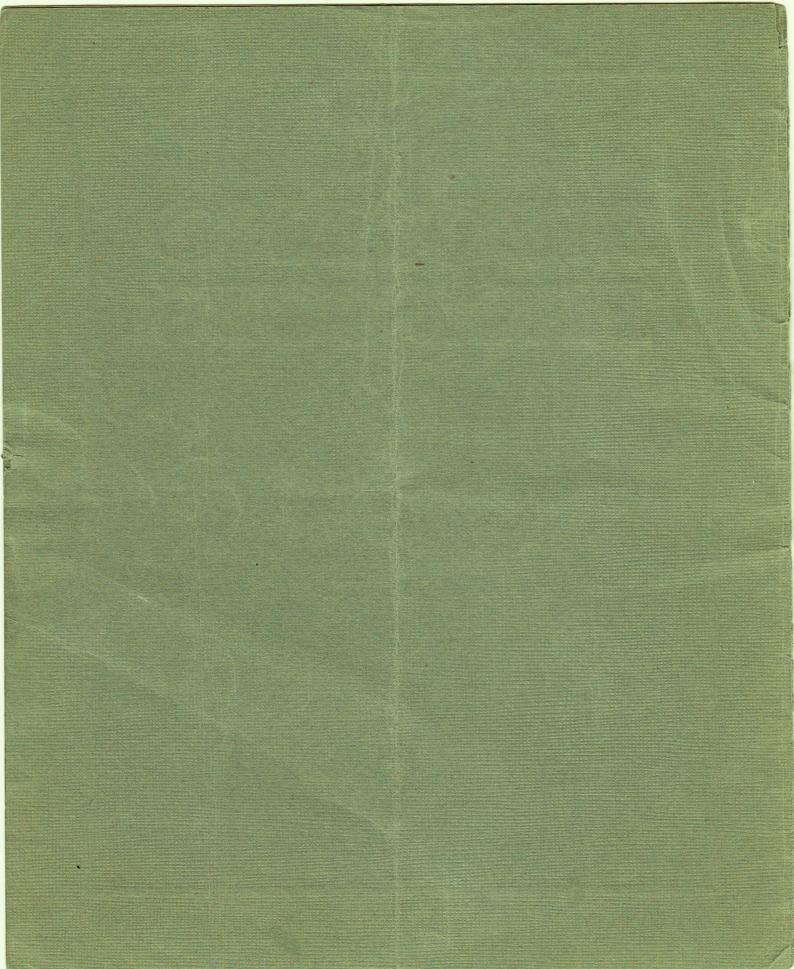
AMECCANO PRODUCTS

MECCANO OUTFITS
ELECTRICAL OUTFIT
TRANSFORMERS
MOTORS, ETC.

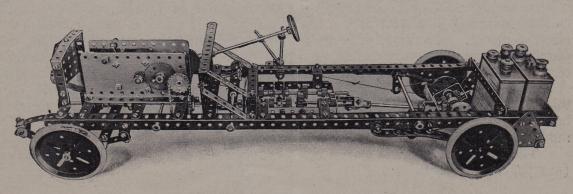




MECCANO

HEN a boy takes up Meccano he begins his life afresh in a land of pleasure and brightness. A Meccano boy's life is different from the life of any other boy. He is a member of a great fraternity of a million other boys, all friends, all with interests, pleasures and work in common. They live in a wonderful world of their own. They have their own newspaper, the Meccano Magazine, which keeps them posted on all Meccano news. They are members of a Society of boys who have sworn to extend the hand of friendship to each other, to play and work together, and to live clean and upright lives. They have their club pins so that they may recognize and know each other wherever they meet.

The bond which unites them in such close harmony is Meccano, the building system invented by Frank Hornby twenty years ago and now brought to an extraordinary state of perfection. This book will tell you all about the Meccano hobby—what it is, and what it will do. If you do not actively pursue this hobby you are missing endless fun and pleasure, and sacrificing the friendship and help of a million other clever and contented boys. You are also depriving the other boys of your friendship and help. They want you and they ask you to join them in their happy pursuits.



MECCANO

ENGINEERING FOR BOYS

HE parts of which the Meccano system is composed are illustrated on pages 17, 18, 19 and 20. There are over one hundred different parts, mostly made of steel or brass, and each one has a specified mechanical purpose. The whole of the parts combine to form a complete engineering system with which practically any movement known to mechanism may be constructed.

The finest machines are used in the manufacture of the Meccano parts, which are all standardized and interchangeable. The steel parts are heavily coated with nickel and the brass parts are finely finished and lacquered.

By employing these parts any boy can, without previous knowledge or study, build all the hundreds of models shown in the Meccano literature, and make them work. He can build Cranes, Wagons, Bridges, Towers, etc., using the same parts over and over again. A well illustrated Book of Instructions, written in clear and simple language, is furnished to him, and

he is in no difficulty at any time.

The training to the eye, brain and hand in erecting Meccano models is very great, but there is also developed a faculty of priceless value to every boy. No Meccano boy is content to build the models just as he finds them; they always have been, always will be, capable of alteration and improvement, and the boy sets to work to do this almost at once. It is a boy's nature to venture into unknown fields, and the Meccano hobby opens up a new and wide world for him to explore. He very soon commences to invent, and new models and designs, the creation of his own brain, make their appearance. Knowing the value of this we give him encouragement by offering prizes for new models, and in the last few years some hundred thousand models have been submitted to us for adjudication, and many hundreds of dollars distributed in prizes to capable boys.

For convenience Meccano parts are sold in seven different sized out-How fits, numbered 0 to 6. There is no difference in the quality or finish to of the parts in any of the outfits, but as the latter increase in size, they contain larger quantities and greater variety of Meccano parts. Outfits Nos. 1, 2, 3 and 5 may also be had with electric motor. These outfits are numbered 1X, 2X, 3X and 5X respectively. In addition to the motor, the No. 5X outfit includes also all the parts of the Inventor's A outfit and a Meccano Transformer. Outfits Nos. 4, 5 and 6 also contain the electric motor. Each outfit may be converted into the one higher, by the purchase of an Accessory Outfit (see page 12). 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. this way; no matter what outfit the boy commences with, he may by degrees build it up to a No. 6, and so be able to make all the many hundreds of models shown in the Books of Instructions.

The separate Meccano parts may be bought at any time in any quantities

(see pages 17, 18, 19 and 20).



No. 0 OUTFIT

THE No. 0 outfit contains a good assortment of Meccano strips, rods, wheels, plates, nuts and bolts, etc., and a special Book of Instructions for building 78 fine working models, including Trucks, Carts of all kinds, Wheelbarrows, Go-carts, Aeroplanes, Cranes, Swings, Bridges, etc., each a perfect toy, capable of giving hours of fun. All tools, and everything necessary for commencing to build immediately, are included.

No. 0 Outfit

Price ... \$1.50.



No. 1 OUTFIT

THIS outfit is a very popular one. It contains a greater number and a bigger selection of Meccano parts, with which larger models may be built, including fine Cranes, Trucks, Joy-wheels, Merrygo-rounds, Aeroplanes, Windmills, etc. A big fully illustrated Book of Instructions is included, which makes everything clear and shows how 105 models can be made with the outfit.

No. 1 Outfit

Price ... \$3.00.

No. 1X OUTFIT

THE No. 1X Outfit contains all the parts of the No. 1 outfit and in addition a dandy E-1 Electric Motor to make the models work like real machinery. This fine motor, described fully on page 15, will operate the working models that can be made with the outfit and greatly increases the fun of playing with Meccano. The motor will build right into and form a rigid part of the model, and is equipped with a pulley and driving pinion—power can be transmitted by belt or gear. The outfit and motor bought separately would cost \$6.00, yet this special outfit costs only \$5.50.

No. 1X Outfit

Price







No. 2 OUTFIT

THE fortunate owner of a No. 2 outfit is able to build models of a more complicated and interesting type. Large Cranes, excellent Windmills, well-constructed Bridges, Derricks, Mechanical Hammers, etc., all designed on sound engineering principles, with hours of pleasure stored up in each one: a splendid commencing outfit. As in all Meccano Outfits, full instructions for building are provided, everything necessary is included in the outfit, and there is nothing further to buy. No study is necessary, and the youngest boy can commence to build as soon as he gets his outfit.

No. 2 Outfit

Price ... \$6.00.

No. 2X OUTFIT

THIS is the second in the series of popular X outfits. It contains everything found in the No. 2 Outfit, described above, plus the E-1 Meccano Motor, which costs \$3.00—a \$9.00 value, yet the complete No. 2X Outfit costs only \$8.50. With the aid of the motor, many realistic working models can be made—the Manual of Instructions included in this outfit illustrates 151, and you can invent many more.

No. 2X Outfit

Price ... \$8.50.





No. 3 OUTFIT

THIS excellent outfit contains many parts of a more advanced engineering type. They include correctly cut gear wheels, worm wheels, pinion wheels, collars with set screws, cranks and strips in greater design and variety. Cranes, Bridges, Motor-cars, etc., which it builds are of the better type, and in addition such excellent models as Railroad Crossing Gates, Pile Drivers, Inclined Delivery Chutes, Demonstration Scales, Mine Shaft Elevators, etc., may be constructed. It contains a big Manual of Instructions showing how to build 196 models.

No. 3 Outfit

Price ... \$9.00

No. 3X OUTFIT

THIS is the No. 3 Outfit with an Electric Motor. It enables you to build all the models possible with the No. 3 set and make them work. Any boy can think of many original models that he can make with this fine outfit—the Manual included shows 196, and most of these can easily be made to work by having the Electric Motor built into them. A saving is made by purchasing this outfit, as motor and outfit separately cost \$12.00.

No. 3X Outfit

Price ... \$11.50.





No. 4 OUTFIT

THIS is a fine substantial outfit containing a big selection of Meccano parts, including contrate wheels, enabling the user to construct reversing gears, etc. Engineering parts of this type greatly improve the working of the models, and make possible a big variety of new movements and mechanisms. Among the No. 4 models illustrated in the Manual are Flying Machines, Drilling Machines, Travelling Cranes, Lathes, Girder Cranes, Swivelling and Luffing Jib Cranes, Steam Shovels, Hay Stackers, Automatic Weighing Machines, etc. A Meccano E-1 Electric Motor is included in this outfit, also a much larger Book of Instructions, showing how to construct 247 working models.

No. 4 Outfit

Price ... \$15.00.



No. 5 OUTFIT

THE building possibilities with L this outfit are greatly increased, and fine engineering models, including a Printing Press, Screw-Cutting Lathe, Giant Auto Swing, an improved Mine-Shaft Elevator, Telpher Line, Drop Hammer, Beam Scales, etc., may be constructed with it. There are 686 parts in this outfit, including an assortment of fine brass contrate wheels, solid pinions, accurately finished gears and couplings, etc. The E-1 Electric Motor is also included, providing a reliable power-plant for operating the models. A big Book of Instructions is included, showing how to build 277 models.

No. 5 Outfit

Price ... \$20.00.

No. 5X OUTFIT

THIS is a special presentation outfit containing 753 parts—all the contents of the No. 5 Outfit plus a complete Inventor's A Outfit (see page 13) which contains elements recently added to the system and not included in any of the other regular outfits. Among these are Braced Girders, Sprocket Wheels, large Pulley Wheels and other parts. A Meccano Transformer is also included in addition to the Electric Motor.

No. 5X Outfit

Price ... \$26.00.

3500





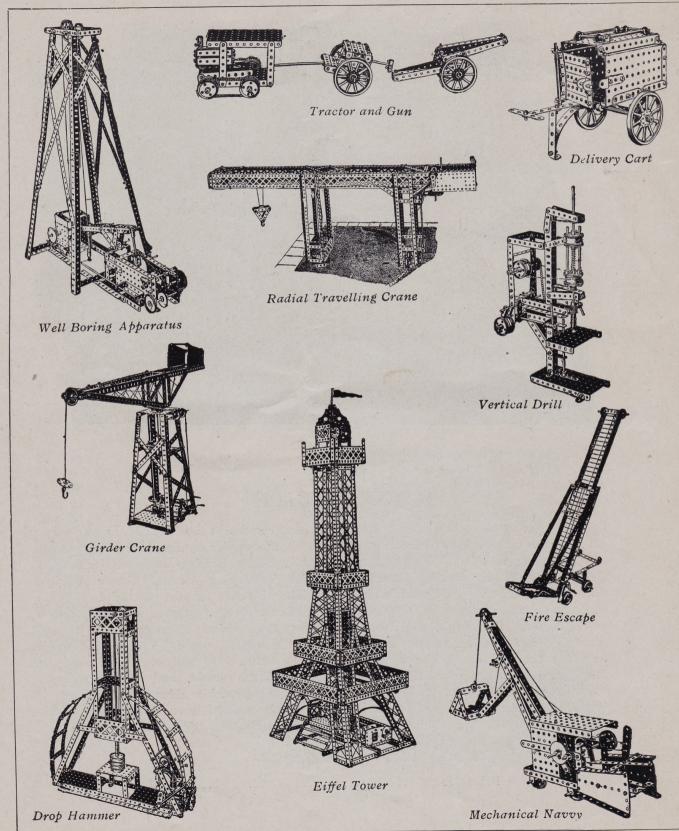
No. 6 OUTFIT

THE No. 6 Meccano Outfit contains a very fine range of Meccano parts. It will make all the models possible with the earlier outfits, and many more, including a Ferris Wheel, Beam Engine, Stone Sawing-Machine, Jack-Knife Bridge, Escalator, Planing Machine, Radial Travelling Crane, Tower Bridge, Meccanograph, etc.—317 models in all. The Electric Motor included in this outfit will make the models work like real machinery. Some of the models stand several feet high, and they represent the genius of generations of engineering and mechanical experts. No greater benefit could be conferred upon any boy than to make him a present of this outfit. It will give him a sound knowledge of all the great engineering feats of the world, and will cause him to take a deeper interest in one of the most attractive sides of life. If he intends to pursue an engineering career it is an indispensable part of his education and will make his initiation into an intricate subject easy and pleasant.

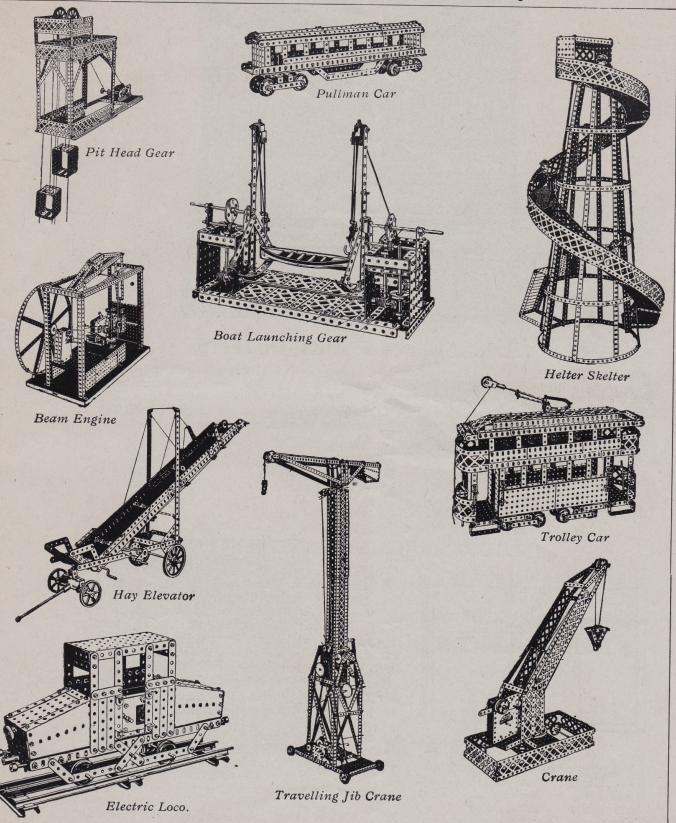
No. 6 Outfit

Price ... \$40.00.

A FEW CHOICE MECCANO MODELS



ANY BOY CAN BUILD THEM-NO STUDY REQUIRED





MECCANO ACCESSORY OUTFITS

Our illustration shows a specimen of one of the Meccano Accessory Outfits. As we have already explained, these outfits connect the main outfits from No. 0 to No. 6, 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 which cover the entire system.

Meccano	Accessory	Outfits
---------	-----------	---------

1.50
3.00
3.00
6.00
5.00
20.00

MECCANO MANUALS OF INSTRUCTIONS



THERE are two Meccano Manuals of Instructions, and no Meccano boy is properly equipped unless he has them both. Book No. 1 is the regular Manual which goes with the main Meccano outfits. It contains illustrations and full instructions for making 326 fine models; some of the models have been designed by our own staff of experts, and others are prize-winning models contributed by Meccano boys from every country in the world. Price, 35 cents postpaid.

Book No. 2 contains illustrations and instructions for building 100 entirely new models, very many of them prize-winners. The Eiffel Tower and Transporter Bridge are imposing models of great beauty, and the High Speed Ship Coaler, Vertical Drill, and Punching Machine are interesting models for those fond of mechanism. There are many fine models which can be made with the smaller outfits, and a series of simple scientific experiments, including Triangle of Forces and Inclined Plane, which any boy can make, and which impart a lot of useful knowledge. Price, 35 cents postpaid.

MECCANO INVENTOR'S ACCESSORY OUTFITS

FROM time to time new and very valuable parts are added to the Meccano system, and a number of these will be found illustrated on pages 17, 18, 19 and 20. For the convenience of Meccano users we have made up selected assortments of these new parts, in useful quantities, which may be purchased in special boxes known as Inventor's Accessory Outfits. Any Meccano user who owns one of the main Meccano outfits from No. 0 to No. 6 may add one or both Inventor's Accessory Outfits to it, and derive a great deal of extra enjoyment.

INVENTOR'S ACCESSORY OUTFIT "A"

THE "A" Inventor's Accessory Outfit contains four large Pulley Wheels, 3" in diameter, new Gear Wheels, a supply of Washers, Sprocket Wheels and Sprocket Chain for giving a positive drive to Meccano models, and a supply of the popular Meccano Braced Girders, which give a very fine finish to Meccano models.

Meccano Inventor's Accessory Outfit "A"

Price ... \$3.00.





INVENTOR'S ACCESSORY OUTFIT "B"

THE "B" Inventor's Accessory Outfit contains a magnificent assortment of new parts, including Bevel Gears, 1" Gear Wheels, Flat Plates, Octagonal and Strip Couplings, Triangular Plates, Screwed Rods, Curved Strips, Rack Strips, Hinges and Buffers and Couplings for constructing trains. Every boy who is interested in Engineering subjects will find this outfit of the greatest service to him, providing him with new movements, and considerably extending the scope of his experiments.

Meccano Inventor's Accessory Outfit "B"

Price ... \$7.00.



MECCANO ELECTRIFIED

THE application of electricity to the Meccano system has added a further and wonderful charm. Nothing could be more fascinating and instructive than to make a locomotive with Meccano, fix the Meccano Electric Motor inside, connect the battery, and turn on the current from your own switchboard, making the locomotive start, pick up speed, slow down and come to a stop, running it through tunnels, over bridges and through sidings; or to fix up a

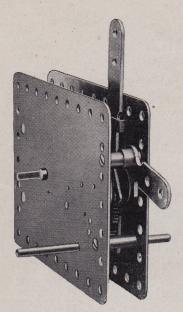


warehouse with several floors, and an elevator worked by electricity, loading up goods and transferring them from one floor to another; or to make a real aerial Morse Signalling apparatus, for signalling messages just as a regular telegraph operator would do; or to make a mechanical Crane for raising and lowering loads by electricity; or to make your own Electric Lamp Standard, Induction Coil, and a score of other things. All these things can be done with Meccano, and the Electric side of the hobby is developing rapidly. This new Electrical Outfit contains all the electrical accessories and fittings necessary to make the full range of experiments, with a well illustrated book of instructions which makes every-

thing simple. To the boy who already possesses a Meccano outfit, this Electrical set is a great boon.

Meccano Electrical Accessory Outfit

Price ... \$4.00.



MECCANO MOTORS

LL the Meccano models can be made to work by A 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 Motor 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.

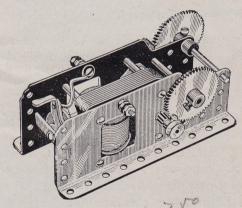
MECCANO CLOCKWORK MOTOR

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.

Meccano Clockwork Motor \$3.00.

MECCANO ELECTRIC MOTORS

THE use of electricity exercises a great fascination for any 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. Suitably geared, it has a lifting power of more than 30 lbs. 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.



Meccano Electric Motors

E-1	Non-Reversing .			 	\$3.00
√E-2	Non-Reversing . Reversing, with	extra	gears	 	4.50

MECCANO TRANSFORMER



(For 110 v. a. c. 60 cycles 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.

Meccano Transformer ...

THE MECCANO MAGAZINE



THE Meccano Magazine is the Meccano Boy's Newspaper, and no follower of the hobby should be without it. Its pages are devoted to the interests of Meccano boys. and it furnishes them with all the latest news. It contains announcements of the many Meccano competitions which are held each year. Every issue of this dandy magazine is full of bright attractive news that every boy likes to readwhat other boys are doing, illustrations of new models, entertaining articles on Electricity, Engineering and other interesting subjects; helpful hints, replies to boys' letters by the Editor, and many other features. A sample copy will be sent free to any new Meccano boy asking for it. At present it is published three times a year. The next three issues will be mailed direct to your home for 15c. It

is mailed regularly to subscribers only, and every Meccano boy should subscribe to it, in order not to miss a single issue.

MECCANO PRIZE COMPETITIONS

THERE is a big Prize Competition now running which every Meccano boy can enter. We are offering Prizes to the value of \$1250 for the best new models made from Meccano or other toy parts. There are no restrictions or entrance fees, and any boy with an idea for a new model should enter it in this contest. It is not necessary to make a big complicated model to win a prize. A small model, designed along correct scientific principles will stand a much better chance of winning one of the prizes than a big model, badly made and mechanically imperfect.

The competition is divided into three sections, and boys compete only against others of approximately their own age. This gives every boy a fair chance to win one of the many prizes.

Ask your Meccano dealer for an entry blank; if he cannot supply you, we will mail one to you on request.

MECCANO COMPANY

71 West 23rd Street

New York City

Particulars and Prices of Meccano Parts

	ents Part No.	Cents
1 Perf. Strips, 12½" long ½ doz. 1A " " 9½" " " 2A " " 4½" " " 3 " " 3½" " " 4 " " 3" " " 5 " " 2½" " "	21 Pulley Wheels, 1½" diam. centre boss and set screw course Pulley Wheels, 1" diam. wi screw course Pulley Wheels, 1" diam. out centre boss and set	v each 20 th set " 10 with-
6A " " 1½" " "	Pulley Wheels, ½" diam. out set screw 23A Pulley Wheels, ½" diam. set screw	with- with "05
7 Angle Girders, 24½" long each 7 A " " 18½" " " 8 " 12½" " ½ doz. 8 A " 9½" " " 9 " " 5½" " "	25 20 60 55 45 Pinion	each 15
10 Flat Brackets ½ dor. 11 Double Brackets each	Gear Wheels, 50 teeth (to with 34" pinion) Gear Wheels, 56 teeth (to with ½" pinion)	each 25 " 15 gear " 30 gear
12 Angle Brackets	10 28 Contrate Wheels, 1½" dia 34" dia 55	m each 50
15 " " 5" " " " " " " 15A " " 4½" " " " " " " " " 16 " " 3½" " " " " " " " " 17 " " 2" " " " " " " " " " " " " " " " "	05 05 05 02 02 02 Bevel Gear 30 Bevel Gears	1" Gear each 55
19 Crank Handles each 19A Wheels, 3" diam. with set screw. "	31 Gear Wheels, 1"—40 teeth 10 20 32 Worm Wheels	65 each 25
20 Flanged Wheels each		
	33 Pawls	C each 10
19B Pulley Wheels, 3" diam. with centre boss and set screw each Pulley Wheels, 2" diam. with centre boss and set screw "	25 20 35 Spring Clips, per box	each 10

MECCANO PARTS—Continued

			Part No. Cents
Part No	9.	Cents	Part No. Cents
			Co
36 36A	Screw Drivers eacl Special Screwdrivers "	h 10 50	57 Hooks
37 37A 37B 38 40	Nuts and Bolts, per box doz Nuts, per box " Bolts, per box " Washers " Hanks of Cord eacl	05 10 05	60A Double Angle Strips, 1½"x½",½doz. 18 60 " " 2½"x½" " 20 60B " " 3½"x½" " 25 60C " " 5½"x½" " 36
41	Propeller Blades per pai	r 15	61 Windmill Sails each 10
43	Springs eac	h 05	
Cranke 44 45	ed Bent Strip Double Bent Cranked Bent Strips eac Double Bent Strips eac	h 05	62 Cranks each 15 62A "Threaded "15 Bell—See No. 127
			63 Couplings each 15
46	Double Angle Strips, 2½"x1" eac (See also Nos. 60 and 112)	h 05	Octagonal Coupling Strip Coupling
50	Eye Pieces eac	eh 05	63A Octagonal Couplings each 20 63B Strip Couplings " 20
		ah or	64 Threaded Bosses each 06 65 Centre Forks "10 66 Weight, 50 grms. "20 67 "25" "15 68 Wood Screws, ½" doz. 10 69 Set Screws "10 69A Grub Screws "10
52 52 A 53 53 A	Perf. Flanged Plates, 5½"x2½", eac Flat Plates See Merf. Flanged Plates, 3½x2½", eac Flat Plates See Merf. See M	No. 70 ch 20	
54 56 56A	Perforated Flanged Sector Plates, ea Instruction Manuals, No. 1 Instruction Manuals, No. 2	eh 20 " 35 " 35	70 Flat Plates, 5½"x2½" each 15

MECCANO PARTS—Continued

	IIIIGGANO I A.	icio—continuca
Part N 72 52A 53A 76 77	Flat Plates 2 ½ "x2 ½" each 10 " 5 ½ "x3 ½" " 15 " 4 ½ "x2 ½" " 12 Triangular Plates, 2 ½" " 04	Part No. Cents 111 Bolts, 34" each 02
(11111111111111111111111111111111111111	
80 80A 81 82	Screwed Rods, 5" each 15 " " 3½" " 12 " " 2" " 10 " " 1" " 05	112 Double Angle Strips, 2½"x1½", each 06 112A " " 3" x1½"½" ½ doz. 36 (See also Nos. 46 and 60)
	60000	
89 90 √94	Curved Strips, 5½" each 05 " 2½"½ doz. 25 Sprocket Chain per yard 25	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
,		(OHO)
95 96	Sprocket Wheels, 2" each 25 1" " 20	114 Hinges (pair) per pair 20
3		
97 98 99 99A 100 101 102 103 103A 103B 104 105 106	Braced Girders, $3\frac{1}{2}$ " long $\frac{1}{2}$ doz. 20 """"""""""""""""""""""""""""""""""""	115 Threaded Pins each 05 120 Buffers each 05
107	Tables for Designing Machines " 25 Architraves each 09	121 Train Couplings each 15 122 Miniature Loaded Sacks ½ doz. 30
		123 Cone Pulleys each 50
109	Face Plates, 2 ½" diam each 20	000
110	Rack Strips, 3½" each 10	124 Reversed Angle Brackets, 1"½ doz. 25 125 "" " 20

MECCANO PARTS—Continued

Cents. Part No. Cents. Part No. 307 Silver-tipped Contact-screws each .12 126 ... each 15 Trunnions 308 Pole Pieces each .10 V 127 Simple Bell Cranks each 309 Coil Cheeks each Rack Segments, 3" diam. each 20 129 **Electrical Accessory Parts** 310 Lamp Holders each .08 Cents. Part No. each .10 301 Bobbins 311 Metal Filament Lamps each .30 per doz. .15 302 Insulating Bushes Insulating Washers per doz. .08 6 B. A. Screws per doz. 6 B. A. Nuts 304 312 30" lengths of bare iron wire, 27 .05 313 .75 314 .65 315 .08 each 306 Terminals .05 .45

MECCANO BOYS ARE KEEN, AMBITIOUS AND INVENTIVE

TO boy who follows the Meccano hobby can be a bad boy. It keeps him keen, alert and intensely interested, teaches him to invent, quickens his thinking capacities, and teaches him considerable manual dexterity. It also teaches him to be orderly and careful, because he is handling accurately made and highly-finished parts, which must be kept in an orderly fashion. Meccano has come to be recognized in many thousands of homes throughout the country as a necessary and essential part of a boy's training. Any parent or relative who is interested in the bringing-up or welfare of boys will do well to study carefully the possibilities which Meccano provides.

