

MECCANO

TRADE MARKS 296321, 501118, 76, 12633, 10274, 55/13476, 569/13, 884/25, 2913, 80, 124, 338, 4174, 91637, 83171, 157149, 32822, 200639, 209783, 214061, 214062, 12892, 29094, 33316, 1818, 16737, 383/18, 5848, 50204, 10/12258, 22826, 18982, 20063/925, 9048, 5549, 2189, 16900, 72286, 2389, 41812, 5403, 7315, 18066, 139420, 494933-4-5-6, 29041, 26877, 6595, 404718, 410379, 55096, 12240

HORNBY'S ORIGINAL SYSTEM-FIRST PATENTED 1901

INSTRUCTIONS

FOR OUTFITS

Price 1/-

00 to 2

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No. 31.2

ENGLISH EDITION

MECCANO

The Finest Hobby in the World for Boys

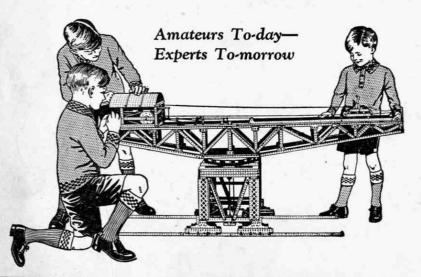
The Meccano system is composed of over two hundred and fifty different parts, mostly made of steel or brass, each one of which has a definite mechanical purpose. These parts combine to form a complete miniature engineering system with which practically any mechanical movement may be reproduced in model form. More can be accomplished with Meccano than with any other constructional toy, for no other system has such possibilities. The genius is in the parts and you can commence to build models as soon as you get your Outfit home. A screwdriver, provided in the Outfit, is the only tool necessary.

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. The most wonderful feature about the system is that it is real engineering in miniature; it is fascinating and delightful and

it gives you a satisfaction beyond anything that you have ever previously experienced.

The "Meccano Magazine"

The Meccano Magazine is the Meccano boy's own newspaper. It tells him of the latest Meccano models; what Meccano Clubs are doing; how to correspond with other Meccano boys; the Competitions that are running, etc. It contains splendid articles on such subjects as Railways, Famous Engineers and Inventors, Electricity, Bridges, Cranes, Wonderful Machinery, Aeronautics, Latest Patents, Radio, Stamps, Photography, Books and other topics of interest to boys, including suggestions from Meccano boys for new Meccano parts and correspondence columns in which the Editor replies to his readers' enquiries. The publishing date is the first of each month. If you are not already a reader of the Meccano Magazine write to the Editor for full particulars, or order a copy from your Meccano dealer or from any newsagent.



Model-Building with Meccano

Make the simple models first—they will provide hours of fun—and then try to improve them. Every model can be made in a dozen different ways. It is important to screw up all the nuts and bolts tightly to ensure that your

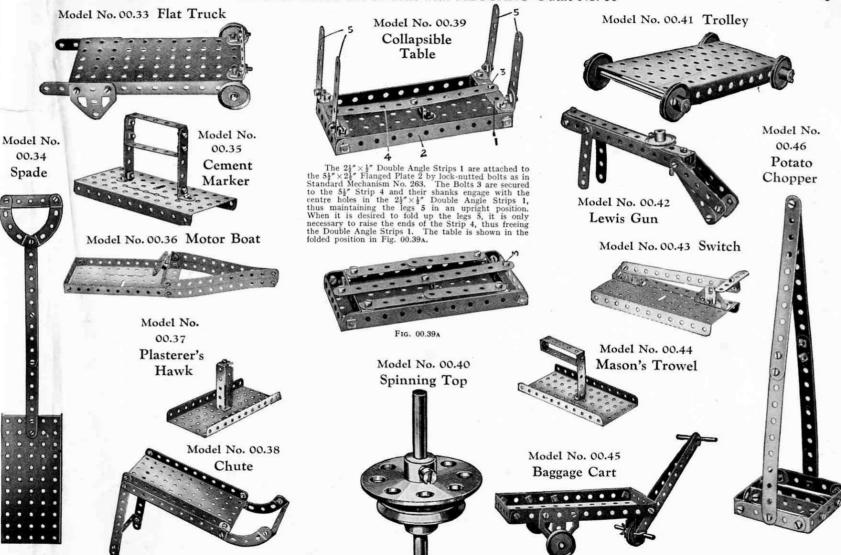
models will be strong and firm when they are completed.

Every keen and inventive Meccano model-builder should obtain copies of the special Manuals "How to use Meccano Parts" and "Meccano Standard Mechanisms." In the former the principal uses of Meccano parts are outlined, while the latter shows a large number of real engineering mechanisms, built of Meccano parts, that can be incorporated in various models. You can obtain copies of these Manuals from your dealer, or direct from Meccano Ltd., Old Swan, Liverpool.

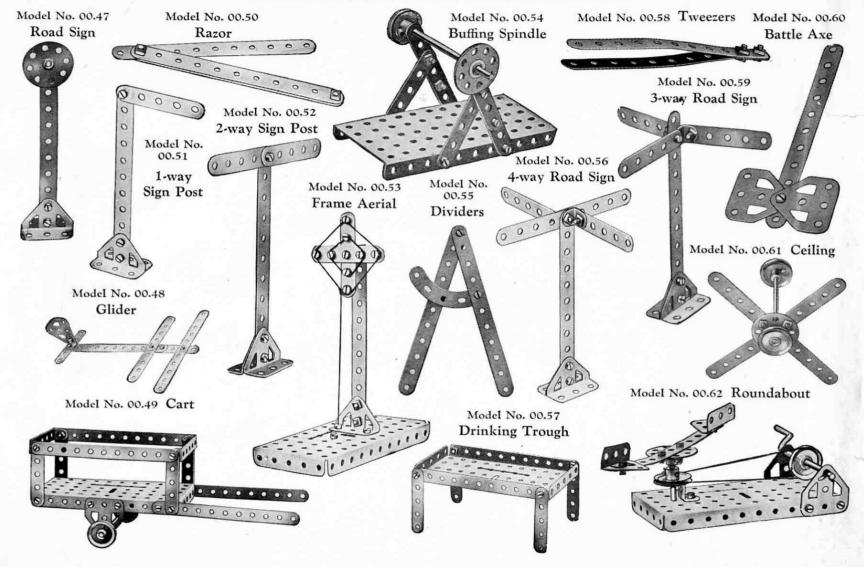
How to Build up Your Outfit

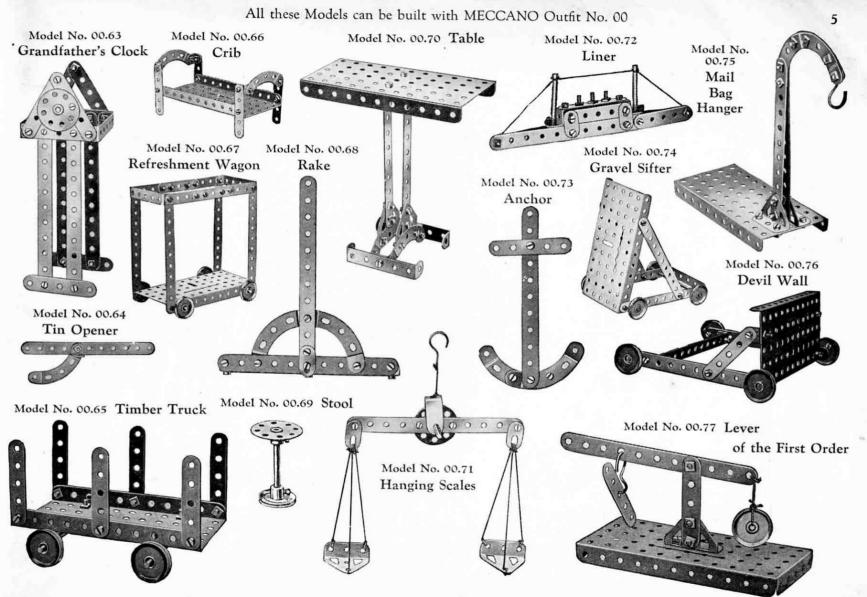
Meccano is sold in ten different Outfits, numbered 000 to 7. All Meccano parts are of the same high quality and finish, but the larger Outfits contain a greater quantity and variety of parts, making possible the construction of more elaborate models. Each Outfit from No. 00 upwards may be converted into the one next higher by the purchase of an Accessory Outfit. Thus, a No. 00 may be converted into a No. 0 by adding to it a No. 00A. A No. 0A would then convert it into a No. 1, and so on. In this way, no matter with which Outfit you commence, you may build it up by degrees until you possess a No. 7 Outfit. It is important to remember that Meccano Parts may be bought separately at any time in any quantity from your Meccano dealer.

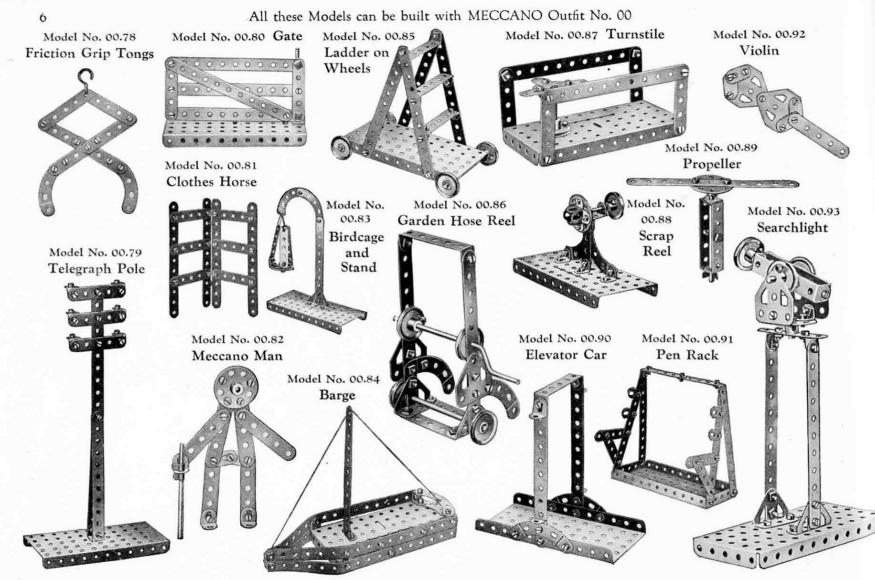
All these Models can be built with MECCANO Outfit No. 00

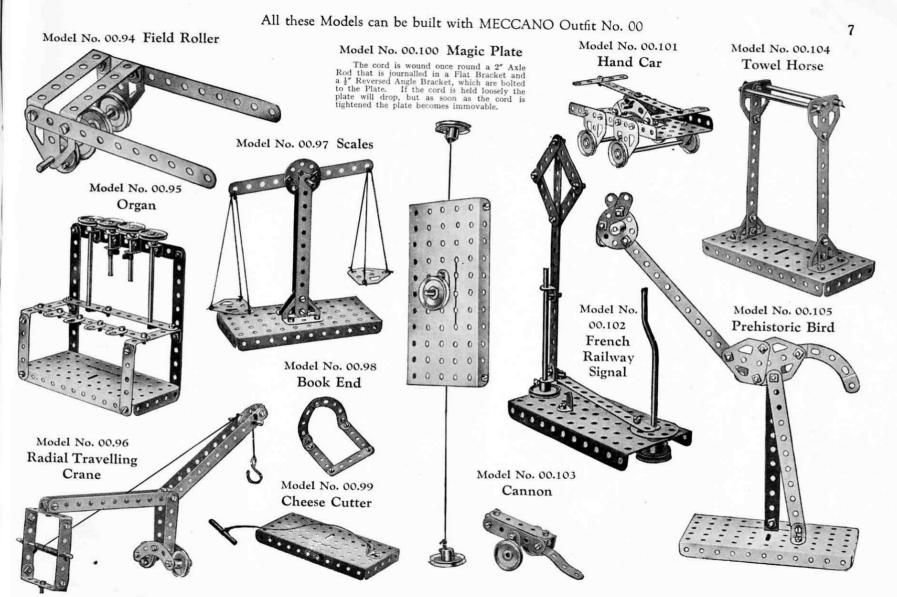


All these Models can be built with MECCANO Outfit No. 00

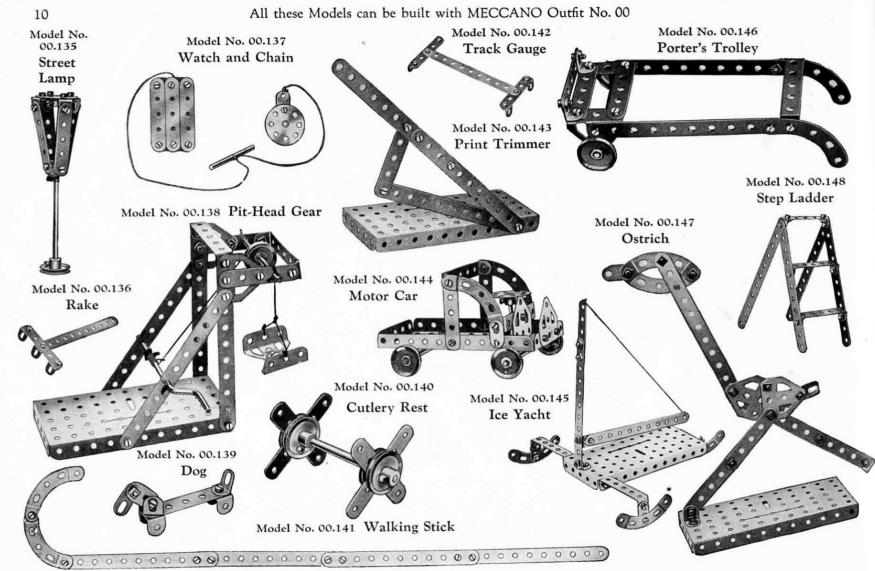


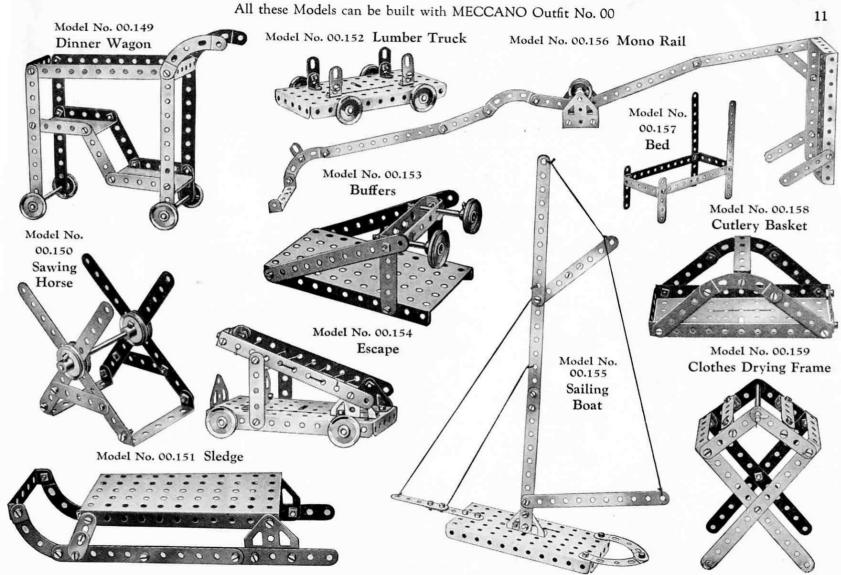




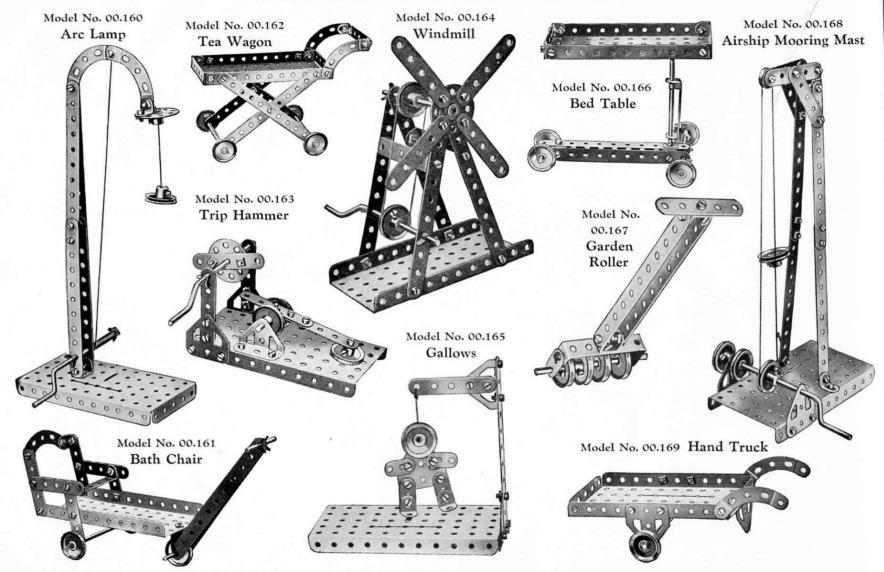


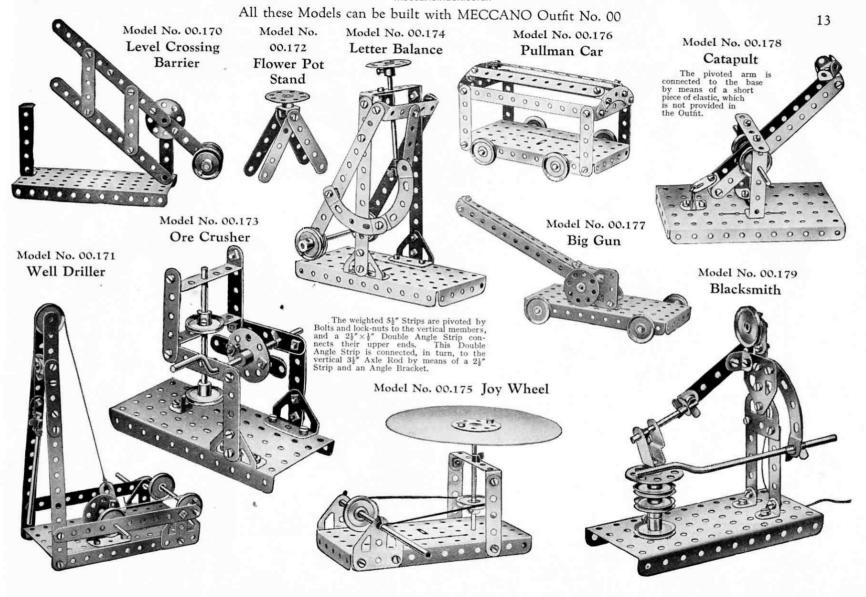
Timber Wagon

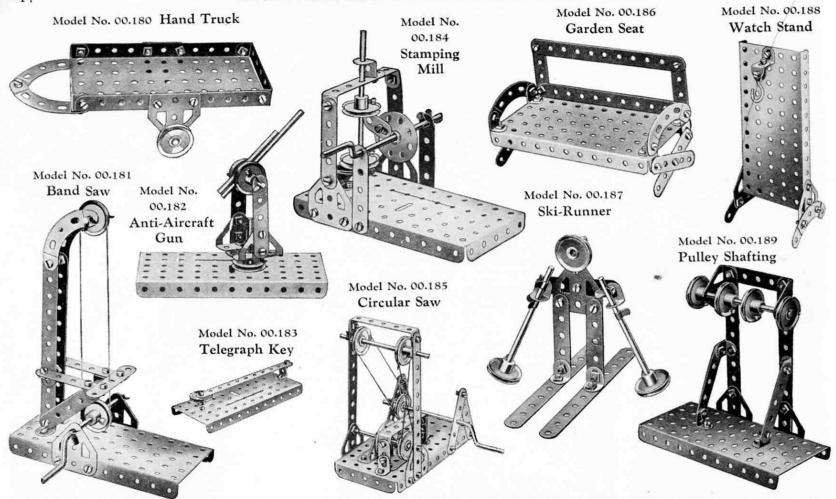




All these Models can be built with MECCANO Outfit No. 00

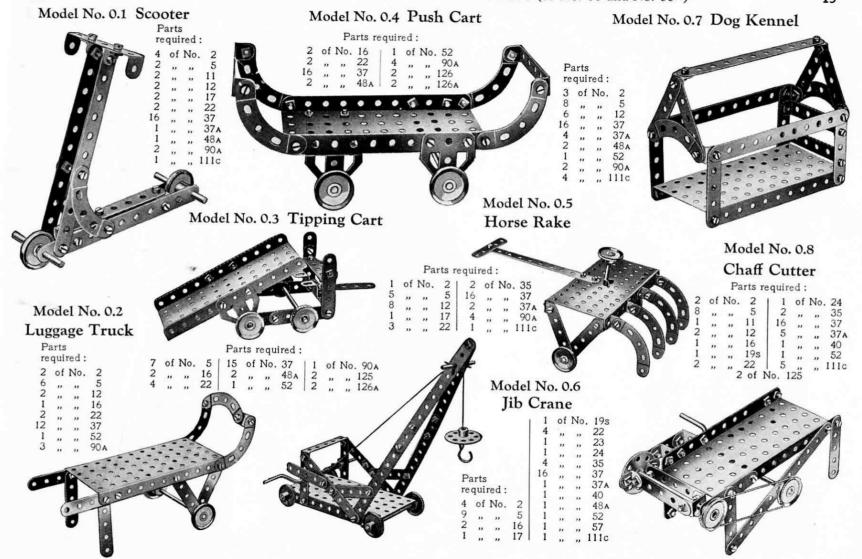


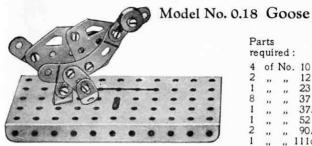




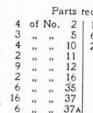
HOW TO CONTINUE

This completes our examples of models that may be made with MECCANO Outfit No. 00. The next models are a little more advanced, requiring a number of extra parts to construct them. The necessary parts are all contained in a No. 00A Accessory Outfit, the price of which may be obtained from any Meccano dealer.

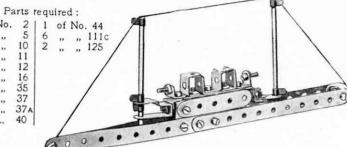




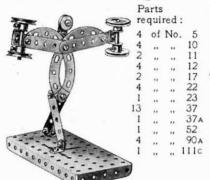
Model No. 0.22 Lazy Tongs



Model No. 0.23 Battleship



Model No. 0.19 Strong Man



Model No. 0.20 Aeroplane

Parts

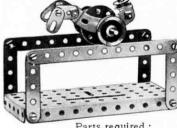
required:



Parts	rec	uire	i i

4	of	No.	2	8	of	No	. 37
3	"	**	0	1	,,	,,	111c
2	.,	**	12	2	,,	,,	125
1		**	24	1	**	,,	126A

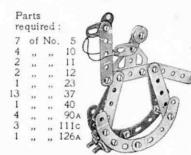
Model No. 0.24 Gymnast



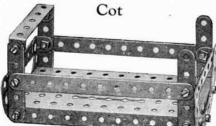
-	
	required

			20000000				
2	of	No.	2	1 1	of	No.	24
4	,,	,,	5	12	,,	,,	37
4	,,	,,	10	1	,,	,,	37 A
1	,,	,,	12	1	"	,,	52
1	,,	,,	16	1	,,,	211	90 A
2	,,	,,	22	1	,,	,,	1110
1	,,	,,	23	F			

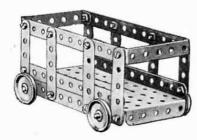
Model No. 0.25 Rocking Horse



Model No. 0.26



Model No. 0.21 Cattle Truck



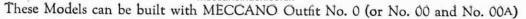
required:

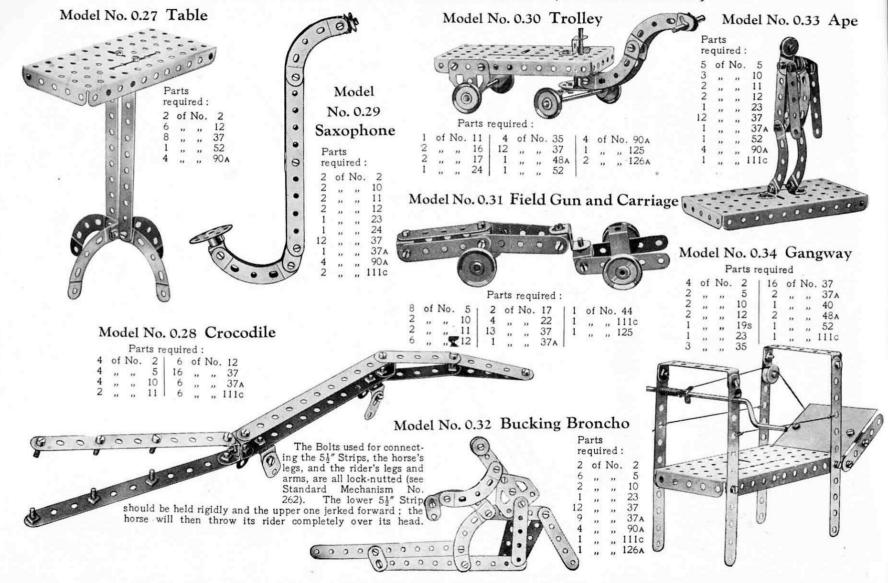
Parts



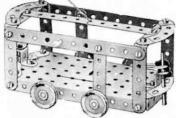
required: 48A 52

Parts





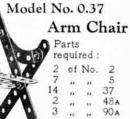
Model No. 0.35 Tramway Car



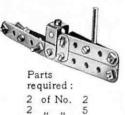
		Pai	rts re	quir	ed	:		
3	of	No.	2	16	of	No.	37	
6	**	**	5	6	**	,,	37A	
2	11	**	10	2		,,	48A	
2	200	**	16	1))	11	52	
2	,,,	.,	17	4	22		90 A	
4	,,	**	22	6	,,	,,,	111c	
6	11	"	35	2	**	.,	125	

Model No. 0.36 Motor Boat

re	qui	red:	9					
2		No.		1	of	No.	23	
2	"		5	7	1)	22	37	
3	**	,,	10	1			37A	
1	**	"	11	1	,,	**	111c	



Model No. 0.38 Torpedo Boat

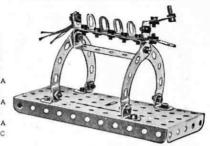


	dar		•
2	of	No.	2
2	,,	,,	5
3	,,	**	10
2	**	,,	11
2	"	"	12
1	"	"	17
11	"	**	37
4	**	11	37A
5	**	**	111c

Model No. 0.40 Gramophone

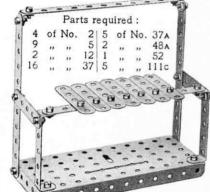


Model No. 0.43 Prehistoric Armadillo



Model No. 0.44 Motor Cycle and Side Car

Model No. 0.39 Piano



Model No. 0.41 Milk Maid

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	arts qui	red:		•		4	V.C	0	2	0	3		
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3		22	11		1			i k	0)				
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2	,,	**	12 22 23 37	-	100			0	严	塘		-	
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4	,,	"	37	-				10	1	H			
1	**	3)	37A					8		10	A.		
1	**	**	40					Щ		-	à-	-	-
1	**	,,	52			-	76	16		-	30	5-	
1	,,	.,,	90 A		-			10-			500		
1	ns	,,	1110	1	1		• •			-			

Parts required

		P	arts	requi	rea		
1	of	No.	5	10	of	No.	37
4	"	33	10	1	,,	,,	37A
2	,,	**	11	1	,,	,,	44
3	**	"	12	3	,,	**	90 A
1	**	,,	16	1	**	**	111c
3	2.0	"	22	1	.,,		125
1	"	**	23	1	11	.,	126a

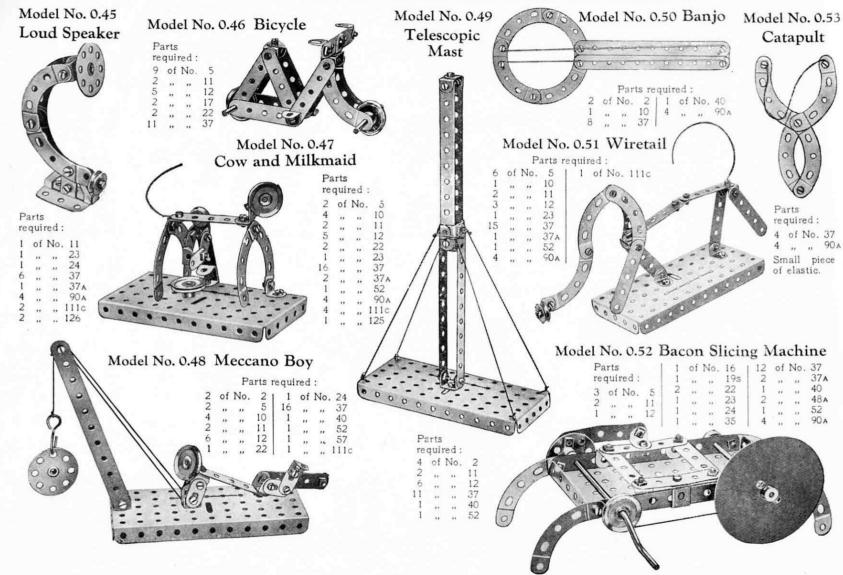
Model No. 0.42 Sword

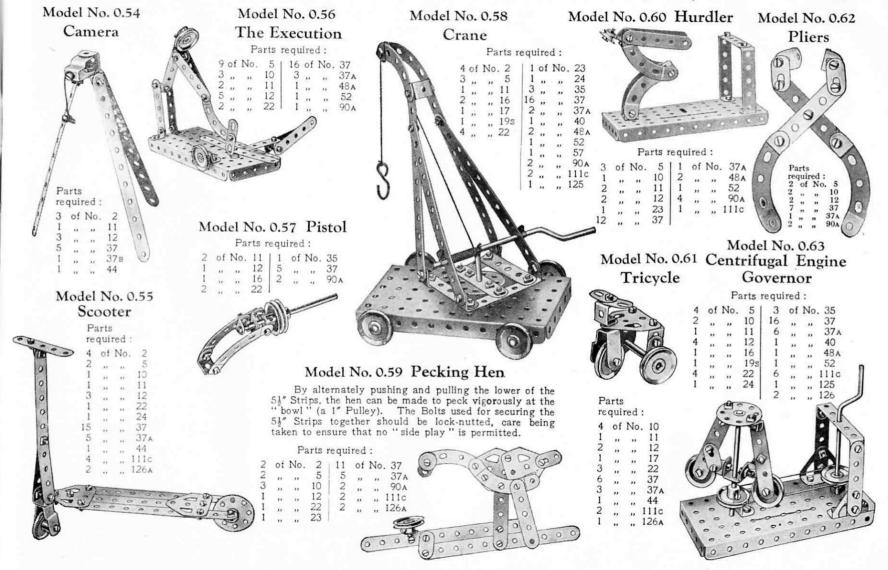
Parts required:

4 of No. 2 | 10 of No. 37 | 3 of No. 90A

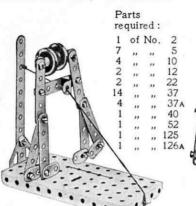


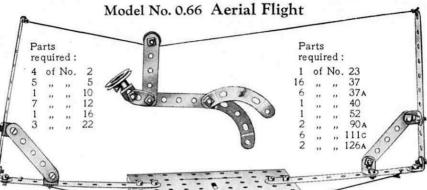






Model No. 0.64 Wrestlers





000000000000

Parts required: 4 of No. 5

Model No. 0.70



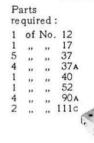
Model No. 0.65 A Chase

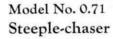
Parts required .

		I a	1 13 1	cqui	rea	•	
1	of	No.	5	16	of	No.	37
1	,,	,,	10	1	,,	,,	37A
2	,,	,,	11	1	,,	,,	52
7	**	**	12	4	,,	,,	90 A
1	**	**	22	2	,,		111c
1	,,	,,	23	2	,,	**	126a



Model No. 0.68 Galvanometer





of	No.	5	1	of	No.	37
,,	,,	10	1	**	**	484
	,,	12	1	,,	,,	52
	.,	23	4		,,	90 A
	**	37	1	,,	,,	1110
160	•		1	**	.,	1264



Bullock Cart

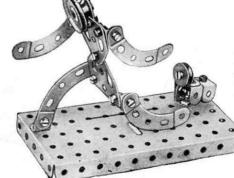
Model No. 0.67

3	of	No.	2	12	of	No.	37A
9	,,	,,	5	1	,,	,,	40
1	,,	.,,	16	1	,,,	**	52
2	,,	,,	22	2	,,,	3.5	111c
16	,,	**	37	2	,,	,,	126A



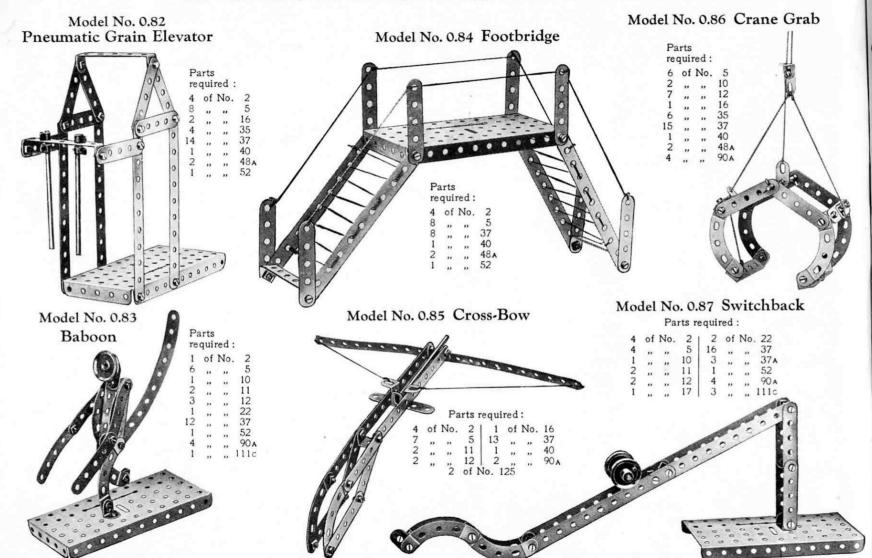


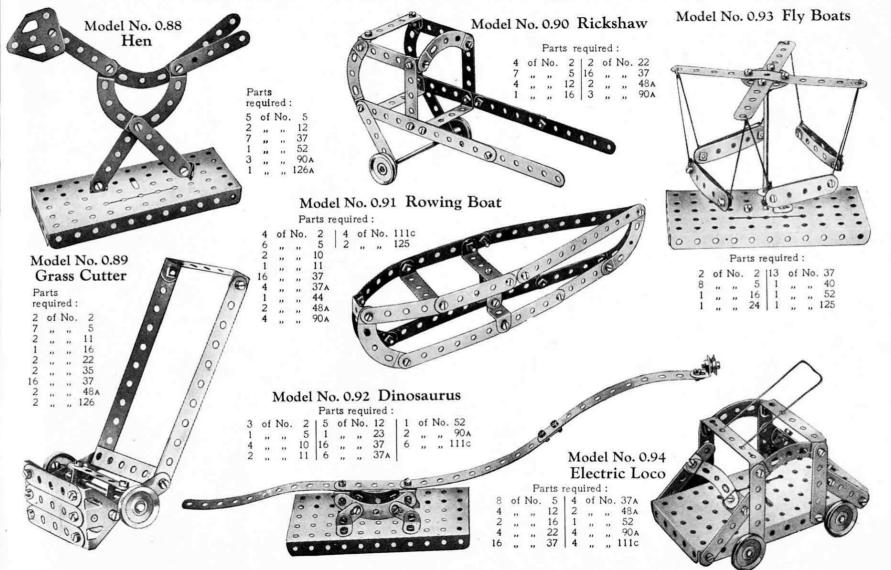
				code			
2	of	No.	5	113	of	No.	37
1	,,	,,	11	1	,,	,,	52
1	,,	,,	17	4	,,	,,	90.
1			24	2			126.



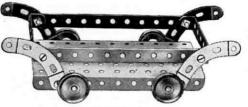


These Models can be built with MECCANO Outfit No. 0 (or No. 00 and No. 00A) Model No. 0.72 Pen Rack Model No. 0.76 Coast Guard Model No. 0.78 Snake Parts required: 0000000 Parts required: No. 2 | 8 of No. 37 Model No. 0.79 Clock Parts required: 3 of No. 12 | 1 of No. 37A .. 23 1 1 of No. 111c Model No. 0.73 Boxer Model No. 0.80 Windmill Model required: Parts 2 of No. 11 No. 0.75 required: Fan Model No. 0.77 Parts required: Break-Down Crane Parts required: 13 of No. 37 Parts required: 9 of No. 5 | 2 of No. 37A 1 of No. 111c Model No. 0.74 Horseman's Fall Parts Model No. 0.81 Frog required: of No. 5 Parts required: of No. 5 | 10 of No. 37 1 ,,





Model No. 0.95 Trolley



Parts required:

2	of	No.	2	18	of	No.	37
2	,,	,,	16	1	,,	,,	48A
4	,,	,,	22	1	,,	,,	52
		4	of	No.	907	A	

Model No. 0.96 Pen Rack

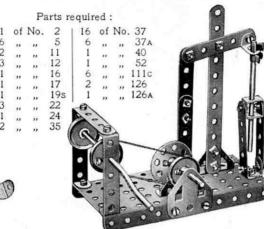


Model No. 0.97 Walking Man

Parts required:

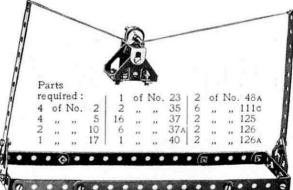
5 of No. 5 3 ,, 10 2 ,, 12 1 ,, 22 7 ,, 37

Model No. 0.98 Pump

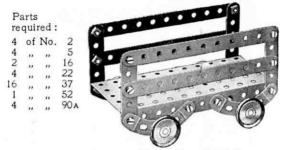


The connecting Strip is pivoted by Bolts and Nuts at one end to the Bush Wheel and at the other end to the cross beam. The latter is pivoted by the same means to the upright.

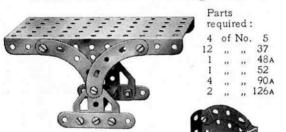
Model No. 0.99 Aerial Ropeway



Model No. 0.100 Luggage Truck



Model No. 0.101 Drafting Table

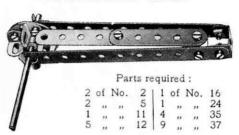


Model No. 0.102 Arm Chair

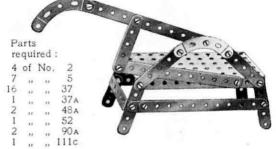
Parts required:
2 of No. 2
4 " " 5
12 " " 37
1 " " 488
1 " 52
3 " " 904



Model No. 0.103 Rattle



Model No. 0.104 Shearing Machine

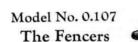


Model No. 0.105 Anchor



Model No. 0.106

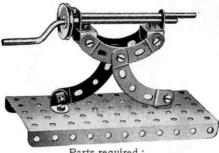
		arts	
	red :	qui	re
2	No.	of	4
11	,,	,,	2
12	,,	,,	8
22	,,	,,	1
37	22	22	16
37A	,,	,,	6
48 A	,,	,,	2
52	,,		1
90A	***	,,	4
111c			6



Parts required:

	8	of	No.	5	116	of	No.	37			
		,,	,,	10	4	,,	,,	37	Α.		
	26224	"		10 12 16	1	'n	,,	52			
	2	,,		16	4	,,		1110			
	2	,,		22	2 2			125		-	11
	4	,,		35	2	,,	,,,	126.	A	4 6	R.EG
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		7							•	2	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		5			-				•	2	1 S S
6		5									10 mm

Model No. 0.108 Machine Gun



Parts required:

2	of	No.	11	1	of	No.	22
4	,,	,,	12	12	,,	,,	37
1	**		16	1	,,,	,,,	52
1	**	,,,	19s	4	,,	115	90

Model No. 0.109 Single Sheave Pulley Block



Parts required: 2 of No. 5 | 7 of No. 37A 1 ,,, 23 | 1 ,,, 57 3 of No. 111c

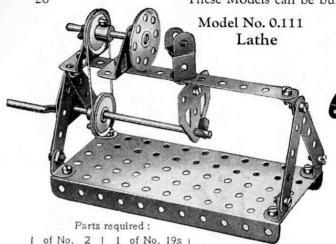
Model No. 0.110 Tea Wagon



Parts required: 8 of No. 5







1	of	No.	2	1 1	of	No.	19s	1				á
4	,,	,,	5	2	,,	,,	22	1	of	No.	40	
2	,,	,,	11	1	,,	,,	24	1	,,	,,	52	
7	,,	,,	12	3	,,	,,	35	2	,,	,,	126	
1	,,	,,	17	16	,,	,,	37	2			126A	



Model No. 0.113 Viaduct

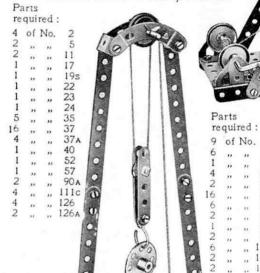


Parts

Parts required:

8	of	No.	5	1	1	of	No.	52
10	,,	,,	37	1	4	,,	No.	90 A

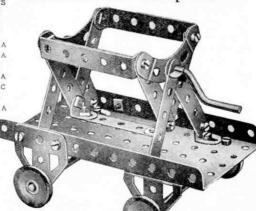
Model No. 0.114 Pulley Block

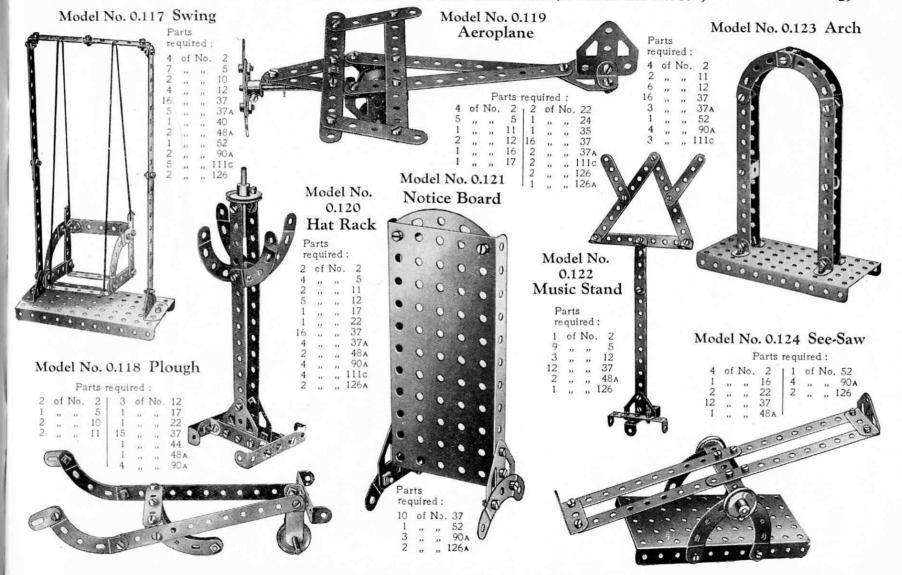


	Part	s r	eq	uir	ed	:
n.f	No	2	1	2	06	7

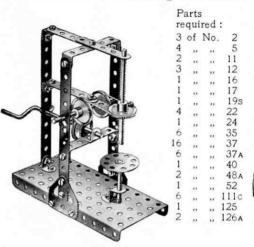
4	01	No.	2	1 2	01	No.	35
5	12	11	5	16	.,		37
1	**		10	6		**	37 A
2	**	"	11	1	,,	,,	40
1	**	,,	16	2	**	,,	48 A
1	**	22	17	1	,,	,,	52
1	,,	,,	19s	1	,,	,,	57
3	,,	,,	22	6	,,	,,	1110
1			23	2			125

2 of No. 126 Model No. 0.116 Dump Car

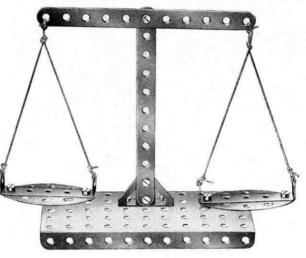




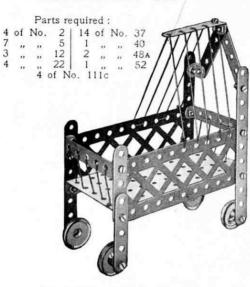
Model No. 0.125 Drilling Machine



Model No. 0.127 Scales



Model No. 0.129 Cot



Model No. 0.126 Counter Scales

	Parts	required:	
1 2 2 1	of No. 2 ,, 10 ,, 12 ,, 17	7 of No. 37 1 ,, 44 1 ,, 52 2 ,, 126	Co
60		0000	
0.			
000	, , ,		••••

Parts required:

2	of	No.	2	2	of	No.	48A
9	,,		37	1	,,	,,	52
1	,,	,,	37A	4	,,	,,	90 A
1			40	1			126

Model No. 0.128 Single Sheave Pulley Block

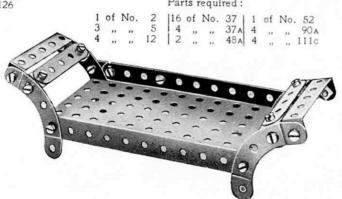


Parts required

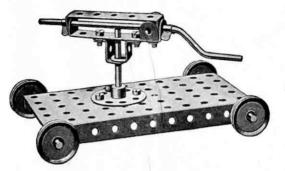
1 of No. 23 12 ,, ,, 37A 1 ,, ,, 57 4 ,, ,, 111c 2 ,, ,, 126A

Model No. 0.130 Couch

Parts required:



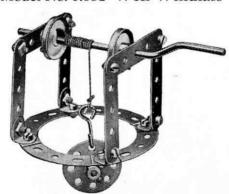
Model No. 0.131 Rock Drill



Parts required:

1	of	No.	11	4	of	No.	22	2	of	No.	48A
		- 22	16	1	**	- 11	24	1			52
1		"	17	2	,,	**	35	2	**	,,	125
1			19s	5			37				

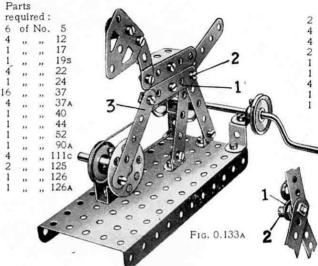
Model No. 0.132 Well Windlass



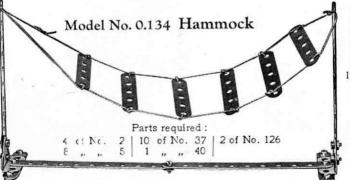
Parts required:

6	of	No.	5 12 19s	2	of	No.	22	1	of	No.	40
4	.,	,,,	12	1	,,	,,,	24	1	,,	,,	57
1	,,,	,,	19s	12	,,	,,	37	4	**	,,	901

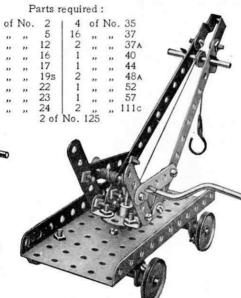
Model No. 0.133 Prancing Horse



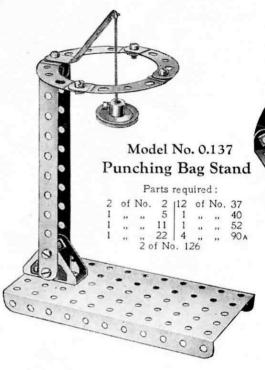
The Strip 1 forming part of the body is free to move about the Bolt 2, but two Nuts on the latter secure the rear legs and tail rigidly together. The arrangement of the various Strips about this Bolt 2 is shown more clearly in Fig. 0.133A. The Strip 3 is free to move at each end about pivots formed from Bolts and Nuts.

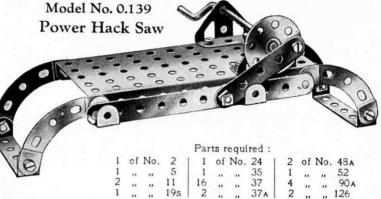


Model No. 0.135 Swivelling Crane











Model No. 0.141 Junction Signal

3 7 2 2 2 2 2 1 4	of	No.	2 5 10			n	י יפ	9
7	"	,,	5			11	2	
2	"	,,	10	6	1	- 11	3	
2	"	,,	12	12		- 11	3	
2	"	**	17	1	2	_ 11	2	
2	"	**	22	VB	V		>	
1	"	,,	23	阘	16	91	1	
4	"	,,	11 12 17 22 23 35	巡		- 1		
16	"	"	37	1		TO:	3	
5	"	1	37 _A	(G)	7	100	1	
1			40	1	\ \	10	4	
1 5 1	,,	,,	52		\			
5	**	,,	111c		1	•		
1	,,	,,	126 A		\	0		
			1	•	Y	C		
			A A		I	N		
		-			9	闄		
			177		1		•	

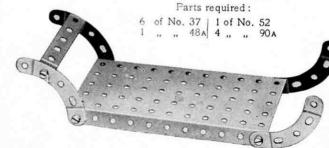
Model No. 0.142 Battleship

Parts required :

3	cf	No.	2	1	of	No.	24
1	,,	,,	11	16	,,	,,	37
4	,,	,,	12	2	,,	,,	37A
1	**	,,	15	2	,,	.,	48A
2	,,	,,	16	1	,,	,,	52
4		.,,	22	4	,,		90 A
		2	of N	0. 1	110	3	

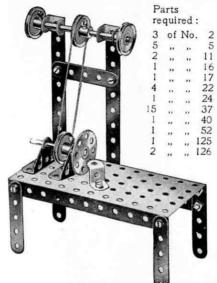
Parts required:

4	of	No.	2	1	of	No.	35
2	,,	**	5	16	,,	,,	37
4	,,	,,	10	6	,,	,,	37 A
1	,,	•	11	2	,,	,,	48 A
1	,,	,,	16	1	,,	,,	52
1	**	,,	17	2	,,	,,	90 A
3	.,	,,	22	6	**	,,	111c
1	.,		24	1		.,	125
		2	of I	No. 1	26		

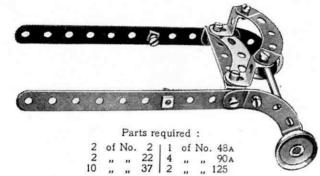


Model No. 0.138 Sled

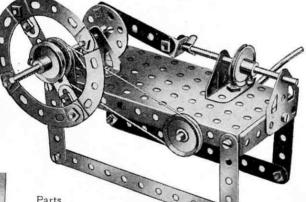
Model No. 0.143 Bench Lathe



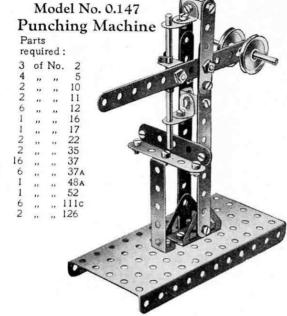
Model No. 0.145 Sulkey



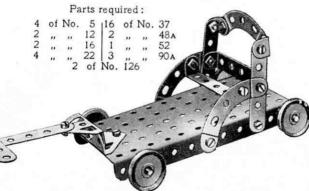
Model No. 0.146 Horizontal Engine



1



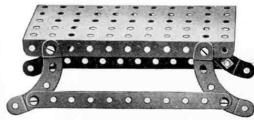
Model No. 0.148 Bath Chair



Model No. 0.144 Bench

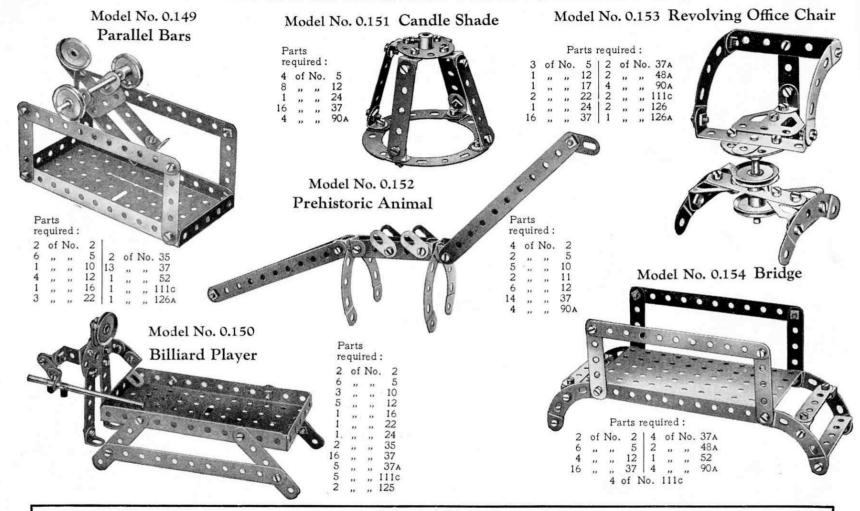
Parts required:

2 of No. 2 | 1 of No. 52 8 ,, 37 | 4 ,, 90A



Parts required:

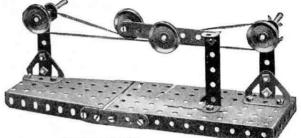
									B			
2	of	No.	2	4	of	No.	. 22		W	ע	_	
6	,,	,,	5	1	,,	,,	24	1	of	No.	. 52	
2	,,	,,	10	3	,,	,,	35	4	,,	,,	90A	
1	,,	"	12	16	,,	33	37	5	,,	.,	111c	
2	,,,	,,	16	5	"	,,	37 _A	2	,,	,,	126	
1	"	,,	19s	1	,,	"	40	2	,,	,,	126A	



HOW TO CONTINUE

This completes our examples of models that may be made with MECCANO Outfit No. 0 (or No. 00 and No. 00A). The next models are a little more advanced, requiring extra parts to construct them. The necessary parts are all contained in a No. 0A Accessory Outfit, the price of which may be obtained from any Meccano dealer.

Model No. 1.1 Jockey Pulley

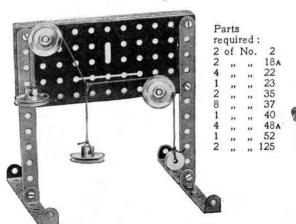


Parts required:

1	of	No.	3	12	of	No.	35	1	of	No.	52
4	,,	,,	5	20	,,	,,	37	1	,,	,,	54
2	,,	,,	17	1	,,	,,	37A	2	,,	,,	111c
4	,,	,,	22	1	,,	,,	40	2	,,	,,	126
				1	,,	,,	37 37a 40 48a				

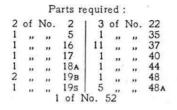
The weight of the pivoted 3½" Strip, augmented by the 1" fast Pulley Wheel, causes the jockey pulley to press on the belt. Hence the latter is kept always taut.

Model No. 1.2 Triangle of Forces

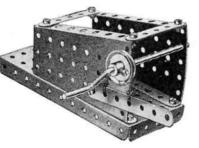


The suspended weights represent three forces acting on a central point. If a triangle is drawn with its sides respectively parallel to the three converging cords, i.e., parallel to the directions of the three forces, the lengths of the sides will be found to be proportional to the respective magnitudes of the forces.

Model No. 1.5 Belt Gear Right-angle Drive Transmission



Model No. 1.3 Band Brake



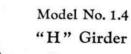
Parts required :

1	of	No.	3
2	,,	,,	5
1	,,	,,	19s
1	,,	"	22
1	,,	,,	35
9	**	"	37
1	,,	,,	37A
1	,,	,,	40
1	,,	,,	52
2	**	"	54

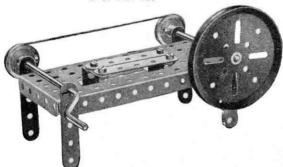
Model No. 1.6 Bacon Slicer

Parts required:

6	of	No.	5	2	of	No.	22
2	,,	,,	10	1	,,	,,	35
1	,,	,,	16	10	,,	,,	37
1	,,		19B	1	,,	,,	40
1	333	,,,	19s	1	,,		52
		- 2	of !	No.	125		



Parts required: 6 of No. 2 2 ,, 10 8 ,, 12

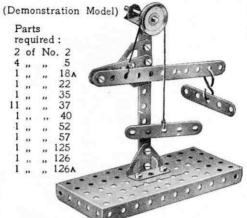




Model No. 1.9 Compound Triangulated Truss

Model No. 1.14 Belt Gear

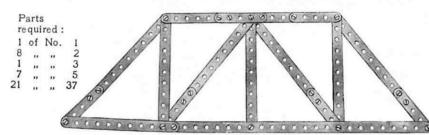
For Reversing Motion of Driven Shaft



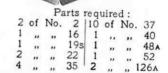
The fulcrum is at one end, the power at the other and the load lies between the two.

Parts required: 2 of No. 1 7 " " 2 7 " " 37

Model No. 1.10 Howe Truss



Model No. 1.11 Triangulated Truss



Model No. 1.8 Lever of the Third Order

Third Order
(Demonstration Model)

Parts
required:
2 of No. 2
4 " " 5
1 " " 18A
1 " " 22
1 " " 35
10 " 37
1 " " 40
1 " " 52
1 " " 57
1 " " 125

The fulcrum is at one end, the load at the other and the power lies between the two.



Model No. 1.12 45° Set-Square

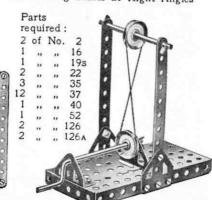
Parts required:
3 of No. 2 | 1 of No. 3
5 of No. 37

Model No. 1.13 60°

Parts required:
2 of No. 2
1 " " 3
2 " " 10
5 " " 37

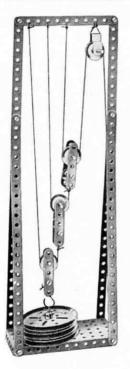
Model No. 1.15 Belt Gear

For Driving Shafts at Right Angles



Model No. 1.16 Pulley Block

Demonstration Model: 1 Fixed and 3 Movable Sheaves. Theoretical Mechanical advantage: 8 to 1



Parts required:

4	of	No	. 1	3	of	No.	19B	
3	,,	,,	2	4	,,	,,	22	
6	,,	,,	5	15	,,	,,	37	
2	,,	,,	11	1	,,	,,	40	
2	"	,,	12	1	,,	,,	44	
2	,,	,,	17	1	,,	,,	52	
2	12.0	112211	18A	1			57	

Model No. 1.17 Pulley Block

Demonstration Model: 3 Fixed and 2 Movable Sheaves. Theoretical Mechanical advantage: 5 to 1

4	of	No.	arts			No.	191
270				177	0.		
7	"	**	2	4	,,	**	22
6	,,	,,	5	6	,,	,,	35
2 2 2 2 2	,,	,,	10	22	,,	,,	37
2	,,	,,	12	1	,,	,,	40
2	,,	,,	16	1	,,	,,	44
2	,,		17	1	,,	200	52
2	,,		18A	1		,,	57



Model No. 1.18 Pulley Block

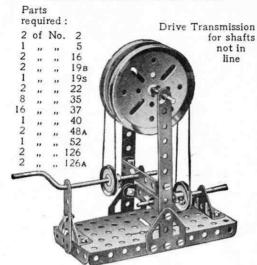
Demonstration Model:

1 Fixed Sheave and 2 Suspended Blocks.
Theoretical Mechanical advantage: 4 to 1

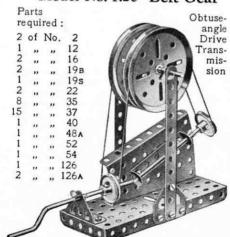


4	of	No.	arts 1				19в
1	,,	,,	3	3	,,	,,	22
4	.,,	,,	5	10	,,	,,	37
2	,,	,,	11	1	,,	,,	40
1	,,	,,	17	1	,,	,,	44
2	,,	,,	18A	1	27	,,	52

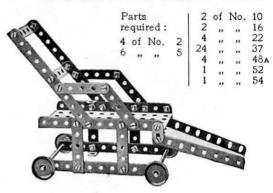
Model No. 1.19 Belt Gear



Model No. 1.20 Belt Gear



Model No. 1.21 Invalid Chair



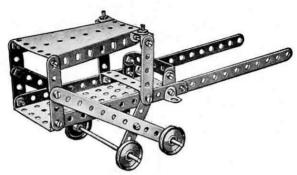
Model No. 1.22 Letter Balance

Parts required:

6	of	No.	2	4	of	No.	22	12	of	No.	48A
3	,,	,,	5	1	,,	,,	24 37 37 _A 38	1	,,	,,,	52
1	,,	,,	10	26	,,	,,	37	2	,,	"	111c
1	,,	,,	12	4	,,	,,	37A	2	,,	,,	126
2	,,	,,	18A	2	,,	,,	38	2	,,	,,	126A
1	,,	,,	19в	1	,,	,,	44				

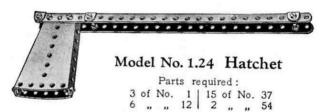


Model No. 1.23 Ticca Gharry



Parts required:

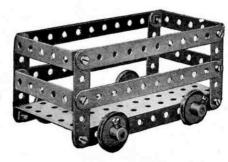
4	of	No.	2	6	of	No.	12	22	of	No.	37
6	,,	,,	5	2	,,	,,	16	1	,,	,,	52
2	,,	,,	10	4	,,		22	1	,,	,,	54



Model No. 1.25 Truck with Sides

Parts required: 4 of No. 2 4 " " 5

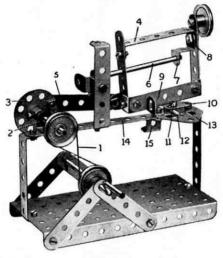
4 " " 5 2 " " 16 4 " " 22 12 " " 37 4 " " 48A 1 " " 52



Model No. 1.26 Mechanical Saw

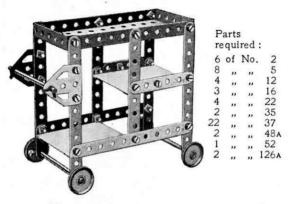
Parts	required	

1	of	No.	2	1 1	of	No.	17	4	of	No.	38
3	,,	,,	5	1	,,		19s	1	,,	,,	40
1	,,		10	3	,,	,,,	22	1	,,	,,	44
1	,,	,,	11	1	,,	,,	24	4	,,	,,	48A
4	,,	,,	12	3	,,	,,	35	1	,,	,,	52
1	,,		16	22	,,	,,	37	2	**		125
								1	,,	,,	126A



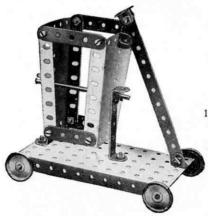
The Strip 9 represents the saw. The Crank Handle drives, through a belt 1, a short Rod journalled in a Double Bracket 2 and carrying a Bush Wheel 3. The latter imparts a reciprocating motion to the saw frame 4 through a 2½" Strip 5 loosely mounted on Bolts secured to the Bush Wheel and to an Angle Bracket bolted to the saw frame. This frame slides on a 3½" Rod 6, which acts as a guide, passing through the frame and supported in a Reversed Angle Bracket 7 A Washer is placed on the Bolt 8 behind the Bracket 7. A vice to secure the objects in position for cutting consists of a Flat Bracket 10 mounted on a Bolt 11, a few turns of which causes the Flat Bracket to grip the object 12. The Bolt 11 enters a Nut held between the Flat Trunnion 13 and 5½" Strip 14, which are spaced apart for the purpose by Washers placed on the two Bolts holding the Trunnion in position. The saw frame rests on the stop 15 when not in use. A 1" Pulley secured to the top of the frame acts as a weight and helps to steady the saw.

Model No. 1.27 Dinner Wagon



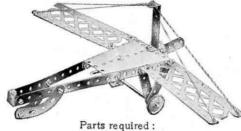
The two lower platforms are constructed out of pieces of ordinary cardboard, their outer edges resting on 2½" Double Angle Strips and their inner edges on Angle Brackets.

Model No. 1.28 Tip Wagon



1	of	No.	2
4			5
	"	"	11.75
5	,,	,,	12
3	,,	**	16
4			22
2	"	"	35
	"	"	
14	,,	,,	37
2	,,		48A
1	355	0.00000	52
-	,,	"	
2	"	***	54

Model No. 1.29 Aeroplane



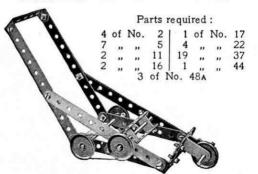
2	of	No.	2	2	of	No.	16	1	of	No.	48A	
5	,,	,,	5	2	,,	,,	22	1	,,	,,	54 90 A 100	
1	,,	,,	11	1	,,	,,	24	2	,,	,,	90A	
6	,,	,,	12	21	,,	,,	37	2	,,	,,	100	
				1			40					

Model No. 1.30 Timber Drag



4 of No. 2 | 2 of No. 16 | 8 of No. 37 2 ,, ,, 11 | 4 ,, ,, 22 | 4 ,, ,, 48A

Model No. 1.31 Lawn Mower



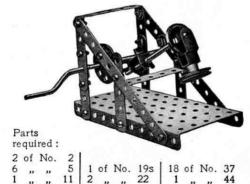
Model No. 1.32 Tandem Car

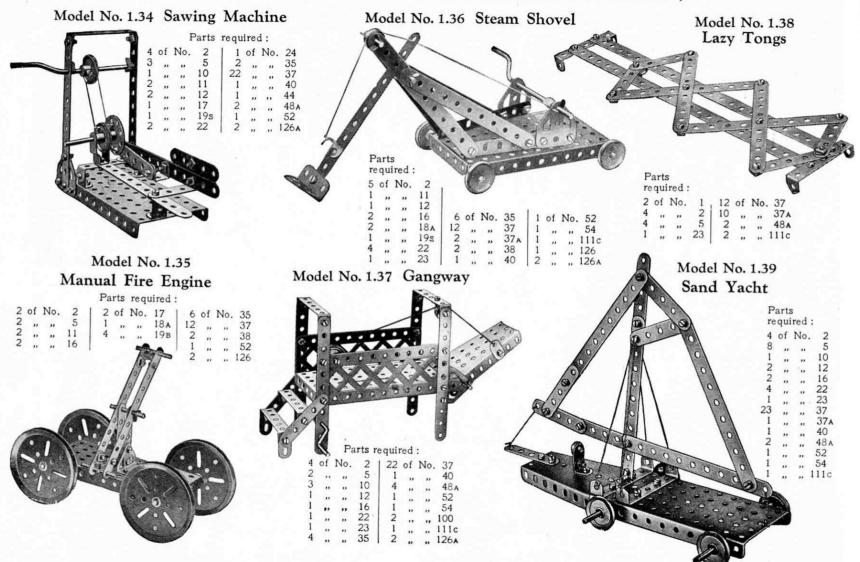


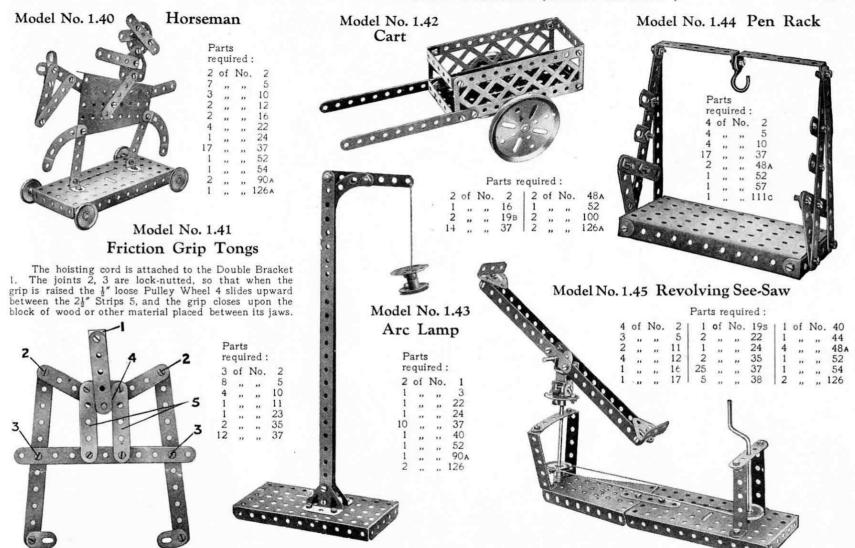
Parts required:

4	of	No.	2	4	of	No.	19в
8	,,	,,	5	26	,,	,,	37
2	,,	,,	12	5	"	"	48A
2	"	"2	of I	Vo.	126	Α"	32

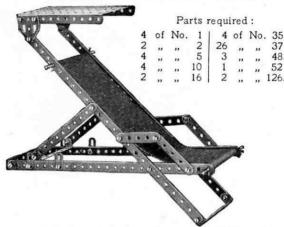
Model No. 1.33 Mechanical Hammer





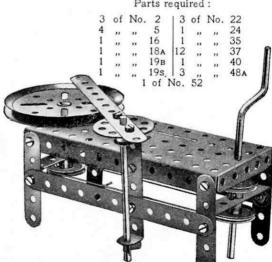


Model No. 1.46 Deck Chair

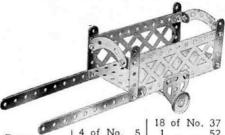


Model No. 1.47 Potter's Wheel

Parts required:



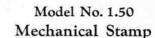
Model No. 1.48 Luggage Cart

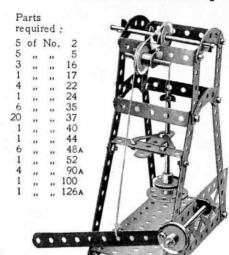


400	Br.				18	of	No.	37
Parts	4	of	No.	5	1	,,	,,	52
required:	4	,,	,,	12	2	,,	,,	90 A
The state of the s	1	,,	**	16	2	,,	,,	100
2 of No. 2	2	,,	**	22	2	,,	,,	126A

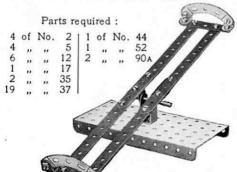
Parts required:

Model No. 1.49 Elevator





Model No. 1.51 See-Saw





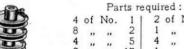
Model No. 1.52 Umpire's Seat

re	qui	red:	
6	of	No.	2
7	,,	,,,	5
2	,,	,,,	10
4	,,	"	12
24	**	,,	37
3	**	***	48A
2	**	**	90A
2	,,	,,	126

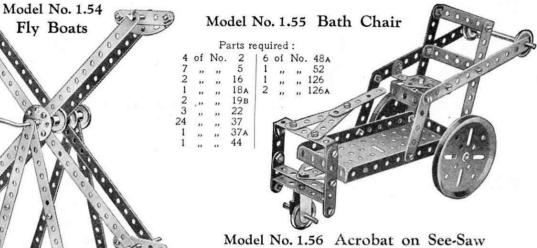
Model No. 1.53 Submarine

Parts required:

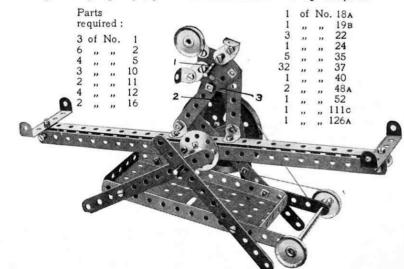
				cqui			
4	of	No.	1	12	of	No.	35
5	,,		10	28	,,	,,	37
2	,,	,,	11	3	,,	,,	37A
8	,,	,,	12	2	,,	**	38
23	,,	,,	17	1	,,	,,	48
	,,	**	22	1	,,	,,	48A
1	**	,,	24	2	,,	,,	125
				2			124



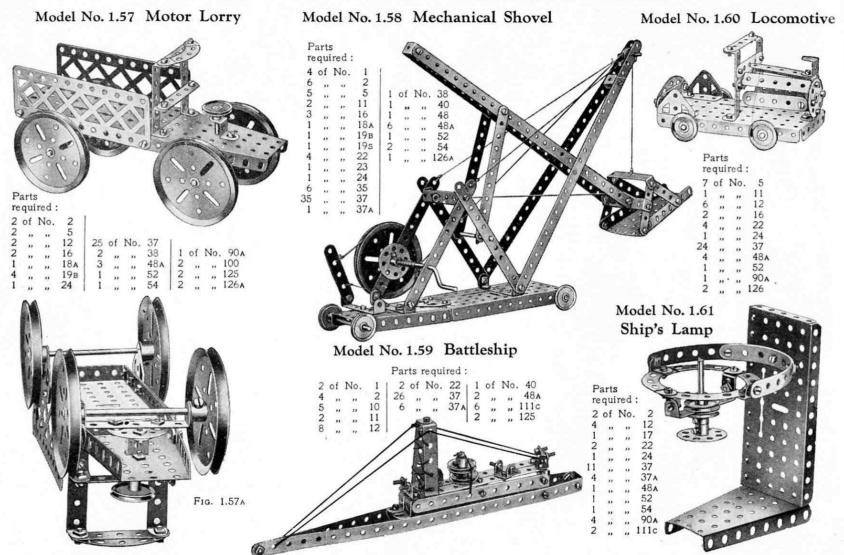
Trunnions are bolted to the side 12½" Strips, and a Bolt passed through their inner extremities secures a ½" Reversed Angle Bracket and an Angle Bracket. The former is attached to the upper 12½" Strip while the Angle Bracket is connected by means of a Flat Bracket and a further Angle Bracket to the lower Strip.

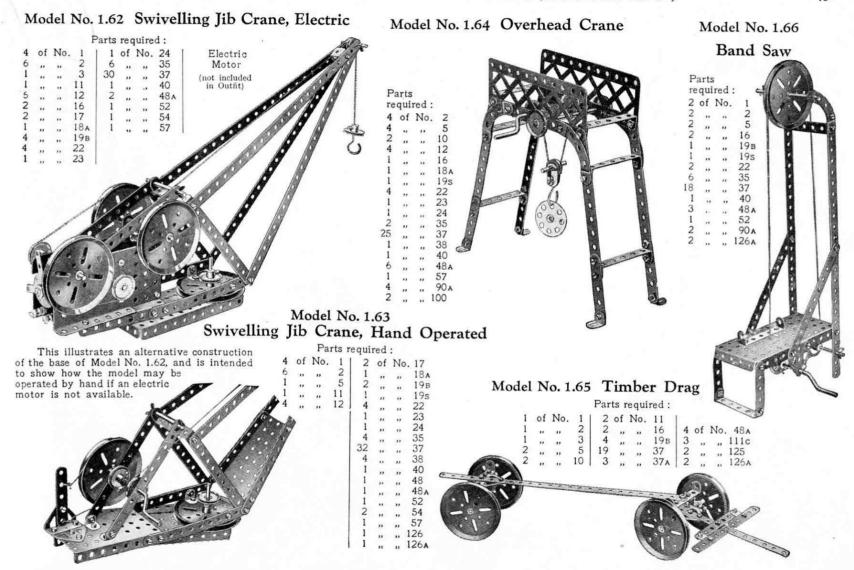


The 1" Rod 1 is journalled in the end holes of two $5\frac{1}{2}$ " Strips 2 and in the Flat Trunnion 3 which joins them. It is held in position by two Spring Clips, placed on either side of the $5\frac{1}{2}$ " Strips 2.

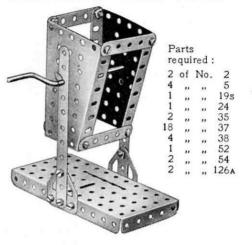


These Models can be built with MECCANO Outfit No. 1 (or No. 0 and No. 0A)





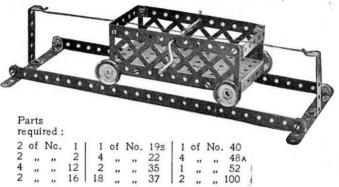
Model No. 1.67 Butter Churn



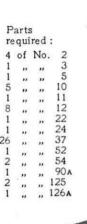
4 of No. 22

Parts required:

Model No. 1.69 Cable Railway



Model No. 1.72 Man and Boy

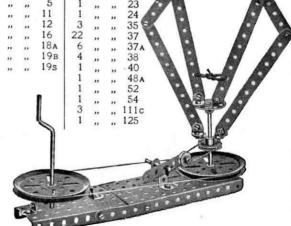


Model No. 1.70 Candle Stick

2	of	No.	11
4	,,	,,	12
1	,,	,,	19
4	,,	,,	37
1	,,	"	111
1	,,	,,	125



Model No. 1.71 Machine for Tracing a Locus



Model No. 1.68 Inverted Centrifugal Governor

Parts required

		Pa	irts re	qui	rea		
1	of	No.	2	4	of	No.	35
1	,,	,,	5	4	,,	,,	37
1	,,	.,	11	3	,,	,,	37A
1	,,	**	12	4		,,	38
1	,,	**	17	1	,,	,,	54
1	,,	**	18A	2	,,	,,	111c
ļ	**	**	24	1	**	"	125

The $5\frac{1}{2}$ " Strip is pivoted to the $2\frac{1}{2}$ " Strip by means of a Bolt and two Nuts, and the $2\frac{1}{2}$ " Strip is similarly pivoted to the Sector Plate. By revolving the $2\frac{1}{2}$ " Strip about its pivot, the vertical $1\frac{1}{2}$ " Rod can be made to trace a locus. If the positions of the $1\frac{1}{2}$ " Rod and

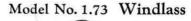
the 5½" Strip are altered, several different loci may be traced. Machines of this type are of advantage in assisting in the design of engine connecting rods.

Model No. 1.75

Signal

Parts required:

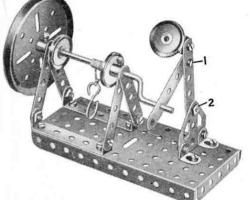
These Models can be built with MECCANO Outfit No. 1 (or No. 0 and No. 0A)



Parts

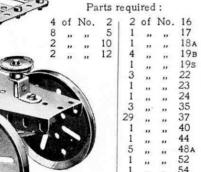
required:

126A

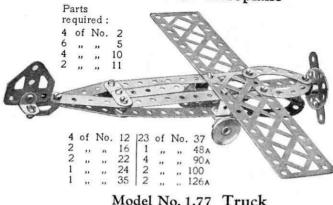


The figure at the right of the model is arranged to work to and fro when the Crank Handle is rotated. The Bolts 1 and 2 are both secured by two nuts as in Standard Mechanism No. 262.

Model No. 1.74 Lorry Crane



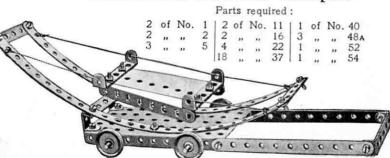
Model No. 1.76 Aeroplane

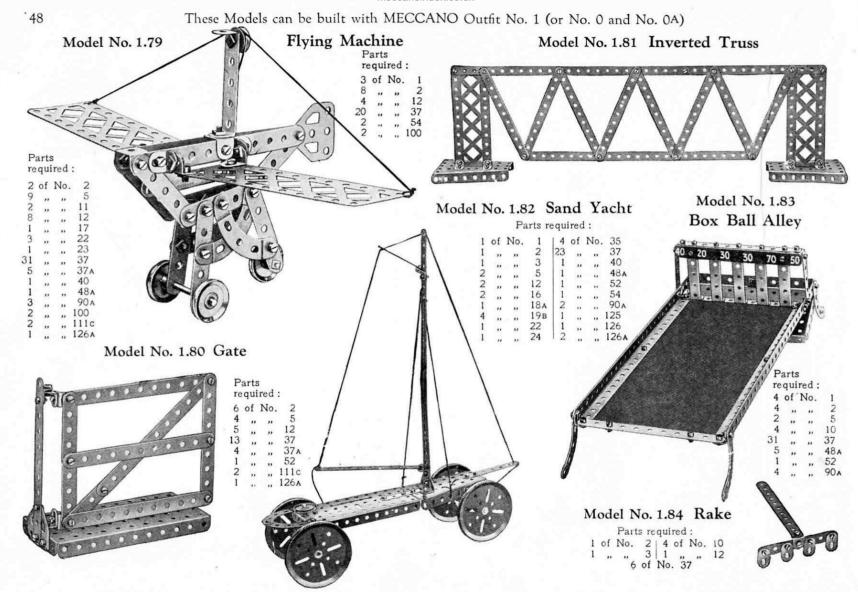


Model No. 1.77 Truck

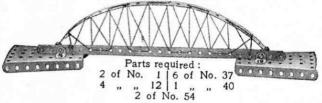


Model No. 1.78 Mountain Transport



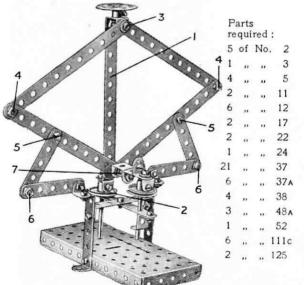


Model No. 1.85 Bow Girder

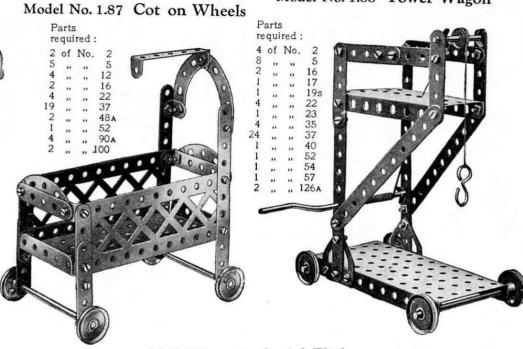


Model No. 1.86 Double-Action Pump

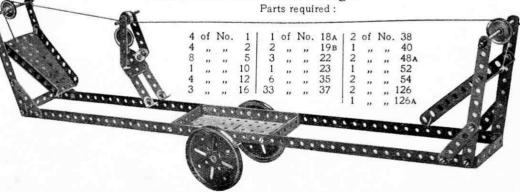
The 5½" Strip 1 is attached to the 1" Pulley Wheel 2 by means of two Angle Brackets, through the lower of which passes the Set-Screw that secures the Pulley to its 2" Rod. Two Washers are placed beneath the head of the Bolt joining the Angle Brackets in order to prevent its shank from binding on the boss of the Pulley 2. The joints 3, 4, 5, 6, 7, are all lock-nutted, the remainder of the joints being quite rigid. When the Strip 1 descends, together with the first pump, the incidental distortion of the parallelogram 3, 4, 7, 4 causes the second pump to rise. Similarly, when the first pump rises, the second descends.



Model No. 1.88 Tower Wagon



Model No. 1.89 Aerial Flight



Model No. 1.93

Model No. 1.90 Gong

Model No. 1.92 Roundabout

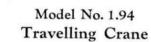


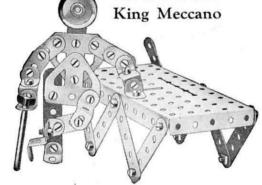
Begin to build this model by making the platform from a Flanged Plate and $12\frac{1}{2}$ Strips. The drive from the Pulley on the Crank Handle is taken to a 1" Pulley, fast on the vertical 2" Rod, another similar Pulley being secured to this Rod beneath the Plate.

The arms are formed of four $5\frac{1}{2}$ " Strips bolted to a Bush Wheel fast on the 2" Rod.

Parts required:

4	of	No.	1	13	of	No.	22
4	,,	,,	2	1	,,	,,	24
6	,,	.,	5	6	,,		35
4	,,	,,	10	22	,,	,,	37
2	,,	**	16	1	,,	,,	40
1	,,	.,	17	4	**	,,	48A
1	,,	,,	19s	1	,,	.,	52
		2	of 1	10.	54		





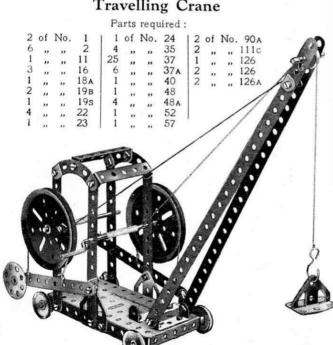
Parts required:

Model No. 1.91 Emery Wheel

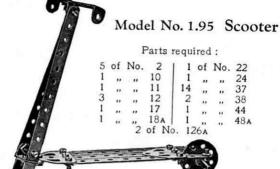
				1 ai	13 1	equi	cu.				
1	of	No.	17	1	of	No.	22	10	of	No.	37
1 2	,,	,,	18A	1	,,	,,	24	1	,,	,,	40
2	,,	,,	19в	2	,,		35	1	,,	,,	48A
								1	,,	,,	52
								1	,,		111c
		THE ST	dh .	CONT.	-			2	**	**	125
	3			G R				2	,,	**	126A
	8		2	5		3			p	of e	mery r
			- 100	-			- 1	2	" 1		

Parts required:

1 of No. 3	1	of	No.	35
9 ,, ,, 5	30	,,	,,	37
5 ,, ,, 10	1	**	,,	52
8 ,, ,, 12	1		,, 1	11c
1 ,, ,, 17	2			25
1 " " 22	2	**	,, 1	26A



Doute



Model No. 1.96 Ballista

This is a model of an ancient engine of war, resembling the crossbow. The 3½" Strip 1 is bolted firmly to the Double Angle Strip 2, which is prevented from turning by the addition of Angle Brackets as shown. A Double Bracket 3

slides on the Strip 1 and is secured to a piece of cord. On rotation of the Crank Handle 4, the Strip 1 is pulled backward until the Double Bracket 3 slips off its end. The Strip then flies forward and strikes the missile, which consists of a 2" Rod placed ready in the Double Bracket 5.

7/	-	90
Parte	required	

4	of	No.	1	12	of	No.	16	1 1	of	No.	40
4	,,	**	2	1			18a	1			44
1	,,	**	3	3	,,		19B	4			48A
2	,,	"	11	1	,,	.,,	19s	1	**	,,	52
2	"	**	12	4	,,,		22 37	1	**	***	90A
				121	,,	,,	37	2	,,	,,	126A

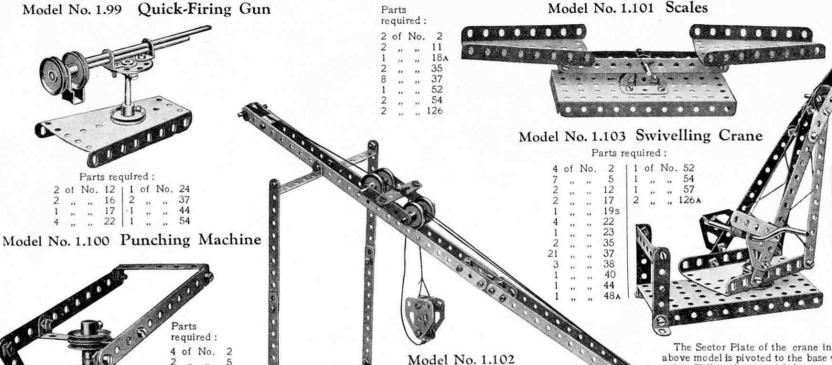
Model No. 1.97 Tight-Rope Walker

The cord on which the "Meccanitian" runs is endless and passes over the 1" fast Pulleys at each end of the model. One of the Pulleys is secured to a Crank Handle, by means of which the model may be operated. The Meccanitian runs on the upper half of the endless cord, the lower half being attached to one of his feet.

	equ	ired	:								
4	of	No.	1								-
4	,,,	,,,	2	2	of	No.	17	2	of	No.	38
1	,,	**	3	1	222		19s	1	,,	,,	40
5 3 4	,,,	,,	5	4	,,	**	22	2	,,		48A
3	,,	,,	10	1	**	**	23	1	,,	,,	52
4	,,,		12	6	,,,	,,	35	2	,,	**	54
2	.,,	,,,	16	34	-	**	37	1	**		126A

Model No. 1.98 Double-Action Piston Connection

			arts i					
2	of	No.	1	1	of	No.	23	
6		,,	2	1			35 37 37 _A 48 _A 52	
1	**	,,	3	36	"	"	37	
5	,,	,,	2 3 5 10	36 5	,,	,,	37 A	
4	,,	,,	10	4		,,	48 A	
2	,,	.,	11	1	,,		52	
3	"		12	i	"	"	90 4	
1 5 4 2 3 2		**	19в	3	"	"	90a 111c 126a	NAME OF THE PARTY
1	"	"	19s	3 2		**	1264	
	**	"	. /5	-	,,	**	IZUA	
								M H DEMONSTR
								A A COURT OF THE PARTY OF THE P
							A	ALL PINCE
				*******	W 1	E BO	000	
		0			00.0		(0)	
		27		www.0555	SP-SS	PRO	DIC	
		(U	6.30			Contract of		C C C C C
		No.						
								7 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)

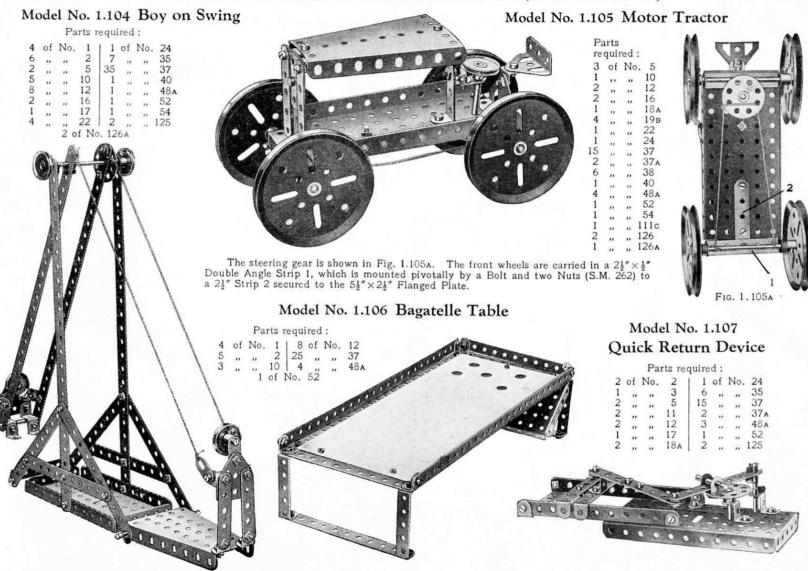


Extended Ash Tip

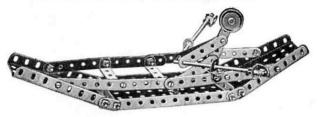
Parts required: 2 of No. 18A |

The trolley is operated by means of a cord that is wound round the 11 Axle Rod carrying the Bush Wheel, both ends of the cord being secured to the trolley. The bucket is suspended from a cord that winds on to the Crank Handle, and it is tipped by lowering it until a short cord that is attached to the bottom of the bucket and to the trolley, becomes taut. Further lowering causes the bucket to swing over.

The Sector Plate of the crane in the above model is pivoted to the base with a fast Pulley above and below.



Model No. 1.108 Rowing Boat



Parts required:

4 of No. 2 | 4 of No. 35 4 ,, 5 | 24 ,, 37 4 ,, 10 | 3 ,, 48A 7 ,, 12 | 1 ,, 52 2 ,, 16 | 2 ,, 54 1 ,, 22 | 1 ,, 111c

Model No. 1.109 The Wrestlers

Model No. 1.110 Weather Vane

Parts required:

3	of	No.	1	14	of	No.	37
2	,,	**	2	1	,,	,,,	52
1	,,	,,	11	1	,,	,,	54
2	,,	,,	12	1	,,	,,	111c
1	,,	**	24	2	,,	,,	126

Model No. 1.111 Violin and Bow



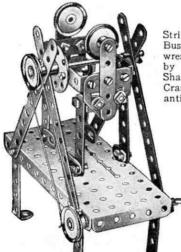
Parts required:

4	of	No	2	1	of	No.	12	1	of	No.	40
1	O.		5	1	-		18A	1			54
i	"	"	11	2		,,	12 18 _A 35	1	.,		126
	,,	"	5150	5	**		37				

Model No. 1.112 Beam Engine

The connecting Strip 1 is attached pivotally by a Bolt and two Nuts (Standard Mechanism No. 262) to one end of the beam 2 and to the Bush Wheel 3. The Strip 4 is similarly connected to the other end of the beam 2 and to the Double Bracket 5 attached to the piston rod. The short rod carrying the flywheel 6 is journalled in a 2½" Strip supported by the Trunnion 7 and in a Reversed Angle Bracket bolted to the 2½" Strip.

P	arts	:		
re	qui	red :		
6	of	No.	2	
1 3 2 3 2 1 1 1 8	,,	,,	2 3 5	1-
3	,,	,,		
2	,,	**	11	. //
3	,,	**	12	6
2		,,	16	// Shi
1	,,	,,	17	1 1866
1	,,	,,	19в 24 35	Boots
1	,,		24	The same
8	**	,,	35	100
20	,,		37	
4		.,,	37 A	7
1		.,	48	3
1	,,	,,	52	
2	,,	.,	125	
20 4 1 1 2 1	,,	,,	126	-



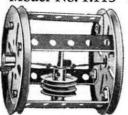
Two $2\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strips, one of which is bolted to the Bush Wheel, form the arms of the wrestlers. The legs are all pivoted by means of Bolts and lock-nuts. Sharp irregular movements of the Crank Handle will result in amusing antics by the wrestlers.

Parts required:

4	of	No.	2	1	of	No.	19s
6	,,	,,	5	4	,,		22
4	,,	,,	10	1			24
4	,,	,,	12	3			35
1	,,	,,	16	24	,,	.,	37
				5	**		38
Ø,	۸ _	-		1	,,	,,	40
,				6	,,	,,	48A
				1	,,	.,	52
				2 2	,,	,,	111c
				2	,,	,,	126A



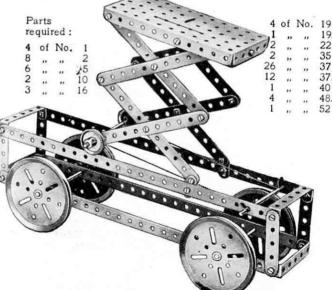
Model No. 1.113 Cum Bak



re	qui	red:	
1	of	No.	18A
2	,,	200	19B
2	,,	,,	22
1	,,	"	23
1	,,	,,	35
8	,,	"	37
4	"	**	48A

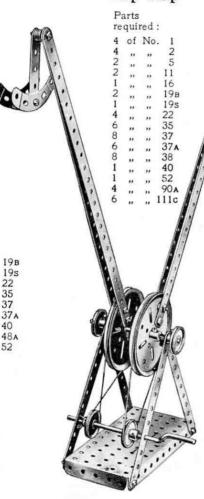
A short length of elastic is doubled and stretched between the centres of the 3" Pulley Wheels. A weight, consisting of two 1" fast Pulley Wheels and a 1½" Rod, is suspended from it in the middle of the drum. When the Cum Bak is rolled along any smooth level surface, the elastic becomes twisted and stores up sufficient energy to return the drum to its starting point. If the mechanism is concealed by a thin cardboard covering, the model will cause much amusement by its mystifying behaviour.

Model No. 1.114 Tower Wagon

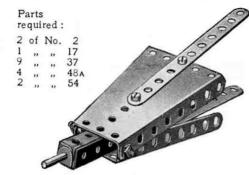


Model No. 1.115

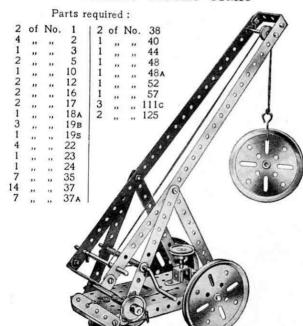
Flip Flap

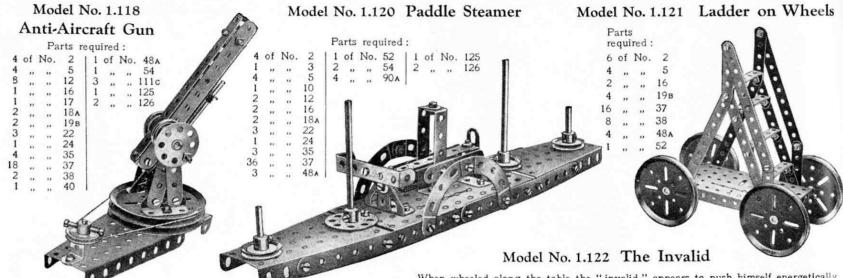


Model No. 1.116 Bellows



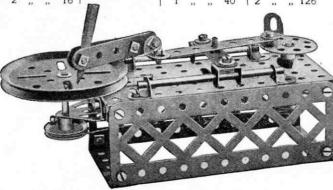
Model No. 1.117 Mobile Crane





Model No. 1.119 Meccanograph

Parts required: 2 of No. 17 5 of No. 35



Parts required:

When wheeled along the table the "invalid" appears to push himself energetically along. His neck is a Flat Bracket: his right (or propelling) arm consists of one Angle

Bracket and one 1" Reversed Angle Bracket, and his left arm-the hand of which is bolted loosely to the chair-is formed by three Angle Brackets. The chair is composed principally of two Sector Plates and four 51" Strips, and it runs on three 1" Pulley Wheels-one in front and two at the back. One of these (not visible in the illustration) drives by cord another 1" Pulley Wheel, the shaft of which also carries a Bush Wheel 1. As will be seen, a 21" Strip is pivoted at one end to this Bush Wheel and at the other end to a second 21" Strip 2, which, rocking about an axle journalled through its centre hole, is again pivoted to the invalid's hands.

Model No. 1.126 Gramophone

2 of No. 90A

2 " "111c

Model No. 1.123 Bow and Arrow

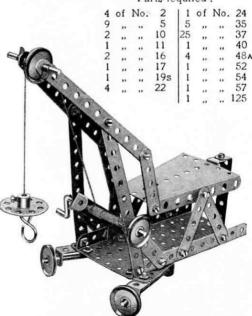
Parts required: 1 of No. 1 | 1 of No. 16 1 of No. 40

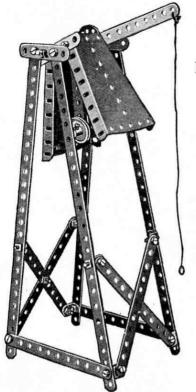


Model No. 1.124 Rotating Crane

The running wheels of this crane are journalled in Double Angle Strips bolted to the base plate and secured at an angle by means of Flat Brackets. The rear of the Base Plate is supported on a Double Bracket. The jib is bolted loosely to the supporting 5½" Strips and is connected by 2½" Strips to the Sector Plate which pivots about its supporting bolts. By moving this Sector Plate the elevation of the jib may be altered as desired. The movement is controlled by a Double Angle Strip mounted on the Crank Handle and connected pivotally to the plate by means of a 2½" Strip. A Reversed Angle Bracket bolted to an upright Double Angle Strip in the rear of the model serves to restrict the movement of the Sector Plate

Parts required:





Parts required:

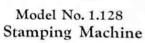
of No. 10

Model No. 1.127 Band Brake

Model					Pa	rts	requ	ired:				
No. 1.125	1 2	of	No.	2	1 2	of	No.	19s	1 1	of		40 52
Fire Alarm	1	,,,		12	10	"	,,	22 35 37	2	,,	,,	54 111c

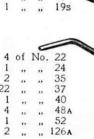
4	of	No.	1
7	,,,	,,	2
1		.,	3
3	,,	,,	5
8	,,	n	12
1	,,	,,	16
1	**	**	22
1	,,	**	24
4	**	**	35
27	,,		37
2		**	54

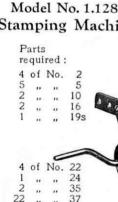
14-1-1







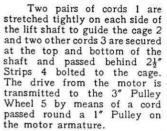


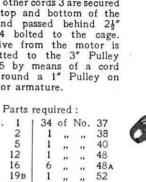


Model No. 1.129 Electric Elevator

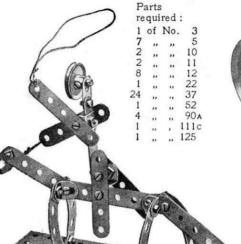
Model No. 1.130 Mounted Cowboy

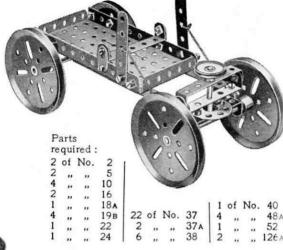
Model No. 1.132 Coaster



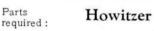


Electric Motor (not included in Outfit)



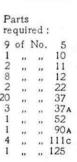


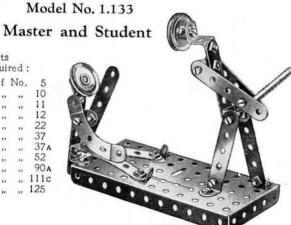
Model No. 1.131









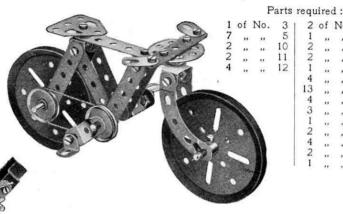


Model No. 1.134 Travelling Crane

The jib 1 is pivoted to the Flat Trunnions 2. which are bolted at 3 to Angle Brackets secured to a Bush Wheel. The latter is nipped to a 2" Rod 4 passing through the Plate 5 and further supported in a Double Angle Strip 6. A Washer and Spring Clip mounted on the Rod 4 below the Strip 6 secure the crane to the carriage. The jib is supported by means of cords 7 tied to 21" Strips 8, the holes of which engage the shank of a bolt passed through the Sector Plate 9, and its elevation may be altered by inserting this bolt in different holes in the Strips 8. The cord 10 of the brake lever is wound once round the Crank Handle, between two Washers.

Model No. 1.135 Bicycle

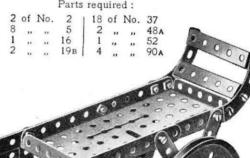
Model No. 1.137 Gymnast



2	of	No.	17
1	,,	,,	18A
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Model No. 1.136 Luggage Truck

Parts required:

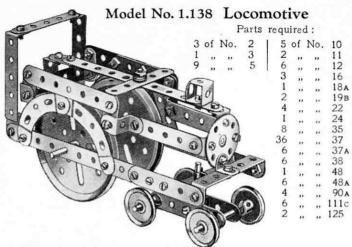


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2	"	"	17	6	"	"	38	2	"		126A

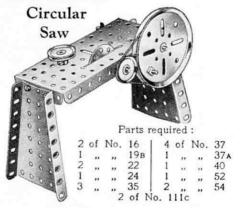


One of the 21 Strips representing the arms of the gymnast is bolted to a Bush Wheel secured on a 31" Rod. When the Crank Handle is rotated the gymnast turns complete somersaults in a very amusing manner. The gymnast's "arms" must be pivoted to the Angle Brackets forming his shoulders by means of Bolts and Lock-Nuts.



The bogie is connected pivotally to the locomotive body by means of a $1\frac{1}{2}$ " Rod journalled in a Double Bracket, which is secured in the centre of the bogie, and in a $2\frac{1}{2}$ " $\times \frac{1}{2}$ " Double Angle Strip that is secured between the main side frames. Two Spring Clips between the Double Angle Strip and Double Bracket space the bogie at the correct distance.

Model No. 1.139



Model No. 1.140 Treadle Grindstone

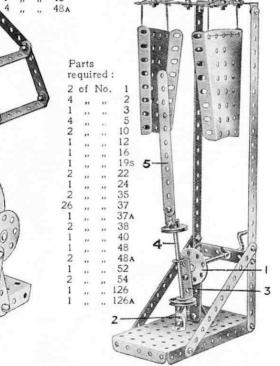
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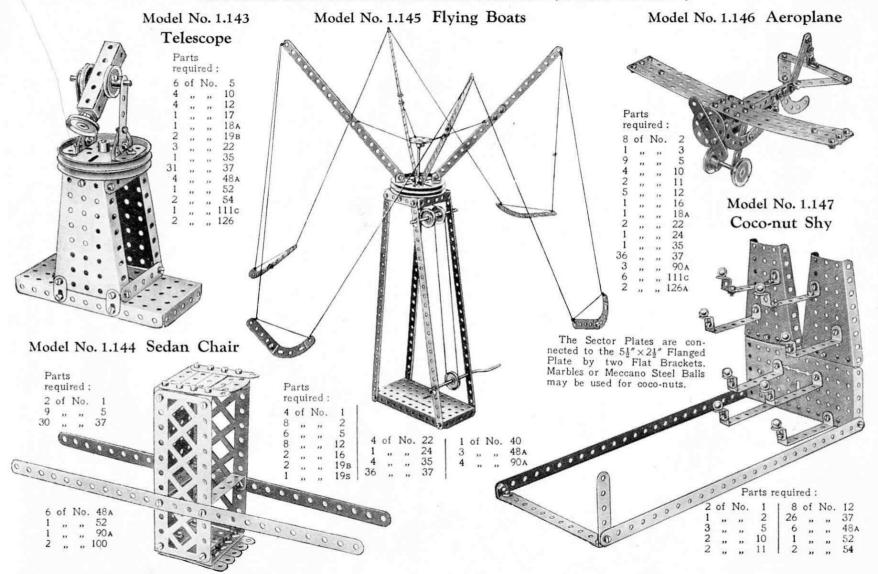
Model No. 1.141 Quick-Delivery Chute Parts Model No. 1.142 Mechanical Gong

required:

2 of No.

A Flat Bracket is connected pivotally to the base at 2 and is clamped rigidly to a 1" Pulley Wheel secured to the Rod 4. The latter passes through the 1½" Double Angle Strip 3 and carries at its upper end another Pulley to which is rigidly secured the striking arm 5. The Double Angle Strip 3 is pivoted to the Bush Wheel 1.





Model No. 1.150

Tappet Valve

Model

Demonstration

These Models can be built with MECCANO Outfit No. 1 (or No. 0 and No. 0A)

Model No. 1.148 Double Draw Bridge Parts required .

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	,,	,,	16	8	,,	,,	35	6	,,	,,	48A
				1 16			37	2		-	126.

Model No. 1.151 Motor Cyclist and Pillion Rider Doute as suited to

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1			16									

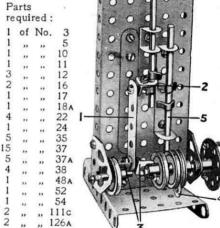
Model No. 1.149

Coaster

The figure 1 is loosely attached by lock-nutted Bolts 2 to the Sector Plate 3 and is connected to the Bush Wheel 4 by the pivotally-attached 21" Strip 5. The 11 Rod carrying the Bush Wheel 4 is journalled in the Cranked Bent Strip 6, the I" fast Pulley 7 being connected to the road wheel by a cord as shown.



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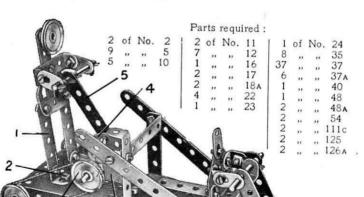
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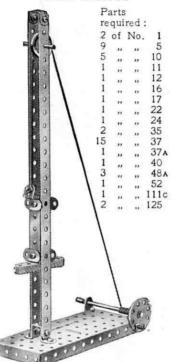
Model No. 1.152

Chinese Windlass

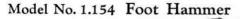
The upper end of the Strip 1 is connected pivotally by a Bolt and two Nuts to the crosshead bracket 2. The crankshaft is built up as follows: Two Angle Brackets 3 are each secured rigidly to the boss of a Pulley Wheel and are connected to each other by a &" Bolt carrying three Nuts. The Nuts are screwed tightly against the Brackets, sufficient space being left between the inner pair to enable the connecting Strip 1 to turn freely. The valve Rod 5 is operated by the Flat Bracket 4 that is clamped between two further 1" Pulleys on the crankshaft in such a way that its protruding end serves as a cam.

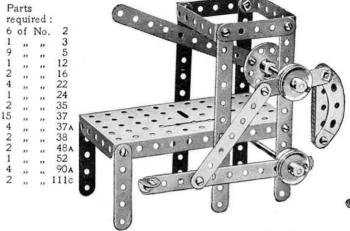


Model No. 1.153 Pile Driver



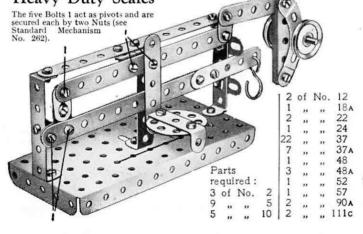
The winding cord is passed round the Pulley at the top of the model and is fastened to an Angle Bracket that is hooked under the protruding portion of a Flat Bracket bolted to the top of the driving head. When the Angle Bracket reaches the Pulley at the top it is pushed out a little, thus releasing the driving head.



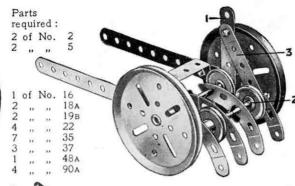


The treadle lever is connected pivotally to a 3½° Strip by a Bolt and two Nuts. The upper end of this Strip is similarly connected to a 2½° Strip that is clamped tightly between two Pulleys on the hammer Rod. Pressure on the treadle causes the hammer to descend on the work. When the treadle is released a weight pulls the hammer back to its original position.

Model No. 1.155 Heavy Duty Scales

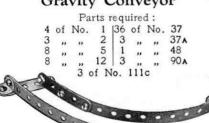


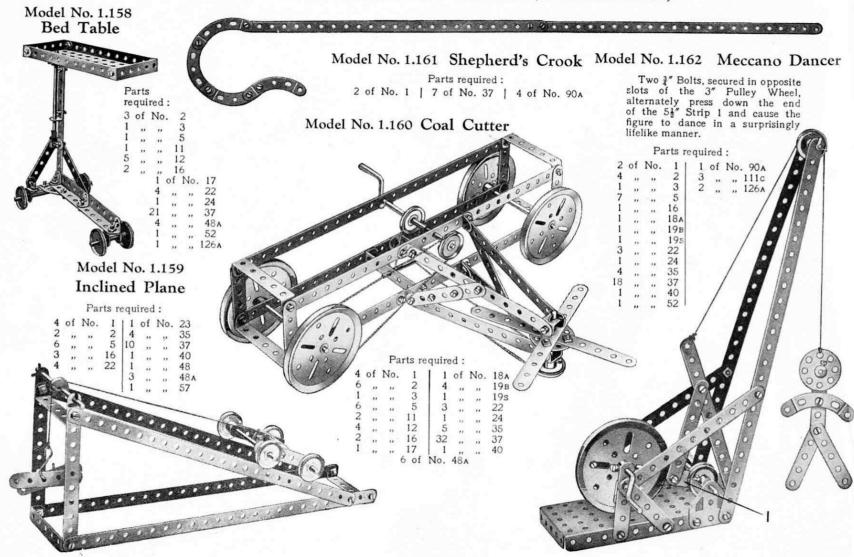
Model No. 1.156 Horse Rake



The 2½" Strip 1 pivots about the wheel axle. A 2½" Strip 3 is connected by a Bolt and two Nuts to the Strip 1 and the Shaft 2, which consists of two 1½" Rods, passes through its other end. On pulling the lever 1 towards the shafts the rake is lifted from the ground.

Model No. 1.157 Gravity Conveyor



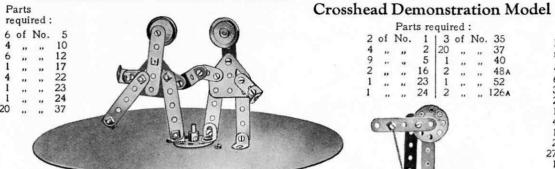


Parts required .

Model No. 1.163 Eccentric Dancers

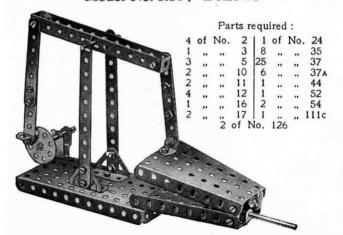
Model No. 1.165

Model No. 1.166 Drop Stamp



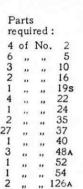
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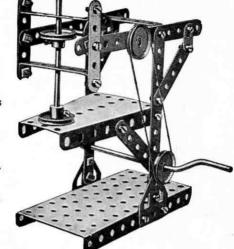
Model No. 1.164 Bellows



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9	**	.,	5	1	,,	,,	40
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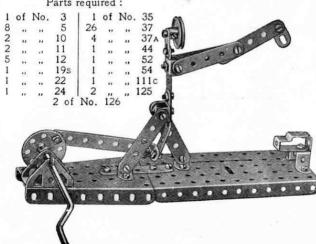
This is an apparatus for determining the forces that act at the crosshead of a reciprocating engine. The upper inclined length of cord represents the connecting rod and the lower, or vertical portion, the piston rod. The pull on the third cord indicates the pressure exerted on the slide bars of the engine due to the angularity of the connecting rod.





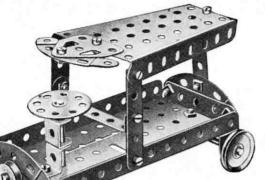
Model No. 1.167 Blacksmith

Parts required:



Model No. 1.168 Try-Your-Strength Machine

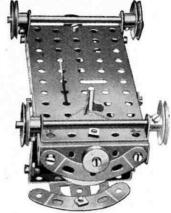
Parts required: 4 of No. 126 126A



Model No. 1.171 Motor Van

Parts required .

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4		**	22	3	,,		90 A
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1	.,		24	1			125
1		.,	35	1			126A



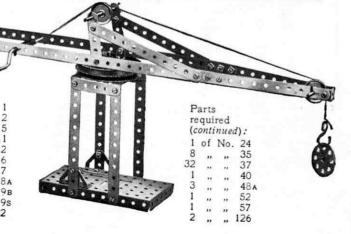
The steering mechanism is shown more clearly in Fig. 1.171a. A length of cord is given two or three turns round the steering column, and is held in position by a Spring Clip, its ends being tied to a $2\frac{1}{2}$ " \times $\frac{1}{2}$ " Double Angle Strip. The latter is pivoted to the $5\frac{1}{2}$ " \times $2\frac{1}{2}$ " Flanged Plate of the lorry by means of a Bolt and two Nuts (see Standard Mechanisms Manual, Detail No. 262).

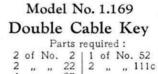
FIG. 1.171A

Model No. 1.170 Boat

Parts required: 4 of No. Parts required:

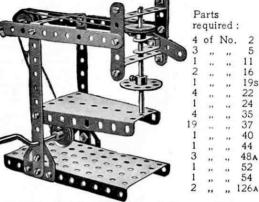
Model No. 1.172 Revolving Hammerhead Crane



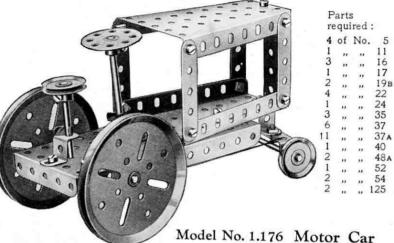








Model No. 1.175 Motor Tractor



Model No. 1.174 Racing Motor Car

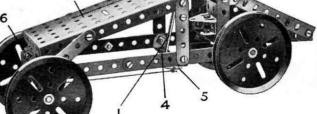
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The Double Angle Strip 1 carries the front road wheels and is bolted pivotally to the 5½" Strip 2, whilst the rear axle is journalled in two Angle Brackets rigidly secured to the Strip 2. A Cranked Bent Strip 3 represents a seat. The steering wheel consists of a ½" Pulley 4 bolted to an Angle Bracket.

Parts required .

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	"	**	10	1	"	**	22	4	22	,,,	38	2	,,	,,	54
	"	22	11	1	**	**	24	1	,,	,,	40	1	,,		111c
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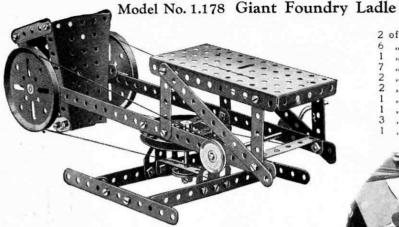


Model No. 1.177 Windmill Pump



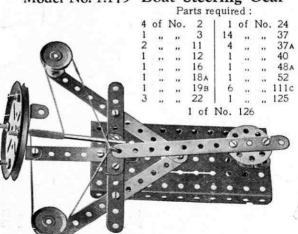
Parts required :

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1	,,	,,	19в	2	**	,,	48A
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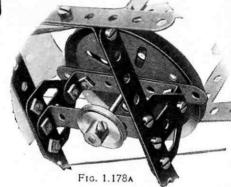


The ladle pivots about a 31" Axle Rod carrying a 3" Pulley at each end in addition to a Bush Wheel and a 21" Strip. The two latter parts are bolted to the side flanges of the Sector Plates and the Bush Wheel is nipped in position on the Rod. The pivot about which the superstructure turns is shown in Fig. 1.178a.

Model No. 1.179 Boat Steering Gear

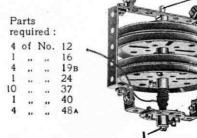


Parts required: 3 of No. 22

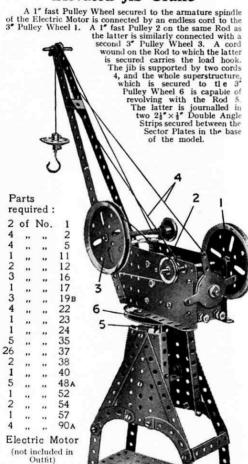


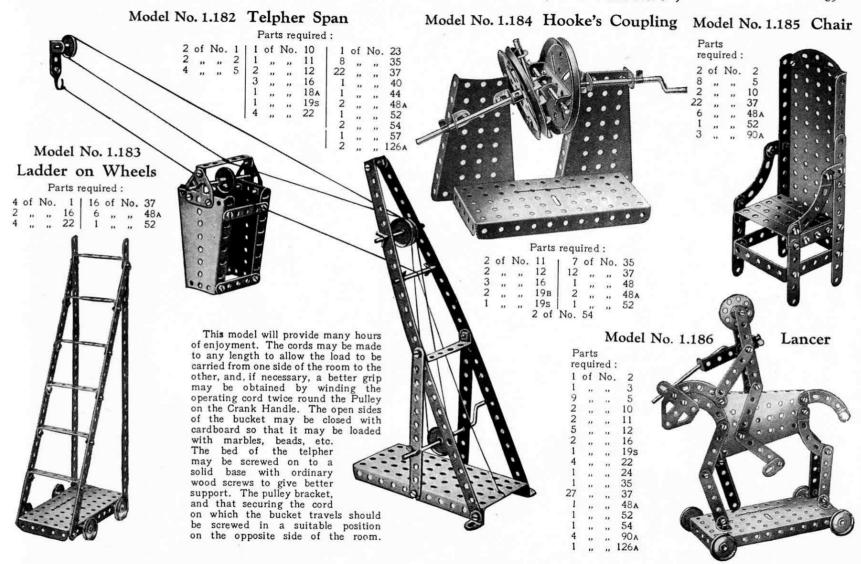
Model No. 1.180 Gyroscope

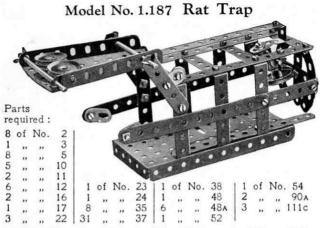
The 5/32" Bolt 1 is gripped by the Set-Screw of the Bush Wheel. The lower end of the Rod 2 of the gyroscope enters the boss of the Bush Wheel and rests on the shank of the Bolt 1.



Model No. 1.181 Elevated Jib Crane



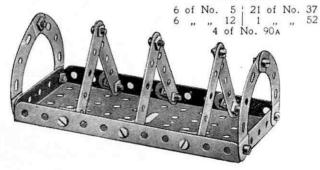


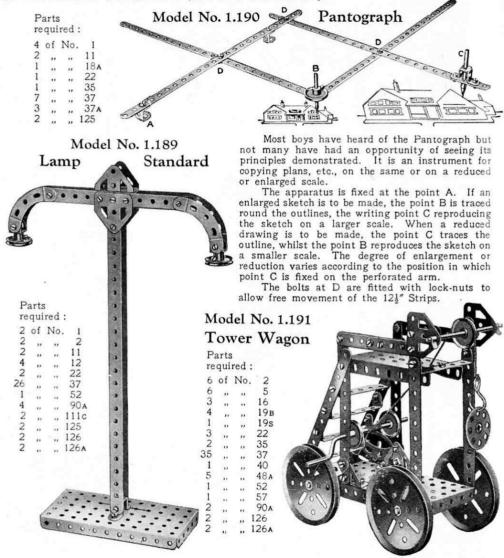


The "bait" consists of a 1" fast Pulley and a $\frac{1}{2}$ " loose Pulley suspended by means of a cord from a Double Bracket. The latter is bolted to a $1\frac{1}{2}$ " $\times \frac{1}{2}$ " Double Angle Strip that is free to turn on a 2" Rod journalled in a pair of Angle Brackets. A Flat Bracket bolted to the Double Bracket engages a second Double Bracket on the end of a $5\frac{1}{2}$ " Strip that is bolted to the door of the cage. If the "bait" is touched, the heavily-weighted door falls into place, and is prevented from re-opening by catches formed from Flat Brackets secured to $5\frac{1}{2}$ " Strips that are bolted to the trap by their extreme ends and act as springs.

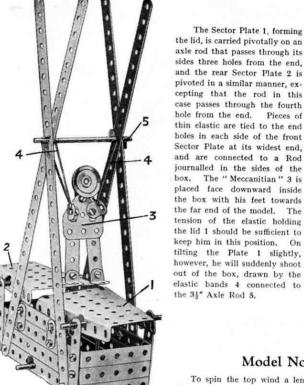
Model No. 1.188 Toast Rack

Parts required:





Model No. 1.192 A Sudden Appearance

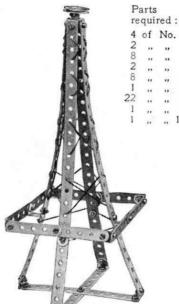


Parts required:

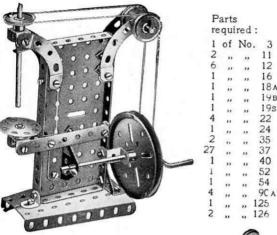
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	A	shor	t ler	igth .	of e	elasti	c

Model No. 1.193

Eiffel Tower



Model No. 1.195 Drill



Model No. 1.196 Revolving Tricyclist

Model No. 1.194 Top

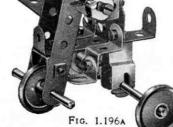
To spin the top wind a length of cord round the rod, as shown, place on a smooth surface and give the cord a sharp pull. When the cord is clear of the rod remove the 5½" Strip and the top will continue to spin for a considerable period.



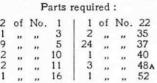
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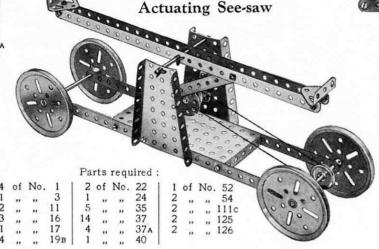


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4	"	"	22	1			126A	



Model No. 1.197 Guillotine





Model No. 1.198

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2	,,	,,	125
1			126

Model No. 1.199 Wire-Rope Maker

Coat Hanger

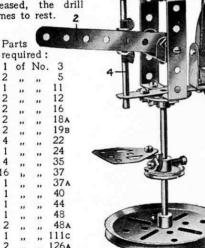
Parts required:
1 of No. 1 | 2 of No. 5 | 1 of No. 57
2 ,, ,, 2 | 6 ,, ,, 37 |

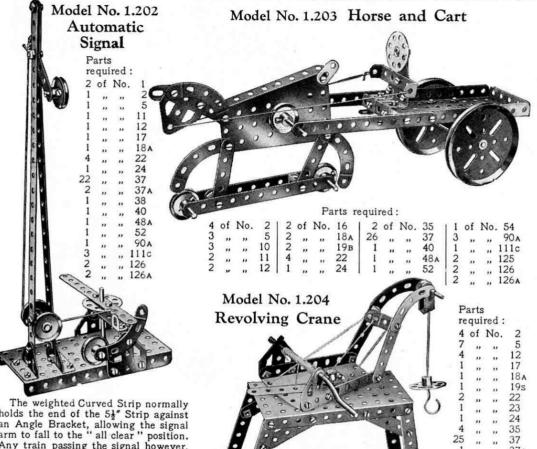
Model No. 1.201 Automatic Drill

Cord is passed round the Pulley on the drill spindle 4 and thence over the Pulleys 3 and round the shaft of the Pulley 1. The lever 2 (a 3½ "Strip) is pivoted by a Bolt and two Nuts at its inner end to an Angle Bracket, and the latter is bolted to a 1½ "Double Angle Strip which, in turn, is bolted between the vertical 2½" Double Angle Strips. The arm of the lever engages between two Washers on the drill spindle, and on pressing the lever, the drill spindle with its 1" Pulley is forced downwards,

thus tightening the Cord, which then transmits the drive to the drill spindle. Immediately pressure on the lever is released, the drill comes to rest. 2

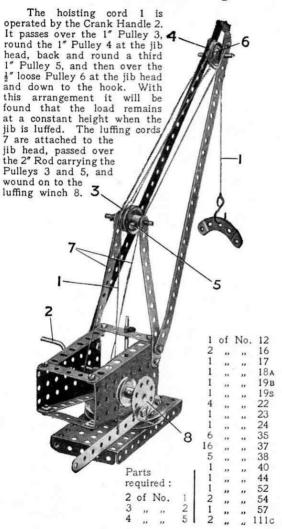
Model No. 1.200

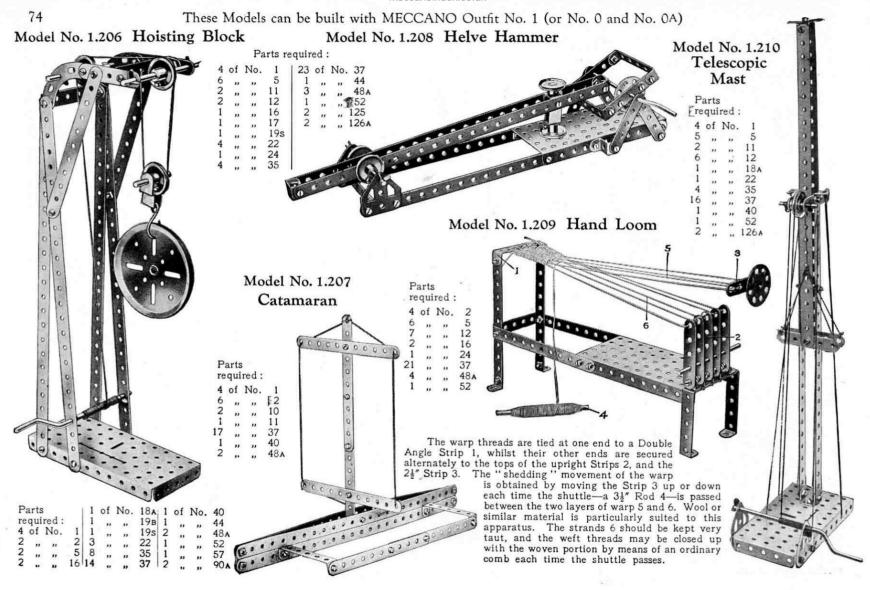




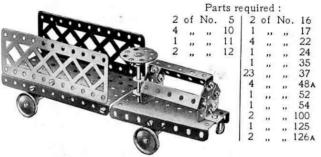
holds the end of the 51" Strip against an Angle Bracket, allowing the signal arm to fall to the "all clear" position. Any train passing the signal however. strikes the opposite end of the 51" Strip, and by means of the cord shown raises the arm to indicate "danger." The Curved Strip moves to allow the end of the 51" Strip to pass over it, and is returned to its original position by reason of its weighted end. The signal then remains at "danger" until the mechanism is re-set.

Model No. 1.205 Patent Luffing Crane



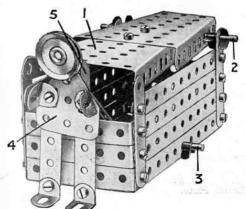


Model No. 1.211 Motor Lorry



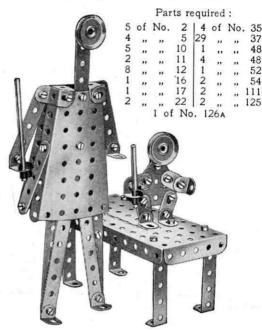
Model No. 1.212 Disappearing Meccanitian

The bottom of the box-like portion of the model consists of a $5\frac{1}{2}'' \times 2\frac{1}{2}''$ Flanged Plate; three $5\frac{1}{2}''$ Strips bolted to upright $2\frac{1}{2}''$ Strips form each side and each end consists of three $2\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strips. The lid 1, which is mounted pivotally on an Axle Rod 2, consists of two Sector Plates bolted together. Elastic bands are tied to the sides of these Plates and connected to Rod 3 passed through the bottom of the box. The "Meccanitian" 4 also is connected to this Rod by pieces of elastic. On pressing the end of the rear Sector Plate the lid opens sufficiently to allow the figure to be drawn inside and then snaps back into place. A Cranked Bent Strip 5 is bolted at the back of the figure and rests against the edge of the Sector Plate.



		red :	_
17.0	of	No.	2
6	,,	. ,,	5
1	**	***	10
4	,,	**	12
2	**	**	16
1	**	,,	22
6		,,	35
23	,,	,,	37
1	,,	,,	44
4	,,	,,	48A
1	,,		52
2	,,		54
1	,,	,,	111c
1	,,		126A

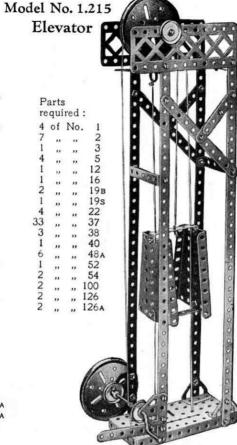
Model No. 1.213 Dignity and Impudence



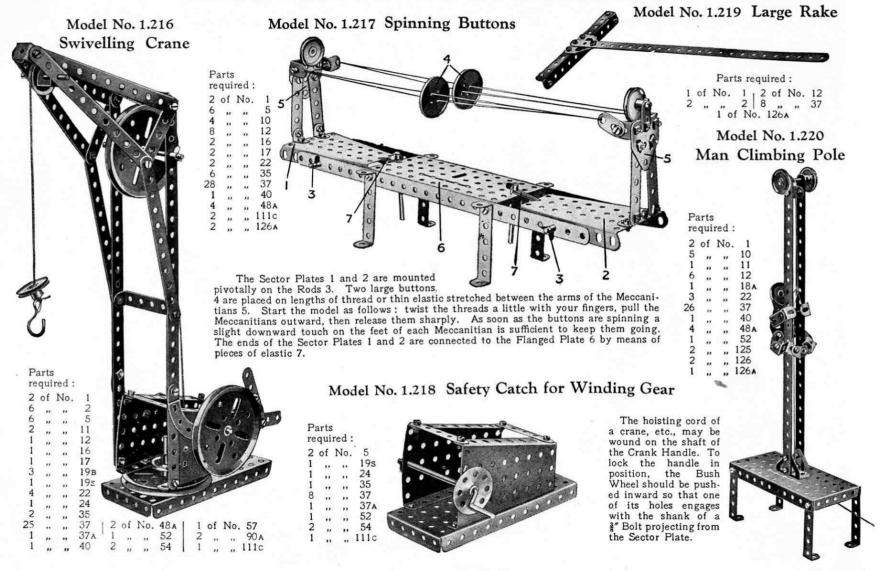
Model No. 1.214 Field Roller

				Par	ts 1	equi	red:				
2	of	No.	1	1	of	No.	16	16	of	No.	48A
3	,,	,,	5	2		,,	19B	2	,,	,,	90 A
6	,,	.,	12	30	,,	,,	37	2	,,	,,	126

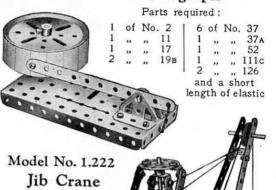




Two cords stretched between the base plate of the model and the upper structure are passed through holes in the Double Angle Strips of the cage to form guides. A further cord is tied to the upper Double Angle Strip, and after being led over the 3" Pulley at the head of the model is tied to the shaft of a Crank Handle.



Model No. 1.221 Seismograph



Jib Crane
Parts
required:
4 of No. 1

1 " " 5 2 " " 11 3 " " 12 1 " " 16 2 " " 17

1 ,, ,, 19s 4 ,, ,, 22 1 ,, ,, 24 3 ,, ,, 37

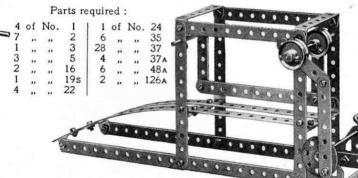
1 ,, ,, 48 1 ,, ,, 52 2 ,, ,, 54 1 ,, ,, 57 ph

Model No. 1.223 Centrifugal Governor

	arts			
re	qui	red	:	
2	of	No	. 5	THE COURT
	,,	,,	10	6
2 6	"	,,	11	-2
6	,,	,,	12	2
1	,,,	,,	16	- 3
1	,,	,,	19B	3
1	"	"	19s	4
4	,,	"	22	4
1	"	"	24 35 37	
3 18	"	"	35	5
18	**	,,	37	3 0 0
6	"	22	37A 38	
4	"	"	38	
1	"	"	40	/10
2	"	"	111c	
2	"	"	126	

The 3" Pulley Wheel is bolted to the $5\frac{1}{2}$ " $\times 2\frac{1}{2}$ " Flanged Plate as shown, and the Rod 6 is free to rotate in its boss. The Bolts 1, 2, 3, are provided with lock-nuts. When the engine to which the governor is attached works at too great a speed, the 1" fast Pulley Wheels 4 fly outward and lift the two Double Brackets 5. In actual practice this movement is utilised to close the engine valves and so reduce speed.

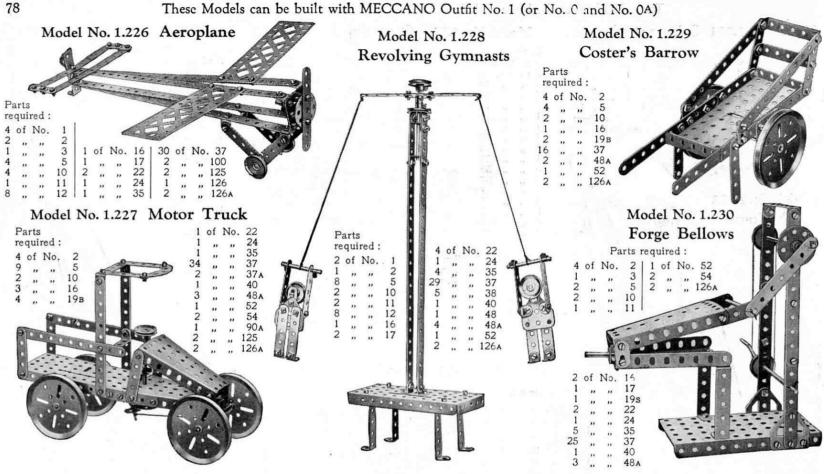
Model No. 1.224 Stone-Sawing Machine



Model No. 1.225 Elevated Crane

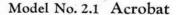
		Pa	arts re	equi	red	:				-	10
2	of	No.	1 2	16	of	No.	48A			-4	4
8	"	,,	2	1	"	,,	52				Γ
8	"	"	5	2	,,	,,	54				
1 2 1 3 1 4	"	***	11 16	1 4	"	"	57		1		
1	,,	"	18 _A	2	"	"	90A			14	
3	**	"	19B	2	,,	"	126 126 _A	/	19	19	
1	"	"	19s	-	"	"	120A	//	V	N	
4	"	"	22				1	//	1	7	
1	,,	,,	23				/				
1	,,	,,	24				//		H		A
3	"	**	35			/	/A	7	N	6	7
36	200	**	37			/	/A		H		
3	**	**	38		/	8111 	131		B	12	0
1	"	"	40	١	/	/			19		0
		7		/		//	//	1	J	V	Lol
			-	/-		H	/	6	1		
		4		1	/	B/		0			
			V.Z	0	//	7/		0			
-	5.	a	1	n-/		_		19			
	1	八腦	7.	7		0	OVE	77		-1	
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	W.	n/B			B		37				
	1/4	100	50			60					
	10			31	1						
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	6		1	3.	à 1.	1/-	• //			2	
	~				4	1/1/	• •	A		1000	
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		,	A S	4	9	0 0		Y	Q		
		4		1	10	_					
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			6	3	ø		3				
	TI.			W							

The base of the swivelling portion of the crane consists of a 3" Pulley Wheel 1, which has a 3\frac{1}{2}" Axle Rod nipped in its boss. The Rod is journalled in two 2\frac{1}{2}" Double Angle Strips 2 and 3 secured between the Sector Plates 4. The brake cord 5 passes round the 3" Pulley as shown, and is tied to one of the holes in the Bush Wheel 6. The cords 7 serve merely to support the weight of the jib.



HOW TO CONTINUE

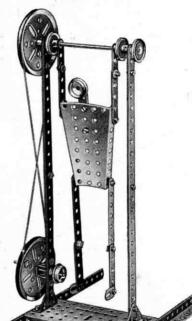
This completes our examples of models that may be made with MECCANO Outfit No. 1 (or No. 0 and No. 0A). The next models are a little more advanced, requiring a number of extra parts to construct them. The necessary parts are all contained in a No. 1A Accessory Outfit, the price of which may be obtained from any Meccano dealer.



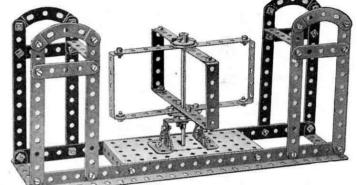
Parts

required:

12 of No. 2



Model No. 2.2 Turnstile



Meccanitians Parts required:

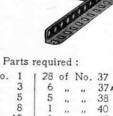
		Pa	rts re	qui	red	:		
5	of	No.	1	1	of	No.	38	
1	,,	,,	5	1	,,	,,	52	
ó	**	,,	10	2	,,		111c	
3	23	11	12	2	,,	"	126A	
l	"	,,	16	1		-		
2	"	"	17	3000		A	20)	
	**	"	19s			1		
1	**	"	22			De la companya di	\sim	
			24	1	- 4	.	101	

Model No. 2.4

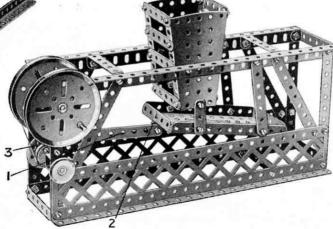
Revolving

Model No. 2.3 Coal Sifter

The $5\frac{1}{2}$ " Strip I is pivoted to the Angle Bracket 2 by a bolt and two Nuts. The Angle Bracket in turn is bolted to the Flanged Plate, which is suspended in such a way that it is free to swing to and fro. The other end of the $5\frac{1}{2}$ " Strip is pivoted to the Bush Wheel 3.



4	of	No.	1	1 28	of	No.	37
2	,,	,,	3	6			37 A
2 5 2 2	,,	,,	5	5			38
2	,,	**	8	1	**	**	40
2	,,	.,	10	1	,,		45
2 2 3	,,	,,	15	1	,,		52
2	,,	**	19B	1	,,	,,	54
2	,,	,,	20в	2	,,	,,	62
3	,,	"	22	1	,,	,,	115
		2	of !	Vo.	126		



Pa	arts			
re	qui	red:		
9	of	No.	2	
92824		.,	3 5	
8	240	-	5	4
2	1607	60.	6A	- 4
4	,,	,,	8	A
,	**	**	13	4
1		12	12	201
1	**	"	16	40)
1	**		17	1
1 2 2 1 2 54	**	,,	19B	(c c
2			22 24 35 37	1011
1		**	24	Inthe
2	•••	"	35	
51	"	"	27 4	ELD
04	"	**	37	W-4 35-34
6	33	**	37 A	
8		220	38	
1	788		40	
1			45	
6		55	48 A	
6 1 2 2	**	***	52	
2	**	***	54	
2	**	**	52 54 99	
2	**		99	

Model No. 2.5

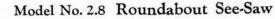
Easel

These Models can be built with MECCANO Outfit No. 2 (or No. 1 and No. 1A)

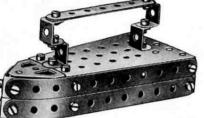
Model No. 2.6 Smoothing Iron

Parts required:

4	of	No.	2	1 20	of	No.	37
2	,,	,,	3	2	,,	,,	38
6	,,	,,	10	1	,,	,,	48A
4	,,	,,	11	2	,,	,,	54
2		250	10				124.

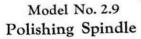


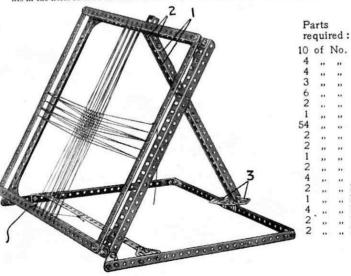
				Pa	rts	requ	irea:				
2	of	No.	6A	2	of	No.	19B	6	of	No.	48A
4	,,	,,	8	1	,,	,,	24	2	,,	,,	54
4	,,	,,	10	2	,,	**	35	2	,,	,,	90A
4	,,	,,	12	34	,,	,,	37	4	,,	**	11c
1	,,	,,	16	4	,,	,,	37A	2	,,	**	26
1		. ,,	18A	6	,,	,,	38	2	**	., 1	26A



Model No. 2.7 Mat Frame

The Strips 1 are hinged to the frame in the following manner. Two Cranks 2 with their bosses facing inward are bolted to the Strips 1 and two Angle Brackets are secured to the frame. A Rod is then pushed through the holes in the Angle Brackets and secured in the bosses of the Cranks. A Double Bracket fastened to the ends of the Strips 1 carries a Threaded Pin, which fits in the holes in the Flat Trunnions 3. By removing this Pin, the frame may be folded flat.

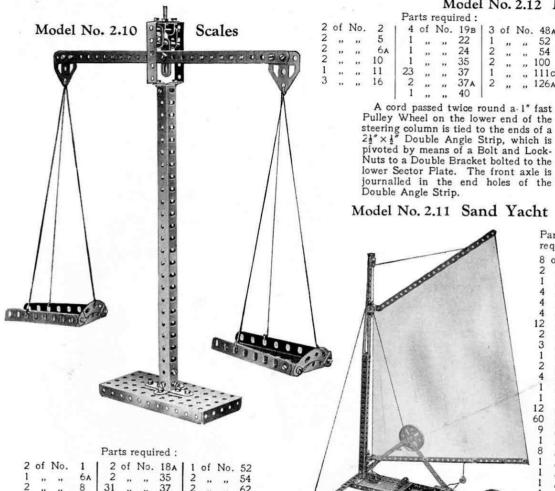




Parts required:

15A

required:

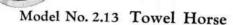


" " 115

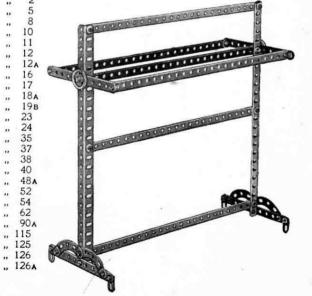
Model No. 2.12 Motor Truck 3 of No. 48A

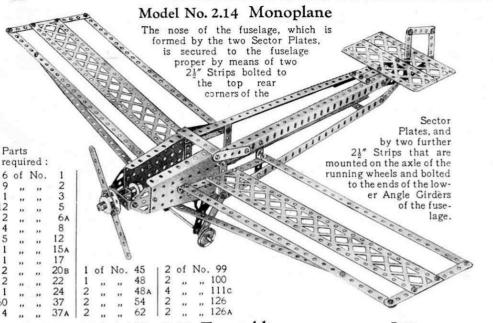
Parts required:

> 125 126



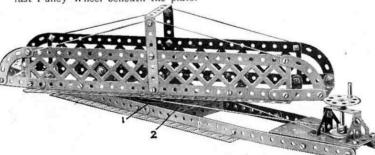
D	arts	2		1 4	of	No.	. 12	
		red:		2	,,	200	22A	
				28	"	,,	37	
6	of	No.	1	2	,,	,,	37A	
4	,,	,,	2	8	,,	,,	38	
2	,,	**	8	4	,,		90 A	
4	,,	,,	10	2			111c	





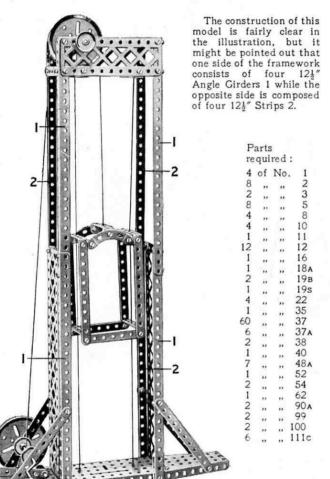
Model No. 2.15 Turntable

The two sides of the revolving portion are joined in the middle by two pairs of 2½" Strips, each pair being overlapped three holes and bolted to the 3" Pulley Wheel 1. An Axle Rod secured in the latter is journalled in the bottom plate 2 and retained in position by a 1" fast Pulley Wheel beneath the plate.



		red No.	
2	,,	,,	3
8	,,	,,	5
4	,,	**	8
1	**	**	17
1	,,	,,	18A
1	**	**	19в
3	,,	**	22
1	"	**	24
45	**	9.9	37
4	,,	**	37A
4	"	**	38
1	,,	"	48
7	**	**	48A
	"	**	52 54
2		"	90 A
2	,,	,,,	90A
4	"	"	
4	**		111c

Model No. 2.16 Elevator



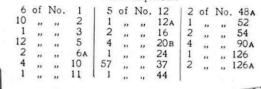
Model No. 2.17 Roundabout

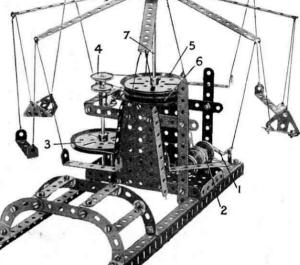
Parts required:

2 of No. 15

Model No. 2.18 Gondola







When the Crank Handle is turned, the drum 2 (formed by butting together two 3 Flanged Wheels) turns the 3" Pulley Wheel 3 by means of an endless cord. The 1" fast Pulley Wheel 4 similarly turns a second 3" Pulley Wheel 5 resting on another 3" Pulley Wheel 6 (see Fig. 2.17a). The end of the Axle Rod 7 is quite free to revolve in the boss of the lower 3" Pulley Wheel 6.

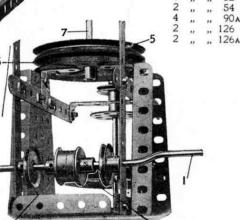
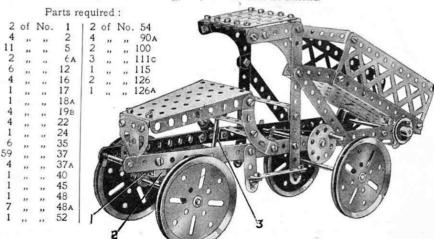
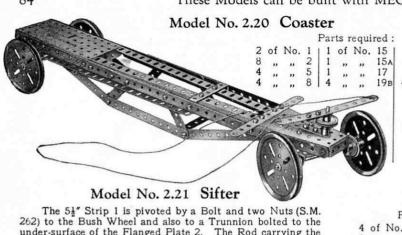


FIG. 2.17A

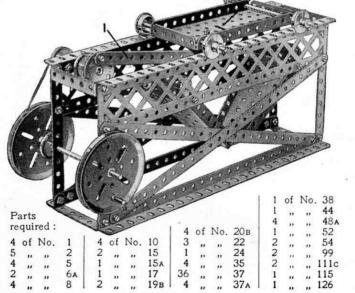
Model No. 2.19 Tipping Motor Wagon

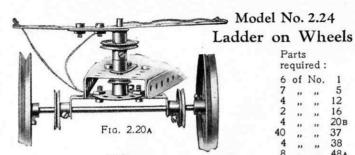
The front Axle Rod is journalled in a $2\frac{1}{2}$ "Double Angle Strip 1 which in turn is bolted to a Double Bent Strip 2. The Double Bent Strip is pivoted to the Sector Plate by a Bolt and two Nuts. Cord passing over a 1" Pulley Wheel attached to the Rod 3 is fastened to the ends of the Double Angle Strip 1, and by rotating another pulley, which represents the steering wheel, the road wheels are deflected.





under-surface of the Flanged Plate 2. The Rod carrying the Bush Wheel is journalled in one of the side girders and through a Double Bent Strip.

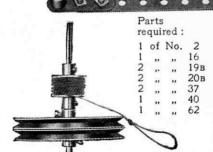




Model No. 2.22	Tricycle
Parts required :	

		1	arts i	equ	nec								100	0
4	of	No.	2	12	of	No	. 37	A					4.	
	,,		5	1	,,	,,	111	C				-	100	
2	,,	,,	10	1	,,	,,	126	A		S	-/6		CONT	
6232	,,	**	11			-			2		40	-		1
2	**	,,	12		1			20		Cont.	9	- 4		
1	**	.,,	16		100		LÆ	1.6		1		- 4		
1	**	**	18A		IIC.		7. +		WEEKS IN			1		
3 2 15	**	"	19в 35 37		18		11	7		a		1		M
15	"	"	37		W		11			-			100	
13	**	"	37		-	State								
							u		10	7				
							4			/				

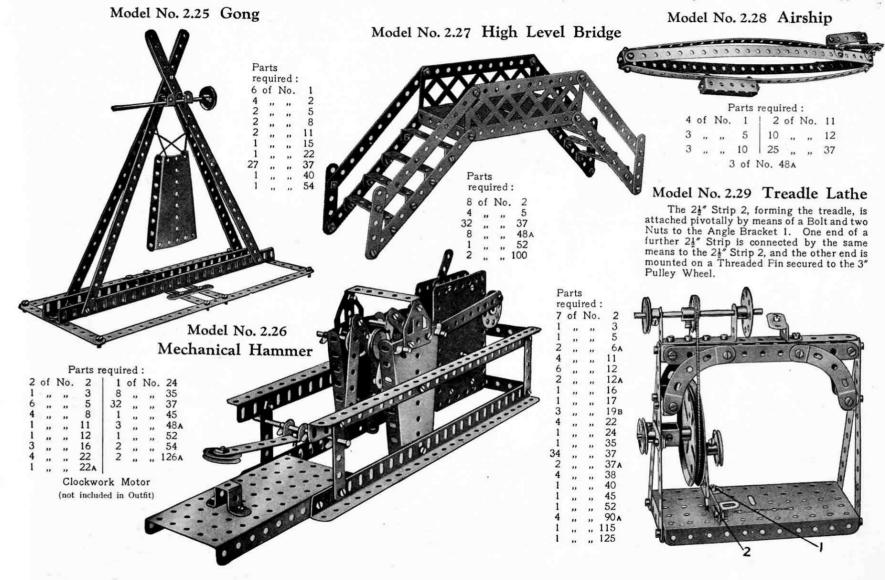
Model No. 2.23 Spinning Top

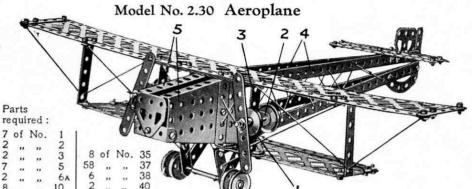


The drum on which the cord is wound consists of two 3" Flanged Wheels butted together. While the cord is being pulled, the top is held steadily on some smooth surface by means of the handle shown above. The handle is then lifted off, allowing the top to spin freely.



Parts required:

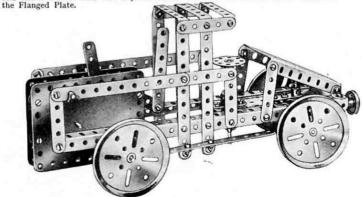




Each engine is represented by a ¶" Flanged Wheel 1 and a 1" ast Pulley Wheel secured to a 2" Rod journalled in a Double Bracket 2, which is botted to the 2½" ×½" vertical Double Angle Strip 3. The 12½" Strips 4 of the fuselage proper are bolted to the two Sector Plates 5, and also by means of Angle Brackets to the wings. The tail plane consists of two 5½" Strips to which a similar Strip, representing the movable portion of the plane, is attached by means of Flat Brackets.

Model No. 2.31 Motor Lorry

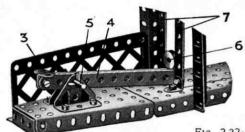
The driving spindle of the Clockwork Motor is removed and in its place is inserted a $3\frac{1}{2}$ Rod forming the rear axle, the special Pinion inside the Motor being secured to this Rod, of course, instead of to the driving spindle. The steering is operated by a Bush Wheel on a vertical $3\frac{1}{2}$ Rod journalled in a Double Bent Strip. Cord is wound round the lower part of this Rod and its ends are secured one to each end of a Double Angle Strip carrying the front axle. A Crank is botted to this Double Angle Strip and carries a short Rod that is journalled in the boss of a further Crank bolted to



Parts

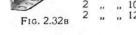
Model No. 2.32 Try-Your-Strength Machine

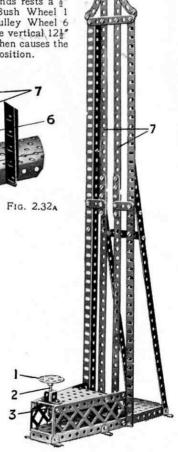
The Bush Wheel 1 is secured to a short Axle Rod 2, the lower end of which rests on a pair of Angle Brackets 3 bolted to the ends of four 5½ Strips 4. The Strips 4 are pivoted as shown (Fig. 2.32A) on a 1½ Rod 5, and on their opposite ends rests a ½ loose Pulley Wheel 6. When the Bush Wheel 1 is struck, the 5½ Strips fling the Pulley Wheel 6 upward, but the wheel is guided by the vertical 12½ Strips 7. The weight of the Strips 4 then causes the Bush Wheel to resume its original position.



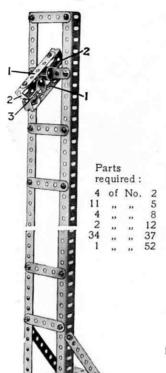
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	6	of	No.	1	2	of	No.	10
	6	,,	**	2 3 5 6A	10	,,	,,	12
	1 2 2 4	,,	**	3	2	,,	,,	18A
	2	,,	**	5	1	**	,,	23
	2	,,	23	6A	1	,,	,,	24
	4	**	,,	8	3	,,	,,	23 24 35
				-	60	,,	,,	37
			4	9/	3 60 6 4	,,	,,	37A
			A	Z-	4	,,	,,	38
	,	1		1 /2	1	,,	,,	45
á	1	A	=/ .		1	,,	,,	48
ő	a.	4	7,1		1	,,	,,	48A
ť	3	1	ا مذا		1	,,	,,,	52
d	4	d			2	**	,,	54
	9	100	CHEST	-	3			90.

Parts required :



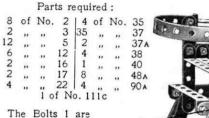


Model No. 2.33 Performing Meccanitian



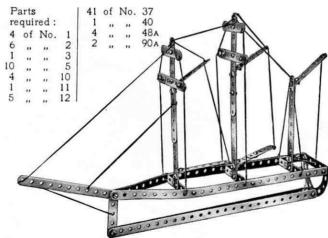
The Meccanitian consists of two 21" Strips 1 to the ends of which two 5½" Strips 2, bent as shown, are bolted. The slot 3 should be passed over the top strip of the ladder, when the device will fall "head over heels" to the bottom.

Model No. 2.34 Baby Chair

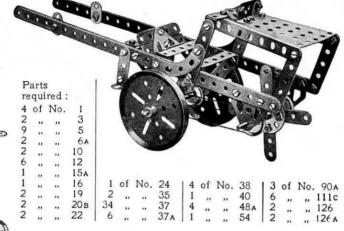


all secured pivotally (see S.M. Nos. 262 and 263), and the height of the chair may be adjusted by fitting any hole in the Strip 2 over the shank of a Bolt that is secured in an Angle Bracket bolted to the Double Angle Strip 3.

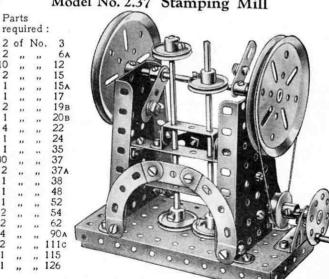
Model No. 2.35 Square-topsail Schooner

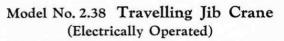


Model No. 2.36 Hay Tedder

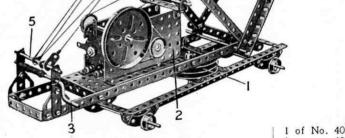


Model No. 2.37 Stamping Mill





The swivelling structure is bolted to the 3" Pulley Wheel 1, which rests on a second 3" Pulley bolted to the travelling base. A short Rod secured to the boss of the upper Pulley is free to rotate in the boss of the lower one. The Electric Motor 2 controls the hoisting gear and the arrangement of the drive will be clear from the photograph. The jib is luffed on operation of the Crank Handle 3, the cord of which passes round the Axle Rod 4 in the jib, then round the Rod 5 in the base, back round the Rod 4 and is finally secured to a Flat Bracket on the Rod 5.



				Pa	arts	requ	ired:					1	**	,,	48 48 A
10	of	No.	1	1 2	of	No.	12	4	of	No.	20 B	1	"	,,	52
9	,,	,,	2	2	,,	.,	15	4	,,		22	î	,,	"	57
2	,,	,,	3	1	,,		15A	1	,,	,,	23	4	"	"	90A
2	"	**	5	2	,,	**	16	1	••	**	24	5	,,	,,	111c
2	,,	,,	6A	1	,,		17	14	,,	"	35	2	,,	,,	126A
4	"	"	8	1	**	**	18a 19	60	"	**	37 37 A	Ele	ectr	ic	Motor
1	"	,,	10	4	**	"	19B	14	"	"	38	(n	ot in	clu	ded in

Model No. 2.39 Travelling Jib Crane (Hand Operated)

This shows a section of Model No. 2.38 fitted for hand operation, No. 2.38 fitted for hand operation, thus dispensing with the necessity of the Electric Motor. In this case the hoisting cord is operated by the hand wheel 6, the Rod of which is controlled by a band brake 7. The end hole of the lever of the latter is pivotally mounted on the Rod 8. pivotally mounted on the Rod 8. The luffing movement of the jib is effected by the Crank Handle 9. The operating cord passes round the Rod 10 attached to the jib, then round Rod 11 in the base of the model, again round Rod 10, back round Rod 11,

and once more round Rod 10. The end of the cord is then tied to a Flat Bracket on the Rod 11.



Par	ts rec	quir	ed:	:				1	of	No.	19	1	of	No.	48	
No.	1	13	of	No.	10			4	,	, ,,	19B	7	,,	,,	48A	
	2	1	,,		11			4	,	,	20в	1	,,	,,	52	
"	3	1	,,	"	15			4	,	. ,,	22	2	,,	,,	54	
"	5	1	,,	,,	15 _A	1	10	1	,	, ,,	23	1	,,	,,	57	
,,	6A	5	,,	,,	16	In	11	1	,	, ,,	24	1	,,	,,	62	
,,	8	2	,,	,,	18A	601	الرو	12	,	, ,,	35	4	,,	,,	90A	
200		SHOOT	22	200		12	100	57	,	, ,,	37	1	**	**	111c	
					6	-100		1	,	, ,,	40	1	,,	"	115	

Model No. 2.40 Schneider Trophy Seaplane

Parts required:

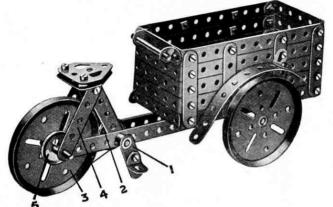
6	of	No.	2	34	of	No.	37
12	,,	,,	5	3	.,	,,	37A
2	,,	,,	6A	6	,,		38
2	,,	,,	11	2	.,	,,	111c
12	,,	,,,	12	2		,,	126
		1	of N	0. 1	264		

Model No. 2.41 Candy Puller

Model No. 2.42 Carrier Tricycle

		Pa	rts re	quire	ed:		
6	of	No.	2	36	of	No.	37
2	,,	,,	8	4	,,	,,	38
6222	,,	"	12	1	,,	,,	40
2	,,	,,	15	4	,,	,,	48A
2	,,	,,	17	1	.,	,,	52
11.7	,,	,,	19в	2	,,	,,	54
4		,,	22	2	,,	**	62
1	**	,,	24	4	,,	,,	90A
2			25				





Each pedal of the tricycle consists of an Angle Bracket pivotally attached to a Crank 1 by means of a Bolt and two Nuts (see S.M. No. 262). The Cranks are secured to a 1½" Axle Rod carrying a 1" fast Pulley Wheel 2. A cord passes round this Pulley and around the 3" Pulley Wheel 3, which is spaced away from the 2½" Strips 4 by a 1" fast Pulley Wheel 5. The Double Bracket 6 (Fig. 2.42A) is attached pivotally to the lower framework by a Bolt and Lock-Nuts (S.M. 263).

	arts	red:	
	•	No.	
12	01	140.	5
2	,,		11
6	,,	,,	12
1	,,	,,	16
1	***	**	17
2	**	22	18A
2	"	**	19в 22
45	"	"	37
5	"	"	37A
1	,,	,,	40
8	,,	"	48A
1	,,	"	52
2	"	**	62

" " 111c " " 126A

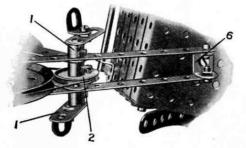
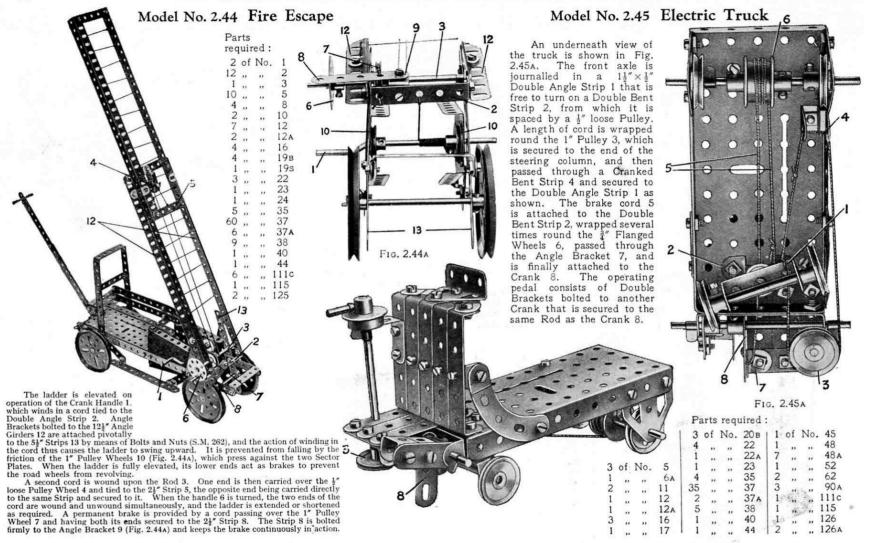


FIG. 2.42A

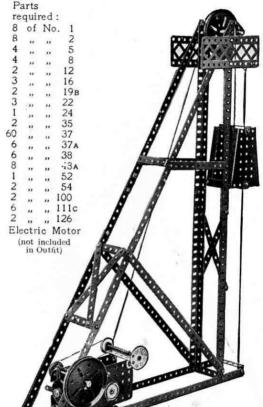
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	of	red: No.	1 2 3 5 8	8	6	Y					
44 11 11 11 12 11 44 22 11 11 60 44 77 22 24 42 44 22	of """"""""""""""""""""""""""""""""""""	., 1	12 15 15 16 18 19 19 20 22 22 4 35 37 37 37 40 48 40 48 40 00 11 11 26	4-3-2		and annual of				-7	
				5			0 (1)0	10 200			

The operating cord 1 is given a complete turn round the pair of \(\frac{3}{6} \) Flanged Wheels 2. It is then led round the 1" Loose Pulley 3, over the 3" Pulley 4, then down and round the \(\frac{3}{6} \) Flanged Wheels secured to the Crank Handle 5. The vane 6 is rotated by a cord which passes round a 1" fixed Pulley 7 secured to the shaft of the Flanged Wheels 2.



Model No. 2.46 Pit Head Gear

(Electrically Operated)



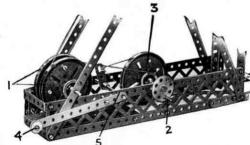
Model No. 2.48 Steam Lorry

				P	arts	requ	nred:				
	of	No.	3	4	of	No.	20B	1	of	No.	52
0	,,,		5	3	,,	**	22	2	,,	,,	54
2	,,	**	10	1	,,	"	22 _A	1	,,	,,	62
3 3	**	"	11	1	"		24	3	,,	23	90a
3	**	"	12	5	**	"	35	2	,,		100
3	"	"	16	60	"	"	37	4	**		111c
1	"		17	5	"	**	37A	1	**		125
2	"	**	18a 19b	1	"	**	45	2	"	**	126a
4	"	**	198	8	**	**	48A				

Model No. 2.47 Pit Head Gear (Hand Operated)

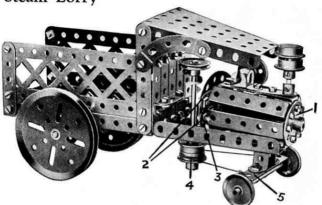
Parts required:

6	of	No.	1	4	of	No.	22	12	of	No.	54
7	,,	,,	2	1	,,	,,	23	2	,,	,,	62
3	,,	,,	5	1	,,		24	2	,,	,,	99
4	,,	,,	8	3	,,	"	35	2	,,	,,,	100
4	,,	,,	11	60	,,	,,	37	6	,,	,,	111c
6	,,	,,	12	6	,,	,,	37A	1	,,	,,	115
4	,,	,,	16	8	,,	,,	48A	2	,,	,,	126A
4	"	,,	19в	1	,,	,,	52		-		



This is an alternative construction of the base of Model No. 2.46, and shows how the Electric Motor may be dispensed with if necessary.

Two 3" Pulley Wheels I are bolted together by four Double Brackets to form a drum on which the hoisting cord is wound. The cage is raised or lowered on operation of the handle 2, which is connected to the winding drum by an ordinary belt drive. The cage is prevented from overhauling by a hand brake that acts on the groove of a third 3" Pulley Wheel 3. The brake normally is applied by the weight of the ½" loose Pulley Wheel 4, which is secured to the end of a 5½" Strip that is bolted to the crank 5.

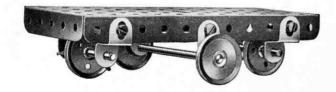


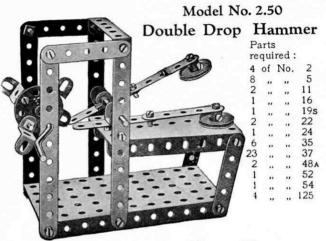
The boiler of the engine is built up of $2\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strips bolted to the Bush Wheel 1, and to two $2\frac{1}{2}''$ Strips 2, which are joined together by Flat Brackets 3. A $2\frac{1}{2}''$ Curved Strip (small radius) is bolted to the upper Strip 2. A cord is passed completely round two $\frac{2}{4}''$ Flanged Wheels 4 secured to the steering column, and its ends are tied to the $2\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strip 5. The Double Bent Strip bolted to $\frac{1}{4}$ the Strip 5 is pivoted by a bolt and two nuts to the Sector Plate.

Model No. 2.49 Revolving Truck

Parts required:

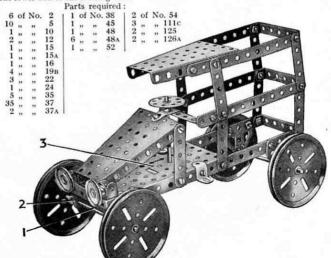
1	of	No.	16 [2	of	No.	22a 35 37	1	of	No.	52
2	,,,	0.00	17	4	,,,		35	4	.,	,,	125
2	.,	**	22	6	,,	,,	37	1			





Model No. 2.51 Motor Van

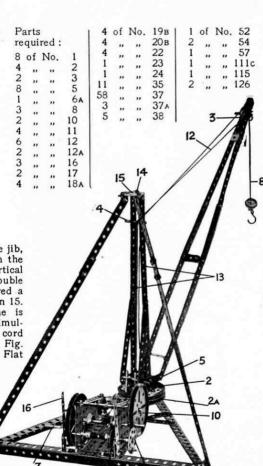
The Axle Rod 1 is journalled in a $2\frac{1}{4}$ " $\times \frac{1}{4}$ " Double Angle Strip 2. The latter is bolted to a Double Bent Strip that is pivoted to the Flanged Plate 3 by a Bolt and two Nuts. Steering is effected by a cord attached to the ends of the Double Angle Strip 2 and passed round a 1" Pulley Wheel fastened to the lower end of the steering Rod.



5 2 9 12 7

Fig. 2.52A

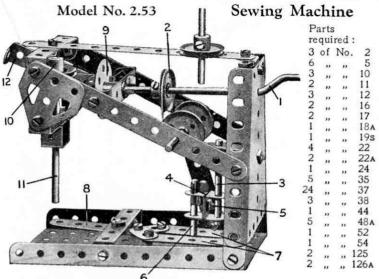
Model No. 2.52 Derrick



The 3" Pulley Wheel 2, which supports the jib, is free to turn on a short Axle Rod secured in the boss of the lower 3" Pulley Wheel 2a. The vertical 12½" Strips 13 are bolted at their tops to a Double Bracket, to the centre hole of which is secured a Bolt 14 that is free to turn in the Flat Trunnion 15.

The swivelling movement of the crane is carried out by turning the handle 1, which simultaneously winds and unwinds the ends of a cord passing round the 3" Pulley Wheel 2 (see Fig. 2.52A). The cord 12, which is tied to the Flat Bracket 3 at the head of the jib passes over the 2" Rod 4, under a similar Rod 5, and between two vertical 2" Rods 6, which act as guides, and is finally wound on to the Crank Handle 7. Hence on operation

of the latter the jib is raised or lowered. The cord 8 also passes round the Rods 4, 5 and 6, and is wound on to the Rod 9. Operation of the handle 10 raises and lowers the hook. The cords 8 and 12 are prevented from unwinding by bandand-pulley brakes 16.

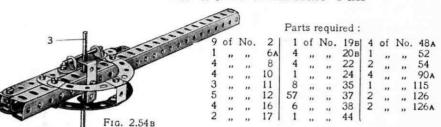


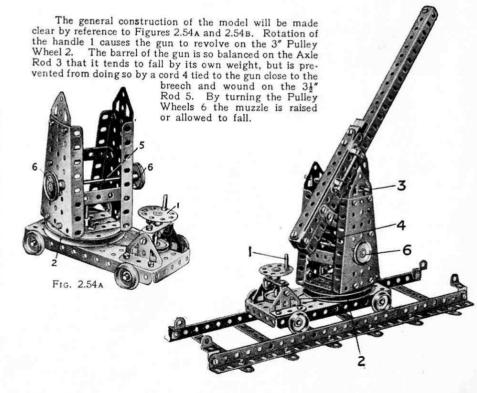
The handle 1 carries a 1" Pulley 2, which drives by means of a cord a similar Pulley on a 2" Rod 3 journalled in a Cranked Bent Strip bolted to the Sector Plate. Two Double Brackets 4 are secured together by a Bolt 5, the shank of which presses very tightly on the Rod 3. This locks the Double Brackets in position, and they revolve with the Rod 3. The outer Double Bracket carries a 1½" Rod 6, the end of which lies between two Strips 7, arranged at a short distance apart from each other and bolted to two Flat Brackets. These are secured to a further Strip 8 bolted pivotally to a transverse Double Angle Strip. As the shaft 3 rotates, the Rod 6 slides between the Strips 7 and so rocks the Strip 8 from side to side to represent the shuttle.

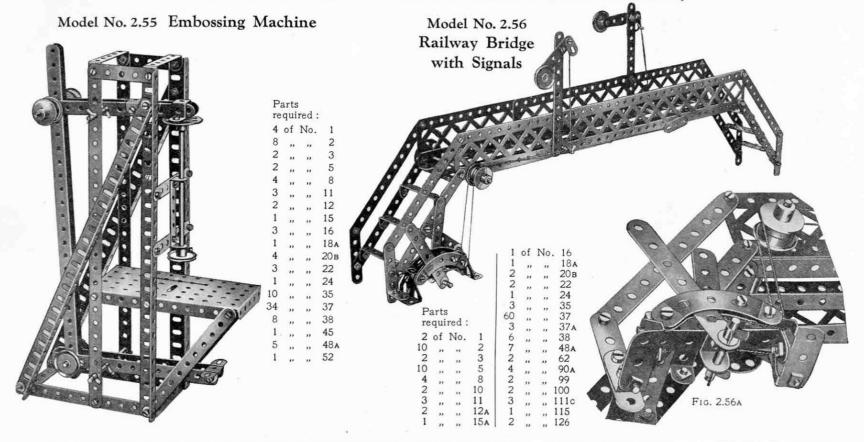
The Bush Wheel 9 carries two Angle Brackets placed together in the form of a Double Bracket, with their elongated holes overlapping, and in such a position that an imaginary line drawn through their opposite round holes, would cross the centre of the Bush Wheel. A Flat Bracket is bolted to the inner Angle Bracket in a line with the Crank Handle and forms a lever which engages 1" Pulley 10 mounted on a vertical sliding Rod 11. This Rod is journalled in a Double Angle Strip bolted between the lower holes of the two Flat Trunnions and is further supported by two ½" Reversed Angle Brackets secured to the Angle Strip. As the Bush Wheel rotates, the Flat Bracket imparts to the Rod 11 a movement corresponding to the action of the needle.

The outer Angle Bracket on the Bush Wheel strikes once in every revolution the end of a Double Angle Strip 12. This is pivotally mounted by a Bolt passed through its second hole from the Bush Wheel end to the centre hole of the Flat Trunnion on that side of the model. The resulting movement of the Strip 12 represents the apparatus that pays out the cotton from the reel.

Model No. 2.54 Anti-Aircraft Gun

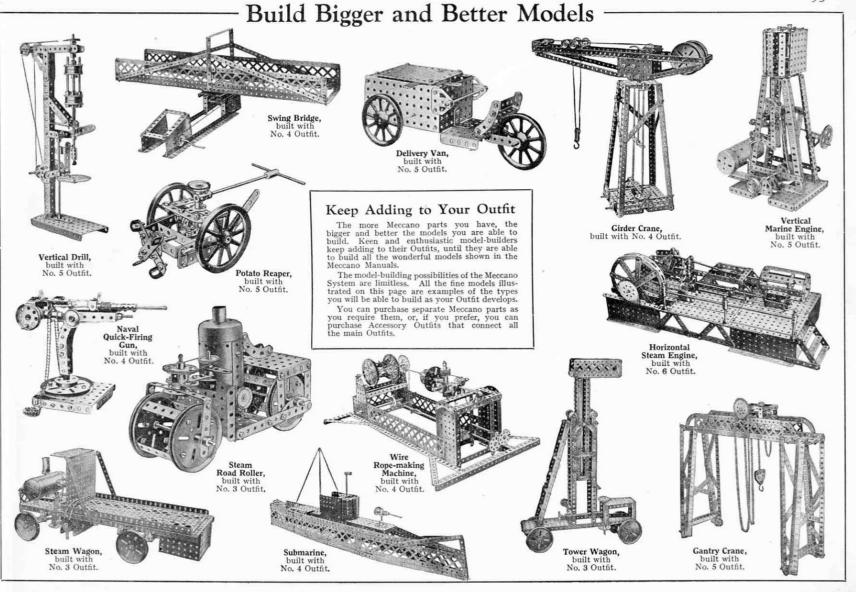


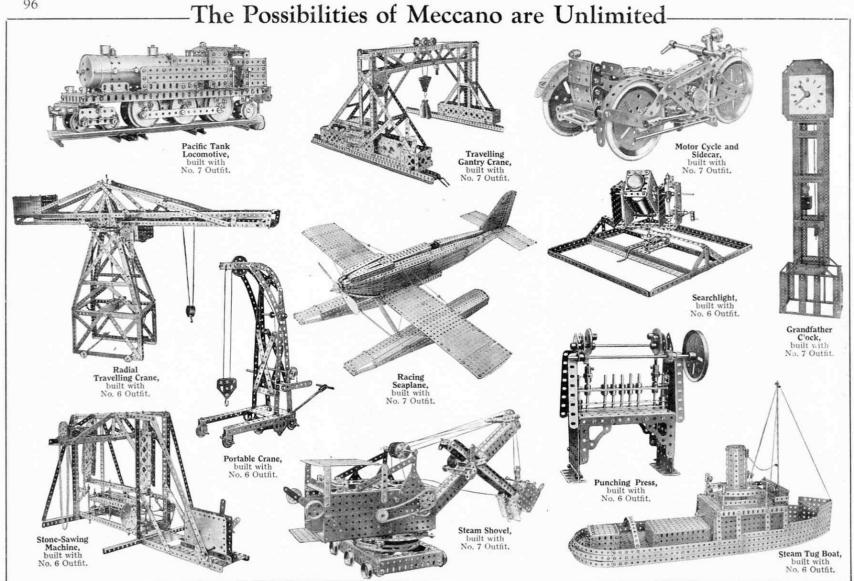




HOW TO CONTINUE

This completes our examples of models that may be made with MECCANO Outfit No. 2 (or No. 1 and No. 1A). The next models are a little more advanced, requiring a number of extra parts to construct them. The necessary parts are all contained in a No. 2A Accessory Outfit, the price of which may be obtained from any Meccano dealer.





[CONTINUED OVERLEAF

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Addig Celebra, 244 And Secretary, 247 And Se	Angle Girden, 244 Angle Brackets A	Y :				:	:	:	:	!		1		*		1	1	1	1	1	1 .	1 9	9 0	9 :	01	16
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Angle Carlotte, 247 """ 247	Angle Grieber [14] [17] [18] [18] [18] [18] [18] [18] [18] [18	10			*	:	:	:			-	01	-		0		•			10	4 0	98	+	200	7 0	100
Angle Grücker, 244 """ 134 """ 154 "	Augle Girders, 244	9				:	:	:		. 1	- 1		1	,	1	ALC: I	-	:	,	1	40	3 7	06	9.4	20	200
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The state of the s	Fig. 1925 Fig.	7.4		181,							-	- 1		_	1		-	_							1 0	1 0
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Fig. 18 Section 19 Sec	Fig. 10 Fig.	0 0	1	1 2	:	:	:	:			_			_					1		+ 0	+ 0	+	0	0	7
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Fig. Brackets, 17. Fig. Brackets, 27. Fig. B	Fig. Brackets. Fig. Brackets. Fig. Brackets. Angle Brackets. Angle Brackets. Angle Brackets. Fig. Brackets. Angle Brac	98		3	:	:	:	:	:	1		1	1	1	1	1	1	1	1	1	1	1	2	63	2	7
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Purple Brackets, 17 Year Countries (1974) Full Brackets, 17 Year Countries (1	Particle Brackets, 1.2. Angle Brackets, 1.2	9р	2	21.	:	:	:	:	:	1	-	1	1	1	1	1	1	1	1	1	-	-	ıo	9	1	7
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Dugub Brackets, § Y-8, F. Anke Rocks, 118, F. In m. m. gf. In m. m. g	Double Brockets Name of the Control	10	Flat Brackets	:	:	:	:	:	:	-	1	-	-	s.	1.00	00	1	00	1	6	3	12	4	16	14	30
Angle Brackets, \$\frac{1}{2}\times	Angle Brackets, § ×s, § * * * * * * * * * * * * * * * * * *	=	Double Bracket	.:	:	:	:	:	:	1	-		1	64		4	1	4	-	10	3	00	1	80	4	12
Alle Rooks, 114" × 1" × 1" × 1" × 1" × 1" × 1" × 1"	Axie Rode, 111; " × 1; "	12	Angle Brackets	An	*	:	:	:	:	œ.	1	-	1	00		12	61	14	00	22	7	36	12	48	28	76
Ask Rody, 11½	Axie Rode, 11½ × ½	12A	:	-	-	:	:	:	:	1	-	1	1	-		2	64	*	2	9	1	9	1	9	9	12
Ask Rods, 11½	Axie Rode, 11½	12B		×	*	:	:	:		1	1		1	1	1	1	1	1	1	1	1	-	4	7	12	16
Need, St. Need	n n S S s s s s s s s s s s s s s s s s	13								1	1	1	1	-1	-	-	1	-	-	6		0	-		1 1/	9
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CONTENTS OF OUTFITS

Contents of Outfits-continued

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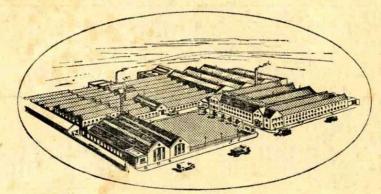


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