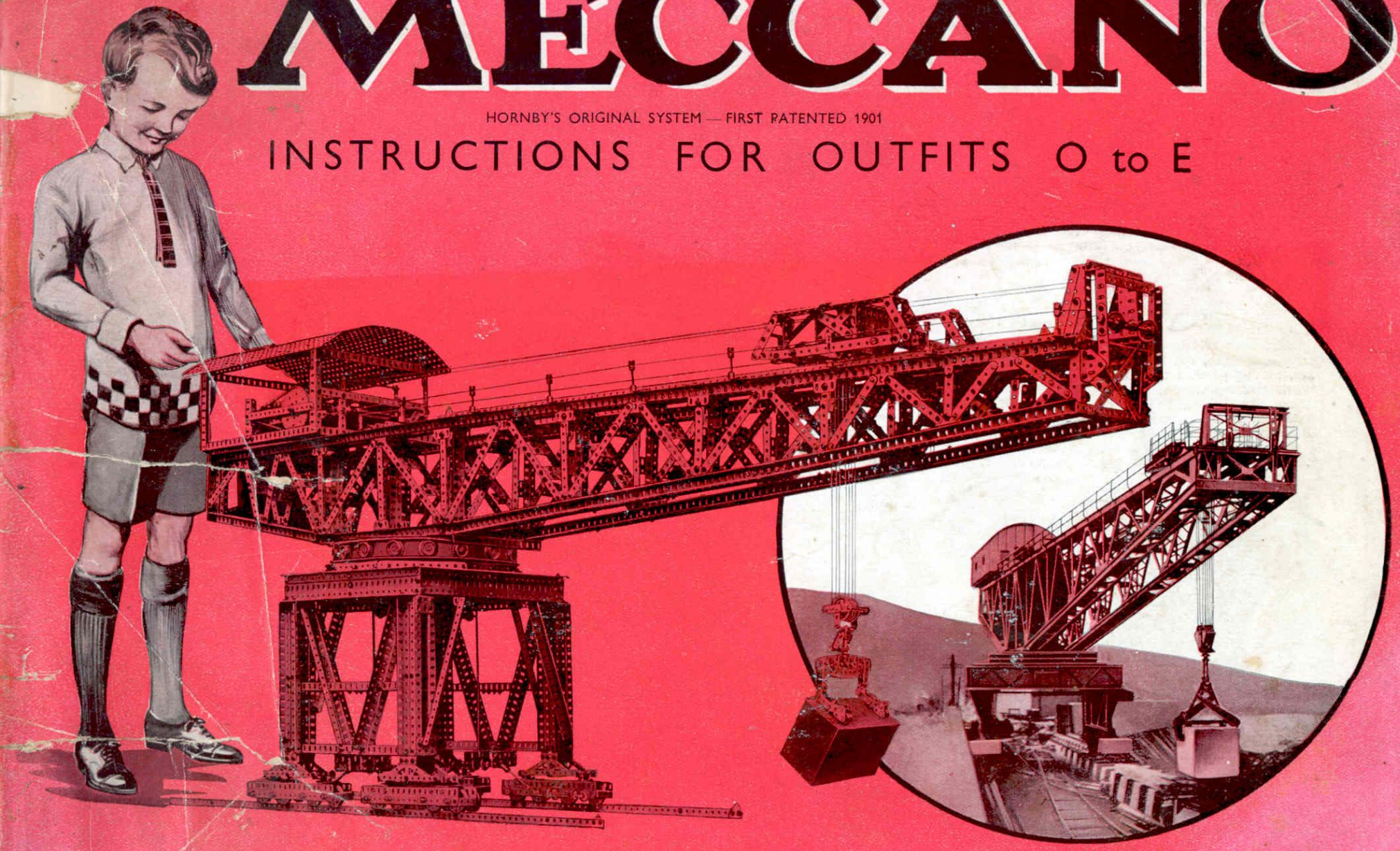
MECCANO

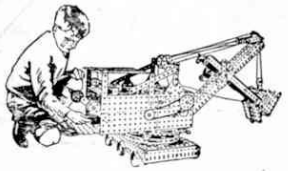
HORNBY'S ORIGINAL SYSTEM — FIRST PATENTED 1901

INSTRUCTIONS FOR OUTFITS O to E



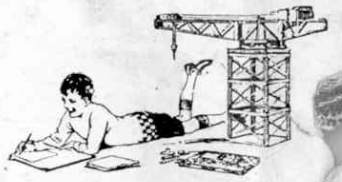
360-E

13/636/.75 (Aus.)



MECCANO

REAL ENGINEERING IN MINIATURE



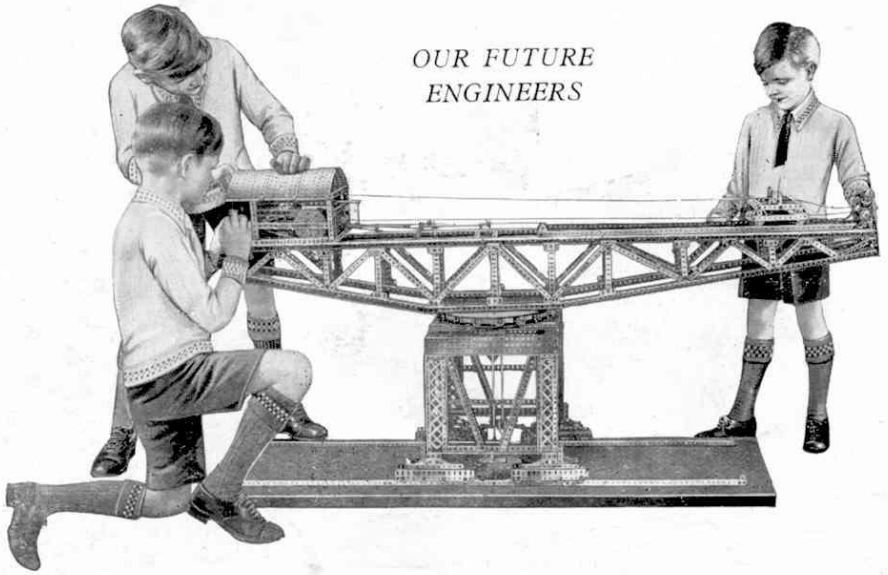
MODEL-BUILDING WITH MECCANO

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 a spanner, both of which are provided in each 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 eleven different Outfits. All the 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 can be converted into the one next higher by the purchase of an Accessory Outfit. Thus, Meccano Outfit O can be converted into an A by adding to it an Oa Accessory Outfit. An Aa would then convert it into a B 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 can be bought separately at any time in any quantity from your Meccano dealer.



OUR FUTURE ENGINEERS

ELECTRIC LIGHTING OF MECCANO MODELS

It is great fun to illuminate your Meccano models by electric light, and a special Meccano Lighting Set can 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 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.

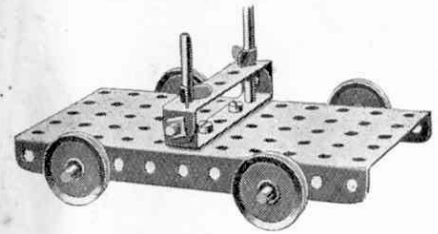
Meccano Clubs are founded and established under the guidance of the Guild Secretary at Headquarters, and at the present time there are active Clubs in nearly 250 towns and villages in the United Kingdom, and more than 100 in countries overseas. Each Club has its Leader, Secretary, Treasurer, and other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

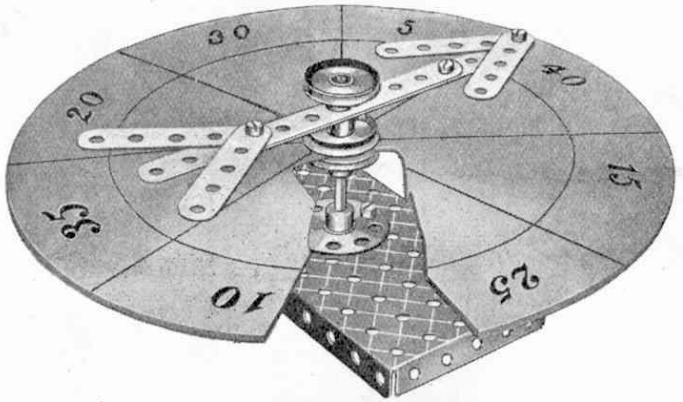
MECCANO SERVICE

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 hundreds of 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.*

O1. Lumber Truck

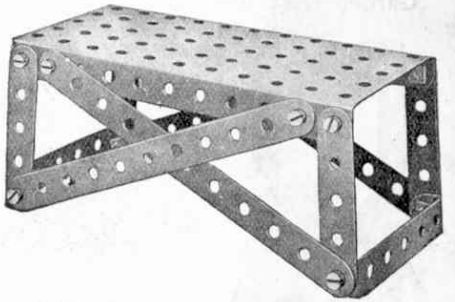


O8. Roulette Wheel

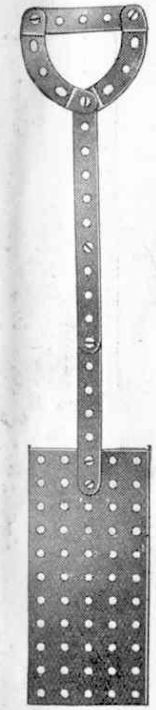


Cut out a circular piece of cardboard and mark as shown to form the scoring board, which is clamped between two 1″ Pulleys. The pointer revolves freely on the upright spindle.

O17. Planing Bench

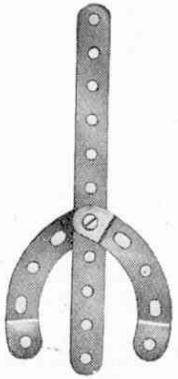


O2. Spade

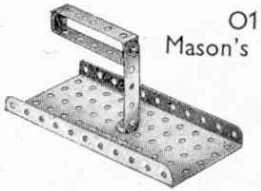


O3. Flower Pot Stand

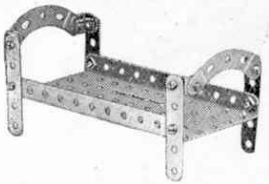
O4. Fork



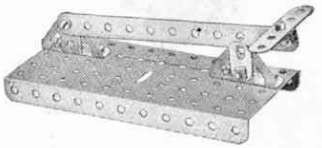
O12. Mason's Trowel



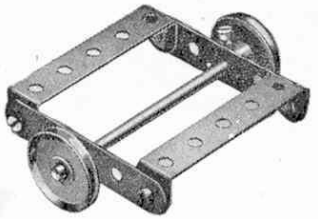
O18. Crib



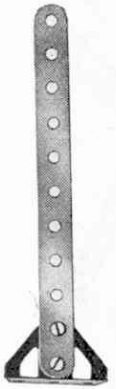
O9. Switch



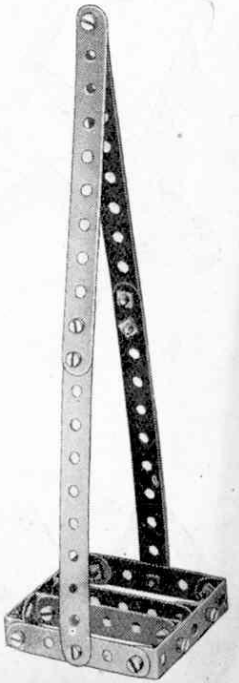
O13. Trolley



O14. Hoe

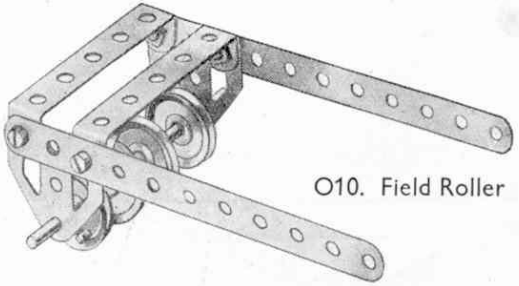


O19. Potato Chopper



O5. Dividers

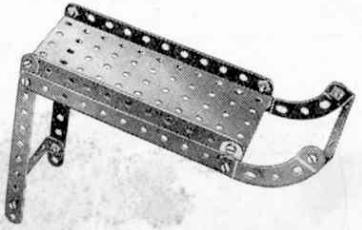
O10. Field Roller



O15. Cement Marker

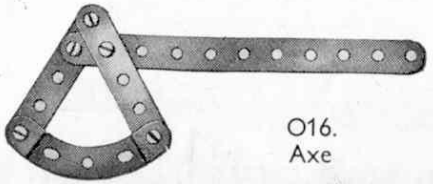
O6. Motor Boat

O11. Chute

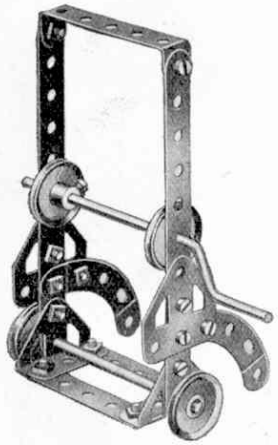


O7. Two-Hand Saw

O16. Axe

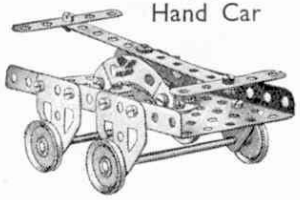


O20.
Garden Hose Reel



O23. Violin

O24.
Hand Car

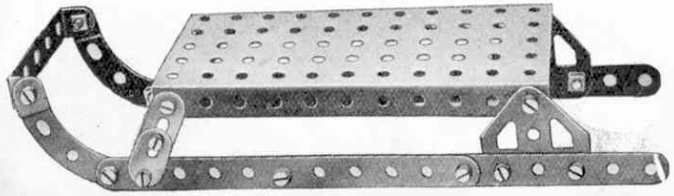


O21. Sawing Horse

On one side of the Flanged Plate, Flat Trunnions are used for supporting the axles, and Trunnions are used on the other side. The dummy handles pivot on a 2″ Rod.

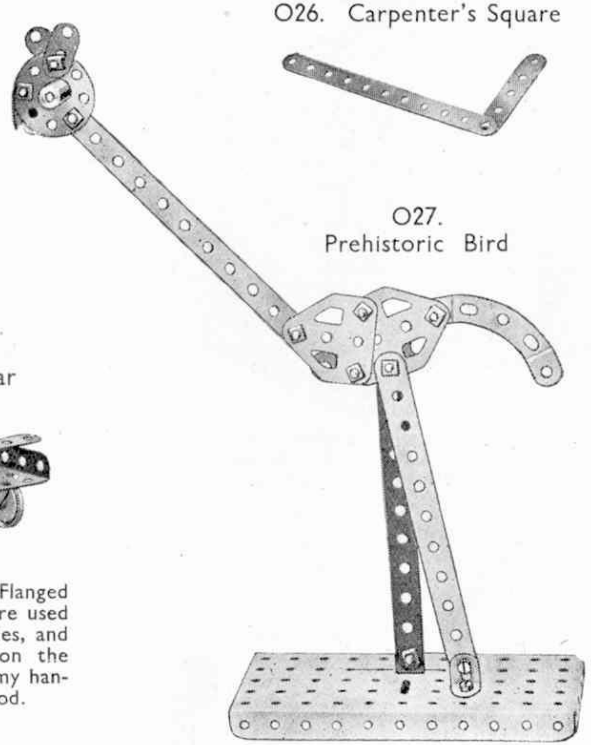
O25. Piano Stool

O22. Sledge



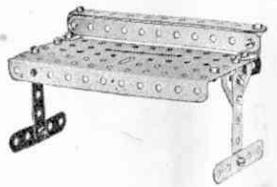
O26. Carpenter's Square

O27.
Prehistoric Bird

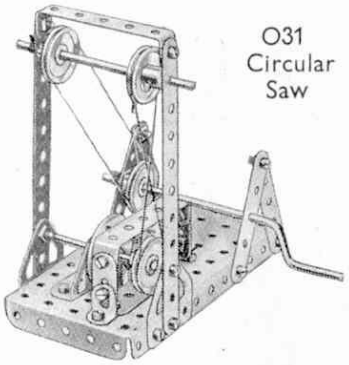


O29.
Hand Cart

O30. Desk

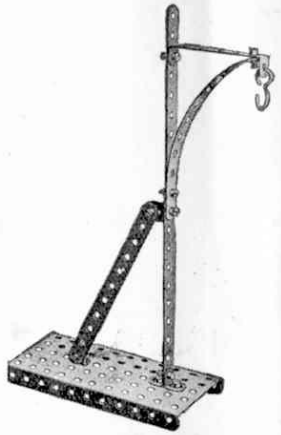


O31
Circular
Saw

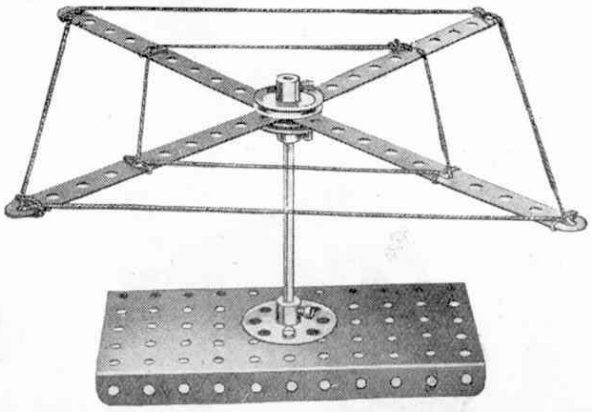


A Bush Wheel represents the circular saw and is driven from the Crank Handle through two sets of Pulleys and belts of cord.

O32.
Mail Bag Hanger

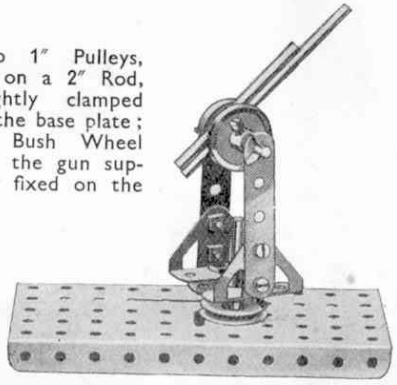


O28. Clothes Hanger

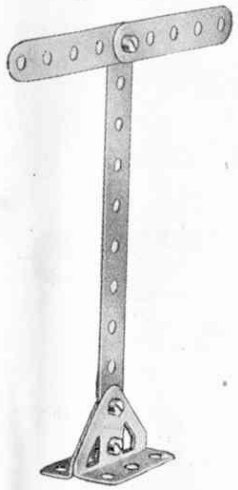


O33. Anti-Aircraft Gun

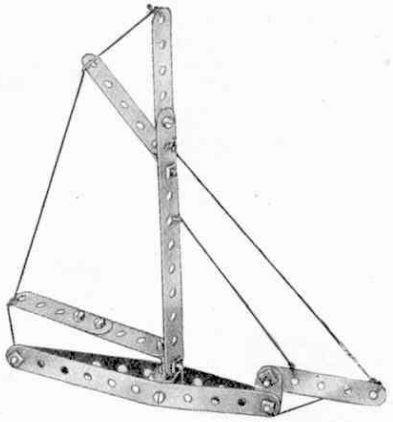
Two 1″ Pulleys, carried on a 2″ Rod, are lightly clamped against the base plate; and a Bush Wheel carrying the gun supports is fixed on the Rod.



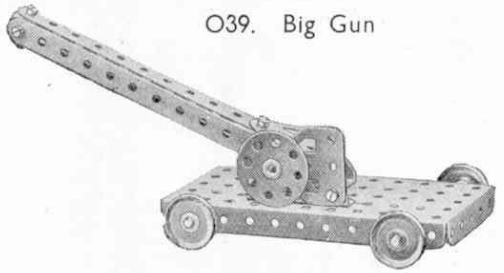
O34. 2-Way Sign Post



O38. Yacht

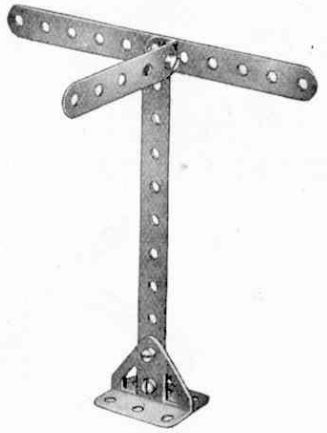


O39. Big Gun

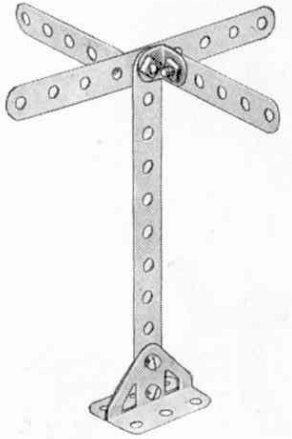


The gun barrel is made of 5½" Strips, and at its lower end is bolted to a Flat Trunnion that is fixed by Angle Brackets between two Trunnions bolted to the base. A Bush Wheel forms a dummy handwheel.

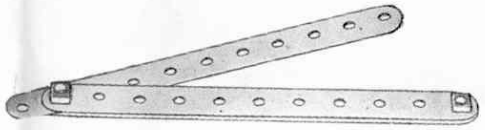
O44. 3-Way Sign Post



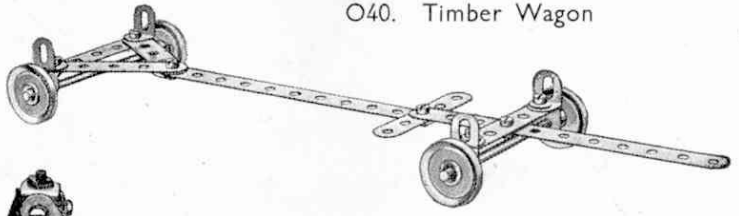
O47. 4-Way Sign Post



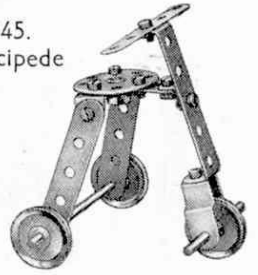
O35. Razor



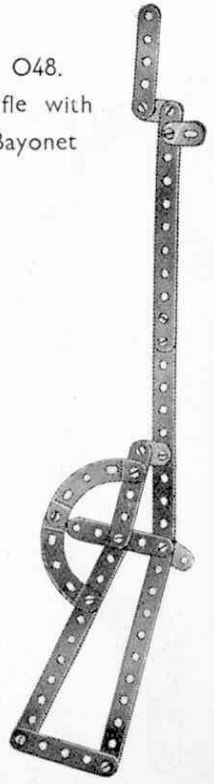
O40. Timber Wagon



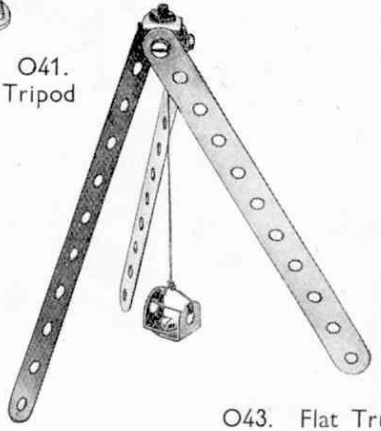
O45. Velocipede



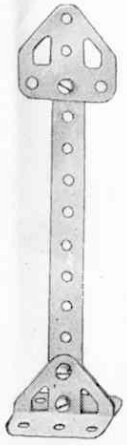
O48. Rifle with Bayonet



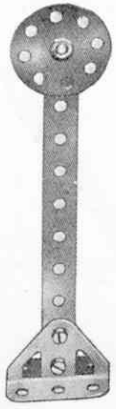
O41. Tripod



O36. Road Sign

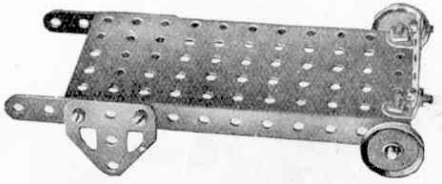


O37. Road Sign



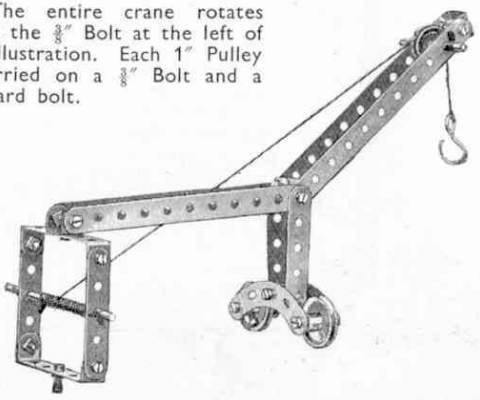
O42. Cannon

O43. Flat Truck



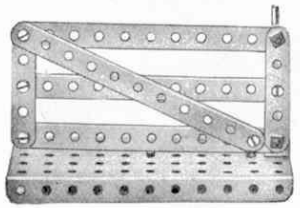
O46. Radial Travelling Crane

The entire crane rotates about the ⅜" Bolt at the left of the illustration. Each 1" Pulley is carried on a ⅜" Bolt and a standard bolt.



O49. Farm Sight

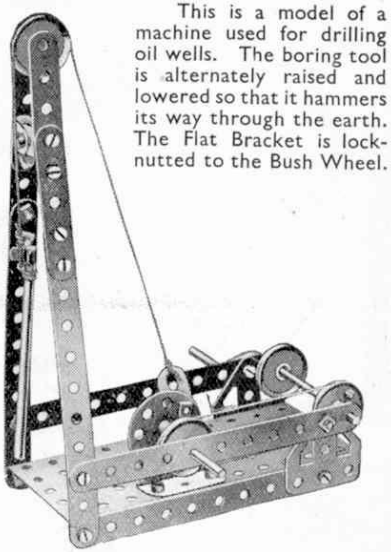
O52. Gate



O55. Drinking Trough

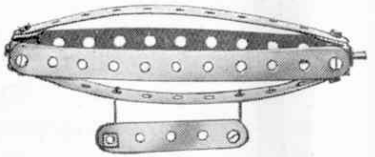
O58. Well Driller

This is a model of a machine used for drilling oil wells. The boring tool is alternately raised and lowered so that it hammers its way through the earth. The Flat Bracket is lock-nutted to the Bush Wheel.

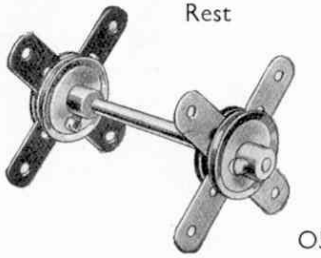


O63. Trowel

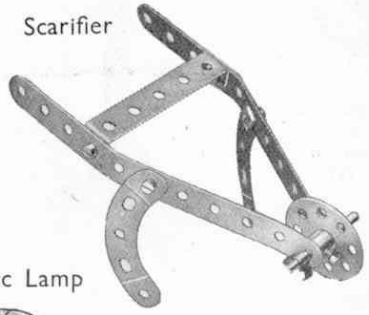
O64. Airship



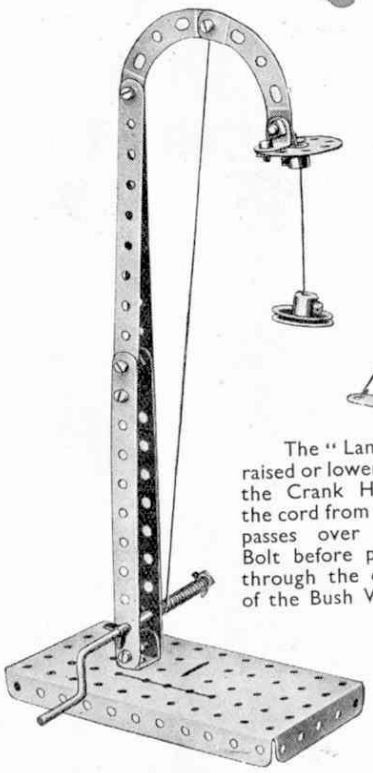
O50. Cutlers' Rest



O53. Scarifier

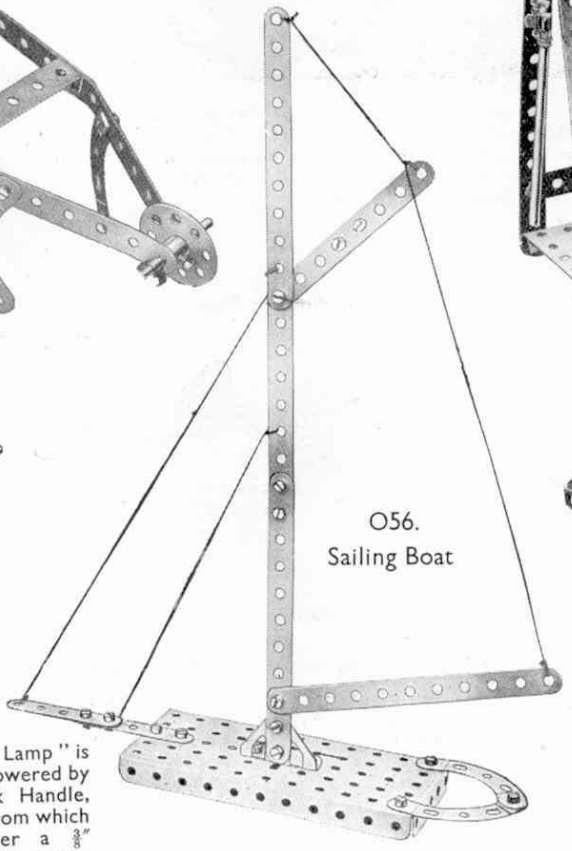


O54. Arc Lamp

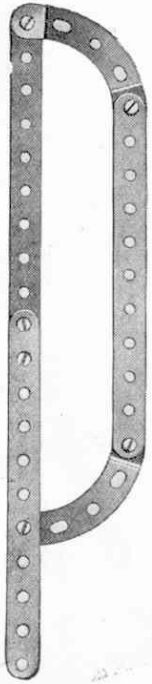


The " Lamp " is raised or lowered by the Crank Handle, the cord from which passes over a $\frac{3}{8}$" Bolt before passing through the centre of the Bush Wheel.

O56. Sailing Boat



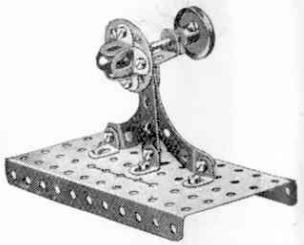
O51. Meat Saw



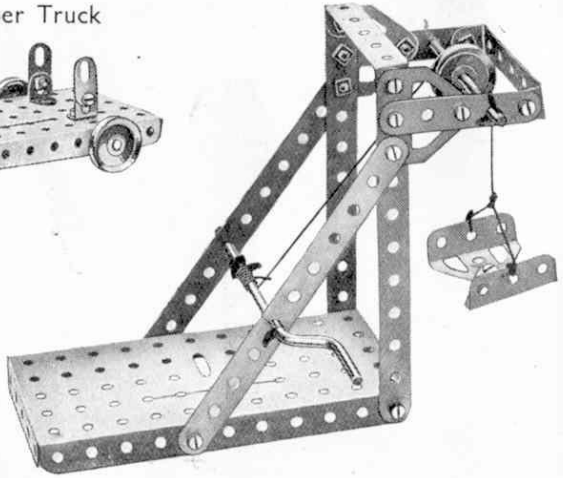
O59. Rake

O61. Bed

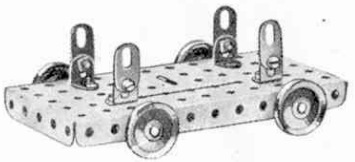
O65. Scrap Reel



O66. Pit-Head Gear



O62. Lumber Truck

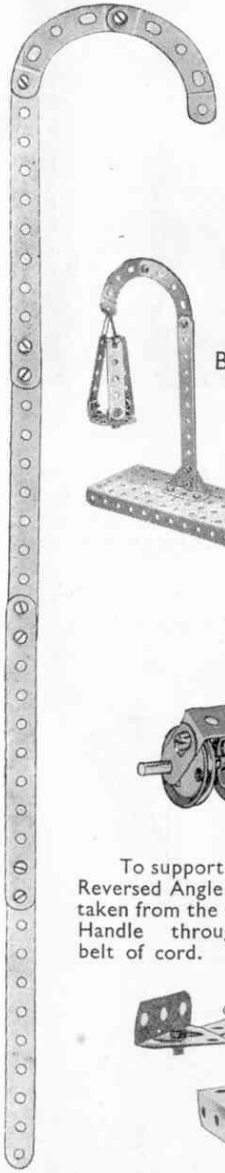


O60. Book End

O57. Track Gauge

O67. Tin Opener

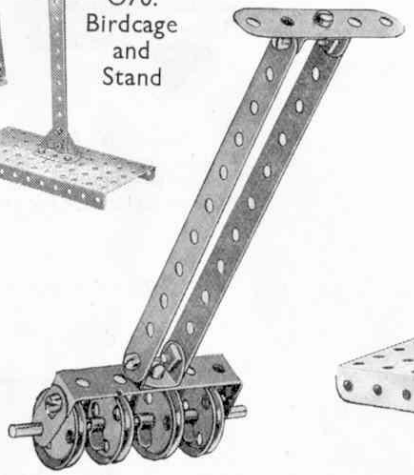
O68. Walking Stick



O69. Plasterer's Hawk

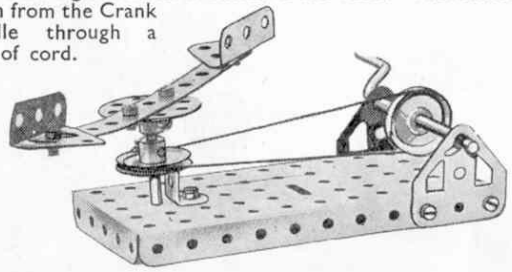
O70. Birdcage and Stand

O71. Garden Roller

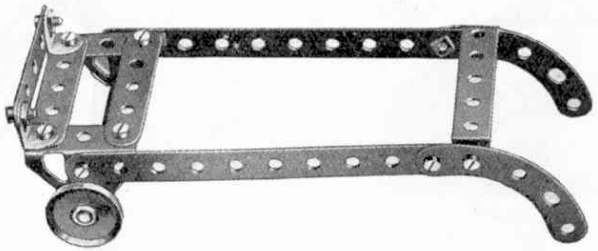


O72. Roundabout

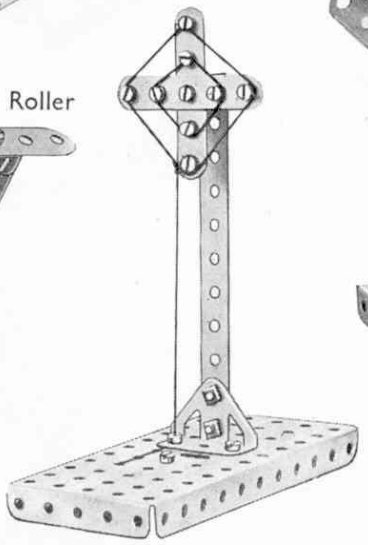
To support the vertical Rod carrying the roundabout a Reversed Angle Bracket is bolted to the Plate. The drive is taken from the Crank Handle through a belt of cord.



O73. Porter's Trolley

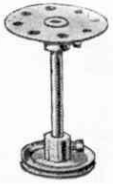


O74. Frame Aerial

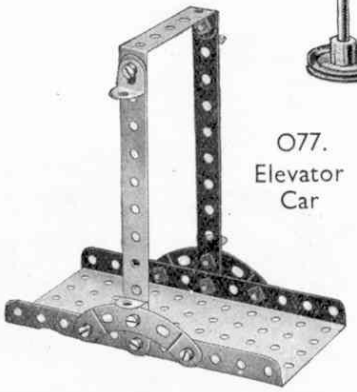


O75. Print Trimmer

O76. Stool

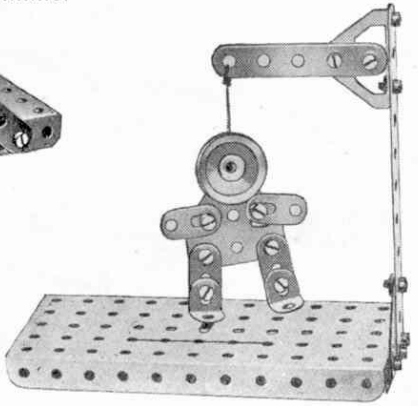


O77. Elevator Car

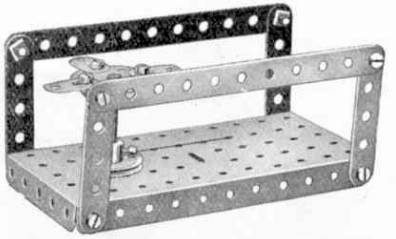


O78. Ice Yacht

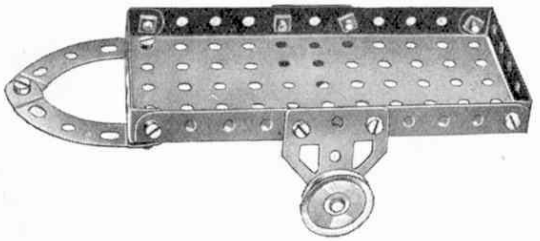
O79. Gallows



O80. Turnstile

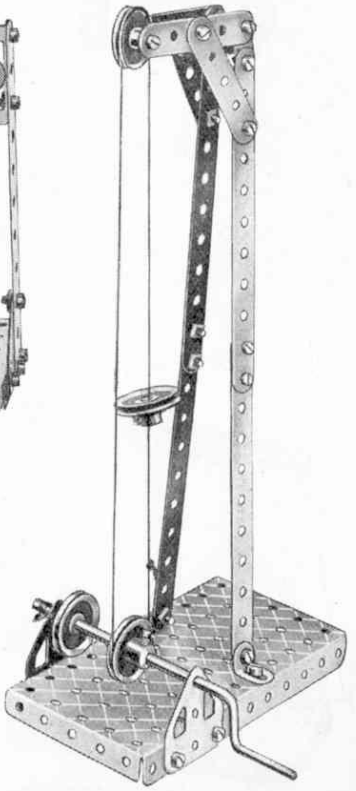


O81. Hand Truck

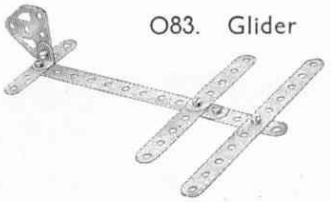


O82. Airship Mooring Mast

The 1″ Pulley attached to the cord can be raised or lowered, and represents the lift for conveying passengers to and from the airship.

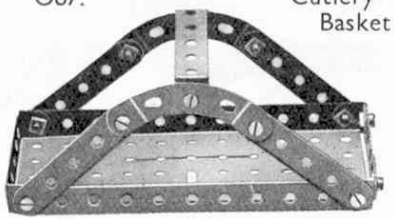


O83. Glider



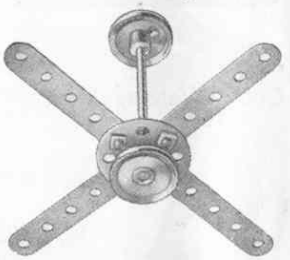
O86. Pulley Shafting

O87. Cutlery Basket

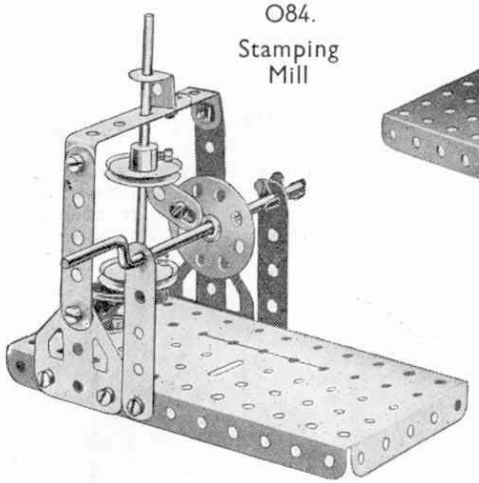


O91. Mail Bag Hanger

O94. Ceiling Fan

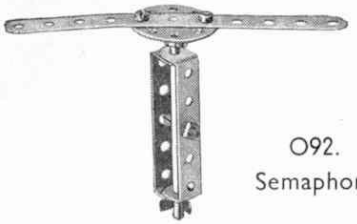


O84. Stamping Mill

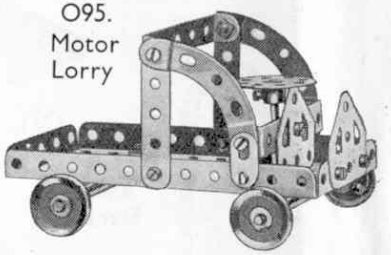


As the Crank Handle is turned the stamp is alternately raised and lowered by the Flat Bracket attached to the Bush Wheel.

O88. Helicopter Toy

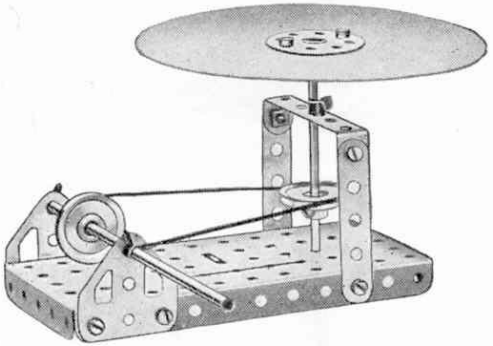


O95. Motor Lorry



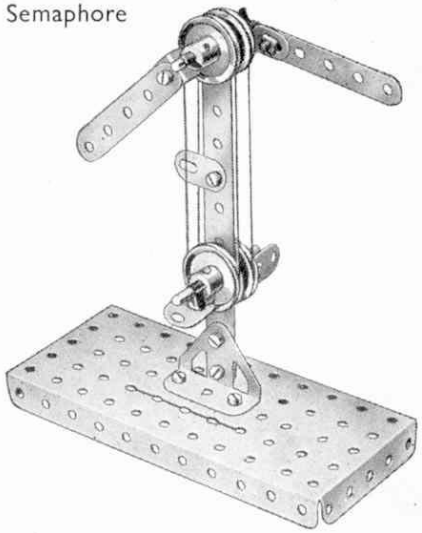
The Axle Rods carrying the 1" Pulleys are mounted in Angle Brackets bolted beneath the Flanged Plate. A Bush Wheel is used for a dummy steering wheel.

O89. Joy Wheel

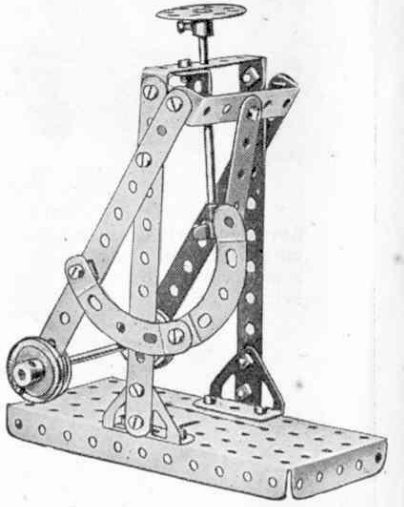


Stiff Cardboard is used for the disc and is bolted to a Bush Wheel. It is rotated by a belt of cord from the Crank Handle.

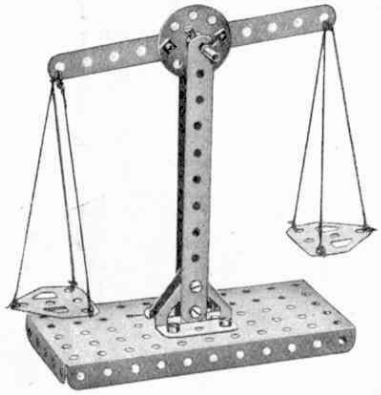
O92. Semaphore



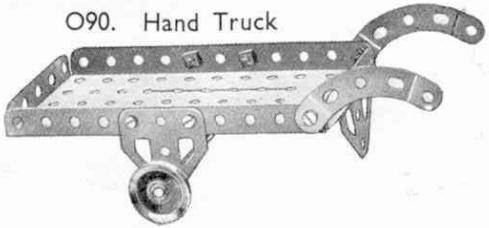
O96. Letter Balance



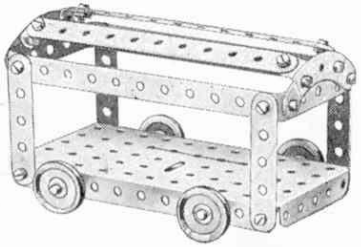
O85. Scales



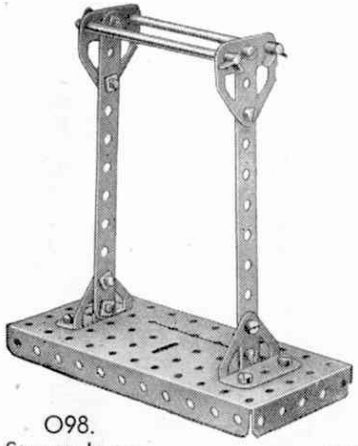
O90. Hand Truck



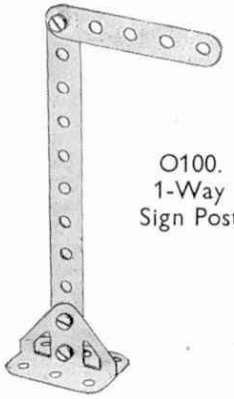
O93. Pullman Car



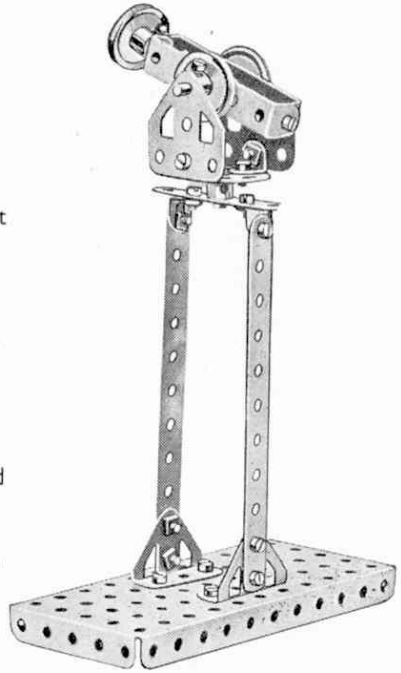
O97. Towel Horse



O100. 1-Way Sign Post



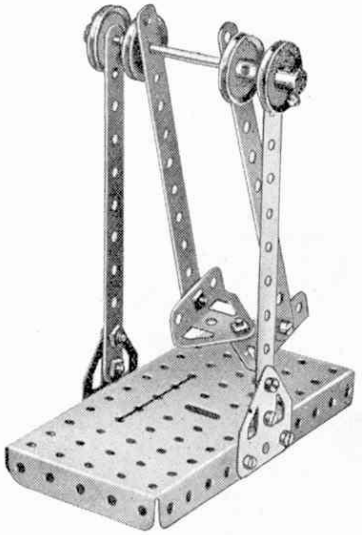
O102. Searchlight



The searchlight can be rocked up or down on a 2" Rod carried in Flat Trunnions, and the upper framework swivels on the ⅜" Bolt fixing the Bush Wheel.

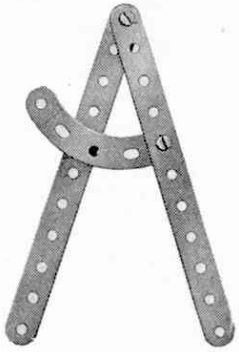
O103. Table

O106. Swing



O98. Street Lamp

O99. Dividers



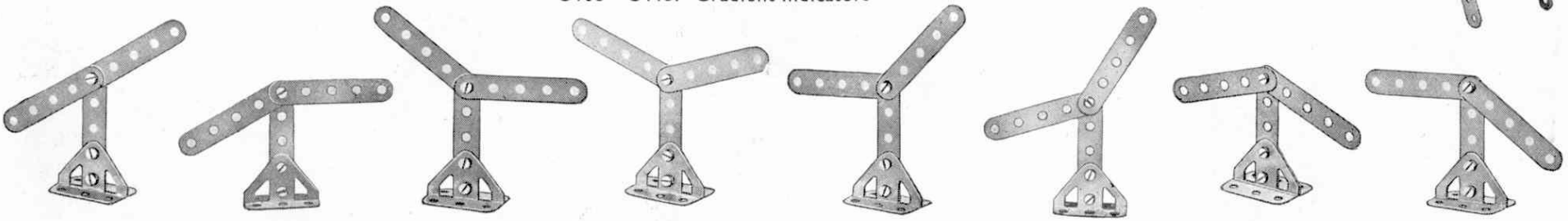
O101. Umbrella Stand

O104. Cheese Cutter

O105. Tweezers

O107. Step Ladder

O108—O115. Gradient Indicators



HOW TO CONTINUE

When you have built the O Outfit Models illustrated, and fitted a number of them with the Meccano Magic Motor (see next page), your next step is to purchase an Oa Accessory Outfit. This converts your O Outfit into an A and enables you to build bigger and better models.

This page features a selection of Meccano Outfit O working models of a type rather more advanced than the 115 examples shown in the following pages. In four instances the models are fitted with the Meccano Magic Motor, which makes them work just like the real thing. Try your hand at building bigger and better models with the parts in your Outfit and become a real inventor.

O116. STEAM SHOVEL

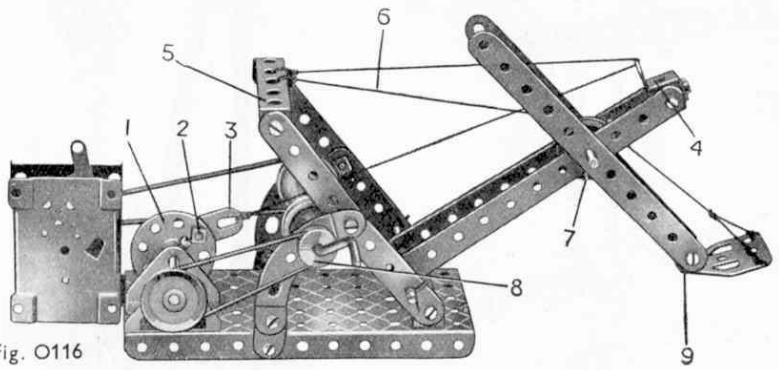


Fig. O116

This model is driven from the Magic Motor, mounted as shown. The Bush Wheel 1 has a Flat Bracket pivotally attached to it by means of the lock-nutted Bolt 2. Care must be taken with the fitting of the cords to ensure that the model will function correctly. A cord attached to the Flat Bracket 3 passes through a hole in the Reversed Angle Bracket 4, and is secured to the Double Angle Strip 5. A second cord 6 is fastened to the shovel and passing over the Pulley 7, is also secured to the Double Angle Strip 5. The Pulley 8 is supplied with the Magic Motor. Two $\frac{1}{2}'' \times \frac{1}{2}''$ Angle Brackets 9 are bolted together to form a Double Bracket which is bolted to the flat trunnion.

O117. FORGING HAMMER

The hammer, two $2\frac{1}{2}''$ Strips overlapping two holes, is pivotally mounted on a 2" Axle Rod, by means of two $\frac{1}{2}''$ Angle Brackets bolted together forming a double bracket 1. It is actuated by a $2\frac{1}{2}''$ Strip 2 bolted to a Bush Wheel that is rotated by a Driving Band 3 (crossed), passing round Pulleys 4 and 5, the latter of which is provided with the Magic Motor. The Pulley 6 is rotated by a second Driving Band that is fitted to the Pulley on the motor driving shaft.

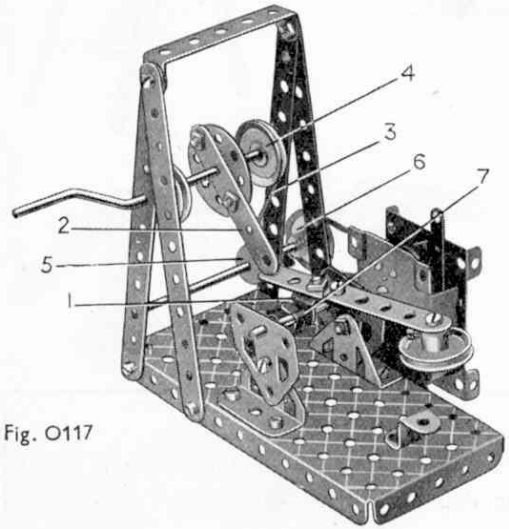


Fig. O117

O118. DERRICK CRANE (HAND OPERATED)

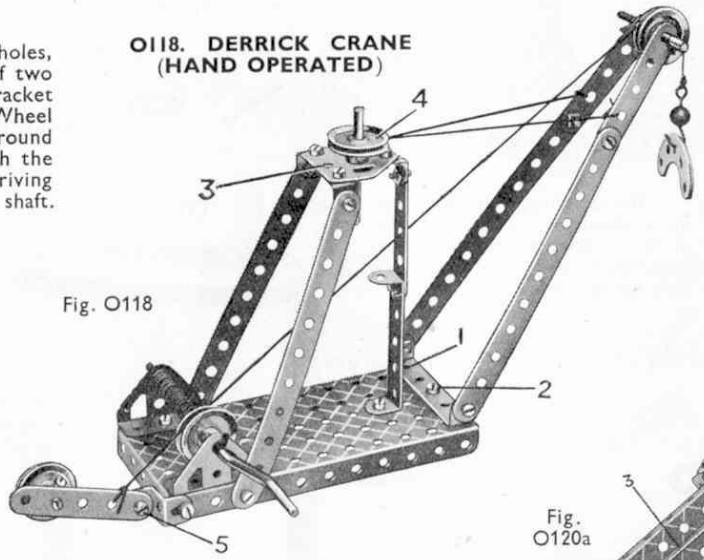


Fig. O118

The side members of the jib are bolted at their lower end to a $2\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strip 1, which is pivotally secured to the base by a lock-nutted Bolt 2. The Flat Trunnion 3 carries in its centre hole a 2" Axle Rod to which is fitted a Pulley 4. The length of cord supporting the jib is passed round this Pulley and attached to the jib head, as shown. The band brake is lock-nutted at 5 to a Reversed Angle Bracket.

O119. POWER HACK SAW

The fitting of the Magic Motor and the Driving Bands is clearly shown in the illustration. The saw frame slides on a $3\frac{1}{2}''$ Axle Rod held in position by means of a Flat Bracket bent over. It is driven to and fro by means of the rotating Bush Wheel to which it is pivoted. The Axle Rod 3 is journalled in the bottom hole of a $2\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strip, and one hole of a Reversed Angle Bracket 2. The saw is pivotally attached to the Bush Wheel by a lock-nutted Bolt 1. The Pulley 4 is provided with the Motor.

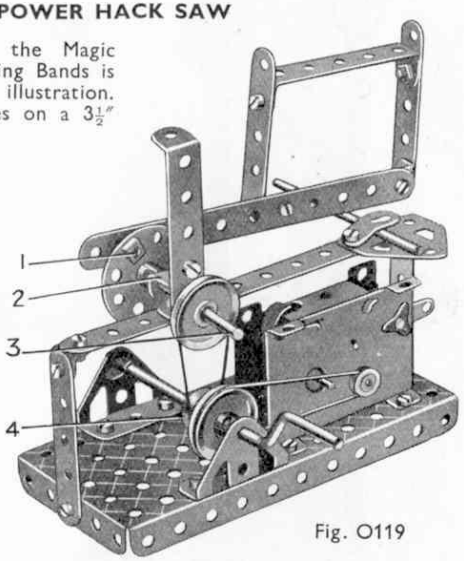


Fig. O119

O120. ELECTRIC TRUCK

The steering wheel, a Bush Wheel, is secured to the Reversed Angle Bracket 1 by means of a $\frac{3}{8}''$ Bolt. Fig. O120a shows how the Magic Motor is mounted to drive the front wheels. The Pulley supplied with the Motor is mounted on the front axle, and the rubber band is fitted as shown. The axle carrying the two front wheels is journalled in two Flat Brackets, which are secured to the $5\frac{1}{2}''$ Strips 2 and 3, forming the frame of the truck.

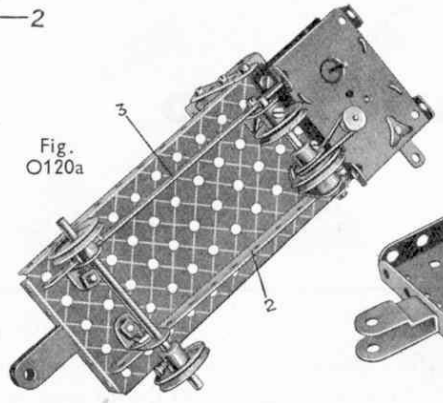


Fig. O120a

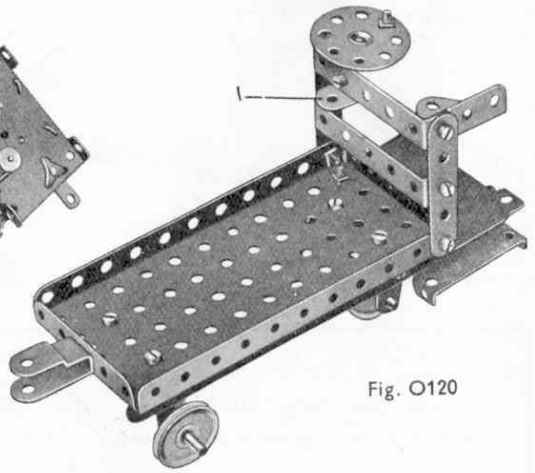
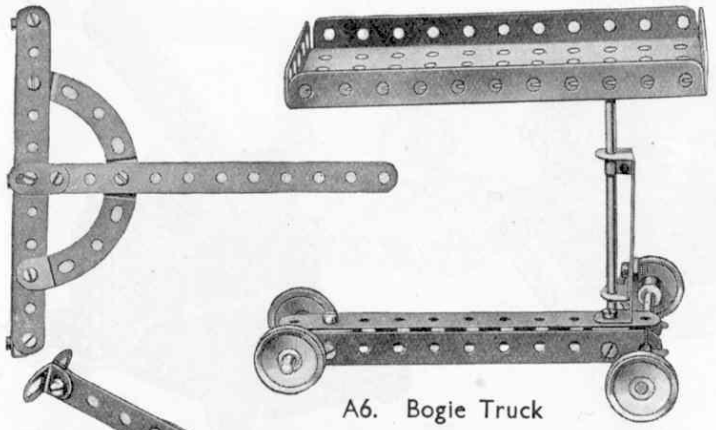


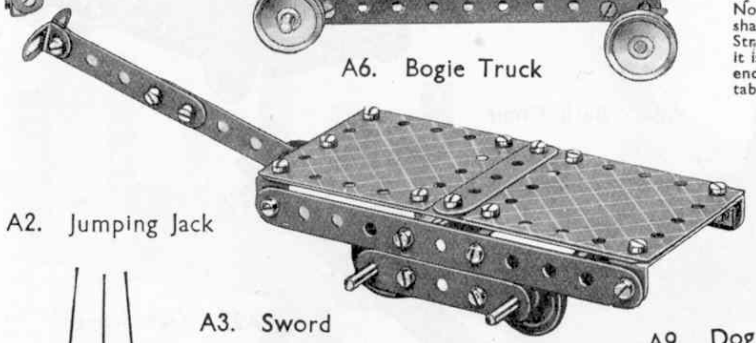
Fig. O120

A1. Rake

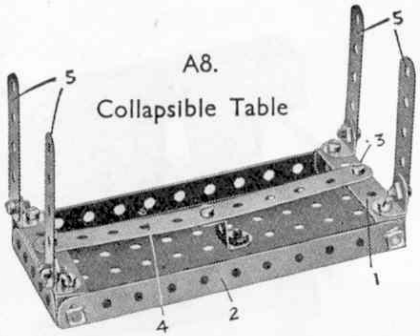


A5. Bed Table

A6. Bogie Truck



A8. Collapsible Table



The $2\frac{1}{2}$" × $\frac{1}{2}$" Double Angle Strips **1** are attached to the $5\frac{1}{2}$" × $2\frac{1}{2}$" Flanged Plate **2** by lock-nutted Bolts as in Standard Mechanism No. **1A**. The Bolts **3** are secured to the $5\frac{1}{2}$" Strip **4** and their shanks engage with the centre holes in the $2\frac{1}{2}$" × $\frac{1}{2}$" Double Angle Strips **1**, thus maintaining the legs **5** in an upright position. When it is desired to fold up the legs **5**, it is only necessary to raise the ends of the Strip **4**, thus freeing the Double Angle Strips **1**. The table is shown in the folded position in Fig. A8a.

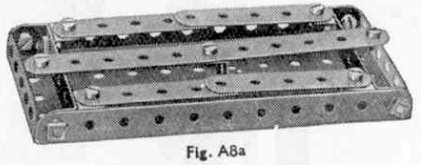
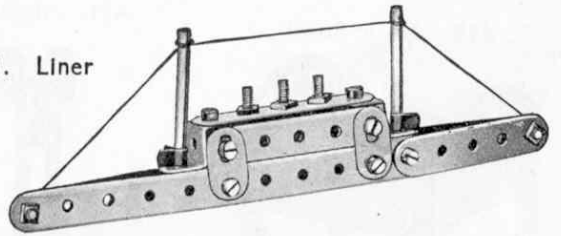
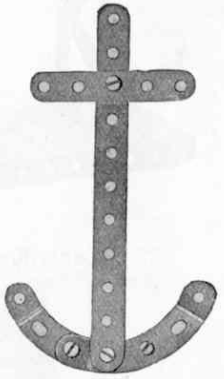


Fig. A8a

A11. Liner

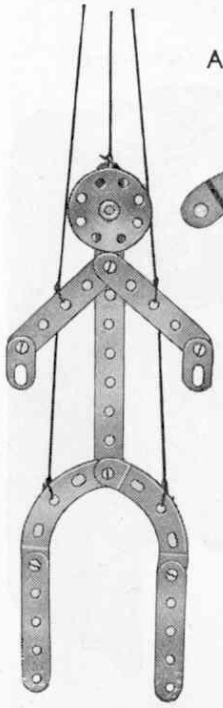


A12. Anchor

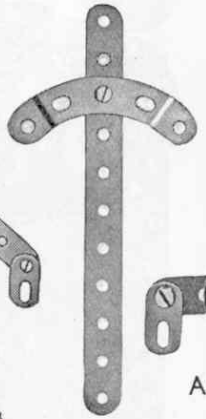


A16. Go-chair

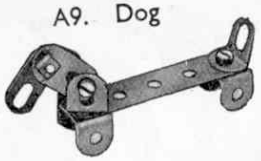
A2. Jumping Jack



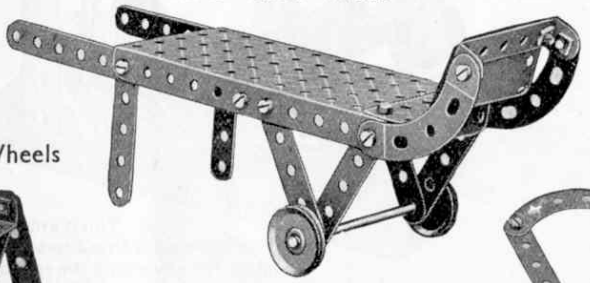
A3. Sword



A9. Dog

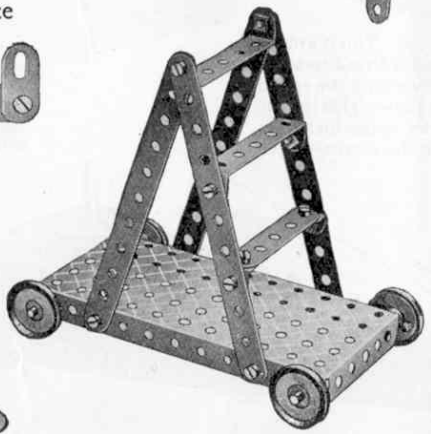


A13. Hand Truck

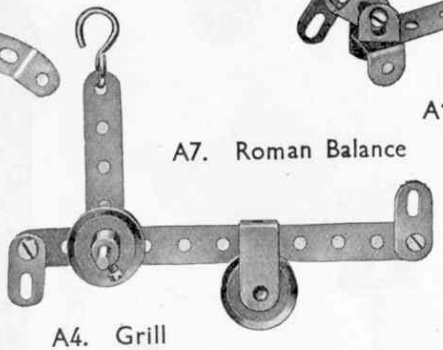


A17. Telegraph Pole

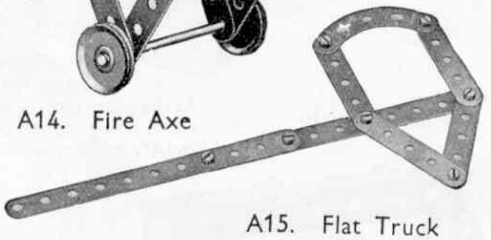
A10. Ladder on Wheels



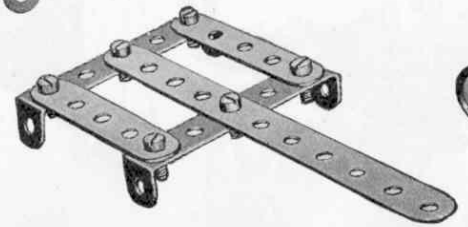
A7. Roman Balance



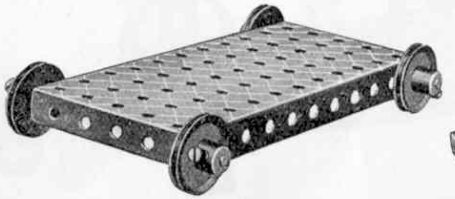
A14. Fire Axe



A4. Grill

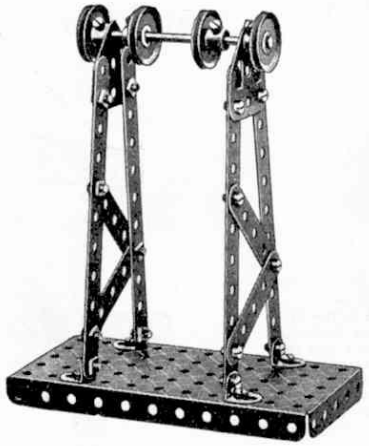


A15. Flat Truck

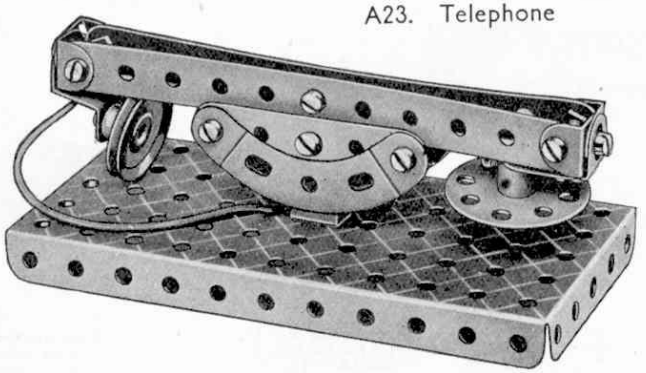


A18. Music Stool

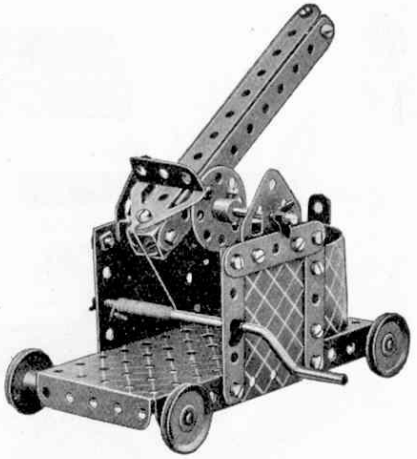
A21. Shafting Standard



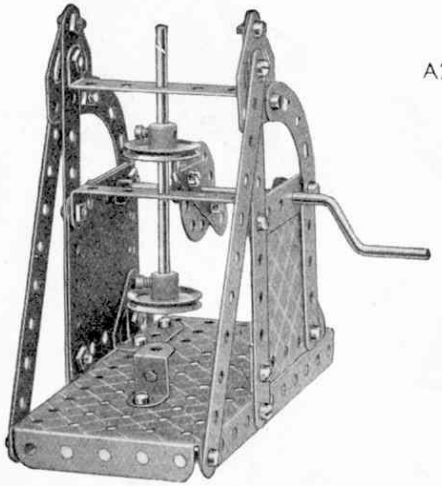
A23. Telephone



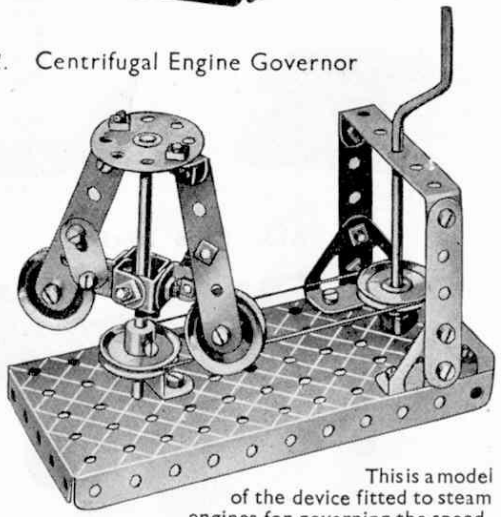
A26. Anti-aircraft Gun



A19. Ore Crusher

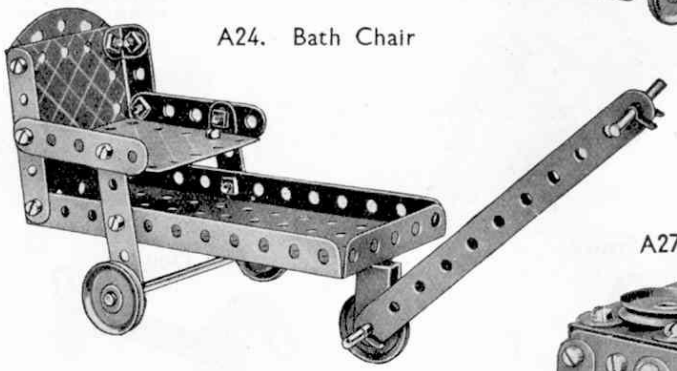


A22. Centrifugal Engine Governor

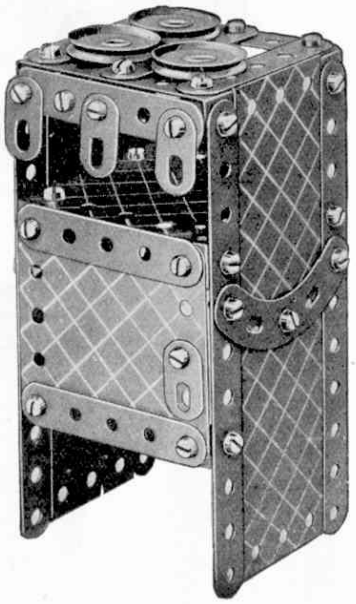


This is a model of the device fitted to steam engines for governing the speed. As the governor rotates the weights fly outward, rising higher as the speed increases, and are made to operate the throttle valve.

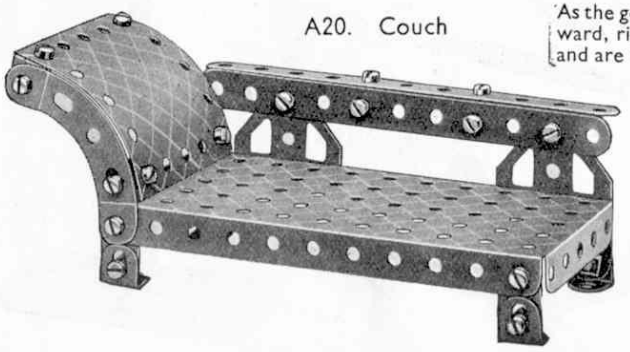
A24. Bath Chair



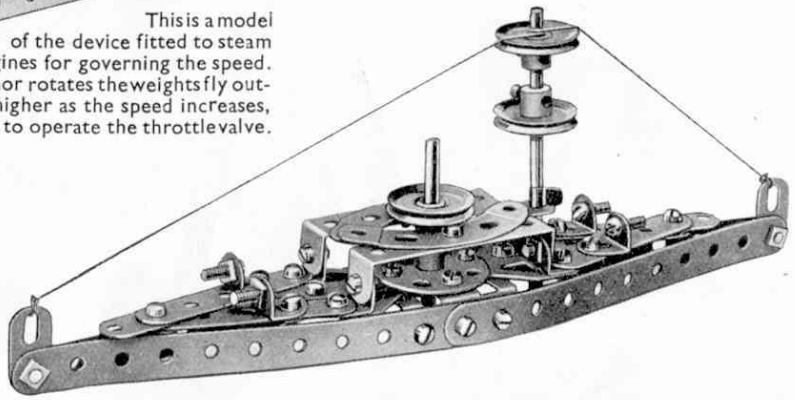
A27. Gas Stove



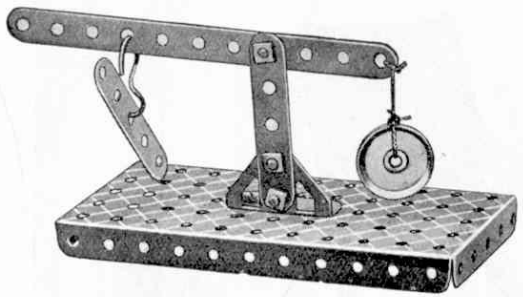
A20. Couch



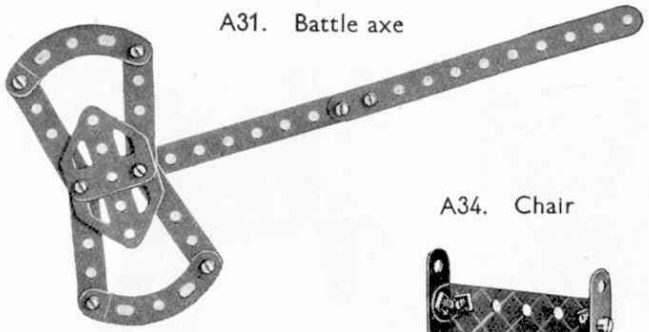
A25. Battleship



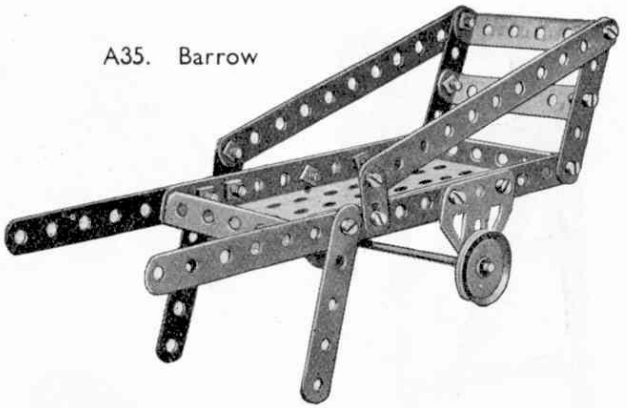
A28. Lever of the First Order



A31. Battle axe

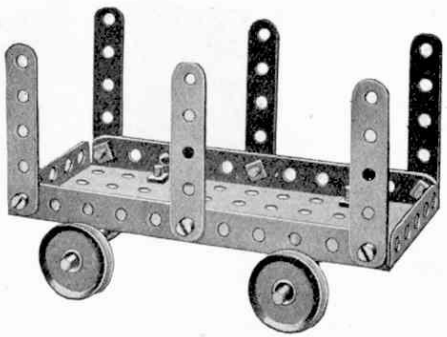


A35. Barrow

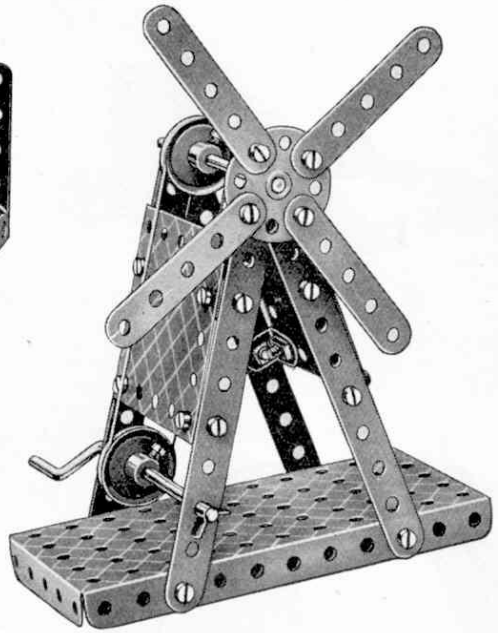


A34. Chair

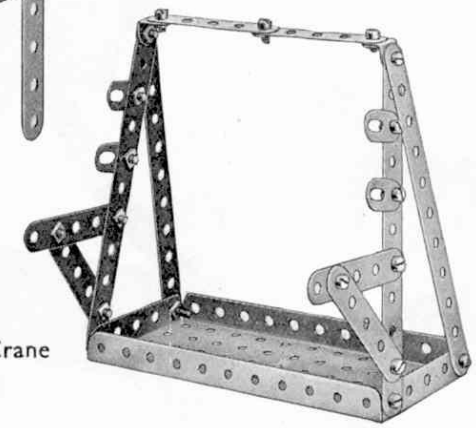
A29. Timber Truck



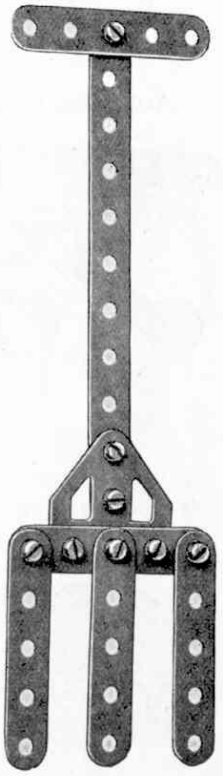
A32. Windmill



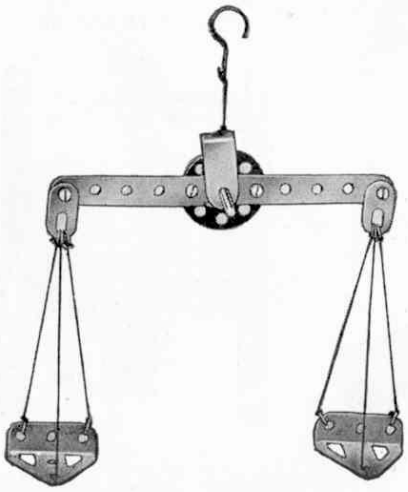
A36. Pen Rack



A38. Fork

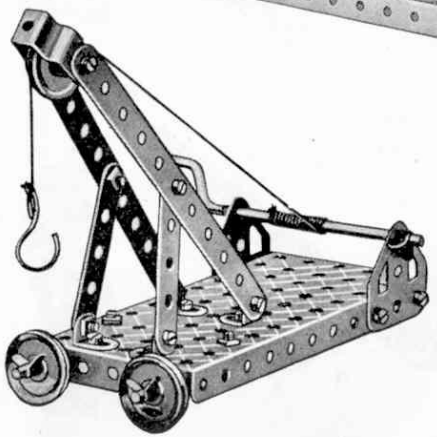


A30. Hanging Scales

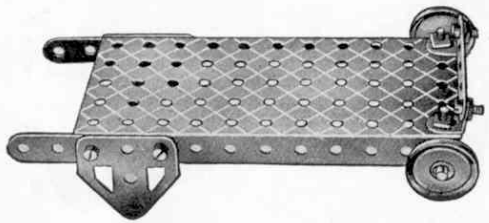


A37. Revolving Crane

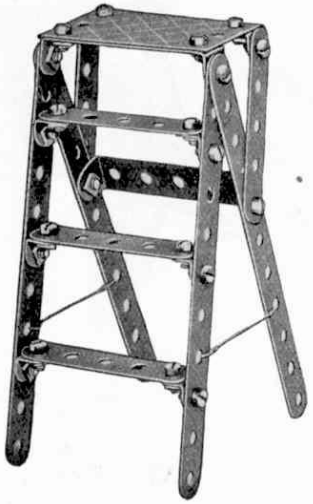
The back of the crane rests on a Flat Bracket bolted to the end flange. An Anchoring Spring is slipped on to the Crank Handle for securing the hoisting cord.



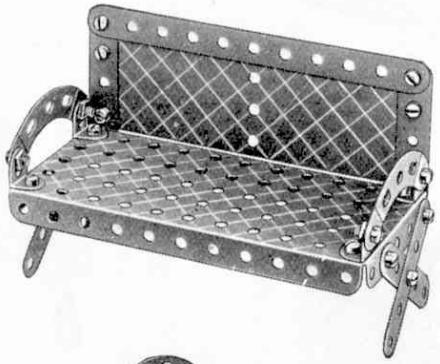
A33. Flat Truck



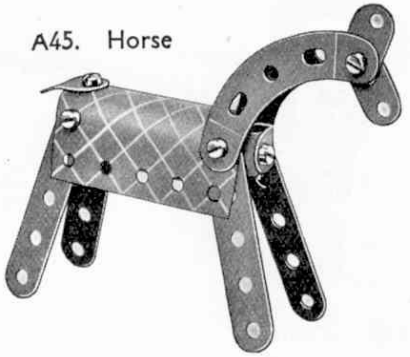
A39. Step Ladder



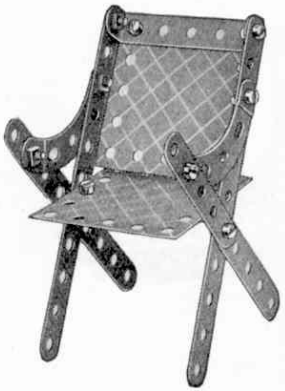
A42. Garden Seat



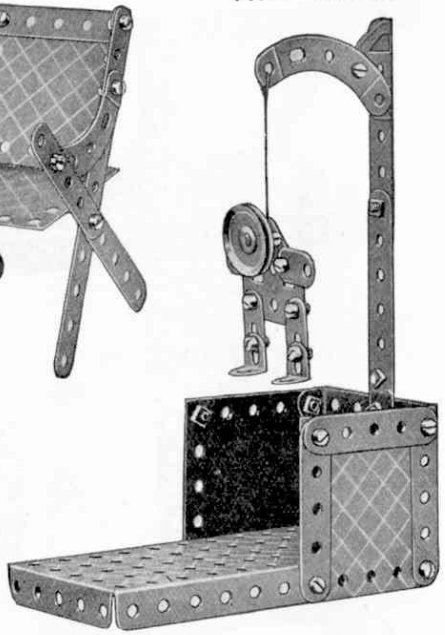
A45. Horse



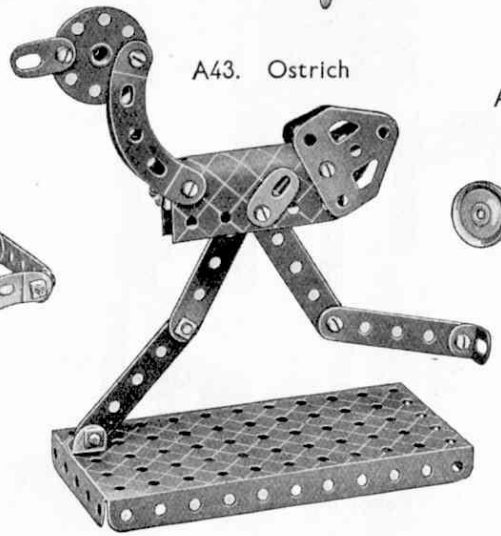
A48. Arm Chair



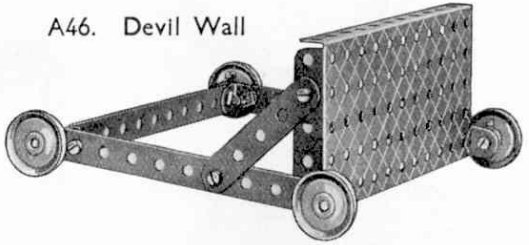
A49. Gallows



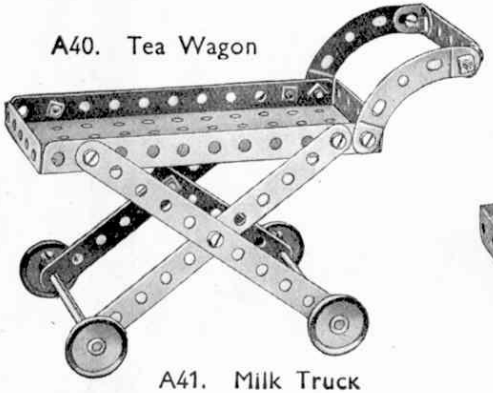
A43. Ostrich



A46. Devil Wall

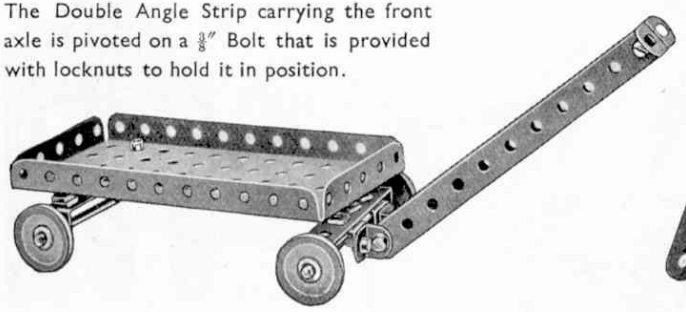


A40. Tea Wagon

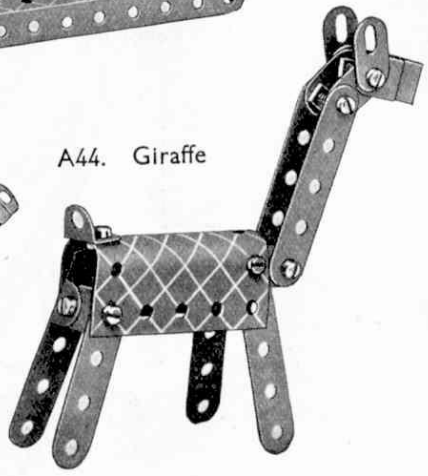


A41. Milk Truck

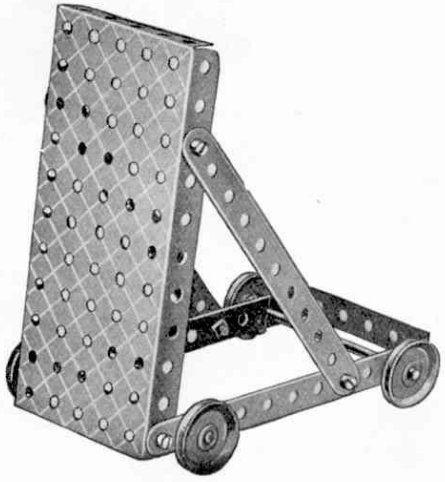
The Double Angle Strip carrying the front axle is pivoted on a $\frac{3}{8}$" Bolt that is provided with locknuts to hold it in position.



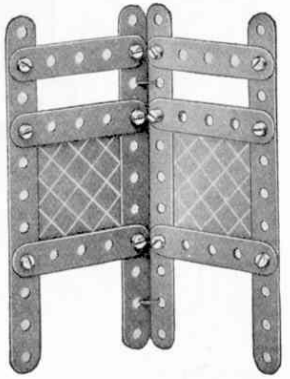
A44. Giraffe



A47. Gravel Sifter

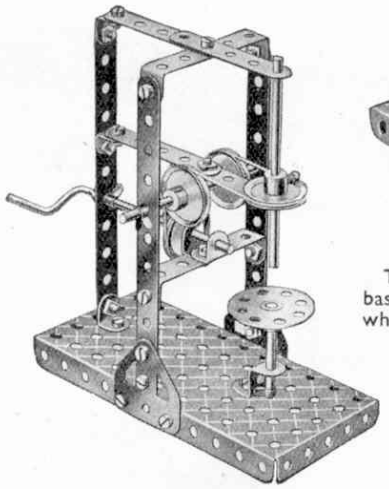


A50. Fire Screen



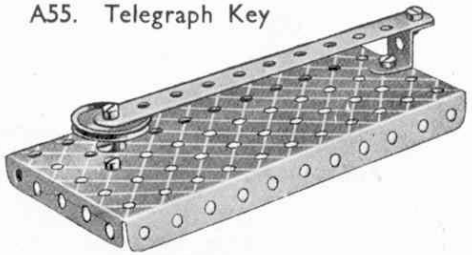
A51. Umpire's Seat

A52. Drilling Machine



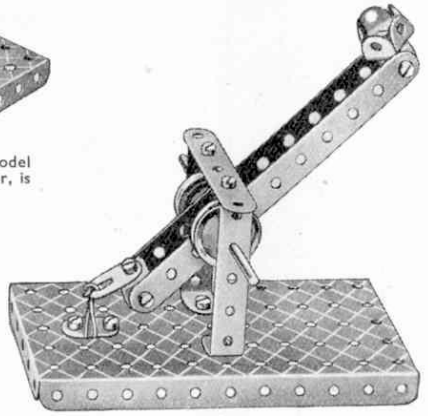
An alternative design of this model (A52M), fitted with the *Magic* Motor, is shown at the end of this section.

A55. Telegraph Key

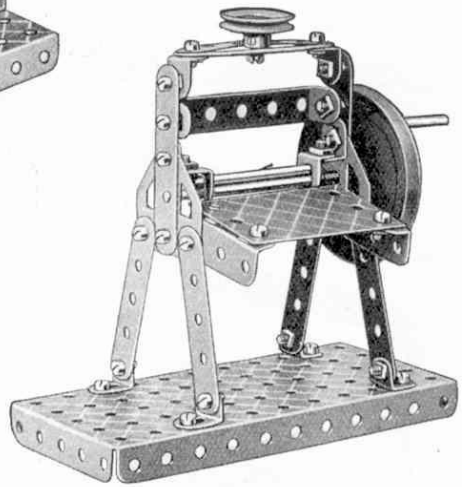


A56. Catapult

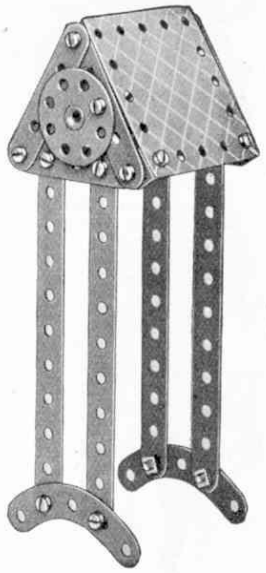
The pivoted arm is connected to the base by means of a short piece of elastic which is not provided in the Outfit.



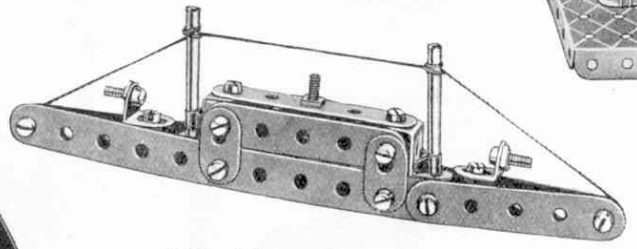
A58. Wringing Machine



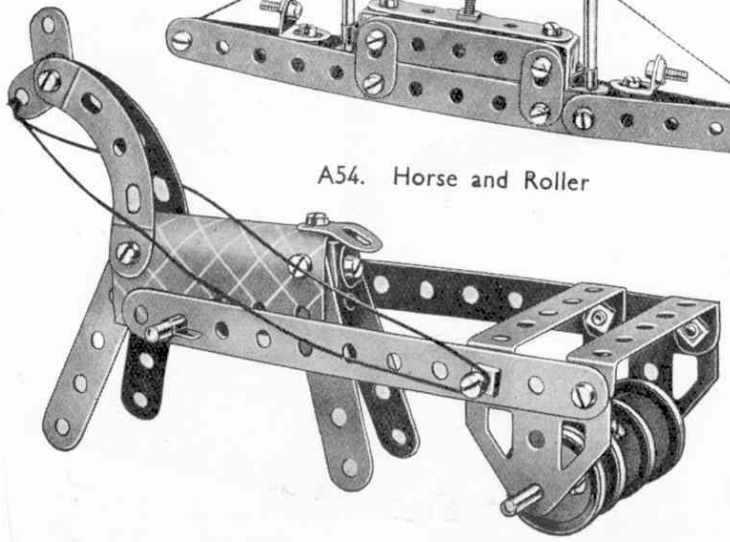
A60. Grandfather Clock



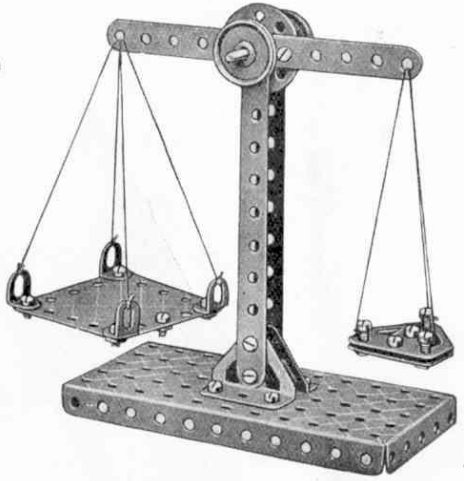
A53. Cruiser



A54. Horse and Roller

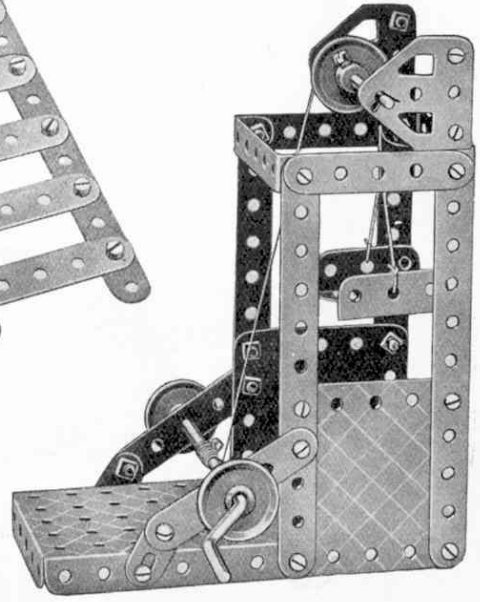


A57. Scales

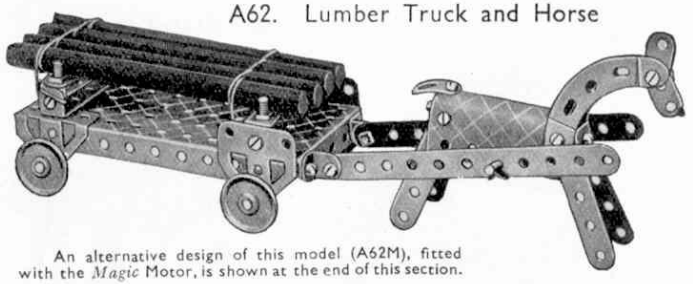


A59. Ladder

A61. Pit-head Gear

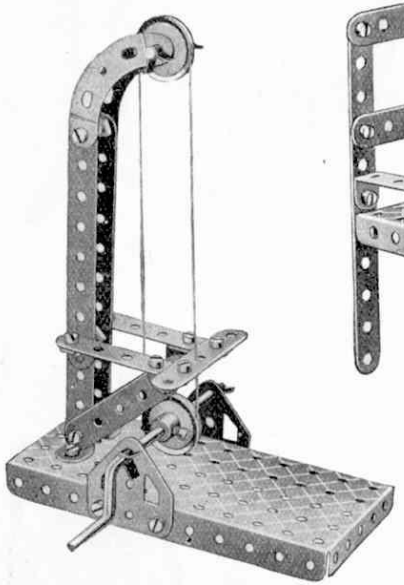


A62. Lumber Truck and Horse



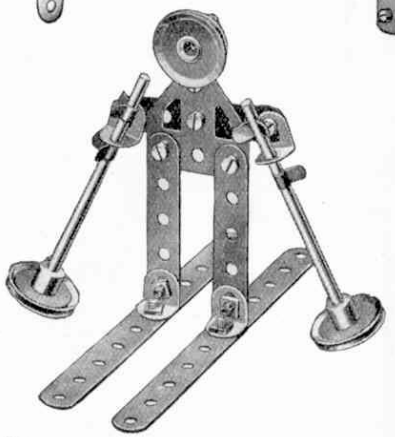
An alternative design of this model (A62M), fitted with the *Magic* Motor, is shown at the end of this section.

A63. Band Saw

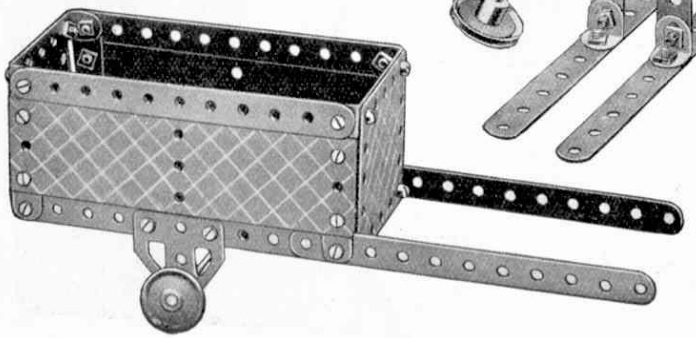


A65. Bench

A66. Skier

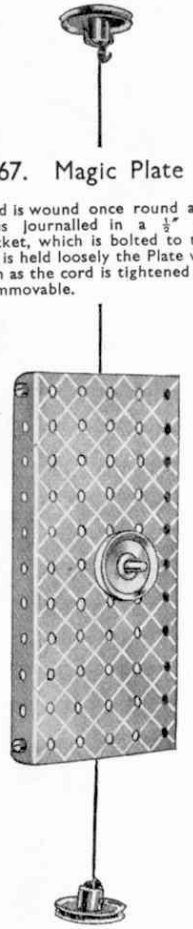


A64. Cart

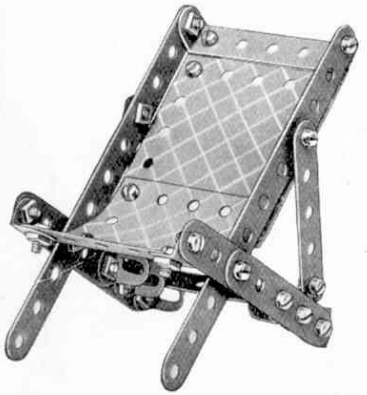


A67. Magic Plate

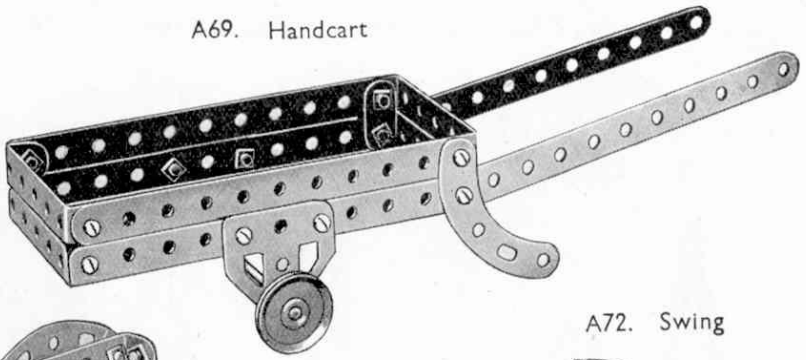
The cord is wound once round a 2" Axle Rod that is Journalled in a ½" Reversed Angle Bracket, which is bolted to the Plate. If the cord is held loosely the Plate will drop, but as soon as the cord is tightened the Plate becomes immovable.



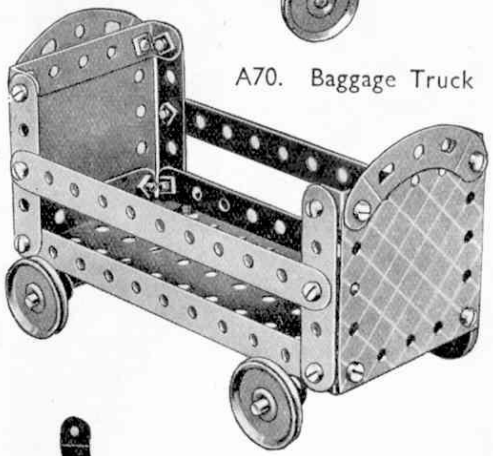
A68. Deck Chair



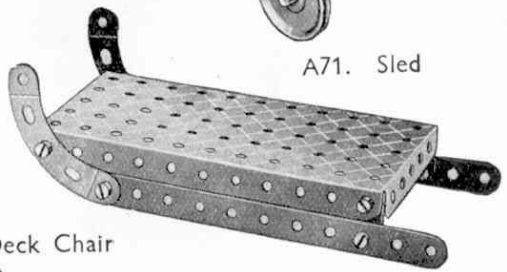
A69. Handcart



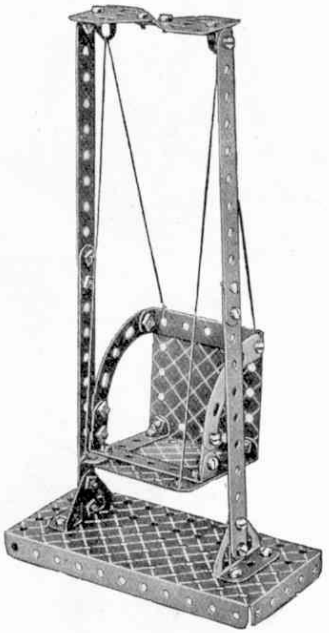
A70. Baggage Truck



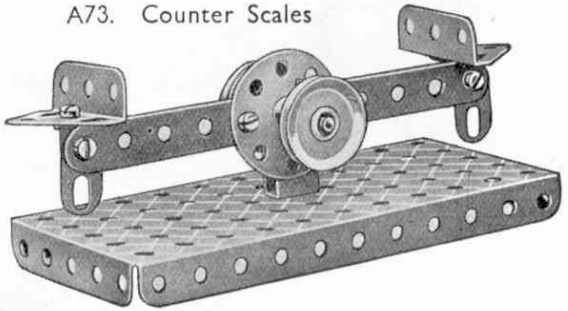
A71. Sled



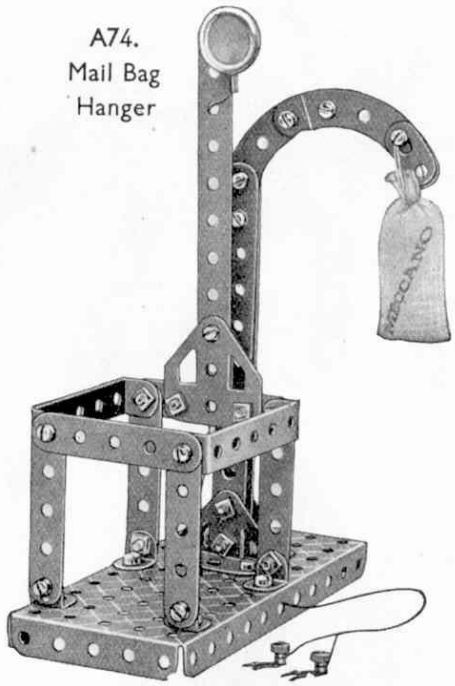
A72. Swing



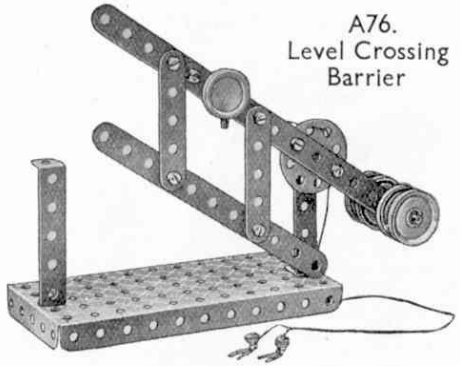
A73. Counter Scales



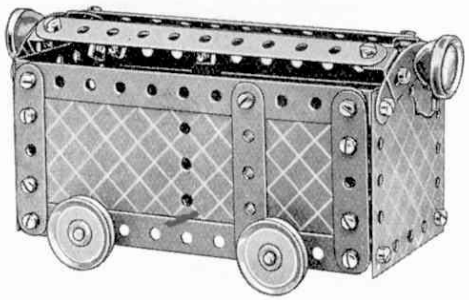
A74.
Mail Bag
Hanger



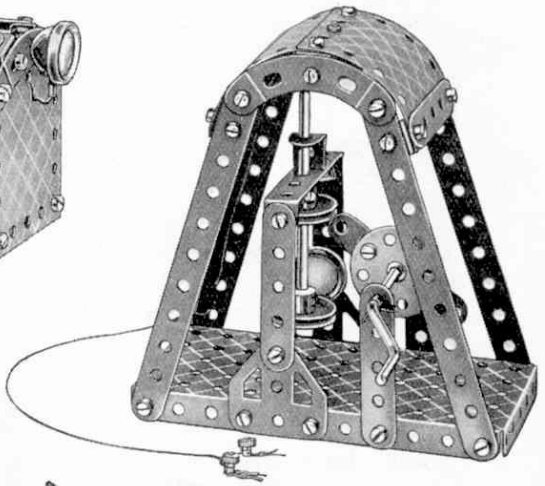
A76.
Level Crossing
Barrier



A79. Pullman Car

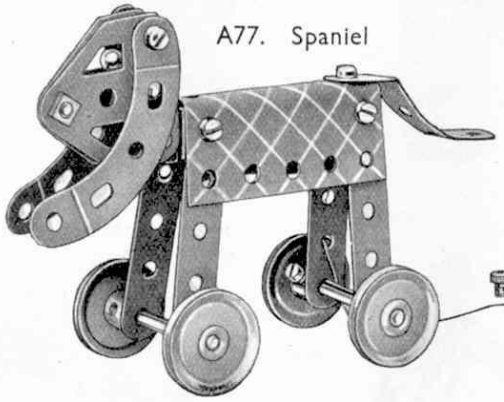


A82.
Stamping Mill

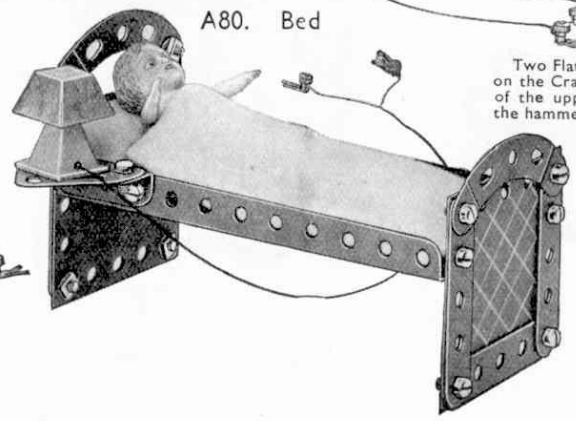


Two Flat Brackets are bolted to the Bush Wheel on the Crank Handle. They strike the underside of the upper Pulley on the vertical Rod, to raise the hammer.

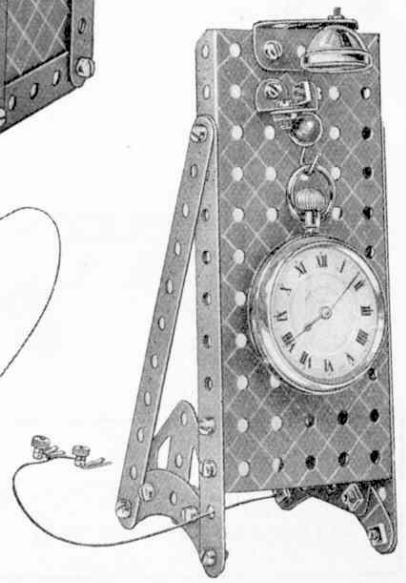
A77. Spaniel



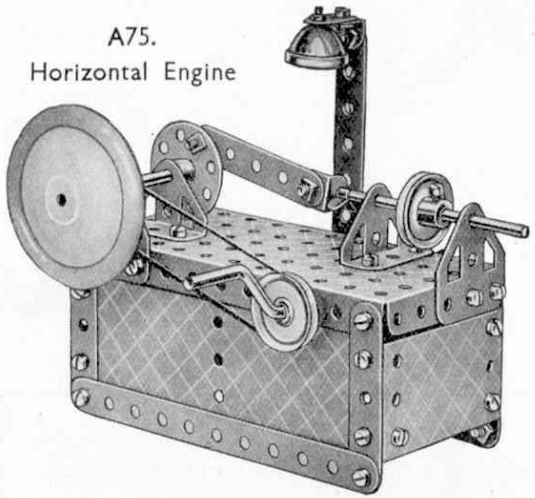
A80. Bed



A83.
Watch Stand

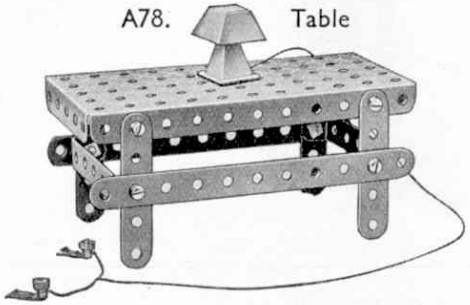


A75.
Horizontal Engine

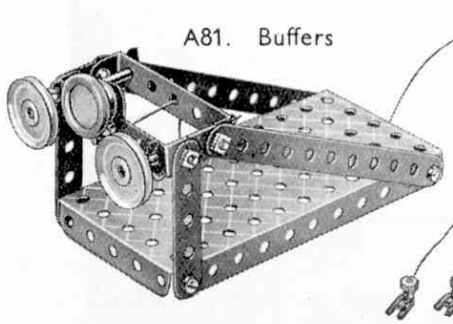


An alternative design of this model (A75M), fitted with the *Magic* Motor, is shown at the end of this section.

A78. Table

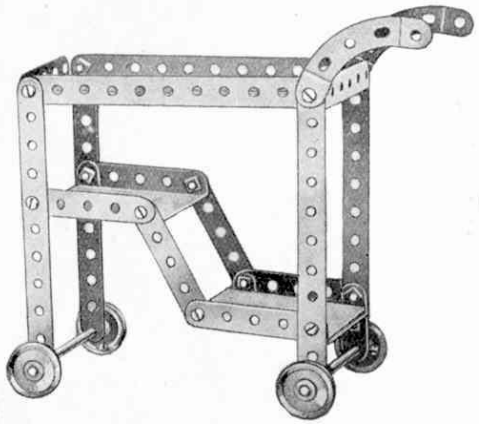


A81. Buffers

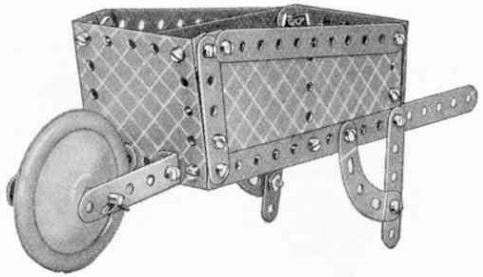


This page shows examples of the use of the Meccano Lighting Set, described on page 2 of cover

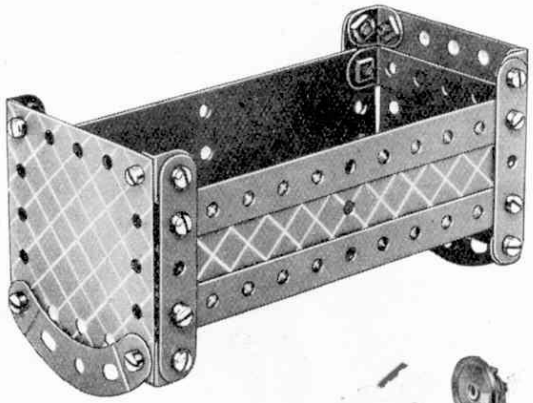
A84. Dinner Wagon



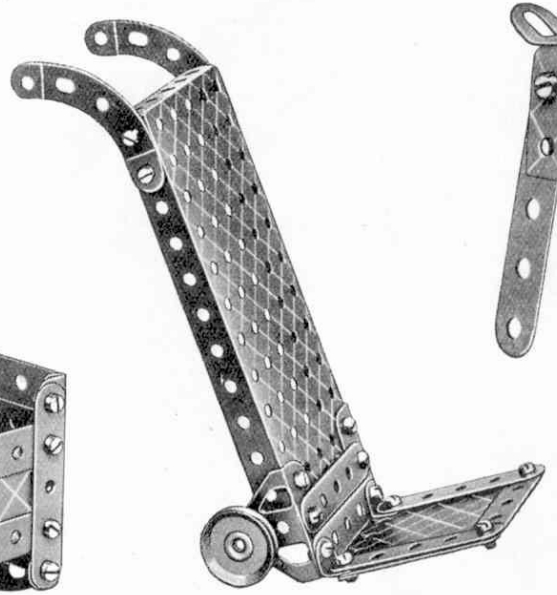
A87. Wheelbarrow



A88. Cot

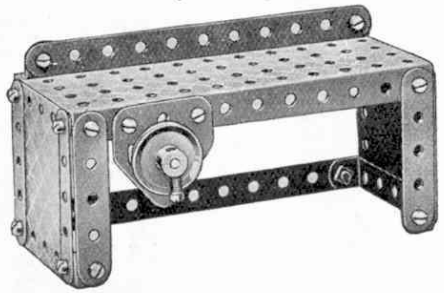


A90. Porter's Trolley

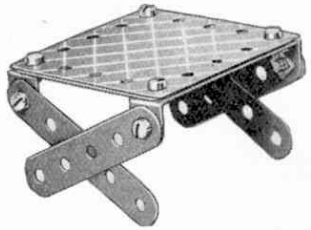


A92. Calf

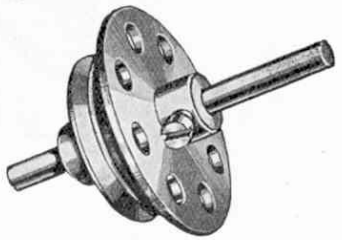
A85. Joiner's Bench



A91. Coffee Table

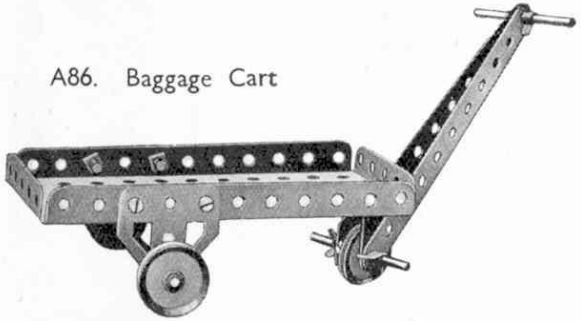


A93. Top

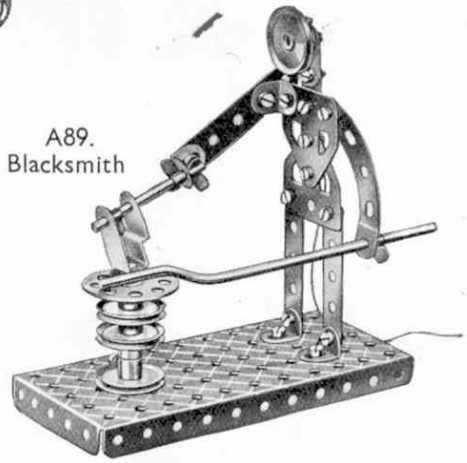


A handle for spinning the Top can be made from a 5½" strip with a Reversed Angle Bracket at the end. Cord is wound round the Rod and the handle is fitted on before pulling the cord to spin the Top.

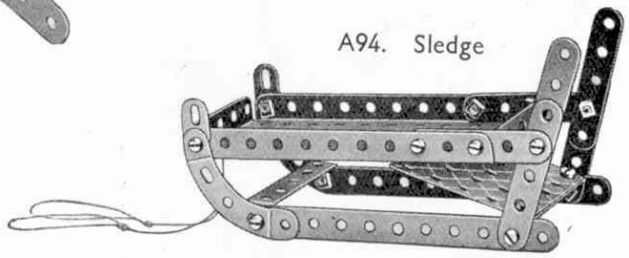
A86. Baggage Cart



A89. Blacksmith



A94. Sledge



HOW TO CONTINUE

When you have built the A Outfit Models illustrated, and fitted a number of them with the Meccano *Magic* Motor (see next page), your next step is to purchase an Aa Accessory Outfit. This converts your A Outfit into a B and enables you to build bigger and better models.

The greatest thrill in Meccano model-building is experienced when a model is set to work by means of a Meccano Motor. The illustrations below show how the Meccano *Magic* Motor can be fitted without any difficulty to Outfit A Models of various types. Fit the model you have just built with one of these wonderful Motors, and enjoy the fun of watching it work just like the real thing. Models A52M, A62M and A75M are more elaborate variations of Manual models A52, A62 and A75. Try your hand at re-designing other models in a similar manner and become a real inventor.

A95. BREAKDOWN CRANE

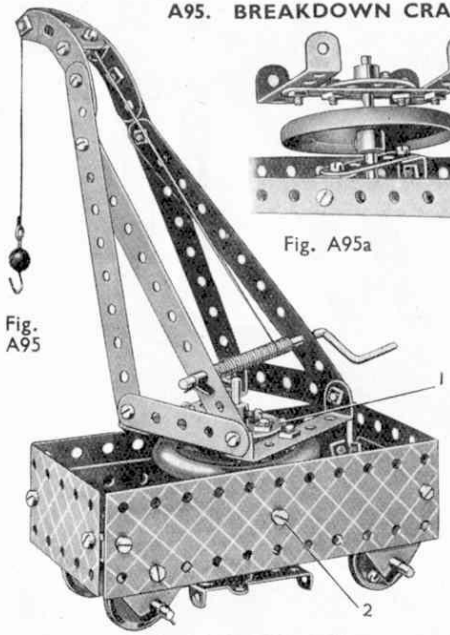


Fig. A95

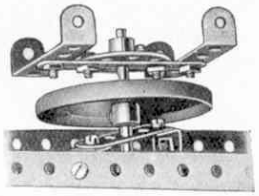


Fig. A95a

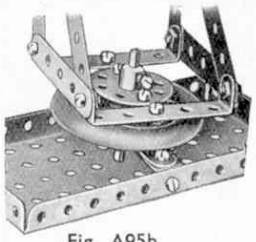


Fig. A95b

The crane swivels on an Axle Rod secured in the Bush Wheel 1 and passed through a Road Wheel before being inserted in a 2½" Strip and through the centre hole of a 5½" × 2½" Flanged Plate. The arrangement of the 2½" Strip can be seen in Fig. A95b, the Angle Brackets being fixed by the bolts 2 (Fig. A95). The *Magic* Motor is mounted in the same manner as shown in Fig. A62Ma.

A96. TRIP HAMMER

The hammer is pivoted at 1 on two Angle Brackets that are bolted through the slots to the centre hole of the 5½" Strip. A 2" Axle Rod passes through the Angle Brackets and is supported in Trunnions bolted to the Plate.

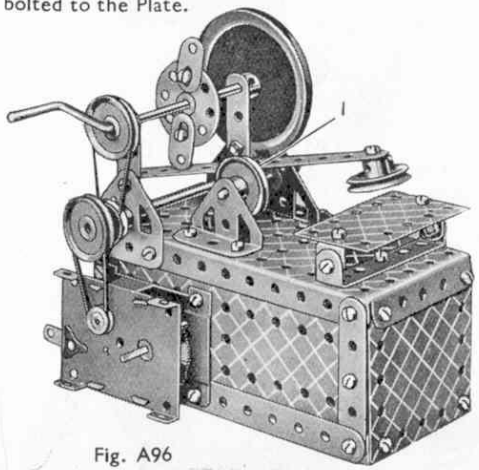


Fig. A96

A52M. DRILLING MACHINE

The drill Rod is journalled at the top in a Flat Bracket bolted to two Angle Brackets, and at its lower end in two Angle Brackets 1 that are bolted to a Strip attached to the vertical member of the drill. The drill table is supported by a 2½" × ½" Double Angle Strip 2. A Spring Clip retains the free Pulley 3 in place.

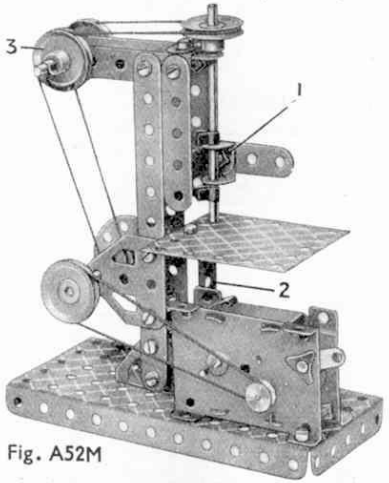


Fig. A52M

A62M. LUMBER TRUCK AND HORSE

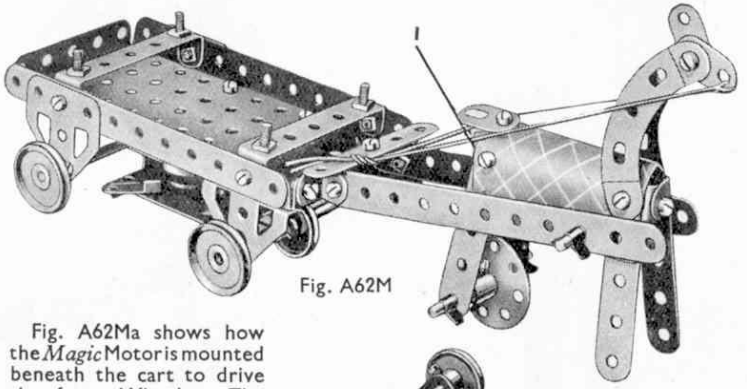


Fig. A62M

Fig. A62Ma shows how the *Magic* Motor is mounted beneath the cart to drive the front Wheels. The Pulley supplied with the Motor is mounted on the front Axle, and the rubber band should be fitted as shown. Two Angle Brackets secure the front legs of the horse, and this construction is duplicated at 1 for the hind legs. The forelegs are kept off the ground by means of the reins.

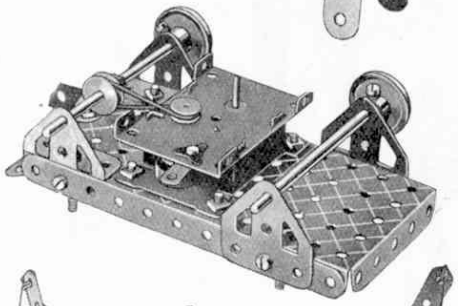


Fig. A62Ma

A75M. HORIZONTAL ENGINE

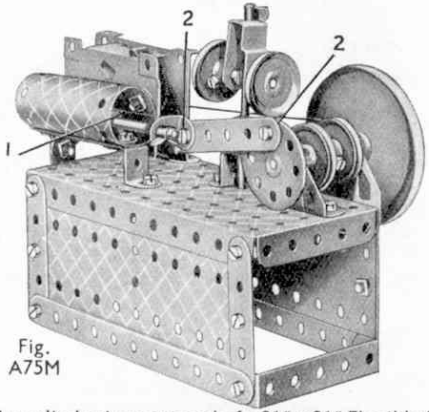


Fig. A75M

The cylinder is composed of a 2½" × 2½" Flexible Plate and a 2½" × 1½" Flexible Plate, and two Angle Brackets are bolted inside the cylinder to serve as guides for the piston rod. One of the Brackets is seen at 1. The bolts 2 are locknutted to form pivots.

A97. ROUNDABOUT

Fig. A97a shows how the bearing for the vertical Rod is formed. The Rod is driven from the *Magic* Motor by means of a rubber band passed round the 1" Pulley and round the Motor Pulley as can be seen in Fig. A97.

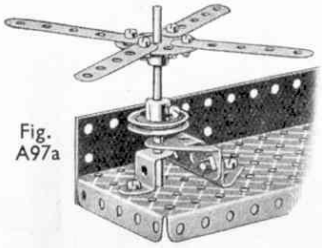


Fig. A97a

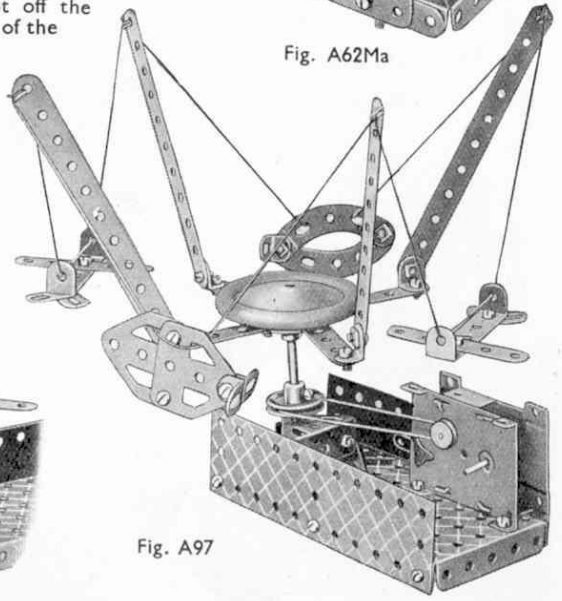
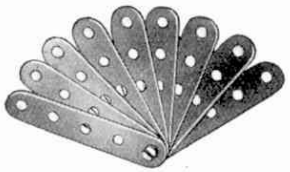


Fig. A97

B1. Man and Boy

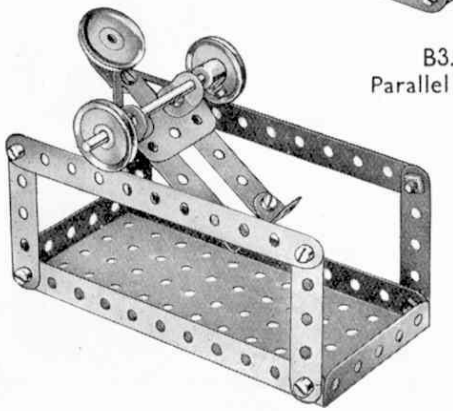
Parts required	
4 of No.	2
2 „ „	5
5 „ „	10
1 „ „	11
8 „ „	12
1 „ „	22
1 „ „	24
25 „ „	37
1 „ „	52
2 „ „	54a
1 „ „	90a
2 „ „	111c
2 „ „	125
1 „ „	126a

B2. Fan



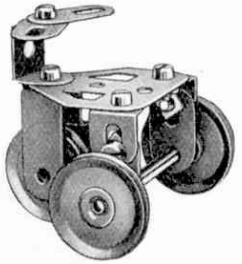
Parts required	
9 of No.	5
1 „ „	37a
1 „ „	111c

B3. Parallel Bars



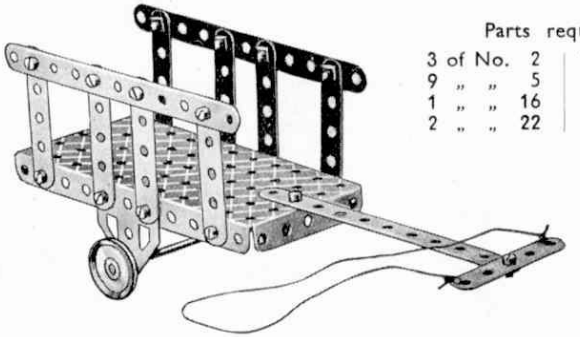
Parts required	
2 of No.	2
6 „ „	5
1 „ „	10
4 „ „	12
1 „ „	16
3 „ „	22
2 „ „	35
13 „ „	37
1 „ „	52
1 „ „	111c
1 „ „	126a

B4. Tricycle



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

B5. Bullock Cart

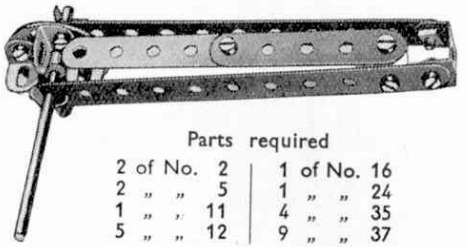


Parts required			
3 of No.	2	18 of No.	37
9 „ „	5	1 „ „	40
1 „ „	16	1 „ „	52
2 „ „	22	2 „ „	126a

B6. Walking Man

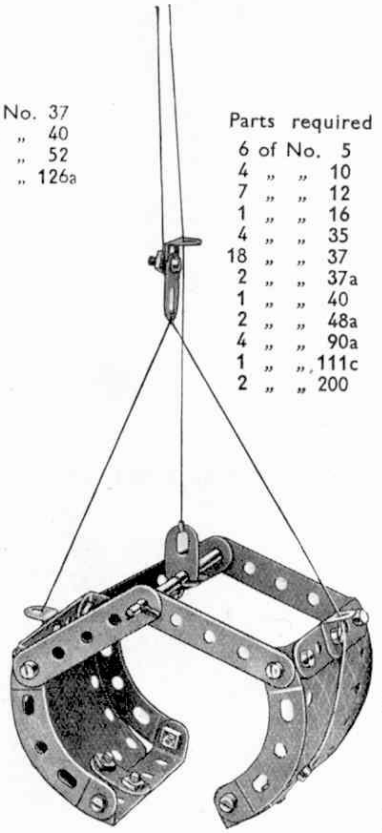
Parts required	
5 of No.	5
3 „ „	10
2 „ „	12
1 „ „	22
5 „ „	37
1 „ „	37a
3 „ „	90a
2 „ „	111c

B7. Rattle



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

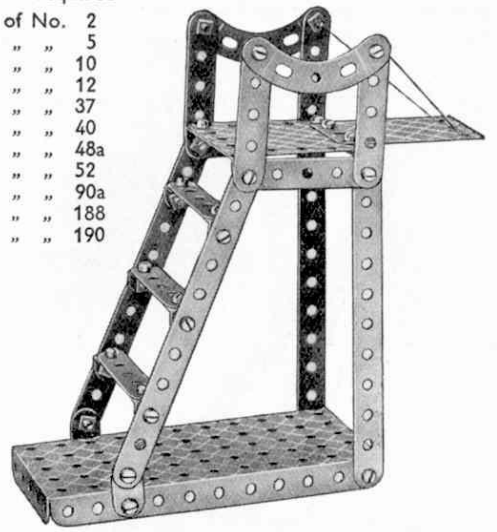
B8. Crane Grab



Parts required	
6 of No.	5
4 „ „	10
7 „ „	12
1 „ „	16
4 „ „	35
18 „ „	37
2 „ „	37a
1 „ „	40
2 „ „	48a
4 „ „	90a
1 „ „	111c
2 „ „	200

The ⅜" Bolts used for connecting the 5½" Strips, the horse's legs, and the rider's legs and arms, are all locknutted. The lower 5½" Strip should be held rigidly and the upper one jerked forward; the horse will then throw its rider completely over its head.

B9. High Diving Board

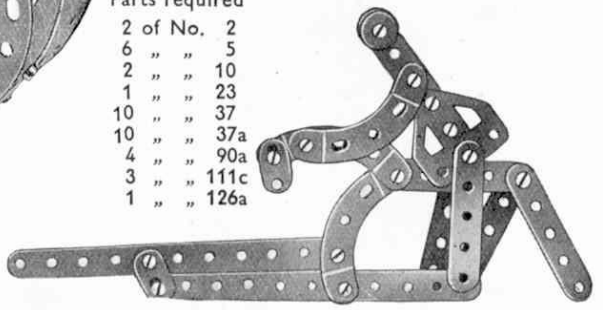


Parts required	
4 of No.	2
9 „ „	5
2 „ „	10
6 „ „	12
32 „ „	37
1 „ „	40
2 „ „	48a
1 „ „	52
2 „ „	90a
1 „ „	188
1 „ „	190

B10. Drafting Table

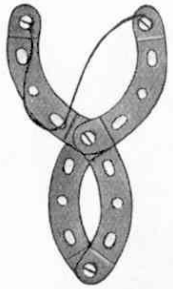
Parts required			
4 of No.	5	1 of No.	52
12 „ „	37	4 „ „	90a
1 „ „	48a	2 „ „	126a

B11. Bucking Broncho



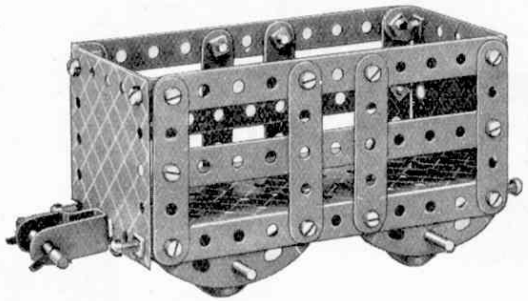
Parts required	
2 of No.	2
6 „ „	5
2 „ „	10
1 „ „	23
10 „ „	37
10 „ „	37a
4 „ „	90a
3 „ „	111c
1 „ „	126a

B12. Catapult



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

B15. Cattle Truck



Parts required

4 of No.	2	9 of No.	37a
8 „ „	5	1 „ „	44
2 „ „	16	2 „ „	48a
1 „ „	18a	1 „ „	52
4 „ „	22	4 „ „	90a
2 „ „	35	4 „ „	111c
25 „ „	37	2 „ „	190

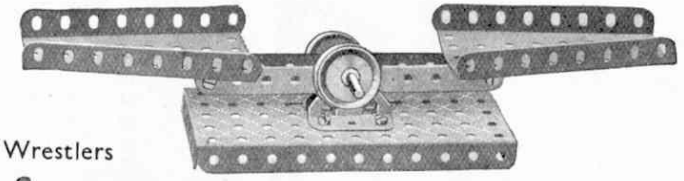
B18. Single Sheave Pulley Block

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

B19. Scales

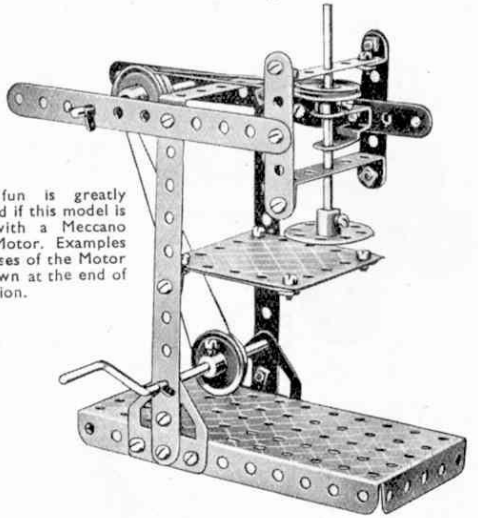
Parts required

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



B21. Drilling Machine

The fun is greatly increased if this model is fitted with a Meccano *Magic* Motor. Examples of the uses of the Motor are shown at the end of this section.



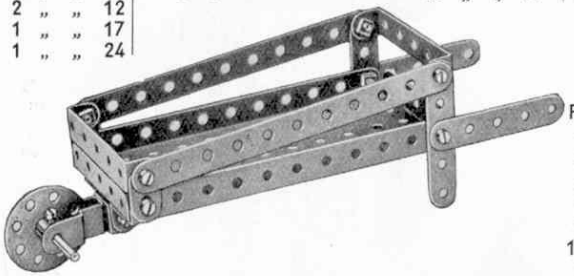
Parts required

4 of No.	2	28 of No.	37
8 „ „	5	1 „ „	37a
6 „ „	12	1 „ „	40
2 „ „	16	1 „ „	44
1 „ „	19s	2 „ „	48a
4 „ „	22	1 „ „	52
1 „ „	24	2 „ „	126a
6 „ „	35	1 „ „	190

B13. Coster's Barrow

Parts required

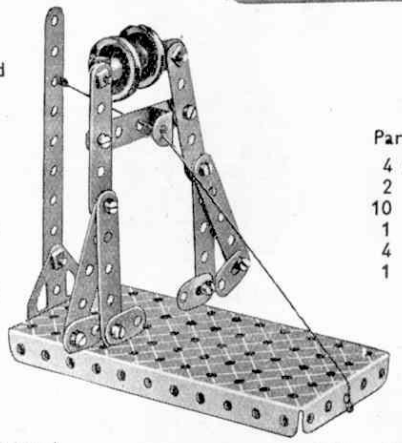
2 of No.	2	13 of No.	37
4 „ „	5	1 „ „	44
2 „ „	10	2 „ „	48a
1 „ „	11	1 „ „	52
2 „ „	12		
1 „ „	17		
1 „ „	24		



B16. Wrestlers

Parts required

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



B20. Card Table

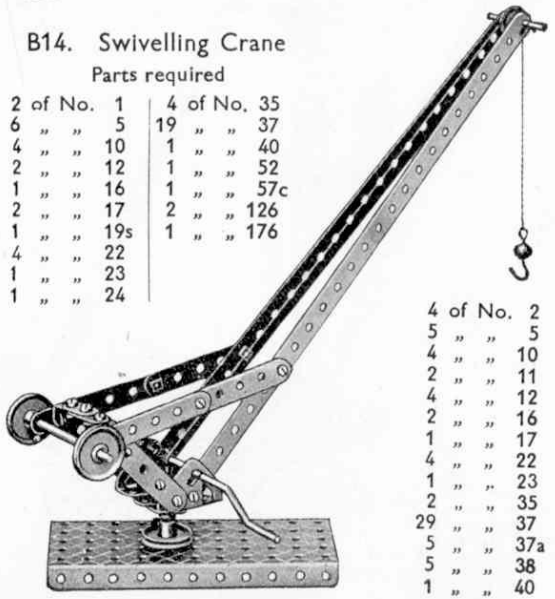
Parts required

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

B14. Swivelling Crane

Parts required

2 of No.	1	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		

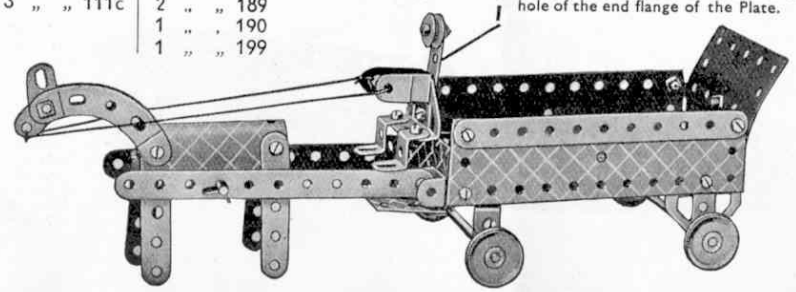


Parts required

4 of No.	2	1 of No.	44
5 „ „	5	1 „ „	48a
4 „ „	10	1 „ „	52
2 „ „	11	2 „ „	90a
4 „ „	12	3 „ „	111c
2 „ „	16		
1 „ „	17		
4 „ „	22		
1 „ „	23		
2 „ „	35		
29 „ „	37		
5 „ „	37a		
5 „ „	38		
1 „ „	40		

B17. Hay Cart

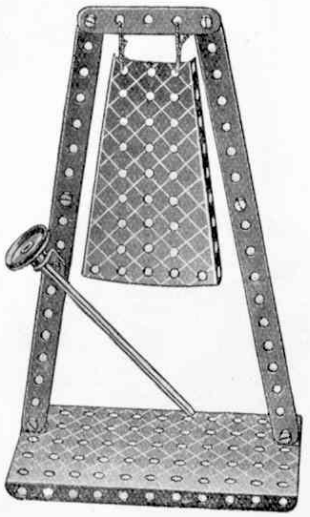
The fun is greatly increased if this model is fitted with a Meccano *Magic* Motor. Examples of the uses of the motor are shown at the end of this section. If the Motor is fitted, a Bush Wheel should be mounted on a 2" Rod fitted between the hind legs of the horse. The 2½" Strip 1 forming the driver's body is bolted to the centre hole of the end flange of the Plate.



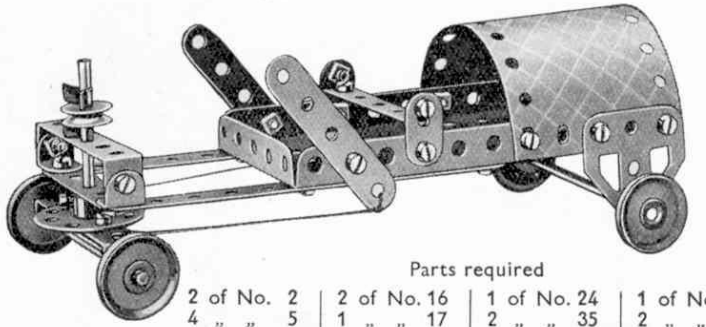
Parts required

2 of No.	125	4 of No.	2
1 „ „	126	3 „ „	5
2 „ „	126a	1 „ „	12
2 „ „	188	1 „ „	16
2 „ „	189	1 „ „	22
1 „ „	190	9 „ „	37
1 „ „	199	1 „ „	40
		1 „ „	52
		1 „ „	54a

B22. Gong



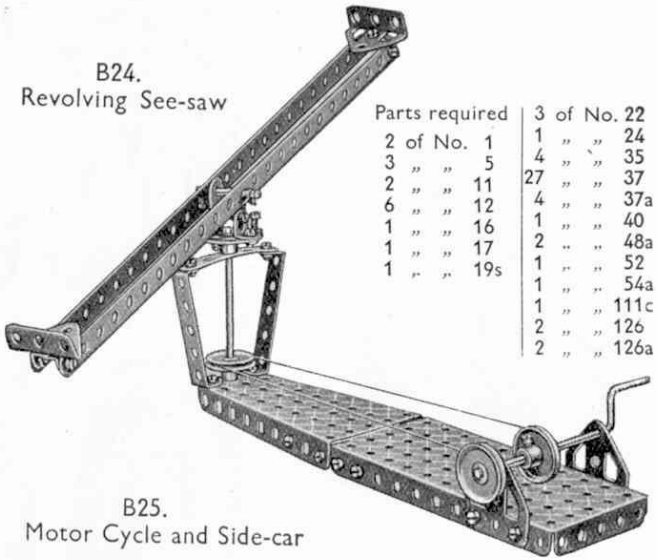
B23. Coaster



Parts required

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

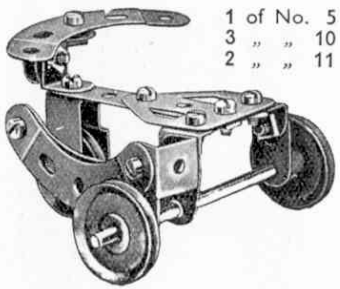
B24. Revolving See-saw



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

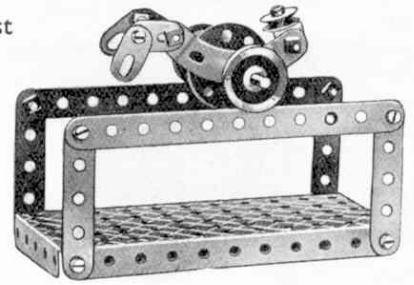
B25. Motor Cycle and Side-car



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

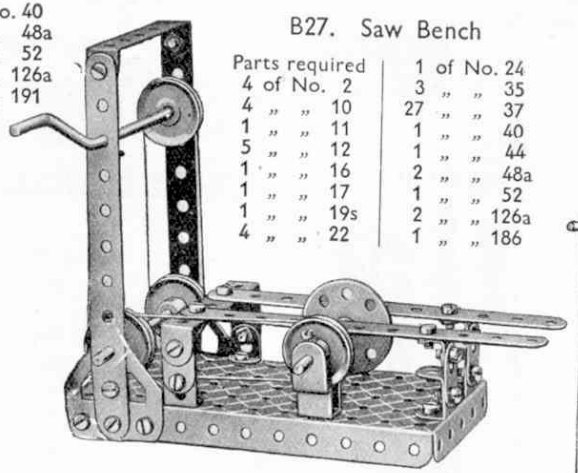
B26. Gymnast



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	

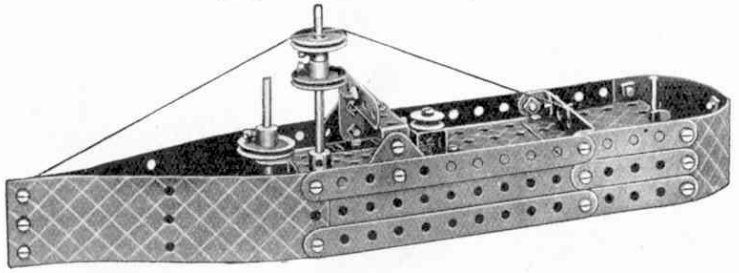
B27. Saw Bench



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 „ „ 44
1 „ „ 17	2 „ „ 48a
1 „ „ 19s	1 „ „ 52
4 „ „ 22	2 „ „ 126a
	1 „ „ 186

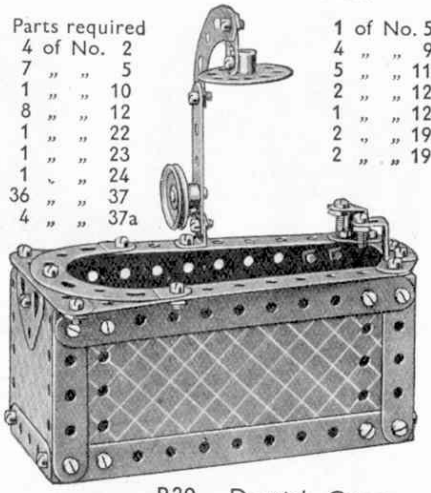
B28. Battleship



Parts required

4 of No. 2	1 of No. 23	1 of No. 52
9 „ „ 5	1 „ „ 24	4 „ „ 111c
4 „ „ 10	5 „ „ 35	2 „ „ 125
1 „ „ 11	36 „ „ 37	2 „ „ 126
5 „ „ 12	4 „ „ 37a	2 „ „ 188
1 „ „ 16	1 „ „ 40	2 „ „ 189
2 „ „ 17	2 „ „ 48a	1 „ „ 190
3 „ „ 22		

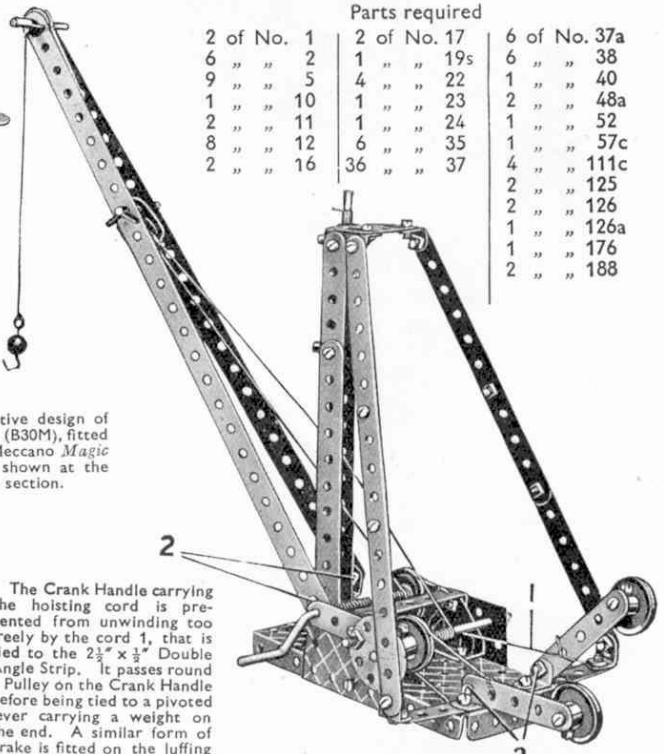
B29. Bath with Shower



Parts required

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

B30. Derrick Crane



Parts required

2 of No. 1	2 of No. 17	6 of No. 37a
6 „ „ 2	1 „ „ 19s	6 „ „ 38
9 „ „ 5	4 „ „ 22	1 „ „ 40
1 „ „ 10	1 „ „ 23	2 „ „ 48a
2 „ „ 11	1 „ „ 24	1 „ „ 52
8 „ „ 12	6 „ „ 35	1 „ „ 57c
2 „ „ 16	36 „ „ 37	4 „ „ 111c
		2 „ „ 125
		2 „ „ 126
		1 „ „ 126a
		1 „ „ 176
		2 „ „ 188

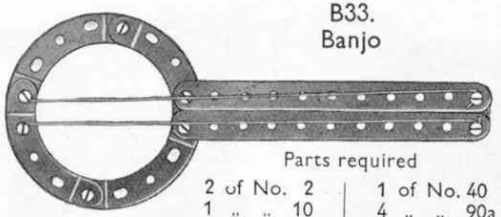
An alternative design of this model (B30M), fitted with the Meccano *Magic* Motor, is shown at the end of this section.

The Crank Handle carrying the hoisting cord is prevented from unwinding too freely by the cord 1, that is tied to the 2½" × ½" Double Angle Strip. It passes round a Pulley on the Crank Handle before being tied to a pivoted lever carrying a weight on the end. A similar form of brake is fitted on the luffing shaft. The bolts 2, are fitted with locknuts.

B31. Arm Chair

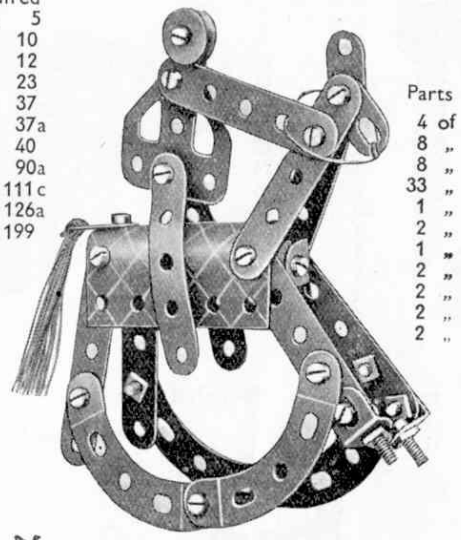
Parts required
2 of No. 2
8 „ „ 5
21 „ „ 37
2 „ „ 48a
1 „ „ 52
4 „ „ 90a
1 „ „ 200

B33. Banjo



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

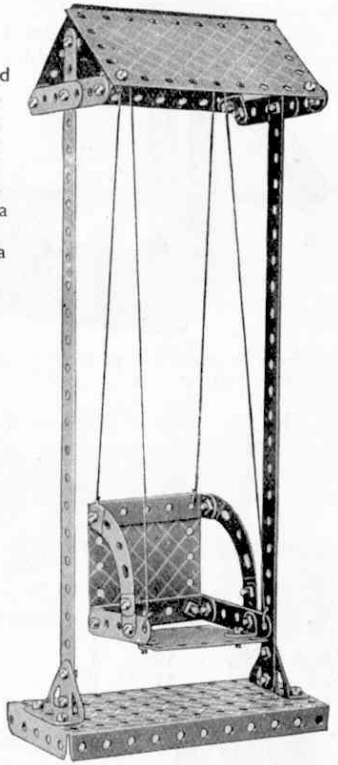
B36. Rocking Horse



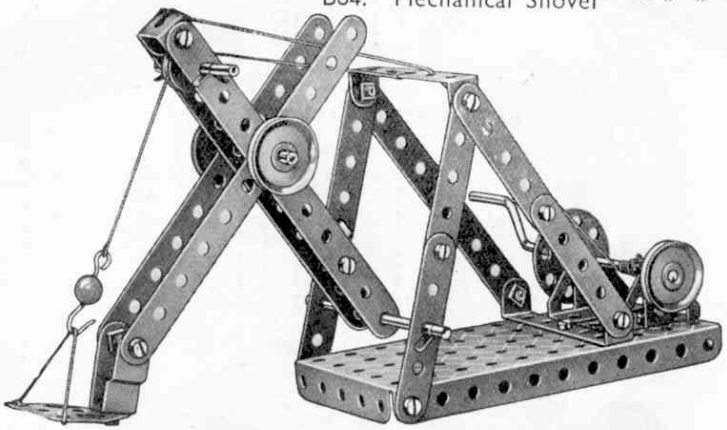
Parts required
9 of No. 5
4 „ „ 10
6 „ „ 12
1 „ „ 23
17 „ „ 37
8 „ „ 37a
1 „ „ 40
4 „ „ 90a
5 „ „ 111c
1 „ „ 126a
1 „ „ 199

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

B38. Swing

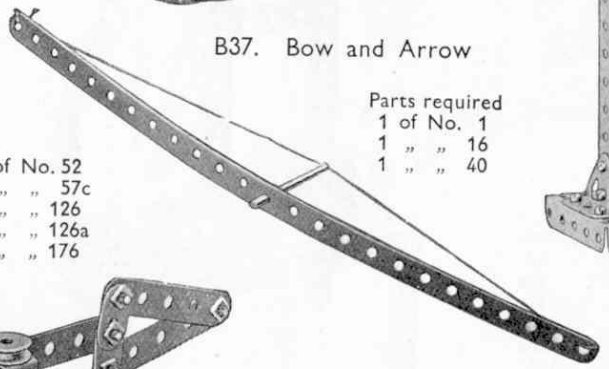


B34. Mechanical Shovel



Parts required
4 of No. 2
8 „ „ 5
2 „ „ 11
1 „ „ 16
2 of No. 17
1 „ „ 19s
3 „ „ 22
1 „ „ 23
1 „ „ 24
5 of No. 35
20 „ „ 37
1 „ „ 40
1 „ „ 44
2 „ „ 43a
1 of No. 52
1 „ „ 57c
2 „ „ 126
1 „ „ 126a
1 „ „ 176

B37. Bow and Arrow

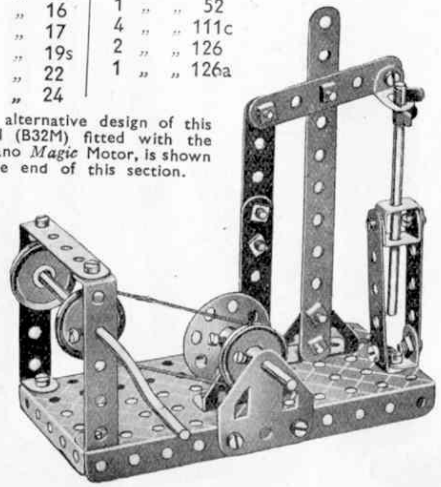


Parts required
1 of No. 1
1 „ „ 16
1 „ „ 40

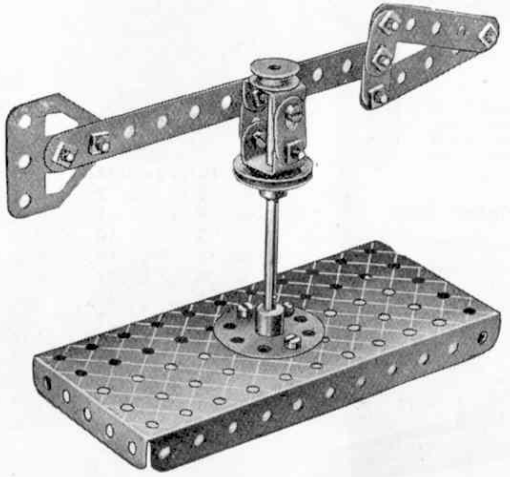
B32. Pump

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

An alternative design of this model (B32M) fitted with the Meccano *Magic* Motor, is shown at the end of this section.

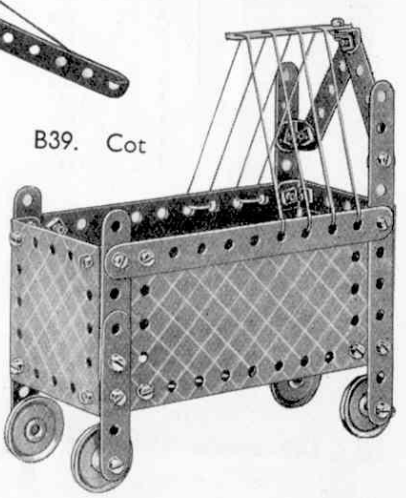


B35 Weather Vane



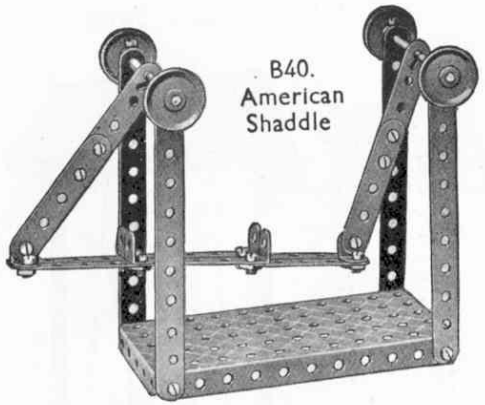
Parts required
1 of No. 2
2 „ „ 5
4 „ „ 10
2 „ „ 11
1 „ „ 16
1 „ „ 22
1 „ „ 23
1 „ „ 24
12 „ „ 37
1 „ „ 52
1 „ „ 126a

B39. 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

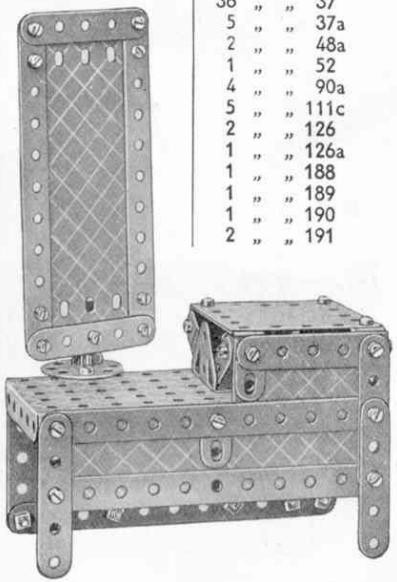
B40. American Shaddle



Parts required

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

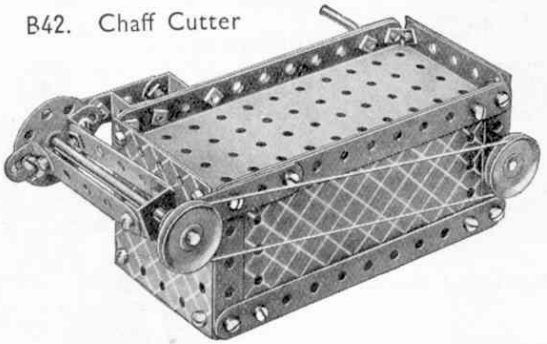
B41. Modern Dressing Table



Parts required

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

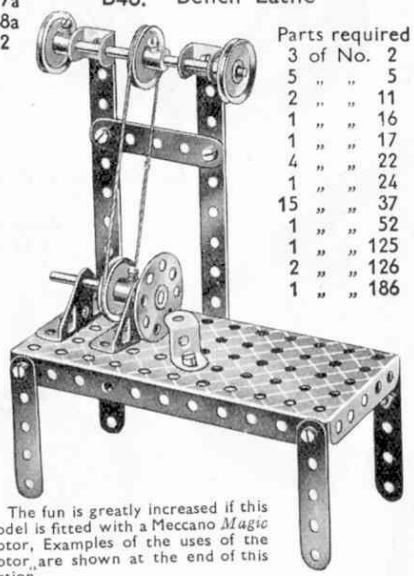
B42. Chaff Cutter



Parts required

4	of No. 2	2	of No. 23
8	„ „ 5	7	„ „ 37
1	„ „ 11	1	„ „ 37a
6	„ „ 12	1	„ „ 111c
1	„ „ 16		
1	„ „ 19s		
2	„ „ 22		
1	„ „ 24		
2	„ „ 35		
33	„ „ 37		
1	„ „ 40		
1	„ „ 52		
2	„ „ 125		
2	„ „ 190		
2	„ „ 191		

B43. Bench Lathe



Parts required

3	of No. 2	15	„ „ 37
5	„ „ 5	1	„ „ 52
2	„ „ 11	1	„ „ 125
1	„ „ 16	2	„ „ 126
1	„ „ 17	1	„ „ 186
4	„ „ 22		
1	„ „ 24		

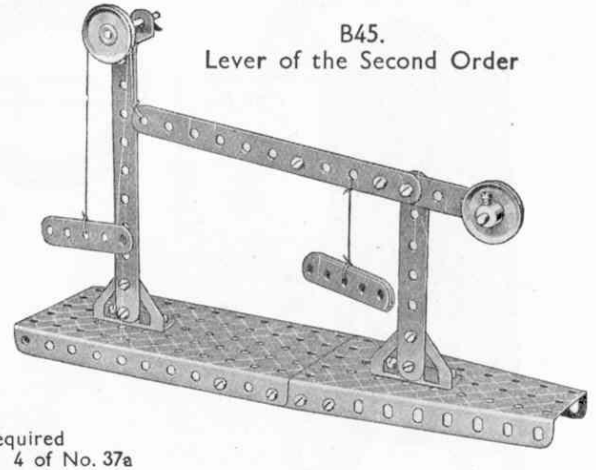
The fun is greatly increased if this model is fitted with a Meccano *Magic* Motor, Examples of the uses of the Motor are shown at the end of this section.

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

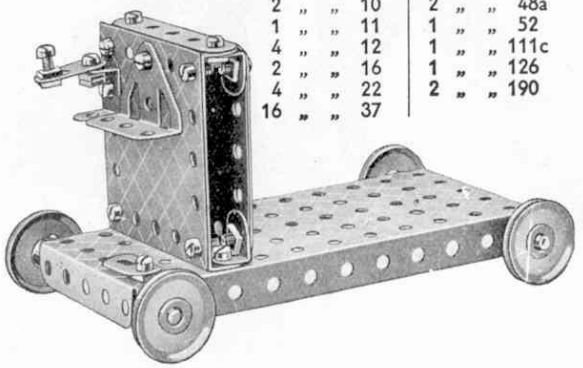
B45. Lever of the Second Order



Parts required

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

B46. Electric Trolley



Parts required

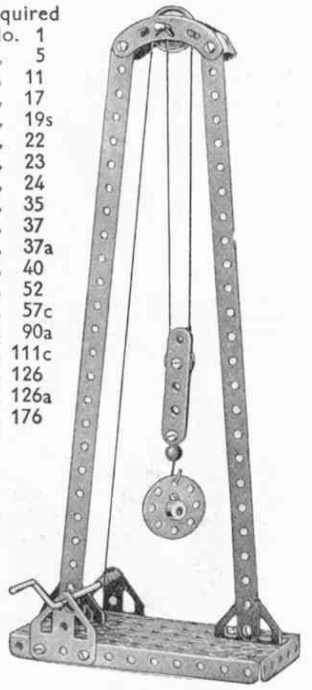
3	of No. 5	4	of No. 37a
2	„ „ 10	2	„ „ 48a
1	„ „ 11	1	„ „ 52
4	„ „ 12	1	„ „ 111c
2	„ „ 16	1	„ „ 126
4	„ „ 22	2	„ „ 190
16	„ „ 37		

B47. Teacher's Desk

Parts required

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

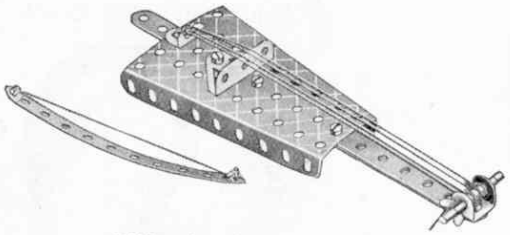
B48. Pulley Block



Parts required

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

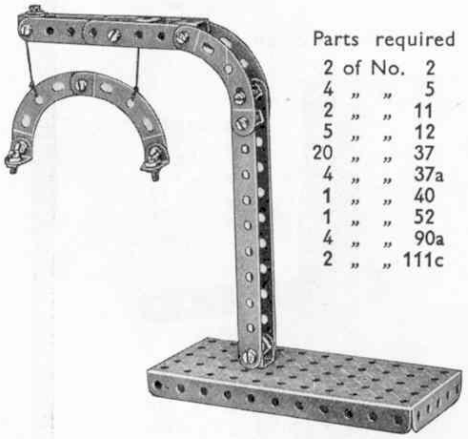
B49. Violin and Bow



Parts required

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

B50. Loading Gauge



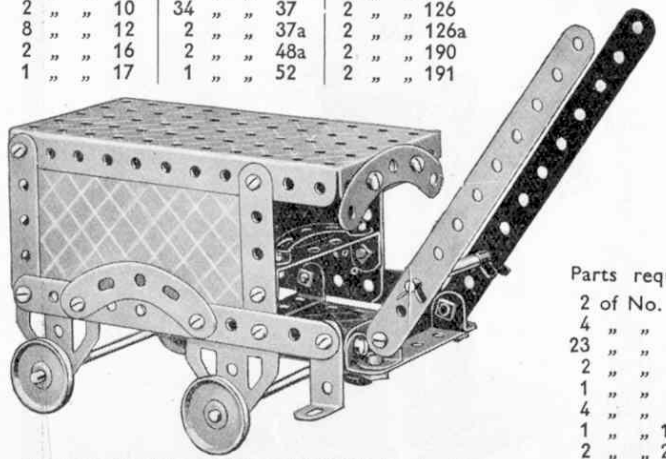
Parts required

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

B51. Bread Van

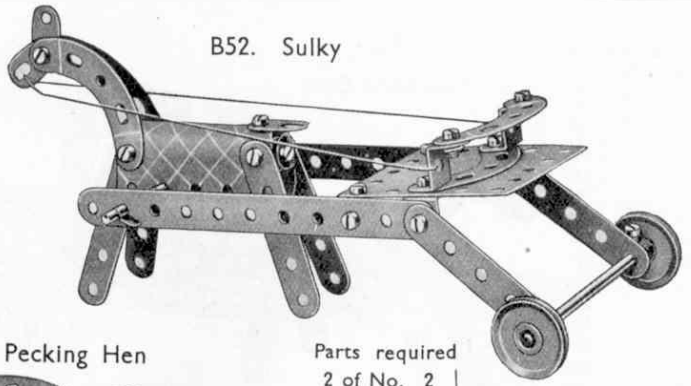
Parts required

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
2 „ „ 16	2 „ „ 48a	2 „ „ 190
1 „ „ 17	1 „ „ 52	2 „ „ 191



An alternative design of this model (B51M), fitted with the Meccano *Magic* Motor, is shown at the end of this section

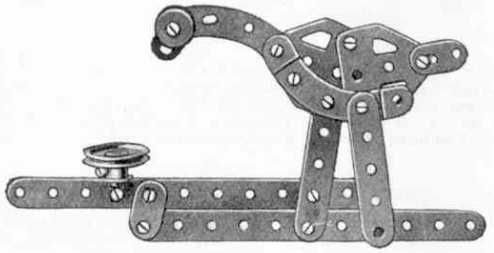
B52. Sulky



Parts required

2	of No.	2
6	„ „	5
3	„ „	10
6	„ „	12
2	„ „	16
2	„ „	22
4	of No.	35
17	„ „	37
1	„ „	37a
1	„ „	40
1	„ „	48a
4	of No.	90a
1	„ „	111c
2	„ „	125
1	„ „	190
1	„ „	199

B53. Pecking Hen

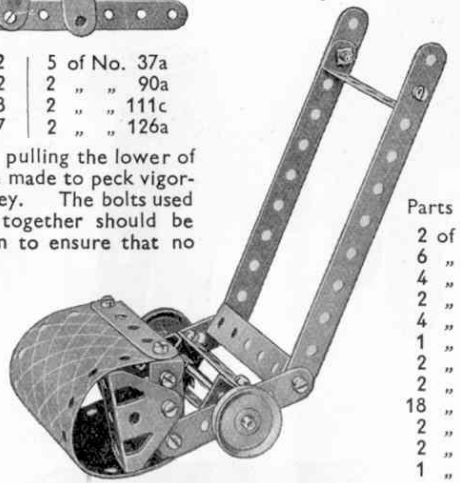


Parts required

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

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

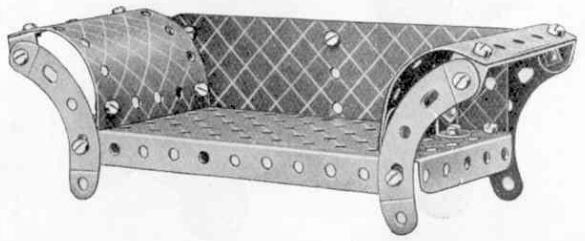
B54. Grass Cutter



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

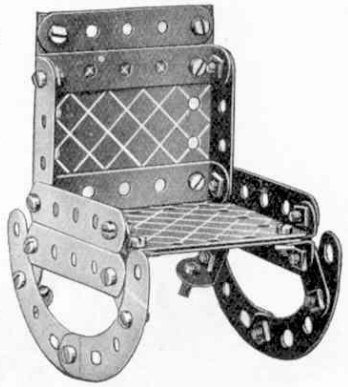
B55. Couch



Parts required

2	of No.	2
4	„ „	12
23	„ „	37
2	„ „	48a
1	„ „	52
4	„ „	90a
1	„ „	189
2	„ „	200

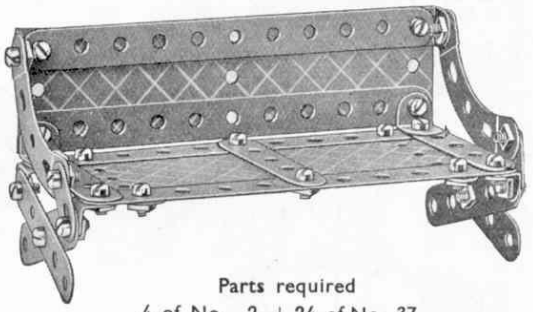
B56. Rocking Chair



Parts required

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

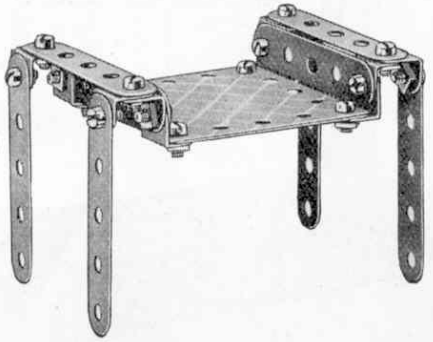
B57. Station Seat



Parts required

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

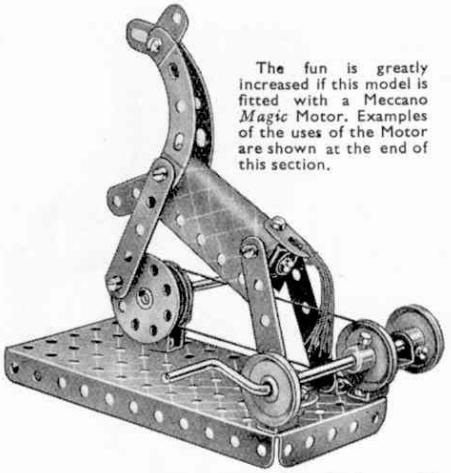
B58. Stool for Dressing Table



Parts required

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

B59. Prancing Horse

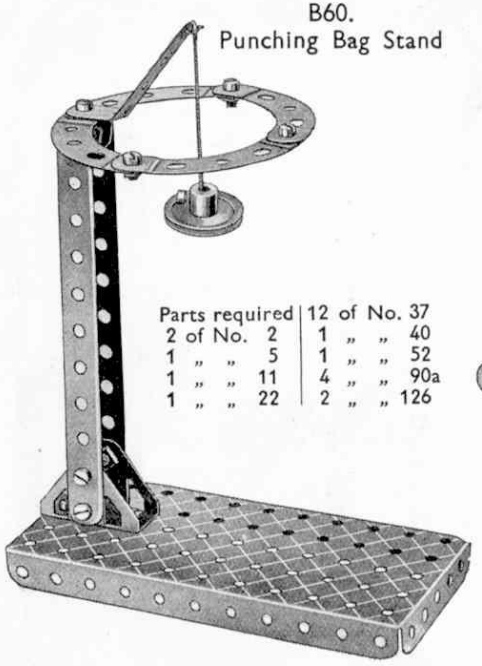


The fun is greatly increased if this model is fitted with a Meccano *Magic* Motor. Examples of the uses of the Motor are shown at the end of this section.

Parts required

4	of No.	5	4	of No. 22	1 of No. 52
3	„ „	10	1	„ „ 24	2 „ „ 90a
8	„ „	12	14	„ „ 37	4 „ „ 111c
1	„ „	17	8	„ „ 37a	2 „ „ 125
1	„ „	19s	1	„ „ 40	1 „ „ 186
			1	„ „ 44	1 „ „ 199

B60. Punching Bag Stand



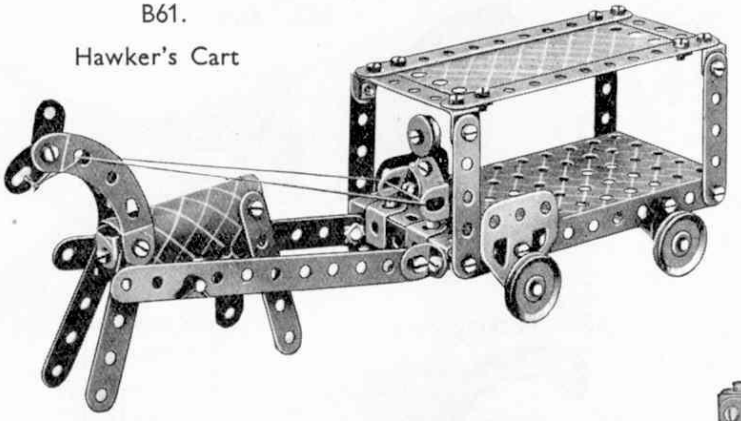
Parts required

2	of No.	2	1	„ „	40
1	„ „	5	1	„ „	52
1	„ „	11	4	„ „	90a
1	„ „	22	2	„ „	126

Parts required

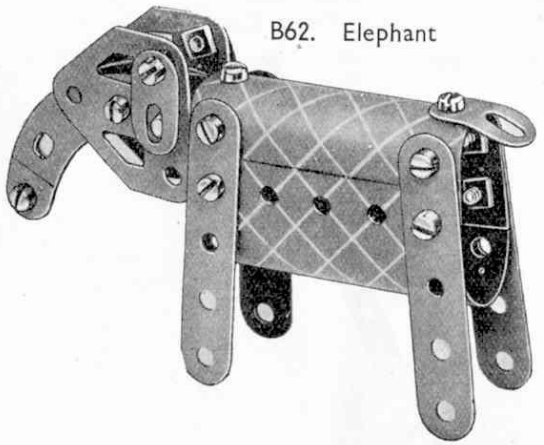
4	of No.	2
8	„ „	5
4	„ „	10
8	„ „	12
2	„ „	16
1	„ „	17
4	„ „	22
1	„ „	23
4	„ „	35
35	„ „	37
4	„ „	37a
1	„ „	40
2	„ „	48a
1	„ „	52
2	„ „	90a
2	„ „	111c
2	„ „	125
2	„ „	126
2	„ „	126a
1	„ „	191
1	„ „	199

B61. Hawker's Cart



The fun is greatly increased if this model is fitted with a Meccano *Magic* Motor. For examples of the uses of the Motor see the Magic Motor pages at the end of this section. If the Motor is fitted, a Bush Wheel should be mounted on a 2" Rod fitted between the hind legs of the horse.

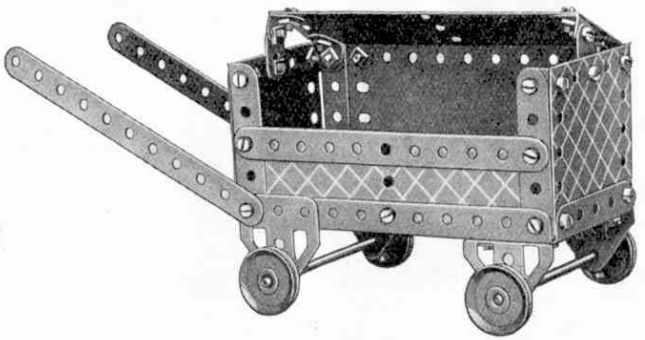
B62. Elephant



Parts required

4	of No.	5
3	„ „	10
15	„ „	37
2	„ „	37a
2	„ „	90a
2	„ „	126a
2	„ „	199

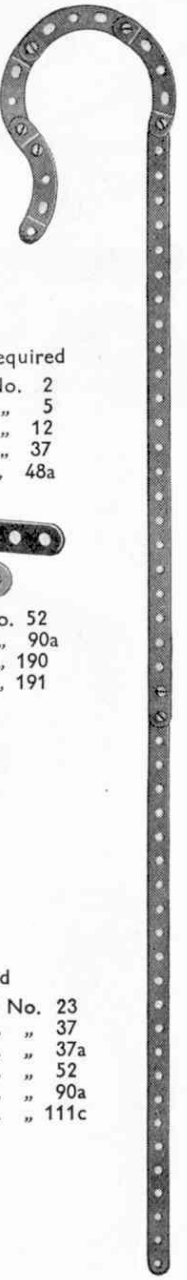
B63. Ash Cart



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

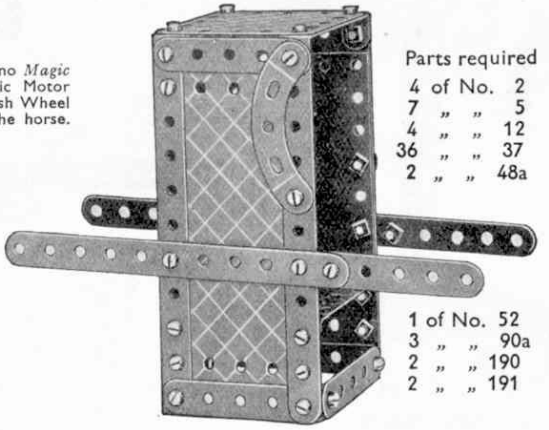
B64. Shepherd's Crook



Parts required

2	of No.	1
7	„ „	37
4	„ „	90a

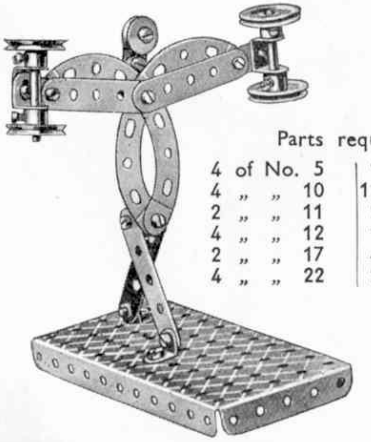
B65. Sedan Chair



Parts required

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

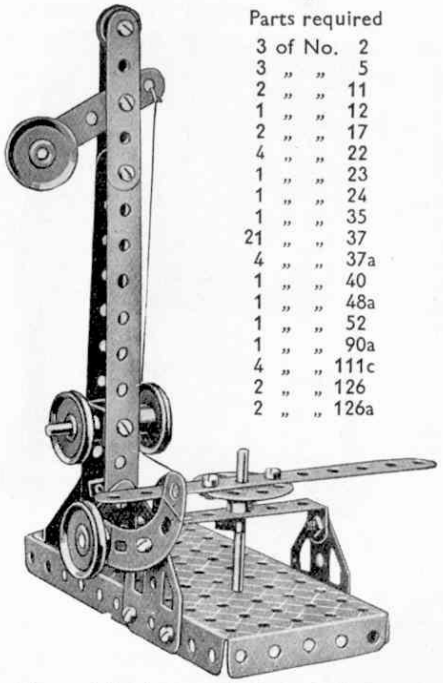
B66. Strong Man



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

B67. Automatic Signals

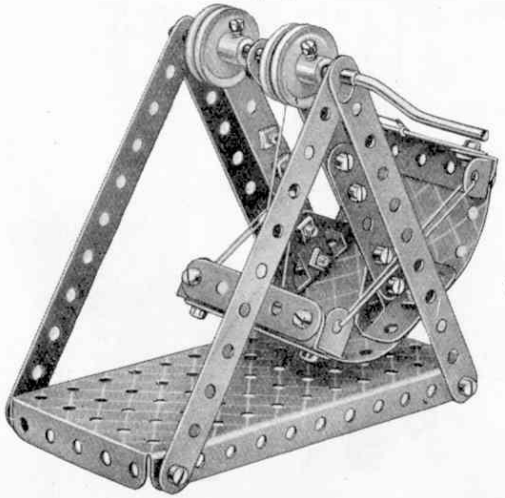


Parts required

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

The weighted Curved Strip is locknutted to the Flat Trunnion. When the horizontal $5\frac{1}{2}$" Strip is tripped by the locomotive the signal is raised to "danger" until the mechanism is re-set.

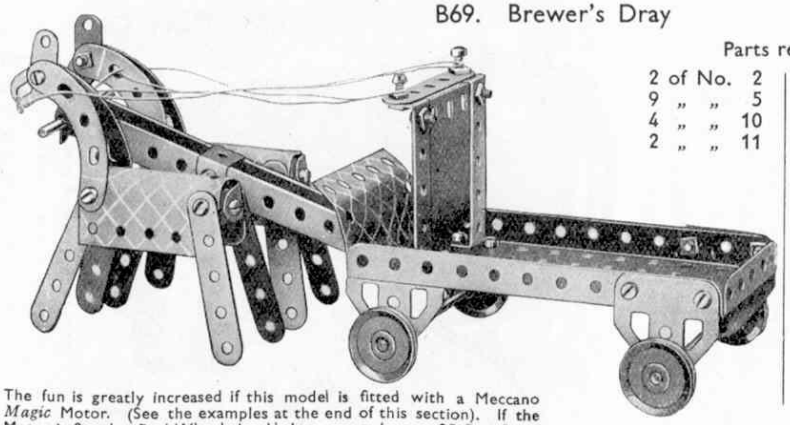
B68. Swinging Boat



Parts required

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

B69. Brewer's Dray

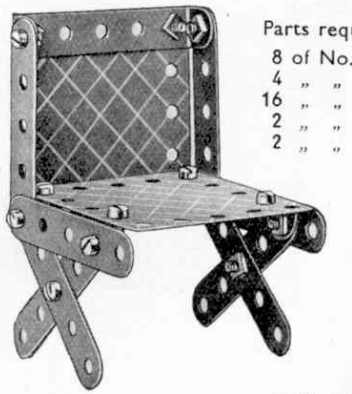


The fun is greatly increased if this model is fitted with a Meccano *Magic* Motor. (See the examples at the end of this section). If the Motor is fitted, a Bush Wheel should be mounted on a 2" Rod fitted between the inner hind legs of the two horses.

Parts required

2	of No.	2
9	„ „	5
4	„ „	10
2	„ „	11
8	of No.	12
2	„ „	16
2	„ „	17
4	„ „	22
6	„ „	35
29	„ „	37
8	„ „	37a
1	„ „	40
2	„ „	48a
1	„ „	52
4	„ „	90a
4	„ „	111c
2	„ „	126
2	„ „	126a
1	„ „	191
2	„ „	199

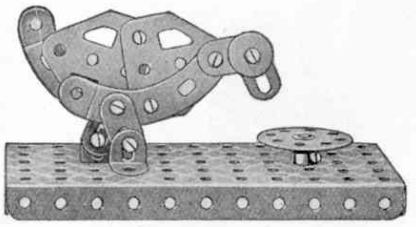
B70. Chair



Parts required

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

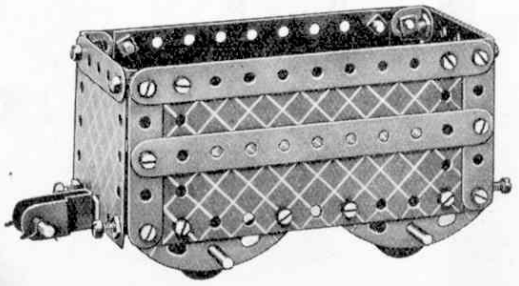
B71. Goose



Parts required

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

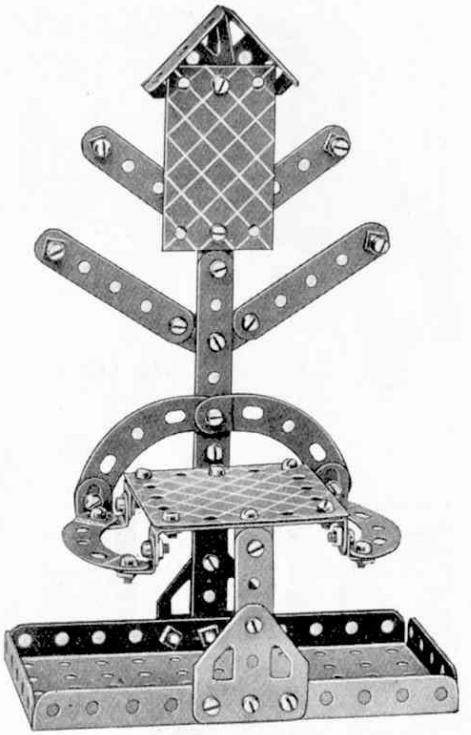
B72. Cattle Truck



Parts required

4	of No.	2
6	„ „	5
4	„ „	12
2	„ „	16
1	„ „	17
4	of No.	22
2	„ „	35
29	„ „	37
9	„ „	37a
1	„ „	44
1	of No.	52
4	„ „	90a
4	„ „	111c
2	„ „	190
2	„ „	191

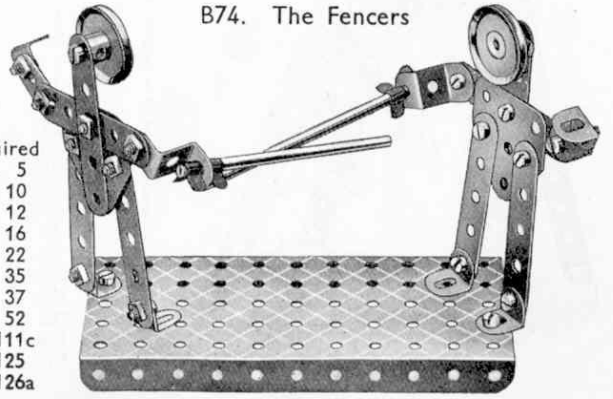
B73. Hat Rack



Parts required

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

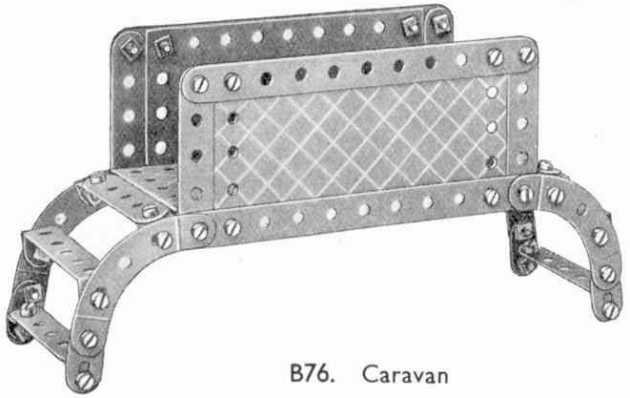
B74. The Fencers



Parts required

8	of No.	5
2	„ „	10
6	„ „	12
2	„ „	16
2	„ „	22
4	„ „	35
18	„ „	37
1	„ „	52
2	„ „	111c
2	„ „	125
2	„ „	126a

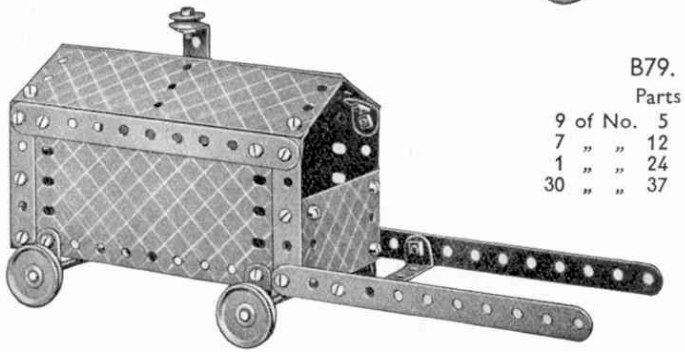
B75. Footbridge



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

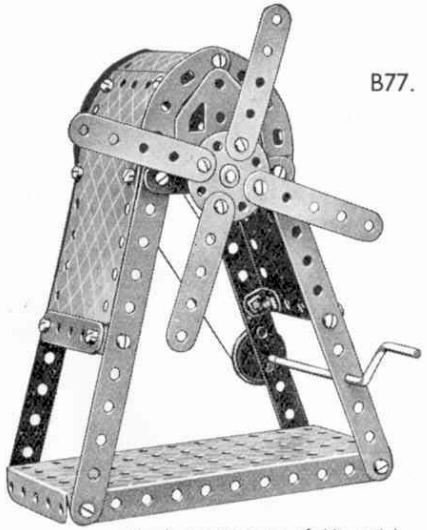
B76. Caravan



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

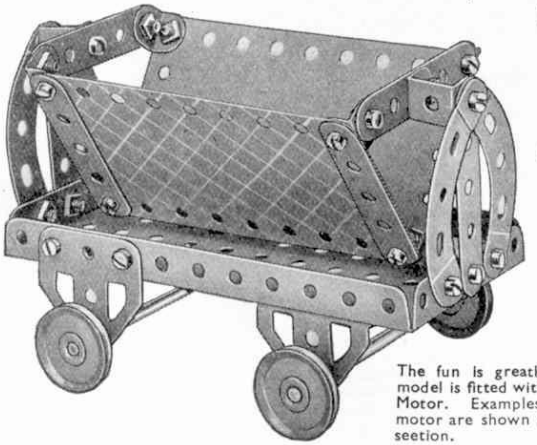


An alternative design of this model (B77M), fitted with the Meccano *Magic* Motor is shown at the end of this section.

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

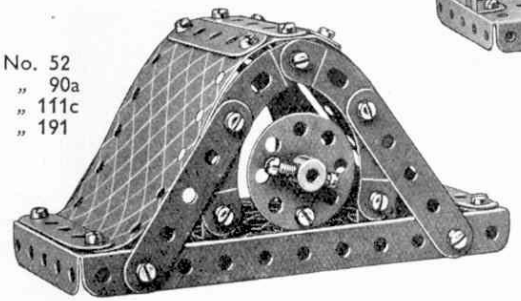


Parts required

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

The fun is greatly increased if this model is fitted with a Meccano *Magic* Motor. Examples of the uses of this motor are shown at the end of this seetion.

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

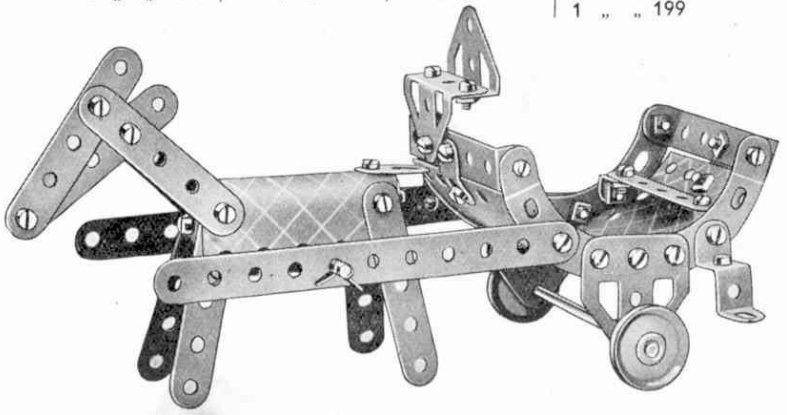
4	of No.	5
4	„ „	10
2	„ „	11
4	„ „	12
1	„ „	23
15	„ „	37
1	„ „	37a
1	„ „	52
1	„ „	111c

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

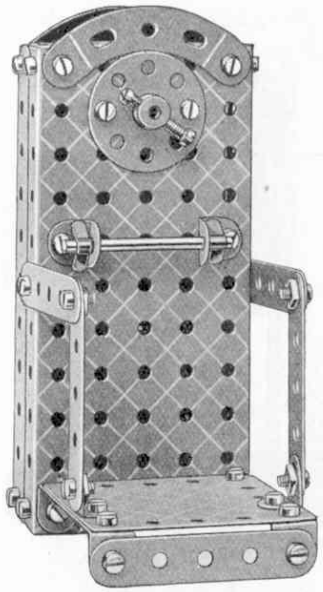
B82. Two-wheeled Trap



Parts required

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

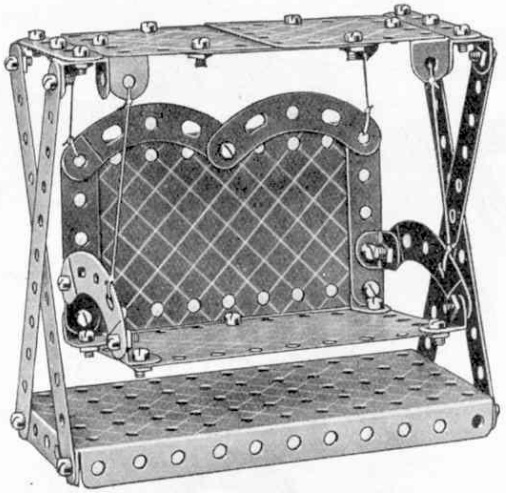
2	of No.	125
2	„ „	126
2	„ „	126a
1	„ „	191
1	„ „	199



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

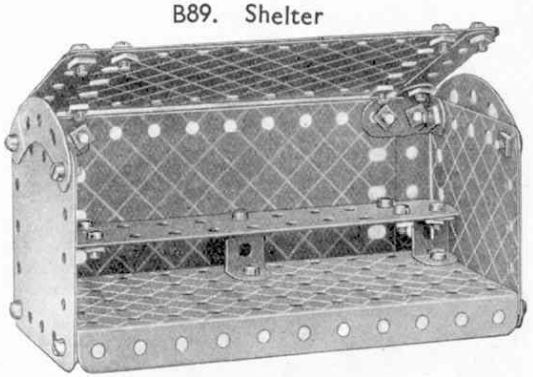


B86. Swinging Garden Seat

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



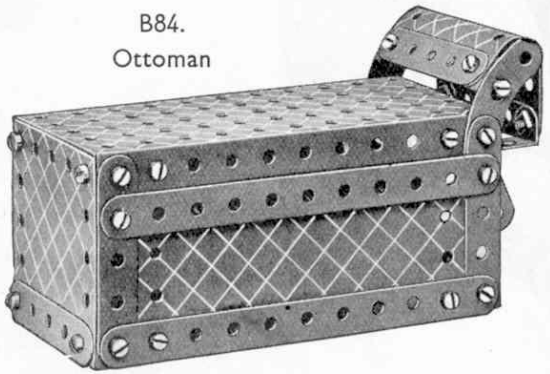
Parts required

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			

Parts required

4	of No.	2	1	of No.	48a
7	„ „	5	1	„ „	52
2	„ „	10	2	„ „	90a
2	„ „	11	1	„ „	190
4	„ „	12	2	„ „	191
34	„ „	37	1	„ „	199

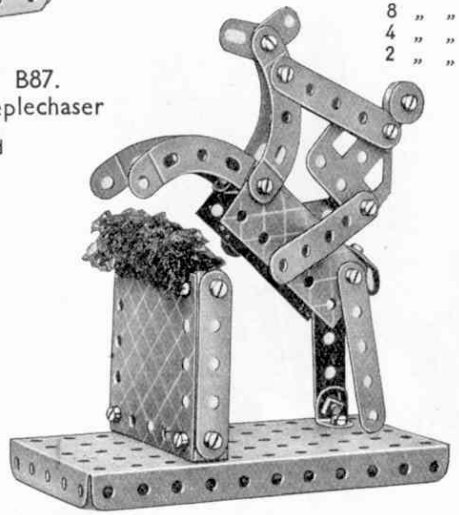
B84. Ottoman



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
1	„ „	190
1	„ „	199

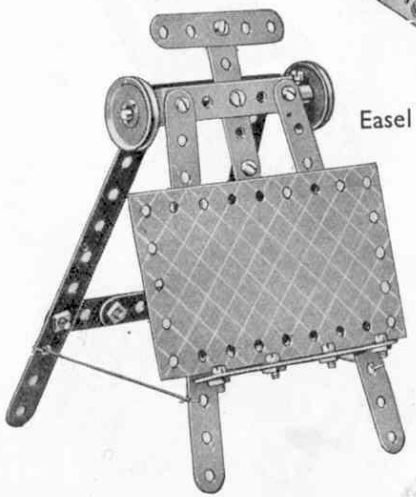


B88. Horse and Cart

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			

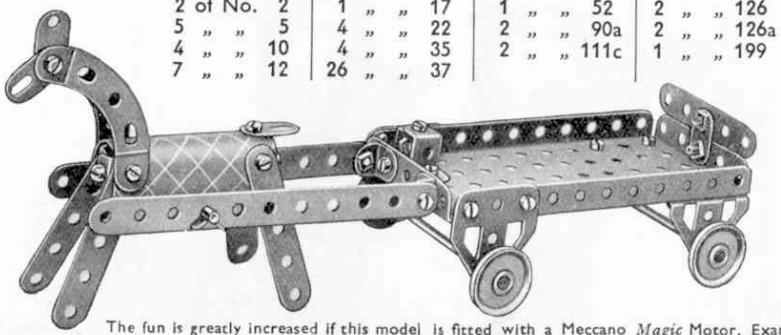
1	of No.	125
2	„ „	126
2	„ „	126a
1	„ „	199



B85. Easel and Board

Parts required

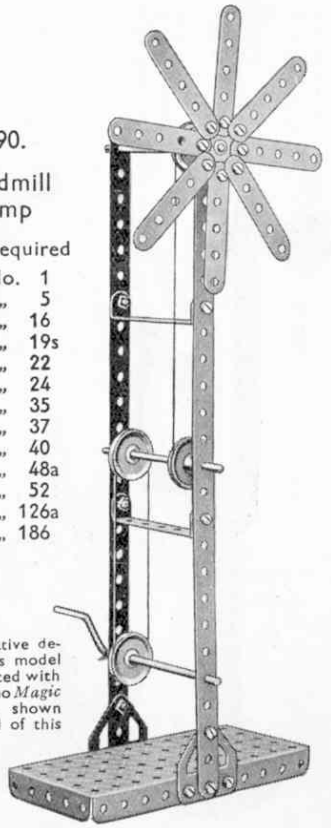
4	of No.	2
7	„ „	5
1	„ „	10
2	„ „	12
1	„ „	16
2	„ „	22
20	„ „	37
1	„ „	40
2	„ „	48a
1	„ „	191



B90. Windmill Pump

Parts required

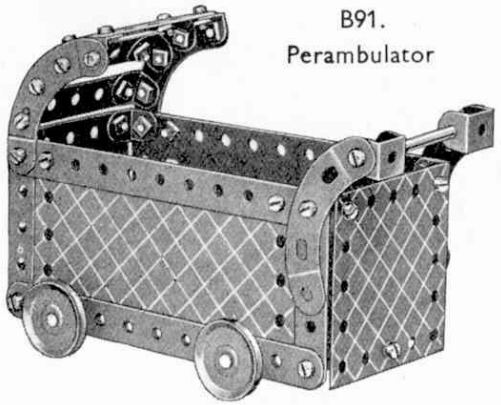
2	of No.	1
8	„ „	5
2	„ „	16
1	„ „	19s
4	„ „	22
1	„ „	24
1	„ „	35
20	„ „	37
1	„ „	40
2	„ „	48a
1	„ „	52
2	„ „	126a
1	„ „	186



An alternative design of this model (B90M), fitted with the Meccano *Magic* Motor, is shown at the end of this section.

The fun is greatly increased if this model is fitted with a Meccano *Magic* Motor. Examples showing how the motor can be incorporated in models is shown at the end of this section. If the Motor is fitted, a Bush Wheel should be mounted on a 2" Rod fitted between the hind legs of the horse.

B91. Perambulator



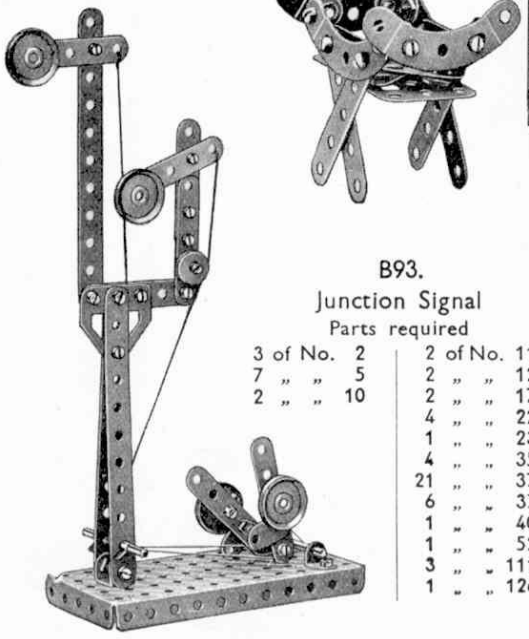
Parts required

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

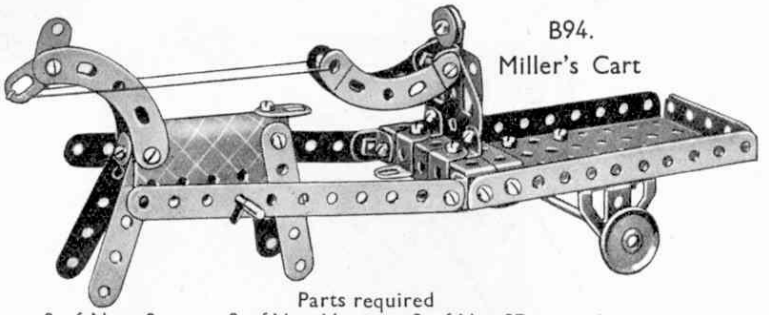


B93. Junction Signal

Parts required

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

B94. Miller's Cart



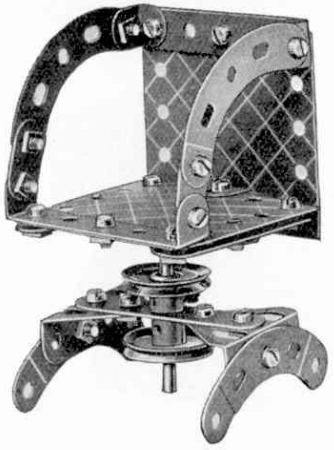
Parts required

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

2	of No.	111c	
2	„ „	125	
2	„ „	126	
2	„ „	126a	
1	„ „	199	

An alternative design of this model (B94M), fitted with the Meccano *Magic* Motor is shown at the end of this section.

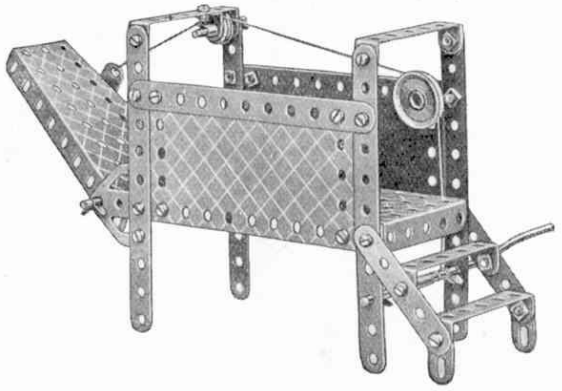
B95. Revolving Office Chair



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

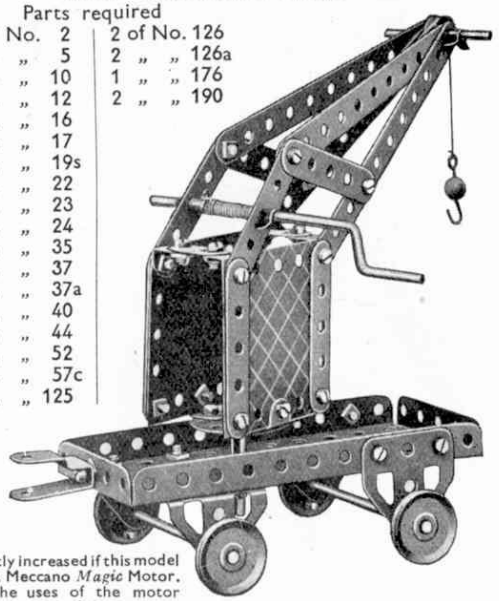
Parts required

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

B98. Breakdown Crane

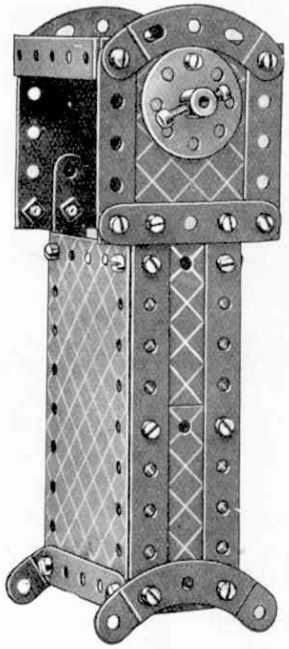
Parts required

4	of No.	2	2	of No.	126
8	„ „	5	2	„ „	126a
3	„ „	10	1	„ „	176
8	„ „	12	2	„ „	190
2	„ „	16			
2	„ „	17			
1	„ „	19s			
4	„ „	22			
1	„ „	23			
1	„ „	24			
5	„ „	35			
32	„ „	37			
1	„ „	37a			
1	„ „	40			
1	„ „	44			
1	„ „	52			
1	„ „	57c			
1	„ „	125			



The fun is greatly increased if this model is fitted with a Meccano *Magic* Motor. Examples of the uses of the motor are shown at the end of this section.

B99. Grandfather Clock



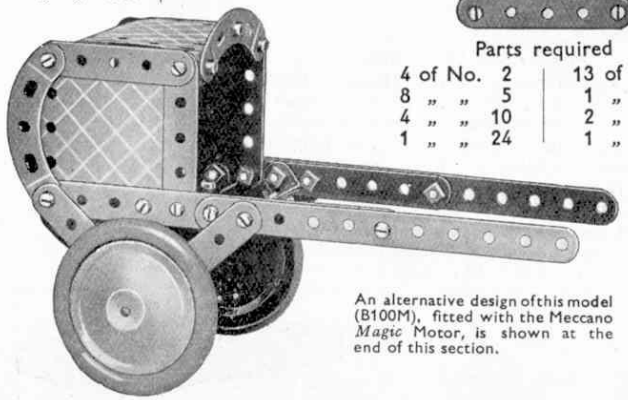
Parts required

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

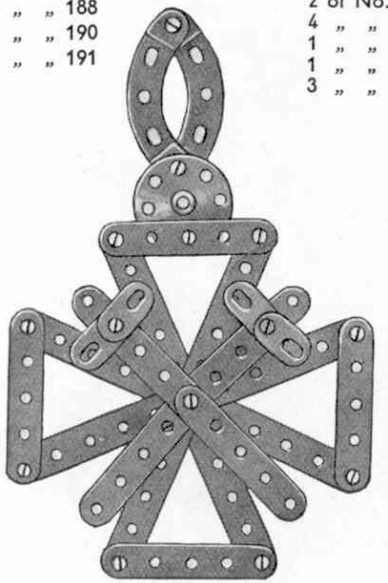
Parts required

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			



An alternative design of this model (B100M), fitted with the Meccano *Magic* Motor, is shown at the end of this section.

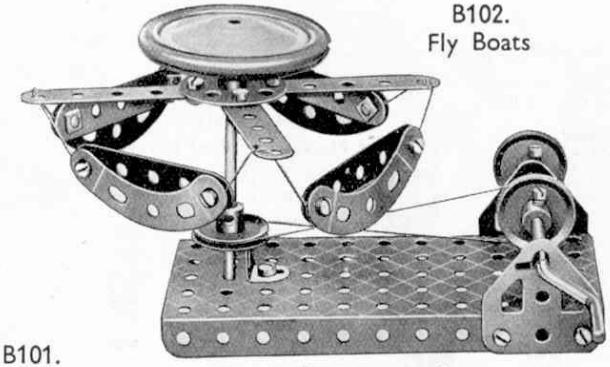
B101. Medal



Parts required

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

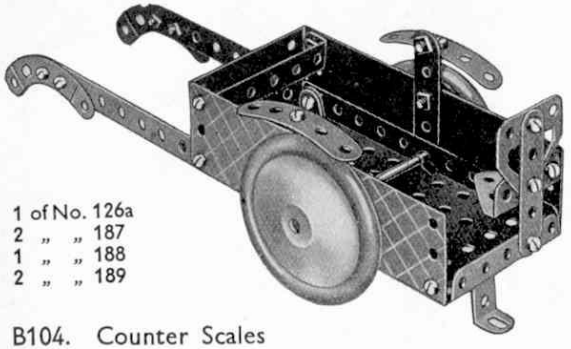
B102. Fly Boats



Parts required

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

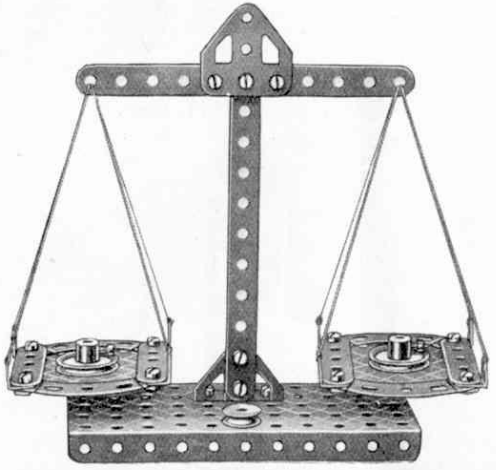
B103. Milk Float



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			

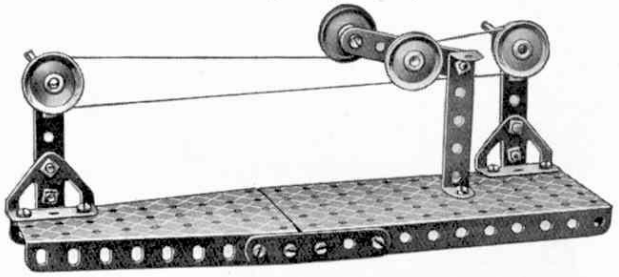
B104. Counter Scales



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

B105. Jockey Pulley



Parts required

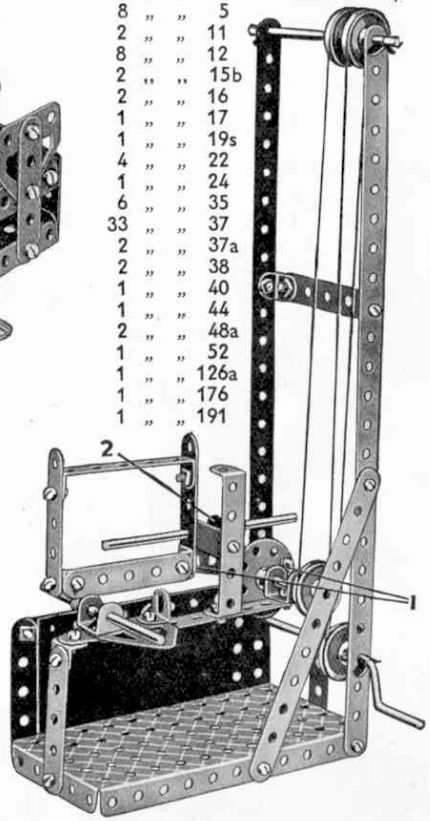
5	of No.	2
2	„ „	17
4	„ „	22
2	„ „	35
20	„ „	37
1	„ „	37a
1	„ „	40
1	„ „	48a
1	„ „	52
1	„ „	54a
2	„ „	111c
2	„ „	125
2	„ „	126

B106. Power Hack Saw

The Crank Handle drives an overhead shaft through 1" Pulleys and cord, and a similar arrangement conveys the drive to a 2" Rod carrying a Bush Wheel. A 2½" Strip is pivoted to the Bush Wheel and to an Angle Bracket bolted to the saw frame. These pivots 1 are each locknutted, A Cranked Bent Strip 2 carries a 3½" Rod on which the saw frame slides. An alternative design of this model (B106M) fitted with the Meccano *Magic* Motor, is shown at the end of this section.

Parts required

2	of No.	1
3	„ „	2
8	„ „	5
2	„ „	11
8	„ „	12
2	„ „	15b
2	„ „	16
1	„ „	17
1	„ „	19s
4	„ „	22
1	„ „	24
6	„ „	35
33	„ „	37
2	„ „	37a
2	„ „	38
1	„ „	40
1	„ „	44
2	„ „	48a
1	„ „	52
1	„ „	126a
1	„ „	176
1	„ „	191



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

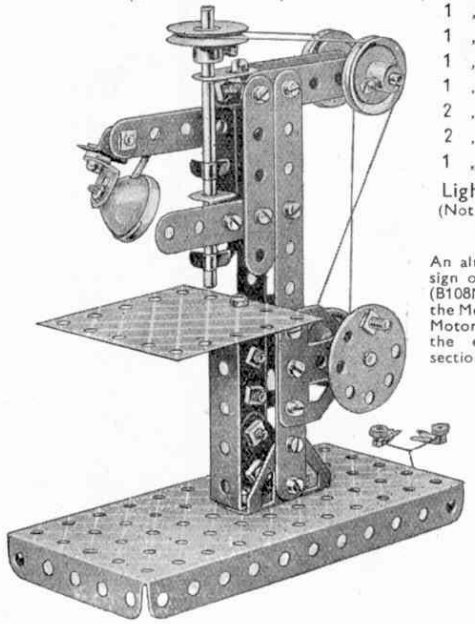
Lighting Set (Not included in Outfit).

B108. Sensitive Drill

Parts required

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

Lighting Set (Not included in Outfit).



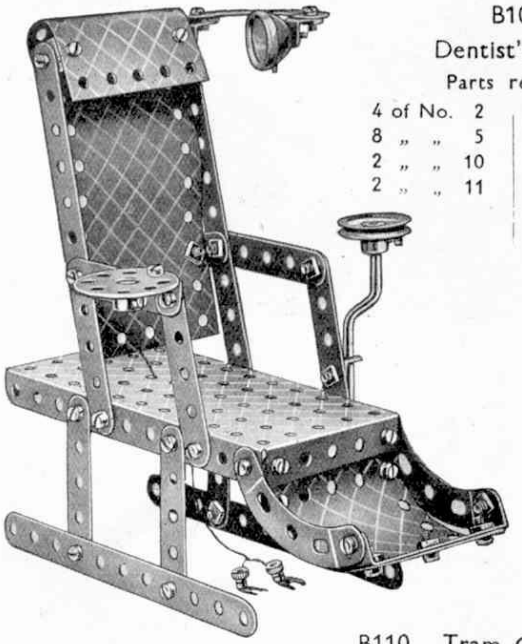
An alternative design of this model (B108M), fitted with the Meccano *Magic* Motor, is shown at the end of this section.

B109. Dentist's Chair

Parts required

4	of No. 2	7	of No. 12	1	of No. 52
8	„ „ 5	1	„ „ 19s	4	„ „ 90a
2	„ „ 10	1	„ „ 22	2	„ „ 125
2	„ „ 11	1	„ „ 24	2	„ „ 126a
		3	„ „ 35	2	„ „ 190
		36	„ „ 37		
		6	„ „ 37a		
		1	„ „ 48a		
		1	„ „ 52		
		3	„ „ 90a		
		4	„ „ 111c		
		1	„ „ 126a		
		1	„ „ 191		
		1	„ „ 199		
		1	„ „ 200		

Lighting Set (Not included in Outfit).

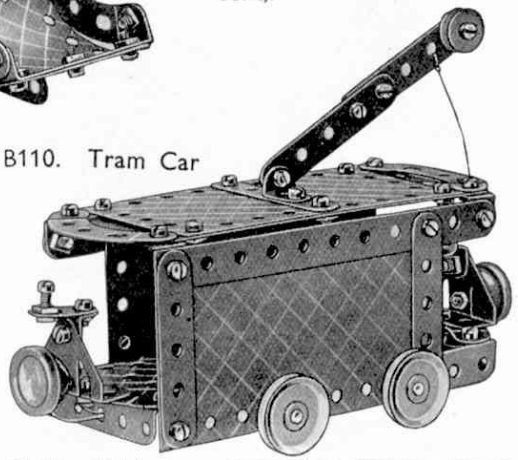


Parts required

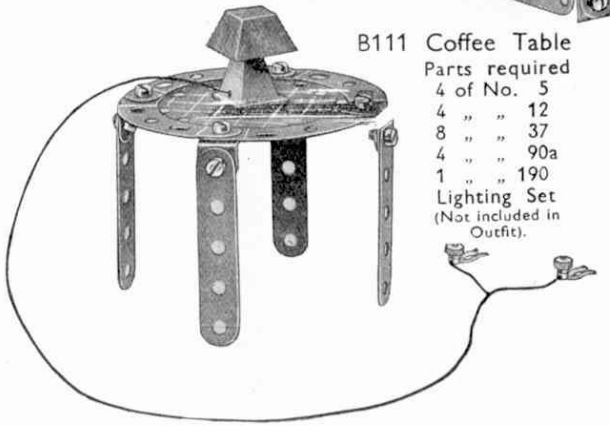
4	of No. 2	1	of No. 40
2	„ „ 10	2	„ 48a
2	„ „ 11	1	„ „ 52
3	„ „ 12	4	„ „ 90a
2	„ „ 16	3	„ „ 111c
4	„ „ 22	2	„ „ 126
1	„ „ 23	2	„ „ 190
34	„ „ 37	2	„ „ 191
6	„ „ 37a		

Lighting Set (Not included in in Outfit).

B110. Tram Car



B111 Coffee Table

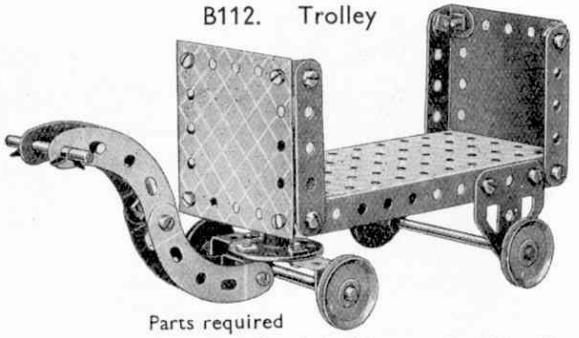


Parts required

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

Lighting Set (Not included in Outfit).

B112. Trolley



Parts required

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

B113. Arc Lamp

Parts required

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

Lighting Set (Not included in Outfit).

MECCANO LIGHTING SET

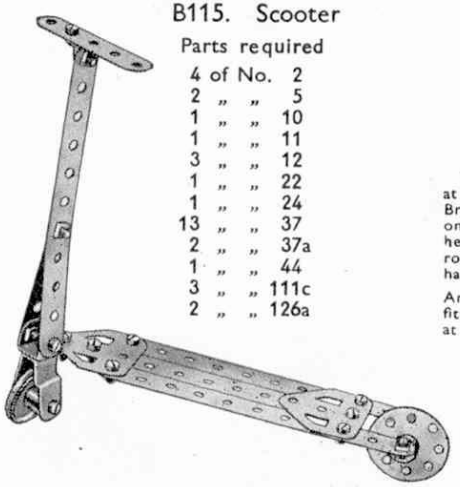
The appearance of many Meccano models, especially those built with Outfits A, B and C, is greatly improved by the addition of electric lights at suitable points. For this purpose a Meccano Lighting Set has been introduced. This consists of two pea-lamps, two lanterns for use as headlamps or spot lights, and a fancy stand lamp. The appearance and uses of the parts 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			

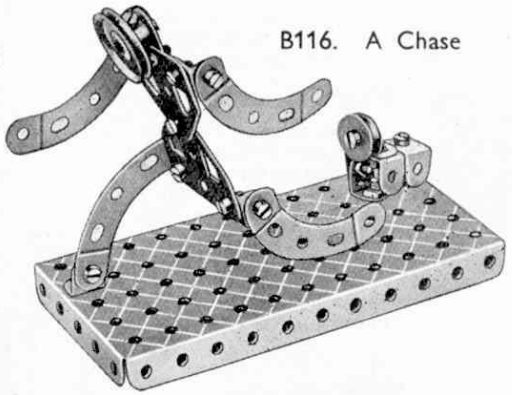
B115. Scooter



Parts required

4	of No.	2
2	„ „	5
1	„ „	10
1	„ „	11
3	„ „	12
1	„ „	22
1	„ „	24
13	„ „	37
2	„ „	37a
1	„ „	44
3	„ „	111c
2	„ „	126a

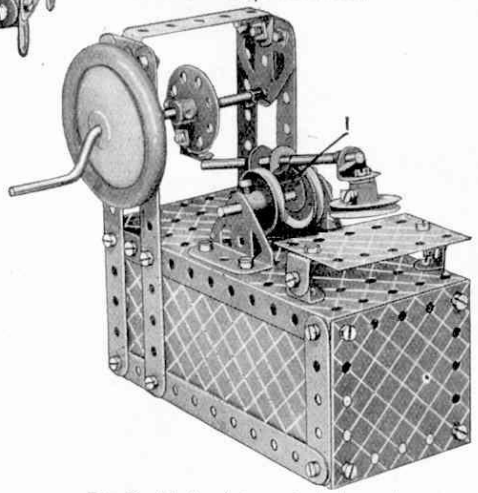
B116. A Chase



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

B117. Trip Hammer



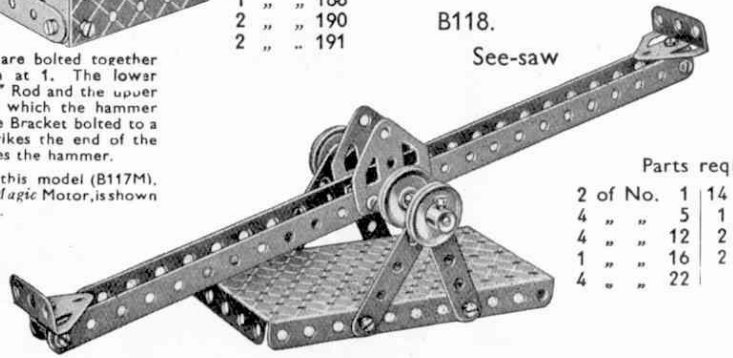
Two Double Brackets are bolted together at right angles as shown at 1. The lower Bracket pivots about a 2" Rod and the upper one carries a 3½" Rod to which the hammer head is fitted. An Angle Bracket bolted to a rotating Bush Wheel strikes the end of the hammer Rod and operates the hammer.

An alternative design of this model (B117M), fitted with the Meccano *Magic* Motor, is shown at the end of this section.

Parts required

6	of No.	2
2	„ „	5
2	„ „	11
8	„ „	12
1	„ „	15b
1	„ „	17
1	„ „	19s
3	„ „	22
1	„ „	24
4	„ „	35
40	„ „	37
1	„ „	38
2	„ „	48a
1	„ „	52
1	„ „	111c
2	„ „	126
2	„ „	126a
1	„ „	176
1	„ „	187
1	„ „	188
2	„ „	190
2	„ „	191

B118. See-saw



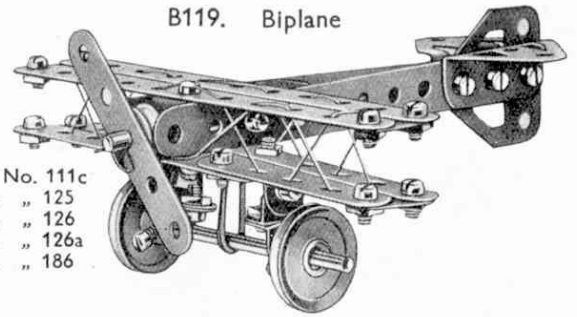
Parts required

2	of No.	1	14	of No.	37
4	„ „	5	1	„ „	52
4	„ „	12	2	„ „	126
1	„ „	16	2	„ „	126a
4	„ „	22			

Parts required

4	of No.	2	3	of No.	111c
6	„ „	5	2	„ „	125
4	„ „	10	2	„ „	126
2	„ „	11	1	„ „	126a
4	„ „	12	1	„ „	186
2	„ „	16			
2	„ „	22			
1	„ „	23			
2	„ „	35			
22	„ „	37			
3	„ „	37a			
1	„ „	40			

B119. Biplane



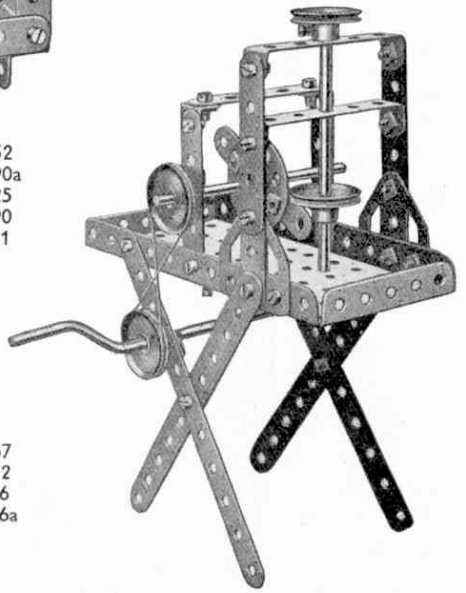
B120. Sideboard

Parts required

2	of No.	2	3	of No.	22
5	„ „	5	1	„ „	24
8	„ „	12	2	„ „	35
2	„ „	17	28	„ „	37
			2	„ „	37a

1	of No.	52
3	„ „	90a
2	„ „	125
2	„ „	190
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

HOW TO CONTINUE

When you have built the B Outfit Models illustrated, and fitted a number of them with the Meccano *Magic* Motor (see following two pages), your next step is to purchase a Ba Accessory Outfit. This converts your B Outfit into a C and enables you to build bigger and better models.

The greatest thrill in Meccano model-building is experienced when a model is set to work by means of a Meccano Motor. The models featured on this and the next page are more elaborate variations of a selection of Outfit B Models, showing how the new Meccano *Magic* Motor can be fitted to give more realism and to increase the fun. The numbers of these re-designed models are the same as those of the corresponding models in the preceding pages, with the addition of the letter M. Try your hand at re-designing other models in a similar manner and become a real inventor.

B100M. Rickshaw

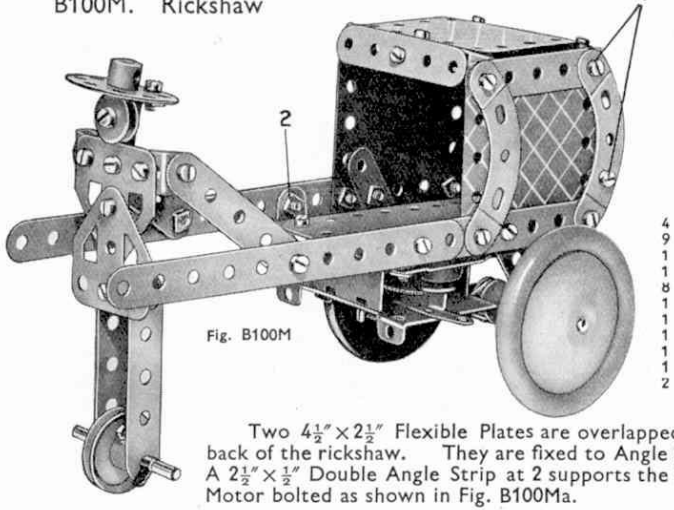


Fig. B100M

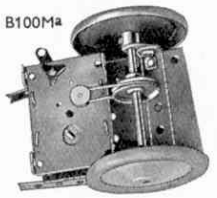


Fig. B100Ma

Parts required

4	of	No. 2	34	of	No. 37
9	,,	,, 5	1	,,	,, 37a
1	,,	,, 10	2	,,	,, 48a
1	,,	,, 11	4	,,	,, 90a
8	,,	,, 12	1	,,	,, 111c
1	,,	,, 15b	2	,,	,, 126a
1	,,	,, 17	2	,,	,, 187
1	,,	,, 22	2	,,	,, 190
1	,,	,, 23	2	,,	,, 191
1	,,	,, 24	*Magic* Motor		
2	,,	,, 35			

Two $4\frac{1}{2}'' \times 2\frac{1}{2}''$ Flexible Plates are overlapped $\frac{1}{2}''$ to form the top and back of the rickshaw. They are fixed to Angle Brackets at the points 1. A $2\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strip at 2 supports the floor and also the *Magic* Motor bolted as shown in Fig. B100Ma.

B108M. Sensitive Drill

The $3\frac{1}{2}''$ Rod 1 representing the drill is journalled at the top in a $2\frac{1}{2}''$ Strip and at the bottom in a Flat Bracket. The Flat Bracket is secured to an Angle Bracket held by the bolt 2. One of the two 1" Pulleys forming guides for the cord is free on its Rod.

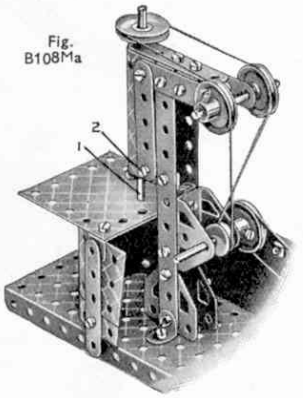


Fig. B108Ma

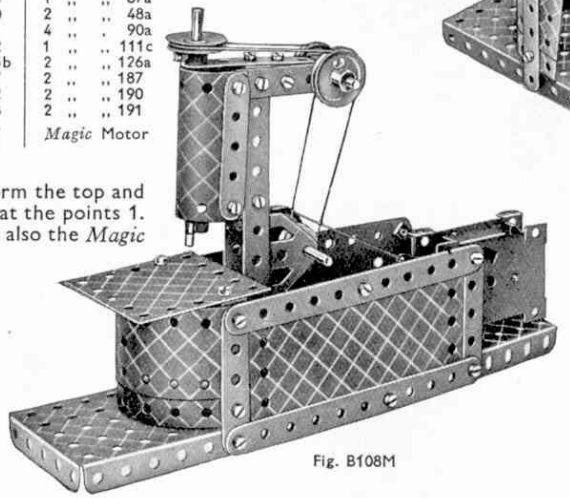


Fig. B108M

Parts required

6	of	No. 2	1	of	No. 111c
9	,,	,, 5	2	,,	,, 126
2	,,	,, 10	2	,,	,, 126a
2	,,	,, 11	2	,,	,, 126a
7	,,	,, 12	2	,,	,, 189
1	,,	,, 15b	2	,,	,, 190
2	,,	,, 17	1	,,	,, 191
4	,,	,, 22	1	,,	,, 199
1	,,	,, 23	*Magic* Motor		
2	,,	,, 35			
36	,,	,, 37			
6	,,	,, 37a			
1	,,	,, 40			
1	,,	,, 48a			
1	,,	,, 52			
1	,,	,, 54a			

B106M. Power Hacksaw

The saw frame slides on a $3\frac{1}{2}''$ Axle Rod held in a Cranked Bent Strip and is driven to and fro by a $2\frac{1}{2}''$ Strip connected to a revolving Bush Wheel. The bolts 1 are provided with locknuts to form pivots.

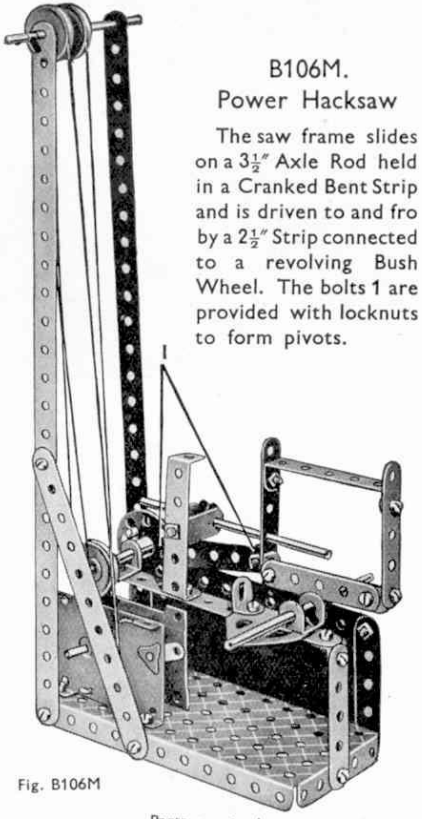


Fig. B106M

Parts required

2	of	No. 1	6	of	No. 12
3	,,	,, 2	1	,,	,, 15b
7	,,	,, 5	2	,,	,, 16
2	,,	,, 11	1	,,	,, 17
			3	,,	,, 22
			1	,,	,, 24
			5	,,	,, 35
			30	,,	,, 37
			2	,,	,, 37a
			2	of	No. 38
			1	,,	,, 40
			1	,,	,, 44
			2	,,	,, 48a
			1	,,	,, 52
			1	,,	,, 126a
			1	,,	,, 176
			1	,,	,, 199
			Magic Motor		

B77M. Windmill

The $\frac{1}{2}''$ Pulley on the intermediate Rod drives a 1" Pulley on the Axle Rod carrying the "sails." (See Fig. B77Ma.)

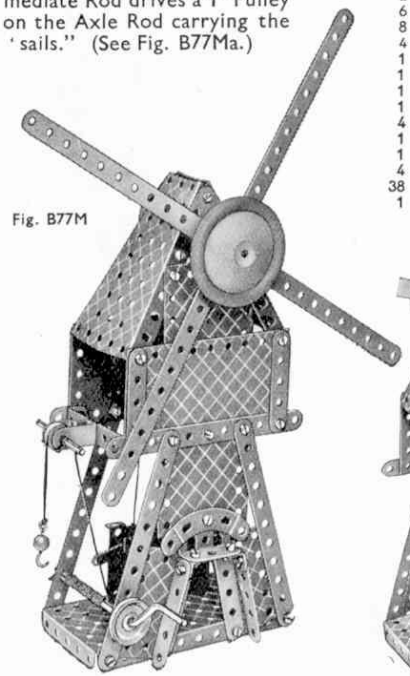


Fig. B77M

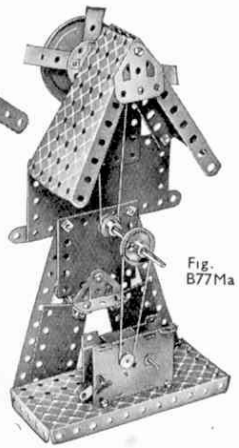


Fig. B77Ma

Parts required

2	of	No. 1	1	of	No. 44
6	,,	,, 2	2	,,	,, 48a
8	,,	,, 5	1	,,	,, 52
4	,,	,, 12	2	,,	,, 54a
1	,,	,, 15b	1	,,	,, 57c
1	,,	,, 16	1	,,	,, 90a
1	,,	,, 17	2	,,	,, 126
1	,,	,, 19s	2	,,	,, 126a
4	,,	,, 22	1	,,	,, 176
1	,,	,, 23	1	,,	,, 187
1	,,	,, 24	2	,,	,, 188
4	,,	,, 35	2	,,	,, 190
38	,,	,, 37	2	,,	,, 191
1	,,	,, 40	*Magic* Motor		

B94M. Miller's Cart

Fig. B94Ma shows how the *Magic* Motor is arranged to drive the Road Wheels. A Bush Wheel is mounted between the hind legs of the horse and the forelegs are kept off the ground by means of the reins.

Parts required

6	of	No. 2	1	of	No. 188
6	,,	,, 5	2	,,	,, 189
5	,,	,, 10	1	,,	,, 199
1	,,	,, 11	*Magic* Motor		
8	,,	,, 12			
1	,,	,, 15b			
2	,,	,, 17			
1	,,	,, 22			
1	,,	,, 23			
1	,,	,, 24			
4	,,	,, 35			
36	,,	,, 37			
3	,,	,, 37a			
6	,,	,, 38			
1	,,	,, 40			
2	,,	,, 48a			
1	,,	,, 52			
4	,,	,, 90a			
3	,,	,, 111c			
2	,,	,, 125			
2	,,	,, 126			
1	,,	,, 126a			
2	,,	,, 187			

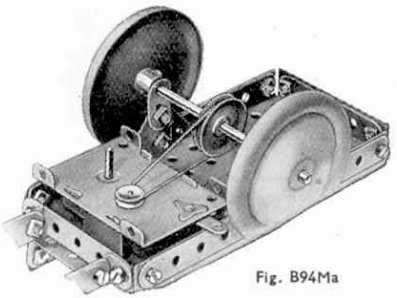


Fig. B94Ma

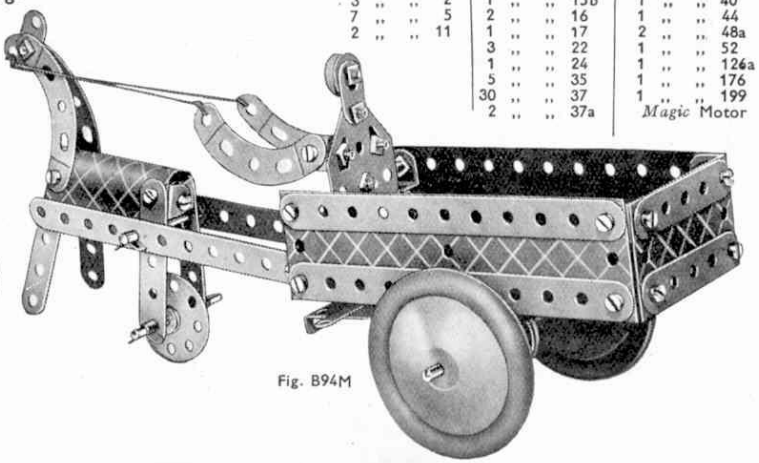


Fig. B94M

B117M Trip Hammer

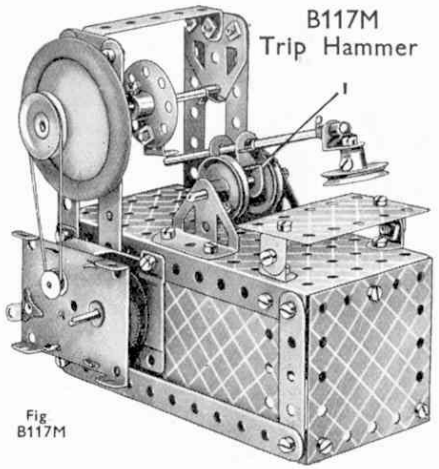


Fig. B117M

Parts required

6	of	No.	2
2	,,	,,	5
2	,,	,,	11
8	,,	,,	12
1	,,	,,	15b
1	,,	,,	16
1	,,	,,	17
4	,,	,,	22
1	,,	,,	24
5	,,	,,	35
36	,,	,,	37
1	,,	,,	37a
2	,,	,,	48a
1	,,	,,	52
1	,,	,,	111c
2	,,	,,	126
2	,,	,,	126a
1	,,	,,	176
1	,,	,,	187
1	,,	,,	188
2	,,	,,	190
2	,,	,,	191

Magic Motor

Two Double Brackets are bolted together as shown at 1. The lower Bracket pivots about a 2″ Rod and the upper one carries the hammer. A Bush Wheel is driven from the *Magic* Motor by a rubber band passing round a 1″ Pulley Wheel and carries an Angle Bracket that strikes the end of the hammer Rod and operates the hammer.

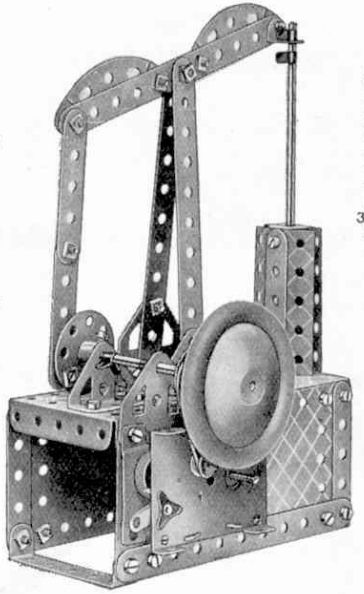


Fig. B32M

B32M. Pump

Parts required

5	of	No.	2	3	of	No.	38
8	,,	,,	5	2	,,	,,	48a
2	,,	,,	11	1	,,	,,	52
3	,,	,,	12	2	,,	,,	90a
1	,,	,,	15b	6	,,	,,	111c
1	,,	,,	16	2	,,	,,	126
1	,,	,,	22	2	,,	,,	126a
1	,,	,,	24	1	,,	,,	186
4	,,	,,	35	1	,,	,,	187
34	,,	,,	37	2	,,	,,	188
8	,,	,,	37a	2	,,	,,	191

Magic Motor

Fig. B32Ma

The construction of the pump cylinder will be clear from Fig. B32Ma. The *Magic* Motor drives a 1″ Pulley on the crankshaft that is fitted with a Bush Wheel forming the crank. The bolts 1 are locknutted to form pivots.

B90M. Windmill Pump

Parts required

2	of	No.	1
5	,,	,,	2
9	,,	,,	5
2	,,	,,	11
7	,,	,,	12
1	,,	,,	15b
2	,,	,,	16
1	,,	,,	19s
4	,,	,,	22
1	,,	,,	24
6	,,	,,	35
36	,,	,,	37
5	,,	,,	37a
2	,,	,,	38
1	,,	,,	40
2	,,	,,	48a
1	,,	,,	52
4	,,	,,	90a
1	,,	,,	111c
1	,,	,,	126
2	,,	,,	126a
1	,,	,,	186
2	,,	,,	188
2	,,	,,	189
2	,,	,,	190

Magic Motor

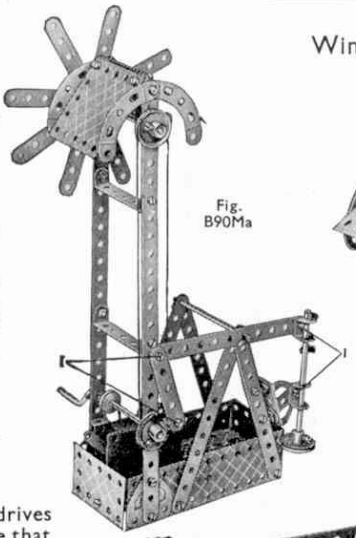


Fig. B90Ma

The Motor drives a Crank Handle that is fitted with the separate Pulley Wheel. It carries also a 1″ Pulley, to the boss of which an Angle Bracket is secured, two Washers being placed on the securing bolt as shown in Fig. B90Ma. In this way a crank is formed and is connected to the pivoted beam that operates the pump. The bolts 1 are pivotally attached by means of locknuts.

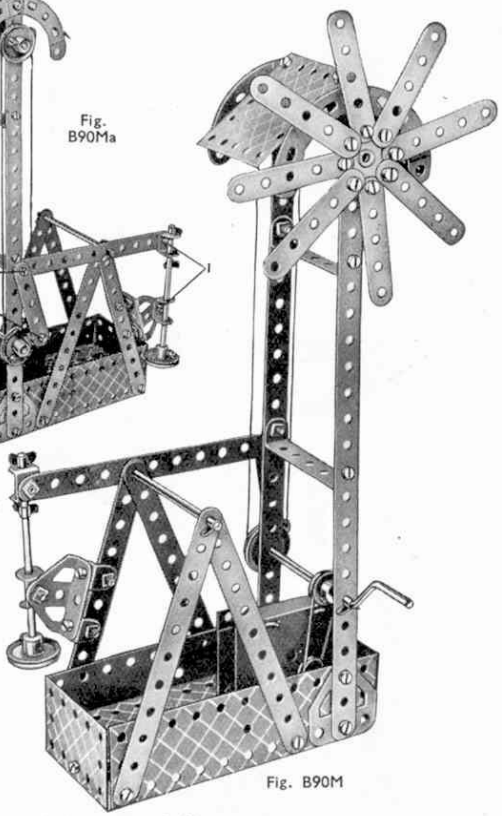


Fig. B90M

B30M. Derrick Crane

Fig. B30Ma shows the method of mounting the jib on the base Plate. The bolts 1 form pivots and each is locknutted. The jib is raised and lowered by means of a Crank Handle carrying a 1″ Pulley Wheel around which the cord 2 is passed to form a brake. The cord is tied to the first hole of a $2\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strip, and to a weighted lever consisting of a pivoted $2\frac{1}{2}''$ Strip 3. The *Magic* Motor is mounted on a $2\frac{1}{2}''$ Strip pivoted to an Angle Bracket by locknuts 1 and a length of cord connects the Motor driving pulley to a 1″ Pulley on the hoisting shaft.

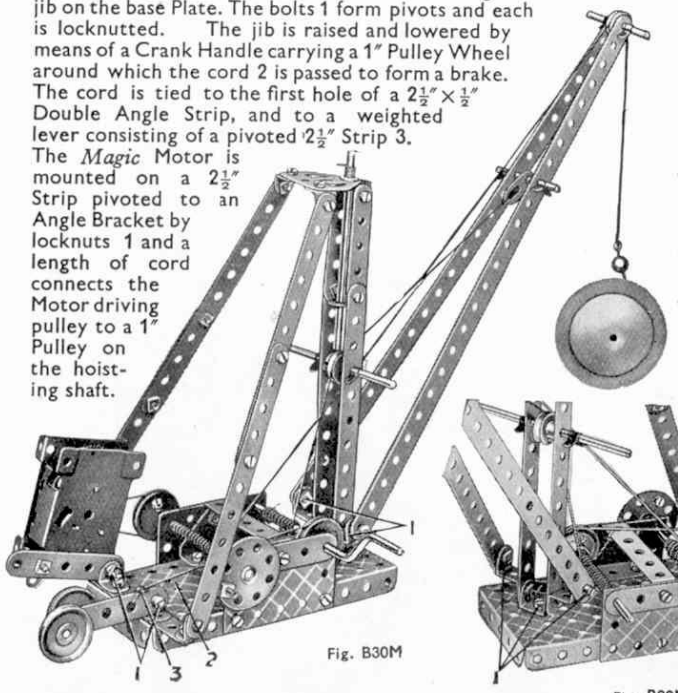


Fig. B30M

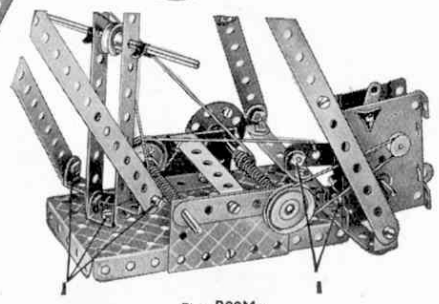


Fig. B30Ma

Parts required

2	of	No.	1	36	of	No.	37
6	,,	,,	2	6	,,	,,	37a
9	,,	,,	5	6	,,	,,	38
1	,,	,,	10	1	,,	,,	40
2	,,	,,	11	2	,,	,,	48a
8	,,	,,	12	1	,,	,,	52
1	,,	,,	15b	1	,,	,,	57c
2	,,	,,	16	6	,,	,,	111c
2	,,	,,	17	2	,,	,,	125
1	,,	,,	19s	2	,,	,,	126
4	,,	,,	22	1	,,	,,	126a
1	,,	,,	23	1	,,	,,	176
1	,,	,,	24	1	,,	,,	187
6	,,	,,	35	2	,,	,,	188

Magic Motor

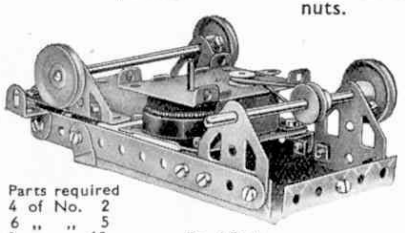


Fig. B51Ma

B51M. Bread Van

The method of mounting the *Magic* Motor in position is shown in Fig. B51Ma. The horse travels on a $\frac{1}{2}''$ loose Pulley mounted between its hind legs, and the forelegs should be kept clear of the ground by tying the reins to the Angle Bracket 1.

Parts required

4	of	No.	2
6	,,	,,	5
3	,,	,,	10
1	,,	,,	11
8	,,	,,	12
2	,,	,,	16
2	,,	,,	17
4	,,	,,	22
1	,,	,,	23
4	,,	,,	35
36	,,	,,	37
1	,,	,,	40
2	,,	,,	48a
1	,,	,,	52
4	,,	,,	90a
1	,,	,,	125
2	,,	,,	126
2	,,	,,	126a
1	,,	,,	186
2	,,	,,	188
1	,,	,,	190
2	,,	,,	191
1	,,	,,	199

Magic Motor

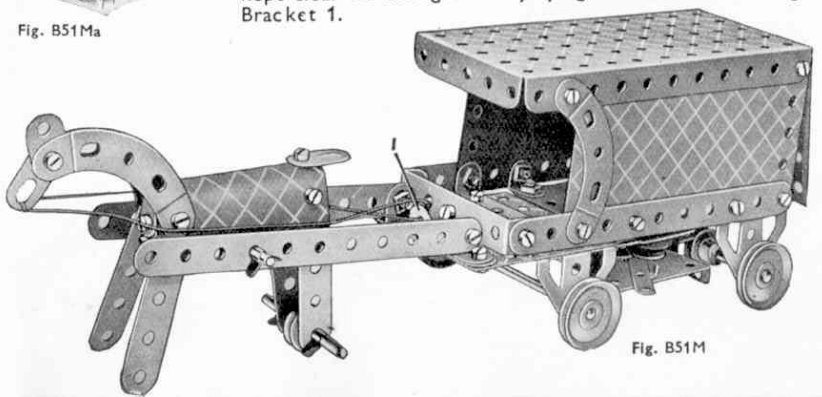
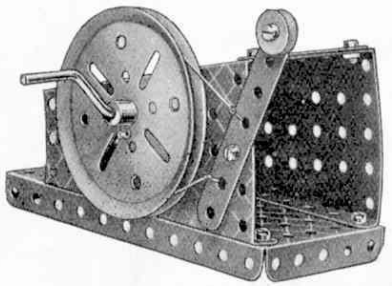


Fig. B51M

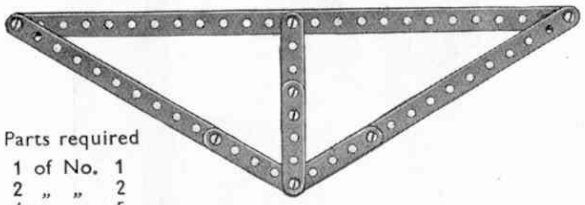
C1. Band Brake



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

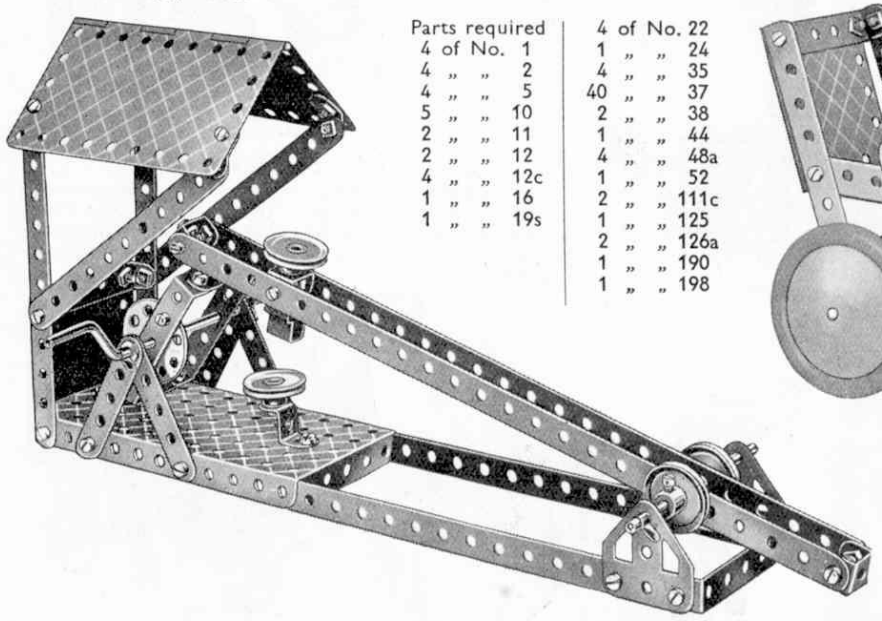
C2. Triangulated Truss



Parts required

1	of No.	1
2	„ „	2
4	„ „	5
8	„ „	37

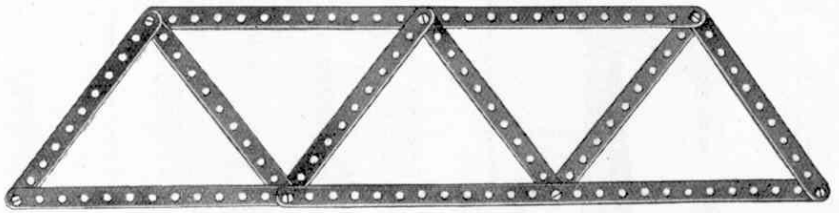
C3. Helve Hammer



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



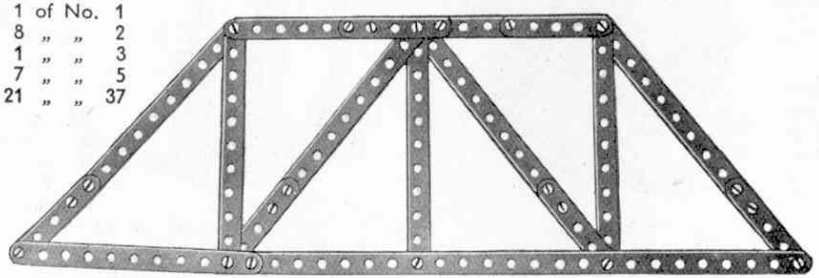
Parts required

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

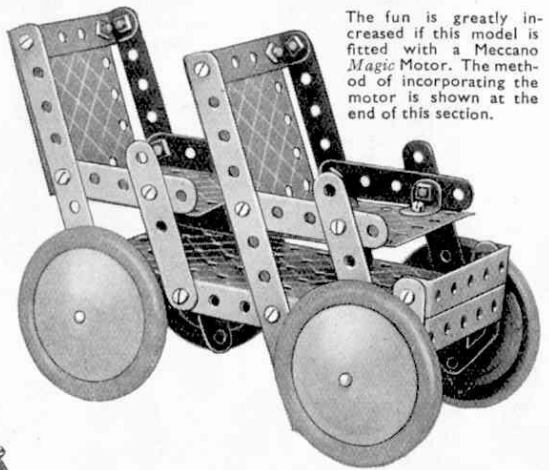
C5. Howe Truss

Parts required

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



C6. Tandem Car



The fun is greatly increased if this model is fitted with a Meccano *Magic* Motor. The method of incorporating the motor is shown at the end of this section.

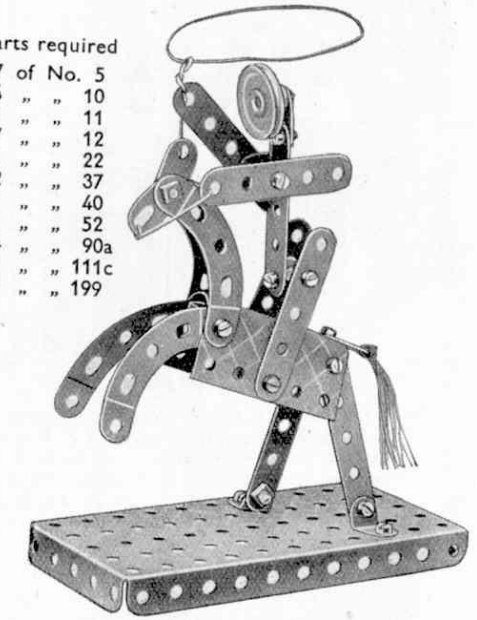
Parts required

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

C7. Mounted Cowboy

Parts required

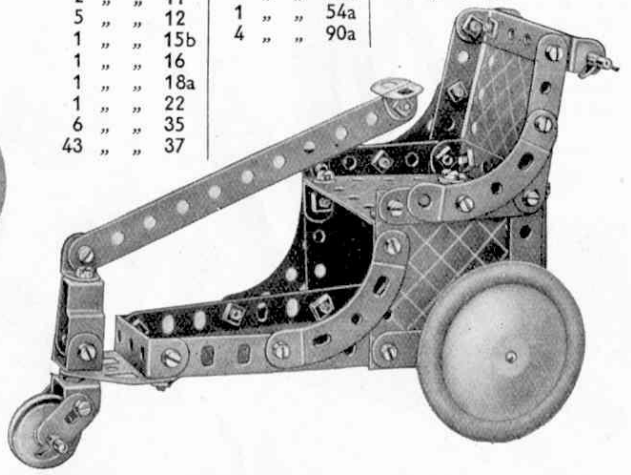
7	of No.	5
4	„ „	10
2	„ „	11
7	„ „	12
1	„ „	22
22	„ „	37
1	„ „	40
1	„ „	52
4	„ „	90a
1	„ „	111c
1	„ „	199



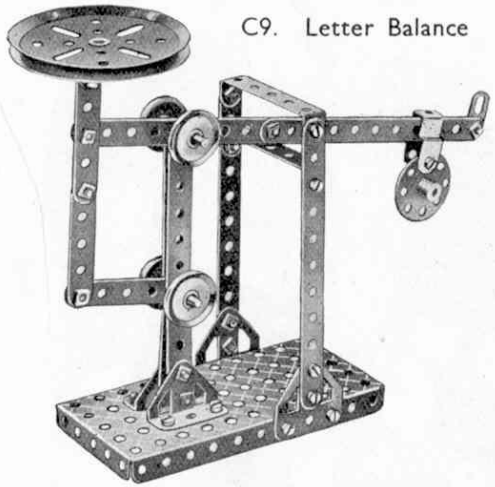
C8. Bath Chair

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. Letter Balance



Parts required

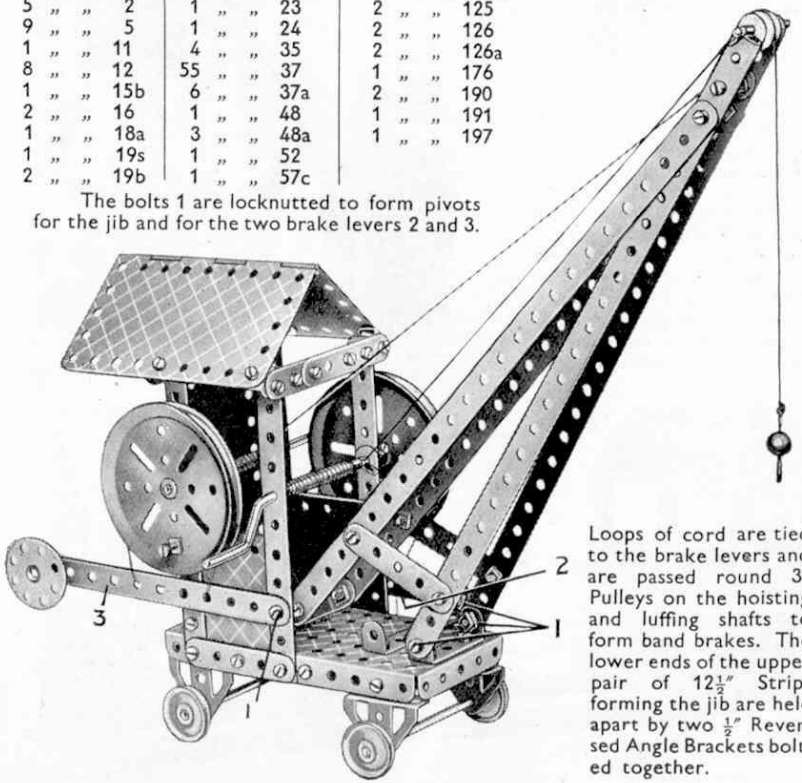
6	of No.	2
4	„ „	5
1	„ „	10
1	„ „	12
2	„ „	18a
1	„ „	19b
4	„ „	22
1	„ „	24
2	„ „	35
26	„ „	37
4	„ „	37a
2	„ „	38
1	„ „	44
2	„ „	48a
1	„ „	52
2	„ „	111c
2	„ „	126
2	„ „	126a

C10. Travelling Crane

Parts required

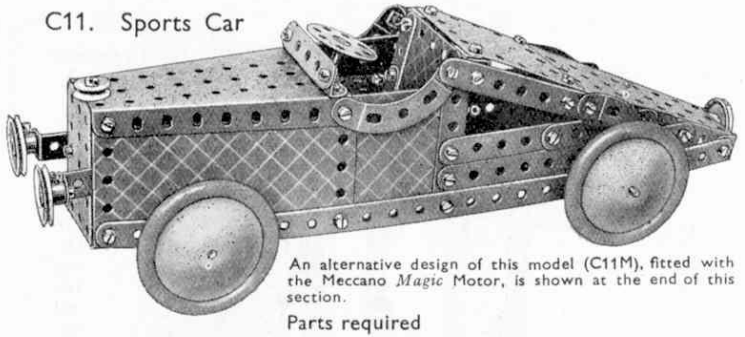
4	of No.	1	4	of No.	22	1	of No.	111c
5	„ „	2	1	„ „	23	2	„ „	125
9	„ „	5	1	„ „	24	2	„ „	126
1	„ „	11	4	„ „	35	2	„ „	126a
8	„ „	12	55	„ „	37	1	„ „	176
1	„ „	15b	6	„ „	37a	2	„ „	190
2	„ „	16	1	„ „	48	1	„ „	191
1	„ „	18a	3	„ „	48a	1	„ „	197
1	„ „	19s	1	„ „	52			
2	„ „	19b	1	„ „	57c			

The bolts 1 are locknutted to form pivots for the jib and for the two brake levers 2 and 3.



Loops of cord are tied to the brake levers and are passed round 3″ Pulleys on the hoisting and luffing shafts to form band brakes. The lower ends of the upper pair of 12½″ Strips forming the jib are held apart by two ½″ Reversed Angle Brackets bolted together.

C11. Sports Car

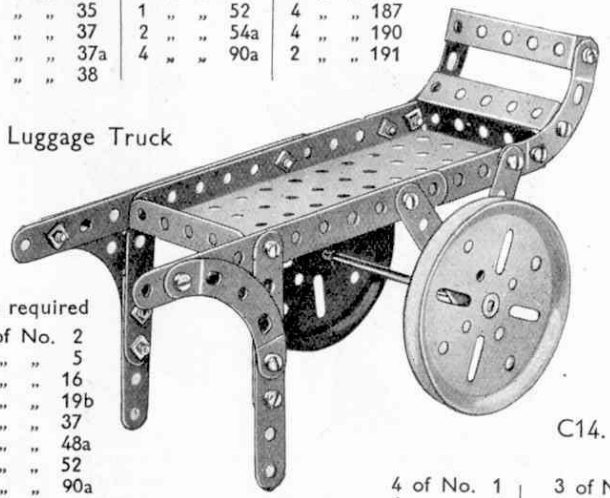


An alternative design of this model (C11M), fitted with the Meccano *Magic* Motor, is shown at the end of this section.

Parts required

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

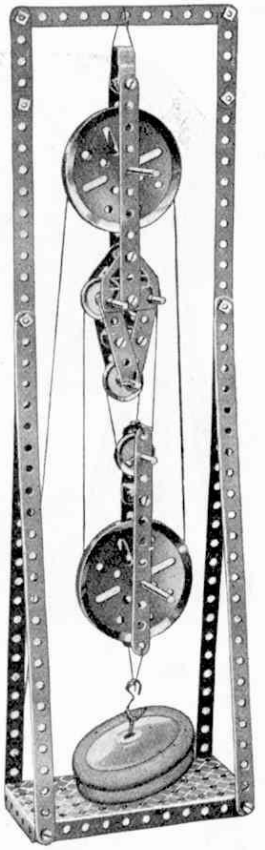
C12. Luggage Truck



Parts required

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

C13. Pulley Block, 5:1



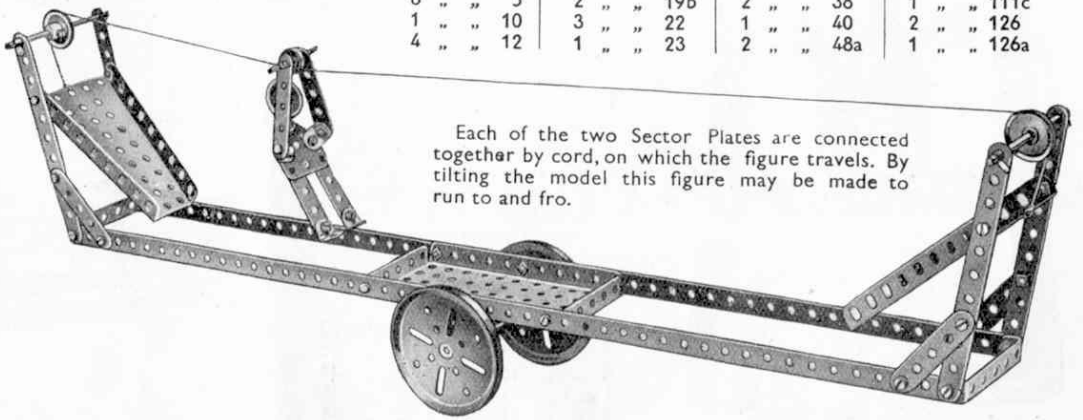
Parts required

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

C14. Aerial Flight

Parts required

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



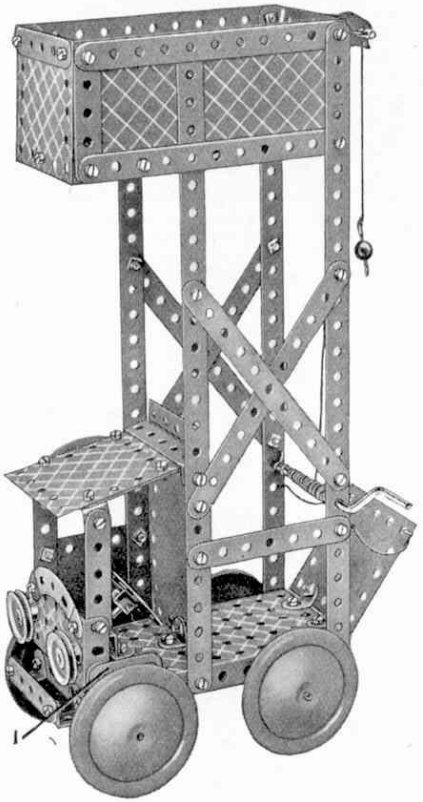
Each of the two Sector Plates are connected together by cord, on which the figure travels. By tilting the model this figure may be made to run to and fro.

C15. 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

C16. Tower Wagon



Parts required

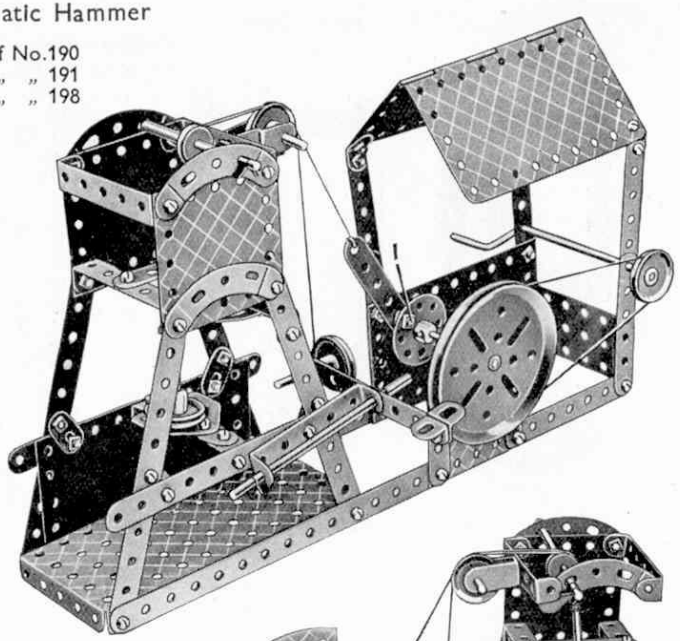
4	of No.	1	2	„ „	57c
8	„ „	2	2	„ „	90a
1	„ „	3	2	„ „	111c
9	„ „	5	1	„ „	125
2	„ „	11	2	„ „	126
7	„ „	12	2	„ „	126a
2	„ „	12c	4	„ „	187
1	„ „	15b	4	„ „	190
1	„ „	16	1	„ „	191
2	„ „	18a	2	„ „	192
1	„ „	19s			
2	„ „	22			
1	„ „	23			
1	„ „	24			
6	„ „	35			
61	„ „	37			
3	„ „	38			
1	„ „	40			
1	„ „	44			
6	„ „	48a			
1	„ „	51			
1	„ „	52			

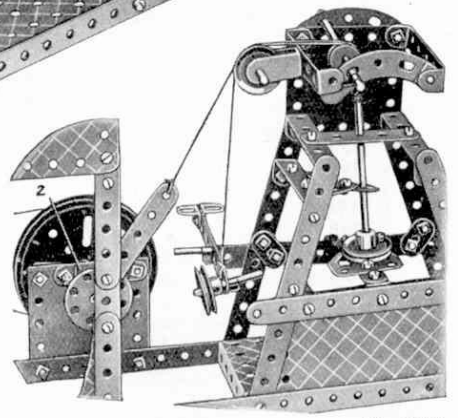
The headlamps (1″ Pulleys) are fixed in position by means of $\frac{3}{8}$″ Bolts secured by the Set Screws in the bosses of the Pulleys. The front axle is carried in Flat Trunnions 1 bolted by their centre holes to the Flanged Plate.

C18. Pneumatic Hammer

Parts required

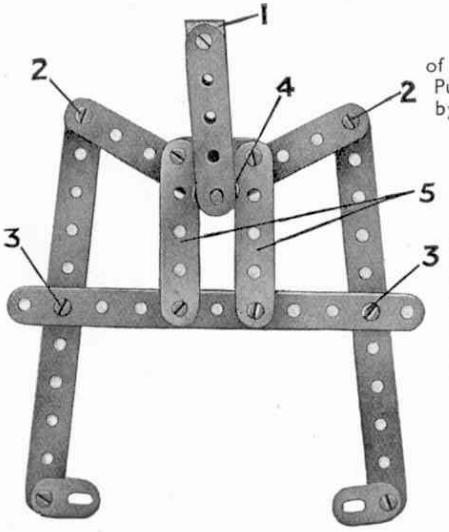
2	of No.	1	3	of No.	190
8	„ „	2	2	„ „	191
1	„ „	3	1	„ „	198
9	„ „	5			
5	„ „	10			
4	„ „	12			
3	„ „	12c			
2	„ „	15b			
1	„ „	16			
2	„ „	18a			
1	„ „	19s			
1	„ „	19b			
4	„ „	22			
1	„ „	23			
1	„ „	24			
6	„ „	35			
52	„ „	37			
2	„ „	37a			
1	„ „	40			
1	„ „	44			
6	„ „	48a			
1	„ „	51			
1	„ „	52			
4	„ „	90a			
1	„ „	111c			
1	„ „	125			
2	„ „	126a			
1	„ „	176			





A 3″ Pulley Wheel is driven from a 1″ Pulley on the Crank Handle and is fitted to a Rod journalled in a $2\frac{1}{2}$″ Strip and Double Bent Strip 2 that are bolted to a $2\frac{1}{2}$″ × $2\frac{1}{2}$″ Flexible Plate. A Bush Wheel is fitted on the other end of the Rod and a $2\frac{1}{2}$″ Strip is pivoted on the bolt 1 fixed by two nuts locked against opposite sides of the Bush Wheel. Cord is tied to the $2\frac{1}{2}$″ Strip, passes over guide Pulleys, and is tied to an Anchoring Spring on the upper end of the hammer Rod.

Fig. C18a



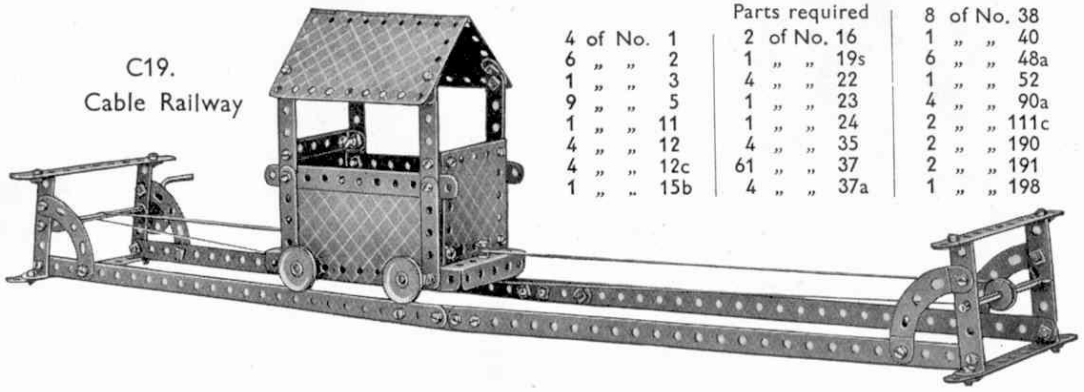
C17. Friction Grip Tongs

The hoisting cord is attached to the Double Bracket 1. The joints 2, 3 are locknutted, 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

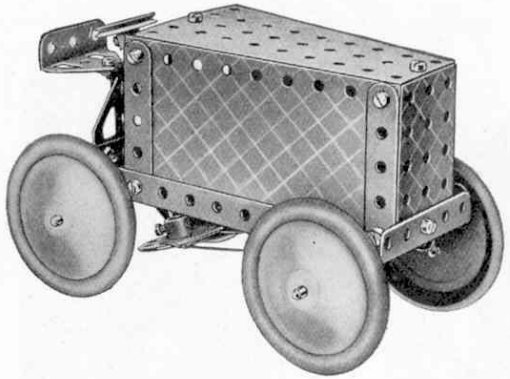
C19. Cable Railway



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

C20. Motor Tractor



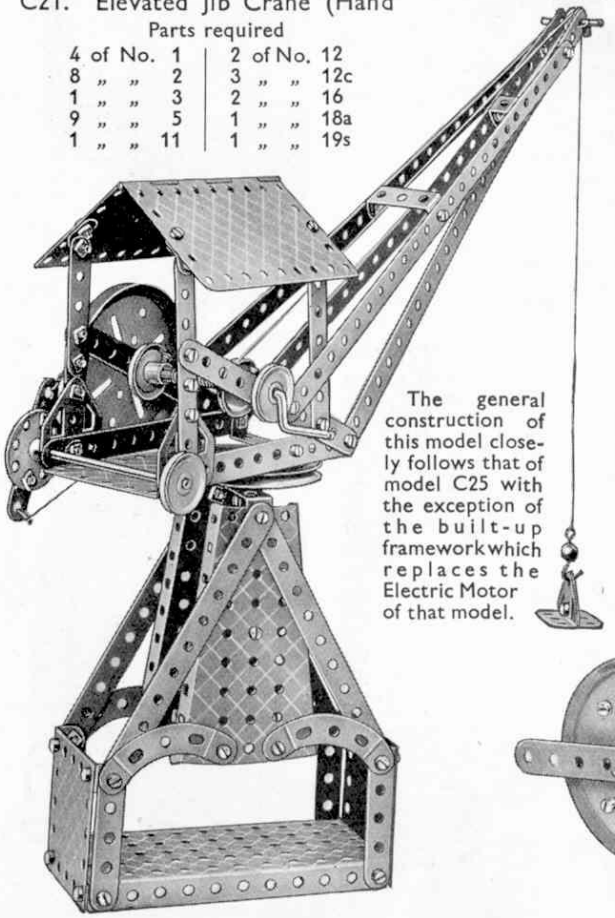
Parts required

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

C21. 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

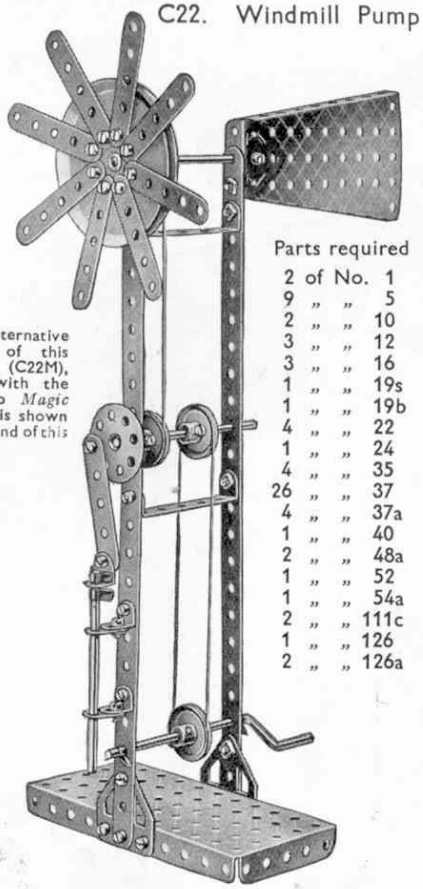


The general construction of this model closely follows that of model C25 with the exception of the built-up framework which replaces the Electric Motor of that model.

Parts required for C21 (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

C22. Windmill Pump

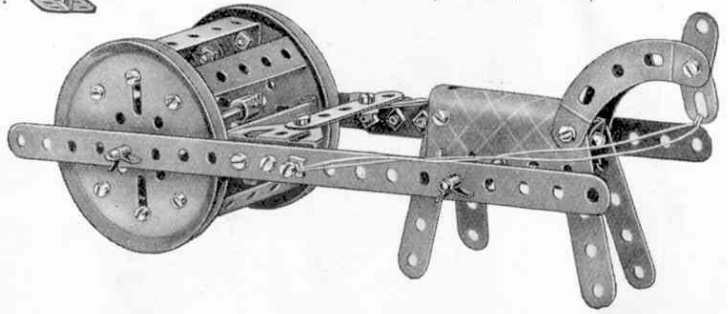


An alternative design of this model (C22M), fitted with the Meccano *Magic* Motor, is shown at the end of this section.

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

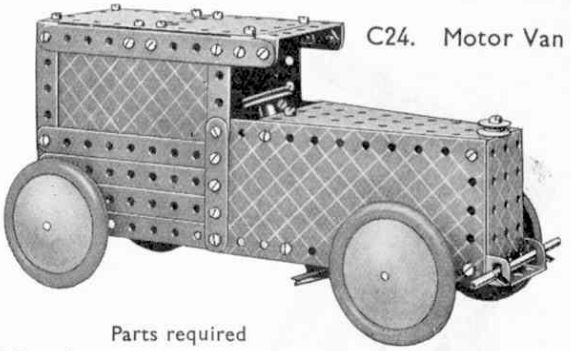
C23. Field Roller



Parts required

4	of No.	2	1	of No.	16
7	„ „	5	2	„ „	19b
2	„ „	10	6	„ „	35
8	„ „	12	34	„ „	37
1	„ „	15b	2	„ „	37a
			1	„ „	40
			6	of No.	48a
			2	„ „	90a
			1	„ „	111c
			2	„ „	126
			1	„ „	199

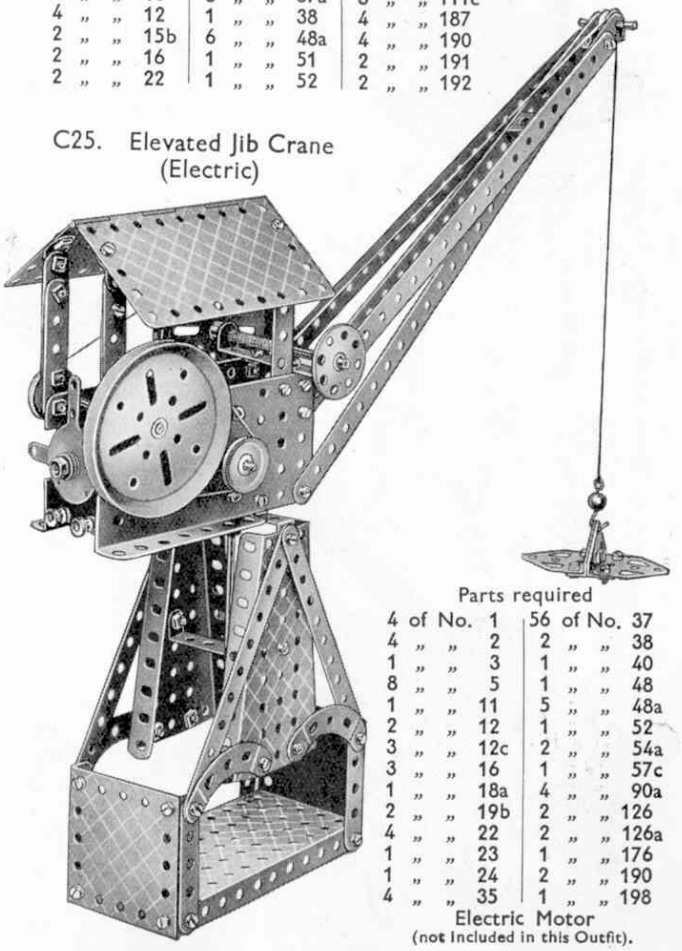
C24. Motor Van



Parts required

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

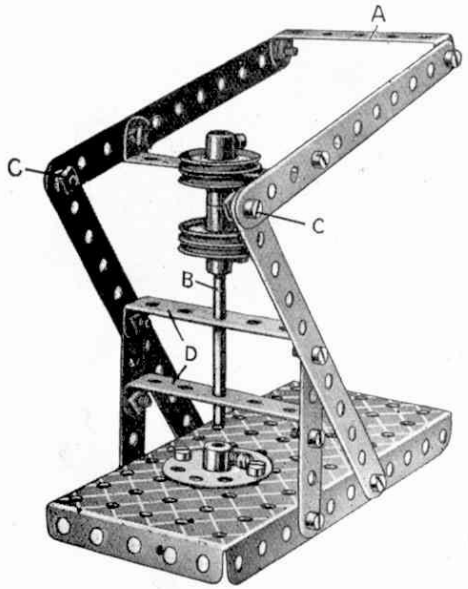
C25. Elevated Jib Crane (Electric)



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).



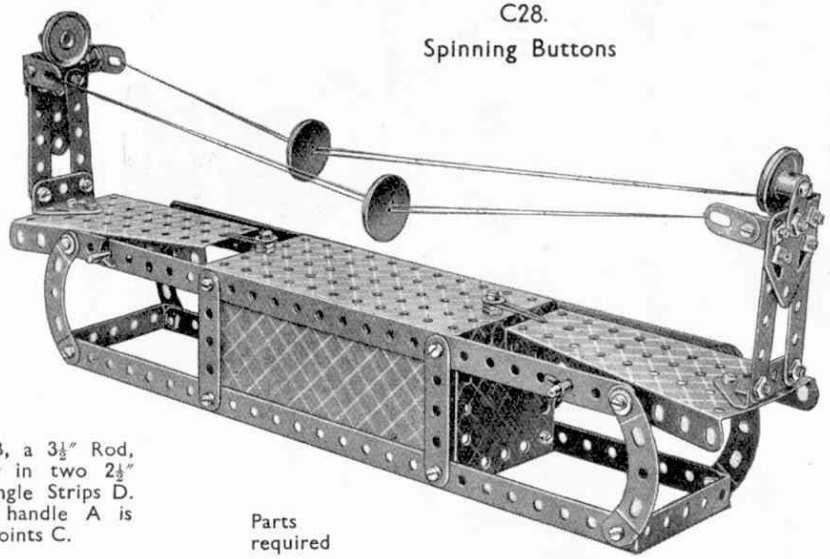
C26. Punching Machine

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″ Rod, slides vertically in two 2½″ x ½″ Double Angle Strips D. The operating handle A is pivoted at the points C.

C28. 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	„ „	54a
4	of No.	90a
4	„ „	111c
2	„ „	126
2	„ „	126a
2	„ „	190
2	„ „	192

C30. Gramophone

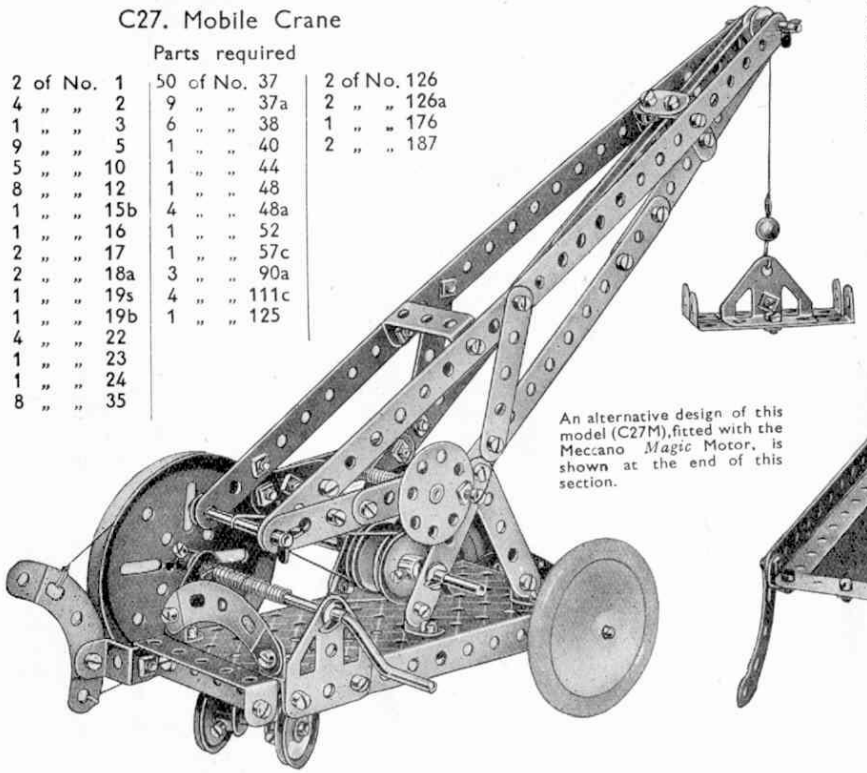
Parts required

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

C27. Mobile Crane

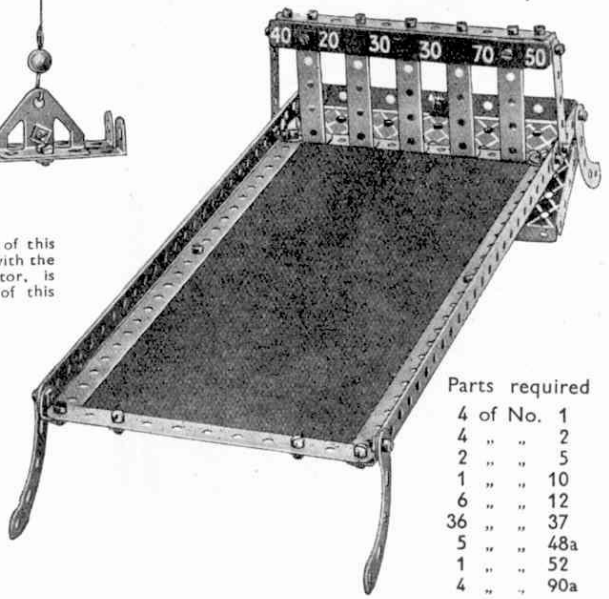
Parts required

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	„ „	44
1	„ „	48
4	„ „	48a
1	„ „	52
1	„ „	57c
3	„ „	90a
4	„ „	111c
1	„ „	125
2	of No.	126
2	„ „	126a
1	„ „	176
2	„ „	187



An alternative design of this model (C27M), fitted with the Meccano *Magic* Motor, is shown at the end of this section.

C29. Box Ball Alley



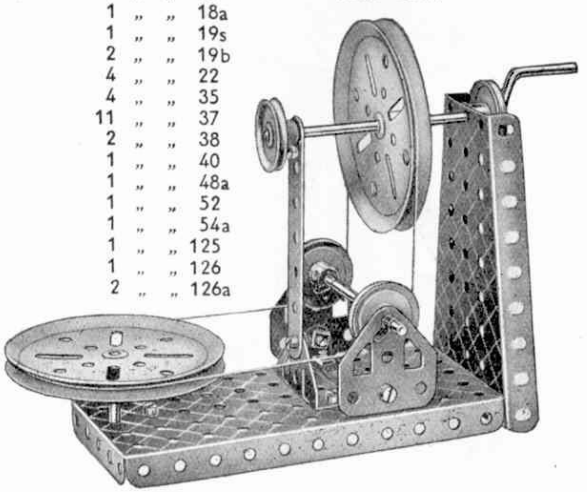
Parts required

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

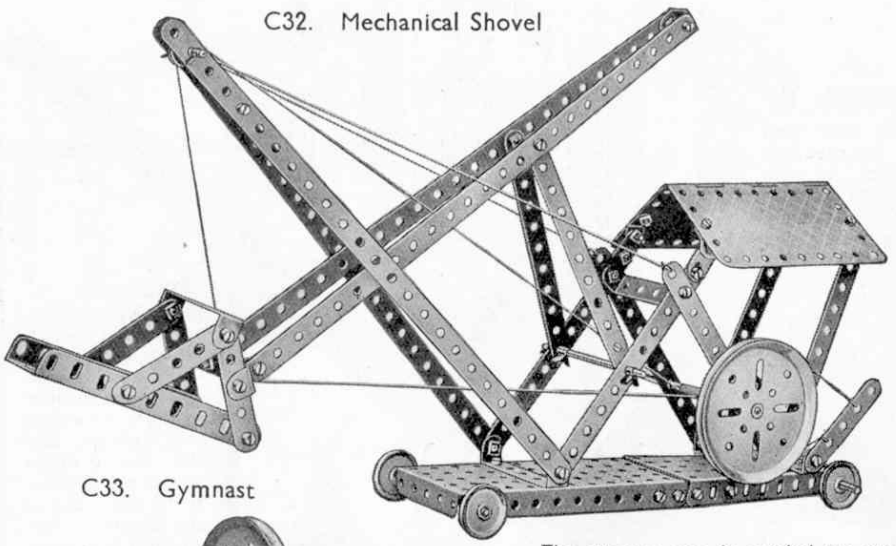
C31. Belt Gear

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	„ „	54a
1	„ „	125
1	„ „	126
2	„ „	126a



C32. Mechanical Shovel

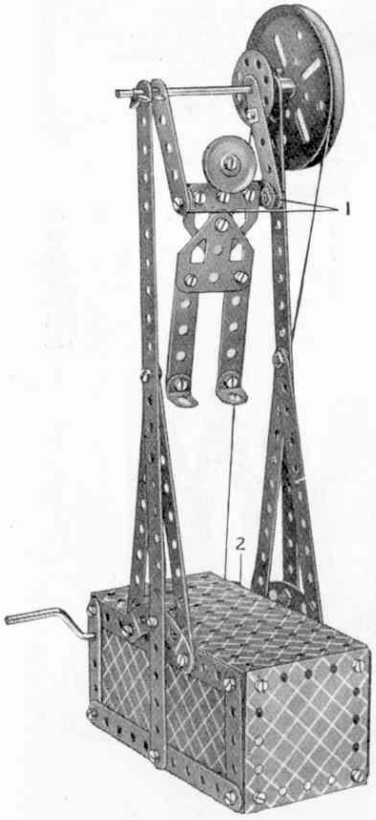


Parts required

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 passed over the jib-head Pulley and wound round a Crank Handle, its other end also being tied to the bucket. The Crank Handle is controlled by the band brake shown in the photograph.

C33. Gymnast

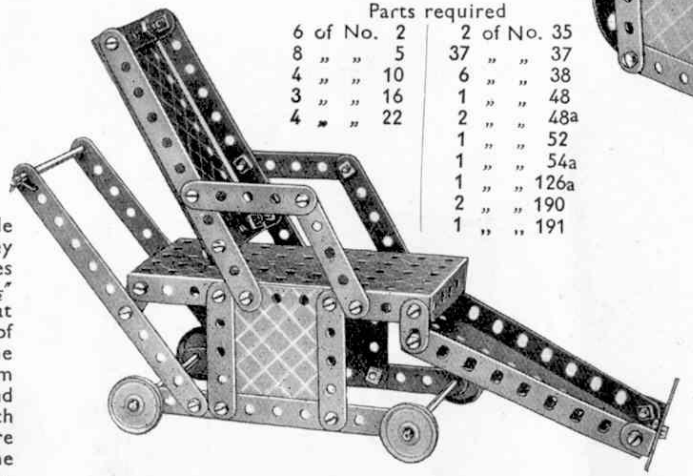


Parts required

2	of No.	1
8	„ „	2
8	„ „	5
1	„ „	10
4	„ „	12
1	„ „	15b
1	„ „	19s
1	„ „	19b
2	„ „	22
1	„ „	24
2	„ „	35
36	„ „	37
2	„ „	37a
2	„ „	38
1	„ „	40
2	„ „	48a
1	„ „	52
2	„ „	90a
1	„ „	111c
2	„ „	126a
2	„ „	190
2	„ „	192

A Crank Handle carries a 1″ Pulley Wheel 2 that drives a 3″ Pulley on a 3½″ Rod journalled at the top of a pair of 12½″ Strips. The gymnast hangs from the Axle Rod, and the bolts 1 on which the arms pivot are each locked to the body by two nuts.

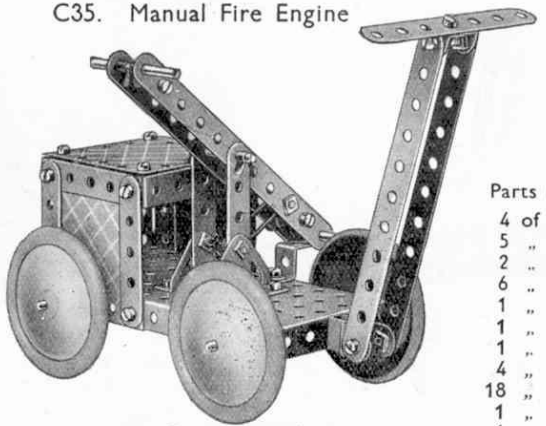
C34. Invalid Chair



Parts required

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

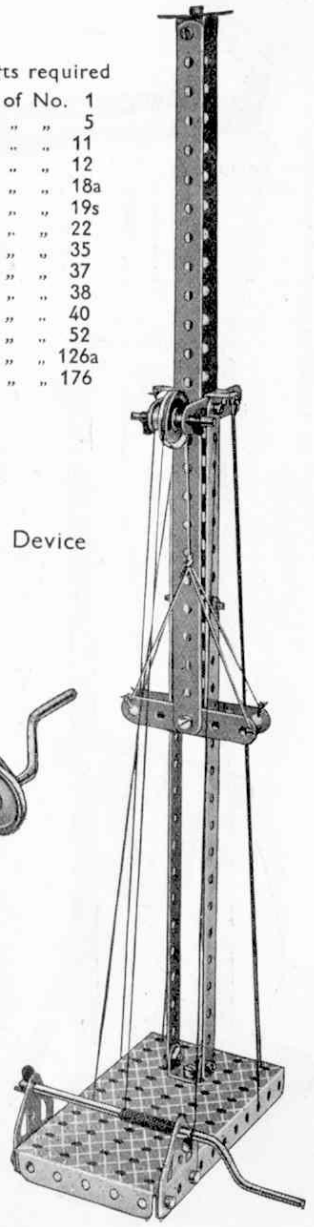
C35. Manual Fire Engine



Parts required

4	of No.	2
1	„ „	3
8	„ „	5
2	„ „	11
6	„ „	12
2	„ „	15b
2	„ „	17
1	of No.	18a
6	„ „	35
34	„ „	37
6	„ „	37a
1	„ „	38
1	„ „	44
2	„ „	48a
1	of No.	52
2	„ „	111c
1	„ „	125
2	„ „	126
1	„ „	186
4	„ „	187
4	„ „	190

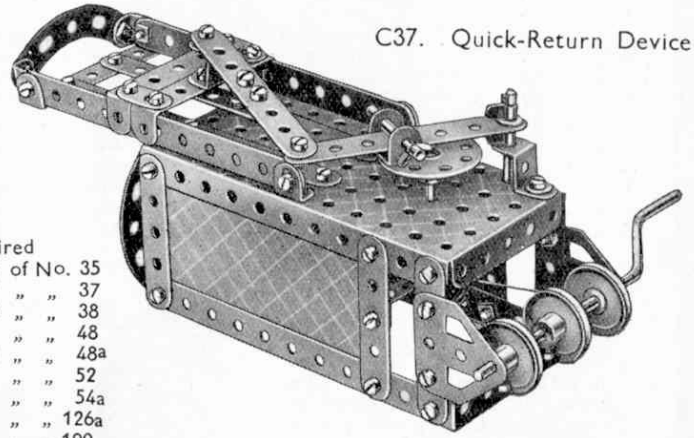
C36. Telescopic Mast



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

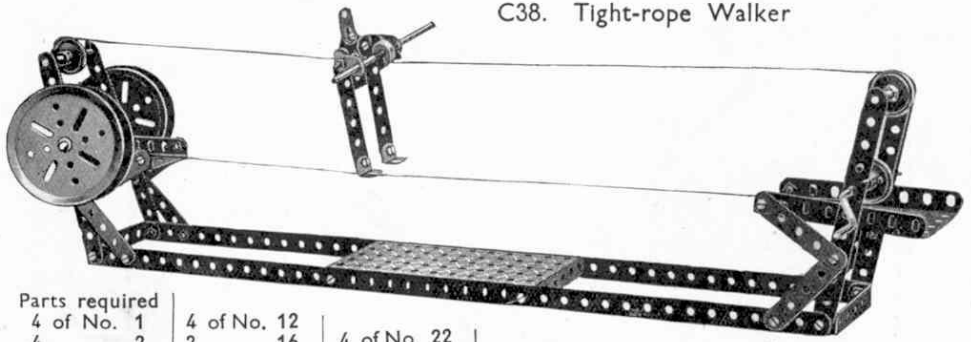
C37. Quick-Return Device



Parts required

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

C38. Tight-rope Walker



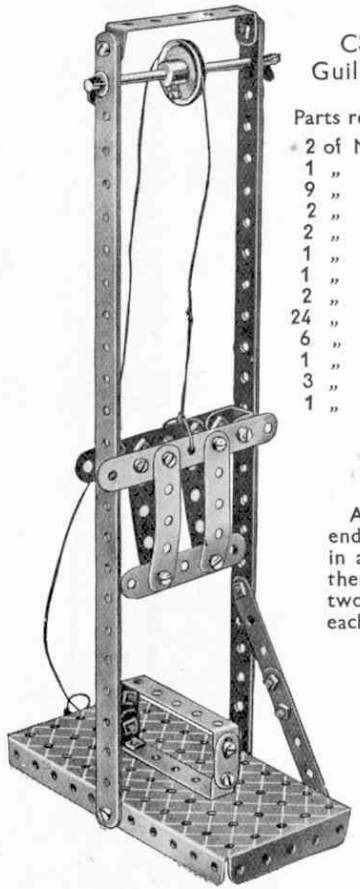
Parts required

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

1 of No. 126a

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 ½″ Pulley running along the upper section of the cord.

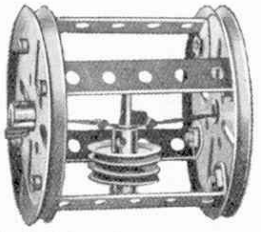
C39. Guillotine



Parts required

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

C40. Cum Bak

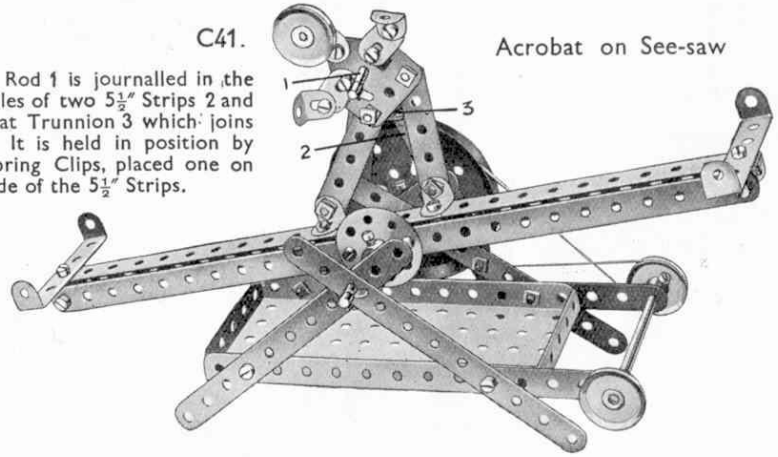


Parts required

1	of No. 18a	1	„ „ 35
2	„ „ 19h	8	„ „ 37
2	„ „ 22	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

C41. Acrobat on See-saw

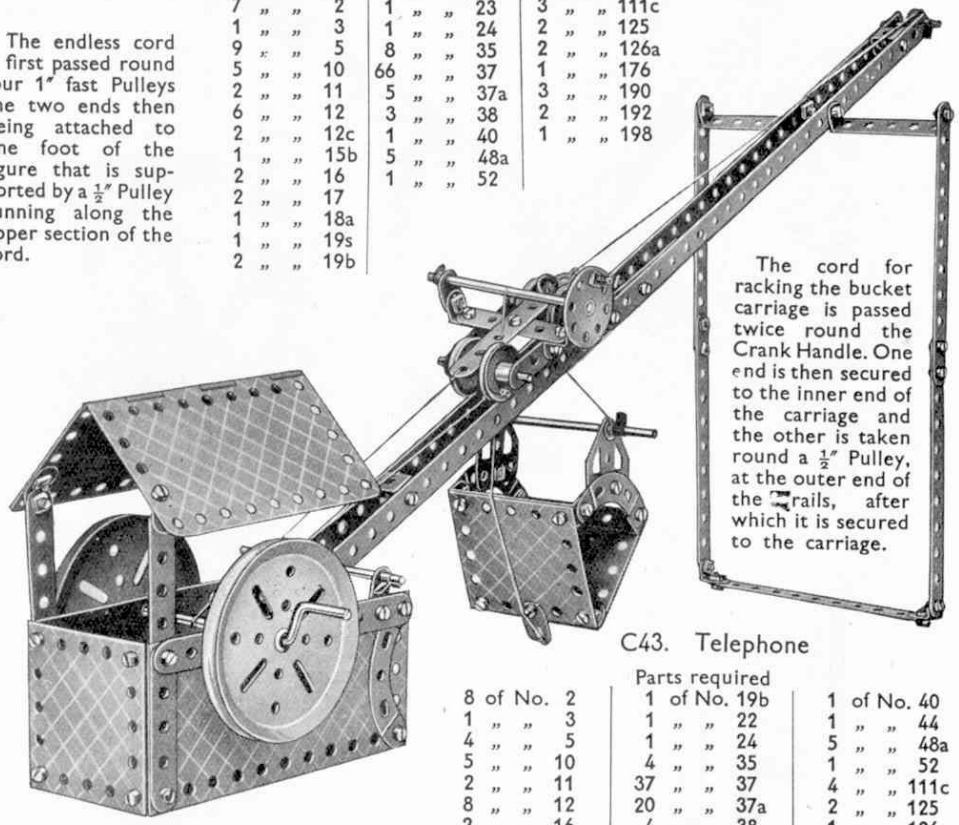


A 1″ Rod 1 is journalled in the end holes of two 5½″ Strips 2 and in a Flat Trunnion 3 which joins them. It is held in position by two Spring Clips, placed one on each side of the 5½″ Strips.

Parts required

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

C42. Extended Ash Tip



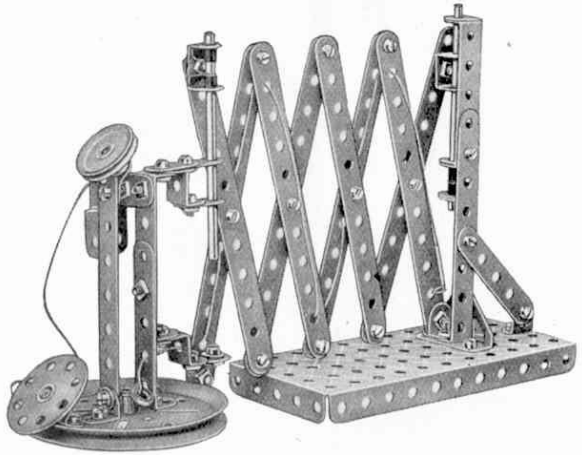
Parts required

4	of No. 1	4	of No. 22
7	„ „ 2	1	„ „ 23
1	„ „ 3	1	„ „ 24
9	„ „ 5	8	„ „ 35
5	„ „ 10	66	„ „ 37
2	„ „ 11	5	„ „ 37a
6	„ „ 12	3	„ „ 38
2	„ „ 12c	1	„ „ 40
1	„ „ 15b	5	„ „ 48a
2	„ „ 16	1	„ „ 52
2	„ „ 17		
1	„ „ 18a		
1	„ „ 19s		
2	„ „ 19b		

4	of No. 90a	1	„ „ 176
3	„ „ 111c	3	„ „ 190
2	„ „ 125	2	„ „ 192
2	„ „ 126a	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 Rails, after which it is secured to the carriage.

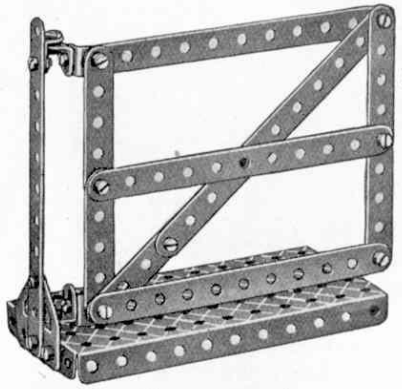
C43. Telephone



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

C44. Gate



Parts required

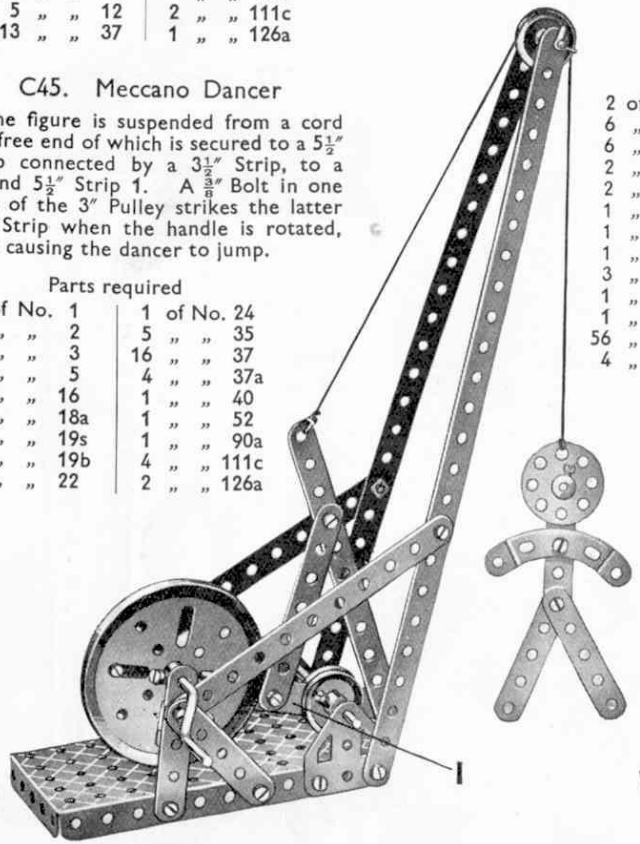
5	of No. 2	4	of No. 37a
5	„ „ 5	1	„ „ 52
5	„ „ 12	2	„ „ 111c
13	„ „ 37	1	„ „ 126a

C45. Meccano Dancer

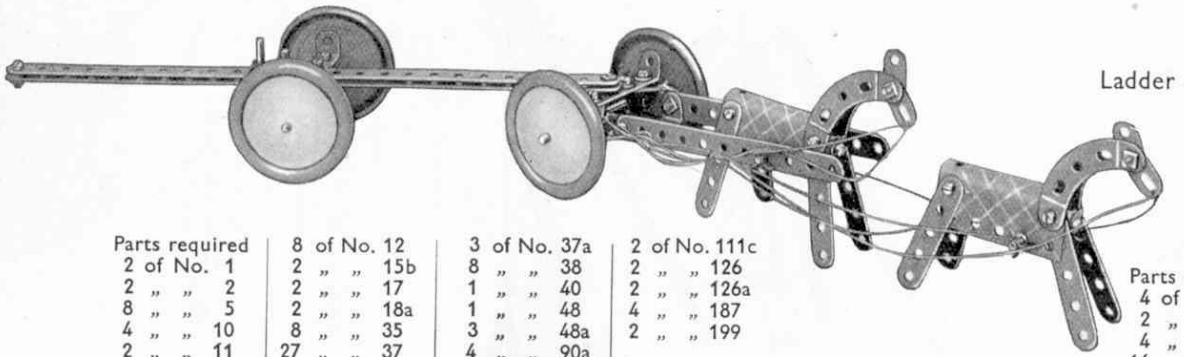
The figure is suspended from a cord the free end of which is secured to a $5\frac{1}{2}$″ Strip connected by a $3\frac{1}{2}$″ Strip, to a second $5\frac{1}{2}$″ Strip 1. A $\frac{3}{8}$″ Bolt in one hole of the 3″ Pulley strikes the latter $5\frac{1}{2}$″ Strip when the handle is rotated, thus causing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



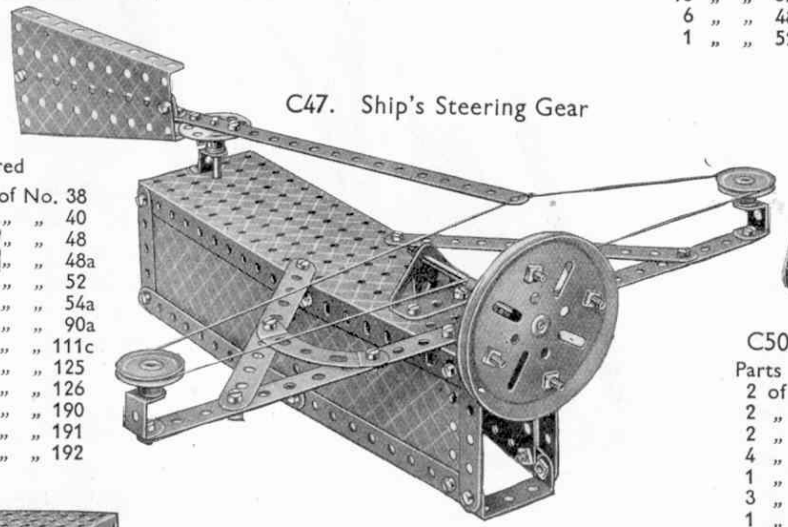
C46. Timber Drag



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
8	„ „ 5	2	„ „ 17	1	„ „ 40	2	„ „ 126a
4	„ „ 10	2	„ „ 18a	1	„ „ 48	4	„ „ 187
2	„ „ 11	8	„ „ 35	3	„ „ 48a	2	„ „ 199
		27	„ „ 37	4	„ „ 90a		

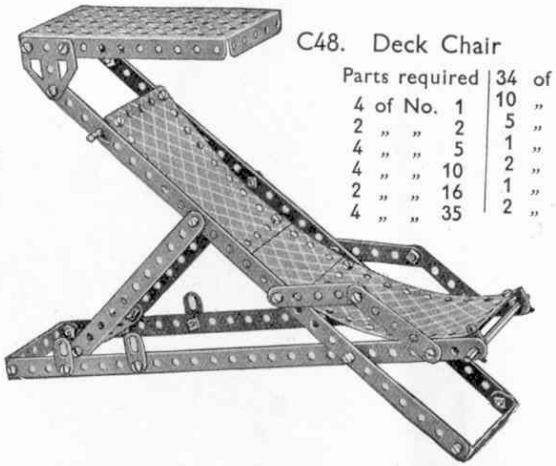
C47. Ship's Steering Gear



Parts required

2	of No. 1	5	of No. 38
6	„ „ 2	1	„ „ 40
6	„ „ 5	1	„ „ 48
2	„ „ 11	1	„ „ 48a
2	„ „ 12	1	„ „ 52
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

C48. Deck Chair



Parts required

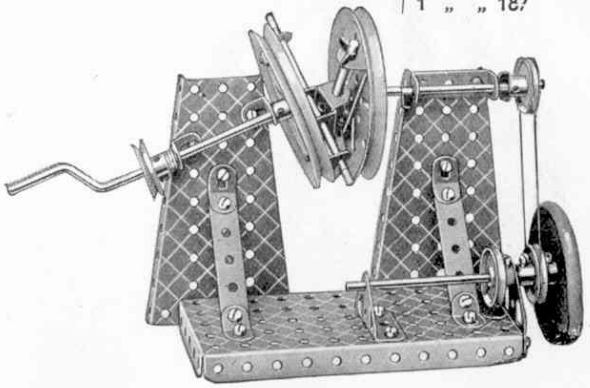
4	of No. 1	34	of No. 37
2	„ „ 2	10	„ „ 37a
4	„ „ 5	5	„ „ 48a
4	„ „ 10	1	„ „ 52
2	„ „ 16	2	„ „ 126a
4	„ „ 35	1	„ „ 190
		2	„ „ 191

C49. Ladder on Wheels

Parts required

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

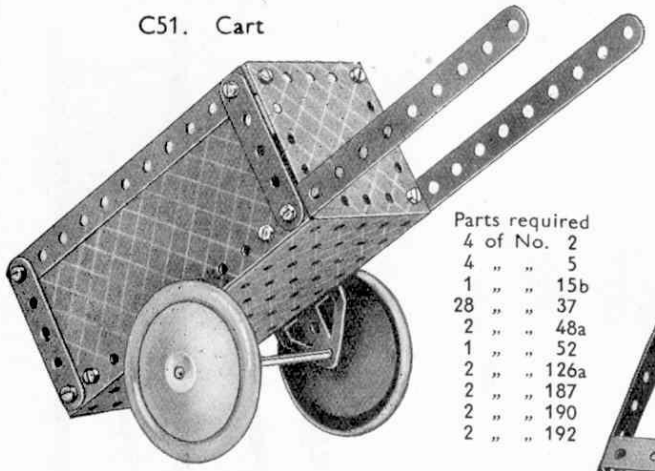
C50. Hooke's Coupling



Parts required

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

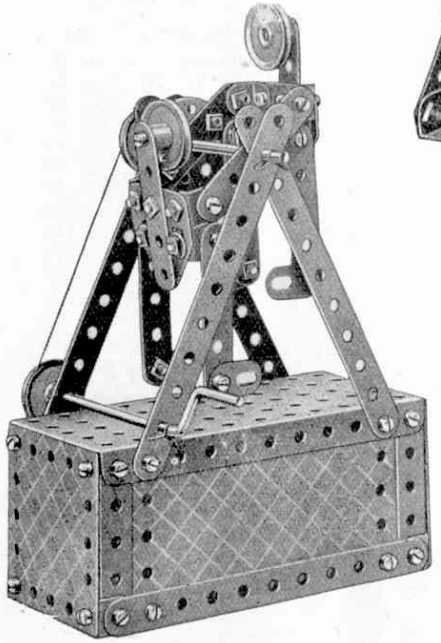
C51. Cart



Parts required

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

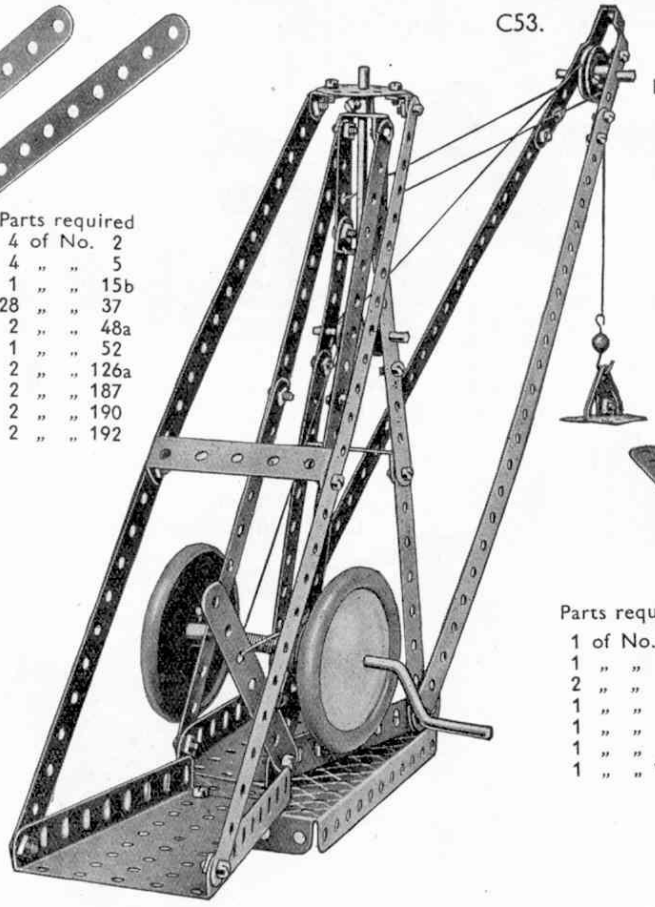
C52. Wrestlers



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			

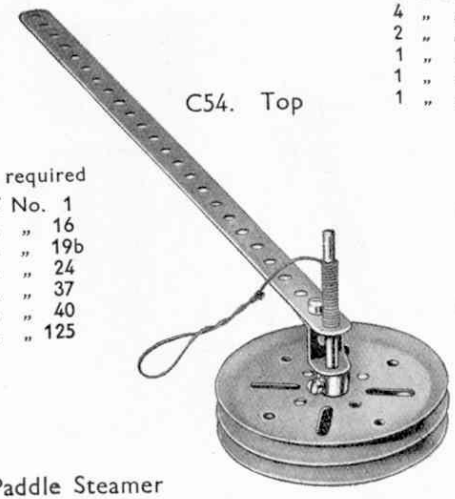
C53. Jib Crane



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

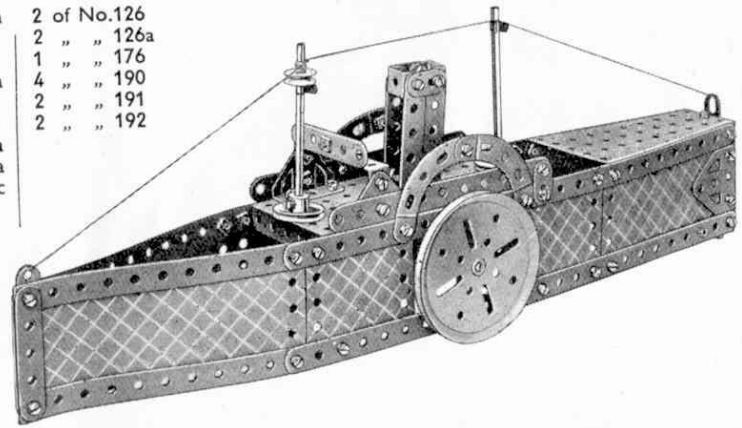
C54. Top



Parts required

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

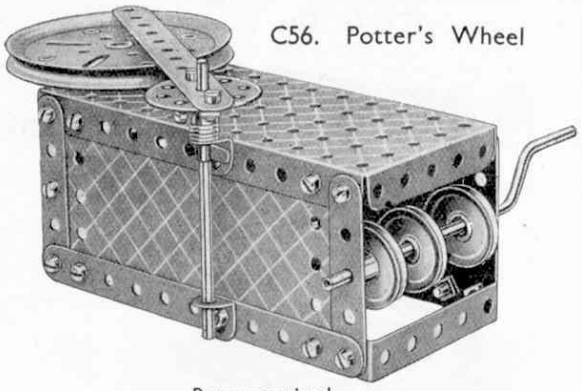
C55. Paddle Steamer



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						

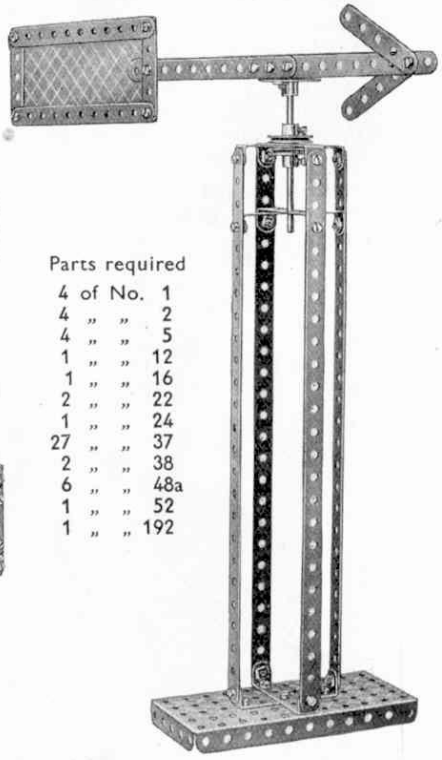
C56. Potter's Wheel



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			

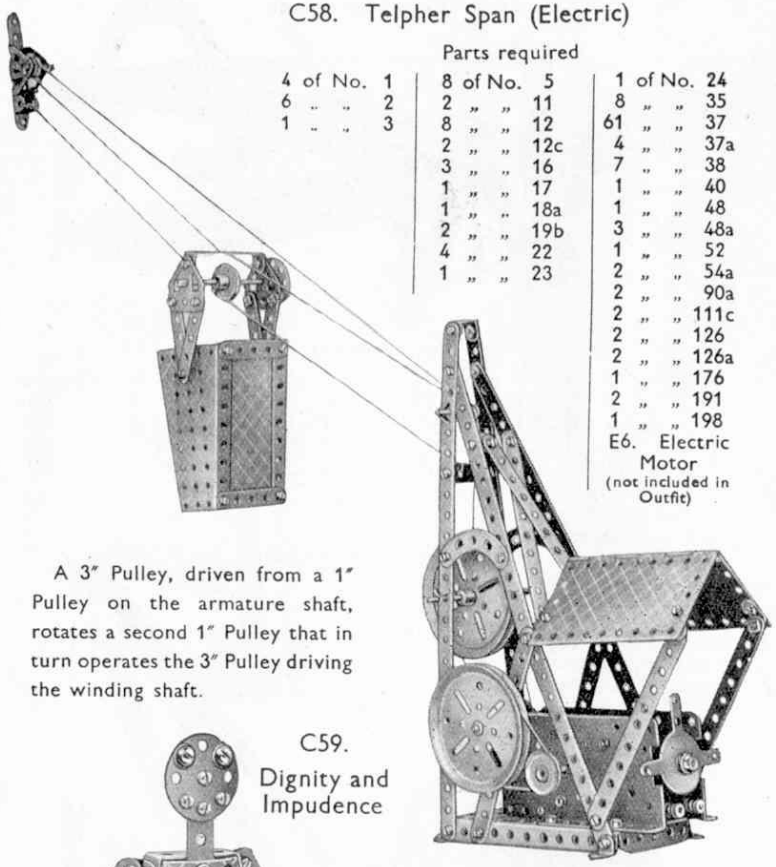
C57. Weather Vane



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

C58. Telpher Span (Electric)

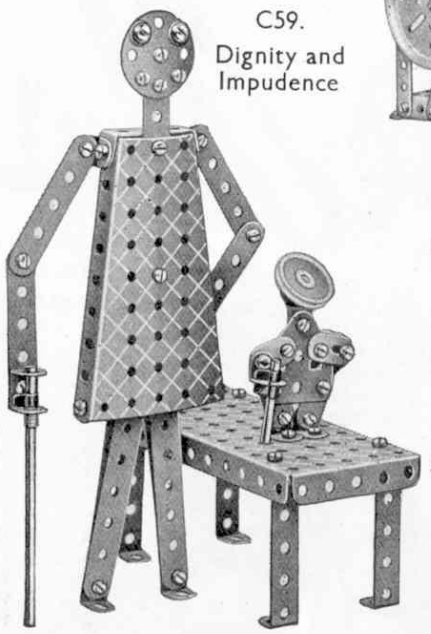


Parts required

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.

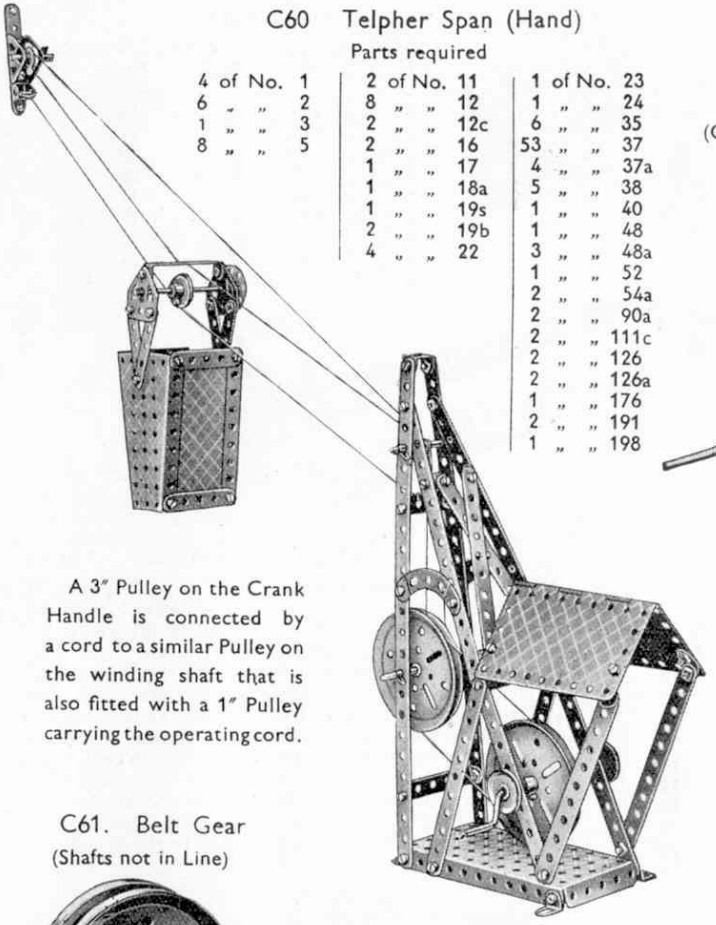
C59. Dignity and Impudence



Parts required

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

C60 Telpher Span (Hand)

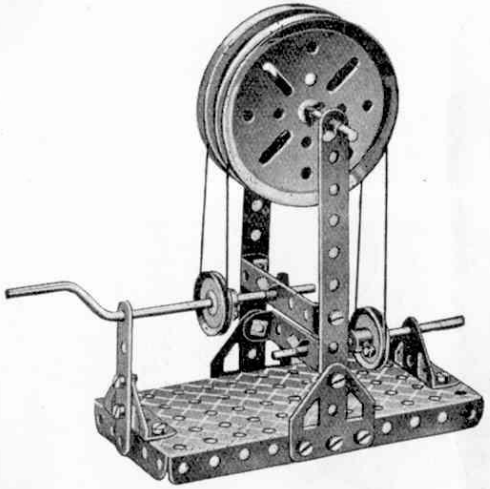


Parts required

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.

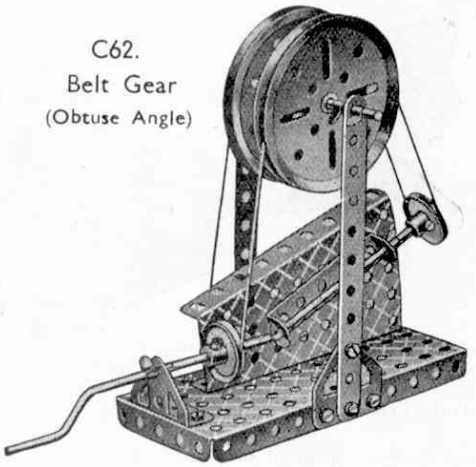
C61. Belt Gear (Shafts not in Line)



Parts required

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

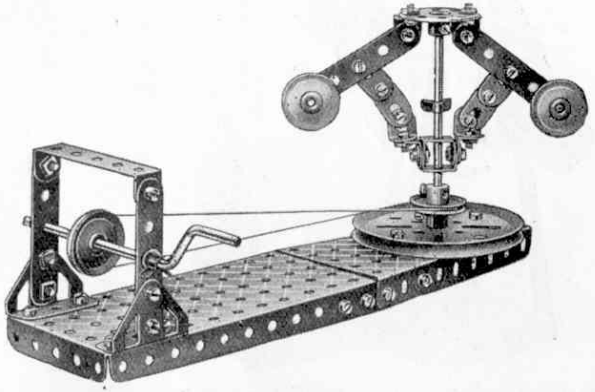
C62. Belt Gear (Obtuse Angle)



Parts required

2	of No. 2	1	„ „ 12	2	of No. 38
1	„ „ 5	2	„ „ 16	1	„ „ 40
2	„ „ 10	1	„ „ 19s	1	„ „ 48a
1	„ „ 11	2	„ „ 19b	1	„ „ 52
2	„ „ 12	2	„ „ 22	1	„ „ 54a
1	„ „ 15b	8	„ „ 35	1	„ „ 126
1	„ „ 19s	15	„ „ 37	2	„ „ 126a
1	„ „ 19b				
4	„ „ 22				
1	„ „ 24				
3	„ „ 35				

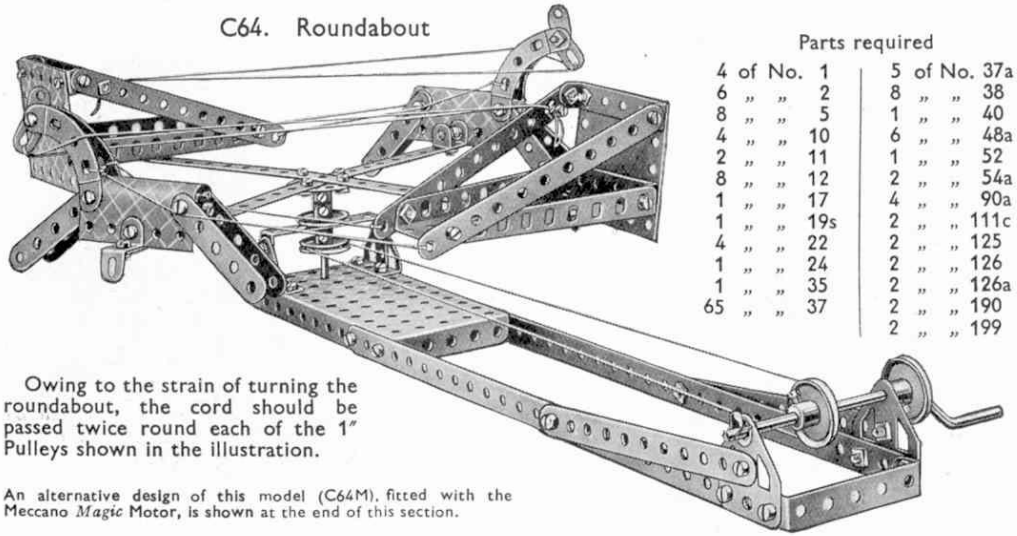
C63. Centrifugal Governor



Parts required

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

C64. 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	2	„ „	190
			2	„ „	199

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

An alternative design of this model (C64M), fitted with the Meccano *Magic* Motor, is shown at the end of this section.

C65. Fly Boats

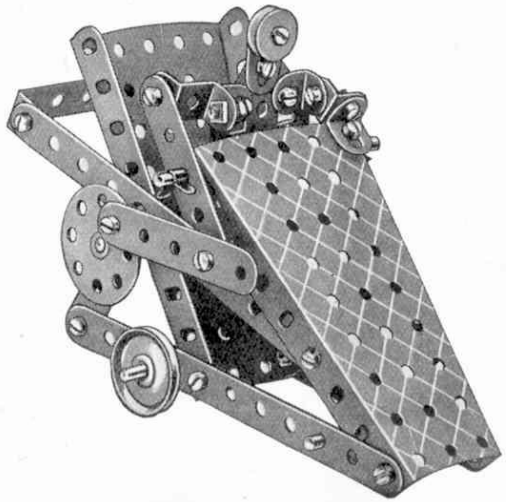
Parts required

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

An alternative design of this model (C65M), fitted with the Meccano *Magic* Motor, is shown at the end of this section.

C66. The Invalid

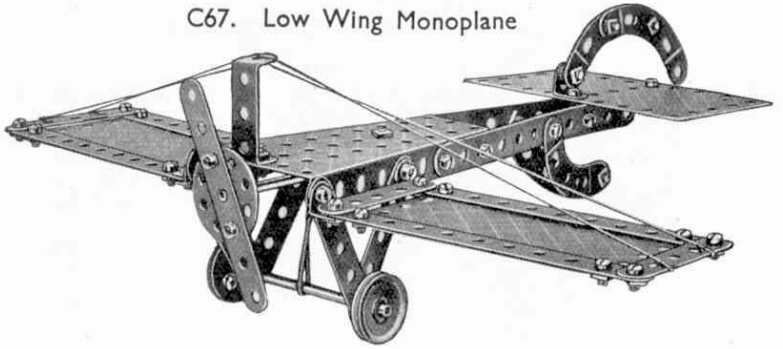
When wheeled along the table the "invalid" appears to push himself energetically along. His neck is a Flat Bracket : his right (or propelling) arm consists of one Angle Bracket and one ½″ Reversed Angle Bracket, and his left arm—the hand of which is bolted loosely to the chair—is formed by three Angle 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 carries also a Bush Wheel. As will be seen, a 2½″ Strip is pivoted at one end to this BushWheel and at the other end to a second 2½″ Strip 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

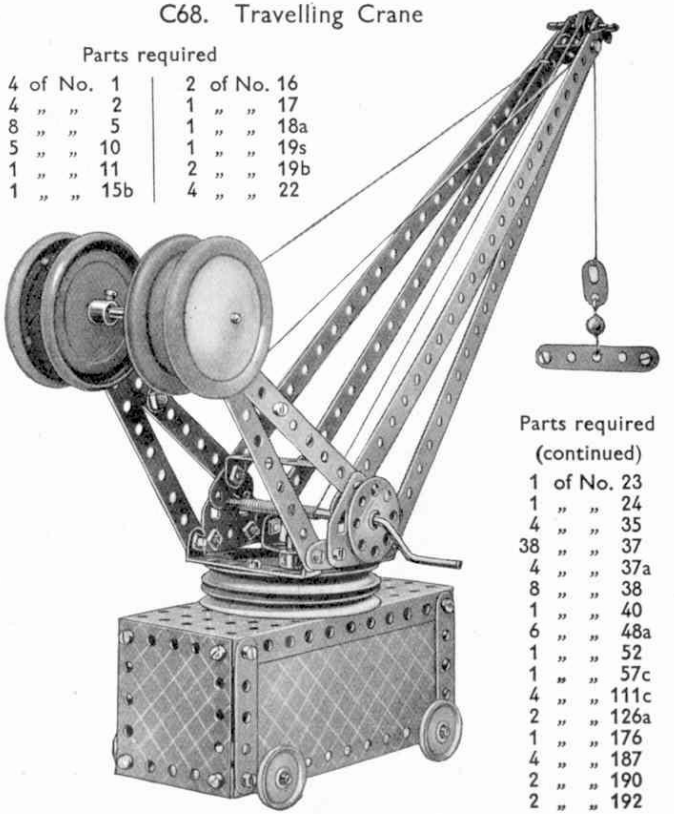
C67. Low Wing Monoplane



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

C68. Travelling Crane



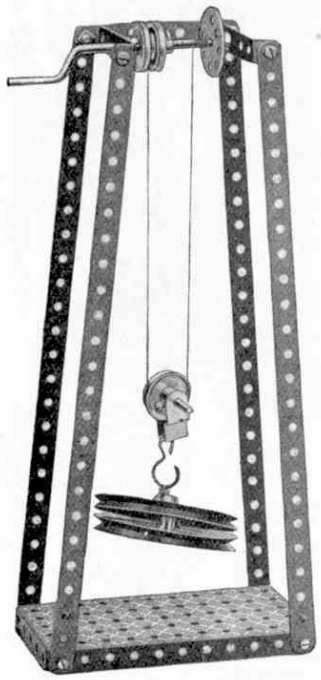
Parts required

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

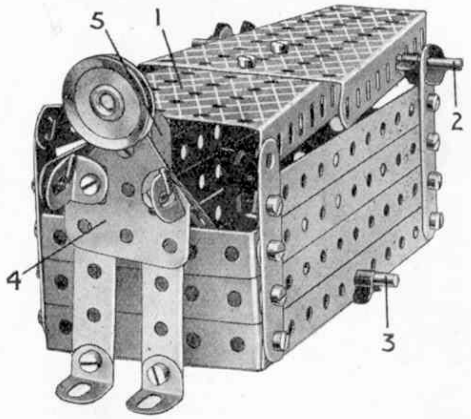
C69. Chinese Windlass



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	„	„	44
2	„	„	48a
1	„	„	52
1	„	„	57c
1	„	„	176

C71. Disappearing Meccanitian



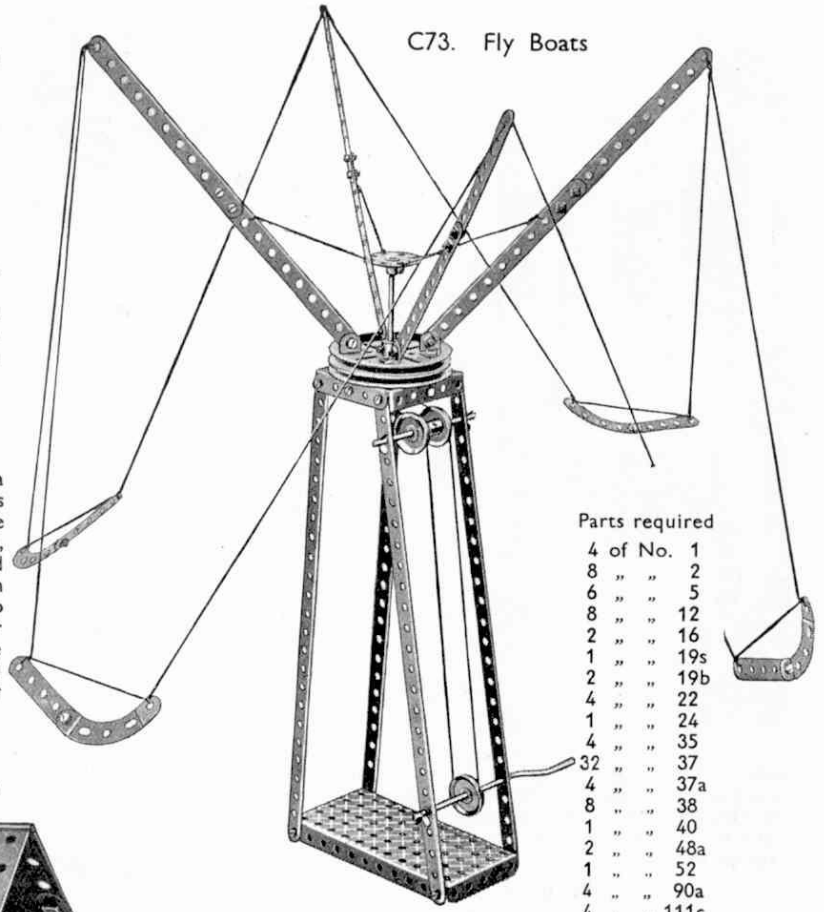
Parts required

6	of	No.	2
6	„	„	5
1	„	„	10
4	„	„	12
2	„	„	16
1	„	„	22
6	„	„	35
23	„	„	37
1	„	„	44
6	„	„	48a
1	„	„	52
2	„	„	54a
1	„	„	111c
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 two $2\frac{1}{2}'' \times \frac{1}{2}''$ 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.

C73. Fly Boats



Parts required

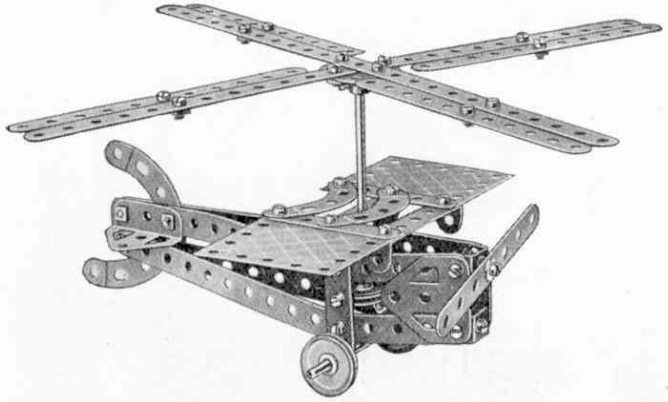
4	of	No.	1
8	„	„	2
6	„	„	5
8	„	„	12
2	„	„	16
1	„	„	19s
2	„	„	19b
4	„	„	22
1	„	„	24
4	„	„	35
32	„	„	37
4	„	„	37a
8	„	„	38
1	„	„	40
2	„	„	48a
1	„	„	52
4	„	„	90a
4	„	„	111c

C70. Autogiro

Parts required

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

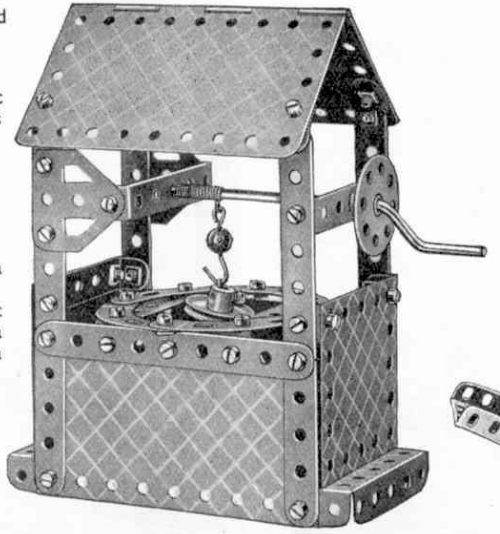
4	of	No.	90a				
2	„	„	111c				
2	„	„	126				
2	„	„	126a				
2	„	„	190				



C72. Well Windlass

Parts required

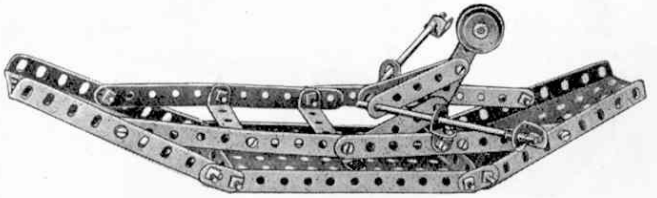
4	of	No.	2
4	„	„	5
4	„	„	12c
1	„	„	19s
1	„	„	22
1	„	„	24
1	„	„	35
46	„	„	37
1	„	„	38
1	„	„	40
6	„	„	48a
1	„	„	52
1	„	„	57c
4	„	„	90a
2	„	„	126a
1	„	„	176
2	„	„	190
2	„	„	191
1	„	„	198

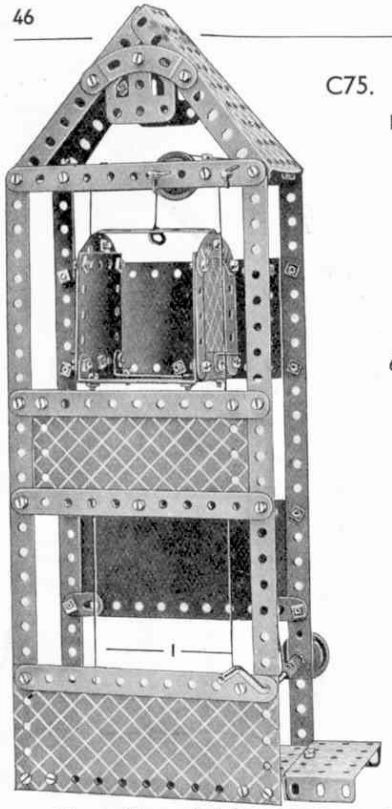


C74. Rowing Boat

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





C75. Elevator

Parts required

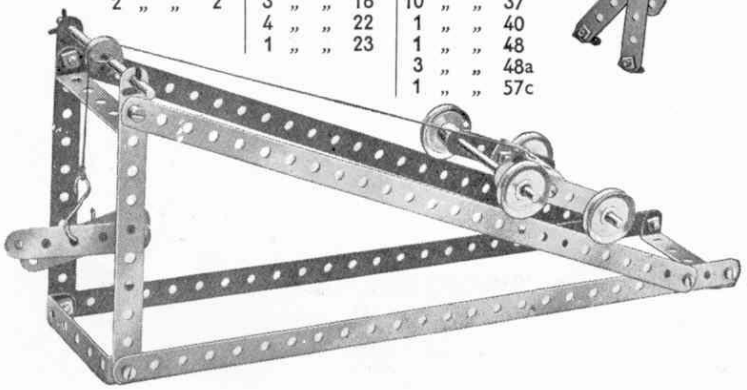
4	of No.	1
8	„ „	2
8	„ „	5
2	„ „	10
6	„ „	12
2	„ „	16
1	„ „	19s
2	„ „	22
1	„ „	23
6	„ „	35
63	„ „	37
2	„ „	37a
8	„ „	38
1	„ „	40
3	„ „	48a
1	„ „	51
1	„ „	52
2	„ „	54a
4	„ „	90a
1	„ „	126
2	„ „	126a
1	„ „	176
3	„ „	190
2	„ „	191
2	„ „	192

The guide cords 1 for the cage are tied to the centre holes of $2\frac{1}{2}$″ Strips attached to the top of the model by Angle Brackets, and in corresponding holes in the $5\frac{1}{2}$″ × $2\frac{1}{2}$″ Flanged Plate. The hoisting cord is passed over a $\frac{1}{2}$″ loose Pulley and 1″ fixed Pulley before being tied to the cage as shown.

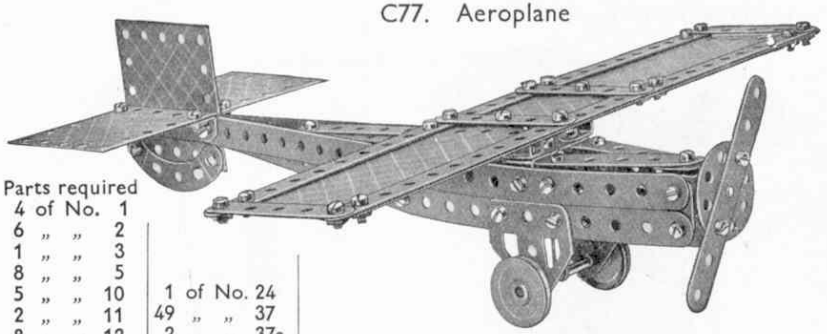
C76. Inclined Plane

Parts required

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



C77. Aeroplane



Parts required

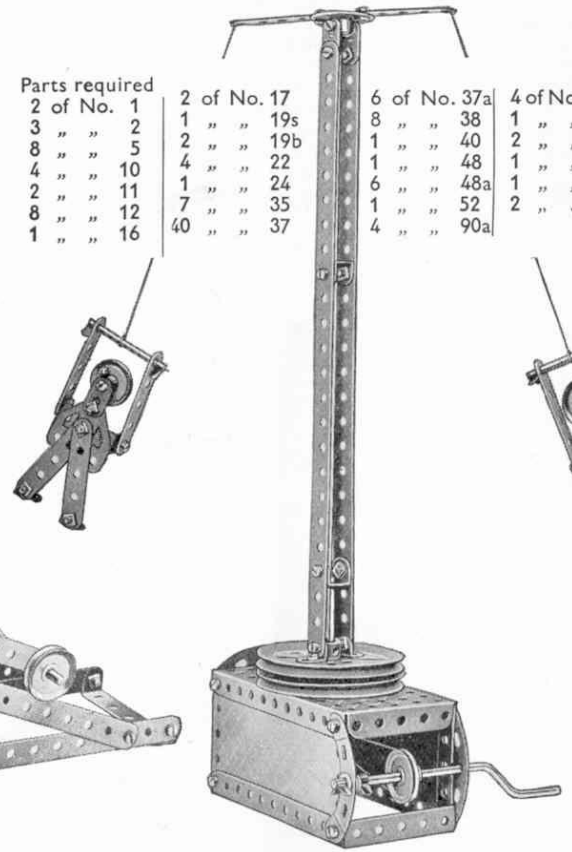
4	of No.	1
6	„ „	2
1	„ „	3
8	„ „	5
5	„ „	10
2	„ „	11
8	„ „	12
1	„ „	15b
1	„ „	17
2	„ „	22
1	of No.	24
49	„ „	37
2	„ „	37a
1	„ „	48
2	„ „	90a
2	„ „	111c
2	of No.	125
2	„ „	126a
1	„ „	176
1	of No.	186
4	„ „	190
2	„ „	191

An alternative design of this model (C77M), fitted with the Meccano *Magic* Motor, is illustrated at the end of this section.

C78. Revolving Gymnasts

Parts required

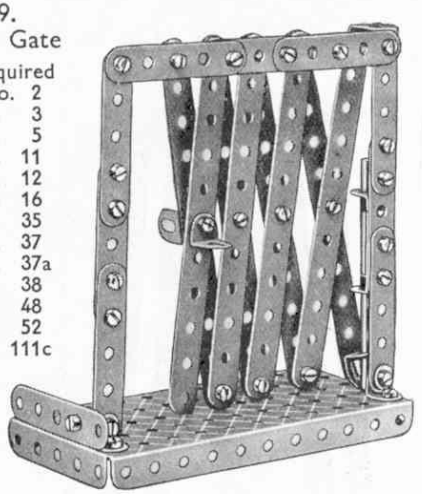
2	of No.	1
3	„ „	2
8	„ „	5
4	„ „	10
2	„ „	11
8	„ „	12
1	„ „	16
2	of No.	17
1	„ „	19s
2	„ „	19b
4	„ „	22
1	„ „	24
7	„ „	35
40	„ „	37
6	of No.	37a
8	„ „	38
1	„ „	40
1	„ „	48
6	„ „	48a
1	„ „	52
4	„ „	90a
4	of No.	111c
1	„ „	125
2	„ „	126a
1	„ „	186
1	„ „	190
2	„ „	192



C79. 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

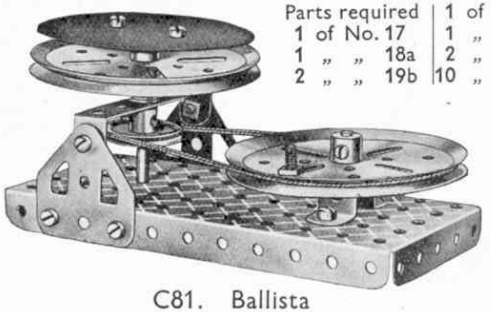


C80. Rotary Linisher

Parts required

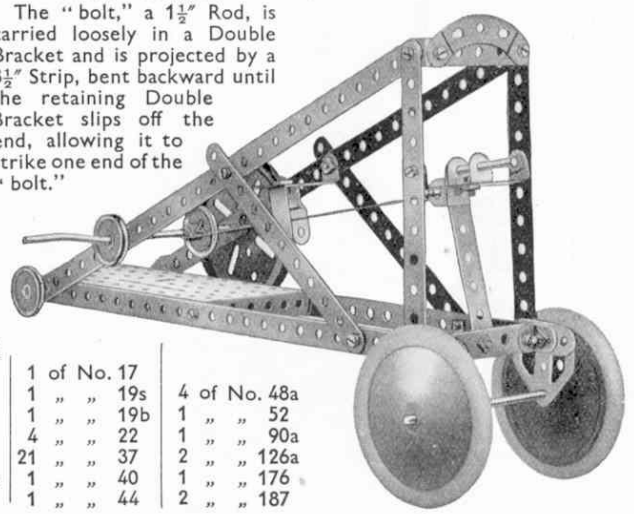
1	of No.	17
1	„ „	18a
2	„ „	19b
1	of No.	22
1	„ „	24
2	„ „	35
10	„ „	37
1	of No.	37a
2	„ „	38
1	„ „	40
1	„ „	48a
1	„ „	52
1	„ „	111c
2	„ „	125
1	„ „	126a

Disc of Emery Cloth (not included in Outfit)



C81. Ballista

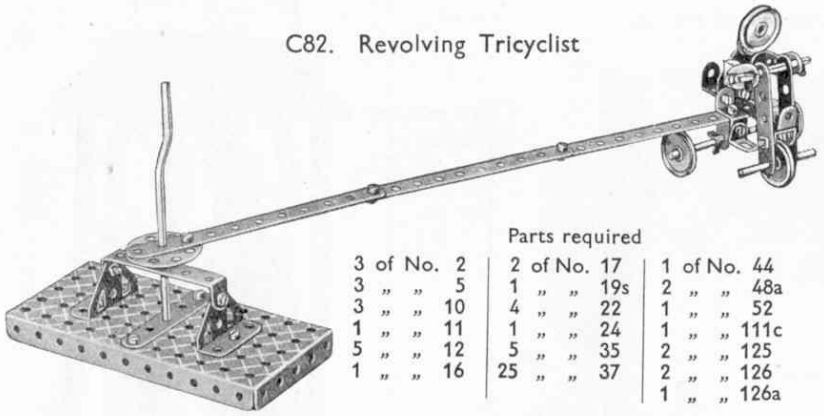
The "bolt," a $1\frac{1}{2}$″ Rod, is carried loosely in a Double Bracket and is projected by a $3\frac{1}{2}$″ Strip, bent backward until the retaining Double Bracket slips off the end, allowing it to strike one end of the "bolt."



Parts required

4	of No.	1
4	„ „	2
1	„ „	3
2	„ „	11
2	„ „	12
1	„ „	15b
1	„ „	16
1	of No.	17
1	„ „	19s
1	„ „	19b
4	„ „	22
21	„ „	37
1	„ „	40
1	„ „	44
4	of No.	48a
1	„ „	52
1	„ „	90a
2	„ „	126a
1	„ „	176
2	„ „	187

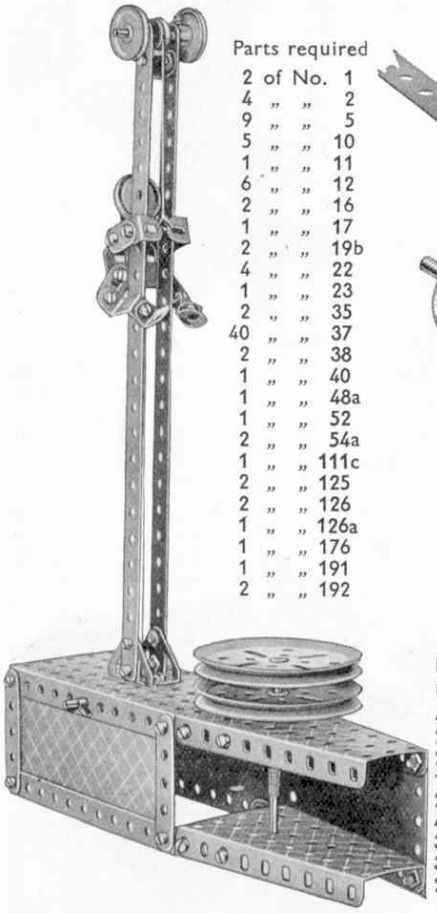
C82. Revolving Tricyclist



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

C83. 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	„ „	54a
1	„ „	111c
2	„ „	125
2	„ „	126
1	„ „	126a
1	„ „	176
1	„ „	191
2	„ „	192

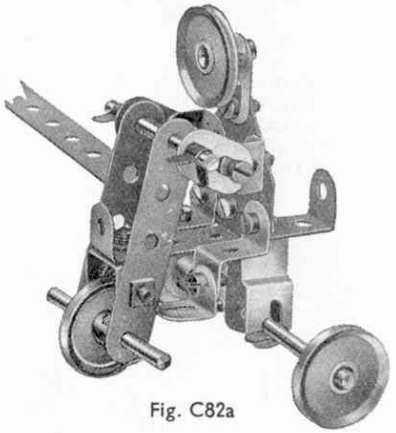
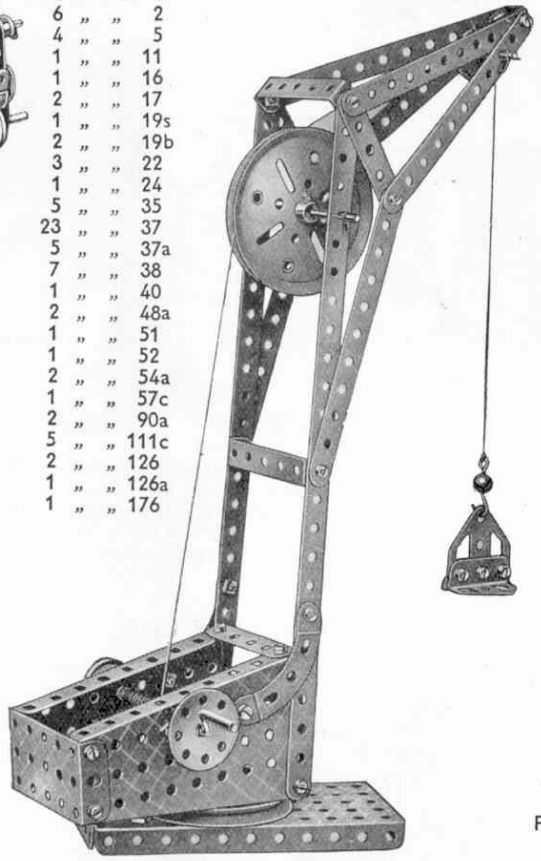


Fig. C82a

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

C84. Warehouse Crane



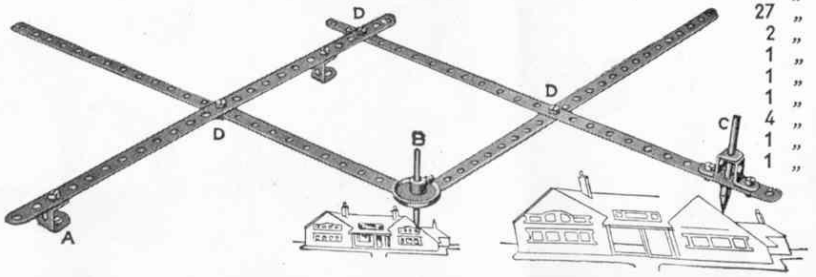
C85. Pantograph

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 locknuts to allow free movement of the $12\frac{1}{2}$ Strips.

Parts required

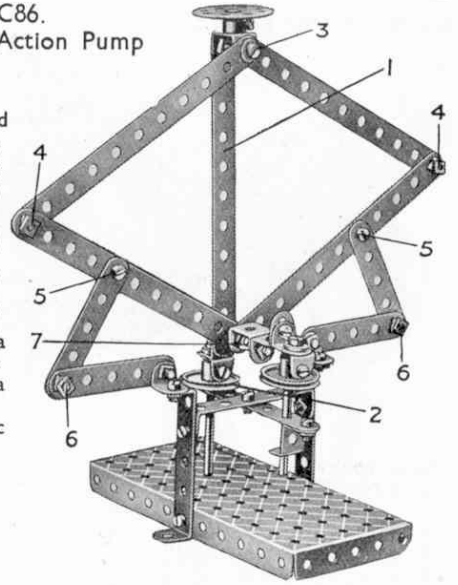
4	of No.	1
2	„ „	11
2	„ „	18a
1	„ „	22
2	„ „	35
4	„ „	37
3	„ „	37a
3	„ „	111c
2	„ „	125



C86. 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



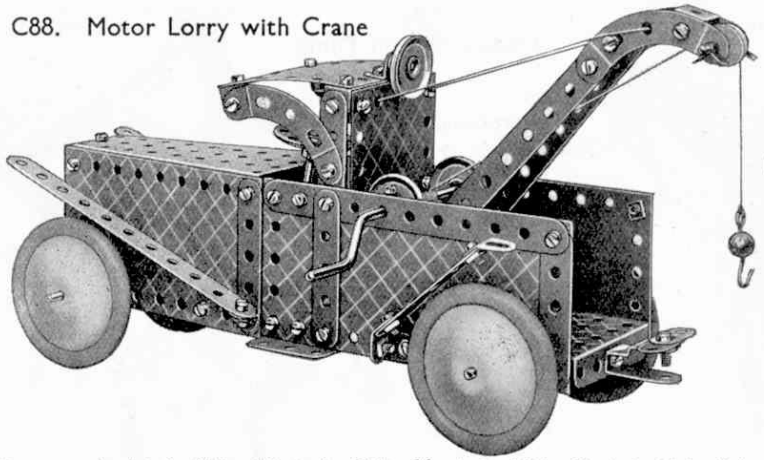
The $5\frac{1}{2}$" Strip 1 is attached to the 1" Pulley Wheel 2 by means of two Angle Brackets, through the lower one of which passes the Set-Screw that secures the Pulley to its 2" Rod. Two Washers are placed beneath the head of the bolt joining the Angle Brackets in order to prevent its shank from binding on the boss of the Pulley 2. The joints 3, 4, 5, 6, 7, are all locknutted, 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.

C87. 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

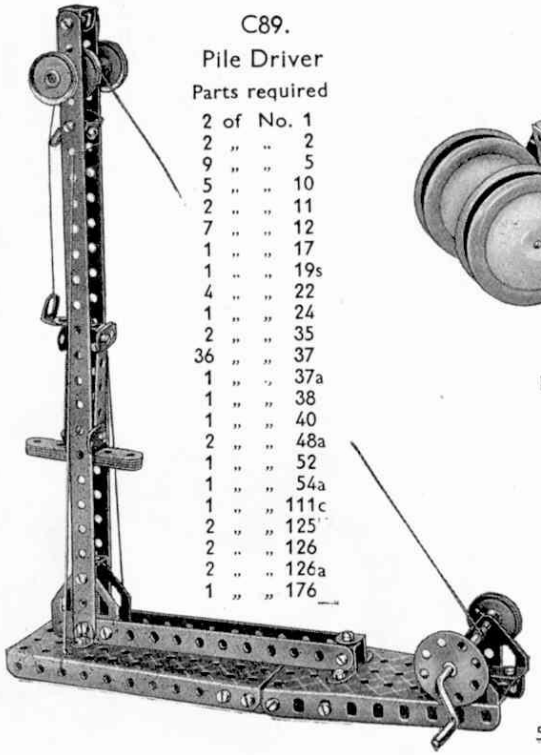
C88. Motor Lorry with Crane



Parts required

8	of No.	2	2	„ „	15b	1	of No.	24	5	of No.	48a	2	of No.	126
1	„ „	3	1	„ „	16	5	„ „	35	1	„ „	51	2	„ „	126a
9	„ „	5	1	„ „	18a	66	„ „	37	1	„ „	52	1	„ „	176
4	„ „	10	1	„ „	19s	3	„ „	37a	2	„ „	54a	4	„ „	187
1	„ „	11	4	„ „	22	4	„ „	38	1	„ „	57c	3	„ „	190
7	„ „	12	1	„ „	23	1	„ „	40	4	„ „	90a	2	„ „	191
						1	„ „	44	4	„ „	111c	2	„ „	192

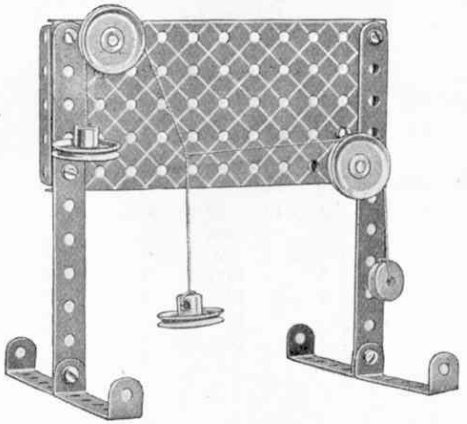
C89. Pile Driver



Parts required

2	of No.	1	1	„ „	37a	4	of No.	37a
2	„ „	2	1	„ „	38	8	„ „	38
9	„ „	5	1	„ „	40	1	„ „	40
5	„ „	10	2	„ „	48a	1	„ „	48
2	„ „	11	1	„ „	52	6	„ „	48a
7	„ „	12	1	„ „	54a	1	„ „	52
1	„ „	17	1	„ „	111c	2	„ „	54a
1	„ „	19s	2	„ „	125	1	„ „	57c
4	„ „	22	2	„ „	126	4	„ „	90a
1	„ „	24	2	„ „	126a	4	„ „	111c
2	„ „	35	1	„ „	176	2	„ „	126
36	„ „	37				4	„ „	187
						4	„ „	190

C90. Triangle of Forces

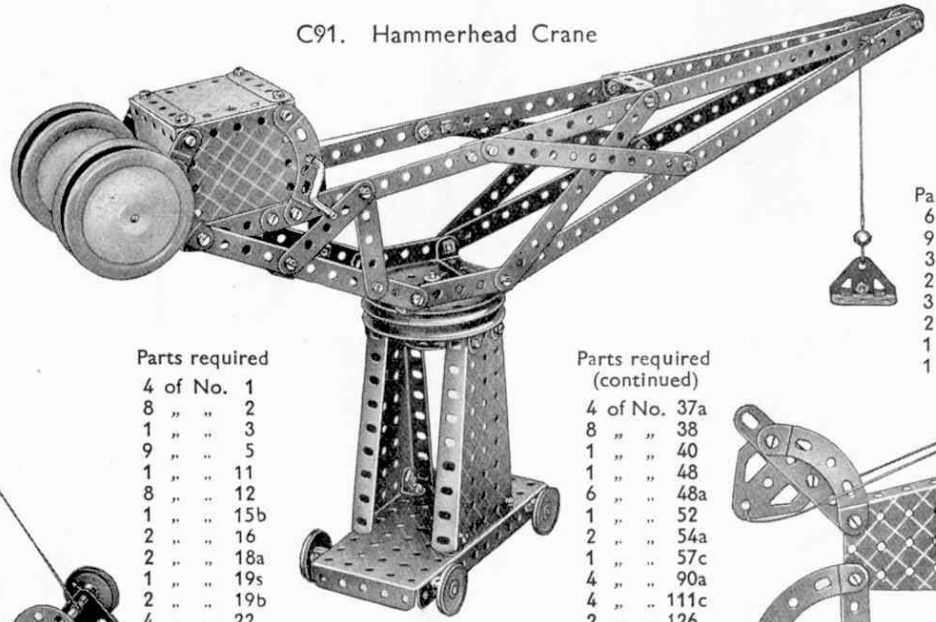


Parts required

2	of No.	2	4	„ „	48a
2	„ „	18a	1	„ „	52
4	„ „	22	2	„ „	125
1	„ „	23			
2	„ „	35			
8	„ „	37			
1	„ „	40			

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.

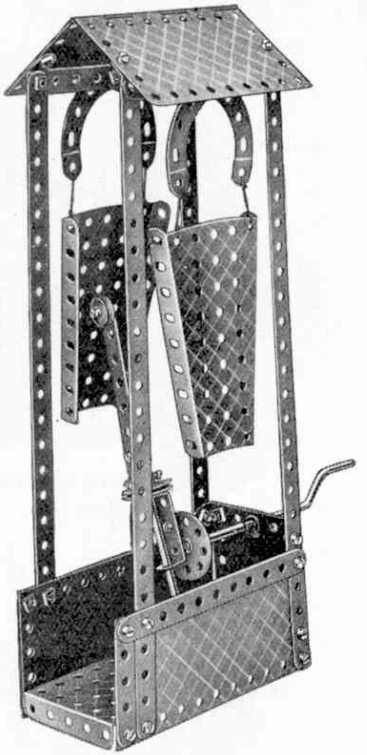
C91. Hammerhead Crane



Parts required

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

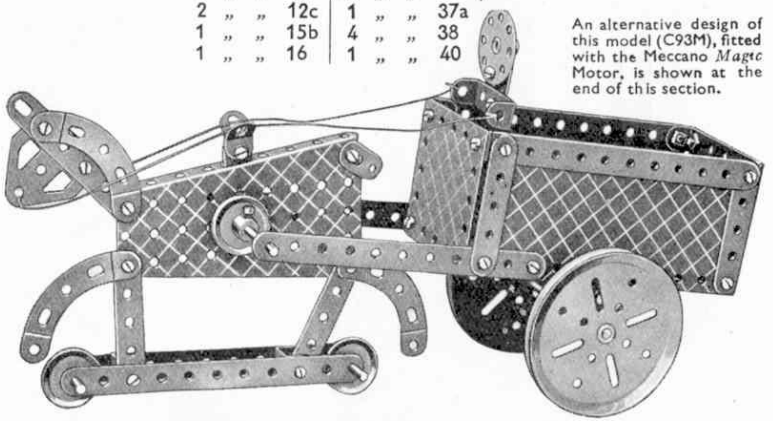
C92. Mechanical Gong



Parts required

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

C93. Horse and Cart



Parts required

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

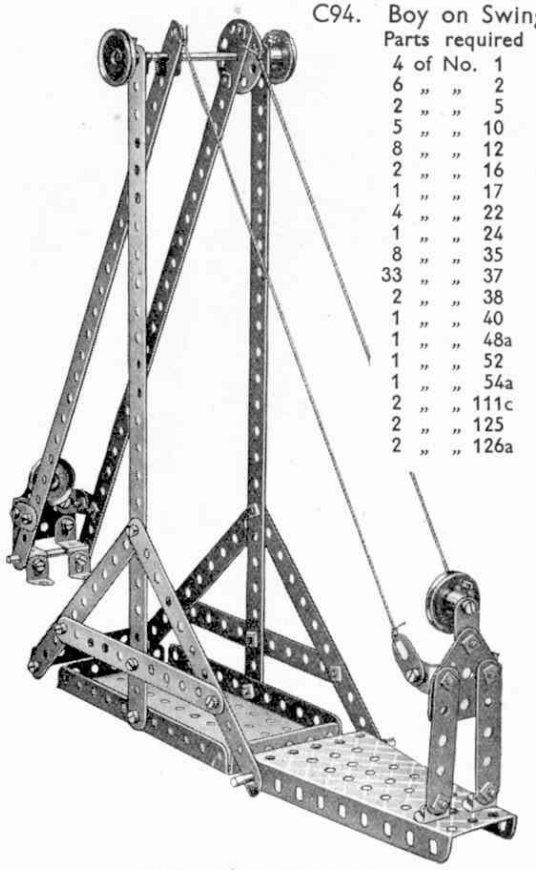
1	of No.	111c
2	„ „	126
2	„ „	126a
2	„ „	190
2	„ „	192

An alternative design of this model (C93M), fitted with the Meccano *Magic* Motor, is shown at the end of this section.

C94. Boy on Swing

Parts required

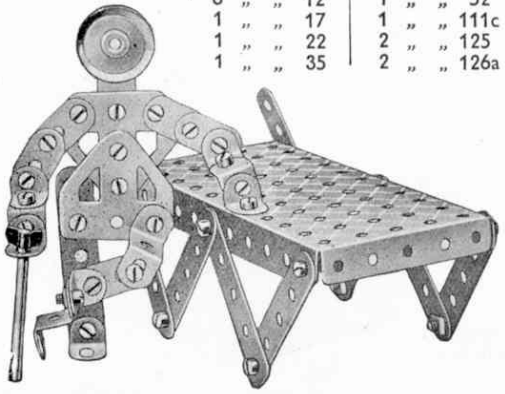
4	of No.	1
6	„ „	2
2	„ „	5
5	„ „	10
8	„ „	12
2	„ „	16
1	„ „	17
4	„ „	22
1	„ „	24
8	„ „	35
33	„ „	37
2	„ „	38
1	„ „	40
1	„ „	48a
1	„ „	52
1	„ „	54a
2	„ „	111c
2	„ „	125
2	„ „	126a



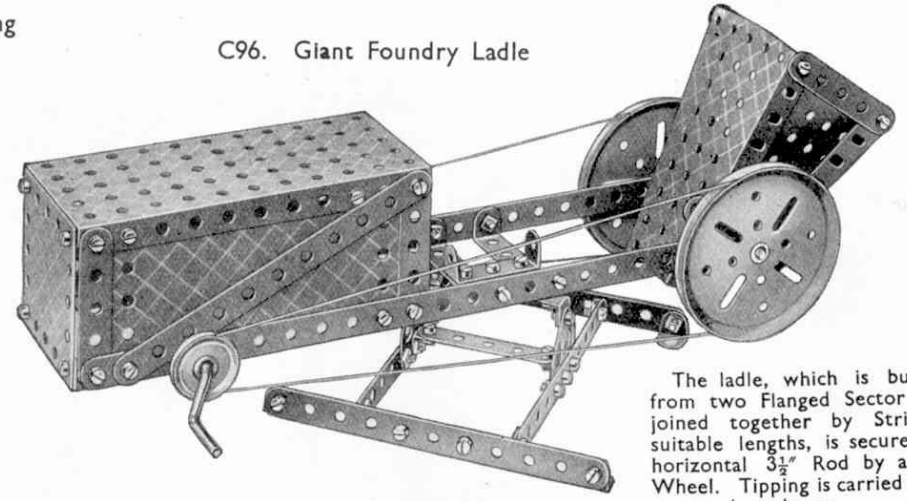
C95. King Meccano

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



C96. Giant Foundry Ladle

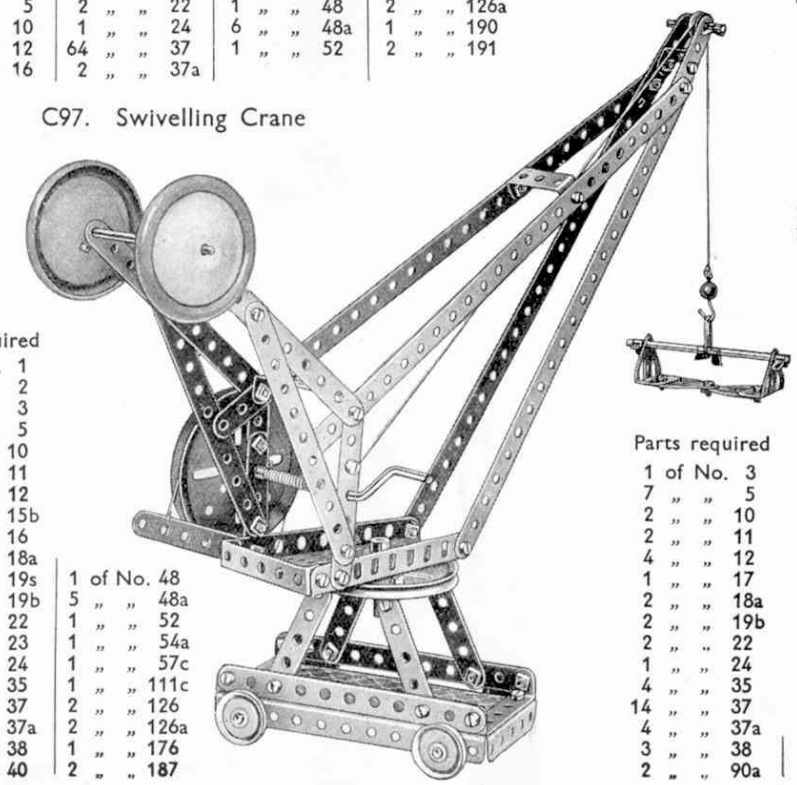


The ladle, which is built up from two Flanged Sector Plates joined together by Strips of suitable lengths, is secured to a horizontal $3\frac{1}{2}$" Rod by a Bush Wheel. Tipping is carried out by two cords as shown.

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

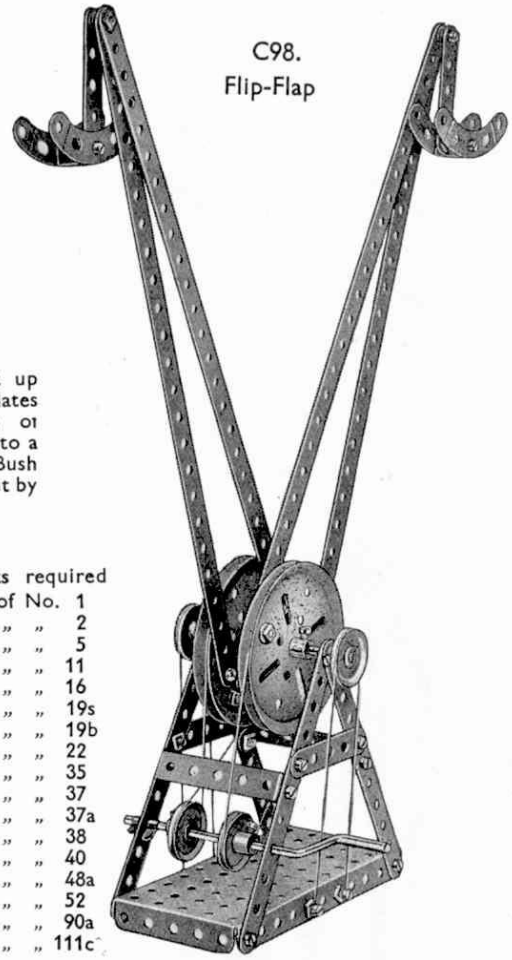
C97. Swivelling Crane



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

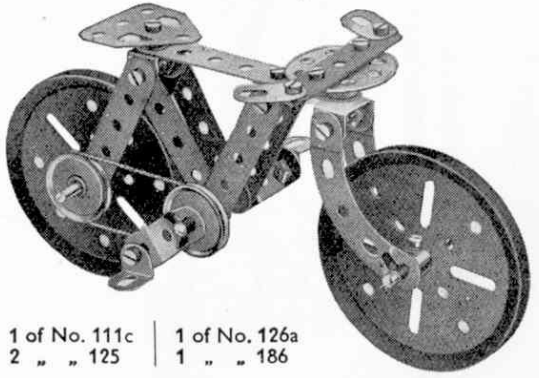
C98. Flip-Flap



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

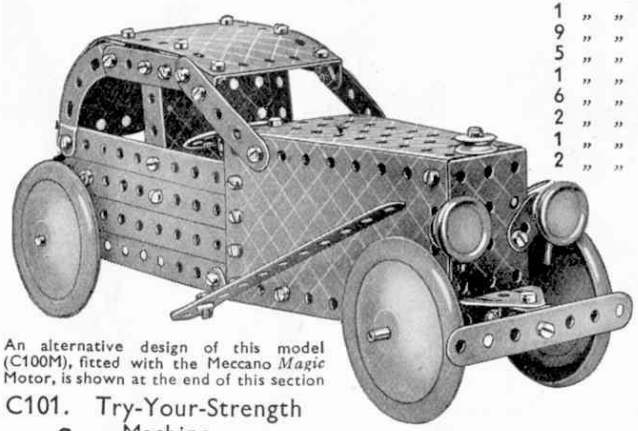
C99. Bicycle



Parts required

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

C100. Sports Coupé

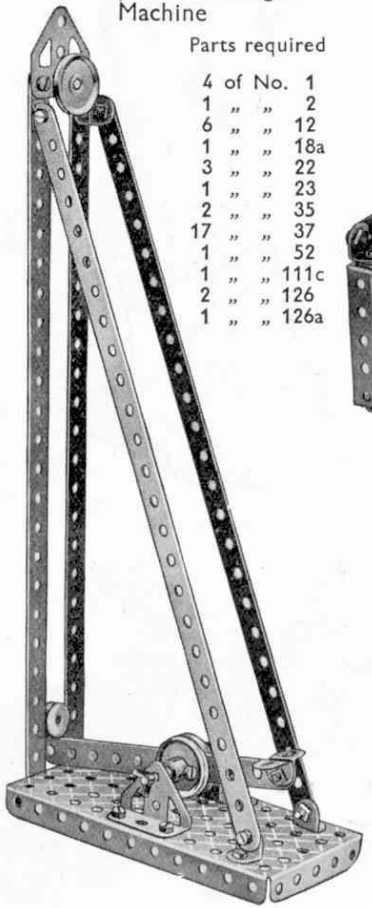


An alternative design of this model (C100M), fitted with the Meccano *Magic* Motor, is shown at the end of this section

Parts required

8	of No.	2
1	„ „	3
9	„ „	5
5	„ „	10
1	„ „	11
6	„ „	12
2	„ „	15b
1	„ „	17
2	„ „	22
1	of No.	23
1	„ „	24
66	„ „	37
4	„ „	37a
6	„ „	48a
1	„ „	51
1	„ „	52
2	„ „	54a
2	„ „	90a
6	„ „	111c
1	„ „	125
1	„ „	126
2	„ „	126a
4	„ „	187
1	„ „	190
2	„ „	191
1	„ „	192
1	„ „	200
Lighting Set (not included in Outfit)		

C101. 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

C102. Bagatelle Table

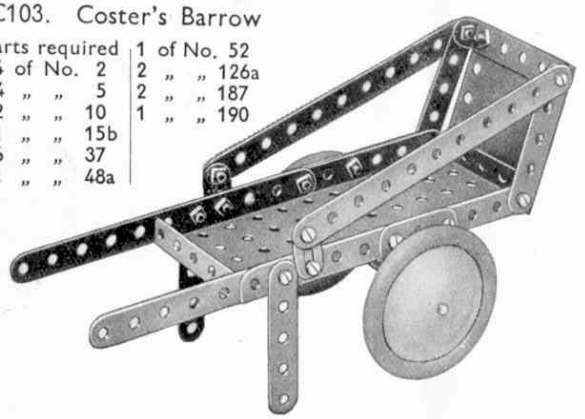
Parts required

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

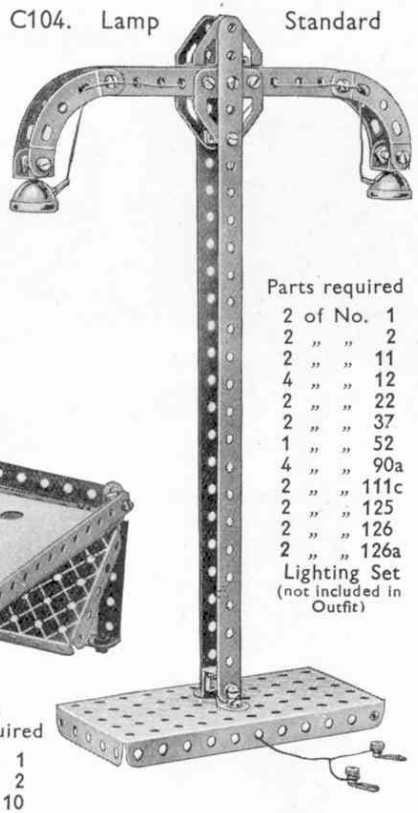
C103. Coster's Barrow

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



C104. Lamp Standard



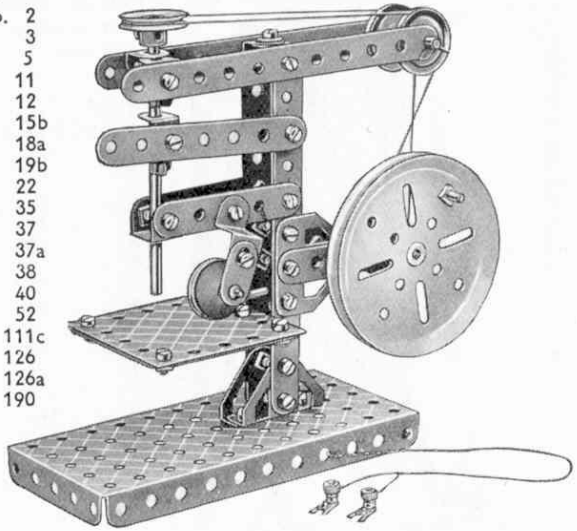
Parts required

2	of No.	1
2	„ „	2
2	„ „	11
4	„ „	12
2	„ „	22
2	„ „	37
1	„ „	52
4	„ „	90a
2	„ „	111c
2	„ „	125
2	„ „	126
2	„ „	126a
Lighting Set (not included in Outfit)		

C105. 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)		



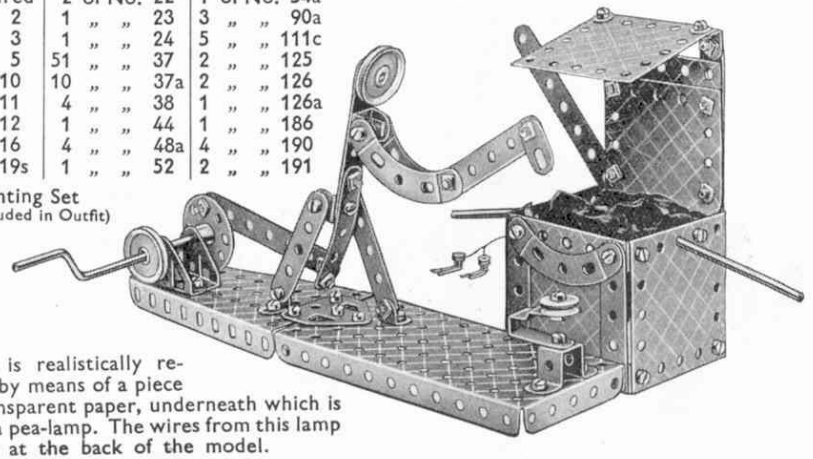
MECCANO LIGHTING SET

The appearance of many Meccano models, especially those built with Outfits A, B and C, can 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 lanterns for use as headlamps or spot lights, and a fancy stand lamp. The appearance and uses of the parts are shown in models C100, C104, C105 and C106

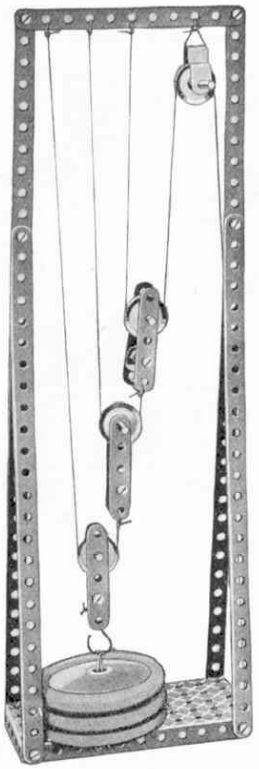
C106. Blacksmith

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	„ „	44
4	„ „	48a
1	„ „	52
1	of No.	54a
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.



C107. Pulley Block 8:1

Parts required

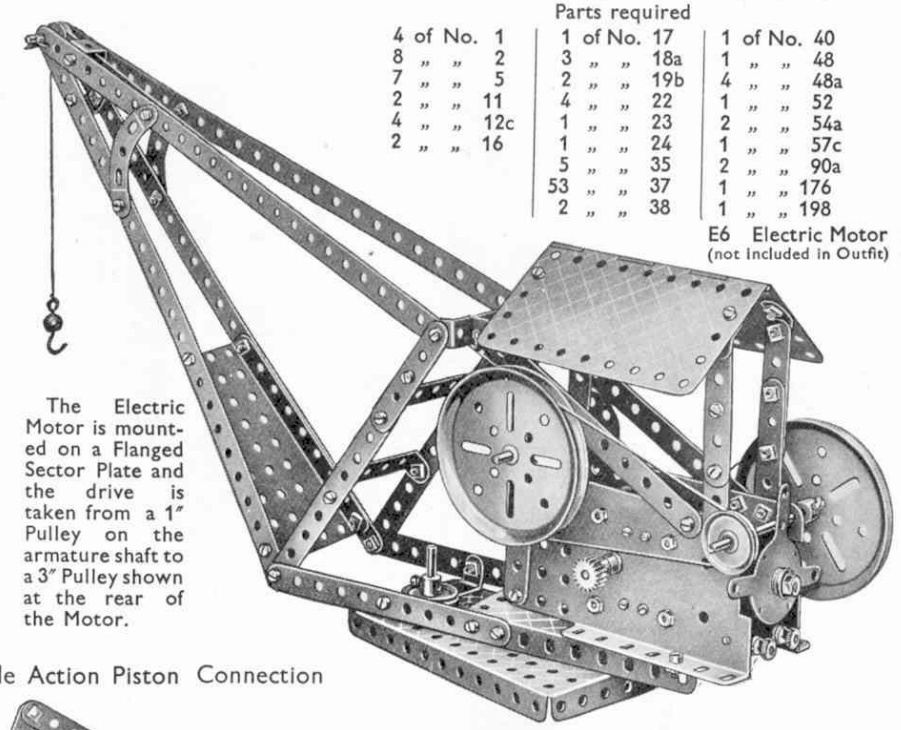
4	of No.	1
3	„ „	2
6	„ „	5
2	„ „	11
2	„ „	12
2	„ „	17
2	„ „	18a
4	„ „	22
15	„ „	37
2	„ „	38
1	„ „	40
1	„ „	44
1	„ „	52
1	„ „	57c
3	„ „	187

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

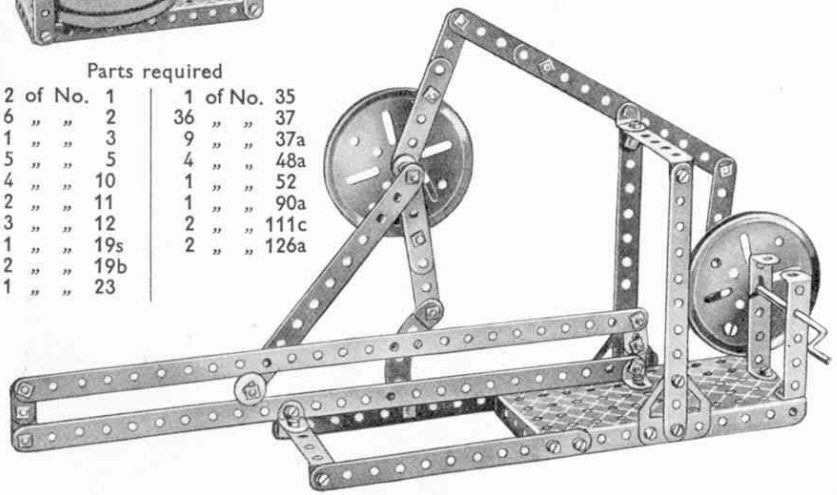
Parts required

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

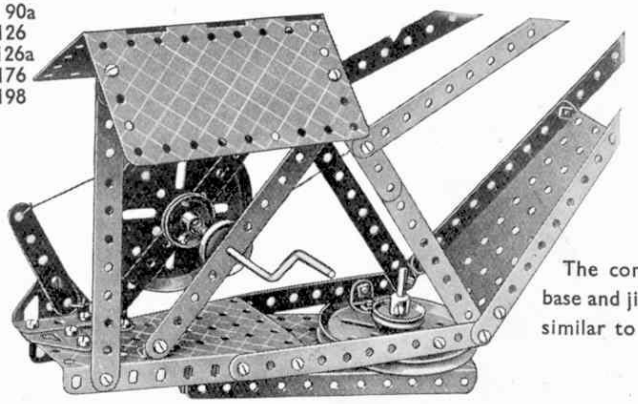
2	of No.	1
6	„ „	2
1	„ „	3
5	„ „	5
4	„ „	10
2	„ „	11
3	„ „	12
1	„ „	19s
2	„ „	19b
1	„ „	23
1	of No.	35
36	„ „	37
9	„ „	37a
4	„ „	48a
1	„ „	52
1	„ „	90a
2	„ „	111c
2	„ „	126a



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

When you have built the C Outfit Models illustrated, and fitted a number of them with the Meccano *Magic* Motor (see two following pages), your next step is to purchase a Ca Accessory Outfit. This converts your C Outfit into a D and enables you to build bigger and better models.

The greatest thrill in Meccano model-building is experienced when a model is set to work by means of a Meccano Motor. The models featured on this and the opposite page are more elaborate variations of a selection of Outfit C Models, showing how the new Meccano *Magic* Motor can be fitted to give more realism and to increase the fun. The numbers of these re-designed models are the same as those of the corresponding models in the preceding pages, with the letter M added. Try your hand at re-designing other models in a similar manner.

C11M. Sports Car

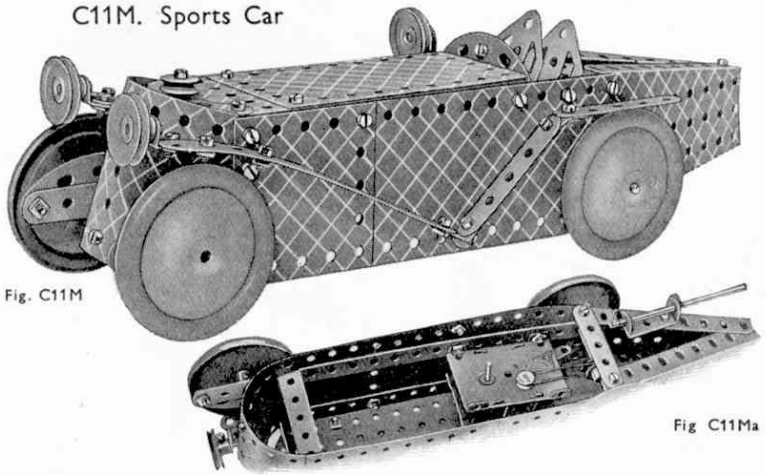


Fig. C11M

Fig C11Ma

Parts required

2	of No.	1	1	of No.	24	6	of No.	111c
2	,, ,,	2	2	,, ,,	35	2	,, ,,	125
5	,, ,,	5	56	,, ,,	37	2	,, ,,	126a
4	,, ,,	10	8	,, ,,	38	4	,, ,,	187
8	,, ,,	12	1	,, ,,	48	4	,, ,,	190
3	,, ,,	12c	1	,, ,,	48a	2	,, ,,	191
2	,, ,,	15b	1	,, ,,	52	2	,, ,,	192
3	,, ,,	22	2	,, ,,	54a	*Magic* Motor		
1	,, ,,	23	4	,, ,,	90a			

The underneath view of the model shown in Fig. C11Ma shows how the chassis is formed from two $12\frac{1}{2}$″ Strips that project beyond the front of the model. The *Magic* Motor is bolted to one Strip and drives the special $\frac{1}{2}$″ loose Pulley on the axle of the rear Road Wheels.

C77M. Aeroplane

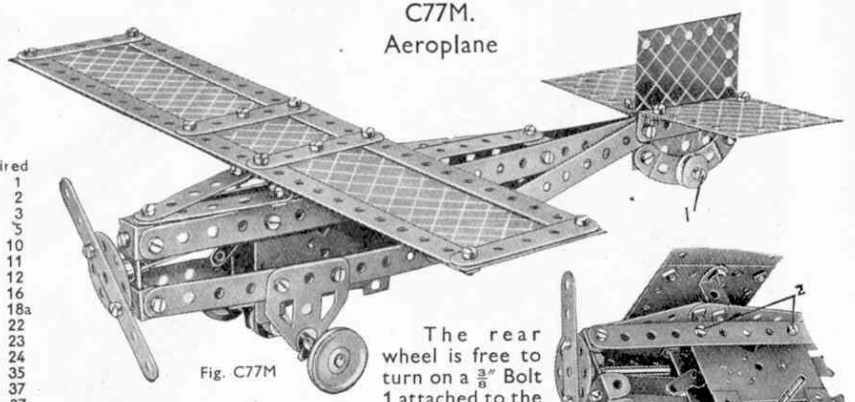


Fig. C77M

Parts required

4	of No.	1
6	,, ,,	2
1	,, ,,	3
6	,, ,,	5
2	,, ,,	10
2	,, ,,	11
6	,, ,,	12
1	,, ,,	16
1	,, ,,	18a
2	,, ,,	22
1	,, ,,	23
1	,, ,,	24
3	,, ,,	35
40	,, ,,	37
6	,, ,,	37a
2	,, ,,	38
1	,, ,,	48
1	,, ,,	90a
5	,, ,,	111c
2	,, ,,	125
2	,, ,,	126a
4	,, ,,	190
2	,, ,,	192
Magic Motor		

The rear wheel is free to turn on a $\frac{3}{8}$″ Bolt 1 attached to the Curved Strips by locknuts. Fig. C77Ma shows how the Motor is fixed in position by bolts 2.

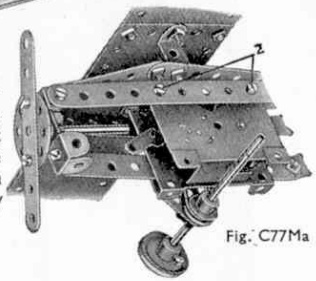


Fig. C77Ma

C27M. Mobile Crane

The jib pivots on two bolts 1, which are each fitted with locknuts. A Crank Handle controls the raising and lowering of the jib and the method of winding the cord round the handle can be seen in Fig.C27Ma. A brake is fitted to the Crank Handle and consists of a pivoted $2\frac{1}{2}$″ Curved Strip to which is tied a loop of cord that passes round the 3″ Pulley.

Fig. C27Mb shows how the *Magic* Motor is mounted beneath the crane to drive the one pair of travelling wheels.

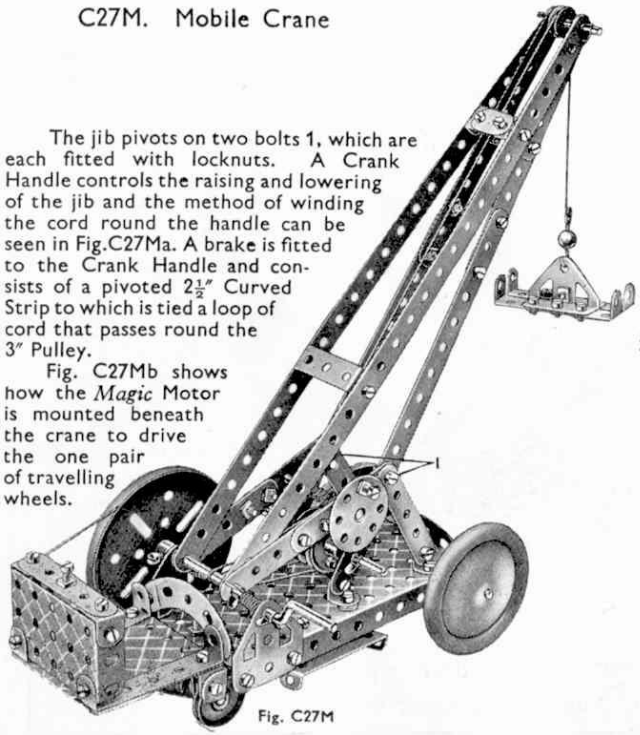


Fig. C27M

Parts required

2	of No.	1
4	,, ,,	2
9	,, ,,	5
3	,, ,,	10
2	,, ,,	11
8	,, ,,	12
1	,, ,,	15b
1	,, ,,	16
2	,, ,,	17
2	,, ,,	18a
1	,, ,,	19s
1	,, ,,	19b
4	,, ,,	22
1	,, ,,	23
1	,, ,,	24
7	,, ,,	35
58	,, ,,	37
11	,, ,,	37a
8	,, ,,	38
1	,, ,,	40
1	,, ,,	44
1	,, ,,	48
6	,, ,,	48a
1	,, ,,	51
1	,, ,,	52
1	,, ,,	57c
3	,, ,,	90a
5	,, ,,	111c
1	,, ,,	125
2	,, ,,	126
2	,, ,,	126a
1	,, ,,	176
1	,, ,,	186
2	,, ,,	187
1	,, ,,	190
Magic Motor		

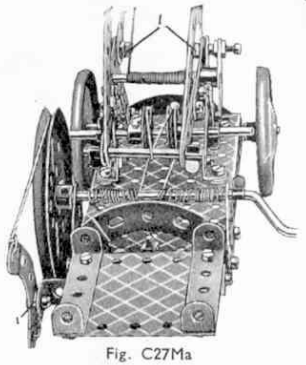


Fig. C27Ma

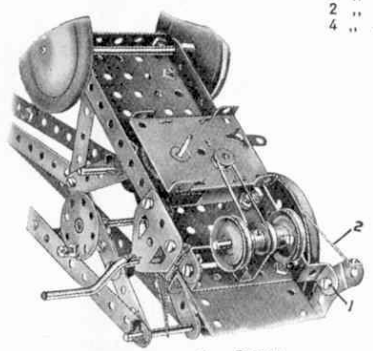


Fig. C27Mb

C93M. Horse and Cart

Fig. C93Ma shows an underneath view of the cart. A $2\frac{1}{2}$″ × $\frac{1}{2}$″ Double Angle Strip 1 is bolted across the Flanged Plate and carries the Trunnions for the Axle Rod. The *Magic* Motor is bolted beneath the Flanged Plate.

Parts required

2	of No.	1	1	of No.	24	1	of No.	52
6	,, ,,	2	5	,, ,,	35	1	,, ,,	54a
8	,, ,,	5	42	,, ,,	37	4	,, ,,	90a
3	,, ,,	10	2	,, ,,	38	2	,, ,,	126
1	,, ,,	11	1	,, ,,	40	2	,, ,,	126a
6	,, ,,	12	1	,, ,,	44	2	,, ,,	187
2	,, ,,	16	1	,, ,,	48	2	,, ,,	190
2	,, ,,	18a	1	,, ,,	48a	2	,, ,,	192
4	,, ,,	22	*Magic* Motor					

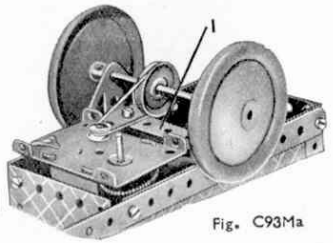


Fig. C93Ma

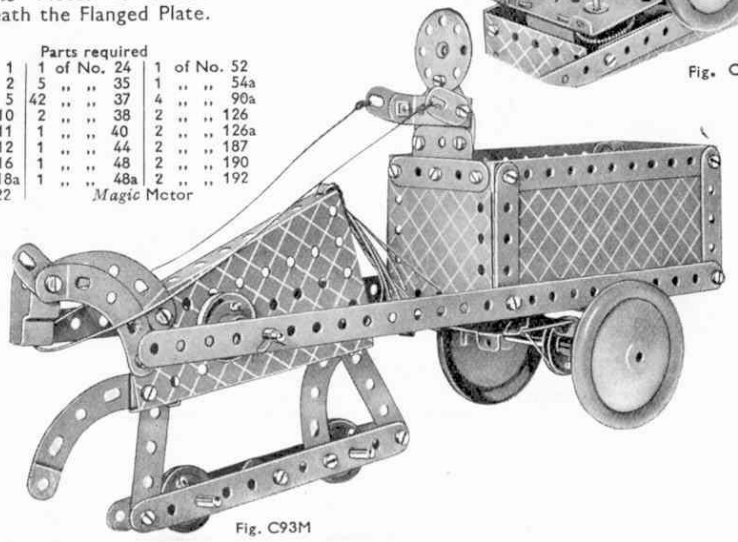


Fig. C93M

C65M. Flyboats

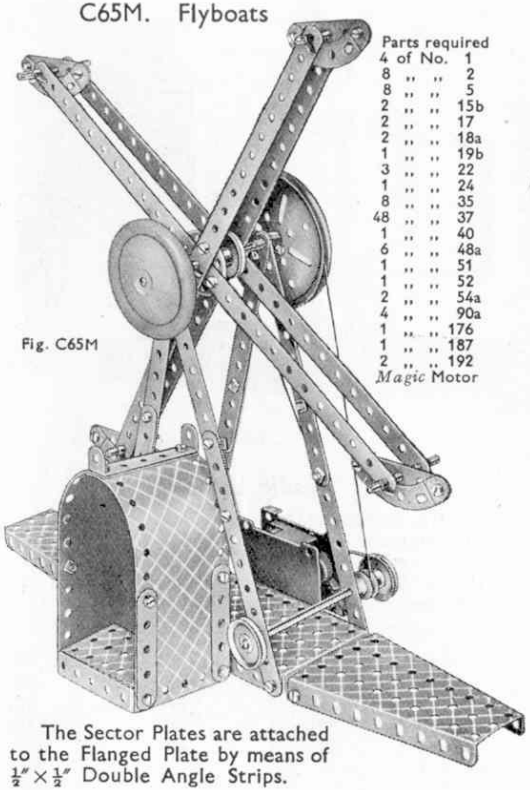


Fig. C65M

Parts required

4	of No.	1
8	,, ,,	2
8	,, ,,	5
2	,, ,,	15b
2	,, ,,	17
2	,, ,,	18a
1	,, ,,	19b
3	,, ,,	22
1	,, ,,	24
8	,, ,,	35
48	,, ,,	37
1	,, ,,	40
6	,, ,,	48a
1	,, ,,	51
1	,, ,,	52
2	,, ,,	54a
4	,, ,,	90a
1	,, ,,	176
1	,, ,,	187
2	,, ,,	192

Magic Motor

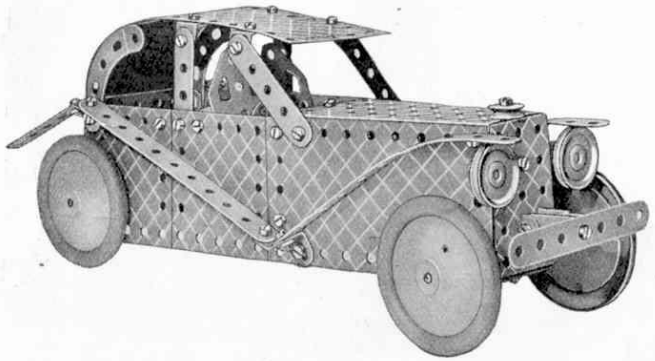
The Sector Plates are attached to the Flanged Plate by means of $\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strips.

C100M. Sports Coupé

Parts required

8	of No.	2
1	,, ,,	3
9	,, ,,	5
2	,, ,,	11
8	,, ,,	12
4	,, ,,	12c
2	,, ,,	15b
1	of No.	18a
2	,, ,,	22
1	,, ,,	23
1	,, ,,	24
4	,, ,,	35
56	,, ,,	37
1	,, ,,	37a
6	of No.	38
1	,, ,,	44
1	,, ,,	48
3	,, ,,	48a
1	,, ,,	51
1	,, ,,	54a
2	,, ,,	90a
3	of No.	111c
1	,, ,,	126
2	,, ,,	126a
4	,, ,,	187
4	,, ,,	190
2	,, ,,	191
2	,, ,,	192

Magic Motor



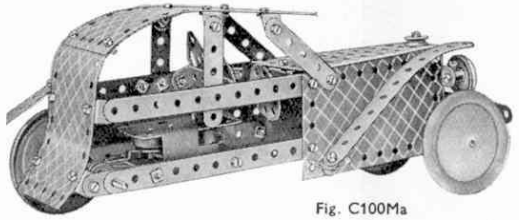


Fig. C100Ma

The front Axle Rod is carried in the upturned ends of a $1\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strip bolted to the lower flange of the $2\frac{1}{2}'' \times 1\frac{1}{2}''$ Flanged Plate forming the radiator. A dummy steering wheel, represented by a Bush Wheel, is carried on a $1\frac{1}{2}''$ Rod passed through the right-hand hole of a Trunnion and held in place by Spring Clips.

Parts required

4	of No.	1
6	,, ,,	2
8	,, ,,	5
4	,, ,,	10
2	,, ,,	11
8	,, ,,	12
1	,, ,,	15b
1	,, ,,	19b
1	,, ,,	22
1	,, ,,	24
66	,, ,,	37
6	,, ,,	37a
5	,, ,,	38
1	,, ,,	40
1	of No.	48a
1	,, ,,	51
1	,, ,,	52
2	,, ,,	54a
4	,, ,,	90a
6	,, ,,	111c
2	,, ,,	125
2	,, ,,	126
1	,, ,,	187
2	,, ,,	190
2	,, ,,	191
2	,, ,,	195
2	,, ,,	199

Magic Motor

C64M. Roundabout

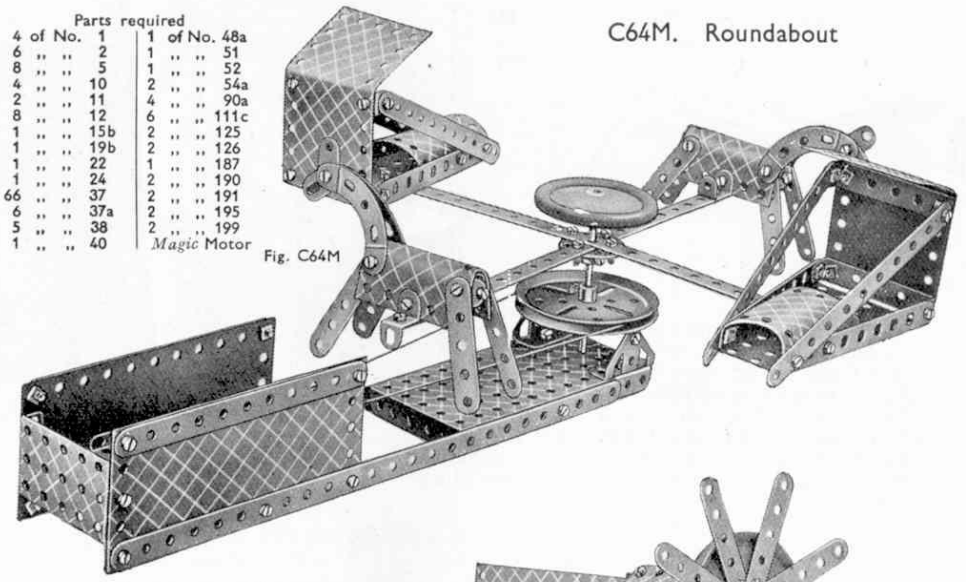


Fig. C64M

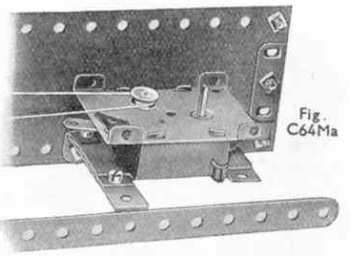


Fig. C64Ma

Fig. C64Ma shows how the *Magic* Motor is mounted in position for driving this model.

C22M. Windmill Pump

The construction of the model is seen in the sectional view in Fig. C22Ma the *Magic* Motor being shown ready to be mounted in position. The beam operating the pump is pivoted at each end by means of locknutted bolts 2. A $2\frac{1}{2}''$ Strip connects one end of the beam to a Bush Wheel and pivots on the bolt 1 that is fixed in place by two nuts. The pump cylinder 3 is attached to the base Plate by Angle Brackets.

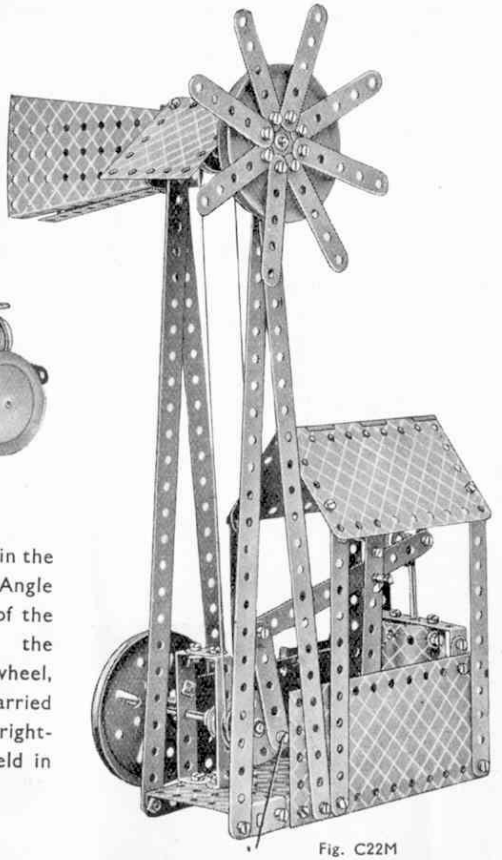


Fig. C22M

Parts required

4	of No.	1
7	,, ,,	2
9	,, ,,	5
5	,, ,,	10
1	,, ,,	11
9	,, ,,	12
4	,, ,,	12c
1	,, ,,	15b
2	,, ,,	16
1	,, ,,	18a
2	,, ,,	19b
2	,, ,,	22
1	,, ,,	24
6	,, ,,	35
66	,, ,,	37
9	,, ,,	37a
2	,, ,,	38
1	,, ,,	40
3	,, ,,	48a
1	,, ,,	51
1	,, ,,	52
2	,, ,,	54a
6	,, ,,	111c
2	,, ,,	125
2	,, ,,	126
2	,, ,,	126a
4	,, ,,	190
2	,, ,,	192
1	,, ,,	198

Magic Motor

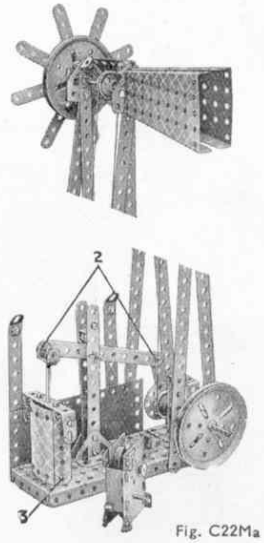
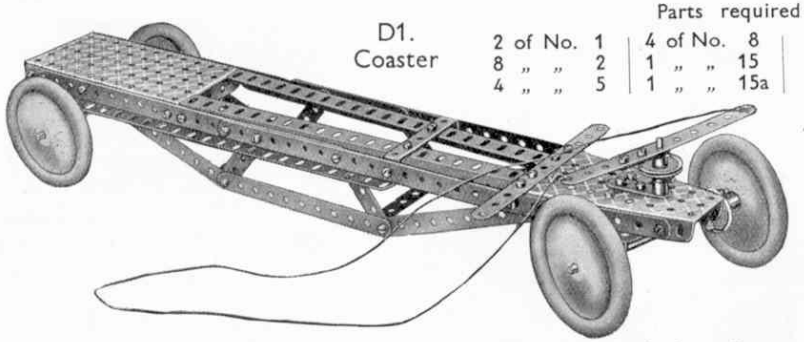


Fig. C22Ma

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.

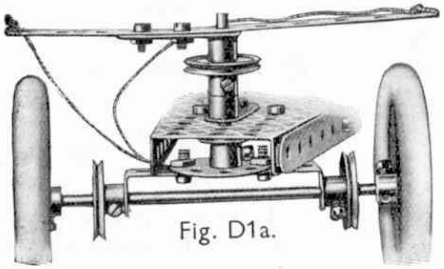
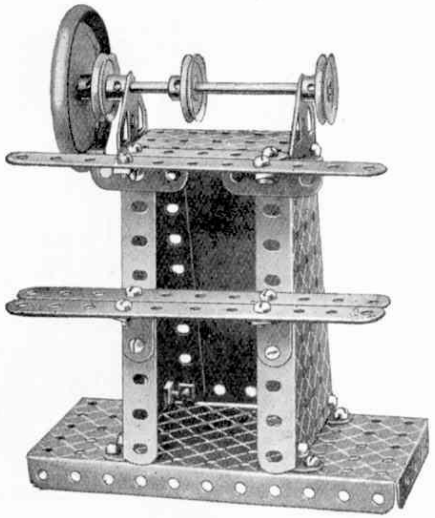


Fig. D1a.

D2. Polishing Spindle

Parts required

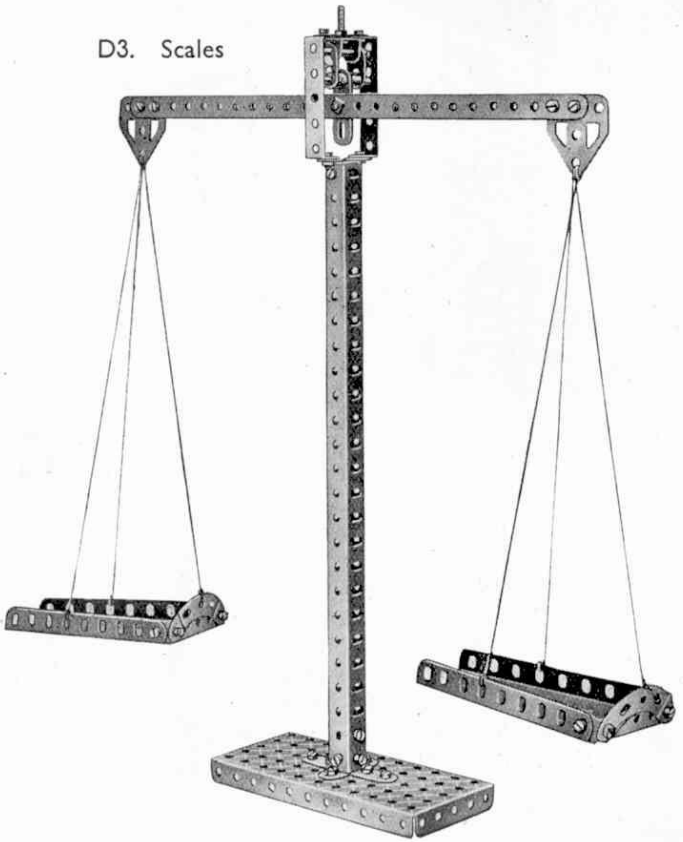
3 of No.	2	3 of No.	22	2 of No.	126
1 „ „	5	30 „ „	37	2 „ „	126a
4 „ „	12	1 „ „	51	1 „ „	187
2 „ „	12a	1 „ „	52	1 „ „	191
1 „ „	15b	2 „ „	54a		



D3. Scales

Parts required

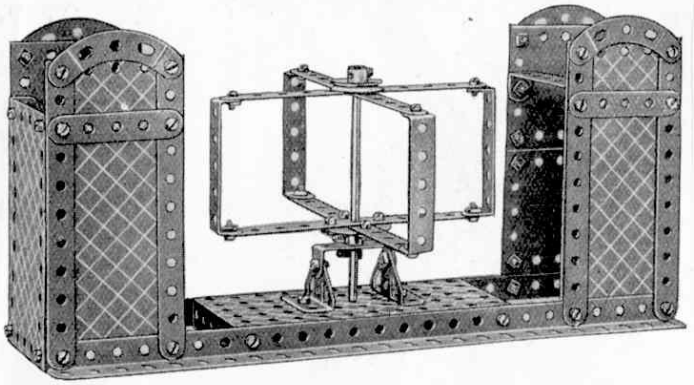
2 of No.	1	2 „ „	62
1 „ „	6a	2 „ „	90a
2 „ „	8	1 „ „	115
2 „ „	10	2 „ „	126a
1 „ „	11		
2 „ „	12		
2 „ „	12a		
2 „ „	18a		
2 „ „	35		
31 „ „	37		
4 „ „	38		
1 „ „	40		
1 „ „	45		
4 „ „	48a		
1 „ „	52		
2 „ „	54a		



D4. Turnstile

Parts required

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



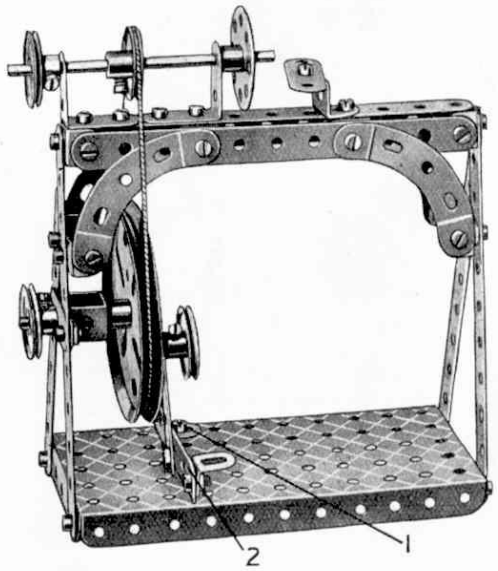
D5. Treadle Lathe

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.

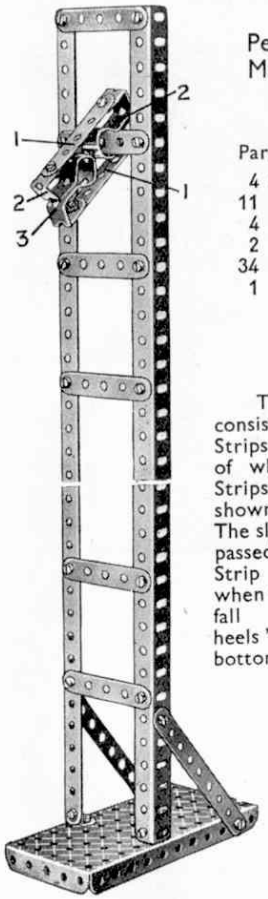
Parts required

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

1 of No.	45	
1 „ „	52	
4 „ „	90a	
1 „ „	115	
1 „ „	125	



D6. Performing Meccanitian

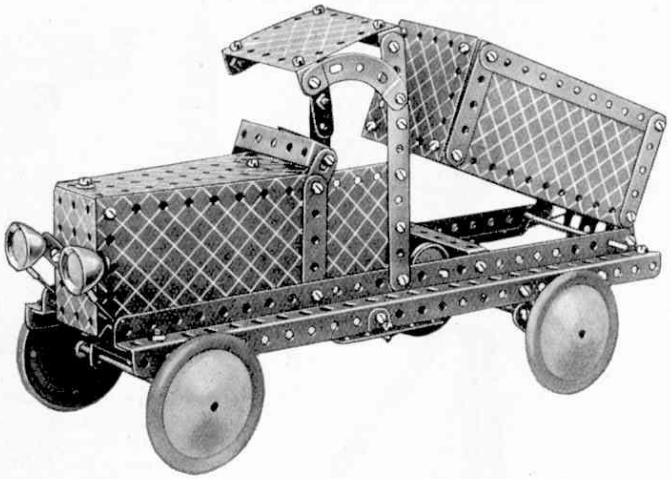


Parts required

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.

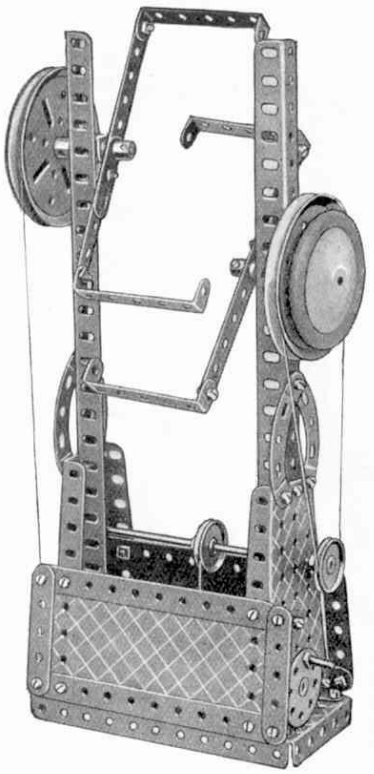
The body of the wagon, when tipping, pivots about two $\frac{3}{8}$" Bolts that pass through the end holes of the chassis girders and are attached to Flat Brackets on the body. The tipping movement is controlled by a cord attached to the Crank Handle by an Anchoring Spring.

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)

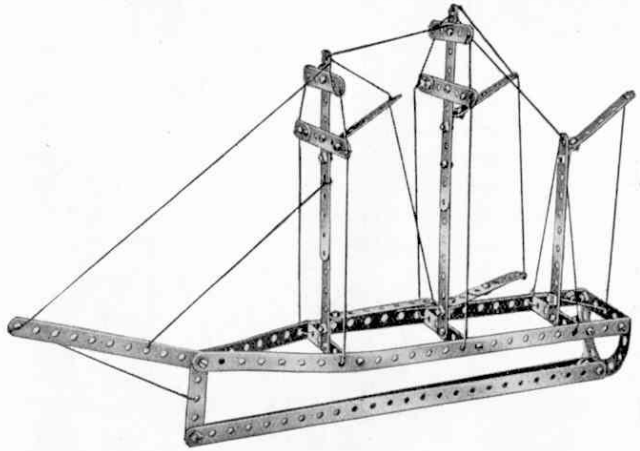
D9. Candy Puller



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

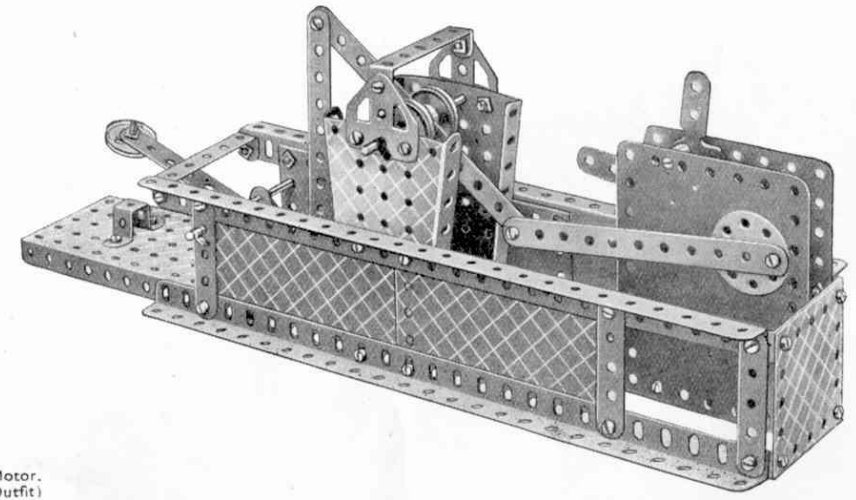
4	of	No.	1
6	„	„	2
1	„	„	3
10	„	„	5
4	„	„	10
1	„	„	11
5	„	„	12
41	„	„	37
1	„	„	40
4	„	„	48a
2	„	„	90a

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. Towel Horse

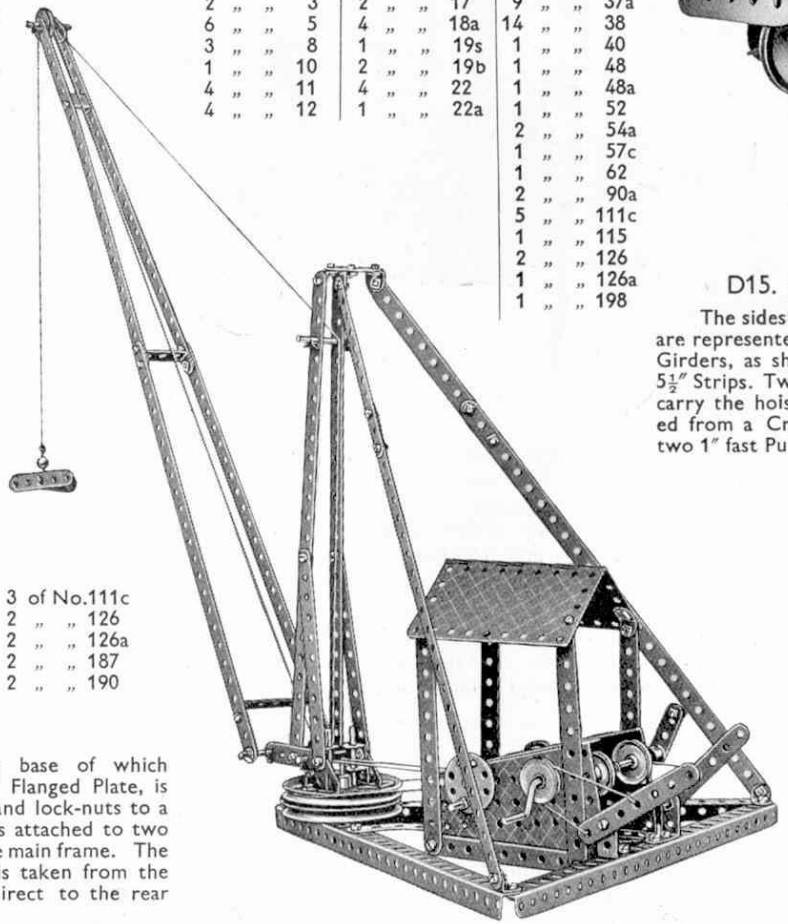
Parts required

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

D13. Derrick

Parts required

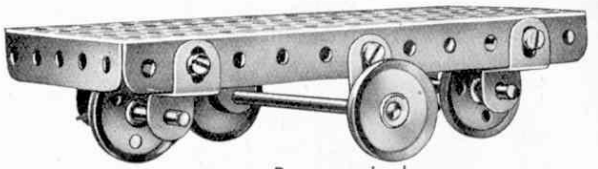
8	of No.	1
8	„ „	2
2	„ „	3
6	„ „	5
3	„ „	8
1	„ „	10
4	„ „	11
4	„ „	12
2	of No.	12a
4	„ „	12c
3	„ „	16
2	„ „	17
4	„ „	18a
1	„ „	19s
2	„ „	19b
4	„ „	22
1	„ „	22a
1	of No.	24
11	„ „	35
56	„ „	37
9	„ „	37a
14	„ „	38
1	„ „	40
1	„ „	48
1	„ „	48a
1	„ „	52
2	„ „	54a
1	„ „	57c
1	„ „	62
2	„ „	90a
5	„ „	111c
1	„ „	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 $5\frac{1}{2}$″×$2\frac{1}{2}$″ 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″×1″ 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.

D14. Revolving Truck



Parts required

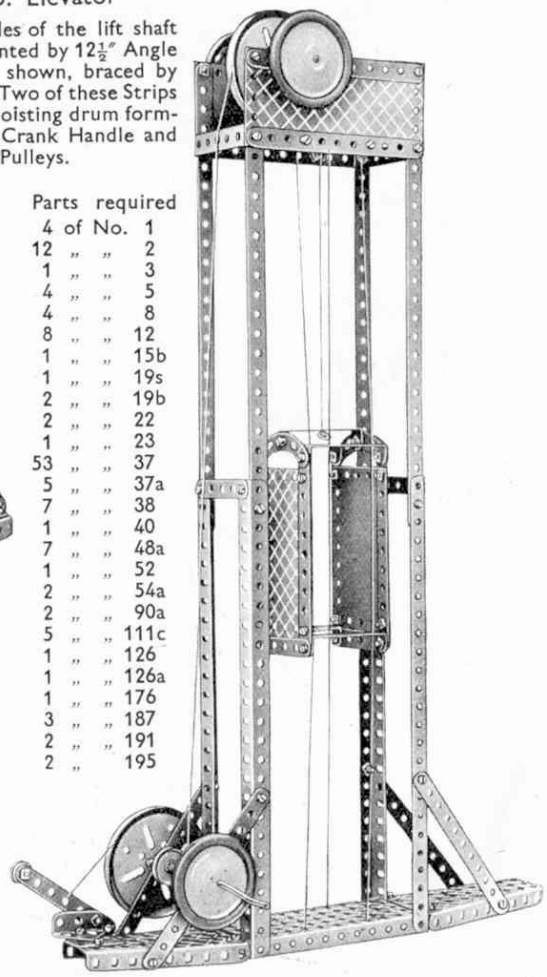
2	of No. 10	2	of No. 22	6	of No. 37
1	„ „ 16	2	„ „ 22a	1	„ „ 52
2	„ „ 17	4	„ „ 35	4	„ „ 125

D15. Elevator

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.

Parts required

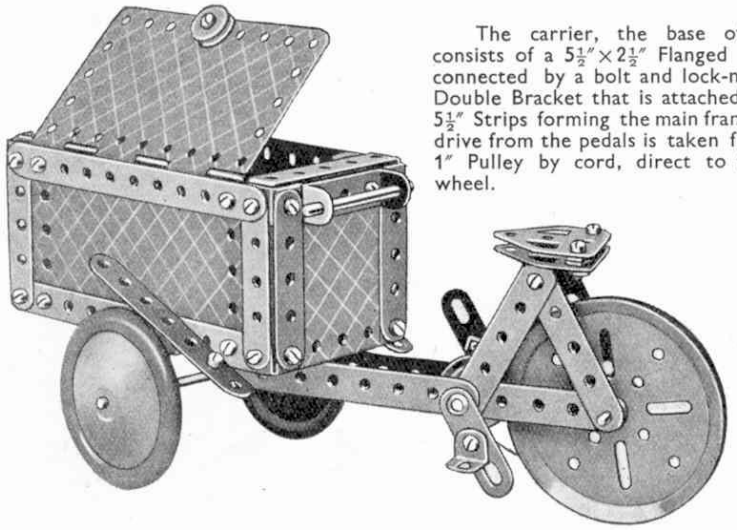
4	of No.	1
12	„ „	2
1	„ „	3
4	„ „	5
4	„ „	8
8	„ „	12
1	„ „	15b
1	„ „	19s
2	„ „	19b
2	„ „	22
1	„ „	23
53	„ „	37
5	„ „	37a
7	„ „	38
1	„ „	40
7	„ „	48a
1	„ „	52
2	„ „	54a
2	„ „	90a
5	„ „	111c
1	„ „	126
1	„ „	126a
1	„ „	176
3	„ „	187
2	„ „	191
2	„	195



D12. Carrier Tricycle

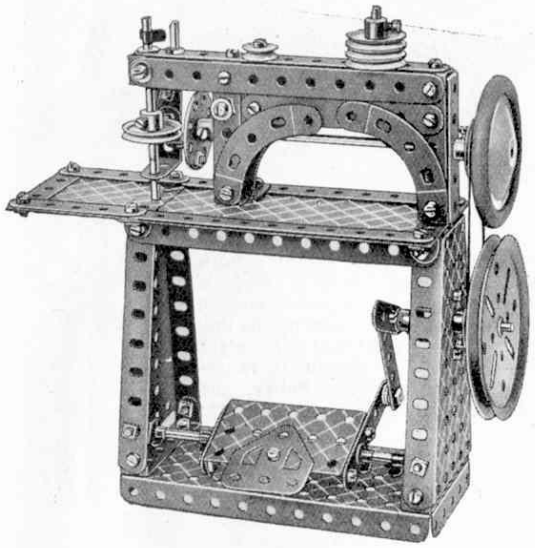
Parts required

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 $5\frac{1}{2}$″×$2\frac{1}{2}$″ 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. The drive from the pedals is taken from the 1″ Pulley by cord, direct to the rear wheel.

D16. Sewing Machine



Parts required

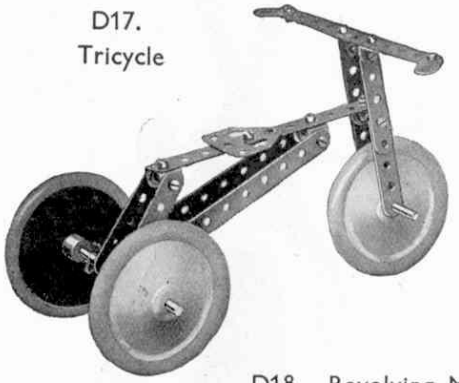
7	of No.	2
2	„ „	3
6	„ „	5
1	„ „	6a
3	„ „	10
1	„ „	11
10	„ „	12
2	„ „	12a
2	„ „	15
1	„ „	16
1	„ „	17
1	„ „	18a
1	„ „	19b
4	„ „	22
2	„ „	22a
1	„ „	23
1	„ „	24
5	„ „	35
50	„ „	37
8	„ „	37a
8	„ „	38
1	„ „	45
7	„ „	48a
1	„ „	51
1	„ „	52
2	„ „	54a
1	„ „	62
4	„ „	90a
3	„ „	111c
1	„ „	115
1	„ „	125
1	„ „	126a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

D17. Tricycle



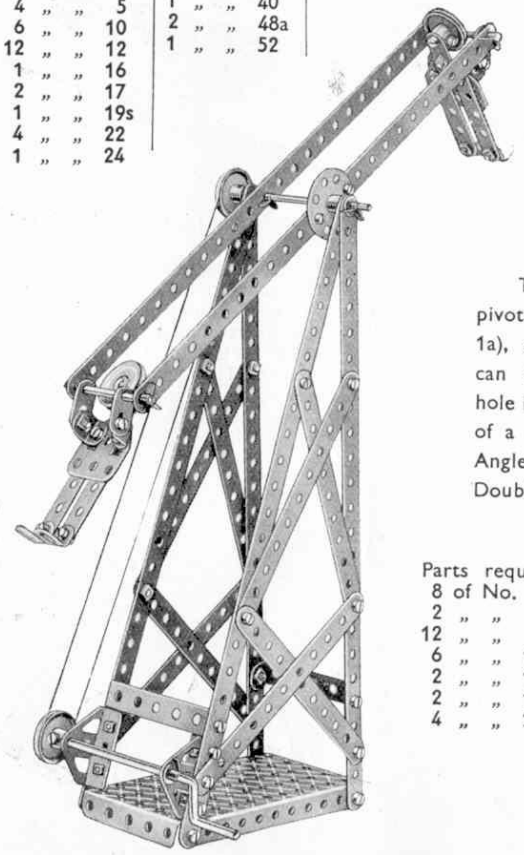
Parts required

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

D18. Revolving Meccanitians

Parts required

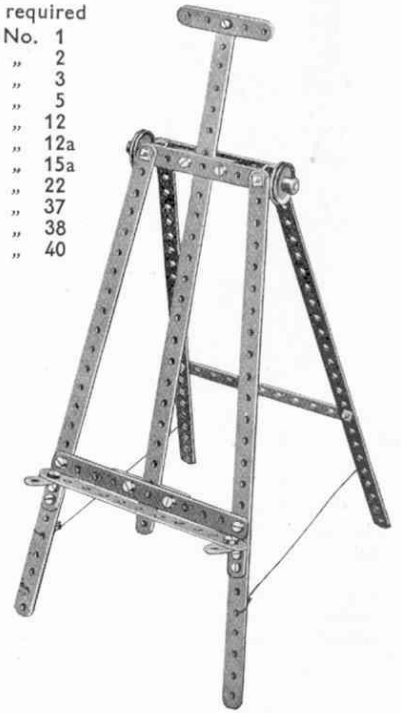
6	of No.	1
8	„ „	2
4	„ „	5
6	„ „	10
12	„ „	12
1	„ „	16
2	„ „	17
1	„ „	19s
4	„ „	22
1	„ „	24
8	of No.	35
42	„ „	37
1	„ „	38
1	„ „	40
2	„ „	48a
1	„ „	52
2	of No.	111c
2	„ „	126
2	„ „	126a



D19. 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

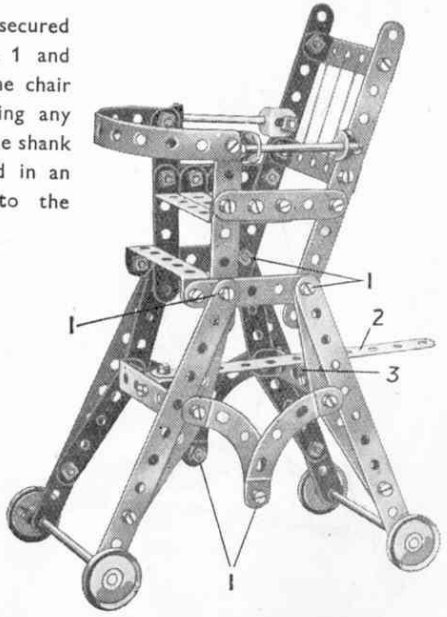


D20. Baby Chair

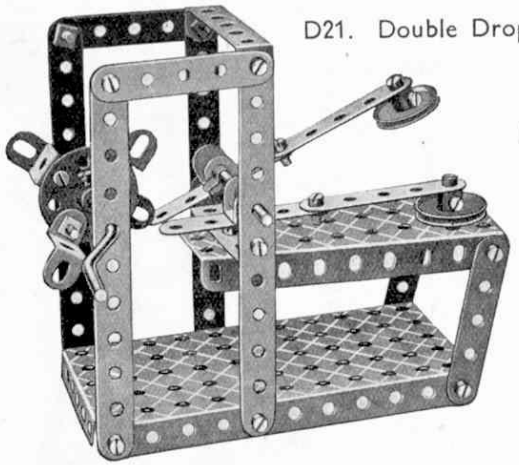
The Bolts 1 are all secured pivotally (see S.M. Nos. 1 and 1a), and the height of the chair can be adjusted by fitting any hole in the Strip 2 over the shank of a Bolt that is secured in an Angle Bracket bolted to the Double Angle Strip 3

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	„ „	48a
4	„ „	90a
1	„ „	111c



D21. Double Drop Hammer

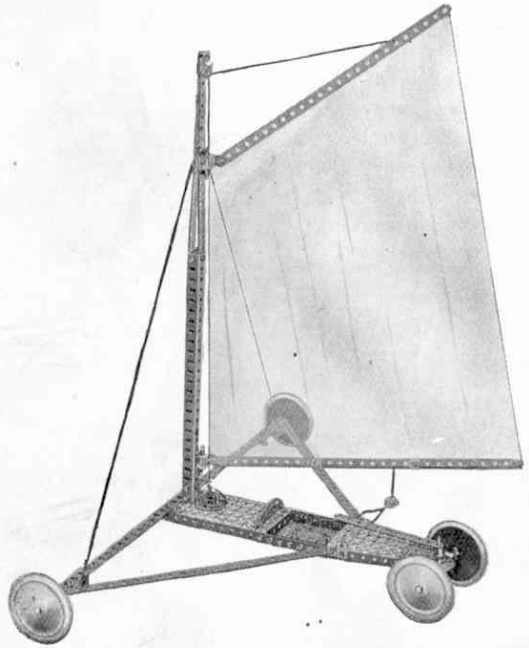


Parts required

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

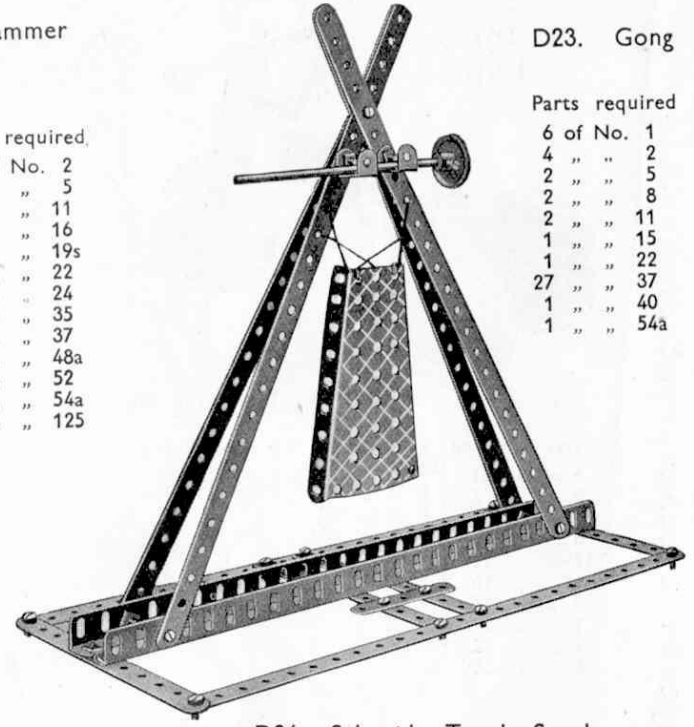
D22. Land Yacht

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 form 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



D23. Gong

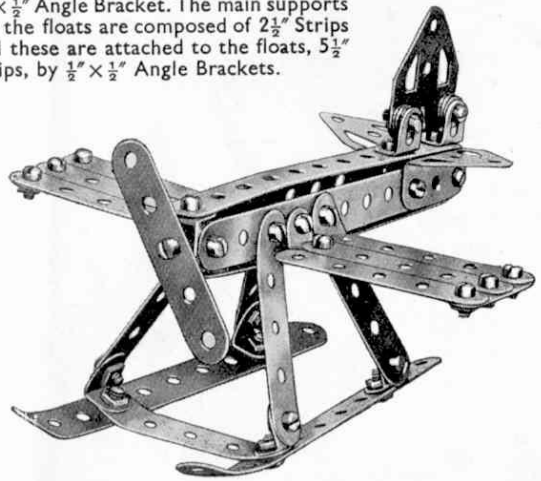
Parts required

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

D24. 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 tail planes. The fin 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

D25. "Try-Your-Strength" Machine

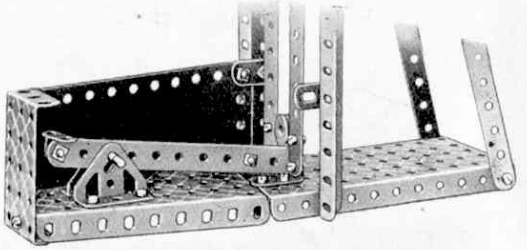


Fig. D25a

The striker (Fig. D25b), 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. D25a). 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

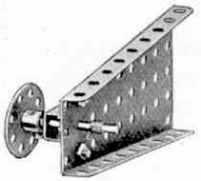
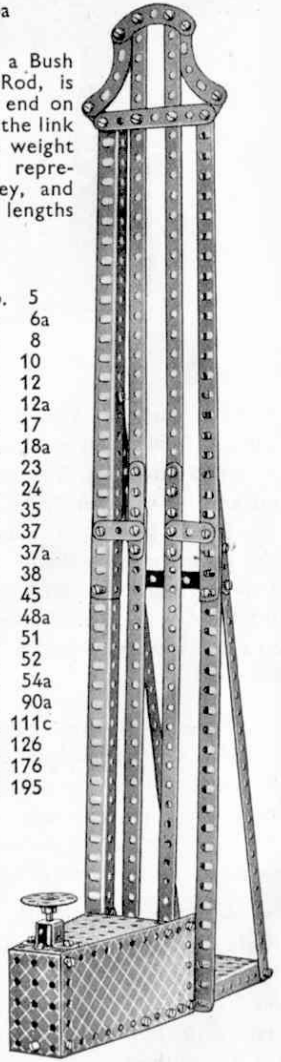
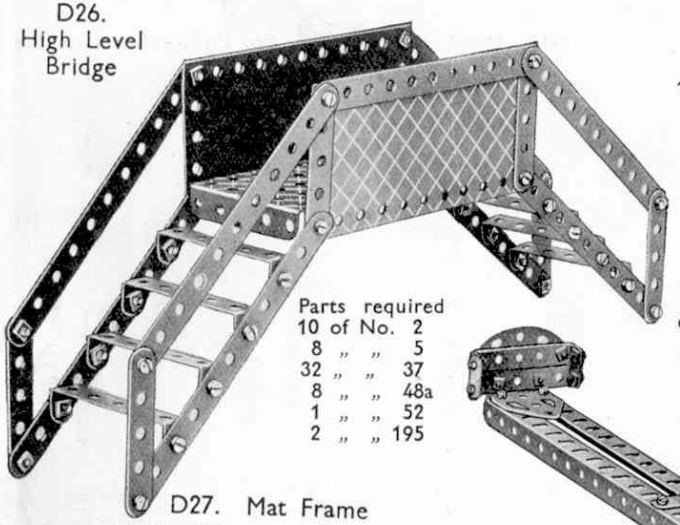


Fig. D25b

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



D26. High Level Bridge



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).

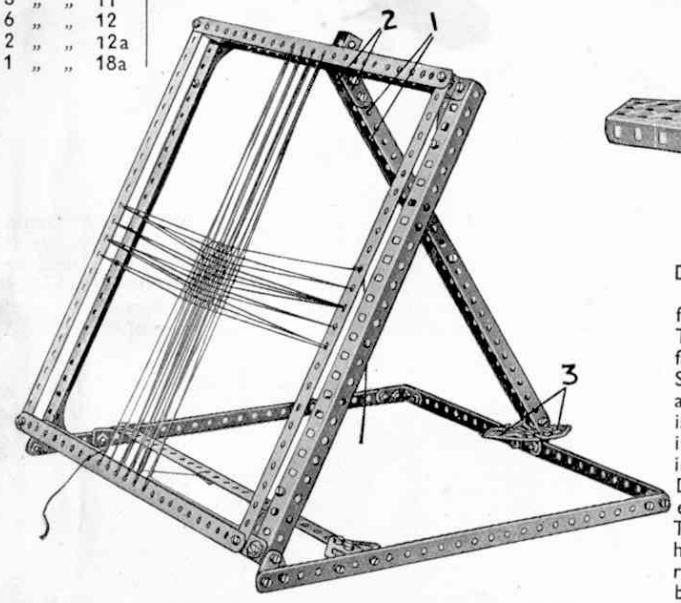
Parts required

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

D27. Mat Frame

Parts required

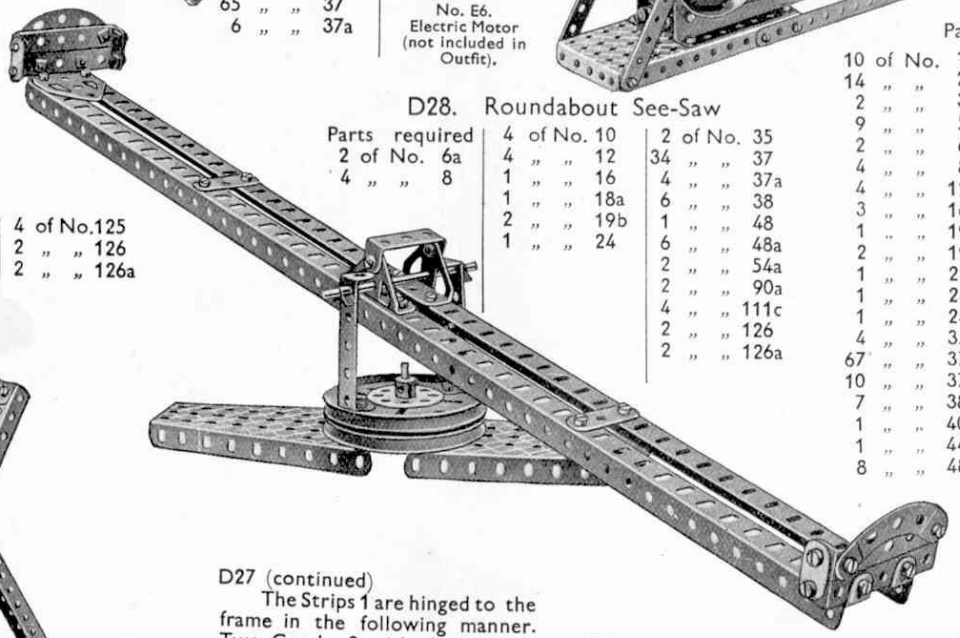
10	of No.	1
4	„ „	8
4	„ „	10
3	„ „	11
6	„ „	12
2	„ „	12a
1	„ „	18a
54	of No.	37
2	„ „	37a
2	„ „	38
1	„ „	45
2	of No.	62
4	„ „	90a
2	„ „	111c
1	„ „	115
4	of No.	125
2	„ „	126
2	„ „	126a



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 can be folded flat.

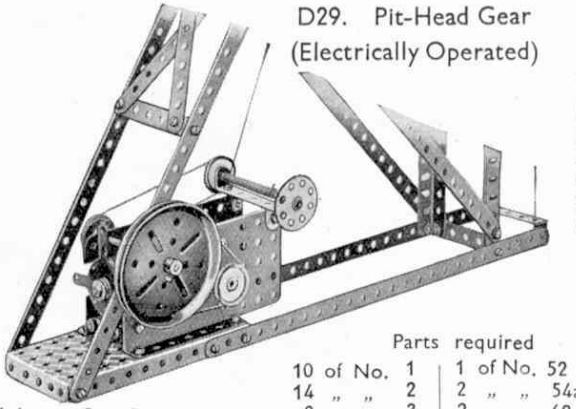
D28. Roundabout See-Saw



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)

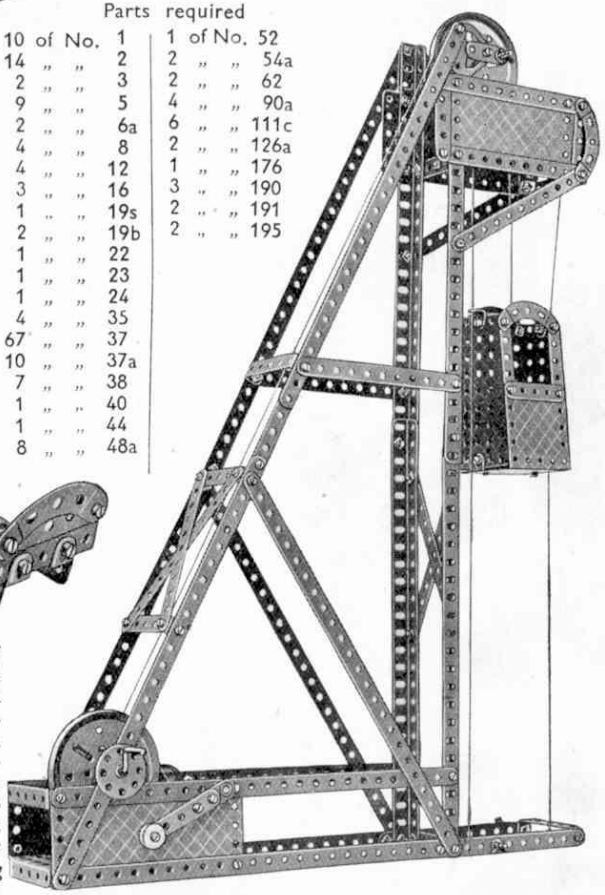


The Motor is carried on a $5\frac{1}{2}'' \times 2\frac{1}{2}''$ Flanged Plate, and supports on its armature shaft a 1" fast Pulley. This is connected by a short length of cord to a 3" Pulley that in turn rotates a second 1" fast Pulley. This is coupled to a third similar Pulley on the hoisting shaft.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



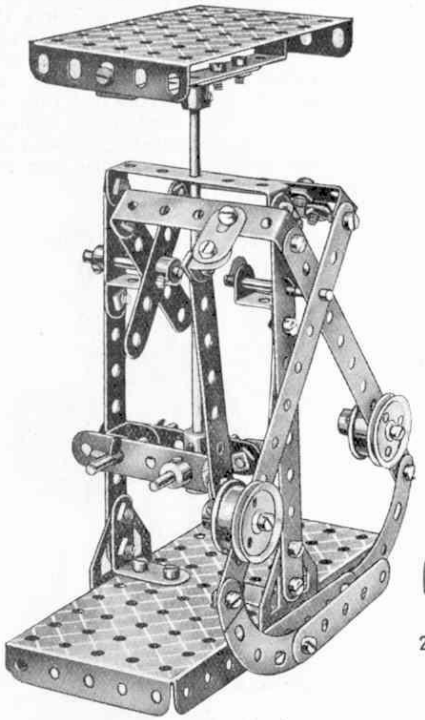
D30 (continued)

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 can 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, which can be obtained from any Meccano Dealer.

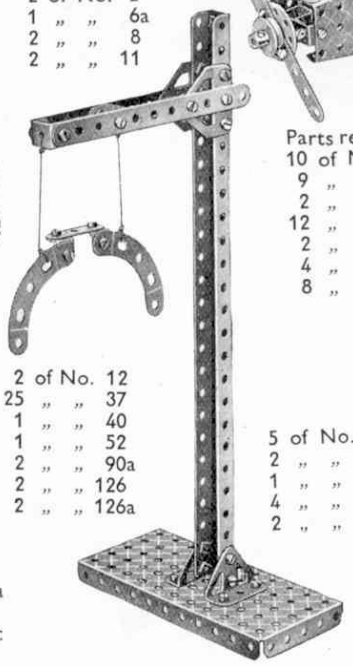
E1. Letter Balance



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	„ „ 111c
1	„ „	15	1	„ „	48b	2	„ „ 125
2	„ „	17	1	„ „	52	2	„ „ 126

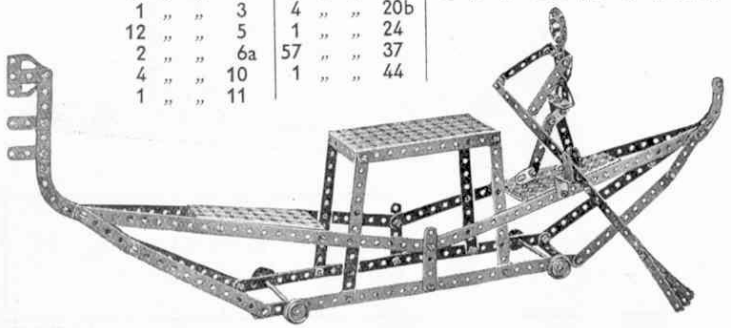
E2. Railway Gauge



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

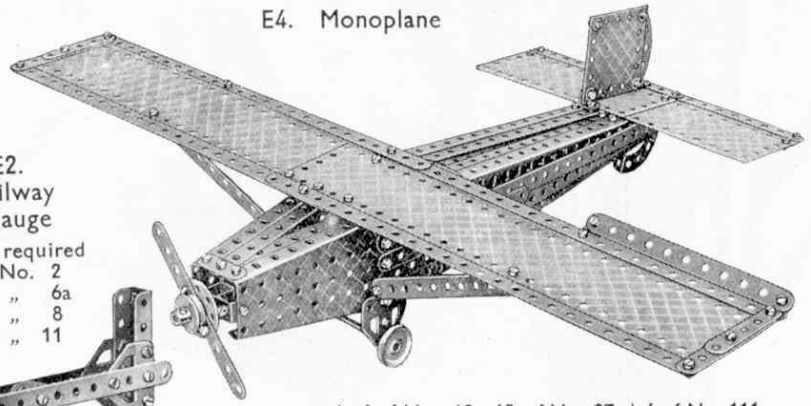
E3. Gondola



Parts required

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

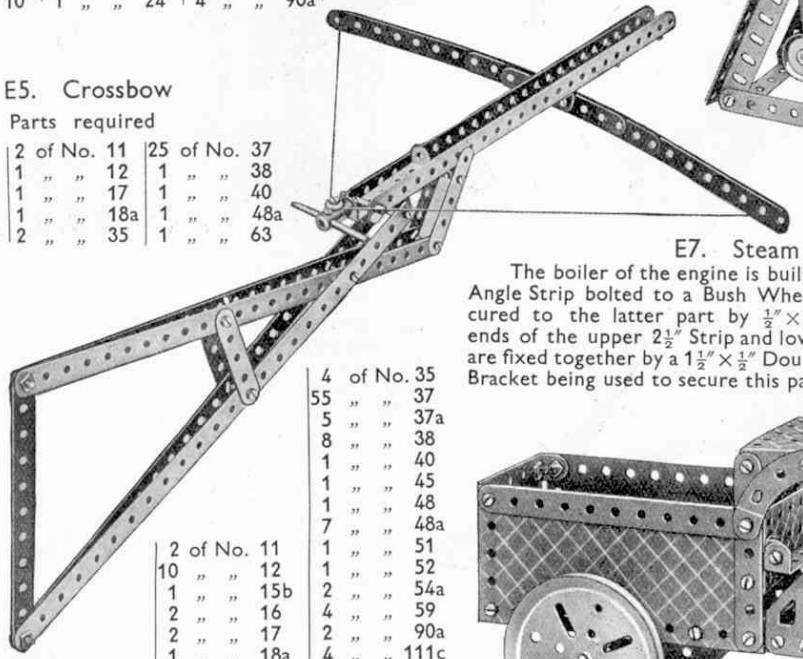
E4. Monoplane



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



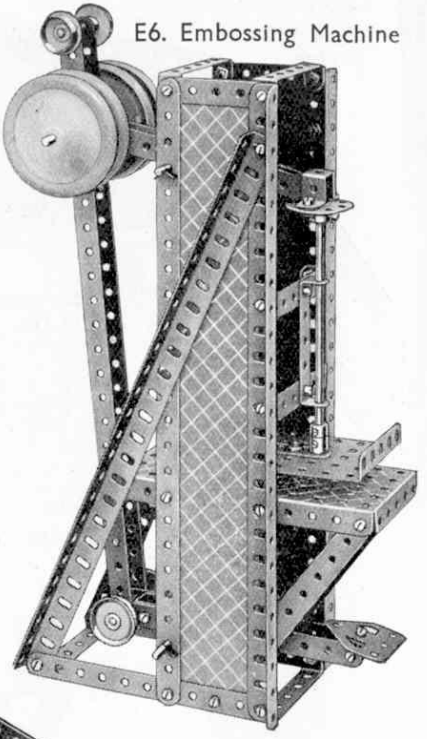
Parts required

5	of No.	1	2	of No.	11	25	of No.	37	4	of No.	35
2	„ „	2	1	„ „	12	1	„ „	38	55	„ „	37
1	„ „	3	1	„ „	17	1	„ „	40	5	„ „	37a
4	„ „	5	1	„ „	18a	1	„ „	48a	8	„ „	38
2	„ „	8	2	„ „	35	1	„ „	63	1	„ „	40
									1	„ „	45
									1	„ „	48
									7	„ „	48a
									1	„ „	51
									1	„ „	52
									2	„ „	54a
									4	„ „	59
									2	„ „	90a
									4	„ „	111c
									1	„ „	125
									2	„ „	126a
									1	„ „	186
									2	„ „	187
									1	„ „	190
									2	„ „	195

Parts required

2	of No.	2
2	„ „	3
11	„ „	5
2	„ „	6a
2	„ „	10
2	of No.	11
10	„ „	12
1	„ „	15b
2	„ „	16
2	„ „	17
1	„ „	18a
2	„ „	19b
4	„ „	20b
1	„ „	22
1	„ „	22a
1	„ „	23
1	„ „	24

E6. Embossing Machine

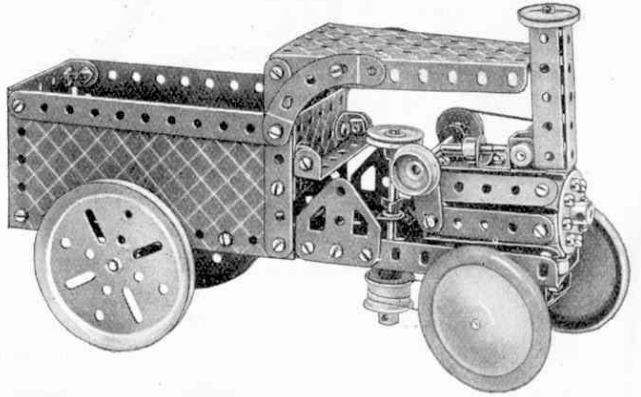


Parts required

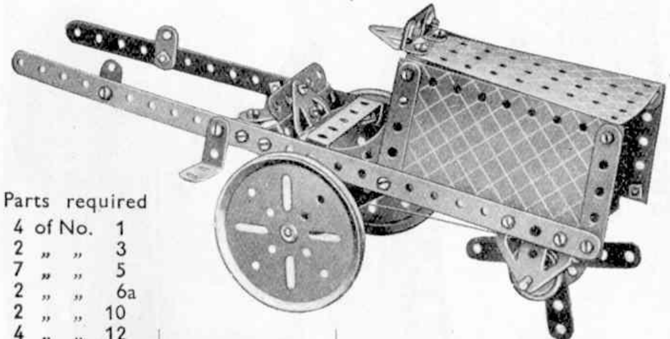
4	of No.	1
8	„ „	2
2	„ „	5
4	„ „	8
3	„ „	11
1	„ „	15
3	„ „	16
2	„ „	18a
2	„ „	20b
2	„ „	22
1	„ „	24
8	„ „	35
37	„ „	37
6	„ „	38
1	„ „	45
7	„ „	48a
1	„ „	52
1	„ „	53
3	„ „	59
1	„ „	62
1	„ „	126a
4	„ „	187
2	„ „	197

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 the 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.



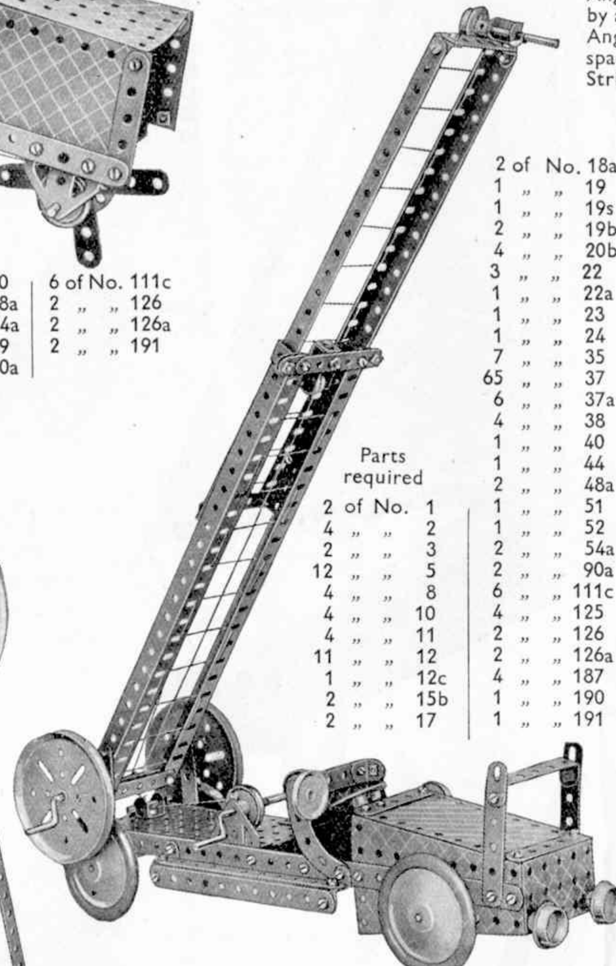
E8. Hay Tedder



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			

E10. Fire Engine

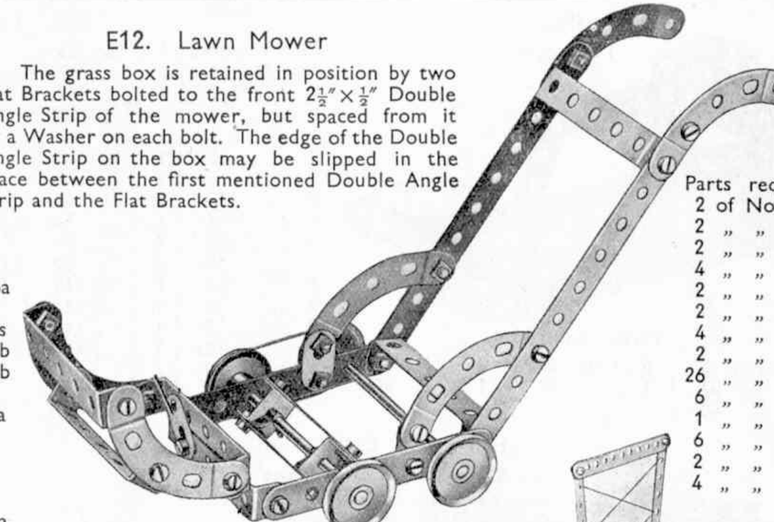


Parts required

2 of No. 1	2 of No. 18a
4 „ „ 2	1 „ „ 19
2 „ „ 3	1 „ „ 19s
12 „ „ 5	2 „ „ 19b
4 „ „ 8	4 „ „ 20b
4 „ „ 10	3 „ „ 22
4 „ „ 11	1 „ „ 22a
11 „ „ 12	1 „ „ 23
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
	2 „ „ 90a
	6 „ „ 111c
	4 „ „ 125
	2 „ „ 126
	2 „ „ 126a
	4 „ „ 187
	1 „ „ 190
	1 „ „ 191

E12. Lawn Mower

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



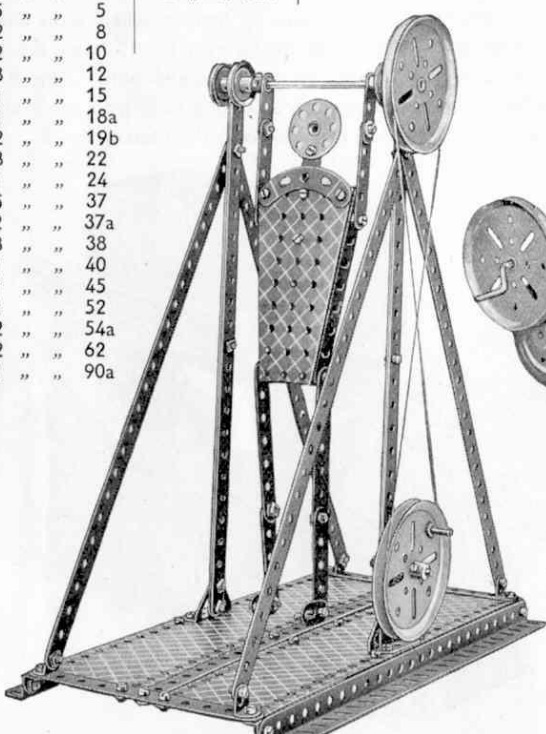
Parts required

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

E9. 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		

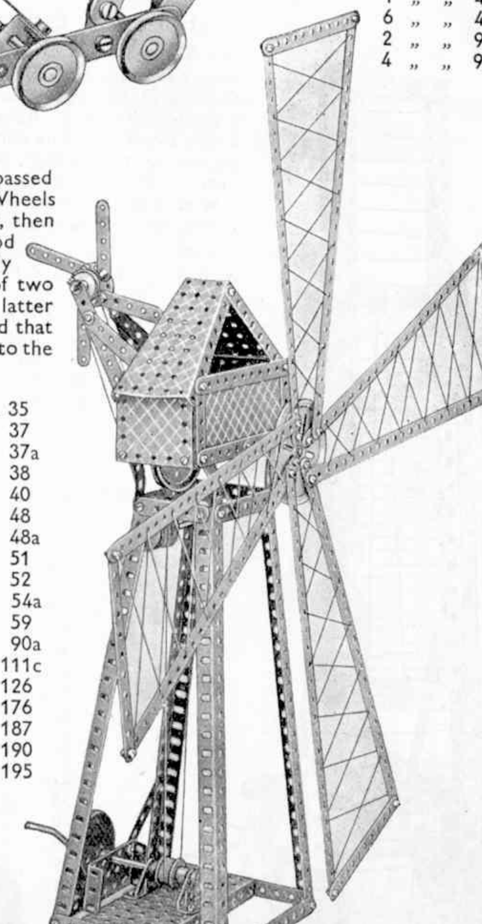


E13. Windmill

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

Parts required

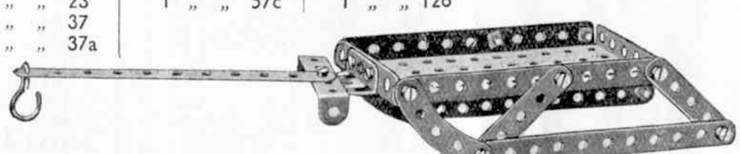
8 of No. 1	7 of No. 35
14 „ „ 2	70 „ „ 37
2 „ „ 3	4 „ „ 37a
2 „ „ 4	9 „ „ 38
12 „ „ 5	1 „ „ 40
4 „ „ 8	1 „ „ 48
2 „ „ 12	2 „ „ 48a
1 „ „ 15	1 „ „ 51
1 „ „ 15b	1 „ „ 52
1 „ „ 16	2 „ „ 54a
1 „ „ 17	4 „ „ 59
1 „ „ 19	4 „ „ 90a
2 „ „ 19b	4 „ „ 111c
4 „ „ 20b	2 „ „ 126
2 „ „ 22	1 „ „ 176
1 „ „ 23	1 „ „ 187
1 „ „ 24	2 „ „ 190
	2 „ „ 195



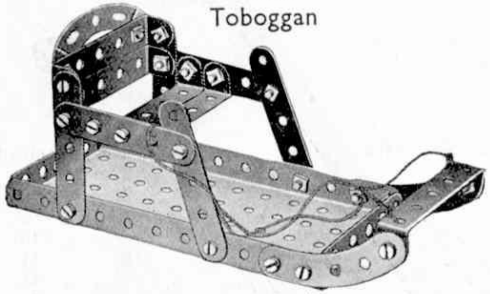
E11. Horse Sleigh

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		



E14. Toboggan

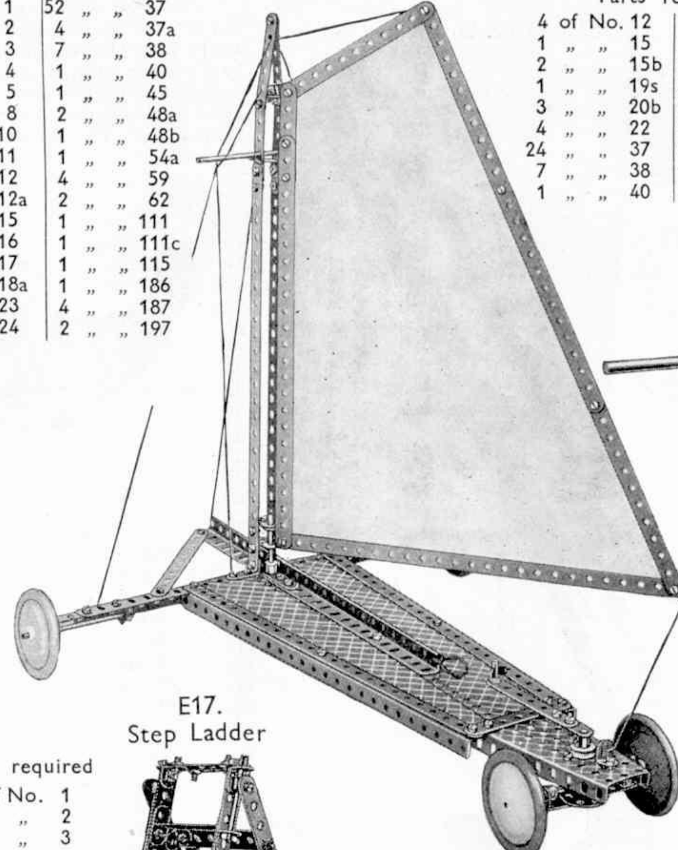


Parts required

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

E16. Land Yacht

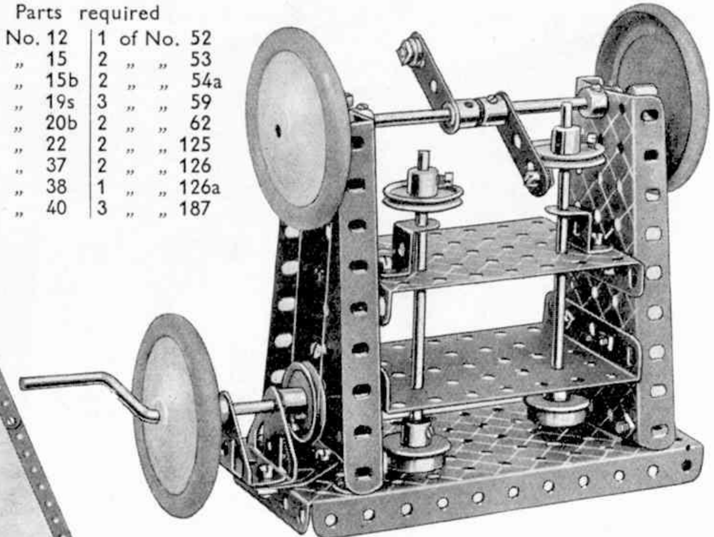
Parts required	
8 of No. 1	4 of No. 35
5 „ „ 2	52 „ „ 37
2 „ „ 3	4 „ „ 37a
1 „ „ 4	7 „ „ 38
2 „ „ 5	1 „ „ 40
4 „ „ 8	1 „ „ 45
2 „ „ 10	2 „ „ 48a
4 „ „ 11	1 „ „ 48b
6 „ „ 12	1 „ „ 54a
1 „ „ 12a	4 „ „ 59
1 „ „ 15	2 „ „ 62
2 „ „ 16	1 „ „ 111
2 „ „ 17	1 „ „ 111c
2 „ „ 18a	1 „ „ 115
1 „ „ 23	1 „ „ 186
1 „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



E18. Stamping Mill

Parts required

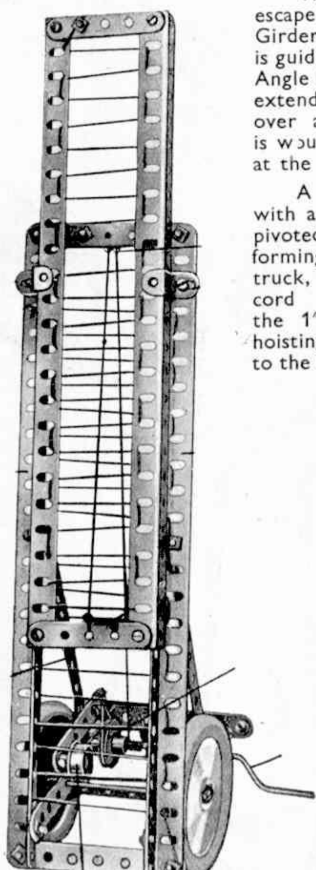
4 of No. 12	1 of No. 52
1 „ „ 15	2 „ „ 53
2 „ „ 15b	2 „ „ 54a
1 „ „ 19s	3 „ „ 59
3 „ „ 20b	2 „ „ 62
4 „ „ 22	2 „ „ 125
24 „ „ 37	2 „ „ 126
7 „ „ 38	1 „ „ 126a
1 „ „ 40	3 „ „ 187



E15. Fire Escape

The moving portion of the escape slides on the $12\frac{1}{2}''$ Angle Girders of the fixed ladder and is guided by two $\frac{1}{2}''$ Reversed Angle Brackets. The cord for extending the ladder passes over a $\frac{1}{2}''$ loose Pulley and is wound on the Crank Handle at the base of the model.

A 3″ Strip, weighted with a $\frac{3}{4}''$ Flanged Wheel, is pivoted to the $5\frac{1}{2}''$ Strip forming one side of the escape truck, and a short length of cord is passed round the 1″ Pulley on the hoisting shaft, and tied to the Strip.



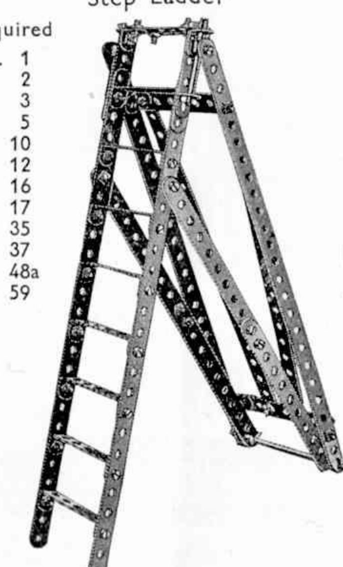
Parts required

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

E17. Step Ladder

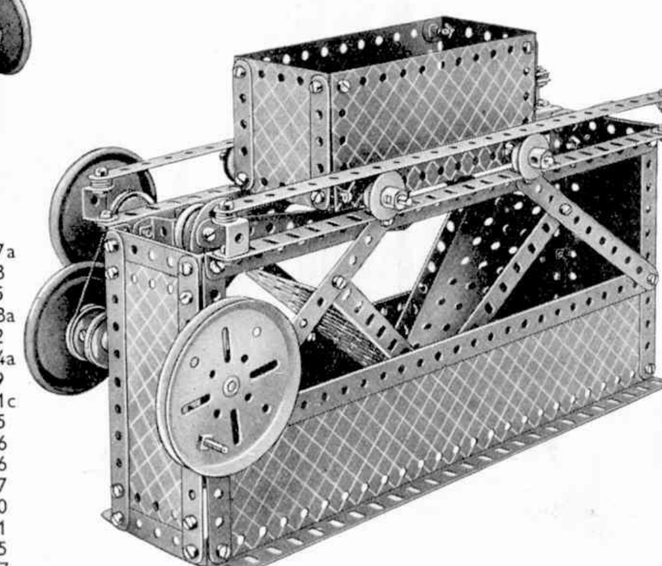
Parts required

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



E19. Sifter

The truck is vibrated by a $5\frac{1}{2}''$ 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.



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

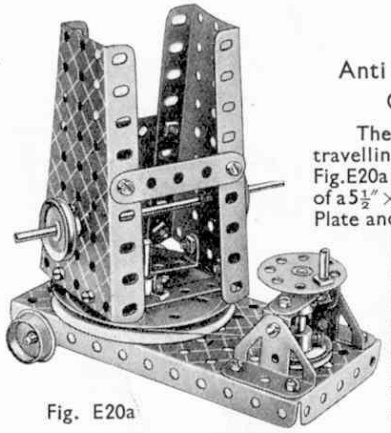


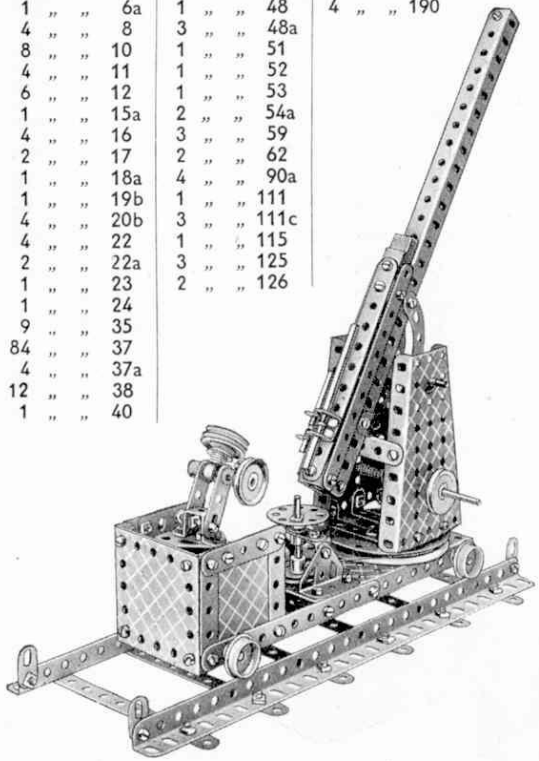
Fig. E20a

E20. Anti Aircraft Gun

The base of the travelling portion Fig.E20a 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

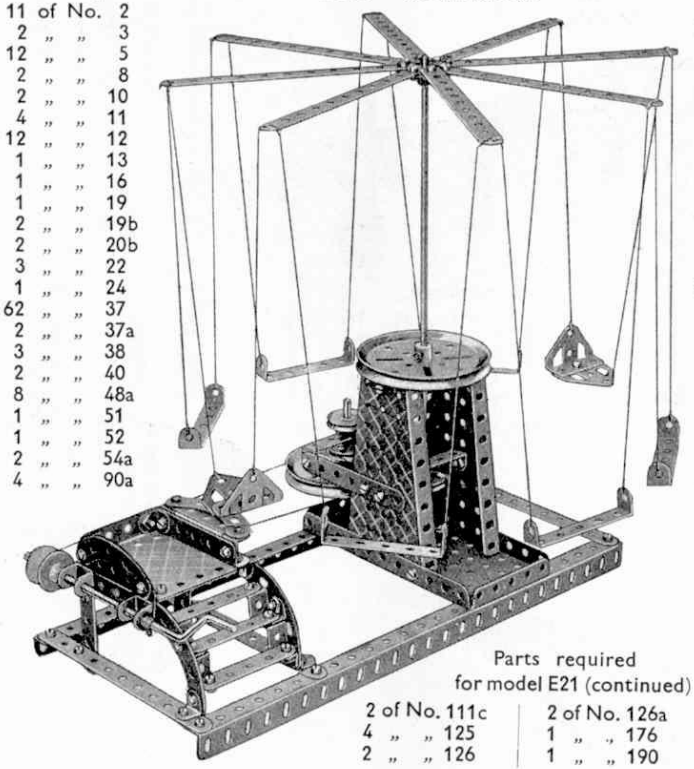
11	of No.	2	1	of No.	44	1	of No. 126a
9	„ „	5	1	„ „	45	1	„ „ 176
1	„ „	6a	1	„ „	48	4	„ „ 190
4	„ „	8	3	„ „	48a		
8	„ „	10	1	„ „	51		
4	„ „	11	1	„ „	52		
6	„ „	12	1	„ „	53		
1	„ „	15a	2	„ „	54a		
4	„ „	16	3	„ „	59		
2	„ „	17	2	„ „	62		
1	„ „	18a	4	„ „	90a		
1	„ „	19b	1	„ „	111		
4	„ „	20b	3	„ „	111c		
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

E21. Roundabout



Parts required

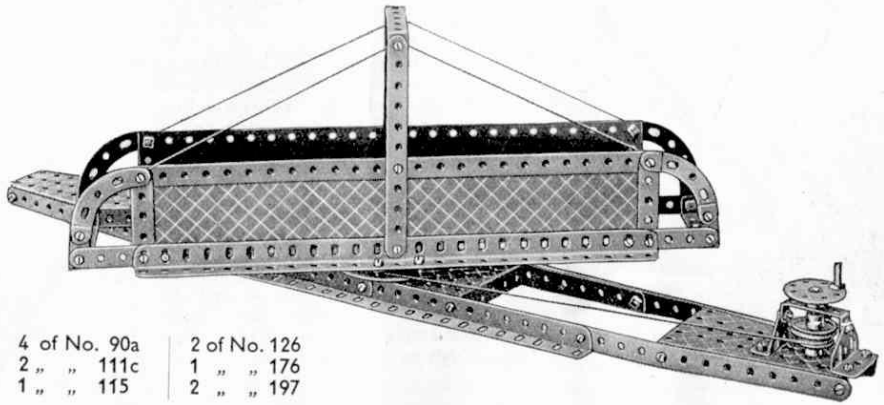
4	of No.	1
5	„ „	2
5	„ „	5
4	„ „	8
1	„ „	11
3	„ „	12
2	„ „	12a
2	„ „	17
1	„ „	18a
1	„ „	24
2	„ „	35
54	„ „	37
1	„ „	37a
2	„ „	38
1	„ „	40
1	„ „	52
2	„ „	54a
1	„ „	59
1	„ „	63
2	„ „	90
1	„ „	125
2	„ „	126a

Parts required for model E21 (continued)

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

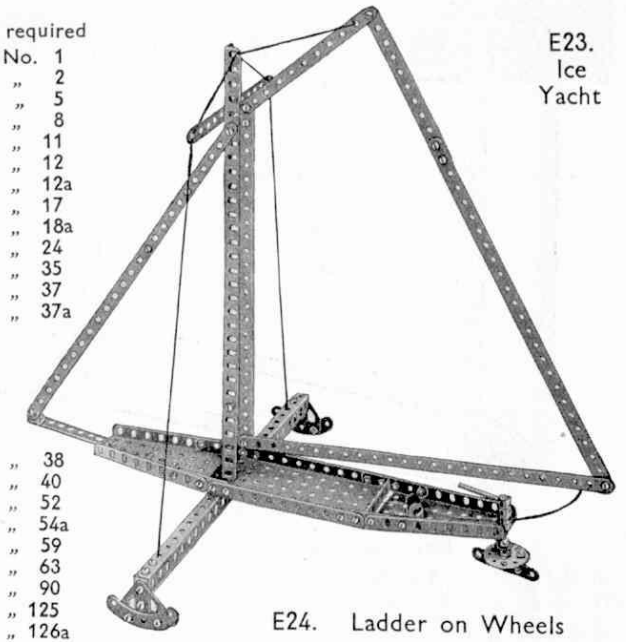
E22. Turntable

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



Parts required

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

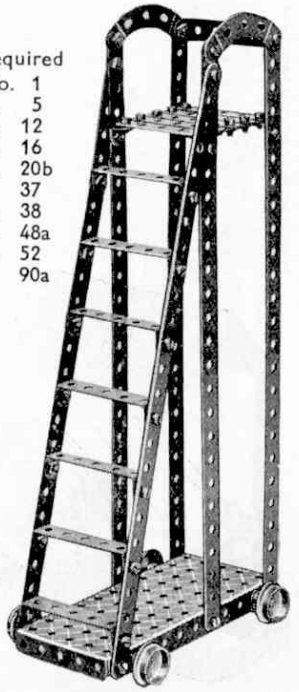


E23. Ice Yacht

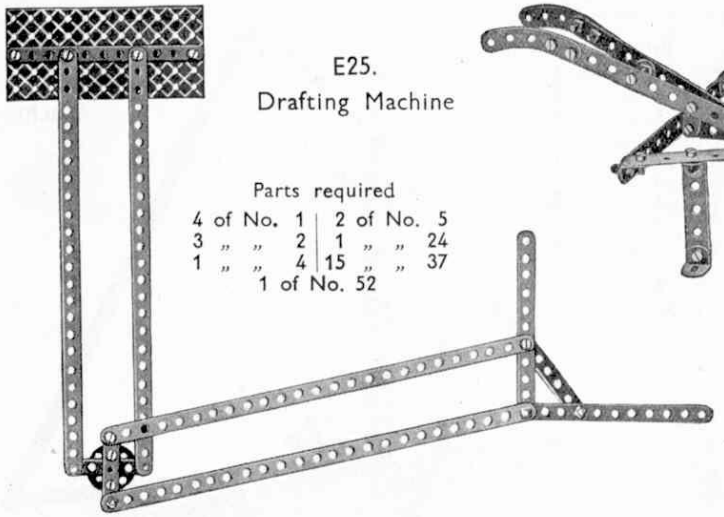
E24. Ladder on Wheels

Parts required

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



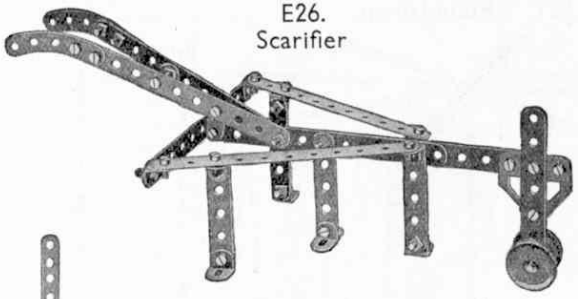
E25. Drafting Machine



Parts required

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

E26. Scarifier



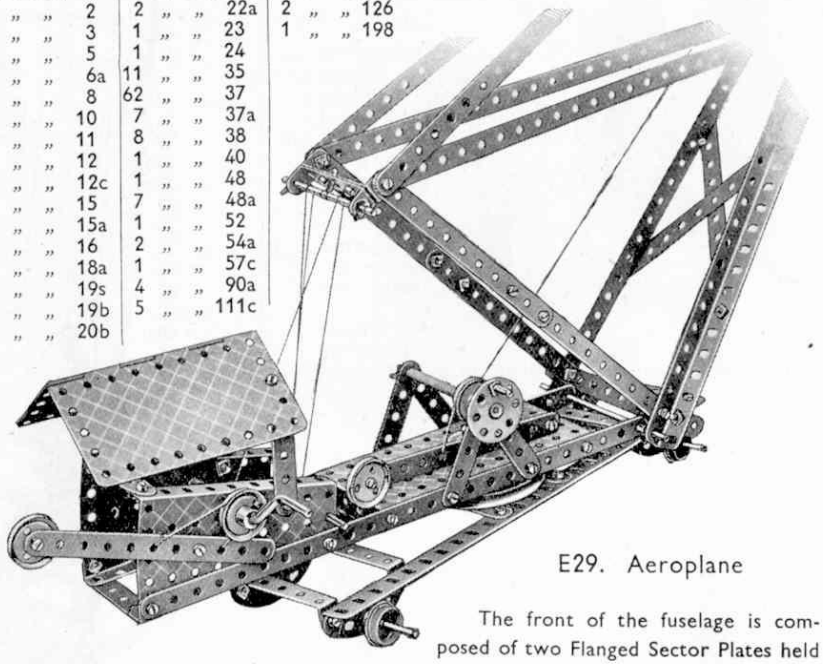
Parts required

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

E28. Travelling Jib Crane (Hand)

Parts required

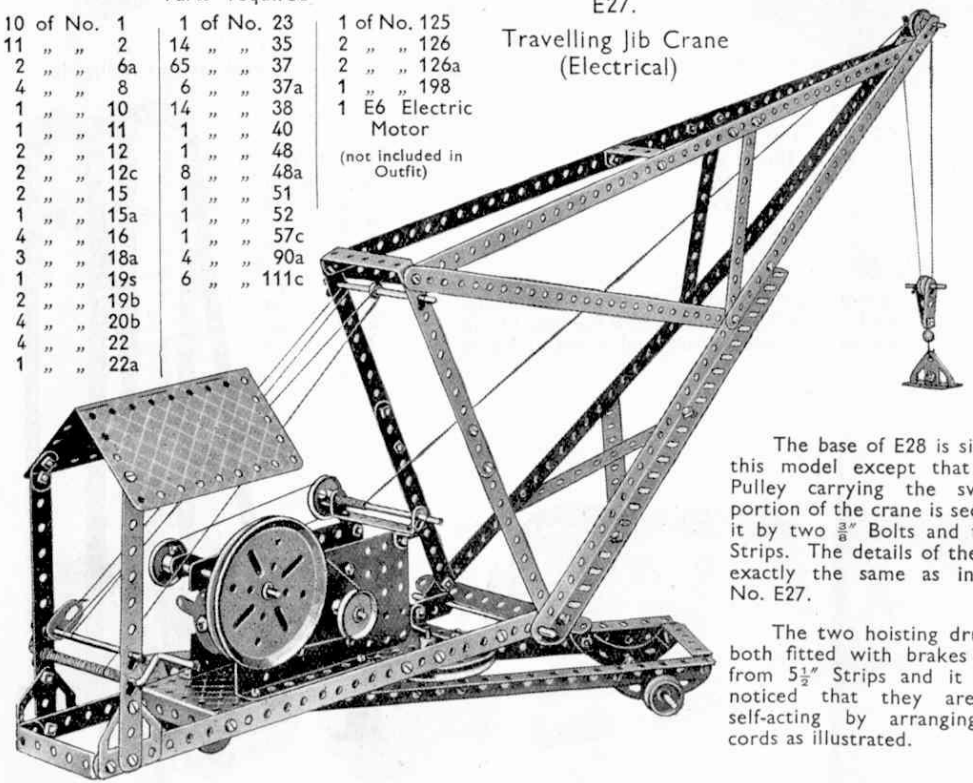
10 of No.	1	4 of No.	22	1 of No.	115
11 „ „	2	2 „ „	22a	2 „ „	126
2 „ „	3	1 „ „	23	1 „ „	198
7 „ „	5	1 „ „	24		
2 „ „	6a	11 „ „	35		
4 „ „	8	62 „ „	37		
1 „ „	10	7 „ „	37a		
1 „ „	11	8 „ „	38		
1 „ „	12	1 „ „	40		
2 „ „	12c	1 „ „	48		
2 „ „	15	7 „ „	48a		
1 „ „	15a	1 „ „	52		
3 „ „	16	2 „ „	54a		
3 „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



E27. 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 E28 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. E27.

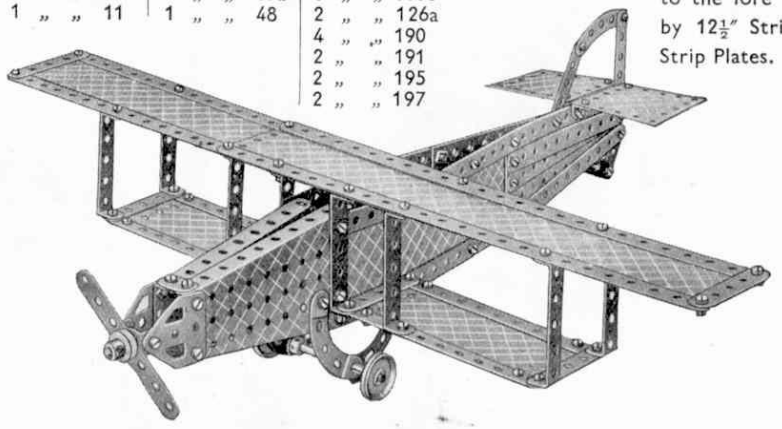
The two hoisting drums are both fitted with brakes formed from $5\frac{1}{2}$″ Strips and it will be noticed that they are made self-acting by arranging their cords as illustrated.

E29. 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, the 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.



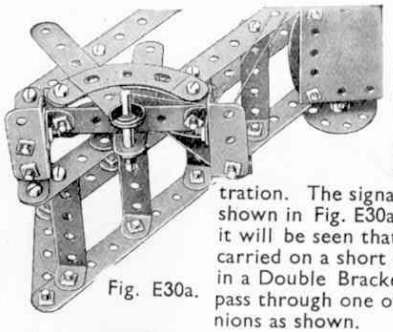
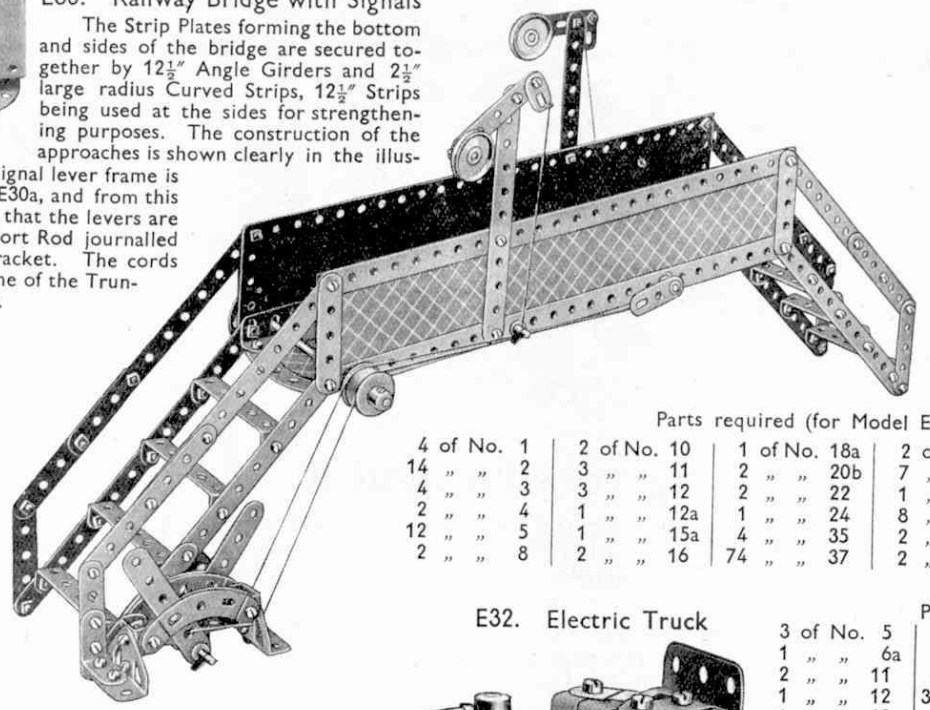


Fig. E30a.

E30. Railway Bridge with Signals

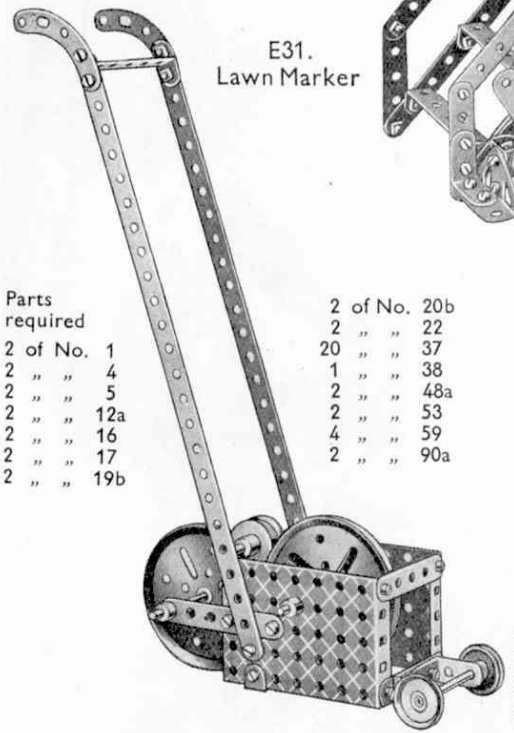
The Strip Plates forming the bottom and sides of the bridge are secured together by 12½" Angle Girders and 2½" large radius Curved Strips, 12½" Strips being used at the sides for strengthening purposes. The construction of the approaches is shown clearly in the illustration. The signal lever frame is 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.



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

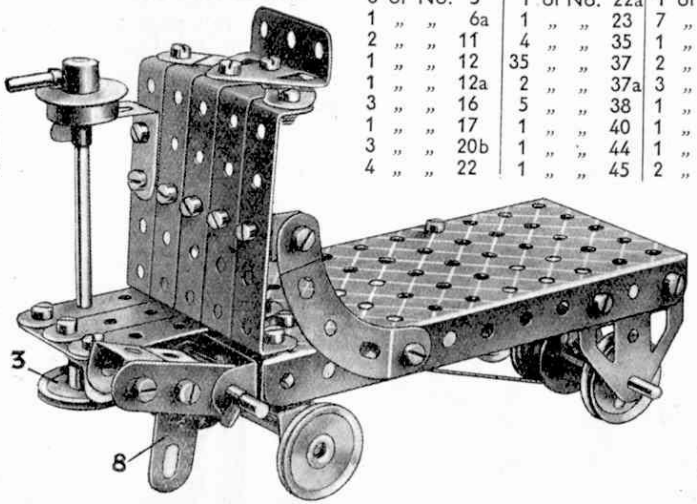
E31. Lawn Marker



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



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 that is secured to the end of the steering column, and is 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.

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

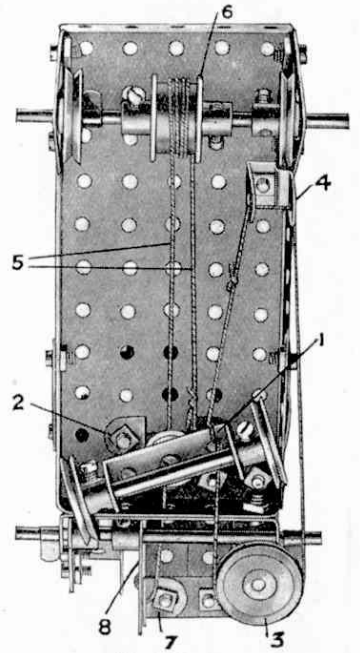
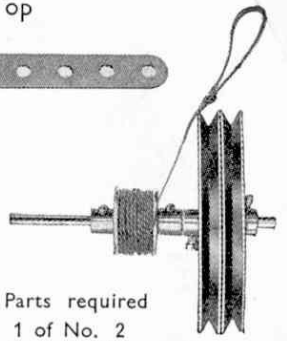


Fig. E32a.

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.



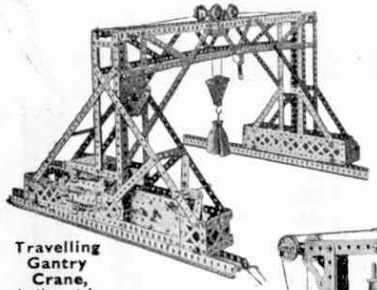
Parts required

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

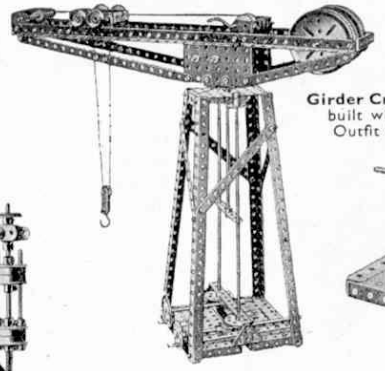
HOW TO CONTINUE

This completes our examples of models that can 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, which can be obtained from any Meccano dealer.

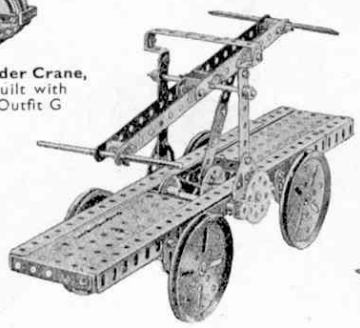
Build Bigger and Better Models



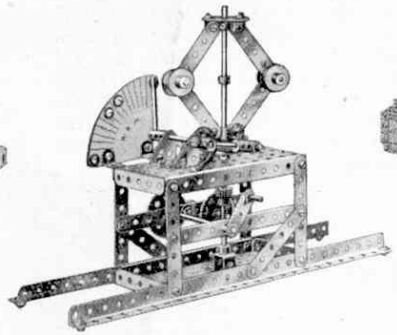
Travelling Gantry Crane, built with Outfit L



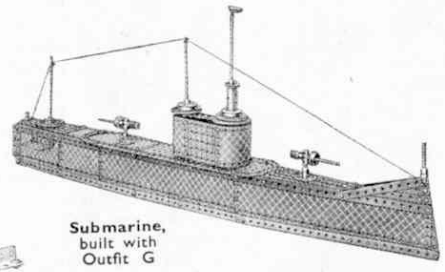
Girder Crane, built with Outfit G



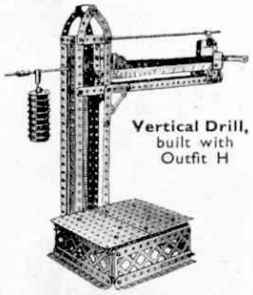
Hand Trolley, built with Outfit F



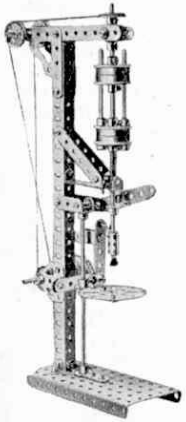
Speed Indicator, built with Outfit G



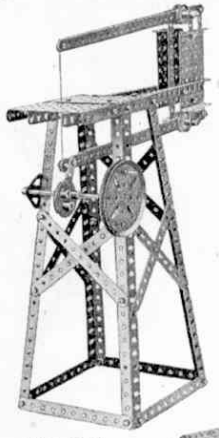
Submarine, built with Outfit G



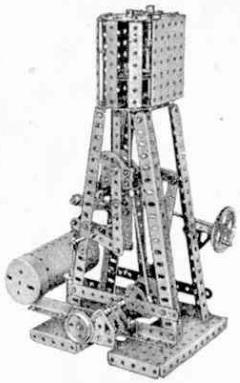
Vertical Drill, built with Outfit H



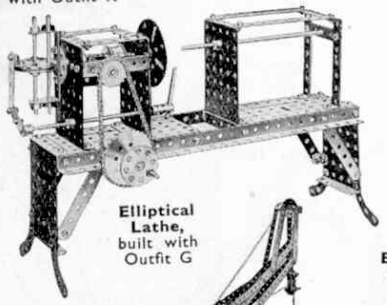
Platform Scales, built with Outfit K



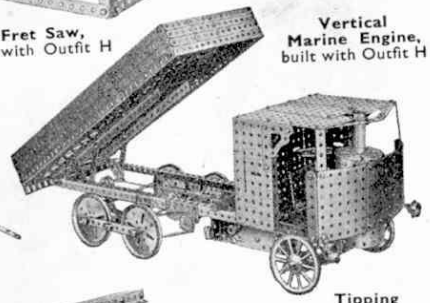
Fret Saw, built with Outfit H



Vertical Marine Engine, built with Outfit H



Elliptical Lathe, built with Outfit G



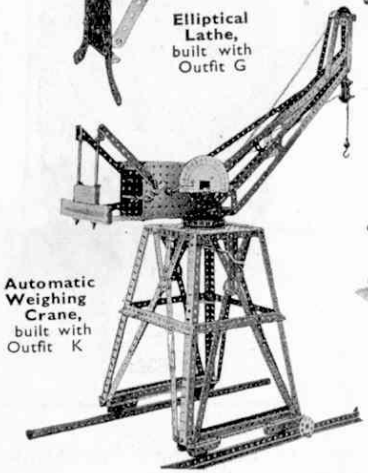
Tipping Steam Wagon, built with Outfit H

Keep adding to your Outfit

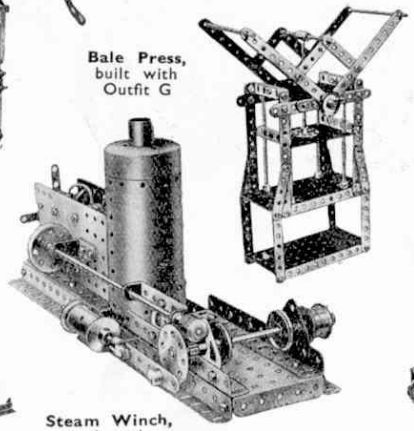
The more Meccano parts you have, the bigger and better the models you are able to build. Keen and enthusiastic model-builders keep adding to their Outfits, until they are able to build all the wonderful models shown in the Meccano Manuals.

The model-building possibilities of the Meccano System are limitless. All the fine models illustrated on this 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.

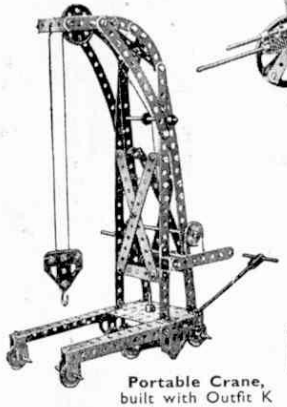


Automatic Weighing Crane, built with Outfit K

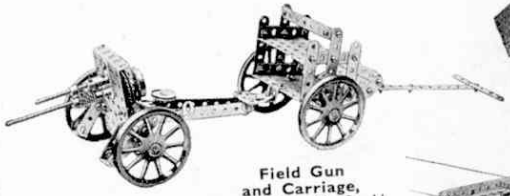


Steam Winch, built with Outfit G

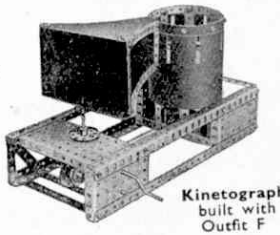
Bale Press, built with Outfit G



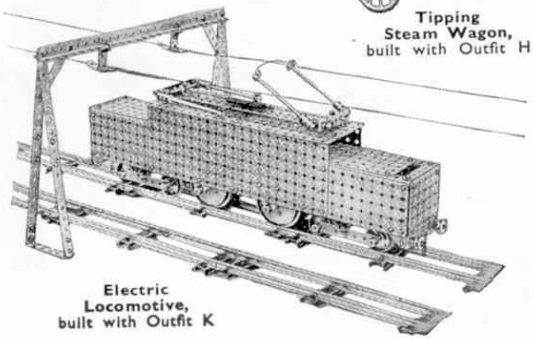
Portable Crane, built with Outfit K



Field Gun and Carriage, built with Outfit H



Kinetograph, built with Outfit F



Electric Locomotive, built with Outfit K

MECCANO

MOTORS 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 motors 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. Each motor is pierced with the standard Meccano equidistant holes.

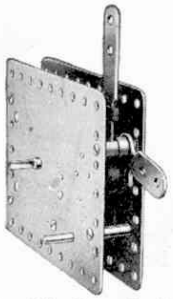
MECCANO CLOCKWORK MOTORS

These are the finest Clockwork motors obtainable for model driving. 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.

Meccano Clockwork Motors are especially suitable for small models built with a limited range of parts. They are extremely simple to operate and have the advantage of being self-contained.

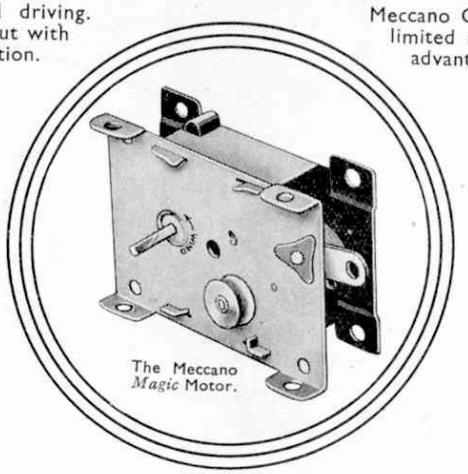
No. 1 Clockwork Motor

An efficient and long-running Motor fitted with a brake lever by means of which it may be started and stopped. It is non-reversing.



No. 1a Clockwork Motor

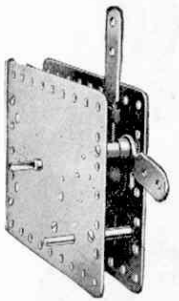
This Motor is more powerful than the No. 1 Motor and is fitted with reversing motion. It has brake and reverse levers.



The Meccano *Magic* Motor.

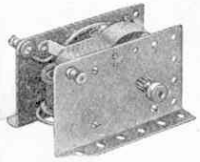
The Meccano *Magic* Motor

The Meccano *Magic* Motor is well designed and strongly constructed, and is fitted with a powerful spring giving a long and steady run. It is non-reversing. Each Magic Motor is supplied with a separate ⅜" Pulley Wheel and three pairs of driving bands of different lengths, it is capable of driving all the Meccano O, A and B Outfit models, and many of the lighter models illustrated in the Manuals of the C, D and E Outfits.



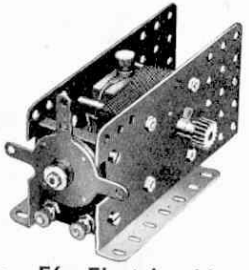
No. 2 Clockwork Motor

This is a Motor of super quality. Brake and reverse levers enable it to be started, stopped or reversed, as required.



No. E1 Electric Motor (6 volt)

This is a highly efficient motor (non-reversing) that will give excellent service. It can be operated through a 9-volt Meccano Transformer from the mains, providing that the supply is alternating current, or from a 6-volt accumulator.

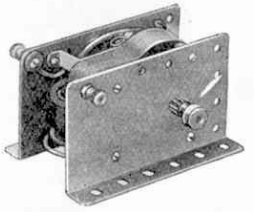


No. E6 Electric Motor (6 volt)

This fine motor is fitted with reversing motion and provided with stopping and starting controls. It can be operated through a 9-volt Meccano Transformer from the mains providing that the supply is alternating current, or from a 6-volt accumulator.

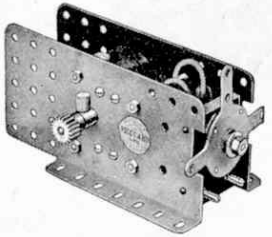
MECCANO ELECTRIC MOTORS

The four Meccano Electric Motors shown here have been designed specially to provide smooth-running power units for the operation of Meccano models. The 6-volt Motors may be operated through a Meccano Transformer direct from the mains, providing that the supply is alternating current, or from a 6-volt accumulator. The 20-volt Motors are operated through a 20-volt Transformer from alternating current supply mains.



No. E120 Electric Motor (20 volt)

The E120 Electric Motor is a very reliable and smooth-running power unit. It is operated through a Meccano 20-volt Transformer from alternating current supply mains. Non-reversing.



No. E20b Electric Motor (20 volt)

This 20-volt Electric Motor is an extremely efficent power unit, fitted with reversing motion and provided with stopping and starting controls. It is operated through a Meccano 20-volt Transformer from alternating current supply mains.

MECCANO TRANSFORMERS

There are six Transformers in the series, as described below, 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. T20a Transformer

No. T20A TRANSFORMER (Output 35 VA at 20/3½ volts) for 20-volt Electric Motors. Has two separate circuits at 20 volts, one controlled by a 5-stud speed regulator ; and a third circuit at 3½ volts for lighting up to 14 lamps.

No. T6A TRANSFORMER (Output 40 VA at 9/3½ volts) for 6-volt Electric Motors. Has two separate circuits at 9 volts, one controlled by a 5-stud speed regulator, and a third circuit at 3½ volts for lighting up to 18 lamps.

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

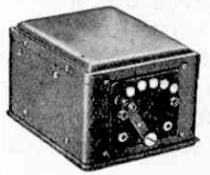
No. T6M TRANSFORMER (Output 25 VA at 9 volts) for 6-volt Electric Motors. This is similar to the No. T6 Transformer, but is not fitted with speed regulator.

Resistance Controllers

These Controllers enable the speed of Meccano 6-volt and 20-volt Motors and Hornby 6-volt and 20-volt Electric Trains to be regulated as desired

No. T20 TRANSFORMER (Output 20 VA at 20 volts) for 20-volt Electric Motors. Provided with one 20-volt circuit controlled by a 5-stud speed regulator.

No. T6 TRANSFORMER (Output 25 VA at 9 volts) for 6-volt Electric Motors. Provided with one 9-volt circuit controlled by a 5-stud speed regulator.



No. T20 Transformer

Ask your dealer for a complete price list.

A Selection of Meccano Standard Mechanisms

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

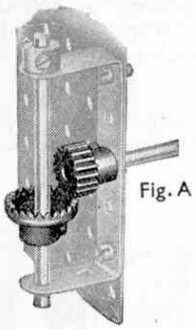


Fig. A

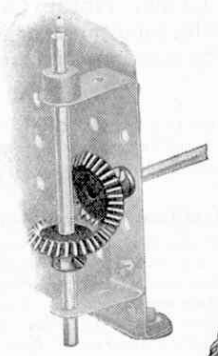


Fig. C

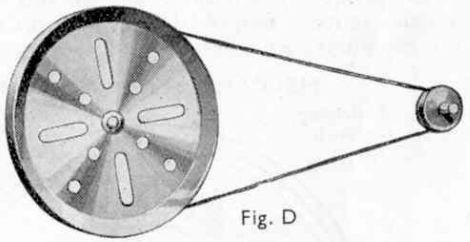


Fig. D

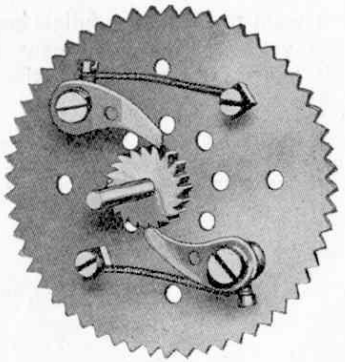


Fig. J

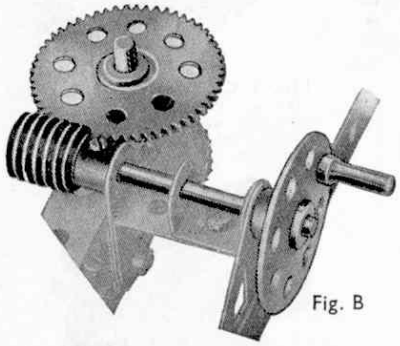


Fig. B

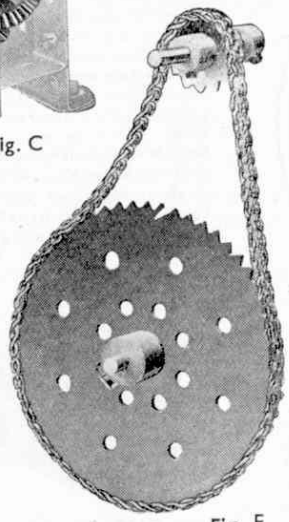


Fig. E

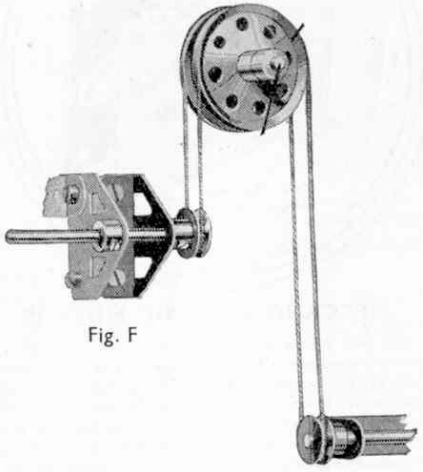


Fig. F

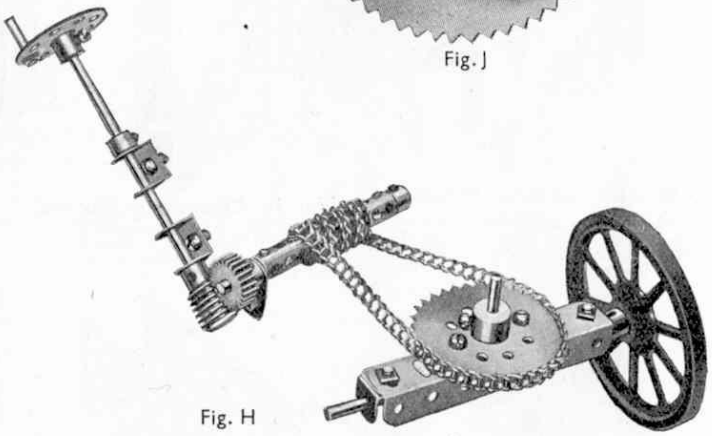


Fig. H

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)

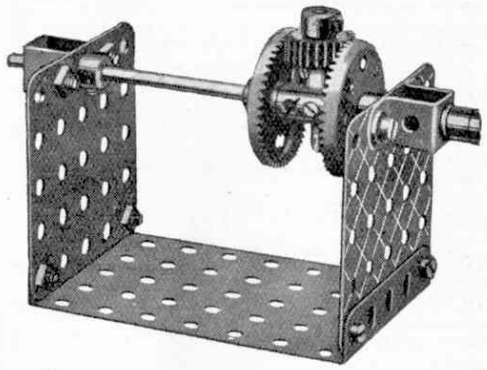


Fig. K

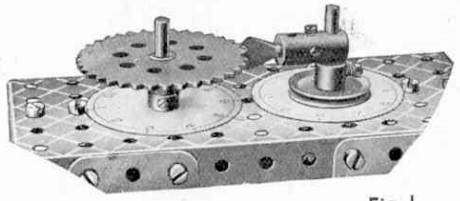


Fig. L

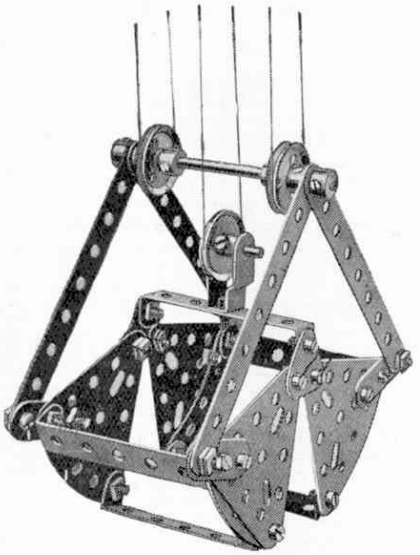


Fig. M

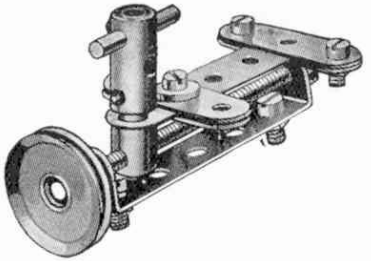


Fig. N

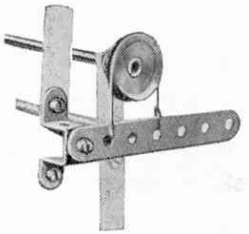


Fig. O

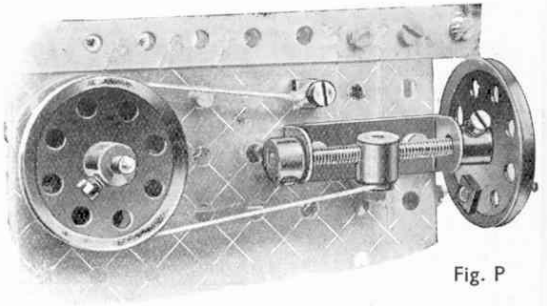


Fig. P

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.

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.

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.

CONTENTS OF OUTFITS AND COMPLETE LIST OF MECCANO PARTS

No.	Description.	O	Oa	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	—	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"	4	2	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	—	4
10	Flat Brackets	4	—	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	—	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	—	1	3	4	3	7
13a	" " 8"	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	2	1	3	5	8
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	—	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	—	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	1	1	—	1	—	1	—	1	2	3	—	3
19s	" " 3½" "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4	—	4	—	4
19a	Wheels, 3", with set screws	—	—	—	—	—	2	2	—	2	—	2	—	2	—	2	—	2	—	2	2	4
19b	Pulley Wheels, 3" with set screws	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19c	" " 6" " "	—	—	—	—	—	—	—	—	—	—	—	—	4	4	—	4	8	4	12	—	12
20	Flanged Wheels, 1½" diam.	—	—	—	—	—	—	—	—	—	—	—	2	2	2	4	—	4	—	4	—	4
20a	Pulley Wheels, 2" with set screws	—	—	—	—	—	—	—	—	—	4	4	—	4	—	4	—	4	—	4	6	10
20b	Flanged Wheels, ⅜" diam.	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1	1	2	—	2	2	4
21	Pulley Wheels, 1½" with set screws	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	6	4	10
22	" " 1" " "	4	—	4	—	4	—	4	—	4	—	4	—	4	—	4	—	4	—	4	11	15
22a	" " 1" without "	—	—	—	—	—	—	—	2	2	—	2	—	2	1	3	—	3	1	4	2	6
23	" " ½" " "	—	—	—	1	1	—	1	—	1	—	1	—	1	2	3	—	3	1	4	3	8
23a	" " ½" with "	—	—	—	—	—	—	—	—	—	—	—	—	1	1	2	—	2	3	5	3	8
24	Bush Wheels	1	—	1	—	1	—	1	—	1	—	1	—	1	1	2	—	2	3	5	3	8
25	Pinion Wheels, ⅜" diam., ⅛" wide	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	3	5
25a	" " ⅜" " ¼" "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
25b	" " ½" " ⅛" "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	" " ⅝" "	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	—	2	—	2	—	2
30	Bevel Gears, ⅞", 26 teeth	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4
30a	" " ½", 16 " (Can only be used together)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
30c	" " 1½", 48 " (Can only be used together)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
31	Gear Wheels, 1", 38 "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4
32	Worms	—	—	—	—	—	—	—	—	—	—	—	1	1	1	2	—	2	—	2	—	2
34	Spanners	2	—	2	—	2	—	2	—	2	—	2	—	2	—	2	—	2	—	2	—	2
34b	Box Spanners	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
35	Spring Clips	4	—	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	—	1
36a	" extra long	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
36b	" Special	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1	—	1	—	1
37	Nuts and Bolts, 7/32"	20	16	36	4	40	30	70	15	85	20	105	35	140	30	170	60	230	145	375	275	650
37a	Nuts	4	—	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	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	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	—	2	4	6	2	8	—	8	2	10	—	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	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
54a	" Flanged Sector Plate, 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	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.	O	Oa	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, $\frac{1}{2}$"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
69	Set Screws	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
69a	Grub Screws, 5/32"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
69b	" " 7/32"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
70	Perforated Flat Plates, $5\frac{1}{2}$" × $2\frac{1}{2}$"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
72	" " " $2\frac{1}{2}$" × $2\frac{1}{2}$"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	5	6	1	7
73	" " " 3" × $1\frac{1}{2}$"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	2	4
76	" Triangular Plates, $2\frac{1}{2}$"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
77	" " " 1"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	6	8
78	Screwed Rods, $11\frac{1}{2}$"	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	—	2	2	4	6	10
79	" " 8"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
79a	" " 6"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
80	" " 5"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
80a	" " $3\frac{1}{2}$"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
80b	" " $4\frac{1}{2}$"	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1	1	2	—	2
81	" " 2"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	—	2
82	" " 1"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	1	2
89	Curved Strips, $5\frac{1}{2}$"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	8
89a	" " 3" Cranked	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	6	—	6
89b	" " 4"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
90	" " $2\frac{1}{2}$"	—	—	—	—	—	—	—	—	—	2	2	—	2	2	4	2	6	10	16	—	16
90a	" " $2\frac{1}{2}$" Cranked	2	—	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	" " $1\frac{1}{2}$"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	3	4
95b	" " 3"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
96	" " 1"	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	—	2	2	4	6	10
96a	" " $\frac{3}{4}$"	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1	3	4	1	5
97	Braced Girders, $3\frac{1}{2}$" long	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	5
97a	" " 3" "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
98	" " $2\frac{1}{2}$" "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	8
99	" " $12\frac{1}{2}$" "	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4	—	4	4	8	10	18
99a	" " 9" "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
99b	" " $7\frac{1}{2}$" "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
100	" " $5\frac{1}{2}$" "	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	—	2	—	2	14	16
100a	" " $4\frac{1}{2}$" "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
102	Single Bent Strips	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	1	2	2	4
103	Flat Girders, $5\frac{1}{2}$"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7	7
103a	" " $9\frac{1}{2}$"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	2	4
103b	" " $12\frac{1}{2}$"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12	12
103c	" " $4\frac{1}{2}$"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4
103d	" " $3\frac{1}{2}$"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	5
103e	" " 3"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	6
103f	" " $2\frac{1}{2}$"	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	2	4	3	7	—	7
103g	" " 2"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
103h	" " $1\frac{1}{2}$"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	5	6
103k	" " $7\frac{1}{2}$"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
106	Rollers for Looms. Wood	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
106a	" " " Sand	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
107	Tables for Designing Machines	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
108	Architraves	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	—	2	2	4	2	6
109	Face Plates, $2\frac{1}{2}$" diam.	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	1	2	2	4	7	11
110	Rack Strips, $3\frac{1}{2}$"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	2	4
110a	" $6\frac{1}{2}$"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
111	Bolts, $\frac{3}{4}$"	—	—	—	—	—	—	—	—	—	1	1	1	2	1	3	—	3	6	9	9	18
111a	" $\frac{1}{2}$"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7	7	17	24
111c	" $\frac{3}{8}$"	4	—	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, $\frac{3}{8}$" diam.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
118	Hub Discs, $5\frac{1}{2}$" diam.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	3	4
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"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
125	" " " $\frac{1}{2}$"	1	—	1	1	2	—	2	2	4	—	4	—	4	—	4	—	4	—	4	—	4
126	Trunnions	2	—	2	—	2	—	2	—	2	—	2	—	2	2	4	—	4	—	4	5	9
126a	Flat Trunnions	2	—	2	—	2	—	2	—	2	—	2	—	2	2	4	1	5	—	5	3	8
127	Simple Bell Cranks	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
128	Boss Bell Cranks	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
129	Rack Segments, 3" diam.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	1	2	—	2
130	Triple Throw Eccentrics	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4
131	Dredger Buckets	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	—	2	—	2	—	2
132	Flywheels, $2\frac{3}{4}$" diam.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	5
133	Corner Brackets, $1\frac{1}{2}$"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
133a	" 1"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	8	—	8
134	Crank Shafts, 1" stroke	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
135	Theodolite Protractors	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
136	Handrail Supports	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1
136a	" Coupling	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4	4	8
137	Wheel Flanges	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
138	Ship's Funnels	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4	6	10
138a-z	" " Raked	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
139	Flanged Brackets, Right	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
139a	" " Left	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
140	Universal Couplings	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
141	Wire Lines (for clock-weights)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
142	Rubber Rings, 3"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
142a	Motor Tyres, 2"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	3
142b	" 3"	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4	—	4	—	4	—	4
142c	Motor Tyres, 1"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4
142d	" " $1\frac{1}{2}$"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
143	Circular Girders, $5\frac{1}{2}$" diam.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
144	Dog Clutches	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1
145	Circular Strips, $7\frac{1}{2}$" diam.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1
		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2

FOR ILLUSTRATIONS OF MECCANO PARTS REFER TO PAGE III OF COVER

CONTENTS OF OUTFITS AND COMPLETE LIST OF MECCANO PARTS *(continued)*

No.	Description.	O	Oa	A	Aa	B	Ba	C	Ca	D	Da	E	Ea	F	Fa	G	Ga	H	Ha	K	Ka	L
146	Circular Plates, 6" diam.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
146a	" " 4" "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
147	Pawls with pivot bolt and nuts	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1	1	2	2	4
147a	Pawls	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1	—	1	1	2	6	8
147b	Pivot Bolt with 2 Nuts	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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, $\frac{1}{2}$" R.H.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
154b	" " $\frac{1}{2}$" L.H.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
155	Rubber Rings, $\frac{5}{8}$"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
156	Pointers, $2\frac{1}{2}$", with boss	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
157	Fans 2" diam.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
158a	Signal Arms, Home	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
158b	" " Distant	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
160	Channel Bearings, $1\frac{1}{2}$"×1"×$\frac{1}{2}$"	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1	—	1	—	1
161	Girder Brackets, 2"×1"×$\frac{1}{2}$"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	1	2
167b	Ring Frames for Rollers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
167c	Pinions 16-teeth	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
168	Ball Bearings, 4" diam.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
168a	Ball Races, Flanged Disc	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
168b	" " Toothed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
168c	Ball Casings complete with Balls	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
169	Digger Buckets	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
170	Eccentrics $\frac{1}{2}$" throw	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
171	Socket Couplings	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
172	Pendulum Connections	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	—	1
177	Shafting Standard, Large	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
178	" " Small	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
179	Rod Socket	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
180	Gear Ring $3\frac{1}{2}$"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
181	Bobbins	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2
182	Insulating Bushes	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	8
182a	Insulating Washers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	8
183	Lamp Holders	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
184a	Lamps, $2\frac{1}{2}$ volt	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
184b	" $3\frac{1}{2}$ "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
184c	" 6 "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
184d	" 10 "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
184e	" 20 "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
185	Steering Wheel $1\frac{3}{4}$" diam.	—	1	1	—	1	—	1	—	1	—	1	—	1	—	1	—	1	—	1	—	1
186	Driving Bands	—	1	1	1	2	2	4	—	4	—	4	—	4	—	4	—	4	—	4	—	4
187	Road Wheels	—	2	2	—	2	—	2	—	2	—	2	—	2	—	2	—	2	—	2	—	2
188	Flexible Plates, $2\frac{1}{2}$"×$1\frac{1}{2}$"	—	2	2	—	2	—	2	—	2	—	2	—	2	—	2	—	2	—	2	—	2
189	" " $5\frac{1}{2}$"×$1\frac{1}{2}$"	—	2	2	—	2	—	2	—	2	—	2	—	2	—	2	—	2	—	2	—	2
190	" " $2\frac{1}{2}$"×$2\frac{1}{2}$"	—	2	2	—	2	2	4	—	4	—	4	—	4	—	4	—	4	—	4	—	4
191	" " $4\frac{1}{2}$"×$2\frac{1}{2}$"	—	—	—	2	2	—	2	—	2	—	2	—	2	—	2	—	2	—	2	—	2
192	" " $5\frac{1}{2}$"×$2\frac{1}{2}$"	—	—	—	—	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
193	Strip " $2\frac{1}{2}$"×$2\frac{1}{2}$"	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1	—	1	3	4	—	4
194	" " $3\frac{1}{2}$"×$2\frac{1}{2}$"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4	—	4
195	" " $5\frac{1}{2}$"×$2\frac{1}{2}$"	—	—	—	—	—	—	—	2	2	—	2	—	2	4	6	—	6	2	8	8	16
196	" " $9\frac{1}{2}$"×$2\frac{1}{2}$"	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	—	2
197	" " $12\frac{1}{2}$"×$2\frac{1}{2}$"	—	—	—	—	—	—	—	—	—	2	2	—	2	2	4	—	4	4	8	10	18
198	Hinged Flat Plates, $4\frac{1}{2}$"×$2\frac{1}{2}$"	—	—	—	—	—	1	1	—	1	—	1	—	1	—	1	—	1	—	1	—	1
199	Curved Plates, U Section $2\frac{1}{2}$"×$2\frac{1}{2}$"×$\frac{5}{16}$" radius	—	1	1	1	2	—	2	—	2	—	2	—	2	—	2	—	2	—	2	—	2
200	" " $2\frac{1}{2}$"×$2\frac{1}{2}$"×$1\frac{11}{16}$" radius	—	2	2	—	2	—	2	—	2	—	2	—	2	—	2	—	2	—	2	—	2
201	Lamps with Flex	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
202	Angle Brackets (for Headlamps)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
203	Headlamps	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
203a	Headlamp Rim	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
203b	" Body	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
204	" Nuts	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
205	" Glasses (Green, Plain or Red)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
206	Lampshades	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
207	Lamp Bases	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
207a	Stands with Lamp and Flex	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
208	Battery Tags and Stud	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
208a	Washers for Battery Stud	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
210	Nuts " "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
211a	Helical Gear $\frac{1}{2}$" (Can only be	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
211b	" " 1" used together)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1563	Terminals	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	3
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

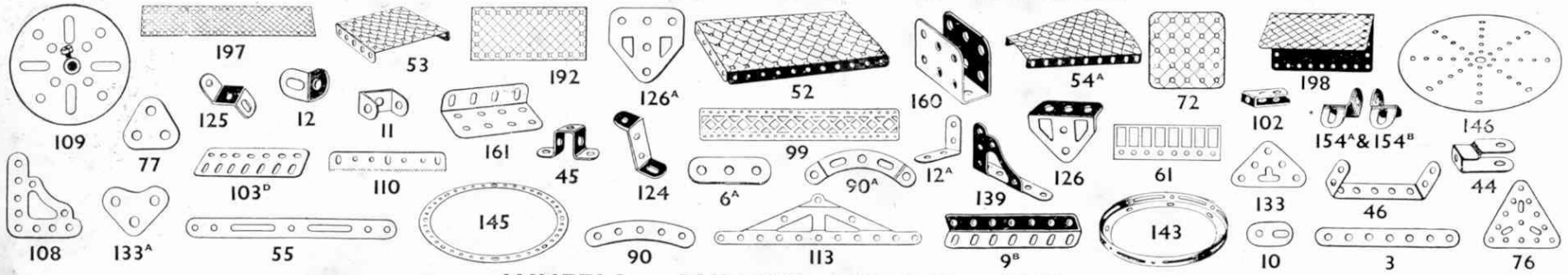
SPECIAL INSTRUCTION LEAFLETS

No. 1a-Motor Chassis
" 2—High-speed Ship-Coaler
" 5—Dredger
" 6—Stiff Leg Derrick
" 7—Platform Scales
" 9—Bagatelle Table
" 10—Log Saw
" 11a-Horizontal Engine
No. 12—Stone-sawing Machine
" 13—Meccanograph
" 14a—New Grandfather Clock
" 18—Revolving Crane
" 19—Steam Shovel
" 20—Electric Mobile Crane
" 21—Transporter Bridge
" 22—Traction Engine
No. 24—Travelling Gantry Crane
" 25—Hydraulic Crane
" 28—Pontoon Crane
" 29—Hammerhead Crane
" 30—Breakdown Crane
" 31—Warehouse
" 35—Automatic Grabbing Crane

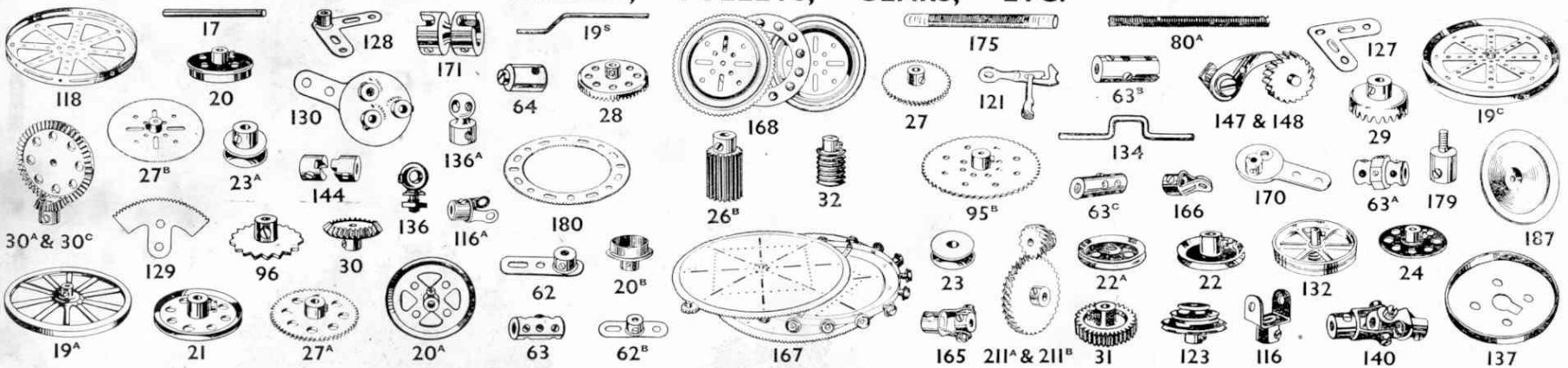
Outfits Ha and K contain Special Instruction Leaflets Nos. 7, 9, 10, 11a and 12.
Outfit Ka contains Special Instruction Leaflets Nos. 1a, 2, 5, 6, 13, 14a, 18, 19, 20, 21, 22, 24, 25, 28, 29, 30, 31 and 35.
Outfit L contains a copy of each of the 23 Special Instruction Leaflets listed above.

MECCANO PARTS & ACCESSORIES

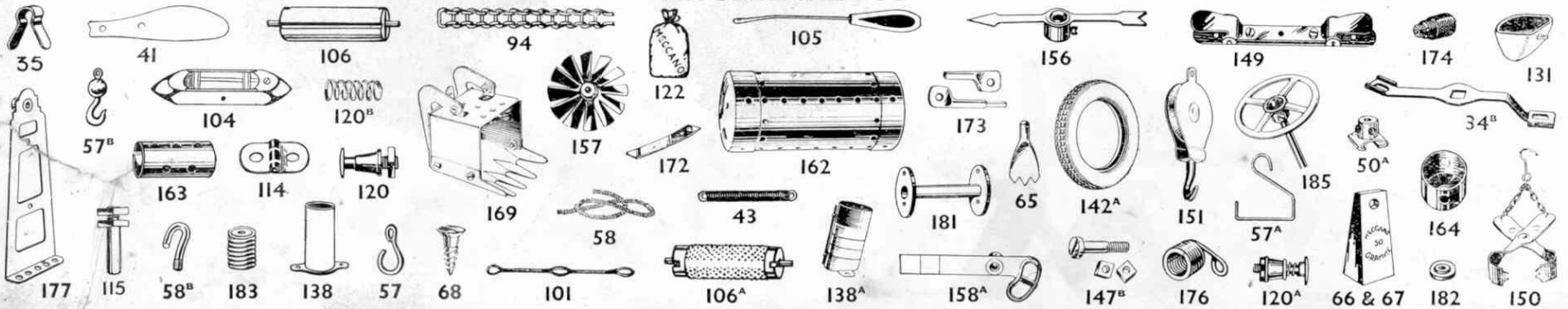
PLATES, STRIPS, GIRDERS & BRACKETS



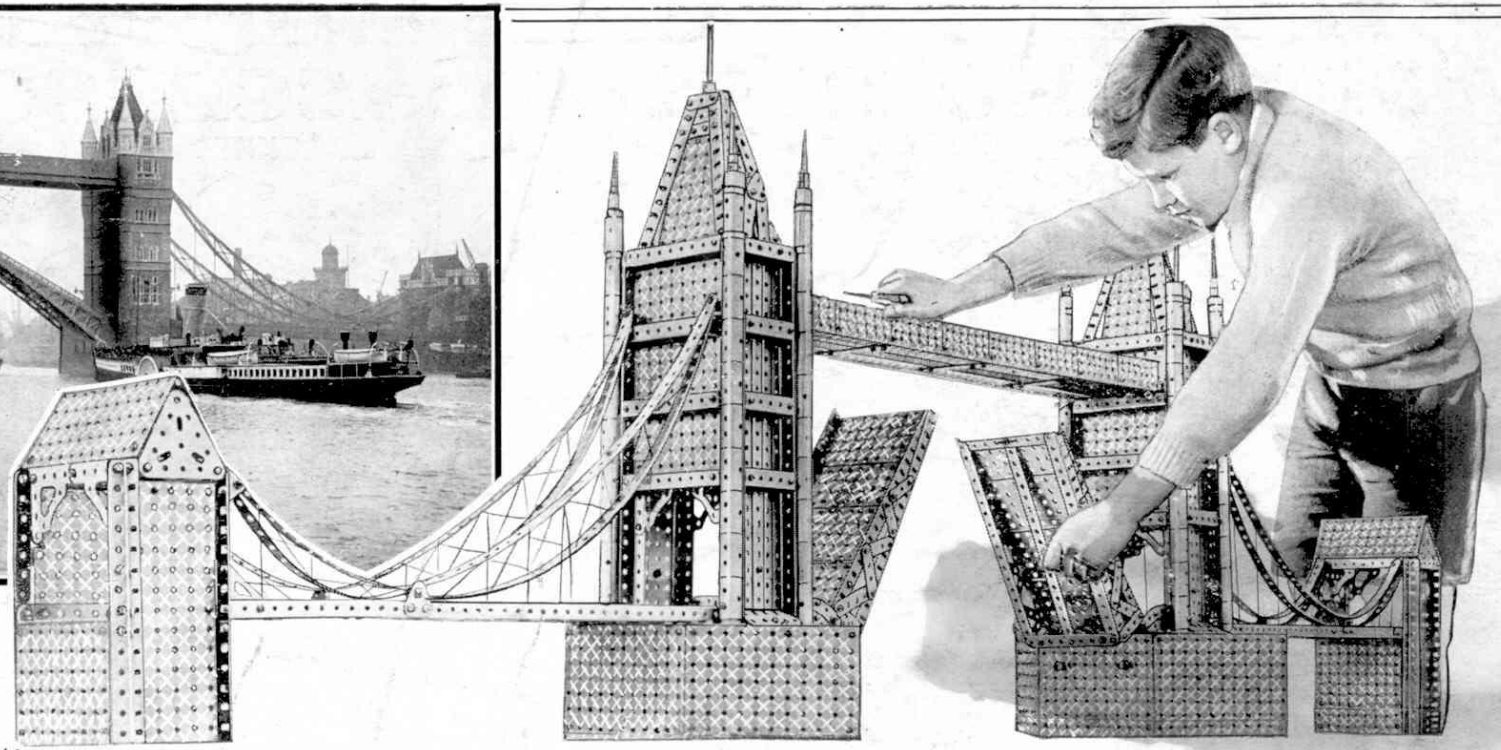
WHEELS, PULLEYS, GEARS, ETC.



MISCELLANEOUS



The famous Tower Bridge, London, a strikingly realistic Meccano Model of which is shown on the right.



Meccano is the finest hobby in the world for boys

Meccano is more than a toy

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

MECCANO

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