

# MECCANO

TRADE MARKS 296321, 501113, 76, 12633, 10274, 55/13476, 569/13, 884/25, 2913, 80, 124, 336, 4174, 91637, 83171, 157149, 32822, 200639, 209733, 214061, 214062, 12892, 29094, 33316, 1818, 16737, 383/13, 5648, 50204, 10/12258, 22826, 18982, 20063/925, 9048, 5549, 2189, 16900, 72286, 2389, 41812, 5403, 7315, 18066, 139420, 484933-4-5-6, 29041, 26877, 6595, 404718, 410379, 55096, 12240, 41234, 8223, 1855

HORNBY'S ORIGINAL SYSTEM-FIRST PATENTED 1901

# INSTRUCTIONS

FOR OUTFITS

00 to 2



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No. 32.2

ENGLISH EDITION

# MECCANO

# The Finest Hobby in the World for Boys

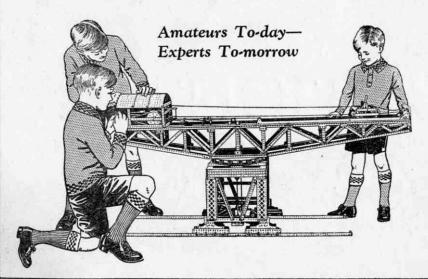
The Meccano system is composed of over two hundred and fifty different parts, mostly made of steel or brass, each one of which has a definite mechanical purpose. These parts combine to form a complete miniature engineering system with which practically any mechanical movement may be reproduced in model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

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

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

# The "Meccano Magazine"

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



# Model-Building with Meccano

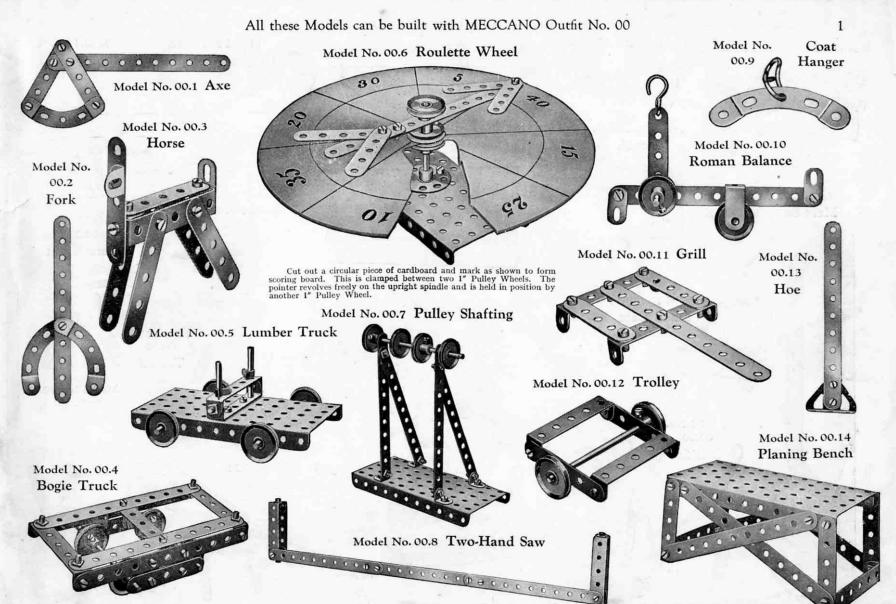
Make the simple models first—they will provide hours of fun—and then try to improve them. Every model can be made in a dozen different ways. It is important to screw up all the nuts and bolts tightly to ensure that your

models will be strong and firm when they are completed.

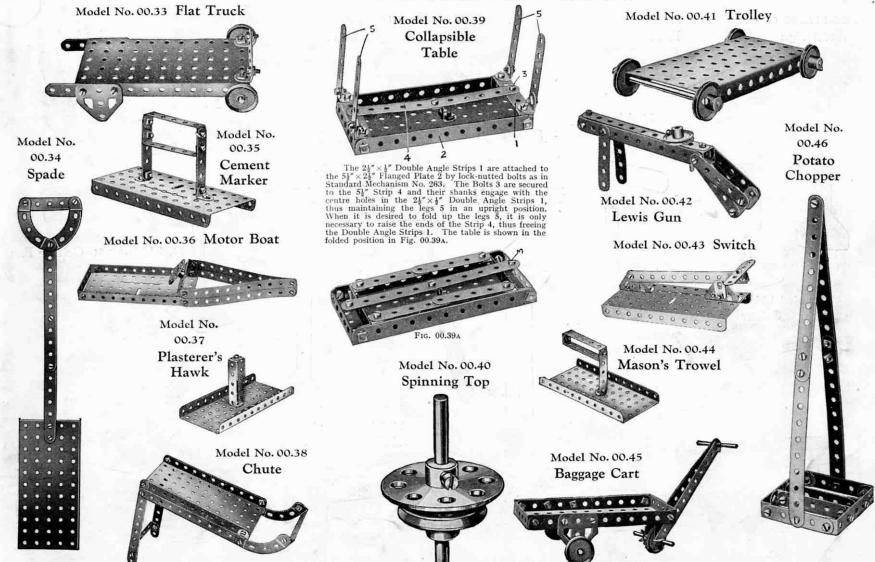
Every keen and inventive Meccano model-builder should obtain copies of the special Manuals "How to use Meccano Parts" and "Meccano Standard Mechanisms." In the former the principal uses of Meccano parts are outlined, while the latter shows a large number of real engineering mechanisms, built of Meccano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

# How to Build up Your Outfit

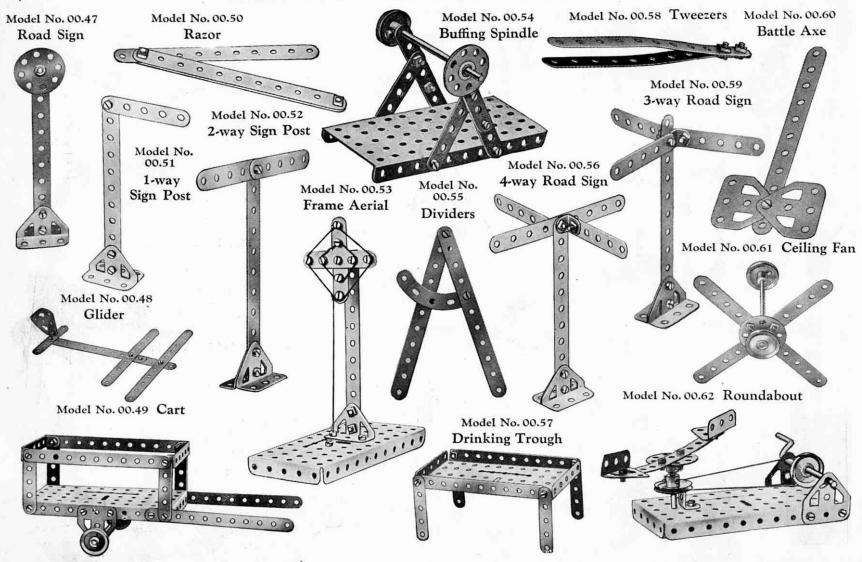
Meccano is sold in ten different Outfits, numbered 000 to 7. All Meccano parts are of the same high quality and finish, but the larger Outfits contain a greater quantity and variety of parts, making possible the construction of more elaborate models. Each Outfit from No. 00 upwards may be converted into the one next higher by the purchase of an Accessory Outfit. Thus, a No. 00 may be converted into a No. 0 by adding to it a No. 00A. A No. 0A would then convert it into a No. 1, and so on. In this way, no matter with which Outfit you commence, you may build it up by degrees until you possess a No. 7 Outfit. It is important to remember that Meccano Parts may be bought separately at any time in any quantity from your Meccano dealer.

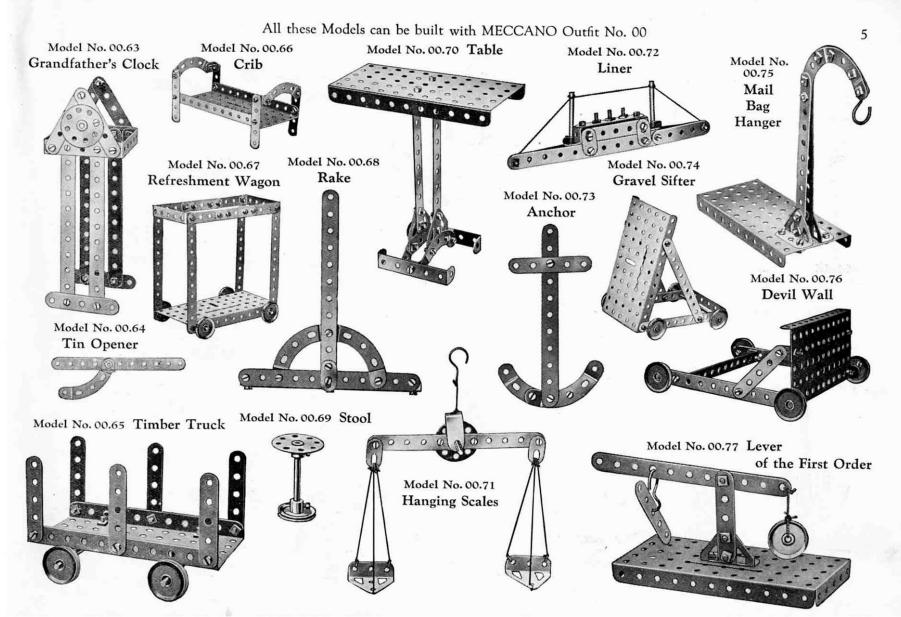


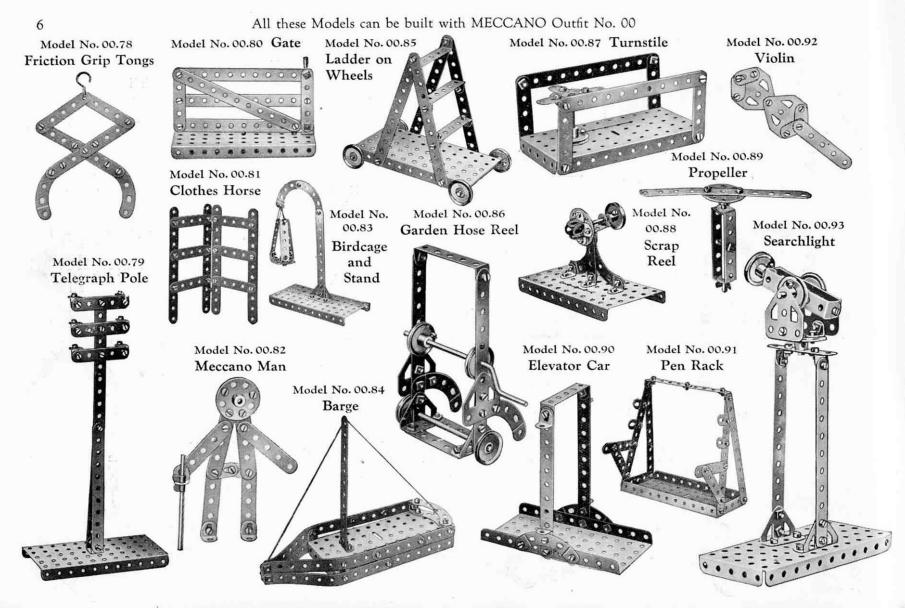
#### All these Models can be built with MECCANO Outfit No. 00



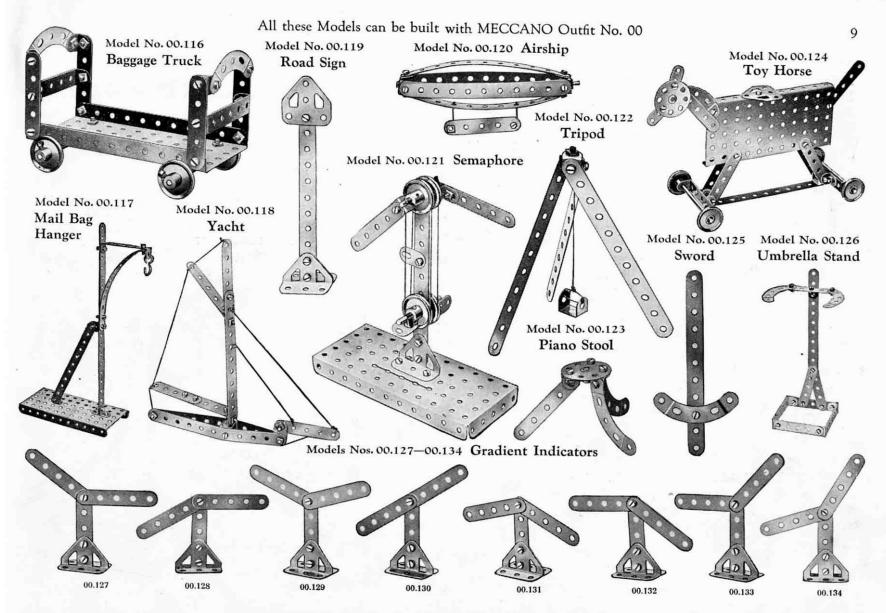
#### All these Models can be built with MECCANO Outfit No. 00

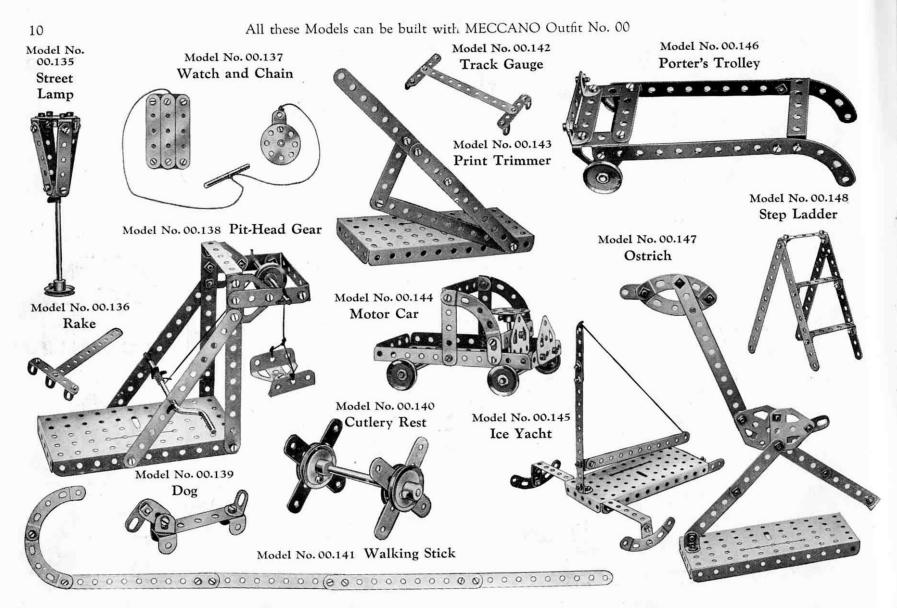




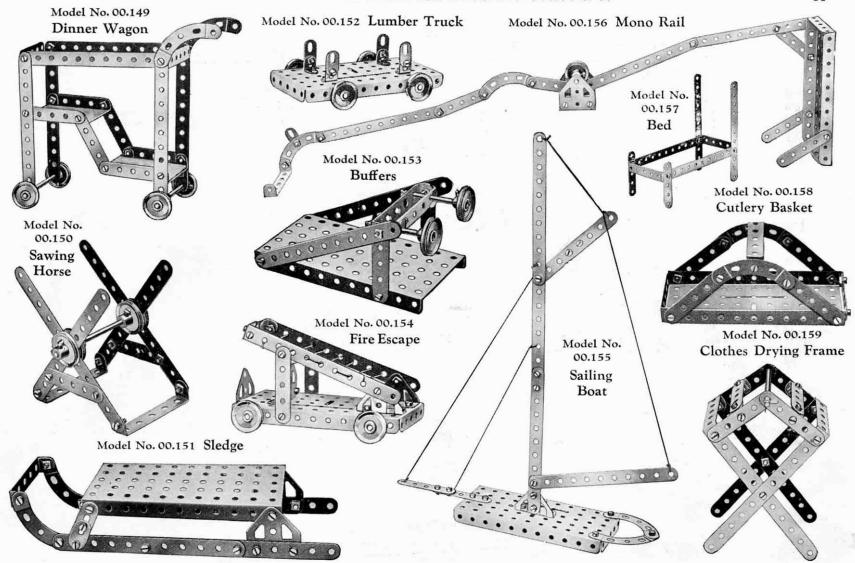


# All these Models can be built with MECCANO Outfit No. 00 Model No. 00.94 Field Roller Model No. 00.101 Model No. 00.104 Model No. 00.100 Magic Plate Hand Car **Towel Horse** The cord is wound once round a 2" Axle Rod that is journalled in a Flat Bracket and a ½" Reversed Angle Bracket, which are bolted to the Plate. If the cord is held loosely the plate will drop, but as soon as the cord is tightened the plate becomes immovable. Model No. 00.97 Scales Model No. 00.95 Organ Model No. Model No. 00.105 00.102 Prehistoric Bird French Railway Model No. 00.98 Signal Book End . 0 0 0 0 Model No. 00.96 Radial Travelling Model No. 00.103 Crane Model No. 00.99 Cannon Cheese Cutter

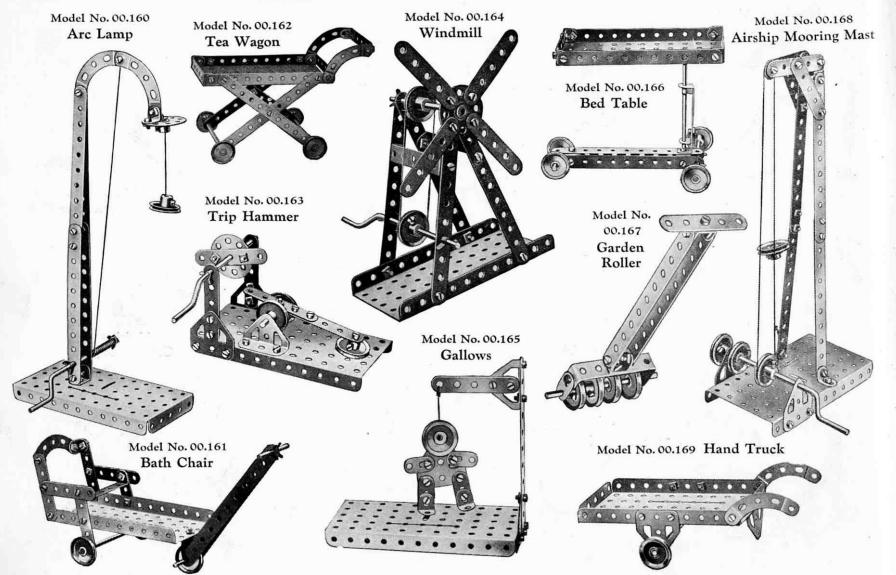


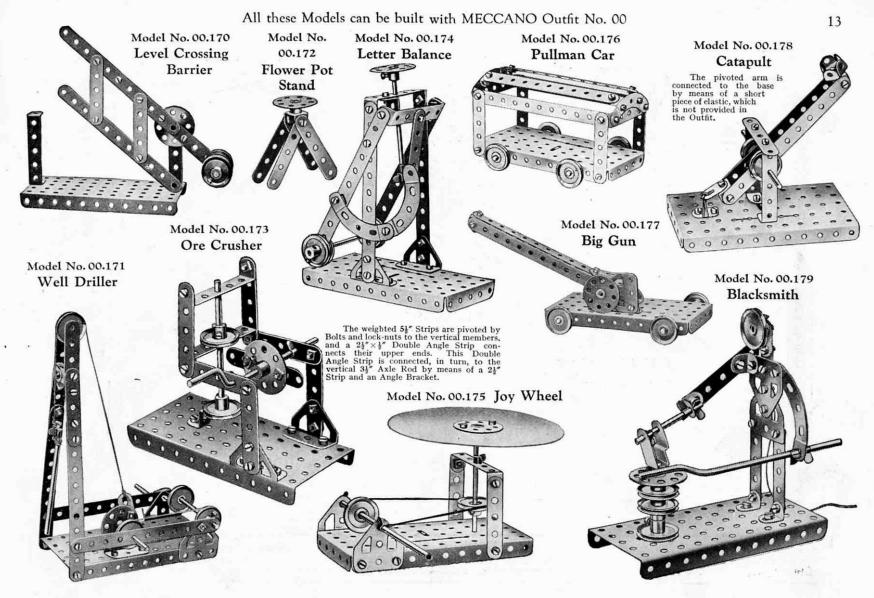


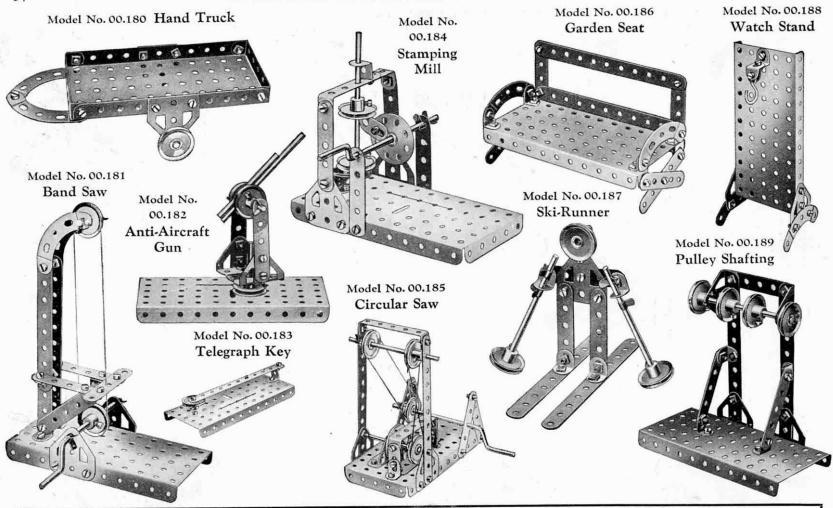
# All these Models can be built with MECCANO Outfit No. 00



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

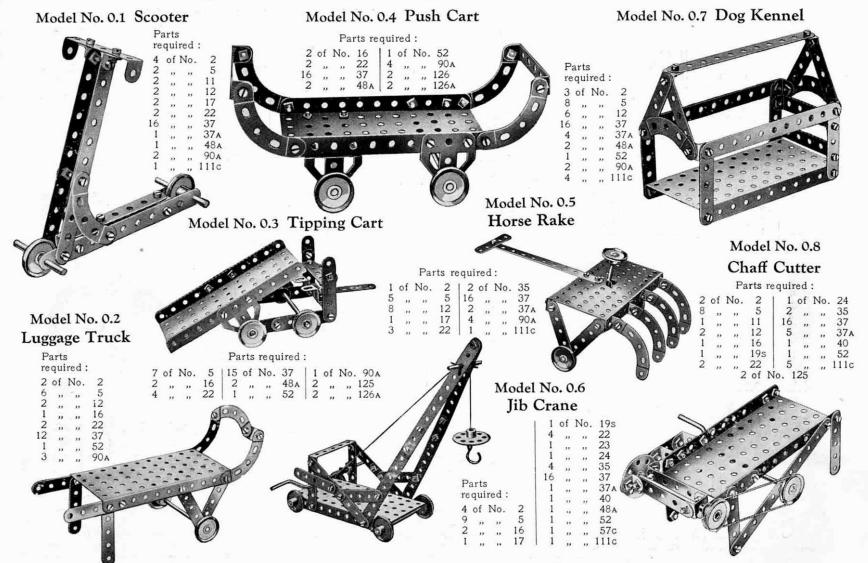




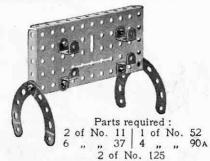


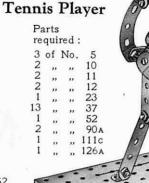
#### HOW TO CONTINUE

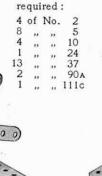
This completes our examples of models that may be made with MECCANO Outfit No. 00. The next models are a little more advanced, requiring a number of extra parts to construct them. The necessary parts are all contained in a No. 00A Accessory Outfit, the price of which may be obtained from any Meccano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

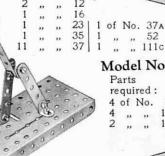


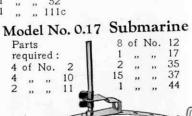
# Model No. 0.11 Pen Rack

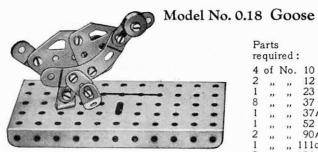






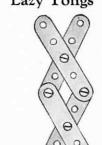




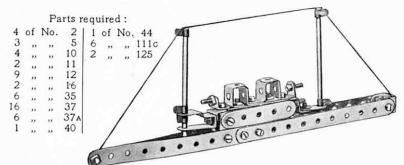


#### Model No. 0.22

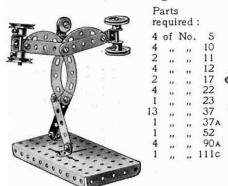
# Lazy Tongs



# Model No. 0.23 Battleship



# Model No. 0.19 Strong Man



Model No. 0.20 Aeroplane

126A

Parts

required:

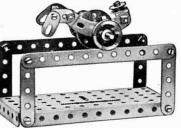
4 of No. 10



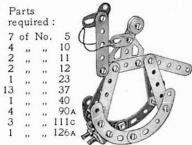
Parts required:

| 4 | of   | No. | 2  | 8 | of   | No. | 37   |  |
|---|------|-----|----|---|------|-----|------|--|
| 3 |      | ,,  | 5  | 1 | ,,   | ,,  | 111c |  |
| 2 | ,,   | ,,  | 12 | 2 |      |     | 125  |  |
| 1 | 7702 | 22  | 24 | 1 | 1720 | 122 | 126A |  |

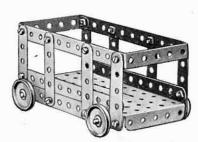
Model No. 0.24 Gymnast



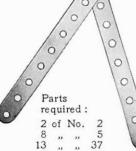
Model No. 0.25 Rocking Horse



# Model No. 0.21 Cattle Truck



Parts required:

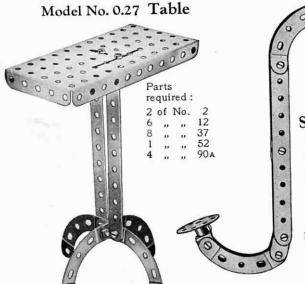


|     | 1 a | 1 12 1 | cqui                                       |   | •  |  |
|-----|-----|--------|--|---|--|--|
| f I | No. | 2      | 1  | of  | No.  | 24   |
| ,,  | ,,  | 5      | 12   | ,,  |  | 37   |
|     | **  | 10     | 1  | ,,  | **   | 37A  |
|     | 3.5 | 12     | 1  | ,,  | ,,   | 52   |
| ,,  | ,,  | 16     | 1  | ,,  | 33   | 90 A   |
| ,,  | **  |        | 1  | **  | "  | 111c   |
| ,,  | **  | 23     |  |   |  | 1  |
|     | f I | f No.  | f No. 2<br>,, ,, 5<br>,, ,, 10<br>,, ,, 12 | f No. 2   1<br>" 5   12<br>" 10   1<br>" 12   1<br>" 16   1<br>" 16   1<br>" 22   1 | f No. 2   1 of<br>" " 5   12 "<br>" " 10   1 "<br>" 12   1 "<br>" 16   1 "<br>" 22   1 " | " " 5 12 " " " " 10 1 " " " " " 12 1 " " " " " 16 1 " " " " " " 16 1 " " " " |



Model No. 0.26





Model No. 0.28 Crocodile Parts required:

4 of No. 2 |

" " 5

,, 10

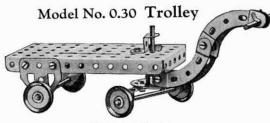
6 of No. 12

16 " " 37

6 , , 37A 6 , , 111c

Model No. 0.29

> Saxophone Parts required: 2 of No. 2



#### Parts required:

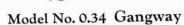
| 1 | of | No. | 11 | 4  | of | No. | 35  | 4 | of | No. | 90 a<br>125<br>126 a |
|---|----|-----|----|----|----|-----|-----|---|----|-----|----------------------|
| 2 | ,, | ,,  | 16 | 12 | ,, | ,,  | 37  | 1 | ,, | ,,  | 125                  |
| 2 | ,, | ,,  | 17 | 1  | ,, | ,,  | 48A | 2 | ,, | ,,  | 126A                 |
| 1 |    |     | 24 | 1  |    |     | 52  |   |    |     |                      |

Model No. 0.31 Field Gun and Carriage



#### Parts required:

|   |    |     |    | 77 |    |     | 100000                      |   |    |     |      |
|---|----|-----|----|----|----|-----|-----------------------------|---|----|-----|------|
| 8 | of | No. | 5  | 2  | of | No. | 17                          | 1 | of | No. | 44   |
| 2 | ,, | .,  | 10 | 4  | ,, | ,,  | 22                          | 1 | ,, |     | 111c |
| 2 | ,, | ,,  | 11 | 13 | ,, | ,,  | 22<br>37<br>37 <sub>A</sub> | 1 | ,, | .,  | 125  |
| 6 | ,, | ,,  | 12 | 1  | ,, | ,,  | 37A                         |   |    |     |      |



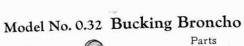
" 111c

Model No. 0.33 Ape

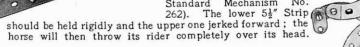
Parts required: 5 of No. 5

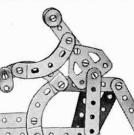
#### Parts required:

| 4  | of | No. | 2   | 16 | of   | No.  |      |
|----|----|-----|-----|----|------|------|------|
| 2  | ,, | ,,  | 5   | 2  | ,,   | . ,, | 37A  |
| 2  | ,, | ,,  | 10  | 1  | ,,   | ,,   | 40   |
| 2  | ,, | ,,  | 12  | 2  | ,,   |      | 48A  |
| 1  | ,, | ,,  | 19s | 1  |      | .,   | 52   |
| 1  | ,, | ,,, | 23  | 1  | ,,   | ,,   | 111c |
| .3 |    |     | 35  | -  | 2015 | _    |      |

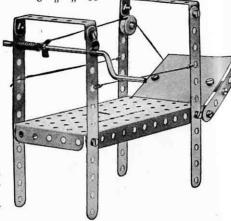


The Bolts used for connecting the 5½" Strips, the horse's legs, and the rider's legs and arms, are all lock-nutted (see Standard Mechanism No.

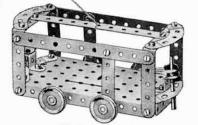




required: 2 of No. 2 23



# Model No. 0.35 Tramway Car



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

Model No. 0.36

Motor Boat

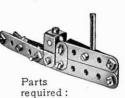
# Parts required:

|   | 4  | 053000 |         |   |    |     |      |
|---|----|--------|---------|---|----|-----|------|
| 2 | of | No.    | 2       | 1 | of | No. | 23   |
| 2 | ,, | ,,     | 5<br>10 | 7 | ,, | ,,  | 37   |
| 3 | ,, | **     | 10      | 1 | ,, | ,,  | 37A  |
| 1 |    |        | 11      | 1 |    |     | 111c |



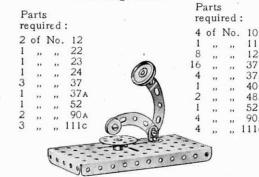
| 2  | of  | No. | 2          |
|----|-----|-----|------------|
| 7  | ,,  | ,,  | 5          |
| 14 | ,,  | "   | 37         |
| 2  | **  | ,,  | 48A<br>90A |
| 3  | ,,, | "   | 90 A       |

# Model No. 0.38 Torpedo Boat



| re | qui  | red |      |
|----|------|-----|------|
| 2  | of   | No. | 2    |
| 2  | ,,   | **  | 5    |
| 3  | ,,,  | "   | 10   |
| 2  | ,,,  | .,, | 11   |
| 2  | .,   | **  | 12   |
| 1  | ,,   | **  | 17   |
| 11 | ,,,  | **  | 37   |
| 4  | "    |     | 37A  |
| 5  | 4000 | 720 | 111c |

# Model No. 0.40 Gramophone



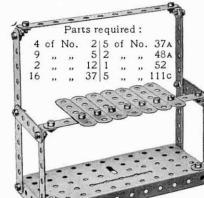
# Model No. 0.43 Prehistoric Armadillo



Model No. 0.44 Motor Cycle and

Side Car

# Model No. 0.39 Piano



### Model No. 0.41 Milk Maid

|   |     |           |                      |   |   |      | (9)  |     |     |    |     |
|---|-----|-----------|----------------------|---|---|------|------|-----|-----|----|-----|
|   | art | s<br>ired | :                    | • |   | Acri |      | -   | 200 | 7  |     |
| 5 | of  | No.       | 5                    |   | ` |      | Va   | A   |     | 1  |     |
| 3 |     | ,,        | 10                   |   | 1 |      | 10   | 10  |     | 1  |     |
| 2 |     | .,        | 11                   |   | l |      |      | 101 |     | 1  |     |
| 1 | **  |           | 12<br>22<br>23<br>37 |   | 1 |      | 0    | 1   | A   | 7  | - 2 |
| 2 | ,,  | .,        | 22                   |   | 1 |      | 10   | NO  | 1   | 10 |     |
| 1 | ,,  | **        | 23                   | P |   |      | 0    | M   | M   |    |     |
| 1 |     | ***       | 37                   | - |   |      |      | 0   |     |    | 3   |
| l | *** | • • •     | 37 A                 |   |   |      | - 1  |     |     |    | 1   |
| ı | **  | .,        | 40                   |   |   |      | - 1  | 1   | 10  | _  | -   |
| 1 | ,,  | .,        | 52                   |   |   | 150  | F2 1 |     |     | 9  |     |
|   | ,,  |           | 90 A                 |   |   |      | 23   |     |     |    |     |
|   | ,,  | **        | 111c                 | / | 1 |      | •    |     | •   |    |     |
|   |     |           |                      |   |   |      |      |     |     |    |     |

| _     |          |
|-------|----------|
| Danta | required |
| Farts | required |

| 1 | of  | No. | 5  | 10 | of  | No.  | 37   |
|---|-----|-----|----|----|-----|------|------|
| 4 | ,,  | ,,  | 10 | 1  | .,  | ,,   | 37A  |
| 2 | ,,  | "   | 11 | 1  | ,,  |      | 44   |
| 3 | ,,, |     | 12 | 3  | ,,  | **   | 90 A |
| 1 | 22  | ,,  | 16 | 1  | 200 | - 27 | 111c |
| 3 | ,,  | ,,  | 22 | 1  | **  | "    | 125  |
| 1 | ,,  | ,,  | 23 | 1  | ,,  | **   | 126A |

#### Model No. 0.42 Sword

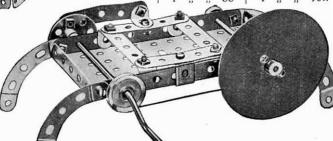
Parts required:

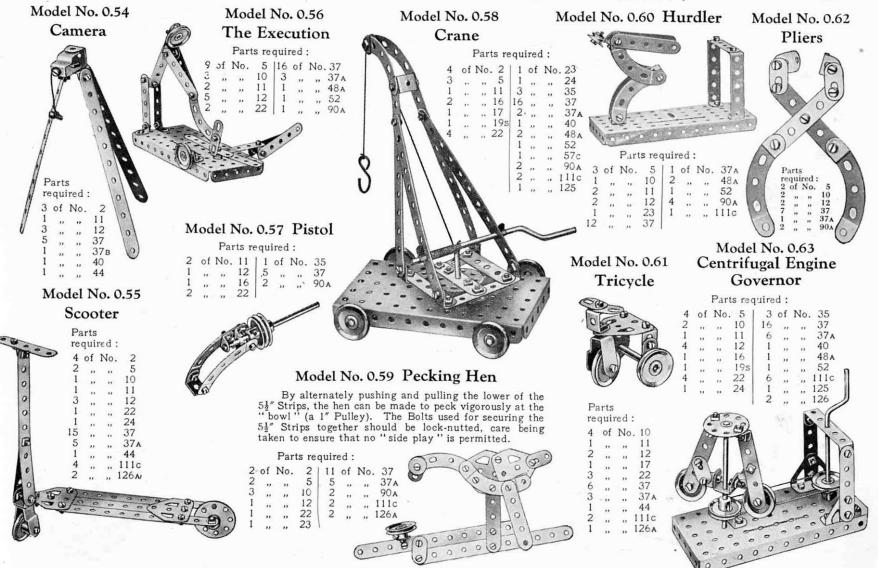
4 of No. 2 | 10 of No. 37 | 3 of No. 90A



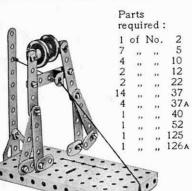
2 of No. 2 | 1 of

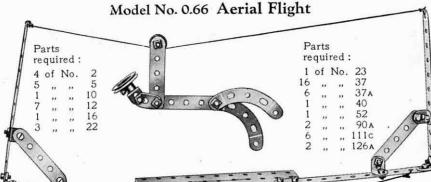
required:
4 of No. 2
2 , , , 11
6 , , , 12
11 , , , 37
1 , , , 40
1 , , , 52





# Model No. 0.64 Wrestlers





|     | 101   |    |
|-----|-------|----|
|     | 6     |    |
|     |       | 1  |
|     | 0     | 1  |
|     | e     | 4  |
|     |       | 4  |
|     | ATTO. |    |
| . 1 |       | 16 |
| 6   | 7     | 16 |
| 0/  | 14    | ,  |
| 1   | -0    |    |
| -   | 7 36  |    |
|     | -     |    |
|     |       |    |

# Model No. 0.70 The Missing

|   | rts | red |      |     |
|---|-----|-----|------|-----|
|   |     |     |      |     |
|   | of  | No. | 5    |     |
|   | ,,  | ,,  | 10   |     |
|   | ,,  | ,,  | 12   |     |
|   | ,,  | ,,  | 24   |     |
|   | ,,  |     | 37   |     |
| ) | "   | ,,  | 37 A |     |
|   | ,,  | ,,  | 52   | - / |
| 1 | ,,  | ,,  | 90 A | 1   |
| ) | ,,, | "   | 111c | 10  |
|   |     |     | 1    | -   |

# Model No. 0.65 A Chase

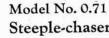
#### Parts required : -

| 1 | of | No. | 5  | 116 | of  | No. | 37    |
|---|----|-----|----|-----|-----|-----|-------|
| 1 | ,, | ,,  | 10 | 1   | ,,  | ,,  | 37A   |
| 2 | ,, | ,,  | 11 | 1   | ,,  | ,,, | 52    |
| 7 | ,, | "   | 12 | 4   | **  | **  | 90 A  |
| 1 | ,, | ,,  | 22 | 2   | ,,  | **  | 111c  |
| 1 | ,, | **  | 23 | 2   | ,,, | "   | 126 A |



# Model No. 0.68 Galvanometer

| 1 | of | No. | 12   |
|---|----|-----|------|
| 1 | ,, | ,,  | 17   |
| 5 | ,, | **  | 37   |
| 4 | ** | **  | 37 A |
| 1 |    | **  | 40   |
| 1 | ,, | ,,  | 52   |
| 4 | ,, | ,,  | 90 A |
| 2 | ,, | ,,  | 111c |



| Steeple-chaser   |
|------------------|
| Parts required : |

|   | 7  | of  | No. | 5  | 1 | of | No. | 37 A  |
|---|----|-----|-----|----|---|----|-----|-------|
| 1 | 4  | ,,  | ,,, | 10 | 1 | ** | ,,  | 48 A  |
| 7 | 1  | ,,  | **  | 12 | 1 | ,, | ,,  | 52    |
|   | 1  | ,,  | **  | 23 | 4 | ., | **  | 90 A  |
|   | 13 | **  | "   | 37 | 1 | ,, | **  | 111c  |
|   |    |     | 1   |    | 1 |    | "   | 126 A |
|   |    | - 4 | 16  |    |   | 6  |     |       |



**Bullock Cart** 

Model No. 0.67

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



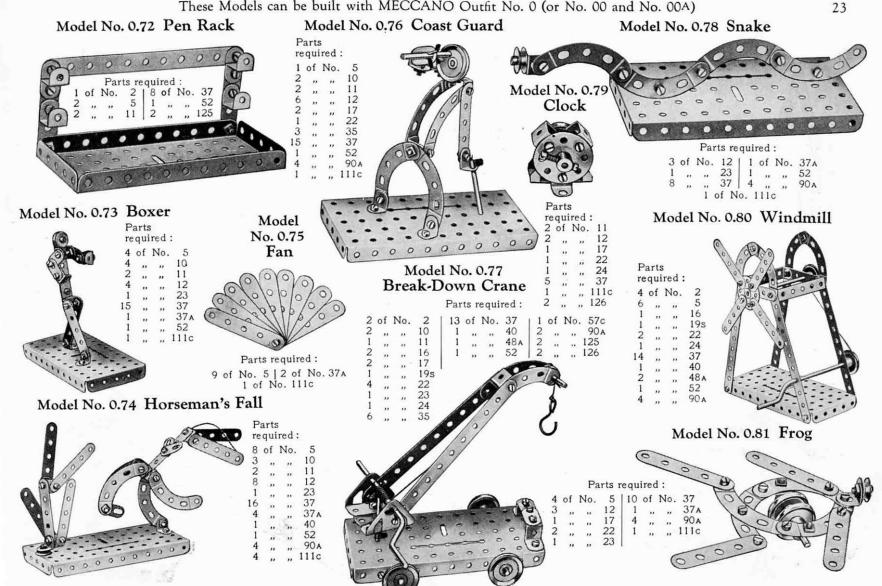


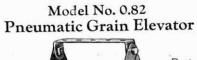
| 2 | of | No. | 5  | 13 | of | No. | 37  |
|---|----|-----|----|----|----|-----|-----|
| 1 | ,, | ,,  | 11 |    | ,, | *** | 52  |
| 1 | ,, | ,,, | 17 |    | ,, |     |     |
| 1 | ,, | ,,  | 24 | 12 | ,, | ,,, | 126 |

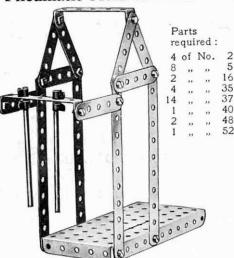


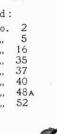




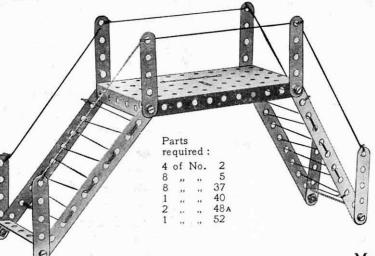




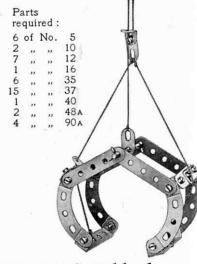




# Model No. 0.84 Footbridge







# Model No. 0.85 Cross-Bow

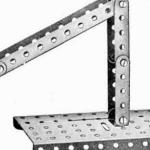
# Parts required: No. 2 | 1 of No. 16

# Model No. 0.87 Switchback

#### Parts required:

| 4 | of | No. | 2  | 2  | of | No. | 22   |
|---|----|-----|----|----|----|-----|------|
| 4 | ,, | ,,  | 5  | 16 | ,, | ,,  | 37   |
| 1 |    | ,,  | 10 | 3  | ,, | -,, | 37 A |
| 2 | ,, | .,  | 11 | 1  | ** | ,,  | 52   |
| 2 | ., |     | 12 | 4  | ,, | ,,  | 90 A |
| 1 | ,, | .,  | 17 | 3  | ** | .,, | 1110 |
|   |    |     |    |    |    |     | -    |



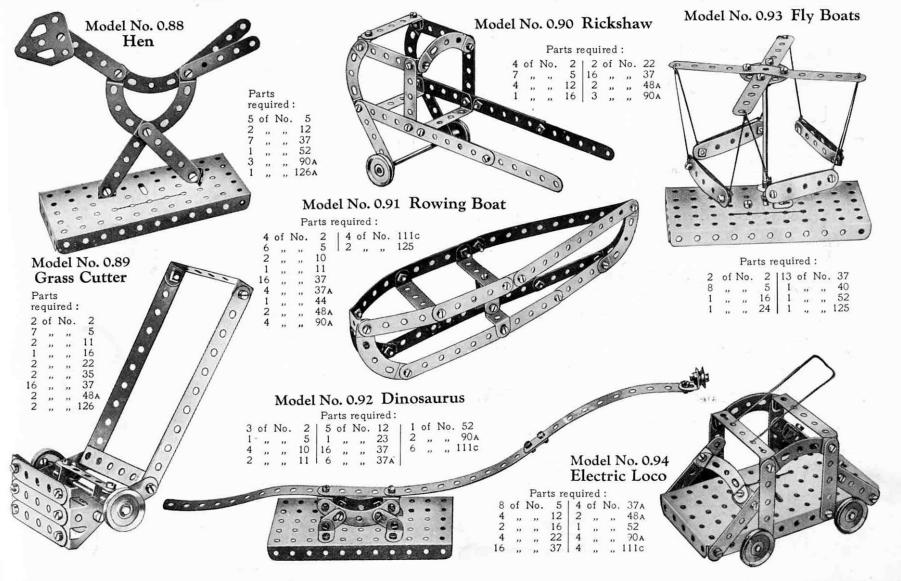




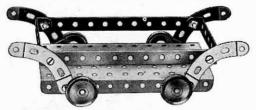
Model No. 0.83

required:





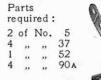
#### Model No. 0.95 Trolley



#### Parts required:

| 2 | of | No. | 2        | 8   | of  | No. | 37  |
|---|----|-----|----------|-----|-----|-----|-----|
| 2 | ,, |     | 16<br>22 | 2   | ,,  |     | 48A |
| 4 | ,. |     | 22       | 1   | .,  |     | 52  |
|   |    | 4   | of N     | lo. | 901 |     |     |

### Model No. 0.96 Pen Rack

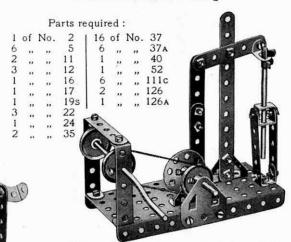


# Model No. 0.97 Walking Man

Parts required:

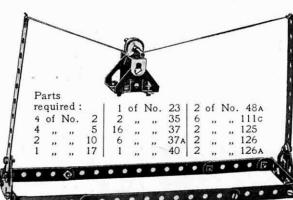
| 0 | OI  | No. | 5   |
|---|-----|-----|-----|
| 3 | .,  | ,,  | 10  |
| 2 | .,, | .,  | 12  |
| 1 | ,,  | ,,  | 22  |
| 7 |     | ,,  | 37  |
| 3 |     |     | 90. |

#### Model No. 0.98 Pump

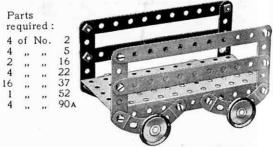


The connecting Strip is pivoted by Bolts and Nuts at one end to the Bush Wheel and at the other end to the cross beam. The latter is pivoted by the same means to the upright.

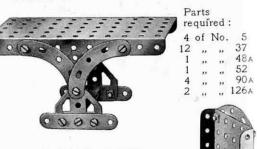
# Model No. 0.99 Aerial Ropeway



# Model No. 0.100 Luggage Truck



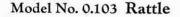
# Model No. 0.101 Drafting Table

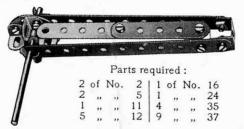


# Model No. 0.102 Arm Chair

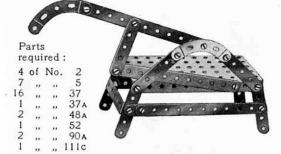
Parts required:
2 of No. 2
4 ..., 5
12 ..., 37
1 ..., 48
1 ..., 52
3 ..., 90



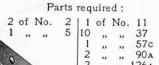




# Model No. 0.104 Shearing Machine



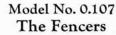
#### Model No. 0.105 Anchor





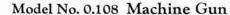
### Model No. 0.106 Portal

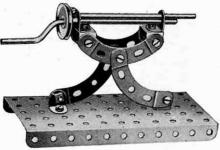
Parts required:
4 of No. 2
2 , , , 11
8 , , , 12
1 , , , 22
16 , , , 37
6 , , , 37
2 , , , 48
1 , , , 52
4 , , , 90
6 , , , 111c



#### Parts required:

|    | 8 | of | No. | 5        | 116 | of | Ne. | 37     |
|----|---|----|-----|----------|-----|----|-----|--------|
|    | 2 | ,, | ,,  | 10       | 4   | ,, | ,,  | 37A    |
|    | 6 | ., | .,  | 12       | 1   | ** | ,,  | 52     |
|    | 2 | ,, | ,,  | 16       | 4   | ,, | **  | 111c   |
| B  | 2 |    | "   | 22<br>35 | 2   | ** |     | 125    |
|    | 4 |    | "   | 35       | 2   | ,, | ,,  | 126A   |
| æ. | ŧ |    |     |          |     |    |     | A atti |





#### Parts required:

| 2 | of  | No. | 11  | 1  | of | No. | 22   |
|---|-----|-----|-----|----|----|-----|------|
| 4 | ,,, | ,,, | 12  | 12 | ,, |     | 37   |
| 1 | ,,  | ,,, | 16  | 1  | ,, |     | 52   |
| 1 | ,,  | ,,, | 19s | 4  | ,, | ,,  | 90 A |

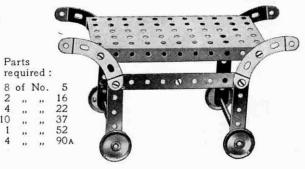
#### Model No. 0.109

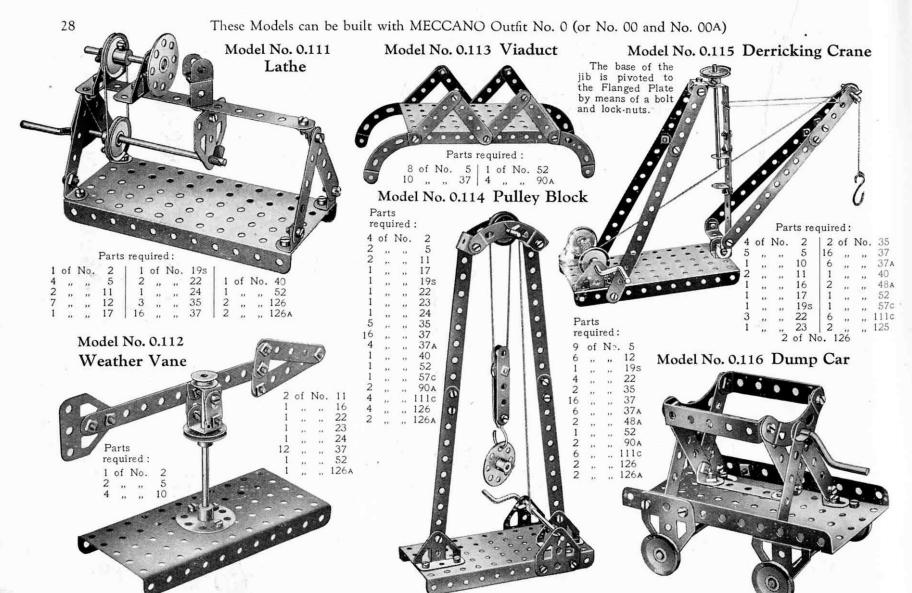
# Single Sheave Pulley Block

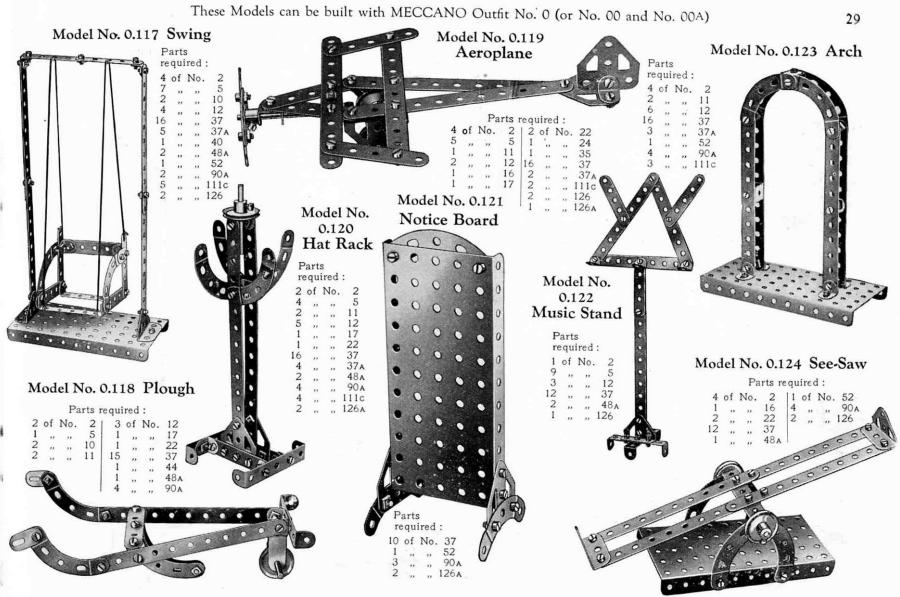


Parts required:
2 of No. 5 | 7 of No. 37A
1 ,, 23 | 1 ,, 57c
3 of No. 111c

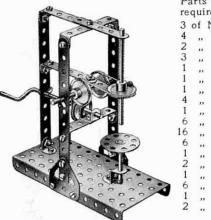
# Model No. 0.110 Tea Wagon





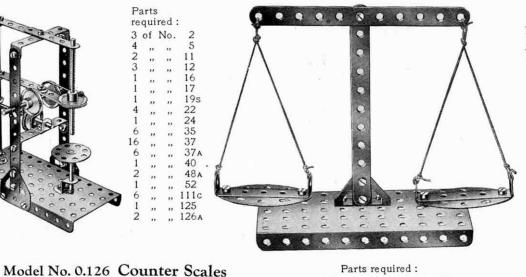


# Model No. 0.125 Drilling Machine



|    | arts |      |      |
|----|------|------|------|
|    |      | red: |      |
|    | of   | No.  | 2    |
| 4  | ,,   | ,,   | 5    |
| 2  | ,,   | ,,   | 11   |
| 3  | ,,   | ,,   | 12   |
| 1  | ,,   | ,,   | 16   |
| 1  | ,,   |      | 17   |
| 1  | ,,   |      | 19s  |
| 4  |      |      | 22   |
| 1  | ,,   |      | 24   |
| 6  |      |      | 35   |
| 16 |      |      | 37   |
| 6  |      |      | 37A  |
| 1  | ,,   |      | 40 . |
| 2  |      | ,,,  | 48A  |
| 1  | ,,   | ,,   | 52   |
| 6  |      | ,,   | 111c |
| 1  | ,,   |      | 125  |
| 2  | .,   | ,,   | 126A |
|    | 330  | 550  |      |

# Model No. 0.127 Scales



#### Parts required:

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

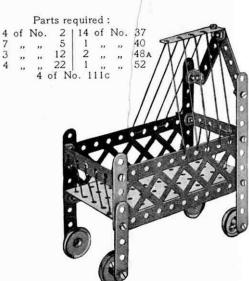
Model No. 0.128 Single Sheave Pulley Block



#### Parts required:

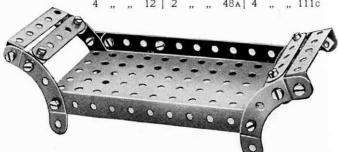
| 1  | of | No. | 23   |
|----|----|-----|------|
| 12 | ,, | ,,  | 37 A |
| 1  | ** | **  | 57c  |
| 4  | ,, | **  | 111c |
| 2  | ,, | "   | 126A |

# Model No. 0.129 Cot



#### Model No. 0.130 Couch

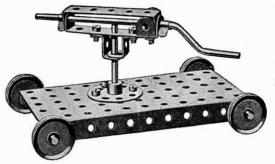
Parts required: of No. 2 | 16 of No. 37 | 1 of No. 52





Parts required:

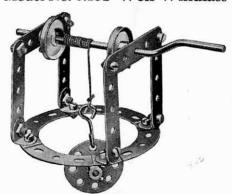
#### Model No. 0.131 Rock Drill



#### Parts required:

| 1 | of | No. | 11              | 4 | of | No. | 22 | 12 | of | No. | 48 A |
|---|----|-----|-----------------|---|----|-----|----|----|----|-----|------|
| 2 | ,, | "   | 16<br>17<br>19s | 1 | ,, | ,,  | 24 | 1  | ,, | .,, | 52   |
| 1 | ,, | ,,  | 17              | 2 | ,, | ,,  | 35 | 2  | ,, | ,,  | 125  |
| 1 |    |     | 19s             | 5 |    |     | 37 |    |    |     |      |

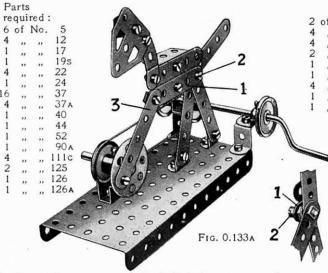
#### Model No. 0.132 Well Windlass



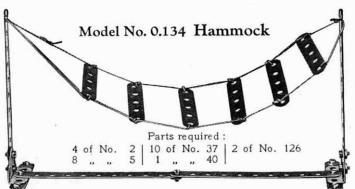
#### Parts required:

| 6 | of | No. | 5<br>12<br>19s | 2  | of | No. | 22 | 1 | of | No. | 40   |
|---|----|-----|----------------|----|----|-----|----|---|----|-----|------|
| 4 |    |     | 12             | 1  | ,, | .,  | 24 | 1 | ,, | ,,  | 57c  |
| 1 |    |     | 19s            | 12 |    | ,,  | 37 | 4 |    |     | 90 A |

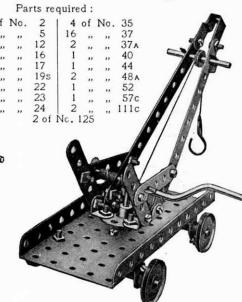
#### Model No. 0.133 Prancing Horse



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

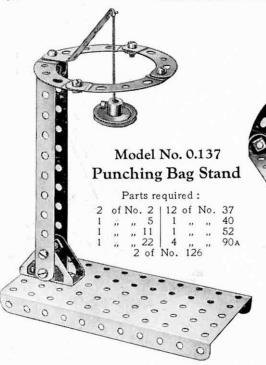


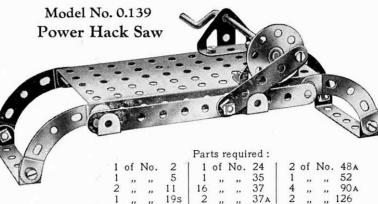
#### Model No. 0.135 Swivelling Crane





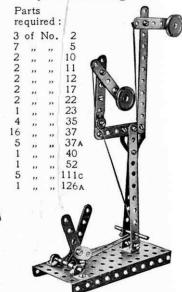








# Model No. 0.141 Junction Signal



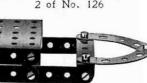
# Model No. 0.142 Battleship

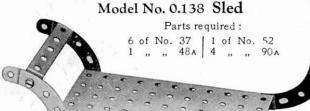
#### Parts required:

|   | 3 | of  | No. | 2    | 1  | of | No. | 24   |
|---|---|-----|-----|------|----|----|-----|------|
| ٠ | 1 | ,,  | ,,  | 11   |    |    |     | 37   |
|   | 4 | ,,  | ,,  | 12   | 2  | ,, | ,,  | 37 A |
|   | 1 | ,,  | ,,  | 15   | 2  | ** | "   | 48A  |
|   | 2 | ,,, | ,,  | 16   | 1  | ,, | ,,  | 52   |
|   | 4 | .,  | ,,  | 22   | 4  | ,, | **  | 90 A |
|   |   |     | 2   | of N | 0. | 11 | c   |      |

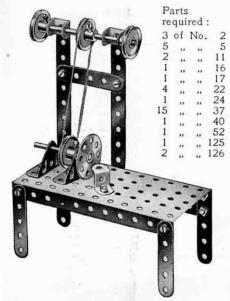
| 4 | of | No. | 2   | 1   | of  | No. | 35   |
|---|----|-----|-----|-----|-----|-----|------|
| 2 | ,, | ,,  | 5   | 16  | ,,  | ,,  | 37   |
| 4 | ,, | ,,  | 10  | 6   | ,,  | ,,  | 37   |
| 1 | ,, | .,  | 11  | 2   | ,,  | ,,  | 48   |
| 1 |    | **  | 16  | 1   | ,,  | ,,  | 52   |
| 1 | ,, | ,,  | 17  | 2   | ,,  | ,,  | 90   |
| 3 | ., | ,,  | 22  | 6   | ,,  |     | 1110 |
| 1 | ., | ,,  | 24  | 1   |     |     | 125  |
|   |    | 2 0 | f N | lo. | 126 | 106 |      |

Parts required:



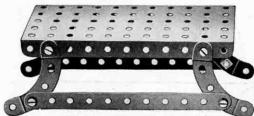


#### Model No. 0.143 Bench Lathe

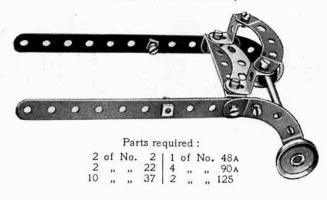


### Model No. 0.144 Bench

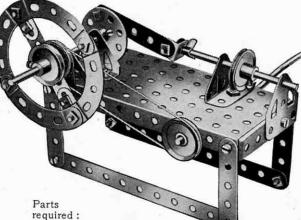
Parts required:
2 of No. 2 | 1 of No. 52
8 ,, ,, 37 | 4 ,, ,, 90A



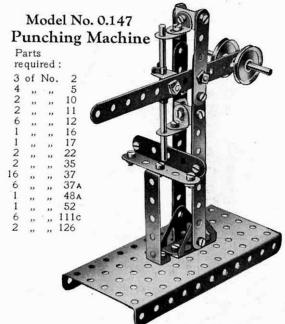
#### Model No. 0.145 Sulkey



# Model No. 0.146 Horizontal Engine



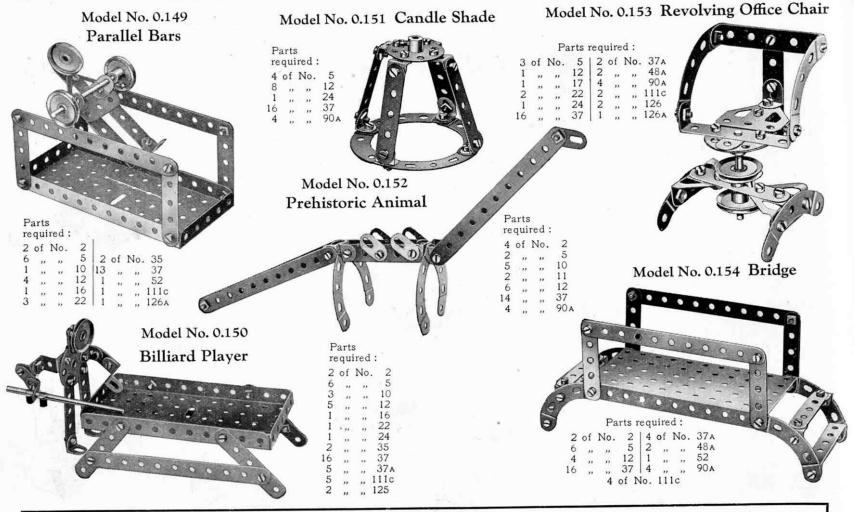
2 of No. 2 | 4 of No. 22 6 ,, ,, 5 | 1 ,, ,, 24 | 1 of No. 52 2 ,, ,, 10 | 3 ,, ,, 35 | 4 ,, ,, 90A 1 ,, ,, 12 | 16 ,, ,, 37 | 5 ,, ,, 111c 1 ,, ,, 19s | 1 ,, ,, 40 | 2 ,, ,, 126 1 ,, ,, 19s | 1 ,, ,, 40 | 2 ,, 126



# Model No. 0.148 Bath Chair

Parts required:

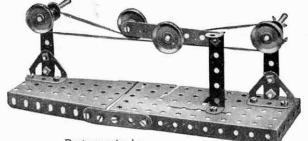
4 of No. 5 | 16 of No. 37
2 ,, 12 | 2 ,, 48A
2 ,, 16 | 1 ,, 52
4 ,, 22 | 3 ,, 90A
2 of No. 126



#### HOW TO CONTINUE

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

# Model No. 1.1 Jockey Pulley

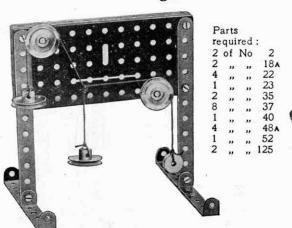


# Parts required:

| 1 | of | No. | 3  | 12 | of | No. | 35<br>37<br>37<br>40<br>48 | 1 | of | No. | 52   |
|---|----|-----|----|----|----|-----|----------------------------|---|----|-----|------|
| 4 | ,, | ,,  | 5  | 20 | ,, | ,,  | 37                         | 1 | ,, | ,,  | 54   |
| 2 | ,, | ,,  | 17 | 1  | ,, | ,,  | 37A                        | 2 | ,, | ,,  | 111c |
| 4 | ,, | **  | 22 | 1  | ,, | ,,  | 40                         | 2 | ,, | ,,  | 126  |
|   |    |     |    | 1  | ,, | ,,  | 48A                        |   |    |     |      |

The weight of the pivoted 3½° Strip, augmented by the 1° fast Pulley Wheel, causes the jockey pulley to press on the belt. Hence the latter is kept always taut.

# Model No. 1.2 Triangle of Forces

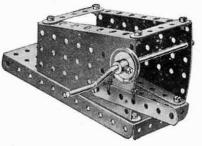


The suspended weights represent three forces acting on a central point. If a triangle is drawn with its sides respectively parallel to the three converging cords, i.e., parallel to the directions of the three forces, the lengths of the sides will be found to be proportional to the respective magnitudes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

# Model No. 1.5 Belt Gear Right-angle Drive Transmission

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

Model No. 1.3 Band Brake



required:
1 of No. 3
2 ,, 5
1 ,, 198

Parts

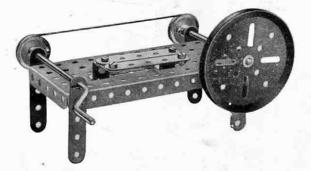
Model No. 1.6 Bacon Slicer

Parts required:

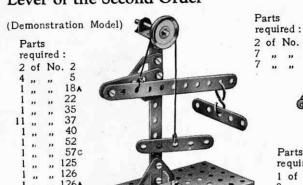
| 6 | of  | No. | 5    | 1 2 | of  | No. | 22 |
|---|-----|-----|------|-----|-----|-----|----|
| 2 | ,,, | ,,  | 10   | -1  | ,,  | ,,  | 35 |
| 1 | ,,  | ,,  | 16   | 10  | ,,  | ,,  | 37 |
| 1 | ,,  | ,,  | 19B  | 1   | ,,  | ,,  | 40 |
| 1 | **  | ,,  | 19s  | 1   | ,,  | ,,  | 52 |
|   |     | 2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



6 of No. 2 2 ,, ,, 10 8 ,, ,, 12 12 ,, ,, 37

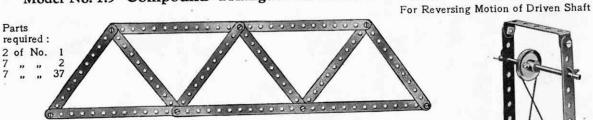


# Model No. 1.7 Lever of the Second Order

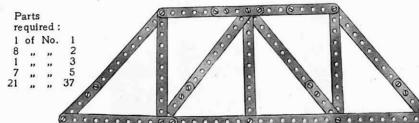


The fulcrum is at one end, the power at the other and the load lies between the two.

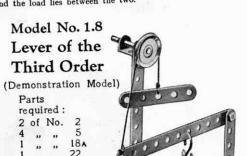
# Model No. 1.9 Compound Triangulated Truss



# Model No. 1.10 Howe Truss



Model No. 1.11 Triangulated Truss



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

3333333333

Model No. 1.12 45° Set-Square

Parts required:

of No.

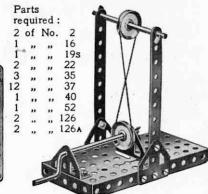
Parts required:
3 of No. 2 | 1 of No. 3
5 of No. 37

Model No. 1.13
60°
Set-Square
Parts
required:
2 of No. 2

Model No. 1.15 Belt Gear
For Driving Shafts at Right Angles

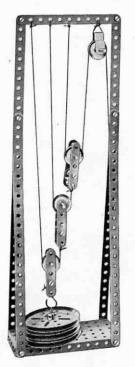
Parts required: of No. 2 | 10 of No. 37

Model No. 1.14 Belt Gear



# Model No. 1.16 Pulley Block

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



### Parts required:

|   |    | CO-CALL. |       |    |    |     |     |  |
|---|----|----------|-------|----|----|-----|-----|--|
| 4 | of | No       | . 1 [ | 3  | of | No. | 19B |  |
| 3 | ,, | ,,       | 2     | 4  | ,, | ,,  | 22  |  |
| 6 |    | ,,       | 5     | 15 | ,, | ,,  | 37  |  |
| 2 | ., | ,,       | 11    | 1  | ,, | ,,  | 40  |  |
| 2 | ,, | **       | 12    | 1  | ., | ,,  | 44  |  |
| 2 | ., |          | 17    | 1  | ,, | ,,  | 52  |  |
| 2 | ,, | ,,       | 184   | 1  | ,, |     | 57c |  |

# Model No. 1.17 Pulley Block

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

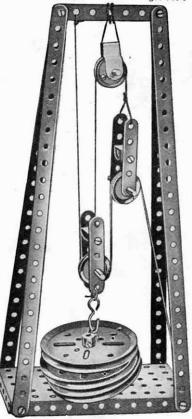
| of | No. | 1   | 1. 4 | of | No. | 19B |
|----|-----|-----|------|----|-----|-----|
| ,, | ,,  | 2   | 4    | ,, | ,,  | 22  |
| ,, | ,,  | 5   | 6    | ,, | ,,  | 35  |
| ,, | ,,  | 10  | 22   | ,, | ,,  | 37  |
| ,, | ,,  | 12  | 1    | ,, | ,,  | 40  |
| ,, | ,,  | 16  | 1    | ,, | ,,  | 44  |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



Model No. 1.18 Pulley Block

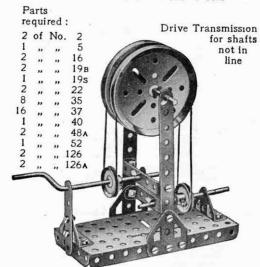
Demonstration Model:

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

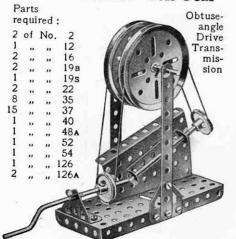


| 4 | of | No. | 1    | 1 4 | of  | No. | 19 <sub>B</sub> |
|---|----|-----|------|-----|-----|-----|-----------------|
| 1 | ,, | 21  | 3    | 3   | .,  | ,,  | 22              |
| 4 | ,, | ,,  | 5    | 10  |     |     | 37              |
| 2 | ., | ,,  | 11   | 1   | ,,  |     | 40              |
| 1 | ,, | ,,  | 17   | 1   | **  |     | 44              |
| 2 | ,, |     | 18A  | 1   | ••  |     | 52              |
|   |    | 1   | of l | No. | 57¢ | 100 | 0.00            |

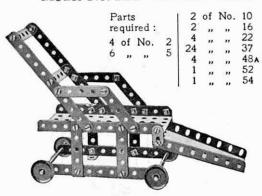
# Model No. 1.19 Belt Gear



# Model No. 1.20 Belt Gear



# Model No. 1.21 Invalid Chair



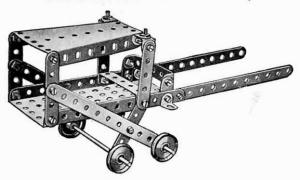
# Model No. 1.22 Letter Balance

### Parts required:

| 6 | of | No. | 2               | 4  | of | No. | 22                     | 2 | of | No. | 48A  |
|---|----|-----|-----------------|----|----|-----|------------------------|---|----|-----|------|
| 3 | ,, | ,,  | 5               | 1  | ,, | ,,  | 24<br>37<br>37 A<br>38 | 1 | ,, | ,,  | 52   |
| 1 | ,, | ,,  | 10              | 26 | ,, | ,,  | 37                     | 2 | ,, | ,,  | 111c |
| 1 | ,, | ,,  | 12              | 4  | ,, | ,,  | 37A                    | 2 | ,, | ,,  | 126  |
| 2 | ,, | ,,  | 18A             | 2  | ,, | ,,  | 38                     | 2 | ,, | ,,  | 126A |
| 1 |    |     | 19 <sub>B</sub> | 1  |    |     | 44                     | l |    |     |      |

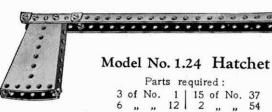


# Model No. 1.23 Ticca Gharry

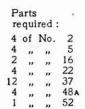


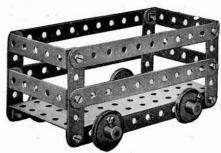
### Parts required:

| 4 | of | No. | 2<br>5<br>10 | 6 | of | No. | 12 | 22 | of | No. | 37 |
|---|----|-----|--------------|---|----|-----|----|----|----|-----|----|
| 6 | ,, | ,,  | 5            | 2 | ,, | ,,  | 16 | 1  | ,, | ,,  | 52 |
| 2 | ,, | ,,  | 10           | 4 |    |     | 22 | 1  |    | .,  | 54 |



# Model No. 1.25 Truck with Sides

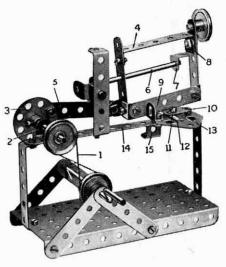




# Model No. 1.26 Mechanical Saw

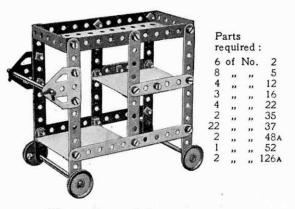
## Parts required:

| 1 | of | No. | 2  | 1 1 | of | No. | 17  | 4 | of | No. | 38   |
|---|----|-----|----|-----|----|-----|-----|---|----|-----|------|
| 8 | ,, |     | 5  | 1   | ,, | ,,  | 19s | 1 | ,, | ,,  | 40   |
| 1 | ,, |     | 10 | 3   |    | ,,  | 22  | 1 | ,, |     | 44   |
| 1 | ,, | ,,  |    | 1   | ,, | ,,  | 24  | 4 | ,, | ,,  | 48A  |
| 4 | ,, | ,,  | 12 | 3   | ,, | ,,  | 35  | 1 | ,, | ,,  | 52   |
| 1 | ,, | **  | 16 | 22  | ,, | ,,  | 37  | 2 | "  | "   | 125  |
|   |    |     |    |     |    |     |     | 1 | ,, | **  | 126A |



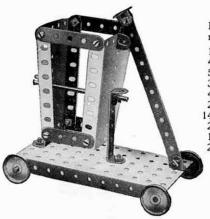
The Strip 9 represents the saw. The Crank Handle drives, through a belt 1, a short Rod journalled in a Double Bracket 2 and carrying a Bush Wheel 3. The latter imparts a reciprocating motion to the saw frame 4 through a 2½ Strip 5 loosely mounted on Bolts secured to the Bush Wheel and to an Angle Bracket bolted to the saw frame. This frame slides on a 3½ Rod 6, which acts as a guide, passing through the frame and supported in a Reversed Angle Bracket 7. A Washer is placed on the Bolt 8 behind the Bracket 7. A vice to secure the objects in position for cutting consists of a Flat Bracket 10 mounted on a Bolt 11, a few turns of which causes the Flat Bracket to grip the object 12. The Bolt 11 enters a Nut held between the Flat Trunnion 13 and 5½ Strip 14, which are spaced apart for the purpose by Washers place1 on the two Bolts holding the Trunnion in position. The saw frame rests on the stop 15 when not in use. A 1′ Pulley secured to the top of the frame acts as a weight and helps to steady the saw.

# Model No. 1.27 Dinner Wagon



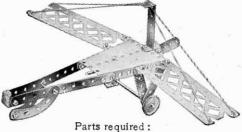
The two lower platforms are constructed out of pieces of ordinary cardboard, their outer edges resting on 2½" Double Angle Strips and their inner edges on Angle Brackets.

# Model No. 1.28 Tip Wagon



| re | qui | red: |     |
|----|-----|------|-----|
| 1  | of  | No.  | 2   |
| 4  | ,,  | ,,   | 5   |
| 5  | ,,  | ,,   | 12  |
| 3  | ,,  | ,,   | 16  |
| 4  | ,,  | ,,,  | 22  |
| 2  | ,,  | ,,   | 35  |
| 14 | ,,  | ,,   | 37  |
| 2  | ,,  | "    | 48A |
| 1  | "   | .,,  | 52  |
| 2  | ,,  | **   | 54  |

# Model No. 1.29 Aeroplane



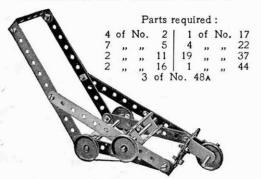
|   |    |     |    | Par | ts r | equi | red: |   |    | -   |      |
|---|----|-----|----|-----|------|------|------|---|----|-----|------|
| 2 | of | No. | 2  | 2   | of   | No.  | 16   | 1 | of | No. | 48A  |
| 5 | ,, | ,,  | 5  | 2   | ,,   | ,,   | 22   | 1 | ,, | ,,  | 54   |
| 1 | ,, | ,,  | 11 | 1   | ,,   | ,,   | 24   | 2 | ,, | ,,  | 90 A |
| 6 | ,, | "   | 12 | 21  | ,,   | ,,   | 37   | 2 | ,, | ,,  | 100  |
|   |    |     | 19 | 1   |      |      | 40   |   |    |     |      |

# Model No. 1.30 Timber Drag



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

# Model No. 1.31 Lawn Mower



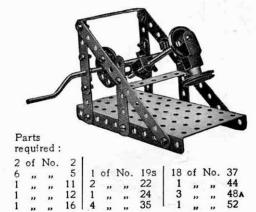
# Model No. 1.32 Tandem Car

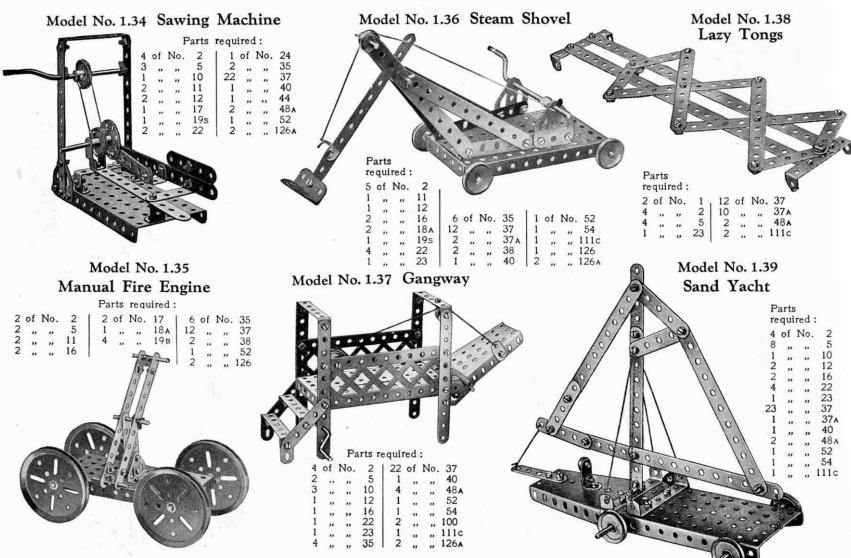


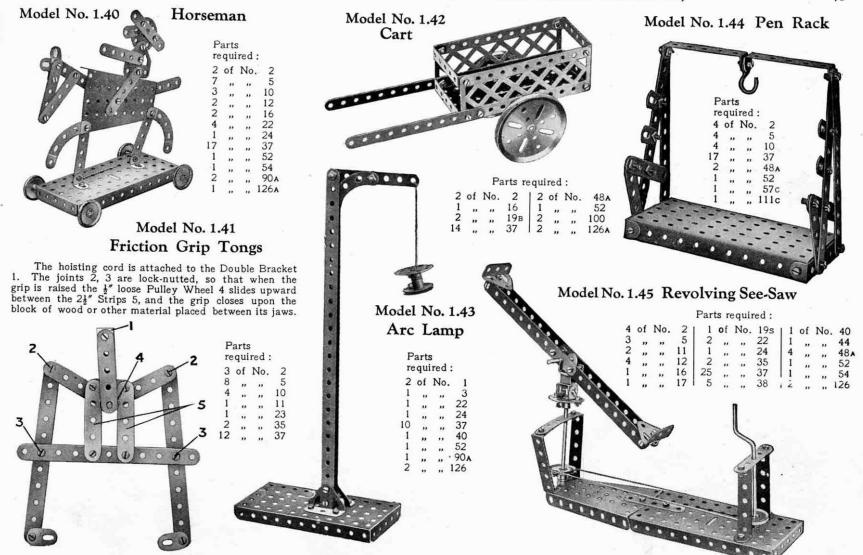
# Parts required:

| 4 | of | No. | 2    | 4   | of  | No. | 19 <sub>B</sub> |
|---|----|-----|------|-----|-----|-----|-----------------|
| 8 | ,, | ,,  | 5    | 26  | ,,  | ,,  | 37              |
| 2 | ,, | ,,  | 12   | 5   | ,,  | ,,  | 48A             |
| 2 | ,, | ,,  | 16   | 1   | ,,  | ,,  | 52              |
|   |    | 2   | of I | Vo. | 126 | A   |                 |

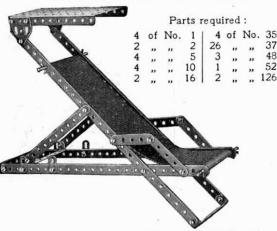
# Model No. 1.33 Mechanical Hammer





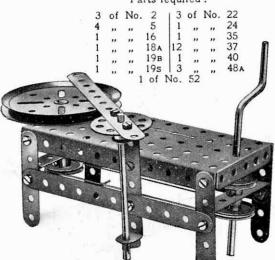


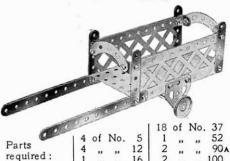
# Model No. 1.46 Deck Chair



# Model No. 1.47 Potter's Wheel

Parts required:

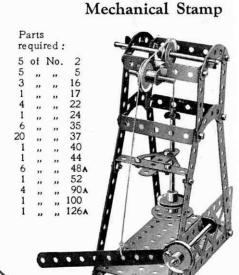


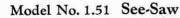


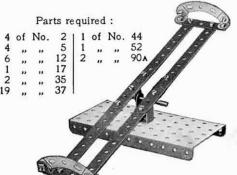
2 of No. 2

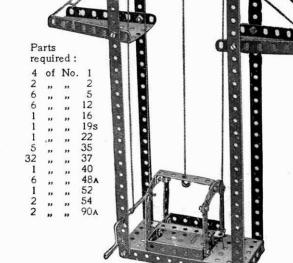
Model No. 1.49 Elevator

### Model No. 1.48 Luggage Cart Model No. 1.50









Parts required:

2 of No. 18A

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



# Model No. 1.52 Umpire's Seat

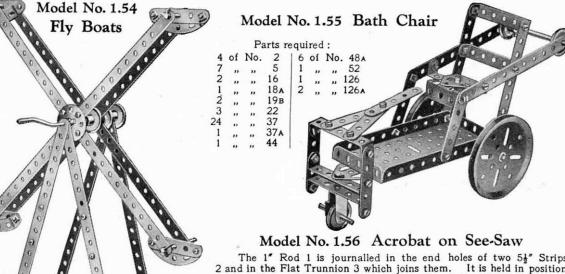
|    | arts | red |     |
|----|------|-----|-----|
| 10 | qui  | ieu | •   |
| 6  | of   | No. | 2   |
| 7  | ,,   | ,,  | 5   |
| 2  | ,,   | ,,, | 10  |
| 4  | ,,   |     | 12  |
| 24 | ,,   | ,,  | 37  |
| 3  |      |     | 48A |
| 2  |      |     | 90A |
| 2  |      |     | 126 |

# Model No. 1.53 Submarine

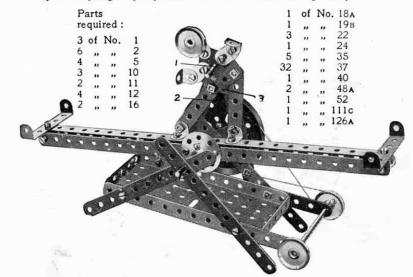
Parts required:

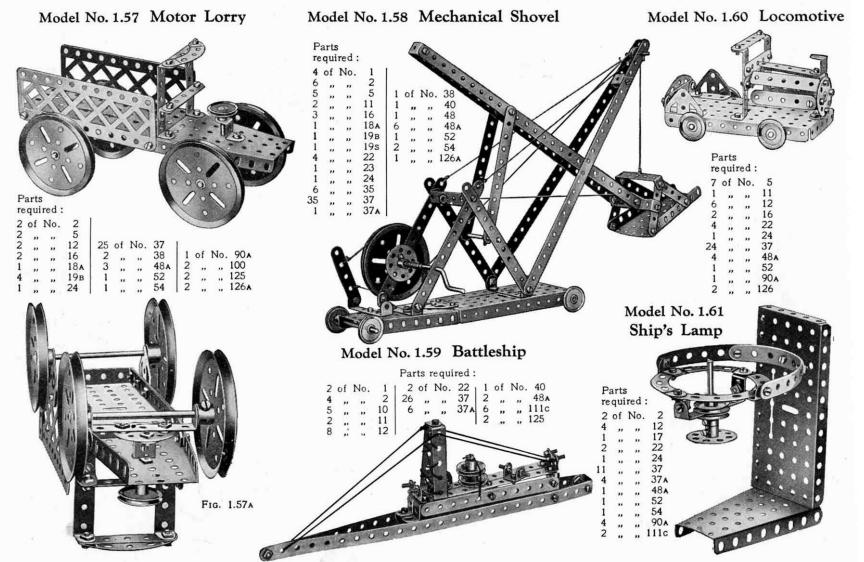
| 4 | of | No. | 1  | 2  | of | No. | 35  |
|---|----|-----|----|----|----|-----|-----|
| 5 | ,, | ,,  | 10 | 28 | ,, | ,,  | 37  |
| 2 | ,, | ,,  | 11 | 3  | ,, |     | 37A |
| 8 | ,, | ,,  | 12 | 2  | ,, |     | 38  |
| 2 | ,, | ,,  | 17 | 1  |    |     | 48  |
| 3 |    |     | 22 | 1  |    |     |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

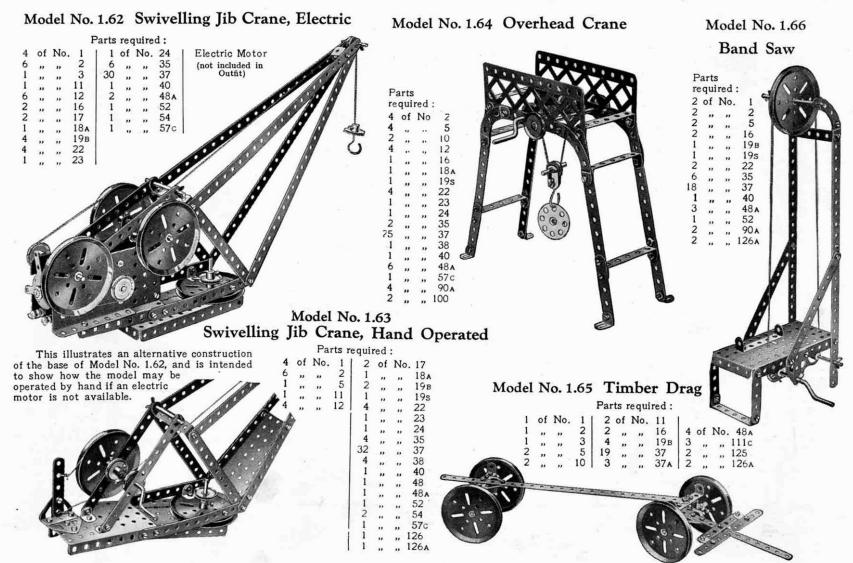
Trunnions are bolted to the side 121" Strips, and a Bolt passed through their inner extremities secures a 1" Reversed Angle Bracket and an Angle Bracket. The former is attached to the upper 121 Strip while the Angle Bracket is connected by means of a Flat Bracket and a further Angle Bracket to the lower Strip.



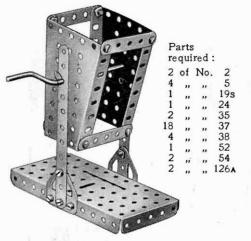
The 1" Rod 1 is journalled in the end holes of two  $5\frac{1}{2}$ " Strips 2 and in the Flat Trunnion 3 which joins them. It is held in position by two Spring Clips, placed on either side of the 51" Strips 2.







# Model No. 1.67 Butter Churn



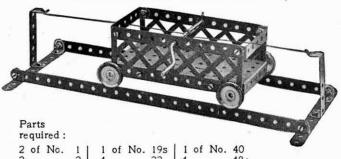
4 of No. 22

Parts required:

Model No. 1.68 Inverted Centrifugal Governor

111c

# Model No. 1.69 Cable Railway

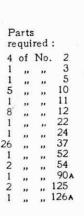


# Model No. 1.70 Candle Stick





# Model No. 1.72 Man and Boy



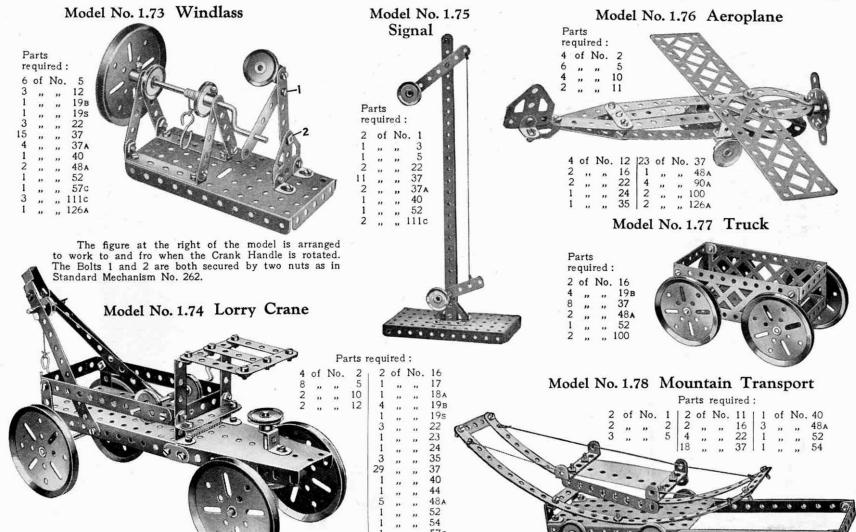
Model No. 1.71 Machine for Tracing a Locus

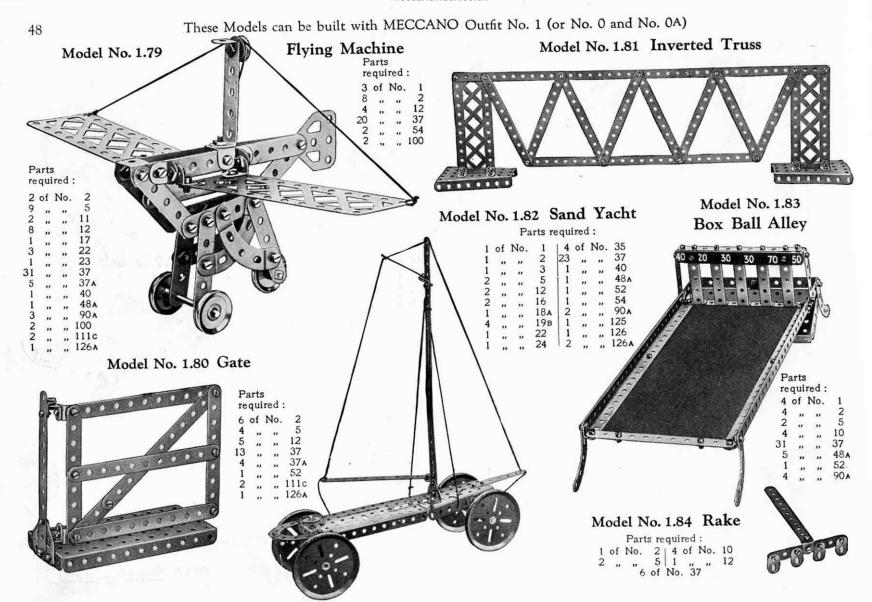
# Parts required:

| 1 | of | No. | 2   | 4 | of | No. | 35   |  |
|---|----|-----|-----|---|----|-----|------|--|
| 1 | ,, | ,,  | 5   | 4 | ,, | ,,  | 37   |  |
| 1 | ,, | ,,  | 11  | 3 | ,, | ,,  | 37 A |  |
| 1 | ,, | ,,  | 12  | 4 | ,, | ,,  | 38   |  |
| 1 | ,, | ,,  | 17  | 1 | ,, | ,,  | 54   |  |
| 1 |    | ,,  | 18A | 2 | ,, | ,,  | 111c |  |
| 1 | ,, | 1)  | 24  | 1 | ** | ,,  | 125  |  |

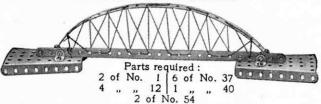
The 5½" Strip is pivoted to the 2½" Strip by means of a Bolt and two Nuts, and the 2½" Strip is similarly pivoted to the Sector Plate. By revolving the 2½" Strip about its pivot, the vertical 1½" Rod can be made to trace a locus. If the positions of the 1½" Rod and

the  $5\frac{1}{2}$ " Strip are altered, several different loci may be traced. Machines of this type are of advantage in assisting in the design of engine connecting rods.



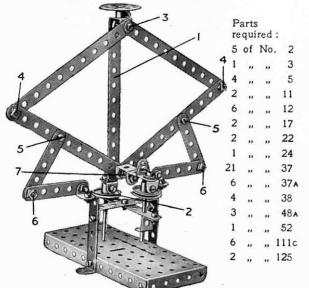


# Model No. 1.85 Bow Girder

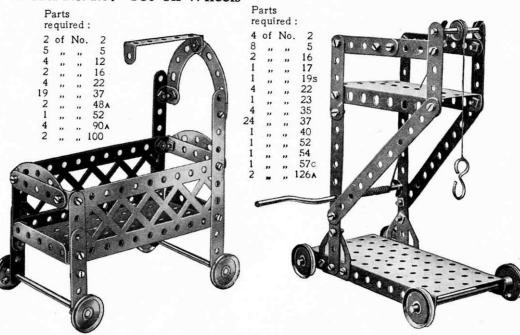


# Model No. 1.86 Double-Action Pump

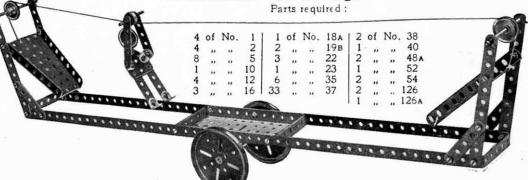
The 5½" Strip 1 is attached to the 1" Pulley Wheel 2 by means of two Angle Brackets, through the lower of which passes the Set-Screw that secures the Pulley to its 2" Rod. Two Washers are placed beneath the head of the Bolt joining the Angle Brackets in order to prevent its shank from binding on the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



# Model No. 1.87 Cot on Wheels Model No. 1.88 Tower Wagon



# Model No. 1.89 Aerial Flight



# Model No. 1.90 Gong

# Model No. 1.92 Roundabout



Begin to build this model by making the platform from a Flanged Plate and 12½" Strips. The drive from the Pulley on the Crank Handle is taken to a 1" Pulley, fast on the vertical 2" Rod, another similar Pulley being secured to this Rod beneath the Plate.

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

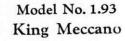
# Parts required:

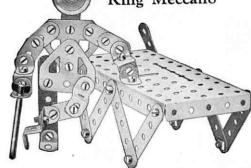
| 4 | of | No. | 1    | 13  | of       | No. | 22  |
|---|----|-----|------|-----|----------|-----|-----|
| 4 | ,, | ,,  | 2    | 1   | ,,       | ,,  | 24  |
| 6 | ,, | ,,  | 5    | 6   | ,,       | ,,  | 35  |
| 4 | ,, | ,,  | 10   | 22  | ,,       | ,,  | 37  |
| 2 | ,, | ,,  | 16   | 1   | ,,       | ,,  | 40  |
| 1 | ,, | ,,  | 17   | 4   | ,,       | ,,  | 48A |
| 1 | ,, | ,,  | 19s  | 1   | ,,       | ,,  | 52  |
|   |    | 2   | of I | No. | 54       |     |     |
| 1 | ,, | "2  | 19s  | 1   | .,<br>54 | "   |     |



# Parts required:

| 4 | of | No. | 2    | 1   | of  | No. | 22 |
|---|----|-----|------|-----|-----|-----|----|
| 1 | ,, | ,,  | 5    | 9   | ,,  | ,,  | 37 |
| 3 | "  | ,,  | 12   | 1   | "   | "   | 40 |
| 1 | ** | "1  | of N | lo. | 54" | ,,  | 52 |



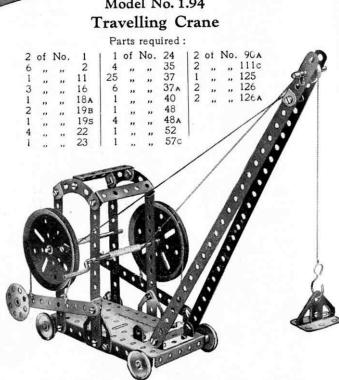


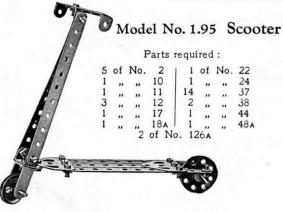
# Model No. 1.91 Emery Wheel Parts required:

|             | - area requir        | ou.             |
|-------------|----------------------|-----------------|
| 1 of No. 1  |                      |                 |
|             | 8a 1 " "             | 24   1 ,, ,, 40 |
| 2 ,, ,, 19  | 9в 2 ""              | 35 1 ,, ,, 48,  |
|             |                      | 1 ,, ,, 52      |
|             |                      | 1 ,, ,, 1110    |
|             |                      | 2 ,, ,, 125     |
|             |                      | 2 ,, ,, 126     |
|             |                      | Disc of emer    |
| Sales and P |                      | paper           |
|             | 46                   | 3" diameter     |
|             |                      | 100             |
| 106         | 300                  | 0               |
| (B. A)      | -                    | D. C.           |
|             | 1                    | BY BOWN -       |
| 00          | Street Street Street | - 0             |

### Parts required:

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





# Model No. 1.96 Ballista

This is a model of an ancient engine of war, resembling the crossbow. The 3½" Strip 1 is bolted firmly to the Double Angle Strip 2, which is prevented from turning by the addition of Angle Brackets as shown. A Double Bracket 3 slides on the Strip 1 and is secured to a piece of cord. On rotation of the Crank Handle 4, the Strip 1 is pulled backward until the Double Bracket 3 slips off its end. The

# Parts required:

Strip then flies forward and strikes the missile, which consists of a 2" Rod placed ready in the Double Bracket 5.

| 4 | of  | No. | 1  | 12  | of  | No. | 16         | 1 | of | No. | 40   |  |
|---|-----|-----|----|-----|-----|-----|------------|---|----|-----|------|--|
| 4 | .,  |     | 2  | 1   | ,,  | ,,, | 18а<br>19в | 1 | ** | ,,  | 44   |  |
| 1 | ,,  | .,  | 3  | 3   | ,,  | ,,  | 19в        | 4 | ,, | ,,  | 48A  |  |
| 2 | 100 |     | 11 | 1 1 | 100 |     | 19s        | 1 |    |     | 52   |  |
| 2 | ,,  | ,,  | 12 | 4   | ,,  | ,,  | 22         | 1 | "  | ,,, | 90A  |  |
|   |     |     |    | 21  |     |     | 37         | 2 |    |     | 126A |  |

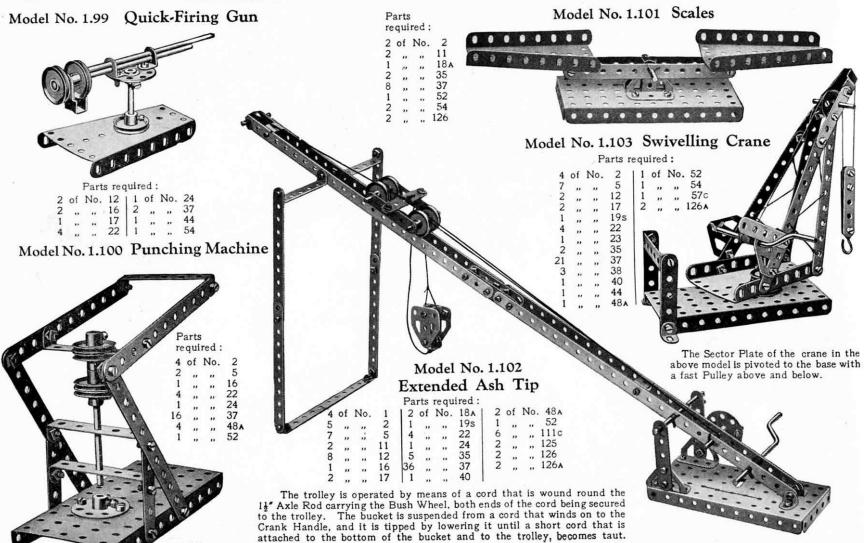
# Model No. 1.97 Tight-Rope Walker

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

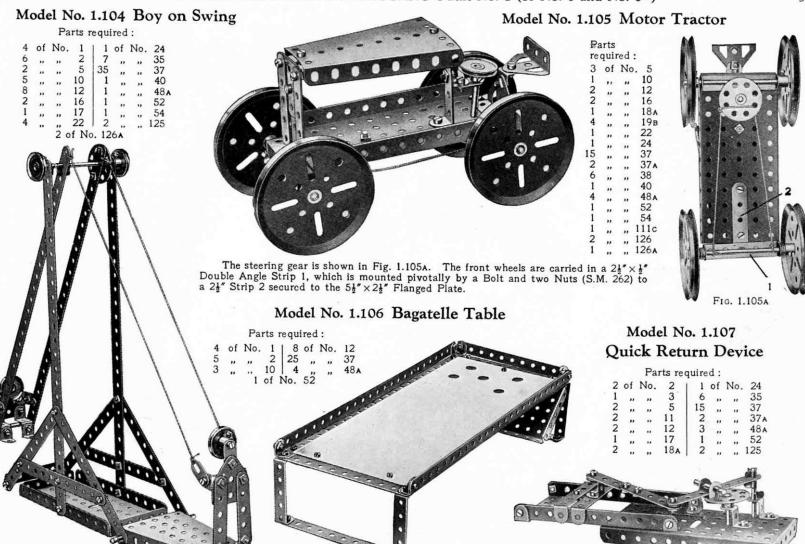
|       | art<br>equ | s<br>ired : | :  |    |    |     |     | • |    |     |      |
|-------|------------|-------------|----|----|----|-----|-----|---|----|-----|------|
| 4     | of         | No.         | 1  |    |    |     |     |   |    |     | U    |
| 4     | ,,         | ,,          | 2  | 2  | of | No. | 17  | 2 | of | No. | 38   |
| 1     | ,,         | ,,          | 3  | 1  | ,, | ,,  | 19s | 1 | ,, | ,,  | 40   |
| 5     | ,,         |             | 5  | 4  | ,, | ,,  | 22  | 2 | ,, | ,,  | 48A  |
| 5 3 4 | ,,         | ,,          | 10 | 1  | ,, | ,,  | 23  | 1 | ,, | ,,  | 52   |
| 4     | ,,         | ,,          | 12 | 6  | ,, | ,,  | 35  | 2 | ,, | ,,  | 54   |
| 2     | ,,         |             | 16 | 34 | n  | ,,  | 37  | 1 | ,, | **  | 126A |

# Model No. 1.98 Double-Action Piston Connection

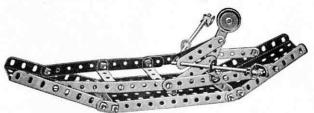
| of | No. | 1                 | 1     | of              | No.         | . 23         |  |
|----|-----|-------------------|-------|-----------------|-------------|--------------|--|
| ,, | ,,  | 2<br>3<br>5<br>10 | 1     | ,,              | ,,          | 35<br>37     | 00   |
| ,, |     | 3                 | 36    | ,,              | ,,          | 37           |  |
| ,, | ,,  | 5                 | 5     | ,,              | ,,          | 37A          | MACA MACA  |
| ,, | ,,  | 10                | 4     | ,,              | -,,         | 48A          | M AN   |
| ,, | ,,  | 11                | 1     | ,,              | ,,          | 52           |  |
| ,, |     | 12                | 1     | ,,              | "           | 90A          | AND IN COMME   |
| ,, | "   | 19B               | 3     | ,,              | ,,          | 111c<br>126A | 9 1 0/2  |
| ,, | ,,  | 19s               | 2     | ,,              | ,,          | 126A         | AT CA IN COMPA   |
|    |     |                   |       |                 |             |              |  |
|    |     |                   |       |                 |             |              | A STATE OF THE STA |
|    |     |                   |       |                 |             | -            |  |
|    |     |                   | -     |                 | FR          |              |  |
|    | 2   | ,                 | T. F. | STREET, STREET, | Challen St. | (0)          |  |
|    |     | 1                 |       | -               | F-867       | WORLD        |  |



Further lowering causes the bucket to swing over,



# Model No. 1.108 Rowing Boat

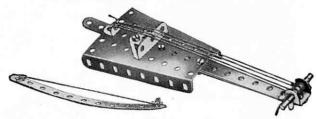


# Model No. 1.110 Weather Vane

# Parts required:

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

# Model No. 1.111 Violin and Bow

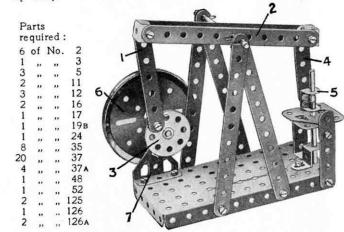


### Parts required:

| 4 | of | No. | 2 1 | 1 | of | No. | 12                          | 1 | of | No. | 40  |
|---|----|-----|-----|---|----|-----|-----------------------------|---|----|-----|-----|
| 1 | ,, | "   | 5   | 1 | ,, | ,,  | 18A                         | 1 | ,, | **  | 54  |
| 1 | ,, | ••  | 11  | 2 | ,, | **  | 12<br>18 <sub>A</sub><br>35 | 1 | ,, | ,,  | 126 |

# Model No. 1.112 Beam Engine

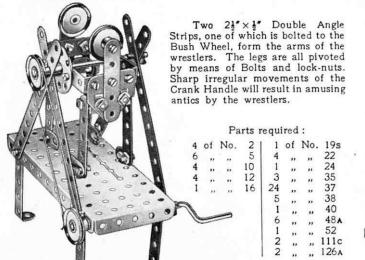
The connecting Strip 1 is attached pivotally by a Bolt and two Nuts (Standard Mechanism No. 262) to one end of the beam 2 and to the Bush Wheel 3. The Strip 4 is similarly connected to the other end of the beam 2 and to the Double Bracket 5 attached to the piston rod. The short rod carrying the flywheel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



### Parts required:

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

# Model No. 1.109 The Wrestlers

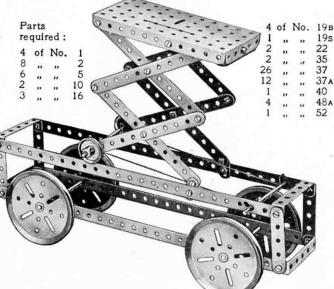


# Model No. 1.113 Cum Bak Parts

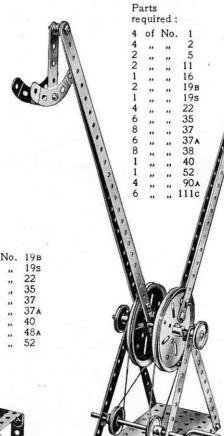
required: 1 of No. 18A

A short length of elastic is doubled and stretched between the centres of the 3" Pulley Wheels. A weight, consisting of two 1" fast Pulley Wheels and a 11 Rod, is suspended from it in the middle of the drum. When the Cum Bak is rolled along any smooth level surface, the elastic becomes twisted and stores up sufficient energy to return the drum to its starting point. If the mechanism is concealed by a thin cardboard covering, the model will cause much amusement by its mystifying behaviour.

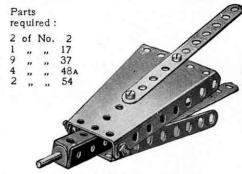
# Model No. 1.114 Tower Wagon



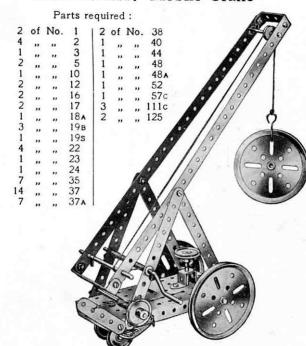
# Model No. 1.115 Flip Flap

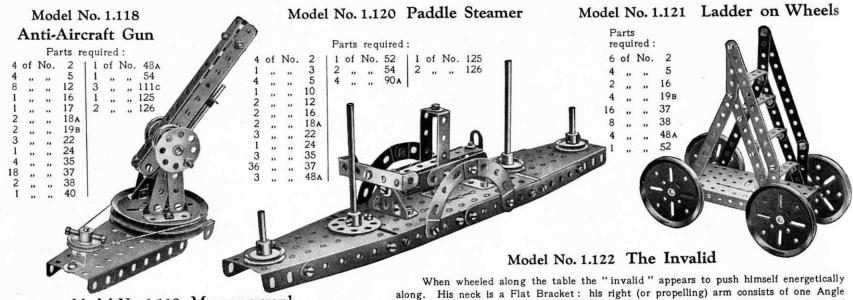


# Model No. 1.116 Bellows



# Model No. 1.117 Mobile Crane





Model No. 1.119 Meccanograph

Parts required:

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

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

2 , , , 11 | 2 - , , , 22 | 2 , , , 37 A | 2 , , , 100

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

2 , , , 16 | 1 , , , 40 | 2 , , , 126

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 visible in the illustration) drives by cord another 1" Pulley Wheel, the shaft of which also carries a Bush Wheel 1. As will be seen, a 2½" Strip is pivoted at one end to this Bush Wheel and at the other end to a second 2½" Strip 2, which, rocking about an axle

journalled through its centre hole, is again pivoted to the

invalid's hands.

# Model No. 1.123 Bow and Arrow

Parts required:

1 of No. 1 | 1 of No. 16

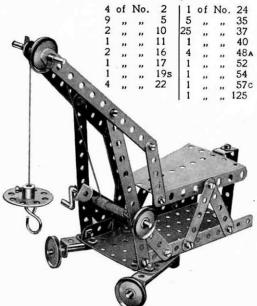
1 of No. 40

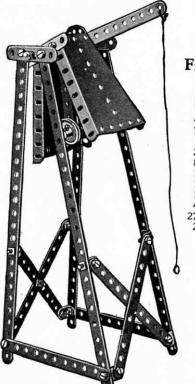


# Model No. 1.124 Rotating Crane

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

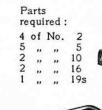
### Parts required:





# Model No. 1.125 Fire Alarm Parts required: 4 of No. 1 7 , , , 2 1 , , , 3 3 , , , 5 8

Model No. 1.128 Stamping Machine





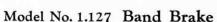
1 ,, ,, 52 2 ,, ,, 126A

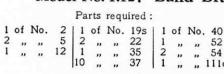
# Model No. 1.126 Gramophone

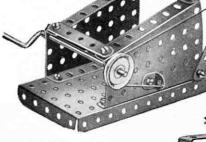
Parts required:

|   |    | P   | arts r | equ  | ure | <b>a</b> : |       |      |
|---|----|-----|--------|------|-----|------------|-------|------|
| 2 | of | No. | 10     | 12   | of  | No         | . 90A | . 68 |
| 1 | ,, | ,,  | 12     | 2    | ,,  | ,,         | 111c  | . 0  |
| 1 | ,, | ,,  | 19в    |      |     |            |       | 10   |
| 1 | ** | ,,  | 23     |      |     |            |       | -    |
| 1 | ,, | ,,  | 24     |      |     | -          | 100   |      |
| 6 | ,, | ,,  | 37     |      | _4  |            | 0 -   |      |
| 1 | ,, | **  | 38     |      | 37  | _          |       | 10   |
| 1 | ,, | ,,  | 52     | - 1  | 3/  |            |       | -    |
|   |    |     |        |      | 0   | 0          |       | 0    |
|   |    |     |        | - 88 | 700 | 1000       | 100   | 100  |





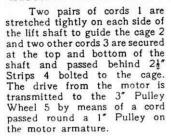




# Model No. 1.129 Electric Elevator

# Model No. 1.130 Mounted Cowboy

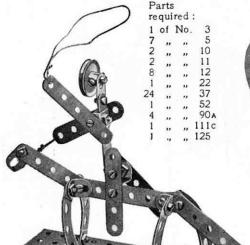
# Model No. 1.132 Coaster



# Parts required:

| of | No. | 1   | 34   | of | No. | 37  |
|----|-----|-----|------|----|-----|-----|
|    |     | 2   | 1    | ,, | ,,  | 38  |
| ,, | ,,  | 5   | 1    |    | ,,  | 40  |
| ,, |     | 12  | 1    | ,, | ,,  | 48  |
| ,, |     | 16  | 6    | ,, | ,,  | 48A |
| ,, |     | 19B | 1    | ,, | ,,  | 52  |
| ,, |     | 22  | 2    |    | **  | 54  |
| ., |     | 24  | 2    | ,, | ,,  | 100 |
|    |     | 35  | 2    |    |     | 125 |
| ** |     |     | L 30 |    | **  |     |

Electric Motor (not included in Outfit)



Parts required: 2 of No.

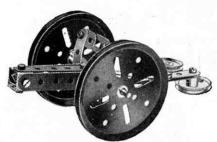
Model No. 1.133

22 of No. 37 2 ,, ,, 37 6 ,, ,, 38

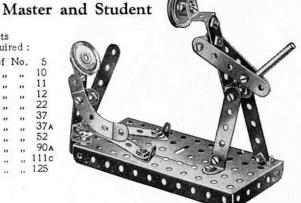
# Model No. 1.131

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





Parts required:

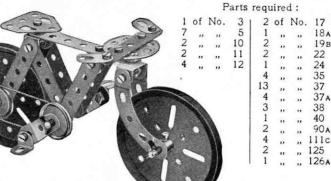


# Model No. 1.134 Travelling Crane

The jib 1 is pivoted to the Flat Trunnions 2, which are bolted at 3 to Angle Brackets secured to a Bush Wheel. The latter is nipped to a 2" Rod 4 passing through the Plate 5 and further supported in a Double Angle Strip 6. A Washer and Spring Clip mounted on the Rod 4 below the Strip 6 secure the crane to the carriage. The jib is supported by means of cords 7 tied to 21" Strips 8, the holes of which engage the shank of a bolt passed through the Sector Plate 9, and its elevation may be altered by inserting this bolt in different holes in the Strips 8. The cord 10 of the brake lever is wound once round the Crank Handle, between two Washers.

# Model No. 1.135 Bicycle

# Model No. 1.137 Gymnast

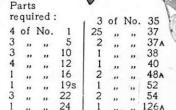


| 2  | of | No. | 17   |  |
|----|----|-----|------|--|
| 1  | ,, |     | 18A  |  |
| 2  |    | ,,  | 19в  |  |
| 2  | ,, | ,,  | 22   |  |
| 1  | ,, | ,,  | 24   |  |
| 4  | ,, | ,,  | 35   |  |
| 13 | ,, | **  | 37   |  |
| 4  | ,, |     | 37A  |  |
| 3  |    |     | 38   |  |
| 3  | ,, | ,,  | 40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

# Model No. 1.136 Luggage Truck

Parts required:

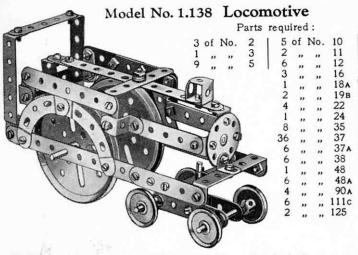
| 2 | ot | No. | 2                   | 18 | of | No. | 37  |  |
|---|----|-----|---------------------|----|----|-----|-----|--|
| 8 | ,, | ,,  | 5                   | 2  | ,, | ,,  | 48A |  |
| 1 | ,, | "   | 16                  | 1  | ,, | ,,  | 52  |  |
| 2 | ,, | ,,  | 2<br>5<br>16<br>19в | 4  | ,, | ,,  | 90A |  |
|   |    |     |                     |    |    |     |     |  |



| Parts | required | : |
|-------|----------|---|
|-------|----------|---|

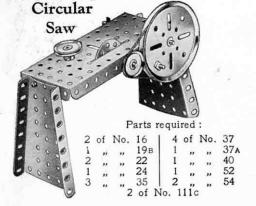
| 4 | of | No. | 2  | 1   | of  | No. | 19s      | 110 | of | No. | 40        |
|---|----|-----|----|-----|-----|-----|----------|-----|----|-----|-----------|
| 7 | ,, | **  | 5  | 4   | ,,  | ,,  | 22       | 1   | ,, | ,,  | 44        |
| 1 | ,, |     | 10 | 1   | ,,, | ,,  | 23       | 3   | ,, | ,,  | 48 A      |
| 2 | ** |     | 12 | 1 5 | "   |     | 24       | 1   | ,, | "   | 52        |
| 2 | ,, |     | 16 | 27  | "   | "   | 35<br>37 | 1 1 | "  | **  | 54<br>57c |
| 2 | ,, |     | 17 | 6   | "   |     | 38       | 2   | "  | "   | 126A      |

One of the 21" Strips representing the arms of the gymnast is bolted to a Bush Wheel secured on a 31" Rod. When the Crank Handle is rotated the gymnast turns complete somersaults in a very amusing manner. The gymnast's "arms" must be pivoted to the Angle Brackets forming his shoulders by means of Bolts and Lock-Nuts.



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

# Model No. 1.139



# Model No. 1.140 Treadle Grindstone

|             | arts |      |          |
|-------------|------|------|----------|
| re          | qui  | red: |          |
| 4           | of   | No.  | 2        |
| 1           | ,,   | ,,   | 3 5      |
| 1           | ,,   | ***  | 5        |
| 1           | ,,   | ,,   | 12       |
| 3           | ,,   | ,,   | 16       |
| 3<br>4<br>1 | .,   | ,,   | 19B      |
| 4           |      |      | 22       |
| 1           |      | ,,   | 22<br>24 |
| 2           |      |      | 35       |
| 9           | "    | "    | 37       |
| 2           | "    | "    | 37A      |
| 9 2 1       | ,,   | ,,   | 40       |
| 1           | ,,   | ,,   | 48A      |
| - 1         |      |      | 40A      |

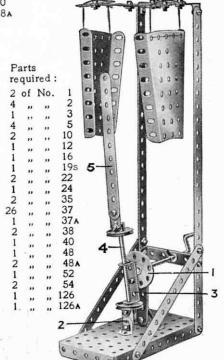
# Model No. 1.141 Model No. 1.142 Quick-Delivery Chute Mechanical Gong

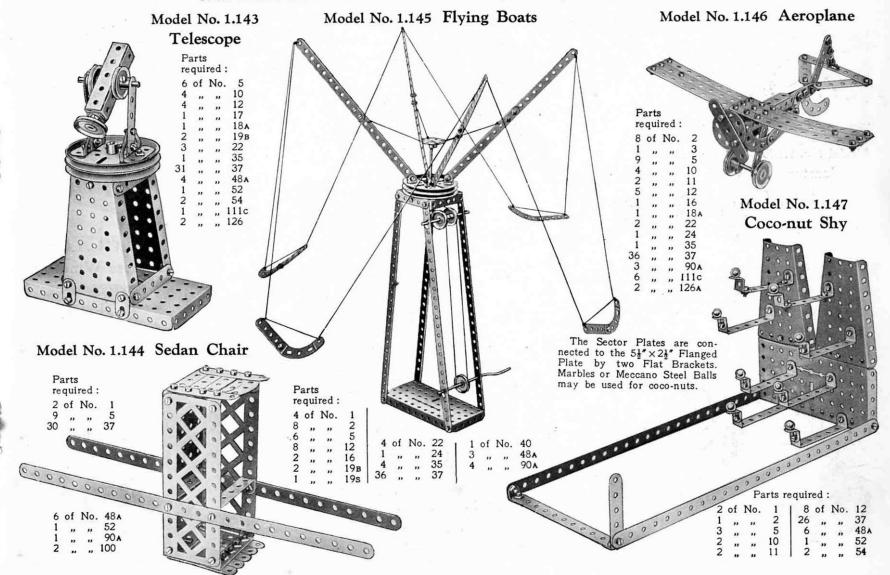
Parts

required:

2 of No.

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





# Model No. 1.148 Double Draw Bridge

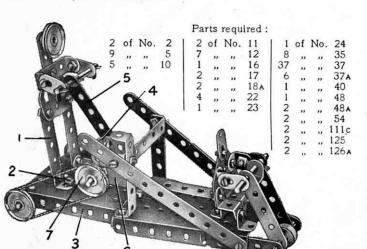
of No.

|     | Pa | irts | requ | nred: |   |    |     |    |
|-----|----|------|------|-------|---|----|-----|----|
| 1   | 1  | of   | No.  | 19s   | 2 | of | No. | 38 |
| - 1 | 2  | ,,   | ,,   | 22    | 1 | ,, | ,,  | 40 |
| - 1 | Q  |      |      | 35    | 6 |    |     | 49 |

# Model No. 1.149

# Coaster

The figure 1 is loosely attached by lock-nutted Bolts 2 to the Sector Plate 3 and is connected to the Bush Wheel 4 by the pivotally-attached 2½" Strip 5. The 1½" Rod carrying the Bush Wheel 4 is journalled in the Cranked Bent Strip 6, the 1" fast Pulley 7 being connected to the road wheel by a cord as shown.



# Model No. 1.151 Motor Cyclist and Pillion Rider

Parts required:

4 of No. 2 | 2 of No. 17 | 2 of No. 48A

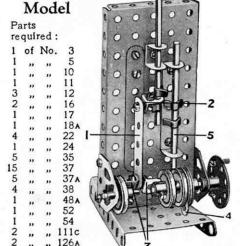
9 ", ", 5 | 4 ", ", 22 | 2 ", ", 90A

4 ", ", 10 | 1 ", ", 24 | 2 ", ", 125

2 ", ", 11 | 2 ", ", 35 | 2 ", ", 126A

8 ", ", 12 30 ", ", 37

Model No. 1.150 Tappet Valve Demonstration

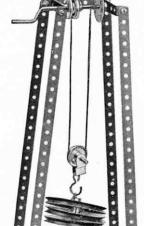


Parts
required:
4 of No. 1
1 ..., 3
1 ..., 18A
3 ..., 19B
1 ..., 19S
3 ..., 22
1 ..., 23
1 ..., 24
8 ..., 37
1 ..., 40
1 ..., 44
2 ..., 48A
1 ..., 52
1 ..., 57c

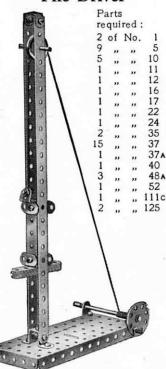
The upper end of the Strip 1 is connected pivotally by a Bolt and two Nuts to the crosshead bracket 2. The crankshaft is built up as follows: Two Angle Brackets 3 are each secured rigidly to the boss of a Pulley Wheel and are connected to each other by a \( \frac{3}{8}\)" Bolt carrying three Nuts. The Nuts are screwed tightly against the Brackets, sufficient space being left between the inner pair to enable the connecting Strip 1 to turn freely. The valve Rod 5 is operated by the Flat Bracket 4 that is clamped between two further 1" Pulleys on the crankshaft in such a way that its protruding end serves as a cam



Chinese Windlass

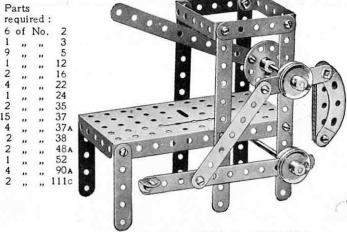


# Model No. 1.153 Pile Driver



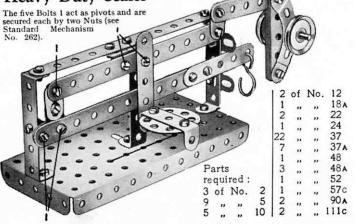
The winding cord is passed round the Pulley at the top of the model and is fastened to an Angle Bracket that is hooked under the protruding portion of a Flat Bracket bolted to the top of the driving head. When the Angle Bracket reaches the Pulley at the top it is pushed out a little, thus releasing the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

# Model No. 1.154 Foot Hammer

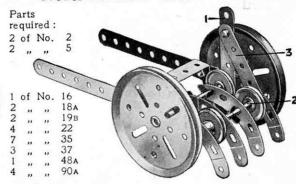


The treadle lever is connected pivotally to a  $3\frac{1}{2}$  Strip by a Bolt and two Nuts. The upper end of this Strip is similarly connected to a  $2\frac{1}{2}$  Strip that is clamped tightly between two Pulleys on the hammer Rod. Pressure on the treadle causes the hammer to descend on the work.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

# Model No. 1.155 Heavy Duty Scales



# Model No. 1.156 Horse Rake

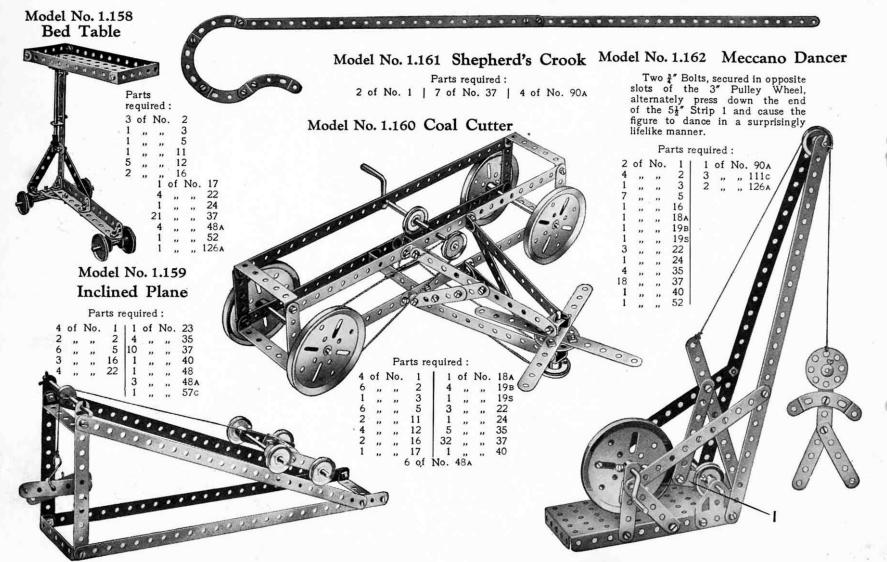


The 2½" Strip 1 pivots about the wheel axie. A 2½" Strip 3 is connected by a Bolt and two Nuts to the Strip 1 and the Shaft 2, which consists of two 1½" Rods, passes through its other end. On pulling the lever 1 towards the shafts the rake is lifted from the ground.

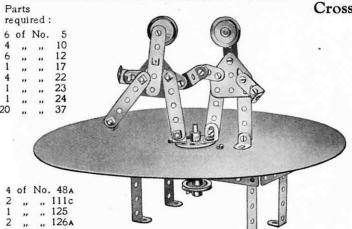
# Model No. 1.157 Gravity Conveyor

Parts required:

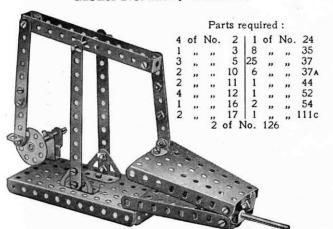
4 of No. 1 | 36 of No. 37
3 , , , 2 | 3 , , , 37A
8 , , , 5 | 1 , , , 48
6 , , , 12 | 3 , , , 90A
3 of No. 111c



# Model No. 1.163 Eccentric Dancers



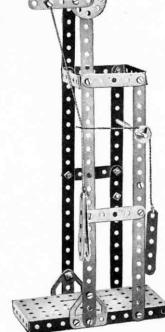
Model No. 1.164 Bellows



# Model No. 1.165

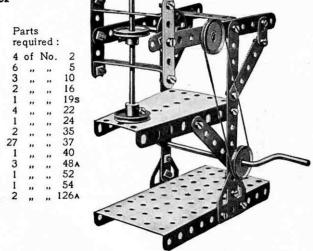
# Crosshead Demonstration Model

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



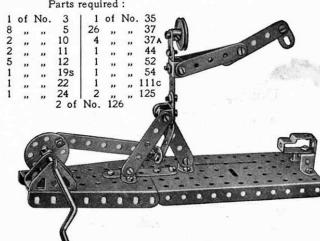
This is an apparatus for determining the forces that act at the crosshead of a reciprocating engine. The upper inclined length of cord represents the connecting rod and the lower, or vertical portion, the piston rod. The pull on the third cord indicates the pressure exerted on the slide bars of the engine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

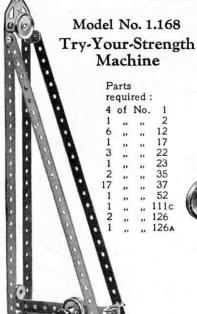
# Model No. 1.166 Drop Stamp



# Model No. 1.167 Blacksmith

# Parts required:





66

# Model No. 1.171 Motor Van

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

08 8A 22 24 4 60A 1c 55 66A 1c 66A 1c

The steering mechanism is shown more clearly in Fig. 1.171a. A length of cord is given two or three turns round the steering column, and is held in position by a Spring Clip, its ends being tied to a  $2\frac{1}{2}'' \times \frac{1}{2}''$  Double Angle Strip. The latter is pivoted to the  $5\frac{1}{2}'' \times 2\frac{1}{2}''$  Flanged Plate of the lorry by means of a Bolt and two Nuts (see Standard Mechanisms Manual. Detail No. 262).

FIG. 1.171A

# Model No. 1.169

Double Cable Key

Parts required:

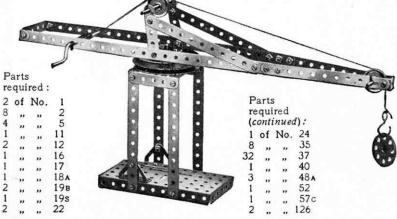
2 of No. 2 | 1 of No. 52
2 | 2 | 2 | 111c



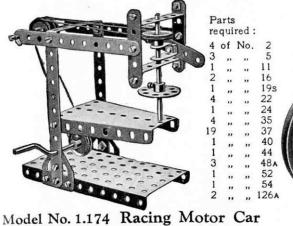
# Model No. 1.170 Boat

# 

# Model No. 1.172 Revolving Hammerhead Crane



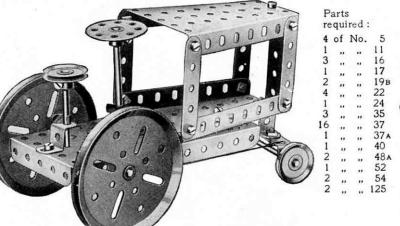
# Model No. 1.173 Drilling Machine



Parts required:

25 of No. 37

# Model No. 1.175 Motor Tractor



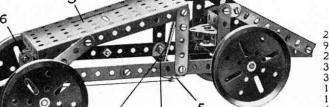
Model No. 1.176 Motor Car

The steering column 1 is journalled in an Angle Bracket 2 bolted to the  $5\frac{1}{2}'' \times 2\frac{1}{2}''$  Flanged Plate 3, and in the second hole of the  $2\frac{1}{2}'' \times \frac{1}{2}''$  Double Angle Strip 4. A Bush Wheel 5, secured to the lower end of the steering column, is connected by two short lengths of cord to a second  $2\frac{1}{2}'' \times \frac{1}{2}''$  Double Angle Strip carrying the front axle. The Strip is pivoted to a similar Double Angle Strip 6 by means of a Bolt and Nuts (Standard Mechanism No. 262).

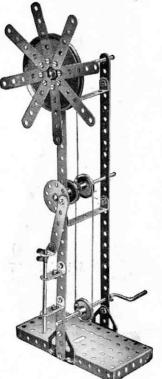
# Parts required :

| 4 | of | No. | 2  | 3 | of | No. | 16  | 25  | of | No. | 37  | 1 4 | of | No. | 48A<br>52<br>54<br>111c |
|---|----|-----|----|---|----|-----|-----|-----|----|-----|-----|-----|----|-----|-------------------------|
| 7 | ,, | ,,  | 5  | 4 | ,, | ,,  | 19в | 2   | ,, | ,,  | 37A | 1   | ,, | ,,  | 52                      |
| 1 | ,, | ,,  | 10 | 1 | ,, | ,,  | 22  | 4   | ,, | ,,  | 38  | 2   | ,, | ,,  | 54                      |
| 1 | ,, | ,,  | 11 | 1 | ,, | ,,  | 24  | 1   | ,, | ,,  | 40  | 1   | ,, | ,,  | 111c                    |
|   |    |     |    |   |    |     | 2   | . 5 |    |     |     | 1   | ,, | ,,  | 125                     |

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

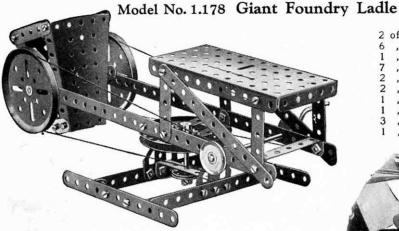


Model No. 1.177 Windmill Pump



Parts required:

|   |    | 1 0 | il to I c | quii | cu. | •   |      |
|---|----|-----|-----------|------|-----|-----|------|
|   | of | No. | 1         | 4    | of  | No. | 35   |
|   | ,, | ,,  | 5         | 24   | ,,  | ,,  | 37   |
|   | ,, | ,,  | 10        | 4    | ,,  | ,,  | 37A  |
|   | ,, | ,,  | 12        | 3    | .,  | ,,  | 38   |
| ì | ,, | **  | 16        | 1    | ,,  | ,,  | 40   |
|   | ,, | ,,  | 19в       | 2    | ,,  | ,,  | 48A  |
|   | ,, | ,,  | 19s       | 1    | ,,  | ,,  | 52   |
|   | ,, | ,,  | 22        | 2 2  | ,,  | ,,  | 1110 |
|   | ,, | ,,  | 24        | 2    | ,,  | ,,  | 126a |
|   |    |     |           |      |     |     |      |

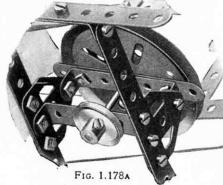


The ladle pivots about a 31" Axle Rod carrying a 3" Pulley at each end in addition to a Bush Wheel and a 21" Strip. The two latter parts are bolted to the side flanges of the Sector Plates and the Bush Wheel is nipped in position on the Rod. The pivot about which the superstructure turns is shown in Fig. 1.178A.

# Model No. 1.179 Boat Steering Gear

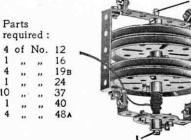
| 4       | of | No. | 2    | 1   | of  | No. | 24   |
|---------|----|-----|------|-----|-----|-----|------|
| 1       | ,, | ,,, | 3    | 14  | ,,  | ,,  | 37   |
| 1 2 1 1 | ,, | ,,  | 11   | 4   | ,,  | ,,  | 37 A |
| 1       | ,, | ,,  | 12   | 1   | ,,  | ,,  | 40   |
| 1       | ,, | ,,  | 16   | 1   | ,,  | ,,  | 48A  |
| 1       | ,, | ,,  | 18A  | 1   | ,,  | ,,  | 52   |
| 1       | ,, | **  | 19в  | 6   | ,,  | ,,  | 111c |
| 3       | ,, | ,,  | 22   | 1   | ,,  | ,,  | 125  |
|         |    |     | 1 of | No. | 126 | ,   |      |

# Parts required:



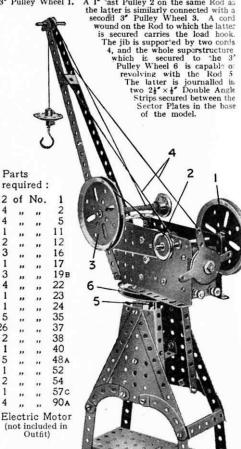
# Model No. 1.180 Gyroscope

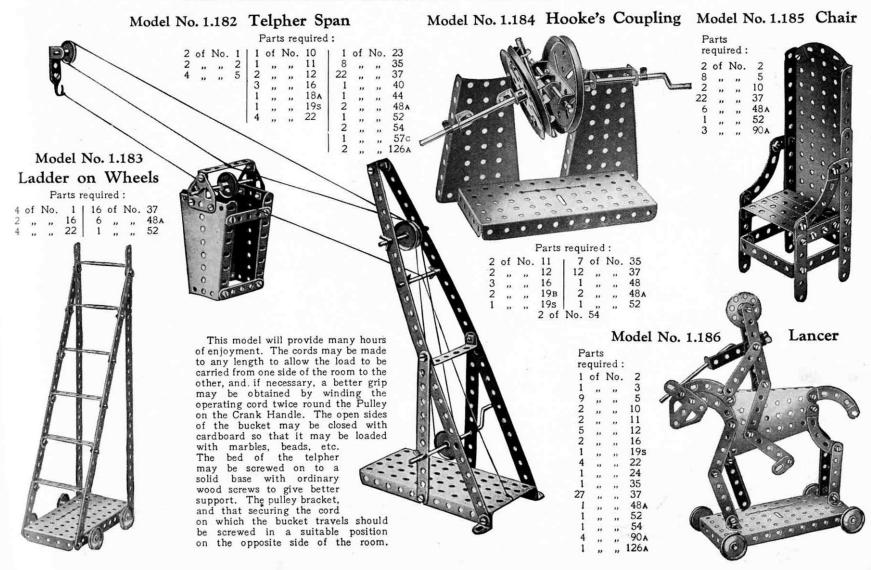
The 5/32" Bolt 1 is gripped by the Set-Screw of the Bush Wheel. The lower end of the Rod 2 of the gyroscope enters the boss of the Bush Wheel and rests on the shank of the Bolt 1.

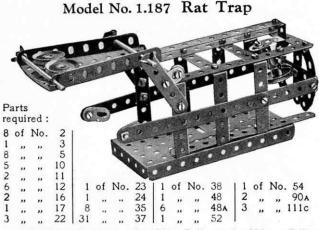


# Model No. 1.181 Elevated lib Crane

A 1" fast Pulley Wheel secured to the armature spindle of the Electric Motor is connected by an endless cord to the 3" Pulley Wheel 1. A 1" fast Pulley 2 on the same Rod as the latter is similarly connected with a second 3" Pulley Wheel 3. A cord





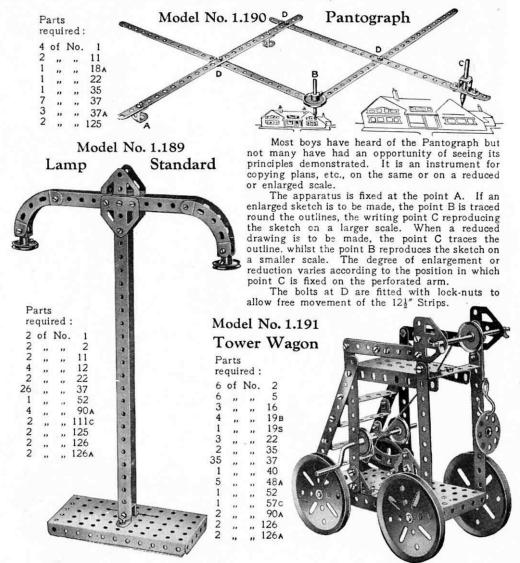


The "bait" consists of a 1" fast Pulley and a  $\frac{1}{2}$ " loose Pulley suspended by means of a cord from a Double Bracket. The latter is bolted to a  $1\frac{1}{2}$ "  $2\frac{1}{2}$ " Double Angle Strip that is free to turn on a 2" Rod journalled in a pair of Angle Brackets. A Flat Bracket bolted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

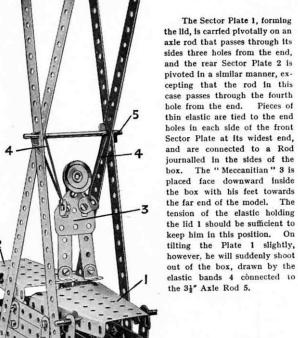
# Model No. 1.188 Toast Rack

Parts required:

6 of No. 5 | 21 of No. 37
6 ,, 12 | 1 ,, 52
4 of No. 90A

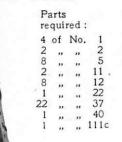


### Model No. 1.192 A Sudden Appearance

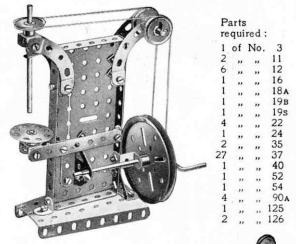


### the lid, is carried pivotally on an axle rod that passes through its sides three holes from the end. and the rear Sector Plate 2 is pivoted in a similar manner, excepting that the rod in this case passes through the fourth hole from the end. Pieces of thin elastic are tied to the end holes in each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

### Model No. 1.193 Eiffel Tower



### Model No. 1.195 Drill



Model No. 1.196 Revolving Tricyclist

### Model No. 1.194 Top

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



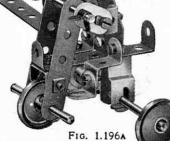
| 4 | of | No.  | 1     | 8    | of   | No.   | . 35 |
|---|----|------|-------|------|------|-------|------|
| 4 |    |      | 2     | 29   | .,,  |       | 37   |
| 8 |    |      | 5     | 4    | ,,   | ,,    | 48   |
| 5 |    |      | 10    | 1    | ,,   | ,,    | 52   |
| 4 |    |      | 12    | 2    | ,,   | ,,    | 54   |
| 4 |    |      | 16    | 1    | .,   | ,,    | 1110 |
| 1 | "  |      | 22    | 1    |      |       | 126A |
|   | Ä  | shor | t ler | igth | of e | elast | ic   |

Parts required:

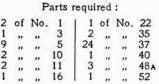
1 of No. 2 | 1 of No. 37 1 ,, 16 | 1 ,, 40 1 ,, 19B | 1 ,, 125

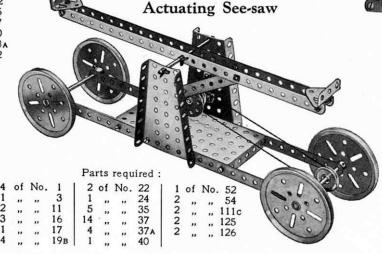


| 3   | of | No. | 2   | 1  | of   | No. | 24   |
|-----|----|-----|-----|----|------|-----|------|
| 3   |    | ,,  | 5   | 5  | ,,   | ,,, | 35   |
| 3   | ,, | ,,  | 10  | 25 | ,,   | ,,  | 37   |
| 1 5 | ,, | ,,  | 11  | 1  | ,,   | .,  | 44   |
| 5   | ., | **  | 12  | 2  | ,,   |     | 48A  |
| 1   | ,, | ,,  | 16  | 1  | ,,   | ,,  | 52   |
| 2   | ., | ,,  | 17  | 2  | - 20 | - " | 125  |
| 1   | ,, | ,,  | 19s | 2  | ,,   | "   | 126  |
| 4   | ,, | **  | 22  | 1  | "    |     | 126A |



### Model No. 1.197 Guillotine





Model No. 1.198

> 111c 125 126

Model No. 1.199
Wire-Rope
Maker

Model No. 1.200 Coat Hanger

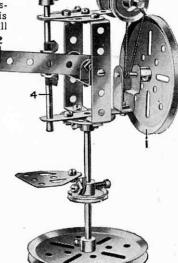
Parts required:
1 of No. 1 | 2 of No. 5 | 1 of No. 57c
2 ,, ,, 2 | 6 ,, ,, 37 |

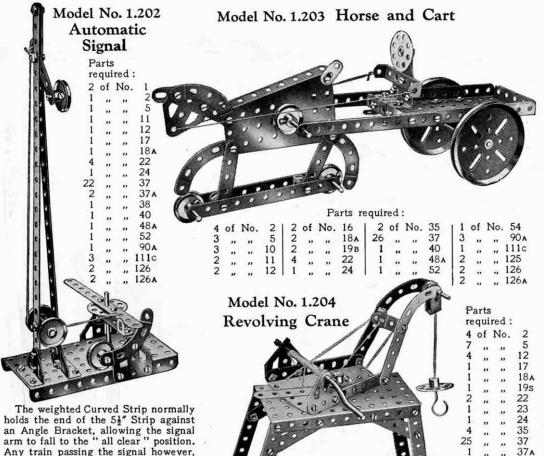
### Model No. 1.201 Automatic Drill

Cord is passed round the Pulley on the drill spindle 4 and thence over the Pulleys 3 and round the shaft of the Pulley 1. The lever 2 (a  $3\frac{1}{2}$ " Strip) is pivoted by a Bolt and two Nuts at its inner end to an Angle Bracket, and the latter is bolted to a  $1\frac{1}{2}$ "  $\times$  ½" Double Angle Strip which, in turn, is bolted between the vertical  $2\frac{1}{2}$ " Double Angle Strips. The arm of the lever engages between two Washers on the drill spindle, and on pressing the lever, the drill spindle with its 1" Pulley is forced downwards,

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

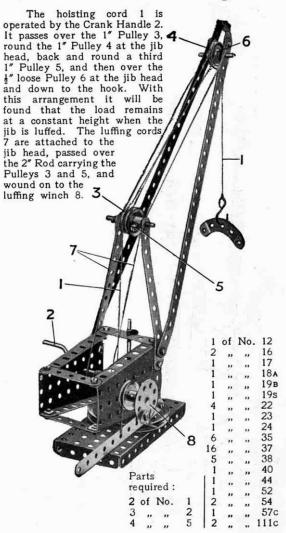


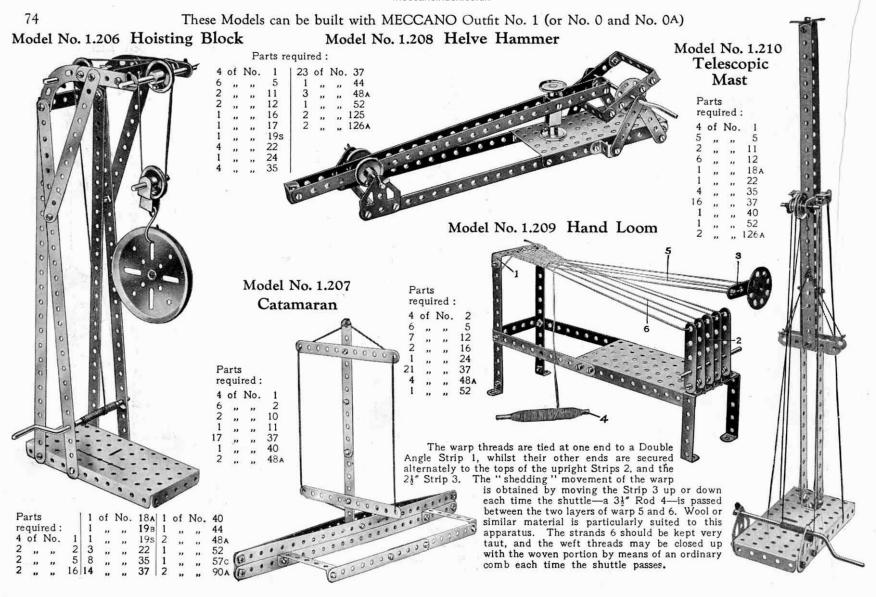




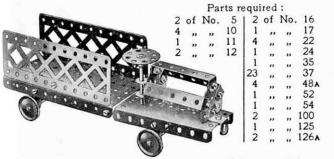
The weighted Curved Strip normally holds the end of the  $5\frac{1}{2}$ " Strip against an Angle Bracket, allowing the signal arm to fall to the "all clear" position. Any train passing the signal however, strikes the opposite end of the  $5\frac{1}{2}$ " Strip, and by means of the cord shown raises the arm to indicate "danger." The Curved Strip moves to allow the end of the  $5\frac{1}{2}$ " Strip to pass over it, and is returned to its original position by reason of its weighted end. The signal then remains at "danger" until the mechanism is re-set.

### Model No. 1.205 Patent Luffing Crane



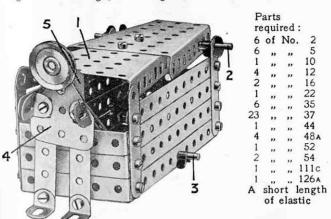


### Model No. 1.211 Motor Lorry

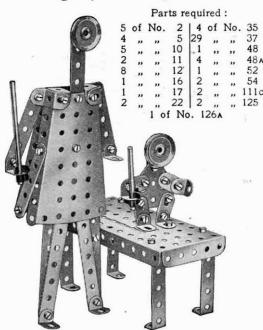


### Model No. 1.212 Disappearing Meccanitian

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



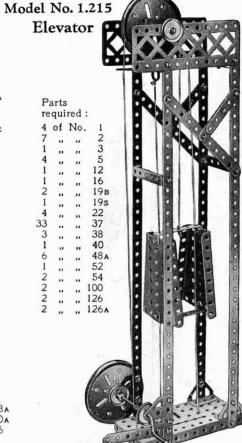
### Model No. 1.213 Dignity and Impudence



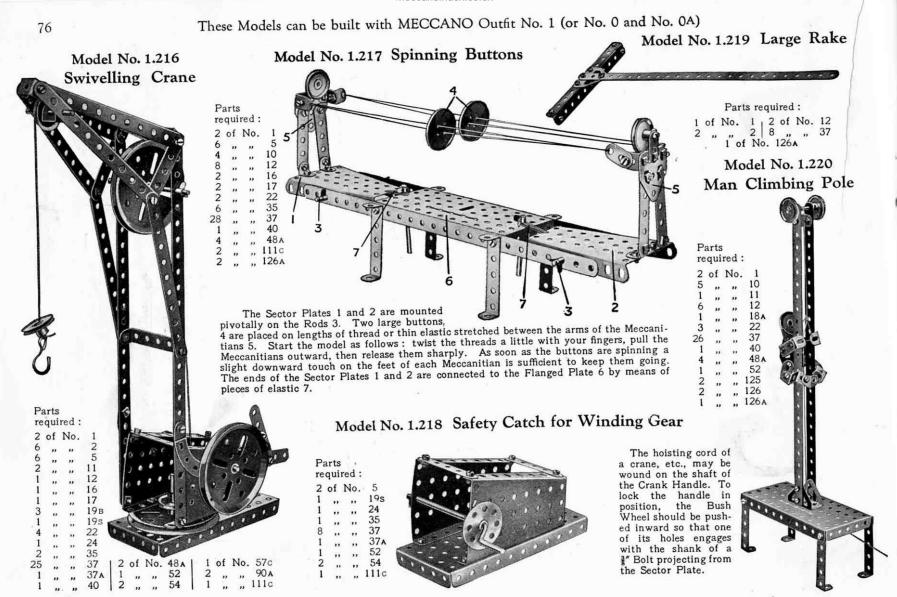
### Model No. 1.214 Field Roller

|   |    |     |    | Par | ts r | equi | red: |   |    |     |     |
|---|----|-----|----|-----|------|------|------|---|----|-----|-----|
| 2 | of | No. | 1  | 1   | of   | No.  | 16   | 6 | of | No. | 48A |
| 3 | ,, | ,,  | 5  | 2   | ,,   | ,,   | 19B  | 2 | ** |     | 90A |
| 6 | ,, | ,,, | 12 | 30  | ,,   | ,,   | 37   | 2 | ,, | ,,, | 126 |

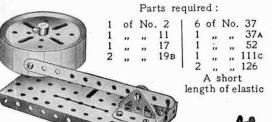




Two cords stretched between the base plate of the model and the upper structure are passed through holes in the Double Angle Strips of the cage to form guides. A further cord is tied to the upper Double Angle Strip, and after being led over the 3° Pulley at the head of the model is tied to the shaft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



### Model No. 1.221 Seismograph

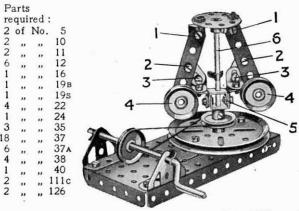


### Model No. 1.222 Jib Crane

4 of No. 1
6 " " 2
1 " " 3
1 " " 5
2 " " 11
3 " " 16
2 " " 17
1 " " 198
1 " " 22
1 " " 24
23 " " 37
1 " " 40

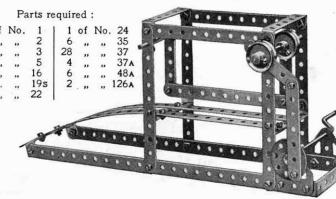
Parts required:

### Model No. 1.223 Centrifugal Governor

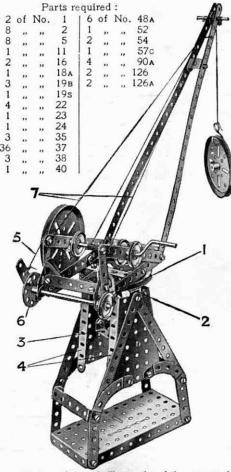


The 3" Pulley Wheel is bolted to the  $5\frac{1}{2}$ "  $\times 2\frac{1}{2}$ " Flanged Plate as shown, and the Rod 6 is free to rotate in its boss. The Bolts 1, 2, 3, are provided with lock-nuts. When the engine to which the governor is attached works at too great a speed, the 1" fast Pulley Wheels 4 fly outward and lift the two Double Brackets 5. In actual practice this movement is utilised to close the engine valves and so reduce speed.

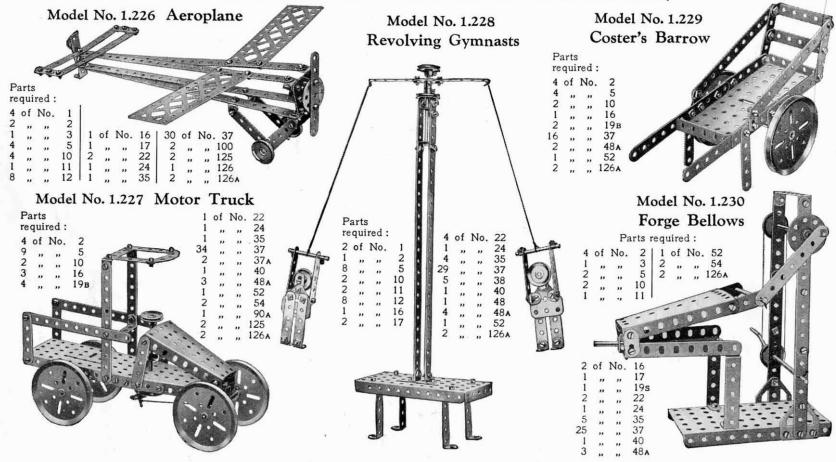
### Model No. 1.224 Stone-Sawing Machine



### Model No. 1.225 Elevated Crane

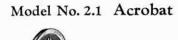


The base of the swivelling portion of the crane consists of a 3° Pulley Wheel 1, which has a 3\forall^\* Axle Rod nipped in its boss. The Rod is journalled in two 2\forall^\* Double Angle Strips 2 and 3 secured between the Sector Plates 4. The brake cord 5 passes round the 3° Pulley as shown, and is tied to one of the holes in the Bush Wheel 6. The cords 7 serve merely to support the weight of the jib.



### HOW TO CONTINUE

This completes our examples of models that may be made with MECCANO Outfit No. 1 (or No. 0 and No. 0A). The next models are a little more advanced, requiring a number of extra parts to construct them. The necessary parts are all contained in a No. 1A Accessory Outfit, the price of which may be obtained from any Meccano dealer.



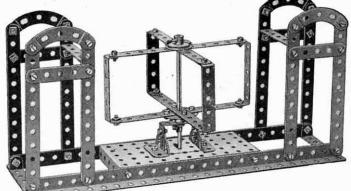


Parts

required:

12 of No. 2

### Model No. 2.2 Turnstile



Parts

required:

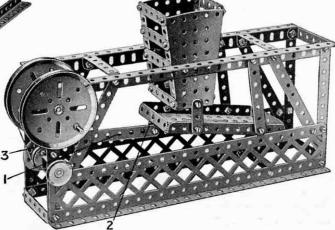
37 A

### Model No. 2.3 Coal Sifter

The  $5\frac{1}{2}$ " Strip 1 is pivoted to the Angle Bracket 2 by a bolt and two Nuts. The Angle Bracket in turn is bolted to the Flanged Plate, which is suspended in such a way that it is free to swing to and fro. The other end of the  $5\frac{1}{2}$ " Strip is pivoted to the Bush Wheel 3.

### Parts required:

| of | No.              | 1          | 28  | of  | No.  | 37                                      |
|----|------------------|------------|---|---|--|---|
|    | .,               | 3          | 6   | ,,  | **   | 37 A                                    |
| ,, |                  | 5          | 5   | ,,  | ,,,  | 38                                      |
| ,, | **               | 8          | 1   | ,,  | ,,   | 40                                      |
| ,, | **               | 10         | 1   | ,,  | ,,   | 45                                      |
| ,, | ,,               | 15         | 1   | ,,  | ,,   | 52                                      |
| ,, | ,,               | 19в        | 1   | ,,  | ,,,  | 54                                      |
| ,, | ,,               | 20в        | 2   | ,,  | ,,   | 62                                      |
| ,, | ,,               | 22         | 1   | .,  | ,,   | 115                                     |
|    | "<br>"<br>"<br>" | " "<br>" " | " " 3<br>" " 5<br>" " 8<br>" " 10<br>" " 15<br>" " 19B<br>" " 20B | " " 3 6 6 7 5 5 5 7 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | " " 3 6 " 5 " 5 " 8 1 " 10 1 " 15 1 " 19B 1 " 20B 2 " 22 1 " | " " 3 6 " " " " " " " " " " " " " " " " |



### Model No. 2.4 Revolving Meccanitians

| (0) |                                      |     | D-  |                                   |     |       |     |            |   |
|-----|--------------------------------------|-----|-----|-----------------------------------|-----|-------|-----|------------|---|
| 0   | 6<br>4<br>6<br>8<br>1<br>2<br>1<br>4 | of  | No. | rts re                            | 1   | of    | No. | 38         |   |
|     | 6                                    | "   | "   | 10                                | 2 2 | "     | "   | 52<br>111c |   |
|     | 8                                    | ,,  | ,,  | 10<br>12<br>16<br>17<br>19s<br>22 | 2   | ,,    | ,,  | 126a       |   |
|     | 1                                    | **  | "   | 16                                |     |       |     |            |   |
|     | 1                                    | "   | "   | 19s                               | i   |       |     | 196        |   |
|     | 4                                    | ,,  | ,,  | 22                                |     |       | B   |            | 1 |
|     | 1                                    | ,,  | ,,  | 24                                |     | A     | 7   | 10%        | 1 |
| 0   | 8<br>20                              | "   | "   | 35<br>37                          | 1   | D.    | 1   | 0/10       | 1 |
|     | 20                                   | ,,  | "   | 31                                | 1   | /     | 10% | 1          | 2 |
|     |                                      |     |     | 4                                 |     | 1     | 1   |            |   |
|     |                                      |     | 1   | 80                                | 1   |       |     |            |   |
|     |                                      |     | (3  | MT-                               | -0  |       |     |            |   |
|     |                                      |     | 14  |                                   | 100 | M     | 1   |            |   |
|     |                                      |     | 100 |                                   | 9/  | 3     |     |            |   |
|     | - 4                                  | A   | 7   | 1/0/                              | -   | 9     |     |            |   |
|     |                                      | M   | 1/6 | 24                                |     |       | 0   |            |   |
|     | A                                    | 7   | 1/0 | M                                 |     | M     | 0   |            |   |
|     | B                                    | 2   | 00  | M                                 |     | M     | O   |            |   |
| 1   | 00                                   | W.  | 70  |                                   |     |       | 10  |            |   |
| 4   | R                                    | (1  |     | •                                 |     |       | 10  | 1          |   |
| 4   | 0,6                                  |     | R   | N.                                | 1   | 2     | 1   | 2          |   |
| 6   | 0 0                                  | 11  | H   | - 1                               | A   | Ŋ.    | 1   | 0          |   |
| 10  | 1101                                 | 1   | M   | 1.3                               |     | a     | - 1 | 0          |   |
| 10  | 101                                  | 11  | M   |                                   |     | 2     |     | 0          |   |
| 2   | SY                                   | 11  | 8   |                                   | MI  |       |     | 10         |   |
|     |                                      | 111 | 8   |                                   | 00  |       | -   | C          |   |
|     |                                      | 111 | 0   | /                                 | 30  | - "   |     | -10        |   |
|     | 1                                    |     |     | ·                                 | 50  | Set . |     | 0          |   |
|     | 1                                    |     |     | 00                                | 0 0 | 00    | 0-  | 0          |   |
|     | a                                    | 79  | 00  | 0 0                               | CAS | 1     |     | (0)        |   |
|     |                                      |     |     |                                   |     |       |     |            |   |

Model No. 2.5

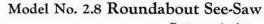
Easel

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

### Parts required .

### Model No. 2.6 Smoothing Iron

|   |    |     |    | quin | - · · |     |      |  |
|---|----|-----|----|------|-------|-----|------|--|
| 4 | of | No. | 2  | 20   | of    | No. | 37   |  |
| 2 | ,, | ,,  | 3  | 2    | ,,    |     | 38   |  |
| 6 | ,, | ,,  | 10 | 1    | ,,    | ,,  | 48A  |  |
| 4 | ** |     | 11 | 2    | ,,    | ,,  | 54   |  |
| 2 |    | -   | 12 | 1 1  |       |     | 126A |  |

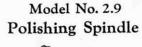


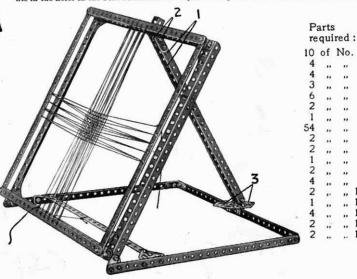
|   |    |     |                 | Pa | rts | requ | ired: |   |    |     |      |
|---|----|-----|-----------------|----|-----|------|-------|---|----|-----|------|
| 2 | of | No. | 6A              | 2  | of  | No.  | 19B   | 6 | of | No. | 48 4 |
| 4 | ,, | ,,  | 8               | 1  | ,,  | ,,   | 24    | 2 | ,, | ,,  | 54   |
| 4 | ,, | ,,  | 10              | 2  | ,,  | ,,   | 35    | 2 | ,, | ,,  | 90 A |
| 4 | ,, | ,,  | 12              | 34 | .,  | ,,   | 37    | 4 | ,, | ,,  | 111c |
| 1 | ,, | .,  | 16              | 4  |     | ,,   | 37 A  | 2 | ., | ,,  | 126  |
| 1 | ,, | ,,  | 18 <sub>A</sub> | 6  | ,,  | ,,   | 38    | 2 | ,, | ,,  | 126A |
|   |    |     |                 | 1  |     |      | 48    |   |    |     |      |



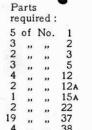
### Model No. 2.7 Mat Frame

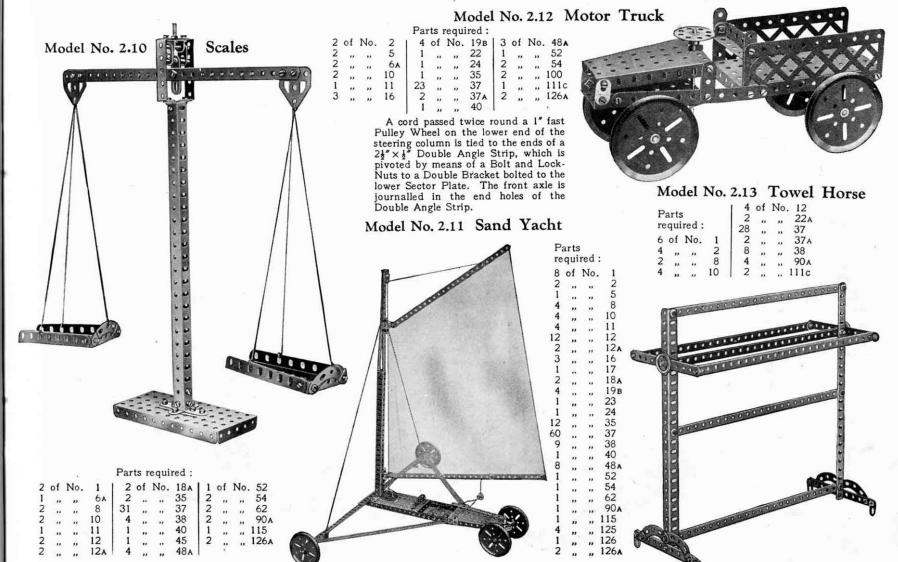
The Strips 1 are hinged to the frame in the following manner. Two Cranks 2 with their bosses facing inward are bolted to the Strips 1 and two Angle Brackets are secured to the frame. A Rod is then pushed through the holes in the Angle Brackets and secured in the bosses of the Cranks. A Double Bracket 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.



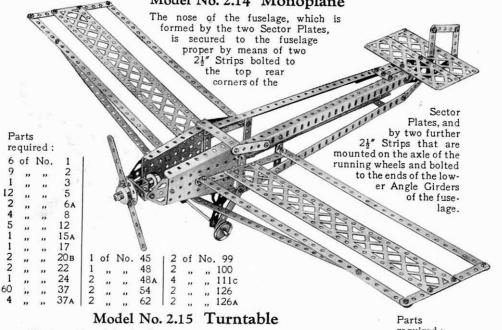


|   |     |     |   |     | (0)<br>F          | arts | 5 .  |   |
|---|-----|-----|---|-----|-------------------|------|------|---|
|   | 0   | 3   | 6 |     | 4                 | of   | red: | 12  |
|   | C ! |     |   | 0   | 1 2               | "    | "    | 16<br>22  |
|   | 0   |     |   | 0   | 1 2               | "    | ,,   | 24<br>35  |
|   | 9   | -   |   | 0   | 1<br>2<br>20<br>3 | ,,   | ,,   | 12<br>16<br>22<br>24<br>35<br>37<br>48<br>52<br>54<br>126 |
|   |     | -   | • | 0   | 1                 | ,,   | ,,   | 52  |
| 6 |     | 10  |   | 0 1 | , ,2              | "    | "    | 126   |
|   | 2 0 | 000 | 0 | 0 1 | 3                 |      |      |   |
| 0 |     | 0   | - | 2   | 000               | 09   |      |   |

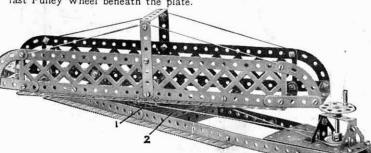








The two sides of the revolving portion are joined in the middle by two pairs of 2½" Strips, each pair being overlapped three holes and bolted to the 3" Pulley Wheel 1. An Axle Rod secured in the latter is journalled in the bottom plate 2 and retained in position by a 1" fast Pulley Wheel beneath the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



| P  | arts | ;   |                 |
|----|------|-----|-----------------|
| re | qui  | red | :               |
|    | of   | No. | . 1             |
| 2  | ,,   | ,,  | 3               |
| 8  | ,,   | ,,, | 5               |
| 4  | ,,   | **  | 8               |
| 1  | **   | ,,  | 17              |
| 1  | **   | ,,  | 18A             |
| 1  | ,,   | ,,  | 19 <sub>B</sub> |
| 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 the ill might l one side consists Angle ( opposit of four |
|----|----|---|
| I- | 2  | Angle ( opposit of four   |
|    | -1 |   |
|    | 2  |   |

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.

| 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   |
| 50    | ** | ,,  | 37   |
| 6     | ** | ,,  | 37A  |
| 2     | ,, | "   | 38   |
| 1     | ,, | ,,  | 40   |
| 7     | ,, | ,,  | 48A  |
| 1 2   | ,, | ,,  | 52   |
| 2     | ,, | ,,  | 54   |
| 1     | ,, | ,,  | 62   |
| 2 2 2 | ,, | **  | 90A  |
| 2     | ,, | **  | 99   |
|       | ,, | 17  | 100  |
| 6     | ** | ,,  | 111c |

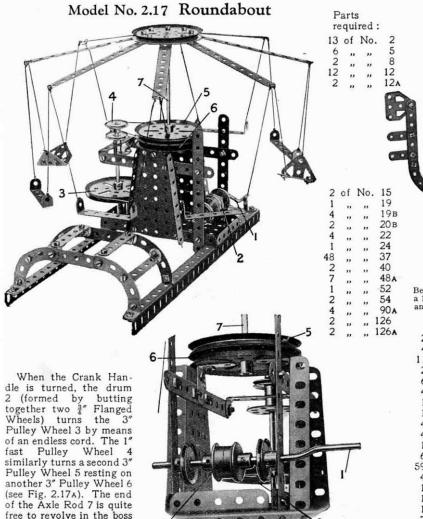
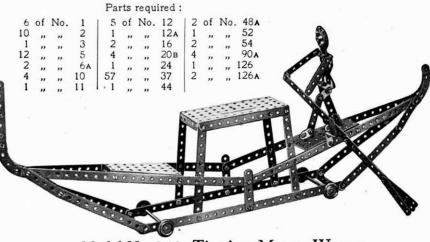


FIG. 2.17A

of the lower 3" Pulley

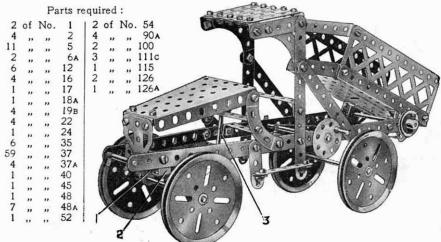
Wheel 6.

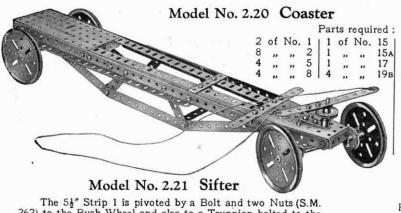
### Model No. 2.18 Gondola



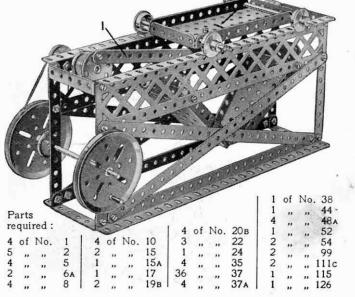
### Model No. 2.19 Tipping Motor Wagon

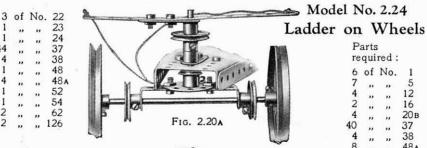
The front Axle Rod is journalled in a  $2\frac{1}{2}^n \times \frac{1}{2}^n$  Double Angle Strip 1 which in turn is bolted to a Double Bent Strip 2. The Double Bent Strip is pivoted to the Sector Plate by a Bolt and two Nuts. Cord passing over a 1" Pulley Wheel attached to the Rod 3 is fastened to the ends of the Double Angle Strip 1, and by rotating another pulley, which represents the steering wheel, the road wheels are deflected.





The  $5\frac{1}{2}''$  Strip 1 is pivoted by a Bolt and two Nuts (S.M. 262) to the Bush Wheel and also to a Trunnion bolted to the under-surface of the Flanged Plate 2. The Rod carrying the Bush Wheel is journalled in one of the side girders and through a Double Bent Strip.

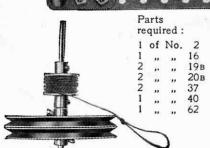




| Model No. 2.22  | Tricycle |
|-----------------|----------|
| Parts required: |          |

|              |    |     |                 | -44 | *** |     |          |     |    |    |     | 1000          | 4    |
|--------------|----|-----|-----------------|-----|-----|-----|----------|-----|----|----|-----|---------------|------|
| 4            | of | No. | 2<br>5<br>10    | 2   | of  | No. | 37A      |     |    |    |     | Pa 1          |      |
| 6            | ,, | ,,  | 5               | 1   | ,,  |     | 111c     |     |    |    | 005 | Se            |      |
| 6 2 3 2      | ,, | ,,  | 10              | 1   | ,,  | ,,  | 126A     |     | 2  | E  |     |               | _    |
| 3            | ,, | ,,  | 11<br>12        |     |     | -   | _        | NO. |    | 14 |     |               | FILE |
| 2            | ,, | ,,  | 12              | 1   | - 4 |     | PHONE IN | A   |    | AD |     | <b>FIG.</b> 1 |      |
| 1            | ,, | ,,  | 16              | 1   | 14  |     |          | 803 |    | 1  | - 4 |               |      |
| 1            | ,, | ,,  | 16<br>18a       |     | 110 |     |          |     | 30 |    | •   |               |      |
| 3            |    |     | 19 <sub>B</sub> |     | His | w/E |          |     |    |    | •   |               |      |
| 2            | ,, | ,,  | 35              |     |     |     | 0//      |     |    |    |     | Section 1     |      |
| 3<br>2<br>15 | ,, | ,,  | 19в<br>35<br>37 |     | P   |     | 1/18     | - 0 |    |    |     |               |      |
|              |    |     |                 | ı   |     |     | 76       |     |    |    |     |               |      |
|              |    |     |                 |     |     |     | W        |     |    |    |     |               |      |
|              |    |     |                 |     |     |     | -        |     |    |    |     |               |      |
|              |    |     |                 |     |     |     |          |     |    |    |     |               |      |

Model No. 2.23 Spinning Top

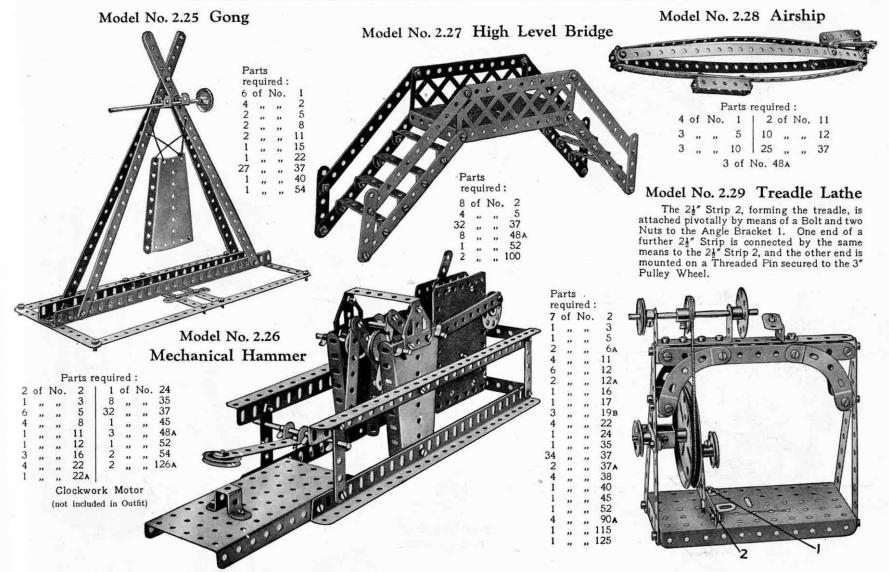


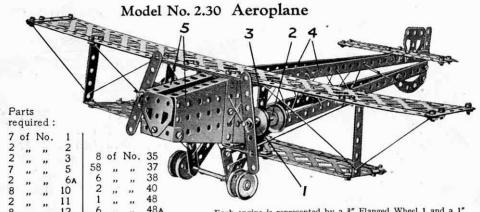
The drum on which the cord is wound consists of two 3" Flanged Wheels butted together. While the cord is being pulled, the top is held steadily on some smooth surface by means of the handle shown above. The handle is then lifted off, allowing the top to spin freely.



Parts required: 6 of No.

20<sub>B</sub>

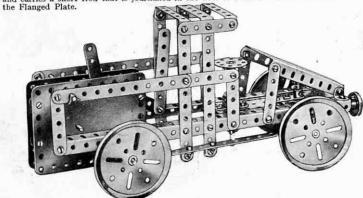




Each engine is represented by a ¾" Flanged Wheel 1 and a 1" fast Pulley Wheel secured to a 2" Rod journalled in a Double Bracket 2, which is bolted to the 2¾" x¾" vertical Double Angle Strip 3. The 12¾" Strips 4 of the fuselage proper are bolted to the two Sector Plates 5, and also by means of Angle 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

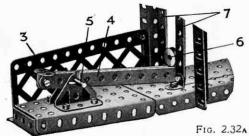
The driving spindle of the Clockwork Motor is removed and in its place is inserted a 3½" Rod forming the rear axle, the special Pinion inside the Motor being secured to this Rod, of course, instead of to the driving spindle. The steering is operated by a Bush Wheel on a vertical 3½" Rod journalled in 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



| 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 |
|    | Clo | ckw | ork  |

### Model No. 2.32 Try-Your-Strength Machine

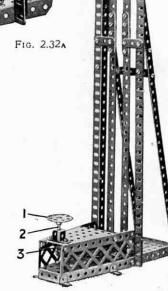
The Bush Wheel 1 is secured to a short Axle Rod 2, the lower end of which rests on a pair of Angle Brackets 3 bolted to the ends of four 51" Strips 4. The Strips 4 are pivoted as shown (Fig. 2.32A) on a 1½" Rod 5, and on their opposite ends rests a ½" loose Pulley Wheel 6. When the Bush Wheel 1 is struck, the 5½" Strips fling the Pulley Wheel 6 upward, but the wheel is guided by the vertical 121/2" Strips 7. The weight of the Strips 4 then causes the Bush Wheel to resume its original position.



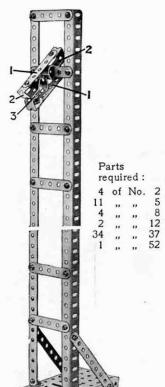
### Parts required:

| 6                     | of | No.   | 1           | 2                          | of | No. |            |
|-----------------------|----|-------|-------------|----------------------------|----|-----|------------|
|                       | ,, | ,,    | 2           | 10<br>2                    | ,, | ,,  | 12         |
| 6<br>1<br>2<br>2<br>4 | ,, | ,,    | 2<br>3<br>5 | 2                          | ,, | ,,  | 18A        |
| 2                     | ,, | ,,    | 5           | 1 1 3                      | ,, | "   | 23         |
| 2                     | ,, | "     | 6A          | 1                          | ,, | ,,  | 24         |
| 4                     | ** | **    | 8           | 3                          | ,, | **  | 35         |
|                       |    |       | A           | 60                         | "  | **  | 37<br>37 A |
|                       |    | - 1   | 1           | 6                          | "  | **  | 38         |
|                       | 1  |       |             | 1                          | ,, | "   | 45         |
| 1                     | ٠, |       | V'          | i                          | ,, | ,,  | 48         |
| 4                     | A  | 10    |             | i                          | ,, | "   | 48A        |
| 000                   | 1  |       |             | î                          | ,, | ,,  | 52         |
| 2                     |    |       |             | 2                          | ,, | ,,  | 54         |
| <b>W</b> -            | -  | 4 =   | 1           | 3                          | ,, | ,,  | 90A        |
| •                     | -  | 1     |             | 1<br>1<br>2<br>3<br>2<br>2 | ,, | ,,  | 100        |
|                       |    | Erc ' | 222         | 2                          | ,, | "   | 126        |

FIG. 2.32B

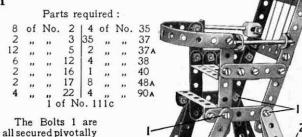


### Model No. 2.33 Performing Meccanitian



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

### Model No. 2.34 Baby Chair

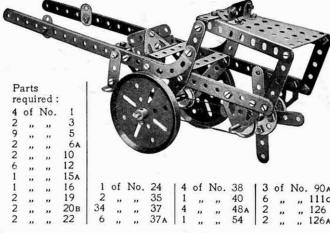


all secured pivotally (see S.M. Nos. 262 and 263), and the height of the chair may be adjusted by fitting any hole in the Strip 2 over the shank of a Bolt that is secured in an Angle Bracket bolted to the Double Angle Strip 3.

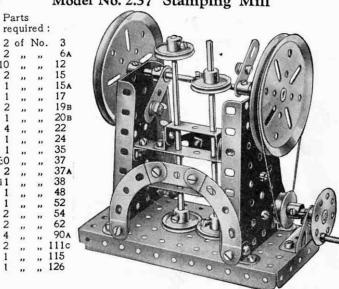
### Model No. 2.35 Square-topsail Schooner

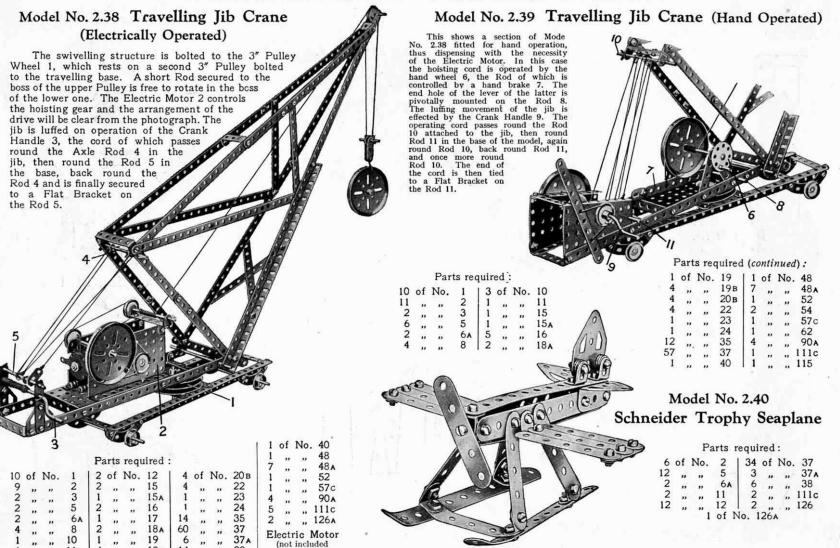
| 4 of No. 1 6 ,, ,, 2 1 ,, ,, 3 10 ,, ,, 5 4 ,, ,, 10 1 ,, ,, 11 5 ,, ,, 12 | required: 1 ,, ,, 40 | Parts   41 of No. 37 |
|--|----------------------|----------------------|
|--|----------------------|----------------------|

### Model No. 2.36 Hay Tedder



Model No. 2.37 Stamping Mill



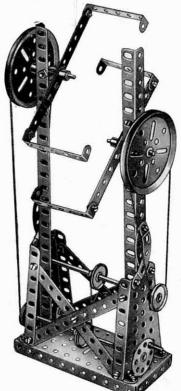


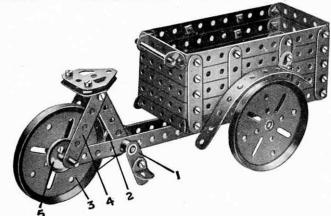
### Model No. 2.41 Candy Puller

### Model No. 2.42 Carrier Tricycle

Parts required:

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





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).

| -  | qui | red: |  |
|----|-----|------|--|
| 12 | of  | No.  |  |
| 12 | ,,  | ,,   |  |
| 1  |     |      |  |

12 ", ", 5 2 ", ", 11 6 6 ", ", 12 1 1 ", ", 16 1 1 ", ", 17 2 ", ", 18 2 2 ", ", 22 45 ", ", 37 5 ", ", 37 4 8 8 ", ", 480

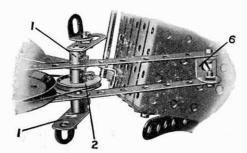
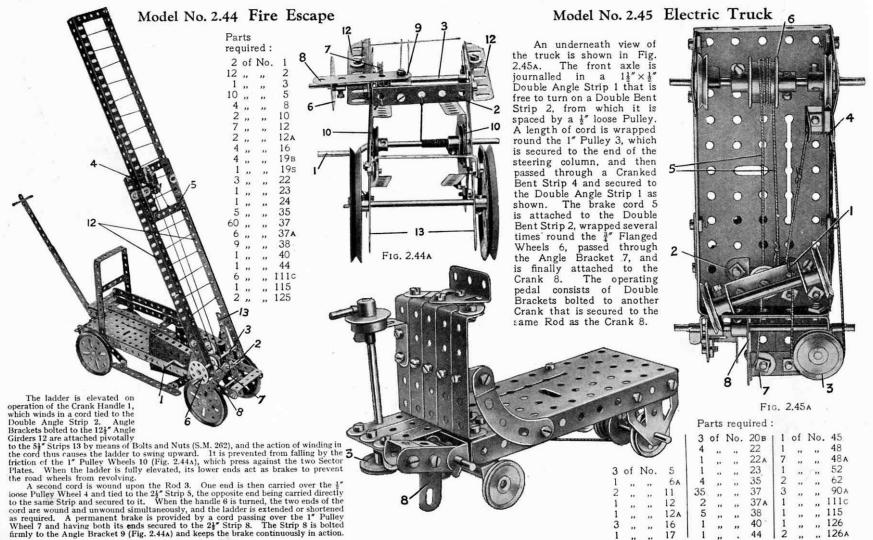


FIG 2.42A

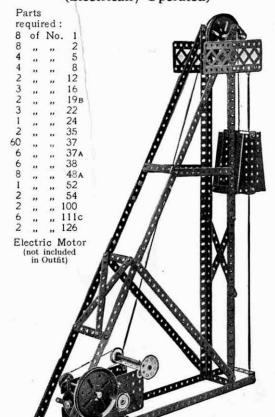
Windmill Model No. 2.43 Parts required: 8 of No. 4 of No. 12 15A 19s 20B 22A " 111c ., 126

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



### Model No. 2.46 Pit Head Gear (Electrically Operated)

### Model No. 2.48 Steam Lorry



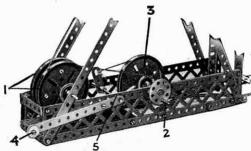
|    |    |     |     | 1 . | 11 13 | requ | meu. |     |    |     |      |
|----|----|-----|-----|-----|-------|------|------|-----|----|-----|------|
| 2  | of | No. | 3   | 4   | of    | No.  | 20B  | 1   | of | No. | 52   |
| 10 | ,, | ,,  | 5   | 3   | ,,    | ,,   | 22   | 2   | ,, | ,,  | 54   |
| 2  | ,, | ,,  | 10  | 1   | ,,    | ,,   | 22A  | 1   | ,, | ,,  | 62   |
| 1  | ,, | ,,  | 11  | 1   | ,,    | ,,   | 24   | 3   | ,, | ,,  | 90 A |
| 3  | ., | ,,  | 12  | 5   | ,,    | ,,   | 35   | 2   | ,, | ,,  | 100  |
| 3  | ,, | ,,, | 16  | 60  | ,,,   | .,,  | 37   | 4   | ** | **  | 1110 |
| 1  | ,, | ,,  | 17  | 5   | ,,    | ,,   | 37A  | . 1 | ,, | ,,  | 125  |
| 1  | ,, | ,,  | 18A | 1   | ,,    | ,,   | 45   | 2   |    | "   | 126A |
| 2  | ,, | ,,  | 19в | 8   | **    | ,,   | 48A  |     |    |     |      |
|    |    |     |     |     |       |      |      |     |    |     |      |

Parts required

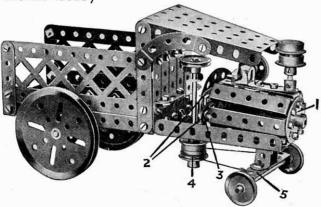
### Model No. 2.47 Pit Head Gear (Hand Operated)

### 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  | l |     |     |      |



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 I 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.

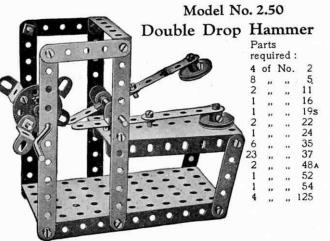


The boiler of the engine is built up of  $2\frac{1}{2}'' \times \frac{1}{2}''$  Double Angle Strips bolted to the Bush Wheel 1, and to two  $2\frac{1}{2}''$  Strips 2, which are joined together by Flat Brackets 3. A  $2\frac{1}{2}''$  Curved Strip (small radius) is bolted to the upper Strip 2. A cord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

### Model No. 2.49 Revolving Truck

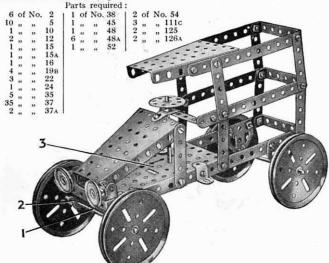
### Parts required:





### Model No. 2.51 Motor Van

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



### Model No. 2.52 Derrick

Parts

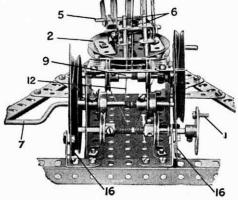
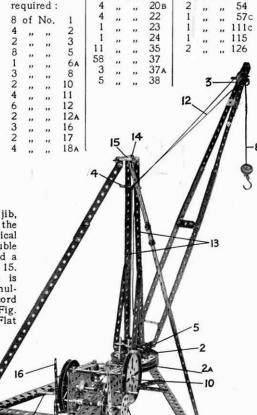


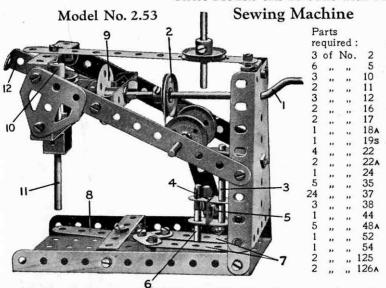
FIG. 2.52A

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 121" 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 bandand-pulley brakes 16.



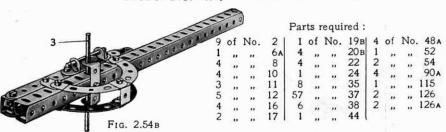


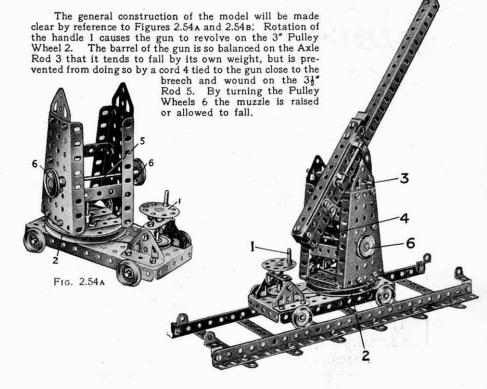
The handle 1 carries a 1" Pulley 2, which drives by means of a cord a similar Pulley on a 2" Rod 3 journalled in a Cranked Bent Strip bolted to the Sector Plate. Two Double Brackets 4 are secured together by a Bolt 5, the shank of which presses very tightly on the Rod 3. This locks the Double Brackets 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.

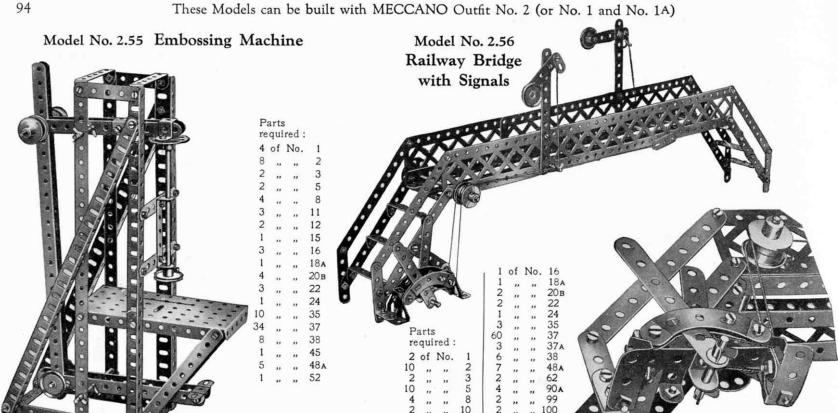
The Bush Wheel 9 carries two Angle Brackets placed together in the form of a Double Bracket, with their elongated holes overlapping, and in such a position that an imaginary line drawn through their opposite round holes, would cross the centre of the Bush Wheel. A Flat Bracket is bolted to the inner 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

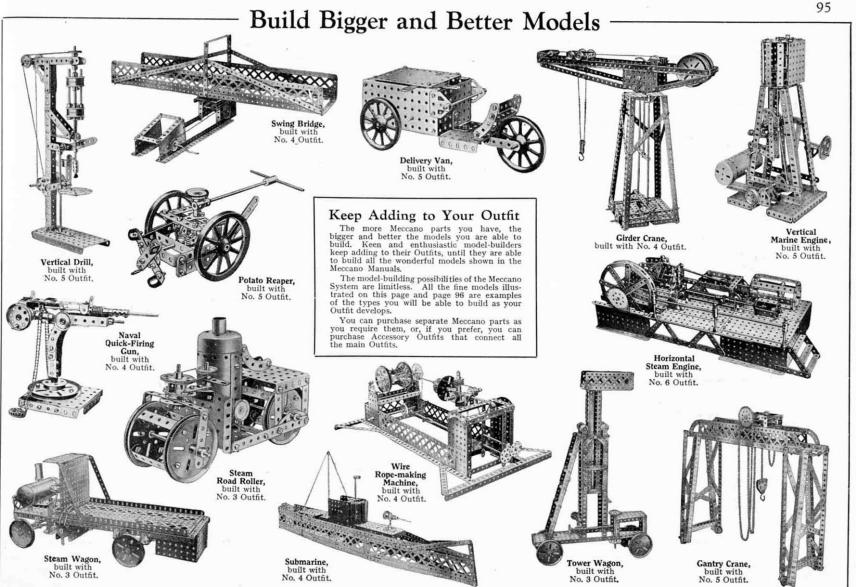


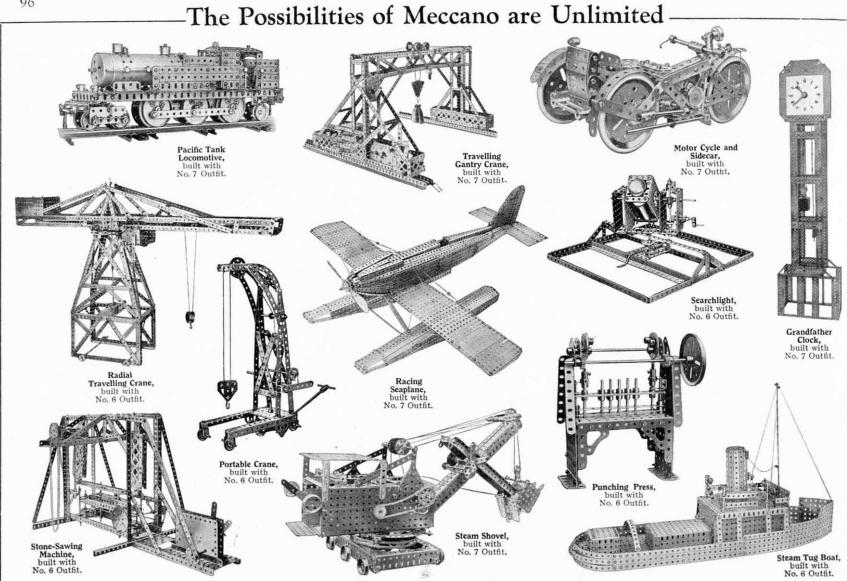




### HOW TO CONTINUE

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. necessary parts are all contained in a No. 2A Accessory Outfit, the price of which may be obtained from any Meccano dealer.





## CONTENTS OF OUTFITS

| 2    |                  |                      |     |        |   |   | _   |     | 9   |        | -    | _     |      |       | -        |     |       | _    | -   | _    | -    | -    | 3     |
|------|------------------|----------------------|-----|--------|---|---|-----|-----|-----|--------|------|-------|------|-------|----------|-----|-------|------|-----|------|------|------|-------|
| INO. | Late DE          | DESCRIPTION OF PART. | JO  | FART   |   |   | - 1 | 3   | V00 | 0      | 4    | -     | 4    | 7     | V7.      | 2   | 34    | 4    | 44  | 6    | YC   | 9    | 64    |
| -    | Perforated Stri  | Strips, 124          | :   |        | : | ÷ | :   | 1   | 1   | 1      | 4    | 4     | 9    | 10    | 1        | 10  | 1     | 10   | 9   | 16 1 | 14   | 30   | 8 38  |
| 1    |                  | . ř6                 | :   | :      | : | : | :   | 1   | I   | 1      | 1    | 1     | 1    | 1     | 1        | 1   | 1     | 1    | 1   |      | 9    | 9    | 0     |
| IB   |                  | 74.                  | :   | :      | : | : | :   | 1   | 1   | 1      | 1    | 1     | 1    | 1     | 1        | 1   |       | 1    | 23  | C1   | 8    | c    | 3     |
| 2    |                  | 54.                  | :   | :      | : | : | :   | 4   | 1   | 4      | 4    | 00    | 9    | 14    | 4        | 18  | 8     | 21   | io. | 97   | 52   | 8    | 2     |
| 24   |                  | 41.                  | :   | :      | : | : | :   | 1   | 1   | 1      | 1    | 1     | 1    | 1     | 1        | 1   | 63    | 2    | 5   | 4    | 1    | 4    | s     |
| 8    |                  |                      | :   | :      | : | : | :   | 1   | 1   | 1      | -    | -     | -    | 5     | 4        | 9   | 1     | 9    | 9   | 2    | 2    | 7    | 1     |
| 4    |                  |                      | :   | :      | : | : | :   | 1   | 1   | 1      | 1    | 1     | 1    | 1     | 2        | 61  | 4     | 9    | 23  | 00   | 4    | 2    | 2 24  |
| 2    |                  | . 21.                | :   | :      | : | : | :   | 9   | 8   | 6      | 1    | 6     | 3    | 12    | 1        | 12  | 9     | 18   | 8   | 1 98 | 1    | 9    | 7     |
| 9'   | :                | 2.                   | :   | :      | : | : | :   | 1   | 1   | 1      | 1    | 1     | 1    | 1     | 1        | 1   | 1     | 1    | 4   | 4    | 0.0  | 7    | 90    |
| · 6A |                  |                      |     | :      | : | : | :   | 1   | 1   | 1      | 1    | 1     | 2    | 57    | 1        | 2   | 1     | 23   | *   | 9    | 8    | *    | 1     |
| 1    | Angle Girders,   | 244                  | :   | :      | : | : | :   | 1   | 1   | 1      | 1    | 1     | 1    | 1     | 1        | 1   | 1     | 1    | 1   | 1    | 1    | -    | 2     |
| 74   |                  | 181                  |     |        |   |   |     | 1   | 1   | 1      | 1    | 1     | 1    | 1     | 1        | 1   |       | 1    |     |      |      |      | 1 0   |
| α    |                  | 101                  |     | :      | : | : | :   |     |     |        |      |       | •    | •     | ,        | 0   | -     |      | 14  |      |      | 1 9  | ,     |
|      |                  |                      | :   | :      | : | : | :   | 1   | 1   | 1      | ı    | 1     | +    | +     | +        | o   | -     | 5    | 0   | +    | 4    | 0 1  | 1     |
| vo o |                  |                      | :   | :      | : | : | :   | 1   | 1   | 1      | ı    | 1     | Ī    | 1     | 1        | 1   | 1     | 1    | 4   | +    | *    | 00   | 7     |
| SB   |                  | 71.                  | :   | :      | : | : | :   | 1   | 1   | 1      | 1    | 1     | I    | 1     | 1        | 1   | Ī     | 1    | 53  | 7    | Í    | 2    | 60    |
| 6    |                  | 54                   | :   | :      | : | : | :   | 1   | 1   | 1      | 1    | 1     | 1    | 1     | 1        | 1   | +     | 4    | 1   | 4    | 4    | 81   | 8     |
| ν6   |                  | 43.                  | :   | :      | : | : |     | 1   | 1   | 1      | 1    | 1     | 1    | 1     | 1        | 1   | 1     | 1    | 1   | 1    | 2    | 2    |       |
| 9в   |                  | 31"                  |     |        |   |   |     | 1   | 1   | 1      | 1    | 1     | 1    | 1     | 1        | 1   |       | 1    | -   |      |      |      |       |
| 96   |                  |                      |     | :      | : | : | :   |     |     |        |      |       |      |       |          |     |       |      |     |      | 4    | 4    | 100   |
| ď    |                  |                      | :   | :      | : | i | :   | 1   | 1   |        | 1    | 1     | 1    | I     | I        | 1   | 1     | 1    |     |      | 1 1  |      |       |
| 000  |                  |                      | :   | :      | : | : | :   | 1   | 1   | 1      | 1    | 1     | 1    | 1     | 1        | 1   | 1     | ì    | _   | _    | 0    | 9    |       |
| ЭЕ   |                  | 2.                   | :   | :      | : | : | :   | 1   | 1   | 1      | 1    | 1     | 1    | 1     | 1        | 1   | 1     | 1    | 1   | 1    | 1    | 1    | 01    |
| 9в   |                  | 11                   | :   | :      | : | : | :   | 1   | 1   | i      | 1    | 1     | 1    | 1     | 1        | 1   | 1     | 1    | 1   | 1    | *    | -    |       |
| 10   | Flat Brackets    |                      | :   | :      | : | : | :   | 4   | 1   | 4      | -    | 10    | 8    | 00    | Ĭ        | 00  | -     | 6    | 3   |      | 1    | 9    | -     |
| =    | Double Brackets  | ts                   |     |        |   |   |     | 1   | 2   | 6      | I    | c     | 0    | 4     | I        | - 4 |       | ıc   | 07  | α    | - 1  | ~    |       |
| 1.5  | Angle Brackete   | 1 1.                 |     |        |   | : | :   | 0   |     | 1 0    |      | . 0   |      |       | 0        |     | • 0   |      | 900 | 2 0  |      |      |       |
| 10.  | THE THE PARTY OF | ***                  | :   | :      | : | : | :   | 0   |     | 0      |      | 0     | + 0  | 4 0   | 4 0      |     | 0 0   | 9 0  | *   | •    | 7    | 0 0  |       |
|      |                  | . :                  | :   | :      | : | : | :   | 1   | ı   | 1      | 1    | i     | N    |       |          | 4   |       | 9    | 1   | 9    | 100  |      | •     |
| 128  | =                | ¥×                   | :   | :      | : | : | :   | 1   | 1   | 1      | ī    | 1     | 1    | 1     | 1        | 1   | 1     | 1    | 1   | 1    | +    | -    |       |
| 13   | Axle Rods, 1117  |                      | :   | :      | : | : | :   | 1   | I   | 1      | i    | ī     | _    | _     | ī        | _   | _     | 7    | 1   | 2    | _    | ~    | 80    |
| 134  |                  |                      | :   | :      | : | : | :   | 1   | 1   | 1      | ı    | I     | 1    | 1     | 1        | 1   | -     | _    | 1   | _    | 3    | _    | 100   |
| #    | ;                |                      | :   |        | - |   |     | 1   | 1   | 1      | 1    | 1     | 1    | ı     | 1        | -   | 00    | 00   | 1   |      |      |      | - 100 |
| .15  |                  |                      |     |        |   |   |     |     | 1   |        |      |       | c    | •     | A<br>Fig | c   |       |      |     |      |      |      |       |
| 15.  |                  | :                    | :   | :      | : | : | :   |     |     |        |      |       | 4 .  | 4 -   | •        | 4 0 | 9 6   |      | 1   |      |      |      |       |
| VOT  |                  | :                    | :   | :      | : | ; | :   | 1   | Ī   | I      | i    | ī     | -    | _     | 7        | 20  | 7     | 0    | 1   |      | _    | 1    |       |
| 16   | 3                |                      | :   | :      | : | : | :   | . 2 | 1   | 21     | _    | 3     | -    | 4     | 1        | 4   | -     | 10   | 1   | 10   | 61   | _    |       |
| 164  | " 2              |                      | :   | :      | : | : | :   | 1   | 1   | 1      | 1    | 1     | 1    | 1     | 1        | 1   | 1     | 1    |     | 8    | -    | _    | 1000  |
| 168  |                  |                      | :   |        |   | : | :   | i   | 1   | 1      | 1    | 1     | 1    | 1     | 1        | 1   | 1     | 1    | 1   | -    |      |      |       |
| 17   |                  |                      |     |        |   |   |     | 6   | 1   | 0      |      | •     | 1111 | c     | 18       | 0   | 3     | u    |     |      |      |      |       |
| .01  |                  | :                    | :   | :      | : | : | :   | 4   | 1   | 4      |      | 4 0   | 1 1  |       | 1        | 4 . | 0     | 0    | 1   |      | _    |      |       |
| vo.  |                  | :                    | :   | :      | : | : | :   | i   | 1   | 1      | 27   | 24    | 7    | -     | 1        | 4   | 1     | +    | 1   | 1    | ·    | _    |       |
| ISB  |                  |                      | i   | :      | : | : | :   | 1   | ī   | 1      | 1    | 1     | ī    | i     | 1        | 1   | 1     | 1    | 1   | ~    | ~    |      | 7     |
| 19   | Crank Handles    | (5" shaft)           | :   | :      | : | ; | :   | 1   | 1   | 1      | 1    | 1     | -    | _     | 1        | -   | 1     | -    | - 1 | _    | ~    | _    |       |
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| 20   | Flanged Wheels,  |                      | :   | :      | : |   | -   | 1   | 1   | 1      | 1    | 1     | -    | 1     | 1        | -   | 4     | 4    | 1   | _    |      |      | -     |
| 20A  | Pulley Wheels.   | 2.                   |     |        |   |   |     | 1   | 1   | 1      | 1    | 1     | 1    | -     | 6        | 6   | . 6   |      |     |      |      |      |       |
| 208  | Flanged Wheels.  | **                   |     |        |   |   |     | 1   | 1   | -      | -    | -     |      | -     | .        | 1 - | 1     |      |     |      |      |      | •     |
| 21   | Pulley Wheels.   |                      |     |        |   | : | :   | - 1 | 1   | -      | -    | -     |      |       | -        |     |       |      | _   |      |      |      | •     |
| 22   | form .           | 1* (fact)            | :   | :      | : | : | :   | -   |     | -      |      | -     |      |       |          |     |       |      |     |      |      |      |       |
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| 63   |                  | T. (moon)            | :   |        | : | : | :   |     |     |        |      |       | 4    | 4 -   | 1        | 4 . |       | 0 0  |     | 2015 |      | Ξ,   | •     |
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| 400  | Don't Wiley      | (1921) §             | ÷   | :      | : | : | :   |     | 1   |        | 1    | ,     | 1    | 1 .   | 1        | 1 . | -     |      |     | 1    |      | -    | -     |
| 5 6  | Dush wheels      | : :                  | : : | : :    | : | : | :   | -   | 1   |        | 1    | -     | 1    | _     | f        | _   | _     | 7    | _   | en . | 2    | -    |       |
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| Y27  | :                |                      | -   |        | : | : | :   | 1   | 1   | 1      | 1    | 1     | 1    | 1     | 1        | 1   | 1     | 1    | 1   | -    | 1    | _    |       |
| 56   | :                |                      |     |        | : | : | :   | 1   | 1   | 1      | 1    | 1     | 1    | 1     | 2        | 7   | 1     | 2    | 3   | 2    |      | _    |       |
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| Description of Part.  Bent Strips ent Strips  """ 24 × 14  "" 24 × 14  """ 14 × 14  """ 14 × 14  """ 14 × 24  """ 14 × 24  "" 24 × 24  """ 24 × 24  """ 24 × 24  """ 24 × 24  """ 24 × 24  """ 24 × 24  """ 24 × 24  """ 24 × 24  """ 24 × 24  """ 24 × 24  "" 24 × 24  " | -                 | <br> -   | <br> -<br>                | 1           | 1         | 1                                       | 1                                       | 7                                       | 1              | <br> <br> | 1             | 1             | <br>          | 1         | 1                   | 1                    | 1                     | 1                   | 1                   | <br>     <br>     | -           | 1               | 1    | 1                  | 1   |           | 1           | 1         | <br>            | 1             | 1 1         | 1              | 1           | 1           | 1 1         | 1   | 1           | 1 1                                       |           | 5        | 1       | 11   | <br> -<br> -                             |             | 1                                       |                | 11                                      | <br>    | 11                | 1 | 11                                      | 1              | )  <br>   <br>    | 1      | <br>   <br> | 1         | 11  | 1             | 11       | 1                                       | 1         |     | 4     | 1 |
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| Springs . Cranked ! Double A Double B Double A Double B Double A Double B Perforate Flat Plat Plat Plat Plat Plat Plat Plat P  | DESCRIPTION OF PA | :        | Bent Strips               |             |           |   |   | " 24 × 4                                |                | =         |               | es, with boss |               |           | Flanged Plates, 34" | Flat Plates, 41 × 21 | d Flanged Sector Plat | Strips, slotted, 2" | Standard Mechanisms | use Meccano Parts | Small)      | ord, 40° length | ring | ith Set Screws     |     | rm Cranks | IIII Crains | mings     | Threaded Bosses | orks          | es, 54 × 24 | ur Plates, 24" |             |             |             |     | 2           | 2   | larg      | 24", 24" | Wheels, | - 65 |  | 34,8        | 251                                     |                | 71.                                     | r Looms | ant Strips        |   | 124,                                    |                | 21,               | :      | 71          | for Looms | oks |               | g Tables | ves tes, 2½"                            | rips, 3½" |     | : :   |   |

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| ART.                 |  |
| DESCRIPTION OF PART. | [ : ② : : : _ : : : : : : : : : : : : : :  |
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|                      | Channel Segments (8) coffigure Buffers  Channel Segments (8) to Spring Buffers  Train Compression Springs  Train Couplings  Train Couplings  Train Couplings  Train Couplings  Fat Trunmions  Boss Bell Cranks  Corner Brackets  Theodoling Protractors Handrail Supports  Corner Brackets  Theodoling Protractors Handrail Supports  Whe Rings 3 diam.  Dredger Buckets  Theodoling Protractors Handrail Supports  Whe Rings 3 diam.  Couplet Saves  Circular Griers (54 diam. 1974)  Circular Griers  Chimney Adaptors  Swivel Bearings  Chimney Adaptors  Chimney Adaptors  Swivel Bearings  Terminals  Counder Screws  Ball Ball  Ball Ball  Confact Couplings  Lamps  Lamps  Lamp Holders  Lamp Holders  Lamp Holders  Lamp Holders  Coll Checkes  Lamp Holders  Lamps  Lamp Holders  Lamps  Lamp Holders  Lamps  Lamp Holders  Lamps  Lamps  Lamps  Lamps  Lamps .   |
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Full instructions for building a fine range of models are included with each Outfit.

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| Description Chair, Go Revolving O Chase, A Cheese Gutter Church Chute  | ", Hange Coal Sifter Cutter Coaster Coat Gard Coat Hanger Coco-nut Shy   | Couch Cow and Milkmaid Crane Breakdown Derricking Elevated      | Grab J10 J10 J10 J10 Lorry Mobile Overhead Overhead Patent Luffing Radial Travelling                                     | Rotating Rotating Swivelling J   | Crocodile<br>Crossbow Crossbow Model<br>Crossbow Demonstration Model<br>Cum-bak Cum-bak Cum-bak Cum-bak Cum-bak Cum-baket Cum | Dancer, The Meccano Dancers, Eccentric Derick Desk Devil Wall Dignity and Impudence Dinosaurus Disappearing Meccanitian | Dog  " Kennel " Automatic " Rock " Drilling Machine Drilling Machine Drinking Trough Dump Car Easel | Electric Loco Elevator Car Electric Electric Embossing Machine Emery Wheel Fright Ream | Execution, The Execution, The Execution, The Extended Ash Tip. Fan  |
| Model No.<br>2·1<br>1·56<br>66: 1·89<br>0·99<br>00·114<br>00·118<br>00·108   | 9 1.29 9 1.29 20 2.28 20 1.226 20 1.226 20 1.226 20 1.226 20 1.226 20 1.226 20 1.23 20 | 0.123<br>0.123<br>0.01<br>0.21<br>0.83<br>0.83                  | 106<br>96<br>50<br>84<br>31<br>11.229<br>11.59   | .230<br>.1-20<br>0.144<br>1.135<br>.150<br>.83   | . 170<br>. 0.36<br>1.108<br>.155<br>.38<br>.37  | 0.98<br>1-123<br>1-124<br>1-127<br>1-148<br>1-148   | 00.32<br>00.153<br>1.67<br>1.69<br>0.169<br>0.170<br>0.103  | 00-101<br>1-32<br>00-26<br>49; 1-42<br>00-45<br>00-19                                  | 3.3<br>207<br>207<br>3.35<br>3.8<br>8.8<br>1.185<br>0.102<br>3.4<br>1.155   |
| Mode 22-1-5-1-5-1-5-1-5-1-5-1-5-1-5-1-5-1-5-1  | 0.119;<br>1.146;<br>00.120;<br>00.73;<br>0.00.73;  | 0.123<br>0.123<br>0.011<br>0.00-60<br>0.021<br>0.83<br>0.52;1.6 | 1.96<br>0.50<br>0.084<br>0.0984<br>0.0984<br>0.0981<br>23 0.142; 1.23  | · · · · · · · · · · · · · · · · · ·  |   | 1 3 1 6 1 6 1 6 1 6 1 6 1 6 1 6 1 6 1 6   | 100 ± 000±400   | 8-848-8  | 00.178;<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00.00<br>00 |
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| aw a   | wire 1   | achine  | :::::::  | 1-14;<br>and   | i i i i i i   |   |   | 1121/11  |   |
| Description Acrobat Aerial Flight Aerial Gage Frame  | Airship Mooring l  | Arc Lamp  Arc Lamp  Axe  Battle  Fire  Baboon Slicing Machine   | Ballista Ballista Barge Barrow Coster's Battleship Batheship   | Belt Gear 1.5; 1.1. Belt Gear 1.5; 1.1. Bicycle  | Boat  " Motor " Rowing " Sailing " Torpedo Boat Steering Geau   | 5 D   | . f5  | Car, Hand  " Tandem Carpenter's Squar Cart " Baggage " Bullock " Hand                  | " Tipping Catamaran Catapult Catapult Chaff Cutter Chaff Cutter Baby Baby Baby Bath   |
|  |  |   |  |  |   |   |   |  |   |

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# INDEX TO MODELS (continued)

|        | Model No. 15; 00.70; 0.27  |   | 00.104   2.13<br>00.104   2.13<br>00.142<br>00.142<br>00.145<br>0.35<br>0.35<br>0.35<br>0.61   2.22<br>0.61   2.22   | 1.196<br>00.163<br>00.122<br>00.148<br>00.30<br>00.44<br>1.00<br>00.44<br>00.44<br>00.416<br>00.44<br>00.44<br>00.44<br>00.44  | 00-185; 00-180<br>00-185; 00-182<br>-2; 0-100; 1-136<br>-1-227; 2-12<br>2-49<br>00-62<br>00-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01-62<br>01           | 00.58<br>00.126<br>00.127; 2.51<br>00.23<br>00.92<br>1.111   | 00.162; 0.110<br>00.111<br>1.28<br>8; 1.114; 1.191<br>00.147<br>00.187<br>00.188<br>0.132; 1.110<br>0.132<br>1.78<br>1.78<br>1.152<br>1.64; 0.80; 2.43<br>1.64; 0.80; 2.43<br>1.64; 0.64; 1.109<br>0.64; 1.109  |
|--------|--|---|--|--|--|--|---|
| mea)   | Description Table, Bed   | Tennis Player Three Wheel Auto Ticas Gharry Tight Rope Walker Timber Drag Tin Opener Tipping Motor Wagon Toast Rack                   | Towel Horse Track Gauge Track Gauge Tranway Car Tranway Car Trangele Grindstone Triangle of Forces Tricycle  | Tricyclist, Revolving Trip Hammer Tripod Trolley Trolley Trowel Mason's Trowe Baggage Truck Truck Baggage Truck Baggage Baggage Baggage Baggage Baggage Baggage Baggage  | Flat  Lumber  Lumber  Luggage  Motor  Revolving  Timber  St, Compound Triang  Howe  Triangulated  Triangulated  Triangulated  Triangulated  Triangulated   |  | Trea Timber Timber Tip Tip Stand Stick Stand Chain Stand Vanc Tiller Vindlass ass Chinese Of per Maker Tip Iller Tip  |
| COURT  | del No.<br>1-156<br>1-219<br>1-187<br>1-187<br>1-187<br>1-187<br>1-20<br>1-20<br>1-20<br>1-20<br>1-20<br>1-20<br>1-20<br>1-20  |   | 1.26 To 10.00 To 10.0 | 1; 0.55; 1.95<br>00.88<br>00.88<br>2.40<br>00.93<br>00.186<br>1.52<br>1.144<br>0.124; 1.51<br>1.498  | 2.8<br>00-121<br>1-122<br>1-13<br>2-53<br>0-104<br>1-161<br>1-161<br>1-161<br>1-164<br>1-164<br>1-164<br>1-164<br>1-164<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17-<br>1-17- | 1.202 Twith the control of the contr   | 00.554 1.66 1.56 1.166 1.166 1.166 1.160 1.122 0.171 0.069 0.113 0.0135 0.115   |
| TO 1/1 | Description Rake, Horse  " Large Rat Trap Rattle Razor Refreshment Wagon Revolving Meccanitians Rickshaw Ridle with Bayonet Road Sign Rocking Horse  |   | " Mechanical Two-hand Two-hand Sawing Horse Sazophone 00.71; 0 Scales 0127; 1.101;   | Schooner, Square Topsail Scooter Seaplane, Schneider Trophy Searchiligh Seat, Garden Sedan Chair See-Saw Revolving Revolving   | Seismograph Semaphore Ser-Square, 45° Set-Square, 46° Seving Machine Shearing Machine Shearing Machine Shearing Machine Ship's Lamp Ship's Lamp Shipyard Bogie Shovel, Mechanical Sigirer Signar   | " French Railway Sign Post, one-way " three-way " three-way " four-way " four-way " four-way " ski-Runer Shed Smake  | Spinning Buttons Spinning Buttons Spinning Buttons Stamp, Drop  Stamping Machine  Mill  Steamer, Faddie Steeple Chaser Stool Sawing Machine Submarine |
| 7777   | Model No. 22.29 2.29 2.29 2.29 2.29 2.29 2.29 2  | 12 31   | 1.220<br>1.133<br>2.7<br>2.7<br>8.0<br>0.48<br>1.119<br>8.5<br>1.119<br>8.0<br>0.13  | 0.11 Sc. 0.12 Sc. 0.1 | 0.121 Sec. 00.173 Sec. 00.173 Sec. 00.147 Sec. 00.147 Sec. 00.149 Sec. 0.149 Sec. 0.144  | Action 1.53<br>Action 1.98<br>82.46; 2.47<br>00.37<br>00.37<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0.18<br>0 | 118 118 118 00 00 886 886 886 886 886 886 886 886   |
|        | Description Lathe Treadle Lawn Mower Lary Tongs Letter Balance Level Crossing Barrier Lever of the First Order  Light Cruiser Liner Liner Lecomotive Liner Lecomotive Locomotive Locomotive Locomotive Locomotive Locomotive | Lorry, Motor  Loud Speam  Loud Spear  Luggage Cart  Luggage Cart  Machine for tracing a locu Magic Plate Mail Bag Hanger  Man and Boy | A Climbing Pole Master and Student Mat Frame Mecano Boy Mecanograph Mechanical Gong Medial   | Missing Link, The Monoplane Mono Rail  Motor Car  " Kacing  " Cycle and Sidecar  " Cyclet and Pillion Ri Mountain Transport  Mounted Cowboy  Music Stand   | Ortice Board   | Pistol Driver  | istoric Animal  Tarinmer  Tarinmer  Tarinmer  Bind  Shafting  Shafting  Pouble Acti  Windmill  Windmill  Ming Bag Sta  hing Bag Sta  K Delivery Chi  Return Devy  |
|        | PARTE ELERAL   | Mana Lo   | MW Was   | MWW. WWW   | No Oorg  | Pile D Pistol Pistol Pistol Piston Pithera Planin Plaster Plougt Pougt Portal Potter   | Print Propell Pulley Pulley Pulley Pulling Pulling Pump " Rake Rake   |

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671,534 253,236 671,790 319,160 680,416 323,234 682,208

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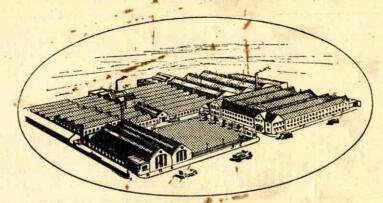
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682,209 718,731 682,934 733,541 683,011 733,542 740,413 698,054 740,723 718,404 767,865

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