

MECCANO

TRADE MARKS 296321, 501113, 76, 12633, 10274, 55/13476, 589/13, 884/25, 2913, 80, 124, 336, 4174, 91637, 83171, 157149, \$2822, 200639, 209783, 214061, 214062, 12892, 20094, 33316, 1818, 16787, 383/13, 5848, 50204, 19/12258, 22826, 18982, 20063/925, 9048, 5549, 2189, 16900, 72288, 2389, 41812, 5403, 7315, 18066, 139420, 494933-4-5-6, 29041, 26877, 6595, 404718, 410379, 55098, 12240, 41234, 8223, 1855

HORNBY'S ORIGINAL SYSTEM-FIRST PATENTED 1901

INSTRUCTIONS

FOR OUTFITS

00 to 1



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No. 32.1

ENGLISH EDITION

MECCANO

The Finest Hobby in the World for Boys

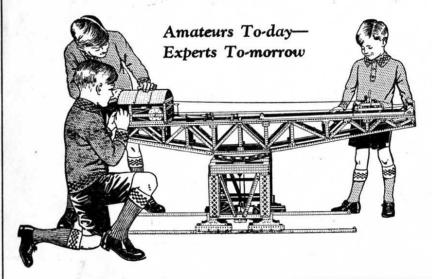
The Meccano system is composed of over two hundred and fifty different parts, mostly made of steel or brass, each one of which has a definite mechanical purpose. These parts combine to form a complete miniature engineering system with which practically any mechanical movement may be reproduced in model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

There is no limit to the number of models that can be built with Meccano—Cranes, Clocks, Motor Cars, Ship-Coalers, Machine Tools, Locomotives—in fact everything that interests boys. The most wonderful feature about the system is that it is real engineering in miniature; it is fascinating and delightful and

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

The "Meccano Magazine"

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



Model-Building with Meccano

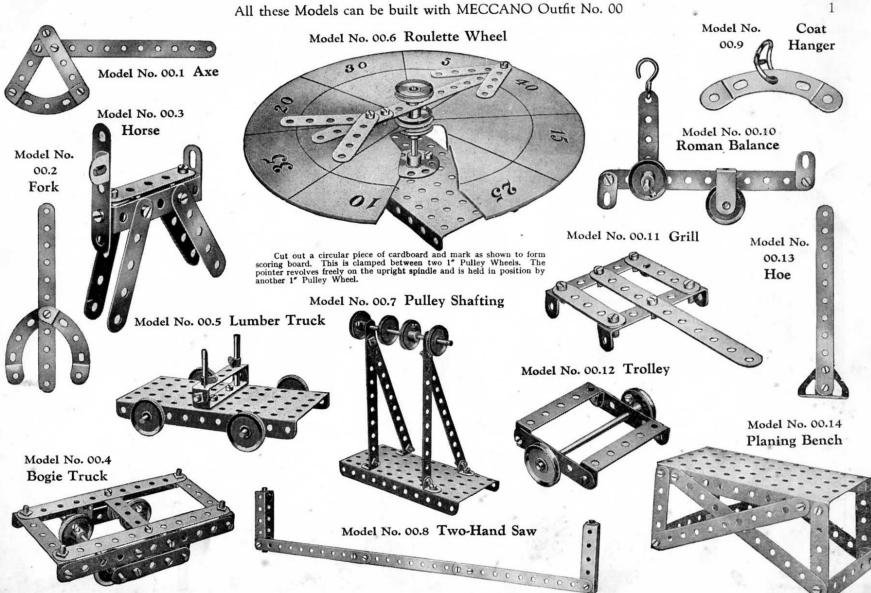
Make the simple models first—they will provide hours of fun—and then try to improve them. Every model can be made in a dozen different ways. It is important to screw up all the nuts and bolts tightly to ensure that your

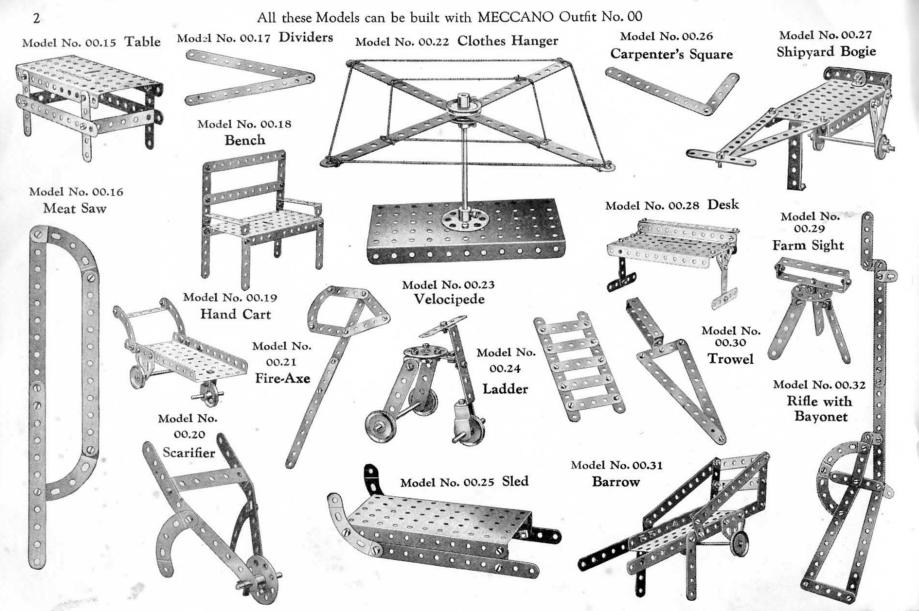
models will be strong and firm when they are completed.

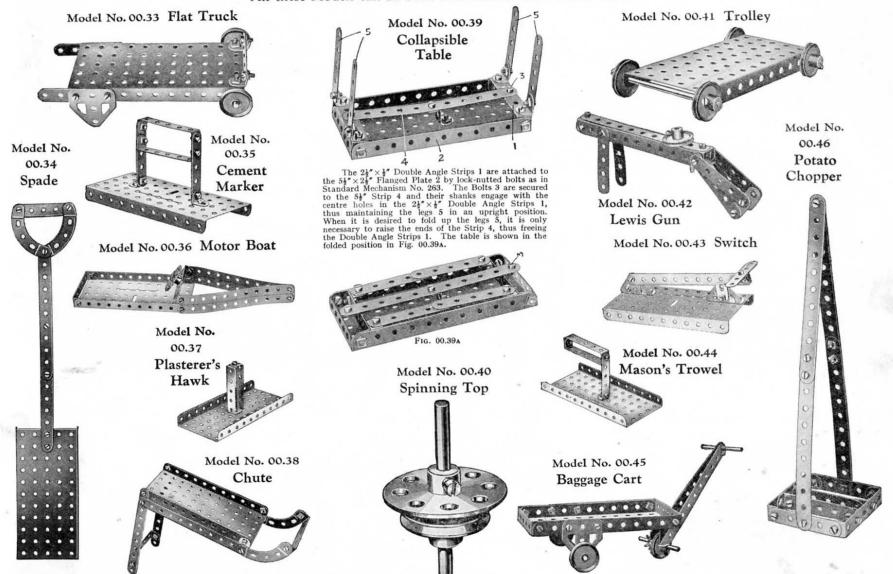
Every keen and inventive Meccano model-builder should obtain copies of the special Manuals "How to use Meccano Parts" and "Meccano Standard Mechanisms." In the former the principal uses of Meccano parts are outlined, while the latter shows a large number of real engineering mechanisms, built of Meccano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

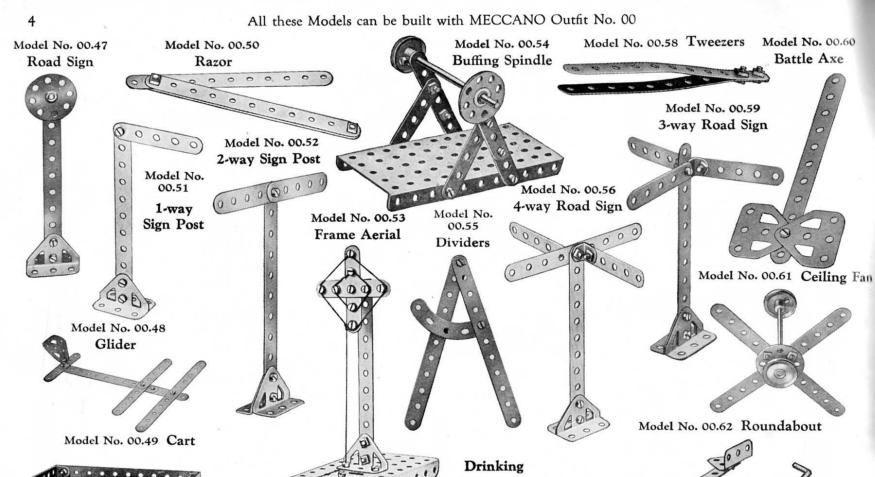
How to Build up Your Outfit

Meccano is sold in ten different Outfits, numbered 000 to 7. All Meccano parts are of the same high quality and finish, but the larger Outfits contain a greater quantity and variety of parts, making possible the construction of more elaborate models. Each Outfit from No. 00 upwards may be converted into the one next higher by the purchase of an Accessory Outfit. Thus, a No. 00 may be converted into a No. 0 by adding to it a No. 00. 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.

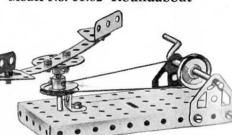


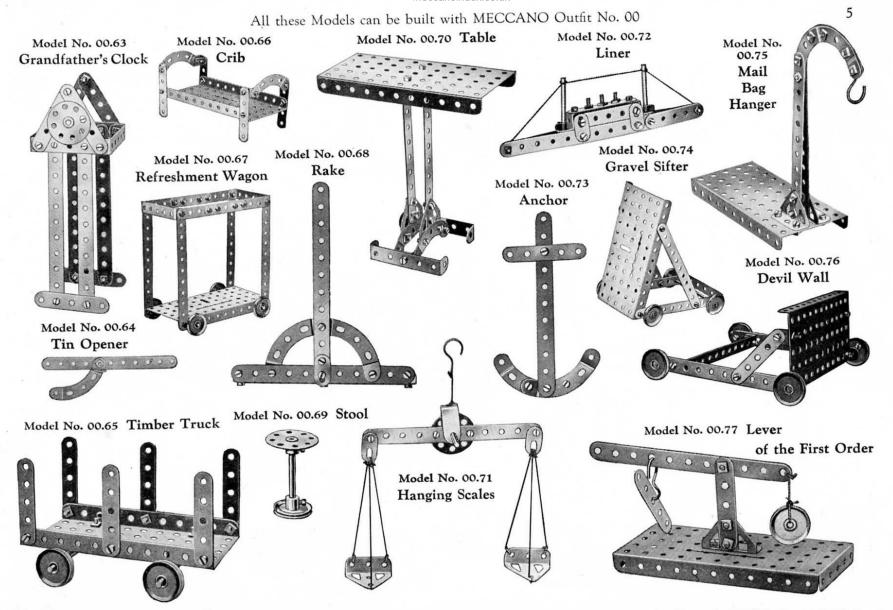


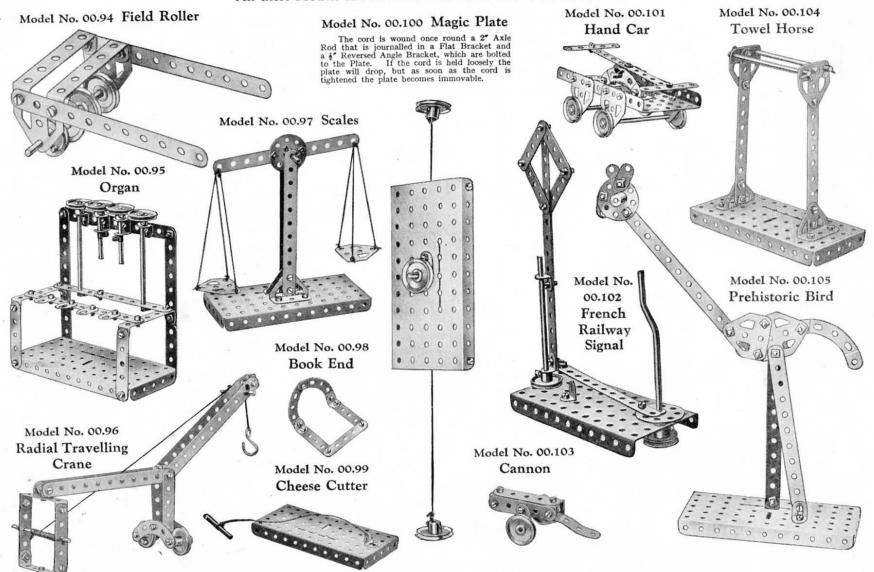


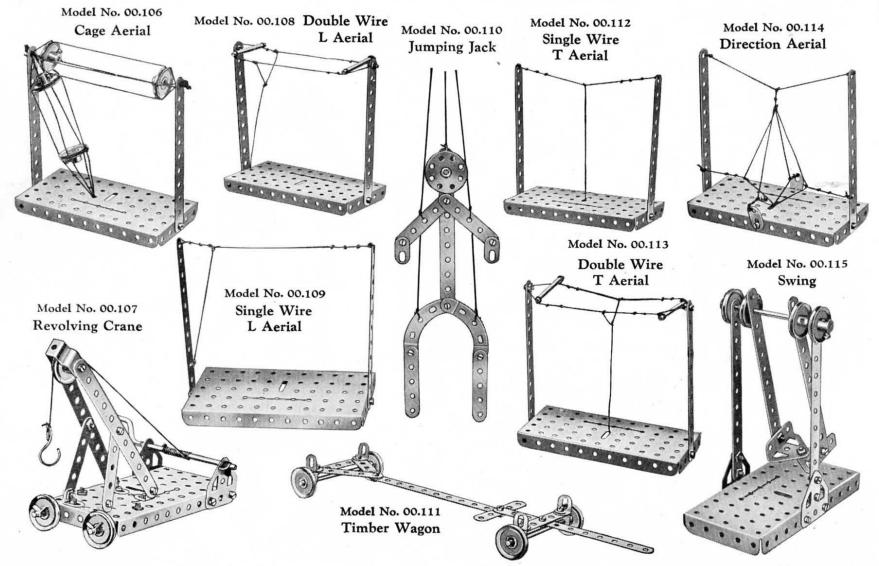


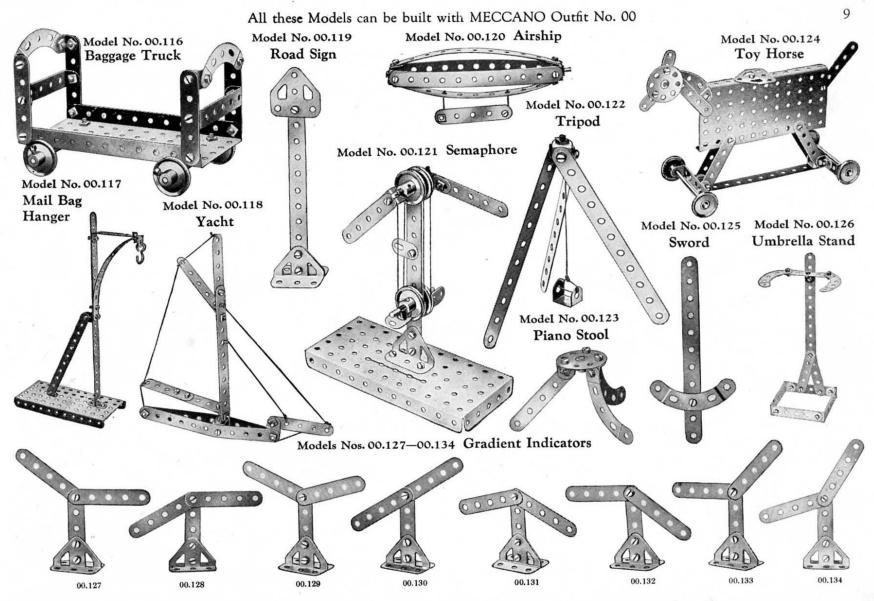


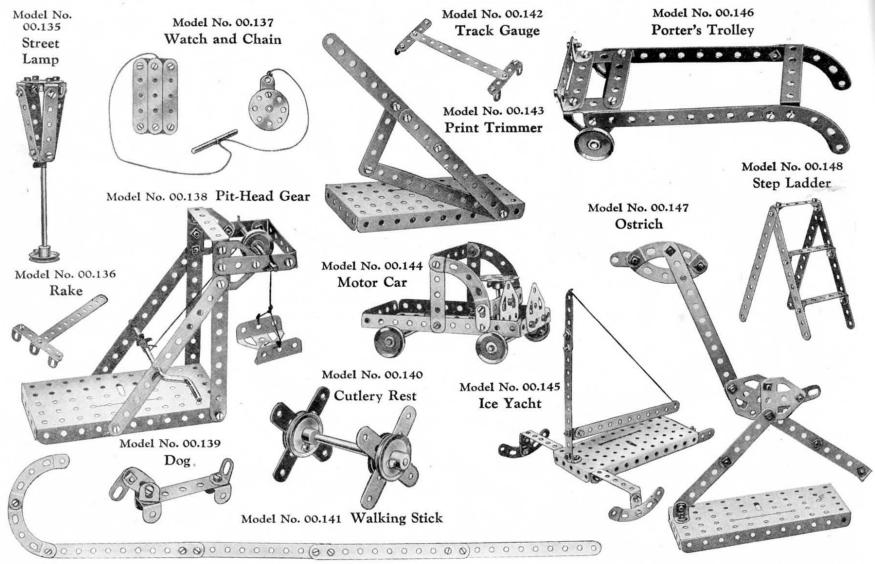


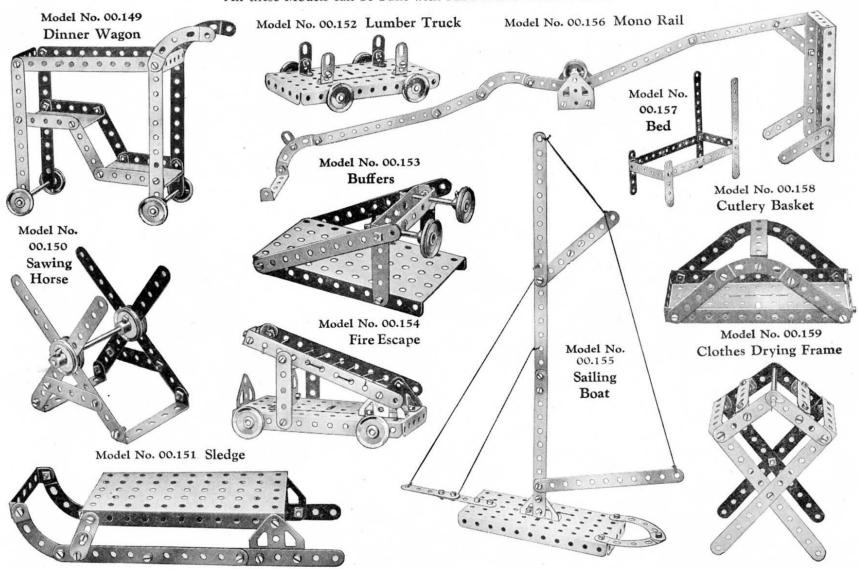


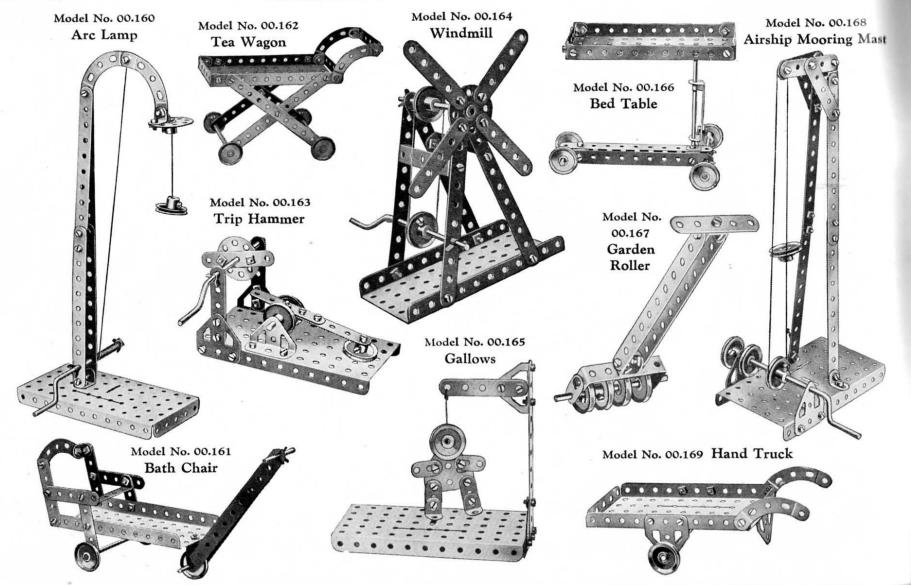


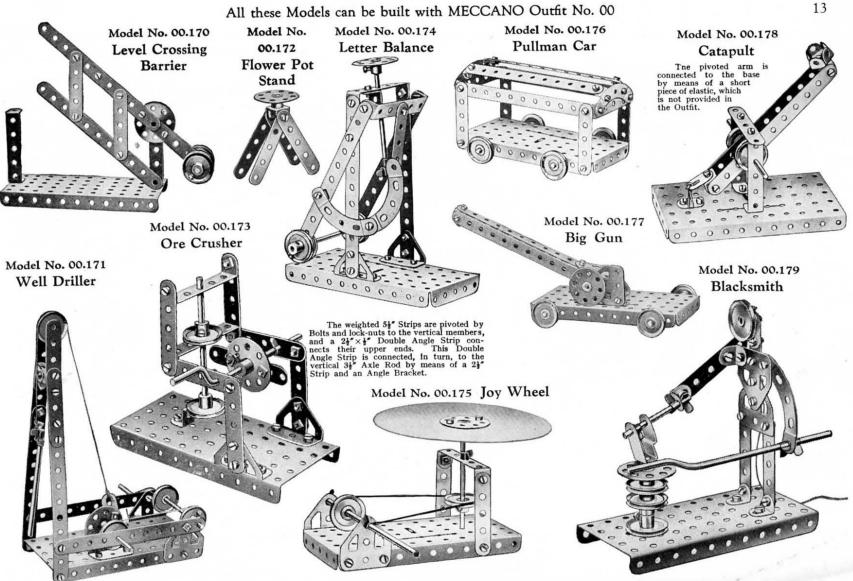






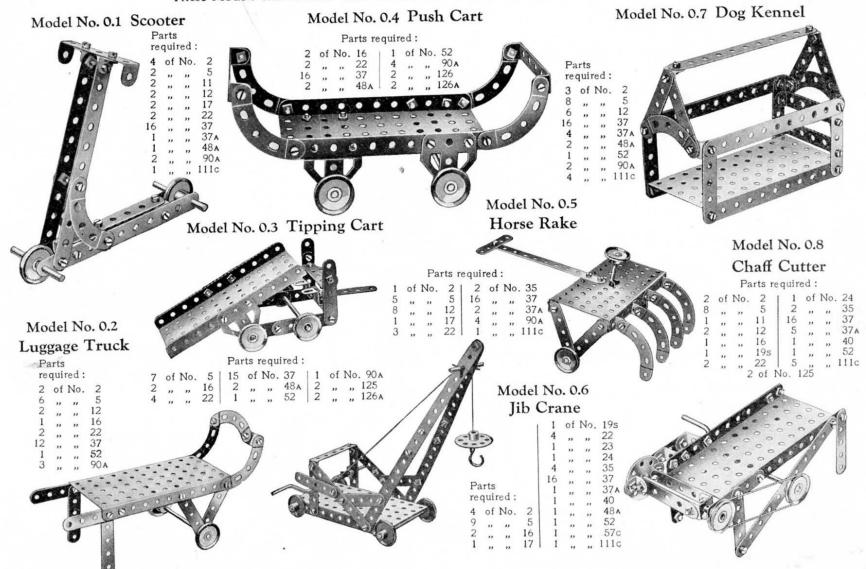




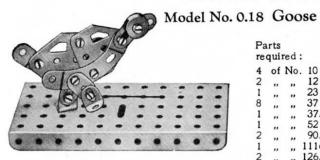


HOW TO CONTINUE

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



16	These Models can be built w	vith MECCANO Outfit No. 0	(or No. 00 and No. 00A)
Model No. 0.9	Light Cruiser	Model No. 0.13 Medal	Model No. 0.14 Prehistoric Bird
Model No. 0.10	Parts required: 4 of No. 3 " " 4 " " 1 2 " " 1 7 " " 1 1 " " 1 3 " " 3 16 " " 3	1 2 2 4 4 5 7 7 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	Parts required: of No. 2 1 of No. 52 "" 5 4 "" 90A "" 11 6 "" 111c "" 37 "" 37 "" 37A
Three-Wheel Auto	1 ", ", 4	4	Model No. 0.16 Church Parts required:
Parts required: 2 of No. 2 1 of No. 17 3 ,, ,, 5 3 ,, ,, 22 2 ,, ,, 10 1 ,, ,, 23	1 ,, 12 2 of No. 37A 1 ,, 40 1 ,, 48A		4 of No. 2 2 of No. 12 6 of No. 37A 9 of No. 90A 8 , 5 1 , 24 4 , 48A 6 , 111c 3 , 10 16 , 37 1 , 52 1 , 126A
8 " " 12 1 " " 24 1 1 " 37	2 ", ", 126	Parts	Model No. 0.15 Angler Parts required: 5 of No. 5
	Model No. 0.12 Tennis Player	required: 4 of No. 2	2 " " 10
Model No. 0.11 Per	Parts required: 3 of No. 5 2 ,, 10	8 " " 5 4 " " 10 1 " " 24 13 " " 37 2 " " 90A 1 " " 111c	2 " " 12 1 " " 16 1 " " 23 1 of No. 37A 1 " " 35 1 " " 52 11 " " 37 1 " " 111c
	2 " " 11 2 " " 12 1 " " 23 13 " " 37 1 " " 52 2 " " 90A 1 " " 111c 1 " " 126A		Model No. 0.17 Submarine Parts required: 4 of No. 2 4 " " 10 2 " " 11 Model No. 0.17 Submarine 8 of No. 12 1 " " 17 2 " " 35 15 " " 37 1 " " 44
2 of No. 11 6 ,, ,, 37	required: 1 of No. 52 4 ,, 90A 10. 125	000000	

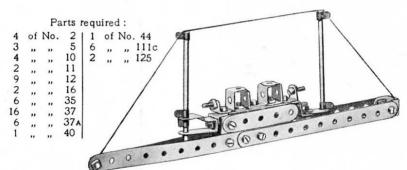


Model No. 0.22

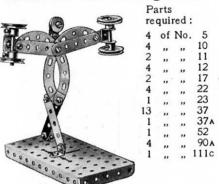
	irts			Lazy Ton
re	qui	red	:	(0)/0
4	of	No.	. 10	10/01
2	,,	,,	12	100
18	,,	,,	23 37	Ye /
	,,	,,	37	
1 2 1 2	,,	,,	37A	600
1	,,	,,	52	(A) /6
2	,,	,,	90 A	10/0
1	,,	,,	111c	/ 6
2	,,	**	126A	λeΥ

Model No. 0.23 Battleship

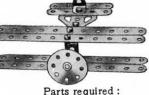
Parts required: of No. 5



Model No. 0.19 Strong Man



Model No. 0.20 Aeroplane



art	s req	uired	:
	W25		

4	of	No.	2	8	of	No	. 37
3		,,	5	1	,,	,,	111c
2			12	2		,,	125
1	,,	,,	24	1	,,	,,	111c 125 126A

Model No. 0.24 Gymnast



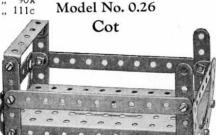
Parts required:

			CLI CO	.09.		-	
2	of	No.	2	1 1	of	No.	24
4		,,	5	12	,,	,,	37
4		,,	10	1	,,	,,	37
1		.,	12	1	,,	,,,	52
1	,,	,,	16	1	,,	,,	901
2	**	,,	22	1	,,	,,	1110
1	,,	,,	23	1			1
							100

14	-1-1	NT.	0.26
IVI	oae	INO.	0.20

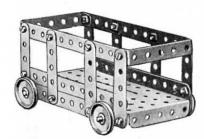
Model No. 0.25

Rocking Horse

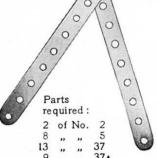


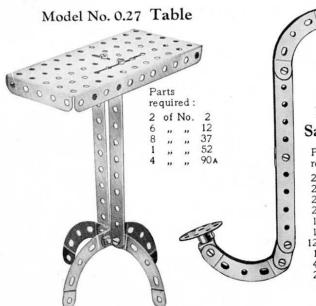
of	No.	
,,	,,	5
,,	,,	12
,,	,,	37
,,	,,	48A
,,	,,	52
,,	**	90 A
	qui	of No.

Model No. 0.21 Cattle Truck



Parts required:





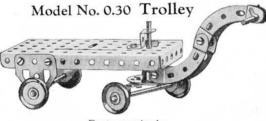
Model No. 0.28 Crocodile

Parts required: 4 of No. 2 | 6 of No. 12 4 " " 5 16 " " 37 4 " " 10 6 " " 37A 2 " " 11 6 " " 111c

Model No. 0.29

Saxophone

	rts qui	red:	
2	of	No.	
2	,,	,,	10
2	,,	,,	11
2	,,,	**	12
1	"	**	23
1	"	,,	24
12	,,	"	37
1	"	"	37A
4	,,	"	111c
2	**	"	1110



Parts required:

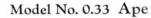
1	of	No.	11	4	of	No.	35	4	of	No.	90 A
2	,,	,,	16	12	,,	,,	37 48 A	1	,,	"	125
2	,,	"	17	1	,,	"	48A	2	"	"	126A
1	***	**	24	1	**	**	52	1			

Model No. 0.31 Field Gun and Carriage



Parts required:

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

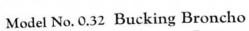


0	f	No.	5	0201	111	D	
0	,	,,	10 11 12 23 37 37 37 52	0	MO	A	
,	,	,,	11			幽	
,	,	,,	12	ON	010	10	
1	,	,,	23	OA	ah	M	
	,,	"	37		M	圖	
3	,,	,,	37A	8	OA	U	
- 54	,,	"	52	in	U		
	,,	**	90 A	050		1	
- 13	,,	**	111c	10	M		

Model No. 0.34 Gangway

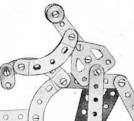
Parts required:

4	of	No.	2	16	of	No.	37
2	,,	,,	5	2	,,	,,	37A
2	,,	,,	10	1	,,	,,	40
2	,,	,,	12	2	.,,	,,	48A
1	"	,,,	19s	1	,,,	,,	52
1	,,	,,	23	1	,,	,,	111c
3	11000	12277	35	-	-	-	

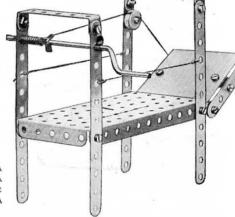


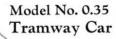
The Bolts used for connecting the $5\frac{1}{2}$ " Strips, the horse's legs, and the rider's legs and arms, are all lock-nutted (see Standard Mechanism

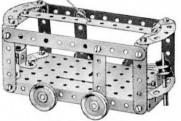
should be held rigidly and the upper one jerked forward; the horse will then throw its rider completely over its head.



Parts required: of No. 2







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

Model No. 0.36 Motor Boat



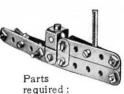
2	of	No.	2	1	of	No.	23
2	,,	,,	5	7	,,	,,	37
3	,,	,,	10	1	,,	,,	37A
1			11	1			111c

Model No. 0.37



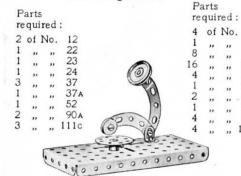
re	qui	rea:	
2	of	No.	2
7	,,	,,	5
14	,,	,,	37
2	,,	,,	48A
3	"	**	90 A

Model No. 0.38 Torpedo Boat

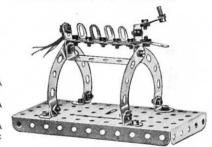


re	qui	red:	
2	of	No.	
2	,,	,,	5
3	,,	,,	10
2	,,	**	11
	,,	"	12
. 1	,,	"	17
11	"	**	37
4	,,	,,	37A
5	,,	,,	111c

Model No. 0.40 Gramophone

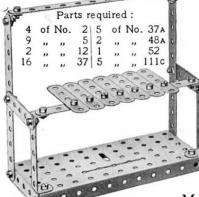


Model No. 0.43 Prehistoric Armadillo

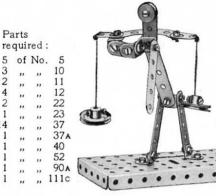


Model No. 0.44 Motor Cycle and Side Car

Model No. 0.39 Piano



Model No. 0.41 Milk Maid

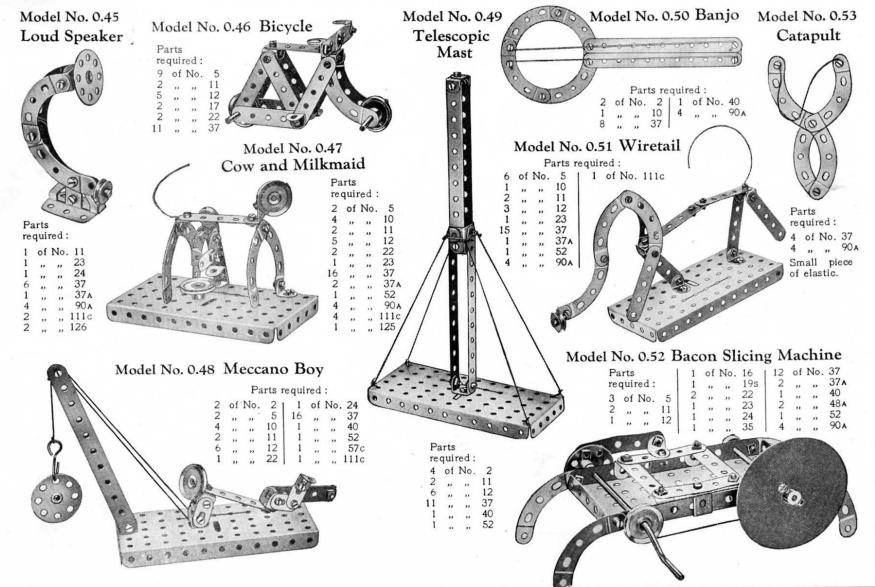


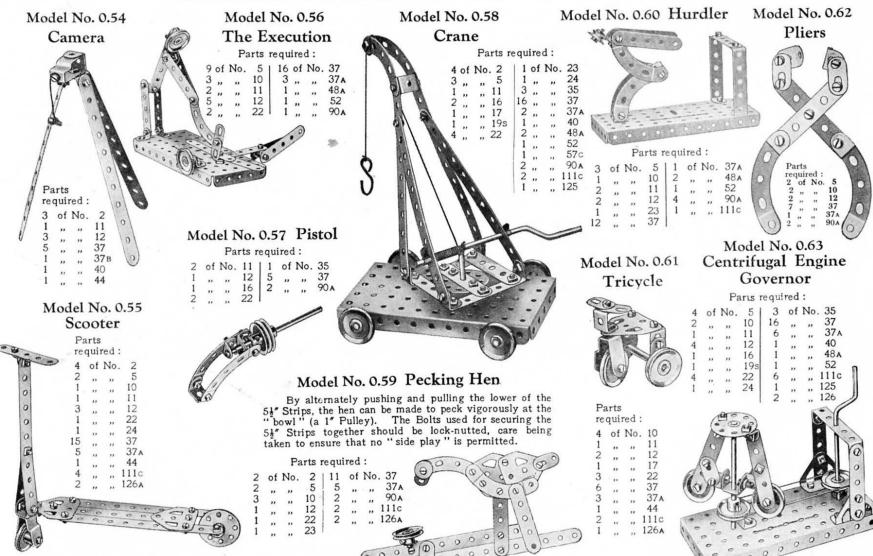
	P	arts	requi	red		
of	No.	5	10	of	No.	:
,,	,,	10	1	,,	,,	:
,,		11	1	,,	,,,	4
		10	2		-	

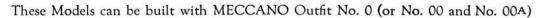
Model No. 0.42 Sword

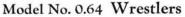
Parts required: 4 of No. 2 | 10 of No. 37 | 3 of No. 90A

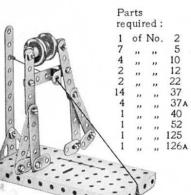




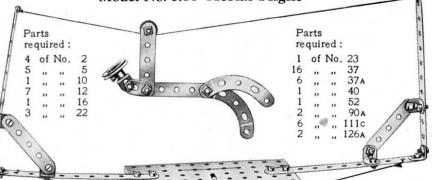








Model No. 0.66 Aerial Flight



00000000000

Model No. 0.70 The Missing Link

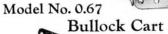
	rts	red:		
4	of	No.	5	
4	,,,	,,	10	
8	,,	,,	12	
1	,,	,,	24	
16	,,	,,	37	
6	,,	,,	37A	
1	**	,,,	52	
4	**	,,	90 A	
6	,,	,,	111c	
			-	

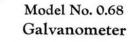


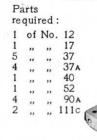
Model No. 0.65 A Chase

Parts required:

1	of	No.	5	16	of	No.	37
1	,,	,,,	10	1	,,	,,	37A
2	,,	,,	11	1	,,	,,	52
7	,,	,,	12	4	,,	,,	90 A
1	"	"	22	2	,,	,,	111c
1	,,	"	23	2	,,	,,	126A







Model No. 0.71 Steeple-chaser

Parts required:

7	of	No.	5	1	of	No.	37A
4	,,	,,	10	1	,,	,,,	48A
1	,,	**	12	1	,,	,,	52
1	"	"	23	4	"	,,	90 A
13	**	**	37	1	"		111c
		1		1	"	"	126 a



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

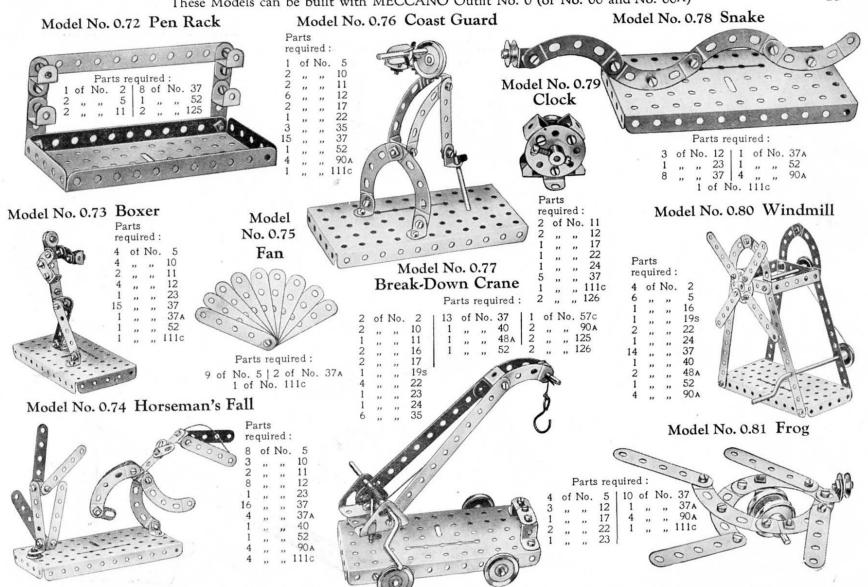
Model No. 0.69 Coster's Barrow

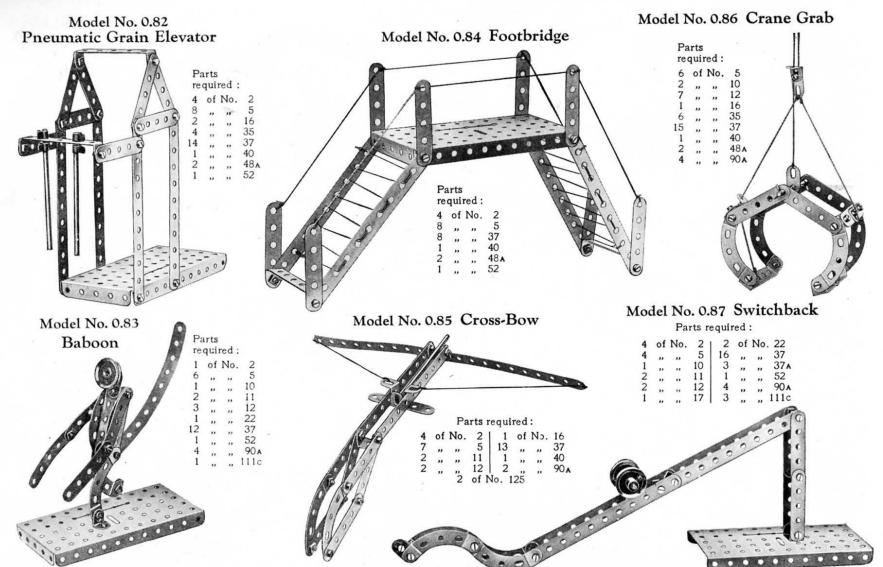


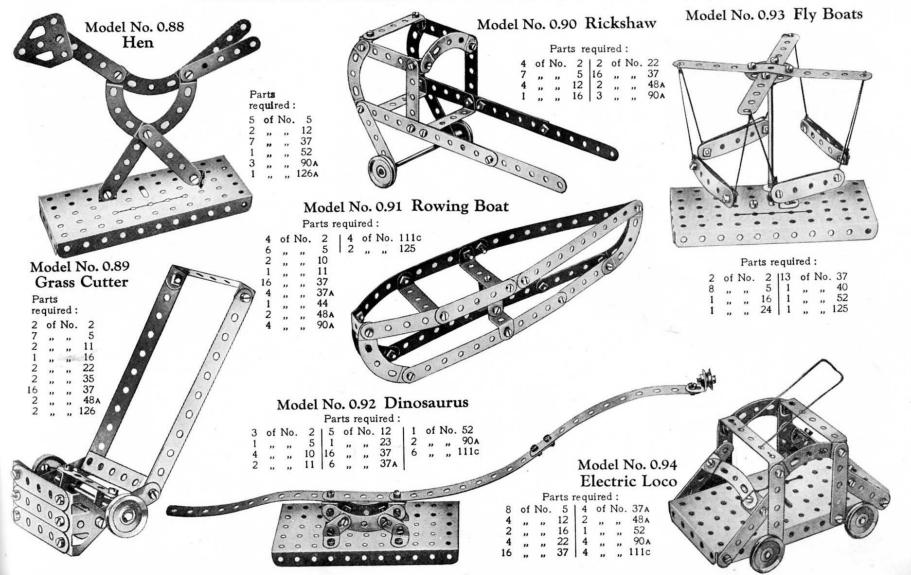
Parts required:

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

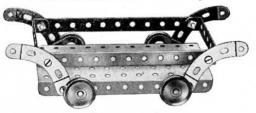








Model No. 0.95 Trolley



Parts required:

2	of	No.	2	18	of	No.	37
2	,,	,,	16	8 2 1	,,	,,	48
4	,,	,,	22	1	,,	,,	52
		4	of	No.	90	Α	

Model No. 0.96 Pen Rack



Model No. 0.97 Walking Man

Parts required:

3	,,	,,	10
2	,,	,,	12
1	,,	,,	22
7	,,	,,	37
3	,,	,,	90 A

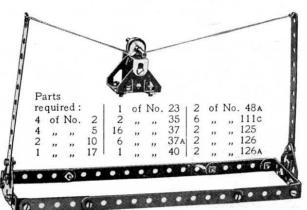
5 of No. 5

Model No. 0.98 Pump

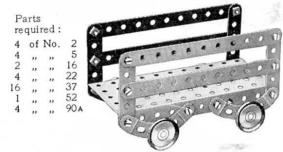
	8			equir								
1	of	No.	2	16	of	No	. 37					
6	,,	,,	2 5	6	"	"	37A					
2	,,	"	11	1	,,	,,	40		6		4	•
6 2 3	,,	,,	12	1	,,	,,	52				H.	
1	,,	,,	16	6	,,	,,	111c			0	- 11	
1	"	,,	17	6 2	,,	,,	126		77		- 11	
1		,,	19s	1	,,	,,	126A			O	1	
3	"	,,	22	-	"	"			0	2	enne	1/1
1	"		22 24 35	No.					A	4.20	MI TI	9
2	"	"	35	A.	1				8		DI II	4
2	,,	"	1	0	B	7			0	1		1
			1		AUG	1	N. Parameter	(P)		100		
								7 Sheet		160	0 ° /	ч
				•	0	4	- 6	0 08/		13		3
					- 10	A	-	0.0		1	西一世	4
d	9			CE T		(国)	-	- 1		7	00	
	7			1		1 0	16	W.		No.		0
				-	2	6	3		10 1	PIP	STATE OF THE PARTY OF	
					1		des Total	0 (1		
					102	Will.	All the state of	STATE OF THE PERSON NAMED IN				

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

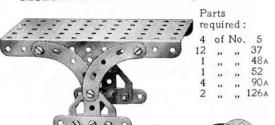
Model No. 0.99 Aerial Ropeway



Model No. 0.100 Luggage Truck



Model No. 0.101 Drafting Table



Model No. 0.102 Arm Chair

Parts required:

2 of No. 2

4 " " 5

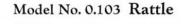
12 " " 37

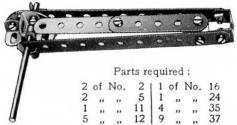
1 " " 48A

1 " " 52

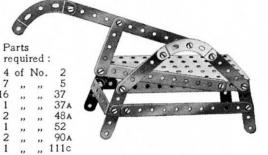
3 " " 90A



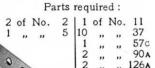




Model No. 0.104 Shearing Machine



Model No. 0.105 Anchor





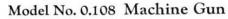
Model No. 0.106 Portal

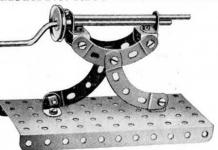
	qui	red :	
4	of	No.	2
2	,,	,,	11
8	,,	,,	12
1	,,	,,	22
16	,,	,,	37
6	,,	,,	37A
2	,,	,,	48A
4	,,	**	52 90 A
6	"	"	111c
0	,,	"	

Model No. 0.107 The Fencers

Parts required:

	8	of	No.	5	116	of	No.	37
	2	,,	,,	10	4	,,	,,	37A
	6	,,	,,	12	1	,,	,,	52
	2	,,	,,	16	4	,,		111c
14	2	,,	,,	22 35	2	,,		125
2/	4	,,	,,	35	12	,,	,,,	126A
								AND





Parts required:

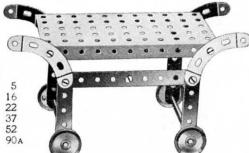
2	of	No	11 1	1	of	No	22
4	01	140.	11		OI	140.	22
4	,,	,,	11 12	12	,,	,,,	37
1	,,	,,	16	1	,,		52
1		120	195	4		1999	90

Model No. 0.109 Single Sheave Pulley Block



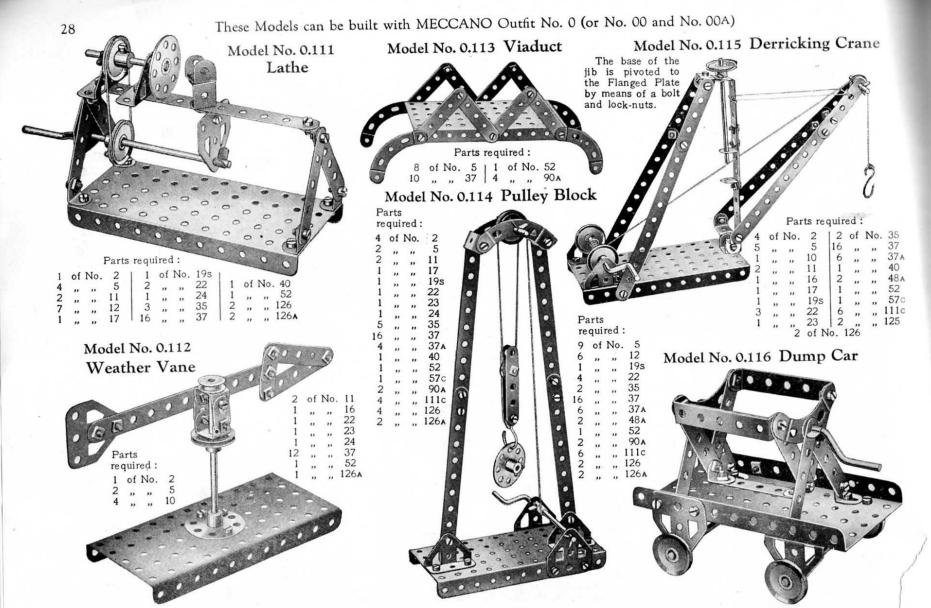
Parts required:
2 of No. 5 | 7 of No. 37A
1 ,, 23 | 1 ,, 57c
3 of No. 111c

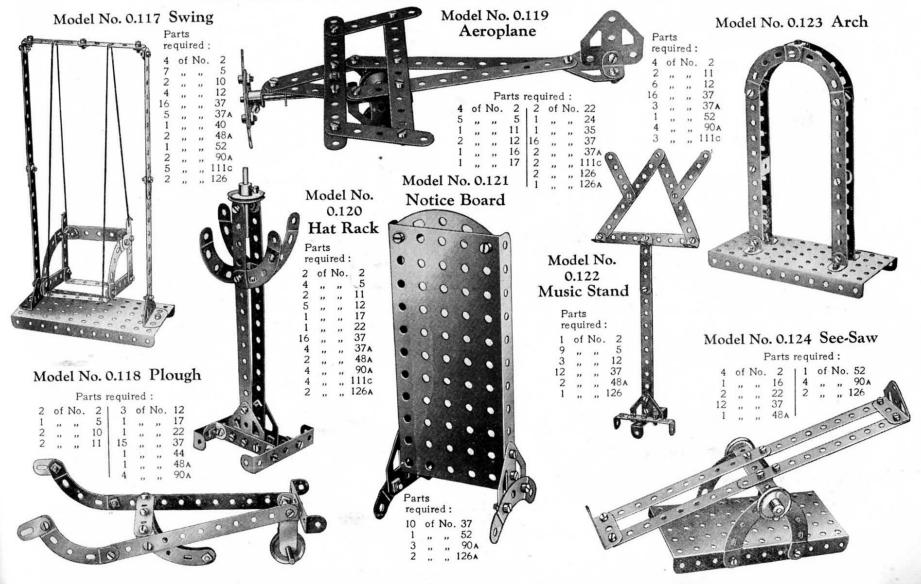
Model No. 0.110 Tea Wagon



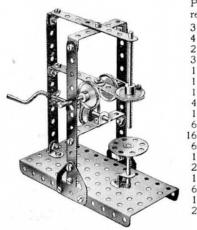






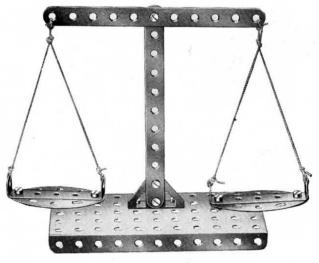


Model No. 0.125 Drilling Machine

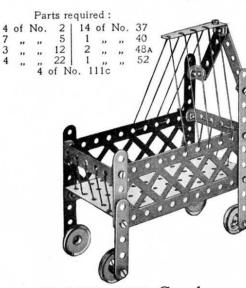


re	qui	red:	
3	of	No.	2
4	,,	,,	5
2	,,	,,	11
3	,,	,,	12
1	,,	,,	16
1	**	,,	17
1	"	,,	19s
4	,,	,,	22
1	,,	,,	24
6	,,	"	35
16	,,	,,	37
6	,,,	"	37 A
1	,,		40
2	"		48A
1	"		52
6	**		111c
1	,,	,,	125
2	**	**	126A

Model No. 0.127 Scales



Model No. 0.129 Cot



Model No. 0.126 Counter Scales

Parts required:

Parts r	equirea:
1 of No. 2 2 ,, 10 2 ,, 12 1 ,, 12	7 of No. 37 1 " " 44 1 " " 52 2 " " 126
0	

Parts required:

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

Model No. 0.128 Single Sheave Pulley Block

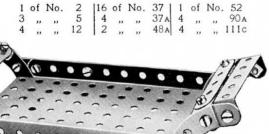


Parts required: 1 of No. 23

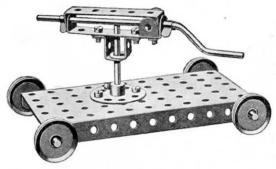
12 ,, ,, 37A 1 ,, ,, 57c 4 ,, ,, 111c 2 , 126A

Model No. 0.130 Couch

Parts required:



Model No. 0.131 Rock Drill



Parts required:

1	of	No.	11	4	of	No.	22	12	of	No.	48 A
2	,,	,,	11 16 17 19s	1	,,	,,	24	1	,,	,,	52
1	,,	,,	17	2	,,	11	35	2	,,	,,	125
1			195	1 5			37	1			

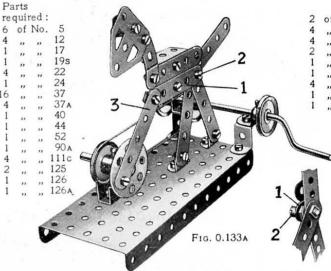
Model No. 0.132 Well Windlass



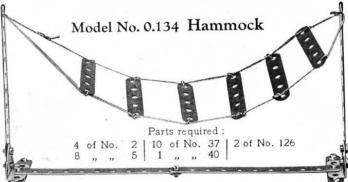
Parts required:

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

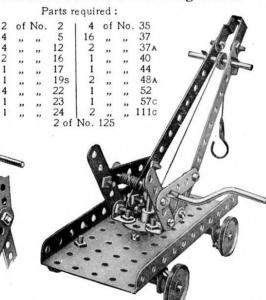
Model No. 0.133 Prancing Horse

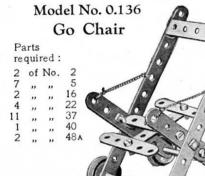


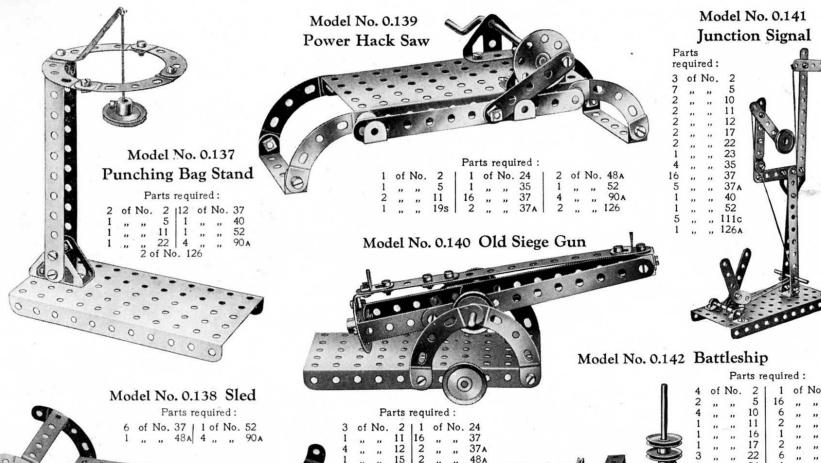
The Strip 1 forming part of the body is free to move about the Bolt 2, but two Nuts on the latter secure the rear legs and tail rigidly together. The arrangement of the various Strips about this Bolt 2 is shown more clearly in Fig. 0.133A. The Strip 3 is free to move at each end about pivots formed from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



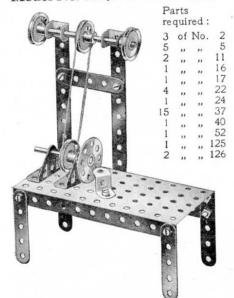
Model No. 0.135 Swivelling Crane



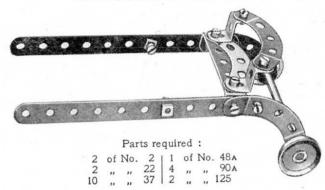




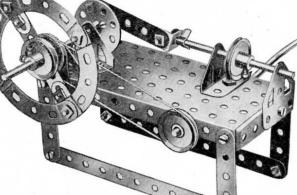
Model No. 0.143 Bench Lathe



Model No. 0.145 Sulkey



Model No. 0.146 Horizontal Engine



Model No. 0.144 Bench

Parts required:

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



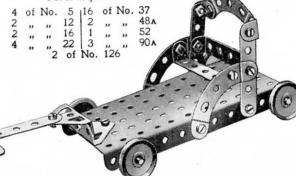
Parts required:

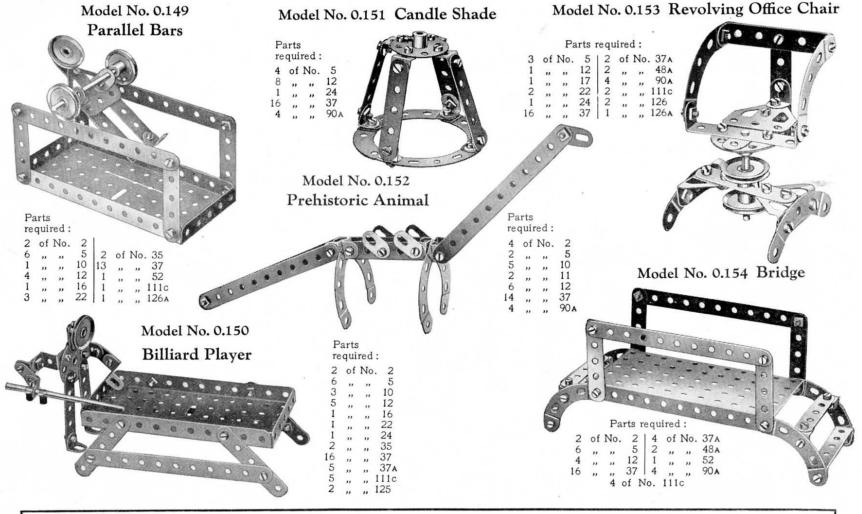
	A								a 🕶			
2	of	No.	2	4	of	No.	22		V	~		,
6	,,	,,	5	1	,,	,,	24	1	of	No.	. 52	4
2	,,	,,	10	3	**	,,	35	4	,,	,,	90A	
1	,,	,,	12	16	,,	,,	37	5	,,	,,	111c	
2	,,	,,	16	5	,,	,,	37A	2	,,	,,	126	
1	,,	,,	19s	1	,,	,,	40	2	,,	,,	126A	
-	•••	**										

Model No. 0.147 Punching Machine Parts required: of No.

Model No. 0.148 Bath Chair

Parts required: of No. 5 116 of No. 37 , 16 1 ,, , 22 3 ,, 2 of No. 126

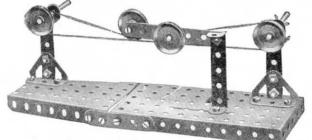




HOW TO CONTINUE

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

Model No. 1.1 Jockey Pulley

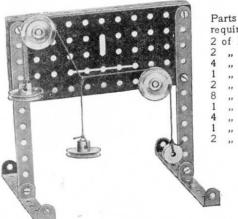


Parts required:

1	of	No.	3	12	of	No.	35 37 37 40 48 4	1	of	No.	52
4	,,	,,	5	20	,,	"	37	1	"	,,	54
2	,,	,,	17	1	,,	"	37A	2	,,	"	1710
4	,,	,,	22	1	"	"	40	1 2	"	"	120
				1	,,,	93	40A	1			

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.

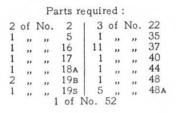
Model No. 1.2 Triangle of Forces



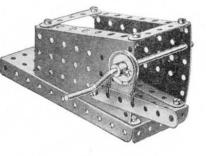
Parts
required:
2 of No. 2
2 ,, ,, 18A
4 ,, ,, 22
1 ,, ,, 35
8 ,, ,, 37
1 ,, ,, 40
4 ,, ,, 48A
1 ,, ,, 52
2 ,, ,, 125

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

Model No. 1.5 Belt Gear Right-angle Drive Transmission



Model No. 1.3 Band Brake



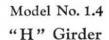


1	OI	140.	3
2	,,	,,	5
1	,,,	,,	19s
1	,,	"	22
1	**	**	35
9	,,	,,	37
1	,,	,,	37A
1	"	,,	40
1	"	**	52
2	,,	**	54

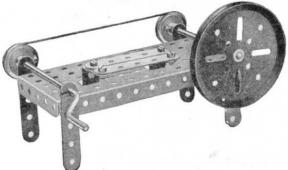
Model No. 1.6 Bacon Slicer

Parts required:

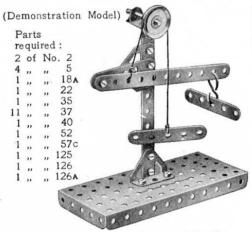
6	of	No.	5	2	of	No.	22
2	,,	,,	10	1	,,	,,	35
1	,,	,,	16	10	,,	,,	37
1	,,	**	19B	1	,,	,,,	40
1	**	,,	19s	1	,,,	**	52
		2	of I	No.	125		



Parts required: 6 of No. 2 2 ,, ,, 10 8 ,, ,, 12 12 ,, ,, 37

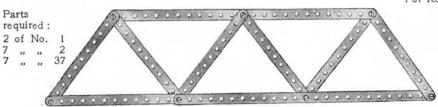


Model No. 1.7 Lever of the Second Order

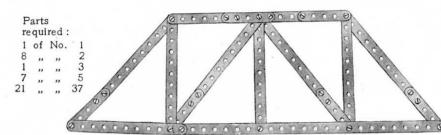


The fulcrum is at one end, the power at the other and the load lies between the two.

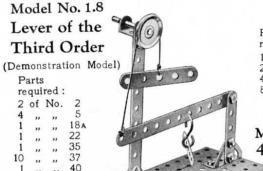
Model No. 1.9 Compound Triangulated Truss



Model No. 1.10 Howe Truss



Model No. 1.11 Triangulated Truss



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



Model No. 1.12 45° Set-Square

puare Set

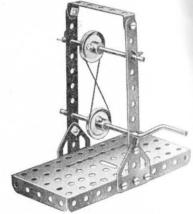
Parts required:
3 of No. 2 | 1 of No. 3
5 of No. 37

Model No. 1.13
60°
Set-Square
Parts
required:

2 of No. 2 1 ,, ,, 3 2 ,, ,, 10 5 ,, ,, 37

Model No. 1.14 Belt Gear

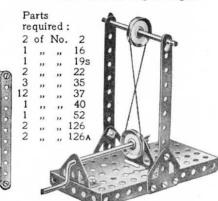
For Reversing Motion of Driven Shaft



		Pa	irts i	requ	uire	d:	
2	of	No.	2	10	of	No.	37
1	"	,,	16	1	,,	,,	40
1	"	,,,	19s	1	,,	**	48A
2	,,	,,	22	1	,,	***	52
4	,,	,,	35	2	,,	,,	126A

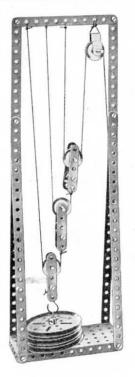
Model No. 1.15 Belt Gear

For Driving Shafts at Right Angles



Model No. 1.16 Pulley Block

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



Parts required:

4	of	No.	1	3	of	No.	19в
3	,,	,,	2	4	,,	**	22
6	**	**	5	15	,,	**	37
2	, ,,	**	11	1	"	**	40
2	**	,,	12	1	,,	**	44
2	**	,,	18	1	,,	**	52 57c

Model No. 1.17

Pulley Block

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

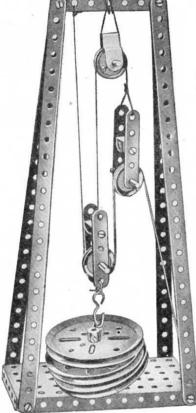
4	of	No.	1	4	of	No.	19B
7	,,	,,	2	4	,,	,,	22
6	,,	,,	5	6	,,	,,	35
2	,,	,,	10	22	,,	"	37
2222	,,	,,	12	1	"	,,	40
2	,,	,,	16	1	,,	,,	44
2	,,	**	17	1	,,	,,	52
2	,,	,,	18A	1	. ,,	**	57c



Model No. 1.18 Pulley Block

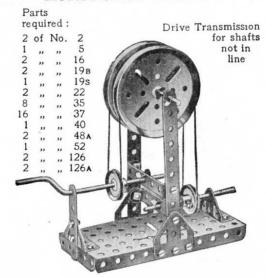
Demonstration Model:

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

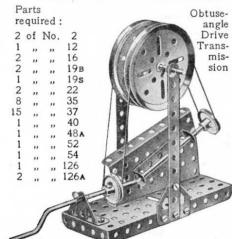


Parts required: of No. 57c

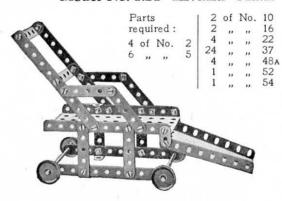
Model No. 1.19 Belt Gear



Model No. 1.20 Belt Gear



Model No. 1.21 Invalid Chair



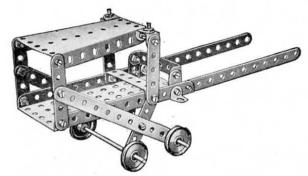
Model No. 1.22 Letter Balance

Parts required:

6	of	No.	2	4	of	No.	22	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	,,	"		2	,,	,,	126A
1	,,	,,	19в	1	,,		44				

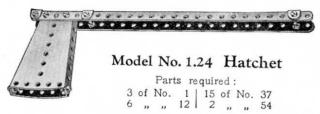


Model No. 1.23 Ticca Gharry Model No. 1.26 Mechanical Saw

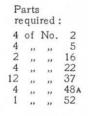


Parts required:

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



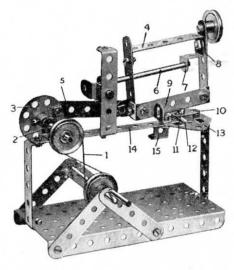
Model No. 1.25 Truck with Sides





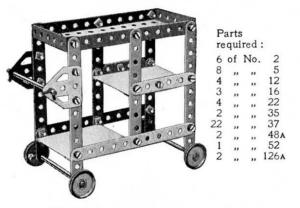
Doube woulded.

				Par	ts 1	requi	rea:		4.0		
1	of	No.	2	1 1	of	No.	17	4	of	No.	38
8	,,	,,	5	1	,,	,,	19s	1	,,	,,	40
1	,,	,,	10	3	,,	,,	22	1	"	,,	44
1	,,	**	11	1	,,	,,	24	4	"	,,	48A
4	,,	,,	12	3	,,,	**	35	1	,,	**	52
1	"	"	16	22	,,	**	37	2	,,	**	125
								1			126A



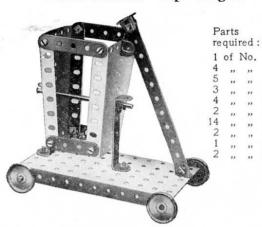
The Strip 9 represents the saw. The Crank Handle drives, through a belt 1, a short Rod journalled in a Double Bracket 2 and carrying a Bush Wheel 3. The latter imparts Bracket 2 and carrying a Bush wheel 3. The latter imparts a reciprocating motion to the saw frame 4 through a 2½° Strip 5 loosely mounted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

Model No. 1.27 Dinner Wagon

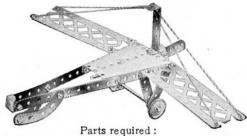


The two lower platforms are constructed out of pieces of ordinary cardboard, their outer edges resting on 21" Double Angle Strips and their inner edges on Angle Brackets.

Model No. 1.28 Tip Wagon



Model No. 1.29 Aeroplane



Parts required:

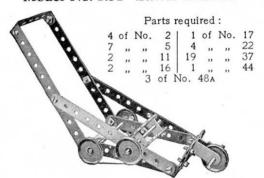
2	of	No.	2	2	of	No.	16	1	of	No.	48a 54 90a 100	
5	,,	,,	5	2	,,	,,	22	1	,,	,,	54	
1	,,	,,	11	1	,,	,,	24	2	,,	,,	90A	
6	,,	,,	12	21	,,	,,	37	2	,,	,,	100	
				1			40					

Model No. 1.30 Timber Drag

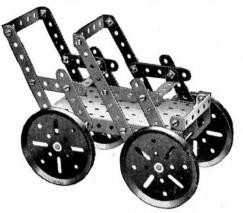


4 of No. 2 | 2 of No. 16 | 8 of No. 37 2 ,, ,, 11 | 4 ,, ,, 22 | 4 ,, ,, 48A

Model No. 1.31 Lawn Mower



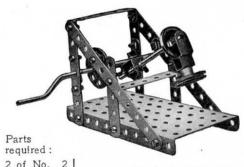
Model No. 1.32 Tandem Car



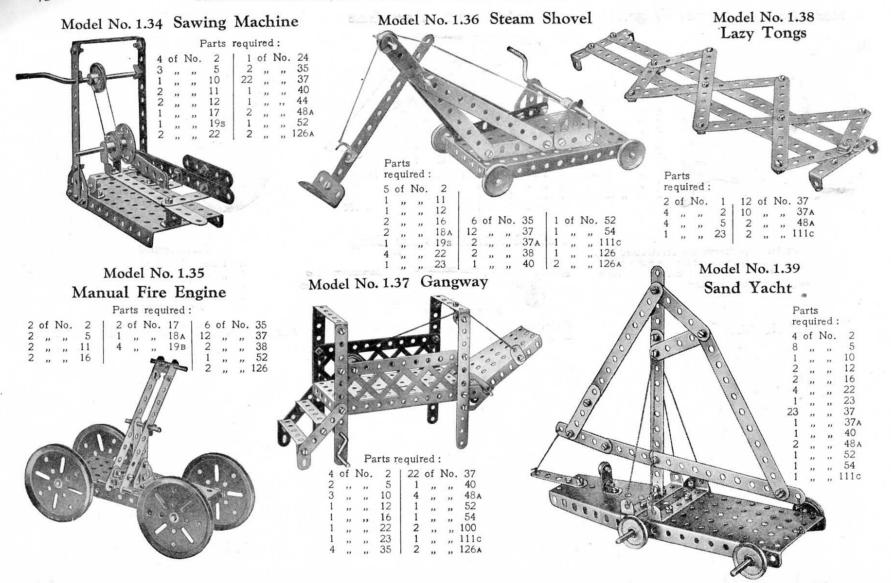
Parts required:

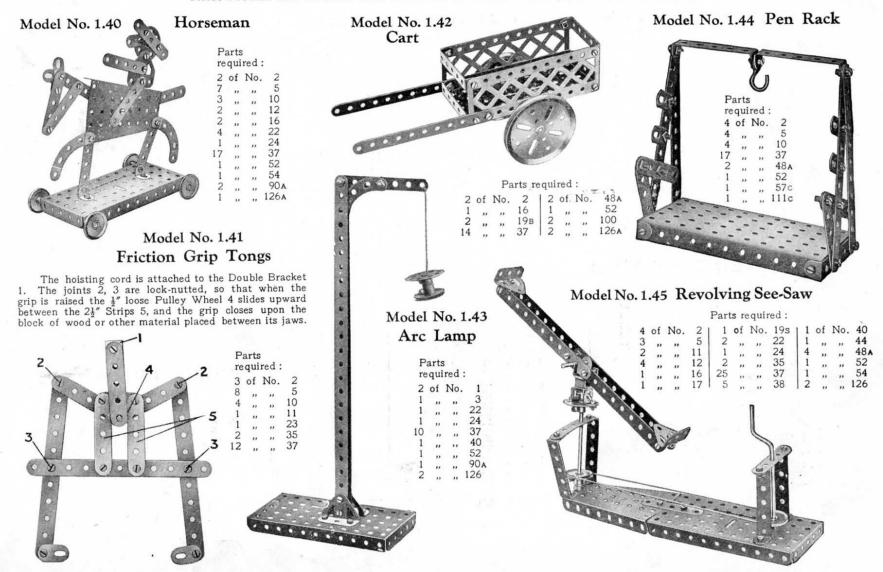
4	of	No.	2	4	of	No.	19 _B
8	,,	,,	5	26	,,	,,	37
2	,,	No.	12	5	,,	,,	48A
2	,,	"_	16	. 1		,,	52
		2	of I	NO.	126	A	

Model No. 1.33 Mechanical Hammer

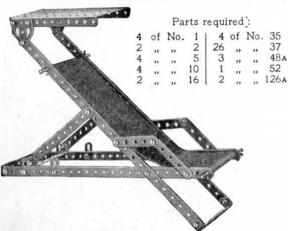


2	of	No.	2				19s 22 24 35				
6	,,	,,	5	1	of	No.	19s	18	of	No.	37
1	,,	,,	11	2	,,	,,	22	1	,,	,,	44
1	,,	,,	12	1	,,	,,	24	3	,,	,,	48A
í	,,	,,	16	4	,,	,,	35	1	,,	**	52



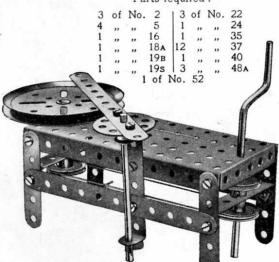






Model No. 1.47 Potter's Wheel

Parts required:

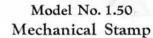


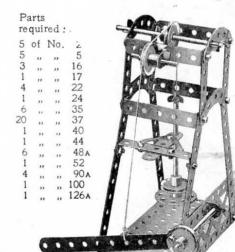
Model No. 1.48 Luggage Cart

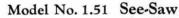


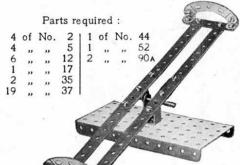
					18	of	No.	37
D. I	4	of	No.	5	1	33		52
Parts	4	,,	,,	12	2	,,	,,	90 A
required:	1	,,	,,	16	2	,,	,,	100
· 2 of No. 2	2	,,	,,	22	2	,,	,,	126A

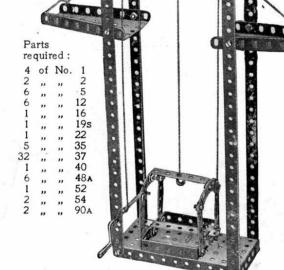
Model No. 1.49 Elevator











Model No. 1.54

Fly Boats



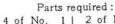
Model No. 1.52 Umpire's Seat

Parts required:
6 of No. 2
7 " 5
2 " 10
4 " 12
24 " 37
3 " 48A
2 " 90A
2 " 126

Model No. 1.53 Submarine

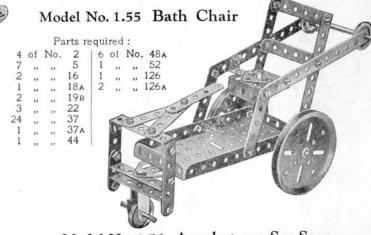
Parts required:

4	of	No.	1	12	of	No.	35
5	***	,,	10	28	,,	,,	37
2	,,	**	11	3	,,	,,	37A
8	,,	,,	12	2	,,	,,	38
2	,,	,,	17	1	,,	,,	48
3	,,	,,	22	1	,,	,,	48A
- 1	.,,	,,	24	2	,,	,,	125
			•	1 2			126



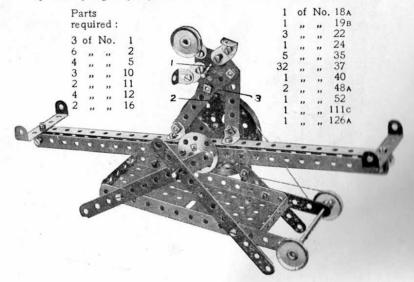
4	of	No.	1	2	of	No.	18A
8			2	1	,,	,,	198
4	,,	,,	5	4	,,	,,	22
2	,,	,,	17	1	**	**	24
				8	,,	,,	35
				24	,,	,,	37
-	-			1			52

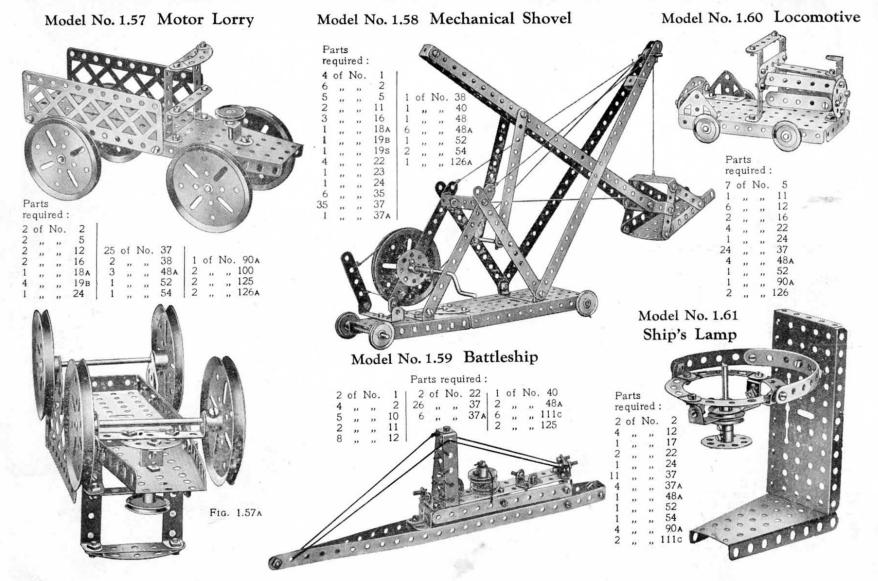
Trunnions are bolted to the side 12½" Strips, and a Bolt passed through their inner extremities secures a ½" Reversed Angle Bracket and an Angle Bracket. The former is attached to the upper 12½" Strip while the Angle Bracket is connected by means of a Flat Bracket and a further Angle Bracket to the lower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

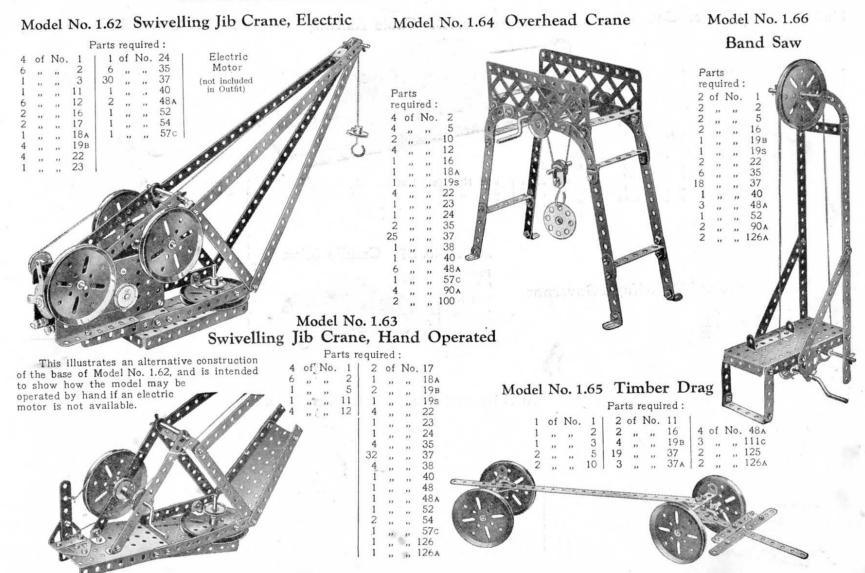


Model No. 1.56 Acrobat on See-Saw

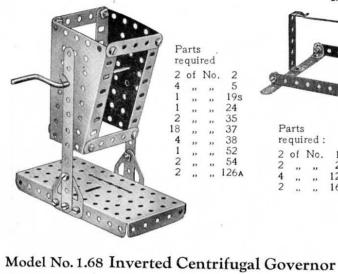
The 1" Rod 1 is journalled in the end holes of two $5\frac{1}{2}$ " Strips 2 and in the Flat Trunnion 3 which joins them. It is held in position by two Spring Clips, placed on either side of the $5\frac{1}{2}$ " Strips 2.







Model No. 1.67 Butter Churn



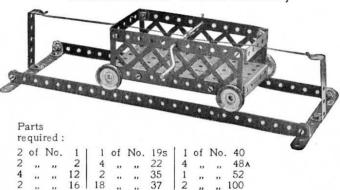
4 of No. 22

111c

Parts required:

4 of No. 2

Model No. 1.69 Cable Railway

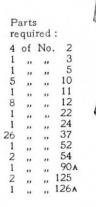


Model No. 1.70 Candle Stick



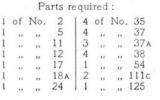


Model No. 1.72 Man and Boy



Model No. 1.71 Machine for Tracing a Locus



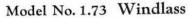


The $5\frac{1}{2}$ "Strip is pivoted to the $2\frac{1}{2}$ " Strip by means of a Bolt and two Nuts, and the $2\frac{1}{2}$ " Strip is similarly pivoted to the Sector Plate. By revolving the $2\frac{1}{2}$ " Strip about its pivot, the vertical $1\frac{1}{2}$ " Rod can be made to trace a locus. If the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

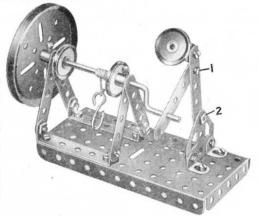
the 5½" Strip are altered, several different loci may be traced. Machines of this type are of advantage in assisting in the design of engine connecting rods.

Model No. 1.75 Signal

Parts required:

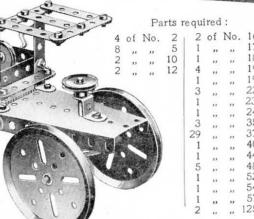


Parts required:

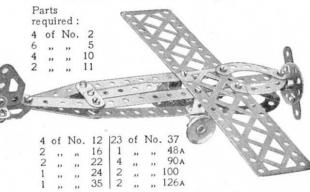


The figure at the right of the model is arranged to work to and fro when the Crank Handle is rotated. The Bolts 1 and 2 are both secured by two nuts as in Standard Mechanism No. 262.

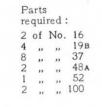
Model No. 1.74 Lorry Crane



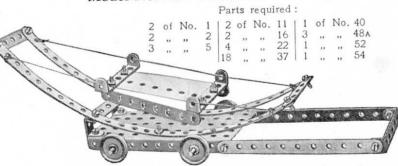
Model No. 1.76 Aeroplane



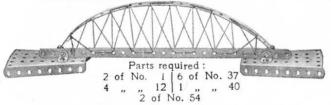
Model No. 1.77 Truck



Model No. 1.78 Mountain Transport

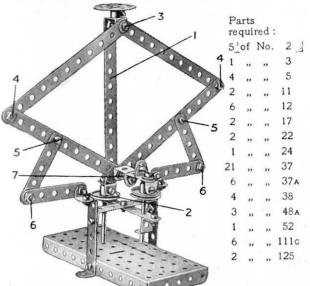


Model No. 1.85 Bow Girder

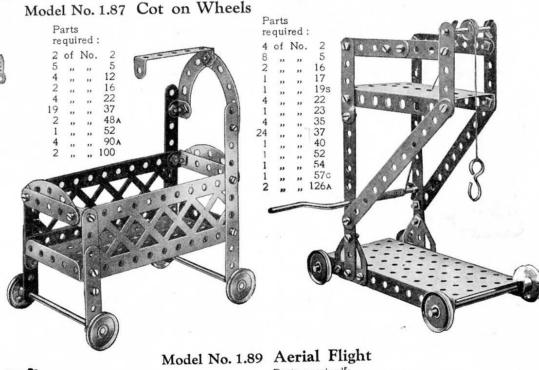


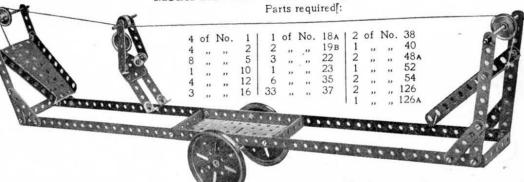
Model No. 1.86 Double-Action Pump

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



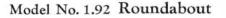
Model No. 1.88 Tower Wagon

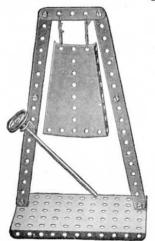




Model No. 1.93

Model No. 1.90 Gong





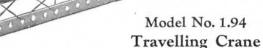
Parts required:

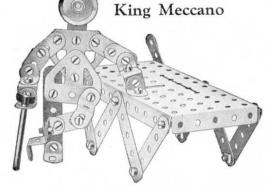
Begin to build this model by making the platform from a Flanged Plate and $12\frac{1}{2}$ Strips. The drive from the Pulley on the Crank Handle is taken to a 1" Pulley, fast on the vertical 2" Rod, another similar Pulley being secured to this Rod beneath the Plate.

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

Parts required:

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





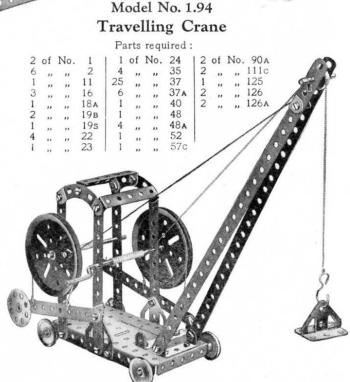
1 of No. 54 Model No. 1.91 Emery Wheel

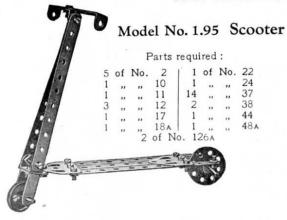
Parts required:

	1 41 65 1	cquirea.	
1 of No. 1 ,, ,, 2 ,, ,,	17 1 of 18a 1 " 19B 2 "	24 1	of No. 37 " 40 " 48A " 52 " 111c " 125 " 126A
			isc of emery paper 3" diameter

Parts required:

1	of	No.	3	1	of	No.	35
9	,,	"	5	30	,,	3.7	37
5	,,	,,	10	1	,,	,,	52
8	,,	,,	12	1	**	,,	111c
1	,,,	"	17	2))	- 11	125
1	**	***	22	1 2	22		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

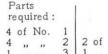
Slides on the Strip 1 and is secured to a piece of cord. On rotation of the Crank Handle 4, the Strip 1 is pulled backward until the Double Bracket 3 slips off its end. The Strip then flies forward and strikes the missile, which consists of a 2" Rod placed ready in the Double Bracket 5.

-		
Parts	required	:

4	of	No.	1	12	of	No.	16	1	of	No.	40	
4	,,	,,	2	1	,,	,,	16 18a	1	,,	,,	44	
1		,,	3	3	,,	**	19B	4	,,,	,,	48A	
2	,,		11	1	,,		198	1	7.7	**	52	
2	,,	,,,	12	4	**	,,		1		"	90A	
				121	,,	,,	37	2	,,	"	126A	

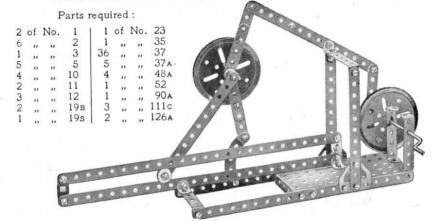
Model No. 1.97 Tight-Rope Walker

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

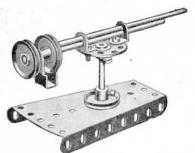


4	OI	INO.	- 1	1							
4	,,		2	2	of	No.	17	2	of	No.	38
1	,,		3	1	,,	,,	19s	1	,,	"	40
5	,,		5	4	,,	,,	22	2	,,	,,	48A
3	,,		10	1	,,	,,	23	1	,,	**	52
4	,,	,,	12	6	,,	,,	35	2	,,	,,	54
2	,,	,,	16	134	,,	,,	37	1	,,	,,	126A

Model No. 1.98 Double-Action Piston Connection



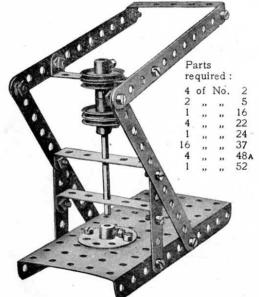
Model No. 1.99 Quick-Firing Gun Parts Model No. 1.101 Scales



Parts required:

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

Model No. 1.100 Punching Machine



re	qui	red:	
2	of	No.	2
2	n	,,	11
1	29	"	18A
2	"	11	35
8	**	"	37
1	**	2.5	52
2	33	"	54
2			126

rea.		-	NAME OF TAXABLE PARTY.	NETTHERN S			(FISHE
No.	2	CHUIC					COR
"	11		SAF SAF SALES		annones d	Q-spreading of	
"	18A				4 4	100	4 0
	35		/SEE		THE PARTY OF	1	
"	37		63	型石里河西		6 H	
**	52		N.		- 64	4 (1)	7 7 7
"	54		8		SPER	SPRINT	BASA SA
"	126			LEBAR	00004000	Mb-258w0	Ph400400
						~ .	**.

Model No. 1.103 Swivelling Crane

		P	arts r	equ	ire	d:	
4	of	No.	2	1	of	No.	52
7	"	,,	5	1	,,	"	54
7 2 2 1 4	,,	,,	12	1	**	**	57
2	,,	**	17	2	**	**	126.
1	,,,	,,	19s				
	"	"	22	N	F30		
1 2	,,	"	23	1	6		
2	,,	,,,	35		BL.	COD.	
21	,,	**	37	1 8	Nil	0	-
3	,,	"	38			剛	
1	,,,	"	40			M_	7
1	"	"	44		8		-
1	,,	"	48A	1 11	1	P-	-

**	5	1	**	"	54
,,	12	1	**	**	57c
**	17	2	,,	**	126A
	19s				
	22	-			- 6
	23	N.	9		
	35	0	N.		
"	37	B	VIII	67	
"	38	K		齫	000
"	40	1	뒥문	2	Consumer of the Party of the Pa
22			-	200	1 -

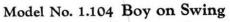
The Sector Plate of the crane in the above model is pivoted to the base with a fast Pulley above and below.

Model No. 1.102

Extended Ash Tip

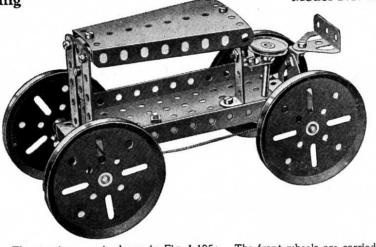
6	/			Pa	rts	requ	ired:				
4	of.	No.	1			No.		2	of	No.	48A
5	,,	,,	2	1	,,,	,,	19s	1	,,	,,	52
7	,,	,,	5	4	,,	,,	22	6	,,	,,	111c
2	,,	,,	11	1	,,	,,	24	2	,,	"	125
8	,,	,,	12	5	,,,	,,	35	2	,,	"	126
1	,,	,,	16	36	,,	"	37	2	"	23	126A
2	,,,	,,	17	1	,,	,,	40				

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.

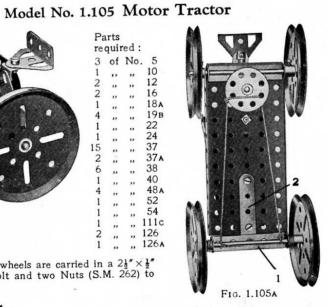


Parts required:

4	of	No.	1	1	of	No.	24
6	,,	,,	2	7	,,	,,	35
2 5	,,	,,	5	35	,,	,,	37
5	,,	,,	10	1	,,	,,	40
8	,,	,,	12	1	,,	,,	48A
2	,,	,,	16	1	,,	.,	52
1	,,	,,	17	1	,,	,,	54
4	**	,,	22	1 2	,,	**	125
		20	f N	12	64		



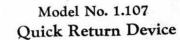
126A The steering gear is shown in Fig. 1.105A. The front wheels are carried in a $2\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strip 1, which is mounted pivotally by a Bolt and two Nuts (S.M. 262) to a $2\frac{1}{2}''$ Strip 2 secured to the $5\frac{1}{2}'' \times 2\frac{1}{2}''$ Flanged Plate.



Model No. 1.106 Bagatelle Table

Parts required:

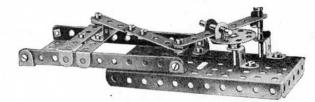
4	of	No.	1	8	of	No.	12
5		,,	2	25	,,	,,	37
3		,,	10	4	,,	,,	12 37 48 A
		1	of	No.	52		



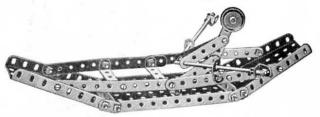
Parts required:

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	,,	**	48 A
1	,,	.,,	17	1	,,	,,	52
2			184	2			125



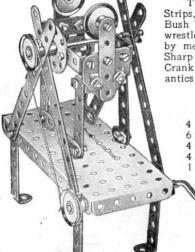
Model No. 1.108 Rowing Boat



Parts required:

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

Model No. 1.109 The Wrestlers



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

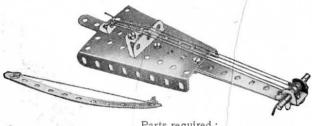
		Pa	rts 1	requi	red	:		
4	of	No.	2	1	of	No.	19s	
6 4 4	,,	,,	5	4	,,	,,	22	
4	,,	,,	10	1	,,	,,	24	
4	,,	,,	12	3	,,	,,	35	
1	,,	,,	16	24	.,	,,	37	
				5	,,	**	38	
1		-		1	,,	,,	40	
'				6	,,	,,	48A	
				1		,,	52	
				2 2	.,,	**	111c	
				2			126A	

Model No. 1.110 Weather Vane

Parts required:

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

Model No. 1.111 Violin and Bow



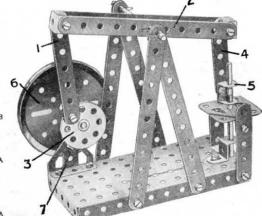
Parts required:

4	of	No.	2	1	of	No.	12	1	of	No.	40
1		,,,	5	1		,,	18a	1	,,	,,	54
1	,,	,,	11	2	,,	,,	35	1	,,	,,	126
				5		,,	37				7.00

Model No. 1.112 Beam Engine

The connecting Strip 1 is attached pivotally by a Bolt and two Nuts (Standard Mechanism No. 262) to one end of the beam 2 and to the Bush Wheel 3. The Strip 4 is similarly connected to the other end of the beam 2 and to the Double Bracket 5 attached to the piston rod. The short rod carrying the flywheel 6 is journalled in a $2\frac{1}{2}$ " Strip supported by the Trunnion 7 and in a Reversed Angle Bracket bolted to the 21" Strip.

Parts required: 6 of No.



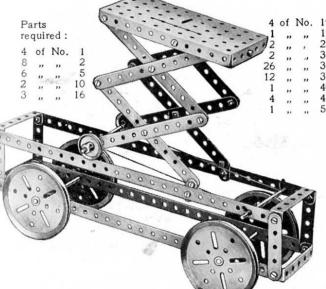
Model No. 1.113 Cum Bak



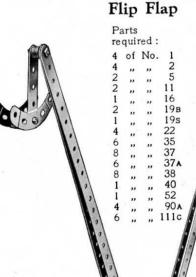
re	qui	red:	
1	of	No.	18A
2	,,	,,	19B
2	,,	,,	22
1	,,	,,	23
1	,,	**	35
8	,,	**	37
4	,,	**	48A

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

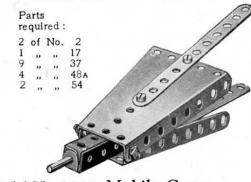
Model No. 1.114 Tower Wagon



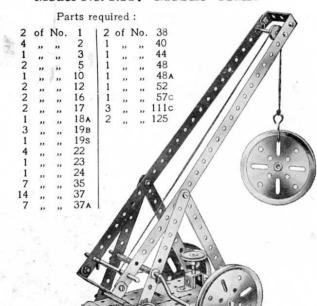
Model No. 1.115

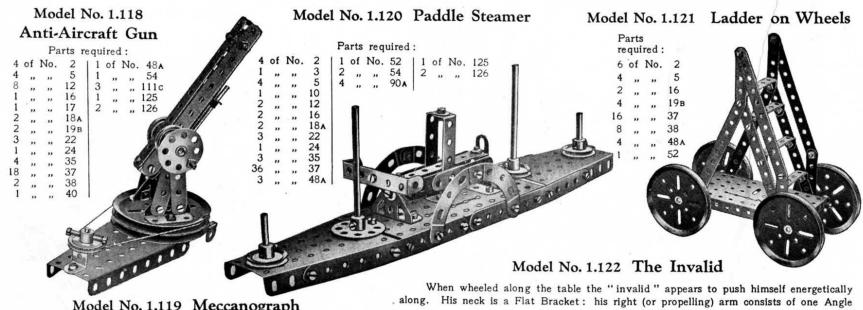


Model No. 1.116 Bellows



Model No. 1.117 Mobile Crane





Model No. 1.119 Meccanograph

Parts required: 2 of No. 17 5 of No. 35 2 of No. 48A 37 ,, ,,

Parts required: 4 of No.

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

1 of No. 40

Model No. 1.123 Bow and Arrow

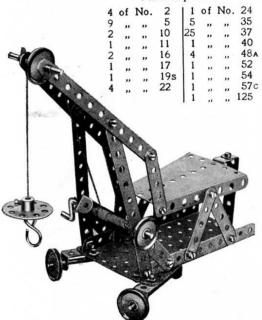
Parts required: 1 of No. 1 | 1 of No. 16 1 of No. 40

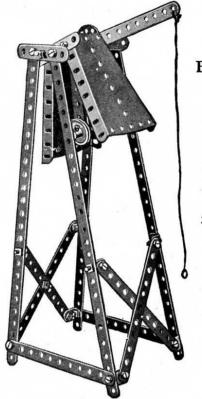


Model No. 1.124 Rotating Crane

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

Parts required:



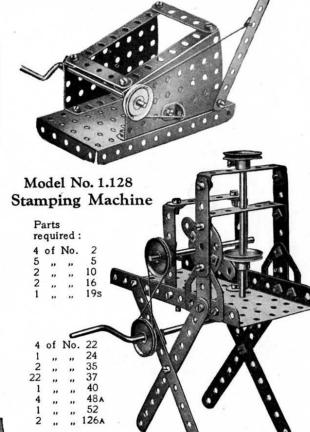


Model No. 1.127 Band Brake Model Parts required: 1 of No. 2 | 1 of No. 19s No. 1.125 Fire Alarm Parts required: 4 of No.

Model No. 1.126 Gramophone

Parts required

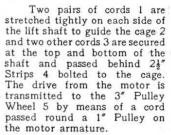
		1 6	arts r							A.				
2	of	No.	10	2	of	No	. 9	A O	8		-			
1	,,	,,	12	2	,,	,,	11	10	-	v.	10	A		
1	**	,,	19в						1	w	, -	W		
1	,,	,,	23							_		7		
1	,,	,,	24				-			- 66	2880	No.		
6	,,	,,	37 38 52		16	1	0		1		995	0	N_	-
1	,,	,,	38	1	B.(-			B (0				
1	,,	,,	52	1			-				6	0		0.0
				100	1	-	788		•	6	10	10	7	ľ



Model No. 1.129 Electric Elevator

Model No. 1.130 Mounted Cowboy

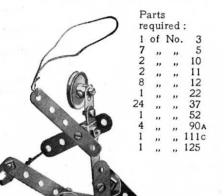
Model No. 1.132 Coaster

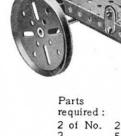


Parts	required:

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

Electric Motor (not included in Outfit)





Model No. 1.133

,,	o		1/3	00000	AB				
,,	10		4	Contrary of the last					
,,	16								
,,	18A					1 1	of	No.	40
,,	19в	22	of	No.	37	4		,,	48
,,	22	2	,,	,,,	37A	1	,,		52
,,	18 л 19в 22 24	6	,,		38	2	,,		52 126

Model No. 1.131

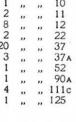
Parts

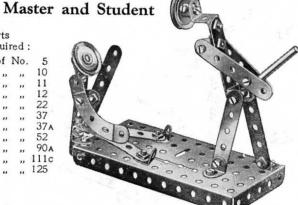
2	of	No.	2
6	,,	,,	5
4	- "	,,	10
2	,,	,,	11
4	"	,,	12
1	,,,	,,	16
2	,,	,,	19в
2	,,	,,	22
2	"	"	35
14	"	,,	37
2	"	,,	38
2	,,	,,	111c 125
2	,,	**	125





Parts required: 9 of No.





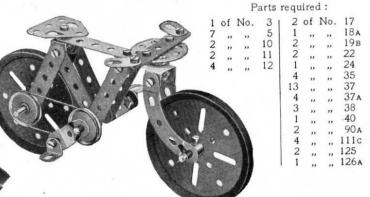
Model No. 1.134 Travelling Crane

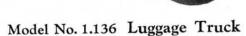
The jib 1 is pivoted to the Flat Trunnions 2, which are bolted at 3 to Angle Brackets secured to a Bush Wheel. The latter is nipped to a 2" Rod 4 passing through the Plate 5 and further supported in a Double Angle Strip 6. A Washer and Spring Clip mounted on the Rod 4 below the Strip 6 secure the crane to the carriage. The jib is supported by means of cords 7 tied to 2½" Strips 8, the holes of which engage the shank of a bolt passed through the Sector Plate 9, and its elevation may be altered by inserting this bolt in different holes in the Strips 8. The cord 10 of the brake lever is wound once round the Crank Handle, between two Washers.

Model No. 1.135 Bicycle

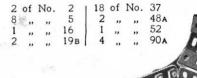
Model No. 1.137 Gymnast

CHIPPEODIDI



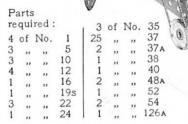


Parts required:

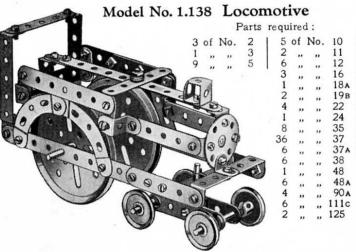




4	of	No.	2	1	of	No.	19s	1	of	No.	40
7	,,	,,	5	4	,,	,,	22	1	,,	,,	44
1	,,	,,	10	1	,,	"	23 24	1	"	**	48 A 52
2	,,	,,	12	5	"	"	35	li	"	"	54
2	,,	,,	16	27	"	"	37	1	,,	,,	57c
2	,,	,,	17	6	,,		38	2	,,		126A

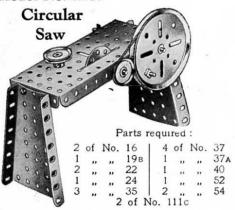


One of the 2½" Strips representing the arms of the gymnast is bolted to a Bush Wheel secured on a 3½" Rod. When the Crank Handle is rotated the gymnast turns complete somersaults in a very amusing manner. The gymnast's "arms" must be pivoted to the Angle Brackets forming his shoulders by means of Bolts and Lock-Nuts.



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

Model No. 1.139



Model No. 1.140 Treadle Grindstone

Parts
required:

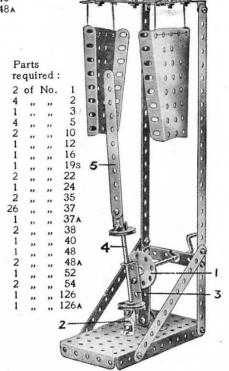
4 of No. 2
1 , , , 3
1 , , , 5
1 , , , 12
3 , , , 16
2 , , , 19
4 , , , 22
1 , , , 24
2 , , , 35
9 , , , 37
2 , , , 37
1 , , , 40
1 , , , 48
1 , , , 52

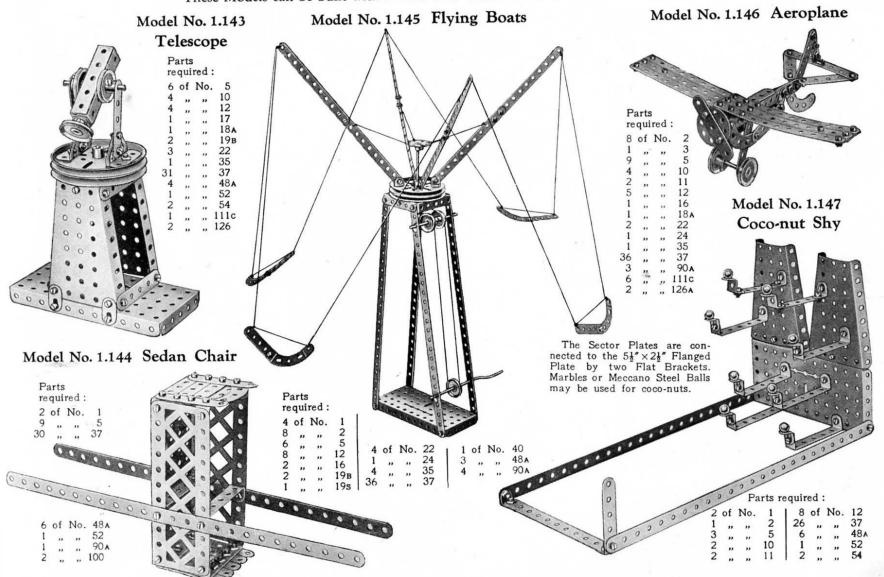
Model No. 1.141 Quick-Delivery Chute Parts Model No. 1.142 Mechanical Gong

required:

2 of No.

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





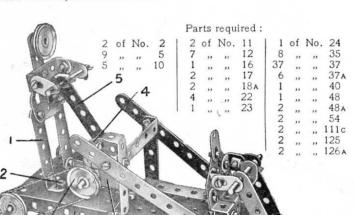
Model No. 1.148 Double Draw Bridge

4	of	No.	1	1 1	of	No.	19s	2	of	No.	38
6	,,	,,	2	2	,,	,,	22 35 37	1	,,	,,	40
1	,,	**	16	8	,,	,,	35	6	"	,,	48A
				1 16			37	1			120A

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.

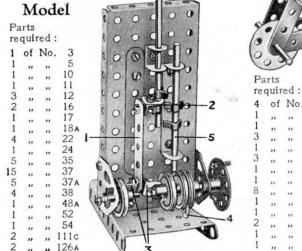


Model No. 1.151 Motor Cyclist and Pillion Rider Parts required:

4 of No. 2 | 2 of No. 17 | 2 of No. 48A 9 ,, , 5 | 4 ,, , 22 | 2 ,, , , 90A 4 ,, , 10 | 1 ,, , 24 | 2 ,, , , 125 2 ,, , 11 | 2 ,, , , 35 | 2 ,, , 126A 8 ,, , 12 | 30 ,, , , 37

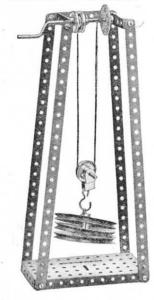
Model No. 1.150

Tappet Valve Demonstration



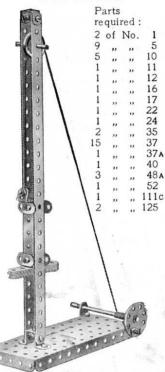
Model No. 1.152

Chinese Windlass



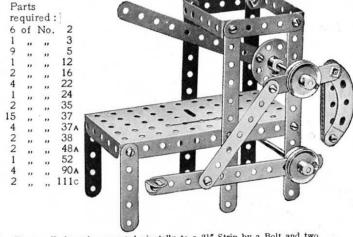
The upper end of the Strip 1 is connected pivotally by a Bolt and two Nuts to the crosshead bracket 2. The crankshaft is built up as follows: Two Angle Brackets 3 are each secured rigidly to the boss of a Pulley Wheel and are connected to each other by a § Bolt carrying three Nuts. The Nuts are screwed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

Model No. 1.153 Pile Driver



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

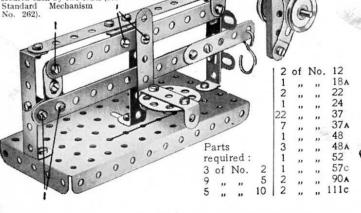
Model No. 1.154 Foot Hammer



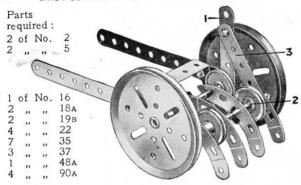
The treadle lever is connected pivotally to a 3½° Strip by a Bolt and two Nuts. The upper end of this Strip is similarly connected to a 2½° Strip that is clamped tightly between two Pulleys on the hammer Rod. Pressure on the treadle causes the hammer to descend on the work. When the treadle is released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

Model No. 1.155 Heavy Duty Scales

The five Bolts 1 act as pivots and are secured each by two Nuts (see



Model No. 1.156 Horse Rake



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

Model No. 1.157 Gravity Conveyor

Parts required:

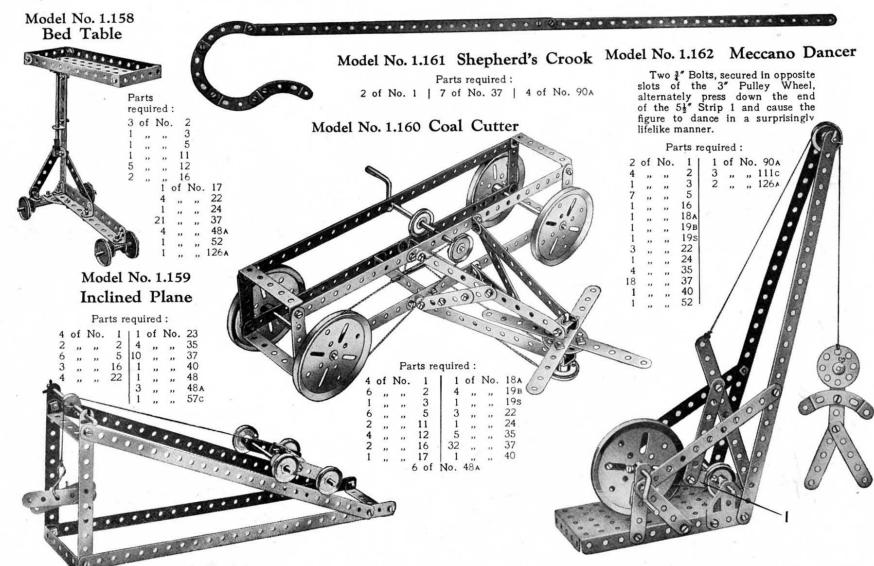
4 of No. 1 | 36 of No. 37

3 ,, 2 | 3 ,, 37A

8 ,, 5 | 1 ,, 48

8 ,, 12 | 3 ,, 90A

3 of No. 111c

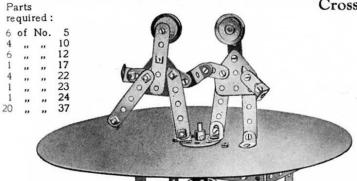


Model No. 1.163 Eccentric Dancers

Model No. 1.165

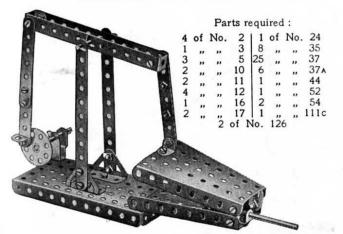
Model No. 1.166 Drop Stamp

Crosshead Demonstration Model



2	,,	No. 48A "111c		0
1	,,	,, 125	0	
2	,,	" 126A		0

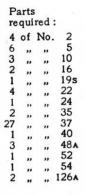
Model No. 1.164 Bellows



		Par	ts re	quir	red	:	
2	of	No.	1	1 3	of	No.	35
4	,,	,,	2	20	,,	,,	37
9	,,	.,	5	1	,,	,,	40
2	,,	,,	16	2		,,	48A
1	,,	,,	23	1	,.	,,	52
1	,,	,,	24	2	,,	,,	126A



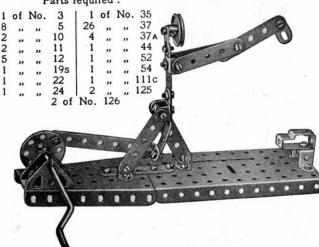
This is an apparatus for determining the forces that act at the crosshead of a reciprocating engine. The upper inclined length of cord represents the connecting rod and the lower, or vertical portion, the piston rod. The pull on the third cord indicates the pressure exerted on the slide bars of the engine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





Model No. 1.167 Blacksmith

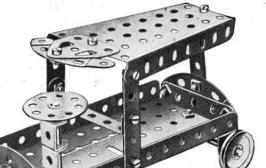
Parts required:





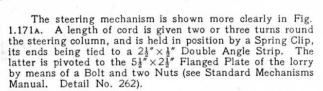
Model No. 1.168 Try-Your-Strength Machine

66



Model No. 1.171 Motor Van

		P	arts	re	qui	red	:	
3	of	No.	5	1	17	of	No.	37
1	,,	,,,	11		1	,,	,,	40
1	,,	,,	12	- 1	3	,,	"	48 A
2	,,	,,	16		1	,,	,,	52
-	,,	"	17		1	,,	,,	54
4	"	,,	22	- 1	3	,,	**	90 A
1	,,,	,,	23	- 1	1	,,	**	111c
1	**	,,	24	- 1	1	,,	,,	125
1	,,	,,	35	I	1	,,	,,	126A



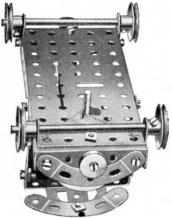


FIG. 1.171A

Model No. 1.169 Double Cable Key

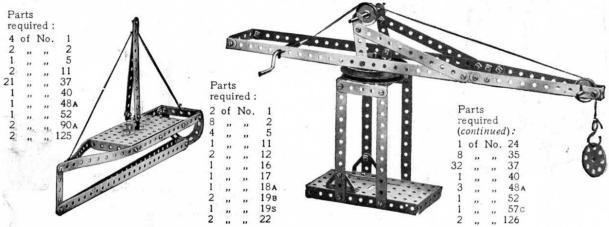
Parts required:

2 of No. 2 | 1 of No. 52
2 ,, 22 | 2 ,, 111c
4 ... 37



Model No. 1.170 Boat

Model No. 1.172 Revolving Hammerhead Crane







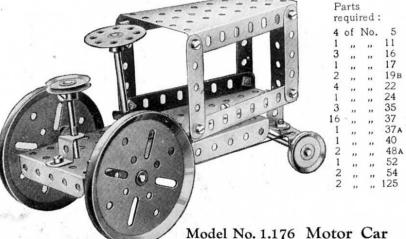
Model No. 1.174 Racing Motor Car

Parts required:

3	of	No.	2	25	of	No.	37		_		The st
4	,,	,,	5	3	,,	,,	38	4			$5\frac{1}{2}'' \times 2\frac{1}{2}''$ F
4	,,		10	1	.,	,,	44				Strip 4. A
2	,,		11	4	,,	,,	48A		Soft.	0 3	is connecte
8	,,	,,	12	1	,,	,,	126A	1	1 0	1	Strip carry
2	,,	,,	16	215				6/10			Angle Strip
1	,,		19s	. :			4	//	1		
4	,,	-0.	22					10			1
1	,,	,,	23		_			0/	//		1
1	,,		24		3	-	$\langle r \rangle$	1			W. S
4	,,		35		1	4		-	0/1		
				10	100		(010	10	9	
	4		. /	6	1		Li	A	110		
	100		0 /	2	10	1			1		
- 2	7	A 2	/	1		0	-	7//			

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

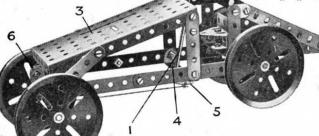
Model No. 1.175 Motor Tractor



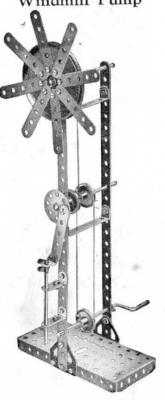
The steering column 1 is journalled in an Angle Bracket 2 bolted to the $5\frac{1}{2}$ Flanged Plate 3, and in the second hole of the $2\frac{1}{2}$ Flanged Plate 3, secured to the lower end of the steering column, is connected by two short lengths of cord to a second $2\frac{1}{2}$ Double Angle Strip carrying the front axle. The Strip is pivoted to a similar Double Angle Strip 6 by means of a Bolt and Nuts (Standard Mechanism No. 262).

Parts required:

4	of	No.	2	3	of	No.	16	25	of	No.	37	4	of	No.	48A
7	,,	,,	5	4	,,	,,	19в	2	,,	,,	37A	1	,,	,,	52
1	,,	,,	10	1	,,	,,,	22	4	,,	,,	38	2	,,	,,	54
1	,,	,,	11	1	.,	,,	24	1	,,	,,	40	1	,,	,,	111c
							2.	5	5			1	,,	,,	125
							-			Dia	-	1	,,	,,	126
			7				100		-	PI >	100	_			

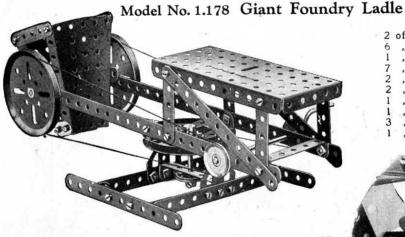


Model No. 1.177 Windmill Pump



Parts required:

2	of	No.	1	4	of	No.		
9	,,		5	24	,,	,,	37	
	,,	,,,	10	4	**	,,,	37A	
2	,,	,,	12	3	,,	**	38	
3	,,	,,	16	1	,,	,,,	40	
1	,,	,,,	19B	2	,,	"	48A	
1	,,	,,	19s	1	,,	,,	52	
4	,,	,,	22	2	**	"	111c	
1	,,	, ,,	24	2	,,	**	126A	

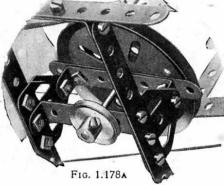


The ladle pivots about a $3\frac{1}{2}$ " Axle Rod carrying a 3" Pulley at each end in addition to a Bush Wheel and a $2\frac{1}{2}$ " Strip. The two latter parts are bolted to the side flanges of the Sector Plates and the Bush Wheel is nipped in position on the Rod. The pivot about which the superstructure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

Model No. 1.179 Boat Steering Gear

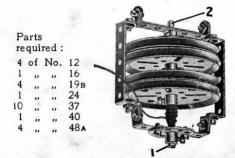
Model No. 1.179		,0						al
	Parts required:							
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	1	,,	,,	3	14	,,	,,	37
	2	,,	,,	11	4	,,	,,	37A
	1	,,	,,	12	1	,,	,,	40
	1	,,	,,	16	1	,,	,,,	48A
	1	,,	,,	18A	1	,,	,,	52
A 10 0	1	,,	,,	19в	6	,,	,,,	111c
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Parts 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 2 ,, 12 | 6 ,, 48A 1 ,, 16 | 1 ,, 52 1 ,, 17 | 2 ,, 54 3 ,, 19B | 6 ,, 111c 1 ,, 19s | 2 ,, 126A



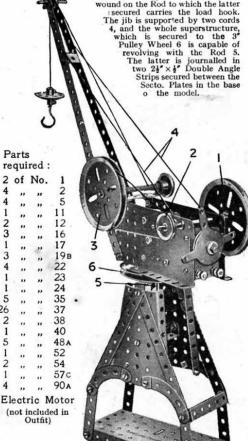
Model No. 1.180 Gyroscope

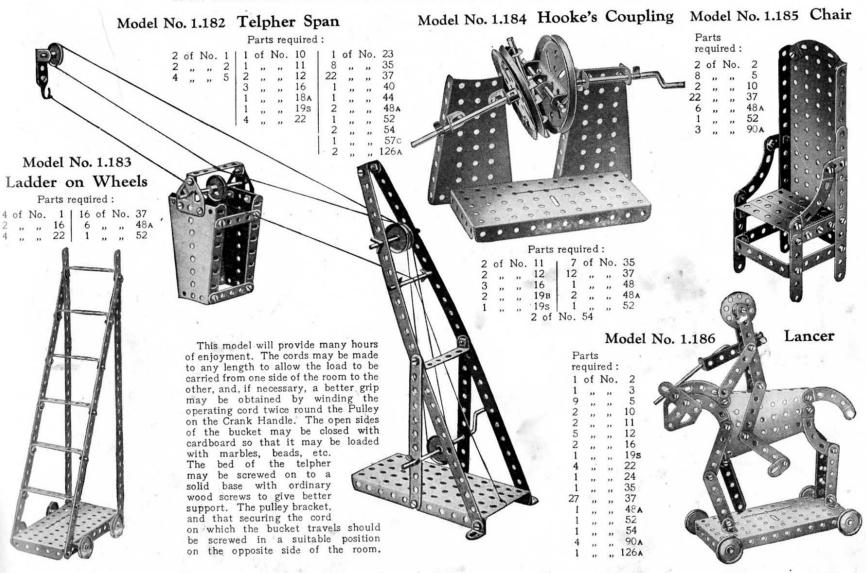
The 5/32" Bolt 1 is gripped by the Set-Screw of the Bush Wheel. The lower end of the Rod 2 of the gyroscope enters the boss of the Bush Wheel and rests on the shank of the Bolt 1.

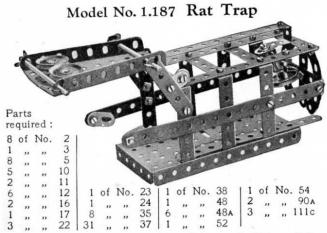


Model No. 1.181 Elevated Jib Crane

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 : secured carries the load hook. The jib is supported by two cords 4, and the whole superstructure,

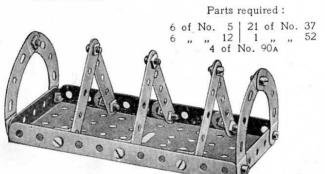


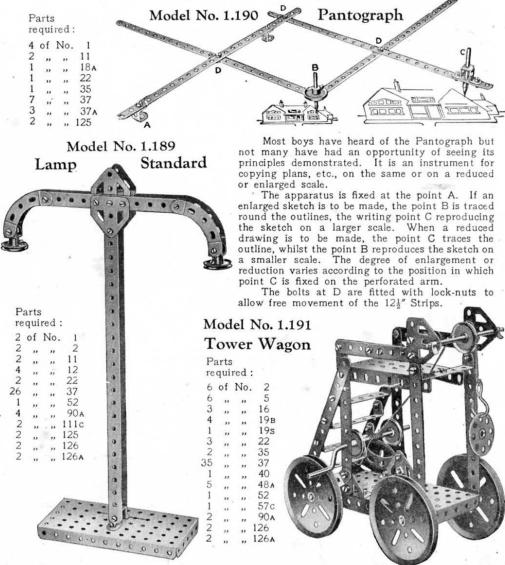




The "bait" consists of a 1" fast Pulley and a $\frac{1}{2}$ " loose Pulley suspended by means of a cord from a Double Bracket. The latter is bolted to a $1\frac{1}{2}$ " $2\frac{1}{2}$ " Double Angle Strip that is free to turn on a 2" Rod journalled in a pair of Angle Brackets. A Flat Bracket bolted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

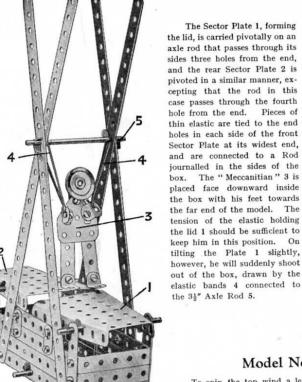
Model No. 1.188 Toast Rack





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

Model No. 1.192 A Sudden Appearance



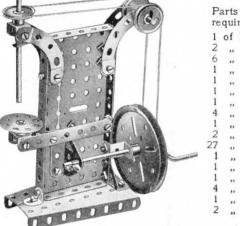
Parts required :

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8	,,	, ,,	5	4	,,	,,	48 A
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4	,,,	"	16	1	,,		111c
1	**	**	22	(1	"	**	126a
	Α	shor	t ler	gth	of e	elast	ic

Model No. 1.193 Eiffel Tower

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22	,,	,,	37
1	,,	,,	40
1			111c

Model No. 1.195 Drill



Model No. 1.196 Revolving Tricyclist

Model No. 1.194 Top

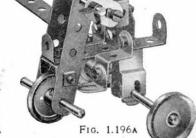
To spin the top wind a length of cord round the rod, as shown, place on a smooth surface and give the cord a sharp pull. When the cord is clear of the rod remove the $5\frac{1}{2}$ " Strip and the top will continue to spin for a considerable period.



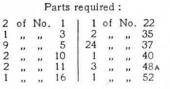
1 of No. 2 | 1 of No. 37 1 ,, 16 | 1 ,, 40 1 ,, 198 | 1 ,, 125

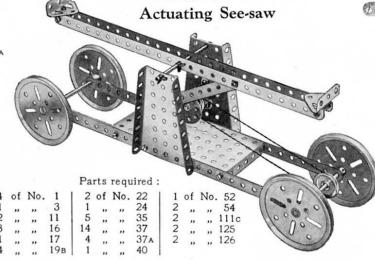


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3	.,	,,	10	25	,,	**	37
1	,,	,,,	11	1	,,	,,	44
5	,,	,,	12	2	,,	,,	48
1	**	,,	16	1	,,	,,	.52
2	.,	**	17	2	,,	**	125
1	**	**	19s	2	,,,	"	126
4	.,	**	22	1	,,	**	126



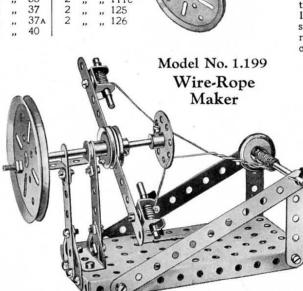
Model No. 1.197 Guillotine





Model No. 1.198

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	,,	,,	19B
3	,,	,,	22
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6	,,	,,	35
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1	,,	,,	52
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2			125
	,,,	**	WINDLE STORY



Model No. 1.200

Coat Hanger

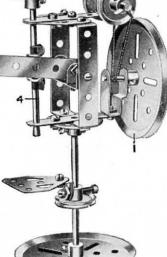
Parts required:
1 of No. 1 | 2 of No. 5 | 1 of No. 57c
2 ,, ,, 2 | 6 ,, ,, 37 |

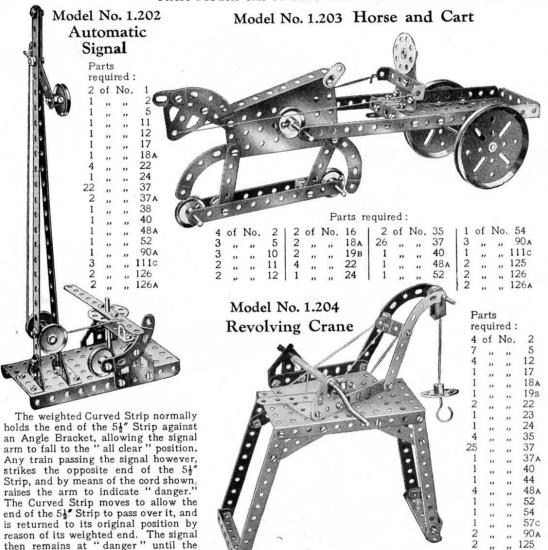
Model No. 1.201 Automatic Drill

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 $3\frac{1}{2}$ " Strip) is pivoted by a Bolt and two Nuts at its inner end to an Angle Bracket, and the latter is bolted to a $1\frac{1}{2}$ " Double Angle Strip which, in turn, is bolted between the vertical $2\frac{1}{2}$ " Double Angle Strips. The arm of the lever engages between two Washers on the drill spindle, and on pressing the lever, the drill spindle with its 1" Pulley is forced downwards,

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

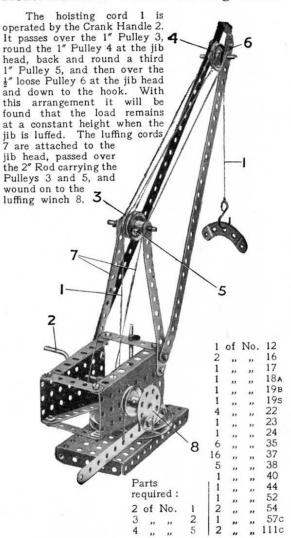


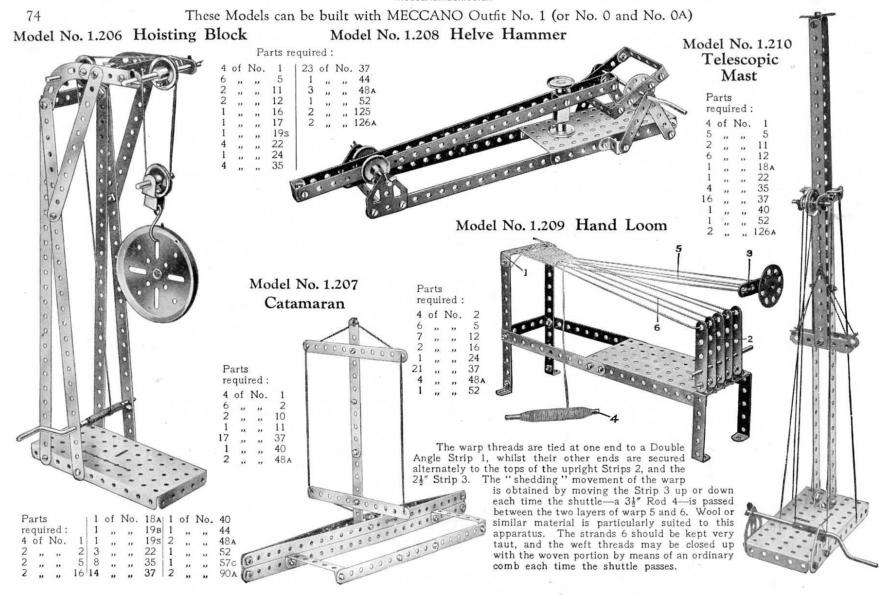




mechanism is re-set.

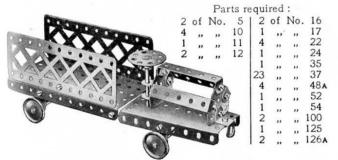
Model No. 1.205 Patent Luffing Crane





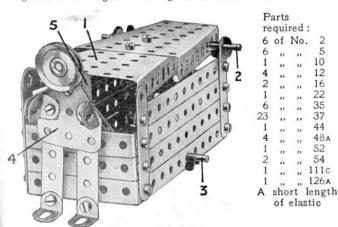
These Models can be built with MECCANO Outfit No. 1 (or No. 0 and No. 0A)

Model No. 1.211 Motor Lorry

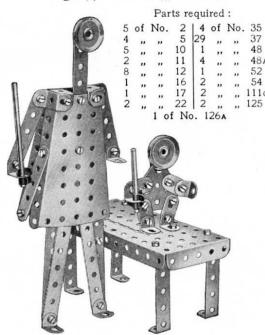


Model No. 1.212 Disappearing Meccanitian

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 an an Axle Rod 2, consists of two Sector Plates bolted together. Elastic bands are tied to the sides of these Plates and connected to Rod 3 passed through the bottom of the box. The "Meccanitian" 4 also is connected to this Rod by pieces of elastic. On pressing the end of the rear Sector Plate the lid opens sufficiently to allow the figure to be drawn inside and then snaps back into place. A Cranked Bent Strip 5 is bolted at the back of the figure and rests against the edge of the Sector Plate.



Model No. 1.213 Dignity and Impudence



Model No. 1.214 Field Roller

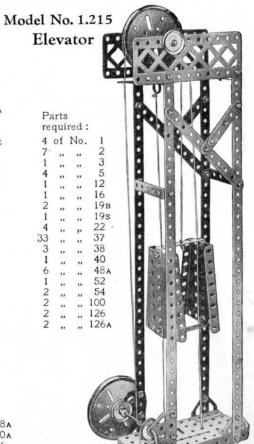
Parts required:

2 of No. 1 | 1 of No. 16 | 6 of No. 48A

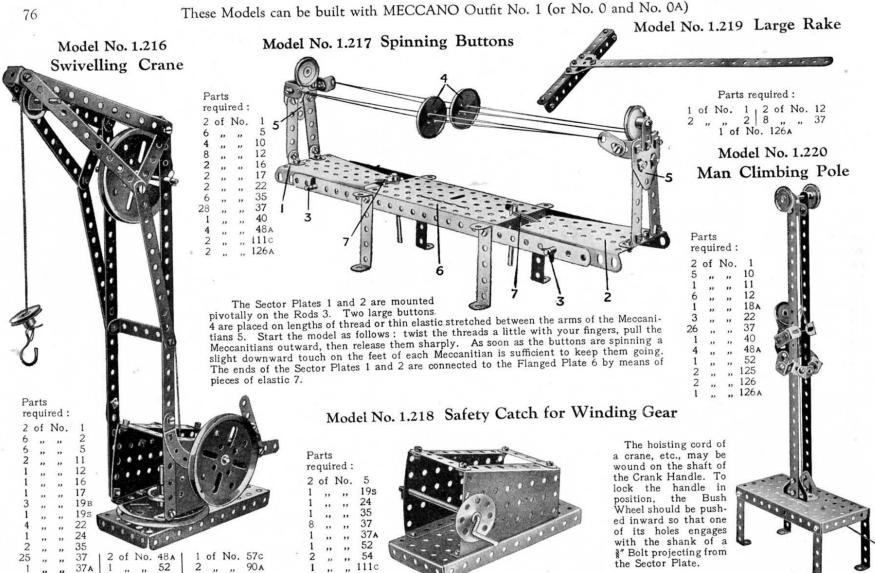
3 ,,,, 5 | 2 ,,,, 19B | 2 ,,,, 90A

6 ,,,, 12 | 30 ,,,,, 37 | 2 ,,,,, 126



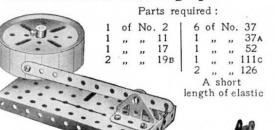


Two cords stretched between the base plate of the model and the upper structure are passed through holes in the Double Angle Strips of the cage to form guides. A further cord is tied to the upper Double Angle Strip, and after being led over the 3" Pulley at the head of the model is tied to the shaft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



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

Model No. 1.221 Seismograph



Model No. 1.222 Jib Crane

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1	**	**	24
23	1.5	,,	37
- 1			40

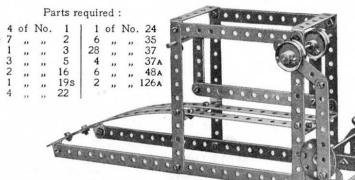
Parts

Model No. 1.223 Centrifugal Governor

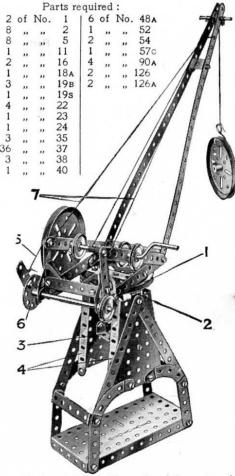
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The 3" Pulley Wheel is bolted to the $5\frac{1}{2}$ " $\times 2\frac{1}{2}$ " Flanged Plate as shown, and the Rod 6 is free to rotate in its boss. The Bolts 1, 2, 3, are provided with lock-nuts. When the engine to which the governor is attached works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

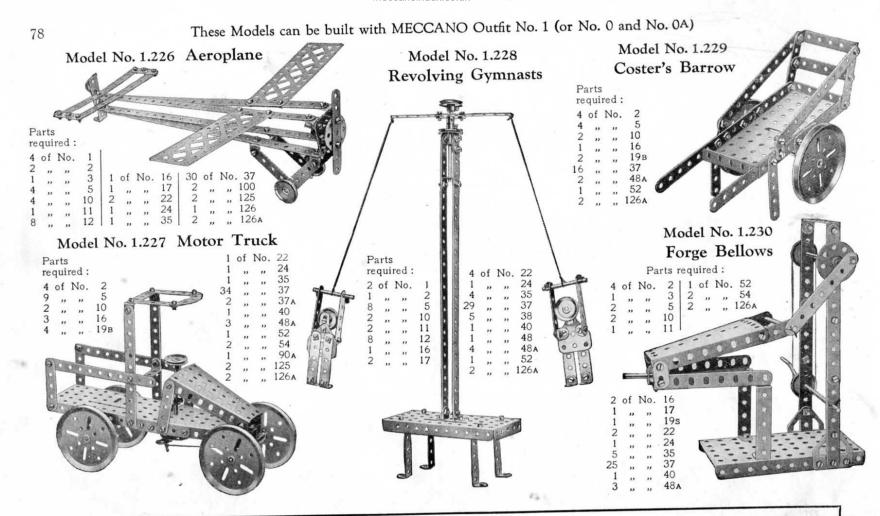
Model No. 1.224 Stone-Sawing Machine



Model No. 1.225 Elevated Crane



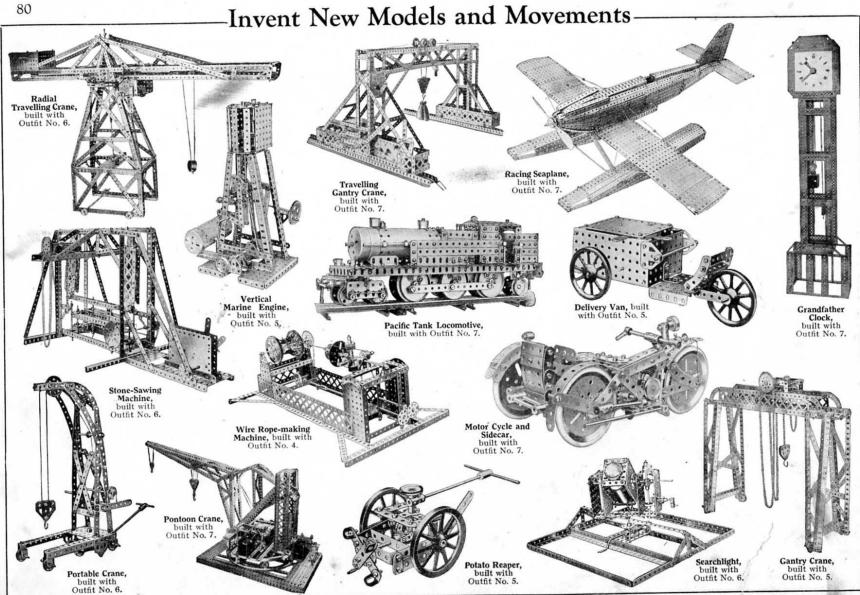
The base of the swivelling portion of the crane consists of a 3" Pulley Wheel 1, which has a 3½" Axle Rod nipped in its boss. The Rod is journalled in two 2½" Double Angle Strips 2 and 3 secured between the Sector Plates 4. The brake cord 5 passes round the 3" Pulley as shown, and is tied to one of the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

79 Build Bigger and Better Models GERROOM Steam Lorry, built with Outfit No. 2. Horizontal Steam Engine, built with Keep Adding to Your Outfit Stamping Mill, built with Outfit No. 6. The more Meccano parts you have, the bigger and better the models you are able to build. Keen and enthusiastic model-builders keep Outfit No. 2. Section of the second Girder Crane, built with adding to their Outfits, until they are able to build all the wonderful models shown in the Outfit No. 4. Meccano Manuals. The model-building possibilities of the Meccano System are limitless. All the fine models Vertical Drill, Swing Bridge built with System are mintress. All the fine models illustrated on this page and page 80 are examples of the types you will be able to build as your Outfit develops. built with Outfit No. 5. Outfit No. 4. Submarine, built with Outfit No. 4. You can purchase separate Meccano parts as you require them, or, if you prefer, you can purchase Accessory Outfits that connect all the main Outfits. Aeroplane, built with Outfit No. 2. Roundabout, Tipping Steam Wagon, built with Outfit No. 2. Steam Road built with Roller, built with Outfit No. 5. Steam Wagon, built with Outfit No. 3. Outfit No. 3. ORIGINAL PROPERTY OF PERSONS ASSESSED. Carrier Tricycle, built with Sifter, Coaster, built with built with Outfit No. 2. Outfit No. 2. Outfit No. 2.



CONTENTS OF OUTFITS

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

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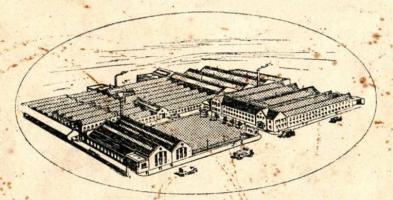


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