

MECCANO

(MECHANICS MADE EASY)



MANUAL OF INSTRUCTIONS

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Outfits

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BRITISH MANUFACTURE.

MECCANO LIMITED

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LIVERPOOL"

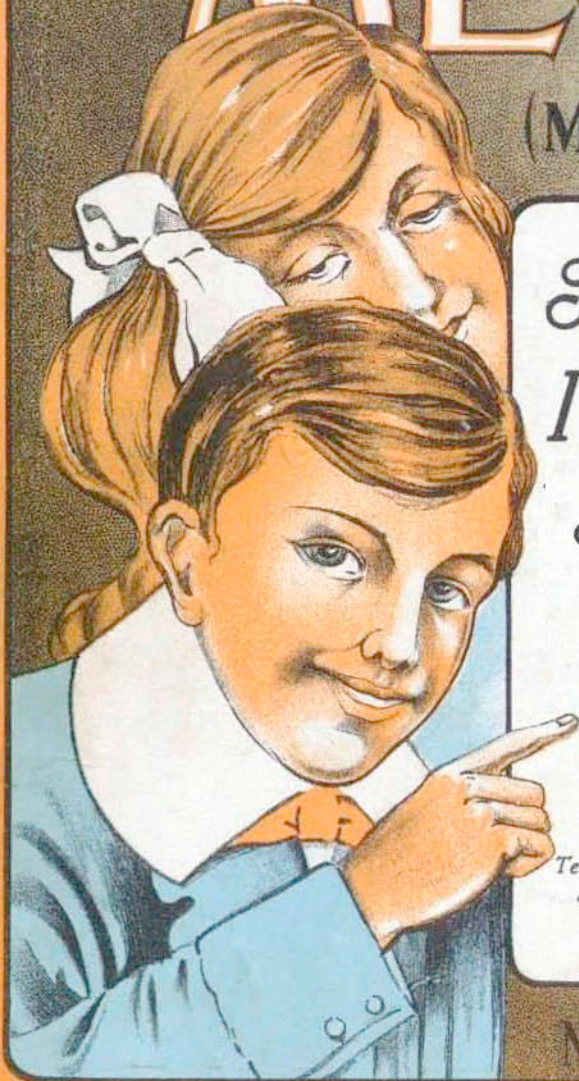
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FULLY PATENTED
IN ENGLAND
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MECCANO
may be had in
Six Progressive
Boxes to make up
these & many
other Models.

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.

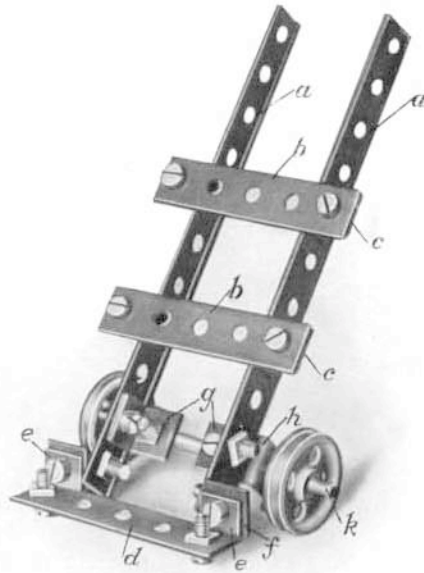
Parents will find co-operation with the Children an interesting and stimulating exercise and in many instances a pleasant mode of exercising their own inventive faculties.

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.

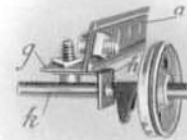
Successive lengths of strips may be united together by means of one or, where a very rigid connection is required, two bolts.

Figure No. 1. Luggage Truck



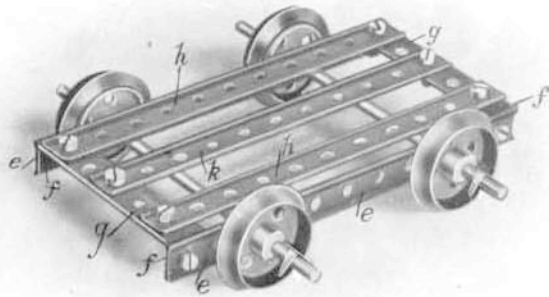
PARTS REQUIRED.

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	$5\frac{1}{2}$ "	Perforated Strips.
2	$2\frac{1}{2}$ "	" "
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 $5\frac{1}{2}$ " strip E and attach by means of screws and nuts an angle piece F at each end. Then take a second $5\frac{1}{2}$ " 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 $2\frac{1}{2}$ " strips G at right angles to the $5\frac{1}{2}$ " strips forming the sides, and over these short strips G lay two $5\frac{1}{2}$ " 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 $5\frac{1}{2}$ " 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.

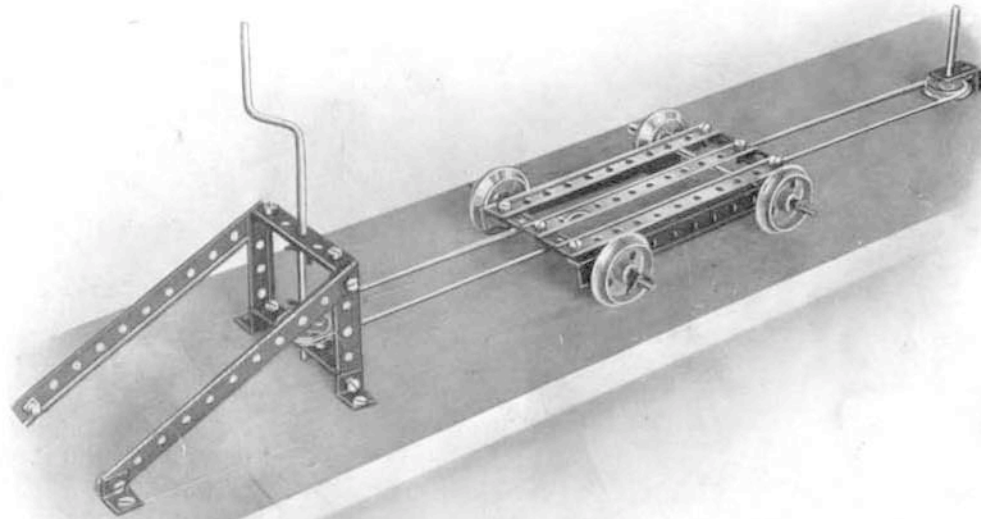
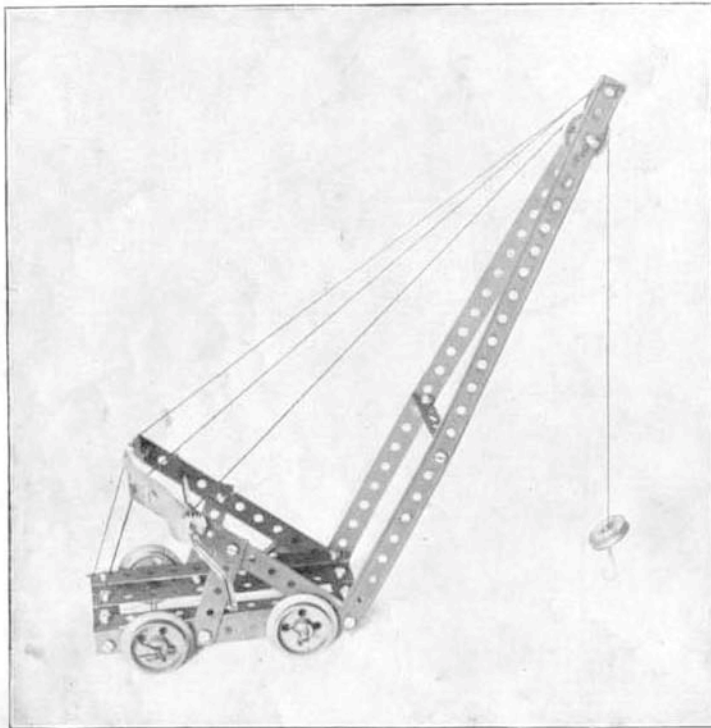


Fig. No. 4. Travelling Jib Crane



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.

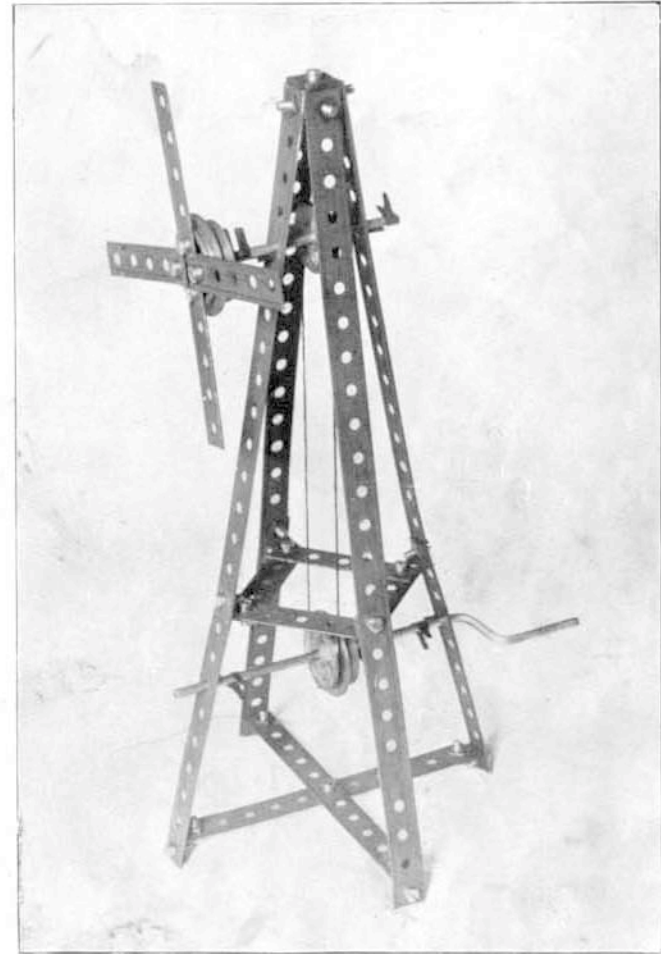
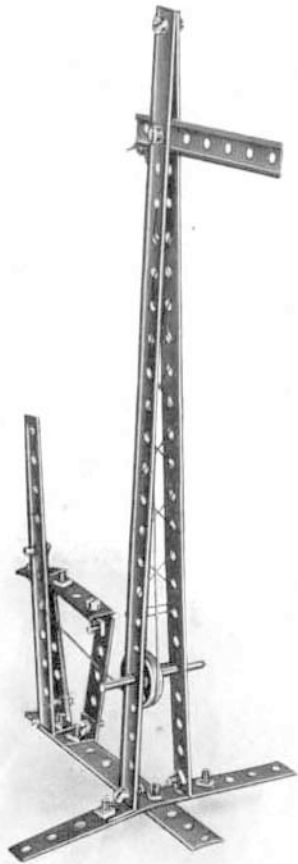


Fig. No. 6. Railway Signal



PARTS REQUIRED.

2	12½"	Perforated Strips.
3	5½"	" "
1	3½"	" "
3	2½"	" "
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. 1.

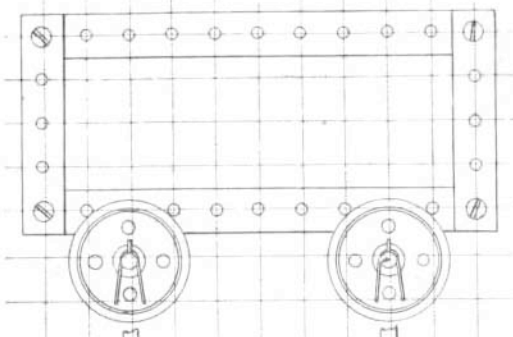


Fig. 2.

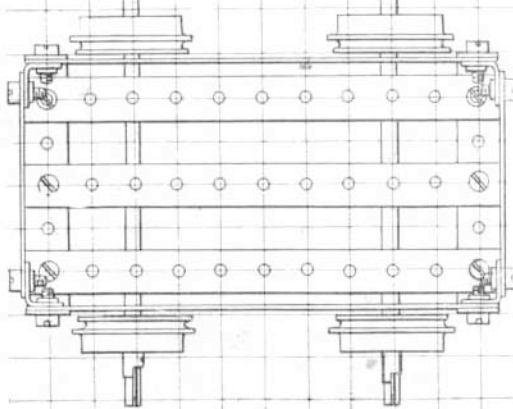


Fig. 3.

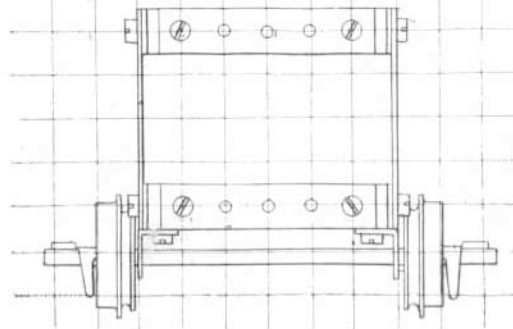
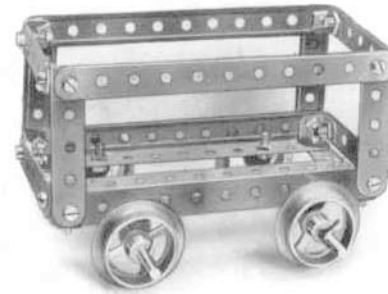


Fig. No. 7. Truck



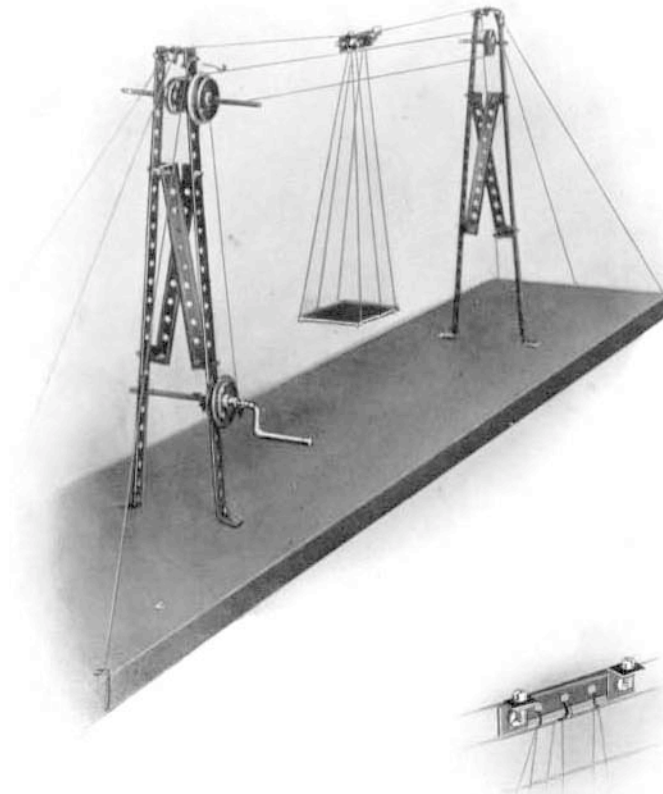
PARTS REQUIRED.

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	12 $\frac{1}{2}$ "	Perforated Strips.
4	5 $\frac{1}{2}$ "	" "
1	2 $\frac{1}{2}$ "	" "
18		Angle Brackets.
1	3 $\frac{1}{2}$ "	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.

Fig. No. 13. Luggage Barrow.

(MADE WITH MECCANO OUTFIT NO. 2 OR NO. 1 AND NO. 1A)

PARTS REQUIRED.

6	$5\frac{1}{2}$ "	Perforated Strips.
13	$2\frac{1}{2}$ "	" "
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	$2\frac{1}{2}$ "	Perforated Strip.
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Our illustration clearly shows how this model is built up, and no difficulty should be experienced with it. The two angle pieces C are connected together by two overlapping $2\frac{1}{2}$ " strips in F. The wheel is held in place by two keys which have their feathers turned *away* from the wheel, thus forming collars between which the wheel rotates.

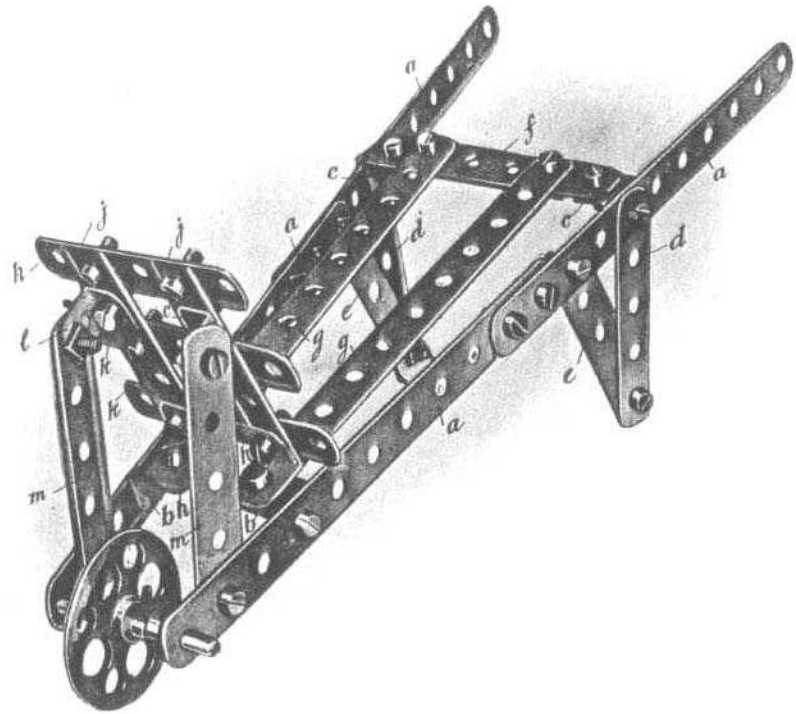


Fig. No. 14. Revolver Truck.

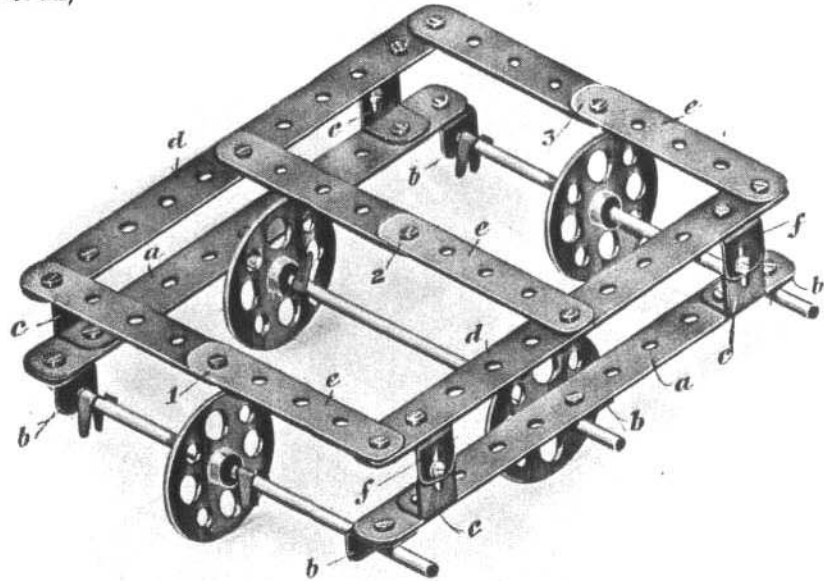
(MADE WITH MECCANO OUTFIT NO. 2 OR NO. 1 AND NO. 1A)

PARTS REQUIRED.

- 4 $5\frac{1}{2}$ " Perforated Strips.
- 6 $2\frac{1}{2}$ " " " "
- 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.



In a Revolver Truck the two end wheels are always raised just a little higher than the two centre wheels. This enables the truck to be quickly revolved upon the centre wheels. The construction of this model is clearly shown in our illustration.

Fig. No. 15. Railway Wagon.

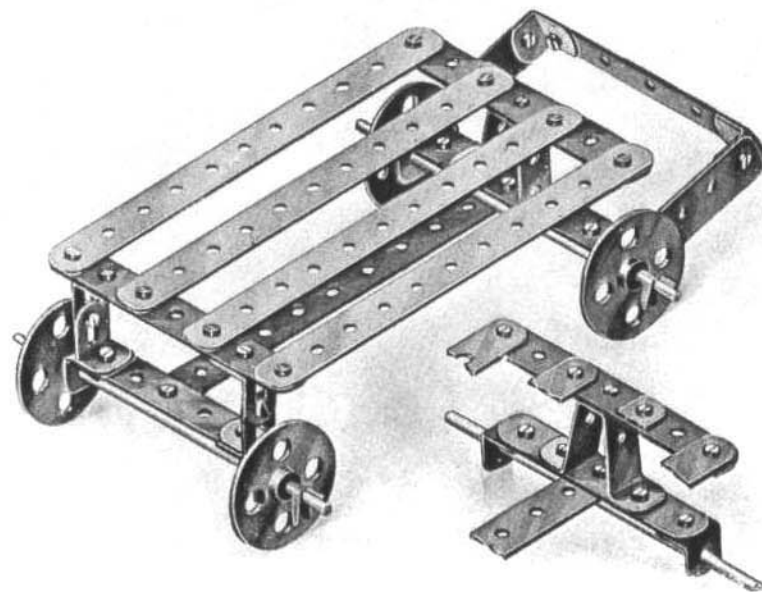
(MADE WITH MECCANO OUTFIT NO. 2 OR NO. 1 AND NO. 1A)

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.
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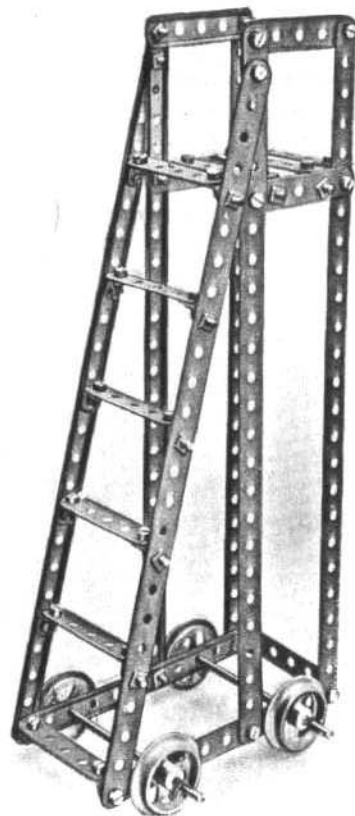


A very simple and attractive working model. The front swivelling support, of which a separate view is given, is formed from a 2½" strip bent to the shape indicated in the drawing. The rear axle frame is formed from a 2½" strip, and is held to the platform by two pairs of angle pieces. Both axles are carried in inverted angle pieces.

Fig. No. 16. Ladder on Wheels.

(MADE WITH MECCANO OUTFIT NO. 2 OR NO. 1 AND NO. 1A)

PARTS REQUIRED.		<i>List of Parts required in addition to Meccano No. 1.</i>	
6	12½" Perforated Strips.	1	2½" Strip.
2	5½" " "	18	Nuts and Bolts.
13	2½" " "		
18	Angle Brackets.		
2	5" Rods.		
4	Wheels.		
48	Nuts and Bolts.		
4	Keys.		



(MADE WITH MECCANO OUTFIT NO. 2 OR NO. 1 AND NO. 1A)

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.

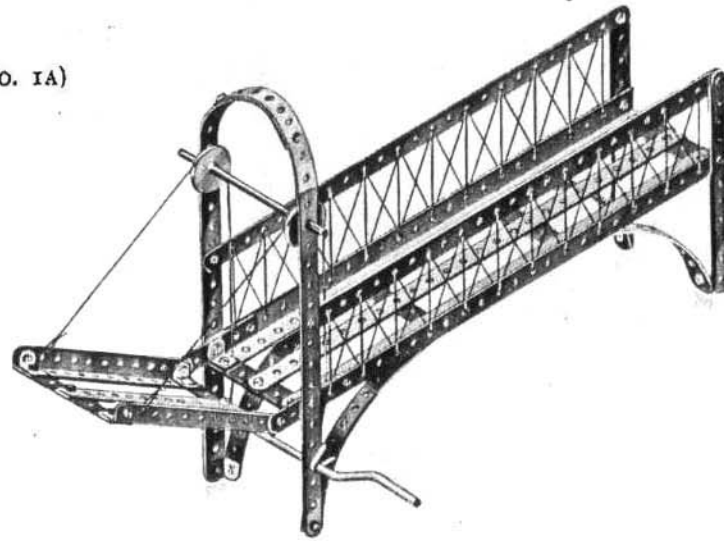


Fig. No. 18. Travelling Jib Crane

This is so important a model that we have thought it best to give a detailed description of it, making use of engineering terms. It can be erected from a study of the illustration alone, but we strongly recommend our enthusiastic young friend to carefully read our instructions, and to make himself familiar with the correct technical description and terms. This model will well repay the time expended on a close and careful study.

The lower horizontal sides of the crane should first be put together. Each side consists of an angle girder joined to a rectangular plate, two holes overlapping. The winch frame at the end is formed of two sector plates bolted to the rectangular plate and connected together at their tops by two $2\frac{1}{2}$ " strips. The wheel axles are inserted through appropriate holes in the ends of the horizontal frame.

The bearings for the winch handle are formed by two holes in the sector plates; the winch handle has a pinion, and a ratchet is pivoted to the right-hand sector plate. A brake wheel and lever may be added if desired.

Each side of the jib is constructed of two $12\frac{1}{2}$ " strips, jointed together by overlapping; at the top where the sides meet a pulley is fixed on a short length of spindle, and at the bottom the two sides are respectively screwed to the two ends of the horizontal base.

The jib is braced by two diagonally arranged $12\frac{1}{2}$ " strips attached to the sides of the jib by angle pieces.

From each side of the jib two $12\frac{1}{2}$ " strips are carried to a truss member, formed of two $12\frac{1}{2}$ " strips united together, secured at one end to the screws at the base of the jib, and united at their other ends by a $2\frac{1}{2}$ " strip. The truss frame is connected to the horizontal base by two $5\frac{1}{2}$ " strips as shown.

The rope by which the weight is raised has one end fixed to the end of the jib; it is then passed round the pulley block, then over the jib pulley, and finally connected to the winch handle.

The crane is further strengthened by strings to represent tie rods, which connect the ends of the jib, the truss frame, and the winch frame as shown. If possible, the joint between the truss frame, the side frame, and the jib, should be made with a single pair of screws which should also carry the angle pieces for the cross bracing of the crane.

PARTS REQUIRED.	
12	$12\frac{1}{2}$ " Perforated Strips.
14	$5\frac{1}{2}$ " " "
5	$2\frac{1}{2}$ " " "
16	Angle Brackets.
2	$5\frac{1}{2}$ " Rods.
2	$\frac{1}{2}$ " "
1	Crank Handle.
6	Wheels.
1	Bush Wheel.
1	$\frac{1}{2}$ " Pinion.
1	Pawl.
38	Nuts and Bolts.
1	Hook.
10	Keys.

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

6	$12\frac{1}{2}$ " Perforated Strips.
4	$\frac{1}{2}$ " " "
1	Rod.
8	Nuts and Bolts.

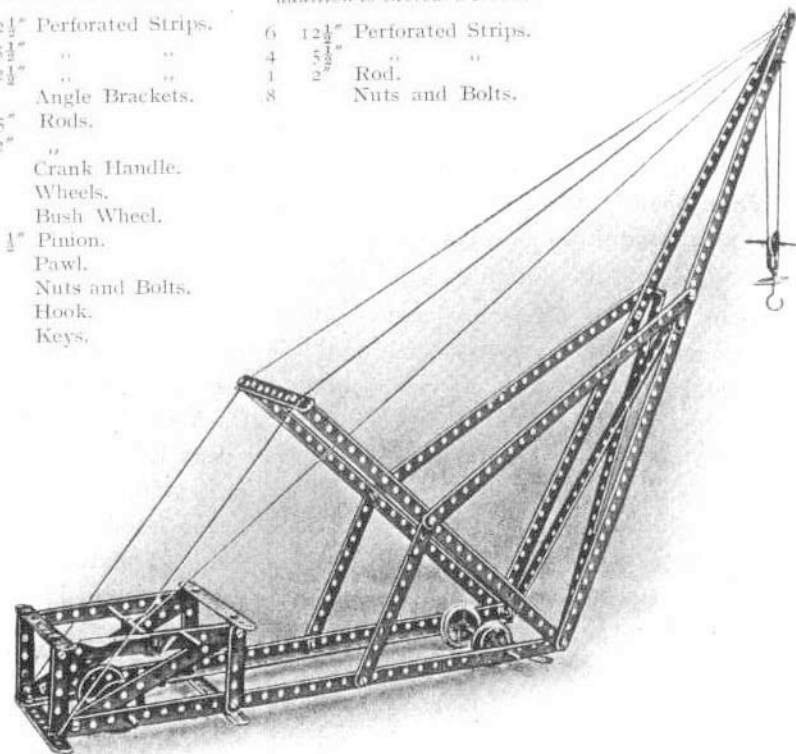


Fig. No. 19. Warehouse with Hoist

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.

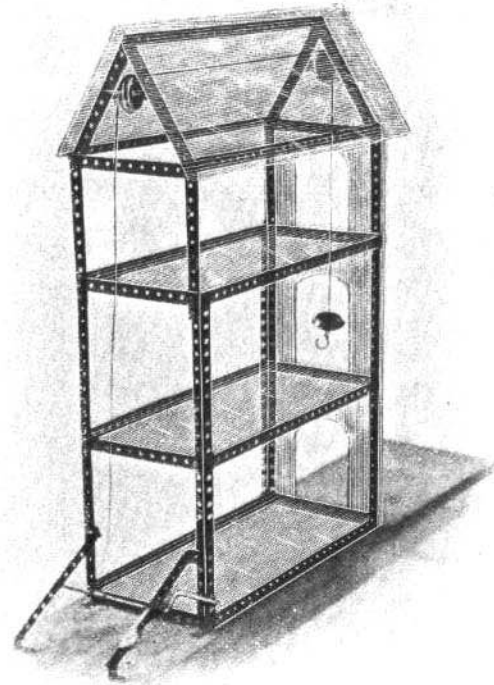


Fig. No. 20. Wheel

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.

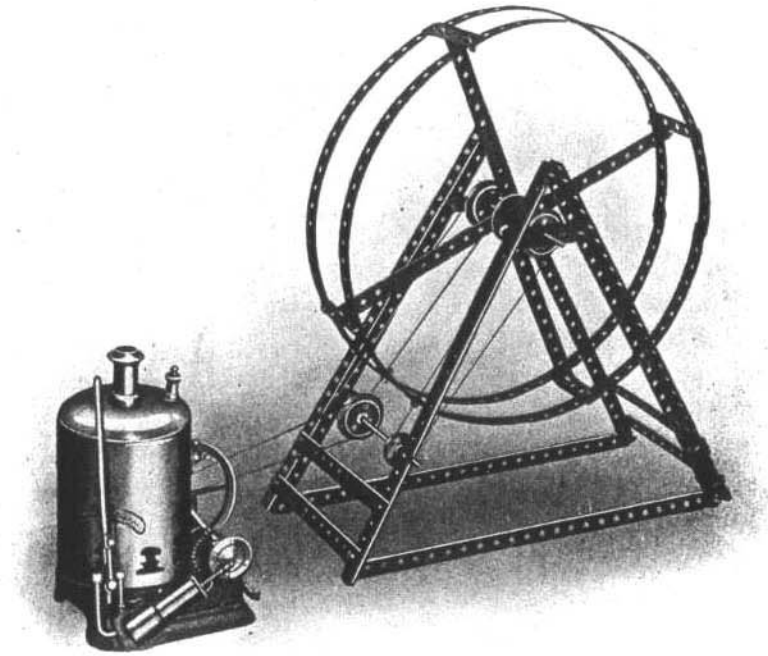


Fig. No. 30. Cable Railway

PARTS REQUIRED.	
6	5 1/2" Perforated Strips.
6	" "
12	" "
4	Angle Girders.
18	Brackets.
4	Rods.
1	Pulley.
2	" "
1	Pinions.
1	Gear Wheel.
2	Contrite Wheels.
44	Nuts and Bolts.
12	Wood Screws.
13	Keys.

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

5	3 1/2" Perforated Strips.
4	Angle Girders.
2	5" Rods.
1	1 1/2" Pulley Wheel.
2	1 1/2" Pinions.
1	Gear Wheel.
2	3/4" Contrite Wheels.
14	Nuts and Bolts.
7	Wood Screws.
1	Key.

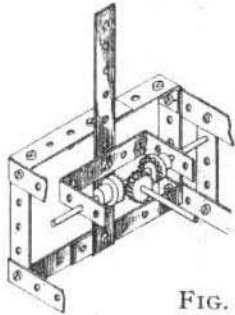


FIG. 30 b

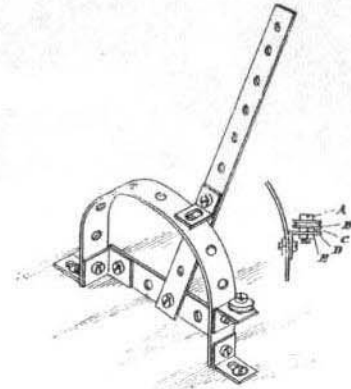
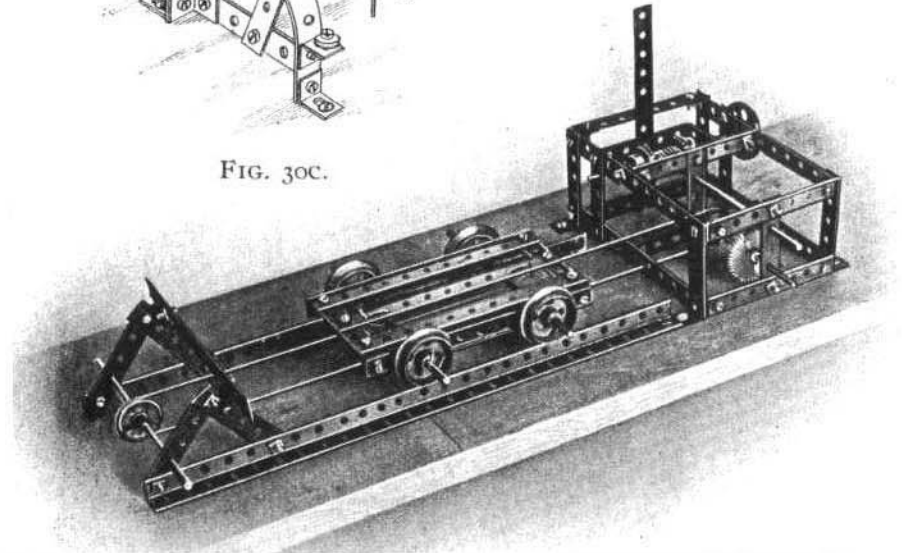


FIG. 30 c.



Our illustration hardly does this excellent model justice, owing to the parts having to be so crowded together. This is a very fine model, both instructive and highly interesting.

The driving power is received at the outer 1 1/2" pulley, and is transmitted through the clutch mechanism and the pinion and gear wheels to the lower spindle on which the driving pulley is fixed, the driving rope passing round this pulley and the second pulley at the end of the rails, all as shown in the drawing.

In fixing the lever for operating the clutch mechanism, the nuts should be locked to prevent the screw working out. Only one section of rails is shown in the design, but they may be extended as desired.

Fig. No. 31. Warehouse with Elevator

PARTS REQUIRED,		<i>List of Parts required in addition to Meccano No. 1.</i>	
9	12½" Perforated Strips.	3	12½" Perforated Strips.
16	5½" " "	5	5½" " "
4	3½" " "	3	3½" " "
16	2½" " "	4	2½" " "
4	Angle Girders.	4	Angle Girders.
42	" Brackets.	24	" Brackets.
1	5" Rod.	1	2" Rod.
1	3½" "	1	¾" Pinion Wheel.
1	1½" "	1	Gear "
1	Crank Handle.	38	Nuts and Bolts.
2	Pulley Wheels.	5	Wood Screws.
1	¾" Pinion.		
1	Gear Wheel.		
1	Pawl.		
68	Nuts and Bolts.		
10	Wood Screws.		
9	Keys.		
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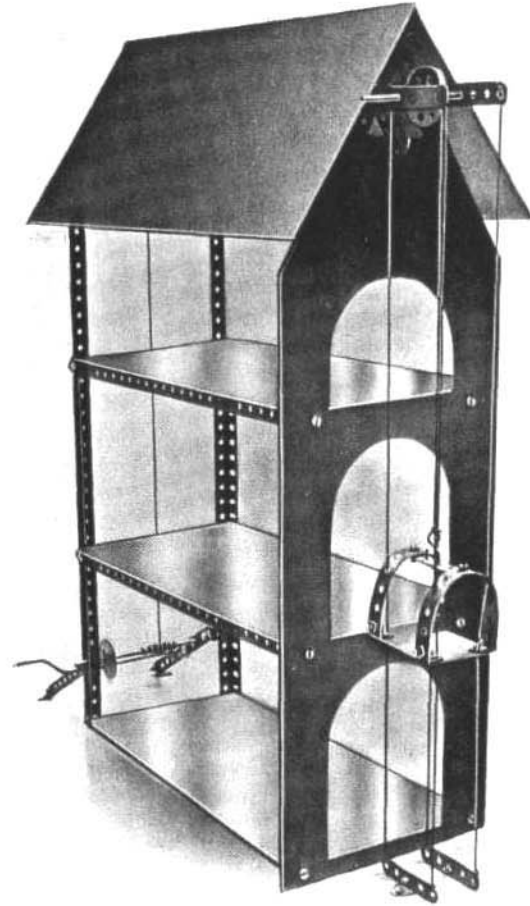
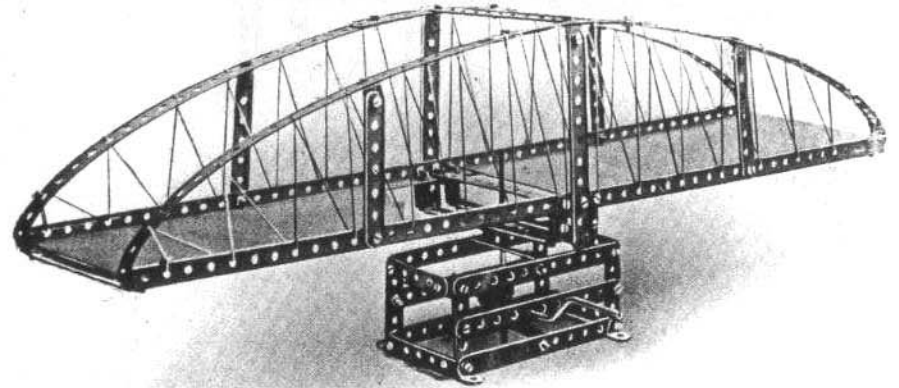


Fig. No. 32. Swing Bridge

PARTS REQUIRED.			
4	1 3/4"	Perforated Strips.	1 Crank Handle.
10	5/8"	" "	1 Bush Wheel.
4	3 1/2"	" "	1 1/2" Pinion.
10	2 1/2"	" "	1 Worm Wheel.
4		Angle Girders.	78 Nuts and Bolts.
34		Brackets.	6 Keys.
1	5"	Rod.	
<i>List of Parts required in addition to Meccano No. 1.</i>			
6	5 1/4"	Perforated Strips.	16 Angle Brackets.
3	3 1/2"	" "	1 Worm Wheel.
4		Angle Girders.	48 Nuts and Bolts.



This is a fine engineering model of [the highest value to the young student, and any thought and care expended on its construction will be well repaid.

The base portion containing the perpendicular axle actuated by the worm and pinion should be constructed first. This, as will be seen by the illustration, is formed by connecting three 5 1/4" strips in alternate holes to two 2 1/2" strips, with an angle bracket at each corner to form one side. The other side is constructed in a similar manner. These two sides are then connected together by a 2 1/2" strip at each end, top and bottom. A 2 1/2" strip is then connected by two angle brackets to the two bottom 5 1/4" strips in the centre hole, and one in a similar position to the two top 5 1/4" strips. These carry the perpendicular axle upon which the bridge swings. A 1/2" pinion is keyed to this axle, which is operated by the horizontal spindle upon which is keyed a worm wheel. The platform is constructed by connecting two angle girders in the third holes, then bending two 1 2 1/2" strips and one 5 1/4" strip to form the top side, which is connected to each end of the angle girders. This is further strengthened by attaching two 3 1/2" strips and one 5 1/4" strip as shown in the illustration, thus forming one side. The other side is formed similarly, and both are connected together by 5 1/4" strips at each end. The upper platform, it will be noticed, has, besides, the framework forming the continuous floor, a secondary and shorter lower framework formed by two 5 1/4" strips connected at each end by two angle brackets. Into the centre of this lower framework is built the bush wheel upon which the platform rotates.

Fig. No. 33. Tower Waggon

PARTS REQUIRED.		<i>List of Parts required in addition to Meccano No. 1.</i>		
10	12 $\frac{1}{2}$ " Perforated Strips.			10
20	5 $\frac{1}{2}$ " " "	4	12 $\frac{1}{2}$ " Perforated Strips.	20
12	2 $\frac{1}{2}$ " " "	10	5 $\frac{1}{2}$ " " "	4
8	Angle Girders.	8	5 $\frac{1}{2}$ " Angle Girders.	1
24	" Brackets.	6	" Brackets.	10
1	6" Rod.	1	6" Rod.	8
4	5" Rods.	2	5" Rods.	20
1	Crank Handle.	1	1 $\frac{1}{2}$ " Pulley Wheel.	1
5	Wheels.	1	1 $\frac{1}{4}$ " Pinion.	1
1	1 $\frac{1}{2}$ " Pulley.	1	Gear Wheel.	1
1	$\frac{3}{4}$ " Pinion.	44	Nuts and Bolts.	1
1	Gear Wheel.			1
1	Pawl.			1
74	Nuts and Bolts.			1
12	Keys.			76
				6

(12)

This is a representation of a wagon used for repairing overhead electrical wires carrying the current for street cars. Each part is shown clearly in our illustration, and little difficulty will be experienced in its construction.

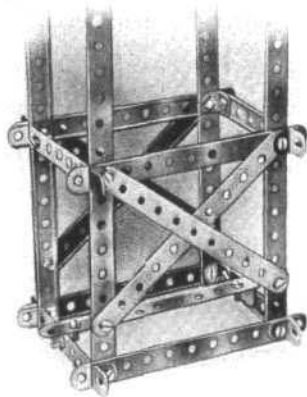
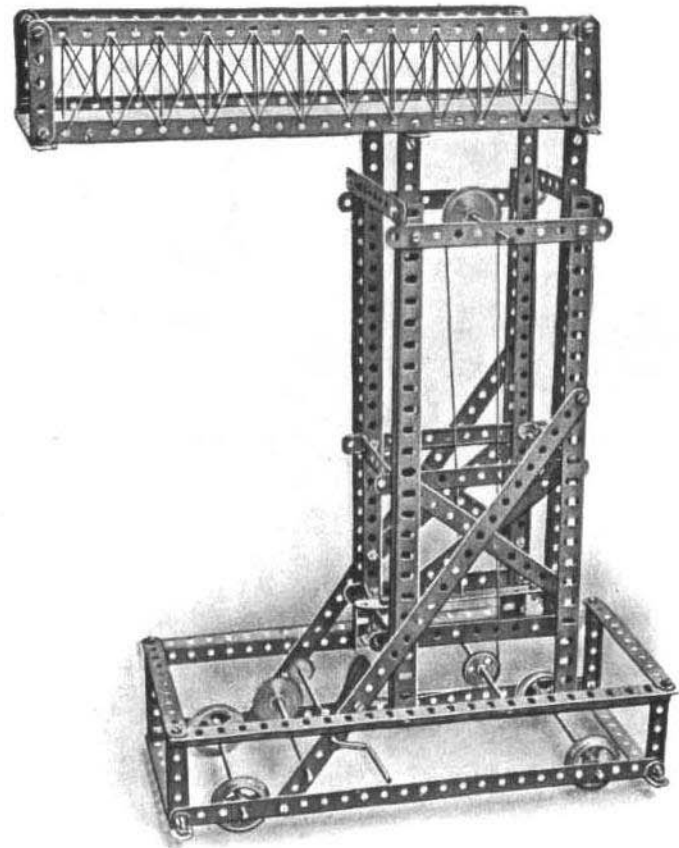


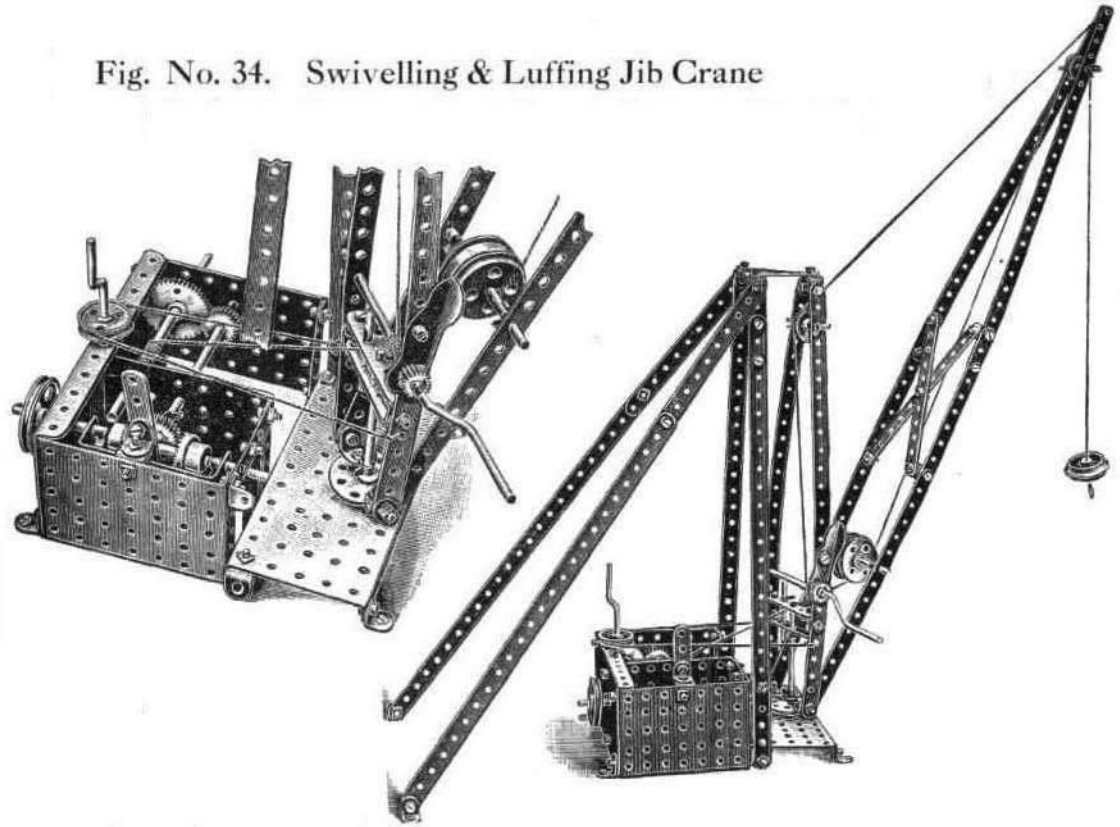
Fig. No. 34. Swivelling & Luffing Jib Crane

PARTS REQUIRED.

12	12½"	Perforated Strips.	2	¾"	Pinions.
8	5½"	"	1	½"	"
4	3½"	"	1		Gear Wheel.
8	2½"	"	2	¾"	Contrites.
35		Angle Brackets.	1		Pawl.
3	5"	Rods.	71		Nuts and Bolts.
1	3½"	"	6		Wood Screws.
2	2"	"	1		Hook.
1		Crank Handle.	19		Keys.
2	1½"	Pulleys.	19		Keys.
2	1"	"			

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

6	12½"	Perforated Strips.	2	¾"	Pinions.
3	3½"	"	1		Gear Wheel.
17		Angle Brackets.	2	¾"	Contrite Wheels.
1	5"	Rod.	41		Nuts and Bolts.
1	1"	"	1		Wood Screw.
2	1½"	Pulley Wheels.	7		Keys.



This model is interesting as affording an example of a crane used to transport the load from, say, a ship's deck on to a quay, by "luffing" or altering the angle of the jib. The apparatus consists of two parts, a fixed frame and a swivelling and luffing jib. The construction of the fixed frame with the reversing frame and lever should present no difficulties.

The two 12½" upright strips are braced together as shown, and are held in vertical position by the two 12½" connected to two 5½" strips rear-wardly sloping pieces, and from the structure so formed the reversing frame is carried.

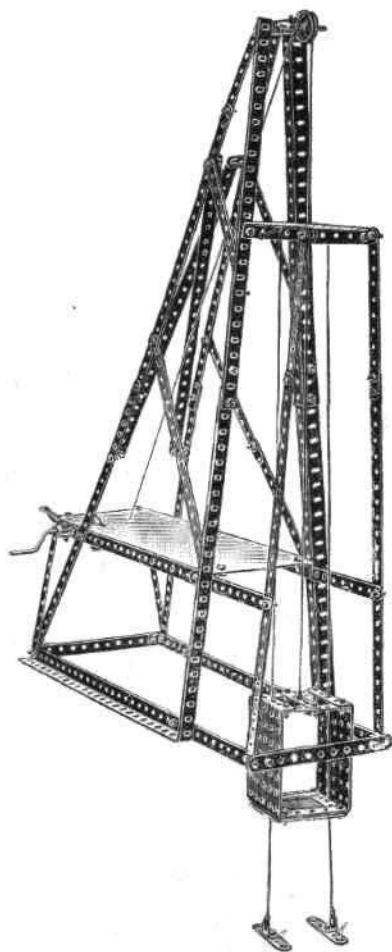
The swivelling piece of the jib consists of two 12½" strips bent as shown, connected at the bottom by a bush wheel and at the sixth hole up by two 2½" strips. A 4½" rod is passed through the centre hole of these 2½" strips, and the bush wheel into the bottom plate to form the lower pivot; the upper pivot is formed with an angle bracket, having a screw, carried in the triangle formed of 2½" strips attached to the fixed frame.

The jib itself consists of two pairs of 12½" strips connected and braced together as shown. The jib luffs about its connection to the swivelling frame, and is thus capable of two motions—a swivelling motion and a luffing motion.

The luffing motion is effected by the luffing rope, which is coiled round the handle shown, and then passes round the pulley at the top of the swivelling frame, the other end being attached to the head of the jib. In order to keep the hoisting rope in position when the crane is swivelled, the two guide rods carried on the swivelling frame are provided.

By operating the luffing handle the jib may be put at any angle from nearly horizontal to nearly vertical, the crane thus acting as a transporter of the load.

Fig. No. 35. Pit Head Gear



PARTS REQUIRED.	
10	12 1/2" Perforated Strips.
20	5 1/2" " "
4	3 1/2" " "
1	3" " "
10	2 1/2" " "
8	Angle Girders.
20	" Brackets.
1	5" Rod.
1	2" " "
1	Crank Handle.
1	1 1/2" Pulley.
1	1 1/2" Pinion.
1	" " "
1	Gear Wheel.
1	Pawl.
76	Nuts and Bolts.
6	Keys.

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

4	12 1/2" Perforated Strips.
10	5 1/2" " "
3	3 1/2" " "
1	3" " "
8	Angle Girders.
2	" Brackets.
1	1 1/2" Pulley Wheel.
1	3/4" Pinion.
1	Gear Wheel.
46	Nuts and Bolts.

This is a most interesting model, showing the principle upon which minerals are raised from below the ground.

The front main uprights are formed by two angle girders overlapped in the third hole. Each of these two uprights are fastened together at the top by two angle brackets. Two 2 1/2" strips are bolted horizontally at the top to carry the wheel over which the winding rope runs, and to connect the diagonal stays. To stiffen the structure one 5 1/2" strip is fixed on each side connected in the eighteenth hole down on the upright, and the eleventh hole down on the stays. Two more 5 1/2" strips are bolted together, and fastened on each side lower down.

The framework in which the cage moves is formed by connecting a 5 1/2" strip with a 12 1/2" strip in the second hole to form the uprights. These are connected by 5 1/2" strips to the main uprights. The framework takes the same angle as the main uprights, and is connected at the top by a small rectangular plate and two angle brackets, and at the bottom by a 5 1/2" strip.

The cage is formed by connecting two small rectangular plates by two 2 1/2" strips at the top and bottom. Another 2 1/2" strip is bolted in the centre at the top, to which is attached the hoisting rope.

The guide ropes are connected to the small rectangular plate at the top of the framework, passed through the holes at each side of the cage, and connected with two 2 1/2" strips screwed to the floor.

The hoisting mechanism is operated by the crank handle, upon which is keyed a 3/4" pinion engaging a gear wheel connected with the spindle over which the hoisting rope is wound.

Fig. No. 36. Level Crossing Gates

PARTS REQUIRED.		<i>List of Parts required in addition to Meccano No. 1.</i>	
18	5½" Perforated Strips,	8	5½" Perforated Strips.
4	3½" " "	3	3½" " "
17	2½" " "	5	2½" " "
6	Angle Girders.	6	Angle Girders.
32	" Brackets.	14	" Brackets.
4	Pulley Wheels.	45	Nuts and Bolts.
75	Nuts and Bolts.		

This model, if constructed with care, is a most admirable one, as the gates are opened simultaneously by the operation of one lever.

To construct it, commence by taking two angle girders and connecting them together in the second hole at each end with a 5½" strip placed perpendicularly between them to form the supports of one pair of gates as shown in Figure A. The supports for the other pair of gates are arranged in a similar manner. These two structures are connected by two other angle girders, and braced by four 3½" cross pieces as shown in the illustration.

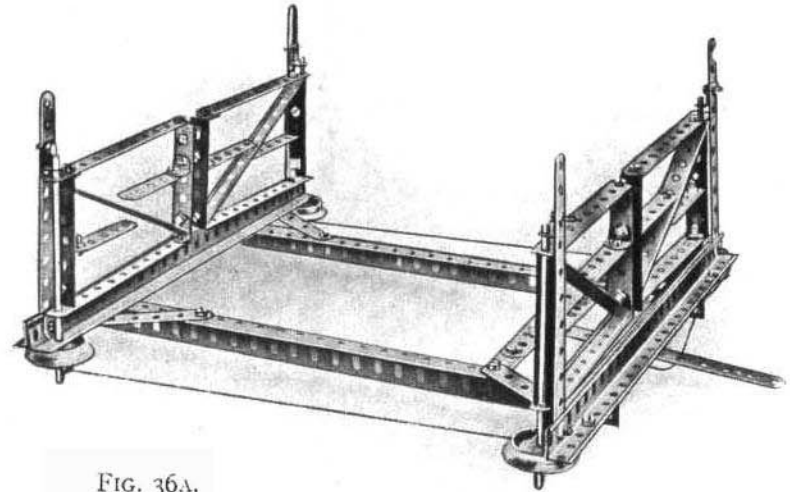


FIG. 36A.

The gates are formed by connecting two 5½" strips with a 2½" strip and angle brackets in the end holes at one side. At the other side the 2½" strip is connected in the second holes from the end to permit the axle rod to pass through upon which the gate swings.

Figure 36B is an inverted perspective view showing the arrangement of operating cord 1 which is passed from the operating lever 2, around the corner pulleys 3, and back to the lever 2. In order to obtain a better grip on the pulleys, it is desirable to wind the operating cord twice around them. It is to be noted that the cord 1 is wound in opposite directions around the diagonal pairs of pulleys 3.

Figure C is a side detail showing the method in which the operating pulley 3 is keyed upon the spindle 4 by the key 5. The gate 6 rests upon the angle bracket 7, and a pinching screw 8 is fitted in the inner side to grip it to the spindle 4, so that all rotate together.

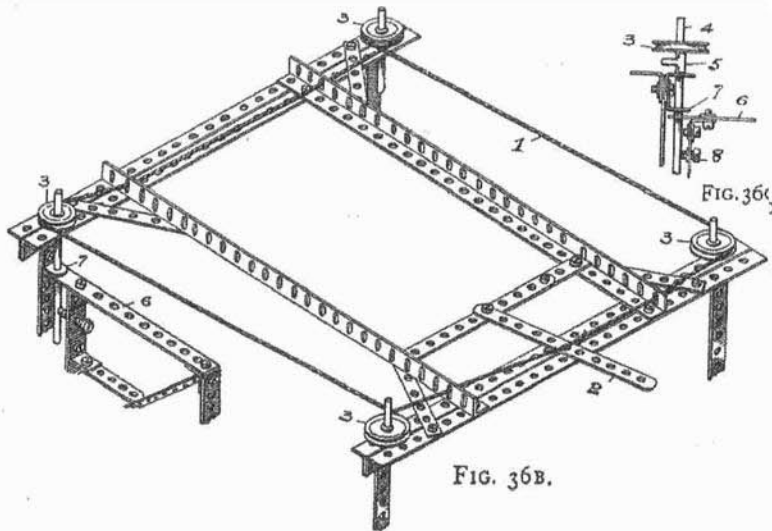


FIG. 36B.

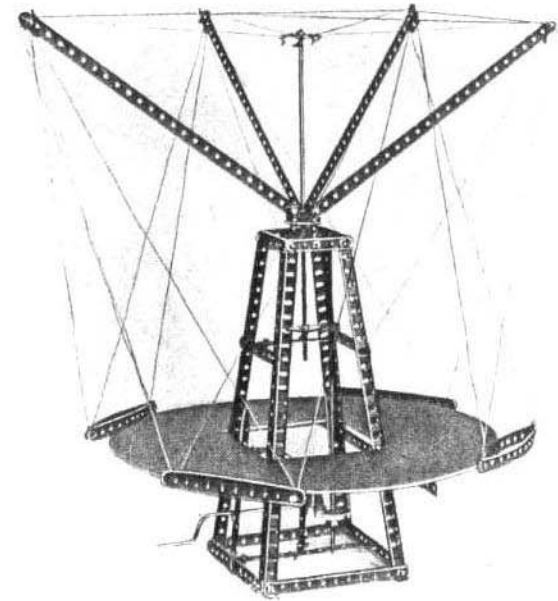
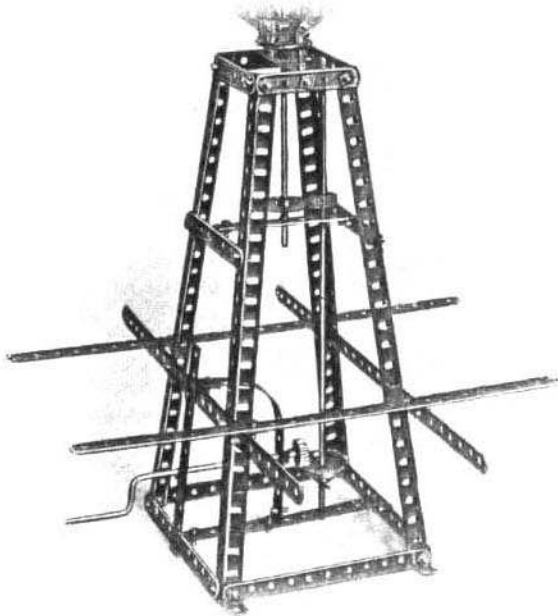
Fig. No. 40. Maxim Flying Machine

PARTS REQUIRED.

8	12½" Perforated Strips.	2	¾" Pinions.
15	5½" " "	1	Gear Wheel.
3	3½" " "	1	1½" Contrite.
4	2½" " "	72	Nuts and Bolts.
4	Angle Girders.	4	Wood Screws.
18	" Brackets.	8	Keys.
2	11½" Rods.		
1	Crank Handle.		
2	Bush Wheels.		

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

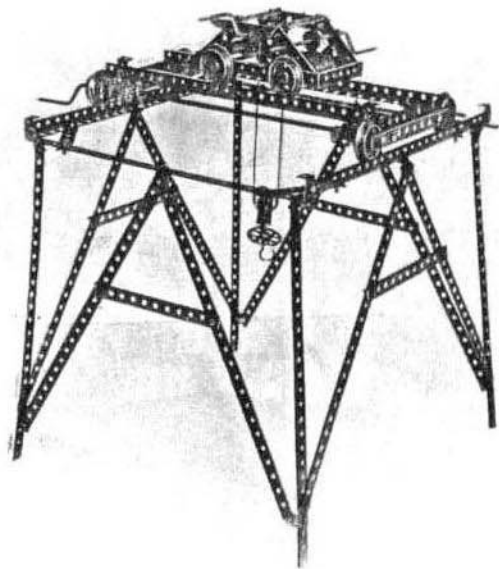
2	12½" Perforated Strips.
5	5½" " "
2	3½" " "
4	Angle Girders.
2	11½" Rods.
1	Bush Wheel.
2	¾" Pinion Wheels.
1	Gear Wheel.
1	1½" Contrite Wheel.
42	Nuts and Bolts.



Most boys will have seen the Maxim Flying Machine at work, and will hardly fail to be interested in constructing a working model of it.

The main frame is composed of four angle girders connected at the bottom by two large rectangular plates separated one hole apart and connected together by two small rectangular plates carrying the crank handle, and at the top by a small rectangular plate. Across the centre on opposite sides in the ninth hole down is attached a 3½" strip connected together by a 5½" strip. These transverse 3½" and 5½" strips and the small rectangular plate at the top carry the perpendicular spindle upon which the upper structure revolves. A flanged wheel is keyed to this spindle to support the four arms, which are attached by four angle brackets. The arms are supported by means of 5½" strips connected to a bush wheel keyed on to the spindle, and the boats are connected to these by string arranged as shown in the illustration. The platform is supported by four 12½" strips attached to the sides of the main framework. The manner of constructing the mechanism for operating the model is clearly shown in the illustration.

Fig. No. 41. Travelling Crane



Separate views are given of three distinct parts composing the travelling crane. The first view, Fig. 41A, shows the braced gantry structure carrying a rail at each side. The two pairs of running wheels in the travelling gantry, Fig. 41B, must be keyed on the small axles, so as to fit the gauge of these rails. The gantry is caused to travel to and fro on these rails by rotating the cranked axle. The winch, Fig. 41C, again, is arranged to run on the gantry rails of Fig. 41B, and is provided with a hoisting axle, and one for traversing the winch.

Fig. 41 shows a general arrangement of the complete model.

PARTS REQUIRED.

14	12 1/4"	Perforated Strips.
10	5 3/8"	" "
4	3"	" "
8	2 1/4"	" "
4		Angle Girders.
34		" Brackets.
1	11 3/8"	Rod.
2	5 3/8"	" "
3	12"	" "
8		Crank Handles.
1		Flanged Wheels.
1	1"	Pulley.
1		Bush Wheel.
1		Pinion.
5		" "
1		Gear Wheel.
1		Pawl.
82		Nuts and Bolts.
1		Hook.
18		Keys.

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

8	12 1/4"	Perforated Strips.
4	3"	" "
4		Angle Girders.
16		" Brackets.
1	11 1/2"	Rod.
2	2"	" "
2		Crank Handles.
8		Flanged Wheels.
1	3/4"	Pinion Wheel.
4	1/2"	" "
1		Gear Wheel.
52		Nuts and Bolts.
6		Keys.

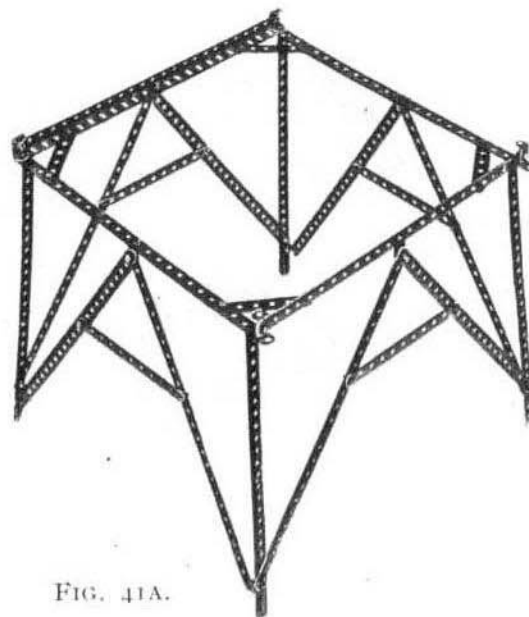


FIG. 41A.

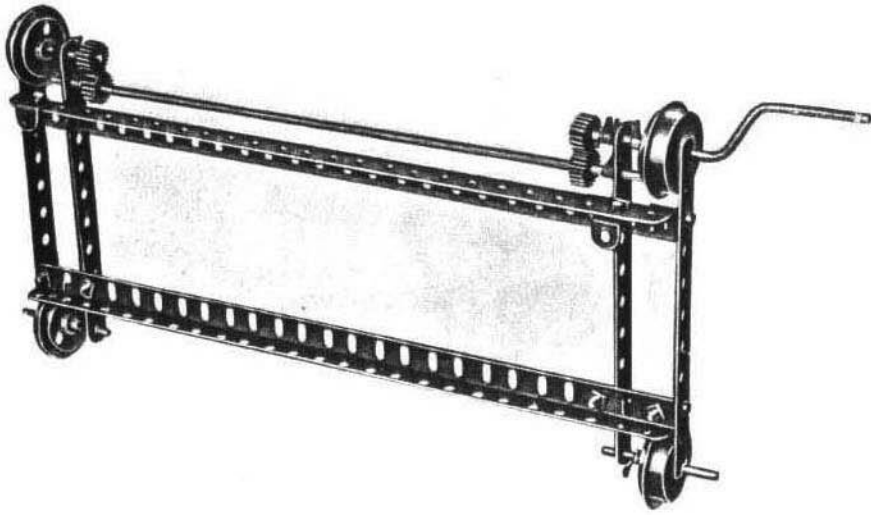


FIG. 41B.

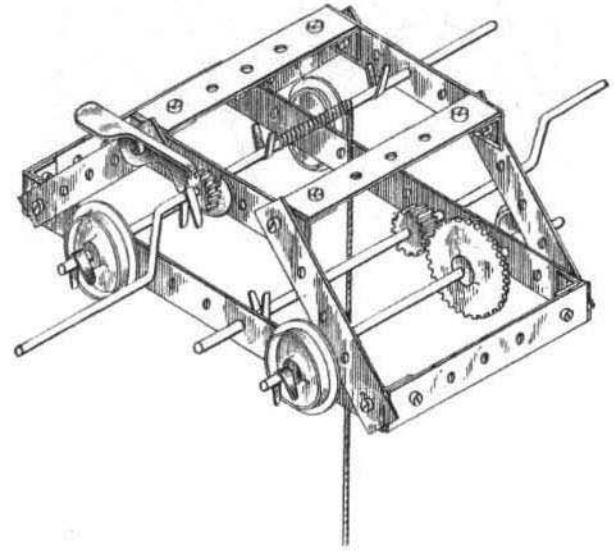
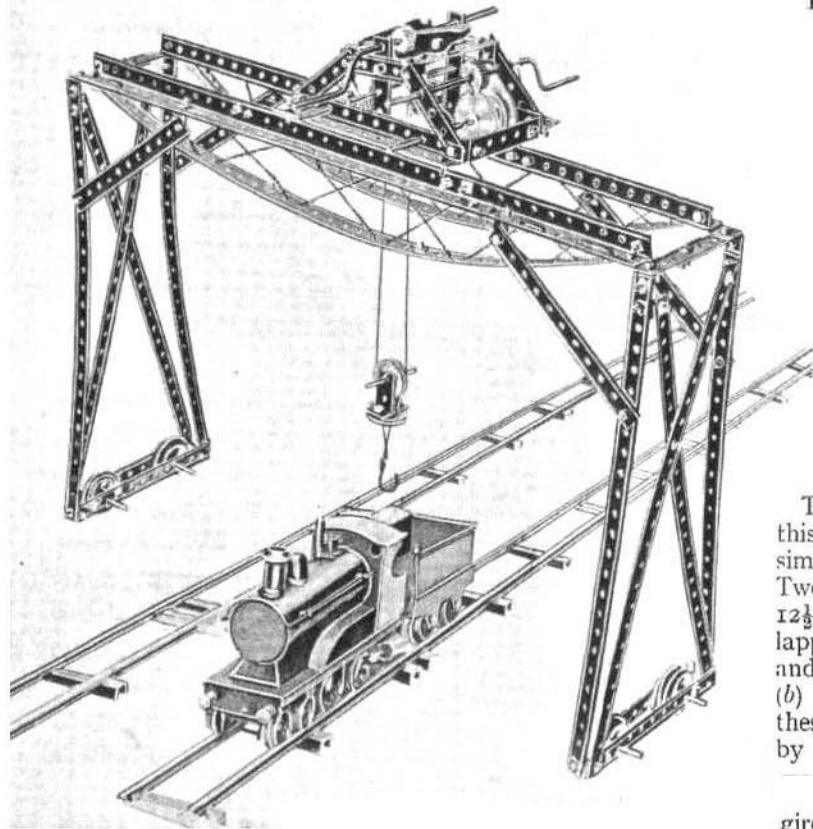


FIG. 41C.

Fig. No. 42 Crane



PARTS REQUIRED.

18	12 1/2"	Perforated Strips.
14	5 1/2"	" "
2	3 1/2"	" "
14	2 1/2"	" "
40		Angle Brackets.
3	5"	Rods.
5	2"	" "
2		Crank Handles.
8		Flanged Wheels.
2	1"	Pulleys.
2	1 1/2"	Pinions.
1	1 1/2"	" "
2		Gear Wheels.
1		Worm Wheel.
1		Pawl.
88		Nuts and Bolts.
1		Hook.
20		Keys.

(13)

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

12	12 1/2"	Perforated Strips.
4	5 1/2"	" "
1	3 1/2"	" "
2	2 1/2"	" "
22		Angle Brackets.
1	5"	Rod.
4	2"	" "
1		Crank Handle.
8		Flanged Wheels.
2	3/4"	Pinions.
2		Gear Wheels.
1		Worm "
58		Nuts and Bolts.
8		Keys.

The side frames of this model are each similarly constructed. Two edge strips (a) of 12 1/2" and 5 1/2" overlapped in three holes and diagonal bracings (b) being attached to these edge strips (a) by angle brackets.

The side frames are connected together by two bowstring rail girders (c) also diagonally braced, as shown in Fig. No. 42A. The rail members (d) are composed of two angle girders butted together, and overlapped by a strengthening girder, in the central portion of which diagonal bracings are secured.

The construction of the carriage is shown in Fig. No. 41C, with the exception that the flanged wheels need to be fitted inside the carriage to suit the gauge of the rails.

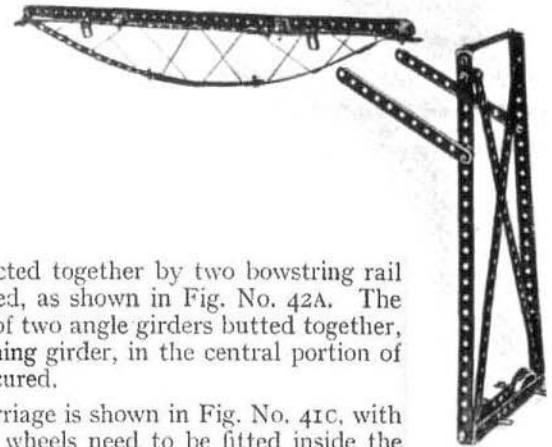


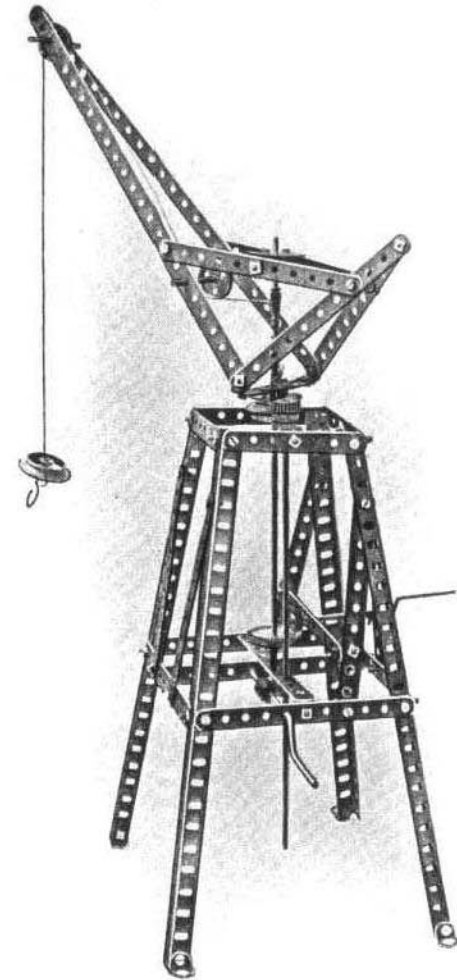
Fig. No. 43. Elevated Jib Crane

PARTS REQUIRED.		<i>List of Parts required in addition to Meccano No. 1.</i>	
2	12½" Perforated Strips.	10	5½" Perforated Strips.
15	5½" " "	5	3½" " "
6	3½" " "	4	Angle Girders.
2	2½" " "	2	11½" Rods.
4	Angle Girders.	1	Crank Handle.
16	" Brackets.	1	¾" Pinion.
2	11½" Rods.	1	Gear Wheel.
1	3½" " "	1	1½" Contribute Wheel.
1	2½" " "	1	Worm Wheel.
2	Crank Handles.	33	Nuts and Bolts.
2	1" Pulleys.	1	Key.
1	¾" Pinion.		
1	1½" " "		
1	Gear Wheel.		
1	1½" Contribute.		
1	Worm Wheel.		
63	Nuts and Bolts.		
1	Hook.		
13	Keys.		

The general construction of this crane will be understood from the photograph, Fig. 43, which shows the different parts of the structure assembled ready for use. The details of the hoisting and swivelling gear are shown in the separate views, Fig. 43A and Fig. 43B.

It is desirable that the model should be fixed in position, and for this purpose the four angle brackets at the bottom of the uprights are provided. These may be attached by screwing to a wood base, or where no damage is likely to result they may be screwed directly to a bench or the like.

The main frame on which the jib rests is composed of four angle girders forming the main uprights, braced together by four 3½" strips at the top, and four 5½" strips at the fourteenth hole down. The structure is further stiffened by 5½" strips placed diagonally as shown in Fig. 43.



The hoisting arrangement is operated by the upper handle, upon which is keyed a $\frac{1}{2}$ " pinion, engaging a $1\frac{1}{2}$ " contrate wheel keyed on to the centre spindle. One end of the winding rope is carried under a 1" pulley on the jib and fastened to the spindle, so that by turning the handle the rope is wound round the spindle, and the load raised.

The mechanism for swinging the jib is operated by the lower handle, upon which is fixed a worm wheel geared into a $\frac{1}{2}$ " pinion keyed to a second spindle. On the upper end of this spindle is keyed a $\frac{3}{4}$ " pinion engaging a gear wheel bolted securely to the base of the jib, but revolving freely on the centre spindle. Between the gear wheel and a $3\frac{1}{2}$ " strip fastened across the top of the pedestal is a flanged wheel which raises the gear wheel high enough to engage the $\frac{3}{4}$ " pinion as shown in Fig. 43B.

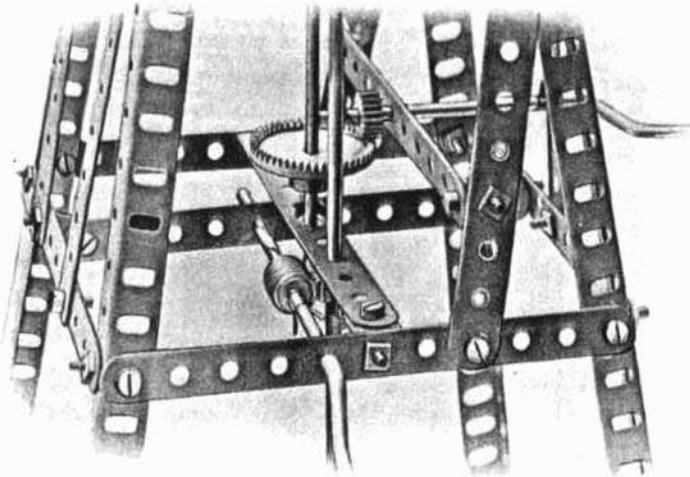


FIG. 43A.

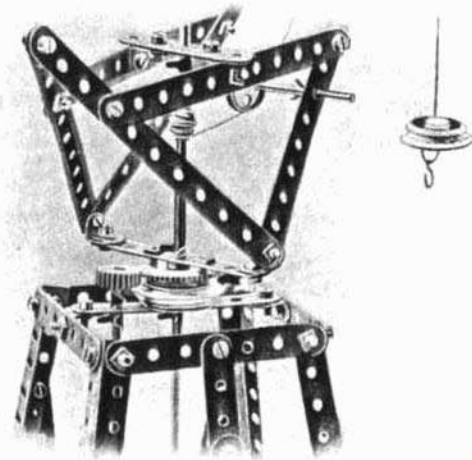


FIG. 43B.

Fig. No. 50. Eiffel Tower

PARTS REQUIRED.		<i>List of Parts required in addition to Meccano No. 1.</i>	
13	12 $\frac{1}{8}$ " Perforated Strips.	7	12 $\frac{1}{8}$ " Perforated Strips.
28	5 $\frac{1}{8}$ " " "	18	5 $\frac{1}{8}$ " " "
6	3 $\frac{1}{8}$ " " "	5	3 $\frac{1}{8}$ " " "
13	2 $\frac{1}{8}$ " " "	13	2 $\frac{1}{8}$ " " "
40	12 $\frac{1}{8}$ " " "	28	2 $\frac{1}{8}$ " " "
82	Angle Brackets.	64	Angle Brackets.
4	5" Rods.	3	5" Rods.
1	12 $\frac{1}{8}$ " " "	2	1 $\frac{1}{2}$ " Pulleys.
2	1 $\frac{1}{2}$ " Pulleys.	1	1 $\frac{3}{4}$ " Pinion Wheel.
1	Bush Wheel.	2	1 $\frac{1}{8}$ " Contribute Wheels.
1	Pinion.	1	Worm Wheel.
1	1 $\frac{1}{8}$ " Contributes.	158	Nuts and Bolts.
2	1 $\frac{1}{8}$ " Worm Wheel.		
188	Nuts and Bolts.		
12	Keys.		

We can only give information in principal for the construction of this model without any construction details.

Commence by making the lower platform with 6 $5\frac{1}{8}$ " strips bolted together forming a hexagon with angle brackets at the corners. The other 3 smaller platforms are made similarly with 3 $\frac{1}{2}$ ", 2 $\frac{1}{2}$ " and 2" strips

These sub assemblies are then bolted with the angle brackets to the vertical members to make the basic design of the tower.

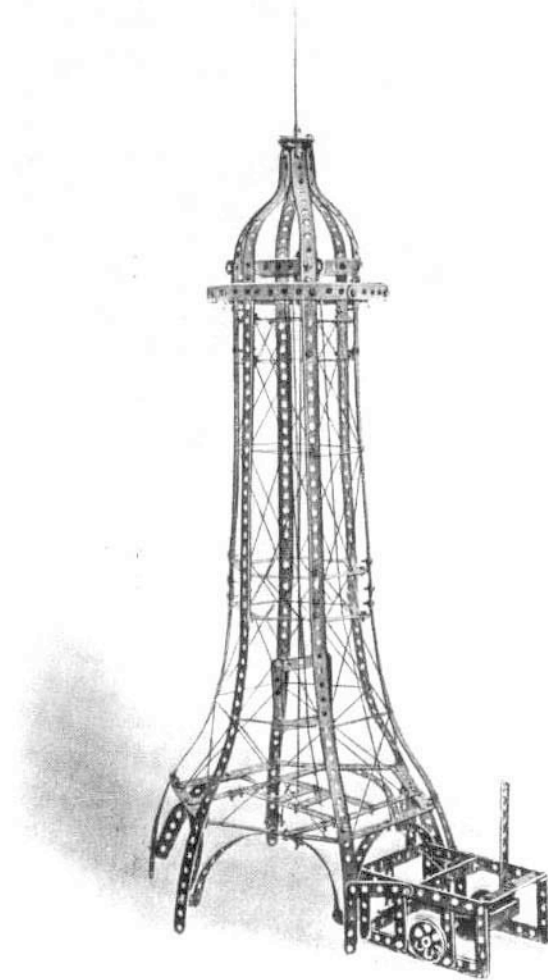


Fig. No. 51. Tower Bridge

PARTS REQUIRED.			
35	12½"	Perforated Strips.	4
24	5½"	" "	1
66	2½"	" "	1
8	1½"	" "	214
92		Angle Brackets.	16
5	3½"	Rods.	15
1		Crank Handle.	

1" Pulleys.
 ½" Pinion.
 Worm Wheel.
 Nuts and Bolt
 Wood Screws.
 Keys.

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

29	12½"	Perforated Strips.
18	5½"	" "
54	2½"	" "
8	1½"	" "
74		Angle Brackets.
4	3½"	Rods.
1		Worm Wheel.
184		Nuts and Bolts.
11		Wood Screws.
3		Keys.

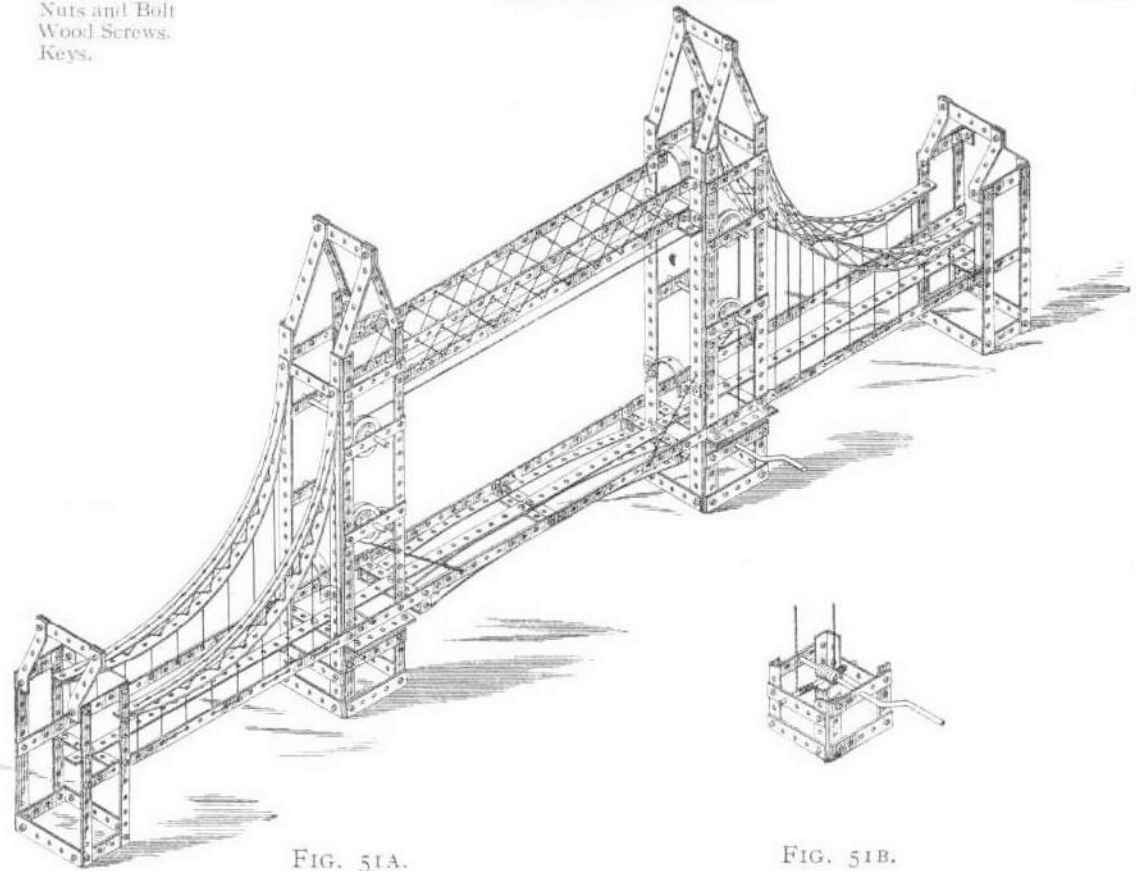


FIG. 51A.

FIG. 51B.

Begin by making the two main towers. The construction of one of these is shown in Fig. 51A. The four upright angle girders (*a*) being connected with the side bracings (*b*), the guide pulleys and its shaft (*c*) are then keyed into position. The top gable (*d*) may then be fixed to the uprights. The two shorter end towers (*e*) may then be constructed, consisting of side frames which carry the bascule operating gear (*f*). This gear consists of a crank shaft carrying the pinion engaging the upper gear wheel (*g*), the spindle of which acts as the winding drum for the operating cord. The roadway girder (*h*) is now constructed and inserted into position in the towers, the transverse strips (*k*) being bolted through to the outer strip (*l*). The catenary member (*m*) is now built up from two curved 12½ in. strips, which are bolted to the vertical angle girders of the higher tower, and by angle brackets to the shorter tower. Each bascule is provided with a bent 2½ in. strip (*n*), which bears against the main tower, and acts as a stop when the bascules are horizontal. The bascules are hinged by fixing the bolts (*o*) in the end holes (*p*) of the side frames (*l*). The spring (*r*) is connected to the lower part of the bascule and the short towers, which acts to always return the bascules to the closed position. The operating cord passes from the winding spindle (*g*) round the lower right pulley (*c*) and over the upper guide pulleys (*s*) in the main towers to the outer ends of the bascules. The upper gangway (*t*) is built up of two side frames, the lower members of which are formed of angle girders (*u*), which are secured to angle brackets (*v*) on the main towers. The catenary girders and the upper gangway are then laced with cord, to represent the chains and diagonal bracing respectively.

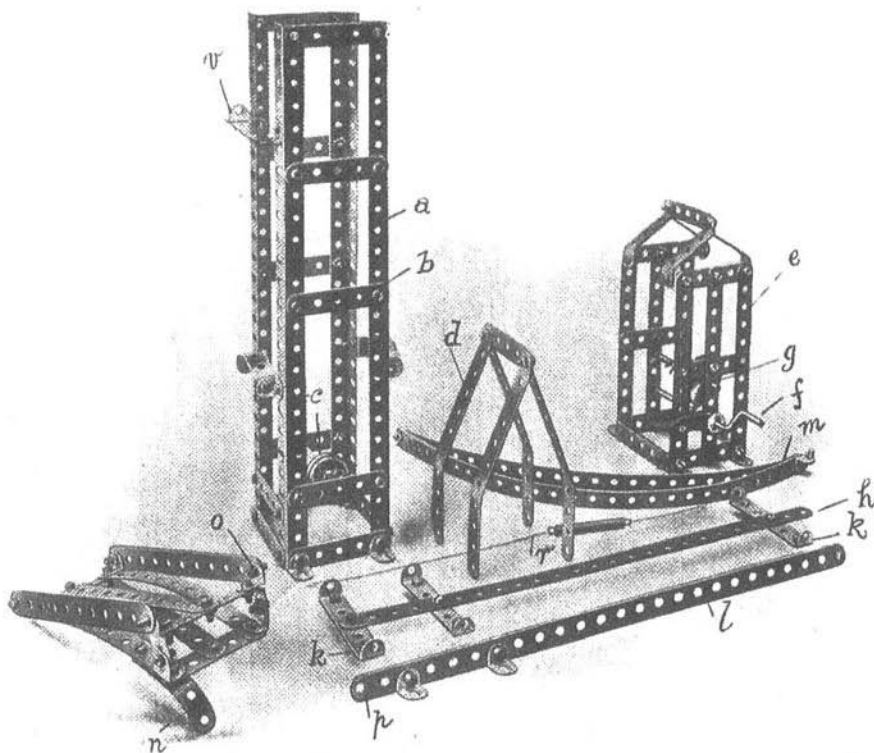
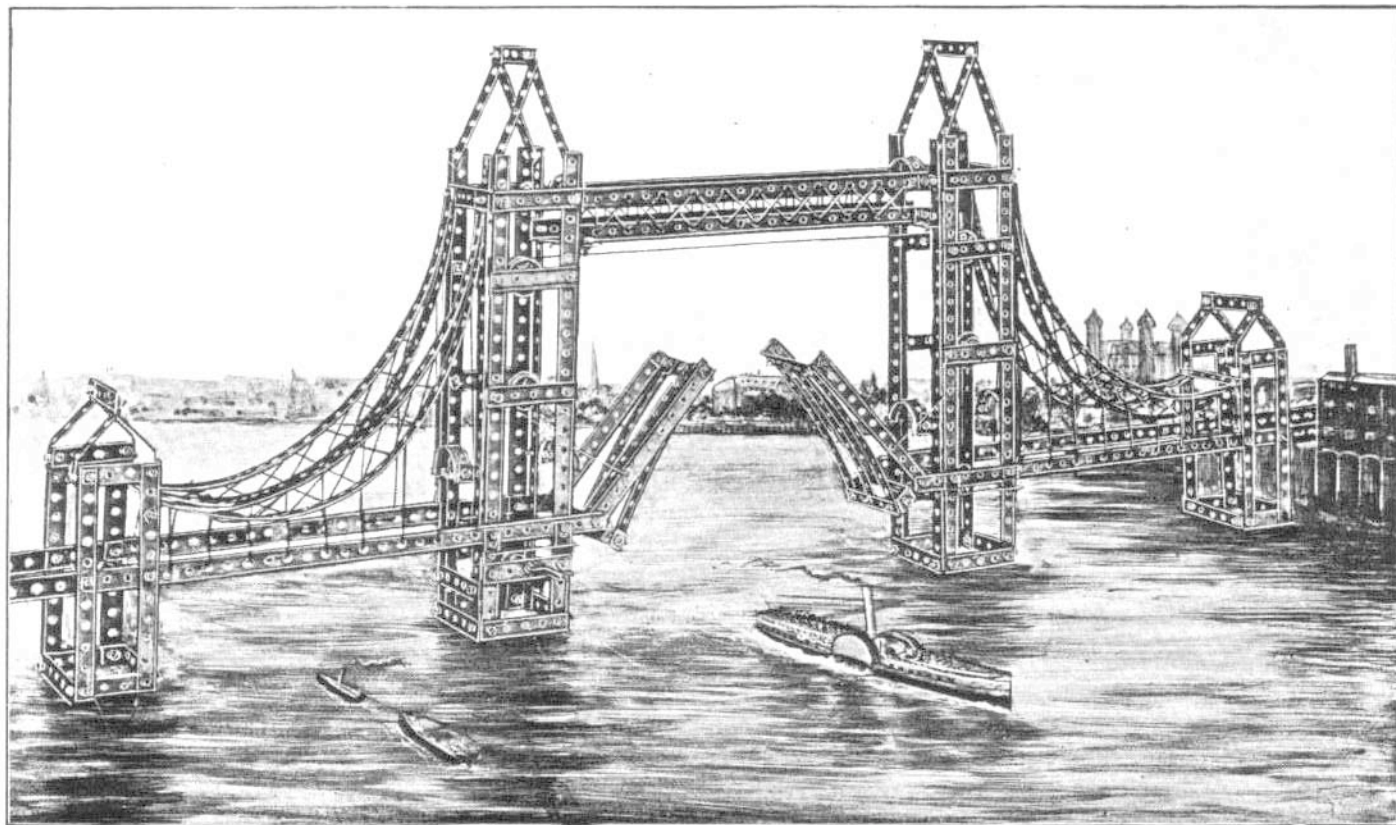


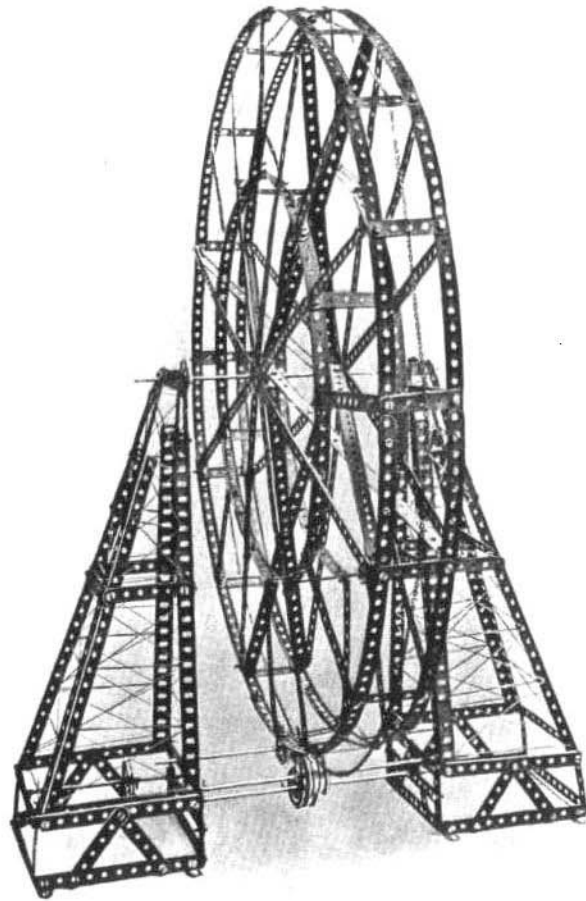
Fig. 51A.

Fig. No. 51. Tower Bridge



Boite No. 5

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	" "
4	3 1/2" " "	3	" "
18	3" " "	18	" "
26	2 1/2" " "	16	1 1/2" " "
8	Angle Girders.	8	Angle Girders.
96	" Brackets.	78	" Brackets.
4	1 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	1 1/2" Rods.

Begin by constructing the lower pedestal framework of each side tower from a series of flat strips diagonally braced as shown. To the top corners of the framework four angle girders are bolted and tapered together, being connected a little way up by 3 1/2 in. transverse strips, and steadied by diagonal bracings.

The bearing for the shaft of the wheel is constructed as shown in the detail (A); the same number of strips as shown are duplicated and attached on the opposite side of the bush wheel (a). The ends of the strips are then threaded over the four vertical angle girders of the side towers and bolted into place.

The wheel is first built up in the form of two circular side frames, having the radial bracing strips bolted to the bent circular strips. All the transverse distance strips are then attached to one of the side frames. The other side frame is then bolted to these transverse distance pieces, and the long diagonal bracings, extending from the outer circumference to the angle brackets at the centre of each side frame, are then secured in place.

The operating mechanism is supported in the pedestal of the side towers, as shown in Fig. 52.c.

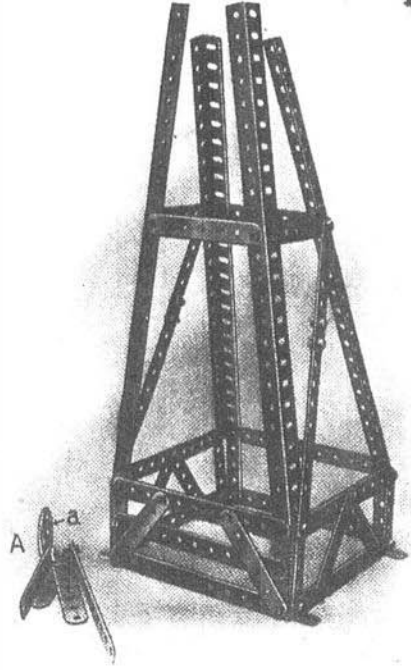


FIG. 52A.

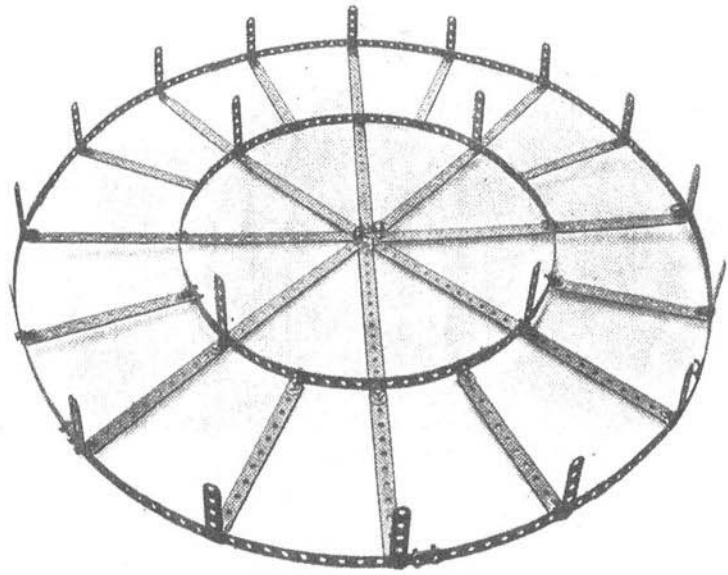


FIG. 52B.

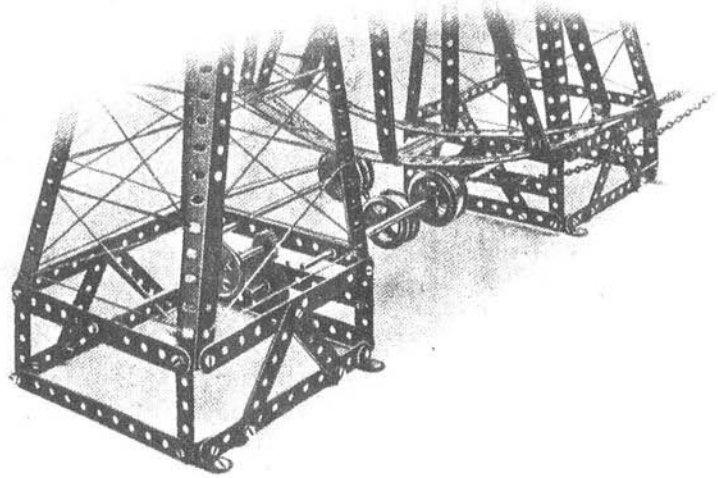


FIG. 52C.

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.

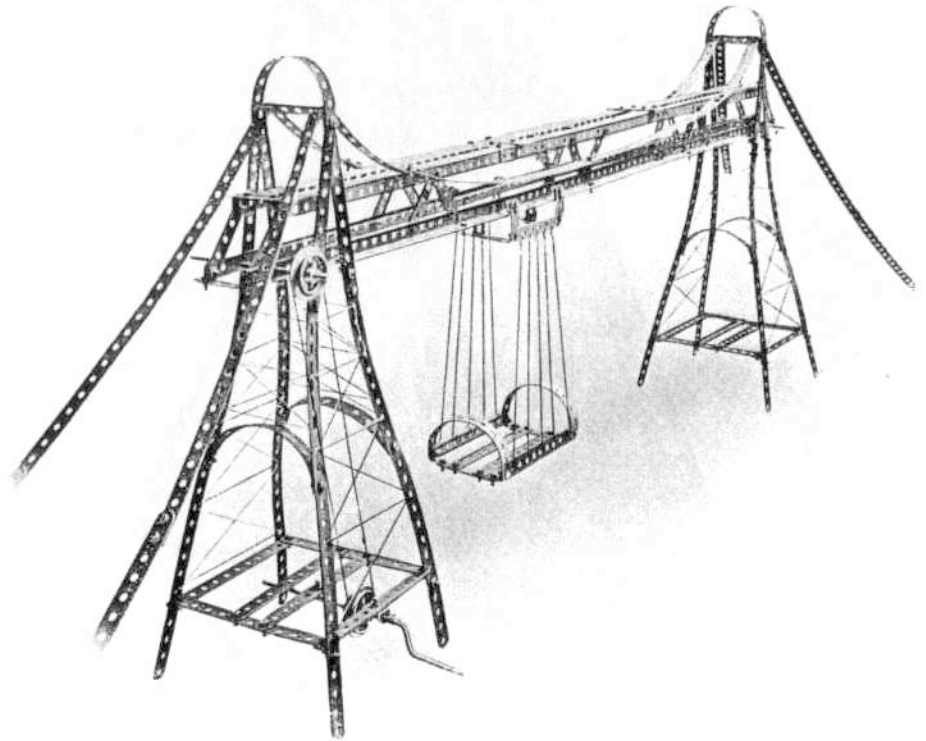
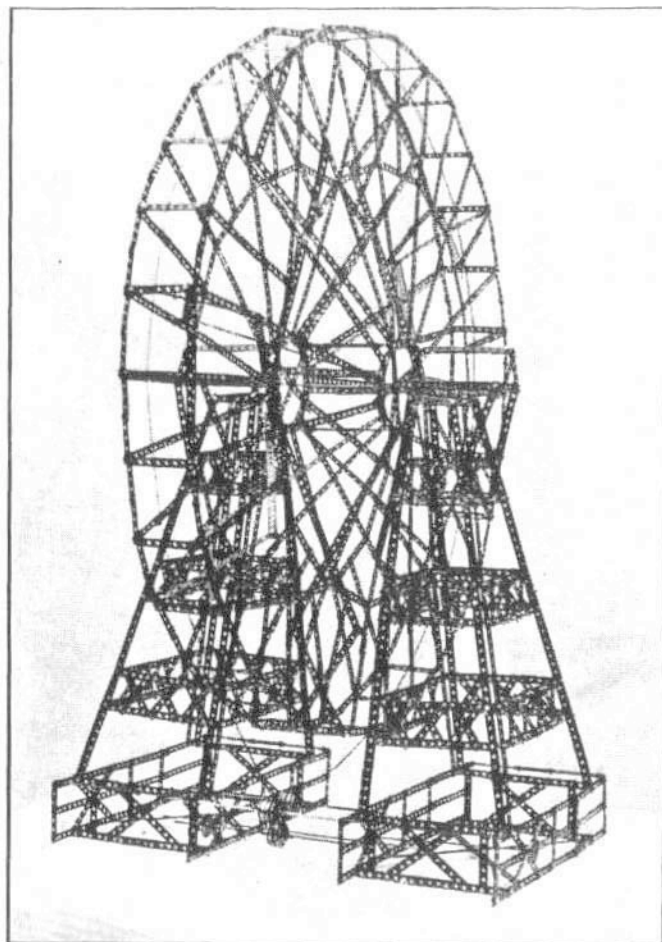


Fig. No. 60. Big Wheel

PARTS REQUIRED.		<i>List of Parts required in addition to Meccano No. 1.</i>	
98	12 $\frac{1}{2}$ " Perforated Strips.	92	12 $\frac{1}{2}$ " Perforated Strips.
193	5 $\frac{1}{2}$ " " "	183	5 " " "
60	3 $\frac{1}{2}$ " " "	59	5 $\frac{1}{2}$ " " " "
120	3 " " "	120	" " " "
194	2 $\frac{1}{2}$ " " " "	182	" " " "
198	Angle Brackets.	6	11 $\frac{1}{2}$ " Rods.
6	11 $\frac{1}{2}$ " Rods.	6	Flanged Wheels.
6	Flanged Wheels.	1	1 $\frac{1}{2}$ " Pulley "
1	1 $\frac{1}{2}$ " Pulley.	3	Pinion "
2	" " "	3	Gear "
2	Pinions.	3	Nuts and Bolts.
3	Gear Wheels.	3	Wood Screws.
890	Nuts and Bolts.	8	Keys.
8	Wood Screws.	1	Length of Chain.
20	Keys.		
1	Length of Chain.		

The mechanism that produces the rotation is the same as in fig. 52A



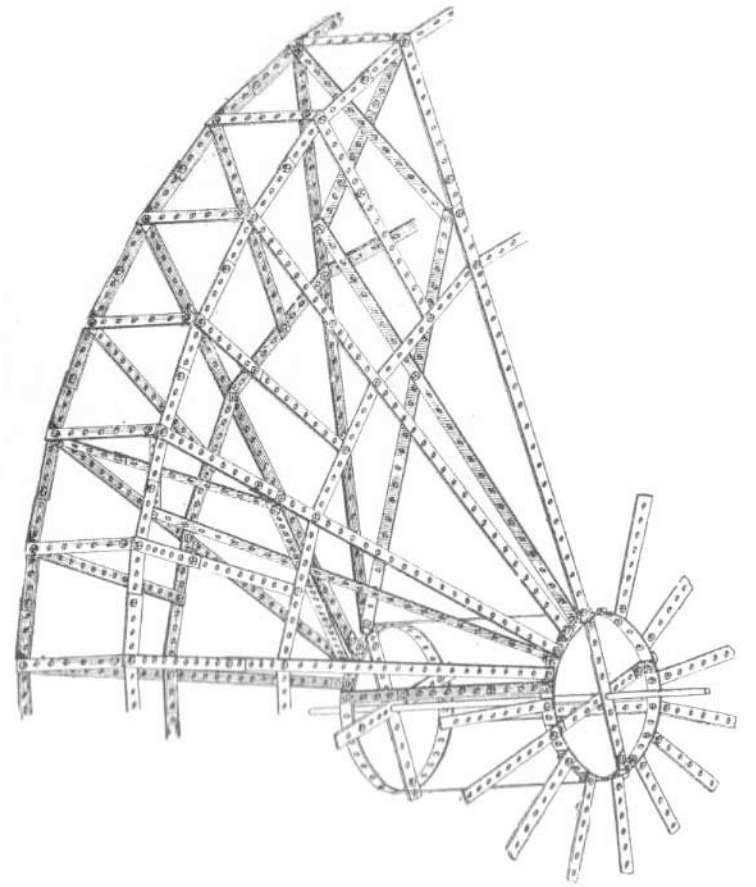
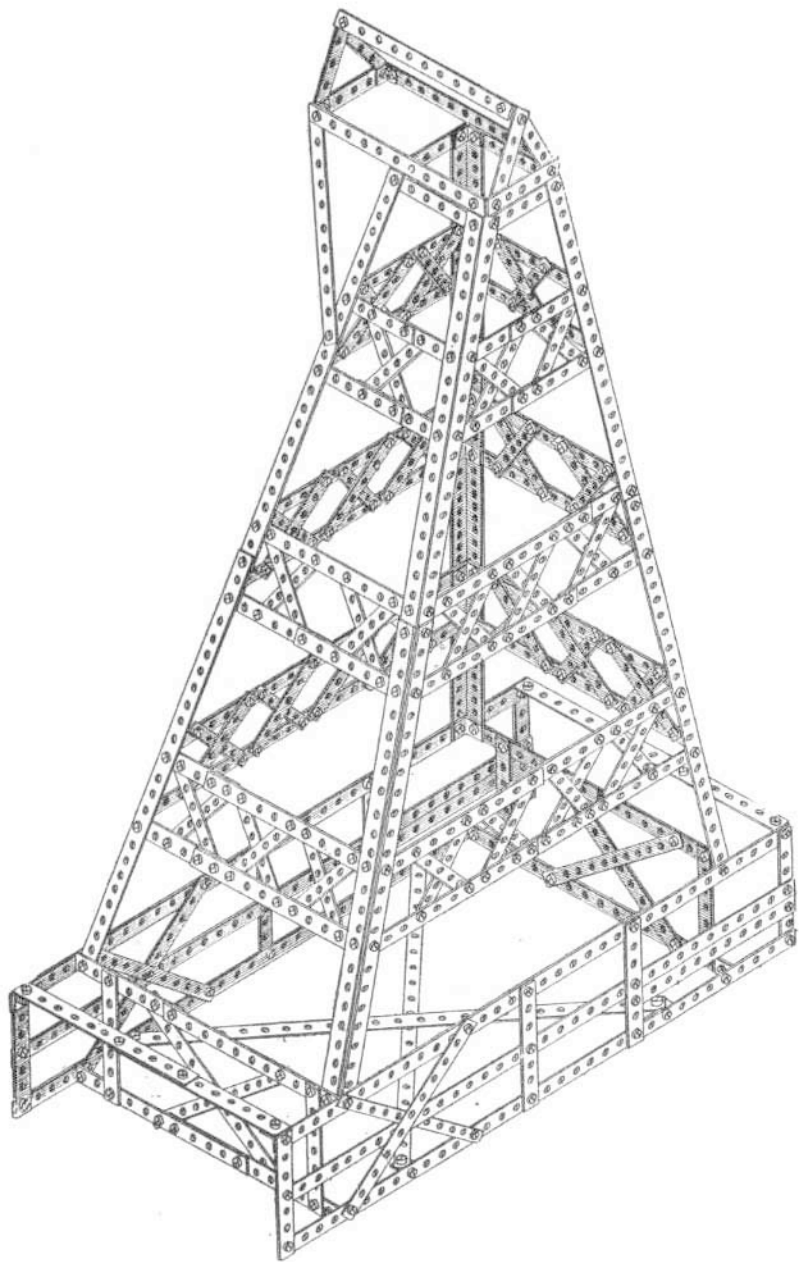


FIG. 60B.

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.

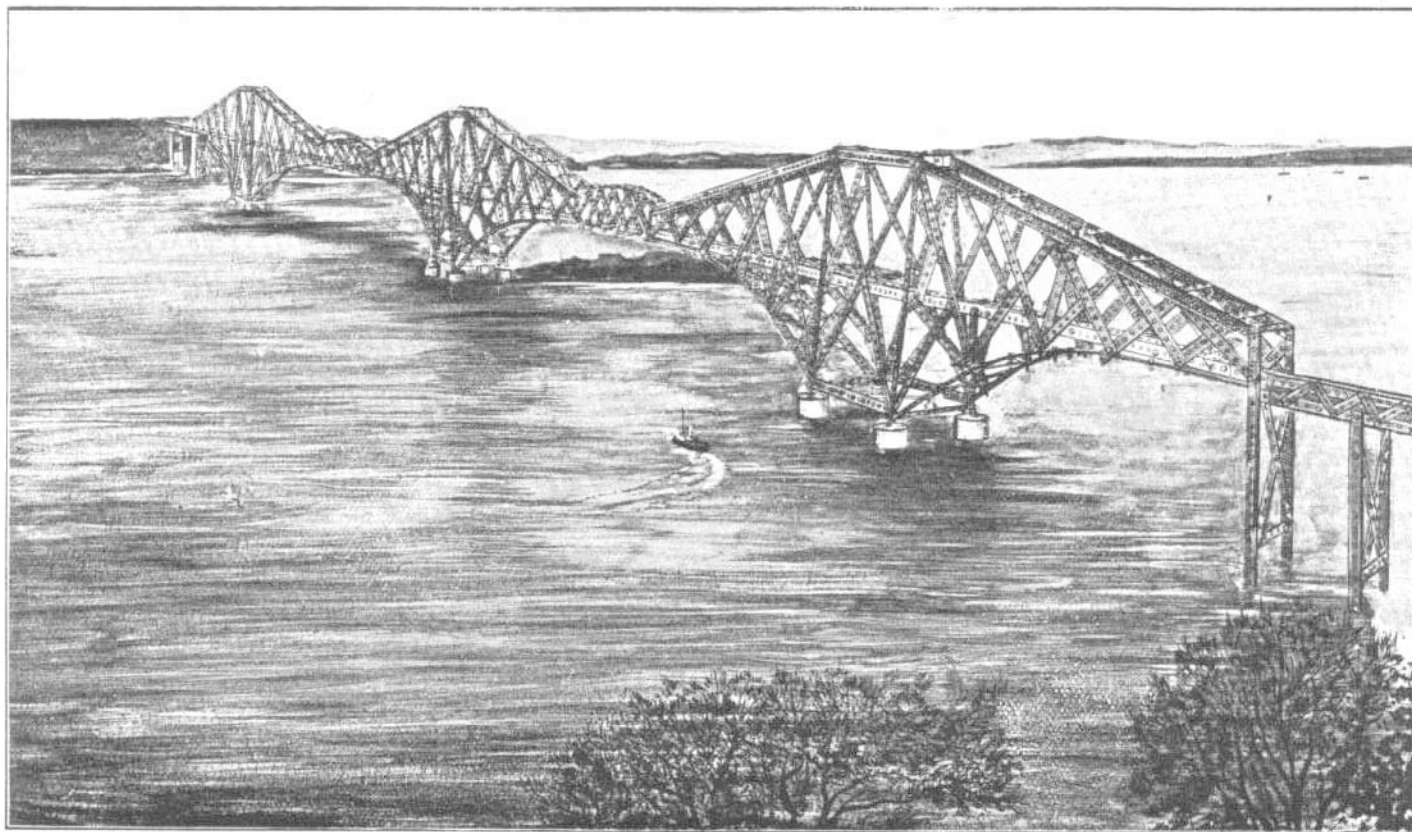


Fig. No. 61. Forth Bridge

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.

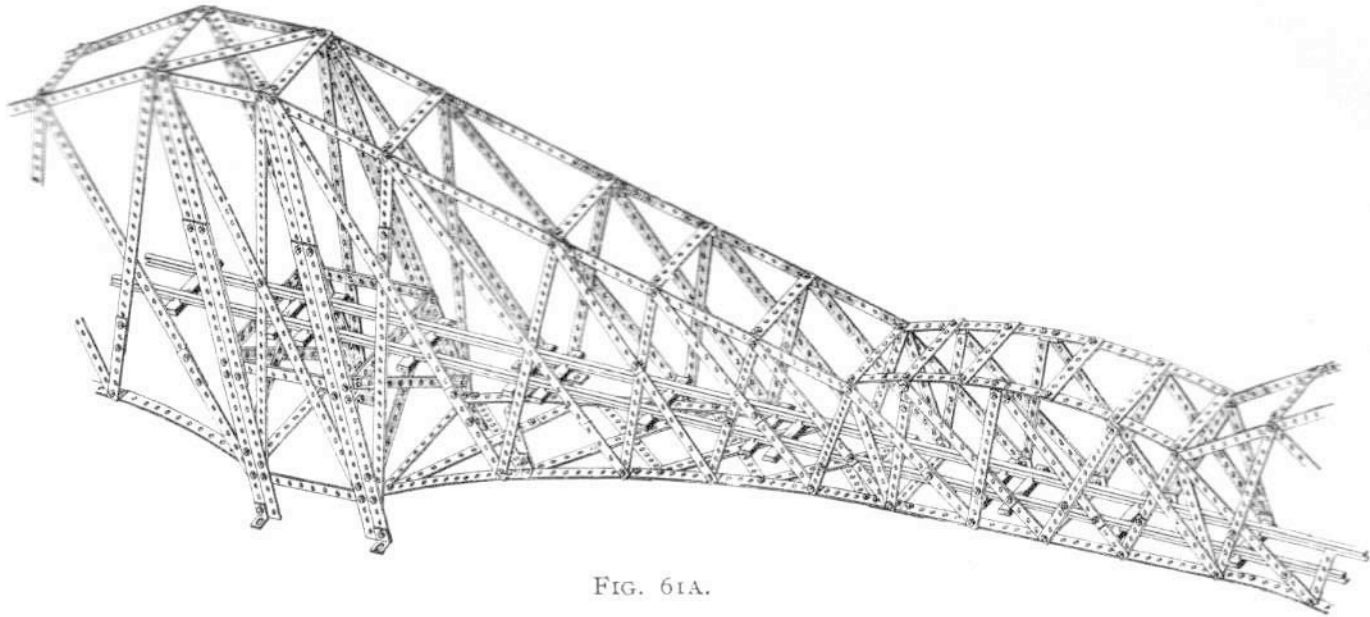


FIG. 61A.

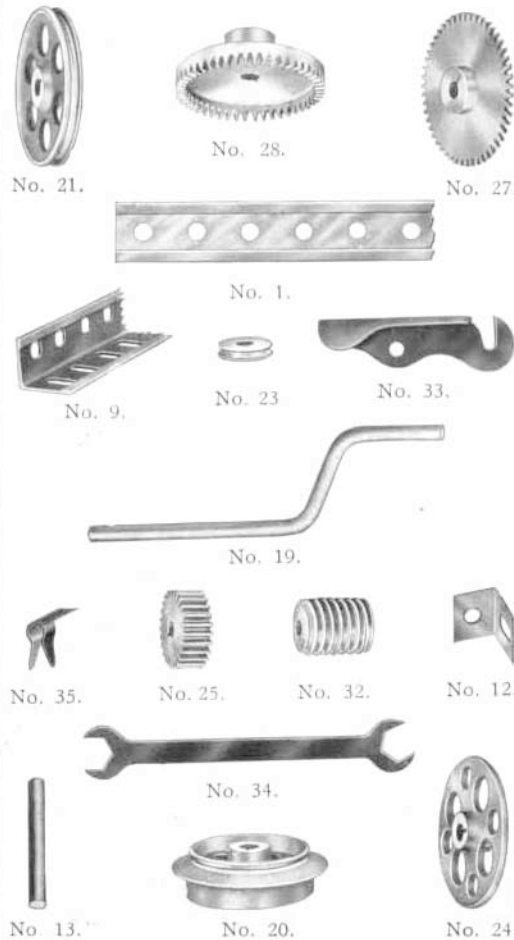
This model can be built with the parts supplied in the box. The total length is 16 feet and is a faithful reproduction of the great Forth bridge and gives an accurate idea of the cantilever principle.

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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Contents of Boxes of Parts

DESCRIPTION OF PARTS.	No. 1	No. 1A	No. 2	No. 2A	No. 3	No. 3A	No. 4	No. 4A	No. 5	No. 6
Perforated Strips, $12\frac{1}{2}''$ long ...	6	4	10	2	12	8	20	28	48	168
.. .. $5\frac{1}{2}''$..	10	8	18	3	21	7	28	12	40	264
.. .. $3\frac{1}{2}''$..	1	...	1	3	6	...	4	8	24	132
.. .. $3''$ ..	...	...	...	...	...	4	4	8	24	120
.. .. $2\frac{1}{2}''$..	12	4	16	8	24	4	28	60	88	216
.. .. $2''$ ..	...	...	...	...	...	...	...	8	8	8
Angle Girders, $12\frac{1}{2}''$ long ...	...	4	4	4	8	...	8	4	12	24
Angle Brackets ...	18	...	18	18	36	18	54	54	120	245
Axle Rod, $11\frac{1}{2}''$ long ...	...	...	1	...	1	2	2	...	2	2
.. .. $6''$ ...	...	...	...	1	1	1	2	...	2	2
.. .. $5''$...	2	1	3	2	5	...	5	...	5	5
.. .. $3''$...	1	...	1	1	2	...	2	4	6	6
.. .. $2''$...	1	1	2	...	2	3	5	...	5	5
Crank Handle ...	1	...	1	...	1	3	4	...	4	4
Flanged and Grooved Wheel ...	...	4	4	...	4	4	8	...	8	8
Pulley Wheel, $1\frac{1}{2}''$ long ...	...	...	...	1	1	...	1	1	2	2
.. .. $1''$...	6	...	2	1	3	1	4	...	4	4
.. .. $\frac{1}{2}''$ ...	...	...	...	...	...	...	...	6	6	6
Bush Wheel ...	...	1	1	...	1	...	1	1	2	2
Pinion Wheel, $\frac{3}{4}''$ long ...	...	...	...	2	2	1	3	...	3	3
.. .. $\frac{1}{2}''$..	1	...	1	...	1	4	5	...	5	5
Gear Wheel, $1\frac{1}{2}''$ ...	...	...	...	1	1	3	4	...	4	4
Contrite Wheel, $1\frac{1}{2}''$ long ...	...	...	...	...	...	1	1	1	2	2
.. .. $\frac{3}{4}''$ ..	...	...	...	2	2	...	2	...	2	2
Worm Wheel ...	...	...	...	1	1	...	1	...	1	1
Pawl ...	1	...	1	...	1	1	2	...	2	2
Spanner ...	...	1	1	...	1	...	1	...	2	2
Nuts and Bolts ...	30	20	50	27	77	45	122	110	250	950
Wood Screws ...	5	...	5	7	12	...	12	...	24	24
Hook ...	1	...	1	...	1	...	1	...	1	2
Keys ...	12	6	18	6	22	6	28	...	30	40
Turn Screws ...	1	...	1	...	1	...	1	...	1	1
Hanks Cord ...	1	1	2	...	2	2	4	...	6	6
Cards Cord ...	1	...	1	...	1	1	2	...	2	2
Manual of Instructions ...	1	...	1	...	1	...	1	...	1	1
Chain ...	...	...	...	...	...	...	...	...	1	1

Price List

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

