

MECCANO

TRADE MARKS 296321, 501113, 76, 12633, 10274, 55/13476, 569/13, 884/25, 2913, 80, 124, 336, 4174, 91637, 83171, 157149, 32822, 200639, 209733, 214061, 214062, 12892, 29094, 38316, 1818, 16737, 388/13, 5643, 5040, 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, 41234, 8223, 1855

HORNBY'S ORIGINAL SYSTEM—FIRST PATENTED 1901

INSTRUCTIONS

FOR OUTFITS

00 to 2

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No. 33.2

English Export

MECCANO

The Finest Hobby in the World for Boys

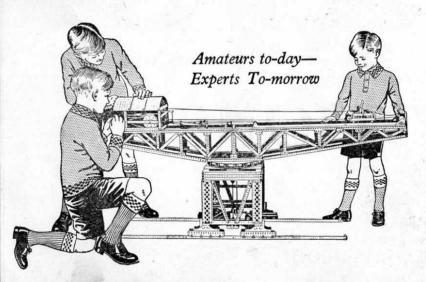
The Meccano system is composed of over two hundred and fifty different parts, mostly made of steel or brass, each one of which has a definite mechanical purpose. These parts combine to form a complete miniature engineering system with which practically any mechanical movement may be reproduced in model 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

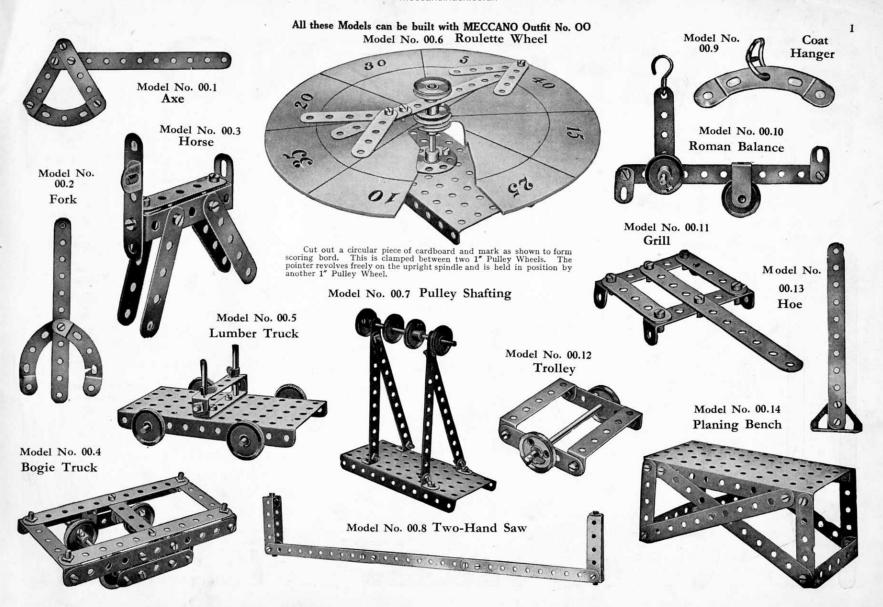
Make the simple models first—they will provide hours of fun—and then try to improve them. Every model can be made in a dozen different ways. It is important to screw up all the nuts and bolts tightly to ensure that your

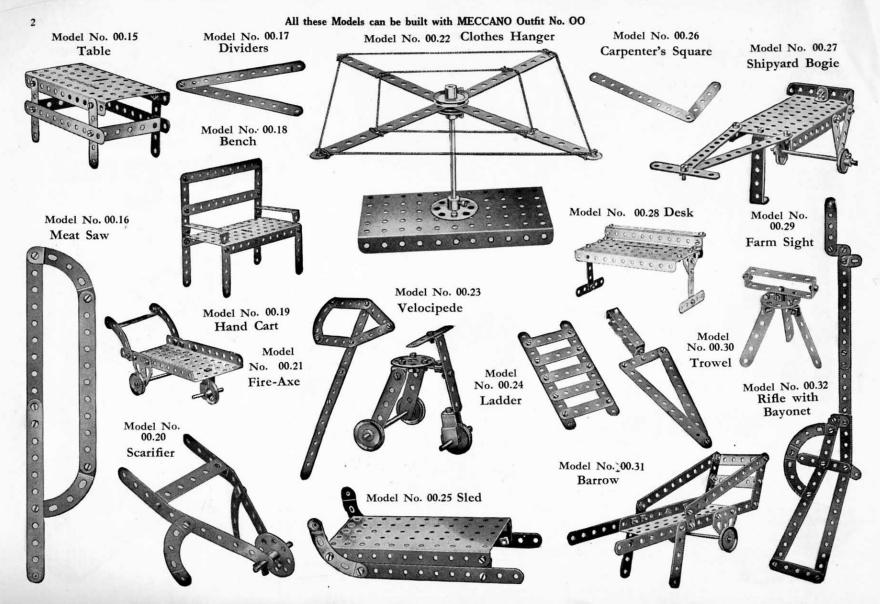
models will be strong and firm when they are completed.

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., Binns Road, Liverpool, 13, England.

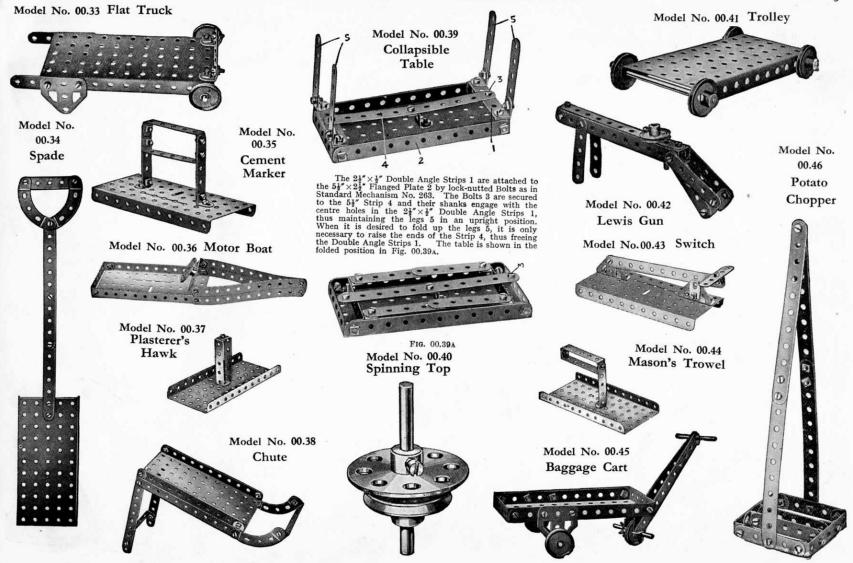
How to Build up Your Outfit

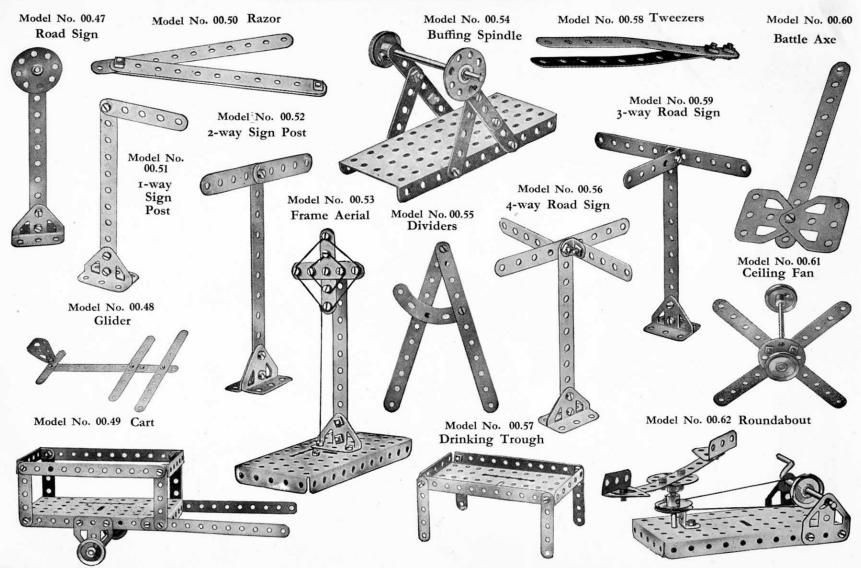
Meccano is sold in ten different Outfits, numbered 000 to 7. All Meccano parts are of the same high quality and finish, but the larger Outfits contain a greater quantity and variety of parts, making possible the construction of more elaborate models. Each Outfit from No. 00 upwards may be converted into 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.

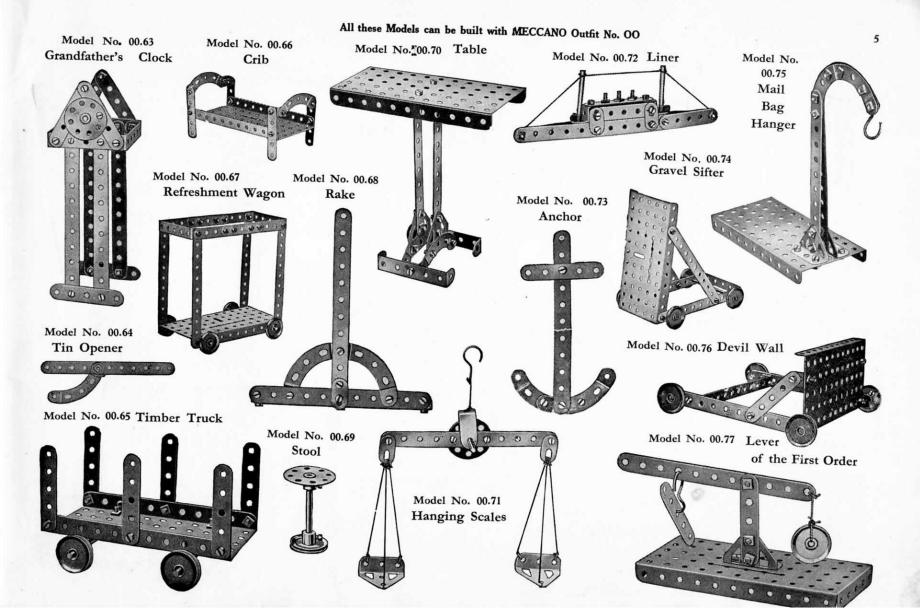


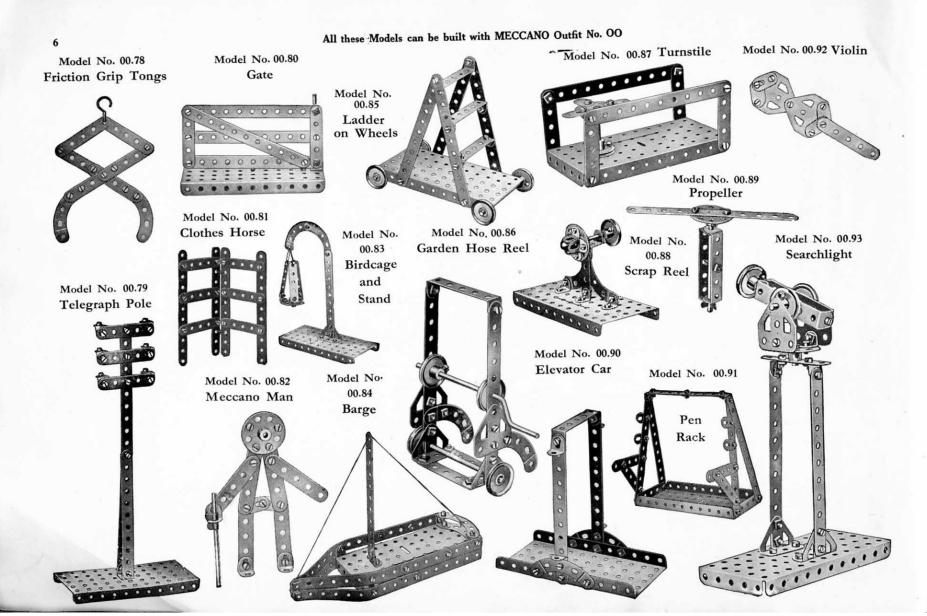


All these Models can be built with MECCANO Outfit No. OO

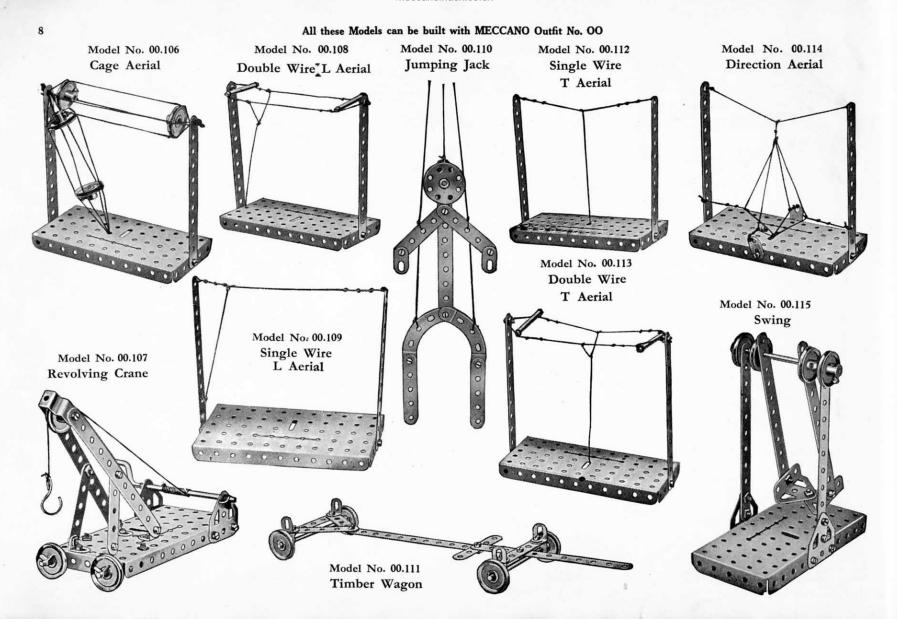


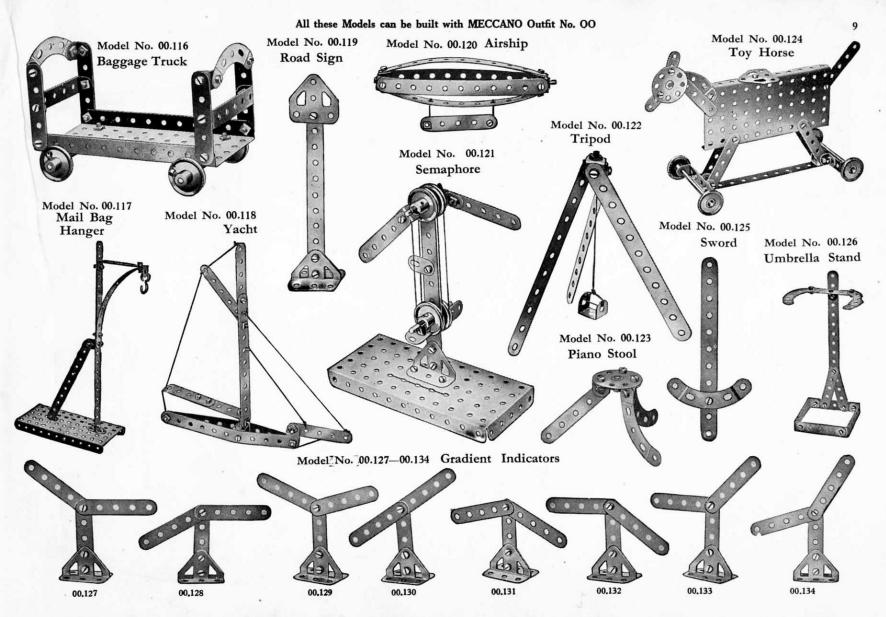


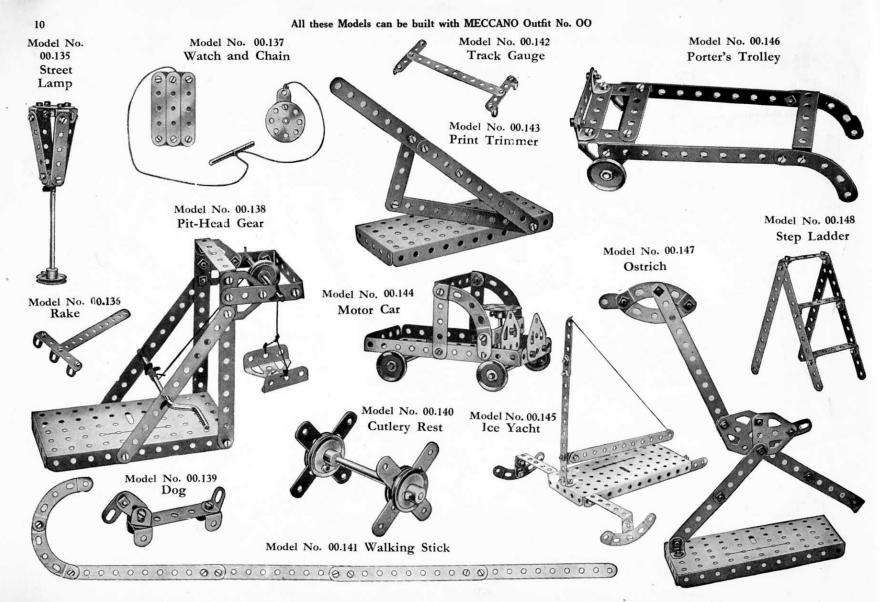


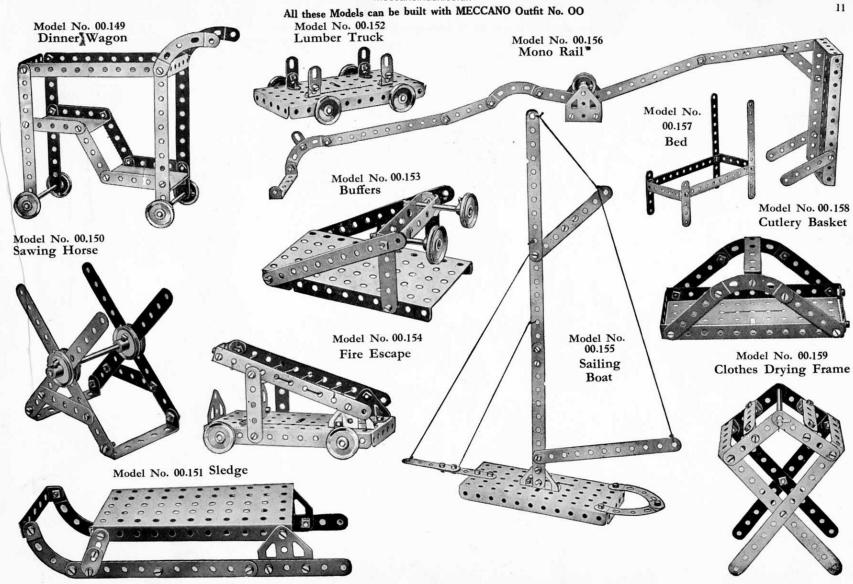


All these Models can be built with MECCANO Outfit No. OO Model No. 00.94 Field Roller Model No. 00.100 Magic Plate Model No. 00.101 Model No. 00.104 Towel Horse Hand Car The cord is wound once round a 2" Axle Rod that is journalled in a Flat Bracket and a \frac{1}{2}" Reversed Angle Bracket, which are bolted to the Plate. If the cord is held loosely the plate will drop, but as soon as the cord is tightened the plate becomes immovable. Scales Model No. 00.97 Model No. 00.95 Organ Model No. Model No 00.105 00.102 Prehistoric Bird French Railway Signal 0 Model No. 00.98 0 0 0 Book End 0000 Model No. 00.96 Radial Travelling Crane Model No. 00.99 Model No. 00.103 Cheese Cutter Cannon 00000

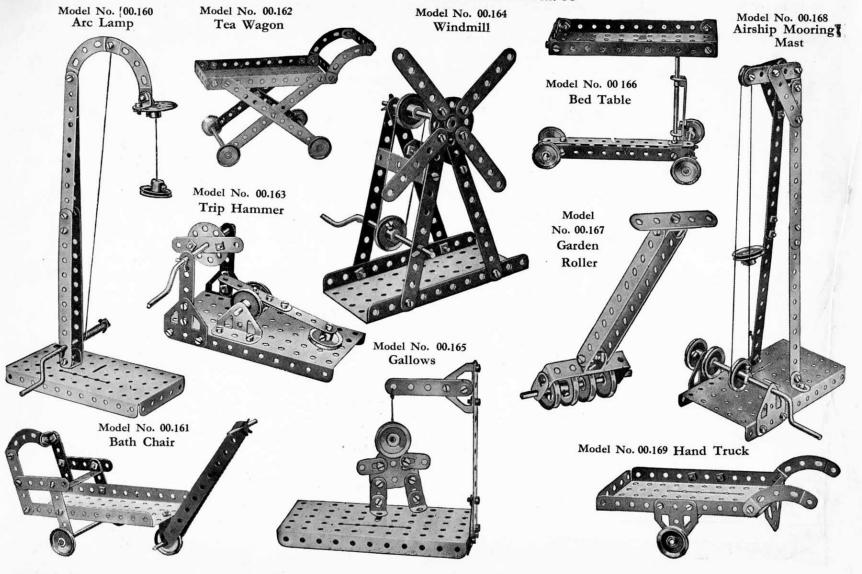


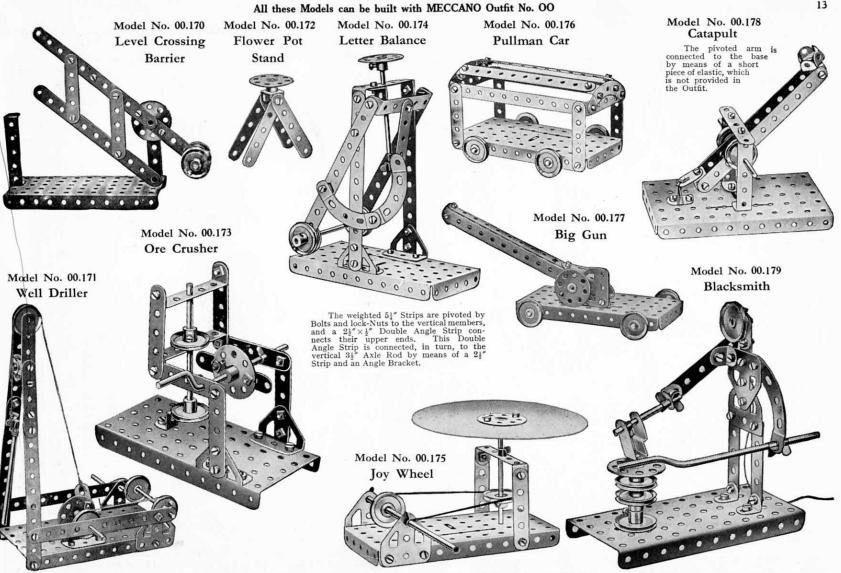


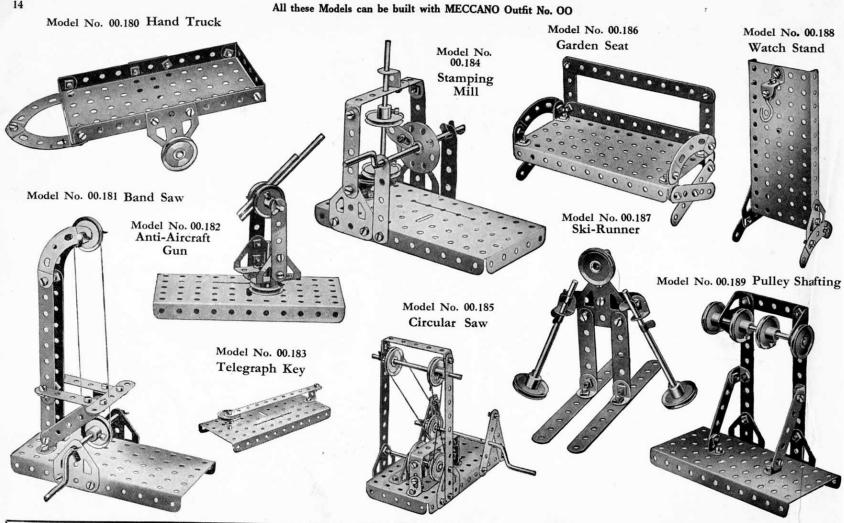




All these Models can be built with MECCANO Outfit No. 00



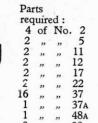


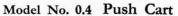


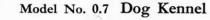
HOW TO CONTINUE

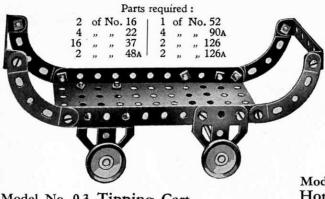
This completes our examples of models that may be made with MECCANO Outfit No.OO. The next models are a little more advanced, requiring a number of extra parts to construct them. The necessary parts are all contained in a No.OOA Accessory Outfit, the price of which may be obtained from any Meccano dealer.

Model No. 0.1 Scooter









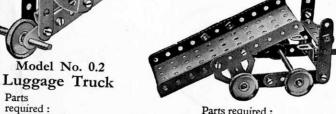
Parts required:

109	unic	·u·	
3	of	No	. 2
8	,,	,,	5
6	"	,,,	12
16	"	"	37
4	"	"	37A
2	"	"	48A
1 2		"	52
4	"	"	90a
4	"	"	111c

Model No. 0.5 Horse Rake



Model No. 0.3 Tipping Cart



Parts required:

•			_				~-	
1	of	No.	2	12	of	No.	35	
5	,,	,,	5	16	,,	,,	35 37 37 _A 90 _A	
8	,,	,,	12	2	,,	,,	37A	
1	,,	,,	17	4	,,	,,	90a	
3	,,	,,	22	1	,,	,, :	111c	

Model No. 0.8 Chaff Cutter

Parts required:

2	of	No.	2	1	of	No	. 24
8	,,	,,	5	2	,,	,,	35
1	,,	,,	11	16	,,	,,	37
2	,,	,,	12	5	,,	,,	37
1	,,	,,	16	1	,,	,,	40
1	"	,,	19s	1	,,	,,	52
2	,,	,,	22	5	,,		1110
		2	of N	Jo.	125		

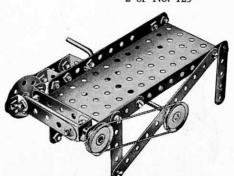
				Par	ts r	equi	ired:			
7	of	No.	. 5	15	of	No	. 37	1	of	No. 90.
2	,,	,,	16	2	,,	,,	48A	2	,,	125
1	"	"	22	1	"	,,	52	2	,,	,, 126

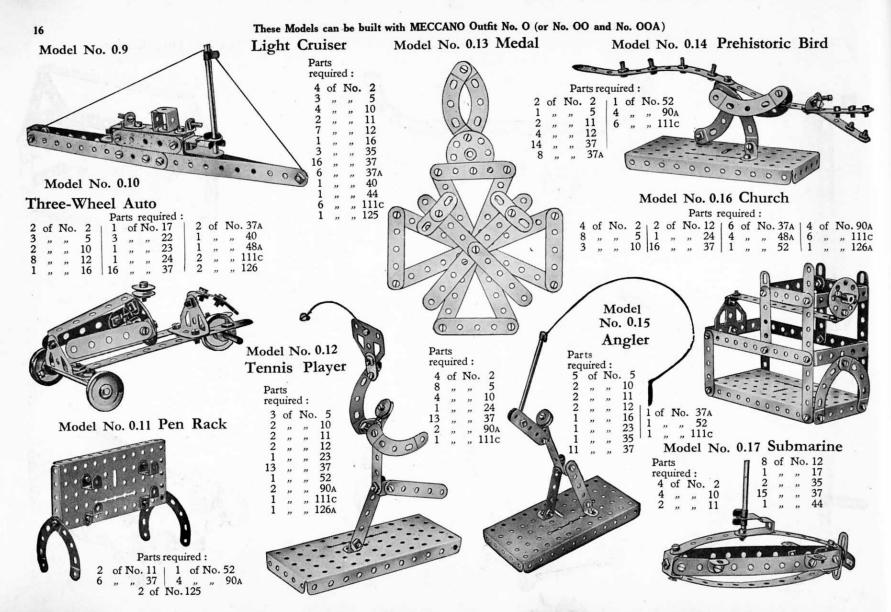




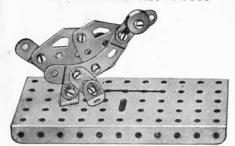
Jib Crane

•				4	of	No	. 22
				1	,,	,,	23
				1	,,	,,	24
				4			35
Part	S			16			37
requ	iire	: bs		1		,,	37A
		No.	2	1			40
			2	1			48A
9 2 1			16	1	,,		52
1			17	1			57c
1	,,	"	19s	ī	,,	"	111c





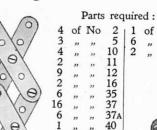
Model No. 0.18 Goose



Par	2000	ed:	
4		No	. 10
2	,,	"	12
1	,,	22	23
8	,,	,,	37
1	"	,,	37A
1	22	"	52
2	22	,,	90a
1	22	"	111c
2	,,	,,	126a

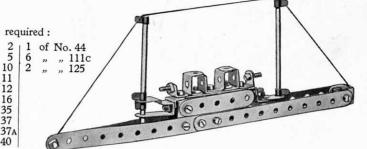
Model No. 0.22 Lazy Tongs

0



Model No. 0.23 Battleship

Parts required :



Model No. 0.19 Strong Man



Parts required:

4 of No. 5
4 " " 10
2 " " 11
4 " " 12
2 " " 17
4 " " 22
1 " " 23
13 " " 37
1 " " 52

Model No. 0.20 Aeroplane



Parts required:

4 of No. 2 | 8 of No. 37

3 " " 5 | 1 " " 111c

2 " " 12 | 2 " " 125

1 " " 24 | 1 " " 126A

Model No. 0.24 Gymnast



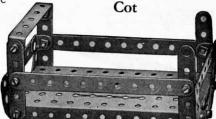
Parts required:

2	of	No.	2	1 1	of	No.	24
	OI	110.			OI	140	. 44
4	,,	,,	5	12	,,	"	37
4	,,	,,	10	1	,,	,,	37A
1	,,	"	12	1	,,	,,	52
1	,,,	,,	16	1	,,	.,	90a
2	,,	,,	22	1	,,	,,	111c
1	,,	"	23				

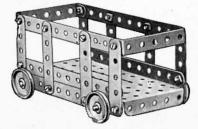
Mo	odel	No.	0.26
	0	-	

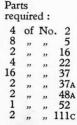
Model No. 0.25

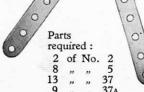
Rocking Horse



Model No. 0.21 Cattle Truck

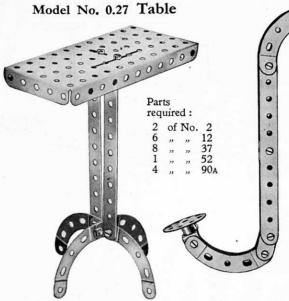






Parts required:

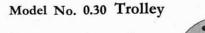
2 of No. 2
6 "" 5
2 "" 12
16 "" 37
2 "" 48A
1 "" 52

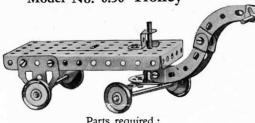


Model No. 0.29

Saxophone

2	of	No	. 2
2	,,	,,	10
2	,,	,,	11
2	,,	,,	12
1	,,,	,,	23
1	,,	,,	24
12	,,	,,	37
1	,,	,,	37A
4	,,	,,	90a
2	,,	,,	111c





		Parts required :		
1	of No. 11	4 of No. 35	4 of	No. 90A
2	" " 16		1 "	,, 125
2	,, ,, 17	1 " " 48A	2 "	" 126A
1	24	1 52		

Model No. 0.31 Field Gun and Carriage



Parts required:

8	of	No	. 5	6	of	No	. 12	1	of	No	.37A
2	,,	"	10	2	,,	,,	17	1	,,	,,	44 111c
2	,,,	,,	11	4	,,	,,	22	1	,,	,,	111c
0 0	5	1		13	,,	,,	37	1	,,	,,	125

Model No. 0.28 Crocodile Parts required :

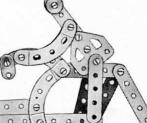
		100 1	cquire			
f	No.	2	6	of	No.	12
,	,,	5	16			37
,	**	10	6	**		37

The Bolts used for onnecting the $5\frac{1}{2}$ " connecting Strips, the horses' legs, and the rider's legs and

(see Standard Mechanism No. 262). The lower 5½"

Strip should be held rigidly and the upper one jerked forward; the horse will then throw its rider completely and the upper one jerked the best of the best of the lower strip the lower stri its head.





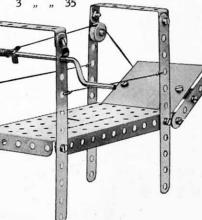
Par req		d:	
2	of	No	
6	,,	,,	5
2	,,	,,	10
1	,,	,,	23
12	,,	,,	37
9	"	,,	37A
4	,,	"	90a
1	,,	"	111c
A 1			126a

Model No. 0.33 Ape

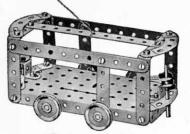
5	of " " " " " " "	No	10 11 12 23 37 37 _A 52 90 _A	1		D	
2	"	,,,	10	0	201		
2	"	,,	11			100	
2	,,	,,	12	0	ST.C		
1	,,	,,	23	0	L	/ 100	
12	,,	,,	37		124		
1	,,	,,	37A		406		
1	,,	**	52	in	4	9	
4			90a	Mil	開		
1			111c	- 0	0		
-	"	,,			R		
				ΔUI	AV.	-	
	-						

Model No. 0.34 Gangway Parts required:

of No. 2 | 16 of No. 37



Model No. 0.35 Tramway Car



		Par	ts r	equir	ed:			
3	of	No.					. 37	
6	,,	,,	5	6	,,	,,	37A	
2	,,	,,	10	2	,,	,,	48A	
2	22	,,	16	1	,,	,,	52	
2	,,	,,	17	4	,,	,,	90a	
4	,,	,,	22	6	,,	,,	111c	
6			35	2			125	

Model No. 0.36



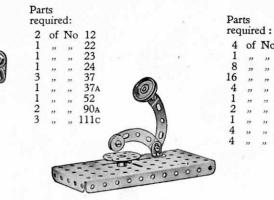
Pa rec	rts quire	ed:	_	•	•	0.0	0
2		No.	2	1	of	No	. 23
2	,,	,,	5	7	,,	,,	37
3	,,	,,	10	1	,,	,,	37A
1			11	1			111c



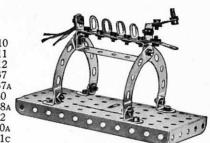
Model No. 0.38 Torpedo Boat

Parts required:

Model No. 0.40 Gramophone

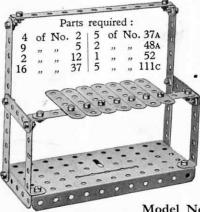


Model	No.	0.43
Prehistoric	Arı	madillo

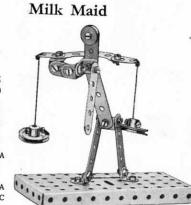


Model No. 0.44 Motor Cycle and Side Car

Model No. 0.39 Piano



5	of	No	. 5
	-	- 10	10
3	23	22	
4	22	33	11
4	,,,	,,	12
2	,,	,,	22
1	,,	**	23
14	,,	,,	37
1			374
1			40
1			52
ī	"	"	90 _A
î	"	33	
1	22	"	1110



Model No. 0.41

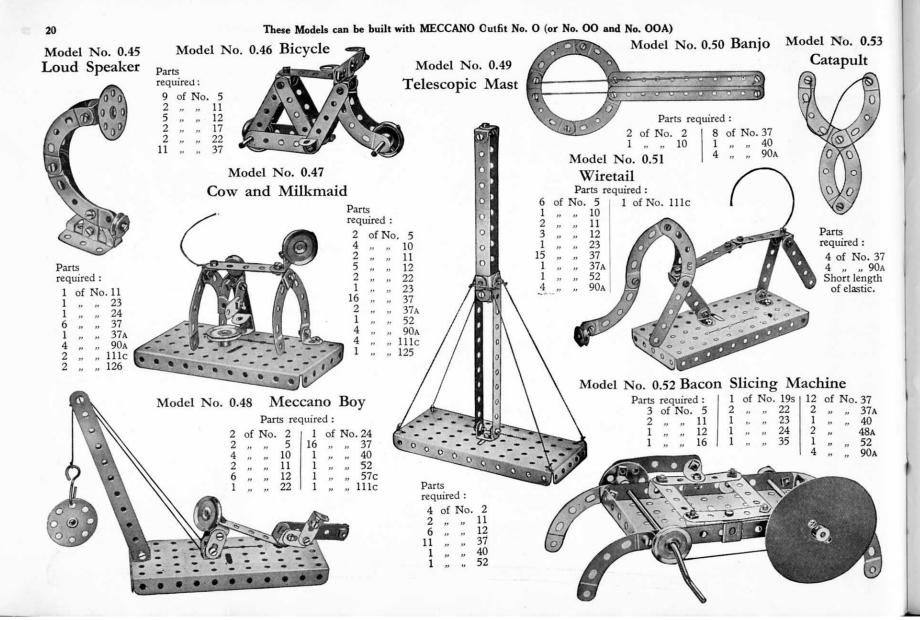


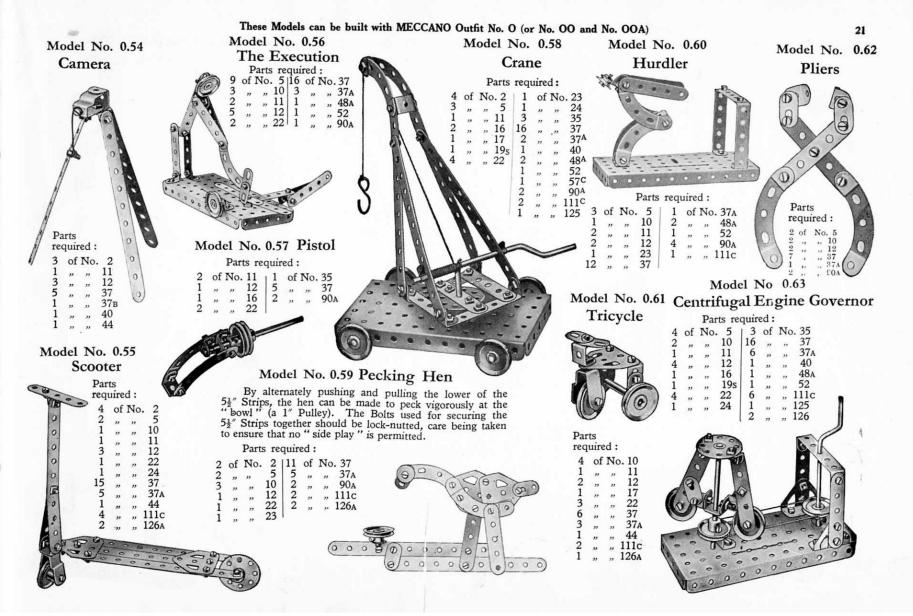
		Part	ts re	quire	:b		
1	of	No.	5	10	of	No	. 37
4	,,	,,	10	1	,,	,,	37A
2	,,	"	11	1	,,	,,	44
3	"	27	12	3	,,	,,	90a
1	,,	,,	16	1	*	,,	111c
3	,,,	,,	22	1	,,	,,	125
1	**		23	1			126A

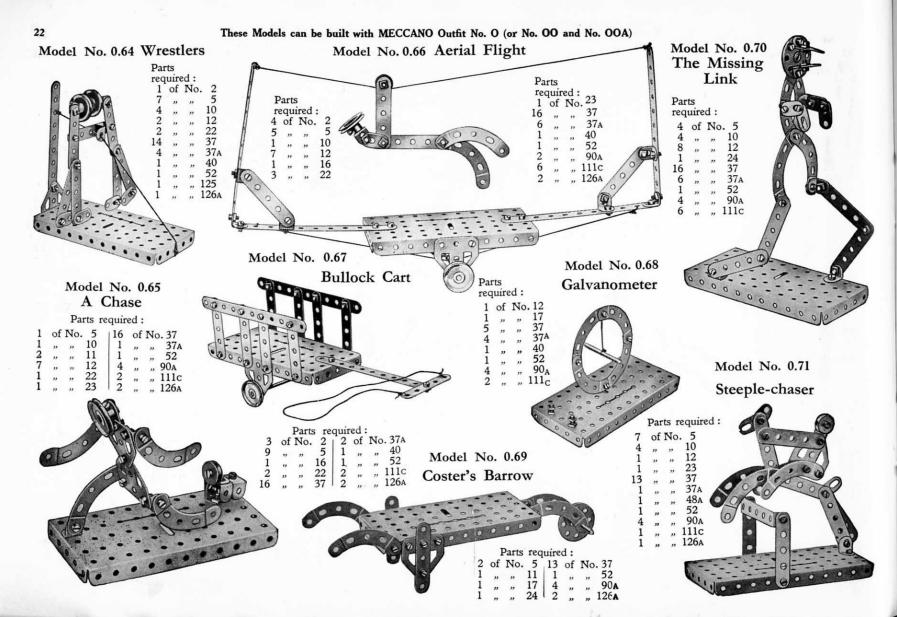
Model No. 0.42 Sword

Parts required: 4 of No. 2 | 10 of No. 37 | 3 of No. 90A

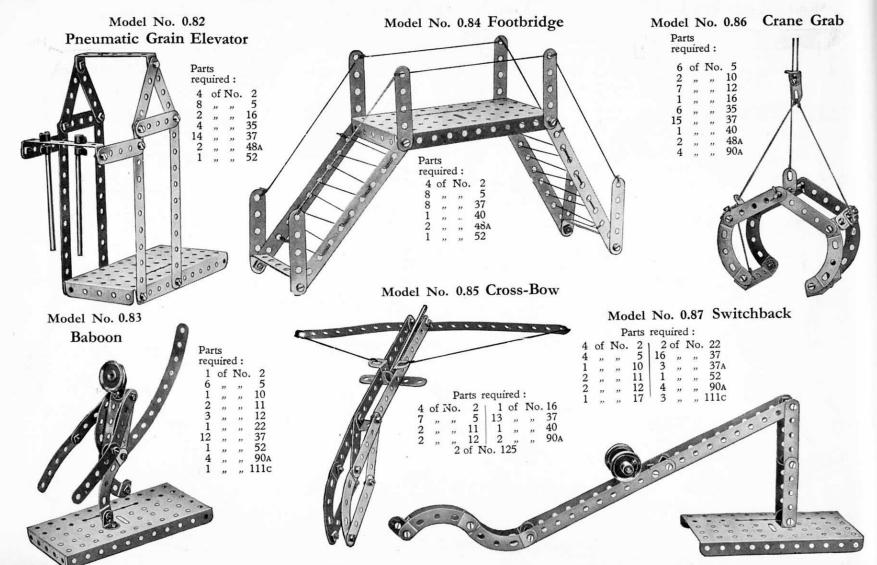


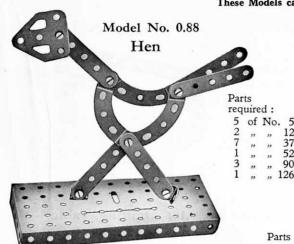






These Models can be built with MECCANO Outfit No. O (or No. OO and No. OOA) 23 Model No. 0.72 Pen Rack Model No. 0.76 Coast Guard Model No. 0.78 Snake Parts required: 1 of No. 5 Parts required: 10 of No. 2 | 8 of No 37 Model No. 0.79 Clock Parts required: 3 of No 12 | 1 of No. 37A " " 23 | 1 " " " " 37 | 4 " " 1 of No. 111c Model No. 0.73 Boxer required: Parts Model required: No. 0.75 of No. 11 Model No. 0.80 Windmill 4 of No. 5 Fan Model No. 0.77 Parts Break-Down Crane required: Parts required: of No. 2 13 of No. 37 111c Parts required: 9 of No. 5 | 2 of No. 37A 1 of No. 111c Model No. 0.74 Horseman's Fall Parts required: Model No. 0.81 Frog of No. 5 Parts required: of No. 5 10 of No. 37 12 | 1 , , , 37A 17 | 4 , , , 90A

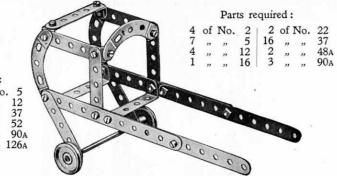




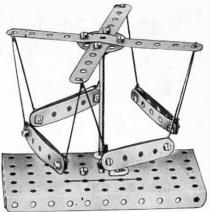
Model No. 0.89 Grass Cutter

Parts required:

Model No. 0.90 Rickshaw

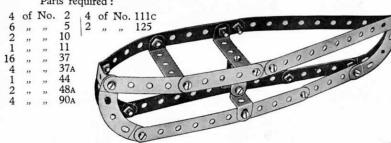


Model No. 0.93 Fly Boats



Model No. 0.91 Rowing Boat

Parts required:



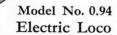
Parts required:

2	of	No.	2	13	of	No	. 37
8	,,	22	5	1	33	"	40
1	,,	"	16	1	"	,,	52
1			24	1			125

Model No. 0.92 Dinosaurus

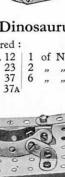
Parts required:

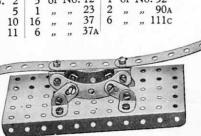
						- de-					
3	of	No.	2	5	of	No.	12	1	of	No	. 52
1			5	1	722		23	2		***	90a
4	**	**	10	16	22	,,,	31	0	,,,	,,	111c
2			11	6	**	,,	37A				

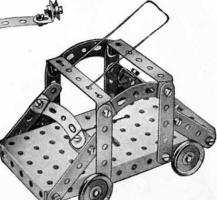


Parts required:

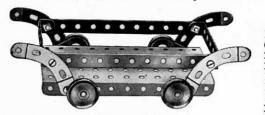
8	of	No.	5	14	of	No.	37A	
4	,,	,,	12	2	,,		48A	
2	,,	,,	16 22 37	1	,,	,,	52	
4	,,	,,	22	4	,,	**	90a	
16	,,	,,	37	4	,,	,,,	111c	







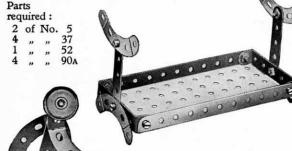
Model No. 0.95 Trolley



Parts required:

2	of	No.	2	8	of	No.	37
2	,,					,,	
4	,,	,,	22	1	,,	,,	52
			4 of	No	0.9	0a	

Model No. 0.96 Pen Rack



Model No. 0.97 Walking Man

Parts required:

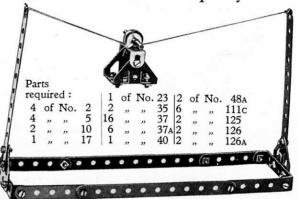
5	of	No.	5
3	,,	,,	10
2	,,	,,	12
1	,,	,,	22
7	,,	,,	37
3		••	90A

Model No. 0.98 Pump

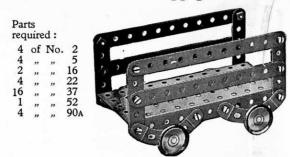
	Pa	rts	requ	ired	:				0	1	
f	No.	2 5	6	of "	No	. 37 37 _A					2
,	"	11 12	1	<i>n</i>	"	40 52		6	9		F
,	"	16 17	6 2 1	"	"	111c 126 126a			•		
,	"	11 12 16 17 19s 22 24 35	1	,"	,,	120A		(B)	•	4	樹
	"	35	Ĉ	5	E			Ģ.			
			1	ì	0		00			-	h i
						F	2	075	16		
1	9		8	1	0	-7	57		1		
	,			-	4		• •	0			

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.

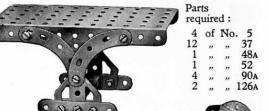
Model No. 0.99 Aerial Ropeway



Model No. 0.100 Luggage Truck



Model No. 0.101 Drafting Table



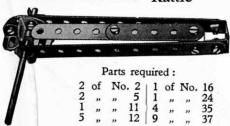
Model No. 0.102 Arm Chair

2	of	No.
4	,,	,,
12	,,	,,
1	"	,,
1	"	"
3	,,	,,

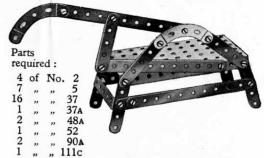
Darte



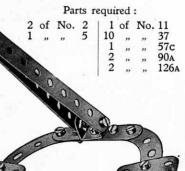
Model No. 0.103 Rattle



Model No. 0.104 Shearing Machine



Model No. 0.105 Anchor



Model No. 0.106

Portal

Parts
required:

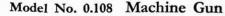
4 of No. 2
2 " " 11
8 " " 12
1 " " 22
16 " " 37
6 " " 37A
2 " " 48A
1 " " 52
4 " " 90A
6 " " 111c

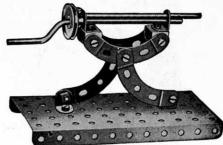


Model No. 0.107 The Fencers

Parts required:

8 of No. 5 | 16 of No. 37
2 " 10 4 " 37A
6 " 12 1 " 52
2 " 16 4 " 111c
2 " 22 2 " 125





Parts required:

2 of No. 11 | 1 of No. 22

4 " " 12 | 12 " " 37

1 " " 16 | 1 " " 52

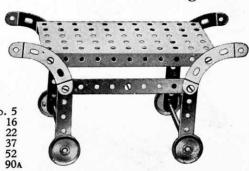
1 " " 19s | 4 " " 90A

Model No. 0.109 Single Sheave Pulley Block



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

Model No. 0.110 Tea Wagon

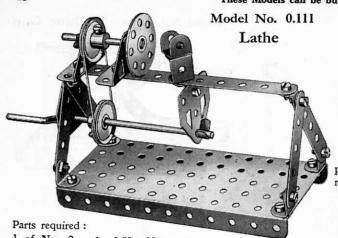




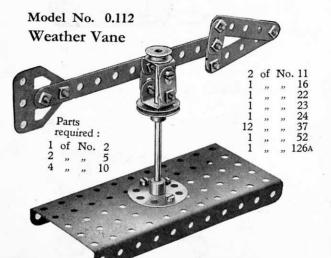
8 of No. 5 2 " " 16 4 " " 22 10 " " 37 1 " " 52

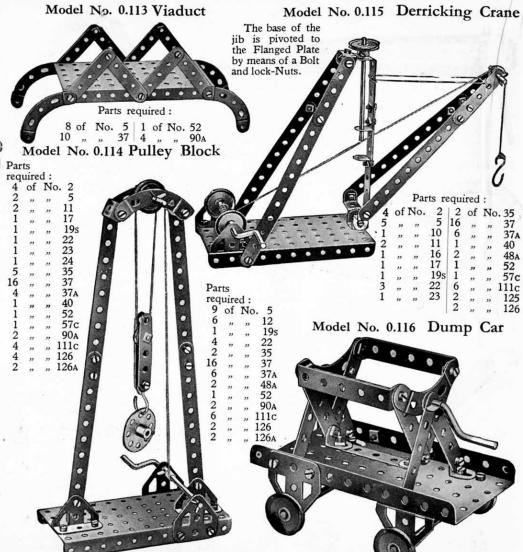


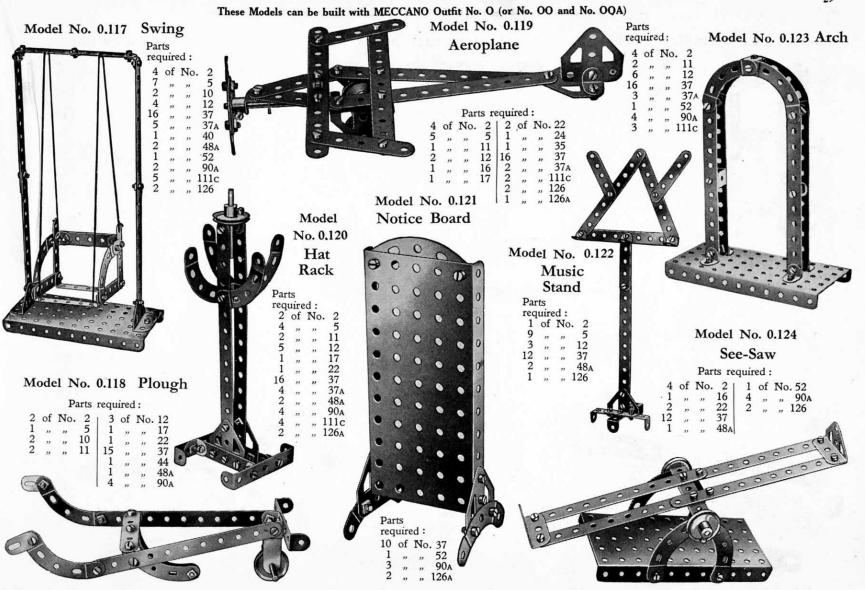




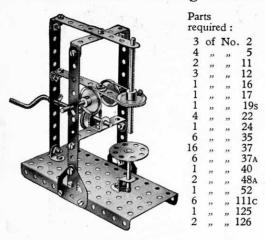
		INO.	2	1 1	of	No	. 19s				
4	,,	"	5	2	,,	,,	22	1	of	No	. 40
2	,,,	,,,	11	1	,,			1	,,	,,	52
7	,,	"	12	3	,,	,,	35	2		.,	126
1	,,	,,	17	16	,,	,,	37	2	,,	,,	126A







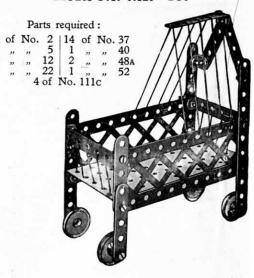
Model No. 0.125 Drilling Machine



Model No. 0.127 Scales



Model No. 0.129 Cot



Model No. 0.126 Counter Scales

Parts required:

1 of No. 2 7 of No. 37 2		redemen .	
	1 of No. 2 " " 1 2 " " 1 1 " " 1	2 7 of No. 37 0 1 ,, 44 2 1 ,, 52 7 2 ,, 126	
		000	
6 0		10.00	

Parts required:

		(1000)				-	
2	of	No.	2	2	of	No.	48A
9	,,	,,	37 37 _A 40	1	,,	,,	52
1	,,	,,	37a	4	,,	,,	90A
1			40	1			126

Model No. 0.128 Single Sheave Pulley Block

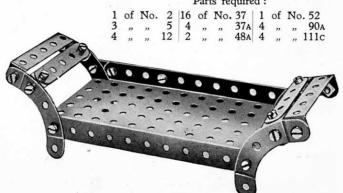


Parts

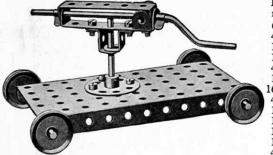
required: 1 of No. 23

Model No. 0.130 Couch

Parts required:



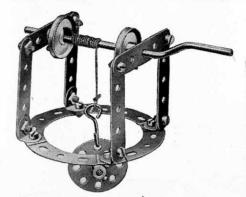
Model No. 0.131 Rock Drill



Parts required:

1	of	No.	11	4	of	No	. 22	12	of	No	. 48A	
			16									
1	,,		17									
1		1000	195				37			-		

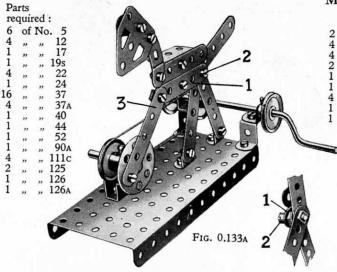
Model No. 0.132 Well Windlass



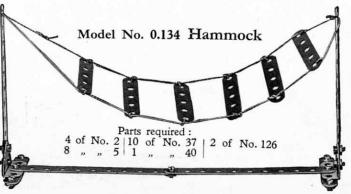
Parts required:

					-						
6	of	No.	5 12 19s	2	of	No.	22	11	of	No.	40
4	,,	,,	12	1	"	,,	24	1	,,	,,	57c
1		,,	19s	12	**	.,	37	4			90A

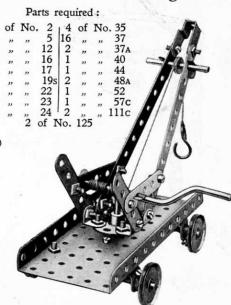
Model No. 0.133 Prancing Horse



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 0.133a. The Strip 3 is free to move at each end about pivots formed from Nuts and Bolts.

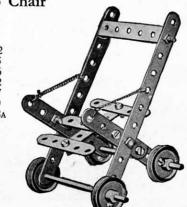


Model No. 0.135 Swivelling Crane

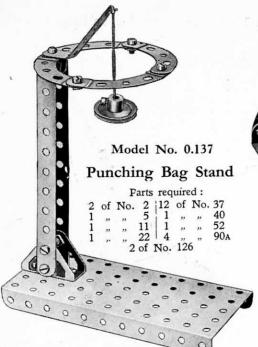


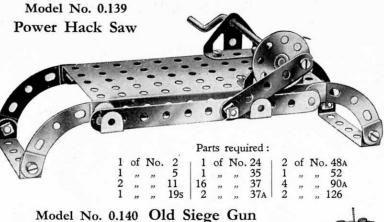
Model No. 0.136 Go Chair

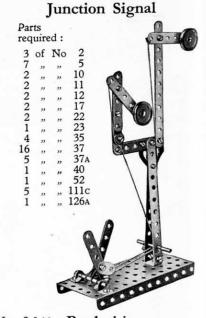
Parts required:











Model No. 0.141

Model No. 0.142 Battleship

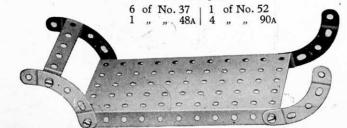
Parts required:

of	No.	2	1	of	No.	24
,,	,,	11	16	,,	,,	37
,,	,,	12	2	,,	,,	37A
,,	,,		2	,,	,,	48A
,,	,,		1	,,	,,	52
,,	"	22	4	,,,	,,,	90a
	2	of 1	No.	111	C	
	of "" ""	" " " " " "	" " 11 " " 12 " " 15 " " 16 " " 22	" " 11 16 " " 12 2 " " 15 2 " " 16 1 " " 22 4	" " 11 16 " 2 " " 15 2 " " 16 1 " " 17 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	" " 11 16 " " " " " 12 2 " " " " " 15 2 " " " " " 16 1 " " " " 16 4 " " " " " " " " " " " " " " " " " "

4	of	No.	2	1 1	of	No	. 35
2		.,	5	16	,,	,,	37
4	,,	,,	10	6	,,	,,,	37A
1	,,	,,	11	2	,,	,,	48A
1	,,	,,	16	1	,,	,,	52
1	,,	,,	17	2	,,	,,	90A
3	,,	,,	22	6	,,	,,	111c
1	22	"	24	1	,,	"	125
		2	of T	Na 12	6		

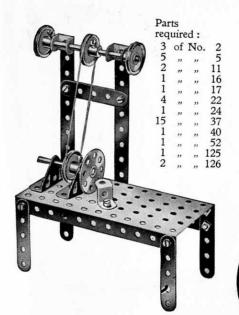
Parts required:



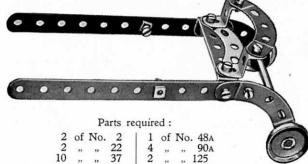


Model No. 0.138 Sled
Parts required:

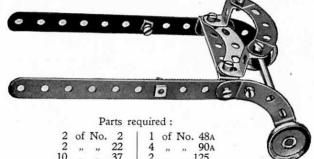
Model No. 0.143 Bench Lathe



Model No. 0.145 Sulkey

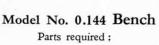


Model No. 0.146 Horizontal Engine

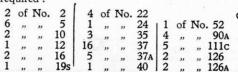


Punching Machine Parts required: 3 of No. 2

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



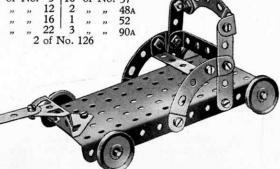


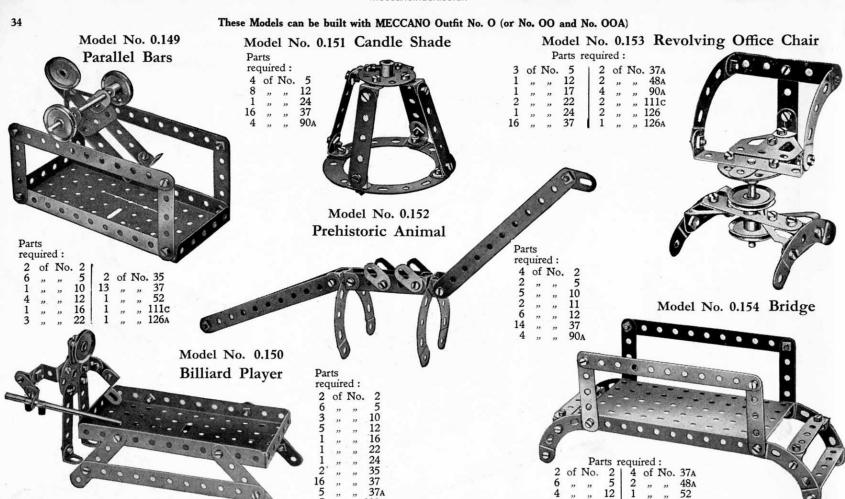


Model No. 0:148 Bath Chair

Model No. 0.147

Parts required: of No. 5 | 16 of No. 37



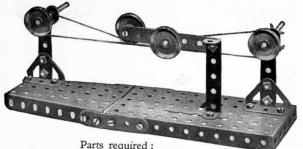


HOW TO CONTINUE

4 of No. 111c

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

Model No. 1.1 Jockey Pulley

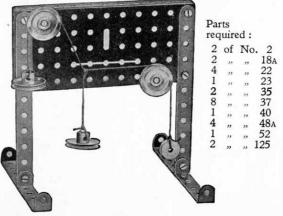


	Pai	rts requ	ırea	:		
3	2	of No.	35	1	of No.	5

2 " " 17 1 " " 37A 2 " " 111c 4 " " 22 1 " " 48

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.

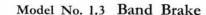
Model No. 1.2 Triangle of Forces

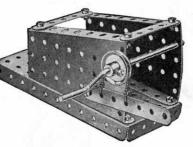


The suspended weights represent three forces acting on a central point. If a triangle is drawn with its sides respectively parallel to the three converging cords, i.e., parallel to the directions of the three forces, the lengths of the sides will be found to be proportional to the respective magnitudes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

Model No. 1.5 Belt Gear Right-angle Drive Transmission

			Parts	required	1:		
2	of	No.	2	1 1	of	No.	35
1	,,,	,,	- 5	11	,,	,,	37
1	,,	"	16	1	,,	"	40
1	"	"	17	1	,,	,,	44
1	,,,	,,	18A	1	,,	"	48
2	,,	,,,	19в	5	,,	"	48 _A
1	"	"	19s	1	"	,,	52
3	**		22	1			





Parts required:

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

Model No. 1.6 Bacon Slicer

Parts required:

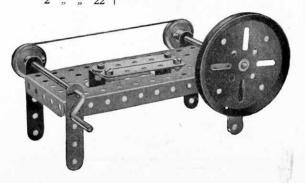
6 of No. 5 | 1 of No. 35
2 " " 10 | 10 " " 37
1 " " 16 | 1 " " 40
1 " " 198 | 1 " " 52
1 " " 198 | 2 " " 125



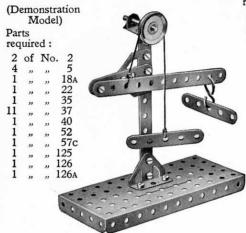
Model No. 1.4 "H" Girder

required:
6 of No. 2
2 " " 10
8 " " 12
12 " 37

Parts



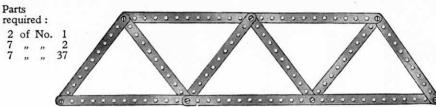
Model No. 1.7 Lever of the Second Order



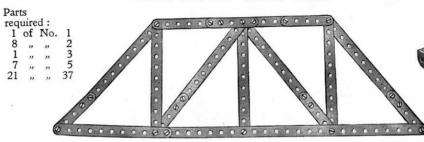
The fulcrum is at one end, the load at the other and the power lies between the two.

These Models can be built with MECCANO Outfit No. 1 (or No. O and No. OA)

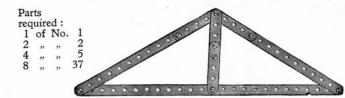
Model No. 1.9 Compound Triangulated Truss



Model No. 1.10 Howe Truss



Model No. 1.11 Triangulated Truss



Model No. 1.12 45° Set-Square

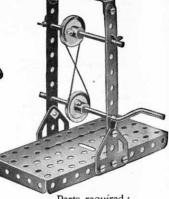
1.12 Model No. 1.13
uare 60°
Set-Square

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

600060900000

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

Model No. 1.14 Belt Gear For Reversing Motion of Driven Shaft



Parts required:

2 of No. 2 | 10 of No. 37

1 " " 16 | 1 " " 40

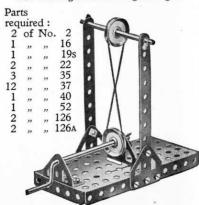
1 " " 19s | 1 " " 48.

2 " " 22 | 1 " " 52

4 " " 35 | 2 " " 126.

Model No. 1.15 Belt Gear

For Driving Shafts at Right Angles

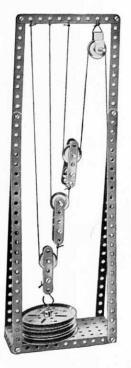


Model No. 1.8 Lever of the Third Order (Demonstration Model) Parts required: 2 of No. 2 4 " " 5 1 " 18A 1 " 22 1 " 35 10 " 37 1 " 40 1 " 52 1 " 57c 1 " 125

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

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.	19 _B
3	,,	,,	2	4	**	,,	22
6	,,	,,	5	15	,,	,,	37
2	,,,	,,	11	1	,,	,,	40
2	,,	,,	12	1	,,	,,	44
2	,,	22	17	1	**	,,	52
2	,,	22	18a	1	,,	"	57c

Model No. 1.17

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

			arts 1	equir			
4	of	No.	1	4	of	No.	19 _B
7	,,	22	2	4	,,	,,	22
622222	,,,	,,	5	6	,,	**	35
2	,,	,,	10	22	,,	"	37
2	,,	,,	12	1	,,	,,	40
2	,,,	,,	16	1	,,	"	44
2	,,	"	17	1	22	,,	52
2	,,	,,	18 _A	1	,,	,,	57c
		-		T 10	10.		



Model No. 1.18 Pulley Block

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



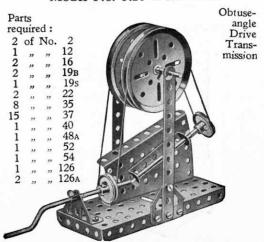
Parts required .

			arts re			-	
4	of	No.	1	1 4	of	No.	19B
1	,,	,,	3	3	,,	,,	22
4	,,	,,	5	10	,,	,,	37
2	,,,	,,	11	1	,,	,,	40
1	22	,,,	17	1	,,	,,	44
2	,,,	29	18a	1	,,	,,	52
			l of I	No. 5	7c		

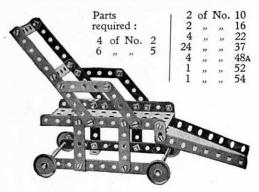
Model No. 1.19 Belt Gear

Par req		ed:				Drive	Transmission for shafts no
2	of	No	. 2				in lin
1 2 2 1 2 8 61	,,	,,	5				
2	,,	"	16				
2	,,,	,,	19 _B		ASSES.		
1	,,	"	19s 22 35 37 40				
2	"	,,	22				
8	"	22	35			a.	
61	"	22	37	MI	10		
1	22	"	40	NA		27.4	1
1 2 1 2 2	"	27	48A		1	OM	1
1	27	27	52 126			1	19
2	,,	"	126			MI.	
2	33	"	126a			0	
_					-	0	
		1		9	100		
		٦		96		60	
		B	1	10	23	0 38	I FIRM
		- 8	l.				THE PARTY OF THE P
		-41			-1/		
			1	200	-oft	아	
		4		00	-	00	
			Will Property of			-	

Model No. 1.20 Belt Gear



Model No. 1.21 Invalid Chair



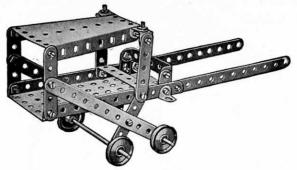
Model No. 1.22 Letter Balance

Parts required:

-	-		_		-			121				
6	of	No.	2	4	of	No.	22	2	of	No	. 48A	
3	,,	,,	5	1	,,	,,	24	1	,,	,,,	52	
1	,,	,,	10	26	,,	,,	37	2	,,	,,	111c	
1	,,	,,	12	4	,,	,,	37A	2	,,	,,	126	
2	,,	,,	18A	2	,,	,,	38	2	,,	,,,	126A	
1	1887	200	19 _R	1			44					

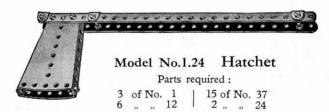


Model No. 1.23 Ticca Gharry



Parts required:

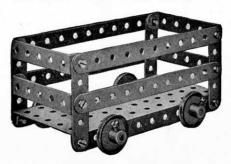
4	of	No.	2	1	6	of	No.	12	22	of	No.	37
6	,,	,,	5		-		,,				177	52
2	,,	,,	10	-	4	,,	**	22	1	,,	,,	54



Model No. 1.25 Truck with Sides

Parts required:

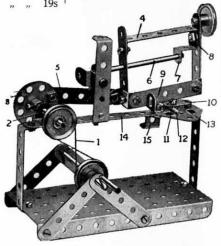
4 of No. 2 4 " " 5 2 " " 16 4 " " 22 12 " " 37 4 " " 48A 1 " " 52



Model No. 1.26 Mechanical Saw

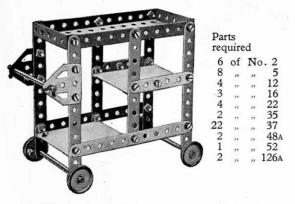
Parts required:

1	of	No.	2	3	of	No.	22	1 1	of :	No	. 44	
8	,,	,,	5	1	,,	,,	24	4	,,	,,	48A	
1	,,	,,	10	3	,,	,,	35	1	,,	,,	52	
1	,,	,,	11	22	,,	,,	37	2	,,	,,	125	
4	,,	,,	12	4	,,	,,	38	1	,,	,,	126a	
1	,,	,,	16	1	,,	,,,	40					
1	,,	,,,	17									
1	,,	,,	19s	1							77	



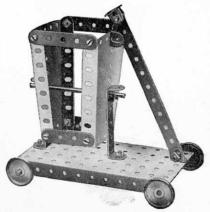
The Strip 9 represents the saw. The Crank Handle drives, through a belt 1, a short Rod journalled in a Double Bracket 2 and carrying a Bush Wheel 3. The latter imparts a reciprocating motion to the saw frame 4 through a 2½ Strip 5 loosely mounted on Bolts secured to the Bush Wheel and to an Angle Bracket 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 Washer placed on the two Bolts holding the Trunnion in position. The saw frame rests on the stop 15 when not in use. A 17 Pulley secured to the top of the frame acts às a weight and helps to steady the saw.

Model No. 1.27 Dinner Wagon



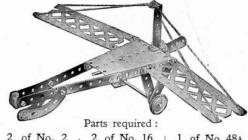
The two lower platforms are constructed out of pieces of ordinary cardboard, their outer edges resting on $2\frac{1}{2}$ " Double Angle Strips and their inner edges on Angle Brackets.

Model No. 1.28 Tip Wagon



1	of	No	
5 3	22	,,	5
5	22	27	12
	,,	"	16
4	"	"	22
2	23	"	35
14	22	22	37
2	22	"	48
1	"	"	52
2	,,,	"	54

Model No. 1.29 Aeroplane



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

Model No. 1.30 Timber Drag



Parts required:

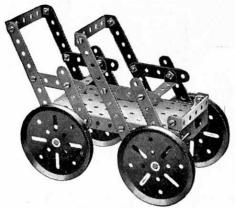
4 of No. 2 | 2 of No. 16 | 8 of No. 37
2 " " 11 | 4 " " 22 | 4 " " 48A

Model No. 1.31 Lawn Mower

Parts required:

4 of No. 2 | 4 of No. 22
7 ,, 5 | 19 ,, 37
2 ,, 11 | 1 ,, 44
2 ,, 16 | 3 ,, 48A

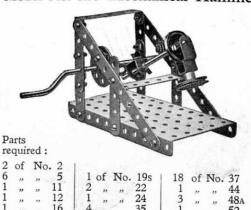
Model No. 1.32 Tandem Car



Parts required:

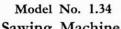
	of	No.	2	26	of	No	. 37
8	,,	37	5	5	"	,,	48
2	"	"	12	1	"	,,	52
2	22	22	16	2	"	"	126
4	**	**	19B	l			

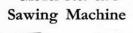
Model No. 1.33 Mechanical Hammer





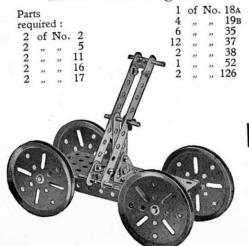




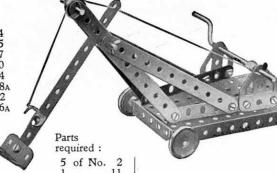




Model No. 1.35 Manual Fire Engine

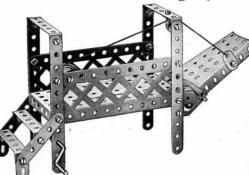


Model No. 1.36 Steam Shovel



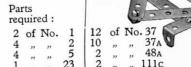
5	of	No.	2	1								
1	,,	,,	11	0								
1	,,	"	12			12.2						
2	,,	"	16	6	of	No.	35	1	of	No	. 52	
2	,,	,,,	18A	21	,,	,,	37	1	"	,,	54	
1	,,	,,	19s	2	,,	,,	37A	1	,,	,,	111c	
4	"	,,,	22	2	,,	,,	38	1	,,	,,	126	
1	,,	,,	23	1	. ,,	,,	40	2	,,	,,	126A	

Model No. 1.37 Gangway



Parts	required	

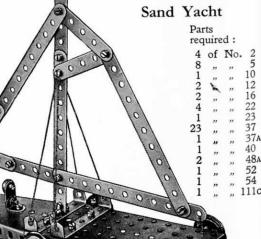
4	of	No	. 2	1	of :	No.	22	4	of	No	. 48A
2	,,	,,	5	1	,,	,,	23	1	**	,,	52
3	,,	,,	10	4	,,	,,	23 35	1	,,	,,	54
1	,,	**	12	22	,,		37 I	2			100
1		,,	16	1	,,		40	1	,,	"	111c
		-55		2	of I	No.	126A				



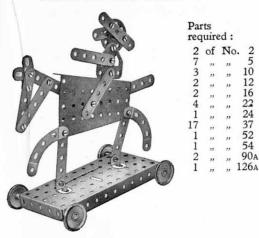
Model No. 1.39

Model No. 1.38

Lazy Tongs

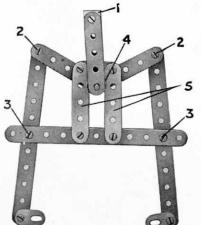


Model No. 1.40 Horseman

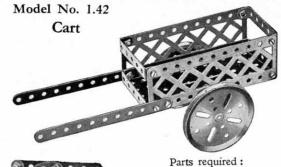


Model No. 1.41 Friction Grip Tongs

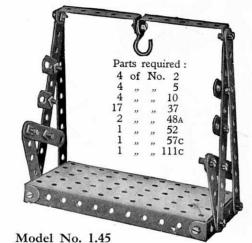
The hoisting cord is attached to the Double Bracket 1. The joints 2, 3 are lock-nutted, so that when the grip is raised the $\frac{1}{2}$ loose Pulley Wheel 4 slides upward between the $2\frac{1}{2}$ Strips 5, and the grip closes upon the block of wood or other material placed between its jaws.



3	of	No.	2
8	29	,,	5
4	"	,,,	10
1	22	"	11
1	22	"	23
2	"	"	35
12	,,,	22	37



2 of No. 2 | 2 of No. 48A 1 " 16 | 1 " 52 2 " 19B | 2 " 100 14 " 37 | 2 " 126A



Model No. 1.44 Pen Rack

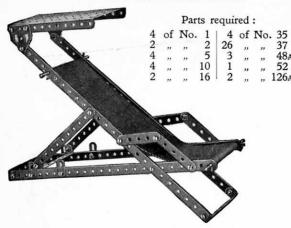
Revolving See-Saw

Model No. 1.43 Arc Lamp

2	of	No.	. 1
1	,,	22	3
1	"	22	22
1	,,,	"	24
10	,,	,,,	37
1	,,	22	40
1	22	22	52
1	27	"	90A
2	22	,,,	126

				1	arts	rec	quire	a				
	4	of	No.	2	1	of	No.	19s	1	of	No.	40
	3	,,,	,,	5	2	,,	,,	22	1	,,	,,	44
	2	"	,,	11	1	,,	,,	24	4	,,	,,	48A
	4	,,	"	12	2	,,	,,	35	1	,,	"	52
	1	"	,,	16	25	,,	,,	37	1	,,	,,	54
•	1	22	,,	17	5	,,	,,	38	2	,,	,,]	126

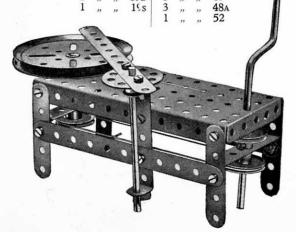
Model No. 1.46 Deck Chair



Model No. 1.47 Potter's Wheel

				der		•		
3	of	No.	2	3	of	No.	22	
4	,,	,,	5	1	,,	,,	24	
1	,,	,,	16	1	,,	,,	35	
1	,,	,,	18 _A	12	,,	,,	37	
1			19 _R	1			40	

Parts required :

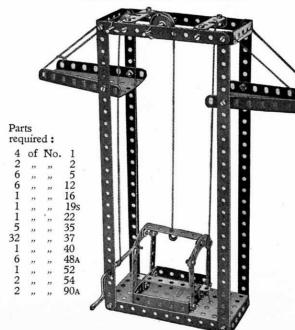


Model No. 1.48 Luggage Cart

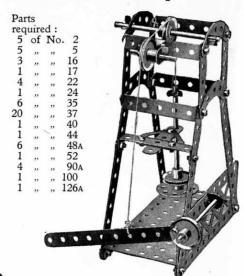


0	1				18	of	No	. 37
Parts	4	of	No.	5	1	,,	,,	52
	4	,,	,,	12	2	,,	,,	90A
required:	1	,,	,,	16	2	,,	,,	100
2 of No. 2	2	,,	,,	22	2	,,	,,	126A

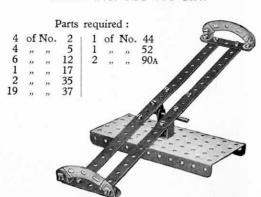
Model No. 1.49 Elevator



Model No. 1.50 Mechanical Stamp



Model No. 1.51 See-Saw





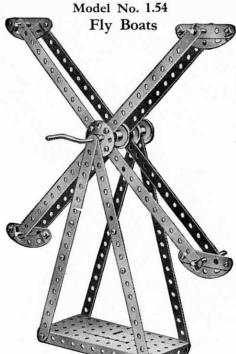
Model No. 1.52 Umpire's Seat

Par req		ed:	
6	of	No.	. 2
7	,,	,,	5
2	,,	,,	10
4	"	,,,	12
24	,,	,,	37
3	,,	,,	48A
2	,,	,,	90 _A
2	,,	,,	126

Model No. 1.53 Submarine

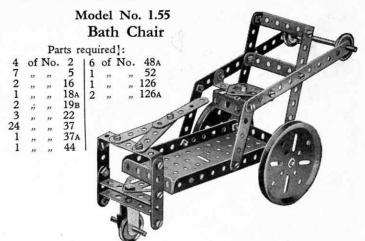
		Pa	arts	requi	red	:	
	of	No.	1	1 2	of	No.	35
5	,,	,,	10	28	,,	,,	37
2 8 2	,,	,,	11	3	,,	,,	37A
8	,,	,,	12	2	,,	,,	38
	,,	,,	17	1	,,		48
3	,,	,,	22	1	,,		48A
1	,,	,,	24	2	,,	,,	125

Trunnions are bolted to the side $12\frac{1}{2}$ " Strips, and a Bolt passed through their inner extremities secures a $\frac{1}{2}$ " Reversed Angle Bracket and an Angle Bracket. The former is attached to the upper $12\frac{1}{2}$ " Strip while the Angle Bracket is connected by means of a Flat Bracket and a further Angle Bracket to the lower Strip.



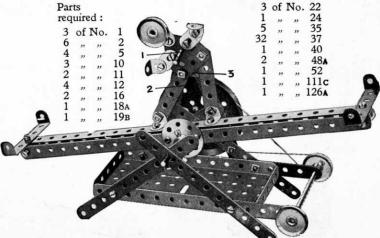
Parts required

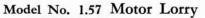
			Lait		qui	cu		
	4	of	No.		2	of I	No.	18 _A
	8	,,	,,	2	1	,,	"	195
	4	,,	"		4	,,	,,	22 24 35
	2	,,	"	17	1	,,	,,	24
					8	,,	,,	35
					24	,,	"	37
		-	-		1	,,	,,	52
>			0	2	4	,,	,,	90a
ě								
10	and the same	_		0				

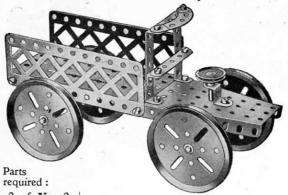


Model No. 1.56 Acrobat on See-Saw

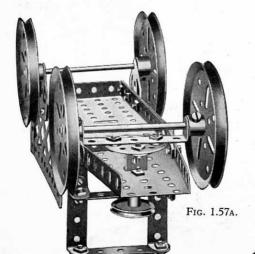
The 1" Rod 1 is journalled in the end holes of two $5\frac{1}{2}$ " Strips 2 and in the Flat Trunnion 3 which joins them. It is held in position by two Spring Clips, placed on either side of the $5\frac{1}{2}$ " Strips 2.



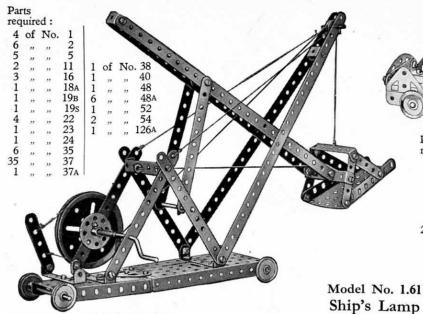




	Luni	·u·						-				
2	of	No.	2	1						_		
2	,,	,,	5									
2	,,,	,,	12	25	of	No.	37	1				
2	,,	,,	16	2	,,	,,	38	1	of	No	. 90	A
1	22	,,	18 _A	3	,,	**	48A	2	,,	,,	100	
4	,,	,,	19 _B	1	,,	,,	52	2	,,	,,	125	ĺ
-			24	1			EA	0			100	

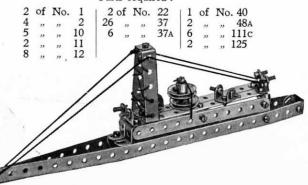


Model No. 1.58 Mechanical Shovel



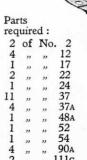
Model No. 1.59 Battleship

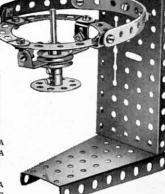
Parts required:

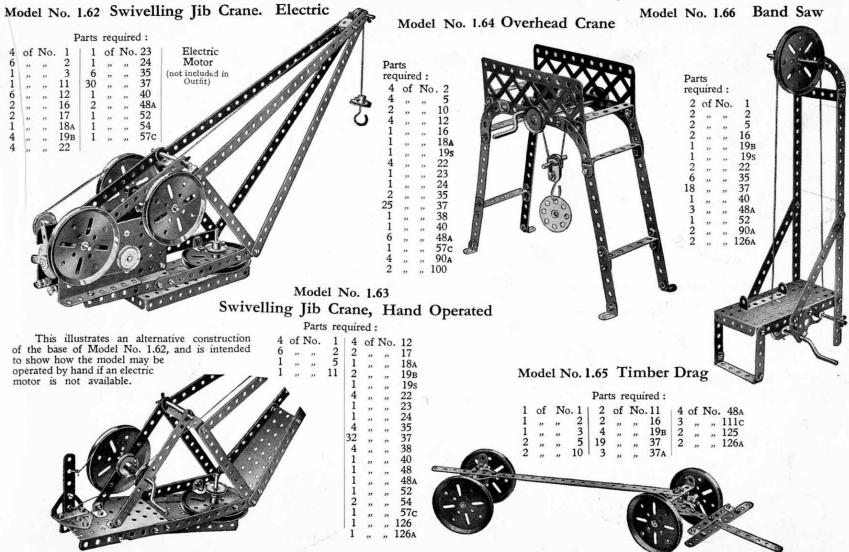


Model No. 1.60 Locomotive

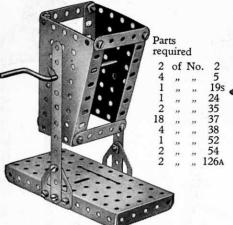
7	of	No.	. 5
1	,,	,,	11
6	22	,,	12
2	,,	22	16
	,,	,,,	22 24 37
1	,,	"	24
24	,,	,,	37
4	,,	27	48
1	22	,,,	52
1	27	,,,	90
2		**	126







Model No. 1.67 Butter Churn



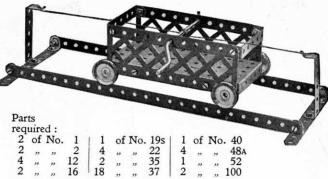
Parts required:

4 of No. 22 1 " 23 1 " 24 3 " 35 12 " 37 6 " 37A 4 " 38 1 " 40

, 48A , 52 , 54 , 111c , 125

Model No. 1.68 Inverted Centrifugal Governor

Model No. 1.69 Cable Railway



Model No. 1.70 Candle Stick

	arts quire	d:	
2	of 1	No.	11
4	١ "	,,	12
1	,,	,,	19в
4	٠,,	,,	37
1	, ,,	"	111c
1	,,,	22	125

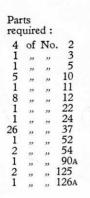


Model No. 1.71 Machine for Tracing a Locus

Parts required:

		I TO	dance				
of	No.	2	4	of l	No.	35	
,,	,,	5	4	22	27	37	
,,	,,	11	3	,,	,,	37A	
,,	,,,	12	4	.,,	5,,	38	
,,	,,	17	4		"	54	
,,	,,	18A	2	.,,	,,	111c	
,,	,,	24	I	,,	,,	125	

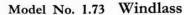
Model No. 1.72 Man and Boy



The 5½" Strip is pivoted to the 2½" Strip by means

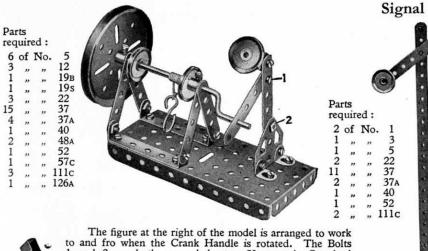
of a Bolt and two Nuts, and the $2\frac{1}{2}$ Strip is similarly pivoted to the Sector Plate. By revolving the $2\frac{1}{2}$ Strip about its pivot, the vertical 11 Rod can be made to trace a locus. If the positions of the 11 Rod and

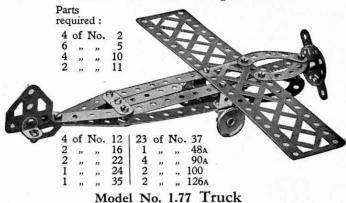
the 5½" Strip are altered, several different loci may be traced. Machines of this type are of advantage in assisting in the design of engine connecting rods





Model No. 1.76 Aeroplane





1 and 2 are both secured by two Nuts as in Standard Mechanism No. 262.

Model No. 1.74 Lorry Crane

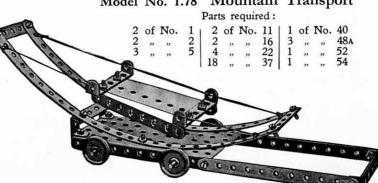


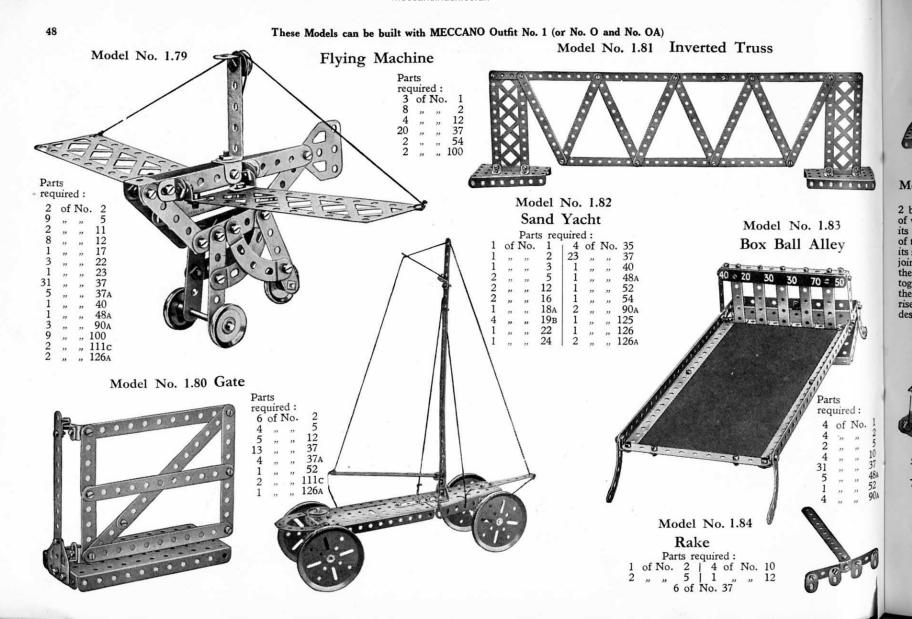


Parts required:

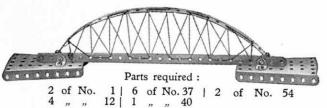
!	1 2	of	No.	16
	1	,,	,,	17
)	1		,,	18 _A
	4			10p
	1	**	,,	19s
	1 1 4 1 3 1	,,	,,	22
	1		,,	23
	1 3 29	,,	,,	19s 22 23 24 35
	3	"	,,	35
	29	"	,,	37
	1	,,	,,	40
	i	"	,,	44
	1 1 5		"	484
	1	"	"	52
	1 1	"	"	48A 52 54 57C
	i	,,,	,,	570

Model No. 1.78 Mountain Transport



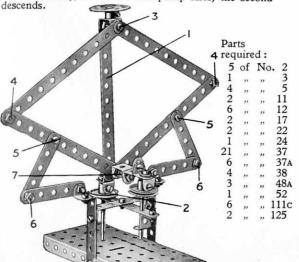


Model No. 1.85 Bow Girder

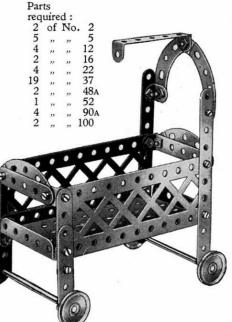


Model No. 1.86 Double-Action Pump

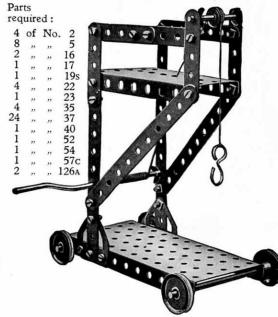
The $5\frac{1}{2}$ " Strip 1 is attached to the 1" Pulley Wheel 2 by means of two Angle Brackets, through the lower of which passes the Set-Screw that secures the Pulley to its 2" Rod. Two Washers are placed beneath the head of the Bolt joining the Angle Brackets in order to prevent its shank from binding 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



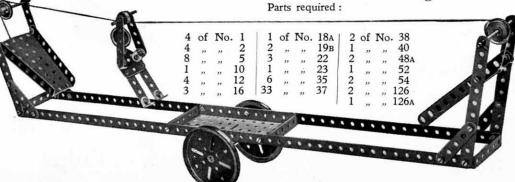
Model No. 1.87 Cot on Wheels



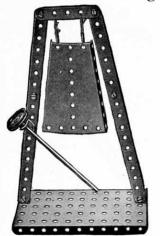
Model No. 1.88 Tower Wagon



Model No. 1.89 Aerial Flight



Model No. 1.90 Gong



Parts required:

4	of	No.	2	1	of	No.	22
1	,,	,,	5	9	,,	,,	37
3	,,	,,	12	1	,,	"	40
1	,,	,,	16	1	,,	"	52
		1	of	No.	54		

Model No. 1.91 Emery Wheel

				Pa	rts	requ	irea	:			
1	of	No.	17	1	of	No.	24	1	of	No.	48
1	,,	,,	18a	2	,,	,,	35	1	,,	,,	52
2	,,	,,	19 _B	10	,,		37	1	,,		111
1	,,	,,	22	1	,,	,,	40	2	,,	,,	125
								2	,,	,,	126





Model No. 1.92 Roundabout

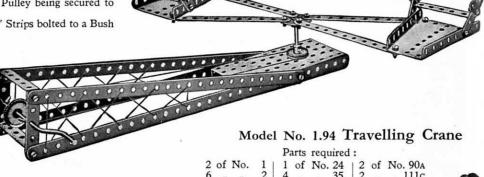
Begin to build this model by making the platform from a Flanged Plate and $12\frac{1}{2}$ " Strips. The drive from the Pulley on the Crank Handle is taken to a 1" Pulley, fast on the vertical 2" Rod, another similar Pulley being secured to this Rod beneath the Plate.

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

Parts required:

4	o. 22
4	24
4 6 4 2 1	35
4	37
2	40
1	48.
1	52
	54
	-



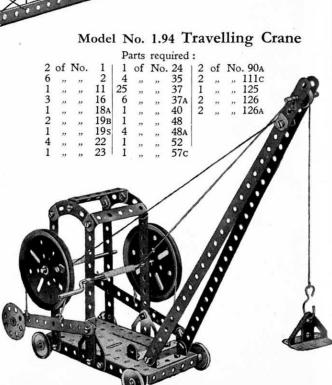


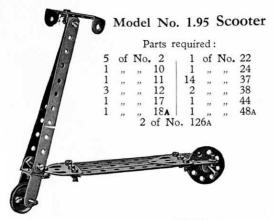
Model No. 1.93 King Meccano



Parts required:

1	of	No.	3	1	of	No	. 35
9	,,	,,	5	30	,,	,,	37
5	,,	,,	10	1	,,	,,	52
8	,,	,,	12	1	,,	,,	111c
1	,,	,,	17	2	,,	,,	125
1	,,	,,	22	2	,,	,,	126A





Model No. 1.96 Ballista

This is a model of an ancient engine of war, resembling the crossbow. The $3\frac{1}{2}$ " 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

Parts required:

strikes the missile, which consists of a 2" Rod placed ready in the Double Bracket 5.

						-					
4	of	No.	. 1	1	of	No	. 18A	1	of	No	. 44
4	22	,,,	2	3	*	,,	19в	4	,,	,,	48a 52
1	,,	"	3	1	"	,,	19s	1	,,	,,	52
2	"	,,,	11	4	,,	,,	22	1	,,	,,	90a 129a
2	,,	22	12	21	,,,	,,	37	2	,,	,,	129A
2			16	1			40				

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.

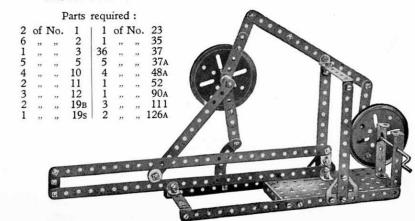
One of the Pulleys is secured to a Crank Handle, by means of which the model may be operated.

The Meccanitian runs on the upper half of the endless cord, the lower half being attached to one of his feet.

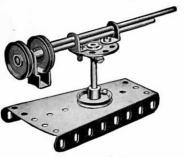
Parts	
required	:

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

Model No. 1.98 Double-Action Piston Connection



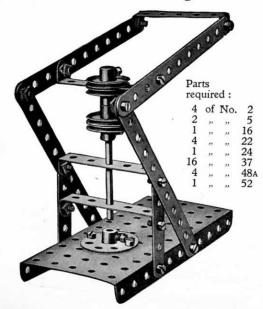
Model No. 1.99 Quick-Firing Gun



Parts required:

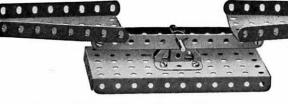
2	of	No.	12	1	of	No.	24
2	,,	,,	16	2	,,	,,	37
1	,,	,,	17	1	,,	,,	44
4	,,	,,	22	1	,,	,,	54

Model No. 1.100 Punching Machine



Model No. 1.101 Scales

2	of	No.	. 2
2	,,	"	11
1	,,	**	18a
2	22	22	35
8	,,	,,	37
1	,,	,,	52
2	,,	,,	54
2	,,	,,	126



Model No. 1.103 Swivelling Crane uired:

of No. 25

		Par	ts re	qu
4	of	No.	2	1
4 7 2 2 1	,,	"	5	1
2	,,	,,	12	1
2	"	,,	17	2
1	"	,,	19s	
4	,,	,,	22	
1	,,	,,	23	
2	**	,,	35	
21	,,	"	37	
3	**	"	38	
1	,,	,,,	40	•
1	,,	"	44	
1	,,	,,	48A	

The Sector Plate of the crane in the

Model No. 1.102 Extended Ash Tip

Parts required:

	4	of	No.	1	2	of	No.	18 _A	2	of	No	. 48A
Ř	5	,,	,,	2	1	,,	,,	19s	1	,,	,,	52
	7	,,	,,	5	4	,,	,,	22	6	,,	,,	111c
	2	,,	,,	11	1	"	,,	24	2	,,	,,	125
	8	,,	"	12	5	,,	,,	35	2	,,	,,	126
	1	,,	"	16	36	,,	,,	37	2	,,	,,	126a
	2	,,	,,	17	1	,,	,,	40	1			

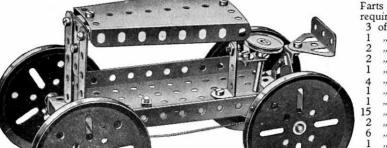
The trolley is operated by means of a cord that is wound round the $1\frac{1}{2}''$ Axle Rod carrying the Bush Wheel, both ends of the cord being secured to the trolley. The bucket is suspended from a cord that winds on to the Crank Handle, and it is tipped by lowering it until a short cord that is attached to the bottom of the bucket and to the trolley, becomes taut. Further lowering causes the bucket to swing over.

above model is pivoted to the base with a fast Pulley above and below.

Model No. 1.104 Boy on Swing

Parts required: of No. 1 | 1 of No. 17 | 1 of No. 48A " " 2 | 4 " " 22 | 1 " " 52 " " 5 | 1 " " 24 | 1 " " 54

2 " " 10 7 " " 25 1 " " 15 8 " 12 35 " 37 2 " 15 2 " 16 1 " 40



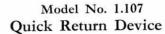
Model No. 1.105 Motor Tractor

The steering gear is shown in Fig. 1.105A. The front wheels are carried in a $2\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strip I, which is mounted pivotally by a Bolt and two Nuts (S.M. 262) to a $2\frac{1}{2}''$ Strip 2 secured to the $5\frac{1}{2}'' \times 2\frac{1}{2}''$ Flanged Plate.



Model No. 1.106 Bagatelle Table

4	of	No.	1	8	of	No.	12
Ê	-	1,0.	2		OI	110.	27
2	2.5	17	2	25	**	**	31
3	,,	22	10	4	**		48A

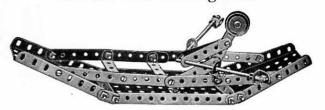


Parts required:

2	of	No.	2	1	of	No.	24
1		,,	3	6	,,	,,	35
2		,,	5	15	,,	,,	37
2		,,	11	2	,,	,,	37A
2		,,	12	3	,,	,,	48A
1		.,	17	1	,,	,,	52
2	"	115	184	2			125



Model No. 1.108 Rowing Boat

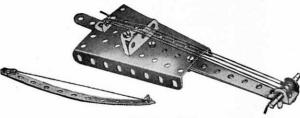


Model No. 1.110 Weather Vane

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:

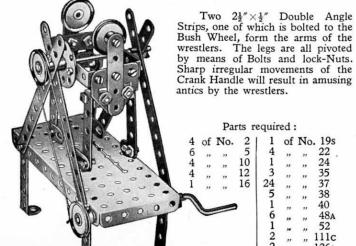
4	of	No.	2	1	of	No.	12 18a 35	15	of	No.	37
1	,,	,,,	5	1	,,,	**	18a	1	,,	,,	40
1	"	,,	11	2	,,,	,,	35	1	,,	,,,	54
								1			126

1 ,, ,, 22 | 1 ,, ,, 1110

4 of No. 35

Parts required:

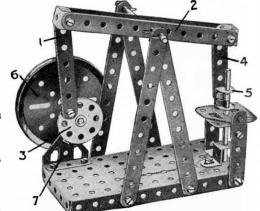
Model No. 1.109 The Wrestlers



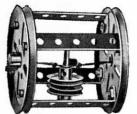
Model No. 1.112 Beam Engine

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 roll. The short rod carrying the flywheel 6 is journalled in a $2\frac{1}{2}$ " Strip supported by the Trunnion 7 and in a Reversed Angle Bracket bolted to the $2\frac{1}{2}$ " Strip.

req		No.	2
6	OI	140	
1	**	"	3 5
3	"	"	
2	,,	,,	11
3 2 3 2	,,	"	12
2	,,	,,	16
1	,,	,,	17
1	,,	,,	19в
1	,,	,,	24
8	,,	,,	35
20	,,	,,	37
4	,,	,,	37A
1	,,	,,	48
1	22	"	52
2	,,	,,	125
1	,,	,,	126
2	200		126A



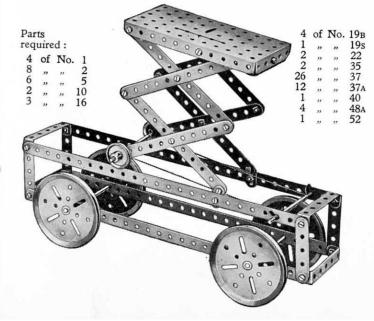
Model No. 1.113 Cum Bak



Par		ed:	
1		No.	18 _A
2	,,	"	19 _B
2	,,	"	22
1	,,	,,	23
1	,,	"	35
8	"	"	37

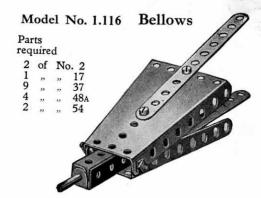
A short length of elastic is doubled and stretched between the centres of the 3" Pulley Wheels. A weight, consisting of two 1" fast Pulley Wheels and a 1½" Rod, is suspended from it in the middle of the drum. When the Cum Bak is rolled along any smooth level surface, the elastic becomes twisted and stores 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

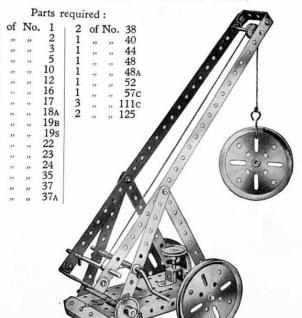


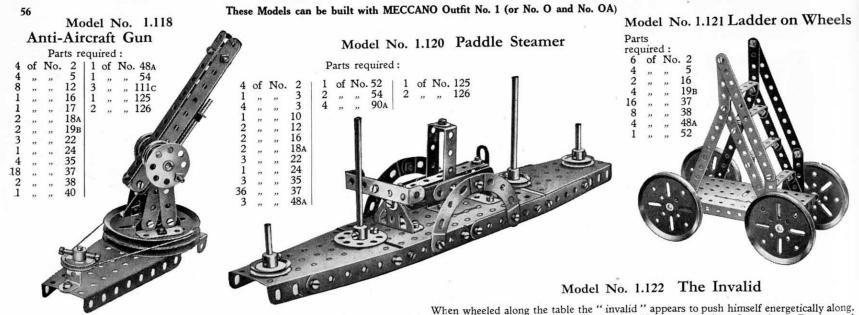
Model No. 1.115 Flip Flap





Model No. 1.117 Mobile Crane





Model No. 1.119 Meccanograph

Parts required:

1 of No. 3 | 2 of No. 17 | 5 of No. 35 | 2 of No. 48A

4 " " 5 | 1 " " 19B | 21 " " 37 | 1 " " 52

2 " " 11 | 2 " 22 | 2 " 37A | 2 " 100

6 " " 12 | 1 " 24 | 2 " 38 | 3 " " 111c

2 " " 16 | 1 " " 40 | 2 " " 126

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 2½" Strip is pivoted at one end to this Bush Wheel and at the other end to a second $2\frac{1}{2}$ Strip 2. which, rocking about an axle journalled through its centre hole, is again pivoted to the invalid's hands.

Model No. 1.123 Bow and Arrow

Parts required:

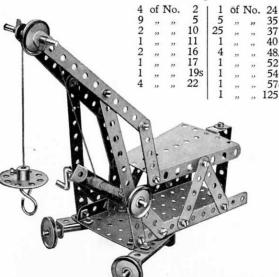
1 of No. 1 | 1 of No. 16 | 1 of No. 40

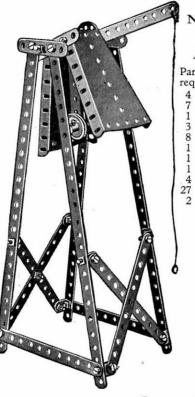


Model No. 1.124 Rotating Crane

The running wheels of this crane are journalled in Double Angle Strips bolted to the base plate and secured at an angle by 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 losely to the supporting 51" Strips and is connected by 21" 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 2!" 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. Plate.



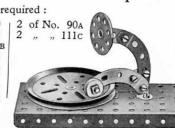




Model No. 1.126 Gramophone

Parts required:

of No. 10

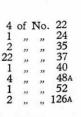


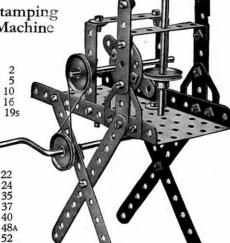
Model No. 1.127 Band Brake Model Parts required :

	_								Part	5 1	equii	eu:		
•		1.1			1 2	of	No.	2	1 2	of	No.	19s 22	1	of N
	F	ire			1	,,	"	12	1	"	,,	35	1 2	,,
1	Ala	arn	a		•	"	.,,		10	"	,,	22 35 37	1	"
1	ts uire	d: No.	1						4	2	1	9		
			2					1	24	1		A	Ø	
	22	"	2 3 5 12 16					2	44		М.	4	/	
	"	"	5			-	(A)	1		æ	40	///		PECA
	"	"	10	-		P			-	24	-/		75	
	"	"	12		\forall							COLUMN TWO		754
	,,	"	16							6	50	0		1
	22	,,,	22 24							10	110	7	00	9
	,,	,,	24				100	20		(5	10			18
		,,	35		-	100	-	9 0	0	-	1.16			
	"		37	8	m		0	0	20	0			18	1000
	"	"	37 54		ч		2	0	0.3	-		THE REAL PROPERTY.	1	
	22	"	54			W	1000	-	0	diff	100,400	1		

Model No. 1.128







Model No. 1.129 Electric Elevator

Two pairs of cords 1 are stretched tightly on each side of stretched tightly on each side of the lift shaft to guide the cage 2 and two other cords 3 are secured at the top and bottom of the shaft and passed behind $2\frac{1}{2}$ " Strips 4 bolted to the cage. The drive from the motor is transmitted to the 3" Pulley Wheel 5 by means of a cord passed round a 1" Pulley on the motor armature.

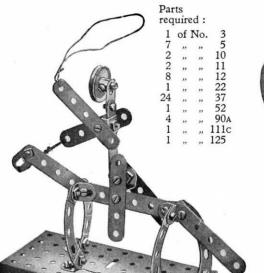
Parts required:

4	of	No.	1	34	of	No	. 37
6	,,	,,	2	1	,,	,,	38
4	,,	"	5	1	,,	,,	40
4 2 3 3	22	"	12	1	,,	"	48
3	"	27	16	6	"	,,,	48A
	,,	,,	19 _B	1	,,	,,	52
4	"	"	22	2	,,	,,	54
1	,,	"	24	2	,,	,,	100
3	"	,,	35	2	,,	"	125

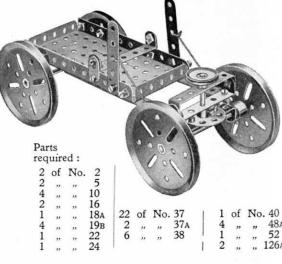
Electric Motor

(not included in Outfit).

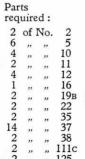
Model No. 1.130 Mounted Cowboy



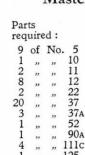
Model No. 1.132 Coaster

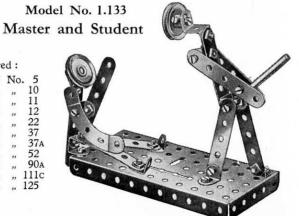


Model No. 1.131 Howitzer





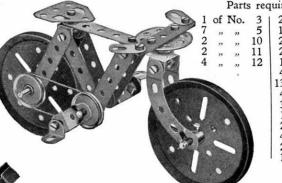




Model No. 1.134 Travelling Crane

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 $2\frac{1}{2}$ " 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.

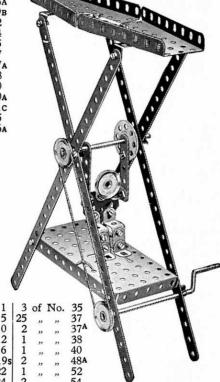
Model No. 1.135 Bicycle



2	of	No.	17
1 2 2 1 4	,,	,,	18A
2	,,	,,	19в
2	,,	,,	22 24 35
1	"	"	24
4	22	"	35
13	,,	,,	37
4 3	,,,	,,,	37A
3	,,	,,	38
1 2 4	,,	"	40
2	,,,	,,	90a
4	,,	,,	111c
2	,,	,,	125
1	,,	,,	126A

Parts required: 4 of No.

Model No. 1.137 Gymnast



Model No. 1.136 Luggage Truck

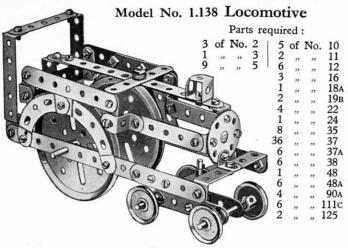
Parts required:

2	of	No. "	2	18	of	No.	37					
8	"	,,,	5	2	,,	"	48a 52 90a					
1	,,	"	16	1	"	,,,	52					
2	,,	,,,	19в	4	,,	,,	90a	- 4	O		0	TA
								A			-	N
							-	8			\	n
							6	OV U		\	0/	•
					0	10			~	Qr.		7
				10	all.		. 0	3	1	10	0	
1	1			25		1		-	, ,	73		
			Mark.			•	0	O				
	20	1	例以影響	Dian.			1	M.		11000		

6 4	3	
Parts required: 4 of No. 22 1 23	1 of No. 44	

4	of	No.	2	4	of	No.	22	1	of	No.	44
7	,,	,,	5	1	,,	,,	23	3	,,	,,	48A
1	,,	,,	10	1	,,	"	24	1	,,	,,	52
2	,,	,,	12	5	,,	,,,	35	1	,,	,,	54
2	,,	,,	16	27	,,	,,	37	1	,,	,,	57c
2	,,	,,	17	6	,,	,,	38	2	,,	,,	126A
1	,,	,,	19s	1	"	"	40	l .			

One of the $2\frac{1}{2}$ " Strips representing the arms of the gymnast is bolted to a Bush Wheel secured on a $3\frac{1}{2}$ " 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.



Model No. 1.141
Quick-Delivery Chute

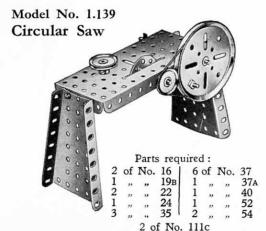
Parts
required:
2 of No. 1 p
2 " 2 c
6 " 5 p
2 " 16 la
1 " 19s 4
1 " 22 e
8 " 35 ri
12 " 37 T
4 " 38 to
1 " 40
4 " 48A

Parts
required:

Model No. 1.142 Mechanical Gong

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.

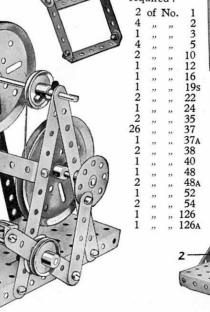
The bogie is connected pivotally to the locomotive body by means of a l_2^{1} Rod journalled in a Double Bracket, which is secured in the centre of the bogie, and in a $2\frac{1}{2}$ $\times 2\frac{1}{2}$ Double Angle Strip that is secured between the main side frames. Two Spring Clips between the Double Angle Strip and Double Bracket space the bogie at the correct distance.

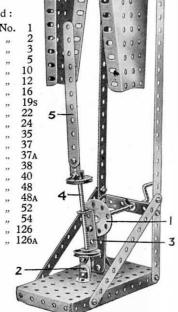


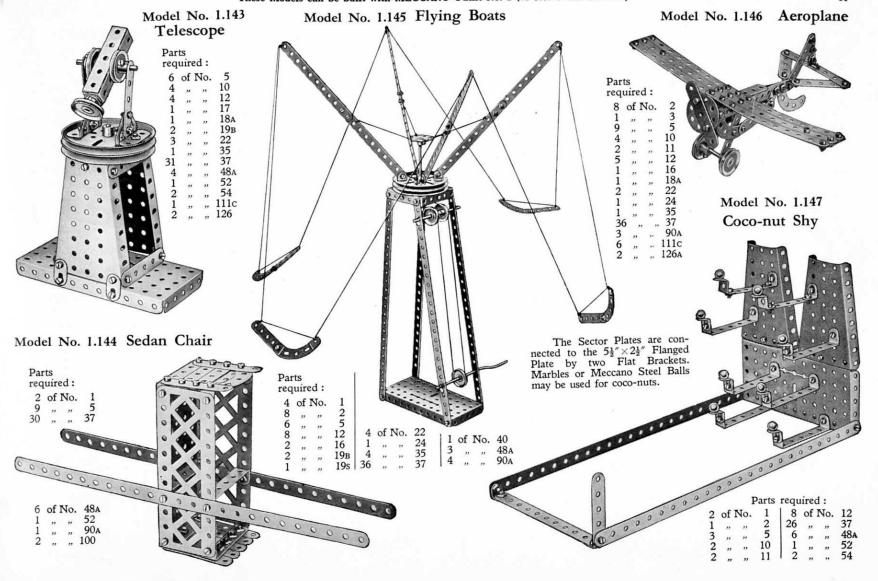
Model No. 1.140 Treadle Grindstone

Parts

4	of	No.	2 3 5	
1	,,	,,	3	
1	,,	"		
1 3 2 4 1	,,	,,	12	
3	,,	"	16	
2	22	**	19в	
4	29	"	22 24	
1	12	22	24	
2	,,	"	35	
2 9 2 1	**	"	37	(
2	,,	"	37A	١
	,,	,,,	40	
1	"	**	48A	
1	,,	**	52	



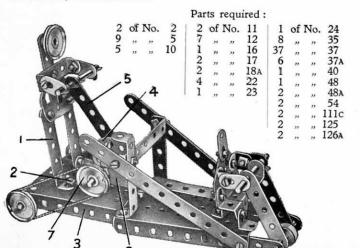




Model No. 1.148 Double Draw Bridge Parts required: 4 of No. 1 | 1 of No. 19s | 2 of No. 38 | 6 ,, 2 | 2 ,, 22 | 1 ,, 40 | 1 ,, 16 | 8 ,, 35 | 6 ,, 48a | 16 ,, 37 | 2 ,, 126a

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 2½" Strip 5. The 1½" Rod carrying the Bush Wheel 4 is journalled in the Cranked Bent Strip 6, the 1" fast Pulley 7 being connected to the road wheel by a cord as shown.



Model No. 1.151 Motor Cyclist and Pillion Rider

4 of No. 2 2 of No. 17 2 of No. 48A 9 " " 5 4 " " 22 2 " " 90A 4 " " 10 1 2 " " 35 2 " " 11 2 " " 35 8 " " 12 30 " " 37 1 " " 16

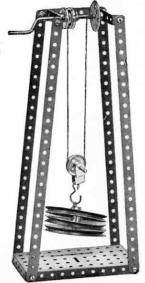
Parts required:

Model No. 1.150 Tappet Valve Demonstration Model

Par	rts			0) 0	0	0	0		8	-	0	1
rec	uire	d:		NEG.			0	0		1	1/ 0		
1	of 1	No.		d C			18			10		10	0 0
1	,,	,,	. 3	0	6	7		0		0	_/	7	
1	,,	22	10				R	50		0	9	9	
ī	"		11	0 0	1 4		14						
3	,,	"	12	8 800		186		0		Par	ts		
1321141555411122		27	16	UC	C	14		B (3)				ed:	
ī	27	22	17			100		10	-2				
1	22	>>	18A	6 0	9		i ilii i			4	of	No.	1
1	22	23		0		10		30		1	,,	22	3
7	>>	72	22	10 C					-5	1	22	22	18a
1	"	>>	24	0	11	10	10	0	_	3	39	,,,	19в
.2	"	27	35			100	A	2	- 1	1	,,	"	19s
15	277	77	37	6	10				N ADD	3	**	,,	22
5	22	77	37A	A		. 600	M	MA	11. 1	1	,,	,,	23
4	77	,,	38	Carry .		i lati	3		1	1	,,	,,	24
1	"	"	48A	1		144	57		200	8	,,	,,	37
1	,,	77	52	100	11.2		V		· w	1	,,	,,	40
1	,,,	77	54	100	1	110	Mary Mary	-6	-	4 1	,,	,,	44
2	77	"	111c	- 10	1	PL	•	0		2			48A
2	39		126A	1	1.	1			U	1	"	"	52
_	33	"		,	1	*				1	"	29	57c
					•	3				1	"	**	210

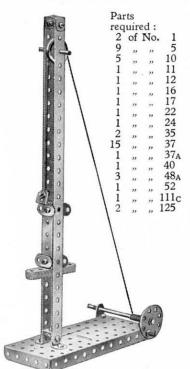
The upper end of the Strip 1 is connected pivotally by a Bolt and two Nuts to the crosshead bracket 2. The crankshaft is built up as follows: Two Angle Brackets 3 are each secured rigidly to the boss of a Pulley Wheel and are connected to each other by a \(\frac{3}{8}\)" Bolt carrying three Nuts. The 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.



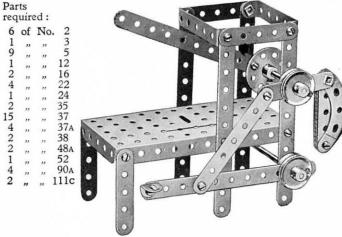


These Models can be built with MECCANO Outfit No. 1 (or No. O and No. OA) Model No. 1.154 Foot Hammer Mo

Model No. 1.153 Pile Driver

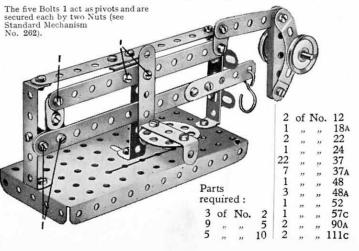


The winding cord is passed round the Pulley at the top of the model and is fastened to an Angle Bracket that is hooked under the protruding portion of a Flat Bracket bolted to the top of the driving head. When the Angle Bracket reaches the Pulley at the top it is pushed out a little, thus releasing the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

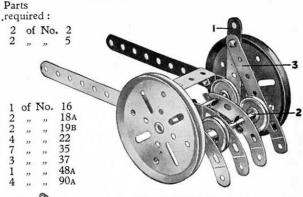


The treadle lever is connected pivotally to a $3\frac{1}{2}$ " Strip by a Bolt and two Nuts. The upper end of this Strip is similarly connected to a $2\frac{1}{2}$ " Strip that is clamped tightly between two Pulleys on the hammer Rod. Pressure on the treadle causes the hammer to descend on the work. When the treadle is released a weight pulls the hammer back to its original position.

Model No. 1.155 Heavy Duty Scales



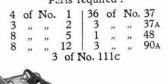
Model No. 1.156 Horse Rake



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

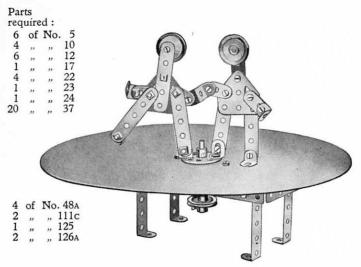
Model No. 1.157 Gravity Conveyor

Parts required:

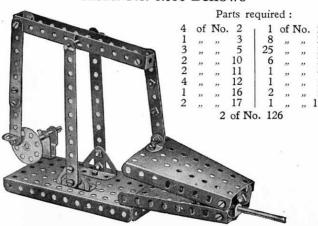


Model No. 1.165

Model No. 1.163 Eccentric Dancers



Model No. 1.164 Bellows



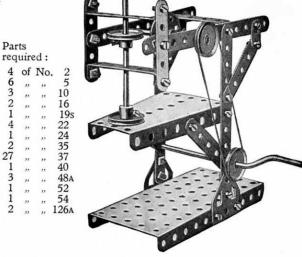
Crosshead Demonstration Model

		Pa	rts	requi	red	:	
2	of	No.		3			. 35
4	,,	,,	2	20	,,	,,	37
9	,,	,,	5	1	,,,	,,	40
2	,,	,,	16	2	,,	,,	48A
1	,,	,,	23	1	,,	,,	52
1	,,	,,	24	2	,,	,,	126a

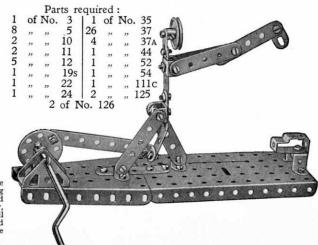


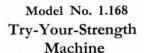
This is an apparatus for determining the forces that act at the crosshead of a reciprocating engine. The upper inclined length of cord represents the connecting rod and the lower, or vertical portion, the piston rod. The pull on the third cord indicates the pressure exerted on the slide bars of the engine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

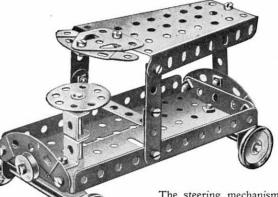
Model No. 1.166 Drop Stamp



Model No. 1.167 Blacksmith







Model No. 1.171 Motor Van

3	of	No.	5	17	of	No	. 37
1	,,	,,	11	1	,,,	,,	40
1 1 2 1 4	,,	,,	12	3	,,,	,,,	48A
2	,,,	,,	16	1	22	,,	52
1	,,	,,	17	1	,,	,,	54
4	,,	"	22	3	,,	,,	90A
1	,,	,,	23	1	,,	,,	111c
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).

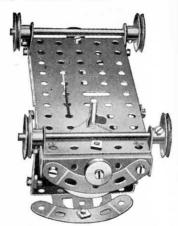
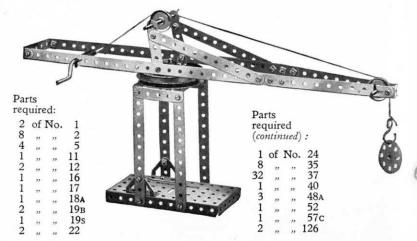
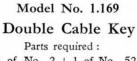


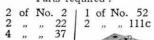
Fig. 1.171A

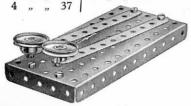
Model No. 1.170 Boat

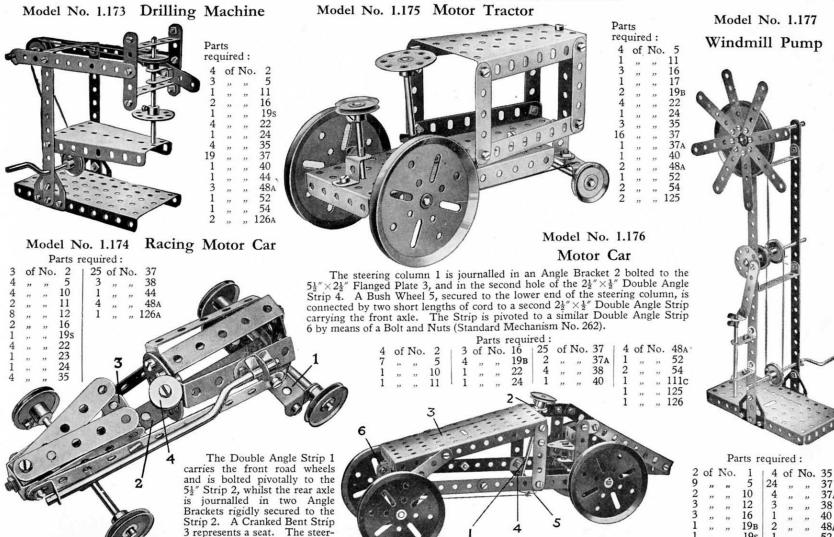
Model No. 1.172 Revolving Hammerhead Crane



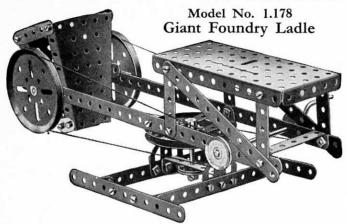






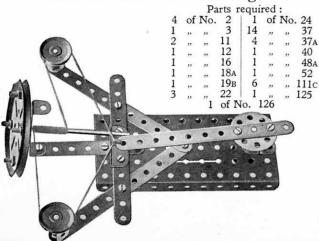


ing wheel consists of a ½" Pulley 4 bolted to an Angle Bracket.



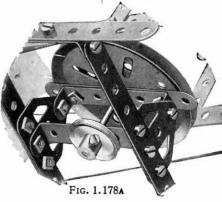
The ladle pivots about a $3\frac{1}{2}$ " Axle Rod carrying a 3" Pulley at each end in addition to a Bush Wheel and a $2\frac{1}{2}$ " Strip. The two latter parts are bolted to the side flanges of the Sector Plates and the Bush Wheel is nipped in position on the Rod. The pivot about which the superstructure turns is shown in Fig. 1.178A.

Model No. 1.179 Boat Steering Gear



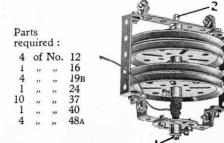
Parts required:

2	of	No.	1	3	of	No.	22
6	**	,,	2	1	,,	,,	24
1	,,	,,	3	36	,,	,,	37
7	,,	,,	5	6	,,	,,	37A
2	,,	,,	10	1	,,	,,	40
1 7 2 2 1	,,	,,	12	6	,,	,,	48A
1	,,	,,	16	1	,,	,,	52
1	,,	,,	17	2	,,,	,,	54
3	,,	,,	19 _B	6	,,	,,	111c
1	,,	,,	19s	2	,,	,,	126A



Model No. 1.180 Gyroscope

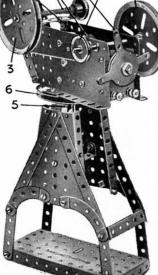
The 5/32" Bolt 1 is gripped by the Set-Screw of the Bush Wheel. The lower end of the Rod 2 of the gyroscope enters the boss of the Bush Wheel and rests on the shank of the Bolt 1.

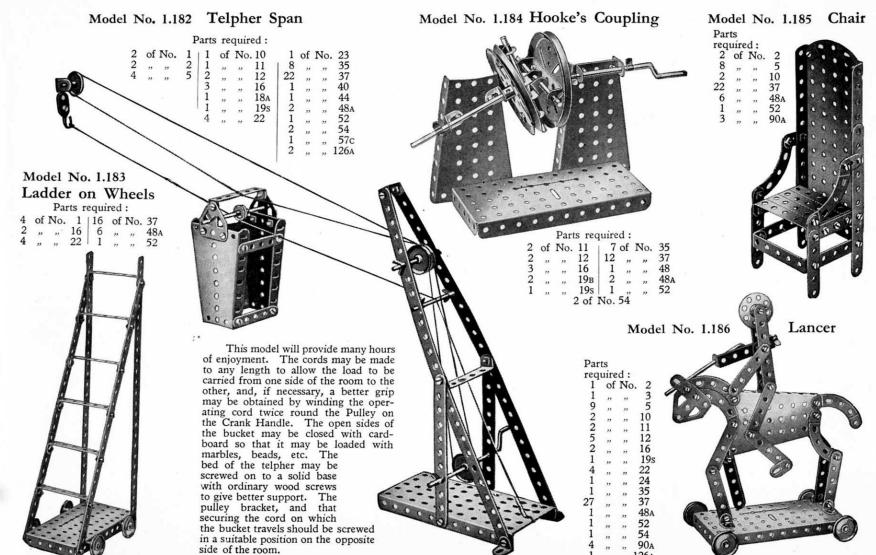


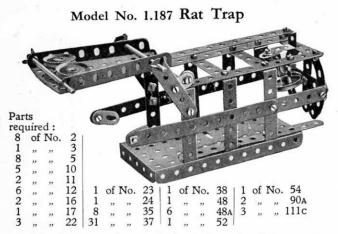
Model No. 1.181 Elevated Jib Crane

A 1" fast Pulley Wheel secured to the armature spindle of the Electric Motor is connected by an endless cord to the 3" Pulley Wheel 1. A 1" fast Pulley 2 on the same Rod as the latter is similarly connected with a second 3" Pulley Wheel 3. A cord wound on the Rod to which the latter is secured carries the load hook. The jib is supported by two cords 4, and the whole superstructure which is secured to the 3" Pulley Wheel 6 is capable of revolving with the Rod 5. The latter is journalled in two 24" × 4" Double Angle Strips secured between the Sector Plates in the base of the model.

				0
ar				
		ed:		
2	of	No.	1	
4	,,	,,	2	1 10
4	"	,,		1
1	,,	,,,	11	1
2	,,	,,	12	1
4 1 2 3 1 3	,,	,,	16	5
1	,,	,,	17	-
3	,,	,,	19в	0
4	,,	,,	22 23	
1	,,	,,	23	
1	,,	,,,	24	
5	,,	,,	35	
26	,,	,,	37	
2	,,	,,	38	
1	,,	"	40	
5	,,	,,	48a	
1	,,	,,	52	
5 2 1 5 1 2 1	,,	,,	54	A
1	,,	,,	57c	- 9
4	,,	,,	90a	10
	ot in	ic M nclude ntfit).		

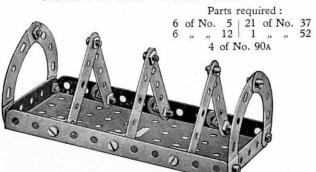


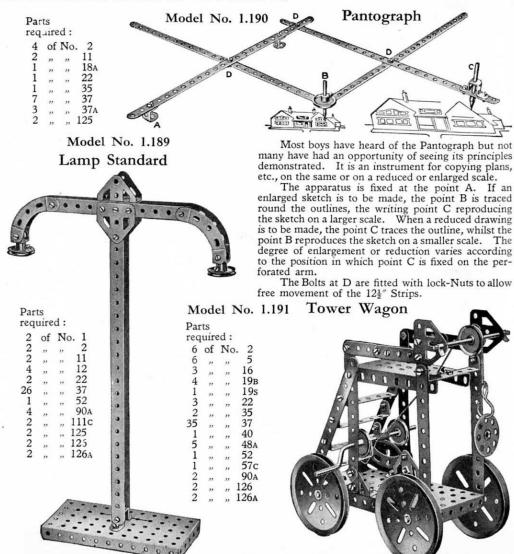




The "bait" consists of a 1" fast Pulley and a $\frac{1}{2}$ " loose Pulley suspended by means of a cord from a Double Bracket. The latter is bolted to a $1\frac{1}{2}$ " $X \ge 1$ " Double Angle Strip that is free to turn on a 2" Rod journalled in a pair of Angle Brackets. A Flat Bracket bolted to the 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

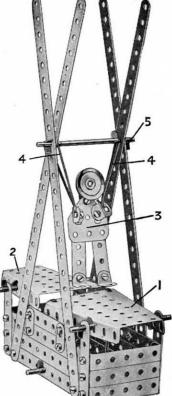




Model No. 1.192 A Sudden Appearance

Model No. 1.193 Eiffel Tower

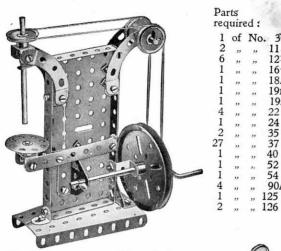
Model No. 1.195 Drill



The Sector Plate 1, forming the lid, is carried pivotally on an axle rod that passes through its sides three holes from the end, and the rear Sector Plate 2 is pivoted in a similar manner, excepting that the rod in this case passes through the fourth hole from the end. Pieces of thin elastic are tied to the end holes in each side of the front Sector Plate at its widest end, and are connected to a Rod journalled in the sides of the box. The "Meccanitian" 3 is placed face downward inside the box with his feet towards the far end of the model. The tension of the elastic holding the lid I should be sufficient to keep him in this position. On tilting the Plate 1 slightly, however, he will suddenly shoot out of the box, drawn by the elastic bands 4 connected to the 31" Axle Rod 5.



Parts required: 4 of No. 1



Model No. 1.196 Revolving Tricyclist

Model No. 1.194 Top

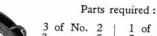
To spin the top wind a length of cord round the Rod, as shown place on a smooth surface and give the cord a sharp pull. When the cord is clear of the rod remove the 51 "Strip and the top will continue to spin for a considerable period.

Parts required :

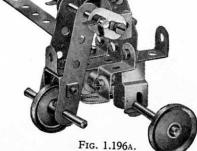
4	of	No.	1	8	of	No.	35
4	,,	"	2	29	,,	,,	37
8	,,	,,	5	4	,,	,,	48A
5	,,	,,,	10	1	,,	,,	52
	3,	"	12	2	27	,,	54
4	,,	"	16	1	,,	,,	111c
1	"	"	22	1	29		126A
	A	shor	t ler	igth of	ela	stic	

Parts required:

1 of No. 2 | 1 of No. 37 1 " " 16 | 1 " " 40 1 " " 19_B | 1 " " 125



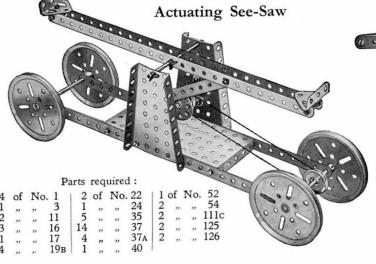
3	OI	No.	2	1	of	No	. 24
3	,,	,,	5	5			35
3	,,	22	10	25			37
1	,,	,,	11	1		**	44
5	,,	,,	12	2	,,	,,	48A
1	,,	"	16	1	,,	,,	52
2	,,	"	17	2	**		125
1	,,	,,	19s	2	,,	,,	126
4	,,	,,	22	1	,,	,,	126A
		3 " 1 " 5 " 1 " 2 " 1 "	3 " " 1 " " 5 " " 1 " " 2 " " 1 " "	3 " " 10 1 " " 11 5 " " 12 1 " " 16 2 " " 17 1 " " 19s	3 " " 10 25 1 " " 11 1 5 " " 12 2 1 " " 16 1 2 " " 17 2 1 " " 19s 2	3 " " 5 5 " 3 " 10 25 " 1 1 1 1 1 " 5 1 1 1 1 1 1 1 1 1 1 1	3 " " 5 5 " " " 10 25 " " " 11 1 1 " " 12 1 2 " " 11 1 1 " " 11 1 1 " " 11 1 1 1



Model No. 1.197 Guillotine

Parts required:

2	of	No.	. 1	1	10	No.	22
1	,,	,,	3	2	,,	,,	35
9	,,	,,	5	24	,,	,,	37
2	,,	,,	10	1	,,	,,	40
2		,,	11	3	,,	,,	48A
1			16	1		122	52



Model No. 1.198

Model No. 1.200

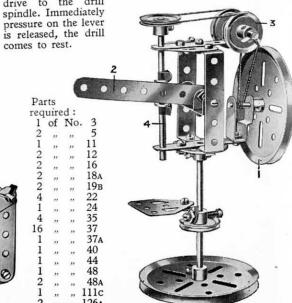
Coat Hanger

Parts required:

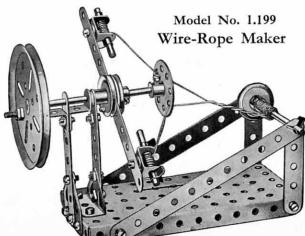
1 of No. 1 | 2 of No. 5 | 1 of No. 57c
2 " " 2 | 6 " " 37 |

Model No. 1.201 Automatic Drill

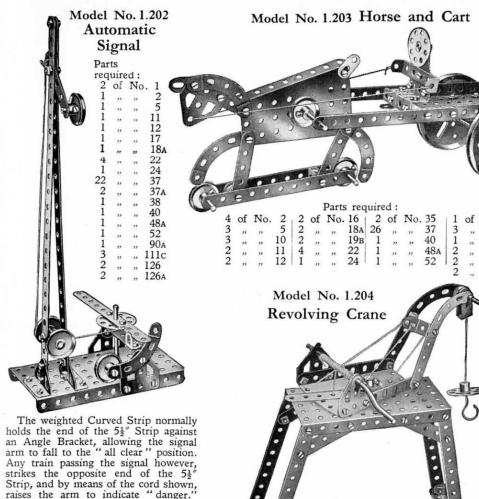
Cord is passed round the Pulley on the drill spindle 4 and thence over the Pulleys 3 and round the shaft of the Pulley 1. The lever 2 (a 3½" Strip) is pivoted by a Bolt and two Nuts at its inner end to an Angle Bracket, and the latter is bolted to a 1½" ½ " Double Angle Strip which, in turn, is bolted 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



Parts required:
3 of No.
1 " "
3 " "



Parts required: 4 of No.



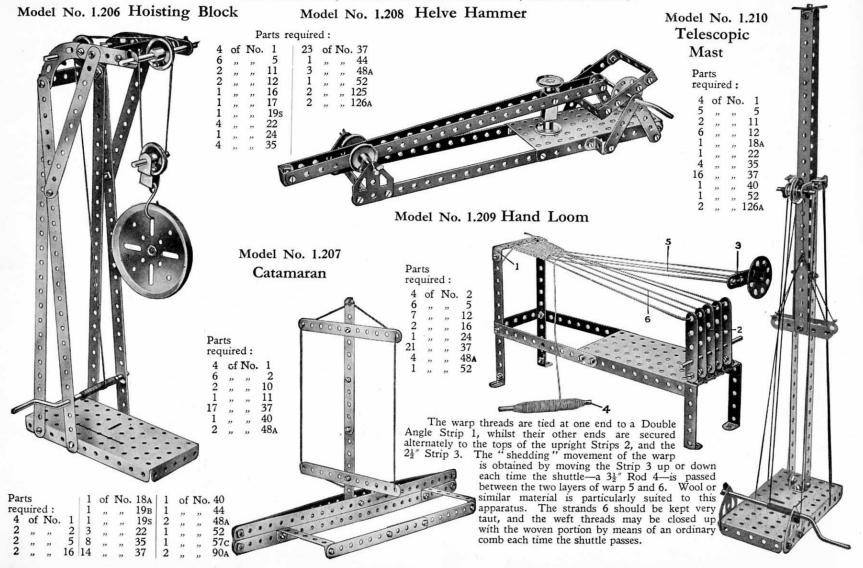
The Curved Strip moves to allow the end of the $5\frac{1}{2}$ " Strip to pass over it, and

is returned to its original position by reason of its weighted end. The signal then remains at "danger" until the

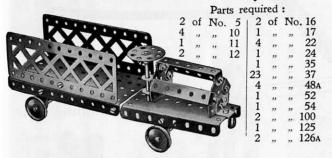
mechanism is re-set.

Model No. 1.205 Patent Luffing Crane

The hoisting cord 1 is operated by the Crank Handle 2. It passes over the 1" Pulley 3, round the 1" Pulley 4 at the jib head, back and round a third 1" Pulley 5, and then over the 1" loose Pulley 6 at the jib head and down to the hook. With this arrangement it will be found that the load remains at a constant height when the jib is luffed. The luffing cords 7 are attached to the jib head, passed over the 2" Rod carrying the Pulleys 3 and 5, and wound on to the luffing winch 8. required:

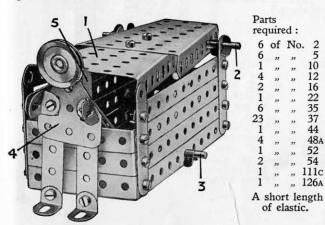


Model No. 1.211 Motor Lorry

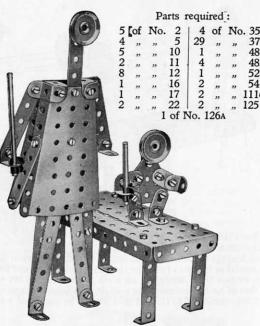


Model No. 1.212 Disappearing Meccanitian

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 Abraca 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.



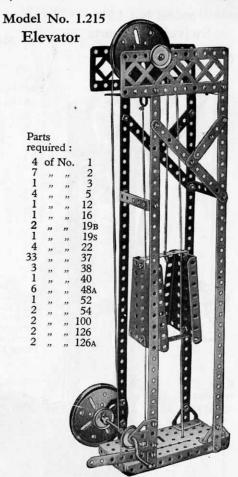
Model No. 1.213 Dignity and Imprudence



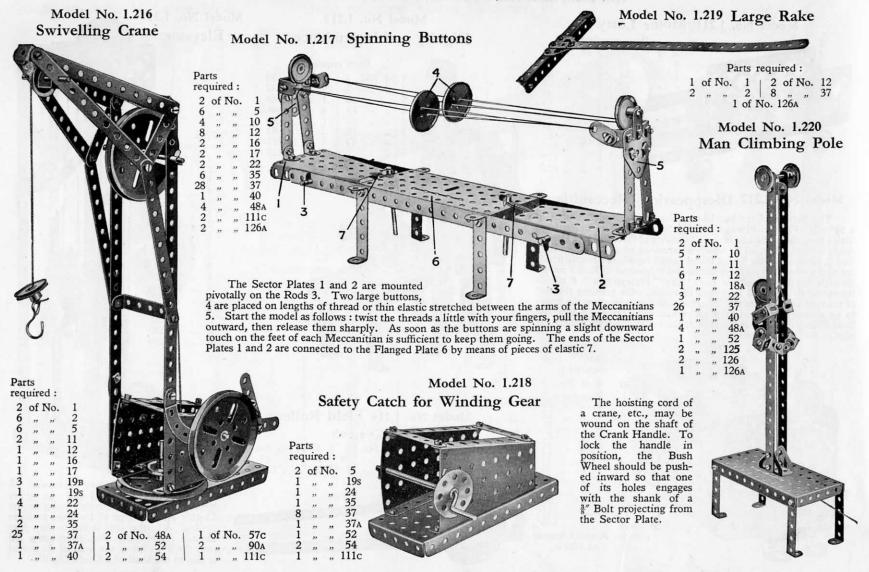
Model No. 1.214 Field Roller

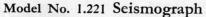
				P	arts	rec	quired:			
3 6	of	No.	. 1 5 12			No.	. 16 19в 37	of	,,	90A 126
		William						 0.0	28	

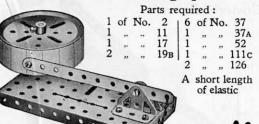


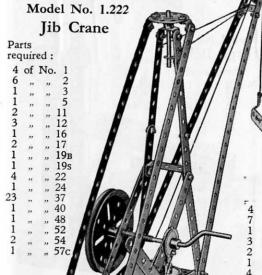


Two cords stretched between the base plate of the model and the upper structure are passed through holes in the Double Angle Strips of the cage to form guides. A further cord is tied to the upper Double Angle Strip, and after being led over the 3" Pulley at the head of the model is tied to the shaft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

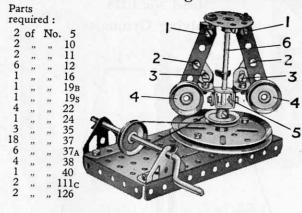








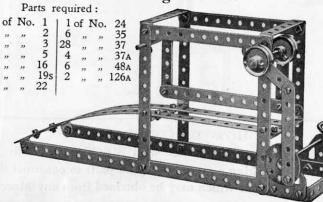
Model No. 1.223 Centrifugal Governor



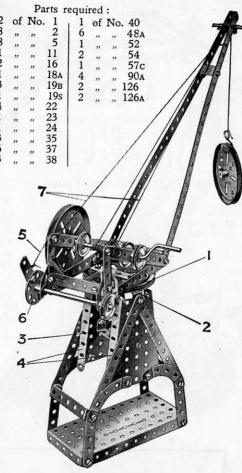
The 3" Pulley Wheel is bolted to the $5\frac{1}{2}$ " $\times 2\frac{1}{2}$ " Flanged Plate as shown, and the Rod 6 is free to rotate in its boss. The Bolts 1, 2, 3, are provided with lock-nuts. When the engine to which the governor is attached works at too great a speed, the 1" fast Pulley Wheels 4 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

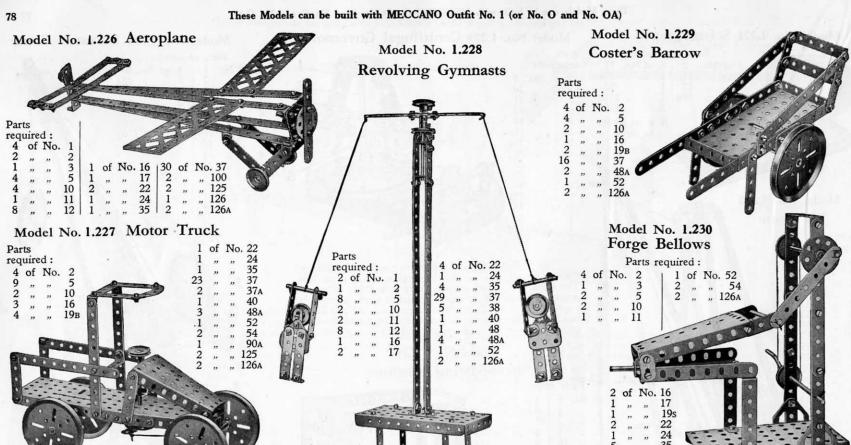
Stone-Sawing Machine



Model No. 1.225 Elevated Crane

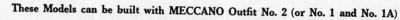


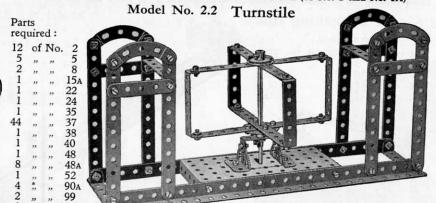
The base of the swivelling portion of the crane consists of a 3" Pulley Wheel 1, which has a 3½" Axle Rod nipped in its boss. The Rod is journalled in two 2½" Double Angle Strips 2 and 3 secured between the Sector Plates 4. The brake cord 5 passes round the 3" Pulley as shown, and is tied to one of the 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.





Model No. 2.3 Coal Sifter

The $5\frac{1}{2}$ " Strip 1 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.

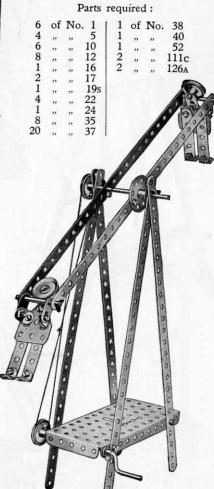
Parts required .

Model No. 2.1 Acrobat

		1.	1112 16	quii	eu	•	
4	of	No.	1	16	of	No.	37A
2	,,	22	3	5	,,	,,	38
2 5 2 2	,,	,,	5	1	,,		40
2	,,,	,,	8	1	,,	,,	45
2	,,	,,	10	1	,,	,,	52
1	"	,,	15	1	,,		54
1 2 2 3	"	,,	19 _B	1 2			62
2	,,	,,	20в	1			115
	,,	,,	22	2			126
20			-	_	"	"	



Model No. 2.4 Revolving Meccanitians



Model No. 2.5 Easel

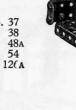
Parts required:

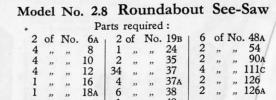
These Models can be built with MECCANO Outfit No. 2 (or No. 1 and No. 1A)

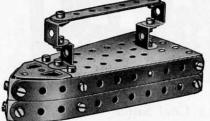
Model No. 2.6 Smoothing Iron

Parts required:

		-	************				
4	of	No.	2	20	of	No.	37
2	,,	,,	3	2	,,	,,	38
6	,,	,,	10	1	,,	,,	48A
4	,,	"	11	2	,,,	,,	54
2	,,	,,	12	1	,,	,,	12(A



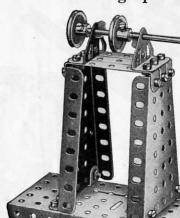




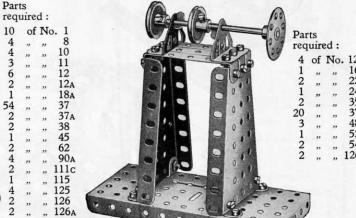
Model No. 2.7 Mat Frame

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



Model No. 2.9 Polishing Spindle



Model No. 2.10 Scales

Model No. 2.12 Motor Truck

					Par	ts t	equi	red:					
1	2	of	No.	2	14	of	No.	19B	3	of	No	. 48A	
1	2	,,	,,	5	1	,,	,,	22	1	,,	,,	52	
	2	,,	"	6A	1	,,	,,	24	2	,,	,,	54	
2	2	,,	,,	10	1	,,,	,,	35	2	,,	,,	100	1
1	1	"	"	11	23	,,	,,	37	1	22	,,	111c	
3	3	,,	,,	16	2	,,	,,	37A	2	,,	,,	126A	١
					1	,,	,,	40					

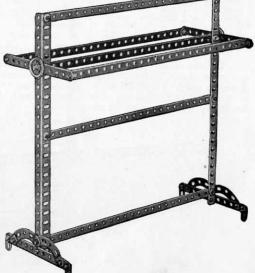
A cord passed twice round a 1" fast Pulley Wheel on the lower end of the steering column is tied to the ends of a $2\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strip, which is pivoted by means of a Bolt and Lock-Nuts to a Double Bracket bolted to the lower Sector Plate. The front axle is journalled in the end holes of the Double Angle Strip.

Model No. 2.11 Sand Yacht



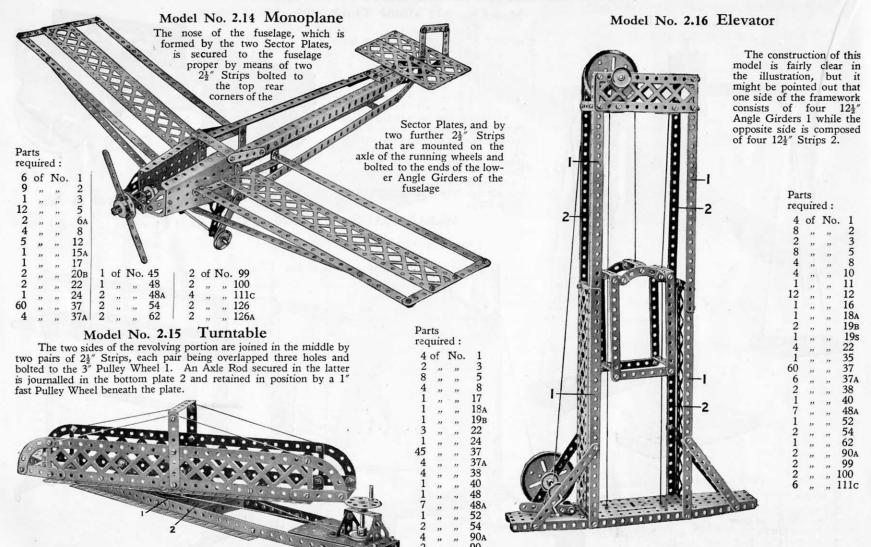
Model No. 2.13 Towel Horse

				Pal	re r	equi	reu:				
6	of	No.	1	4	of	No.	12	8	of	No	. 38
	,,		2	2	,,	,,	22A	4	**		90A
2	,,	,,,	8	28	,,	,,	37	2			111c
4	,,	,,	10	2			37A			-	



Parts	required	

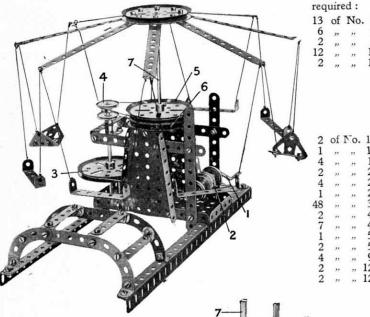
2	of	No.	1	2	of	No	.18A	1	of	No	. 52
1	,,	,,	6A	2	,,	,,	35	2	,,	,,	54
2	,,	,,	8	31	,,	,,	37	2	,,	,,	62
2	,,	,,	10	4	,,	,,	38	2	,,	,,	90 _A
1	,,	,,	11	1	,,	,,	40	1	,,	,,	115
2	,,	,,	12	1	,,	,,	45	2	,,		126A
2			12A	4			48A	_	,,	"	



Parts

of No. 15

Model No. 2.17 Roundabout



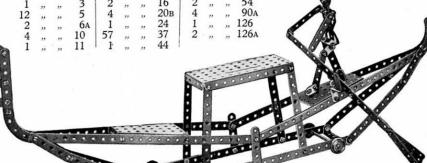
When the Crank Handle is turned, the drum 2 by (formed butting together two 3" Flanged Wheels) turns the 3" Pulley Wheel 3 by means of an endless cord. The 1" fast Pulley Wheel 4 similarly turns a second 3" Pulley Wheel 5 resting on another 3" Pulley Wheel 6 (see Fig. 2.17a). The end of the Axle Rod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

126_A

Fig. 2.17A

Model No. 2.18 Gondola

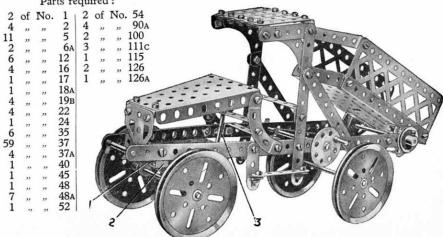
Parts required: 5 of No. 12 6 of No. 1



Model No. 2.19 Tipping Motor Wagon

The front Axle Rod is journalled in a $2\frac{1}{4}$ " \times $\frac{1}{4}$ " 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.

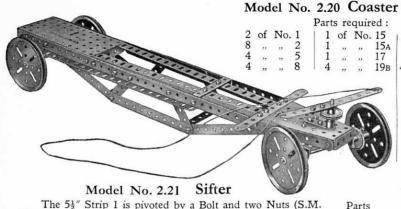
Parts required:



Parts

required:

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



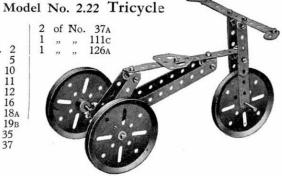


Model No. 2.24 Ladder on Wheels

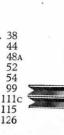
Par	rts		
req	uire	ed:	
6	of	No.	1
7	,,	,,	5
4	,,	,,	12
2	,,	,,	16
4	,,	,,	20 _E
40	,,	,,	37
4	,,,	,,	38
8	,,	,,	48A
1	,,	,,	52
2	250		90A



The $5\frac{1}{2}$ " Strip 1 is pivoted by a Bolt and two Nuts (S.M. 262) to the Bush Wheel and also to a Trunnion bolted to the 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.

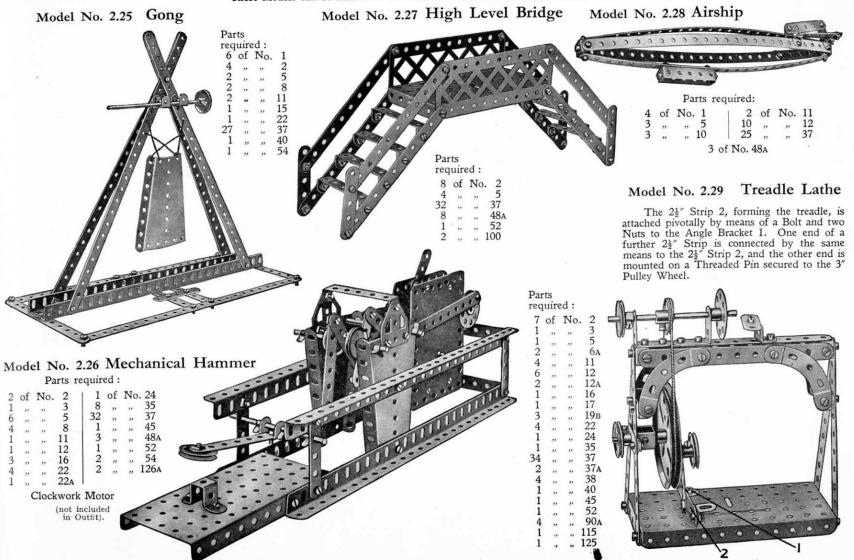


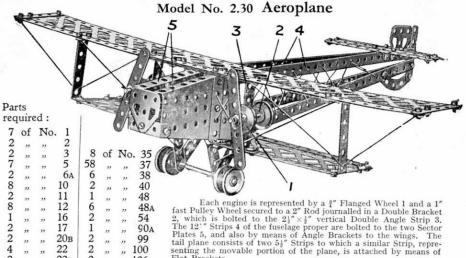
Model No. 2.23 Spinning Top



Parts
required:
1 of No. 2
1 " 16
2 " 19B
2 " 20B
2 " 37
1 " 40
1 " 62

The drum on which the cord is wound consists of two \(\frac{3}{4}\)" 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.

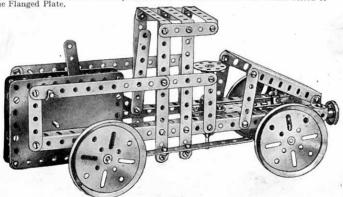




Motor Lorry Model No. 2.31

Flat Brackets.

The driving spindle of the Clockwork Motor is removed and in its place is inserted a 3½" 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 "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 bolted to this Double Angle Strip and carries a short Rod that is journalled in the boss of a further Crank bolted to the Flanged Plate.



Parts required:

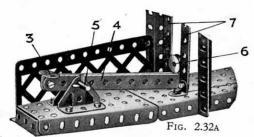
8	of	No	
1	,,	,,	3
10	,,	,,	5
6	,,	,,	10
1	,,	,,	15
1	**	22	15A
2	,,	,,	16
1	,,	,,	18a
4	"	22	19 _B
2	**	,,	22
1	,,,	"	24
12	"	"	35
49	22.	"	37
3	22	"	38
1	,,	"	45
4	"	23	48 A
1	32	,,	52
1	22	"	54
2	22	"	62
2	"	,,	111c
C	lock	cwo	rk

Motor

(not included in Outfit)

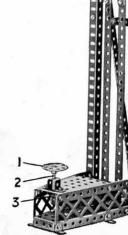
Model No. 2.32 Try-Your-Strength Machine

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 51 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 51 Strips fling the Pulley Wheel 6 upward, but the wheel is guided by the vertical $12\frac{1}{2}$ " Strips 7. The weight of the Strips 4 then causes the Bush Wheel to resume its original position.

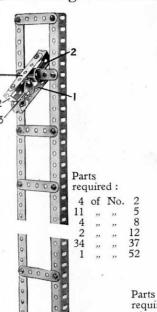


Parts required:

6	of	No.	1	2	of I	No.	10
6	,,	,,	2	10	,,	,,	12
6 1 2 2 4	,,	"	2 3 5	10 2 1	,,	"	18A
2	,,	"	5	1	,,	"	23
2	,,	,,	6A	1	,,	,,	24
4	,,	,,	8	3	"	,,	35
			- 1	60	"	"	37
			8	6	,,		37A
		Æ	-/	6	"	"	38
1		1	-	1	,,		45
/	1	7.	1/4	ī		"	45 48
40		10	M .	ī	"	22	48A
		V_{i}	iii.	ī	"	"	52
		4		2	"	"	52 54
OF SEC.				2 3 2 2	"	"	90A
~		37		2	"	,,	
				2	"	22	100
		2.32		4	"	"	126
r	16.	2.32	В				



Model No. 2.33 Performing Meccanitian



Parts required:

8 of No. 2 | 4 of No. 35
2 ,, 3 | 35 ,, 37
12 ,, 5 | 2 ,, 37A
6 ,, 12 | 4 ,, 38
2 ,, 16 | 1 ,, 40
2 ,, 17 | 8 ,, 48A
4 ,, 22 | 4 ,, 90A
1 of No. 111c

The Bolts 1 are 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 bolt-

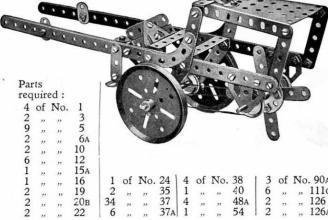
Model No. 2.34

Model No. 2.35 Square-topsail Schooner

ed to the Double Angle Strip 3.

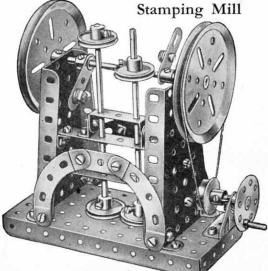
			M	ode	1	0.	2.5	0	Squa	re-to	psar	1 3	CHO	oner
	Par	ts		1	41	of	No.	37			_	A		
	requ	uire	: bs		1	,,	,,	40				6700		
		of	No.		4	,,	"	48A		8	_ /			
	6	,,	"	2	2	22	"	90a	9	6	· An		N	
	1	22	22	3					1	H.	> [3		
	10	,,,	,,	10					/ 6					1
	4	,,,	"	11				/		100	11		- 1	W.
	5	"	"	12						WIT	M		- 1	慮
	,	22	"	12			/		L	4	\I		- 1	
						/			Λ		V	No.	- 1	/ BI
					/						1			101
				,				/	/	9	1	6		
	ts of			/				/	- 1		11		3500	
5	is of		/				/		- 1	0	1000			1
	it as		20	The same		_/			-C	1		Ch.	0 0 0	0000
	ot 3			~	00	1	07	No. of Contract of	20000	2 4 6	0000	000		- A
	top					\	1							1

Model No. 2.36



Hay Tedder

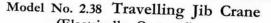
Model No. 2.37



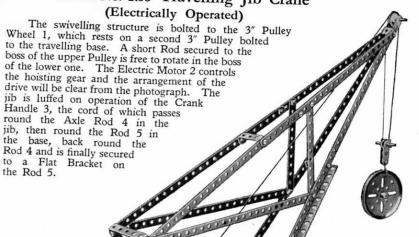
The Meccanitian consists of two $2\frac{1}{2}$ " Strips 1 to the ends of which two $5\frac{1}{2}$ " Strips 2, bent as shown, are bolted. The slot 3 should be passed over the top Strip of the ladder, when the device will fall "head over heels" to the bottom.

Parts required: 2 of No. 3 2 " " 6 10 " " 12

" 12" 15" 15" 17" 19" 19" 20" 22" 24" 35" 37" 37" 37" 38" 48" 52" 54" 62" 90" 64" 111c



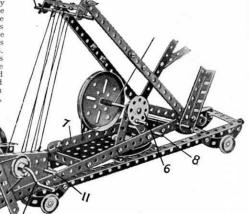
Parts required:



Model No. 2.39 Travelling Jib Crane (Hand Operated)

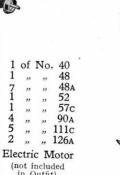
This shows a section of Model No. 2.38 fitted for hand operation, No. 2.38 fitted for hand operation, thus dispensing with the necessity of the Electric Motor. In this case the hoisting cord is operated by the hand wheel 6, the Rod of which is controlled by a hand brake 7. The end hole of the lever of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



Parts required:

of	No.	1	3	of	No.	10
,,,	,,	2	1			11
22	,,,	3	1	,,		15
,,	,,	5	1	,,		15 _A
,,	22	6A	5	,,	,,	16
,,	,,	8	2	,,	,,	18 _A
	" "	" " " " " "	" " 3 " " 5 " " 6A	" " 2 1 " " 3 1 " " 5 1 " " 6A 5	" " 2 1 " " " 3 1 " " 5 1 " " 6A 5 " " 8	" " 2 1 " " " " " " " 5 1 " " " " " 6A 5 " " "



(not included

1 of No. 48

Parts required (continued):

Model No. 2.40 Schneider Trophy Seaplane

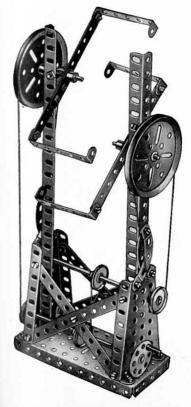
Parts required:

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 0	t No	. 126	A		

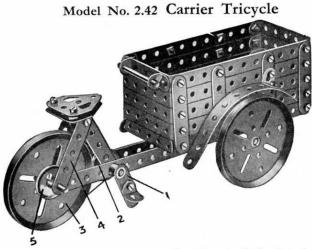
Model No. 2.41 Candy Puller

Parts required:

6	of	No.	2	36	of	No.	37
2	,,	,,	8	4	,,	,,	38
6	**	,,	12	1	,,	,,	40
2	,,	,,,	15	4	,,	"	48A
2	,,	,,	17	1	,,	,,	52
2	,,	,,	19 _B	2	,,	,,	54
4	,,	,,	22	2	,,	,,	62
1	,,	,,	24	4	,,	"	90a
3		**	35	1			115



48 48A 52 54 57c 62 90A



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).

		ed : No.	2 5
	OI	140.	=
12	,,,	22)
2	,,	,,	11
6	,,	,,	12
1	,,	,,	16
1	,,	,,	17
2	,,	,,	18A
2	,,	.,	19 _B
2			22
45			37
5	,,,		37A
1		,,,	40
	,,,	"	
8	,,	,,	48A
1	,,	,,	52
2			62

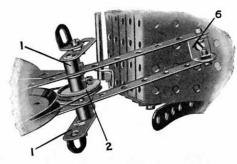
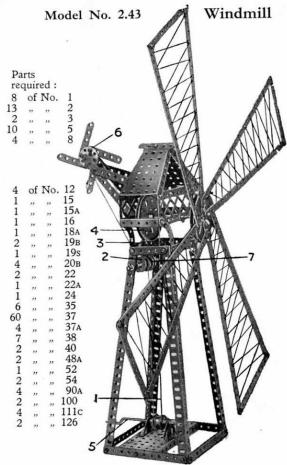
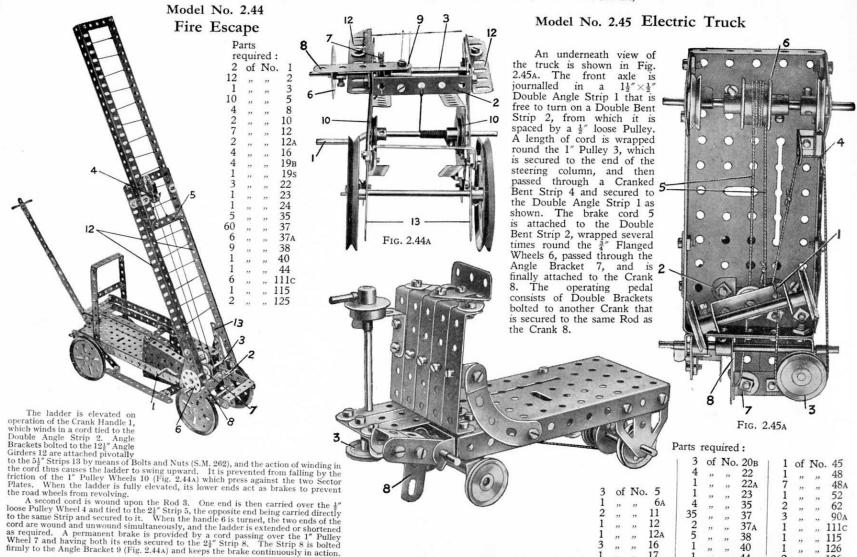


Fig. 2.42A



The operating cord 1 is given a complete turn round the pair of $\frac{3}{4}$ Flanged Wheels 2. It is then led round the 1" loose Pulley 3, over the 3" Pulley 4, then down and round the $\frac{3}{4}$ 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.



Mo

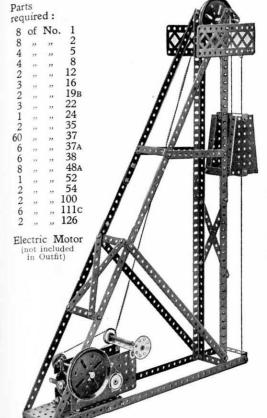
Parts requir 8 of 8 " 4 " 2 "

23231260668

Elec (no ir

thi

Model No. 2.46 Pit Head Gear (Electrically Operated)



45 48 48A 52 62 90A 111c

115

126

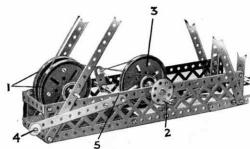
126_A

Model No. 2.48 Steam Lorry

				Par	ts :	requi	ired:				
2	of	No.	3	1 4	of	No.	20в	1	of	No	. 52
10	32	,,,	5	3	,,,	22	22	2	,,	,,	54
2	,,	,,	10	1	27	,,	22A	1	,,	22	62
1	,,	,,	11	1	,,	,,	24	3	- 77	,,	90a
3	**	,,	12	5	22	,,	35	2	22	33	100
3	**	22	16	60	22	22	37	4	22	22	111c
1	,,,	"	17	5	22	,,	37A	1	22	22	125
1	,,	,,	18A	1	,,	,,,	45	2	,,	,,,	126A
2	,,	,,	19в	8	,,	,,	48A				

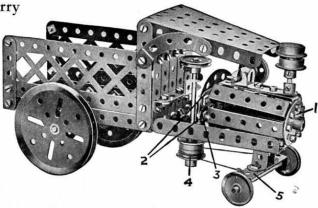
Model No. 2.47 Pit Head Gear (Hand Operated)

				Par	ts .	requi	red:				
6	of	No.	1	4	of	No.	22	2	of	No.	54
7	,,	,,	2	1	,,	,,	23	2	,,	"	62
3	,,	,,	5	1	,,	"	24	2	,,	,,	99
4	,,	**	8	3	,,	,,,	35	2	,,	22	100
4	,,	.,,	11	60	22	"	37	6	,,	"	111c
6	,,	27	12	6	,,	,,	37A	1	,,	,,	115
4	,,	,,	16	8	,,	,,	48A	2	33	,,,	126A
4	,,	,,	19 _B	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 1 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 $5\frac{1}{2}$ " Strip that is bolted to the Crank 5.



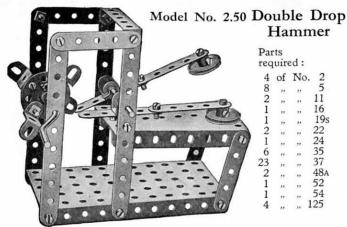
The boiler of the engine is built up of $2\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strips bolted to the Bush Wheel 1, and to two $2\frac{1}{2}''$ Strips 2, which are joined together by Flat Brackets 3. A $2\frac{1}{2}''$ Curved Strip (small radius) is bolted to the upper Strip 2. A cord is passed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

Model No. 2.49 Revolving Truck

Parts required:

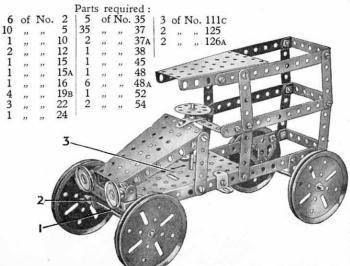
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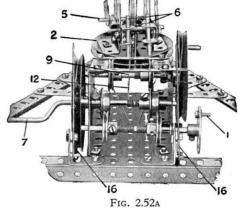




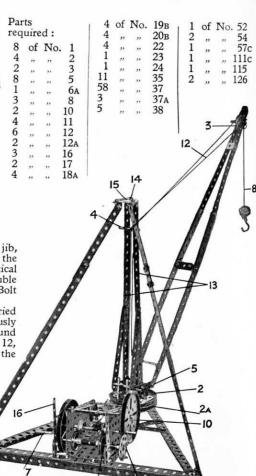
Model No. 2.51 Motor Van

The Axle Rod 1 is journalled in a $2\frac{1}{2}''\times\frac{1}{2}''$ 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.





Model No. 2.52 Derrick



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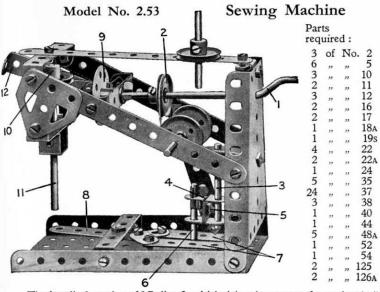
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The 3" Pulley Wheel 2, which supports the jib, is free to turn on a short Axle Rod secured in the boss of the lower 3" Pulley Wheel 2a. The vertical $12\frac{1}{2}$ " Strips 13 are bolted at their tops to a Double Bracket, to the centre hole of which 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 band-and-pulley brakes 16.



52 54 57c 111c 115

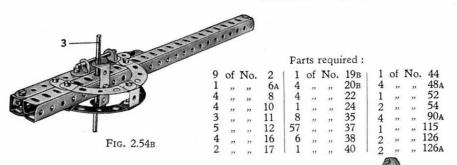
126

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.

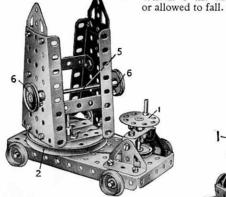
Model No. 2.54 Anti-Aircraft Gun



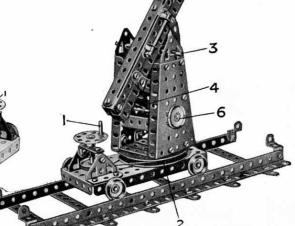
breech and wound on the 31"

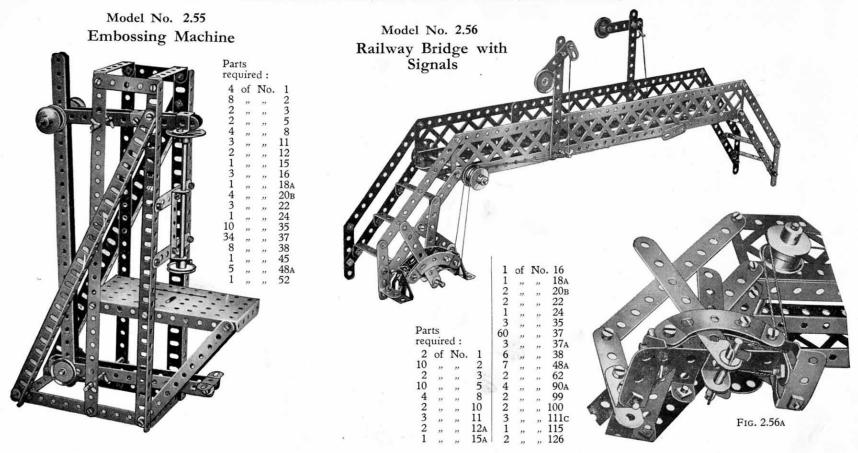
Rod 5. By turning the Pulley Wheels 6 the muzzle is raised

The general construction of the model will be made clear by reference to Figures 2.54a and 2.54B. Rotation of the handle 1 causes the gun to revolve on the 3" Pulley Wheel 2. The barrel of the gun is so balanced on the Axle Rod 3 that it tends to fall by its own weight, but is prevented from doing so by a cord 4 tied to the gun close to the





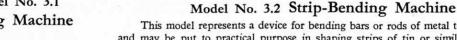




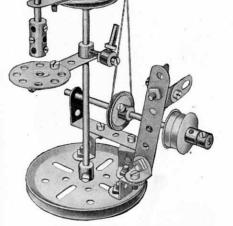
HOW TO CONTINUE

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.

Model No. 3.1 Drilling Machine

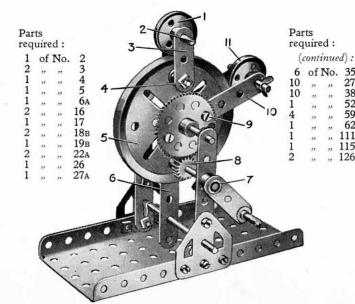


This model represents a device for bending bars or rods of metal to circular form, and may be put to practical purpose in shaping strips of tin or similar material. A 1" loose Pulley 1 is spaced by a Collar and Washers in the centre of the short Rod 2 journalled in a 1½" Strip 3. The latter is secured to the end of a ¾" Bolt 4 and spaced away from the 3" Pulley 5 by means of a number of Washers. The opposite end of the Rod is supported by a 5½" Strip 6. The handle 7 is secured to a 3½" Rod carrying a ½" Pinion 8. This engages with a 57-teeth Gear Wheel 9 mounted on another 3½" Rod which is free to revolve in the boss of the wheel 5. The Gear Wheel 9 carries a 3"Strip 10 forming one of the bearings for a short Rod carrying a second 1" loose Pulley 11. The latter is also spaced by means of a Collar and Washers so that it lies immediately above the groove of the Pulley Wheel 5. The material to be shaped is passed between the two loose Pulleys at the top of the wheel 5, and on rotation of the handle 7 the arm 10 is caused to move downward, so forcing the object to the same curvature as the circumference of the wheel.

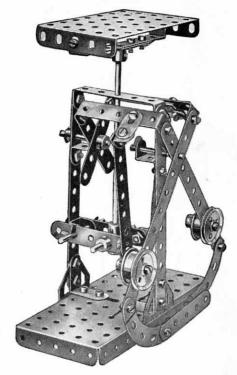


Parts required:

				Par	ts 1	requi	red:				
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2	,,	,,	10	4	,,	,,	22	2	.,,	,,	62
2	,,	,,	11	2	,,	,,	22A	1	,,	,,	63
1	"	,,,	12	1	,,	,,	24	1	,,	,,	111
1	22	,,	15	3	,,	"	35	1	,,	,,	115
2	"	22	15A	21	"	,,	37	3	22	,,	125
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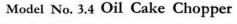


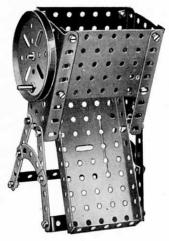
Model No. 3.3 Letter Balance



Parts required:

				Pai	LS	requ	neu.				
4	of	No.	2	2	of	No.	18A	1	of	No	. 53
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5	,,	,,	5	2	,,	,,	22A	1	,,	,,	62
2	"	,,	10	4	,,	,,	35	1	,,	,,	63
1	,,	,,	11	37	,,	,,	37	2	**	,,	90a
4	22	,,	12	6	,,	,,,	37A	2	"	,,	111
2	,,	,,	12A	2	,,	,,	48A	4	,,	,,	111c
1	,,	,,	15	1	,,	,,	48в	2	,,	,,,	125
2	,,	,,	17	1	,,	,,,	52	2	,,	"	126A





Parts required:

4	of	No.	3	1	of	No.	. 52
6	,,	,,	10	2	,,	,,	53
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1	,,	"	19 _B	1	,,	,,	59
4	,,	,,	22	2	,,	,,	90a
4	,,	,,	37	1	,,	,,	115
2	,,	,,	48в	2	,,	,,	125

Fig. 3.4A shows the hand wheel and shaft removed from the model. It will be seen that the chopping mechanism is represented by Flat Brackets clamped between two pairs of 1" fast Pulley Wheels.

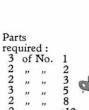
Model No. 3.5 Lawn Mower

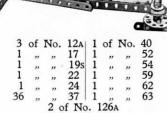
The grass box 1 is retained in position by two Flat Brackets bolted to the $2\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strip 2 but spaced from it by a Washer on each Bolt. The edge of the Double Angle Strip 3 may be slipped in the space between the Double Angle Strip 2 and the Flat Brackets, one of which is shown at 4.



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26	"	,,,	37
6	"	"	38
1	,,	"	40
6	"	"	48A
2	"	"	90
4	"	"	90a

Fig. 3.4A





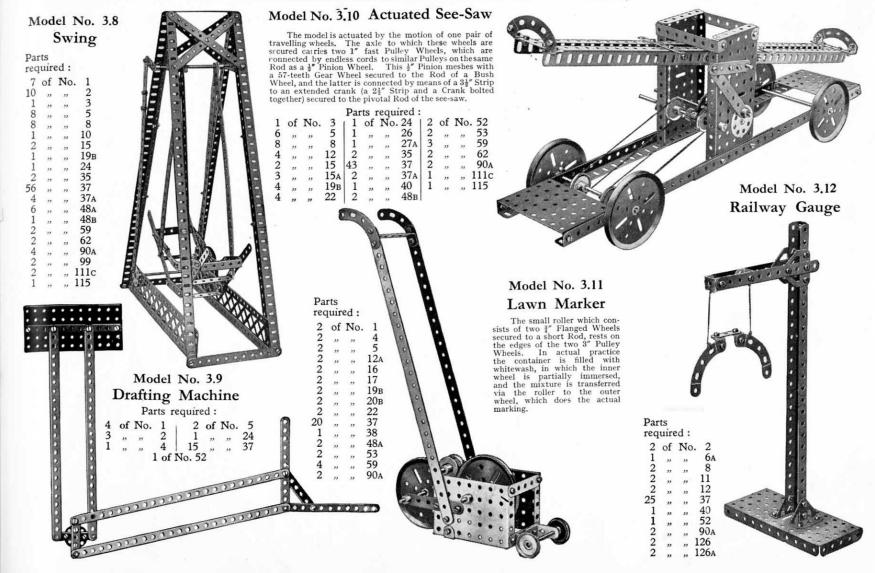
Model No. 3.7 Toboggan

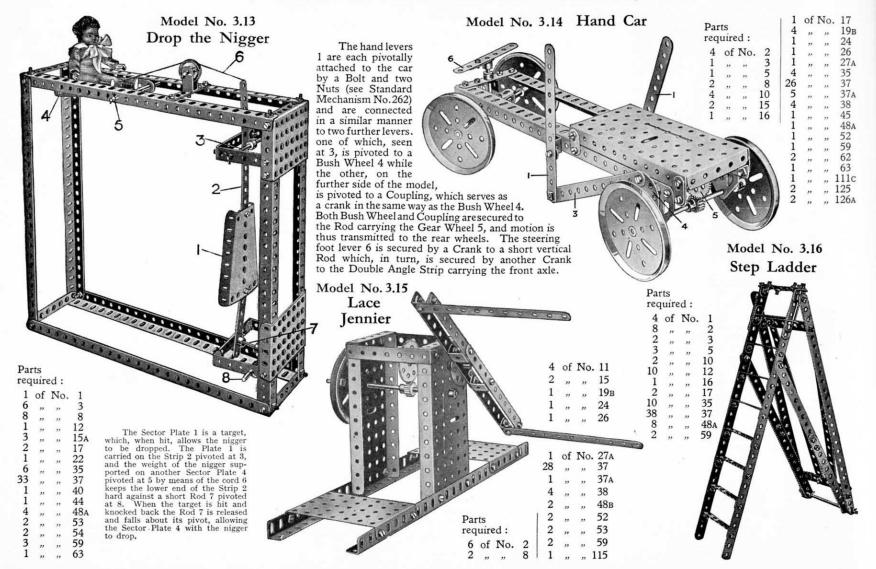
Model No. 3.6 Ice Boat



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Full instructions for building a fine range of models are included with each Outfit.

INDEX TO MODELS

Model No. 1115 00.154; 2.44 1.115 00.172 0.03; 1.54; 1.145 1.79 1.84 1.184 0.0.78; 1.41 0.0.18 0.0.86 0.0.80; 0.0.86 0.0.80; 0	00.127 to 00.134 00.14 00.117 00.117 00.117 00.117 00.118; 2.54 00.118 00.118 00.118 00.118 00.128 01.139 01.139 01.139 01.228 01.139 01.228 01.139 01.24 01.27 01.29 01.34 01.20 01.34 01.20 01.34 01.20 01.34 01.20 01.34 01.20 01.34 01.20 01.34	0.60 1.159 1.122 1.11 00.175 00.110 1.160 1.98 00.148 1.181; 2.24 00.148 1.178 1.178 1.178 1.178 1.178 1.178 1.178 1.178 1.178 1.178 1.178 1.178
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Model No. 1.136 1.137 1.149; 2.20 1.150 1.140; 2.20 1.150; 2.2	0 00.100.100.100.100.100.100.100.100.100	0.125; 1.173 0.057 0.116 2.5 1.193 1.49; 1.215; 2.16 0.090 1.25 1.49; 1.215; 2.16 0.090 0.146 0.
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TO MODELS (continued) INDEX

Desc	cription	_		Model No.	Description
Lathe Tr	eadle	:		2.29	Rake, Horse
Lawn Mc	ower	:	•	1.00	., Large
Letter Balance	alance		:	00 174	Irap
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Liner	1001	:		00	Road Sign
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Man and	Boy	:	:	1 70	" Mechanical
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Master di	na Stad	lent	:	1.133	" Machine
Mat Fran	ne	:	:	2.7	Saxophone
Meccano	Boy	:	:	0.48	Scales 00.71:
"	Man	:	:	00.82	
Meccanog	graph	:	:	1.119	Scarifier
Mechanic	al Gon	:	:	1.142	Schooner Square To
Medal		:	:	0.13	Scooter, Scooter
Milk Mai	d	:		0.41	Soran Deal
Missing Link, The	ink, T	he	:		Sapulana Schnaider
Monoplan	Je				Scapialie, Schuelder
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Cvc	leand	Sidecar	:	0.44	Sedan Chair
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:	Model No 0.5 ; 1.156	Table, Collapsible	Model No.
	1.219	" Drafting Tappet Valve Demonstra	0.101
: ::	00.50	Telegraph Key	1.150
	0.90	Telescope	00.79
net	00.47 : 00.119	Telescopic Mast	0.49 ; 1.210
:	00 94 : 1 914	Tennis Player	0.12
	00.10	Ticca Gharry	0.10
: :	00.62; 1.92; 2.17	Tight Rope Walker Timber Drag	1.30 : 1.65
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Popsa Topsa	- 1		
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der Tro			•
: :		Irowel Mason's	00.30
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:	1.161	d Trian	plated 1.9
: :.	00.27	". Triangulated	1.10
er.	1.58	ir-strength Mac	
:		ole	2.15
: :		:: SI	
ilway		Umbrella Stand	00 198
ay			00.120
ay		Van, Motor	1.171 : 2.51
'ay		Viaduct	00.23
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:	00.34	Dinner	00.149 ; 1.27
: :		:	00.162; 0.110
:-[8	1.166	Tip	00.111
9	1.128	Tower 1	8; 1.114 1.191
: :	00.184 ; 2.37	: :	00,141
::10	0.71	h and Chain	00.137
	00.69	: :	0.112 : 1.110
: :	00.123	ndlass	00.171
:	0.19	osonid	1.73
ice, A	0.17 ; 1.53	00	164; 0.80; 2.43
: :	00.115: 0.117	Wiretail	1.199
;	00.43	:	0 64 ; 1.109
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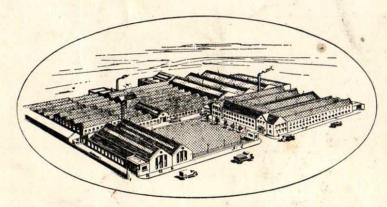
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