

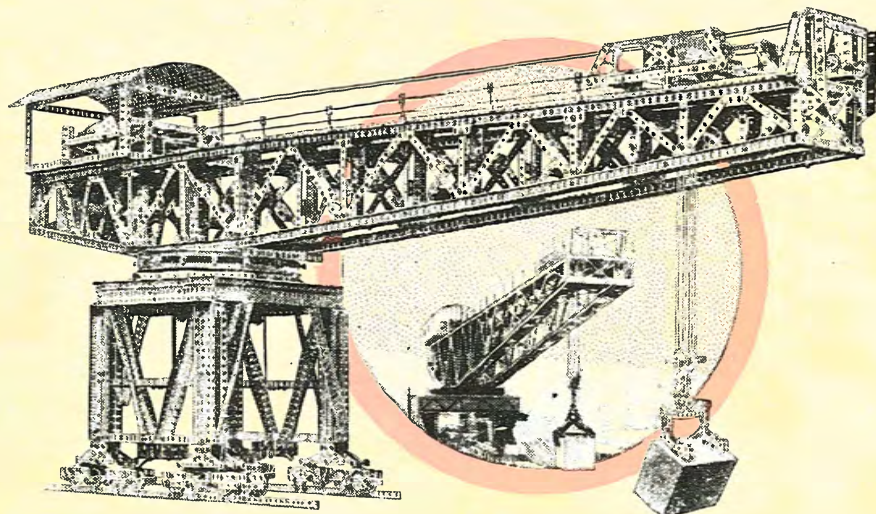
MECCANO

THE TOY THAT MADE ENGINEERING FAMOUS

THE PIONEER CONSTRUCTIONAL TOY—HORNBY'S ORIGINAL INVENTION—FIRST PATENTED 1901
THE LEADER OF 1929

NEW HIGH-GRADE DOUBLE VALUE OUTFITS MAKE MORE MODELS AND
POSSESS GREATER POSSIBILITIES THAN EVER.

This is an exact replica of a giant Block-setting Crane that is used in the construction of Harbors and Breakwaters to place 200 ton concrete blocks in position on the sea-bed. The model travels along on a wheel base under its own power; its jib

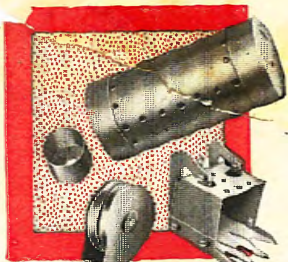


rotates, lowers its heavy load and manoeuvres it into position by the travelling grab that runs along the jib. All these movements are carried out by a high-power Meccano Electric Motor, controlled by levers in the powerhouse at the end of the jib.

MECCANO COMPANY, INC., ELIZABETH, NEW JERSEY

The 1929 Meccano

What the New Double Value Outfits Contain



More Parts: The new Meccano Outfits contain many new parts, beautifully enamelled in green and red, an exclusive Meccano feature, and they build more models than have ever been built by any other construction toy. For instance, the new \$1.00 No. 06 Outfit makes over 470 models and new ones are being added every day. This is absolutely the greatest value ever given in a construction toy.



Over 675 Models For \$3.00: This double value No. 1 Outfit (\$3.00) is the greatest building set for the money on the market. Not only does it make more models than any other similarly priced set, but the models are stronger and more perfect according to engineering principles. If you have previously used any other construction toy, you will have discovered how weak and wobbly its models are. Nothing but strong, sturdy models are possible with Meccano. The \$3 Outfit has many new and exclusive parts; for example, it contains 4 big Swivel Base Wheels, the patented Meccano Braced Girders, perforated Plates and Trunnions, beautifully enamelled in green and red. The same Outfit plus the exclusive Meccano two way Electric Motor costs \$5 only. *This is high water mark in values.*

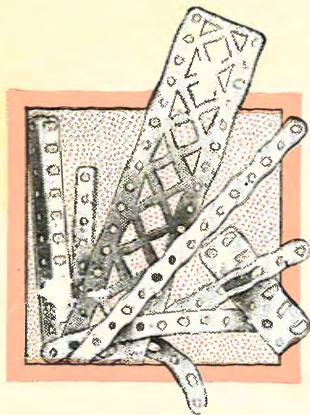


Meccano Swivel Base Wheels: These fine Wheels have proved so indispensable and valuable that we are now adding more of them to the Meccano sets. Boys who have a real interest in engineering are delighted with them. They are fine for Chassis models, Delivery Vans and all kinds of Trucks, especially when you fit the real Meccano-Dunlop rubber tires to them. They are the most perfect pulley and driving wheels ever designed and they are found in Meccano Outfits only. Four of them are now included in all Outfits from the "\$3.00—676 model outfit" and upwards.



Meccano Precision Gears: There is a correct scientific Meccano gear, bevel and worm for every purpose. Each one is found exclusively in Meccano Outfits and no other construction toy has them. They mesh properly with the correct amount of play, and they work smoothly without that grinding and jamming that you get with the badly-designed die-cast or stamped wheels. Examine Meccano parts, handle them, feel them, compare them with the parts of other construction toys. This will convince you that Meccano builds better models.

THE TOY THAT MADE ENGINEERING FAMOUS AMONG BOYS



The Meccano Precision Strips And Girders:

All the Meccano Flat and Angle Girders are perfect in design. If we made them of thinner and cheaper steel we should have to put channels in them or turn over the edges in order to try and strengthen them, and this would make them useless for real model builders. *The steel strips and the girders must be of stout metal and must have flat surfaces.* If there were any surface irregularities, there would be entire lack of precision, especially when they were bolted together crosswise as happens in every model. Only with Meccano strips is it possible to build models that are not wobbly and rickety. Every hole in a Meccano strip makes a good bearing; the thinner strips of other construction toys give useless knife-edge bearings that wobble. Start right in the only practical way—that is with the Meccano standard precision Strips and Girders.

Biggest And Strongest Models: Meccano makes

the biggest models of any construction toy and it makes them 100% stronger. On this page is shown a Meccano model representing the famous Paris Eiffel Tower. It stands 10 ft. high and it is so strong you can climb to the top of it. This is a supreme test that only Meccano stands up to. Look at this

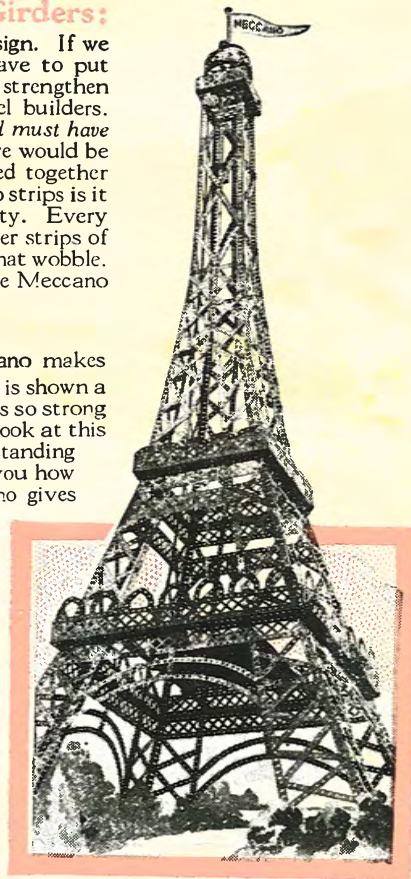
real photograph of all the family except Mother standing on quite a simple Meccano bridge. That shows you how strong the Meccano precision parts are. Meccano gives you double strength, double value and double fun. That statement is net and there is no discount whatever.

On the next page you will find some of the reasons why 1000 boys are playing with Meccano for every one boy playing with any other construction toy. But there is something deeper even than this. Meccano gives you service. If you strike a tough problem when you are inventing new models, we help you with advice and diagrams, when they are necessary, to make things clear to you. Our staff of experts stand ready to smooth out all your



Small Meccano bridge holds all the family except Mother.

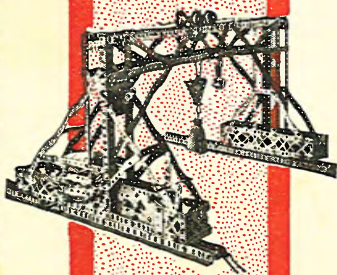
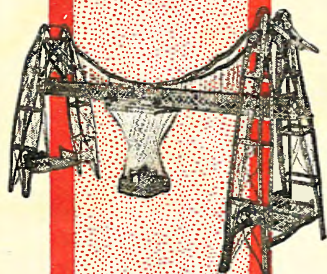
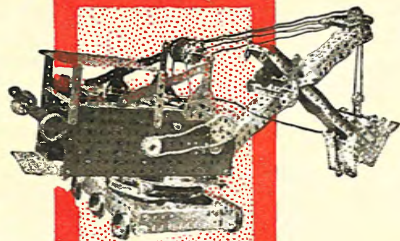
difficulties. We keep you advised of the many new models, that are being designed every day, and of all the new discoveries that add to the pleasure of Meccano model building. Meccano is the 100% toy for 100% boys.



Paris Eiffel Tower built with Meccano

GET MECCANO AND MECCANO SERVICE

Why 1000 Boys Play With Meccano For Every One That Plays With Any Other Construction Toy.



1—All Strips With Equidistant Holes. Because all Meccano parts have the equidistant holes, set $\frac{1}{2}$ inch apart and spaced to the 1-1000th part of an inch, giving you a connection or bearing just where you want it. No wonder you can make more and better models with Meccano! Naturally, Meccano models are easier to build, more rigid and true! That is why the Meccano Clock keeps accurate time and why the Meccano Auto Chassis, with all its complicated gearing, runs with that smooth purr typical of a fine motor car. This valuable feature is exclusive in Meccano.

2—Stronger Metal—Sturdier Models. Because all Meccano Strips and Girders are of the strongest metal, of stout thickness and are roll-machine surfaced, with no rough or burred edges. They build models of much greater strength and sturdiness than any other construction toy can make. Strong sturdy Strips and Girders are an exclusive Meccano feature.

3—No Turned Over Edges. Because all Meccano Strips and Girders are flat. If you have built with other construction toys you will have seen that the parts have channels or turned over edges, with the idea of strengthening the thin material. That isn't the way to make sturdy precision engineering models! You *must* use flat strips because in every model you always have to fasten some of them crosswise, and it is only when the surfaces are flat that you can get true contact and rigid construction. This is just as true when you come to build up long compound girders. Flat roll machined Strips are an important and exclusive Meccano feature.

4—Smooth Working Bearings. Because every hole in a Meccano Strip or Girder makes a good bearing and not the useless knife bearing that you get with the thinner strips often found in other construction toys, that only make wobbly, rickety models. Every engineer will tell you that a good, smooth working bearing is a rock-bottom essential in engineering, and precision cut holes that make superior bearings are an exclusive Meccano feature.

5—Beautiful Colored Parts. Because the color of Meccano parts is richer and more beautiful, the finish is finer, harder and more enduring than that of the colored parts of any other construction toy. The green and red are of just the right shades to bring out the greatest beauty of your models. If you have ever used other colored construction parts, you will notice the rough appearance and blobs of paint at the edges. Meccano colored parts are finished smooth and flat in the typical high quality Meccano way.

- 6—**Exclusive Parts Only Found In Meccano.** Because there are parts essential for building engineering models that can only be found in Meccano. Flat Strips, Girders and Plates, all with the Meccano standardized $\frac{1}{2}$ inch holes making them perfectly interchangeable; brass cut gears (not stamped like other construction gears) with 133, 57, 50, 38, 25 and 19 teeth; cut bevel gears with 48, 26, and 16 teeth that give perfect ratios no matter what movement is required; patented Couplings, etc., all essential engineering parts and all exclusive Meccano features.
- 7—**Many New And Special Parts.** Because Meccano has loads of special new parts, Pulley Blocks (one, two and three sheaves) $\frac{1}{2}$ inch throw Eccentric, Ball Bearings, Circular Saw, Ships Funnel, Crane Grab, Swivel Bearing, Dredger Bucket, Steam Boiler, and lots of other individual exclusive features making Meccano model building exactly like the most modern engineering construction.
- 8—**Only Meccano Has Curved Flat Strip.** Because Meccano is the only construction toy that has the important Curved Flat Strip that adds much to the strength and graceful lines of the models.
- 9—**Interchangeable Parts.** Because Meccano parts are far more interchangeable and build more and a greater variety of models. It is highly important that your parts be interchangeable and very adjustable. In no toy construction other than Meccano can you get anything like the same degree of interchangeability and adjustability of parts.
- 10—**Solid Disc Wheels.** Because Meccano has the only Solid Disc Wheels that can also be used for pulleys and to which can be attached the exclusive solid rubber Meccano Tire that has perfect resiliency.
- 11—**Meccano Makes Every Kind Of Girder.** Because you can make not only square girders, but any other type of girder used in construction. Meccano Girders are realistic in design and far stronger than any other type of construction girder.
- 12—**100% Greater Efficiency In Meccano Parts.** Because of their exclusive design, strength, rigidity and standardized interchangeability, Meccano parts have 100% greater efficiency. This means that you can build many more models than with the parts in any other construction toys.
- 13—**Meccano Is Electrified.** Because Meccano is electrified and the exclusive Meccano patented two-way Motor is included in all the Meccano motor outfits, 1x, 2x, 3x, 4x, 5x, and 6x outfits. It is ready for instant use; it hasn't to be built up and it fits perfectly into models. A single-way motor is a relic and is rapidly being discarded by discriminating builders. A powerful two-way Motor is found exclusively in Meccano Outfits.
- 14—**Real Instructions For Building.** Because the Meccano Manuals of Instructions are real books of Instructions and not simply books of pictures like those you get with other construction toys. They have hundreds of clear illustrations and detailed instructions that make model building delightful and easy. They are classics. They take over 250 tons of paper to make a single edition, and if the entire edition were put end to end, each one touching the other, they would extend a distance of over 125 miles. Piled one on top of the other they would stand over two miles up in the air, more than fourteen times the height of the Woolworth building. The Meccano manuals are printed in English, French, German, Dutch, Spanish, Italian, Norwegian, Swedish, Danish, and Chinese languages, and if you would like to see copies in any of these languages they will be sent to you post-paid on receipt of 50c.

Meccano
Manuals



14 times as high as
Woolworth Building

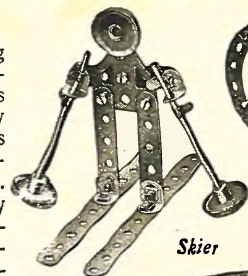
THE BIG DOLLAR OUTFIT No. 00



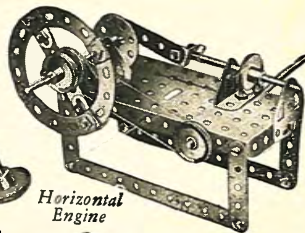
Makes 472 Models

A splendid commencing Outfit containing a selection of Meccano parts attractively boxed. Makes 472 well-designed models. Includes fully illustrated Manual of Instruction and everything necessary to commence building at once. Price \$1.00

The five models illustrated on the right are examples of what can be done with No. 00 Outfit



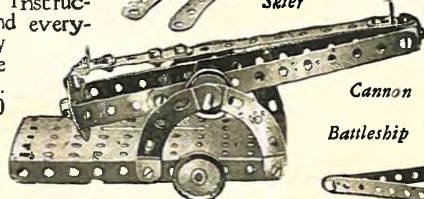
Skier



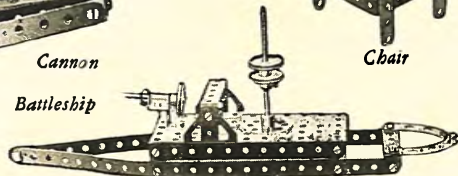
Horizontal Engine



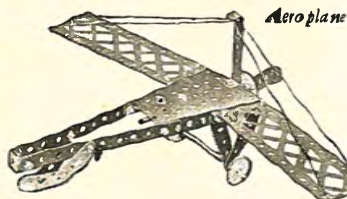
Chair



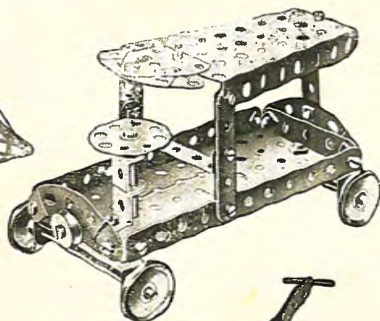
Cannon Battleship



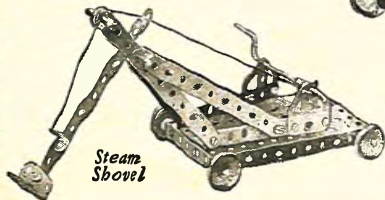
THE SET WITH THE NEW SWIVEL BASE WHEELS—No. 1 \$3.00



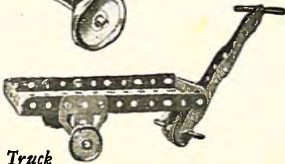
Aero plane



Delivery Truck



Steam Shovel



Truck

Makes 676 Models

Also has the patented Meccano Braced Girders, Trunnions, and Perforated Plates, beautifully enameled in colors, as well as all parts contained in the No. 00. All models, big and little, work and give great fun. New, bigger and better. Price \$3.00

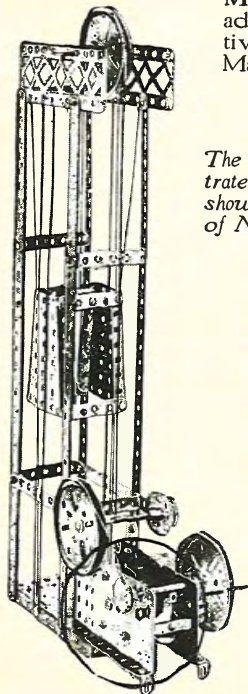


Look at the four models illustrated on the left. These are a selection of No. 1 Outfit models.

No. 1X THE BIG OUTFIT WITH THE PATENTED REVERSING ELECTRIC MOTOR

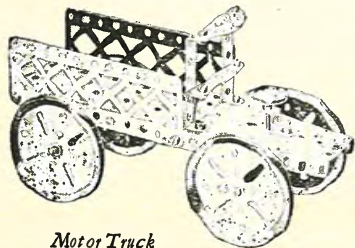
Makes 686 Models. Never before has a Reversing Motor been included in a \$5.00 set. In addition there is a big range of regular Meccano parts, and the whole is packed in an attractive double-tray carton, stoutly made. There is also included an entirely new and bigger Manual. Price \$5.00

The models illustrated on this page show the possibilities of No. 1x Outfit.

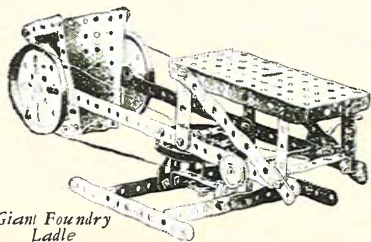


MECCANO REVERSING ELECTRIC MOTOR

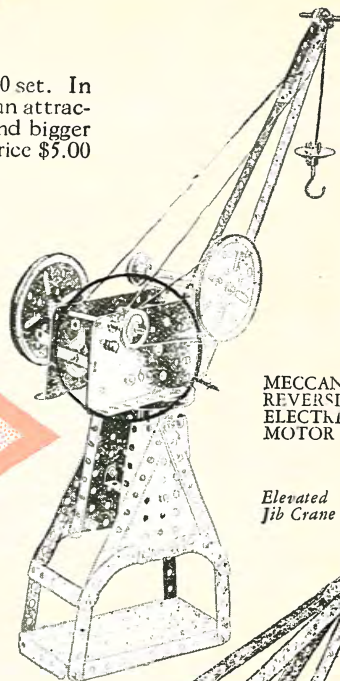
Electric Elevator



Motor Truck

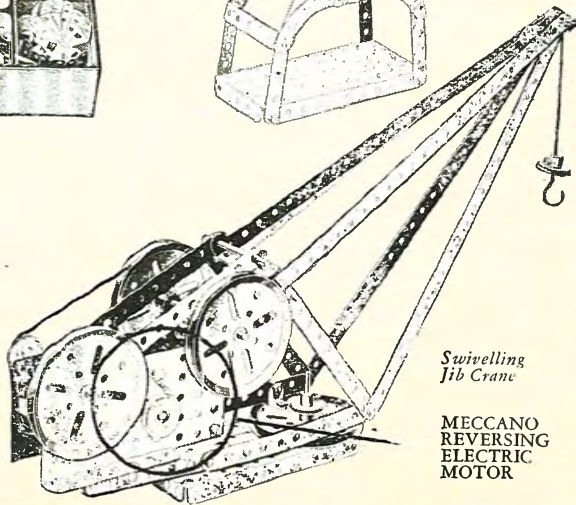


Giant Foundry Ladle



MECCANO REVERSING ELECTRIC MOTOR

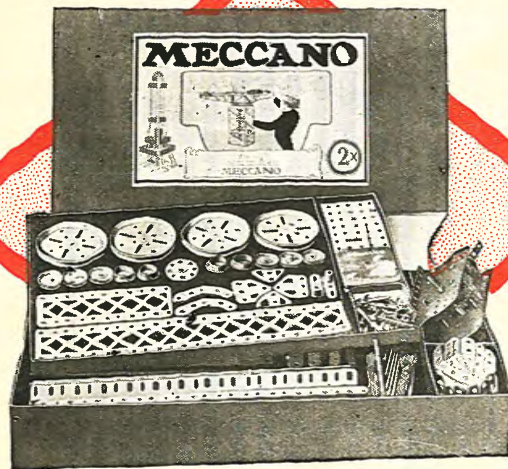
Elevated Jib Crane



Swivelling Jib Crane

MECCANO REVERSING ELECTRIC MOTOR

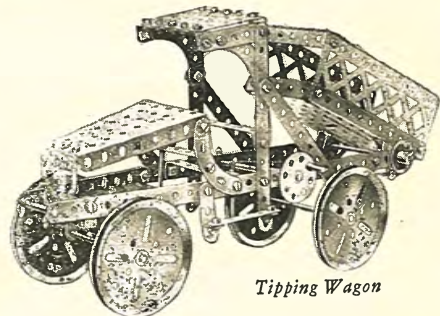
No. 2X—THE STURDY ANGLE GIRDER OUTFIT WITH PATENTED TWO-WAY ELECTRIC MOTOR



Makes 734 Models.

The first set to contain the sturdy Angle Girders, the strongest ever made, the new Flanged Wheels and the large Braced Girders. Includes a new Manual illustrating hundreds of models.

Price \$7.50



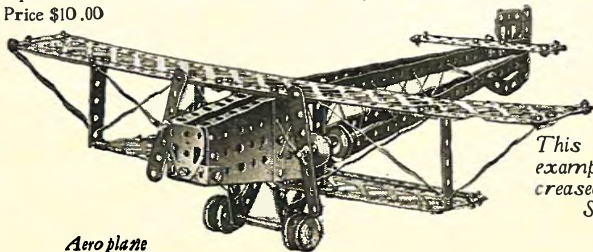
Tipping Wagon

This is one of the 734 models that can be built with No. 2x Outfit

No. 2X SPECIAL—A GRAND NEW LEADER MECCANO OUTFIT

This is the new Leader Outfit with the 4 solid Disc Wheels and solid Balloon Tires. They are genuine miniature automobile tires, and nothing like them has ever been included in any set. Every builder of models needs them. They slip on to the rim of the wheel just like the tires on a car wheel, and they hold the road and never puncture.

This Leader Outfit also includes everything contained in the regular 2x Outfit and is packed in a fine wooden box. It makes a splendid Christmas or birthday present. Price \$10.00



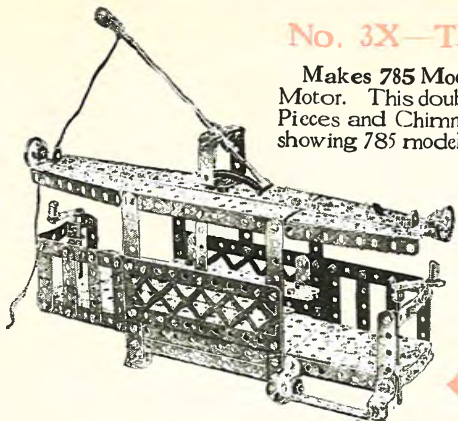
Aeroplane

This aeroplane is an example showing the increased scope of No 2x Special Outfit.



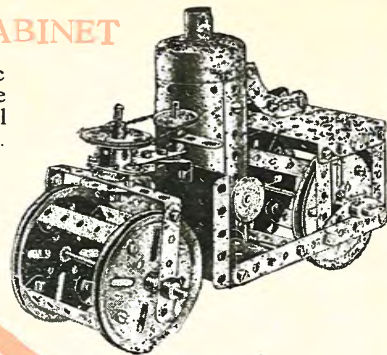
No. 3X—THE \$12.50 LEADER IN WOODEN CABINET

Makes 785 Models—Note the new Meccano Boiler and Reversing Electric Motor. This double value Outfit also contains the new Swivel Bearing, Sleeve Pieces and Chimney Adaptor, with a wide range of parts and a new manual showing 785 models. Price \$12.50.

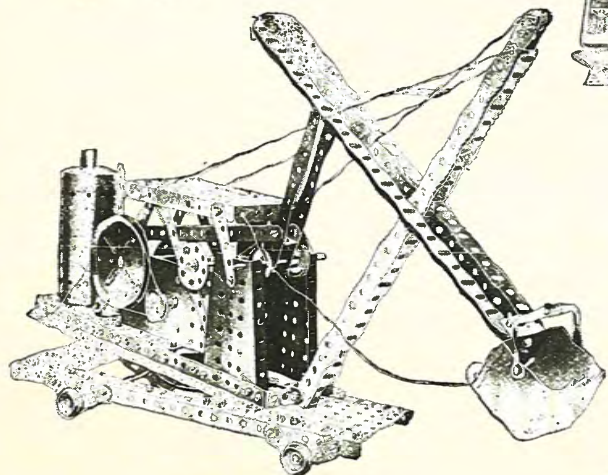


The models illustrated on this page show what you can do with No. 3x Outfit.

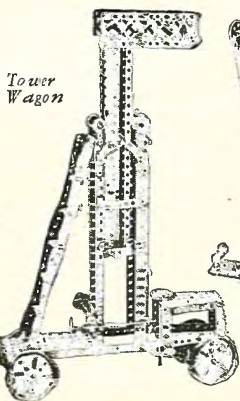
Electric Street Car



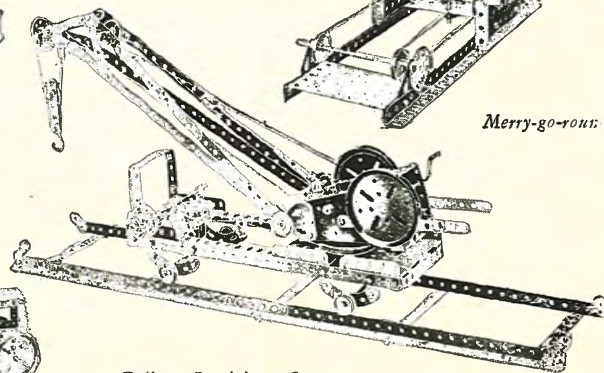
Steam Roller



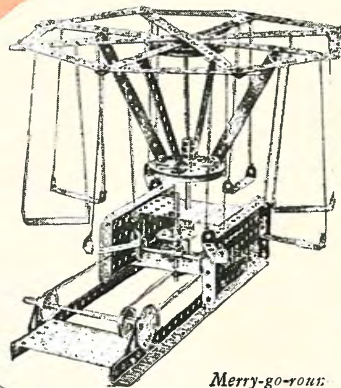
Steam Shovel



Tower Wagon



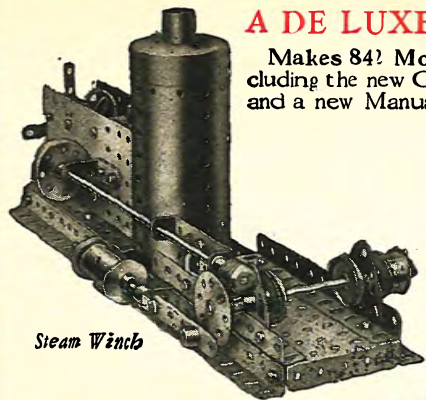
Railway Breakdown Crane



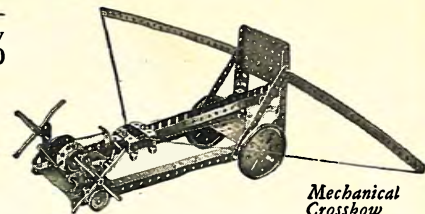
Merry-go-round

A DE LUXE OUTFIT AT A NEW PRICE—No. 4X, \$17.50

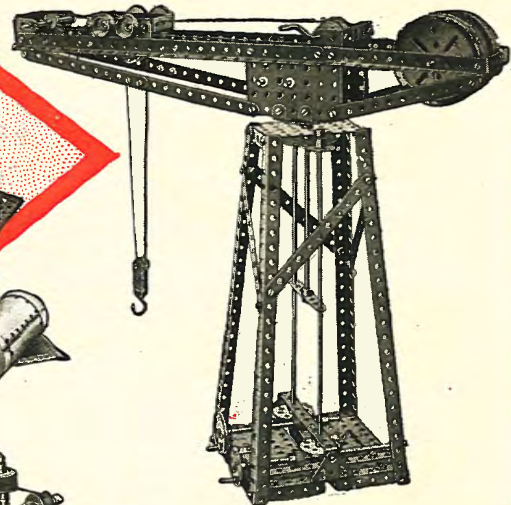
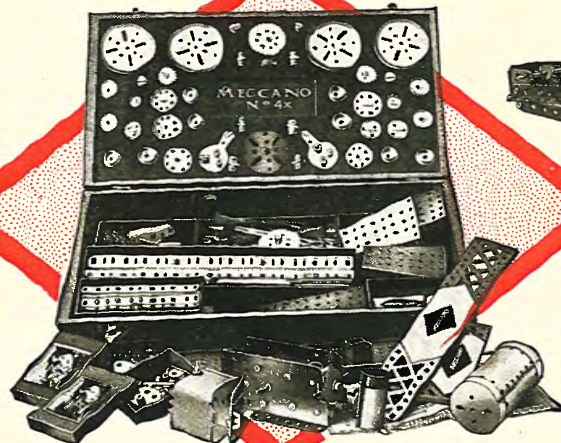
Makes 84¹ Models—Contains a magnificent range of Meccano parts including the new Grab. Boiler, a real tempered and ground steel Circular Saw and a new Manual. A distinctive gift Outfit. Price \$17.50



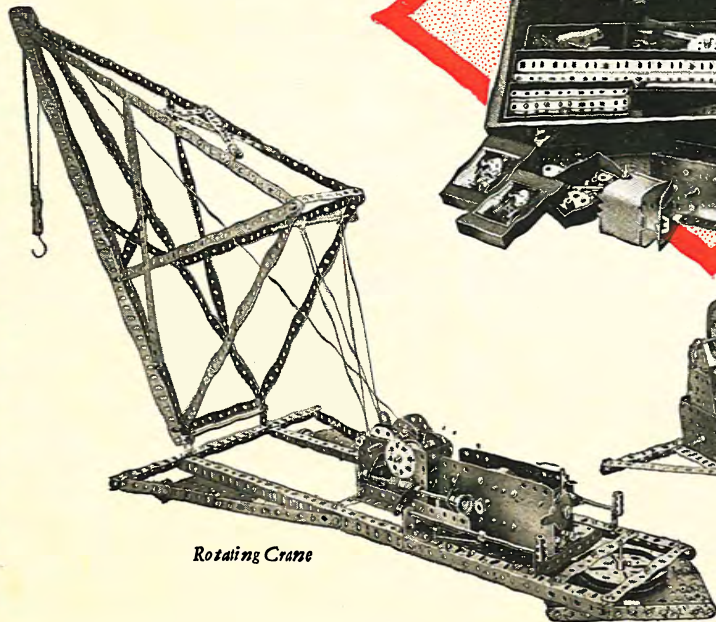
Steam Winch



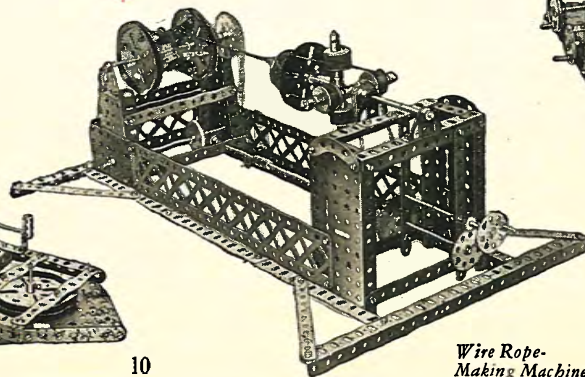
Mechanical Crossbow



Girder Crane



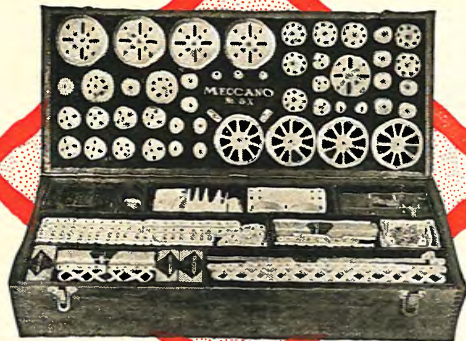
Rotating Crane



Wire Rope-Making Machine

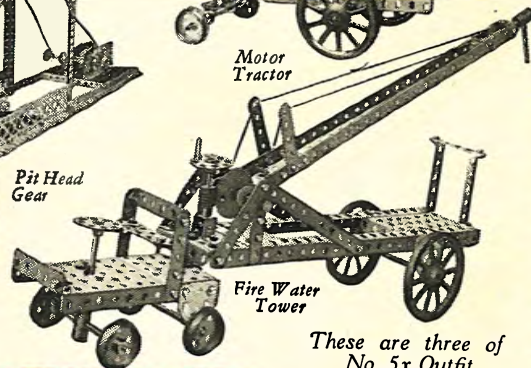
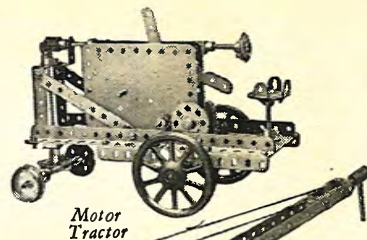
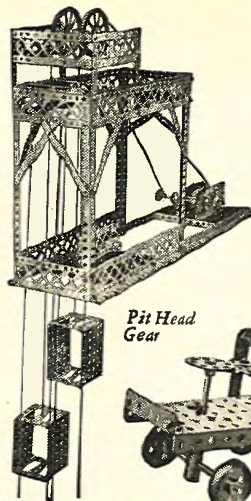
The models illustrated on this page are fine examples of what can be done with No. 4x Outfit

No. 5X.—THE 885 MODEL OUTFIT WITH THE TRANSFORMER



Makes 885 Models
This real double value outfit contains more parts, builds more elaborate models and makes possible a bigger variety of new movements and mechanisms. Includes the new Reversing Electric Motor, Grab, Boiler, steel Circular Saw Transformer, Channel Bearing Ship's Funnels, etc.; with a Standard Mechanisms Manual, and fully illustrated Instructions for building 885 models.

Price \$30.00

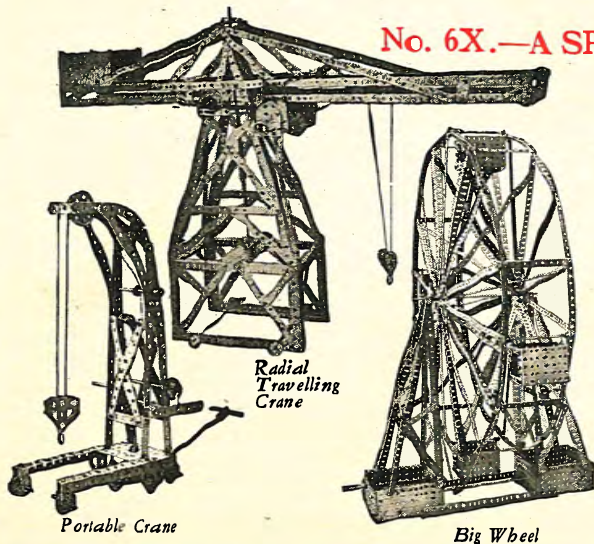


These are three of No. 5x Outfit models.

No. 6X.—A SPLENDID PRESENTATION OUTFIT

Makes 932 Models. A real de luxe Outfit, containing a magnificent range of parts, with everything included in the No. 5x Outfit and many additional parts, such as Strip Couplings, Threaded Cranks, Circular Girders, etc.; also contains special Instruction Leaflets for five Meccano super models—and fully illustrated Manuals of Instructions for building 932 different models. Price \$50.00

The three models illustrated are examples of the wonderful structures that can be built with No. 6x Outfit.



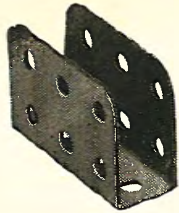
Portable Crane

Radial Travelling Crane

Big Wheel



NEW EXCLUSIVE



No. 160 Channel Bearing



No. 20b Flanged Wheel

No. 20b, Flanged Wheel $\frac{3}{4}$ ". We have very often been asked for a smaller flanged wheel than our regular pattern, and here it is. It has a hundred uses. Made of solid Brass. Found only in Meccano.

Nos. 25a and 26a, Double Width Pinions. Particularly useful where more than one gear is required to be driven from the one shaft. Also for sliding gears as used in the transmission of an automobile. Made of solid brass. An exclusive Meccano feature.

Nos. 30a and 30c Bevel Gears. Two particularly useful Bevel Gears for connecting two lines of shafting at right angles where a reduced or increased speed is required. Cut from solid brass, an exclusive Meccano feature.

No. 50a, Eye Piece with Boss. A great improvement over the old fashioned eye piece without boss. Made of solid brass, found only in Meccano.

No. 62b, Double Arm Crank. Specially useful on valve motions, rocker motions, etc., and for other purposes. A well made part and an exclusive Meccano feature.

No. 116a, Fork Piece. A real engineering part designed for many different purposes, such as the big end of a connecting rod, etc. Made of steel and solid brass and found only in Meccano.

No. 138a, Ship's Funnel. Something new. Many kinds of ship models can be made with these very realistic funnels, which have the rake that gives such character to ships like the Leviathan, Berengaria, etc. Enamelled in red and black, an exclusive Meccano feature.

No. 142b, Balloon Tires. These tires can be attached to the 2" or 3" pulleys and help to make a most realistic truck. Made of solid rubber and found only in Meccano.

No. 150, Crane Grab. A well-made grab for use on all crane models. Used in common practice for lifting loads of lumber; sacks, etc. A Meccano feature.

Nos. 151, 152, 153, Pulley Blocks. Used on cranes of all descriptions, they give a greater purchase. These parts fill a long-felt need and are an exclusive Meccano feature.

No. 156, Pointer. A fine looking part to use as an indicator on weighing machines, Barometer, Galvanometer, Radio Dials, etc. A special Meccano feature.



No. 157 Fan



No. 150 Crane Grab



No. 116a
Fork Piece



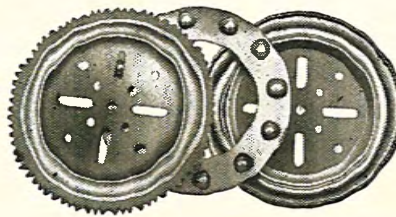
No. 50a
Eye Piece



No. 134a and b
Corner Angle Brackets



No. 159
Circular Saw



No. 168 Ball Bearing



No. 151



No. 152
Pulley Blocks



No. 153

MECCANO FEATURES

No. 157, Fan 2". This fan (enamelled red) is fine for use in model autos, trucks, etc., and for many other purposes. If you specialize on trucks you need the Meccano fan.

No. 159, Circular Saw. A real circular saw of the best tempered steel and will actually cut wood. Useful in building models of machine shops; an exclusive Meccano feature.

No. 160, Channel Bearing. Real model builders find this a most useful part for end bearings, shafts at right angles, and other purposes; enamelled in red, and only found in the Meccano system.

No. 162, Boiler with ends. Beautifully enamelled in green, a superior type of boiler suited for use in building fire engines, steamboats, locomotives, and many other kinds of models; has end pieces that can be detached. An exclusive Meccano feature not found in any other construction toy.

No. 163, Sleeve Pieces. Can be used for cylinders for engines, winding drums for engines, and for many other purposes. Enamelled in green and an exclusive Meccano feature.

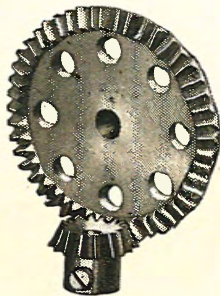
No. 164, Chimney Adaptor. Enamelled in green and of particular use as smoke stacks for locomotives, engines, etc.; also for engine headlights, and for other purposes. Found only in the Meccano system.

No. 165, Swivel Bearing. A real engineering part for line shaft bearing, connecting rotary to horizontal or vertical movements and a great variety of uses in model machinery. Found only in the Meccano system and of value to all real model builders.

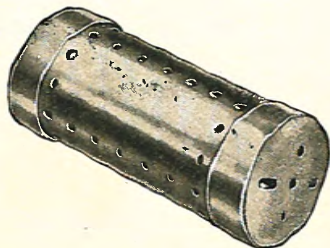
No. 166, End Bearing. Another real engineering part for coupling shafts to strips, cross-ties for bridges and many other uses. Of great value to real model builders. Made of solid brass and steel, an exclusive Meccano feature.

No. 168, Ball Bearing. For use in all models that are required to revolve around a base. A particularly useful part for real model builders. An exclusive Meccano feature.

No. 169, Digger Bucket. A digger bucket of special design for real model builders with special features. It is beautifully enamelled in green, an exclusive Meccano feature.



No. 30a and 30c
Bevel Gears



No. 162
Boiler with Ends



No. 142a
Meccano Dunlop Tire



No. 163
Sleeve Piece



No. 164
Chimney Adaptor



No. 166
End Bearing



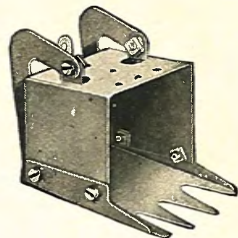
No. 165
Swivel Bearing



No. 25a, Pinion,
Double Width



No. 138a
Ship's Funnel
Cunard Type



No. 169
Digger Bucket



No. 62b
Double Arm Crank



No. 156 Pointer

A MICROTOME

Read all about this amazing Meccano model which thousands of clever boys are making and using.

This is a wonderful example of the accuracy of Meccano parts. It is an apparatus known as a Microtome, and it is used for cutting extremely thin sections of plant or animal tissue for microscopical study. The object to be cut is embedded in paraffin wax, and a razor blade, which moves forward with a sideways motion, cuts perfectly a section as amazingly thin as two thousandths of an inch! The razor blade and the small metal tube for holding the specimen to be cut are the only extra parts needed. To the many boys who make a hobby of Microscopy, the Meccano Microtome is a godsend. Such a beautiful and delicate piece of apparatus as this can only be made with Meccano.

How the Meccano Microtome works As the illustration shows the plunger is raised when the Ratchet Wheel is rotated. The movement of the rod attached to the Ratchet Wheel is reduced tremendously by a gear train of two Worms, a 1 in Gear Wheel, and a Rack Segment. Although only these four parts are used the speed reduction is so great that the vertical movement of the plunger is quite imperceptible. (With Meccano precision gears it is, of course, just as easy to obtain an accurate speed acceleration ratio as a reduction ratio.)

The mechanism giving the sideways movement to the knife is amazingly interesting. The razor blade is secured between two Rack Strips, the teeth of which are engaged by two 1 in Gear Wheels. When the sliding frame is pushed forward, one of these Gear Wheels is given a rotary movement by a $\frac{3}{4}$ in Pinion, which engages with a third Rack Strip secured parallel to the direction

of movement of the sliding frame. You can follow this movement quite easily in the illustration. Make a Microtome for yourself and experiment with it. If you have any difficulty write to us and we will gladly help you.

Hundreds of similar Meccano devices are being put to practical use in laboratories every day. There is a slide projector, with which enlarged copies of photomicrographic slides are thrown on a screen; an electrocuting machine, for killing tiny microscopic animals; and a stand for a photomicrographic camera. There are also working models of a centrifuge, for separating oils from water, etc., a bottle churn, for the violent agitation of liquids and the produc-

tion of emulsions; test tube shakers; stirrers and a mechanical device for sealing radium emanation tubes, etc.

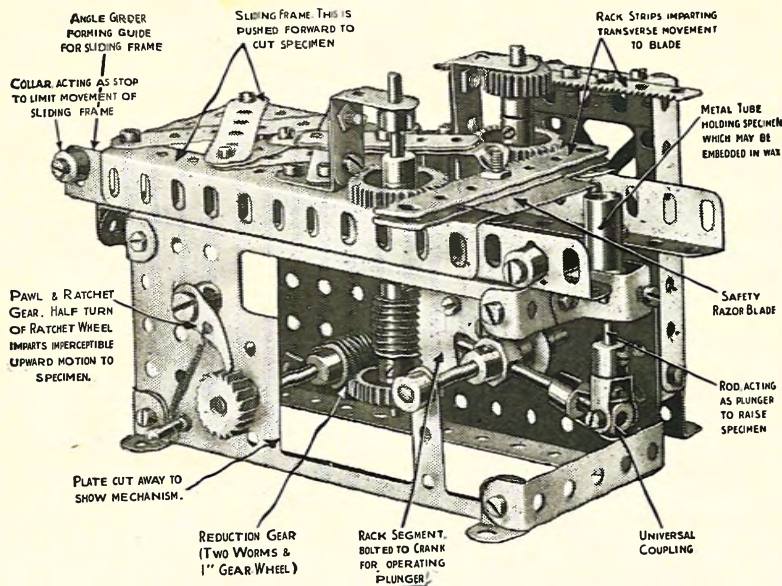
We like boys to make these interesting and ingenious models because there's something to them. If you have a constructional toy of any kind and you strike trouble in designing the movement you want, or getting it to work, write to us and we will put you on the right track. Add a few Meccano roll-machined flat Strips and precision Gears to your set and they will work wonders for you.

We Receive Letters Like This Every Day

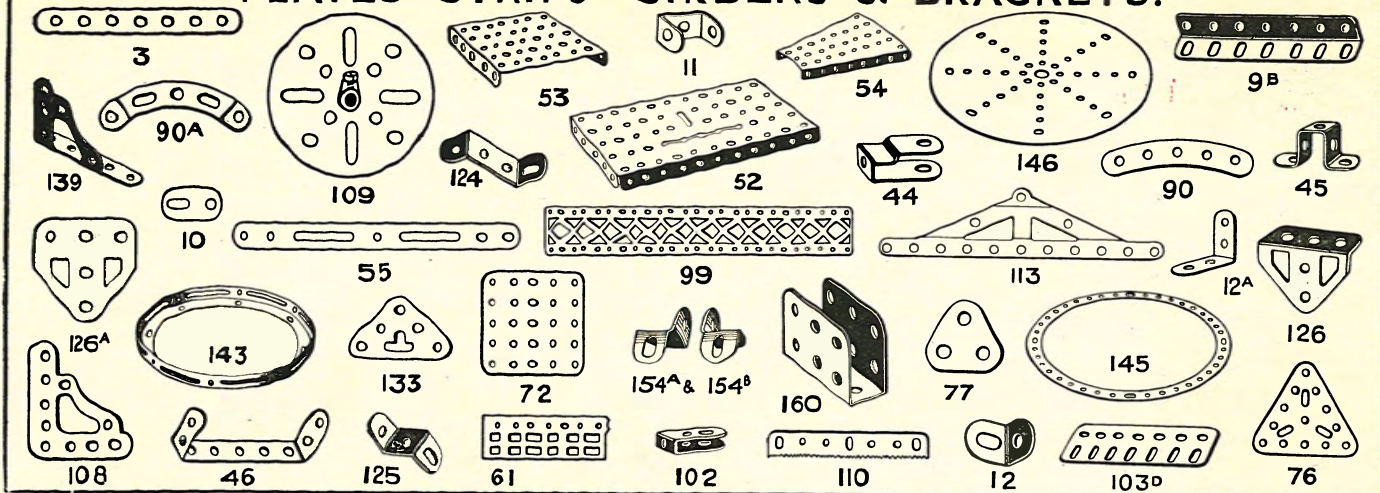
May 18, 1928.

"Meccano has done a lot for me. It has given me a firm knowledge and understanding of the principles of mechanics. I shall take up mechanical or electrical engineering as a profession."

R. Clayton, Bound Brook, N. J.



PLATES - STRIPS - GIRDERS & BRACKETS.



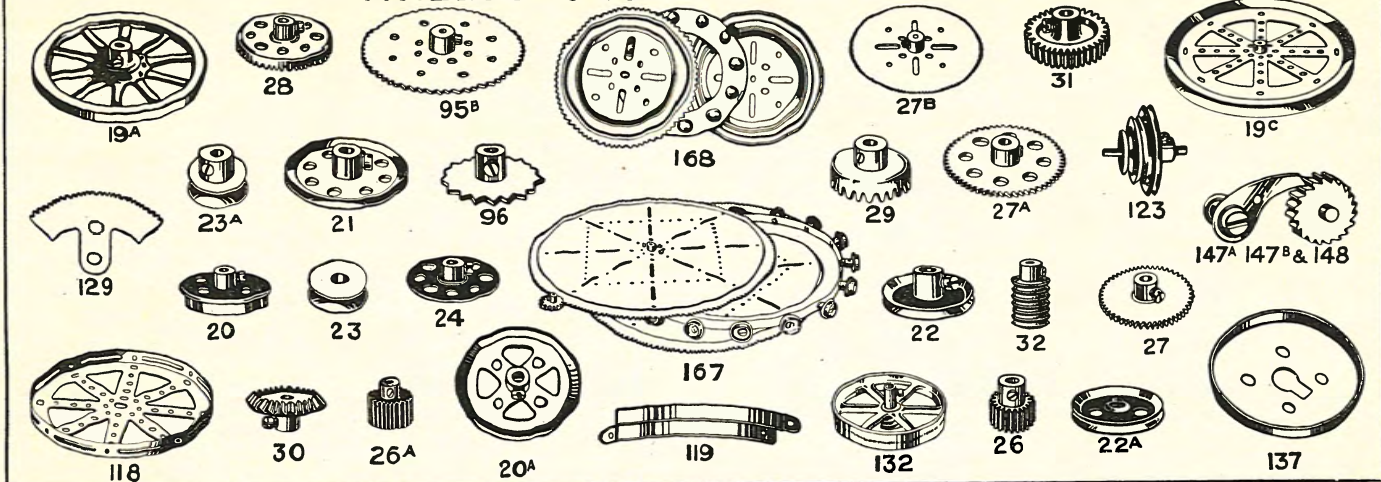
Particulars and Prices of Meccano Parts

Perforated Strips			
No.	\$	No.	\$
1a. 12 $\frac{1}{2}$ "	$\frac{1}{2}$ doz. .30	3. 3 $\frac{1}{2}$ "	$\frac{1}{2}$ doz. 10
1b. 9 $\frac{1}{2}$ "	.25	4. 3 $\frac{1}{2}$ "	10
2. 7 $\frac{1}{2}$ "	.20	5. 2 $\frac{1}{2}$ "	.06
2a. 5 $\frac{1}{2}$ "	.15	6. 2 $\frac{1}{2}$ "	.06
2a. 4 $\frac{1}{2}$ "	.10	6a. 1 $\frac{1}{2}$ "	.06
Angle Girders			
7a. 24 $\frac{1}{2}$ "	each .25	9a. 4 $\frac{1}{2}$ "	$\frac{1}{2}$ doz. .30
7a. 18 $\frac{1}{2}$ "	.20	9b. 3 $\frac{1}{2}$ "	.30
8a. (2 $\frac{1}{2}$)"	$\frac{1}{2}$ doz. .50	9c. 3 $\frac{1}{2}$ "	.30
8a. 9 $\frac{1}{2}$ "	.45	9d. 2 $\frac{1}{2}$ "	.25
8b. 7 $\frac{1}{2}$ "	.40	9e. 2 $\frac{1}{2}$ "	.25
9. 5 $\frac{1}{2}$ "	.35	9f. 1 $\frac{1}{2}$ "	.25
10. Flat Brackets			.05
11. Double Brackets			each .03
12. Angle Brackets, $\frac{1}{2}$ " X $\frac{3}{4}$ "			doz. .10
12a. " " $\frac{1}{2}$ " X 1"			$\frac{1}{2}$ doz. .15
12b. " " $\frac{1}{2}$ " X $\frac{3}{4}$ "			doz. .10
Axle Rods			
13. 11 $\frac{1}{2}$ "	each .05	16a. 2 $\frac{3}{4}$ "	.2 for .02
14a. 8"	.05	16b. 3"	.03
14b. 6 $\frac{1}{2}$ "	.04	17. 2"	3 for .03
15. 5"	.03	18a. 1 $\frac{3}{4}$ "	.02
15a. 4 $\frac{1}{2}$ "	2 for .05	18b. 1"	.02
16. 3 $\frac{1}{2}$ "	.04		

No.	\$
19. Crank Handles, Large	each .10
19a. Wheels, 3" diam. with set screws	.45
20. Flanged Wheels, 1 $\frac{1}{2}$ " diam.	.20
20b. " " " "	.15
Pulley Wheels	
19b. 3 $\frac{1}{2}$ " dia. with centre boss and set screw	.25
19c. 6"	1.00
20a. 2"	.20
21. 1 $\frac{1}{2}$ "	.15
22. 1"	.10
23a. 3"	.10
22. 1 $\frac{1}{2}$ " "without"	.05
23. 3"	.05
24. Bush Wheels	.15
25. Pinion Wheels, $\frac{3}{4}$ " diam.	.20
25a. " " " " double width face	.30
26. " " " " " " " " double width face	.15
26a. " " " " " " " " double width face	.25
Gear Wheels	
27. 50 teeth to gear with $\frac{3}{4}$ " pinion	.20
27a. 57 " " " " " "	.20
27b. 133 " " " " " " (3 $\frac{1}{2}$ " diam.)	.65

No.	\$
28. Contrate Wheels, 1 $\frac{1}{2}$ " diam.	each .30
29. " " " " " "	.20
30. Bevel Gears, $\frac{3}{4}$ " 26 teeth	.30
30a. " " " " $\frac{3}{4}$ " 16 "Can only be used together"	.25
30c. " " " " 1 $\frac{1}{2}$ " 48 "used together"	.65
31. Gear Wheels, 1 $\frac{1}{2}$ " 38 teeth	.40
32. Worm Wheels	.20
33. Spanners	.05
34. Box Spanners	.20
35. Spring Clips	per box (doz.) 15
36. Screw Drivers	each .10
36a. Screw Drivers, Extra Long	.25
37. Nuts and Bolts, 7/32"	per box (doz.) 15
37a. Nuts	.05
37b. Bolts, 7/32"	.10
38. Washers	.05
40. Hanks of Cord	each .05
41. Propeller Blades	per pair .15
43. Springs	each .05
44. Cranked Bent Strips	each .03
45. Double	.03
46. Double Angle Strips, 2 $\frac{1}{2}$ " X 1"	$\frac{1}{2}$ doz. .20
47. " " " " 2 $\frac{1}{2}$ " X 1 $\frac{1}{2}$ "	.30
47a. " " " " 3" X 1 $\frac{1}{2}$ "	.35
48. " " " " 1 $\frac{1}{2}$ " X $\frac{3}{4}$ "	.15
48a. " " " " 2 $\frac{1}{2}$ " X $\frac{3}{4}$ "	.15

WHEELS - PULLEYS - GEARS, ETC.



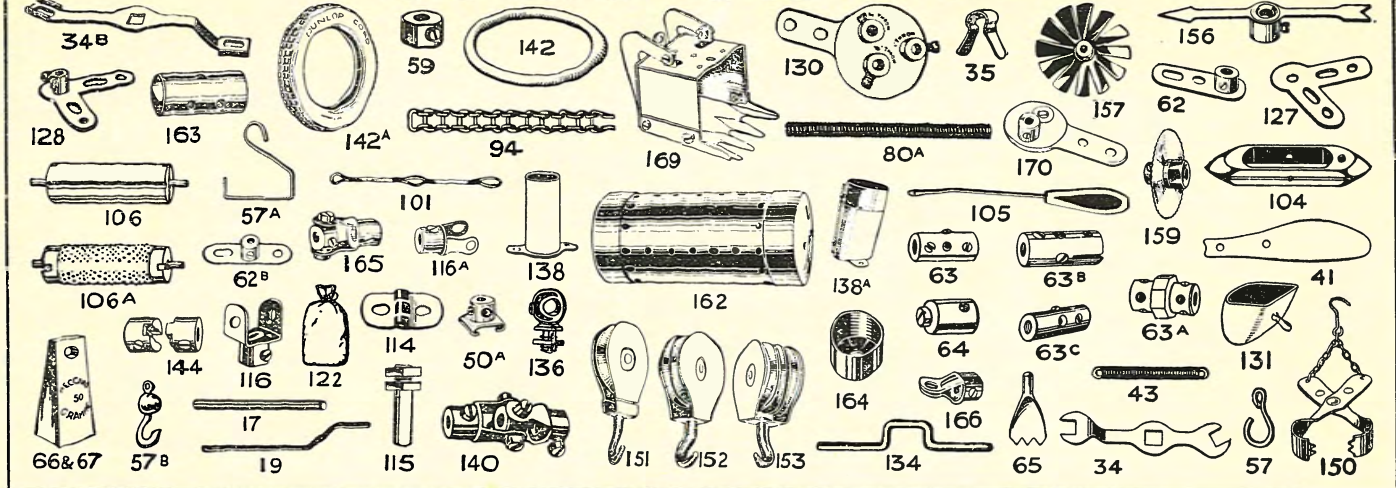
Particulars and Prices of Meccano Parts (continued)

No.		\$
48b.	Double Angle Strips, 3 1/2" X 1/2" ..	1 doz. .20
48c.	" " " 4 1/2" X 1/2" ..	" .30
48d.	" " " 5 1/2" X 1/2" ..	" .30
50a.	Eye Pieces, with boss ..	each .15
52.	Perforated Flanged Plates, 5 1/2" X 2 1/2" ..	.20
52a.	Flat Plates, 5 1/2" X 3 1/2" ..	.15
53.	Perforated Flanged Plates, 3 1/2" X 2 1/2" ..	.15
53a.	Flat Plates, 4 1/2" X 2 1/2" ..	.12
54.	Perforated Flanged Sector Plates ..	.15
55.	Perforated Strips, slotted, 5 1/2" long ..	.05
55a.	" " " 2 1/2" " ..	.03
56a.	Instruction Manuals, No. 00-3x ..	.50
56b.	" " " No. 4x-6x ..	.75
56c.	" " " No. 00 ..	.15
56d.	Meccano Standard Mechanisms Manual ..	.50
57.	Hooks ..	each .01
57a.	" Scientific ..	.02
57b.	" Loaded ..	.15
58.	Spring Cord ..	per length .30
59.	Collars with Set Screws ..	each .05
61.	Windmill Sails ..	4 for .25
62.	Cranks ..	each .10
62a.	Threaded Cranks ..	.12
62b.	Double Arm Cranks ..	.10
63.	Couplings ..	.15
63a.	Octagonal Couplings ..	.20
63b.	Strip Couplings ..	.20

No.		\$
63c.	Threaded Couplings	each .20
64.	Threaded Bosses06
65.	Centre Forks05
66.	Weights, 50 grammes20
67.	" 25 "15
68.	Woodscrews, 3/8"	doz. .10
69.	Set Screws, 5/32"10
69a.	Grub Screws, 5/32"10
69b.	" 7/32"10
70.	Flat Plates, 5 1/2" X 2 1/2" ..	each .15
72.	" " 2 1/2" X 2 1/2" ..	.10
76.	Triangular Plates, 2 1/2" ..	.05
77.	" 1 1/2" ..	.04
Screwed Rods		
No.	\$	No. \$
78.	11 3/8" each	25 80a. 3 1/2" .. each .05
79.	8" " 15	80b. 4 1/2" .. .08
79a.	6" " 10	81. 2" .. .03
80.	5" " 10	82. 1" .. .02
89.	5 1/2" Curved Strips, 10" radius ..	.05
4-89a.	3" " cranked, 1 1/2" radius, 4 to circle ..	.05
90.	2 1/2" " " 2 3/8" radius ..	1/2 doz. .25
90a.	2 1/2" " " cranked, 1 1/2" radius, 4 to circle ..	.25
94.	Sprocket Chain	per 40" length .25

No.		\$
95.	Sprocket Wheels, 2" diam. ..	each .20
95a.	" " 1 1/2" " ..	.15
95b.	" " 3" " ..	.30
96.	" " 1" " ..	.10
96a.	" " 1 1/2" " ..	.10
97.	Braced Girders, 3 1/2" long ..	1/2 doz. .20
97a.	" " 3" " ..	.15
98.	" " 2" " ..	.15
98a.	" " 12" " ..	.75
99.	" " 9" " ..	.60
99a.	" " 7 1/2" " ..	.55
99b.	" " 5 1/2" " ..	.50
100.	" " 4 1/2" " ..	.35
100a.	" " 4 1/2" " ..	.35
101.	Healds, for looms ..	doz. .30
102.	Single Bent Strips ..	each .05
103.	Flat Girders, 5 1/2" long ..	1/2 doz. .25
103a.	" " 9" " ..	.35
103b.	" " 12 1/2" " ..	.40
103c.	" " 4 1/2" " ..	.25
103d.	" " 3 1/2" " ..	.25
103e.	" " 3" " ..	.20
103f.	" " 2 1/2" " ..	.20
103g.	" " 2" " ..	.15
103h.	" " 1 1/2" " ..	.15
103k.	" " 1 1/4" " ..	.30
104.	Shuttles, for looms ..	each 1.20
105.	Reed Hooks, for looms ..	" .10

RODS-CRANKS-COUPPLINGS, ETC.



Particulars and Prices of Meccano Parts (continued)

No.		\$	No.		\$	No.		\$
106.	Wood Rollers	each	129.	Rack Segments, 3" diam.	each	152.	Pulley Blocks, Two Sheaves	each
106a.	Sand Rollers	45	130.	Triple Throw Eccentrics	40	153.	Three	3.50
107.	Tables for Designing Machines	25	131.	Dredger Buckets	10	2-154a.	Corner Angle Brackets, 1/2" right hand	1/2 doz.
108.	Architraves	07	132.	Flywheels, 2 1/2" diam.	75	2-154b.	Corner Angle Brackets, 3/8" left hand	25
109.	Face Plates, 2 1/2" diam.	15	133.	Corner Brackets	05	155.	Rubber Rings, 5/8"	each
110.	Rack Strips, 3/4"	10	134.	Crank Shafts, 1" stroke	05	156.	Pointers, 2 1/2" over all, with boss	15
111.	Bolts, " "	02	135.	Theodolite Protractors	06	157.	Fans, 2" diam.	15
111a.	" " 2 for	03	136.	Hand Oil Supporters	10	159.	Circular Saws	50
111c.	" " doz.	15	137.	Wheel Flanges	15	160.	Channel Bearings, 1 1/2" x 1" x 1/2"	15
113.	Girder Frames	each	138.	Ship's Funnels	15	162.	Boiler, complete with ends	50
114.	Hinges	per pair	138a.	" Cunard type	25	162a.	Boiler ends	15
115.	Threaded Pins	each	139.	Flanged Brackets (right)	10	163.	Steeve Pipe	pair
116.	Fork Pieces, Large	10	139a.	" (left)	10	164.	Chimney	each
116a.	" Small	10	140.	Universal Couplings	30	165.	Stair Treads	25
117.	Steel Balls, 3/8" diam.	02	141.	Wire Lines (for suspending clock weights)	15	166.	"	15
118.	Hub Disc, 5 1/2" diam.	50	142a.	Dunlop Tires, 2"	4 for	167.	Roller Bearings	12.50
119.	Channel Segments (8 to circle, 1 1/2" diam.)	15	142b.	" 3"	75	167a.	Rack Races, geared, 192 teeth	3.00
120b.	Compression Spring	03	143.	Circular Girders, 5 1/2" diam.	each	167b.	Ring Frames for Rollers	2.00
122.	Miniature Loaded Sacks	05	144.	Dog Clutches	30	167c.	Pinions for Roller Bearings, 16 teeth	75
123.	Cone Pulleys	each	145.	Circular Strips, 7" diam. over all	50	168.	Ball Bearings, 4" diam.	3.00
124.	Reversed Angle Brackets, 1" " "	1/2 doz.	146.	" Plates, 6"	60	168a.	Ball Races, flanged	50
125.	" " " "	10	147a.	Pawls	06	168b.	" geared	75
126.	Trunnions	each	147b.	Pivot Bolt with 2 nuts	06	168c.	Ball Casings, complete with balls	1.75
126a.	Flat Trunnions	05	148.	Ratchet Wheels	30	169.	Digger Buckets	75
127.	Simple Bell Cranks	05	150.	Crane Grabs	25	170.	Eccentrics, 1/2" throw	30
128.	Boss Bell Cranks	10	151.	Pulley Blocks, Single Sheave	25			



Our illustration shows one of the Meccano Accessory Outfits. These Outfits connect the main Outfits from No. 00 to No. 6x making it possible for a boy who commences with one of the earlier Outfits to build up his equipment by easy stages, until he is the possessor of parts that cover the entire system.

If you now use any other construction toy and you want to find out how good Meccano is, add just a few Meccano flat Strips and precision Gears to your set. What a difference this will make in your models!

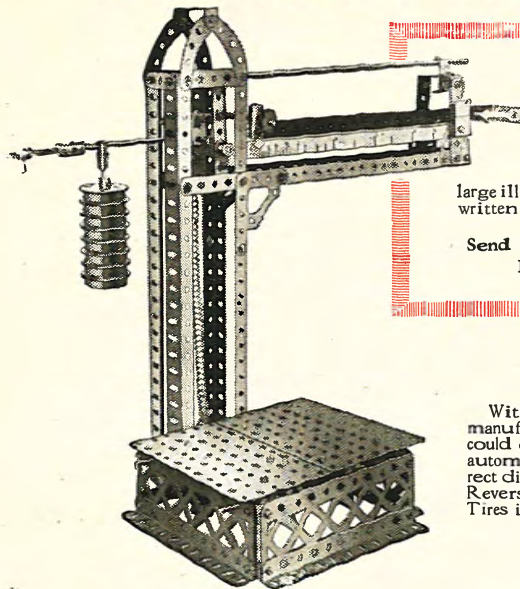
Price List

No. 00 Meccano Outfit \$1.00	No. 2x Special Meccano Outfit \$10.00
No. 1 " " 3.00	No. 3x Meccano Outfit 12.50
No. 1x " " 5.00	No. 4x " " 17.50
No. 2x " " 7.50	No. 5x " " 30.00
No. 6x Meccano Outfit	\$50.00

Meccano Accessory Outfits

No. 00a Accessory Outfit \$2.00	No. 3a Accessory Outfit \$ 6.50
No. 1a " " 3.00	No. 4a " " 10.00
No. 2a " " 5.00	No. 5a " " 20.00
Meccano Reversing Electric Motor 4.50	Meccano Transformer 2.50
Meccano Spring Motor 3.00	New Roller Bearing 12.50

TWELVE RECORD-BREAKING MODELS



PLATFORM SCALES

It is in the construction of intricate mechanism such as is embodied in this model that the superiority of Meccano over all its imitators is illustrated most forcibly. The difficulties of intricate or unusual movements, which other systems cannot hope to overcome, are successfully surmounted by reason of the infinite adaptability of the Meccano parts. The Platform Scales are fitted with an efficient knife-edge bearing, and friction in the working parts is so small that the model will weigh objects up to 4½ lbs. with remarkable accuracy.

Special Instruction Leaflet,
10c postpaid.

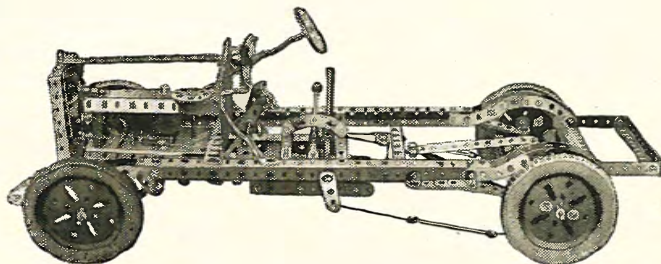
Our expert designers have produced for us 12 super models that reach the highest pinnacle ever attained in constructional building. Each one is a masterpiece and there is not a boy in the country who will not be eager to build them all. These models are so important that we have engaged well known expert engineers to describe them, and a special leaflet with large illustrations and detailed instructions for building has been written for each of them.

Send to Us Today for These Instruction Brochures and
Begin Real Model Building for the First Time.

MECCANO MOTOR CHASSIS

Within a fortnight of announcing this super model, over 150 car manufacturers and agents ordered a specimen of it so that they could demonstrate to car buyers all the movements of a first class automobile. It has a perfect 3-speed and reverse gear-box, a correct differential, clutch, and brake mechanism. With the Meccano Reversing Electric Motor and fitted with the Meccano-Dunlop Tires it runs perfectly under its own power.

Special Instruction Leaflet, 10c postpaid.

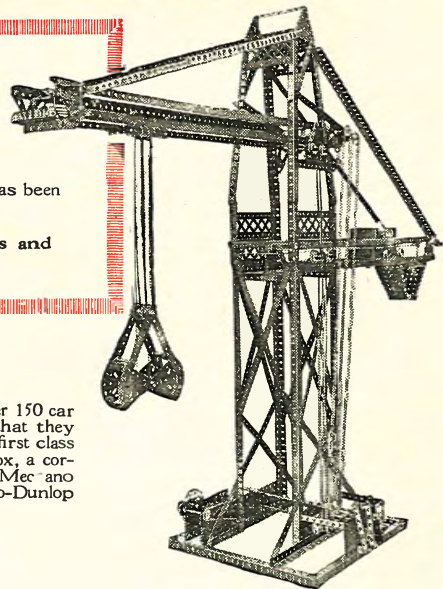


HIGH-SPEED SHIP-COALER

All the movements of a real ship coaler, of the kind that handles more than a hundred tons of coal per hour, are reproduced in this model and controlled from a central gear box. There are so many movements that when the model is at work the operator has to use his intelligence all the time and must be quick with his fingers in order to carry out without a hitch the various stages in transporting the coal.

In other words, the model is just as exciting to operate as it is to build.

Special Instruction Leaflet,
10c postpaid.



TWELVE RECORD-BREAKING

GIANT BLOCK SETTING CRANE

This one of the large Meccano models, possesses four distinct movements, viz.: travelling, rotating, hoisting, and traversing movement of the crane trolley. Each movement is controlled by hand levers in the main gear box. The crane is fitted with an accurate reproduction of Fidler's blocksetting gear, by means of which the concrete blocks of a breakwater may be set at an angle.

Special Instruction Leaflet, 15c postpaid.

BUCKET DREDGER OR CONVEYOR

Boys who possess a miniature railroad can have much fun by transporting with the aid of this model a heap of sand or gravel into a row of trucks. The trucks are run underneath the chute through which falls the material raised by the Dredger Buckets. Of course, those boys who do not possess a railroad can easily build a few trucks and a locomotive from their Meccano sets for use in connection with the model. Machines of this type are also used as dredgers for cleaning the beds of canals.

Special Instruction Leaflet, 10c postpaid.

MOTORCYCLE AND SIDECAR

This is an excellent example of Meccano miniature engineering. Its construction will prove no light task on the ingenuity of even long experienced Meccano boys, and it is undoubtedly a task calling for nimble fingers. The sidecar is of streamline design and is mounted on springs. The Motorcycle is complete with lamps, horn, exhaust pipes, spring-mounted saddle, etc.

Special Instruction Leaflet, 10c postpaid.

MECCANO TANK LOCOMOTIVE

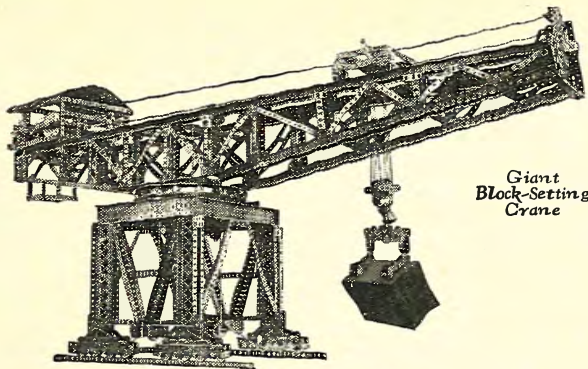
Here is a model that will delight the railway expert. The six driving wheels and the leading and trailing bogie wheels are all driven from an Electric Motor mounted in the cab, and the locomotive will run upon a length of built-up Meccano track. A very interesting feature is the accurate reproduction of Walschaerts' valve gear. Every detail of the actual mechanism has its counterpart in the Meccano model, and everything works smoothly and easily just as it would in a real loco.

Special Instruction Leaflet, 10c postpaid.

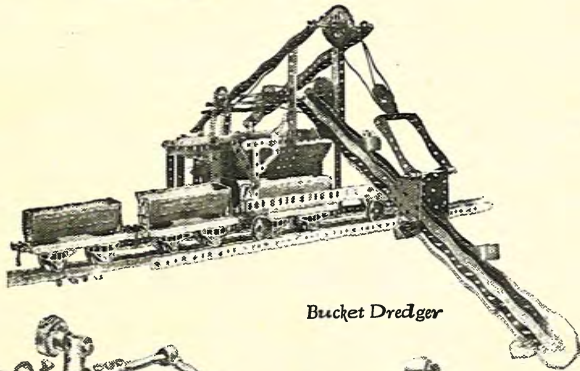
MERRY-GO ROUND

This model is most attractive when in motion. As the Merry-Go-Round rotates the circular cars spin round and the horses rise and fall. The realistic effect so produced can only be appreciated fully by those who have seen the model at work.

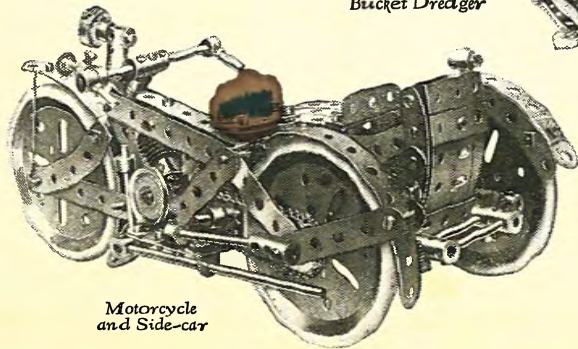
Special Instruction Leaflet, 10c postpaid.



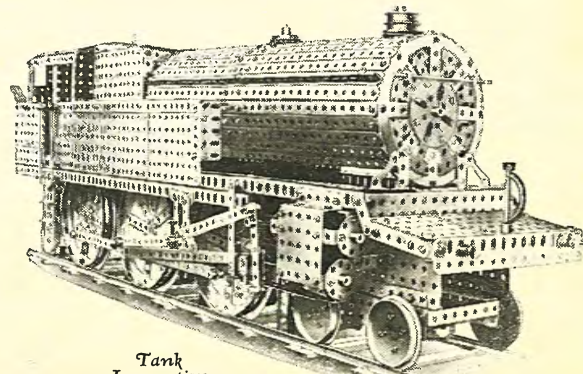
Giant
Block-Setting
Crane



Bucket Dredger



Motorcycle
and Side-car



Tank
Locomotive

MODELS—Continued

MECCANOGRAPH

With this model any boy can make an amazing variety of beautiful designs. All he has to do is to fix a sheet of paper in position, and turn a handle. No one has yet succeeded in reaching the limit to the number of designs that can be made with the model, and we think we can safely say, therefore, there is no limit. The designs are varied merely by slight alterations to the positions of the writing arm or operating tappers, etc.—the work of a few seconds only. The boy or girl does not exist who cannot instantly make designs with the Meccanograph, and the man or woman does not exist who cannot spend hours of pleasure watching the machine produce the exquisite and delicate designs. Special Instruction Leaflet, 10c postpaid.

STIFF-LEG DERRICK

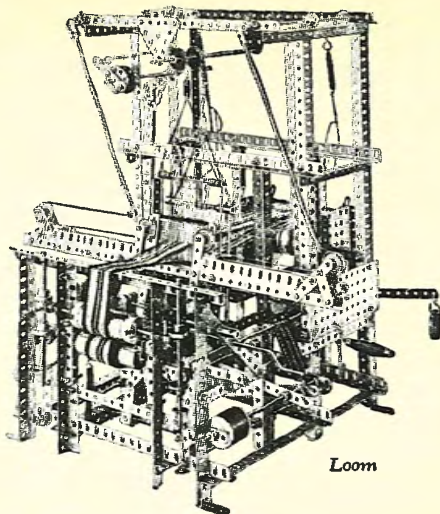
This model is most realistic in appearance and operation, and if carefully constructed will lift very heavy loads. Its various movements—hoisting, luffing, and swivelling—a are controlled from levers attached to the gear box at the base of the jib. Included in the special instruction leaflet for this model is a description of a useful radius indicator that may be adapted to all kinds of Meccano luffing cranes in addition to the Stiff-Leg Derrick. Special Instruction Leaflet, 10c postpaid.

LOOM

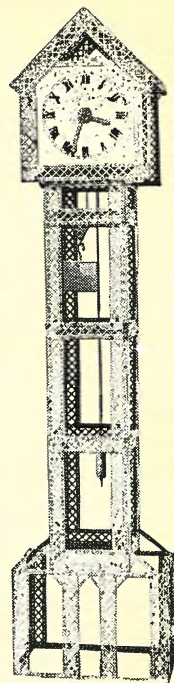
This is perhaps the crowning achievement in the long list of Meccano successes. When the operating handle is turned the whole model leaps into motion. The shuttle flies to and fro as it guides the web through the warp, the heald frames rise and fall as they sort the threads of the warp, the reed advances and recedes as it places each thread of the web, and the rollers slowly wind up the finished material. The material produced by the Meccano Loom is marvelously woven and may be used for neck-ties, hat-bands etc. The first part of the Loom instruction leaflet is given over to the fascinating story of spinning and weaving, and traces the history of the industry from the earliest days. Special Instruction Leaflet, 10c postpaid.

GRANDFATHER CLOCK

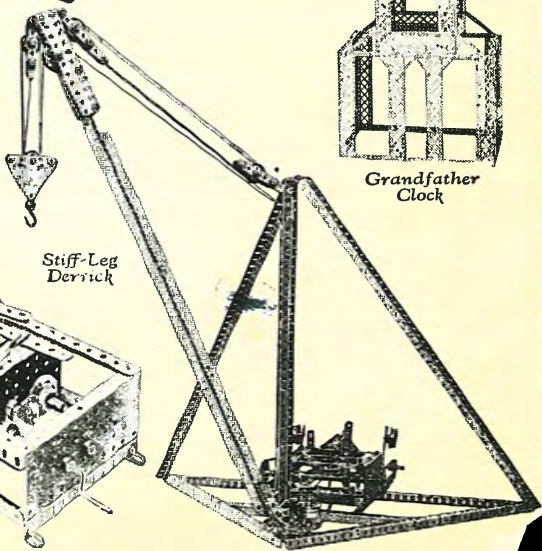
This splendid model stands over 6 ft. in height and keeps perfect time. With the exception of an 18 lb. weight the dial plate, and a small piece of flat spring (2" long), it is made entirely from Meccano parts. Many grown-up people, when they see this model at work, are so pleased with it that they have replicas built for permanent use in their homes. Special Instruction Leaflet, 10c postpaid.



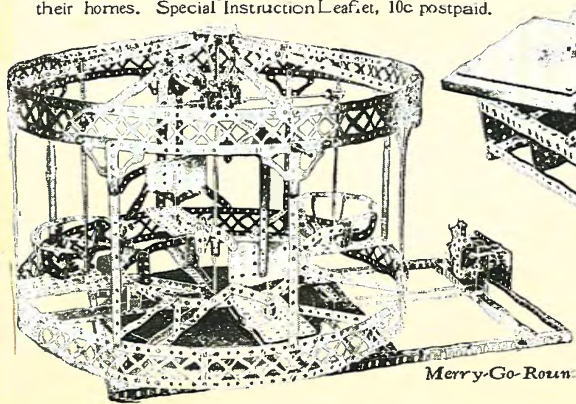
Loom



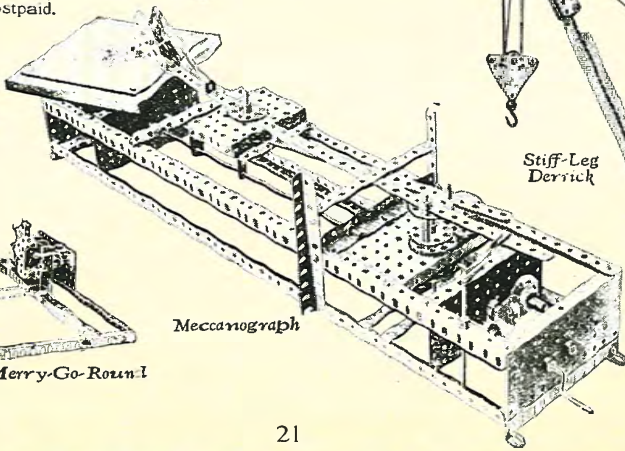
Grandfather Clock



Stiff-Leg Derrick



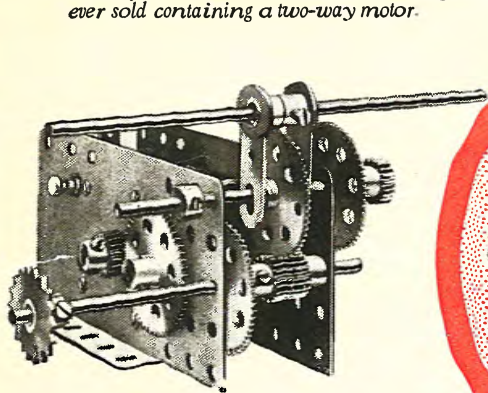
Merry-Go-Round



Meccanograph

THE MECCANO PATENTED REVERSING ELECTRIC MOTOR

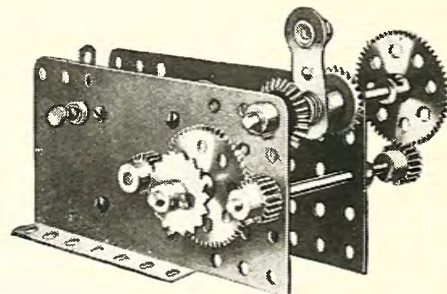
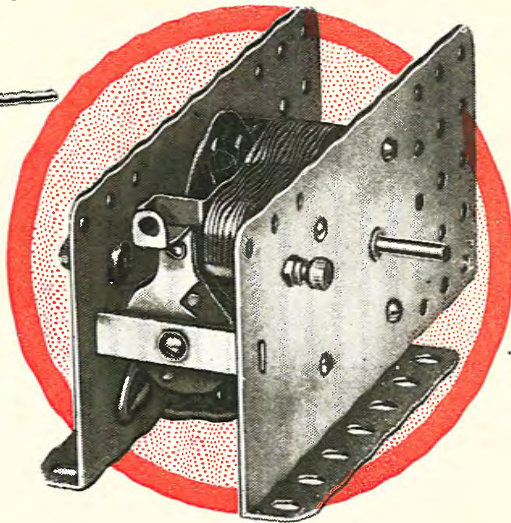
This is a new and exclusive Meccano feature. Note the perfection of design and the wonderful gear combinations you can get when you use the Meccano precision gears. This is the motor that goes with all the Meccano X Outfits, *the only construction sets ever sold containing a two-way motor.*



This shows a method of reducing the speed of the drive.

This is the correct Electric Motor for all model builders. Not only has it got forward and reverse movements, but the sides and flanges form a perfect gear box. You thus dispense with a clumsy separate gear box, with its loss of power, and you get over 100 gear combinations on the motor itself; and with the Meccano precision gears you can increase or decrease your speed in a big variety of ratios. It has the standardized holes in the sides and flanges, and it fits perfectly into all models.

The Meccano Patented Electric Re-



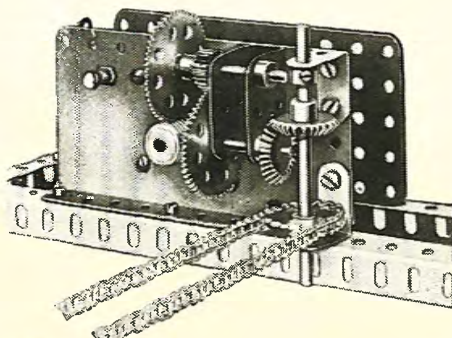
Another way of reducing the speed of the drive.

versing 4-volt Motor is the best designed, most powerful two-way motor ever invented. The one-way Electric Motor is a relic and is rapidly being discarded by up-to-date model builders. No matter what construction set you use, you need the Meccano Patented Reversing Electric Motor. Full working instructions go with it.

Each, \$4.50

Meccano Transformer—For operating Meccano Electric Motors direct from the house current; safe and convenient. Has no moving parts. For 110 volts, 60 cycles, alternating current only.

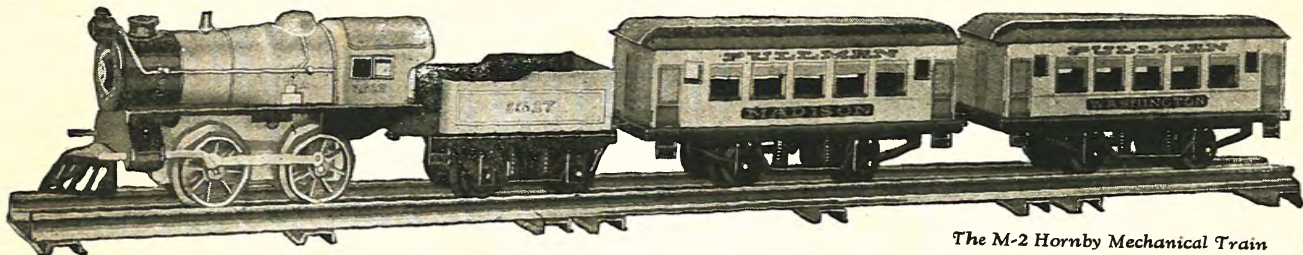
Each, \$2.50



How to get a right angle drive with the Meccano Motor and Meccano Reversing Gear.

HORNBY MECHANICAL TRAINS

Hornby Mechanical Trains are driven by a powerful spring motor and give a most remarkable performance. Made of pressed steel, beautifully lithographed in colors, they are practically scale models of actual up-to-date trains and are fully guaranteed by Meccano Company, Inc. You will have loads of fun running these trains with Meccano bridges, cranes, etc.



The M-2 Hornby Mechanical Train

The M-1 Hornby Mechanical Train

Consists of locomotive, tender and two cars, all richly lithographed in colors, with ten sections of track and necessary track connections. Locomotive is made of pressed steel with one piece boiler and cab, attains maximum speed yet holds the track under control of a finely adjusted governor; fitted with headlight, brake and brass boiler handrail. Colors: locomotive, red and black; cars, green and gold. Packed in an attractive cardboard box.

Price, \$3.75

The M-2 Hornby Mechanical Train

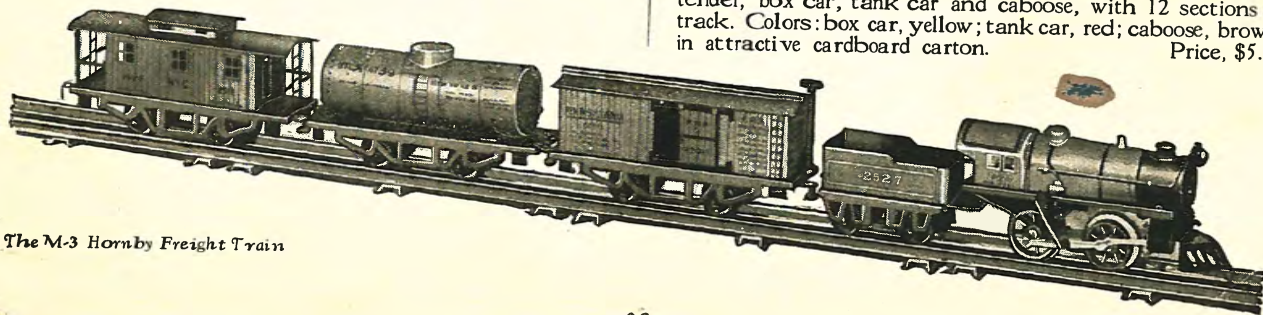
All the cars are solidly made of pressed steel and the Pullmans have the new type square windows. The contents of the M-2 set are the same as M-1, but differently colored. Locomotive, green and black with gold trimming; cars, yellow and black.

Price, \$3.75

The M-3 Hornby Mechanical Train

This very realistic freight train consists of locomotive, tender, box car, tank car and caboose, with 12 sections of track. Colors: box car, yellow; tank car, red; caboose, brown; in attractive cardboard carton.

Price, \$5.00



The M-3 Hornby Freight Train

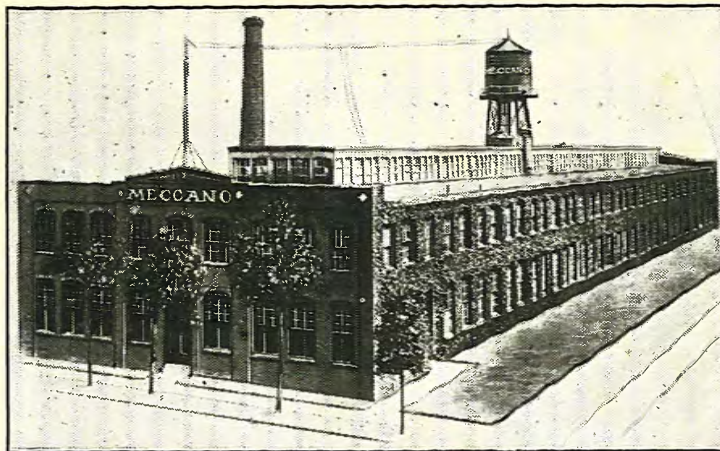
Where Meccano Is Manufactured

Meccano Company, Inc.
Elizabeth - New Jersey

New York Showrooms
200 Fifth Avenue



Factory - Paris



Factory - Elizabeth, N. J.

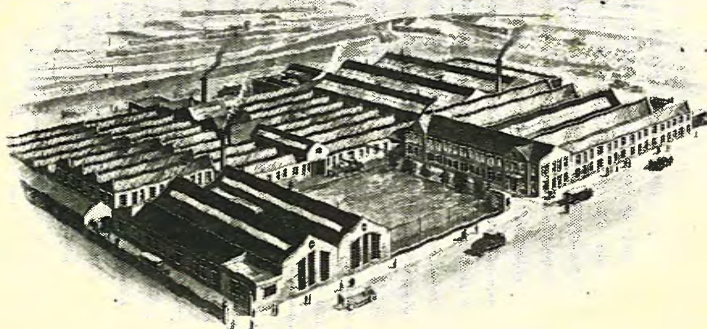
Meccano Sets are Manufactured in this Fine, Up-to-Date Plant in New Jersey



London Warehouse

MECCANO AGENCIES

ALGIERS
AMSTERDAM
AUCKLAND
BARCELONA
BASLE
BOGOTA
BOMBAY
BRUSSELS
BUENOS AIRES
CAPE TOWN



Factory - Liverpool, England

MECCANO AGENCIES

CONSTANTINOPLE
DURBAN
GENOA
QUITOS
JOHANNESBURG
MALTA
MONTEVIDEO
OSLO
STOCKHOLM
SYDNEY