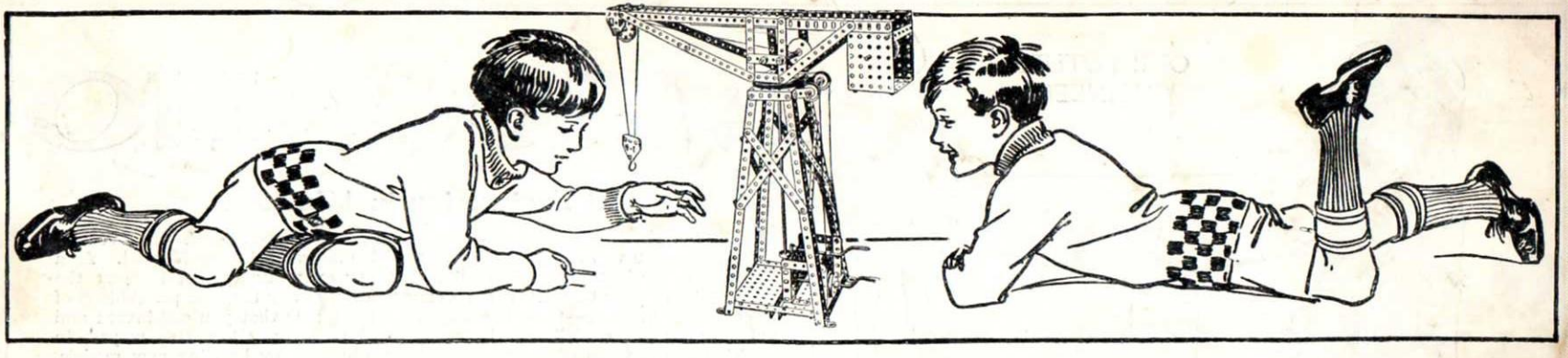

MECCANO

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No. 32.1A

ENGLISH EDITION

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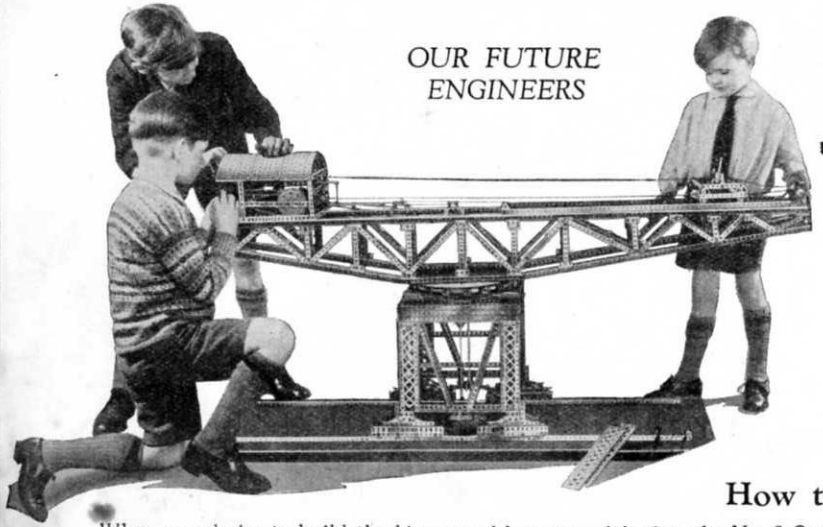

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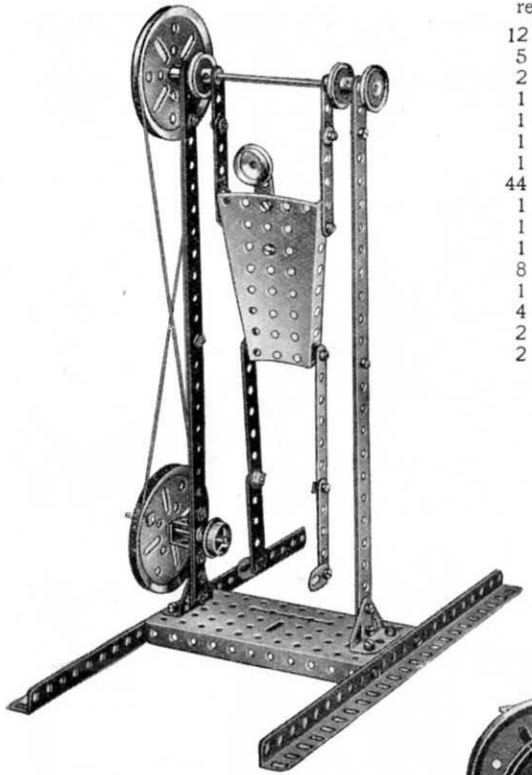
Model No. 2.1 Acrobat



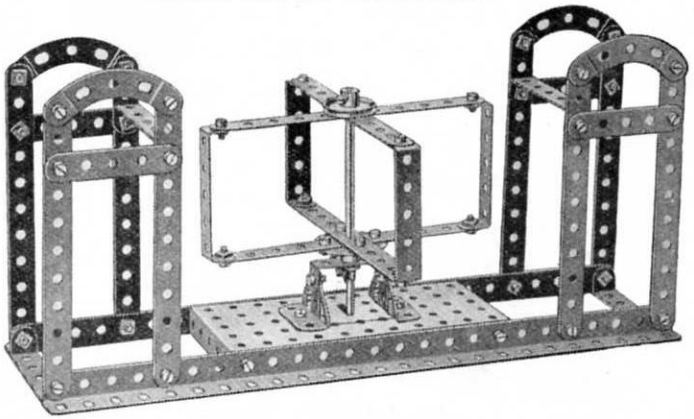
Parts required :

4	of	No.	1	28	of	No.	37
2	„	„	3	6	„	„	37A
5	„	„	5	5	„	„	38
2	„	„	8	1	„	„	40
2	„	„	10	1	„	„	45
1	„	„	15	1	„	„	52
2	„	„	19B	1	„	„	54
2	„	„	20B	2	„	„	62
3	„	„	22	1	„	„	115
				2	of	No.	126

Model No. 2.2 Turnstile

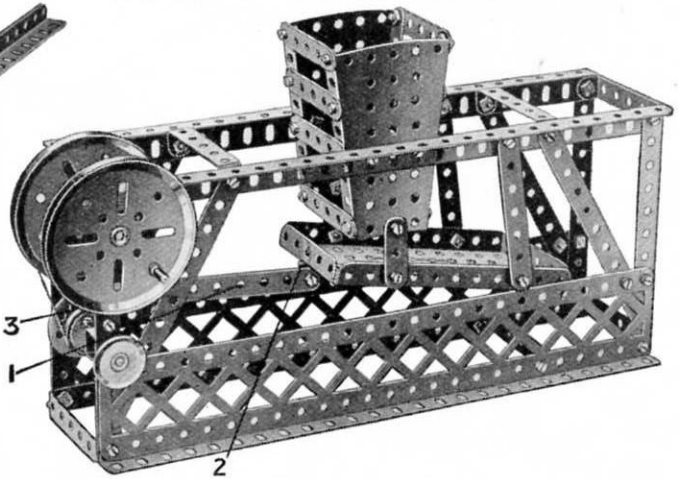
Parts required :

12	of	No.	2
5	„	„	5
2	„	„	8
1	„	„	15A
1	„	„	22
1	„	„	24
1	„	„	35
44	„	„	37
1	„	„	38
1	„	„	40
1	„	„	48
8	„	„	48A
1	„	„	52
4	„	„	90A
2	„	„	99
2	„	„	126



Model No. 2.3 Coal Sifter

The 5½" Strip 1 is pivoted to the Angle Bracket 2 by a bolt and two Nuts. The Angle Bracket in turn is bolted to the Flanged Plate, which is suspended in such a way that it is free to swing to and fro. The other end of the 5½" Strip is pivoted to the Bush Wheel 3.



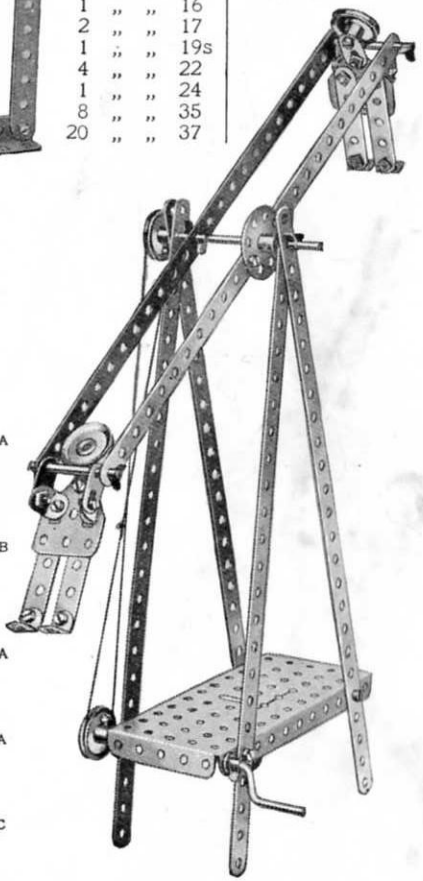
Parts required :

9	of	No.	2
2	„	„	3
8	„	„	5
2	„	„	6A
4	„	„	8
1	„	„	12
1	„	„	16
1	„	„	17
2	„	„	19B
2	„	„	22
1	„	„	24
2	„	„	35
54	„	„	37
6	„	„	37A
8	„	„	38
1	„	„	40
1	„	„	45
6	„	„	48A
1	„	„	52
2	„	„	54
2	„	„	99
6	„	„	111C
1	„	„	115

Model No. 2.4 Revolving Meccanitians

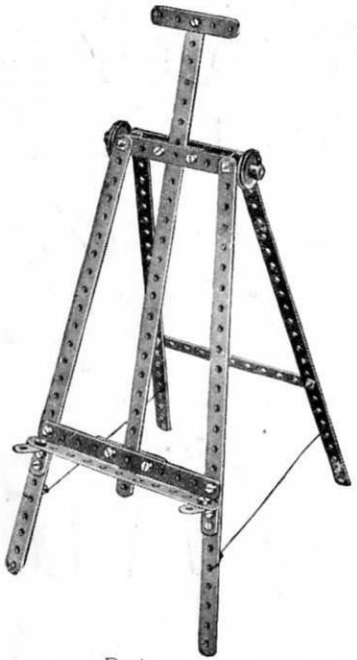
Parts required :

6	of	No.	1	1	of	No.	38
4	„	„	5	1	„	„	52
6	„	„	10	2	„	„	111C
8	„	„	12	2	„	„	126A
1	„	„	16				
2	„	„	17				
1	„	„	19S				
4	„	„	22				
1	„	„	24				
8	„	„	35				
20	„	„	37				



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

Model No. 2.5 Easel



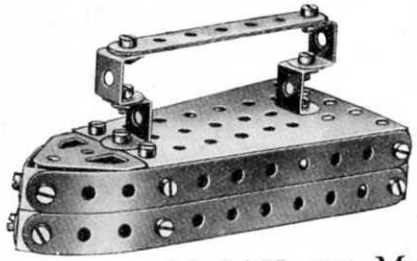
Parts required :

5	of No.	1
3	„ „	2
2	„ „	3
3	„ „	5
4	„ „	12
2	„ „	12A
1	„ „	15A
2	„ „	22
19	„ „	37
4	„ „	38
1	„ „	40

Model No. 2.6 Smoothing Iron

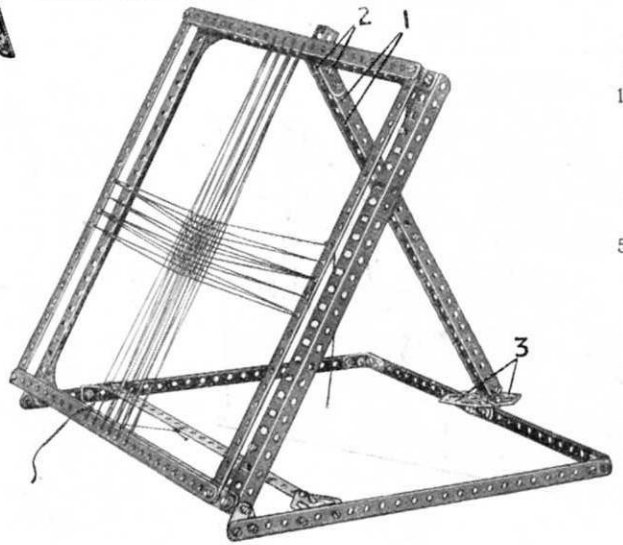
Parts required :

4	of No.	2
2	„ „	3
6	„ „	10
4	„ „	11
2	„ „	12
20	of No.	37
2	„ „	38
1	„ „	48A
2	„ „	54
1	„ „	126A



Model No. 2.7 Mat Frame

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



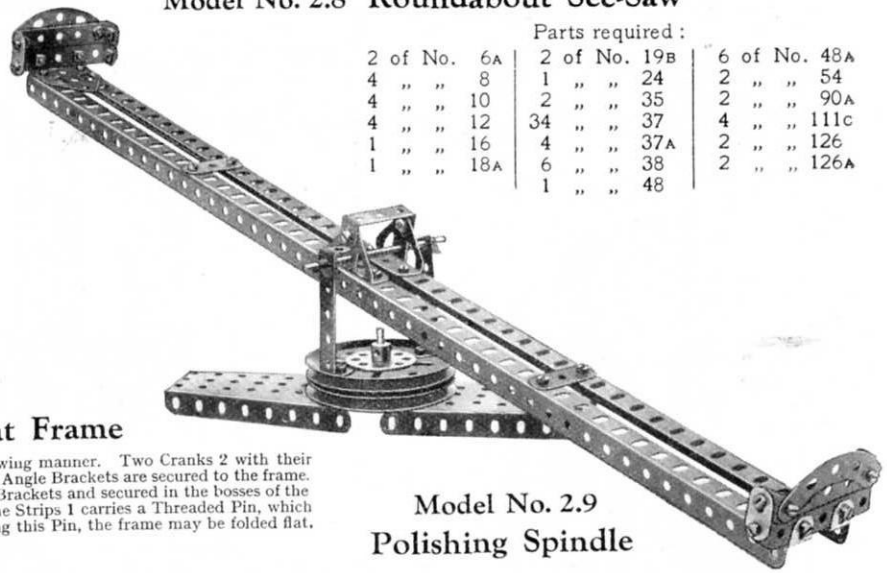
Parts required :

10	of No.	1
4	„ „	8
4	„ „	10
3	„ „	11
6	„ „	12
2	„ „	12A
1	„ „	18A
54	„ „	37
2	„ „	37A
2	„ „	38
1	„ „	45
2	„ „	62
4	„ „	90A
2	„ „	111C
1	„ „	115
4	„ „	125
2	„ „	126
2	„ „	126A

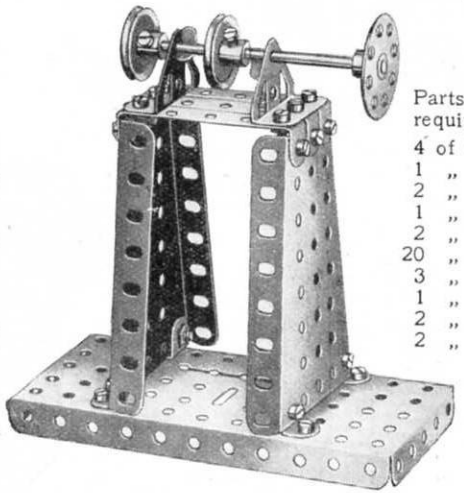
Model No. 2.8 Roundabout See-Saw

Parts required :

2	of No.	6A
4	„ „	8
4	„ „	10
4	„ „	12
1	„ „	16
1	„ „	18A
2	of No.	19B
1	„ „	24
2	„ „	35
34	„ „	37
4	„ „	37A
6	„ „	38
1	„ „	48
6	of No.	48A
2	„ „	54
2	„ „	90A
4	„ „	111C
2	„ „	126
2	„ „	126A



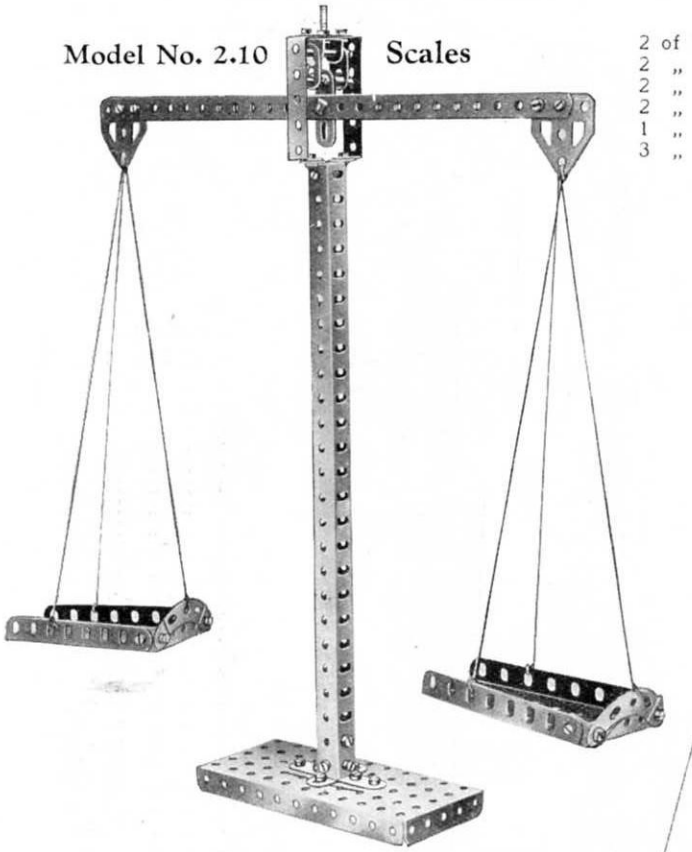
Model No. 2.9 Polishing Spindle



Parts required :

4	of No.	12
1	„ „	16
2	„ „	22
1	„ „	24
2	„ „	35
20	„ „	37
3	„ „	48A
1	„ „	52
2	„ „	54
2	„ „	126

Model No. 2.10 Scales



Parts required :

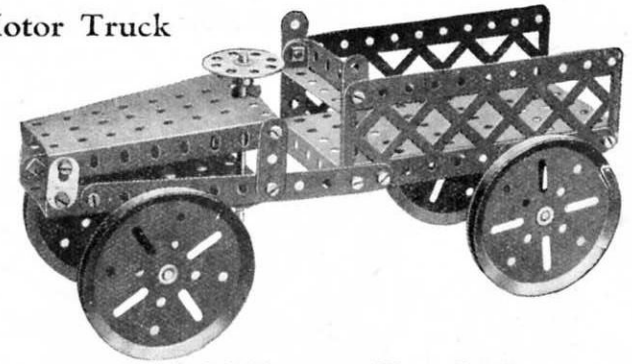
2	of No.	1	2	of No.	18A	1	of No.	52
1	„ „	6A	2	„ „	35	2	„ „	54
2	„ „	8	31	„ „	37	2	„ „	62
2	„ „	10	4	„ „	38	2	„ „	90A
1	„ „	11	1	„ „	40	1	„ „	115
2	„ „	12	1	„ „	45	2	„ „	126A
2	„ „	12A	4	„ „	48A			

Model No. 2.12 Motor Truck

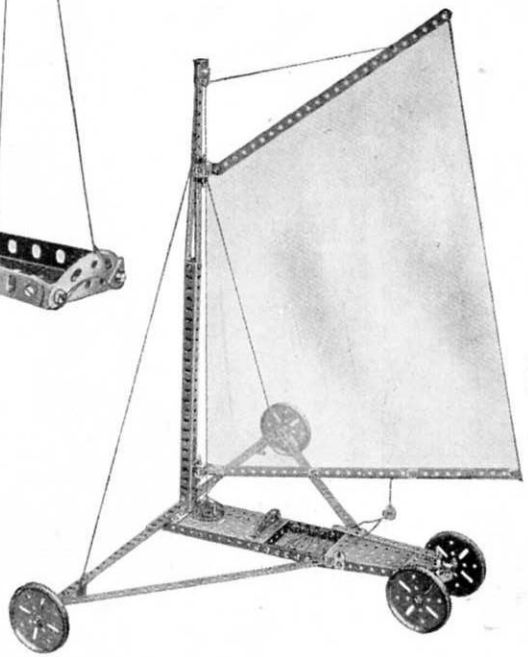
Parts required :

2	of No.	2	4	of No.	19B	3	of No.	48A
2	„ „	5	1	„ „	22	1	„ „	52
2	„ „	6A	1	„ „	24	2	„ „	54
2	„ „	10	1	„ „	35	2	„ „	100
1	„ „	11	23	„ „	37	1	„ „	111c
3	„ „	16	2	„ „	37A	2	„ „	126A
			1	„ „	40			

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



Model No. 2.11 Sand Yacht



Parts required :

8	of No.	1	2	of No.	48A
2	„ „	2	1	„ „	52
1	„ „	5	1	„ „	54
4	„ „	8	1	„ „	62
4	„ „	10	1	„ „	90A
4	„ „	11	1	„ „	115
12	„ „	12	4	„ „	125
2	„ „	12A	1	„ „	126
3	„ „	16	2	„ „	126A
1	„ „	17			
2	„ „	18A			
4	„ „	19B			
1	„ „	23			
1	„ „	24			
12	„ „	35			
60	„ „	37			
9	„ „	38			
1	„ „	40			

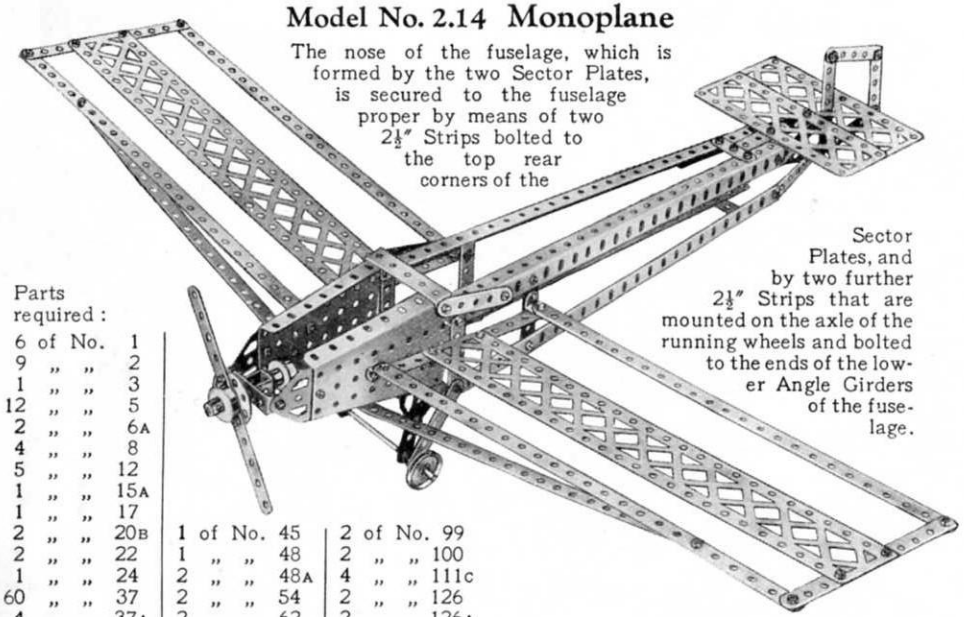
Model No. 2.13 Towel Horse

Parts required :

4	of No.	12	28	of No.	37
2	„ „	22A	2	„ „	37A
8	„ „	38	4	„ „	90A
2	„ „	111c			

Model No. 2.14 Monoplane

The nose of the fuselage, which is formed by the two Sector Plates, is secured to the fuselage proper by means of two 2½" Strips bolted to the top rear corners of the Sector Plates, and by two further 2½" Strips that are mounted on the axle of the running wheels and bolted to the ends of the lower Angle Girders of the fuselage.

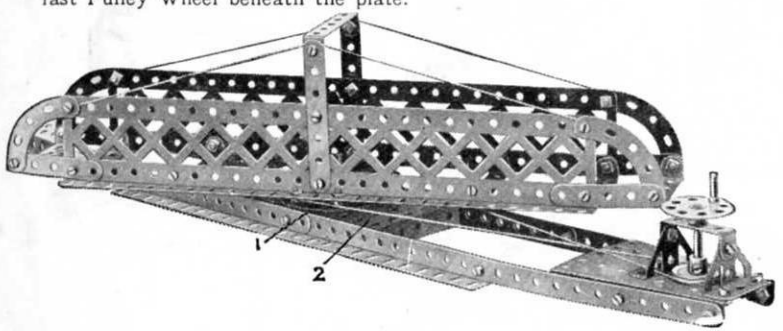


Parts required :

6	of	No.	1	1	of	No.	45
9	„	„	2	1	„	„	48
1	„	„	3	2	„	„	48A
12	„	„	5	2	„	„	54
2	„	„	6A	2	„	„	62
4	„	„	8	2	of	No.	99
5	„	„	12	2	„	„	100
1	„	„	15A	4	„	„	111c
1	„	„	17	2	„	„	126
2	„	„	20B	2	„	„	126A
2	„	„	22				
1	„	„	24				
60	„	„	37				
4	„	„	37A				

Model No. 2.15 Turntable

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

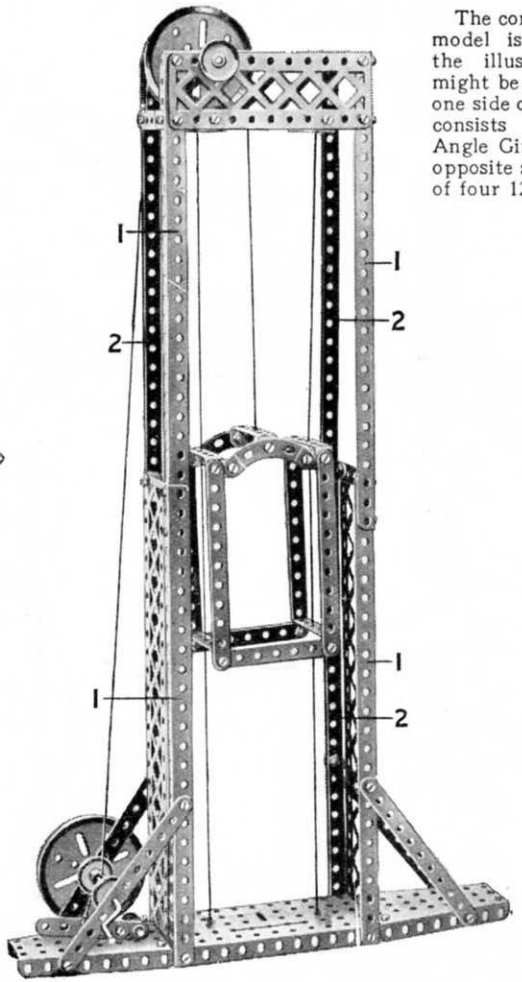


Parts required :

4	of	No.	1
2	„	„	3
8	„	„	5
4	„	„	8
1	„	„	17
1	„	„	18A
1	„	„	19B
3	„	„	22
1	„	„	24
45	„	„	37
4	„	„	37A
4	„	„	38
1	„	„	48
7	„	„	48A
1	„	„	52
2	„	„	54
4	„	„	90A
2	„	„	99
4	„	„	111c

Model No. 2.16 Elevator

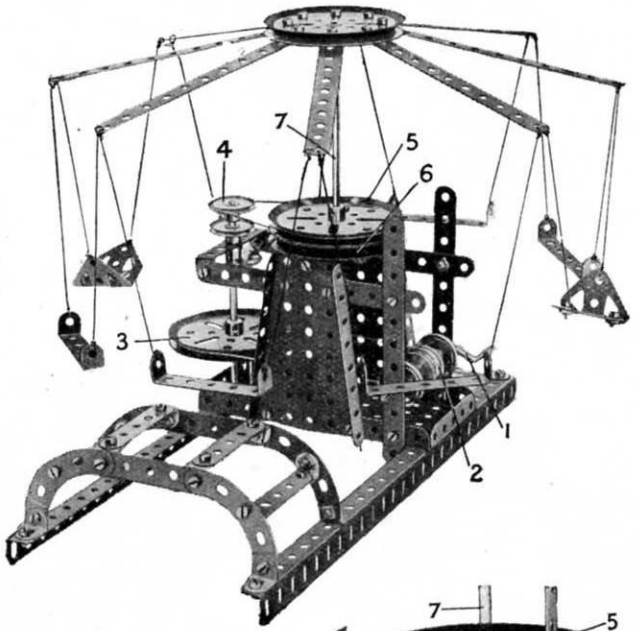
The construction of this model is fairly clear in the illustration, but it might be pointed out that one side of the framework consists of four 12½" Angle Girders 1 while the opposite side is composed of four 12½" Strips 2.



Parts required :

4	of	No.	1
8	„	„	2
2	„	„	3
8	„	„	5
4	„	„	8
4	„	„	10
1	„	„	11
12	„	„	12
1	„	„	16
1	„	„	18A
2	„	„	19B
1	„	„	19S
4	„	„	22
1	„	„	35
60	„	„	37
6	„	„	37A
2	„	„	38
1	„	„	40
7	„	„	48A
1	„	„	52
2	„	„	54
1	„	„	62
2	„	„	90A
2	„	„	99
2	„	„	100
6	„	„	111c

Model No. 2.17 Roundabout



Parts required :

13	of No.	2
6	„ „	5
2	„ „	8
12	„ „	12
2	„ „	12A
2	of No.	15
1	„ „	19
4	„ „	19B
2	„ „	20B
4	„ „	22
1	„ „	24
48	„ „	37
2	„ „	40
7	„ „	48A
1	„ „	52
2	„ „	54
4	„ „	90A
2	„ „	126
2	„ „	126A

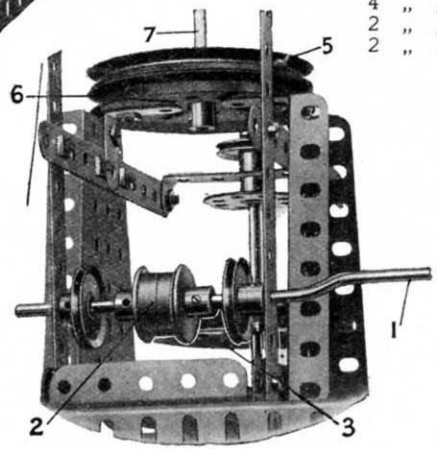


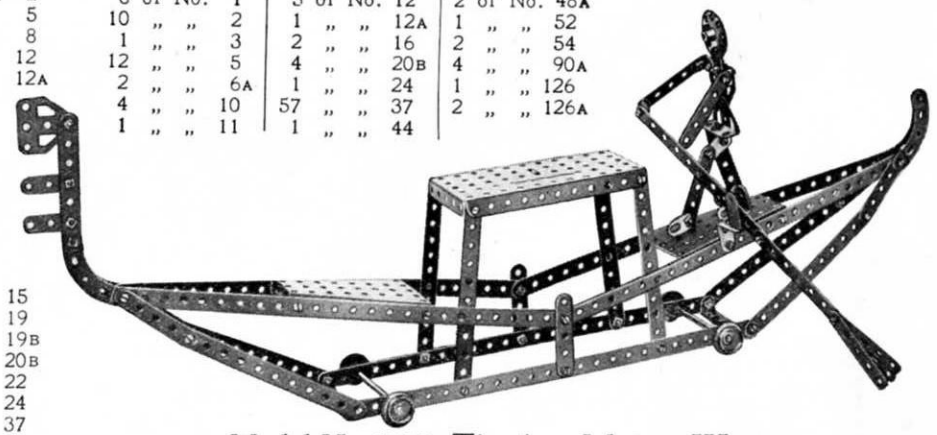
FIG. 2.17A

When the Crank Handle is turned, the drum 2 (formed by butting together two ¾″ Flanged Wheels) turns the 3″ Pulley Wheel 3 by means of an endless cord. The 1″ fast Pulley Wheel 4 similarly turns a second 3″ Pulley Wheel 5 resting on another 3″ Pulley Wheel 6 (see Fig. 2.17A). The end of the Axle Rod 7 is quite free to revolve in the boss of the lower 3″ Pulley Wheel 6.

Model No. 2.18 Gondola

Parts required :

6	of No.	1
10	„ „	2
1	„ „	3
12	„ „	5
2	„ „	6A
4	„ „	10
1	„ „	11
5	of No.	12
1	„ „	12A
2	„ „	16
4	„ „	20B
1	„ „	24
57	„ „	37
1	„ „	44
2	of No.	48A
1	„ „	52
2	„ „	54
4	„ „	90A
1	„ „	126
2	„ „	126A

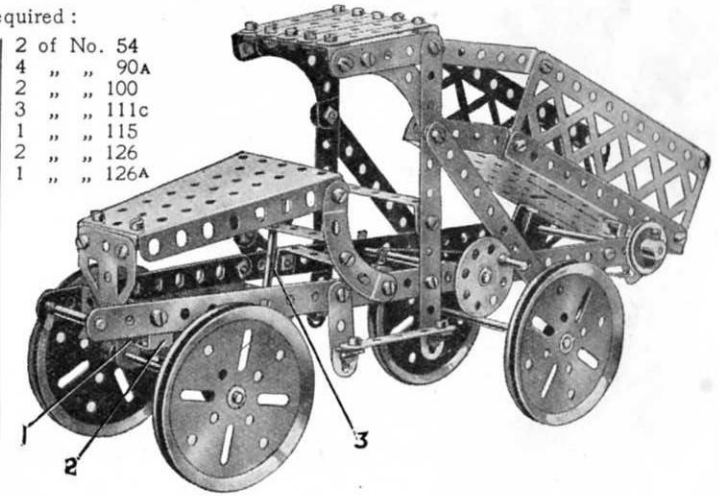


Model No. 2.19 Tipping Motor Wagon

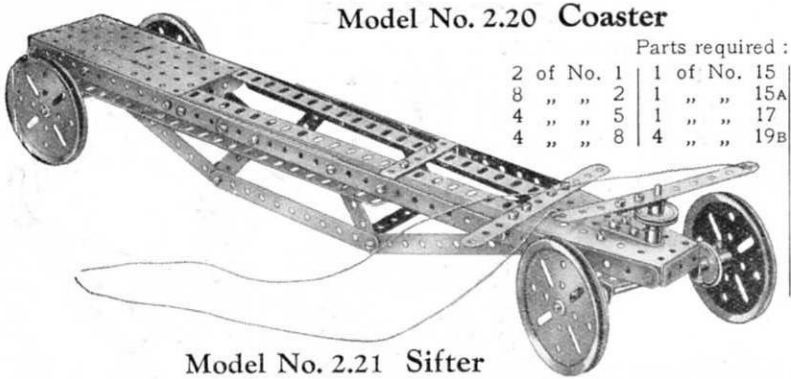
The front Axle Rod is journalled in a 2½″×½″ Double Angle Strip 1 which in turn is bolted to a Double Bent Strip 2. The Double Bent Strip is pivoted to the Sector Plate by a Bolt and two Nuts. Cord passing over a 1″ Pulley Wheel attached to the Rod 3 is fastened to the ends of the Double Angle Strip 1, and by rotating another pulley, which represents the steering wheel, the road wheels are deflected.

Parts required :

2	of No.	1
4	„ „	2
11	„ „	5
2	„ „	6A
6	„ „	12
4	„ „	16
1	„ „	17
1	„ „	18A
4	„ „	19B
4	„ „	22
1	„ „	24
6	„ „	35
59	„ „	37
4	„ „	37A
1	„ „	40
1	„ „	45
1	„ „	48
7	„ „	48A
1	„ „	52
2	of No.	54
4	„ „	90A
2	„ „	100
3	„ „	111c
1	„ „	115
2	„ „	126
1	„ „	126A



Model No. 2.20 Coaster

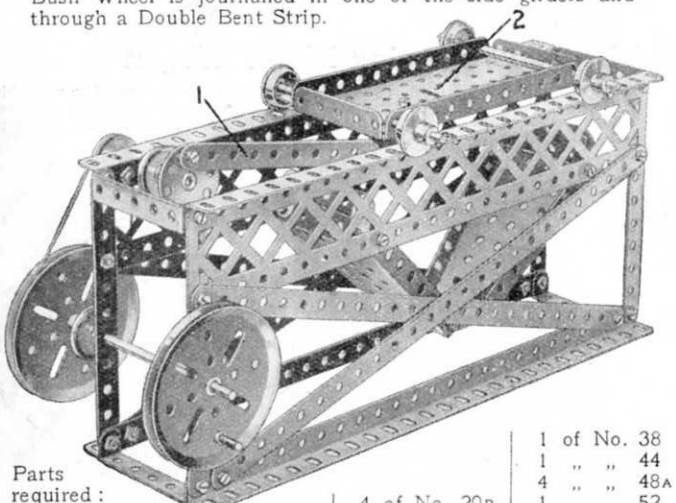


Parts required :

2	of	No.	1	1	of	No.	15	3	of No. 22
8	„	„	2	1	„	„	15A	1	„ „ 23
4	„	„	5	1	„	„	17	1	„ „ 24
4	„	„	8	4	„	„	19B	44	„ „ 37
								4	„ „ 38
								1	„ „ 48
								4	„ „ 48A
								1	„ „ 52
								1	„ „ 54
								2	„ „ 62
								2	„ „ 126

Model No. 2.21 Sifter

The 5½" Strip 1 is pivoted by a Bolt and two Nuts (S.M. 262) to the Bush Wheel and also to a Trunnion bolted to the under-surface of the Flanged Plate 2. The Rod carrying the Bush Wheel is journalled in one of the side girders and through a Double Bent Strip.



Parts required :

4	of	No.	1	4	of	No.	10	4	of No. 20B
5	„	„	2	2	„	„	15	3	„ „ 22
4	„	„	5	1	„	„	15A	1	„ „ 24
2	„	„	6A	1	„	„	17	4	„ „ 35
4	„	„	8	2	„	„	19B	36	„ „ 37
								4	„ „ 37A

1	of	No.	38
1	„	„	44
4	„	„	48A
1	„	„	52
2	„	„	54
2	„	„	99
2	„	„	111C
1	„	„	115
1	„	„	126

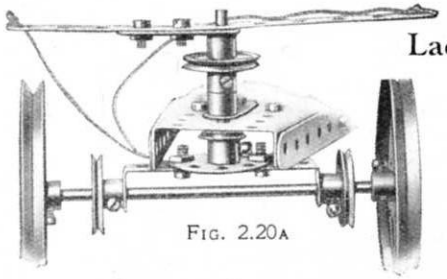
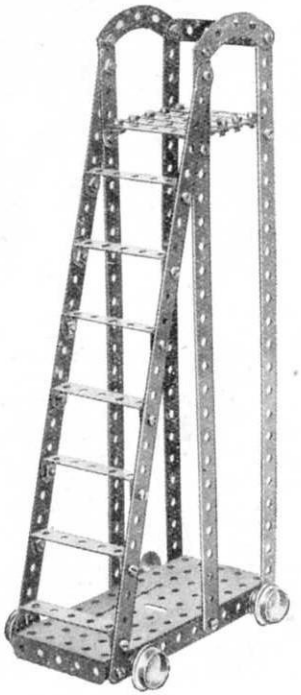


FIG. 2.20A

Model No. 2.24 Ladder on Wheels

Parts required :

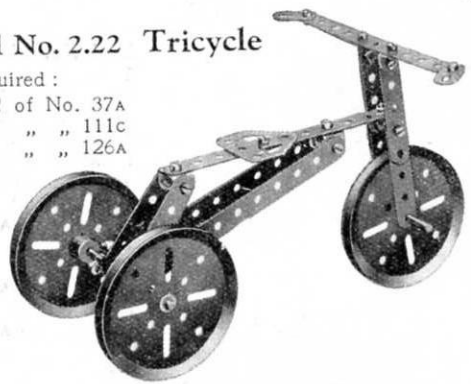
6	of	No.	1
7	„	„	5
4	„	„	12
2	„	„	16
4	„	„	20B
40	„	„	37
4	„	„	38
8	„	„	48A
1	„	„	52
2	„	„	90A



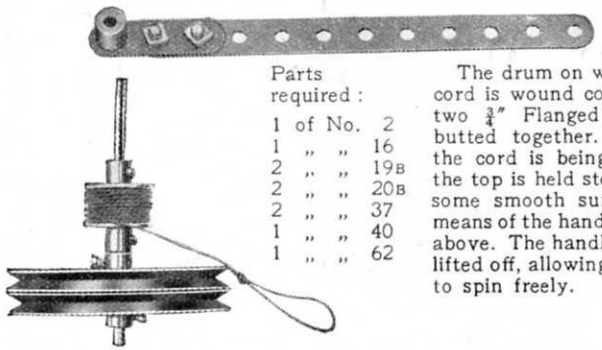
Model No. 2.22 Tricycle

Parts required :

4	of	No.	2	2	of	No.	37A
6	„	„	5	1	„	„	111C
2	„	„	10	1	„	„	126A
3	„	„	11				
2	„	„	12				
1	„	„	16				
1	„	„	18A				
3	„	„	19B				
2	„	„	35				
15	„	„	37				



Model No. 2.23 Spinning Top

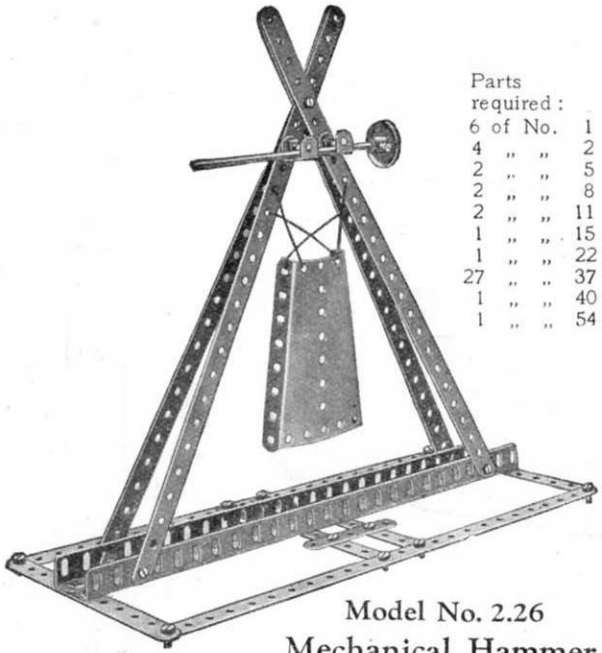


Parts required :

1	of	No.	2
1	„	„	16
2	„	„	19B
2	„	„	20B
2	„	„	37
1	„	„	40
1	„	„	62

The drum on which the cord is wound consists of two ¾" Flanged Wheels butted together. While the cord is being pulled, the top is held steadily on some smooth surface by means of the handle shown above. The handle is then lifted off, allowing the top to spin freely.

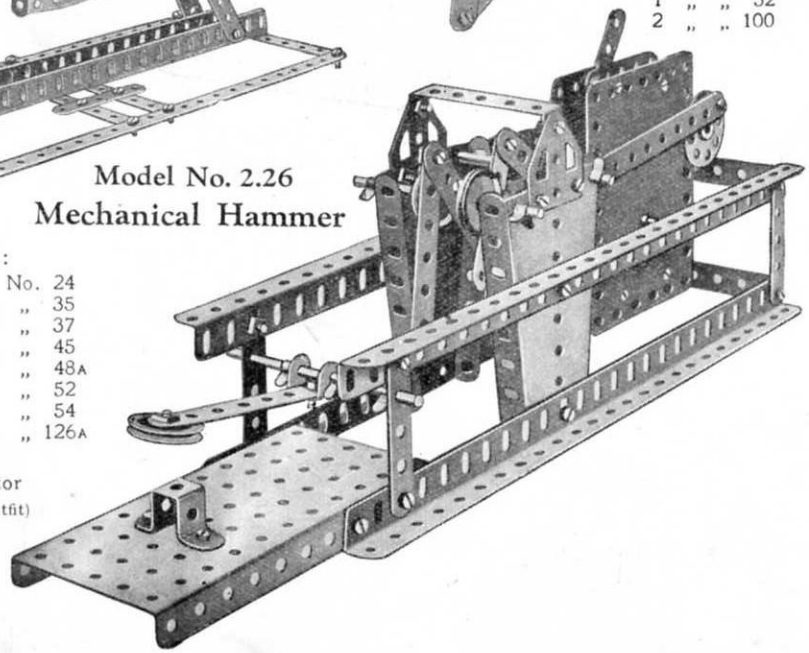
Model No. 2.25 Gong



Parts required :

6	of No.		1
4	„	„	2
2	„	„	5
2	„	„	8
2	„	„	11
1	„	„	15
1	„	„	22
27	„	„	37
1	„	„	40
1	„	„	54

Model No. 2.26 Mechanical Hammer

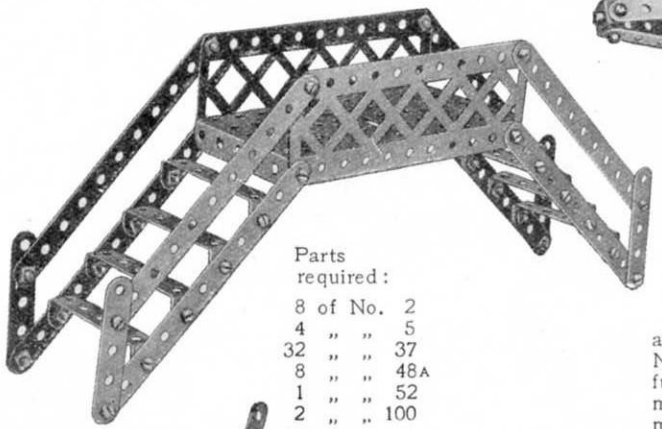


Parts required :

2	of No.		2	1	of No.		24
1	„	„	3	8	„	„	35
6	„	„	5	32	„	„	37
4	„	„	8	1	„	„	45
1	„	„	11	3	„	„	48A
1	„	„	12	1	„	„	52
3	„	„	16	2	„	„	54
4	„	„	22	2	„	„	126A
1	„	„	22A				

Clockwork Motor
(not included in Outfit)

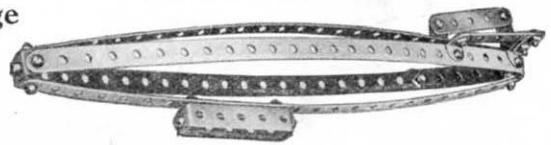
Model No. 2.27 High Level Bridge



Parts required :

8	of No.		2
4	„	„	5
32	„	„	37
8	„	„	48A
1	„	„	52
2	„	„	100

Model No. 2.28 Airship



Parts required :

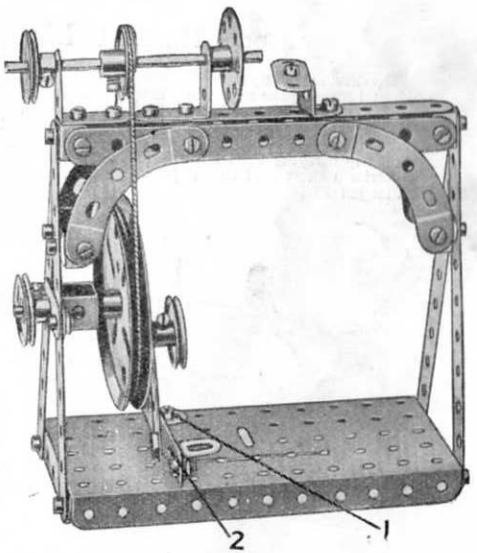
4	of No.		1	2	of No.		11
3	„	„	5	10	„	„	12
3	„	„	10	25	„	„	37
				3	of No.		48A

Model No. 2.29 Treadle Lathe

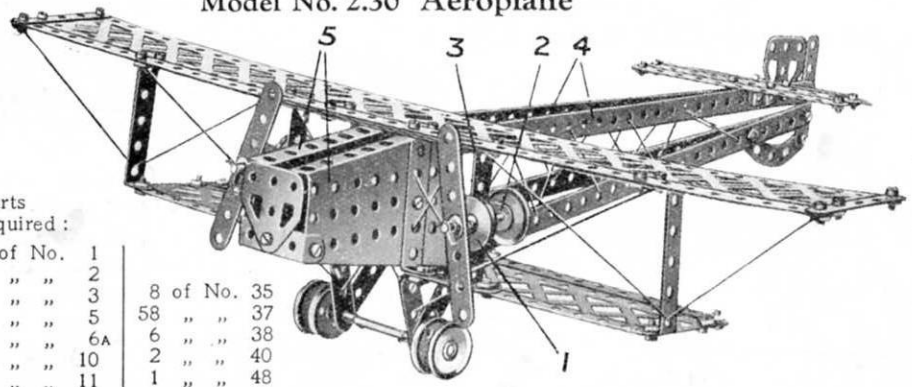
The 2½" Strip 2, forming the treadle, is attached pivotally by means of a Bolt and two Nuts to the Angle Bracket 1. One end of a further 2½" Strip is connected by the same means to the 2½" Strip 2, and the other end is mounted on a Threaded Pin secured to the 3" Pulley Wheel.

Parts required :

7	of No.		2
1	„	„	3
1	„	„	5
2	„	„	6A
4	„	„	11
6	„	„	12
2	„	„	12A
1	„	„	16
1	„	„	17
3	„	„	19B
4	„	„	22
1	„	„	24
1	„	„	35
34	„	„	37
2	„	„	37A
4	„	„	38
1	„	„	40
1	„	„	45
1	„	„	52
4	„	„	90A
1	„	„	115
1	„	„	125



Model No. 2.30 Aeroplane



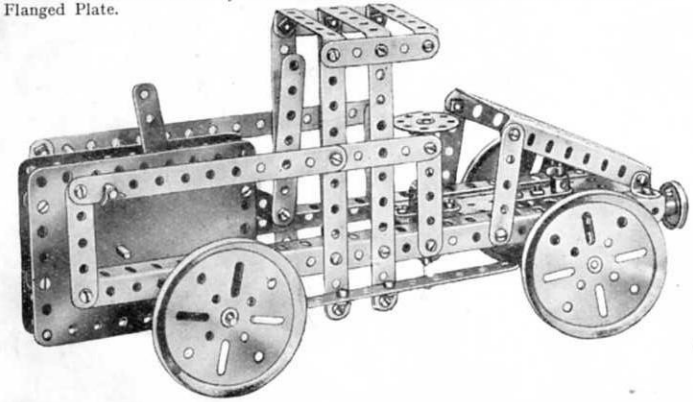
Parts required :

7	of	No.	1
2	„	„	2
2	„	„	3
7	„	„	5
2	„	„	6A
8	„	„	10
2	„	„	11
8	„	„	12
1	„	„	16
2	„	„	17
2	„	„	20B
4	„	„	22
2	„	„	22A
8	of	No.	35
58	„	„	37
6	„	„	38
2	„	„	40
1	„	„	48
6	„	„	48A
2	„	„	54
1	„	„	90A
2	„	„	99
2	„	„	100
2	„	„	126A

Each engine is represented by a ¾" Flanged Wheel 1 and a 1" fast Pulley Wheel secured to a 2" Rod journalled in a Double Bracket 2, which is bolted to the 2½"×½" vertical Double Angle Strip 3. The 12½" Strips 4 of the fuselage proper are bolted to the two Sector Plates 5, and also by means of Angle Brackets to the wings. The tail plane consists of two 5½" Strips to which a similar Strip, representing the movable portion of the plane, is attached by means of Flat Brackets.

Model No. 2.31 Motor Lorry

The driving spindle of the Clockwork Motor is removed and in its place is inserted a 3½" Rod forming the rear axle, the special Pinion inside the Motor being secured to this Rod, of course, instead of to the driving spindle. The steering is operated by a Bush Wheel on a vertical 3½" Rod journalled in a Double Bent Strip. Cord is wound round the lower part of this Rod and its ends are secured one to each end of a Double Angle Strip carrying the front axle. A Crank is bolted to this Double Angle Strip and carries a short Rod that is journalled in the boss of a further Crank bolted to the Flanged Plate.



Parts required :

8	of	No.	2
1	„	„	3
10	„	„	5
6	„	„	10
1	„	„	15
1	„	„	15A
2	„	„	16
1	„	„	18A
4	„	„	19B
2	„	„	22
1	„	„	24
12	„	„	35
49	„	„	37
3	„	„	38
1	„	„	45
4	„	„	48A
1	„	„	52
1	„	„	54
2	„	„	62
2	„	„	111c

Clockwork Motor
(not included in Outfit)

Model No. 2.32 Try-Your-Strength Machine

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

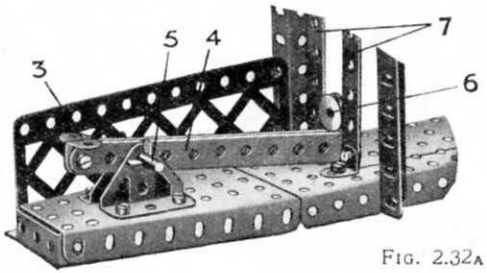


FIG. 2.32A

Parts required :

6	of	No.	1
6	„	„	2
1	„	„	3
2	„	„	5
2	„	„	6A
4	„	„	8
2	of	No.	10
10	„	„	12
2	„	„	18A
1	„	„	23
1	„	„	24
3	„	„	35
60	„	„	37
6	„	„	37A
4	„	„	38
1	„	„	45
1	„	„	48
1	„	„	48A
1	„	„	52
2	„	„	54
3	„	„	90A
2	„	„	100
2	„	„	126

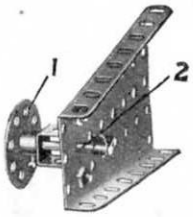
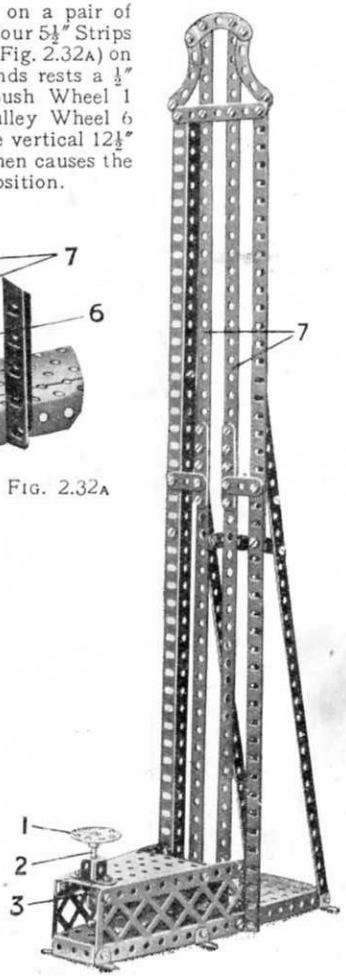
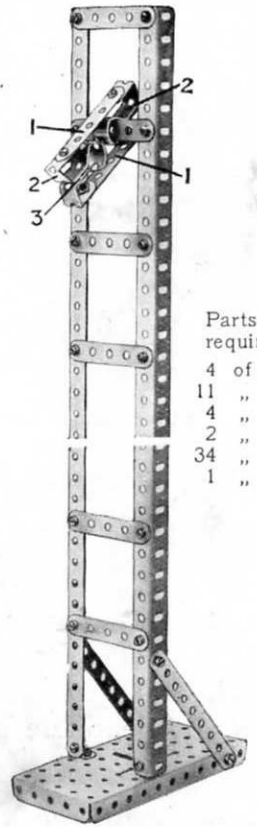


FIG. 2.32B



Model No. 2.33 Performing Meccanitian



Parts required :

4	of No.	2	
11	„ „	5	
4	„ „	8	
2	„ „	12	
34	„ „	37	
1	„ „	52	

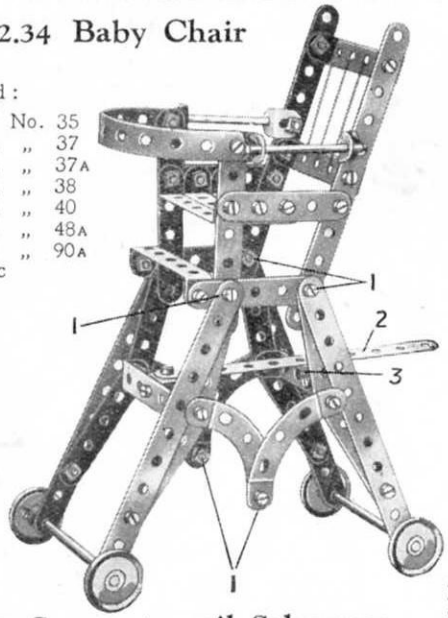
The Meccanitian consists of two 2½" Strips 1 to the ends of which two 5½" Strips 2, bent as shown, are bolted. The slot 3 should be passed over the top strip of the ladder, when the device will fall "head over heels" to the bottom.

Model No. 2.34 Baby Chair

Parts required :

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

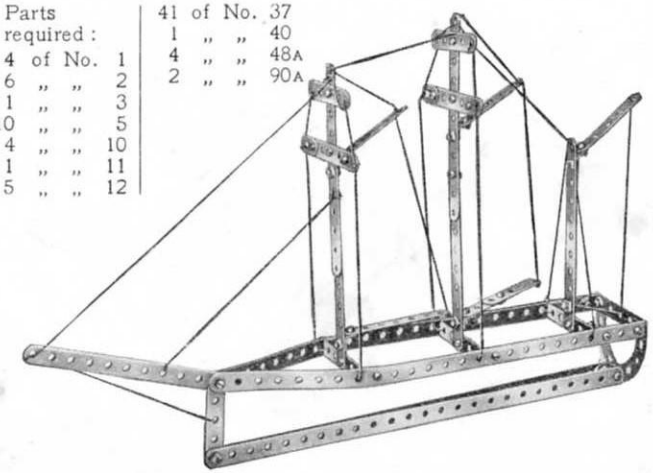
The Bolts 1 are all secured pivotally (see S.M. Nos. 262 and 263), and the height of the chair may be adjusted by fitting any hole in the Strip 2 over the shank of a Bolt that is secured in an Angle Bracket bolted to the Double Angle Strip 3.



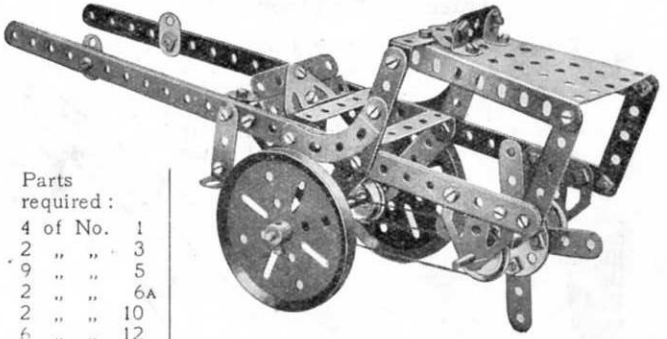
Model No. 2.35 Square-topsail Schooner

Parts required :

4	of No.	1	41	of No.	37	
6	„ „	2	1	„ „	40	
1	„ „	3	4	„ „	48A	
10	„ „	5	2	„ „	90A	
4	„ „	10				
1	„ „	11				
5	„ „	12				



Model No. 2.36 Hay Tedder



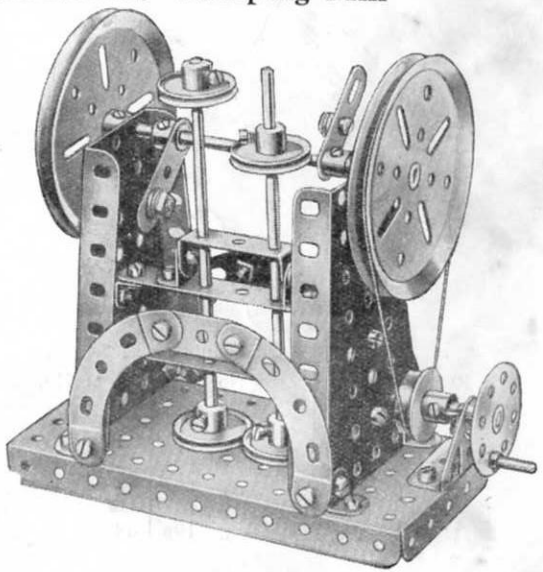
Parts required :

4	of No.	1	1	of No.	24	4	of No.	38	3	of No.	90A
2	„ „	3	2	„ „	35	1	„ „	40	6	„ „	111c
9	„ „	5	34	„ „	37	4	„ „	48A	2	„ „	126
2	„ „	6A	6	„ „	37A	1	„ „	54	2	„ „	126A
2	„ „	10									
6	„ „	12									
1	„ „	15A									
1	„ „	16									
2	„ „	19									
2	„ „	20B									
2	„ „	22									

Model No. 2.37 Stamping Mill

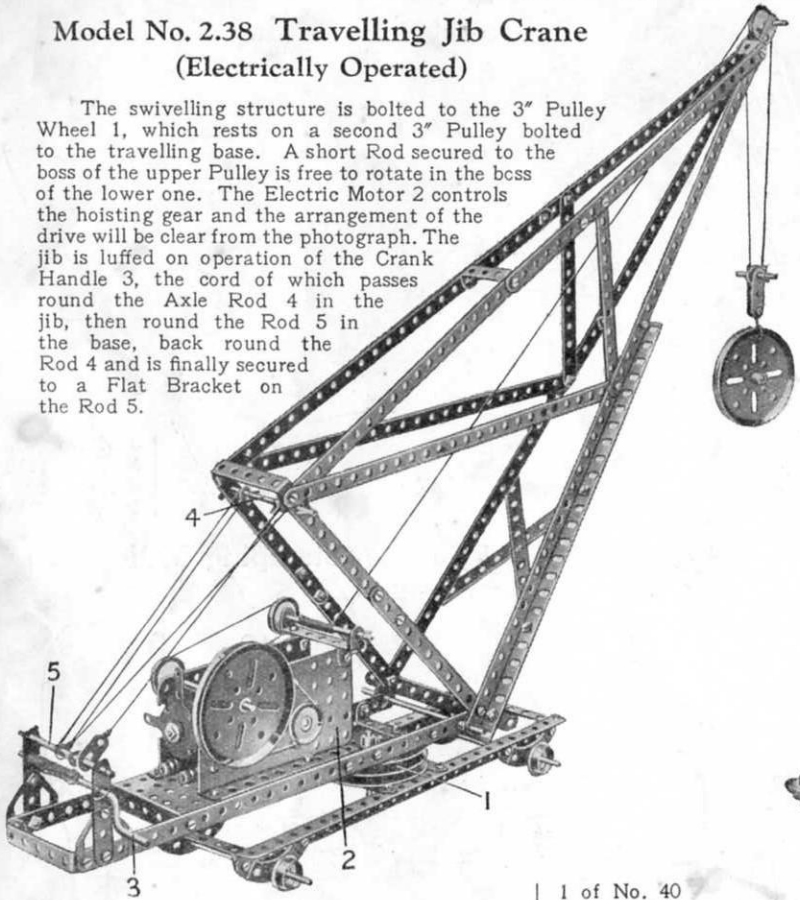
Parts required :

2	of No.	3	
2	„ „	6A	
10	„ „	12	
2	„ „	15	
1	„ „	15A	
1	„ „	17	
2	„ „	19B	
1	„ „	20B	
4	„ „	22	
1	„ „	24	
1	„ „	35	
30	„ „	37	
2	„ „	37A	
11	„ „	38	
1	„ „	48	
1	„ „	52	
2	„ „	54	
2	„ „	62	
4	„ „	90A	
2	„ „	111c	
1	„ „	115	
1	„ „	126	



Model No. 2.38 Travelling Jib Crane (Electrically Operated)

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



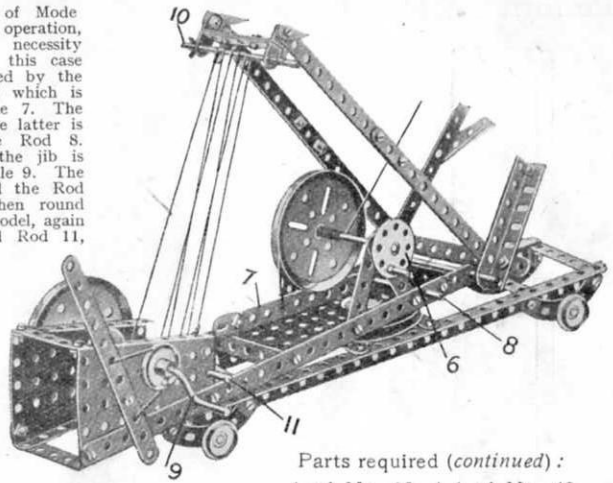
Parts required :

10	of No.	1	2	of No.	12	4	of No.	20B
9	„ „	2	2	„ „	15	4	„ „	22
2	„ „	3	1	„ „	15A	1	„ „	23
2	„ „	5	2	„ „	16	1	„ „	24
2	„ „	6A	1	„ „	17	14	„ „	35
4	„ „	8	2	„ „	18A	60	„ „	37
1	„ „	10	1	„ „	19	6	„ „	37A
1	„ „	11	4	„ „	19B	14	„ „	38

1	of No.	40
1	„ „	48
7	„ „	48A
1	„ „	52
1	„ „	57C
4	„ „	90A
5	„ „	111C
2	„ „	126A
Electric Motor (not included in Outfit)		

Model No. 2.39 Travelling Jib Crane (Hand Operated)

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

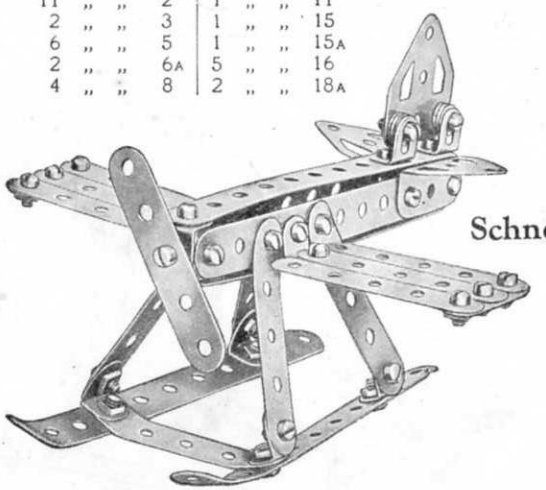


Parts required :

10	of No.	1	3	of No.	10	1	of No.	19
11	„ „	2	1	„ „	11	4	„ „	19B
2	„ „	3	1	„ „	15	4	„ „	20B
6	„ „	5	1	„ „	15A	4	„ „	22
2	„ „	6A	5	„ „	16	1	„ „	23
4	„ „	8	2	„ „	18A	1	„ „	24
						12	„ „	35
						57	„ „	37
						1	„ „	40

Parts required (*continued*) :

1	of No.	48			
7	„ „	48A			
1	„ „	52			
2	„ „	54			
1	„ „	57C			
1	„ „	62			
4	„ „	90A			
1	„ „	111C			
1	„ „	115			



Model No. 2.40 Schneider Trophy Seaplane

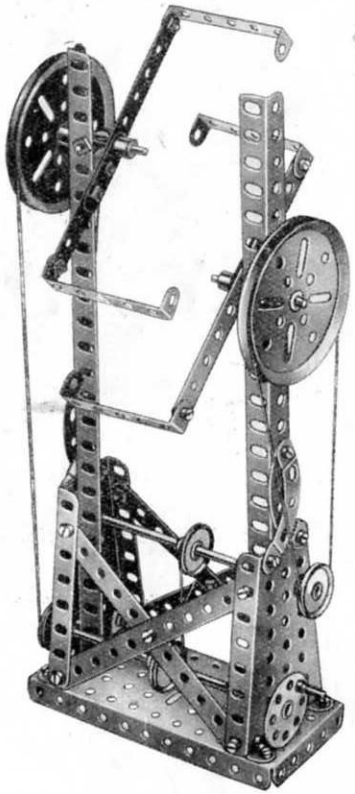
Parts required :

6	of No.	2	34	of No.	37
12	„ „	5	3	„ „	37A
2	„ „	6A	6	„ „	38
2	„ „	11	2	„ „	111C
12	„ „	12	2	„ „	126
			1	of No.	126A

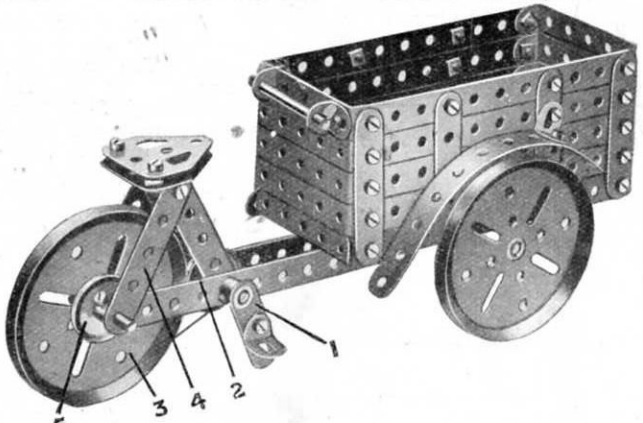
Model No. 2.41 Candy Puller

Parts required :

6	of	No.	2	36	of	No.	37
2	„	„	8	4	„	„	38
6	„	„	12	1	„	„	40
2	„	„	15	4	„	„	48A
2	„	„	17	1	„	„	52
2	„	„	19B	2	„	„	54
4	„	„	22	2	„	„	62
1	„	„	24	4	„	„	90A
3	„	„	35	1	„	„	115



Model No. 2.42 Carrier Tricycle



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

Parts required :

12	of	No.	2
12	„	„	5
2	„	„	11
6	„	„	12
1	„	„	16
1	„	„	17
2	„	„	18A
3	„	„	19B
2	„	„	22
45	„	„	37
5	„	„	37A
1	„	„	40
8	„	„	48A
1	„	„	52
2	„	„	62
3	„	„	111C
2	„	„	126A

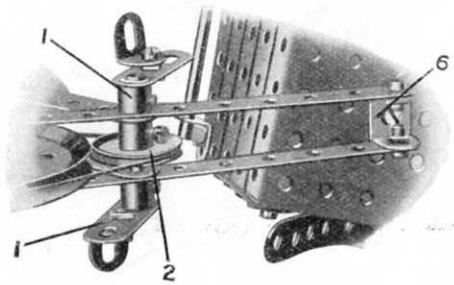
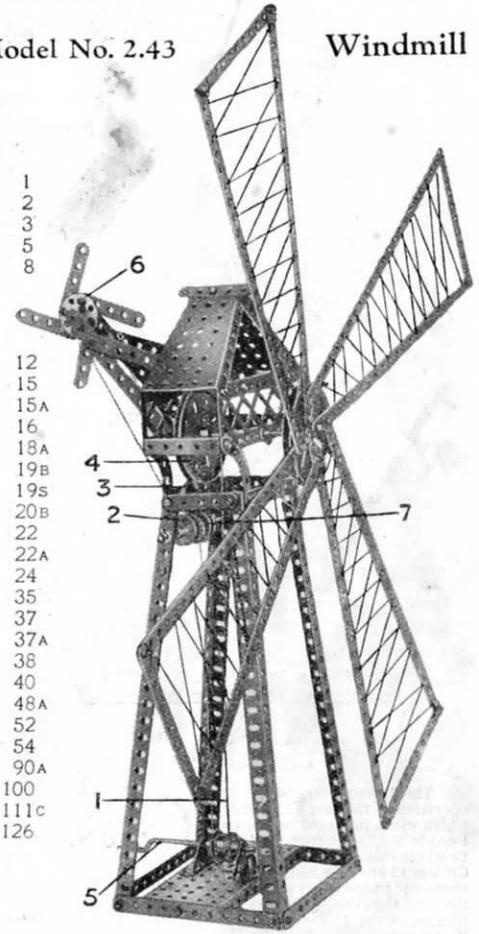


FIG. 2.42A

Model No. 2.43 Windmill

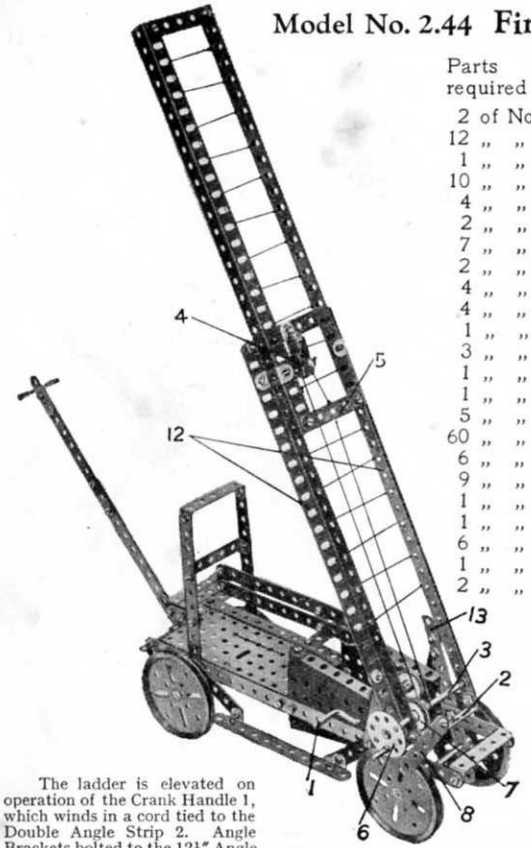
Parts required :

8	of	No.	1
13	„	„	2
2	„	„	3
10	„	„	5
4	„	„	8
4	of	No.	12
1	„	„	15
1	„	„	15A
1	„	„	16
1	„	„	18A
2	„	„	19B
1	„	„	19S
4	„	„	20B
2	„	„	22
1	„	„	22A
1	„	„	24
6	„	„	35
60	„	„	37
4	„	„	37A
7	„	„	38
2	„	„	40
2	„	„	48A
1	„	„	52
2	„	„	54
4	„	„	90A
2	„	„	100
4	„	„	111C
2	„	„	126



The operating cord 1 is given a complete turn round the pair of ¾" Flanged Wheels 2. It is then led round the 1" Loose Pulley 3, over the 3" Pulley 4, then down and round the ¾" Flanged Wheels secured to the Crank Handle 5. The vane 6 is rotated by a cord which passes round a 1" fixed Pulley 7 secured to the shaft of the Flanged Wheels 2.

Model No. 2.44 Fire Escape



Parts required :

2	of No.	1
12	„ „	2
1	„ „	3
10	„ „	5
4	„ „	8
2	„ „	10
7	„ „	12
2	„ „	12A
4	„ „	16
4	„ „	19B
1	„ „	19S
3	„ „	22
1	„ „	23
1	„ „	24
5	„ „	35
60	„ „	37
6	„ „	37A
9	„ „	38
1	„ „	40
1	„ „	44
6	„ „	111C
1	„ „	115
2	„ „	125

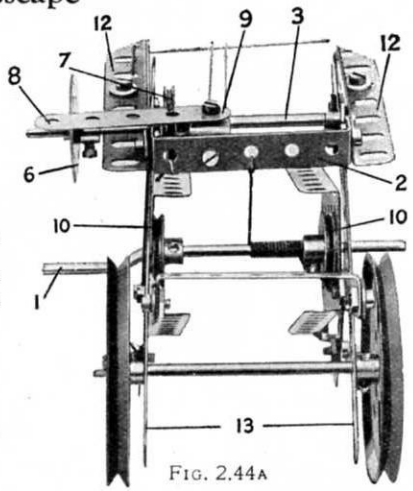
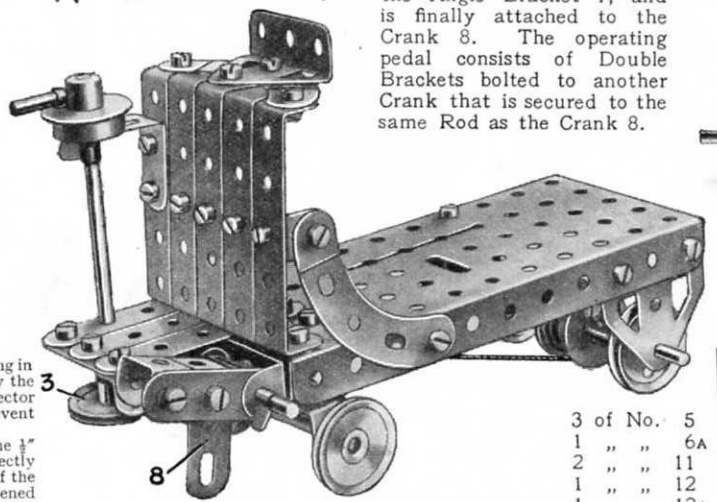


FIG. 2.44A

The ladder is elevated on operation of the Crank Handle 1, which winds in a cord tied to the Double Angle Strip 2. Angle Brackets bolted to the 12½" Angle Girders 12 are attached pivotally to the 5½" Strips 13 by means of Bolts and Nuts (S.M. 262), and the action of winding in the cord thus causes the ladder to swing upward. It is prevented from falling by the friction of the 1" Pulley Wheels 10 (Fig. 2.44A), which press against the two Sector Plates. When the ladder is fully elevated, its lower ends act as brakes to prevent the road wheels from revolving.

A second cord is wound upon the Rod 3. One end is then carried over the ½" loose Pulley Wheel 4 and tied to the 2½" Strip 5, the opposite end being carried directly to the same Strip and secured to it. When the handle 6 is turned, the two ends of the cord are wound and unwound simultaneously, and the ladder is extended or shortened as required. A permanent brake is provided by a cord passing over the 1" Pulley Wheel 7 and having both its ends secured to the 2½" Strip 8. The Strip 8 is bolted firmly to the Angle Bracket 9 (Fig. 2.44A) and keeps the brake continuously in action.



3	of No.	5
1	„ „	6A
2	„ „	11
1	„ „	12
1	„ „	12A
3	„ „	16
1	„ „	17

Model No. 2.45 Electric Truck

An underneath view of the truck is shown in Fig. 2.45A. The front axle is journalled in a 1½" × ½" Double Angle Strip 1 that is free to turn on a Double Bent Strip 2, from which it is spaced by a ½" loose Pulley. A length of cord is wrapped round the 1" Pulley 3, which is secured to the end of the steering column, and then passed through a Cranked Bent Strip 4 and secured to the Double Angle Strip 1 as shown. The brake cord 5 is attached to the Double Bent Strip 2, wrapped several times round the ¾" Flanged Wheels 6, passed through the Angle Bracket 7, and is finally attached to the Crank 8. The operating pedal consists of Double Brackets bolted to another Crank that is secured to the same Rod as the Crank 8.

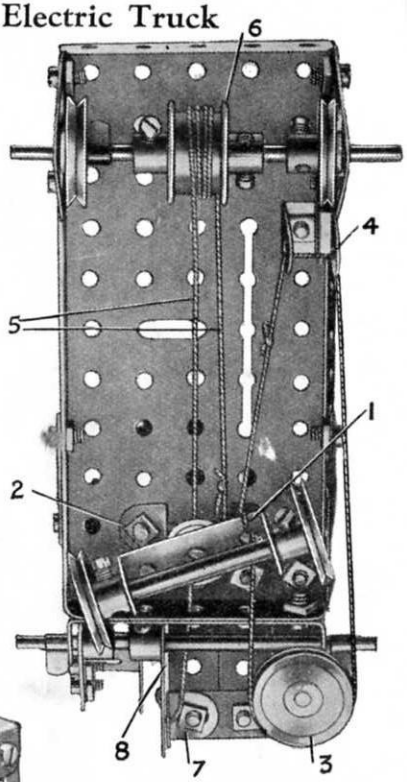


FIG. 2.45A

Parts required :

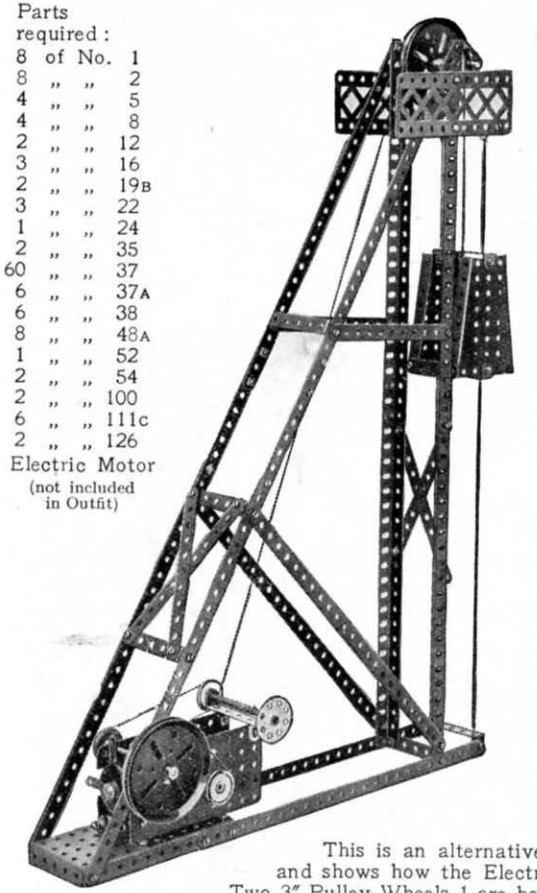
3	of No.	20B	1	of No.	45
4	„ „	22	1	„ „	48
1	„ „	22A	7	„ „	48A
1	„ „	23	1	„ „	52
4	„ „	35	2	„ „	62
35	„ „	37	3	„ „	90A
2	„ „	37A	1	„ „	111C
5	„ „	38	1	„ „	115
1	„ „	40	1	„ „	126
1	„ „	44	2	„ „	126A

Model No. 2.46 Pit Head Gear (Electrically Operated)

Parts required :

8	of No.	1
8	„ „	2
4	„ „	5
4	„ „	8
2	„ „	12
3	„ „	16
2	„ „	19B
3	„ „	22
1	„ „	24
2	„ „	35
60	„ „	37
6	„ „	37A
6	„ „	38
8	„ „	48A
1	„ „	52
2	„ „	54
2	„ „	100
6	„ „	111c
2	„ „	126

Electric Motor (not included in Outfit)



This is an alternative construction of the base of Model No. 2.46, and shows how the Electric Motor may be dispensed with if necessary. Two 3″ Pulley Wheels 1 are bolted together by four Double Brackets to form a drum on which the hoisting cord is wound. The cage is raised or lowered on operation of the handle 2, which is connected to the winding drum by an ordinary belt drive. The cage is prevented from overhauling by a hand brake that acts on the groove of a third 3″ Pulley Wheel 3. The brake normally is applied by the weight of the ½″ loose Pulley Wheel 4, which is secured to the end of a 5½″ Strip that is bolted to the crank 5.

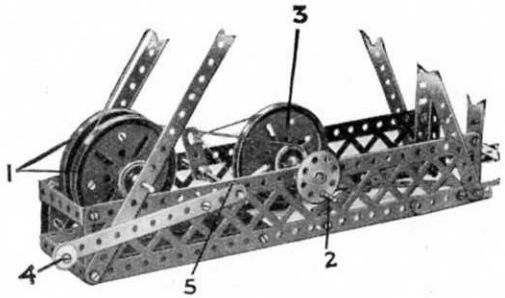
Parts required :

2	of No.	3	4	of No.	20B	1	of No.	52
10	„ „	5	3	„ „	22	2	„ „	54
2	„ „	10	1	„ „	22A	1	„ „	62
1	„ „	11	1	„ „	24	3	„ „	90A
3	„ „	12	5	„ „	35	2	„ „	100
3	„ „	16	60	„ „	37	4	„ „	111c
1	„ „	17	5	„ „	37A	1	„ „	125
1	„ „	18A	1	„ „	45	2	„ „	126A
2	„ „	19B	8	„ „	48A			

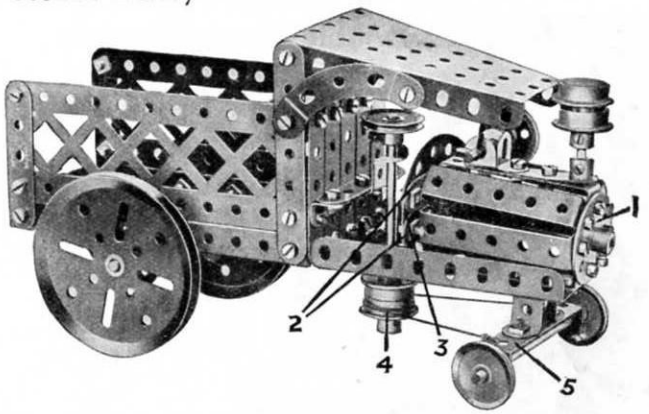
Model No. 2.47 Pit Head Gear (Hand Operated)

Parts required :

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



Model No. 2.48 Steam Lorry

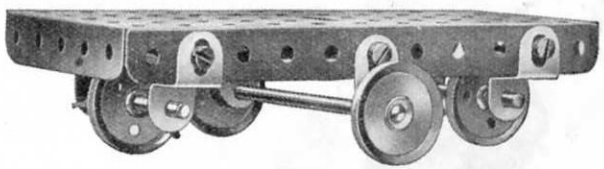


The boiler of the engine is built up of 2½″ × ½″ Double Angle Strips bolted to the Bush Wheel 1, and to two 2½″ Strips 2, which are joined together by Flat Brackets 3. A 2½″ Curved Strip (small radius) is bolted to the upper Strip 2. A cord is passed completely round two ¾″ Flanged Wheels 4 secured to the steering column, and its ends are tied to the 2½″ × ½″ Double Angle Strip 5. The Double Bent Strip bolted to the Strip 5 is pivoted by a bolt and two nuts to the Sector Plate.

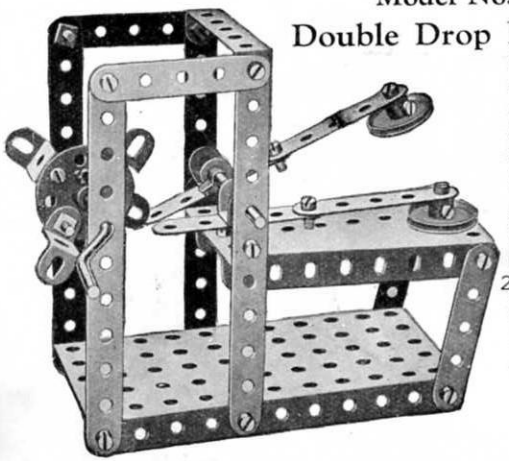
Model No. 2.49 Revolving Truck

Parts required :

1	of No.	16	2	of No.	22A	1	of No.	52
2	„ „	17	4	„ „	35	4	„ „	125
2	„ „	22	6	„ „	37			



Model No. 2.50
Double Drop Hammer



Parts required :

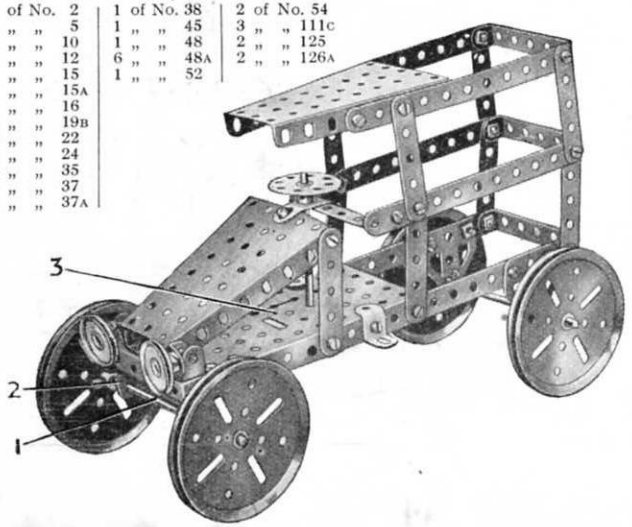
4	of No.	2
8	„ „	5
2	„ „	11
1	„ „	16
1	„ „	19s
2	„ „	22
1	„ „	24
6	„ „	35
23	„ „	37
2	„ „	48A
1	„ „	52
1	„ „	54
4	„ „	125

Model No. 2.51 Motor Van

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

Parts required :

6	of No.	2
10	„ „	5
1	„ „	10
2	„ „	12
1	„ „	15
1	„ „	15A
1	„ „	16
4	„ „	19B
3	„ „	22
1	„ „	24
5	„ „	35
35	„ „	37
2	„ „	37A
1	of No.	38
1	„ „	45
1	„ „	48
6	„ „	48A
1	„ „	52
2	of No.	54
3	„ „	111c
2	„ „	125
2	„ „	126A



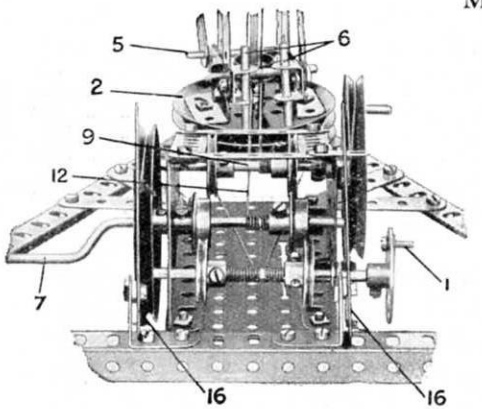
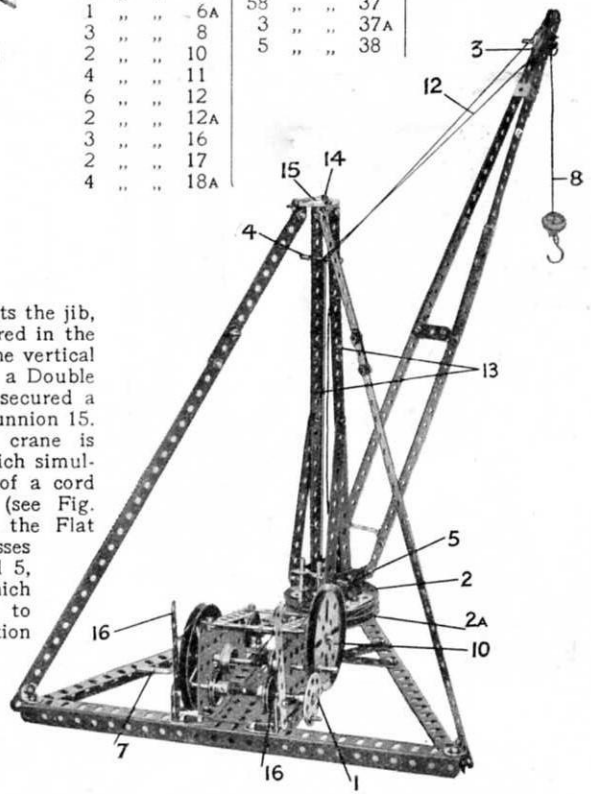


FIG. 2.52A

Model No. 2.52 Derrick

Parts required :

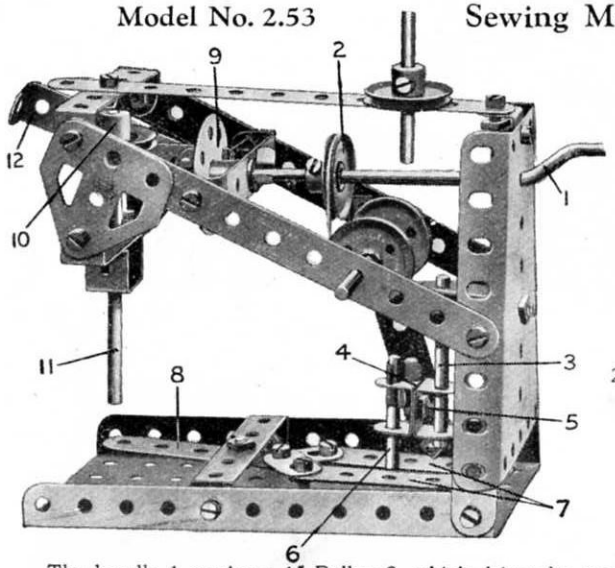
8	of No.	1
4	„ „	2
2	„ „	3
8	„ „	5
1	„ „	6A
3	„ „	8
2	„ „	10
4	„ „	11
6	„ „	12
2	„ „	12A
3	„ „	16
2	„ „	17
4	„ „	18A
4	of No.	19B
4	„ „	20B
4	„ „	22
1	„ „	23
1	„ „	24
11	„ „	35
58	„ „	37
3	„ „	37A
5	„ „	38
1	of No.	52
2	„ „	54
1	„ „	57c
1	„ „	111c
1	„ „	115
2	„ „	126



The 3" Pulley Wheel 2, which supports the jib, is free to turn on a short Axle Rod secured in the boss of the lower 3" Pulley Wheel 2a. The vertical $12\frac{1}{2}$" Strips 13 are bolted at their tops to a Double Bracket, to the centre hole of which is secured a Bolt 14 that is free to turn in the Flat Trunnion 15.

The swivelling movement of the crane is carried out by turning the handle 1, which simultaneously winds and unwinds the ends of a cord passing round the 3" Pulley Wheel 2 (see Fig. 2.52A). The cord 12, which is tied to the Flat Bracket 3 at the head of the jib passes over the 2" Rod 4, under a similar Rod 5, and between two vertical 2" Rods 6, which act as guides, and is finally wound on to the Crank Handle 7. Hence on operation of the latter the jib is raised or lowered. The cord 8 also passes round the Rods 4, 5 and 6, and is wound on to the Rod 9. Operation of the handle 10 raises and lowers the hook. The cords 8 and 12 are prevented from unwinding by band-and-pulley brakes 16.

Model No. 2.53 Sewing Machine



Parts required :

3	of	No.	2
6	„	„	5
3	„	„	10
2	„	„	11
3	„	„	12
2	„	„	16
2	„	„	17
1	„	„	18A
1	„	„	19S
4	„	„	22
2	„	„	22A
1	„	„	24
5	„	„	35
24	„	„	37
3	„	„	38
1	„	„	44
5	„	„	48A
1	„	„	52
1	„	„	54
2	„	„	125
2	„	„	126A

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

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

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

Model No. 2.54 Anti-Aircraft Gun

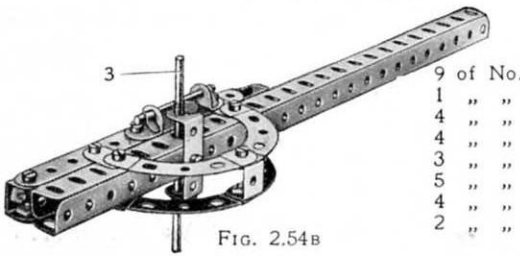


FIG. 2.54B

Parts required :

9	of	No.	2	1	of	No.	19B	4	of	No.	48A
1	„	„	6A	4	„	„	20B	1	„	„	52
4	„	„	8	4	„	„	22	2	„	„	54
4	„	„	10	1	„	„	24	4	„	„	90A
3	„	„	11	8	„	„	35	1	„	„	115
5	„	„	12	57	„	„	37	2	„	„	126
4	„	„	16	6	„	„	38	2	„	„	126A
2	„	„	17	1	„	„	44				

The general construction of the model will be made clear by reference to Figures 2.54A and 2.54B. Rotation of the handle 1 causes the gun to revolve on the 3″ Pulley Wheel 2. The barrel of the gun is so balanced on the Axle Rod 3 that it tends to fall by its own weight, but is prevented from doing so by a cord 4 tied to the gun close to the breech and wound on the 3½″ Rod 5. By turning the Pulley Wheels 6 the muzzle is raised or allowed to fall.

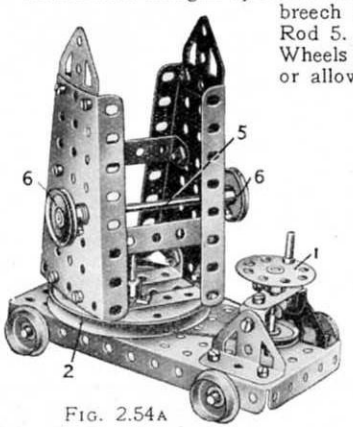
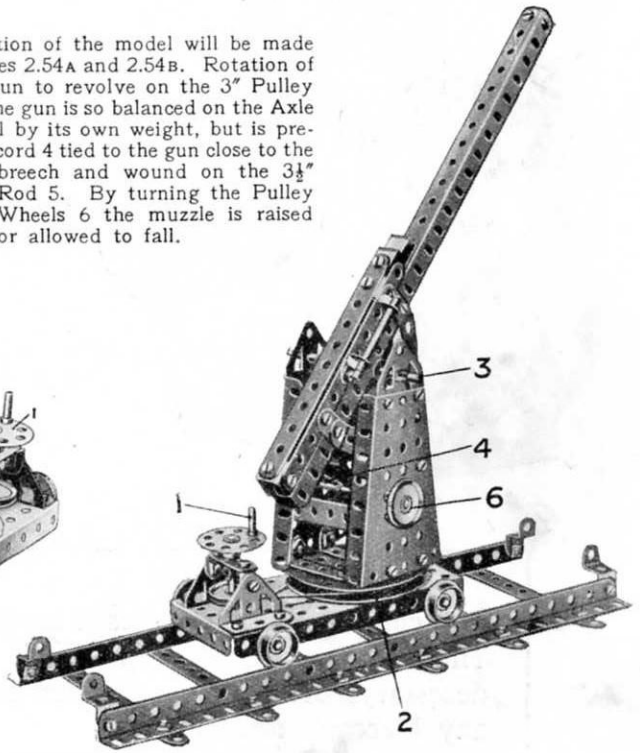
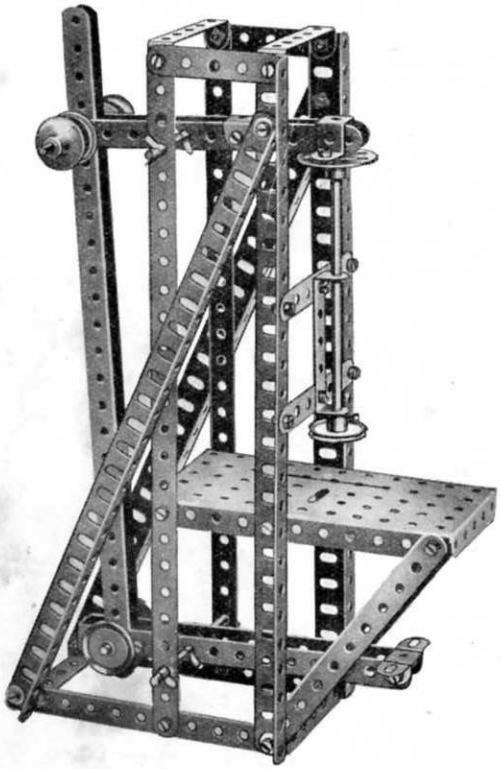


FIG. 2.54A



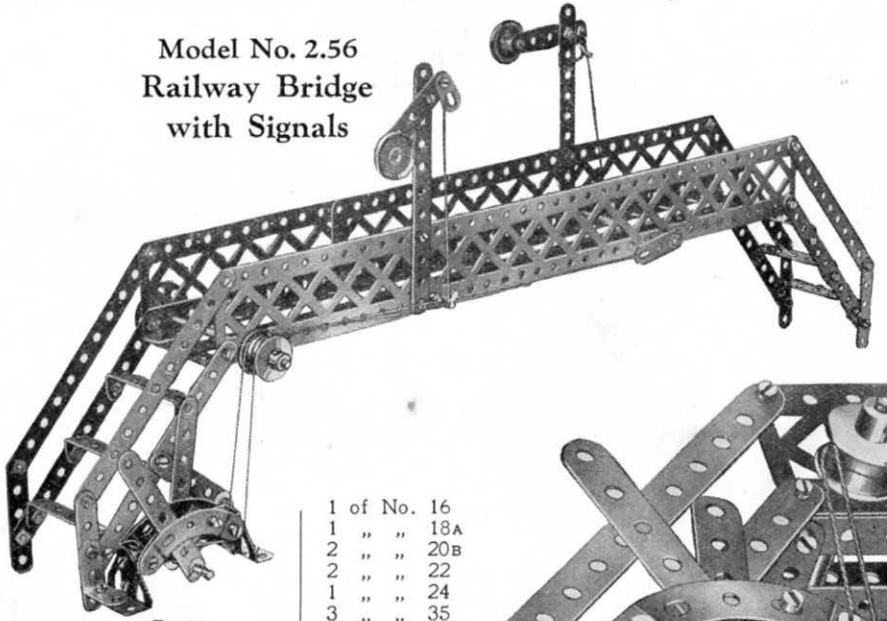
Model No. 2.55 Embossing Machine



Parts required :

4	of	No.	1
8	„	„	2
2	„	„	3
2	„	„	5
4	„	„	8
3	„	„	11
2	„	„	12
1	„	„	15
3	„	„	16
1	„	„	18A
4	„	„	20B
3	„	„	22
1	„	„	24
10	„	„	35
34	„	„	37
8	„	„	38
1	„	„	45
5	„	„	48A
1	„	„	52

Model No. 2.56 Railway Bridge with Signals



Parts required :

2	of	No.	1
10	„	„	2
2	„	„	3
10	„	„	5
4	„	„	8
2	„	„	10
3	„	„	11
2	„	„	12A
1	„	„	15A
1	of	No.	16
1	„	„	18A
2	„	„	20B
2	„	„	22
1	„	„	24
3	„	„	35
60	„	„	37
3	„	„	37A
6	„	„	38
7	„	„	48A
2	„	„	62
4	„	„	90A
2	„	„	99
2	„	„	100
3	„	„	111C
1	„	„	115
2	„	„	126

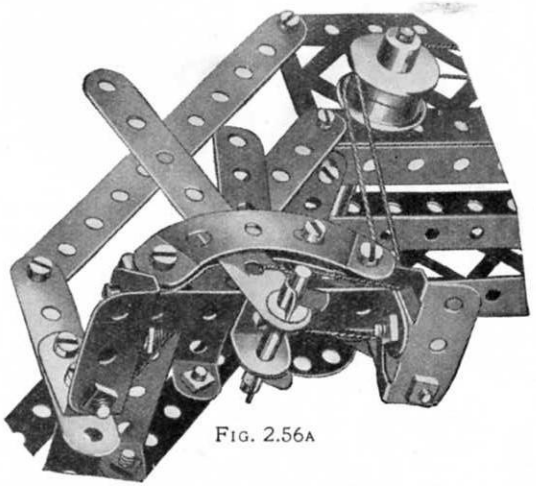


FIG. 2.56A

HOW TO CONTINUE

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

MECCANO

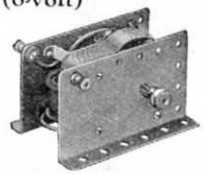
MOTORS AND ACCESSORIES

In order to obtain the fullest possible enjoyment from the Meccano hobby the models should be operated with a Meccano power unit. The side plates and bases are pierced with the standard Meccano equidistant holes, which enable the motors or the steam engine to be built into any Meccano model in the position that is most suitable.

MECCANO ELECTRIC MOTOR

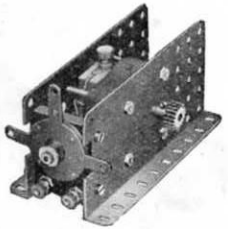
No. E. 1 (6-volt)

This is a highly efficient electric motor (non-reversing) that will give excellent service. A 6-volt Accumulator will operate it, but it may also be driven from the mains (alternating current only) through the Transformer described on this page.



MECCANO ELECTRIC MOTOR

No. E. 6 (6-volt)



This powerful and reliable 6-volt Motor may be run from a 6-volt accumulator or by employing the Transformer described on this page, from the mains. It is fitted with a control mechanism that enables the motor to be started, stopped or reversed as desired.

NOTE.—The above Electric Motors will not run satisfactorily from dry cells.

MECCANO ACCUMULATOR

The Meccano Accumulator (6-volt, 20 amps.), is of substantial construction and is specially recommended for running the Meccano 6-volt Electric Motors.

MECCANO RESISTANCE CONTROLLER

By employing this variable resistance the speed of the Meccano 6-volt Electric Motors may be regulated as desired.

MECCANO 20-volt ELECTRIC MOTORS

No. 20a—Non-Reversing

No. 20b—Reversing

These motors are similar in design to the No. E. 6 Motor. They are intended to be run from the mains through a 20-volt Meccano Transformer.

MECCANO STEAM ENGINE

Strong - Powerful

Safe - Reversing

On actual test this powerful steam unit has lifted over 56 lbs. Operation of the reversing lever enables the crankshaft, which is fitted with a special compensating flywheel, to run in either direction. The spirit container for the lamp is placed well outside the boiler-casing, eliminating all risk of the spirit becoming heated. There is no danger whatever of the boiler exploding.

TRANSFORMER

By means of this transformer the Meccano 6-volt Electric Motors may be driven from the main supply (alternating current only). It is available for all standard supply voltages, from 100 to 250 inclusive, at all standard frequencies.

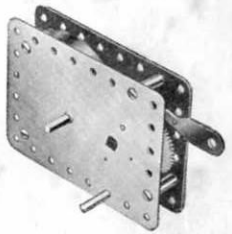
MECCANO 20-volt TRANSFORMERS

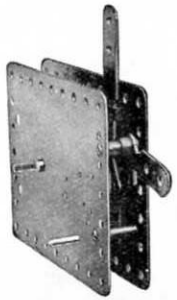
The Meccano 20-volt Transformers have been specially made for use with the Meccano 20-volt Motors. They can be obtained with either 20 watts or 35 watts output, 50 to 60 cycles only.

MECCANO CLOCKWORK MOTOR No. 1

(Non-Reversing)

A long-running and highly efficient clockwork motor (non-reversing), fitted with a brake lever by means of which it may be stopped and started, as desired.





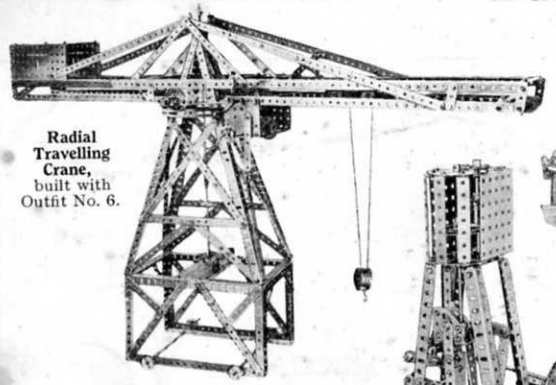
MECCANO CLOCKWORK MOTOR No. 2

(Reversing)

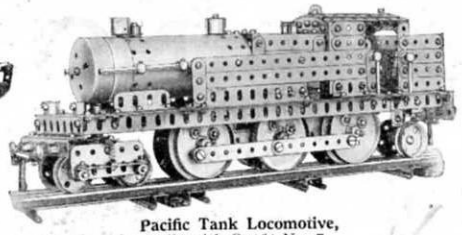
This strongly-built clockwork motor is a compact self-contained power unit. Brake and reverse levers enable the motor to be stopped, started and reversed, as required.

Ask your dealer for a Meccano price list, and keep it by you for reference.

Build Bigger and Better Models

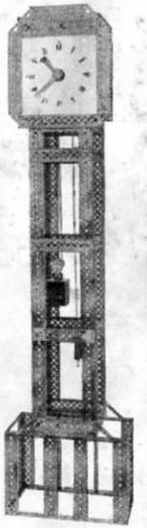


Radial Travelling Crane, built with Outfit No. 6.

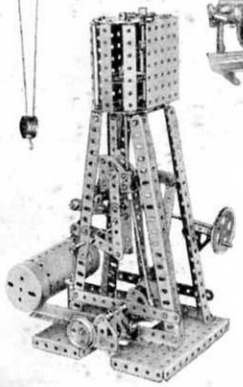


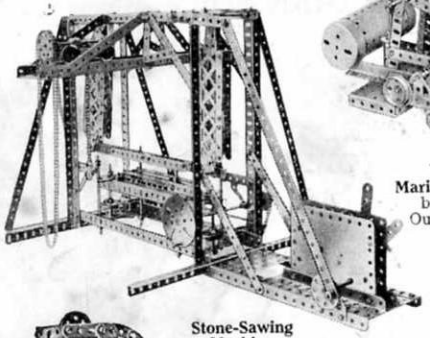
Pacific Tank Locomotive, built with Outfit No. 7.

Racing Seaplane, built with Outfit No. 7.



Grandfather Clock, built with Outfit No. 7.





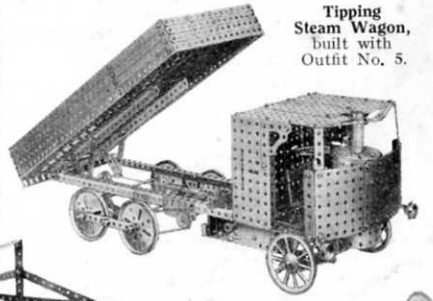
Vertical Marine Engine, built with Outfit No. 5.

Keep Adding to your Outfit

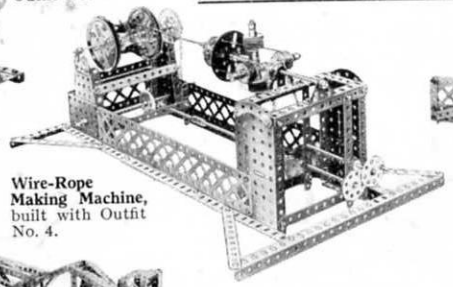
The more Meccano parts you have, the bigger and better the models you are able to build. Keen and enthusiastic model-builders keep adding to their Outfits, until they are able to build all the wonderful models shown in the Meccano Manuals.

The model-building possibilities of the Meccano System are limitless. All the fine models illustrated on this page are examples of the types you will be able to build as your Outfit develops.

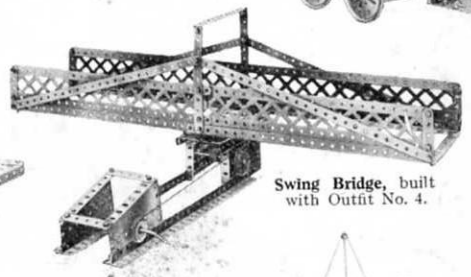
You can purchase separate Meccano parts as you require them, or, if you prefer, you can purchase Accessory Outfits that connect all the main Outfits.



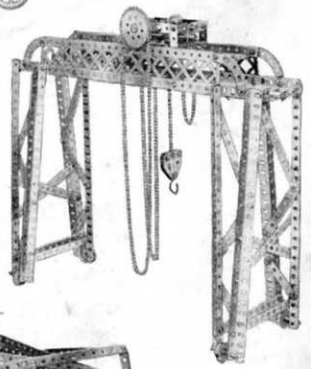
Tipping Steam Wagon, built with Outfit No. 5.



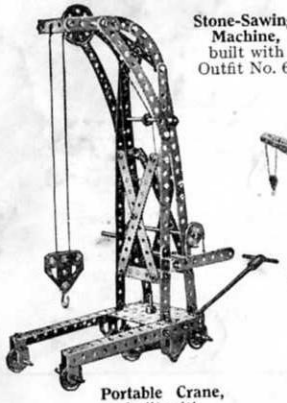
Wire-Rope Making Machine, built with Outfit No. 4.



Swing Bridge, built with Outfit No. 4.

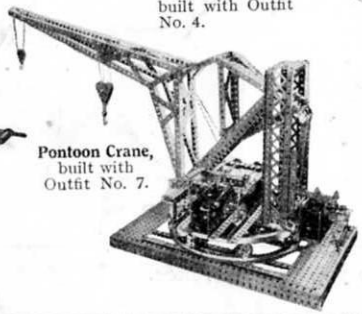


Gantry Crane, built with Outfit No. 5.

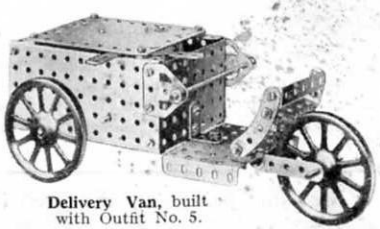


Stone-Sawing Machine, built with Outfit No. 6.

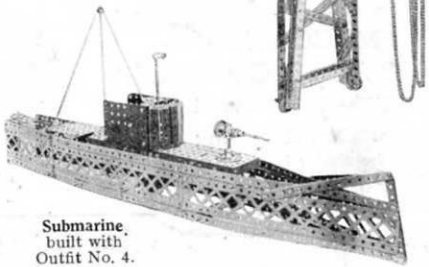
Portable Crane, built with Outfit No. 6.



Pontoon Crane, built with Outfit No. 7.



Delivery Van, built with Outfit No. 5.



Submarine, built with Outfit No. 4.

Ask your dealer for complete illustrated price lists of Meccano Parts and Accessory Outfits and keep these by you for reference.