



MODEL-BUILDING WITH MECCANO

There is no limit to the number of models that can be built with Meccano-Cranes, Clocks, Motor Cars, Ship Coalers. Machine Tools, Locomotives-in fact everything that interests boys. A screwdriver and a spanner, both of which are provided in each Outfit, are the only tools necessary.

When you have built all the models illustrated in the Manuals of Instruction the fun is not over, but is iust beginning. Now comes the chance to make use of your own ideas. First of all, re-build some of the models with small changes in construction that may occur to you; then try building models entirely of your own design. In doing this you will feel the real thrill of the engineer and the inventor.

HOW TO BUILD UP YOUR OUTFIT

Meccano is sold in eleven different Outfits, ranging from No. O to No. 10. Each Outfit from No. 1 upwards can be converted into the next one larger by the purchase of an Accessory Outfit. Thus, Meccano No. 1 Outfit can be converted into No. 2 Outfit by adding to it a No. 1a Accessory Outfit. No. 2a Outfit would then convert it into a No. 3 and so on. In this way, no matter with which Outfit you commence, you can build it up by degrees until you possess a No. 10 Outfit.

All Meccano parts are of the same high quality and finish, but the larger Outfits contain a greater quantity and variety, making possible the construction of more elaborate models.

As shown in the illustrations, the realism of many models can be increased by the inclusion of the figures. motor vehicles and other items from the Dinky Toys Series; pilots and drivers from the Aeroplane and Motor Car Constructor Outfits; trees and hedges from the Hornby Railway Series; Meccano sacks, cable drums, etc. These items are not included in any of the Outfits. A Clockwork Motor is included in Outfits 7a, 8, 9 and 10 only, and an Electric Motor in Outfits 9a and 10 only.

ELECTRIC LIGHTING OF MECCANO MODELS

It is great fun to illuminate your Meccano models by electric light, and a special Meccano Lighting Set can

be obtained from your dealer for this purpose. This consists of two spot lights with plain and coloured imitation glass discs, one stand lamp, two special brackets, and two pea lamps, operated from a 4-volt flashlamp battery (not included in the Set). The stand lamp is used for decorative purposes, and the spot lights can be used as headlamps, floodlights on cranes, and in countless other ways.

The "Meccano Magazine" is published specially for Meccano boys. Every month it describes and illustrates new Meccano models for Outfits of all sizes, and deals with suggestions from readers for new Meccano parts and for new methods of using the existing parts. There are model-building competitions specially planned to give an equal chance to the owners of small and large Outfits. In addition, there are splendid articles on such subjects as Railways, Famous Engineers and Inventors, Electricity, Chemistry, Bridges, Cranes and Aeroplanes, and special sections dealing with the latest Engineering, Aviation, Shipping and Road and Track News. Other pages deal with Stamp Collecting, and Books of interest to boys; and a feature of outstanding interest is the section devoted to short articles from readers.

The " Meccano Magazine " is the finest of all papers for boys who are interested in the wonderful things going on in the world around them. It is published on the first of each month. If you are not already a reader write to the Editor for full particulars, or order a copy from your Meccano dealer, or from any news-

THE MECCANO GUILD

Every owner of a Meccano Outfit should join the Meccano Guild. This is a world-wide organisation, started at the request of Meccano boys. Its primary object is to bring boys together and to make them feel that they are all members of a great brotherhood, each trying to help others to get the very best out of life. Its members are in constant touch with Headquarters, giving news of their activities and being guided in their hobbies and interests. Write for full particulars and an application form to the Secretary, Meccano Guild, Binns Road, Liverpool 13.

Clubs founded and established under the guidance of the Guild Secretary provide Meccano boys with opportunities of enjoying to the utmost the fun of model-building. There are nearly 200 active clubs in Great Britain, and nearly 100 in countries overseas, each with its Leader, Secretary, Treasurer and other officials. With the exception of the Leader, all the officials are boys, and as far as possible the proceedings of the clubs are conducted by boys.

Recruiting Medallions are awarded to members who are successful in securing recruits for the Guild, and good work on behalf of Meccano clubs, or of the Guild generally, is recognised by the presentation of special Merit Medallions. Full particulars of both these awards will be sent post free on request.

MECCANO SERVICE

The service of Meccano does not end with selling an Outfit and an Instruction Manual. If ever you are in any difficulty with your models, or if you want advice on any-thing connected with this great hobby, write to us. We receive every day hundreds of letters from boys in all parts of the world, and each of these is answered personally by one of our staff of experts. Whatever your problem may be, write to us about it.



These Models can be built with MECCANO No. 4 Outfit (or No. 3 and No. 3a Outfits)

4.1 DREDGER

Parts required

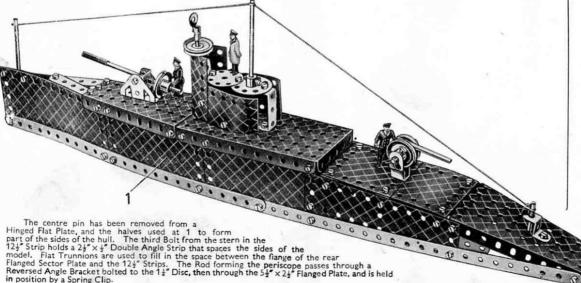
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_8	,,	,,	35	2	,,	" 200	
70	,,	,,	37	1	,,	" 212	
6	,,	,,,	37a	1	,,	" 213	
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A $2\frac{1}{2}$ " $\times \frac{1}{2}$ " Double Angle Strip is bolted to the front flange of the $5\frac{1}{2}$ " $\times 2\frac{1}{2}$ " Flanged Plate, and a Semi-Circular Plate is held between the flange and the Double Angle Strip by the same Bolt. The deck-cranes each consist of a 1" Pulley fastened to a 2" Rod, above which is placed a $1\frac{1}{2}$ " Disc fitted with Angle Brackets. Bolted to these, and lock-nutted, are the $2\frac{1}{2}$ " Strips forming the jib. The complete units are held in place by Spring Clips. The rear Formed Slotted Strip of the hopper bridge is fastened to the front of the $2\frac{1}{2}$ " $\times 1\frac{1}{2}$ " Flanged Plate by an Obtuse Angle Bracket.

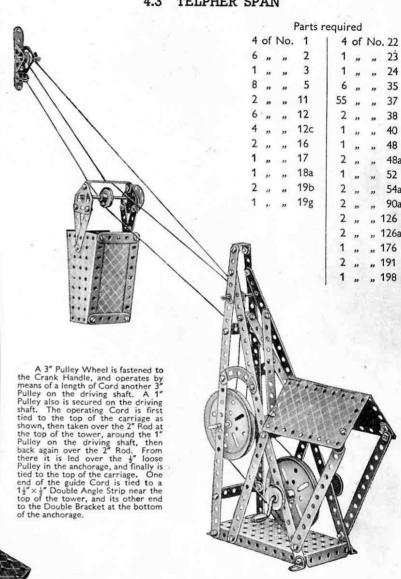
SUBMARINE

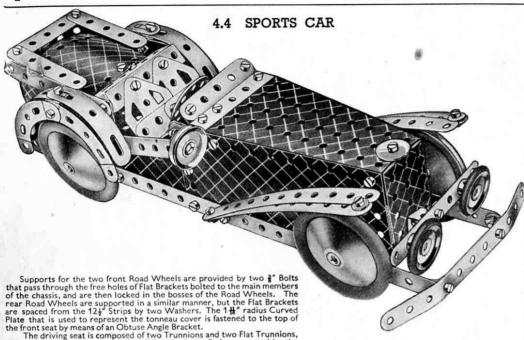
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4	,,	,,	22	2	,,	,,	191
1	,,	,,	24	2	,,	,,	192
5	,,	,,	35	1	,,	,,	198
4	,,	,,	37	1	,,	,,	199
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in position by a Spring Clip.



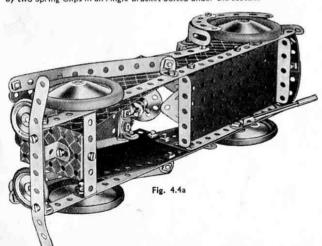
4.3 TELPHER SPAN





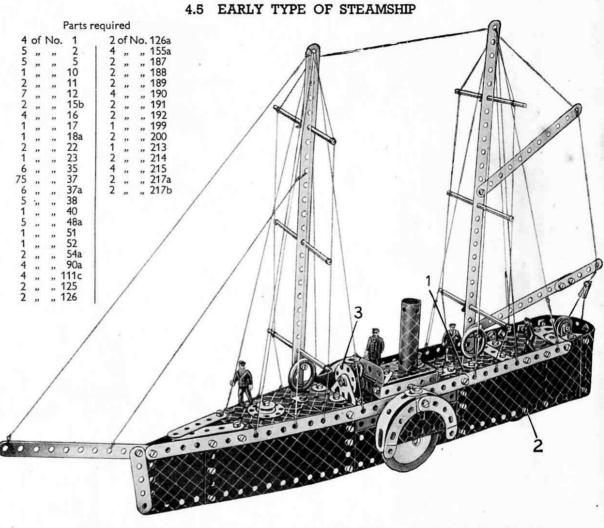
The driving seat is composed of two Trunnions and two Flat Trunnions, and these are bolted to the $2\frac{1}{2}$ " \times $\frac{1}{2}$ " Double Angle Strip supported by the

The steering wheel is a Bush Wheel fastened to a 1" Rod that is secured by two Spring Clips in an Angle Bracket bolted under the scuttle.



Parts required

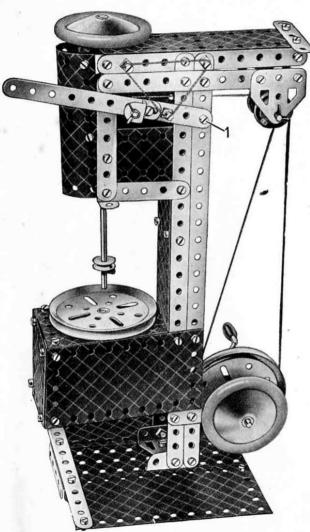
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2	,,	,,	11	2	,,	,, 126
6	,,	,,	12	2	,,	" 126a
3	,,	,,	12c	2	,,	" 155a
1	,,	,,	16	4	,,	" 187
1	,,	,,	186	2	,,	" 188
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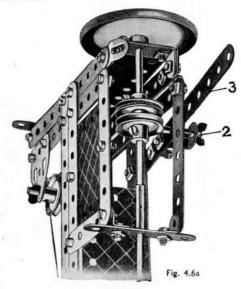


The foredeck consists of a Flanged Sector Plate bolted to the 12 $\frac{1}{2}$ " Strips that are placed along the sides of the deck. A $5\frac{1}{2}$ " $\times 2\frac{1}{2}$ " Flanged Plate is used for the central portion of the deck and to the rear end of this a Flanged Sector Plate 1 is fastened by a Flat Bracket. A $2\frac{1}{2}$ " $\times 2\frac{1}{2}$ " Double Angle Strip is bolted across the Flanged Sector Plate and to the sides of the vessel. Two $2\frac{1}{2}$ " $\times 2\frac{1}{2}$ " Flexible Plates, overlapped one hole, are bolted to the rear end of the Flanged Sector Plate.

The vessel runs on Road Wheels mounted on a compound rod consisting of a $1\frac{1}{2}$ " and a 2" Rod joined by a Rod Connector, which is journalled in the sides of the hull as shown, and also on 1" Pulleys fitted with Rubber Rings supported inside the hull on $\frac{3}{2}$ " Bolts 2. The Bolts 2 pass through holes in the Flexible Plates forming the sides of the ship and are locked in the bosses of the Pulleys. A $1\frac{1}{2}$ " Disc 3 is lock-nutted to a Trunnion to form the wheel.

4.6 DRILLING MACHINE





The height of the drill is controlled by the lever 3 (Fig. 4.6a). A 2" Rod 2, passed through a hole in the Strip 3 and through a hole in a Reversed Angle Bracket bolted to the Strip, engages between two 1" fast Pulleys on the shaft of the drill. A Driving Band, which is arranged as shown, holds the lever at its maximum height. The Bolt 1 is lock-nutted. The drill table is held in position by a 2" Bolt, that passes through the Flanged Sector Plate and is then locked in the boss of the

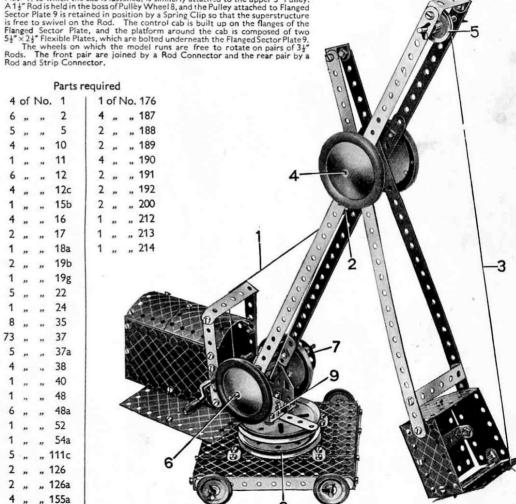
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8	,,	,,	12	7 " " 37a	2	,,	" 189
2	,,	,,	12c ·	1 " " 48	2	,,	" 190
1	,,	,,	15b	1 " " 48a	2	,,	" 191
1	,,	,,	16	1 " " 52	2	,,	" 192
2	,,	,,	17 -	1 " " 54a	2	,,	" 199
2	,,	,,	19b	4 " " 111c	1	"	" 213
1	n	,,	19g	1 " " 125			

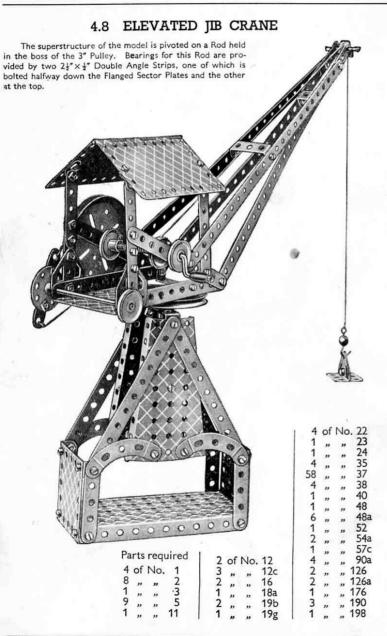
4.7 GIANT EXCAVATOR

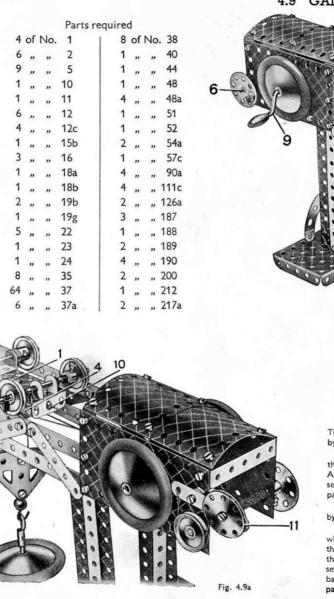
The Cord 1 is fastened to a Crank Handle journalled in holes in the sides of the cab, and after passing round the $2\frac{1}{2}$ " \times $\frac{1}{2}$ " Double Angle Strip above the cab is tied to the jib at 2. This Cord controls the luffing movement of the jib. The Cord 3 is tied to the bucket and is passed over the 1" Pulley Wheel 5 and then wound round Rod 6. By turning the handle on the Bush Wheel 7 the bucket is raised or lowered.

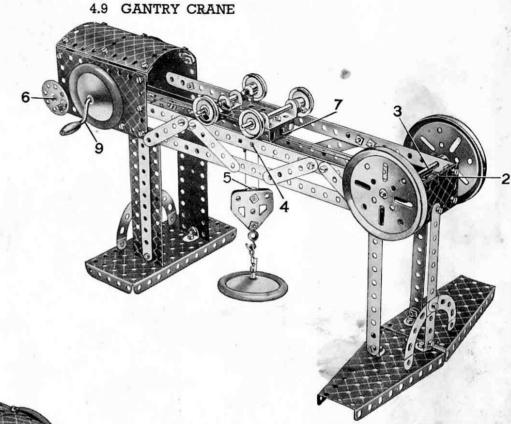
The bucket arm is pivoted on Rod 4, which passes through holes in the 124" Strips forming the jib and the bucket arm. Road

Wheels fastened at each end of Rod 4 retain it in position. A 3" Pulley Wheel 8 is bolted to the base by two Bolts, and a Flanged Sector Plate 9, to which the cab is fastened, is similarly attached to the upper 3" Pulley.







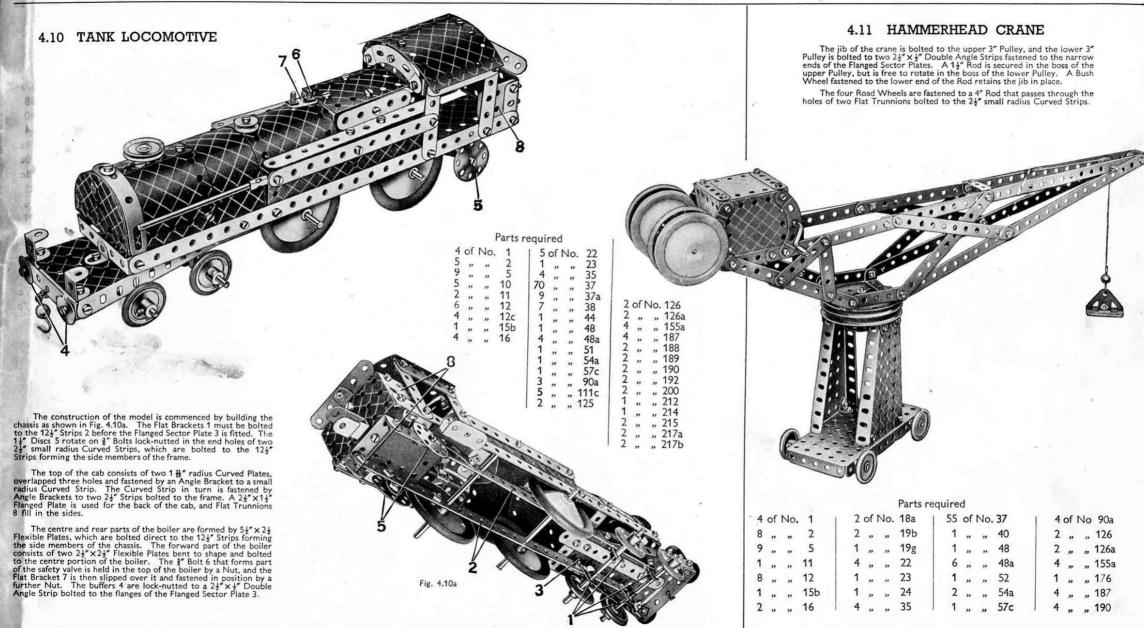


The sides of the cabin each consist of two $2\frac{1}{2}$ " $\times 2\frac{1}{2}$ " Flexible Plates overlapped one hole. The top of the cabin, which consists of two $1\frac{11}{16}$ " radius Curved Plates, is attached to the sides by means of Obtuse Angle Brackets at each corner as shown.

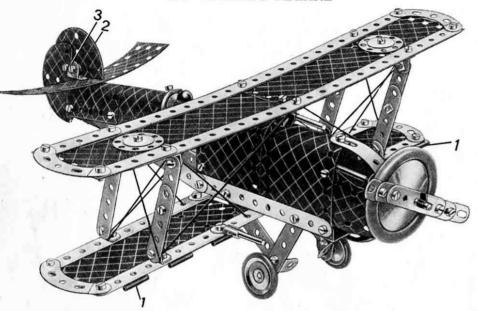
The hoisting carriage is a $2\frac{1}{2}$ " $\times 1\frac{1}{2}$ " Flanged Plate 7. Bearings for one of the $3\frac{1}{2}$ " Rods carrying the 1" Pulley Wheels are provided by the holes in the turned up ends of a $1\frac{1}{2}$ " $\times 1$ " Double Angle Strip, and for the other Rod by the holes in a Double Bracket. The Bolt 1 (Fig. 4.9a) secures a Cranked Bent Strip 4 vertically to the underside of the Flanged Plate 7. A 1" Rod passes through the lower holes of the Cranked Bent Strip and is held in position by Spring Clips.

Two Flat Trunnions form the pulley block. They are fastened together at their wide ends by a \(\frac{1}{2}'' \) Bolt, which carries a \(\frac{1}{2}'' \) loose Pulley 5 on its shank between the two Flat Trunnions.

The Cord that operates the hoisting carriage 7 is tied at 10. It is then passed round Rod 3, which carries the two 3" Pulleys, and is taken to the Crank Handle 9. The Cord is wound round the Crank Handle several times to enable it to grip the shaft, and finally is tied to the rear end of the carriage. The hoisting cord is tied to Rod 6 fitted with a Bush Wheel, and wound round it several times. It is then taken over the 1" Rod held in the Cranked Bent Strip 4, round Pulley 5, back over the 1" Rod, and tied at 2. Strip 11 is the lever of a band brake, the cord of which passes around a 1" Pulley on Rod 6.



4.12 FIGHTING BIPLANE



-	11/2	roat	

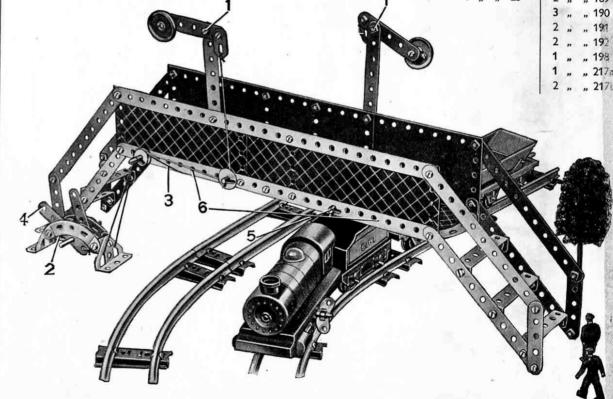
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2	,,	.,	3	1 " "	18a	4 " " 48a	1 " " 189	2 " " 215
9	,,	,,	5	4 " "	22	4 " " 90a	4 " " 190	2 " " 217a
4	,,	,,	10	6 " "	35	5 " "111c	2 " " 191	2 " " 217b
2	,,	,,	11	74 " "	37	2 " " 125	2 " " 192	
8	,,	,,	12	1 " "	37a	2 " " 126a	1 " " 198	
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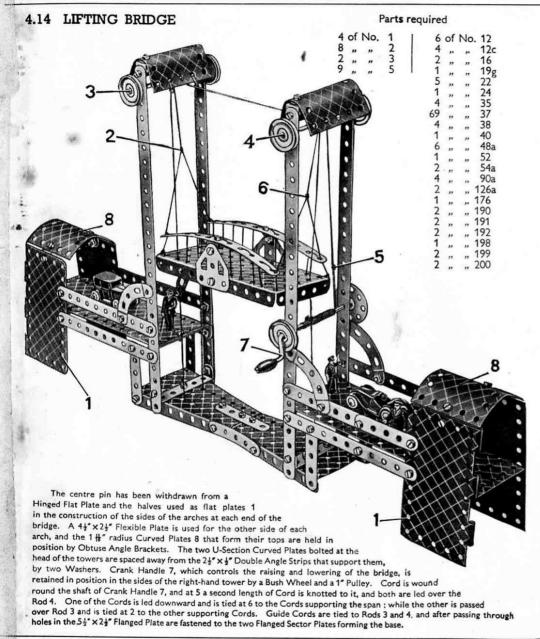
The two 3" Formed Slotted Strips that can be seen in the illustration, one forming the top and one the underside of the nose of the plane, are joined end to end by a Bolt through their slotted holes. The Bolt holds also a Reversed Angle Bracket inside the nose, and an Obtuse Angle Bracket, which is outside the nose. The 3½" Rod that forms the propeller shaft passes through the free hole of the Obtuse Angle Bracket, through the unoccupied part of the slots in the 3"Formed Slotted Strips, and through the hole of the Reversed Angle Bracket. The Rod is held in position by Spring Clips. The centre pin of a Hinged Flat Plate has been withdrawn, and the two parts used as flat plates 1, to form part of the lower wing. The Semi-Circular Plate 2 is fastened to the fuselage by means of a Double Bracket 3, and is spaced from the inside of the Bracket by three Washers. Flat Trunnions are used for the sides of the cockpit. The 1" fast Pulleys forming the front and the back of the cockpit are each fastened by a Bolt passing through the top of the U-Section Curved Plates and into the tapped hole of the boss.

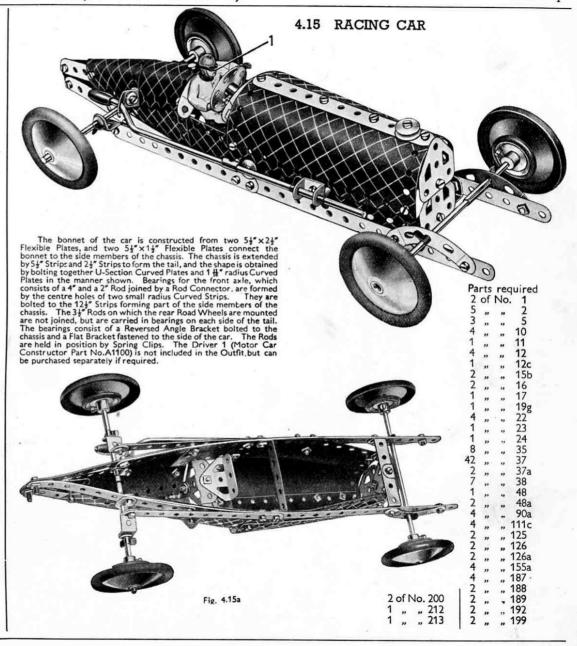
4.13 RAILWAY FOOTBRIDGE

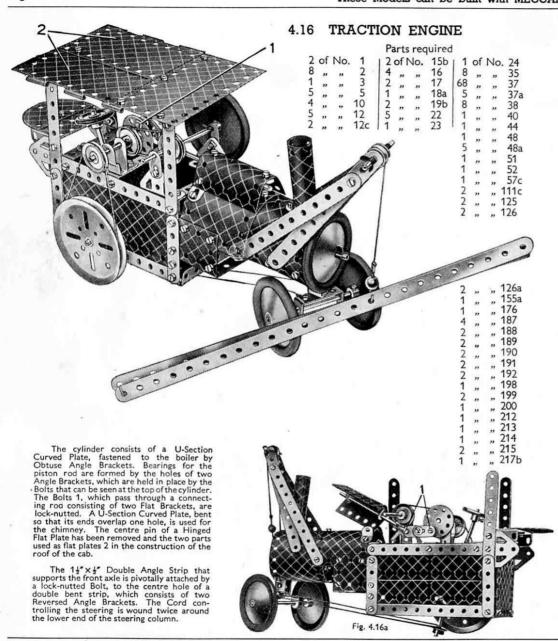
The Bolts 1 are lock-nutted. The right-hand signal is operated by the Cord 3, which passes underneath the bridge and around the rear end of Rod 5, and is tied to the Flat Bracket on the signal arm. The other end of the Cord is tied to Strip 4, so that if the lever is pushed forward the signal arm rises to a horizontal position. The 2½" Strip 2 is held by the Bolts that hold the small radius Curved Strips, and it retains the lever 4 in whatever position it is placed. The 2" Rod on which the levers pivot is journalled in the centre hole of the 2½" Strip 2, and in the lower hole of a Reversed Angle Bracket bolted to the rear Cranked Curved Strip. The left-hand Trunnion that supports the lever frame is fastened to the bottom of the steps by a Cranked Bent Strip, the top of which can just be seen in the illustration. The other Trunnion forms a guide for the operating Cords. The 1" Pulleys are fastened to the signal arms by %" Bolts, which pass through the end holes of the Strips and are locked in the bosses of the Pulleys.

The centre pin has been withdrawn from a Hinged Flat Plate and the halves used as flat plates at 6 for the floor of the span. Two 5½"×1½" Flexible Plates fill in the space between them.







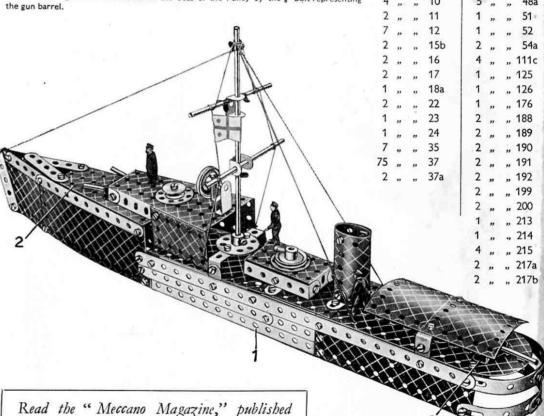


4.17 RIVER GUN-BOAT

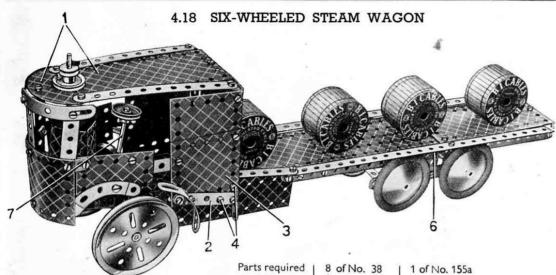
Parts required

1 of No. 40

Each side of the forward part of the ship consists of a $2\frac{1}{2}$ " $\times 2\frac{1}{2}$ " and a $5\frac{1}{2}$ " $\times 2\frac{1}{2}$ " Flexible Plate. These are bolted to the $12\frac{1}{2}$ " Strip 1 and to the Flanged Sector Plate 2. The funnel is represented by two U-Section Curved Plates bent so that their ends overlap two holes at each side, and it is fastened to the deck by two Angle Brackets. The forward gun turret, also a Flanged Sector Plate, is fastened to the raised portion of the deck by means of a $\frac{1}{2}$ " $\times \frac{1}{2}$ " Angle Bracket. The guns are represented by two 2" Rods, held by Spring Clips in the holes of a $1\frac{1}{2}$ " $\times \frac{1}{2}$ " Double Angle Strip bolted to the narrow end of the Flanged Sector Plate 2. A $1\frac{1}{2}$ " Rod, held by a Spring Clip and a Cord Anchoring Spring in a Trunnion 3, forms the rear gun. The gun in front of the funnel is held in place by a $\frac{3}{8}$ " Bolt passed through the centre hole of the Flanged Plate and locked in the boss of the Pulley by the $\frac{3}{8}$ " Bolt representing the gun barrel.

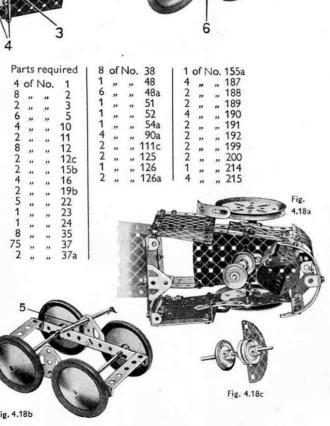


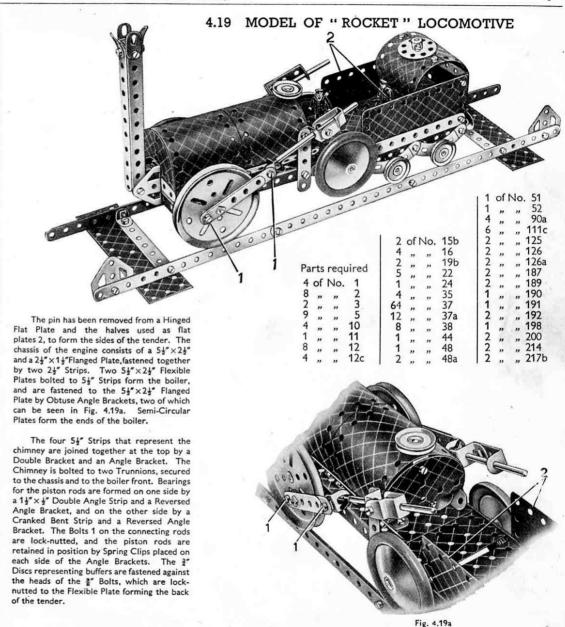
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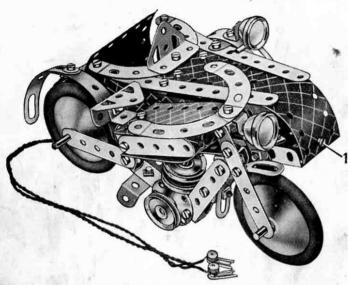
In Fig. 4.18a the top of the cab has been removed to show the construction of the boiler and steering wheel. The boiler consists of two U-Section Curved Plates fastened by a 11 x 1 Double Angle Strip to the Flanged Sector Plate forming the bottom of the cab. The two 1" Pulleys seen in Fig. 4.18a are fixed to the steering column 7, which passes through the bottom of the cab and is held in the boss of a Bush Wheel carrying a 2½"×½" Double Angle Strip. The holes in the turned down ends of the Double Angle Strip support the 4" Rod that forms the front axle. The method of attaching the chimney to the two Plates 1 is shown in Fig. 4.18c. The Bolts 4 pass through a Flat Bracket behind Plate 3, thus securing the Strip 2 to the Plate. The 1" Pulley with Rubber Ring represents the top of the boiler.

Fig. 4.18b shows the construction of the rear wheel bogie. The bogie is attached to the wagon by a Rod 5, which passes through the holes in the 12½" Strips 6 and through the upper holes in the Flat Trunnions bolted to the bogie. The Rod is held in position by Spring Clips.





4.20 MOTOR CYCLE AND SIDECAR

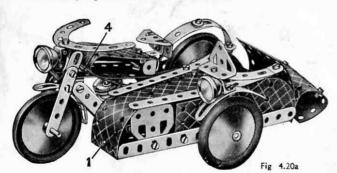


The $5\frac{1}{4}$ " Flexible Plate that forms the front of the sidecar is bolted at 1 to a $2\frac{1}{4}$ " $X\frac{1}{4}$ " Double Angle Strip, which is fastened by Bolt 2 to the $4\frac{1}{4}$ " Flanged Sector Plate forming the bottom of the sidecar. The Bolts 3 pass through the Flexible Plates and also through a $2\frac{1}{4}$ " $X\frac{1}{4}$ " Double Angle

3 pass through the Flexible Plates and also through a 2½" × ½" Double Angle Strip.

The engine cylinder consists of two 1" Pulleys mounted on a 2" Rod, one end of which is journalled in the Strip 4 that forms the top of the frame. The other end of the Rod is held between the two Bolts that fasten the 1½" Discs to the frame.

The model is fitted with two Spotlights taken from a Meccano Lighting Set. These are fastened by the Angle Brackets supplied with the Lighting Set, to the handlebars and sidecar mudguard. The battery for supplying current for the Spotlights can be concealed in the sidecar.



Parts required

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2	,,	.,	11			2	,,	,,	126
8	,,	.,	12			2	,,	**	126a
1	,,	.,	12c			3	,,	,,	187
1	,,		16	- 1		2	,,	,,	188
2	,,	**	17			2	,,	.,	189
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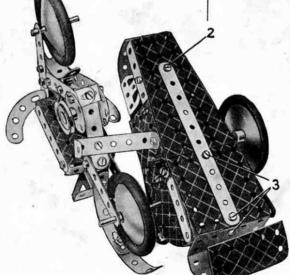
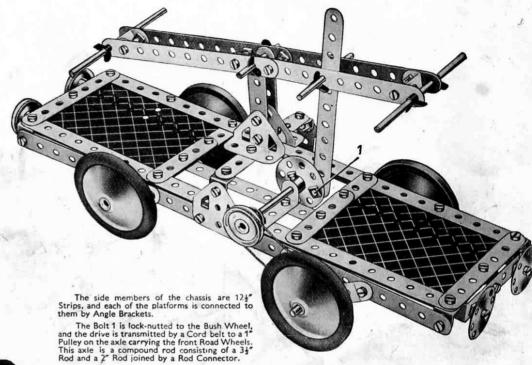
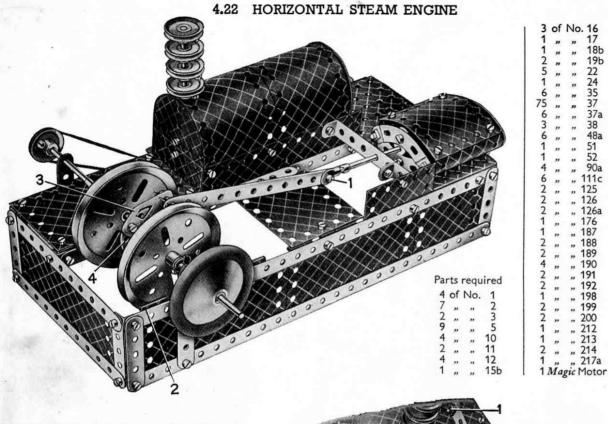


Fig. 4.20b

4.21 HAND TROLLEY CAR

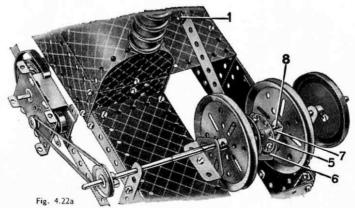


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4	of	No	. 1	1 2	of	No.	18a	1 4	of	No. 90a
6	,,,	,,	2	4	,,	,,	22	4	,,	" 1110
2	,,	,,	3	1	,,	,,	24	2	*	" 126
8	,,	,,	5	8	,,	.,	35	2	,,	" 126a
2	,,	,,	11	54	,,		37	4	,,	,, 187
8	,,	,,	12	7	,,	,,	37a	4	,,	,, 190
1	,,,	,,	15b	2		,,	38	2	,,	., 191
3	,-	,,	16	1	,.		48	1	,,	" 213
2	,,		17	2	,,	,,	48a	12	h	" 217a

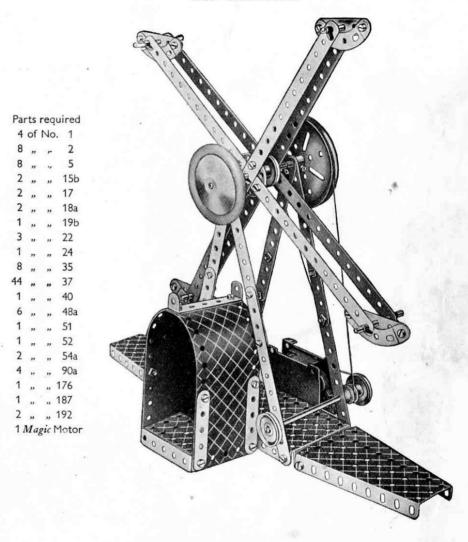


The Bolt 1 is lock-nutted. The centre pin is withdrawn from a Hinged Flat Plate and the halves used as flat plates at 2. The Flat Trunnion 3 is bolted to Bush Wheel 4 and forms one web of the crank. The Bush Wheel is fastened to a 2" Rod, which carries also a 3" Pulley, and a Rod Connector joins this Rod to a 34" Rod that transmits the drive from the Magic Motor The other web of the crank is made by bolting a 1½" Disc 5 to a Flat Trunnion 6, one of the bolts holding also a Reversed Angle Bracket 7. A Spring Clip 8 is fixed in position so that when the crankshaft is rotated the Rod on which the 3" Pulley and the Road Wheel are fastened is rotated by the Reversed Angle Bracket 7. The cylinder is composed of two 1\frac{1}{2}" radius Curved Plates and two U-Section Curved Plates bolted together as shown, and the complete unit is fastened in position to the 5\frac{1}{2}" x 2\frac{1}{2}" Flanged Plate that forms the base.

The boiler consists of two $5\frac{1}{2}$ " $\times 2\frac{1}{2}$ " Flexible Plates bolted to $5\frac{1}{2}$ " $\times 1\frac{1}{2}$ " Flexible Plates and its ends are closed by Semi-Circular Plates and $2\frac{1}{2}$ " $\times 1\frac{1}{2}$ " Flexible Plates. The fire-box door is represented by a Trunnion. The chimney is a 4" Rod fitted with 1" Pulleys and is held in place by a Cord Anchoring Spring. Fig. 4.22a shows the arrangement for driving the model with a Magic Motor.



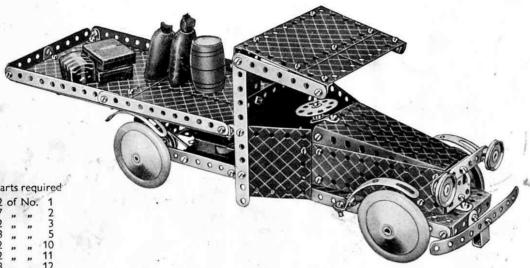
4.23 FLYBOATS



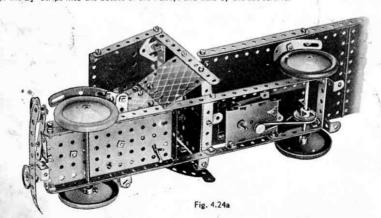
The Magic Motor is bolted to the flange of the $5\frac{1}{2}$ × $2\frac{1}{2}$ Flanged Plate, and the drive is taken from the pulley of the Motor to a 1" Pulley fastened on a Rod journalled in the $12\frac{1}{2}$ " Strips that support the main shaft. A $\frac{1}{2}$ " fast Pulley also is secured on this Rod, and drives through a belt of Cord a 3" Pulley on the main shaft. The arms that support the boats are bolted to a Bush Wheel fastened on the main shaft. Each of the boats consists of a $2\frac{1}{2}$ " Strip and a $2\frac{1}{2}$ " small radius Curved Strip bolted together.

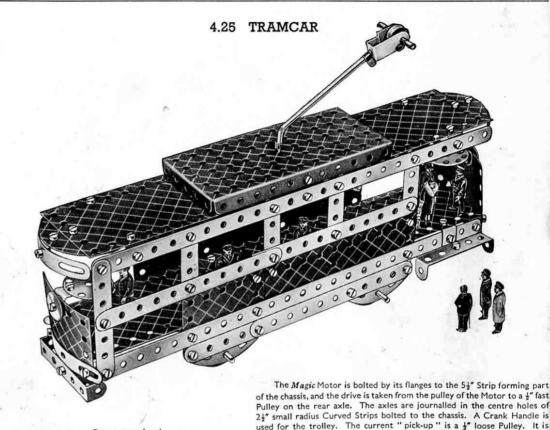
1 Magic Motor

4.24 MOTOR LORRY



The chassis of the model consists of two $12\frac{1}{2}$ " Strips bolted to a $5\frac{1}{2}$ " $\times 2\frac{1}{2}$ " Flanged Plate and secured at their free ends by a $2\frac{1}{2}$ " $\times \frac{1}{2}$ " Double Angle Strip. Both the front and rear axles are journalled directly in the chassis. The *Magic* Motor is attached by its flanges to one of the $12\frac{1}{2}$ " Strips, and the drive is taken through a Driving Band from the pulley of the Motor to a 1" fast Pulley fastened on the back axle of the lorry. The platform is fixed to the end of the chassis by two $2\frac{1}{2}$ " $\times \frac{1}{2}$ " Double Angle Strips, the ends of which can be seen in Fig. 4.24a, and also to the back of the cab by a $1\frac{1}{2}$ " $\times \frac{1}{2}$ " Double Angle Strip. The front bumper consists of a $5\frac{1}{2}$ " Strip curved to shape and fastened by a Cranked Bent Strip to the $5\frac{1}{2}$ " $\times 2\frac{1}{2}$ " Flanged Plate forming the front of the chassis. The headlamps, which are 1" Pulleys, are fixed in place by $\frac{1}{8}$ " Bolts pushed through the $2\frac{1}{2}$ " Strips into the bosses of the Pulleys and held by the set screws.





				Pa	rts	req	uired		
4	of	No.	1	4	of	No	. 38	1 2 of 1	No. 200
8	,,	,,	2	1	,,	,,,	44	2 "	" 214
2	,,	,,	3	6	,,	,,	48a	4 "	,, 215
9	,,	**	5	1	,,	,,,	52	2 "	" 217a
5	,,	**	10	4	,,	"	90a	2 ."	" 217ь
4	,,	,,	12	6	"	**	111c	1 Ma	gic Moto
4	,,	"	12c	2	"	"	125 126		
7	,,,	**	10	1 4	"	**	120		

supported on a 12" Rod that passes through the holes of a Cranked Bent Strip fastened at the end of the Crank Handle by a Cord Anchoring Spring and a Spring Clip.

MECCANO MOTORS FOR OPERATING MECCANO MODELS

If you want to obtain the fullest enjoyment from the Meccano hobby you should operate your models by means of one of the Meccano Motors described on this page. You push over the control lever of the clockwork or electric Motor and immediately your Crane.

Motor Car, Ship Coaler or Windmill commences to work in exactly the same manner as its prototype in real life.

Each Motor is specially designed for building into Meccano models.

MECCANO CLOCKWORK MOTORS

These are the finest clockwork motors obtainable for model driving. They have exceptional power and length of run and their gears are cut with such precision as to make them perfectly smooth and steady in operation.

Meccano Clockwork Motors are specially suitable for small models built with a limited range of parts. They are extremely simple to operate and have the advantage of being self contained.



THE MECCANO MAGIC MOTOR

The Meccano Magic Motor is well designed and strongly constructed, and is fitted with a powerful spring giving a long and steady run. It is non-reversing. Each Motor is supplied with a separate ½" fast Pulley and three pairs of Driving Bands of different lengths.

A Magic Motor is the best power unit for driving small models built from Outfits Nos. O to 5. The larger Clockwork Motors, No. 1, No. 1a and No. 2, and the various Electric Motors, are more suitable for driving the heavier models built from Outfits Nos. 5 to 10.



No. 1 Clockwork Motor

This strongly built and efficient Motor is fitted with a powerful spring that gives a long and steady run, and is exceptionally smooth in action. The Motor is provided with a conveniently-placed brake lever by means of which it can be started and stopped. The Motor is of the non-reversing type.



No. 2 Clockwork Motor.

No. la Clockwork Motor

This Motor is more powerful than the No. 1 Motor and is fitted with reversing motion. It has brake and reverse levers.

No. 2 Clockwork Motor

This is a Motor of super quality. Brake and reverse levers enable it to be started, stopped or reversed, as required.

MECCANO ELECTRIC MOTORS

The Meccano Electric Motors shown here have been designed specially to provide smooth-running power units for the operation of Meccano models.



No. El Electric Motor (6 volt)

This Motor (non-reversing) will give excellent service. It is operated through a Meccano T6A, T6 or T6M Transformer from alternating current mains, or from a 6-volt accumulator.

No. E120 Electric Motor (20 volt)

The E120 Electric Motor is operated through a Meccano T20A, T20, or T20M Transformer from alternating current supply mains. Non-reversing.



No. E6 Electric Motor (6 volt)

This fine Motor is fitted with reversing motion and provided with stopping and starting controls. It can be operated through a Meccano T6A, T6 or T6M Transformer from the mains (alternating current) or from a 6-volt accumulator.

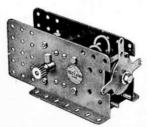


No. EO6 Electric Motor (6 volt)

This strongly-built non-reversing Motor of the all-enclosed type will drive all the models built from Outfits up to No. 5, and also some of the lighter models built from Outfits 6 to 8. It can be operated through a Meccano T6A, T6 or T6M Transformer from the mains, providing the supply is alternating current, or from a 6-volt accumulator.

No. EO20 Electric Motor (20 volt)

The EO20 is a powerful non-reversing Motor of similar construction to the EO6 Motor illustrated above. It is designed to work from alternating current mains supply through a Meccano T20A, T20 or T20M Transformer.



No.E20b Electric Motor (20 volt)

This 20-volt Electric Motor is an extremely efficient power unit, fitted with reversing motion and provided with stopping and starting controls. It is operated through a Meccano T20A, T20 or T20M Transformer from alternating current supply mains.

MECCANO TRANSFORMERS

There are six Transformers in the series, as described below, all of which are available for the following A.C. supplies:—100/110 volts, 50 cycles; 200/225 volts, 50 cycles; 225/250 volts, 50 cycles. Any of the Transformers can be specially wound for supplies other than these at a small extra charge. When ordering a Transformer the voltage and frequency of the supply must always be stated.



No. T20A Transformer



No. T6 Transformer

FOR 20-volt ELECTRIC MOTORS

No. T20A TRANSFORMER (Output 35 VA at 20/3½ volts). Has two separate circuits at 20 volts, one of which is controlled by a 5-stud speed regulator, and a third circuit at 3½ volts for lighting up to 14 lamps.

No. T20 TRANSFORMER (Output 20 VA at 20 volts). Has one 20-volt circuit controlled by a 5-stud speed regulator.

No. T20M TRANSFORMER (Output 20 VA at 20 volts). This Transformer is provided with one 20-volt circuit, but is not fitted with speed regulator.

FOR 6-volt ELECTRIC MOTORS

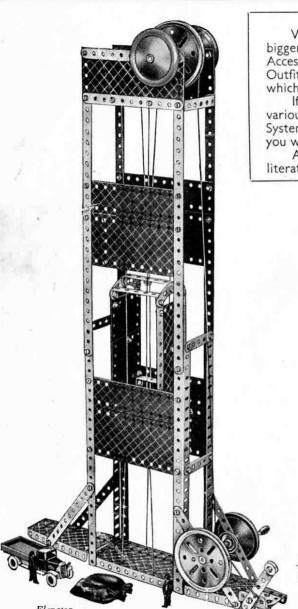
No. T6A TRANSFORMER (Output 40 VA at 9/3½ volts). Has two separate circuits at 9 volts, one of which is controlled by a 5-stud speed regulator, and a third circuit at 3½ volts for lighting up to 18 lamps.

No. T6 TRANSFORMER (Output 25 VA at 9 volts). Has one 9-volt circuit and is fitted with a 5-stud speed regulator.

No. T6M TRANSFORMER (Output 25 VA at 9 volts). Has one 9-volt circuit, but is not fitted with a speed regulator.

Resistance Controllers

By means of these Controllers the speed of Meccano 6-volt and 20-volt Motors can be regulated exactly as desired.

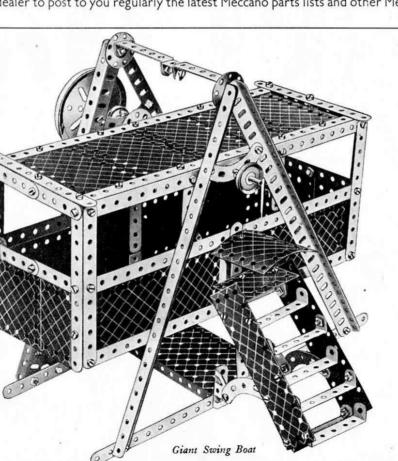


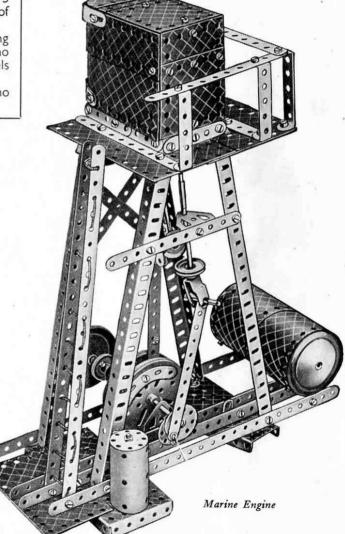
BUILD BIGGER AND BETTER MODELS

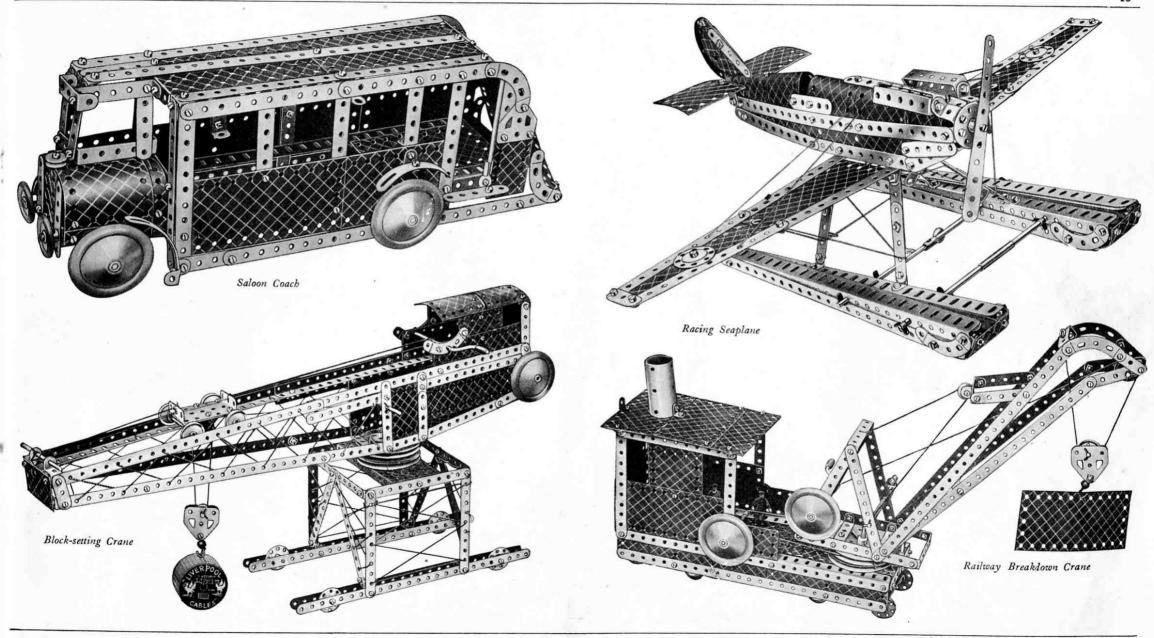
When you have built-all the models shown in this Manual you will be keen to build bigger and more elaborate models. Your next step is to purchase a Meccano No. 4a Accessory Outfit containing all the parts required to convert your No. 4 into a No. 5 Outfit. You will then be able to build the full range of No. 5 Outfit Models, a selection of which is illustrated on this page and opposite.

If you prefer to do so, you can build up and develop your Outfit quite easily by adding various parts to it from time to time. The model-building possibilities of the Meccano System are limitless, and the more Meccano parts you have the bigger and better the models you will be able to build.

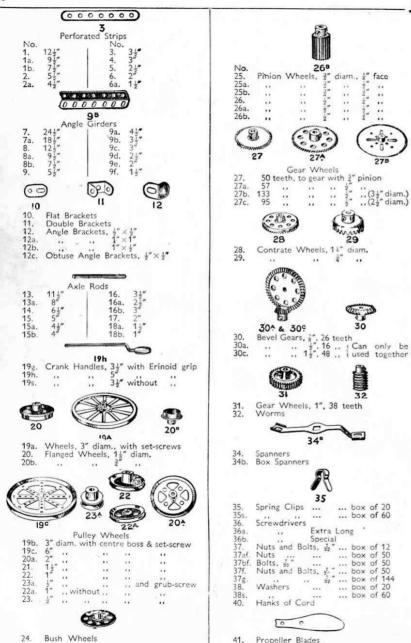
Ask your dealer to post to you regularly the latest Meccano parts lists and other Meccano



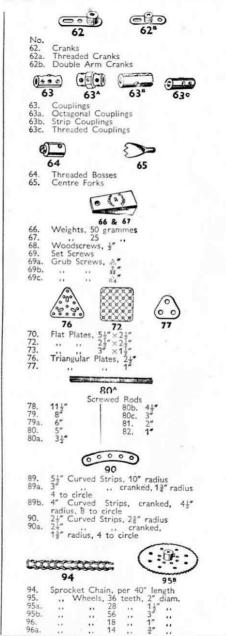


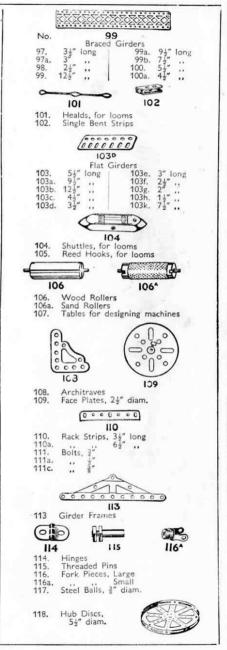


MECCANO PARTS



	Springs (2000) 45
44. 45. 46. 47. 47a. 48. 48b. 48c. 48d.	Cranked Bent Strips Double Double Angle Strips, 2½"×1" 2½"×1½" 3"×1½" 1½"×½" 2½"×½" 3½"×½" 3½"×½" 5½"×½"
50a.	Eye Pieces, with boss
OF THE PERSON NAMED IN COLUMN TO PERSON NAME	
51, 52, 52a, 53, 53a,	52 Flanged Plates, 2½"×1½" Flat Plates, 5½"×2½" Flanged Plates, 3½"×2½" Flanged Plates, 3½"×2½" Flat Plates, 4½"×2½"
54a.	Flanged Sector Plates, 4½" long
	(• (• • • • • • • • • • • • • • • • •
55. 55a.	Perforated Strips, slotted, 5½" long
57. 57a. 57b. 57c.	57° 57° 57 Hooks Scientific Loaded, Large Loaded, Small
	₹ 7 m
58. 58a. 58b.	Spring Cord, 40" Length Coupling Screws for Spring Cord Hooks for Spring Cord
59.	Collars, with grub-screws
61.	Windmill Sails





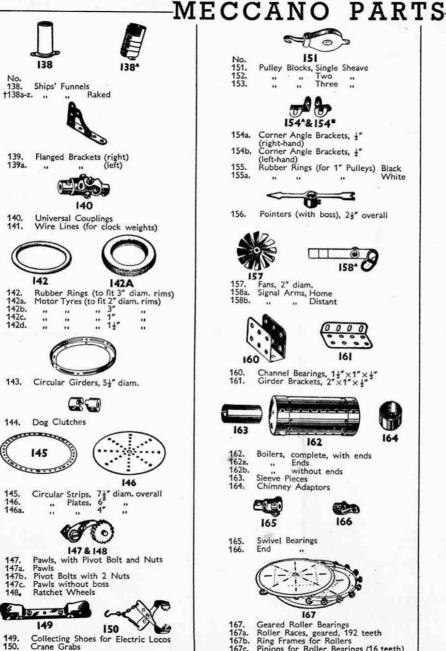
00000000 120 Buffers 120a. Spring Buffers Compression Springs C TIPE Train Couplings Miniature Loaded Sacks 123 Cone Pulleys Reversed Angle Brackets, 1' 000 126 1264 126. Trunnions 126a, Flat Trunnions 127. Simple Bell Cranks Boss Bell Cranks 129. Rack Segments, 3" diam. Eccentrics, Triple Throw Dredger Buckets Flywheels, 22" diam. 133 133. Corner Brackets, 11334 133a. Crank Shafts, 1" stroke

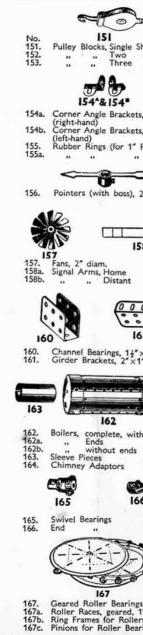
Theodolite Protractors

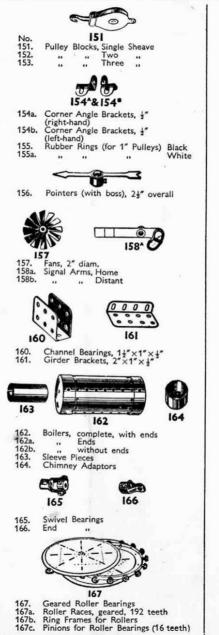
Handrail Supports Handrail Couplings

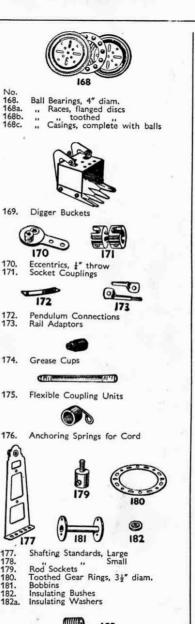
136a. Handrail Coupli 137. Wheel Flanges

136A









Lamp Holders I 184c, 6-volt Lamps

184d. 10

184e. 20

2½-volt Lamps

168a.

168b.

168c.

178. 179. 180. 181. 182.



