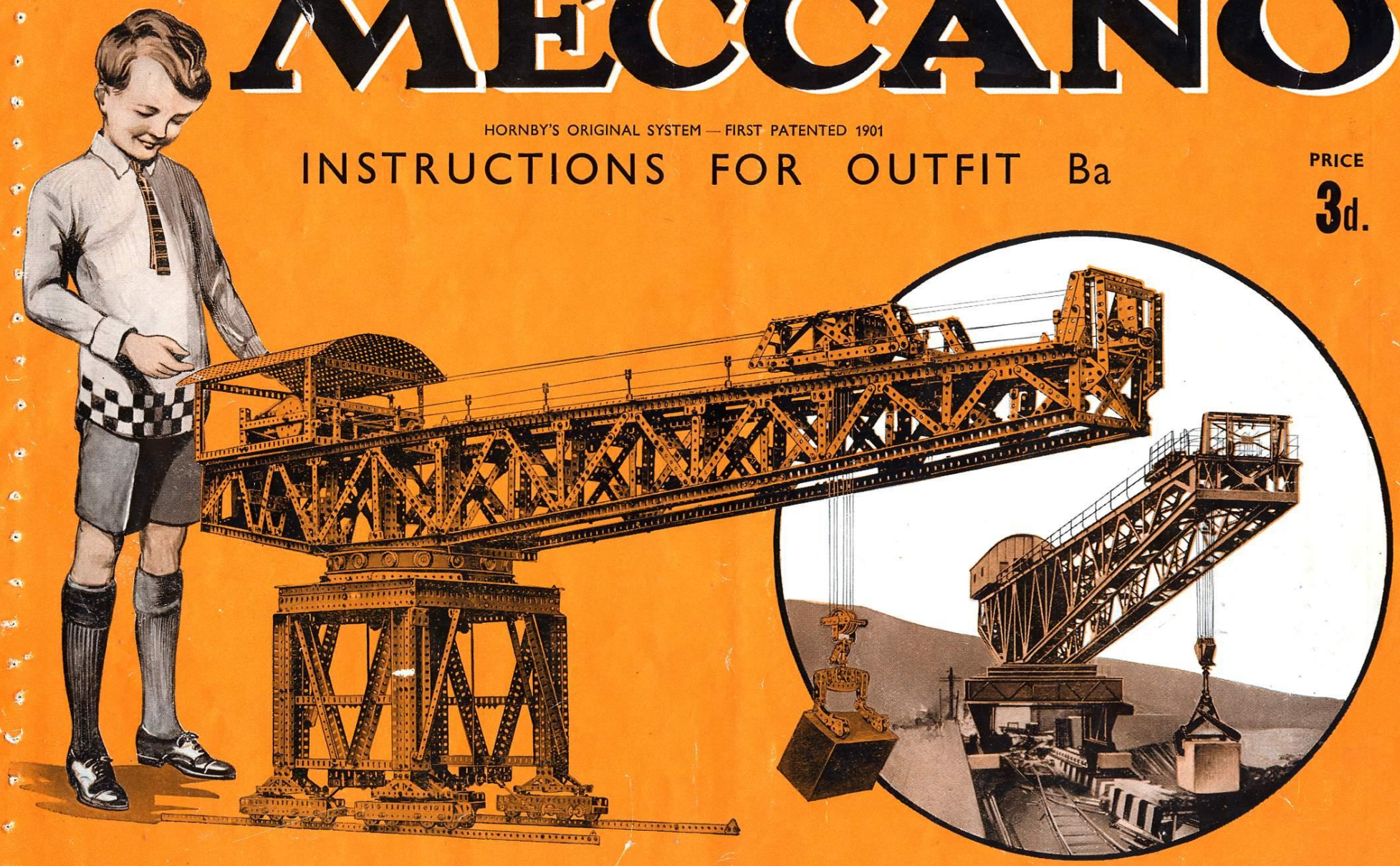
MECCANO

HORNBY'S ORIGINAL SYSTEM — FIRST PATENTED 1901

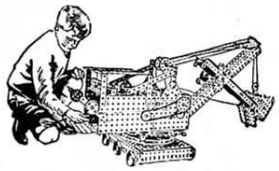
INSTRUCTIONS FOR OUTFIT Ba

PRICE **3d.**

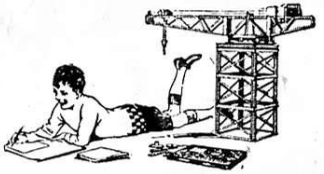


36Ba

13/636/3.25 (U.K.)



MECCANO



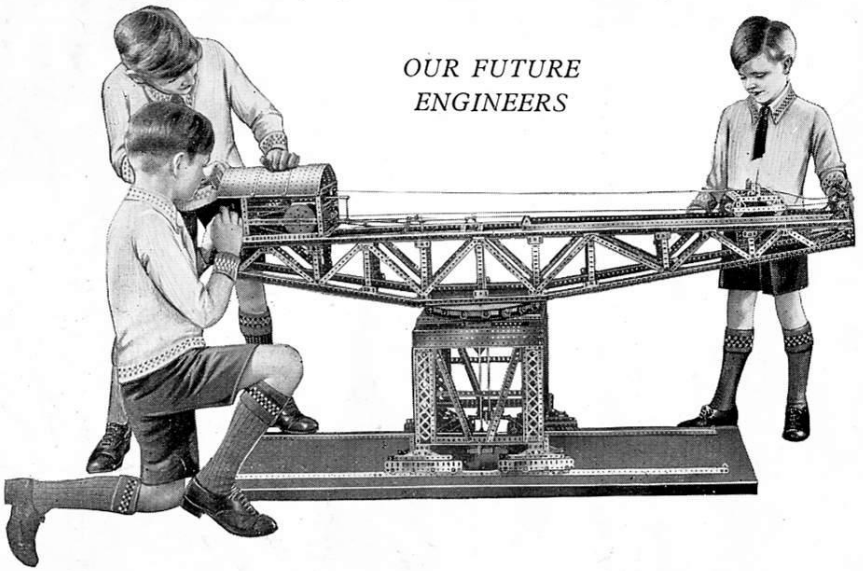
REAL ENGINEERING FOR BOYS

REAL ENGINEERING IN MINIATURE

The Meccano Accessory Outfit Ba converts your Outfit B into a C, and enables you to build the additional models illustrated in this Manual. As a Meccano enthusiast you will realise that our examples do not exhaust the scope of your Outfit. It is no exaggeration to say that the possibilities of Meccano are limitless—there is always something new that you can invent and build, and most models can be constructed in many alternative ways. In addition to the fascination and satisfaction obtained by building new models, you can enter them in the model-building competitions that are a regular feature of the "Meccano Magazine." These competitions are open to all Meccano boys and valuable prizes are offered in each class.

THE "MECCANO MAGAZINE"

The "Meccano Magazine" is essential to the full enjoyment of the Meccano hobby. A section of it is devoted to the Editor's replies to his readers' enquiries ; the progress of Meccano Clubs throughout the world is reported ; and full details are given of the latest model-building achievements. In addition, a wealth of informative articles on all subjects of interest to boys is included in every issue. The publishing date is the first of each month. If you are not already a reader of the "Meccano Magazine" write to the Editor for full particulars, or order a copy from your Meccano dealer or newsagent.



OUR FUTURE ENGINEERS

HOW TO PROGRESS

When you desire to make further progress and to build bigger and better models, it is only necessary for you to purchase an Accessory Outfit Ca which will convert your C into a D. In turn, an Accessory Outfit Da will convert your D into a E, and so you go on, until finally your ambition is realised and you are the proud possessor of an L Outfit.

As a keen and inventive Meccano model-builder you should possess a copy of the special Manual "Meccano Standard Mechanisms," which shows a large number of real engineering mechanisms, built of Meccano parts, that can be incorporated in various models. You can obtain a copy of this Manual from your dealer, or direct from Meccano Ltd., Binns Road, Liverpool 13.

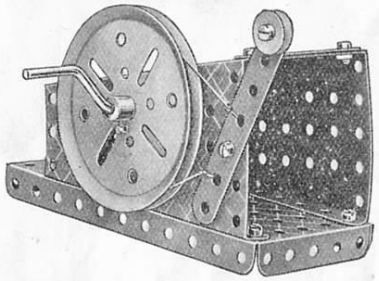
MECCANO SERVICE

The service of Meccano does not end with selling an Outfit and an Instruction Manual. When you want to know something more about engineering than is now shown in our books, or when you strike a tough problem of any kind, write to us. We receive over 200 letters from boys every day, all the year round. Some write to us because they are in difficulty, others because they want advice on their work or pleasures, or about the choice of a career. Others, again, write to us just because they like to do so and we are glad to know that they regard us as their friends.

Although all kinds of queries are put to us on all manner of subjects, the main interest is, of course, engineering. The wonderful knowledge of engineering matters possessed by our staff of experts is unique. This vast store of knowledge, gained only by many years of hard-earned experience, is at your service. *We want the Meccano boy of to-day to be the famous engineer of to-morrow.*

IMPORTANT :—Meccano Parts can be bought separately at any time in any quantity from your Meccano dealer

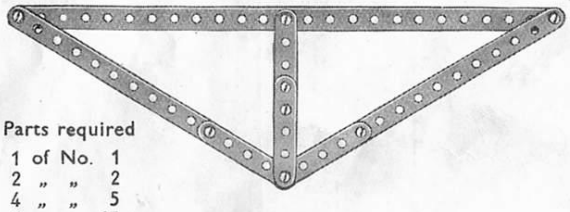
C1. Band Brake



Parts required

1	of No.	3
2	„ „	5
1	„ „	19s
1	„ „	19b
1	„ „	22
1	„ „	23
9	„ „	37
2	„ „	37a
3	„ „	38
1	„ „	40
1	„ „	52
2	„ „	54a
1	„ „	111c
1	„ „	191

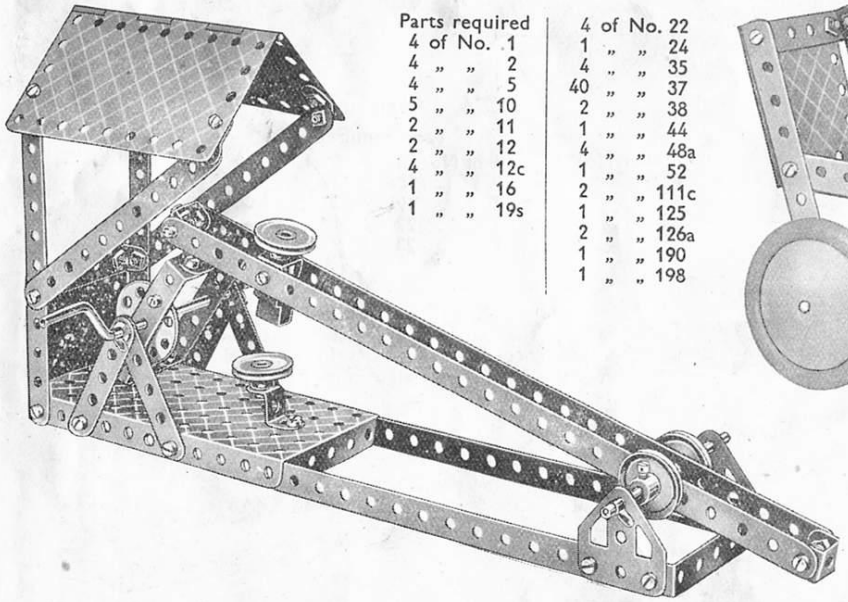
C2. Triangulated Truss



Parts required

1	of No.	1
2	„ „	2
4	„ „	5
8	„ „	37

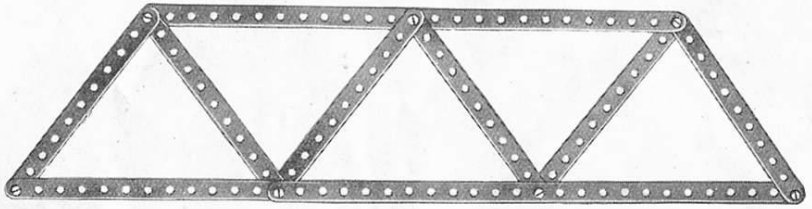
C3. Helve Hammer



Parts required

4	of No.	1
4	„ „	2
4	„ „	5
5	„ „	10
2	„ „	11
2	„ „	12
4	„ „	12c
1	„ „	16
1	„ „	19s
4	of No.	22
1	„ „	24
4	„ „	35
40	„ „	37
2	„ „	38
1	„ „	44
4	„ „	48a
1	„ „	52
2	„ „	111c
1	„ „	125
2	„ „	126a
1	„ „	190
1	„ „	198

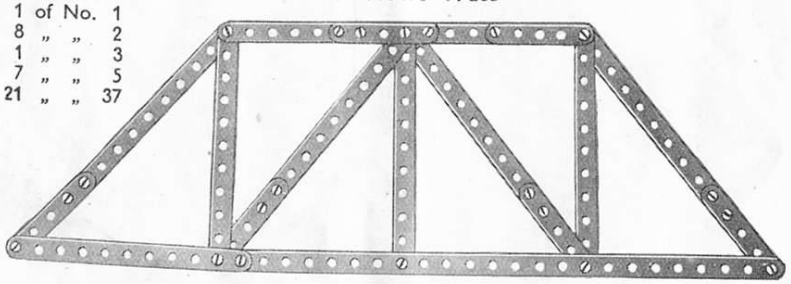
C4. Compound Triangulated Truss



Parts required

3 of No. 1 | 6 of No. 2 | 7 of No. 37

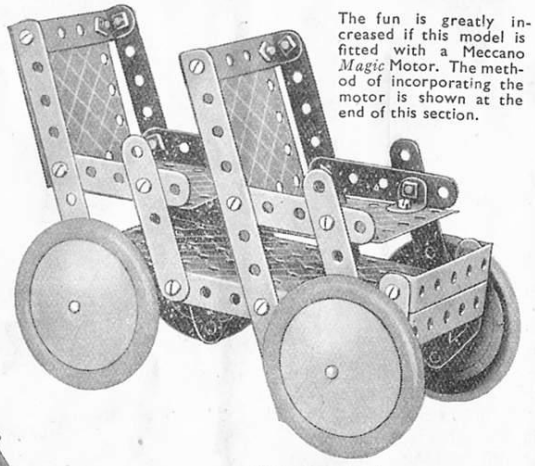
C5. Howe Truss



Parts required

1	of No.	1
8	„ „	2
1	„ „	3
7	„ „	5
21	„ „	37

C6. Tandem Car



The fun is greatly increased if this model is fitted with a Meccano *Magic* Motor. The method of incorporating the motor is shown at the end of this section.

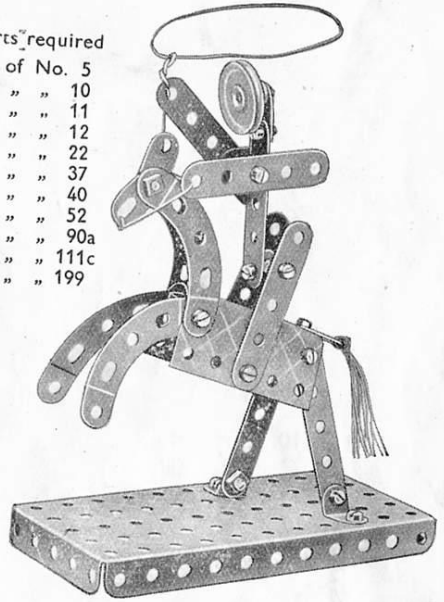
Parts required

4	of No.	2
8	„ „	5
4	„ „	12
2	„ „	15b
34	„ „	37
4	of No.	48a
1	„ „	52
2	„ „	126a
4	„ „	187
4	„ „	190

C7. Mounted Cowboy

Parts required

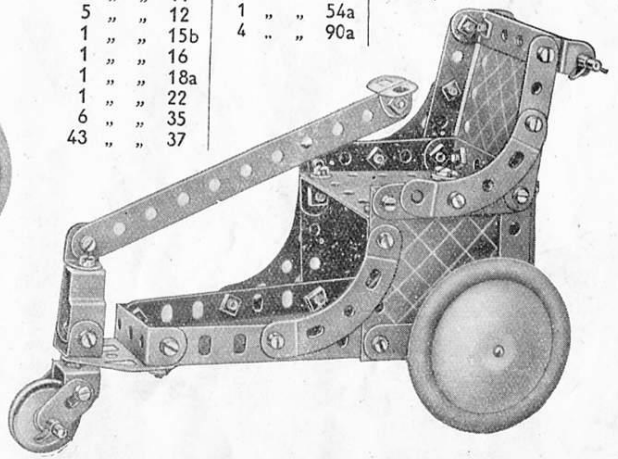
7	of No.	5
4	„ „	10
2	„ „	11
7	„ „	12
1	„ „	22
22	„ „	37
1	„ „	40
1	„ „	52
4	„ „	90a
1	„ „	111c
1	„ „	199

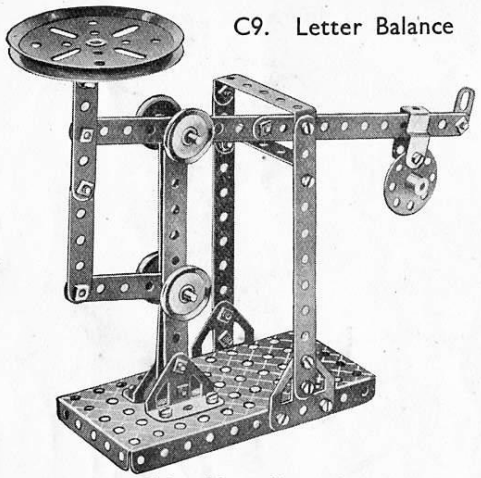


C8. Bath Chair

Parts required

1	of No.	2
9	„ „	5
4	„ „	10
2	„ „	11
5	„ „	12
1	„ „	15b
1	„ „	16
1	„ „	18a
1	„ „	22
6	„ „	35
43	„ „	37
4	of No.	37a
8	„ „	38
1	„ „	44
1	„ „	48
5	„ „	48a
1	„ „	54a
4	„ „	90a
1	of No.	111c
1	„ „	126a
2	„ „	187
3	„ „	190
1	„ „	191



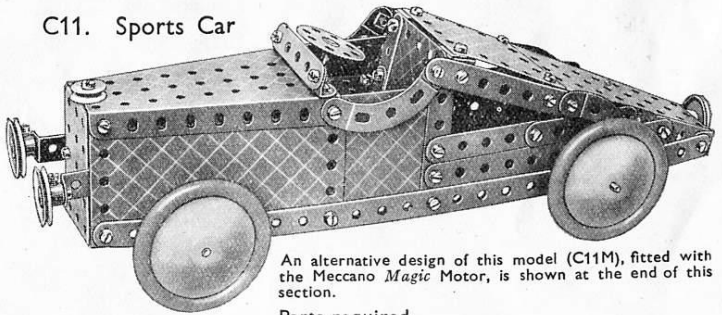


C9. Letter Balance

Parts required

6	of No.	2
4	„ „	5
1	„ „	10
1	„ „	12
2	„ „	18a
1	„ „	19b
4	„ „	22
1	„ „	24
2	„ „	35
26	„ „	37
4	„ „	37a
2	„ „	38
1	„ „	44
2	„ „	48a
1	„ „	52
2	„ „	111c
2	„ „	126
2	„ „	126a

C11. Sports Car

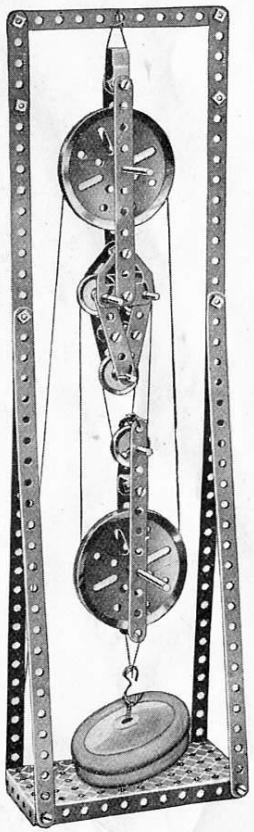


An alternative design of this model (C11M), fitted with the Meccano *Magic* Motor, is shown at the end of this section.

Parts required

2	of No.	1	4	of No.	22	1	of No.	48	4	of No.	111c
4	„ „	2	1	„ „	23	2	„ „	48a	2	„ „	125
9	„ „	5	1	„ „	24	1	„ „	51	2	„ „	126a
2	„ „	10	2	„ „	35	1	„ „	52	4	„ „	187
8	„ „	12	55	„ „	37	2	„ „	54a	4	„ „	190
2	„ „	15b	1	„ „	37a	4	„ „	90a	2	„ „	191
1	„ „	16	2	„ „	38						

C13. Pulley Block, 5:1



Parts required

4	of No.	1
7	„ „	2
6	„ „	5
2	„ „	11
2	„ „	12
2	„ „	16
2	„ „	17
2	„ „	18a
2	„ „	19b
4	„ „	22
6	„ „	35
24	„ „	37
2	„ „	38
1	„ „	40
1	„ „	44
1	„ „	52
1	„ „	57c
2	„ „	126a
2	„ „	187

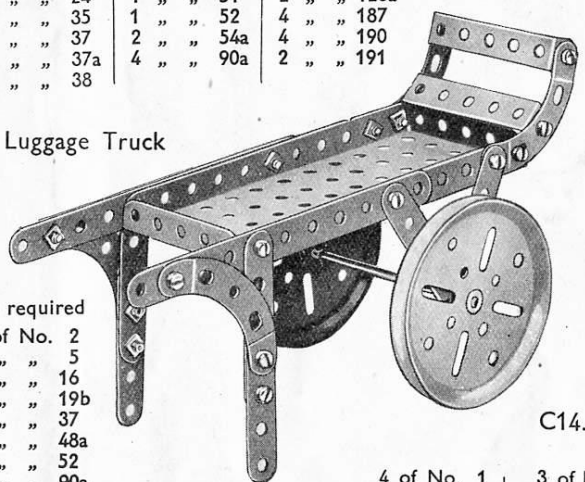
C10. Travelling Crane

Parts required

4	of No.	1	4	of No.	22	1	of No.	111c
5	„ „	2	1	„ „	23	2	„ „	125
9	„ „	5	1	„ „	24	2	„ „	126
1	„ „	11	4	„ „	35	2	„ „	126a
8	„ „	12	55	„ „	37	1	„ „	176
1	„ „	15b	6	„ „	37a	2	„ „	190
2	„ „	16	1	„ „	48	1	„ „	191
1	„ „	18a	3	„ „	48a	1	„ „	197
1	„ „	19s	1	„ „	52			
2	„ „	19b	1	„ „	57c			

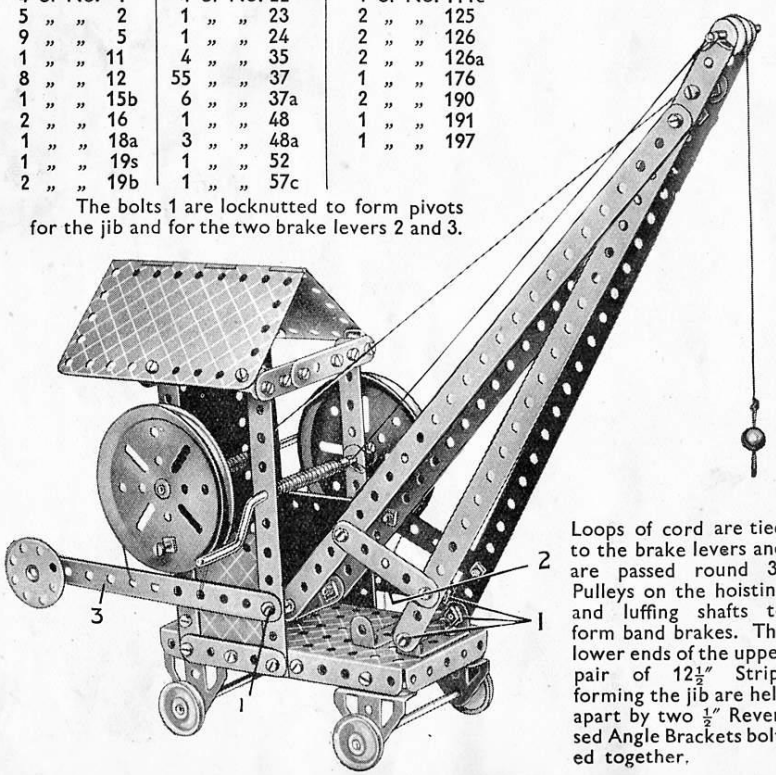
The bolts 1 are locknutted to form pivots for the jib and for the two brake levers 2 and 3.

C12. Luggage Truck



Parts required

2	of No.	2
8	„ „	5
1	„ „	16
2	„ „	19b
18	„ „	37
2	„ „	48a
1	„ „	52
4	„ „	90a



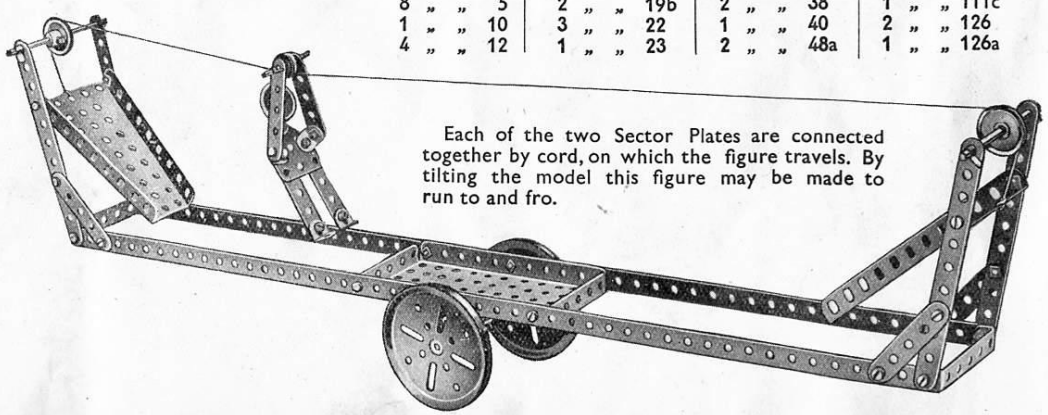
Loops of cord are tied to the brake levers and are passed round 3″ Pulleys on the hoisting and luffing shafts to form band brakes. The lower ends of the upper pair of 12½″ Strips forming the jib are held apart by two ½″ Reversed Angle Brackets bolted together.

C14. Aerial Flight

Parts required

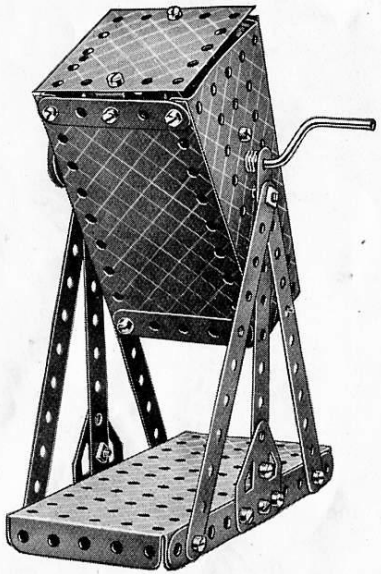
4	of No.	1	3	of No.	16	6	of No.	35
4	„ „	2	1	„ „	18a	33	„ „	37
8	„ „	5	2	„ „	19b	2	„ „	38
1	„ „	10	3	„ „	22	1	„ „	40
4	„ „	12	1	„ „	23	2	„ „	48a

1	of No.	52			
2	„ „	54a			
1	„ „	111c			
2	„ „	126			
1	„ „	126a			



Each of the two Sector Plates are connected together by cord, on which the figure travels. By tilting the model this figure may be made to run to and fro.

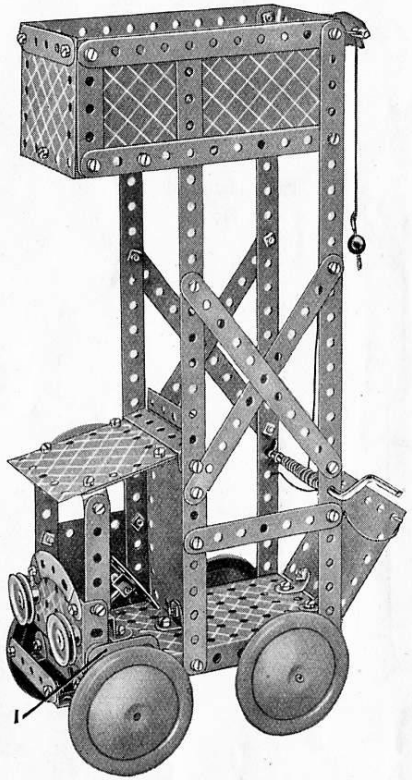
C15. Butter Churn



Parts required

8 of No.	2	1 of No.	48a
4 „ „	5	1 „ „	51
4 „ „	12	1 „ „	52
1 „ „	22	2 „ „	54a
1 „ „	24	2 „ „	126a
32 „ „	37	1 „ „	190
8 „ „	38	2 „ „	191

C16. Tower Wagon

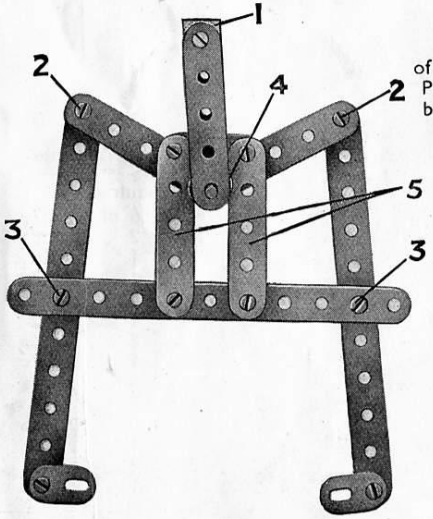


Parts required

4 of No.	1
8 „ „	2
1 „ „	3
9 „ „	5
2 „ „	11
7 „ „	12
2 „ „	12c
1 „ „	15b
1 „ „	16
2 „ „	18a
1 „ „	19s
2 „ „	22
1 „ „	23
1 „ „	24
6 „ „	35
61 „ „	37
3 „ „	38
1 „ „	40
1 „ „	44
6 „ „	48a
1 „ „	51
1 „ „	52
1 „ „	57c
2 „ „	90a
2 „ „	111c
1 „ „	125
2 „ „	126
2 „ „	126a
4 „ „	187
4 „ „	190
1 „ „	191
2 „ „	192

The headlamps (1″ Pulleys) are fixed in position by means of $\frac{3}{8}$″ Bolts secured by the Set Screws in the bosses of the Pulleys. The front axle is carried in Flat Trunnions 1 bolted by their centre holes to the Flanged Plate.

C17. Friction Grip Tongs



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

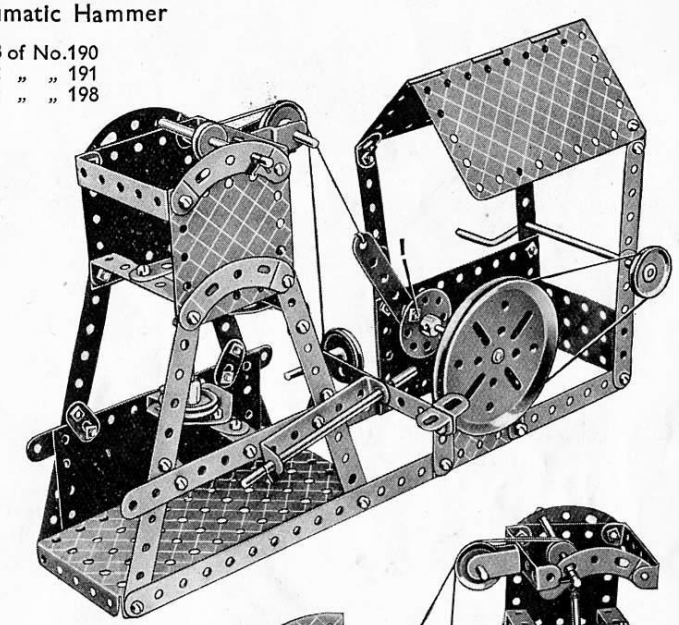
Parts required

3 of No.	2	1 of No.	23
5 „ „	5	2 „ „	35
4 „ „	10	12 „ „	37
1 „ „	11	4 „ „	37a
1 „ „	18a	4 „ „	38

C18. Pneumatic Hammer

Parts required

2 of No.	1	3 of No.	190
8 „ „	2	2 „ „	191
1 „ „	3	1 „ „	198
9 „ „	5		
5 „ „	10		
4 „ „	12		
3 „ „	12c		
2 „ „	15b		
1 „ „	16		
2 „ „	18a		
1 „ „	19s		
1 „ „	19b		
4 „ „	22		
1 „ „	23		
1 „ „	24		
6 „ „	35		
52 „ „	37		
2 „ „	37a		
1 „ „	40		
1 „ „	44		
6 „ „	48a		
1 „ „	51		
1 „ „	52		
4 „ „	90a		
1 „ „	111c		
1 „ „	125		
2 „ „	126a		
1 „ „	176		



A 3″ Pulley Wheel is driven from a 1″ Pulley on the Crank Handle and is fitted to a Rod journalled in a $2\frac{1}{2}$″ Strip and Double Bent Strip 2 that are bolted to a $2\frac{1}{2}$″ × $2\frac{1}{2}$″ Flexible Plate. A Bush Wheel is fitted on the other end of the Rod and a $2\frac{1}{2}$″ Strip is pivoted on the bolt 1 fixed by two nuts locked against opposite sides of the Bush Wheel. Cord is tied to the $2\frac{1}{2}$″ Strip, passes over guide Pulleys, and is tied to an Anchoring Spring on the upper end of the hammer Rod.

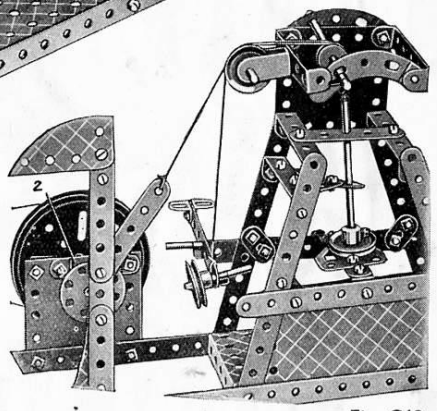
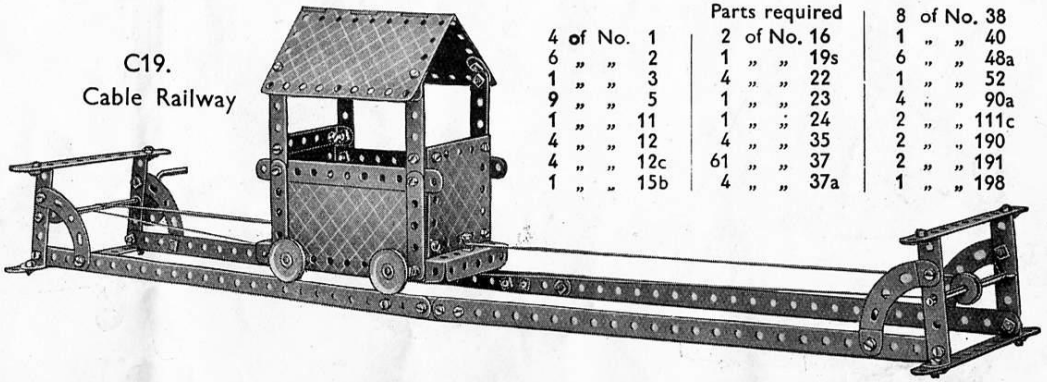


Fig. C18a

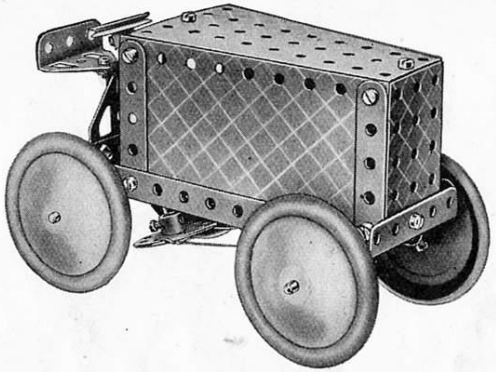
C19. Cable Railway



Parts required

4 of No.	1	2 of No.	16	8 of No.	38
6 „ „	2	1 „ „	19s	1 „ „	40
1 „ „	3	4 „ „	22	6 „ „	48a
9 „ „	5	1 „ „	23	1 „ „	52
1 „ „	11	1 „ „	24	4 „ „	90a
4 „ „	12	4 „ „	35	2 „ „	111c
4 „ „	12c	61 „ „	37	2 „ „	190
1 „ „	15b	4 „ „	37a	2 „ „	191
				1 „ „	198

C20. Motor Tractor



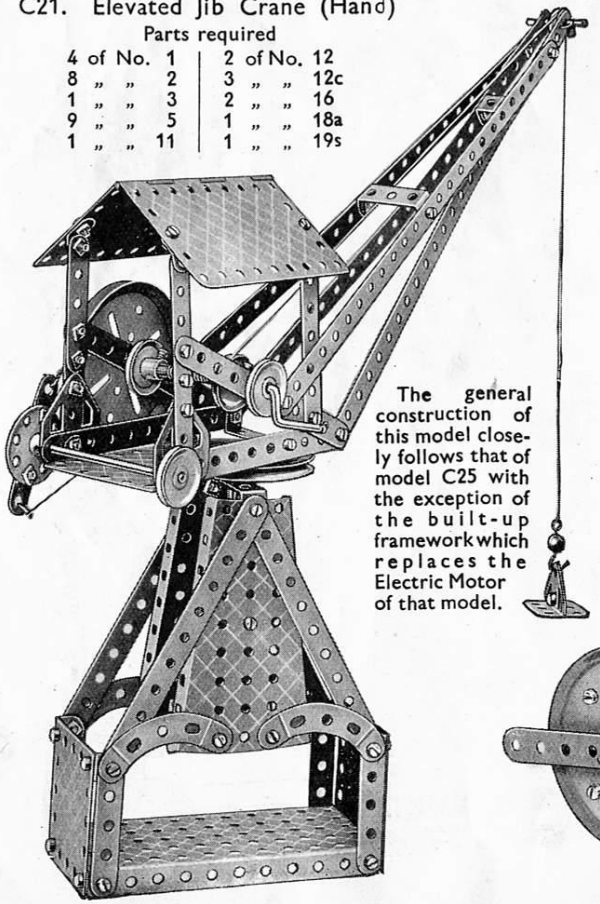
Parts required

4 of No.	5
1 „ „	10
2 „ „	12
2 „ „	15b
1 „ „	16
1 „ „	22
1 „ „	24
1 „ „	35
18 „ „	37
2 „ „	37a
1 „ „	40
3 „ „	48a
1 „ „	51
1 „ „	52
1 „ „	54a
1 „ „	111c
1 „ „	126
1 „ „	126a
4 „ „	187
2 „ „	191

C21. Elevated Jib Crane (Hand)

Parts required

4 of No.	1	2 of No.	12
8 „ „	2	3 „ „	12c
1 „ „	3	2 „ „	16
9 „ „	5	1 „ „	18a
1 „ „	11	1 „ „	19s

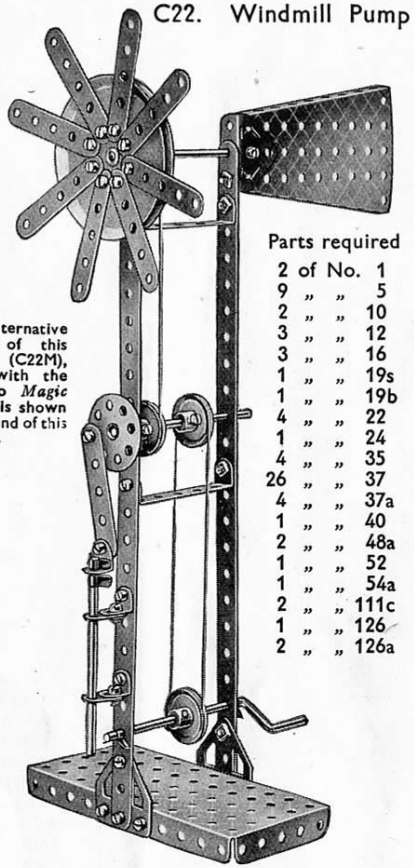


The general construction of this model closely follows that of model C25 with the exception of the built-up framework which replaces the Electric Motor of that model.

Parts required for C21 (continued)

2 of No.	19b
4 „ „	22
1 „ „	23
1 „ „	24
4 „ „	35
56 „ „	37
2 „ „	37a
4 „ „	38
1 „ „	40
1 „ „	48
6 „ „	48a
1 „ „	52
2 „ „	54a
1 „ „	57c
4 „ „	90a
2 „ „	111c
2 „ „	126
2 „ „	126a
1 „ „	176
2 „ „	190
1 „ „	191
1 „ „	198

C22. Windmill Pump



An alternative design of this model (C22M), fitted with the Meccano *Magic* Motor, is shown at the end of this section.

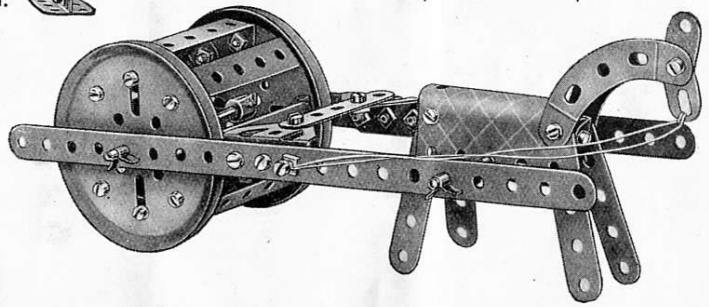
Parts required

2 of No.	1
9 „ „	5
2 „ „	10
3 „ „	12
3 „ „	16
1 „ „	19s
1 „ „	19b
4 „ „	22
1 „ „	24
4 „ „	35
26 „ „	37
4 „ „	37a
1 „ „	40
2 „ „	48a
1 „ „	52
1 „ „	54a
2 „ „	111c
1 „ „	126
2 „ „	126a

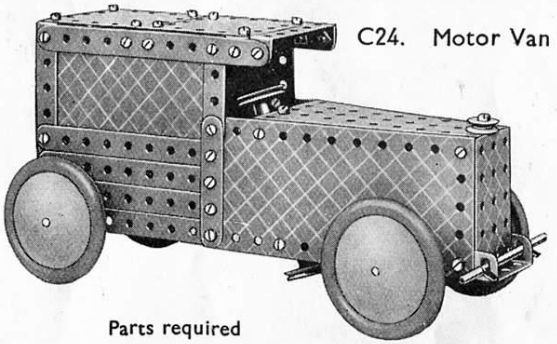
C23. Field Roller

Parts required

4 of No.	2	1 of No.	16	6 of No.	48a
7 „ „	5	2 „ „	19b	2 „ „	90a
2 „ „	10	6 „ „	35	1 „ „	111c
8 „ „	12	34 „ „	37	2 „ „	126
1 „ „	15b	2 „ „	37a	1 „ „	199
		1 „ „	40		



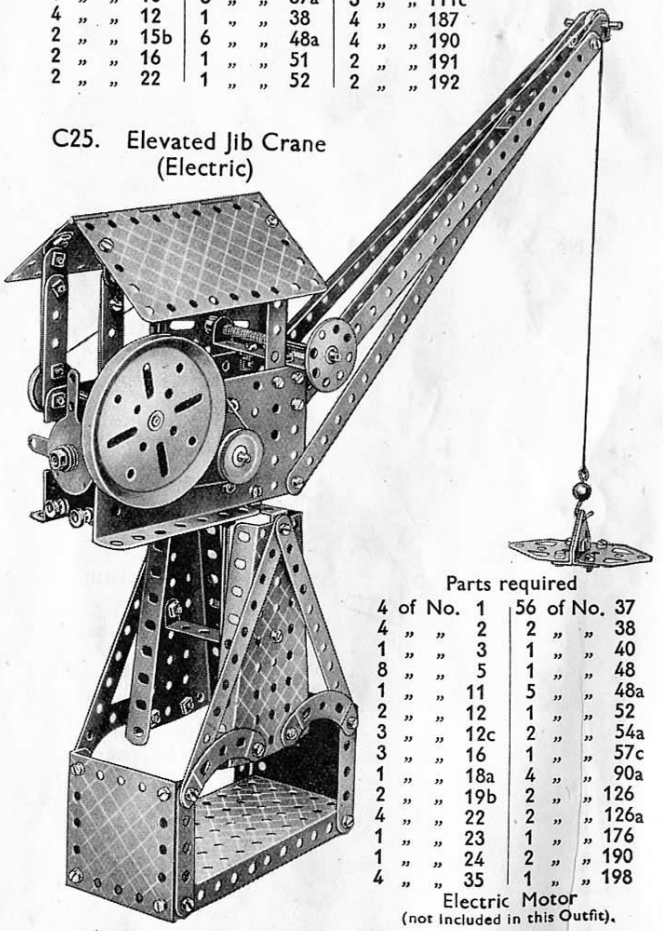
C24. Motor Van



Parts required

8 of No.	2	1 of No.	23		
1 „ „	3	4 „ „	35		
9 „ „	5	51 „ „	37	2 of No.	54a
1 „ „	10	3 „ „	37a	3 „ „	111c
4 „ „	12	1 „ „	38	4 „ „	187
2 „ „	15b	6 „ „	48a	4 „ „	190
2 „ „	16	1 „ „	51	2 „ „	191
2 „ „	22	1 „ „	52	2 „ „	192

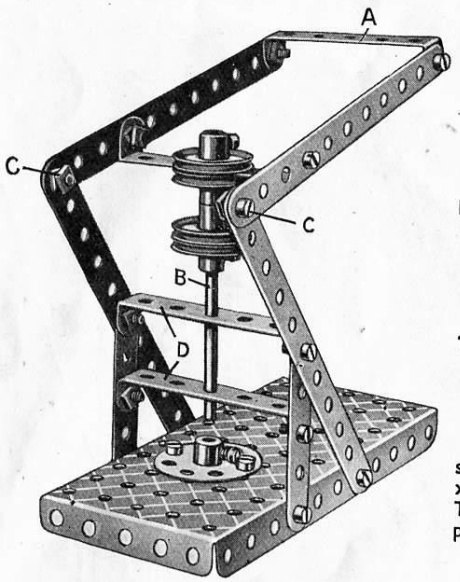
C25. Elevated Jib Crane (Electric)



Parts required

4 of No.	1	56 of No.	37
4 „ „	2	2 „ „	38
1 „ „	3	1 „ „	40
8 „ „	5	1 „ „	48
1 „ „	11	5 „ „	48a
2 „ „	12	1 „ „	52
3 „ „	12c	2 „ „	54a
3 „ „	16	1 „ „	57c
1 „ „	18a	4 „ „	90a
2 „ „	19b	2 „ „	126
4 „ „	22	2 „ „	126a
1 „ „	23	1 „ „	176
1 „ „	24	2 „ „	190
4 „ „	35	1 „ „	198

Electric Motor
(not included in this Outfit).



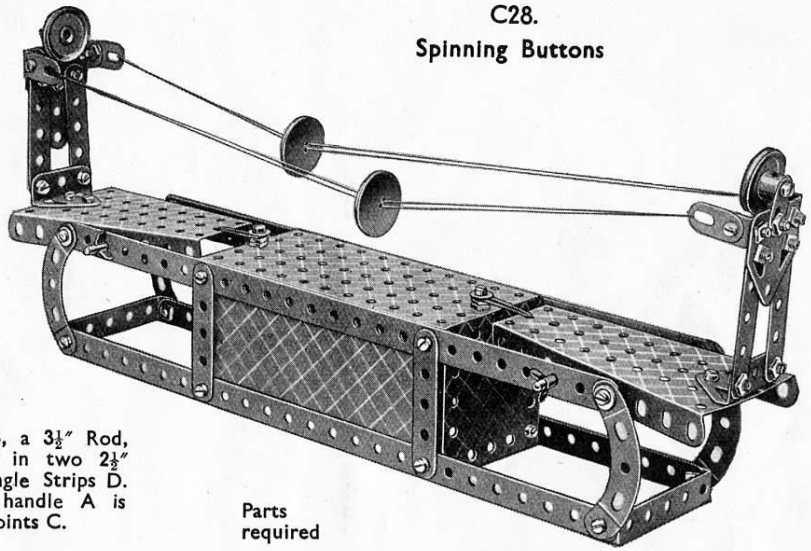
C26. Punching Machine

Parts required

4	of No.	2
2	„ „	5
1	„ „	16
4	„ „	22
1	„ „	24
16	„ „	37
4	„ „	37a
4	„ „	48a
1	„ „	52

The punch B, a $3\frac{1}{2}''$ Rod, slides vertically in two $2\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strips D. The operating handle A is pivoted at the points C.

C28. Spinning Buttons



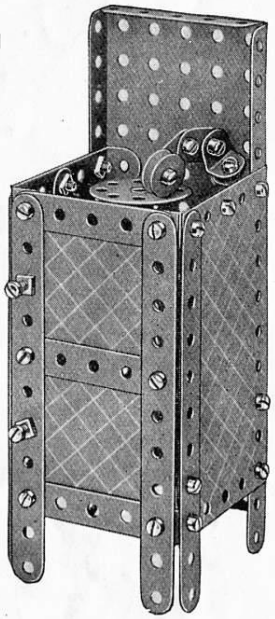
Parts required

4	of No.	1
9	„ „	5
5	„ „	10
4	„ „	12
2	„ „	16
2	„ „	22
4	„ „	35
47	of No.	37
6	„ „	37a
6	„ „	38
4	„ „	48a
1	„ „	52
2	„ „	54a
4	of No.	90a
4	„ „	111c
2	„ „	126
2	„ „	126a
2	„ „	190
2	„ „	192

C30. Gramophone

Parts required

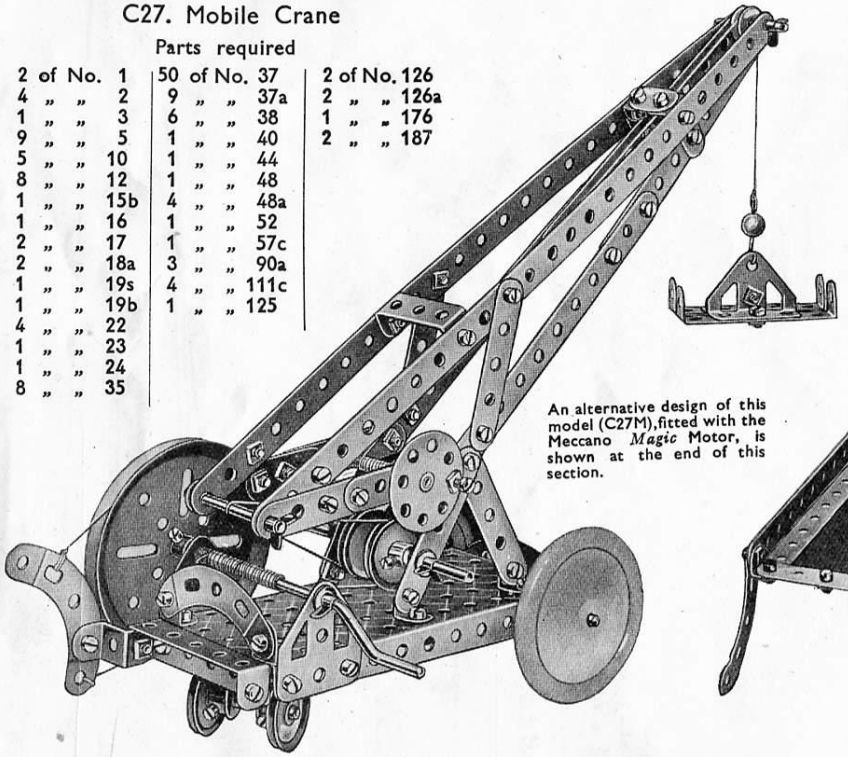
4	of No.	2
5	„ „	5
2	„ „	10
4	„ „	12
1	„ „	23
1	„ „	24
29	„ „	37
5	„ „	37a
5	„ „	48a
1	„ „	52
4	„ „	111c
2	„ „	126a
2	„ „	190
2	„ „	191



C27. Mobile Crane

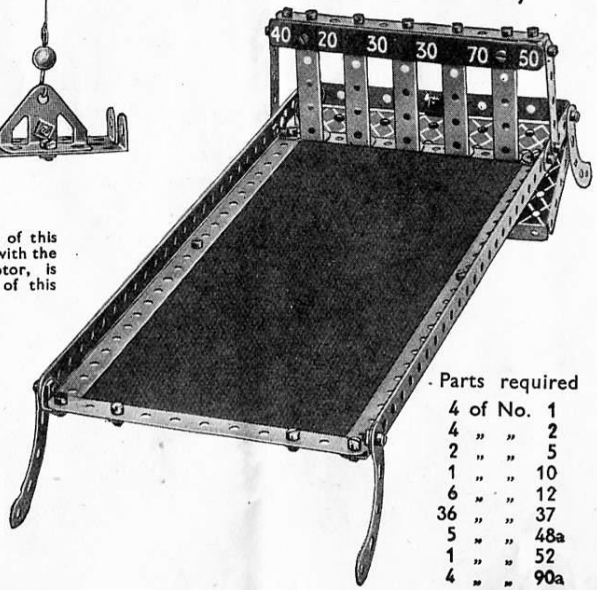
Parts required

2	of No.	1
4	„ „	2
1	„ „	3
9	„ „	5
5	„ „	10
8	„ „	12
1	„ „	15b
1	„ „	16
2	„ „	17
2	„ „	18a
1	„ „	19s
1	„ „	19b
4	„ „	22
1	„ „	23
1	„ „	24
8	„ „	35
50	of No.	37
9	„ „	37a
6	„ „	38
1	„ „	40
1	„ „	44
1	„ „	48
4	„ „	48a
1	„ „	52
1	„ „	57c
3	„ „	90a
4	„ „	111c
1	„ „	125
2	of No.	126
2	„ „	126a
1	„ „	176
2	„ „	187



An alternative design of this model (C27M), fitted with the Meccano *Magic* Motor, is shown at the end of this section.

C29. Box Ball Alley



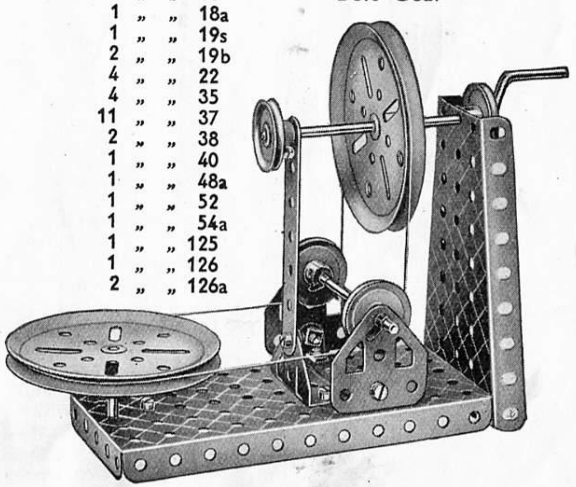
Parts required

4	of No.	1
4	„ „	2
2	„ „	5
1	„ „	10
6	„ „	12
36	„ „	37
5	„ „	48a
1	„ „	52
4	„ „	90a

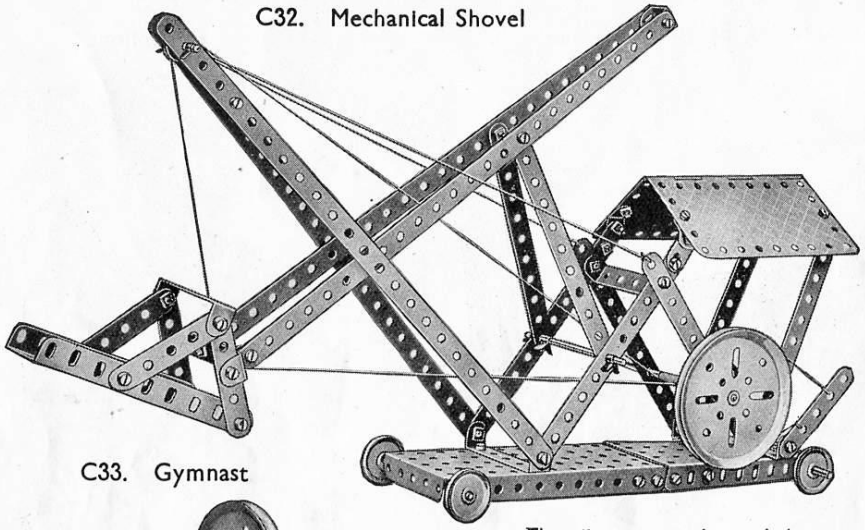
C31. Belt Gear

Parts required

1	of No.	3
1	„ „	16
1	„ „	18a
1	„ „	19s
2	„ „	19b
4	„ „	22
4	„ „	35
11	„ „	37
2	„ „	38
1	„ „	40
1	„ „	48a
1	„ „	52
1	„ „	54a
1	„ „	125
1	„ „	126
2	„ „	126a



C32. Mechanical Shovel

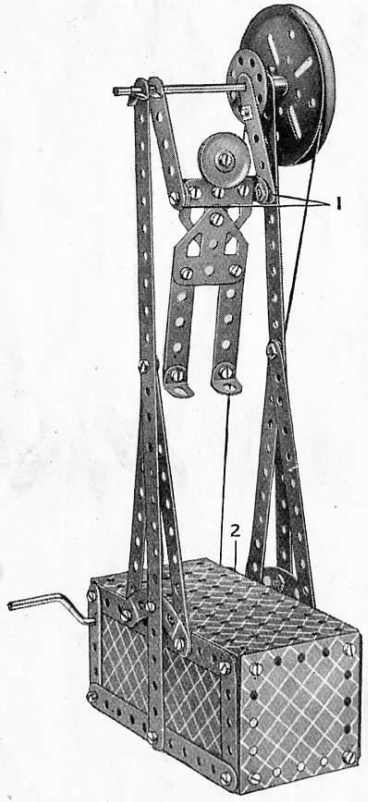


Parts required

4 of No.	1
8 „ „	2
7 „ „	5
2 „ „	10
2 „ „	11
4 „ „	12c
3 „ „	16
1 „ „	18a
1 „ „	19s
1 „ „	19b
4 „ „	22
1 „ „	23
1 „ „	24
6 „ „	35
46 „ „	37
5 „ „	37a
1 „ „	40
1 „ „	48
6 „ „	48a
1 „ „	52
2 „ „	54a
2 „ „	111c
1 „ „	176
1 „ „	198

The digging arm is carried on two pivotally attached $5\frac{1}{2}''$ Strips in order to give the bucket a direct vertical movement. The cord from the bucket is passed over the jib-head Pulley and wound round a Crank Handle, its other end also being tied to the bucket. The Crank Handle is controlled by the band brake shown in the photograph.

C33. Gymnast

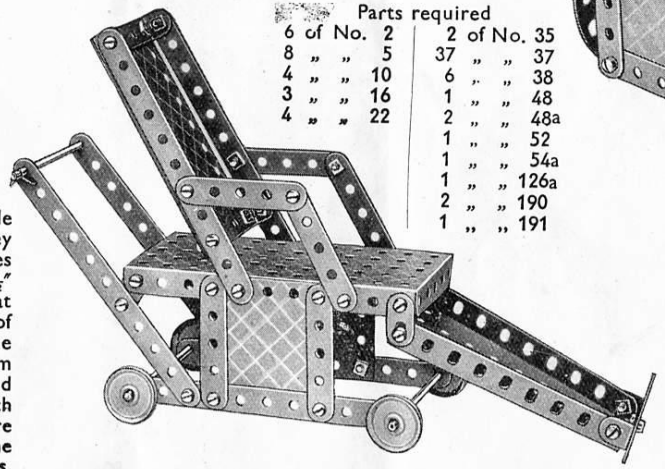


Parts required

2 of No.	1
8 „ „	2
8 „ „	5
1 „ „	10
4 „ „	12
1 „ „	15b
1 „ „	19s
1 „ „	19b
2 „ „	22
1 „ „	24
2 „ „	35
36 „ „	37
2 „ „	37a
2 „ „	38
1 „ „	40
2 „ „	48a
1 „ „	52
2 „ „	90a
1 „ „	111c
2 „ „	126a
2 „ „	190
2 „ „	192

A Crank Handle carries a 1″ Pulley Wheel 2 that drives a 3″ Pulley on a $3\frac{1}{2}''$ Rod journalled at the top of a pair of $12\frac{1}{2}''$ Strips. The gymnast hangs from the Axle Rod, and the bolts 1 on which the arms pivot are each locked to the body by two nuts.

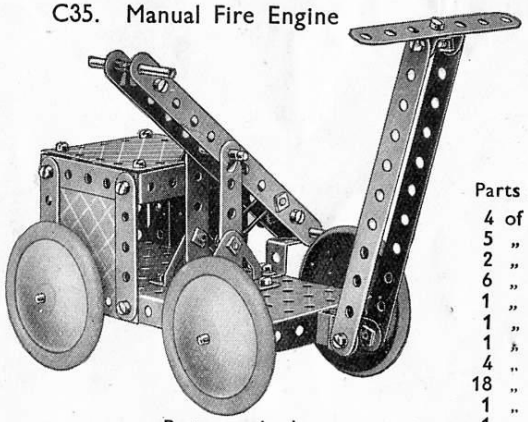
C34. Invalid Chair



Parts required

6 of No.	2	2 of No.	35
8 „ „	5	37 „ „	37
4 „ „	10	6 „ „	38
3 „ „	16	1 „ „	48
4 „ „	22	2 „ „	48a
		1 „ „	52
		1 „ „	54a
		1 „ „	126a
		2 „ „	190
		1 „ „	191

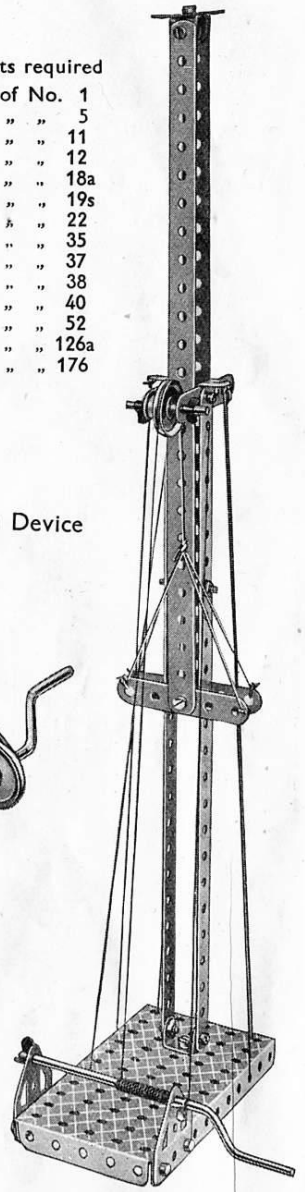
C35. Manual Fire Engine



Parts required

4 of No.	2	1 of No.	18a	1 of No.	52
1 „ „	3	6 „ „	35	2 „ „	111c
8 „ „	5	34 „ „	37	1 „ „	125
2 „ „	11	6 „ „	37a	2 „ „	126
6 „ „	12	1 „ „	38	1 „ „	186
2 „ „	15b	1 „ „	44	4 „ „	187
2 „ „	17	2 „ „	48a	4 „ „	190

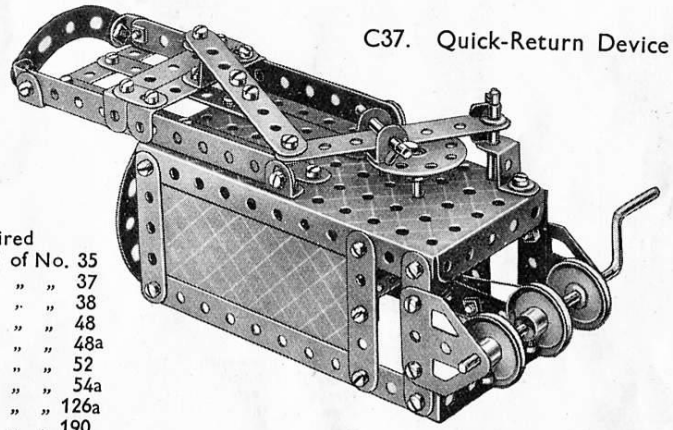
C36. Telescopic Mast



Parts required

4 of No.	1
5 „ „	5
2 „ „	11
6 „ „	12
1 „ „	18a
1 „ „	19s
1 „ „	22
4 „ „	35
18 „ „	37
1 „ „	38
1 „ „	40
1 „ „	52
2 „ „	126a
1 „ „	176

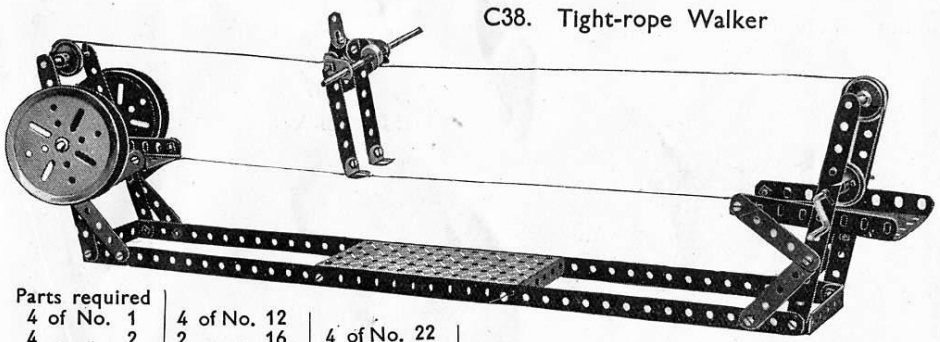
C37. Quick-Return Device



Parts required

6 of No.	2	46 of No.	37
1 „ „	3	4 „ „	37a
8 „ „	5	4 „ „	38
2 „ „	10	6 „ „	48a
2 „ „	11	1 „ „	52
4 „ „	12	3 „ „	90a
2 „ „	17	1 „ „	111c
1 „ „	18a	1 „ „	125
1 „ „	19s	2 „ „	126a
4 „ „	22	1 „ „	186
1 „ „	24	1 „ „	190
6 „ „	35	2 „ „	191

C38. Tight-rope Walker

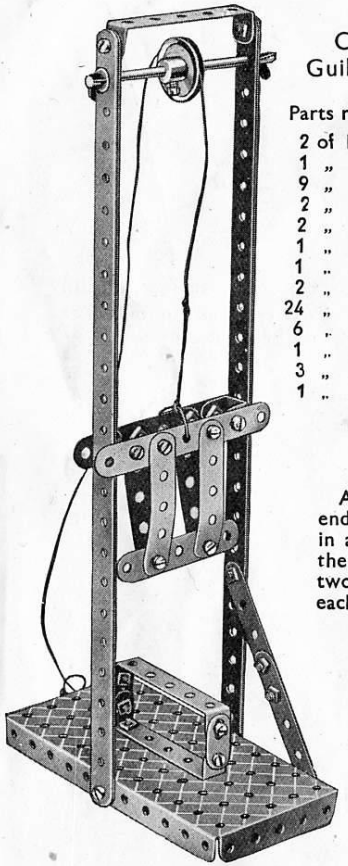


Parts required

4 of No. 1	4 of No. 12	4 of No. 22	6 of No. 38		
4 „ „ 2	2 „ „ 16	1 „ „ 23	1 „ „ 40	1 of No. 52	
1 „ „ 3	2 „ „ 17	8 „ „ 35	2 „ „ 48a	2 „ „ 54a	1 of No. 126a
9 „ „ 5	1 „ „ 19s	32 „ „ 37			
3 „ „ 10	2 „ „ 19b				

The endless cord is first passed round four 1″ fast Pulleys the two ends then being attached to one foot of the figure that is supported by a ½″ Pulley running along the upper section of the cord.

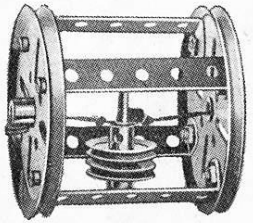
C39. Guillotine



Parts required

2 of No.	1
1 „ „	3
9 „ „	5
2 „ „	10
2 „ „	11
1 „ „	16
1 „ „	22
2 „ „	35
24 „ „	37
6 „ „	38
1 „ „	40
3 „ „	48a
1 „ „	52

C40. Cum Bak

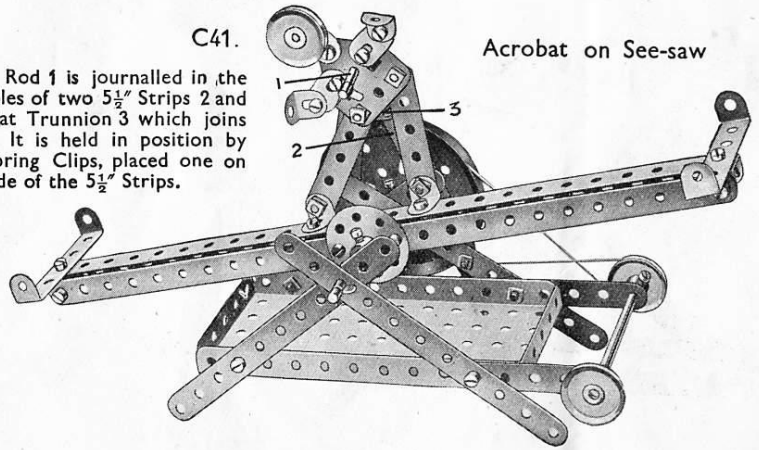


Parts required

1 of No.	18a
2 „ „	19b
2 „ „	22
1 „ „	35
8 „ „	37
4 „ „	48a
1 „ „	186

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

C41. Acrobat on See-saw



A 1″ Rod 1 is journalled in the end holes of two 5½″ Strips 2 and in a Flat Trunnion 3 which joins them. It is held in position by two Spring Clips, placed one on each side of the 5½″ Strips.

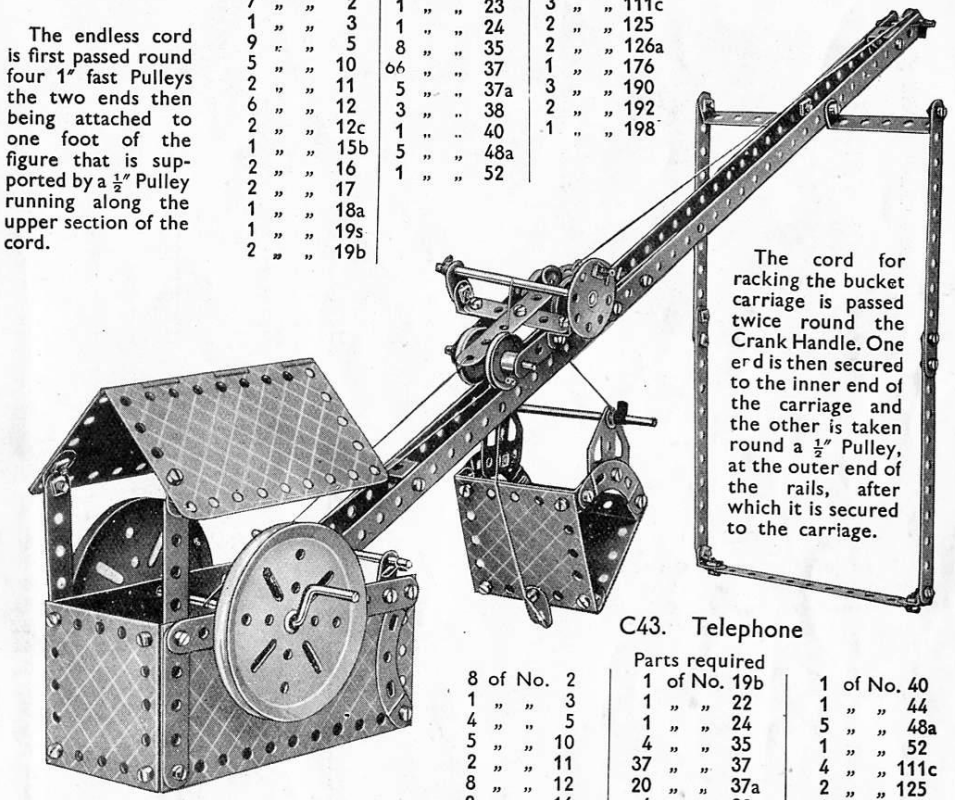
Parts required

3 of No.	1
6 „ „	2
4 „ „	5
3 „ „	10
2 „ „	11
4 „ „	12
2 „ „	16
1 „ „	18a
1 „ „	19b
3 „ „	22
1 „ „	24
5 „ „	35
25 „ „	37
4 „ „	37a
2 „ „	38
1 „ „	40
2 „ „	48a
1 „ „	52
1 „ „	111c
1 „ „	126a

C42. Extended Ash Tip

Parts required

4 of No. 1	4 of No. 22	4 of No. 90a
7 „ „ 2	1 „ „ 23	3 „ „ 111c
1 „ „ 3	1 „ „ 24	2 „ „ 125
9 „ „ 5	8 „ „ 35	2 „ „ 126a
5 „ „ 10	66 „ „ 37	1 „ „ 176
2 „ „ 11	5 „ „ 37a	3 „ „ 190
6 „ „ 12	3 „ „ 38	2 „ „ 192
2 „ „ 12c	1 „ „ 40	1 „ „ 198
1 „ „ 15b	5 „ „ 48a	
2 „ „ 16	1 „ „ 52	
2 „ „ 17		
1 „ „ 18a		
1 „ „ 19s		
2 „ „ 19b		

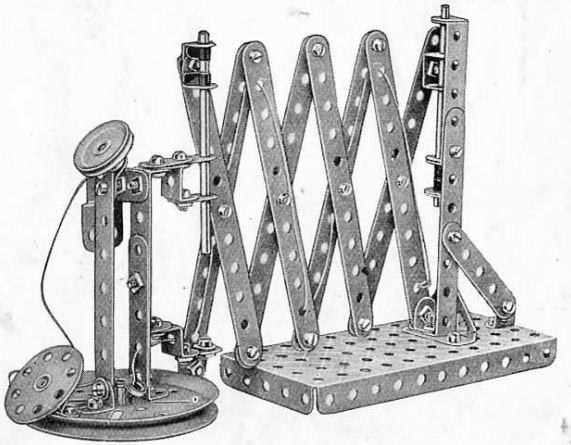


The cord for racking the bucket carriage is passed twice round the Crank Handle. One end is then secured to the inner end of the carriage and the other is taken round a ½″ Pulley, at the outer end of the rails, after which it is secured to the carriage.

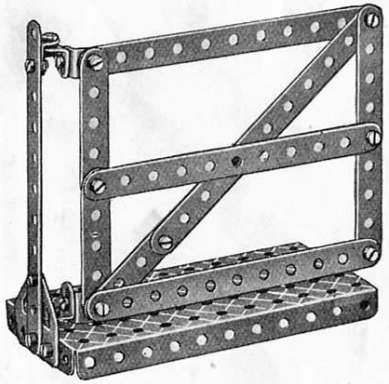
C43. Telephone

Parts required

8 of No. 2	1 of No. 19b	1 of No. 40
1 „ „ 3	1 „ „ 22	1 „ „ 44
4 „ „ 5	1 „ „ 24	5 „ „ 48a
5 „ „ 10	4 „ „ 35	1 „ „ 52
2 „ „ 11	37 „ „ 37	4 „ „ 111c
8 „ „ 12	20 „ „ 37a	2 „ „ 125
2 „ „ 16	4 „ „ 38	1 „ „ 126



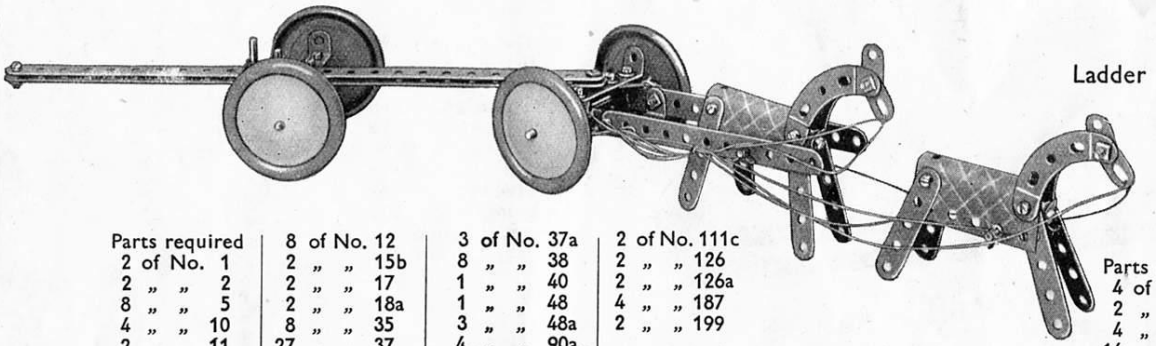
C44. Gate



Parts required

5 of No. 2	4 of No. 37a
5 „ „ 5	1 „ „ 52
5 „ „ 12	2 „ „ 111c
13 „ „ 37	1 „ „ 126a

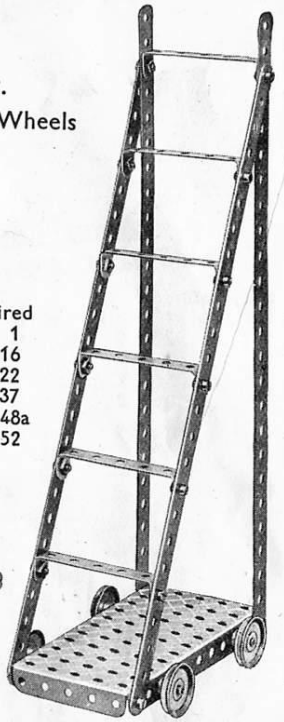
C46. Timber Drag



Parts required

2 of No. 1	8 of No. 12	3 of No. 37a	2 of No. 111c
2 „ „ 2	2 „ „ 15b	8 „ „ 38	2 „ „ 126
8 „ „ 5	2 „ „ 17	1 „ „ 40	2 „ „ 126a
4 „ „ 10	2 „ „ 18a	1 „ „ 48	4 „ „ 187
2 „ „ 11	8 „ „ 35	3 „ „ 48a	2 „ „ 199
	27 „ „ 37	4 „ „ 90a	

C49. Ladder on Wheels



Parts required

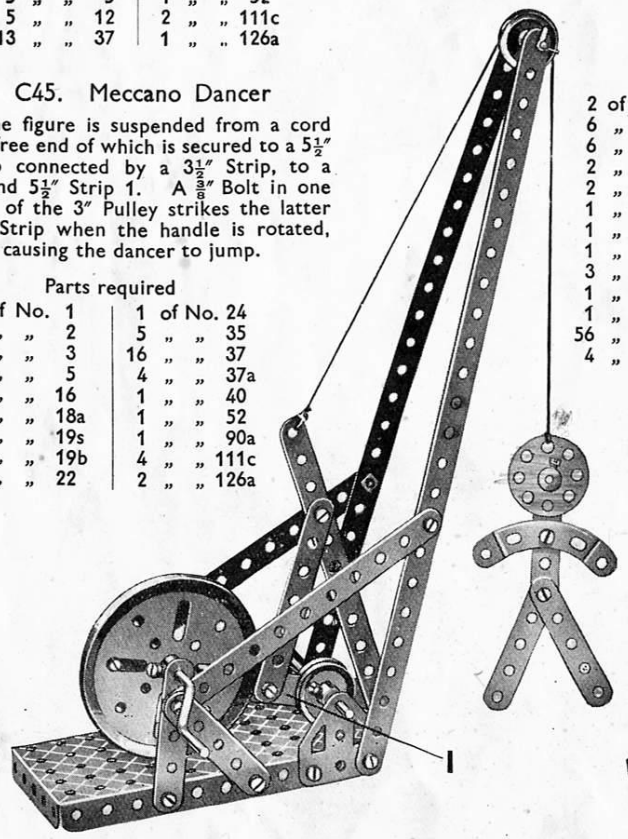
4 of No. 1
2 „ „ 16
4 „ „ 22
16 „ „ 37
6 „ „ 48a
1 „ „ 52

C45. Meccano Dancer

The figure is suspended from a cord the free end of which is secured to a $5\frac{1}{2}''$ Strip connected by a $3\frac{1}{2}''$ Strip, to a second $5\frac{1}{2}''$ Strip 1. A $\frac{3}{8}''$ Bolt in one hole of the 3″ Pulley strikes the latter $5\frac{1}{2}''$ Strip when the handle is rotated, thus causing the dancer to jump.

Parts required

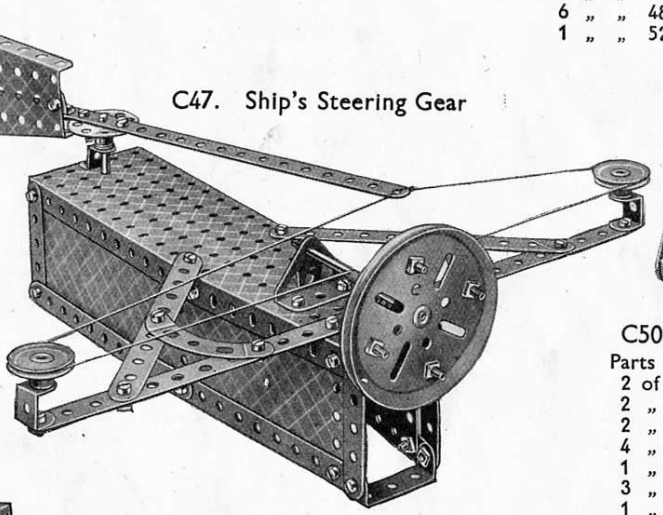
2 of No. 1	1 of No. 24
4 „ „ 2	5 „ „ 35
1 „ „ 3	16 „ „ 37
7 „ „ 5	4 „ „ 37a
1 „ „ 16	1 „ „ 40
1 „ „ 18a	1 „ „ 52
1 „ „ 19s	1 „ „ 90a
1 „ „ 19b	4 „ „ 111c
3 „ „ 22	2 „ „ 126a



C47. Ship's Steering Gear

Parts required

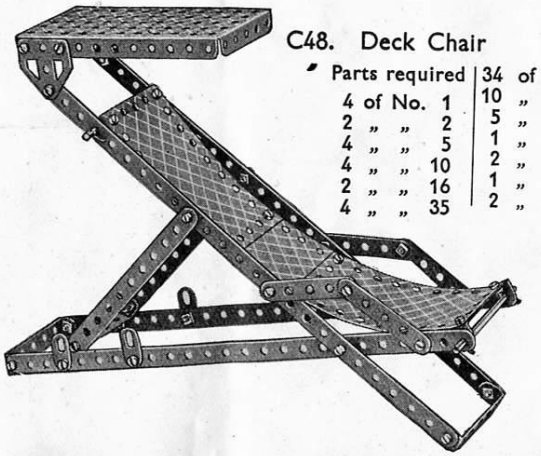
2 of No. 1	5 of No. 38
6 „ „ 2	1 „ „ 40
6 „ „ 5	1 „ „ 48
2 „ „ 11	1 „ „ 48a
2 „ „ 12	1 „ „ 52
1 „ „ 16	2 „ „ 54a
1 „ „ 18a	2 „ „ 90a
1 „ „ 19b	6 „ „ 111c
3 „ „ 22	1 „ „ 125
1 „ „ 24	2 „ „ 126
1 „ „ 35	1 „ „ 190
56 „ „ 37	2 „ „ 191
4 „ „ 37a	2 „ „ 192



C48. Deck Chair

Parts required

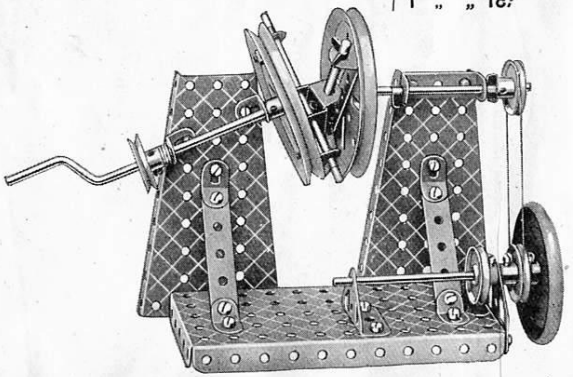
4 of No. 1	34 of No. 37
2 „ „ 2	10 „ „ 37a
4 „ „ 5	5 „ „ 48a
4 „ „ 10	1 „ „ 52
2 „ „ 16	2 „ „ 126a
4 „ „ 35	1 „ „ 190
	2 „ „ 191



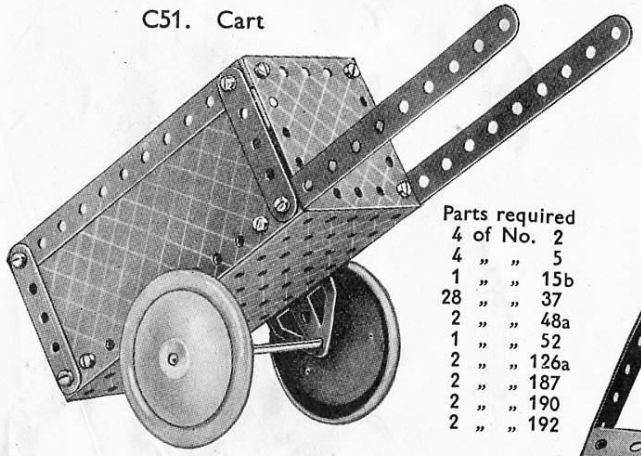
C50. Hooke's Coupling

Parts required

2 of No. 5	6 of No. 35
2 „ „ 11	24 „ „ 37
2 „ „ 12	3 „ „ 38
4 „ „ 12c	1 „ „ 40
1 „ „ 15b	1 „ „ 48
3 „ „ 16	2 „ „ 48a
1 „ „ 19s	1 „ „ 52
2 „ „ 19b	2 „ „ 54a
4 „ „ 22	1 „ „ 126
	1 „ „ 126a
	1 „ „ 187



C51. Cart

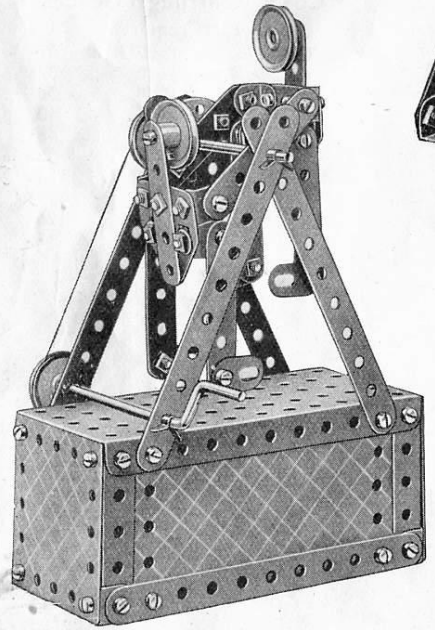


Parts required
4 of No. 2
4 „ „ 5
1 „ „ 15b
28 „ „ 37
2 „ „ 48a
1 „ „ 52
2 „ „ 126a
2 „ „ 187
2 „ „ 190
2 „ „ 192

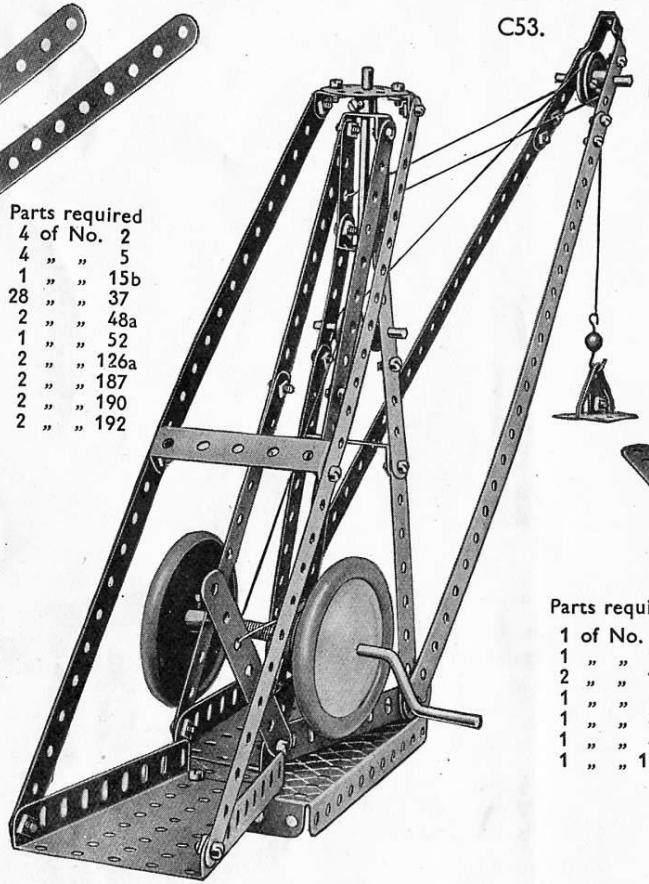
C52. Wrestlers

Parts required

6 of No. 2	4 of No. 22	6 of No. 48a
8 „ „ 5	1 „ „ 24	1 „ „ 52
4 „ „ 10	2 „ „ 35	6 „ „ 111c
8 „ „ 12	44 „ „ 37	2 „ „ 126a
1 „ „ 16	12 „ „ 37a	2 „ „ 190
1 „ „ 19s	6 „ „ 38	2 „ „ 191
	1 „ „ 40	



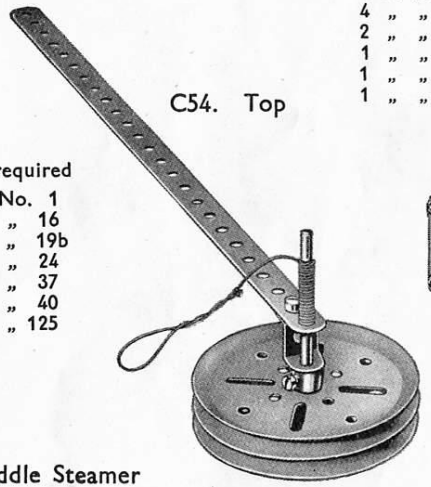
C53. Jib Crane



Parts required

4 of No. 1	32 of No. 37
8 „ „ 2	2 „ „ 37a
1 „ „ 3	3 „ „ 38
2 „ „ 5	1 „ „ 40
2 „ „ 11	1 „ „ 44
2 „ „ 12	1 „ „ 48
1 „ „ 16	1 „ „ 48a
1 „ „ 17	1 „ „ 52
2 „ „ 18a	2 „ „ 54a
1 „ „ 19s	1 „ „ 57c
4 „ „ 22	1 „ „ 111c
1 „ „ 23	2 „ „ 126
1 „ „ 24	1 „ „ 176
3 „ „ 35	2 „ „ 187

C54. Top

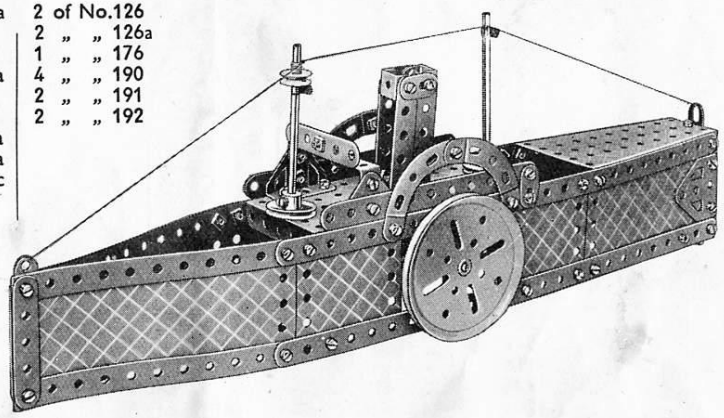


Parts required
1 of No. 1
1 „ „ 16
2 „ „ 19b
1 „ „ 24
1 „ „ 37
1 „ „ 40
1 „ „ 125

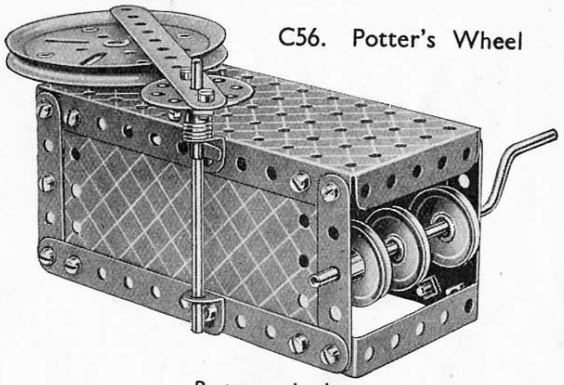
C55. Paddle Steamer

Parts required

4 of No. 1	2 of No. 37a	2 of No. 126
6 „ „ 2	1 „ „ 40	2 „ „ 126a
9 „ „ 5	1 „ „ 48	1 „ „ 176
5 „ „ 10	3 „ „ 48a	4 „ „ 190
2 „ „ 11	1 „ „ 51	2 „ „ 191
4 „ „ 12	1 „ „ 52	2 „ „ 192
1 „ „ 15b	1 „ „ 54a	
2 „ „ 16	4 „ „ 90a	
1 „ „ 17	2 „ „ 111c	
2 „ „ 19b		
3 „ „ 22		
1 „ „ 23		
6 „ „ 35		
58 „ „ 37		



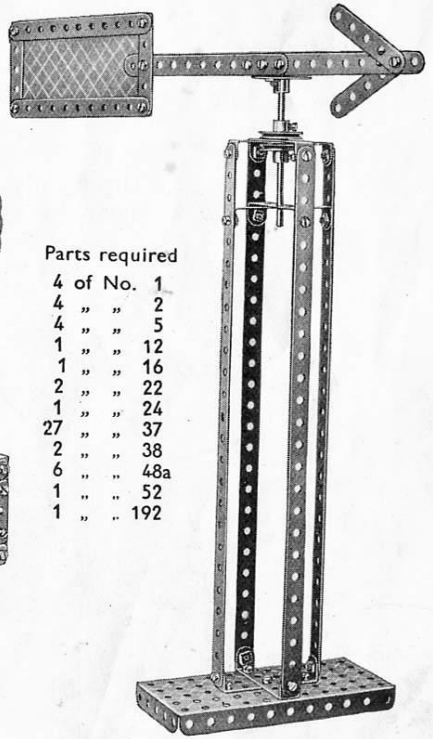
C56. Potter's Wheel



Parts required

3 of No. 2	1 of No. 19b	1 of No. 40
4 „ „ 5	4 „ „ 22	2 „ „ 48a
2 „ „ 12	1 „ „ 24	1 „ „ 52
1 „ „ 16	1 „ „ 35	2 „ „ 191
1 „ „ 17	22 „ „ 37	
1 „ „ 19s	5 „ „ 38	

C57. Weather Vane

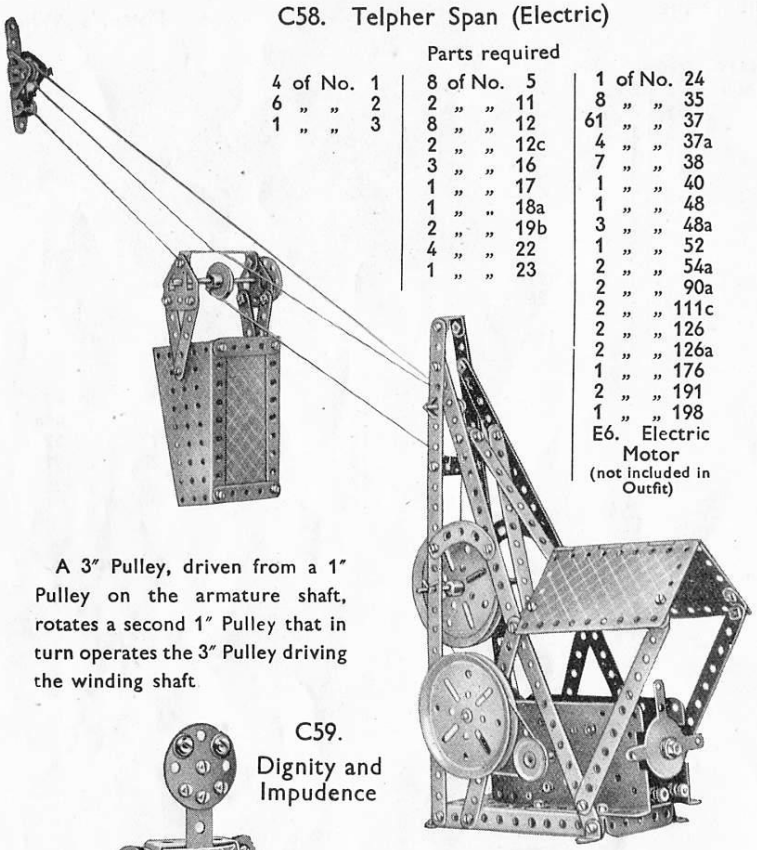


Parts required
4 of No. 1
4 „ „ 2
4 „ „ 5
1 „ „ 12
1 „ „ 16
2 „ „ 22
1 „ „ 24
27 „ „ 37
2 „ „ 38
6 „ „ 48a
1 „ „ 52
1 „ „ 192

C58. Telpher Span (Electric)

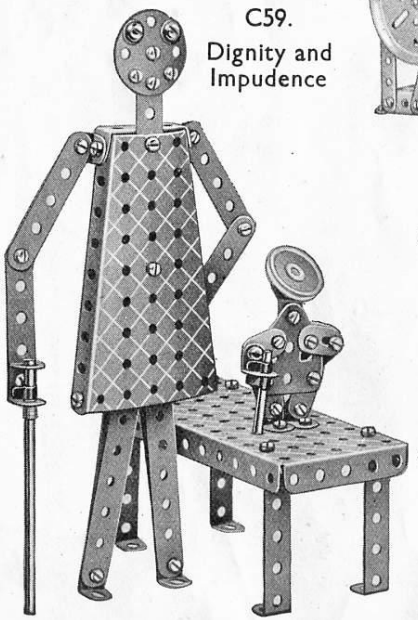
Parts required

4 of No. 1	8 of No. 5	1 of No. 24
6 „ „ 2	2 „ „ 11	8 „ „ 35
1 „ „ 3	8 „ „ 12	61 „ „ 37
	2 „ „ 12c	4 „ „ 37a
	3 „ „ 16	7 „ „ 38
	1 „ „ 17	1 „ „ 40
	1 „ „ 18a	1 „ „ 48
	2 „ „ 19b	3 „ „ 48a
	4 „ „ 22	1 „ „ 52
	1 „ „ 23	2 „ „ 54a
		2 „ „ 90a
		2 „ „ 111c
		2 „ „ 126
		2 „ „ 126a
		1 „ „ 176
		2 „ „ 191
		1 „ „ 198
		E6. Electric Motor (not included in Outfit)



A 3″ Pulley, driven from a 1″ Pulley on the armature shaft, rotates a second 1″ Pulley that in turn operates the 3″ Pulley driving the winding shaft

C59. Dignity and Impudence



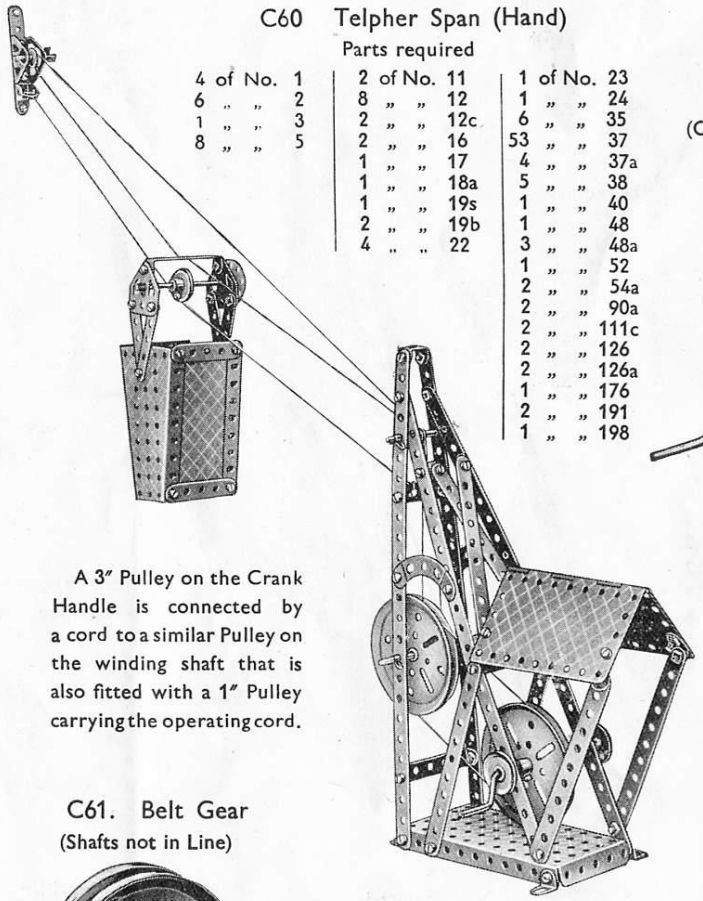
Parts required

5 of No. 2	
3 „ „ 5	
5 „ „ 10	
2 „ „ 11	
8 „ „ 12	
1 „ „ 16	
1 „ „ 17	
2 „ „ 22	
4 „ „ 35	
31 „ „ 37	
1 „ „ 48	
4 „ „ 48a	
1 „ „ 52	
2 „ „ 54a	
2 „ „ 111c	
2 „ „ 125	
1 „ „ 126a	

C60 Telpher Span (Hand)

Parts required

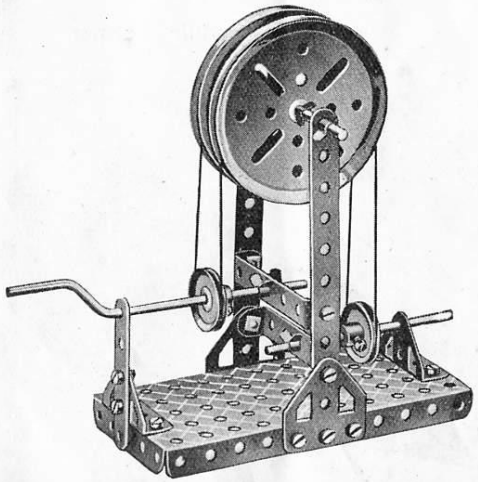
4 of No. 1	2 of No. 11	1 of No. 23
6 „ „ 2	8 „ „ 12	1 „ „ 24
1 „ „ 3	2 „ „ 12c	6 „ „ 35
8 „ „ 5	2 „ „ 16	53 „ „ 37
	1 „ „ 17	4 „ „ 37a
	1 „ „ 18a	5 „ „ 38
	1 „ „ 19s	1 „ „ 40
	2 „ „ 19b	1 „ „ 48
	4 „ „ 22	3 „ „ 48a
		1 „ „ 52
		2 „ „ 54a
		2 „ „ 90a
		2 „ „ 111c
		2 „ „ 126
		2 „ „ 126a
		1 „ „ 176
		2 „ „ 191
		1 „ „ 198



A 3″ Pulley on the Crank Handle is connected by a cord to a similar Pulley on the winding shaft that is also fitted with a 1″ Pulley carrying the operating cord.

C61. Belt Gear

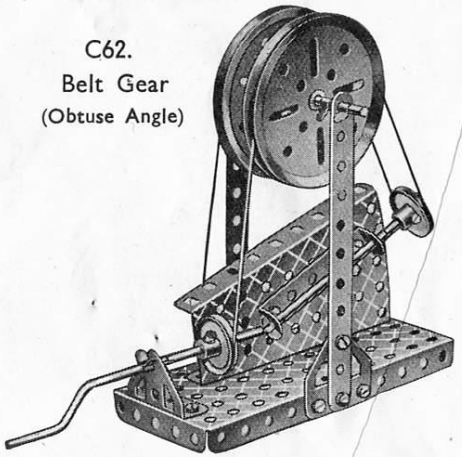
(Shafts not in Line)



Parts required

2 of No. 2
1 „ „ 5
2 „ „ 16
1 „ „ 19s
2 „ „ 19b
2 „ „ 22
8 „ „ 35
16 „ „ 37
1 „ „ 40
2 „ „ 48a
1 „ „ 52
2 „ „ 126
2 „ „ 126a

C62. Belt Gear (Obtuse Angle)



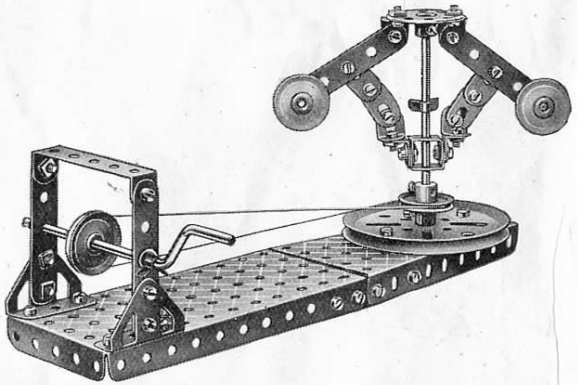
Parts required

2 of No. 2	2 of No. 38
1 „ „ 12	1 „ „ 40
2 „ „ 16	1 „ „ 48a
1 „ „ 19s	1 „ „ 52
2 „ „ 19b	1 „ „ 54a
2 „ „ 22	1 „ „ 126
8 „ „ 35	2 „ „ 126a
15 „ „ 37	

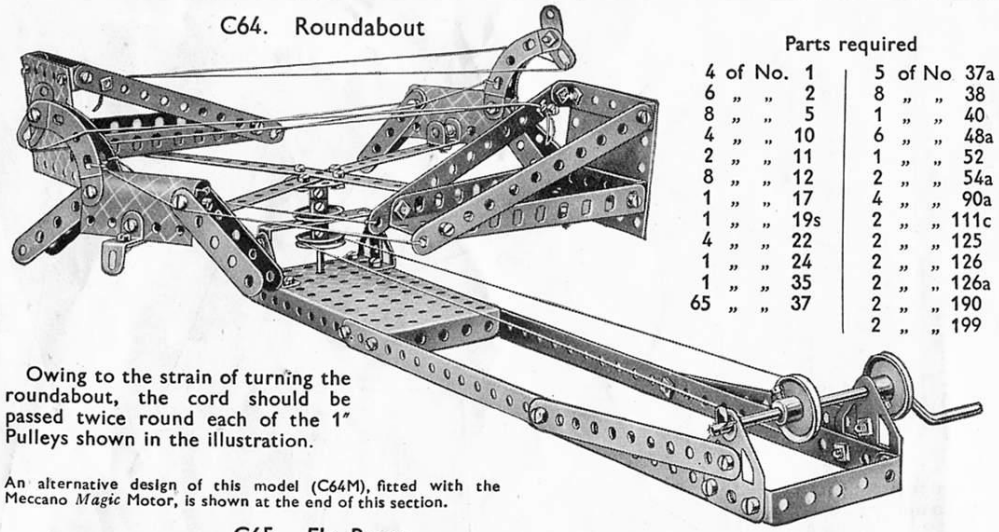
C63. Centrifugal Governor

Parts required

6 of No. 5	32 of No. 37
4 „ „ 10	10 „ „ 37a
2 „ „ 11	8 „ „ 38
6 „ „ 12	1 „ „ 40
1 „ „ 15b	1 „ „ 48a
1 „ „ 19s	1 „ „ 52
1 „ „ 19b	1 „ „ 54a
4 „ „ 22	4 „ „ 111c
1 „ „ 24	2 „ „ 126
3 „ „ 35	



C64. Roundabout



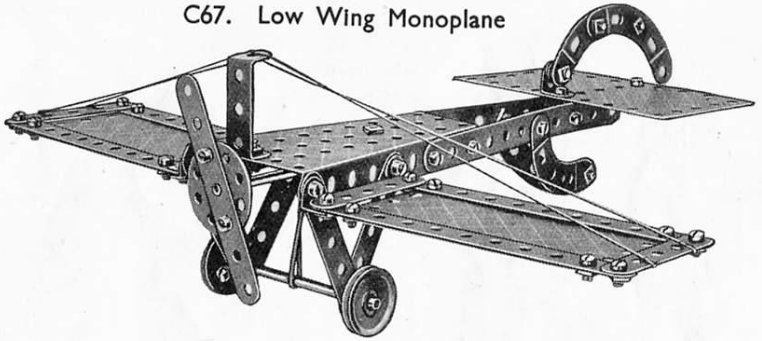
Parts required

4 of No.	1	5 of No	37a
6 „ „	2	8 „ „	38
8 „ „	5	1 „ „	40
4 „ „	10	6 „ „	48a
2 „ „	11	1 „ „	52
8 „ „	12	2 „ „	54a
1 „ „	17	4 „ „	90a
1 „ „	19s	2 „ „	111c
4 „ „	22	2 „ „	125
1 „ „	24	2 „ „	126
1 „ „	35	2 „ „	126a
65 „ „	37	2 „ „	190
		2 „ „	199

Owing to the strain of turning the roundabout, the cord should be passed twice round each of the 1″ Pulleys shown in the illustration.

An alternative design of this model (C64M), fitted with the Meccano *Magic* Motor, is shown at the end of this section.

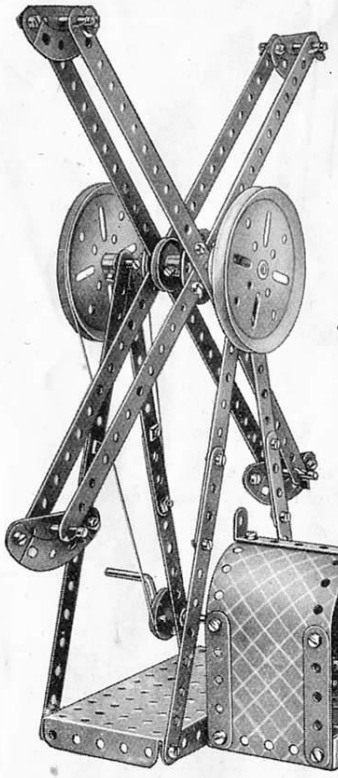
C67. Low Wing Monoplane



Parts required

6 of No.	2	2 of No.	16	2 of No.	37a	4 of No.	90a
1 „ „	3	2 „ „	22	8 „ „	38	2 „ „	111c
8 „ „	5	1 „ „	24	1 „ „	40	1 „ „	186
1 „ „	11	1 „ „	35	1 „ „	48	2 „ „	190
7 „ „	12	36 „ „	37	1 „ „	54a	2 „ „	191

C65. Fly Boats



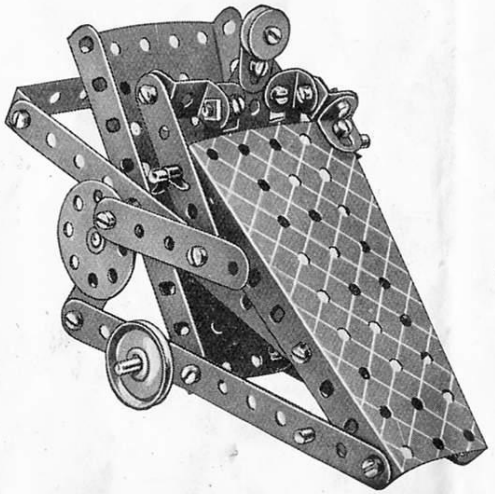
Parts required

4 of No.	1
8 „ „	2
8 „ „	5
2 „ „	10
8 „ „	12
2 „ „	16
2 „ „	17
2 „ „	18a
1 „ „	19s
2 „ „	19b
4 „ „	22
1 „ „	24
8 „ „	35
44 „ „	37
4 „ „	38
1 „ „	40
3 „ „	48a
1 „ „	52
4 „ „	90a
1 „ „	176
1 „ „	190
2 „ „	191

An alternative design of this model (C65M), fitted with the Meccano *Magic* Motor, is shown at the end of this section.

C66. The Invalid

When wheeled along the table the "invalid" appears to push himself energetically along. His neck is a Flat Bracket : his right (or propelling) arm consists of one Angle Bracket and one ½″ Reversed Angle Bracket, and his left arm—the hand of which is bolted loosely to the chair—is formed by three Angle Brackets. The chair is composed principally of two Sector Plates and four 5½″ Strips, and it runs on three 1″ Pulley Wheels—one in front and two at the back. One of these, not shown, is connected by means of a Driving Band to a third 1″ Pulley Wheel, the shaft of which carries also a Bush Wheel. As will be seen, a 2½″ Strip is pivoted at one end to this BushWheel and at the other end to a second 2½″ Strip which, rocking about an axle journalled through its centre hole is again pivoted to the invalid's hands.



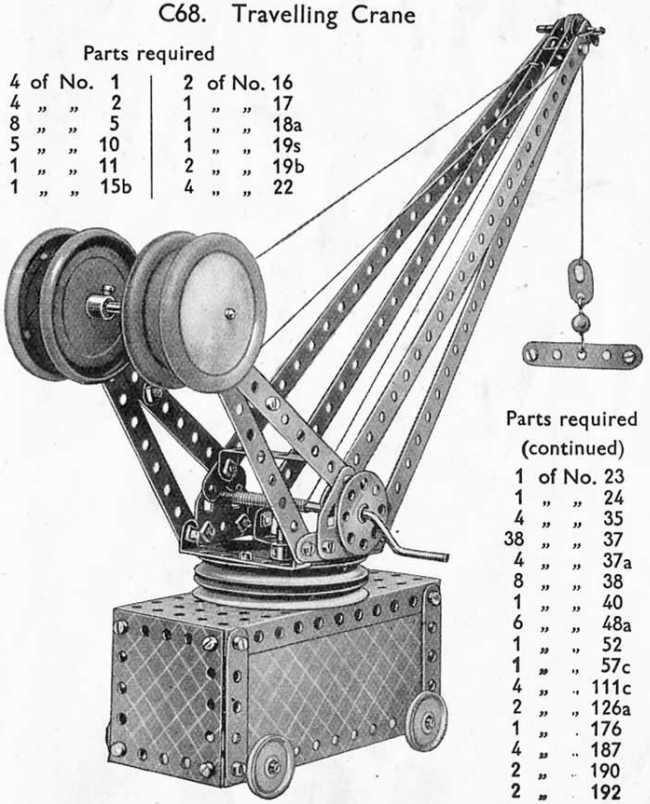
Parts required

4 of No.	2
4 „ „	5
1 „ „	10
4 „ „	12
3 „ „	16
1 „ „	17
4 „ „	22
1 „ „	23
1 „ „	24
4 „ „	35
22 „ „	37
5 „ „	37a
4 „ „	38
1 „ „	48a
2 „ „	54a
1 „ „	111c
1 „ „	125
1 „ „	126a
1 „ „	186

C68. Travelling Crane

Parts required

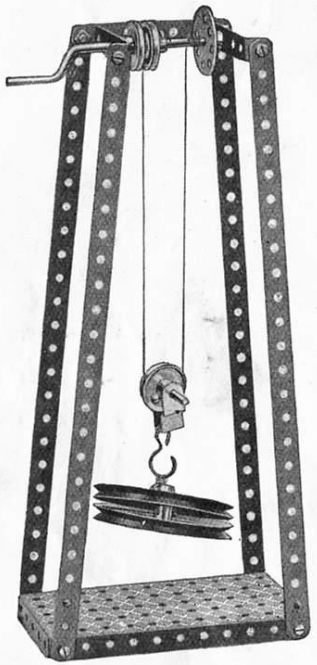
4 of No.	1	2 of No.	16
4 „ „	2	1 „ „	17
8 „ „	5	1 „ „	18a
5 „ „	10	1 „ „	19s
1 „ „	11	2 „ „	19b
1 „ „	15b	4 „ „	22



Parts required (continued)

1 of No.	23
1 „ „	24
4 „ „	35
38 „ „	37
4 „ „	37a
8 „ „	38
1 „ „	40
6 „ „	48a
1 „ „	52
1 „ „	57c
4 „ „	111c
2 „ „	126a
1 „ „	176
4 „ „	187
2 „ „	190
2 „ „	192

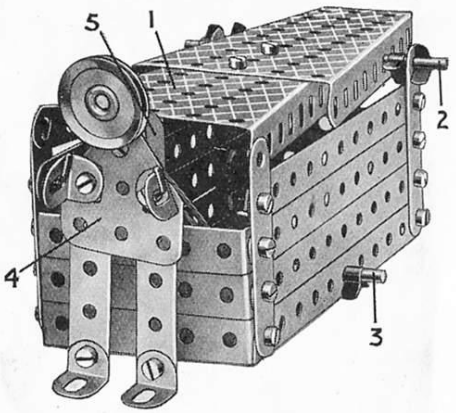
C69. Chinese Windlass



Parts required

4	of No.	1
1	„ „	3
1	„ „	18a
1	„ „	19s
2	„ „	19b
3	„ „	22
1	„ „	23
1	„ „	24
8	„ „	37
1	„ „	40
1	„ „	44
2	„ „	48a
1	„ „	52
1	„ „	57c
1	„ „	176

C71. Disappearing Meccanitian



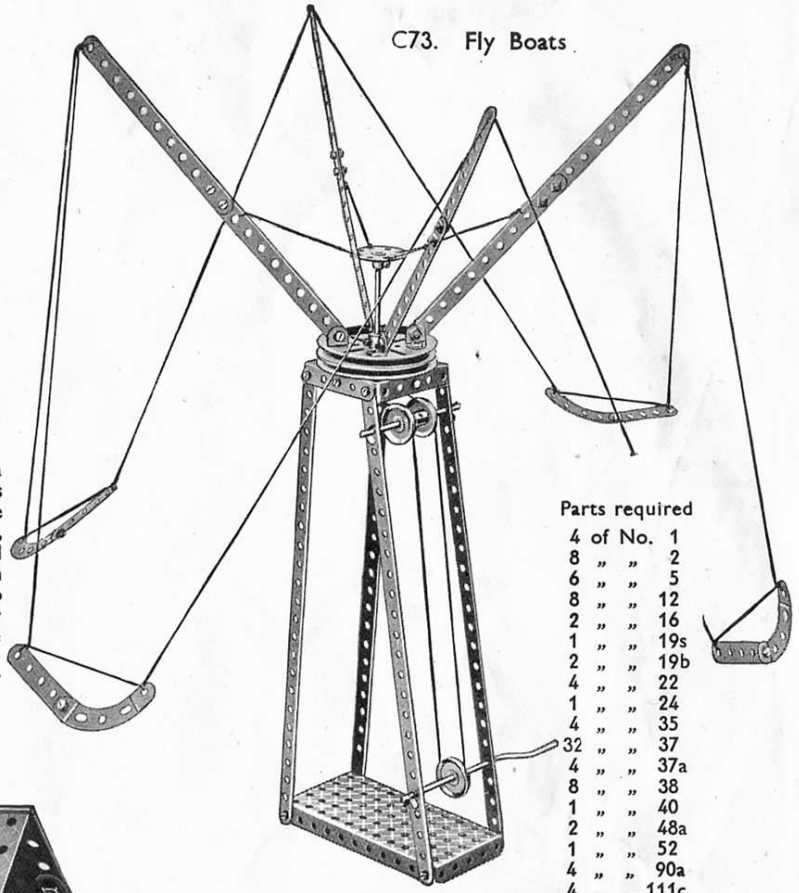
Parts required

6	of No.	2
6	„ „	5
1	„ „	10
4	„ „	12
2	„ „	16
1	„ „	22
6	„ „	35
23	„ „	37
1	„ „	44
6	„ „	48a
1	„ „	52
2	„ „	54a
1	„ „	111c
1	„ „	126a

Four short lengths of elastic

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

C73. Fly Boats



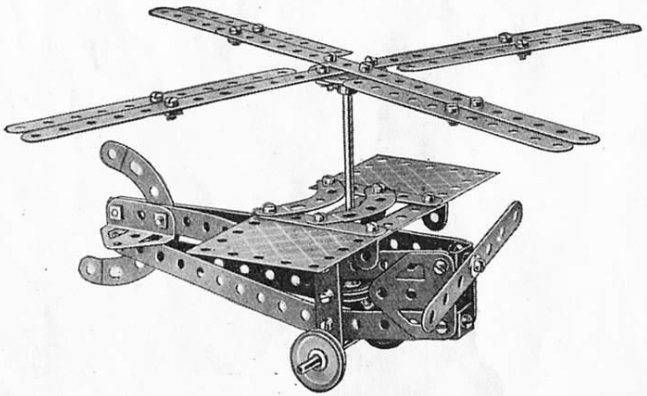
Parts required

4	of No.	1
8	„ „	2
6	„ „	5
8	„ „	12
2	„ „	16
1	„ „	19s
2	„ „	19b
4	„ „	22
1	„ „	24
4	„ „	35
32	„ „	37
4	„ „	37a
8	„ „	38
1	„ „	40
2	„ „	48a
1	„ „	52
4	„ „	90a
4	„ „	111c

C70. Autogiro

Parts required

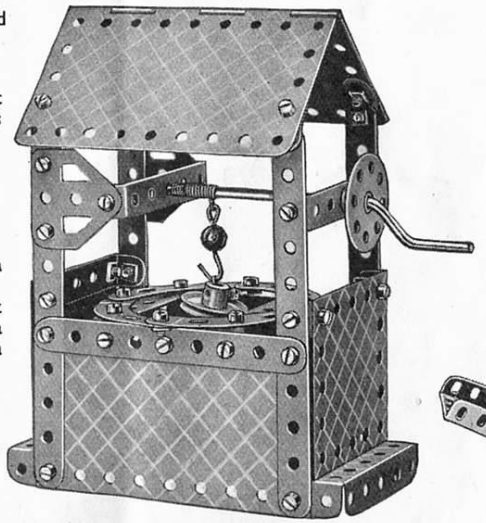
2 of No. 1	2 of No. 11	33 of No. 37	4 of No. 90a
8 „ „ 2	2 „ „ 12	3 „ „ 37a	2 „ „ 111c
1 „ „ 3	2 „ „ 16	7 „ „ 38	2 „ „ 126
9 „ „ 5	4 „ „ 22	1 „ „ 48	2 „ „ 126a
5 „ „ 10	1 „ „ 24	1 „ „ 48a	2 „ „ 190



C72. Well Windlass

Parts required

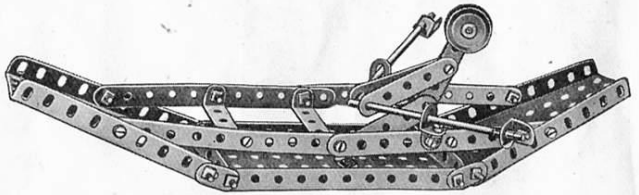
4	of No.	2
4	„ „	5
4	„ „	12c
1	„ „	19s
1	„ „	22
1	„ „	24
1	„ „	35
46	„ „	37
1	„ „	38
1	„ „	40
6	„ „	48a
1	„ „	52
1	„ „	57c
4	„ „	90a
2	„ „	126a
1	„ „	176
2	„ „	190
2	„ „	191
1	„ „	198

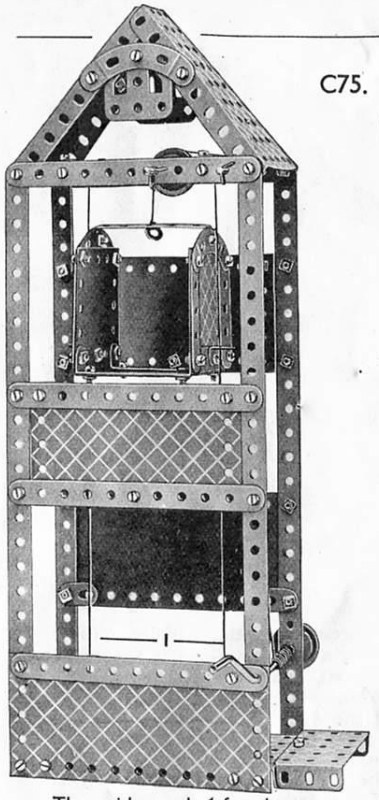


C74. Rowing Boat

Parts required

4 of No. 2	2 of No. 16	3 of No. 48a
4 „ „ 5	1 „ „ 22	1 „ „ 52
4 „ „ 10	6 „ „ 35	2 „ „ 54a
7 „ „ 12	25 „ „ 37	1 „ „ 111c





C75. Elevator

Parts required

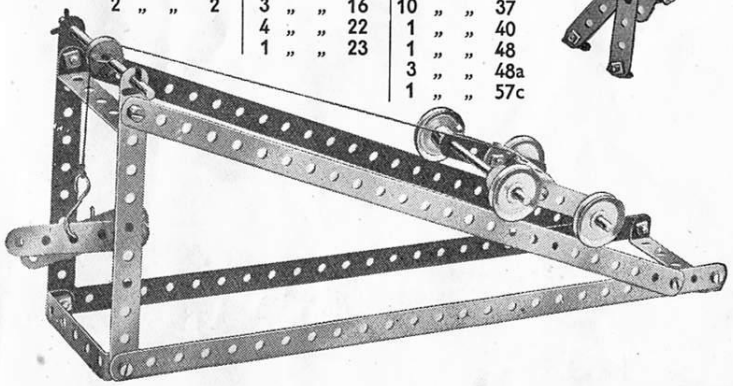
4	of No.	1
8	„ „	2
8	„ „	5
2	„ „	10
6	„ „	12
2	„ „	16
1	„ „	19s
2	„ „	22
1	„ „	23
6	„ „	35
63	„ „	37
2	„ „	37a
8	„ „	38
1	„ „	40
3	„ „	48a
1	„ „	51
1	„ „	52
2	„ „	54a
4	„ „	90a
1	„ „	126
2	„ „	126a
1	„ „	176
3	„ „	190
2	„ „	191
2	„ „	192

The guide cords 1 for the cage are tied to the centre holes of $2\frac{1}{2}''$ Strips attached to the top of the model by Angle Brackets, and in corresponding holes in the $5\frac{1}{2}'' \times 2\frac{1}{2}''$ Flanged Plate. The hoisting cord is passed over a $\frac{1}{2}''$ loose Pulley and 1" fixed Pulley before being tied to the cage as shown.

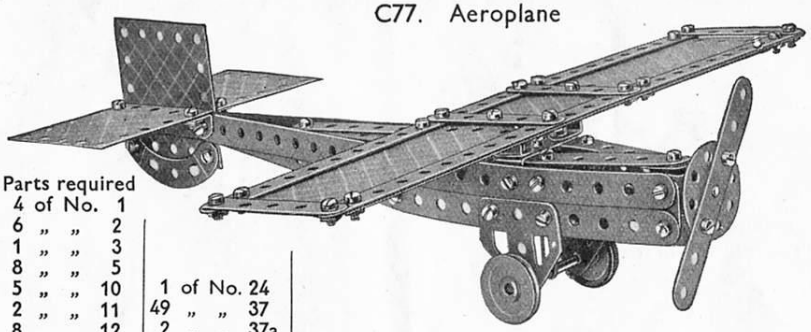
C76. Inclined Plane

Parts required

4 of No. 1	2 of No. 5	3 of No. 35
2 „ „ 2	3 „ „ 16	10 „ „ 37
	4 „ „ 22	1 „ „ 40
	1 „ „ 23	1 „ „ 48
		3 „ „ 48a
		1 „ „ 57c



C77. Aeroplane



Parts required

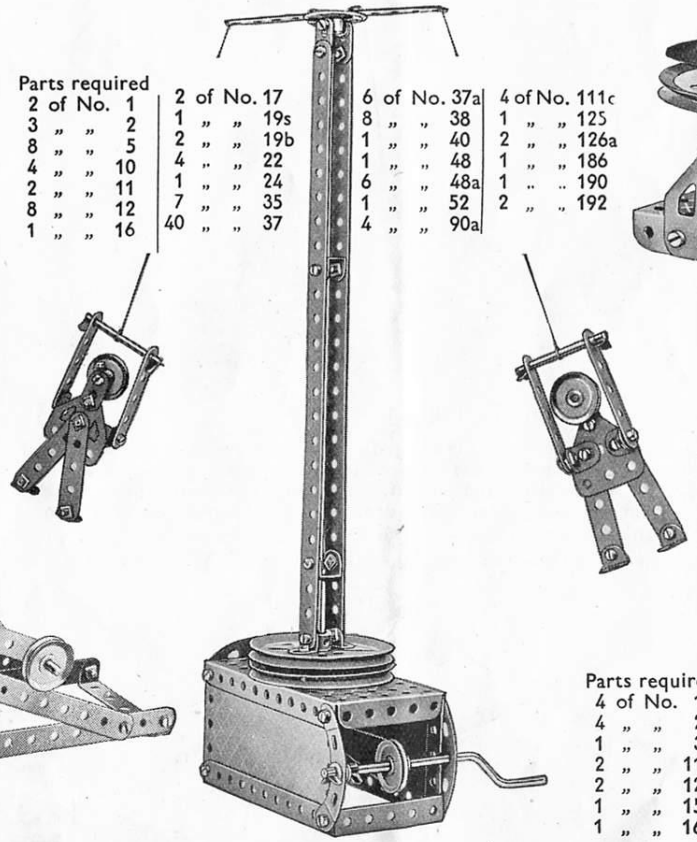
4 of No. 1			
6 „ „ 2			
1 „ „ 3			
8 „ „ 5			
5 „ „ 10	1 of No. 24		
2 „ „ 11	49 „ „ 37		
8 „ „ 12	2 „ „ 37a		
1 „ „ 15b	1 „ „ 48	2 of No. 125	1 of No. 186
1 „ „ 17	2 „ „ 90a	2 „ „ 126a	4 „ „ 190
2 „ „ 22	2 „ „ 111c	1 „ „ 176	2 „ „ 191

An alternative design of this model (C77M), fitted with the Meccano *Magic* Motor, is illustrated at the end of this section.

C78. Revolving Gymnasts

Parts required

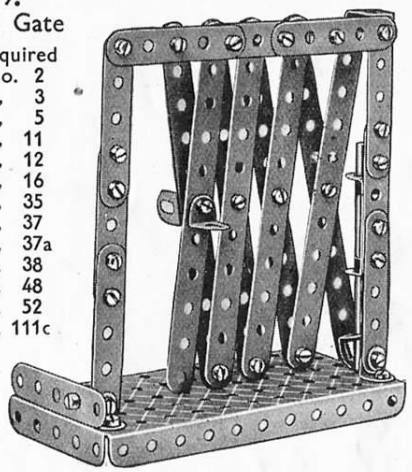
2 of No. 1	2 of No. 17	6 of No. 37a	4 of No. 111c
3 „ „ 2	1 „ „ 19s	8 „ „ 38	1 „ „ 125
8 „ „ 5	2 „ „ 19b	1 „ „ 40	2 „ „ 126a
4 „ „ 10	4 „ „ 22	1 „ „ 48	1 „ „ 186
2 „ „ 11	1 „ „ 24	6 „ „ 48a	1 „ „ 190
8 „ „ 12	7 „ „ 35	1 „ „ 52	2 „ „ 192
1 „ „ 16	40 „ „ 37	4 „ „ 90a	



C79. Sliding Gate

Parts required

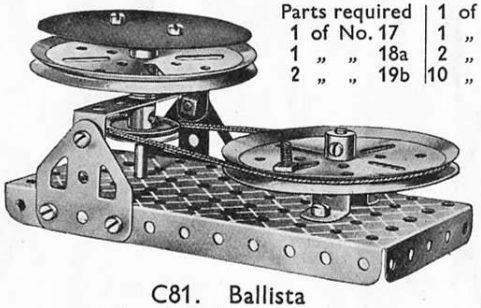
8	of No. 2
1	„ „ 3
9	„ „ 5
1	„ „ 11
6	„ „ 12
1	„ „ 16
2	„ „ 35
30	„ „ 37
14	„ „ 37a
5	„ „ 38
1	„ „ 48
1	„ „ 52
1	„ „ 111c



C80. Rotary Linisher

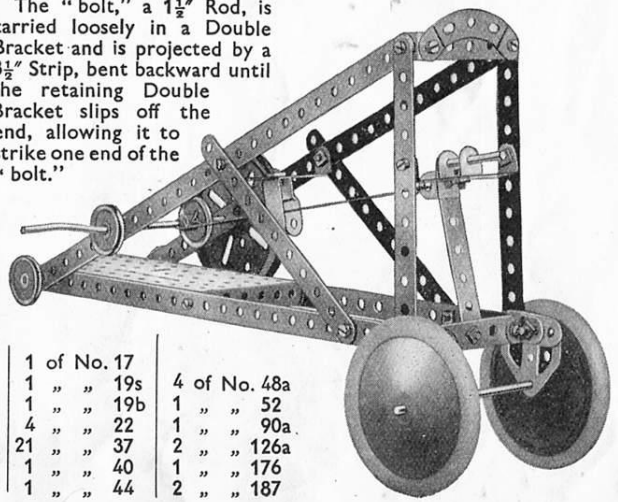
Parts required

1 of No. 17	1 of No. 22	1 of No. 37a	
1 „ „ 18a	1 „ „ 24	2 „ „ 38	
2 „ „ 19b	2 „ „ 35	1 „ „ 40	
	10 „ „ 37	1 „ „ 48a	
		1 „ „ 52	
		1 „ „ 111c	
		2 „ „ 125	
		1 „ „ 126a	
		Disc of Emery Cloth (not included in Outfit)	



C81. Ballista

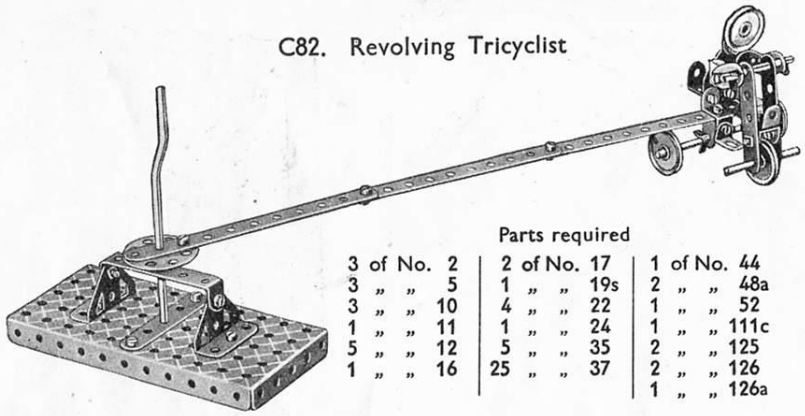
The "bolt," a $1\frac{1}{2}''$ Rod, is carried loosely in a Double Bracket and is projected by a $3\frac{1}{2}''$ Strip, bent backward until the retaining Double Bracket slips off the end, allowing it to strike one end of the "bolt."



Parts required

4 of No. 1	1 of No. 17	
4 „ „ 2	1 „ „ 19s	4 of No. 48a
1 „ „ 3	1 „ „ 19b	1 „ „ 52
2 „ „ 11	4 „ „ 22	1 „ „ 90a
2 „ „ 12	21 „ „ 37	2 „ „ 126a
1 „ „ 15b	1 „ „ 40	1 „ „ 176
1 „ „ 16	1 „ „ 44	2 „ „ 187

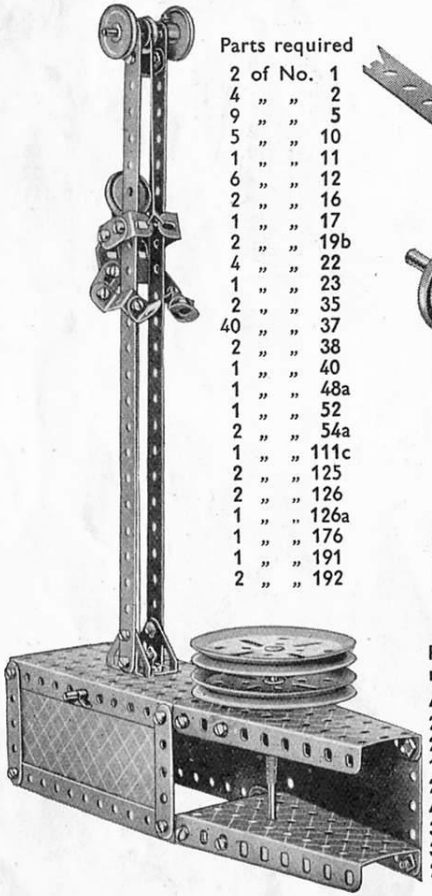
C82. Revolving Tricyclist



Parts required

3 of No.	2	2 of No.	17	1 of No.	44
3 „ „	5	1 „ „	19s	2 „ „	48a
3 „ „	10	4 „ „	22	1 „ „	52
1 „ „	11	1 „ „	24	1 „ „	111c
5 „ „	12	5 „ „	35	2 „ „	125
1 „ „	16	25 „ „	37	2 „ „	126
				1 „ „	126a

C83. Man Climbing Pole



Parts required

2 of No.	1
4 „ „	2
9 „ „	5
5 „ „	10
1 „ „	11
6 „ „	12
2 „ „	16
1 „ „	17
2 „ „	19b
4 „ „	22
1 „ „	23
2 „ „	35
40 „ „	37
2 „ „	38
1 „ „	40
1 „ „	48a
1 „ „	52
2 „ „	54a
1 „ „	111c
2 „ „	125
2 „ „	126
1 „ „	126a
1 „ „	176
1 „ „	191
2 „ „	192

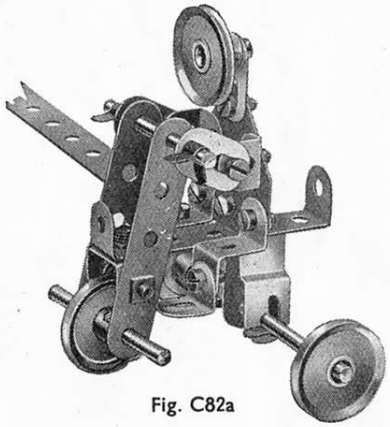
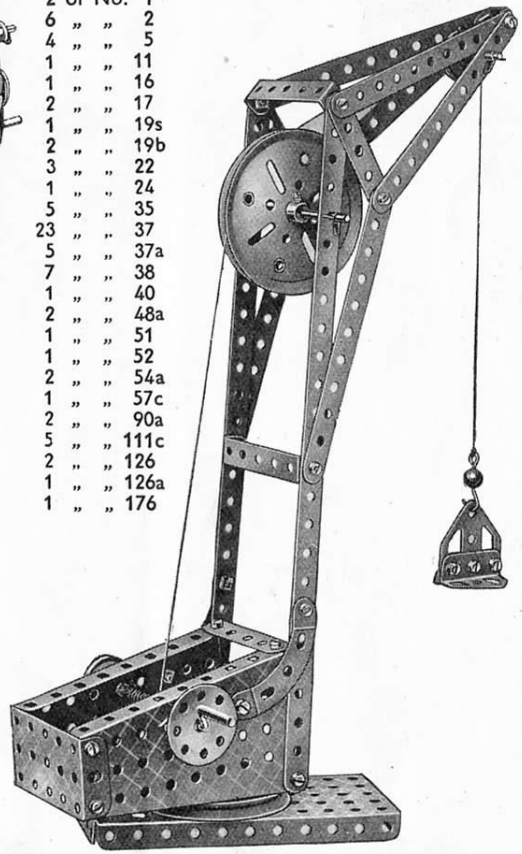


Fig. C82a

C84. Warehouse Crane

Parts required

2 of No.	1
6 „ „	2
4 „ „	5
1 „ „	11
1 „ „	16
2 „ „	17
1 „ „	19s
2 „ „	19b
3 „ „	22
1 „ „	24
5 „ „	35
23 „ „	37
5 „ „	37a
7 „ „	38
1 „ „	40
2 „ „	48a
1 „ „	51
1 „ „	52
2 „ „	54a
1 „ „	57c
2 „ „	90a
5 „ „	111c
2 „ „	126
1 „ „	126a
1 „ „	176



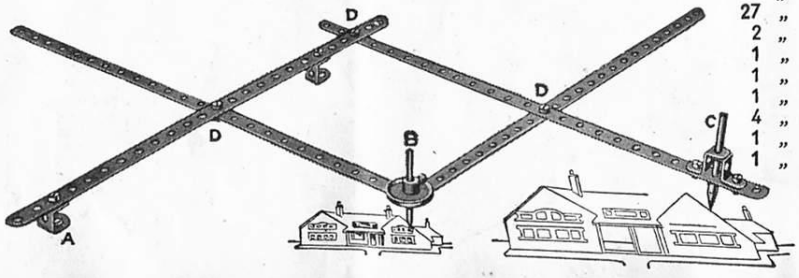
C85. Pantograph

The apparatus is fixed at the point A. If an enlarged sketch is to be made the point B is traced round the outlines, the writing point C reproducing the sketch on a large scale. When a reduced drawing is to be made, the point C traces the outline, whilst the point B reproduces the sketch on a smaller scale. The degree of enlargement or reduction varies according to the position in which point C is fixed on the perforated arm.

The Bolts at D are fitted with locknuts to allow free movement of the 12½ Strips.

Parts required

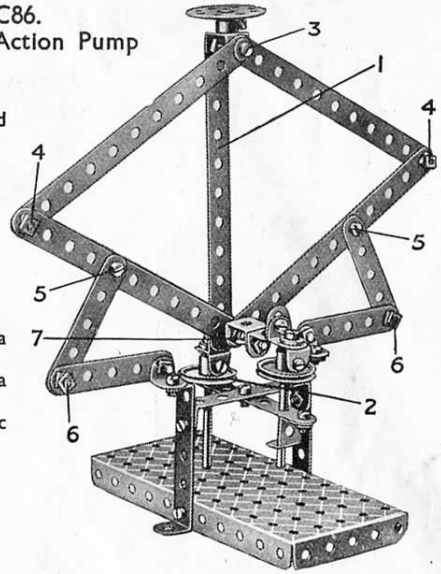
4 of No.	1
2 „ „	11
2 „ „	18a
1 „ „	22
2 „ „	35
4 „ „	37
3 „ „	37a
3 „ „	111c
2 „ „	125



C86. Double Action Pump

Parts required

5 of No.	2
1 „ „	3
4 „ „	5
2 „ „	11
6 „ „	12
2 „ „	17
2 „ „	22
1 „ „	24
24 „ „	37
9 „ „	37a
7 „ „	38
3 „ „	48a
1 „ „	52
3 „ „	111c
2 „ „	125

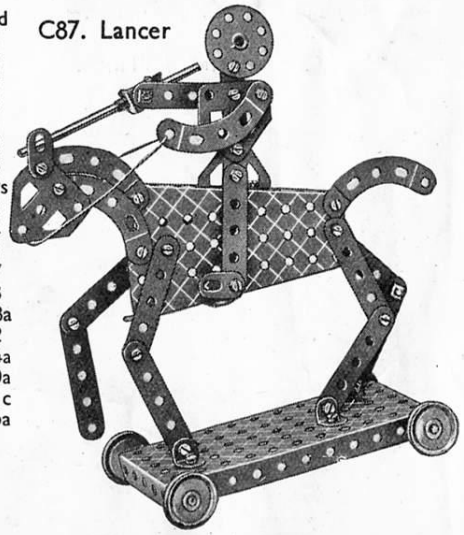


The 5½" Strip 1 is attached to the 1" Pulley Wheel 2 by means of two Angle Brackets, through the lower one of which passes the Set-Screw that secures the Pulley to its 2" Rod. Two Washers are placed beneath the head of the bolt joining the Angle Brackets in order to prevent its shank from binding on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

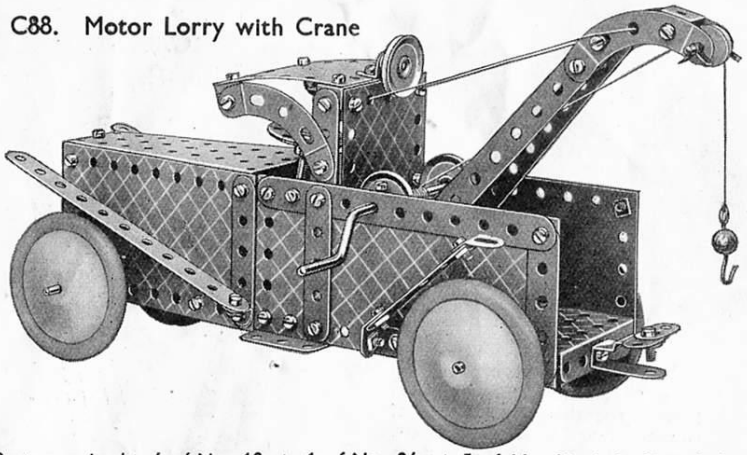
C87. Lancer

Parts required

1 of No.	2
1 „ „	3
9 „ „	5
2 „ „	10
2 „ „	11
5 „ „	12
2 „ „	16
1 „ „	19s
4 „ „	22
1 „ „	24
1 „ „	35
27 „ „	37
2 „ „	38
1 „ „	48a
1 „ „	52
1 „ „	54a
4 „ „	90a
1 „ „	111c
1 „ „	126a



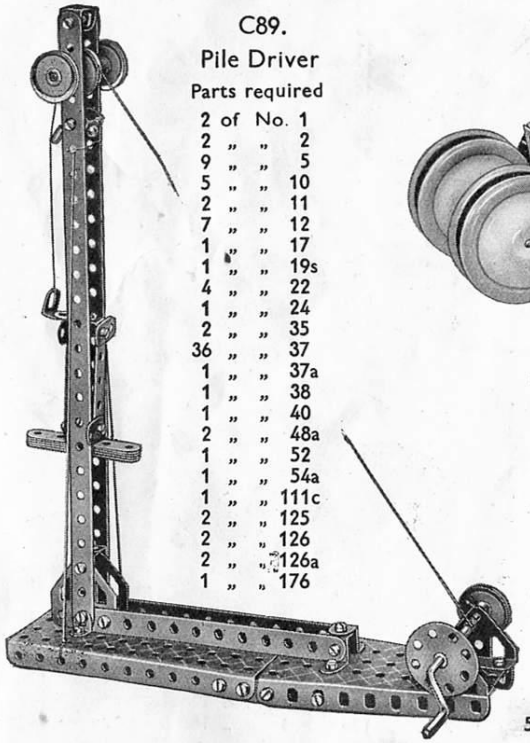
C88. Motor Lorry with Crane



Parts required

8 of No. 2	4 of No. 12c	1 of No. 24	5 of No. 48a	2 of No. 126
1 „ „ 3	2 „ „ 15b	5 „ „ 35	1 „ „ 51	2 „ „ 126a
9 „ „ 5	1 „ „ 16	66 „ „ 37	1 „ „ 52	1 „ „ 176
4 „ „ 10	1 „ „ 18a	3 „ „ 37a	2 „ „ 54a	4 „ „ 187
1 „ „ 11	1 „ „ 19s	4 „ „ 38	1 „ „ 57c	3 „ „ 190
7 „ „ 12	4 „ „ 22	1 „ „ 40	4 „ „ 90a	2 „ „ 191
	1 „ „ 23	1 „ „ 44	4 „ „ 111c	2 „ „ 192

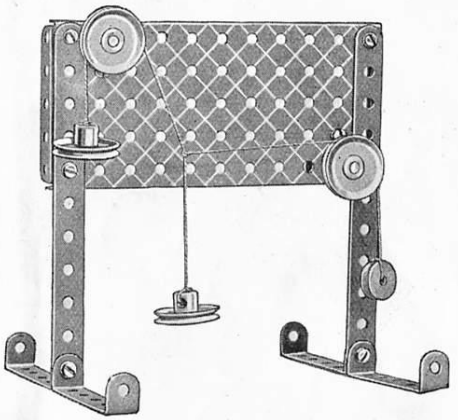
C89. Pile Driver



Parts required

2 of No. 1
2 „ „ 2
9 „ „ 5
5 „ „ 10
2 „ „ 11
7 „ „ 12
1 „ „ 17
1 „ „ 19s
4 „ „ 22
1 „ „ 24
2 „ „ 35
36 „ „ 37
1 „ „ 37a
1 „ „ 38
1 „ „ 40
2 „ „ 48a
1 „ „ 52
1 „ „ 54a
1 „ „ 111c
2 „ „ 125
2 „ „ 126
2 „ „ 126a
1 „ „ 176

C90. Triangle of Forces

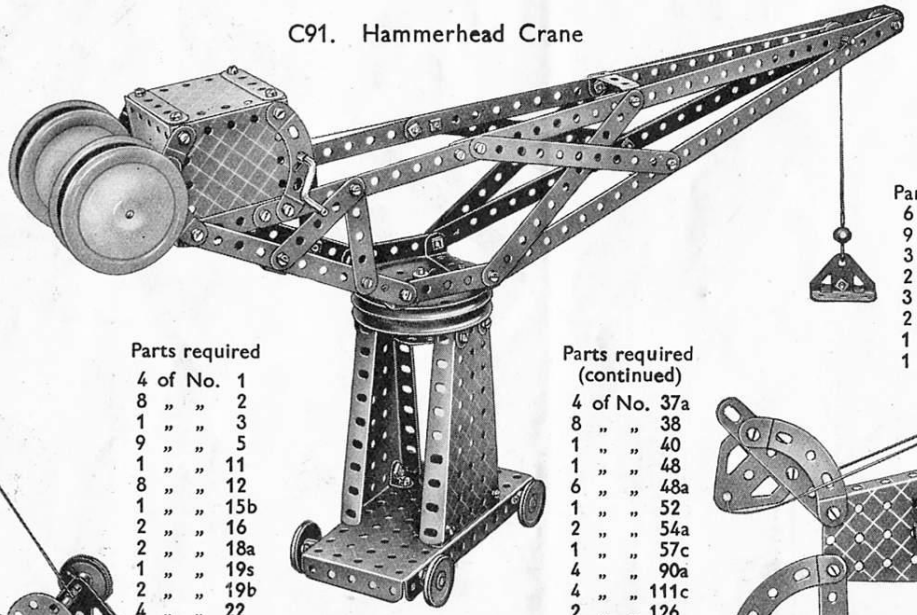


Parts required

2 of No. 2
2 „ „ 18a
4 „ „ 22
1 „ „ 23
2 „ „ 35
8 „ „ 37
1 „ „ 40
4 „ „ 48a
1 „ „ 52
2 „ „ 125

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

C91. Hammerhead Crane



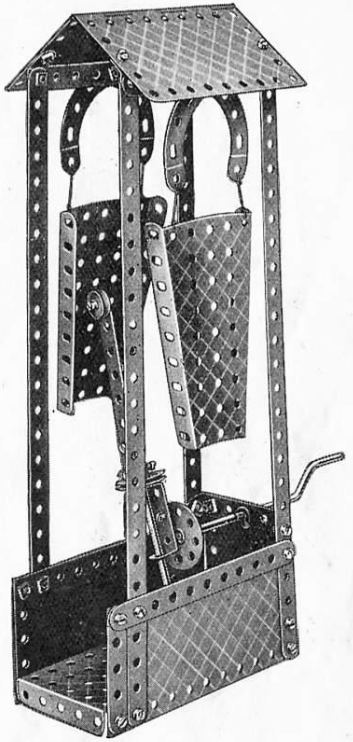
Parts required

4 of No. 1
8 „ „ 2
1 „ „ 3
9 „ „ 5
1 „ „ 11
8 „ „ 12
1 „ „ 15b
2 „ „ 16
2 „ „ 18a
1 „ „ 19s
2 „ „ 19b
4 „ „ 22
1 „ „ 23
1 „ „ 24
4 „ „ 35
51 „ „ 37

Parts required (continued)

4 of No. 37a
8 „ „ 38
1 „ „ 40
1 „ „ 48
6 „ „ 48a
1 „ „ 52
2 „ „ 54a
1 „ „ 57c
4 „ „ 90a
4 „ „ 111c
2 „ „ 126
2 „ „ 126a
1 „ „ 176
4 „ „ 187
4 „ „ 190

C92. Mechanical Gong



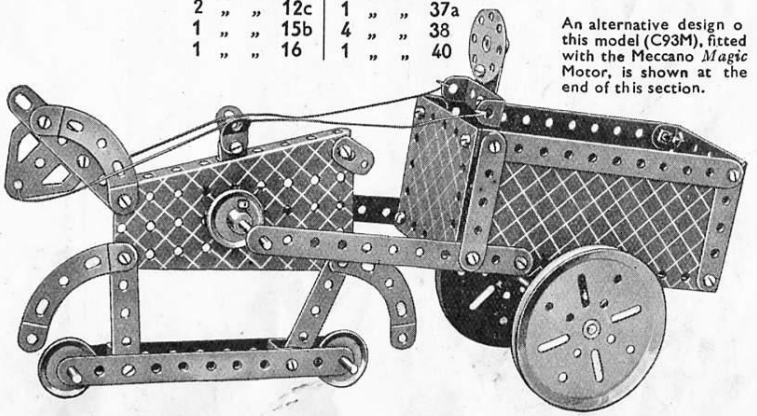
Parts required

4 of No. 1
2 „ „ 2
1 „ „ 3
7 „ „ 5
2 „ „ 10
1 „ „ 12
4 „ „ 12c
1 „ „ 16
1 „ „ 19s
2 „ „ 22
1 „ „ 23
1 „ „ 24
2 „ „ 35
39 „ „ 37
2 „ „ 37a
7 „ „ 38
1 „ „ 40
1 „ „ 48
2 „ „ 48a
1 „ „ 52
2 „ „ 54a
4 „ „ 90a
1 „ „ 111c
1 „ „ 126
1 „ „ 190
2 „ „ 192
1 „ „ 198

C93. Horse and Cart

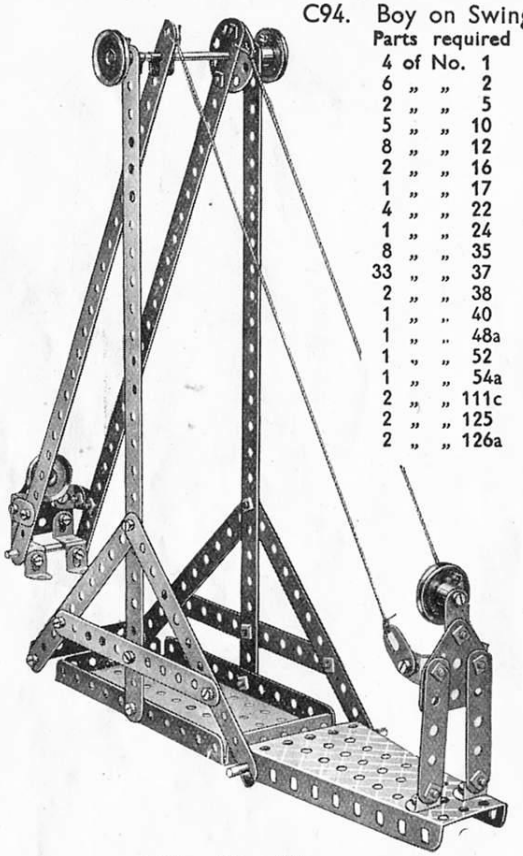
Parts required

6 of No. 2	2 of No. 18a	1 of No. 48	1 of No. 111c
9 „ „ 5	2 „ „ 19b	2 „ „ 48a	2 „ „ 126
3 „ „ 10	4 „ „ 22	1 „ „ 52	2 „ „ 126a
2 „ „ 11	1 „ „ 24	1 „ „ 54a	2 „ „ 190
3 „ „ 12	2 „ „ 35	3 „ „ 90	2 „ „ 192
2 „ „ 12c	40 „ „ 37		
1 „ „ 15b	1 „ „ 37a		
1 „ „ 16	4 „ „ 38		
	1 „ „ 40		



An alternative design o this model (C93M), fitted with the Meccano *Magic* Motor, is shown at the end of this section.

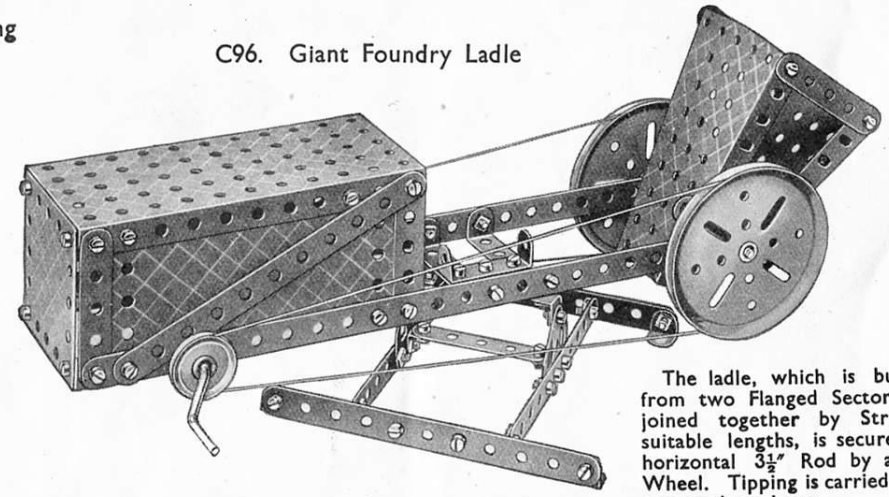
C94. Boy on Swing



Parts required

4	of No.	1
6	„ „	2
2	„ „	5
5	„ „	10
8	„ „	12
2	„ „	16
1	„ „	17
4	„ „	22
1	„ „	24
8	„ „	35
33	„ „	37
2	„ „	38
1	„ „	40
1	„ „	48a
1	„ „	52
1	„ „	54a
2	„ „	111c
2	„ „	125
2	„ „	126a

C96. Giant Foundry Ladle

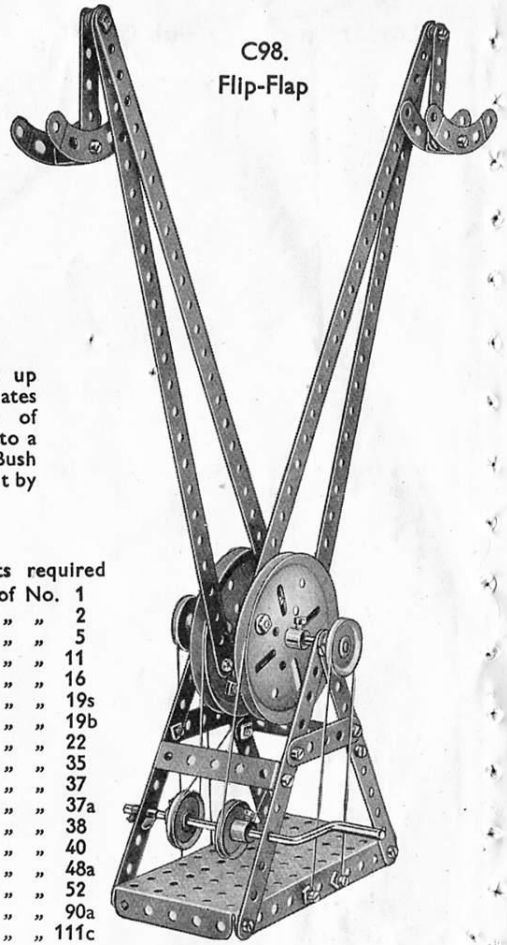


The ladle, which is built up from two Flanged Sector Plates joined together by Strips of suitable lengths, is secured to a horizontal 3½" Rod by a Bush Wheel. Tipping is carried out by two cords as shown.

Parts required

2	of No.	1
6	„ „	2
9	„ „	5
2	„ „	10
8	„ „	12
1	„ „	16
1	of No.	19s
2	„ „	19b
2	„ „	22
1	„ „	24
64	„ „	37
2	„ „	37a
5	of No.	38
1	„ „	40
1	„ „	48
6	„ „	48a
1	„ „	52
2	of No.	54a
1	„ „	111c
2	„ „	126a
1	„ „	190
2	„ „	191

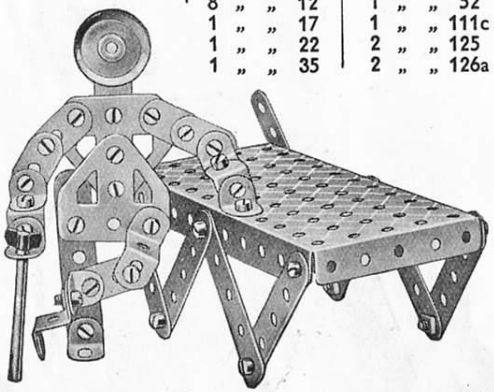
C98. Flip-Flap



Parts required

4	of No.	1
4	„ „	2
4	„ „	5
2	„ „	11
1	„ „	16
1	„ „	19s
2	„ „	19b
4	„ „	22
4	„ „	35
20	„ „	37
20	„ „	37a
8	„ „	38
1	„ „	40
2	„ „	48a
1	„ „	52
4	„ „	90a
6	„ „	111c

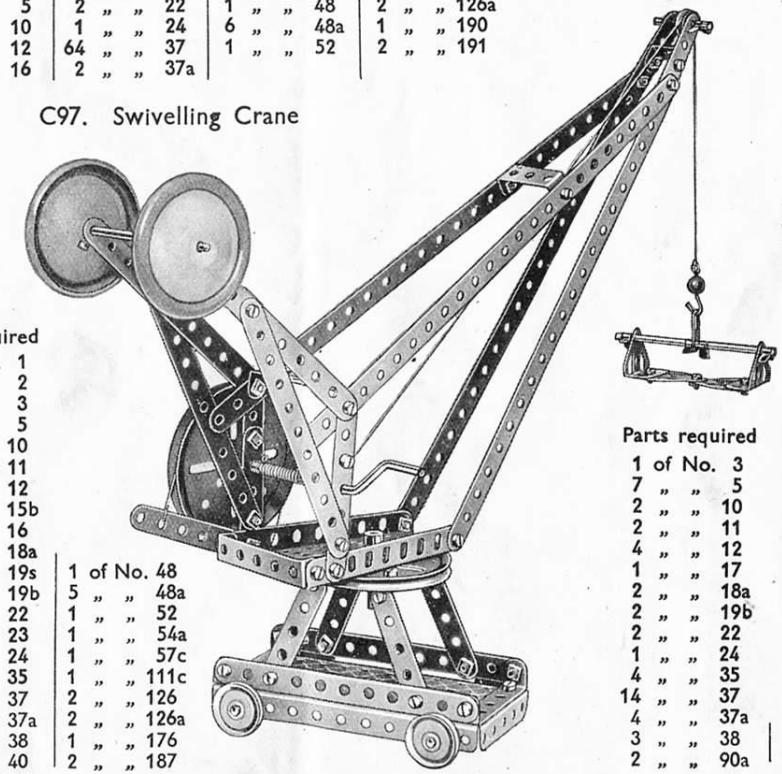
C95. King Meccano



Parts required

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

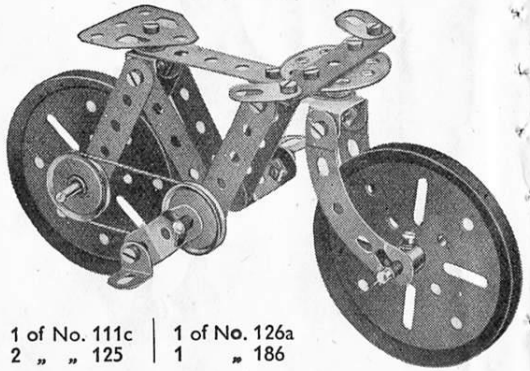
C97. Swivelling Crane



Parts required

4	of No.	1
8	„ „	2
1	„ „	3
8	„ „	5
1	„ „	10
1	„ „	11
4	„ „	12
1	„ „	15b
3	„ „	16
2	„ „	18a
1	„ „	19s
2	„ „	19b
4	„ „	22
1	„ „	23
1	„ „	24
6	„ „	35
46	„ „	37
2	„ „	37a
6	„ „	38
1	„ „	40
1	of No.	48
5	„ „	48a
1	„ „	52
1	„ „	54a
1	„ „	57c
1	„ „	111c
2	„ „	126
2	„ „	126a
1	„ „	176
2	„ „	187

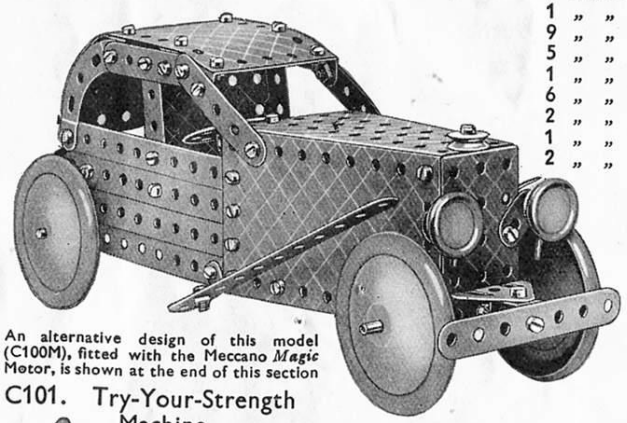
C99. Bicycle



Parts required

1	of No.	3
7	„ „	5
2	„ „	10
2	„ „	11
4	„ „	12
1	„ „	17
2	„ „	18a
2	„ „	19b
2	„ „	22
1	„ „	24
4	„ „	35
14	„ „	37
4	„ „	37a
3	„ „	38
2	„ „	90a
1	of No.	111c
2	„ „	125
1	of No.	126a
1	„	186

C100. Sports Coupé



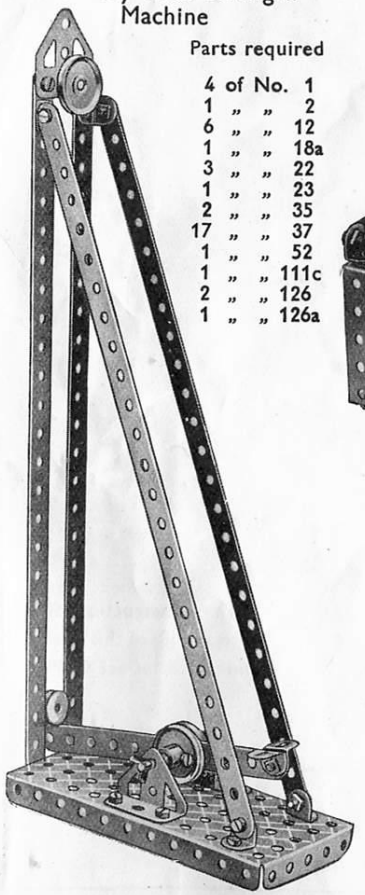
An alternative design of this model (C100M), fitted with the Meccano *Magic* Motor, is shown at the end of this section

Parts required

8	of No.	2
1	„ „	3
9	„ „	5
5	„ „	10
1	„ „	11
6	„ „	12
2	„ „	15b
1	„ „	17
2	„ „	22
1	of No.	23
1	„ „	24
66	„ „	37
4	„ „	37a
6	„ „	48a
1	„ „	51
1	„ „	52
2	„ „	54a
2	„ „	90a
6	„ „	111c
1	„ „	125
1	„ „	126
2	„ „	126a
4	„ „	187
1	„ „	190
2	„ „	191
1	„ „	192
1	„ „	200

Lighting Set (not included in Outfit)

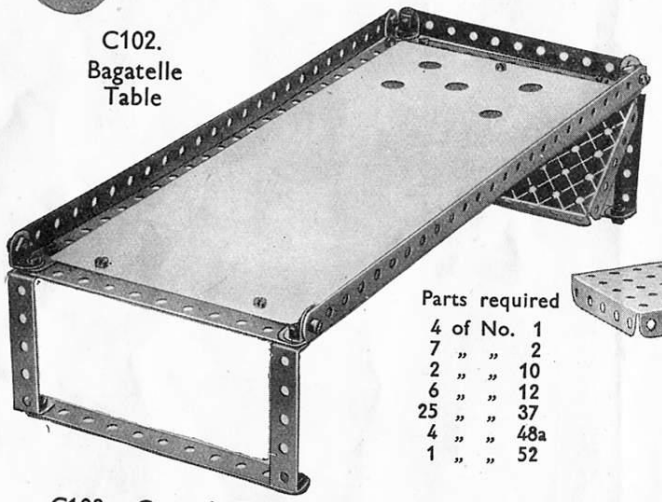
C101. Try-Your-Strength Machine



Parts required

4	of No.	1
1	„ „	2
6	„ „	12
1	„ „	18a
3	„ „	22
1	„ „	23
2	„ „	35
17	„ „	37
1	„ „	52
1	„ „	111c
2	„ „	126
1	„ „	126a

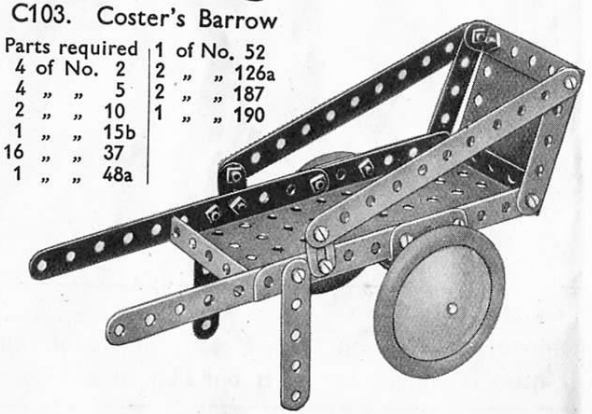
C102. Bagatelle Table



Parts required

4	of No.	1
7	„ „	2
2	„ „	10
6	„ „	12
25	„ „	37
4	„ „	48a
1	„ „	52

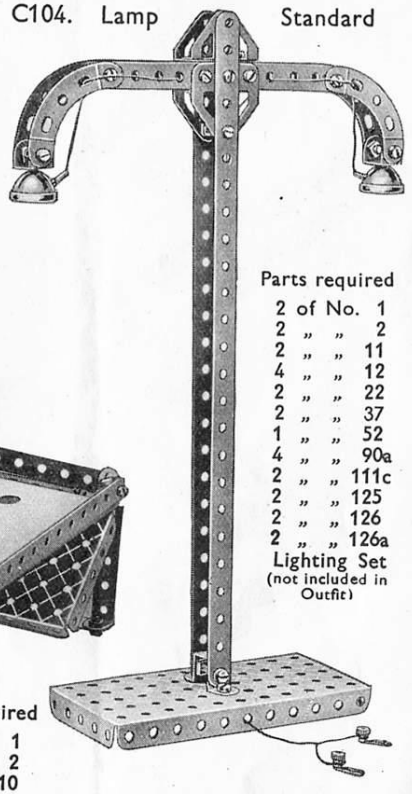
C103. Coster's Barrow



Parts required

4	of No.	2
4	„ „	5
2	„ „	10
1	„ „	15b
16	„ „	37
1	„ „	48a
1	of No.	52
2	„ „	126a
2	„ „	187
1	„ „	190

C104. Lamp Standard

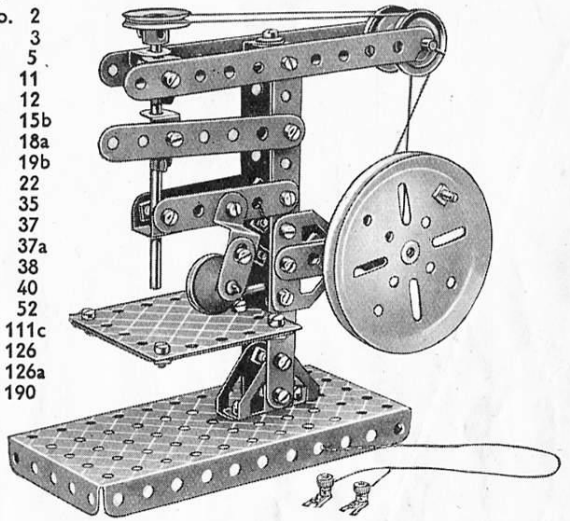


Parts required

2	of No.	1
2	„ „	2
2	„ „	11
4	„ „	12
2	„ „	22
2	„ „	37
1	„ „	52
4	„ „	90a
2	„ „	111c
2	„ „	125
2	„ „	126
2	„ „	126a

Lighting Set (not included in Outfit)

C105. Drill



Parts required

4	of No.	2
1	„ „	3
9	„ „	5
2	„ „	11
8	„ „	12
1	„ „	15b
2	„ „	18a
1	„ „	19b
4	„ „	22
5	„ „	35
33	„ „	37
3	„ „	37a
5	„ „	38
1	„ „	40
1	„ „	52
2	„ „	111c
2	„ „	126
2	„ „	126a
1	„ „	190

Lighting Set (not included in Outfit)

MECCANO LIGHTING SET

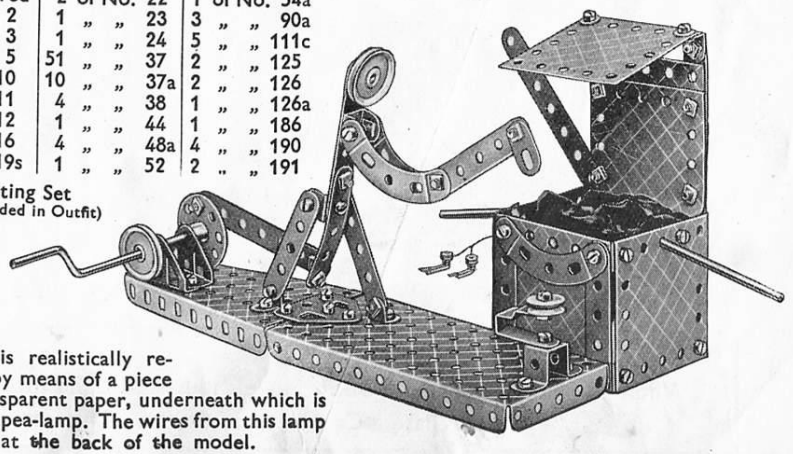
The appearance of many Meccano models, especially those built with Outfits A, B and C, can be vastly improved by the addition of suitably disposed lights. For this purpose a special set of lighting equipment has been introduced. This consists of two pea-lamps, two lanterns for use as headlamps or spot lights, and a fancy stand lamp. The appearance and uses of the parts are shown in models C100, C104, C105 and C106

C106. Blacksmith

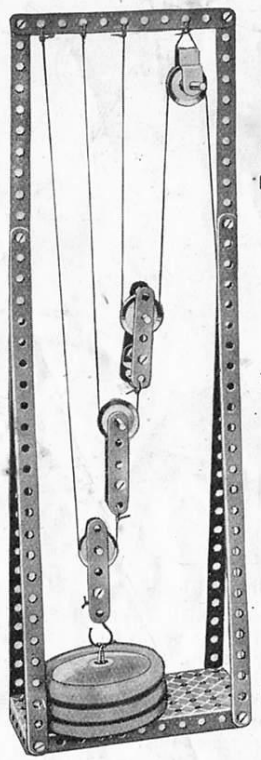
Parts required

3	of No.	2
1	„ „	3
7	„ „	5
2	„ „	10
2	„ „	11
7	„ „	12
2	„ „	16
1	„ „	19s
2	of No.	22
1	„ „	23
1	„ „	24
51	„ „	37
10	„ „	37a
4	„ „	38
1	„ „	44
4	„ „	48a
1	„ „	52
1	of No.	54a
3	„ „	90a
5	„ „	111c
2	„ „	125
2	„ „	126
1	„ „	126a
1	„ „	186
4	„ „	190
2	„ „	191

Lighting Set not included in Outfit)



The fire is realistically represented by means of a piece of red transparent paper, underneath which is concealed a pea-lamp. The wires from this lamp are shown at the back of the model.



C107. Pulley Block 8:1

Parts required

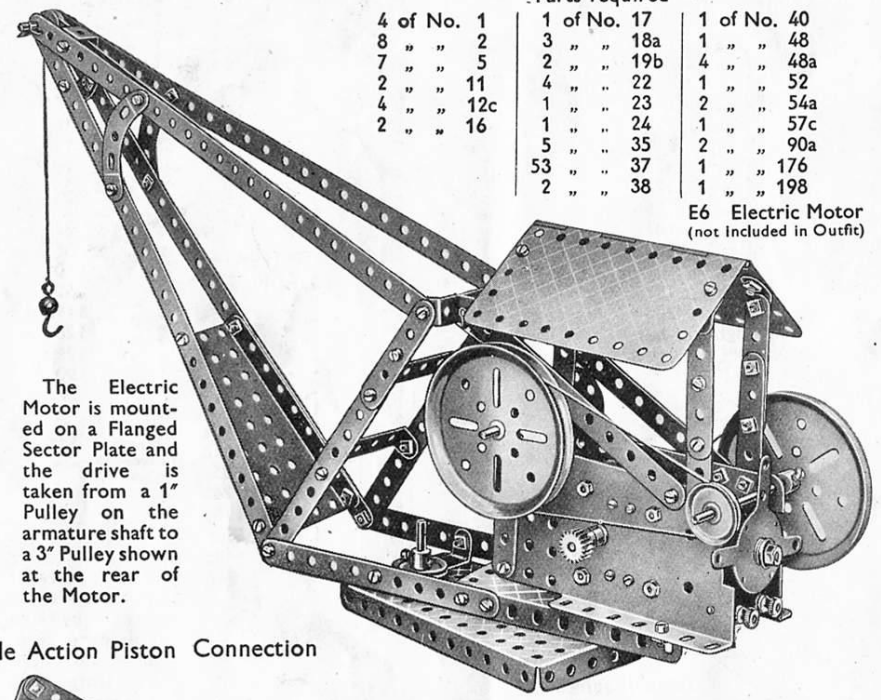
4 of No.	1
3 „ „	2
6 „ „	5
2 „ „	11
2 „ „	12
2 „ „	17
2 „ „	18a
4 „ „	22
15 „ „	37
2 „ „	38
1 „ „	40
1 „ „	44
1 „ „	52
1 „ „	57c
3 „ „	187

C109. Swivelling Jib Crane (Electric)

Parts required

4 of No.	1	1 of No.	17	1 of No.	40
8 „ „	2	3 „ „	18a	1 „ „	48
7 „ „	5	2 „ „	19b	4 „ „	48a
2 „ „	11	4 „ „	22	1 „ „	52
4 „ „	12c	1 „ „	23	2 „ „	54a
2 „ „	16	1 „ „	24	1 „ „	57c
		5 „ „	35	2 „ „	90a
		53 „ „	37	1 „ „	176
		2 „ „	38	1 „ „	198

E6 Electric Motor (not included in Outfit)



The Electric Motor is mounted on a Flanged Sector Plate and the drive is taken from a 1″ Pulley on the armature shaft to a 3″ Pulley shown at the rear of the Motor.

C110. Overhead Crane

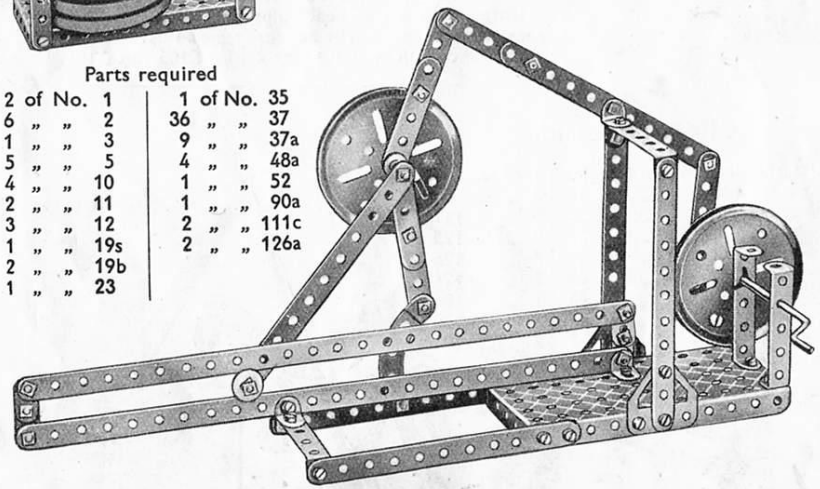
Parts required

4 of No.	1
4 „ „	2
8 „ „	5
2 „ „	10
8 „ „	12
2 „ „	16
1 „ „	18a
1 „ „	19s
4 „ „	22
1 „ „	23
4 „ „	35
48 „ „	37
2 „ „	37a
1 „ „	40
6 „ „	48a
1 „ „	57c
4 „ „	90a
1 „ „	111c
2 „ „	126a
1 „ „	176
2 „ „	191

C108. Double Action Piston Connection

Parts required

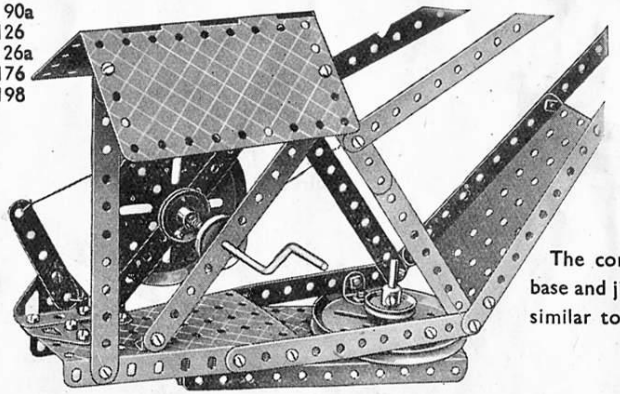
2 of No.	1	1 of No.	35
6 „ „	2	36 „ „	37
1 „ „	3	9 „ „	37a
5 „ „	5	4 „ „	48a
4 „ „	10	1 „ „	52
2 „ „	11	1 „ „	90a
3 „ „	12	2 „ „	111c
1 „ „	19s	2 „ „	126a
2 „ „	19b		
1 „ „	23		



C111. Swivelling Jib Crane (Hand)

Parts required

4 of No.	1	1 of No.	57c
7 „ „	2	2 „ „	90a
3 „ „	5	1 „ „	126
2 „ „	11	1 „ „	126a
4 „ „	12	1 „ „	176
3 „ „	12c	1 „ „	198
1 „ „	17		
1 „ „	18a		
1 „ „	19s		
2 „ „	19b		
4 „ „	22		
1 „ „	23		
2 „ „	35		
36 „ „	37		
1 „ „	38		
1 „ „	40		
1 „ „	48		
1 „ „	48a		
1 „ „	52		
2 „ „	54a		



The construction of the base and jib of this model is similar to model C109.

HOW TO CONTINUE

When you have built the C Outfit Models illustrated, and fitted a number of them with the Meccano *Magic* Motor (see two following pages), your next step is to purchase a Ca Accessory Outfit. This converts your C Outfit into a D and enables you to build bigger and better models.

The greatest thrill in Meccano model-building is experienced when a model is set to work by means of a Meccano Motor. The models featured on this and the opposite page are more elaborate variations of a selection of Outfit C Models, showing how the new Meccano *Magic* Motor can be fitted to give more realism and to increase the fun. The numbers of these re-designed models are the same as those of the corresponding models in the preceding pages, with the letter M added. Try your hand at re-designing other models in a similar manner.

C11M. Sports Car

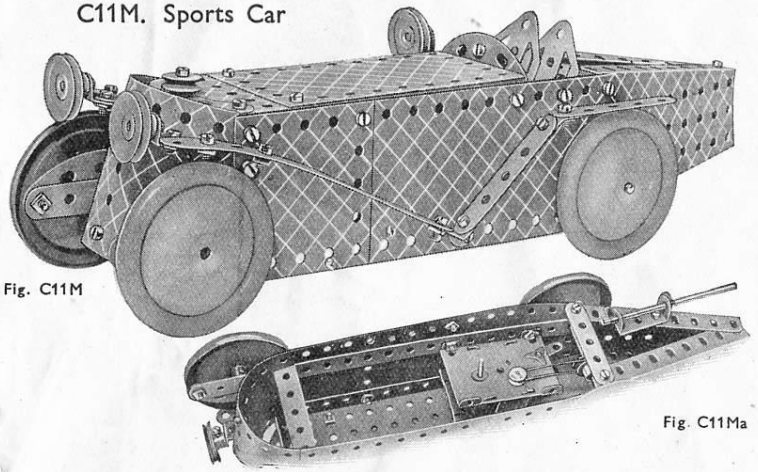


Fig. C11M

Fig. C11Ma

Parts required

2 of No.	1	1 of No.	24	6 of No.	111c
2 ,, ,,	2	2 ,, ,,	35	2 ,, ,,	125
5 ,, ,,	5	56 ,, ,,	37	2 ,, ,,	126a
4 ,, ,,	10	8 ,, ,,	38	4 ,, ,,	187
8 ,, ,,	12	1 ,, ,,	48	4 ,, ,,	190
3 ,, ,,	12c	1 ,, ,,	48a	2 ,, ,,	191
2 ,, ,,	15b	1 ,, ,,	52	2 ,, ,,	192
3 ,, ,,	22	2 ,, ,,	54a	*Magic* Motor	
1 ,, ,,	23	4 ,, ,,	90a		

The underneath view of the model shown in Fig. C11Ma shows how the chassis is formed from two $12\frac{1}{2}''$ Strips that project beyond the front of the model. The *Magic* Motor is bolted to one Strip and drives the special $\frac{1}{2}''$ loose Pulley on the axle of the rear Road Wheels.

Parts required

4 of No.	1
6 ,, ,,	2
1 ,, ,,	3
6 ,, ,,	5
2 ,, ,,	10
2 ,, ,,	11
6 ,, ,,	12
1 ,, ,,	16
1 ,, ,,	18a
2 ,, ,,	22
1 ,, ,,	23
1 ,, ,,	24
3 ,, ,,	35
40 ,, ,,	37
6 ,, ,,	37a
2 ,, ,,	38
1 ,, ,,	48
1 ,, ,,	90a
5 ,, ,,	111c
2 ,, ,,	125
2 ,, ,,	126a
4 ,, ,,	190
2 ,, ,,	192
Magic Motor	

C77M. Aeroplane

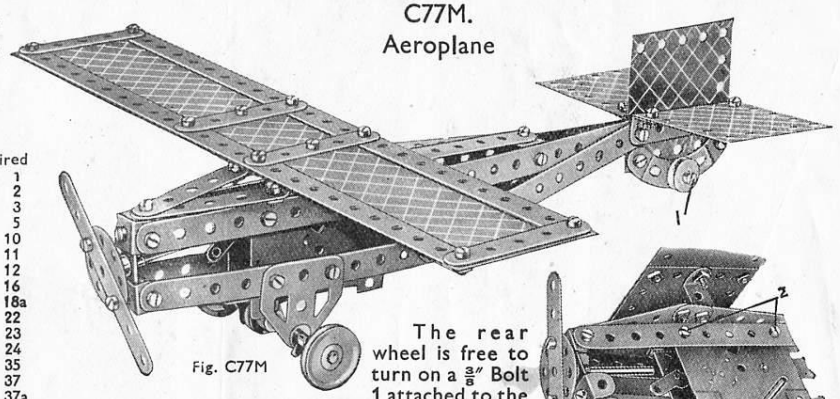


Fig. C77M

The rear wheel is free to turn on a $\frac{3}{8}''$ Bolt 1 attached to the Curved Strips by locknuts. Fig. C77Ma shows how the Motor is fixed in position by bolts 2.

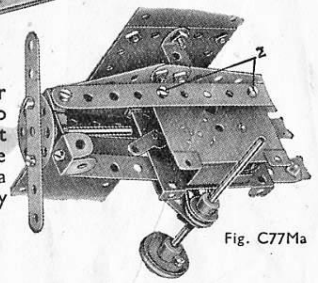


Fig. C77Ma

C27M. Mobile Crane

The jib pivots on two bolts 1, which are each fitted with locknuts. A Crank Handle controls the raising and lowering of the jib and the method of winding the cord round the handle can be seen in Fig.C27Ma. A brake is fitted to the Crank Handle and consists of a pivoted $2\frac{1}{2}''$ Curved Strip to which is tied a loop of cord that passes round the 3" Pulley.

Fig. C27Mb shows how the *Magic* Motor is mounted beneath the crane to drive the one pair of travelling wheels.

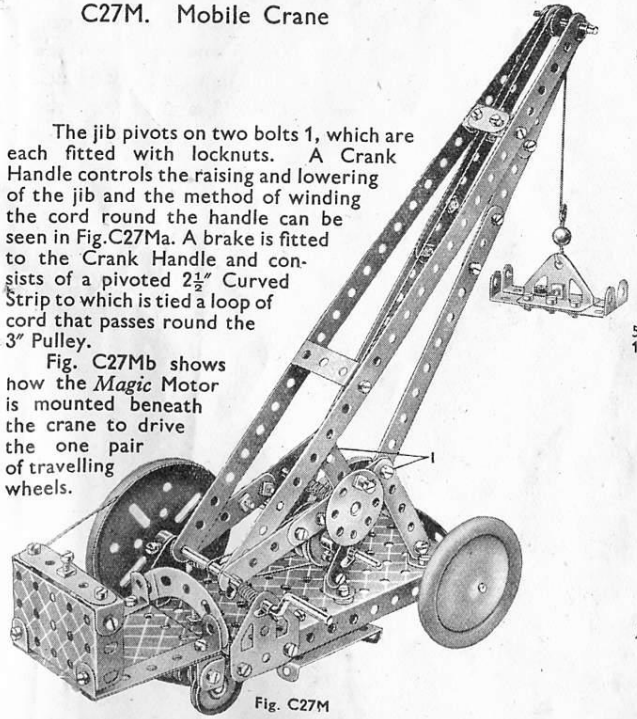


Fig. C27M

Parts required

2 of No.	1
4 ,, ,,	2
9 ,, ,,	5
3 ,, ,,	10
2 ,, ,,	11
8 ,, ,,	12
1 ,, ,,	15b
1 ,, ,,	16
2 ,, ,,	17
2 ,, ,,	18a
1 ,, ,,	19s
1 ,, ,,	19b
4 ,, ,,	22
1 ,, ,,	23
1 ,, ,,	24
7 ,, ,,	35
58 ,, ,,	37
11 ,, ,,	37a
8 ,, ,,	38
1 ,, ,,	40
1 ,, ,,	44
1 ,, ,,	48
6 ,, ,,	48a
1 ,, ,,	51
1 ,, ,,	52
1 ,, ,,	57c
3 ,, ,,	90a
5 ,, ,,	111c
1 ,, ,,	125
2 ,, ,,	126
2 ,, ,,	126a
1 ,, ,,	176
1 ,, ,,	186
2 ,, ,,	187
1 ,, ,,	190
Magic Motor	

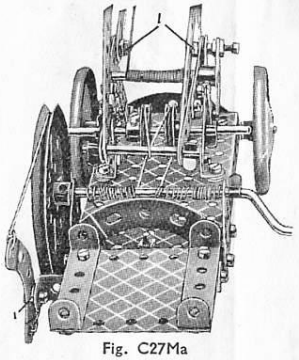


Fig. C27Ma

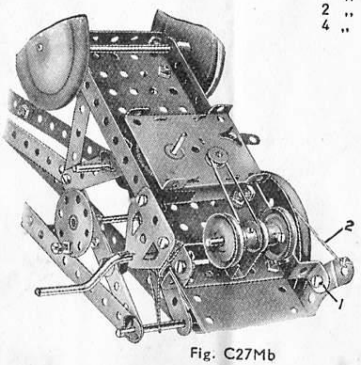


Fig. C27Mb

C93M. Horse and Cart

Fig. C93Ma shows an underneath view of the cart. A $2\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strip 1 is bolted across the Flanged Plate and carries the Trunnions for the Axle Rod. The *Magic* Motor is bolted beneath the Flanged Plate.

Parts required

2 of No.	1	1 of No.	24	1 of No.	52
6 ,, ,,	2	5 ,, ,,	35	1 ,, ,,	54a
8 ,, ,,	5	42 ,, ,,	37	4 ,, ,,	90a
3 ,, ,,	10	2 ,, ,,	38	2 ,, ,,	126
1 ,, ,,	11	1 ,, ,,	40	2 ,, ,,	126a
6 ,, ,,	12	1 ,, ,,	44	2 ,, ,,	187
2 ,, ,,	16	1 ,, ,,	48	2 ,, ,,	190
2 ,, ,,	18a	1 ,, ,,	48a	2 ,, ,,	197
4 ,, ,,	22	*Magic* Motor			

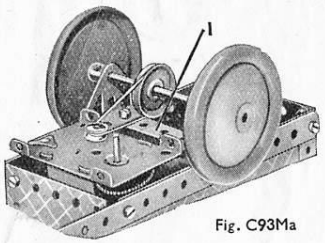


Fig. C93Ma

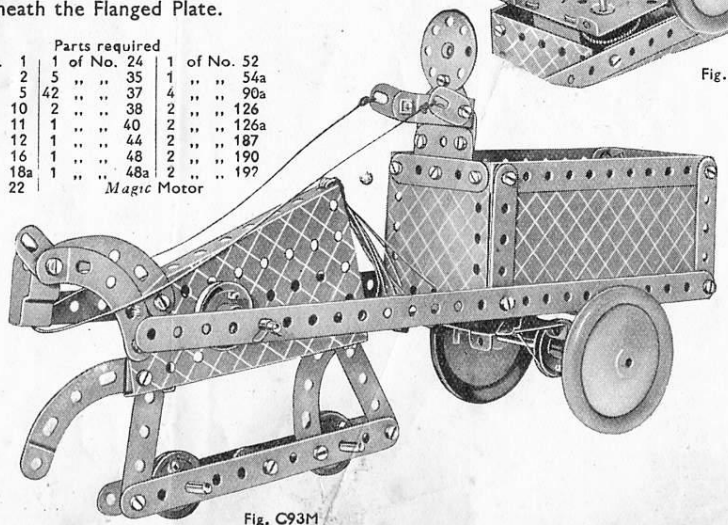


Fig. C93M

C65M. Flyboats

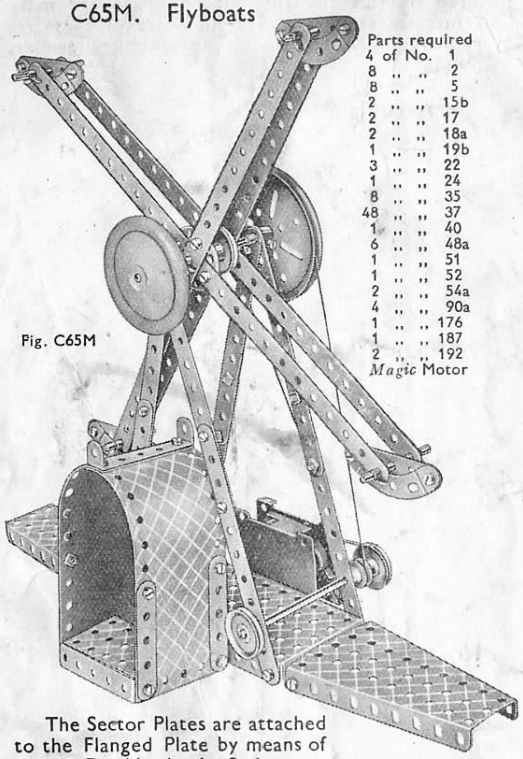


Fig. C65M

Parts required

4	of No.	1
8	,, ,,	2
8	,, ,,	5
2	,, ,,	15b
2	,, ,,	17
2	,, ,,	18a
1	,, ,,	19b
3	,, ,,	22
1	,, ,,	24
8	,, ,,	35
48	,, ,,	37
1	,, ,,	40
6	,, ,,	48a
1	,, ,,	51
1	,, ,,	52
2	,, ,,	54a
4	,, ,,	90a
1	,, ,,	176
1	,, ,,	187
2	,, ,,	192
Magic Motor		

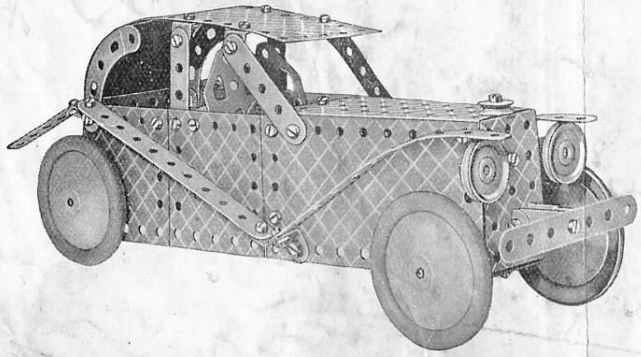
The Sector Plates are attached to the Flanged Plate by means of $\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strips.

C100M. Sports Coupé

Parts required

8	of No.	2	1	of No.	18a	6	of No.	38
1	,, ,,	3	2	,, ,,	22	1	,, ,,	44
9	,, ,,	5	1	,, ,,	23	1	,, ,,	48
2	,, ,,	11	1	,, ,,	24	3	,, ,,	48a
8	,, ,,	12	4	,, ,,	35	1	,, ,,	51
4	,, ,,	12c	56	,, ,,	37	1	,, ,,	54a
2	,, ,,	15b	1	,, ,,	37a	2	,, ,,	90a

3	of No.	111c
1	,, ,,	126
2	,, ,,	126a
4	,, ,,	187
4	,, ,,	190
2	,, ,,	191
2	,, ,,	192
Magic Motor		



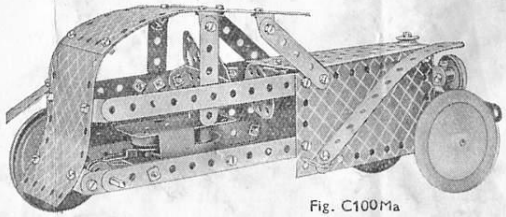


Fig. C100Ma

The front Axle Rod is carried in the upturned ends of a $1\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strip bolted to the lower flange of the $2\frac{1}{2}'' \times 1\frac{1}{2}''$ Flanged Plate forming the radiator. A dummy steering wheel, represented by a Bush Wheel, is carried on a $1\frac{1}{2}''$ Rod passed through the right-hand hole of a Trunnion and held in place by Spring Clips.

C64M. Roundabout

Parts required

4	of No.	1
6	,, ,,	2
8	,, ,,	5
4	,, ,,	10
2	,, ,,	11
8	,, ,,	12
1	,, ,,	15b
1	,, ,,	19b
1	,, ,,	22
1	,, ,,	24
66	,, ,,	37
6	,, ,,	37a
5	,, ,,	38
1	,, ,,	40
1	of No.	48a
1	,, ,,	51
1	,, ,,	52
2	,, ,,	54a
4	,, ,,	90a
6	,, ,,	111c
2	,, ,,	125
2	,, ,,	126
1	,, ,,	187
2	,, ,,	190
2	,, ,,	191
2	,, ,,	195
2	,, ,,	199
Magic Motor		

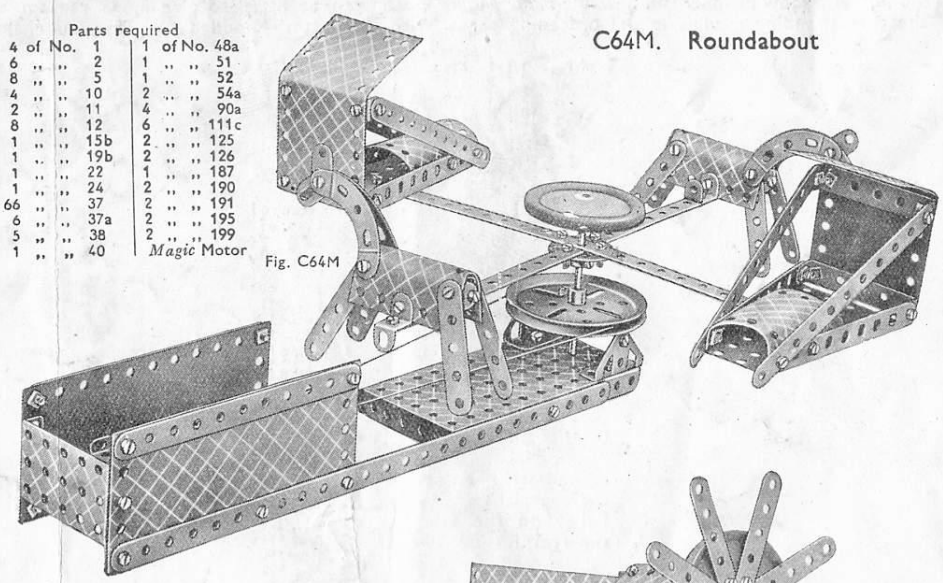


Fig. C64M

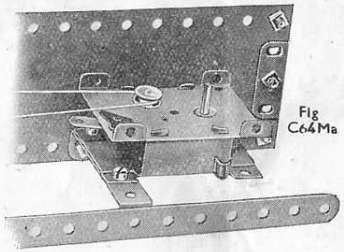


Fig C64Ma

Fig. C64Ma shows how the *Magic* Motor is mounted in position for driving this model.

C22M. Windmill Pump

The construction of the model is seen in the sectional view in Fig. C22Ma the *Magic* Motor being shown ready to be mounted in position. The beam operating the pump is pivoted at each end by means of locknutted bolts 2. A $2\frac{1}{2}''$ Strip connects one end of the beam to a Bush Wheel and pivots on the bolt 1 that is fixed in place by two nuts. The pump cylinder 3 is attached to the base Plate by Angle Brackets.

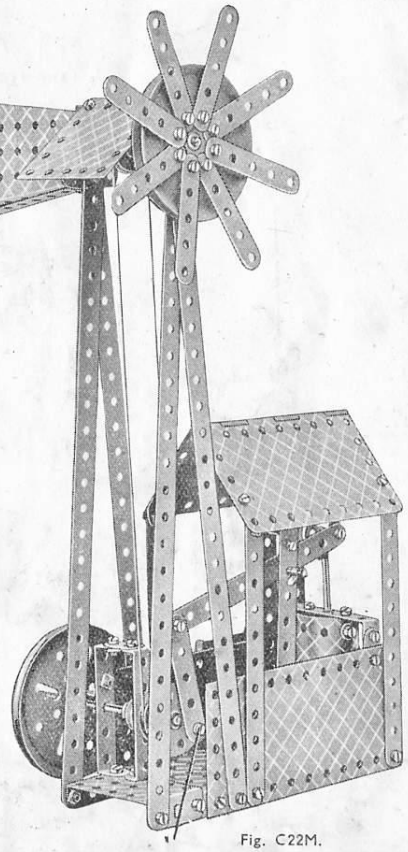


Fig. C22M.

Parts required

4	of No.	1
7	,, ,,	2
9	,, ,,	5
5	,, ,,	10
1	,, ,,	11
9	,, ,,	12
4	,, ,,	12c
1	,, ,,	15b
2	,, ,,	16
1	,, ,,	18a
2	,, ,,	19b
2	,, ,,	22
1	,, ,,	24
6	,, ,,	35
66	,, ,,	37
9	,, ,,	37a
2	,, ,,	38
1	,, ,,	40
3	,, ,,	48a
1	,, ,,	51
1	,, ,,	52
2	,, ,,	54a
6	,, ,,	111c
2	,, ,,	125
2	,, ,,	126
2	,, ,,	126a
4	,, ,,	190
2	,, ,,	192
1	,, ,,	198
Magic Motor		

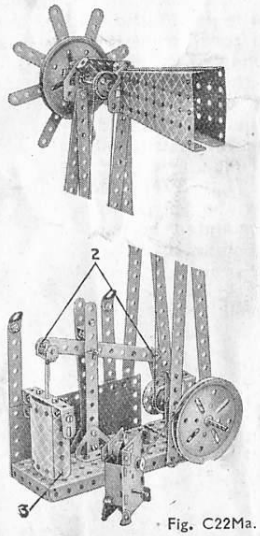


Fig. C22Ma.

LIST OF MECCANO PARTS

No.	Description.
1	Perforated Strips, 12½″
1a	,, ,, 9½″
1b	,, ,, 7½″
2	,, ,, 5½″
2a	,, ,, 4½″
3	,, ,, 3½″
4	,, ,, 3″
5	,, ,, 2½″
6	,, ,, 2″
6a	,, ,, 1½″
7	Angle Girders, 24½″
7a	,, ,, 18½″
8	,, ,, 12½″
8a	,, ,, 9½″
8b	,, ,, 7½″
9	,, ,, 5½″
9a	,, ,, 4½″
9b	,, ,, 3½″
9c	,, ,, 3″
9d	,, ,, 2½″
9e	,, ,, 2″
9f	,, ,, 1½″
10	Flat Brackets
11	Double Brackets
12	Angle Brackets, ½″×½″
12a	,, ,, 1″×1″
12b	,, ,, 1″×½″
12c	Obtuse Angle Brackets, ½″×½″
13	Axle Rods, 11½″
13a	,, ,, 8″
14	,, ,, 6½″
15	,, ,, 5″
15a	,, ,, 4½″
15b	,, ,, 4″
16	,, ,, 3½″
16a	,, ,, 2½″
16b	,, ,, 3″
17	,, ,, 2″
18a	,, ,, 1½″
18b	,, ,, 1″
19	Crank Handles, large, 5″
19s	,, ,, small, 3½″
19a	Wheels, 3″ diam., with set-screws
20	Flanged Wheels, 1⅜″ diam.
20b	,, ,, ¾″ ,,
	Pulley Wheels
19b	3″ dia., with centre boss & set-screw
19c	6″ ,, ,, ,, ,, ,,
20a	2″ ,, ,, ,, ,, ,,
21	1½″ ,, ,, ,, ,, ,,
22	1″ ,, ,, ,, ,, ,,
23a	½″ ,, ,, ,, & grub-screw
22a	1″ ,, without ,, ,,
23	½″ ,, ,, ,, ,,
24	Bush Wheels
25	Pinion Wheels, ¾″ diam., ¼″ face
25a	,, ,, ¾″ ,, ¼″ ,,
25b	,, ,, ¾″ ,, ¾″ ,,
26	,, ,, ½″ ,, ¼″ ,,
26a	,, ,, ½″ ,, ½″ ,,
26b	,, ,, ½″ ,, ¾″ ,,
	Gear Wheels
27	50 teeth to gear with ¾″ pinion
27a	57 ,, ,, ,, ½″ ,,
27b	133 ,, ,, ,, ½″ ,, (3½″ diam.)
27c	95 ,, ,, ,, ½″ ,, (2½″ diam.)
28	Contrate Wheels, 1½″ diam.
29	,, ,, ¾″ ,,

No.	Description.
30	Bevel Gears, 7/16″, 26 teeth
30a	,, ,, ½″, 16 ,, (Can only be used together)
30c	,, ,, 1½″, 48 ,,
31	Gear Wheels, 1″, 38 teeth
32	Worms
34	Spanners
34b	Box Spanners
35	Spring Clips
36	Screwdrivers
36a	,, Extra Long
36b	,, Special
37	Nuts and Bolts, 7/32″
37a	Nuts
37b	Bolts, 7/32″
38	Washers
40	Hanks of Cord
41	Propeller Blades
43	Springs
44	Cranked Bent Strips
45	Double ,, ,,
46	Double Angle Strips, 2½″×1″
47	,, ,, ,, 2½″×1½″
47a	,, ,, ,, 3″×1½″
48	,, ,, ,, 1½″×½″
48a	,, ,, ,, 2½″×½″
48b	,, ,, ,, 3½″×½″
48c	,, ,, ,, 4½″×½″
48d	,, ,, ,, 5½″×½″
50a	Eye Pieces, with boss
51	Flanged Plates, 2½″×1½″
52	,, ,, 5½″×2½″
52a	Flat Plates, 5½″×3½″
53	Perforated Flanged Plates, 3½″×2½″
53a	Flat Plates, 4½″×2½″
54a	Flanged Sector Plates, 4½″ long
55	Perforated Strips, slotted, 5½″ long
55a	,, ,, ,, 2″ ,,
57	Hooks
57a	,, Scientific
57b	,, Loaded, large
57c	,, ,, small
58	Spring Cord
58a	Coupling Screws for Spring Cord
58b	Hooks for Spring Cord
59	Collars with Grub Screws
61	Windmill Sails
62	Cranks
62a	Threaded Cranks
62b	Double Arm Cranks
63	Couplings
63a	Octagonal Couplings
63b	Strip Couplings
63c	Threaded Couplings
64	,, Bosses
65	Centre Forks
66	Weights, 50 grammes
67	,, 25 ,,
68	Woodscrews, ½″
69	Set Screws
69a	Grub Screws, 5/32″
69b	,, ,, 7/32″
70	Flat Plates, 5½″×2½″
72	,, ,, 2½″×2½″
73	,, ,, 3″×1½″
76	Triangular Plates, 2½″
77	,, ,, 1″
78	Screwed Rods, 11½″

No.	Description.
79	Screwed Rods, 8″
79a	,, ,, 6″
80	,, ,, 5″
80a	,, ,, 3½″
80b	,, ,, 4½″
81	,, ,, 2″
82	,, ,, 1″
89	5½″ Curved Strips, 10″ radius
89a	3″ ,, ,, cranked, 1¾″ radius, 4 to circle
89b	4″ Curved Strips, cranked, 4½″ radius, 8 to circle
90	2½″ Curved Strips, 2⅜″ radius
90a	2½″ ,, ,, cranked, 1⅜″ radius, 4 to circle
94	Sprocket Chain, 40″ lengths
95	,, Wheels, 36 teeth, 2″ diam.
95a	,, ,, 28 ,, 1½″ ,,
95b	,, ,, 56 ,, 3″ ,,
96	,, ,, 18 ,, 1″ ,,
96a	,, ,, 14 ,, ¾″ ,,
97	Braced Girders, 3½″ long
97a	,, ,, 3″ ,,
98	,, ,, 2½″ ,,
99	,, ,, 12½″ ,,
99a	,, ,, 9½″ ,,
99b	,, ,, 7½″ ,,
100	,, ,, 5½″ ,,
100a	,, ,, 4½″ ,,
101	Healds, for looms
102	Single Bent Strips
103	Flat Girders, 5½″ long
103a	,, ,, 9½″ ,,
103b	,, ,, 12½″ ,,
103c	,, ,, 4½″ ,,
103d	,, ,, 3½″ ,,
103e	,, ,, 3″ ,,
103f	,, ,, 2½″ ,,
103g	,, ,, 2″ ,,
103h	,, ,, 1½″ ,,
103k	,, ,, 7½″ ,,
104	Shuttles, for looms
105	Reed Hooks, for looms
106	Wood Rollers
106a	Sand Rollers
107	Tables for designing machines
108	Architraves
109	Face Plates, 2½″ diam.
110	Rack Strips, 3½″
110a	,, ,, 6½″
111	Bolts, ¾″
111a	,, ½″
111c	,, 3/8″
113	Girder Frames
114	Hinges
115	Threaded Pins
116	Fork Pieces, large
116a	,, ,, small
117	Steel Balls, ⅜″ diam.
118	Hub Discs, 5½″ ,,
120	Buffers
120a	Spring Buffers
120b	Compression Springs
121	Train Couplings
122	Miniature Loaded Sacks
123	Cone Pulley

No.	Description.
124	Reversed Angle Brackets, 1″
125	,, ,, ½″
126	Trunnions
126a	Flat Trunnions
127	Simple Bell Cranks
128	Boss Bell Cranks
129	Rack Segments, 3″ diam.
130	Eccentrics, Triple Throw
131	Dredger Buckets
132	Flywheels, 2¾″ diam.
133	Corner Brackets, 1½″
133a	,, ,, 1″
134	Crank Shanks, 1″ stroke
135	Theodolite Protractors
136	Handrail Supports
136a	,, Couplings
137	Wheel Flanges
138	Ships' Funnels
*138a-z	,, ,, Raked
139	Flanged Brackets (right)
139a	,, ,, (left)
140	Universal Couplings
141	Wire Lines (for suspending clock weights)
142	Rubber Rings, 3″ rim
142a	Motor Tyres (to fit 2″ diam. rims)
142b	,, ,, ,, 3″ ,, ,,
142c	,, ,, ,, 1″ ,, ,,
142d	,, ,, ,, 1½″ ,, ,,
143	Circular Girders, 5½″ diam.
144	Dog Clutches
145	Circular Strips, 7½″ diam overall
146	,, Plates, 6″ ,, ,,
146a	,, ,, 4″ ,, ,,
147	Pawls, with Pivot Bolt and nuts
147a	Pawls
147b	Pivot Bolts with 2 nuts
147c	Pawls without boss
148	Ratchet Wheels
149	Collecting Shoes for Electric Locos
150	Crane Grabs
151	Pulley Blocks, Single Sheave
152	,, ,, Two ,,
153	,, ,, Three ,,
154a	Corner Angle Brackets, ½″ (right hand)
154b	Corner Angle Brackets, ½″ (left hand)
155	Rubber Rings (for 1″ Pulleys)
156	Pointers (with boss), 2½″ overall
157	Fans, 2″ diam.
158a	Signal Arms, Home
158b	,, ,, Distant
160	Channel Bearings, 1½″×1″×½″
161	Girder Brackets, 2″×1″×½″
162	Boilers, complete with ends
162a	,, ends
162b	,, without ends
163	Sleeve Pieces
164	Chimney Adaptors
165	Swivel Bearings
166	End ,,
167	Geared Roller Bearings
167a	Roller Races, geared, 192 teeth
167b	Ring Frames for Rollers
167c	Pinions for Roller Bearings, 16 teeth
168	Ball Bearings, 4″ diam.

No.	Description.
168a	Ball Ra[illegible], flanged disc
168b	,, [illegible] toothed ,,
168c	,, C[illegible]ing, complete with balls
169	Digge[illegible] Buckets
170	Eccentrics, ¼″ throw
171	Socket Couplings
172	Pendulum Connections
173	Rail Adaptors
174	Grease Cups
175	Flexible Coupling Units
176	Anchoring Springs for Cord
177	Shafting Standards, large
178	,, ,, small
179	Rod Sockets
180	Toothed Gear Rings, 3½″ diam. (133 external teeth ; 95 internal teeth)
181	Bobbins
182	Insulating Bushes, 6BA
182a	Insulating Washers, 6BA
183	Lamp Holders
184a	Lamps, 2½ volt
184b	,, 3½ ,,
184c	,, 6 ,,
184d	,, 10 ,,
184e	,, 20 ,,
185	Steering Wheels, 1¾″ diam
186	Driving Bands
187	Road Wheels
188	Flexible Plates, 2½″×1½″
189	,, ,, 5½″×1½″
190	,, ,, 2½″×2½″
191	,, ,, 4½″×2½″
192	,, ,, 5½″×2½″
193	Strip Plates, 2½″×2½″
194	,, ,, 3½″×2½″
195	,, ,, 5½″×2½″
196	,, ,, 9½″×2½″
197	,, ,, 12½″×2½″
198	Hinged Flat Plates, 4½″×2½″
199	Curved Plates, U Section 9/33″ radius
200	,, ,, 1 11/16″ radius
201	Lamps with Flex, 3½-volt
202	Angle Brackets (for Headlamps)
203	Headlamps
203a	Headlamp Rims
203b	Headlamp Bodies
204	Headlamp Nuts
205	,, Glasses (Green, Plain or Red)
206	Lampshades
207	Lamp Bases
207a	Lamps with Standard and Flex
208	Battery Tags and Studs
208a	Washers for Battery Studs
210	Nuts ,, ,,
211a	Helical Gears ½″ (Can only be
211b	,, ,, 1½″ used together)

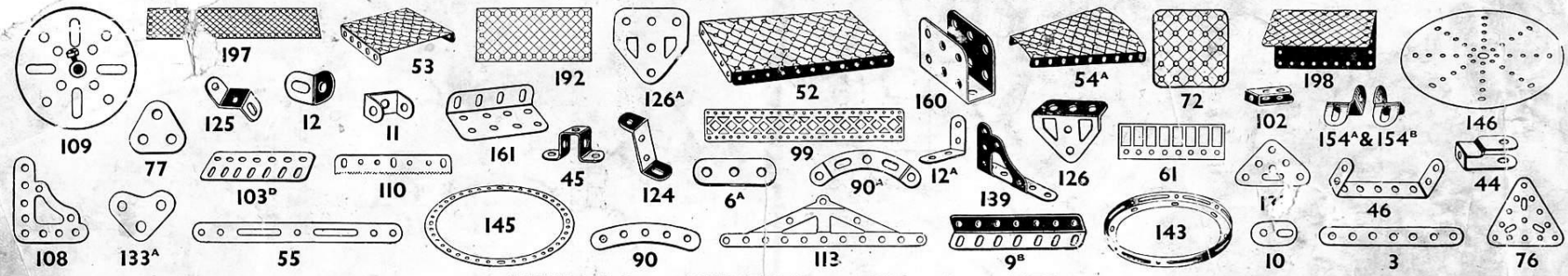
* * *

* The series includes 26 Funnels in the correct designs and colours of leading shipping companies.

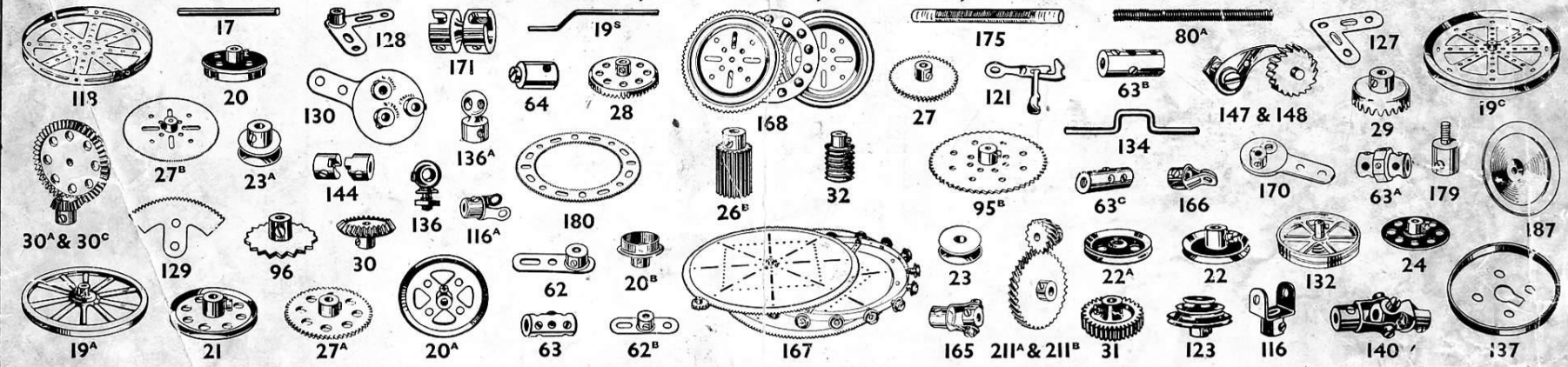
Your Dealer will be pleased to provide you with a complete Price List.

ANO PARTS & ACCESSORIES

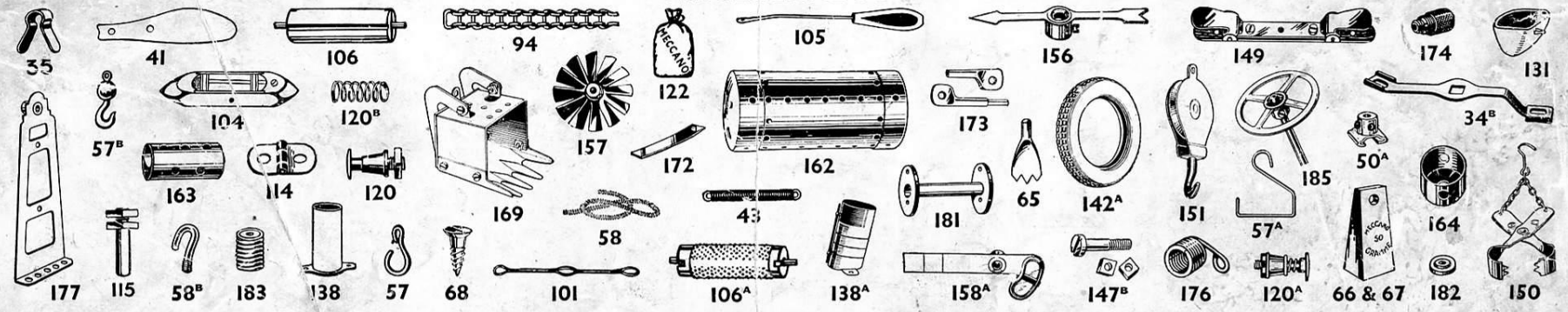
PLATES, STRIPS, GIRDERS & BRACKETS



WHEELS, PULLEYS, GEARS, ETC.



MISCELLANEOUS



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