table



Parts required :

2	of No.	2
6	„ „	12
8	„ „	37
1	„ „	52
4	„ „	90A

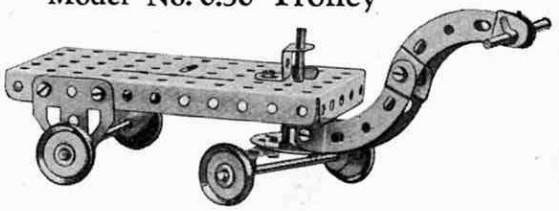
Model No. 0.29 Saxophone



Parts required :

2	of No.	2
2	„ „	10
2	„ „	11
2	„ „	12
1	„ „	23
1	„ „	24
12	„ „	37
1	„ „	37A
4	„ „	90A
2	„ „	111c

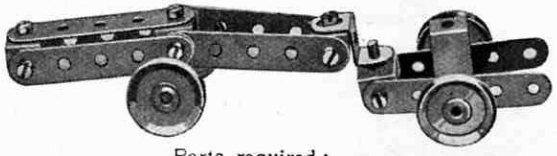
Model No. 0.30 Trolley



Parts required :

1	of No.	11	4	of No.	35	4	of No.	90A
2	„ „	16	12	„ „	37	1	„ „	125
2	„ „	17	1	„ „	48A	2	„ „	126A
1	„ „	24	1	„ „	52			

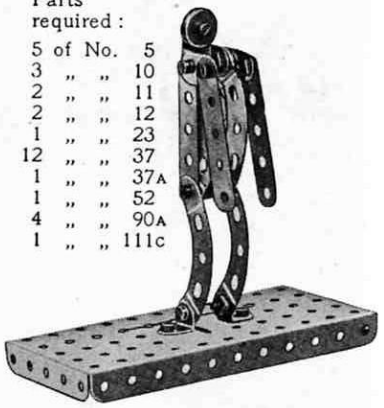
Model No. 0.31 Field Gun and Carriage



Parts required :

8	of No.	5	2	of No.	17	1	of No.	44
2	„ „	10	4	„ „	22	1	„ „	111c
2	„ „	11	13	„ „	37	1	„ „	125
6	„ „	12	1	„ „	37A			

Model No. 0.33 Ape



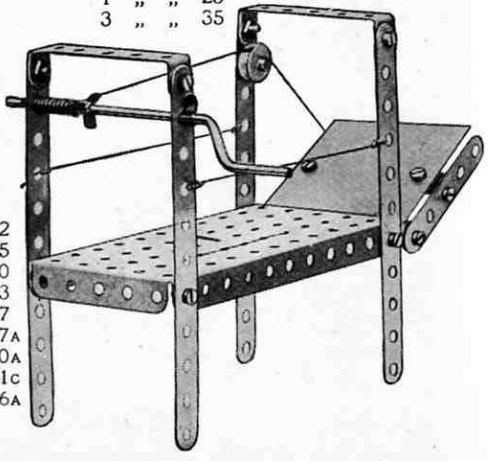
Parts required :

5	of No.	5
3	„ „	10
2	„ „	11
2	„ „	12
1	„ „	23
12	„ „	37
1	„ „	37A
1	„ „	52
4	„ „	90A
1	„ „	111c

Model No. 0.34 Gangway

Parts required :

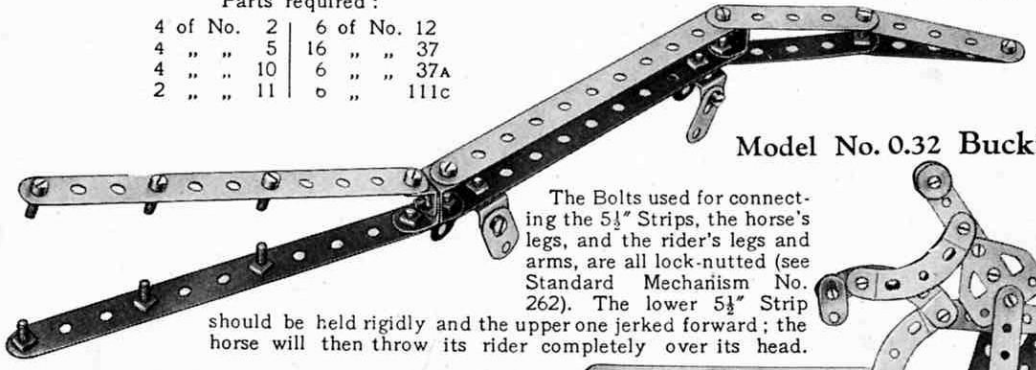
4	of No.	2	16	of No.	37
2	„ „	5	2	„ „	37A
2	„ „	10	2	„ „	48A
2	„ „	12	1	„ „	52
1	„ „	19s	1	„ „	111c
1	„ „	23			
3	„ „	35			



Model No. 0.28 Crocodile

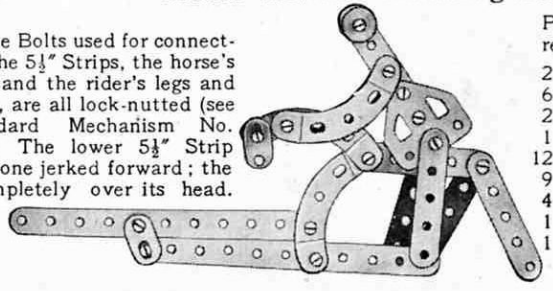
Parts required :

4	of No.	2	6	of No.	12
4	„ „	5	16	„ „	37
4	„ „	10	6	„ „	37A
2	„ „	11	6	„ „	111c



Model No. 0.32 Bucking Broncho

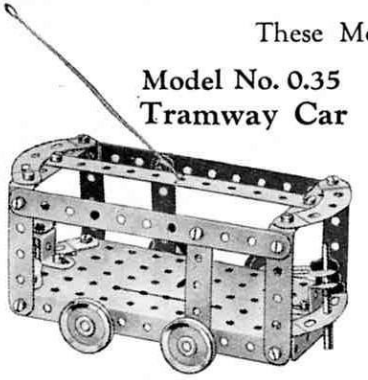
The Bolts used for connecting the 5½" Strips, the horse's legs, and the rider's legs and arms, are all lock-nutted (see Standard Mechanism No. 262). The lower 5½" Strip should be held rigidly and the upper one jerked forward; the horse will then throw its rider completely over its head.



Parts required :

2	of No.	2
6	„ „	5
2	„ „	10
1	„ „	23
12	„ „	37
9	„ „	37A
4	„ „	90A
1	„ „	111c
1	„ „	126A

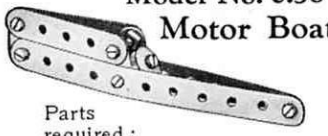
Model No. 0.35 Tramway Car



Parts required :

3 of No.	2	16 of No.	37
6 „ „	5	6 „ „	37A
2 „ „	10	2 „ „	48A
2 „ „	16	1 „ „	52
2 „ „	17	4 „ „	90A
4 „ „	22	6 „ „	111c
6 „ „	35	2 „ „	125

Model No. 0.36 Motor Boat



Parts required :

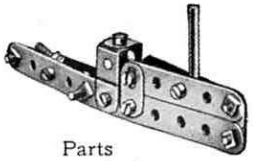
2 of No.	2	1 of No.	23
2 „ „	5	7 „ „	37
3 „ „	10	1 „ „	37A
1 „ „	11	1 „ „	111c

Model No. 0.37 Arm Chair

Parts required :

2 of No.	2
7 „ „	5
14 „ „	37
2 „ „	48A
3 „ „	90A

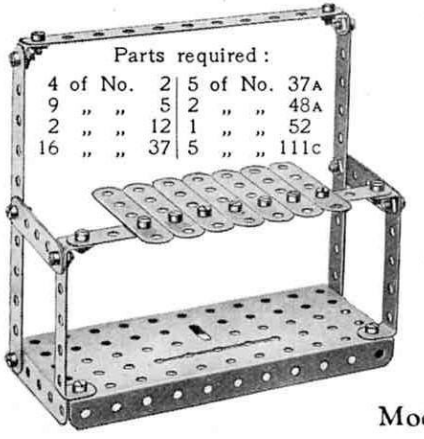
Model No. 0.38 Torpedo Boat



Parts required :

2 of No.	2
2 „ „	5
3 „ „	10
2 „ „	11
2 „ „	12
1 „ „	17
11 „ „	37
4 „ „	37A
5 „ „	111c

Model No. 0.39 Piano



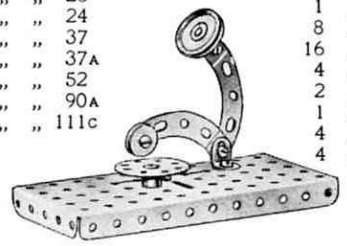
Parts required :

4 of No.	2	5 of No.	37A
9 „ „	5	2 „ „	48A
2 „ „	12	1 „ „	52
16 „ „	37	5 „ „	111c

Model No. 0.40 Gramophone

Parts required :

2 of No.	12
1 „ „	22
1 „ „	23
1 „ „	24
3 „ „	37
1 „ „	37A
1 „ „	52
2 „ „	90A
3 „ „	111c



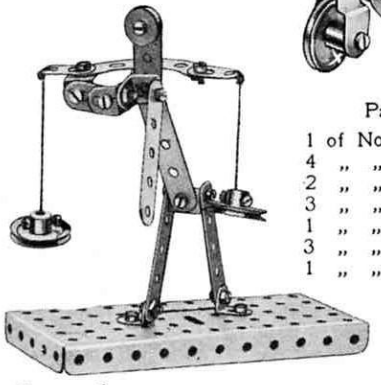
Parts required :

4 of No.	10
1 „ „	11
8 „ „	12
16 „ „	37
4 „ „	37A
2 „ „	48A
1 „ „	52
4 „ „	90A
4 „ „	111c

Model No. 0.41 Milk Maid

Parts required :

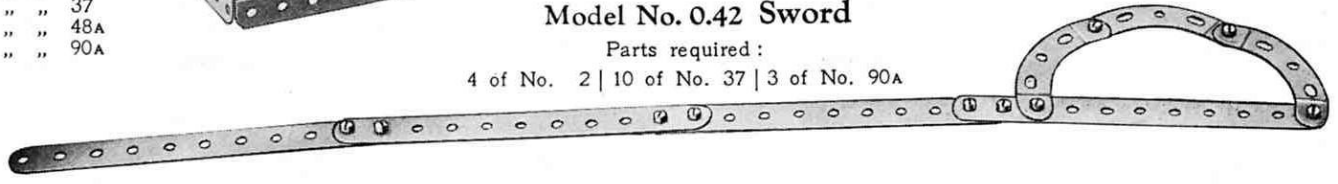
5 of No.	5
3 „ „	10
2 „ „	11
4 „ „	12
2 „ „	22
1 „ „	23
14 „ „	37
1 „ „	37A
1 „ „	52
1 „ „	90A
1 „ „	111c



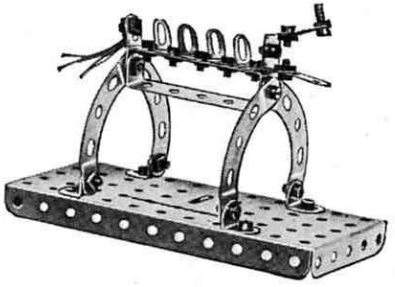
Model No. 0.42 Sword

Parts required :

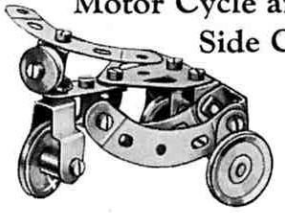
4 of No. 2 | 10 of No. 37 | 3 of No. 90A



Model No. 0.43 Prehistoric Armadillo



Model No. 0.44 Motor Cycle and Side Car



Parts required :

1 of No.	5	10 of No.	37
4 „ „	10	1 „ „	37A
2 „ „	11	1 „ „	44
3 „ „	12	3 „ „	90A
1 „ „	16	1 „ „	111c
3 „ „	22	1 „ „	125
1 „ „	23	1 „ „	126A

Model No. 0.45 Loud Speaker

Parts required :

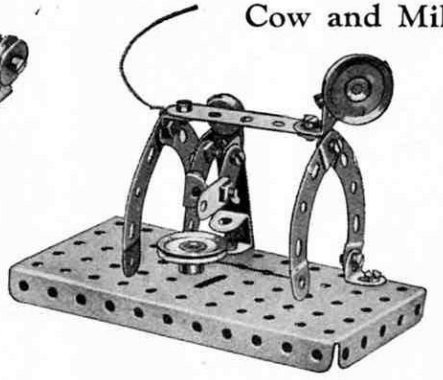
1	of No.	11
1	„ „	23
1	„ „	24
6	„ „	37
1	„ „	37A
4	„ „	90A
2	„ „	111c
2	„ „	126

Model No. 0.46 Bicycle

Parts required :

9	of No.	5
2	„ „	11
5	„ „	12
2	„ „	17
2	„ „	22
11	„ „	37

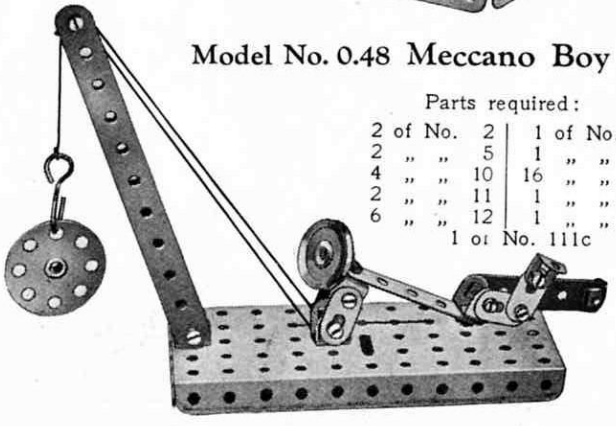
Model No. 0.47 Cow and Milkmaid



Parts required :

2	of No.	5
4	„ „	10
2	„ „	11
5	„ „	12
2	„ „	22
1	„ „	23
16	„ „	37
2	„ „	37A
1	„ „	52
4	„ „	90A
4	„ „	111c
1	„ „	125

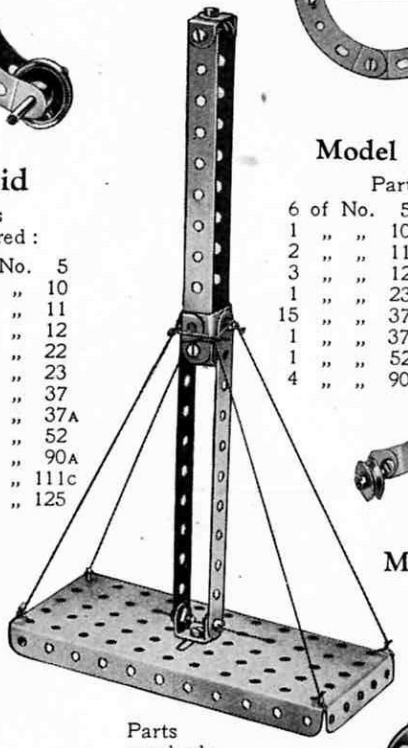
Model No. 0.48 Meccano Boy



Parts required :

2	of No.	2	1	of No.	22
2	„ „	5	1	„ „	24
4	„ „	10	16	„ „	37
2	„ „	11	1	„ „	52
6	„ „	12	1	„ „	57
			1	of No.	111c

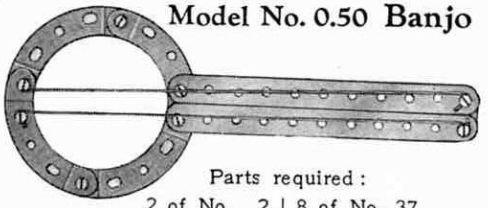
Model No. 0.49 Telescopic Mast



Parts required :

4	of No.	2
2	„ „	11
6	„ „	12
11	„ „	37
1	„ „	40
1	„ „	52

Model No. 0.50 Banjo



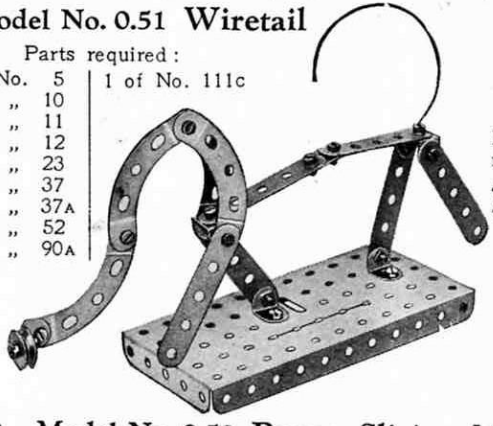
Parts required :

2	of No.	2	8	of No.	37
1	„ „	10	4	„ „	90A

Model No. 0.51 Wiretail

Parts required :

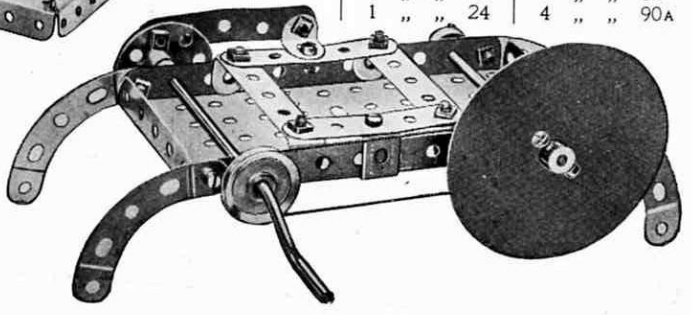
6	of No.	5	1	of No.	111c
1	„ „	10			
2	„ „	11			
3	„ „	12			
1	„ „	23			
15	„ „	37			
1	„ „	37A			
1	„ „	52			
4	„ „	90A			



Model No. 0.52 Bacon Slicing Machine

Parts required :

3	of No.	5	1	of No.	12
2	„ „	11	1	„ „	16
			1	„ „	19s
			2	„ „	22
			1	„ „	23
			1	„ „	24
			1	of No.	35
			12	„ „	37
			2	„ „	37A
			2	„ „	48A
			1	„ „	52
			4	„ „	90A

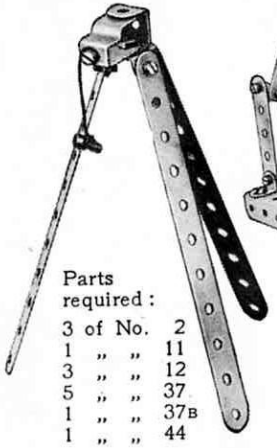


Model No. 0.53 Catapult

Parts required :

4	of No.	37
4	„ „	90A

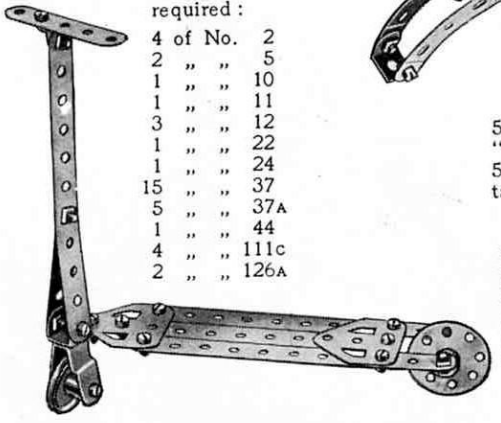
Model No. 0.54 Camera



Parts required :

3	of No.	2	
1	„ „	11	
3	„ „	12	
5	„ „	37	
1	„ „	37B	
1	„ „	44	

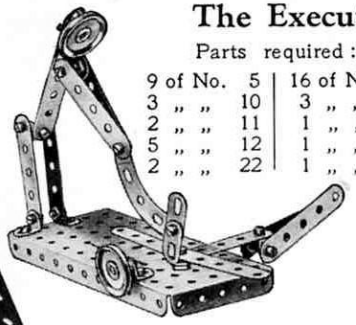
Model No. 0.55 Scooter



Parts required :

4	of No.	2	
2	„ „	5	
1	„ „	10	
1	„ „	11	
3	„ „	12	
1	„ „	22	
1	„ „	24	
15	„ „	37	
5	„ „	37A	
1	„ „	44	
4	„ „	111c	
2	„ „	126A	

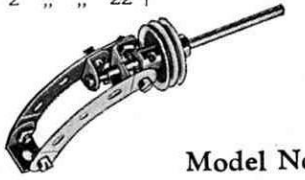
Model No. 0.56 The Execution



Parts required :

9	of No.	5		16	of No.	37	
3	„ „	10		3	„ „	37A	
2	„ „	11		1	„ „	48A	
5	„ „	12		1	„ „	52	
2	„ „	22		1	„ „	90A	

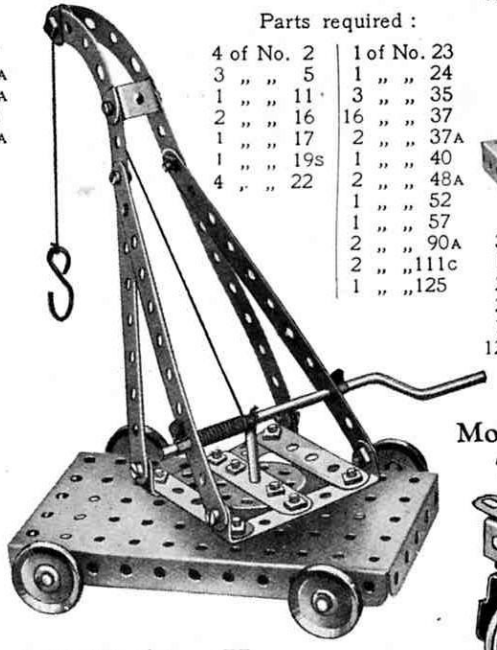
Model No. 0.57 Pistol



Parts required :

2	of No.	11		1	of No.	35	
1	„ „	12		5	„ „	37	
1	„ „	16		2	„ „	90A	
2	„ „	22					

Model No. 0.58 Crane

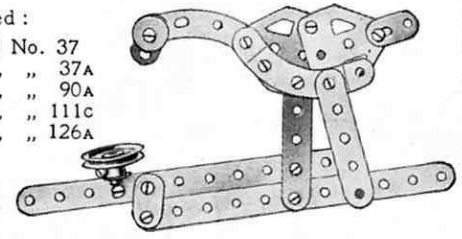


Parts required :

4	of No.	2		1	of No.	23	
3	„ „	5		1	„ „	24	
1	„ „	11		3	„ „	35	
2	„ „	16		16	„ „	37	
1	„ „	17		2	„ „	37A	
1	„ „	19s		1	„ „	40	
4	„ „	22		2	„ „	48A	
				1	„ „	52	
				1	„ „	57	
				2	„ „	90A	
				2	„ „	111c	
				1	„ „	125	

Model No. 0.59 Pecking Hen

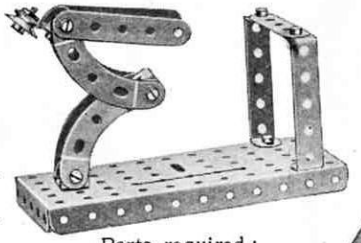
By alternately pushing and pulling the lower of the 5½" Strips, the hen can be made to peck vigorously at the "bowl" (a 1" Pulley). The bolts used for securing the 5½" Strips together should be lock-nutted, care being taken to ensure that no "side play" is permitted.



Parts required :

2	of No.	2		11	of No.	37	
2	„ „	5		5	„ „	37A	
3	„ „	10		2	„ „	90A	
1	„ „	12		2	„ „	111c	
1	„ „	22		2	„ „	126A	
1	„ „	23					

Model No. 0.60 Hurdler



Parts required :

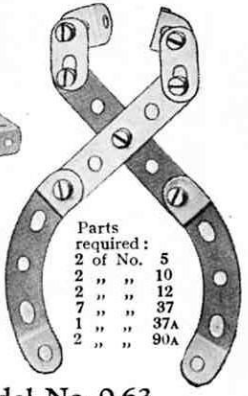
3	of No.	5		1	of No.	37A	
1	„ „	10		2	„ „	48A	
2	„ „	11		1	„ „	52	
2	„ „	12		4	„ „	90A	
1	„ „	23		1	„ „	111c	
12	„ „	37					

Model No. 0.61 Tricycle

Parts required :

4	of No.	10	
1	„ „	11	
2	„ „	12	
1	„ „	17	
3	„ „	22	
6	„ „	37	
3	„ „	37A	
1	„ „	44	
2	„ „	111c	
1	„ „	126A	

Model No. 0.62 Pliers



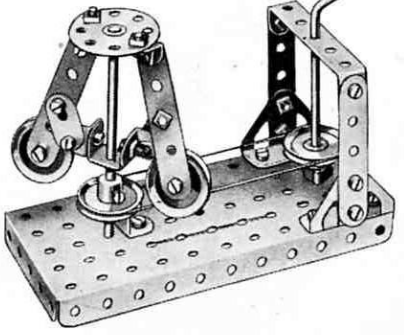
Parts required :

2	of No.	5	
2	„ „	10	
2	„ „	12	
7	„ „	37	
1	„ „	37A	
2	„ „	90A	

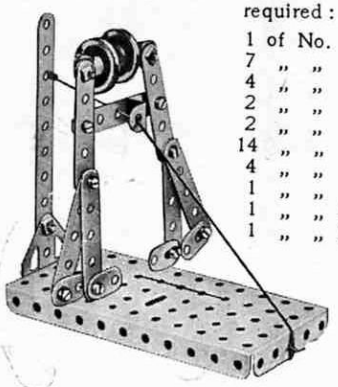
Model No. 0.63 Centrifugal Engine Governor

Parts required :

4	of No.	5		3	of No.	35	
2	„ „	10		16	„ „	37	
1	„ „	11		6	„ „	37A	
4	„ „	12		1	„ „	48A	
1	„ „	16		1	„ „	52	
1	„ „	19s		6	„ „	111c	
4	„ „	22		1	„ „	125	
1	„ „	24		2	„ „	126	



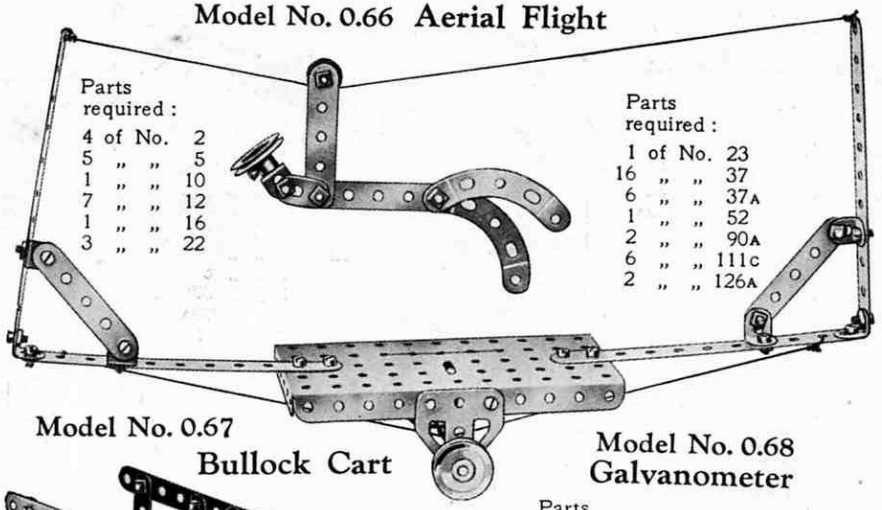
Model No. 0.64 Wrestlers



Parts required :

1	of No.	2
7	„ „	5
4	„ „	10
2	„ „	12
2	„ „	22
14	„ „	37
4	„ „	37A
1	„ „	52
1	„ „	125
1	„ „	126A

Model No. 0.66 Aerial Flight



Parts required :

4	of No.	2
5	„ „	5
1	„ „	10
7	„ „	12
1	„ „	16
3	„ „	22

Parts required :

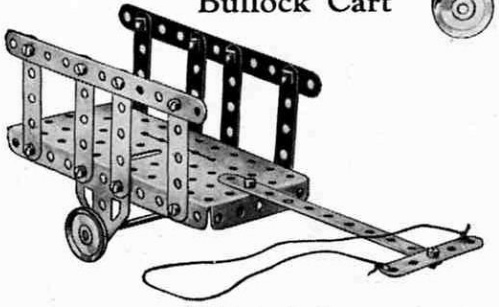
1	of No.	23
16	„ „	37
6	„ „	37A
1	„ „	52
2	„ „	90A
6	„ „	111c
2	„ „	126A

Model No. 0.70 The Missing Link

Parts required :

4	of No.	5
4	„ „	10
8	„ „	12
1	„ „	24
16	„ „	37
6	„ „	37A
1	„ „	52
4	„ „	90A
6	„ „	111c

Model No. 0.67 Bullock Cart



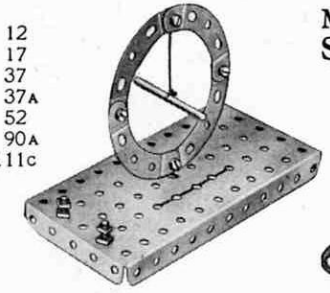
Parts required :

3	of No.	2
9	„ „	5
1	„ „	16
2	„ „	22
16	„ „	37
2	of No.	37A
1	„ „	52
2	„ „	111c
2	„ „	126A

Model No. 0.68 Galvanometer

Parts required

1	of No.	12
1	„ „	17
5	„ „	37
4	„ „	37A
1	„ „	52
4	„ „	90A
2	„ „	111c

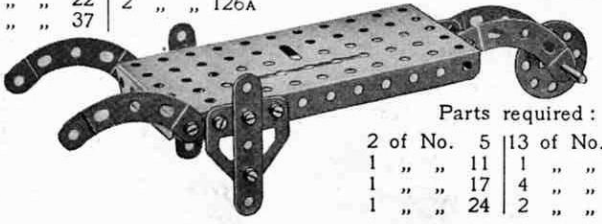


Model No. 0.65 A Chase

Parts required :

1	of No.	5
1	„ „	10
2	„ „	11
7	„ „	12
1	„ „	22
1	„ „	23
16	of No.	37
1	„ „	37A
1	„ „	52
4	„ „	90A
2	„ „	111c
2	„ „	126A

Model No. 0.69 Coster's Barrow



Parts required :

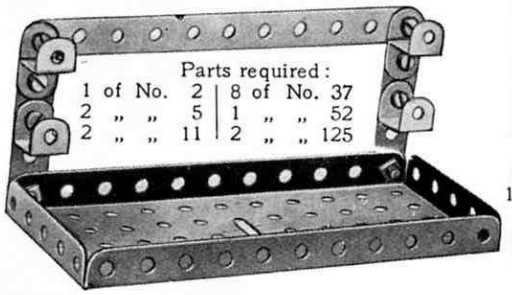
2	of No.	5
1	„ „	11
1	„ „	17
1	„ „	24
13	of No.	37
1	„ „	52
4	„ „	90A
2	„ „	126A

Model No. 0.71 Steeple-chaser

Parts required

7	of No.	5
4	„ „	10
1	„ „	12
1	„ „	23
13	„ „	37
1	of No.	37A
1	„ „	48A
1	„ „	52
4	„ „	90A
1	„ „	111c
1	„ „	126A

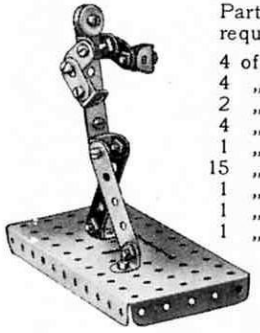
Model No. 0.72 Pen Rack



Parts required :

1 of No.	2	8 of No.	37
2 „ „	5	1 „ „	52
2 „ „	11	2 „ „	125

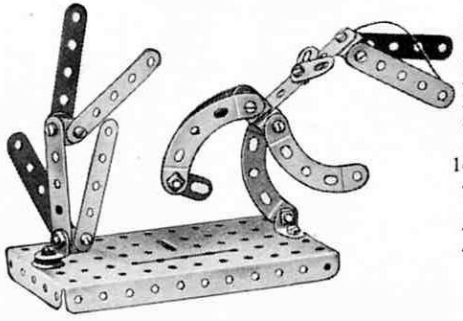
Model No. 0.73 Boxer



Parts required :

4 of No.	5		
4 „ „	10		
2 „ „	11		
4 „ „	12		
1 „ „	23		
15 „ „	37		
1 „ „	37A		
1 „ „	52		
1 „ „	111c		

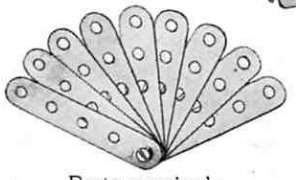
Model No. 0.74 Horseman's Fall



Parts required

8 of No.	5		
3 „ „	10		
2 „ „	11		
8 „ „	12		
1 „ „	23		
16 „ „	37		
4 „ „	37A		
1 „ „	52		
4 „ „	90A		
4 „ „	111c		

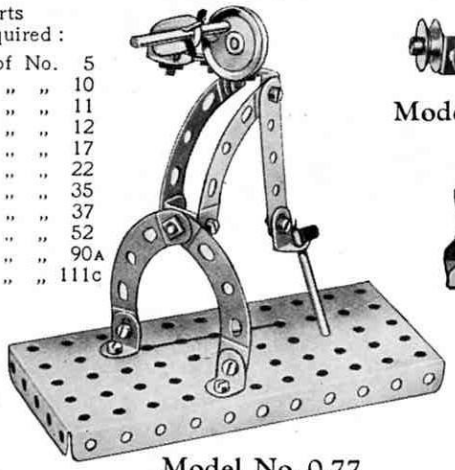
Model No. 0.75 Fan



Parts required :

9 of No.	5	2 of No.	37A
1 of No.	111c		

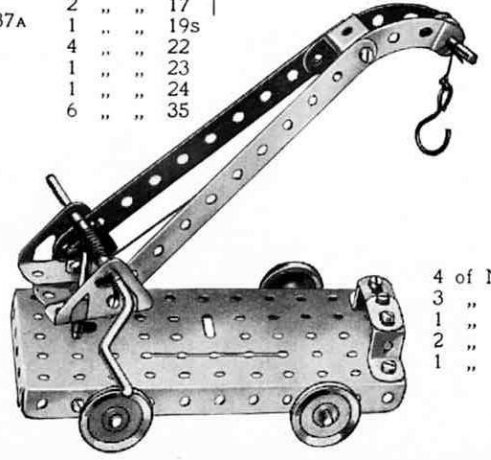
Model No. 0.76 Coast Guard



Parts required :

1 of No.	5		
2 „ „	10		
2 „ „	11		
6 „ „	12		
2 „ „	17		
1 „ „	22		
3 „ „	35		
15 „ „	37		
1 „ „	52		
4 „ „	90A		
1 „ „	111c		

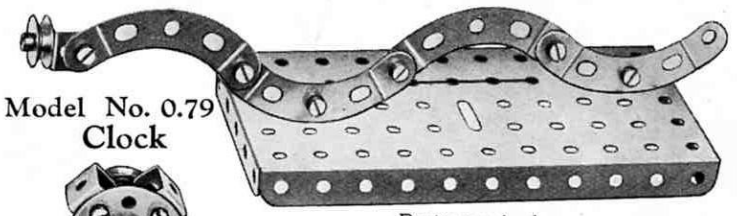
Model No. 0.77 Break-Down Crane



Parts required :

2 of No.	2	13 of No.	37	1 of No.	57
2 „ „	10	1 „ „	40	2 „ „	90A
1 „ „	11	1 „ „	48A	2 „ „	125
2 „ „	16	1 „ „	52	2 „ „	126
2 „ „	17				
1 „ „	19s				
4 „ „	22				
1 „ „	23				
1 „ „	24				
6 „ „	35				

Model No. 0.78 Snake



Parts required :

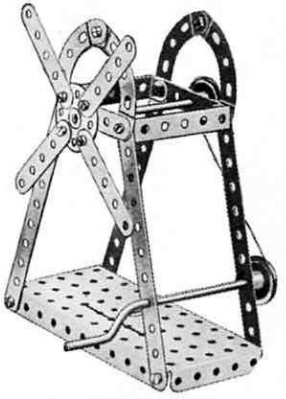
3 of No.	12	1 of No.	37A
1 „ „	23	1 „ „	52
8 „ „	37	4 „ „	90A
1 of No.	111c		

Model No. 0.79 Clock

Parts required :

2 of No.	11		
2 „ „	12		
1 „ „	17		
1 „ „	22		
1 „ „	24		
5 „ „	37		
1 „ „	111c		
2 „ „	126		

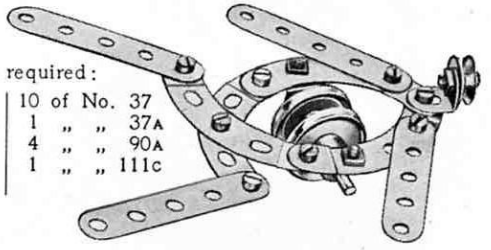
Model No. 0.80 Windmill



Parts required :

4 of No.	2		
6 „ „	5		
1 „ „	16		
1 „ „	19s		
2 „ „	22		
1 „ „	24		
14 „ „	37		
2 „ „	48A		
1 „ „	52		
4 „ „	90A		

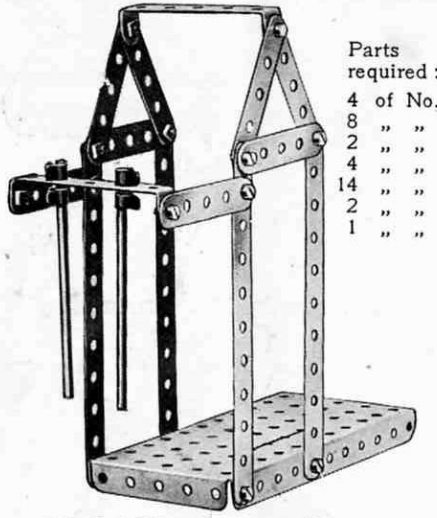
Model No. 0.81 Frog



Parts required :

4 of No.	5	10 of No.	37
3 „ „	12	1 „ „	37A
1 „ „	17	4 „ „	90A
2 „ „	22	1 „ „	111c
1 „ „	23		

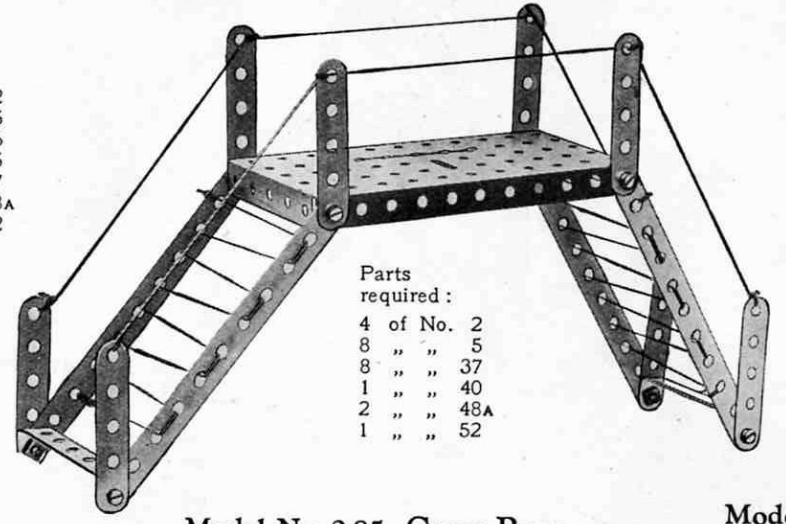
Model No. 0.82
Pneumatic Grain Elevator



Parts required:

4	of	No.	2
8	„	„	5
2	„	„	16
4	„	„	35
14	„	„	37
2	„	„	48A
1	„	„	52

Model No. 0.84 Footbridge



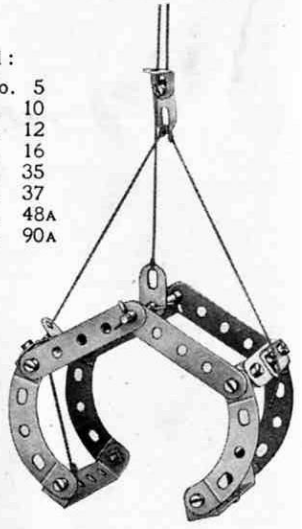
Parts required:

4	of	No.	2
8	„	„	5
8	„	„	37
1	„	„	40
2	„	„	48A
1	„	„	52

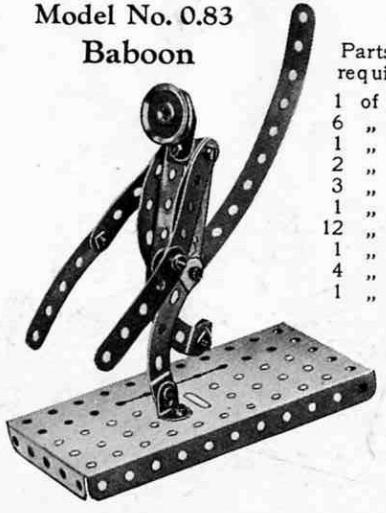
Model No. 0.86 Crane Grab

Parts required:

6	of	No.	5
2	„	„	10
7	„	„	12
1	„	„	16
6	„	„	35
15	„	„	37
2	„	„	48A
4	„	„	90A



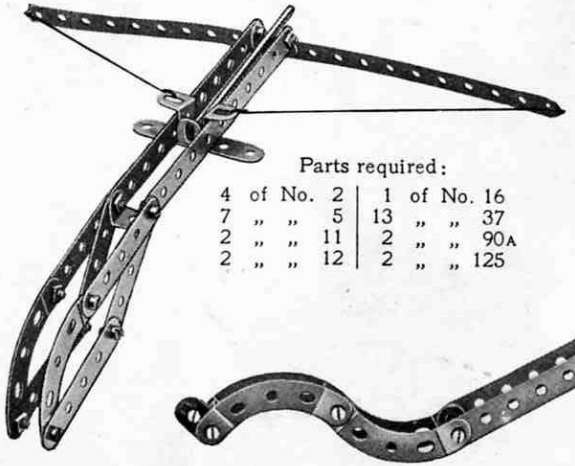
Model No. 0.83
Baboon



Parts required:

1	of	No.	2
6	„	„	5
1	„	„	10
2	„	„	11
3	„	„	12
1	„	„	22
12	„	„	37
1	„	„	52
4	„	„	90A
1	„	„	111c

Model No. 0.85 Cross-Bow



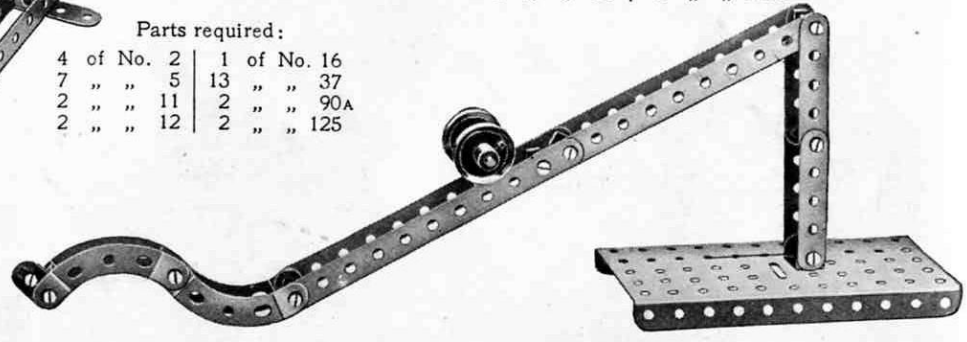
Parts required:

4	of	No.	2	1	of	No.	16
7	„	„	5	13	„	„	37
2	„	„	11	2	„	„	90A
2	„	„	12	2	„	„	125

Model No. 0.87 Switchback

Parts required:

4	of	No.	2	2	of	No.	22
4	„	„	5	16	„	„	37
1	„	„	10	3	„	„	37A
2	„	„	11	1	„	„	52
2	„	„	12	4	„	„	90A
1	„	„	17	3	„	„	111c

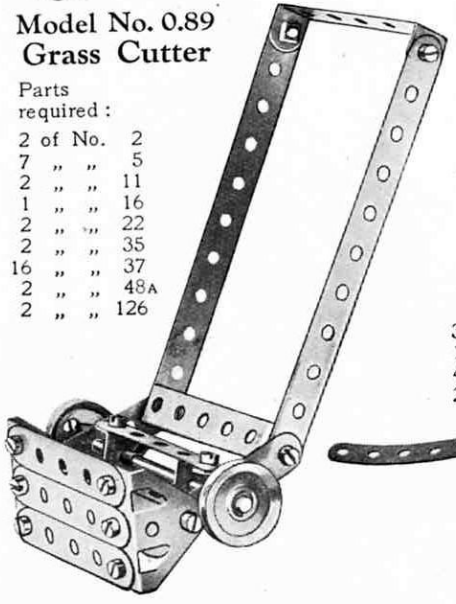


Model No. 0.88 Hen

Parts required :

5	of No.	5
2	„ „	12
7	„ „	37
1	„ „	52
3	„ „	90A
1	„ „	126A

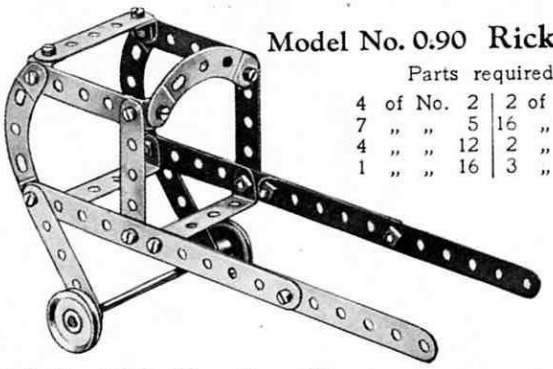
Model No. 0.89 Grass Cutter



Parts required :

2	of No.	2
7	„ „	5
2	„ „	11
1	„ „	16
2	„ „	22
2	„ „	35
16	„ „	37
2	„ „	48A
2	„ „	126

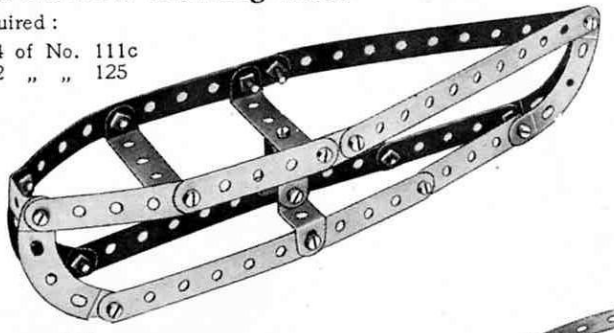
Model No. 0.90 Rickshaw



Parts required :

4	of No.	2	2	of No.	22
7	„ „	5	16	„ „	37
4	„ „	12	2	„ „	48A
1	„ „	16	3	„ „	90A

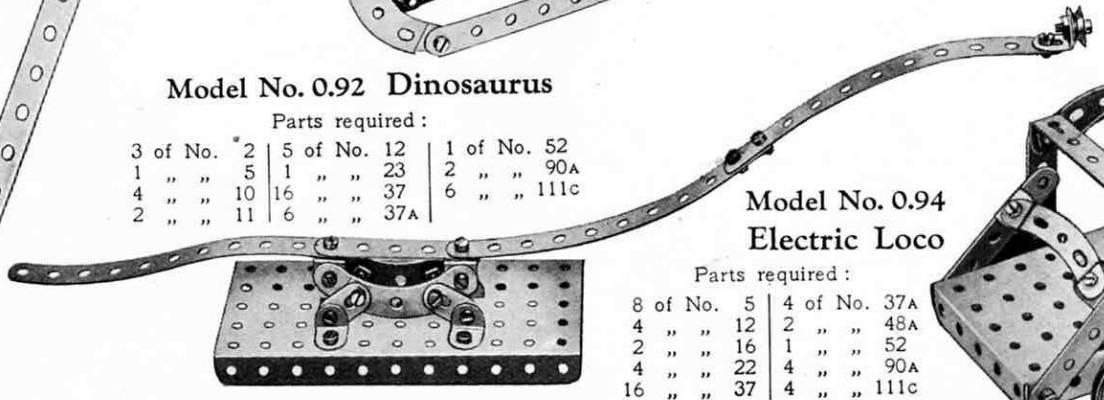
Model No. 0.91 Rowing Boat



Parts required :

4	of No.	2	4	of No.	111c
6	„ „	5	2	„ „	125
2	„ „	10			
1	„ „	11			
16	„ „	37			
4	„ „	37A			
1	„ „	44			
2	„ „	48A			
4	„ „	90A			

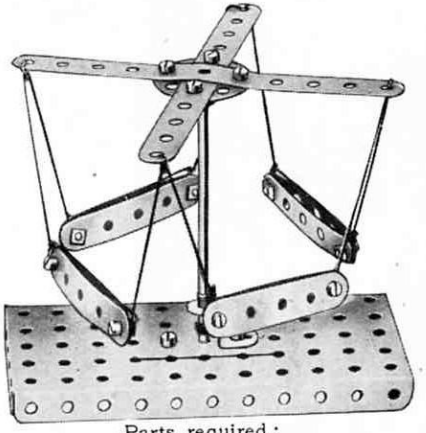
Model No. 0.92 Dinosaurus



Parts required :

3	of No.	2	5	of No.	12	1	of No.	52
1	„ „	5	1	„ „	23	2	„ „	90A
4	„ „	10	16	„ „	37	6	„ „	111c
2	„ „	11	6	„ „	37A			

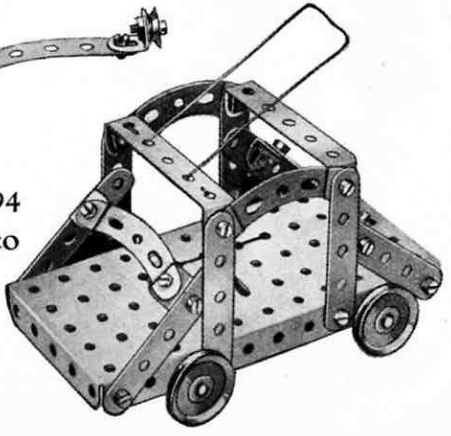
Model No. 0.93 Fly Boats



Parts required :

2	of No.	2	13	of No.	37
8	„ „	5	1	„ „	52
1	„ „	16	1	„ „	125
1	„ „	24			

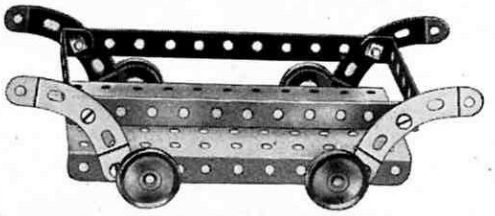
Model No. 0.94 Electric Loco



Parts required :

8	of No.	5	4	of No.	37A
4	„ „	12	2	„ „	48A
2	„ „	16	1	„ „	52
4	„ „	22	4	„ „	90A
16	„ „	37	4	„ „	111c

Model No. 0.95 Trolley



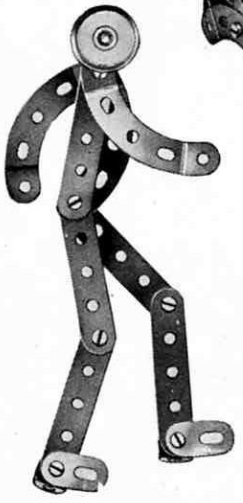
Parts required:

2 of No.	2	8 of No.	37
2 „ „	16	2 „ „	48A
4 „ „	22	1 „ „	52
4 of No.	90A		

Model No. 0.96 Pen Rack

Parts required:

2 of No.	5
4 „ „	37
1 „ „	52
4 „ „	90A



Model No. 0.97 Walking Man

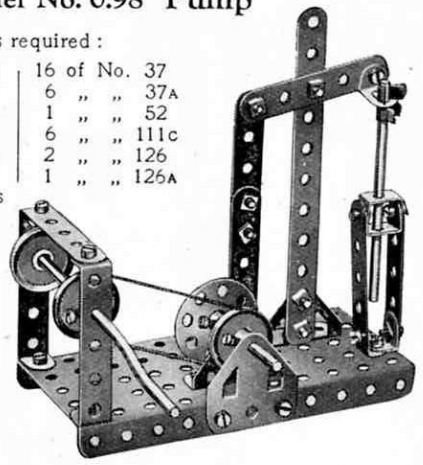
Parts required:

5 of No.	5
3 „ „	10
2 „ „	12
1 „ „	22
7 „ „	37
3 „ „	90A

Model No. 0.98 Pump

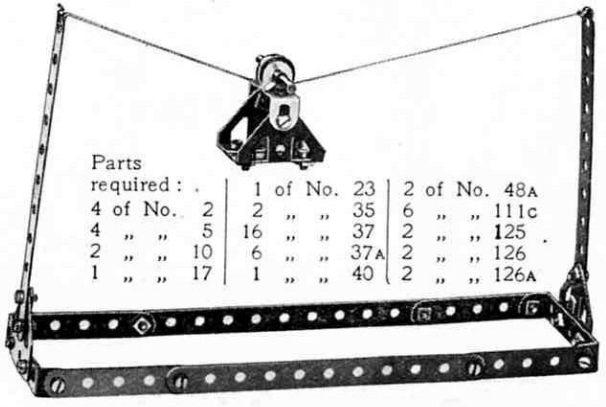
Parts required:

1 of No.	2	16 of No.	37
6 „ „	5	6 „ „	37A
2 „ „	11	1 „ „	52
3 „ „	12	6 „ „	111c
1 „ „	16	2 „ „	126
1 „ „	17	1 „ „	126A
1 „ „	19s		
3 „ „	22		
1 „ „	24		
2 „ „	35		



The connecting Strip is pivoted by bolts and nuts at one end to the Bush Wheel and at the other end to the cross beam. The latter is pivoted by the same means to the upright.

Model No. 0.99 Aerial Ropeway



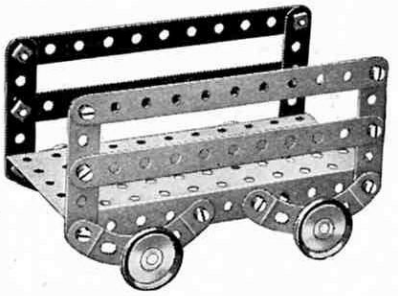
Parts required:

4 of No.	2	1 of No.	23	2 of No.	48A
4 „ „	5	2 „ „	35	6 „ „	111c
2 „ „	10	16 „ „	37	2 „ „	125
1 „ „	17	6 „ „	37A	2 „ „	126
		1 „ „	40	2 „ „	126A

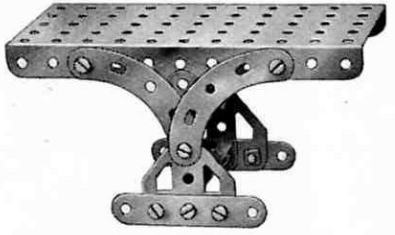
Model No. 0.100 Luggage Truck

Parts required:

4 of No.	2
4 „ „	5
2 „ „	16
4 „ „	22
16 „ „	37
1 „ „	52
4 „ „	90A



Model No. 0.101 Drafting Table



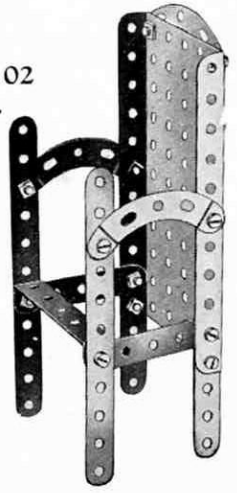
Parts required:

4 of No.	5
12 „ „	37
1 „ „	48A
1 „ „	52
4 „ „	90A
2 „ „	126A

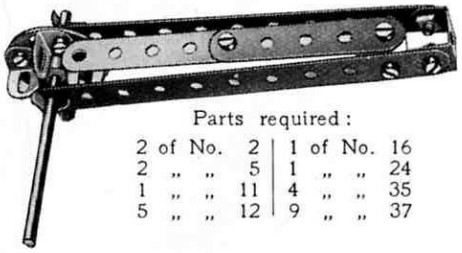
Model No. 0.102 Arm Chair

Parts required:

2 of No.	2
4 „ „	5
12 „ „	37
1 „ „	48A
1 „ „	52
3 „ „	90A



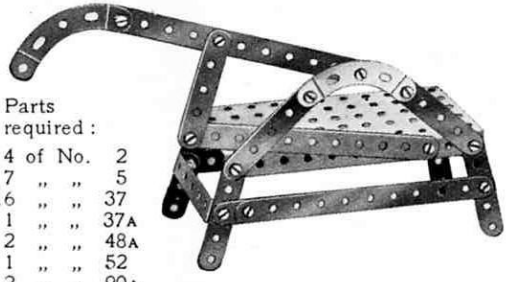
Model No. 0.103 Rattle



Parts required :

2 of No.	2	1 of No.	16
2 „ „	5	1 „ „	24
1 „ „	11	4 „ „	35
5 „ „	12	9 „ „	37

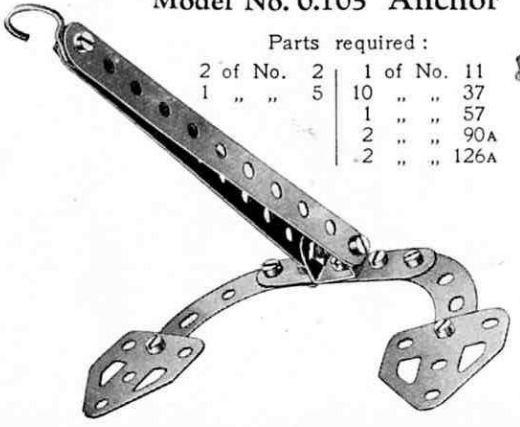
Model No. 0.104 Shearing Machine



Parts required :

4 of No.	2
7 „ „	5
16 „ „	37
1 „ „	37A
2 „ „	48A
1 „ „	52
2 „ „	90A
1 „ „	111c

Model No. 0.105 Anchor



Parts required :

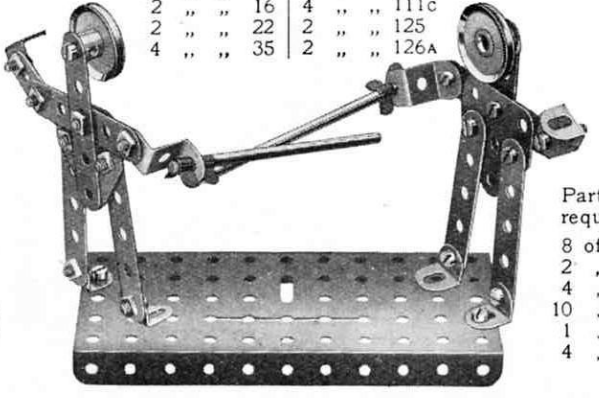
2 of No.	2	1 of No.	11
1 „ „	5	10 „ „	37
		1 „ „	57
		2 „ „	90A
		2 „ „	126A

Model No. 0.106 Portal

Parts required :

4 of No.	2
2 „ „	11
8 „ „	12
1 „ „	22
16 „ „	37
6 „ „	37A
2 „ „	48A
1 „ „	52
4 „ „	90A
6 „ „	111c

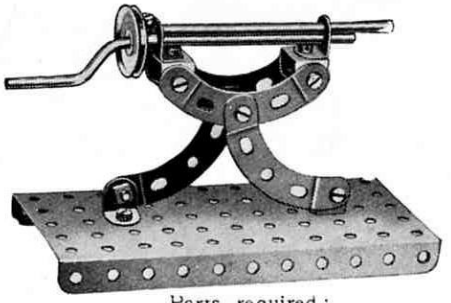
Model No. 0.107 The Fencers



Parts required :

8 of No.	5	16 of No.	37
2 „ „	10	4 „ „	37A
6 „ „	12	1 „ „	52
2 „ „	16	4 „ „	111c
2 „ „	22	2 „ „	125
4 „ „	35	2 „ „	126A

Model No. 0.108 Machine Gun



Parts required :

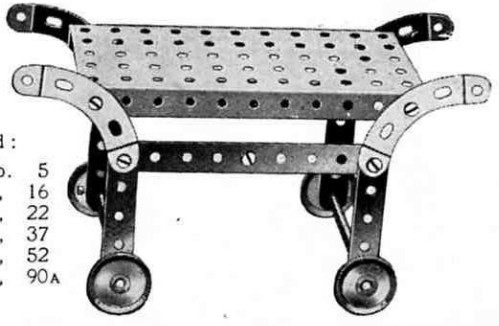
2 of No.	11	1 of No.	22
4 „ „	12	12 „ „	37
1 „ „	16	1 „ „	52
1 „ „	19s	4 „ „	90A

Model No. 0.109 Single Sheaf Pulley Block

Parts required :

2 of No.	5	7 of No	37A
1 „ „	23	1 „ „	57
		3 of No.	111c

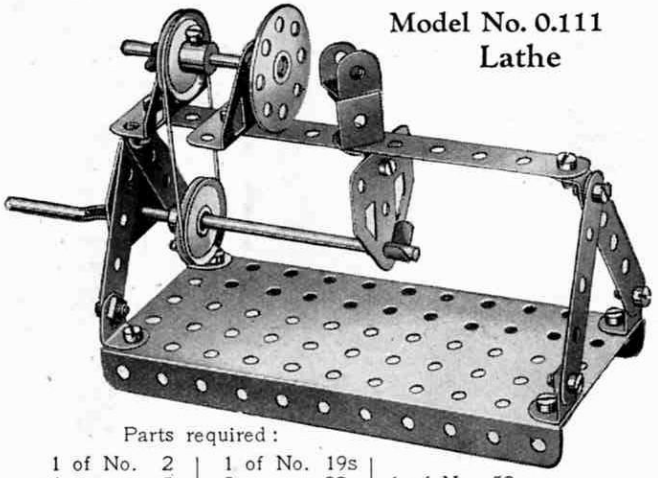
Model No. 0.110 Tea Wagon



Parts required :

8 of No.	5
2 „ „	16
4 „ „	22
10 „ „	37
1 „ „	52
4 „ „	90A

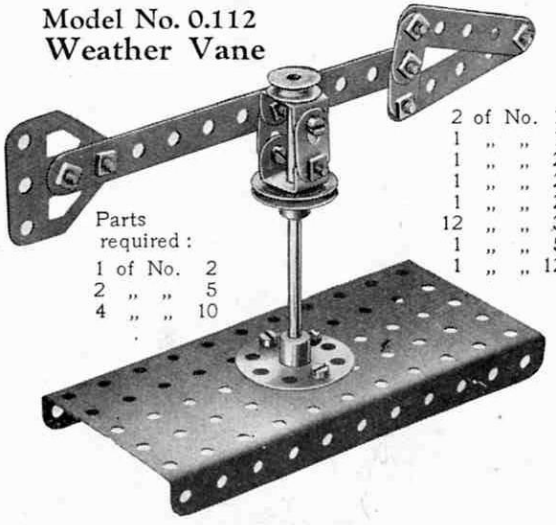
Model No. 0.111 Lathe



Parts required :

1 of No.	2	1 of No.	19s	1 of No.	52
4 „ „	5	2 „ „	22	2 „ „	126
2 „ „	11	1 „ „	24	2 „ „	126A
7 „ „	12	3 „ „	35		
1 „ „	17	16 „ „	37		

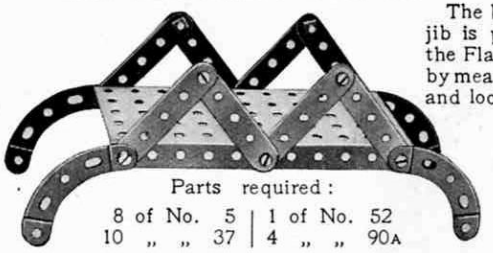
Model No. 0.112 Weather Vane



Parts required :

1 of No.	2	2 of No.	11
2 „ „	5	1 „ „	16
4 „ „	10	1 „ „	22
		1 „ „	23
		1 „ „	24
		12 „ „	37
		1 „ „	52
		1 „ „	126A

Model No. 0.113 Viaduct



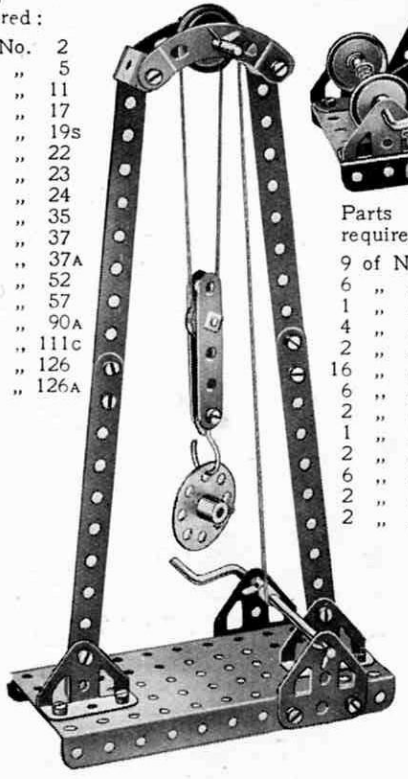
Parts required :

8 of No.	5	1 of No.	52
10 „ „	37	4 „ „	90A

Model No. 0.114 Pulley Block

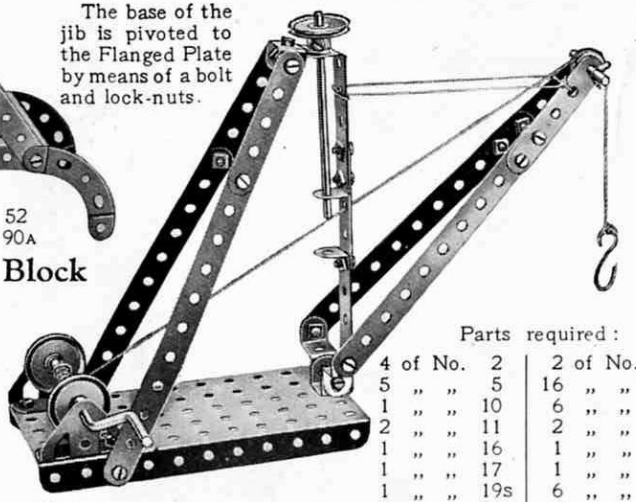
Parts required :

4 of No.	2
2 „ „	5
2 „ „	11
1 „ „	17
1 „ „	19s
1 „ „	22
1 „ „	23
1 „ „	24
5 „ „	35
16 „ „	37
4 „ „	37A
1 „ „	52
1 „ „	57
2 „ „	90A
4 „ „	111c
2 „ „	126
2 „ „	126A



Model No. 0.115 Derricking Crane

The base of the jib is pivoted to the Flanged Plate by means of a bolt and lock-nuts.



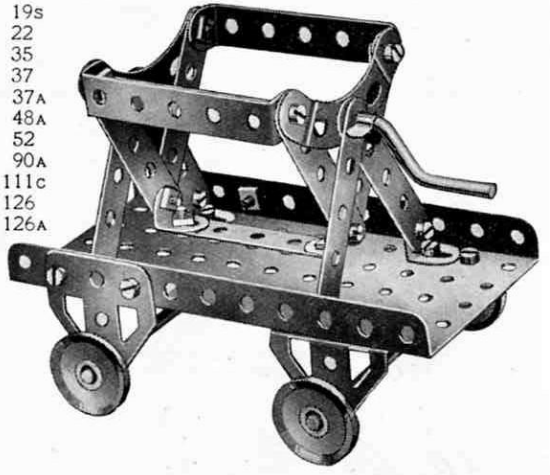
Parts required :

4 of No.	2	2 of No.	35
5 „ „	5	16 „ „	37
1 „ „	10	6 „ „	37A
2 „ „	11	2 „ „	48A
1 „ „	16	1 „ „	52
1 „ „	17	1 „ „	57
1 „ „	19s	6 „ „	111c
3 „ „	22	2 „ „	125
1 „ „	23	2 „ „	126

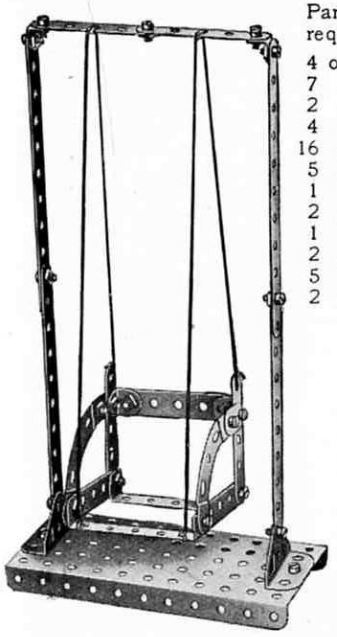
Parts required :

9 of No.	5
6 „ „	12
1 „ „	19s
4 „ „	22
2 „ „	35
16 „ „	37
6 „ „	37A
2 „ „	48A
1 „ „	52
2 „ „	90A
6 „ „	111c
2 „ „	126
2 „ „	126A

Model No. 0.116 Dump Car



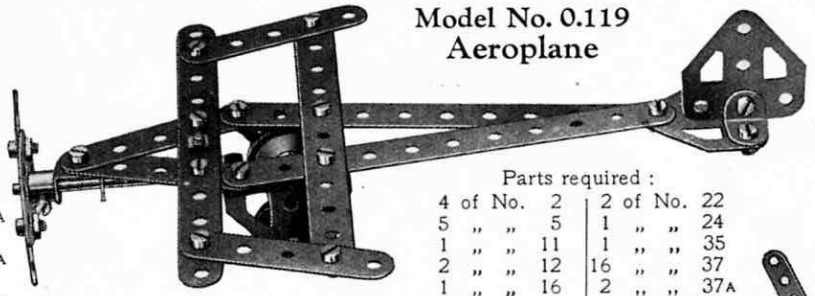
Model No. 0.117 Swing



Parts required:

4	of No.	2
7	„ „	5
2	„ „	10
4	„ „	12
16	„ „	37
5	„ „	37A
1	„ „	40
2	„ „	48A
1	„ „	52
2	„ „	90A
5	„ „	111c
2	„ „	126

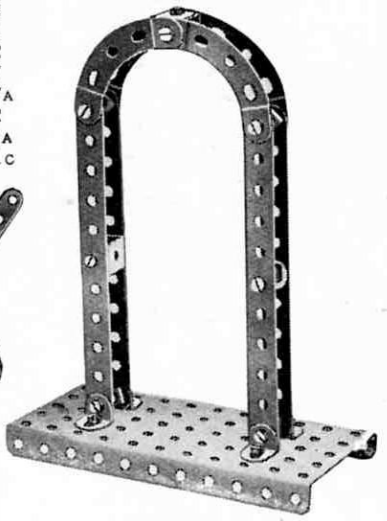
Model No. 0.119 Aeroplane



Parts required:

4	of No.	2
5	„ „	5
1	„ „	11
2	„ „	12
1	„ „	16
1	„ „	17
2	of No.	22
1	„ „	24
1	„ „	35
16	„ „	37
2	„ „	37A
2	„ „	111c
2	„ „	126
1	„ „	126A

Model No. 0.123 Arch



Parts required:

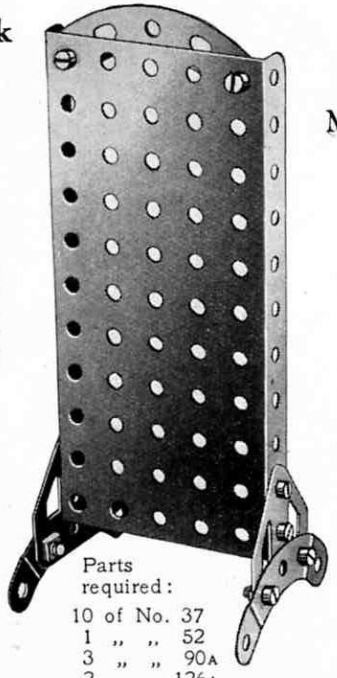
4	of No.	2
2	„ „	11
6	„ „	12
16	„ „	37
3	„ „	37A
1	„ „	52
4	„ „	90A
3	„ „	111c

Model No. 0.120 Hat Rack

Parts required:

2	of No.	2
4	„ „	5
2	„ „	11
5	„ „	12
1	„ „	17
1	„ „	22
16	„ „	37
4	„ „	37A
2	„ „	48A
4	„ „	90A
4	„ „	111c
2	„ „	126A

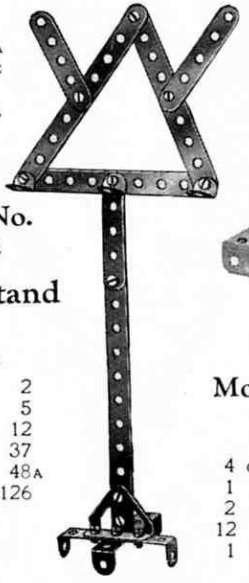
Model No. 0.121 Notice Board



Parts required:

10	of No.	37
1	„ „	52
3	„ „	90A
2	„ „	126A

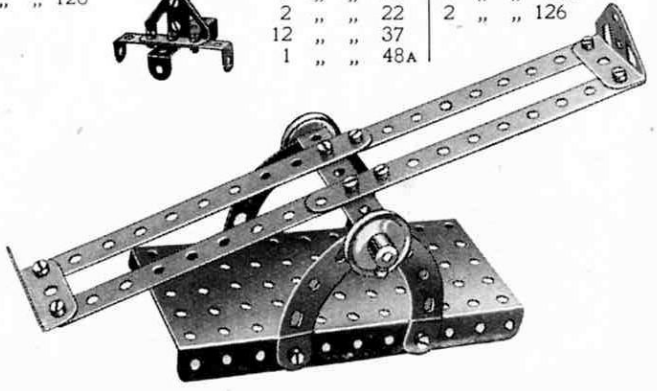
Model No. 0.122 Music Stand



Parts required:

1	of No.	2
9	„ „	5
3	„ „	12
12	„ „	37
2	„ „	48A
1	„ „	126

Model No. 0.124 See-Saw



Parts required:

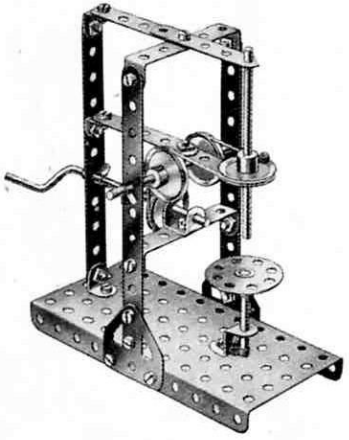
4	of No.	2
1	„ „	16
2	„ „	22
12	„ „	37
1	„ „	48A
1	of No.	52
4	„ „	90A
2	„ „	126

Model No. 0.118 Plough

Parts required:

2	of No.	2
1	„ „	5
2	„ „	10
2	„ „	11
3	of No.	12
1	„ „	17
1	„ „	22
15	„ „	37
1	„ „	44
1	„ „	48A
4	„ „	90A

Model No. 0.125 Drilling Machine



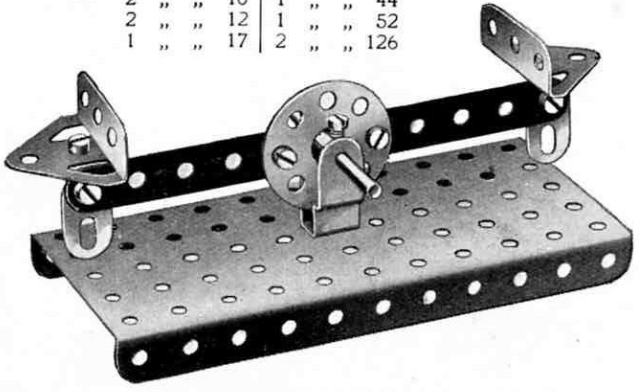
Parts required :

3	of No.	2
4	„ „	5
2	„ „	11
3	„ „	12
1	„ „	16
1	„ „	17
1	„ „	19s
4	„ „	22
1	„ „	24
6	„ „	35
16	„ „	37
6	„ „	37A
2	„ „	48A
1	„ „	52
6	„ „	111c
1	„ „	125
2	„ „	126A

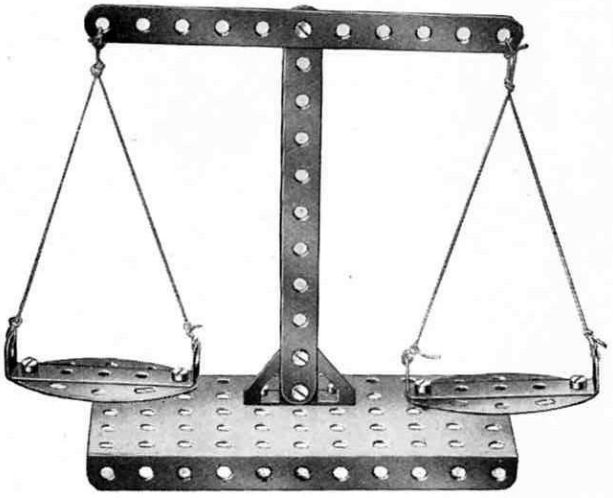
Model No. 0.126 Counter Scales

Parts required :

1	of No.	2	7	of No.	37
2	„ „	10	1	„ „	44
2	„ „	12	1	„ „	52
1	„ „	17	2	„ „	126



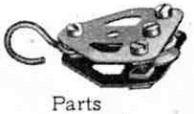
Model No. 0.127 Scales



Parts required :

2	of No.	2	2	of No.	48A
9	„ „	37	1	„ „	52
1	„ „	37A	4	„ „	90A
			1	of No.	126

Model No. 0.128 Single Sheave Pulley Block



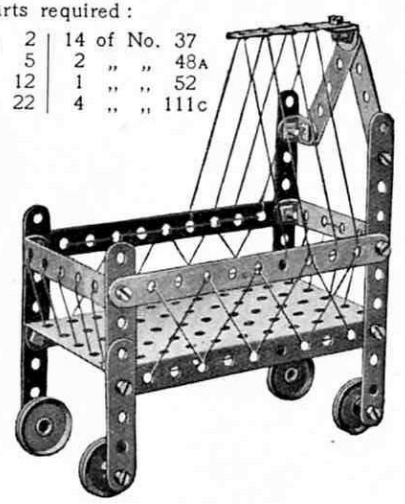
Parts required :

1	of No.	23
12	„ „	37A
1	„ „	57
4	„ „	111c
2	„ „	126A

Model No. 0.129 Cot

Parts required :

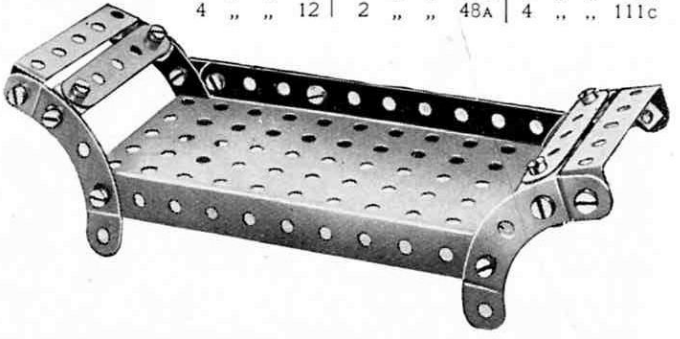
4	of No.	2	14	of No.	37
7	„ „	5	2	„ „	48A
3	„ „	12	1	„ „	52
4	„ „	22	4	„ „	111c



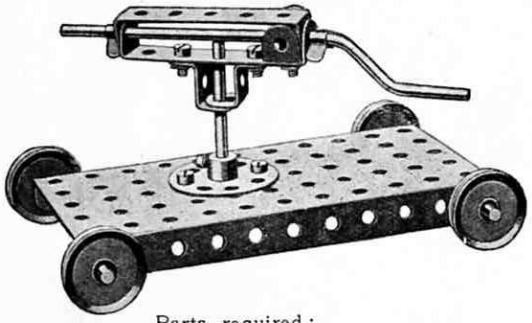
Model No. 0.130 Couch

Parts required :

1	of No.	2	16	of No.	37	1	of No.	52
3	„ „	5	4	„ „	37A	4	„ „	90A
4	„ „	12	2	„ „	48A	4	„ „	111c



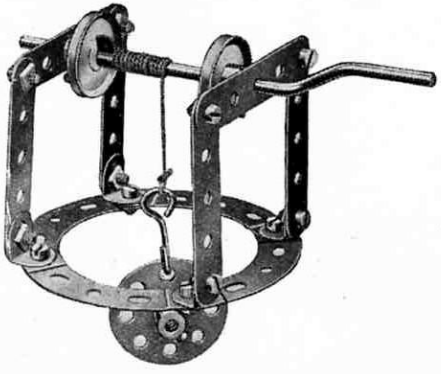
Model No. 0.131 Rock Drill



Parts required :

1 of No.	11	4 of No.	22	2 of No.	48A
2 „ „	16	1 „ „	24	1 „ „	52
1 „ „	17	2 „ „	35	2 „ „	125
1 „ „	19s	5 „ „	37		

Model No. 0.132 Well Windlass



Parts required :

6 of No.	5	2 of No.	22	1 of No.	40
4 „ „	12	1 „ „	24	1 „ „	57
1 „ „	19s	12 „ „	37	4 „ „	90A

Model No. 0.133 Prancing Horse

Parts required :

6 of No.	5		
4 „ „	12		
1 „ „	17		
1 „ „	19s		
4 „ „	22		
1 „ „	24		
16 „ „	37		
4 „ „	37A		
1 „ „	44		
1 „ „	52		
1 „ „	90A		
4 „ „	111c		
2 „ „	125		
1 „ „	126		
1 „ „	126A		

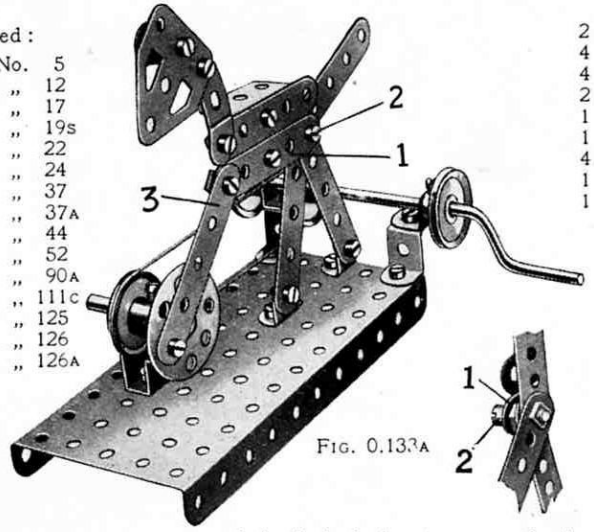
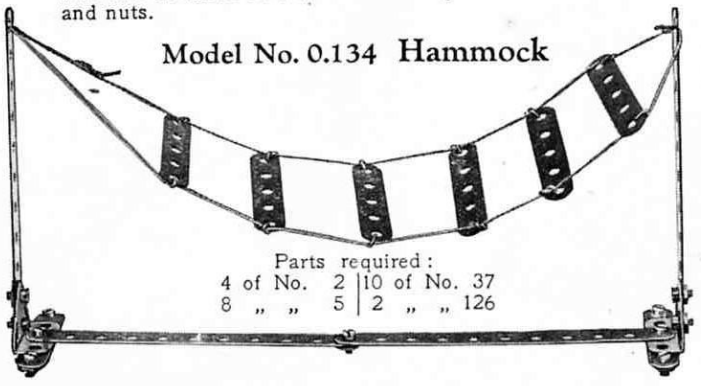


FIG. 0.133A

The Strip 1 forming part of the body is free to move about the Bolt 2, but two nuts on the latter secure the rear legs and tail rigidly together. The arrangement of the various Strips about this Bolt 2 is shown more clearly in Fig. 0.133A. The Strip 3 is free to move at each end about pivots formed from bolts and nuts.

Model No. 0.134 Hammock



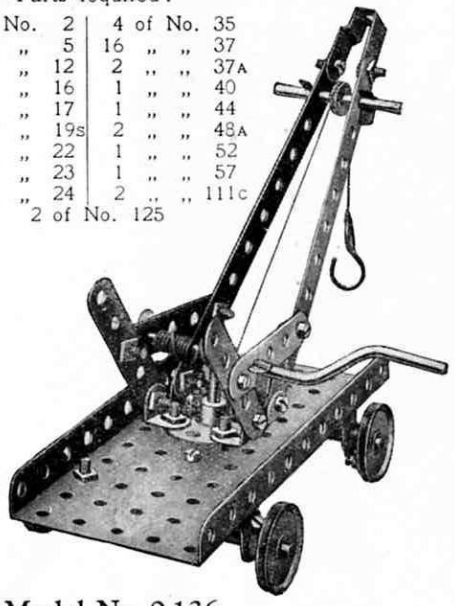
Parts required :

4 of No.	2	10 of No.	37
8 „ „	5	2 „ „	126

Model No. 0.135 Swivelling Crane

Parts required :

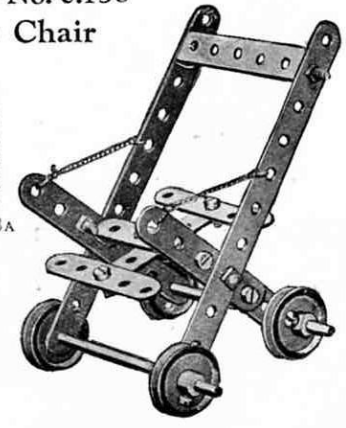
2 of No.	2	4 of No.	35
4 „ „	5	16 „ „	37
4 „ „	12	2 „ „	37A
2 „ „	16	1 „ „	40
1 „ „	17	1 „ „	44
1 „ „	19s	2 „ „	48A
4 „ „	22	1 „ „	52
1 „ „	23	1 „ „	57
1 „ „	24	2 „ „	111c
2 of No.	125		

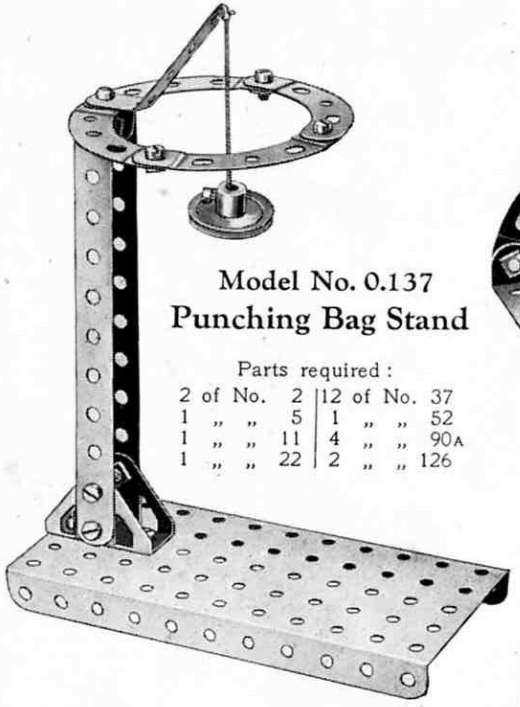


Model No. 0.136 Go Chair

Parts required :

2 of No.	2
7 „ „	5
2 „ „	16
4 „ „	22
11 „ „	37
2 „ „	48A



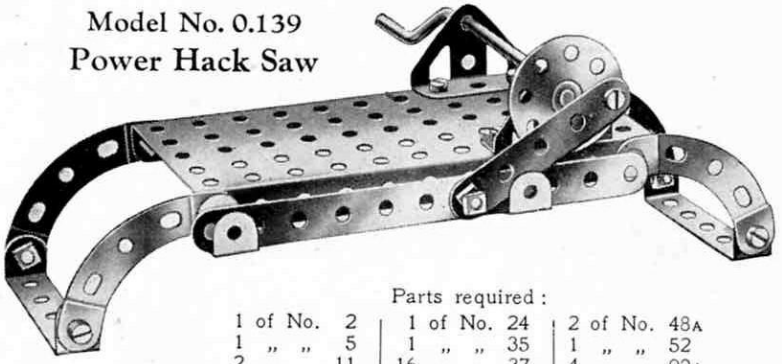


Model No. 0.137
Punching Bag Stand

Parts required :

2	of No.	2	12	of No.	37
1	„ „	5	1	„ „	52
1	„ „	11	4	„ „	90A
1	„ „	22	2	„ „	126

Model No. 0.139
Power Hack Saw



Parts required :

1	of No.	2	1	of No.	24	2	of No.	48A
1	„ „	5	1	„ „	35	1	„ „	52
2	„ „	11	16	„ „	37	4	„ „	90A
1	„ „	19s	2	„ „	37A	2	„ „	126

Model No. 0.140 Old Siege Gun

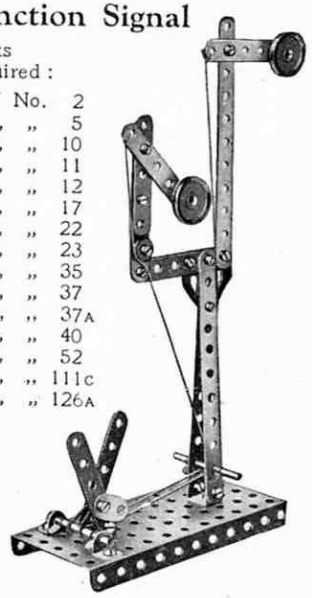
Parts required :

3	of No.	2	1	of No.	24
1	„ „	11	16	„ „	37
1	„ „	15	2	„ „	37A
4	„ „	12	2	„ „	48A
2	„ „	16	1	„ „	52
4	„ „	22	4	„ „	90A
2	of No.	111c			

Model No. 0.141
Junction Signal

Parts required :

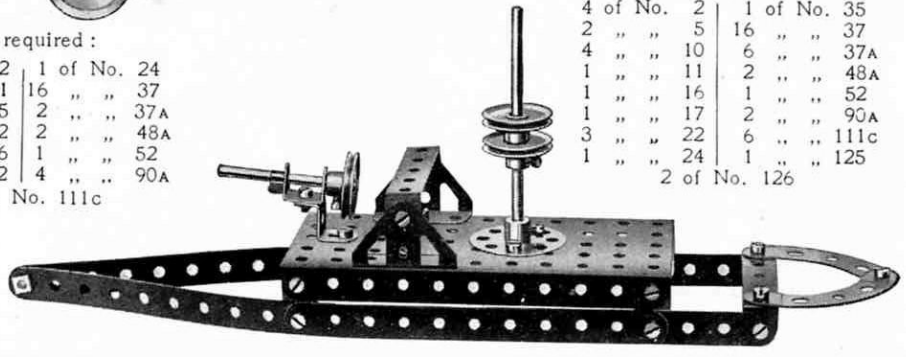
3	of No.	2
7	„ „	5
2	„ „	10
2	„ „	11
2	„ „	12
2	„ „	17
2	„ „	22
1	„ „	23
4	„ „	35
16	„ „	37
5	„ „	37A
1	„ „	40
1	„ „	52
5	„ „	111c
1	„ „	126A



Model No. 0.142
Battleship

Parts required :

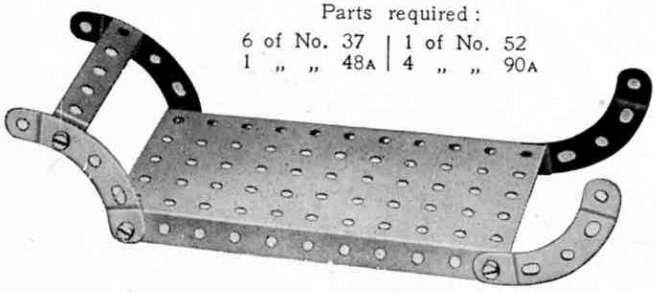
4	of No.	2	1	of No.	35
2	„ „	5	16	„ „	37
4	„ „	10	6	„ „	37A
1	„ „	11	2	„ „	48A
1	„ „	16	1	„ „	52
1	„ „	17	2	„ „	90A
3	„ „	22	6	„ „	111c
1	„ „	24	1	„ „	125
2	of No.	126			



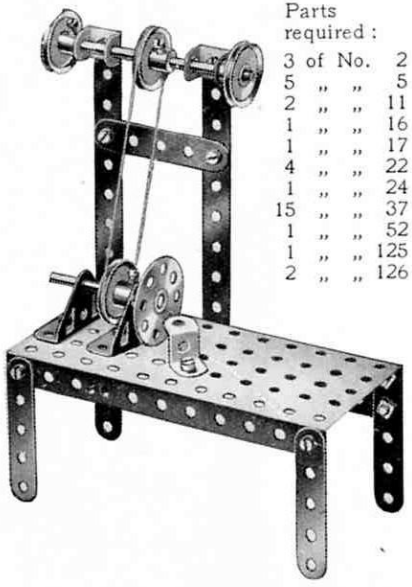
Model No. 0.138 Sled

Parts required :

6	of No.	37	1	of No.	52
1	„ „	48A	4	„ „	90A



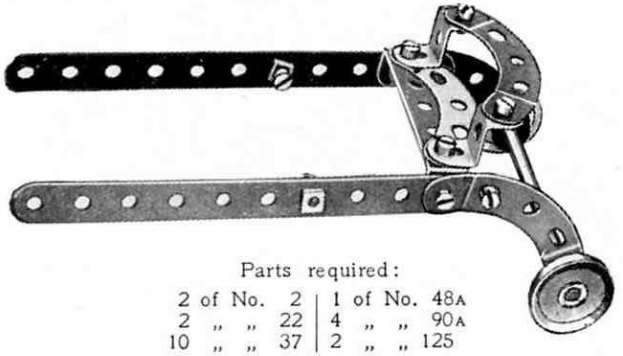
Model No. 0.143 Bench Lathe



Parts required :

3	of No.	2
5	„ „	5
2	„ „	11
1	„ „	16
1	„ „	17
4	„ „	22
1	„ „	24
15	„ „	37
1	„ „	52
1	„ „	125
2	„ „	126

Model No. 0.145 Sulkey



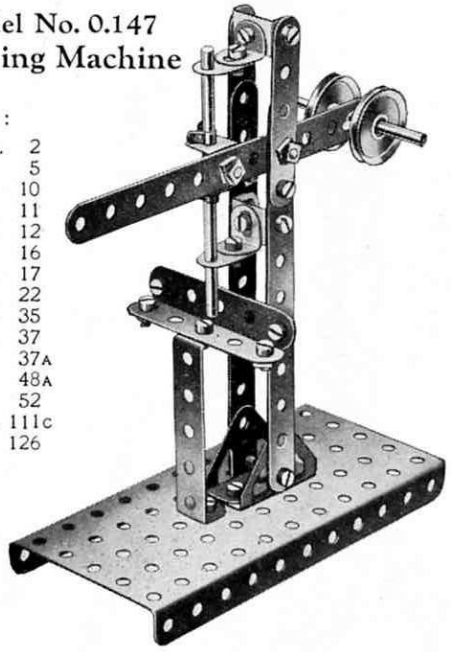
Parts required :

2	of No.	2	1	of No.	48A
2	„ „	22	4	„ „	90A
10	„ „	37	2	„ „	125

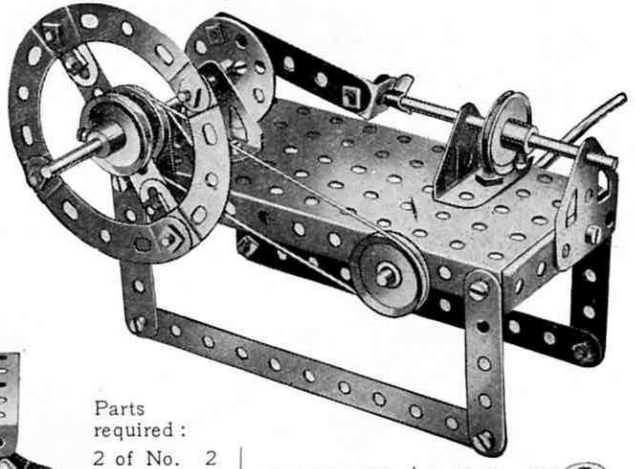
Model No. 0.147 Punching Machine

Parts required :

3	of No.	2
4	„ „	5
2	„ „	10
2	„ „	11
6	„ „	12
1	„ „	16
1	„ „	17
2	„ „	22
2	„ „	35
16	„ „	37
6	„ „	37A
1	„ „	48A
1	„ „	52
6	„ „	111c
2	„ „	126



Model No. 0.146 Horizontal Engine



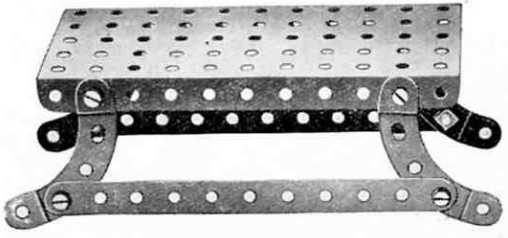
Parts required :

2	of No.	2						
6	„ „	5	4	of No.	22	1	of No.	52
2	„ „	10	1	„ „	24	4	„ „	90A
1	„ „	12	3	„ „	35	5	„ „	111c
2	„ „	16	16	„ „	37	2	„ „	126
1	„ „	19s	5	„ „	37A	2	„ „	126A

Model No. 0.144 Bench

Parts required :

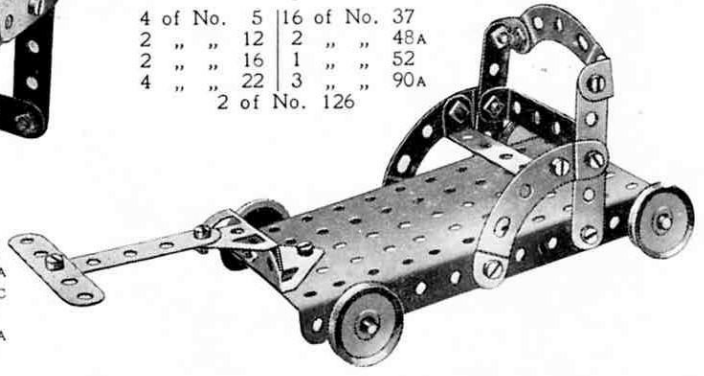
2	of No.	2	1	of No.	52
8	„ „	37	4	„ „	90A



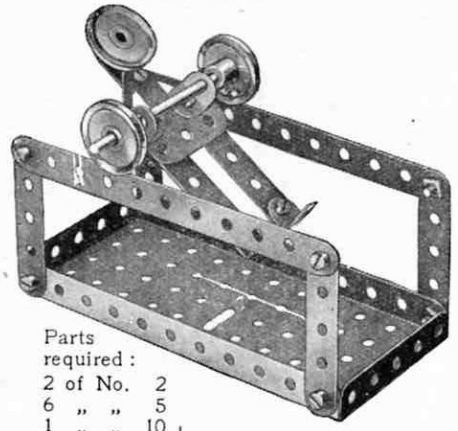
Model No. 0.148 Bath Chair

Parts required :

4	of No.	5	16	of No.	37
2	„ „	12	2	„ „	48A
2	„ „	16	1	„ „	52
4	„ „	22	3	„ „	90A
	2	of No.	126		



Model No. 0.149 Parallel Bars



Parts required :

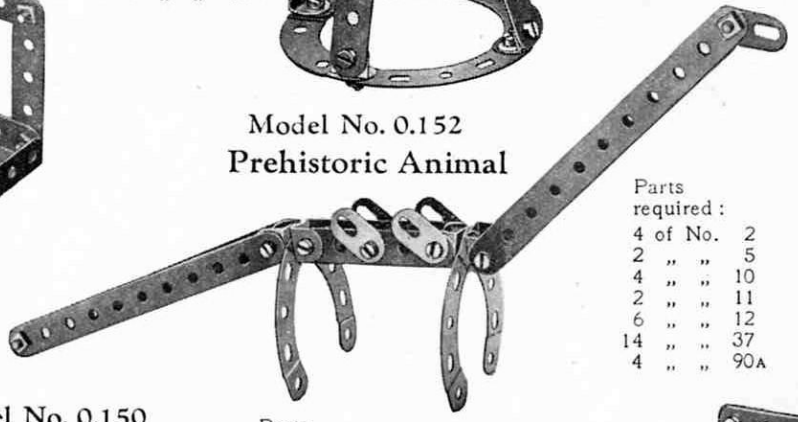
2	of No.	2	
6	„ „	5	
1	„ „	10	
4	„ „	12	
1	„ „	16	
3	„ „	22	
2	„ „	35	
13	of No.	37	
1	„ „	52	
1	„ „	111c	
1	„ „	126A	

Model No. 0.151 Candle Shade

Parts required :

4	of No.	5
8	„ „	12
1	„ „	24
16	„ „	37
4	„ „	90A

Model No. 0.152 Prehistoric Animal



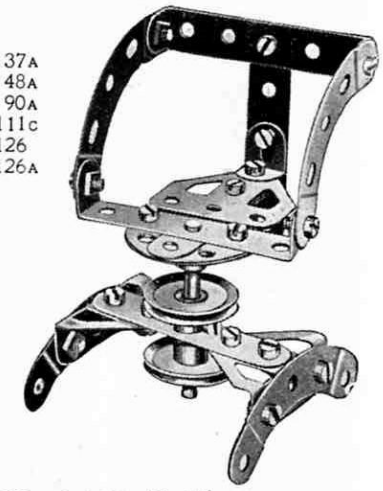
Parts required :

4	of No.	2
2	„ „	5
4	„ „	10
2	„ „	11
6	„ „	12
14	„ „	37
4	„ „	90A

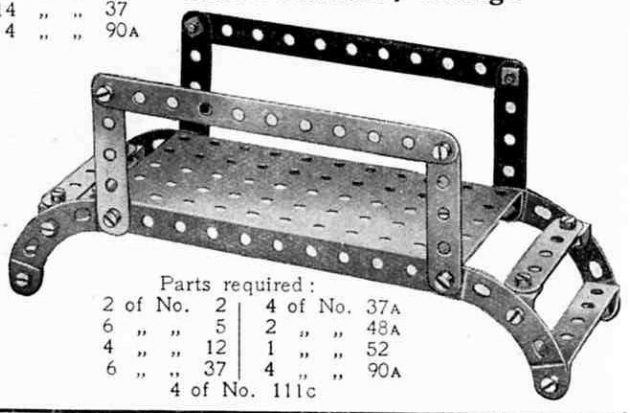
Model No. 0.153 Revolving Office Chair

Parts required :

3	of No.	5	2	of No.	37A
1	„ „	12	2	„ „	48A
1	„ „	17	4	„ „	90A
2	„ „	22	2	„ „	111c
1	„ „	24	2	„ „	126
16	„ „	37	1	„ „	126A



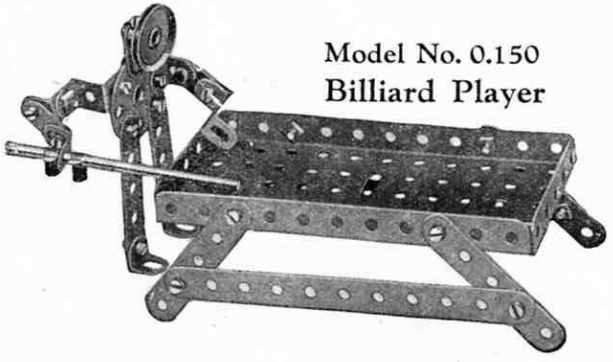
Model No. 0.154 Bridge



Parts required :

2	of No.	2	4	of No.	37A
6	„ „	5	2	„ „	48A
4	„ „	12	1	„ „	52
6	„ „	37	4	„ „	90A
			4	of No.	111c

Model No. 0.150 Billiard Player



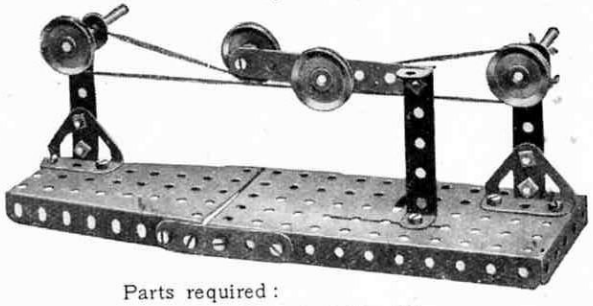
Parts required :

2	of No.	2
6	„ „	5
3	„ „	10
5	„ „	12
1	„ „	16
1	„ „	22
1	„ „	24
2	„ „	35
16	„ „	37
5	„ „	37A
5	„ „	111c
2	„ „	125

HOW TO CONTINUE

This completes our examples of models that 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 this Manual.

Model No. 1.1 Jockey Pulley

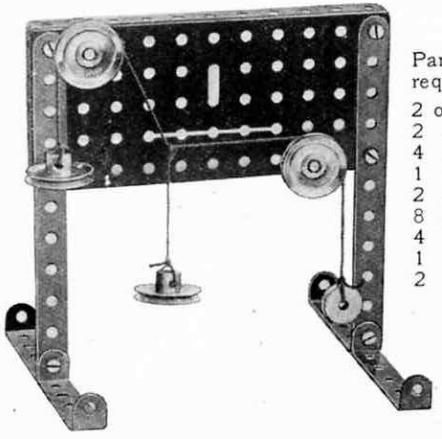


Parts required :

1 of No.	3	2 of No.	35	1 of No.	52
4 „ „	5	20 „ „	37	1 „ „	54
2 „ „	17	1 „ „	37A	2 „ „	111c
4 „ „	22	1 „ „	48A	2 „ „	126

The weight of the pivoted 3½" Strip, augmented by the 1" fast Pulley Wheel, causes the jockey pulley to press on the belt. Hence the latter is kept always taut.

Model No. 1.2 Triangle of Forces



Parts required :

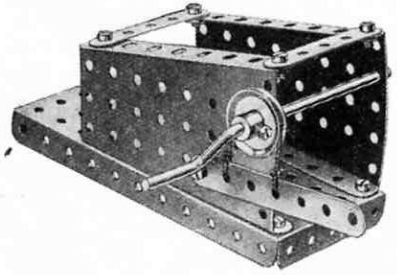
2 of No.	2		
2 „ „	18A		
4 „ „	22		
1 „ „	23		
2 „ „	35		
8 „ „	37		
4 „ „	48A		
1 „ „	52		
2 „ „	125		

The suspended weights represent three forces acting on a central point. If a triangle is drawn with its sides respectively parallel to the three converging cords, i.e., parallel to the directions of the three forces, the lengths of the sides will be found to be proportional to the respective magnitudes of the forces.

Parts required :

2 of No.	2	3 of No.	22
1 „ „	5	1 „ „	35
1 „ „	16	11 „ „	37
1 „ „	17	1 „ „	44
1 „ „	18A	1 „ „	48
2 „ „	19B	5 „ „	48A
1 „ „	19S	1 „ „	52

Model No. 1.3 Band Brake



Parts required :

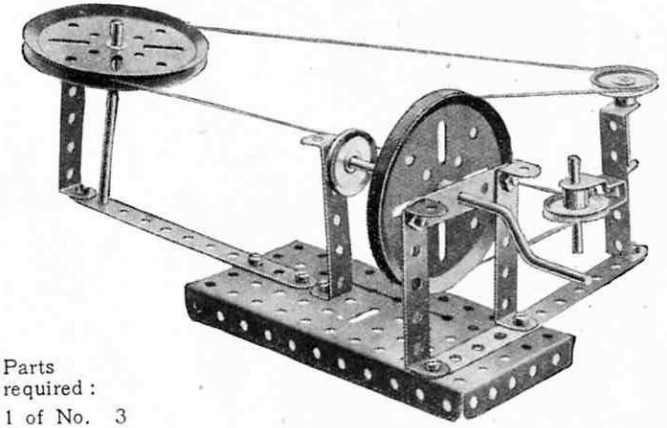
1 of No.	3		
2 „ „	5		
1 „ „	19S		
1 „ „	22		
1 „ „	35		
9 „ „	37		
1 „ „	37A		
1 „ „	52		
2 „ „	54		

Model No. 1.4 "H" Girder

Parts required :

6 of No.	2		
2 „ „	10		
8 „ „	12		
12 „ „	37		

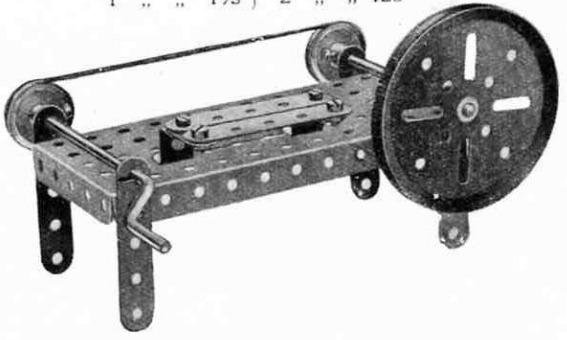
Model No. 1.5 Belt Gear Right-angle Drive Transmission



Model No. 1.6 Bacon Slicer

Parts required :

6 of No.	5	2 of No.	22
2 „ „	10	1 „ „	35
1 „ „	16	10 „ „	37
1 „ „	19B	1 „ „	52
1 „ „	19S	2 „ „	125

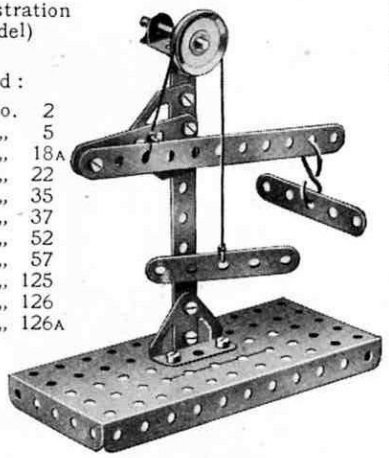


Model No. 1.7
Lever of the Second Order

(Demonstration Model)

Parts required :

2	of No.	2
4	„ „	5
1	„ „	18A
1	„ „	22
1	„ „	35
11	„ „	37
1	„ „	52
1	„ „	57
1	„ „	125
1	„ „	126
1	„ „	126A



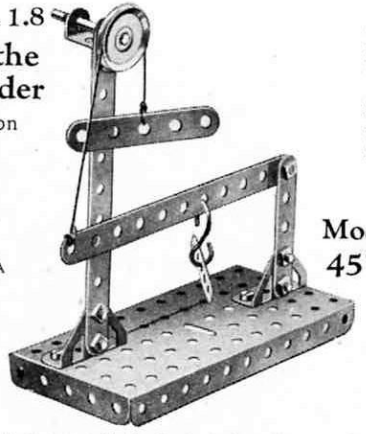
The fulcrum is at one end, the power at the other and the load lies between the two.

Model No. 1.8
Lever of the Third Order

(Demonstration Model)

Parts required :

2	of No.	2
4	„ „	5
1	„ „	18A
1	„ „	22
1	„ „	35
10	„ „	37
1	„ „	52
1	„ „	57
1	„ „	125
2	„ „	126

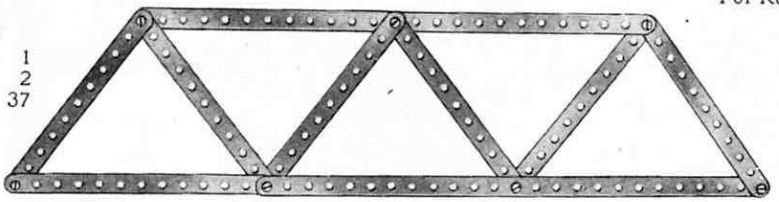


The fulcrum is at one end, the load at the other and the power lies between the two.

Model No. 1.9 Compound Triangulated Truss

Parts required :

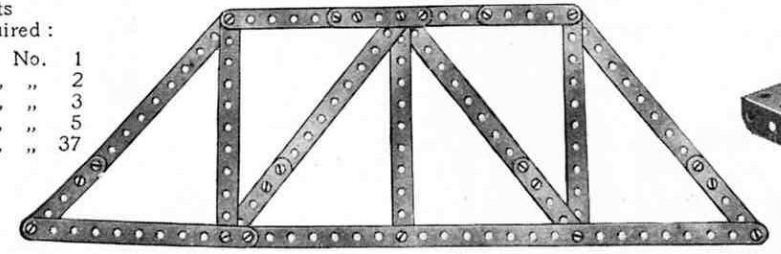
2	of No.	1
7	„ „	2
7	„ „	37



Model No. 1.10 Howe Truss

Parts required :

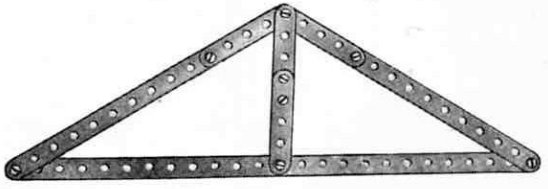
1	of No.	1
8	„ „	2
1	„ „	3
7	„ „	5
21	„ „	37



Model No. 1.11 Triangulated Truss

Parts required :

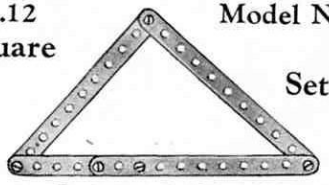
1	of No.	1
2	„ „	2
4	„ „	5
8	„ „	37



Model No. 1.12
45° Set-Square

Parts required :

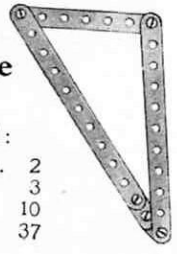
3 of No. 2 | 1 of No. 3
5 of No. 37



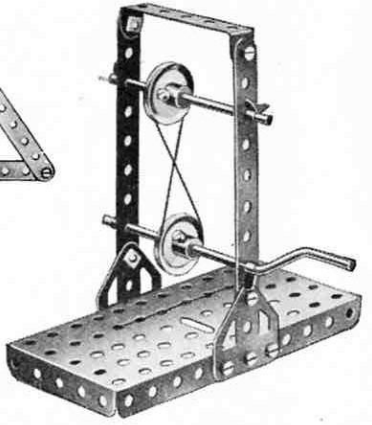
Model No. 1.13
60° Set-Square

Parts required :

2	of No.	2
1	„ „	3
2	„ „	10
5	„ „	37



Model No. 1.14 Belt Gear
For Reversing Motion of Driven Shaft



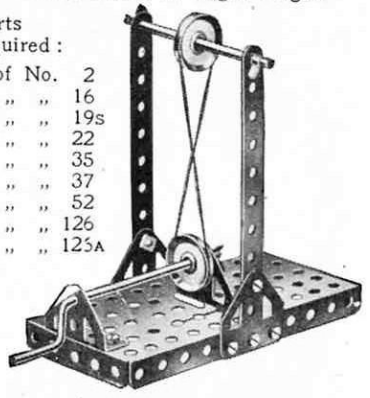
Parts required :

2	of No.	2	4	of No.	35
1	„ „	16	10	„ „	37
1	„ „	19S	1	„ „	48A
2	„ „	22	1	„ „	52
			2	of No.	126A

Model No. 1.15 Belt Gear
For Driving Shafts at Right Angles

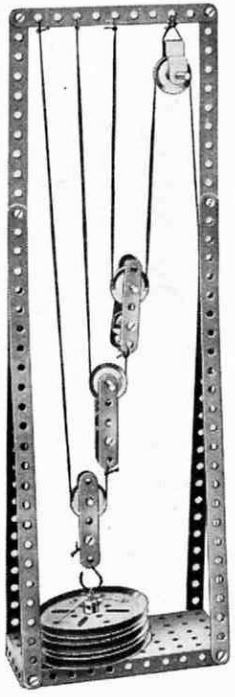
Parts required :

2	of No.	2
1	„ „	16
1	„ „	19S
2	„ „	22
3	„ „	35
12	„ „	37
1	„ „	52
2	„ „	126
2	„ „	125A



Model No. 1.16 Pulley Block

Demonstration Model:
1 Fixed and 3 Movable Sheaves.
Theoretical Mechanical advantage: 8 to 1



Parts required:

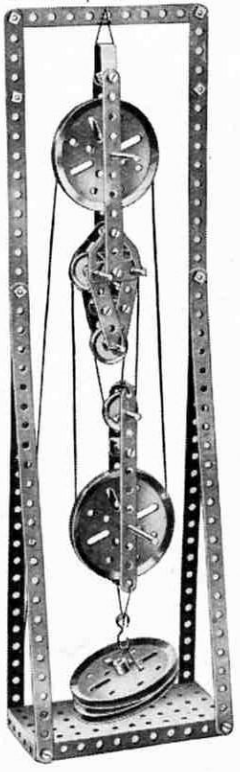
4	of No.	1	2	of No.	18A
3	„ „	2	3	„ „	19B
6	„ „	5	4	„ „	22
2	„ „	11	15	„ „	37
2	„ „	12	1	„ „	44
2	„ „	17	1	„ „	52
			1	„ „	57

Model No. 1.17 Pulley Block

Demonstration Model:
3 Fixed and 2 Movable Sheaves.
Theoretical Mechanical advantage: 5 to 1

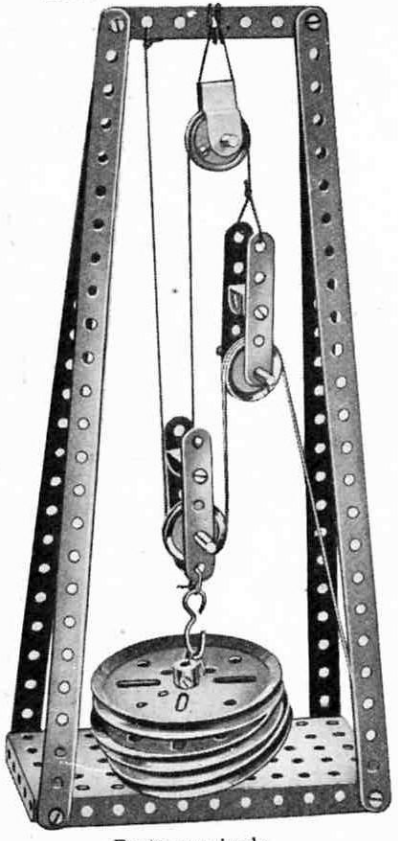
Parts required:

4	of No.	1	4	of No.	19B
7	„ „	2	4	„ „	22
6	„ „	5	6	„ „	35
2	„ „	10	22	„ „	37
2	„ „	12	1	„ „	44
2	„ „	16	1	„ „	52
2	„ „	17	1	„ „	57
2	„ „	18A	2	„ „	126A



Model No. 1.18 Pulley Block

Demonstration Model:
1 Fixed Sheave and 2 Suspended Blocks.
Theoretical Mechanical advantage: 4 to 1



Parts required:

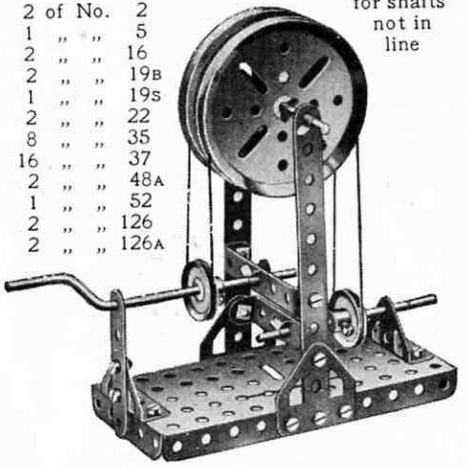
4	of No.	1	4	of No.	19B
1	„ „	3	3	„ „	22
4	„ „	5	10	„ „	37
2	„ „	11	1	„ „	44
1	„ „	17	1	„ „	52
2	„ „	18A	1	„ „	57

Model No. 1.19 Belt Gear

Drive Transmission for shafts not in line

Parts required:

2	of No.	2
1	„ „	5
2	„ „	16
2	„ „	19B
1	„ „	19S
2	„ „	22
8	„ „	35
16	„ „	37
2	„ „	48A
1	„ „	52
2	„ „	126
2	„ „	126A

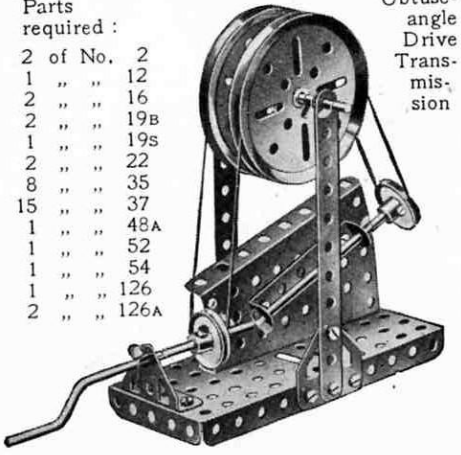


Model No. 1.20 Belt Gear

Obtuse-angle Drive Transmission

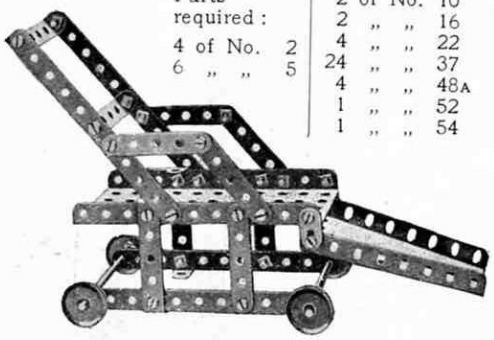
Parts required:

2	of No.	2
1	„ „	12
2	„ „	16
2	„ „	19B
1	„ „	19S
2	„ „	22
8	„ „	35
15	„ „	37
1	„ „	48A
1	„ „	52
1	„ „	54
1	„ „	126
2	„ „	126A



These Models can be built with MECCANO Outfit No. 1 (or No. 0 and No. 0A)

Model No. 1.21 Invalid Chair



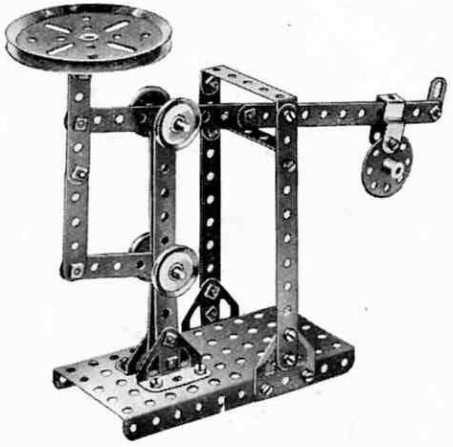
Parts required :

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

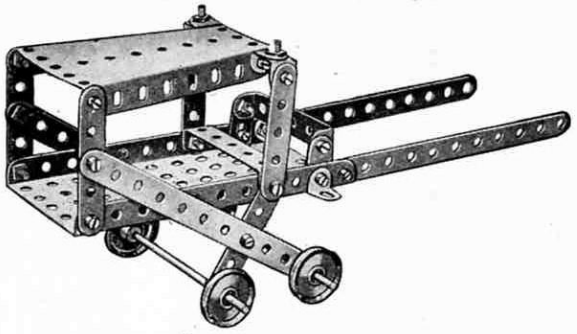
Model No. 1.22 Letter Balance

Parts required :

6 of No.	2	4 of No.	22	2 of No.	48A
3 „ „	5	1 „ „	24	1 „ „	52
1 „ „	10	26 „ „	37	2 „ „	111c
1 „ „	12	4 „ „	37A	2 „ „	126
2 „ „	18A	2 „ „	38	2 „ „	126A
1 „ „	19B	1 „ „	44		

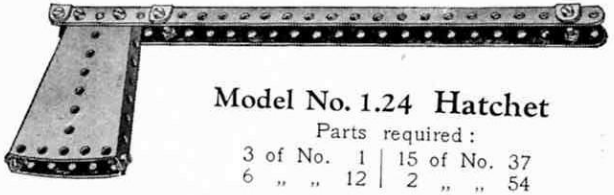


Model No. 1.23 Ticca Gharry



Parts required :

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



Model No. 1.24 Hatchet

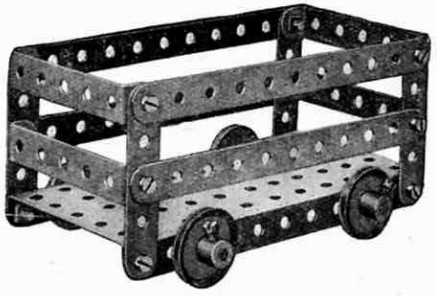
Parts required :

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

Model No. 1.25 Truck with Sides

Parts required :

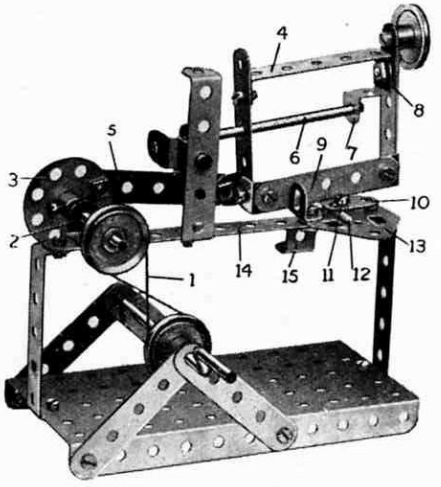
4 of No.	2
4 „ „	5
2 „ „	16
4 „ „	22
12 „ „	37
4 „ „	48A
1 „ „	52



Model No. 1.26 Mechanical Saw

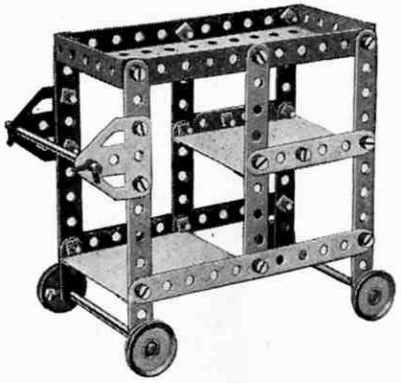
Parts required :

1 of No.	2	1 of No.	17	4 of No.	38
8 „ „	5	1 „ „	19S	1 „ „	44
1 „ „	10	3 „ „	22	4 „ „	48A
1 „ „	11	1 „ „	24	1 „ „	52
4 „ „	12	3 „ „	35	2 „ „	125
1 „ „	16	22 „ „	37	1 „ „	126A



The Strip 9 represents the saw. The Crank Handle drives through a belt 1 a short Rod journalled in a Double Bracket 2 and carrying a Bush Wheel 3. The latter imparts a reciprocating motion to the saw frame 4 through a 2½" Strip 5 loosely mounted on bolts secured to the Bush Wheel and to an Angle Bracket bolted to the saw frame. This frame slides on a 3½" Rod 6, which acts as a guide, passing through the frame and supported in a reversed Angle Bracket 7. A washer is placed on the Bolt 8 behind the Bracket 7. A vice to secure the objects in position for cutting consists of a Flat Bracket 10 mounted on a Bolt 11, a few turns of which causes the Flat Bracket to grip the object 12. The Bolt 11 enters a nut held between the Flat Trunnion 13 and 5½" Strip 14, which are spaced apart for the purpose by washers placed on the two bolts holding the Trunnion in position. The saw frame rests on the stop 15 when not in use. A 1" Pulley secured to the top of the frame acts as a weight and helps to steady the saw.

Model No. 1.27 Dinner Wagon

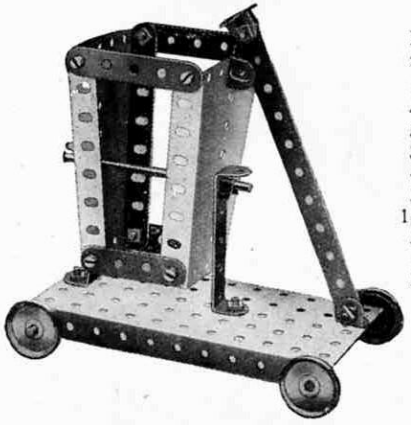


Parts required :

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

The two lower platforms are constructed out of pieces of ordinary cardboard, their outer edges resting on 2½" Double Angle Strips and their inner edges on Angle Brackets.

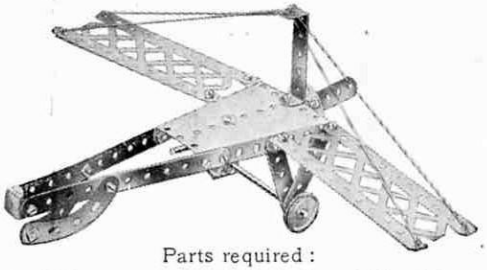
Model No. 1.28 Tip Wagon



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. 1.29 Aeroplane



Parts required :

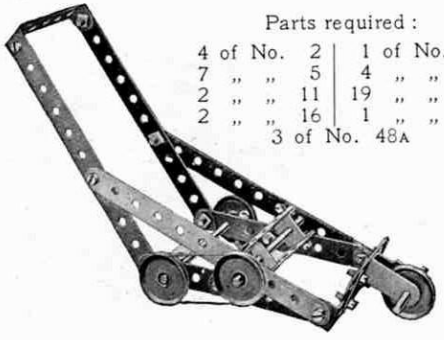
2	of No.	2	2	of No.	16	1	of No.	48A
5	„ „	5	2	„ „	22	1	„ „	54
1	„ „	11	1	„ „	24	2	„ „	90A
6	„ „	12	21	„ „	37	2	„ „	100

Model No. 1.30 Timber Drag

Parts required :

4	of No.	2	2	of No.	16	8	of No.	37
2	„ „	11	4	„ „	22	4	„ „	48A

Model No. 1.31 Lawn Mower



Parts required :

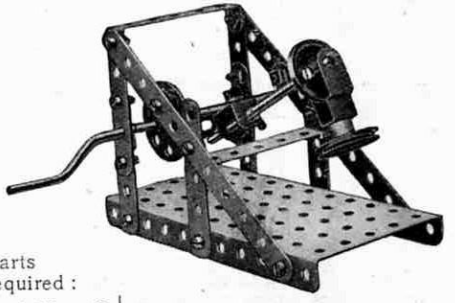
4	of No.	2	1	of No.	17			
7	„ „	5	4	„ „	22			
2	„ „	11	19	„ „	37			
2	„ „	16	1	„ „	44			
			3	of No.	48A			

Model No. 1.32 Tandem Car

Parts required :

4	of No.	2	4	of No.	19B			
8	„ „	5	26	„ „	37			
2	„ „	12	5	„ „	48A			
2	„ „	16	1	„ „	54			
			2	of No.	126A			

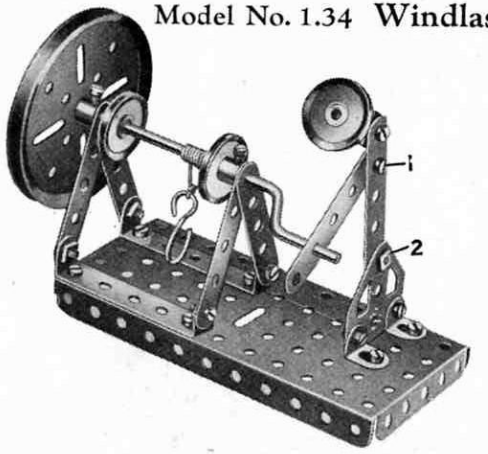
Model No. 1.33 Mechanical Hammer



Parts required :

2	of No.	2						
6	„ „	5	1	of No.	19S	18	of No.	37
1	„ „	11	2	„ „	22	1	„ „	44
1	„ „	12	1	„ „	24	3	„ „	48A
1	„ „	16	4	„ „	35	1	„ „	52

Model No. 1.34 Windlass



Parts required :

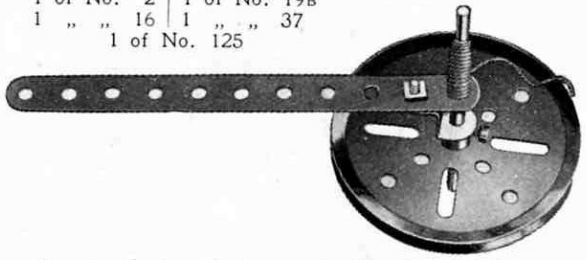
6	of No.	5
3	„ „	12
1	„ „	19B
1	„ „	19S
3	„ „	22
15	„ „	37
4	„ „	37A
2	„ „	48A
1	„ „	52
1	„ „	57
3	„ „	111C
1	„ „	126A

The figure at the right of the model is arranged to work to and fro when the Crank Handle is rotated. The Bolts 1 and 2 are both secured by two nuts as in Standard Mechanism No. 262.

Model No. 1.35 Top

Parts required :

1	of No. 2	1	of No. 19B
1	„ „ 16	1	„ „ 37
	1 of No. 125		

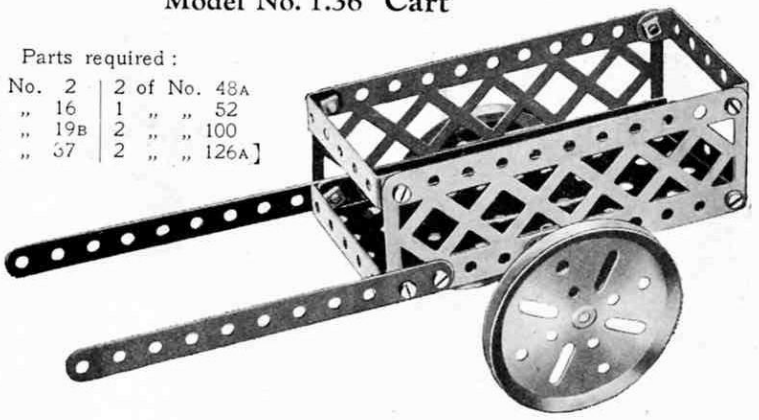


To spin the top wind a length of cord round the rod, as shown, place on a smooth surface and give the cord a sharp pull. When the cord is clear of the rod remove the 5½″ Strip and the top will continue to spin for a considerable period.

Model No. 1.36 Cart

Parts required :

2	of No. 2	2	of No. 48A
1	„ „ 16	1	„ „ 52
2	„ „ 19B	2	„ „ 100
14	„ „ 37	2	„ „ 126A

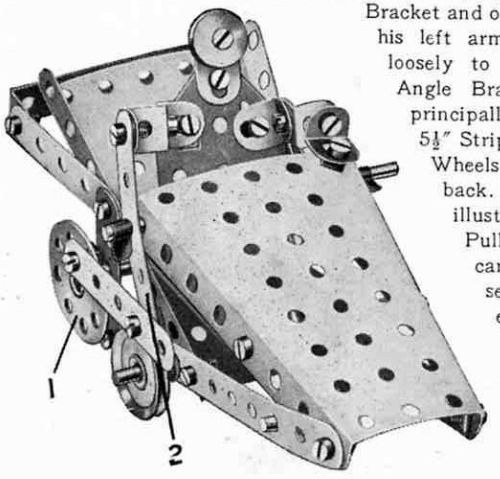


Model No. 1.37 The Invalid

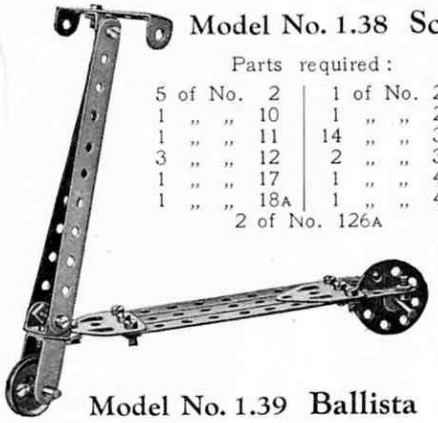
When wheeled along the table the "invalid" appears to push himself energetically along. His neck is a Flat Bracket : his right (or propelling) arm consists of one Angle Bracket and one ½″ Reversed Angle Bracket, and his left arm—the hand of which is bolted loosely to the chair—is formed by three Angle Brackets. The chair is composed principally of two Sector Plates and four 5½″ Strips, and it runs on three 1″ Pulley Wheels—one in front and two at the back. One of these (not visible in the illustration) drives by cord another 1″ Pulley Wheel, the shaft of which also carries a Bush Wheel 1. As will be seen, a 2½″ Strip is pivoted at one end to this Bush Wheel and at the other end to a second 2½″ Strip 2, which, rocking about an axle journalled through its centre hole, is again pivoted to the invalid's hands.

Parts required :

4	of No.	2
6	„ „	5
1	„ „	10
4	„ „	12
3	„ „	16
1	„ „	17
4	„ „	22
1	„ „	23
1	„ „	24
4	„ „	35
24	„ „	37
4	„ „	37A
3	„ „	38
2	„ „	48A
2	„ „	54
1	„ „	125
1	„ „	126A



Model No. 1.38 Scooter

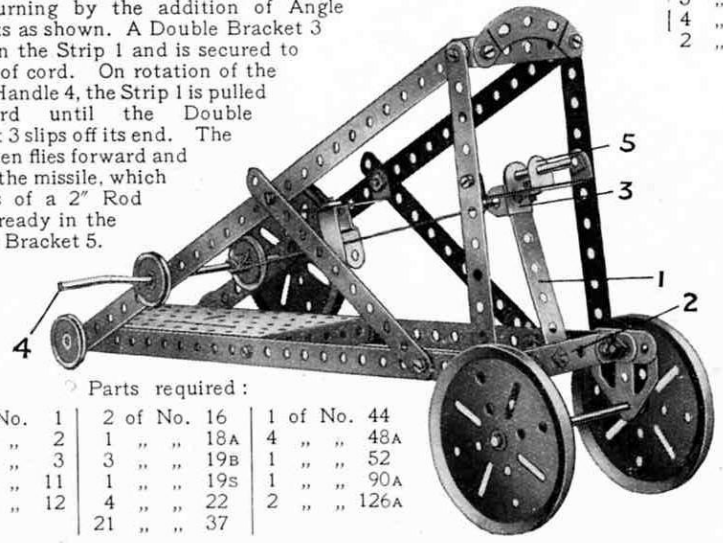


Parts required :

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

Model No. 1.39 Ballista

This is a model of an ancient engine of war, resembling the crossbow. The 3½" Strip 1 is bolted firmly to the Double Angle Strip 2, which is prevented from turning by the addition of Angle Brackets as shown. A Double Bracket 3 slides on the Strip 1 and is secured to a piece of cord. On rotation of the Crank Handle 4, the Strip 1 is pulled backward until the Double Bracket 3 slips off its end. The Strip then flies forward and strikes the missile, which consists of a 2" Rod placed ready in the Double Bracket 5.

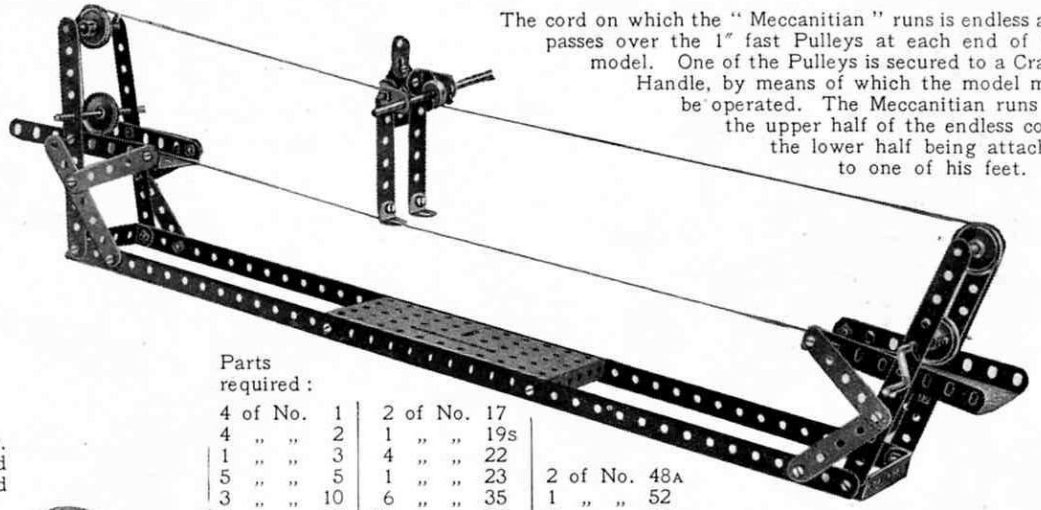


Parts required :

4	of No.	1	2	of No.	16	1	of No.	44
4	„ „	2	1	„ „	18A	4	„ „	48A
1	„ „	3	3	„ „	19B	1	„ „	52
2	„ „	11	1	„ „	19S	1	„ „	90A
2	„ „	12	4	„ „	22	2	„ „	126A
			21	„ „	37			

Model No. 1.40 Tight-Rope Walker

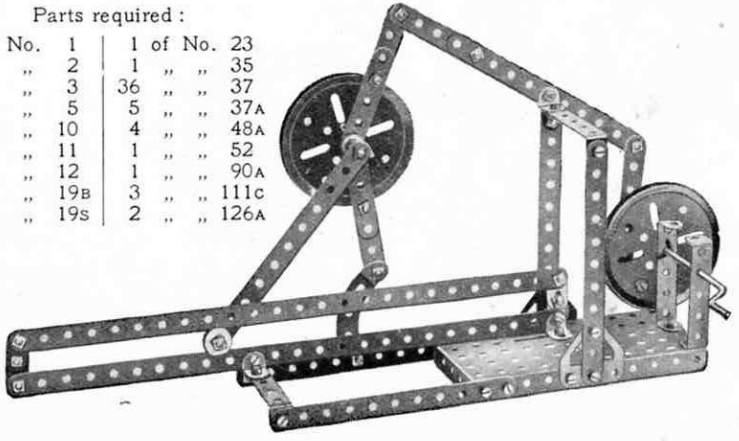
The cord on which the " Meccanitian " runs is endless and passes over the 1" fast Pulleys at each end of the model. One of the Pulleys is secured to a Crank Handle, by means of which the model may be operated. The Meccanitian runs on the upper half of the endless cord, the lower half being attached to one of his feet.



Parts required :

4	of No.	1	2	of No.	17			
4	„ „	2	1	„ „	19S			
1	„ „	3	4	„ „	22			
5	„ „	5	1	„ „	23	2	of No.	48A
3	„ „	10	6	„ „	35	1	„ „	52
4	„ „	12	34	„ „	37	2	„ „	54
2	„ „	16	2	„ „	38	1	„ „	126A

Model No. 1.41 Double-Action Piston Connection



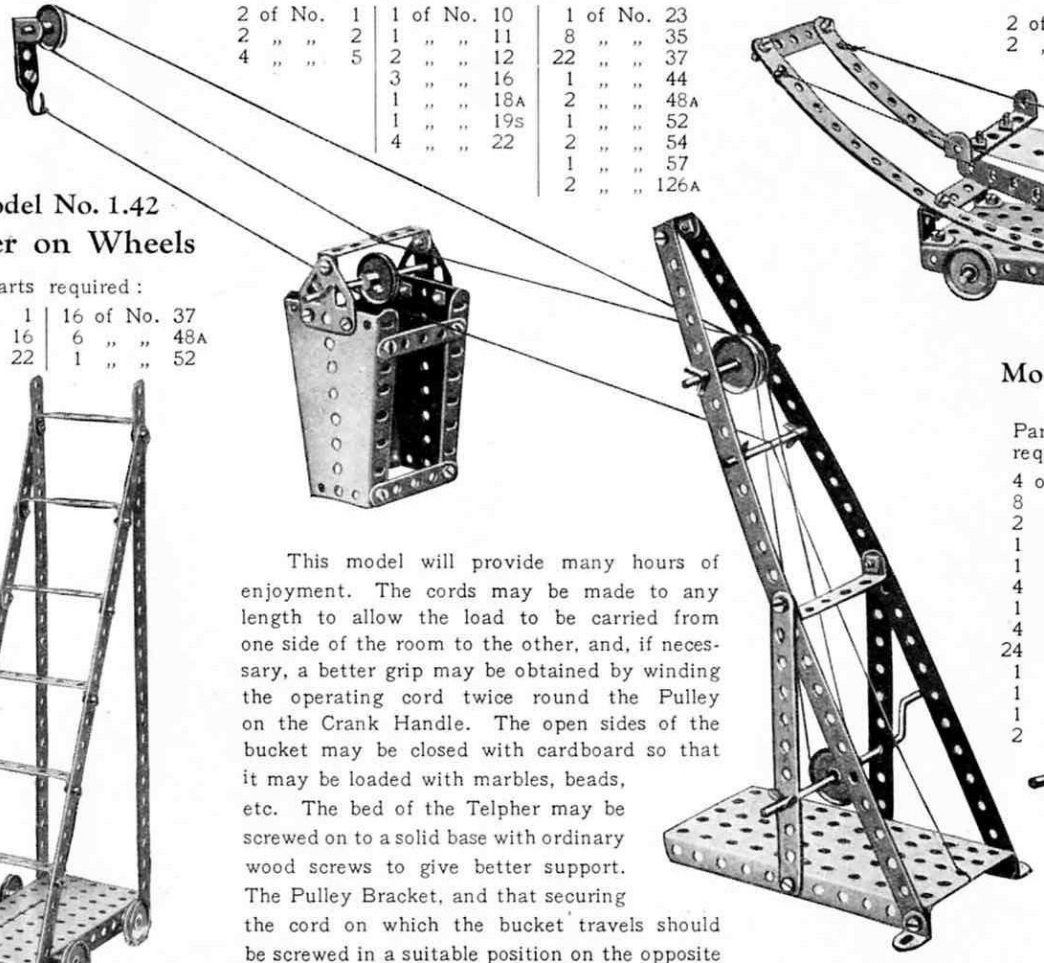
Parts required :

2	of No.	1	1	of No.	23
6	„ „	2	1	„ „	35
1	„ „	3	36	„ „	37
5	„ „	5	5	„ „	37A
4	„ „	10	4	„ „	48A
2	„ „	11	1	„ „	52
3	„ „	12	1	„ „	90A
2	„ „	19B	3	„ „	111C
1	„ „	19S	2	„ „	126A

Model No. 1.43 Telpher Span

Parts required :

2 of No.	1	1 of No.	10	1 of No.	23
2 „ „	2	1 „ „	11	8 „ „	35
4 „ „	5	2 „ „	12	22 „ „	37
		3 „ „	16	1 „ „	44
		1 „ „	18A	2 „ „	48A
		1 „ „	19S	1 „ „	52
		4 „ „	22	2 „ „	54
				1 „ „	57
				2 „ „	126A

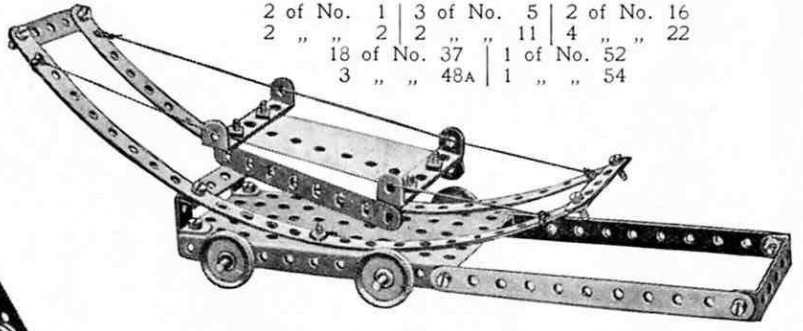


This model will provide many hours of enjoyment. The cords may be made to any length to allow the load to be carried from one side of the room to the other, and, if necessary, a better grip may be obtained by winding the operating cord twice round the Pulley on the Crank Handle. The open sides of the 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. 1.44 Mountain Transport

Parts required :

2 of No.	1	3 of No.	5	2 of No.	16
2 „ „	2	2 „ „	11	4 „ „	22
18 of No.	37	1 of No.	52		
3 „ „	48A	1 „ „	54		



Model No. 1.42 Ladder on Wheels

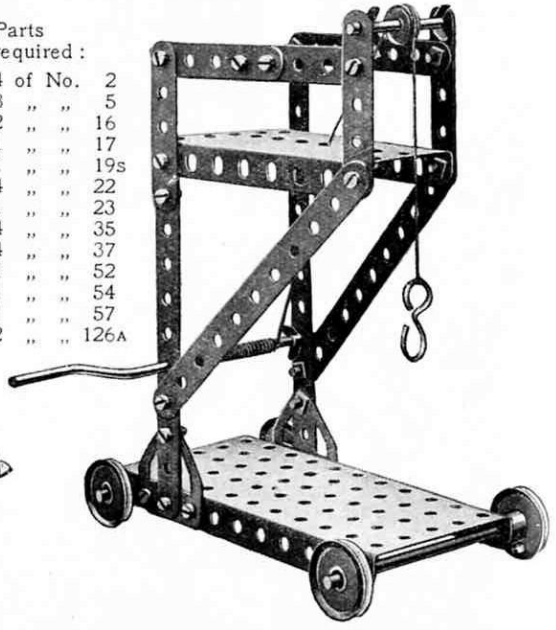
Parts required :

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

Model No. 1.45 Tower Wagon

Parts required :

4 of No.	2
8 „ „	5
2 „ „	16
1 „ „	17
1 „ „	19S
4 „ „	22
1 „ „	23
4 „ „	35
24 „ „	37
1 „ „	52
1 „ „	54
1 „ „	57
2 „ „	126A



Model No. 1.46 Bow and Arrow

Parts required :

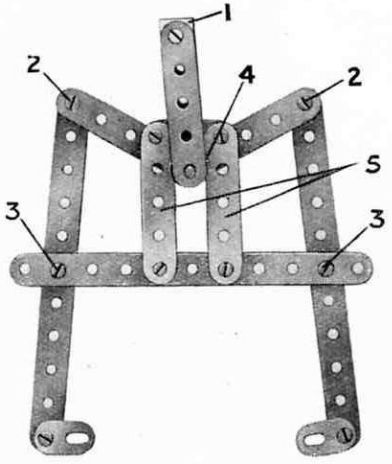
1 of No. 1 | 1 of No. 16

Model No. 1.47 Friction Grip Tongs

The hoisting cord is attached to the Double Bracket 1. The joints 2, 3 are lock-nutted, so that when the grip is raised the ½" loose Pulley Wheel 4 slides upward between the 2½" Strips 5, and the grip closes upon the block of wood or other material placed between its jaws.

Parts required :

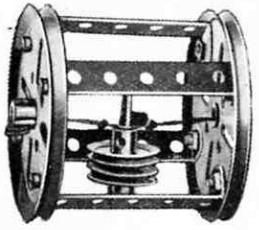
3 of No.	2	1 of No.	11
8 „ „	5	1 „ „	23
4 „ „	10	2 „ „	35
12 of No.	37		



Model No. 1.48 Cum Bak

Parts required :

1 of No.	18A		
2 „ „	19B		
2 „ „	22		
1 „ „	23		
1 „ „	35		
8 „ „	37		
4 „ „	48A		

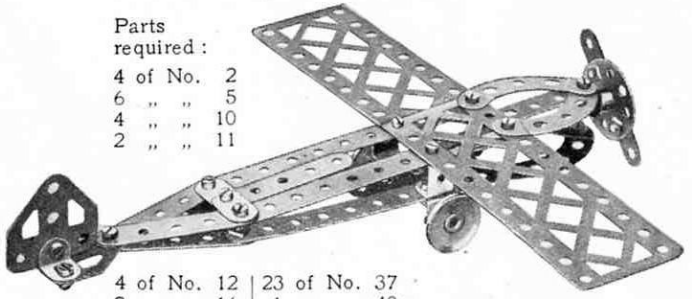


A short length of elastic is doubled and stretched between the centres of the 3" Pulley Wheels. A weight, consisting of two 1" fast Pulley Wheels and a 1½" Rod, is suspended from it in the middle of the drum. When the Cum Bak is rolled along any smooth level surface, the elastic becomes twisted and stores up sufficient energy to return the drum to its starting point. If the mechanism is concealed by a thin cardboard covering, the model will cause much amusement by its mystifying behaviour.

Model No. 1.49 Aeroplane

Parts required :

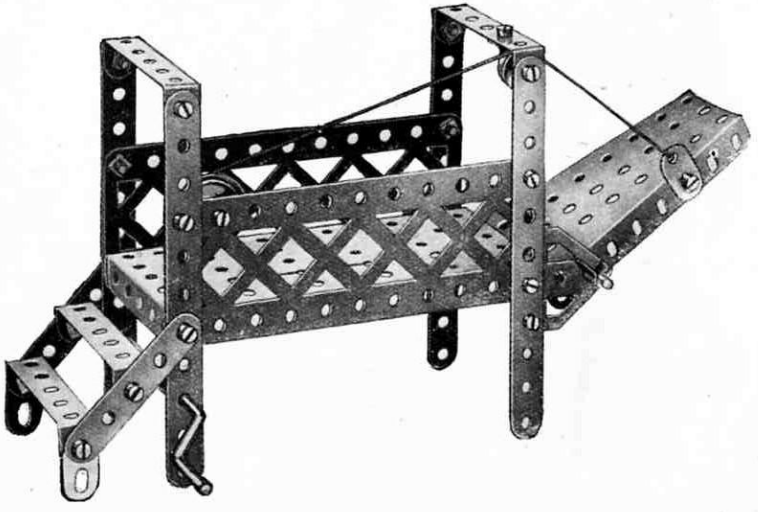
4 of No.	2		
6 „ „	5		
4 „ „	10		
2 „ „	11		
4 of No.	12	23 of No.	37
2 „ „	16	1 „ „	48A
1 „ „	22	4 „ „	90A
1 „ „	24	2 „ „	100
1 „ „	35	2 „ „	126A



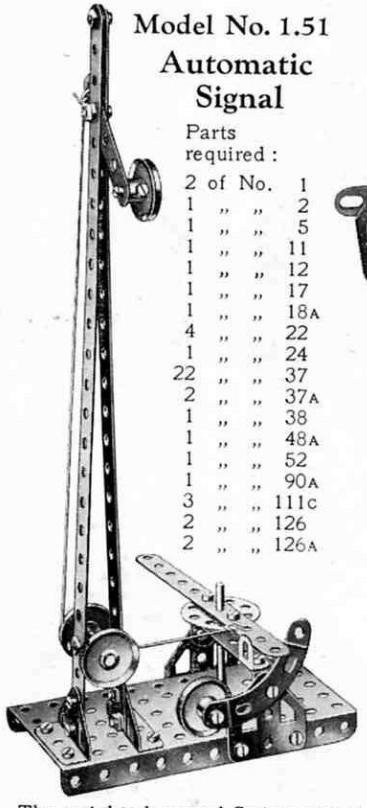
Model No. 1.50 Gangway

Parts required :

4 of No.	2	1 of No.	16	22 of No.	37	2 of No.	100
2 „ „	5	1 „ „	22	4 „ „	48A	1 „ „	111c
3 „ „	10	1 „ „	23	1 „ „	52	2 „ „	126A
1 „ „	12	4 „ „	35	1 „ „	54		



Model No. 1.51 Automatic Signal

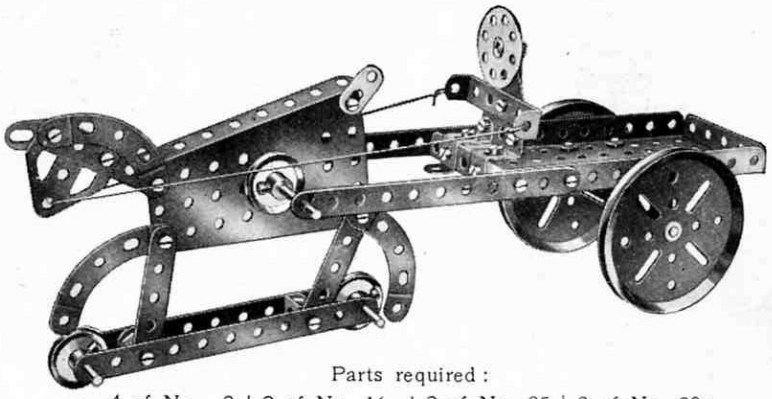


Parts required :

2	of No.	1
1	„ „	2
1	„ „	5
1	„ „	11
1	„ „	12
1	„ „	17
1	„ „	18A
4	„ „	22
1	„ „	24
22	„ „	37
2	„ „	37A
1	„ „	38
1	„ „	48A
1	„ „	52
1	„ „	90A
3	„ „	111C
2	„ „	126
2	„ „	126A

The weighted curved Strip normally holds the end of the 5½" Strip against an Angle Bracket, allowing the signal arm to fall to the " all clear " position. Any train passing the signal however, strikes the opposite end of the 5½" Strip, and by means of the cord shown, raises the arm to indicate " danger." The Curved Strip moves to allow the end of the 5½" Strip to pass over it, and is returned to its original position by reason of its weighted end. The signal then remains at " danger " until the mechanism is re-set.

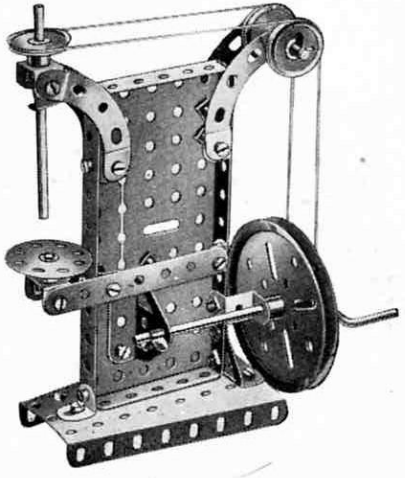
Model No. 1.52 Horse and Cart



Parts required :

4	of No.	2	2	of No.	16	2	of No.	35	3	of No.	90A
3	„ „	5	2	„ „	18A	26	„ „	37	1	„ „	111C
3	„ „	10	2	„ „	19B	1	„ „	48A	2	„ „	125
2	„ „	11	4	„ „	22	1	„ „	52	2	„ „	126
2	„ „	12	1	„ „	24	1	„ „	54	2	„ „	126A

Model No. 1.53 Drill

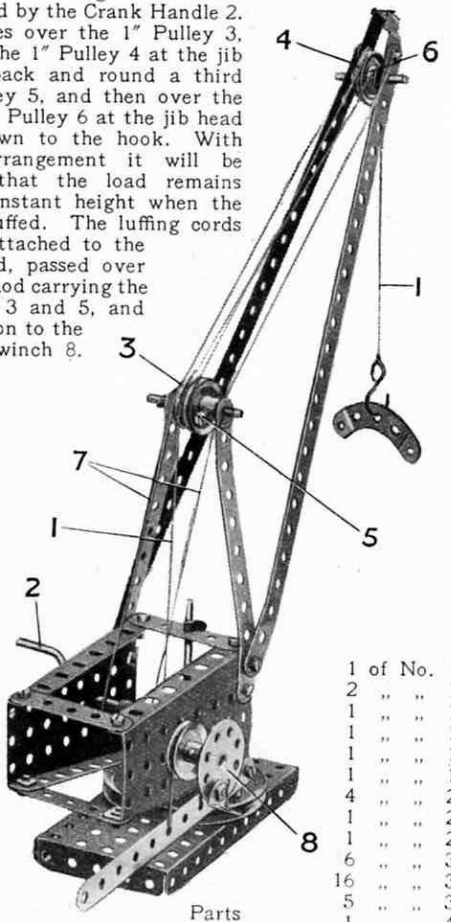


Parts required :

1	of No.	3
2	„ „	11
6	„ „	12
1	„ „	16
1	„ „	18A
1	„ „	19B
1	„ „	19S
4	„ „	22
1	„ „	24
2	„ „	35
27	„ „	37
1	„ „	52
1	„ „	54
4	„ „	90A
1	„ „	125
2	„ „	126

Model No. 1.54 Patent Luffing Crane

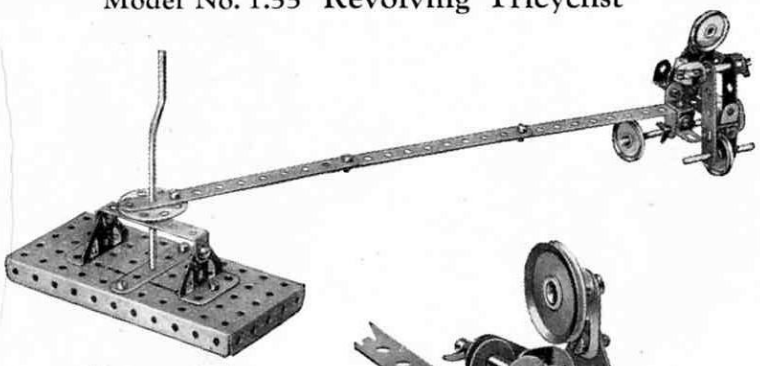
The hoisting cord 1 is operated by the Crank Handle 2. It passes over the 1" Pulley 3, round the 1" Pulley 4 at the jib head, back and round a third 1" Pulley 5, and then over the ½" loose Pulley 6 at the jib head and down to the hook. With this arrangement it will be found that the load remains at a constant height when the jib is luffed. The luffing cords 7 are attached to the jib head, passed over the 2" Rod carrying the Pulleys 3 and 5, and wound on to the luffing winch 8.



Parts required :

2	of No.	1	1	of No.	12	1	of No.	52	1	of No.	111C
3	„ „	2	2	„ „	16	2	„ „	54	2	„ „	125
4	„ „	5	1	„ „	17	1	„ „	57	2	„ „	126
			1	„ „	18A	2	„ „	111C			
			1	„ „	19B						
			1	„ „	19S						
			4	„ „	22						
			1	„ „	23						
			1	„ „	24						
			6	„ „	35						
			16	„ „	37						
			5	„ „	38						
			1	„ „	44						

Model No. 1.55 Revolving Tricyclist



Parts required :

3	of No.	2	1	of No.	24
3	„ „	5	5	„ „	35
3	„ „	10	25	„ „	37
1	„ „	11	1	„ „	44
5	„ „	12	2	„ „	48A
1	„ „	16	1	„ „	52
2	„ „	17	2	„ „	125
1	„ „	19S	2	„ „	126
4	„ „	22	1	„ „	126A

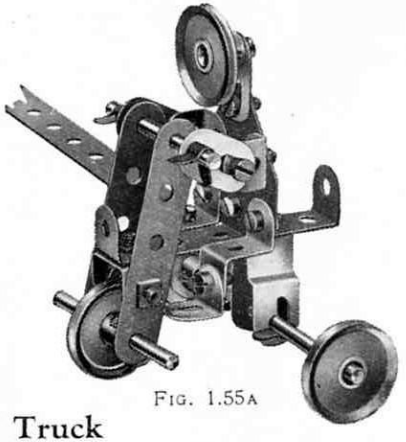
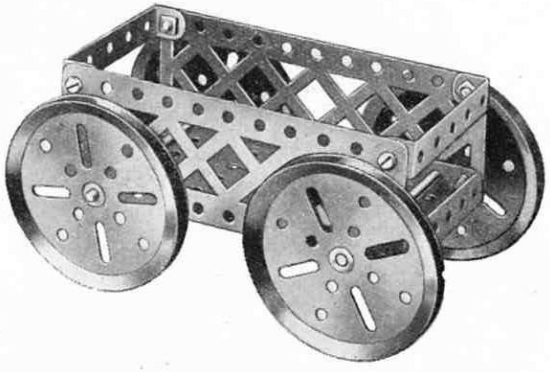


FIG. 1.55A

Model No. 1.56 Truck



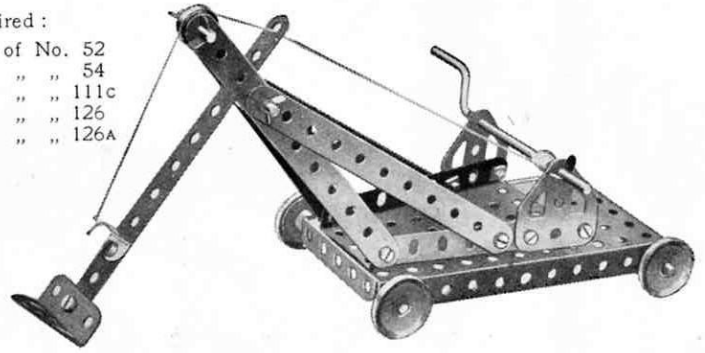
Parts required :

2	of No.	16
4	„ „	19B
8	„ „	37
2	„ „	48A
1	„ „	52
2	„ „	100

Model No. 1.57 Steam Shovel

Parts required :

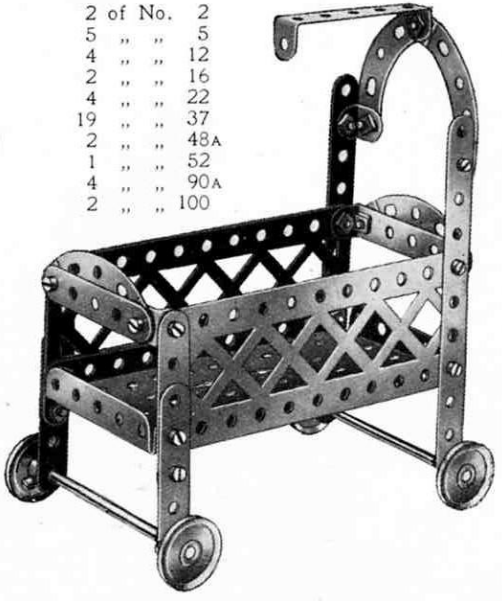
5	of No.	2	1	of No.	52
1	„ „	11	1	„ „	54
1	„ „	12	1	„ „	111C
2	„ „	16	1	„ „	126
2	„ „	18A	2	„ „	126A
1	„ „	19S			
4	„ „	22			
1	„ „	23			
6	„ „	35			
12	„ „	37			
2	„ „	37A			
2	„ „	38			



Model No. 1.58 Cot on Wheels

Parts required :

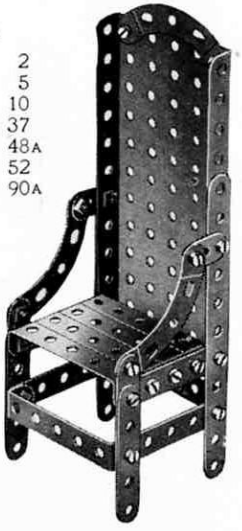
2	of No.	2
5	„ „	5
4	„ „	12
2	„ „	16
4	„ „	22
19	„ „	37
2	„ „	48A
1	„ „	52
4	„ „	90A
2	„ „	100



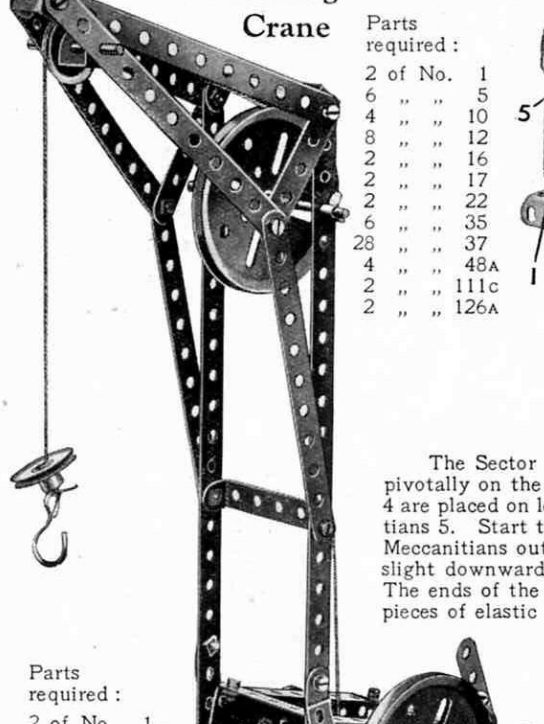
Model No. 1.59 Chair

Parts required :

2	of No.	2
8	„ „	5
2	„ „	10
22	„ „	37
6	„ „	48A
1	„ „	52
3	„ „	90A



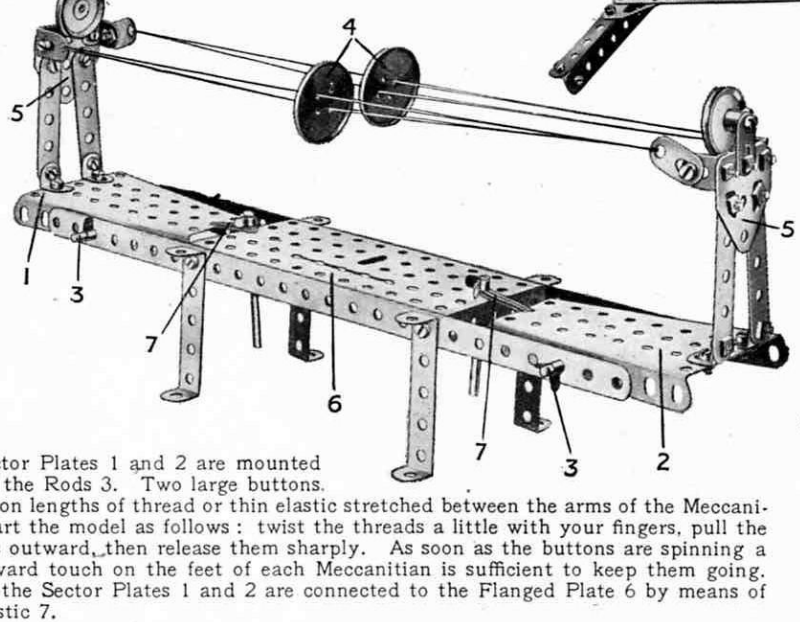
Model No. 1.60 Swivelling Crane



Parts required :

2	of No.	1
6	„ „	2
6	„ „	5
2	„ „	11
1	„ „	12
1	„ „	16
1	„ „	17
3	„ „	19B
1	„ „	19S
4	„ „	22
1	„ „	24
2	„ „	35
25	„ „	37
1	„ „	37A
2	of No.	48A
1	„ „	52
2	„ „	54
1	of No.	57
2	„ „	90A
1	„ „	111c

Model No. 1.61 Spinning Buttons



Parts required :

2	of No.	1
6	„ „	5
4	„ „	10
8	„ „	12
2	„ „	16
2	„ „	17
2	„ „	22
6	„ „	35
28	„ „	37
4	„ „	48A
2	„ „	111c
2	„ „	126A

The Sector Plates 1 and 2 are mounted pivotally on the Rods 3. Two large buttons. 4 are placed on lengths of thread or thin elastic stretched between the arms of the Meccanitians 5. Start the model as follows : twist the threads a little with your fingers, pull the Meccanitians outward, then release them sharply. As soon as the buttons are spinning a slight downward touch on the feet of each Meccanitian is sufficient to keep them going. The ends of the Sector Plates 1 and 2 are connected to the Flanged Plate 6 by means of pieces of elastic 7.

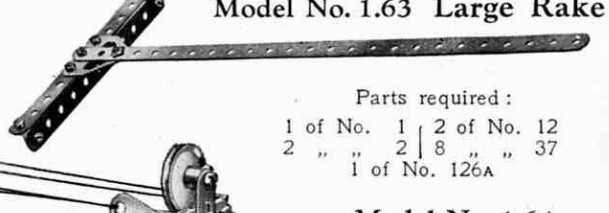
Model No. 1.62 Safety Catch for Winding Gear

Parts required :

2	of No.	5
1	„ „	19S
1	„ „	24
1	„ „	35
8	„ „	37
1	„ „	37A
1	„ „	52
2	„ „	54
1	„ „	111c

The hoisting cord of a crane, etc., may be wound on the shaft of the Crank Handle. To lock the handle in position, the Bush Wheel should be pushed inward so that one of its holes engages with the shank of a ⅜" Bolt projecting from the Sector Plate.

Model No. 1.63 Large Rake



Parts required :

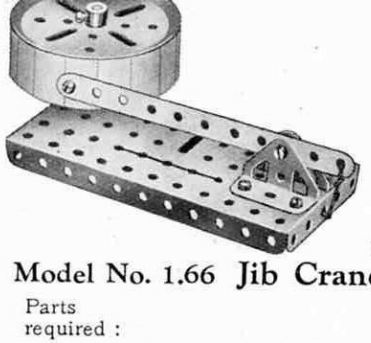
1	of No.	1
2	„ „	2
2	of No.	12
8	„ „	37
1	of No.	126A

Model No. 1.64 Man Climbing Pole

Parts required :

2	of No.	1
5	„ „	10
1	„ „	11
6	„ „	12
1	„ „	18A
3	„ „	22
26	„ „	37
4	„ „	48A
1	„ „	52
2	„ „	125
2	„ „	126
1	„ „	126A

Model No. 1.65 Seismograph



Parts required :

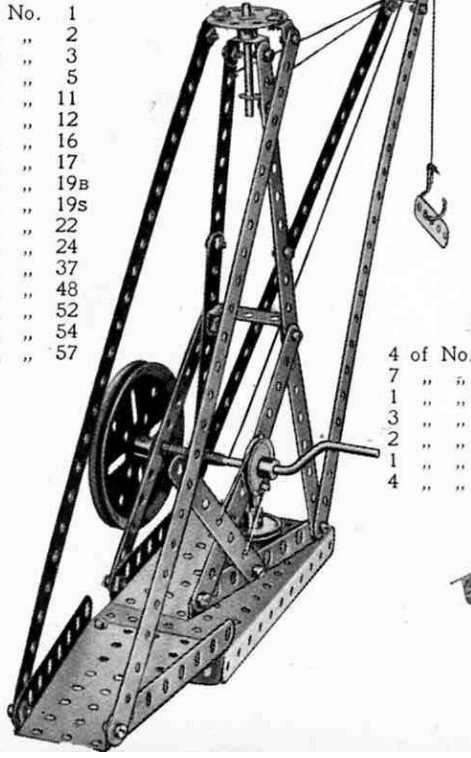
1	of	No.	2
1	„	„	11
1	„	„	17
2	„	„	19B
6	„	„	37
1	„	„	37A
1	„	„	52
1	„	„	111C
2	„	„	126

and a short length of elastic

Model No. 1.66 Jib Crane

Parts required :

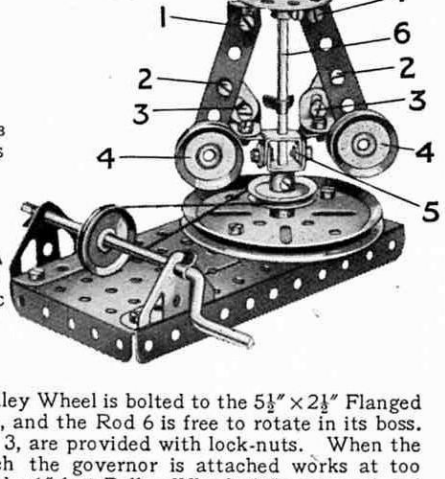
4	of	No.	1
6	„	„	2
1	„	„	3
1	„	„	5
2	„	„	11
3	„	„	12
1	„	„	16
2	„	„	17
1	„	„	19B
1	„	„	19S
4	„	„	22
1	„	„	24
23	„	„	37
1	„	„	48
1	„	„	52
2	„	„	54
1	„	„	57



Model No. 1.67 Centrifugal Governor

Parts required :

2	of	No.	5
2	„	„	10
2	„	„	11
6	„	„	12
1	„	„	16
1	„	„	19B
1	„	„	19S
4	„	„	22
1	„	„	24
3	„	„	35
18	„	„	37
6	„	„	37A
4	„	„	38
2	„	„	111C
2	„	„	126

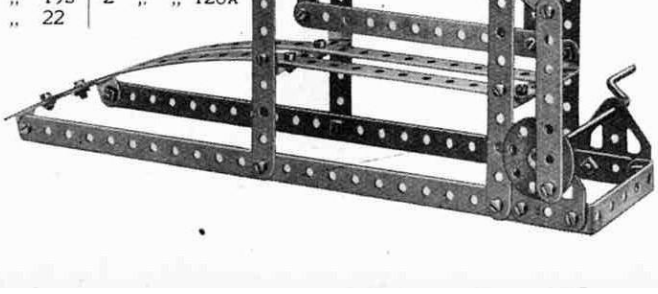


The 3″ Pulley Wheel is bolted to the 5½″ × 2½″ Flanged Plate as shown, and the Rod 6 is free to rotate in its boss. The Bolts 1, 2, 3, are provided with lock-nuts. When the engine to which the governor is attached works at too great a speed, the 1″ fast Pulley Wheels 4 fly outward and lift the two Double Brackets 5. In actual practice this movement is utilised to close the engine valves and so reduce speed.

Model No. 1.68 Stone-Sawing Machine

Parts required :

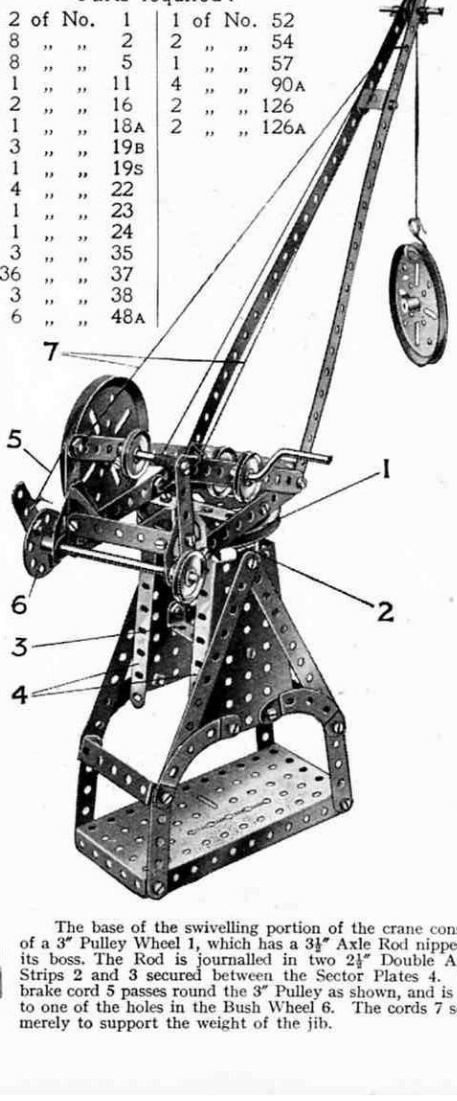
4	of	No.	1	1	of	No.	24
7	„	„	2	6	„	„	35
1	„	„	3	28	„	„	37
3	„	„	5	4	„	„	37A
2	„	„	16	6	„	„	48A
1	„	„	19S	2	„	„	126A
4	„	„	22				



Model No. 1.69 Elevated Crane

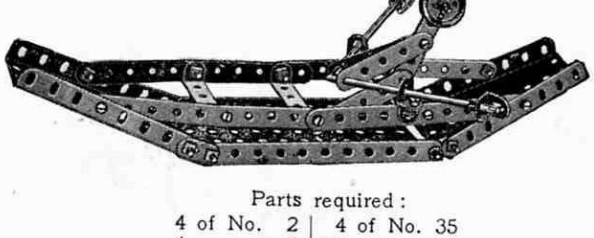
Parts required :

2	of	No.	1	1	of	No.	52
8	„	„	2	2	„	„	54
8	„	„	5	1	„	„	57
1	„	„	11	4	„	„	90A
2	„	„	16	2	„	„	126
1	„	„	18A	2	„	„	126A
3	„	„	19B				
1	„	„	19S				
4	„	„	22				
1	„	„	23				
1	„	„	24				
3	„	„	35				
36	„	„	37				
3	„	„	38				
6	„	„	48A				



The base of the swivelling portion of the crane consists of a 3″ Pulley Wheel 1, which has a 3½″ Axle Rod nipped in its boss. The Rod is journalled in two 2½″ Double Angle Strips 2 and 3 secured between the Sector Plates 4. The brake cord 5 passes round the 3″ Pulley as shown, and is tied to one of the holes in the Bush Wheel 6. The cords 7 serve merely to support the weight of the jib.

Model No. 1.70 Rowing Boat



Parts required :

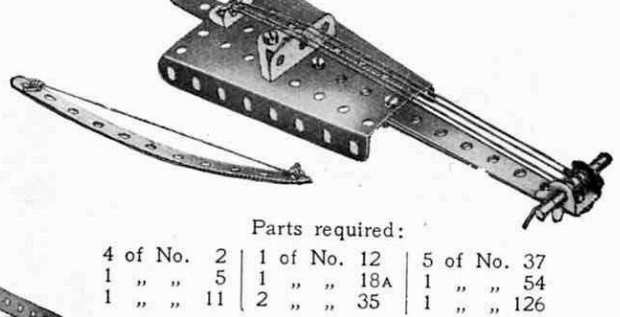
4	of No.	2	4	of No.	35
4	„ „	5	24	„ „	37
4	„ „	10	3	„ „	48A
7	„ „	12	1	„ „	52
2	„ „	16	2	„ „	54
1	„ „	22	1	„ „	111c

Model No. 1.72 Weather Vane

Parts required :

3	of No.	1	14	of No.	37
2	„ „	2	1	„ „	52
1	„ „	11	1	„ „	54
2	„ „	12	1	„ „	111c
1	„ „	24	2	„ „	126

Model No. 1.73 Violin and Bow



Parts required :

4	of No.	2	1	of No.	12	5	of No.	37
1	„ „	5	1	„ „	18A	1	„ „	54
1	„ „	11	2	„ „	35	1	„ „	126

Model No. 1.71 The Wrestlers

Two $2\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strips, one of which is bolted to the Bush Wheel, form the arms of the wrestlers. The legs are all pivoted by means of bolts and lock-nuts. Sharp irregular movements of the Crank Handle will result in amusing antics by the wrestlers.

Parts required :

4	of No.	2	4	of No.	12
6	„ „	5	1	„ „	16
4	„ „	10	1	„ „	19s
			4	„ „	22
			1	„ „	24
			3	„ „	35
			24	„ „	37
			5	„ „	38
			6	„ „	48A
			1	„ „	52
			2	„ „	111c
			2	„ „	126A

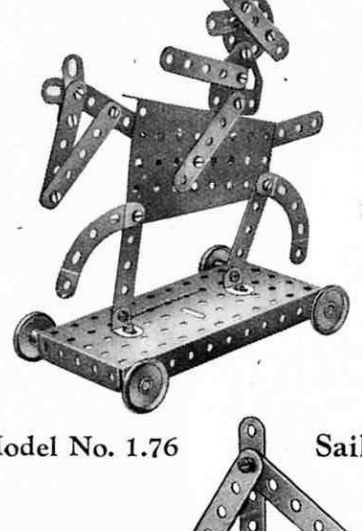
Model No. 1.74 Beam Engine

The connecting Strip 1 is attached pivotally by a Bolt and two Nuts (Standard Mechanism No. 262) to one end of the beam 2 and to the Bush Wheel 3. The Strip 4 is similarly connected to the other end of the beam 2 and to the Double Bracket 5 attached to the piston rod. The short rod carrying the flywheel 6 is journalled in a $2\frac{1}{2}''$ Strip supported by the Trunnion 7 and in a reversed Angle Bracket bolted to the $2\frac{1}{2}''$ Strip.

Parts required :

6	of No.	2	1	„ „	52
1	„ „	3	2	„ „	125
3	„ „	5	1	„ „	126
2	„ „	11	2	„ „	126A
3	„ „	12			
2	„ „	16			
1	„ „	17			
1	„ „	19B			
1	„ „	24			
8	„ „	35			
20	„ „	37			
4	„ „	37A			
1	„ „	48			

Model No. 1.75 Horseman



Parts required :

2	of	No.	2
7	„	„	5
3	„	„	10
2	„	„	12
2	„	„	16
4	„	„	22
1	„	„	24
17	„	„	37
1	„	„	52
1	„	„	54
2	„	„	90A
1	„	„	126A

Model No. 1.76 Sailing Boat

Parts required :

4	of	No.	2
8	„	„	5
1	„	„	10
2	„	„	12
2	„	„	16
4	„	„	22
1	„	„	23
23	„	„	37
1	„	„	37A
2	„	„	48A
1	„	„	52
1	„	„	54
1	„	„	111c

Model No. 1.77 Flip Flap

Parts required :

4	of	No.	1
4	„	„	2
2	„	„	5
2	„	„	11
1	„	„	16
2	„	„	19B
1	„	„	19S
4	„	„	22
6	„	„	35
8	„	„	37
6	„	„	37A
8	„	„	38
1	„	„	52
4	„	„	90A
6	„	„	111c

Model No. 1.78 Bellows

Parts required :

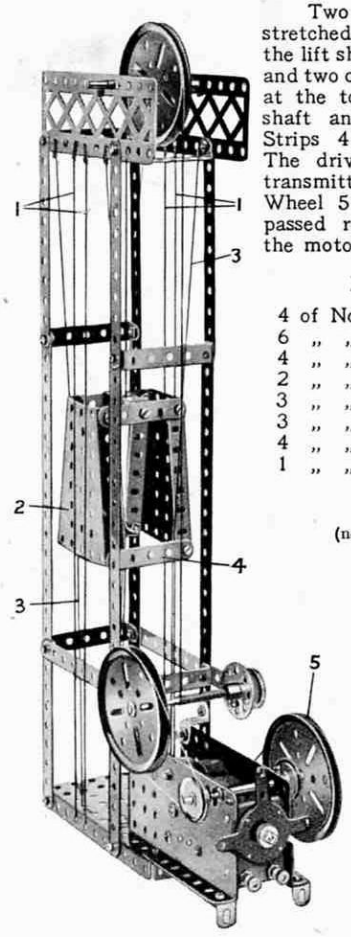
2	of	No.	2
1	„	„	17
9	„	„	37
4	„	„	48A
2	„	„	54

Model No. 1.79 Mobile Crane

Parts required :

2	of	No.	1
4	„	„	2
1	„	„	3
2	„	„	5
1	„	„	10
2	„	„	12
2	„	„	16
2	„	„	17
1	„	„	18A
3	„	„	19B
1	„	„	19S
4	„	„	22
1	„	„	23
1	„	„	24
7	„	„	35
14	„	„	37
7	„	„	37A
2	of	No.	38
1	„	„	40
1	„	„	44
1	„	„	48
1	„	„	48A
1	„	„	52
1	„	„	57
3	„	„	111c
2	„	„	125

Model No. 1.80 Electric Elevator



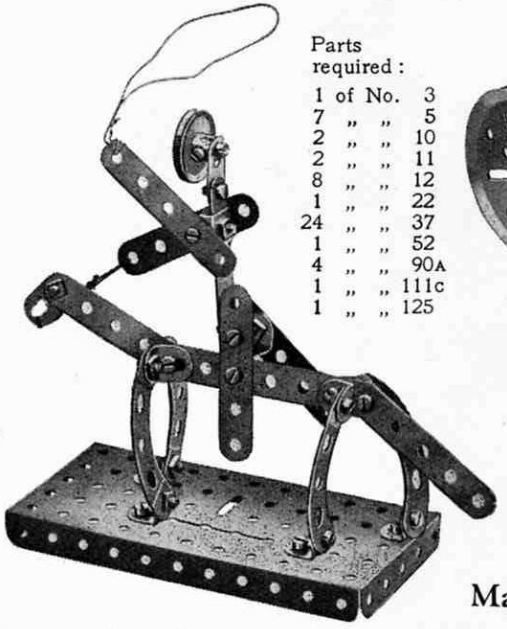
Two pairs of cords 1 are stretched tightly on each side of the lift shaft to guide the cage 2 and two other cords 3 are secured at the top and bottom of the shaft and passed behind 2½" Strips 4 bolted to the cage. The drive from the motor is transmitted to the 3" Pulley Wheel 5 by means of a cord passed round a 1" Pulley on the motor armature.

Parts required :

4	of No.	1	3	of No.	35
6	„ „	2	34	„ „	37
4	„ „	5	1	„ „	38
2	„ „	12	1	„ „	48
3	„ „	16	6	„ „	48A
3	„ „	19B	1	„ „	52
4	„ „	22	2	„ „	54
1	„ „	24	2	„ „	100
	2	of No. 125			

Electric Motor
(not included in Outfit)

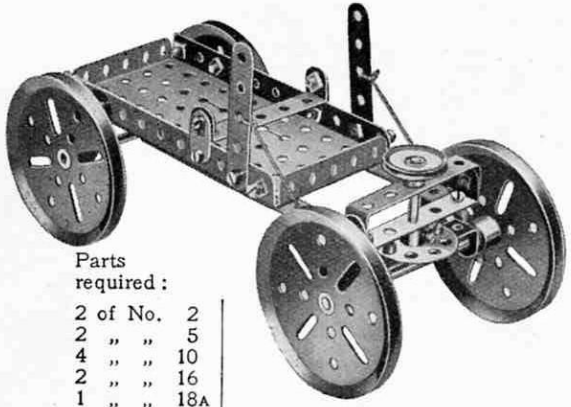
Model No. 1.81 Mounted Cowboy



Parts required :

1	of No.	3
7	„ „	5
2	„ „	10
2	„ „	11
8	„ „	12
1	„ „	22
24	„ „	37
1	„ „	52
4	„ „	90A
1	„ „	111c
1	„ „	125

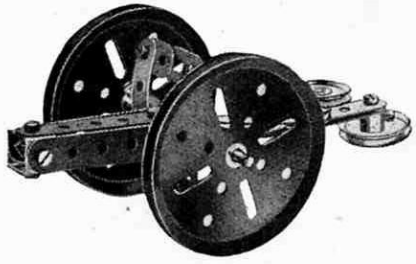
Model No. 1.83 Coaster



Parts required :

2	of No.	2	22	of No.	37
2	„ „	5	2	„ „	37A
4	„ „	10	6	„ „	38
2	„ „	16	4	of No.	48A
1	„ „	18A	1	„ „	52
4	„ „	19B	2	„ „	126A
1	„ „	22			
1	„ „	24			

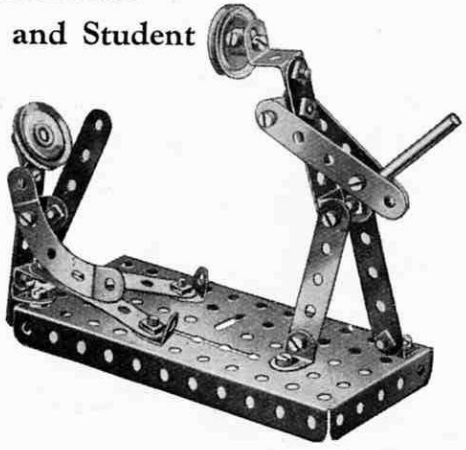
Model No. 1.82 Howitzer



Parts required :

2	of No.	2
6	„ „	5
4	„ „	10
2	„ „	11
4	„ „	12
1	„ „	16
2	„ „	19B
2	„ „	22
2	„ „	35
14	„ „	37
2	„ „	38
2	„ „	111c
2	„ „	125

Model No. 1.84 Master and Student

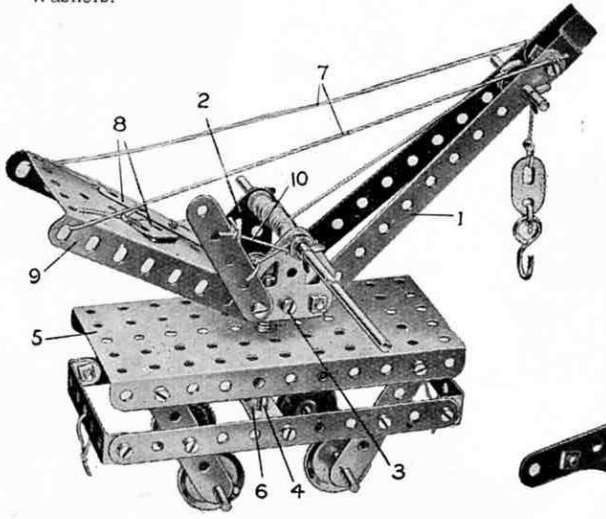


Parts required :

9	of No.	5
1	„ „	10
2	„ „	11
8	„ „	12
2	„ „	22
20	„ „	37
3	„ „	37A
1	„ „	52
1	„ „	90A
4	„ „	111c
1	„ „	125

Model No. 1.85 Travelling Crane

The jib 1 is pivoted to the Flat Trunnions 2, which are bolted at 3 to Angle Brackets secured to a Bush Wheel. The latter is nipped to a 2" Rod 4 passing through the Plate 5 and further supported in a Double Angle Strip 6. A Washer and Spring Clip mounted on the Rod 4 below the Strip 6 secure the crane to the carriage. The jib is supported by means of cords 7 tied to 2½" Strips 8, the holes of which engage the shank of a bolt passed through the Sector Plate 9, and its elevation may be altered by inserting this bolt in different holes in the Strips 8. The cord 10 of the brake lever is wound once round the Crank Handle, between two Washers.

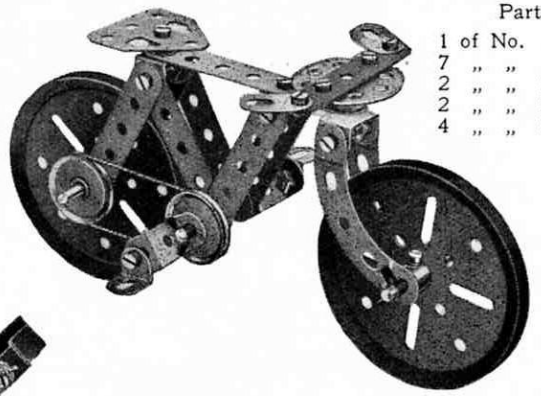


Parts required :

4	of	No.	2	1	of	No.	19s
7	„	„	5	4	„	„	22
1	„	„	10	1	„	„	23
2	„	„	12	1	„	„	24
2	„	„	16	5	„	„	35
2	„	„	17	27	„	„	37
				6	„	„	38

1	of	No.	44
3	„	„	48A
1	„	„	52
1	„	„	54
1	„	„	57
2	„	„	126A

Model No. 1.86 Bicycle



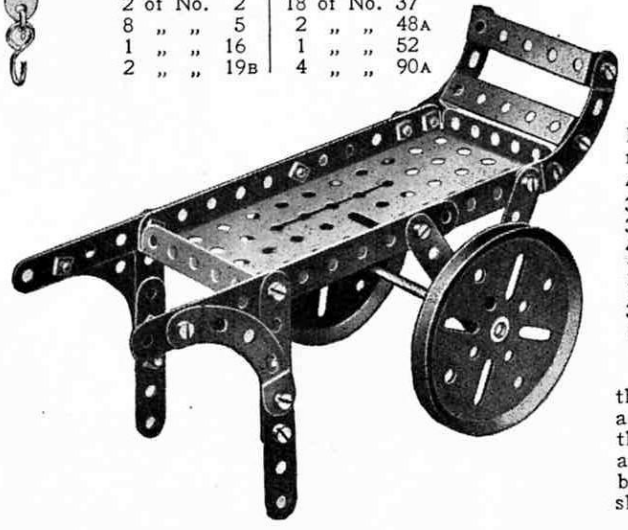
Parts required :

1	of	No.	3	2	of	No.	17
7	„	„	5	1	„	„	18A
2	„	„	10	2	„	„	19B
2	„	„	11	2	„	„	22
4	„	„	12	1	„	„	24
				4	„	„	35
				13	„	„	37
				4	„	„	37A
				3	„	„	38
				2	„	„	90A
				4	„	„	111C
				2	„	„	125
				1	„	„	126A

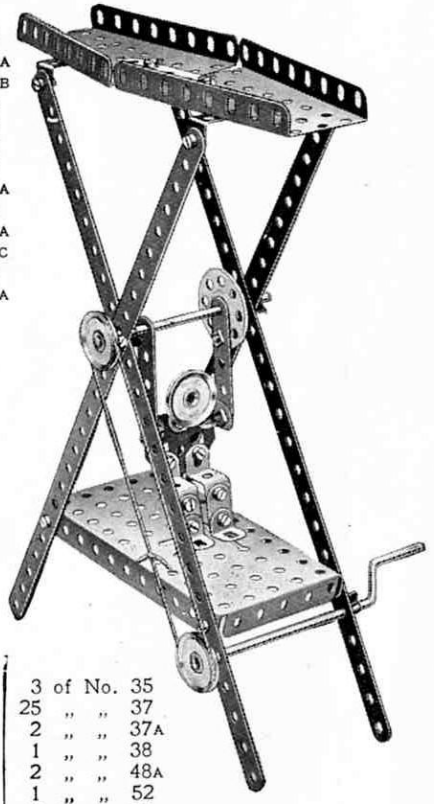
Model No. 1.87 Luggage Truck

Parts required :

2	of	No.	2	18	of	No.	37
8	„	„	5	2	„	„	48A
1	„	„	16	1	„	„	52
2	„	„	19B	4	„	„	90A



Model No. 1.88 Gymnast

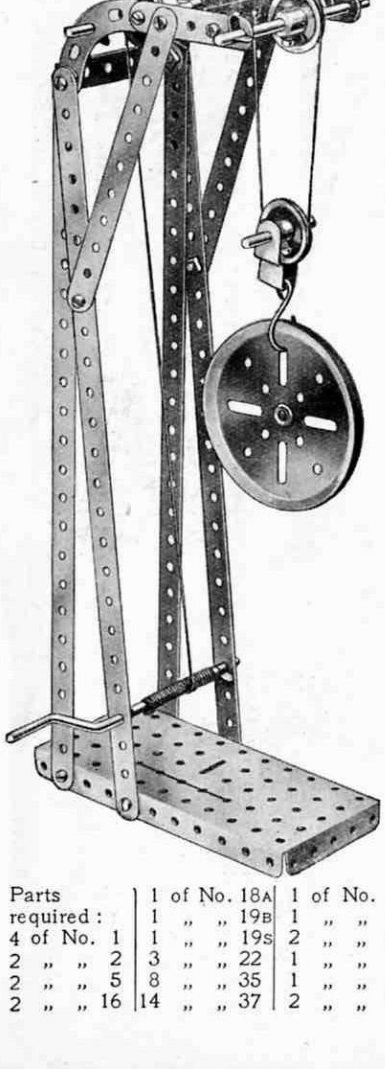


Parts required :

4	of	No.	1	3	of	No.	35
3	„	„	5	25	„	„	37
3	„	„	10	2	„	„	37A
4	„	„	12	1	„	„	38
1	„	„	16	2	„	„	48A
1	„	„	19s	1	„	„	52
3	„	„	22	2	„	„	54
1	„	„	24	1	„	„	126A

One of the 2½" Strips representing the arms of the gymnast is bolted to a Bush Wheel secured on a 3½" Rod. When the Crank Handle is rotated the gymnast turns complete somersaults in a very amusing manner. The gymnast's "arms" must be pivoted to the Angle Brackets forming his shoulders by means of Bolts and Lock-Nuts.

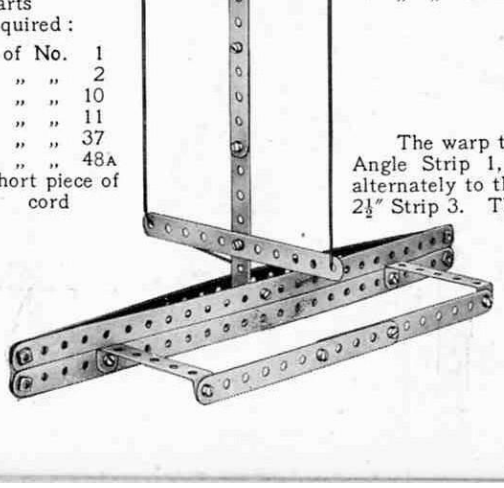
Model No. 1.89 Hoisting Block



Parts required :

4	of No.	1	
2	„ „	2	
2	„ „	5	
2	„ „	16	
1	of No.	18A	
1	„ „	19B	
1	„ „	19S	
3	„ „	22	
8	„ „	35	
14	„ „	37	
1	of No.	40	
1	„ „	44	
2	„ „	48A	
1	„ „	52	
1	„ „	57	
2	„ „	90A	

Model No. 1.90 Catamaran

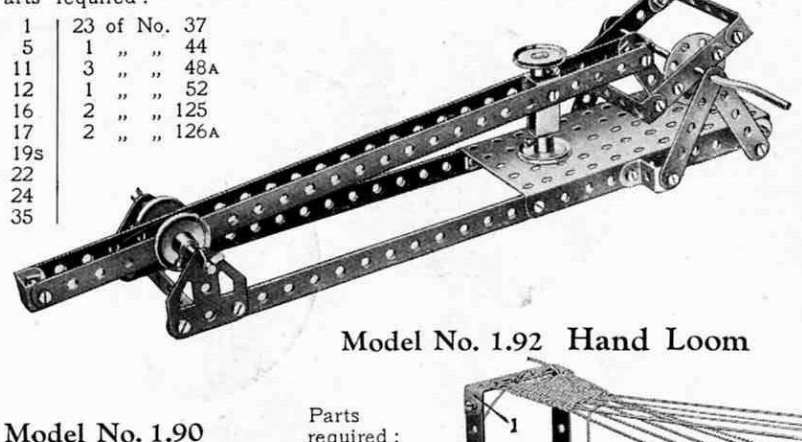


Parts required :

4	of No.	1	
6	„ „	2	
2	„ „	10	
1	„ „	11	
17	„ „	37	
2	„ „	48A	

Short piece of cord

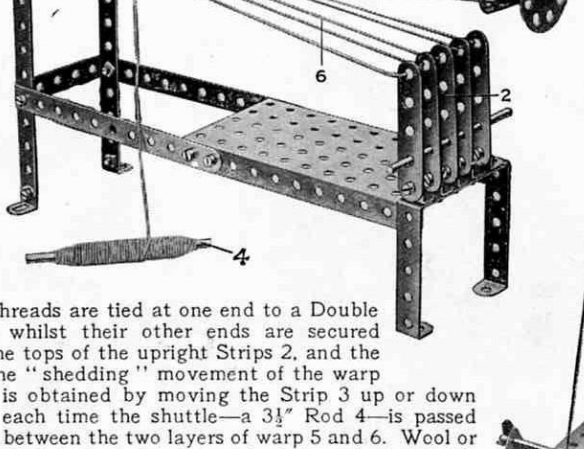
Model No. 1.91 Helve Hammer



Parts required :

4	of No.	1	
6	„ „	5	
2	„ „	11	
2	„ „	12	
1	„ „	16	
1	„ „	17	
1	„ „	19S	
4	„ „	22	
1	„ „	24	
4	„ „	35	
23	of No.	37	
1	„ „	44	
3	„ „	48A	
1	„ „	52	
2	„ „	125	
2	„ „	126A	

Model No. 1.92 Hand Loom

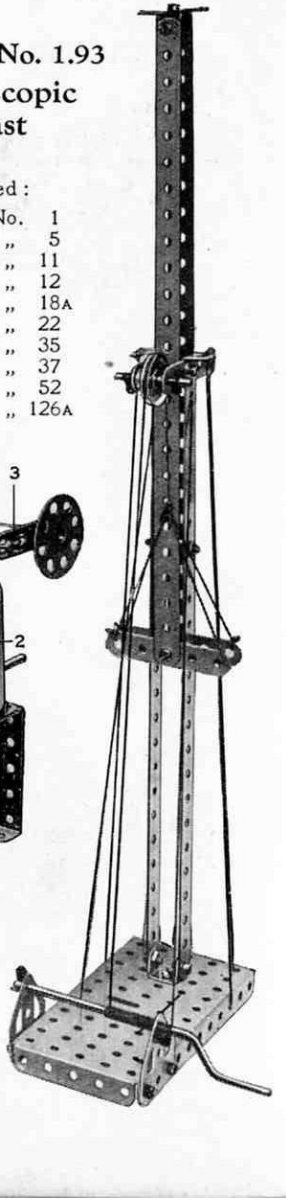


Parts required :

4	of No.	2	
6	„ „	5	
7	„ „	12	
2	„ „	16	
1	„ „	24	
21	„ „	37	
4	„ „	48A	
1	„ „	52	

The warp threads are tied at one end to a Double Angle Strip 1, whilst their other ends are secured alternately to the tops of the upright Strips 2, and the 2½" Strip 3. The "shedding" movement of the warp is obtained by moving the Strip 3 up or down each time the shuttle—a 3½" Rod 4—is passed between the two layers of warp 5 and 6. Wool or similar material is particularly suited to this apparatus. The strands 6 should be kept very taut, and the weft threads may be closed up with the woven portion by means of an ordinary comb each time the shuttle passes.

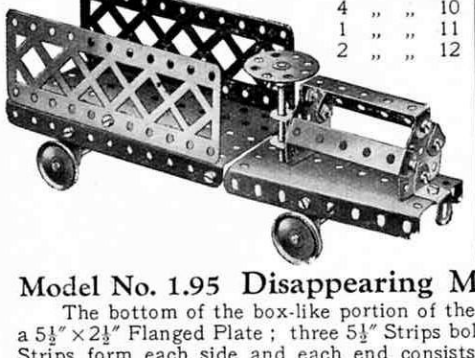
Model No. 1.93 Telescopic Mast



Parts required :

4	of No.	1	
5	„ „	5	
2	„ „	11	
6	„ „	12	
1	„ „	18A	
1	„ „	22	
4	„ „	35	
16	„ „	37	
1	„ „	52	
2	„ „	126A	

Model No. 1.94 Motor Lorry



Parts required :

2	of No. 5	2	of No. 16
4	„ „ 10	1	„ „ 17
1	„ „ 11	4	„ „ 22
2	„ „ 12	1	„ „ 24
		1	„ „ 35
		23	„ „ 37
		4	„ „ 48A
		1	„ „ 52
		1	„ „ 54
		2	„ „ 100
		1	„ „ 125
		2	„ „ 126A

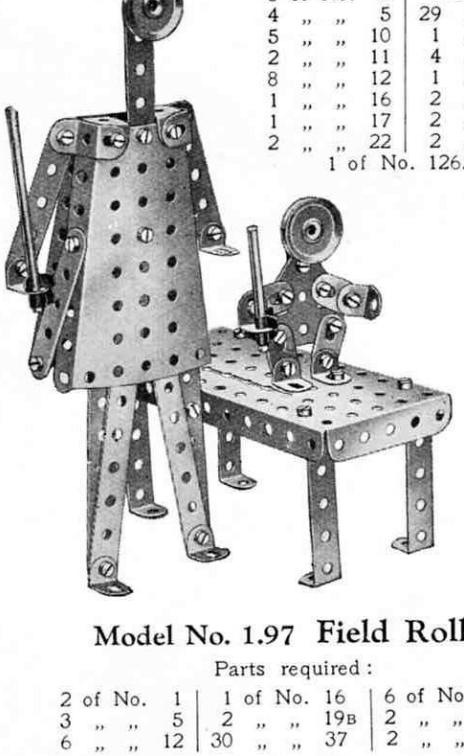
Model No. 1.95 Disappearing Meccanitian

The bottom of the box-like portion of the model consists of a 5½" × 2½" Flanged Plate ; three 5½" Strips bolted to upright 2½" Strips form each side and each end consists of three 2½" × ½" Double Angle Strips. The lid 1, which is mounted pivotally on an Axle Rod 2, consists of two Sector Plates bolted together. Elastic bands are tied to the sides of these Plates and connected to Rod 3 passed through the bottom of the box. The " Meccanitian " 4 also is connected to this Rod by pieces of elastic. On pressing the end of the rear Sector Plate the lid opens sufficiently to allow the figure to be drawn inside and then snaps back into place. A Cranked Bent Strip 5 is bolted at the back of the figure and rests against the edge of the Sector Plate.

Parts required :

6	of No. 2	2	of No. 44
6	„ „ 5	4	„ „ 48A
1	„ „ 10	1	„ „ 52
4	„ „ 12	2	„ „ 54
2	„ „ 16	1	„ „ 111C
1	„ „ 22	1	„ „ 126A
6	„ „ 35		
23	„ „ 37		

Model No. 1.96 Dignity and Impudence



Parts required :

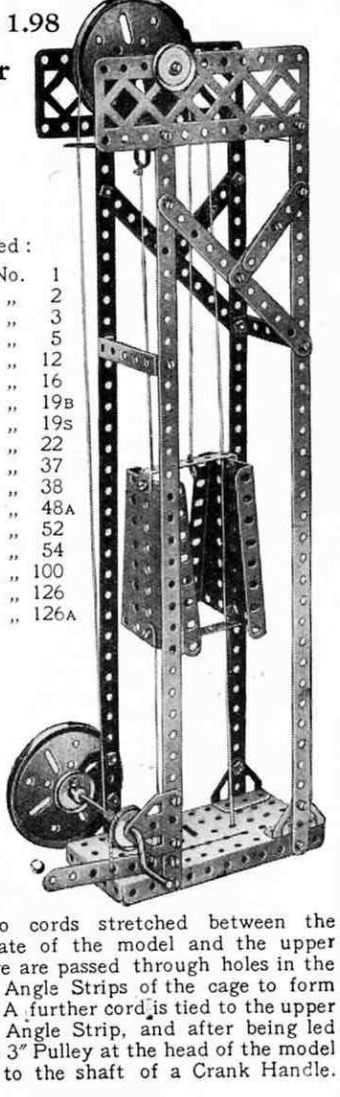
5	of No. 2	4	of No. 35
4	„ „ 5	29	„ „ 37
5	„ „ 10	1	„ „ 48
2	„ „ 11	4	„ „ 48A
8	„ „ 12	1	„ „ 52
1	„ „ 16	2	„ „ 54
1	„ „ 17	2	„ „ 111C
2	„ „ 22	2	„ „ 125
	1 of No. 126A		

Model No. 1.97 Field Roller

Parts required :

2	of No. 1	1	of No. 16	6	of No. 48A
3	„ „ 5	2	„ „ 19B	2	„ „ 90A
6	„ „ 12	30	„ „ 37	2	„ „ 126

Model No. 1.98 Elevator



Parts required :

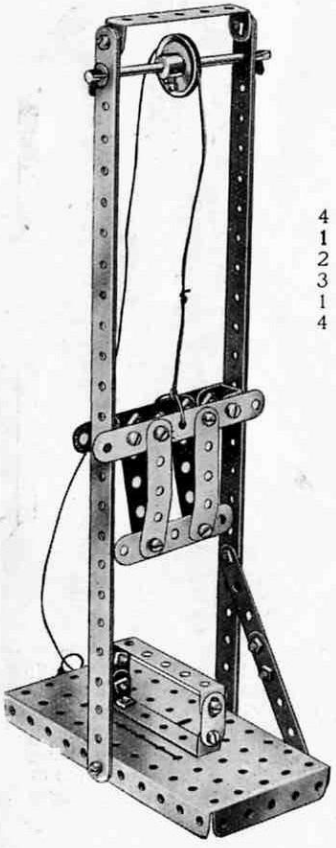
4	of No. 1	1	of No. 19S
7	„ „ 2	4	„ „ 22
1	„ „ 3	33	„ „ 37
4	„ „ 5	3	„ „ 38
1	„ „ 12	6	„ „ 48A
1	„ „ 16	1	„ „ 52
2	„ „ 19B	2	„ „ 54
		2	„ „ 100
		2	„ „ 126
		2	„ „ 126A

Two cords stretched between the base plate of the model and the upper structure are passed through holes in the Double Angle Strips of the cage to form guides. A further cord is tied to the upper Double Angle Strip, and after being led over the 3" Pulley at the head of the model is tied to the shaft of a Crank Handle.

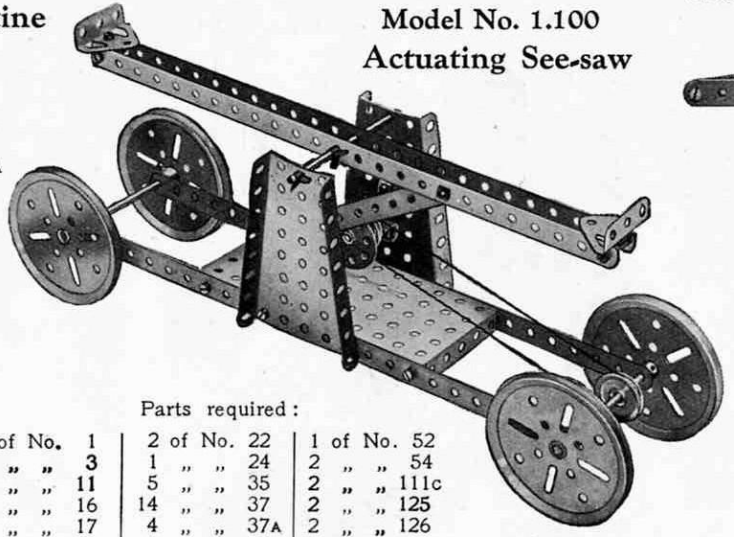
Model No. 1.99 Guillotine

Parts required :

2	of No.	1	1	of No.	16
1	„ „	3	1	„ „	22
9	„ „	5	2	„ „	35
2	„ „	10	24	„ „	37
2	„ „	11	3	„ „	48A
	1 of No. 52				



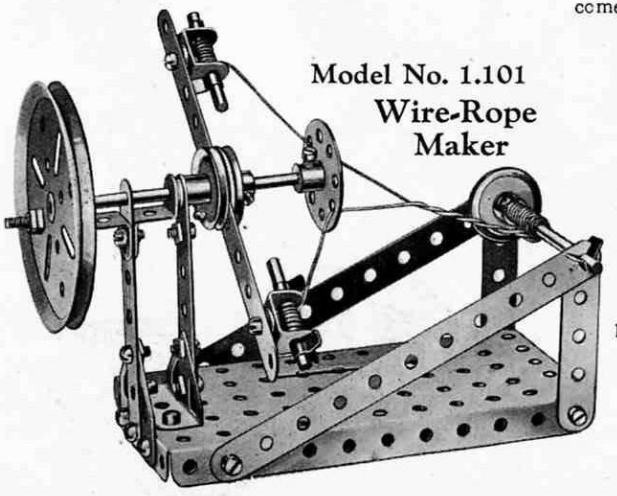
Model No. 1.100 Actuating See-saw



Parts required :

4	of No.	1	2	of No.	22	1	of No.	52
1	„ „	3	1	„ „	24	2	„ „	54
2	„ „	11	5	„ „	35	2	„ „	111c
3	„ „	16	14	„ „	37	2	„ „	125
1	„ „	17	4	„ „	37A	2	„ „	126
4	„ „	19B	1	„ „	40			

Model No. 1.101 Wire-Rope Maker



Parts required :

3	of No.	2
1	„ „	3
3	„ „	5
1	„ „	10
2	„ „	11
2	„ „	16
2	„ „	18A
1	„ „	19B
3	„ „	22
1	„ „	24
6	„ „	35
16	„ „	37
2	„ „	37A
1	„ „	52
1	„ „	111c
2	„ „	125
1	„ „	126
1	„ „	126A

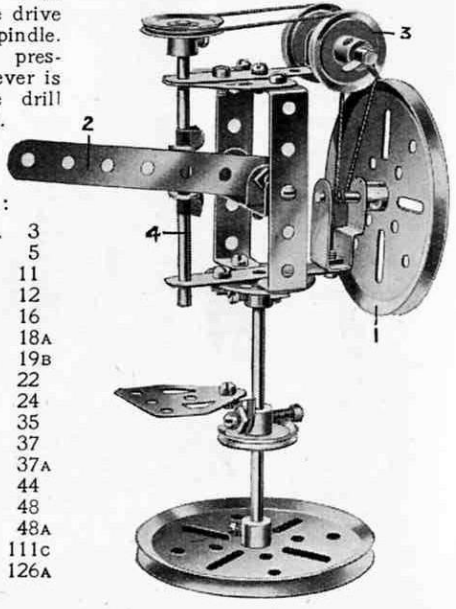
Model No. 1.102 Coat Hanger

Parts required :

1	of No.	1	2	of No.	5	1	of No.	57
2	„ „	2	6	„ „	37			

Model No. 1.103 Automatic Drill

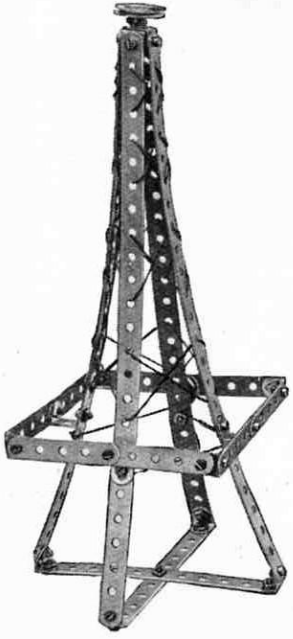
Cord is passed round the Pulley on the drill spindle 4 and thence over the Pulleys 3 and round the shaft of the Pulley 1. The lever 2 (a 3½" Strip) is pivoted by a Bolt and two Nuts at its inner end to an Angle Bracket, and the latter is bolted to a 1½" × ½" Double Angle Strip which, in turn, is bolted between the vertical 2½" Double Angle Strips. The arm of the lever engages between two Washers on the drill spindle, and on pressing the lever, the drill spindle with its 1" Pulley is forced downwards, thus tightening the Cord, which then transmits the drive to the drill spindle. Immediately pressure on the lever is released, the drill comes to rest.



Parts required :

1	of No.	3
2	„ „	5
1	„ „	11
2	„ „	12
2	„ „	16
2	„ „	18A
2	„ „	19B
4	„ „	22
1	„ „	24
4	„ „	35
16	„ „	37
1	„ „	37A
1	„ „	44
1	„ „	48
2	„ „	48A
1	„ „	111c
2	„ „	126A

Model No. 1.104 Eiffel Tower



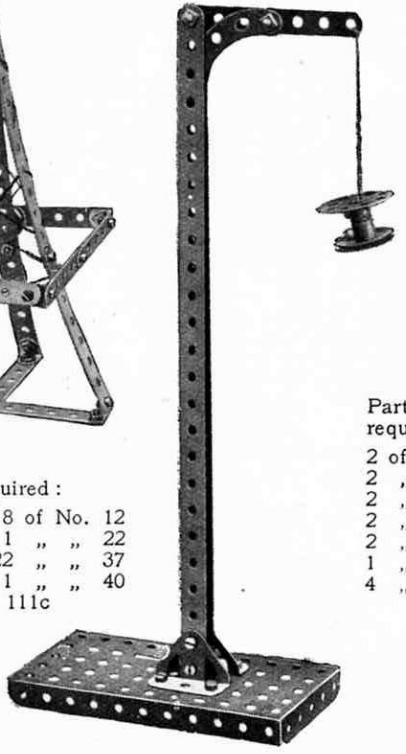
Parts required :

4	of No.	1	8	of No.	12
2	„ „	2	1	„ „	22
8	„ „	5	22	„ „	37
2	„ „	11	1	„ „	40
	1 of No.	111c			

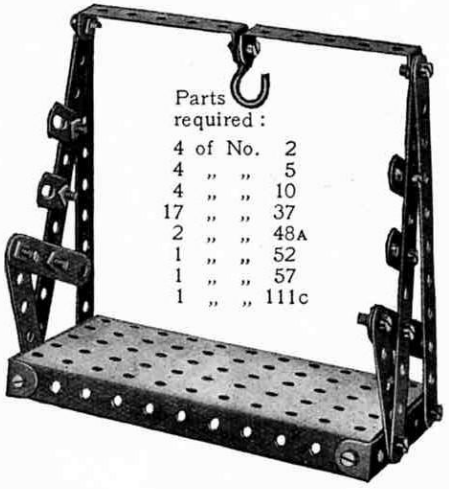
Model No. 1.105 Arc Lamp

Parts required :

2	of No.	1	10	of No.	37
1	„ „	3	1	„ „	52
1	„ „	22	1	„ „	90A
1	„ „	24	2	„ „	126



Model No. 1.106 Pen Rack



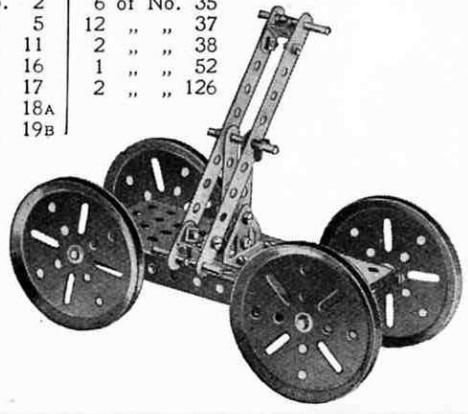
Parts required :

4	of No.	2
4	„ „	5
4	„ „	10
17	„ „	37
2	„ „	48A
1	„ „	52
1	„ „	57
1	„ „	111c

Model No. 1.107 Manual Fire Engine

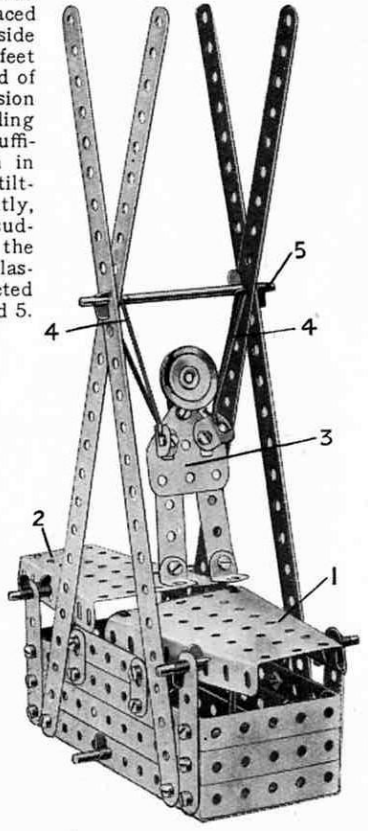
Parts required :

2	of No.	2	6	of No.	35
2	„ „	5	12	„ „	37
2	„ „	11	2	„ „	38
2	„ „	16	1	„ „	52
2	„ „	17	2	„ „	126
1	„ „	18A			
4	„ „	19B			



Model No. 1.108 A Sudden Appearance

The Sector Plate 1, forming the lid, is carried pivotally on an axle rod that passes through its sides three holes from the end, and the rear Sector Plate 2 is pivoted in a similar manner, excepting that the rod in this case passes through the fourth hole from the end. Pieces of thin elastic are tied to the end holes in each side of the front Sector Plate at its widest end, and are connected to a Rod journalled in the sides of the box. The " Meccanitian " 3 is placed face downward inside the box with his feet towards the far end of the model. The tension of the elastic holding the lid 1 should be sufficient to keep him in this position. On tilting the Plate 1 slightly, however, he will suddenly shoot out of the box, drawn by the elastic bands 4 connected to the 3½" Axle Rod 5.



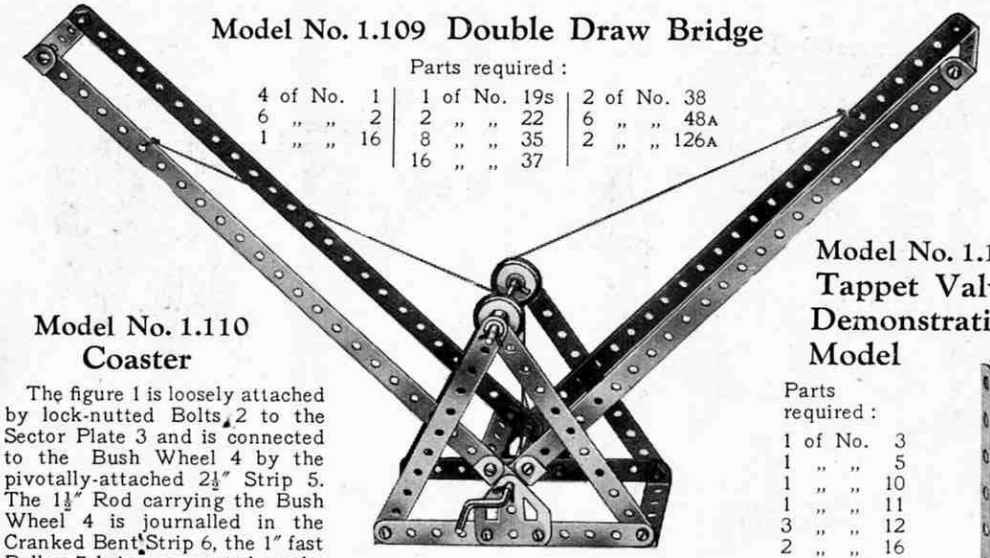
Parts required :

4	of No.	1
4	„ „	2
8	„ „	5
5	„ „	10
4	„ „	12
4	„ „	16
1	„ „	22
8	„ „	35
29	„ „	37
4	„ „	48A
1	„ „	52
2	„ „	54
1	„ „	111c
1	„ „	126A

Model No. 1.109 Double Draw Bridge

Parts required :

4 of No. 1	1 of No. 19s	2 of No. 38
6 „ „ 2	2 „ „ 22	6 „ „ 48A
1 „ „ 16	8 „ „ 35	2 „ „ 126A
	16 „ „ 37	

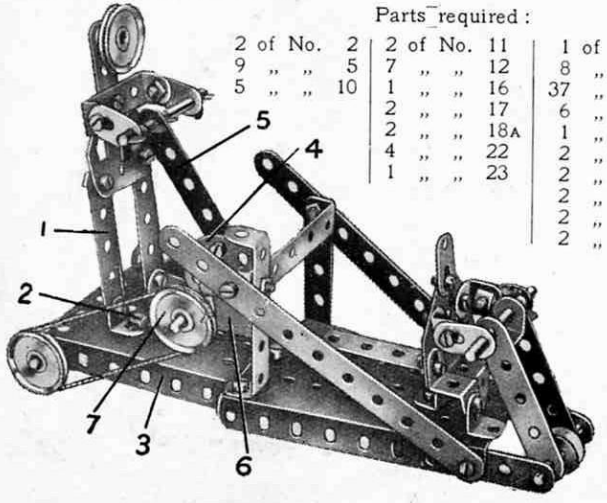


Model No. 1.110 Coaster

The figure 1 is loosely attached by lock-nutted Bolts 2 to the Sector Plate 3 and is connected to the Bush Wheel 4 by the pivotally-attached 2½" Strip 5. The 1½" Rod carrying the Bush Wheel 4 is journalled in the Cranked Bent Strip 6, the 1" fast Pulley 7 being connected to the road wheel by a cord as shown.

Parts required :

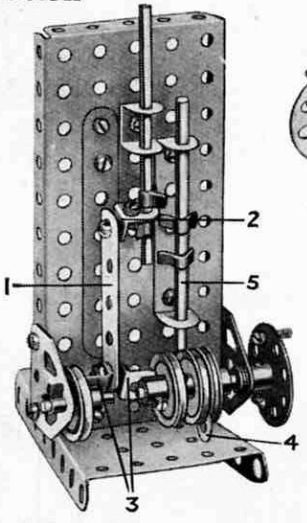
2 of No. 2	2 of No. 11	1 of No. 24
9 „ „ 5	7 „ „ 12	8 „ „ 35
5 „ „ 10	1 „ „ 16	37 „ „ 37
	2 „ „ 17	6 „ „ 37A
	2 „ „ 18A	1 „ „ 48
	4 „ „ 22	2 „ „ 48A
	1 „ „ 23	2 „ „ 54
		2 „ „ 111c
		2 „ „ 125
		2 „ „ 126A



Model No. 1.111 Tappet Valve Demonstration Model

Parts required :

1 of No. 3	2 „ „ 111c
1 „ „ 5	2 „ „ 126A
1 „ „ 10	
1 „ „ 11	
3 „ „ 12	
2 „ „ 16	
1 „ „ 17	
1 „ „ 18A	
4 „ „ 22	
1 „ „ 24	
5 „ „ 35	
15 „ „ 37	
5 „ „ 37A	
4 „ „ 38	
1 „ „ 48A	
1 „ „ 52	
1 „ „ 54	

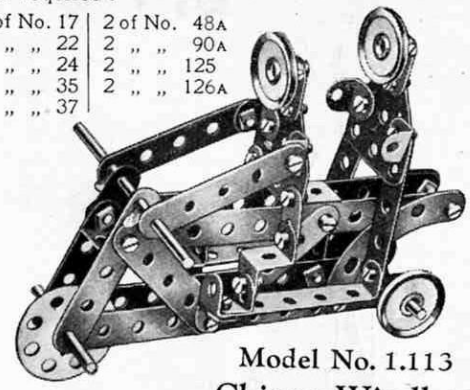


The upper end of the Strip 1 is connected pivotally by a Bolt and two Nuts to the crosshead Bracket 2. The crankshaft is built up as follows : Two Angle Brackets are each secured rigidly to the boss of a Pulley Wheel and are connected to each other by a ⅜" Bolt carrying three Nuts. The Nuts are screwed tightly against the Brackets, sufficient space being left between the inner pair to enable the connecting Strip 1 to turn freely. The valve Rod 5 is operated by the Flat Bracket 4 that is clamped between two further 1" Pulleys on the crankshaft in such a way that its protruding end serves as a cam.

Model No. 1.112 Motor Cyclist and Pillion Rider

Parts required :

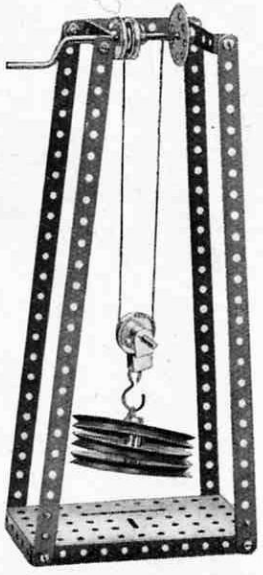
4 of No. 2	2 of No. 17	2 of No. 48A
9 „ „ 5	4 „ „ 22	2 „ „ 90A
4 „ „ 10	1 „ „ 24	2 „ „ 125
2 „ „ 11	2 „ „ 35	2 „ „ 126A
8 „ „ 12	30 „ „ 37	
1 „ „ 16		



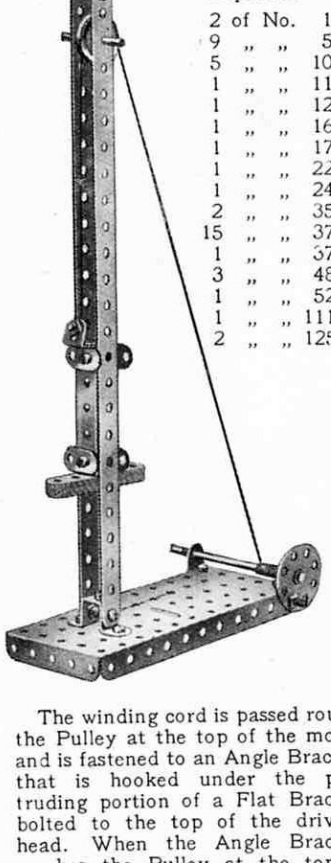
Model No. 1.113 Chinese Windlass

Parts required :

4 of No. 1	1 „ „ 48A
1 „ „ 3	3 „ „ 52
1 „ „ 18A	1 „ „ 57
3 „ „ 19B	
1 „ „ 19S	
3 „ „ 22	
1 „ „ 23	
1 „ „ 24	
8 „ „ 37	
1 „ „ 44	
2 „ „ 48A	



Model No. 1.114 Pile Driver



Parts required :

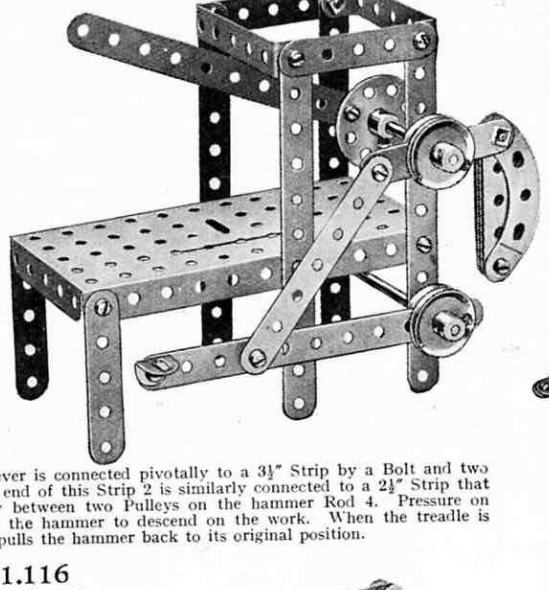
2	of No.	1
9	„ „	5
5	„ „	10
1	„ „	11
1	„ „	12
1	„ „	16
1	„ „	17
1	„ „	22
1	„ „	24
2	„ „	35
15	„ „	37
1	„ „	37A
3	„ „	48A
1	„ „	52
1	„ „	111c
2	„ „	125

The winding cord is passed round the Pulley at the top of the model and is fastened to an Angle Bracket that is hooked under the protruding portion of a Flat Bracket bolted to the top of the driving head. When the Angle Bracket reaches the Pulley at the top it is pushed out a little, thus releasing the driving head.

Model No. 1.115 Foot Hammer

Parts required :

6	of No.	2
1	„ „	3
9	„ „	5
1	„ „	12
2	„ „	16
4	„ „	22
1	„ „	24
2	„ „	35
15	„ „	37
4	„ „	37A
2	„ „	38
2	„ „	48A
1	„ „	52
4	„ „	90A



The treadle lever is connected pivotally to a 3½" Strip by a Bolt and two Nuts. The upper end of this Strip 2 is similarly connected to a 2½" Strip that is clamped tightly between two Pulleys on the hammer Rod 4. Pressure on the treadle causes the hammer to descend on the work. When the treadle is released a weight pulls the hammer back to its original position.

Model No. 1.116 Heavy Duty Scales

The five Bolts 1 act as pivots and are secured each by two Nuts (see Standard Mechanism No. 262).

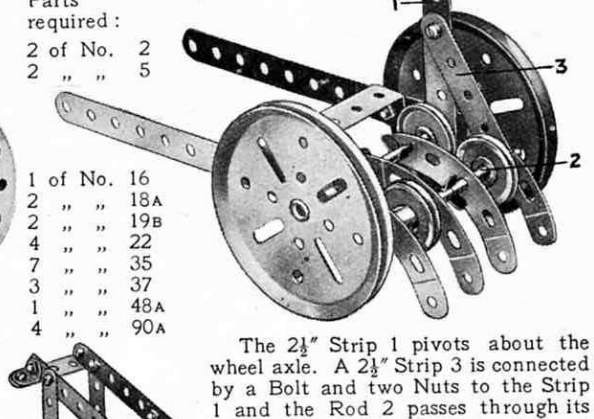
Parts required :

3	of No.	2
9	„ „	5
5	„ „	10
2	of No.	12
1	„ „	18A
2	„ „	22
1	„ „	24
22	„ „	37
7	„ „	37A
1	„ „	48
3	„ „	48A
1	„ „	52
1	„ „	57
2	„ „	90A
2	„ „	111c

Model No. 1.117 Horse Rake

Parts required :

2	of No.	2
2	„ „	5
1	of No.	16
2	„ „	18A
2	„ „	19B
4	„ „	22
7	„ „	35
3	„ „	37
1	„ „	48A
4	„ „	90A

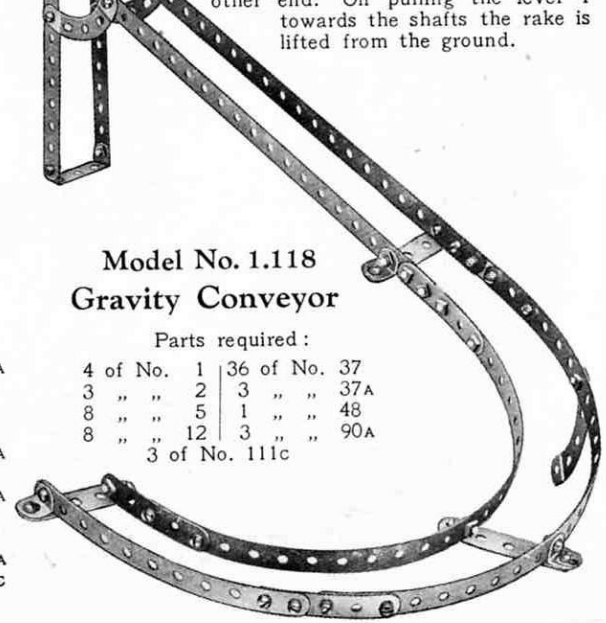


The 2½" Strip 1 pivots about the wheel axle. A 2½" Strip 3 is connected by a Bolt and two Nuts to the Strip 1 and the Rod 2 passes through its other end. On pulling the lever 1 towards the shafts the rake is lifted from the ground.

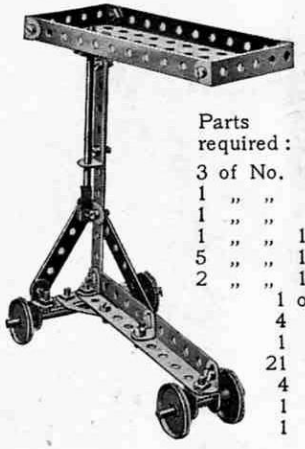
Model No. 1.118 Gravity Conveyor

Parts required :

4	of No.	1
3	„ „	2
8	„ „	5
8	„ „	12
36	of No.	37
3	„ „	37A
1	„ „	48
3	„ „	90A
3	of No.	111c



Model No. 1.119 Bed Table



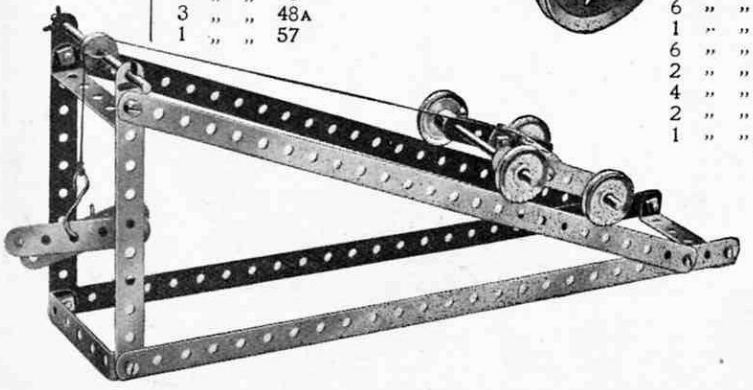
Parts required :

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

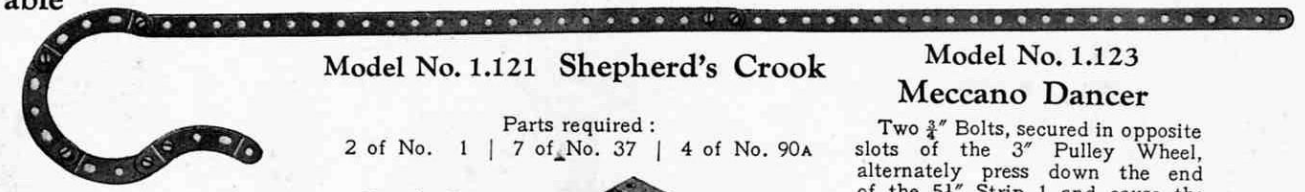
Model No. 1.120 Inclined Plane

Parts required :

4	of No.	1	4	of No.	22
2	„ „	2	1	„ „	23
6	„ „	5	4	„ „	35
3	„ „	16	10	„ „	37
			1	„ „	48
			3	„ „	48A
			1	„ „	57



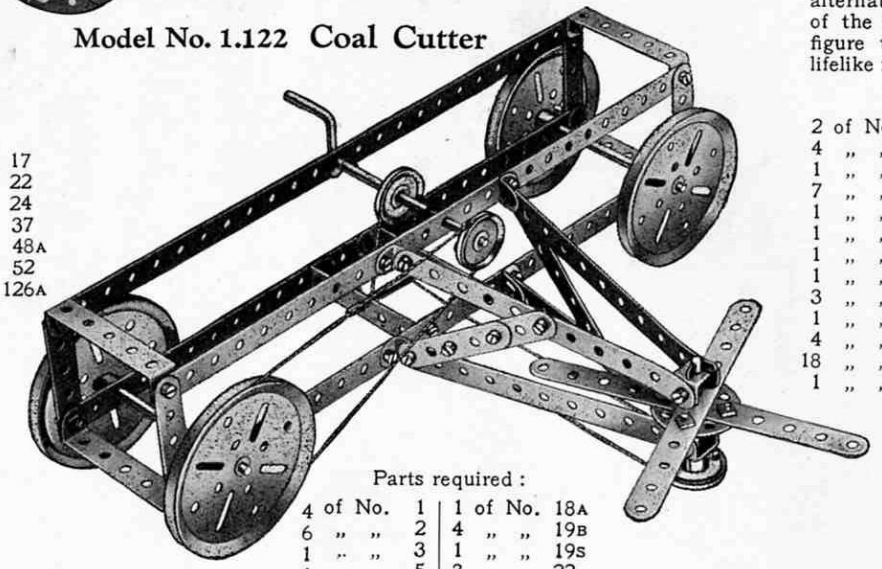
Model No. 1.121 Shepherd's Crook



Parts required :

2	of No.	1	7	of No.	37
4	of No.	90A			

Model No. 1.122 Coal Cutter



Parts required :

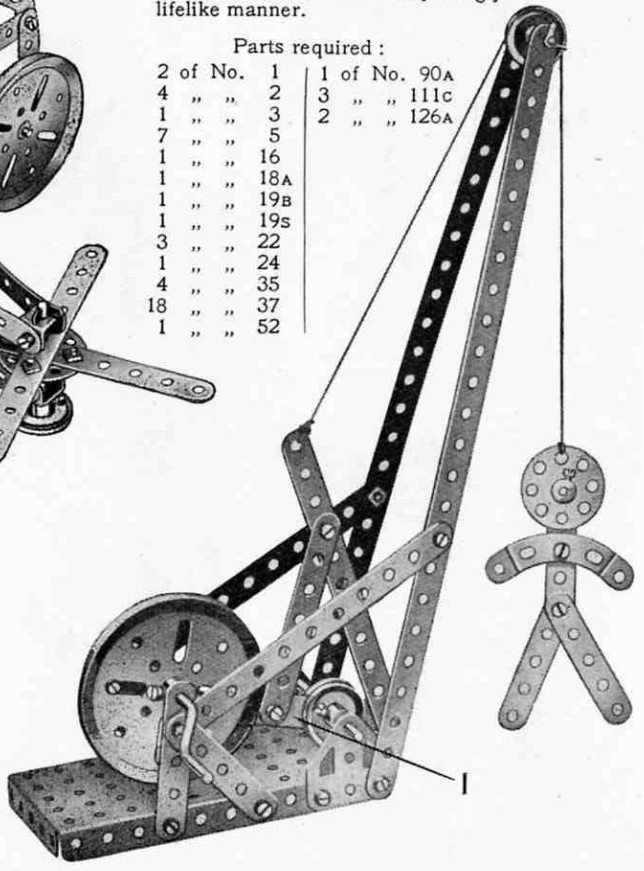
4	of No.	1	1	of No.	18A
6	„ „	2	4	„ „	19B
1	„ „	3	1	„ „	19S
6	„ „	5	3	„ „	22
2	„ „	11	1	„ „	24
4	„ „	12	5	„ „	35
2	„ „	16	32	„ „	37
1	„ „	17	1	„ „	40
			6	of No.	48A

Model No. 1.123 Meccano Dancer

Two ¾″ Bolts, secured in opposite slots of the 3″ Pulley Wheel, alternately press down the end of the 5½″ Strip 1 and cause the figure to dance in a surprisingly lifelike manner.

Parts required :

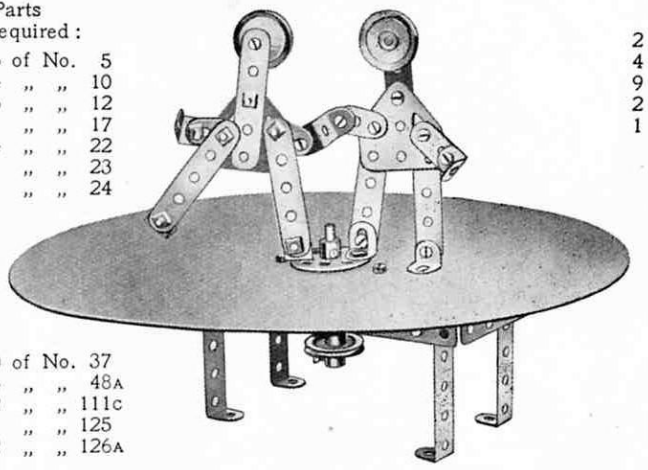
2	of No.	1	1	of No.	90A
4	„ „	2	3	„ „	111C
1	„ „	3	2	„ „	126A
7	„ „	5			
1	„ „	16			
1	„ „	18A			
1	„ „	19B			
1	„ „	19S			
3	„ „	22			
1	„ „	24			
4	„ „	35			
18	„ „	37			
1	„ „	52			



Model No. 1.124 Eccentric Dancers

Parts required :

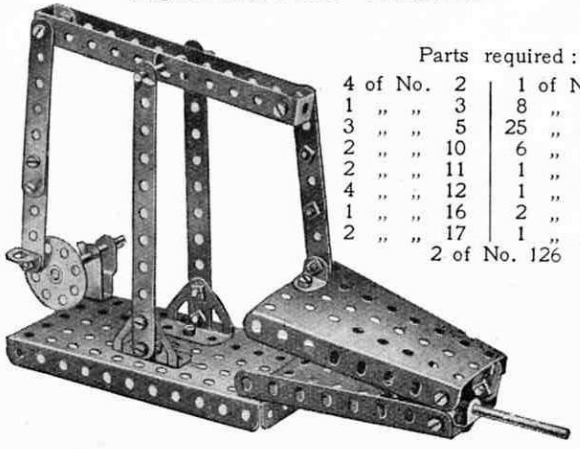
6	of No.	5
4	„ „	10
6	„ „	12
1	„ „	17
4	„ „	22
1	„ „	23
1	„ „	24
20	of No.	37
4	„ „	48A
2	„ „	111c
1	„ „	125
2	„ „	126A



Model No. 1.125 Bellows

Parts required :

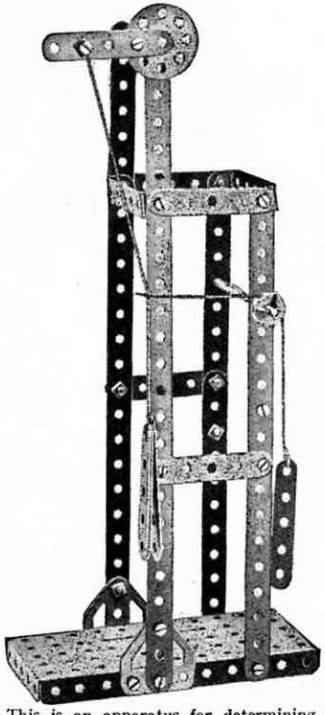
4	of No.	2	1	of No.	24
1	„ „	3	8	„ „	35
3	„ „	5	25	„ „	37
2	„ „	10	6	„ „	37A
2	„ „	11	1	„ „	44
4	„ „	12	1	„ „	52
1	„ „	16	2	„ „	54
2	„ „	17	1	„ „	111c
	2	of No. 126			



Model No. 1.126 Crosshead Demonstration Model

Parts required :

2	of No.	1	1	of No.	24
4	„ „	2	3	„ „	35
9	„ „	5	20	„ „	37
2	„ „	16	2	„ „	48A
1	„ „	23	1	„ „	52
	2	of No. 126A			

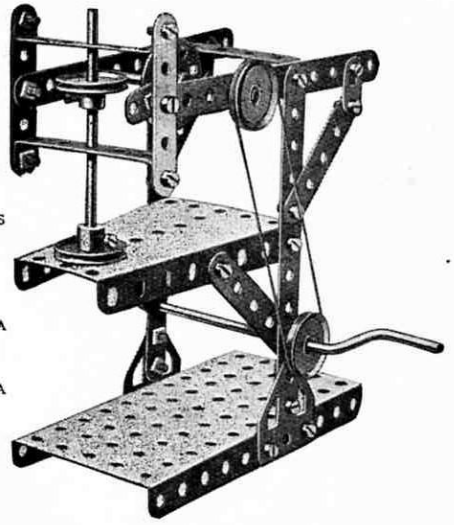


This is an apparatus for determining the forces that act at the crosshead of a reciprocating engine. The upper inclined length of cord represents the connecting rod and the lower, or vertical portion, the piston rod. The pull on the third cord indicates the pressure exerted on the slide bars of the engine due to the angularity of the connecting rod.

Model No. 1.127 Drop Stamp

Parts required :

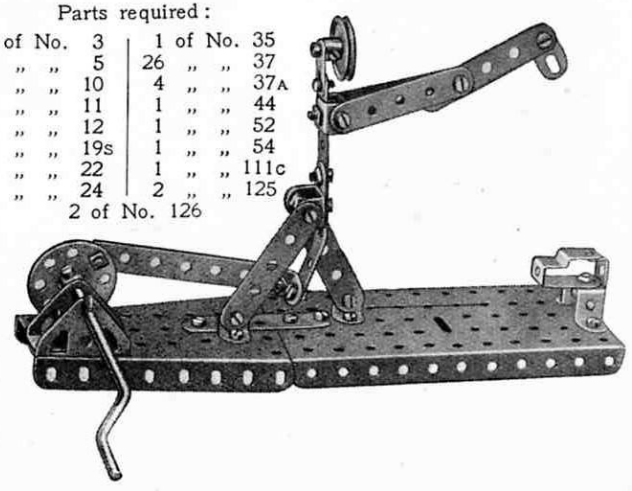
4	of No.	2
6	„ „	5
3	„ „	10
2	„ „	16
1	„ „	19s
4	„ „	22
1	„ „	24
2	„ „	35
27	„ „	37
3	„ „	48A
1	„ „	52
1	„ „	54
2	„ „	126A



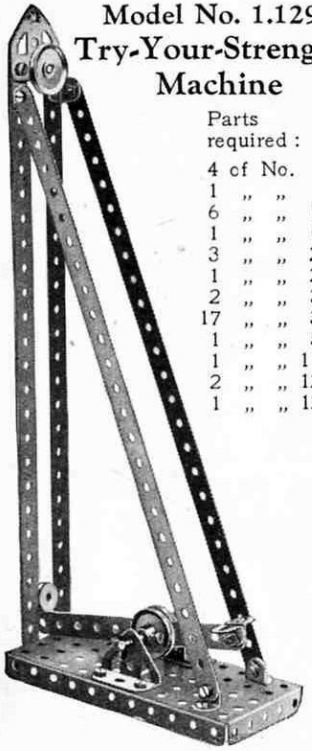
Model No. 1.128 Blacksmith

Parts required :

1	of No.	3	1	of No.	35
8	„ „	5	26	„ „	37
2	„ „	10	4	„ „	37A
2	„ „	11	1	„ „	44
5	„ „	12	1	„ „	52
1	„ „	19s	1	„ „	54
1	„ „	22	1	„ „	111c
1	„ „	24	2	„ „	125
	2	of No. 126			



Model No. 1.129 Try-Your-Strength Machine



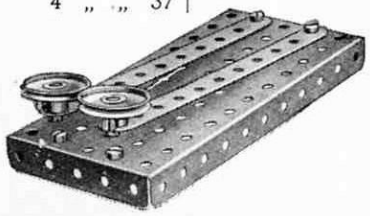
Parts required :

4	of	No.	1
1	„	„	2
6	„	„	12
1	„	„	17
3	„	„	22
1	„	„	23
2	„	„	35
17	„	„	37
1	„	„	52
1	„	„	111c
2	„	„	126
1	„	„	126A

Model No. 1.130 Double Cable Key

Parts required :

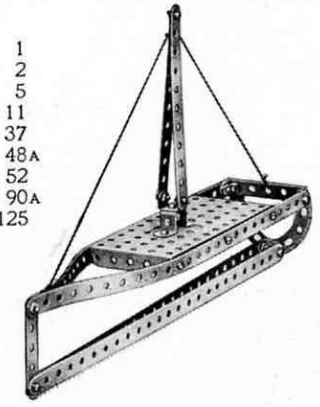
2	of	No.	2	1	of	No.	52
2	„	„	22	2	„	„	111c
4	„	„	37				

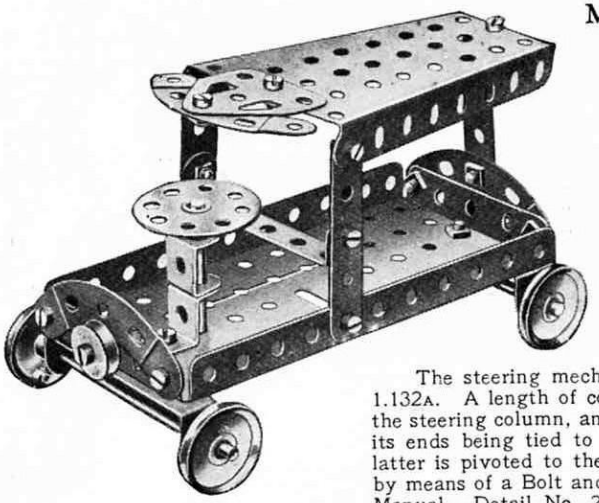


Model No. 1.131 Boat

Parts required :

4	of	No.	1
2	„	„	2
1	„	„	5
2	„	„	11
21	„	„	37
1	„	„	48A
1	„	„	52
2	„	„	90A
2	„	„	125





Model No. 1.132 Motor Van

Parts required :

3	of	No.	5	1	of	No.	35
1	„	„	11	17	„	„	37
1	„	„	12	3	„	„	48A
2	„	„	16	1	„	„	52
1	„	„	17	1	„	„	54
4	„	„	22	3	„	„	90A
1	„	„	23	1	„	„	111c
1	„	„	24	1	„	„	125
				1	of	No.	126A

The steering mechanism is shown more clearly in Fig. 1.132A. A length of cord is given two or three turns round the steering column, and is held in position by a Spring Clip, its ends being tied to a $2\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strip. The latter is pivoted to the $5\frac{1}{2}'' \times 2\frac{1}{2}''$ Flanged Plate of the lorry by means of a Bolt and two Nuts (see Standard Mechanisms Manual. Detail No. 262).

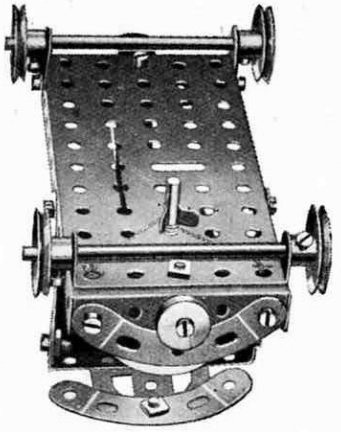
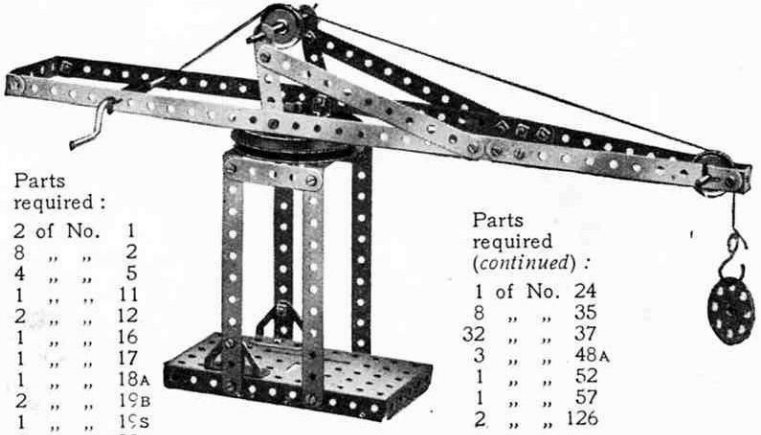


FIG. 1.132A

Model No. 1.133 Revolving Hammerhead Crane



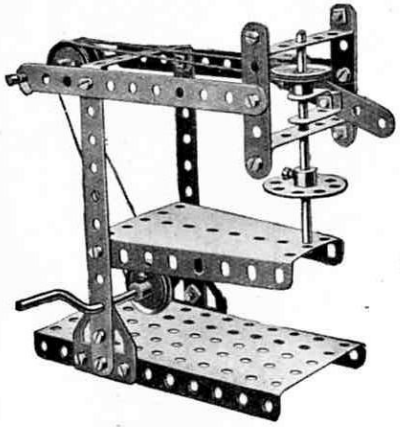
Parts required :

2	of	No.	1
8	„	„	2
4	„	„	5
1	„	„	11
2	„	„	12
1	„	„	16
1	„	„	17
1	„	„	18A
2	„	„	19B
1	„	„	19S
2	„	„	22

Parts required (*continued*) :

1	of	No.	24
8	„	„	35
32	„	„	37
3	„	„	48A
1	„	„	52
1	„	„	57
2	„	„	126

Model No. 1.134 Drilling Machine



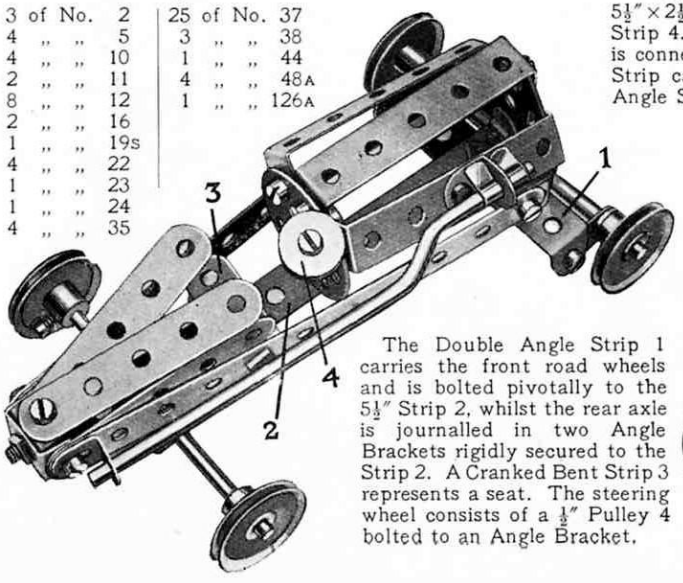
Parts required :

4	of	No.	2
3	„	„	5
1	„	„	11
2	„	„	16
1	„	„	19s
4	„	„	22
1	„	„	24
4	„	„	35
19	„	„	37
1	„	„	44
3	„	„	48A
1	„	„	52
1	„	„	54
2	„	„	126A

Model No. 1.135 Racing Motor Car

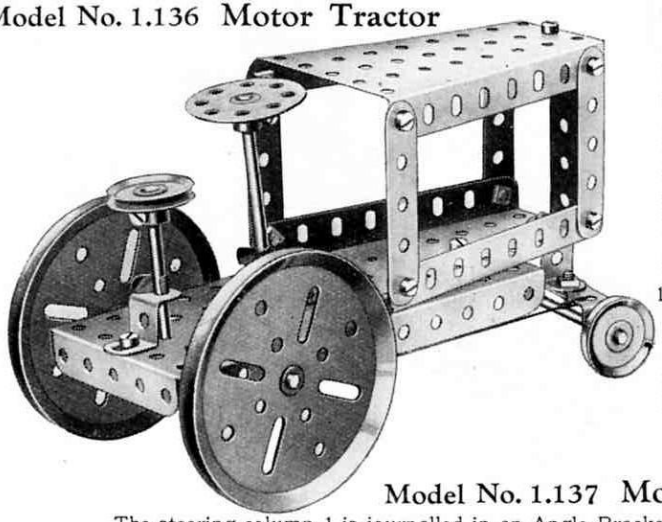
Parts required :

3	of	No.	2
4	„	„	5
4	„	„	10
2	„	„	11
8	„	„	12
2	„	„	16
1	„	„	19s
4	„	„	22
1	„	„	23
1	„	„	24
4	„	„	35
25	of	No.	37
3	„	„	38
1	„	„	44
4	„	„	48A
1	„	„	126A



The Double Angle Strip 1 carries the front road wheels and is bolted pivotally to the 5½" Strip 2, whilst the rear axle is journalled in two Angle Brackets rigidly secured to the Strip 2. A Cranked Bent Strip 3 represents a seat. The steering wheel consists of a ½" Pulley 4 bolted to an Angle Bracket.

Model No. 1.136 Motor Tractor



Parts required :

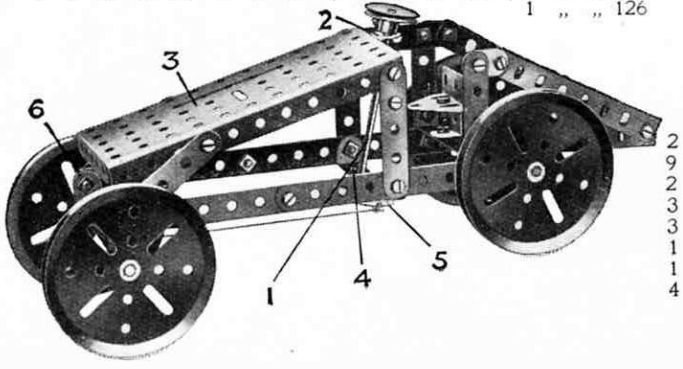
4	of	No.	5
1	„	„	11
3	„	„	16
1	„	„	17
2	„	„	19B
4	„	„	22
1	„	„	24
3	„	„	35
16	„	„	37
1	„	„	37A
2	„	„	48A
1	„	„	52
2	„	„	54
2	„	„	125

Model No. 1.137 Motor Car

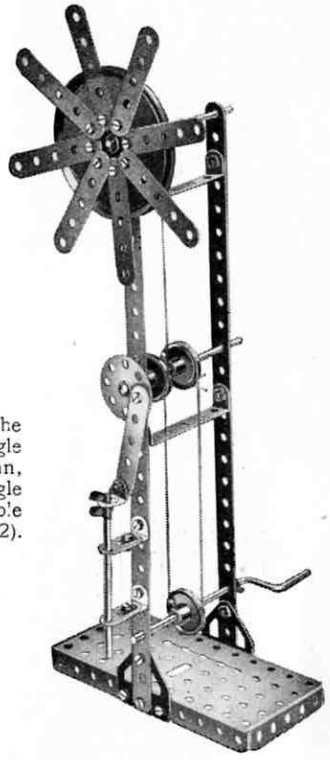
The steering column 1 is journalled in an Angle Bracket 2 bolted to the 5½" × 2½" Flanged Plate 3, and in the second hole of the 2½" × ½" Double Angle Strip 4. A Bush Wheel 5, secured to the lower end of the steering column, is connected by two short lengths of cord to a second 2½" × ½" Double Angle Strip carrying the front axle. The Strip is pivoted to a similar Double Angle Strip 6 by means of a Bolt and Nuts (Standard Mechanism No. 262).

Parts required :

4	of	No.	2	3	of	No.	16	25	of	No.	37	1	of	No.	52
7	„	„	5	4	„	„	19B	2	„	„	37A	2	„	„	54
1	„	„	10	1	„	„	22	4	„	„	38	1	„	„	111C
1	„	„	11	1	„	„	24	4	„	„	48A	1	„	„	125
												1	„	„	126



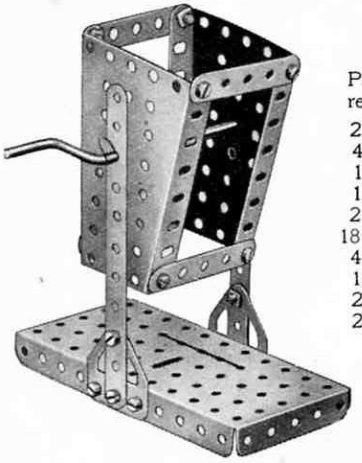
Model No. 1.138 Windmill Pump



Parts required :

2	of	No.	1	1	of	No.	24
9	„	„	5	4	„	„	35
2	„	„	10	24	„	„	37
3	„	„	12	4	„	„	37A
3	„	„	16	3	„	„	38
1	„	„	19B	2	„	„	48A
1	„	„	19s	1	„	„	52
4	„	„	22	2	„	„	111c
				2	of	No.	126A

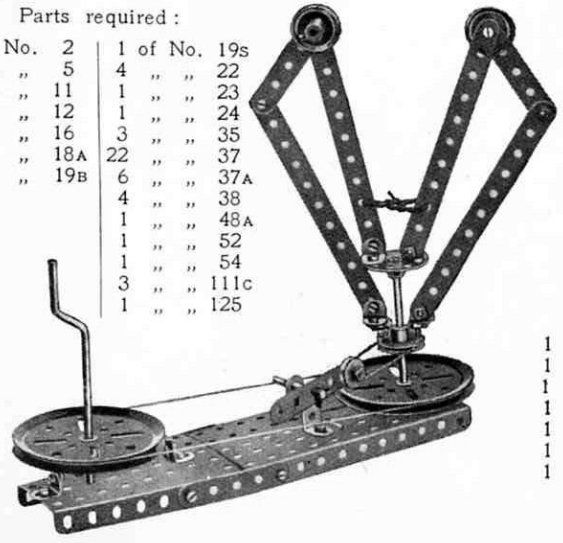
Model No. 1.139 Butter Churn



Parts required :

2	of No.	2
4	„ „	5
1	„ „	19s
1	„ „	24
2	„ „	35
18	„ „	37
4	„ „	38
1	„ „	52
2	„ „	54
2	„ „	126A

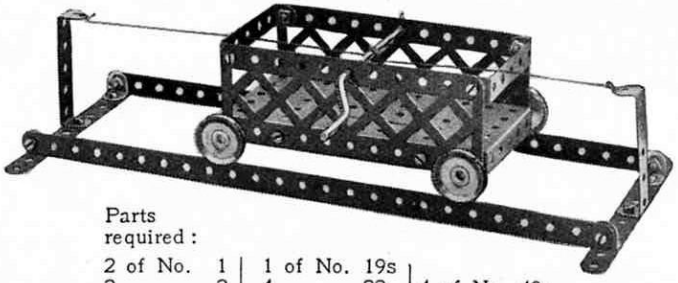
Model No. 1.140 Inverted Centrifugal Governor



Parts required :

4	of No.	2	1	of No.	19s
5	„ „	5	4	„ „	22
1	„ „	11	1	„ „	23
8	„ „	12	1	„ „	24
1	„ „	16	3	„ „	35
1	„ „	18A	22	„ „	37
2	„ „	19B	6	„ „	37A
			4	„ „	38
			1	„ „	48A
			1	„ „	52
			1	„ „	54
			3	„ „	111c
			1	„ „	125

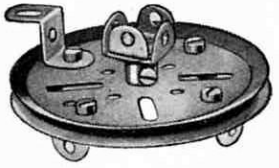
Model No. 1.141 Cable Railway



Parts required :

2	of No.	1	1	of No.	19s	4	of No.	48A
2	„ „	2	4	„ „	22	1	„ „	52
4	„ „	12	2	„ „	35	2	„ „	100
2	„ „	16	18	„ „	37			

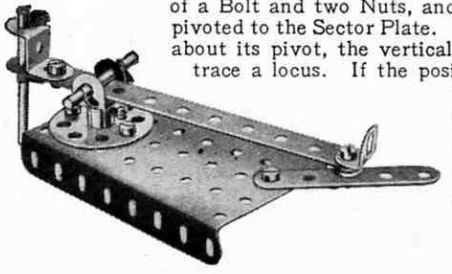
Model No. 1.142 Candle Stick



Parts required :

2	of No.	11
4	„ „	12
1	„ „	19B
4	„ „	37
1	„ „	111c
1	„ „	125

Model No. 1.143 Machine for Tracing a Locus

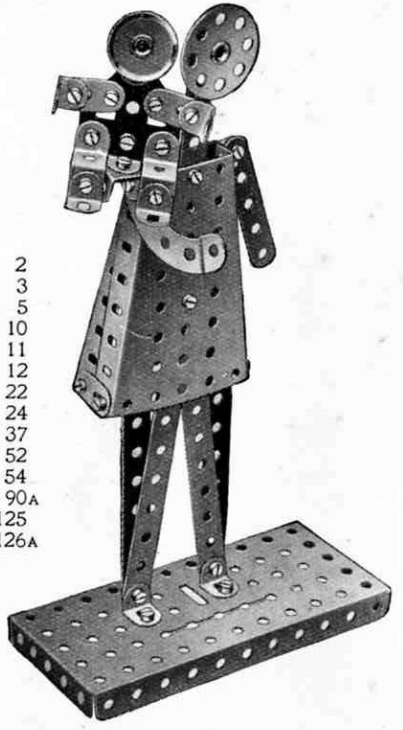


Parts required :

1	of No.	2	4	of No.	35
1	„ „	5	4	„ „	37
1	„ „	11	3	„ „	37A
1	„ „	12	4	„ „	38
1	„ „	17	1	„ „	54
1	„ „	18A	2	„ „	111c
1	„ „	24	1	„ „	125

The 5½″ Strip is pivoted to the 2½″ Strip by means of a Bolt and two Nuts, and the 2½″ Strip is similarly pivoted to the Sector Plate. By revolving the 2½″ Strip about its pivot, the vertical 1½″ Rod can be made to trace a locus. If the positions of the 1½″ Rod and the 5½″ Strip are altered, several different loci may be traced. Machines of this type are of advantage in assisting in the design of engine connecting rods.

Model No. 1.144 Man and Boy



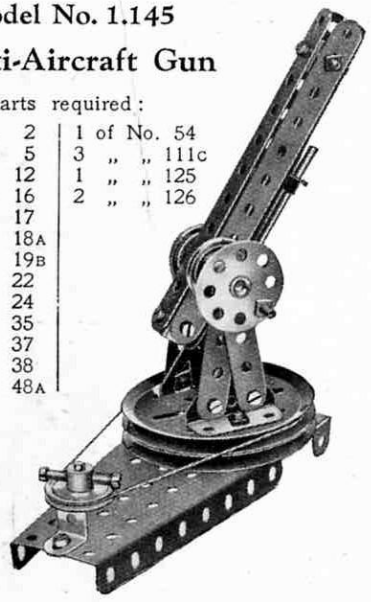
Parts require :

4	of No.	2
1	„ „	3
1	„ „	5
5	„ „	10
1	„ „	11
8	„ „	12
1	„ „	22
1	„ „	24
26	„ „	37
1	„ „	52
2	„ „	54
1	„ „	90A
2	„ „	125
1	„ „	126A

Model No. 1.145
Anti-Aircraft Gun

Parts required :

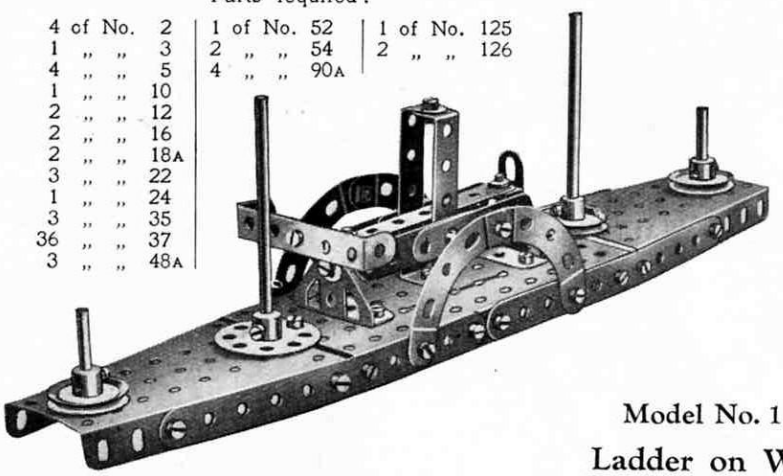
4	of No.	2	1	of No.	54
4	„ „	5	3	„ „	111c
8	„ „	12	1	„ „	125
1	„ „	16	2	„ „	126
1	„ „	17			
2	„ „	18A			
2	„ „	19B			
3	„ „	22			
1	„ „	24			
4	„ „	35			
18	„ „	37			
2	„ „	38			
1	„ „	48A			



Model No. 1.147 Paddle Steamer

Parts required :

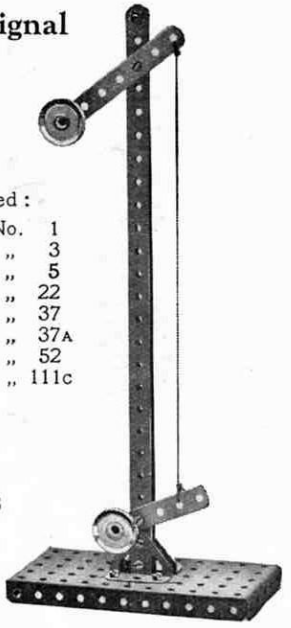
4	of No.	2	1	of No.	52	1	of No.	125
1	„ „	3	2	„ „	54	2	„ „	126
4	„ „	5	4	„ „	90A			
1	„ „	10						
2	„ „	12						
2	„ „	16						
2	„ „	18A						
3	„ „	22						
1	„ „	24						
3	„ „	35						
36	„ „	37						
3	„ „	48A						



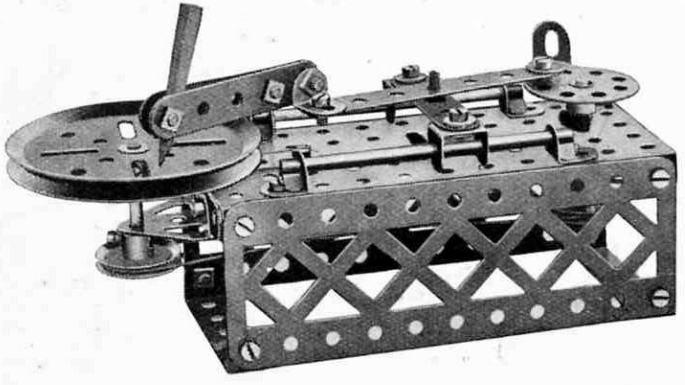
Model No. 1.149
Signal

Parts required :

2	of No.	1
1	„ „	3
1	„ „	5
2	„ „	22
11	„ „	37
2	„ „	37A
1	„ „	52
2	„ „	111c



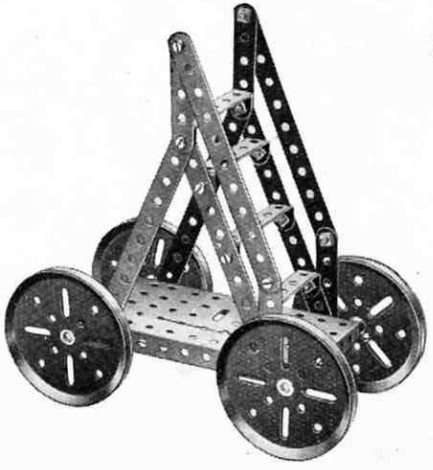
Model No. 1.146 Meccanograph



Parts required :

1	of No.	3
4	„ „	5
2	„ „	11
6	„ „	12
2	„ „	16
2	„ „	17
1	„ „	19B
2	„ „	22
1	„ „	24
5	„ „	35
21	„ „	37
2	„ „	37A
2	„ „	38
2	„ „	48A
1	„ „	52
2	„ „	100
3	„ „	111c
2	„ „	126

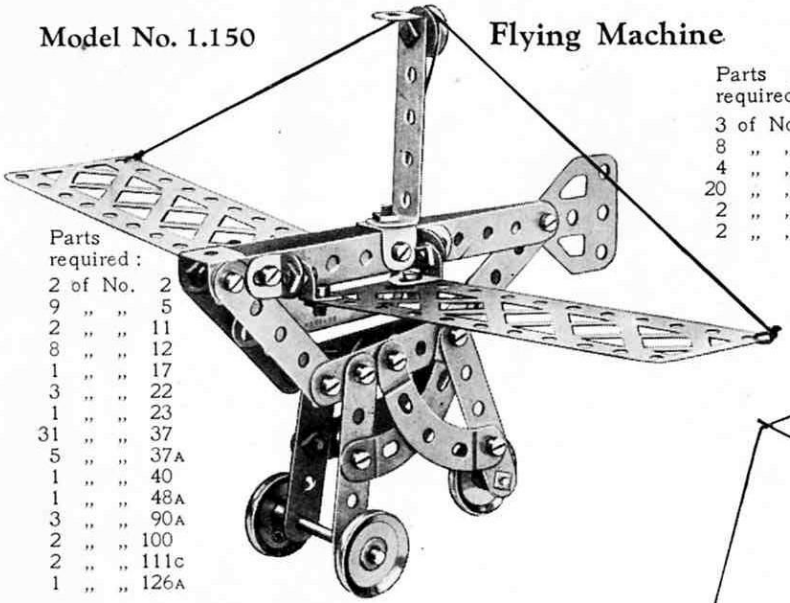
Model No. 1.148
Ladder on Wheels



Parts required :

6	of No.	2
4	„ „	5
2	„ „	16
4	„ „	19B
16	„ „	37
8	„ „	38
4	„ „	48A
1	„ „	52

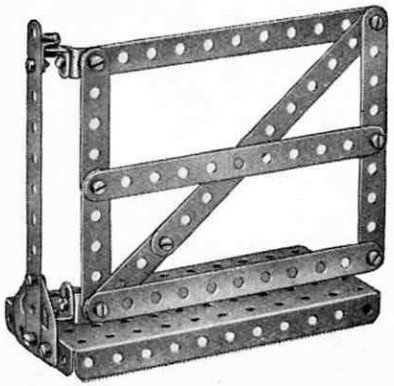
Model No. 1.150 Flying Machine



Parts required :

2	of No.	2
9	„ „	5
2	„ „	11
8	„ „	12
1	„ „	17
3	„ „	22
1	„ „	23
31	„ „	37
5	„ „	37A
1	„ „	40
1	„ „	48A
3	„ „	90A
2	„ „	100
2	„ „	111c
1	„ „	126A

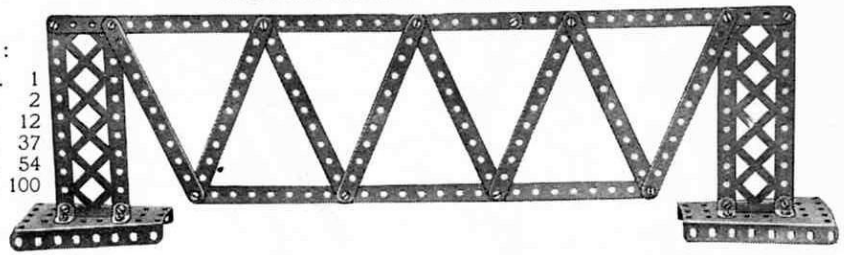
Model No. 1.151 Gate



Parts required :

6	of No.	2
4	„ „	5
5	„ „	12
13	„ „	37
4	„ „	37A
1	„ „	52
2	„ „	111c
1	„ „	126A

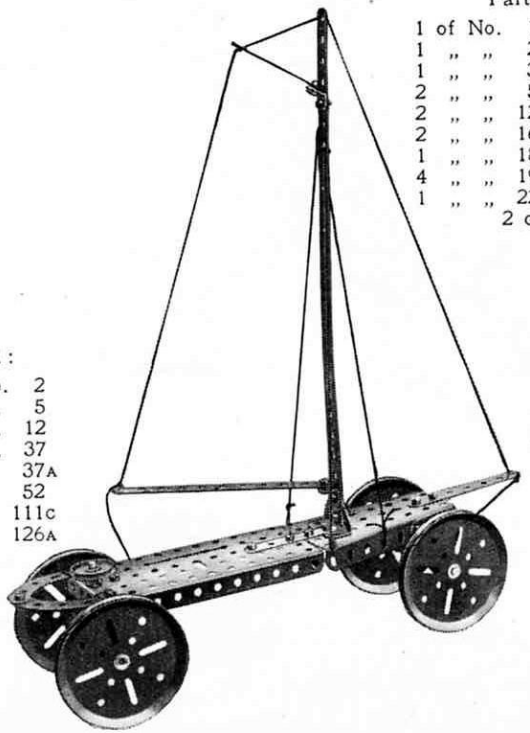
Model No. 1.152 Inverted Truss



Parts required :

3	of No.	1
8	„ „	2
4	„ „	12
20	„ „	37
2	„ „	54
2	„ „	100

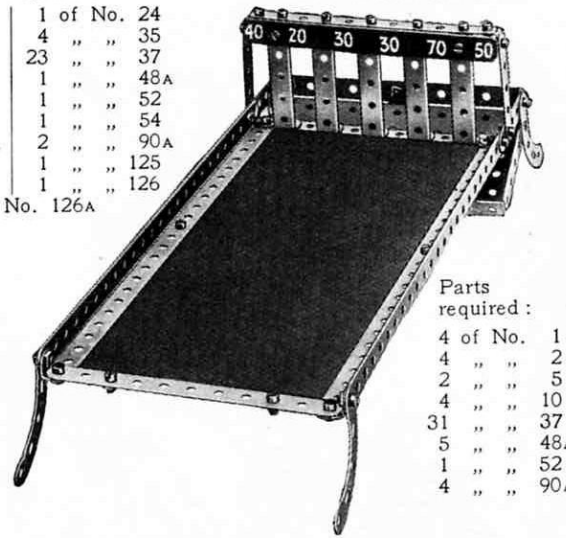
Model No. 1.153 Sand Yacht



Parts required :

1	of No.	1	1	of No.	24
1	„ „	2	4	„ „	35
1	„ „	3	23	„ „	37
2	„ „	5	1	„ „	48A
2	„ „	12	1	„ „	52
2	„ „	16	1	„ „	54
1	„ „	18A	2	„ „	90A
4	„ „	19B	1	„ „	125
1	„ „	22	1	„ „	126
			2	of No.	126A

Model No. 1.154 Box Ball Alley



Parts required :

4	of No.	1
4	„ „	2
2	„ „	5
4	„ „	10
31	„ „	37
5	„ „	48A
1	„ „	52
4	„ „	90A

Model No. 1.155 Rake

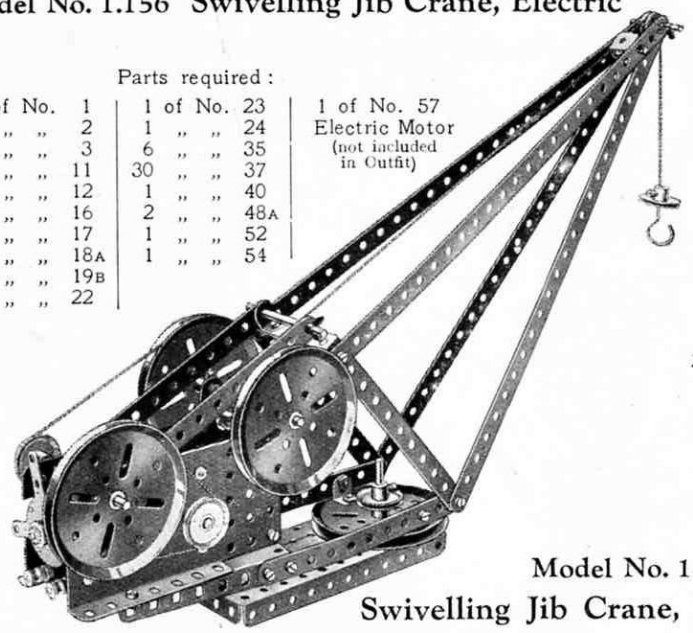
Parts required :

1	of No.	2	4	of No.	10
1	„ „	3	1	„ „	12
			6	of No.	37

Model No. 1.156 Swivelling Jib Crane, Electric

Parts required :

4	of No.	1	1	of No.	23	1 of No. 57 Electric Motor (not included in Outfit)
6	„ „	2	1	„ „	24	
1	„ „	3	6	„ „	35	
1	„ „	11	30	„ „	37	
6	„ „	12	1	„ „	40	
2	„ „	16	2	„ „	48A	
2	„ „	17	1	„ „	52	
1	„ „	18A	1	„ „	54	
4	„ „	19B				
4	„ „	22				



Model No. 1.158 Overhead Crane

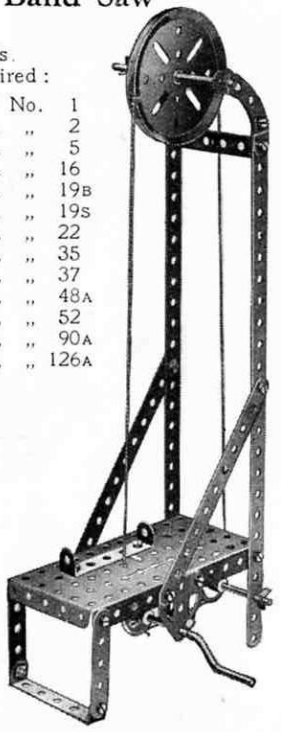
Parts required :

4	of No.	2
4	„ „	5
2	„ „	10
4	„ „	12
1	„ „	16
1	„ „	18A
1	„ „	19S
4	„ „	22
1	„ „	23
1	„ „	24
2	„ „	35
25	„ „	37
1	„ „	38
6	„ „	48A
1	„ „	57
4	„ „	90A
2	„ „	100

Model No. 1.160 Band Saw

Parts required :

2	of No.	1
2	„ „	2
2	„ „	5
2	„ „	16
1	„ „	19B
1	„ „	19S
2	„ „	22
6	„ „	35
18	„ „	37
3	„ „	48A
1	„ „	52
2	„ „	90A
2	„ „	126A

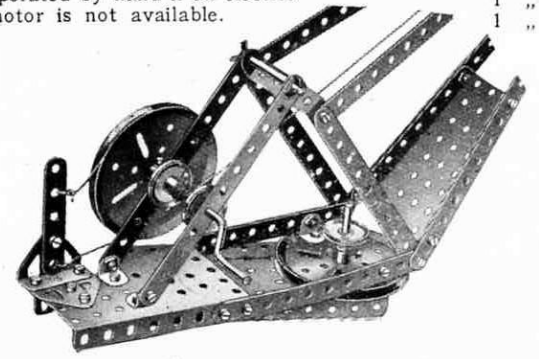


Model No. 1.157 Swivelling Jib Crane, Hand Operated

This illustrates an alternative construction of the base of Model No. 1.156, and is intended to show how the model may be operated by hand if an electric motor is not available.

Parts required :

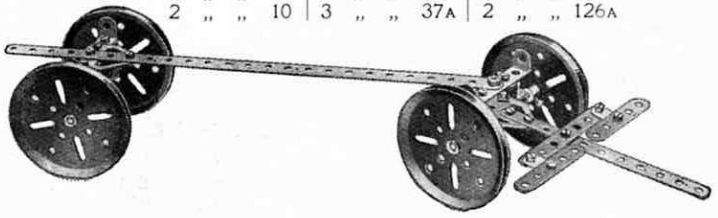
4	of No.	1	4	of No.	12
6	„ „	2	2	„ „	17
1	„ „	5	1	„ „	18A
1	„ „	11	2	„ „	19B
			1	„ „	19S
			4	„ „	22
			1	„ „	23
			1	„ „	24
			4	„ „	35
			32	„ „	37
			4	„ „	38
			1	„ „	48
			1	„ „	48A
			1	„ „	52
			2	„ „	54
			1	„ „	57
			1	„ „	126
			1	„ „	126A



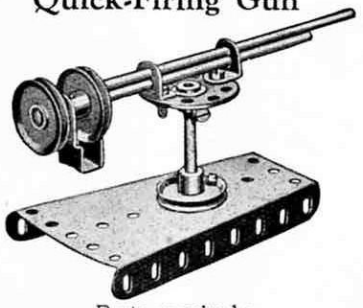
Model No. 1.159 Timber Drag

Parts required :

1	of No.	1	2	of No.	11	4	of No.	48A
1	„ „	2	2	„ „	16	3	„ „	111C
1	„ „	3	4	„ „	19B	2	„ „	125
2	„ „	5	19	„ „	37	2	„ „	126A
2	„ „	10	3	„ „	37A			



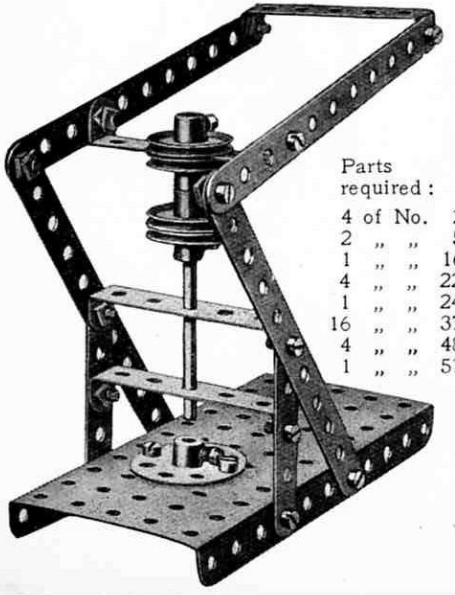
Model No. 1.161 Quick-Firing Gun



Parts required :

2	of No.	12	1	of No.	24
2	„ „	16	2	„ „	37
1	„ „	17	1	„ „	44
4	„ „	22	1	„ „	54

Model No. 1.162 Punching Machine



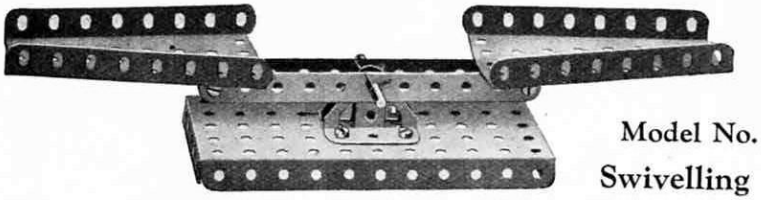
Parts required :

4	of No.	2
2	„ „	5
1	„ „	16
4	„ „	22
1	„ „	24
16	„ „	37
4	„ „	48A
1	„ „	52

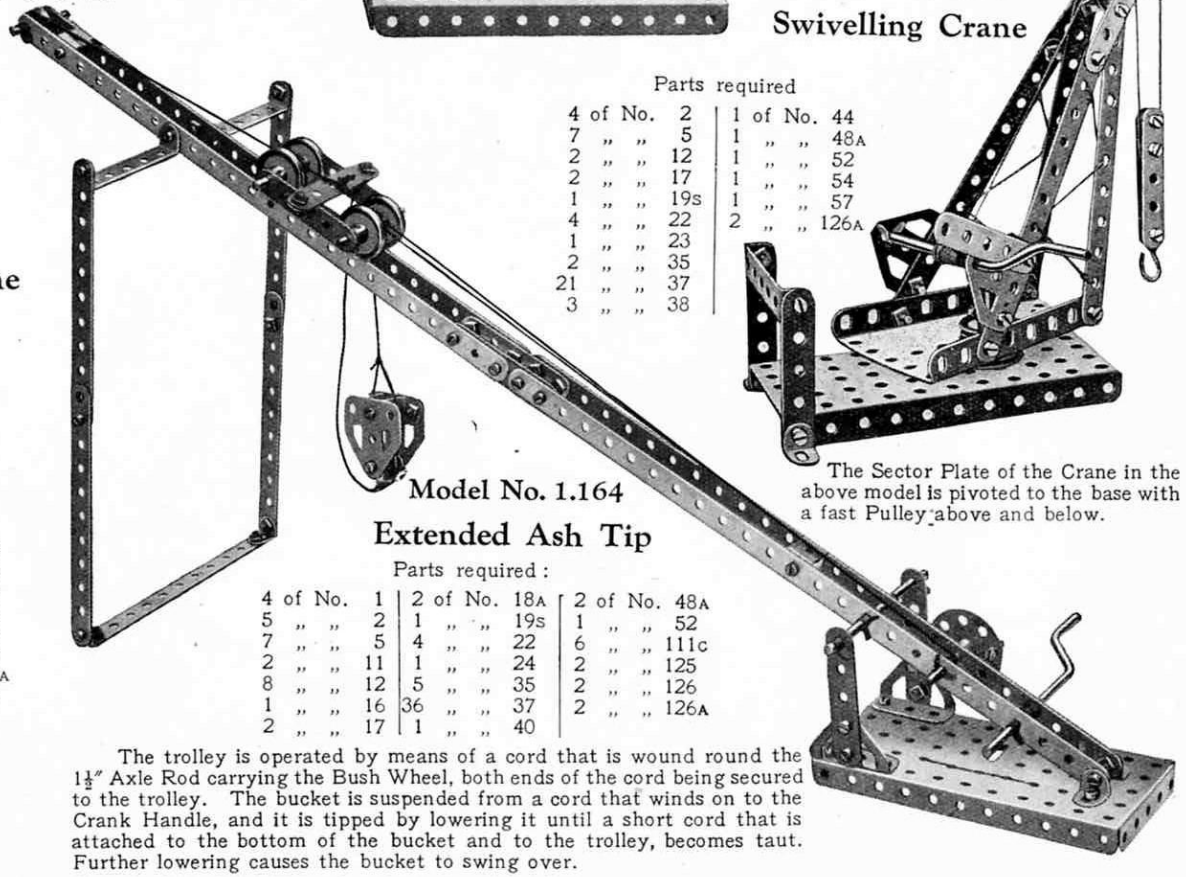
Parts required :

2	of No.	2
2	„ „	11
1	„ „	18A
2	„ „	35
8	„ „	37
1	„ „	52
2	„ „	54
2	„ „	126

Model No. 1.163 Scales



Model No. 1.164 Extended Ash Tip

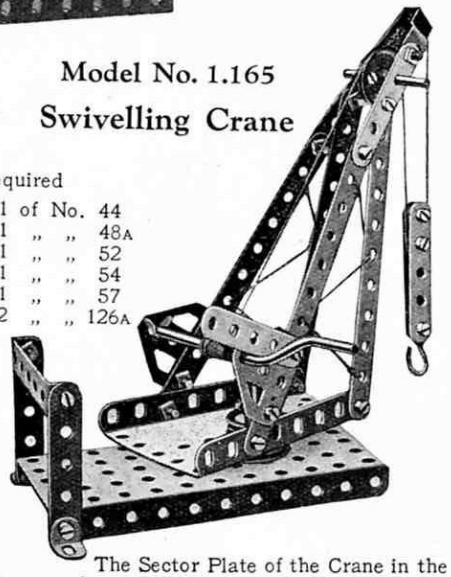


Parts required :

4	of No.	1	2	of No.	18A	2	of No.	48A
5	„ „	2	1	„ „	19S	1	„ „	52
7	„ „	5	4	„ „	22	6	„ „	111C
2	„ „	11	1	„ „	24	2	„ „	125
8	„ „	12	5	„ „	35	2	„ „	126
1	„ „	16	36	„ „	37	2	„ „	126A
2	„ „	17	1	„ „	40			

The trolley is operated by means of a cord that is wound round the 1½" Axle Rod carrying the Bush Wheel, both ends of the cord being secured to the trolley. The bucket is suspended from a cord that winds on to the Crank Handle, and it is tipped by lowering it until a short cord that is attached to the bottom of the bucket and to the trolley, becomes taut. Further lowering causes the bucket to swing over.

Model No. 1.165 Swivelling Crane



Parts required

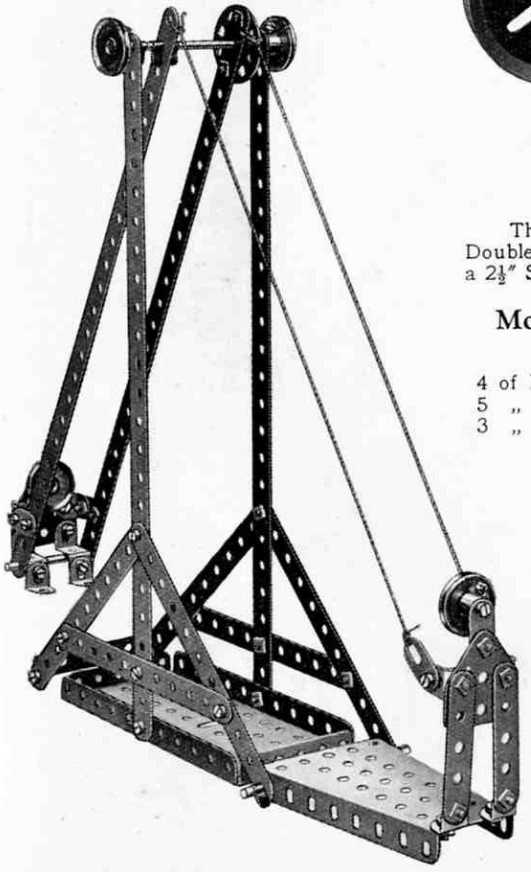
4	of No.	2	1	of No.	44
7	„ „	5	1	„ „	48A
2	„ „	12	1	„ „	52
2	„ „	17	1	„ „	54
1	„ „	19S	1	„ „	57
4	„ „	22	2	„ „	126A
1	„ „	23			
2	„ „	35			
21	„ „	37			
3	„ „	38			

The Sector Plate of the Crane in the above model is pivoted to the base with a fast Pulley above and below.

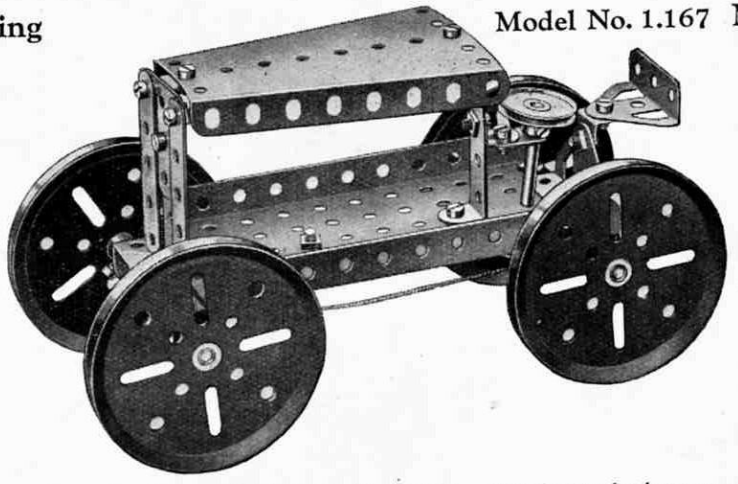
Model No. 1.166 Boy on Swing

Parts required :

4	of No.	1	1	of No.	24
6	„ „	2	7	„ „	35
2	„ „	5	35	„ „	37
5	„ „	10	1	„ „	48A
8	„ „	12	1	„ „	52
2	„ „	16	1	„ „	54
1	„ „	17	2	„ „	125
4	„ „	22	2	„ „	126A



Model No. 1.167 Motor Tractor



Parts required :

3	of No.	5
1	„ „	10
2	„ „	12
2	„ „	16
1	„ „	18A
4	„ „	19B
1	„ „	22
1	„ „	24
15	„ „	37
2	„ „	37A
6	„ „	38
4	„ „	48A
1	„ „	52
1	„ „	54
1	„ „	111C
2	„ „	126
1	„ „	126A

The steering gear is shown in Fig. 1.167A. The front wheels are carried in a $2\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strip 1, which is mounted pivotally by a Bolt and two Nuts (S.M. 262) to a $2\frac{1}{2}''$ Strip 2 secured to the $5\frac{1}{2}'' \times 2\frac{1}{2}''$ Flanged Plate.

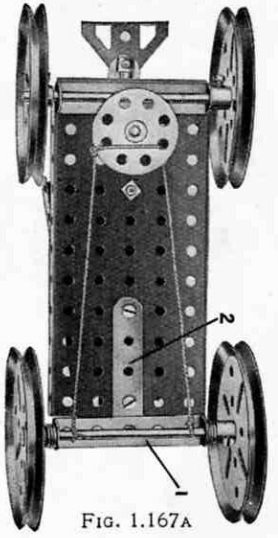
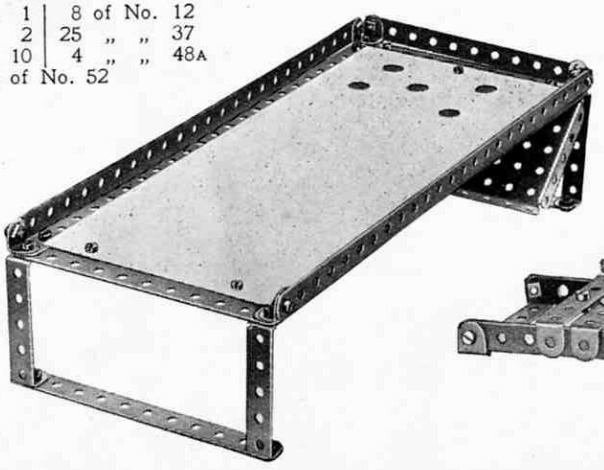


FIG. 1.167A

Model No. 1.168 Bagatelle Table

Parts required :

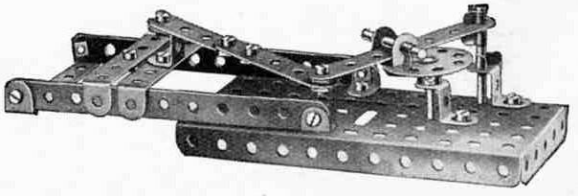
4	of No.	1	8	of No.	12
5	„ „	2	25	„ „	37
3	„ „	10	4	„ „	48A
	1	of No. 52			



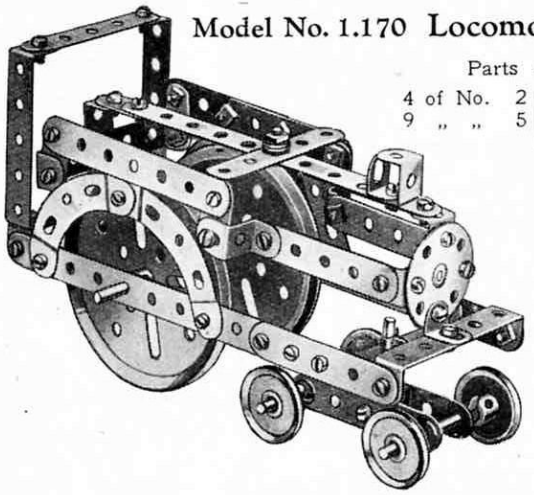
Model No. 1.169 Quick Return Device

Parts required :

2	of No.	2	1	of No.	24
1	„ „	3	6	„ „	35
2	„ „	5	15	„ „	37
2	„ „	11	2	„ „	37A
2	„ „	12	3	„ „	48A
1	„ „	17	1	„ „	52
2	„ „	18A	2	„ „	125



Model No. 1.170 Locomotive

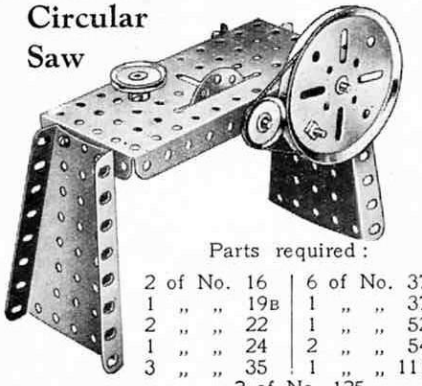


Parts required :

4 of No.	2	5 of No.	10
9 „ „	5	2 „ „	11
		6 „ „	12
		3 „ „	16
		1 „ „	18A
		2 „ „	19B
		4 „ „	22
		1 „ „	24
		8 „ „	35
		36 „ „	37
		6 „ „	37A
		6 „ „	38
		1 „ „	48
		6 „ „	48A
		4 „ „	90A
		6 „ „	111c
		2 „ „	125

The bogie is connected pivotally to the locomotive body by means of a 1½" Rod journalled in a Double Bracket, which is secured in the centre of the bogie, and in a 2½" × ½" Double Angle Strip that is secured between the main side frames. Two Spring Clips between the Double Angle Strip and Double Bracket space the bogie at the correct distance.

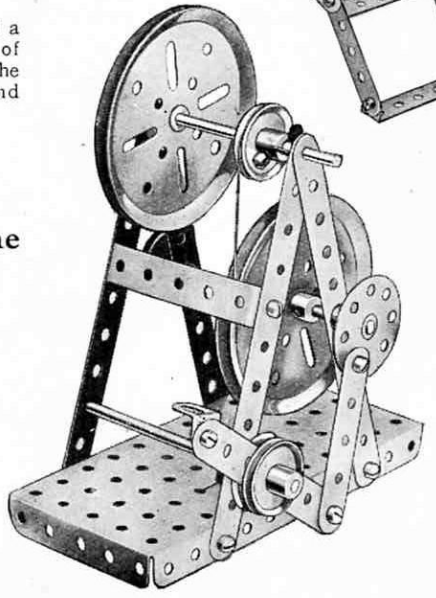
Model No. 1.171 Circular Saw



Parts required :

2 of No.	16	6 of No.	37
1 „ „	19B	1 „ „	37A
2 „ „	22	1 „ „	52
1 „ „	24	2 „ „	54
3 „ „	35	1 „ „	111c
2 of No.	125		

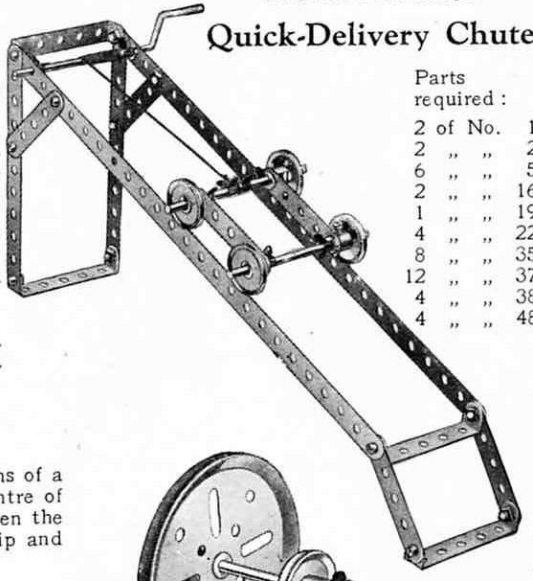
Model No. 1.172 Treadle Grindstone



Parts required :

4 of No.	2
1 „ „	3
1 „ „	5
1 „ „	12
3 „ „	16
2 „ „	19B
4 „ „	22
1 „ „	24
2 „ „	35
9 „ „	37
2 „ „	37A
1 „ „	48A
1 „ „	52

Model No. 1.173 Quick-Delivery Chute

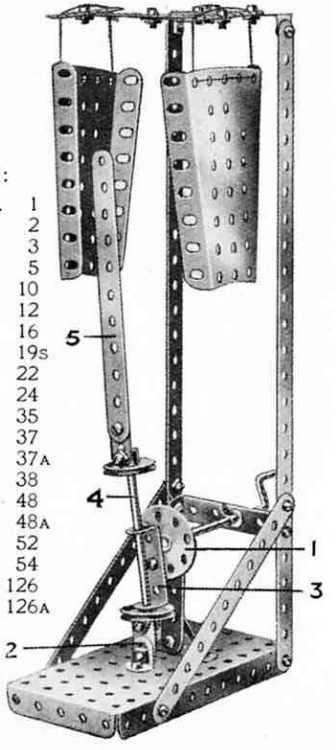


Parts required :

2 of No.	1
2 „ „	2
6 „ „	5
2 „ „	16
1 „ „	19S
4 „ „	22
8 „ „	35
12 „ „	37
4 „ „	38
4 „ „	48A

Model No. 1.174 Mechanical Gong

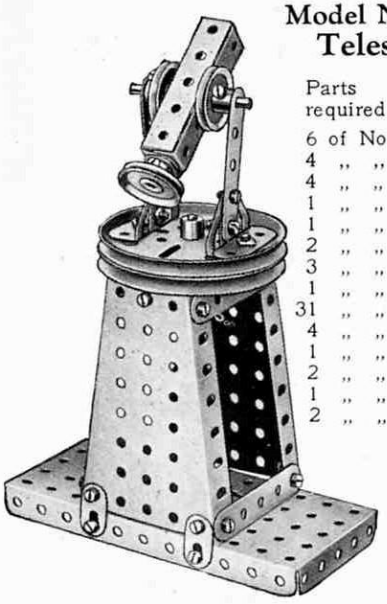
A Flat Bracket is connected pivotally to the base at 2 and is clamped rigidly to a 1" Pulley Wheel secured to the Rod 4. The latter passes through the 1½" Double Angle Strip 3 and carries at its upper end another Pulley to which is rigidly secured the striking arm 5. The Double Angle Strip 3 is pivoted to the Bush Wheel 1.



Parts required :

2 of No.	1
4 „ „	2
1 „ „	3
4 „ „	5
2 „ „	10
1 „ „	12
1 „ „	16
1 „ „	19S
2 „ „	22
1 „ „	24
2 „ „	35
26 „ „	37
1 „ „	37A
2 „ „	38
1 „ „	48
2 „ „	48A
1 „ „	52
2 „ „	54
1 „ „	126
1 „ „	126A

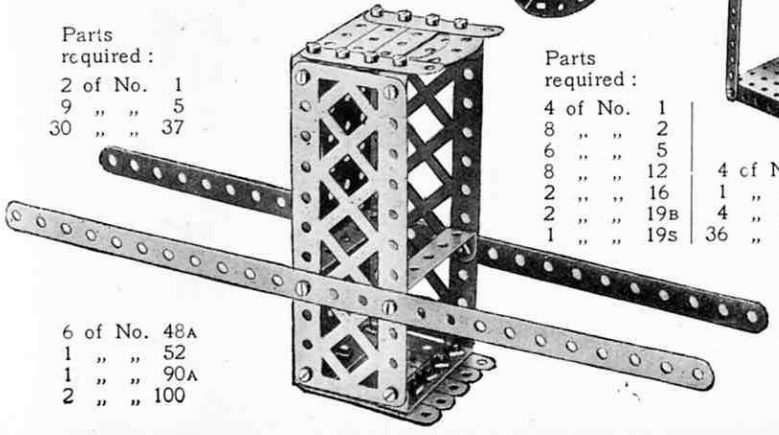
Model No. 1.175 Telescope



Parts required :

6	of No.	5
4	„ „	10
4	„ „	12
1	„ „	17
1	„ „	18A
2	„ „	19B
3	„ „	22
1	„ „	35
31	„ „	37
4	„ „	48A
1	„ „	52
2	„ „	54
1	„ „	111C
2	„ „	126

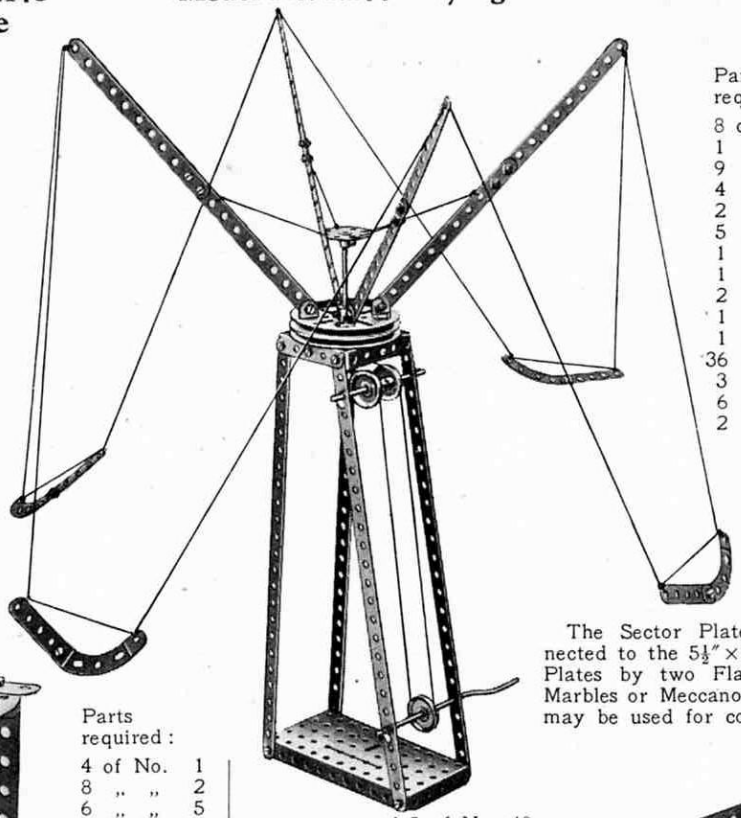
Model No. 1.176 Sedan Chair



Parts required :

2	of No.	1
9	„ „	5
30	„ „	37
6	of No.	48A
1	„ „	52
1	„ „	90A
2	„ „	100

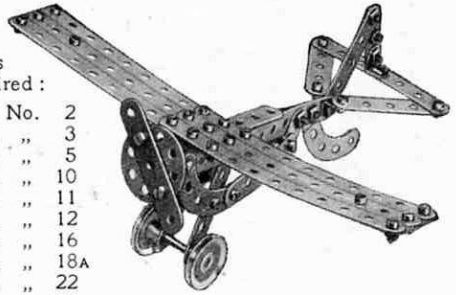
Model No. 1.177 Flying Boats



Parts required :

4	of No.	1
8	„ „	2
6	„ „	5
8	„ „	12
2	„ „	16
2	„ „	19B
1	„ „	19S
4	of No.	22
1	„ „	24
4	„ „	35
36	„ „	37
3	of No.	48A
4	„ „	90A

Model No. 1.178 Aeroplane

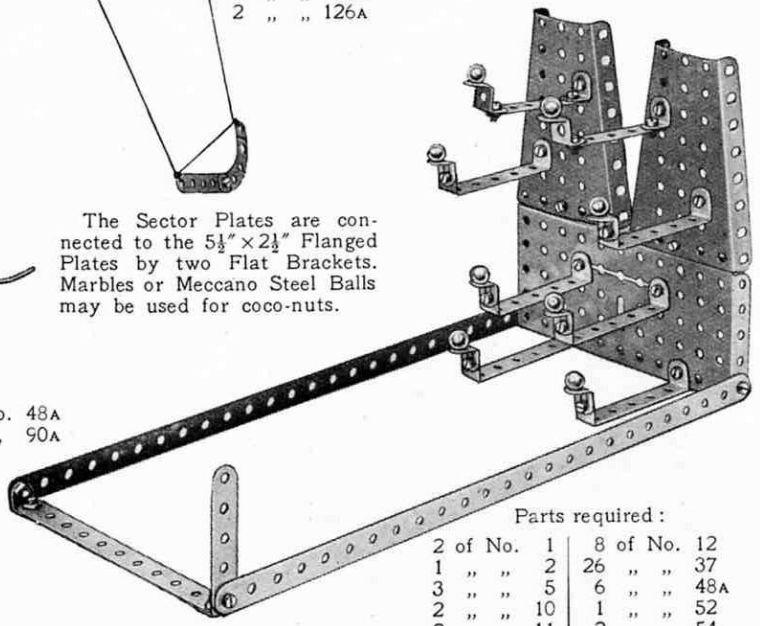


Parts required :

8	of No.	2
1	„ „	3
9	„ „	5
4	„ „	10
2	„ „	11
5	„ „	12
1	„ „	16
1	„ „	18A
2	„ „	22
1	„ „	24
1	„ „	35
36	„ „	37
3	„ „	90A
6	„ „	111C
2	„ „	126A

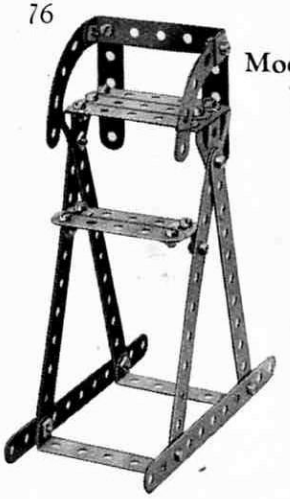
Model No. 1.179 Coco-nut Shy

The Sector Plates are connected to the 5½" × 2½" Flanged Plates by two Flat Brackets. Marbles or Meccano Steel Balls may be used for coco-nuts.



Parts required :

2	of No.	1
1	„ „	2
3	„ „	5
2	„ „	10
2	„ „	11
8	of No.	12
26	„ „	37
6	„ „	48A
1	„ „	52
2	„ „	54



Model No. 1.180 Umpire's Seat

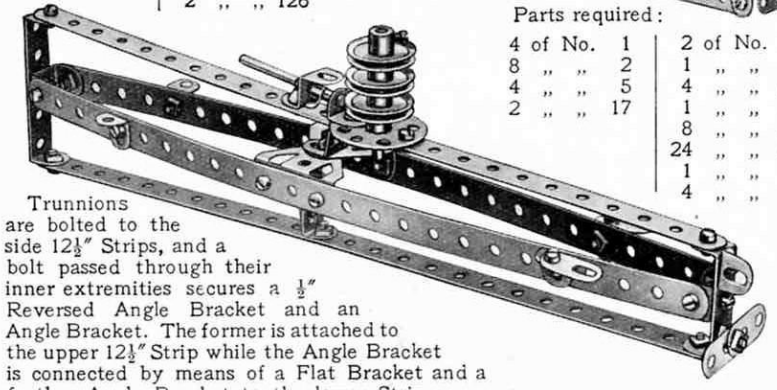
Parts required :

6	of No.		2
7	,,	,,	5
2	,,	,,	10
4	,,	,,	12
24	,,	,,	37
3	,,	,,	48A
2	,,	,,	90A
2	,,	,,	126

Model No. 1.181 Submarine

Parts required :

4	of No.		1
5	,,	,,	10
2	,,	,,	11
8	,,	,,	12
2	,,	,,	17
3	,,	,,	22
1	,,	,,	24
2	of No.		35
28	,,	,,	37
3	,,	,,	37A
2	,,	,,	38
1	,,	,,	48
1	,,	,,	48A
2	,,	,,	125
2	,,	,,	126



Trunnions are bolted to the side 12½" Strips, and a bolt passed through their inner extremities secures a ½" Reversed Angle Bracket and an Angle Bracket. The former is attached to the upper 12½" Strip while the Angle Bracket is connected by means of a Flat Bracket and a further Angle Bracket to the lower Strip.

Model No. 1.182 Fly Boats

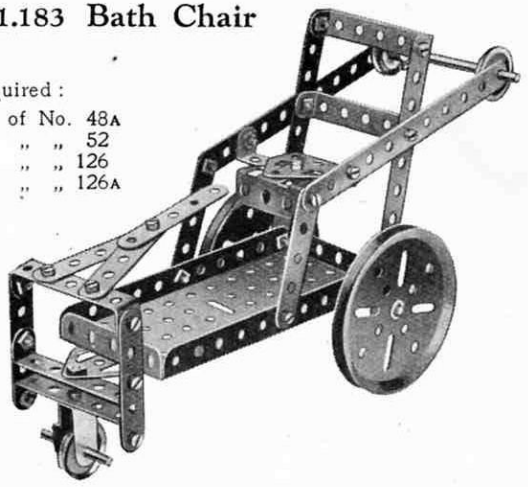
Parts required :

4	of No.		1
8	,,	,,	2
4	,,	,,	5
2	,,	,,	17
2	of No.		18A
1	,,	,,	19S
4	,,	,,	22
1	,,	,,	24
8	,,	,,	35
24	,,	,,	37
1	,,	,,	52
4	,,	,,	90A

Model No. 1.183 Bath Chair

Parts required :

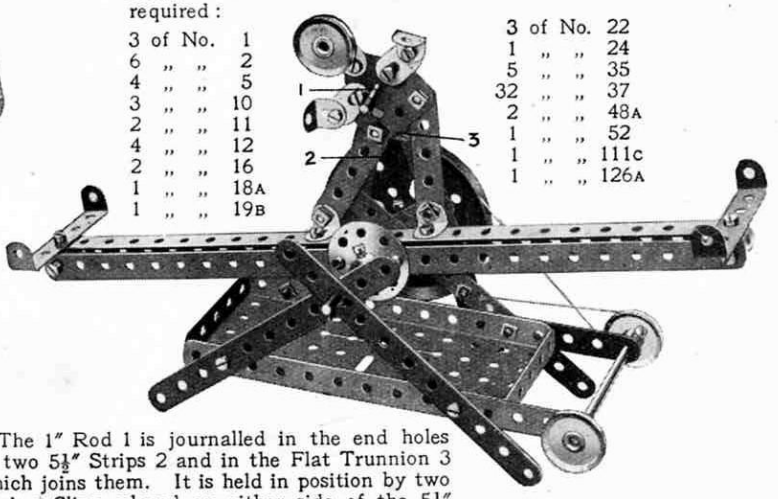
4	of No.		2
7	,,	,,	5
2	,,	,,	16
1	,,	,,	18A
2	,,	,,	19B
3	,,	,,	22
24	,,	,,	37
1	,,	,,	37A
1	,,	,,	44
6	of No.		48A
1	,,	,,	52
1	,,	,,	126
2	,,	,,	126A



Model No. 1.184 Acrobat on See-Saw

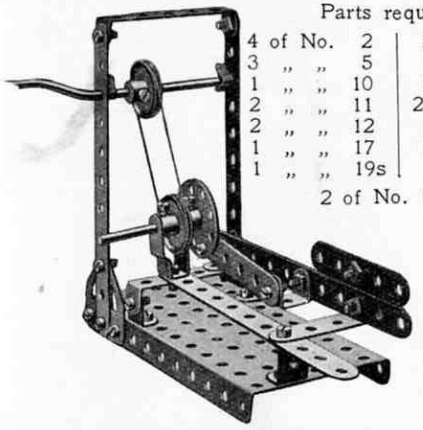
Parts required :

3	of No.		1
6	,,	,,	2
4	,,	,,	5
3	,,	,,	10
2	,,	,,	11
4	,,	,,	12
2	,,	,,	16
1	,,	,,	18A
1	,,	,,	19B
3	of No.		22
1	,,	,,	24
5	,,	,,	35
32	,,	,,	37
2	,,	,,	48A
1	,,	,,	52
1	,,	,,	111C
1	,,	,,	126A



The 1" Rod 1 is journalled in the end holes of two 5½" Strips 2 and in the Flat Trunnion 3 which joins them. It is held in position by two Spring Clips, placed on either side of the 5½" Strips 2.

Model No. 1.185 Sawing Machine

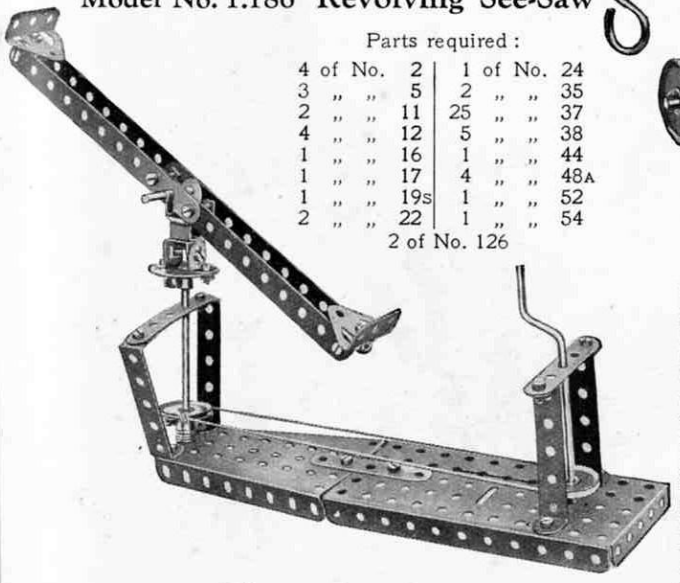


Parts required :

4	of No.	2	2	of No.	22
3	„ „	5	1	„ „	24
1	„ „	10	2	„ „	35
2	„ „	11	22	„ „	37
2	„ „	12	1	„ „	44
1	„ „	17	2	„ „	48A
1	„ „	19s	1	„ „	52

2 of No. 126A

Model No. 1.186 Revolving See-Saw

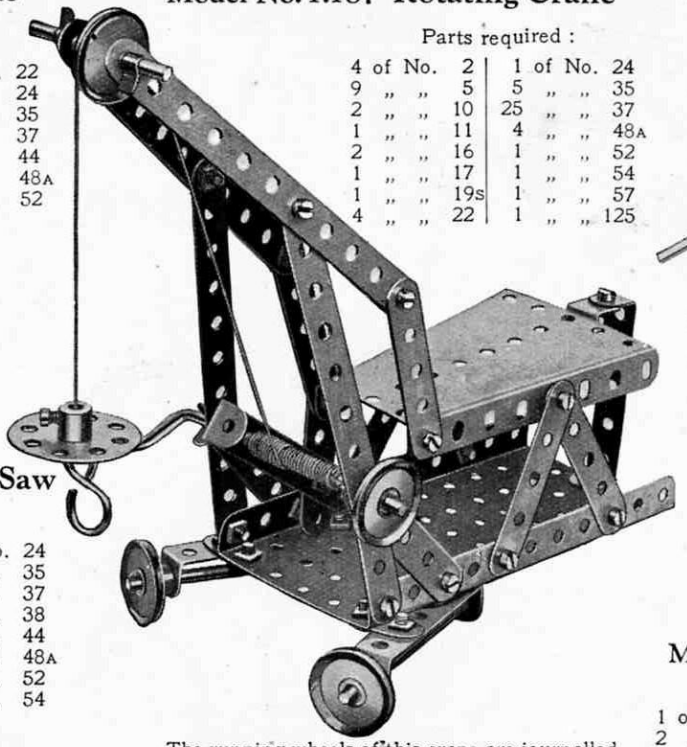


Parts required :

4	of No.	2	1	of No.	24
3	„ „	5	2	„ „	35
2	„ „	11	25	„ „	37
4	„ „	12	5	„ „	38
1	„ „	16	1	„ „	44
1	„ „	17	4	„ „	48A
1	„ „	19s	1	„ „	52
2	„ „	22	1	„ „	54

2 of No. 126

Model No. 1.187 Rotating Crane

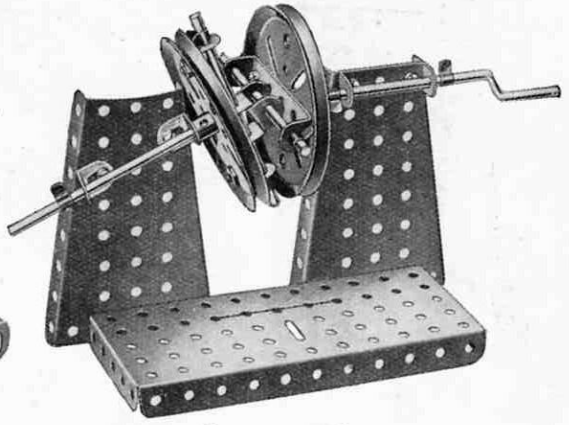


Parts required :

4	of No.	2	1	of No.	24
9	„ „	5	5	„ „	35
2	„ „	10	25	„ „	37
1	„ „	11	4	„ „	48A
2	„ „	16	1	„ „	52
1	„ „	17	1	„ „	54
1	„ „	19s	1	„ „	57
4	„ „	22	1	„ „	125

The running wheels of this crane are journalled in Double Angle Strips bolted to the Base Plate and secured at an angle by means of Flat Brackets. The rear of the Base Plate is supported on a Double Bracket. The jib is bolted loosely to the supporting 5½" Strips and is connected by 2½" Strips to the Sector Plate which pivots about its supporting bolts. By moving this Sector Plate the elevation of the jib may be altered as desired. The movement is controlled by a Double Angle Strip mounted on the Crank Handle and connected pivotally to the Plate by means of a 2½" Strip. A Reversed Angle Bracket bolted to an upright Double Angle Strip in the rear of the model serves to restrict the movement of the Sector Plate.

Model No. 1.188 Hooke's Coupling



Parts required :

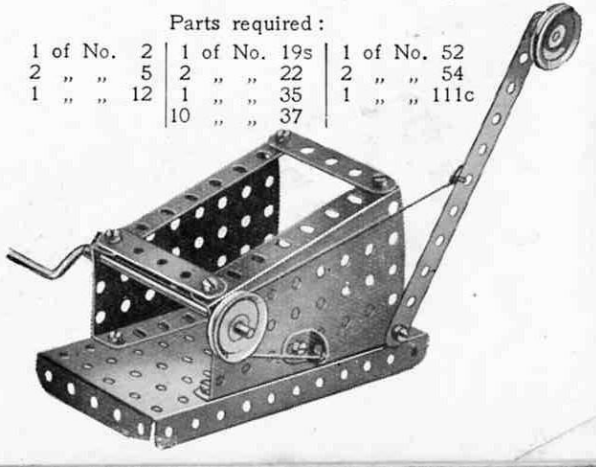
2	of No.	11	7	of No.	35
2	„ „	12	12	„ „	37
3	„ „	16	1	„ „	48
2	„ „	19B	2	„ „	48A
1	„ „	19s	1	„ „	52

2 of No. 54

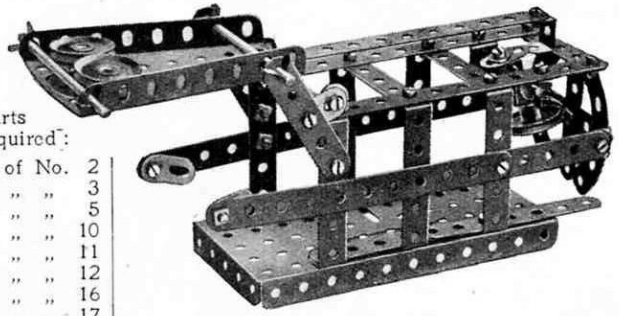
Model No. 1.189 Band Brake

Parts required :

1	of No.	2	1	of No.	19s	1	of No.	52
2	„ „	5	2	„ „	22	2	„ „	54
1	„ „	12	1	„ „	35	1	„ „	111c
			10	„ „	37			



Model No. 1.190 Rat Trap

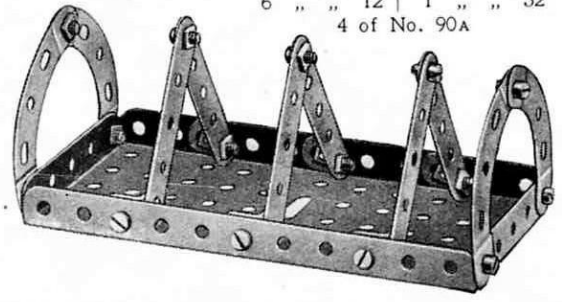


Parts required:

8 of No. 2	8 of No. 35	1 of No. 48
1 „ „ 3	31 „ „ 37	6 „ „ 48A
8 „ „ 5	1 „ „ 38	1 „ „ 52
5 „ „ 10		1 of No. 54
2 „ „ 11		2 „ „ 90A
6 „ „ 12		3 „ „ 111c
2 „ „ 16		
1 „ „ 17		
3 „ „ 22		
1 „ „ 23		
1 „ „ 24		

The " bait " consists of a 1" fast Pulley and a ½" loose Pulley suspended by means of a cord from a Double Bracket. The latter is bolted to a 1½" × ½" Double Angle Strip that is free to turn on a 2" Rod journalled in a pair of Angle Brackets. A Flat Bracket bolted to the Double Bracket engages a second Double Bracket on the end of a 5½" Strip that is bolted to the door of the cage. If the " bait " is touched, the heavily-weighted door falls into place, and is prevented from re-opening by catches formed from Flat Brackets secured to 5½" Strips that are bolted to the trap by their extreme ends and act as springs.

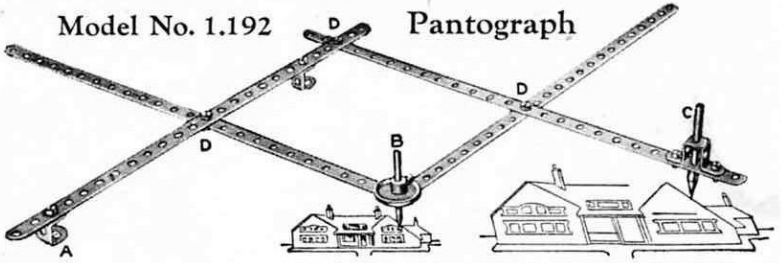
Model No. 1.191 Toast Rack



Parts required:

6 of No. 5	21 of No. 37
6 „ „ 12	1 „ „ 52
4 of No. 90A	

Model No. 1.192 Pantograph



Parts required:

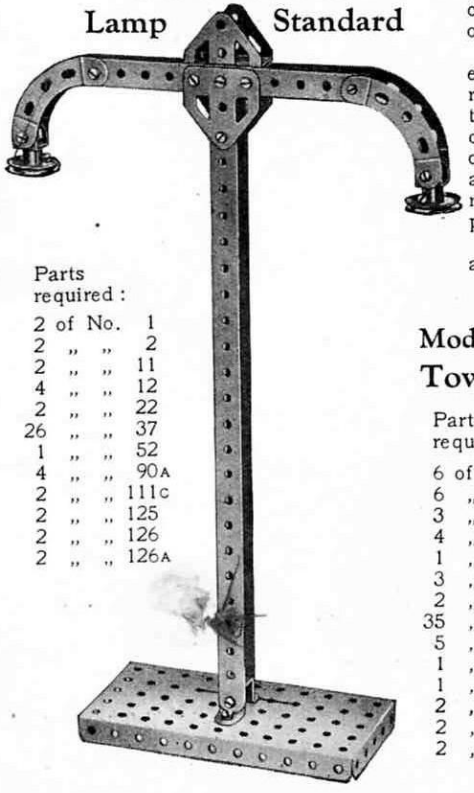
4 of No. 1
2 „ „ 11
1 „ „ 18A
1 „ „ 22
1 „ „ 35
7 „ „ 37
3 „ „ 37A
2 „ „ 125

Most boys have heard of the Pantograph but not many have had an opportunity of seeing its principles demonstrated. It is an instrument for copying plans, etc., on the same or on a reduced or enlarged scale.

The apparatus is fixed at the point A. If an enlarged sketch is to be made, the point B is traced round the outlines, the writing point C reproducing the sketch on a larger scale. When a reduced drawing is to be made, the point C traces the outline, whilst the point B reproduces the sketch on a smaller scale. The degree of enlargement or reduction varies according to the position in which point C is fixed on the perforated arm.

The bolts at D are fitted with lock-nuts to allow free movement of the 12½" Strips.

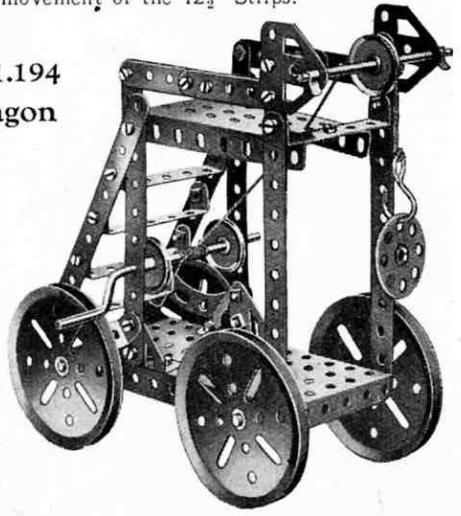
Model No. 1.193 Lamp Standard



Parts required:

2 of No. 1
2 „ „ 2
2 „ „ 11
4 „ „ 12
2 „ „ 22
26 „ „ 37
1 „ „ 52
4 „ „ 90A
2 „ „ 111c
2 „ „ 125
2 „ „ 126
2 „ „ 126A

Model No. 1.194 Tower Wagon



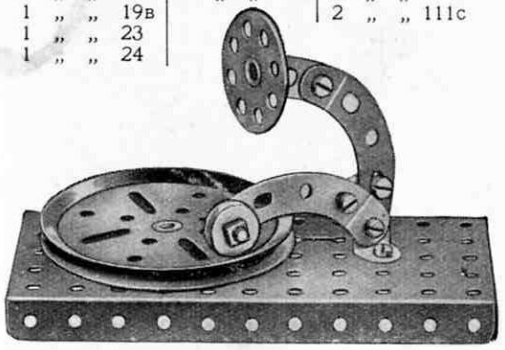
Parts required:

6 of No. 2
6 „ „ 5
3 „ „ 16
4 „ „ 19B
1 „ „ 19S
3 „ „ 22
2 „ „ 35
35 „ „ 37
5 „ „ 48A
1 „ „ 52
1 „ „ 57
2 „ „ 90A
2 „ „ 126
2 „ „ 126A

Model No. 1.195 Gramophone

Parts required :

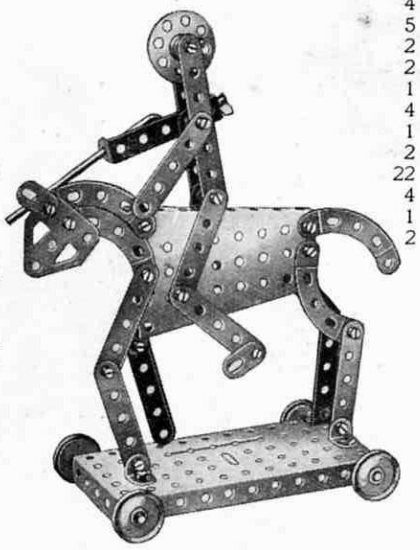
2 of No. 10	6 of No. 37	1 of No. 52
1 „ „ 12	1 „ „ 38	2 „ „ 90A
1 „ „ 19B		2 „ „ 111c
1 „ „ 23		
1 „ „ 24		



Model No. 1.197 Lancer

Parts required :

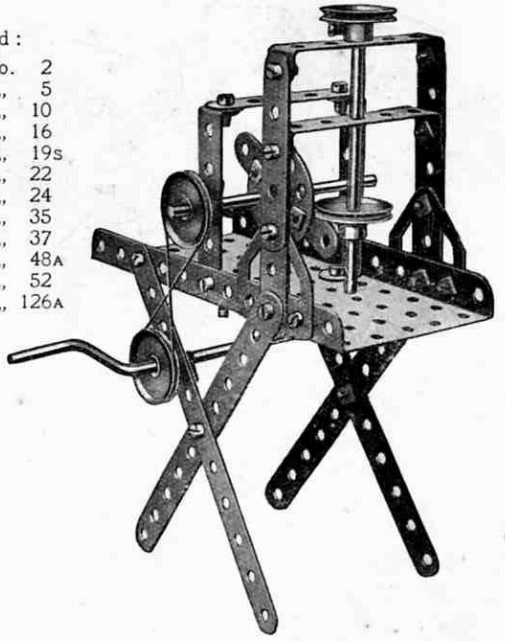
1 of No.	2
1 „ „	3
9 „ „	5
2 „ „	10
2 „ „	11
5 „ „	12
2 „ „	16
1 „ „	19S
4 „ „	22
1 „ „	24
1 „ „	35
27 „ „	37
1 „ „	48A
1 „ „	52
1 „ „	54
4 „ „	90A
1 „ „	126A



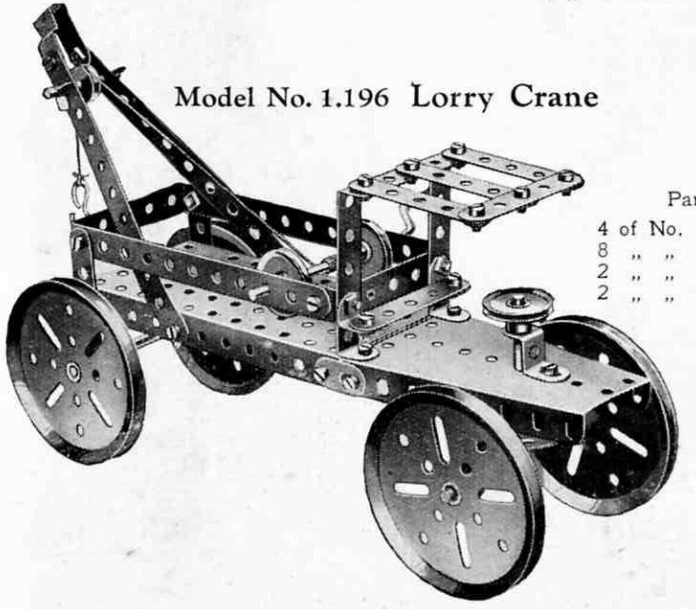
Model No. 1.198 Stamping Machine

Parts required :

4 of No.	2
5 „ „	5
2 „ „	10
2 „ „	16
1 „ „	19S
4 „ „	22
1 „ „	24
2 „ „	35
22 „ „	37
4 „ „	48A
1 „ „	52
2 „ „	126A



Model No. 1.196 Lorry Crane



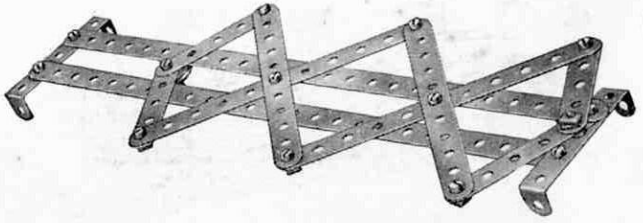
Parts required :

4 of No. 2	2 of No. 16	
8 „ „ 5	1 „ „ 17	
2 „ „ 10	1 „ „ 18A	
2 „ „ 12	4 „ „ 19B	
	1 „ „ 19S	
	3 „ „ 22	
	1 „ „ 23	
	1 „ „ 24	
	3 „ „ 35	
	29 „ „ 37	
	1 „ „ 44	
	5 „ „ 48A	
	1 „ „ 52	
	1 „ „ 54	
	1 „ „ 57	
	2 „ „ 125	

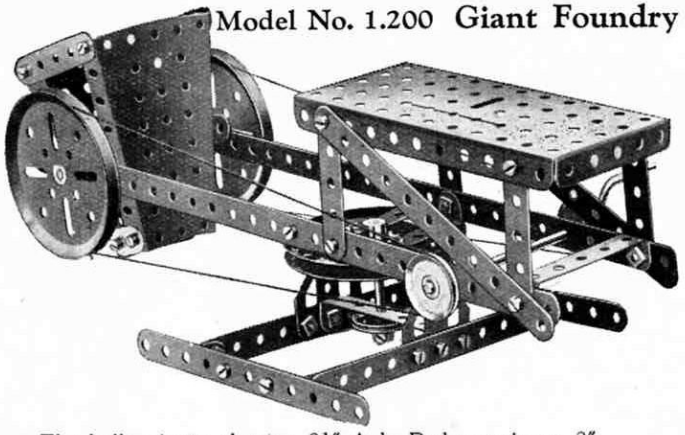
Model No. 1.199 Lazy Tongs

Parts required :

2 of No. 1	1 of No. 23	2 of No. 48A
4 „ „ 2	12 „ „ 37	2 „ „ 111c
4 „ „ 5	10 „ „ 37A	



Model No. 1.200 Giant Foundry Ladle



Parts required :

2	of No.	1	3	of No.	22
6	„ „	2	1	„ „	24
1	„ „	3	36	„ „	37
7	„ „	5	6	„ „	37A
2	„ „	10	6	„ „	48A
2	„ „	12	1	„ „	52
1	„ „	16	2	„ „	54
1	„ „	17	6	„ „	111c
3	„ „	19B	2	„ „	126A
1	„ „	19S			

The ladle pivots about a 3½" Axle Rod carrying a 3" Pulley at each end in addition to a Bush Wheel and a 2½" Strip. The two latter parts are bolted to the side flanges of the Sector Plates and the Bush Wheel is nipped in position on the Rod. The pivot about which the superstructure turns is shown in Fig. 1.200A.

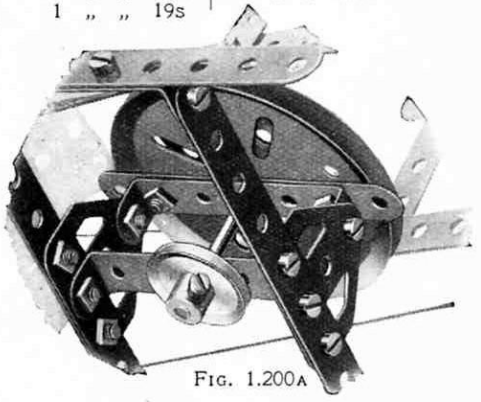
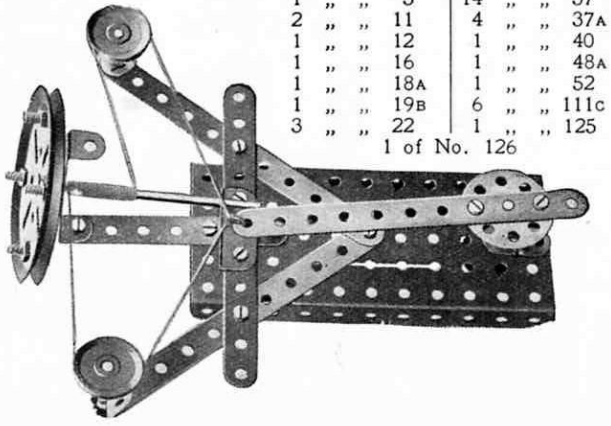


FIG. 1.200A

Model No. 1.201 Boat Steering Gear

Parts required :

4	of No.	2	1	of No.	24
1	„ „	3	14	„ „	37
2	„ „	11	4	„ „	37A
1	„ „	12	1	„ „	40
1	„ „	16	1	„ „	48A
1	„ „	18A	1	„ „	52
1	„ „	19B	6	„ „	111c
3	„ „	22	1	„ „	125
			1	of No.	126

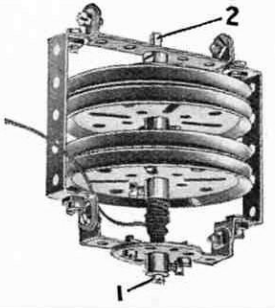


Model No. 1.202 Gyroscope

The 7/32" Bolt 1 is gripped by the Set-Screw of the Bush Wheel. The lower end of the Rod 2 of the Gyroscope enters the boss of the Bush Wheel and rests on the shank of the Bolt 1.

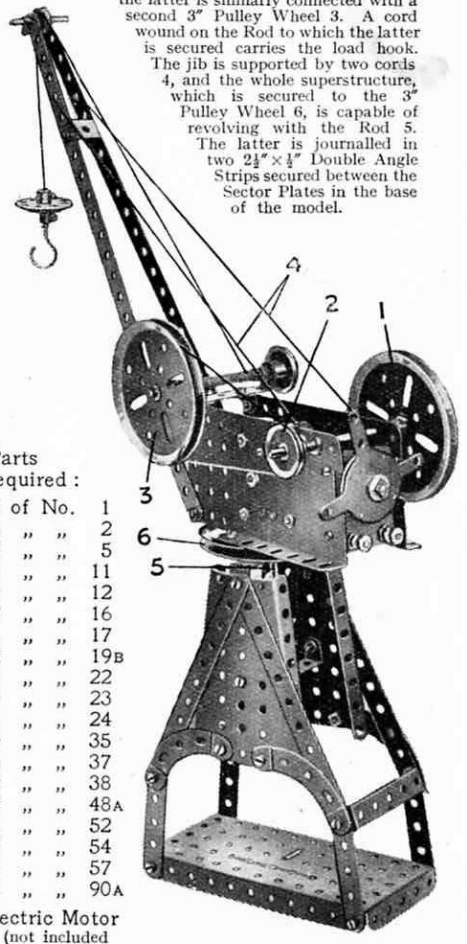
Parts required :

4	of No.	12
1	„ „	16
4	„ „	19B
1	„ „	24
10	„ „	37
4	„ „	48A



Model No. 1.203 Elevated Jib Crane

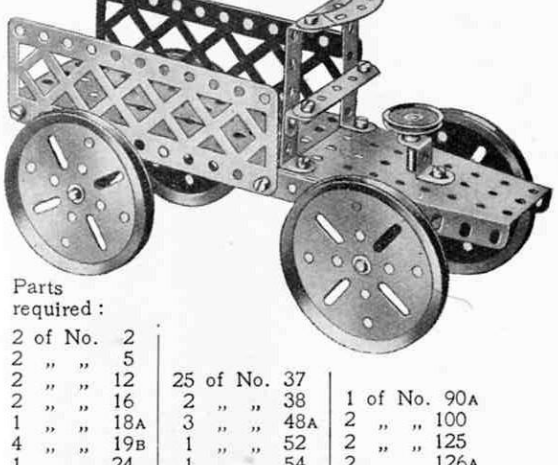
A 1" fast Pulley Wheel secured to the armature spindle of the Electric Motor is connected by an endless cord to the 3" Pulley Wheel 1. A 1" fast Pulley 2 on the same Rod as the latter is similarly connected with a second 3" Pulley Wheel 3. A cord wound on the Rod to which the latter is secured carries the load hook. The jib is supported by two cords 4, and the whole superstructure, which is secured to the 3" Pulley Wheel 6, is capable of revolving with the Rod 5. The latter is journalled in two 2½"×½" Double Angle Strips secured between the Sector Plates in the base of the model.



Parts required :

2	of No.	1
4	„ „	2
4	„ „	5
1	„ „	11
2	„ „	12
3	„ „	16
1	„ „	17
3	„ „	19B
4	„ „	22
1	„ „	23
1	„ „	24
5	„ „	35
26	„ „	37
2	„ „	38
5	„ „	48A
1	„ „	52
2	„ „	54
1	„ „	57
4	„ „	90A
Electric Motor (not included in Outfit)		

Model No. 1.204 Motor Lorry



Parts required :

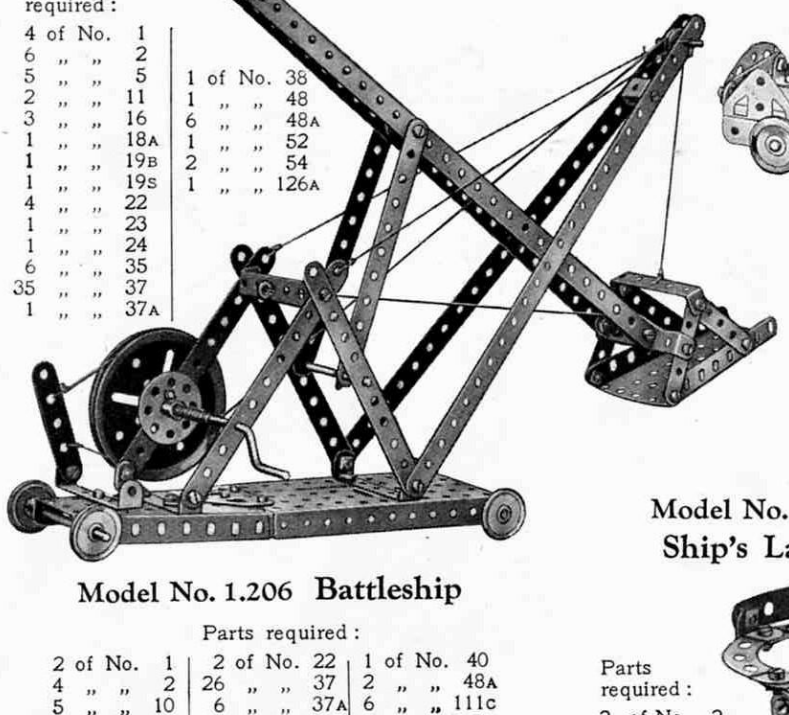
2	of No.	2	25	of No.	37	1	of No.	90A
2	„ „	5	2	„ „	38	2	„ „	100
2	„ „	12	3	„ „	48A	2	„ „	125
2	„ „	16	1	„ „	52	2	„ „	126A
1	„ „	18A	1	„ „	54			
4	„ „	19B						
1	„ „	24						

FIG. 1.204A

Model No. 1.205 Mechanical Shovel

Parts required :

4	of No.	1	1	of No.	38			
6	„ „	2	1	„ „	48			
5	„ „	5	6	„ „	48A			
2	„ „	11	1	„ „	52			
3	„ „	16	2	„ „	54			
1	„ „	18A	1	„ „	126A			
1	„ „	19B						
1	„ „	19S						
4	„ „	22						
1	„ „	23						
1	„ „	24						
6	„ „	35						
35	„ „	37						
1	„ „	37A						

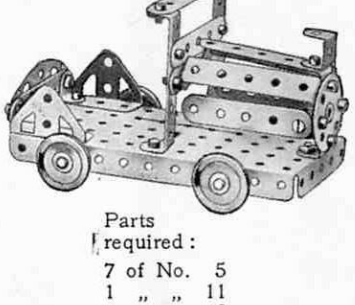


Model No. 1.206 Battleship

Parts required :

2	of No.	1	2	of No.	22	1	of No.	40
4	„ „	2	26	„ „	37	2	„ „	48A
5	„ „	10	6	„ „	37A	6	„ „	111c
2	„ „	11				2	„ „	125
8	„ „	12						

Model No. 1.207 Locomotive



Parts required :

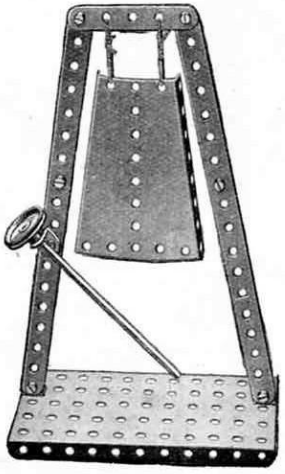
7	of No.	5	1	of No.	48A			
1	„ „	11	1	„ „	52			
6	„ „	12	1	„ „	90A			
2	„ „	16	2	„ „	126			
4	„ „	22						
1	„ „	24						
24	„ „	37						
4	„ „	48A						

Model No. 1.208 Ship's Lamp

Parts required :

2	of No.	2	1	of No.	17	1	of No.	52
4	„ „	12	2	„ „	22	1	„ „	54
1	„ „	17	1	„ „	24	4	„ „	90A
2	„ „	22	11	„ „	37	2	„ „	111c
1	„ „	24	4	„ „	37A			
11	„ „	37	1	„ „	48A			
4	„ „	37A	1	„ „	52			
1	„ „	48A	1	„ „	54			
1	„ „	52	4	„ „	90A			
1	„ „	54	2	„ „	111c			

Model No. 1.209 Gong



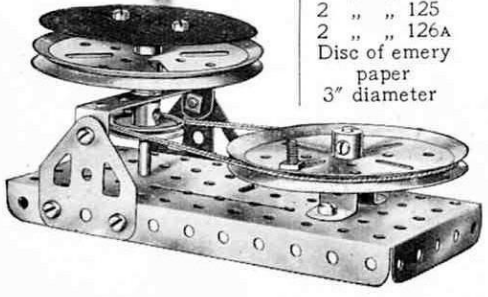
Parts required :

4	of No.	2	1	of No.	22
1	„ „	5	9	„ „	37
3	„ „	12	1	„ „	52
1	„ „	16	1	„ „	54

Model No. 1.210 Emery Wheel

Parts required :

1	of No.	17	1	of No.	22	10	of No.	37
1	„ „	18A	1	„ „	24	1	„ „	48A
2	„ „	19B	2	„ „	35	1	„ „	52
						1	„ „	111c
						2	„ „	125
						2	„ „	126A
						Disc of emery paper 3″ diameter		



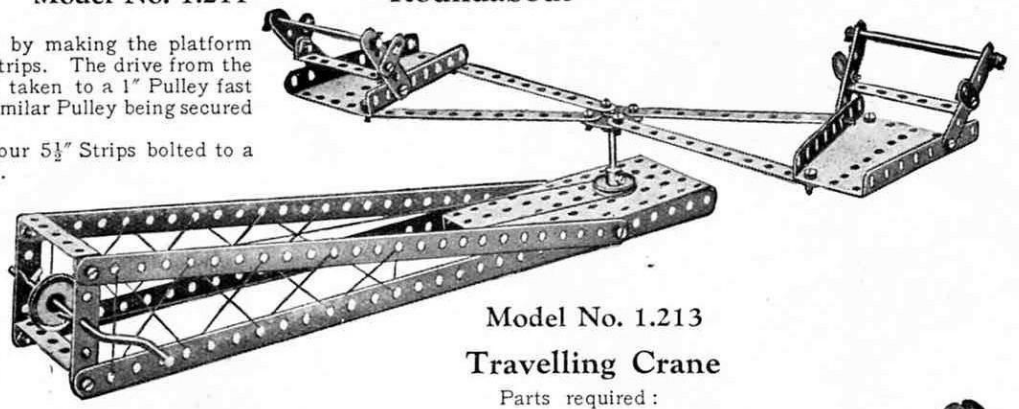
Model No. 1.211 Roundabout

Begin to build this model by making the platform from a Flanged Plate and 12½″ Strips. The drive from the Pulley on the Crank Handle is taken to a 1″ Pulley fast on the vertical 2″ Rod, another similar Pulley being secured to this Rod beneath the Plate.

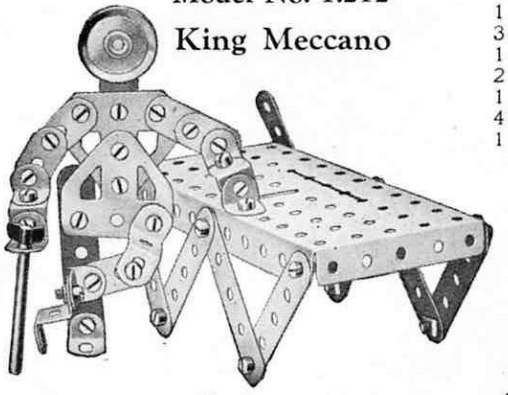
The arms are formed of four 5½″ Strips bolted to a Bush Wheel fast on the 2″ Rod.

Parts required :

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



Model No. 1.212 King Meccano



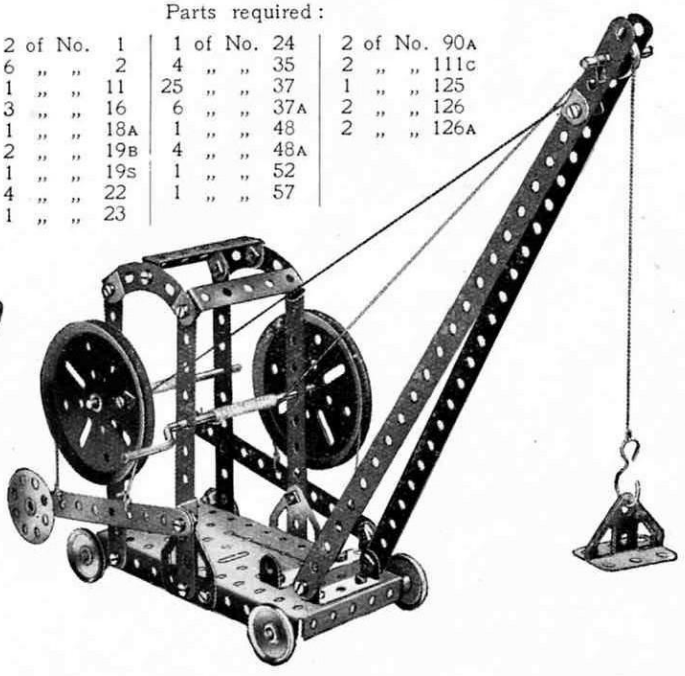
Parts required :

1	of No.	3	1	of No.	35
9	„ „	5	30	„ „	37
5	„ „	10	1	„ „	52
8	„ „	12	1	„ „	111c
1	„ „	17	2	„ „	125
1	„ „	22	2	„ „	126A

Model No. 1.213 Travelling Crane

Parts required :

2	of No.	1	1	of No.	24	2	of No.	90A
6	„ „	2	4	„ „	35	2	„ „	111c
1	„ „	11	25	„ „	37	1	„ „	125
3	„ „	16	6	„ „	37A	2	„ „	126
1	„ „	18A	1	„ „	48	2	„ „	126A
2	„ „	19B	4	„ „	48A			
1	„ „	19S	1	„ „	52			
4	„ „	22	1	„ „	57			
1	„ „	23						



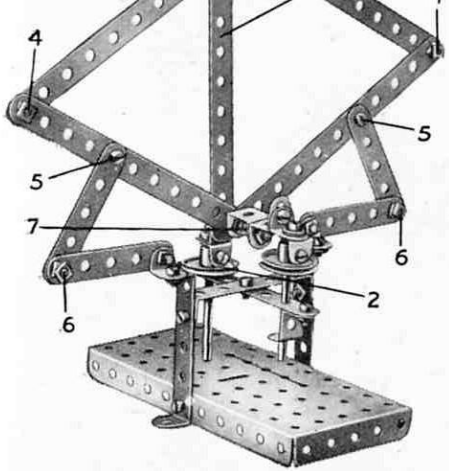
Model No. 1.214 Bow Girder

Parts required :

2 of No.	1	6 of No.	37
4 „ „	12	2 „ „	54

Model No. 1.215 Double-Action Pump

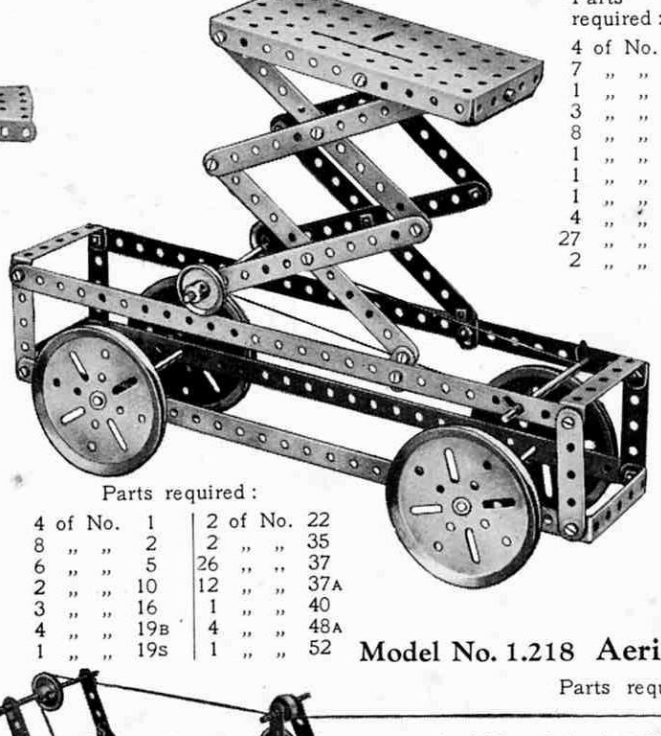
The 5½″ Strip 1 is attached to the 1″ Pulley Wheel 2 by means of two Angle Brackets, through the lower of which passes the Set-Screw that secures the Pulley to its 2″ Rod. Two Washers are placed beneath the head of the Bolt joining the Angle Brackets in order to prevent its shank from binding on the boss of the Pulley 2. The joints 3, 4, 5, 6, 7, are all lock-nutted, the remainder of the joints being quite rigid. When the Strip 1 descends, together with the first pump, the incidental distortion of the parallelogram 3, 4, 7, 4 causes the second pump to rise. Similarly, when the first pump rises, the second descends.



Parts required :

5 of No.	2		
1 „ „	3		
4 „ „	5		
2 „ „	11		
6 „ „	12		
2 „ „	17		
2 „ „	22		
1 „ „	24		
21 „ „	37		
6 „ „	37A		
4 „ „	38		
3 „ „	48A		
1 „ „	52		
6 „ „	111C		
2 „ „	125		

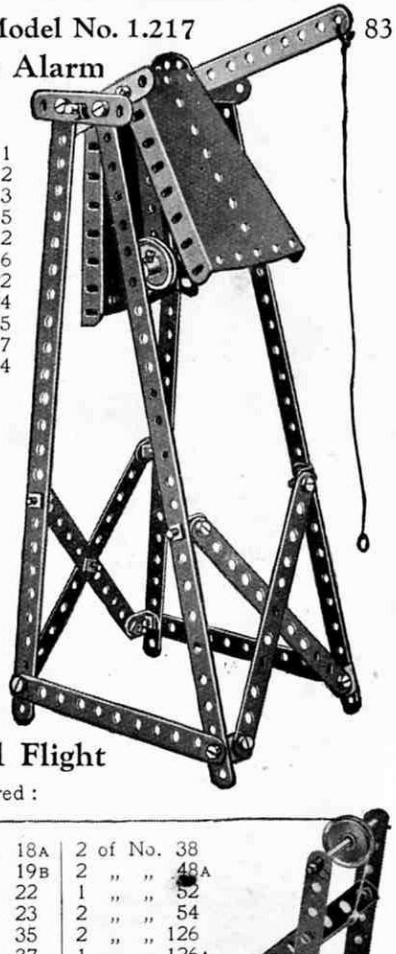
Model No. 1.216 Tower Wagon



Parts required :

4 of No.	1	2 of No.	22
8 „ „	2	2 „ „	35
6 „ „	5	26 „ „	37
2 „ „	10	12 „ „	37A
3 „ „	16	1 „ „	40
4 „ „	19B	4 „ „	48A
1 „ „	19S	1 „ „	52

Fire Alarm



Parts required :

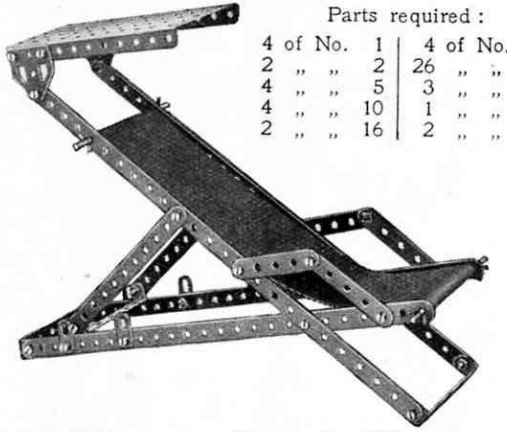
4 of No.	1
7 „ „	2
1 „ „	3
3 „ „	5
8 „ „	12
1 „ „	16
1 „ „	22
1 „ „	24
4 „ „	35
27 „ „	37
2 „ „	54

Model No. 1.218 Aerial Flight

Parts required :

4 of No.	1	1 of No.	18A	2 of No.	38
4 „ „	2	2 „ „	19B	2 „ „	48A
8 „ „	5	3 „ „	22	1 „ „	52
1 „ „	10	1 „ „	23	2 „ „	54
4 „ „	12	6 „ „	35	2 „ „	126
3 „ „	16	33 „ „	37	1 „ „	126A

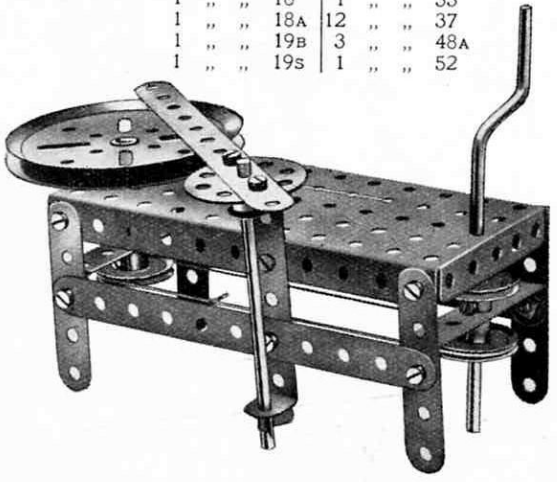
Model No. 1.219 Deck Chair



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

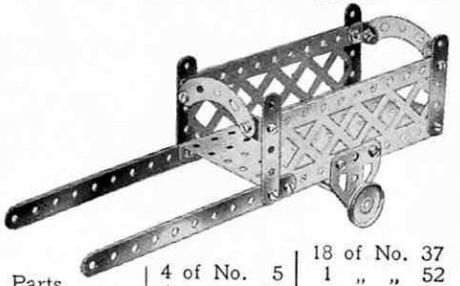
Model No. 1.220 Potter's Wheel



Parts required :

3	of	No.	2	3	of	No.	22
4	„	„	5	1	„	„	24
1	„	„	16	1	„	„	35
1	„	„	18A	12	„	„	37
1	„	„	19B	3	„	„	48A
1	„	„	19S	1	„	„	52

Model No. 1.221 Luggage Cart

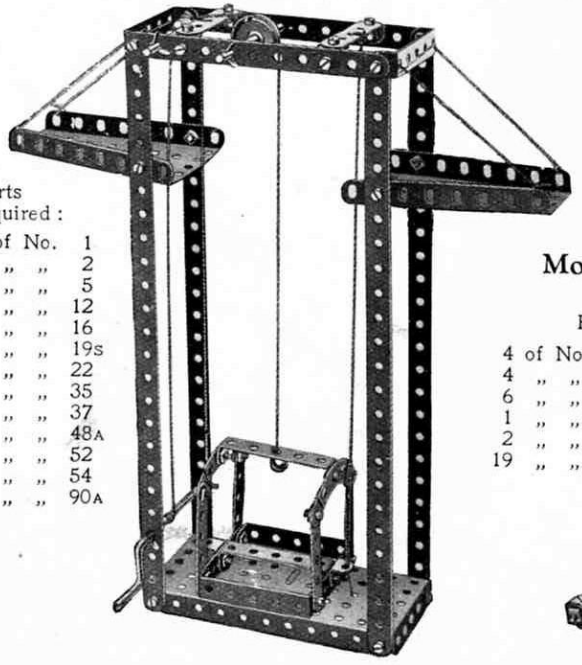


Parts required :

2 of No. 2

4	of	No.	5	18	of	No.	37
4	„	„	12	1	„	„	52
1	„	„	16	2	„	„	90A
2	„	„	22	2	„	„	100
				2	„	„	126A

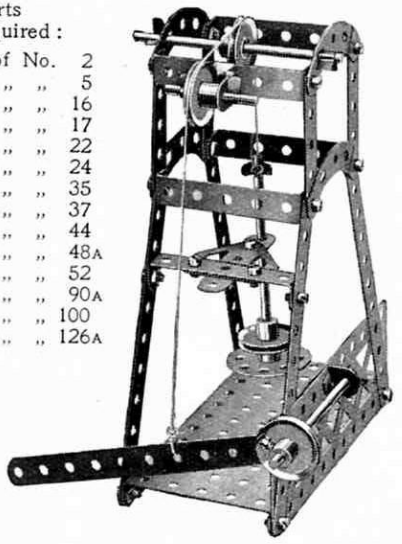
Model No. 1.222 Elevator



Parts required :

4	of	No.	1
2	„	„	2
6	„	„	5
6	„	„	12
1	„	„	16
1	„	„	19S
1	„	„	22
5	„	„	35
32	„	„	37
6	„	„	48A
1	„	„	52
2	„	„	54
2	„	„	90A

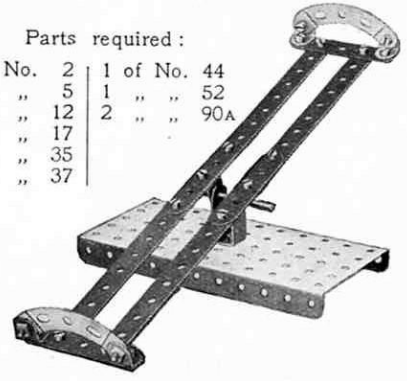
Model No. 1.223 Mechanical Stamp



Parts required :

5	of	No.	2
5	„	„	5
3	„	„	16
1	„	„	17
4	„	„	22
1	„	„	24
6	„	„	35
20	„	„	37
1	„	„	44
6	„	„	48A
1	„	„	52
4	„	„	90A
1	„	„	100
1	„	„	126A

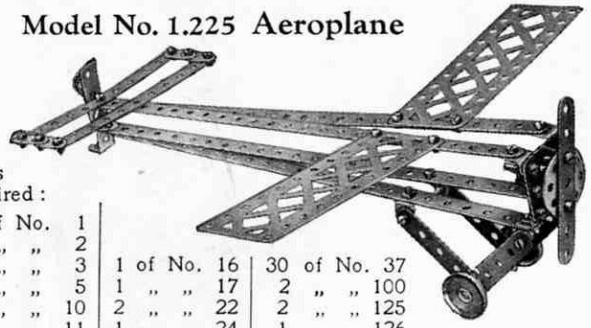
Model No. 1.224 See-Saw



Parts required :

4	of	No.	2	1	of	No.	44
4	„	„	5	1	„	„	52
6	„	„	12	2	„	„	90A
1	„	„	17				
2	„	„	35				
19	„	„	37				

Model No. 1.225 Aeroplane



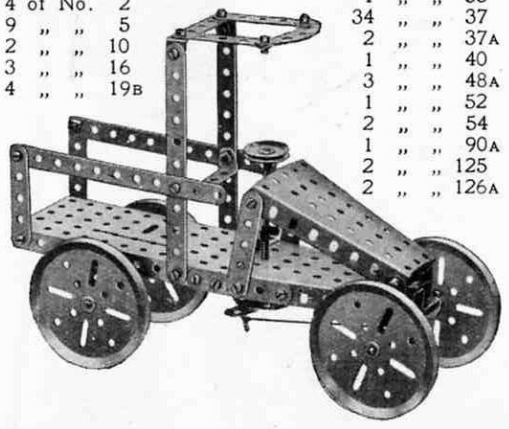
Parts required :

4	of	No.	1	1	of	No.	16	30	of	No.	37
2	„	„	2								
1	„	„	3	1	„	„	17	2	„	„	100
4	„	„	5	2	„	„	22	2	„	„	125
4	„	„	10	1	„	„	24	1	„	„	126
1	„	„	11	1	„	„	35	2	„	„	126A
8	„	„	12								

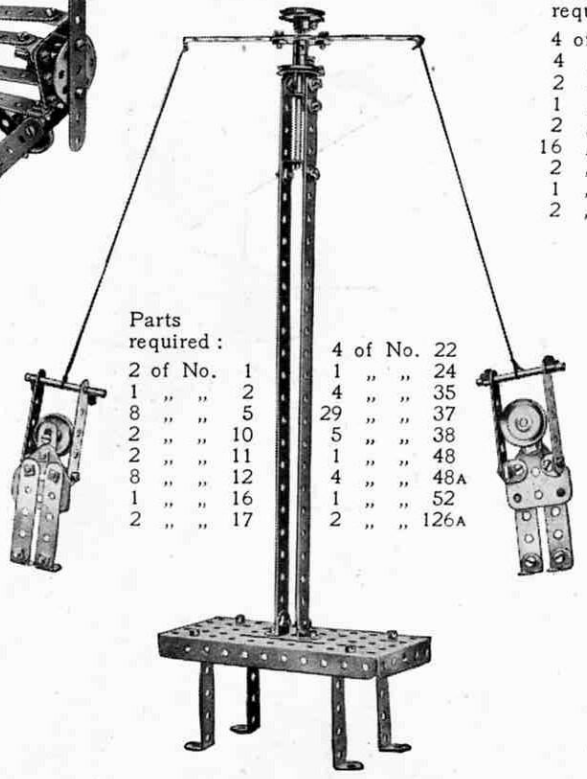
Model No. 1.226 Motor Truck

Parts required :

4	of	No.	2	1	of	No.	22
9	„	„	5	1	„	„	24
2	„	„	10	1	„	„	35
3	„	„	16	34	„	„	37
4	„	„	19B	2	„	„	37A
				1	„	„	40
				3	„	„	48A
				1	„	„	52
				2	„	„	54
				1	„	„	90A
				2	„	„	125
				2	„	„	126A



Model No. 1.227 Revolving Gymnasts



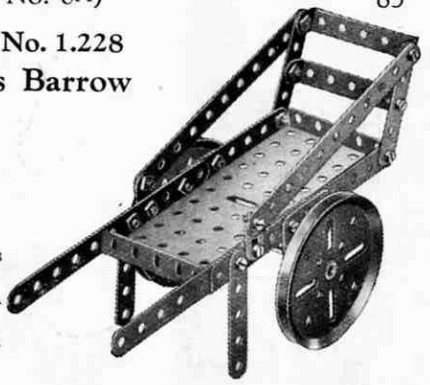
Parts required :

2	of	No.	1	4	of	No.	22
1	„	„	2	1	„	„	24
8	„	„	5	4	„	„	35
2	„	„	10	29	„	„	37
2	„	„	11	5	„	„	38
8	„	„	12	1	„	„	48
1	„	„	16	4	„	„	48A
2	„	„	17	1	„	„	52
				2	„	„	126A

Model No. 1.228 Coster's Barrow

Parts required :

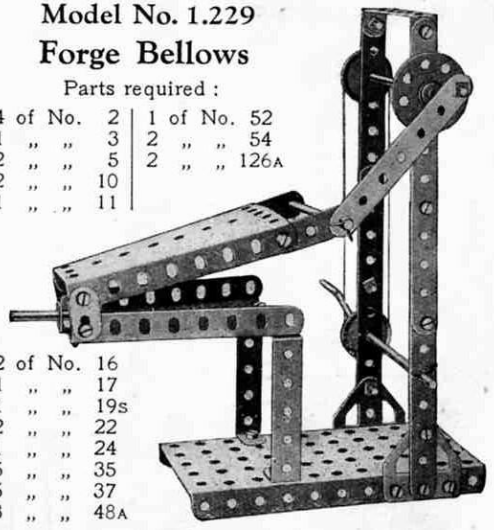
4	of	No.	2
4	„	„	5
2	„	„	10
1	„	„	16
2	„	„	19B
16	„	„	37
2	„	„	48A
1	„	„	52
2	„	„	126A



Model No. 1.229 Forge Bellows

Parts required :

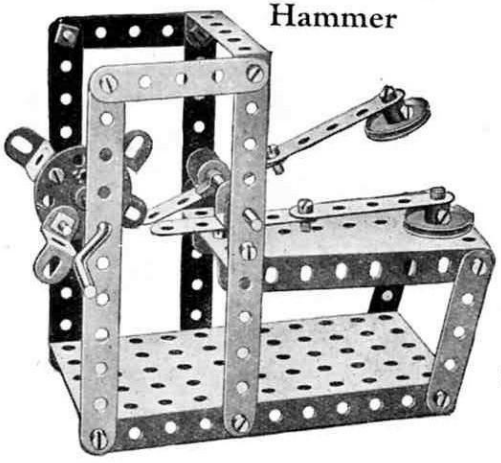
4	of	No.	2	1	of	No.	52
1	„	„	3	2	„	„	54
2	„	„	5	2	„	„	126A
2	„	„	10				
1	„	„	11				
2	of	No.	16				
1	„	„	17				
1	„	„	19S				
2	„	„	22				
1	„	„	24				
5	„	„	35				
25	„	„	37				
3	„	„	48A				



HOW TO CONTINUE

This completes our examples of models that 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 this Manual.

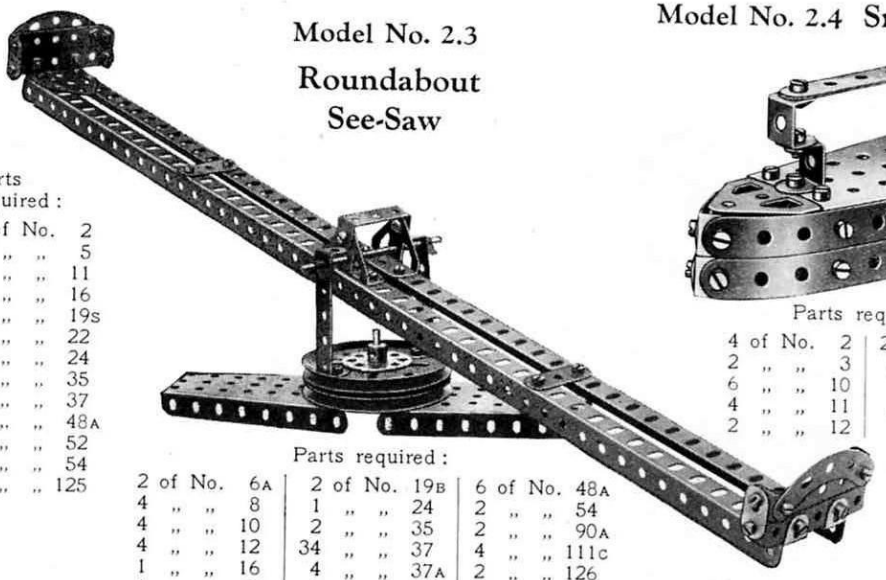
Model No. 2.1 Double Drop Hammer



Parts required :

4	of No.	2
8	„ „	5
2	„ „	11
1	„ „	16
1	„ „	19S
2	„ „	22
1	„ „	24
6	„ „	35
23	„ „	37
2	„ „	48A
1	„ „	52
1	„ „	54
4	„ „	125

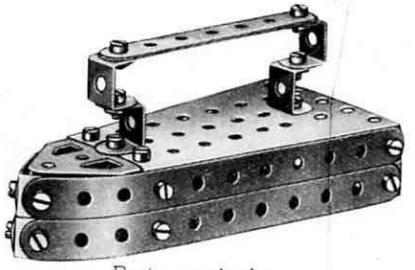
Model No. 2.3 Roundabout See-Saw



Parts required :

2	of No.	6A	2	of No.	19B	6	of No.	48A
4	„ „	8	1	„ „	24	2	„ „	54
4	„ „	10	2	„ „	35	2	„ „	90A
4	„ „	12	34	„ „	37	4	„ „	111C
1	„ „	16	4	„ „	37A	2	„ „	126
1	„ „	18A	6	„ „	38	2	„ „	126A
			1	„ „	48			

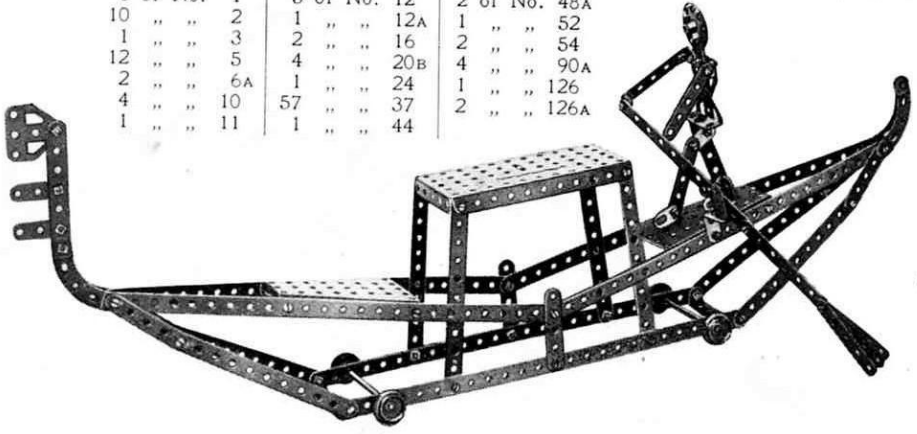
Model No. 2.4 Smoothing Iron



Parts required :

4	of No.	2	20	of No.	37
2	„ „	3	2	„ „	38
6	„ „	10	1	„ „	48A
4	„ „	11	2	„ „	54
2	„ „	12	1	„ „	126A

Model No. 2.2 Gondola



Parts required :

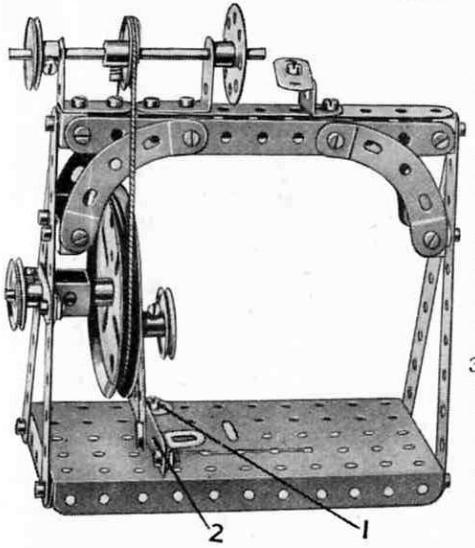
6	of No.	1	5	of No.	12	2	of No.	48A
10	„ „	2	1	„ „	12A	1	„ „	52
1	„ „	3	2	„ „	16	2	„ „	54
12	„ „	5	4	„ „	20B	4	„ „	90A
2	„ „	6A	1	„ „	24	1	„ „	126
4	„ „	10	57	„ „	37	2	„ „	126A
1	„ „	11	1	„ „	44			

Model No. 2.5 Schneider Trophy Seaplane

Parts required :

6	of No.	2
12	„ „	5
2	„ „	6A
2	„ „	11
12	„ „	12
34	„ „	37
3	„ „	37A
6	„ „	38
2	„ „	111C
2	„ „	126
1	„ „	126A

Model No. 2.6 Treadle Lathe



Parts required :

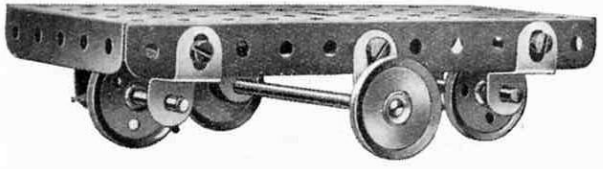
7	of No.	2
1	„ „	3
1	„ „	5
2	„ „	6A
4	„ „	11
6	„ „	12
2	„ „	12A
1	„ „	16
1	„ „	17
3	„ „	19B
4	„ „	22
1	„ „	24
1	„ „	35
34	„ „	37
2	„ „	37A
4	„ „	38
1	„ „	45
1	„ „	52
4	„ „	90A
1	„ „	115
1	„ „	125

The 2½″ Strip 2, forming the treadle, is attached pivotally by means of a bolt and two nuts to the Angle Bracket 1. One end of a further 2½″ Strip is connected by the same means to the 2½″ Strip 2, and the other end is mounted on a threaded pin secured to the 3″ Pulley Wheel.

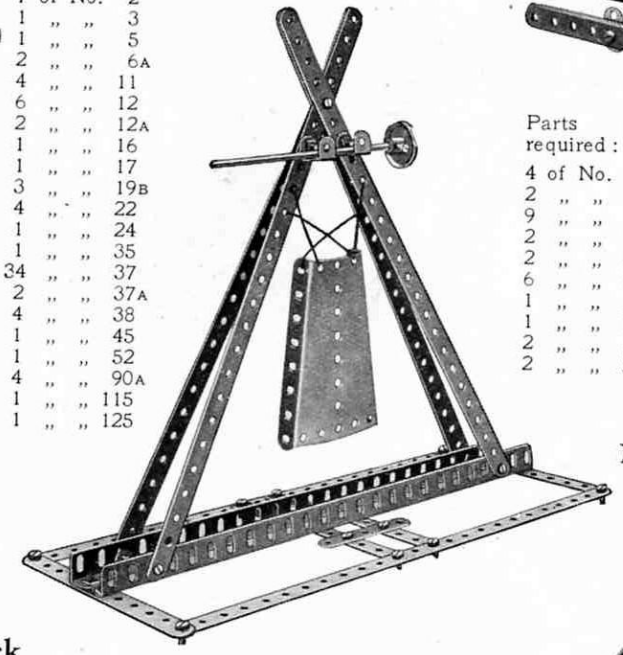
Model No. 2.7 Revolving Truck

Parts required :

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



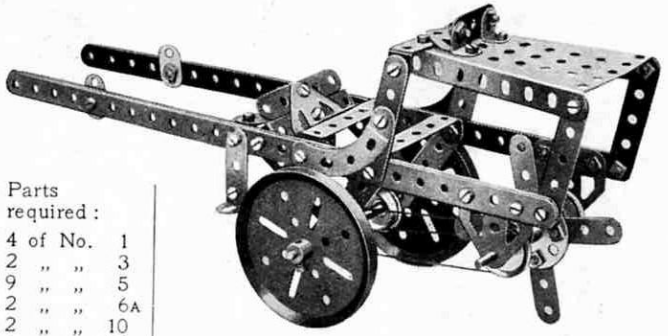
Model No. 2.8 Gong



Parts required :

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

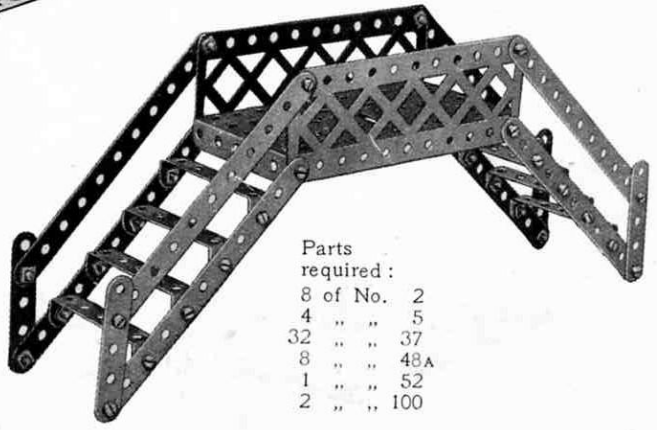
Model No. 2.9 Hay Tedder



Parts required :

4	of No. 1	2	of No. 22	6	of No 37A	3	of No. 90A
2	„ „ 3	1	„ „ 24	4	„ „ 38	6	„ „ 111C
9	„ „ 5	2	„ „ 35	4	„ „ 48A	2	„ „ 126
2	„ „ 6A	34	„ „ 37	1	„ „ 54	2	„ „ 126A
2	„ „ 10						
6	„ „ 12						
1	„ „ 15A						
1	„ „ 16						
2	„ „ 19						
2	„ „ 20B						

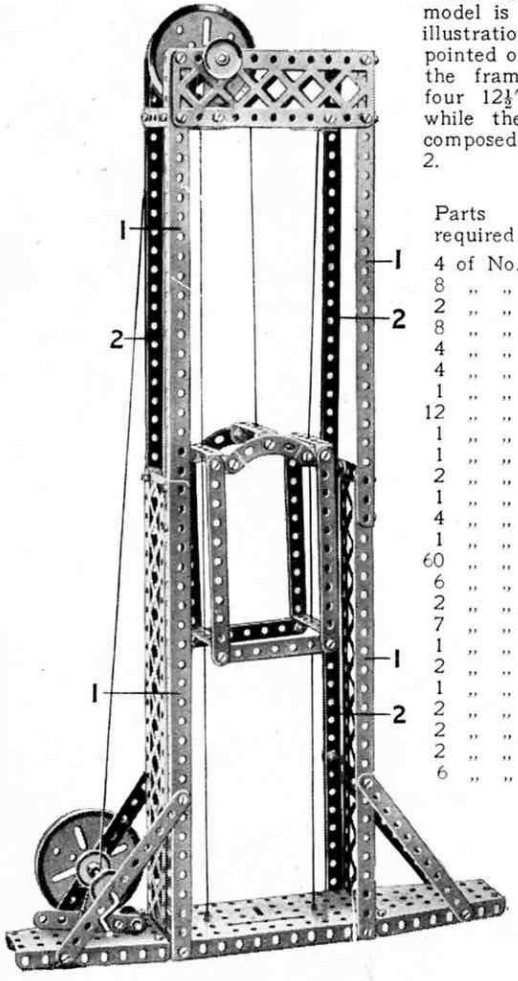
Model No. 2.10 High Level Bridge



Parts required :

8	of No.	2
4	„ „	5
32	„ „	37
8	„ „	48A
1	„ „	52
2	„ „	100

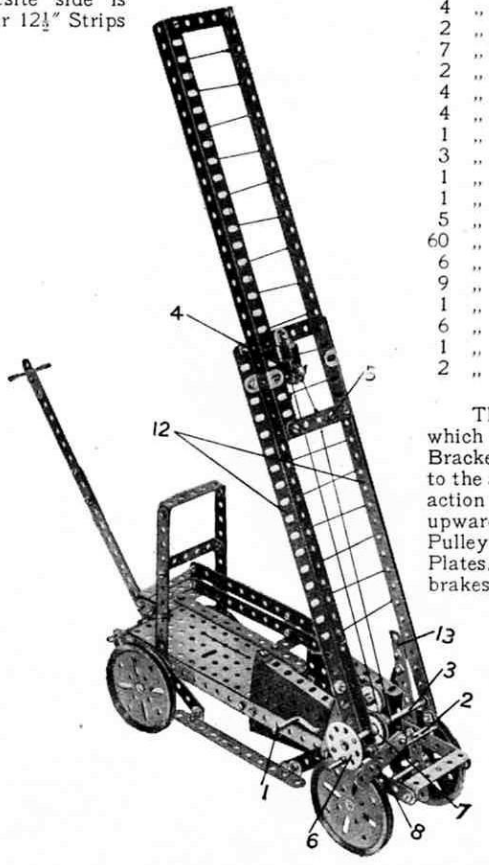
Model No. 2.11 Elevator



The construction of this model is fairly clear in the illustration, but it might be pointed out that one side of the framework consists of four 12½" Angle Girders 1 while the oppcsite side is composed of four 12½" Strips 2.

Parts required :

4	of	No.	1
8	„	„	2
2	„	„	3
8	„	„	5
4	„	„	8
4	„	„	10
1	„	„	11
12	„	„	12
1	„	„	16
1	„	„	18A
2	„	„	19B
1	„	„	19S
4	„	„	22
1	„	„	35
60	„	„	37
6	„	„	37A
2	„	„	38
7	„	„	48A
1	„	„	52
2	„	„	54
1	„	„	62
2	„	„	90A
2	„	„	99
2	„	„	100
6	„	„	111C



Model No. 2.12 Fire Escape

Parts required :

2	of	No.	1
12	„	„	2
1	„	„	3
10	„	„	5
4	„	„	8
2	„	„	10
7	„	„	12
2	„	„	12A
4	„	„	16
4	„	„	19B
1	„	„	19S
3	„	„	22
1	„	„	23
1	„	„	24
5	„	„	35
60	„	„	37
6	„	„	37A
9	„	„	38
1	„	„	44
6	„	„	111C
1	„	„	115
2	„	„	125

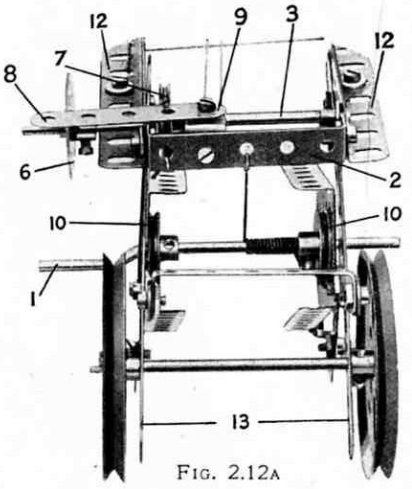


FIG. 2.12A

The ladder is elevated on operation of the crank handle 1, which winds in a cord tied to the Double Angle Strip 2. Angle Brackets bolted to the 12½" Angle Girders 12 are attached pivotally to the 5½" Strips 13 by means of Bolts and Nuts (S.M. 262), and the action of winding in the cord thus causes the ladder to swing upward. It is prevented from falling by the friction of the 1" Pulley Wheels 10 (Fig. 2.12A). which press against the two Sector Plates. When the ladder is fully elevated, its lower ends act as brakes to prevent the road wheels from revolving.

A second cord is wound upon the Rod 3. One end is then carried over the ½" loose Pulley Wheel 4 and tied to the 2½" Strip 5, the opposite end being carried directly to the same Strip and secured to it. When the handle 6 is turned, the two ends of the cord are wound and unwound simultaneously, and the ladder is extended or shortened as required. A permanent brake is provided by a cord passing ove the 1" Pulley Wheel 7 and having both its ends secured to the 2½" Strip 8. The Strip 8 is bolted firmly to the Angle Bracket 9 (Fig. 2.12A) and keeps the brake continuously in action.

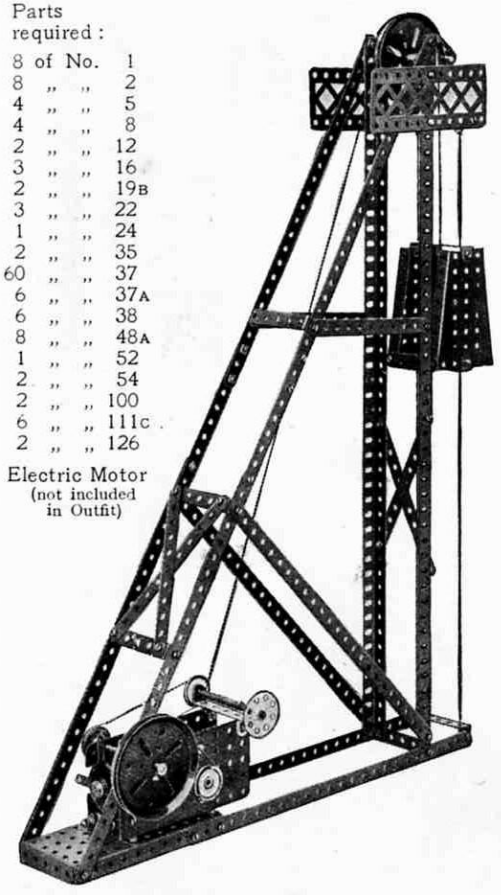
Model No. 2.13 Pit Head Gear

(Electrically Operated)

Parts required :

8	of	No.	1
8	„	„	2
4	„	„	5
4	„	„	8
2	„	„	12
3	„	„	16
2	„	„	19B
3	„	„	22
1	„	„	24
2	„	„	35
60	„	„	37
6	„	„	37A
6	„	„	38
8	„	„	48A
1	„	„	52
2	„	„	54
2	„	„	100
6	„	„	111C
2	„	„	126

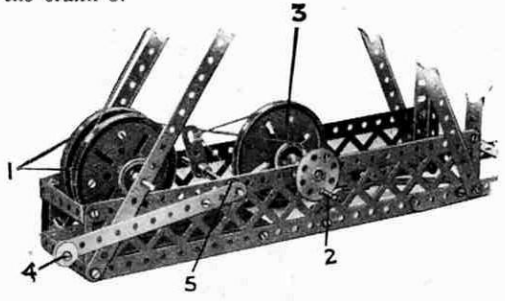
Electric Motor (not included in Outfit)



Model No. 2.14 Pit Head Gear

(Hand Operated)

This is an alternative construction of the base of Model No. 2.13, and shows how the Electric Motor may be dispensed with if necessary. Two 3″ Pulley Wheels 1 are bolted together by four Double Brackets to form a drum on which the hoisting cord is wound. The cage is raised or lowered on operation of the handle 2, which is connected to the winding drum by an ordinary belt drive. The cage is prevented from overhauling by a hand brake that acts on the groove of a third 3″ Pulley Wheel 3. The brake normally is applied by the weight of the ½″ loose Pulley Wheel 4, which is secured to the end of a 5½″ Strip that is bolted to the crank 5.



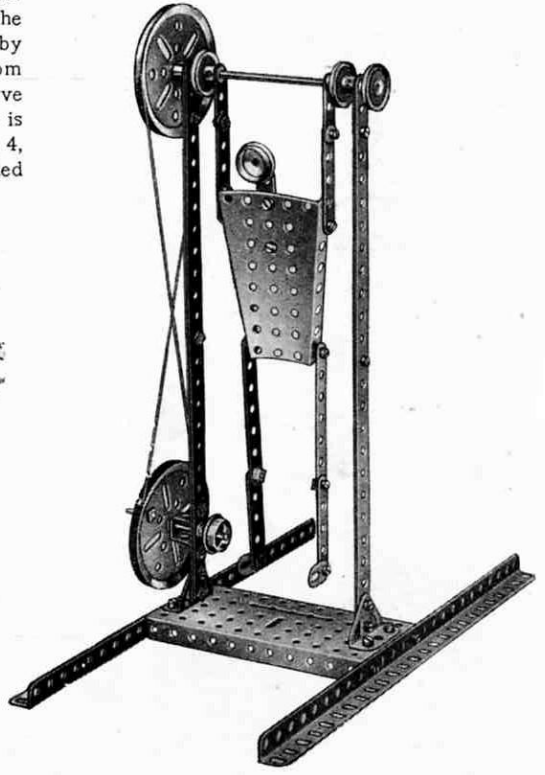
Parts required :

6	of	No.	1	4	of	No.	22	2	of	No.	54
7	„	„	2	1	„	„	23	2	„	„	62
3	„	„	5	1	„	„	24	2	„	„	99
4	„	„	8	3	„	„	35	2	„	„	100
4	„	„	11	60	„	„	37	6	„	„	111C
6	„	„	12	6	„	„	37A	1	„	„	115
4	„	„	16	8	„	„	48A	2	„	„	126A
4	„	„	19B	1	„	„	52				

Model No. 2.15 Acrobat

Parts required :

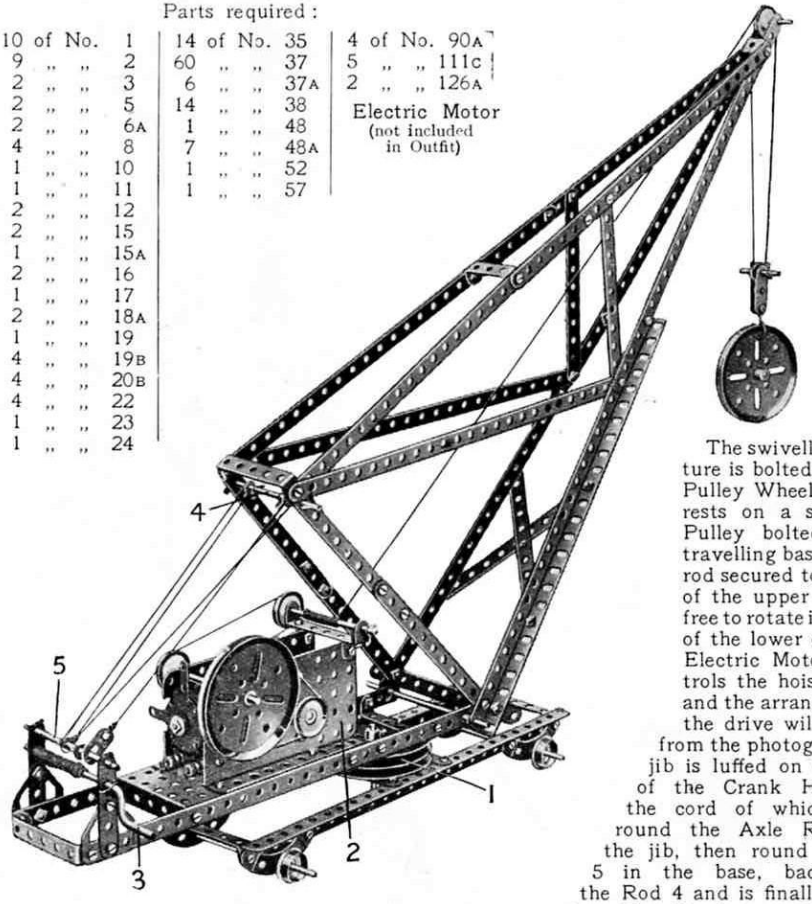
4	of	No.	1	28	of	No.	37
2	„	„	3	6	„	„	37A
5	„	„	5	5	„	„	38
2	„	„	8	1	„	„	45
2	„	„	10	1	„	„	52
1	„	„	15	1	„	„	54
2	„	„	19B	2	„	„	62
2	„	„	20B	1	„	„	115
3	„	„	22	2	„	„	126



Model No. 2.16 Travelling Jib Crane
(Electrically Operated)

Parts required :

10	of No.	1	14	of No.	35	4	of No. 90A
9	„ „	2	60	„ „	37	5	„ „ 111C
2	„ „	3	6	„ „	37A	2	„ „ 126A
2	„ „	5	14	„ „	38		Electric Motor (not included in Outfit)
2	„ „	6A	1	„ „	48		
4	„ „	8	7	„ „	48A		
1	„ „	10	1	„ „	52		
1	„ „	11	1	„ „	57		
2	„ „	12					
2	„ „	15					
1	„ „	15A					
2	„ „	16					
1	„ „	17					
2	„ „	18A					
1	„ „	19					
4	„ „	19B					
4	„ „	20B					
4	„ „	22					
1	„ „	23					
1	„ „	24					



The swivelling structure is bolted to the 3" Pulley Wheel 1, which rests on a second 3" Pulley bolted to the travelling base. A short rod secured to the boss of the upper Pulley is free to rotate in the boss of the lower one. The Electric Motor 2 controls the hoisting gear and the arrangement of the drive will be clear from the photograph. The jib is luffed on operation of the Crank Handle 3, the cord of which passes round the Axle Rod 4 in the jib, then round the Rod 5 in the base, back round the Rod 4 and is finally secured to a Flat Bracket on the Rod 5.

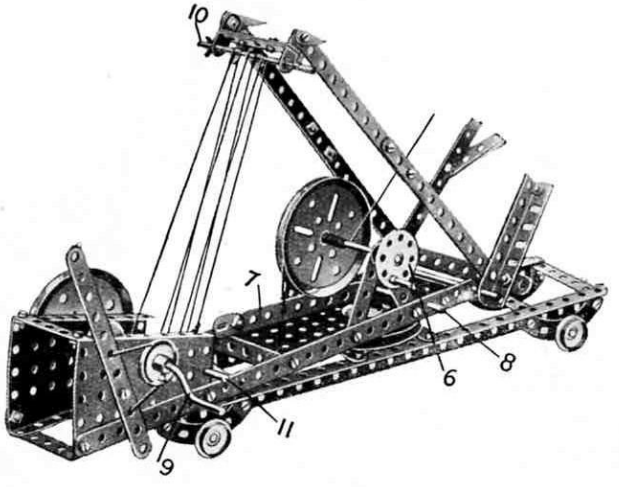
Model No. 2.17 Travelling Jib Crane
(Hand Operated)

This shows a section of Model No. 2.16 fitted for hand operation, thus dispensing with the necessity of the Electric Motor. In this case the hoisting cord is operated by the hand wheel 6, the Rod of which is controlled by a band brake 7. The end hole of the lever of the latter is pivotally mounted on the Rod 8. The luffing movement of the jib is effected by the Crank Handle 9. The operating cord passes round the Rod 10 attached to the jib, then round Rod 11 in the base of the model, again round Rod 10, back round Rod 11, and once more round Rod 10. The end of the cord is then tied to a Flat Bracket on the Rod 11.

Parts required :

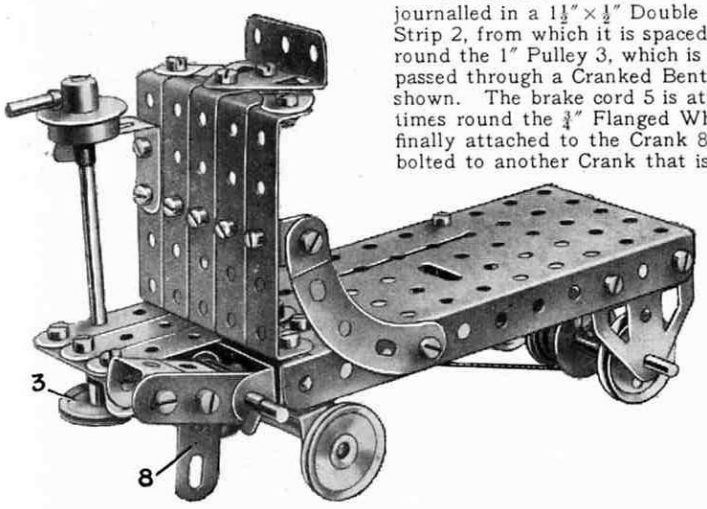
10	of No.	1	1	of No.	11	4	of No.	20B	7	of No.	48A
11	„ „	2	1	„ „	15	4	„ „	22	1	„ „	52
2	„ „	3	1	„ „	15A	1	„ „	23	2	„ „	54
6	„ „	5	5	„ „	16	1	„ „	24	1	„ „	57
2	„ „	6A	2	„ „	18A	12	„ „	35	1	„ „	62
4	„ „	8	1	„ „	19	57	„ „	37	4	„ „	90A
3	„ „	10	4	„ „	19B	1	„ „	48	1	„ „	111C

1 of No. 115



Model No. 2.18 Electric Truck

An underneath view of the truck is shown in Fig. 2.18A. The front axle is journalled in a $1\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strip 1 that is free to turn on a Double Bent Strip 2, from which it is spaced by a $\frac{1}{2}''$ loose Pulley. A length of cord is wrapped round the 1" Pulley 3, which is secured to the end of the steering column, and then passed through a Cranked Bent Strip 4 and secured to the Double Angle Strip 1 as shown. The brake cord 5 is attached to the Double Bent Strip 2, wrapped several times round the $\frac{3}{4}''$ Flanged Wheels 6, passed through the Angle Bracket 7, and is finally attached to the Crank 8. The operating pedal consists of Double Brackets bolted to another Crank that is secured to the same Rod as the Crank 8.



Parts required :

3	of	No.	5	1	of	No.	22A	7	of	No.	48A
1	„	„	6A	1	„	„	23	1	„	„	52
2	„	„	11	4	„	„	35	2	„	„	62
1	„	„	12	35	„	„	37	3	„	„	90A
1	„	„	12A	2	„	„	37A	1	„	„	111C
3	„	„	16	5	„	„	38	1	„	„	115
1	„	„	17	1	„	„	44	1	„	„	126
3	„	„	20B	1	„	„	45	2	„	„	126A
4	„	„	22	1	„	„	48				

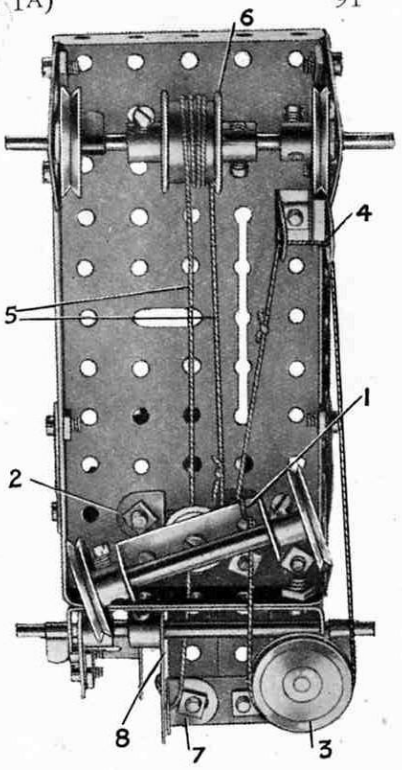
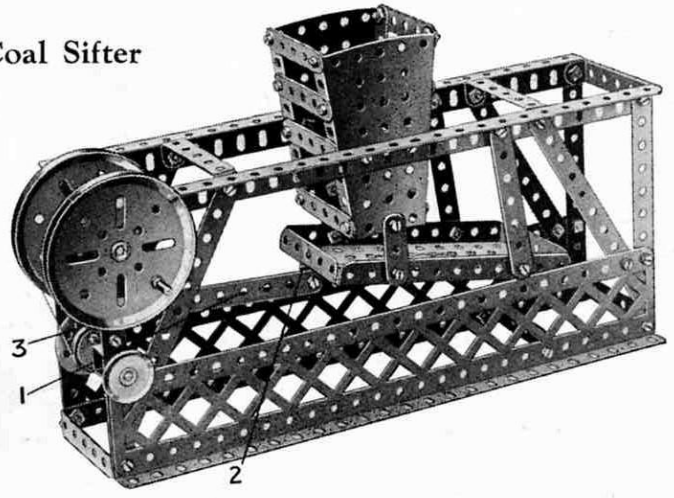


FIG. 2.18A

Model No. 2.19 Coal Sifter

The $5\frac{1}{2}''$ Strip 1 is pivoted to the Angle Bracket 2 by a bolt and two nuts. The Angle Bracket in turn is bolted to the Flanged Plate, which is suspended in such a way that it is free to swing to and fro. The other end of the $5\frac{1}{2}''$ Strip is pivoted to the Bush Wheel 3.



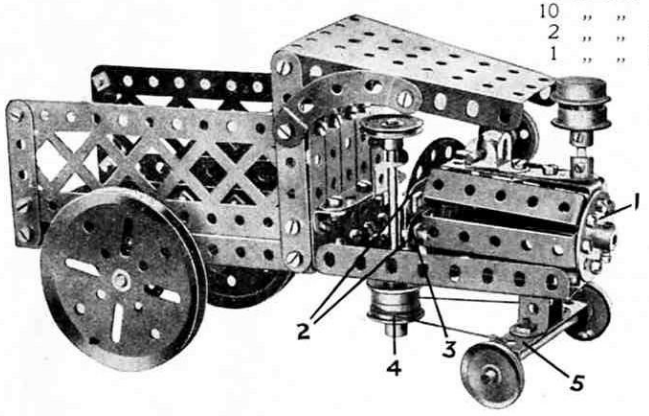
Parts required :

9	of	No.	2	2	of	No.	35
2	„	„	3	54	„	„	37
8	„	„	5	6	„	„	37A
2	„	„	6A	8	„	„	38
4	„	„	8	1	„	„	45
1	„	„	12	6	„	„	48A
1	„	„	16	1	„	„	52
1	„	„	17	2	„	„	54
2	„	„	19B	2	„	„	99
2	„	„	22	6	„	„	111C
1	„	„	24	1	„	„	115

Model No. 2.20 Steam Lorry

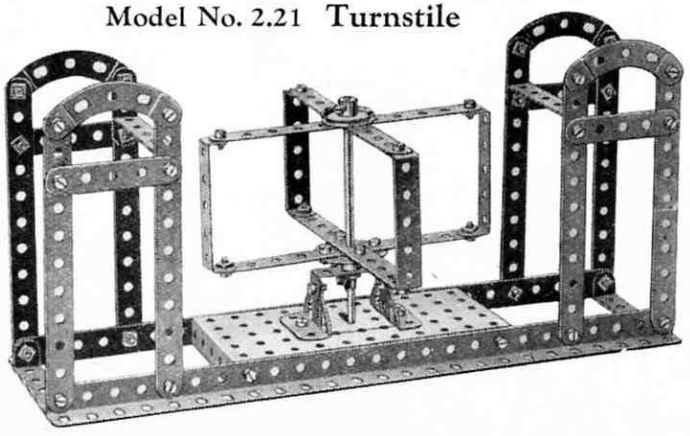
Parts required :

2	of No.	3
10	„ „	5
2	„ „	10
1	„ „	11
3	of No.	12
3	„ „	16
1	„ „	17
1	„ „	18A
2	„ „	19B
4	„ „	20B
3	„ „	22
1	„ „	22A
1	„ „	24
5	„ „	35
60	„ „	37
5	„ „	37A
1	„ „	45
8	„ „	48A
1	„ „	52
2	„ „	54
1	„ „	62
3	„ „	90A
2	„ „	100
4	„ „	111C
1	„ „	125
2	„ „	126A



The boiler of the engine is built up of 2½" × ½" Double Angle Strips bolted to the Bush Wheel 1, and to two 2½" Strips 2, which are joined together by Flat Brackets 3. A 2½" Curved Strip (small radius) is bolted to the upper Strip 2. A cord is passed completely round two ¾" Flanged Wheels 4 secured to the steering column, and its ends are tied to the 2½" × ½" Double Angle Strip 5. The Double Bent Strip bolted to the Strip 5 is pivoted by a bolt and two nuts to the Sector Plate.

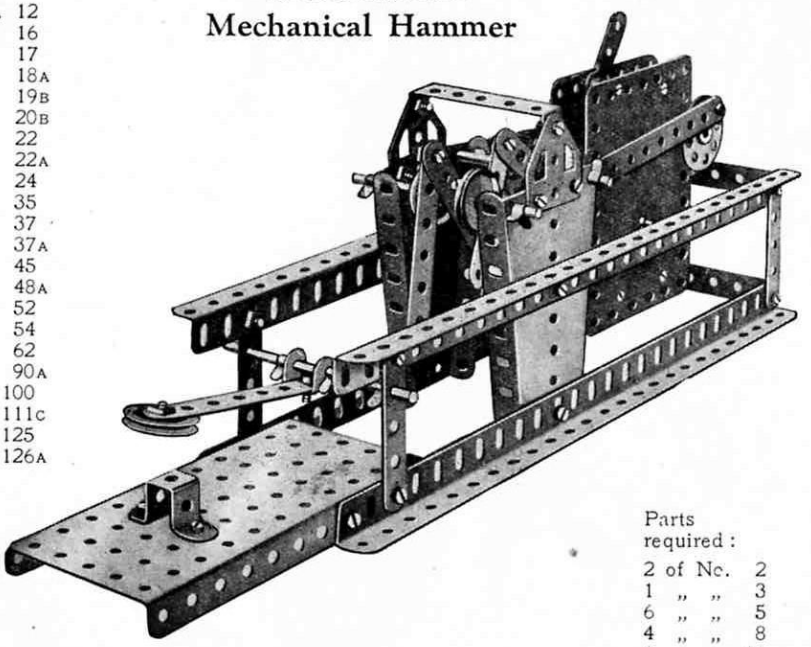
Model No. 2.21 Turnstile



Parts required :

12	of No.	2
5	„ „	5
2	„ „	8
1	„ „	15A
1	„ „	22
1	„ „	24
1	„ „	35
44	„ „	37
1	„ „	38
1	„ „	48
8	„ „	48A
1	„ „	52
4	„ „	90A
2	„ „	99
2	„ „	126

Model No. 2.22 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)

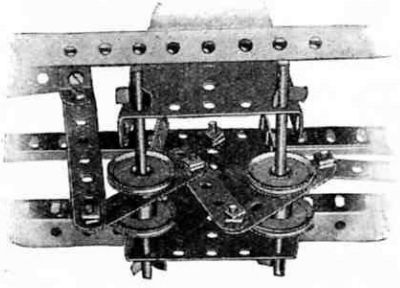
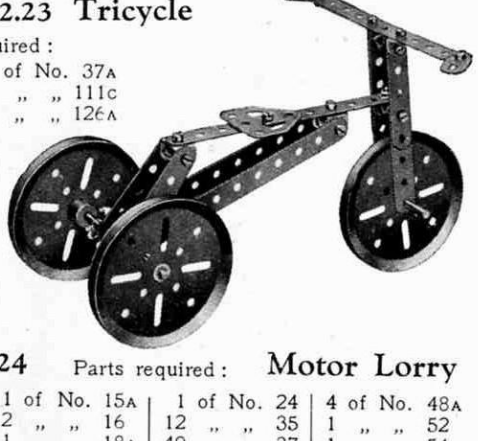


FIG. 2.22A

Model No. 2.23 Tricycle

Parts required :

4	of No.	2	2	of No.	37A
6	„ „	5	1	„ „	111c
2	„ „	10	1	„ „	126A
3	„ „	11			
2	„ „	12			
1	„ „	16			
1	„ „	18A			
3	„ „	19B			
2	„ „	35			
15	„ „	37			



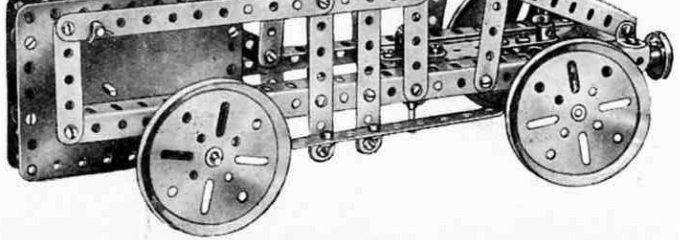
Model No. 2.24 Motor Lorry

Parts required :

8	of No.	2	1	of No.	15A	1	of No.	24	4	of No.	48A
1	„ „	3	2	„ „	16	12	„ „	35	1	„ „	52
10	„ „	5	1	„ „	18A	49	„ „	37	1	„ „	54
6	„ „	10	4	„ „	19B	3	„ „	38	2	„ „	62
1	„ „	15	2	„ „	22	1	„ „	45	2	„ „	111c

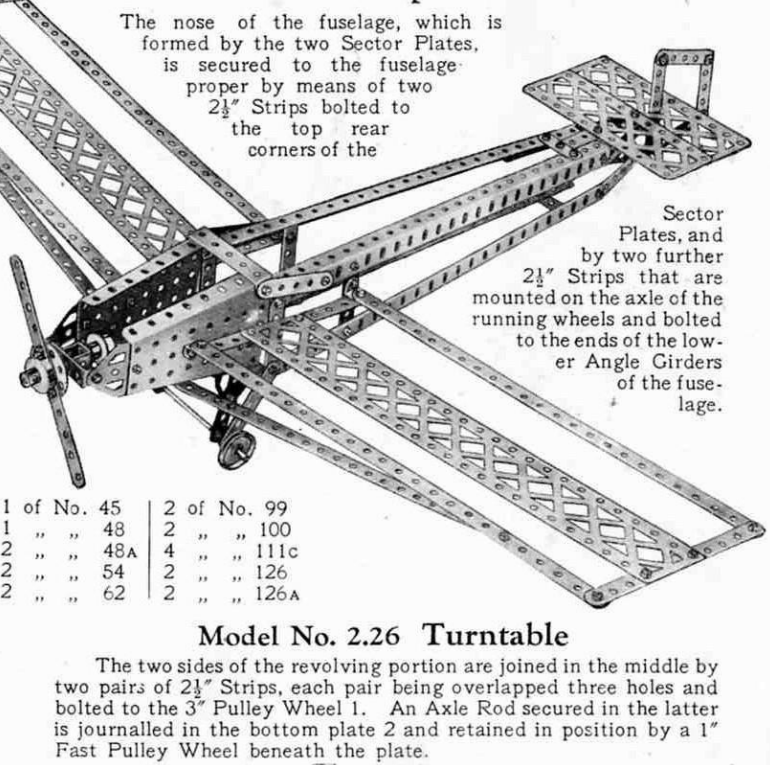
Clockwork Motor (not included in Outfit)

The driving spindle of the Clockwork Motor is removed and in its place is inserted a 3½" Rod forming the rear axle, the special Pinion inside the Motor being secured to this Rod, of course, instead of to the driving spindle. The steering is operated by a Bush Wheel on a vertical 3½" Rod journalled in a Double Bent Strip. Cord is wound round the lower part of this Rod and its ends are secured one to each end of a Double Angle Strip carrying the front axle. A Crank is bolted to this Double Angle Strip and carries a short Rod that is journalled in the boss of a further Crank bolted to the Flanged Plate.



Model No. 2.25 Monoplane

The nose of the fuselage, which is formed by the two Sector Plates, is secured to the fuselage proper by means of two 2½" Strips bolted to the top rear corners of the Sector Plates, and by two further 2½" Strips that are mounted on the axle of the running wheels and bolted to the ends of the lower Angle Girders of the fuselage.



Parts required :

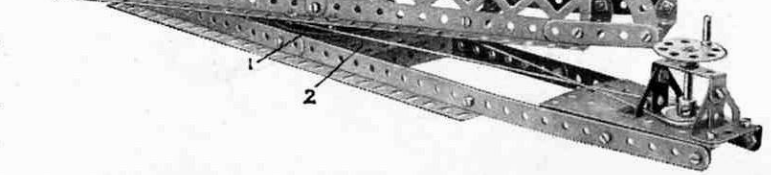
6	of No.	1	1	of No.	45	2	of No.	99			
9	„ „	2	1	„ „	48	2	„ „	100			
1	„ „	3	2	„ „	48A	4	„ „	111c			
12	„ „	5	2	„ „	54	2	„ „	126			
2	„ „	6A	2	„ „	62	2	„ „	126A			
4	„ „	8									
5	„ „	12									
1	„ „	15A									
1	„ „	17									
2	„ „	20B									
2	„ „	22									
1	„ „	24									
60	„ „	37									
4	„ „	37A									

Model No. 2.26 Turntable

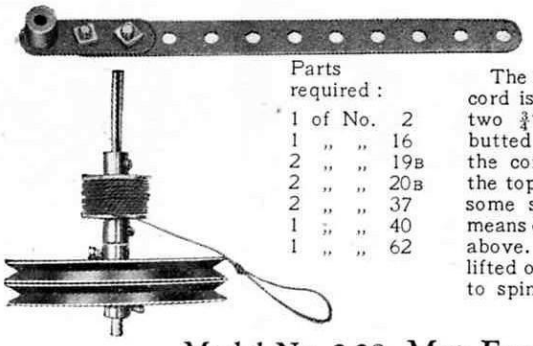
Parts required :

4	of No.	1	45	„ „	37A
2	„ „	3	4	„ „	37A
8	„ „	5	4	„ „	38
4	„ „	8	1	„ „	48
1	„ „	17	7	„ „	48A
1	„ „	18A	1	„ „	52
1	„ „	19B	2	„ „	54
3	„ „	22	4	„ „	90A
1	„ „	24	2	„ „	99
			4	„ „	111c

The two sides of the revolving portion are joined in the middle by two pairs of 2½" Strips, each pair being overlapped three holes and bolted to the 3" Pulley Wheel 1. An Axle Rod secured in the latter is journalled in the bottom plate 2 and retained in position by a 1" Fast Pulley Wheel beneath the plate.



Model No. 2.27 Spinning Top



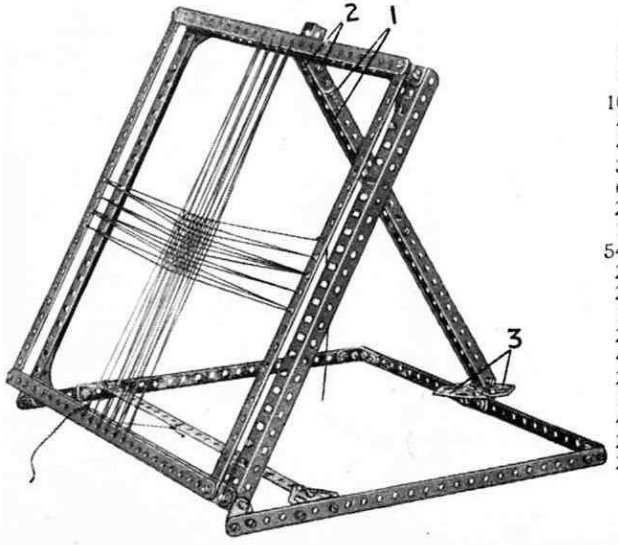
Parts required :

1	of No.	2
1	„ „	16
2	„ „	19B
2	„ „	20B
2	„ „	37
1	„ „	40
1	„ „	62

The drum on which the cord is wound consists of two ¾" Flanged Wheels butted together. While the cord is being pulled, the top is held steadily on some smooth surface by means of the handle shown above. The handle is then lifted off, allowing the top to spin freely.

Model No. 2.28 Mat Frame

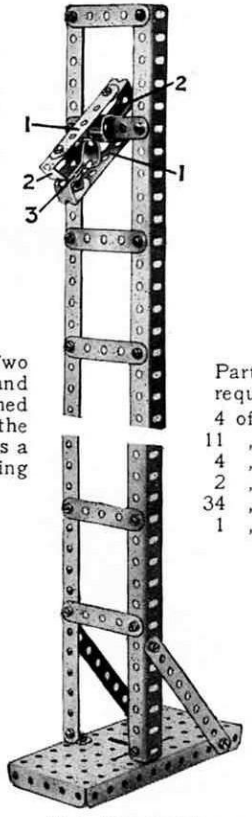
The Strips 1 are hinged to the frame in the following manner. Two Cranks 2 with their bosses facing inward are bolted to the Strips 1 and two Angle Brackets are secured to the frame. A Rod is then pushed through the holes in the Angle Brackets and secured in the bosses of the Cranks. A Double Bracket fastened to the ends of the Strips 1 carries a Threaded Pin, which fits in the holes in the Flat Trunnions 3. By removing this Pin, the frame may be folded flat.



Parts required :

10	of No.	1
4	„ „	8
4	„ „	10
3	„ „	11
6	„ „	12
2	„ „	12A
1	„ „	18A
54	„ „	37
2	„ „	37A
2	„ „	38
1	„ „	45
2	„ „	62
4	„ „	90A
2	„ „	111C
1	„ „	115
4	„ „	125
2	„ „	126
2	„ „	126A

Model No. 2.29 Performing Meccanitian



Parts required :

4	of No.	2
11	„ „	5
4	„ „	8
2	„ „	12
34	„ „	37
1	„ „	52

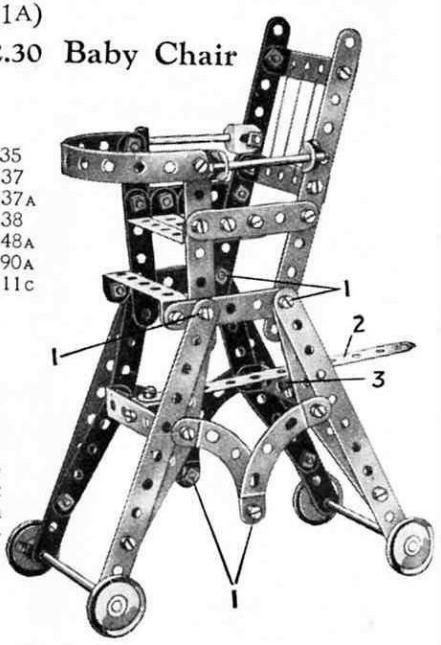
The Meccanitian consists of two 2½" Strips 1 to the ends of which two 5½" Strips 2, bent as shown, are bolted. The slot 3 should be passed over the top strip of the ladder, when the device will fall "head over heels" to the bottom.

Model No. 2.30 Baby Chair

Parts required :

8	of No.	2
2	„ „	3
12	„ „	5
6	„ „	12
2	„ „	16
2	„ „	17
4	„ „	22
4	of No.	35
35	„ „	37
2	„ „	37A
4	„ „	38
8	„ „	48A
4	„ „	90A
1	„ „	111C

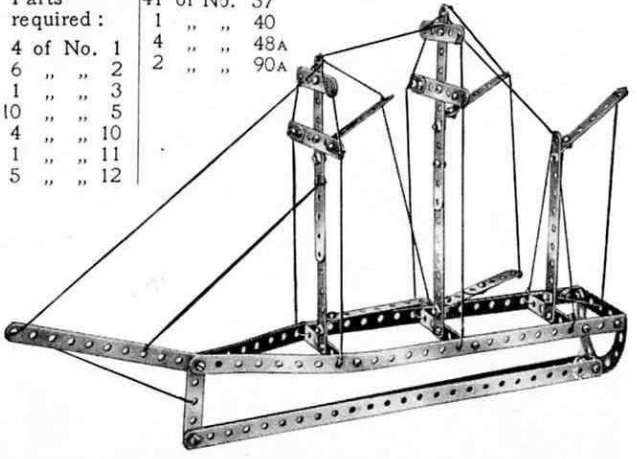
The Bolts 1 are all secured pivotally (see S.M Nos. 262 and 263), and the height of the chair may be adjusted by fitting any hole in the Strip 2 over the shank of a Bolt that is secured in an Angle Bracket bolted to the Double Angle Strip 3.



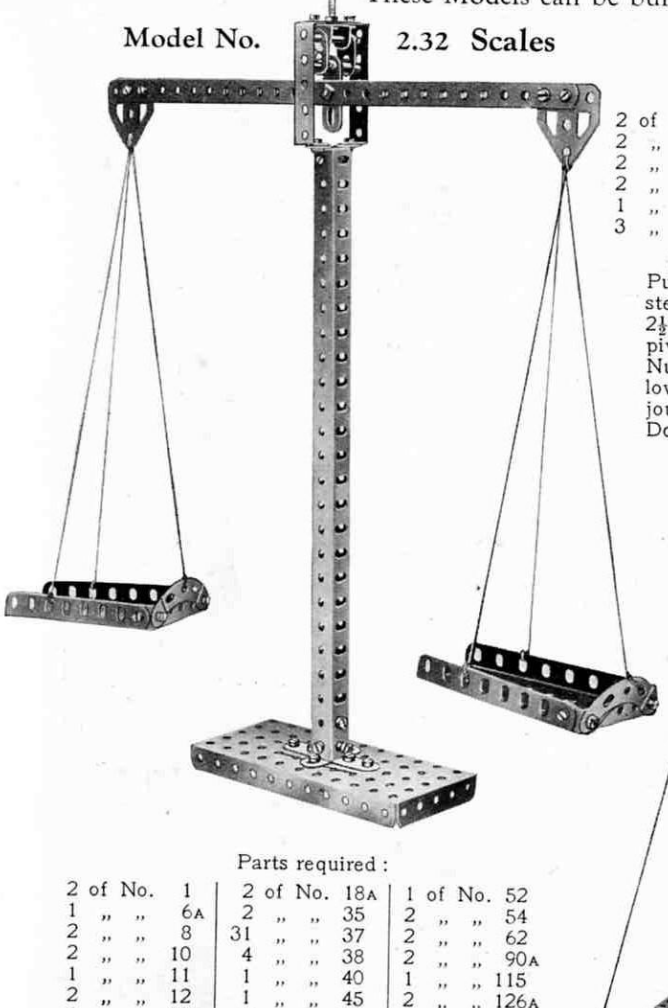
Model No. 2.31 Square-topsail Schooner

Parts required :

4	of No.	1
6	„ „	2
1	„ „	3
10	„ „	5
4	„ „	10
1	„ „	11
5	„ „	12
41	of No.	37
1	„ „	40
4	„ „	48A
2	„ „	90A



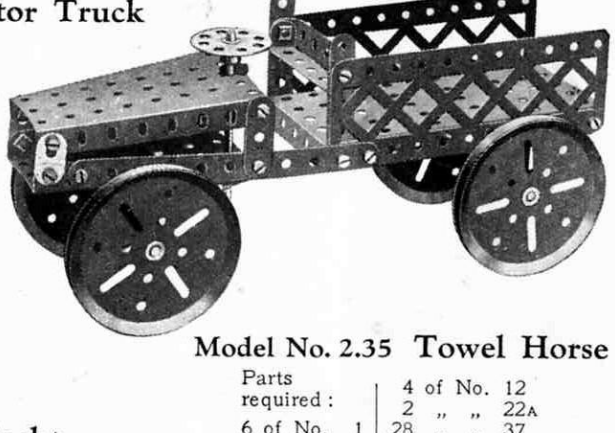
Model No. 2.32 Scales



Parts required :

2	of No.	1	2	of No.	18A	1	of No.	52
1	„ „	6A	2	„ „	35	2	„ „	54
2	„ „	8	31	„ „	37	2	„ „	62
2	„ „	10	4	„ „	38	2	„ „	90A
1	„ „	11	1	„ „	40	1	„ „	115
2	„ „	12	1	„ „	45	2	„ „	126A
2	„ „	12A	4	„ „	48A			

Model No. 2.33 Motor Truck

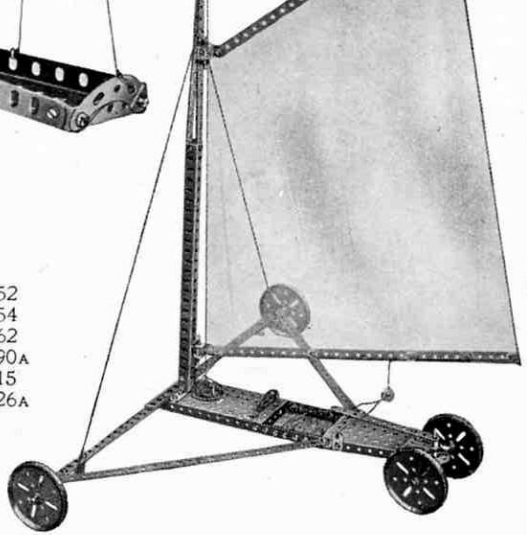


Parts required :

2	of No.	2	4	of No.	19B	3	of No.	48A
2	„ „	5	1	„ „	22	1	„ „	52
2	„ „	6A	1	„ „	24	2	„ „	54
2	„ „	10	1	„ „	35	2	„ „	100
1	„ „	11	23	„ „	37	1	„ „	111c
3	„ „	16	2	„ „	37A	2	„ „	126A

A cord passed twice round a 1″ fast Pulley Wheel on the lower end of the steering column is tied to the ends of a $2\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strip, which is pivoted by means of a Bolt and Lock-Nuts to a Double Bracket bolted to the lower Sector Plate. The front axle is journalled in the end holes of the Double Angle Strip.

Model No. 2.34 Sand Yacht



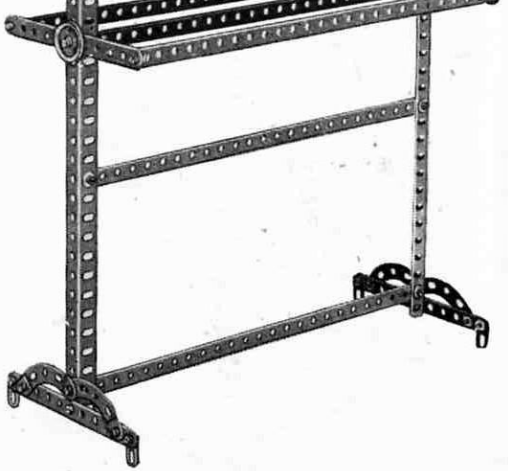
Parts required :

8	of No.	1	2	of No.	18A	1	of No.	52
2	„ „	2	4	„ „	19B	2	„ „	54
1	„ „	5	1	„ „	23	2	„ „	62
4	„ „	8	1	„ „	24	2	„ „	90A
4	„ „	10	12	„ „	35	1	„ „	115
4	„ „	11	60	„ „	37	4	„ „	125
12	„ „	12	9	„ „	38	1	„ „	126
2	„ „	12A	8	„ „	48A	2	„ „	126A
3	„ „	16	1	„ „	52			
1	„ „	17	1	„ „	54			
2	„ „	18A	1	„ „	62			
4	„ „	19B	1	„ „	90A			
1	„ „	23	1	„ „	115			
1	„ „	24	4	„ „	125			
12	„ „	35	1	„ „	126			
60	„ „	37	2	„ „	126A			
9	„ „	38						
8	„ „	48A						
1	„ „	52						
1	„ „	54						
1	„ „	62						
1	„ „	90A						
1	„ „	115						
4	„ „	125						
1	„ „	126						
2	„ „	126A						

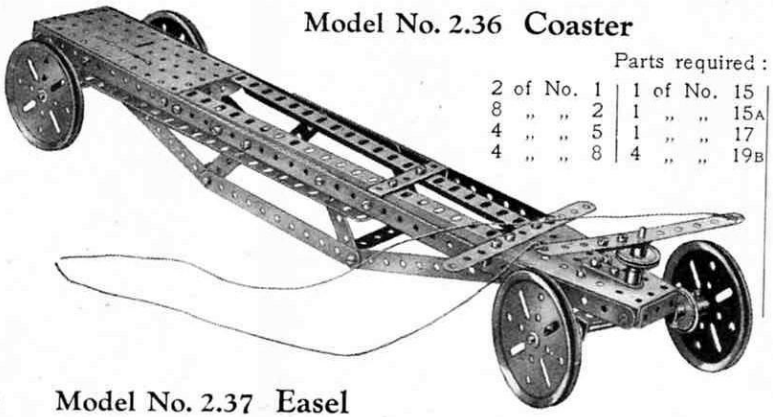
Model No. 2.35 Towel Horse

Parts required :

6	of No.	1	4	of No.	12	2	of No.	111c
4	„ „	2	2	„ „	22A			
2	„ „	8	28	„ „	37			
4	„ „	10	2	„ „	37A			
			8	„ „	38			
			4	„ „	90A			



Model No. 2.36 Coaster



Parts required :

2	of	No.	1	1	of	No.	15	3 of No. 22
8	„	„	2	1	„	„	15A	1 „ „ 23
4	„	„	5	1	„	„	17	1 „ „ 24
4	„	„	8	4	„	„	19B	44 „ „ 37
								4 „ „ 38
								1 „ „ 48
								4 „ „ 48A
								1 „ „ 52
								1 „ „ 54
								2 „ „ 62
								2 „ „ 126

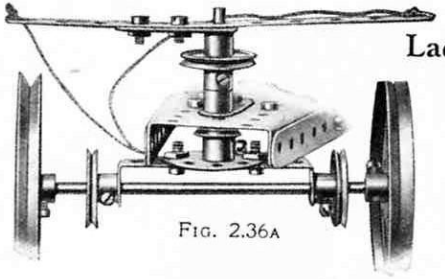


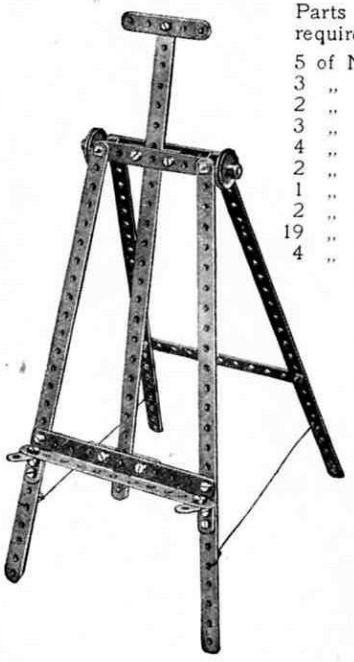
FIG. 2.36A

Model No. 2.39 Ladder on Wheels

Parts required :

6	of	No.	1
7	„	„	5
4	„	„	12
2	„	„	16
4	„	„	20B
40	„	„	37
4	„	„	38
8	„	„	48A
1	„	„	52
2	„	„	90A

Model No. 2.37 Easel

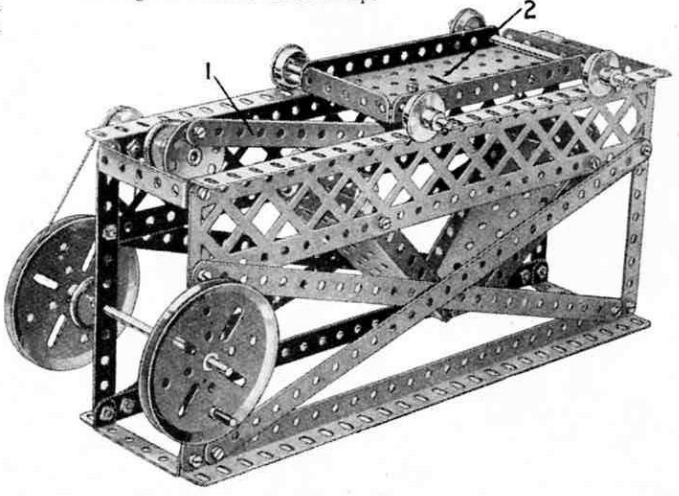


Parts required :

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

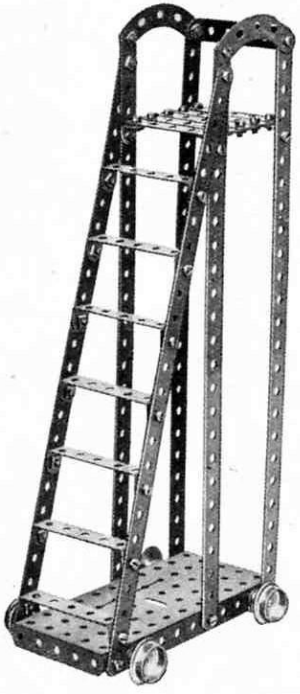
Model No. 2.38 Sifter

The 5½" Strip 1 is pivoted by a bolt and two nuts (S.M. 262) to the Bush Wheel and also to a Trunnion bolted to the under-surface of the Flanged Plate 2. The Rod carrying the Bush Wheel is journalled in one of the side girders and through a Double Bent Strip.



Parts required :

4	of	No.	1
5	„	„	2
4	„	„	5
2	„	„	6A
4	„	„	8
4	„	„	10
2	„	„	15
1	„	„	15A
1	„	„	17
2	„	„	19B
4	„	„	20B
3	„	„	22
1	„	„	24
4	„	„	35
36	„	„	37
4	„	„	37A
1	„	„	38
1	„	„	44
4	„	„	48A
1	„	„	52
2	„	„	54
2	„	„	99
2	„	„	111C
1	„	„	115
1	„	„	126

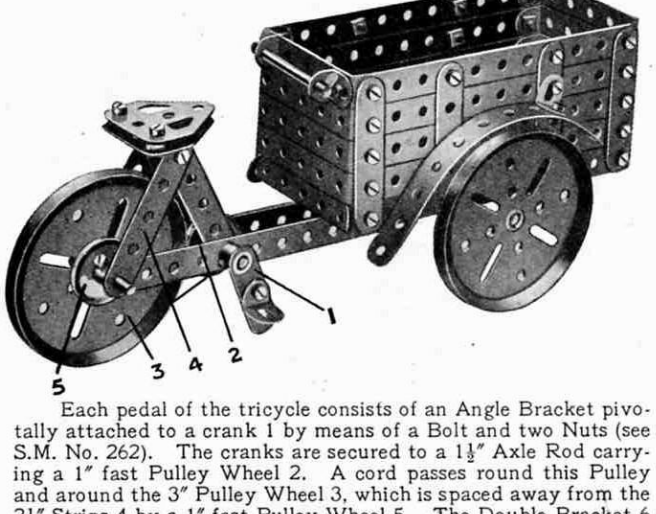


Model No. 2.40 Candy Puller

Parts required :

6	of No.	2	3	of No.	35
2	„ „	8	36	„ „	37
6	„ „	12	4	„ „	38
2	„ „	15	4	„ „	48A
2	„ „	17	1	„ „	52
2	„ „	19B	2	„ „	54
4	„ „	22	2	„ „	62
1	„ „	24	4	„ „	90A
			1	of No.	115

Model No. 2.41 Carrier Tricycle



Each pedal of the tricycle consists of an Angle Bracket pivotally attached to a crank 1 by means of a Bolt and two Nuts (see S.M. No. 262). The cranks are secured to a 1½″ Axle Rod carrying a 1″ fast Pulley Wheel 2. A cord passes round this Pulley and around the 3″ Pulley Wheel 3, which is spaced away from the 2½″ Strips 4 by a 1″ fast Pulley Wheel 5. The Double Bracket 6 (Fig. 2.41A) is attached pivotally to the lower framework by a Bolt and Lock-Nuts (S.M. 263).

Parts required :

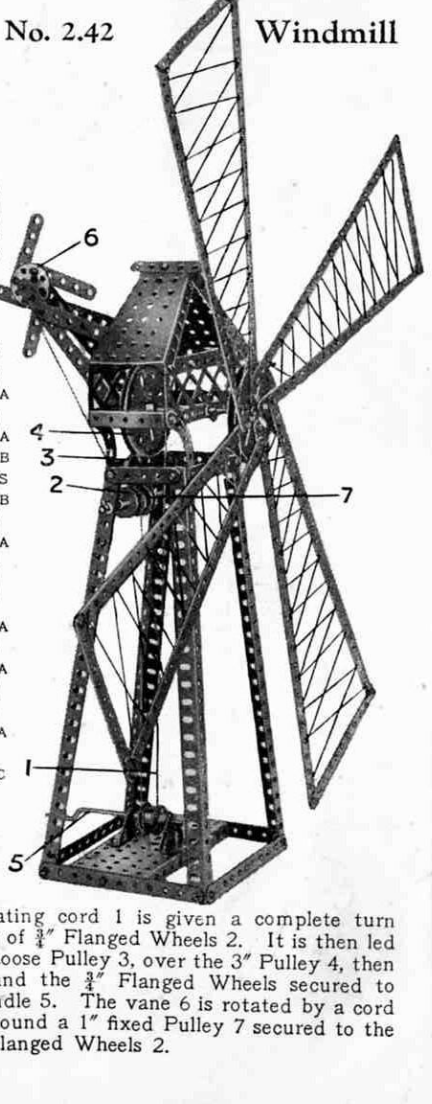
12	of No.	2	
12	„ „	5	
2	„ „	11	
6	„ „	12	
1	„ „	16	
1	„ „	17	
2	„ „	18A	
3	„ „	19B	
2	„ „	22	
45	„ „	37	
5	„ „	37A	
8	„ „	48A	
1	„ „	52	
2	„ „	62	
3	„ „	111C	
2	„ „	126A	

FIG. 2.41A

Model No. 2.42 Windmill

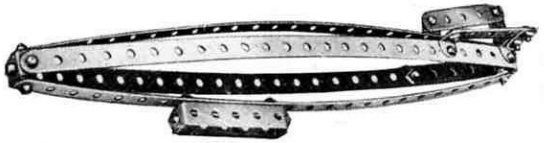
Parts required :

8	of No.	1	
13	„ „	2	
2	„ „	3	
10	„ „	5	
4	„ „	8	
4	of No.	12	
1	„ „	15	
1	„ „	15A	
1	„ „	16	
1	„ „	18A	
2	„ „	19B	
1	„ „	19S	
4	„ „	20B	
2	„ „	22	
1	„ „	22A	
1	„ „	24	
6	„ „	35	
60	„ „	37	
4	„ „	37A	
7	„ „	38	
2	„ „	48A	
1	„ „	52	
2	„ „	54	
4	„ „	90A	
2	„ „	100	
4	„ „	111C	
2	„ „	126	



The operating cord 1 is given a complete turn round the pair of ¾″ Flanged Wheels 2. It is then led round the 1″ Loose Pulley 3, over the 3″ Pulley 4, then down and round the ¾″ Flanged Wheels secured to the Crank Handle 5. The vane 6 is rotated by a cord which passes round a 1″ fixed Pulley 7 secured to the shaft of the Flanged Wheels 2.

Model No. 2.43 Airship



Parts required :

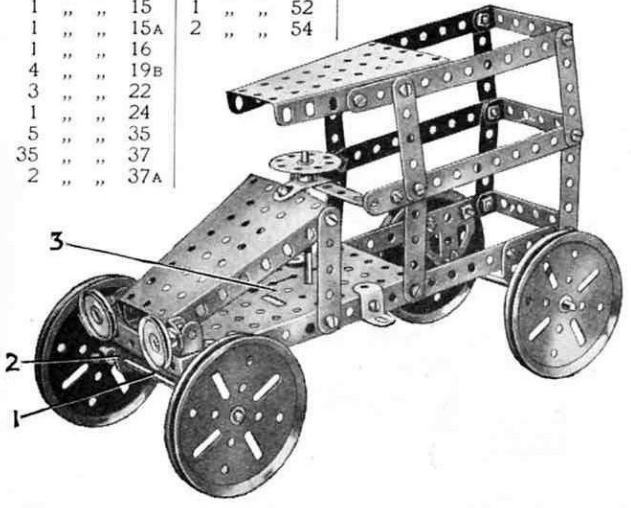
4	of No.	1	2	of No.	11
3	„ „	5	10	„ „	12
3	„ „	10	25	„ „	37
	3 of No. 48A				

Model No. 2.44 Motor Van

The Axle Rod 1 is journalled in a $2\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strip 2. The latter is bolted to a Double Bent Strip that is pivoted to the Flanged Plate 3 by a bolt and two nuts. Steering is effected by a cord attached to the ends of the Double Angle Strip 2 and passed round a 1" Pulley Wheel fastened to the lower end of the steering Rod.

Parts required :

6	of No.	2	1	of No.	38	3	of No.	111c
10	„ „	5	1	„ „	45	2	„ „	125
1	„ „	10	1	„ „	48	2	„ „	126A
2	„ „	12	6	„ „	48A			
1	„ „	15	1	„ „	52			
1	„ „	15A	2	„ „	54			
1	„ „	16						
4	„ „	19B						
3	„ „	22						
1	„ „	24						
5	„ „	35						
35	„ „	37						
2	„ „	37A						



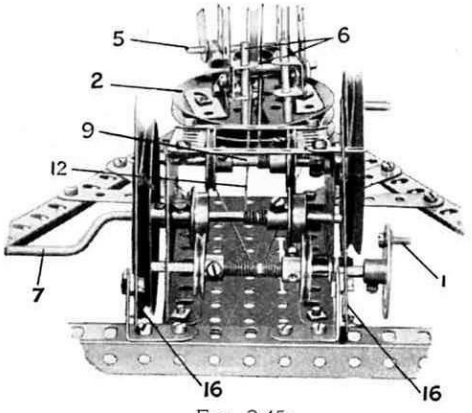


FIG. 2.45A

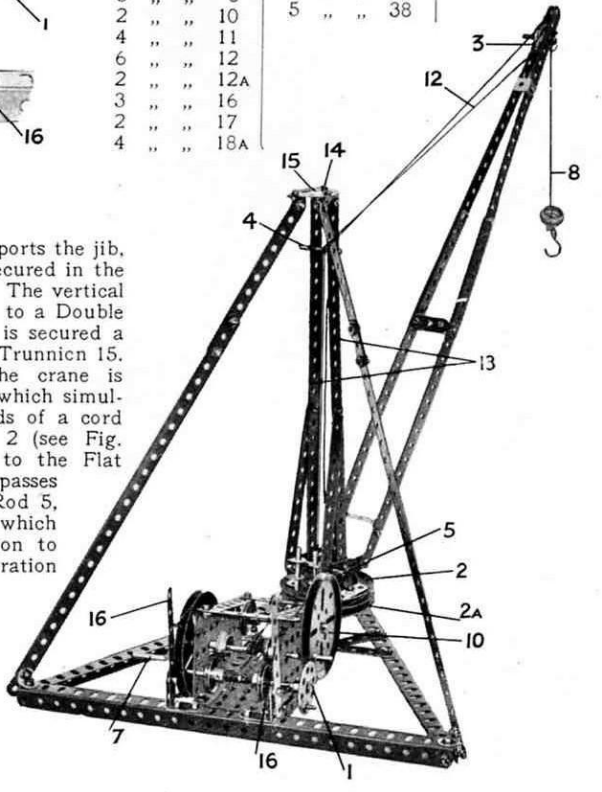
Model No. 2.45 Derrick

Parts required :

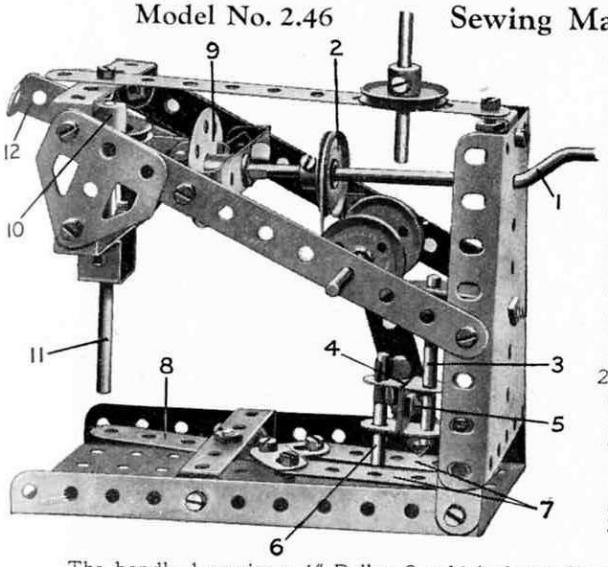
8	of No.	1	4	of No.	19B	1	of No.	52
4	„ „	2	4	„ „	20B	2	„ „	54
2	„ „	3	4	„ „	22	1	„ „	57
8	„ „	5	1	„ „	23	1	„ „	111c
1	„ „	6A	1	„ „	24	1	„ „	115
3	„ „	8	1	„ „	35	2	„ „	126
2	„ „	10	18	„ „	37			
4	„ „	11	3	„ „	37A			
6	„ „	12	5	„ „	38			
2	„ „	12A						
3	„ „	16						
2	„ „	17						
4	„ „	18A						

The 3" Pulley Wheel 2, which supports the jib, is free to turn on a short Axle Rod secured in the boss of the lower 3" Pulley Wheel 2a. The vertical $12\frac{1}{2}''$ Strips 13 are bolted at their tops to a Double Bracket, to the centre hole of which is secured a Bolt 14 that is free to turn in the Flat Trunnion 15.

The swivelling movement of the crane is carried out by turning the handle 1, which simultaneously winds and unwinds the ends of a cord passing round the 3" Pulley Wheel 2 (see Fig. 2.45A). The cord 12, which is tied to the Flat Bracket 3 at the head of the jib passes over the 2" Rod 4, under a similar Rod 5, and between two vertical 2" Rods 6, which act as guides, and is finally wound on to the Crank Handle 7. Hence on operation of the latter the jib is raised or lowered. The cord 8 also passes round the Rods 4, 5 and 6, and is wound on to the Rod 9. Operation of the handle 10 raises and lowers the hook. The cords 8 and 12 are prevented from unwinding by band-and-pulley brakes 16.



Model No. 2.46 Sewing Machine



Parts required :

3	of	No.	2
6	„	„	5
3	„	„	10
2	„	„	11
3	„	„	12
2	„	„	16
2	„	„	17
1	„	„	18A
1	„	„	19S
4	„	„	22
2	„	„	22A
1	„	„	24
5	„	„	35
24	„	„	37
3	„	„	38
1	„	„	44
5	„	„	48A
1	„	„	52
1	„	„	54
2	„	„	125
2	„	„	126A

The handle 1 carries a 1″ Pulley 2, which drives by means of a cord a similar Pulley on a 2″ Rod 3 journalled in a Cranked Bent Strip bolted to the Sector Plate. Two Double Brackets 4 are secured together by a Bolt 5, the shank of which presses very tightly on the Rod 3. This locks the double Brackets in position, and they revolve with the Rod 3. The outer Double Bracket carries a 1½″ Rod 6, the end of which lies between two Strips 7, arranged at a short distance apart from each other and bolted to two Flat Brackets. These are secured to a further Strip 8 bolted pivotally to a transverse Double Angle Strip. As the shaft 3 rotates, the Rod 6 slides between the Strips 7 and so rocks the Strip 8 from side to side to represent the shuttle.

The Bush Wheel 9 carries two Angle Brackets placed together in the form of a Double Bracket, with their elongated holes overlapping, and in such a position that an imaginary line drawn through their opposite round holes, would cross the centre of the Bush Wheel. A Flat Bracket is bolted to the inner Angle Bracket in a line with the crank handle and forms a lever which engages 1″ Pulley 10 mounted on a vertical sliding Rod 11. This Rod is journalled in a Double Angle Strip bolted between the lower holes of the two flat Trunnions and is further supported by two ½″ Reversed Angle Brackets secured to the Angle Strip. As the Bush Wheel rotates, the Flat Bracket imparts to the Rod 11 a movement corresponding to the action of the needle.

The outer Angle Bracket on the Bush Wheel strikes once in every revolution the end of a Double Angle Strip 12. This is pivotally mounted by a Bolt passed through its second hole from the Bush Wheel end to the centre hole of the Flat Trunnion on that side of the model. The resulting movement of the Strip 12 represents the apparatus that pays out the cotton from the reel.

Model No. 2.47 Anti-Aircraft Gun

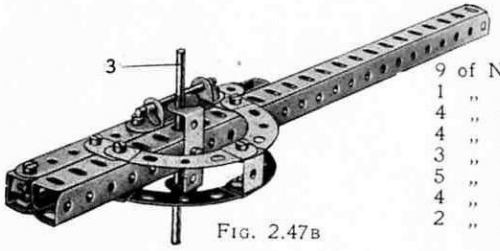


FIG. 2.47B

Parts required :

9	of	No.	2	1	of	No.	19B	4	of	No.	48A
1	„	„	6A	4	„	„	20B	1	„	„	52
4	„	„	8	4	„	„	22	2	„	„	54
4	„	„	10	1	„	„	24	4	„	„	90A
3	„	„	11	8	„	„	35	1	„	„	115
5	„	„	12	57	„	„	37	2	„	„	126
4	„	„	16	6	„	„	38	2	„	„	126A
2	„	„	17	1	„	„	44				

The general construction of the model will be made clear by reference to Figures 2.47A and 2.47B Rotation of the handle 1 causes the gun to revolve on the 3″ Pulley Wheel 2. The barrel of the Gun is so balanced on the Axle Rod 3 that it tends to fall by its own weight, but is prevented from doing so by a cord 4 tied to the gun close to the breech and wound on the 3½″ Rod 5. By turning the Pulley Wheels 6 the muzzle is raised or allowed to fall.

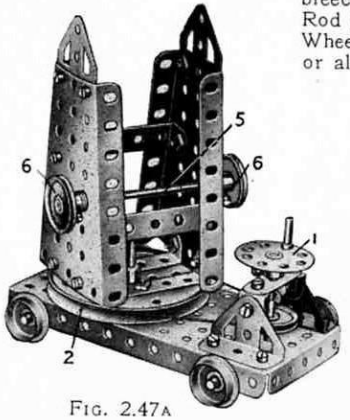
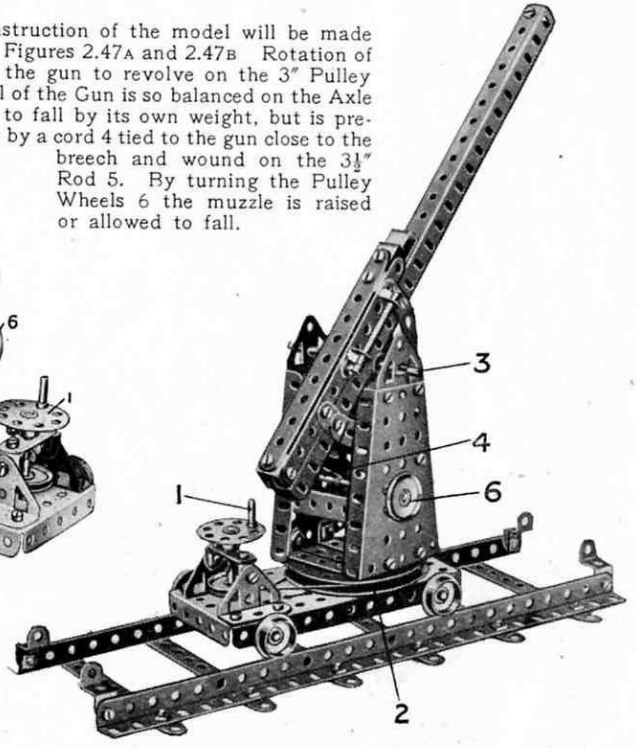
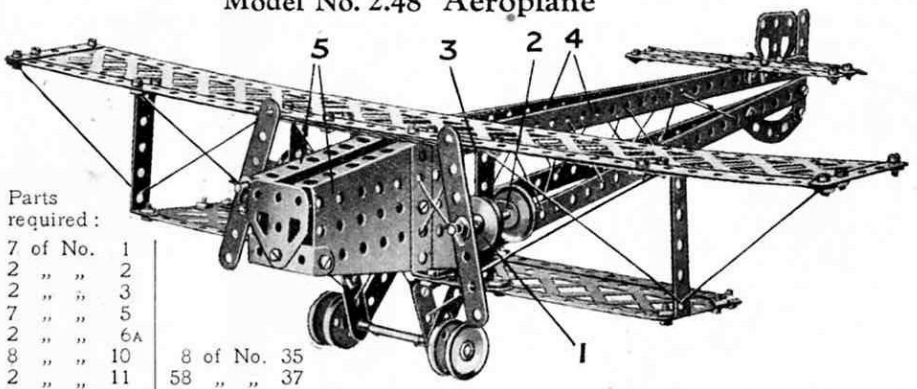


FIG. 2.47A



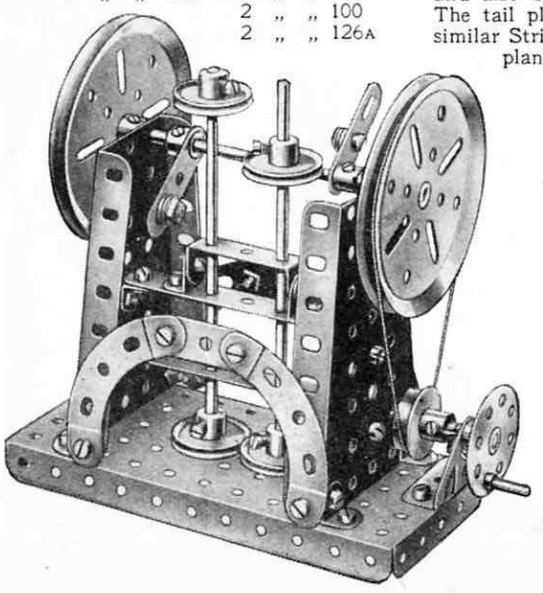
Model No. 2.48 Aeroplane



Parts required :

7	of No.	1
2	„ „	2
2	„ „	3
7	„ „	5
2	„ „	6A
8	„ „	10
2	„ „	11
8	„ „	12
1	„ „	16
	„ „	17
	„ „	20E
4	„ „	22
2	„ „	22A
8	of No.	35
58	„ „	37
6	„ „	38
1	„ „	48
6	„ „	48A
2	„ „	54
1	„ „	90A
2	„ „	99
2	„ „	100
2	„ „	126A

Each engine is represented by a ¾" Flanged Wheel 1 and a 1" fast Pulley Wheel secured to a 2" Rod journalled in a Double Bracket 2, which is bolted to the 2½" × ½" vertical Double Angle Strip 3. The 12½" Strips 4 of the fuselage proper are bolted to the two Sector Plates 5, and also by means of Angle Brackets to the wings. The tail plane consists of two 5½" Strips to which a similar Strip, representing the movable portion of the plane, is attached by means of Flat Brackets.



Model No. 2.49 Stamping Mill

Parts required :

2	of No.	3
2	„ „	6A
10	„ „	12
2	„ „	15
1	„ „	15A
1	„ „	17
2	„ „	19B
1	„ „	20B
4	„ „	22
1	„ „	24
1	„ „	35
30	of No.	37
2	„ „	37A
11	„ „	38
1	„ „	48
1	„ „	52
2	„ „	54
2	„ „	62
4	„ „	90A
2	„ „	111C
1	„ „	115
1	„ „	126

Model No. 2.50 Try-Your-Strength Machine

The Bush Wheel 1 is secured to a short Axle Rod 2, the lower end of which rests on a pair of Angle Brackets 3 bolted to the ends of four 5½" Strips 4. The Strips 4 are pivoted as shown (Fig. 2.50A) on a 1½" Rod 5, and on their opposite ends rests a ½" loose Pulley Wheel 6. When the Bush Wheel 1 is struck, the 5½" Strips fling the Pulley Wheel 6 upward, but the wheel is guided by the vertical 12½" Strips 7. The weight of the Strips 4 then causes the Bush Wheel to resume its original position.

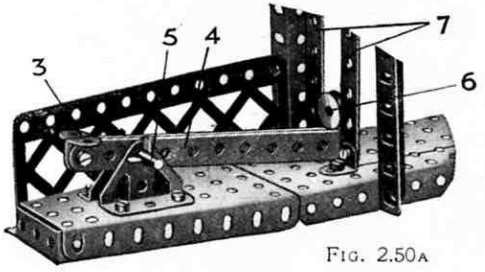


FIG. 2.50A

Parts required :

6	of No.	1
6	„ „	2
1	„ „	3
2	„ „	5
2	„ „	6A
4	„ „	8
2	of No.	10
10	„ „	12
2	„ „	18A
1	„ „	23
1	„ „	24
3	„ „	35
60	„ „	37
6	„ „	37A
4	„ „	38
1	„ „	45
1	„ „	48
1	„ „	48A
1	„ „	52
2	„ „	54
3	„ „	90A
2	„ „	100
2	„ „	126

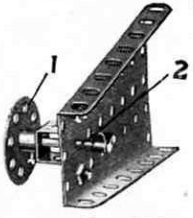
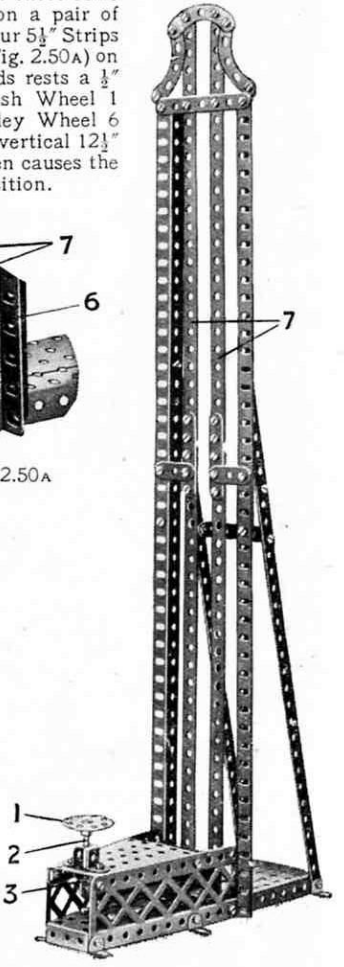
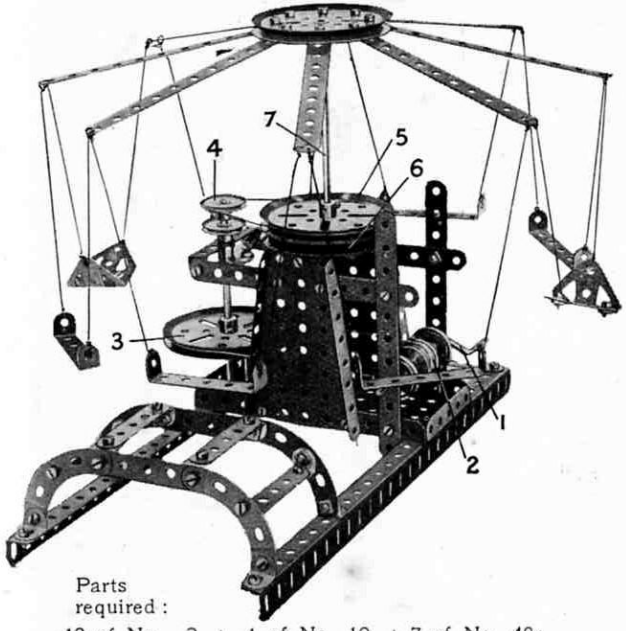


FIG. 2.50B



Model No. 2.51 Roundabout



Parts required :

13	of No.	2	1	of No.	19	7	of No.	48A
6	„ „	5	4	„ „	19B	1	„ „	52
2	„ „	8	2	„ „	20B	2	„ „	54
12	„ „	12	4	„ „	22	4	„ „	90A
2	„ „	12A	1	„ „	24	2	„ „	126
2	„ „	15	48	„ „	37	2	„ „	126A

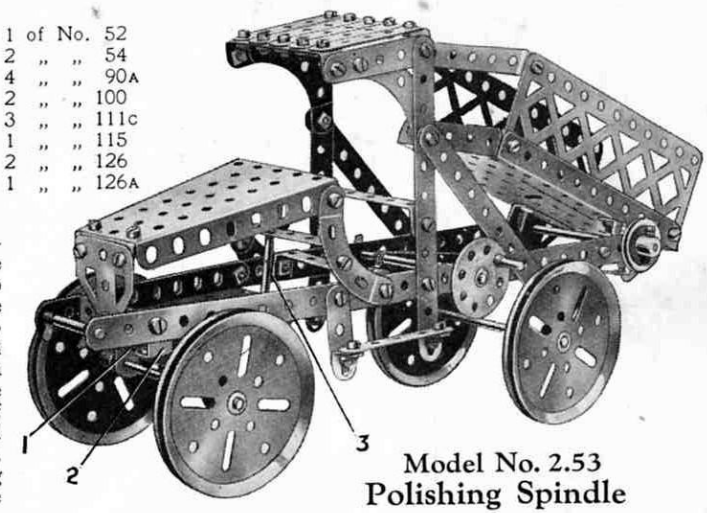
When the crank handle is turned, the drum 2 (formed by butting together two $\frac{3}{4}$" Flanged Wheels) turns the 3" Pulley Wheel 3 by means of an endless cord. The 1" fast Pulley Wheel 4 similarly turns a second 3" Pulley Wheel 5 resting on another 3" Pulley Wheel 6 (see Fig. 2.51A). The end of the Axle Rod 7 is quite free to revolve in the boss of the lower 3" Pulley Wheel 6.

Model No. 2.52 Tipping Motor Wagon

Parts required :

2	of No.	1	4	of No.	19B	1	of No.	52
4	„ „	2	4	„ „	22	2	„ „	54
11	„ „	5	1	„ „	24	4	„ „	90A
2	„ „	6A	6	„ „	35	2	„ „	100
6	„ „	12	59	„ „	37	3	„ „	111C
4	„ „	16	4	„ „	37A	1	„ „	115
1	„ „	17	1	„ „	45	2	„ „	126
1	„ „	18A	1	„ „	48	1	„ „	126A
			7	„ „	48A			

The front Axle Rod is journalled in a $2\frac{1}{2}$" × $\frac{1}{2}$" Double Angle Strip 1 which in turn is bolted to a Double Bent Strip 2. The Double Bent Strip is pivoted to the Sector Plate by a bolt and two nuts. Cord passing over a 1" Pulley Wheel attached to the Rod 3 is fastened to the ends of the Double Angle Strip 1, and by rotating another pulley, which represents the steering wheel, the road wheels are deflected.



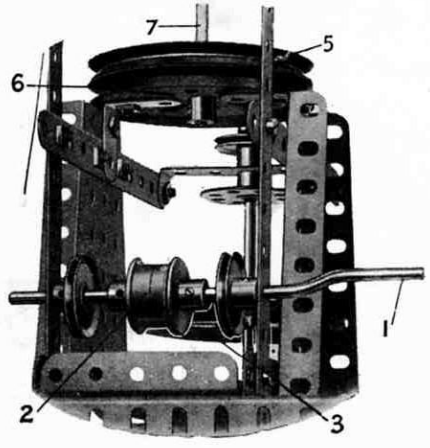
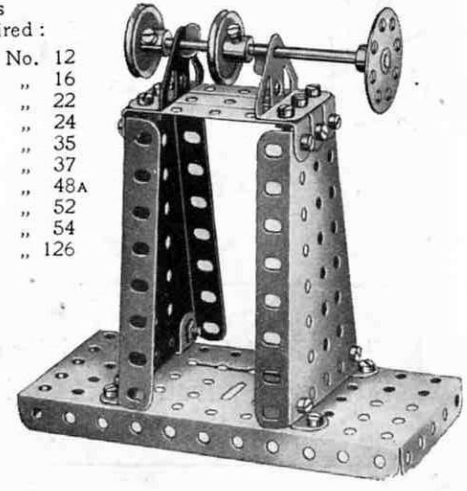


Fig. 2.51A

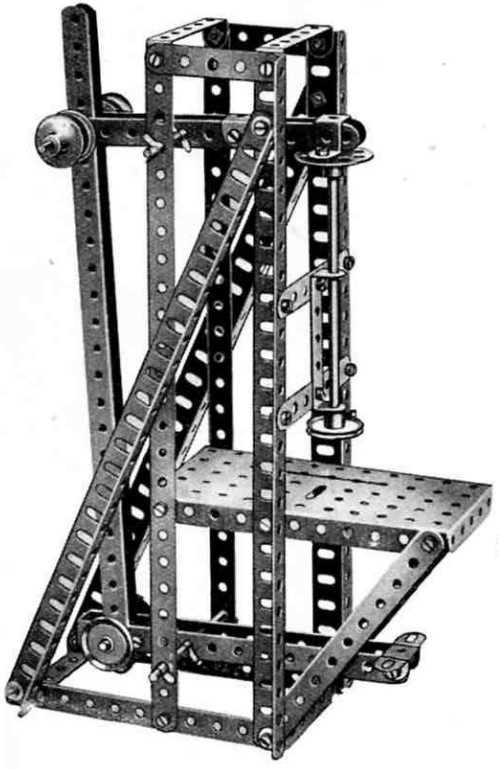
Model No. 2.53 Polishing Spindle

Parts required :

4	of No.	12	
1	„ „	16	
2	„ „	22	
1	„ „	24	
2	„ „	35	
20	„ „	37	
3	„ „	48A	
1	„ „	52	
2	„ „	54	
2	„ „	126	



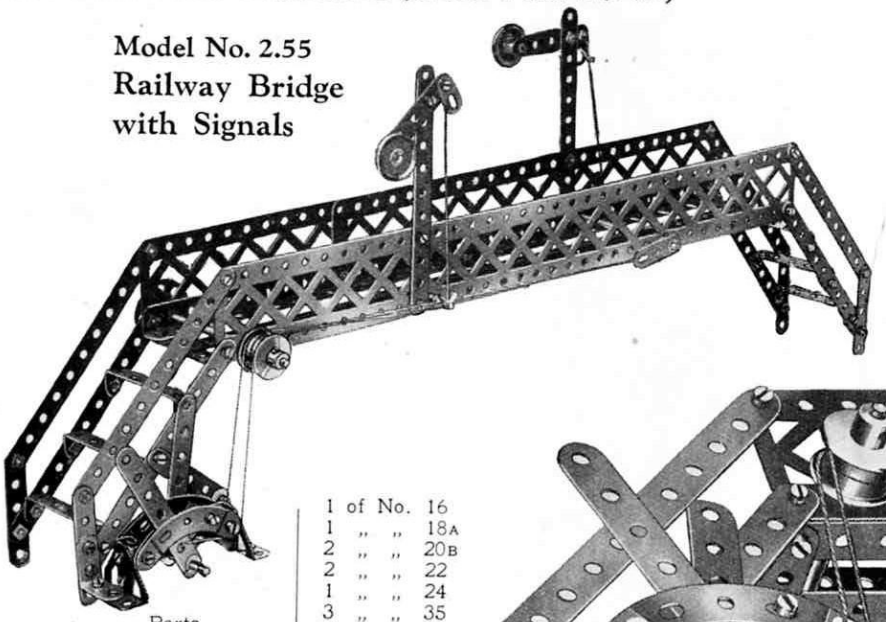
Model No. 2.54 Embossing Machine



Parts required :

4	of	No.	1
8	„	„	2
2	„	„	3
2	„	„	5
4	„	„	8
3	„	„	11
2	„	„	12
1	„	„	15
3	„	„	16
1	„	„	18A
4	„	„	20B
3	„	„	22
1	„	„	24
10	„	„	35
34	„	„	37
8	„	„	38
1	„	„	45
5	„	„	48A
1	„	„	52

Model No. 2.55 Railway Bridge with Signals



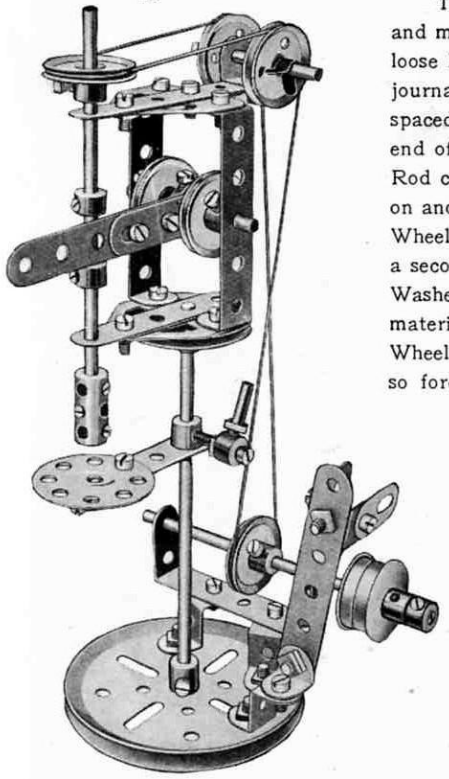
Parts required :

2	of	No.	1
10	„	„	2
2	„	„	3
10	„	„	5
4	„	„	8
2	„	„	10
3	„	„	11
2	„	„	12A
1	„	„	15A
1	of	No.	16
1	„	„	18A
2	„	„	20B
2	„	„	22
1	„	„	24
3	„	„	35
60	„	„	37
3	„	„	37A
6	„	„	38
7	„	„	48A
2	„	„	62
4	„	„	90A
2	„	„	99
2	„	„	100
3	„	„	111C
1	„	„	115
2	„	„	126

HOW TO CONTINUE

This completes our examples of models that may be made with MECCANO Outfits 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 this Manual.

Model No. 3.1 Drilling Machine

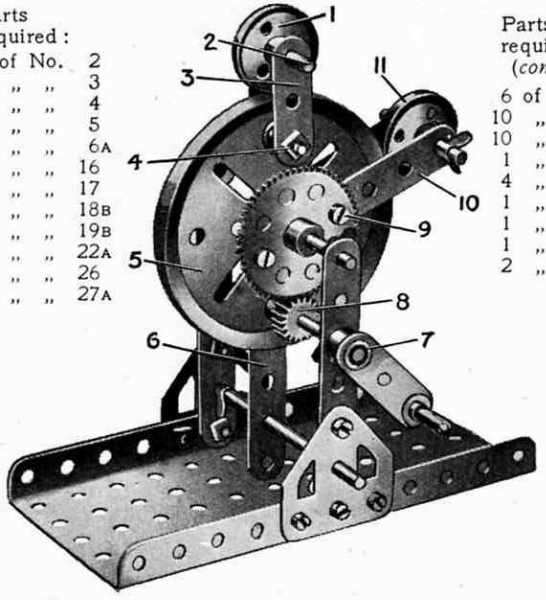


Parts required :

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

Model No. 3.2 Strip-Bending Machine

This model represents a device for bending bars or rods of metal to circular form, and may be put to practical purpose in shaping strips of tin or similar material. A loose Pulley 1 is spaced by a Collar and Washers in the centre of the short Rod 2 journalled in a 1½" Strip 3. The latter is secured to the end of a ¾" Bolt 4 and spaced away from the 3" Pulley 5 by means of a number of Washers. The opposite end of the Rod is supported by a 5½" Strip 6. The Handle 7 is secured to a 3½" Rod carrying a ½" Pinion 8. This engages with a 57-teeth Gear Wheel 9 mounted on another 3½" Rod which is free to revolve in the boss of the Wheel 5. The Gear Wheel 9 carries a 3" Strip 10 forming one of the bearings for a short Rod carrying a second 1" loose Pulley 11. The latter is also spaced by means of a Collar and Washers so that it lies immediately above the groove of the Pulley Wheel 5. The material to be shaped is passed between the two loose Pulleys at the top of the Wheel 5, and on rotation of the handle 7 the arm 10 is caused to move downward, so forcing the object to the same curvature as the circumference of the wheel.



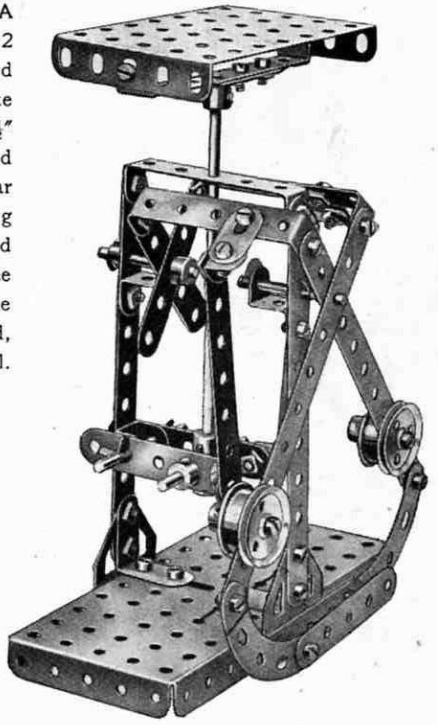
Parts required :

1	of	No.	2
2	,,	,,	3
1	,,	,,	4
1	,,	,,	5
1	,,	,,	6A
2	,,	,,	16
1	,,	,,	17
2	,,	,,	18B
1	,,	,,	19B
2	,,	,,	22A
1	,,	,,	26
1	,,	,,	27A

Parts required (*continued*):

6	of	No.	35
10	,,	,,	37
10	,,	,,	38
1	,,	,,	52
4	,,	,,	59
1	,,	,,	62
1	,,	,,	111
1	,,	,,	115
2	,,	,,	126A

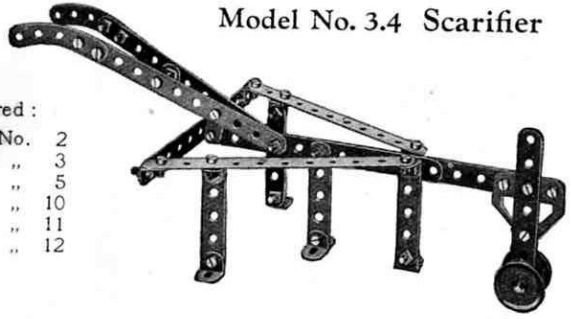
Model No. 3.3 Letter Balance



Parts required :

4	of	No.	2	2	of	No.	18A	1	of	No.	53
2	,,	,,	3	2	,,	,,	20B	4	,,	,,	59
5	,,	,,	5	2	,,	,,	22A	1	,,	,,	62
2	,,	,,	10	4	,,	,,	35	1	,,	,,	63
1	,,	,,	11	37	,,	,,	37	2	,,	,,	90A
4	,,	,,	12	6	,,	,,	37A	2	,,	,,	111
2	,,	,,	12A	2	,,	,,	48A	4	,,	,,	111c
1	,,	,,	15	1	,,	,,	48B	2	,,	,,	125
2	,,	,,	17	1	,,	,,	52	2	,,	,,	126A

Model No. 3.4 Scarifier



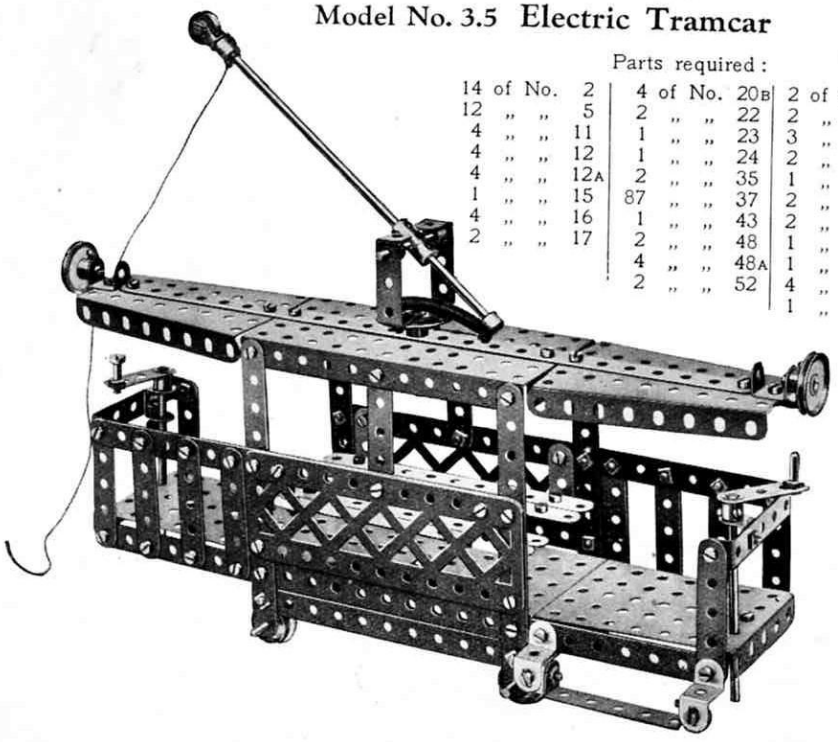
Parts required :

7	of No.	2
1	„ „	3
4	„ „	5
1	„ „	10
1	„ „	11
11	„ „	12

Parts required (*continued*) :

1	of No.	18A
2	„ „	22
29	„ „	37
2	„ „	38
2	„ „	90
1	„ „	126A

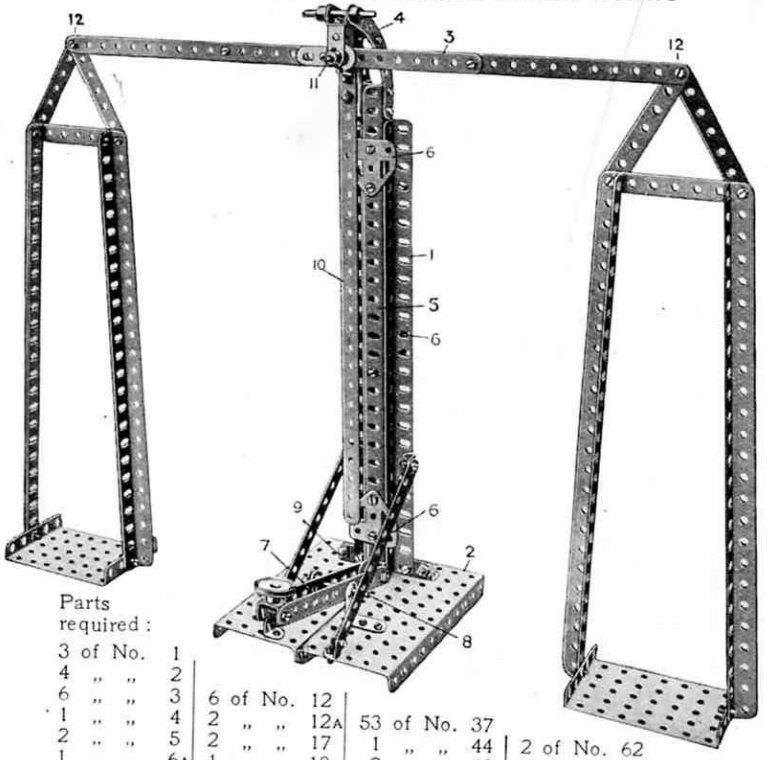
Model No. 3.5 Electric Tramcar



Parts required :

14	of No.	2	4	of No.	20B	2	of No.	53
12	„ „	5	2	„ „	22	2	„ „	54
4	„ „	11	1	„ „	23	3	„ „	59
4	„ „	12	1	„ „	24	2	„ „	62
4	„ „	12A	2	„ „	35	1	„ „	63
1	„ „	15	87	„ „	37	2	„ „	100
4	„ „	16	1	„ „	43	2	„ „	111C
2	„ „	17	2	„ „	48	1	„ „	115
			4	„ „	48A	1	„ „	116A
			2	„ „	52	4	„ „	125
						1	„ „	147B

Model No. 3.6 Demonstration Scales



Parts required :

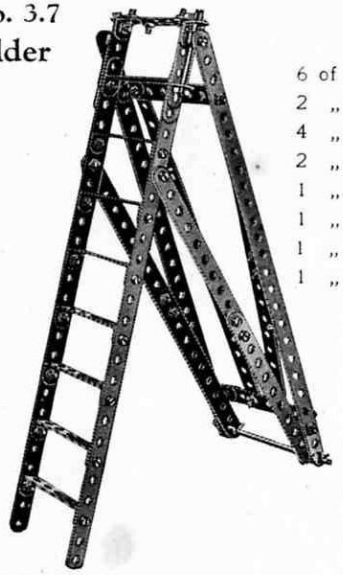
3	of No.	1	6	of No.	12	53	of No.	37
4	„ „	2	2	„ „	12A	1	„ „	44
6	„ „	3	2	„ „	17	2	„ „	52
1	„ „	4	1	„ „	18A	2	„ „	53
2	„ „	5	1	„ „	22	2	„ „	59
1	„ „	6A	2	„ „	35	2	of No.	62
8	„ „	8				4	„ „	90
4	„ „	11				1	„ „	125
						2	„ „	126A

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 two Flat Trunnions 6 and two 1½" Strips are bolted at the front and rear. The balance is raised by depressing the lever 7 pivoted at 8 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.

Model No. 3.7
Step Ladder

Parts required :

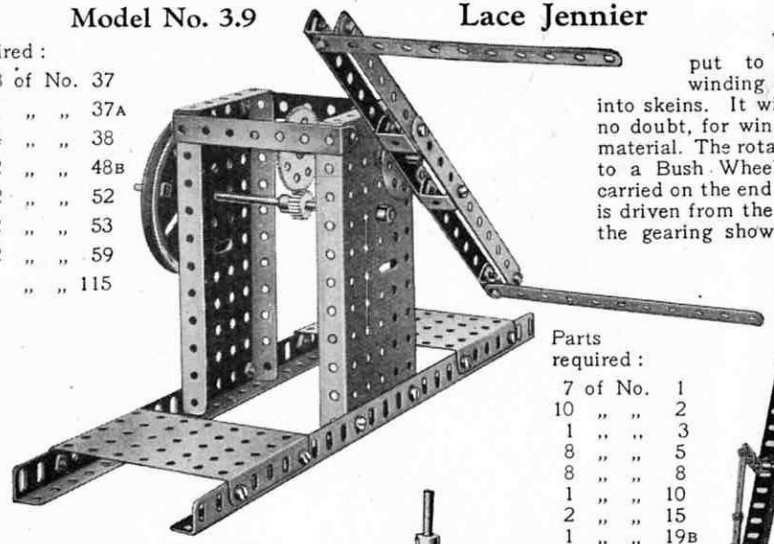
4	of No.	1
8	„ „	2
2	„ „	3
3	„ „	5
2	„ „	10
10	„ „	12
1	„ „	16
2	„ „	17
10	„ „	35
38	„ „	37
8	„ „	48A
2	„ „	59



Model No. 3.9
Lace Jennier

Parts required :

6	of No.	2	28	of No.	37
2	„ „	8	1	„ „	37A
4	„ „	11	4	„ „	38
2	„ „	15	2	„ „	48B
1	„ „	19B	2	„ „	52
1	„ „	24	2	„ „	53
1	„ „	26	2	„ „	59
1	„ „	27A	1	„ „	115

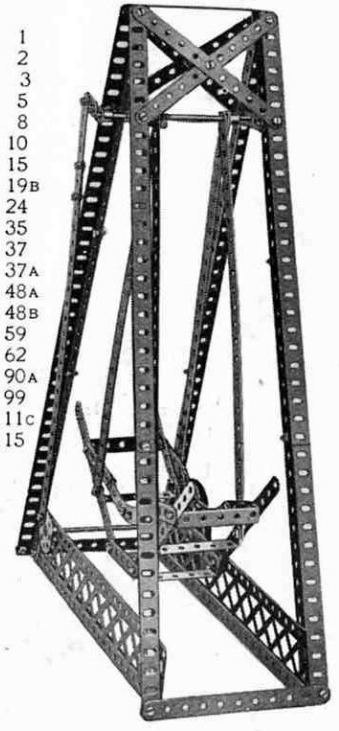


This model can be put to practical use in winding lengths of lace into skeins. It will also prove useful, no doubt, for winding wool and other material. The rotating frame is secured to a Bush Wheel, and the latter is carried on the end of an Axle Rod that is driven from the hand wheel through the gearing shown.

Model No. 3.11
Swing

Parts required :

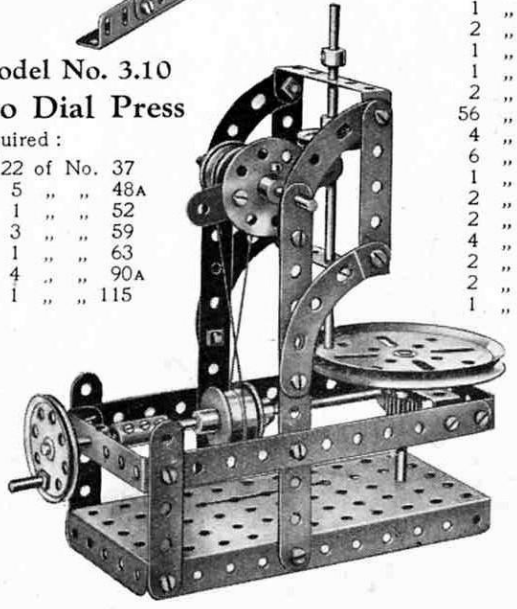
7	of No.	1
10	„ „	2
1	„ „	3
8	„ „	5
8	„ „	8
1	„ „	10
2	„ „	15
1	„ „	19B
1	„ „	24
2	„ „	35
56	„ „	37
4	„ „	37A
6	„ „	48A
1	„ „	48B
2	„ „	59
2	„ „	62
4	„ „	90A
2	„ „	99
2	„ „	111C
1	„ „	115



Model No. 3.10
Auto Dial Press

Parts required :

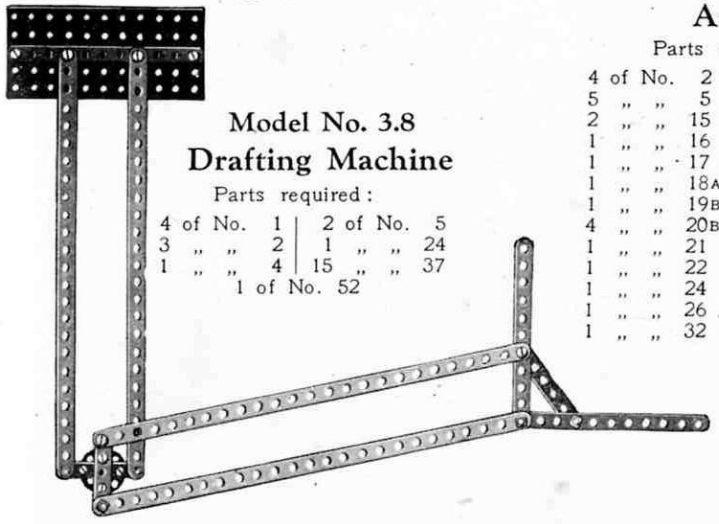
4	of No.	2	22	of No.	37
5	„ „	5	5	„ „	48A
2	„ „	15	1	„ „	52
1	„ „	16	3	„ „	59
1	„ „	17	1	„ „	63
1	„ „	18A	4	„ „	90A
1	„ „	19B	1	„ „	115
4	„ „	20B			
1	„ „	21			
1	„ „	22			
1	„ „	24			
1	„ „	26			
1	„ „	32			



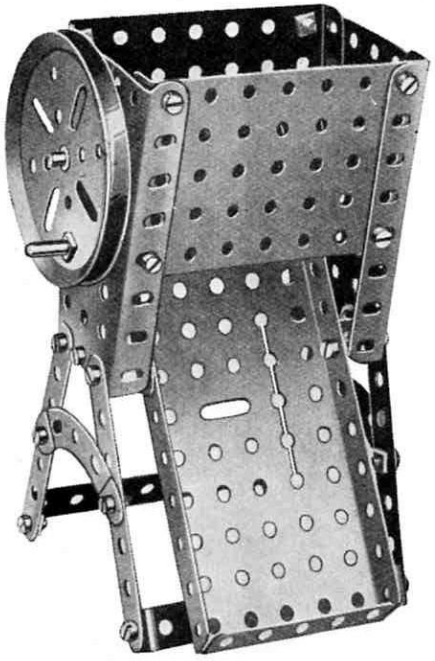
Model No. 3.8
Drafting Machine

Parts required :

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



Model No. 3.12 Oil Cake Chopper



Parts required :

4	of No.	3
6	„ „	10
1	„ „	15
1	„ „	19B
4	„ „	22
24	„ „	37
2	„ „	48B
1	„ „	52
2	„ „	53
2	„ „	54
1	„ „	59
2	„ „	90A
1	„ „	115
2	„ „	125

Fig. 3.12A shows the hand wheel and shaft removed from the model. It will be seen that the chopping mechanism is represented by Flat Brackets clamped between two pairs of 1" fixed Pulley Wheels.

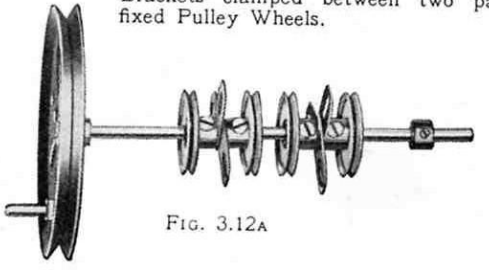
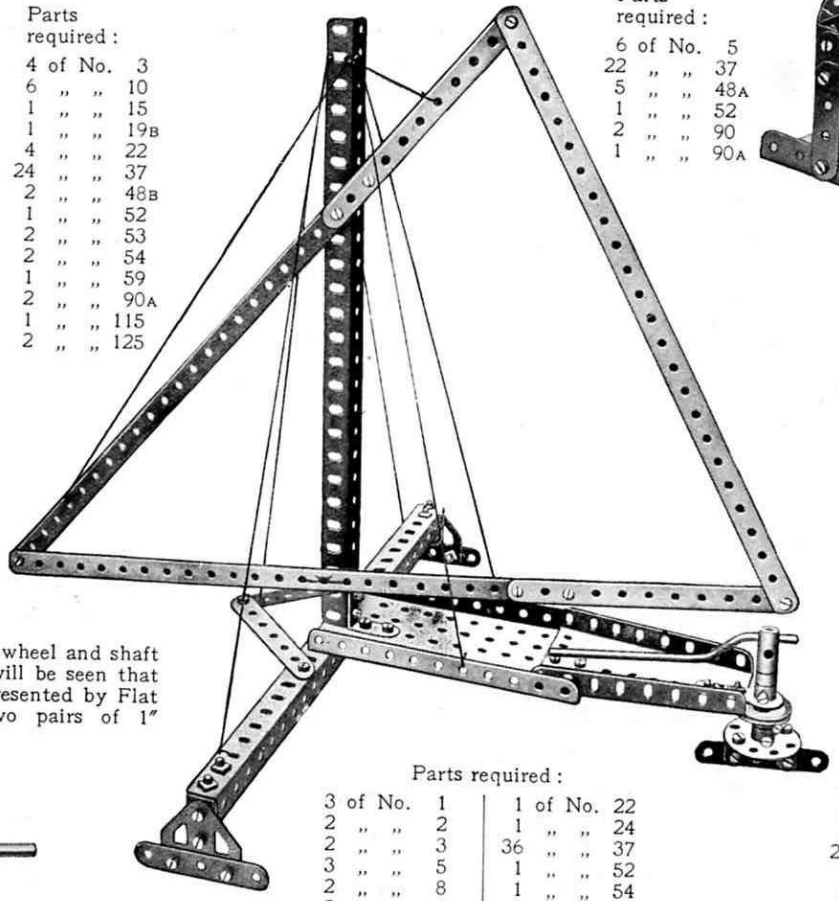


FIG. 3.12A

Model No. 3.13 Ice Boat



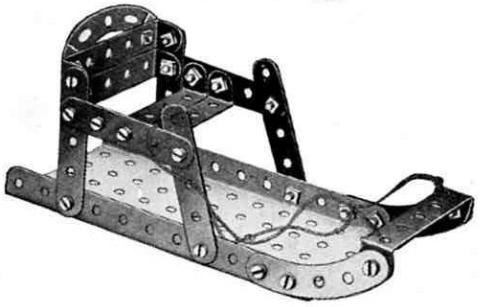
Parts required :

6	of No.	5
22	„ „	37
5	„ „	48A
1	„ „	52
2	„ „	90
1	„ „	90A

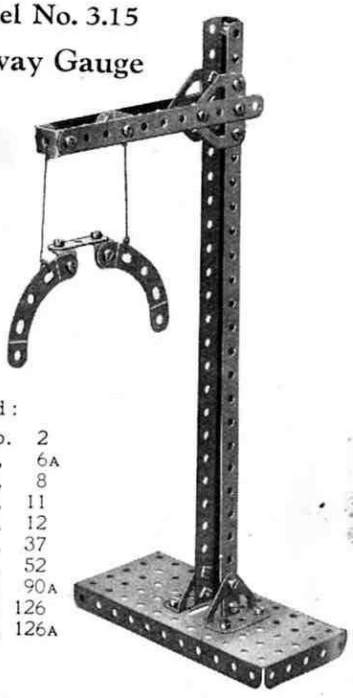
Parts required :

3	of No.	1	1	of No.	22
2	„ „	2	1	„ „	24
2	„ „	3	36	„ „	37
3	„ „	5	1	„ „	52
2	„ „	8	1	„ „	54
2	„ „	12	1	„ „	59
3	„ „	12A	1	„ „	62
1	„ „	17	1	„ „	63
1	„ „	19s	2	„ „	126A

Model No. 3.14 Toboggan



Model No. 3.15 Railway Gauge



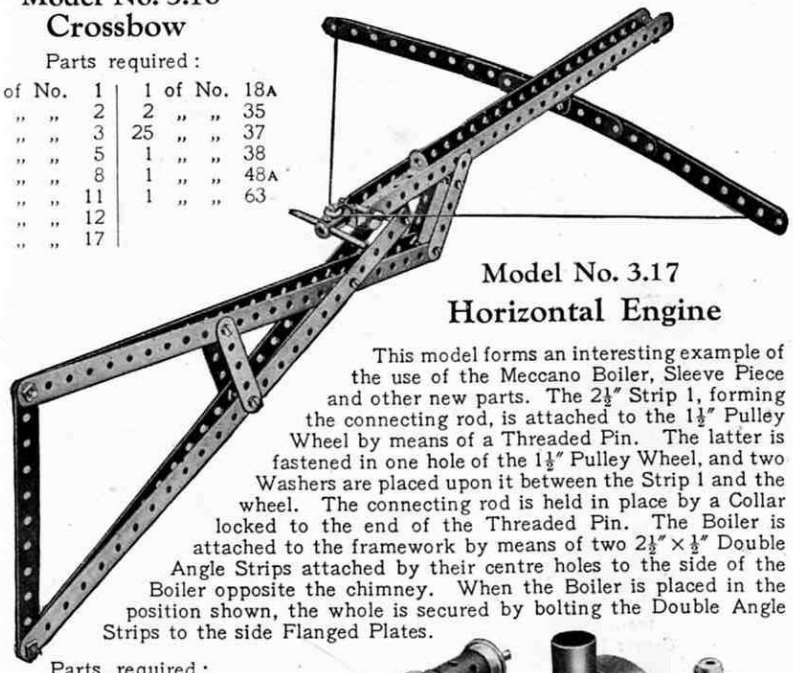
Parts required :

2	of No.	2
1	„ „	6A
2	„ „	8
2	„ „	11
2	„ „	12
25	„ „	37
1	„ „	52
2	„ „	90A
2	„ „	126
2	„ „	126A

Model No. 3.16 Crossbow

Parts required :

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

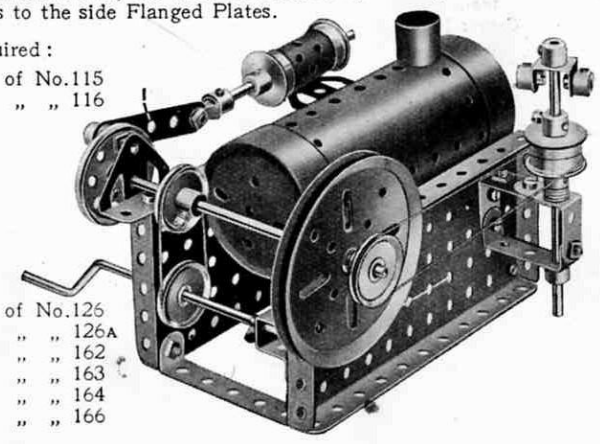


Model No. 3.17 Horizontal Engine

This model forms an interesting example of the use of the Meccano Boiler, Sleeve Piece and other new parts. The 2½" Strip 1, forming the connecting rod, is attached to the 1½" Pulley Wheel by means of a Threaded Pin. The latter is fastened in one hole of the 1½" Pulley Wheel, and two Washers are placed upon it between the Strip 1 and the wheel. The connecting rod is held in place by a Collar locked to the end of the Threaded Pin. The Boiler is attached to the framework by means of two 2½" × ½" Double Angle Strips attached by their centre holes to the side of the Boiler opposite the chimney. When the Boiler is placed in the position shown, the whole is secured by bolting the Double Angle Strips to the side Flanged Plates.

Parts required :

1	of No.	5	1	of No.	115
2	„ „	12A	1	„ „	116
2	„ „	15A			
1	„ „	16			
1	„ „	19B			
1	„ „	19S			
4	„ „	20B			
1	„ „	21			
3	„ „	22			
1	„ „	35			
25	„ „	37			
7	„ „	38	2	of No.	126
1	„ „	45	1	„ „	126A
1	„ „	48	1	„ „	162
4	„ „	48A	1	„ „	163
2	„ „	52	1	„ „	164
4	„ „	59	1	„ „	166

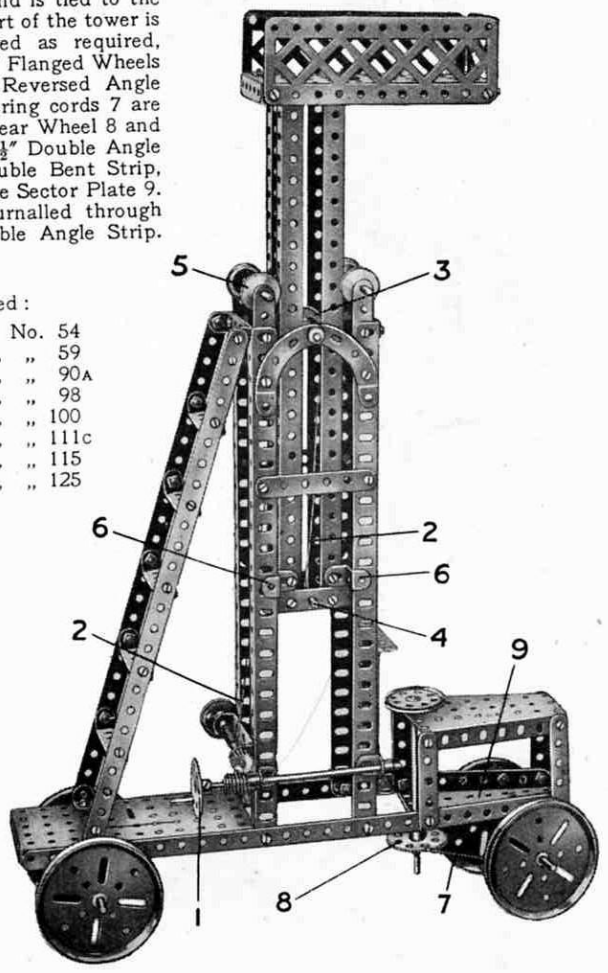


Model No. 3.18 Tower Wagon

When operated the handle 1 winds in the cord 2, which passes over a 1" fast Pulley Wheel 3 and is tied to the Rod 4. The upper part of the tower is thus raised or lowered as required, being guided by the ¾" Flanged Wheels 5 and two pairs of Reversed Angle Brackets 6. The steering cords 7 are tied to the 57-teeth Gear Wheel 8 and to the end of a 2½" × ½" Double Angle Strip bolted to a Double Bent Strip, which is pivoted to the Sector Plate 9. The front axle is journalled through the ends of the Double Angle Strip.

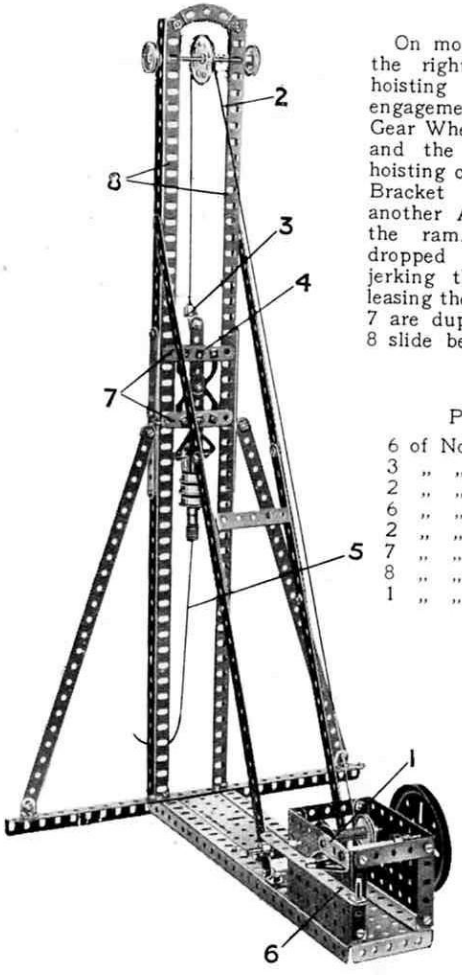
Parts required :

4	of No.	1	2	of No.	54
2	„ „	4	3	„ „	59
6	„ „	5	4	„ „	90A
2	„ „	6A	1	„ „	98
8	„ „	8	2	„ „	100
8	„ „	12	1	„ „	111C
1	„ „	15	1	„ „	115
3	„ „	15A	4	„ „	125
4	„ „	16			
1	„ „	17			
4	„ „	19B			
4	„ „	20B			
1	„ „	21			
2	„ „	22			
1	„ „	24			
1	„ „	26			
1	„ „	27A			
1	„ „	32			
3	„ „	35			
84	„ „	37			
2	„ „	37A			
1	„ „	45			
8	„ „	48A			
2	„ „	52			
1	„ „	53			



These Models can be built with MECCANO Outfit No. 3 (or No. 2 and No. 2A)

Model No. 3.19 Pile Driver

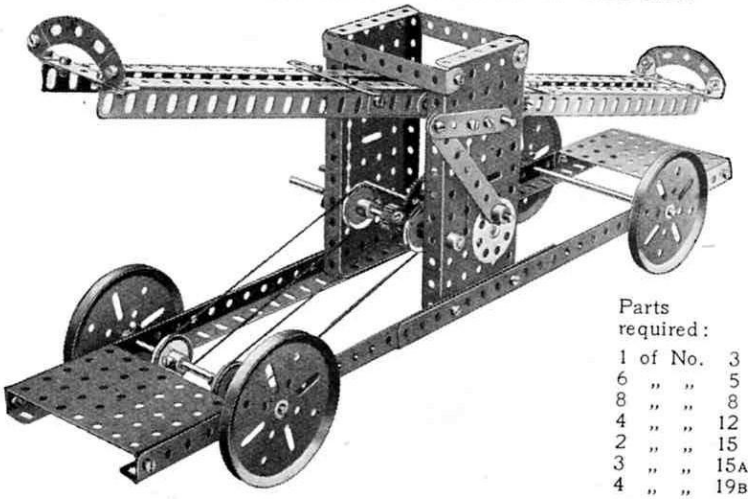


On moving the hand lever 6 to the right a ½" Pinion on the hoisting shaft is brought into engagement with the 57-teeth Gear Wheel 1 on the driving shaft and the ram 4 is raised. The hoisting cord 2 is tied to an Angle Bracket 3, which lodges under another Angle Bracket bolted to the ram. The latter may be dropped whenever required by jerking the cord 5, thereby releasing the Brackets 3. The Strips 7 are duplicated, and the Girders 8 slide between their ends.

Parts required :

6	of	No.	1	3	of	No.	16
3	„	„	2	1	„	„	19B
2	„	„	3	3	„	„	20B
6	„	„	5	1	„	„	21
2	„	„	6A	2	„	„	22
7	„	„	8	1	„	„	26
8	„	„	12	1	„	„	27A
1	„	„	15A	1	„	„	32
				2	„	„	35
				60	„	„	37
				2	„	„	37A
				1	„	„	38
				1	„	„	45
				1	„	„	46
				1	„	„	48A
				2	„	„	48B
				2	„	„	52
				2	„	„	53
				4	„	„	59
				1	„	„	90A
				1	„	„	111C
				1	„	„	115
				2	„	„	126
				2	„	„	126A

Model No. 3.20 Actuated See-Saw

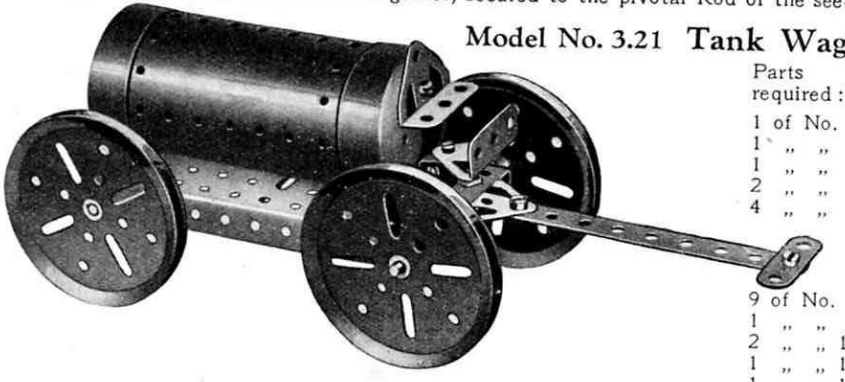


Parts required :

1	of	No.	3	4	of	No.	22
6	„	„	5	1	„	„	24
8	„	„	8	1	„	„	26
4	„	„	12	1	„	„	27A
2	„	„	15	2	„	„	35
3	„	„	15A	43	„	„	37
4	„	„	19B	2	„	„	37A
				2	„	„	48B
				2	„	„	52
				2	„	„	53
				3	„	„	59
				2	„	„	62
				2	„	„	90A
				1	„	„	111C
				1	„	„	115

The model is actuated by the motion of one pair of travelling wheels. The axle to which these wheels are secured carries two 1" fast Pulley Wheels, which are connected by endless cords to similar Pulleys on the same Rod as a ½" Pinion Wheel. This ½" Pinion meshes with a 57-teeth Gear Wheel secured to the Rod of a Bush Wheel, and the latter is connected by means of a 5½" Strip to an extended crank (a 2½" Strip and a Crank bolted together) secured to the pivotal Rod of the see-saw.

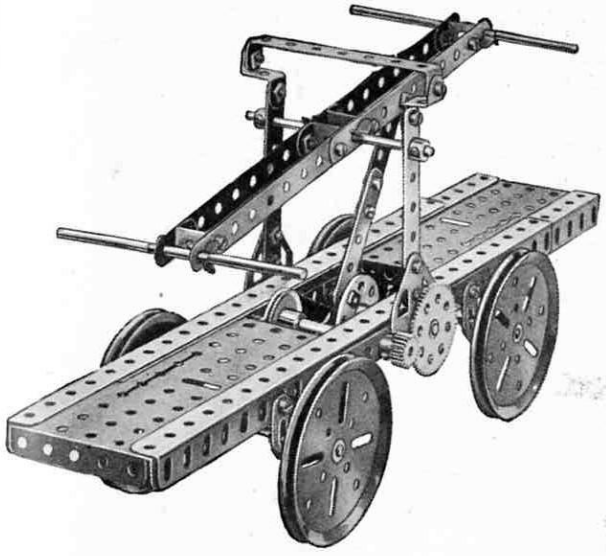
Model No. 3.21 Tank Wagon



Parts required :

1	of	No.	2	9	of	No.	37
1	„	„	6A	1	„	„	52
1	„	„	12	2	„	„	126
2	„	„	16	1	„	„	126A
4	„	„	19B	1	„	„	162

Model No. 3.22 Hand Trolley

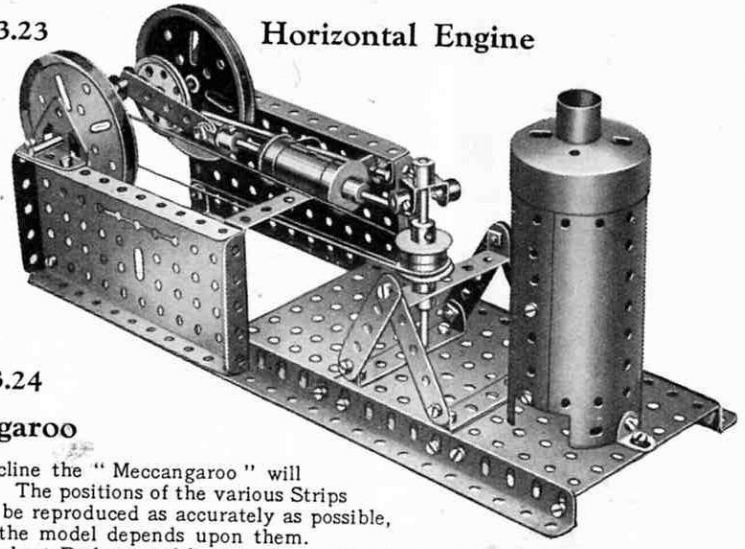


Parts required :

4	of	No.	2	1	of	No.	18A	1	of	No.	45
3	„	„	3	4	„	„	19B	1	„	„	48B
2	„	„	5	2	„	„	22	2	„	„	52
4	„	„	8	1	„	„	24	3	„	„	59
8	„	„	10	1	„	„	26	4	„	„	90A
4	„	„	11	1	„	„	27A	2	„	„	125
2	„	„	15A	6	„	„	35	2	„	„	126A
4	„	„	16	40	„	„	37				

The connecting arm is pivoted at its lower end to the Bush Wheel and at its upper end to the hand lever, a bolt and two nuts being used to pivot the arm in each case. The drive is transmitted to a 1" Pulley Wheel on the axle of the road wheels by means of a crossed belt passing round another 1" Pulley that is secured to a Rod connected via a 3:1 gear ratio to the 1½" Rod carrying the Bush Wheel. This Rod is journalled in a 3½" Strip fastened to the side Angle Girder, and also in a Double Bent Strip secured to the inside of the Girder.

Model No. 3.23 Horizontal Engine



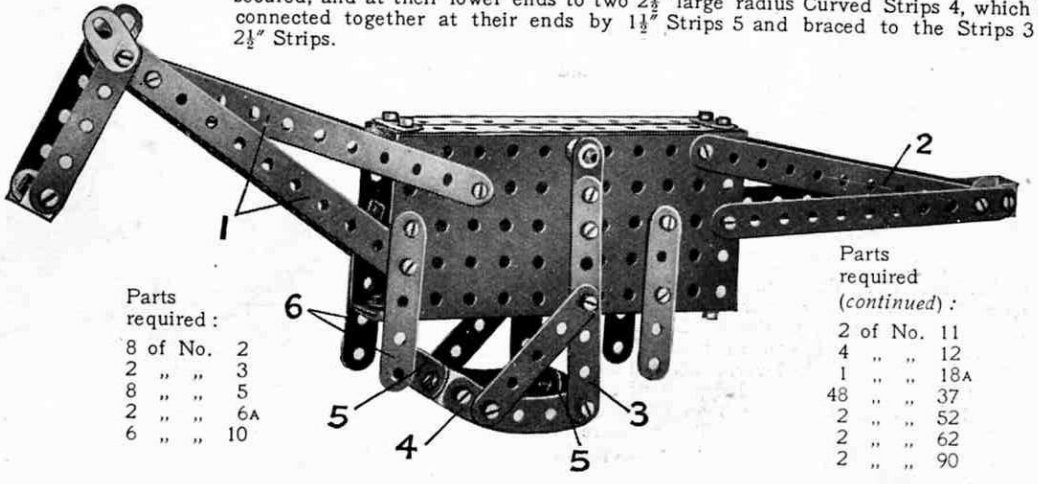
Parts required :

5	of	No.	5	3	of	No.	48A				
2	„	„	8	2	„	„	48B				
2	„	„	12	2	„	„	52				
3	„	„	15A	3	„	„	53				
2	„	„	19B	3	„	„	59				
1	„	„	19S	1	„	„	63				
4	„	„	20B	1	„	„	116				
1	„	„	21	1	„	„	125				
1	„	„	22	2	„	„	126				
2	„	„	35	1	„	„	162				
32	„	„	37	1	„	„	163				
1	„	„	48	1	„	„	164				
				1	of	No.	166				

Model No. 3.24 The Meccangaroo

When placed upon an incline the " Meccangaroo " will " walk " with a quaint action. The positions of the various Strips in relation to the body should be reproduced as accurately as possible, for the successful working of the model depends upon them.

The animal rocks about a short Rod secured between the rocker-frame which does duty as " legs." This frame consists of two 3½" Strips 3 bolted at their upper ends to cranks in which the short Rod is secured, and at their lower ends to two 2½" large radius Curved Strips 4, which are connected together at their ends by 1½" Strips 5 and braced to the Strips 3 by 2½" Strips.



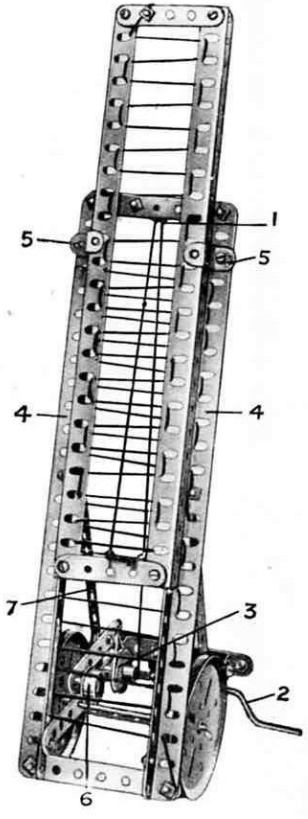
Parts required :

8	of	No.	2
2	„	„	3
8	„	„	5
2	„	„	6A
6	„	„	10

Parts required (*continued*) :

2	of	No.	11
4	„	„	12
1	„	„	18A
48	„	„	37
2	„	„	52
2	„	„	62
2	„	„	90

Model No. 3.25 Fire Escape



Parts required :

4	of No.	2
3	„ „	3
1	„ „	4
2	„ „	5
4	„ „	8
3	„ „	12
1	„ „	16
1	„ „	19S
2	„ „	19B
1	„ „	20B
1	„ „	22
1	„ „	23
26	„ „	37
6	„ „	37A
5	„ „	38
2	„ „	40
2	„ „	48A
3	„ „	59
5	„ „	111C
2	„ „	125
1	„ „	126A

The moving portion of the escape slides on the 12½″ Angle Girders 4 of the fixed ladder and is guided by two ½″ Reversed Angle Brackets 5. The cord for extending the ladder passes over the ½″ loose Pulley 1 and is wound on the Crank Handle 2. The Pulley 1 revolves freely on a ¾″ Bolt that is secured by two nuts to an Angle Bracket bolted to the 3½″ Strip.

A 3″ Strip, weighted with a ¾″ Flanged Wheel 6 to form a brake lever, is pivoted by a ⅜″ Bolt to the 5½″ Strip 7, and a piece of cord is passed round the 1″ Pulley 3 on the hoisting shaft, and tied to the Strip. The pressure of the weighted lever is sufficient to keep the ladder raised in any position.

Model No. 3.26 Auto Swing Boat

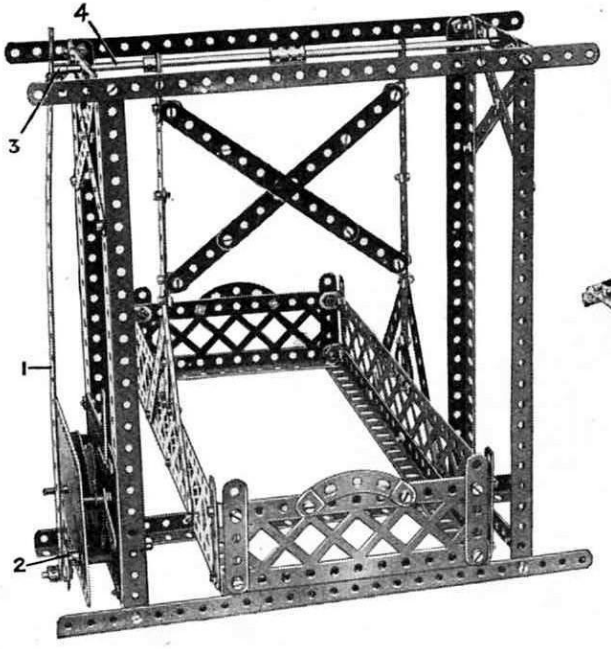
The connecting Strip 1 is attached pivotally at one end to a Threaded Pin secured to the Bush Wheel 2 on the driving spindle of the motor, and at the other end by means of Bolt and Lock-Nuts to a Crank 3 mounted on the shaft 4, which operates the swing boat.

Parts required :

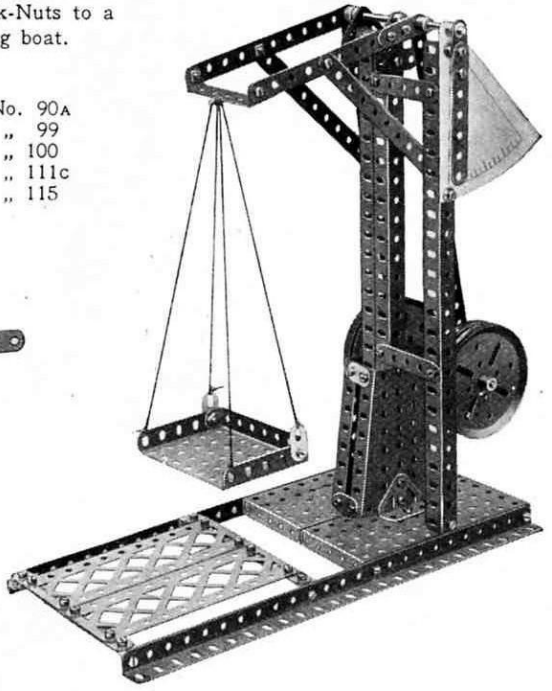
3	of No.	1	1	of No.	10	86	of No.	37	2	of No.	90A
16	„ „	2	12	„ „	12	2	„ „	37A	2	„ „	99
6	„ „	3	2	„ „	15	1	„ „	59	2	„ „	100
8	„ „	5	1	„ „	24	2	„ „	62	1	„ „	111C
8	„ „	8	2	„ „	35	1	„ „	63	1	„ „	115

2 of No. 126A

Clockwork Motor (not included in Outfit)



Model No. 3.27 Scales

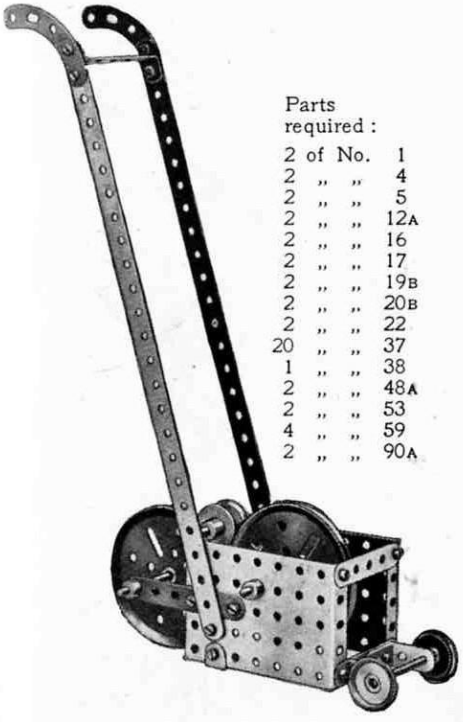


Parts required :

10	of No.	2	2	of No.	48A
1	„ „	3	1	„ „	48B
2	„ „	5	2	„ „	52
5	„ „	8	1	„ „	53
7	„ „	10	2	„ „	54
5	„ „	12	4	„ „	59
2	„ „	15A	2	„ „	62
4	„ „	19B	2	„ „	100
67	„ „	37	2	„ „	126
2	„ „	38	2	„ „	126A

Model No. 3.28 Lawn Marker

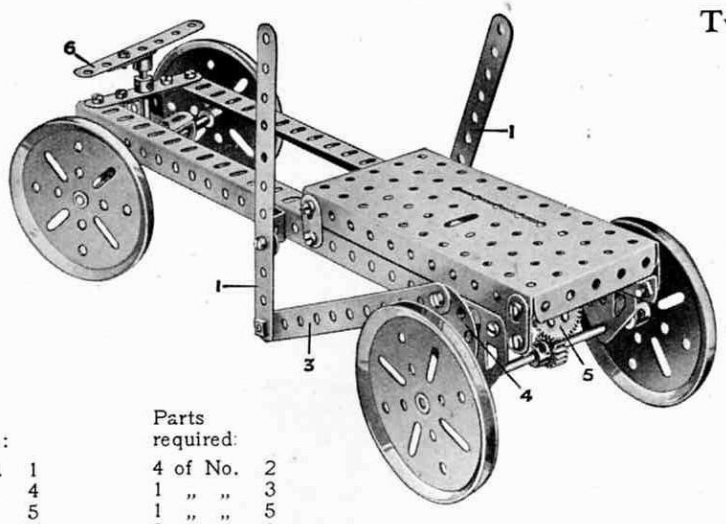
The small roller, which consists of two ¾" Flanged Wheels secured to a short Rod, rests on the edges of the two 3" Pulley Wheels. In actual practice the container is filled with whitewash, in which the inner wheel is partially immersed, and the mixture is transferred via the roller to the outer wheel, which does the actual marking.



Parts required :

2	of No.	1
2	„ „	4
2	„ „	5
2	„ „	12A
2	„ „	16
2	„ „	17
2	„ „	19B
2	„ „	20B
2	„ „	22
20	„ „	37
1	„ „	38
2	„ „	48A
2	„ „	53
4	„ „	59
2	„ „	90A

Model No. 3.29 Hand Car



Parts required:

4	of No.	2
1	„ „	3
1	„ „	5
2	„ „	8
4	„ „	10
2	„ „	15
1	„ „	16
1	„ „	17
4	„ „	19B
1	„ „	24
1	„ „	26
1	of No.	27A
4	„ „	35
26	„ „	37
5	„ „	37A
4	„ „	38
1	„ „	45
1	„ „	48A
1	of No.	52
1	„ „	59
2	„ „	62
1	„ „	63
1	„ „	111c
2	„ „	125
2	„ „	126A

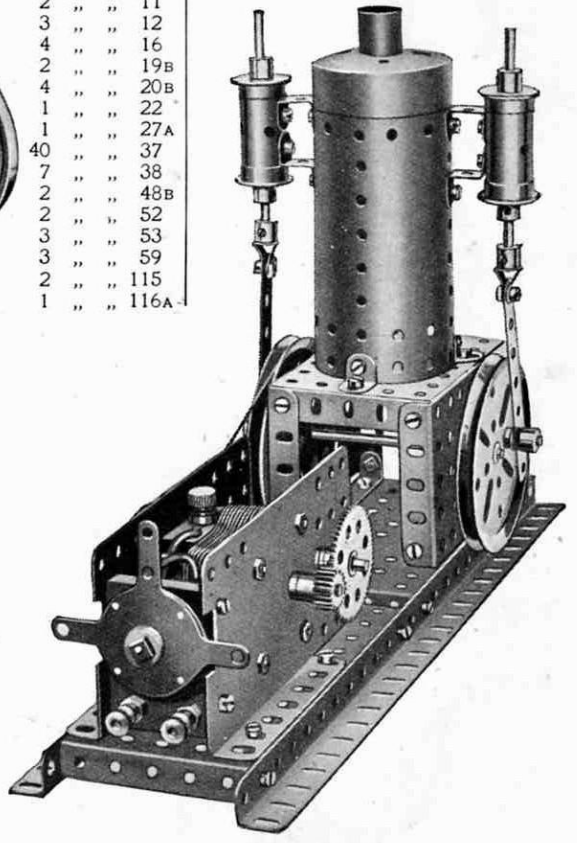
The hand levers 1 are each pivotally attached to the car by a bolt and two nuts (see Standard Mechanism No. 262) and are connected in a similar manner to two further levers, one of which, seen at 3, is pivoted to a Bush Wheel 4 whilst the other, on the further side of the model, is pivoted to a Coupling, which serves as a crank in the same way as the Bush Wheel 4. Both Bush Wheel and Coupling are secured to the Rod carrying the Gear Wheel 5, and motion is thus transmitted to the rear wheels. The steering foot lever 6 is secured by a Crank to a short vertical Rod which, in turn, is secured by another Crank to the Double Angle Strip carrying the front axle.

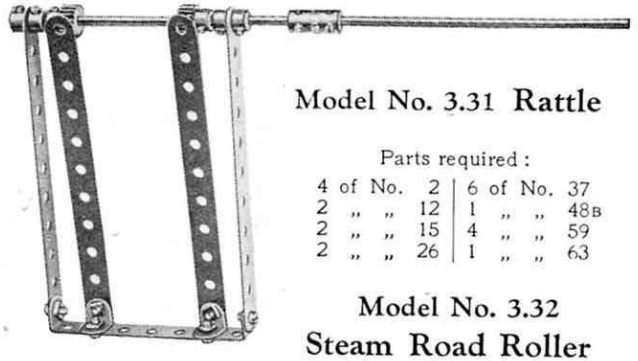
Model No. 3.30 Two-Cylinder Vertical Steam Engine

Parts required :

2	of No.	3
2	„ „	8
2	„ „	11
3	„ „	12
4	„ „	16
2	„ „	19B
4	„ „	20B
1	„ „	22
1	„ „	27A
40	„ „	37
7	„ „	38
2	„ „	48B
2	„ „	52
3	„ „	53
3	„ „	59
2	„ „	115
1	„ „	116A
2	of No.	125
1	„ „	162
2	„ „	163
1	„ „	164

1 of No. 166 Electric Motor (not included in Outfit)





Model No. 3.31 Rattle

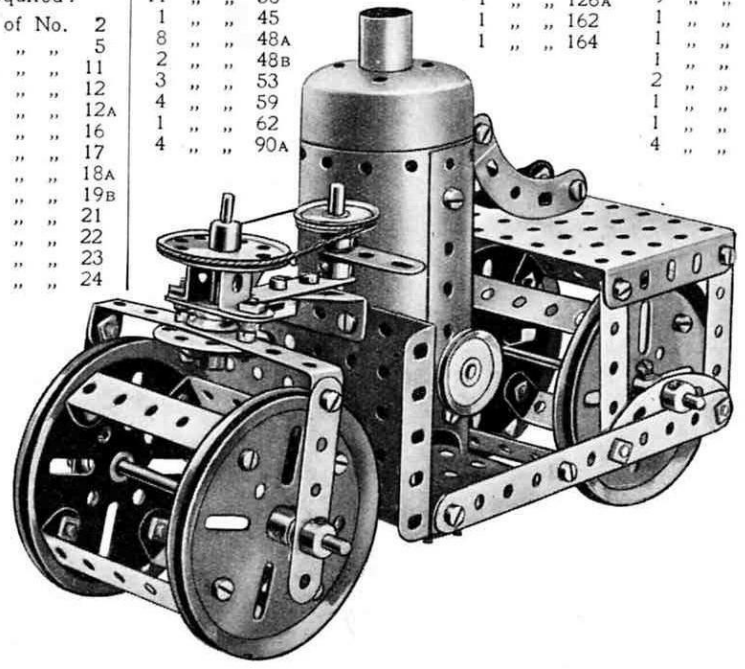
Parts required :

4 of No.	2	6 of No.	37
2 „ „	12	1 „ „	48B
2 „ „	15	4 „ „	59
2 „ „	26	1 „ „	63

Model No. 3.32 Steam Road Roller

Parts required :

2 of No.	2	57 of No.	37
7 „ „	5	11 „ „	38
2 „ „	11	1 „ „	45
1 „ „	12	8 „ „	48A
2 „ „	12A	2 „ „	48B
3 „ „	16	3 „ „	53
1 „ „	17	4 „ „	59
1 „ „	18A	1 „ „	62
4 „ „	19B	4 „ „	90A
1 „ „	21	1 of No.	126
3 „ „	22	1 „ „	126A
1 „ „	23	1 „ „	162
1 „ „	24	1 „ „	164

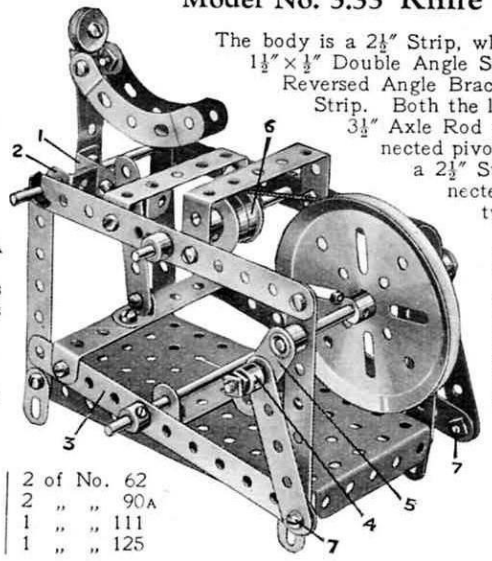


Model No. 3.33 Knife Grinder

Parts required :

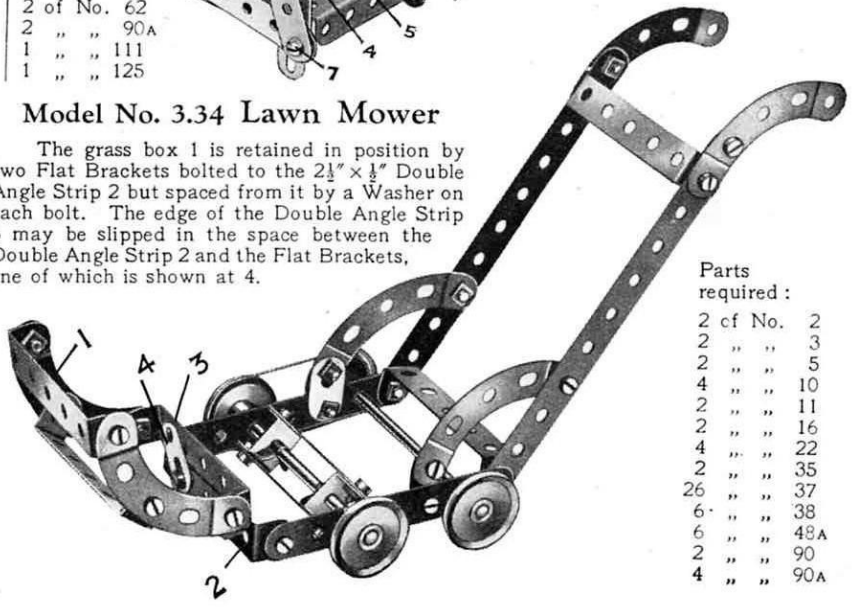
4 of No.	2	2 of No.	62
4 „ „	3	2 „ „	90A
4 „ „	5	1 „ „	111
4 „ „	10	1 „ „	125
1 „ „	11		
1 „ „	12		
1 „ „	15A		
3 „ „	16		
1 „ „	19B		
2 „ „	20B		
1 „ „	23		
3 „ „	35		
27 „ „	37		
9 „ „	37A		
1 „ „	38		
1 „ „	46		
1 „ „	48		
2 „ „	48A		
1 „ „	48B		
1 „ „	52		
4 „ „	59		

The body is a 2½″ Strip, which is bolted at its lower end to a 1½″ × ½″ Double Angle Strip 1 and is held upright by a ½″ Reversed Angle Bracket 2 secured to the Double Angle Strip. Both the latter parts are free to turn about a 3½″ Axle Rod and the Double Angle Strip is connected pivotally with the treadle 3 by means of a 2½″ Strip. The treadle, in turn, is connected pivotally with the crankshaft by two further 2½″ Strips, each of the bolts 7 being secured by two nuts as in Standard Mechanism No. 262. The Collar 4 is mounted loosely on a ¾″ Bolt secured rigidly to the Crank 5, and forms a handle by means of which the model may be set in motion. The Grinding Wheel 6 is driven from the 3″ Pulley Wheel by an endless belt.



Model No. 3.34 Lawn Mower

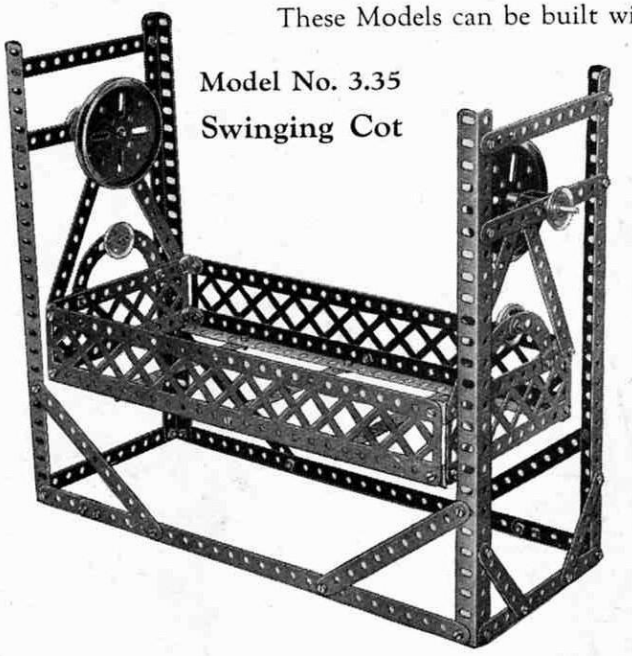
The grass box 1 is retained in position by two Flat Brackets bolted to the 2½″ × ½″ Double Angle Strip 2 but spaced from it by a Washer on each bolt. The edge of the Double Angle Strip 3 may be slipped in the space between the Double Angle Strip 2 and the Flat Brackets, one of which is shown at 4.



Parts required :

2 of No.	2
2 „ „	3
2 „ „	5
4 „ „	10
2 „ „	11
2 „ „	16
4 „ „	22
2 „ „	35
26 „ „	37
6 „ „	38
6 „ „	48A
2 „ „	90
4 „ „	90A

Model No. 3.35 Swinging Cot



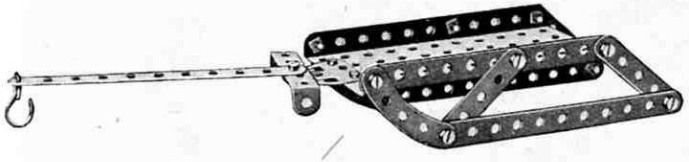
Parts required :

2	of No.	1	6	of No.	8	2	of No.	22	2	of No.	45
17	„ „	2	8	„ „	12	2	„ „	22A	4	„ „	90A
2	„ „	4	2	„ „	17	64	„ „	37	2	„ „	99
2	„ „	5	2	„ „	19B	2	„ „	37A	2	„ „	100
									2	„ „	111C

Model No. 3.36 Horse Sleigh

Parts required :

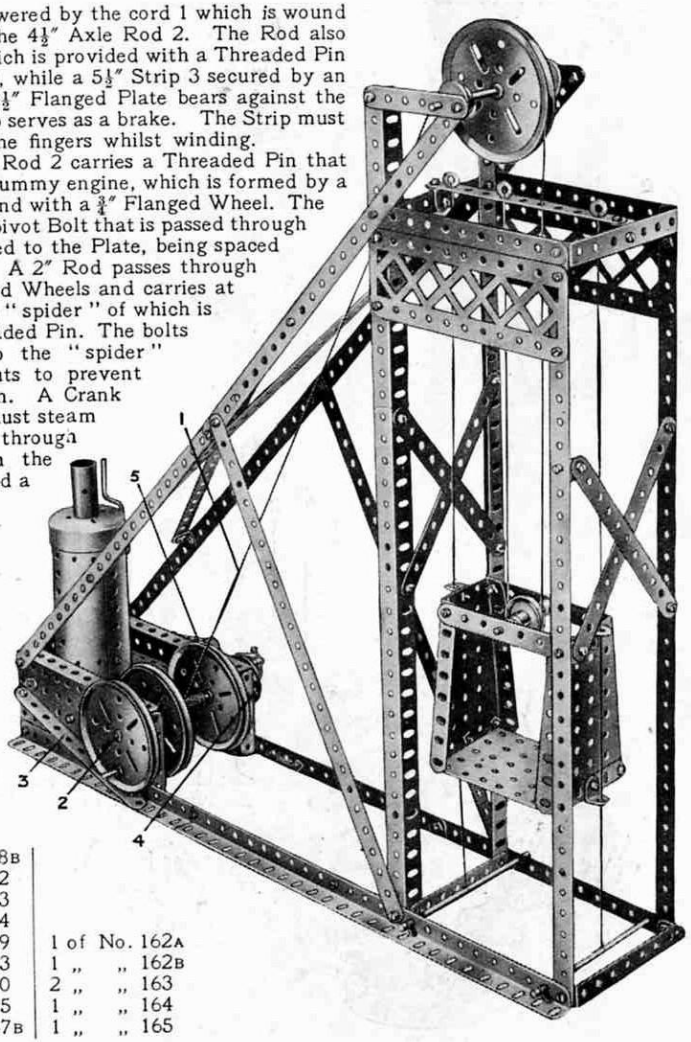
3	of No.	2	13	of No.	37	1	of No.	57
4	„ „	5	1	„ „	48A	2	„ „	90
1	„ „	23	1	„ „	52	1	„ „	126A



Model No. 3.37 Pit Head Gear

The cage is raised and lowered by the cord 1 which is wound between two 3" Pulleys on the 4½" Axle Rod 2. The Rod also carries a further 3" Pulley which is provided with a Threaded Pin to form the operating handle, while a 5½" Strip 3 secured by an Angle Bracket to the 5½" × 2½" Flanged Plate bears against the periphery of the Pulley and so serves as a brake. The Strip must be depressed slightly with the fingers whilst winding.

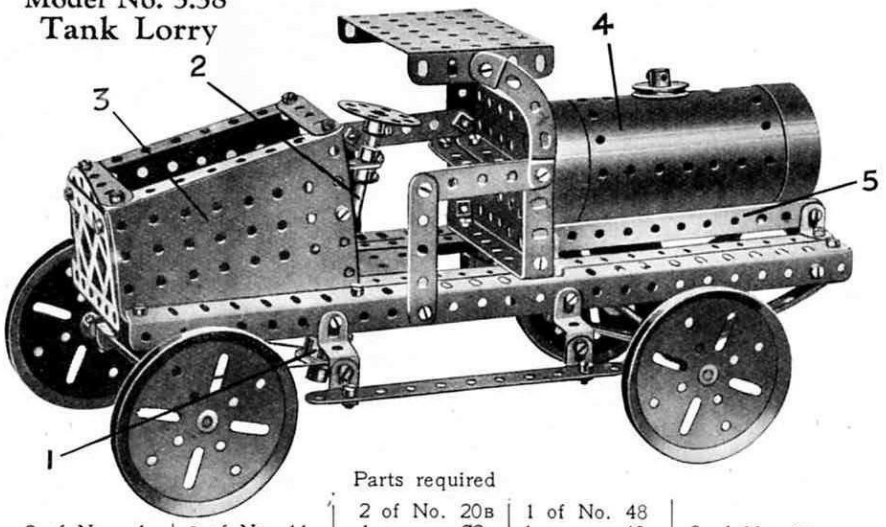
A Bush Wheel 4 on the Rod 2 carries a Threaded Pin that serves as the crank pin of a dummy engine, which is formed by a Sleeve Piece 5 fitted at each end with a ¾" Flanged Wheel. The Sleeve Piece is mounted on a pivot Bolt that is passed through its centre hole and lock-nutted to the Plate, being spaced from the latter by a Collar. A 2" Rod passes through the boss of one of the Flanged Wheels and carries at one end a Swivel bearing, the "spider" of which is mounted loosely on the Threaded Pin. The bolts securing the Fork Piece to the "spider" should be provided with nuts to prevent their shanks gripping the Pin. A Crank Handle representing the exhaust steam pipe is secured by bolts passed through the Boiler, and inserted in the tapped holes of a Coupling and a Collar.



Parts required :

10	of No.	1	2	of No.	48B	1	of No.	162A
8	„ „	2	2	„ „	52	1	„ „	162B
4	„ „	3	3	„ „	53	2	„ „	163
2	„ „	4	2	„ „	54	1	„ „	164
8	„ „	8	4	„ „	59	1	„ „	165
1	„ „	11	1	„ „	63			
14	„ „	12	2	„ „	100			
1	„ „	12A	2	„ „	115			
1	„ „	15	1	„ „	147B			
3	„ „	15A						
2	„ „	17						
4	„ „	19B						
1	„ „	19S						
4	„ „	20B						
1	„ „	22						
1	„ „	24						
4	„ „	35						
88	„ „	37						
3	„ „	38						
1	„ „	40						

Model No. 3.38 Tank Lorry



Parts required

2	of No.	1	2	of No.	11	2	of No.	20B	1	of No.	48
8	„ „	2	14	„ „	12	1	„ „	22	1	„ „	48A
3	„ „	3	2	„ „	12A	1	„ „	24	2	„ „	48B
6	„ „	5	2	„ „	15	4	„ „	35	1	„ „	52
1	„ „	6A	1	„ „	15A	60	„ „	37	2	„ „	53
2	„ „	8	4	„ „	19B	1	„ „	37A	2	„ „	54
						4	„ „	38	4	„ „	59

3	of No.	90A	
1	„ „	98	
2	„ „	111C	
4	„ „	125	
2	„ „	126	
1	„ „	162	

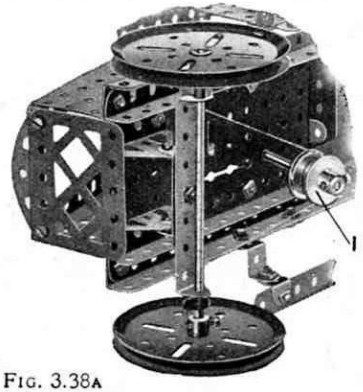


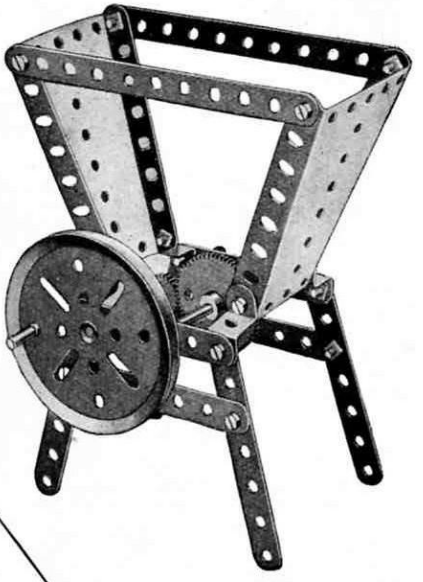
FIG. 3.38A

It should be noted that the steering cord is given a complete turn around the two ¾" Flanged Wheels 1 to prevent slipping. The steering column 2 is journalled in the end of a 1½" Strip, the other end of which is bolted to a 2½" × ½" Double Angle Strip secured between the two Sector Plates 3. The front road wheels are secured to a 5" Rod that is journalled in the end holes of a 3½" × ½" Double Angle Strip. The ends of the steering cord are tied to this Strip, which is pivoted by means of a Bolt and Lock-nuts (S.M. 263) to the central hole of a 1½" × ½" Double Angle Strip. The latter is bolted between a pair of Trunnions attached to the underside of the 5½" × 2½" Flanged Plate. The tank 4 merely rests on the 5½" Strips 5.

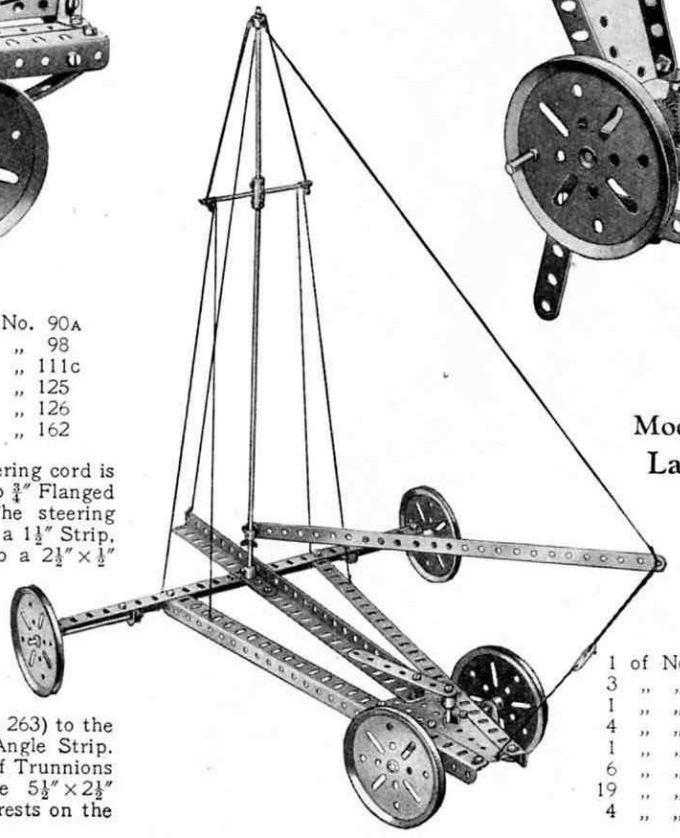
Model No. 3.39 Coffee Grinder

Parts required :

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



Model No. 3.40 Land Yacht



Parts required :

1	of No.	1	1	of No.	40
1	„ „	3	1	„ „	45
4	„ „	8	2	„ „	48A
1	„ „	10	1	„ „	48B
1	„ „	13	1	„ „	54
1	of No.	15	4	„ „	59
3	„ „	16	2	„ „	62
1	„ „	18A	1	„ „	63
4	„ „	19B	2	of No.	111
1	„ „	24			
6	„ „	35			
19	„ „	37			
4	„ „	37A			

Model No. 3.41 Fire Truck

The front axle is journalled in a 2½" Double Angle Strip that is pivoted through its centre hole to a Double Bent Strip secured to the Flanged Plate 15. Steering is effected from the Pulley 13 secured on a 3½" Rod that is passed through the 3½" × 2½" Flanged Plate 16, and held in position by Collars. On the lower end of the Rod is a Bush Wheel 14, which is connected to the pivoted Double Angle Strip by cords tied to opposite holes in the Bush Wheel and to the ends of the Double Angle Strip.

The lower part of the escape is mounted pivotally on Bolts 10 passed through the upturned ends of a 2½" × 1" Double Angle Strip that is bolted to a 3½" × ½" Double Angle Strip which, in turn, is supported on two vertical 2½" × ½" Double Angle Strips. The upper or moving portion of the escape slides between the 12½" Angle Girders 9 and is held freely in position by the Nuts of the Bolts 11.

The ladder is extended from the Crank Handle 2 (Fig. 3.41A) that is journalled in a 2½" × ½" Double Angle Strip bolted to a 5½" Strip that, in turn, is bolted across the flanges of the Sector Plates. A Cord 7 is wound on to the Crank Handle and one of its ends is tied to a 2½" Strip that spans the inner end of the 12½" Strips forming the sides of the extending ladder. Its other end 7A is then led towards the outer end of the fixed ladder, round a ½" loose Pulley held on a bolt in the centre hole of a 2½" Double Angle Strip that spans the outer ends of the 12½" Girders 9, and finally is tied to the same 2½" Strip to which the end 7 is already attached. Thus by turning the Handle 2 the escape is pulled inward or outward.

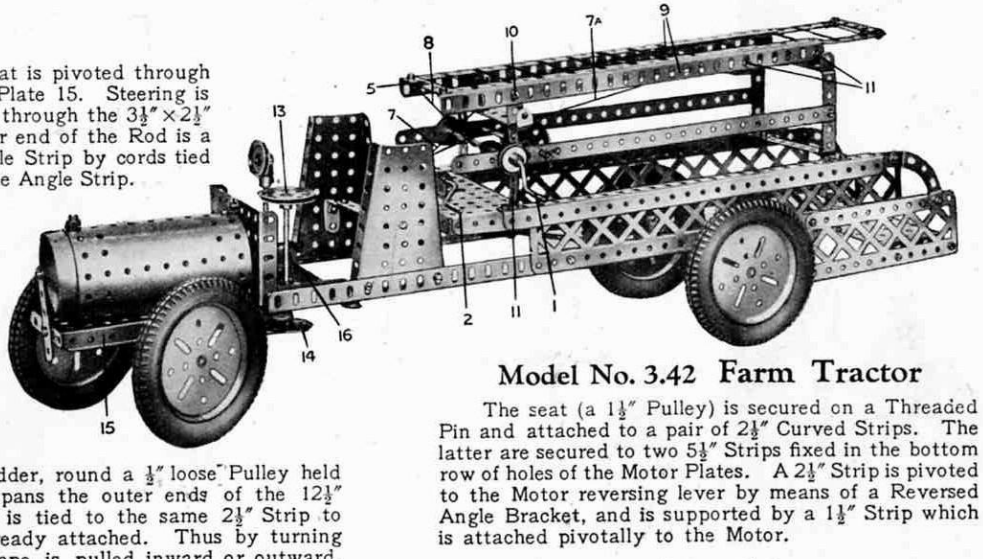
The Crank Handle 1 carries a ½" Pinion 3 that engages a 57-teeth Gear 4 secured to a Rod 12. A Cord 8 is wound a few turns round the Rod 12 and is then led to the 2½" Strip 5 where it is secured. By turning the Crank Handle the Cord is wound in, thus raising the pivoted escape. On turning the Handle in the opposite direction, the escape is lowered by its own weight.

FIG. 3.41A

Parts required :

4	of No.	1	3	of No.	20B	2	of No.	48B
6	" "	2	1	" "	21	2	" "	52
3	" "	3	2	" "	22	2	" "	53
4	" "	5	1	" "	23	2	" "	54
8	" "	8	1	" "	24	4	" "	59
4	" "	11	1	" "	26	1	" "	63
1	" "	12	1	" "	27A	2	" "	90A
2	" "	12A	4	" "	35	2	" "	99
2	" "	15	87	" "	37	2	" "	100
2	" "	15A	8	" "	37A	4	" "	111C
2	" "	16	10	" "	38	2	" "	126A
1	" "	18A	2	" "	40	1	" "	162A
1	" "	19	1	" "	45	1	" "	162B
1	" "	19S	1	" "	46	1	" "	165
4	" "	19B	8	" "	48A			

4 3" Dunlop Tyres (not included in Outfit)



Model No. 3.42 Farm Tractor

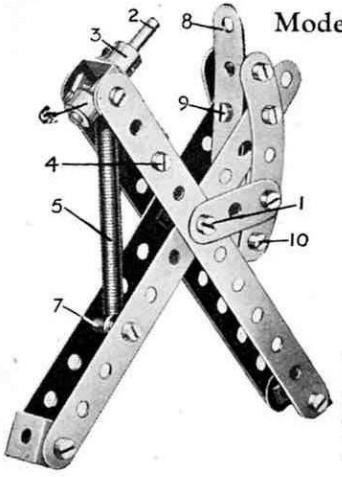
The seat (a 1½" Pulley) is secured on a Threaded Pin and attached to a pair of 2½" Curved Strips. The latter are secured to two 5½" Strips fixed in the bottom row of holes of the Motor Plates. A 2½" Strip is pivoted to the Motor reversing lever by means of a Reversed Angle Bracket, and is supported by a 1½" Strip which is attached pivotally to the Motor.

Parts required :

2	of No.	2	4	of No.	11	1	of No.	17	1	of No.	27A
5	" "	5	5	" "	12	2	" "	19B	1	" "	32
1	" "	6A	1	" "	15	2	" "	20A	28	" "	37
2	" "	10	2	" "	16	1	" "	21	7	" "	37A
						1	" "	22	5	" "	38
						1	" "	24	1	" "	48A
						2	" "	26	2	" "	59
									1	" "	63
									4	" "	90A
									2	" "	111
									1	" "	111C
									1	" "	115
									1	" "	125

Clockwork Motor (not included in Outfit)

Model No. 3.43 Hand Punch

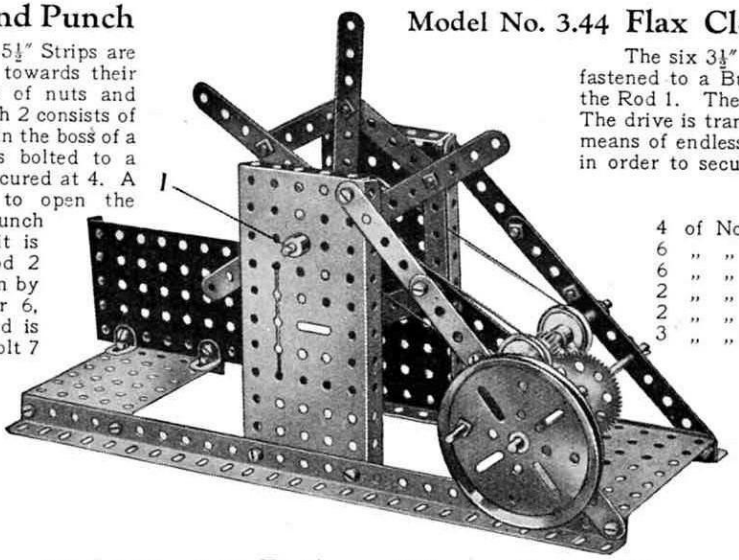


Two pairs of 5½" Strips are connected loosely towards their centres by means of nuts and bolts 1. The punch 2 consists of a 1½" Rod secured in the boss of a Crank 3, which is bolted to a Double Bracket secured at 4. A Spring 5 serves to open the handles after the punch has been used; it is placed on the Rod 2 and held in position by means of a Collar 6, while its other end is attached to a ⅜" Bolt 7 passed through one pair of 5½" Strips. After passing through the paper the punch enters the end hole of a 3" Strip 8. The latter is bolted at 9 to a Double Bracket, while its other end passes beneath a similar bracket at 10.

Parts required:

4	of No.	2	4	of No.	12	1	of No.	59
1	„ „	5	1	„ „	18A	1	„ „	62
2	„ „	6A	21	„ „	37	2	„ „	90
4	„ „	11	3	„ „	37A	1	„ „	111c
			1	„ „	43			

Model No. 3.44 Flax Cleaner



The six 3½" Strips forming the rotating frame are fastened to a Bush Wheel that in turn is attached to the Rod 1. The 3½" Strips are braced by six 2½" Strips. The drive is transmitted from the operating shaft by means of endless cords. Two separate cords are used in order to secure a more positive drive.

Parts required:

4	of No.	2	1	of No.	19B	34	of No.	37
6	„ „	3	4	„ „	22	3	„ „	38
6	„ „	5	1	„ „	24	2	„ „	52
2	„ „	8	1	„ „	26	3	„ „	53
2	„ „	12	1	„ „	27A	4	„ „	59
3	„ „	15A	1	„ „	35	1	„ „	115

Model No. 3.45 Railway Wagon Swivel Crane

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 (Fig. 3.45A). In order to bring the Worm centrally over the teeth of the Gear Wheel 4, Washers are placed beneath the Angle Brackets 5 in which the spindle of the Worm is journalled.

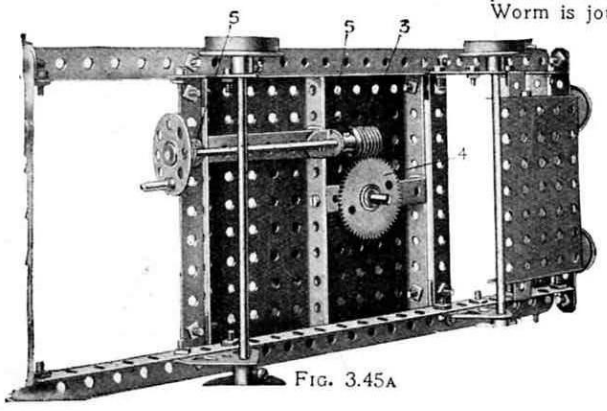
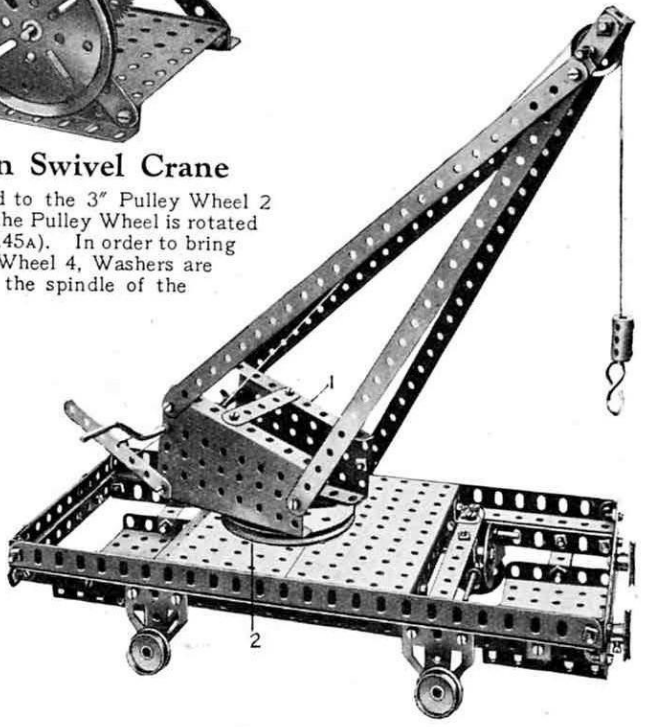


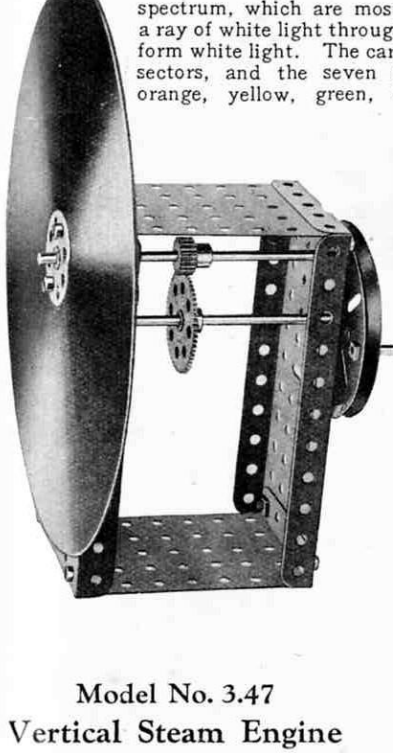
FIG. 3.45A

Parts required:

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



Model No. 3.46 Newton's Disc



This model demonstrates that the colours of the spectrum, which are most simply produced by directing a ray of white light through a prism, can be re-combined to form white light. The cardboard disc is divided into equal sectors, and the seven colours of the spectrum—red, orange, yellow, green, blue, indigo, and violet—are painted on separate sectors. If the disc is rotated at a high speed by means of the hand wheel and the gears shown, the disc appears to be of a greyish-white colour.

Parts required :

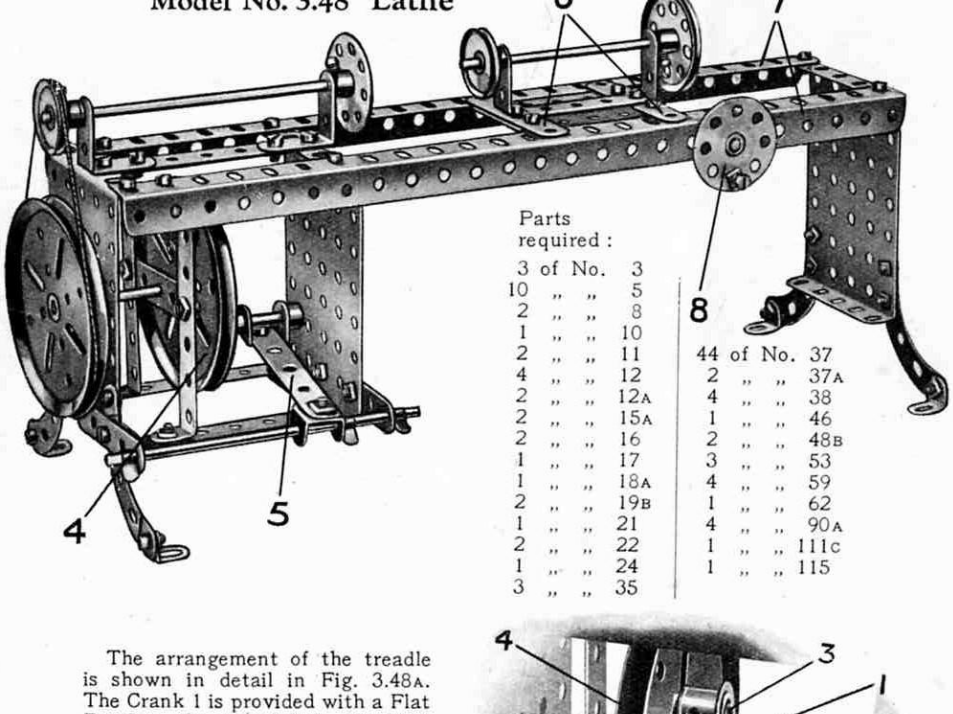
2	of	No.	15	10	of	No.	37
1	„	„	19B	1	„	„	38
1	„	„	24	2	„	„	52
1	„	„	26	2	„	„	53
1	„	„	27A	2	„	„	59
1	of No. 115						

Model No. 3.47 Vertical Steam Engine

Parts required :

2	of	No.	12	2	of	No.	38
1	„	„	16	1	„	„	45
1	„	„	17	1	„	„	52
1	„	„	19B	1	„	„	59
2	„	„	20B	1	„	„	115
3	„	„	22	1	„	„	162
1	„	„	24	1	„	„	163
9	„	„	37	1	„	„	164
1	of No. 166						

Model No. 3.48 Lathe



Parts required :

3	of	No.	3	44	of	No.	37
10	„	„	5	2	„	„	37A
2	„	„	8	4	„	„	38
1	„	„	10	1	„	„	46
2	„	„	11	2	„	„	48B
4	„	„	12	3	„	„	53
2	„	„	12A	4	„	„	59
2	„	„	15A	1	„	„	62
2	„	„	16	4	„	„	90A
1	„	„	17	1	„	„	111C
1	„	„	18A	1	„	„	115
2	„	„	19B				
1	„	„	21				
2	„	„	22				
1	„	„	24				
3	„	„	35				

The arrangement of the treadle is shown in detail in Fig. 3.48A. The Crank 1 is provided with a Flat Bracket, the round hole of which coincides with the elongated hole of the Crank, and receives the short Rod 2. The Crank 1 is free to turn about a Threaded Pin 3, secured to the 3" Pulley Wheel 4, and once the latter is set in motion it can be kept in rotation by working the treadle 5. The Strips 6 of the saddle (Fig. 3.48) are duplicated and their ends form slots to receive the flanges of the Angle Girders 7. The hand wheel 8 is a dummy one, but if desired it may be arranged to operate the saddle by an endless rope device.

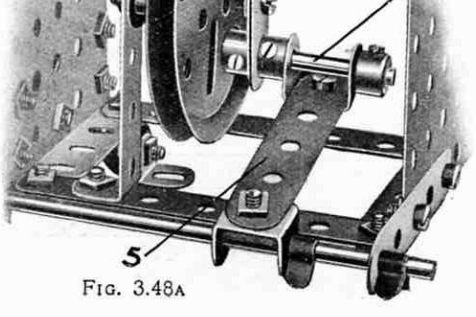
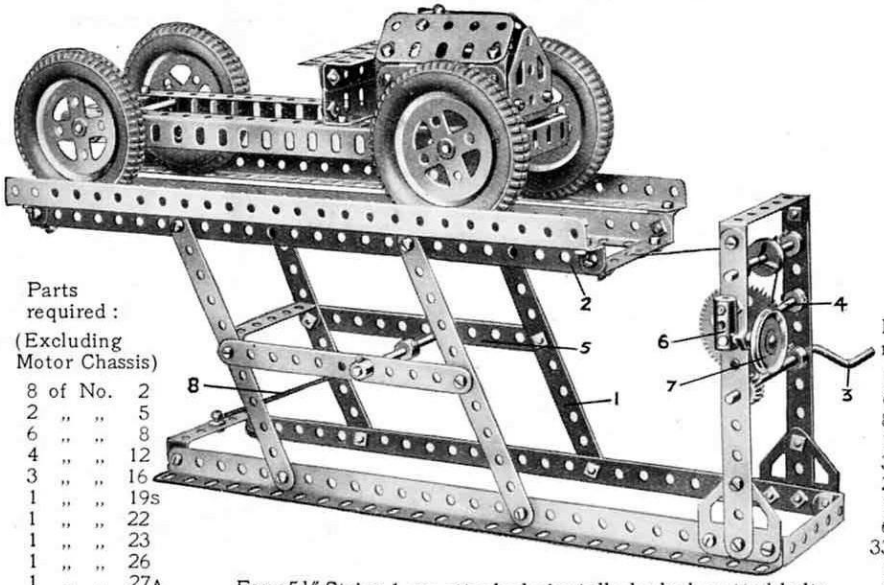


FIG. 3.48A

Model No. 3.49 Car Lifting Apparatus

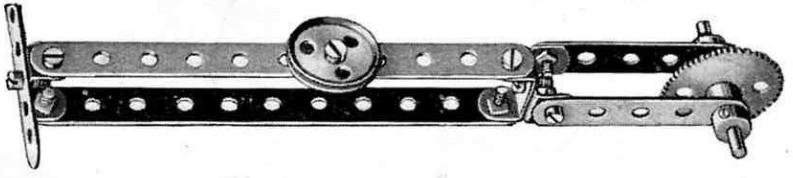


Parts required :
(Excluding Motor Chassis)

8	of	No.	2
2	„	„	5
6	„	„	8
4	„	„	12
3	„	„	16
1	„	„	19s
1	„	„	22
1	„	„	23
1	„	„	26
1	„	„	27A
5	„	„	35
36	„	„	37
12	„	„	37A
4	„	„	48A
4	„	„	59
1	„	„	63
2	„	„	115
2	„	„	126A

Four 5½" Strips 1 are attached pivotally by lock-nutted bolts to the 12½" Angle Girders, which form the base of the model, and to the carrier 2, which receives the car. The Crank Handle 3 carries a ½" Pinion meshing with a 57-teeth Gear on the Rod 4, which forms a drum for a length of cord attached to the carrier. The Rod runs freely in the transverse hole of a Coupling 6 that is secured to the upright Strip by a ⅜" Bolt. A Threaded Pin carries the 1" Pulley 7 and its shank is inserted in the tapped hole of the Coupling, so that when the Pulley is rotated clockwise the Pin nips the Rod. The carrier 2 is returned to its original position by a length of elastic or Spring Cord 8.

Model No. 3.50 Pastry Designer

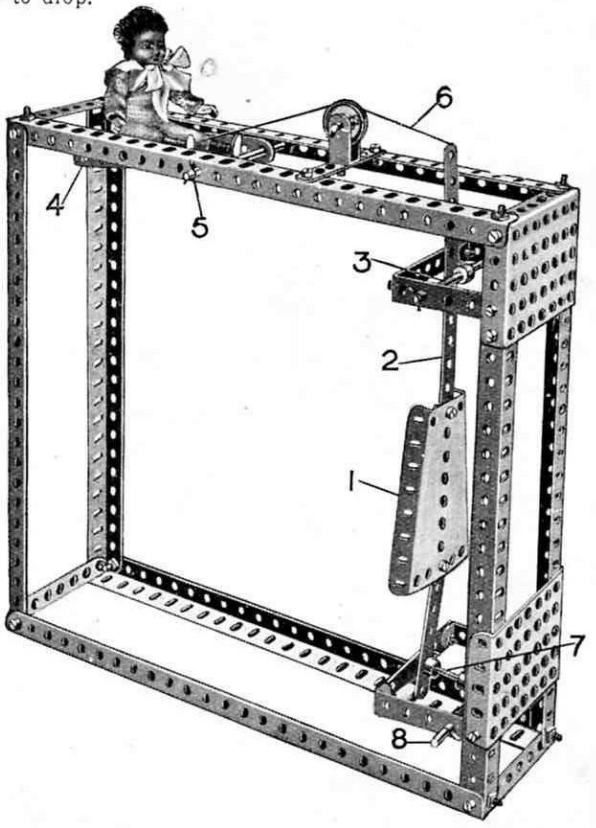


Parts required :

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

Model No. 3.51 Drop the Nigger

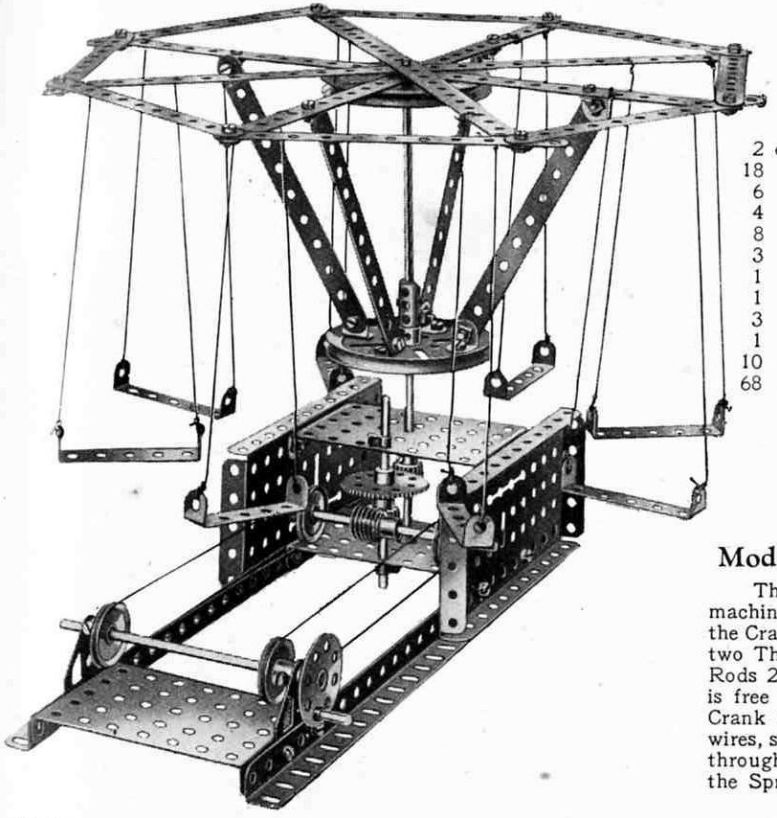
The Sector Plate 1 is a target, which, when hit, allows the nigger to be dropped. The Plate 1 is carried on the Strip 2 pivoted at 3, and the weight of the nigger supported on another Sector Plate 4 pivoted at 5 by means of the cord 6 keeps the lower end of the Strip 2 hard against a short Rod 7 pivoted 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.



Parts required :

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

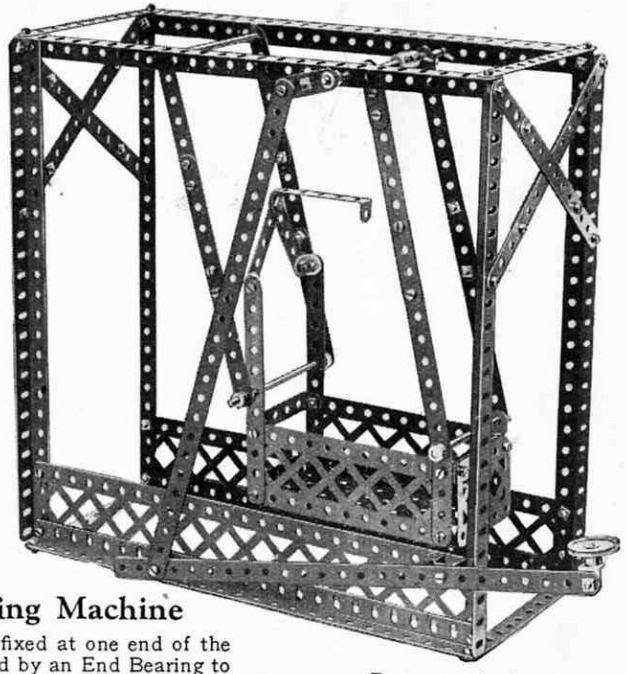
Model No. 3.52 Roundabout



Parts required :

4	of	No.	1	2	of	No.	19B	36	of No. 37
12	„	„	2	4	„	„	22	8	„ „ 48A
2	„	„	8	1	„	„	24	2	„ „ 52
8	„	„	12	2	„	„	26	3	„ „ 53
1	„	„	15	1	„	„	27A	2	„ „ 59
3	„	„	15A	1	„	„	32	1	„ „ 63
1	„	„	16	2	„	„	35	1	„ „ 115
								2	„ „ 126A

Model No. 3.53 Swing Boat

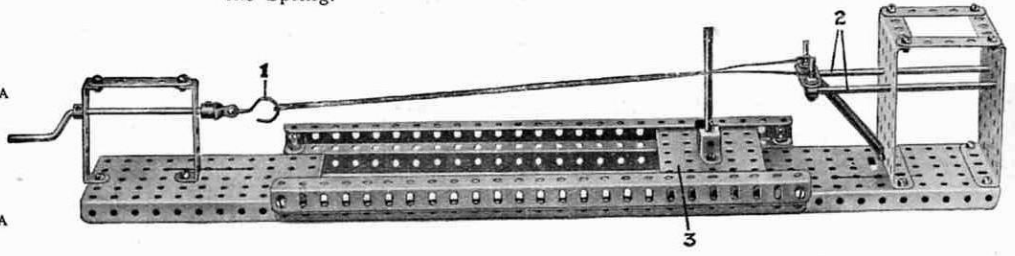


Parts required :

2	of	No.	1	6	of	No.	37A		
18	„	„	2	8	„	„	38		
6	„	„	3	1	„	„	45		
4	„	„	5	3	„	„	48A		
8	„	„	8	1	„	„	52		
3	„	„	12	4	„	„	59		
1	„	„	15	2	„	„	62		
1	„	„	15A	1	„	„	63		
3	„	„	16	1	„	„	98		
1	„	„	22	2	„	„	99		
10	„	„	35	2	„	„	100		
68	„	„	37	4	„	„	111c		

Model No. 3.54 Flex Making Machine

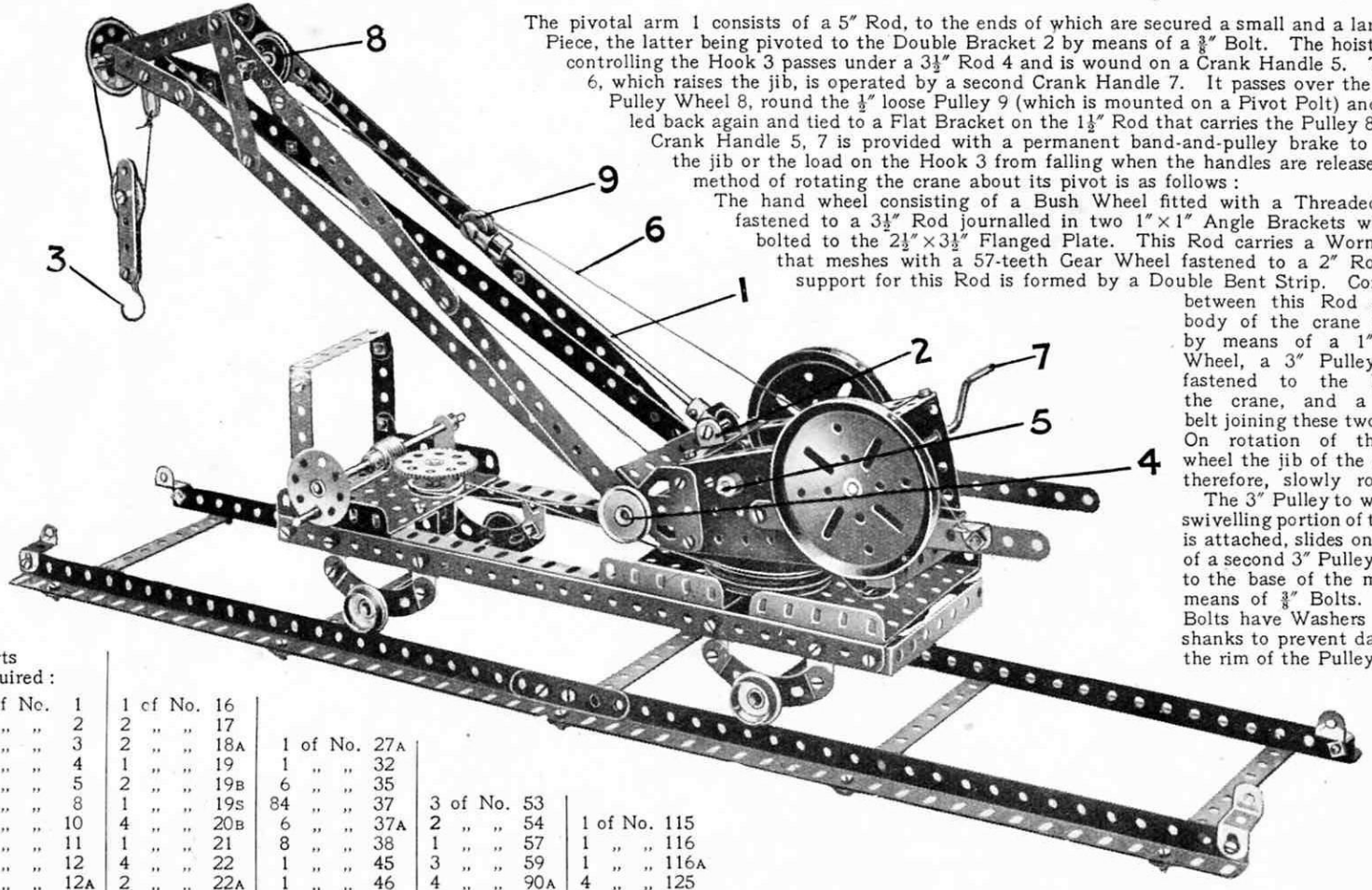
The two wires to be twisted are fixed at one end of the machine to a Hook 1 which is attached by an End Bearing to the Crank Handle. At the other end the wires are looped over two Threaded Pins fixed by Collars to the spring controlled Rods 2. The 3½" × 2½" Flanged Plate 3 carrying a 3½" Rod is free to slide in the built-up channel girders, and as the Crank Handle is turned it is pushed ahead of the twisting wires, so keeping the finished flex even. As the wires shorten through twisting, the Rods 2 slide longitudinally, extending the Spring.



Parts required :

3	of	No.	5	1	of	No.	19S		
1	„	„	6A	2	„	„	35		
4	„	„	8	32	„	„	37		
4	„	„	12	2	„	„	38		
2	„	„	15A	1	„	„	43		
1	„	„	16	1	„	„	45		
				2	„	„	48A		
				2	„	„	52		
				3	„	„	53		
				1	„	„	57		
				3	„	„	59		
				2	„	„	115		
				1	„	„	166		

Model No. 3.55 Railway Breakdown Crane



The pivotal arm 1 consists of a 5″ Rod, to the ends of which are secured a small and a large Fork Piece, the latter being pivoted to the Double Bracket 2 by means of a ⅜″ Bolt. The hoisting cord controlling the Hook 3 passes under a 3½″ Rod 4 and is wound on a Crank Handle 5. The cord 6, which raises the jib, is operated by a second Crank Handle 7. It passes over the 1″ loose Pulley Wheel 8, round the ½″ loose Pulley 9 (which is mounted on a Pivot Polt) and is then led back again and tied to a Flat Bracket on the 1½″ Rod that carries the Pulley 8. Each Crank Handle 5, 7 is provided with a permanent band-and-pulley brake to prevent the jib or the load on the Hook 3 from falling when the handles are released. The method of rotating the crane about its pivot is as follows :

The hand wheel consisting of a Bush Wheel fitted with a Threaded Pin is fastened to a 3½″ Rod journalled in two 1″×1″ Angle Brackets which are bolted to the 2½″×3½″ Flanged Plate. This Rod carries a Worm Wheel that meshes with a 57-teeth Gear Wheel fastened to a 2″ Rod. The support for this Rod is formed by a Double Bent Strip. Connection between this Rod and the body of the crane is made by means of a 1″ Pulley Wheel, a 3″ Pulley Wheel fastened to the base of the crane, and a crossed belt joining these two wheels. On rotation of the hand wheel the jib of the crane is, therefore, slowly rotated.

The 3″ Pulley to which the swivelling portion of the crane is attached, slides on the rim of a second 3″ Pulley secured to the base of the model by means of ⅜″ Bolts. These Bolts have Washers on their shanks to prevent damage to the rim of the Pulley.

Parts required :

2	of No.	1	1	of No.	16										
11	„ „	2	2	„ „	17										
2	„ „	3	2	„ „	18A	1	of No.	27A							
2	„ „	4	1	„ „	19	1	„ „	32							
12	„ „	5	2	„ „	19B	6	„ „	35							
6	„ „	8	1	„ „	19S	84	„ „	37	3	of No.	53				
10	„ „	10	4	„ „	20B	6	„ „	37A	2	„ „	54	1	of No.	115	
2	„ „	11	1	„ „	21	8	„ „	38	1	„ „	57	1	„ „	116	
3	„ „	12	4	„ „	22	1	„ „	45	3	„ „	59	1	„ „	116A	
2	„ „	12A	2	„ „	22A	1	„ „	46	4	„ „	90A	4	„ „	125	
1	„ „	15	1	„ „	23	3	„ „	48A	1	„ „	111	2	„ „	126A	
3	„ „	15A	1	„ „	24	2	„ „	48B	6	„ „	111C	1	„ „	147B	

Model No. 3.56 Paddle Steamer

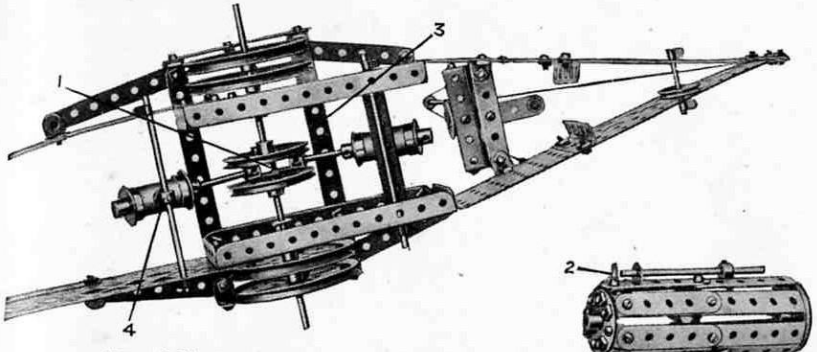


FIG. 3.56A

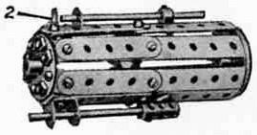


FIG. 3.56B

Parts required:

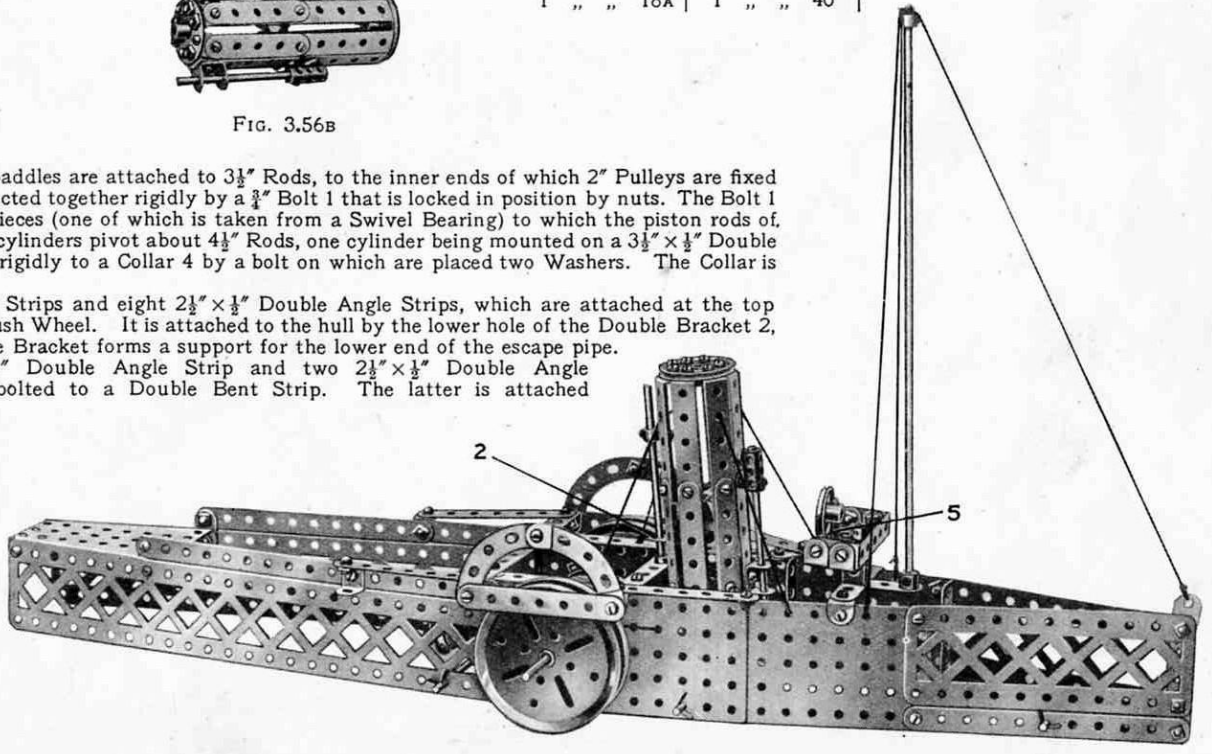
6	of No.	2	4	of No.	19B	1	of No.	45	4	of No.	90A
6	„ „	3	2	„ „	20A	1	„ „	46	2	„ „	99
2	„ „	4	4	„ „	20B	10	„ „	48A	2	„ „	100
10	„ „	5	1	„ „	21	1	„ „	48B	2	„ „	111
5	„ „	10	1	„ „	22	2	„ „	52	1	„ „	115
4	„ „	11	1	„ „	22A	2	„ „	53	1	„ „	116A
14	„ „	12	1	„ „	24	1	„ „	54	2	„ „	125
1	„ „	13	6	„ „	35	4	„ „	59	2	„ „	163
2	„ „	15A	93	„ „	37	1	„ „	62	1	„ „	165
4	„ „	16	4	„ „	37A	1	„ „	63			
2	„ „	17	14	„ „	38						
1	„ „	18A	1	„ „	40						

The 3″ Pulley Wheels forming the paddles are attached to 3½″ Rods, to the inner ends of which 2″ Pulleys are fixed (Fig. 3.56A), and the 2″ Pulleys are connected together rigidly by a ¾″ Bolt 1 that is locked in position by nuts. The Bolt 1 forms also a pivot for two small Fork Pieces (one of which is taken from a Swivel Bearing) to which the piston rods of the oscillating cylinders are fixed. The cylinders pivot about 4½″ Rods, one cylinder being mounted on a 3½″ × ½″ Double Angle Strip while the other is attached rigidly to a Collar 4 by a bolt on which are placed two Washers. The Collar is secured, of course, to the Rod.

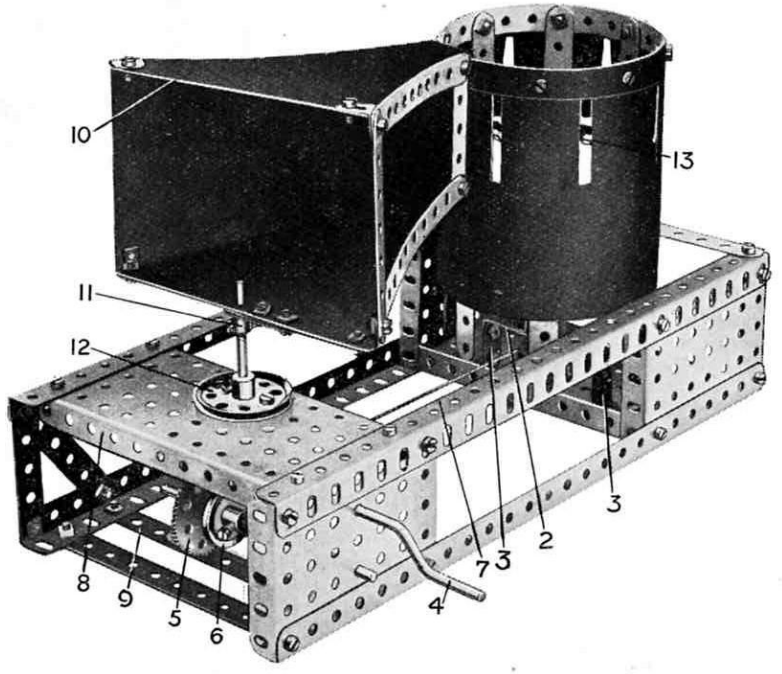
The funnel is built up of eight 2½″ Strips and eight 2½″ × ½″ Double Angle Strips, which are attached at the top to a 1½″ Pulley and at the bottom to a Bush Wheel. It is attached to the hull by the lower hole of the Double Bracket 2, Fig. 3.56B. The top hole of this Double Bracket forms a support for the lower end of the escape pipe.

The bridge consists of a 2½″ × 1″ Double Angle Strip and two 2½″ × ½″ Double Angle Strips, and the complete assembly is bolted to a Double Bent Strip. The latter is attached to a transverse 2½″ Strip. The bolt holding the bridge to the 2½″ Strip serves also to retain a Crank in which the foot of the mast is secured.

The steering wheel 5 consists of a 1″ fast Pulley mounted by its set-screw hole on the end of a ¾″ Bolt that is secured to the floor of the bridge. The binnacle is merely a Threaded Pin on which is fixed a Collar.



Model No. 3.57 Kinetograph



Most Meccano boys probably are aware of the principles of the Kinetograph, but for the benefit of those who have not seen one in action, we may mention that it is a device which imparts an appearance of animation to a series of pictures, each differing slightly from the other and passed in rapid succession before the eyes. In this respect it resembles the remarkable principle upon which the modern cinematograph is based.

In constructing the Meccano model the following details will prove useful:—The drum consists of a 12½" Strip bent to form a circle, with its ends overlapping one hole, and bolted to eight vertical 5½" Strips forming the sides. Two pairs of opposite 5½" Strips are connected by 3½" Strips and Angle Brackets bolted in the third holes from their lower ends. The 3½" Strips cross at right angles to one another and are bolted in the centre to a Bush Wheel, in the boss of which is secured a short Rod forming the pivot of the revolving drum. This Rod is journalled in a Double Bent Strip bolted to a 2½"×1" Double Angle Strip 2. This, in turn, is secured to the base of the model by two 1"×1" Angle Brackets 3. A further bearing for the short Rod consists of a Crank bolted to the base of the model.

The drum is rotated from the Crank Handle 4, on which is mounted a ½" Pinion engaging a 57-teeth Gear Wheel 5 secured to a 3½" Rod carrying a Pulley Wheel 6. The latter is connected by means of a cord 7 to a similar wheel nipped to the vertical spindle of the drum. Bearings are provided for the inner ends of the Crank Handle and 3½" Rod by a Double Angle Strip bolted between the Plate 8 and 5½" Strip 9. The sighting box 10 is built up from a framework of Strips and is secured by means of a Crank 11 to a short vertical Rod rigidly mounted in the boss of the 1½" Pulley 12. The four sides of the framework 10 are covered with some black material; stiff black paper suitable for this purpose may be obtained from any stationers. The drum is enclosed in the same way, but the covering paper should be cut in a strip measuring 12½"×4½" and pierced with slots spaced 1½" apart (from centre to centre) so that they fall exactly between the upright 5½" Strips. The slots should measure 1½"×¼".

The type of drawing suitable for use in this model is shown in Fig. 3.57A, and the dimensions indicated therein should be followed carefully. No doubt Meccano boys will be able to devise numerous amusing pictures of a similar kind for themselves. The strip of stout white paper carrying the sketches is inserted in the bottom of the drum, as indicated at 13. The model is now ready for operation. Placing the frame 10 over the eyes, the line of vision is directed through the narrow end, where the Strips are held apart by means of Double Brackets, and through the slots in the drum. The latter should be rotated rapidly by operating the handle 4, and as it revolves, the little dog shown in Fig. 3.57A will be seen jumping over the fence with a most realistic and amusing action.

Parts required:

1 of No. 1	1 of No. 15A	12 of No. 38
17 „ „ 2	2 „ „ 16	1 „ „ 45
6 „ „ 3	1 „ „ 19S	1 „ „ 46
1 „ „ 4	1 „ „ 21	1 „ „ 48A
3 „ „ 5	2 „ „ 22	2 „ „ 52
4 „ „ 8	1 „ „ 24	3 „ „ 53
2 „ „ 11	1 „ „ 26	4 „ „ 59
12 „ „ 12	1 „ „ 27A	2 „ „ 62
2 „ „ 12A	60 „ „ 37	

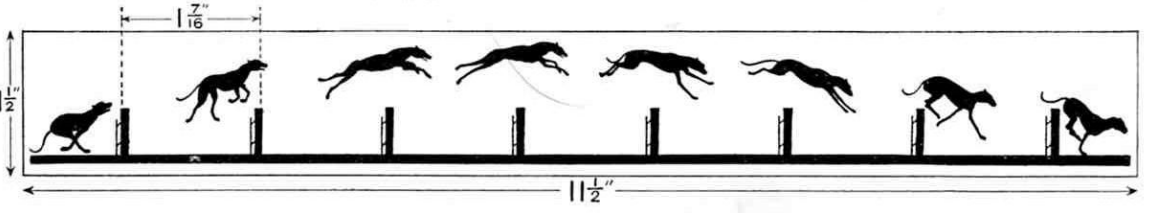
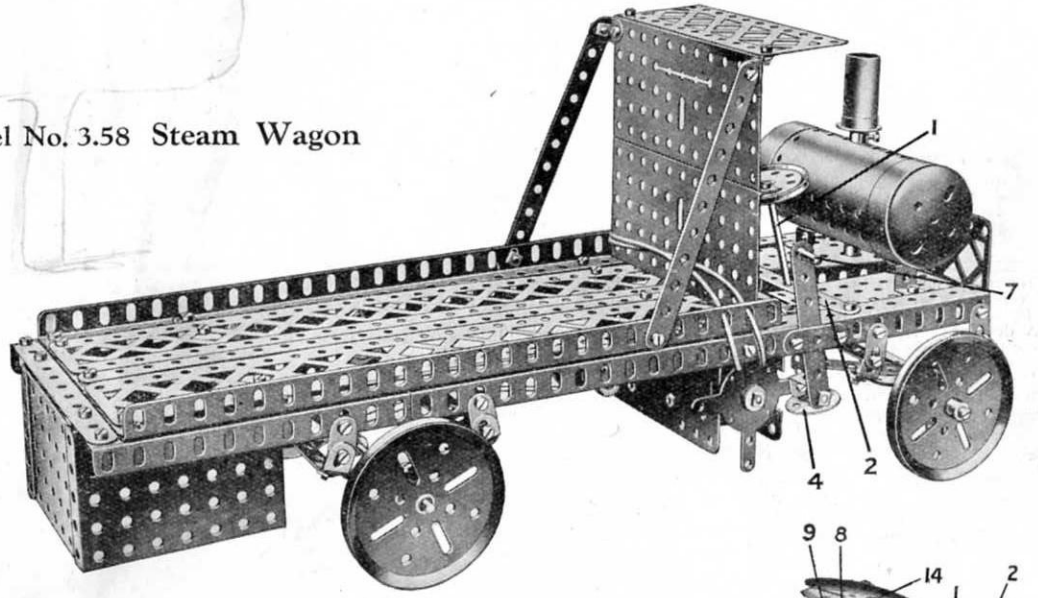


Fig. 3.57A

Model No. 3.58 Steam Wagon



Parts required :

14	of	No.	2	4	of	No.	19B	2	of	No.	54
6	„	„	3	3	„	„	20B	4	„	„	59
6	„	„	5	1	„	„	21	2	„	„	62
2	„	„	6A	4	„	„	22	1	„	„	63
6	„	„	8	1	„	„	23	2	„	„	99
8	„	„	10	1	„	„	24	2	„	„	100
3	„	„	11	1	„	„	26	2	„	„	111
10	„	„	12	79	„	„	37	1	„	„	115
2	„	„	12A	10	„	„	38	4	„	„	125
1	„	„	15	2	„	„	48B	1	„	„	147B
3	„	„	16	2	„	„	52	1	„	„	162
2	„	„	18A	3	„	„	53	1	„	„	163

Electric Motor
(not included in Outfit)

The steering column 1 is journalled in bearings consisting of a 5½″ Strip 2 and two 2½″ Strips 3 (Fig. 3.58A), and carries the Bush Wheel 4, which is secured rigidly to it. A ¾″ Flanged Wheel 5 supports the weight of the steering column 1. The stub axles of the front road wheels consist of ¾″ Bolts, on which the road wheels are spaced by Washers 14. These Bolts serve in the place of set screws to secure two collars to the 1″ Rods 8. A pair of Cranks 9, 9a secured to the Rods 8 are joined by two 5½″ Strips 15 overlapped eight holes. A 1½″ Strip 10, bolted to the face of the Bush Wheel 4, is connected pivotally by a composite 4½″ Strip 11 (a 3½″ Strip and a 2½″ Strip overlapped three holes) to the end of the Crank 9. When the steering wheel is turned, the Strip 11 moves the Cranks 9 9a, thereby deflecting the front road wheels.

The electric motor 6 is controlled by raising and depressing the handle 7. Duplicate drive transmission belts 12 and 13 are used in order to secure a more dependable drive to the rear axle.

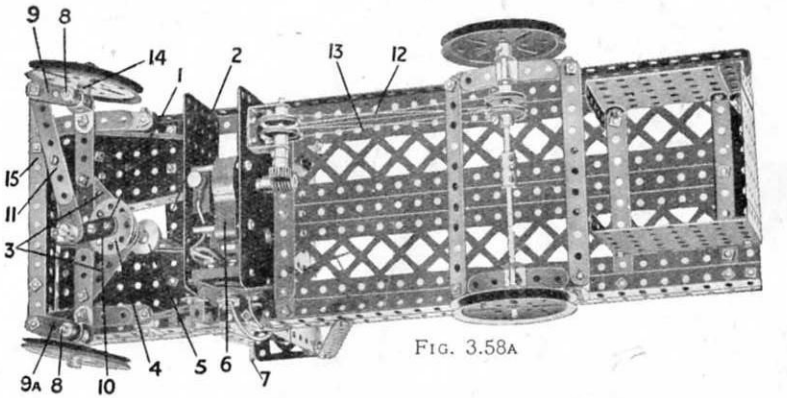
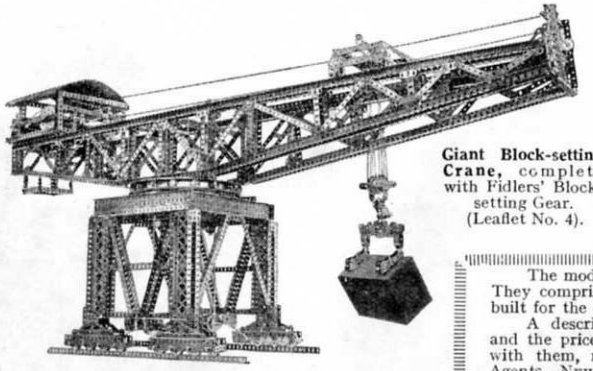


FIG. 3.58A

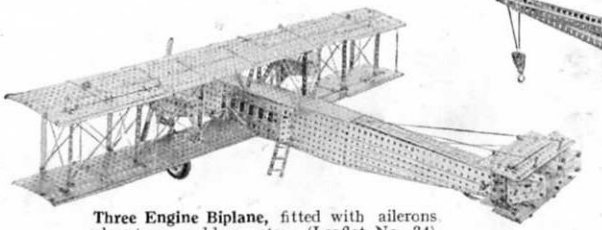
HOW TO CONTINUE

This completes our examples of models that 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 this Manual.

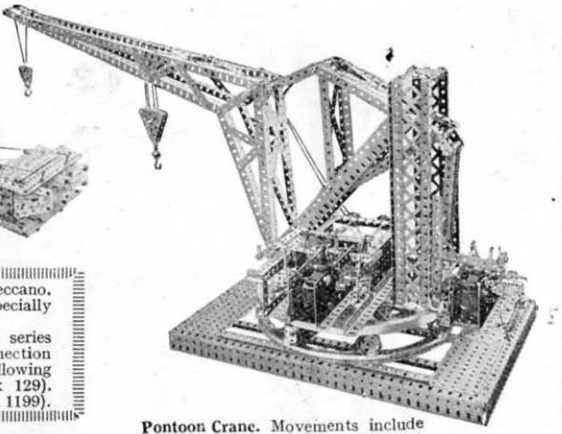
A Selection of Meccano Super Models



Giant Block-setting Crane, complete with Fidlers' Block-setting Gear. (Leaflet No. 4).



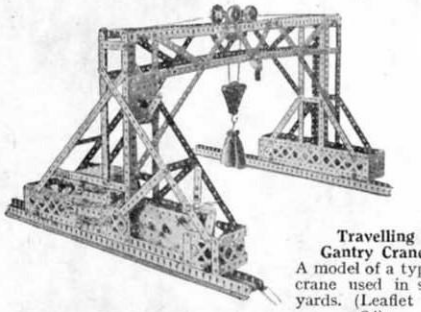
Three Engine Biplane, fitted with ailerons elevators, rudders, etc. (Leaflet No. 34).



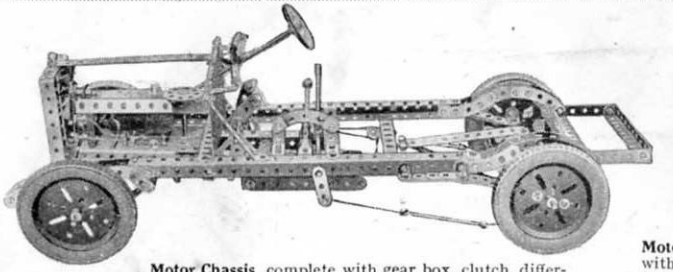
Pontoon Crane. Movements include hoisting, luffing and slewing. (Leaflet No. 28).

The models illustrated on this page show the wonderful possibilities of Meccano. They comprise a selection from a range of super models that have been specially built for the delight of Meccano boys.

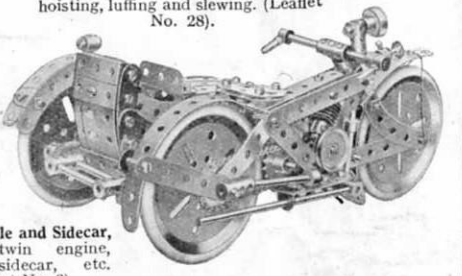
A descriptive leaflet giving full particulars of all the models in the series and the prices of the special Instruction Leaflets that are published in connection with them, may be obtained from your dealer or direct from the following Agents—NEW ZEALAND: Models Ltd., Kingston Street, Auckland (P.O. Box 129). SOUTH AFRICA: Arthur E. Harris, 142, Market Street, Johannesburg (P.O. Box 1199).



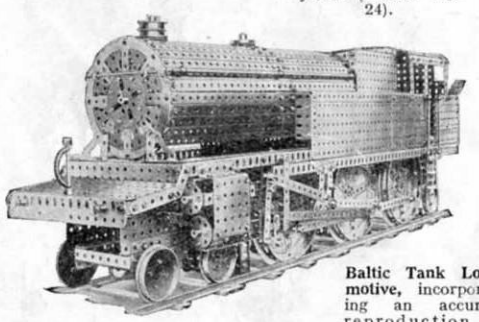
Travelling Gantry Crane. A model of a type of crane used in shipyards. (Leaflet No. 24).



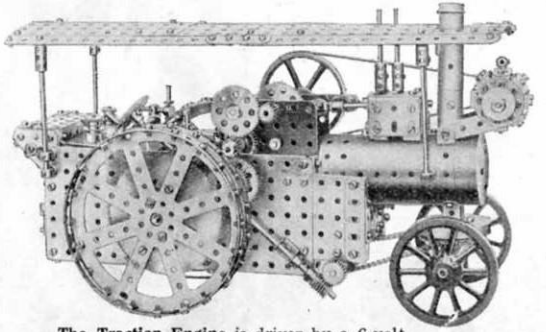
Motor Chassis, complete with gear box, clutch, differential, internal expanding brakes, etc. (Leaflet No. 1).



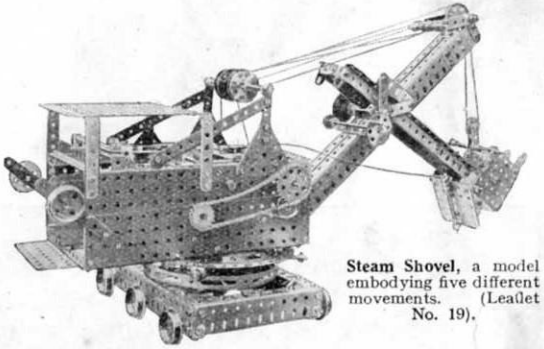
Motor Cycle and Sidecar, with V-twin engine, sprung sidecar, etc. (Leaflet No. 3).



Baltic Tank Locomotive, incorporating an accurate reproduction of Walschaerts' valve gear. (Leaflet No. 15).



The Traction Engine is driven by a 6-volt Motor and will haul 140 lbs. (Leaflet No. 22).



Steam Shovel, a model embodying five different movements. (Leaflet No. 19).

MECCANO ACCESSORY OUTFITS

The Purpose of Meccano Accessory Outfits

Meccano Accessory Outfits connect the main Outfits from No. 00 to No. 7. They may be well described as the stepping stones to bigger and better models. A No. 00 Outfit may be converted into a No. 0 by adding to it a No. 00a Accessory Outfit and a No. 0a would then convert it into a No. 1. In this way, no matter with which Outfit a boy commences, he may build it up by degrees until he possesses all the parts contained in the largest Outfit

How the Accessory Outfits convert Complete Outfits

No.	00a	converts a	No.	00	Outfit	into a	No. 0
„	0a	„	„	0	„	„	„ 1
„	1a	„	„	1	„	„	„ 2
„	2a	„	„	2	„	„	„ 3
„	3a	„	„	3	„	„	„ 4
„	4a	„	„	4	„	„	„ 5
„	5a	„	„	5	„	„	„ 6
„	6a	„	„	6	„	„	„ 7

STORAGE BOXES FOR MECCANO PARTS

No. 2

Dimensions:

Length 14½ ins.
Width 11 ins.
Depth 3¾ ins.

No. 2

These strongly-built and well-finished boxes are specially designed for the purpose of storing Meccano parts. Almost every Meccano boy purchases additional parts from time to time, but there is sometimes difficulty in finding suitable accommodation for them. The Meccano Storage Boxes enable extra parts to be stored neatly and methodically so that they are always easily accessible.

No. 1 STORAGE BOX

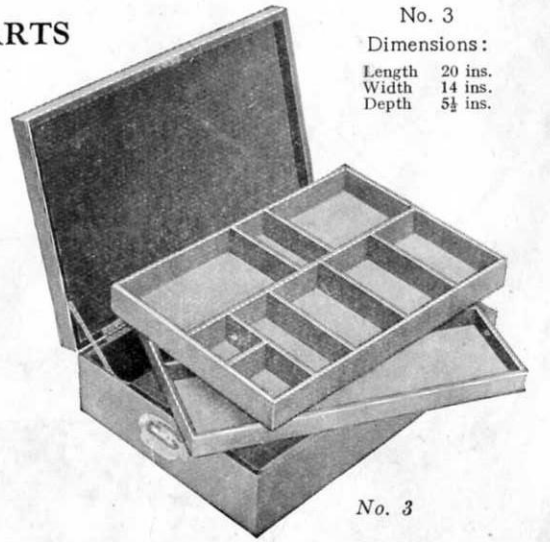
Dimensions: Length 15½ ins. Width 8¾ ins. Depth 2¾ ins. Attractively enamelled in red. Fitted with partitions giving compartments of varying sizes. The lid is hinged and is secured by means of lock and key.

No. 2 STORAGE BOX

Finished as No. 1 Box and provided with lock and key. The tray with which it is fitted enables a much larger quantity of parts to be accommodated.

No. 3 STORAGE BOX

A perfect receptacle for Meccano parts. Finished similarly to the No. 1 and No. 2 boxes and provided with lock and key. Fitted with two partitioned trays



No. 3

Dimensions:

Length 20 ins.
Width 14 ins.
Depth 5½ ins.

No. 3

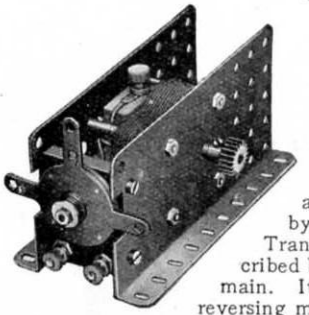
For prices of the above see price list at end of Manual.

MECCANO

POWER UNITS AND ACCESSORIES

In order to obtain the fullest possible enjoyment from the Meccano hobby the models should be operated with a Meccano power unit. The side plates and bases are pierced with the standard Meccano equidistant holes, which enables the motors or steam engine to be built into any Meccano model in the exact position required.

MECCANO ELECTRIC MOTOR No. 6 (6 volts)



The 6-volt Motor is specially designed to build into Meccano models. It may be run from a 6-volt accumulator, or, by employing the Transformer described below, from the main. It is fitted with reversing motion and provided with stopping and starting controls.

IMPORTANT.—The 6-volt Motor will not run satisfactorily from dry cells.

MECCANO ELECTRIC MOTOR No. 20 (20 volts)

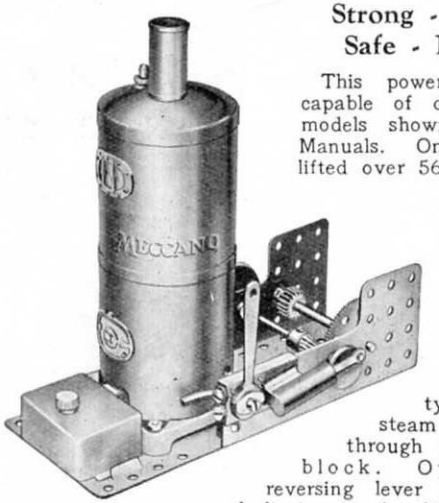
This motor is the same in design as the 6-volt Electric Motor, but instead of being operated from an accumulator it is driven from the electric light main. In the case of alternating current mains it is necessary to use a Transformer giving 25 volts, and in the case of direct current mains a Rotary Converter with an output of 20 volts must be employed. This motor is reversible.

TRANSFORMER

By means of this transformer the Meccano Electric Motor No. 6 (6 volts) may be driven from the house supply (alternating current only). It is available for all standard supply voltages, from 100 to 250 inclusive, at all standard frequencies. The supply voltage and frequency must be specified when ordering. Complete with length of flex and adapter for connection to an ordinary lamp socket.

MECCANO STEAM ENGINE

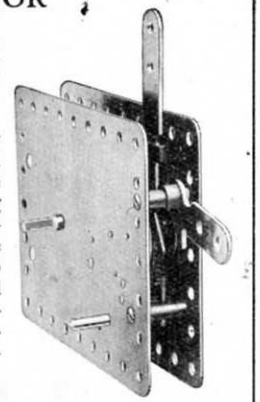
Strong - Powerful
Safe - Reversing



This powerful steam unit is capable of driving any of the models shown in the Meccano Manuals. On actual test it has lifted over 56 lbs. The base and side plates of the engine are drilled with standard Meccano equidistant holes, so that the engine may be built into any model.

A single cylinder of the oscillating type is employed, steam being admitted to it through a special reversing block. Operation of the reversing lever enables the crankshaft to run in either direction. The spirit container for the lamp is placed well outside the boiler-casing, eliminating all risks of the spirit becoming heated. The boiler is fitted with an efficient spring safety valve of heavy gauge brass and there is no danger whatever of the boiler exploding.

MECCANO CLOCKWORK MOTOR



This splendid Motor, which is specially designed for operating Meccano models, is a compact self-contained power unit.

An efficient governor controls the powerful spring that is fitted on the motor and ensures a long steady run at each winding. Brake and reverse levers enable the motor to be stopped, started and reversed as required. Supplied complete with winding key and full instructions.

ACCUMULATORS

6 volts, 20 amps.

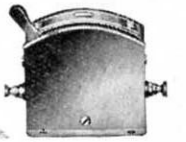
This Meccano Accumulator is of substantial construction and is specially recommended for running the Meccano Electric Motor No. 6.

2 volts, 20 amps.

This 2-volt 20-amp. Accumulator is supplied for converting 4-volt Accumulators to 6 volts.

MECCANO RESISTANCE CONTROLLER

By employing this variable resistance the speed of the Meccano Electric Motor No. 6 (6 volts) may be regulated as desired. The controller is connected in series with the motor and accumulator, or with the motor and transformer if a transformer is used as the source of power. It will not regulate the speed of a high-voltage motor connected to the main.



For prices of the above see price list at end of Manual.

A Selection of Meccano Standard Mechanisms

Here are a few simple and interesting movements showing how easily real mechanisms can be reproduced with Meccano. They are a selection from the "Meccano Standard Mechanisms" Manual, which is fully described on page 2 of this Manual.

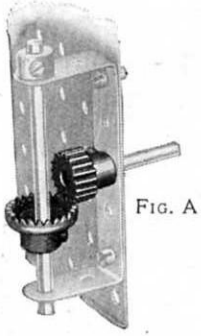


FIG. A

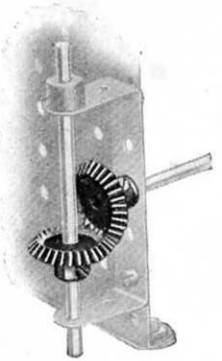


FIG. C

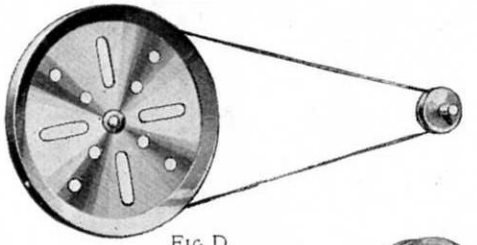


FIG D.

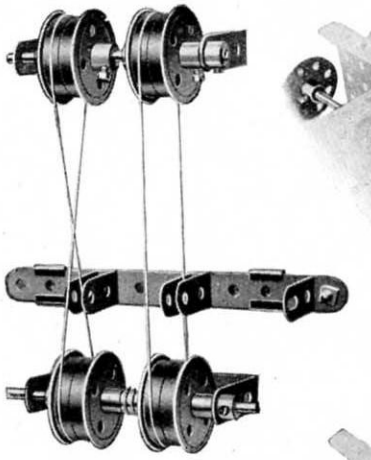


FIG. G

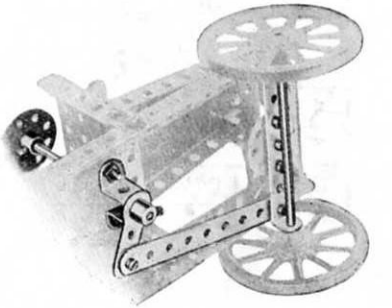


FIG. H

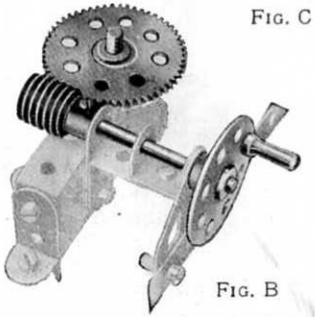


FIG. B

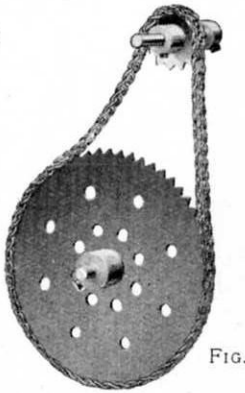


FIG. E

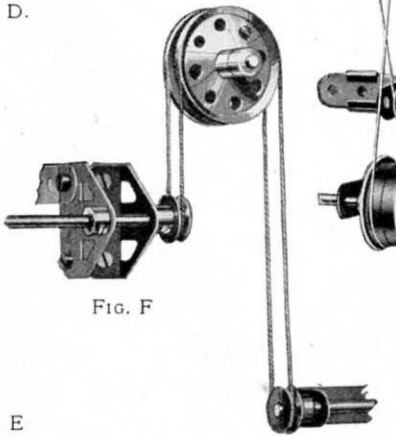


FIG. F

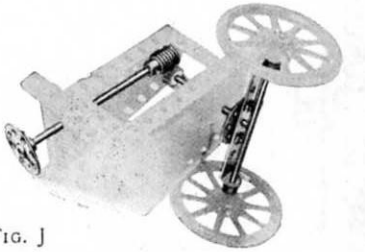


FIG. J

Gears

The Meccano system includes a wide range of Gear Wheels, Bevel Gears, Pinion Wheels, Contrate Wheels and Worm Wheels in various sizes. All manner of interesting movements may be obtained by the use of these gears.

Fig. A shows how a drive may be transmitted from a vertical to a horizontal shaft or vice versa. Fig. B shows a Worm engaged with a Gear Wheel giving a very great reduction in shaft speed. Fig. C illustrates another right angle drive, obtained by using Meccano Bevel Gears.

Belt and Chain Drives

In Figs. D, E, F and G we show examples of belt and chain drives. The movements illustrated require no explanation excepting, perhaps, Fig. G, which shows a simple method for slipping the belt from the fast to the loose pulleys or vice versa.

Cords usually take the place of belts in Meccano models but miniature belting may be made from strips of canvas, indiarubber, etc., in which case Flanged Wheels should be used instead of grooved Pulleys.

Steering Gears

The various types of steering mechanism commonly in use on vehicles of all descriptions may readily be reproduced with Meccano.

Fig. H. In this case the road wheels are moved about their central pivot by means of a crank, which is secured to the steering shaft, and a connecting strip.

Fig. J. The road wheels in this example are secured to a central rod, which forms a pivot, and is rotated from the hand-wheel by means of a worm gear.

CONTENTS OF OUTFITS

No.	Description of Part.	00	00A	0	0A	1	1A	2	2A	3	3A	4	4A	5	5A	6	6A	7
1	Perforated Strips, 12½″	—	—	—	4	4	6	10	—	10	—	10	6	16	14	30	8	38
1A	„ „ 9½″	—	—	—	—	—	—	—	—	—	—	—	—	—	6	6	10	16
1B	„ „ 7½″	—	—	—	—	—	—	—	—	—	—	—	2	2	8	10	3	13
2	„ „ 5½″	4	—	4	4	8	6	14	4	18	3	21	5	26	2	28	12	40
2A	„ „ 4½″	—	—	—	—	—	—	—	—	—	2	2	2	4	—	4	8	12
3	„ „ 3½″	—	—	—	1	1	1	2	4	6	—	6	6	12	12	24	—	24
4	„ „ 3″	—	—	—	—	—	—	—	2	2	4	6	2	8	4	12	12	24
5	„ „ 2½″	6	3	9	—	9	3	12	—	12	6	18	18	36	—	36	84	120
6	„ „ 2″	—	—	—	—	—	—	—	—	—	—	—	4	4	20	24	6	30
6A	„ „ 1½″	—	—	—	—	—	2	2	—	2	—	2	4	6	8	14	—	14
7	Angle Girders, 24½″	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12	12
7A	„ „ 18½″	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	6
8	„ „ 12½″	—	—	—	—	—	4	4	4	8	1	9	5	14	12	26	—	26
8A	„ „ 9½″	—	—	—	—	—	—	—	—	—	—	—	4	4	4	8	9	17
8B	„ „ 7½″	—	—	—	—	—	—	—	—	—	—	—	2	2	—	2	6	8
9	„ „ 5½″	—	—	—	—	—	—	—	—	—	4	4	—	4	14	18	6	24
9A	„ „ 4½″	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	13	15
9B	„ „ 3½″	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	5	7
9C	„ „ 3″	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	3
9D	„ „ 2½″	—	—	—	—	—	—	—	—	—	—	—	1	1	5	6	1	7
9E	„ „ 2″	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
9F	„ „ 1½″	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4	—	4
10	Flat Brackets...	4	—	4	1	5	3	8	—	8	1	9	3	12	4	16	14	30
11	Double Brackets	—	2	2	—	2	2	4	—	4	1	5	3	8	—	8	4	12
12	Angle Brackets, ½″×½″	8	—	8	—	8	4	12	2	14	8	22	14	36	12	48	28	76
12A	„ „ 1″×1″	—	—	—	—	—	2	2	2	4	2	6	—	6	—	6	6	12
12B	„ „ 1″×½″	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4	12	16
13	Axle Rods, 11½″	—	—	—	—	—	1	1	—	1	1	2	—	2	1	3	5	8
13A	„ „ 8″	—	—	—	—	—	—	—	—	—	1	1	—	1	3	4	3	7
14	„ „ 6½″	—	—	—	—	—	—	—	—	—	3	3	—	3	3	6	7	13
15	„ „ 5″	—	—	—	—	—	2	2	—	2	2	4	—	4	—	4	2	6
15A	„ „ 4½″	—	—	—	—	—	1	1	2	3	2	5	—	5	1	6	—	6
16	„ „ 3½″	2	—	2	1	3	1	4	—	4	1	5	—	5	2	7	5	12
16A	„ „ 2½″	—	—	—	—	—	—	—	—	—	—	—	3	3	4	7	6	13
16B	„ „ 3″	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	3	5
17	„ „ 2″	2	—	2	—	2	—	2	—	2	3	5	—	5	4	9	3	12
18A	„ „ 1½″	—	—	—	2	2	2	4	—	4	—	4	—	4	—	4	5	9
18B	„ „ 1″	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	5	7
19	Crank Handles (5″ shaft)	—	—	—	—	—	1	1	—	1	—	1	—	1	2	3	—	3
19S	„ „ (3½″ „)	1	—	1	—	1	—	1	—	1	—	1	—	1	—	1	—	1
19A	Wheels, 3″	—	—	—	—	—	—	—	—	—	—	—	4	4	—	4	—	4
19B	Pulley Wheels, 3″	—	—	—	4	4	—	4	—	4	—	4	—	4	—	4	—	4
20	Flanged Wheels, 1½″	—	—	—	—	—	—	—	—	—	4	4	—	4	4	8	4	12
20A	Pulley Wheels, 2″	—	—	—	—	—	—	—	2	2	2	4	—	4	—	4	—	4
20B	Flanged Wheels, ¾″	—	—	—	—	—	4	4	—	4	—	4	—	4	—	4	6	10
21	Pulley Wheels, 1½″	—	—	—	—	—	—	—	1	1	—	1	1	2	—	2	2	4
22	„ „ 1″ (fast)	4	—	4	—	4	—	4	—	4	—	4	—	4	2	6	4	10
22A	„ „ 1″ (loose)	—	—	—	—	—	2	2	—	2	1	3	—	3	1	4	11	15
23	„ „ ½″ „	—	1	1	—	1	—	1	—	1	2	3	—	3	1	4	2	6
23A	„ „ ½″ (fast)	—	—	—	—	—	—	—	—	—	1	1	—	1	—	1	3	4
24	Bush Wheels	1	—	1	—	1	—	1	—	1	1	2	—	2	3	5	3	8
25	Pinion Wheels, ¾″ diam., ¼″ wide	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	3	5
25A	„ „ ⅜″ „ ½″ „	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
26	„ „ ½″ „ ¼″ „	—	—	—	—	—	—	—	2	2	—	2	1	3	2	5	4	9
26A	„ „ ½″ „ ½″ „	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
27	Gear Wheels, 50-teeth	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	3	5
27A	„ „ 57 „	—	—	—	—	—	—	—	1	1	1	2	—	2	1	3	4	7
27B	„ „ 133 „ (3½″ diam.)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
28	Contrate Wheels, 1½″	—	—	—	—	—	—	—	—	—	1	1	—	1	1	2	—	2
29	„ „ ¾″	—	—	—	—	—	—	—	—	—	2	2	—	2	—	2	—	2
30	Bevel Gears, ⅞″	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4
30A	„ „ 1″	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
30C	„ „ 1½″	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
31	Gear Wheels, 1″, 38-teeth	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4
32	Worm Wheels	—	—	—	—	—	—	—	1	1	1	2	—	2	—	2	—	2
34	Spanners	—	1	1	—	1	—	1	—	1	1	2	—	2	—	2	—	2
35	Spring Clips	4	2	6	2	8	6	14	—	14	5	19	—	19	5	24	12	36
36	Screw Drivers	1	—	1	—	1	—	1	—	1	—	1	—	1	—	1	—	1
36B	„ „ (special)	—	—	—	—	—	—	—	—	—	1	1	—	1	—	1	—	1
37	Nuts and Bolts, 7/32″	16	—	16	20	36	24	60	34	94	32	126	43	169	145	314	280	594
37A	Nuts	4	2	6	—	6	—	6	—	6	—	6	—	6	—	6	—	6
38	Washers	—	—	—	8	8	6	14	—	14	10	24	—	24	12	36	164	200
40	Hanks of Cord	1	—	1	—	1	1	2	1	3	1	4	2	6	—	6	—	6
41	Propeller Blades	—	—	—	—	—	—	—	—	—	—	—	2	2	2	4	—	4

No.	Description of Part.	00	00A	0	0A	1	1A	2	2A	3	3A	4	4A	5	5A	6	6A	7
43	Springs	—	—	—	—	—	—	—	1	1	—	1	—	1	1	2	7	9
44	Cranked Bent Strips	1	—	1	—	1	—	1	—	1	—	1	—	1	1	2	1	3
45	Double Bent Strips	—	—	—	—	—	1	1	1	2	1	3	—	3	3	6	—	6
46	Double Angle Strips, 2½″×1″	—	—	—	—	—	—	—	1	1	1	2	2	4	—	4	—	4
47	" " " 2½″×1½″	—	—	—	—	—	—	—	—	—	—	—	1	1	1	2	—	2
47A	" " " 3″ ×1½″	—	—	—	—	—	—	—	—	—	—	—	2	2	—	2	—	2
48	" " " 1½″×½″	—	—	—	1	1	—	1	1	2	—	2	—	2	2	4	4	8
48A	" " " 2½″×½″	2	—	2	4	6	2	8	2	10	—	10	—	10	4	14	4	18
48B	" " " 3½″×½″	—	—	—	—	—	—	—	2	2	4	6	—	6	1	7	5	12
48C	" " " 4½″×½″	—	—	—	—	—	—	—	—	—	—	—	—	—	3	3	1	4
48D	" " 5½″×½″	—	—	—	—	—	—	—	—	—	2	2	2	4	—	4	1	5
50A	Eye Pieces, with boss	—	—	—	—	—	—	—	—	—	—	—	1	1	1	2	—	2
52	Perforated Flanged Plates, 5½″×2½″	1	—	1	—	1	—	1	1	2	—	2	2	4	3	7	—	7
52A	Flat Plates, 5½″×3½″	—	—	—	—	—	—	—	—	—	—	—	4	4	—	4	7	11
53	Perforated Flanged Plates, 3½″×2½″	—	—	—	—	—	—	—	3	3	2	5	—	5	2	7	—	7
53A	Flat Plates, 4½″×2½″	—	—	—	—	—	—	—	—	—	—	—	2	2	2	4	2	6
54	Perforated Flanged Sector Plates	—	—	—	2	2	—	2	—	2	—	2	—	2	—	2	2	4
55A	Perforated Strips, slotted, 2″	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
	00 Instruction Folders	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
56B	0 " Manuals	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
56A	00–3 " "	—	—	—	1	1	—	1	—	1	—	1	—	1	1	1	—	1
56	4–7 " "	—	—	—	—	—	—	—	—	—	1	1	—	1	1	1	—	1
56C	Meccano Standard Mechanisms Manuals	—	—	—	—	—	—	—	1	1	—	1	—	1	—	1	—	1
57	Hooks	1	—	1	—	1	—	1	—	1	—	1	1	2	4	6	8	14
57B	" (Loaded)	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1
58	Spring Cord, 40″ length	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1
58A	Coupling Screws for Spring Cord	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12	12
59	Collars with Set Screws	—	—	—	—	—	—	—	4	4	6	10	9	19	10	29	34	63
62	Cranks	—	—	—	—	—	2	2	—	2	—	2	—	2	2	4	10	14
62A	Threaded Cranks	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	—	2
62B	Double Arm Cranks	—	—	—	—	—	—	—	—	—	—	—	2	2	—	2	4	6
63	Couplings	—	—	—	—	—	—	—	1	1	5	6	—	6	3	9	4	13
63B	Strip Couplings	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	—	2
64	Threaded Bosses	—	—	—	—	—	—	—	—	—	—	—	—	—	3	3	1	4
65	Centre Forks	—	—	—	—	—	—	—	—	—	1	1	—	1	1	2	4	6
70	Flat Plates, 5½″×2½″	—	—	—	—	—	—	—	—	—	—	—	1	1	5	6	1	7
72	" " 2½″×2½″	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	2	4
76	Triangular Plates, 2½″	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	6	8
77	" " 1″	—	—	—	—	—	—	—	—	—	2	2	—	2	2	4	6	10
78	Screwed Rods, 11½″	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
80	" " 5″	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
80A	" " 3½″	—	—	—	—	—	—	—	—	—	1	1	—	1	1	2	—	2
80B	" " 4½″	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	—	2
81	" " 2″	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	1	2
82	" " 1″	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	8
89	Curved Strips, 5½″, 10″ radius	—	—	—	—	—	—	—	—	—	—	—	—	—	6	6	—	6
90	" " 2½″, large "	—	—	—	—	—	—	—	2	2	2	4	2	6	10	16	—	16
90A	" " 2½″, 2⅜″ "	2	2	4	—	4	—	4	—	4	—	4	—	4	4	8	2	10
94	Sprocket Chain	—	—	—	—	—	—	—	—	—	40″	40″	—	40″	5′	8′	12′	20′
95	" Wheels, 2″	—	—	—	—	—	—	—	—	—	2	2	—	2	1	3	—	3
95A	" " 1½″	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	3	4
95B	" " 3/4″	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
96	" " 1″	—	—	—	—	—	—	—	—	—	2	2	—	2	2	4	6	10
96A	" " ¾″	—	—	—	—	—	—	—	—	—	1	1	—	1	3	4	1	5
97	Braced Girders, 3½″	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4	1	5
98	" " 2½″	—	—	—	—	—	—	—	1	1	—	1	—	1	7	8	—	8
99	" " 12½″	—	—	—	—	—	2	2	—	2	2	4	—	4	4	8	10	18
99A	" " 9½″	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	—	2
99B	" " 7½″	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
100	" " 5½″	—	—	—	2	2	—	2	—	2	4	6	1	7	1	8	8	16
101	Healds for Looms	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	60	60
102	Single Bent Strips	—	—	—	—	—	—	—	—	—	—	—	1	1	1	2	2	4
103	Flat Girders, 5½″	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7	7
103A	" " 9½″	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	2	4
103B	" " 12½″	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12	12
103C	" " 4½″	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4
103D	" " 3½″	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	5
103E	" " 3″	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	6
103F	" " 2½″	—	—	—	—	—	—	—	—	—	2	2	2	4	3	7	—	7
103G	" " 2″	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
103H	" " 1½″	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	5	6
103K	" " 7½″	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
104	Shuttles for Looms	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
105	Reed Hooks	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
106	Wood Rollers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
106A	Sand "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
107	Designing Tables	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
108	Architraves	—	—	—	—	—	—	—	—	—	2	2	—	2	2	4	2	6
109	Face Plates, 2½″	—	—	—	—	—	—	—	—	—	1	1	1	2	2	4	7	11
110	Rack Strips, 3½″	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	2	4
111	Bolts, ¾″	—	—	—	—	—	—	—	2	2	1	3	—	3	6	9	9	18
111A	" ½″	—	—	—	—	—	—	—	—	—	—	—	—	—	7	7	17	24

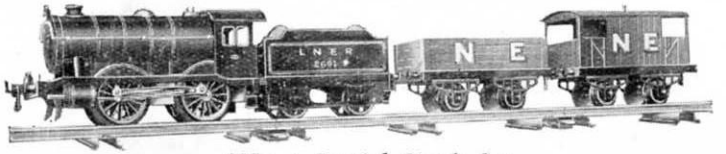
Contents of Outfits—*continued*

No.	Description of Part.	00	00A	0	0A	1	1A	2	2A	3	3A	4	4A	5	5A	6	6A	7
111C	Bolts ⅜"	4	2	6	—	6	—	6	—	6	—	6	—	6	—	6	6	12
114	Hinges	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
115	Threaded Pins	—	—	—	—	—	1	1	1	2	—	2	—	2	—	2	7	9
116	Fork Pieces	—	—	—	—	—	—	—	1	1	—	1	—	1	1	2	—	2
116A	Small Fork Pieces	—	—	—	—	—	—	—	1	1	—	1	—	1	—	1	3	4
118	Hub Discs (5½" diam.)	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	3	4
119	Channel Segments (8 to circle)	—	—	—	—	—	—	—	—	—	—	—	—	—	8	8	8	16
120A	Spring Buffers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	6
120B	Compression Springs	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	2	4
121	Train Couplings	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
124	Reversed Angle Brackets, 1"	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4	4	4
125	" " ½"	1	1	2	—	2	2	4	—	4	—	4	—	4	—	4	5	9
126	Trunnions	2	—	2	—	2	—	2	—	2	2	4	—	4	—	4	—	4
126A	Flat Trunnions	2	—	2	—	2	—	2	—	2	2	4	1	5	—	5	3	8
128	Boss Bell Cranks	—	—	—	—	—	—	—	—	—	—	—	1	1	1	2	—	2
129	Rack Segments (3" diam.)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4
130	Eccentrics, Triple Throw	—	—	—	—	—	—	—	—	—	2	2	—	2	—	2	—	2
131	Dredger Buckets	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	5
132	Flywheels, 2¾"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
133	Corner Brackets	—	—	—	—	—	—	—	—	—	—	—	—	—	8	8	—	8
135	Theodolite Protractors	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1
136	Handrail Supports	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4	4	8
137	Wheel Flanges	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4	6	10
140	Universal Couplings	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
141	Wire Lines	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
142	Rubber Rings, 3" diam.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	3
142A	Dunlop Tyres, 2" internal diam.	—	—	—	—	—	—	—	—	—	4	4	—	4	—	4	—	4
142B	" " 3" " "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4
143	Circular Girders (5½" diam.)	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1
144	Dog Clutches	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1
145	Circular Strips (7" diam. overall)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
146	Circular Plates, 6"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
147A	Pawls	—	—	—	—	—	—	—	—	—	1	1	—	1	1	2	2	4
147B	Pivot Bolts with two nuts	—	—	—	—	—	—	—	1	1	—	1	—	1	1	2	6	8
148	Ratchet Wheels	—	—	—	—	—	—	—	—	—	1	1	—	1	1	2	—	2
155	Rubber Rings, ⅜"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
157	Fans, 2" diam.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
159	Circular Saws	—	—	—	—	—	—	—	—	—	1	1	—	1	—	1	—	1
160	Channel Bearings, 1½" × 1" × ½"	—	—	—	—	—	—	—	—	—	1	1	—	1	—	1	—	1
161	Girder Brackets, 2" × 1" × ½"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
162	Boilers, Complete with Ends	—	—	—	—	—	—	—	1	1	—	1	—	1	—	1	—	1
162A	Boiler Ends	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
163	Sleeve Pieces	—	—	—	—	—	—	—	2	2	—	2	—	2	—	2	1	3
164	Chimney Adaptors	—	—	—	—	—	—	—	1	1	—	1	—	1	—	1	1	2
165	Swivel Bearings	—	—	—	—	—	—	—	1	1	1	2	—	2	—	2	—	2
166	End "	—	—	—	—	—	—	—	1	1	—	1	—	1	2	3	3	6
168	Ball " 4" diam.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
170	Eccentrics, ¼" throw	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
171	Socket Couplings	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
172	Pendulum Connection	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
301	Bobbins	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
302	Bushes, Insulating	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14	14
303	Washers "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12	12
304	6 B.A. Screws	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14	14
305	6 B.A. Nuts	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	30	30
306	Terminals	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4
307	Contact Screws	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
308	Pole Pieces	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
309	Coil Cheeks	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
310	Lamp Holders	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
311	Lamps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
312	27 Gauge B.I. Wire, 30" coils	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
313	26 " S.C.C. Wire, reel 50 yds.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
314	23 " " " 25 "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
315	Bare Copper Wire, 4 yds. coils	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	Clockwork Motors	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	Electric Motor No. 6 (6 volt)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	Instruction Leaflets																	
	No. 1—Motor Chassis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	" 2—High-speed Ship-Coaler	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	" 3—Motor Cycle and Sidecar	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	" 5—Dredger	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	" 6—Stiff Leg Derrick	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	" 7—Flatform Scales	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1
	" 9—Bagatelle Table	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1
	" 10—Log Saw	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1
	" 11—Horizontal Steam Engine	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1
	" 12—Stone-sawing Machine	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1
	" 13—Meccanograph	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	" 14A—New Grandfather Clock	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	" 16A—New Loom	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	" 17—Planing Machine	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	" 18—Revolving Crane	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	" 19—Steam Shovel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	" 20—Electric Mobile Crane	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	" 21—Transporter Bridge	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	" 22—Traction Engine	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	" 23—Vertical Log Saw	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	" 24—Travelling Gantry Crane	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	" 25—Hydraulic Crane	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	" 26—Twin-elliptic Harmonograph	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	" 28—Pontoon Crane	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	" 29—Hammerhead Crane	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	" 30—Breakdown Crane	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	" 35—Automatic Grabbing Crane	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	" 36—Electric Derrick Crane	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1

A FINE SELECTION OF HORNBY TRAINS

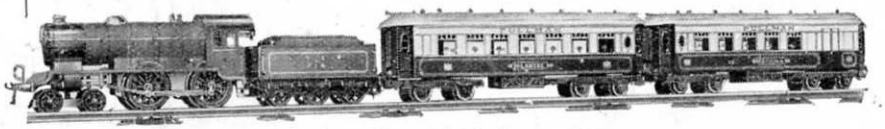
***No. 1 Special Passenger Set**

The No. 1 Special Passenger Set contains Locomotive, Tender, two No. 1 Pullman Coaches, one No. 1 Pullman Coach Composite and set of Rails. The doors of the coaches open. Gauge 0.



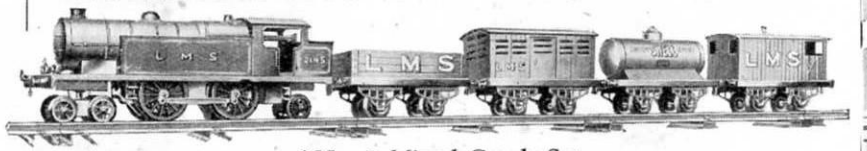
***No. 1 Special Goods Set**

This set is similar to the No. 1 Special Passenger Set, but contains one Wagon and one Brake Van in place of the Pullman Coaches.



***No. 2 Special Pullman Set**

This set contains Locomotive, Tender, No. 2 Special Pullman Coach, No. 2 Special Pullman Coach Composite and set of Rails. The Locomotives and Tenders are "true-to-type" and are models of famous Locomotives and Tenders in the services of the leading British Railway Companies.



***No. 2 Mixed Goods Set**

This realistic Goods Train consists of 4–4–2 Tank Locomotive, as supplied with No. 2 Special Goods Set, Hornby Wagon No. 1, No. 1 Cattle Truck, Petrol Tank Wagon, Brake Van and set of Rails.

**L.M.S., L.N.E., G.W. or S.R.*

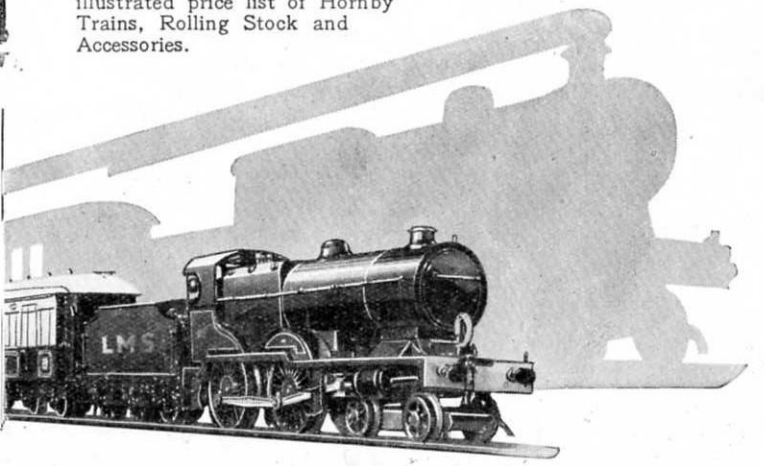
HORNBY TRAINS

BRITISH AND GUARANTEED

Every boy is fascinated by railways and longs for a railway of his own. But it must be a real railway, correctly laid out with main line, branch lines and sidings, stations, tunnels and bridges, and fully equipped with points, signals, etc. A railway of this kind is easily built from the component parts of the Hornby Train System.

The splendid fun of running a Hornby railway is real and lasting because of the exceptional strength and reliable mechanism of the Hornby Locomotives, the realistic Hornby Rolling Stock, and the wide range of Hornby Accessories—all built in perfect proportion and all beautifully finished.

Ask your Dealer for a free complete illustrated price list of Hornby Trains, Rolling Stock and Accessories.



For prices of the above see price list at end of Manual.

HORNBY TRAINS

BRITISH AND GUARANTEED

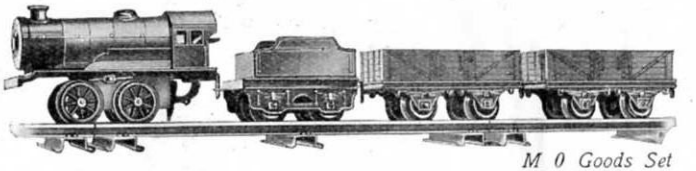
Hornby Trains are manufactured by Meccano Limited and they are made from the finest materials obtainable. Each train is a splendid piece of workmanship, fitted with perfect mechanism. All Hornby Locomotives are carefully tested before leaving the factory and their efficiency is guaranteed.

M 0 Train Sets

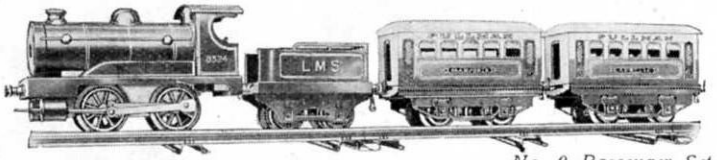
These Train Sets are very attractive in appearance and their performance is extraordinarily good. They are the smallest members of the M Train Series.

The Passenger Set consists of Locomotive, Tender, two Pullman Coaches and set of rails. Gauge 0.

The Goods Set (illustrated) consists of Locomotive, Tender, two Goods Wagons and set of rails. Gauge 0.



M 0 Goods Set



No. 0 Passenger Set

Hornby No. 0 Train Sets

These Train Sets are strongly made and will give the utmost satisfaction. They are beautifully finished in L.M.S., L.N.E., G.W. and S. Railway colours.

The Passenger Set (illustrated) contains Locomotive, Tender, two Pullman Coaches and set of rails. Gauge 0.

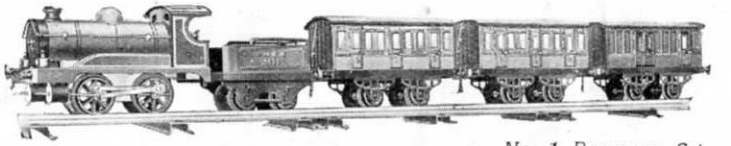
The Goods Set contains Locomotive, Tender, one Wagon, one Timber Wagon and set of rails. Gauge 0.

Hornby No. 1 Train Sets

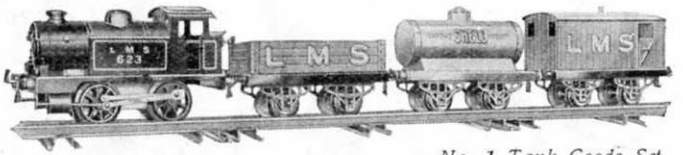
The Locomotives in these Train Sets are very realistic in appearance and are fitted with an exceptionally strong clockwork mechanism. The Train Sets are available in the colours of the L.M.S., L.N.E., G.W. and S. Railways.

The Passenger Set (illustrated) consists of Locomotive, Tender, two Pullman Coaches, Guard's Van and set of rails. Gauge 0.

The Goods Set consists of Locomotive, Tender, Wagon, Brake Van and set of rails. Gauge 0.



No. 1 Passenger Set



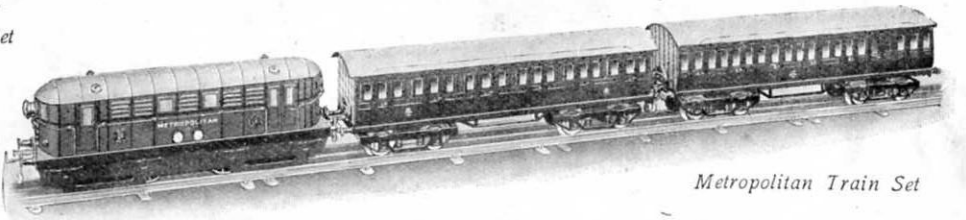
No. 1 Tank Goods Set

Hornby No. 1 Tank Goods Set

This realistic Goods Train Set contains a strongly-built Tank Locomotive, Wagon, Petrol Tank Wagon, Brake Van and set of rails. Gauge 0. It is available in the colours of the L.M.S., L.N.E., G.W. and S. Railways.

Metropolitan Train Sets

The Locomotives and Coaches in these Train Sets are modelled on the electric passenger rolling stock of the Metropolitan Railway. They are distinctive in design, perfect in workmanship, and beautifully enamelled in representative colours. Two different types are available —Clockwork and 6-volt Electric.



Metropolitan Train Set

For Prices of the above see price list at end of Manual

HORNBY ROLLING STOCK AND ACCESSORIES

*LUMBER WAGON No. 2. Price 5/9

LAMP STANDARD
No. 2 (Double) Price 7/6

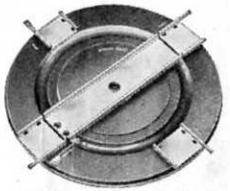
*HOPPER WAGON
Price 4/9

SIDE TIPPING WAGON
Price 3/9

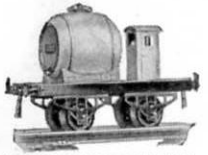
*TROLLEY WAGON. Price 6/6

JUNCTION SIGNAL
Price 10/-

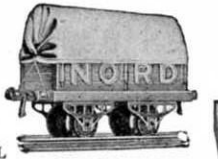
*TIMBER WAGON No. 2. Price 5/-



TURNTABLE No. 1
Price 4/3

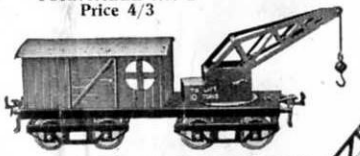


SINGLE WINE WAGON
Price 5/9



COVERED WAGON
(French Type). Price 4/3

SIGNAL CABIN No. 2
Price 7/9



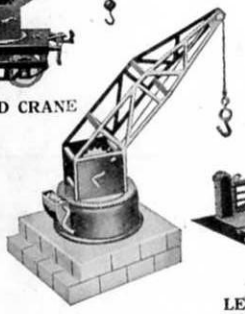
*BREAKDOWN VAN AND CRANE
Price 9/-

THE Hornby system consists of a complete range of Rolling Stock, Train Accessories, and Rails, Points and Crossings, with which the most elaborate model railway may be constructed. Every component in the Hornby Series is well designed and carefully modelled on its prototype in real life.

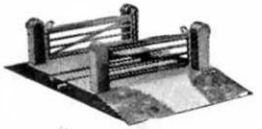
RAILWAY ACCESSORIES
No. 7
Watchman's Hut, Brazier
Shovel and Poker.
Price 2/-

FOOTBRIDGE No. 3. Price 18/6
(Lattice Girder)

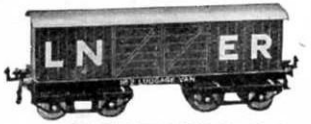
*SNOW PLOUGH
Price 8/-



PLATFORM CRANE
Price 7/-



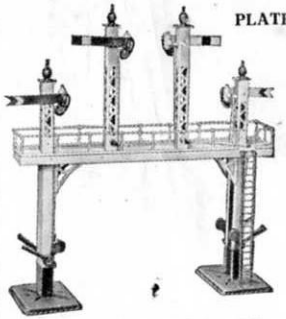
LEVEL CROSSING No. 1
Price 5/6



*LUGGAGE VAN No. 2
Price 8/6

TUNNEL. Price 12/-

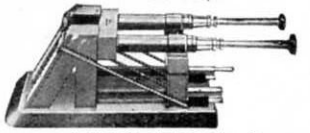
*MILK TRAFFIC VAN
Price 5/-



SIGNAL GANTRY. Price 15/-

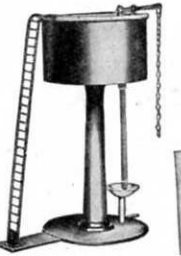
SIGNAL No. 2
Price 3/9

BITUMEN TANK
WAGON "COLAS"
Price 7/6

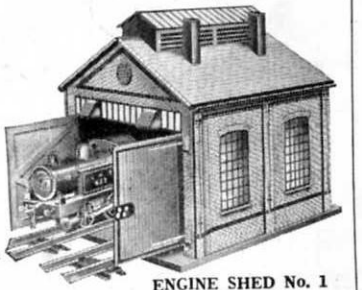


BUFFER STOPS No. 2
(HYDRAULIC) Price 8/-

MILK TANK WAGON
"UNITED DAIRIES"
Price 8/6



WATER TANK
Price 13/-



ENGINE SHED No. 1
Price 24/6

RAILWAY STATION. No. 2. Price 20/-
* *Lettered L.M.S., L.N.E., G.W. or S.R.*

Meccano Price List

MECCANO OUTFITS

No. 000 Meccano Outfit	3/–
„ 00 „ „	5/–
„ 0 „ „	7/–
„ 1 „ „	14/–
„ 2 „ „	23/–
„ 3 „ „	37/6
„ 4 „ „	70/–
„ 5* „ „ (Carton)	97/6
„ 5* „ Presentation Outfit	137/6
„ 6* „ Outfit (Carton)	175/–
„ 6* „ Presentation Outfit	215/–
„ 7 „ „ „	610/–

ACCESSORY OUTFITS

No. 00A Meccano Accessory Outfit	2/–
„ 0A „ „ „	7/6
„ 1A „ „ „	10/–
„ 2A „ „ „	15/6
„ 3A „ „ „	35/–
„ 4A „ „ „	27/6
„ 5A „ „ „ (Carton)	77/6
„ 5A „ „ „ „ in No. 6 Outfit superior enamelled Cabinet	145/–
„ 6A „ „ „	310/–

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

MECCANO MOTORS, Etc.

Meccano Clockwork Motor	10/6
„ Electric Motor E1 (4-6 Volts)	10/6
„ „ „ No. 6 (6 Volts)	20/–
„ „ „ „ 20 (20 Volts)	27/6
Transformer	40/–
Meccano Accumulator (6 Volts, 20 Amps.)	35/–
„ „ (2 „ 20 „)	14/–
Resistance Controller	6/–
Meccano Steam Engine	35/–
No. 1 Meccano Storage Box	16/–
„ 2 „ „ „	31/6
„ 3 „ „ „	50/–

Hornby Train Price List

M0 Goods Set	7/9
M0 Passenger Set	8/6
M1 „ „	12/–
M Goods Set	13/6
M2 Passenger Set	15/–
Hornby No. 0 Goods Set	24/–
„ „ 0 Passenger Set	24/–
„ „ 1 Goods Set	30/–
„ „ 1 Tank Goods Set	35/–
„ „ 1 Passenger Set	36/6
„ „ 1 Special Goods Set	47/6
„ „ 1 „ Passenger Set	51/6
„ „ 2 Mixed Goods Set	57/6
Metropolitan Train Set, C (Clockwork)	80/–
Hornby No. 2 Special Pullman Set	97/6
Riviera " Blue Train " Set No. 3C (Clockwork)	92/6
„ „ „ „ „ 3E (6-Volt Electric)	115/–
Hornby No. 3C " Cornish Riviera " (Clockwork)	97/6
„ „ 3E „ „ (Electric)	120/–
„ „ 3C " Flying Scotsman " (Clockwork)	97/6
„ „ 3E „ „ (Electric)	120/–
„ „ 3C " Royal Scot " (Clockwork)	97/6
„ „ 3E „ „ (Electric)	120/–
„ „ 3C " Continental Express " (Clockwork)	97/6
„ „ 3E „ „ (Electric)	120/–
Metropolitan Train Set, L.V. (6-Volt Electric)	130/–

INDEX TO MODELS

INDEX TO MODELS (*continued*)

Patents and Designs	
Great Britain	
250,378	671,534
253,236	671,790
290,121	689,416
319,160	682,208
648,958	682,209
671,484	682,934
671,485	683,011

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698,054	733,542
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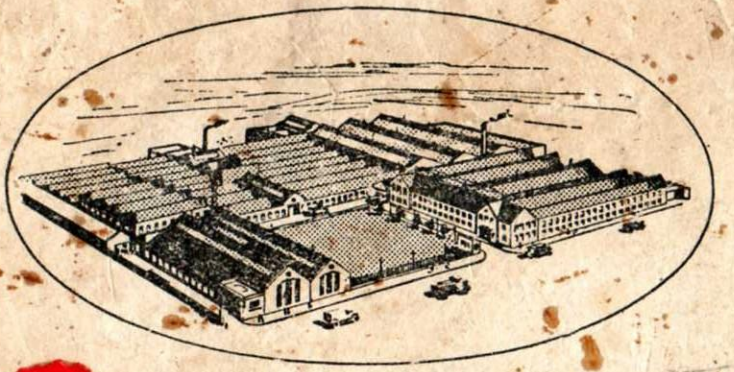
718,731	740,723
Australia	
14388/14	15136/14
13460/19	



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