MECCANO

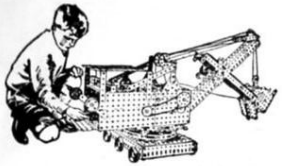
HORNBY'S ORIGINAL SYSTEM — FIRST PATENTED 1901

INSTRUCTIONS FOR OUTFITS A to E

PRICE 8d.

34A-E

13/834/12. (U.K.)



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HORNBY'S ORIGINAL SYSTEM — FIRST PATENTED 1901

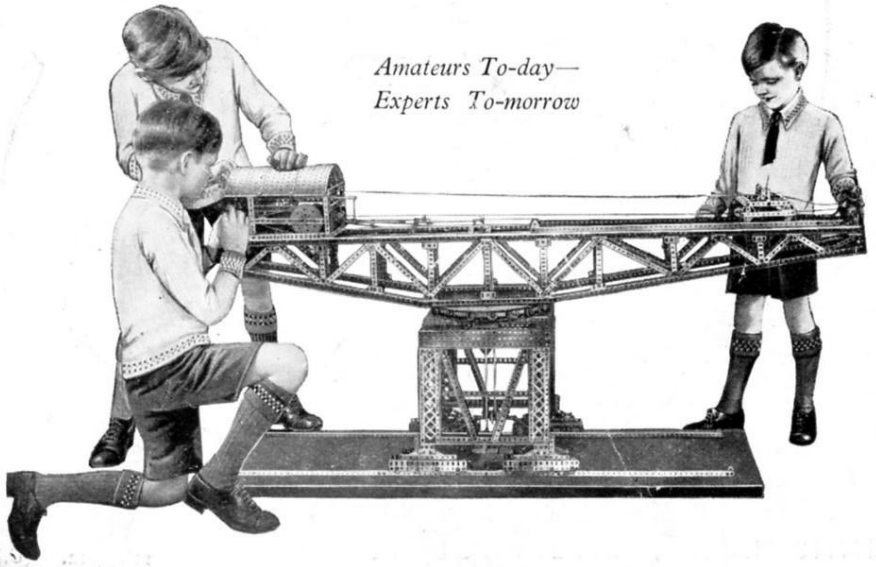
MODEL-BUILDING WITH MECCANO

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. A screwdriver and spanner, both of which are provided in the Outfit, are the only tools necessary.

Make the simple models first—they will provide hours of fun—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.

HOW TO BUILD UP YOUR OUTFIT

Meccano is sold in ten different Outfits, lettered A to L. 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 from A upwards may be converted into the one next higher by the purchase of an Accessory Outfit. Thus, Meccano Outfit A may be converted into a B by adding to it an Aa Accessory Outfit. A Ba would then convert it into a C Outfit, and so on. In this way, no matter with which Outfit you commence, you may build it up by degrees until you possess an L Outfit. It is important to remember that Meccano Parts may be bought separately at any time in any quantity from your Meccano dealer.



Amateurs To-day—
Experts To-morrow

ELECTRIC LIGHTING OF MECCANO MODELS

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

THE "MECCANO MAGAZINE"

The *Meccano Magazine* is specially written for Meccano boys. It tells them 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, Chemistry, 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 publishing date is the first of each month. If you are not already a reader of the *Meccano Magazine* write to the Editor for full particulars, or order a copy from your Meccano dealer or from any newsagent.

THE MECCANO GUILD

Every owner of a Meccano Outfit should join the Meccano Guild. This is a world-wide organisation for boys, started at the request of boys, and as far as possible conducted by boys. Its primary object is to bring boys together and to make them feel that they are all members of a great brotherhood, each trying to help the others to get the very best out of life. Write for full particulars and an application form to the Meccano Guild Secretary, Binns Road, Liverpool 13.

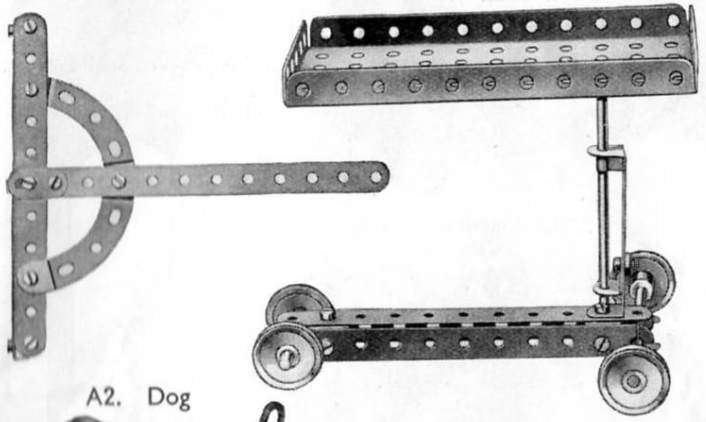
Meccano Clubs are founded and established under the guidance of the Guild Secretary at Headquarters, and at the present time there are active Clubs in nearly 250 towns and villages in the United Kingdom, and more than 100 in countries overseas. Each Club has its Leader, Secretary, Treasurer, and other officials, all of whom, with the exception of the Leader, are boys.

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

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. 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.*

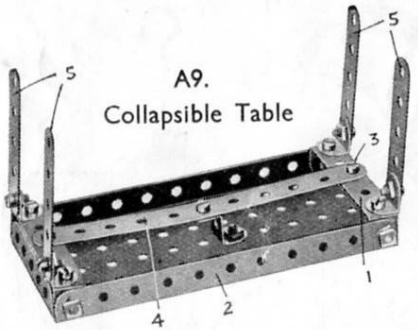
A1. Rake



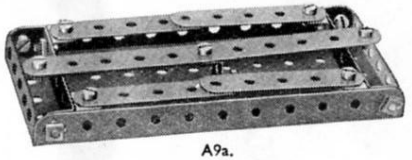
A5. Bed Table

A2. Dog

A9. Collapsible Table

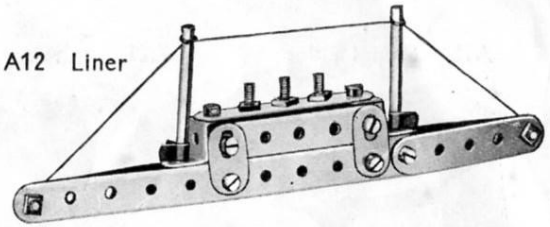


The 2½" × ½" Double Angle Strips 1 are attached to the 5½" × 2½" Flanged Plate 2 by lock-nutted Bolts as in Standard Mechanism No. 263. The Bolts 3 are secured to the 5½" Strip 4 and their shanks engage with the centre holes in the 2½" × ½" Double Angle Strips 1, thus maintaining the legs 5 in an upright 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. A9a.

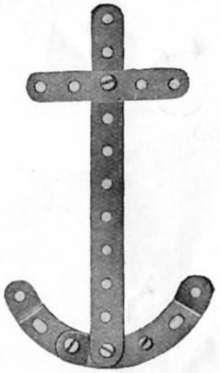


A9a.

A12 Liner

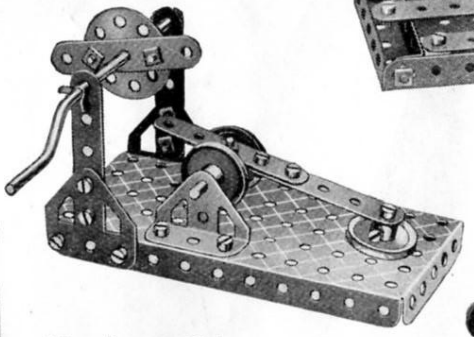


A13. Anchor

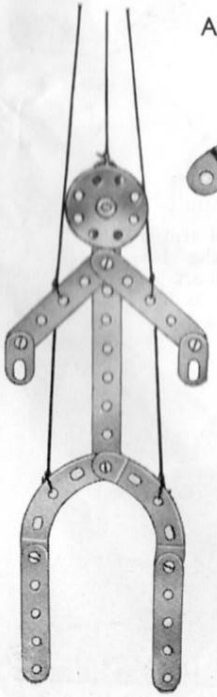


A16. Go-chair

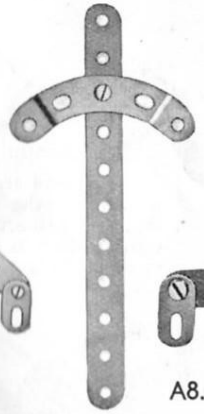
A6. Trip Hammer



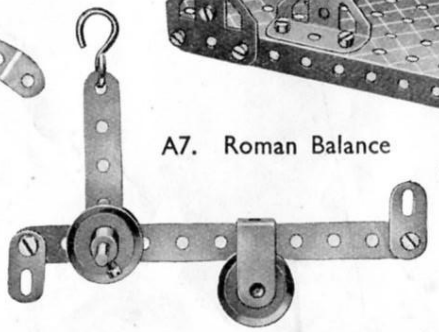
A3. Jumping Jack



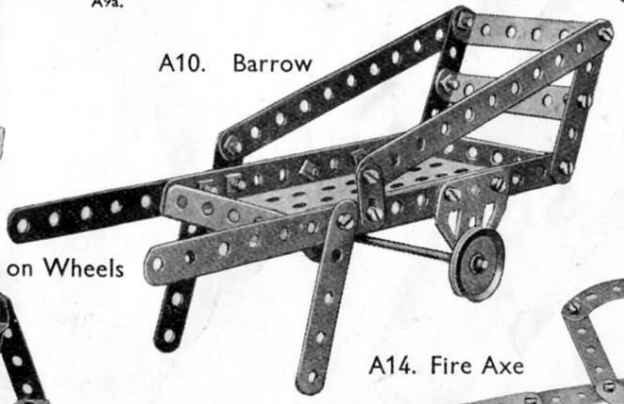
A4. Sword



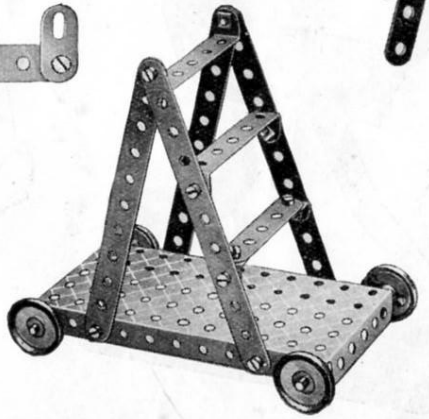
A7. Roman Balance



A10. Barrow

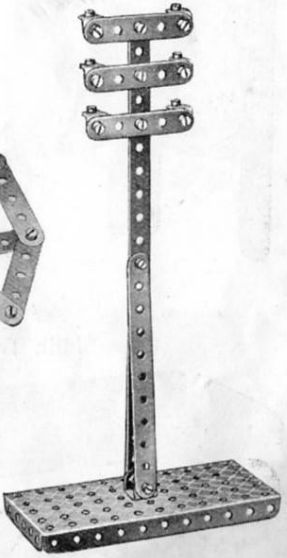


A11. Ladder on Wheels

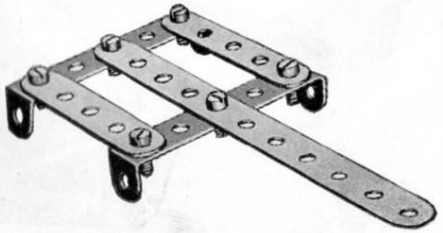


A14. Fire Axe

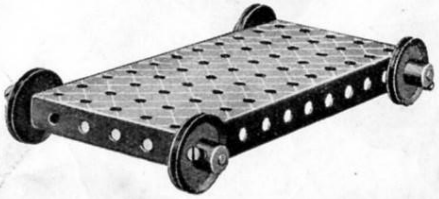
A17. Telegraph Pole



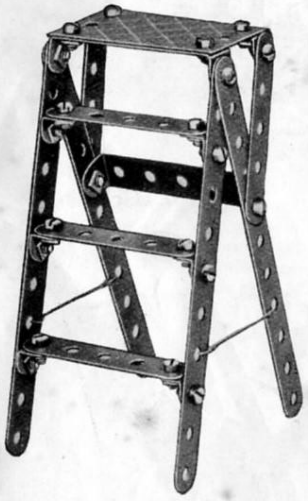
A8. Grill



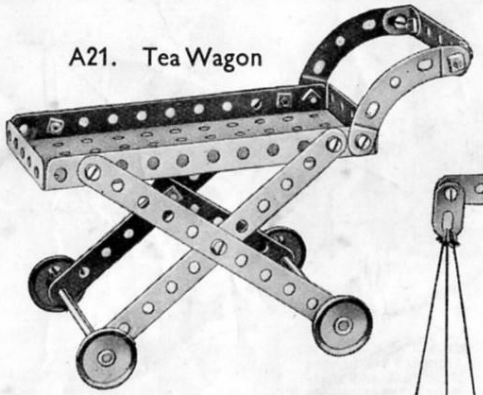
A15. Flat Truck



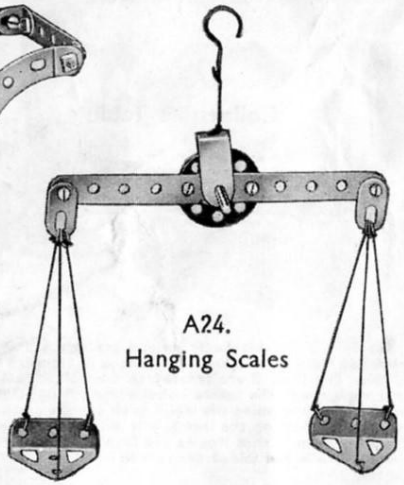
A18. Step Ladder



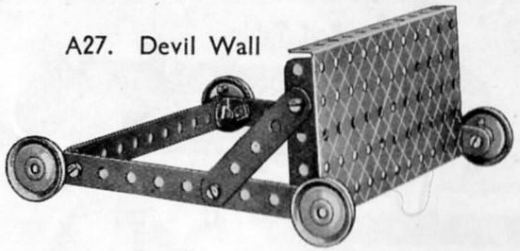
A21. Tea Wagon



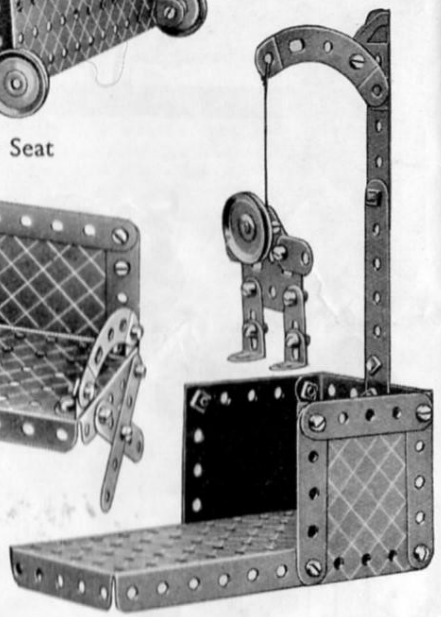
A24. Hanging Scales



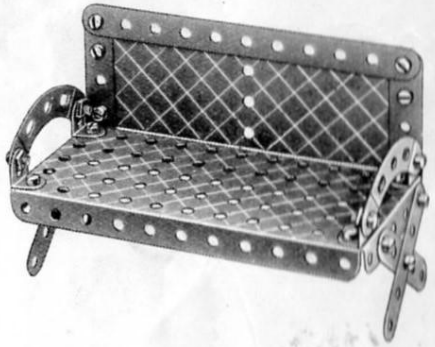
A27. Devil Wall



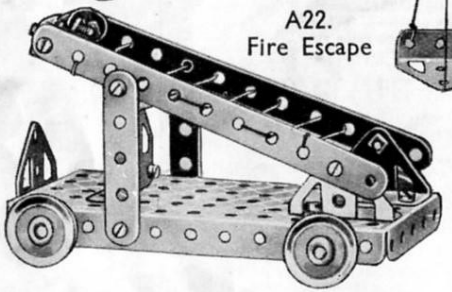
A30. Gallows



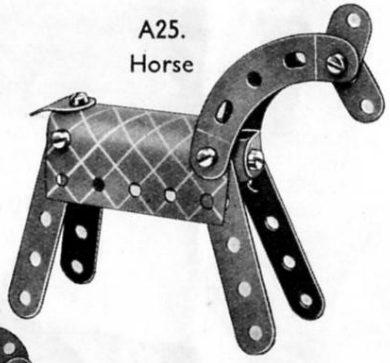
A28. Garden Seat



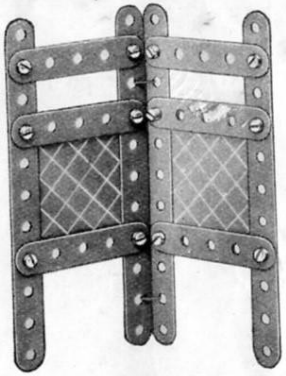
A22. Fire Escape



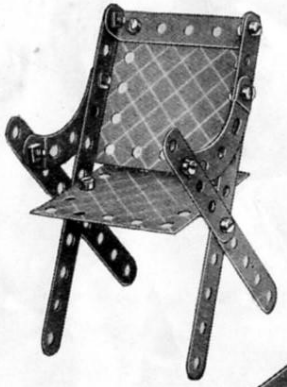
A25. Horse



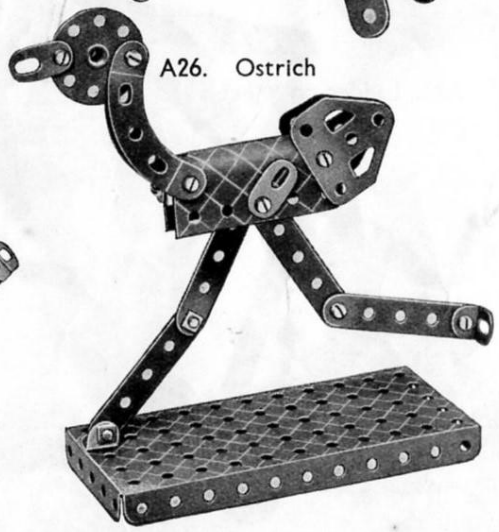
A19. Fire Screen



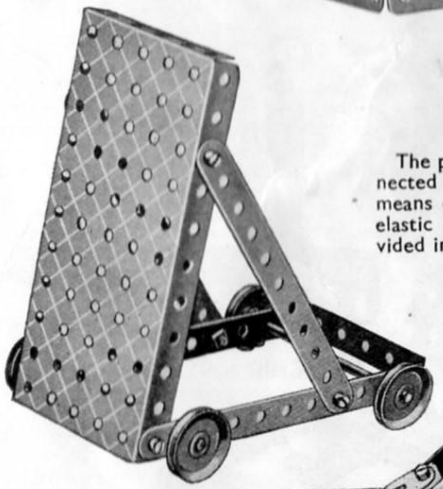
A23. Arm Chair



A26. Ostrich

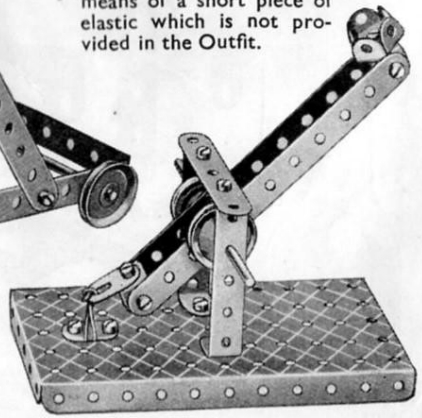


A29. Gravel Sifter

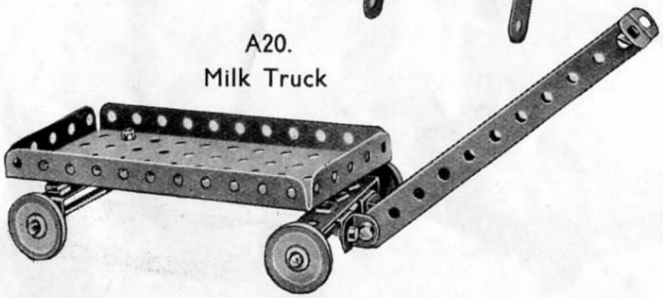


A31. Catapult

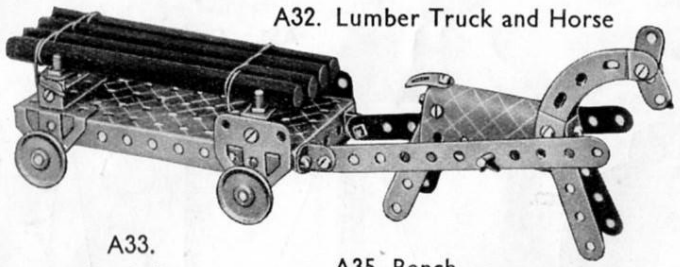
The pivoted arm is connected to the base by means of a short piece of elastic which is not provided in the Outfit.



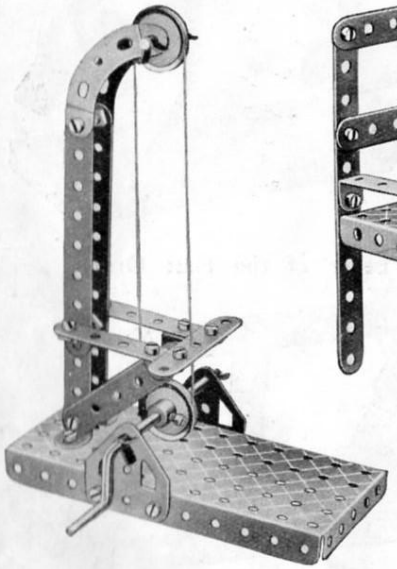
A20. Milk Truck



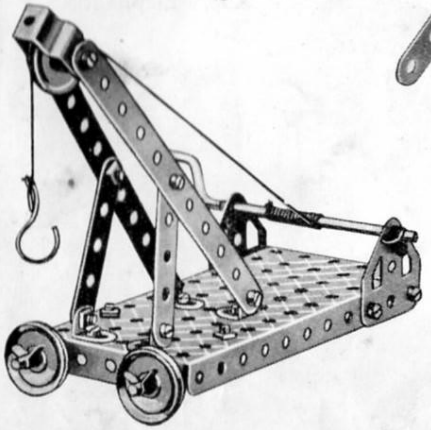
A32. Lumber Truck and Horse



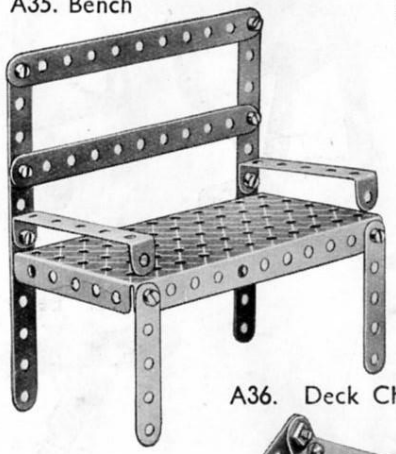
A33. Band Saw



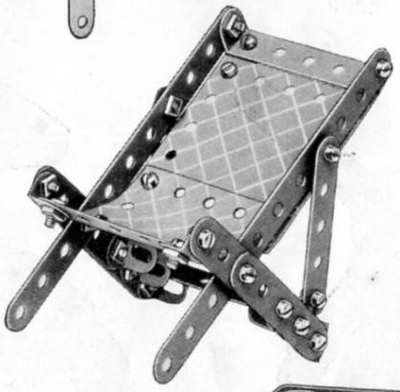
A34. Revolving Crane



A35. Bench

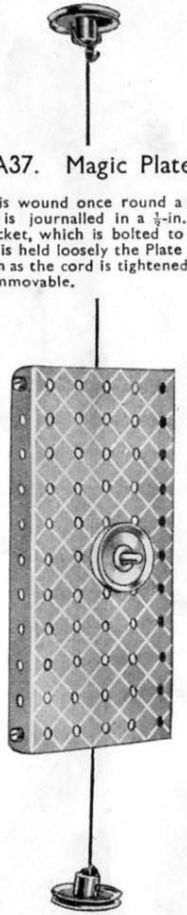


A36. Deck Chair

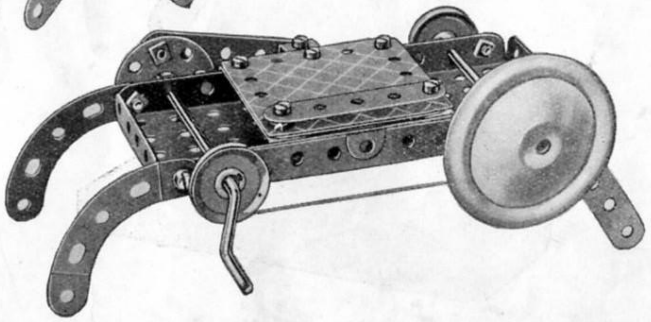


A37. Magic Plate

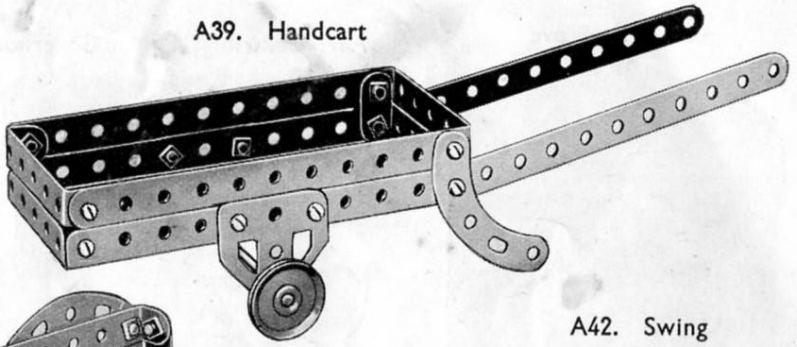
The cord is wound once round a 2 in. Axle Rod that is journalled in a ⅜-in. Reversed Angle Bracket, which is bolted to the Plate. If the cord is held loosely the Plate will drop, but as soon as the cord is tightened the Plate becomes immovable.



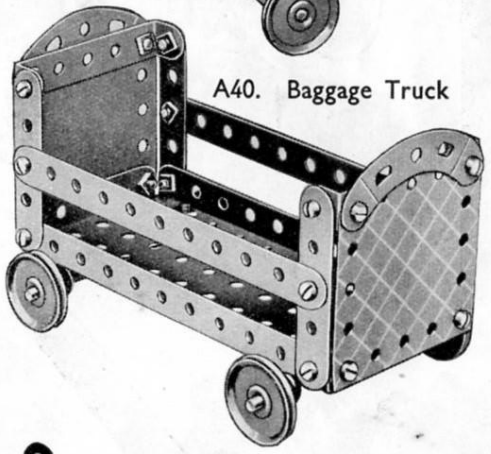
A38. Bacon Slicing Machine



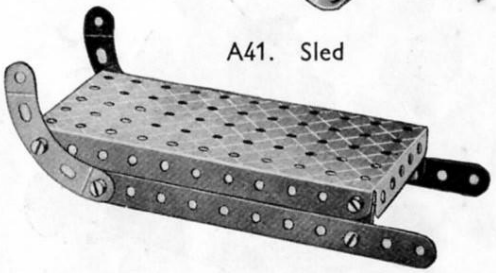
A39. Handcart



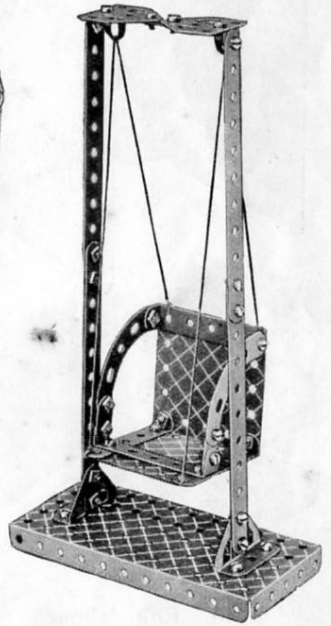
A40. Baggage Truck



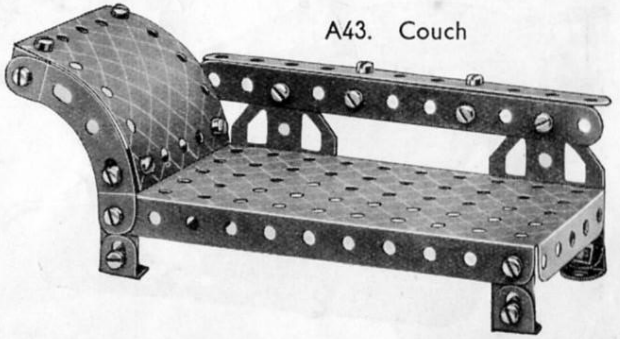
A41. Sled



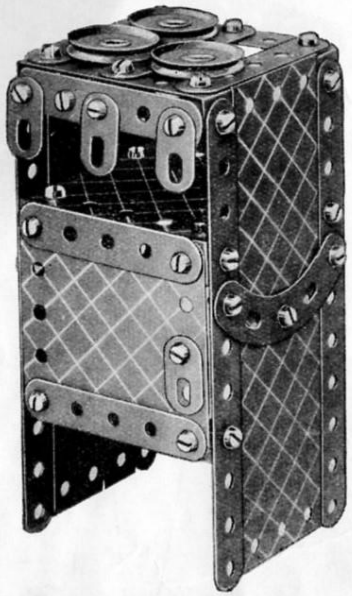
A42. Swing



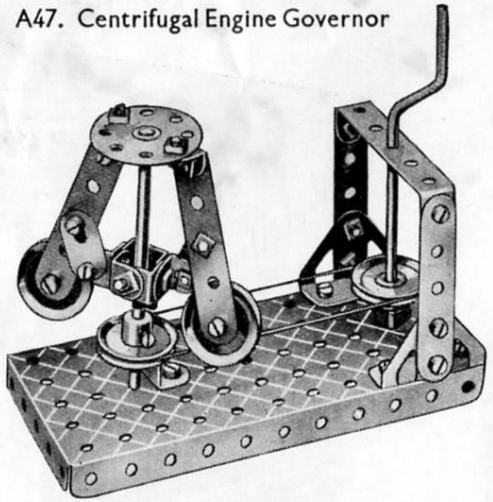
A43. Couch



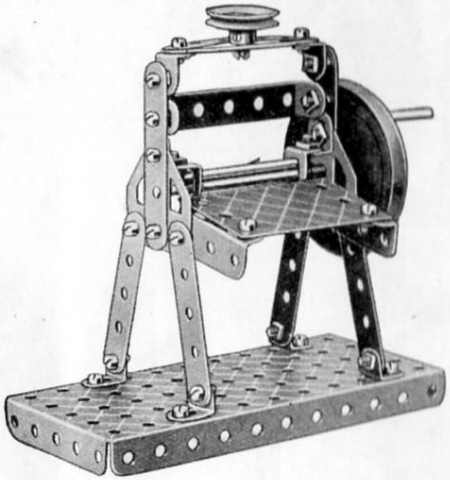
A44. Gas Stove



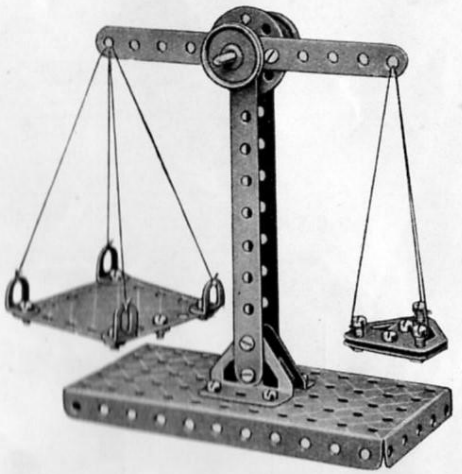
A47. Centrifugal Engine Governor



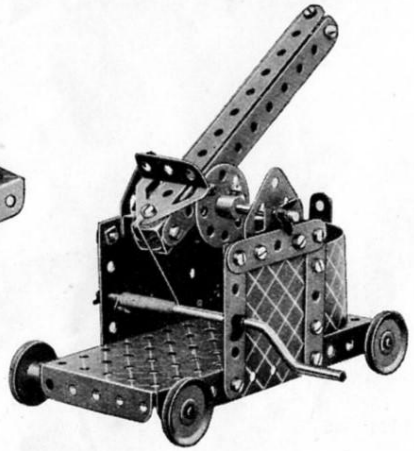
A49. Wringing Machine



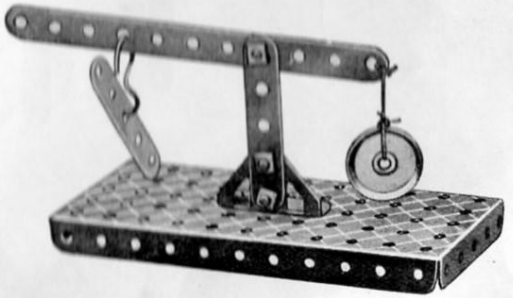
A51. Scales



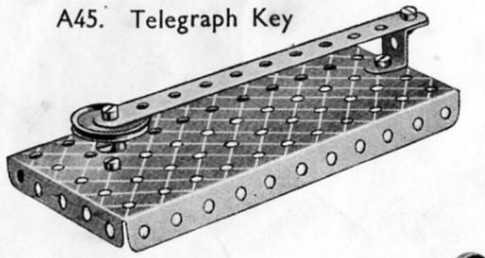
A48. Anti-aircraft Gun



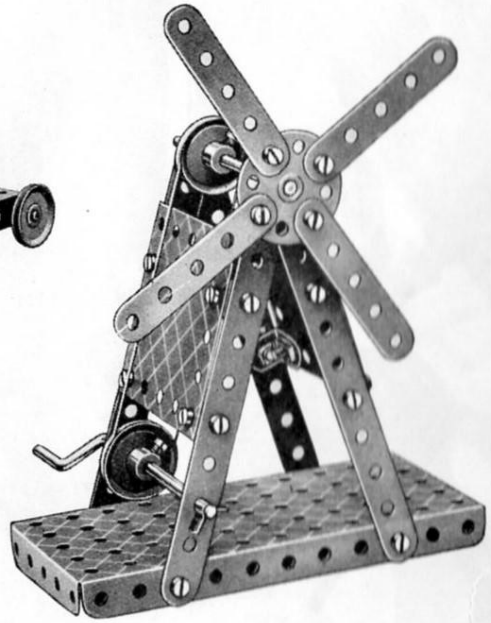
A52. Lever of the First Order



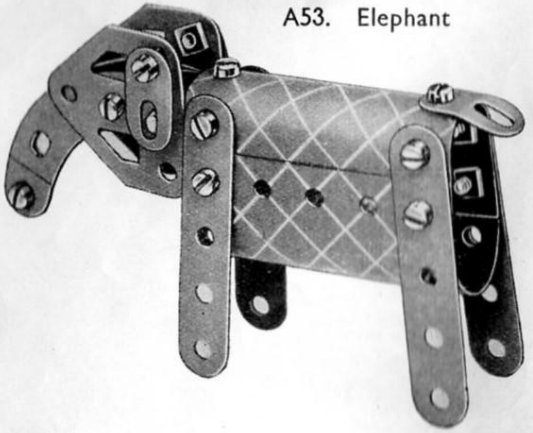
A45. Telegraph Key



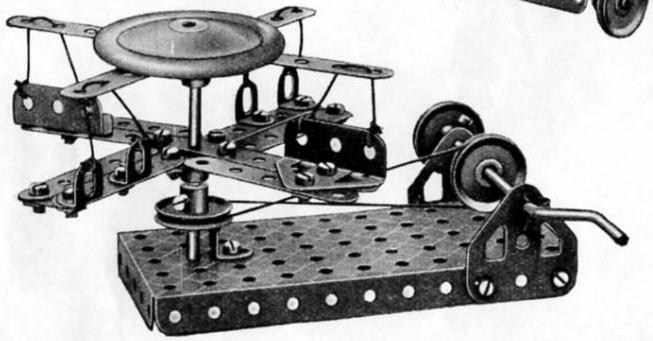
A50. Windmill



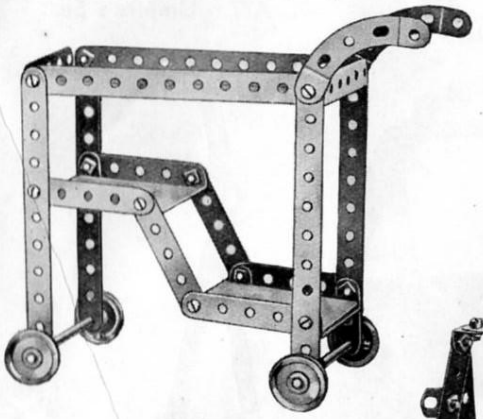
A53. Elephant



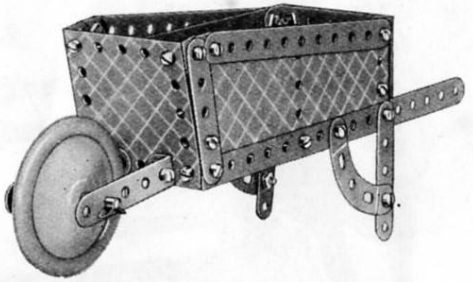
A46. Roundabout



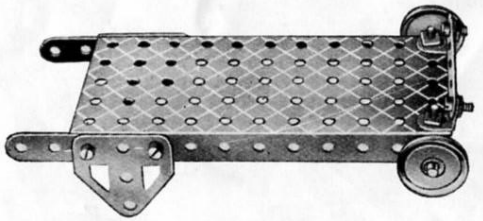
A54. Dinner Wagon



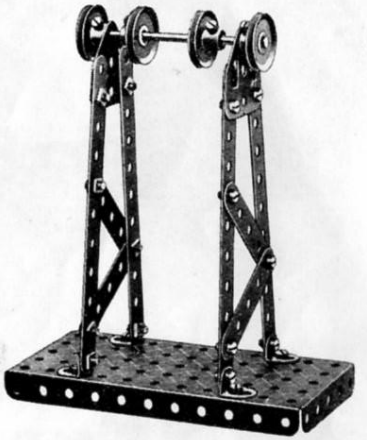
A56. Wheelbarrow



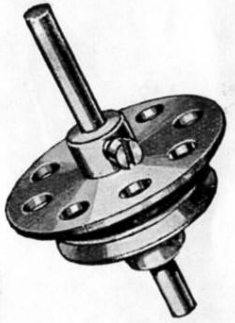
A62. Flat Truck



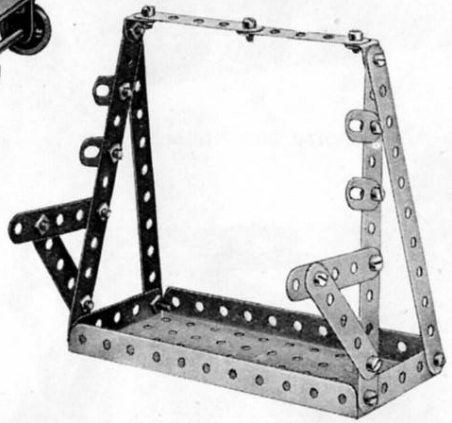
A64. Shafting Standard



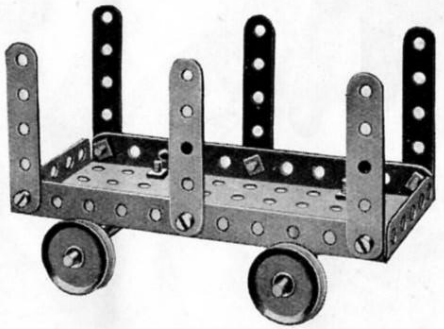
A63. Top



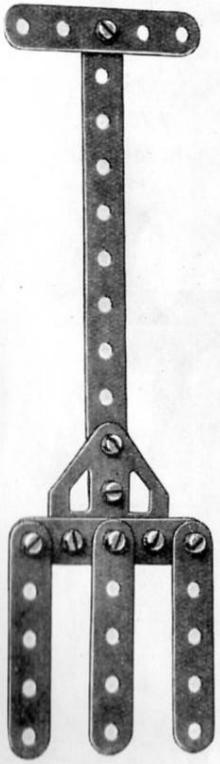
A57. Pen Rack



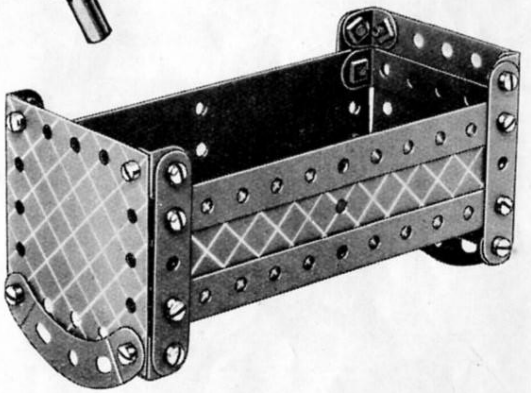
A60. Timber Truck



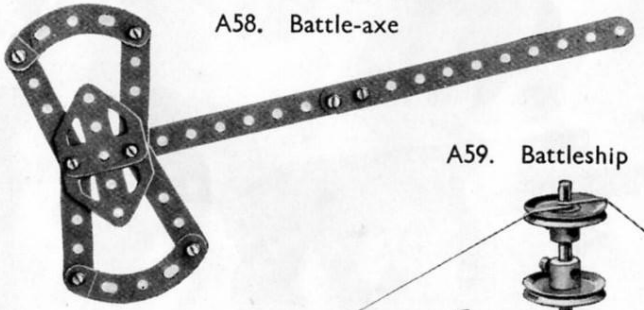
A55. Fork



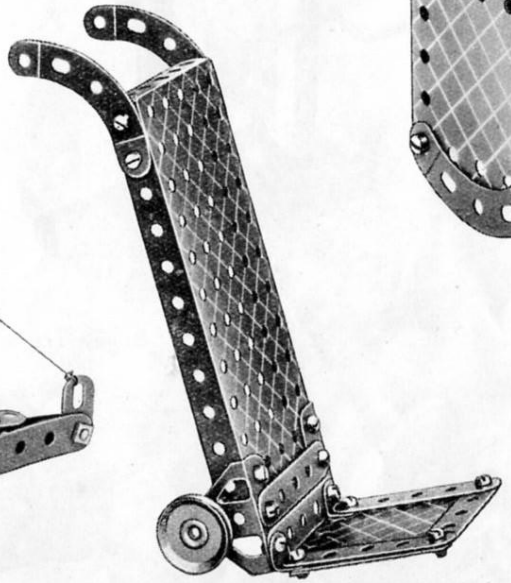
A65. Cot



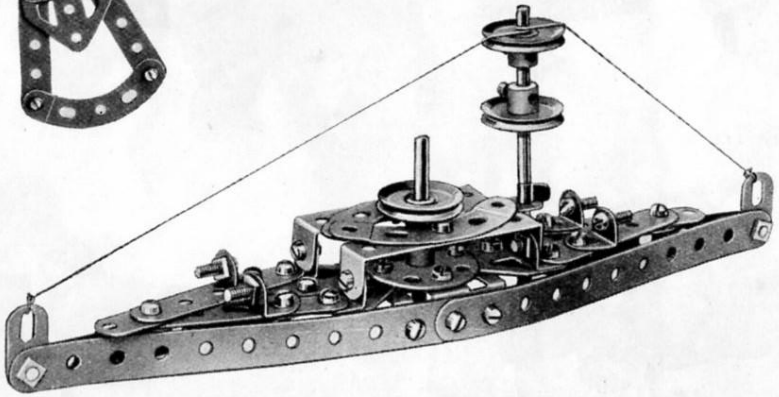
A58. Battle-axe



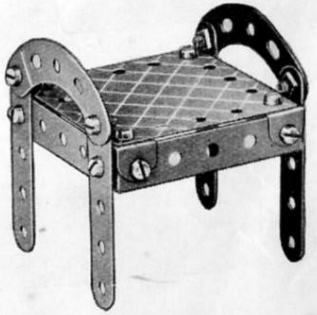
A61. Porter's Trolley



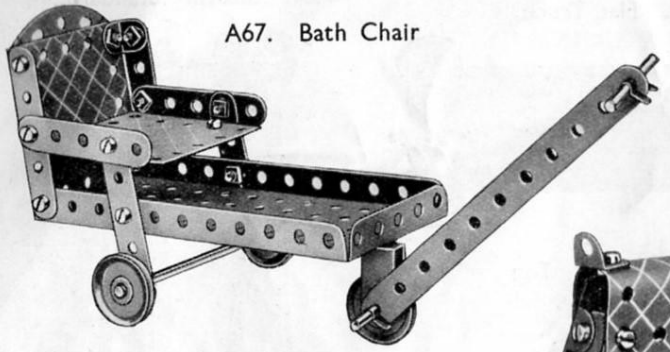
A59. Battleship



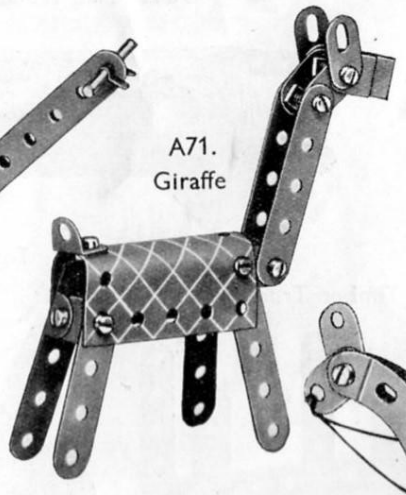
A66. Music Stool



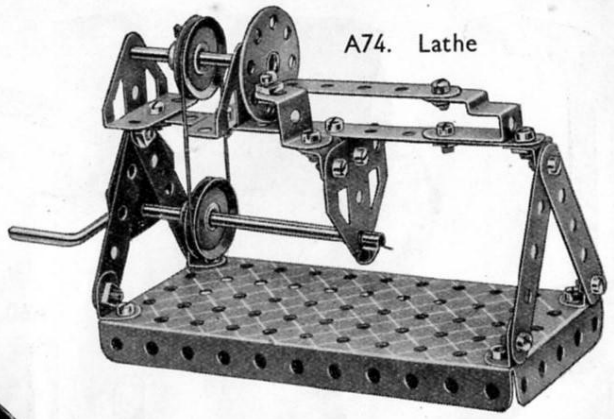
A67. Bath Chair



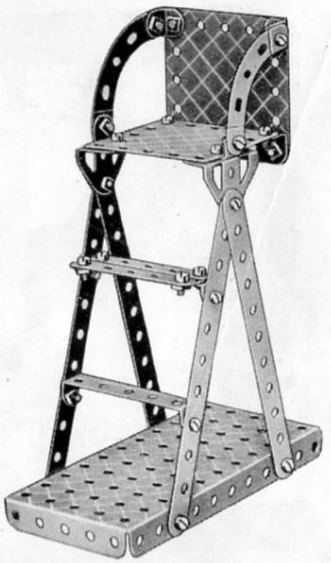
A71. Giraffe



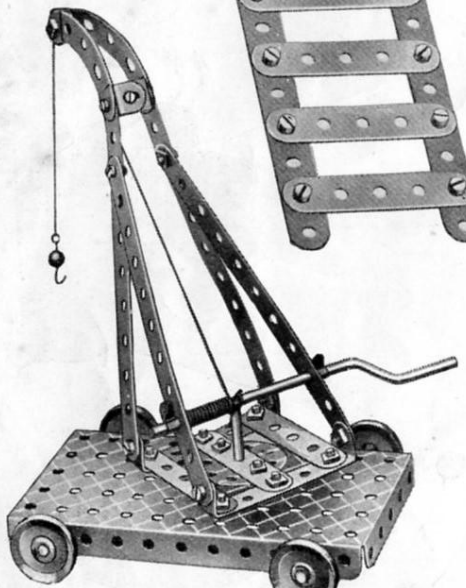
A74. Lathe



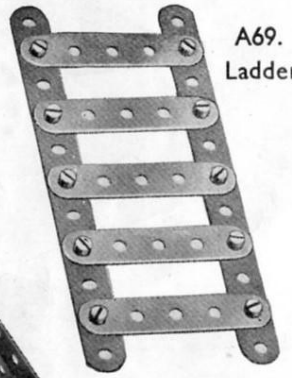
A77. Umpire's Seat



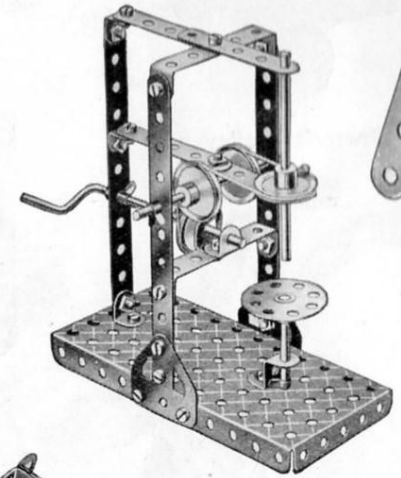
A68. Breakdown Crane



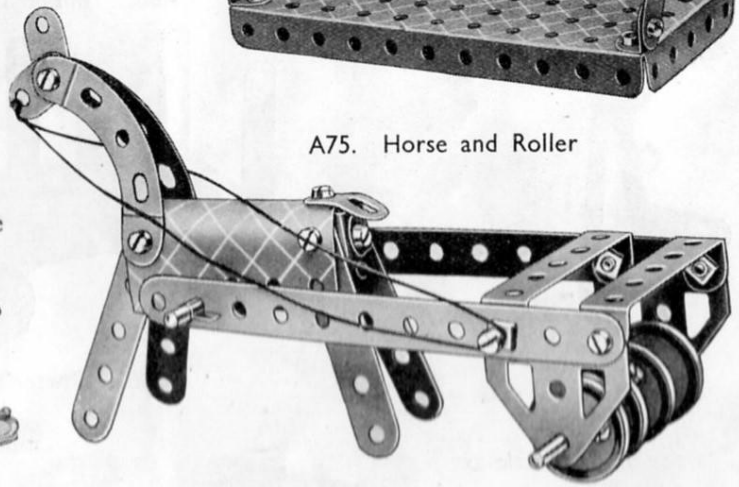
A69. Ladder



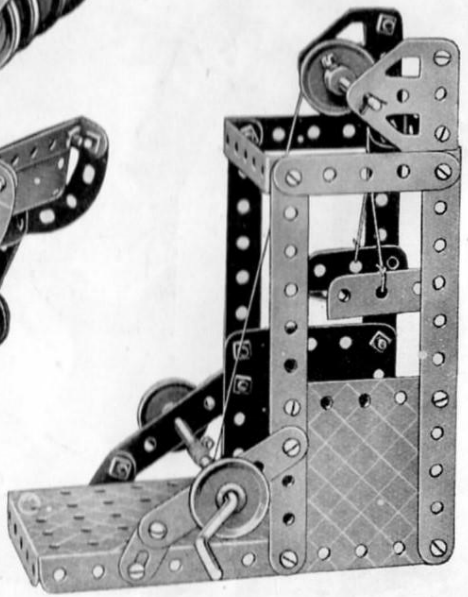
A72. Drilling Machine



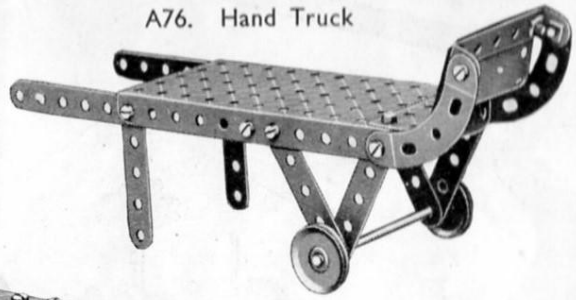
A75. Horse and Roller



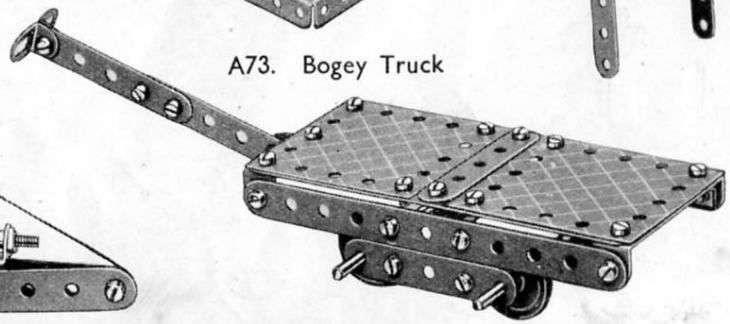
A78. Pit-head Gear



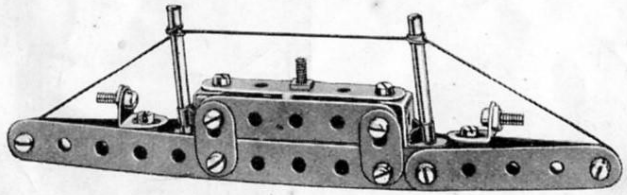
A76. Hand Truck



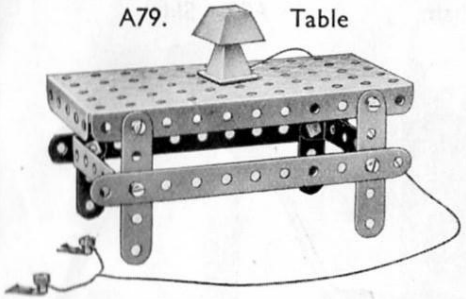
A73. Bogey Truck



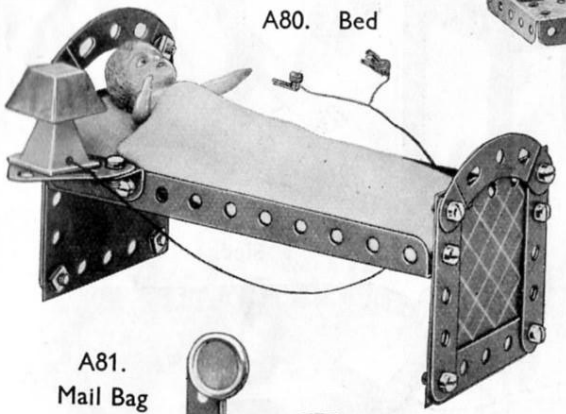
A70. Cruiser



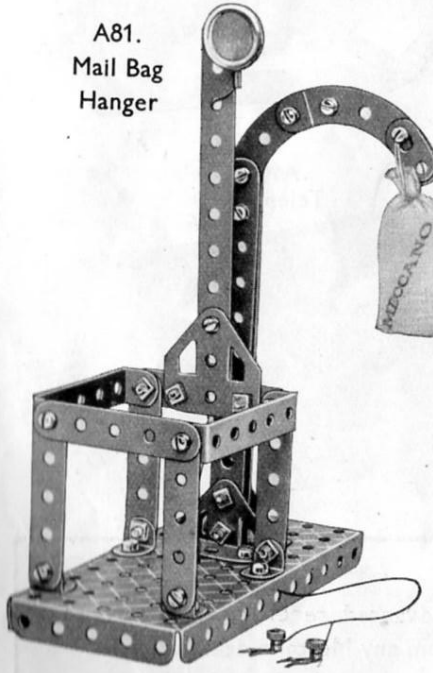
A79. Table



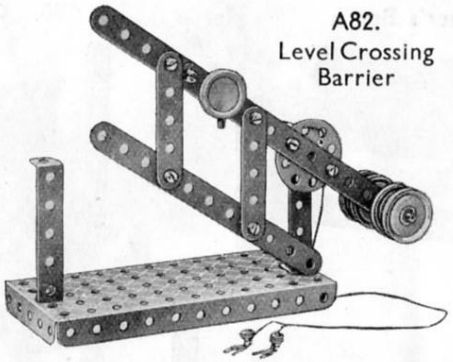
A80. Bed



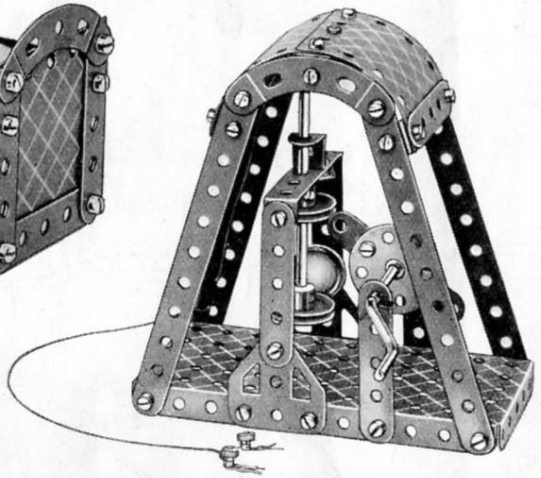
A81. Mail Bag Hanger



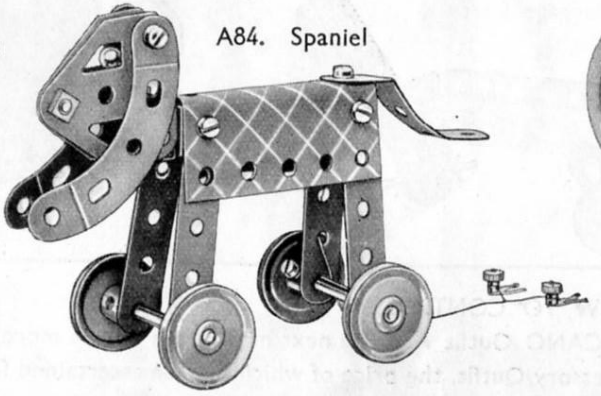
A82. Level Crossing Barrier



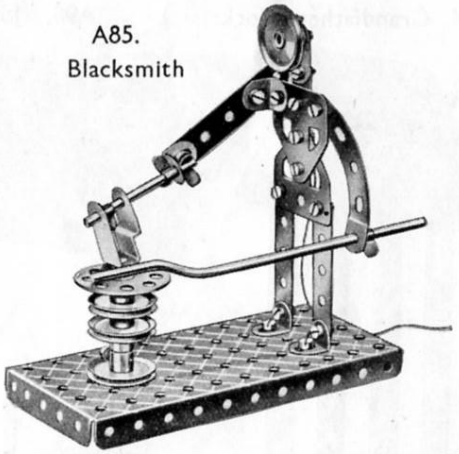
A83. Stamping Mill



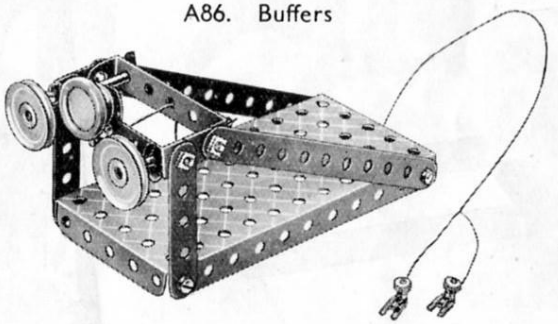
A84. Spaniel



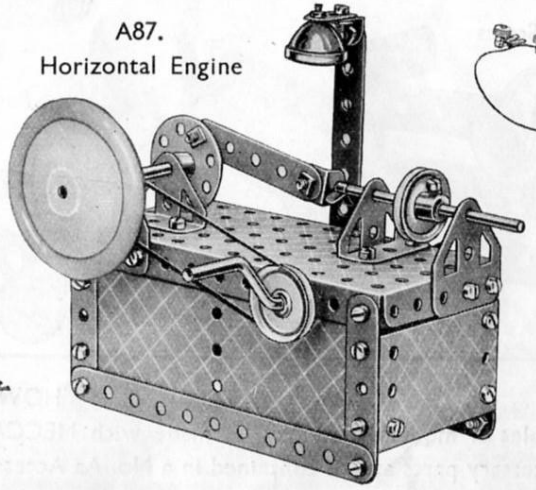
A85. Blacksmith



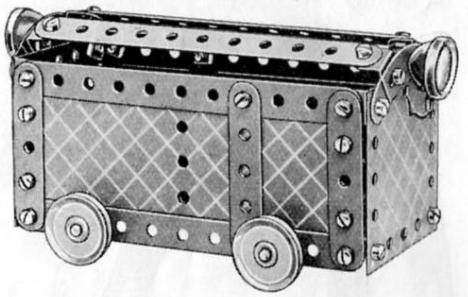
A86. Buffers



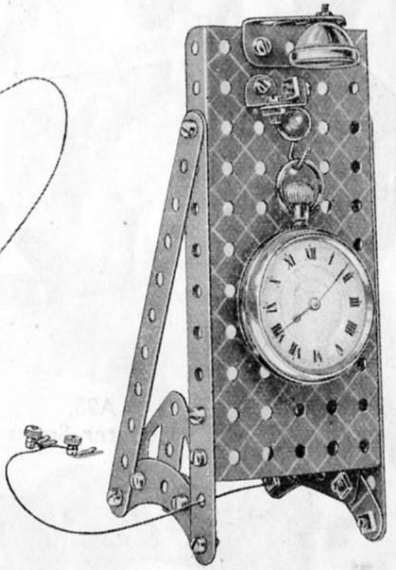
A87. Horizontal Engine



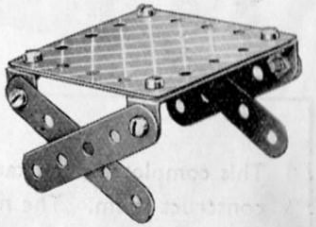
A88. Pullman Car



A89. Watch Stand

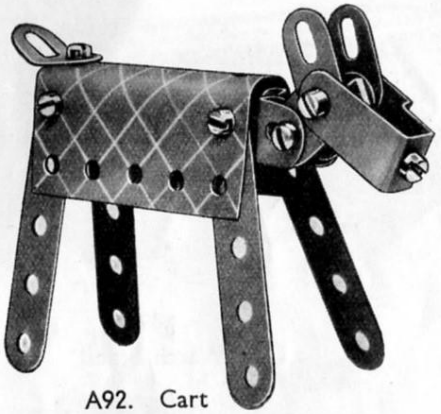


A90. Coffee Table

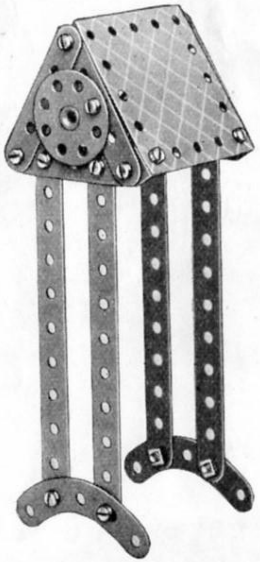


This page shows examples of the use of the Meccano Lighting Set, described on page 2 of cover

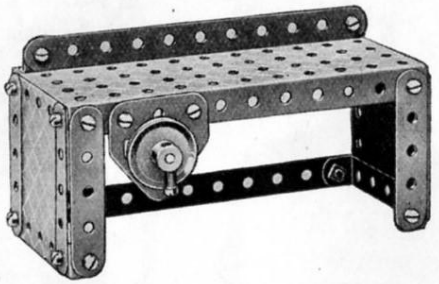
A91. Calf



A94. Grandfather Clock

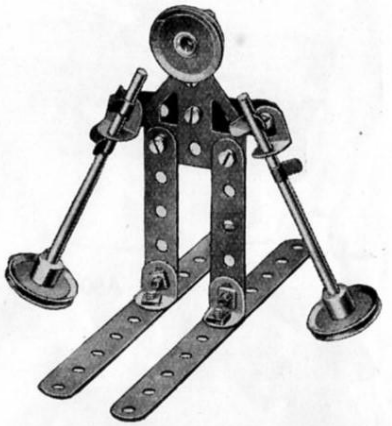


A95. Joiner's Bench

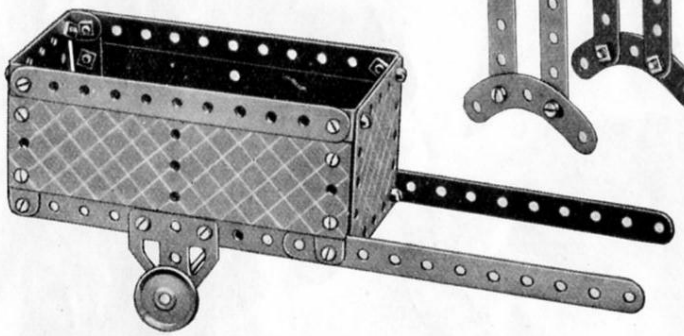


A98. Chair

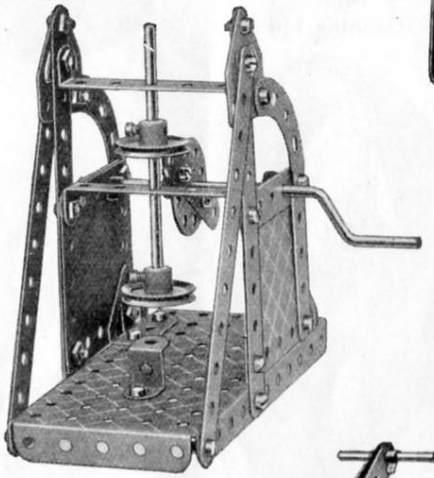
A99. Skier



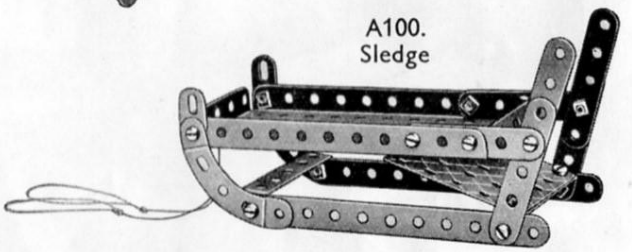
A92. Cart



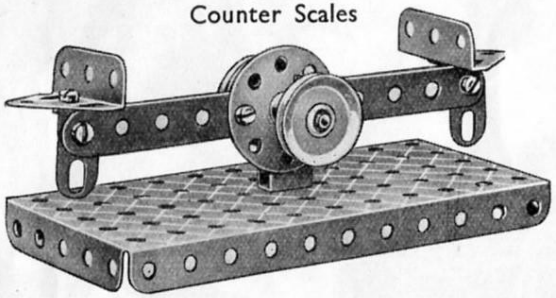
A96. Ore Crusher



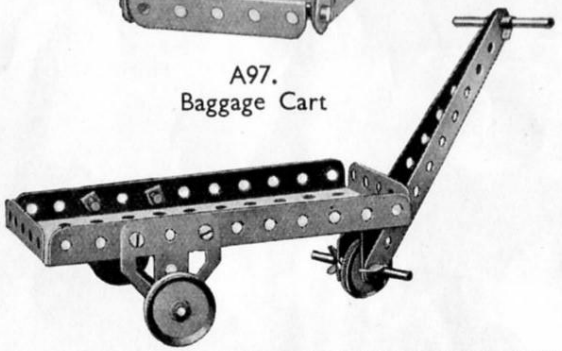
A100. Sledge



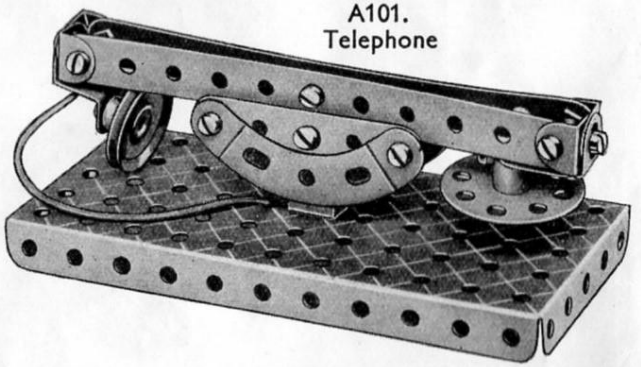
A93. Counter Scales



A97. Baggage Cart



A101. Telephone



HOW TO CONTINUE

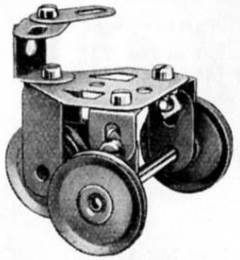
This completes our examples of models that may be made with MECCANO Outfit A. The next models are a little more advanced, requiring extra parts to construct them. The necessary parts are all contained in a No. Aa Accessory Outfit, the price of which may be ascertained from any Meccano dealer.

B1. Man and Boy

Parts required

4	of No.	2
2	„ „	5
5	„ „	10
1	„ „	11
8	„ „	12
1	„ „	22
1	„ „	24
25	„ „	34
1	„ „	52
2	„ „	54a
1	„ „	90a
2	„ „	111c
2	„ „	125
1	„ „	126a

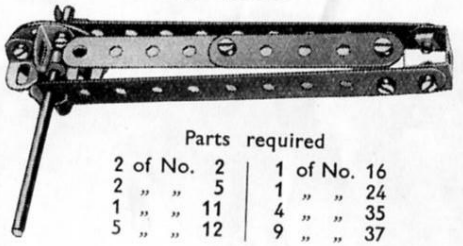
B4. Tricycle



Parts required

4	of No.	10
1	„ „	11
2	„ „	12
1	„ „	17
3	„ „	22
6	„ „	37
1	„ „	45
1	„ „	111c
1	„ „	126a

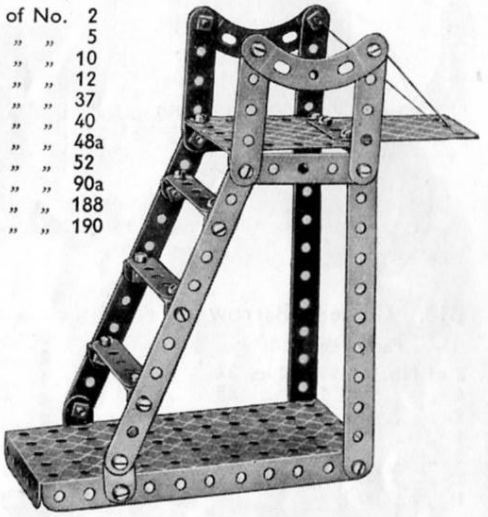
B7. Rattle



Parts required

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

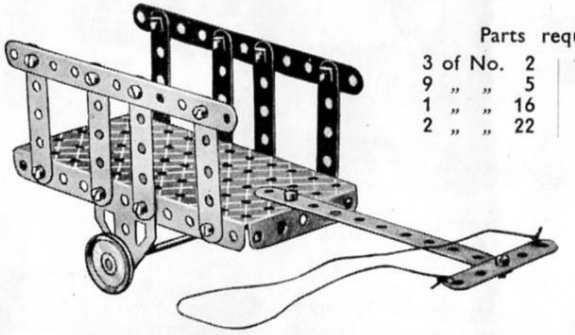
B9. High Diving Board



Parts required

4	of No.	2
9	„ „	5
2	„ „	10
6	„ „	12
32	„ „	37
1	„ „	40
2	„ „	48a
1	„ „	52
2	„ „	90a
1	„ „	188
1	„ „	190

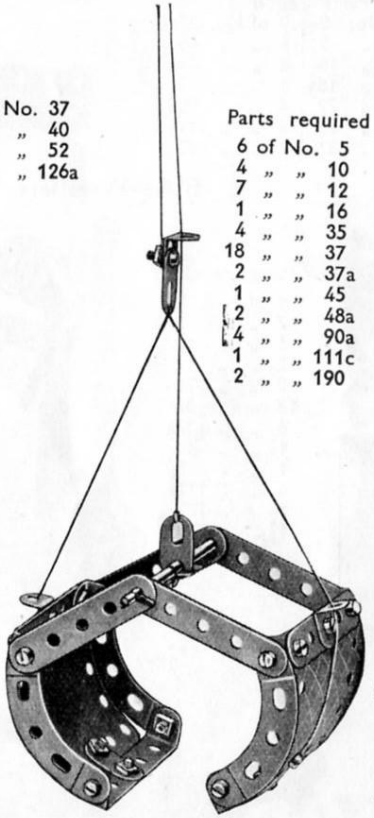
B5. Bullock Cart



Parts required

3	of No.	2	18	of No.	37
9	„ „	5	1	„ „	40
1	„ „	16	1	„ „	52
2	„ „	22	2	„ „	126a

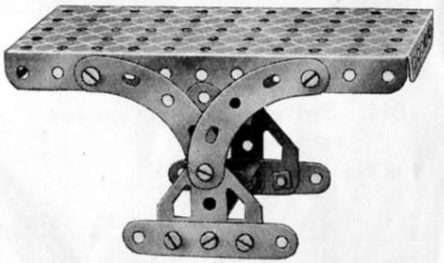
B8. Crane Grab



Parts required

6	of No.	5
4	„ „	10
7	„ „	12
1	„ „	16
4	„ „	35
18	„ „	37
2	„ „	37a
1	„ „	45
2	„ „	48a
4	„ „	90a
1	„ „	111c
2	„ „	190

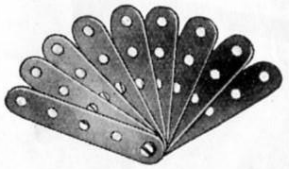
B10. Drafting Table



Parts required

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

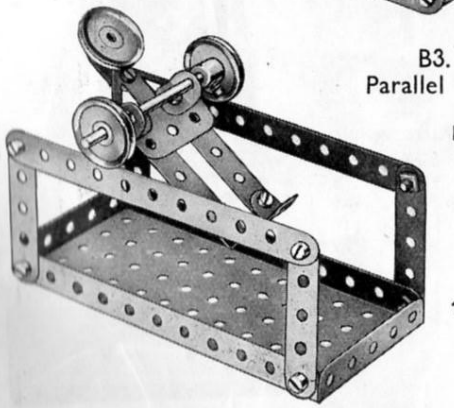
B2. Fan



Parts required

9	of No.	5
1	„ „	37a
1	„ „	111c

B3. Parallel Bars



Parts required

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

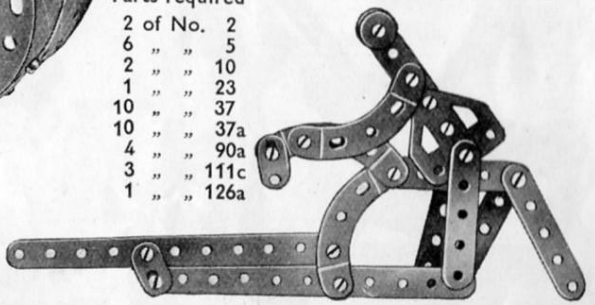
B6. Walking Man

Parts required

5	of No.	5
3	„ „	10
2	„ „	12
1	„ „	22
5	„ „	37
1	„ „	37a
3	„ „	90a
2	„ „	111c

The $\frac{3}{8}$" Bolts used for connecting the $5\frac{1}{2}$in. Strips, the horse's legs, and the rider's legs and arms, are all locknutted (see Standard Mechanism No. 262). The lower $5\frac{1}{2}$in. Strip should be held rigidly and the upper one jerked forward ; the horse will then throw its rider completely over its head.

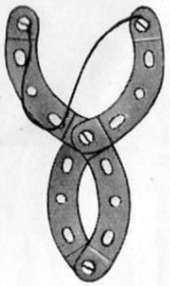
B11. Bucking Broncho



Parts required

2	of No.	2
6	„ „	5
2	„ „	10
1	„ „	23
10	„ „	37
10	„ „	37a
4	„ „	90a
3	„ „	111c
1	„ „	126a

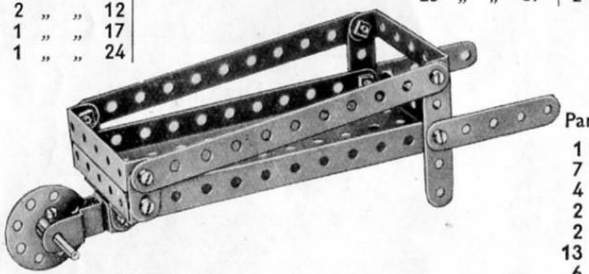
B12. Catapult



Parts required

4 of No. 37
4 „ „ 90a
A short length of elastic

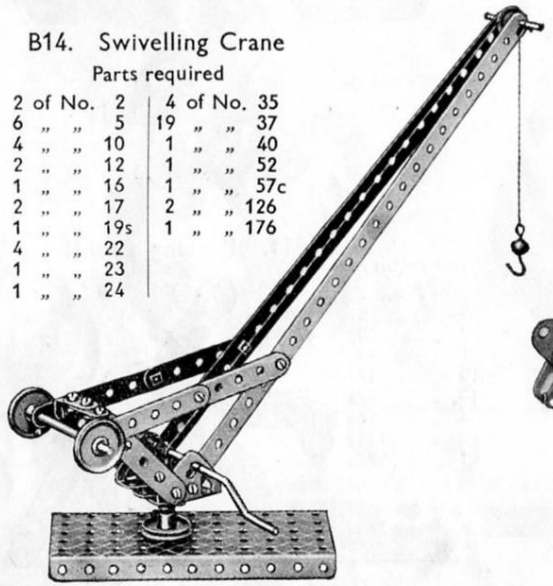
B13. Coster's Barrow



Parts required

2 of No.	2	13 of No.	37
4 „ „	5	1 „ „	45
2 „ „	10	2 „ „	48a
1 „ „	11	1 „ „	52
2 „ „	12		
1 „ „	17		
1 „ „	24		

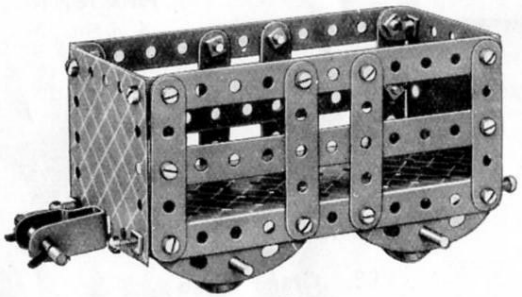
B14. Swivelling Crane



Parts required

2 of No.	2	4 of No.	35
6 „ „	5	19 „ „	37
4 „ „	10	1 „ „	40
2 „ „	12	1 „ „	52
1 „ „	16	1 „ „	57c
2 „ „	17	2 „ „	126
1 „ „	19s	1 „ „	176
4 „ „	22		
1 „ „	23		
1 „ „	24		

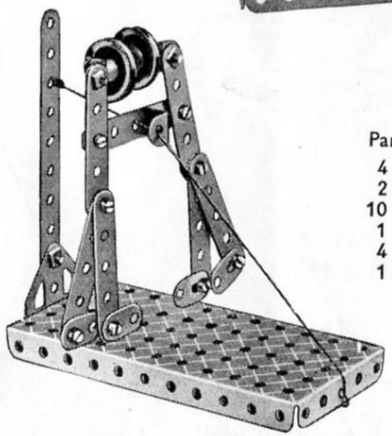
B15. Cattle Truck



Parts required

4 of No.	2	9 of No.	37a
8 „ „	5	1 „ „	45
2 „ „	16	2 „ „	48a
1 „ „	18a	1 „ „	52
4 „ „	22	4 „ „	90a
2 „ „	35	4 „ „	111c
25 „ „	37	2 „ „	190

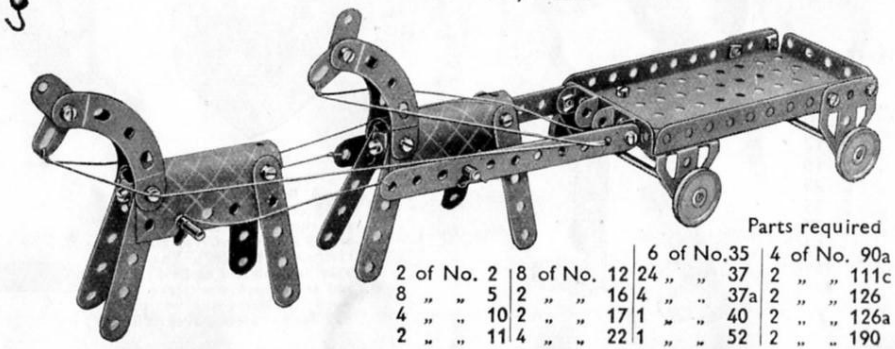
B16. Wrestlers



Parts required

1 of No.	2		
7 „ „	5		
4 „ „	10		
2 „ „	12		
2 „ „	22		
13 „ „	37		
6 „ „	37a		
1 „ „	40		
1 „ „	52		
4 „ „	111c		
1 „ „	125		
1 „ „	126a		

B17. Hay Cart

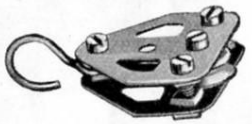


Parts required

2 of No.	2	8 of No.	12	6 of No.	35
8 „ „	5	2 „ „	16	24 „ „	37
4 „ „	10	2 „ „	17	4 „ „	37a
2 „ „	11	4 „ „	22	1 „ „	40
				1 „ „	52

4 of No.	90a
2 „ „	111c
2 „ „	126
2 „ „	126a
2 „ „	190

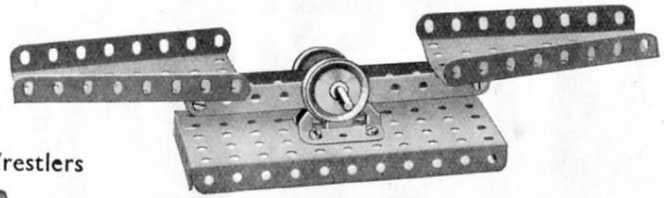
B18. Single Sheave Pulley Block



Parts required

1 of No.	23
11 „ „	37a
1 „ „	57c
4 „ „	111c
2 „ „	126a

B19. Scales



Parts required

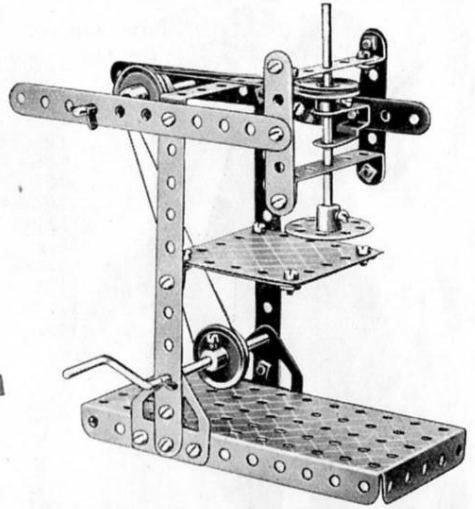
2 of No.	2	2 of No.	22	1 of No.	52
2 „ „	11	10 „ „	37	2 „ „	54a
1 „ „	17	4 „ „	38	2 „ „	126

B20. Card Table

Parts required

4 of No.	5
2 „ „	12
10 „ „	37
1 „ „	48a
4 „ „	90a
1 „ „	190

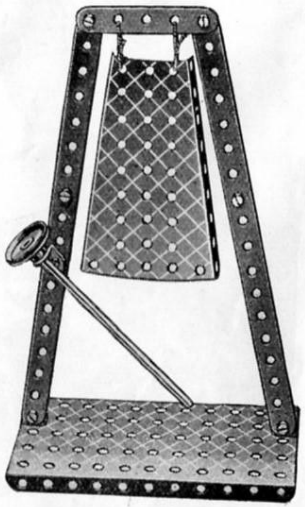
B21. Drilling Machine



Parts required

4 of No.	2	28 of No.	37
8 „ „	5	1 „ „	37a
6 „ „	12	1 „ „	40
2 „ „	16	1 „ „	45
1 „ „	19s	2 „ „	48a
4 „ „	22	1 „ „	52
1 „ „	24	2 „ „	126a
6 „ „	35	1 „ „	190

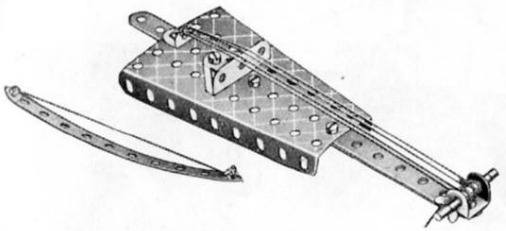
B22. Gong



Parts required

4 of No.	2
1 „ „	5
3 „ „	12
1 „ „	16
1 „ „	22
9 „ „	37
1 „ „	40
1 „ „	52
1 „ „	54a

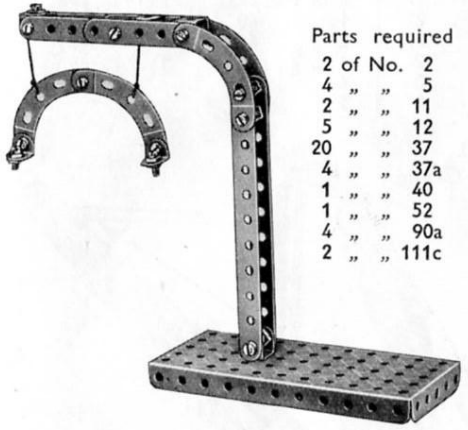
B23. Violin and Bow



Parts required

4	of No.	2
1	„ „	11
1	„ „	12
1	„ „	17
2	„ „	35
5	„ „	37
1	„ „	40
1	„ „	54a
1	„ „	126

B24. Loading Gauge



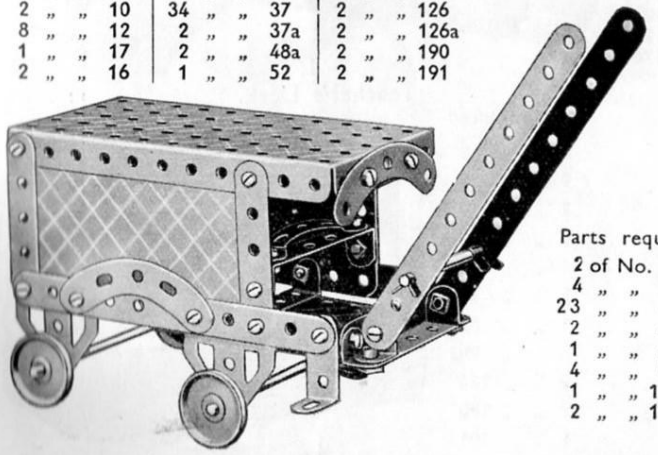
Parts required

2	of No.	2
4	„ „	5
2	„ „	11
5	„ „	12
20	„ „	37
4	„ „	37a
1	„ „	40
1	„ „	52
4	„ „	90a
2	„ „	111c

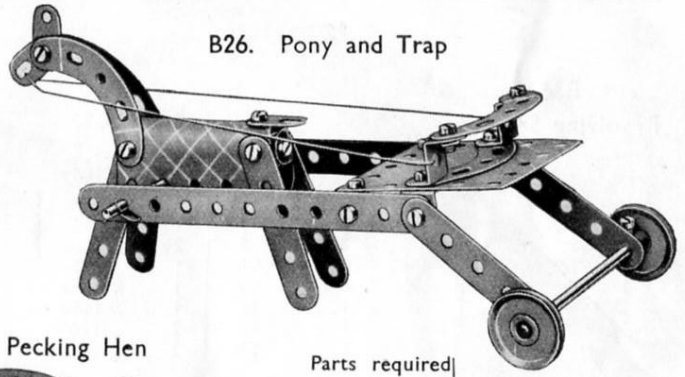
B25. Bread Van

Parts required

4	of No.	2	4	of No.	22	4	of No.	90a
8	„ „	5	4	„ „	35	1	„ „	125
2	„ „	10	34	„ „	37	2	„ „	126
8	„ „	12	2	„ „	37a	2	„ „	126a
1	„ „	17	2	„ „	48a	2	„ „	190
2	„ „	16	1	„ „	52	2	„ „	191



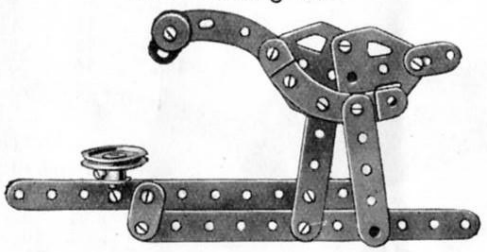
B26. Pony and Trap



Parts required

2	of No.	2
6	„ „	5
3	„ „	10
6	„ „	12
2	„ „	16
2	of No.	22
4	„ „	35
17	„ „	37
1	„ „	37a
1	„ „	40
1	of No.	48a
4	„ „	90a
1	„ „	111c
2	„ „	125
2	„ „	190

B27. Pecking Hen

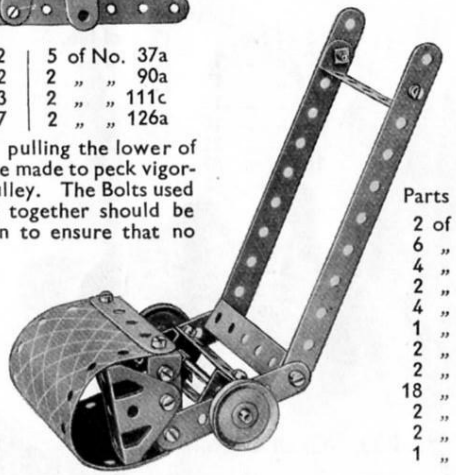


Parts required

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

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

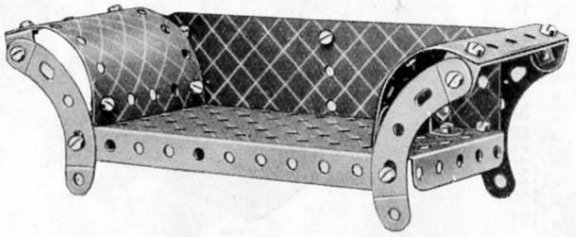
B28. Grass Cutter



Parts required

2	of No.	2
6	„ „	5
4	„ „	10
2	„ „	11
4	„ „	12
1	„ „	16
2	„ „	22
2	„ „	35
18	„ „	37
2	„ „	48a
2	„ „	126
1	„ „	191

B29. Couch



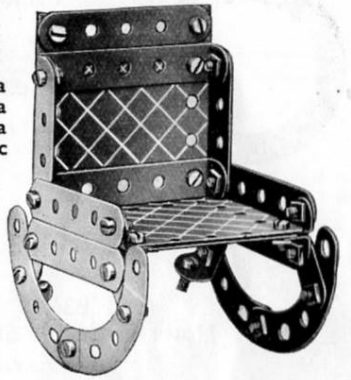
Parts required

2	of No.	2
4	„ „	12
23	„ „	37
2	„ „	48a
1	„ „	52
4	„ „	90a
1	„ „	189
2	„ „	190

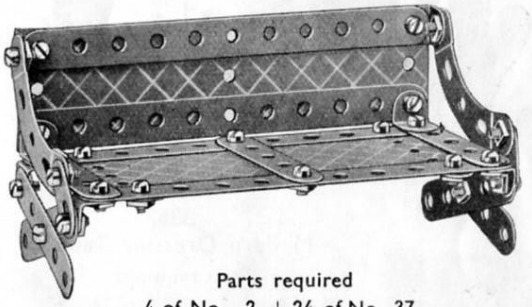
B30. Rocking Chair

Parts required

9	of No.	5
4	„ „	10
8	„ „	12
26	„ „	37
2	„ „	37a
2	„ „	48a
4	„ „	90a
2	„ „	111c
2	„ „	190



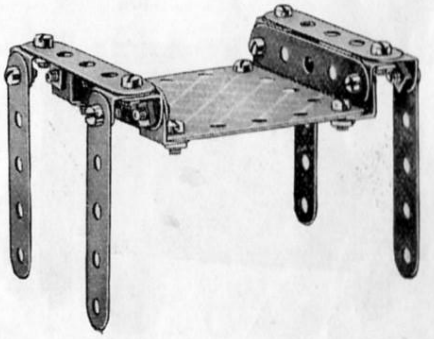
B31. Station Seat



Parts required

4	of No.	2	24	of No.	37
9	„ „	5	2	„ „	90a
2	„ „	10	1	„ „	189
8	„ „	12	1	„ „	191

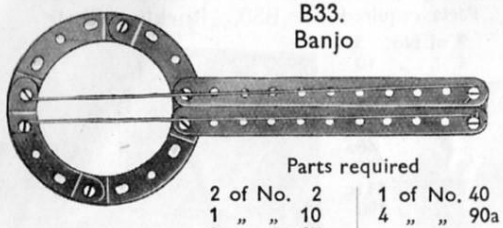
B32. Stool for Dressing Table



Parts required

9	of No.	5
8	„ „	12
16	„ „	37
2	„ „	125
1	„ „	190

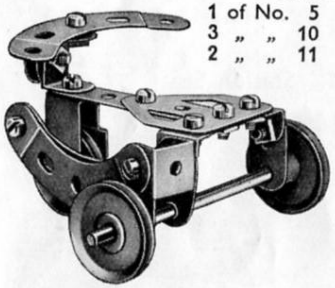
B33. Banjo



Parts required

2	of No. 2	1	of No. 40
1	„ „ 10	4	„ „ 90a
8	„ „ 37		

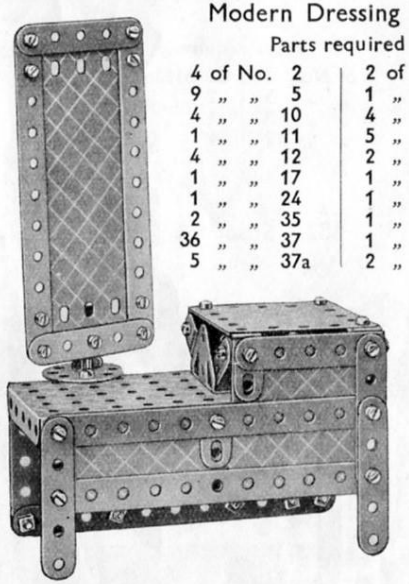
B34. Motor Cycle and Side-Car



Parts required

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

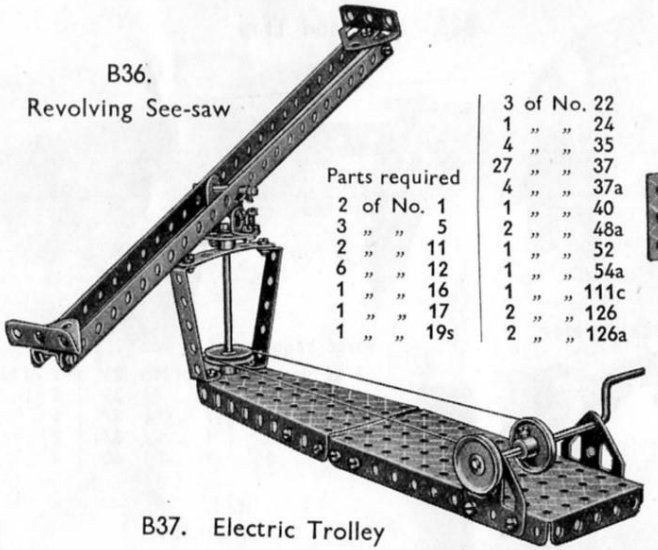
B35. Modern Dressing Table



Parts required

4	of No. 2	2	of No. 48a
9	„ „ 5	1	„ „ 52
4	„ „ 10	4	„ „ 90a
1	„ „ 11	5	„ „ 111c
4	„ „ 12	2	„ „ 126
1	„ „ 17	1	„ „ 126a
1	„ „ 24	1	„ „ 188
2	„ „ 35	1	„ „ 189
36	„ „ 37	1	„ „ 190
5	„ „ 37a	2	„ „ 191

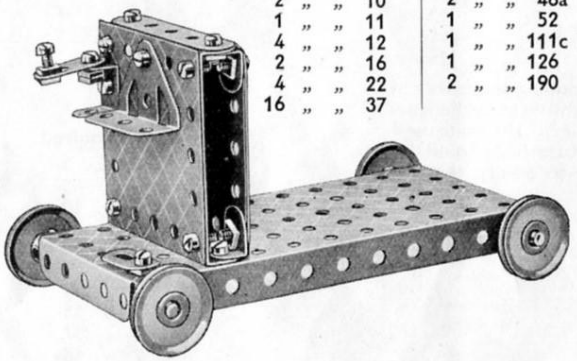
B36. Revolving See-saw



Parts required

2	of No. 1	3	of No. 22
3	„ „ 5	1	„ „ 24
2	„ „ 11	4	„ „ 35
6	„ „ 12	27	„ „ 37
1	„ „ 16	4	„ „ 37a
1	„ „ 17	1	„ „ 40
1	„ „ 19s	2	„ „ 48a
		1	„ „ 52
		1	„ „ 54a
		1	„ „ 111c
		2	„ „ 126
		2	„ „ 126a

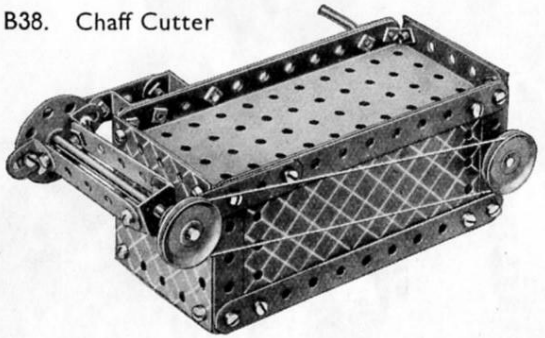
B37. Electric Trolley



Parts required

3	of No. 5	4	of No. 37a
2	„ „ 10	2	„ „ 48a
1	„ „ 11	1	„ „ 52
4	„ „ 12	1	„ „ 111c
2	„ „ 16	1	„ „ 126
4	„ „ 22	2	„ „ 190
16	„ „ 37		

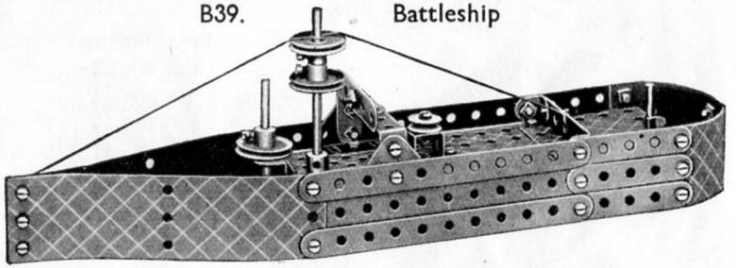
B38. Chaff Cutter



Parts required

4	of No. 2	1	of No. 23
8	„ „ 5	2	„ „ 35
1	„ „ 11	22	„ „ 37
6	„ „ 12	2	„ „ 37a
1	„ „ 16	1	„ „ 40
1	„ „ 19s	2	„ „ 48a
2	„ „ 22	1	„ „ 52
1	„ „ 24	1	„ „ 57c
2	„ „ 35	1	„ „ 111c
33	„ „ 37	2	„ „ 125
1	„ „ 40	2	„ „ 126
1	„ „ 52	1	„ „ 176
2	„ „ 125		
2	„ „ 190		
2	„ „ 191		

B39. Battleship

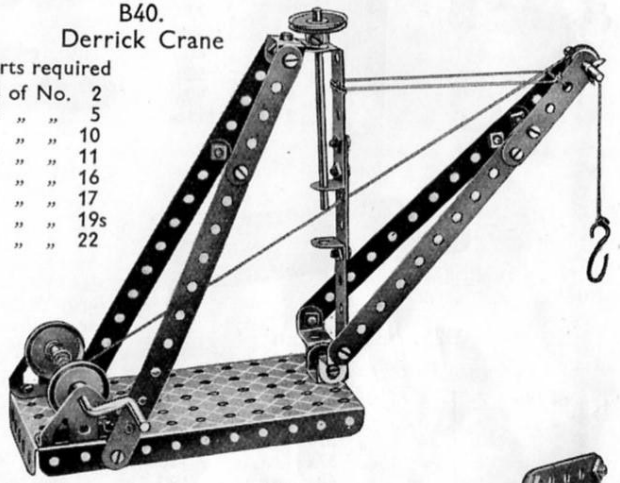


Parts required

4	of No. 2	2	of No. 17	4	of No. 37a
9	„ „ 5	3	„ „ 22	1	„ „ 40
4	„ „ 10	1	„ „ 23	2	„ „ 48a
1	„ „ 11	1	„ „ 24	1	„ „ 52
5	„ „ 12	5	„ „ 35	4	„ „ 111c
1	„ „ 16	36	„ „ 37	2	„ „ 125

2	of No. 126
2	„ „ 188
2	„ „ 189
1	„ „ 190

B40. Derrick Crane



Parts required

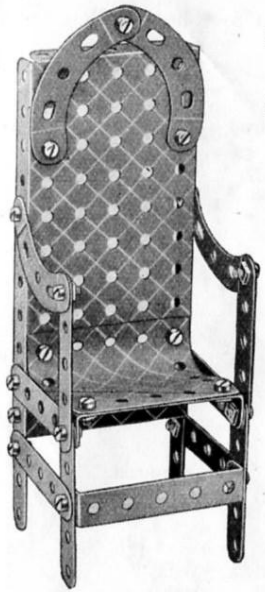
4	of No. 2	1	of No. 23
5	„ „ 5	2	„ „ 35
1	„ „ 10	22	„ „ 37
2	„ „ 11	2	„ „ 37a
1	„ „ 16	1	„ „ 40
1	„ „ 17	2	„ „ 48a
1	„ „ 19s	1	„ „ 52
3	„ „ 22	1	„ „ 57c
		1	„ „ 111c
		2	„ „ 125
		2	„ „ 126
		1	„ „ 176

B41. Teacher's Desk.

Parts required

2	of No. 2	2	of No. 48a
9	„ „ 5	1	„ „ 52
2	„ „ 10	4	„ „ 90a
6	„ „ 12	2	„ „ 126
34	„ „ 37	2	„ „ 190
		1	„ „ 191

B42. Arm Chair



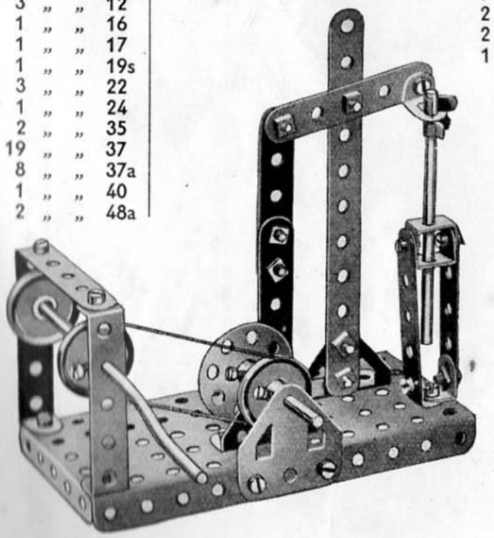
Parts required

2	of No.	2
8	„ „	5
21	„ „	37
2	„ „	48a
1	„ „	52
4	„ „	90a
1	„ „	190

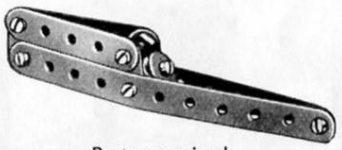
B43. Pump

Parts required

1	of No.	2
6	„ „	5
2	„ „	11
3	„ „	12
1	„ „	16
1	„ „	17
1	„ „	19s
3	„ „	22
1	„ „	24
2	„ „	35
19	„ „	37
8	„ „	37a
1	„ „	40
2	„ „	48a
1	of No.	52
4	„ „	111c
2	„ „	126
1	„ „	126a



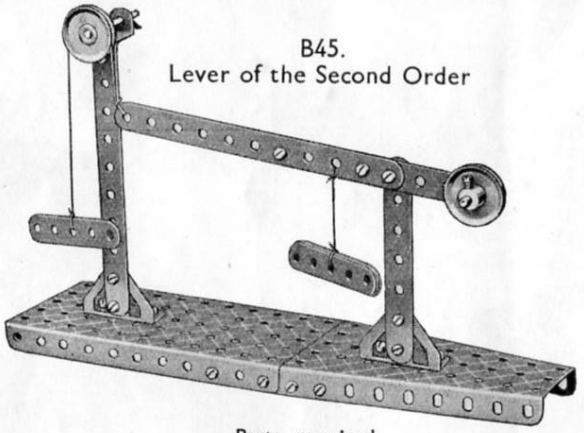
B44. Motor Boat



Parts required

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

B45. Lever of the Second Order



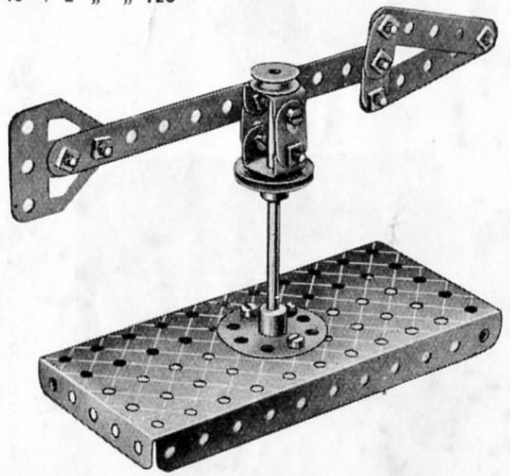
Parts required

2	of No.	2	2	of No.	35
9	„ „	5	21	„ „	37
2	„ „	17	2	„ „	37a
2	„ „	22	5	„ „	38
1	„ „	23	1	„ „	40
1	of No.	52a			
1	„ „	54a			
1	„ „	111c			
1	„ „	125			
2	„ „	126			

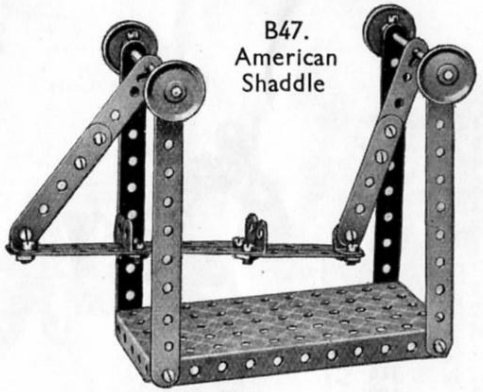
B46. Weather Vane

Parts required

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



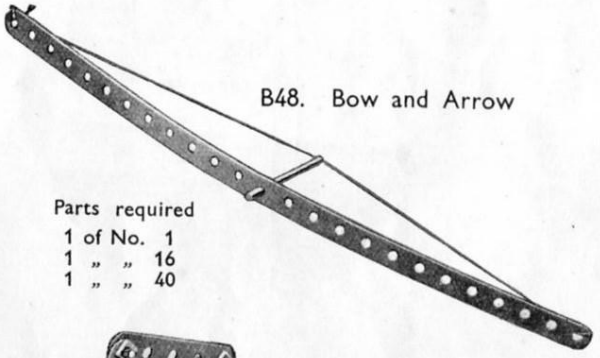
B47. American Shaddle



Parts required

4	of No.	2	4	of No.	22
9	„ „	5	4	„ „	35
2	„ „	10	18	„ „	37
2	„ „	12	2	„ „	37a
2	„ „	16	2	„ „	48a
			1	„ „	52

B48. Bow and Arrow



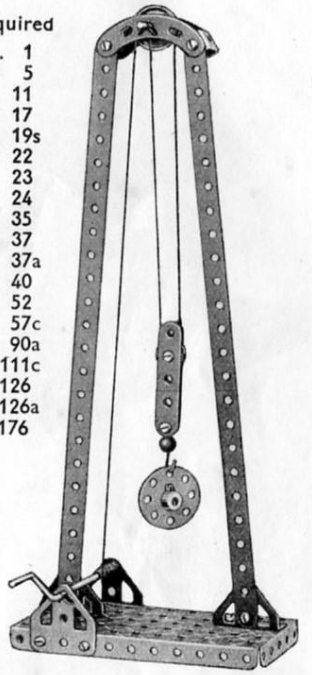
Parts required

1	of No.	1
1	„ „	16
1	„ „	40

B49. Pulley Block

Parts required

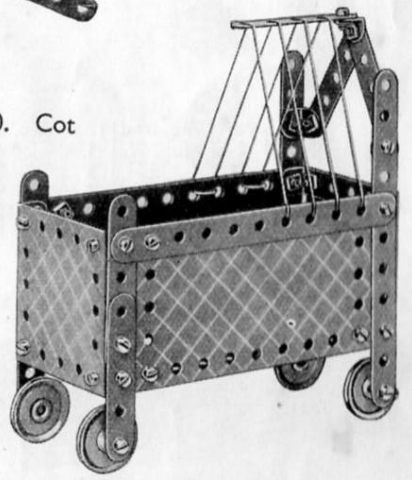
2	of No.	1
2	„ „	5
2	„ „	11
1	„ „	17
1	„ „	19s
1	„ „	22
1	„ „	23
1	„ „	24
4	„ „	35
14	„ „	37
2	„ „	37a
1	„ „	40
1	„ „	52
1	„ „	57c
2	„ „	90a
2	„ „	111c
2	„ „	126
2	„ „	126a
1	„ „	176



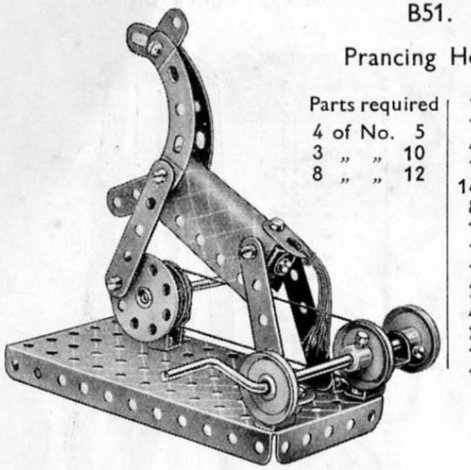
B50. Cot

Parts required

4	of No.	2
7	„ „	5
3	„ „	12
4	„ „	22
30	„ „	37
1	„ „	40
2	„ „	48a
1	„ „	52
4	„ „	111c
2	„ „	190
2	„ „	191

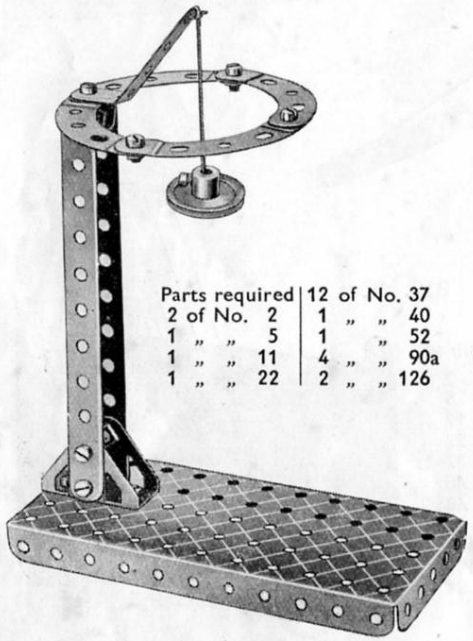


B51. Prancing Horse



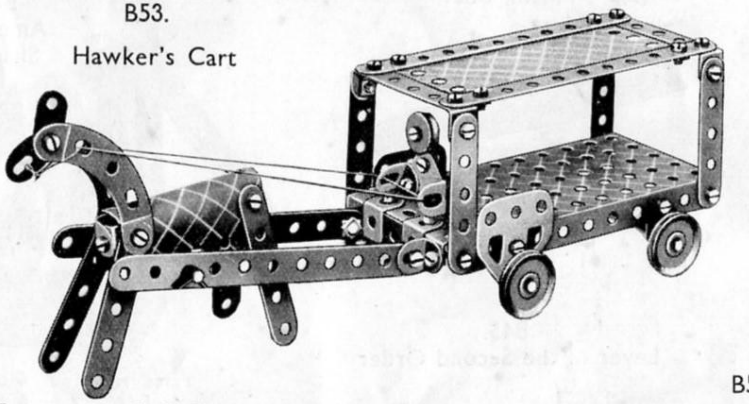
Parts required			
4 of No.	5	1 of No.	17
3 „ „	10	1 „ „	19s
8 „ „	12	4 „ „	22
		1 „ „	24
		14 „ „	37
		8 „ „	37a
		1 „ „	40
		1 „ „	44
		1 „ „	52
		2 „ „	90a
		4 „ „	111c
		2 „ „	125
		1 „ „	186
		1 „ „	190

B52. Punching Bag Stand



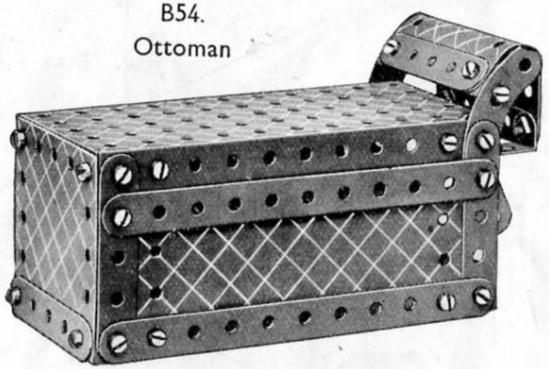
Parts required			
2 of No.	2	12 of No.	37
1 „ „	5	1 „ „	40
1 „ „	11	1 „ „	52
1 „ „	22	4 „ „	90a
		2 „ „	126

B53. Hawker's Cart



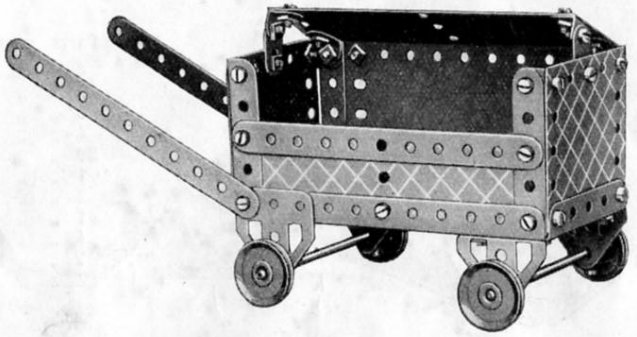
Parts required							
4 of No.	2	1 of No.	17	1 of No.	40	2 of No.	125
8 „ „	5	4 „ „	22	2 „ „	48a	2 „ „	126
4 „ „	10	1 „ „	23	1 „ „	52	2 „ „	126a
8 „ „	12	4 „ „	35	2 „ „	90a	1 „ „	190
2 „ „	16	35 „ „	37	2 „ „	111c	1 „ „	191
		4 „ „	37a				

B54. Ottoman



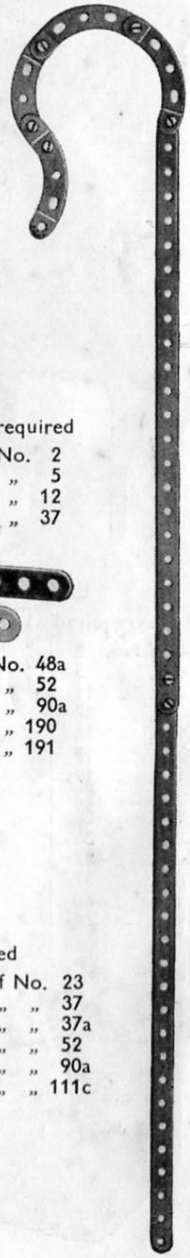
Parts required	
4 of No.	2
7 „ „	5
2 „ „	10
2 „ „	11
4 „ „	12
34 „ „	37
1 „ „	48a
1 „ „	52
2 „ „	90a
2 „ „	190
2 „ „	191

B55. Ash Cart



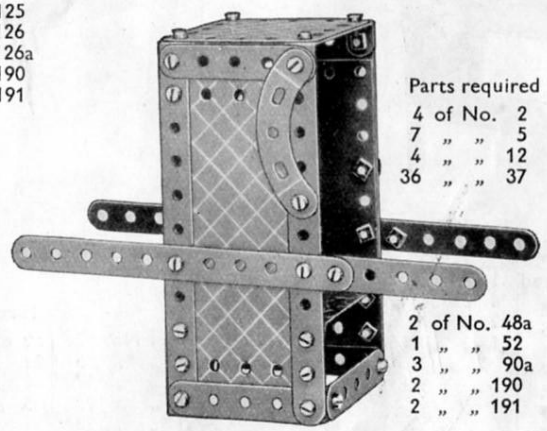
Parts required	
4 of No.	2
4 „ „	5
2 „ „	10
4 „ „	12
2 „ „	16
4 „ „	22
34 „ „	37
2 „ „	37a
2 „ „	48a
1 „ „	52
2 „ „	111c
2 „ „	126
2 „ „	126a
2 „ „	189
2 „ „	190
1 „ „	191

B56. Shepherd's Crook



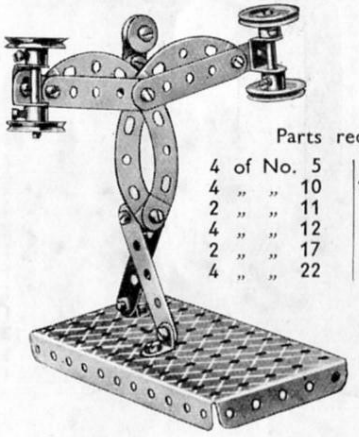
Parts required		
2 of No.	1	
7 „ „	37	
4 „ „	90a	

B57. Sedan Chair



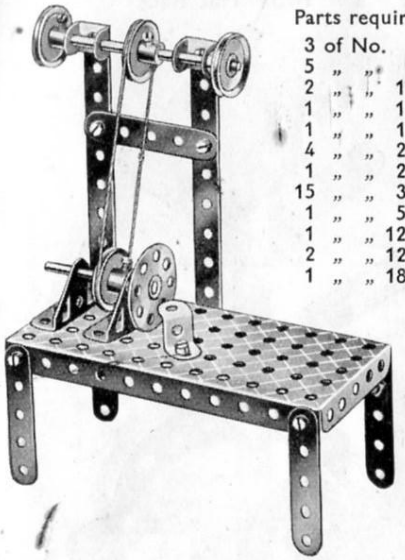
Parts required		
4 of No.	2	
7 „ „	5	
4 „ „	12	
36 „ „	37	
2 of No.	48a	
1 „ „	52	
3 „ „	90a	
2 „ „	190	
2 „ „	191	

B58. Strong Man



Parts required			
4 of No.	5	1 of No.	23
4 „ „	10	12 „ „	37
2 „ „	11	2 „ „	37a
4 „ „	12	1 „ „	52
2 „ „	17	4 „ „	90a
4 „ „	22	2 „ „	111c

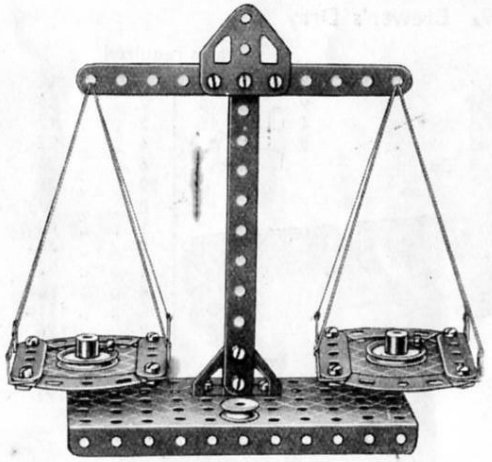
B59. Bench Lathe



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
1	„ „	186

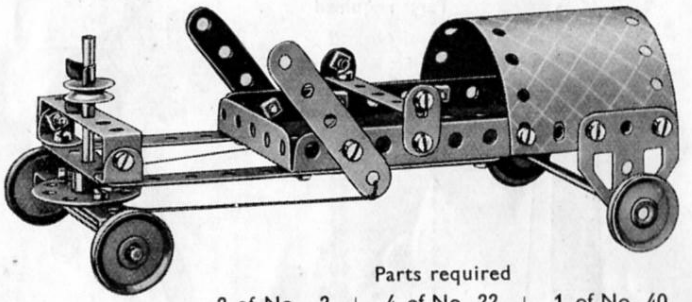
B62. Counter Scales



Parts required

2	of No.	2
4	„ „	5
8	„ „	12
2	„ „	22
1	„ „	23
14	„ „	37
2	„ „	37a
1	„ „	40
1	„ „	52
4	„ „	90a
1	„ „	111c
1	„ „	126
1	„ „	126a
2	„ „	190

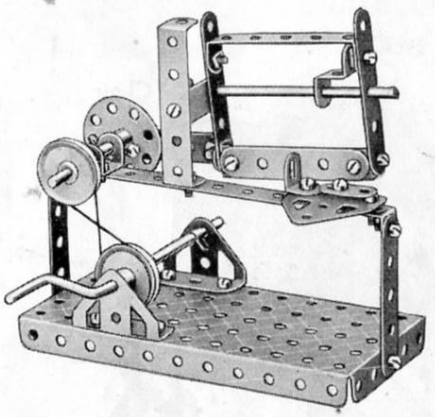
B65. Coaster



Parts required

2	of No.	2	4	of No.	22	1	of No. 40
4	„ „	5	1	„ „	23	2	„ „ 48a
2	„ „	10	1	„ „	24	1	„ „ 52
4	„ „	12	2	„ „	35	2	„ „ 126a
2	„ „	16	24	„ „	37	1	„ „ 191
1	„ „	17	2	„ „	37a		

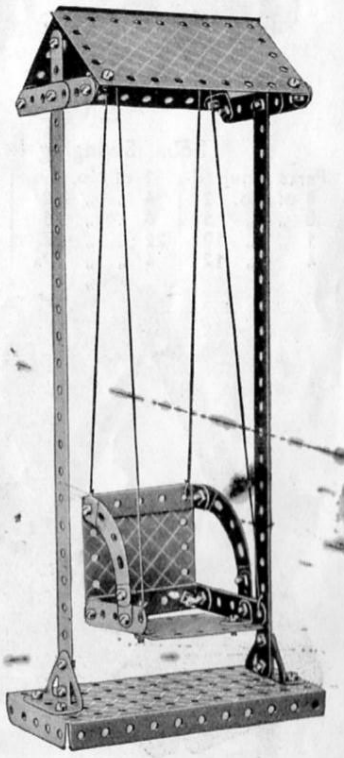
B63. Power Hack Saw



Parts required

1	of No.	2	18	of No.	37		
6	„ „	5	12	„ „	37a		
1	„ „	10	1	„ „	45		
1	„ „	11	2	„ „	48a		
6	„ „	12	1	„ „	52		
1	„ „	16	5	„ „	111c		
1	„ „	17	2	„ „	125		
1	„ „	19s	2	„ „	126		
2	„ „	22	1	„ „	126a		
1	„ „	24	1	„ „	186		
3	„ „	35					

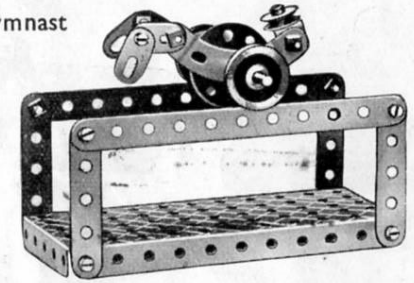
B66. Swing



Parts required

4	of No.	2
8	„ „	5
8	„ „	12
33	„ „	37
1	„ „	40
2	„ „	48a
1	„ „	52
2	„ „	90a
2	„ „	126
2	„ „	190
2	„ „	191

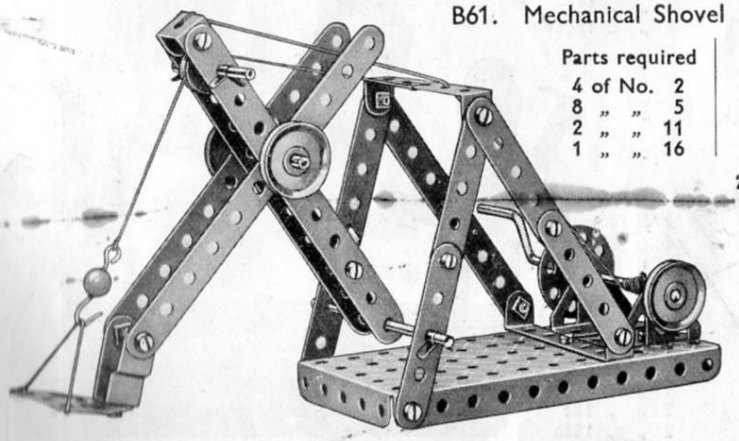
B60. Gymnast



Parts required

2	of No.	2	1	of No.	24		
4	„ „	5	13	„ „	37		
4	„ „	10	1	„ „	37a		
1	„ „	12	1	„ „	52		
1	„ „	16	1	„ „	90a		
2	„ „	22	1	„ „	111c		
1	„ „	23					

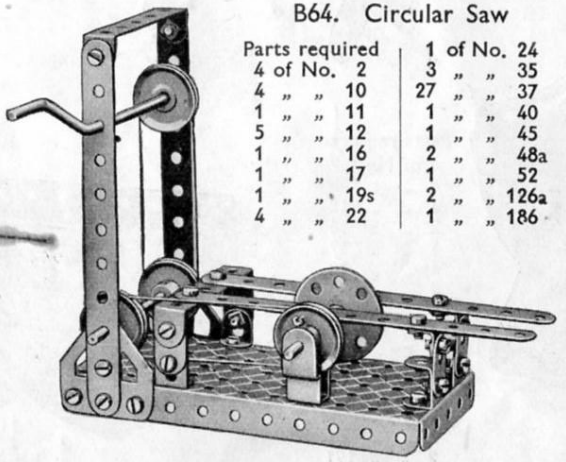
B61. Mechanical Shovel



Parts required

4	of No.	2	2	of No.	17		
8	„ „	5	1	„ „	19s		
2	„ „	11	3	„ „	22		
1	„ „	16	1	„ „	23		
			1	„ „	24		
			5	„ „	35		
			20	„ „	37		
			1	„ „	40		
			1	„ „	45		
			2	„ „	48a		
			1	„ „	52		
			1	„ „	57c		
			2	„ „	126		
			1	„ „	126a		
			1	„ „	176		

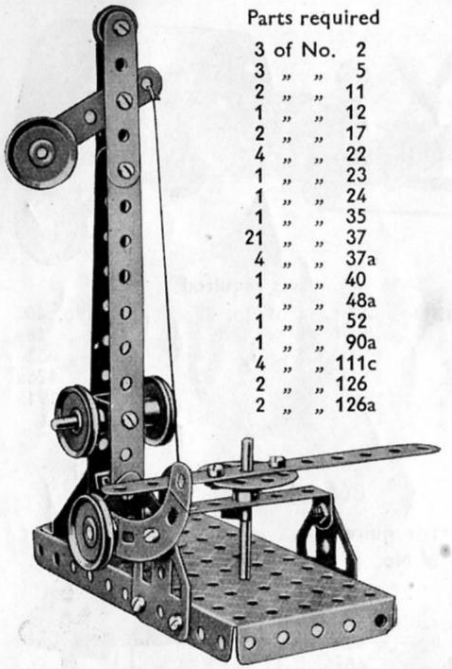
B64. Circular Saw



Parts required

4	of No.	2	1	of No.	24		
4	„ „	10	3	„ „	35		
1	„ „	11	27	„ „	37		
5	„ „	12	1	„ „	40		
1	„ „	16	1	„ „	45		
1	„ „	17	2	„ „	48a		
1	„ „	19s	1	„ „	52		
4	„ „	22	2	„ „	126a		
			1	„ „	186		

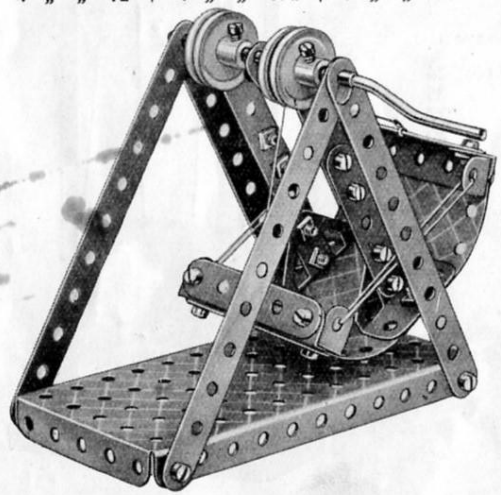
B67. Automatic Signals



Parts required

3	of No.	2	
3	„ „	5	
2	„ „	11	
1	„ „	12	
2	„ „	17	
4	„ „	22	
1	„ „	23	
1	„ „	24	
1	„ „	35	
21	„ „	37	
4	„ „	37a	
1	„ „	40	
1	„ „	48a	
1	„ „	52	
1	„ „	90a	
4	„ „	111c	
2	„ „	126	
2	„ „	126a	

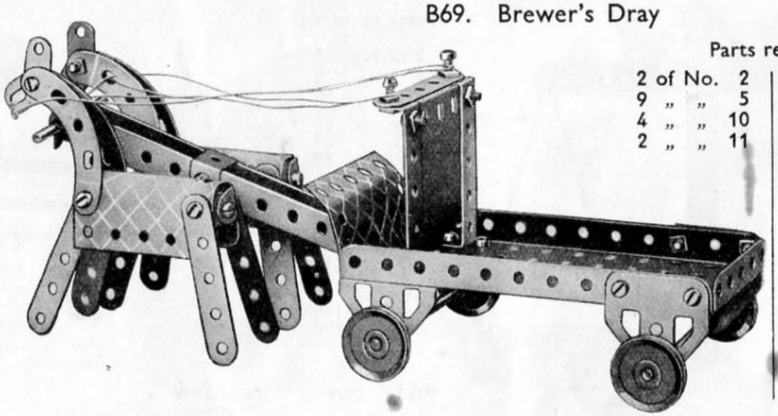
B68. Swinging Boat



Parts required

4	of No.	2	1	of No.	19s	1	of No. 40
8	„ „	5	4	„ „	22	2	„ „ 48a
1	„ „	10	6	„ „	35	1	„ „ 52
4	„ „	12	22	„ „	37	2	„ „ 126
			4	„ „	37a	1	„ „ 191

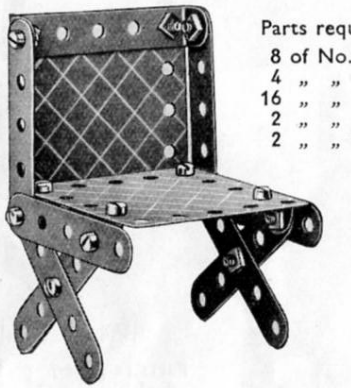
B69. Brewer's Dray



Parts required

2	of No.	2	8	of No.	12		
9	„ „	5	2	„ „	16		
4	„ „	10	2	„ „	17		
2	„ „	11	4	„ „	22		
			6	„ „	35		
			29	„ „	37		
			8	„ „	37a		
			1	„ „	40		
			2	„ „	48a		
			1	„ „	52		
			4	„ „	90a		
			4	„ „	111c		
			2	„ „	126		
			2	„ „	126a		
			2	„ „	190		
			1	„ „	191		

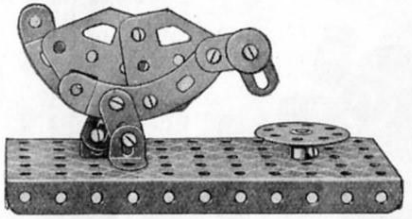
B70. Chair



Parts required

8	of No.	5	
4	„ „	12	
16	„ „	37	
2	„ „	48a	
2	„ „	190	

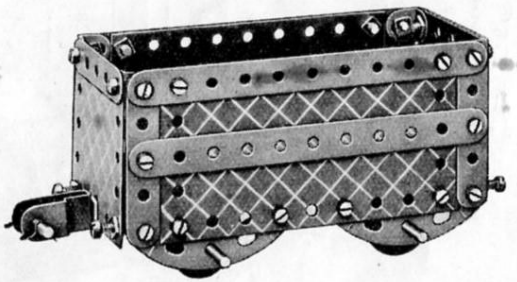
B71. Goose



Parts required

4	of No.	10	2	of No.	37a
2	„ „	12	1	„ „	52
1	„ „	23	2	„ „	90a
1	„ „	24	3	„ „	111c
6	„ „	37	2	„ „	126a

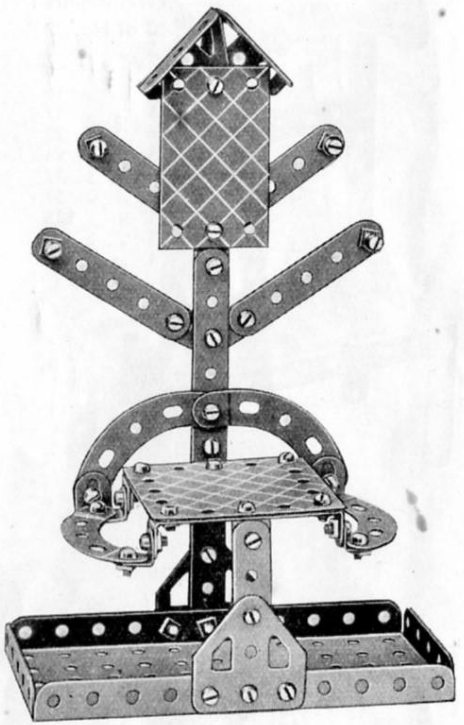
B72. Cattle Truck



Parts required

4	of No.	2	8	of No.	5
6	„ „	5	2	„ „	10
4	„ „	12	6	„ „	12
2	„ „	16	2	„ „	16
1	„ „	17	2	„ „	22
4	„ „	22	4	„ „	35
2	„ „	35	18	„ „	37
29	„ „	37	1	„ „	52
9	„ „	37a	2	„ „	111c
1	„ „	45	2	„ „	125
1	„ „	52	2	„ „	126a
4	„ „	90a			
4	„ „	111c			
2	„ „	190			
2	„ „	191			

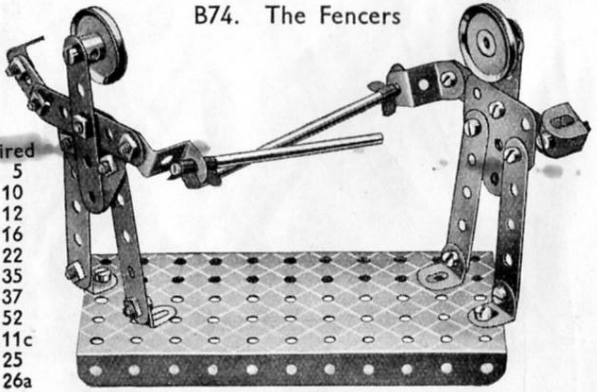
B73. Hat Rack



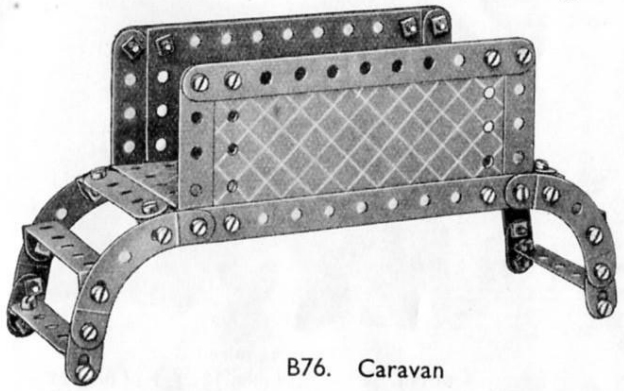
Parts required

2	of No.	2	8	of No.	37a	2	of No. 126
9	„ „	5	2	„ „	48a	2	„ „ 126a
2	„ „	10	1	„ „	52	1	„ „ 188
8	„ „	12	4	„ „	90a	1	„ „ 190
34	„ „	37	4	„ „	111c		

B74. The Fencers



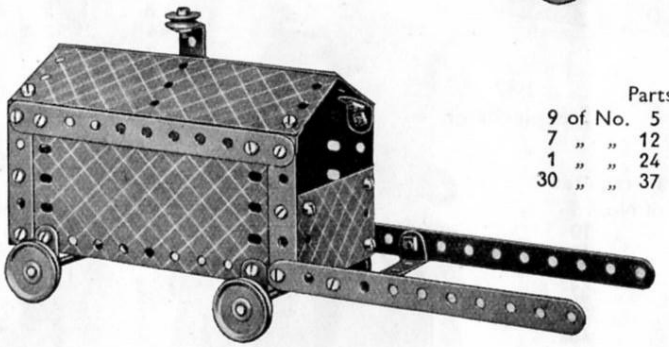
B75. Footbridge



Parts required

4	of No.	2
8	„ „	5
4	„ „	10
8	„ „	12
36	„ „	37
4	„ „	37a
2	„ „	48a
1	„ „	52
4	„ „	90a
4	„ „	111c
2	„ „	191

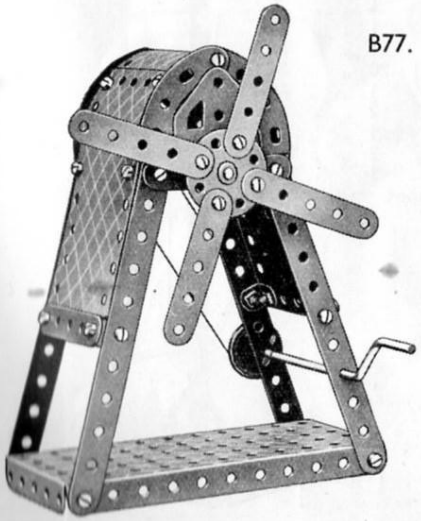
B76. Caravan



Parts required

4	of No.	2	5	of No.	37a
4	„ „	5	1	„ „	48a
4	„ „	10	1	„ „	52
8	„ „	12	1	„ „	111c
2	„ „	16	1	„ „	125
4	„ „	22	2	„ „	188
1	„ „	23	2	„ „	189
35	„ „	37	2	„ „	191

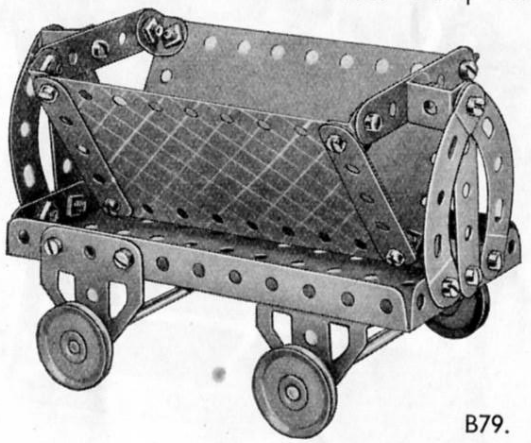
B77. Windmill



Parts required

4	of No.	2
8	„ „	5
4	„ „	10
4	„ „	12
1	„ „	16
1	„ „	19s
2	„ „	22
1	„ „	24
1	„ „	35
36	„ „	37
2	„ „	37a
2	„ „	48a
1	„ „	52
4	„ „	90a
2	„ „	111c
2	„ „	126a
1	„ „	186
1	„ „	190
2	„ „	191

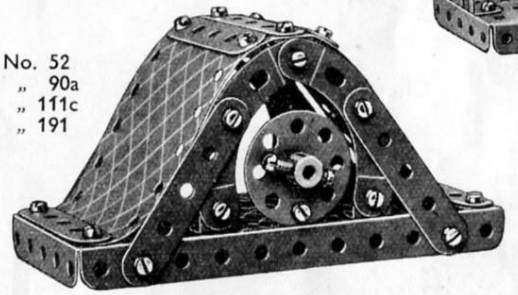
B78. Dump Car



Parts required

8	of No.	5
2	„ „	11
6	„ „	12
2	„ „	16
4	„ „	22
29	„ „	37
4	„ „	37a
1	„ „	52
4	„ „	90a
1	„ „	111c
2	„ „	126
2	„ „	126a
2	„ „	191

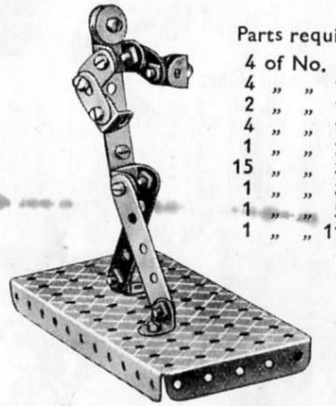
B79. Clock



Parts required

9	of No.	5	1	of No.	52
7	„ „	12	4	„ „	90a
1	„ „	24	2	„ „	111c
30	„ „	37	2	„ „	191

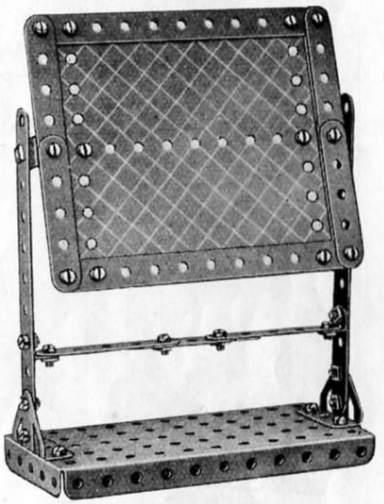
B80. Boxer



Parts required

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

B81. School Blackboard



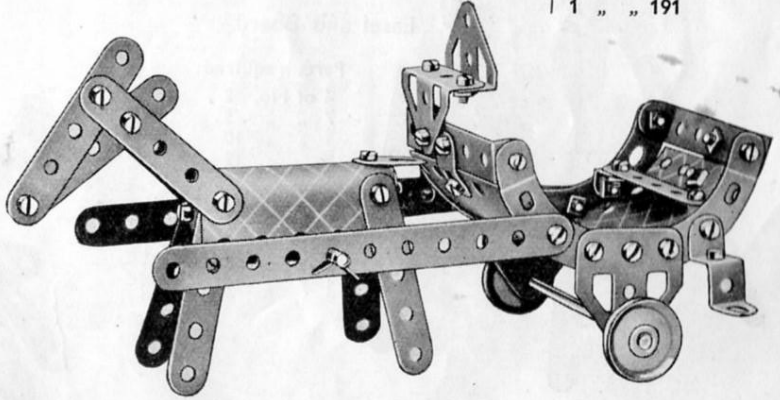
Parts required

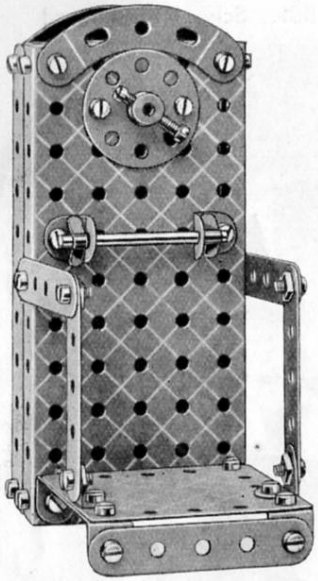
4	of No.	2
7	„ „	5
2	„ „	10
4	„ „	12
28	„ „	37
2	„ „	37a
1	„ „	52
2	„ „	126
2	„ „	191

B82. Two-wheeled Trap

Parts required

2	of No.	2	2	of No.	16	1	of No.	37a	2	of No.	125
9	„ „	5	2	„ „	22	2	„ „	48a	2	„ „	126
3	„ „	10	4	„ „	35	4	„ „	90a	2	„ „	126a
8	„ „	12	35	„ „	37	1	„ „	111c	1	„ „	190
									1	„ „	191

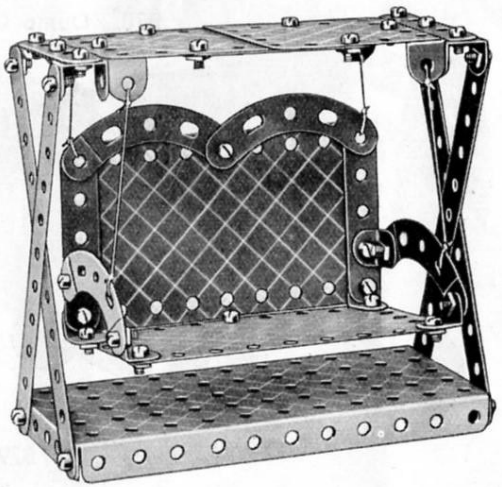




B83. Weighing Machine

Parts required

4	of No.	2
7	„ „	5
4	„ „	10
8	„ „	12
1	„ „	17
1	„ „	24
2	„ „	35
36	„ „	37
2	„ „	37a
2	„ „	48a
1	„ „	52
2	„ „	90a
3	„ „	111c
1	„ „	190
1	„ „	191

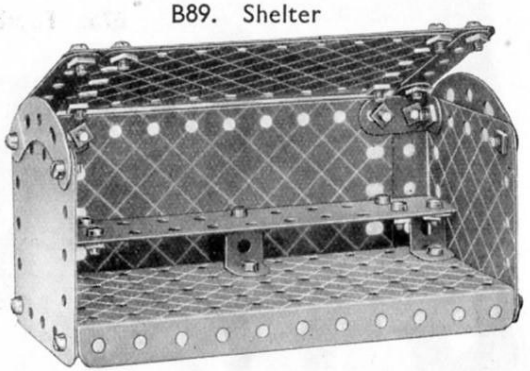


B86. Swinging Garden Seat

Parts required

4	of No.	2
8	„ „	5
2	„ „	11
8	„ „	12
34	„ „	37
1	„ „	40
2	„ „	48a
1	„ „	52
4	„ „	90a
2	„ „	126a
2	„ „	190
2	„ „	191

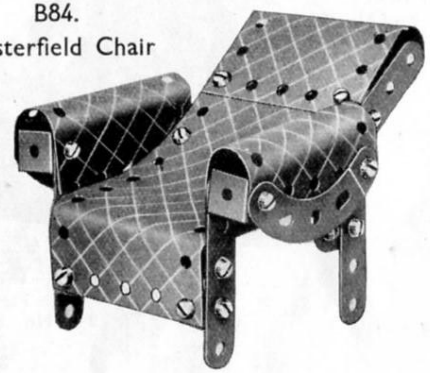
B89. Shelter



Parts required

4	of No.	2	4	of No.	12	1	of No.	125
8	„ „	5	34	„ „	37	2	„ „	190
4	„ „	10	1	„ „	52	2	„ „	191
2	„ „	11	2	„ „	90a			

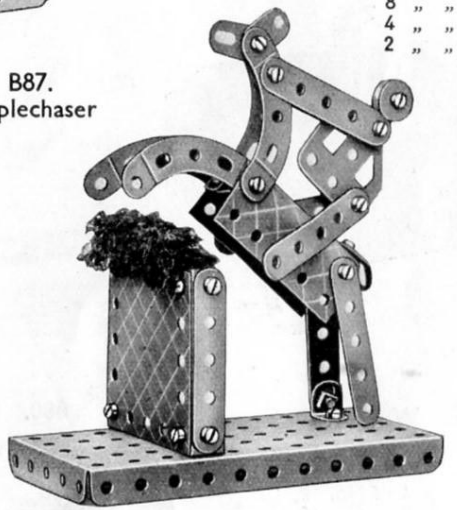
B84. Chesterfield Chair



Parts required

9	of No.	5	2	of No.	48a
2	„ „	10	2	„ „	90a
2	„ „	11	2	„ „	125
8	„ „	12	2	„ „	190
32	„ „	37	2	„ „	191

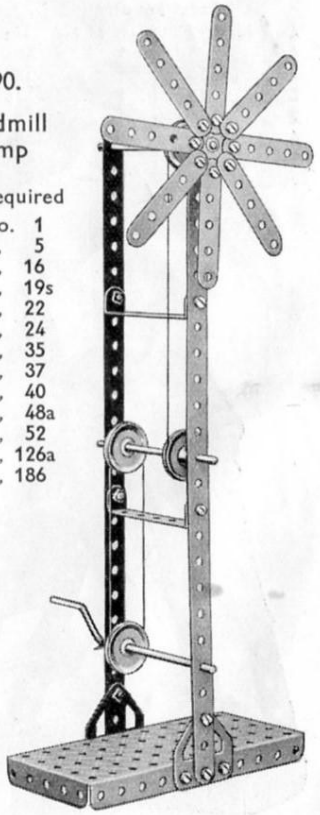
B87. Steeplechaser



Parts required

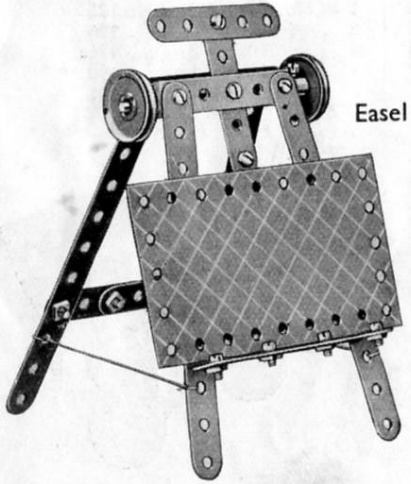
9	of No.	5
4	„ „	10
7	„ „	12
1	„ „	23
20	„ „	37
8	„ „	37a
2	„ „	48a
1	„ „	52
4	„ „	90a
4	„ „	111c
1	„ „	126a
2	„ „	190

B90. Windmill Pump



Parts required

2	of No.	1
8	„ „	5
2	„ „	16
1	„ „	19s
4	„ „	22
1	„ „	24
1	„ „	35
20	„ „	37
1	„ „	40
2	„ „	48a
1	„ „	52
2	„ „	126a
1	„ „	186



B85. Easel and Board

Parts required

4	of No.	2
7	„ „	5
1	„ „	10
2	„ „	12
1	„ „	16
2	„ „	22
20	„ „	37
1	„ „	40
2	„ „	48a
1	„ „	191

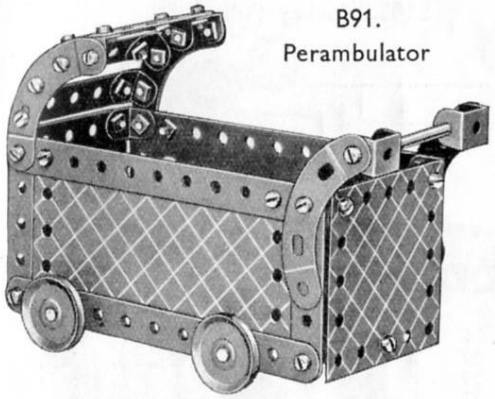
B88. Horse and Cart

Parts required

2	of No.	2	2	of No.	16	2	of No.	37a
5	„ „	5	1	„ „	17	1	„ „	52
4	„ „	10	4	„ „	22	2	„ „	90a
7	„ „	12	4	„ „	35	2	„ „	111c
			26	„ „	37			

1	of No.	125
2	„ „	126
2	„ „	126a
1	„ „	190

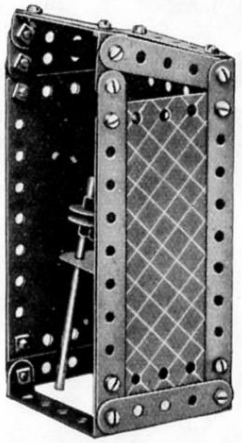
B91. Perambulator



Parts required

4	of No.	2
8	„ „	5
2	„ „	11
8	„ „	12
2	„ „	16
1	„ „	17
4	„ „	22
36	„ „	37
2	„ „	48a
1	„ „	52
4	„ „	90a
2	„ „	190
2	„ „	191

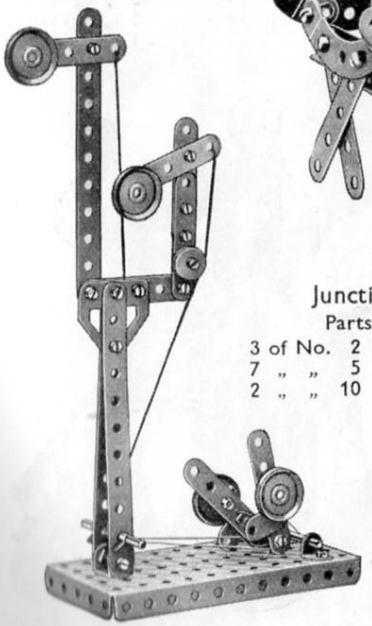
B92. Watchman's Hut and Fire



Parts required

2	of No.	2
9	„ „	5
2	„ „	10
6	„ „	12
1	„ „	16
1	„ „	23
2	of No.	35
34	„ „	37
3	„ „	37a
2	„ „	48a
1	„ „	52
4	„ „	90a
3	of No.	111c
2	„ „	126
2	„ „	126a
1	„ „	188
1	„ „	190
2	„ „	191

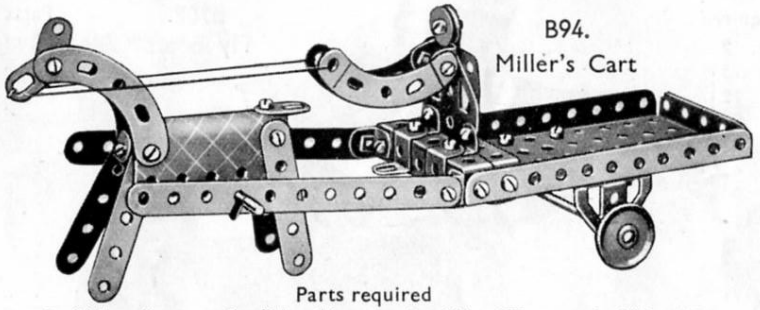
B93. Junction Signal



Parts required

3	of No.	2
7	„ „	5
2	„ „	10
2	of No.	11
2	„ „	12
2	„ „	17
4	„ „	22
1	„ „	23
4	„ „	35
21	„ „	37
6	„ „	37a
1	„ „	40
1	„ „	52
3	„ „	111c
1	„ „	126a

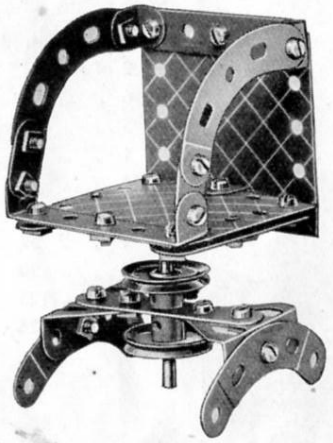
B94. Miller's Cart



Parts required

2	of No.	2
4	„ „	5
4	„ „	10
1	„ „	11
8	„ „	12
2	of No.	16
2	„ „	22
1	„ „	23
4	„ „	35
26	„ „	37
2	of No.	37a
1	„ „	40
2	„ „	48a
1	„ „	52
4	„ „	90a
2	of No.	111c
2	„ „	125
2	„ „	126
2	„ „	126a
1	„ „	190

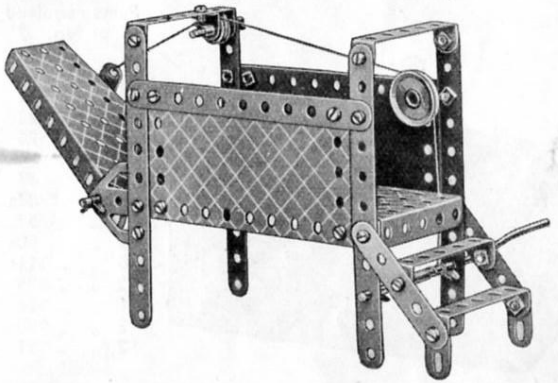
B95. Revolving Office Chair



Parts required

6	of No.	5
4	„ „	10
3	„ „	12
1	„ „	17
2	„ „	22
1	„ „	24
26	„ „	37
4	„ „	37a
1	„ „	48a
4	„ „	90a
2	„ „	126
2	„ „	190

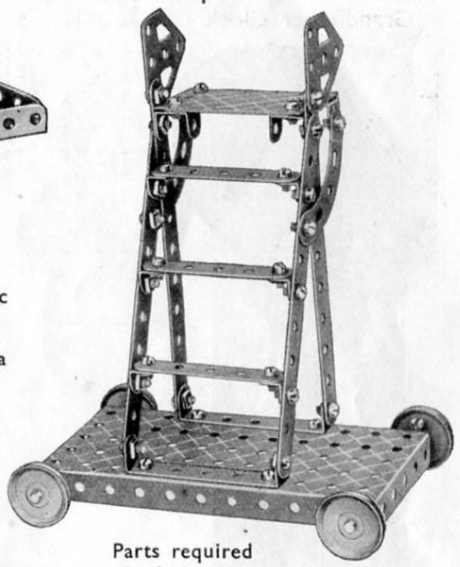
B96. Gangway



Parts required

6	of No.	2
4	„ „	5
3	„ „	10
5	„ „	12
1	„ „	16
1	„ „	17
1	„ „	19s
1	„ „	22
1	„ „	23
6	„ „	35
32	„ „	37
1	„ „	37a
1	„ „	40
2	„ „	48a
1	„ „	52
1	„ „	54a
1	„ „	111c
2	„ „	126a
1	„ „	176
2	„ „	191

B97. Step Ladder on Wheels



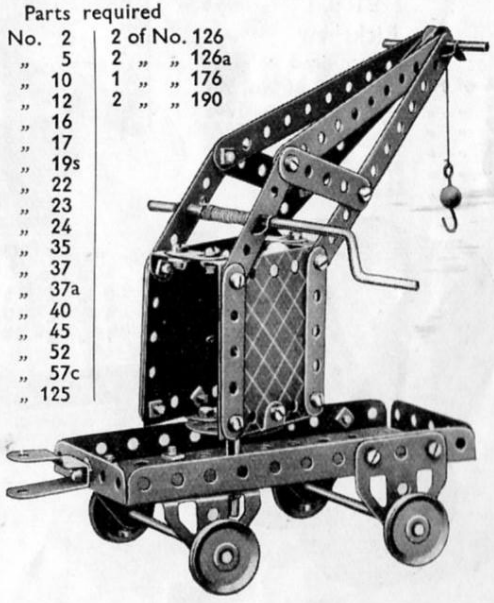
Parts required

4	of No.	2
5	„ „	5
2	„ „	11
8	„ „	12
2	of No.	16
4	„ „	22
32	„ „	37
2	„ „	48a
1	of No.	52
2	„ „	90a
2	„ „	126a
1	„ „	188

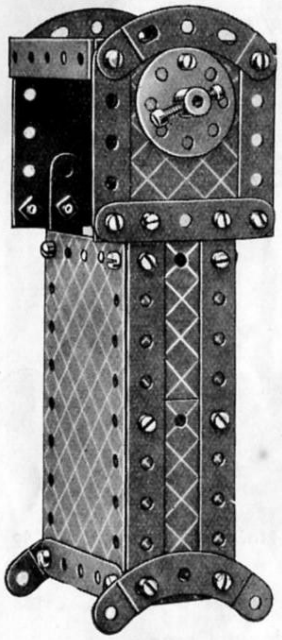
B98. Breakdown Crane

Parts required

4	of No.	2
8	„ „	5
3	„ „	10
8	„ „	12
2	„ „	16
2	„ „	17
1	„ „	19s
4	„ „	22
1	„ „	23
1	„ „	24
5	„ „	35
32	„ „	37
1	„ „	37a
1	„ „	40
1	„ „	45
1	„ „	52
1	„ „	57c
1	„ „	125
2	of No.	126
2	„ „	126a
1	„ „	176
2	„ „	190



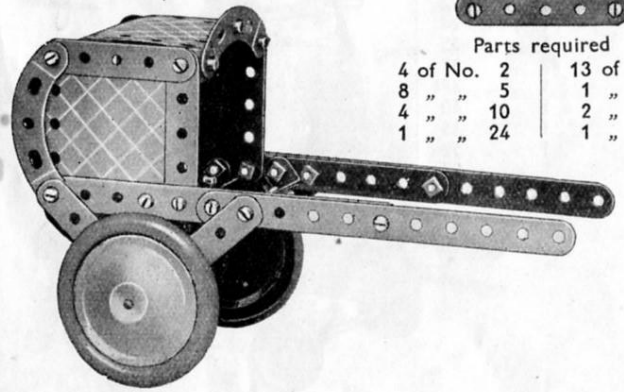
B99. Grandfather Clock



Parts required

4	of No.	2
8	„ „	5
8	„ „	12
1	„ „	24
31	„ „	37
2	„ „	48a
4	„ „	90a
1	„ „	111c
2	„ „	188
2	„ „	190
2	„ „	191

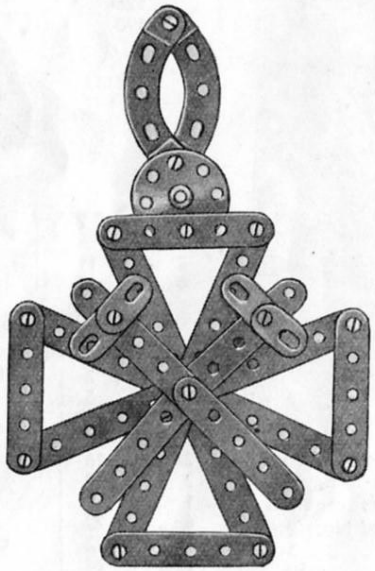
B100. Rickshaw



Parts required

4	of No.	2	3	of No.	90a
9	„ „	5	2	„ „	126a
7	„ „	12	2	„ „	187
1	„ „	15b	2	„ „	190
31	„ „	37	2	„ „	191
2	„ „	48a			

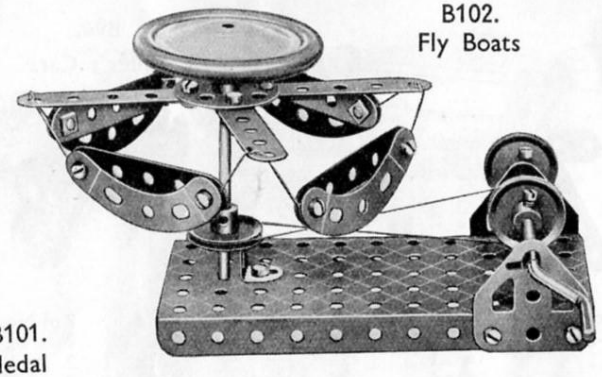
B101. Medal



Parts required

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

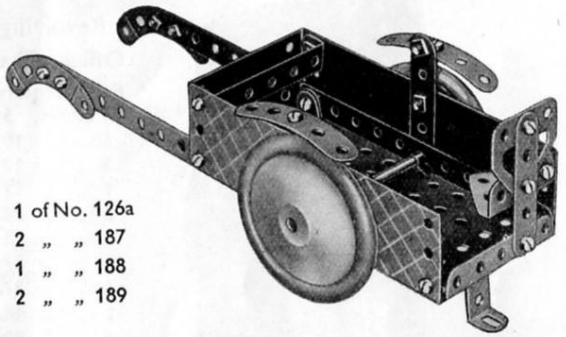
B102. Fly Boats



Parts required

2	of No.	2
4	„ „	5
1	„ „	15b
1	„ „	19s
3	„ „	22
1	„ „	24
2	„ „	35
17	„ „	37
8	„ „	37a
1	„ „	40
1	„ „	52
4	„ „	90a
1	„ „	125
2	„ „	126a
1	„ „	187

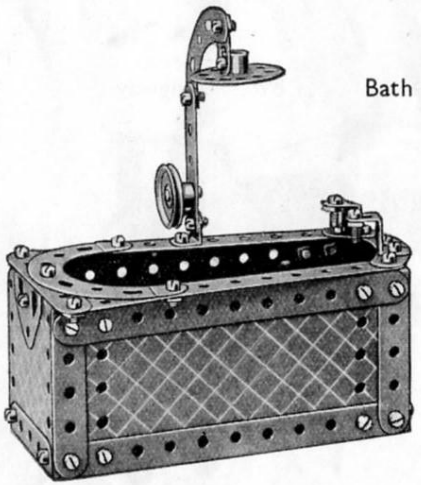
B103. Milk Float



Parts required

2	of No.	2	1	of No.	126a
6	„ „	5	2	„ „	187
5	„ „	12	1	„ „	188
1	„ „	15b	2	„ „	189
26	„ „	37			
2	„ „	48a			
1	„ „	52			
2	„ „	90a			
1	„ „	125			
1	„ „	126			

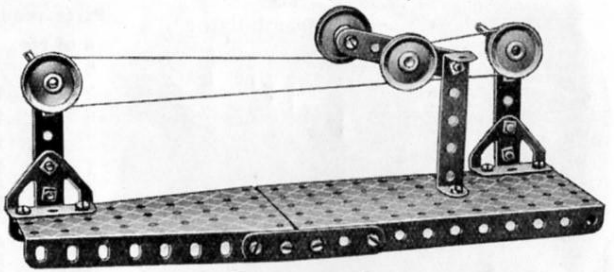
B104. Bath with Shower



Parts required

4	of No.	2
7	„ „	5
1	„ „	10
8	„ „	12
1	„ „	22
1	„ „	23
1	„ „	24
36	„ „	37
4	„ „	37a
1	„ „	52
4	„ „	90a
5	„ „	111c
2	„ „	125
1	„ „	126
2	„ „	190
2	„ „	191

B105. Jockey Pulley



Parts required

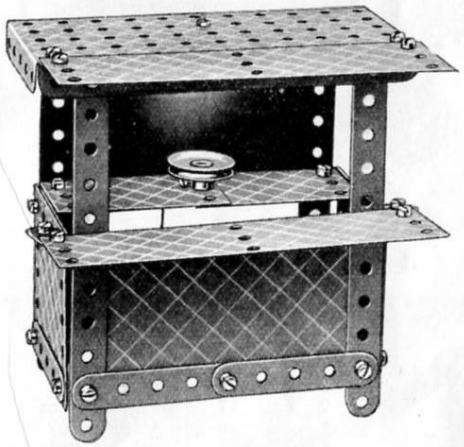
5	of No.	2	1	of No.	37a	1	of No.	54a
2	„ „	17	1	„ „	40	2	„ „	111c
4	„ „	22	1	„ „	48a	2	„ „	125
2	„ „	35	1	„ „	52	2	„ „	126
20	„ „	37						

B106. Rocking Horse

Parts required

9	of No.	5	8	of No.	37a
4	„ „	10	1	„ „	40
6	„ „	12	4	„ „	90a
1	„ „	23	5	„ „	111c
17	„ „	37	1	„ „	126a
			1	„ „	190

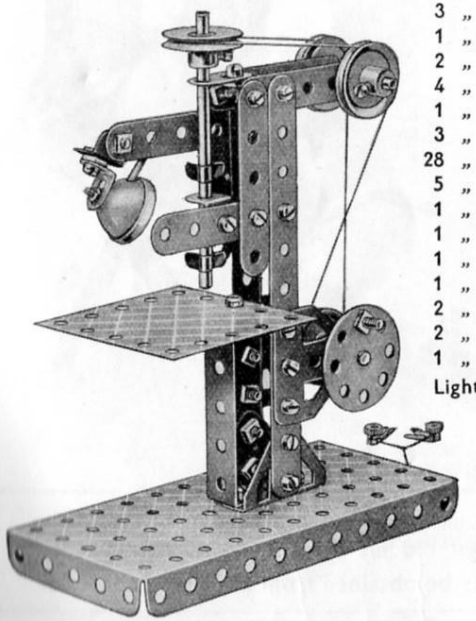
B107. Coffee Stall



Parts required

4 of No.	2
8 „ „	5
4 „ „	10
8 „ „	12
1 „ „	22
35 „ „	37
2 „ „	48a
1 „ „	52
1 „ „	111c
2 „ „	188
2 „ „	189
2 „ „	190
2 „ „	191
Lighting Set	

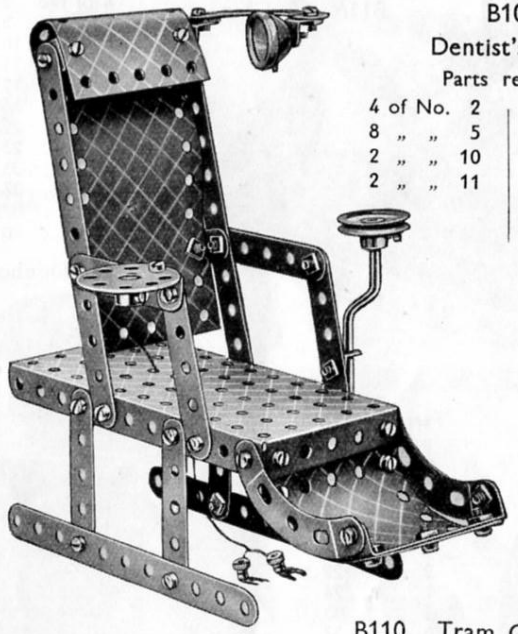
B108. Sensitive Drill



Parts required

2 of No.	2
6 „ „	5
2 „ „	10
2 „ „	11
3 „ „	12
1 „ „	16
2 „ „	17
4 „ „	22
1 „ „	24
3 „ „	35
28 „ „	37
5 „ „	37a
1 „ „	40
1 „ „	48a
1 „ „	52
1 „ „	111c
2 „ „	126
2 „ „	126a
1 „ „	190
Lighting Set	

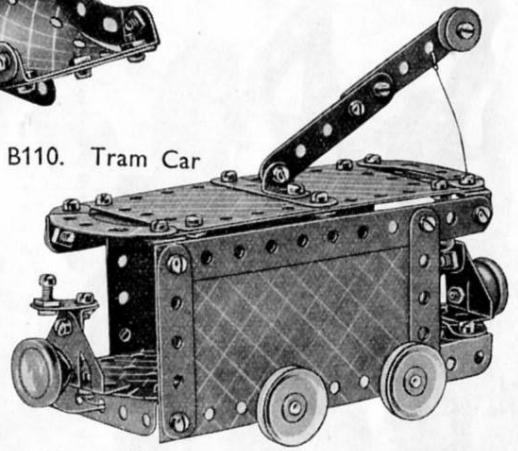
B109. Dentist's Chair



Parts required

4 of No.	2
8 „ „	5
2 „ „	10
2 „ „	11
7 of No.	12
1 „ „	19s
1 „ „	22
1 „ „	24
3 „ „	35
36 „ „	37
6 „ „	37a
1 „ „	48a
1 „ „	52
3 „ „	90a
4 „ „	111c
1 „ „	126a
2 „ „	190
1 „ „	191
Lighting Set	

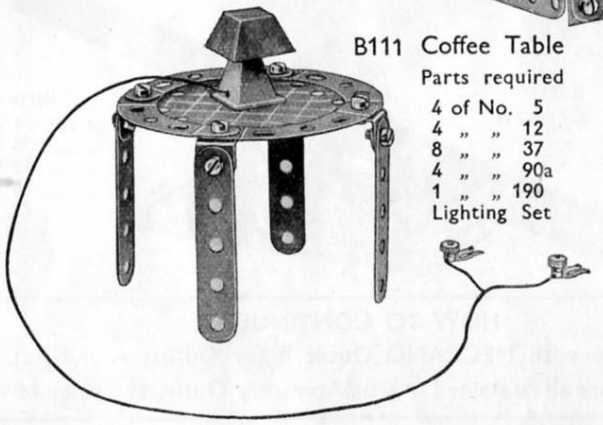
B110. Tram Car



Parts required

4 of No.	2
2 „ „	10
2 „ „	11
3 „ „	12
2 „ „	16
4 „ „	22
1 „ „	23
34 „ „	37
6 „ „	37a
1 of No.	40
2 „	48a
1 „ „	52
4 „ „	90a
3 „ „	111c
2 „ „	126
2 „ „	190
2 „ „	191
Lighting Set	

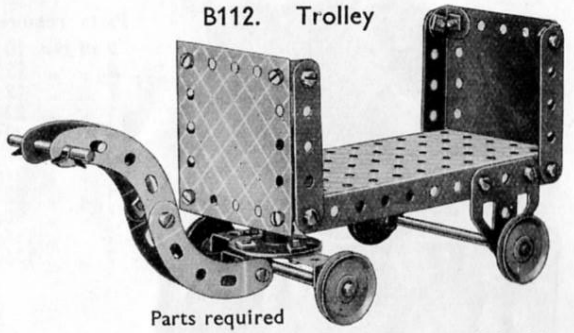
B111 Coffee Table



Parts required

4 of No.	5
4 „ „	12
8 „ „	37
4 „ „	90a
1 „ „	190
Lighting Set	

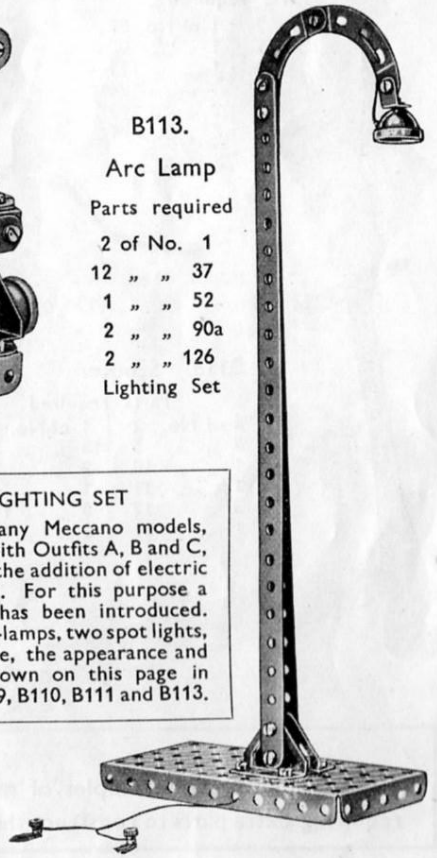
B112. Trolley



Parts required

4 of No.	5
1 „ „	11
4 „ „	12
2 „ „	16
2 „ „	17
4 of No.	22
1 „ „	24
3 „ „	35
28 „ „	37
1 „ „	48a
1 of No.	52
4 „ „	90a
2 „ „	125
2 „ „	126a
2 „ „	190

B113. Arc Lamp



Parts required

2 of No.	1
12 „ „	37
1 „ „	52
2 „ „	90a
2 „ „	126
Lighting Set	

MECCANO LIGHTING SET

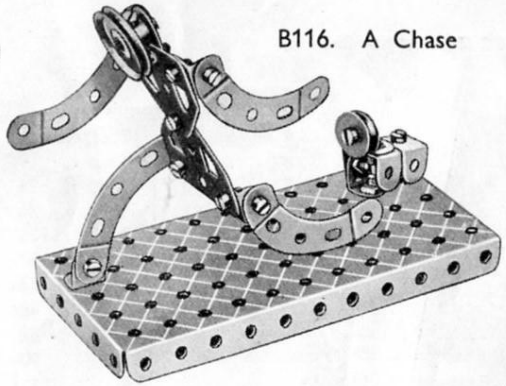
The appearance of many Meccano models, especially those built with Outfits A, B and C, is greatly improved by the addition of electric lights at suitable points. For this purpose a Meccano Lighting Set has been introduced. This consists of two pea-lamps, two spot lights, and a fancy lamp shade, the appearance and uses of which are shown on this page in models B107, B108, B109, B110, B111 and B113.

B114. Dressing Table

Parts required	
3 of No. 2	1 of No. 52
9 „ „ 5	1 „ „ 90a
4 „ „ 10	1 „ „ 111c
8 „ „ 12	1 „ „ 126a
1 „ „ 23	2 „ „ 190
33 „ „ 37	2 „ „ 191
3 „ „ 37a	

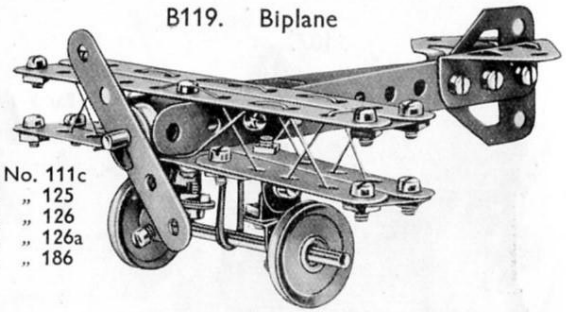
Parts required	
2 of No. 10	
2 „ „ 11	
7 „ „ 12	
1 „ „ 22	
1 „ „ 23	
16 „ „ 37	
1 „ „ 37a	
1 „ „ 52	
4 „ „ 90a	
2 „ „ 111c	
2 „ „ 126a	

B116. A Chase



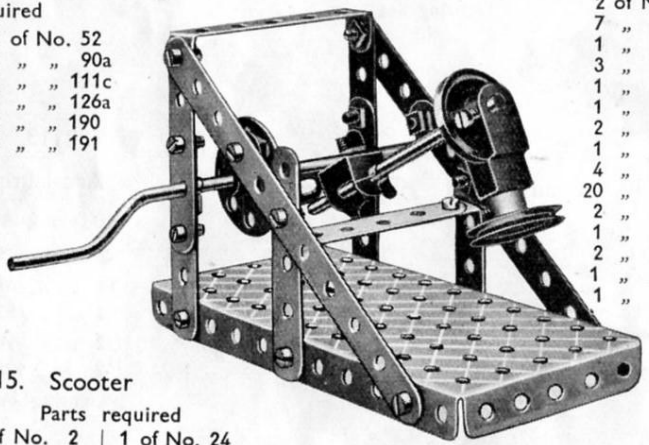
Parts required	
4 of No. 2	
6 „ „ 5	
4 „ „ 10	
2 „ „ 11	
4 „ „ 12	
2 „ „ 16	
2 „ „ 22	
1 „ „ 23	
2 „ „ 35	
22 „ „ 37	
3 „ „ 37a	
1 „ „ 40	

B119. Biplane



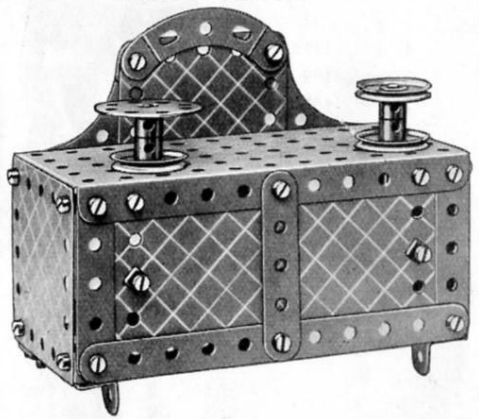
Parts required	
3 of No. 111c	
2 „ „ 125	
2 „ „ 126	
1 „ „ 126a	
1 „ „ 186	

B117. Trip Hammer



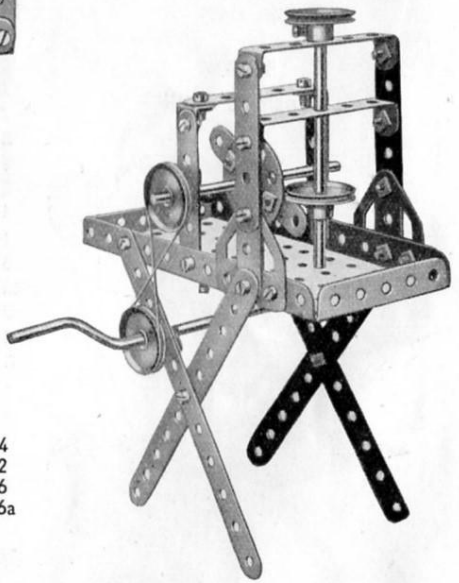
Parts required	
2 of No. 2	
7 „ „ 5	
1 „ „ 11	
3 „ „ 12	
1 „ „ 16	
1 „ „ 19s	
2 „ „ 22	
1 „ „ 24	
4 „ „ 35	
20 „ „ 37	
2 „ „ 37a	
1 „ „ 45	
2 „ „ 48a	
1 „ „ 52	
1 „ „ 111c	

B120. Sideboard



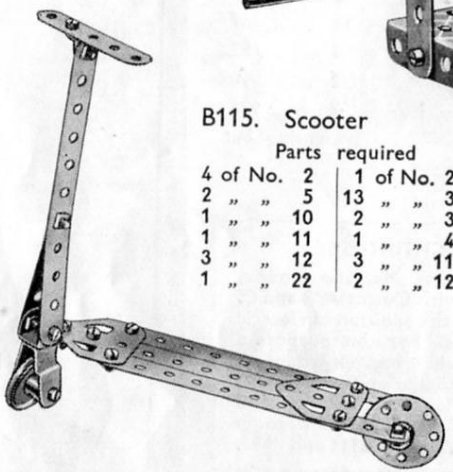
Parts required		
2 of No. 2	3 of No. 22	1 of No. 52
5 „ „ 5	1 „ „ 24	3 „ „ 90a
8 „ „ 12	2 „ „ 35	2 „ „ 125
2 „ „ 17	28 „ „ 37	2 „ „ 190
	2 „ „ 37a	2 „ „ 191

B121. Stamping Machine



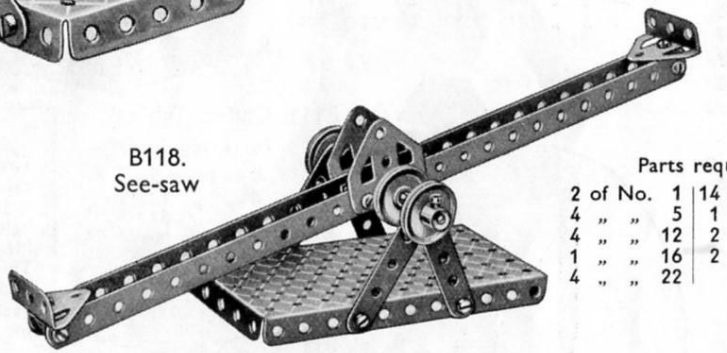
Parts required	
4 of No. 2	1 of No. 24
7 „ „ 5	2 „ „ 35
2 „ „ 10	20 „ „ 37
2 „ „ 12	2 „ „ 48a
2 „ „ 16	1 „ „ 52
1 „ „ 19s	2 „ „ 126a
4 „ „ 22	1 „ „ 186

B115. Scooter



Parts required	
4 of No. 2	1 of No. 24
2 „ „ 5	13 „ „ 37
1 „ „ 10	2 „ „ 37a
1 „ „ 11	1 „ „ 45
3 „ „ 12	3 „ „ 111c
1 „ „ 22	2 „ „ 126a

B118. See-saw

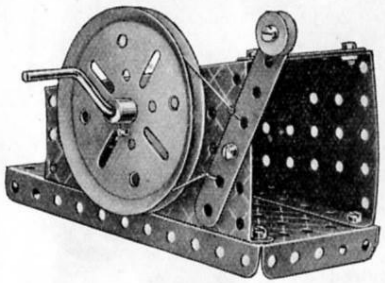


Parts required	
2 of No. 1	14 of No. 34
4 „ „ 5	1 „ „ 52
4 „ „ 12	2 „ „ 126
1 „ „ 16	2 „ „ 126a
4 „ „ 22	

HOW TO CONTINUE

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

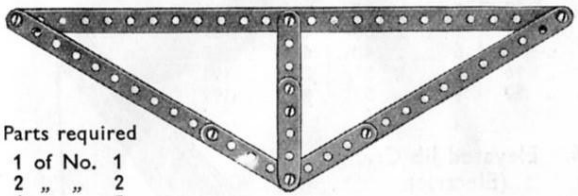
C1. Band Brake



Parts required

1	of No.	3
2	„ „	5
1	„ „	19s
1	„ „	19b
1	„ „	22
1	„ „	23
9	„ „	37
2	„ „	37a
3	„ „	38
1	„ „	40
1	„ „	52
2	„ „	54a
1	„ „	111c
1	„ „	191

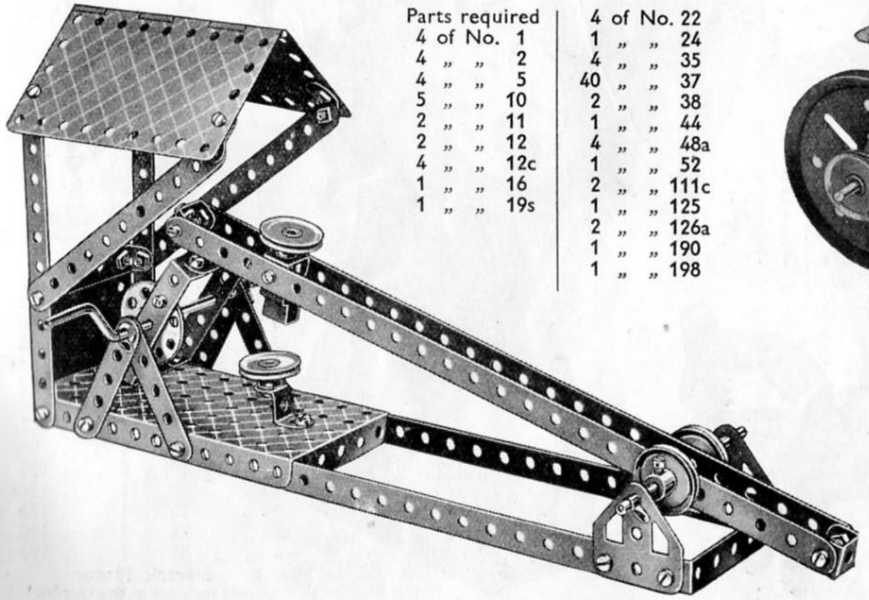
C2. Triangulated Truss



Parts required

1	of No.	1
2	„ „	2
4	„ „	5
8	„ „	37

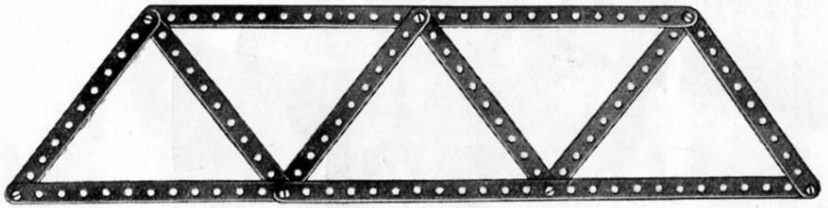
C3. Helve Hammer



Parts required

4	of No.	1
4	„ „	2
4	„ „	5
5	„ „	10
2	„ „	11
2	„ „	12
4	„ „	12c
1	„ „	16
1	„ „	19s
4	of No.	22
1	„ „	24
4	„ „	35
40	„ „	37
2	„ „	38
1	„ „	44
4	„ „	48a
1	„ „	52
2	„ „	111c
1	„ „	125
2	„ „	126a
1	„ „	190
1	„ „	198

C4. Compound Triangulated Truss



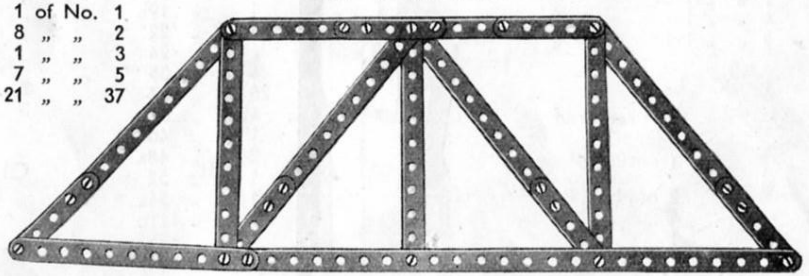
Parts required

3 of No. 1 | 6 of No. 2 | 7 of No. 37

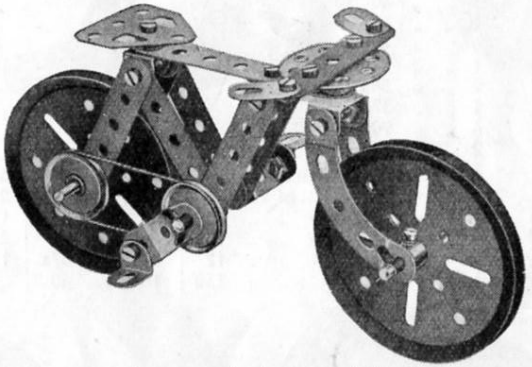
C5. Howe Truss

Parts required

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



C6. Bicycle



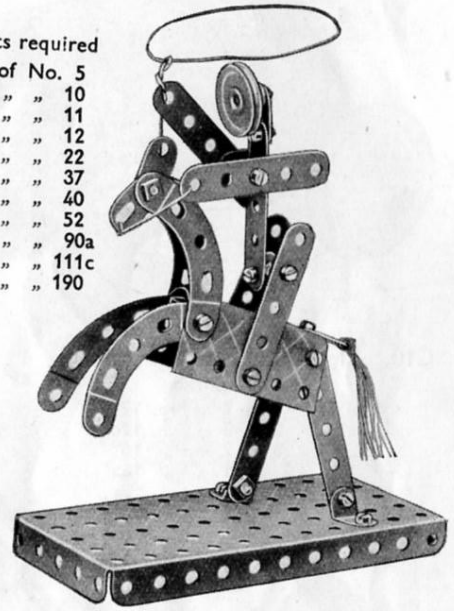
Parts required

1	of No.	3
7	„ „	5
2	„ „	10
2	„ „	11
4	„ „	12
1	„ „	17
2	„ „	18a
2	„ „	19b
2	„ „	22
1	of No.	24
4	„ „	35
14	„ „	37
4	„ „	37a
3	„ „	38
2	„ „	90a
1	„ „	111c
2	„ „	125
1	„ „	126a
1	„ „	186

C7. Mounted Cowboy

Parts required

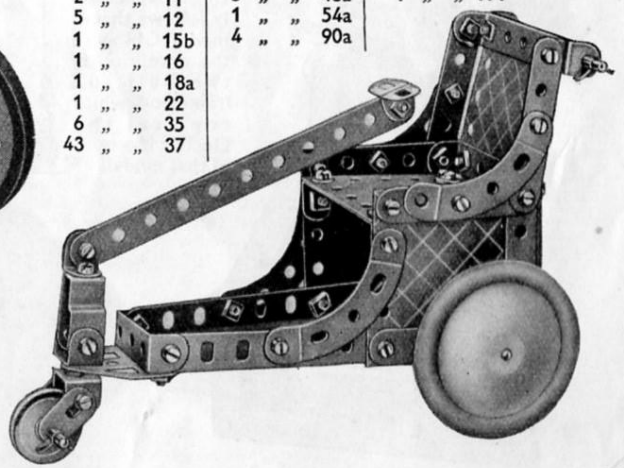
7	of No.	5
4	„ „	10
2	„ „	11
7	„ „	12
1	„ „	22
22	„ „	37
1	„ „	40
1	„ „	52
4	„ „	90a
1	„ „	111c
1	„ „	190



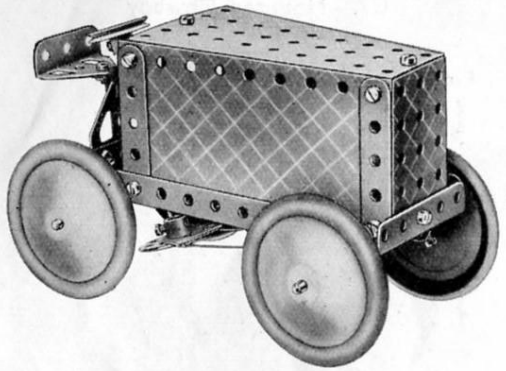
C8. Bath Chair

Parts required

1	of No.	2
9	„ „	5
4	„ „	10
2	„ „	11
5	„ „	12
1	„ „	15b
1	„ „	16
1	„ „	18a
1	„ „	22
6	„ „	35
43	„ „	37
4	of No.	37a
8	„ „	38
1	„ „	44
1	„ „	48
5	„ „	48a
1	„ „	54a
4	„ „	90a
1	of No.	111c
1	„ „	126a
2	„ „	187
3	„ „	190
1	„ „	191



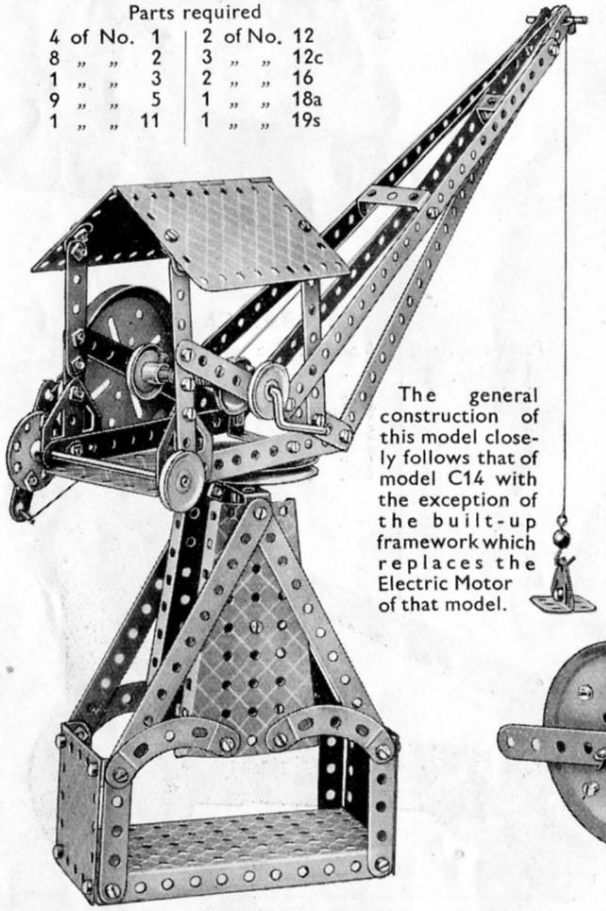
C9. Motor Tractor



Parts required

4	of No.	5
1	„ „	10
2	„ „	12
2	„ „	15b
1	„ „	16
1	„ „	22
1	„ „	24
1	„ „	35
18	„ „	37
2	„ „	37a
1	„ „	40
3	„ „	48a
1	„ „	51
1	„ „	52
1	„ „	54a
1	„ „	111c
1	„ „	126
1	„ „	126a
4	„ „	187
2	„ „	191

C10. Elevated Jib Crane (Hand)



Parts required

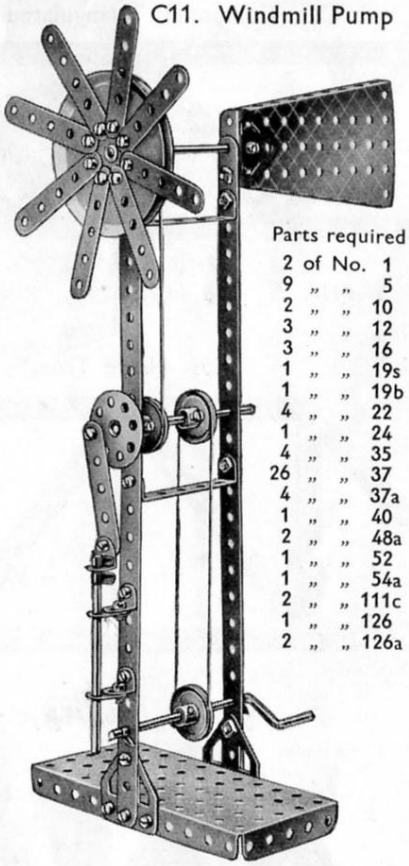
4	of No.	1	2	of No.	12
8	„ „	2	3	„ „	12c
1	„ „	3	2	„ „	16
9	„ „	5	1	„ „	18a
1	„ „	11	1	„ „	19s

Parts required for C10 (continued)

2	of No.	19b
4	„ „	22
1	„ „	23
1	„ „	24
4	„ „	35
56	„ „	37
2	„ „	37a
4	„ „	38
1	„ „	40
1	„ „	48
6	„ „	48a
1	„ „	52
2	„ „	54a
1	„ „	57c
4	„ „	90a
2	„ „	111c
2	„ „	126
2	„ „	126a
1	„ „	176
2	„ „	190
1	„ „	191
1	„ „	198

The general construction of this model closely follows that of model C14 with the exception of the built-up framework which replaces the Electric Motor of that model.

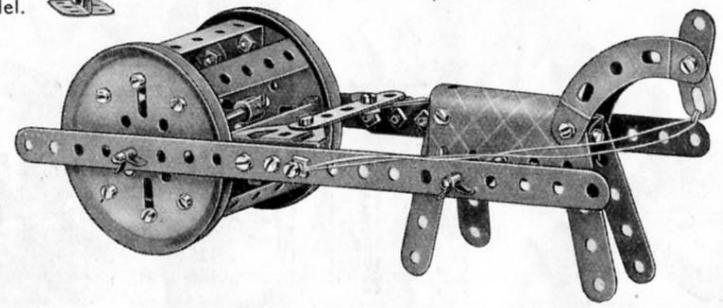
C11. Windmill Pump



Parts required

2	of No.	1
9	„ „	5
2	„ „	10
3	„ „	12
3	„ „	16
1	„ „	19s
1	„ „	19b
4	„ „	22
1	„ „	24
4	„ „	35
26	„ „	37
4	„ „	37a
1	„ „	40
2	„ „	48a
1	„ „	52
1	„ „	54a
2	„ „	111c
1	„ „	126
2	„ „	126a

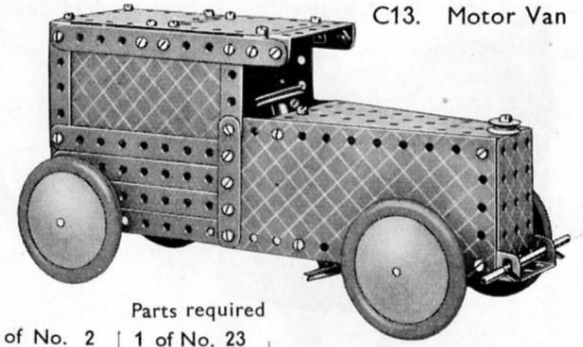
C12. Field Roller



Parts required

4	of No.	2	1	of No.	16	6	of No.	48a
7	„ „	5	2	„ „	19b	2	„ „	90a
2	„ „	10	6	„ „	35	1	„ „	111c
8	„ „	12	34	„ „	37	2	„ „	126
1	„ „	15b	2	„ „	37a	1	„ „	190
			1	„ „	40			

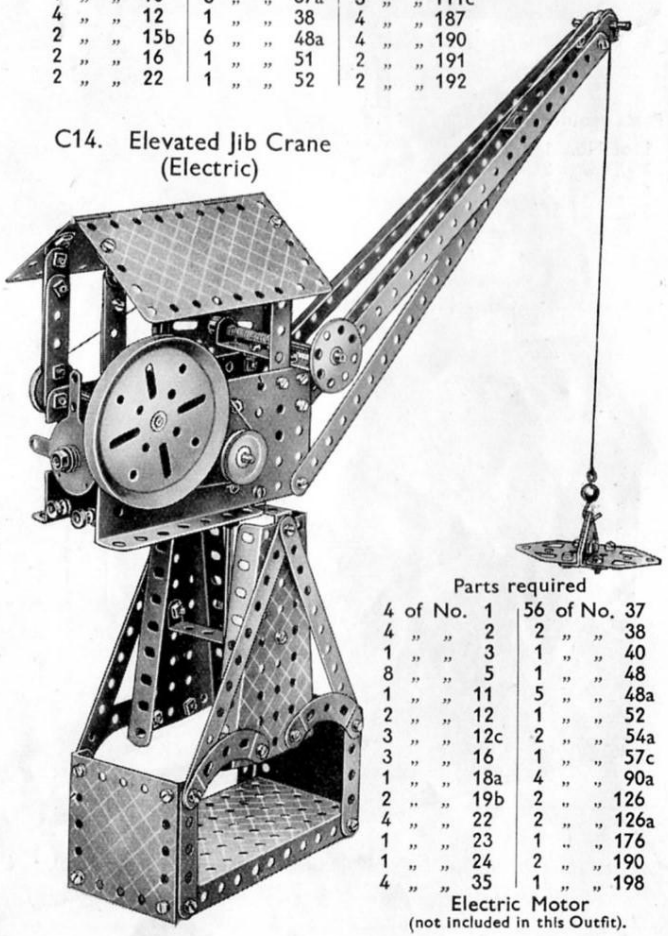
C13. Motor Van



Parts required

8	of No.	2	1	of No.	23	2	of No.	54a
1	„ „	3	4	„ „	35	3	„ „	111c
9	„ „	5	51	„ „	37	4	„ „	187
1	„ „	10	3	„ „	37a	4	„ „	190
4	„ „	12	1	„ „	38	2	„ „	191
2	„ „	15b	6	„ „	48a	2	„ „	192
2	„ „	16	1	„ „	51			
2	„ „	22	1	„ „	52			

C14. Elevated Jib Crane (Electric)

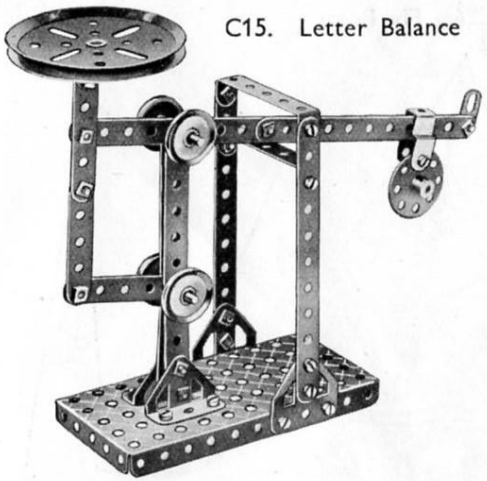


Parts required

4	of No.	1	56	of No.	37
4	„ „	2	2	„ „	38
1	„ „	3	1	„ „	40
8	„ „	5	1	„ „	48
1	„ „	11	5	„ „	48a
2	„ „	12	1	„ „	52
3	„ „	12c	2	„ „	54a
3	„ „	16	1	„ „	57c
1	„ „	18a	4	„ „	90a
2	„ „	19b	2	„ „	126
4	„ „	22	2	„ „	126a
1	„ „	23	1	„ „	176
1	„ „	24	2	„ „	190
4	„ „	35	1	„ „	198

Electric Motor
(not included in this Outfit).

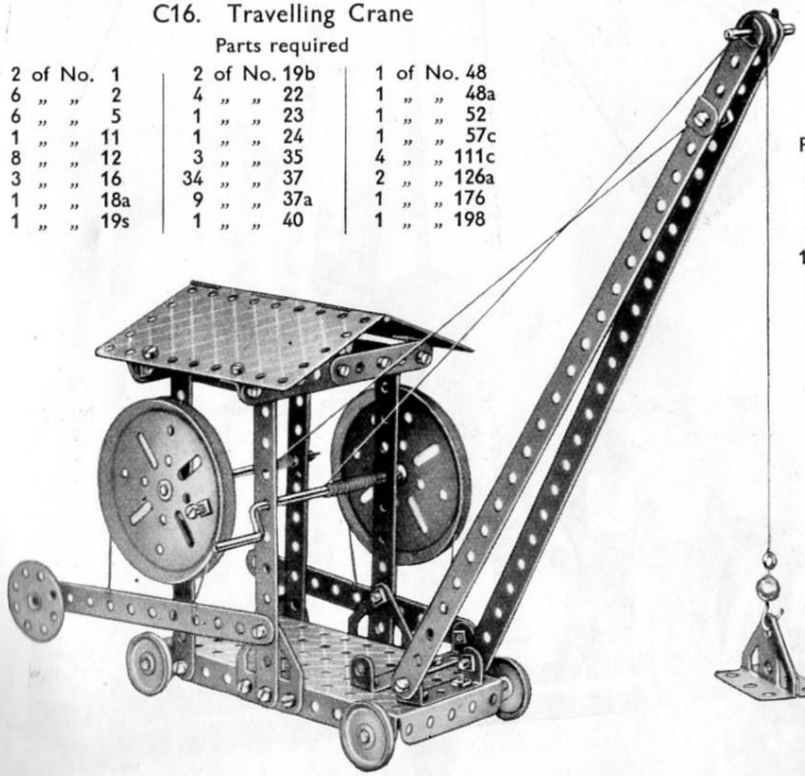
C15. Letter Balance



Parts required

6	of No.	2
4	„ „	5
1	„ „	10
1	„ „	12
2	„ „	18a
1	„ „	19b
4	„ „	22
1	„ „	24
2	„ „	35
26	„ „	37
4	„ „	37a
2	„ „	38
1	„ „	44
2	„ „	48a
1	„ „	52
2	„ „	111c
2	„ „	126
2	„ „	126a

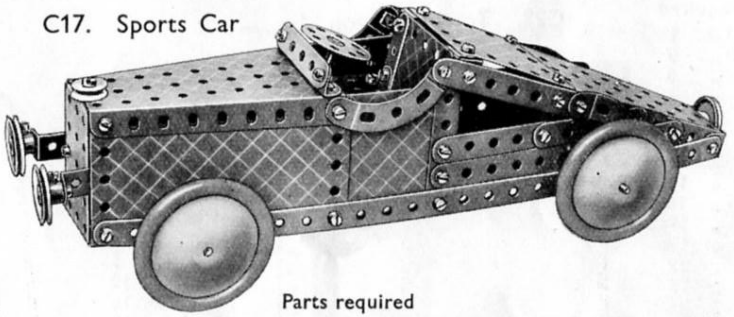
C16. Travelling Crane



Parts required

2	of No.	1
6	„ „	2
6	„ „	5
1	„ „	11
8	„ „	12
3	„ „	16
1	„ „	18a
1	„ „	19s
2	of No.	19b
4	„ „	22
1	„ „	23
1	„ „	24
3	„ „	35
34	„ „	37
9	„ „	37a
1	„ „	40
1	of No.	48
1	„ „	48a
1	„ „	52
1	„ „	57c
4	„ „	111c
2	„ „	126a
1	„ „	176
1	„ „	198

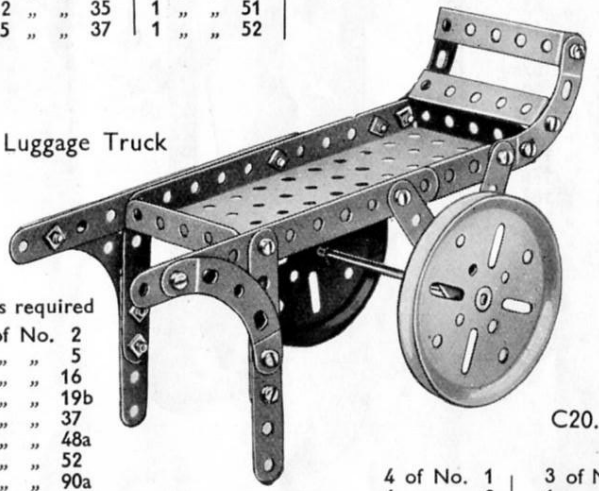
C17. Sports Car



Parts required

2	of No.	1
4	„ „	2
9	„ „	5
2	„ „	10
8	„ „	12
2	„ „	15b
1	of No.	16
4	„ „	22
1	„ „	23
1	„ „	24
2	„ „	35
55	„ „	37
1	of No.	37a
2	„ „	38
1	„ „	48
2	„ „	48a
1	„ „	51
1	„ „	52
2	of No.	54a
4	„ „	90a
4	„ „	111c
2	„ „	125
2	of No.	126a
4	„ „	187
4	„ „	190
2	„ „	191

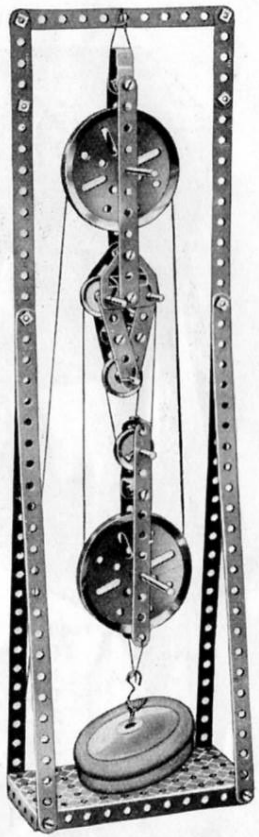
C18. Luggage Truck



Parts required

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

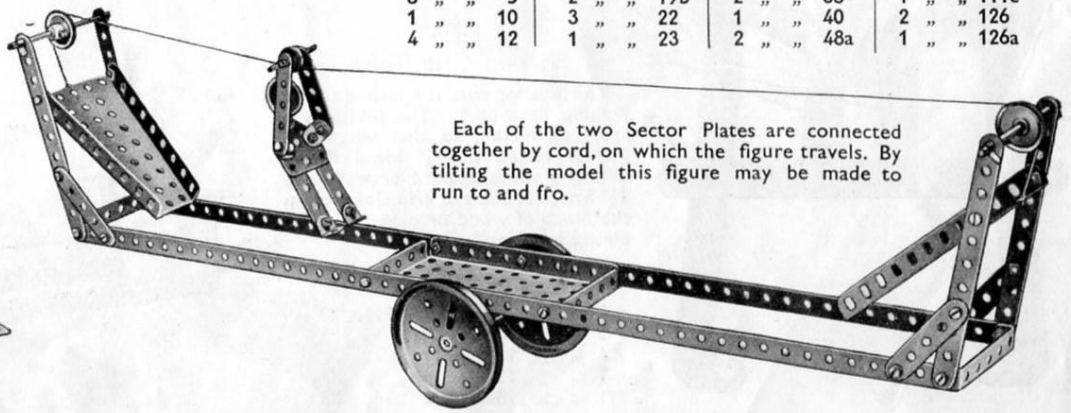
C19. Pulley Block, 5:1



Parts required

4	of No.	1
7	„ „	2
6	„ „	5
2	„ „	11
2	„ „	12
2	„ „	16
2	„ „	17
2	„ „	18a
2	„ „	19b
4	„ „	22
6	„ „	35
24	„ „	37
2	„ „	38
1	„ „	40
1	„ „	44
1	„ „	52
1	„ „	57c
2	„ „	126a
2	„ „	187

C20. Aerial Flight

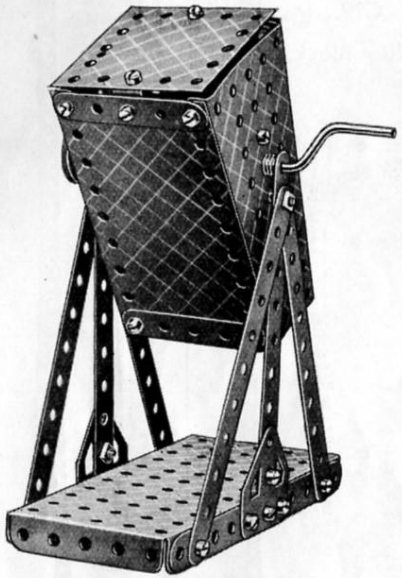


Parts required

4	of No.	1
4	„ „	2
8	„ „	5
1	„ „	10
4	„ „	12
3	of No.	16
1	„ „	18a
2	„ „	19b
3	„ „	22
1	„ „	23
6	of No.	35
33	„ „	37
2	„ „	38
1	„ „	40
2	„ „	48a
1	of No.	52
2	„ „	54a
1	„ „	111c
2	„ „	126
1	„ „	126a

Each of the two Sector Plates are connected together by cord, on which the figure travels. By tilting the model this figure may be made to run to and fro.

C21. Butter Churn



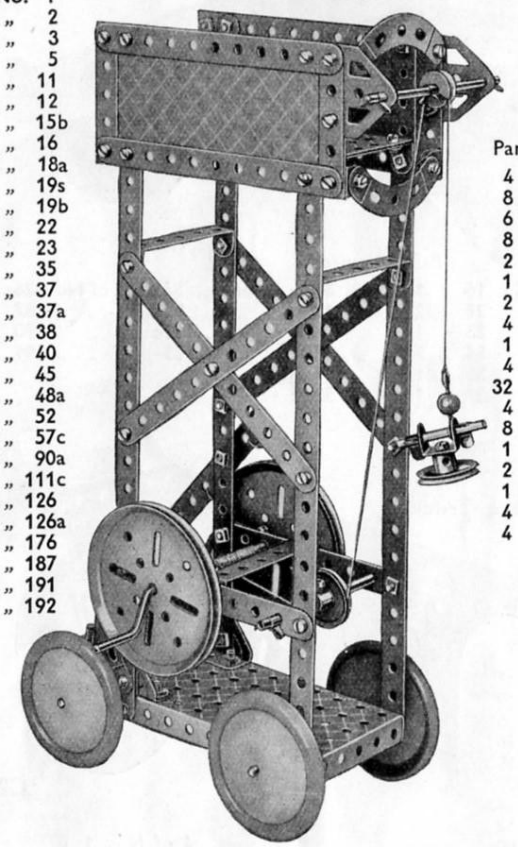
Parts required

8	of No.	2	1	of No.	48a
4	„ „	5	1	„ „	51
4	„ „	12	1	„ „	52
1	„ „	22	2	„ „	54a
1	„ „	24	2	„ „	126a
32	„ „	37	1	„ „	190
8	„ „	38	2	„ „	191

Parts required

4	of No.	1
8	„ „	2
1	„ „	3
8	„ „	5
1	„ „	11
4	„ „	12
2	„ „	15b
2	„ „	16
2	„ „	18a
1	„ „	19s
2	„ „	19b
2	„ „	22
1	„ „	23
8	„ „	35
52	„ „	37
2	„ „	37a
3	„ „	38
1	„ „	40
1	„ „	45
5	„ „	48a
1	„ „	52
1	„ „	57c
4	„ „	90a
2	„ „	111c
2	„ „	126
2	„ „	126a
1	„ „	176
4	„ „	187
1	„ „	191
2	„ „	192

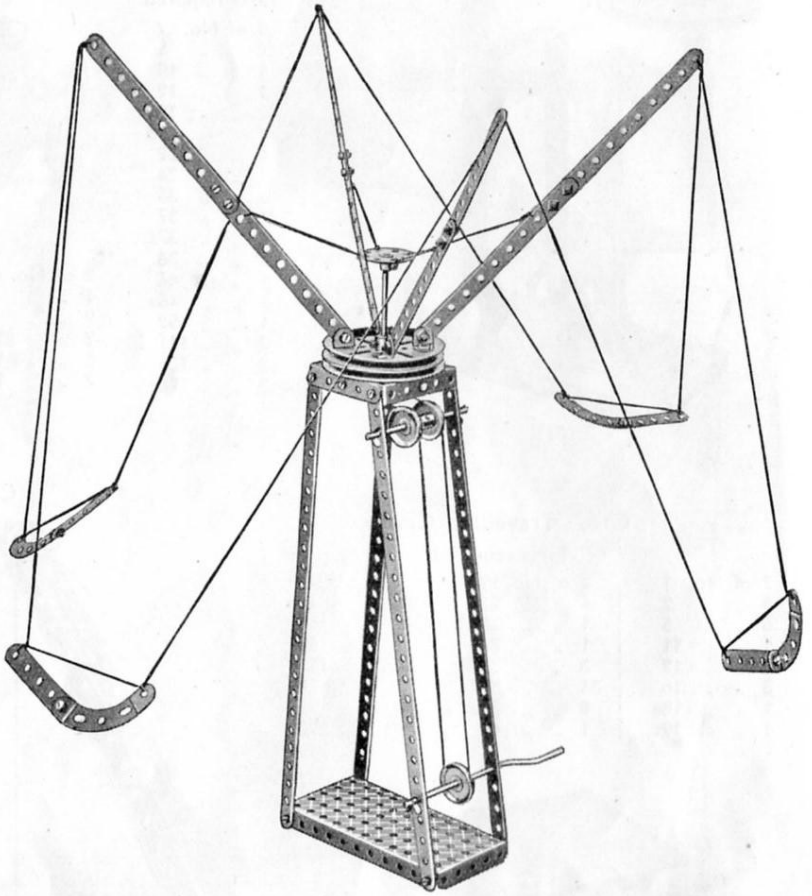
C22. Tower Wagon

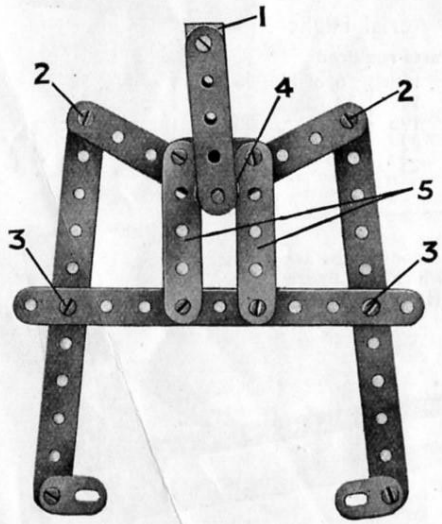


Parts required

4	of No.	1
8	„ „	2
6	„ „	5
8	„ „	12
2	„ „	16
1	„ „	19s
2	„ „	19b
4	„ „	22
1	„ „	24
4	„ „	35
32	„ „	37
4	„ „	37a
8	„ „	38
1	„ „	40
2	„ „	48a
1	„ „	52
4	„ „	90a
4	„ „	111c

C24. Fly Boats





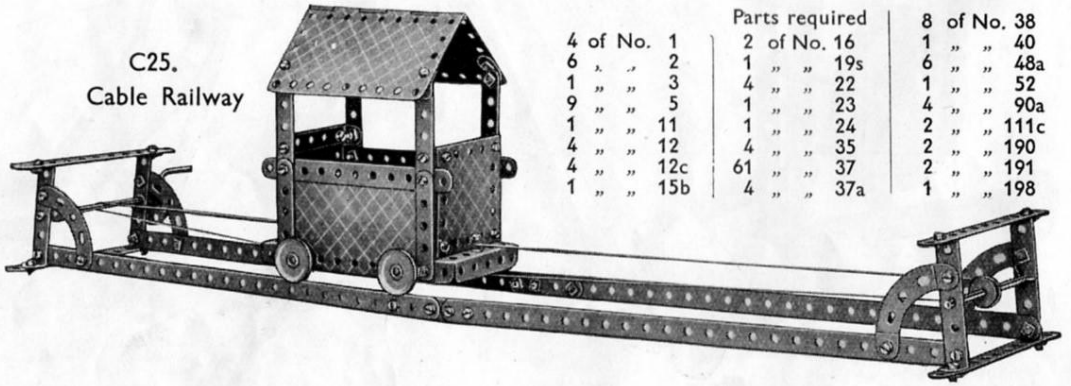
C23. Friction Grip Tongs

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 $\frac{1}{2}$″ loose Pulley Wheel 4 slides upward between the $2\frac{1}{2}$″ 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.	23
5	„ „	5	2	„ „	35
4	„ „	10	12	„ „	37
1	„ „	11	4	„ „	37a
1	„ „	18a	4	„ „	38

C25. Cable Railway

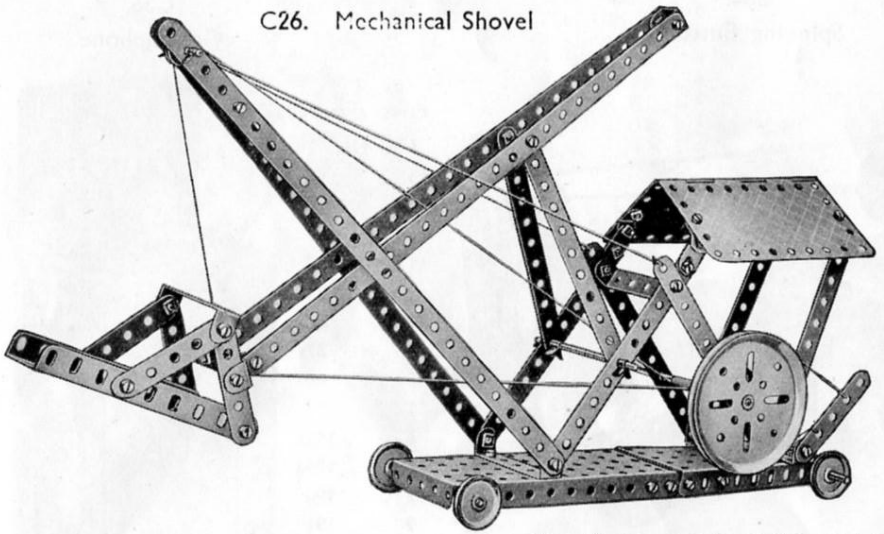


Parts required

4	of No.	1	2	of No.	16
6	„ „	2	1	„ „	19s
1	„ „	3	4	„ „	22
9	„ „	5	1	„ „	23
1	„ „	11	1	„ „	24
4	„ „	12	4	„ „	35
4	„ „	12c	61	„ „	37
1	„ „	15b	4	„ „	37a

8	of No.	38
1	„ „	40
6	„ „	48a
1	„ „	52
4	„ „	90a
2	„ „	111c
2	„ „	190
2	„ „	191
1	„ „	198

C26. Mechanical Shovel

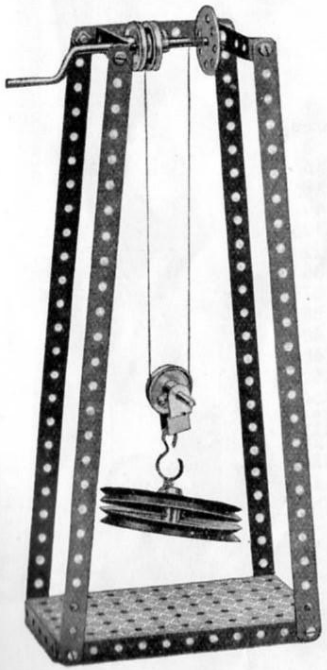


Parts required

4	of No.	1
8	„ „	2
7	„ „	5
2	„ „	10
2	„ „	11
4	„ „	12c
3	„ „	16
1	„ „	18a
1	„ „	19s
1	„ „	19b
4	„ „	22
1	„ „	23
1	„ „	24
6	„ „	35
46	„ „	37
5	„ „	37a
1	„ „	40
1	„ „	48
6	„ „	48a
1	„ „	52
2	„ „	54a
2	„ „	111c
1	„ „	176
1	„ „	198

The digging arm is carried on two pivotally attached 5½″ Strips in order to give the bucket a direct vertical movement. The cord from the bucket is secured at its inner end to a Crank Handle that is controlled by the hand brake shown in the photograph.

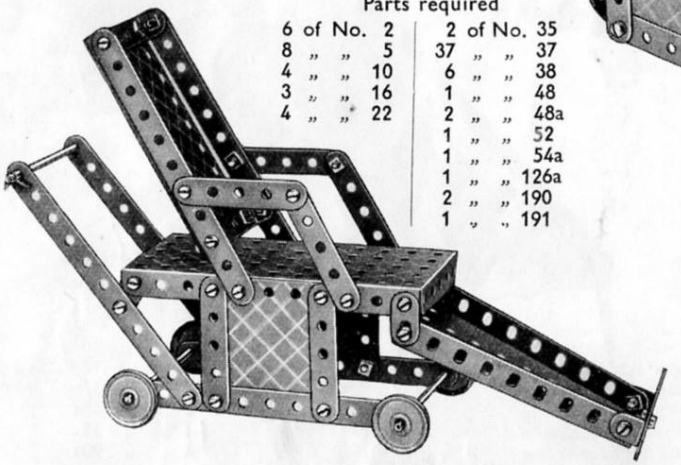
C27. Chinese Windlass



Parts required

4	of No.	1
1	„ „	3
1	„ „	18a
1	„ „	19s
2	„ „	19b
3	„ „	22
1	„ „	23
1	„ „	24
8	„ „	37
1	„ „	40
1	„ „	45
2	„ „	48a
1	„ „	52
1	„ „	57c
1	„ „	176

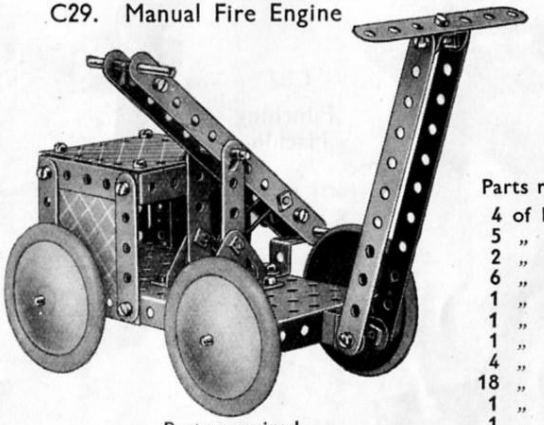
C28. Invalid Chair



Parts required

6	of No.	2	2	of No.	35
8	„ „	5	37	„ „	37
4	„ „	10	6	„ „	38
3	„ „	16	1	„ „	48
4	„ „	22	2	„ „	48a
			1	„ „	52
			1	„ „	54a
			1	„ „	126a
			2	„ „	190
			1	„ „	191

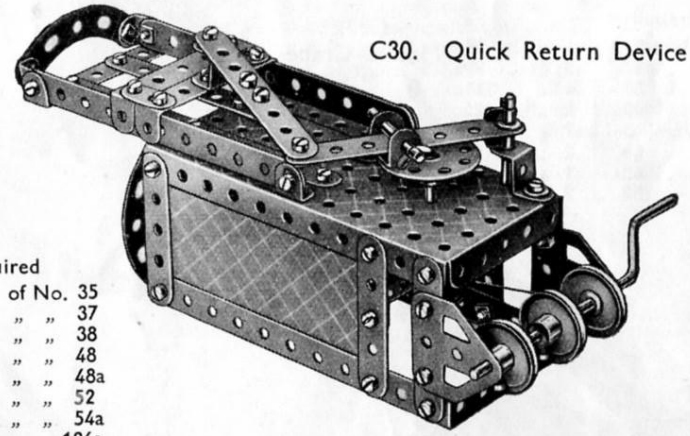
C29. Manual Fire Engine



Parts required

4	of No.	2	1	of No.	18a
1	„ „	3	6	„ „	35
8	„ „	5	34	„ „	37
2	„ „	11	6	„ „	37a
6	„ „	12	1	„ „	38
2	„ „	15b	1	„ „	45
2	„ „	17	2	„ „	48a
			1	of No.	52
			2	„ „	111c
			1	„ „	125
			2	„ „	126
			1	„ „	186
			4	„ „	187
			4	„ „	190

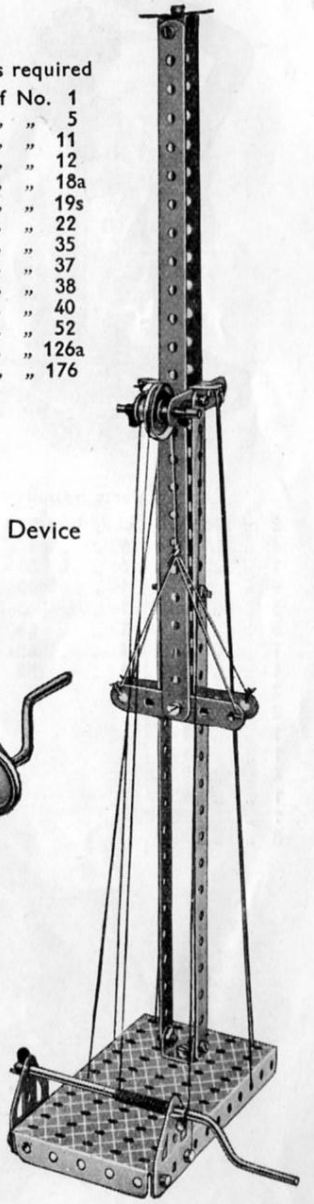
C30. Quick Return Device



Parts required

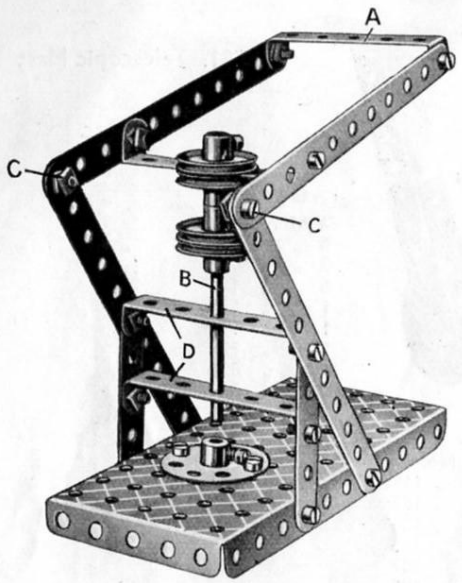
6	of No.	2	46	of No.	37
1	„ „	3	4	„ „	37a
8	„ „	5	4	„ „	38
2	„ „	10	6	„ „	48a
2	„ „	11	1	„ „	52
4	„ „	12	3	„ „	90a
2	„ „	17	1	„ „	111c
1	„ „	18a	1	„ „	125
1	„ „	19s	2	„ „	126a
4	„ „	22	1	„ „	186
1	„ „	24	1	„ „	190
6	„ „	35	2	„ „	191

C31. Telescopic Mast



Parts required

4	of No.	1
5	„ „	5
2	„ „	11
6	„ „	12
1	„ „	18a
1	„ „	19s
1	„ „	22
4	„ „	35
18	„ „	37
1	„ „	38
1	„ „	40
1	„ „	52
2	„ „	126a
1	„ „	176



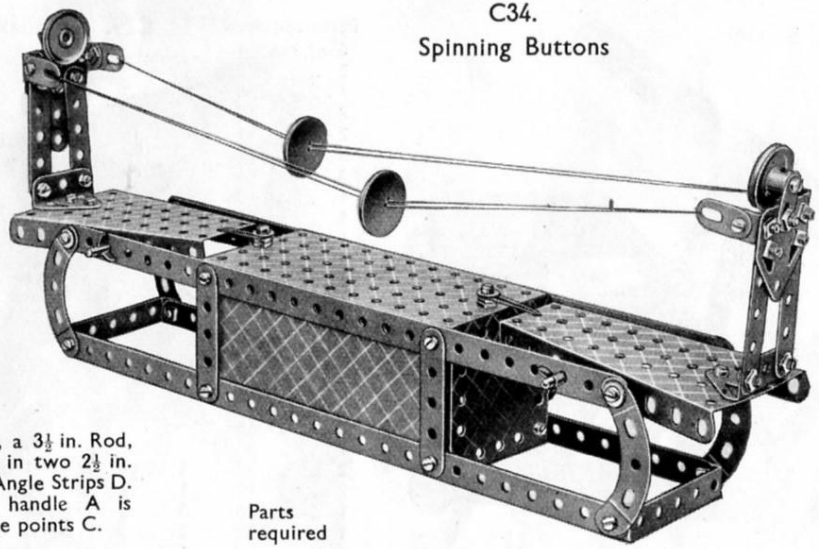
C32. Punching Machine

Parts required

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

The punch B, a 3½ in. Rod, slides vertically in two 2½ in. × ½ in. Double Angle Strips D. The operating handle A is locknutted at the points C.

C34. Spinning Buttons



Parts required

4	of No.	1
9	„ „	5
5	„ „	10
4	„ „	12
2	„ „	16
2	„ „	22
4	„ „	35
47	of No.	37
6	„ „	37a
6	„ „	38
4	„ „	48a
1	„ „	52
2	„ „	54
4	of No.	90a
4	„ „	111c
2	„ „	126
2	„ „	126a
2	„ „	190
2	„ „	192

C36. Gramophone

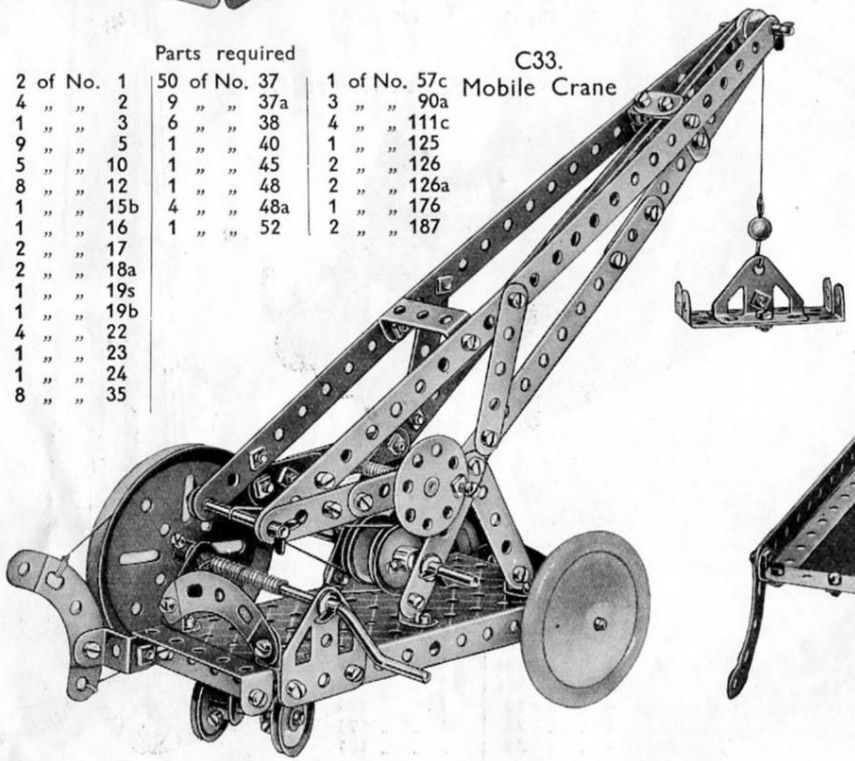
Parts required

4	of No.	2
5	„ „	5
2	„ „	10
4	„ „	12
1	„ „	23
1	„ „	24
29	„ „	37
5	„ „	37a
5	„ „	48a
1	„ „	52
4	„ „	111c
2	„ „	126a
2	„ „	190
2	„ „	191

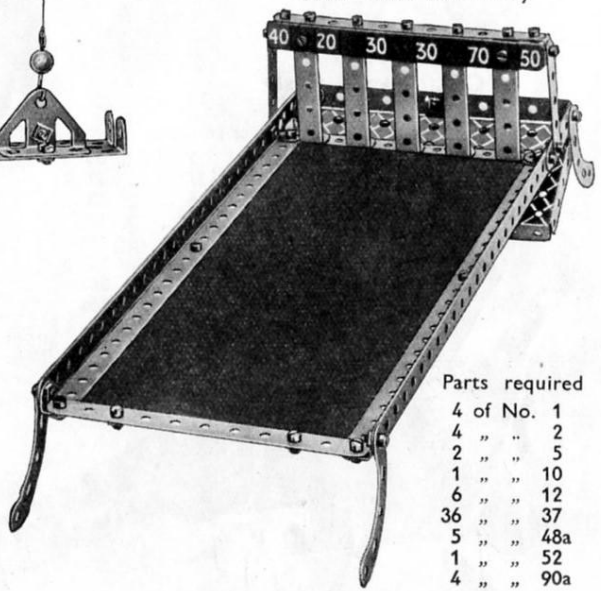
C33. Mobile Crane

Parts required

2	of No.	1
4	„ „	2
1	„ „	3
9	„ „	5
5	„ „	10
8	„ „	12
1	„ „	15b
1	„ „	16
2	„ „	17
2	„ „	18a
1	„ „	19s
1	„ „	19b
4	„ „	22
1	„ „	23
1	„ „	24
8	„ „	35
50	of No.	37
9	„ „	37a
6	„ „	38
1	„ „	40
1	„ „	45
1	„ „	48
4	„ „	48a
1	„ „	52
1	of No.	57c
3	„ „	90a
4	„ „	111c
1	„ „	125
2	„ „	126
2	„ „	126a
1	„ „	176
2	„ „	187



C35. Box Ball Alley



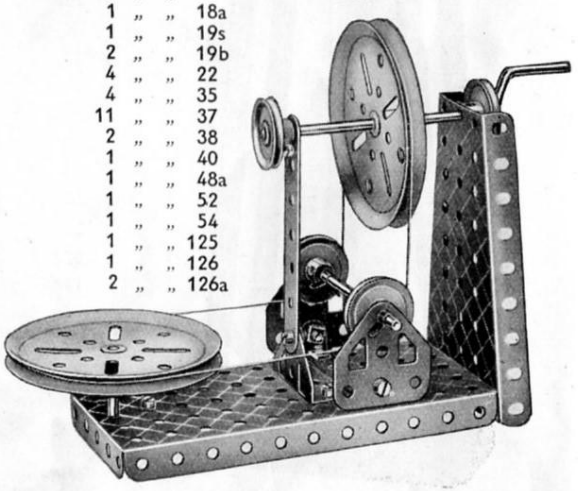
Parts required

4	of No.	1
4	„ „	2
2	„ „	5
1	„ „	10
6	„ „	12
36	„ „	37
5	„ „	48a
1	„ „	52
4	„ „	90a

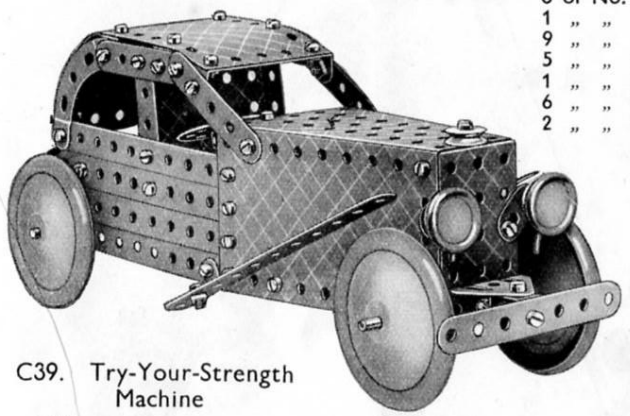
C37. Belt Gear

Parts required

1	of No.	3
1	„ „	16
1	„ „	18a
1	„ „	19s
2	„ „	19b
4	„ „	22
4	„ „	35
11	„ „	37
2	„ „	38
1	„ „	40
1	„ „	48a
1	„ „	52
1	„ „	54
1	„ „	125
1	„ „	126
2	„ „	126a



C38. Sports' Coupé

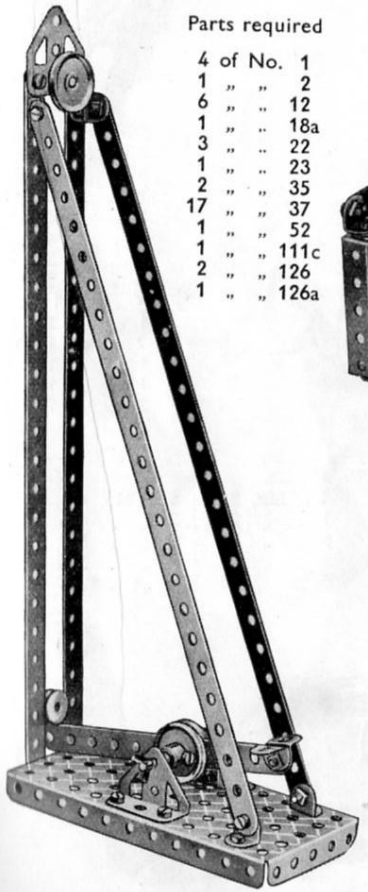


Parts required

8	of No.	2
1	„ „	3
9	„ „	5
5	„ „	10
1	„ „	11
6	„ „	12
2	„ „	15b
1	of No.	17
2	„ „	22
66	„ „	37
4	„ „	37a
6	„ „	48a
1	„ „	51
1	„ „	52
2	„ „	54
2	„ „	90a
6	„ „	111c
1	„ „	125
1	„ „	126
2	„ „	126a
4	„ „	187
2	„ „	190
2	„ „	191
1	„ „	192

Lighting Set (not included in Outfit)

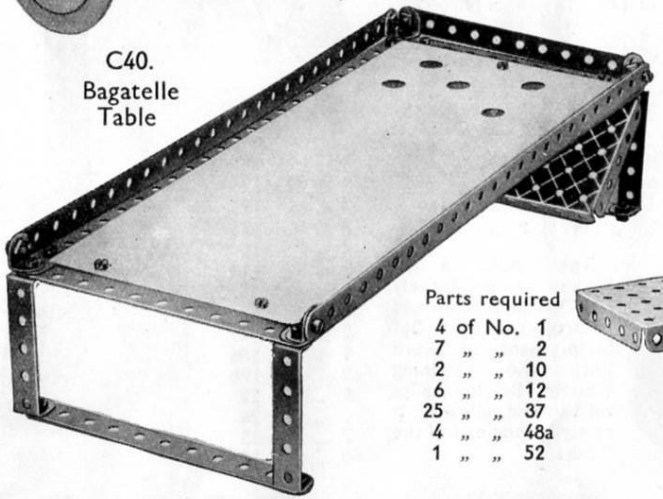
C39. Try-Your-Strength Machine



Parts required

4	of No.	1
1	„ „	2
6	„ „	12
1	„ „	18a
3	„ „	22
1	„ „	23
2	„ „	35
17	„ „	37
1	„ „	52
1	„ „	111c
2	„ „	126
1	„ „	126a

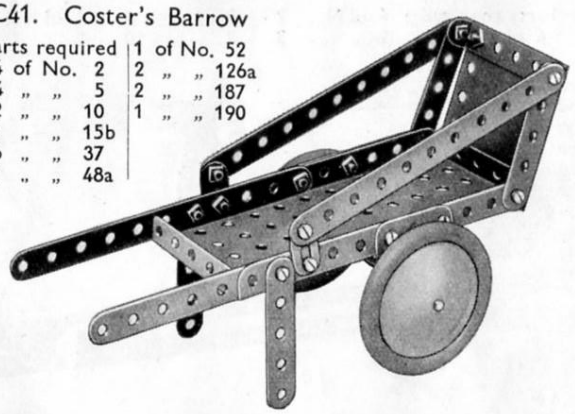
C40. Bagatelle Table



Parts required

4	of No.	1
7	„ „	2
2	„ „	10
6	„ „	12
25	„ „	37
4	„ „	48a
1	„ „	52

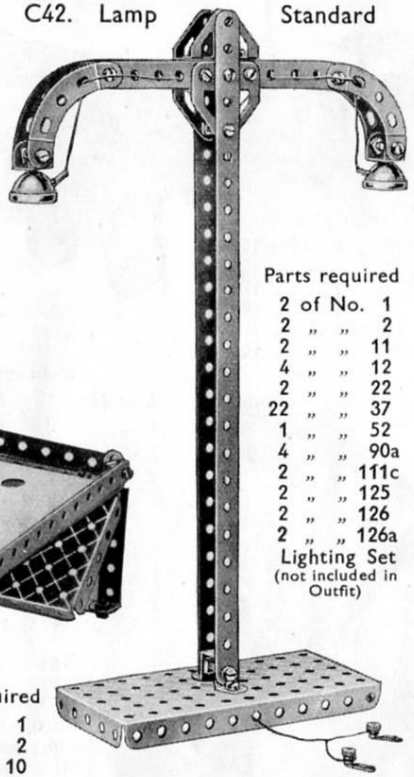
C41. Coster's Barrow



Parts required

4	of No.	2
4	„ „	5
2	„ „	10
1	„ „	15b
16	„ „	37
1	„ „	48a
1	of No.	52
2	„ „	126a
2	„ „	187
1	„ „	190

C42. Lamp Standard

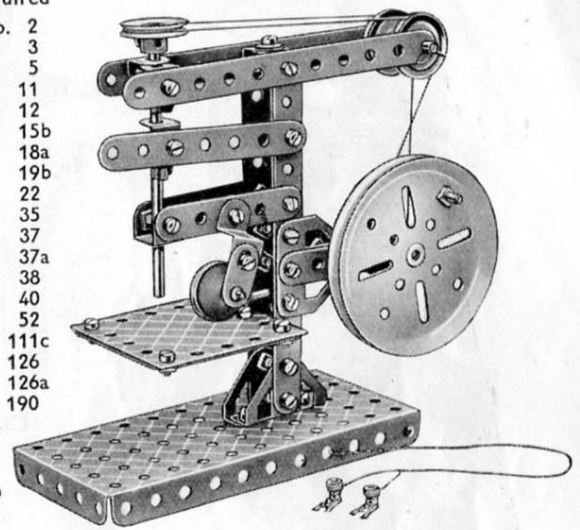


Parts required

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

Lighting Set (not included in Outfit)

C43. Drill



Parts required

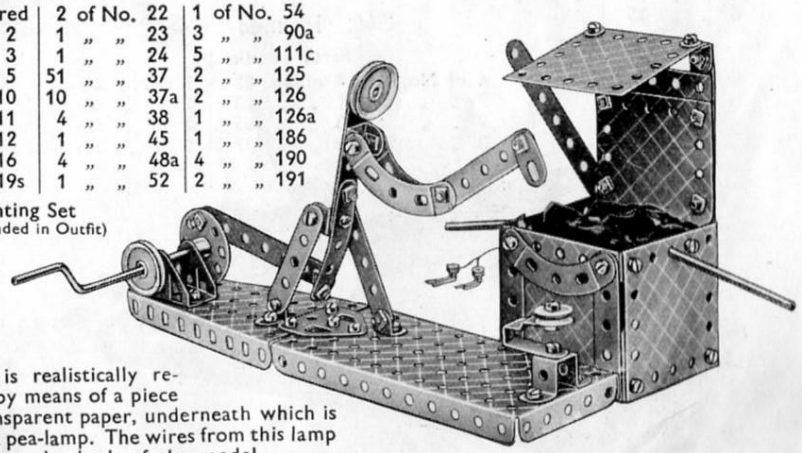
4	of No.	2
1	„ „	3
9	„ „	5
2	„ „	11
8	„ „	12
1	„ „	15b
2	„ „	18a
1	„ „	19b
4	„ „	22
5	„ „	35
33	„ „	37
3	„ „	37a
5	„ „	38
1	„ „	40
1	„ „	52
2	„ „	111c
2	„ „	126
2	„ „	126a
1	„ „	190

Lighting Set (not included in Outfit)

MECCANO LIGHTING SET

The appearance of many Meccano models, especially those built with Outfit A, B, C, may be vastly improved by the addition of suitably disposed lights. For this purpose a special set of lighting equipment has been introduced. This consists of two pea-lamps, two spot lights, and a fancy lamp shade, the appearance and uses of which are shown in models C38, C42, C43 and C44.

C44. Blacksmith



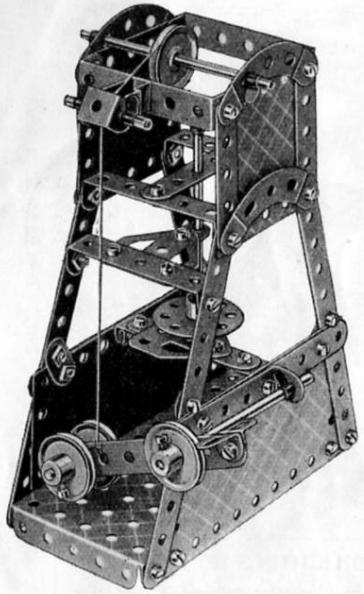
Parts required

3	of No.	2
1	„ „	3
7	„ „	5
2	„ „	10
2	„ „	11
7	„ „	12
2	„ „	16
1	„ „	19s
2	of No.	22
1	„ „	23
1	„ „	24
51	„ „	37
10	„ „	37a
4	„ „	38
1	„ „	45
4	„ „	48a
1	„ „	52
1	of No.	54
3	„ „	90a
5	„ „	111c
2	„ „	125
2	„ „	126
1	„ „	126a
1	„ „	186
4	„ „	190
2	„ „	191

Lighting Set (not included in Outfit)

The fire is realistically represented by means of a piece of red transparent paper, underneath which is concealed a pea-lamp. The wires from this lamp are shown at the back of the model.

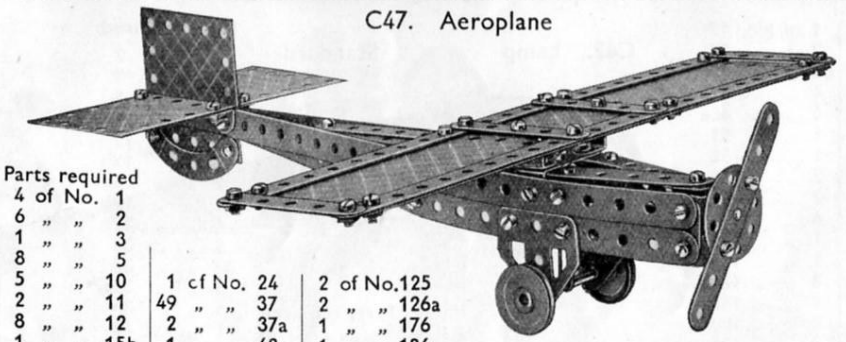
C45. Pneumatic Hammer



Parts required

4	of No.	2	39	of No.	37
1	„ „	3	8	„ „	38
9	„ „	5	1	„ „	40
5	„ „	10	1	„ „	45
1	„ „	11	6	„ „	48a
4	„ „	12	1	„ „	52
3	„ „	16	4	„ „	90a
2	„ „	18a	2	„ „	126a
4	„ „	22	1	„ „	176
1	„ „	23	2	„ „	190
1	„ „	24	2	„ „	191
6	„ „	35			

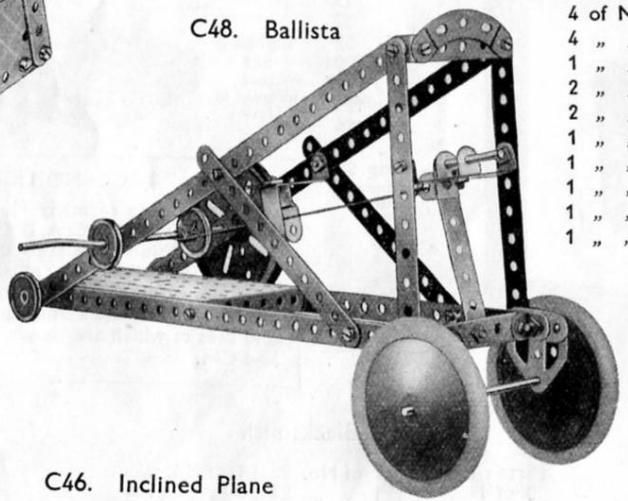
C47. Aeroplane



Parts required

4	of No.	1	1	of No.	24	2	of No. 125
6	„ „	2	49	„ „	37	2	„ „ 126a
1	„ „	3	2	„ „	37a	1	„ „ 176
8	„ „	5	1	„ „	48	1	„ „ 186
5	„ „	10	2	„ „	90a	4	„ „ 190
2	„ „	11	2	„ „	111c	2	„ „ 191
8	„ „	12					
1	„ „	15b					
1	„ „	17					
2	„ „	22					

C48. Ballista

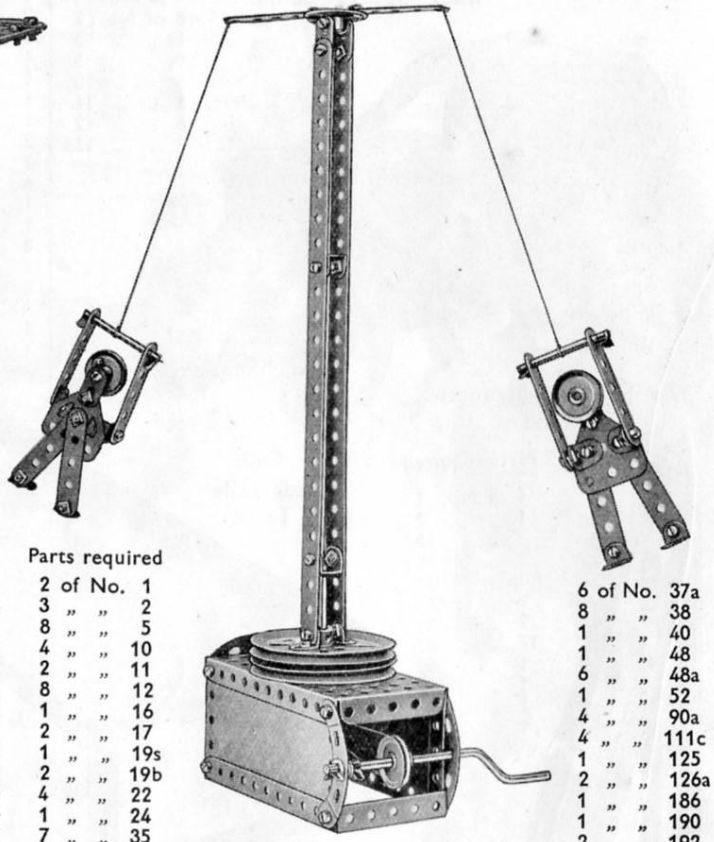


Parts required

4	of No.	1	4	of No	22
4	„ „	2	1	„ „	37
1	„ „	3	1	„ „	40
2	„ „	11	21	„ „	45
2	„ „	12	4	„ „	48a
1	„ „	15b	1	„ „	52
1	„ „	16	1	„ „	90a
1	„ „	17	2	„ „	126a
1	„ „	19s	1	„ „	176
1	„ „	19b	2	„ „	187

The "bolt," a $1\frac{1}{2}$" Rod, is carried loosely in a Double Bracket and is projected by a $3\frac{1}{2}$" Strip, bent backward until the retaining Double Bracket slips off the end, allowing it to strike one end of the "bolt."

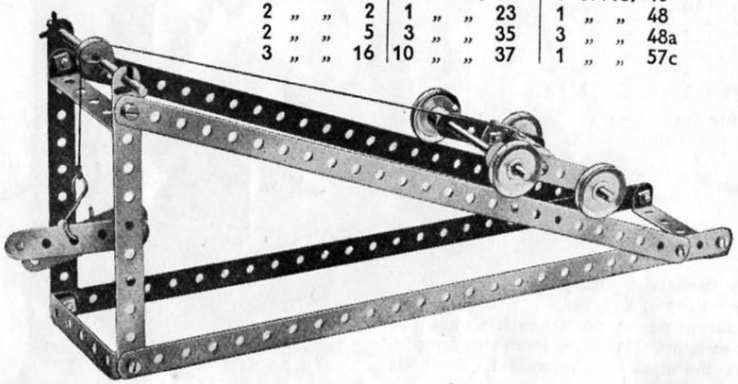
C49. Revolving Gymnasts



Parts required

2	of No.	1	6	of No.	37a
3	„ „	2	8	„ „	38
8	„ „	5	1	„ „	40
4	„ „	10	1	„ „	48
2	„ „	11	6	„ „	48a
8	„ „	12	1	„ „	52
1	„ „	16	4	„ „	90a
2	„ „	17	4	„ „	111c
1	„ „	19s	1	„ „	125
2	„ „	19b	2	„ „	126a
4	„ „	22	1	„ „	186
1	„ „	24	1	„ „	190
7	„ „	35	2	„ „	192
40	„ „	37			

C46. Inclined Plane

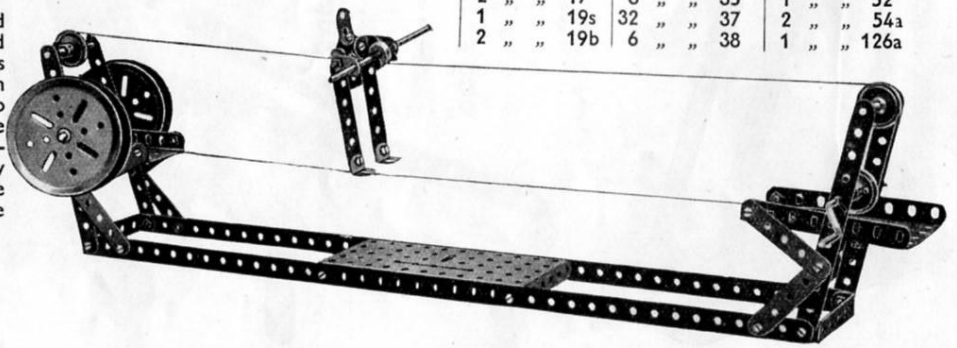


Parts required

4	of No.	1	4	of No.	22	1	of No. 40
2	„ „	2	1	„ „	23	1	„ „ 48
2	„ „	5	3	„ „	35	3	„ „ 48a
3	„ „	16	10	„ „	37	1	„ „ 57c

The endless cord is first passed round four 1" fast Pulleys the two ends then being attached to one foot of the figure that is supported by a $\frac{1}{2}$" Pulley running along the upper section of the cord.

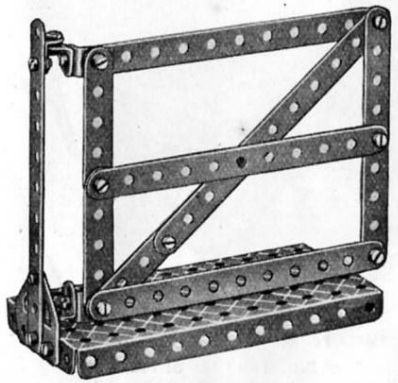
C50. Tight-rope Walker



Parts required

4	of No.	1	4	of No.	2	9	of No.	5	4	of No.	12	4	of No.	22	1	of No.	40
			1	„ „	3	3	„ „	10	2	„ „	16	1	„ „	23	2	„ „	48a
									2	„ „	17	8	„ „	35	1	„ „	52
									1	„ „	19s	32	„ „	37	2	„ „	54a
									2	„ „	19b	6	„ „	38	1	„ „	126a

C51. Gate



Parts required

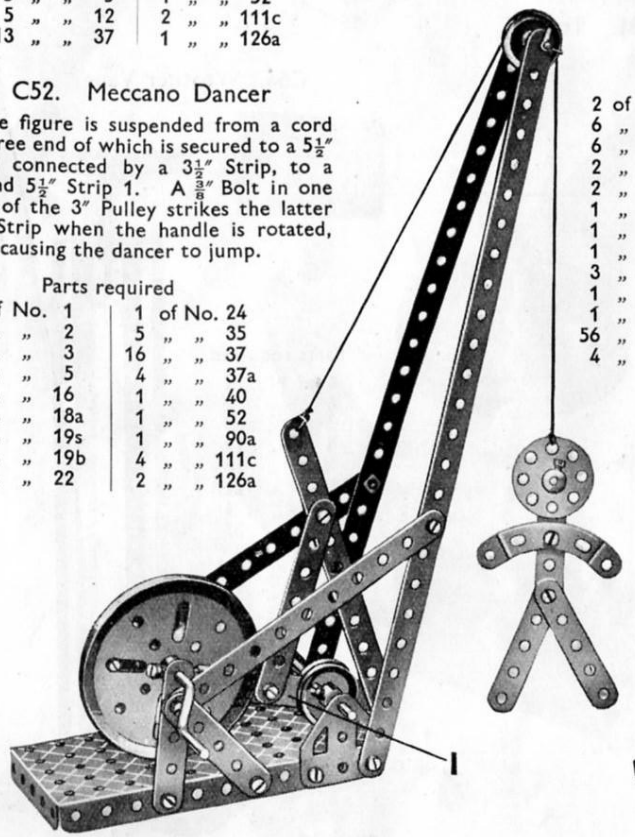
5	of No. 2	4	of No. 37a
5	„ „ 5	1	„ „ 52
5	„ „ 12	2	„ „ 111c
13	„ „ 37	1	„ „ 126a

C52. Meccano Dancer

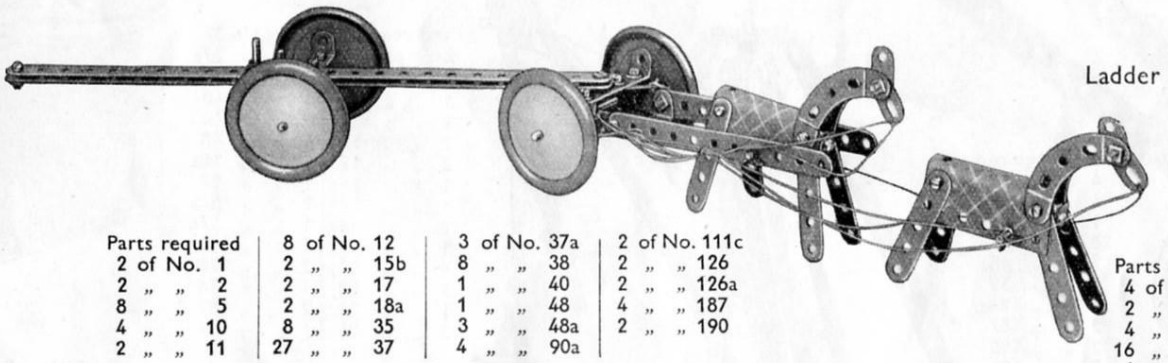
The figure is suspended from a cord the free end of which is secured to a $5\frac{1}{2}$" Strip connected by a $3\frac{1}{2}$" Strip, to a second $5\frac{1}{2}$" Strip 1. A $\frac{3}{8}$" Bolt in one hole of the 3" Pulley strikes the latter $5\frac{1}{2}$" Strip when the handle is rotated, thus causing the dancer to jump.

Parts required

2	of No. 1	1	of No. 24
4	„ „ 2	5	„ „ 35
1	„ „ 3	16	„ „ 37
7	„ „ 5	4	„ „ 37a
1	„ „ 16	1	„ „ 40
1	„ „ 18a	1	„ „ 52
1	„ „ 19s	1	„ „ 90a
1	„ „ 19b	4	„ „ 111c
3	„ „ 22	2	„ „ 126a



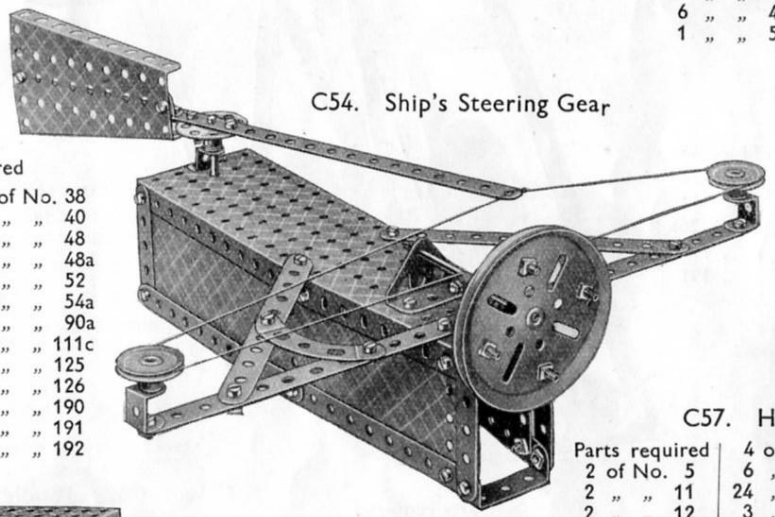
C53. Timber Drag



Parts required

2	of No. 1	8	of No. 12	3	of No. 37a	2	of No. 111c
2	„ „ 2	2	„ „ 15b	8	„ „ 38	2	„ „ 126
2	„ „ 5	2	„ „ 17	1	„ „ 40	2	„ „ 126a
8	„ „ 5	2	„ „ 18a	1	„ „ 48	4	„ „ 187
4	„ „ 10	8	„ „ 35	3	„ „ 48a	2	„ „ 190
2	„ „ 11	27	„ „ 37	4	„ „ 90a		

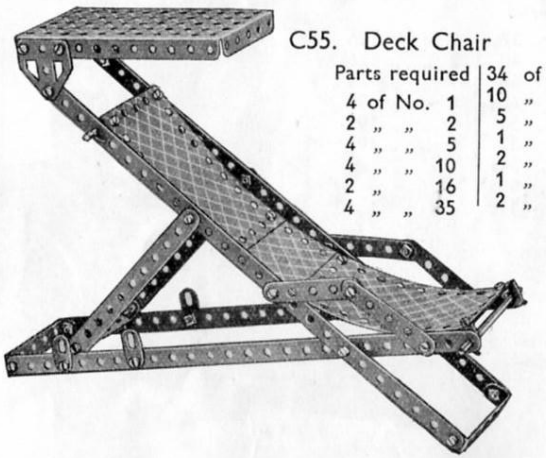
C54. Ship's Steering Gear



Parts required

2	of No. 1	5	of No. 38	1	„ „ 125
6	„ „ 2	1	„ „ 40	2	„ „ 126
6	„ „ 5	1	„ „ 48	1	„ „ 190
2	„ „ 11	1	„ „ 48a	2	„ „ 191
2	„ „ 12	1	„ „ 52	2	„ „ 192
1	„ „ 16	2	„ „ 54a		
1	„ „ 18a	2	„ „ 90a		
1	„ „ 19b	6	„ „ 111c		
3	„ „ 22	1	„ „ 125		
1	„ „ 24	2	„ „ 126		
1	„ „ 35	1	„ „ 190		
56	„ „ 37	2	„ „ 191		
4	„ „ 37a	2	„ „ 192		

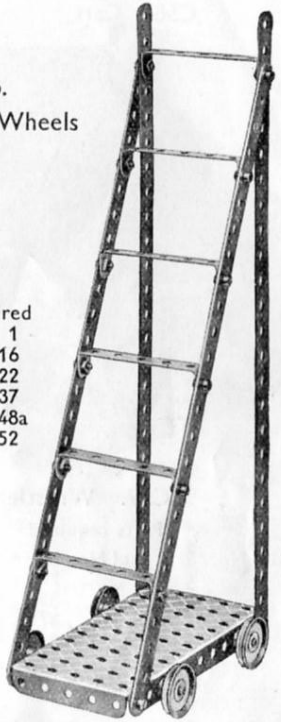
C55. Deck Chair



Parts required

4	of No. 1	34	of No. 37
2	„ „ 2	10	„ „ 37a
4	„ „ 5	5	„ „ 48a
4	„ „ 10	1	„ „ 52
2	„ „ 16	2	„ „ 126a
4	„ „ 35	1	„ „ 190
		2	„ „ 191

C56. Ladder on Wheels



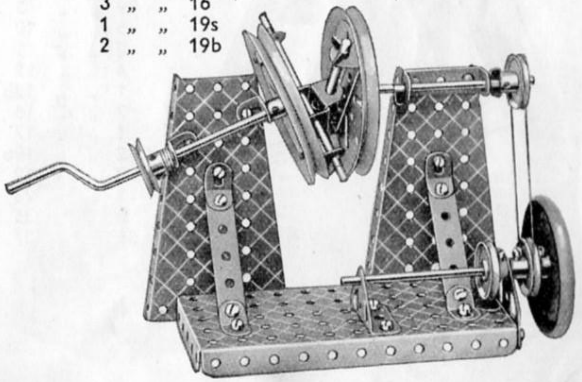
Parts required

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

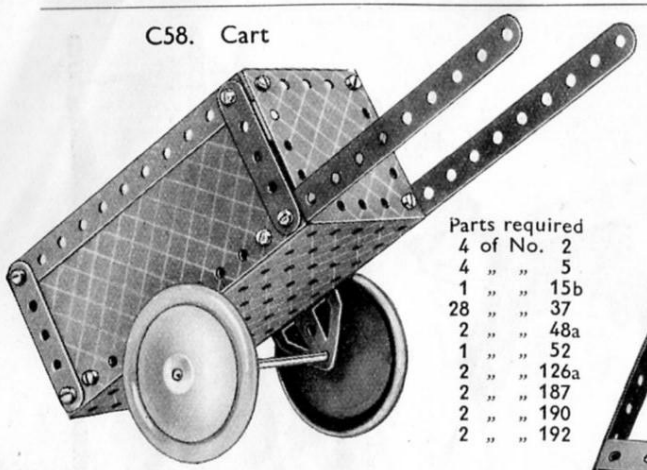
C57. Hooke's Coupling

Parts required

2	of No. 5	4	of No. 22	2	of No. 48a
2	„ „ 11	6	„ „ 35	1	„ „ 52
2	„ „ 12	24	„ „ 37	2	„ „ 54a
4	„ „ 12c	3	„ „ 38	1	„ „ 126
1	„ „ 15b	1	„ „ 40	1	„ „ 126a
3	„ „ 16	1	„ „ 48	1	„ „ 187
1	„ „ 19s				
2	„ „ 19b				



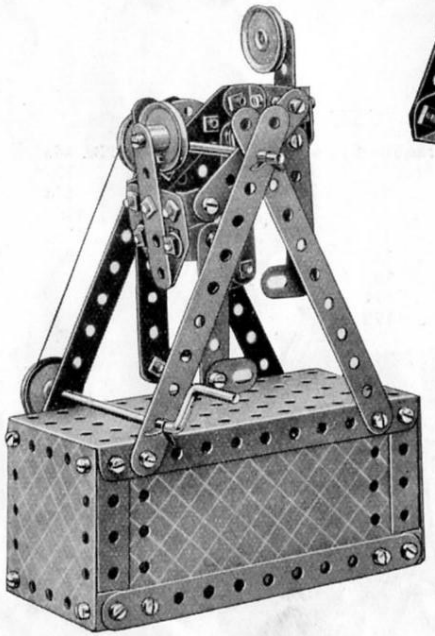
C58. Cart



Parts required

4	of No.	2
4	„ „	5
1	„ „	15b
28	„ „	37
2	„ „	48a
1	„ „	52
2	„ „	126a
2	„ „	187
2	„ „	190
2	„ „	192

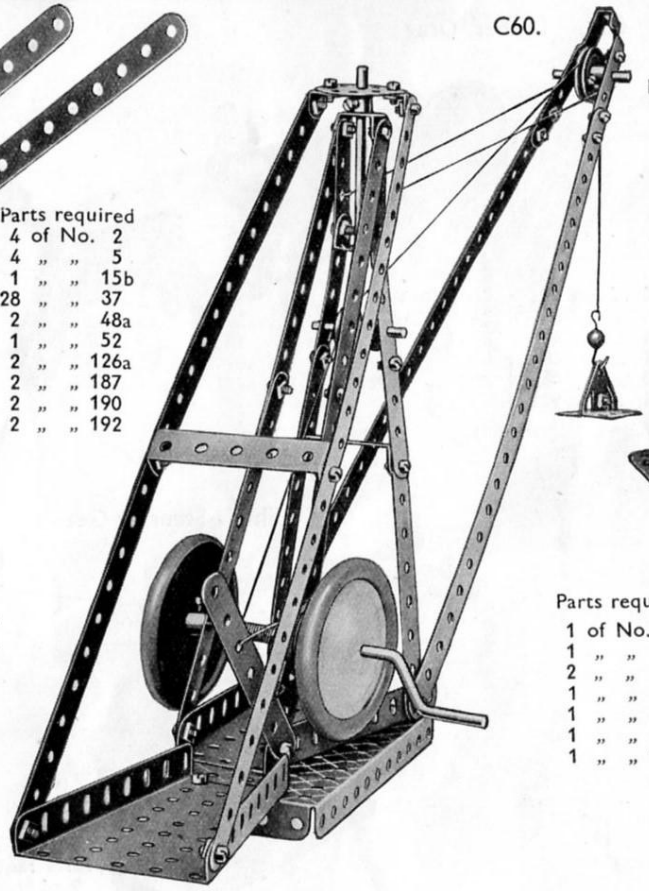
C59. Wrestlers



Parts required

6	of No.	2	4	of No.	22	6	of No.	48a
8	„ „	5	1	„ „	24	1	„ „	52
4	„ „	10	2	„ „	35	6	„ „	111c
8	„ „	12	44	„ „	37	2	„ „	126a
1	„ „	16	12	„ „	37a	2	„ „	190
1	„ „	19s	6	„ „	38	2	„ „	191
			1	„ „	40			

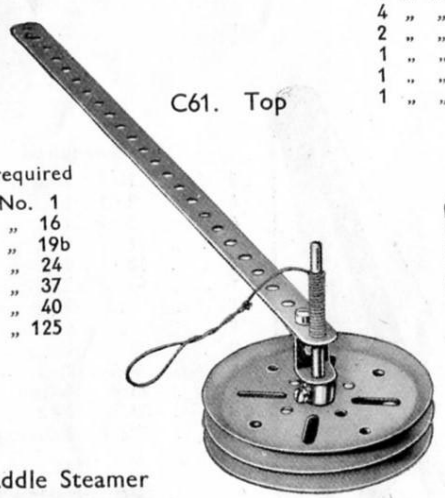
C60. Jib Crane



Parts required

4	of No.	1	32	of No.	37
8	„ „	2	2	„ „	37a
1	„ „	3	3	„ „	38
2	„ „	5	1	„ „	40
2	„ „	11	1	„ „	44
2	„ „	12	1	„ „	48
1	„ „	16	1	„ „	48a
1	„ „	17	1	„ „	52
2	„ „	18a	2	„ „	54a
1	„ „	19s	1	„ „	57c
4	„ „	22	1	„ „	111c
1	„ „	23	2	„ „	126
1	„ „	24	1	„ „	176
3	„ „	35	2	„ „	187

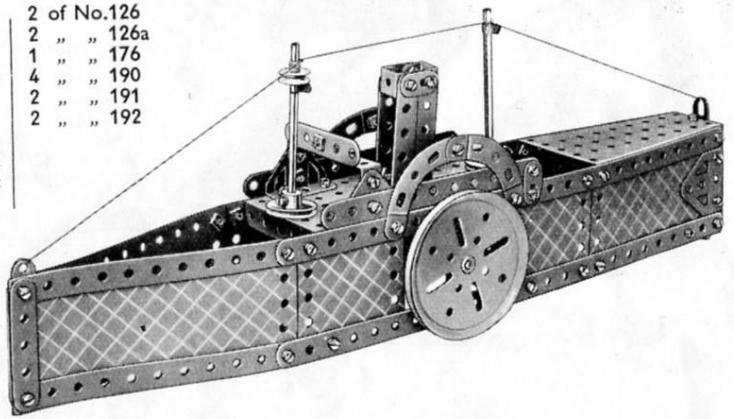
C61. Top



Parts required

1	of No.	1
1	„ „	16
2	„ „	19b
1	„ „	24
1	„ „	37
1	„ „	40
1	„ „	125

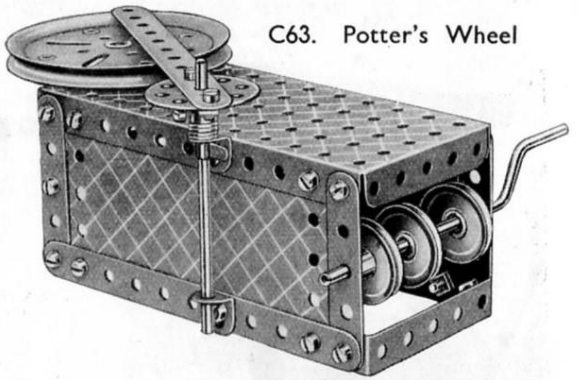
C62. Paddle Steamer



Parts required

4	of No.	1	2	of No.	37a	2	of No.	126
6	„ „	2	1	„ „	40	2	„ „	126a
9	„ „	5	1	„ „	48	1	„ „	176
5	„ „	10	3	„ „	48a	4	„ „	190
2	„ „	11	1	„ „	51	2	„ „	191
4	„ „	12	1	„ „	52	2	„ „	192
1	„ „	15b	1	„ „	54a			
2	„ „	16	4	„ „	90a			
1	„ „	17	2	„ „	111c			
2	„ „	19b						
3	„ „	22						
1	„ „	23						
6	„ „	35						
58	„ „	37						

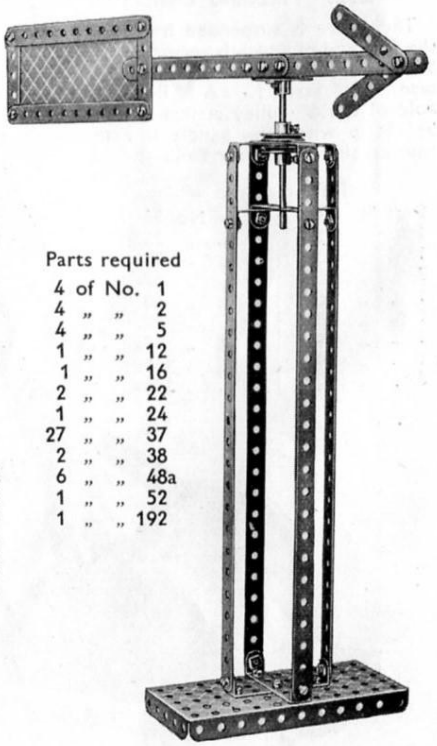
C63. Potter's Wheel



Parts required

3	of No.	2	1	of No.	19b	1	of No.	40
4	„ „	5	4	„ „	22	2	„ „	48a
2	„ „	12	1	„ „	24	1	„ „	52
1	„ „	16	1	„ „	35	2	„ „	191
1	„ „	17	22	„ „	37			
1	„ „	19s	5	„ „	38			

C64. Weather Vane



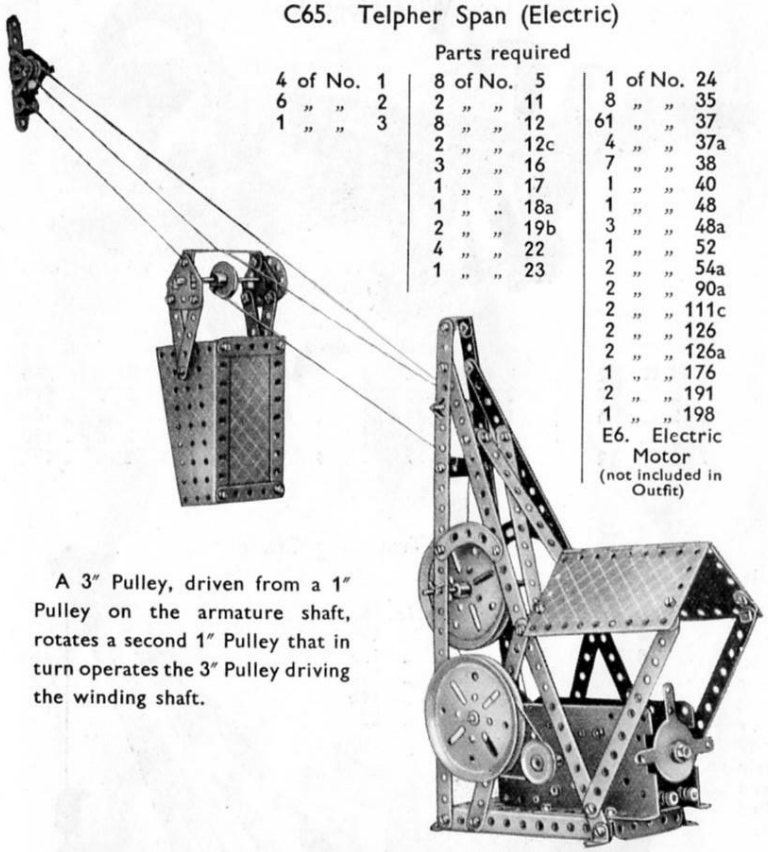
Parts required

4	of No.	1
4	„ „	2
4	„ „	5
1	„ „	12
1	„ „	16
2	„ „	22
1	„ „	24
27	„ „	37
2	„ „	38
6	„ „	48a
1	„ „	52
1	„ „	192

C65. Telpher Span (Electric)

Parts required

4 of No. 1	8 of No. 5	1 of No. 24
6 „ „ 2	2 „ „ 11	8 „ „ 35
1 „ „ 3	8 „ „ 12	61 „ „ 37
	2 „ „ 12c	4 „ „ 37a
	3 „ „ 16	7 „ „ 38
	1 „ „ 17	1 „ „ 40
	1 „ „ 18a	1 „ „ 48
	2 „ „ 19b	3 „ „ 48a
	4 „ „ 22	1 „ „ 52
	1 „ „ 23	2 „ „ 54a
		2 „ „ 90a
		2 „ „ 111c
		2 „ „ 126
		2 „ „ 126a
		1 „ „ 176
		2 „ „ 191
		1 „ „ 198
		E6. Electric Motor (not included in Outfit)

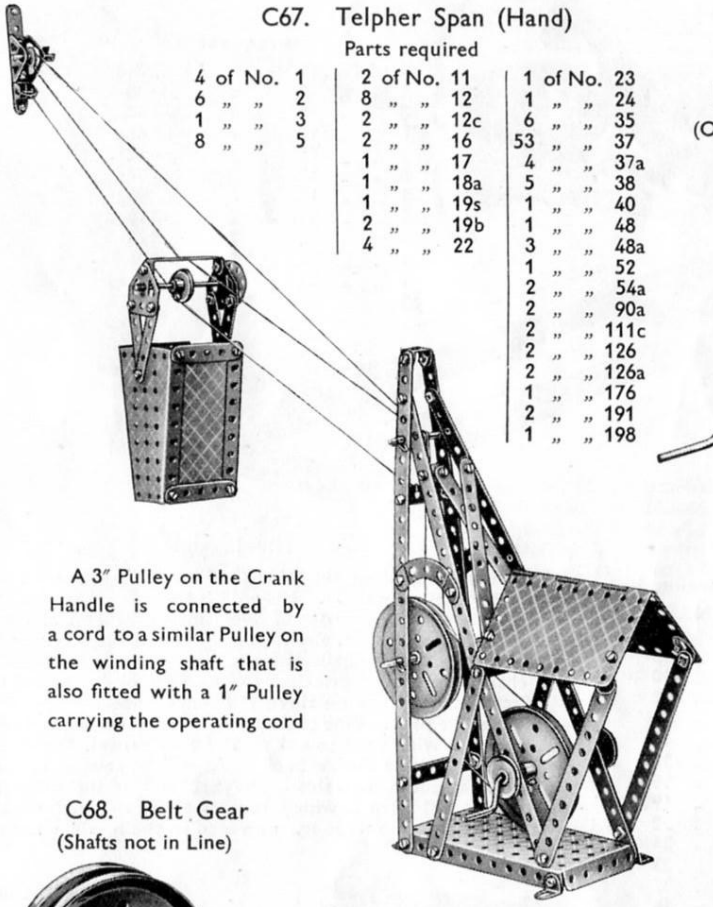


A 3″ Pulley, driven from a 1″ Pulley on the armature shaft, rotates a second 1″ Pulley that in turn operates the 3″ Pulley driving the winding shaft.

C67. Telpher Span (Hand)

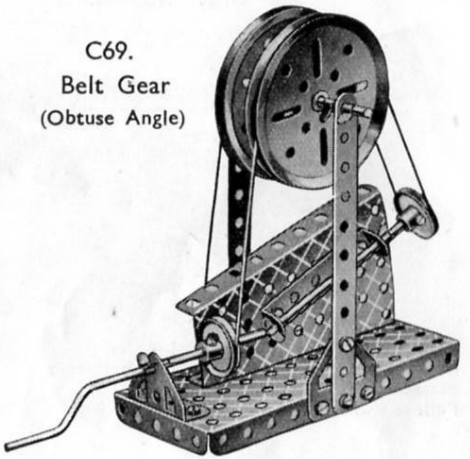
Parts required

4 of No. 1	2 of No. 11	1 of No. 23
6 „ „ 2	8 „ „ 12	1 „ „ 24
1 „ „ 3	2 „ „ 12c	6 „ „ 35
8 „ „ 5	2 „ „ 16	53 „ „ 37
	1 „ „ 17	4 „ „ 37a
	1 „ „ 18a	5 „ „ 38
	1 „ „ 19s	1 „ „ 40
	2 „ „ 19b	1 „ „ 48
	4 „ „ 22	3 „ „ 48a
		1 „ „ 52
		2 „ „ 54a
		2 „ „ 90a
		2 „ „ 111c
		2 „ „ 126
		2 „ „ 126a
		1 „ „ 176
		2 „ „ 191
		1 „ „ 198



A 3″ Pulley on the Crank Handle is connected by a cord to a similar Pulley on the winding shaft that is also fitted with a 1″ Pulley carrying the operating cord

C69. Belt Gear (Obtuse Angle)



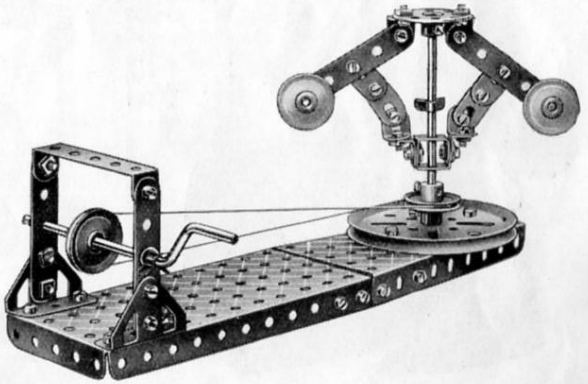
Parts required

2 of No. 2	2 of No. 38
1 „ „ 12	1 „ „ 40
2 „ „ 16	1 „ „ 48a
1 „ „ 19s	1 „ „ 52
2 „ „ 19b	1 „ „ 54a
2 „ „ 22	1 „ „ 126
8 „ „ 35	2 „ „ 126a
15 „ „ 37	

C70. Centrifugal Governor

Parts required

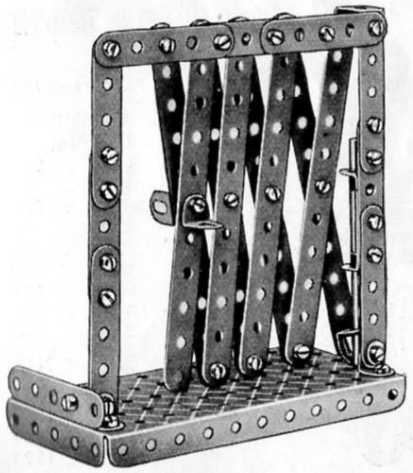
6 of No. 5	32 of No. 37
4 „ „ 10	10 „ „ 37a
2 „ „ 11	8 „ „ 38
6 „ „ 12	1 „ „ 40
1 „ „ 15b	1 „ „ 48a
1 „ „ 19s	1 „ „ 52
1 „ „ 19b	1 „ „ 54a
4 „ „ 22	4 „ „ 111c
1 „ „ 24	2 „ „ 126
3 „ „ 35	



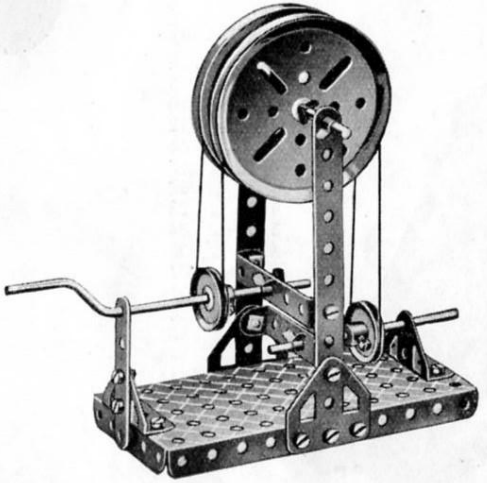
C66. Sliding Gate

Parts required

8 of No. 2
1 „ „ 3
9 „ „ 5
1 „ „ 11
6 „ „ 12
1 „ „ 16
2 „ „ 35
30 „ „ 37
14 „ „ 37a
5 „ „ 38
1 „ „ 48
1 „ „ 52
1 „ „ 111c



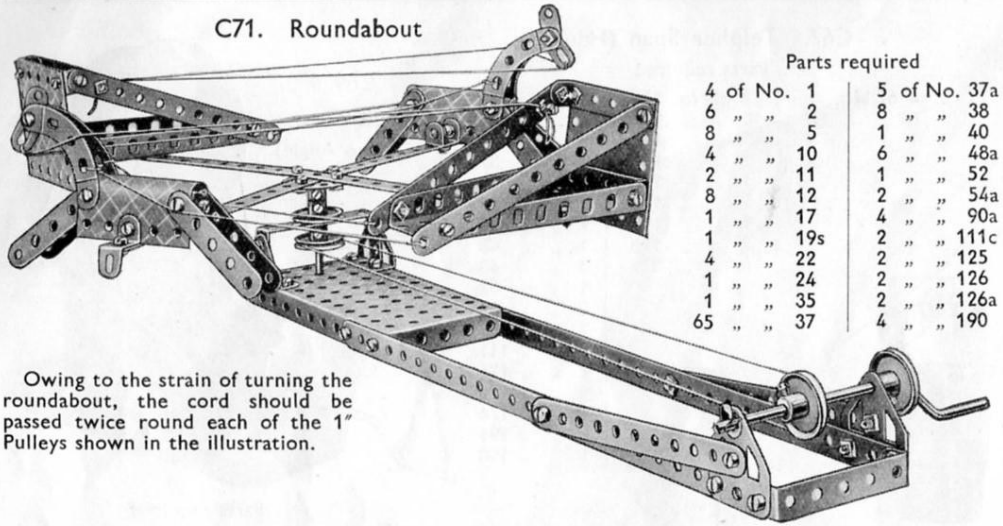
C68. Belt Gear (Shafts not in Line)



Parts required

2 of No. 2
1 „ „ 5
2 „ „ 16
1 „ „ 19s
2 „ „ 19b
2 „ „ 22
8 „ „ 35
16 „ „ 37
1 „ „ 40
2 „ „ 48a
1 „ „ 52
2 „ „ 126
2 „ „ 126a

C71. Roundabout

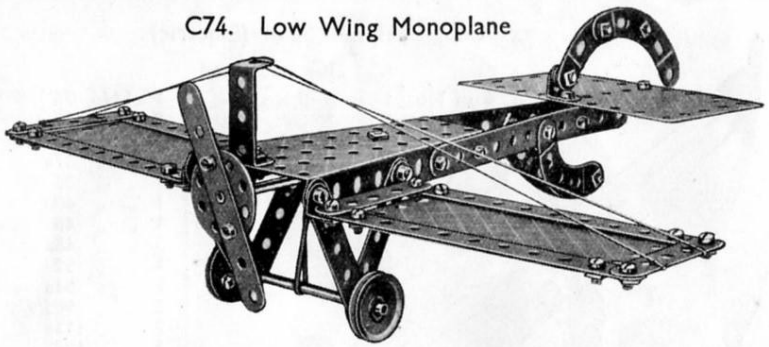


Parts required

4	of No.	1	5	of No.	37a
6	„ „	2	8	„ „	38
8	„ „	5	1	„ „	40
4	„ „	10	6	„ „	48a
2	„ „	11	1	„ „	52
8	„ „	12	2	„ „	54a
1	„ „	17	4	„ „	90a
1	„ „	19s	2	„ „	111c
4	„ „	22	2	„ „	125
1	„ „	24	2	„ „	126
1	„ „	35	2	„ „	126a
65	„ „	37	4	„ „	190

Owing to the strain of turning the roundabout, the cord should be passed twice round each of the 1″ Pulleys shown in the illustration.

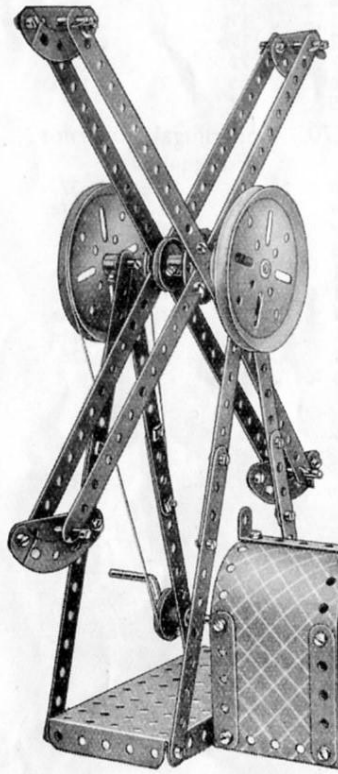
C74. Low Wing Monoplane



Parts required

6	of No.	2	2	of No.	16	2	of No. 37a	4	of No. 90a
1	„ „	3	2	„ „	22	8	„ „ 38	2	„ „ 111c
8	„ „	5	1	„ „	24	1	„ „ 40	1	„ „ 186
1	„ „	11	1	„ „	35	1	„ „ 48	2	„ „ 190
7	„ „	12	36	„ „	37	1	„ „ 54a	2	„ „ 191

C72. Fly Boats

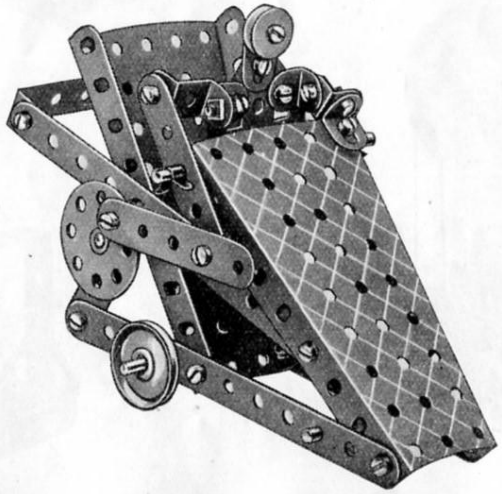


Parts required

4	of No.	1
8	„ „	2
8	„ „	5
2	„ „	10
8	„ „	12
2	„ „	16
2	„ „	17
2	„ „	18a
1	„ „	19s
2	„ „	19b
4	„ „	22
1	„ „	24
8	„ „	35
44	„ „	37
4	„ „	38
1	„ „	40
3	„ „	48a
1	„ „	52
4	„ „	90a
1	„ „	176
1	„ „	190
2	„ „	191

C73. 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 shown, is connected by means of a Driving Band to a third 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.



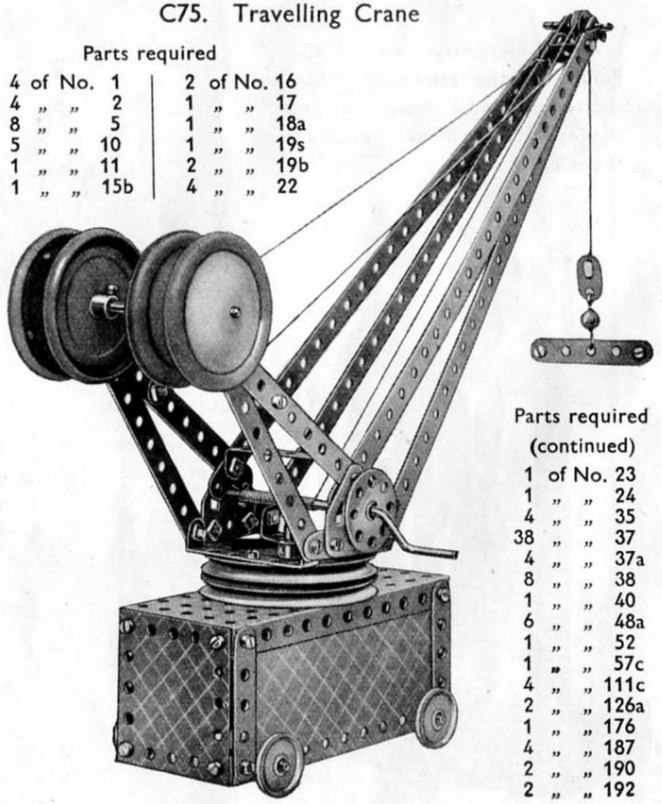
Parts required

4	of No.	2
4	„ „	5
1	„ „	10
4	„ „	12
3	„ „	16
1	„ „	17
4	„ „	22
1	„ „	23
1	„ „	24
4	„ „	35
22	„ „	37
5	„ „	37a
4	„ „	38
1	„ „	48a
2	„ „	54a
1	„ „	111c
1	„ „	125
1	„ „	126a
1	„ „	186

C75. Travelling Crane

Parts required

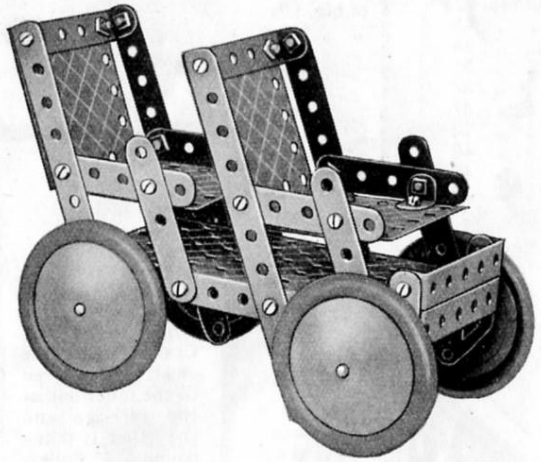
4	of No.	1	2	of No.	16
4	„ „	2	1	„ „	17
8	„ „	5	1	„ „	18a
5	„ „	10	1	„ „	19s
1	„ „	11	2	„ „	19b
1	„ „	15b	4	„ „	22



Parts required (continued)

1	of No.	23
1	„ „	24
4	„ „	35
38	„ „	37
4	„ „	37a
8	„ „	38
1	„ „	40
6	„ „	48a
1	„ „	52
1	„ „	57c
4	„ „	111c
2	„ „	126a
1	„ „	176
4	„ „	187
2	„ „	190
2	„ „	192

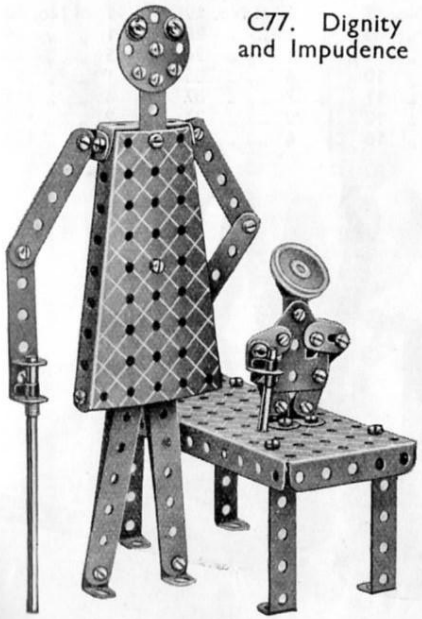
C76. Tandem Car



Parts required

4	of No. 2	4	of No. 48a
8	„ „ 5	1	„ „ 52
4	„ „ 12	2	„ „ 126a
2	„ „ 15b	4	„ „ 187
34	„ „ 37	4	„ „ 190

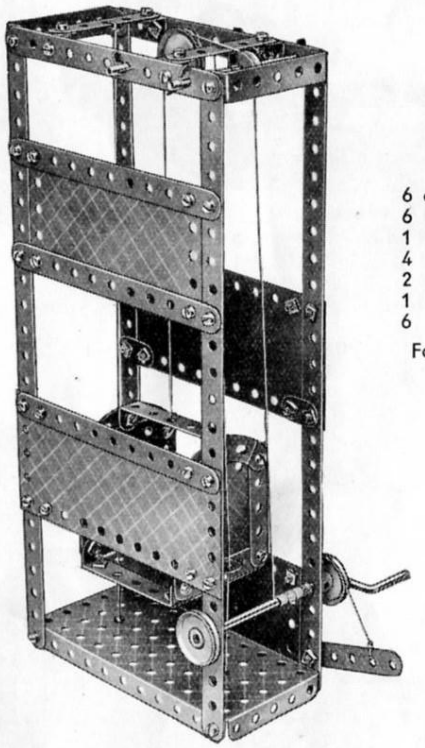
C77. Dignity and Impudence



Parts required

5	of No. 2
3	„ „ 5
5	„ „ 10
2	„ „ 11
8	„ „ 12
1	„ „ 16
1	„ „ 17
2	„ „ 22
4	„ „ 35
31	„ „ 37
1	„ „ 48
4	„ „ 48a
1	„ „ 52
2	„ „ 54a
2	„ „ 111c
2	„ „ 125
1	„ „ 126a

C78. Elevator



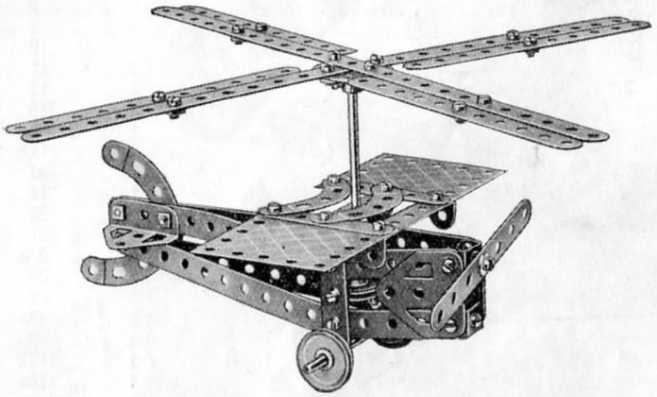
Parts required

4	of No. 1
7	„ „ 2
1	„ „ 3
8	„ „ 5
4	„ „ 10
6	„ „ 12
2	„ „ 16
1	„ „ 19s
3	„ „ 22
1	„ „ 23
6	„ „ 35
61	„ „ 37
2	„ „ 37a
7	„ „ 38
1	„ „ 40
5	„ „ 48a
1	„ „ 52
2	„ „ 90a
1	„ „ 111c
1	„ „ 176
3	„ „ 190
2	„ „ 191
2	„ „ 192

C79. Autogiro

Parts required

2	of No. 1	2	of No. 11	33	of No. 37	4	of No. 90a
8	„ „ 2	2	„ „ 12	3	„ „ 37a	2	„ „ 111c
1	„ „ 3	2	„ „ 16	7	„ „ 38	2	„ „ 126
9	„ „ 5	4	„ „ 22	1	„ „ 48	2	„ „ 126a
5	„ „ 10	1	„ „ 24	1	„ „ 48a	2	„ „ 190

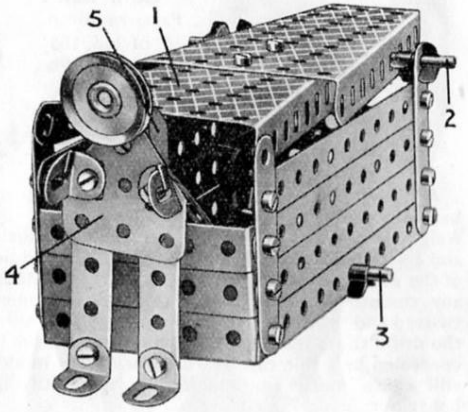


C80. Disappearing Meccanitian

Parts required

6	of No. 2	23	of No. 37
6	„ „ 5	1	„ „ 45
1	„ „ 10	6	„ „ 48a
4	„ „ 12	1	„ „ 52
2	„ „ 16	2	„ „ 54a
1	„ „ 22	1	„ „ 111c
6	„ „ 35	1	„ „ 126a

Four short lengths of elastic

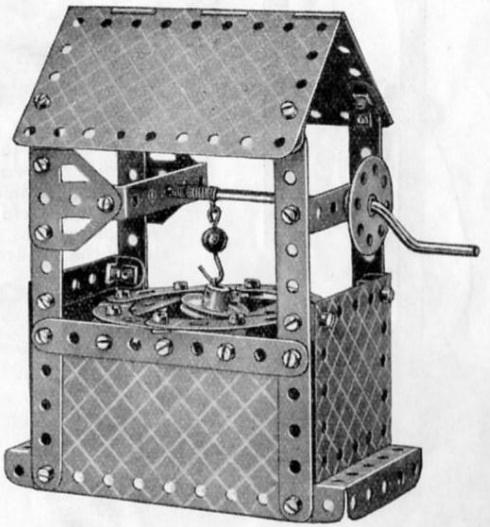


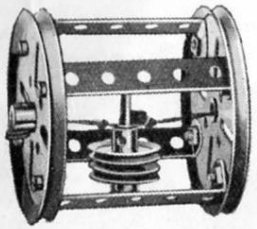
The bottom of the box-like portion of the model consists of a $5\frac{1}{2}'' \times 2\frac{1}{2}''$ Flanged Plate ; three $5\frac{1}{2}''$ Strips bolted to upright $2\frac{1}{2}''$ Strips form each side and each end consists of three $2\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strips. The lid 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.

C81. Well Windlass

Parts required

4	of No. 2
4	„ „ 5
4	„ „ 12c
1	„ „ 19s
1	„ „ 22
1	„ „ 24
1	„ „ 35
46	„ „ 37
1	„ „ 38
1	„ „ 40
6	„ „ 48a
1	„ „ 52
1	„ „ 57c
4	„ „ 90a
2	„ „ 126a
1	„ „ 176
2	„ „ 190
2	„ „ 191
1	„ „ 198





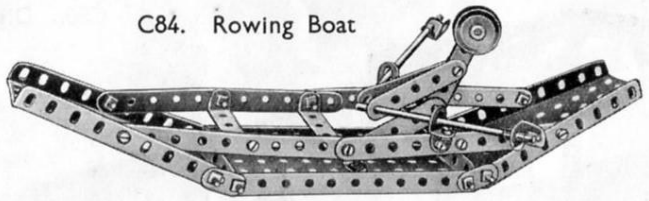
C82. Cum Bak

Parts required

1	of No.	18a
2	„ „	19b
2	„ „	22
1	„ „	35
8	„ „	37
4	„ „	48a
1	„ „	186

A Driving Band 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.

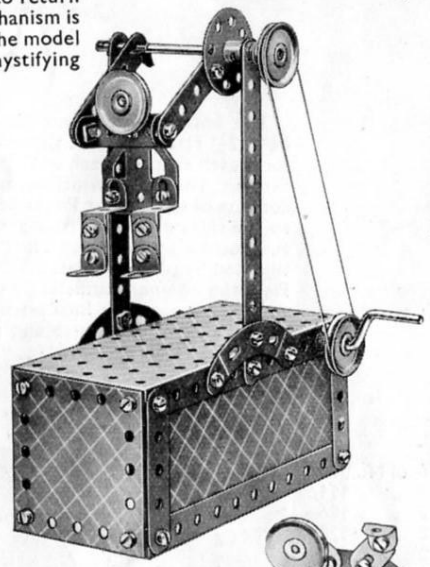
C84. Rowing Boat



Parts required

4	of No.	2	2	of No.	16	3	of No.	48a
4	„ „	5	1	„ „	22	1	„ „	52
4	„ „	10	6	„ „	35	2	„ „	54a
7	„ „	12	25	„ „	37	1	„ „	111c
4	of No.	1						
7	„ „	2						
1	„ „	3						
9	„ „	5						
5	„ „	10						
2	„ „	11						
6	„ „	12						
2	„ „	12c						
1	„ „	15b						
2	„ „	16						
2	„ „	17						
1	„ „	18a						
1	„ „	19s						
2	„ „	19b						

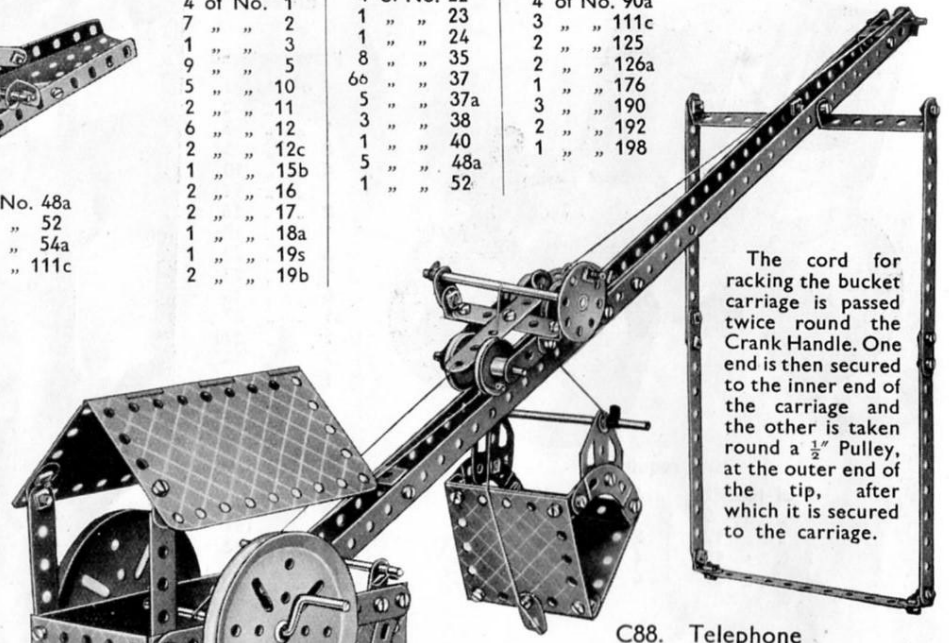
C85. Gymnast



Parts required

4	of No.	2
6	„ „	5
3	„ „	10
2	„ „	12
1	„ „	16
1	„ „	19s
3	„ „	22
1	„ „	24
4	„ „	35
32	„ „	37
4	„ „	37a
8	„ „	38
1	„ „	40
1	„ „	48
2	„ „	48a
1	„ „	52
2	„ „	90a
3	„ „	111c
2	„ „	125
1	„ „	126a
2	„ „	190
2	„ „	192

C87. Extended Ash Tip

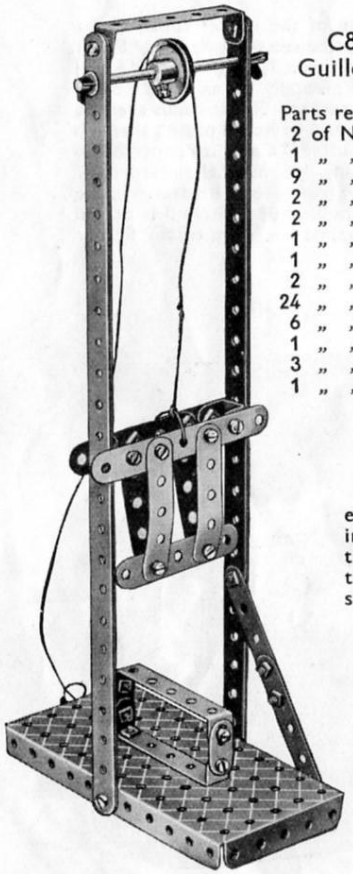


Parts required

4	of No.	22
1	„ „	23
1	„ „	24
8	„ „	35
66	„ „	37
5	„ „	37a
3	„ „	38
1	„ „	40
5	„ „	48a
1	„ „	52
4	of No.	90a
3	„ „	111c
2	„ „	125
2	„ „	126a
1	„ „	176
3	„ „	190
2	„ „	192
1	„ „	198

The cord for racking the bucket carriage is passed twice round the Crank Handle. One end is then secured to the inner end of the carriage and the other is taken round a ½″ Pulley, at the outer end of the tip, after which it is secured to the carriage.

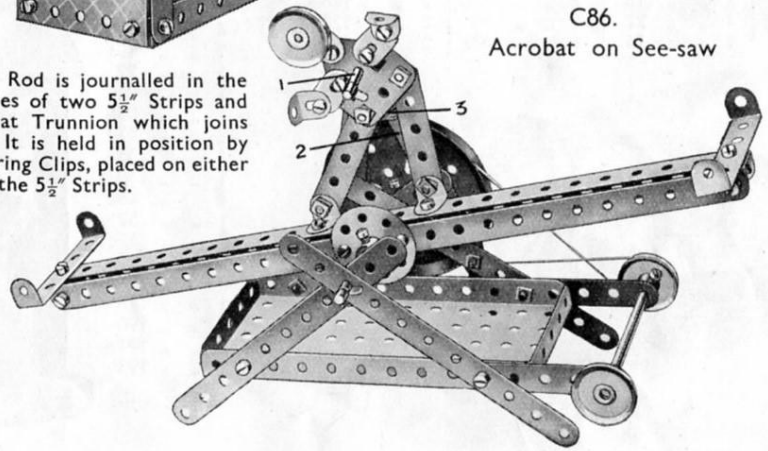
C83. Guillotine



Parts required

2	of No.	1
1	„ „	3
9	„ „	5
2	„ „	10
2	„ „	11
1	„ „	16
1	„ „	22
2	„ „	35
24	„ „	37
6	„ „	38
1	„ „	40
3	„ „	48a
1	„ „	52

C86. Acrobat on See-saw

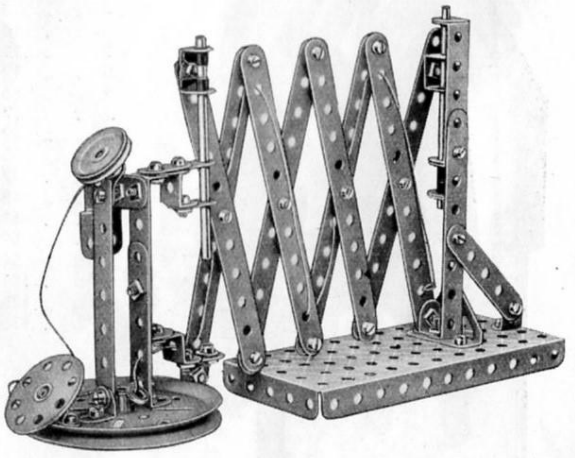


A 1″ Rod is journalled in the end holes of two 5½″ Strips and in a Flat Trunnion which joins them. It is held in position by two Spring Clips, placed on either side of the 5½″ Strips.

Parts required

3	of No.	1
6	„ „	2
4	„ „	5
3	„ „	10
2	„ „	11
4	„ „	12
2	„ „	16
1	„ „	18a
1	„ „	19b
3	„ „	22
1	„ „	24
5	„ „	35
25	„ „	37
4	„ „	37a
2	„ „	38
1	„ „	40
2	„ „	48a
1	„ „	52
1	„ „	111c
1	„ „	126a

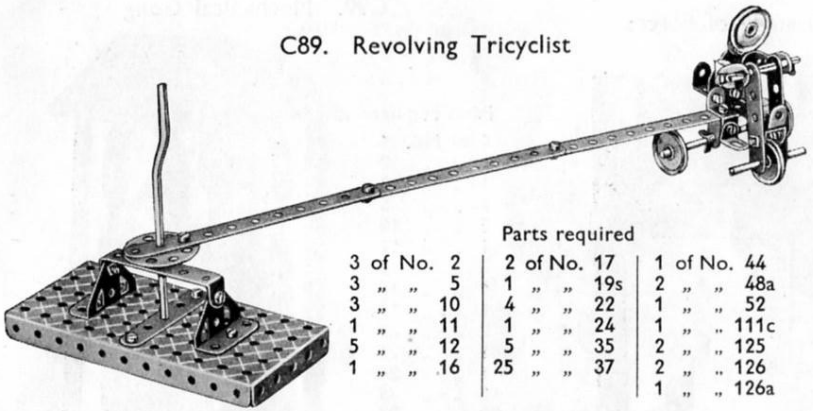
C88. Telephone



Parts required

8	of No.	2	1	of No.	19b	1	of No.	40
1	„ „	3	1	„ „	22	1	„ „	44
4	„ „	5	1	„ „	24	5	„ „	48a
5	„ „	10	4	„ „	35	1	„ „	52
2	„ „	11	37	„ „	37	4	„ „	111c
8	„ „	12	20	„ „	37a	2	„ „	125
2	„ „	16	4	„ „	38	1	„ „	126

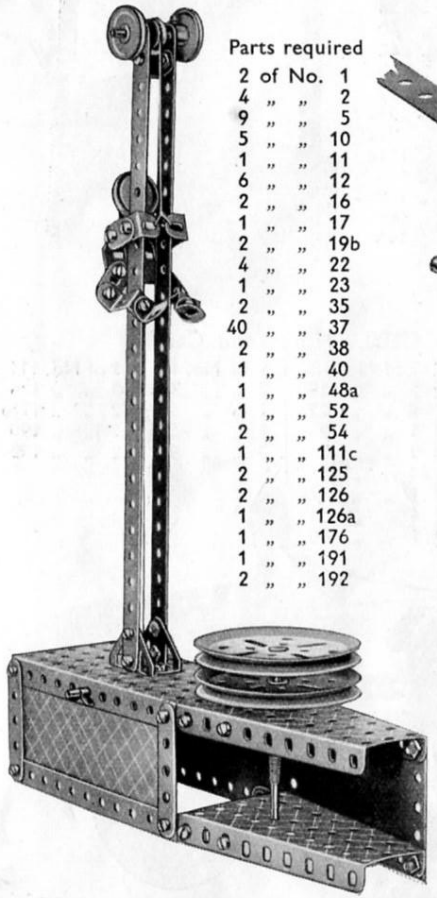
C89. Revolving Tricyclist



Parts required

3	of No.	2	2	of No.	17	1	of No. 44
3	„ „	5	1	„ „	19s	2	„ „ 48a
3	„ „	10	4	„ „	22	1	„ „ 52
1	„ „	11	1	„ „	24	1	„ „ 111c
5	„ „	12	5	„ „	35	2	„ „ 125
1	„ „	16	25	„ „	37	2	„ „ 126
						1	„ „ 126a

C90. Man Climbing Pole



Parts required

2	of No.	1	
4	„ „	2	
9	„ „	5	
5	„ „	10	
1	„ „	11	
6	„ „	12	
2	„ „	16	
1	„ „	17	
2	„ „	19b	
4	„ „	22	
1	„ „	23	
2	„ „	35	
40	„ „	37	
2	„ „	38	
1	„ „	40	
1	„ „	48a	
1	„ „	52	
2	„ „	54	
1	„ „	111c	
2	„ „	125	
2	„ „	126	
1	„ „	126a	
1	„ „	176	
1	„ „	191	
2	„ „	192	

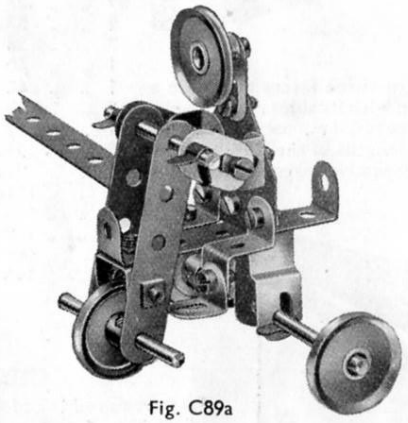
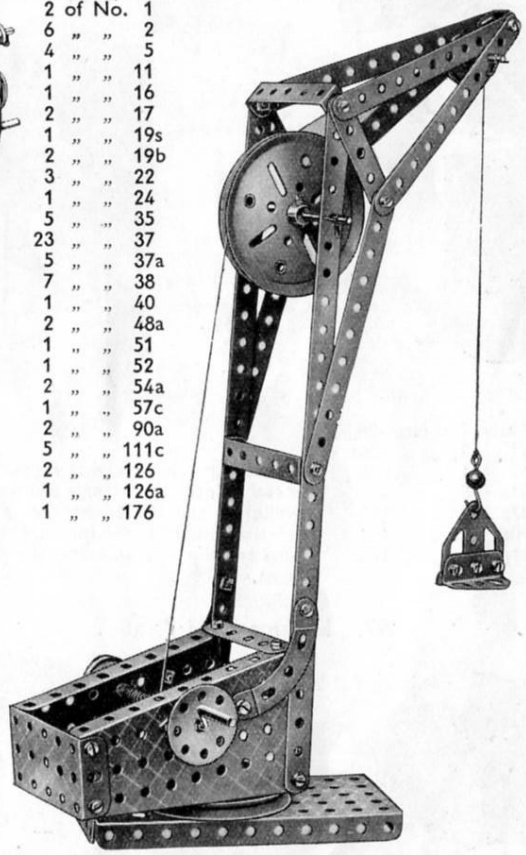


Fig. C89a

C91. Warehouse Crane

Parts required

2	of No.	1	
6	„ „	2	
4	„ „	5	
1	„ „	11	
1	„ „	16	
2	„ „	17	
1	„ „	19s	
2	„ „	19b	
3	„ „	22	
1	„ „	24	
5	„ „	35	
23	„ „	37	
5	„ „	37a	
7	„ „	38	
1	„ „	40	
2	„ „	48a	
1	„ „	51	
1	„ „	52	
2	„ „	54a	
1	„ „	57c	
2	„ „	90a	
5	„ „	111c	
2	„ „	126	
1	„ „	126a	
1	„ „	176	



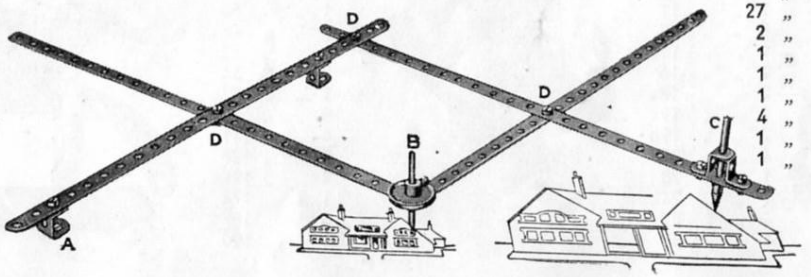
C92. Pantograph

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 large 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.

Parts required

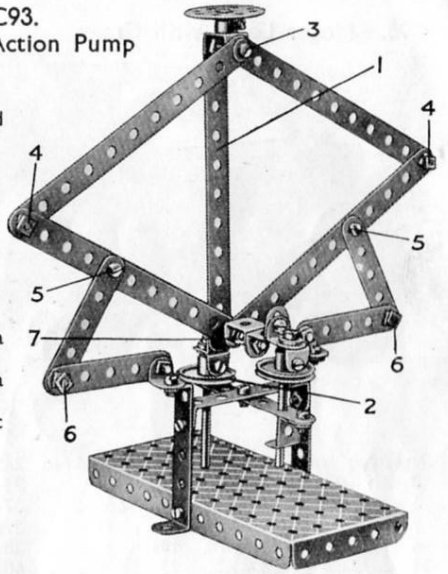
4	of No.	1	
2	„ „	11	
2	„ „	18a	
1	„ „	22	
2	„ „	35	
4	„ „	37	
3	„ „	37a	
3	„ „	111c	
2	„ „	125	



C93. Double Action Pump

Parts required

5	of No.	2	
1	„ „	3	
4	„ „	5	
2	„ „	11	
6	„ „	12	
2	„ „	17	
2	„ „	22	
1	„ „	24	
24	„ „	37	
9	„ „	37a	
7	„ „	38	
3	„ „	48a	
1	„ „	52	
3	„ „	111c	
2	„ „	125	

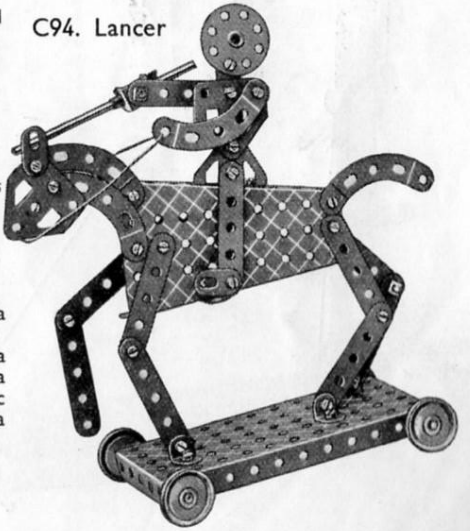


The 5½" Strip 1 is attached to the 1" Pulley Wheel 2 by means of two Angle Brackets, through the lower of which passes the Set-Screw that secures the Pulley to its 2" Rod. Two Washers are placed beneath the head of the Bolt joining the Angle Brackets in order to prevent its shank from binding on the 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.

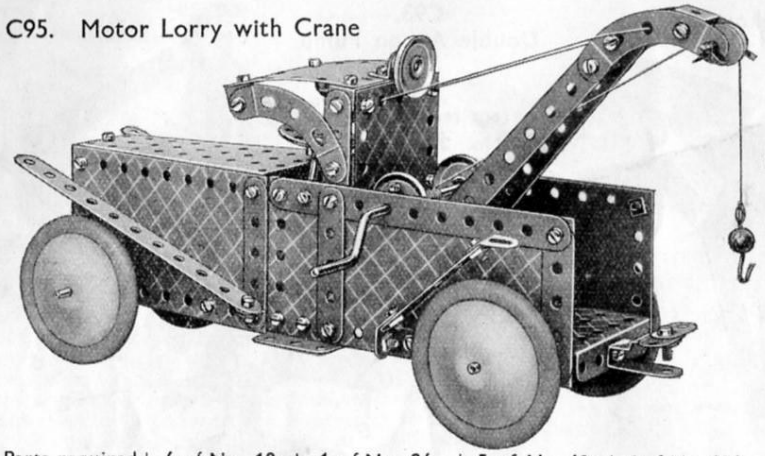
C94. Lancer

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	
2	„ „	38	
1	„ „	48a	
1	„ „	52	
1	„ „	54a	
4	„ „	90a	
1	„ „	111c	
1	„ „	126a	



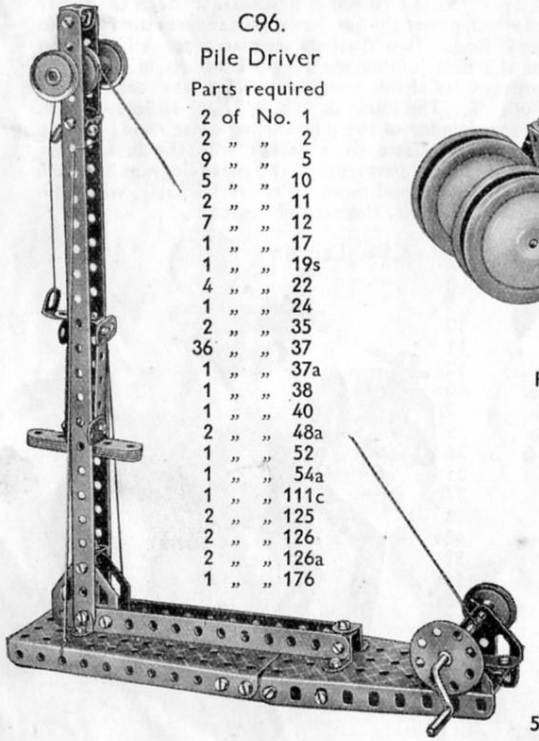
C95. Motor Lorry with Crane



Parts required

8 of No. 2	4 of No. 12c	1 of No. 24	5 of No. 48a	2 of No. 126
1 „ „ 3	2 „ „ 15b	4 „ „ 35	1 „ „ 51	2 „ „ 126a
9 „ „ 5	1 „ „ 16	66 „ „ 37	1 „ „ 52	1 „ „ 176
4 „ „ 10	2 „ „ 17	1 „ „ 37a	2 „ „ 54a	4 „ „ 187
1 „ „ 11	1 „ „ 19s	2 „ „ 38	1 „ „ 57c	3 „ „ 190
7 „ „ 12	4 „ „ 22	1 „ „ 40	4 „ „ 90a	2 „ „ 191
	1 „ „ 23	1 „ „ 44	2 „ „ 111c	1 „ „ 192

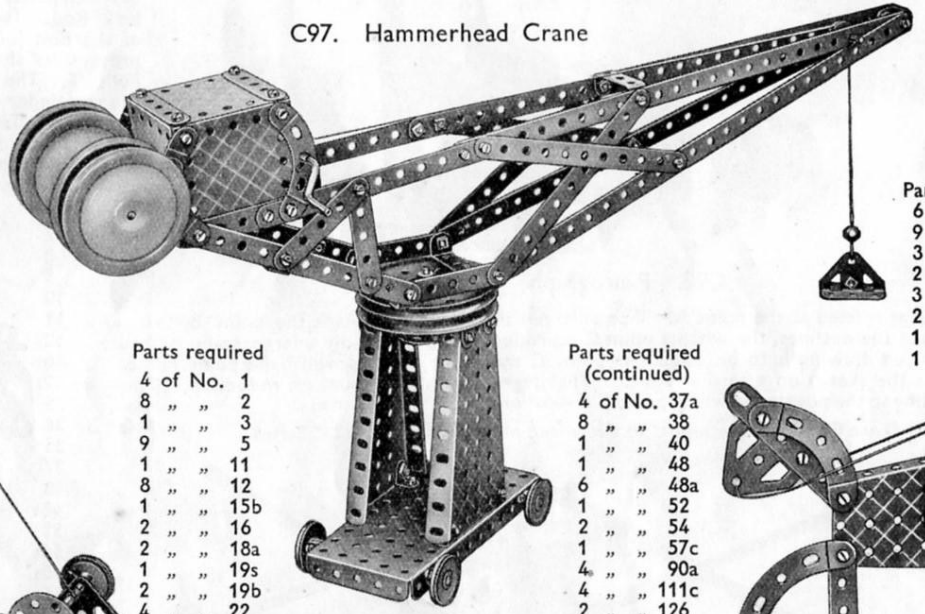
C96. Pile Driver



Parts required

2 of No. 1	1 „ „ 37a
2 „ „ 2	1 „ „ 38
9 „ „ 5	1 „ „ 40
5 „ „ 10	2 „ „ 48a
2 „ „ 11	1 „ „ 52
7 „ „ 12	1 „ „ 54a
1 „ „ 17	1 „ „ 111c
1 „ „ 19s	2 „ „ 125
4 „ „ 22	2 „ „ 126
1 „ „ 24	2 „ „ 126a
2 „ „ 35	1 „ „ 176
36 „ „ 37	

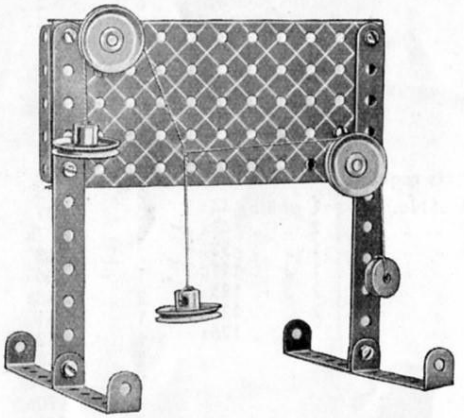
C97. Hammerhead Crane



Parts required

4 of No. 1	4 of No. 37a
8 „ „ 2	8 „ „ 38
1 „ „ 3	1 „ „ 40
9 „ „ 5	1 „ „ 48
1 „ „ 11	6 „ „ 48a
8 „ „ 12	1 „ „ 52
1 „ „ 15b	2 „ „ 54
2 „ „ 16	1 „ „ 57c
2 „ „ 18a	4 „ „ 90a
1 „ „ 19s	4 „ „ 111c
2 „ „ 19b	2 „ „ 126
4 „ „ 22	2 „ „ 126a
1 „ „ 23	1 „ „ 176
1 „ „ 24	4 „ „ 187
4 „ „ 35	4 „ „ 190
51 „ „ 37	

C98. Triangle of Forces

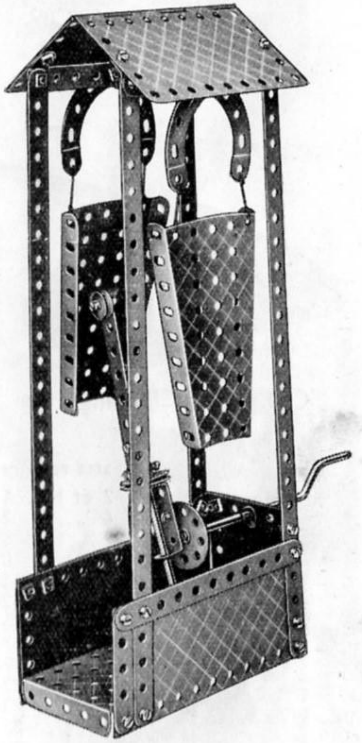


Parts required

2 of No. 2
2 „ „ 18a
4 „ „ 22
1 „ „ 23
2 „ „ 35
8 „ „ 37
1 „ „ 40
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.

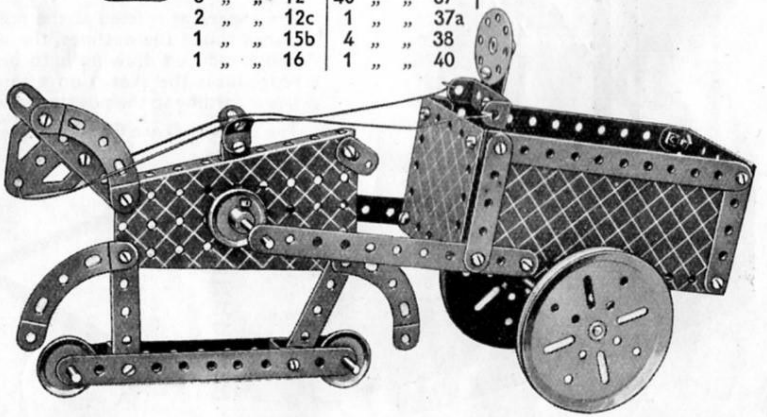
C99. Mechanical Gong



Parts required

4 of No. 1
2 „ „ 2
1 „ „ 3
7 „ „ 5
2 „ „ 10
1 „ „ 12
4 „ „ 12c
1 „ „ 16
1 „ „ 19s
2 „ „ 22
1 „ „ 23
1 „ „ 24
2 „ „ 35
39 „ „ 37
2 „ „ 37a
7 „ „ 38
1 „ „ 40
1 „ „ 48
2 „ „ 48a
1 „ „ 52
2 „ „ 54a
4 „ „ 90a
1 „ „ 111c
1 „ „ 126
1 „ „ 190
2 „ „ 192
1 „ „ 198

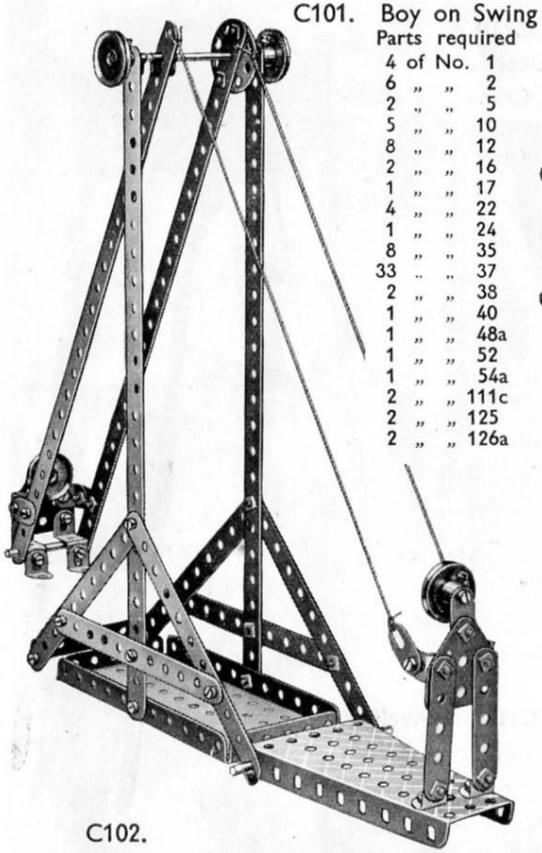
C100. Horse and Cart



Parts required

6 of No. 2	2 of No. 18a	1 of No. 48	1 of No. 111c
9 „ „ 5	2 „ „ 19b	2 „ „ 48a	2 „ „ 126
3 „ „ 10	4 „ „ 22	1 „ „ 52	2 „ „ 126a
2 „ „ 11	1 „ „ 24	1 „ „ 54a	2 „ „ 190
3 „ „ 12	2 „ „ 35	3 „ „ 90	2 „ „ 192
2 „ „ 12c	40 „ „ 37		
1 „ „ 15b	1 „ „ 37a		
1 „ „ 16	4 „ „ 38		
	1 „ „ 40		

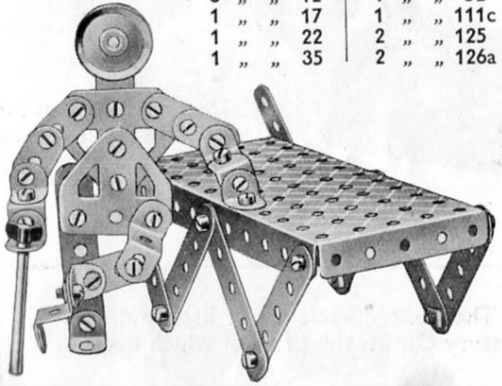
C101. Boy on Swing



Parts required

4	of No.	1
6	„ „	2
2	„ „	5
5	„ „	10
8	„ „	12
2	„ „	16
1	„ „	17
4	„ „	22
1	„ „	24
8	„ „	35
33	„ „	37
2	„ „	38
1	„ „	40
1	„ „	48a
1	„ „	52
1	„ „	54a
2	„ „	111c
2	„ „	125
2	„ „	126a

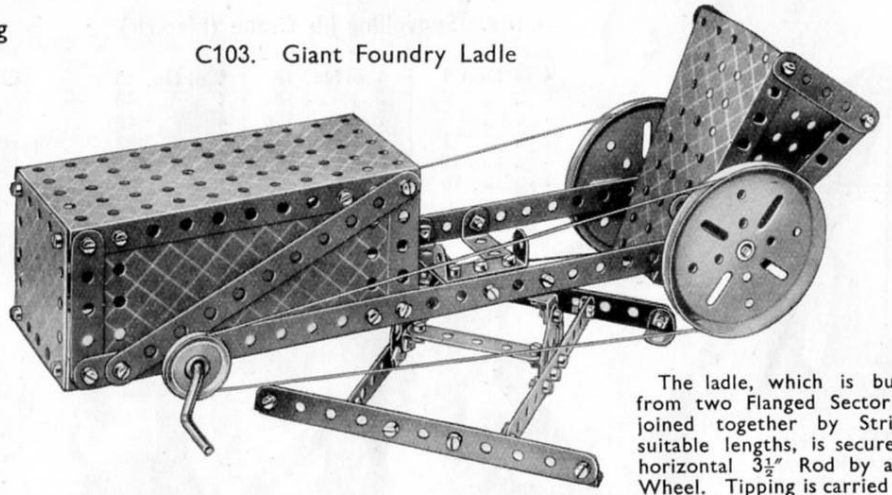
C102. King Meccano



Parts required

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

C103. Giant Foundry Ladle

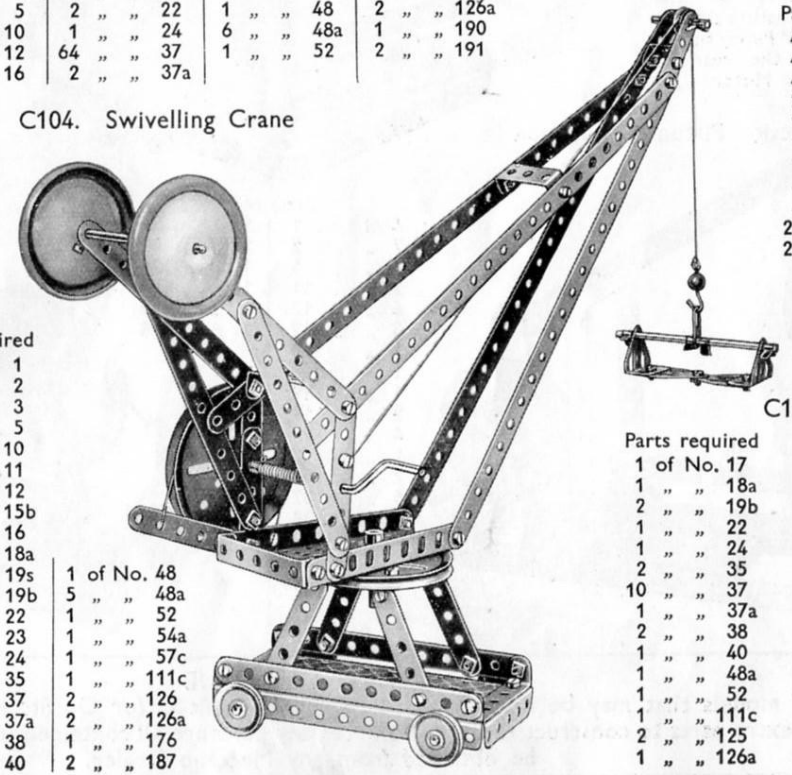


The ladle, which is built up from two Flanged Sector Plates joined together by Strips of suitable lengths, is secured to a horizontal $3\frac{1}{2}$" Rod by a Bush Wheel. Tipping is carried out by two cords as shown.

Parts required

2	of No.	1
6	„ „	2
9	„ „	5
2	„ „	10
8	„ „	12
1	„ „	16
1	of No.	19s
2	„ „	19b
2	„ „	22
1	„ „	24
64	„ „	37
2	„ „	37a
5	of No.	38
1	„ „	40
1	„ „	48
6	„ „	48a
1	„ „	52
2	of No.	54a
1	„ „	111c
2	„ „	126a
1	„ „	190
2	„ „	191

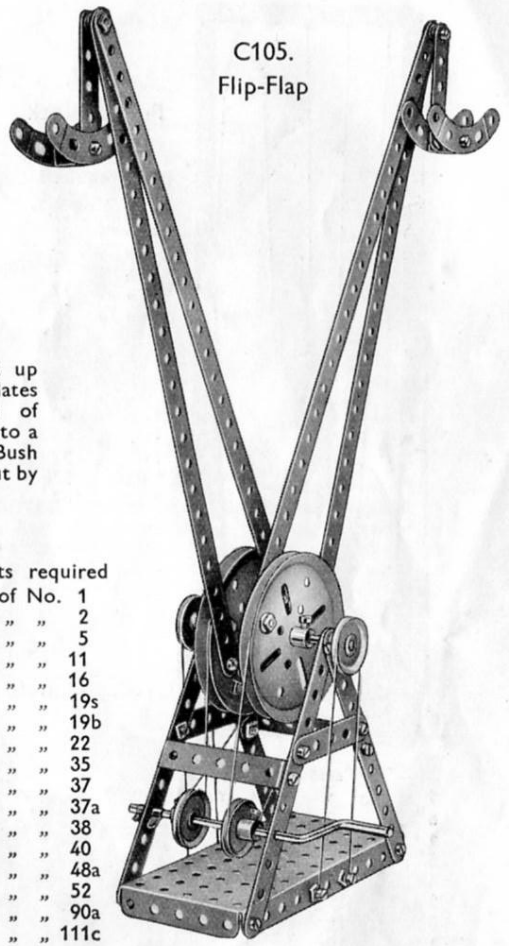
C104. Swivelling Crane



Parts required

4	of No.	1
8	„ „	2
1	„ „	3
8	„ „	5
1	„ „	10
1	„ „	11
4	„ „	12
1	„ „	15b
3	„ „	16
2	„ „	18a
1	„ „	19s
2	„ „	19b
4	„ „	22
1	„ „	23
1	„ „	24
6	„ „	35
46	„ „	37
2	„ „	37a
6	„ „	38
1	„ „	40
1	of No.	48
5	„ „	48a
1	„ „	52
1	„ „	54a
1	„ „	57c
1	„ „	111c
2	„ „	126
2	„ „	126a
1	„ „	176
2	„ „	187

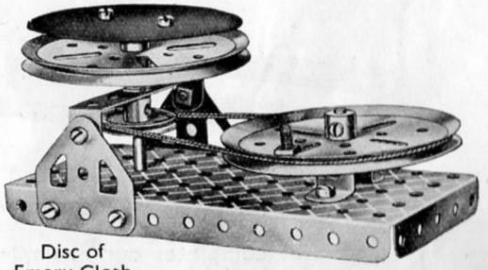
C105. Flip-Flap



Parts required

4	of No.	1
4	„ „	2
4	„ „	5
2	„ „	11
1	„ „	16
1	„ „	19s
2	„ „	19b
4	„ „	22
4	„ „	35
20	„ „	37
20	„ „	37a
8	„ „	38
1	„ „	40
2	„ „	48a
1	„ „	52
4	„ „	90a
6	„ „	111c

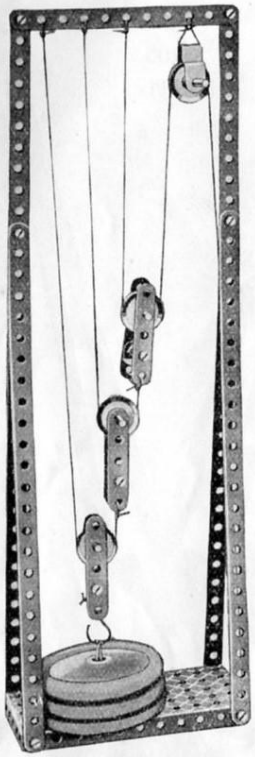
C106. Rotary Linisher



Parts required

1	of No.	17
1	„ „	18a
2	„ „	19b
1	„ „	22
1	„ „	24
2	„ „	35
10	„ „	37
1	„ „	37a
2	„ „	38
1	„ „	40
1	„ „	48a
1	„ „	52
1	„ „	111c
2	„ „	125
1	„ „	126a

Disc of Emery Cloth (not included in Outfit)



C107. Pulley Block 8:1

Parts required

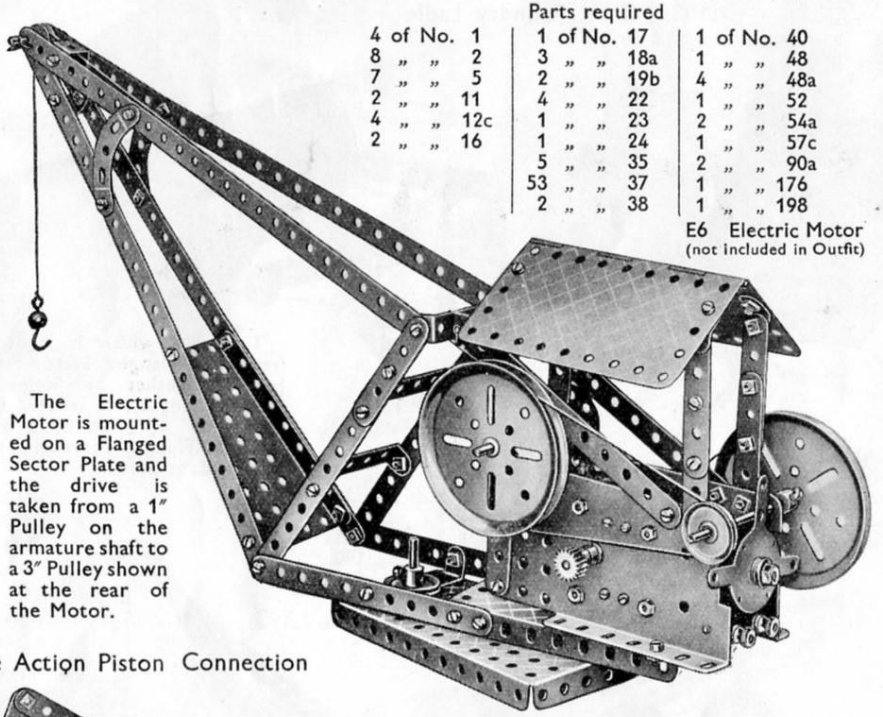
4	of No.	1
3	„ „	2
6	„ „	5
2	„ „	11
2	„ „	12
2	„ „	17
2	„ „	18a
4	„ „	22
15	„ „	37
2	„ „	38
1	„ „	40
1	„ „	45
1	„ „	52
1	„ „	57c
3	„ „	187

C109. Swivelling Jib Crane (Electric)

Parts required

4	of No.	1
8	„ „	2
7	„ „	5
2	„ „	11
4	„ „	12c
2	„ „	16
1	of No.	17
3	„ „	18a
2	„ „	19b
4	„ „	22
1	„ „	23
1	„ „	24
5	„ „	35
53	„ „	37
2	„ „	38
1	of No.	40
1	„ „	48
4	„ „	48a
1	„ „	52
2	„ „	54a
1	„ „	57c
2	„ „	90a
1	„ „	176
1	„ „	198

E6 Electric Motor (not included in Outfit)

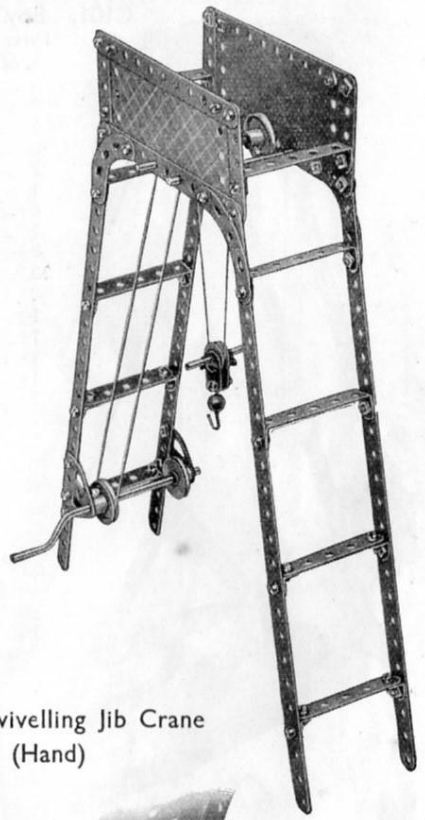


The Electric Motor is mounted on a Flanged Sector Plate and the drive is taken from a 1″ Pulley on the armature shaft to a 3″ Pulley shown at the rear of the Motor.

C110. Overhead Crane

Parts required

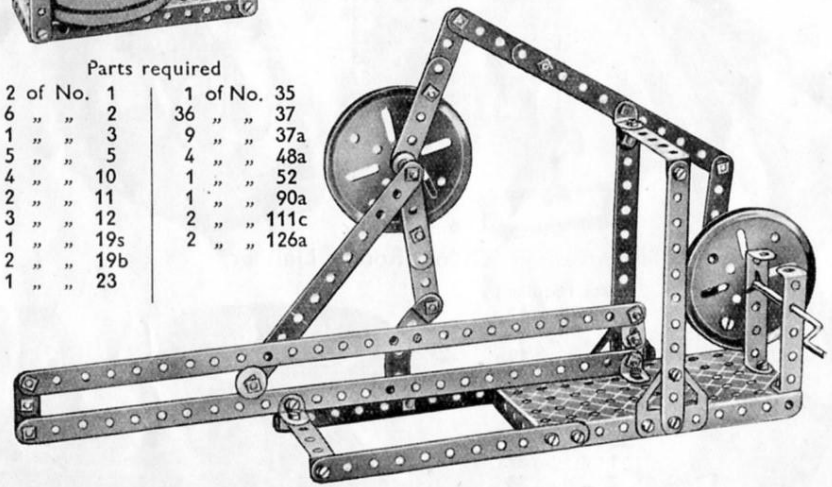
4	of No.	1
4	„ „	2
8	„ „	5
2	„ „	10
8	„ „	12
2	„ „	16
1	„ „	18a
1	„ „	19s
4	„ „	22
1	„ „	23
4	„ „	35
48	„ „	37
2	„ „	37a
1	„ „	40
6	„ „	48a
1	„ „	57c
4	„ „	90a
1	„ „	111c
2	„ „	126a
1	„ „	176
2	„ „	191



C108. Double Action Piston Connection

Parts required

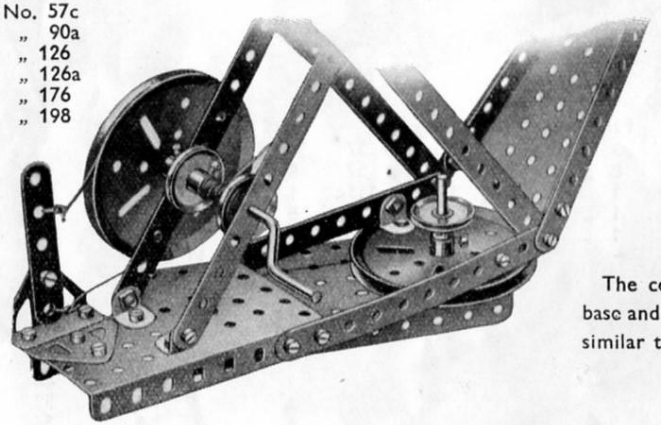
2	of No.	1
6	„ „	2
1	„ „	3
5	„ „	5
4	„ „	10
2	„ „	11
3	„ „	12
1	„ „	19s
2	„ „	19b
1	„ „	23
1	of No.	35
36	„ „	37
9	„ „	37a
4	„ „	48a
1	„ „	52
1	„ „	90a
2	„ „	111c
2	„ „	126a



C111. Swivelling Jib Crane (Hand)

Parts required

4	of No.	1
7	„ „	2
3	„ „	5
2	„ „	11
4	„ „	12
3	„ „	12c
1	„ „	17
1	„ „	18a
1	„ „	19s
2	„ „	19b
4	„ „	22
1	„ „	23
2	„ „	35
36	„ „	37
1	„ „	38
1	„ „	40
1	„ „	48
1	„ „	48a
1	„ „	52
2	„ „	54a
1	of No.	57c
2	„ „	90a
1	„ „	126
1	„ „	126a
1	„ „	176
1	„ „	198

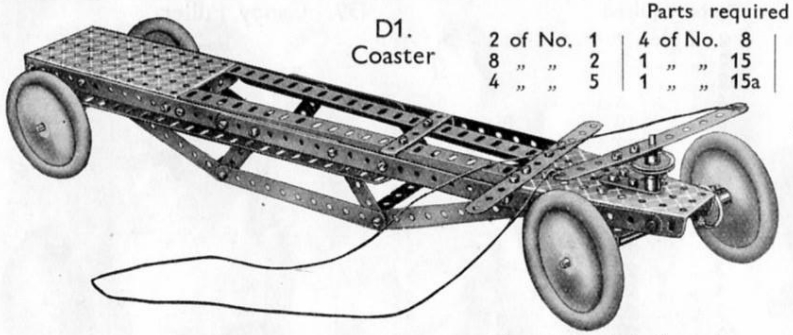


The construction of the base and jib of this model is similar to model C109

HOW TO CONTINUE

This completes our examples of models that may be made with MECCANO Outfit C (or Outfits B and Ba). 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 Ca Accessory Outfit, the price of which may be obtained from any Meccano Dealer.

D1. Coaster



Parts required

2 of No. 1	4 of No. 8	1 of No. 17
8 „ „ 2	1 „ „ 15	3 „ „ 22
4 „ „ 5	1 „ „ 15a	1 „ „ 23
		1 „ „ 24
		44 „ „ 37
		4 „ „ 38
		1 „ „ 48
		4 „ „ 48a
		1 „ „ 52
		1 „ „ 54a
		2 „ „ 62
		2 „ „ 126
		4 „ „ 187

The chassis is built up from two 12½″ Angle Girders and two 12½″ Strips, joined together as shown and spaced apart by a 5½″×2½″ Flanged Plate, a Flanged Sector Plate and a 2½″×½″ Double Angle Strip. The rear axle is carried in two Trunnions and the front axle Fig. D1a in a 2½″×½″ Double Angle Strip that is secured by a Bush Wheel to a short Rod mounted in the boss of a Crank.

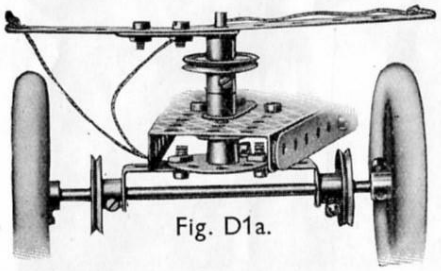
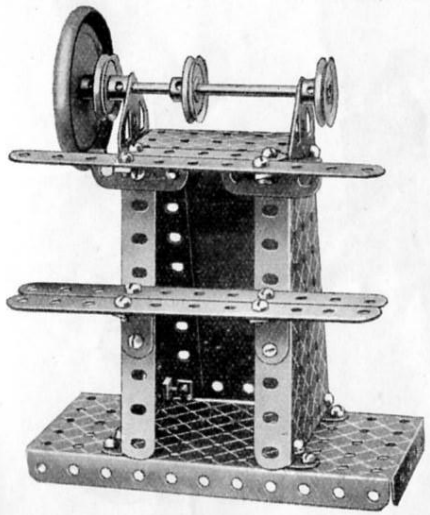


Fig. D1a.

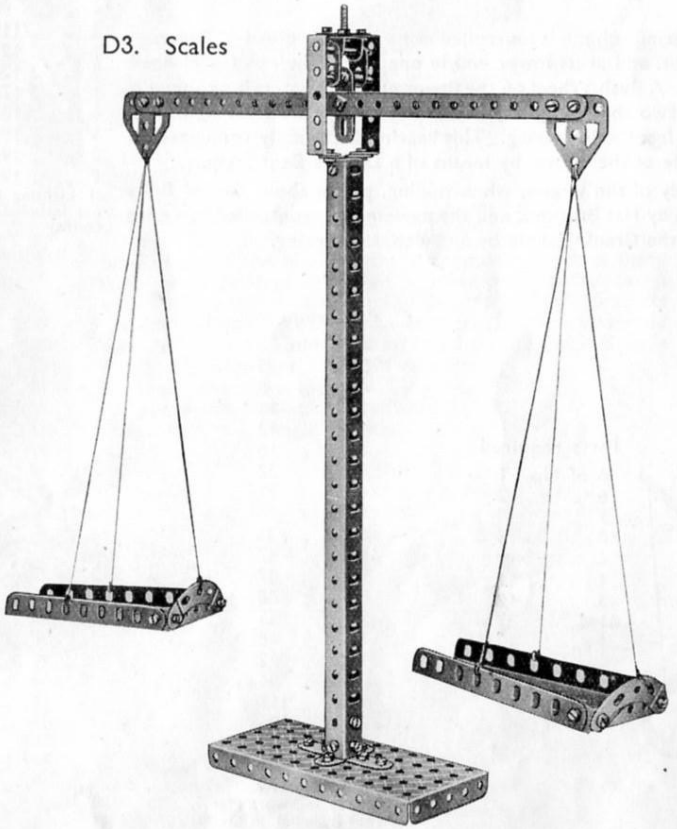
D2. Polishing Spindle

Parts required

3 of No. 2	3 of No. 22	2 of No. 126
1 „ „ 5	30 „ „ 37	2 „ „ 126a
4 „ „ 12	1 „ „ 51	1 „ „ 187
2 „ „ 12a	1 „ „ 52	1 „ „ 191
1 „ „ 15b	2 „ „ 54a	



D3. Scales



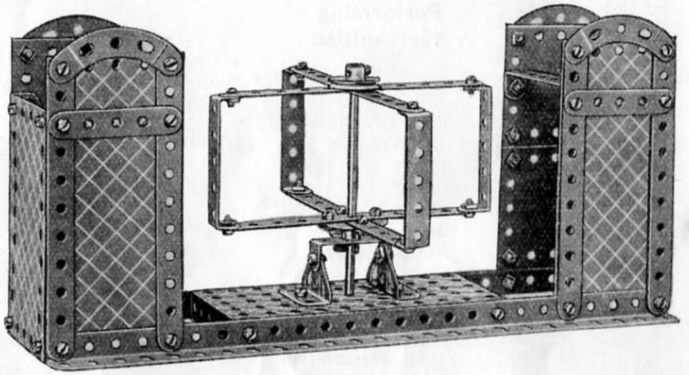
Parts required

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

D4. Turnstile

Parts required

12 of No. 2
4 „ „ 5
2 „ „ 8
4 „ „ 12
1 „ „ 15a
1 „ „ 22
1 „ „ 24
1 „ „ 35
52 „ „ 37
1 „ „ 38
1 „ „ 48
8 „ „ 48a
1 „ „ 52
4 „ „ 90a
2 „ „ 126
4 „ „ 190
2 „ „ 191
2 „ „ 195

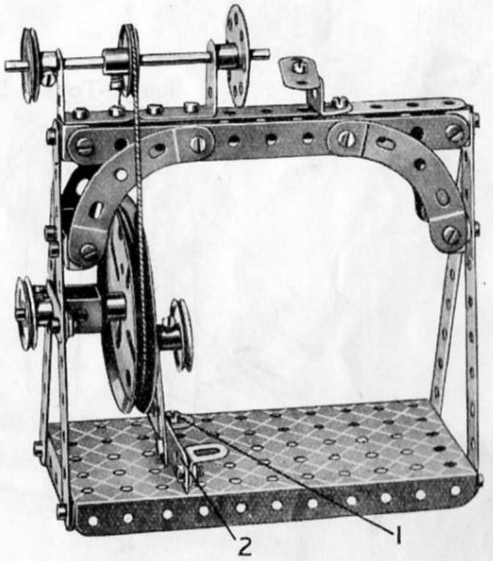


D5. Treadle Lathe

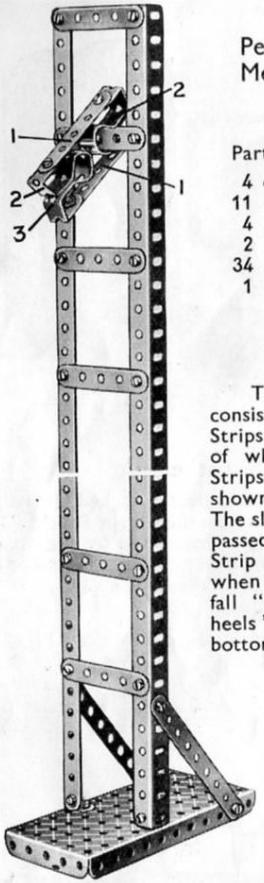
The 2½″ Strip 2, forming the treadle, is attached pivotally by means of a Bolt and two Nuts to the Angle Bracket 1. One end of a further 2½″ Strip is connected by the same means to the 2½″ Strip 2, and the other end is mounted on a Threaded Pin secured to the 3″ Pulley Wheel.

Parts required

7 of No. 2	2 of No. 12a	1 of No. 35	1 of No. 45
1 „ „ 3	1 „ „ 16	34 „ „ 37	1 „ „ 52
1 „ „ 5	1 „ „ 17	2 „ „ 37a	4 „ „ 90a
2 „ „ 6a	3 „ „ 19b	4 „ „ 38	1 „ „ 115
4 „ „ 11	4 „ „ 22	1 „ „ 40	1 „ „ 125
6 „ „ 12	1 „ „ 24		



D6. Performing Meccanitian

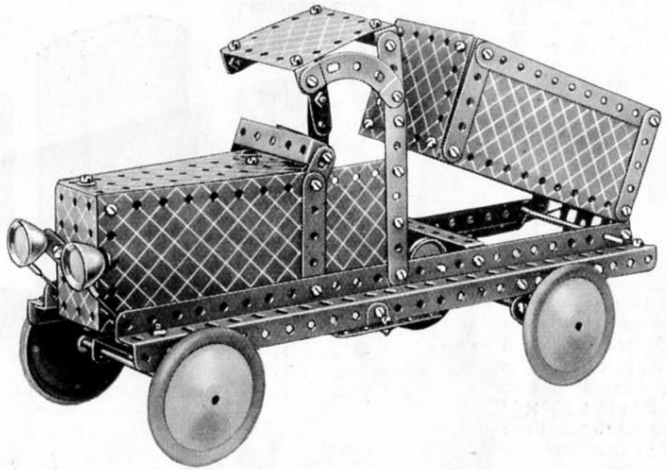


Parts required

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

The Meccanitian consists of two $2\frac{1}{2}$" Strips 1 to the ends of which two $5\frac{1}{2}$" 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.

D8. Tipping Motor Wagon



The steering column is journalled at its upper end in a $\frac{1}{2}$" Reversed Angle Bracket, and at its lower end in one of the holes of a Flanged Sector Plate. A Bush Wheel on the lower end of the steering column is attached by two short lengths of cord to a $2\frac{1}{2}" \times \frac{1}{2}"$ Double Angle Strip forming the front axle bearing. This bearing is pivotally connected to the underside of the wagon by means of a Double Bent Strip.

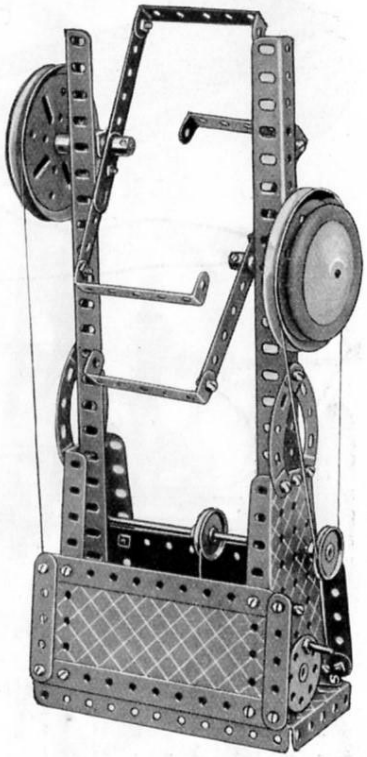
The body of the wagon, when tipping, pivots about two $\frac{3}{8}$" Bolts held in place by Flat Brackets, and the movement is controlled by a cord attached to the Crank Handle by an Anchoring Spring.

Parts required

2	of No.	2
2	„ „	3
12	„ „	5
4	„ „	8
8	„ „	10
2	„ „	12
1	„ „	15
1	„ „	15a
1	„ „	15b
1	„ „	16
1	„ „	19s
3	„ „	22
1	„ „	24
5	„ „	35
65	„ „	37
6	„ „	37a
7	„ „	38
1	„ „	40
1	„ „	45
8	„ „	48a
1	„ „	51
1	„ „	52
2	„ „	54a
4	„ „	90a
2	„ „	111c
1	„ „	125
2	„ „	126a
1	„ „	176
4	„ „	187
4	„ „	190
2	„ „	191
2	„ „	192

(1 Lighting Set not included in Outfit)

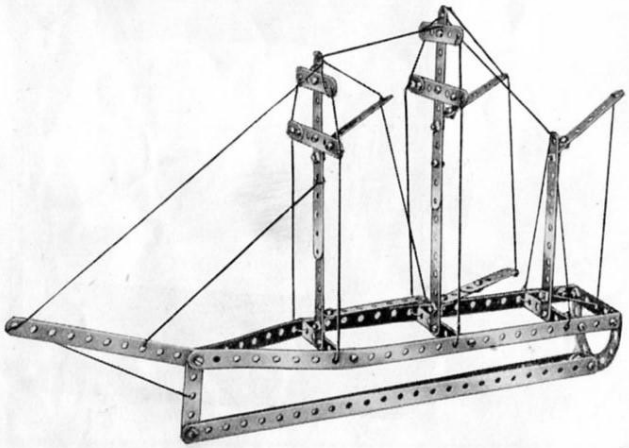
D9. Candy Puller



Parts required

6	of No.	2
4	„ „	5
2	„ „	8
4	„ „	12
2	„ „	15
2	„ „	17
2	„ „	19b
4	„ „	22
1	„ „	24
44	„ „	37
8	„ „	38
1	„ „	40
1	„ „	45
4	„ „	48a
1	„ „	52
2	„ „	54a
2	„ „	62
4	„ „	90a
1	„ „	115
2	„ „	125
1	„ „	176
1	„ „	186
2	„ „	187
2	„ „	191

D7. Square-Topsail Schooner



Parts required

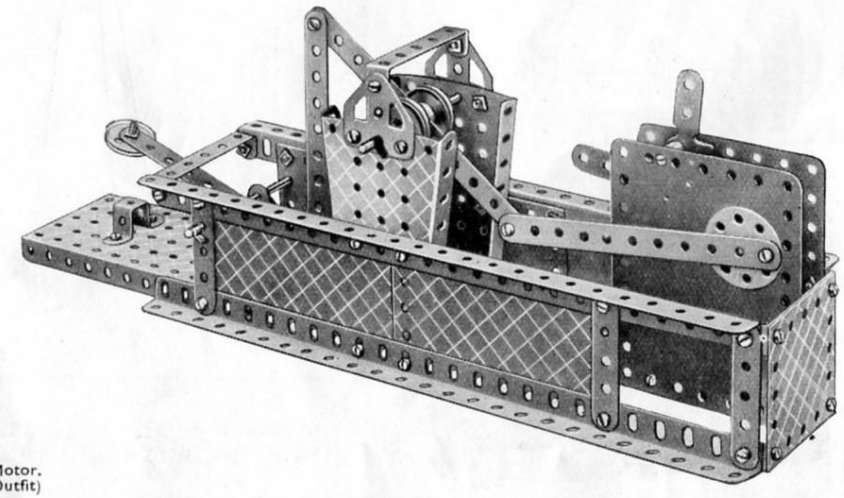
4	of No.	1
6	„ „	2
1	„ „	3
10	„ „	5
4	„ „	10
1	„ „	11
5	„ „	12
41	„ „	37
1	„ „	40
4	„ „	48a
2	„ „	90a

Parts required

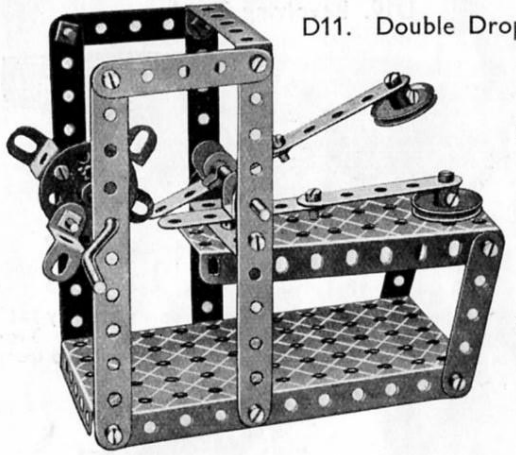
4	of No.	2
5	„ „	5
4	„ „	8
1	„ „	11
1	„ „	12
2	„ „	16
2	„ „	22
1	„ „	22a
1	„ „	24
6	„ „	35
41	„ „	37
9	„ „	37a
8	„ „	38
1	„ „	45
4	„ „	48a
1	„ „	52
2	„ „	54a
6	„ „	111c
2	„ „	126a
2	„ „	190
2	„ „	191
2	„ „	195

No. 2 Clockwork Motor. (not included in Outfit)

D10. Mechanical Hammer



D11. Double Drop Hammer

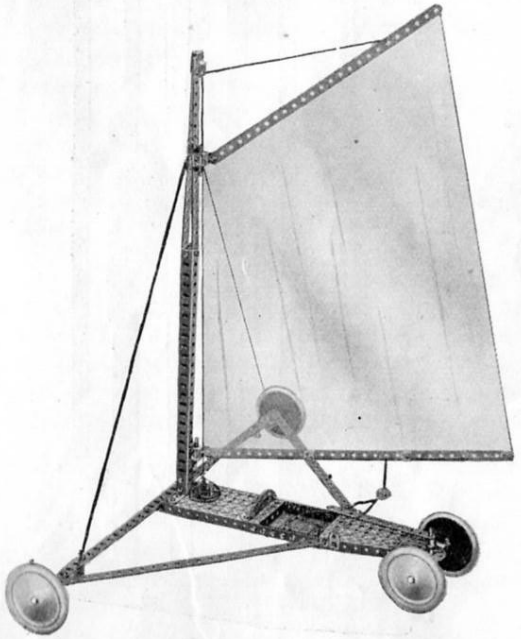


Parts required

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	„ „	54a
4	„ „	125

D12. Land Yacht

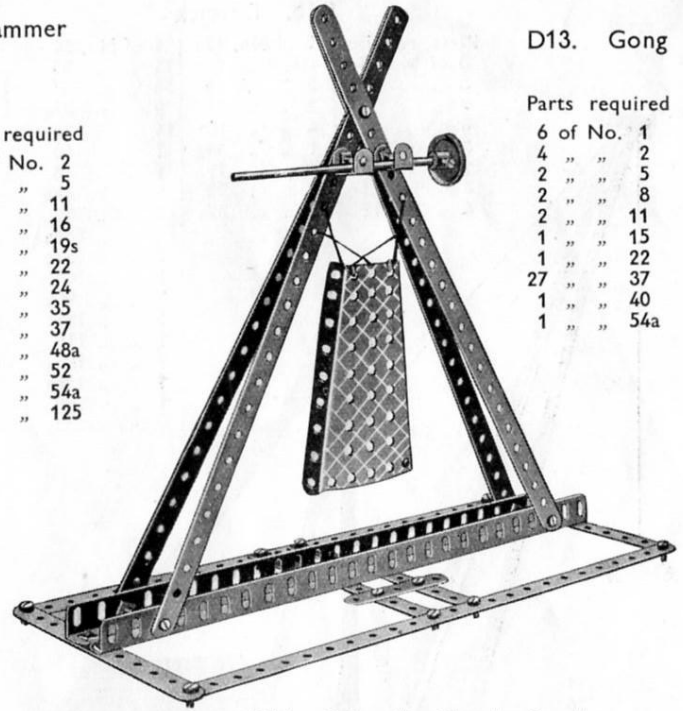
The chassis of the model is represented by a $5\frac{1}{2}'' \times 2\frac{1}{2}''$ Flanged Plate and a Flanged Sector Plate, the two parts being joined together as shown by Strips, and the intermediate space filled in by $2\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strips. The rear axle bearing, a $2\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strip, is secured to its pivot by a Bush Wheel, a Crank and $5\frac{1}{2}''$ Strip forming the tiller.



Parts required

8	of No.	1
2	„ „	2
1	„ „	5
4	„ „	8
4	„ „	10
4	„ „	11
2	„ „	12
2	„ „	12a
3	„ „	16
1	„ „	17
2	„ „	18a
1	„ „	23
1	„ „	24
12	„ „	35
60	„ „	37
9	„ „	38
1	„ „	40
8	„ „	48a
1	„ „	52
1	„ „	54a
1	„ „	62
1	„ „	90a
1	„ „	115
4	„ „	125
1	„ „	126
2	„ „	126a
4	„ „	187

D13. Gong



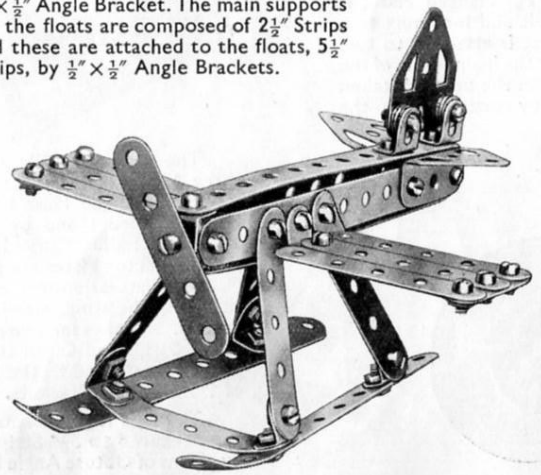
Parts required

6	of No.	1
4	„ „	2
2	„ „	5
2	„ „	8
2	„ „	11
1	„ „	15
1	„ „	22
27	„ „	37
1	„ „	40
1	„ „	54a

D14. Schneider Trophy Seaplane

Four $5\frac{1}{2}''$ Strips held together by means of Double Brackets form the fuselage, the rear end of which is fitted with two Trunnions representing elevators. The rudder is built up from a Flat Trunnion and two $\frac{1}{2}'' \times \frac{1}{2}''$ Angle Brackets

Each of the wings consists of three $2\frac{1}{2}''$ Strips secured together by a $1\frac{1}{2}''$ Strip and attached to the fuselage by a $\frac{1}{2}'' \times \frac{1}{2}''$ Angle Bracket. The main supports for the floats are composed of $2\frac{1}{2}''$ Strips and these are attached to the floats, $5\frac{1}{2}''$ Strips, by $\frac{1}{2}'' \times \frac{1}{2}''$ Angle Brackets.



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

D15. " Try-Your-Strength " Machine

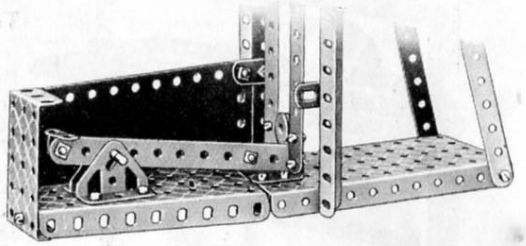


Fig. D15a

The striker Fig. D15b, a Bush Wheel mounted on a 2" Rod, is allowed to rest at its lower end on one end of the lever forming the link between the striker and the weight Fig. D15a. The weight is represented by a $\frac{1}{2}''$ loose Pulley, and slides vertically between two lengths of Strips.

Parts required

6	of No.	1
6	„ „	2
1	„ „	3

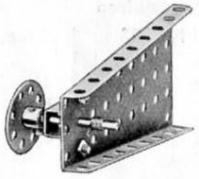
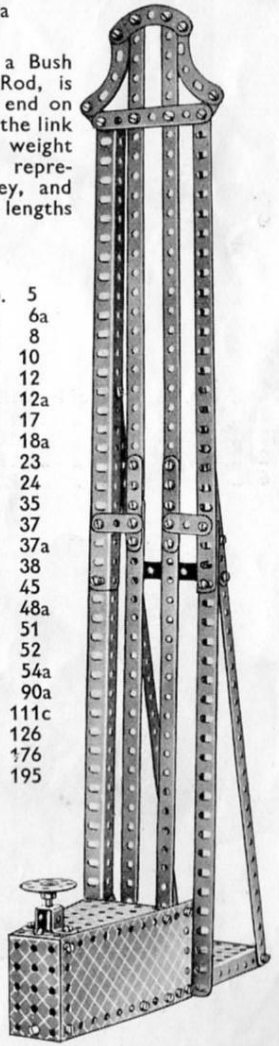


Fig. 15b

4	of No.	5
2	„ „	6a
4	„ „	8
4	„ „	10
3	„ „	12
2	„ „	12a
1	„ „	17
1	„ „	18a
1	„ „	23
1	„ „	24
2	„ „	35
66	„ „	37
5	„ „	37a
2	„ „	38
1	„ „	45
1	„ „	48a
1	„ „	51
1	„ „	52
2	„ „	54a
3	„ „	90a
5	„ „	111c
2	„ „	126
1	„ „	176
2	„ „	195



D16. Towel Horse

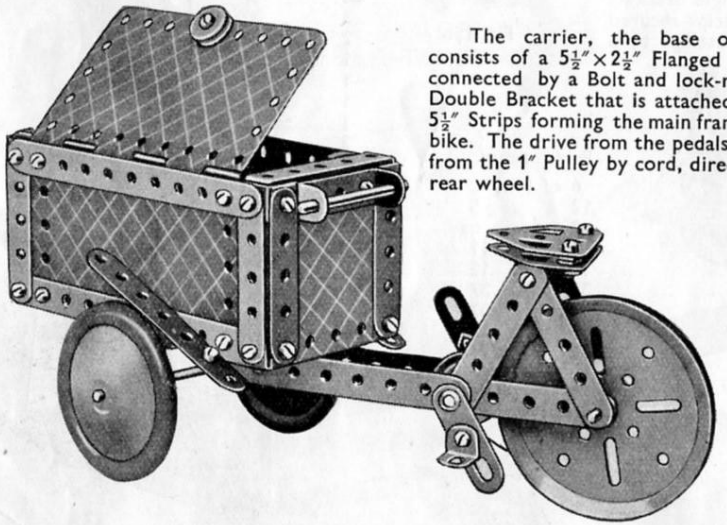
Parts required

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

D17. Carrier Tricycle

Parts required

4	of No. 2	1	of No. 15b	1	of No. 23	1	of No. 40	3	of No.111c
2	„ „ 3	1	„ „ 17	4	„ „ 35	1	„ „ 48	2	„ „ 126
12	„ „ 5	2	„ „ 18a	40	„ „ 37	4	„ „ 48a	2	„ „ 126a
2	„ „ 11	1	„ „ 19b	10	„ „ 37a	1	„ „ 52	2	„ „ 187
6	„ „ 12	1	„ „ 22	9	„ „ 38	2	„ „ 62	2	„ „ 190
		1	of No. 191	1	of No. 198				

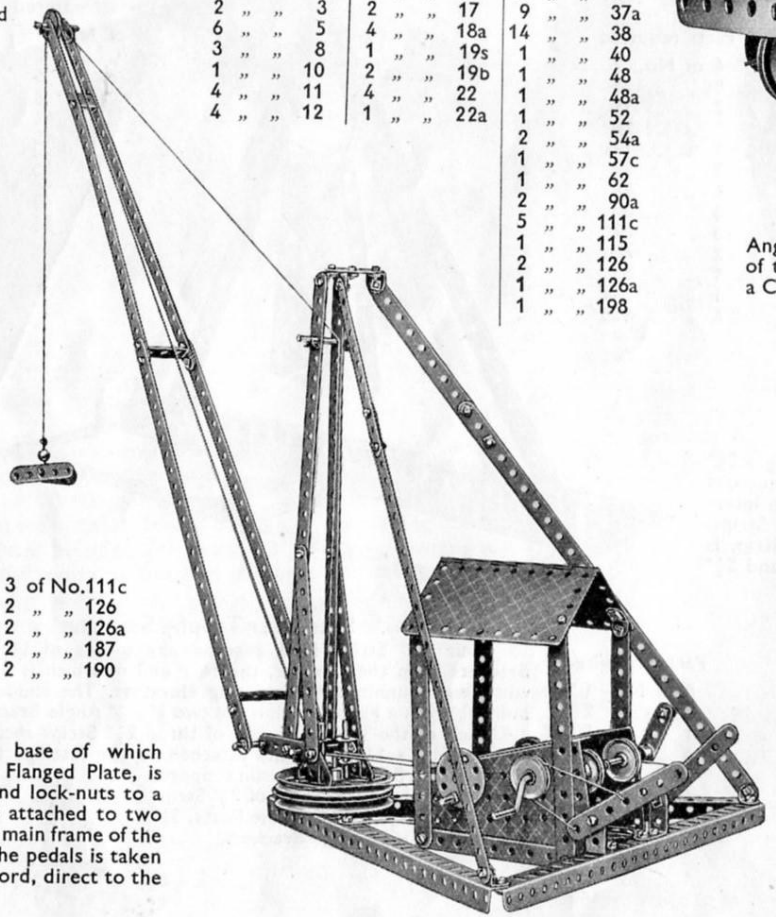


The carrier, the base of which consists of a $5\frac{1}{2}''\times2\frac{1}{2}''$ Flanged Plate, is connected by a Bolt and lock-nuts to a Double Bracket that is attached to two $5\frac{1}{2}''$ Strips forming the main frame of the bike. The drive from the pedals is taken from the 1″ Pulley by cord, direct to the rear wheel.

D18. Derrick

Parts required

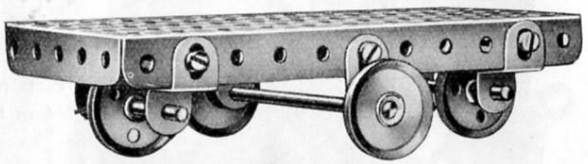
8	of No. 1	2	of No. 12a	1	of No. 24		
8	„ „ 2	4	„ „ 12c	11	„ „ 35		
2	„ „ 3	3	„ „ 16	56	„ „ 37		
6	„ „ 5	2	„ „ 17	9	„ „ 37a		
3	„ „ 8	4	„ „ 18a	14	„ „ 38		
1	„ „ 10	1	„ „ 19s	1	„ „ 40		
4	„ „ 11	2	„ „ 19b	1	„ „ 48		
4	„ „ 12	4	„ „ 22	1	„ „ 48a		
		1	„ „ 22a	1	„ „ 52		
				2	„ „ 54a		
				1	„ „ 57c		
				1	„ „ 62		
				2	„ „ 90a		
				5	„ „ 111c		
				1	„ „ 115		
				2	„ „ 126		
				1	„ „ 126a		
				1	„ „ 198		



The base of this model is built up of three $12\frac{1}{2}''$ Angle Girders fitted with a $5\frac{1}{2}''\times2\frac{1}{2}''$ Flanged Plate held in place at its unsupported end by means of two $2\frac{1}{2}''$ small radius Curved Strips. Two Flanged Sector Plates are secured to this Flanged Plate as shown and these carry the three hoisting, slewing and luffing barrels. Brakes for two of these consist of $3\frac{1}{2}''$ Strips and Cord, the Strips being pivotally attached to the base by means of $1''\times1''$ Angle Brackets.

The roof is represented by a Hinged Plate secured to $5\frac{1}{2}''$ Strips, as uprights, by means of Obtuse Angle Brackets.

D19. Revolving Truck



Parts required

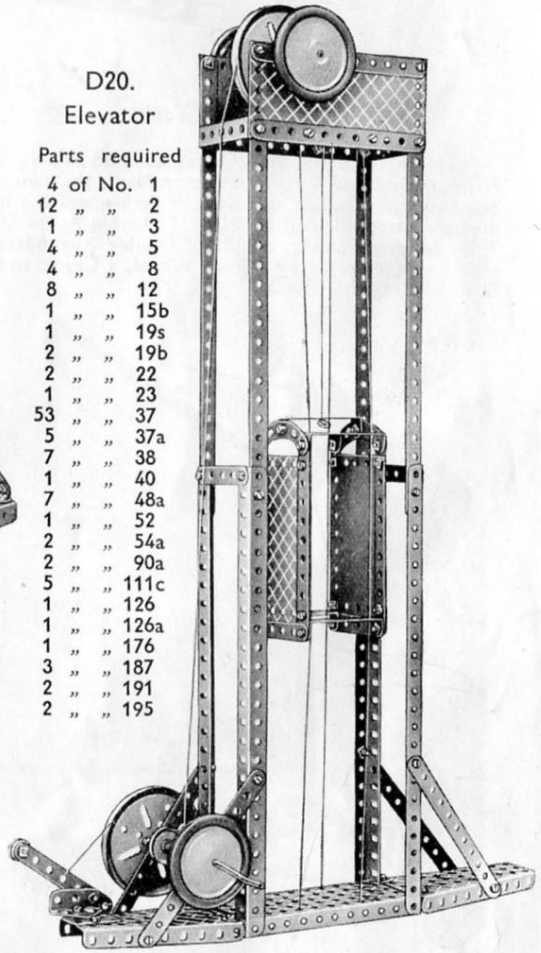
2	of No. 10	2	of No. 22	6	of No. 37
1	„ „ 16	2	„ „ 22a	1	„ „ 52
2	„ „ 17	4	„ „ 35	4	„ „ 125

The sides of the lift shaft are represented by $12\frac{1}{2}''$ Angle Girders, as shown, braced by $5\frac{1}{2}''$ Strips. Two of these Strips carry the hoisting drum formed from a Crank Handle and two 1″ fast Pulleys.

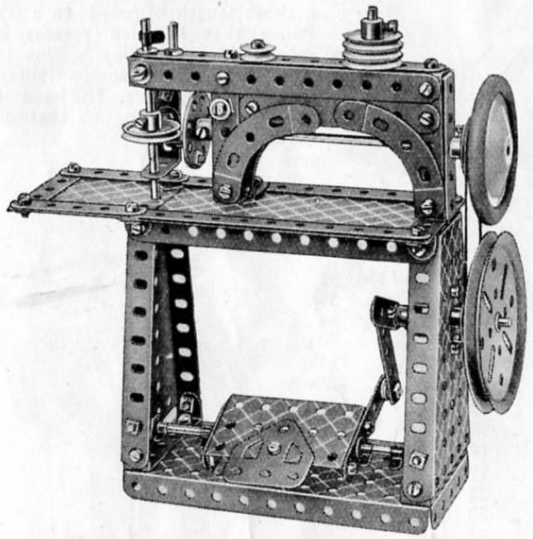
D20. Elevator

Parts required

4	of No.	1
12	„ „	2
1	„ „	3
4	„ „	5
4	„ „	8
8	„ „	12
1	„ „	15b
1	„ „	19s
2	„ „	19b
2	„ „	22
1	„ „	23
53	„ „	37
5	„ „	37a
7	„ „	38
1	„ „	40
7	„ „	48a
1	„ „	52
2	„ „	54a
2	„ „	90a
5	„ „	111c
1	„ „	126
1	„ „	126a
1	„ „	176
3	„ „	187
2	„ „	191
2	„ „	195



D21. Sewing Machine



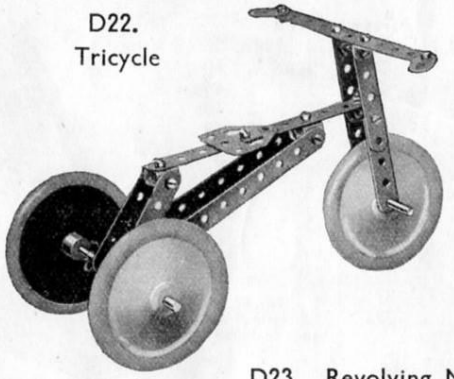
Parts required		
7	of No.	2
2	„ „	3
6	„ „	5
1	„ „	6a
3	„ „	10
1	„ „	11
10	„ „	12
2	„ „	12a
2	„ „	15
1	„ „	16
1	„ „	17
1	„ „	18a
1	„ „	19b
4	„ „	22
2	„ „	22a
1	„ „	23
1	„ „	24
5	„ „	35
50	„ „	37
8	„ „	37a
8	„ „	38
1	„ „	45
7	„ „	48a
1	„ „	51
1	„ „	52
2	„ „	54a
1	„ „	62
4	„ „	90a
3	„ „	111c
1	„ „	115
1	„ „	125
1	„ „	126a
1	„ „	176
1	„ „	186
1	„ „	187
1	„ „	190
1	„ „	195

The base, a $5\frac{1}{2}'' \times 2\frac{1}{2}''$ Flanged Plate, carries two $2\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strips, each of which supports a Flanged Sector Plate. The upper ends of these two Plates are coupled together by $5\frac{1}{2}''$ Strips, further Strips and Plates being secured to the base by $\frac{1}{2}'' \times \frac{1}{2}''$ Angle Brackets. The sewing machine frame is built up on two vertical standards, each of which is constructed from two $2\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strips. One of these standards is secured to a transverse $2\frac{1}{2}''$ Strip and the other to a $1'' \times 1''$ Angle Bracket.

Three $5\frac{1}{2}''$ Strips are now arranged across the top of the two standards as shown, and immediately below these are fitted two $3\frac{1}{2}''$ Strips and two Flat Brackets. Four $2\frac{1}{2}''$ small radius Curved Strips complete the structure. The vertical needle holder is journalled at its upper end in one of the $5\frac{1}{2}''$ Strips mentioned earlier, and its lower end in a $1'' \times 1''$ Angle Bracket, attached to the machine by a Flat Bracket and $\frac{1}{2}''$ Reversed Angle Bracket.

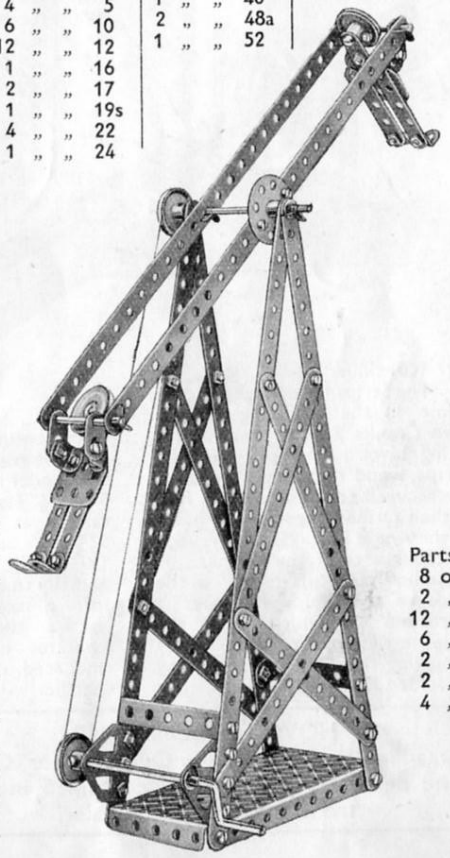
A 1″ fast Pulley on the needle holder is caused to vibrate by a $\frac{1}{2}'' \times \frac{1}{2}''$ Angle Bracket secured to a Bush Wheel that is carried on a 5″ Axle Rod. The opposite end of this Rod is fitted with a 1″ fast Pulley and Road Wheel, the 1″ Pulley being connected by a Driving Band to a similar Pulley on the crank shaft. The treadle and its method of operation will be seen clearly from the illustration.

D22. Tricycle



Parts required		
4	of No.	2
6	„ „	5
2	„ „	10
3	„ „	11
2	„ „	12
1	„ „	16
1	„ „	18a
2	„ „	35
15	„ „	37
2	„ „	37a
1	„ „	111c
1	„ „	126a
3	„ „	187

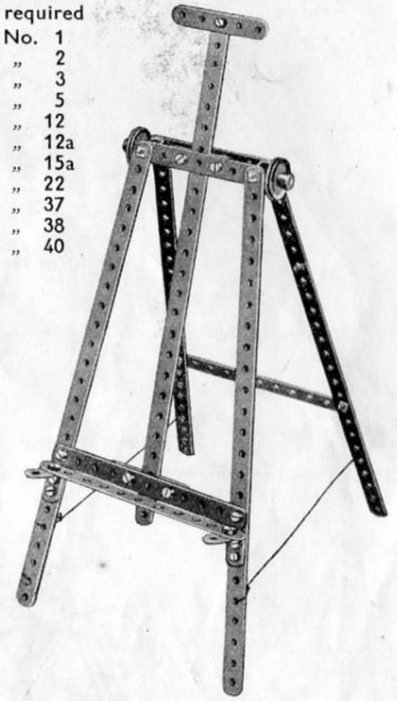
D23. Revolving Meccanitians



Parts required		
6	of No.	1
8	„ „	2
4	„ „	5
6	„ „	10
12	„ „	12
1	„ „	16
2	„ „	17
1	„ „	19s
4	„ „	22
1	„ „	24
8	of No.	35
42	„ „	37
1	„ „	38
1	„ „	40
2	„ „	48a
1	„ „	52
2	of No.	111c
2	„ „	126
2	„ „	126a

Note. The illustration shows two Flat Trunnions forming journals for the Crank handle. They should be replaced by Trunnions, each being secured to its $12\frac{1}{2}''$ Strip by two Angle Brackets.

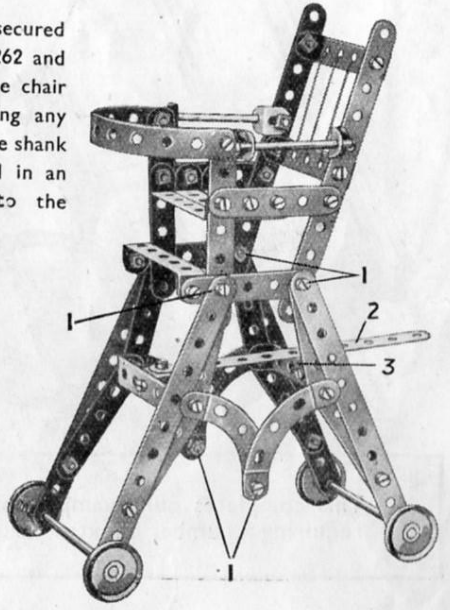
D24. Easel



Parts required		
5	of No.	1
3	„ „	2
2	„ „	3
3	„ „	5
4	„ „	12
2	„ „	12a
1	„ „	15a
2	„ „	22
19	„ „	37
4	„ „	38
1	„ „	40

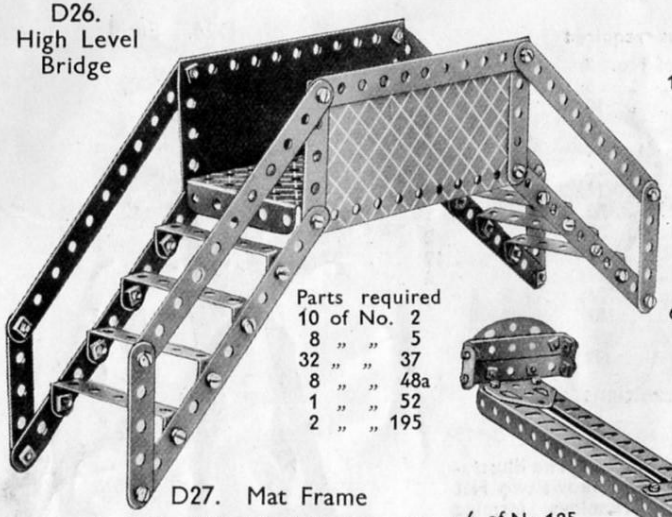
D25. Baby Chair

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



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
1	„ „	40
8	„ „	43a
4	„ „	90a
1	„ „	111c

D26. High Level Bridge



Parts required

10	of No.	2
8	„ „	5
32	„ „	37
8	„ „	48a
1	„ „	52
2	„ „	195

Parts required

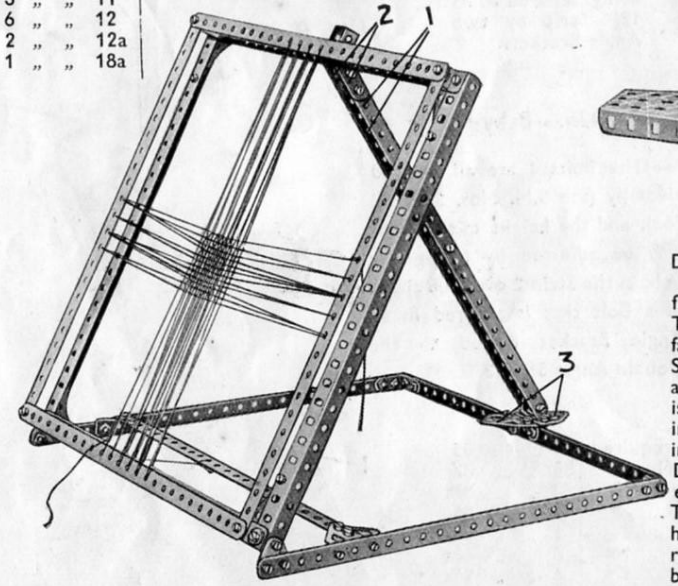
8	of No.	1
14	„ „	2
2	„ „	3
8	„ „	5
2	„ „	6a
4	„ „	8
6	„ „	12
4	„ „	16
2	„ „	19b
3	„ „	22
1	„ „	24
5	„ „	35
65	„ „	37
6	„ „	37a
6	of No.	38
1	„ „	40
1	„ „	44
8	„ „	48a
1	„ „	52
2	„ „	54a
4	„ „	90a
5	„ „	111c
2	„ „	126a
1	„ „	176
3	„ „	190
2	„ „	191

No. E6. Electric Motor (not included in Outfit).

D27. Mat Frame

Parts required

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



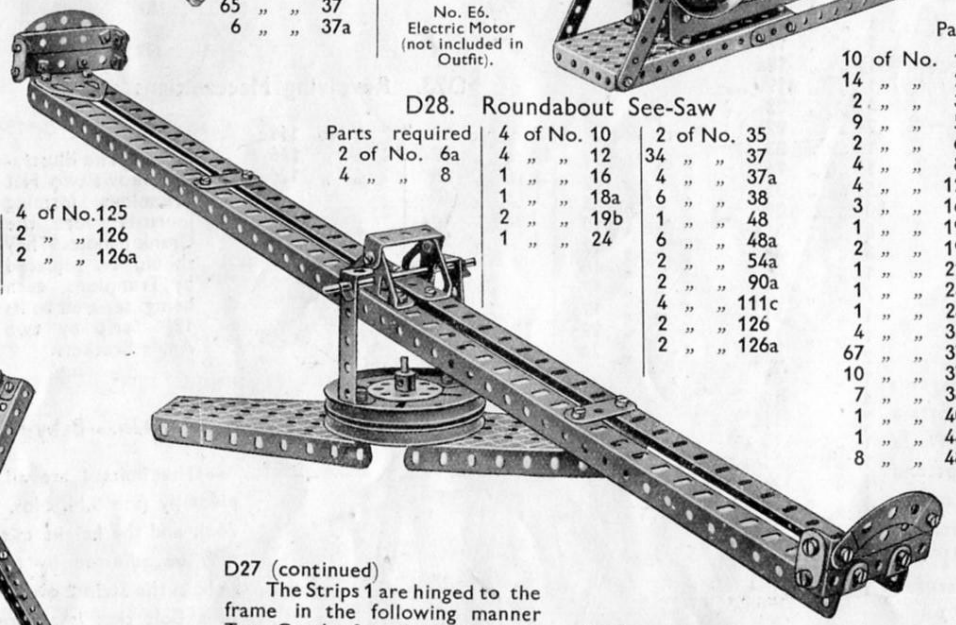
D27 (continued)

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.

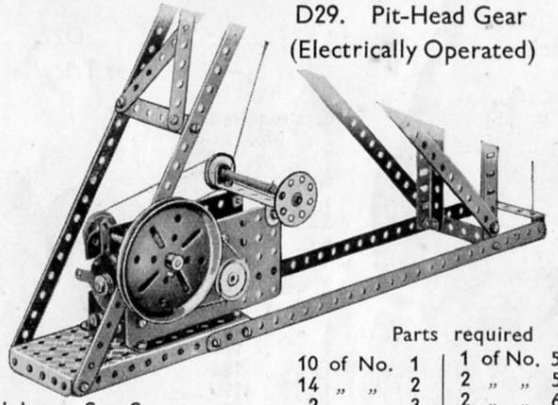
D28. Roundabout See-Saw

Parts required

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



D29. Pit-Head Gear (Electrically Operated)

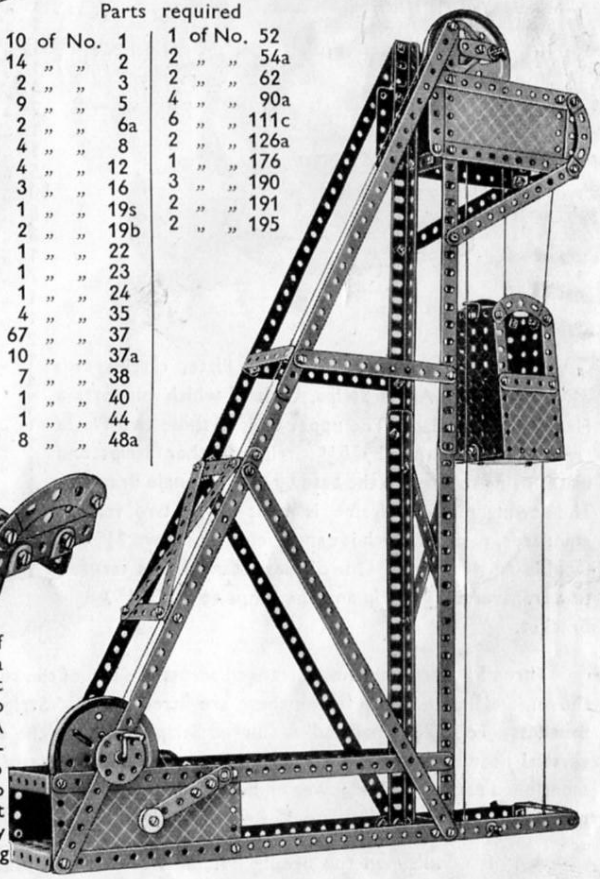


The motor is carried on a $5\frac{1}{2}'' \times 2\frac{1}{2}''$ Flanged Plate, and supports on its armature shaft a 1″ fast Pulley. This is connected by a short length of cord to a 3″ Pulley that in turn rotates a second 1″ fast Pulley. This is coupled to a third similar Pulley on the hoisting shaft. The head of the model is similar to that of model D30.

D30. Pit-Head Gear (Hand Operated)

Parts required

10	of No.	1
14	„ „	2
2	„ „	3
9	„ „	5
2	„ „	6a
4	„ „	8
4	„ „	12
3	„ „	16
1	„ „	19s
2	„ „	19b
1	„ „	22
1	„ „	23
1	„ „	24
4	„ „	35
67	„ „	37
10	„ „	37a
7	„ „	38
1	„ „	40
1	„ „	44
8	„ „	48a
1	of No.	52
2	„ „	54a
2	„ „	62
4	„ „	90a
6	„ „	111c
2	„ „	126a
1	„ „	176
3	„ „	190
2	„ „	191
2	„ „	195



D30 (continued)

The rear of the base of this model is fitted with a $5\frac{1}{2}'' \times 2\frac{1}{2}''$ Flanged Plate that carries at its sides two $5\frac{1}{2}'' \times 2\frac{1}{2}''$ Strip Plates. A $12\frac{1}{2}''$ Strip secured horizontally to each of these to form a strengthener, also carries the brake that operates on a 3″ Pulley mounted on the winding handle.

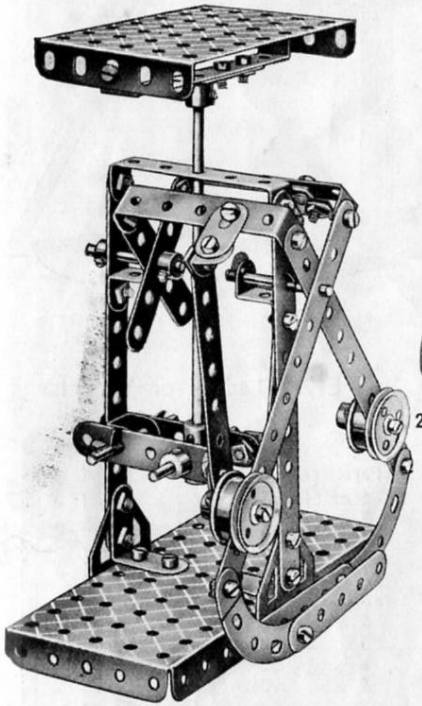
HOW TO CONTINUE

This completes our examples of models that may be made with MECCANO Outfit D (or C and Ca). 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 Da Accessory Outfit, the price of which may be obtained from any Meccano Dealer.

E1. Letter Balance

Parts required

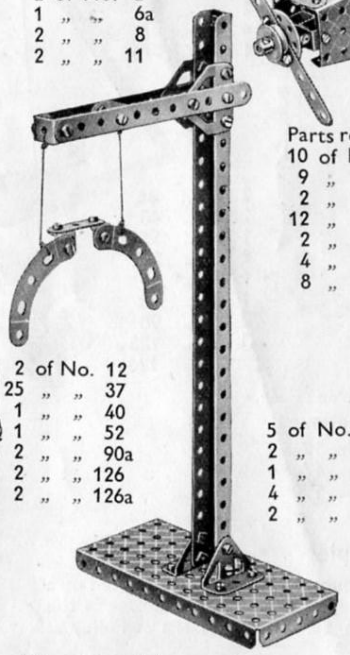
4	of No. 2	2	of No. 18a	1	of No. 53
2	„ „ 3	2	„ „ 20b	4	„ „ 59
5	„ „ 5	2	„ „ 22a	1	„ „ 62
2	„ „ 10	4	„ „ 35	1	„ „ 63
1	„ „ 11	37	„ „ 37	2	„ „ 90a
4	„ „ 12	6	„ „ 37a	2	„ „ 111
2	„ „ 12a	2	„ „ 48a	4	„ „ 111a
1	„ „ 15	1	„ „ 48b	2	„ „ 125
2	„ „ 17	1	„ „ 52	2	„ „ 126



E2. Railway Gauge

Parts required

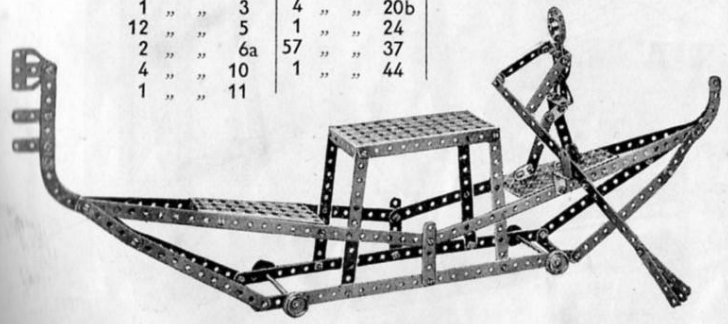
2	of No. 2		
1	„ „ 6a		
2	„ „ 8		
2	„ „ 11		
2	of No. 12		
25	„ „ 37		
1	„ „ 40		
1	„ „ 52		
2	„ „ 90a		
2	„ „ 126		
2	„ „ 126a		



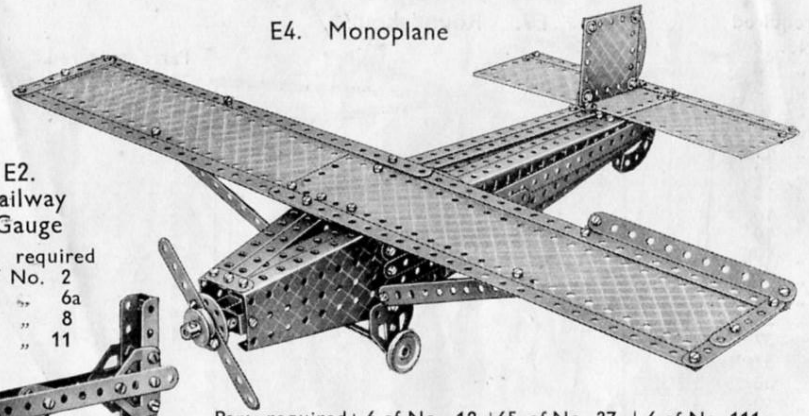
E3. Gondola

Parts required

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



E4. Monoplane



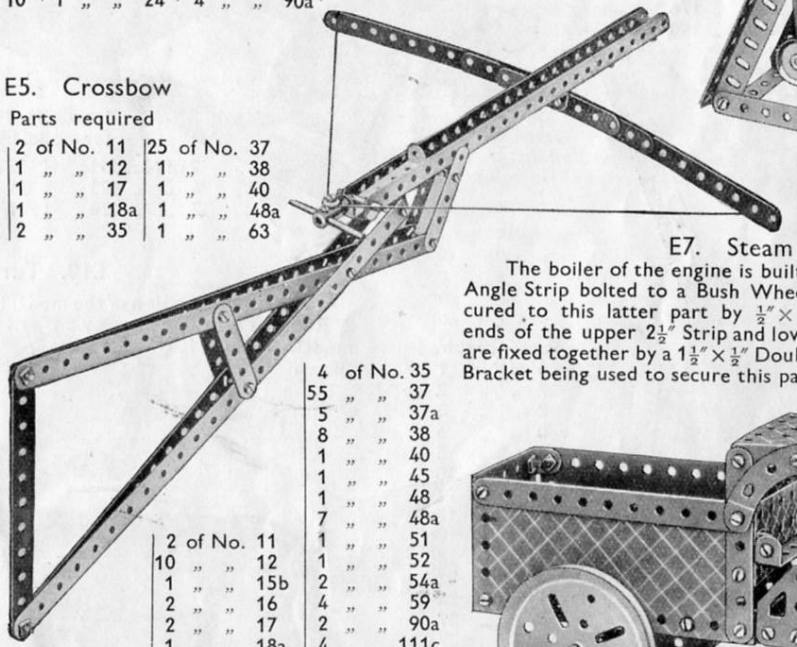
Parts required

10	of No. 1	6	of No. 12	65	of No. 37	6	of No. 111c
9	„ „ 2	4	„ „ 12c	8	„ „ 37a	2	„ „ 125
2	„ „ 3	1	„ „ 13	7	„ „ 38	2	„ „ 126a
12	„ „ 5	1	„ „ 16	1	„ „ 45	1	„ „ 186
2	„ „ 6a	2	„ „ 20b	1	„ „ 48	1	„ „ 190
4	„ „ 8	2	„ „ 22	1	„ „ 48a	2	„ „ 195
8	„ „ 10	1	„ „ 23	2	„ „ 54a	2	„ „ 197
		1	„ „ 24	4	„ „ 90a		

E5. Crossbow

Parts required

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

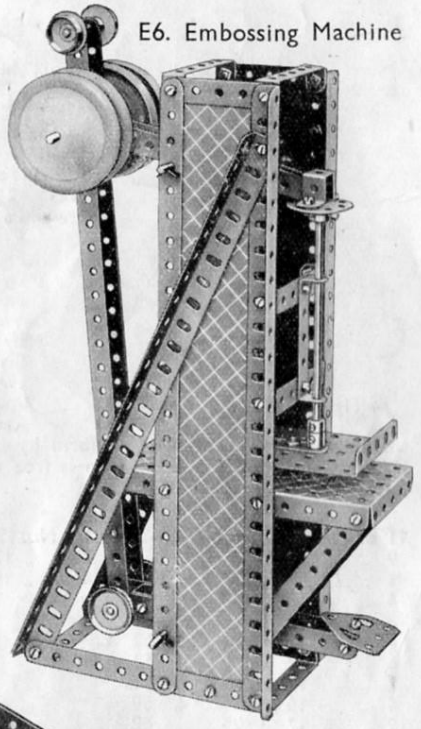


4	of No. 35	2	of No. 11	Parts required	
55	„ „ 37	10	„ „ 12	2	of No. 2
5	„ „ 37a	1	„ „ 15b	2	„ „ 3
8	„ „ 38	2	„ „ 16	11	„ „ 5
1	„ „ 40	2	„ „ 17	2	„ „ 6a
1	„ „ 45	1	„ „ 18a	2	„ „ 10
1	„ „ 48	2	„ „ 19b		
7	„ „ 48a	4	„ „ 20b		
1	„ „ 51	1	„ „ 22		
1	„ „ 52	1	„ „ 22a		
2	„ „ 54a	1	„ „ 23		
4	„ „ 59	1	„ „ 24		
2	„ „ 90a				
4	„ „ 111c				
1	„ „ 125				
2	„ „ 126a				
1	„ „ 186				
2	„ „ 187				
1	„ „ 190				
2	„ „ 195				

Parts required

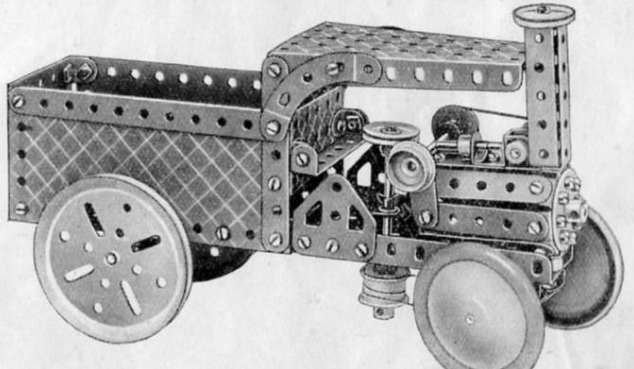
4	of No. 1		
8	„ „ 2		
2	„ „ 5		
4	„ „ 8		
3	„ „ 11		
1	„ „ 15		
3	„ „ 16		
2	„ „ 18a		
2	„ „ 20b		
2	„ „ 22		
1	„ „ 24		
8	„ „ 35		
37	„ „ 37		
6	„ „ 38		
1	„ „ 45		
7	„ „ 48a		
1	„ „ 52		
1	„ „ 53		
3	„ „ 59		
1	„ „ 62		
1	„ „ 126a		
4	„ „ 187		
2	„ „ 197		

E6. Embossing Machine



E7. Steam Lorry

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



E8. Anti Aircraft Gun

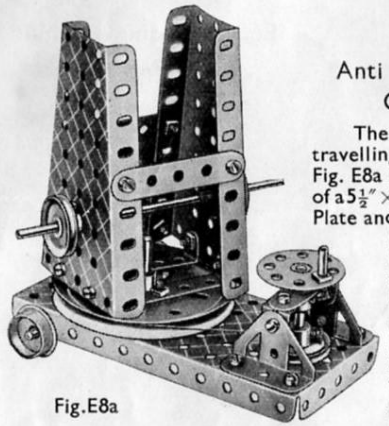
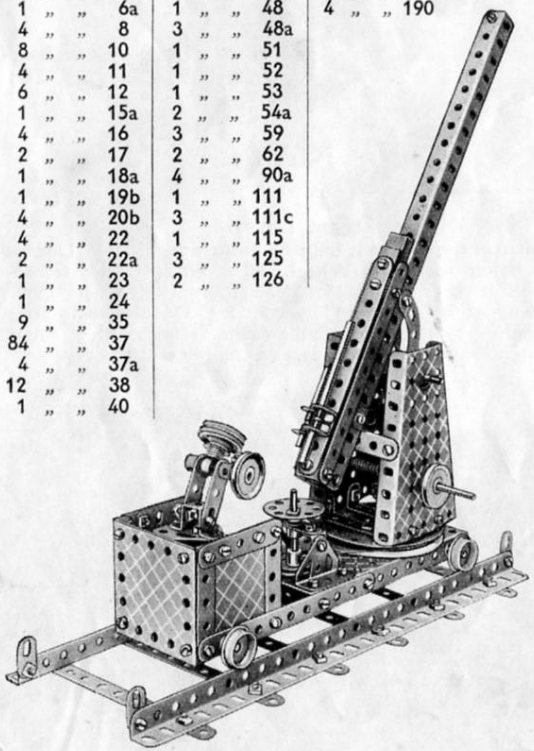


Fig.E8a

The base of the travelling portion Fig. E8a is composed of a $5\frac{1}{2}'' \times 2\frac{1}{2}''$ Flanged Plate and a $3\frac{1}{2}'' \times 2\frac{1}{2}''$ Flanged Plate, these two parts being secured together by two $5\frac{1}{2}''$ Strips and two $\frac{1}{2}'' \times \frac{1}{2}''$ Angle Brackets. The searchlight is pivoted to its platform by a $\frac{3}{8}''$ Bolt, lock-nutted in place, and the gun is free to swivel on a 3″ Pulley.

Parts required

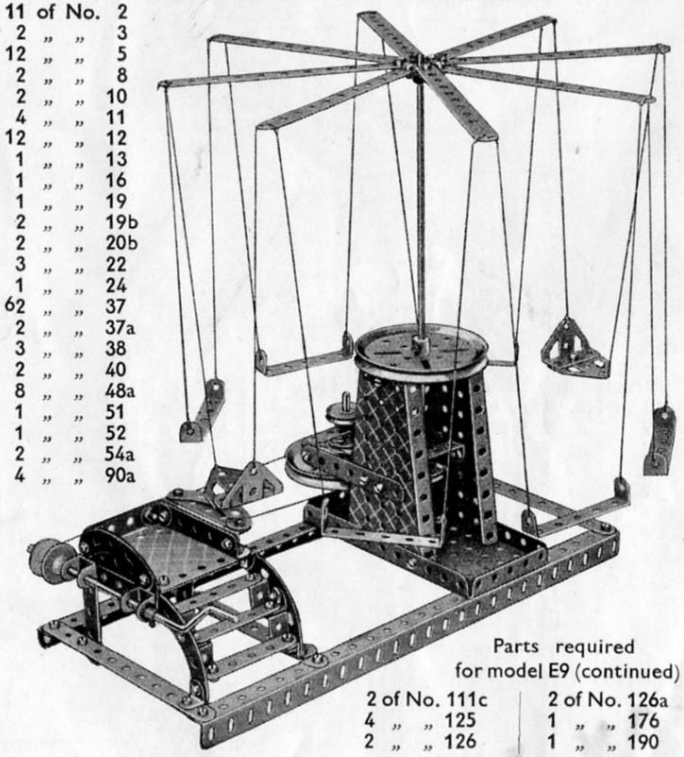
11	of No.	2	1	of No.	44	1	of No. 126a
9	„ „	5	1	„ „	45	1	„ „ 176
1	„ „	6a	1	„ „	48	4	„ „ 190
4	„ „	8	3	„ „	48a		
8	„ „	10	1	„ „	51		
4	„ „	11	1	„ „	52		
6	„ „	12	1	„ „	53		
1	„ „	15a	2	„ „	54a		
4	„ „	16	3	„ „	59		
2	„ „	17	2	„ „	62		
1	„ „	18a	4	„ „	90a		
1	„ „	19b	1	„ „	111		
4	„ „	20b	3	„ „	111c	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



Parts required

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

E9. Roundabout



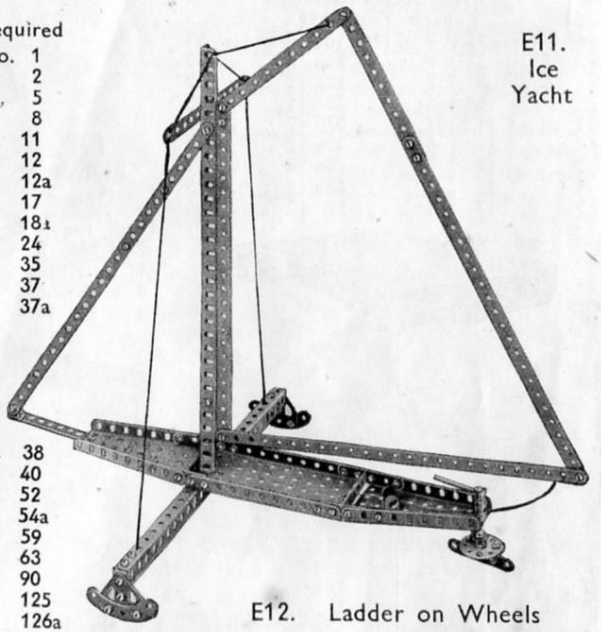
Parts required

4	of No.	1	2	„ „	38		
5	„ „	2	1	„ „	40		
5	„ „	5	1	„ „	52		
4	„ „	8	2	„ „	54a		
1	„ „	11	1	„ „	59		
3	„ „	12	1	„ „	63		
2	„ „	12a	2	„ „	90		
2	„ „	17	1	„ „	125		
1	„ „	18a	2	„ „	126a		
1	„ „	24					
2	„ „	35					
54	„ „	37					
1	„ „	37a					

Parts required for model E9 (continued)

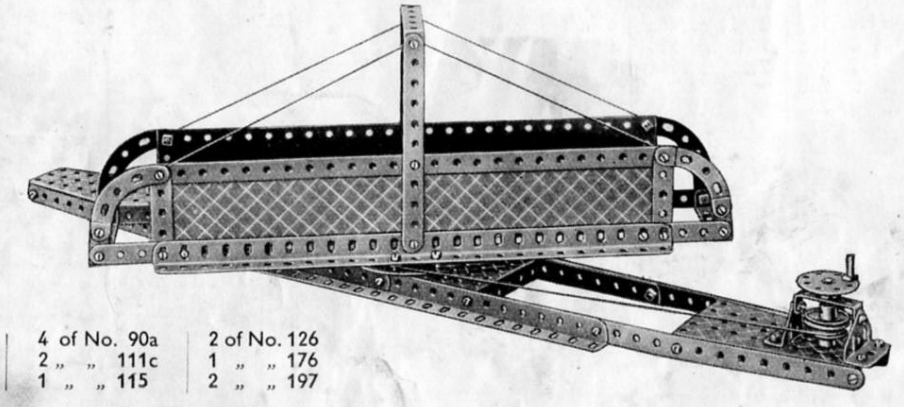
2	of No.	111c	2	of No.	126a
4	„ „	125	1	„ „	176
2	„ „	126	1	„ „	190

E11. Ice Yacht



E10. Turntable

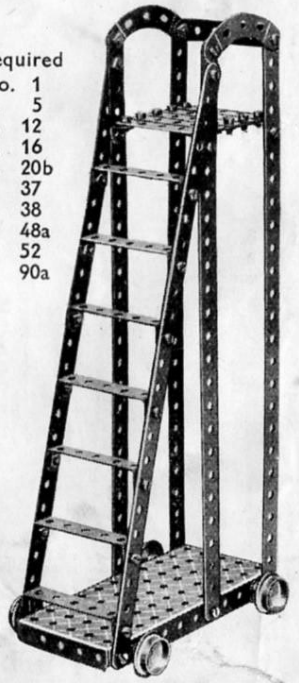
The turning section of the model is mounted on a 3″ Pulley carried on a 2″ Rod that is held in place by a 1″ fast Pulley secured below the base of the model. Turning is effected from a $\frac{3}{4}''$ Flanged Wheel and 1″ fast Pulley as shown



Parts required

6	of No.	1	4	of No.	90a	2	of No. 126
2	„ „	2	2	„ „	111c	1	„ „ 176
2	„ „	3	1	„ „	115	2	„ „ 197
8	„ „	5					
4	„ „	8					
4	„ „	10					
1	„ „	17					
1	„ „	18a					
1	„ „	19b					
1	„ „	20b					
2	„ „	22					
1	„ „	24					
54	„ „	37					
2	„ „	37a					
8	„ „	38					
1	„ „	40					
1	„ „	48					
5	„ „	48a					
1	„ „	52					
2	„ „	54a					

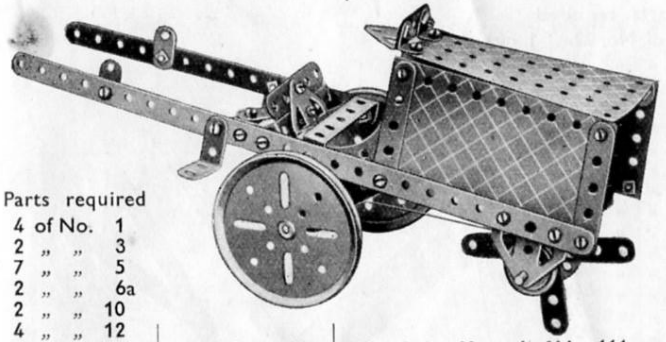
E12. Ladder on Wheels



Parts required

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

E13. Hay Tedder



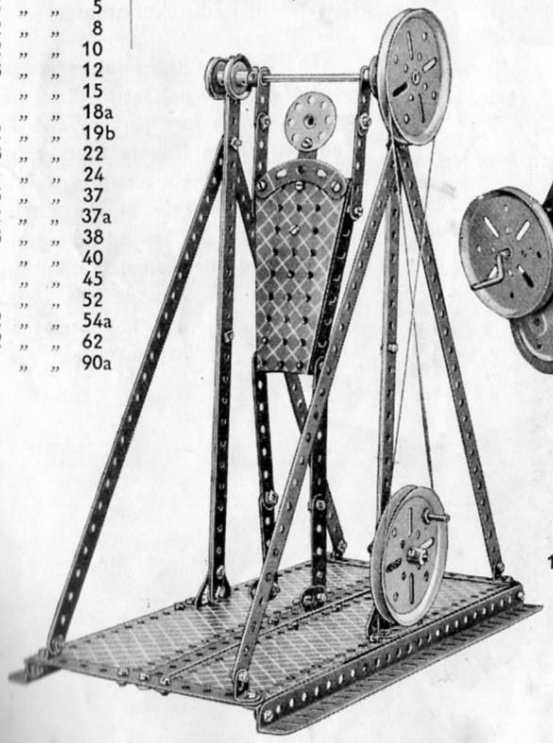
Parts required

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

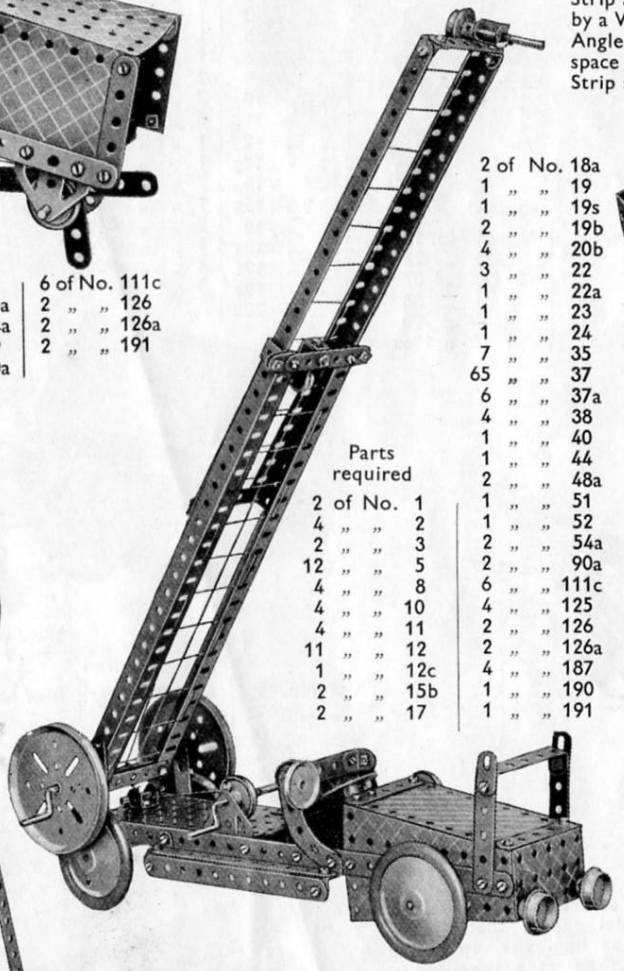
E14. Acrobat

Parts required

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



E15. Fire Engine



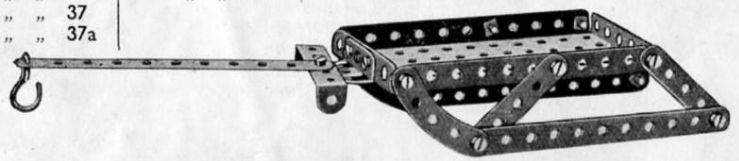
Parts required

2	of No. 1	2	of No. 18a	2	of No. 90a
4	„ „ 2	1	„ „ 19	6	„ „ 111c
2	„ „ 3	1	„ „ 19s	4	„ „ 125
12	„ „ 5	2	„ „ 19b	2	„ „ 126
4	„ „ 8	4	„ „ 20b	2	„ „ 126a
4	„ „ 10	3	„ „ 22	4	„ „ 187
4	„ „ 11	1	„ „ 22a	1	„ „ 190
11	„ „ 12	1	„ „ 23	1	„ „ 191
1	„ „ 12c	1	„ „ 24		
2	„ „ 15b	7	„ „ 35		
2	„ „ 17	65	„ „ 37		
		6	„ „ 37a		
		4	„ „ 38		
		1	„ „ 40		
		1	„ „ 44		
		2	„ „ 48a		
		1	„ „ 51		
		1	„ „ 52		
		2	„ „ 54a		

E16. Horse Sleigh

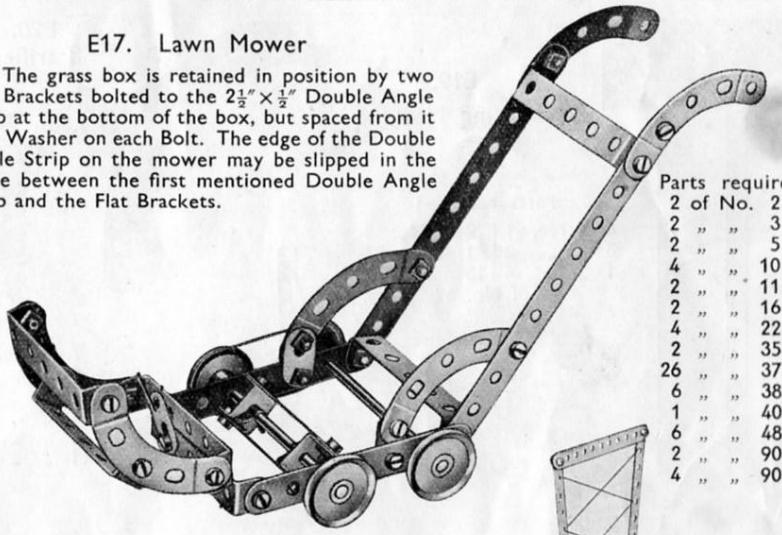
Parts required

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



E17. Lawn Mower

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

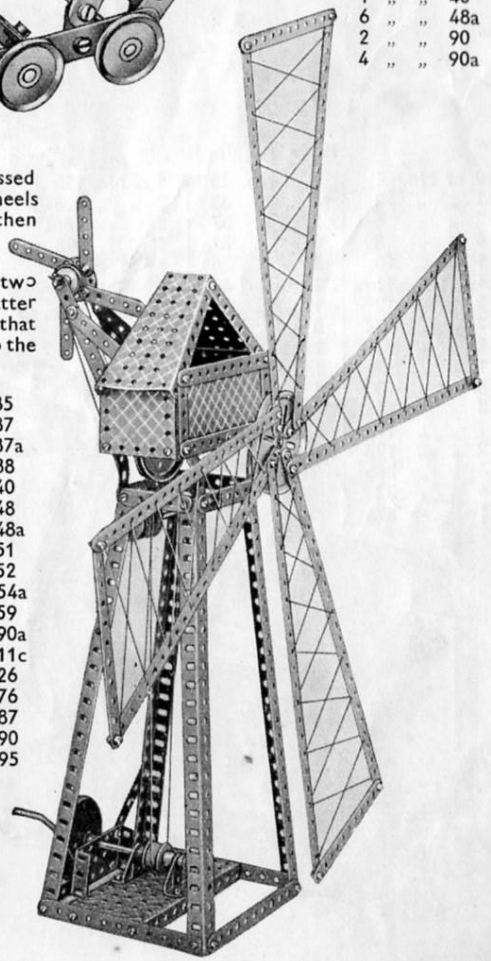


Parts required

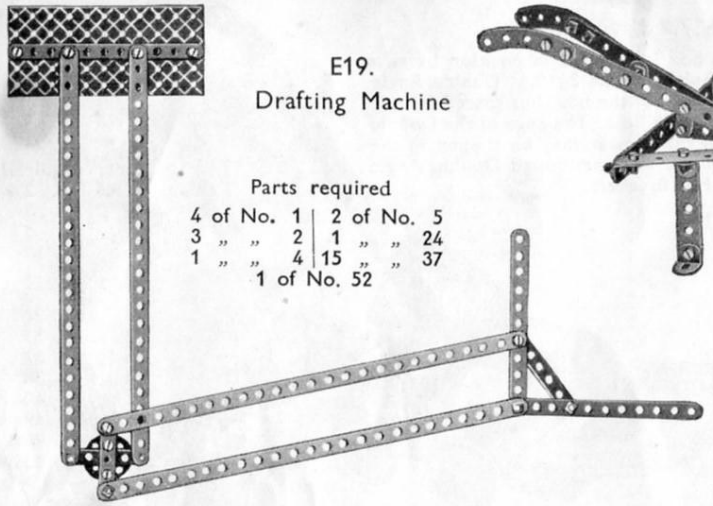
2	of No. 2	2	of No. 35	1	of No. 176
2	„ „ 3	70	„ „ 37	2	„ „ 197
2	„ „ 5	4	„ „ 37a		
4	„ „ 10	9	„ „ 38		
2	„ „ 11	1	„ „ 40		
2	„ „ 16	1	„ „ 48		
4	„ „ 22	2	„ „ 48a		
2	„ „ 35	1	„ „ 51		
26	„ „ 37	1	„ „ 52		
6	„ „ 38	2	„ „ 54a		
1	„ „ 40	4	„ „ 59		
6	„ „ 48a	4	„ „ 90a		
2	„ „ 90	4	„ „ 111c		
4	„ „ 90a	2	„ „ 126		
		1	„ „ 176		
		2	„ „ 187		
		1	„ „ 190		
		2	„ „ 195		

E18. Windmill

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



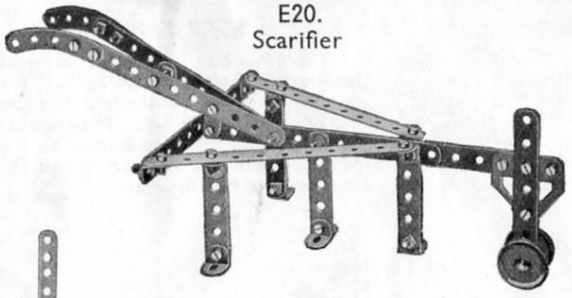
E19. Drafting Machine



Parts required

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

E20. Scarifier



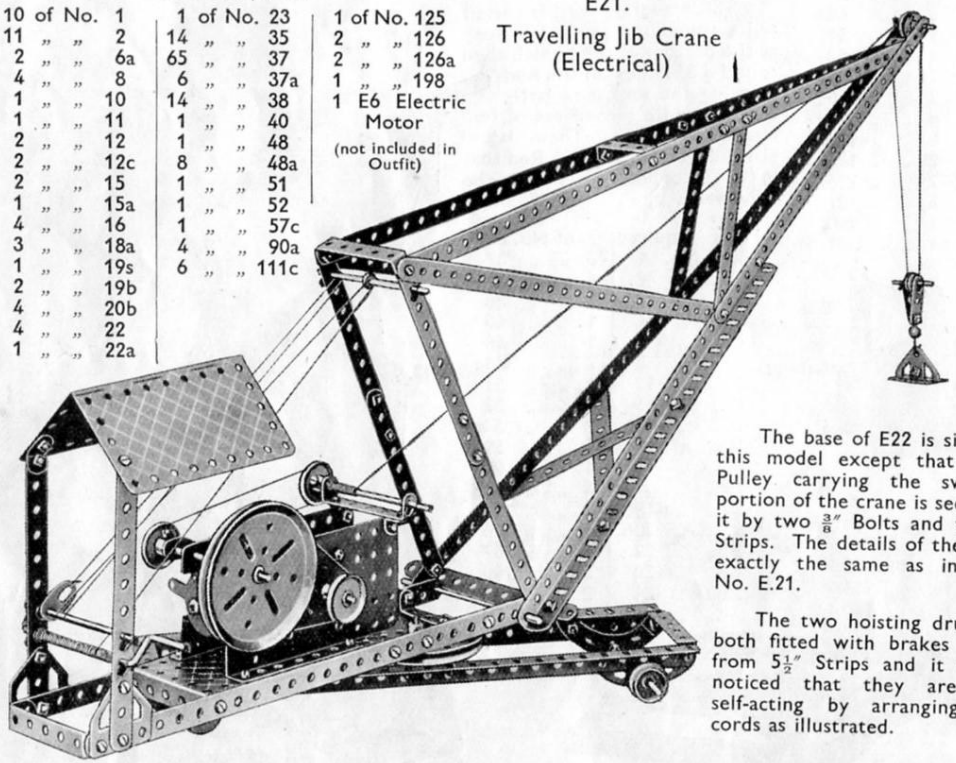
Parts required

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

E21. Travelling Jib Crane (Electrical)

Parts required

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



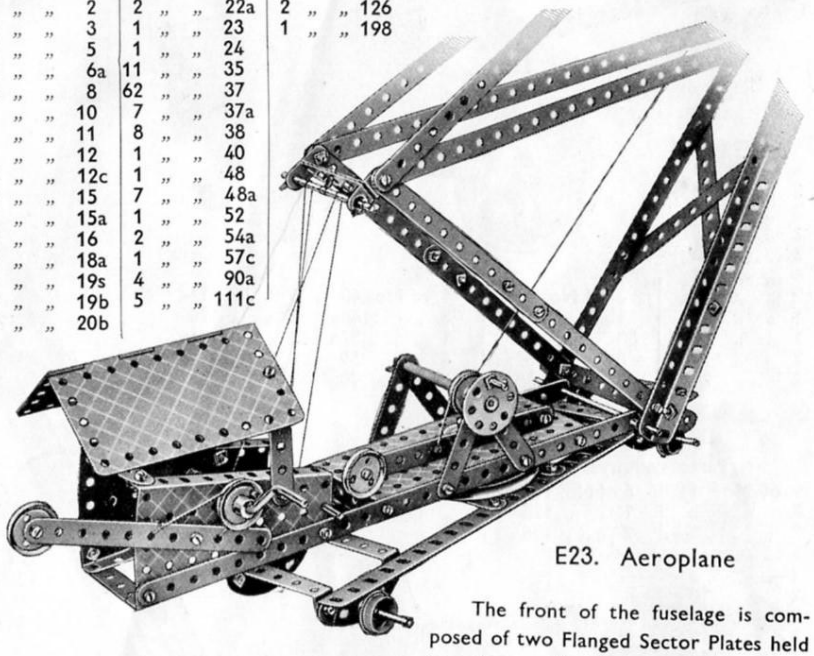
The base of E22 is similar to this model except that the 3″ Pulley carrying the swivelling portion of the crane is secured to it by two $\frac{3}{8}$″ Bolts and two $3\frac{1}{2}$″ Strips. The details of the jib are exactly the same as in Model No. E.21.

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

E22. Travelling Jib Crane (Hand)

Parts required

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

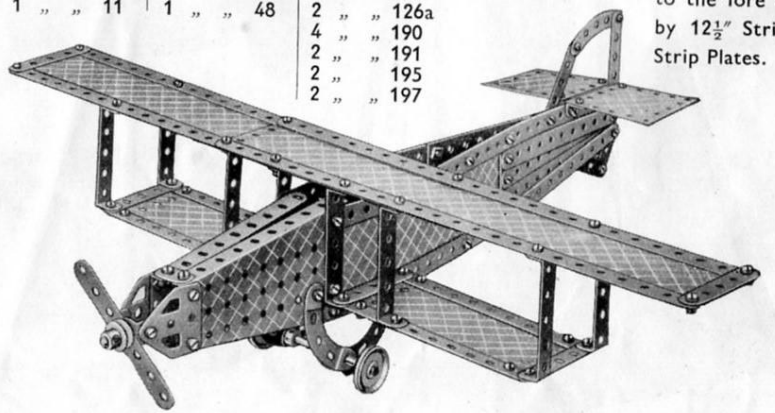


E23. Aeroplane

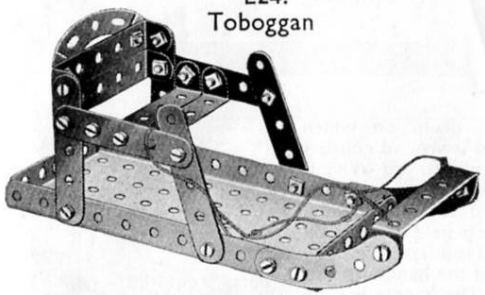
Parts required

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

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



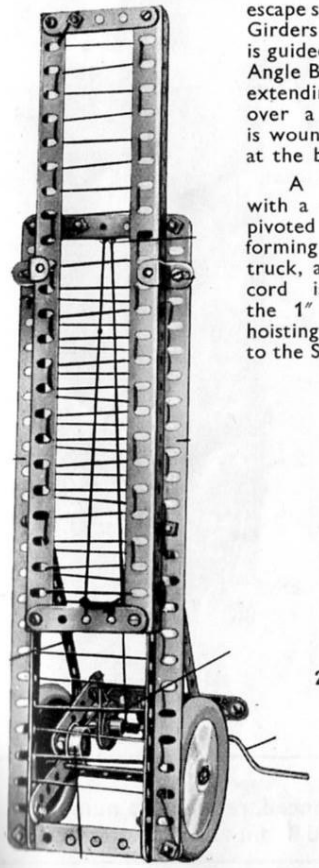
E24. Toboggan



Parts required

6	of No. 5	5	of No. 48a	2	of No. 90
22	„ „ 37	1	„ „ 52	1	„ „ 90a
1	„ „ 40				

E25. Fire Escape



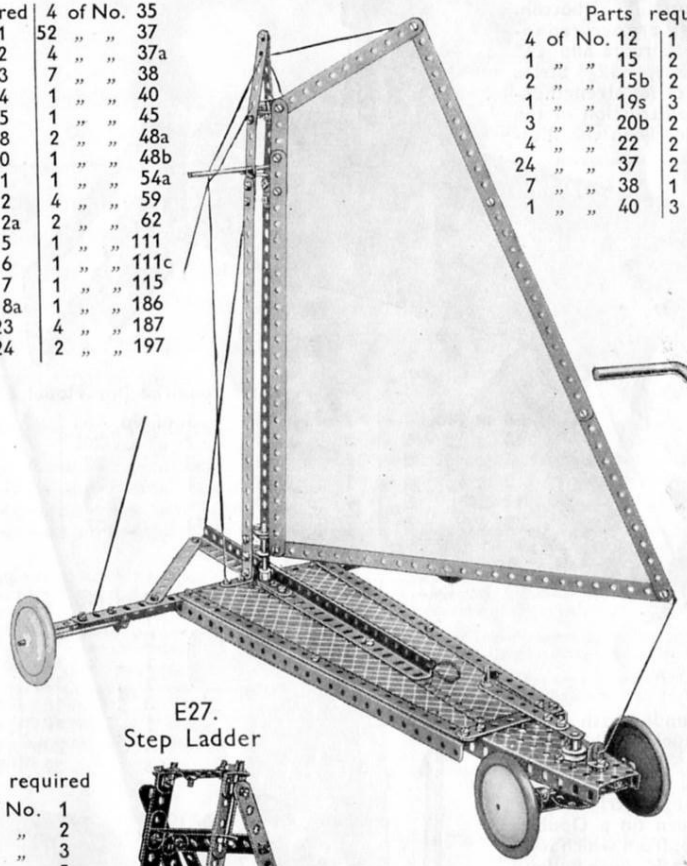
The moving portion of the escape slides on the 12½″ Angle Girders of the fixed ladder and is guided by two ½″ Reversed Angle Brackets. The cord for extending the ladder passes over a ½″ loose Pulley 1 and is wound on the Crank Handle at the base of the model.

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

Parts required

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

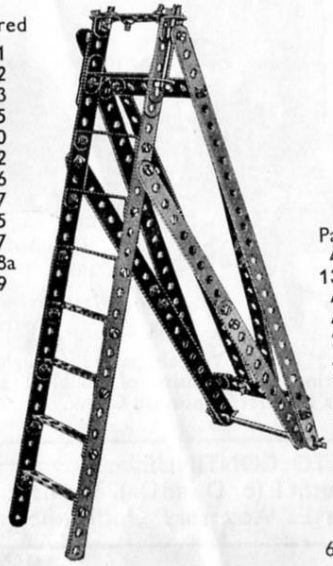
E26. Land Yacht



Parts required

8	of No. 1	52	of No. 37	4	of No. 35
5	„ „ 2	4	„ „ 37a	52	„ „ 37
2	„ „ 3	7	„ „ 38	4	„ „ 37a
1	„ „ 4	1	„ „ 40	7	„ „ 38
2	„ „ 5	1	„ „ 45	1	„ „ 40
4	„ „ 8	2	„ „ 48a	1	„ „ 45
2	„ „ 10	1	„ „ 48b	2	„ „ 48a
4	„ „ 11	1	„ „ 54a	2	„ „ 48b
6	„ „ 12	4	„ „ 59	4	„ „ 54a
1	„ „ 12a	2	„ „ 62	6	„ „ 59
1	„ „ 15	1	„ „ 111	1	„ „ 62
2	„ „ 16	1	„ „ 111c	1	„ „ 111
2	„ „ 17	1	„ „ 115	2	„ „ 111c
2	„ „ 18a	1	„ „ 186	1	„ „ 115
1	„ „ 23	4	„ „ 187	1	„ „ 186
1	„ „ 24	2	„ „ 197	4	„ „ 187

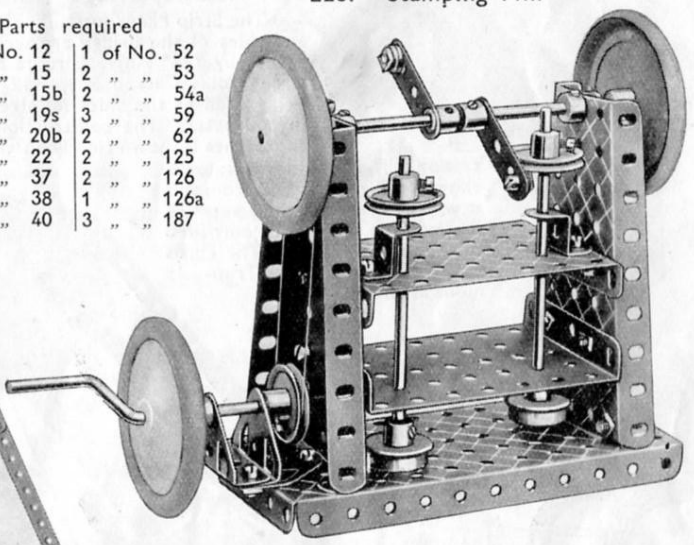
E27. Step Ladder



Parts required

4	of No. 1	1	„ „ 19b	6	of No. 37a
13	„ „ 2	4	„ „ 20b	12	„ „ 38
4	„ „ 5	4	„ „ 22	1	„ „ 45
4	„ „ 8	1	„ „ 24	6	„ „ 48a
2	„ „ 10	64	„ „ 37	1	„ „ 52
4	„ „ 11			2	„ „ 54a
1	„ „ 12a			4	„ „ 59
2	„ „ 15			5	„ „ 111c
1	„ „ 15a			1	„ „ 115
1	„ „ 16			1	„ „ 176
				1	„ „ 186
				2	„ „ 187
				2	„ „ 190
				2	„ „ 191
				2	„ „ 195
				2	„ „ 197

E28. Stamping Mill

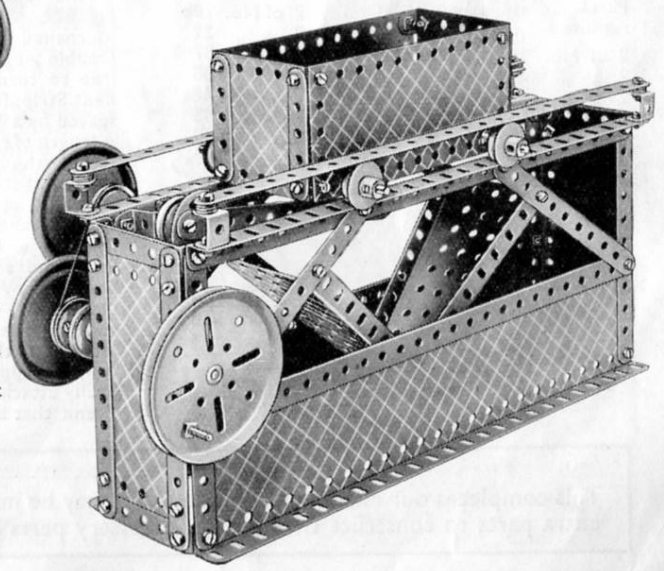


Parts required

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

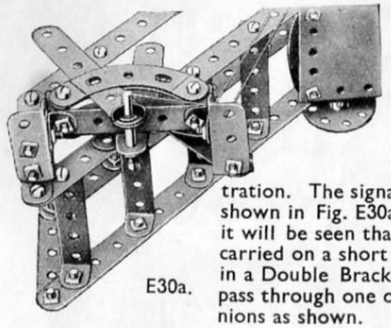
E29. Sifter

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

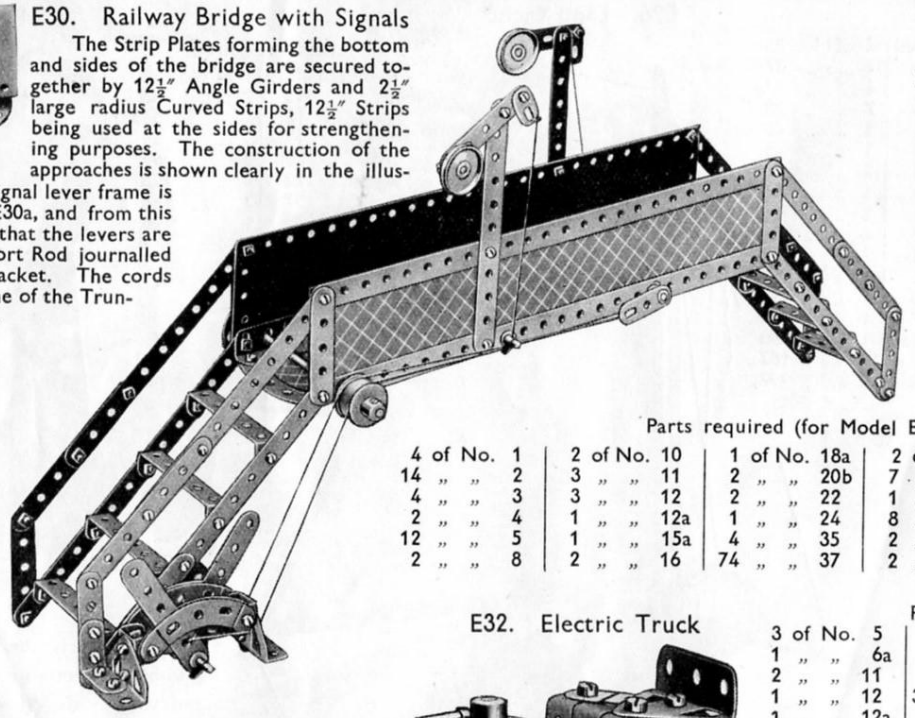


E30. Railway Bridge with Signals

The Strip Plates forming the bottom and sides of the bridge are secured together by 12½″ Angle Girders and 2½″ large radius Curved Strips, 12½″ Strips being used at the sides for strengthening purposes. The construction of the approaches is shown clearly in the illustration. The signal lever frame is shown in Fig. E30a, and from this it will be seen that the levers are carried on a short Rod journalled in a Double Bracket. The cords pass through one of the Trunnions as shown.



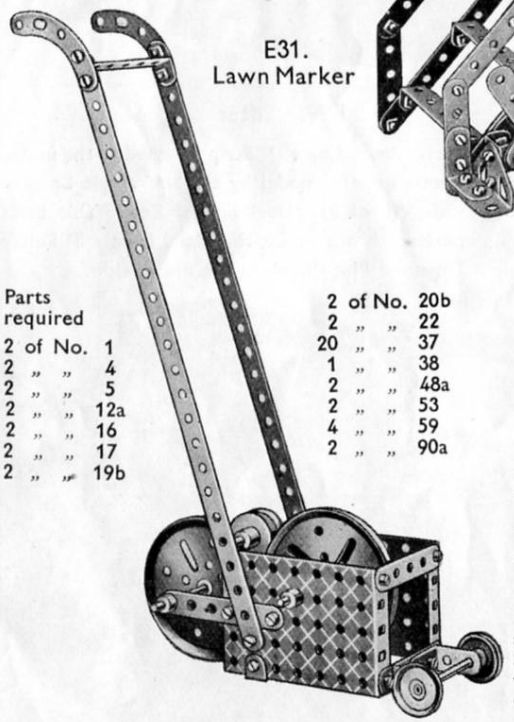
E30a.



Parts required (for Model E30)

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

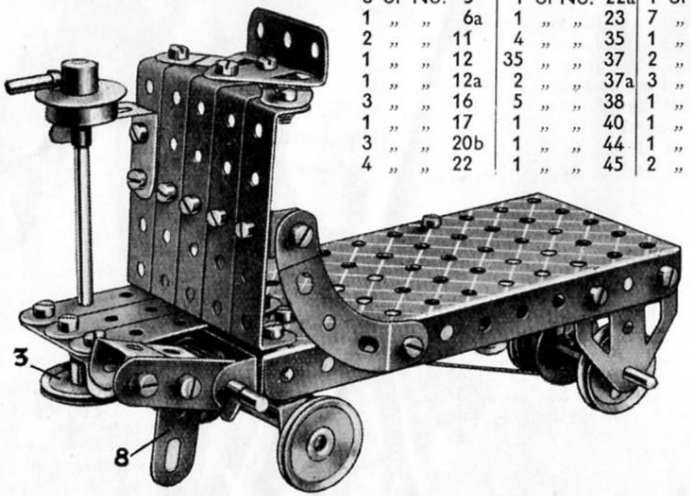
E31. Lawn Marker



Parts required

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

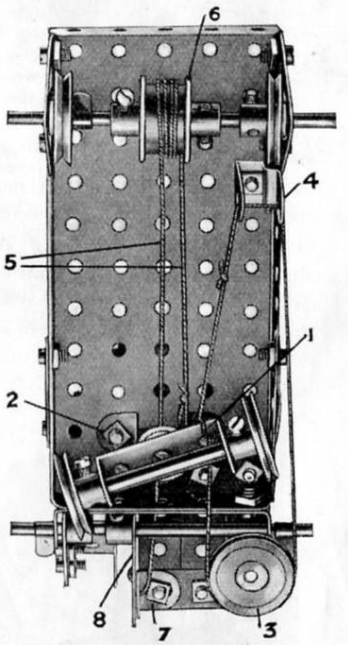
E32. Electric Truck



Parts required

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

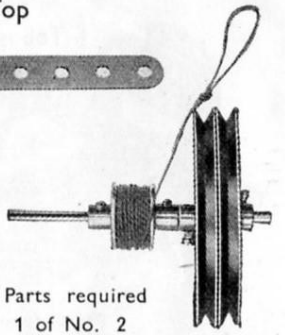
An underneath view of the truck is shown in Fig. E32a. The front axle is journalled in a 1½″×½″ Double Angle Strip that is free to turn on a Double Bent Strip, from which it is spaced by a ½″ loose Pulley. A length of cord is wrapped round the 1″ Pulley as shown, that is secured to the end of the steering column, and then passed through a Cranked Bent Strip and secured to the Double Angle Strip, mentioned earlier, as shown. The brake cord is attached to the Double Bent Strip, wrapped several times round two ¾″ Flanged Wheels, passed through an Angle Bracket, and is finally attached to a Crank. The operating pedal consists of Double Brackets bolted to another Crank that is secured to the same Rod as the first mentioned Crank.



E32a.

E33. Spinning Top

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.

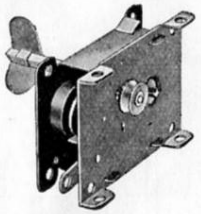


Parts required

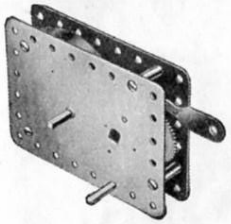
1 of No.	2
1 „ „	16
2 „ „	19b
2 „ „	20b
2 „ „	37
1 „ „	40
1 „ „	62

HOW TO CONTINUE

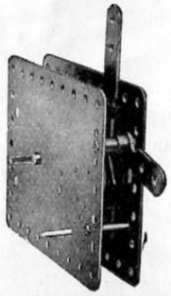
This completes our examples of models that may be made with MECCANO Outfit E (or D and Da). The next models are a little more advanced, requiring a number of extra parts to construct them. The necessary parts are all contained in an Ea Accessory Outfit, the price of which may be obtained from any Meccano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



X Clockwork Motor



No. 1 Clockwork Motor



No. 2 Clockwork Motor

Resistance Controller

6-volt 20-amp. hr. Accumulator

MECCANO

POWER UNITS FOR OPERATING MECCANO MODELS

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

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

Meccano Clockwork Motors

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

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

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

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

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

Meccano Electric Motors

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

No. E1 Electric Motor (6-volt). Non-reversing.
No. E6 Electric Motor (6-volt). Reversing.
No. E120 Electric Motor (20-volt). Non-reversing.
No. E20A Electric Motor (20-volt). Non-reversing.
No. E20B Electric Motor (20-volt). Reversing.

Meccano Transformers

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

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

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

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

No. T6A Transformer (Output 40 VA at 9/3½ volts) for 6-volt Electric Motors. Fitted with speed regulator and separate circuit for supplying current for eighteen 3½-volt lamps.

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

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

No. T20A Transformer (Output 35 VA at 20/3½ volts) for 20-volt Electric Motors. Fitted with speed regulator and output sockets for lighting lamps.

Accumulators

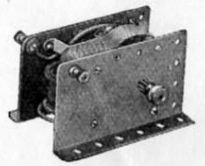
The 6-volt 20-amp. hr. Accumulator is specially suitable for running Meccano 6-volt Motors and Hornby 6-volt Electric Trains.

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

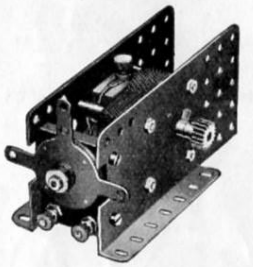
Resistance Controller

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

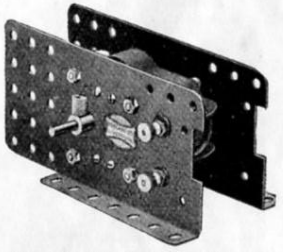
Ask your dealer for a complete price list



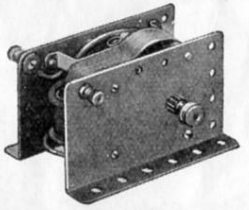
No. E1 Electric Motor (6-volt)



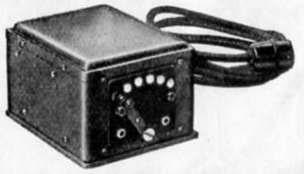
No. E6 Electric Motor (6-volt)



No. E20a Electric Motor (20-volt)

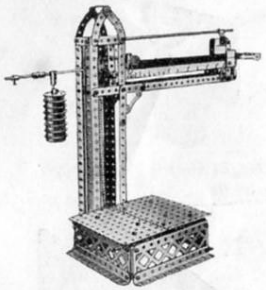


No. E1/20 Electric Motor (20-volt)

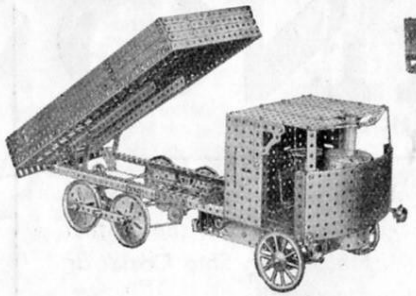


No. T20 Transformer

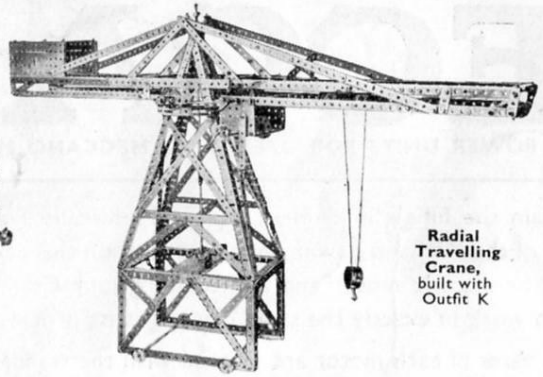
Build Bigger and Better Models



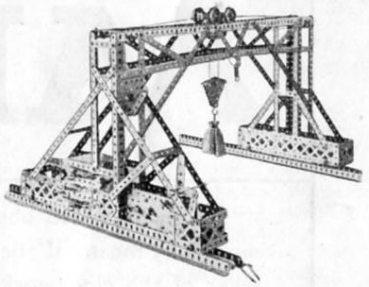
Platform Scales, built with Outfit K



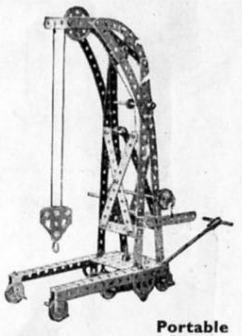
Tipping Steam Wagon, built with Outfit H



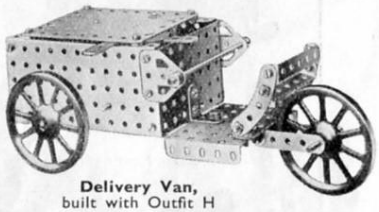
Radial Travelling Crane, built with Outfit K



Travelling Gantry Crane, built with Outfit L



Portable Crane, built with Outfit K



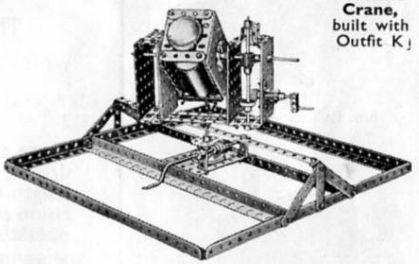
Delivery Van, built with Outfit H

Keep adding to your Outfit

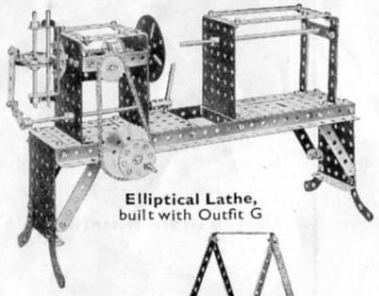
The more Meccano parts you have, the bigger and better the models you are able to build. Keen and enthusiastic model-builders keep adding to their Outfits, until they are able to build all the wonderful models shown in the Meccano Manuals.

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

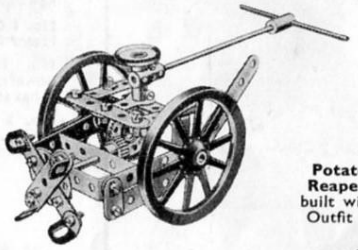
You can purchase separate Meccano parts as you require them, or, if you prefer, you can purchase Accessory Outfits that connect all the main Outfits.



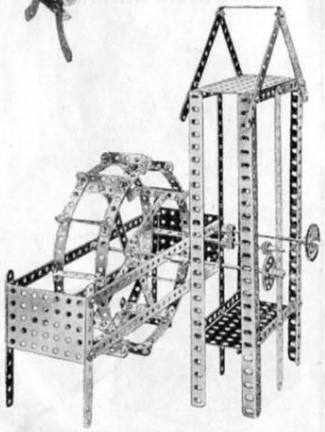
Searchlight, built with Outfit K



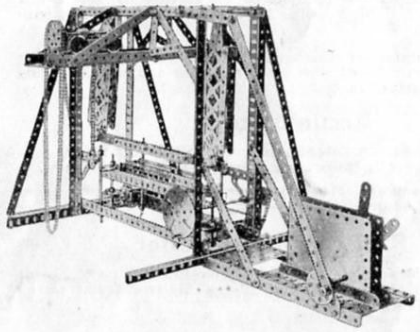
Elliptical Lathe, built with Outfit G



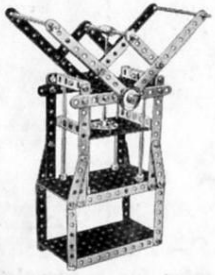
Potato Reaper, built with Outfit H



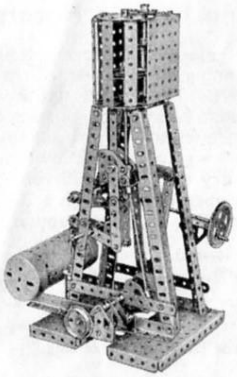
Belgian Water Wheel, built with Outfit H



Stone Sawing Machine, built with Outfit K



Bale Press, built with Outfit G

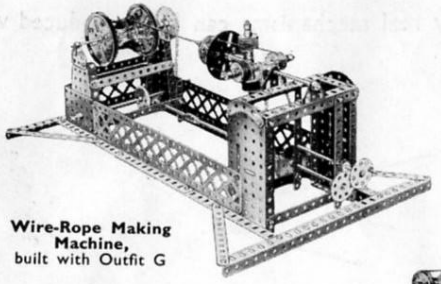


Vertical Marine Engine, built with Outfit H

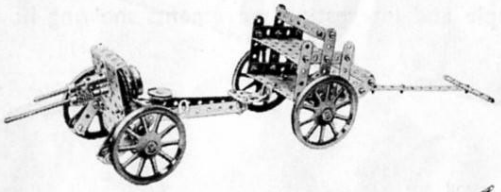
Racing Seaplane, built with Outfit L

The Possibilities of Meccano are Unlimited

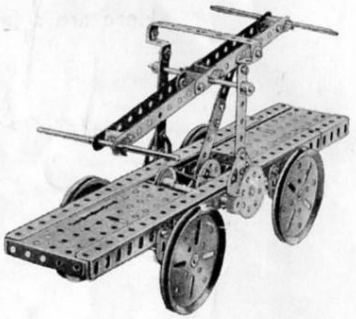
Gantry Crane,
built with Outfit H



Wire-Rope Making Machine,
built with Outfit G

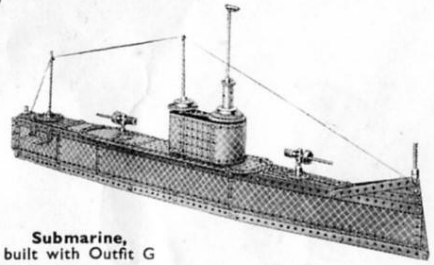


Field Gun and Carriage,
built with Outfit H

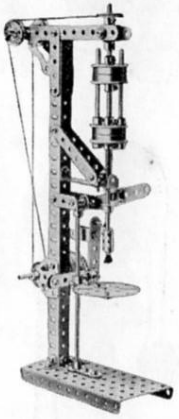


Hand Trolley,
built with Outfit F

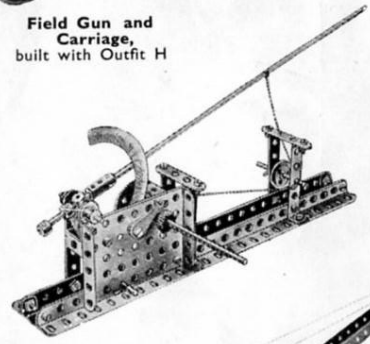
Fret Saw,
built with Outfit H



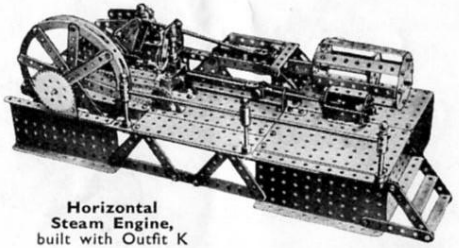
Submarine,
built with Outfit G



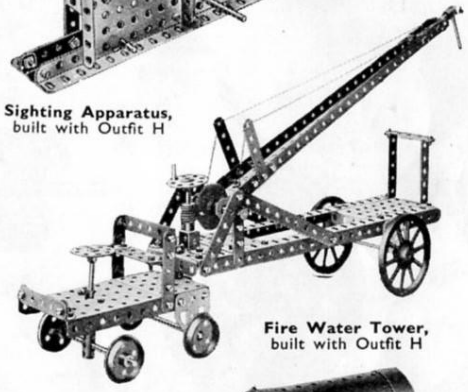
Vertical Drill,
built with Outfit H



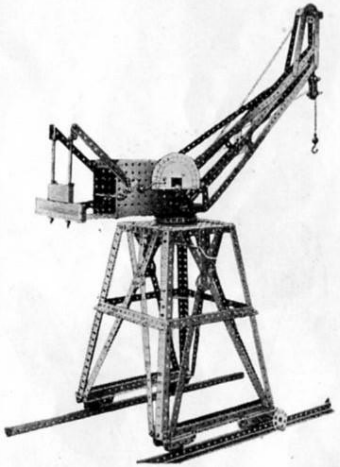
Sighting Apparatus,
built with Outfit H



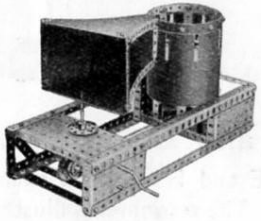
Horizontal Steam Engine,
built with Outfit K



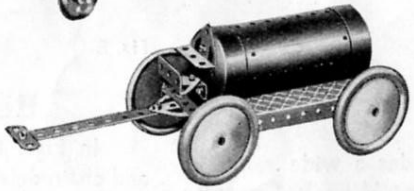
Fire Water Tower,
built with Outfit H



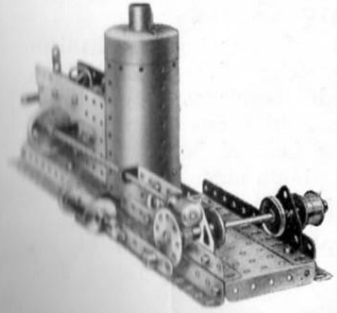
Automatic Weighing Crane,
built with Outfit K



Kinetograph,
built with Outfit F

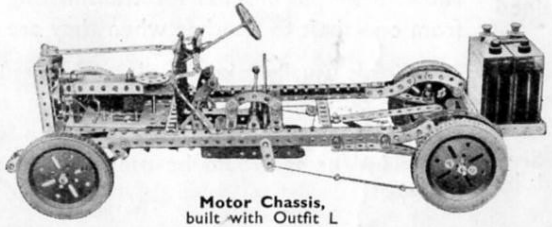


Tank Wagon,
built with Outfit F

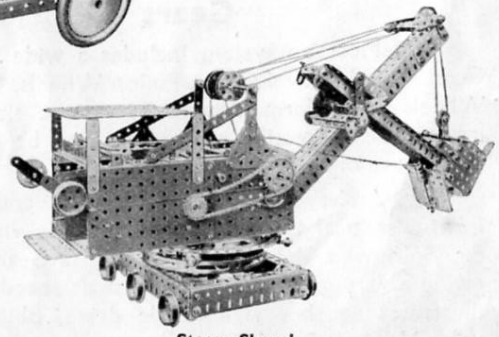


Steam Winch,
built with Outfit G

Girder Crane,
built with Outfit G



Motor Chassis,
built with Outfit L



Steam Shovel,
built with Outfit L

A Selection of Meccano Standard Mechanisms

Here are a few simple and interesting movements showing how easily real mechanisms can be reproduced with Meccano.

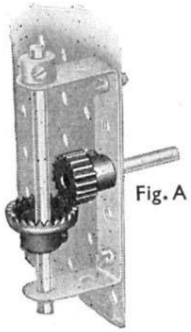


Fig. A

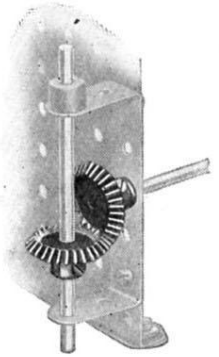


Fig. C

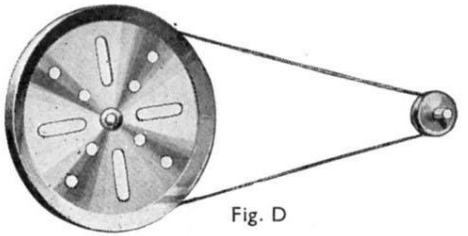


Fig. D

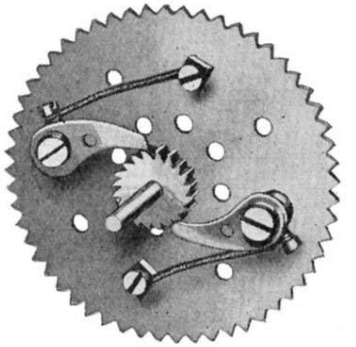


Fig. J

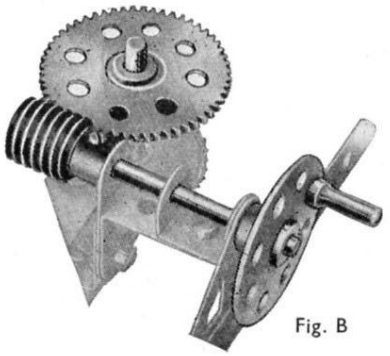


Fig. B

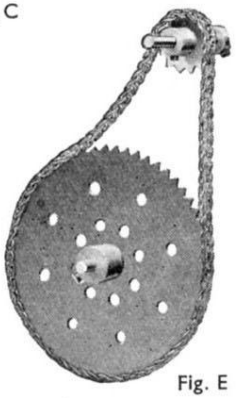


Fig. E

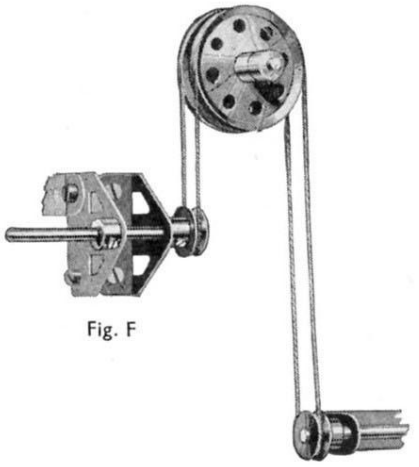


Fig. F

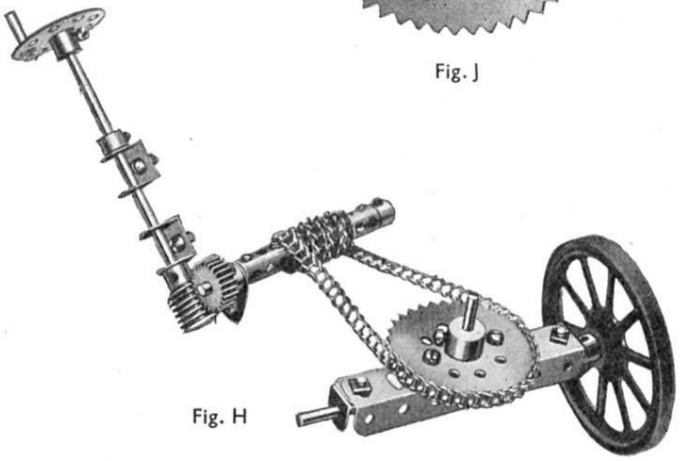


Fig. H

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 can be obtained by the use of these gears.

Fig. A shows how a drive can 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 and F we show examples of belt and chain drive. The movements illustrated require no explanation excepting, perhaps, Fig. F, which shows a simple method for transmitting the drive from one shaft to another when they are out of line.

Cords usually take the place of belts in Meccano models but miniature belting can 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 can readily be reproduced with Meccano.

Fig. H. In this case the road wheels are controlled by an endless Sprocket Chain operated by a worm and pinion mechanism.

Pawl & Ratchet Movement

By means of this type of gear it is possible to construct certain types of automatic brakes and free wheels.

Fig. J. This model illustrates the method of building up a free-wheel unit.

A Selection of Meccano Standard Mechanisms

(continued)

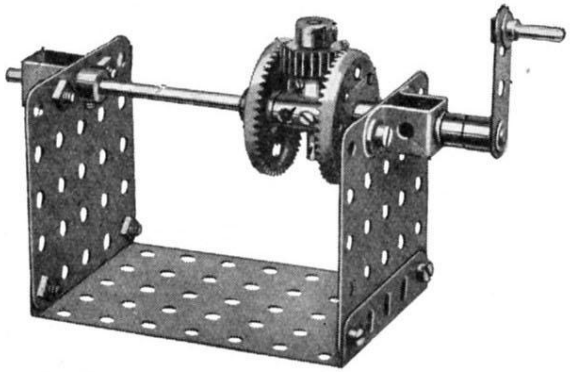


Fig. K

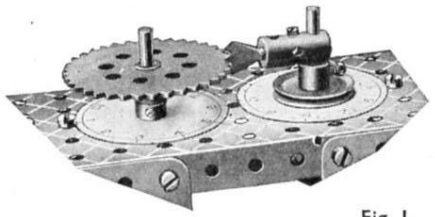


Fig. L

Epicyclic Transmission Gear

This device, Fig. K is designed to provide a gear ratio between two shafts mounted in direct line with one another. Its chief merit lies in the compactness of its construction and lack of external bearings.

Intermittent Rotary Motion

Fig. L shows one device by means of which intermittent rotary motion can be obtained. Such an arrangement is useful in revolution counters, measuring machines, etc. In addition to mechanisms that give true intermittent motion, different types of cams, converting a regular rotary motion into a constant or intermittent reciprocating motion, are described in the S.M. Manual.

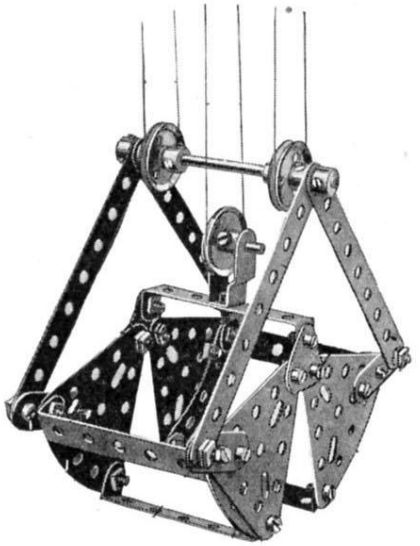


Fig. M

Grabs

A typical example of the many kinds of grab that can be constructed from Meccano is shown in Fig. M. If the grab is fitted to a model crane or ship-coaler, all the movements can be controlled from an operating box built into the frame of the model. The outer sides of the jaws may be filled in with cardboard and the grab can then be used to pick up loads of sand, grain, marbles, etc.

Screw Traverse

Fig. N shows how a Threaded Rod can be applied to a model in order to give a slow, powerful traversing movement. The model illustrated is the slide-rest of a model lathe. The rotary movement of the 1″ fast Pulley is transmitted to the tool holder via a short Threaded Rod and a Threaded Boss.

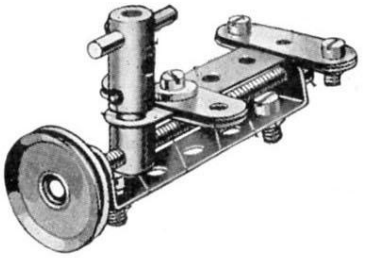


Fig. N

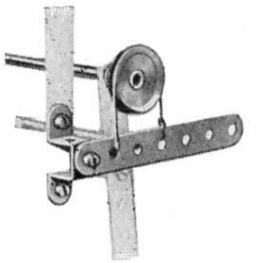


Fig. O

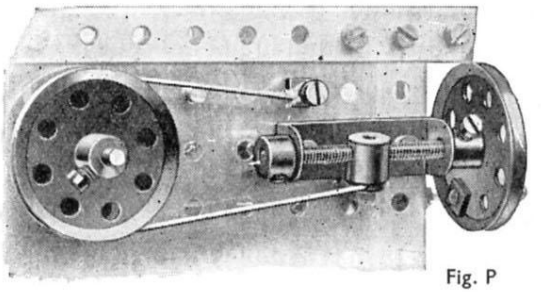


Fig. P

Strap and Lever Brake

This device, Fig. O, will be found very useful as a quick emergency hand-brake. Although it is the simplest of such devices, it is also one of the most valuable.

Strap and Screw Brake

The type of brake shown in Fig. P is used to apply a constant retarding effect to a rotating shaft. It can thus be utilised in a crane to prevent the load from falling back when the winding spindle is released. An advantage of the brake is that the speed of the shaft to which it is applied can be varied as required ; the action of the brake cannot vary when once set unless the hand wheel is turned.

No.	Description.	A	Aa	B	Ba	C	Ca	D	Da	E	Ea	F	Fa	G	Ga	H	Ha	K	Ka	L
1	Perforated Strips, 12½"	—	2	2	2	4	6	10	—	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	2	6	2	8	6	14	—	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	2	4	2	6	—	6	6	12	12	24	—	24
4	" " 3"	—	—	—	—	—	—	—	2	2	—	2	4	6	2	8	4	12	12	24
5	" " 2½"	6	3	9	—	9	3	12	—	12	—	12	6	18	18	36	—	36	84	120
6	" " 2"	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4	20	24	6	30
6a	" " 1½"	—	—	—	—	—	2	2	—	2	—	2	—	2	4	6	8	14	—	14
7	Angle Girders, 24½"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12	12
7a	" " 18½"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	6
8	" " 12½"	—	—	—	—	—	4	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	1	5	—	5	3	8	—	8	—	8	1	9	3	12	4	16	14	30
11	Double Brackets	—	2	2	—	2	2	4	—	4	—	4	1	5	3	8	—	8	4	12
12	Angle Brackets, ½"×½"	8	—	8	—	8	4	12	—	12	2	14	8	22	14	36	12	48	28	76
12a	" " 1"×1"	—	—	—	—	—	2	2	1	3	1	4	2	6	—	6	—	6	6	12
12b	" " 1"×½"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4	12	16
12c	Obtuse Angle Brackets, ½"×½"	—	—	—	4	4	—	4	—	4	—	4	—	4	—	4	—	4	—	4
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	2	4	—	4	—	4	2	6
15a	" " 4½"	—	—	—	—	—	1	1	—	1	2	3	2	5	—	5	1	6	—	6
15b	" " 4"	—	1	1	1	2	—	2	—	2	—	2	—	2	—	2	—	2	—	2
16	" " 3½"	2	—	2	1	3	1	4	—	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	—	2	3	5	—	5	4	9	3	12
18a	" " 1½"	—	—	—	2	2	2	4	—	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	—	1
19a	Wheels, 3", with set screws	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4	—	4	—	4
19b	Pulley Wheels, 3" with set screws	—	—	—	2	2	—	2	—	2	—	2	—	2	—	2	—	2	2	4
19c	" " 6" " "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20	Flanged Wheels, 1½" diam.	—	—	—	—	—	—	—	—	—	—	2	4	4	—	4	4	8	4	12
20a	Pulley Wheels, 2" with set screws	—	—	—	—	—	—	—	—	—	2	2	2	4	—	4	—	4	—	4
20b	Flanged Wheels, ¾" diam.	—	—	—	—	—	—	—	4	4	—	4	—	4	—	4	—	4	6	10
21	Pulley Wheels, 1½" with set screws	—	—	—	—	—	—	—	—	—	1	1	—	1	1	2	—	2	2	4
22	" " 1" " "	4	—	4	—	4	—	4	—	4	—	4	—	4	—	4	2	6	4	10
22a	" " 1" without,, "	—	—	—	—	—	2	2	—	2	—	2	1	3	—	3	1	4	11	15
23	" " ½" " "	—	1	1	—	1	—	1	—	1	—	1	2	3	—	3	1	4	2	6
23a	" " ½" with " "	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1	—	1	3	4
24	Bush Wheels	1	—	1	—	1	—	1	—	1	—	1	1	2	—	2	3	5	3	8
25	Pinion Wheels, ¾" diam., ¼" wide	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	3	5
25a	" " ¾" " ⅜" "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
25b	" " ¾" " ½" "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
26	" " ½" " ¼" "	—	—	—	—	—	—	—	—	—	2	2	—	2	1	3	2	5	4	9
26a	" " ½" " ⅜" "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
26b	" " ½" " ½" "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
27c	" " 95 " 2½" "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
28	Contrate Wheels, 1½" diam.	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1	1	2	—	2
29	" " ¾" "	—	—	—	—	—	—	—	—	—	—	—	2	2	—	2	—	2	—	2
30	Bevel Gears, ½", 26 teeth	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4
30a	" " ½", 16 "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
30c	" " 1½", 48 "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
31	Gear Wheels, 1", 38 "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4
32	Worms	—	—	—	—	—	—	—	—	—	1	1	1	2	—	2	—	2	—	2
34	Spanners	1	—	1	—	1	—	1	—	1	—	1	1	2	—	2	—	2	—	2
34b	Box Spanners	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
35	Spring Clips	4	2	6	2	8	6	14	—	14	—	14	5	19	—	19	5	24	12	36
36	Screwdrivers	1	—	1	—	1	—	1	—	1	—	1	—	1	—	1	—	1	—	1
36a	" extra long	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
36b	" Special	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1	—	1	—	1
37	Nuts and Bolts, 7/32"	36	—	36	30	66	—	66	24	90	34	124	32	156	44	200	144	344	280	624
37a	Nuts	4	2	6	—	6	—	6	—	6	—	6	—	6	—	6	—	6	—	6
37b	Bolts, 7/32"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
38	Washers	—	6	6	2	8	6	14	—	14	—	14	10	24	—	24	12	36	164	200
40	Hanks of Cord	1	—	1	—	1	—	1	1	2	1	3	1	4	2	6	—	6	—	6
41	Propeller Blades	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	2	4	—	4
43	Springs	—	—	—	—	—	—	—	—	—	1	1	—	1	—	1	1	2	7	9
44	Cranked Bent Strips	1	—	1	—	1	—	1	—	1	—	1	—	1	—	1	1	2	1	3
45	Double Bent Strips	—	—	—	—	—	1	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	1	2	—	2	—	2	2	4	4	8
48a	" " " 2½"×½"	2	—	2	4	6	2	8	—	8	2	10	—	10	4	14	4	18		
48b	" " " 3½"×½"	—	—	—	—	—	—	—	1	1	1	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
51	Perforated Flanged Plates, 2½"×1½"	—	—	—	1	1	—	1	—	1	—	1	—	1	—	1	—	1	—	1
52	" " " 5½"×2½"	1	—	1	—	1	—	1	—	1	1	2	—	2	2	4	3	7	—	7
52a	" Flat Plates, 5½"×3½"	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4	—	4	7	11
53	" Flanged Plates, 3½"×2½"	—	—	—	—	—	—	—	2	2	1	3	2	5	—	5	2	7	—	7
53a	" Flat Plates, 4½"×2½"	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	2	4	2	6
54	" Flanged Sector Plate, 4"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
54a	" " " " 4½"	—	2	2	—	2	—	2	—	2	—	2	—	2	—	2	—	2	2	4
55	" Strips, Slotted, 5½"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
55a	" " " 2"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
57	Hooks	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
57a	" Scientific	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
57b	" Loaded	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1
57c	" " Small	1	—	1	—	1	—	1	—	1	—	1	—	1	1	2	4	6	8	14
58	Spring Cord	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1
58a	Coupling Screws for Spring Cord	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12	12
58b	Coupling Hooks " "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
59	Collars with Set Screws	—	—	—	—	—	—	—	4	4	—	4	6	10	9	19	10	29	34	63

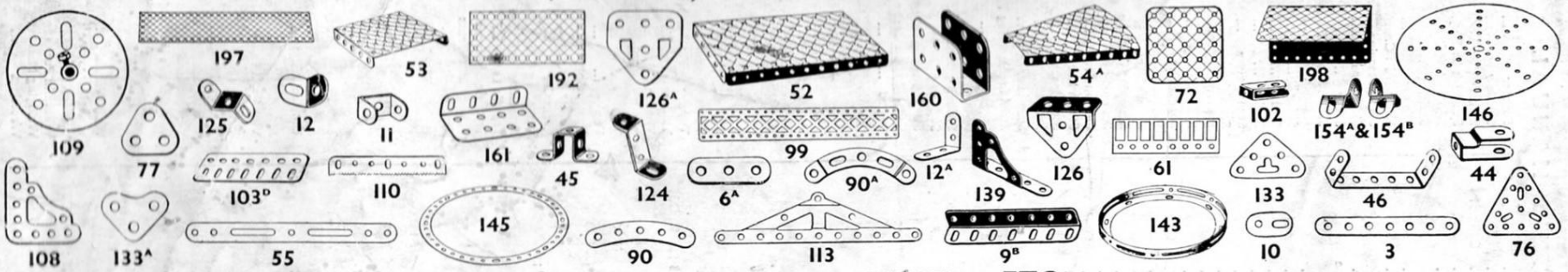
No.	Description.	A	Aa	B	Ba	C	Ca	D	Da	E	Ea	F	Fa	G	Ga	H	Ha	K	Ka	L
61	Windmill Sails	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
62	Cranks	—	—	—	—	—	2	2	—	2	—	2	—	2	—	2	2	4	10	14
62a	Cranks, Threaded	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	—	2
62b	Double Arm Cranks	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	—	2	4	6
63	Couplings	—	—	—	—	—	—	—	1	1	—	1	5	6	—	6	3	9	4	13
63a	" Octagonal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
63b	" Strip	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	—	2
63c	" Threaded	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
64	Threaded Bosses	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	3	1	4
65	Centre Forks	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1	1	2	4	6
66	Weights, 50-gramme	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
67	" 25 "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
68	Woodscrews, ½"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
69	Set Screws	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
69a	Grub Screws, 5/32"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
69b	" " 7/32"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
70	Perforated Flat Plates, 5½" × 2½"	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	5	6	1	7
72	" " " 2½" × 2½"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	2	4
73	" " " 3" × 1½"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
76	" Triangular Plates, 2½"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	6	8
77	" " " 1"	—	—	—	—	—	—	—	—	—	—	—	2	2	—	2	2	4	6	10
78	Screwed Rods, 11½"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
79	" " 8"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
79a	" " 6"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	6	—	6
89a	" " 3" Cranked	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
89b	" " 4"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
90	" " 2½"	—	—	—	—	—	—	—	2	2	—	2	2	4	2	6	10	16	—	16
90a	" " 2½" Cranked	2	2	4	—	4	—	4	—	4	—	4	—	4	—	4	4	8	2	10
94	Sprocket Chain	—	—	—	—	—	—	—	—	—	—	—	40"	40"	—	40"	5'	8'	12'	20'
95	Sprocket Wheels, 2"	—	—	—	—	—	—	—	—	—	—	—	2	2	—	2	1	3	—	3
95a	" " 1½"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	3	4
95b	" " 3"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
96	" " 1"	—	—	—	—	—	—	—	—	—	—	—	2	2	—	2	2	4	6	10
96a	" " ¾"	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1	3	4	1	5
97	Braced Girders, 3½" long	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
97a	" " 3" "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
98	" " 2½" "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
99	" " 12½" "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
99a	" " 9½" "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
99b	" " 7½" "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
100	" " 5½" "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
100a	" " 4½" "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	Rollers for Looms, Wood	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
106a	" " " Sand	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
107	Tables for Designing Machines	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
108	Architraves	—	—	—	—	—	—	—	—	—	—	—	2	2	—	2	2	4	2	6
109	Face Plates, 2½" diam.	—	—	—	—	—	—	—	—	—	—	—	1	1	1	2	2	4	7	11
110	Rack Strips, 3½"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	2	4
110a	" " 6½"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
111	Bolts, ¾"	—	—	—	—	—	—	—	1	1	1	2	1	3	—	3	6	9	9	18
111a	" 1"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7	7	17	24
111c	" ½"	4	2	6	—	6	—	6	—	6	—	6	—	6	—	6	—	6	6	12
113	Girder Frames	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
114	Hinges	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
115	Threaded Pins	—	—	—	—	—	1	1	—	1	1	2	—	2	—	2	—	2	7	9
116	Fork Pieces, Large	—	—	—	—	—	—	—	—	—	1	1	—	1	—	1	1	2	—	2
116a	" " Small	—	—	—	—	—	—	—	—	—	1	1	—	1	—	1	—	1	3	4
117	Steel Balls, ⅜" diam.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
118	Hub Discs, 5½" diam.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	3	4
119	Channel Segments (8 to circle) 11½" diam.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	8	8	16
120	Buffers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
120a	Spring Buffers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	6
120b	Compression Springs	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	2	4
121	Train Couplings	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
122	Miniature Loaded Sacks	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
123	Cone Pulleys	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
124	Reversed Angle Brackets, 1"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4	—	4
125	" " " ½"	1	1	2	—	2	2	4	—	4	—	4	—	4	—	4	—	4	5	9
126	Trunnions	2	—	2	—	2	—	2	—	2	—	2	2	4	—	4	—	4	—	4
126a	Flat Trunnions	2	—	2	—	2	—	2	—	2	—	2	2	4	1	5	—	5	3	8
127	Simple Bell Cranks	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
128	Boss Bell Cranks	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	1	2	—	2
129	Rack Segments, 3" diam.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4
130	Triple Throw Eccentrics	—	—	—	—	—	—	—	—	—	—	—	2	2	—	2	—	2	—	2
131	Dredger Buckets	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	5
132	Flywheels, 2½" diam.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
133	Corner Brackets, 1½"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	8	—	8
133a	" " 1"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
134	Crank Shafts, 1" stroke	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
135	Theodolite Protractors	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1
136	Handrail Supports	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4	4	8
136a	" Coupling	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
137	Wheel Flanges	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4	6	10
138	Ship's Funnels	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
138a-z	" " Raked	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
139	Flanged Brackets, Right	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
139a	" " Left	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
140	Universal Couplings	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
141	Wire Lines (for clock-weights)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
142	Rubber Rings, 3"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	3
142a	Motor Tyres, 2"	—	—	—	—	—	—	—	—	—	—	—	4	4	—	4	—	4	—	4
142b	" " 3"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4

No.	Description.	A	Aa	B	Ba	C	Ca	D	Da	E	Ea	F	Fa	G	Ga	H	Ha	K	Ka	L
142c	Motor Tyres 1″	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
142d	,, ,, 1½″	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
143	Circular Girders, 5½″ diam.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1
144	Dog Clutches	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1
145	Circular Strips, 7″ diam.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
146	,, Plates, 6″ diam.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
146a	,, ,, 4″ ,,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
147	Pawls with pivot bolt and nuts	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
147a	Pawls	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
147b	Pivot Bolt with 2 Nuts	—	—	—	—	—	—	—	—	—	1	1	—	1	—	1	1	2	6	8
147c	Pawl, without Boss	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1	1	2	—	2
148	Ratchet Wheels	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
149	Collector Shoes for Locos	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
150	Crane Grabs	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
151	Pulley Blocks, 1 Sheave	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
152	,, ,, 2 Sheaves	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
153	,, ,, 3 ,,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
154a	Corner Angle Brackets, ½″ R.H.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
154b	,, ,, ½″ L.H.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
155	Rubber Rings ⅝″	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
156	Pointers, 2½″, with boss	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
157	Fans 2″ diam.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
158a	Signal Arms, Home	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
158b	,, ,, Distant	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
160	Channel Bearings, 1½″×1″×½″	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1	—	1	—	1
161	Girder Brackets, 2″×1″×½″	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
162	Boiler with ends, complete	—	—	—	—	—	—	—	—	—	1	1	—	1	—	1	—	1	—	1
162a	Boiler Ends	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
162b	Boilers without Ends	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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 Bearings	—	—	—	—	—	—	—	—	—	1	1	—	1	—	1	2	3	3	6
167	Geared Roller Bearings	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
167a	Roller Races, Geared, 192 teeth	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
167b	Ring Frames for Rollers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
167c	Pinions	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
168	Ball Bearings, 4″ diam.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
168a	Ball Races, Flanged Disc	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
168b	,, ,, Toothed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
168c	Ball Casings complete with Balls	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
169	Digger Buckets	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
170	Eccentrics ¼″ throw	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
171	Socket Couplings	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
172	Pendulum Connections	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
173	Rail Adaptors	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
174	Grease Cups	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
175	Flexible Coupling Units	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
176	Anchoring Springs for Cord	1	—	1	—	1	—	1	—	1	—	1	—	1	—	1	—	1	—	1
177	Shafting Standard, Large	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
178	,, ,, Small	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
179	Rod Socket	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
180	Gear Ring 3½″	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
181	Bobbins	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
182	Insulating Bushes	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	8
183	Lamp Holders	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
184a	Lamps, 2½ volt	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
184b	,, 3½ ,,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
184c	,, 6 ,,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
184d	,, 10 ,,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
184e	,, 20 ,,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
185	Steering Wheel, 1¾″ diam.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
186	Driving Bands	1	—	1	—	1	—	1	—	1	—	1	—	1	—	1	—	1	—	1
187	Road Wheels	1	1	2	2	4	—	4	—	4	—	4	—	4	—	4	—	4	—	4
188	Flexible Plates, 2½″×1½″	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
189	,, ,, 5½″×1½″	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
190	,, ,, 2½″×2½″	2	—	2	2	4	—	4	—	4	—	4	—	4	—	4	—	4	—	4
191	,, ,, 4½″×2½″	—	2	2	—	2	—	2	—	2	—	2	—	2	—	2	—	2	—	2
192	,, ,, 5½″×2½″	—	—	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
193	Strip ,, 2½″×2½″	—	—	—	—	—	—	—	—	—	1	1	—	1	—	1	3	4	—	4
194	,, ,, 3½″×2½″	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4	—	4
195	,, ,, 5½″×2½″	—	—	—	—	—	2	2	—	2	—	2	4	6	—	6	2	8	8	16
196	,, ,, 9½″×2½″	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	—	2
197	,, ,, 12½″×2½″	—	—	—	—	—	—	—	2	2	—	2	2	4	—	4	4	8	10	18
198	Hinged Flat Plates, 4½″×2½″	—	—	—	1	1	—	1	—	1	—	1	—	1	—	1	—	1	—	1
1563	Terminals	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	3
1570	Washers, insulating	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	8
1575	6 B.A. Screws	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9	9
1583	6 B.A. Nuts	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15	15
	Clockwork Motor No. 2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	Electric Motor No. E6 (6 volt)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	Special Instruction Leaflets																			
	No. 1—Motor Chassis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	,, 2—High-speed Ship-Coaler	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	,, 5—Dredger	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	,, 6—Stiff Leg Derrick	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	,, 7—Platform 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
	,, 31—Warehouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	,, 35—Automatic Grabbing Crane	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	,, 36—Electric Derrick Crane	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
	,, 37—Howitzer Limber and Tractor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	1

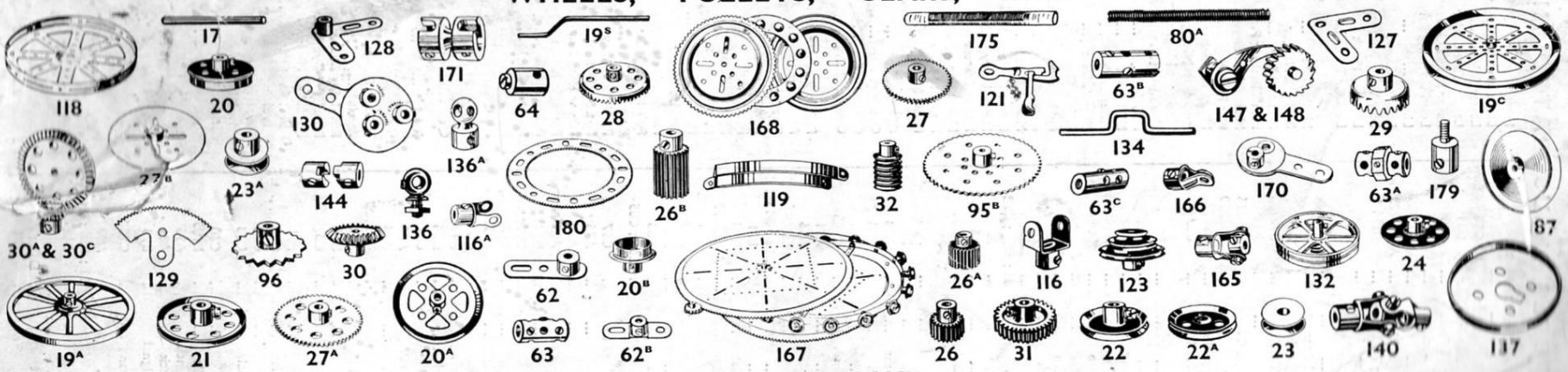
LIST OF MODELS ILLUSTRATED IN THIS MANUAL

MECCANO PARTS & ACCESSORIES

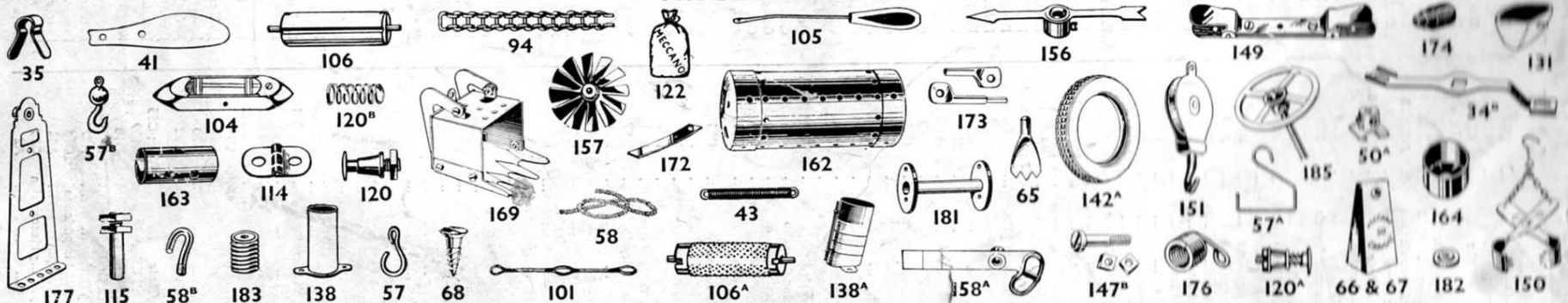
PLATES, STRIPS, GIRDERS & BRACKETS



WHEELS, PULLEYS, GEARS, ETC.



MISCELLANEOUS



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