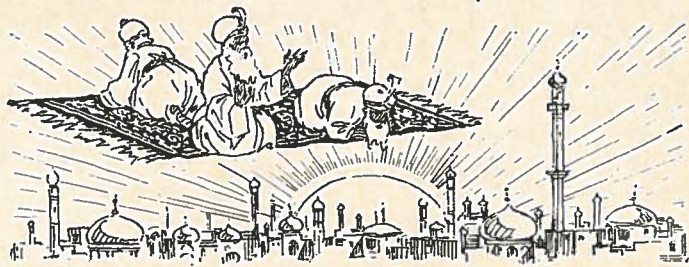


The Magic Carpet



The Magic Carpet

Every boy who has read the "Arabian Nights" knows the story of Prince Housain's carpet, and how anyone who stood on it had only to express the wish, and he was instantly whisked off to any part of the world he wanted to see. Most boys have thought what a wonderful time they could have if only they owned such a carpet. Well, even fairy tales come true sometimes and this one has surely been realized.

Any carpet with Meccano and a boy on it becomes a Magic Carpet. The boy can wish himself into a workshop filled with fascinating and ingenious machinery; into a factory where he can weave his own gorgeous colored silks and into hundreds of other places equally entrancing. He can wish for Automobiles, great Bridges, Towers, Cranes that raise and lower real loads and which he can operate himself. *And all his wishes come true!*

Prince Housain's Carpet was not half so wonderful as the Meccano Magic Carpet. His was only imaginary, but the Meccano carpet is *real*. It is ready now to take you into lands of brightness, joy and fun. Step on to it, boys, and commence wishing!

Meccano—A World Renowned Hobby

Meccano owes its world-wide renown to the fact that the whole of its 200 parts are designed on correct engineering principles. The Meccano system is complete, and it offers the only perfect method of reproducing engineering or mechanical movements. All the parts are standardized and interchangeable. The use of each part is not confined to one purpose only; all may be used in a variety of ingenious ways.

Experts declare Meccano is Real Engineering

Experts in Mechanics, Professors of Engineering, and Bridge-building experts, have from time to time pronounced on the system. They have declared it to be on sound lines—each part just right, nothing to be altered. This is a very important matter. If you start with badly designed parts you can only build a very limited number of models, and even these are on incorrect lines, and will give you faulty ideas of engineering. Meccano will do all—and more than all—that may be done by the imitation systems which have followed in the trail of its success. *There is no limit to the number of models that may be made with Meccano, and no other system will do half as much as Meccano.*

Real Models

The Meccano Clock is a real clock; it keeps accurate time. The Meccano Loom is a real loom, and weaves first-class material. The Meccano Automobile is just like a real automobile, with worm and wheel steering, gear-box and differential. The same with all other models—they all work and any boy can build them.

All models shown in this little book are from the big Manuals of Instructions. A book ten times the size would be required to do them real justice. To a live boy they mean years of joy and fun.

Each Meccano Outfit is complete with all the necessary tools and fully illustrated instructions. There is nothing further to buy, and you can commence to build at once without any study.

How to Begin

For convenience Meccano parts are sold in eight Outfits of varying size, numbered 00 to 6. The quality and finish of the parts are of the same high standard throughout the series, but as the Outfits increase in size they contain larger quantities and greater varieties of parts. Each Outfit may be converted into the one next higher by the purchase of an Accessory Outfit. Thus, if a No. 2 is the first Outfit bought, it may be converted into a No. 3 by adding to it a No. 2a. A No. 3a would then convert it into a No. 4, and so on up to No. 6. In this way, no matter with what Outfit the boy commences, he may build it up by degrees to a No. 6, and so be able to make all the many hundreds of models shown in the Books of Instructions.

Real Engineering Movements made with Meccano Parts

Here are a few simple and interesting movements showing how real machines work. If you can understand them you can build any of the big Meccano models, and become a regular Meccano Engineer at once. Meccano engineering is the most fascinating indoor hobby ever invented. Millions of boys all over the world are building Meccano models every day. Start now, and start right.

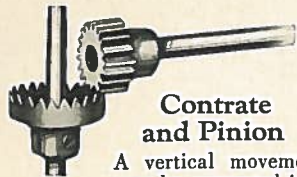


Fig. A

Contrate and Pinion
A vertical movement may be converted into a horizontal movement, or vice versa, by securing a Meccano Contrate Wheel to the rotating vertical Rod. The Contrate Wheel engages with a Pinion Wheel, secured by its set screw to a Horizontal Rod.

The Worm and Gear

Fig. D shows a Meccano Gear Wheel meshing with a Worm Wheel, as used to obtain considerable leverage by a very low gear. The Sprocket Wheel is driven by a Meccano Motor and fixed tightly to the Rod on which the Worm Wheel is also fixed.

The spiral thread of the Worm Wheel causes the Gear Wheel to

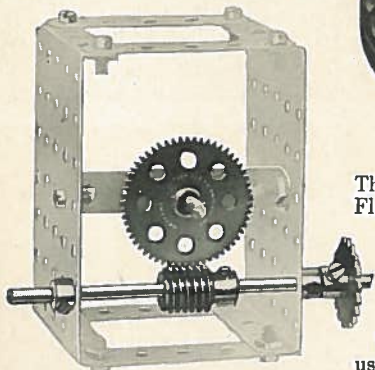


Fig. D

rotate slowly, giving great power but at the expense of speed. The final drive is at right angles to the original drive.

The Meccano Ball Bearing

The Meccano ball bearing, which is illustrated below in Fig. B, is made with two 3" Pulley Wheels and a Wheel Flange. The Wheel Flange is centred on a Rod and held in place by a collar and set screw.

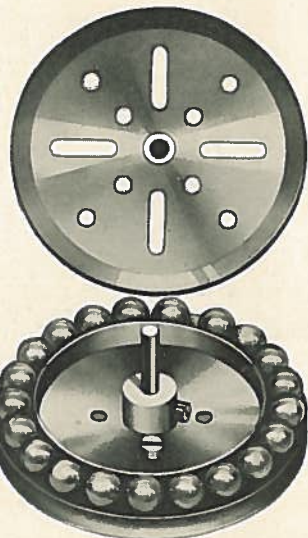


Fig. B

The space between the Wheel Flange and the rim of the Pulley Wheel forms the race for the balls. A Second Pulley on the rod above the Wheel Flange holds the balls in position.

The Meccano ball bearing is useful in Cranes or similar models in which one part rotates horizontally on another part. It gives great freedom of movement and enables the Crane to handle heavy loads with a minimum of friction.

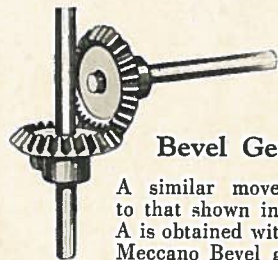


Fig. C

Bevel Gears
A similar movement to that shown in Fig. A is obtained with the Meccano Bevel gears. Two Bevel gears in mesh give a right angle drive at the same speed as that of the original shaft.

Gear Combinations

One example of Meccano gearing is shown in Fig. E, either a step-up or reduction gear can be obtained, depending upon whether the drive from the Motor is applied to the Rod carrying the upper Gear Wheel or the one on which the lower Pinion is fixed.

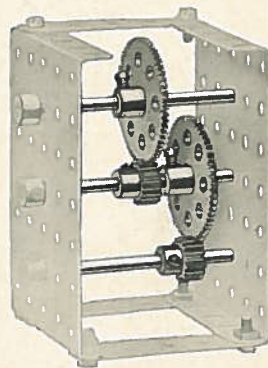


Fig. E

There are other Meccano Gear Wheels with which any boy can make a number of different gear combinations.



Fig. F



Fig. G



Fig. H

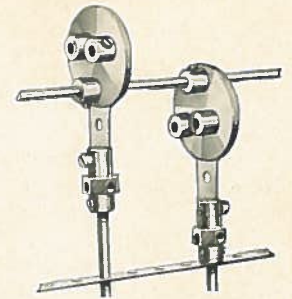


Fig. K

Types of Pulleys

All boys are interested in Pulleys. Here are three examples of the large variety of pulleys that can be made with Meccano parts. Fig. F shows a block pulley, Fig. G a simple type of pulley used for quick hoisting, and Fig. H, a multiple pulley-block used on large Cranes to obtain great leverage at the expense of hoisting speed.

The Triple Throw Eccentric

One of the latest Meccano parts, the Triple Throw Eccentric, is particularly useful for transforming a circular motion into a to-and-fro movement. Three different throws may be obtained, namely, $\frac{1}{2}$ ", $\frac{3}{4}$ " and 1".

The Eccentric at the left in Fig. K is shown at the highest point of its movement and the one at the right is at the lowest point.

The figure illustrated might be used for a model of a Punching Machine in which the rotary motion of the upper Rod is converted into the up-and-down movement of the punches.

A Perfect Working Automobile Differential

An accurate model of a differential gear for automobiles is easily constructed with a few Meccano parts. The Meccano model of an Auto-chassis (into which this differential is built) is being used in several Auto Schools for teaching pupils exactly how a differential functions. It is so very much easier to explain the working of an automobile differential with a model in Meccano.

Famous engineers and inventors use Meccano for working out their ideas and we have letters from them telling us that Meccano has saved them thousands of dollars that they would otherwise have had to spend in having models and patterns made.

Notice how beautifully all the Meccano parts adapt themselves to any purpose. Model-building with Meccano is delightfully simple and extraordinarily fascinating.

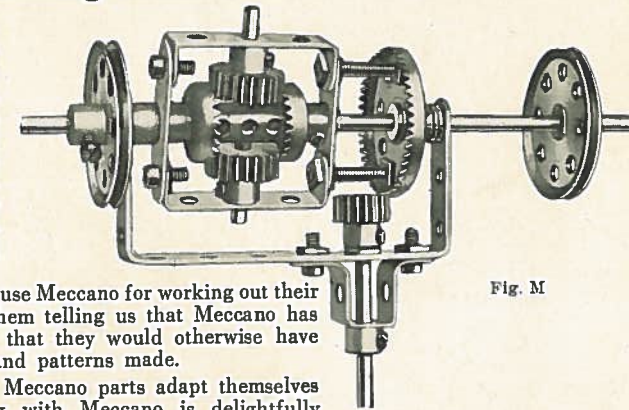


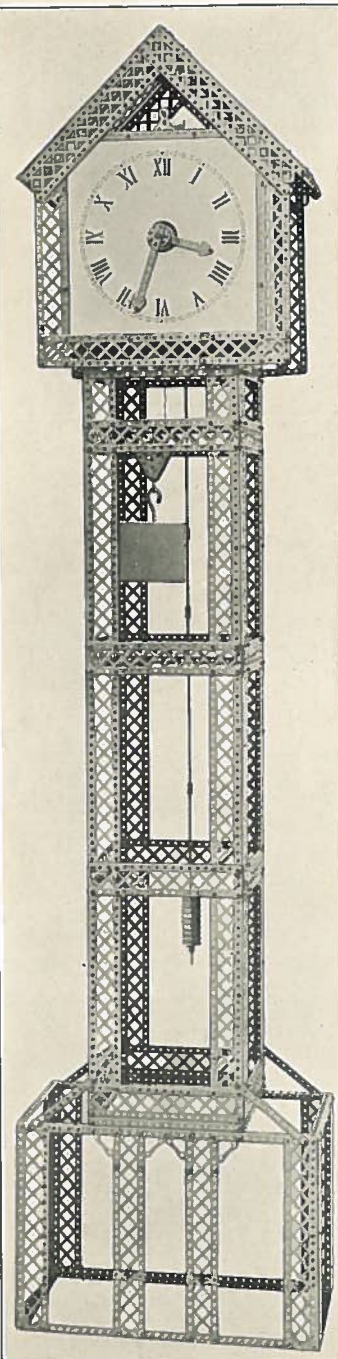
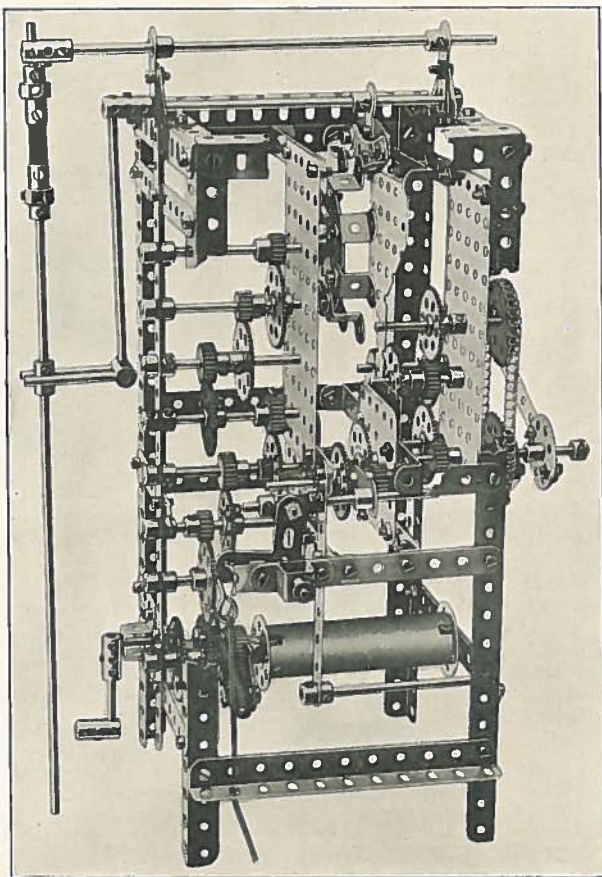
Fig. M

To build Right, you must have all Meccano Parts

We are sometimes asked which are the most important Meccano parts. The reply to this is that they are *all* important. We could boast of our curved strips or girders or special wheels, which, along with every other necessary engineering part, have been contained in our system for years, but there are many other distinctive and valuable patented Meccano parts that are far more useful, and which every real model builder must have. Meccano as it stands is a complete and perfect Engineering system and nothing else can ever take its place.

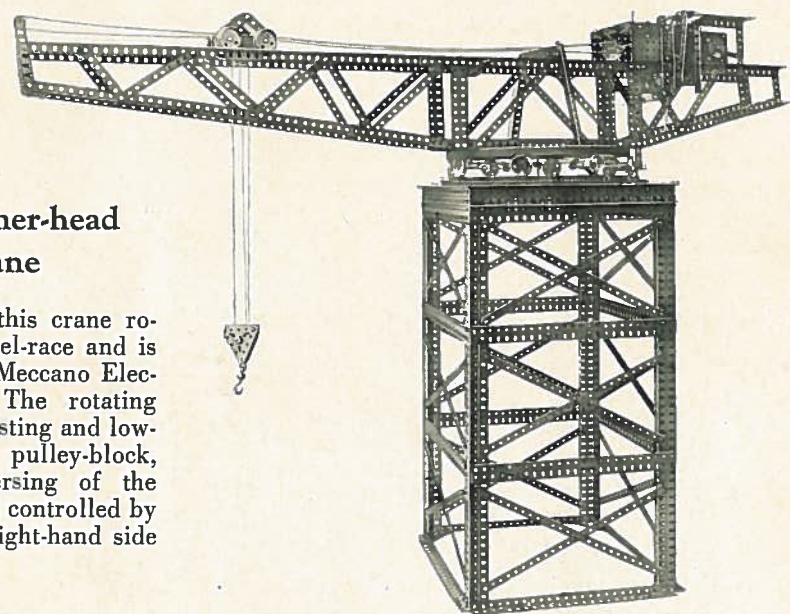
The Meccano Grandfather's Clock

This clock stands over 6 ft. high, and with the exception of a 17 lb. weight and its cord, the cardboard face and the light spring on which the pendulum hangs, it is made entirely of Meccano. The clock keeps perfect time. Its construction is not difficult and any boy can build it with Meccano. The cut below shows the gear trains, the hands of the clock being on the right and the pendulum on the left. Notice particularly the ingenious palet-wheel and escapement motion. Any boy can build it with Meccano.



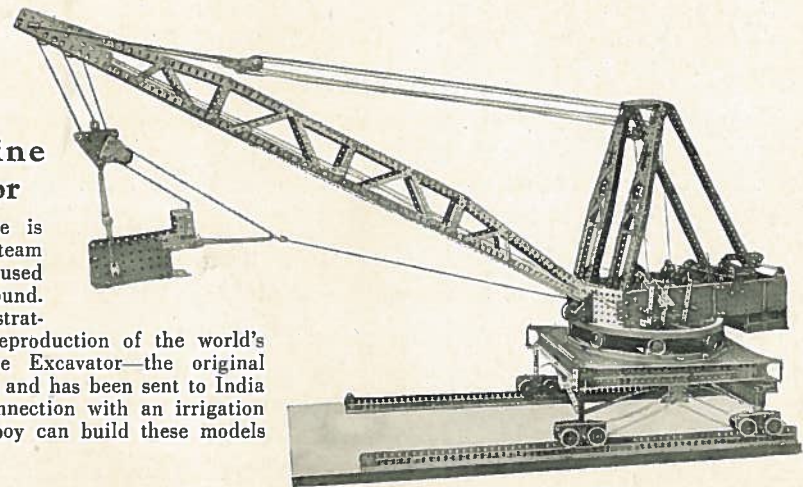
Two interesting Meccano models

HOW fascinating it is to watch a crane or excavator in action—with its mighty power so easily controlled and directed. We picture below two models that show with what realism and accuracy these machines can be duplicated with Meccano.



A Hammer-head Crane

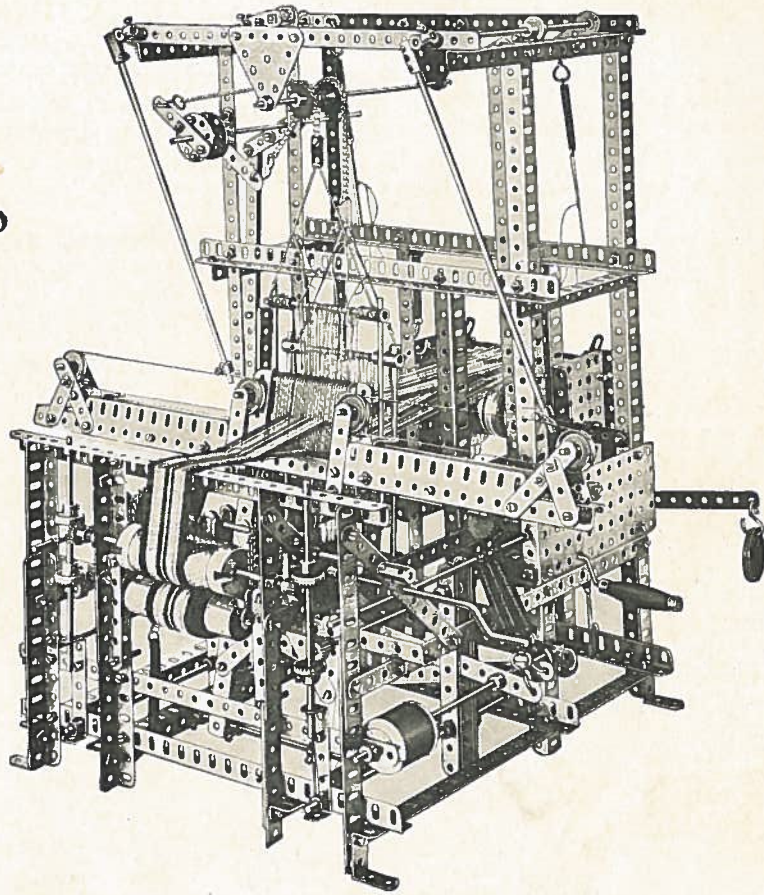
The jib of this crane rotates on a wheel-race and is driven by the Meccano Electric Motor. The rotating motion, the hoisting and lowering of the pulley-block, and the traversing of the carriage are all controlled by levers at the right-hand side of the jib.



A Dragline Excavator

This Machine is similar to a Steam Shovel but is used on marshy ground. The model illustrated here is a reproduction of the world's largest Dragline Excavator—the original weighs 200 tons and has been sent to India for work in connection with an irrigation project. Any boy can build these models with Meccano.

The Meccano Loom



No model could better illustrate the wonderful genius of the Meccano system than this Loom. In this loom, which is a triumph of model-building, every technical operation of the process of weaving is perfectly carried out in miniature, exactly as in everyday practice in actual manufacture.

The Loom works by turning the crank handle on the right of the model. This sets in motion the whole of the necessary operations.

It is built entirely of Meccano parts, and with it real fabric can be woven, suitable for hat-bands, neckties, etc. The colors and the pattern of the fabric may be varied as desired. The skill and artistic abilities of the model-builder are expressed in the resulting patterns and combination of colors. Any boy can build it with Meccano.

ANY BOY CAN EASILY BUILD THESE MODELS



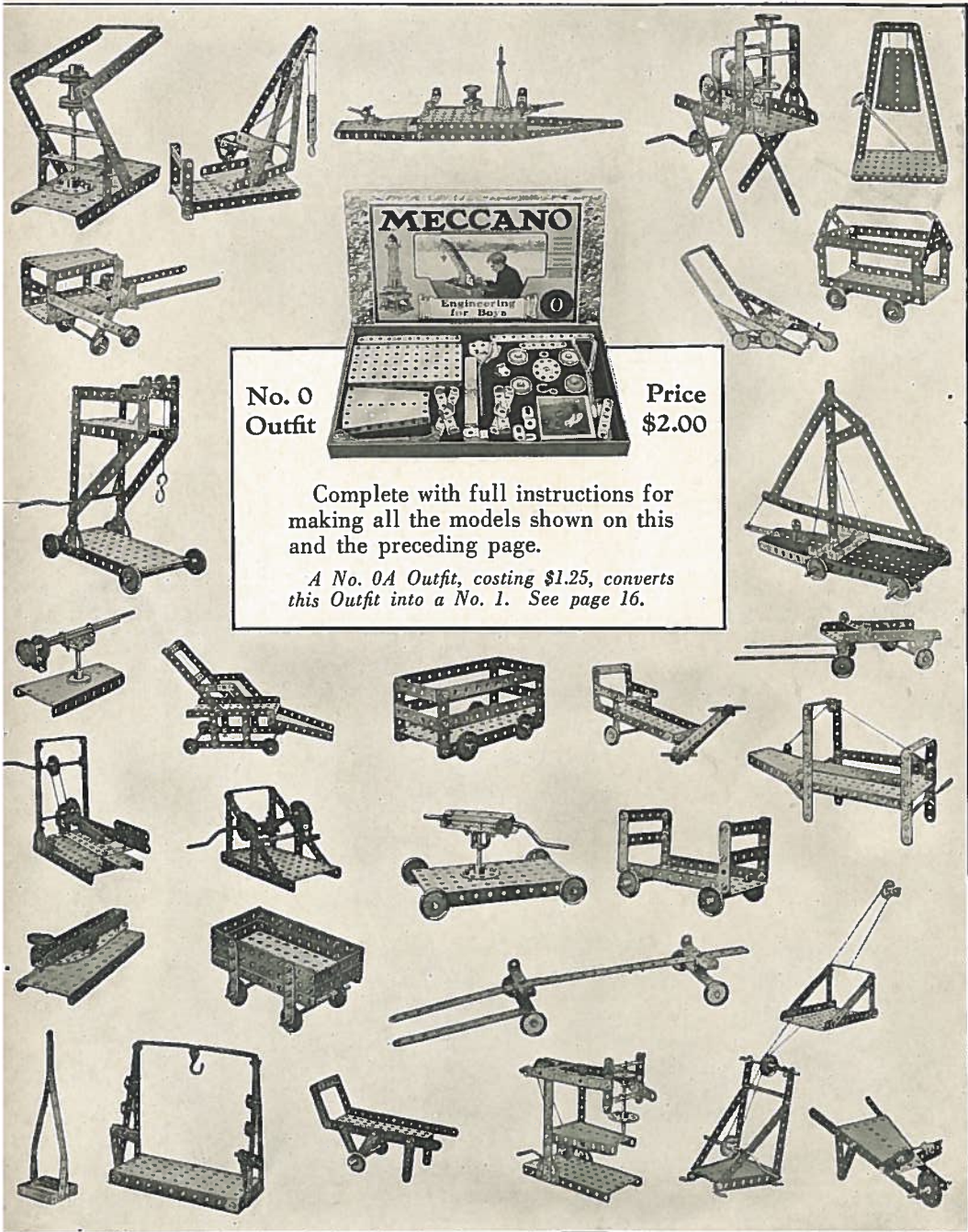
No. 00
Outfit

Price
\$1.00

A beginner's Outfit for younger boys. Makes the 43 fine models shown. Full instructions included.

WITH THE OUTFIT SHOWN ABOVE

FUN THAT NEVER ENDS



No. 0
Outfit

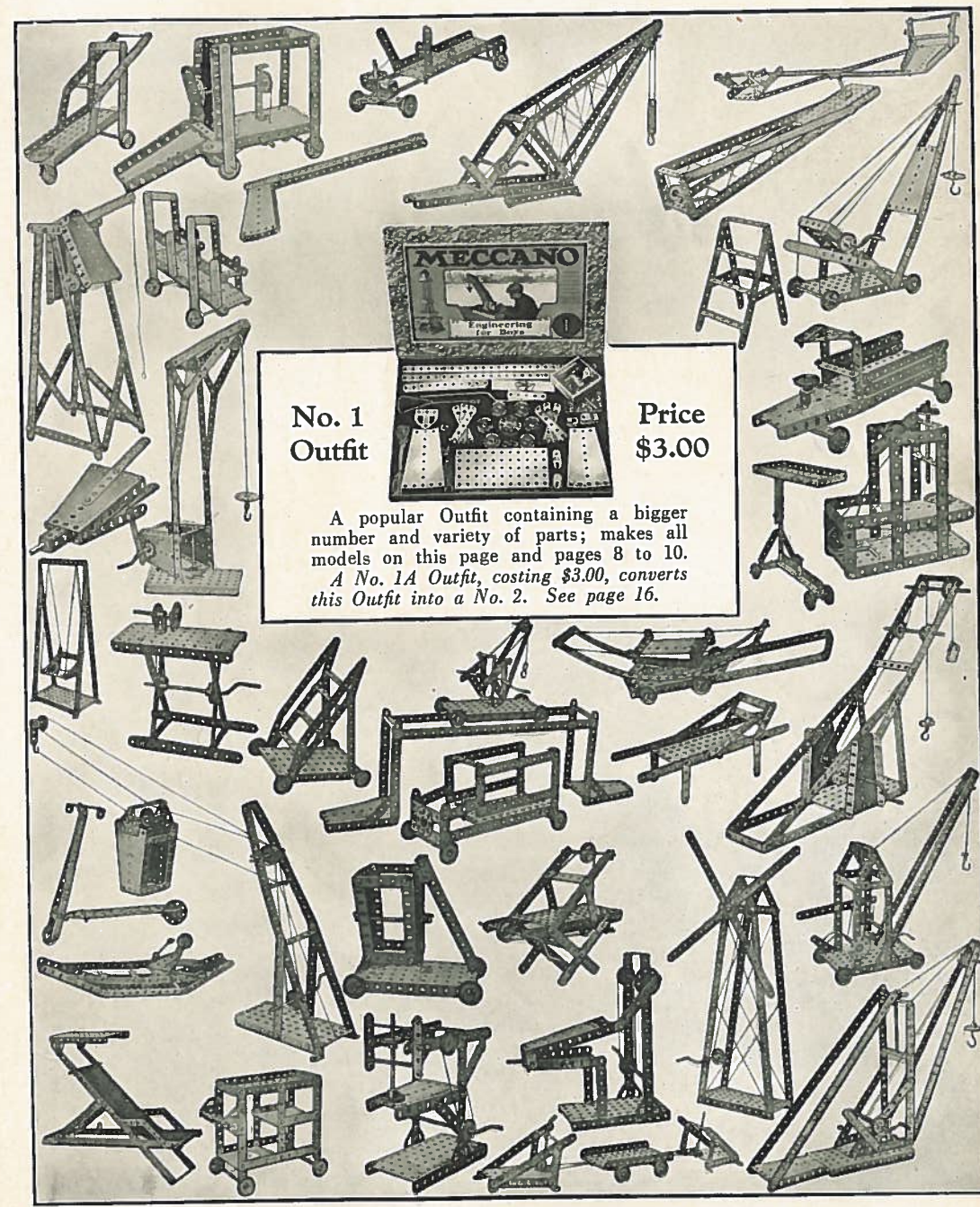
Price
\$2.00

Complete with full instructions for making all the models shown on this and the preceding page.

A No. 0A Outfit, costing \$1.25, converts this Outfit into a No. 1. See page 16.

THE GENIUS IS IN THE PARTS

A NEW TOY EVERY DAY



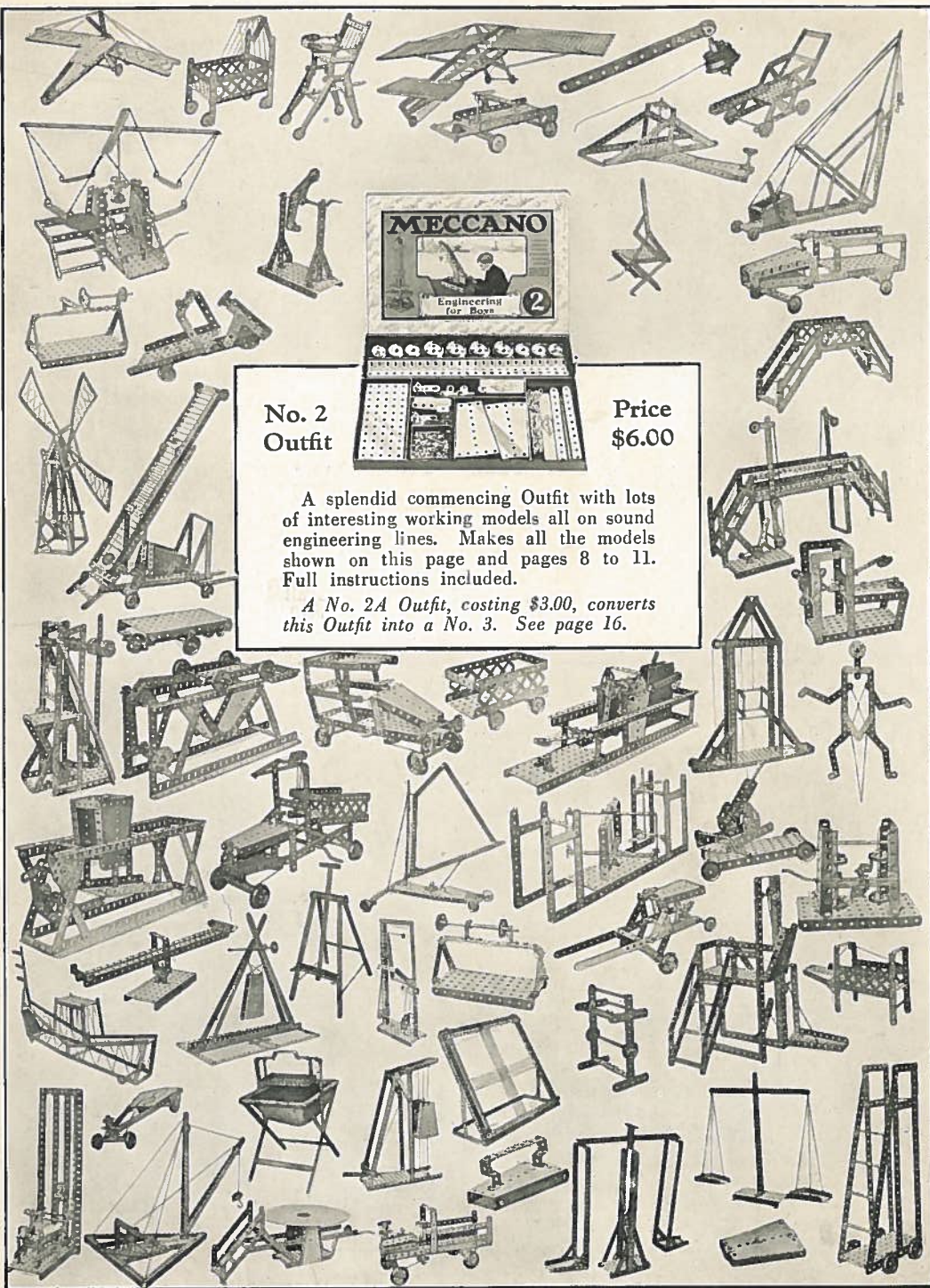
No. 1
Outfit

Price
\$3.00

A popular Outfit containing a bigger number and variety of parts; makes all models on this page and pages 8 to 10.

A No. 1A Outfit, costing \$3.00, converts this Outfit into a No. 2. See page 16.

OUTFIT NO. 1x—SAME AS NO. 1 WITH ELECTRIC MOTOR ADDED—\$5.00



**No. 2
Outfit**

**Price
\$6.00**

A splendid commencing Outfit with lots of interesting working models all on sound engineering lines. Makes all the models shown on this page and pages 8 to 11. Full instructions included.

A No. 2A Outfit, costing \$3.00, converts this Outfit into a No. 3. See page 16.

OUTFIT NO. 2x—SAME AS NO. 2 WITH ELECTRIC MOTOR ADDED—\$8.50



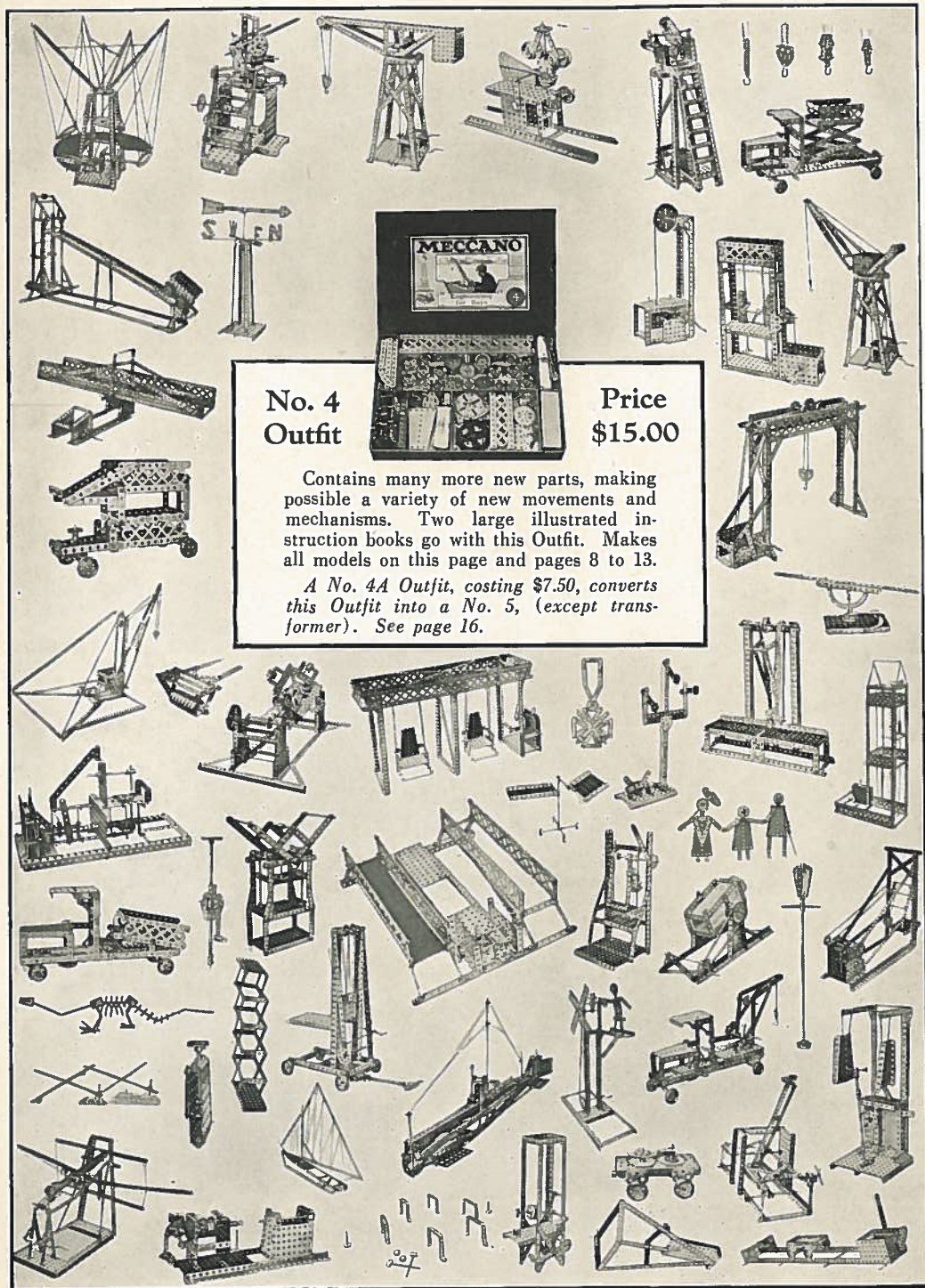
**No. 3
Outfit**

**Price
\$9.00**

An excellent Outfit making fine advanced models. Includes gear, worm and pinion wheels and many other useful parts. Makes all the models on this page and pages 8 to 12. Fully illustrated instructions.

For 3A Accessory Outfit, see page 16.

OUTFIT NO. 3x—SAME AS NO. 3 WITH ELECTRIC MOTOR ADDED—\$11.50

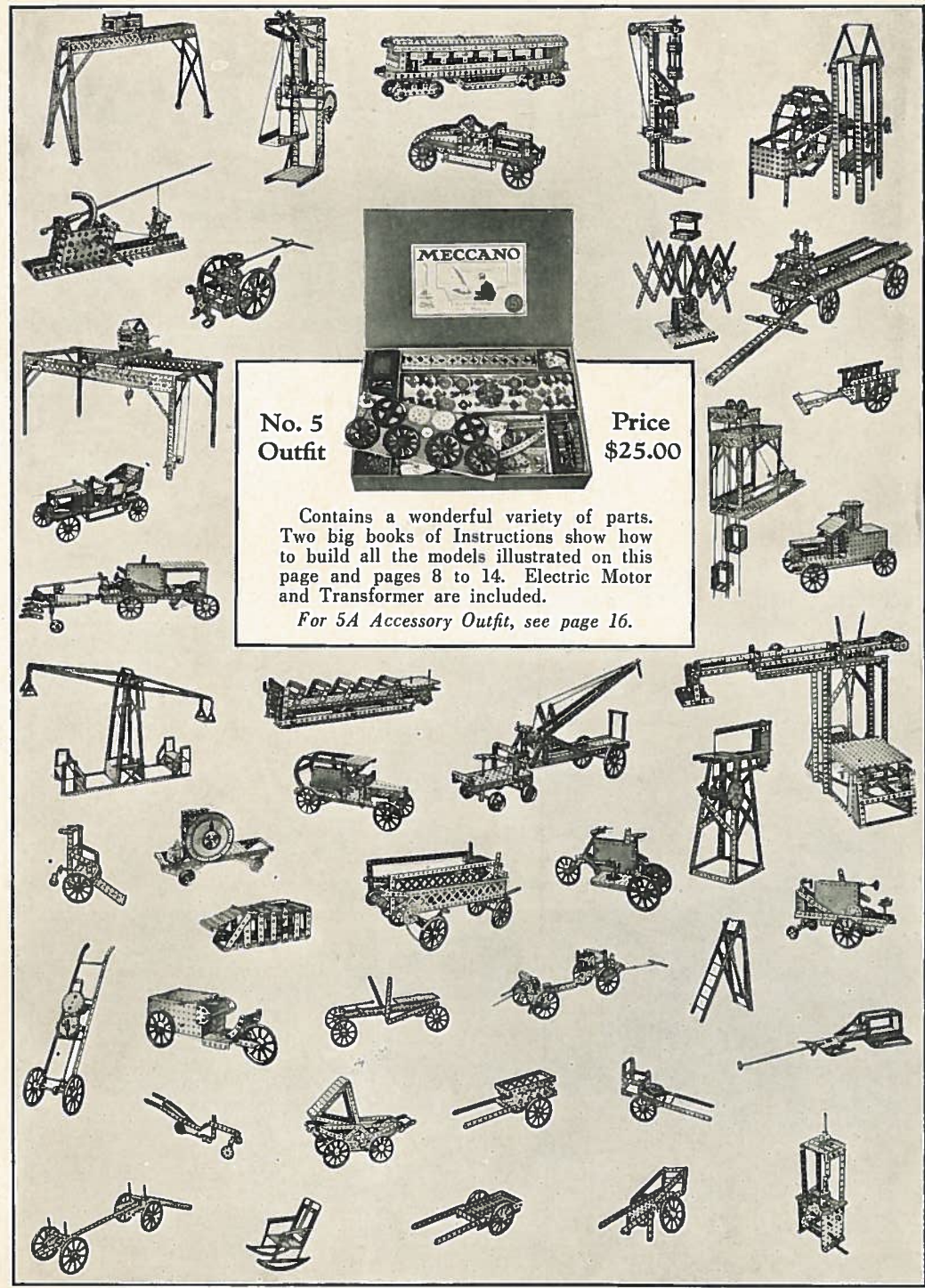


**No. 4
Outfit**

**Price
\$15.00**

Contains many more new parts, making possible a variety of new movements and mechanisms. Two large illustrated instruction books go with this Outfit. Makes all models on this page and pages 8 to 13.

A No. 4A Outfit, costing \$7.50, converts this Outfit into a No. 5, (except transformer). See page 16.

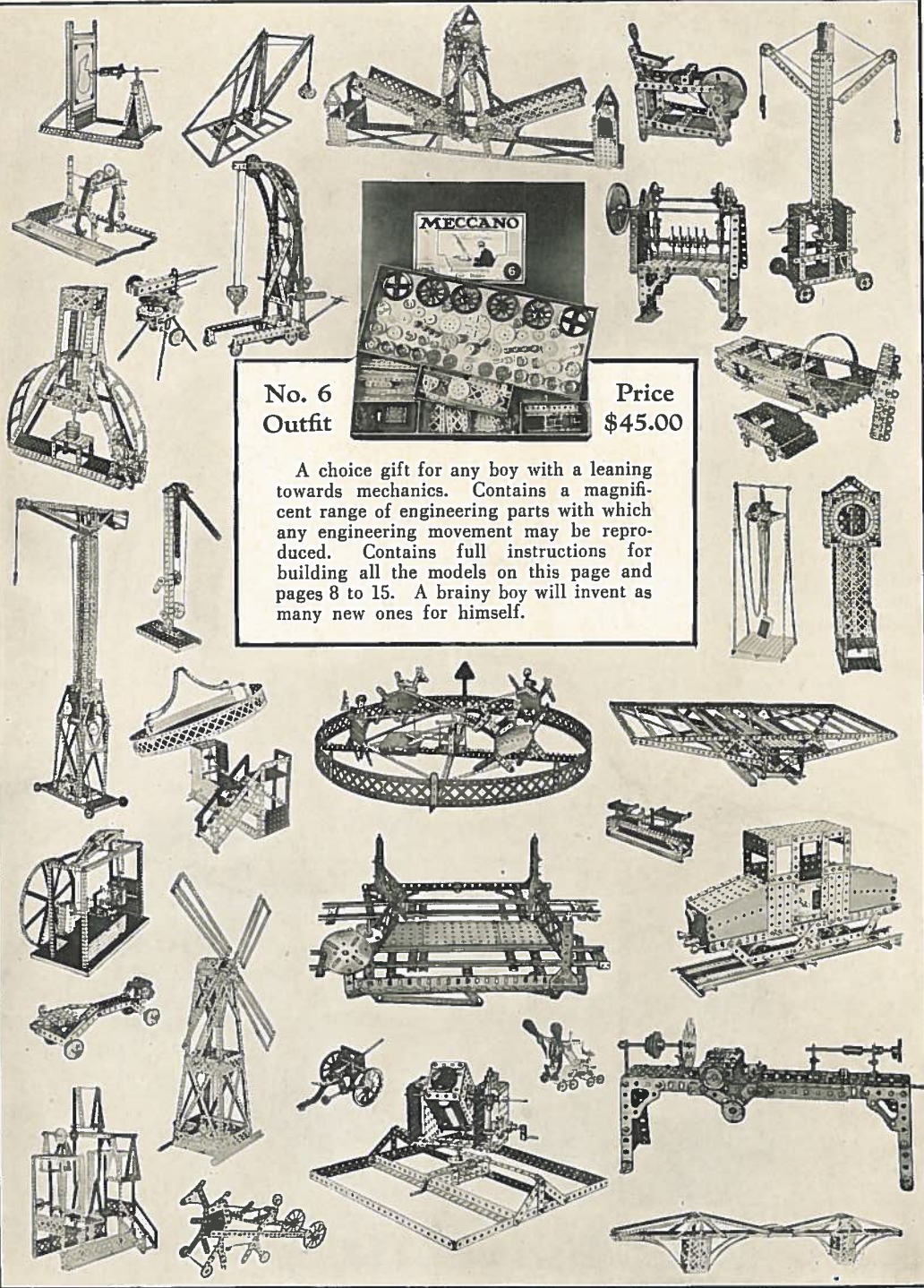


**No. 5
Outfit**

**Price
\$25.00**

Contains a wonderful variety of parts. Two big books of Instructions show how to build all the models illustrated on this page and pages 8 to 14. Electric Motor and Transformer are included.

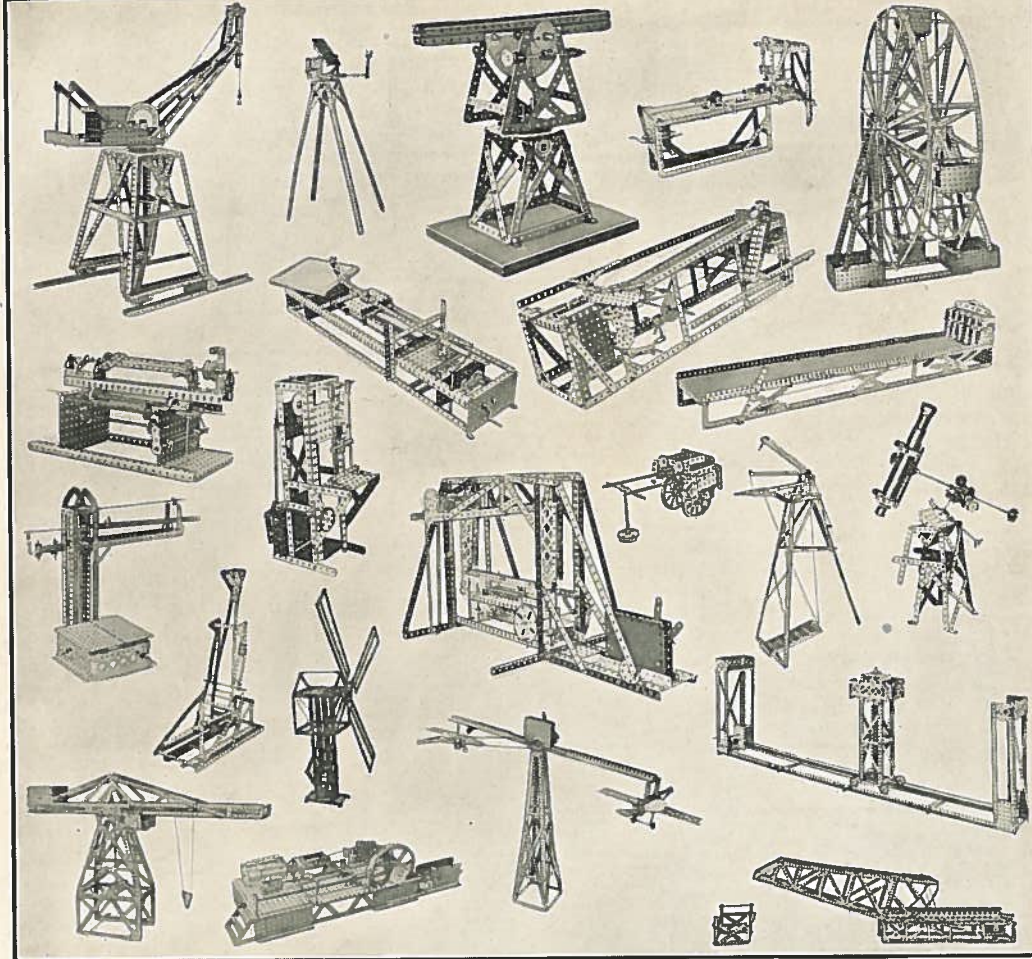
For 5A Accessory Outfit, see page 16.



**No. 6
Outfit**

**Price
\$45.00**

A choice gift for any boy with a leaning towards mechanics. Contains a magnificent range of engineering parts with which any engineering movement may be reproduced. Contains full instructions for building all the models on this page and pages 8 to 15. A brainy boy will invent as many new ones for himself.



MECCANO PRICE LIST

| | | | |
|----------------------------|--------|--|---------|
| No. 00 Meccano Outfit..... | \$1.00 | No. 0A Accessory Outfit..... | \$1.25 |
| “ 0 “ “ | 2.00 | (converts a No. 0 into a No. 1) | |
| “ 1 “ “ | 3.00 | No. 1A Accessory Outfit..... | \$3.00 |
| “ 1x “ “ | 5.00 | (converts a No. 1 into a No. 2) | |
| “ 2 “ “ | 6.00 | No. 2A Accessory Outfit..... | \$3.00 |
| “ 2x “ “ | 8.50 | (converts a No. 2 into a No. 3) | |
| “ 3 “ “ | 9.00 | No. 3A Accessory Outfit..... | \$6.00 |
| “ 3x “ “ | 11.50 | (converts a No. 3 into a No. 4 except motor) | |
| “ 4 “ “ | 15.00 | No. 4A Accessory Outfit..... | \$7.50 |
| “ 5 “ “ | 25.00 | (converts a No. 4 into a No. 5 except transformer) | |
| “ 6 “ “ | 45.00 | No. 5A Accessory Outfit..... | \$20.00 |
| | | (converts a No. 5 into a No. 6) | |

Outfits 1x, 2x, 3x and 4 contain an electric motor; Outfits 5 and 6 have electric motor and transformer.

For prices and descriptions of Meccano parts, see pages 19, 20 and 21.

MECCANO MOTORS AND TRANSFORMER

| | | | |
|----------------------------------|--------|---|--------|
| E-1 Electric Motor, one-way..... | \$3.50 | S-1 Clockwork Motor | \$3.00 |
| E-2 “ “ reversing..... | 4.50 | Transformer, 110 volts. 60 cycles, only.... | 2.50 |

The Meccano Motors

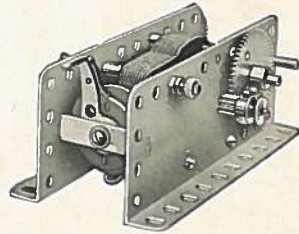
ALL the Meccano models can be made to work by hand, but it adds greatly to the fun of the hobby if the models are operated in a realistic way by means of a motor. Both the Meccano Clockwork and Electric Motors are specially designed to build into Meccano models and, in fact, they may be said to be part of the system itself. They are pierced with the regular Meccano equidistant holes, and they fit smoothly into position, giving no trouble and a great deal of extra pleasure.

Meccano Electric Motor

The use of electricity exercises a great fascination for an intelligent boy, and this motor provides him with the means of running all his models by electricity. It is well designed, simple, strong and free from danger. It can readily be fitted with the standardized Meccano gears to obtain various ratios of speed and power. It takes four volts, and may be operated either by storage or dry batteries, or direct from the house current if a suitable transformer is used. No more powerful or satisfactory toy Electric Motor has ever been designed. Two types are made, as listed below.

E-1 ELECTRIC MOTOR—A one-way motor, equipped with pulley for belt drive and pinion for use with gears. For price, see page 16.

E-2 ELECTRIC MOTOR—Reversing, with control lever and extra gears, as illustrated above. For price, see page 16.



The Meccano Clockwork Motor

This is a splendid piece of mechanism, simple, powerful, reliable and free from all danger. It is fitted with starting, stopping and reversing levers, and, due to its design, extra gearing made from Meccano parts can be applied to produce greater lifting power. It is very easy to understand, and all its movements are fully explained in the instructions which accompany it. For price, see page 16.



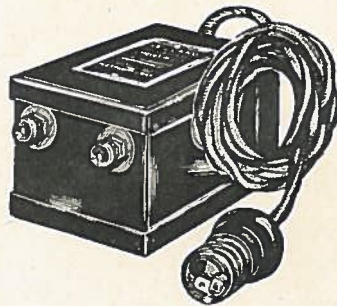
The Meccano Transformer

For 110 Volts, 60 cycles A. C. only

The Meccano Electric Motor can be operated direct from house current by the use of the Meccano Transformer. This method is very convenient and eliminates battery cost. The transformer is entirely enclosed and has no moving parts to get out of adjustment. It is absolutely safe for any boy to use. Screw the plug furnished with the transformer into the lamp socket, connect the wires from the motor to the two binding posts, and turn on the current. Away goes the motor with a merry hum. For price, see page 16.

A special Transformer for 25 to 40 cycles A. C. is also available. Price upon application.

Note—Transformers cannot be used on Direct Current.



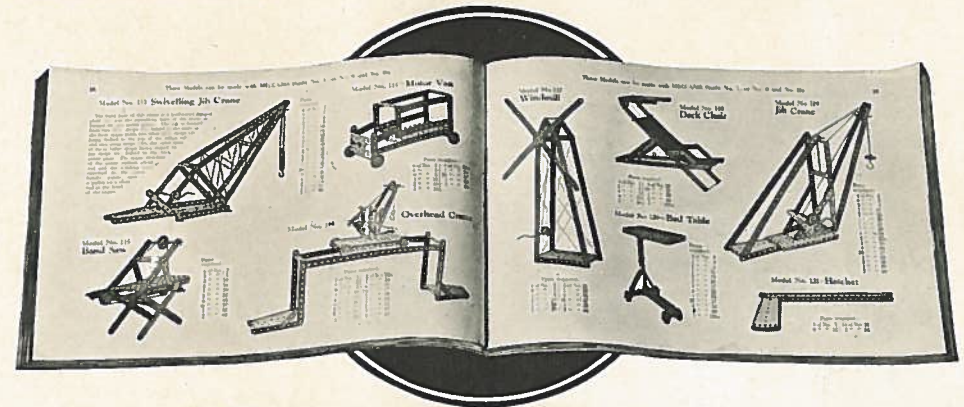
Meccano Manuals of Instructions

EACH Meccano Outfit contains a Manual of Instructions showing numerous models that can be built with the Outfit. These books are profusely illustrated and show clearly how the models are made—all that is necessary is to follow the pictures and to assemble the parts just as they appear in the illustrations.

There are two Meccano Manuals—Book No. 56A, which shows the models that can be made with Outfits up to No. 3 inclusive, and Book No. 56B, which illustrates many larger models that can be made with the higher Outfits.

The No. 56A Manual

What a delightful surprise greets a boy as he opens this book for the first time! Automobiles, Derricks, Bridges, Towers, Airplanes, Boats, Swings—in fact, more than 200 fascinating models pass before him as he turns the pages. There are over 250 pictures of the finest toys that any boy could wish for. It is just brimful of fun and happiness and will give you more real joy and pleasure than you ever had before in your life. And the best part of it is, you don't need to buy these toys, you can easily make them yourself. Building is no end of fun—if you have the genuine Meccano.



Manual 56A

The No. 56B Manual

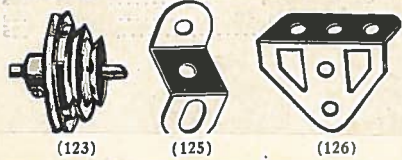
A hundred and fifty larger, more advanced models, with over 200 beautiful illustrations, fill the 96 pages of this great new model-book. Some of the models stand several feet high, and every one is a true working model—an exact copy in miniature of some famous engineering structure. Every one is well illustrated and the construction is made clear by detail views and simple explanations, so that no study is necessary—you just start building. The many models in this book give a clear insight into the principles of mechanics and the construction of the world's great engineering feats in a most fascinating way.

This fine book is included in Outfits Nos. 4, 5 and 6, in addition to the No. 56A Manual. These two books contain the finest group of models ever assembled—and only with Meccano can you make them all!

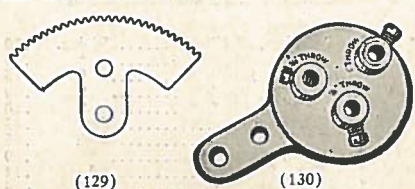
Particulars and Prices of Meccano Parts (Continued)

| | | |
|-----------------------------------|-------|-------|
| | | |
| No. (108) | (109) | Price |
| 108 Architraves..... | each | .09 |
| 109 Face Plates, 2 1/4" diam..... | " | .20 |
| 110 Rack Strips, 3 1/2"..... | " | .10 |
| 111 Bolts, 3/4"..... | " | .02 |
| 111A " 1/2"..... | " | .01 |
| 111B " 7-32"..... | doz. | .10 |

| | |
|---|--------------|
| | |
| 113 Girder Frames..... | each .10 |
| 114 Hinges..... | per pair .20 |
| 115 Threaded Pins..... | each .05 |
| 116 Fork Pieces..... | " .10 |
| 117 Steel Balls, 3/4" diam..... | " .02 |
| 118 Large Wheel Hubs, 5 1/2" diam..... | " .50 |
| 119 Large Wheel Segments (8 to circle, 1 1/2" diam.)..... | " .15 |
| 120 Buffers..... | each .05 |
| 120A Spring Buffers..... | per pair .25 |



| | | |
|--------------------------------------|--------------|-------|
| (121) | (125) | (126) |
| 121 Train Couplings..... | each .15 | |
| 122 Miniature Loaded Sacks..... | 1/2 doz. .30 | |
| 123 Cone Pulleys..... | each .50 | |
| 124 Reversed Angle Brackets, 1"..... | 1/2 doz. .25 | |
| 125 Trunnions..... | each .10 | |
| 126A Flat Trunnions..... | " .06 | |
| 127 Simple Bell Cranks..... | " .10 | |
| 128 Boss Bell Cranks..... | " .15 | |



| | |
|----------------------------------|----------|
| (129) | (130) |
| 129 Rack Segments, 3" diam..... | each .20 |
| 130 Triple Throw Eccentrics..... | " .45 |



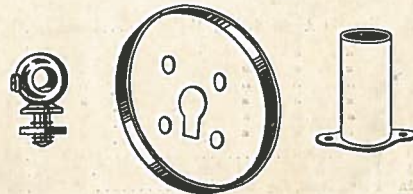
| | | |
|--------------------------|---|-----|
| 131 Dredger Buckets..... | " | .15 |
|--------------------------|---|-----|



| | | |
|--------------------------------|------|-------|
| No. | | Price |
| 132 Flywheel, 2 1/4" diam..... | each | .75 |
| 133 Corner Brackets..... | " | .10 |



| | | |
|----------------------------------|---|-----|
| 134 Crank Shafts, 1" Stroke..... | " | .10 |
| 135 Theodolite Protractors..... | " | .06 |



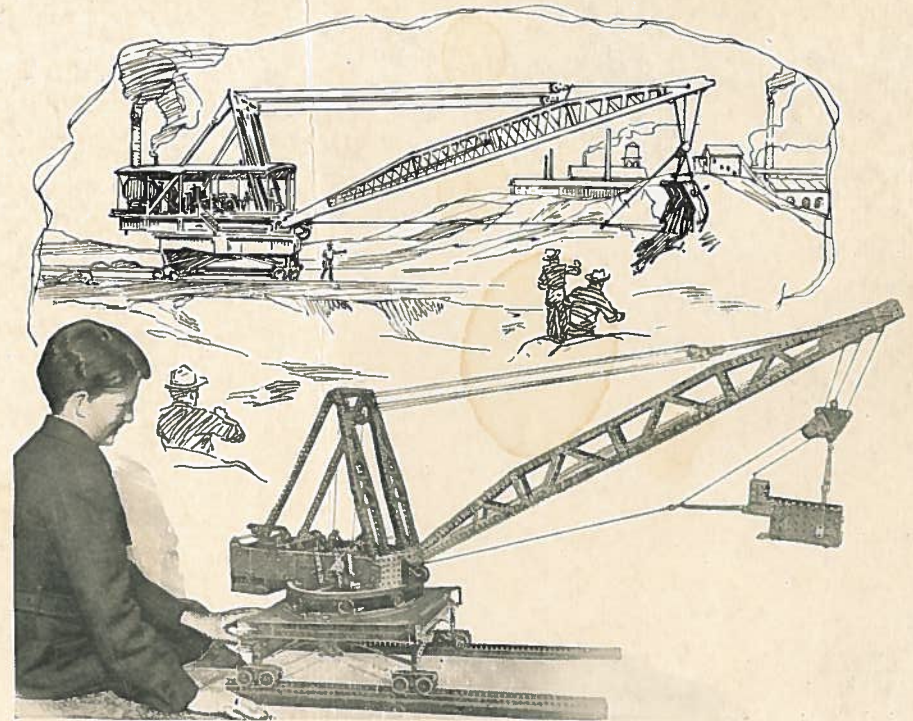
| | | |
|----------------------------|------|-----|
| 136 Handrail Supports..... | each | .10 |
| 137 Wheel Flanges..... | " | .15 |
| 138 Ship's Funnels..... | " | .25 |



| | | |
|-----------------------------------|------|-----|
| 139 Flanged Brackets (right)..... | each | .10 |
| 139A " (left)..... | " | .10 |
| 140 Universal Couplings..... | " | .30 |
| Brushes for Electric Motor..... | " | .10 |
| Springs " " "..... | " | .10 |
| Caps " " "..... | " | .05 |

When ordering Brushes or Springs, please specify whether they are required for Brush-holders on the outside of the sideplate, or inside.

Most dealers carry spare Meccano parts or can get them for you. If your dealer cannot supply you, send remittance with order to Meccano Company, Inc., Elizabeth, N. J., and we will see that you are supplied. Add 10% for postage.



Meccano is more than a toy

It is most 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 do the corresponding engineering elements in actual practice. No other system of model construction can be correct, and other toys which attempt the same object by other methods must avail themselves of 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.

MECCANO COMPANY, Inc.

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