

MECCANO



(MECHANICS MADE EASY)

MANUAL OF INSTRUCTIONS

TO

Meccano N^o. 1.

PRICE **4d.**

BRITISH MANUFACTURE.

MECCANO LIMITED

Telegraphic Address:

"MECCANO,
LIVERPOOL"

12, Duke Street : LIVERPOOL

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FULLY PATENTED
IN ENGLAND
& ABROAD

MECCANO
may be had in
Six Progressive
Boxes to make up
these & many
other Models.

MECCANO LTD LIVERPOOL.



Meccano No. 1

THIS outfit comprises a variety of simple parts, which by the aid of the drawings and directions furnished, may be built up into a number of interesting and beautiful **WORKING MODELS** and structures. No tools are necessary beyond the appliances supplied, and the toy is well adapted for parlour use.

All parts are made to gauge, and the necessity for accuracy of work is clearly taught.

By means of additional parts as required, an almost endless variety of models may be built; the parts are of metal and almost unbreakable, and when one structure is finished the same parts can be used repeatedly for different structures.

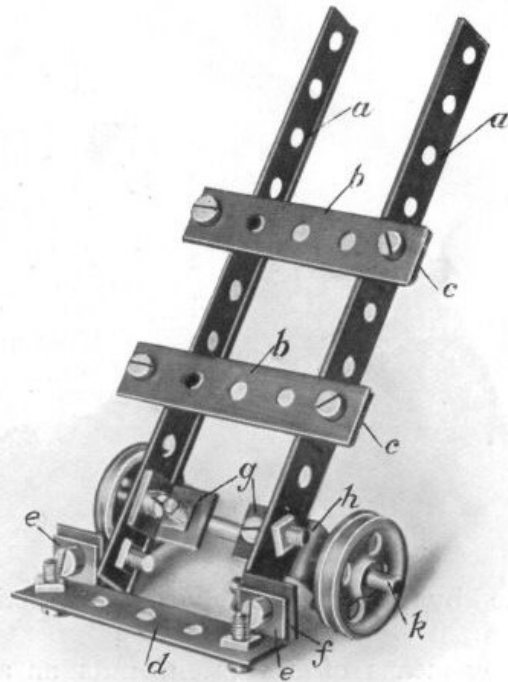
Parents will find co-operation with the Children an interesting and stimulating exercise and in many instances a pleasant mode of exercising their own inventive faculties.

The designs given have been accurately prepared from the actual structures themselves, and if in assembling the parts, care be taken to ensure that the proper sizes of strips are used, and that the bolts, brackets, and axles are attached to the proper holes as shown, little difficulty will be experienced in erecting. Care should be taken to count the holes, as they are uniformly spaced throughout, and so form a most excellent guide in erecting.

The simple designs should in all cases be proceeded with first, and skill gradually acquired in following the designs and correctly connecting the parts together. Strips when they require to be attached at right angles to each other, are attached by means of the angle brackets and screws and nuts, the nuts being preferably on the inside. The axles are adapted to fit any of the holes, and their positions in the various designs can always be ascertained by counting the holes.

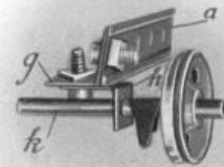
Successive lengths of strips may be united together by means of one or, where a very rigid connection is required, two bolts.

Figure No. 1. Luggage Truck



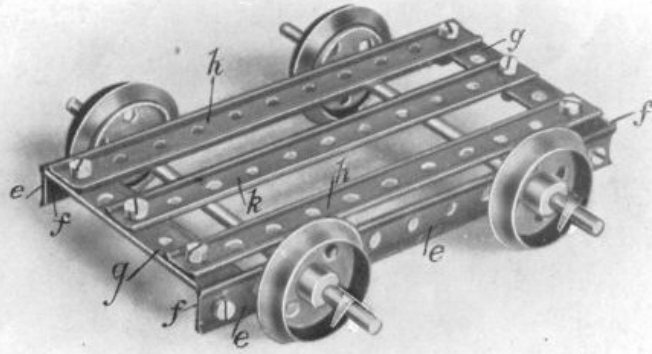
PARTS REQUIRED.

- | | | |
|----|-----|-------------------|
| 2 | 5½" | Perforated Strips |
| 3 | 2½" | " " " |
| 12 | | Angle Brackets. |
| 1 | 3½" | Rod. |
| 2 | | Wheels. |
| 18 | | Nuts and Bolts. |
| 2 | | Keys. |



This is a simple and neat little model, very easily constructed. Commence by screwing the two cross pieces B to the two side frames A, four angle brackets and eight nuts and bolts are required for this. The lowest cross piece D may then be carried from the end holes of the frames A by a combination of the two angle pieces E F at each end, and the bearings for the wheel axle are each somewhat similarly constructed of two angle pieces G H, as will be readily understood by referring to the small detail view. When these are in place the axle K is inserted, keys L put over the ends, and the wheels secured thereon.

Fig. No. 2. Truck.



PARTS REQUIRED.

| | | |
|----|-----|--------------------|
| 5 | 5½" | Perforated Strips. |
| 2 | 2½" | „ „ |
| 4 | | Angle Brackets. |
| 2 | 5" | Rods. |
| 4 | | Wheels. |
| 10 | | Nuts and Bolts. |
| 4 | | Keys. |

This is an interesting model, which can easily be constructed by means of the following instructions :—

To construct this design, take a 5½" strip E and attach by means of screws and nuts an angle piece F at each end. Then take a second 5½" strip, and in the same way attach angle pieces at each end of it. These strips are to form the sides of the truck in which the axles of the wheels run. Now connect each end pair of angle pieces with two 2½" strips G at right angles to the 5½" strips forming the sides, and over these short strips G lay two 5½" strips H, fastening each corner of the truck, where the ends of the strips H and G overlay the angle pieces F, by means of screws and nuts. Now attach the 5½" piece K at each end to the centre hole of the strips G. This with the two pieces H forms the bottom of the truck. Next insert two axles, as shown, through the third holes from the ends of the side pieces E, then push on the four wheels and secure them in position by the keys.

Fig. No. 3. Endless Rope Railway

PARTS REQUIRED.

| | | |
|----|-----|--------------------|
| 7 | 5½" | Perforated Strips. |
| 6 | 2½" | |
| 13 | | Angle " Brackets " |
| 2 | 5" | Rods. |
| 1 | 2" | Rod. |
| 1 | | Crank Handle. |
| 6 | | Wheels. |
| 21 | | Nuts and Bolts. |
| 5 | | Wood Screws. |
| 6 | | Keys. |

This is an attractive little combination working model, which will well repay a little trouble in making.

The truck made according to the previous design is used, and it is connected to an endless cord which passes from a pulley attached to the board to another pulley and shaft carried on the bracket shown. In the illustration, the two pulleys are shown close together to save space, but they may, of course, be placed at any distance desired.

The bracket is constructed as follows : Two vertical 2½" side pieces are connected together at the top and bottom by two more 2½" pieces attached by angle pieces as shown. From the angle pieces at the top, two 5½" pieces are carried down to two angle pieces screwed to the board as shown, and angle pieces are placed at the feet of the uprights, which are also screwed to the board. The pulley is keyed to the vertical spindle, which is threaded through the central holes of the two 2½" cross pieces, and a second pulley, attached to a U-shaped piece as shown, is screwed opposite to the bracket.

A piece of string is then formed into an endless rope running over the two pulleys, and the truck is attached to one side of the string, so that by rotating the handle in one direction or another, the truck is moved as desired.

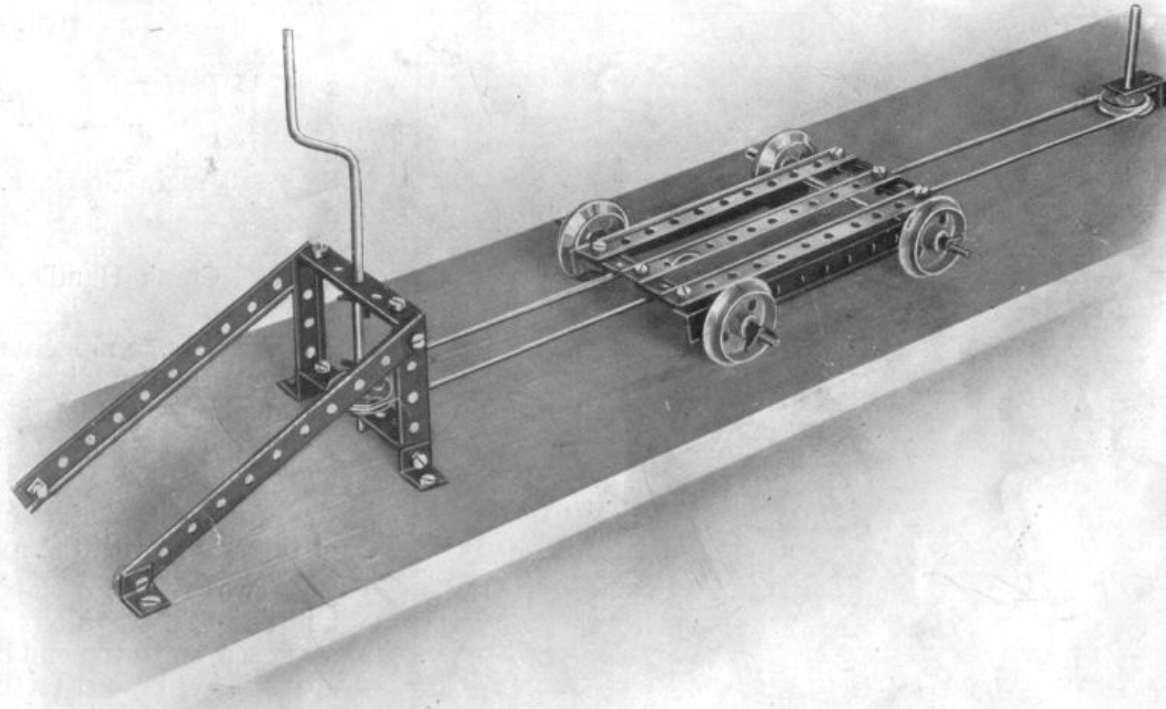
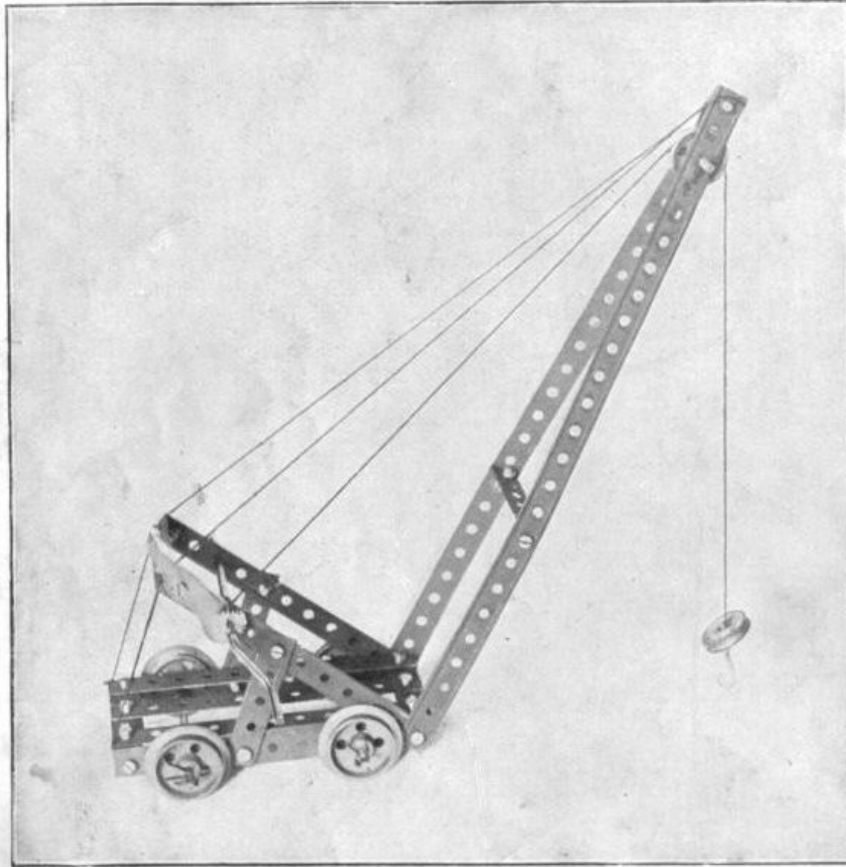


Fig. No. 4. Travelling Jib Crane



PARTS REQUIRED.

| | | | | |
|---|------|--------------------|----|-----------------|
| 2 | 12½" | Perforated Strips. | 6 | Wheels. |
| 7 | 5½" | " " | 1 | ½" Pinion. |
| 6 | 2½" | " " | 1 | Pawl. |
| 8 | | Angle Brackets. | 23 | Nuts and Bolts. |
| 2 | 5" | Rods. | 1 | Hook. |
| 1 | 2" | Rod. | 8 | Keys. |
| 1 | | Crank Handle. | | |

A very fine model which cannot fail to interest and instruct the budding mechanic. It is designed on thoroughly scientific lines, and it will teach a boy more about the principles of a crane's action than hours of book study.

The truck of Example 2 is used in the construction of the crane, with the following additions:—

Two 5½" strips sloping back to carry the spindle, and two 12½" strips to form the jib, are attached by the same screws to the end holes of the truck; the two 5½" strips being braced to the truck by the two 2½" strips as shown, and being connected together at their ends by a 2½" strip and angle pieces.

The spindle, to which the pinion is keyed, is carried in the third pair of holes in the 5½" strips as shown, and the pawl is pivoted on the screw which holds the angle piece in position.

The jib is braced by a 2½" strip and angles at the ninth hole from the end, and the two sides are bolted together at the top hole, and the short spindle carrying the pulley is carried in the third hole from the top, over which pulley the string is passed and tied to the pinion spindle; the whole structure is braced by tie rods formed of strings attached to the ends of the truck, the 5½" strips, and the jib.

Fig. No. 5. Windmill

PARTS REQUIRED.

| | |
|----|-------------------------|
| 4 | 12½" Perforated Strips. |
| 2 | 5½" " " |
| 8 | 2½" " " |
| 12 | Angle Brackets. |
| 1 | 3½" Rod. |
| 1 | Crank Handle. |
| 3 | Wheels. |
| 25 | Nuts and Bolts. |
| 8 | Keys. |

An effective model which calls for no special instructions to construct.

It will not be described quite so fully as the preceding ones, in order that its construction may be a test for the young model-maker, and may be of use in developing his faculties for constructional work.

It will suffice to say that the four 12½" strips are formed at the top by four angle pieces, and are stiffened lower down by the four 2½" strips formed into a square, the corners of which are connected by angle pieces to the 12½" strips.

The wind sails are made by attaching four 2½" strips to the bush wheel, and keying the latter to the spindle.

NOTE.—This spindle has a second pulley on the frame connected by the string band to the pulley on the spindle below.

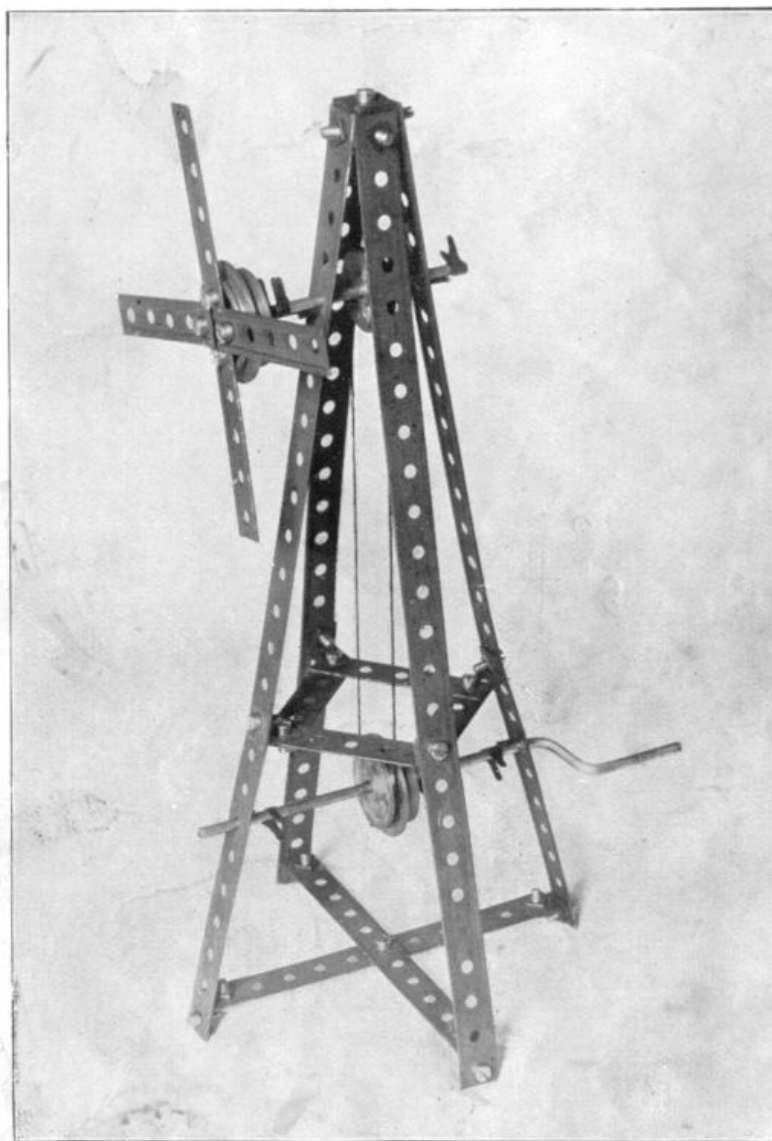
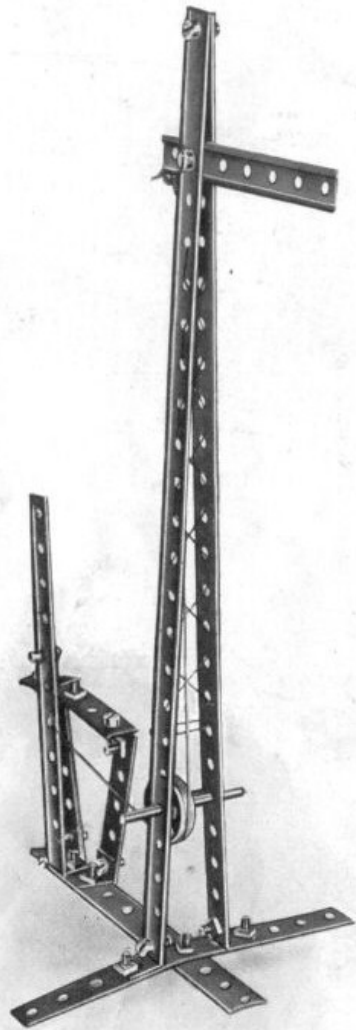


Fig. No. 6. Railway Signal



PARTS REQUIRED.

| | | |
|----|--------------------|--------------------|
| 2 | 12 $\frac{1}{2}$ " | Perforated Strips. |
| 3 | 5 $\frac{1}{2}$ " | " " |
| 1 | 3 $\frac{1}{2}$ " | " " |
| 3 | 2 $\frac{1}{2}$ " | " " |
| 8 | | Angle Brackets. |
| 2 | 2" | Rods. |
| 1 | | Wheel. |
| 19 | | Nuts and Bolts. |
| 1 | | Key. |

A simple model which explains itself.

Very little difficulty will be found in constructing it after Model 5 has been accomplished. It will therefore form another test for the young model-maker.

In fixing the lever to the angle bracket at the bottom, lock the nuts so as to prevent the screw from working out.

Fig. No. 7. Truck

Fig. 1.

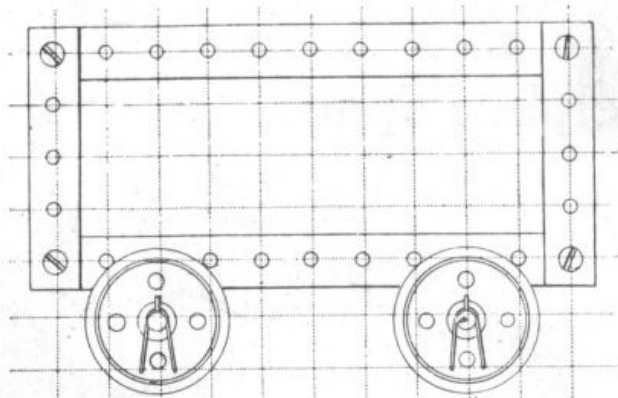


Fig. 2.

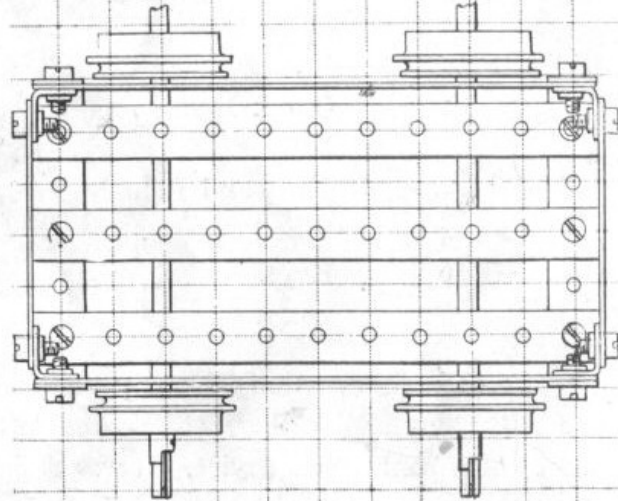
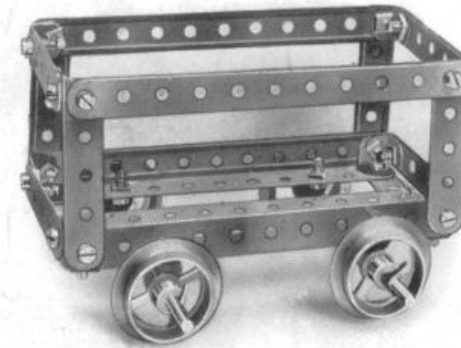
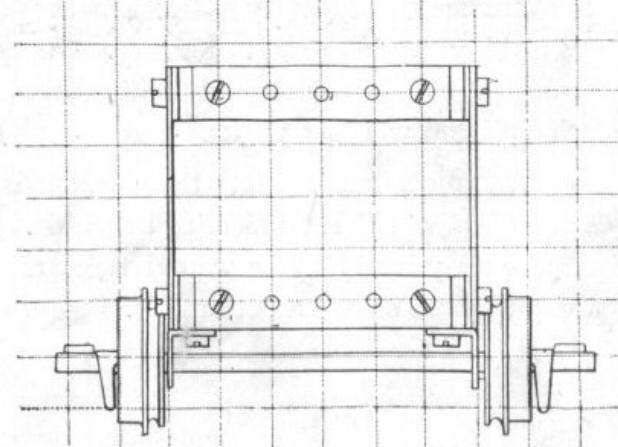


Fig. 3.



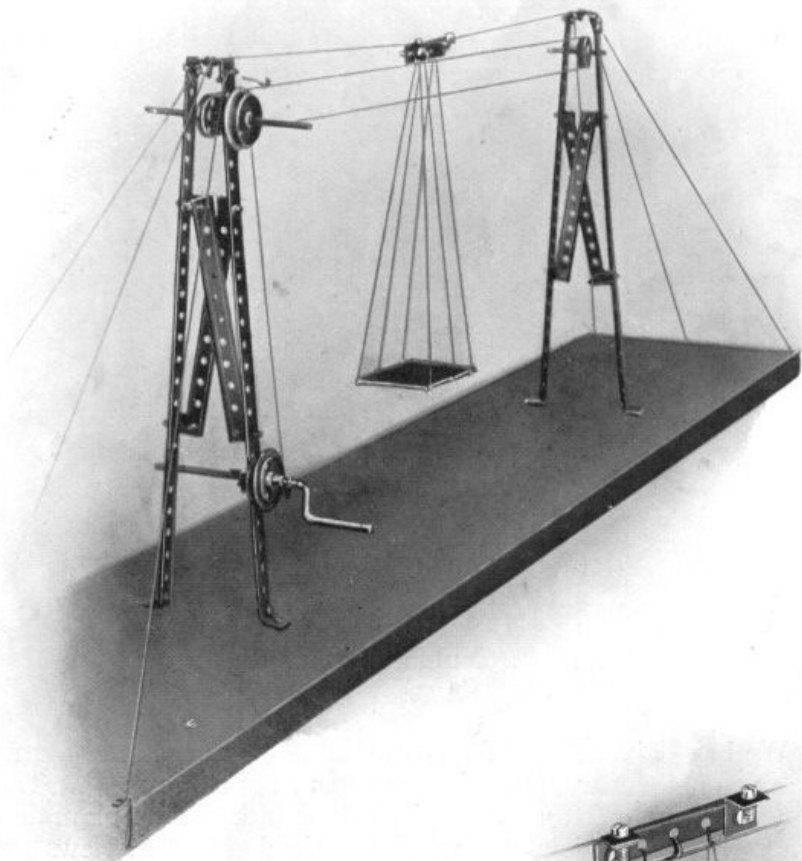
PARTS REQUIRED.

| | | |
|----|-----|--------------------|
| 7 | 5½" | Perforated Strips. |
| 10 | 2½" | " " |
| 16 | | Angle Brackets. |
| 2 | 5" | Rods. |
| 4 | | Wheels. |
| 22 | | Nuts and Bolts. |
| 4 | | Keys. |

We have given here an example of the actual kind of drawing which an engineer would make to represent such a model. The top figure would be called an elevation, the middle one a plan, and the lower one an end view. It will be noticed that the views are on squared paper, and the elevation and plan are projected from each other, as should be the case with all views on an engineering drawing.

This model is constructed in precisely the same way as preceding models, and we confidently leave our young friend to make it up for himself.

Fig. No. 8. Model of Telpher Span



PARTS REQUIRED.

| | | |
|----|------|--------------------|
| 4 | 12½" | Perforated Strips. |
| 4 | 5½" | " " |
| 1 | 2½" | " " |
| 18 | | Angle Brackets. |
| 1 | 3½" | Rod. |
| 1 | 2" | " |
| 1 | | Crank Handle. |
| 4 | | Wheels. |
| 30 | | Nuts and Bolts. |
| 4 | | Wood Screws. |
| 6 | | Keys. |

For the information of our young friends we may say that Telpher is the name of the man who invented this device. It was designed to overcome the difficulty of transporting goods over hilly and difficult country. Its construction cannot fail to fix in the mind the principles on which it works.

We recommend that the standards be screwed down before connecting the cords. The crank-pulley cord may be wound twice around the pulleys to ensure a better grip.

Further Possibilities

Although this completes the models which we are able to illustrate here, it by no means exhausts the possibilities of MECCANO. For the guidance of our customers we have illustrated a number of elaborate and very beautiful working models, the construction of which will prove a never-ending source of delight and instruction. With each illustration will be found a list of the parts required, together with a list of the extra parts to a No. 1 MECCANO outfit, which it will be necessary to purchase before they can be made. All the parts may be purchased separately through any dealer, or direct from ourselves; and at the end of this book will be found a detailed price list, which we recommend our customers to study before ordering. We would add, that new and interesting models are constantly being designed by ourselves and users of MECCANO, and we are at all times glad to receive suggestions and designs from our customers, and to criticise and help in any way in our power. If our instructions are carefully read and followed there should be no difficulty in building up any of the models illustrated; but we are at all times glad to answer any questions, and to give any further instructions necessary.



Fig. No. 13. Luggage Barrow

PARTS REQUIRED.

- 6 5½" Perforated Strips.
- 13 2½" " "
- 8 Angle Brackets.
- 1 2" Rod.
- 1 Bush Wheel.
- 30 Nuts and Bolts.
- 2 Keys.

List of Parts required in addition to Meccano No. 1.

- 1 2½" Perforated Strip.

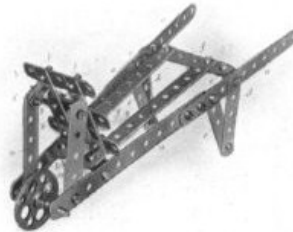


Fig. No. 14. Revolver Truck

PARTS REQUIRED.

- 4 5½" Perforated Strips.
- 6 2½" " "
- 14 Angle Brackets.
- 3 5" Rods.
- 4 Wheels.
- 27 Nuts and Bolts.
- 10 Keys.

List of Parts required in addition to Meccano No. 1.

- 1 5" Rod.

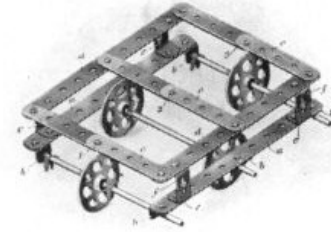


Fig. No. 15. Railway Waggon

| PARTS REQUIRED. | |
|-----------------|------------------------|
| 5 | 5½" Perforated Strips. |
| 2 | 3½" " " |
| 5 | 2½" " " |
| 10 | Angle Brackets. |
| 2 | 5" Rods. |
| 4 | Wheels. |
| 23 | Nuts and Bolts. |
| 4 | Keys. |

List of Parts required in addition to Meccano No. 1.

1 3½" Strip.

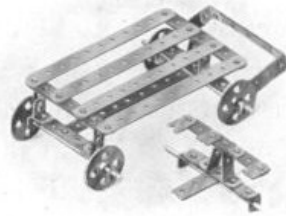


Fig. No. 16. Ladder on Wheels

| PARTS REQUIRED. | |
|-----------------|-------------------------|
| 6 | 12½" Perforated Strips. |
| 2 | 5½" " " |
| 13 | 2½" " " |
| 18 | Angle Brackets. |
| 2 | 5" Rods. |
| 4 | Wheels. |
| 48 | Nuts and Bolts. |
| 4 | Keys. |

List of Parts required in addition to Meccano No. 1.

1 2½" Strip.
18 Nuts and Bolts.



Fig. No. 17. Drawbridge

| PARTS REQUIRED. | |
|-----------------|-------------------------|
| 9 | 12½" Perforated Strips. |
| 11 | 5½" " " |
| 8 | 2½" " " |
| 12 | Angle Brackets. |
| 1 | Crank Handle. |
| 2 | 1" Pulley Wheels. |
| 42 | Nuts and Bolts. |
| 2 | Keys. |

List of Parts required in addition to Meccano No. 1.

3 12½" Perforated Strips.
1 5½" " "
12 Nuts and Bolts.

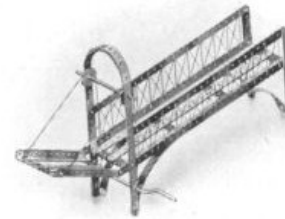


Fig. No. 18. Travelling Jib Crane

| PARTS REQUIRED. | |
|-----------------|-------------------------|
| 12 | 12½" Perforated Strips. |
| 14 | 5½" " " |
| 5 | 2½" " " |
| 16 | Angle Brackets. |
| 2 | 5" Rods. |
| 2 | 2" " |
| 1 | Crank Handle. |
| 6 | Wheels. |
| 1 | Bush Wheel. |
| 1 | ½" Pinion. |
| 1 | Pawl. |
| 38 | Nuts and Bolts. |
| 1 | Hook. |
| 10 | Keys. |

List of Parts required in addition to Meccano No. 1.

6 12½" Perforated Strips.
4 5½" " "
1 2" Rod.
8 Nuts and Bolts.

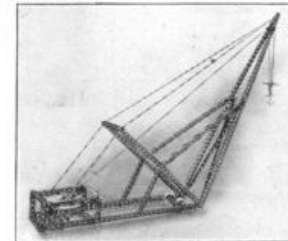


Fig. No. 19. Warehouse with Hoist

PARTS REQUIRED.

| | |
|----|-------------------------|
| 9 | 12½" Perforated Strips. |
| 18 | 5½" " " |
| 4 | Angle Girders. |
| 12 | " Brackets. |
| 2 | 2" Rods. |
| 1 | Crank Handle. |
| 3 | Wheels. |
| 1 | Pawl. |
| 49 | Nuts and Bolts. |
| 6 | Wood Screws. |
| 1 | Hook. |
| 6 | Keys. |

List of Parts required in addition to Meccano No. 1.

| | |
|----|-------------------------|
| 3 | 12½" Perforated Strips. |
| 8 | 5½" " " |
| 4 | Angle Girders. |
| 1 | 2" Rod. |
| 19 | Nuts and Bolts. |
| 1 | Wood Screw. |



Fig. No. 20. Wheel

PARTS REQUIRED.

| | |
|----|-------------------------|
| 8 | 12½" Perforated Strips. |
| 8 | 5½" " " |
| 6 | 2½" " " |
| 4 | Angle Girders. |
| 8 | " Brackets. |
| 2 | 5" Rods. |
| 3 | 1½" Pulleys. |
| 2 | 1" " " |
| 1 | Bush Wheel. |
| 48 | Nuts and Bolts. |
| 4 | Wood Screws. |
| 6 | Keys. |

List of Parts required in addition to Meccano No. 1.

| | |
|----|-------------------------|
| 2 | 12½" Perforated Strips. |
| 4 | Angle Girders. |
| 3 | 1½" Pulleys. |
| 18 | Nuts and Bolts. |



Fig. No. 30. Cable Railway

PARTS REQUIRED.

| | |
|----|------------------------|
| 6 | 5½" Perforated Strips. |
| 6 | 3½" " " |
| 12 | 2½" " " |
| 4 | Angle Girders. |
| 18 | " Brackets. |
| 4 | 5" Rods. |
| 1 | 1½" Pulley. |
| 2 | 1" " " |
| 2 | ¾" Pinions. |
| 1 | Gear Wheel. |
| 2 | ¾" Contribute Wheels. |
| 44 | Nuts and Bolts. |
| 12 | Wood Screws. |
| 13 | Keys. |

List of Parts required in addition to Meccano No. 1.

| | | | |
|---|------------------------|----|-----------------------|
| 5 | 3½" Perforated Strips. | 1 | Gear Wheel. |
| 4 | Angle Girders. | 2 | ¾" Contribute Wheels. |
| 2 | 5" Rods. | 14 | Nuts and Bolts. |
| 1 | 1½" Pulley Wheel. | 7 | Wood Screws. |
| 2 | ¾" Pinions. | 1 | Key. |

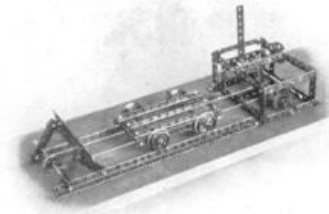


Fig. No. 31. Warehouse with Elevator

PARTS REQUIRED.

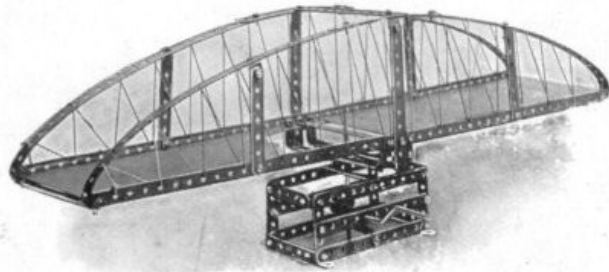
| | |
|----|-------------------------|
| 9 | 12½" Perforated Strips. |
| 16 | 5½" " " |
| 4 | 3½" " " |
| 16 | 2½" " " |
| 4 | Angle Girders. |
| 42 | " Brackets. |
| 1 | 5" Rod. |
| 1 | 3½" " " |
| 1 | 2" " " |
| 1 | Crank Handle. |
| 2 | Pulley Wheels. |
| 1 | ¾" Pinion. |
| 1 | Gear Wheel. |
| 1 | Pawl. |
| 68 | Nuts and Bolts. |
| 10 | Wood Screws. |
| 9 | Keys. |

List of Parts required in addition to Meccano No. 1.

| | |
|----|-------------------------|
| 3 | 12½" Perforated Strips. |
| 5 | 5½" " " |
| 3 | 3½" " " |
| 4 | 2½" " " |
| 4 | Angle Girders. |
| 24 | " Brackets. |
| 1 | 2" Rod. |
| 1 | ¾" Pinion Wheel. |
| 1 | Gear " " |
| 38 | Nuts and Bolts. |
| 5 | Wood Screws. |



Fig. No. 32. Swing Bridge



PARTS REQUIRED.

| | | | | |
|----|--------------------|--------------------|----|-------------------------|
| 4 | 12 $\frac{1}{2}$ " | Perforated Strips. | 1 | Crank Handle. |
| 16 | 5 $\frac{1}{2}$ " | " " | 1 | Bush Wheel. |
| 4 | 3 $\frac{1}{2}$ " | " " | 1 | $\frac{1}{2}$ " Pinion. |
| 10 | 2 $\frac{1}{2}$ " | " " | 1 | Worm Wheel. |
| 4 | | Angle Girders. | 78 | Nuts and Bolts. |
| 34 | | " Brackets. | 6 | Keys. |
| 1 | 5" | Rod. | | |

List of Parts required in addition to Meccano No. 1.

| | | | | |
|---|-------------------|--------------------|----|-----------------|
| 6 | 5 $\frac{1}{2}$ " | Perforated Strips. | 16 | Angle Brackets. |
| 3 | 3 $\frac{1}{2}$ " | " " | 1 | Worm Wheel. |
| 4 | | Angle Girders. | 48 | Nuts and Bolts. |

Fig. No. 33. Tower Waggon

PARTS REQUIRED.

| | | |
|----|--------------------|--------------------|
| 10 | 12 $\frac{1}{2}$ " | Perforated Strips. |
| 20 | 5 $\frac{1}{2}$ " | " " |
| 12 | 2 $\frac{1}{2}$ " | " " |
| 8 | | Angle Girders. |
| 24 | | " Brackets. |
| 1 | 6" | Rod. |
| 4 | 5" | Rods. |
| 1 | | Crank Handle. |
| 5 | | Wheels. |
| 1 | 1 $\frac{1}{2}$ " | Pulley. |
| 1 | $\frac{1}{4}$ " | Pinion. |
| 1 | | Gear Wheel. |
| 1 | | Pawl. |
| 74 | | Nuts and Bolts. |
| 12 | | Keys. |



List of Parts required in addition to Meccano No. 1.

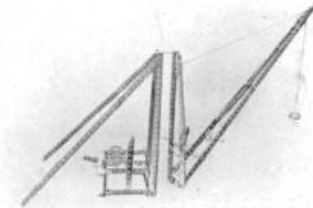
| | | |
|----|--------------------|--------------------|
| 4 | 12 $\frac{1}{2}$ " | Perforated Strips. |
| 10 | 5 $\frac{1}{2}$ " | " " |
| 8 | | Angle Girders. |
| 6 | | " Brackets. |
| 1 | 6" | Rod. |
| 2 | 5" | Rods. |
| 1 | 1 $\frac{1}{2}$ " | Pulley Wheel. |
| 1 | $\frac{1}{4}$ " | Pinion. |
| 1 | | Gear Wheel. |
| 44 | | Nuts and Bolts. |

(12)

Fig. No. 34. Swivelling & Luffing Jib Crane

PARTS REQUIRED.

| | | |
|----|--------------------|--------------------|
| 12 | 12 $\frac{1}{2}$ " | Perforated Strips. |
| 8 | 5 $\frac{1}{2}$ " | " " |
| 4 | 3 $\frac{1}{2}$ " | " " |
| 8 | 2 $\frac{1}{2}$ " | " " |
| 35 | | Angle Brackets. |
| 3 | 5" | Rods. |
| 1 | 3 $\frac{1}{2}$ " | " " |
| 2 | 2" | " " |
| 1 | | Crank Handle. |
| 2 | 1 $\frac{1}{2}$ " | Pulleys. |
| 2 | 1" | " " |
| 2 | $\frac{3}{4}$ " | Pinions. |
| 1 | $\frac{1}{2}$ " | " " |
| 1 | | Gear Wheel. |
| 2 | $\frac{3}{4}$ " | Contrites. |
| 1 | | Pawl. |
| 71 | | Nuts and Bolts. |
| 6 | | Wood Screws. |
| 1 | | Hook. |
| 19 | | Keys. |



List of Parts required in addition to Meccano No. 1.

| | | |
|----|--------------------|--------------------|
| 6 | 12 $\frac{1}{2}$ " | Perforated Strips. |
| 3 | 3 $\frac{1}{2}$ " | " " |
| 17 | | Angle Brackets. |
| 1 | 5" | Rod. |
| 1 | 1" | " " |
| 2 | 1 $\frac{1}{2}$ " | Pulley Wheels. |
| 2 | $\frac{3}{4}$ " | Pinions. |
| 1 | | Gear Wheel. |
| 2 | $\frac{3}{4}$ " | Contrite Wheels. |
| 41 | | Nuts and Bolts. |
| 1 | | Wood Screw. |
| 7 | | Keys. |

Fig. No. 35. Pit Head Gear

PARTS REQUIRED.

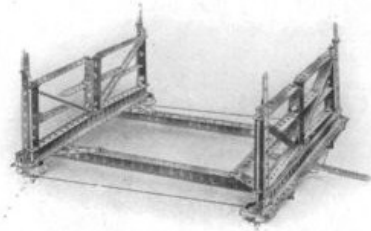
| | | |
|----|--------------------|--------------------|
| 10 | 12 $\frac{1}{2}$ " | Perforated Strips. |
| 20 | 5 $\frac{1}{2}$ " | " " |
| 4 | 3 $\frac{1}{2}$ " | " " |
| 1 | 3" | " " |
| 10 | 2 $\frac{1}{2}$ " | " " |
| 8 | | Angle Girders. |
| 20 | | " Brackets. |
| 1 | 5" | Rod. |
| 1 | 2" | " " |
| 1 | | Crank Handle. |
| 1 | 1 $\frac{1}{2}$ " | Pulley. |
| 1 | $\frac{1}{4}$ " | Pinion. |
| 1 | $\frac{1}{4}$ " | " " |
| 1 | | Gear Wheel. |
| 1 | | Pawl. |
| 1 | | Nuts and Bolts. |
| 76 | | Keys. |

List of Parts required in addition to Meccano No. 1.

| | | |
|----|--------------------|--------------------|
| 4 | 12 $\frac{1}{2}$ " | Perforated Strips. |
| 10 | 5 $\frac{1}{2}$ " | " " |
| 3 | 3 $\frac{1}{2}$ " | " " |
| 1 | 3" | " " |
| 8 | | Angle Girders. |
| 2 | | " Brackets. |
| 1 | 1 $\frac{1}{2}$ " | Pulley Wheel. |
| 1 | $\frac{3}{4}$ " | Pinion. |
| 1 | | Gear Wheel. |
| 46 | | Nuts and Bolts. |



Fig. No. 36. Level Crossing Gates



| PARTS REQUIRED. | | <i>List of Parts required in addition to Meccano No. 1.</i> | |
|-----------------|---------------------------|---|---------------------------|
| 18 | 5 1/2" Perforated Strips. | 8 | 5 1/2" Perforated Strips. |
| 4 | 3 1/2" " " | 3 | 3 1/2" " " |
| 17 | 2 1/2" " " | 5 | 2 1/2" " " |
| 6 | Angle Girders. | 6 | Angle Girders. |
| 32 | " Brackets. | 14 | " Brackets. |
| 4 | Pulley Wheels. | 45 | Nuts and Bolts. |
| 75 | Nuts and Bolts. | | |

Fig. No. 40. Maxim Flying Machine

| PARTS REQUIRED. | | <i>List of Parts required in addition to Meccano No. 1.</i> | |
|-----------------|----------------------------|---|----------------------------|
| 8 | 12 1/2" Perforated Strips. | 2 | 12 1/2" Perforated Strips. |
| 15 | 5 1/2" " " | 5 | 5 1/2" " " |
| 3 | 3 1/2" " " | 2 | 3 1/2" " " |
| 4 | 2 1/2" " " | 4 | Angle Girders. |
| 4 | Angle Girders. | 2 | 11 1/2" Rods. |
| 18 | " Brackets. | 1 | Bush Wheel. |
| 2 | 11 1/2" Rods. | 2 | 3/4" Pinion Wheels. |
| 1 | Crank Handle. | 1 | Gear Wheel. |
| 2 | Bush Wheels. | 1 | 1 1/2" Contribute Wheel. |
| 2 | 3/4" Pinions. | 42 | Nuts and Bolts. |
| 1 | Gear Wheel. | | |
| 1 | 1 1/2" Contribute. | | |
| 72 | Nuts and Bolts. | | |
| 4 | Wood Screws. | | |
| 8 | Keys. | | |



Fig. No. 41. Travelling Crane

| PARTS REQUIRED. | | <i>List of Parts required in addition to Meccano No. 1.</i> | |
|-----------------|----------------------------|---|----------------------------|
| 14 | 12 1/2" Perforated Strips. | 8 | 12 1/2" Perforated Strips. |
| 10 | 5 1/2" " " | 4 | 3" " " |
| 4 | 3 1/2" " " | 4 | Angle Girders. |
| 8 | 2 1/2" " " | 16 | " Brackets. |
| 4 | Angle Girders. | 1 | 11 1/2" Rod. |
| 34 | " Brackets. | 2 | 2" " |
| 1 | 11 1/2" Rod. | 2 | Crank Handles. |
| 2 | 5 1/2" " " | 2 | Flanged Wheels. |
| 3 | 2" " " | 8 | Flanged Wheels. |
| 3 | Crank Handles. | 1 | 3/4" Pinion Wheel. |
| 8 | Flanged Wheels. | 4 | 1/2" " " |
| 1 | 1" Pulley. | 1 | Gear Wheel. |
| 1 | Bush Wheel. | 52 | Nuts and Bolts. |
| 1 | Pinion. | 6 | Keys. |
| 5 | " " | | |
| 1 | Gear Wheel. | | |
| 1 | Pawl. | | |
| 82 | Nuts and Bolts. | | |
| 1 | Hook. | | |
| 18 | Keys. | | |



Fig. No. 42 Crane

| PARTS REQUIRED. | | <i>List of Parts required in addition to Meccano No. 1.</i> | |
|-----------------|----------------------------|---|----------------------------|
| 18 | 12 1/2" Perforated Strips. | 12 | 12 1/2" Perforated Strips. |
| 14 | 5 1/2" " " | 4 | 5 1/2" " " |
| 2 | 3 1/2" " " | 1 | 3 1/2" " " |
| 14 | 2 1/2" " " | 2 | 2 1/2" " " |
| 40 | Angle Brackets. | 22 | Angle Brackets. |
| 3 | 5" Rods. | 1 | 5" Rod. |
| 5 | 2" " " | 4 | 2" " |
| 2 | Crank Handles. | 1 | Crank Handle. |
| 8 | Flanged Wheels. | 8 | Flanged Wheels. |
| 2 | 1" Pulleys. | 2 | 3/4" Pinions. |
| 2 | 3/4" Pinions. | 2 | Gear Wheels. |
| 1 | " " | 1 | Worm " |
| 2 | Gear Wheels. | 58 | Nuts and Bolts. |
| 1 | Worm Wheel. | 8 | Keys. |
| 1 | Pawl. | | |
| 88 | Nuts and Bolts. | | |
| 1 | Hook. | | |
| 20 | Keys. | | |

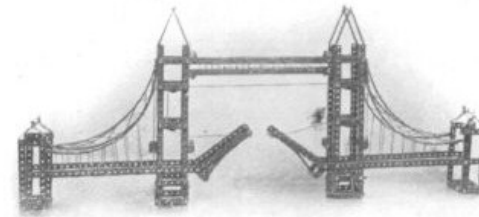


Fig. No. 43. Elevated Jib Crane



| PARTS REQUIRED. | | <i>List of Parts required in addition to Meccano No. 1.</i> | |
|-----------------|----------------------------|---|---------------------------|
| 2 | 12 1/2" Perforated Strips. | 10 | 5 1/2" Perforated Strips. |
| 15 | 5 1/2" " " | 5 | 3 1/2" " " |
| 6 | 3 1/2" " " | 4 | Angle Girders. |
| 2 | 2 1/2" " " | 2 | 11 1/2" Rods. |
| 4 | Angle Girders. | 1 | Crank Handle. |
| 16 | " Brackets. | 1 | 3/4" Pinion. |
| 2 | 11 1/2" Rods. | 1 | Gear Wheel. |
| 1 | 3 1/2" " " | 1 | 1 1/2" Contribute Wheel. |
| 1 | 2 1/2" " " | 1 | Worm Wheel. |
| 2 | Crank Handles. | 33 | Nuts and Bolts. |
| 2 | 1" Pulleys. | 1 | Key. |
| 1 | 1 1/2" Pinion. | | |
| 1 | 1 1/2" " " | | |
| 1 | Gear Wheel. | | |
| 1 | 1 1/2" Contribute. | | |
| 1 | Worm Wheel. | | |
| 63 | Nuts and Bolts. | | |
| 1 | Hook. | | |
| 13 | Keys. | | |

Fig. No. 51. Tower Bridge



| PARTS REQUIRED. | | <i>List of Parts required in addition to Meccano No. 1.</i> | |
|-----------------|----------------------------|---|----------------------------|
| 35 | 12 1/2" Perforated Strips. | 29 | 12 1/2" Perforated Strips. |
| 28 | 5 1/2" " " | 18 | 5 1/2" " " |
| 66 | 2 1/2" " " | 54 | 2 1/2" " " |
| 8 | 1 1/2" " " | 8 | 1 1/2" " " |
| 92 | Angle Brackets. | 74 | Angle Brackets. |
| 5 | 3 1/2" Rods. | 4 | 3 1/2" Rods. |
| 1 | Crank Handle. | 1 | Worm Wheel. |
| 4 | 1" Pulleys. | 184 | Nuts and Bolts. |
| 1 | 1/2" Pinion. | 11 | Wood Screws. |
| 1 | Worm Wheel. | 3 | Keys. |
| 214 | Nuts and Bolts. | | |
| 16 | Wood Screws. | | |
| 15 | Keys. | | |

Fig. No. 50. Eiffel Tower



| PARTS REQUIRED. | | <i>List of Parts required in addition to Meccano No. 1.</i> | |
|-----------------|----------------------------|---|----------------------------|
| 13 | 12 1/2" Perforated Strips. | 7 | 12 1/2" Perforated Strips. |
| 28 | 5 1/2" " " | 18 | 5 1/2" " " |
| 6 | 3 1/2" " " | 5 | 3 1/2" " " |
| 13 | 3 1/2" " " | 13 | 3" " " |
| 40 | 2 1/2" " " | 28 | 2 1/2" " " |
| 82 | Angle Brackets. | 64 | Angle Brackets. |
| 4 | 5" Rods. | 3 | 5" Rods. |
| 1 | 2" " " | 2 | 1 1/2" Pulleys. |
| 2 | 1 1/2" Pulleys. | 1 | 1 1/4" Pinion Wheel. |
| 1 | Bush Wheel. | 1 | Contribute Wheels. |
| 1 | Pinion. | 1 | Worm Wheel. |
| 1 | " " | 158 | Nuts and Bolts. |
| 2 | 1 1/2" Contributes. | | |
| 1 | Worm Wheel. | | |
| 188 | Nuts and Bolts. | | |
| 12 | Keys. | | |

Fig. No. 52. Big Wheel



| PARTS REQUIRED. | | <i>List of Parts required in addition to Meccano No. 1.</i> | |
|-----------------|----------------------------|---|----------------------------|
| 46 | 12 1/2" Perforated Strips. | 40 | 12 1/2" Perforated Strips. |
| 38 | 5 1/2" " " | 28 | 5 1/2" " " |
| 4 | 3 1/2" " " | 3 | 3 1/2" " " |
| 18 | 3 1/2" " " | 18 | 3" " " |
| 26 | 2 1/2" " " | 16 | 2 1/2" " " |
| 8 | Angle Girders. | 8 | Angle Girders. |
| 96 | " Brackets. | 78 | " Brackets. |
| 4 | 11 1/2" Rods. | 1 | 6" Rod. |
| 1 | 6" " " | 6 | Flanged Wheels. |
| 6 | Flanged Wheels. | 1 | 1 1/2" Pulley. |
| 1 | 1 1/2" Pulley. | 3 | Bush Wheels. |
| 4 | Bush Wheels. | 1 | 3/4" Pinion. |
| 1 | 3/4" Pinion. | 1 | Gear Wheel. |
| 1 | Gear Wheel. | 235 | Nuts and Bolts. |
| 268 | Nuts and Bolts. | 3 | Wood Screws. |
| 23 | Keys. | 11 | Keys. |
| 1 | Length of Chain. | 1 | Length of Chain. |
| 8 | Wood Screws. | 4 | 11 1/2" Rods. |

Fig. No. 53. Transporter

| PARTS REQUIRED. | |
|-----------------|-------------------------|
| 20 | 12½" Perforated Strips. |
| 38 | 5½" " " |
| 2 | 3½" " " |
| 33 | 2½" " " |
| 12 | Angle Girders. |
| 32 | " Brackets. |
| 1 | 5" Rod. |
| 1 | 3½" " |
| 1 | Crank Handle. |
| 2 | 1½" Pulley Wheels. |
| 2 | 1" " " |
| 4 | ½" " " |
| 167 | Nuts and Bolts. |
| 7 | Keys. |

List of Parts required in addition to Meccano No. 1.

| | |
|-----|-------------------------|
| 14 | 12½" Perforated Strips. |
| 28 | 5½" " " |
| 1 | 3½" " " |
| 21 | 2½" " " |
| 12 | Angle Girders. |
| 14 | " Brackets. |
| 2 | 1½" Pulley Wheels. |
| 4 | ½" " " |
| 137 | Nuts and Bolts. |



Fig. No. 60. Big Wheel

| PARTS REQUIRED. | |
|-----------------|-------------------------|
| 98 | 12½" Perforated Strips. |
| 193 | 5½" " " |
| 60 | 3½" " " |
| 120 | 3" " " |
| 194 | 2½" " " |
| 198 | Angle Brackets. |
| 6 | 11½" Rods. |
| 6 | Flanged Wheels. |
| 1 | 1½" Pulley. |
| 2 | 1" " " |
| 2 | ¾" Pinions. |
| 3 | Gear Wheels. |
| 890 | Nuts and Bolts. |
| 8 | Wood Screws. |
| 20 | Keys. |
| 1 | Length of Chain. |

List of Parts required in addition to Meccano No. 1.

| | |
|-----|-------------------------|
| 92 | 12½" Perforated Strips. |
| 183 | 5½" " " |
| 59 | 3½" " " |
| 120 | 3" " " |
| 182 | 2½" " " |
| 6 | 11½" Rods. |
| 6 | Flanged Wheels. |
| 1 | 1½" Pulley |
| 3 | 1" Pinion |
| 3 | Gear |
| 860 | Nuts and Bolts. |
| 3 | Wood Screws. |
| 8 | Keys. |
| 1 | Length of Chain. |



Fig. No. 61. Forth Bridge

| PARTS REQUIRED. | |
|-----------------|------------------------|
| 164 | 12½" Perforated Strips |
| 264 | 5½" " " |
| 122 | 3½" " " |
| 112 | 2½" " " |
| 248 | Angle Brackets. |
| 850 | Nuts and Bolts. |

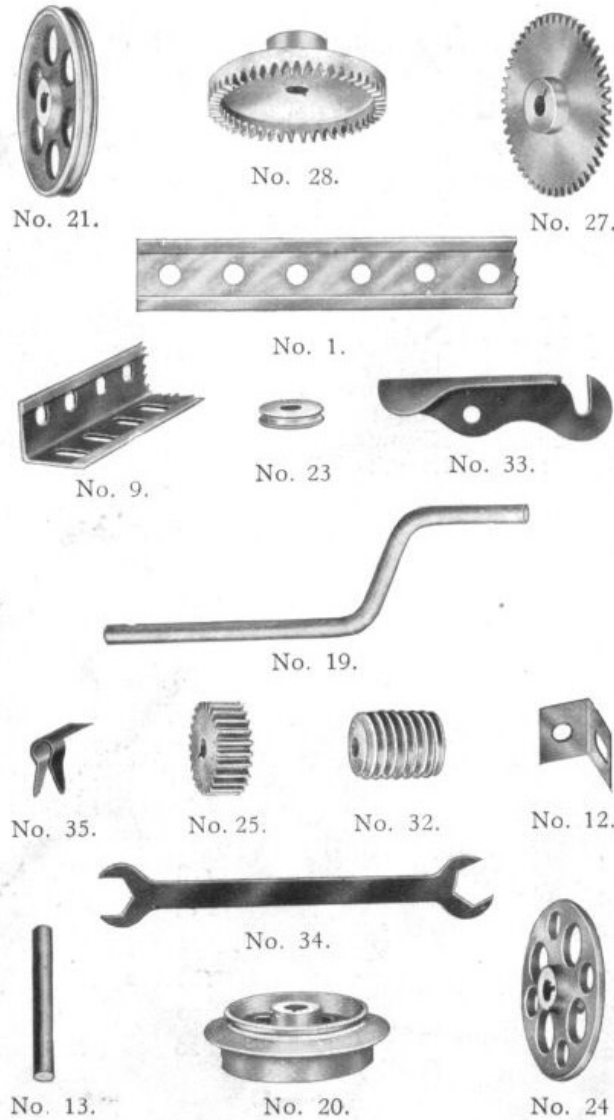
List of Parts required in addition to Meccano No. 1.

| | |
|-----|-------------------------|
| 158 | 12½" Perforated Strips. |
| 254 | 5½" " " |
| 121 | 3½" " " |
| 100 | 2½" " " |
| 230 | Angle Brackets. |
| 820 | Nuts and Bolts. |

Contents of Box

| No. | DESCRIPTION OF PARTS. |
|-----|-------------------------|
| 6 | 12½" Perforated Strips. |
| 10 | 5½" " " |
| 1 | 3½" " " |
| 12 | 2½" " " |
| 18 | Angle Pieces. |
| 2 | 5" Grooved Rods. |
| 1 | 3¼" " " |
| 1 | 2" " " |
| 1 | Crank Handle. |
| 1 | Bush Wheel. |
| 6 | Wheels. |
| 1 | ½" Pinion Wheel. |
| 1 | Pawl. |
| 30 | Nuts and Screws. |
| 5 | Wood Screws. |
| 1 | Hook. |
| 12 | Keys. |
| 1 | Driver. |
| 1 | Hank Cord. |
| 1 | Ball Cord. |
| 1 | Bent Strip. |

Separate Parts



Price List of Additional Parts

| | | | | | s. d. |
|------|---------------------------|------------|-----|----|-----------------|
| 1.— | Perforated Strips | 12½" long | .. | .. | per ½ doz. 0 9 |
| 2.— | " | " | 5½" | " | " " 0 4 |
| 3.— | " | " | 3½" | " | " " 0 3 |
| 4.— | " | " | 3" | " | " " 0 3 |
| 5.— | " | " | 2½" | " | " " 0 3 |
| 6.— | " | " | 2" | " | " " 0 3 |
| 9.— | Angle Girders, | 12½" long | .. | .. | " 1 0 |
| 12.— | Angle Brackets | .. | .. | .. | per dozen 0 6 |
| 13.— | Axle Rod, | 11½" long | .. | .. | .. each 0 3 |
| 14.— | " | 6" | .. | .. | " " 0 2 |
| 15.— | " | 5" | .. | .. | " " 0 2 |
| 16.— | " | 3½" | .. | .. | " " 0 2 |
| 17.— | " | 2" | .. | .. | " " 0 1 |
| 19.— | Crank Handle | .. | .. | .. | " " 0 3 |
| 20.— | Flanged and Grooved Wheel | .. | .. | .. | " " 0 9 |
| 21.— | Pulley Wheel, | 1½" long.. | .. | .. | " " 0 6 |
| 22.— | " | 1" " .. | .. | .. | " " 0 4 |
| 23.— | " | ½" " .. | .. | .. | " " 0 2 |
| 24.— | Bush Wheel | .. | .. | .. | " " 0 6 |
| 25.— | Pinion Wheel, | ¾" long .. | .. | .. | " " 0 9 |
| 26.— | " | ½" " .. | .. | .. | " " 0 6 |
| 27.— | Gear Wheel, | 1½" " .. | .. | .. | " " 0 10 |
| 28.— | Contrite Wheel, | 1½" long | .. | .. | " " 1 3 |
| 29.— | " | ¾" " .. | .. | .. | " " 1 0 |
| 32.— | Worm Wheel | .. | .. | .. | " " 0 9 |
| 33.— | Pawl | .. | .. | .. | " " 0 3 |
| 34.— | Spanner | .. | .. | .. | " " 0 3 |
| 35.— | Keys | .. | .. | .. | per dozen 0 6 |
| 36.— | Turn Screws | .. | .. | .. | .. each 0 3 |
| 37.— | Nuts and Bolts | .. | .. | .. | per 2 dozen 1 0 |
| 39.— | Ball Cord (Special) | .. | .. | .. | .. each 0 2 |
| 40.— | Hank Cord | .. | .. | .. | " " 0 1 |

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Price List

| | | | | | |
|-------|------------------|---|---|---|------|
| No. 1 | . Meccano Outfit | . | . | . | 5/- |
| " 2 | " | . | . | . | 10/- |
| " 3 | " | . | . | . | 15/- |
| " 4 | " | . | . | . | 25/- |
| " 5 | " | . | . | . | 42/- |
| " 6 | " | . | . | . | 84/- |

Lelia Jackson

