

MECCANO

No. 0 OUTFIT

MAKES
18
FINE WORKING
MODELS



BOOK
OF
INSTRUCTIONS
—
PRICE 5 CENTS

Patented in England and Abroad.

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MECCANO COMPANY (Inc.), NEW YORK

HOW TO MAKE MODELS AND TOYS WITH MECCANO

THE first piece of advice we would give to the beginner in Meccano is that he commences with Model No. 1, and that he erects every model in turn up to the capacity of his outfit. By that time he will have grown so familiar with the various parts of Meccano, and will see its possibilities so clearly, that he will with little difficulty be able to build many other models of his own invention.

The charm of Meccano lies greatly in its endless variety, and until the user has commenced to apply his own inventive faculties to the hobby, he is not getting the enjoyment out of it which he should.

Every part of the outfit should first be taken from its box, examined, and its name committed to memory, so that the instructions in the Manual may be followed easily and rapidly.

The parts are all standardised, and are interchangeable, and they will be found to fit together easily and without forcing. The holes in the strips are of equal distance apart. The axles fit any of the holes, and their position in the various designs may be ascertained by counting the holes.

All the models shown are built upon sound and standard engineering principles, and the parts employed represent the main mechanical parts used in machinery, such as levers, beams, wheels, axles, pulleys, worm wheels, screws, bolts, &c., so that as an introduction to the serious study of Mechanics the value of Meccano is very great indeed.

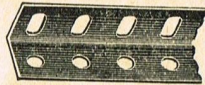
Each model may be taken to pieces, and the same parts may be used to make up other models. Additional parts can always be purchased from your dealer or from us.

We are at all times glad to correspond with users of Meccano, and to assist them by suggestions or criticisms when difficulties occur with new models.

Meccano Parts



No. 1.
Perforated Strip,
12½", 5½", 3½", 3", 2½", 2".



No. 8.
Perforated Angle
Girder, 12½", 5½".



No. 12.
Angle
Bracket.



No. 32.
Worm
Wheel.



No. 44.
Single
Bent Strip.



No. 51.
Eye
Piece.



No. 37.
Nut
and Bolt.



No. 35.
Clip.



No. 13.
Rod.
11½", 8", 6", 5", 4½", 3½", 2".



No. 19.
Crank Handle.



No. 22.
Flanged and
Grooved Wheel.



No. 24.
Bush
Wheel.



No. 25.
Pinion Wheel,
¾", ½".



No. 27.
Gear Wheel.



No. 59.
Collar and Set Screw.



No. 33.
Pawl.



No. 34.
Spanner.



No. 36.
Screw Driver.



No. 21.
Pulley Wheel,
1½", 1", ¾".



No. 28.
Contrate Wheel.
1½", ¾".



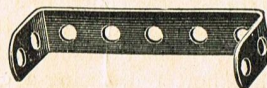
No. 45.
Double Bent
Strip.



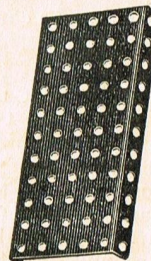
No. 43.
Spring.



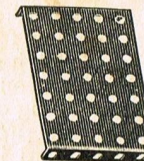
No. 62.
2½" Bent Strip.



No. 46.
Large Bent Strip.



No. 52.
Large Rectangular
Plate.

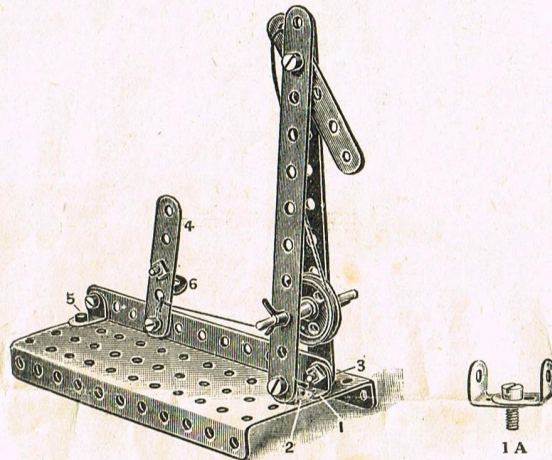


No. 53.
Small Rectangular
Plate.



No. 54.
Sector Plate.

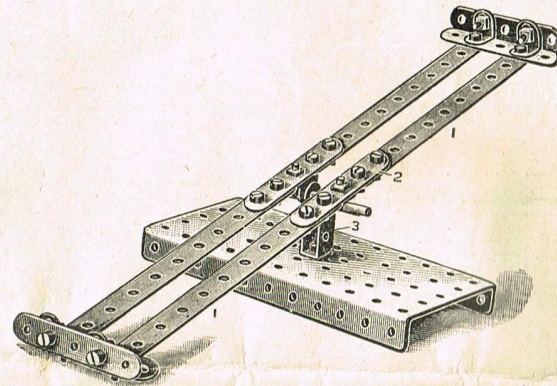
Model No. 1—RAILWAY SIGNAL



Commence by attaching two angle brackets (Fig. 1A) in the fourth end hole 1 of the rectangular plate. Then to the bracket 2 attach a $5\frac{1}{2}$ " strip to form the near side of the upright, and to the angle bracket 3 two $5\frac{1}{2}$ " strips, one to form the far side of the upright, and the other further secured to the plate by angle bracket 5 to carry the lever.

A bolt is then passed through the second hole from the top of the upright to carry a $2\frac{1}{2}$ " strip to represent the Signal, and is secured on the opposite side by two nuts locked together, to allow freedom for the movement of the Signal, and to prevent the bolt from working out. An angle bracket 6 is bolted on the opposite side of the lever, to prevent it from falling over too far. A short rod is then passed through the upright carrying a pulley wheel, around which the cord is passed connecting the signal with the lever.

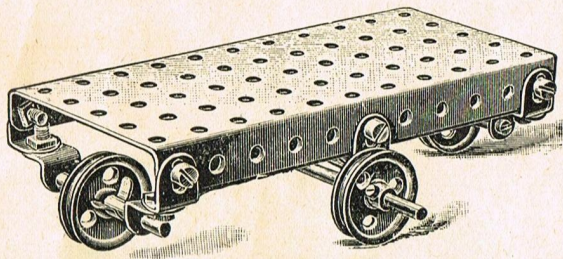
Model No. 2—SEESAW



Make the Seesaw first. Commence with one side by connecting two $5\frac{1}{2}$ " strips 1 together with a $2\frac{1}{2}$ " strip 2, as shown in the illustration. An angle bracket is then bolted to the central hole of the short strip on its under side to form a bearing for the spindle. It is to be noted that the angle bracket is bolted with the head of the bolt downward, to clear the spindle. The other side of the Seesaw is formed in a similar manner.

Now connect these two together at each end by two $2\frac{1}{2}$ " strips and two angle brackets. Next, bolt the single bent strip 3 to the centre of the rectangular plate; bring the two centre brackets on the under side of the Seesaw in line with the top holes in the bent strip, and pass through the short rod, fixing a clip on each side to keep it in position.

Model No. 3—REVOLVER TRUCK



In a Revolver Truck, the two end wheels are always raised just a little higher than the two centre wheels, so that the Truck may be quickly revolved upon the two centre wheels.

The bearings for the end axles are formed by connecting two angle brackets together as shown in Fig. 3A, and bolting them in each end hole at the sides of the plates.

The two centre bearings are formed as shown in Fig. 3B, and bolted in the centre holes of each flanged side of the plate.

It will be noted that the elongated holes of the bearings are bolted on the outside of the plate flanges. This enables the end wheels to be raised and the centre wheels to be lowered for the purpose already mentioned.

The axles and wheels are then placed in position, and secured as shown.

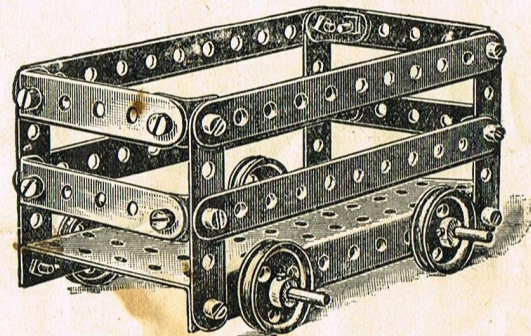


Fig.
3A.



Fig.
3B.

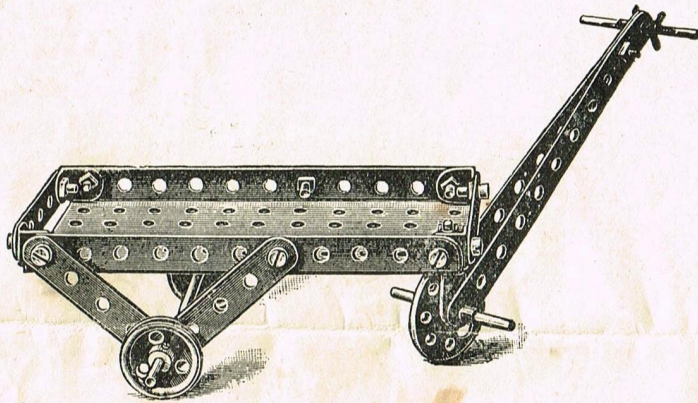
Model No. 4—TRUCK



Fix the four upright $2\frac{1}{2}$ " strips at each corner of the plate first; then attach the end and side strips to the uprights by means of angle brackets. Insert two axles through the third holes from each end of the plate; push on the wheels and secure them in position.

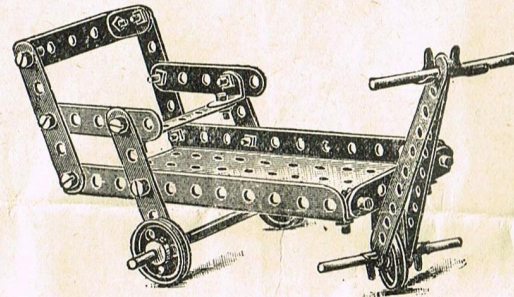
This is a very neat little model, and very simple to make.

Model No. 5—LUGGAGE TRUCK



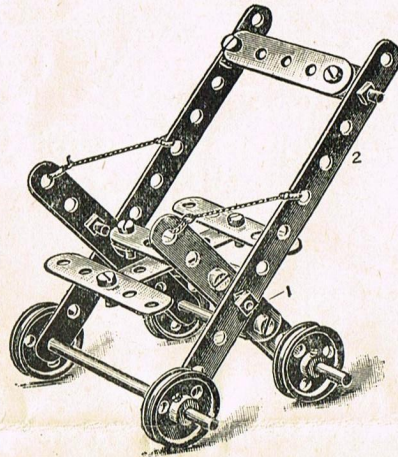
In connection with the construction of this Model, it will only be necessary to state that the front swivelling support is formed by connecting loosely a single bent strip in the centre end hole of the plate, by a bolt with two nuts on the upper side, locked, to prevent it from working out, and that the axle carrying the hind wheels is passed through the end holes of the $2\frac{1}{2}$ " diagonal side strips which form the bearings.

Model No. 6—BATH CHAIR



After Model No. 5 has been accomplished, no difficulty will be experienced in the construction of this model.

Model No. 7—GO CHAIR

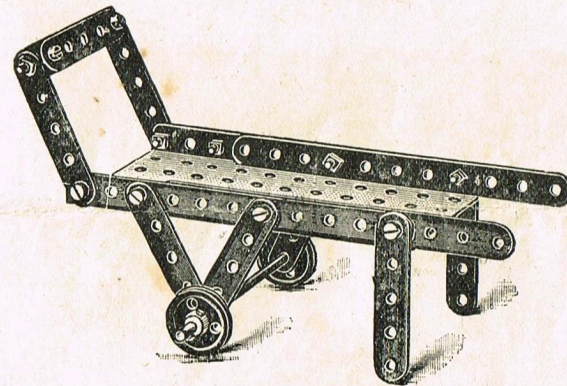


Proceed to construct one side of this Model, first by taking two $2\frac{1}{2}$ " strips **1** and bolting them together overlapped in three holes; after which attach diagonally a $5\frac{1}{2}$ " strip **2** in the fourth hole from the bottom, and with the same bolt, an angle bracket from the inside, with the elongated hole outward to take the seat. The other side is constructed in a similar manner.

The seat is then formed by bolting together at right-angles two $2\frac{1}{2}$ " strips, and a further $2\frac{1}{2}$ " strip at each end of one of the strips. The sides are then brought together and connected by bolting the seat to the side brackets.

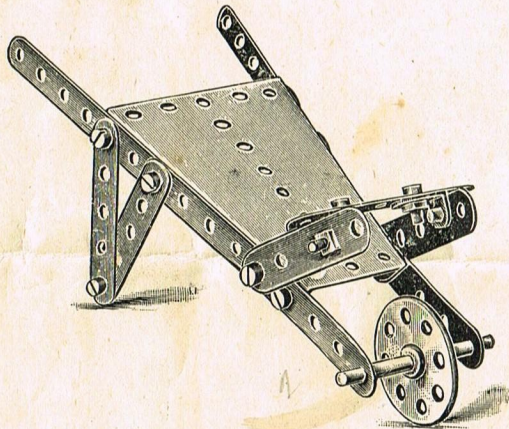
The back is formed by connecting a $2\frac{1}{2}$ " strip by means of angle brackets in the second hole from the top of the two $5\frac{1}{2}$ " side strips. Two axle rods are then passed through the bottom holes, and the wheels placed in position and secured by the set screws.

Model No. 8—LUGGAGE TRUCK



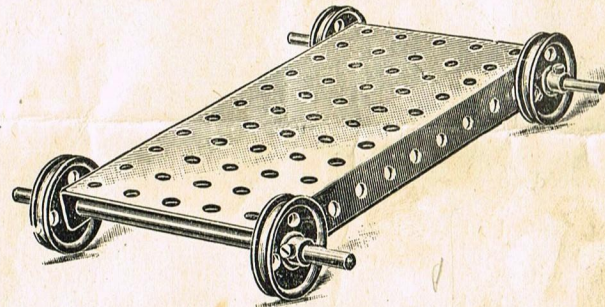
This is very similar to Model No. 5, and requires no explanation.

Model No. 9—LUGGAGE BARROW

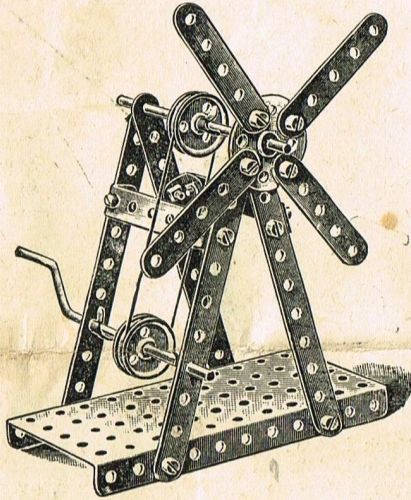


The only point to be noted in this Model is that the floor plate of the barrow is made from a sector plate, to the sides of which the arm strips are secured, made up from two $5\frac{1}{2}$ " strips bolted on the inside of the sector plate; the $2\frac{1}{2}$ " strips carrying the wheel axle being bolted on the outside of the sector plate.

Model No. 10—TRUCK



Model No. 11—WINDMILL

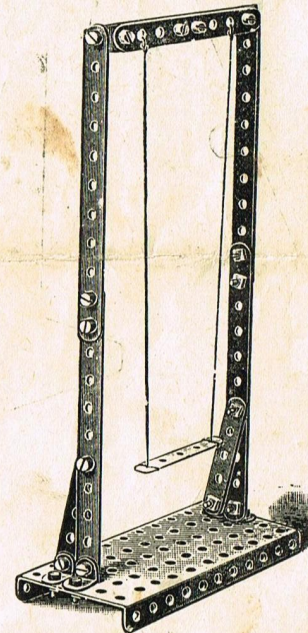


This is a very attractive little working Model, the construction of which is quite clearly shown in our illustration.

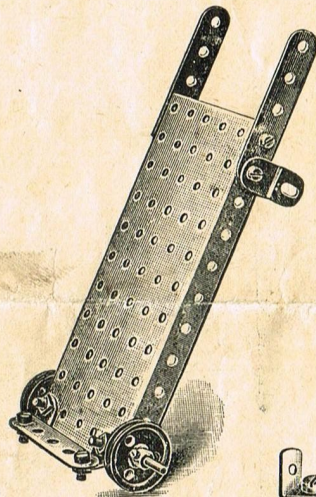
The ingenious boy will be able to vary the construction of the Sails.

Pleasing effects may be obtained by making these of various colours of cardboard, or by threading the sail strip with coloured ribbon.

Model No. 12—SWING



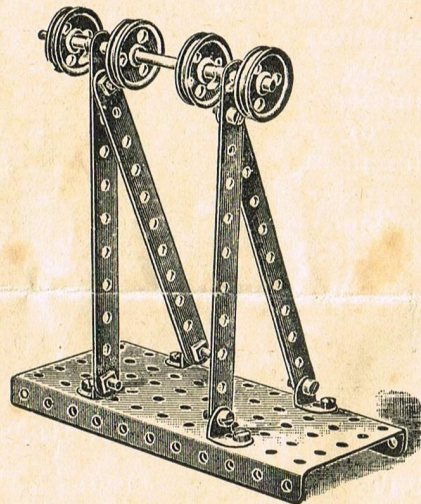
Model No. 13—
LUGGAGE TRUCK



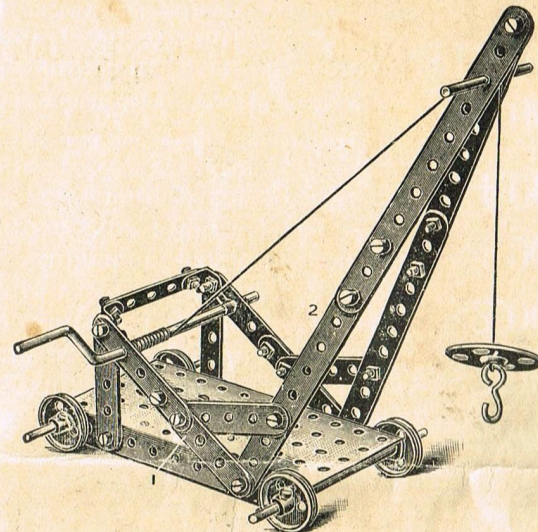
1A

The body of the Truck is made of a rectangular plate, two $2\frac{1}{2}$ " strips being bolted through angle brackets 1a to the upper end to form shafts. The lip of the Truck consists of a $2\frac{1}{2}$ " strip bolted to the plate by angle brackets. On an axle passed through the end holes of the flanges are secured a pair of 1" pulley wheels.

Model No. 14 - PULLEY
SHAFT



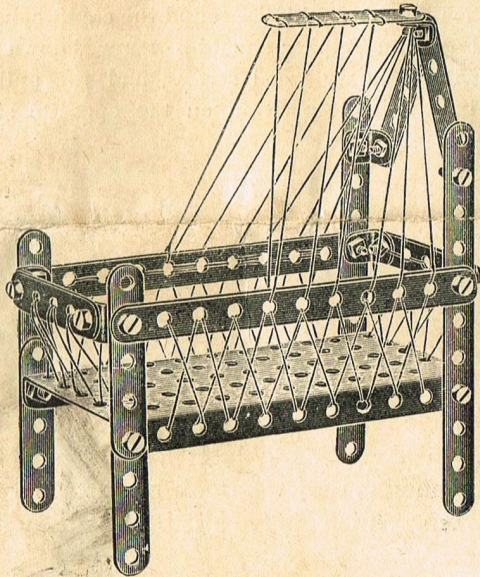
Model No. 15—JIB CRANE



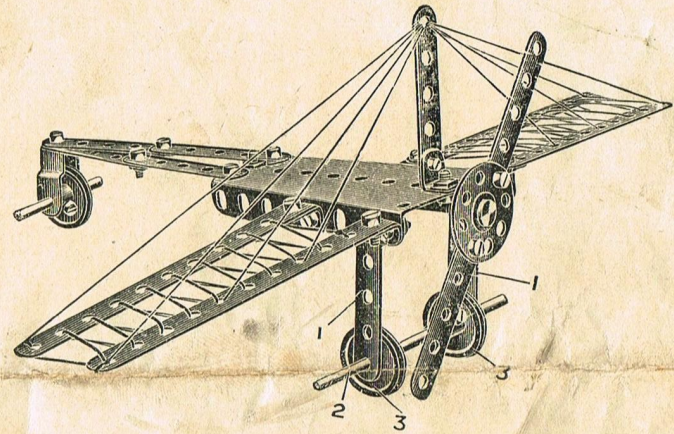
Much instruction and pleasure may be derived from the construction of this Model.

Two $2\frac{1}{2}$ " strips 1 bolted together, overlapped two holes, sloping back to carry the winding spindle, and two $5\frac{1}{2}$ " strips 2 overlapped three holes to form one side of the jib, are attached by the same screw in the third hole from the end on the flanged side of the rectangular plate. These parts are then braced together by a further $2\frac{1}{2}$ " strip connected, as shown in the illustration, to give rigidity. At the upper end of the sloping strip is connected an angle bracket and a $2\frac{1}{2}$ " strip, the latter being bolted to the third hole in the plate. The other side of the crane is constructed in a similar manner, and both sides connected across the back by a $2\frac{1}{2}$ " strip, and at the top of the jib by a bolt. A short rod carrying the jib pulley is carried in the third hole from the top, the cord is passed over the pulley and tied to the spindle. Insert two axles through the end holes, and push on the four wheels, securing them in position.

Model No. 16—
COT ON WHEELS



Model No. 17—AEROPLANE



Begin by connecting two $5\frac{1}{2}$ " strips on each side of the sector plate by angle brackets to form the wings. The tail plane consists of four $2\frac{1}{2}$ " strips attached as shown. $2\frac{1}{2}$ " strips **1** are then bolted vertically to the sector plate in the second hole, and a rod **2** passed through the lowest holes to carry the wheels **3**. Angle brackets are then bolted at each end of the sector plate and in the centre on the under side, and a rod $4\frac{1}{2}$ " is threaded through these angle brackets to carry the shaft upon which the Bush Wheel and $2\frac{1}{2}$ " strip are attached, forming the propeller.

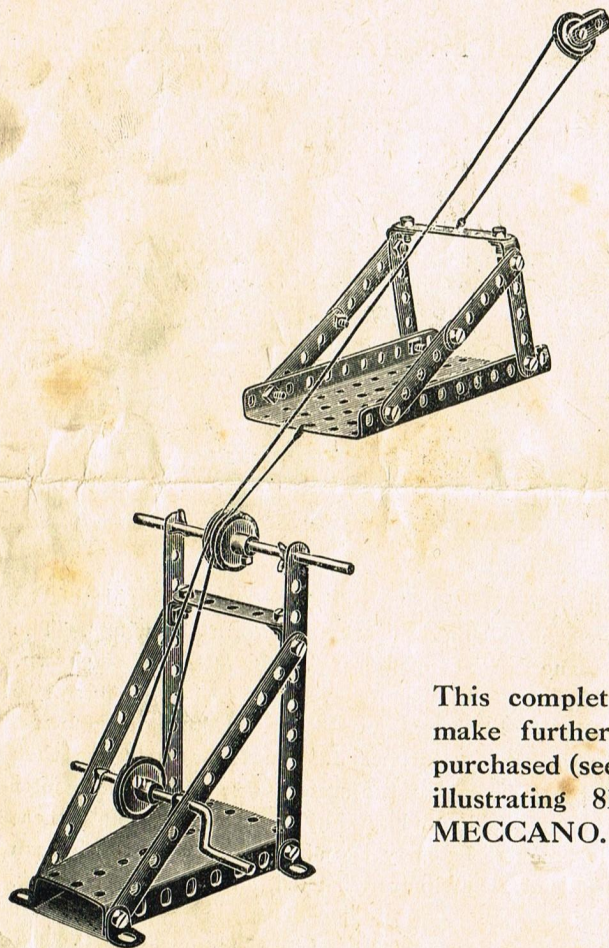


Fig 18.—TELPHER SPAN

Many hours of enjoyment can be obtained from this model. The illustration shows just how it is worked. The cords may be made to any length, and the load carried from one side of the room to the other. In order to give a better grip, the operating cord should be wound twice round the crank handle pulley. The body of the Telpher should be screwed down on to a solid base with ordinary wood screws, and the pulley bracket screwed in a suitable position on the opposite side of the room.

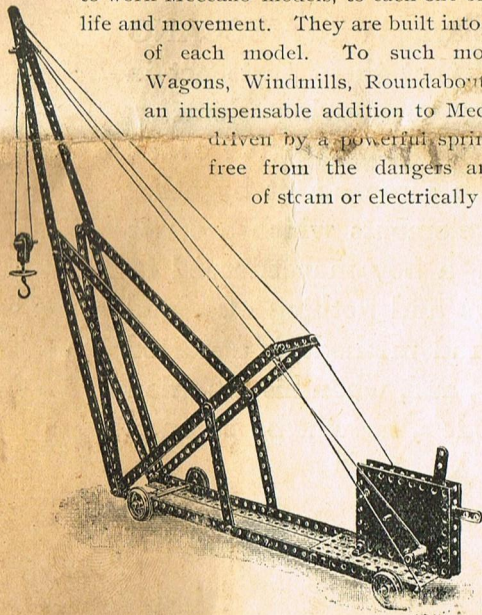
HOW TO CONTINUE

This completes the Models made with MECCANO No. 0. To make further models a No. 0a Accessory Outfit should now be purchased (see page 16). This contains the full Book of Instructions illustrating 81 Working Models which may all be made with MECCANO.

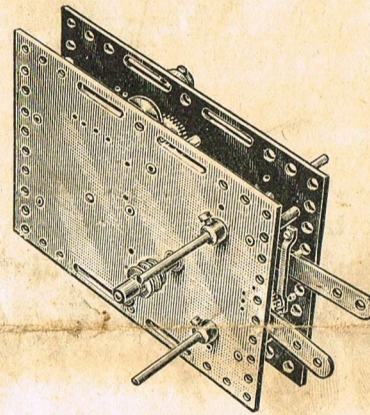
Meccano Motors (Patent Pending).

One of the principal merits of Meccano is that all the models which it makes are *working* models. No greater pleasure for any boy can be imagined, than for him to take a number of elementary parts, piece them together with his own hands and in his own way, and then to see the results of his efforts and skill move and work in a precise and scientific way. The Meccano Motors will encourage this very natural pleasure.

They have been designed on Meccano lines, and solely to work Meccano models, to each one of which they give life and movement. They are built into and become part of each model. To such models as Cranes, Wagons, Windmills, Roundabouts, &c., they are an indispensable addition to Meccano. They are driven by a powerful spring, and are quite free from the dangers and disadvantages of steam or electrically driven motors.



This illustration shows just how a No. 1 Meccano Motor is used in connection with a Travelling Jib Crane. Full instructions accompany each Motor, and there is no difficulty in using it.



The No. 2 Meccano Motor.

The No. 1 Motor may be used in connection with Outfits Nos. 0 to 3. It has a stopping and starting motion, and the movement can be reversed.

PRICE \$2

The No. 2 Motor is suitable for driving models made with Outfits Nos. 4 to 6. There are three driving spindles, one of which has a clutch movement, and each can be worked independently. It has also a starting button and a reversing movement.

PRICE \$6

Meccano is more than a Toy



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

Price List of Additional Parts

	Cents
1.—Perforated Strips, 12½" long .. per bdl. (½ doz.)	30
2.— " " 5½" " .. " "	18
3.— " " 3½" " .. " "	15
4.— " " 3" " .. " "	15
5.— " " 2½" " .. " "	10
6.— " " 2" " .. " "	10
8.—Angle Girders, 12½" long .. " "	45
9.— " " 5½" " .. " "	30
12.—Angle Brackets (dozen)	10
13.—Axle Rod, 11½" long each	5
14.— " 6" " " "	3
15.— " 5" or 4½" long " "	3
16.— " 3½" long " "	3
17.— " 2" " " "	2
19.—Crank Handle " "	5
20.—Flanged and Grooved Wheel " "	20
21.—Pulley Wheel, 1½" diameter " "	15
22.— " " 1" " fast " "	10
22A.— " " 1" " loose " "	5
23.— " " ½" " " "	5
24.—Bush Wheel " "	15
25.—Pinion Wheel, ¾" diameter " "	15
26.— " " ½" " " "	10
27.—Gear Wheel, 1½" " " "	25
28.—Contrate Wheel, 1½" diameter " "	40
29.— " " ¾" " " "	25
32.—Worm Wheel " "	20
33.—Pawl " "	5
34.—Spanner " "	10

	Cents
35.—Spring Clips per box (dozen)	10
36.—Screw Driver each	10
37.—Nuts and Bolts per box (2 dozen)	20
37A.—Nuts " "	5
39.—Card Cord (Special) each	3
40.—Hank Cord " "	3
41.—Propeller Blades per pair	15
42.—Chain 12ft. lengths, each	30
43.—Spring " "	5
44.—Single Bent Strip " "	5
45.—Double Bent Strip " "	5
46.—Large Bent Strip " "	5
47.—Spring Balance (tension) " "	75
48.— " " (compression) " "	75
49.—Disc Weights, 20 grammes " "	10
50.—Large Perforated Stand (Scientific) " "	50
51.—Eye Piece " "	5
52.—Perforated Rectangular Plate, Large " "	20
53.— " " Small " "	15
54.—Perforated Sector Plate " "	15
55.—Rubber Bands " "	5
56.—Book of Instructions " "	25
57.—Hook " "	1
57A.—Hook (Scientific) " "	1
58.—Spring Cord, 40 inches long " "	20
59.—Collar and Set Screws " "	5
60.—2½" Bent Strip per ½ dozen	15
61.—Windmill Sails each	5

Price List

No. 0.	Meccano Outfit	(makes 18 models)...	...	...	...	...	\$1.00
No. 1.	„	„	(makes 27 models)...	...	...	...	\$2.00
No. 2.	„	„	(makes 41 models)...	...	...	...	\$4.00
No. 3.	„	„	(makes 50 models)...	...	...	...	\$6.00
No. 4.	„	„	(makes 63 models)...	...	...	...	\$10.00
No. 5.	„	„	(makes 71 models)...	Packed in neat and well-made cardboard box			\$14.00
Do.	„	Presentation Outfit	...	...	...	...	\$18.00
No. 6.	„	„	(makes 81 models)	Ditto	ditto		\$36.00

No. 0A.	Meccano Accessory Outfit	(containing sufficient parts to convert a Meccano No. 0 into a No. 1 Outfit)				\$1.00
No. 1A.	„	„	(containing sufficient parts to convert a No. 1 into a No. 2 Outfit)	...		\$2.00
No. 2A.	„	„	(containing sufficient parts to convert a No. 2 into a No. 3 Outfit)	...		\$2.00
No. 3A.	„	„	(containing sufficient parts to convert a No. 3 into a No. 4 Outfit)	...		\$4.00
No. 4A.	„	„	(containing sufficient parts to convert a No. 4 into a No. 5 Outfit)	...		\$4.00
Do.	„	„	Packed in neat and well-made cardboard box			\$8.00
No. 5A.	„	„	(containing sufficient parts to convert a No. 5 into a No. 6 Outfit)	...		\$13.00
Do.	„	„	Packed in neat and well-made cardboard box			\$18.00