

### MICCANO



### INSTRUCTIONS

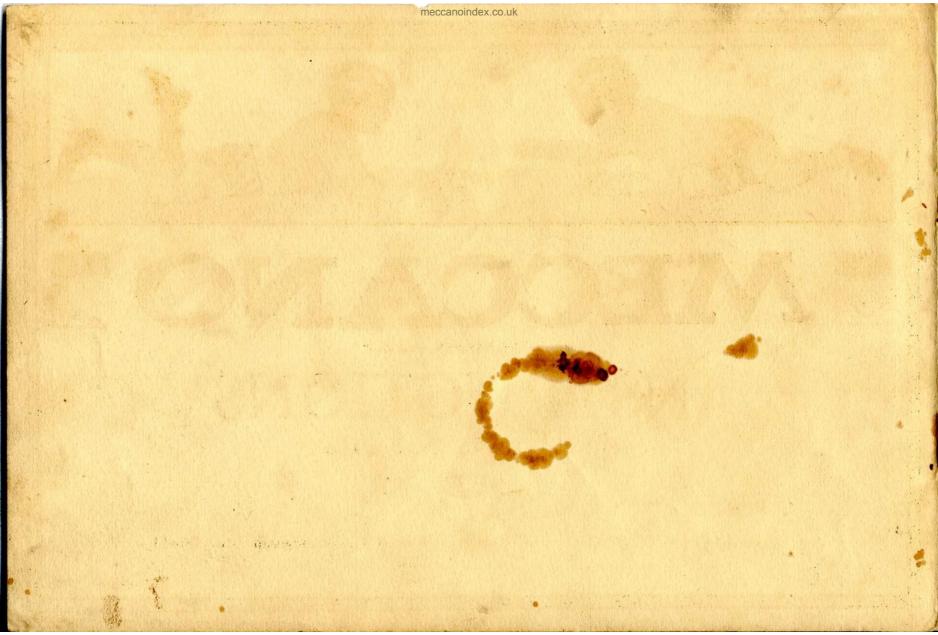
FOR OUTLITS Nos. 0 to 3

1/-

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No. 25A

BNGLISH EDITION



### A TALK WITH NEW MECCANO BOYS



MECCANO OUTFITS contain accurately-made and highly-finished engineering parts with which every movement known to mechanism may be reproduced in model form. With Meccano you can accomplish more than with any other constructional toy, for no other system has its possibilities. No study is needed to enable you to build models with Meccano—the genius is in the Meccano parts.

You never come to the end of Meccano fun. There is always more ahead—always some new, ingenious and interesting model to build. Each one, as it is completed, "tuned up," and set going, brings a joy and satisfaction beyond anything that you have ever previously experienced.

As you progress in Meccano you obtain a greater variety of parts, Gear-Wheels, Pulley-Wheels, Worm-Wheels, Couplings, Cranks, and all manner of perfectly-made real engineering parts. These enable you to construct complicated mechanical movements without any difficulty. The most

wonderful feature of Meccano is that it is real engineering; it is fascinating and delightful and yet so simple that even an inexperienced boy may join in the fun without first having to study or learn anything.

### THE LIFE OF A MECCANO BOY

MECCANO boy is the happiest boy in the world. He builds models from the Meccano Instruction books; invents new models; joins the Meccano Guild and a Meccano Club and by wearing the Guild badge proclaims himself to be the friend of millions of other Meccano boys all over the world. He reads the Meccano Magazine regularly and corresponds with his friend the Editor when he feels like it. Time never hangs heavily on his hands and he is too busy and happy to grumble.

The Meccano Magazine is the Meccano boy's 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 interesting articles on engineering and electrical subjects, and deals with many 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. Write to the Editor, Meccano Magazine, Binns Road, Liverpool, and he will send you a copy FREE. It is sent regularly to subscribers at the rate of 2/- for six issues, or it may be ordered from any Meccano dealer, newsagent or bookstall, price 3d. per copy.





MECCANO GUILD
MEMBER'S CERTIFICATE.

### THE MECCANO GUILD

THE MECCANO GUILD is an organisation for boys, started at the request of boys and conducted as far as possible by boys. The Guild is a great fraternal organisation of which all Meccano boys should become members, for its primary object is to bring them together. The Guild makes these boys feel that they are all members of a great brotherhood, each trying to help the others to get the very best out of life and it cannot fail to have a profound effect for good on the lives of its members.



SPECIAL MERIT MEDALLIONS.

### MECCANO CLUBS

MECCANO CLUBS are founded and established under the guidance of the Guild Secretary at Headquarters and at the present time there are active Clubs in over one hundred towns and villages in the United Kingdom and in many countries Overseas. Each Club has its Leader, Secretary, Treasurer, and other officials all of whom, with the exception of the Leader, are boys Write for information how to form a club, if there is no club near you.

Special awards are given to Club members for good work in connection with their Club and medallions are awarded in connection with the Recruiting Campaign, full particulars of which will be sent on request.



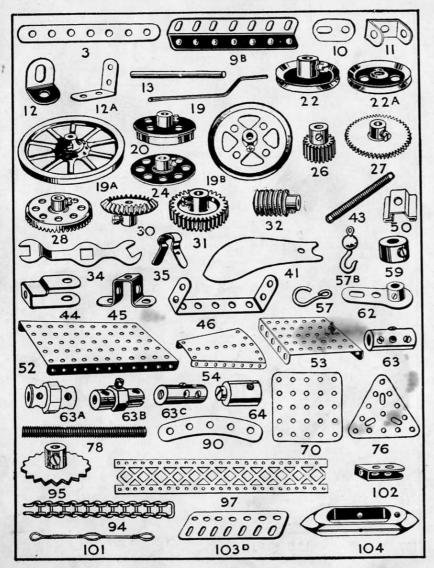
RECRUITING MEDALLION.

### HOW TO BUILD WITH MECCANO

CLLOW the instructions closely at first, and build the models just as you see them. Then take each model and try to improve our design. Every model can be made in a dozen different ways. Screw up all the nuts and bolts firmly and you will find that you can play with the trucks, cranes, signals, etc., and obtain many hours of fun.

For convenience Meccano parts are sold in nine Outfits of varying size, numbered 00 to 7. The quality and finish of the parts are of the same high standard throughout the series, but as the Outfits increase in size they contain larger quantities and greater varieties of parts. Each Outfit may be converted into the one next higher by the purchase of an Accessory Outfit (see page 62). Thus, if a No. 2 is the first Outfit bought, it may be converted into a No. 3 by adding to it a No. 2a. A No. 3a would then convert it into a No. 4 and so on up to No. 7. In this way, no matter with what Outfit you commence, you may build it up by degrees to a No. 7.

The separate Meccano parts may be bought at any time in any quantity (see pages 3 and 4).



### Particulars and Prices of Meccano Parts

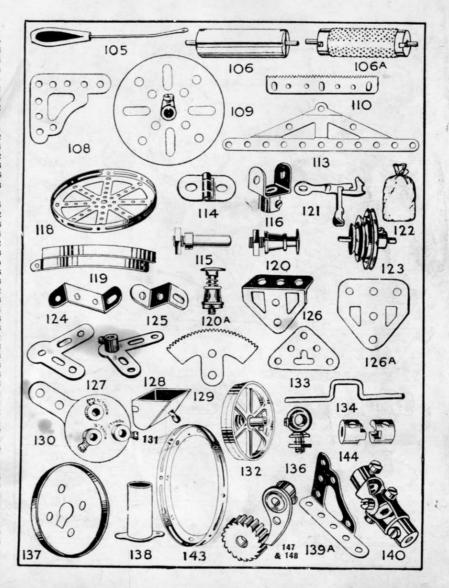
										1		
No.									d.	No.	Bush Wheels each 0 6	6
1.	Perforat	ted Strip	s, $12\frac{1}{2}$ "	long	3		doz.		0	24. 25.	D: : 101 1 2# 1/-	6
1a.	,,	"	91,	,,	•••	•••		0	9	26.	ringon wheels, 4 diens ,	1
1b.	,,	,,	71"	**				0	8	20.	" "diam " 0 4 Gear Wheels.	
2.	,,	"	51"	**			"	0	6	27.		4
2a.	,,	"	41"	,,			,,	0	5			,
3.	,,	,,	31"	**			"	0	4		3/ ,, ,, ,, 2 ,, ,,	
4.	,,	,,	3"	"			"	0	3	276.	133 , (3½" diam.) to gear with ½"	2
5.	***	, ,	21"	,,			**	0	3		pinion "	2
6.		,,	2"	,,			,,	0	3	28.	Contrate wheels, 12 diam "	
6a.	"	,,	11"	,,			,,,	0	3	29.	n n 4 n	
7.	Angle Gi		l' lon	g			eacl	0	8	30.	Devel Geats	
7a.		18	Sł"				,,,	0	6	31.	Geal Wheels, I, oo teeth	
8.		**	21" "				doz.	1	9	32.	World wheels "	
8a.	"		1 "	3			,,	1	3	34.	Spanners "	22 R
8b.	"		71" "				,,	1	2	34b.		
9.	"		51" "					1	0	35.	Spring Clips per box (doz.) 0 3	430
9a.	,,	**	41" "				"	0	10	36.	Screw Drivers each 0 3	5-12
9b.	"	"	31"				"	0	8	36a.	" " Extra Long "	6
9c.	"	"	3"				"	0	8	37.	Nuts and Dorts per box (week)	6
9d.	"	.,	21" "				,,	0	7	37a.	140125 11 11 11	3
9e.	"	"	2" "				"	0	6	37b.	Bolts, 1/32 " " " "	3
9f.	**	,,	11" "				"	0	6	38.	Washers "	1
5075	Flat Bra	**	12 "		***		"	0	2	40.	Hanks of Cold	3
10.				No. of Paris	•••		each	0	1	41.	Properlet blades Per Part	4
11.	Double				•••	•••	doz.	13.	6	43.	Springs each 0 2	2
12.	Angle B					***	each		1	44.		1
12a.	,,,	n	1"×1'		***		each	0	1	45.	Double Bent Strips " 0 !	1
12b.	, ,,	. "	1"×1		•••	•••	"	0	3	46.		6
13.	Axle Ro		long	***	***		**	0	3	47.	2½"×1½" ,, 0 ½	9
13a.	***	, 8"	, ,,	•••			"	0	2	47a.	" " 3" ×1½" " 1 (	0
14.	"	" 6½	,,	***	***	***	"	0	2	48.		4
15.	11	" 5"	. 39	***	***	•••	33	1878	1100	48a.	, , , , 2½"×½" , 0 :	5
15a.	"	,, 41		***	•••		"	0	1	48b.	,, ,, 3½"×½" ,, 0 t	6
16.	"	" 3½			***	•••	**	0	1	48c.	" " " " " " " " "	9
16a.	,,,	" 2½	" "				11	0	1	48d.	n n n n n n n n n	9
16b.	"	" 3"	"				"	0	1	50.	Eve rieces	5
17.	. ,,	" 2"	u		***		"	0	1	52.	remorated Franged Frances, og 22 m	5
18a.	,,	, 11	" "				,,	0	1.	52a.		3
18b.	,,	" 1"	,,				"	0	1	53.	Periorated Flanged Flates, og A=2 "	3
19.	Crank I	landles.					22	0	3	53a.	riat riates, 4g A2g "	3
19a.	Wheels,	3" diam	., with	sets	crev	vs	"	0	8	54.	Periorated Flanged Sector Flates "	2
20.		Wheels					"	0	6	55.	Periorated Strips, Stotted, 54 10115 "	1
			ulley W	Vheel	s.					55a.	" " " " " "	6
19b.	3" dia. v					scre	w "	0	8	56.	No 0.3	0
19c.	0#						"	2	6	56a.	" " No. 0-0 " 0	4
20a.	**	,,,	,,		,	"	,,	0	6	56b.	» » No. 0 »	1
20a.	110	"	"		"	"		0	6	57.	1100K5	1
21.	1"	,,	"		"	"	"	0	4	57a. 57b.	" (Scientific)	5
-		"	31		**	"	"	0		58.	Spring Cord per length 0	9
23a.			. "		**	**	"	0		59.		2
22a.	1" "	withou			"	"	"	0	1	61.		2
23.	1 "	39	**		"	**	"	U	-	01.	***************************************	

### Particulars and Prices of Meccano Parts (continued)

			-		-			course a date (committee)	
No.	Consta					d.	No.	s.	
62.	Cranks	*** **		each		3	105.	Reed Hooks, for looms each 0	4
62a.	Threaded Cranks			33	0	4	106.	Wood Rollers , 1	3
63.	Couplings	*** **		,,	0	6	106a.	Sand Rollers 1	6
63a.	Octagonal Couplings	*** **		39	0	8	107.	Tables for Designing Machines " 1	0
63b.	Strip Couplings			,,	0	8	108.	Architraves , 0	2
63c.	Threaded Couplings				0	6	109.	Face Plates, 2½" diam , 0	4
64.	Threaded Bosses				0	2	110.	Rack Strips, 3½" 0	2
65.	Centre Forks				0	2	111.	D 14 24	1
66.	Weights, 50 gramme			"	1	0	111a.	Bolts, 4"	1
67.					1	0	113.	0: 1 2	2
68.	"			doz.	0	3	114.		4
69.				doz.		-	115.		2
				21	0	4	2797555	Threaded Pins each 0	3
69a.	Grub Screws, 5/32"			.11	0	4	116.	Fork Pieces 0	
69b.	" " 7/32"	*** **		**	0	6	117.		6
70.	Flat Plates, 5½"×2½"			each	0	3	118.	Hub Discs, 5½" diam each 1	3
72.	" " 2½"×2½"			**	0	2	119.	Channel Segments (8 to circle,	
76.	Triangular Plates, 21			**	0	2		11½" diam.) " 0	4
77.	1"			"	0	1	120.	Buffers 0	2
78.	Screwed Rods, 111"			"	0	6	120a.	Spring Buffers per pair 0	8
79.	" " 8"			"	0	5	121.	Train Couplings each 0	4
79a.	" "			.99	0	4	122.	Miniature Loaded Sacks 0	2
80.	" "				370	-	123.	Cone Pulleys 1	3
	" "			**	0	3	124.		10
80a.	" " 31"				0	3	125.		6
80b.	" " 41"			19	0	3	126.	Trunnions each 0	3
81.	" " 2"	*** **		**	0	2	126a.	Flat Trunnions 0	2
82.	1"	*** **		"	0	1	127.	Simple Bell Cranks " 0	3
89.	Curved Strips, 51"			**	0	2	128.	Pose Pell Crapks	4
90.	n n 21"	*** **		**	0	1	129.	Pack Sagments 3" diam	6
94.	Sprocket Chain	per	40" le	ength	0	6	130.	Triple Throw Eccentrics	3
95.	Sprocket Wheels, 2"	liam		each	0	5	131.	Dredger Buckets	2
95a.	" " 1½"	,,		,,	0	4	132.	Flywhoole 92" diam	3
95b.	" " 3"			"	0	6	133.	Corner Brackets	3
96.	" " 1"	,,		**	0	3	134.	Crank Shafts, 1" stroke 0	3
96a.	" " 2"	,,			0	3	135.	Theodolite Protractors	3
97.	Braced Girders, 31"1	ong		doz.	. 0	9	136.	Handrail Supports	3
98.	" " 21"	,,			0	6	137.	Wheel Flanges	4
99.	" " 12 <u>1</u> "	,,			1	9	138.	Shin's Funnels	4
99a.	, , 91"				1	6	139.	Flanged Brackets (right)	2
100.	" " 51"	,,			1	0	139a.	(left)	
101.	Healds, for looms			doz.	0	9	140.	Universal Couplings	2 9
102.	Single Bent Strips			each	0	1	141.	Wire Lines (for suspending clock	9
103.	Flat Girders, 51" long				1	0	141.	wire Lines (for suspending clock	T.
103a.	" " 91" "			*	1	6	142.	weights) 0 Rubber Rings 0	9
103b.	" " 121" "			"	2	0	143.		4
103c.	" " 41" "			"	0	9	144.	Circular Girders, 5½" diam " 1	0
103d.	" " 31" "			"	0	7	145.	Dog Clutches	6
103e.	0#			31	0	6		Circular Strips, 7" diam. over all " 1	0
103f.	018			"	0	5	146.	Circular Plates, 6" diam " 1	3
103g.				**	0	4	147.	Pawls, with pivot bolt and nuts " 0	3
103h.	11"	*** **		"	0	3		Pawls	2
103k.	" " 71" "			**	1	3		Pivot bolts with two nuts , 0	2
104.	Shuttles, for looms			**	4	0	148.	Ratchet Wheels " 0	9
				"			149.	Collecting Shoes, for electric locos " 1	6
				100				the foregoing list is not necessarily complete	

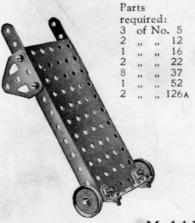
As new parts are frequently added to the Meccano system the foregoing list is not necessarily complete.

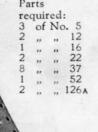
The latest illustrated list should be obtained from your dealer, or from Meccano, Ltd., Liverpool.



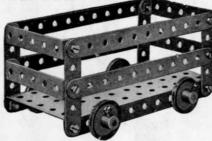
### Trucks and Luggage Carts



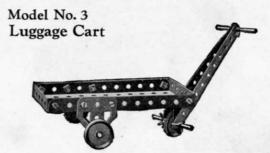




Model No. 2 Truck with Sides

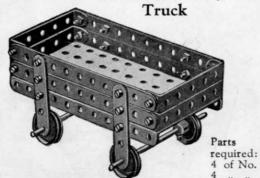


				equ			1
4	of	No.	2	4	of	No.	22
4	,,	,,	5	12	,,	**	37
2	23	,,	16	No.	,,	33	48A

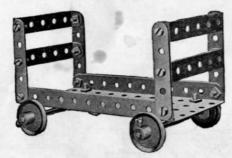


Parts required: 2 of No. 2 | 9 of No. 37

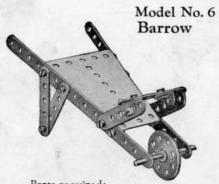
Model No. 4



Model No. 5 Luggage Truck



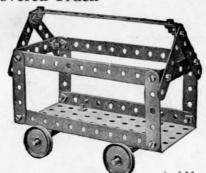
Parts required: 4 of No. 5 |16 of No. 37 2 " " 16 4 " " 48A 4 " " 22 1 " " 52



Parts required: 2 of No. 2 | 1 of No. 24 9 ,, 5 | 2 ,, 35 2 ,, 12 | 14 ,, 37 1 ,, 17 | 1 ,, 54

### Model No. 7 Covered Truck

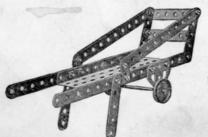
### Trucks and Luggage Carts (continued)



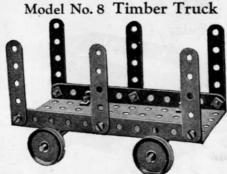
			-		14	of 1	No.	22
	Parts r	equ	ired:		20	,,	,,	37
3	of No.	2	2 of No.	12	4	,,	,,	48A
8		5	2	16	1			52



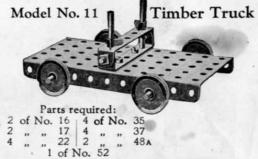
Model No. 13 Coster's Barrow



	rts	red	
		No	
4	,,	,,	5
1	,,	,,	16
2	,,	,,	22
16	**	**	37
2	"	,,	48A
1	22	"	52
2	33	**	126A



Parts required:
6 of No. 5 10 of No. 37
2 ,, 16 2 ,, 48A
4 ,, 22 1 ,, 52

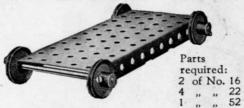


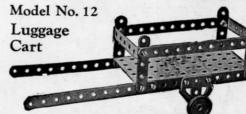
Model No. 14 Timber Drag



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

Model No. 9 Flat Truck



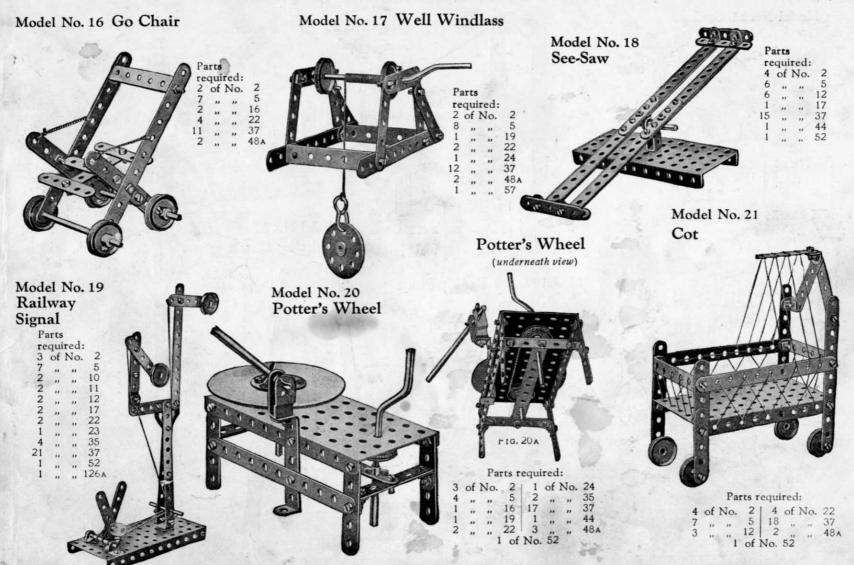


		Par	ts r	equi	red	:	
4	of	No.	2	14	of	No.	37
4	**	,,	5	2	,,	,,,	48A
1	**	,,	16	1	,,	,,	52
2			22	2			126A

Model No. 15 Bath Chair



					-				
Parts		1	of	No.	16	13	of	No.	37
required:		2	,,	,,	17	1	,,	,,	44
2 of No.	2	3	,,	,,	22	3	,,	,,	48A
6 ,, ,,	5	4	"	,,	35	1	"	"	52

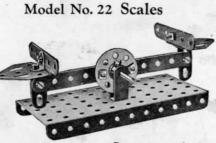


required:

### These Models can be made with MECCANO Outfit No. 0.

Model No. 23

Gangway



						250						
1	of	No.	2	2	of	No.	12	9	of	No.	37	
2	,,	"	5	1	,,	33	17	1	"	"	44	
2	,,	,,	10	1	,,	,,	24	1	,,	**	52	
				2			1264					

### Model No. 25 Tower Wagon

4	of 1	No.	2 5		4.6
8	.,,	,,	5		PARTY NAMED IN
2	. ,,	,,	16		1
1	,,	,,	17		- 同
1		"	19	0	0 /
4 1 4 24	"	,,	22	100	/
1	"	"	23	4	THE PERSON NAMED IN
4	, 11	"	35		10
	"	"	37		20/
1	"	"	52	O	. 10
1	,,	"	54	-	AND
1 2	"	"	57 126A	M	A00 A
2	**	"	120A	0 4	
				N 40	
				ACE	23.3
					STATE OF THE PARTY

					1	of	No.	16			0	
		of	No.	2	1	"	"	19	-			
	4	***	"	5	1	**	n	22	2	of	No.	48A
	1	"	33	10	1	***	11	23	1	,,	**	52
ì	1	"	"	12	4	"	**	35	1	,,		54
ı					118	"	23	37	2	,,	,,	126A

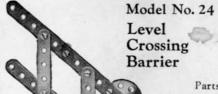
Model No. 26 Pulley Shaft

Parts required



	Par	ts	req	ui	rec	1:
ŕ	No	1 5	1 1	0	of	N

4	OI I	NO.	4	10	1 10	NO.	31
4	**	**	12	2	**		38
1		,,		1			52
4			22	. 3		70	739



	re	qui	ired:	
	3	of	No.	2
	2	,,	,,,	5
١	1	,,	,,,	17
ı	4	**	**	22
A	1	**	"	24
	10	**	33	37
	2	"	"	48A
	1	- "	11	52

Parts

Model No. 27 Hoisting Block



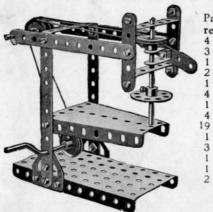
Model No. 28 Railway Signal

Parts required:

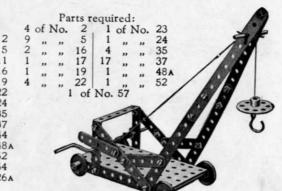


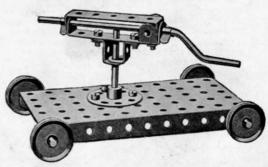
### Model No. 30 Jib Crane

### Model No. 31 Rock Drill









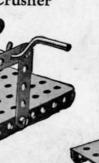
Parts		1	of	No.	19	4	of	No.	37
required:		4			22				
2 of No.	16	1	,,		24	1	**		52
1 ,, ,,	17	2	,,	,,,	35	2			125



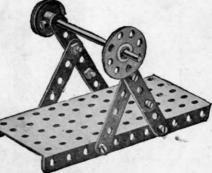
FIG. 29A (Detail of Drilling Machine)

Model No. 32 Buffers





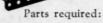
Model No. 35
<b>Buffing Spindle</b>
Buffing Spindle



		Par	ts re	qui	irec	1:	
6	of					No.	24
1	,,	,,	16	8	,,	,,	37
1	"	**	22	1	,,	,,	52

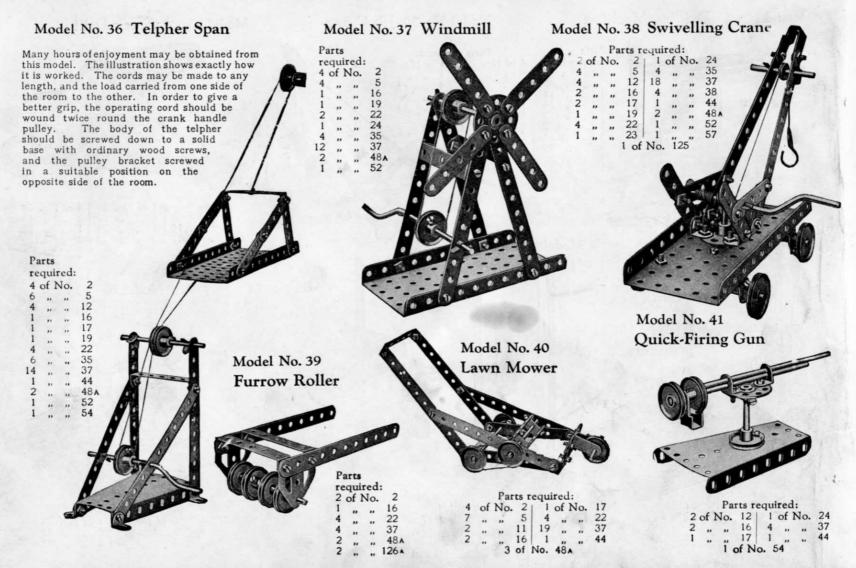


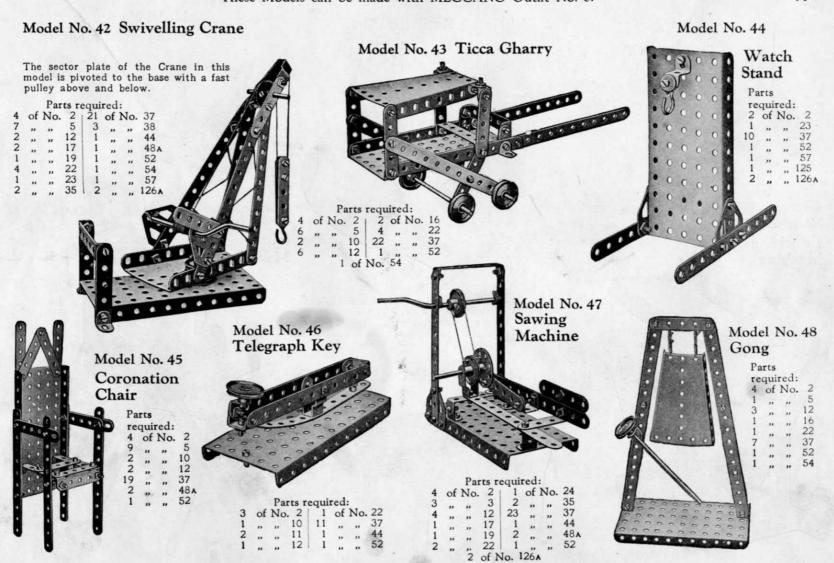
		rai	rts r	equi	rea		
2	of	No.	2	12	of	No.	35
2	,,	,,	5	6	,,	,,	37
2	,,,	"	17	2		11	48A
2	,,	**	22	1	,,	"	52



4	of	No.	2	20	of 1	No.	37
4	"	***	5	1	**		48A
6	"	,,	12	1	,,	,,	52

		Pa	rts r	equi	red	:	
6	of	No.	5	1	of	No.	24
2	**	,,	10	2	,,	,,	35
1	12.	Sin S	16	10	,,	,,	37
1	-		19	2	,,		48A
2	,,	-	22	1	,,,	,,	52





### Model No. 49 Spinning Top

Parts required: 1 of No. 17 " " 22

### Model No. 50 Roulette Wheel

5 of No. 5 | 1 of No. 24 Parts 1 " " 16 5 " " 37 3 " " 22 1 " " 52 required: 1 of No. 2



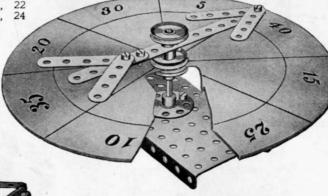
Model No. 54

Stamping

Machine

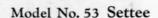
Model No. 51 Mechanical Hammer

> Parts required:



Punching Machine

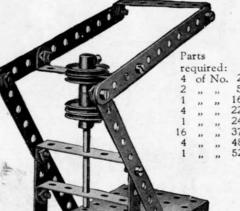
> Cut out a circular piece of cardboard and mark as shown to form scoring board. This is clamped between two 1" pulley wheels. The pointer revolves freely on the upright spindle and is held in position by another I" pulley wheel.

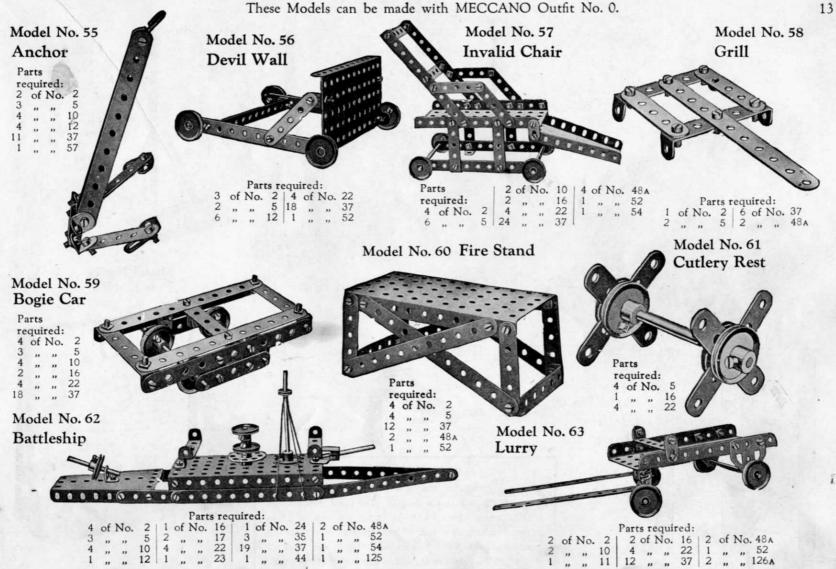




Parts required: Parts required:

Model No. 52





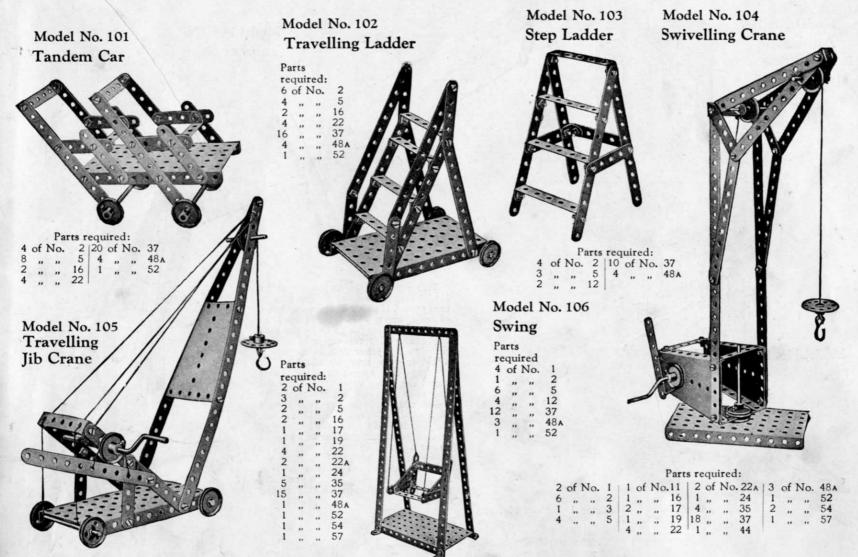


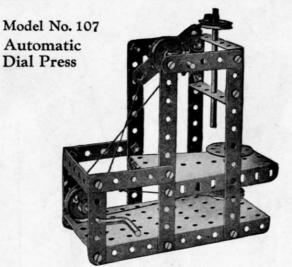
### HOW TO CONTINUE

4 of No. 2

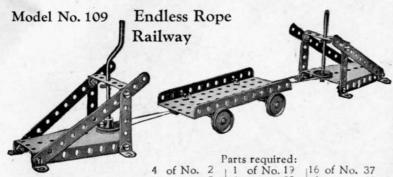
12 " "

This completes the Models which may be made with MECCANO Outfit No. 0. 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. 0A Accessory Outfit, the price of which will be found in the list at the end of the Manual.





				Part	ST	equir	ed:				
4	of	No.	2	1	of	No.	19	18	of	No.	37
7	,,	,,	5	4	**	,,	22	3	,,	,,	48/
2	,,	,,	16	2	,,	,,	22A	1	**	,,	52
1	,,	,,	17	1	,,	,,	24	1	,,,	,,	54
				7			25	1			



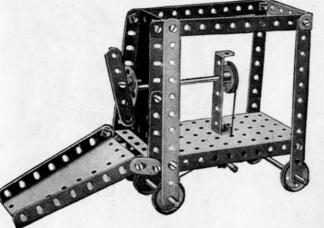
required: 2 of No. This model is an improvement on Model No. 36 and, as in the case of that model, it will provide many hours of enjoyment. The cords may be made to any length to allow the load to be carried from one side of the room to the other and, if necessary, a better grip may be obtained by winding the operating cord twice round the pulley on the crank handle. The open sides of the bucket may be closed with cardboard so that it may be loaded with marbles, beads, etc. The bed of the Telpher may be screwed on to a solid base with ordinary wood screws to give better support. The pulley bracket, and that securing the cord on which the bucket travels, should be screwed in a suitable position on the opposite side of the room.

Model No. 108

Telpher Span

Parts

### Model No. 110 Snow Plough



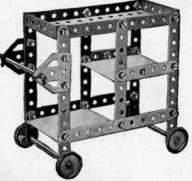
	1 4	r co r	cqui	rec			
of	No.	2	1	of	No.	24	
,,	,,	5	4	,,	,,,	35	
,,	,,	10	19	,,	,,	37	
,,	,,	12	1	**	.,,	44	
		16	2			484	

Parte required

FIG. 110A

The construction of the framework of this model presents no difficulty. The sector plate forming the plough is loosely pivoted on the bolts 1. The axle 2 is mounted in the front sector plate and the 21" double angle strip 3. A 21" strip 4 is bolted by angle brackets to a bush wheel on the front of the axle and forms a dispersing propeller for the snow after it has risen up the inclined sector plate. A continuous cord 5 is passed round a 1" pulley 6 and round the short axle 7 and a 1" pulley on the propeller axle. In this way, as the plough is moved along the ground, the propeller is revolved.

### Model No. 111 Dinner Wagon

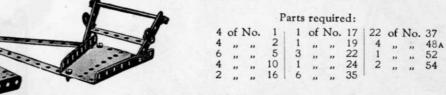


### Parts required:

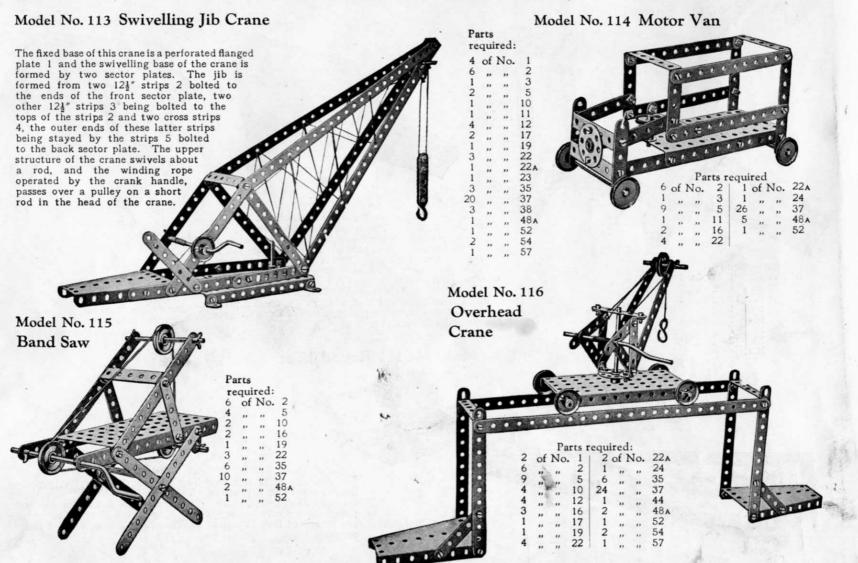
6	of	No.	2	2	of	No.	35
8		,,,	5	22			37
4	,,	**	12	4	,,	"	48A
3	"	- 11	16	1	"	,,	52
4	34		22	2			126A

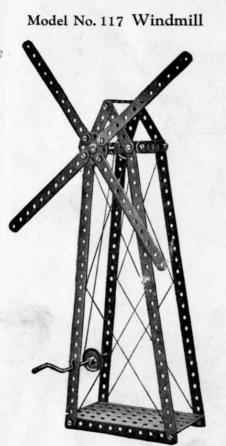
The two lower platforms are constructed out of pieces of ordinary cardboard, their outer edges resting on 21" bent strips and their inner edges on angle brackets.

### Model No. 112 Roundabout



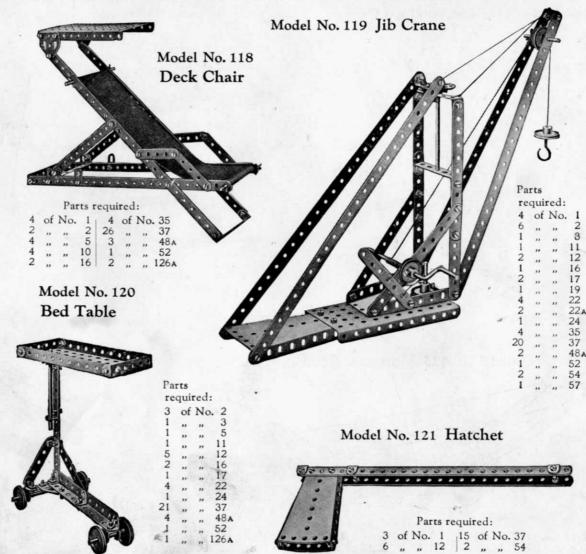
Begin to build this model by making the platform from a flanged plate and 121" strips. The drive from the pulley on the crank is taken to a 1" pulley fast on a spindle 2, another similar pulley being secured to the spindle beneath the plate. The arms are formed of four 54" strips and bolted to a bush wheel 1 fast on the spindle.



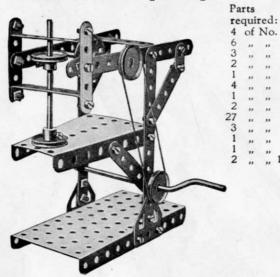




4	of	No	. 1	1 2	of l	No.	22
4	**	,,	2	1	,,	,,	24
7	**	,,	5	4	**	**	35
2	**	**	12	20	"	,,	37
1	"	,,	16	3	**	,,	48A
ļ	11	**	19	1	11		52



### Model No. 122 Drop Stamp



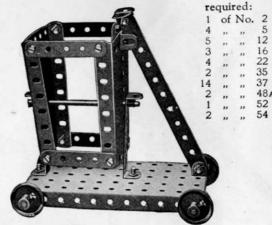
### Model No. 123 Lathe



### Parts required:

6	of	No	. 2	1	of	No.	24
4	**	,,	12	17	,,	,,	37
		,,		1	,,	"	44
1	,,	,,	19	2			48A
3	,,	"	22	1	,,	,,	52

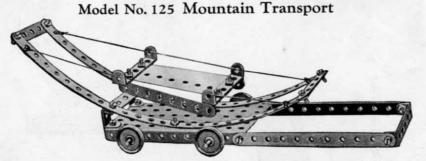
### Model No. 124 Tip Wagon



Parts

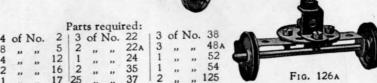
Model No. 126 Motor Lurry

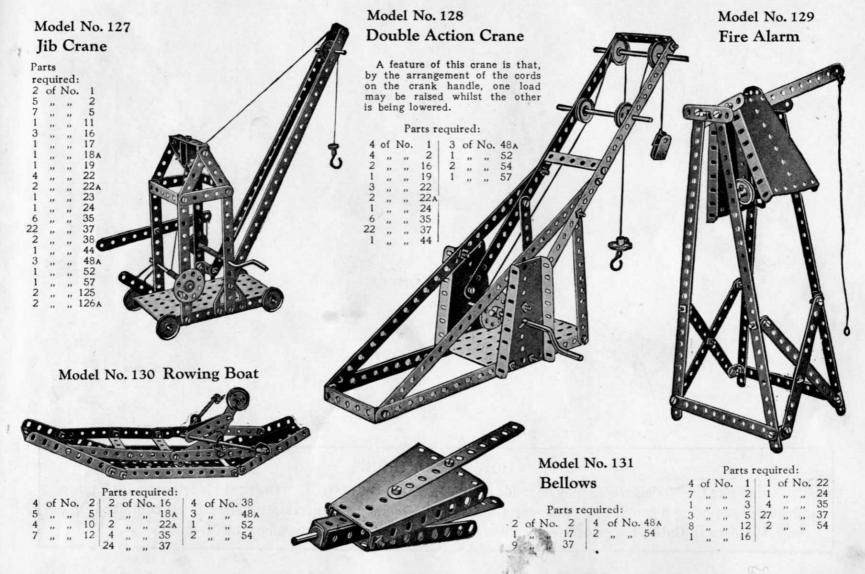


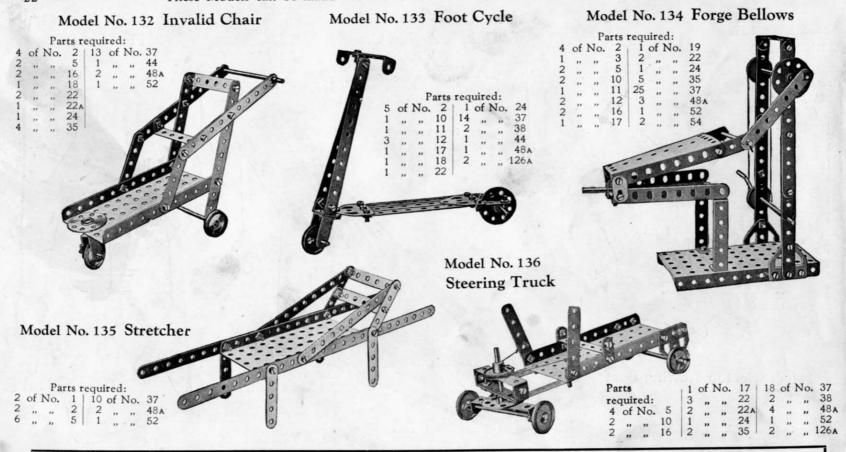


Parts required:

2 of No. 1 | 3 of No. 5 | 2 of No. 16 | 18 of No. 37 | 1 of No. 52
2 ,, ,, 2 | 4 ,, ,, 12 | 4 ,, ,, 22 | 2 ,, ,, 48A | 1 ,, ,, 54







### HOW TO CONTINUE

This completes the Models which may be made with MECCANO Outfit No. 1. 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 will be found in the List at the end of the Manual.

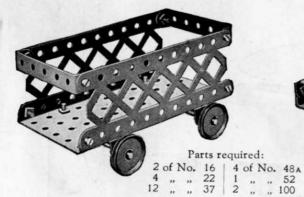
1 of No. 2

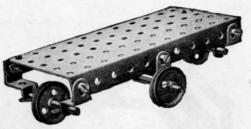
### These Models can be made with MECCANO Outfit No. 2, or No. 1 and No. 1A.

### Model No. 201 Truck

### Model No. 202 Revolving Truck

### Model No. 203 Lathe



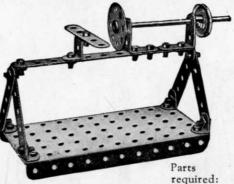


-	
1	
9000	
-162	
(62)	



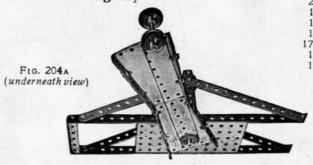
-			
Pat	rts re	quir	ed.

2	of	No.	10	2	of	No.	22	6	of	No	. 37
1	,,,	**	16	2	"	,,	22A	1	"	**	52
2	,,,	**	17	4	**		35	4	,,	,,	125



### Model No. 204 Turntable Gangway

ı	Widdel 140. 2
	-
10 . A . A	7
00	000

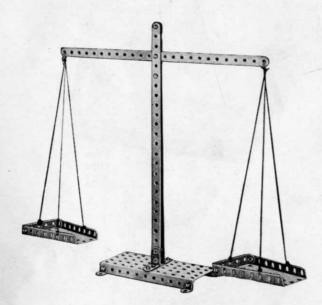


Parts required.

			ar co i	cqu	ILC	u.	
2	of	No	. 1	4	of	No.	22
6	,,	,,	2	1	,,	,,	24
2	**	,,	3	34	,,	,,	37
4	**	**	5	3	**	**	48.
1	**	**	15A	1	25	,,	52
1		,,	17	2	**	**	54

The side frames of the gangway are made of 12½" strips bolted by means of 21" bent strips to parallel strips below. The side frames are connected by a perforated flanged plate, to the underside of which is bolted a bush wheel fitted with a rod on which is mounted a 1" pulley (See Fig. 204A). The rod passes through one of the end holes of the sector plate which is connected by diagonal strips to another sector plate. Through the end hole of the latter a rod is threaded carrying two 1" pulleys from one of which an operating cord passes through the pulley mounted on the under side of the flanged plate. In this way the Gangway may be rotated by an operating spindle.

### Model No. 205 Scales

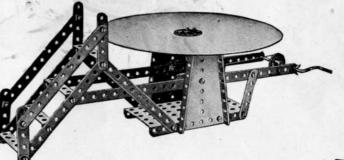


### Parts required:

			reo re	de			
3	of	No.	1	4	of	No.	38
4	,,	,,	12	2	,,,	,,	48A
2	**	**	12A	1	,,	,,,	52
19			37	2			54

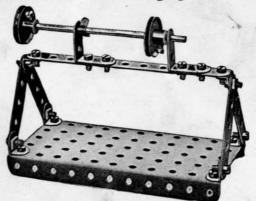
The slot is formed by inserting 2 washers on the bolts above and below the beam. These washers hold the strips composing the standard at the required distance apart to give the beam free play.

### Model No. 206 Joy Wheel



The driving mechanism and construction of the framework of this model are clearly brought out in Fig. 206A. Cut out a circular piece of cardboard, 8" in diameter, and in the centre of the disc fix a bush wheel by nuts and bolts. The eye of the bush wheel is then threaded over the top of a vertical spindle, and secured by its set-screw.

### Model No. 207 Polishing Spindle



### Parts required:

2	of 1	No.	1	1 1	of 1	22A	
6	,,	,,	2	1	,,	,,	24
6	,,	**	5	2	,,	,,	35
2	,;	**	12	28	1,,	,,,	37
1	,,	**	15A	5	,,	,,	48A
1	,,	**	19	1	,,	,,	52
3			22	2	- 100	- 140	54

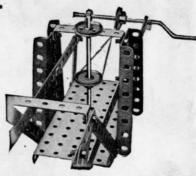
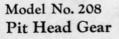
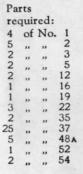


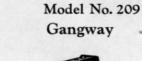
FIG. 206A

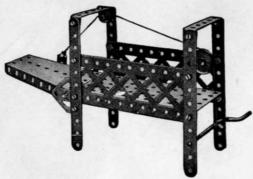
### Parts required:

1	of 1	No.	2	1	of 1	No.	15A
			5				
6	,,	**	12		,,		
2	"		12A			"	37
		-	l of N	10.	52		





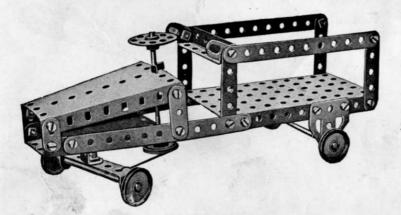




### Parts required:

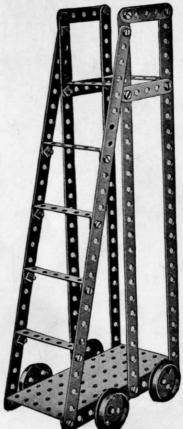
4	of 1	No.	2	11	of	No.	22	1	of	No.	. 52
1	,,	,,	10								54
1	,,	,,	12	4	,,	,,	35	2	"	,,	100
1	,,	,,					37	2	"	,,	126A
1	**	**	19	1 2	,,	**	48A				

### Model No. 211 Motor Truck



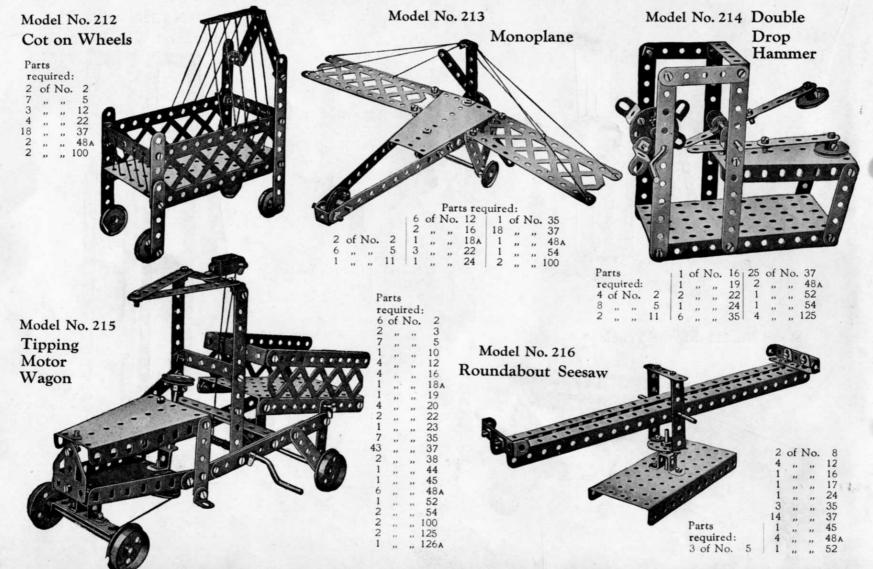
## Parts required: 4 of No. 2 4 " " 5 2 " " 6A 4 " " 10 1 " 11 3 " " 16 3 " 22 2 " 22A 1 " 24 3 " 35 26 " 37 3 " 48A 1 " 52 2 " 126A

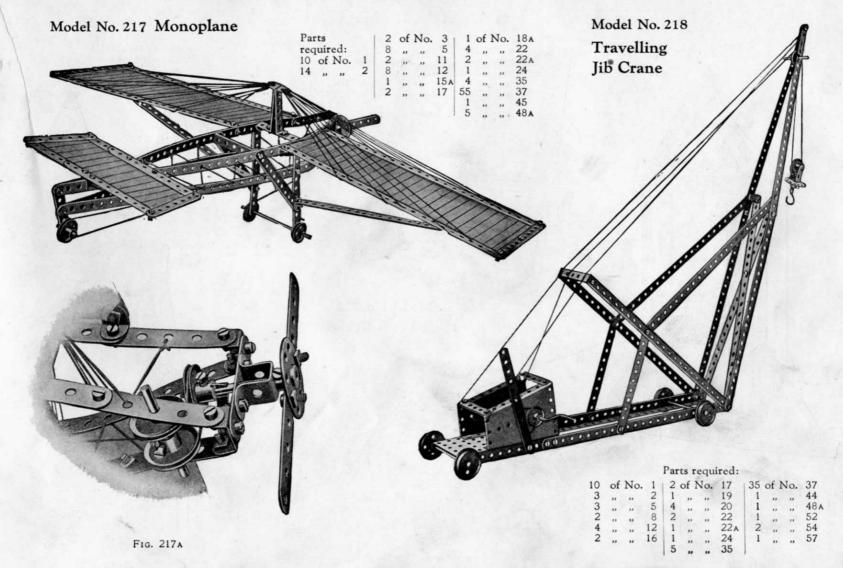
### Model No. 210 Ladder on Wheels

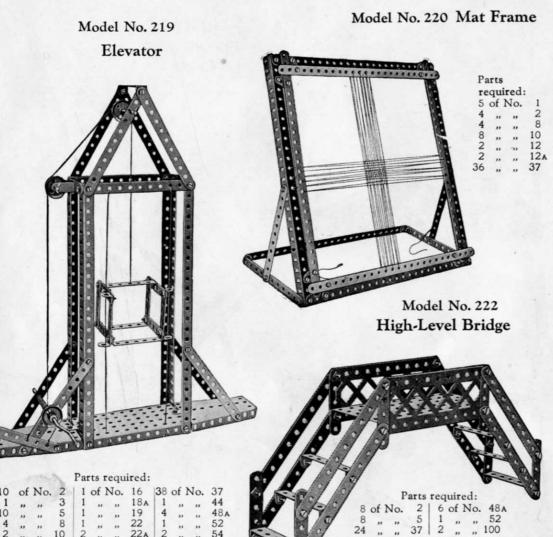


Parts required:

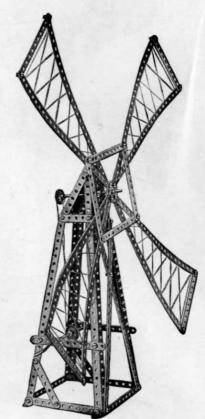
6	of	No.	1	124	of 1	No	37
4		,,					48
2	,,	,,	16	1	,,	,,	52
4			20				







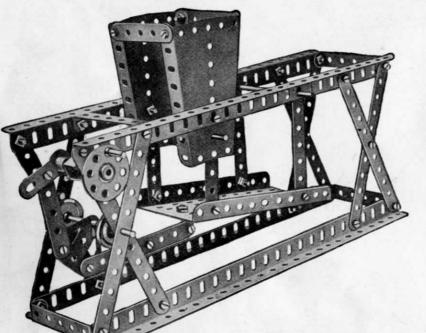
Model No. 221 Windmill



Parts required:

				4	of l	No.	8	ř.			
10	of 1	No.	1	4	,,	,,	12	1	of	No.	24
14			2	1			15	4		,,	35
		,,	3	1			19	45		**	37
2	**	**		2		,,	22	2	,,	**	54

### Model No. 223 Coal Sifter



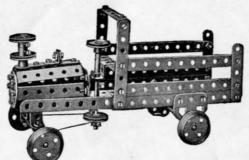
### Parts required:

re	equ	ired	:
8	of	No.	
7	,,	**	3
7	,,	"	5
4	"	27	8
1	**	**	12
3	**	"	16
1	,,	**	17
2	**	**	22
1	"	- 22	24
6 38	**	**	35
0.79	**	23	37
1	**	"	45
4	35	23	48A
	**	23	52
2	11	23	54
1	"	19	62
1	33	"	115
1	**	**	126A

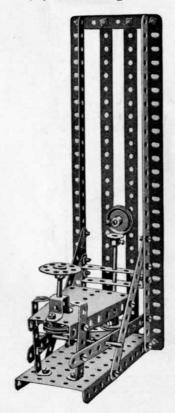
### Model No. 225 Locomotive

### Parts required

		Pa	rts r	equi	red	:	
4	of 1	No.	2	1	of	No.	24
2	,,	***	3	2	,,	,,	35
26373	**	**	5	47	**	"	37
3	,,	**	10	1	,,	,,	45
7	**	,,	12	6	,,	,,	48A
	,,	**	16	1	,,	,,	52
1	**	,,	17	- 1	**	**	54
4	**	.12	20	1	,,,	,,	62
4	11	"	22	2	,,	,,	125
1	**	"	23	2	**	,,	126A



### Model No. 224 Try-your-strength Machine

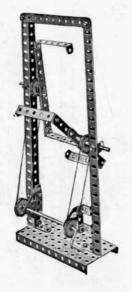


### Parts required:

						der	c.c.				
2	of	No.	1	1	of	No.	17	12	of	No.	38
5	**	,,	2	1	,,,	,,	18A	1	,,	,,	45
2	,,	,,	3	4	,,	**	22	4	,,	,,	48A
2	**	**	8	1	,,	***	24	1	"	,,,	52
1	,,	**	11	4	,,	"	35	1	,,	"	54
2	**	,,	16	30	,,	,,	37	1	,,	,,	126

Parts required: 2 of No. 2

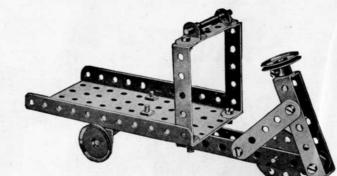
### Model No. 226 Candy Puller



Pa	rts		
re	qui	red:	
3	of	No.	2
2 2 2 2	,,	.,	8
2	"	**	12
2	**	,,	12A 17
1	"	"	19
4	**	**	22
2	**	"	35
26	"	"	37
10	,,	,,	38
4	,,	,,	48A
1	,,	,,	52
2	,,	**	62
4	,,	- 11	125
2	**	"	126A

### 3 " " 1 2 " " 1 1 " " 1 1 " " 1 1 " " 2 2 " " 3 15 " " 3 5 " " 4 1 " " 5

### Model No. 227 Carrier Tricycle





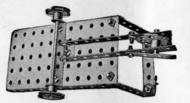
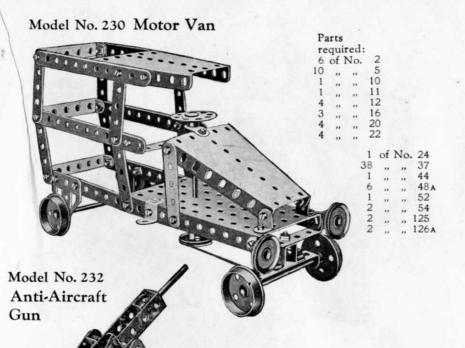


Fig. 227A
(underneath view)

# Model No. 228 Hay Tedder Parts required: 4 of No. 2 | 3 of No. 22 8 , , , 5 | 1 , , , 24 4 , , , 10 | 5 , , , 35 3 , , , 16 | 18 , , , 37 1 , , , 17 | 3 , , , 48A 2 , , , 20 | 1 , , , 54

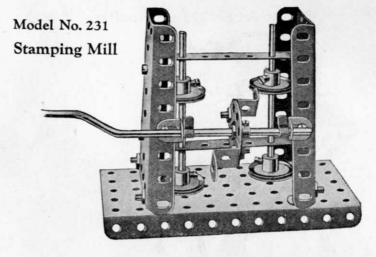
Parts
required:
8 of No. 2
2 " " 3
12 " " 5
6 " " 12
2 " " 37
4 " " 22
31 " " 37



Parts required:

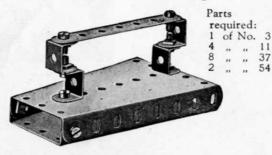
of No. 10 | 4 of No. 22

1 of No. 52



				Parts	re	quir	ed:				
2	of	No.	3	4	of	No.	22	1	of	No	. 52
10	.,	,,	12	1	,,	,,	24	2			54
2	,,	,,	16	2	,,	.,	35	2	"	,,	125
1			19	16			37				

### Model No. 233 Smoothing Iron





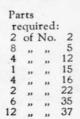
				Par	ts r	equi	ired	:			
2	of	No.	2	1	of	No.	17	16	of	No	. 38
1	,,	,,	5	4	,,	**	20	1	.,	,,	45
2	**	,,,	12	1	,,	**	22	1		,,	48/
1	**	**	15	1	,,,	"	24	2	.,	,,	54
1	**	.,	16	16	,,	,,	37	2	11	,,	126

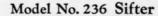
### Needlework Basket Model No. 235

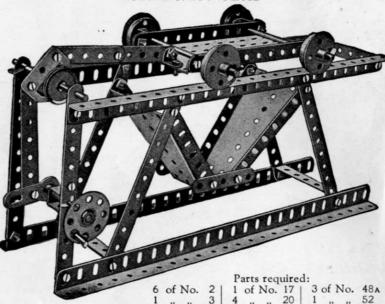


		4	
	rts		
re	qui	ired:	
6	of	No.	1
6	,,	,,	2
2	,,	,,	3
6	,,	,,	5
12	,,	,,	12
46	,,	,,	37
3	,,	**	48A
1			52

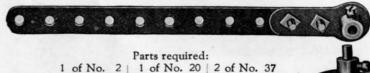
### Model No. 237 Towel Rail



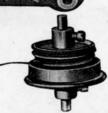


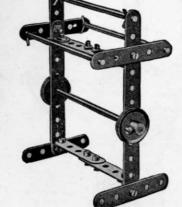


### Model No. 238 Spinning Top

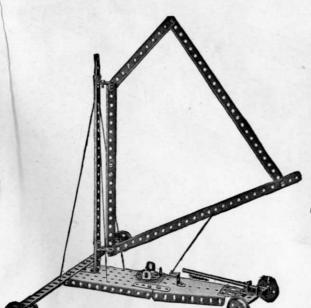


1 of No. 2 | 1 of No. 20 | 2 of No. 37 1 , , 17 2 , , 22 1 , , 62





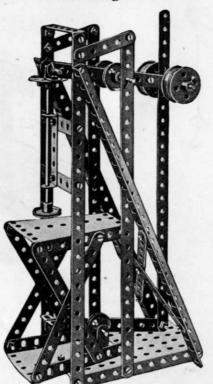
Model No. 239 Seashore Aeroplage



Parts required:

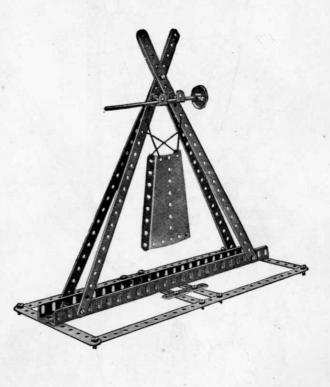
1 of No. 12A 33 of No. 37

Model No. 240 **Embossing Machine** 



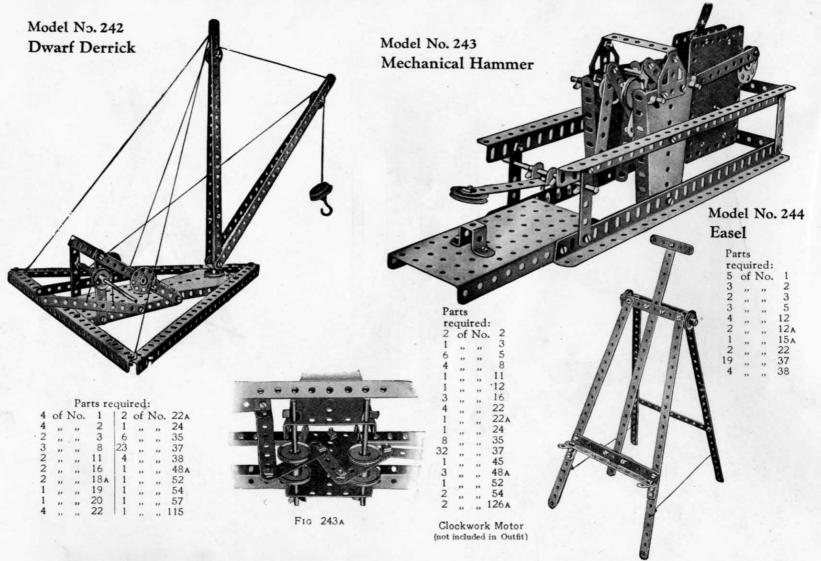
				Pa	rts	requ	ire
5	of	No.	1	2	of	No.	16
9	,,	,,	2	1	**	,,	17
2	,,	,,	5	1	**	,,	18

Model No. 241 Dinner Gong

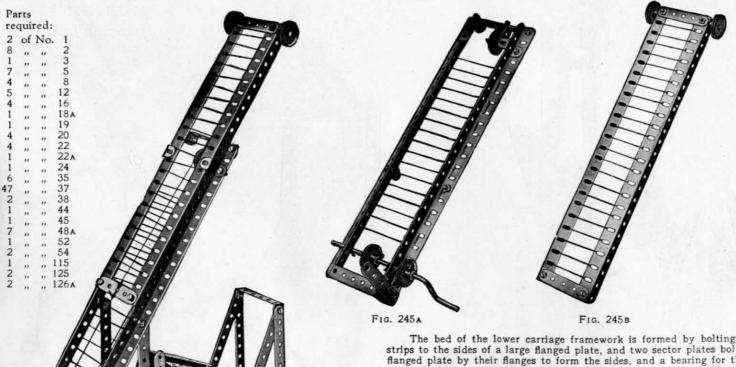


### Parts required:

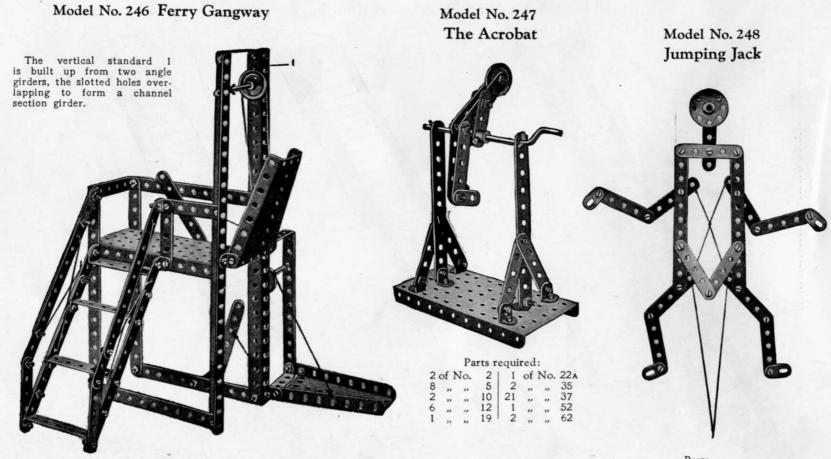
	rate required.											
6	of	No.	1	1	of	No.	15					
4		,,	2		,,	,,	22					
2	,,	,,	5	27	,,	,,	37					
2	,,	"	8	1	**	n	54					
2	**	"	11									



#### Model No. 245 Extending Ladder on Running Carriage

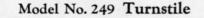


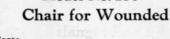
The bed of the lower carriage framework is formed by bolting two  $12\frac{1}{2}$ " strips to the sides of a large flanged plate, and two sector plates bolted to the flanged plate by their flanges to form the sides, and a bearing for the spindle carrying the operating cord attached to the bottom of the ladder to raise it from a horizontal position; and the strips 1 form a support for the ladder when in this horizontal position. Angle brackets 2, Fig. 245A, form pivots for the lower part of the ladder, and are carried from the supports 3. The upper part of the ladder, Fig. 245, is slideably guided and retained on the lower ladder by reversed brackets 4. The extension of the ladder is effected by the cranked spindle round a pulley on which (and another pulley at the top of the framework) the cord is passed, the ends being secured to the lower part of the slideable ladder.

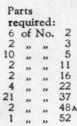


				rar	ts r	equ	irea:				
14	of	No.	2	16	of 1	No.	12	1	of	No.	45
2	**	,,	3	2	**	,,	16	8	,,	,,	48A
6	**	**	5	2	**	,,	22	1	,,	. ,,	52
3	,,	,,	8	2	**	,,	35	2	,,	,,	54
2			10	54			37	1			

Parts required: 2 of No. 2 12 ,, 5 4 ,, 10 1 ,, 24 18 ,, 37











2	of	No.	1	1	of	No.	24
10			2	42			37
9			5	2			38
4			10	1			45
2	**	,,	12	6	,,	"	48A
1	,,	,,	15	1	,,	,,	52
1	,,	,,	15A	2	,,	,,	62
2			22 1				



Pa	rts		
		red:	
7	of	No.	2
1	,,	,,	3
1	,,	,,	5
4	**	,,	12
14	,,	,,	37
1	**	,,	48A
1	,,	,,	52

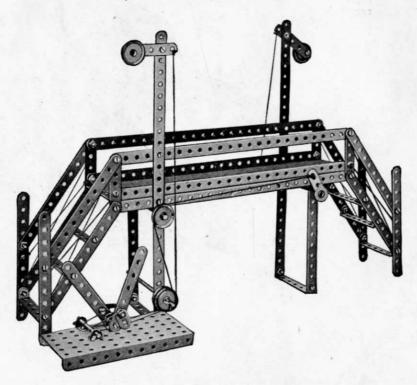


#### Model No. 252 Magic Sector Plates

	rts		
re	qui	red:	
2	of i	No.	1
1	,,	,,	1
2	,,	,,	3
6	,,,	"	3
2			5

When the cord is held vertically the magic sector plates will fall or stop at the bidding of the owner. If the cord is held without tension the plates will fall, but the instant the cord is tightened they will stop dead. The cord is wrapped once around the rod which passes through the centre holes of the sector plates.

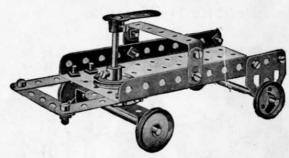
#### Model No. 253 Railway Foot Bridge and Signals



#### Parts required:

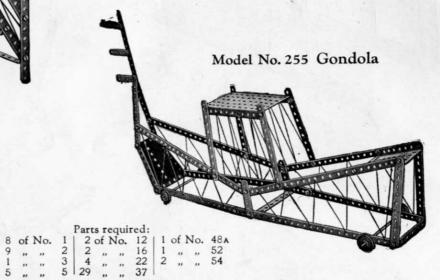
					art	o rec	lanc	u.			
4	of	No.	1	1	of	No.	11	2	of 1	No.	22A
14	,,	,,	2	2	,,	**	12	6	,,	,,	35
2	**	,,,	3	1	,,	**	15A	11.2.220	**	**	37
8	**	33	5	2	,,,	"	16	8	,,	**	48A
2	27	**	8	1	**	**	17	1	**	**	52
2	**	**	10	3	,,,	**	22	1	**	25	62

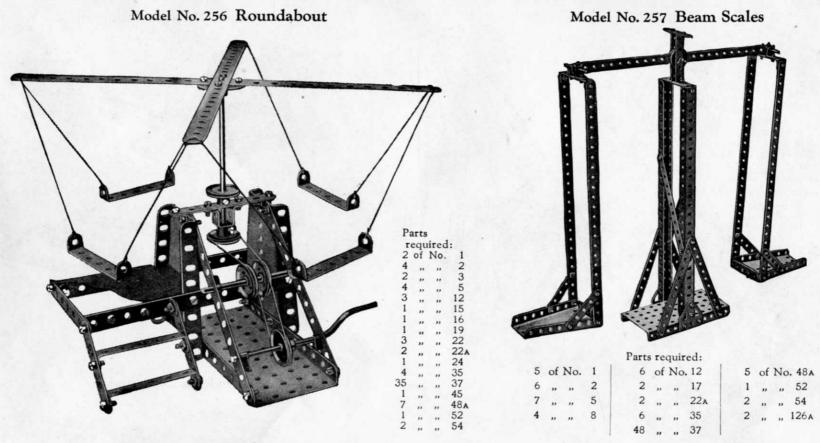
#### Model No. 254 Motor Van



#### Parts required:

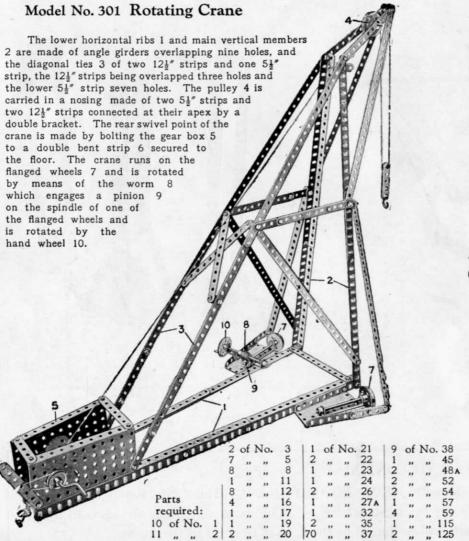
3	of	No.	5	2	of	No.	22A	2	of i	No.	48A
2			10	1	.,	,,	24	1	,,		52
2	,,	,,	16	2	,,	,,	35	1	,,	**	62
1	,,	,,,	17	16	,,	. ,,	37	2	"	**	126A
3		,,									



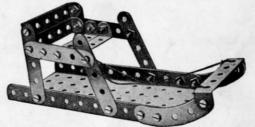


#### HOW TO CONTINUE

This completes the Models which may be made with MECCANO Outfit No. 2. The next Models are a little more advanced, requiring a number of extra parts to construct them. The necessary parts are all contained in a No. 2A Accessory Outfit, the price of which will be found in the List at the end of the Manual.



#### Model No. 302 Toboggan



Parts
required:
6 of No. 5
20 ,, ,, 37
5 ,, , 48A
1 ,, , 52
2 ,, ,, 90

#### Model No. 303 Horse Sleigh



#### Parts required:

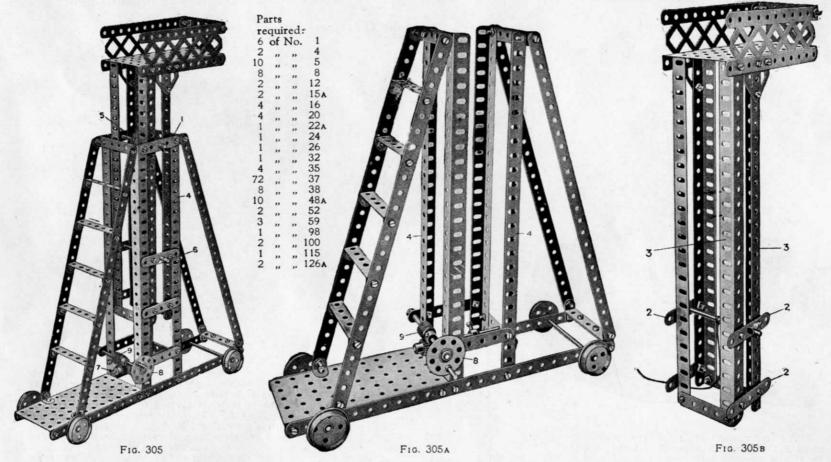
3	of 1	No.	2	113	of 1	No.	37	1	of	No.	57
4	,,	**	5	1	,,	,,	48A 52	2	**	,,	90
1			23	1			52	1			126A

#### Model No. 304 Sleigh



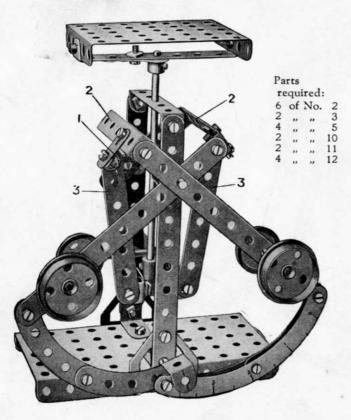
Parts required: 2 of No. 2 4 of No. 5 | 1 of No. 52 10 , , 37 | 2 , , 90

#### Model No. 305 Tower Wagon



Begin the construction of this model by building up the platform, Fig. A, the tie strips 1 being left off as shown in order to be able to insert the rising and falling tower, Fig. B. The strips are then bolted on. The guide strips 2 are bolted to the girder 3 of the tower with washers beneath the strips. This gives the necessary clearance and enables the strips to rise easily up the faces of the girders 4 of the fixed lower part of the tower. The tower is raised by means of a cord which passes over a pulley 5 and is fastened to a rod 6, the other end of the cord winding on a rod 7 rotated by a hand wheel 8 on the spindle of the worm 9.

#### Model No. 306 Letter Balance



The connection at 1 of the rocking arms 2 to the thrust strips 3 is locknutted to give a free pivotal action, and similarly the pivotal connections 5 of the strips 3 to the lever strips 4 are locknutted to give free play.

#### Model No. 307 Oscillating Steam Engine

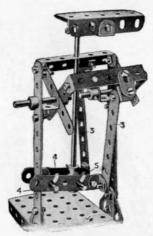
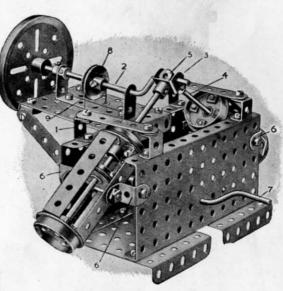


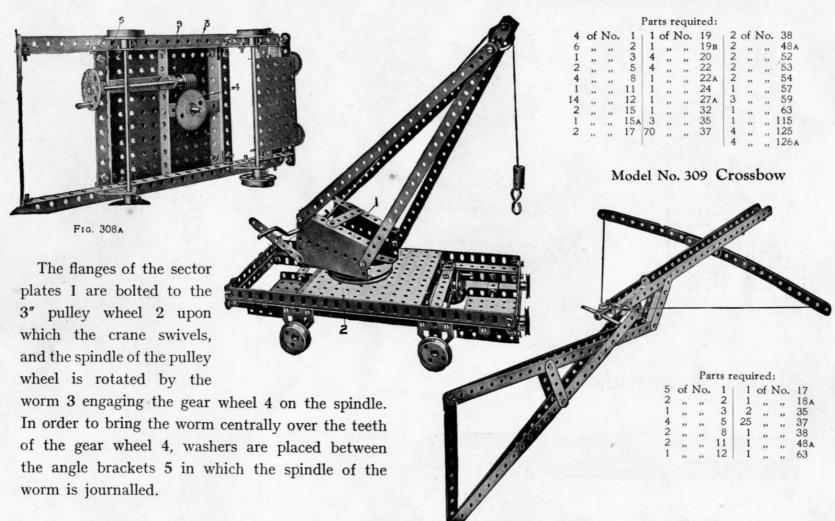
FIG. 306A

				1.5	II F2		
				re	qu	ired	:
				2		No.	
2	of	No.		2 4 4	,,	,,	5
2 1 2 2 2 2 4	,,	,,	15	4	**	**	11
2	,,	**	17	4	**	**	12
2	,,	**	18A	2	93	**	12A
2	**	**	20 22 35	2 2 2 1 4 4	**	**	12 12 <sub>A</sub> 15 19
2	. **	**	22	2	"	**	19
4	**	12	35	1	**	**	19B 20 22 35 37 48A 52
40	,,	**	37	4	**		20
6	**	**	38	4	**		22
3	**	**	48A	3	**	**	35
1	**	22	48в	50 6	**	**	37
1	**	**	52	0	**	**	40A
1	**	**	50	2 3 2	**	"	53
1	**	**	62	2	,,	**	59
1	"	"	53 59 62 63 90	1	"	"	63
4	**	"	90		"	"	102
2	"	"	125	i	**	-	116
63111411422	"	"	126A	1 1 4	"		125
	22	**		7			

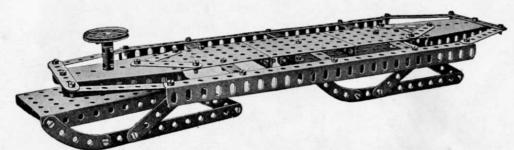


The piston rod 1 of one cylinder is pivotally connected to the crank rod 2 by means of a fork piece 3, and the piston rod 4 of the other cylinder is pivoted to the crank rod by a coupling 5. The cylinders consisting of four strips are enclosed by flanged wheels at the ends, and are pivoted on ½" reversed brackets 6. The model is operated from the handle rod 7, a pulley on the rear end of which is coupled to the pulley 8 by a cord 9.

#### Model No. 308 Railway Wagon Swivel Crane



#### Model No. 310 Bob Sleigh



#### Parts required:

7	of	No.	2	55	of	No.	37	
6	,,	,,	3	2	,,	,,	38	
12	,,	,,	5	1	,,	,,	45	
2	,,	,,	8	2	,,	,,	52	
2	,,	,,	11	3	,,	"	53	
1	,,	,,,	17	2	,,	"	54	
1	,,	,,	21	1	,,	,,	63	
1	,,	,,	24	4	,,	,,	90	



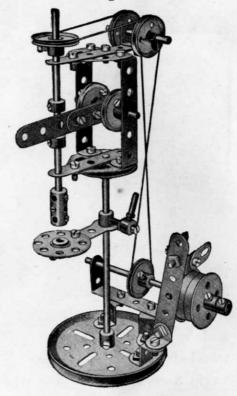
FIG. 310A

#### Model No. 311 Pastry Designer



Parts
required:
2 of No. 2
3 , , 5
3 , , 11
1 , , 17
1 , , 22A
1 , , 27A
9 , , 37

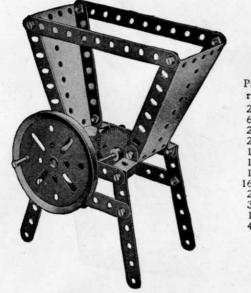
#### Model No. 312 Drilling Machine



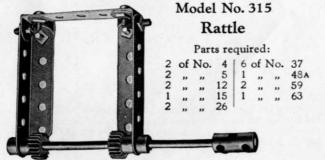
#### Parts required:

			1	art	s re	qui	rea:					
2	of	No.	4	2	of 1	No.	20	2	of	No.	48A	
2	,,	,,	5	1	,,	,,	21	5	,,	"	59	
2 2 2	,,	,,	10	4	,,	,,	22	2	,,	"	62	
2	,,	,,	11	2	**	,,	22A	1	,,	"	63	
1	,,	,,	12	1	,,	11	24	1	***	**	111	
1	**	**	15	2	,,	**	35	1	**	11	115	
2	**	**	15A	21	**	**	37	3	**	"	125	
2	,,	11	17	1	**	**	44	2	**	**	126A	
1			19B	1	- 22	,,	46					

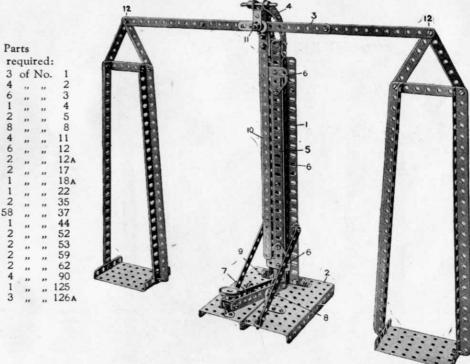
#### Model No. 313 Coffee Grinder



Pa	rts		
re	qui	red:	
2	of	No.	2 3
6	,,	,,	3
2 2 1	,,	33	4
2	,,	,,	16
	,,	**	19в
1	**	,,	26
1	**	**	27 A
16	,,	,,	37
2	**	"	54
3	**	**	59
1	,,	"	115
4		-	125



#### Model No. 314 Demonstration Scales

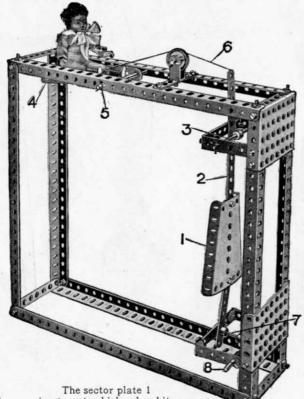


The only feature of this model which needs description is the standard, which is built up of two angle girders 1 bolted to the base 2 by angle brackets and spaced apart at the top by a  $2\frac{1}{2}$ " strip obliquely disposed. The balance lever 3 is pivotally carried in curved strips 4 bolted to the top of two angle girders 5 sliding between the girders 1. The girders 5 are themselves bolted together and in order to guide them as they slide vertically flat trunnions 6 are bolted at the front and rear. The balance is raised by depressing the lever 8 pivoted at 9 and pivotally connected at 11 to the vertically sliding girders 5. The indicator 10 is bolted to a crank at the rear, the boss of which is fitted on the pivot rod 11. The connections at 12 are lock-nutted to allow free action.

Parts required: 1 of No.

#### These Models can be made with MECCANO Outfit No. 3, or No. 2 and No. 2A.

#### Model No. 316 Drop the Nigger

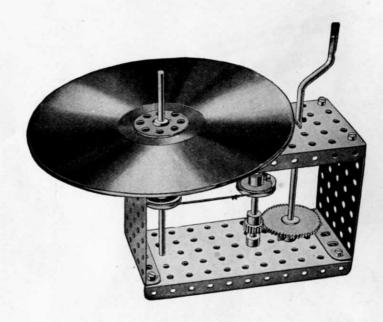


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The
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sup
by
har
is h

The sector plate 1 is a target, which, when hit, allows the nigger to be dropped.

The plate 1 is carried on the strip 2 pivoted at 3, and the weight of the nigger supported on another sector plate 4 pivoted at 5 by means of the cord 6 keeps the lower end of the strip 2 hard against a short rod 7 pivoted at 8. When the target is hit and knocked back the rod 7 is released and falls about its pivot, allowing the sector plate 4 with the nigger to drop.

#### Model No. 317 Newton's Disc

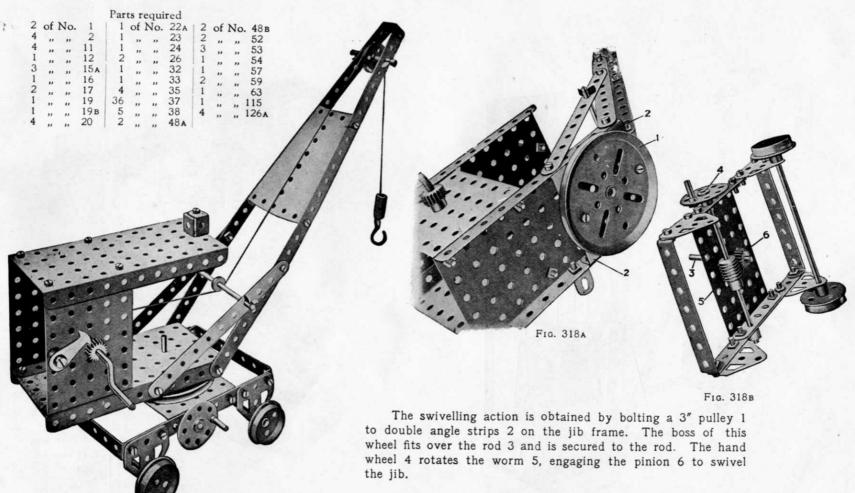


#### Parts required:

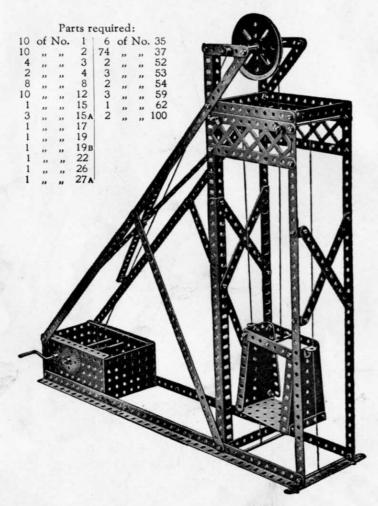
1	of	No.	15	1	of	No.	24	8	of	No.	37
1	,,	,,	15A	1	,,	,,	26	2	**	,,	52
1	))	,,				,,	27 A	2	,,	,,	
2	,,	,,	22	2	,,	**	35	4	**	,,	59

This is a model to show that white light is made up of the three primary colours—red, yellow, blue. Sectors of these three colours are mounted or painted on the disc, which, if then quickly rotated, shows as white.

#### Model No. 318 Railway Breakdown Crane

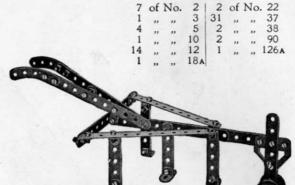


#### Model No. 319 Pit Head Gear

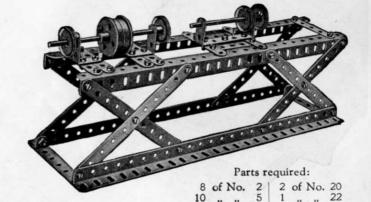


#### Model No. 320 Scarifier



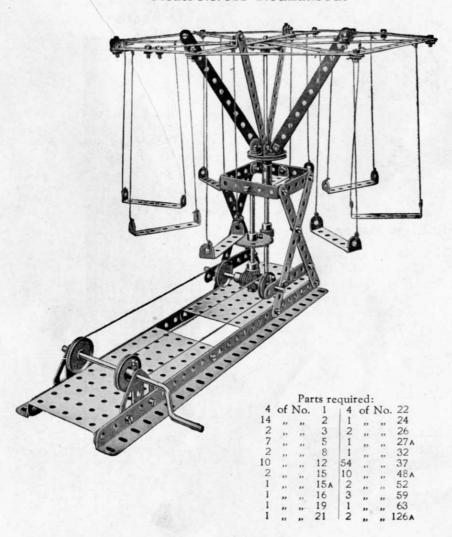


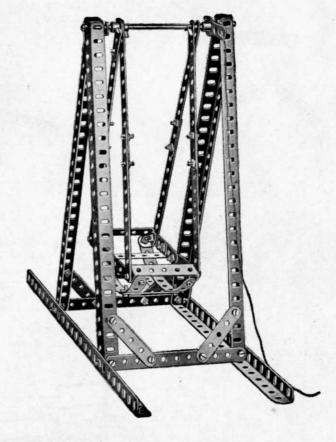
Model No. 321 Lathe



#### Model No. 322 Roundabout

#### Model No. 323 Swing





Parts required:

12 of No. 2 | 1 of No. 15

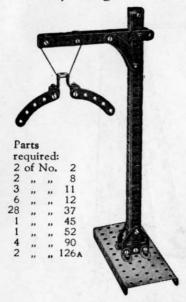
9 ,, 5 | 2 ,, 35

6 ,, 8 | 43 ,, 37

2 ,, 11 | 4 ,, 48A

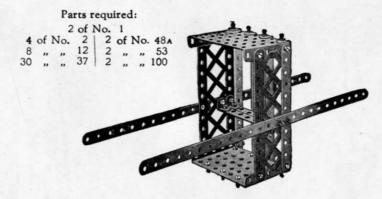
4 ,, 12 | 2 ,, 62

#### Model No. 324 Railway Gauge



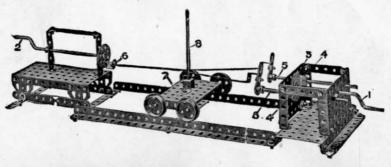
Pa	rts						
re	qui	red:					
	of 1						
1	,,	**	3				
2 2 3	,,	,,	5				
2	,,	**	8				
3	**		11				
12	,,	,,	12				
2	,,	,,	15	150	of	No.	37
3	,,	,,	15A	1	,,	,,	45
2	,,	**	19	2	,,	,,	48A
4	,,	,,	20	2 2 3 4	,,	,,	52
1	**	,,	24	3	,,	,,	53
2	,,	,,	26	4	,,	,,	59
1		,,	27 A	2	,,	.,	62
12 3 2 4 1 2 1 3	.,		35	4			126A

#### Model No. 325 Chinese Palanquin

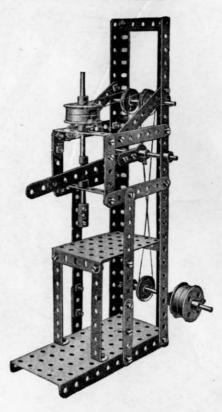


#### Model No. 327 Wire Rope Maker

The strands are twisted from both ends by the handles 1 and 2 of the fixed parts. The handle 1 rotates through a large gear wheel 3 two pinions 4 on the rods 5 carrying cranks to which the strands are attached. The other ends of the strands are connected to a double bent strip 6 on a bush wheel which is rotated in the opposite direction by a crank handle 2. The carriage 7 runs on rails and the vertical rod 8 is kept just at the formation of the twisted rope and so controls the tightness of the twist.



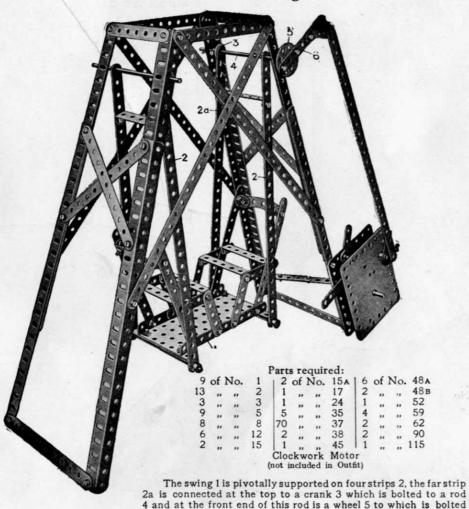
Model No. 326 Hand Punch



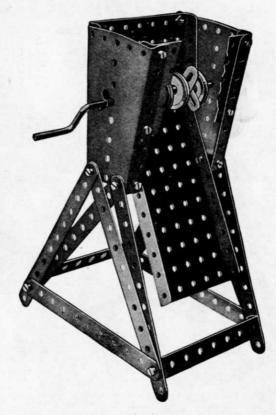
				Par	ts r	equi	red:					
,	of	No.	2	4	of	No.	20	1 2	of	No.	48B	
,	,,	,,	3	1	,,	,,	22	1	,,	,,	52	
5	,,	,,	5	2	,,	,,	22A	1	,,	,,	53	
2	,,	,,	8	3	,,	,,	35	4	,,	,,	59	
2	,,	,,	11	38	,,	,,	37	1		,,	62	
2	,,	**	15	1	,,		46	1	,,	,,	63	
5		,,	16	2	.,	,,	48A					

#### Model No. 328 Lawn Swing

#### Model No. 329 Oil Cake Chopper



a strip 6 to the motor spindle.



Parts required:

10 of No. 2 | 2 of No. 35

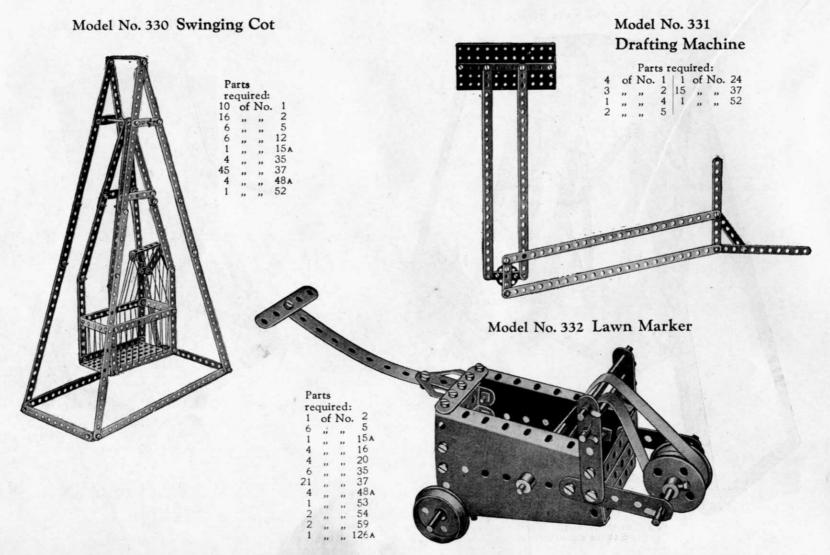
4 " " 10 | 20 " " 37

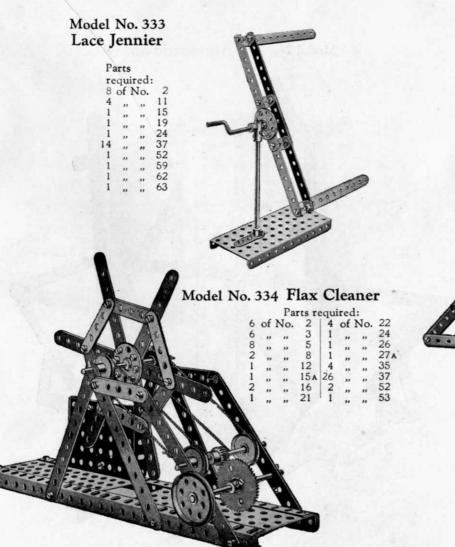
2 " " 12 | 2 " " 48E

1 " " 19 | 1 " " 52

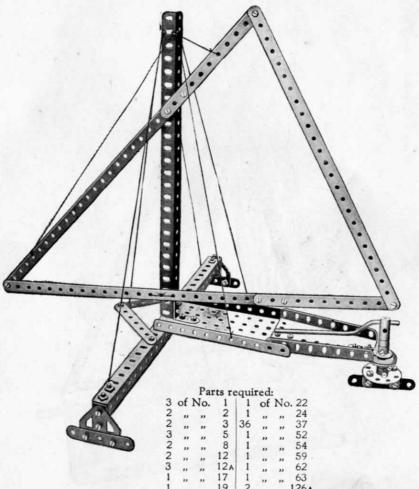
4 " " 22 | 2 " " 53

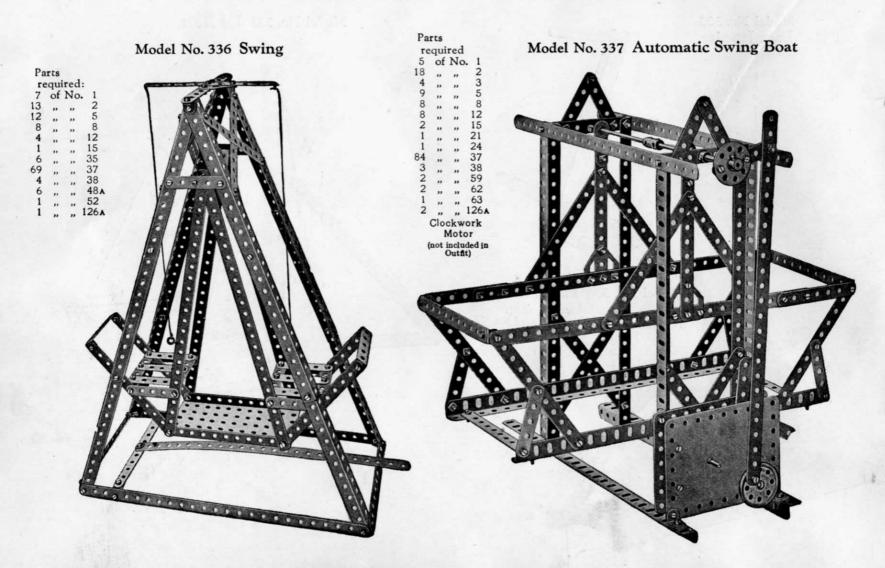
2 of No. 54



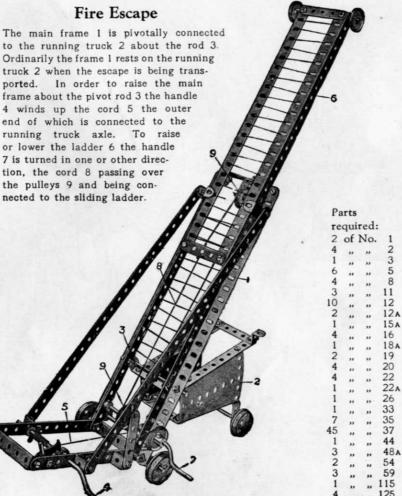


#### Model No. 335 Ice Boat



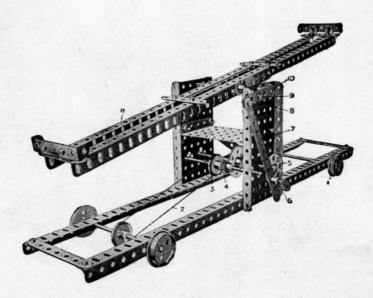


#### Model No. 338 Fire Escape



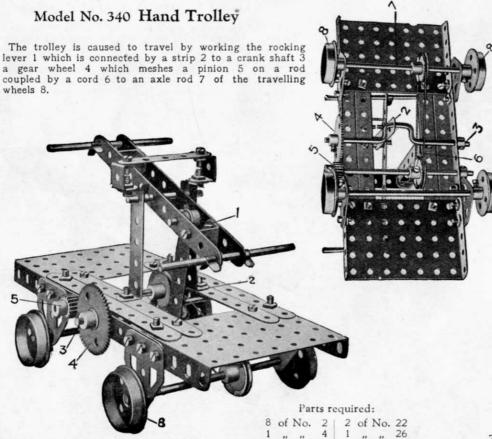
#### Model No. 339 Actuated See-Saw

The see-sawing is actuated by the travelling action of the wheels 1. The spindle of the wheels is connected by the cord 2 to the pulley 3 on the spindle of the pinion 4 which drives a gear wheel on the spindle of the bush wheel 5. A threaded pin 6 on this wheel engages the strip 7 coupled to a lever strip 8 pivoted at 9 which rocks the pivot rod 10 of the see-saw 11.



#### Parts required.

				, ar	CO L	cqu	iica.					
3	of 1	No.	2	14	of N	No.	20	2	of	No.	48A	
2	,,	,,	3	2	,,	,,	22	2	,,	,,	52	
5	,,	**	5	1	,,	,,	24	1	,,	,,,	53	
8	"	,,	8	1	,,	,,	26	3	,,	,,	59	
4	**	,,	12	1	,,	,,	27 A	2	,,	**	62	
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3	**	**	15A	36	,,	**	37					



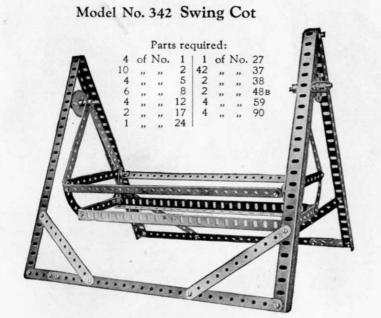
1 of No. 134

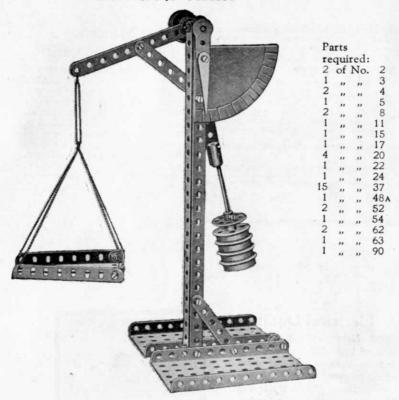
# Parts required: 2 of No. 1 2 10 " " 5 2 " " 8 2 " " 10 2 " " 12 2 " " 15 3 " 16 1 " " 19 4 " " 20 3 " " 22 1 " " 26 1 " " 27A 2 " " 35

Model No. 341 Pile Driver

The driving head 1 is raised by means of a threaded pin 2 on two 2½" strips 3, the pin engaging in the first hole of the driving head. As the head is raised, the strip 3 makes contact with a pulley 4 and the latter pushes the strip rearwardly, disengaging the pin from the hole on the driving head, permitting it to fall. The cross strips 5 of the driving head are duplicated behind, spacing washers being inserted between them on the bolts 6 to allow free movement up and down the guide girders.

#### Model No. 343 Scales





#### HOW TO CONTINUE

This completes the Models which may be made with MECCANO Outfit No. 3. 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. 3A Accessory Outfit, the price of which will be found in the List at the end of the Manual.

#### MECCANO ACCESSORY OUTFITS AND MOTORS



#### Meccano **Accessory Outfits**

Our illustration shows one of the Meccano Accessory Outfits. As has already been explained, these Outfits connect the main Outfits from No. 00 to No. 7. making it possible for a boy who commences with one of the earlier Outfits to build up his equipment by easy stages, until he is the possessor of parts that cover the entire system. For prices see page 62.

#### **Electrical Outfit**

All Meccano boys are fascinated by electricity and never become tired of learning more about this wonderful subject. The application of electricity to the Meccano system adds a further and wonderful charm, and the joys of model-building are now increased by the fascinating pastime of carrying out delightful electrical experiments.

The Meccano Electrical Outfit contains a number of specially designed electrical parts which may be used in conjunction with any of the regular Outfits.

MECCANO ELECTRICAL OUTFIT

For price see page 62.

#### No. 1 Electric Motor (4-Volt)

The 4-volt motor is specially designed to build into Meccano models. It may be run by a 4-volt accumulator, or, by employing a suitable transformer, direct from the main. It is fitted with reversing motion, provided with stopping and starting controls, and the gearing is interchangeable.

For price see page 62.

#### No. 2 Electric Motor (100-250 Volt AC or DC)

This Electric Motor may be employed for any purpose for which a small motor is suitable, but it is specially adapted for driving Meccano models. The side plates are perforated with standard equidistant holes, thus allowing the motor to be built into any Meccano model. The motor is specially designed for connection with the electric-light main. It is supplied for 100-120 volts or 200-250 volts (alternating or direct), and is fitted with 6ft. length of flex, an insulated plug for connection with the motor terminals, and an adapter for connection with an ordinary lamp socket.

A suitable resistance is required when the moto is run with a 200-250 volt current, and this is supplied by connecting a 60-watt lamp in series with the motor. A board on which are mounted a suitable lamp-holder (lamp not included) and a switch is provided separately. For price see page 62.



### 4-Volt Accumulator



This new and excellent type of accumulator has been adapted to drive the No. 1 Electric Motor. It has been subjected to the severest tests and has proved itself to be the most suitable accumulator for use with any type of electric motor. It is non-spillable, has remarkable recuperative powers, and will continue to supply current when nominally exhausted. For price see page 62.

#### Clockwork Motor

How splendid it is, after spending hours in building a model, to be able to set it in motion with a motor, just as do real engineers! The Meccano Clockwork Motor is specially made for this purpose and is a fine piece of mechanism-simple, powerful, and reliable. It is fitted with starting and stopping levers, and has a reversing For price see page 62. movement.

# HORNBY TRAINS

HORNBY TRAINS are manufactured by Meccano Limited, and they are made from the finest materials obtainable. A most valuable feature of the Locos is that all the parts are standardised and any lost or damaged units may be replaced with new ones.

Each Train is a beautiful piece of workmanship with perfect mechanism, ensuring smooth running. A guarantee of efficiency is furnished with each Loco.

A HORNBY TRAIN LASTS FOR EVER!

#### No. 0 Passenger Set

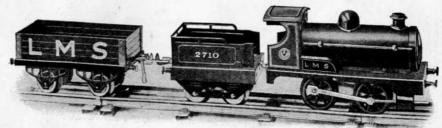
Each Set contains Loco, Tender, two Passenger Coaches and Rails to form either a circle 2 ft. in diameter or an oval 2 ft. in width by 2 ft. 10 in. in length. One of the curved rails is a brake rail by means of which the train may be braked from the track. The doors of the coaches open.

Gauge 0, in colours to represent the L.M.S. or L.N.E.R. Companies' rolling stock. Richly enamelled and highly finished; fitted with brake and governor; non-reversing.

#### No. 0 Goods Set

The Goods Set is the same as the Passenger Set but contains one Wagon in place of Passenger Coaches. In colours to represent the L.M.S. or L.N.E.R. Companies' rolling stock. Gauge 0.

For prices see page 62.



No. 0 GOODS SET

No. 1 PASSENGER SET

#### No. 2 Pullman Set

This Set includes Loco and Tender of a larger type, measuring 17 in. in length. The Coaches are beautiful both in colour and finish. Each Set includes Loco, Tender, and two Pullman Coaches, with Set of Rails making a 4 ft. diameter circle. The rails include one brake rail by means of which the train may be both braked and reversed from the track. In colours to represent the L.M.S. or L.N.E.R. Companies' rolling stock. The Loco is fitted with reversing gear, brake and governor. Gauge 0.

#### No. 2 Goods Set

This Set contains Loco, Tender, and Rails as in No. 2 Pullman Set, and two Wagons. Gauge 0.

For prices see page 62.

#### No. 1 Passenger Set

Each Set contains Loco, Tender, and two Coaches, with Rails to form either a circle 2 ft. in diameter or an oval 2 ft. in width by 2 ft. 10 in. in length. One of the curved rails is a brake rail by means of which the train may be braked from the track. The Loco is fitted with reversing gear, brake and governor. In colours to represent the L.M.S. or L.N.E.R. Companies' rolling stock. The doors of the Coaches open. Gauge 0.

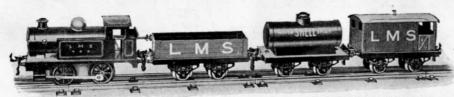
#### No. 1 Goods Set

This Set is similar in every way to No. 1 Passenger Set, except that it contains one Wagon in place of Coaches. Gauge 0. For prices see page 62.



# HORNBY TRAINS

THE following Hornby Tank Goods and Passenger Sets are entirely new features and are valuable additions to the popular range of Hornby Trains. Each set contains one of the famous Hornby Tank Locos with attractive rolling stock.



No. 1 TANK GOODS SET

#### No. 1 Tank Goods Set

This Set contains a No. 1 Hornby Tank Loco, Hornby Wagon, Petrol Tank Wagon, Brake Van and set of rails to form either a circle 2 ft. in diameter or an oval 2 ft. in width by 2 ft. 10 in. in length. One of the curved rails is a brake rail by means of which the train may be braked from the track.

Gauge 0, in colours to represent the L.M.S. or L.N.E.R. Companies' rolling stock. The loco is fitted with reversing gear, brake and governor.

For price see page 62.

#### No. 2 Tank Goods Set

The famous No. 2 Hornby Tank Loco is included in this set. It is 11½ in. in length and is fitted at both ends with a four-wheeled bogie. In addition the set includes a Hornby Wagon, a Petrol Tank Wagon, a No. 1 Cattle Truck and a Brake Van, with a set of rails to form a circle 4 ft. in diameter. The rails include one brake rail by means of which the train may be both braked and reversed from the track.

Gauge 0, in colours to represent the L.M.S. or L.N.E.R. Companies' rolling stock. The loco is fitted with reversing gear, brake and governor.

For price see page 62.

It is 11% in. in

#### No. 2 Tank Passenger Set

This set contains a No. 2 Hornby Tank Loco and rails as in the No. 2 Goods set, but three Passenger Coaches and one Guard's Van are included in place of the wagons and vans.

Gauge 0, in colours to represent the L.M.S. or L.N.E.R. Companies' rolling stock. For price see page 62.



No. 2 TANK PASSENGER SET

#### HORNBY TANK LOCOS

Hornby No. 1 Tank Loco



A strong and durable Loco capable of any amount of hard work; richly enamelled and highly finished; fitted with brake, governor and reversing gear.

Gauge 0, in colours to represent L.M.S. or L.N.E.R. Companies' locos.

For price see page 62.

#### Hornby No. 2 Tank Loco

The Hornby No. 2 Tank Loco is a splendid model.

length and is fitted at both ends with a four-wheeled bogey.

Beautifully finished in colours to represent L.M.S. or L.N.E.R. Companies' locos. Fitted with reversing gear, brake and governor.

For price see page 62.



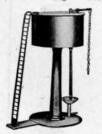
# Rolling Stock and Accessories for Trains



\* BRAKE VAN Finished in grey and black. Price 4/-



 No. 1 CATTLE TRUCK Fitted with sliding door. Very realistic design. Price 4/-



WATER TANK
Brightly coloured. Stands 8½in.
high. Fitted with flexible tube
and valve lever ... Price 6/6



BISCUIT VAN (Jacob's, Crawford's, Carr's). Finished in colour. Price 4/-



RAILWAY STATION

Excellent model, beautifully designed and finished. Dimensions: Length 2ft. 9in., breadth 6in., height 7in. Price 12/6



• GUARD'S VAN
Realistic design, fitted each side
with doors as shown. Price 3/6



LEVEL CROSSING
Beautifully designed in colour.
Measures 11½ × 7½in. with Gauge
0 rails in position. Price 6/6



ROTARY TIPPING WAGON Finished in grey and green. Price 4/-



PLATFORM ACCESSORIES
No. 1. Miniature Luggage.
Price per set 2/-



SIGNAL CABIN
Dimensions: Height 6½in., Width 3½in., Length
6½in. Finished in colour and lettered "Windsor."
Roof and back open to allow signal levers to
be fitted inside cabin if desired.
Price 6/6



No. 1. With detachable Signals Price 6/No. 2. Without Signals ... , 3/6
Signals only ... per pair 2/9



PLATFORM ACCESSORIES No. 3. Platform Machines, etc. Price per set 2/-



TUNNEL Realistic and finished in colours. Price 7/6



SECCOTINE WAGON
Beautifully finished in blue.
Lettered white ... Price 4/-



REFRIGERATOR VAN
 Enamelled in white.

Lettered black. Price 4/-



PLATFORM ACCESSORIES
No. 2. Milk Cans and Truck.
Price per set 2/-



\*SNOW PLOUGH With revolving plough driven from front axle ... Price 5/6



PETROL TANK WAGON
"SHELL"
Finished in red. Price 3/-



JUNCTION SIGNAL
Signal arms operated by levers
at base. Very realistic model
standing 14 in. in height.
Price 5/6



\* GUNPOWDER VAN Finished in red. Price 4/-

There are now over 50 items of Rolling Stock and Accessories in the Hornby Series, some of which are illustrated and described above. Send for a complete illustrated price list.

\* Lettered L.M.S. or L.N.E.R.

# Meccano Price List

		M	ECC	AN	0 0	UTF	ITS		1		AC	CES	SORY	C	UTI	FITS		
No.	00	Meccano						 3/6		-	Meccano	Outfi	t					1/6
,,	0							 5/-	100	OA 1A	"	,,			-::			7/6
	1							 8/6	, ,	2A	"	"						8/6
"	2	"						 15/-		3A		"		• •	**	::		18/6 15/-
"	3	,,						 22/6	.,,,	4A 5A*	,,	"	(Carto	n)		-::		50/-
	4	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						 40/-	. "	5A*	,,	,,	(Wood	)				80/- 210/-
	5*			(Cart	on)			 55/-		6A ano	Clockwor	k Mo	tor "					7/6
	5*				Outfit			 85/-	No.	1 Me	eccano Ele	ctric l	Motor (4	Vol	t)	200-250	Volt)	15/6 32/6
,,	6*		Outfit	Carto	n)			 105/-	l'am	n Bo	ard (with	lamp.						4/6
,,,	6*	,,	Present	tation	Outfit			 140/-	Meco	cano	Electrical	Outfi	t X2					42/- 17/6
	7			,,	,,			 370/-	Meco	ano	Accumula	ator						11/0

<sup>\*</sup> Outfits Nos. 5, 5A and 6 are supplied in neat and well-made cardboard boxes (cartons) or in superior oak cabinets, with lock and key.

# Hornby Train Price List

		Comple	te	Sets			Components
Hornby	No	0 Goods Set			 	17/6	Hornby No. 0 Locomotive 10/6
		O Passenger Set			 	24/-	", ", 1 Locomotive
,,		1 Goods Set			 	21/-	" ", 2 Locomotive
	**	1 Passenger Set			 	27/6	No. 1 Tank Locomotive 12/6
,,		2 Goods Set			 	37/6	" , 2 Tank Locomotive 30/-
,,	,,	2 Pullman Set			 	60/-	Tender (For No. 0 and No. 1 Sets)
,,	,,	1 Tank Goods Set			 	25/-	" Tender (For No. 2 Set) 3/6" " Passenger Coach (For No. 0 and No. 1 Sets and
,,	,,	2 Tank Goods Set			 	45/-	No. 2 Tank Passenger Sets) 3/6
,,	,,	2 Tank Passenger	Set		 	45/-	", Pullman Coach (For No. 2 Train Set) 15/-
,,	Elec	tric Train			 	110/-	" Wagon (For all Sets) 2/0

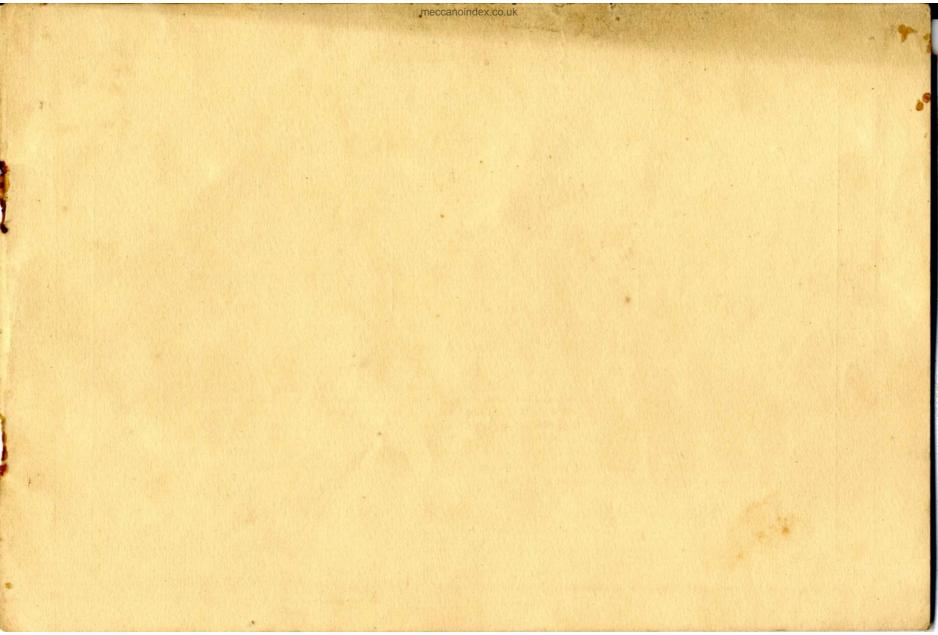
Note.—The additional rolling stock included in the Hornby Tank Set is listed on page 61

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# Contents of Outfits—continued

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1		Weights, 50 Gramme.  Weights, 56 Gramme.  Flat Plates, 5½ × 2½  Trangular Plates, 5½ × 2½  Trangular Plates, 5½  Screwed Rods, 11½  Curved Strips, 5½  Sprocket Chain  """ 3½  """ 1½  Braced Girders, 3½  """ 12½  "" 12½  "" 12½  ""  """ 12½  ""  """ 12½  ""  """ 12½  ""  ""  "" 12½  ""  ""  "" 12½	Elec
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# MECCANO

## Hornby's Original System, First Patented 1901

#### PATENTS AND DESIGNS, GREAT BRITAIN:

3.869/14	22,962/13	648,958	680,416	686,112
4.183/14	139,125	671,484	682,208	698,054
4.564/15	177,430	671,485	682,209	699,653
20,535/13	577.207	671,534	682,934	699,654
21,117/12	577,272	671,790	683,011	

#### Meccano is more than a Toy

T is important to remember that when a boy is playing with MECCANO he is using engineering parts in miniature, and that these parts act in precisely the same way as do the corresponding engineering elements in actual practice. No other system of model construction can be correct, and other toys which attempt the same object by other methods must avail themselves of constructive elements which are not correct engineering elements. Consequently, though a boy may succeed in building playthings with them, they are merely toys and nothing else, and his mind, as regards proper mechanical construction and methods, is distorted instead of instructed. He thus learns wrong principles, and when his ambition tempts him to invent or construct more elaborate models, he will find that he cannot do so because of the deficiencies of his non-mechanical system.

No Outfit is genuine unless it bears the Trade Mark MECCANO