

meccano

“PRIMUS” ENGINEERING



PRICE
SIX
PENCE

CARLTON
STUDIO

“Look — it’s Wood and Metal !”

PRIMUS ENGINEERING.

"After the war more men will be required to MAKE things—than to distribute them or keep books tidy."—"Daily Paper."

LET this be the keynote to your children's education. Men who can make things, not look at them. At all times men who could make things were more useful than the dilly-dalliers who could only hang around and look on ; because even before the war we could all see the mechanical age was not only coming—it had already arrived ! What's the use of a man who can't use tools, who can't oil a bearing, who can't temporise with an awkward screw, or jam a nail in without smashing his own ? What sort of a fool will he feel when every man, woman and child is going to have something to do with Machinery and he can't fix up some trifle that has gone astray. Whether it's in his hobby or whether it's in his business, the future means the use of Machines—even to mend a Cricket Bat or a Tennis Racquet, you want to know how to use tools.

To do this let your children start early, encourage them all you can, now and right on. and let it be a pleasure to them to learn.

Amongst other things the "Engineering Outfits" form the most practical means of demonstrating how hundreds of things are made ; they teach the young and supple minds the art of contriving, that is, "how to make things do." It shows them how one thing can be made to suit many purposes. It explains the fundamental principles of mechanics in an easy and entertaining manner. It shows them how to build up things that move, and that is what they must learn if they wish to be useful men, not dummies.

"The chase was ever more exciting than the feast."

Who is the most useful man, the one who can make a Motor-Car or the one who sits and lolls in it and who knows not the sparking plug from a spanner ? After the war, there's going to be no room for dummies, they will be relegated to back seats, and not many prizes reach the rear.

Every boy, and every girl as well, should have a box of "Engineering," it Amuses—Entertains—and above all Teaches.

Primus Engineering.

GENERAL INSTRUCTIONS.

It is important to thoroughly understand how the various parts fit together, and therefore the beginner should commence by making up the simplest models shown in the list, afterwards the more elaborate ones will be quite easy.

All the parts are standardized, and extra parts can be supplied, so that any special series of the models may be completed together.

The Trucks and Carriages are designed to run on rails of No. 1 gauge, but as the width between the wheels may be altered they can also be made to run on other gauges. A complete "mixed" train can be made up if desired, by making use of supplementary parts.

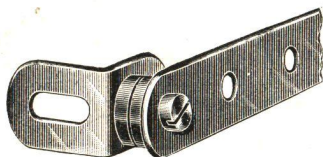
No less than 25 different Trucks and Carriages are shown, and many others may be made up by an intelligent boy.

ALWAYS COLLECT TOGETHER the parts required before commencing.

BRACKETS.

It is important to understand why one side has a hole and the other a slot. This is to allow for the thickness of the metal or wood strips to be joined on, and will be best understood by making up the simplest models.

WASHERS.



These play an important part in Mechanics : they are used in many Models to adjust the length of the screws, so that the corner pieces may fit quite square and not jam on the opposing screw. They are also used to adjust the Brackets to width of some of the other fittings.

With such an extensive variety of parts, it will be well believed that the present illustrations only exhibit very few of the models that can be made up, and practically a whole railway plant can be produced, except the Rails and Engines.

The possibilities of other mechanical models are shown by the Dreadnought Battleships, Aeroplanes, Cranes, Steam Hammers and Vertical Saw, &c.

WOOD BASES FOR SCREWING MODELS TO.

Some of the models are shown screwed down to wood bases, this is not supplied in the boxes, as it is most likely always available and the size varies to suit the situations.

CONTENTS OF OUTFITS.

WOOD-WORK.

No.	Description of Parts.	No.	1	1s	2	2s	3	3s	4	5
1	Grooved side rails for carriage and truck ..	—	4	4	—	4	—	4	6	
2	Grooved side rails with foot-board ..	—	—	—	—	—	—	2	2	2
3	Carriage ends ..	—	—	—	—	—	—	2	2	2
4	Buffer blocks ..	—	2	2	—	2	—	2	4	
5	Right-hand window for carriage ..	—	—	—	—	—	—	2	2	2
6	Left-hand window for carriage ..	—	—	—	—	—	—	2	2	2
7	Carriage doors ..	—	—	—	—	—	—	4	4	4
8	Central window for carriage ..	—	—	—	—	—	—	2	2	2
9	Floor for carriage and truck ..	—	1	1	—	1	—	1	2	
10	Roof for carriage, "brake," etc. ..	—	—	—	—	—	—	1	1	1
11	Posts for railings and signals ..	—	2	2	15	17	—	17	17	
12	End rail for base of house ..	—	—	—	—	—	—	—	2	
13	Side " " " " ..	—	—	—	—	—	—	—	2	

No.	Description of Parts.	No.	1	1s	2	2s	3	3s	4	5
14	Sides of station house ..	—	—	—	—	—	—	—	—	2
15A	Window sills for house ..	—	—	—	—	—	—	—	—	4
15D	Window sash sills for house ..	—	—	—	—	—	—	—	—	2
15F	Front of house ..	—	—	—	—	—	—	—	—	1
15B	Back " " ..	—	—	—	—	—	—	—	—	1
16	Doors " " ..	—	—	—	—	—	—	—	—	2
16A	Lintels for house ..	—	—	—	—	—	—	—	—	2
17	Sides of goods truck ..	—	2	2	—	2	—	2	2	2
18	Ends " " ..	—	2	2	—	2	—	2	2	2
19	Baseboard for house and station ..	—	—	—	—	—	—	—	—	1
21	Steps for gate of station ..	—	—	—	1	1	—	1	1	1
22	Slope for platform approach ..	—	—	—	1	1	—	1	1	1
23	Plain platform plan ..	—	—	—	2	2	—	2	2	2
24	Fitted " " ..	—	—	—	2	2	—	2	2	2
25	3 in. x 1 in. drilled wood slips ..	8	8	16	9	25	—	25	25	
26	Glass for windows ..	—	—	—	—	—	—	—	—	4

METAL-WORK.

No.	Description of Parts.	No.	1	1s	2	2s	3	3s	4	5
50 & 51	Screws and nuts ..	36	30	66	54	120	24	144	312	
52	Angle bars, 6 in. ..	—	—	—	—	—	—	—	4	
53	" " 6½ in. ..	—	2	2	—	2	—	2	8	
54	" " 8 in. ..	—	2	2	—	2	—	4	8	
55	" " 12 in. ..	—	—	—	—	—	2	2	2	
56	Metal strips, 2 in. ..	4	4	8	—	8	2	10	16	
57	" " 2½ in. ..	6	6	2	8	—	8	16		
58	" " 3 in. ..	—	—	—	4	4	4	8	8	
59	" " 3½ in. ..	2	6	8	—	8	6	14	14	
60	" " 4 in. ..	2	—	2	1	3	—	3	3	
61	" " 5½ in. ..	—	—	—	4	4	—	4	4	
62	" " 6½ in. ..	—	2	2	2	4	—	4	4	
63	" " 8 in. ..	2	—	2	4	6	—	6	12	
64	" " 12½ in. ..	—	—	—	3	3	—	3	3	
65	Architraves ..	—	4	4	—	4	—	4	8	
66	Brackets ..	12	4	16	22	38	2	40	78	
67	Metal plates for trucks, roofs, etc., 8 in. x 3 in. ..	—	—	—	4	4	—	4	10	
68	Metal plates for trucks, etc., 3 in. x 3 in. ..	3	—	3	—	3	11	14	14	
69	Ridge tiles, 6½ in. ..	—	—	—	1	1	—	1	1	
70	" " 8 in. ..	—	—	—	1	1	—	1	2	
71	Eaves " 8 in. ..	—	—	—	4	4	—	4	10	
72	Straight hinges ..	—	4	4	—	4	—	4	6	
73	Bent hinges for carriage doors ..	—	—	—	—	8	8	8		
74	Trunnions for wheels ..	4	—	4	—	4	4	8	8	

No.	Description of Parts.	No.	1	1s	2	2s	3	3s	4	5
75	Flanged wheels with set screws ..	4	—	4	—	4	4	8	8	
76	Grooved wheels with set screws for pulleys, etc. ..	—	—	—	4	4	—	4	4	
77	Axle rods, 3½ in. ..	2	—	2	—	2	2	4	4	
78	" " 2¾ in. ..	—	2	2	—	2	4	6	6	
79	" " 1½ in. ..	—	—	—	1	1	—	1	1	
82	Collars and set screws ..	4	—	4	4	8	5	13	13	
83	Handle axles ..	—	—	—	1	1	—	1	1	
84	Washers ..	12	—	12	—	12	24	36	48	
85	Buffers and nuts ..	—	4	4	—	4	—	4	8	
86	Coupling hooks and nuts ..	—	2	2	1	3	—	3	4	
87	Lamps and nuts ..	—	—	—	2	2	2	4	6	
88	Carriage door handles and nuts ..	—	—	—	—	—	4	4	4	
89	Turnbuttons for door handles and nuts ..	—	—	—	—	—	4	4	4	
90	Carriage side rails ..	—	—	—	—	—	4	4	4	
91	Carriage door screws and nuts ..	—	—	—	—	—	16	16	16	
92	Knob screws and nuts ..	—	—	—	1	1	3	4	4	
93	Turnbuttons for nuts ..	—	—	—	—	—	2	2	2	
95	Catches ..	—	4	4	—	4	—	4	4	
96	Signal post connecting rods ..	—	2	2	—	2	—	2	4	
97	Wood screws ..	—	6	6	—	6	—	6	12	
100	Screwdriver, wood handle ..	—	1	—	—	1	—	1	1	
101	" " iron ..	1	—	—	—	—	—	—	—	

Primus Engineering.

DETAILS OF PARTS—WOOD.



1



2



3



4



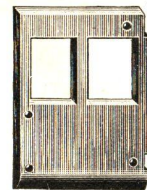
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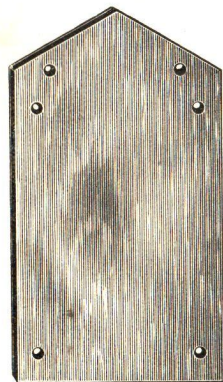
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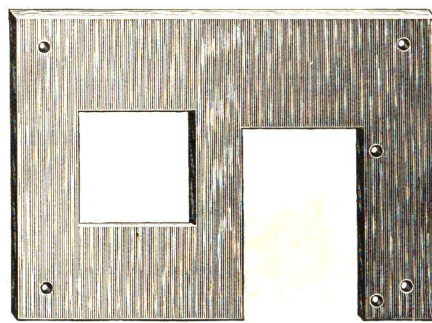
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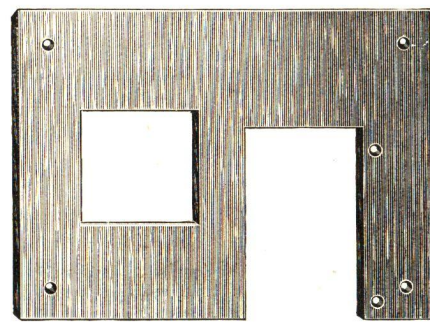
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14



15B



15F



15D



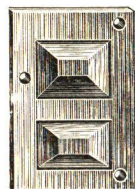
15A



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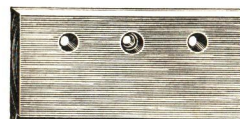
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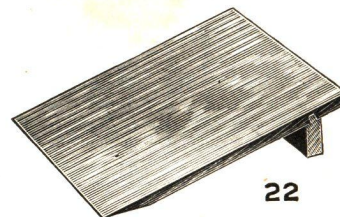
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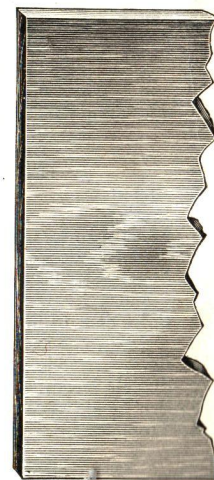
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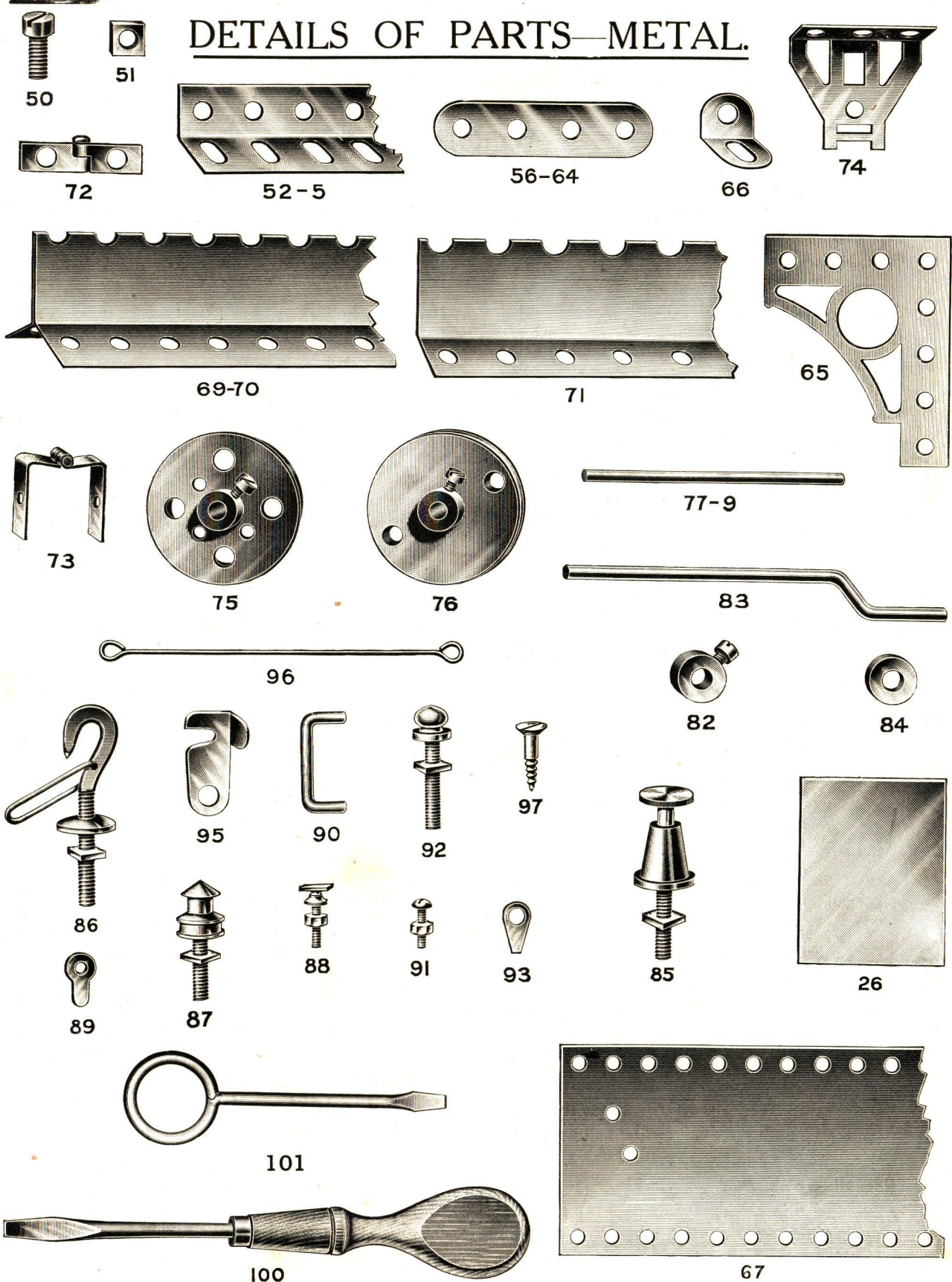


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DETAILS OF PARTS—METAL.

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PRICES OF EXTRA PARTS.**WOOD.**

No.		PRICE.	No.		PRICE.
1	Grooved side rail	each 2d.	15D	Window sash	per doz. 6d.
2	Ditto, with footboard	3d.	15F	Front of house	each 6d.
3	Carriage ends	4d.	15B	Back „ „	6d.
4	Buffer blocks	2d.	16	Doors „	3d.
5	Right hand window	3d.	16A	„ lintels	per doz. 6d.
6	Left „ „	3d.	17	Truck sides	each 2d.
7	Carriage doors	2d.	18	„ ends	3d.
8	Centre windows	4d.	19	House baseboard	9d.
9	Floor	3d.	21	Steps	2d.
10	Roof	6d.	22	Slope	3d.
11	Posts	per doz. 10d.	23	Platform centre	3d.
12	End rail of house	each 2d.	24	„ sides	4d.
13	Side „ „ „	2d.	25	3 x 1 inch wood slips	per doz. 1/-
14	Sides of house	4d.	26	Glass for windows	3d.
15A	Window sills	per doz. 6d.			

METAL.

50 & 51	Screws and nuts.. ..	per doz. 6d.	73	Bent hinges	per half doz. 8d.
51	Nuts only	2d.	74	Trunnions	each 2d.
52	Angle bars, 6 in.	per half doz. 6d.	75	Flanged Wheels	9d.
53	„ „ 6½ in.	6d.	76	Pulley wheels grooved	9d.
54	„ „ 8 in.	9d.	77	Axles, 3½ in.	per half doz. 1/-
55	„ „ 12 in.	1/-	78	„ 2¾ in.	9d.
56	Metal strips, 2 in.	3d.	79	„ 1½ in.	4d.
57	„ „ 2½ in.	3d.	82	Collars and screws	each 2d.
58	„ „ 3 in.	3d.	83	Handle axles	2d.
59	„ „ 3½ in.	3d.	84	Washers	per doz. 2d.
60	„ „ 4 in.	4d.	85	Buffers and nuts	each 6d.
61	„ „ 5½ in.	4d.	86	Coupling hooks	6d.
62	„ „ 6½ in.	4d.	87	Lamps	6d.
63	„ „ 8 in.	6d.	88	Carriage door handles and nuts	3d.
64	„ „ 12½ in.	9d.	89	Turnbuttons for do.	per doz. 3d.
65	Architraves	6d.	90	Carriage rails	per half doz. 3d.
66	Brackets	per doz. 6d.	91	Carriage door screws and nuts	per doz. 1/-
67	Metal plates, 8 x 3 in... ..	per half doz. 1/6	92	Knob screws and nuts	per half doz. 2/-
68	„ „ 3 x 3 in... ..	9d.	93	Turnbuttons for do.	3d.
69	Ridge tiles, 6½ in.	2/-	95	Catches	3d.
70	„ „ 8 in.	2/6	96	Signal post rods	4d.
71	Eaves, 8 in.	2/6	97	Wood screws	per doz. 2d.
72	Straight hinges.. ..	per doz. 6d.	100 & 101	Screw drivers	each 3d.

Primus Engineering.

PRIMUS ENGINEERING.

OWING to the continual increase in the cost of metal and other material used in the manufacture of Primus Sets, it is necessary to announce a new price tariff as follows :

No. 1 Outfit makes 41 Models	...	...	7/6
No. 2 Outfit " 70 "	...	...	12/6
No. 3 Outfit " 93 "	...	...	25/0
No. 4 Outfit " 109 "	...	...	37/6
No. 5 Outfit " 128 "	...	...	50/0

SUPPLEMENTARY OUTFITS.

No. 1S. converts the No. 1 Outfit into the No. 2	...	...	6 6
No. 2S. converts the No. 2 Outfit into the No. 3	...	...	15/0
No. 3S. converts the No. 3 Outfit into the No. 4	...	...	15/0

The prices of some of the spare parts have also been slightly advanced.

FEBRUARY 14th, 1916.

W. BUTCHER & SONS, LTD.



OUTFITS.

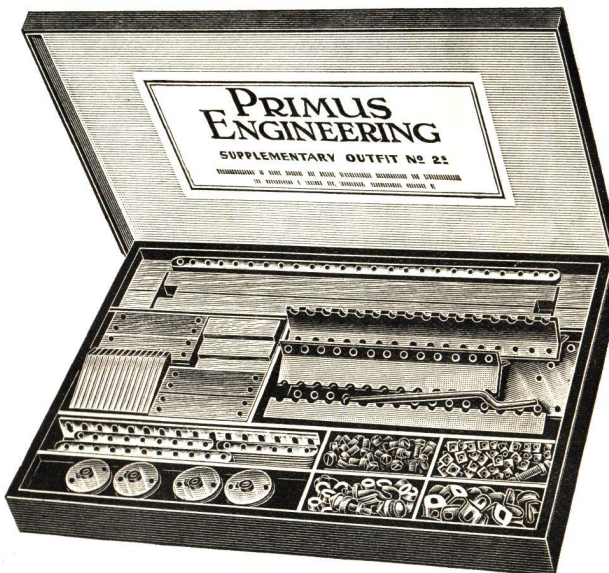
in all the parts necessary for of highly interesting models in this booklet give each outfit, but it should models shown, numerous ended to serve as a guide, ples on which Primus e made—there is no limit dels that can be built.

	s.	d.
.. ..	6	0
.. ..	10	6
No. 3 ..	21	0
No. 4 ..	31	6
No. 5 ..	45	0

SUPPLEMENTARY OUTFITS.

After a boy, who has purchased a No. 1 Outfit, has made all the models illustrated in the instruction booklet, it is only natural that he will want to work on the more elaborate and complete models made with the higher-priced sets; by the purchase of supplementary outfits, he can convert his existing set into that of the next higher price.

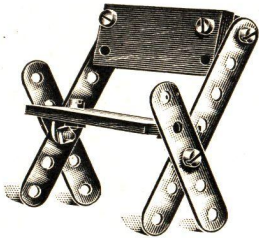
	s.	d.
No. 1S converts the No. 1 Outfit into the No. 2	5	0
No. 2S converts the No. 2 Outfit into the No. 3	12	0
No. 3S converts the No. 3 Outfit into the No. 4	12	0



Primus Engineering.

MADE WITH No. 1 OUTFIT.

Model No. 1.



PLAIN SEAT.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in.	2
Nos. 50 & 51 Screws and nuts	8
No. 57 Metal strips, 2½ in.	2
No. 59 „ „ 3½ in.	2
No. 66 Brackets	4

The brackets should be fixed with the slot on to the wood.

Model No. 2.

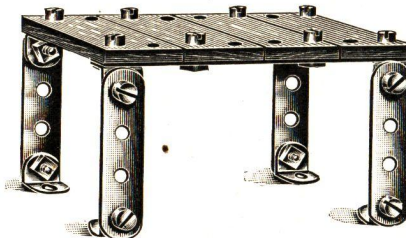


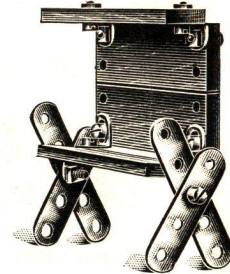
TABLE.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in. ..	4
Nos. 50 & 51 Screws and nuts ..	16
No. 56 Metal strips, 2 in. ..	2
No. 60 „ „ 4 in. ..	2
No. 66 Brackets	8

4 in. Metal Strips are screwed below the table to hold the top together.

Model No. 3.



SEAT WITH COVER.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in.	4
Nos. 50 & 51 Screws and nuts	10
No. 56 Metal strips, 2 in.	4
No. 57 „ „ 2½ in.	2
No. 66 Brackets	6

2 in. strips are screwed behind the wood back for support.

Model No. 4.

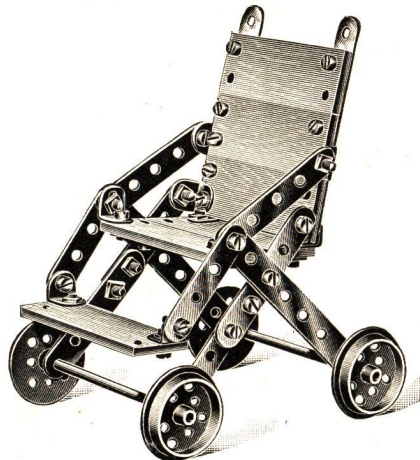


CHAIR.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in. ..	6
Nos. 50 & 51 Nuts and screws	32
No. 56 Metal strips, 2 in. ..	4
No. 57 „ „ 2½ in. ..	4
No. 66 Brackets	10
No. 68 Metal plate, 3 x 3 in. .	1

Model No. 5.

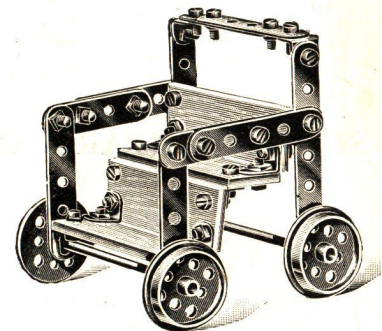


PUSH CHAIR.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in. ..	6
Nos. 50 & 51 Nuts and screws ..	30
No. 56 Metal strips, 2 in. ..	3
No. 57 „ „ 2½ in. ..	6
No. 59 „ „ 3½ in. ..	2
No. 60 „ „ 4 in. ..	2
No. 66 Brackets	10
No. 75 Flanged wheels	4
No. 77 Axle rods, 3½ in. ..	2

Model No. 6.



INVALID CHAIR.

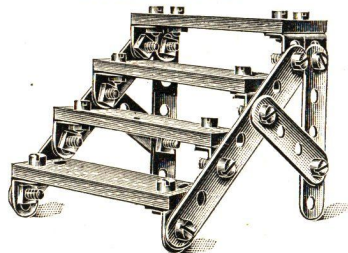
PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in. ..	4
Nos. 50 & 51 Nuts and screws ..	30
No. 56 Metal strips, 2 in. ..	2
No. 57 „ „ 2½ in. ..	6
No. 59 „ „ 3½ in. ..	2
No. 66 Brackets	12
No. 77 Axle rod, 3½ in. ..	2
No. 75 Flanged wheels	4

Primus Engineering.

MADE WITH No. 1 OUTFIT.

Model No. 7.

**STEP LADDER.**

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in. . .	4
Nos. 50 & 51 Screws and nuts . .	22
No. 56 Metal strips, 2 in. . .	2
No. 57 " " 2½ in. . .	2
No. 59 " " 3½ in. . .	2
No. 66 Brackets . . .	10

Fix brackets to steps with slots at side.

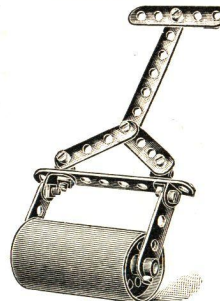
Model No. 8.

**MUSIC STAND.**

PARTS REQUIRED.

Nos. 50 & 51 Nuts and screws . .	12
No. 56 Metal strips, 2 in. . .	2
No. 57 " " 2½ in. . .	6
No. 60 " " 4 in. . .	2
No. 66 Brackets . . .	3

Model No. 9.

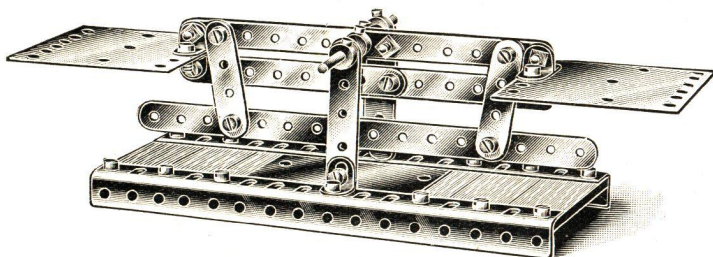
**GARDEN ROLLER.**

PARTS REQUIRED.

Nos. 50 & 51 Screws and nuts . .	8
No. 56 Metal strips, 2 in. . .	4
No. 57 " " 2½ in. . .	1
No. 59 " " 3½ in. . .	1
No. 60 " " 4 in. . .	1
No. 66 Brackets . . .	4
No. 75 Flanged wheels . .	2
No. 77 Axle rod, 3½ in. . .	1
No. 82 Collars . . .	2

The roller is made by covering the two flanged wheels with cardboard.

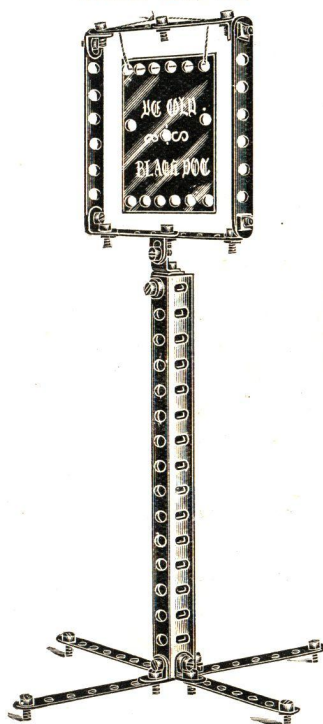
Model No. 10.

**FRENCH BALANCE.**

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in. . .	6
Nos. 50 & 51 Nuts and screws . .	30
No. 54 Angle bars, 8 in. . .	2
No. 56 Metal strips, 2 in. . .	2
No. 57 " " 2½ in. . .	2
No. 59 " " 3½ in. . .	2
No. 60 " " 4 in. . .	2
No. 63 " " 8 in. . .	1
No. 66 Brackets . . .	10
No. 68 Metal plates, 3 x 3 in. . .	3
No. 77 Axle rod, 3½ in. . .	1
No. 82 Collars . . .	4

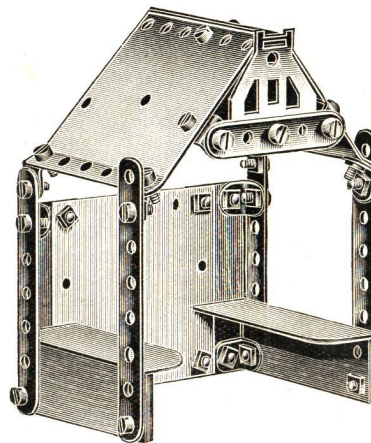
Model No. 11.

**TAVERN SIGN.**

PARTS REQUIRED.

Nos. 50 & 51 Nuts and screws . .	26
No. 54 Angle bars . . .	2
No. 57 Metal strips, 2½ in. . .	4
No. 60 " " 4 in. . .	2
No. 63 " " 8 in. . .	2
No. 66 Brackets . . .	12
No. 68 Metal plate, 3 x 3 in. . .	1
No. 84 Washers . . .	7

Model No. 12.

**SUMMER HOUSE.**

PARTS REQUIRED.

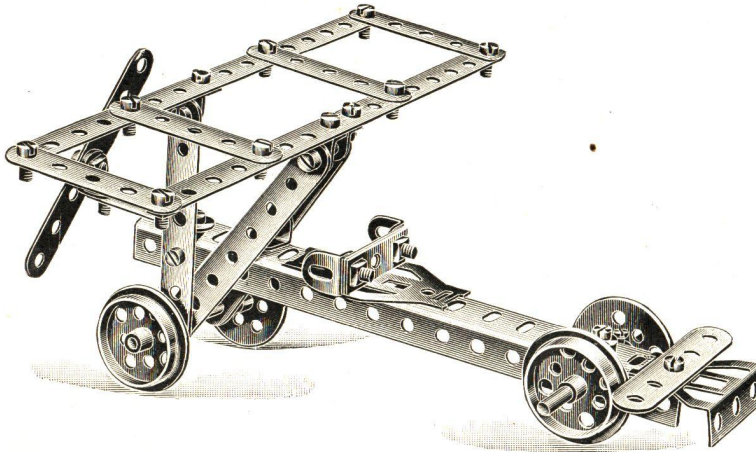
No. 25 Wood slips, 3 x 1 in. . .	4
Nos. 50 & 51 Nuts and screws . .	30
No. 57 Metal strips, 2½ in. . .	1
No. 59 " " 3½ in. . .	2
No. 60 " " 4 in. . .	2
No. 66 Brackets . . .	12
No. 68 Metal plates, 3 x 3 in. . .	3
No. 74 Trunnion . . .	1

The seats are formed of cardboard.

Primus Engineering.

MADE WITH No. 1 OUTFIT.

Model No. 13.



MONOPLANE.

PARTS REQUIRED.

Nos. 50 & 51 Nuts and screws	..	26
No. 54 Angle bars, 8 in.	..	1
No. 56 Metal strips, 2 in.	..	1
No. 57 „ „ 2½ in.	..	5
No. 59 „ „ 3½ in.	..	2
No. 60 „ „ 4 in.	..	2
No. 63 „ „ 8 in.	..	2
No. 66 Brackets	..	8
No. 74 Trunnions	..	3
No. 75 Flanged wheels	..	4
No. 77 Axle rods, 3½ in.	..	2
No. 84 Washers	..	3

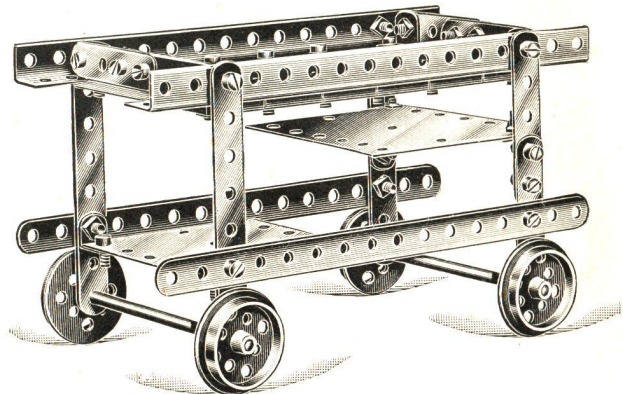
DINNER WAGON.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in.	..	6
Nos. 50 & 51 Nuts and screws	..	36
No. 54 Angle bars, 8 in.	..	2
No. 56 Metal strips, 2 in.	..	4
No. 57 „ „ 2½ in.	..	4
No. 60 „ „ 4 in.	..	2
No. 63 „ „ 8 in.	..	2
No. 66 Brackets	..	8
No. 68 Metal plates, 3 x 3 in.	..	2
No. 77 Axle rods, 3½ in.	..	2
No. 75 Flanged wheels	..	4

The top table of the wagon is composed of the 3 x 1 in. slips, screwed to the 8 in. angle bars.

Model No. 14.

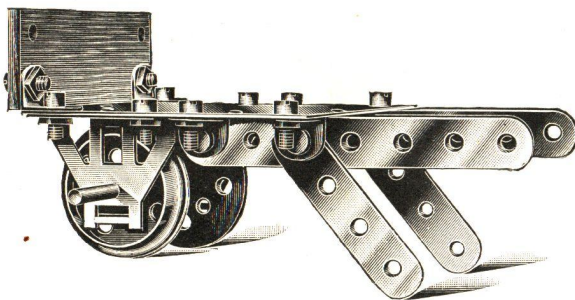


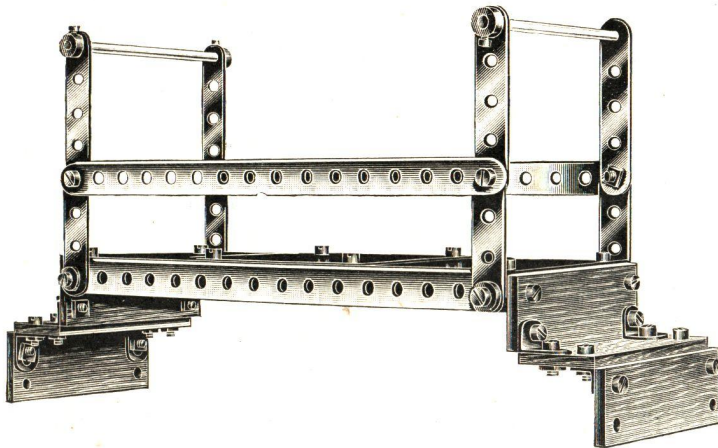
LUGGAGE BARROW.

PARTS REQUIRED.

No. 25 Wood slip, 3 x 1 in.	..	1
Nos. 50 & 51 Screws and nuts	..	10
No. 56 Metal strips, 2 in.	..	2
No. 59 „ „ 3½ in.	..	2
No. 66 Brackets	..	6
No. 68 Metal plates, 3 x 3 in.	..	1
No. 74 Trunnions	..	2
No. 75 Flanged wheels	..	2
No. 77 Axle rod, 3½ in.	..	1

Model No. 15.



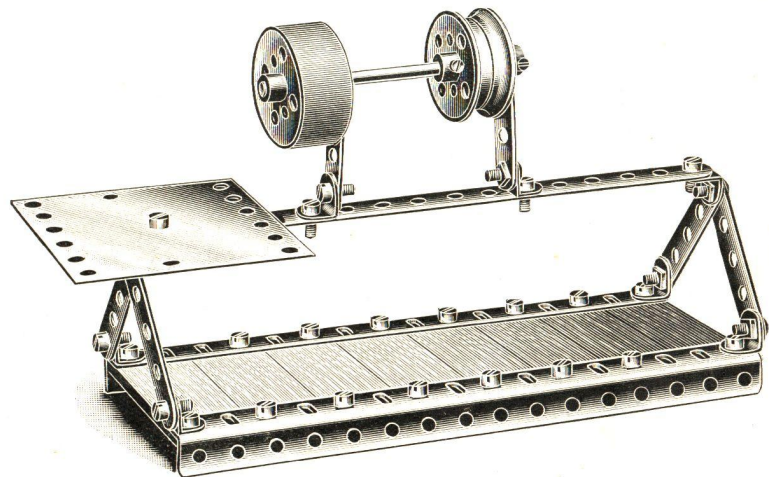
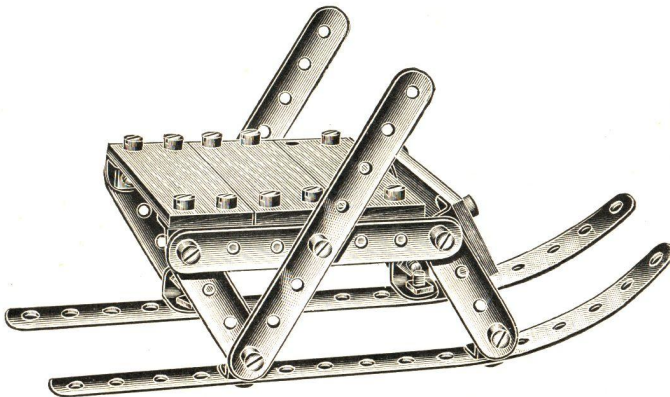
Primus Engineering.**MADE WITH No. 1 OUTFIT.****Model No. 16.****LOW LEVEL BRIDGE.****PARTS REQUIRED.**

No. 25 Wood slips, 3 x 1 in. ..	6
Nos. 50 & 51 Nuts and screws ..	36
No. 54 Angle bars, 8 in. ..	2
No. 56 Metal strips, 2 in. ..	4
No. 57 „ „ 2½ in. ..	4
No. 63 „ „ 8 in. ..	2
No. 66 Brackets ..	12
No. 68 Metal plates, 3 x 3 in. ..	3
No. 77 Axle rods, 3½ in. ..	2
No. 82 Collars ..	4
No. 84 Washers ..	8

POLISHING LATHE.**PARTS REQUIRED.**

No. 25 Wood slips, 3 x 1 in. ..	8
Nos. 50 & 51 Nuts and screws ..	28
No. 54 Angle bars, 8 in. ..	2
No. 56 Metal strips, 2 in. ..	2
No. 57 „ „ 2½ in. ..	4
No. 63 „ „ 8 in. ..	1
No. 66 Brackets ..	8
No. 68 Metal plate, 3 x 3 in. ..	1
No. 75 Flanged wheels ..	4
No. 77 Axle rod, 3½ in. ..	1
No. 82 Collar ..	1

The Polisher is made by covering two flanged wheels with chamois leather.

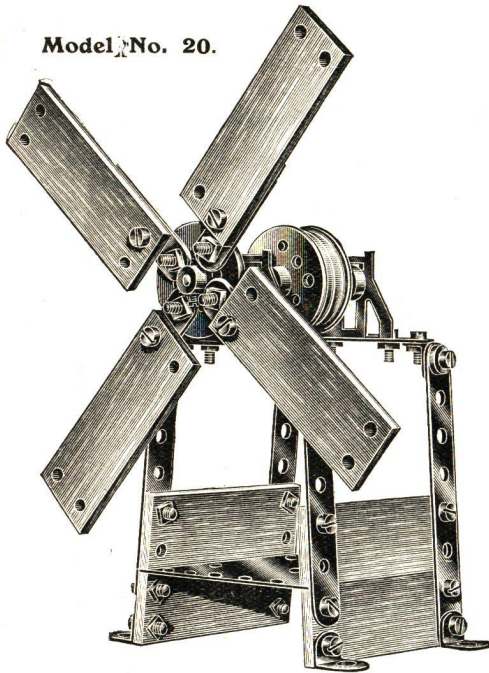
Model No. 18.**Model No. 19.****SLEDGE.****PARTS REQUIRED.**

No. 25 Wood slips, 3 x 1 in. ..	4
Nos. 50 & 51 Nuts and screws ..	26
No. 56 Metal strips, 2 in. ..	4
No. 57 „ „ 2½ in. ..	2
No. 59 „ „ 3½ in. ..	2
No. 60 „ „ 4 in. ..	2
No. 63 „ „ 8 in. ..	2
No. 66 Brackets ..	10

Primus Engineering.

MADE WITH No. 1 OUTFIT.

Model No. 20.

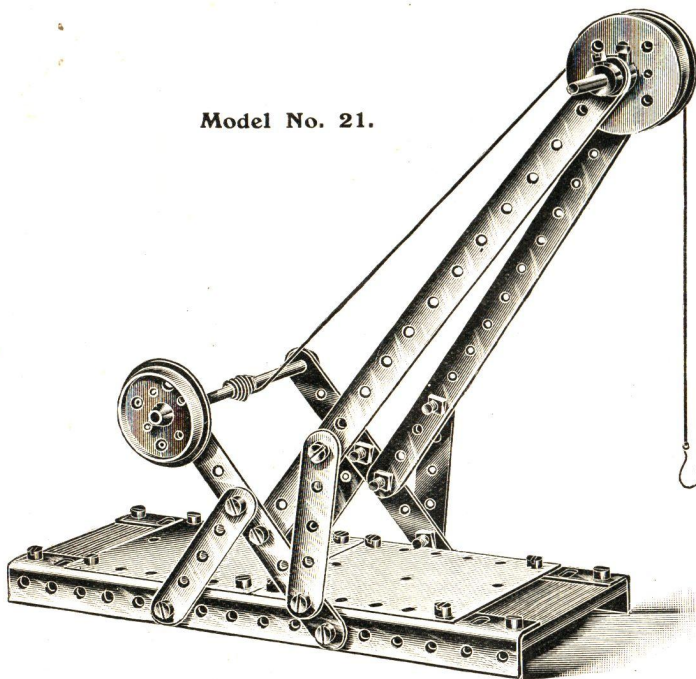


WINDMILL.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in.	..	..	..	..	..	8
Nos. 50 & 51 Nuts and screws	..	..	..	..	..	32
No. 56 Metal strips, 2 in.	..	..	..	..	..	4
No. 57 „ „ 2½ in.	..	..	..	..	..	2
No. 59 „ „ 3½ in.	..	..	..	..	..	2
No. 60 „ „ 4 in.	..	..	..	..	..	2
No. 66 Brackets	..	..	..	..	..	8
No. 68 Metal plate, 3 x 3 in.	..	..	..	..	..	1
No. 74 Trunnions	..	..	..	..	..	2
No. 75 Flanged wheels	..	..	..	..	..	3
No. 77 Axle rods, 3½ in.	..	..	..	..	..	1
No. 82 Collars	..	..	..	..	..	2
No. 84 Washers	..	..	..	..	..	10

Model No. 21.



CRANE.

PARTS REQUIRED.

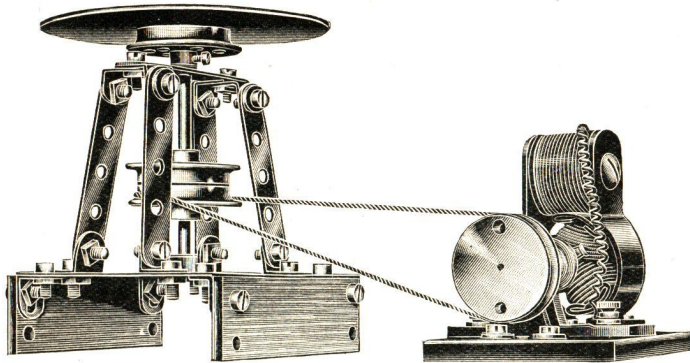
No. 25 Wood slips, 3 x 1 in.	..	..	2
Nos. 50 & 51 Nuts and screws	..	..	24
No. 54 Angle bars, 8 in.	..	..	2
No. 57 Metal strips, 2½ in.	..	..	4
No. 60 „ „ 4 in.	..	..	2
No. 63 „ „ 8 in.	..	..	2
No. 68 Metal Plates, 3 x 3 in.	..	..	2
No. 75 Flanged wheels	..	..	3
No. 77 Axle rods, 3½ in.	..	..	2
No. 82 Collars	..	..	3

Use cord for the pulley—the hook being made with a piece of bent wire.

Primus Engineering.

MADE WITH No. 1 OUTFIT.

Model No. 22.

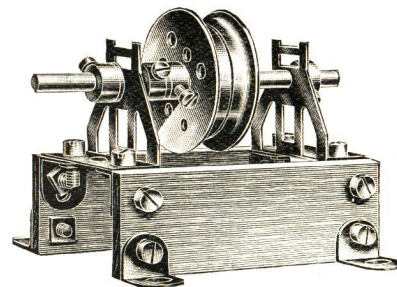


CHAMELEON TOP.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in. .	..	..	..	2
Nos. 50 & 51 Nuts and screws	..	..	..	22
No. 57 Metal strips, 2½ in. .	..	..	..	5
No. 66 Brackets	..	..	..	12
No. 68 Metal plate, 3 x 3 in.	..	..	..	1
No. 75 Flanged wheels	..	..	..	3
No. 77 Axle rod, 3½ in.	..	..	..	1
No. 82 Collars	..	..	..	1
No. 84 Washers	..	..	..	5

Model No. 23.



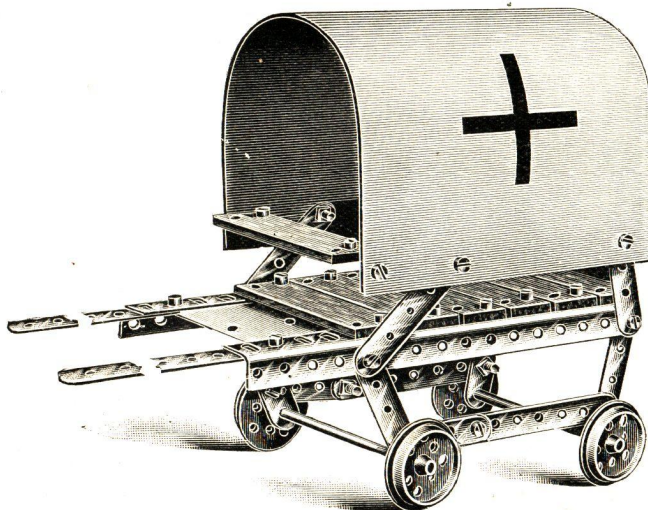
COUNTER SHAFT.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in. .	..	..	..	2
Nos. 50 & 51 Nuts and screws	..	..	..	12
No. 66 Brackets	..	..	..	8
No. 74 Trunnions	..	..	..	2
No. 75 Flanged wheels	..	..	..	2
No. 77 Axle rod, 3½ in.	..	..	..	1
No. 82 Collars	..	..	..	3
No. 84 Washers	..	..	..	3

The Electric Motor shown driving this model is not included in the Outfit, but is stocked by all dealers.

Model No. 24.



RED CROSS WAGGON.

PARTS REQUIRED.

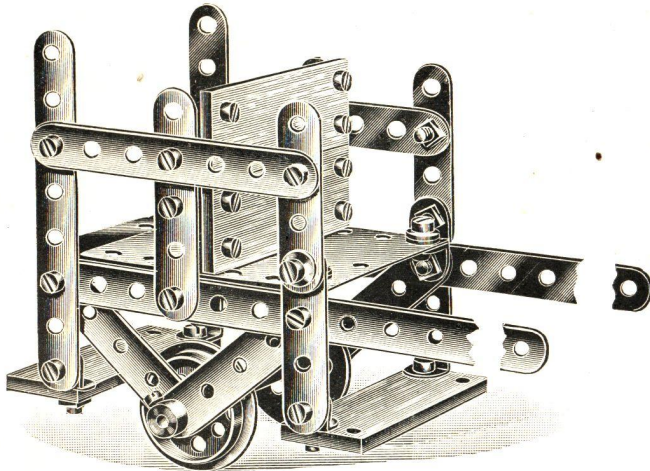
No. 25 Wood slips, 3 x 1 in.	..	..	8
Nos. 50 & 51 Nuts and screws	..	..	34
No. 54 Angle bars, 8 in. .	..	..	2
No. 56 Metal strips, 2 in...	..	..	4
No. 57 " " 2½ in..	..	..	6
No. 59 " " 3½ in..	..	..	2
No. 60 " " 4 in...	..	..	2
No. 63 " " 8 in...	..	..	2
No. 66 Brackets	..	..	4
No. 68 Metal plate, 3 x 3 in.	..	..	1
No. 75 Flanged Wheels	..	..	4
No. 77 Axle Rod, 3½ in.	..	..	2

The Hood is made from cardboard screwed to the sides.

Primus Engineering.

MADE WITH No. 1 OUTFIT.

Model No. 25.



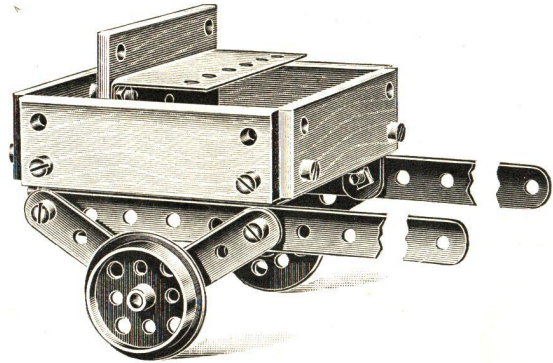
DOUBLE MAIL CART.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in.	..	..	..	..	4
Nos. 50 & 51 Nuts and screws	..	..	..	..	35
No. 56 Metal strips, 2 in.	..	..	..	..	4
No. 57 " " 2½ in.	..	..	..	..	6
No. 59 " " 3½ in.	..	..	..	..	2
No. 60 " " 4 in.	..	..	..	..	2
No. 63 " " 8 in.	..	..	..	..	2
No. 66 Brackets	..	..	..	..	12
No. 68 Metal plates, 3 x 3 in.	..	..	..	..	2
No. 75 Flanged wheels	..	..	..	..	2
No. 77 Axle rod, 3½ in.	..	..	..	..	1
No. 82 Collars	..	..	..	..	2
No. 84 Washers	..	..	..	..	12

The 8 in. metal strips form the shafts in both these carts.

Model No. 26.

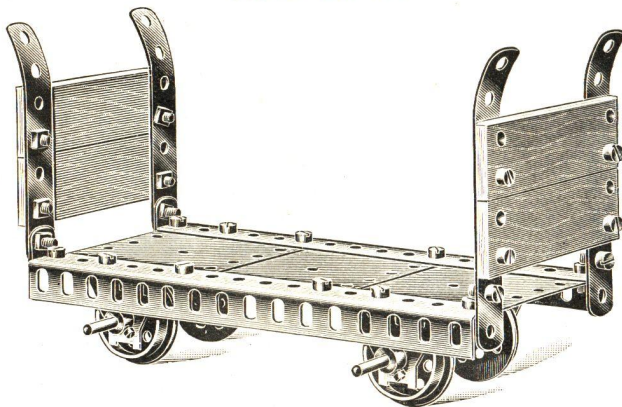


BELGIAN DOG CART.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in.	..	..	..	5
Nos. 50 & 51 Nuts and screws	..	..	..	20
No. 56 Metal strips, 2 in.	..	..	..	4
No. 63 " " 8 in.	..	..	..	2
No. 66 Brackets	..	..	..	12
No. 68 Metal plates, 3 x 3 in.	..	..	..	2
No. 75 Flanged wheels	..	..	..	2
No. 77 Axle rod, 3½ in.	..	..	..	1

Model No. 27.



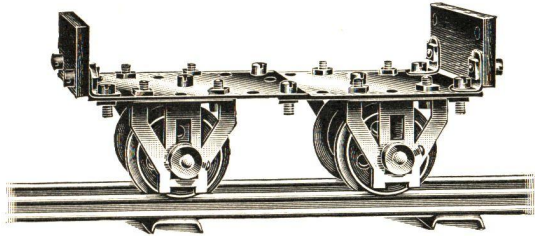
CHURN TROLLEY.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in.	..	..	..	4
Nos. 50 & 51 Nuts and screws	..	..	..	24
No. 54 Angle bars, 8 in.	..	..	..	2
No. 59 Metal strips, 3½ in.	..	..	..	2
No. 60 " " 4 in.	..	..	..	2
No. 66 Brackets	..	..	..	4
No. 68 Metal plates, 3 x 3 in.	..	..	..	3
No. 74 Trunnions	..	..	..	4
No. 75 Flanged wheels	..	..	..	4
No. 77 Axle rods, 3½ in.	..	..	..	2
No. 82 Collars	..	..	..	4

MADE WITH No. 1 OUTFIT.

Model No. 28.



TROLLEY TRUCK.

PARTS REQUIRED.

No. 25 Wood slips,	No. 68 Metal plates, 3x3 in.	2
3 x 1 in. ..	No. 74 Trunnions ..	4
Nos. 50 & 51 Screws and	No. 75 Flanged wheels.	4
nuts	No. 82 Collars ..	4
No. 66 Brackets ..	No. 84 Washers ..	12

If this model is made with No. 2 Outfit, coupling hooks can be added.

WHEELED LADDER.

PARTS REQUIRED.

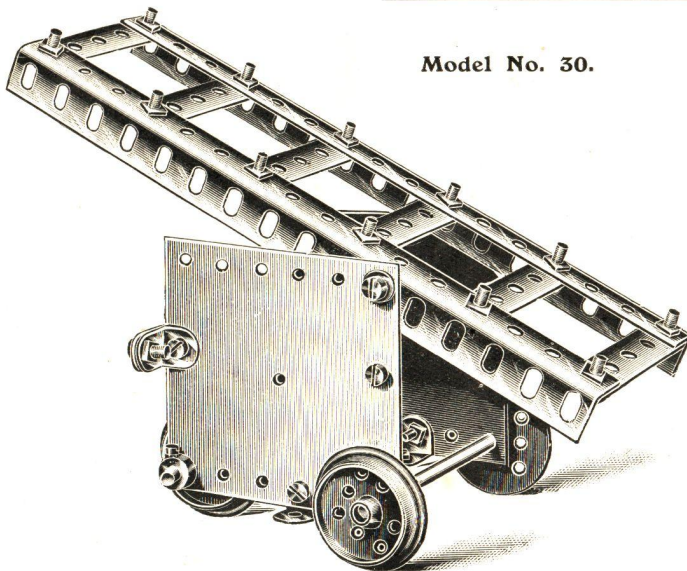
No. 25 Wood slips, 3 x 1 in.	..	..	..	..	5
Nos. 50 & 51 Nuts and screws	..	..	..	..	34
No. 54 Angle bars, 8 in.	..	..	..	..	2
No. 56 Metal strips, 2 in.	..	..	..	..	2
No. 57 „ „ 2½ in.	..	..	..	..	2
No. 59 „ „ 3½ in.	..	..	..	..	2
No. 60 „ „ 4 in.	..	..	..	..	2
No. 63 „ „ 8 in.	..	..	..	..	2
No. 66 Brackets ..	..	..	..	..	12
No. 68 Metal plates, 3 x 3 in.	..	..	..	..	1
No. 74 Trunnions ..	..	..	..	..	4
No. 75 Flanged wheels	..	..	..	..	4
No. 77 Axle rods, 3½ in.	..	..	..	..	2

The rungs in the ladder are made by lacing cord through the 8 in. metal strips.

Model No. 29.



Model No. 30.



FIRE ESCAPE.

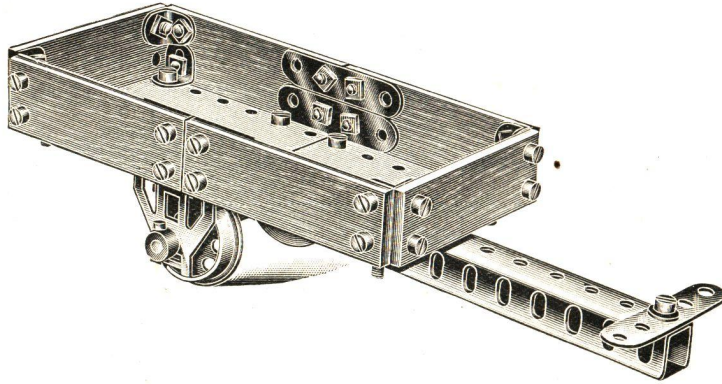
PARTS REQUIRED.

Nos. 50 & 51 Nuts and screws	..	..	24
No. 54 Angle bars, 8 in.	..	..	2
No. 57 Metal strips, 2½ in.	..	..	6
No. 59 „ „ 3½ in.	..	..	1
No. 60 „ „ 4 in.	..	..	1
No. 66 Brackets ..	..	..	4
No. 68 Metal plates, 3 x 3 in.	..	..	2
No. 75 Flanged wheels	..	..	4
No. 77 Axle rods, 3½ in.	..	..	2
No. 82 Collars	..	..	2
No. 84 Washers	..	..	2

Primus Engineering.

MADE WITH No. 1 OUTFIT.

Model No. 31.



BAGGAGE TRUCK.

PARTS REQUIRED.

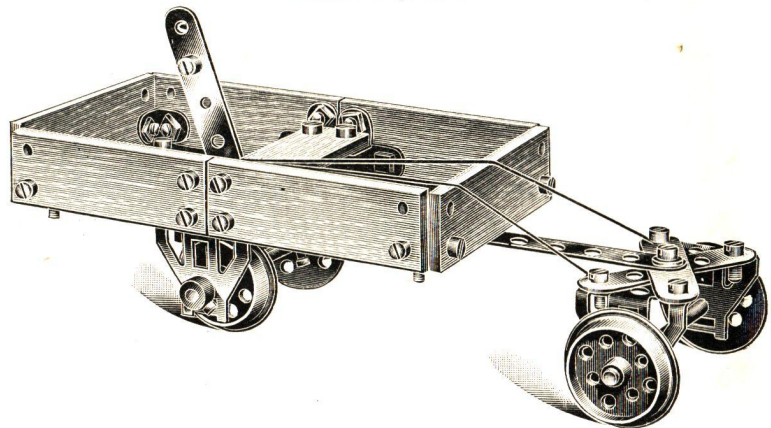
No. 25 Wood slips, 3 x 1 in.	..	6
Nos. 50 & 51 Nuts and screws	..	33
No. 54 Angle bars, 8 in.	..	2
No. 56 Metal strips, 2 in.	..	4
No. 57 " " 2½ in.	..	1
No. 66 Brackets	..	12
No. 68 Metal plates, 3 x 3 in.	..	2
No. 74 Trunnions	..	2
No. 75 Flanged wheels	..	2
No. 77 Axle rod, 3½ in.	..	1
No. 82 Collars	..	2
No. 84 Washers	..	5

SKI CART.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in.	..	7
Nos. 50 & 51 Nuts and screws	..	36
No. 56 Metal strips, 2 in.	..	2
No. 57 " " 2½ in.	..	3
No. 63 " " 8 in.	..	1
No. 66 Brackets	..	12
No. 68 Metal plates, 3 x 3 in.	..	2
No. 74 Trunnions	..	4
No. 75 Flanged wheels	..	4
No. 77 Axle rods, 3½ in.	..	2
No. 82 Collars	..	2
No. 84 Washers	..	3

Model No. 32.



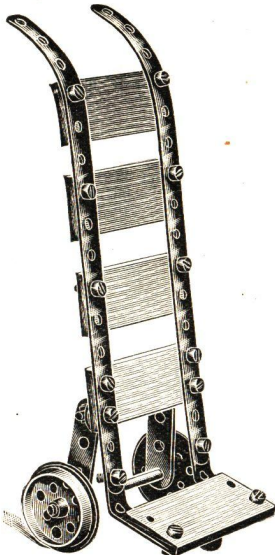
Cord can be used for steering the wheels.

Model No. 33.

PORTER'S TRUCK.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in.	..	..	..	..	..	..	5
Nos. 50 & 51 Nuts and screws	..	..	..	..	..	..	16
No. 56 Metal strips, 2 in.	..	..	..	..	..	..	4
No. 63 " " 8 in.	..	..	..	..	..	..	2
No. 66 Brackets	..	..	..	..	..	..	2
No. 75 Flanged wheels	..	..	..	..	..	..	2
No. 77 Axle rods, 3½ in.	..	..	..	..	..	..	1



Primus Engineering.

MADE WITH No. 1 OUTFIT.

Model No. 34.

**SWING.**

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in. . .	3
Nos. 50 & 51 Nuts and screws . .	24
No. 57 Metal strips, 2½ in. . .	2
No. 60 " " 4 in. . .	2
No. 63 " " 8 in. . .	2
No. 66 Brackets . . .	12
No. 68 Metal plates, 3 x 3 in. . .	2
No. 77 Axle rod, 3½ in. . .	1
No. 82 Collars . . .	2
No. 84 Washers . . .	4

Cord is used to make the Swing.

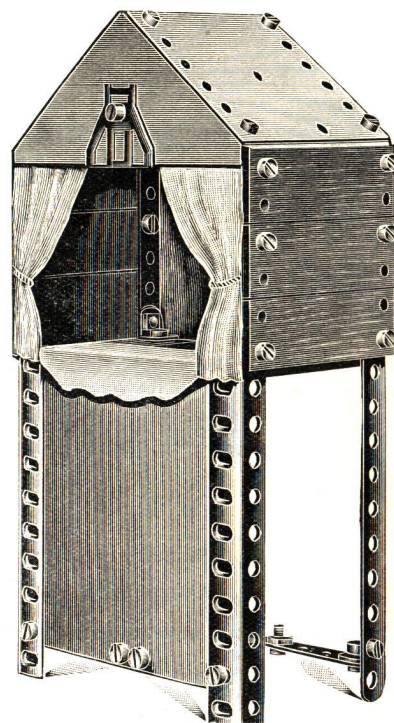
Model No. 35.

**SHAFTING AND
COUNTER SHAFT,
LOOSE PULLEY.**

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in. 2	
Nos. 50 & 51 Nuts and screws 16	
No. 54 Angle bars, 8 in. . 2	
No. 59 Metal strips, 3½ in. 2	
No. 60 " " 4 in. . 2	
No. 74 Trunnions . . 2	
No. 75 Flanged wheels . . 4	
No. 77 Axle rod, 3½ in. . . 1	
No. 82 Collars . . . 3	
No. 84 Washers . . . 3	

Model No. 36.

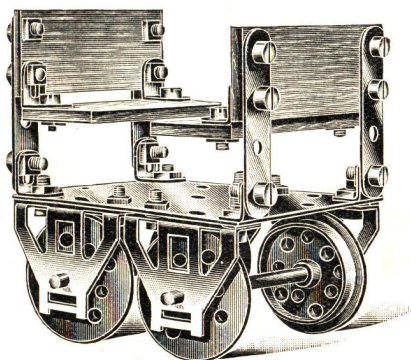
**PUNCH AND JUDY
SHOW.**

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in. . .	6
Nos. 50 & 51 Nuts and screws . .	36
No. 54 Angle bars, 8 in. . .	2
No. 56 Metal strips, 2 in. . .	1
No. 57 " " 2½ in. . .	1
No. 59 " " 3½ in. . .	2
No. 63 " " 8 in. . .	2
No. 66 Brackets . . .	12
No. 68 Metal plates, 3 x 3 in. . .	2
No. 74 Trunnions . . .	1

Add cardboard for front and paper for curtains.

Model No. 37.

**TWO SEATED TRAILER.**

PARTS REQUIRED.

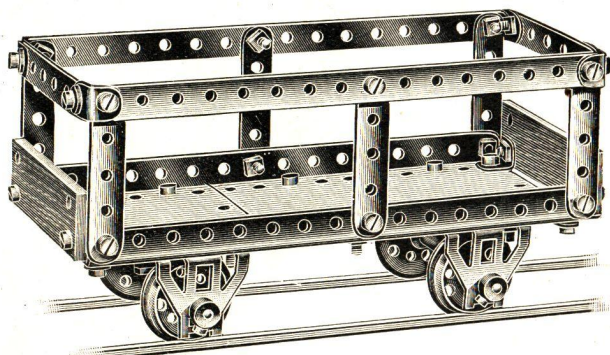
No. 25 Wood slips, 3 x 1 in. . .	4
Nos. 50 & 51 Nuts and screws . .	24
No. 56 Metal strips, 2 in. . .	4
No. 66 Brackets . . .	8
No. 68 Metal plates, 3 x 3 in. . .	1
No. 74 Trunnions . . .	4
No. 75 Flanged wheels . . .	4
No. 77 Axle rods, 3½ in. . .	2
No. 84 Washers . . .	12

Primus Engineering.

MADE WITH No. 1 OUTFIT.

TIMBER TRUCK.

Model No. 38.



PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in.	2
Nos. 50 & 51 Nuts and screws	36
No. 54 Angle bars, 8 in.	2
No. 57 Metal strips, 2½ in.	6
No. 59 „ „ 3½ in.	2
No. 63 „ „ 8 in.	2
No. 66 Brackets	12
No. 68 Metal plates, 3 x 3 in.	3
No. 74 Trunnions	4
No. 75 Flanged wheels	4
No. 77 Axles, 3½ in.	2
No. 82 Collars	4
No. 84 Washers	12

This truck should be made up first, and then those which follow will be better understood. Brackets are fitted INSIDE the angle bars to the slotted sides, with two washers on each screw.

The trunnions should be fitted on first.

The axles and wheels must be put in last and a washer placed between EACH collar and the FACE of trunnion to allow the axles to run easily.

The wheels can be adjusted to the gauge of the rails, but most of the models are best suited to No. 1 gauge.

BASE PLATES BOLTED TOGETHER.

The base plates are composed of three of the square metal plates, and can be laid in loose and caught between the sides when they are pressed in and the end screws tightened up.

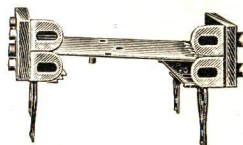
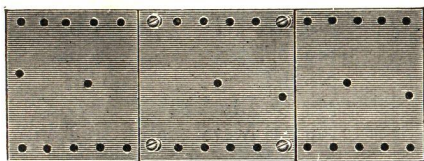
Or they can be bolted together (as shown in diagram) when the truck has an 8 in. base like the "Timber Truck." To suit the Tourist Car on page 24, which has a 6½ in. base, they can be shortened by bolting in other holes.

If they are bolted together a few more screws will be required than are specified.

As an alternative, the bases can be formed by bolting the square plates below the angle bars, using the screws which fix on the trunnions, but then all the screws will project inside. See model on page 43.

POSITION OF BRACKETS TO SECURE THE ENDS.

The Brackets are fitted on with the slots at the ENDS as shown ; this allows a little play to introduce the base plates and afterwards the sides can be pressed in and the screws tightened.

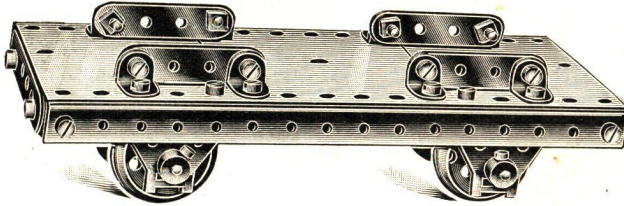


Primus Engineering.

MADE WITH No. 1 OUTFIT.

LOW LEVEL TRANSPORT TRUCK FOR BOILERS, HEAVY GIRDERS, Etc.

Model No. 39.



PARTS REQUIRED.

Nos. 50 & 51 Nuts and screws	..	..	24
No. 54 Angle bars, 8 in.	..	..	2
No. 56 Metal strips, 2 in.	..	..	4
No. 57 " " 2½ in.	..	..	2
No. 66 Brackets	..	..	12
No. 68 Metal plates, 3 x 3 in.	..	..	3
No. 74 Trunnions	..	..	4
No. 75 Flanged wheels	..	..	4
No. 77 Axles, 3½ in.	..	..	2
No. 82 Collars	..	..	4
No. 84 Washers	..	..	12

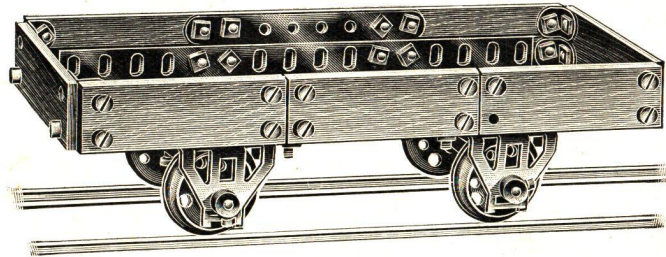
2 Washers are placed between each Bracket and the 8 in. Angle Bars where they are bolted on, to adjust the 2½ in. strips to the ends, as described on page 2.

PARTS REQUIRED.

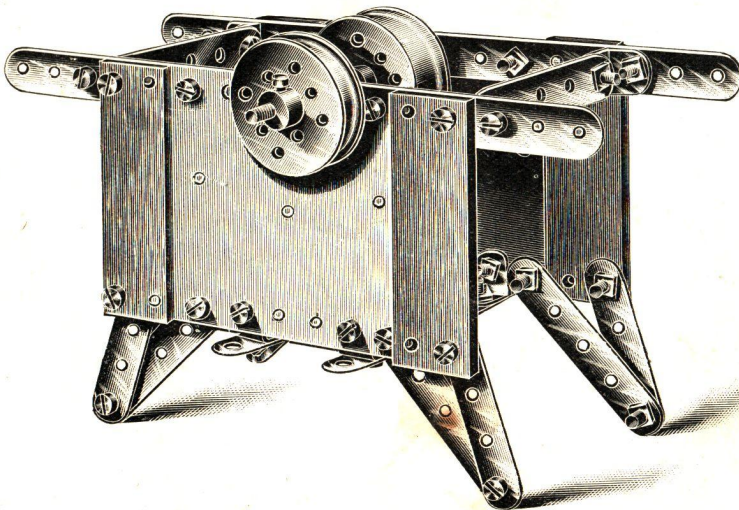
No. 25 Wood slips, 3 x 1 in.	..	..	8
Nos. 50 & 51 Nuts and screws	..	..	36
No. 54 Angle bars, 8 in.	..	..	2
No. 56 Metal strips, 2 in.	..	..	4
No. 60 " " 4 in.	..	..	2
No. 66 Brackets	..	..	8
No. 68 Metal plates, 3 x 3 in.	..	..	3
No. 74 Trunnions	..	..	4
No. 75 Flanged wheels	..	..	4
No. 77 Axles, 3½ in.	..	..	2
No. 82 Collars	..	..	4
No. 84 Washers	..	..	8

BALLAST TRUCK.

Model No. 40.



Model No. 41.



GRINDSTONE.

PARTS REQUIRED.

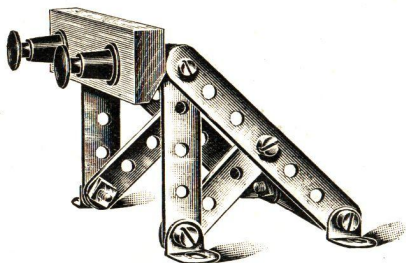
No. 25 Wood slips, 3 x 1 in.	..	4
Nos. 50 & 51 Nuts and screws	..	36
No. 56 Metal strips, 2 in.	..	4
No. 57 " " 2½ in.	..	6
No. 59 " " 3½ in.	..	2
No. 63 " " 8 in.	..	2
No. 66 Brackets	..	8
No. 68 Metal plates, 3 x 3 in.	..	2
No. 75 Flanged wheels	..	4
No. 77 Axle rod, 3½ in.	..	1
No. 82 Collars	..	2

By covering the two inside wheels with fine emery paper, an effective "grindstone" is formed.

Primus Engineering.

MADE WITH No. 2 OUTFIT, or Nos. 1 and 1S.

Model No. 100.



BUFFER END.

PARTS REQUIRED.

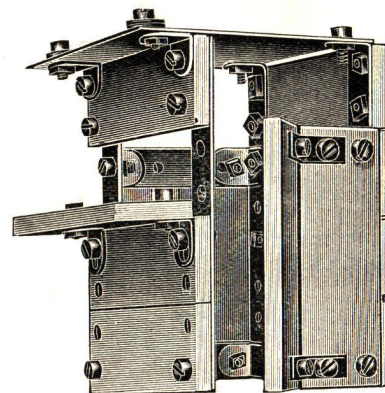
No. 4 Wood Buffer Block ..	1
Nos. 50 & 51 Nuts and screws ..	10
No. 56 Metal strips, 2 in. ..	2
No. 57 " " 2½ in. ..	3
No. 59 " " 3½ in. ..	2
No. 66 Brackets ..	8
No. 85 Buffers and nuts ..	2

BOOKSTALL.

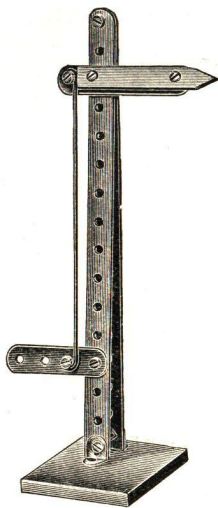
PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in. 12	
Nos. 50 & 51 Nuts and screws ..	35
No. 56 Metal strips, 2 in. 2	
No. 59 " " 3½ in. 2	
No. 60 " " 4 in. 2	
No. 66 Brackets ..	12
No. 68 Metal plate, 3x3 in. 1	
No. 72 Straight hinges ..	2
No. 84 Washers ..	4

Model No. 101.



Model No. 102.

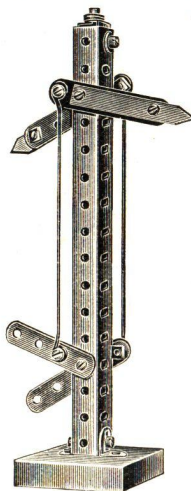


SIGNAL POST.

PARTS REQUIRED.

No. 11 Wood post ..	1
Nos. 50 & 51 Nuts and screws ..	7
No. 56 Metal strips, 2 in. ..	1
No. 57 " " 2½ in. ..	1
No. 63 " " 8 in. ..	2
No. 66 Brackets ..	2
No. 96 Signal post rod ..	1
No. 97 Wood screws ..	2

Model No. 103.



DOUBLE SIGNAL POST.

PARTS REQUIRED.

No. 11 Wooden posts ..	2
Nos. 50 & 51 Nuts and screws ..	15
No. 54 Angle bars, 8 in. ..	2
No. 56 Metal strips, 2 in. ..	2
No. 57 " " 2½ in. ..	2
No. 66 Brackets ..	4
No. 84 Washers ..	5
No. 96 Signal post rods ..	2
No. 97 Wood screws ..	2

Model No. 104.



DOUBLE ELECTRIC LIGHT STANDARD.

PARTS REQUIRED.

Nos. 50 & 51 Nuts and screws ..	7
No. 54 Angle bars, 8 in. ..	2
No. 65 Architraves ..	2
No. 66 Brackets ..	4
No. 84 Washers ..	6
No. 97 Wood screws ..	2

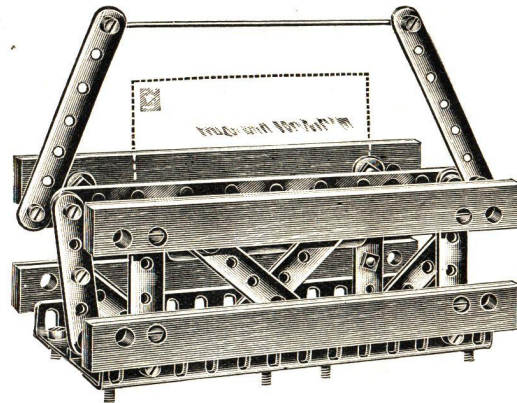
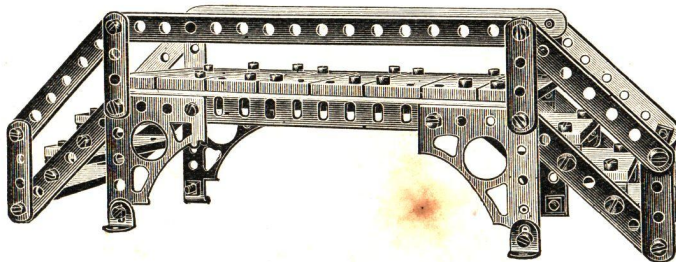
Primus Engineering.**MADE WITH No. 2 OUTFIT, or Nos. 1 and 1S.****Model No. 105.****WELL WINCH.****PARTS REQUIRED.**

No. 25 Wood Slips, 3 x 1 in.	..	..	..	6
Nos. 50 & 51 Nuts and Screws	..	..	..	36
No. 54 Angle Bars, 8 in.	..	..	..	2
No. 56 Metal strips, 2 in.	..	..	..	4
No. 57 " " 2½ in.	..	..	..	4
No. 60 " " 4 in.	..	..	..	2
No. 63 " " 8 in.	..	..	..	2
No. 66 Brackets	..	..	..	10
No. 68 Metal plates, 3 x 3 in.	..	..	..	2
No. 82 Collars	..	..	..	4
No. 83 Handle Axle (extra)	..	..	..	1
No. 84 Washers	..	..	..	4
No. 85 Buffers and nuts	..	..	..	2
No. 86 Coupling Hooks	..	..	..	2

Winding handle is 2d. extra.

LETTER RACK.**PARTS REQUIRED.**

No. 1 Side Rails	..	..	..	..	4
Nos. 50 & 51 Nuts and screws	..	..	..	..	40
No. 53 Angle bars, 6½ in.	..	..	..	..	2
No. 56 Metal Strips, 2 in.	..	..	..	..	2
No. 57 " " 2½ in.	..	..	..	..	6
No. 59 " " 3½ in.	..	..	..	..	5
No. 62 " " 6½ in.	..	..	..	..	1
No. 63 " " 8 in.	..	..	..	..	1
No. 66 Brackets	..	..	..	..	2
No. 68 Metal Plates, 3 x 3 in.	..	..	..	..	2
No. 96 Signal Rod	..	..	..	..	1

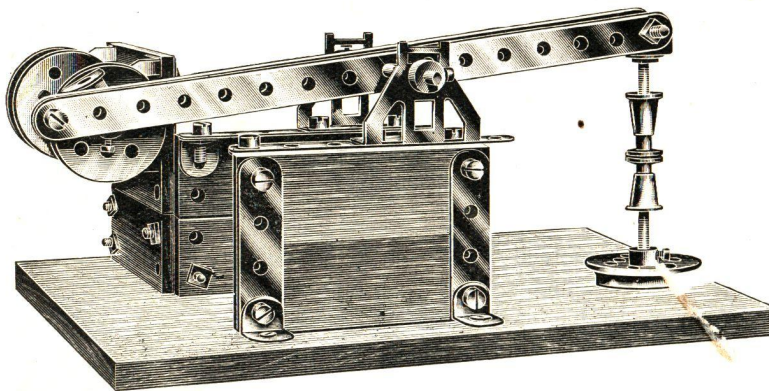
Model No. 106.**Model No. 107.****LOW FOOT BRIDGE—3 Steps.****PARTS REQUIRED.**

No. 25 Wood slips, 3 x 1 in.	..	..	14
Nos. 50 & 51 Nuts and screws	..	..	60
No. 54 Angle bars, 8 in.	..	..	2
No. 56 Metal strips, 2 in.	..	..	8
No. 59 " " 3½ in.	..	..	8
No. 63 " " 8 in.	..	..	2
No. 65 Architraves	..	..	4
No. 66 Brackets	..	..	16

Primus Engineering.

MADE WITH No. 2 OUTFIT, or Nos. 1 and 1S.

Model No. 108.



HAMMER.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in.	..	7
Nos. 50 & 51 Nuts and screws	..	26
No. 56 Metal strips, 2 in.	..	4
No. 57 " " 2½ in.	..	4
No. 59 " " 3½ in.	..	2
No. 63 " " 8 in.	..	2
No. 66 Brackets	..	12
No. 74 Trunnions	..	4
No. 75 Flanged wheels	..	4
No. 77 Axle rods, 3½ in.	..	2
No. 82 Collars	..	4
No. 84 Washers	..	8
No. 85 Buffers and nuts	..	2
No. 97 Wood screws	..	6

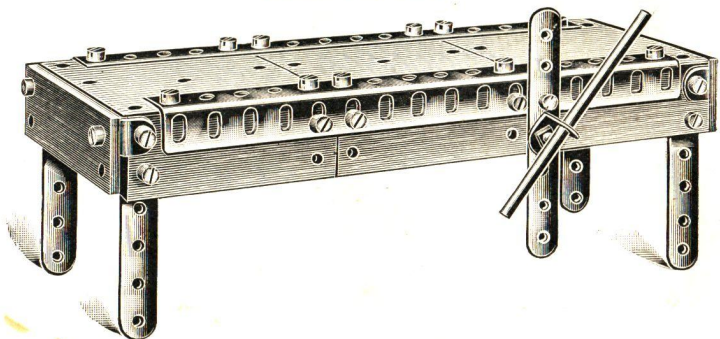
This model can be worked by a motor or steam engine. If required to work by hand a handle axle can be procured, price 2d. each extra.

CARPENTER'S BENCH.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in.	..	8
Nos. 50 & 51 Nuts and screws	..	33
No. 54 Angle bars, 8 in.	..	2
No. 57 Metal strips, 2½ in.	..	4
No. 59 " " 3½ in.	..	1
No. 66 Brackets	..	5
No. 68 Metal plates, 3 x 3 in.	..	3
No. 77 Axle rod, 3½ in.	..	1

Model No. 109.



Model No. 110.



GATEWAY.

PARTS REQUIRED.

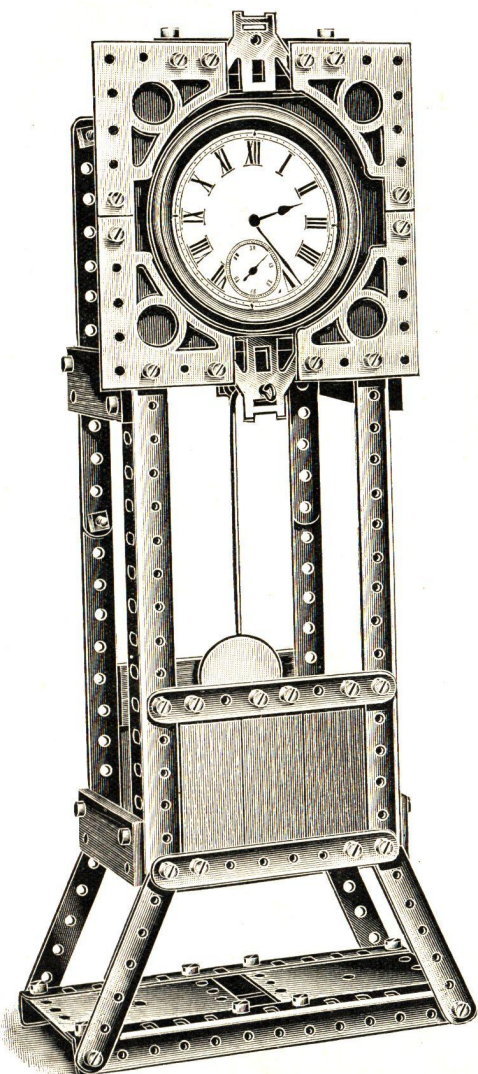
No. 25 Wood slips, 3 x 1 in.	..	..	8
Nos. 50 & 51 Nuts and screws	..	..	36
No. 54 Angle bars, 6½ in.	..	..	2
No. 56 Metal strips, 2 in.	..	..	2
No. 57 " " 2½ in.	..	..	5
No. 59 " " 3½ in.	..	..	2
No. 60 " " 4 in.	..	..	1
No. 66 Brackets	..	..	4
No. 72 Straight hinges	..	..	2

The sign is made of cardboard.

Primus Engineering.

MADE WITH No. 2 OUTFIT, or Nos. 1 and 1S.

Model No. 111.

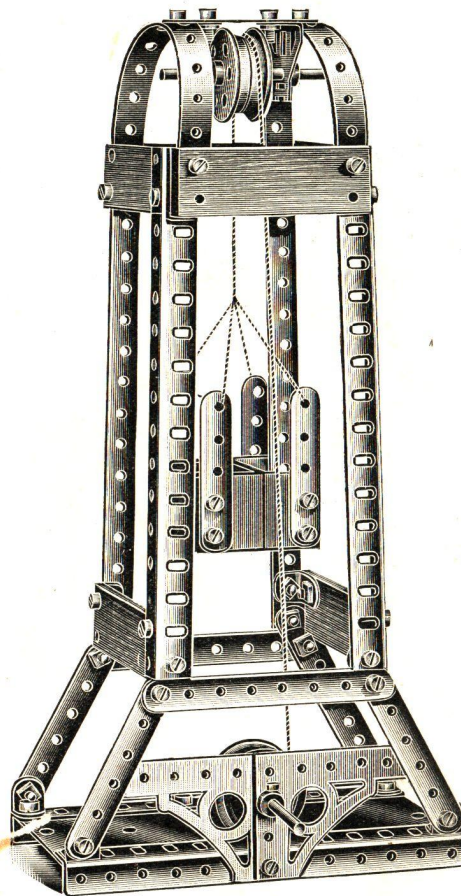
**GRANDFATHER'S CLOCK.**

PARTS REQUIRED.

No. 25 Wood Slips, 3 x 1 in...	..	..	10
Nos. 50 & 51 Nuts and Screws	..	..	62
No. 53 Angle bars, 6½ in.	..	..	2
No. 54 " " 8 in.	..	..	2
No. 56 Metal Strips, 2 in.	..	..	5
No. 57 " " 2½ in...	..	..	2
No. 59 " " 3½ in...	..	..	5
No. 60 " " 4 in.	..	..	2
No. 62 " " 6½ in...	..	..	2
No. 63 " " 8 in.	..	..	2
No. 65 Architraves	..	..	4
No. 66 Brackets	..	..	10
No. 68 Metal plates, 3 x 3 in.	..	..	3
No. 74 Trunnions	..	..	2
No. 96 Signal Rods	..	..	2

Use cardboard for the Pendulum—the face is drawn on card or paper.

Model No. 112.

**OBSERVATION TOWER.**

PARTS REQUIRED.

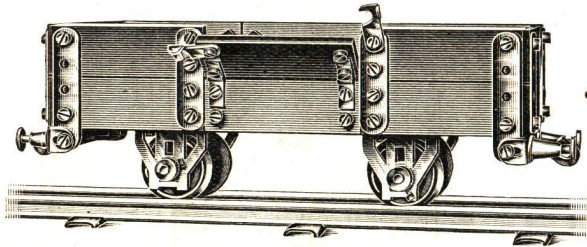
No. 25 Wood Slips, 3 x 1 in.	..	..	6
Nos. 50 & 51 Nuts and screws	..	..	49
No. 53 Angle bars, 6½ in.	..	..	2
No. 54 " " 8 in.	..	..	2
No. 57 Metal Strips, 2½ in...	..	..	5
No. 59 " " 3½ in...	..	..	8
No. 60 " " 4 in.	..	..	2
No. 63 " " 8 in.	..	..	2
No. 65 Architraves	..	..	2
No. 66 Brackets	..	..	8
No. 68 Metal plates, 3 x 3 in.	..	..	2
No. 74 Trunnions	..	..	2
No. 75 Flanged Wheels	..	..	4
No. 77 Axle rod, 3½ in.	..	..	1
No. 78 " " 2¼ in.	..	..	1
No. 82 Collars	..	..	4

A small box forms the Observation Car, which is drawn up and down by cord passing over the pulley wheel.

Primus Engineering.

MADE WITH No. 2 OUTFIT, or Nos. 1 and 1S.

Model No. 113.



COAL TRUCK WITH HINGED SIDES.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in. ..	16	No. 72 Straight hinges ..	4
Nos. 50 & 51 Nuts and screws ..	64	No. 74 Trunnions ..	4
No. 54 Angle bars, 8 in. ..	2	No. 75 Flanged wheels ..	4
No. 56 Metal strips, 2 in. ..	8	No. 77 Axles, 3½ in. ..	2
No. 57 " " 2½ in. ..	4	No. 82 Collars ..	4
No. 59 " " 3½ in. ..	2	No. 84 Washers ..	4
No. 60 " " 4 in. ..	2	No. 85 Buffers and nuts ..	4
No. 66 Brackets ..	12	No. 86 Coupling hooks ..	2
No. 68 Metal plates, 3 x 3 in. ..	3	No. 95 Catches ..	4

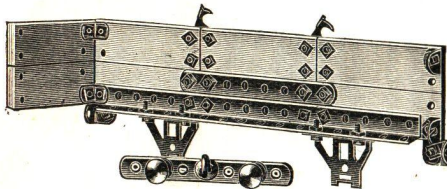


Diagram of inside, showing how the sides are fitted up.

This is a very handsome model and shows how the Buffer ends can be built up in a different manner from the other models.

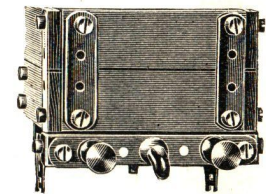
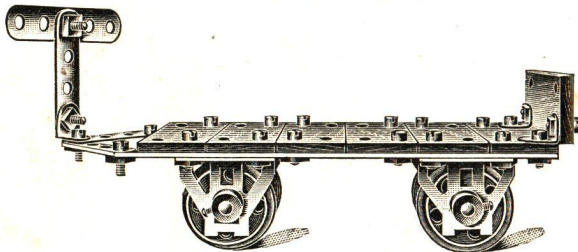


Diagram showing how the end is formed.

Model No. 114.

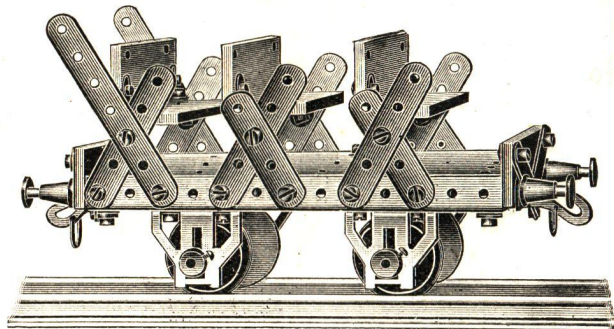


LUGGAGE TROLLEY.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in. ..	7
Nos. 50 & 51 Nuts and screws ..	19
No. 56 Metal strips, 2 in. ..	3
No. 57 " " 2½ in. ..	1
No. 62 " " 6½ in. ..	2
No. 66 Brackets ..	3
No. 74 Trunnions ..	4
No. 75 Flanged wheels ..	4
No. 77 Axles, 3½ in. ..	2
No. 82 Collars ..	4

Model No. 115.



TOURIST CAR FOR SCENIC RAILWAYS.

PARTS REQUIRED.

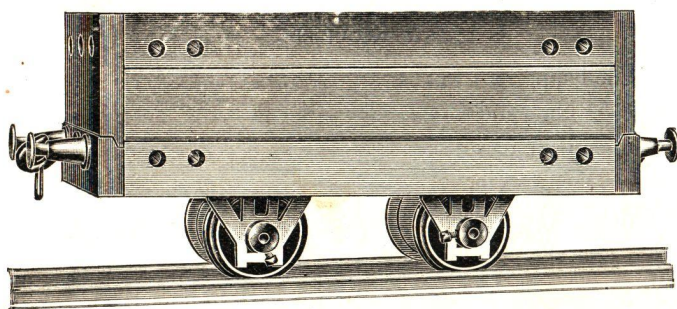
No. 25 Wood slips, 3 x 1 in. ..	8	No. 74 Trunnions ..	4
Nos. 50 & 51 Screws and nuts ..	50	No. 75 Flanged wheels ..	4
No. 56 Metal strips, 2 in. ..	8	No. 77 Axles, 3½ in. ..	2
No. 57 " " 2½ in. ..	6	No. 82 Collars ..	4
No. 59 " " 3½ in. ..	2	No. 84 Washers ..	12
No. 62 Angle bars, 6½ in. ..	2	No. 85 Buffers and nuts ..	4
No. 66 Brackets ..	16	No. 86 Coupling hooks ..	2
No. 68 Metal plates, 3 x 3 in. ..	3		

NOTE.—2 Washers are placed over each screw that secures brackets to angle bars.

Primus Engineering.

MADE WITH No. 2 OUTFIT or Nos. 1 and 1S.

Model No. 116.



HEAVY GOODS TRUCK.

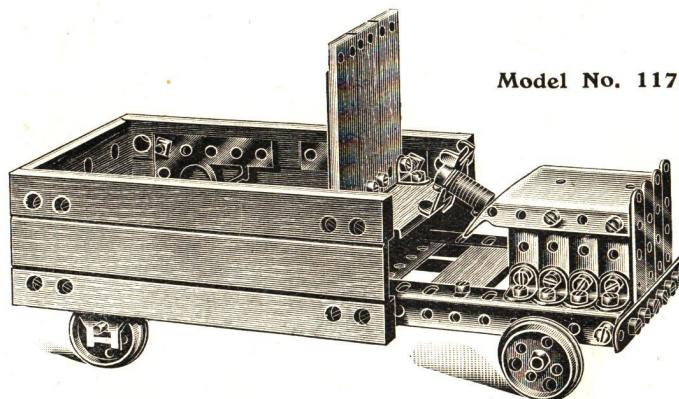
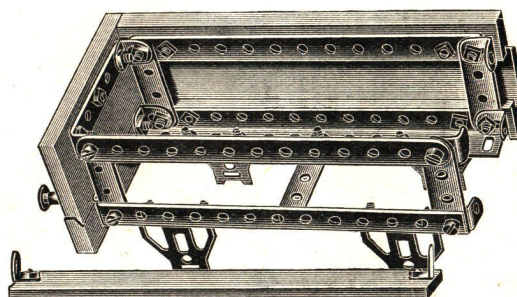
ALL WOOD, SIDES, ENDS AND BUFFER BLOCKS.

PARTS REQUIRED.

No. 1 Grooved side rails ..	4	No. 62 Metal strips, 6½ in... ..	2
No. 4 Buffer blocks	2	No. 66 Brackets	10
No. 9 Wood floor	1	No. 74 Trunnions	4
No. 17 Truck sides	2	No. 75 Flanged wheels	4
No. 18 Truck ends	2	No. 78 Axles, 2½ in.	2
Nos. 50 & 51 Nuts and screws	36	No. 82 Collars	4
No. 53 Angle bars, 6½ in. . .	2	No. 84 Washers	4
No. 56 Metal strips, 2 in. . .	4	No. 85 Buffers and nuts . . .	4
No. 57 " " 2½ in.	3	No. 86 Coupling hooks . . .	2

Inside showing how frame is built up. The wood floor has two brackets screwed on as shown; it is then placed inside with brackets downwards and secured, when the coupling hooks are pushed through.

Build up the whole metal frame first.



Model No. 117.

ARMY SERVICE TRANSPORT WAGGON.

PARTS REQUIRED.

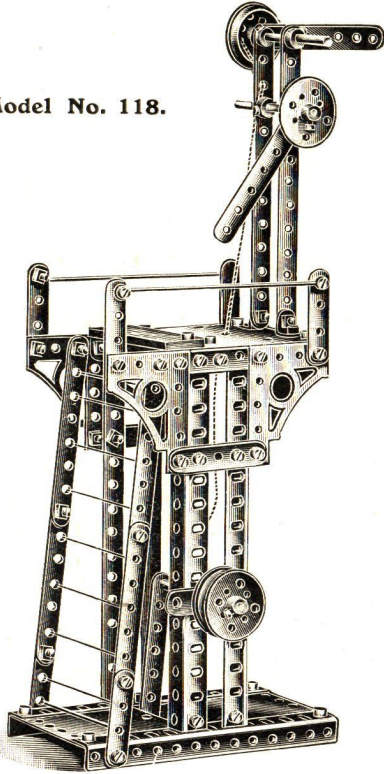
No. 1 Grooved side rails ..	4	No. 68 Metal plates	3
No. 17 Truck sides	2	No. 74 Trunnions	4
No. 18 " end	1	No. 75 Flanged wheels	4
No. 25 Wood slips, 3 x 1 in. .	7	No. 77 Axle rods, 3½ in. . . .	2
Nos. 50 & 51 Nuts and screws	56	No. 78 " " 2½ in.	1
No. 54 Angle bars, 8 in. . . .	2	No. 82 Collars.. . . .	4
No. 56 Metal strips, 2 in. . . .	8	No. 84 Washers	8
No. 57 " " 2½ in.	4	No. 95 Catches	4
No. 59 " " 3½ in.	2		
No. 60 " " 4 in.	2		
No. 65 Architraves	4		
No. 66 Brackets	16		

The Plate used for top of engine should be bent to fit. The steering wheel is made up of four catches, fixed with eight washers and two collars on a No. 78 axle rod. Four architraves are used to fix sides to angle bars.

Primus Engineering.

MADE WITH No. 2 OUTFIT, or Nos. 1 and 1S.

Model No. 118.



SIGNAL GANTRY.

PARTS REQUIRED.

No. 25 Wood slip, 3 x 1 in.	..	..	..	..	1
Nos. 50 & 51 Nuts and screws	..	..	..	..	55
No. 53 Angle bars, 6½ in. ..	..	..	..	..	2
No. 54 „ „ 8 in. ..	..	..	..	..	2
No. 56 Metal strips, 2 in.	..	..	..	..	8
No. 57 „ „ 2½ in.	..	..	..	..	5
No. 59 „ „ 3½ in.	..	..	..	..	5
No. 60 „ „ 4 in.	..	..	..	..	2
No. 62 „ „ 6½ in.	..	..	..	..	2
No. 63 „ „ 8 in.	..	..	..	..	2
No. 65 Architraves .	..	..	..	..	4
No. 66 Brackets ..	..	..	..	..	11
No. 68 Metal plates, 3 x 3 in.	..	..	..	..	3
No. 75 Flanged wheels	..	..	..	..	4
No. 77 Axle rod, 3½ in.	..	..	..	..	1
No. 78 „ „ 2¾ in.	..	..	..	..	2
No. 82 Collars	..	..	..	..	4
No. 96 Signal rods..	..	..	..	..	2

Cord is used to form the ladder, and for working the signals.

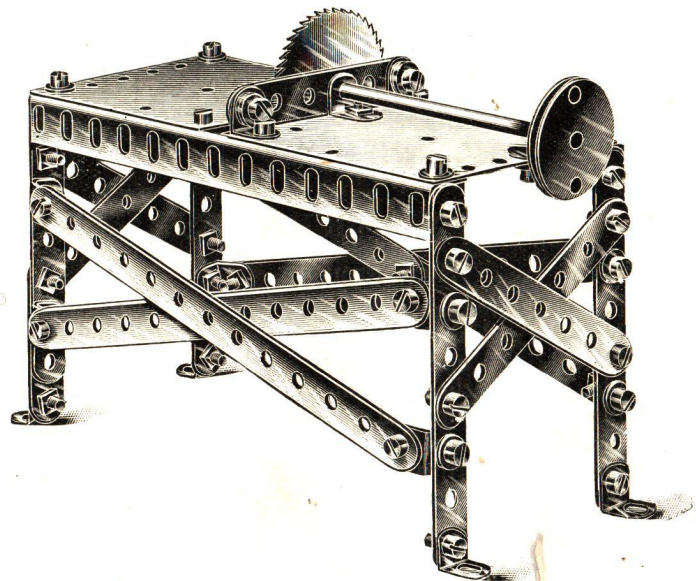
CIRCULAR SAW.

PARTS REQUIRED.

Nos. 50 & 51 Nuts and screws	..	..	47
No. 53 Angle bars, 6½ in.	..	..	2
No. 56 Metal strips, 2 in.	..	..	2
No. 58 „ „ 3 in.	..	..	1
No. 59 „ „ 3½ in.	..	..	10
No. 60 „ „ 4 in.	..	..	2
No. 62 „ „ 6½ in.	..	..	2
No. 66 Brackets	..	..	21
No. 68 Metal plates, 3 x 3 in.	..	..	2
No. 76 Pulley wheel	..	..	1
No. 77 Axle rods, 3½ in.	..	..	1
No. 82 Collars	..	..	1
No. 84 Washers	..	..	15

The saw is made by cutting a piece of cardboard to represent one.

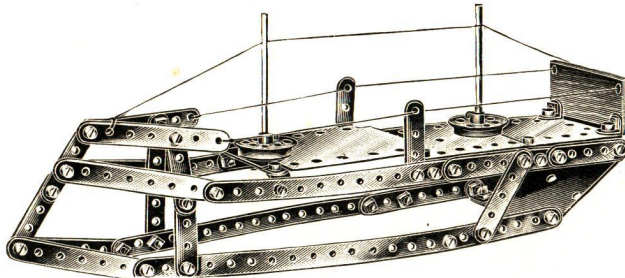
Model No. 119.



Primus Engineering.

MADE WITH No. 2 OUTFIT, or Nos. 1 and 1S.

Model No. 120.



Cord is used for the rails of the boat.

MOTOR BOAT.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in. ..	..	..	1
Nos. 50 & 51 Nuts and screws ..	..	..	52
No. 56 Metal strips, 2 in. ..	..	..	7
No. 57 " " 2½ in. ..	..	..	6
No. 59 " " 3½ in. ..	..	..	8
No. 60 " " 4 in. ..	..	..	2
No. 62 " " 6½ in. ..	..	..	2
No. 63 " " 8 in. ..	..	..	2
No. 66 Brackets ..	..	..	12
No. 68 Metal plates, 3 x 3 in. ..	..	..	3
No. 75 Flanged wheels ..	..	..	2
No. 77 Axle rods, 3½ in. ..	..	..	2
No. 82 Collars ..	..	..	2

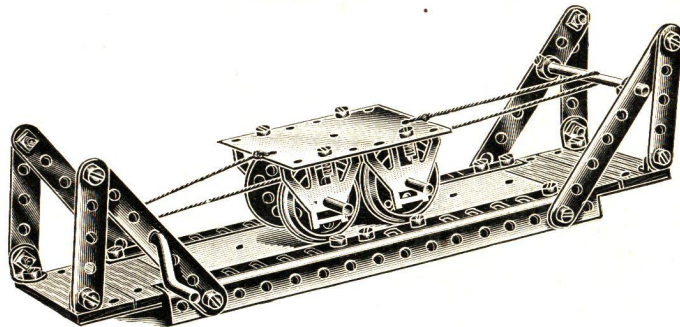
CABLE RAILWAY.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in. ..	..	..	5
Nos. 50 & 51 Nuts and screws ..	..	..	34
No. 54 Angle bars, 8 in. ..	..	..	2
No. 56 Metal strips, 2 in. ..	..	..	4
No. 57 " " 2½ in. ..	..	..	4
No. 59 " " 3½ in. ..	..	..	2
No. 60 " " 4 in. ..	..	..	2
No. 66 Brackets ..	..	..	4
No. 68 Metal plates, 3 x 3 in. ..	..	..	3
No. 74 Trunnions ..	..	..	4
No. 75 Flanged wheels ..	..	..	4
No. 77 Axle rods, 3½ in. ..	..	..	1
No. 78 " " 2½ in. ..	..	..	2

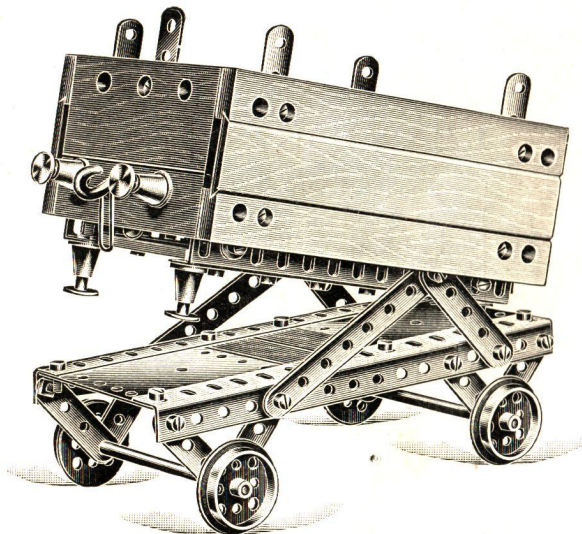
Extra part—No. 83 Winding handle, 2d. extra.

Model No. 121.



Cord is fixed to the handle axle for working model.

Model No. 122.



TIP WAGON.

PARTS REQUIRED.

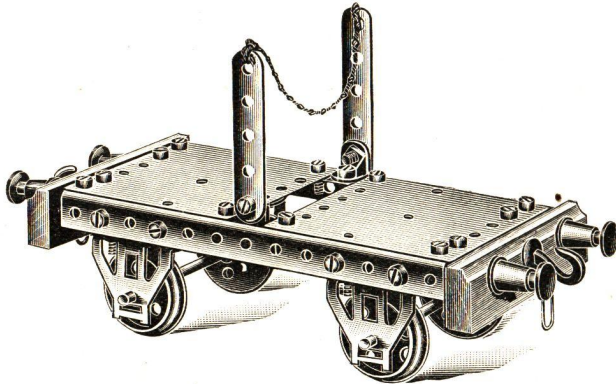
No. 1 Grooved side rails ..	..	..	..	4
No. 4 Buffer blocks ..	..	..	..	1
No. 17 Truck sides ..	..	..	..	2
No. 18 " ends ..	..	..	..	2
No. 25 Wood slips, 3 x 1 in. ..	..	..	..	9
Nos. 50 & 51 Nuts and screws ..	..	..	..	48
No. 53 Angle bars, 6½ in. ..	..	..	..	2
No. 54 " " 8 in. ..	..	..	..	2
No. 56 Metal strips, 2 in. ..	..	..	..	8
No. 57 " " 2½ in. ..	..	..	..	2
No. 59 " " 3½ in. ..	..	..	..	5
No. 60 " " 4 in. ..	..	..	..	2
No. 66 Brackets ..	..	..	..	2
No. 68 Metal plates, 3 x 3 in. ..	..	..	..	2
No. 75 Flanged wheels ..	..	..	..	4
No. 77 Axle rods, 3½ in. ..	..	..	..	2
No. 85 Buffers and nuts ..	..	..	..	4
No. 86 Coupling Hook ..	..	..	..	1

The base of truck is formed of two 3 x 3 metal plates and two wood slips 3 x 1.

Primus Engineering.

MADE WITH No. 2 OUTFIT, or Nos. 1 and 1s.

Model No. 123.



Twisted cord is used as illustrated.

TIMBER WAGON.

PARTS REQUIRED.

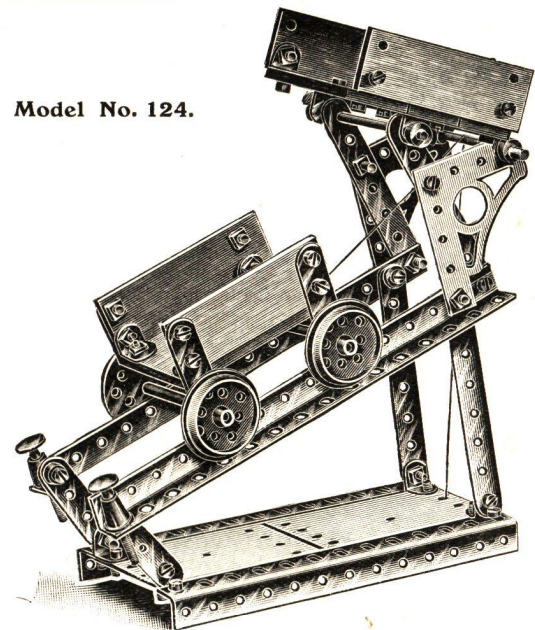
No. 4 Buffer blocks	..	..	..	2
Nos. 50 & 51 Nuts and screws	..	..	..	32
No. 53 Angle bars, 6½ in.	..	..	..	2
No. 56 Metal strips, 2 in.	..	..	..	2
No. 57 " " 2½ in.	..	..	..	2
No. 66 Brackets	..	..	..	12
No. 68 Metal plates, 3 x 3 in.	..	..	..	2
No. 74 Trunnions	..	..	..	4
No. 75 Flanged wheels	..	..	..	4
No. 77 Axle rods, 3½ in.	..	..	..	2
No. 85 Buffers and nuts	..	..	..	4
No. 86 Coupling Hooks	..	..	..	2

SAND SHOOT.

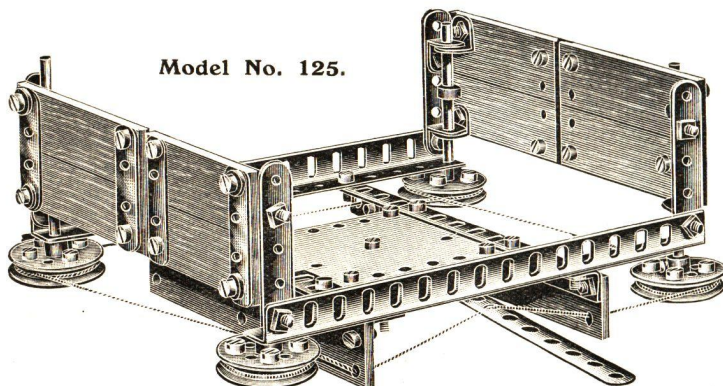
PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in.	..	..	..	10
Nos. 50 & 51 Nuts and screws	..	..	..	48
No. 53 Angle bars, 6½ in.	..	..	..	2
No. 54 " " 8 in.	..	..	..	2
No. 56 Metal strips, 2 in.	..	..	..	8
No. 57 " " 2½ in.	..	..	..	2
No. 59 " " 3½ in.	..	..	..	2
No. 60 " " 4 in.	..	..	..	2
No. 65 Architraves	..	..	..	2
No. 66 Brackets	..	..	..	16
No. 68 Metal plates, 3 x 3 in.	..	..	..	2
No. 75 Flanged Wheels	..	..	..	4
No. 77 Axle rods, 3½ in.	..	..	..	2
No. 78 " " 2½ in.	..	..	..	2
No. 82 Collars	..	..	..	4
No. 84 Washers	..	..	..	10
No. 85 Buffers and nuts	..	..	..	2

Use cord for lowering truck.



Model No. 124.



Model No. 125.

Cord should be used as shown for working this model, i.e., making the gates open and close.

LEVEL CROSSING.

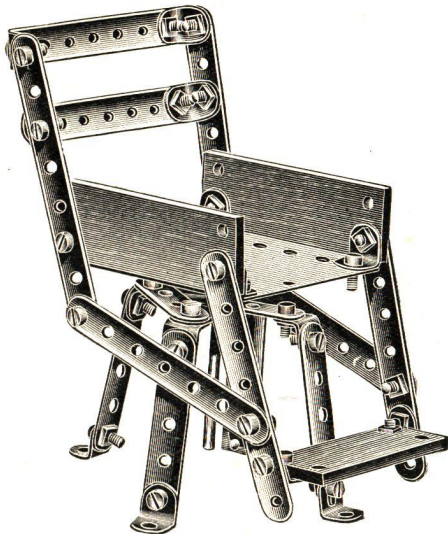
PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in.	..	..	..	12
Nos. 50 & 51 Nuts and screws	..	..	..	63
No. 53 Angle bars, 6½ in.	..	..	..	2
No. 54 " " 8 in.	..	..	..	2
No. 56 Metal strips, 2 in.	..	..	..	8
No. 57 " " 2½ in.	..	..	..	4
No. 60 " " 4 in.	..	..	..	2
No. 62 " " 6½ in.	..	..	..	1
No. 68 Metal plate, 3 x 3 in.	..	..	..	1
No. 75 Flanged wheels	..	..	..	4
No. 77 Axle rods, 3½ in.	..	..	..	2
No. 78 " " 2½ in.	..	..	..	2
No. 82 Collars	..	..	..	4

Primus Engineering.

MADE WITH No. 2 OUTFIT, or Nos. 1 and 1S.

Model No. 126.

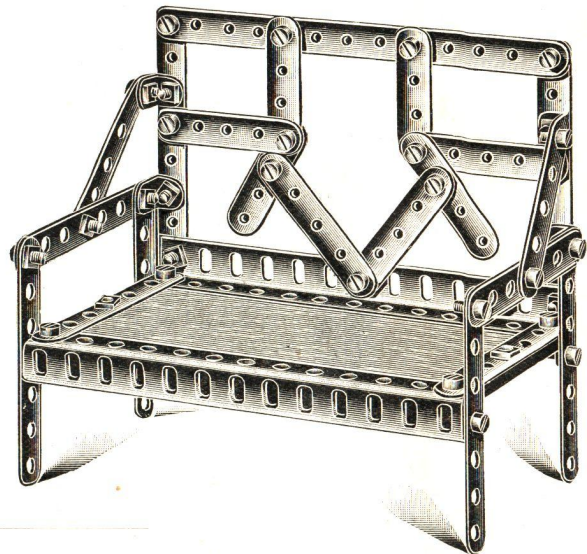


REVOLVING OFFICE CHAIR.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in.	..	..	..	..	..	3
Nos. 50 & 51 Nuts and screws	..	..	..	..	..	36
No. 56 Metal strips, 2 in.	..	..	..	..	..	1
No. 57 " " 2½ in.	..	..	..	..	..	6
No. 59 " " 3½ in.	..	..	..	..	..	6
No. 60 " " 4 in.	..	..	..	..	..	3
No. 75 Flanged wheels	..	..	..	..	..	1
No. 78 Axle rod, 2½ in.	..	..	..	..	..	1
No. 68 Metal plate, 3 x 3 in.	..	..	..	..	..	1
No. 66 Brackets	..	..	..	..	..	16
No. 82 Collars	..	..	..	..	..	2

Model No. 127.

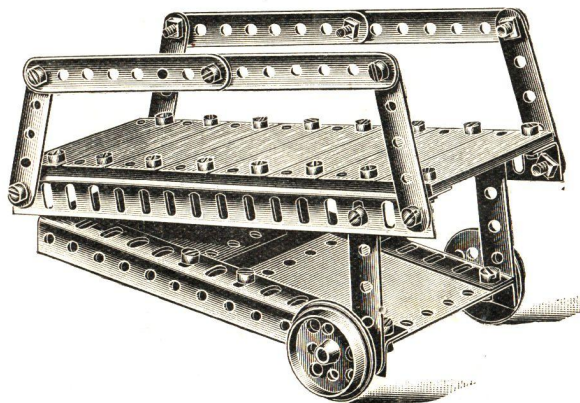


GARDEN SEAT.

PARTS REQUIRED.

No. 9 Floor	..	..	..	..	..	1
Nos. 50 & 51 Nuts and screws	..	..	..	..	..	35
No. 53 Angle bars, 6½ in.	..	..	..	..	..	2
No. 56 Metal strips, 2 in.	..	..	..	..	..	4
No. 57 " " 2½ in.	..	..	..	..	..	6
No. 59 " " 3½ in.	..	..	..	..	..	8
No. 60 " " 4 in.	..	..	..	..	..	2
No. 62 " " 6½ in.	..	..	..	..	..	1
No. 66 Brackets	..	..	..	..	..	8

Model No. 128.



LANDING GANGWAY.

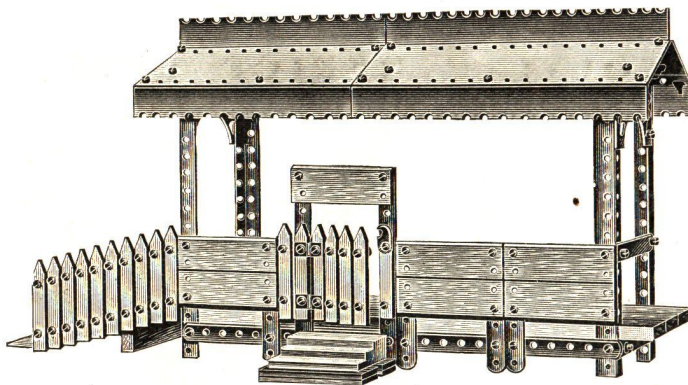
PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in.	..	..	..	..	8
Nos. 50 & 51 Nuts and screws	..	..	..	..	38
No. 53 Angle bars, 6½ in.	..	..	..	..	2
No. 54 " " 8 in.	..	..	..	..	2
No. 57 Metal strips, 2½ in.	..	..	..	..	6
No. 59 " " 3½ in.	..	..	..	..	2
No. 60 " " 4 in.	..	..	..	..	2
No. 68 Metal plates, 3 x 3 in.	..	..	..	..	2
No. 75 Flanged wheels	..	..	..	..	2
No. 77 Axle rods, 3½ in.	..	..	..	..	1

Primus Engineering.

MADE WITH No. 3 OUTFIT, or Nos. 2 and 2S.

Model No. 180.



SIDE STATION.

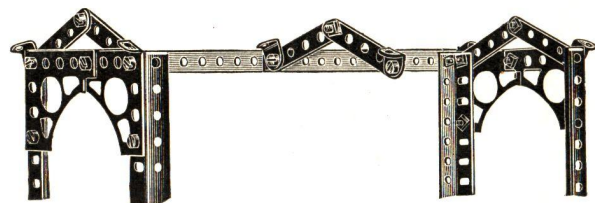
PARTS REQUIRED.

No. 11 Wood posts .. 16	No. 60 Metal strips, 4 in. 3
No. 21 Wood steps .. 1	No. 61 " " 5 1/2 in. 4
No. 22 Slope .. 1	No. 64 " " 12 1/2 in. 3
No. 23 Platform . 3 pieces	No. 66 Brackets . .. 7
No. 25 Wood slips, 3 x 1 in. .. 7	No. 67 Metal plates, 8 x 3 in. .. 4
Nos. 50 & 51 Nuts and screws .. 88	No. 69 Ridge tiles, 6 1/2 in. 1
No. 54 Angle bars, 8 in. 4	No. 70 Ridge tiles, 8 in. 1
No. 56 Metal strips, 2 in. 4	No. 71 Eaves, 8 in. .. 4
No. 57 " " 2 1/2 in. 6	No. 72 Straight hinges .. 2
No. 59 " " 3 1/2 in. 4	No. 95 Catch .. 1

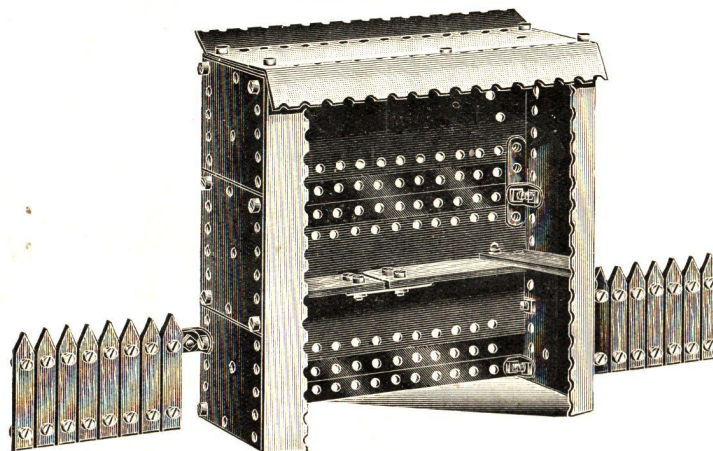
COMPOSITION OF ROOF FRAME.

Be particular and put in the Brackets as shown.

The whole Roof with Ridge Tiles and Eaves should be bolted up together before it is fitted on.



Model No. 181.



STATION SHELTER.

PARTS REQUIRED.

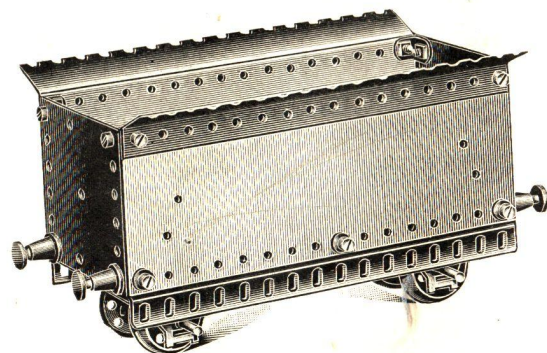
No. 11 Posts 16
No. 25 Wood slips, 3 x 1 in. .. 4
Nos. 50 & 51 Nuts and screws .. 7
No. 56 Metal strips, 2 in. .. 8
No. 59 " " 3 1/2 in. .. 1
No. 60 " " 4 in. .. 3
No. 63 " " 8 in. .. 4
No. 66 Brackets 16
No. 67 Metal plates, 8 x 3 in. .. 4
No. 68 " " 3 x 3 in. .. 3
No. 71 Eaves, 8 in. .. 4
No. 84 Washers 8
No. 87 Lamps 2

COAL TRUCK.

PARTS REQUIRED.

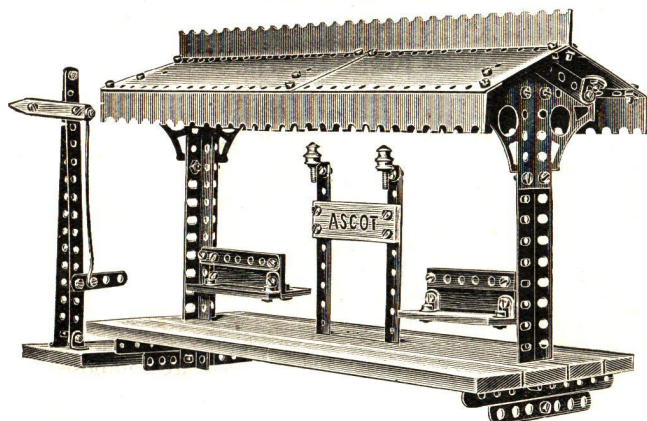
Nos. 50 & 51 Nuts and screws 28
No. 54 Angle bars, 8 in. 2
No. 66 Brackets 14
No. 67 Plates, 8 x 3 in. 3
No. 66 Metal Plates, 3 x 3 in. .. 2
No. 71 " Eaves, 8 in. 2
No. 74 Trunnions 4
No. 75 Flanged wheels 4
No. 77 Axle rods, 3 1/2 in. 2
No. 84 Washers 12
No. 85 Buffers and Nuts 4

Model No. 182.



MADE WITH No. 3 OUTFIT, or Nos. 2 and 2S.

Model No. 183.



ISLAND STATION.

With Seats and Nameboard.

PARTS REQUIRED.

No. 23 Platform	4 pieces	No. 64 Metal strips, 12½ in.	3
No. 25 Wood slips, 3 x 1 in.	7	No. 65 Architraves	4
Nos. 50 & 51 Nuts and screws	72	No. 66 Brackets	22
No. 54 Angle bars, 8 in.	4	No. 67 Metal plates, 8 x 3 in.	4
No. 57 Metal strips, 2½ in.	6	No. 69 Ridge tiles, 6½ in.	1
No. 60 " " 4 in.	4	No. 70 " " 8 in.	1
No. 61 " " 5½ in.	4	No. 71 Eaves, 8 in.	4
		No. 87 Lamps and nuts	2

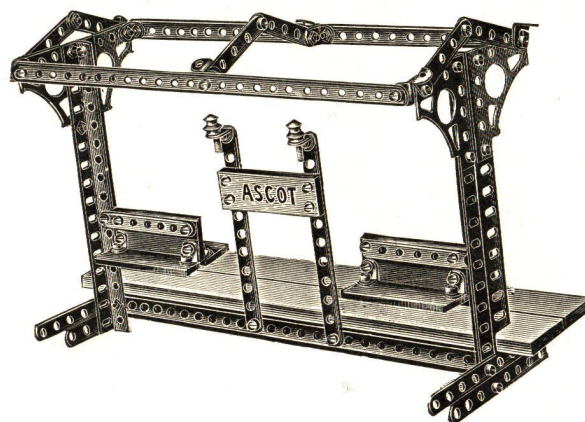


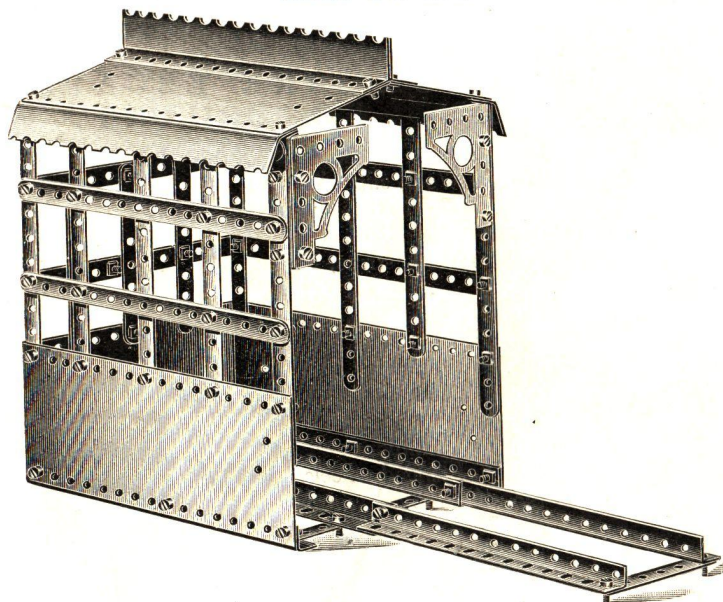
DIAGRAM OF FRAME FOR ROOF.

The 12½ in. strip below platform must be fitted between the angle bars.

The signal post is shown on page 20.

The name of station can be painted on a wood slip to suit locality.

Model No. 184.



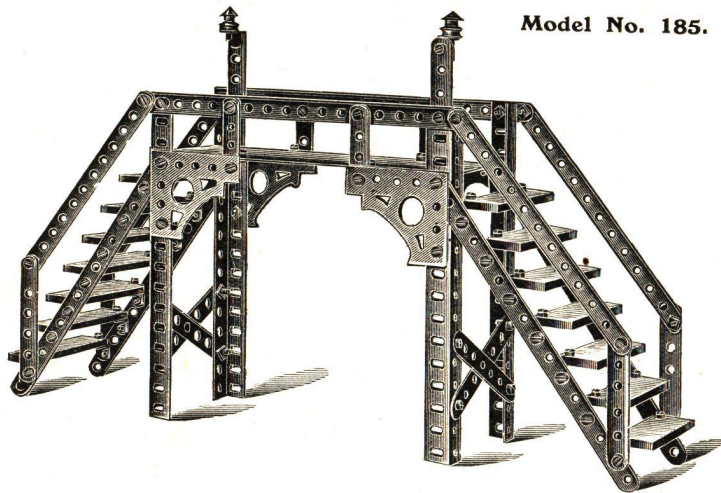
TRAIN SHED.

PARTS REQUIRED.

Nos. 50 & 51 Nuts and screws	90
No. 53 Angle bars, 6½ in.	2
No. 54 " " 8 in.	4
No. 56 Metal strips, 2 in.	5
No. 57 " " 2½ in.	2
No. 58 " " 3 in.	1
No. 59 " " 3½ in.	7
No. 60 " " 4 in.	2
No. 61 " " 5½ in.	4
No. 62 " " 6½ in.	4
No. 63 " " 8 in.	4
No. 65 Architraves	2
No. 66 Brackets	16
No. 67 Metal plates, 8 x 3 in.	4
No. 68 " " 3 x 3 in.	2
No. 70 Ridge tile, 8 in.	1
No. 71 Eaves, 8 in.	2

Primus Engineering.

MADE WITH No. 3 OUTFIT, or Nos. 2 and 2S.



Model No. 185.

HIGH LEVEL BRIDGE.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in. ..	14
Nos. 50 & 51 Nuts and screws ..	98
No. 54 Angle bars, 8 in. ..	4
No. 56 Metal strips, 2 in. ..	6
No. 58 " " 3 in. ..	4
No. 59 " " 3½ in. ..	4
No. 61 " " 5½ in. ..	4
No. 62 " " 6½ in. ..	4
No. 63 " " 8 in. ..	4
No. 65 Architraves ..	4
No. 66 Brackets ..	38
No. 67 Metal plates, 8 x 3 in. ..	1
No. 87 Lamps and nuts ..	2

The side rails of bridge are composed of two 5½ in. strips, bolted together.

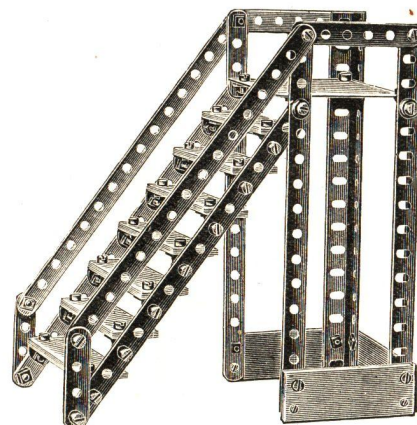
STAIRCASE WITH LANDING.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in. ..	11
Nos. 50/51 Nuts and screws ..	50
No. 54 Angle bars, 8 in. ..	2
No. 56 Metal strips, 2 in. ..	2
No. 58 " " 3 in. ..	2
No. 63 " " 8 in. ..	6
No. 66 Brackets ..	18
No. 68 Metal plate, 3 x 3 in. ..	1

In this staircase the brackets are fitted in the front holes of the No. 25 wood slips.

Washers are put over the 4 screws that bolt the metal plate in to keep it square.

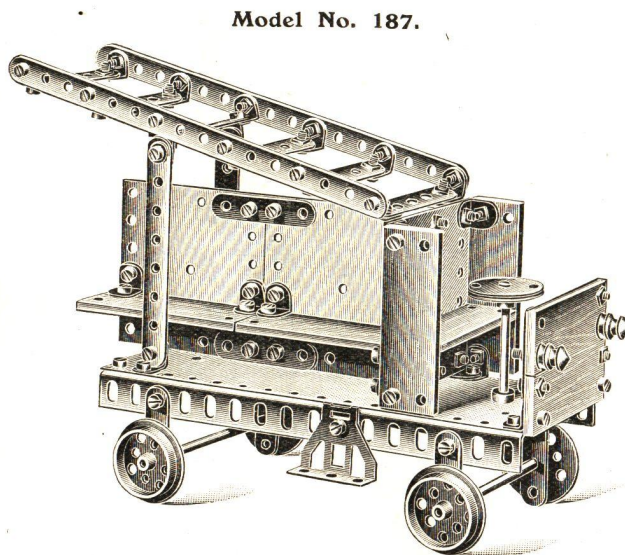


Model No. 186.

MOTOR FIRE ESCAPE AND HOSE CART.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in. ..	9
Nos. 50 & 51 Nuts and screws ..	74
No. 54 Angle bars, 8 in. ..	2
No. 56 Metal strips, 2 in. ..	8
No. 57 " " 2½ in. ..	6
No. 60 " " 4 in. ..	2
No. 63 " " 8 in. ..	2
No. 66 Brackets ..	34
No. 67 Metal plates, 8 x 3 in. ..	1
No. 68 " " 3 x 3 in. ..	3
No. 74 Trunnions ..	2
No. 75 Flanged wheels ..	4
No. 76 Grooved wheels ..	1
No. 77 Axle rods, 3½ in. ..	2
No. 78 " " 2½ in. ..	1
No. 82 Collars ..	2
No. 84 Washers ..	10
No. 87 Lamps and nuts ..	2

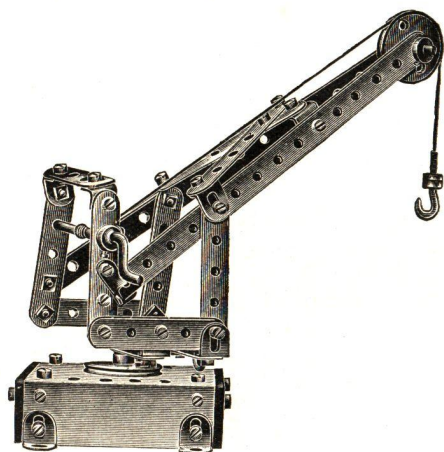


Model No. 187.

Primus Engineering.

MADE WITH No. 3 OUTFIT, or Nos. 2 and 2S.

Model No. 188.



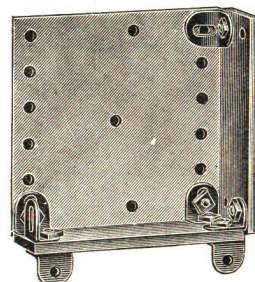
CRANE.

PARTS REQUIRED.

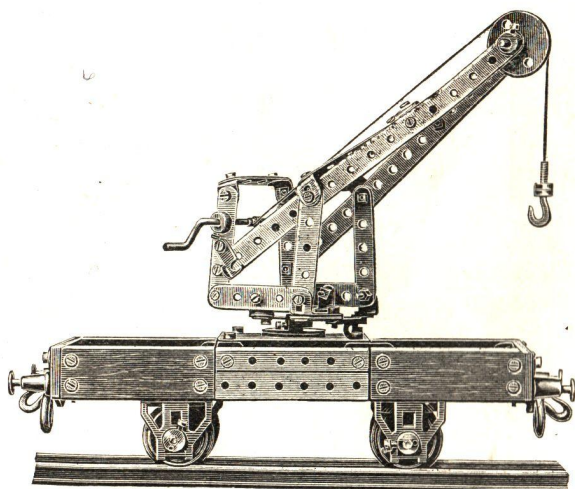
No. 25 Wood slips, 3 x 1 in.	..	..	..	..	..	4
Nos. 50 & 51 Nuts and screws	..	..	..	..	..	63
No. 56 Metal strips, 2 in.	..	..	..	..	..	1
No. 57 " " 2½ in.	..	..	..	..	..	8
No. 58 " " 3 in.	..	..	..	..	..	2
No. 63 " " 8 in.	..	..	..	..	..	2
No. 66 Brackets	..	..	..	..	..	23
No. 68 Metal plate, 3 x 3 in.	..	..	..	..	..	1
No. 76 Pulley wheels	..	..	..	..	..	2
No. 79 Axle, 1½ in.	..	..	..	..	..	1
No. 82 Collars	..	..	..	..	..	4
No. 83 Handle axle	..	..	..	..	..	1
No. 84 Washers	..	..	..	..	..	4
No. 86 Coupling hook	..	..	..	..	..	1
No. 92 Knob screw and nuts	..	..	..	..	..	1
No. 95 Catch	..	..	..	..	..	1

The frame of the Crane is fitted to the stand by means of knob screw passed through the centre of metal base and supported by a pulley wheel, flat side down. A bracket is fitted in centre of lower strip in front to support the weight. (This is clearly shown in the crane below). The 8 in. strips should be slightly bent to allow the pulley wheel and axle to run free. Use cord for the crane.

This illustration shows the way the inside of the stand and base is built up; there are two brackets in each corner and brackets on both sides to enable it to be screwed down with wood screws to a plank of wood.



Model No. 189.



CRANE TRUCK.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in.	.. 6	No. 76 Pulley wheels	.. .. 2
Nos. 50 & 51 Nuts and screws	.. 63	No. 77 Axles, 3½ in.	.. .. 2
No. 54 Angle bars, 8 in.	.. 2	No. 79 " 1½ in.	.. .. 1
No. 56 Metal strips, 2 in.	.. 5	No. 82 Collars	.. .. 8
No. 57 " " 2½ in.	.. 8	No. 83 Handle axle	.. .. 1
No. 60 " " 4 in.	.. 2	No. 84 Washers	.. .. 12
No. 63 " " 8 in.	.. 2	No. 85 Buffers and nuts	.. .. 4
No. 66 Brackets	.. .. 19	No. 86 Coupling hooks	.. .. 2
No. 68 Metal plates, 3 x 3 in.	.. 3	No. 92 Knob screw and nuts	.. .. 1
No. 74 Trunnions	.. .. 4	No. 95 Catch	.. .. 1
No. 75 Flanged wheels	.. .. 4		

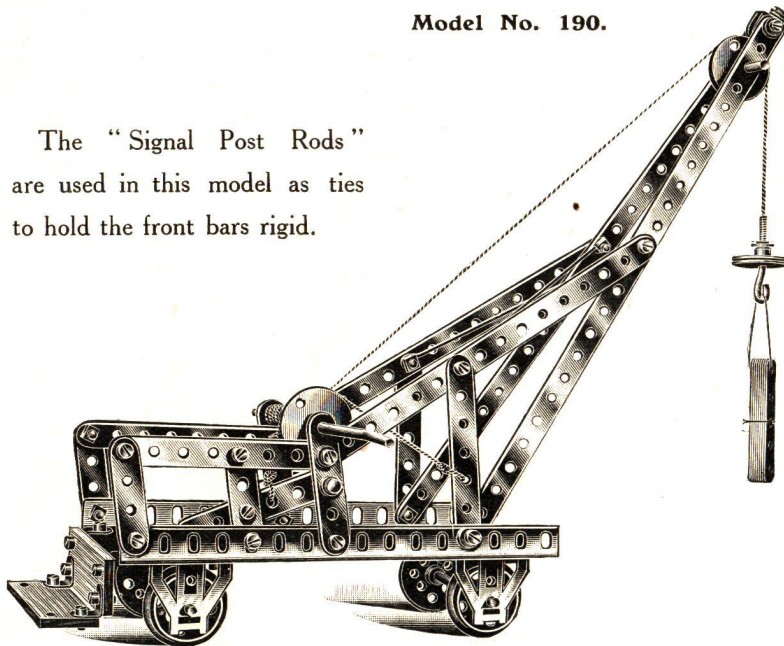
The Crane is made up as in the previous model. The truck is the same as the ballast truck on page 19, except the centre part—which does not have the two wood slips—and the base plate for crane to swivel on is fixed on by four brackets. Use cord for the crane.

Primus Engineering.

MADE WITH No. 3 OUTFIT, or Nos. 2 and 2S.

Model No. 190.

The "Signal Post Rods" are used in this model as ties to hold the front bars rigid.



Cord should be used for the purpose of lifting.

CRANE ON WHEELS.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in.	..	2
Nos. 50 & 51 Nuts and screws	..	36
No. 54 Angle bars, 8 in.	..	2
No. 56 Metal strips, 2 in.	..	3
No. 57 " " 2½ in.	..	2
No. 58 " " 3 in.	..	1
No. 59 " " 3½ in.	..	2
No. 60 " " 4 in.	..	2
No. 63 " " 8 in.	..	2
No. 64 " " 12½ in.	..	2
No. 66 Brackets	..	7
No. 67 Metal plate, 8 x 3 in.	..	1
No. 74 Trunnions	..	4
No. 75 Flanged wheels	..	4
No. 76 Grooved wheels	..	3
No. 77 Axle rods, 3½ in.	..	2
No. 78 " " 1½ in.	..	1
No. 82 Collar	..	1
No. 83 Handle axle	..	1
No. 84 Washers	..	11
No. 85 Coupling hooks	..	1
No. 92 Knob screws and nuts	..	1
No. 96 Signal post rods	..	2

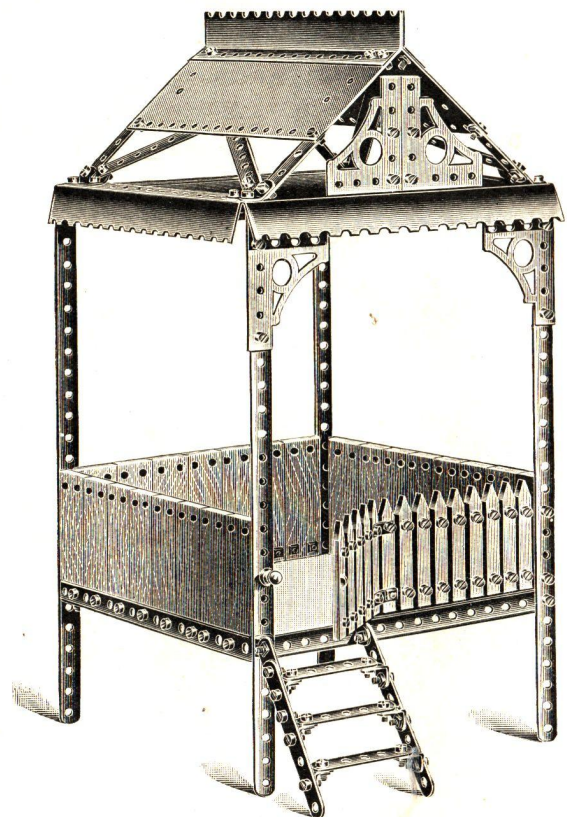
BAND STAND.

PARTS REQUIRED.

No. 11 Posts	..	..	..	..	14
No. 25 Wood slips, 3 x 1 in.	..	..	..	..	23
Nos. 50 & 51 Nuts and screws	..	..	..	..	116
No. 54 Angle bars, 8 in.	..	..	..	..	4
No. 56 Metal strips, 2 in.	..	..	..	..	6
No. 57 " " 2½ in.	..	..	..	..	6
No. 59 " " 3½ in.	..	..	..	..	1
No. 60 " " 4 in.	..	..	..	..	3
No. 61 " " 5½ in.	..	..	..	..	1
No. 63 " " 8 in.	..	..	..	..	5
No. 64 " " 12½ in.	..	..	..	..	3
No. 65 Architraves	..	..	..	..	4
No. 66 Brackets	..	..	..	..	27
No. 67 Metal plates, 8 x 3 in.	..	..	..	..	4
No. 68 " " 3 x 3 in.	..	..	..	..	3
No. 70 Ridge tiles, 8 in.	..	..	..	..	1
No. 71 Eaves, 8 in.	..	..	..	..	4
No. 72 Straight hinges	..	..	..	..	2
No. 92 Knob screw and nuts	..	..	..	..	1
No. 95 Catch	..	..	..	..	1

The floor is made by using two 8 x 3 in. metal plates and three 3 x 3 in. metal plates bolted together, using the 3 x 3 in. plates between the larger ones.

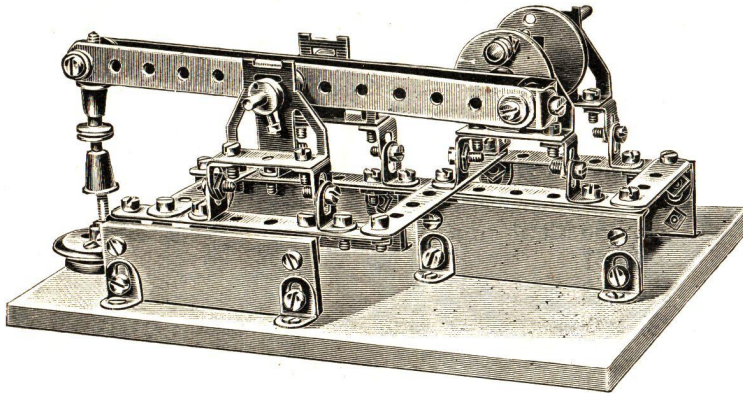
Model No. 191.



Primus Engineering.

MADE WITH No. 3 OUTFIT, or Nos. 2 and 2S.

Model No. 192.



HAMMER WORKED BY CAM ACTION.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in. ..	4	No. 75 Flanged wheel..	1
Nos. 50 & 51 Nuts and screws..	54	No. 76 Pulley wheels ..	2
No. 56 Metal strips, 2 in.	1	No. 78 Axle, 2 1/4 in. ..	1
No. 57 " " 2 1/2 in.	1	No. 82 Collars ..	6
No. 58 " " 3 in.	1	No. 83 Handle axle ..	1
No. 60 " " 4 in.	2	No. 84 Washers ..	10
No. 62 " " 6 1/2 in.	3	No. 85 Buffers and nuts.	2
No. 66 Brackets ..	28	No. 92 Knob screw and nuts ..	1
No. 74 Trunnions ..	4	No. 97 Wood screws ..	6

The knob screw for the eccentric action should be double nuted into the wheel.

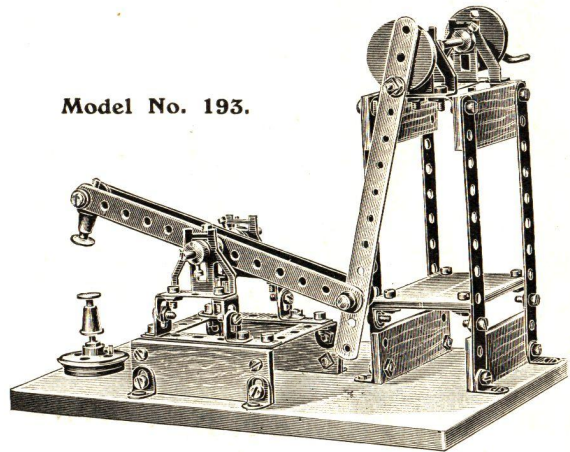
STAMP HAMMER WORKED BY CRANK.

PARTS REQUIRED.

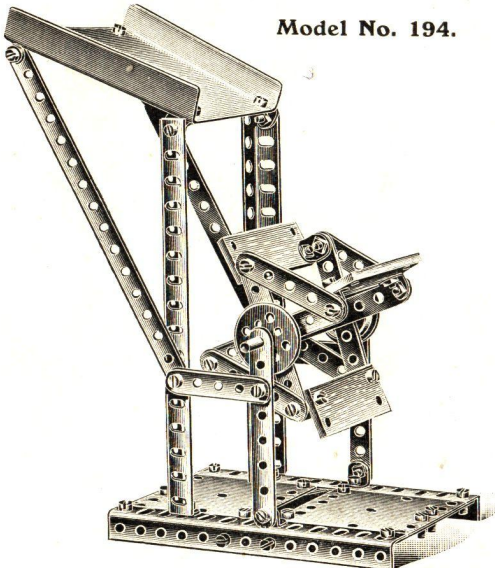
No. 25 Wood slips, 3 x 1 in. ..	8	No. 75 Flanged wheel ..	1
Nos. 50 & 51 Nuts and screws..	54	No. 76 Pulley wheels ..	2
No. 56 Metal strips, 2 in.	2	No. 78 Axle, 2 1/4 in. ..	1
No. 57 " " 2 1/2 in.	2	No. 82 Collars ..	6
No. 58 " " 3 in.	2	No. 83 Handle axle ..	1
No. 61 " " 5 1/2 in.	4	No. 84 Washers ..	10
No. 62 " " 6 1/2 in.	3	No. 85 Buffers and nuts.	2
No. 66 Brackets ..	30	No. 92 Knob screws and nuts ..	2
No. 74 Trunnions ..	4	No. 97 Wood screws ..	8

FITTING CRANK ARM.—A knob screw should be bolted through the pulley wheel, then a washer put on, then the crank arm and another washer, and lastly double nuted. It should be fitted to the beam in a similar manner. The table below shafting is supported on 2-inch strips, which cannot be seen in the illustration.

Model No. 193.



Model No. 194.



WATER WHEEL.

PARTS REQUIRED.

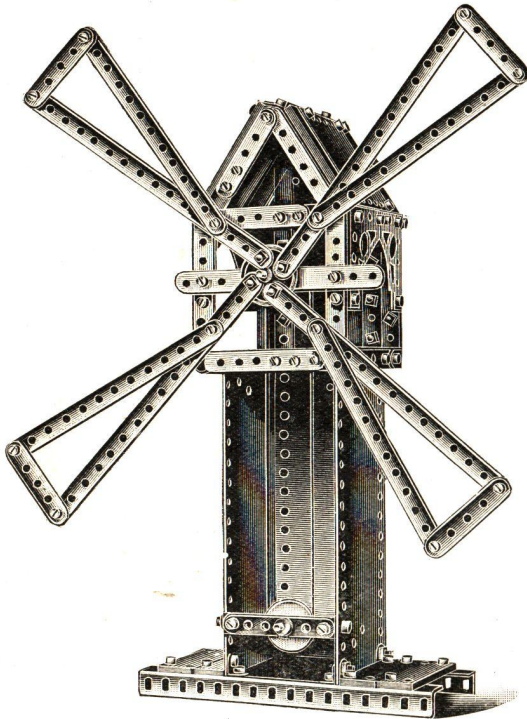
No. 25 Wood slips, 3 x 1 in. ..	..	..	..	4
Nos. 50 & 51 Nuts and screws ..	..	..	..	52
No. 53 Angle bars, 6 1/2 in. ..	..	..	..	2
No. 54 " " 8 in. ..	..	..	..	2
No. 57 Metal strips, 2 1/2 in. ..	..	..	..	6
No. 56 " " 2 in. ..	..	..	..	4
No. 59 " " 3 1/2 in. ..	..	..	..	4
No. 60 " " 4 in. ..	..	..	..	2
No. 63 " " 8 in. ..	..	..	..	2
No. 66 Brackets ..	..	..	..	16
No. 68 Metal plates, 3 x 3 in. ..	..	..	..	2
No. 74 Trunnions ..	..	..	..	4
No. 75 Flanged wheels ..	..	..	..	2
No. 78 Axle rods, 2 1/4 in. ..	..	..	..	2
No. 82 Collars ..	..	..	..	2
No. 84 Washers ..	..	..	..	4

The shoot is made in cardboard.

Primus Engineering.

MADE WITH No. 3 OUTFIT, or Nos. 2 and 2S.

Model No. 195.



WINDMILL.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in.	..	..	..	..	11
Nos. 50 & 51 Nuts and screws	..	..	..	..	116
No. 54 Angle bars, 8 in.	..	..	..	..	2
No. 56 Metal strips, 2 in.	..	..	..	..	8
No. 57 " " 2½ in.	..	..	..	..	8
No. 58 " " 3 in.	..	..	..	..	4
No. 59 " " 3½ in.	..	..	..	..	8
No. 60 " " 4 in.	..	..	..	..	3
No. 61 " " 5½ in.	..	..	..	..	4
No. 62 " " 6½ in.	..	..	..	..	4
No. 63 " " 8 in.	..	..	..	..	4
No. 65 Architraves	..	..	..	..	4
No. 66 Brackets	..	..	..	..	30
No. 67 Metal plates, 8 x 3 in.	..	..	..	..	3
No. 68 " " 3 x 3 in.	..	..	..	..	3
No. 75 Flanged wheels	..	..	..	..	1
No. 76 Grooved wheels	..	..	..	..	2
No. 77 Axle rod, 3½ in.	..	..	..	..	1
No. 82 Collars	..	..	..	..	4
No. 83 Handle axle	..	..	..	..	1
No. 84 Washers	..	..	..	..	2

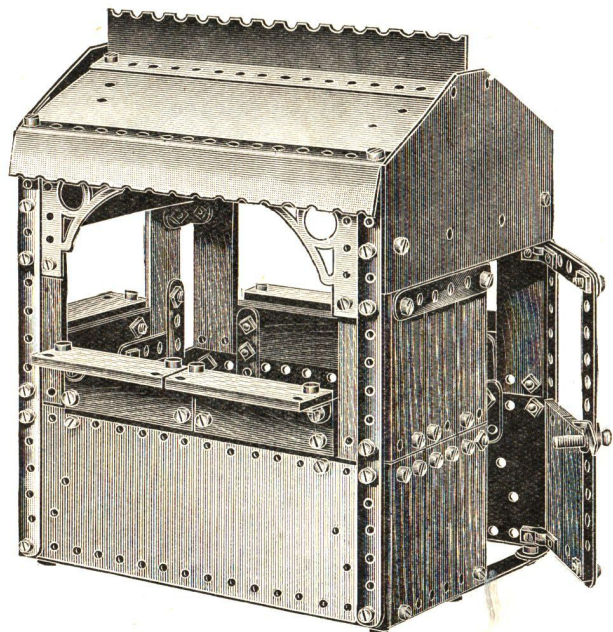
REFRESHMENT KIOSK.

PARTS REQUIRED.

No. 9 Floor	..	..	..	..	1
No. 25 Wood Slips, 3 x 1 in.	..	..	..	..	24
Nos. 50 & 51 Nuts and screws	..	..	..	..	112
No. 56 Metal strips, 2 in.	..	..	..	..	8
No. 57 " " 2½ in.	..	..	..	..	8
No. 58 " " 3 in.	..	..	..	..	3
No. 59 " " 3½ in.	..	..	..	..	2
No. 60 " " 4 in.	..	..	..	..	2
No. 61 " " 5½ in.	..	..	..	..	2
No. 63 " " 8 in.	..	..	..	..	4
No. 65 Architraves	..	..	..	..	4
No. 66 Brackets	..	..	..	..	32
No. 67 Metal plates, 8 x 3 in.	..	..	..	..	4
No. 68 " " 3 x 3 in.	..	..	..	..	2
No. 70 Ridge tiles, 8 in.	..	..	..	..	1
No. 71 Eaves, 8 in.	..	..	..	..	2
No. 72 Straight Hinges	..	..	..	..	2
No. 92 Knob screws and nuts	..	..	..	..	1
No. 95 Catch	..	..	..	..	1

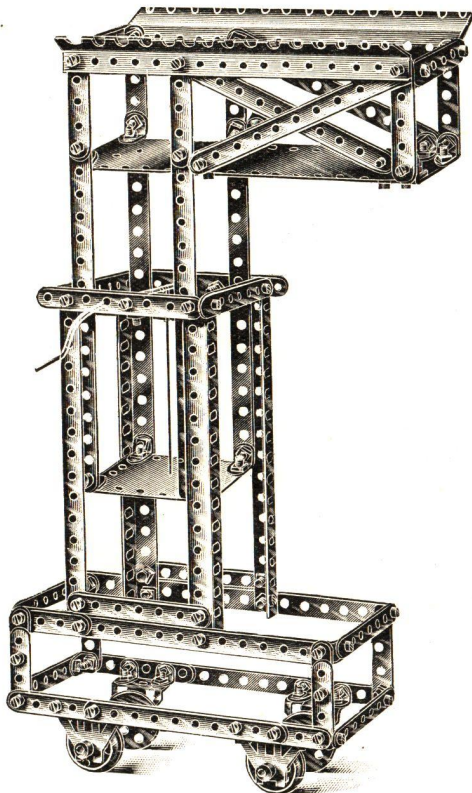
The ends are fitted in with cardboard cut to shape.

Model No. 196.



MADE WITH No. 3 OUTFIT, or Nos. 2 and 2S.

Model No. 197.



TOWER WAGGON.

PARTS REQUIRED.

Nos. 50 & 51 Nuts and screws	..	..	..	86
No. 54 Angle bars, 8 in.	..	..	..	4
No. 56 Metal strips, 2 in.	..	..	..	6
No. 57 " " 2½ in.	..	..	..	8
No. 58 " " 3 in.	..	..	..	3
No. 59 " " 3½ in.	..	..	..	5
No. 60 " " 4 in.	..	..	..	3
No. 61 " " 5½ in.	..	..	..	4
No. 62 " " 6½ in.	..	..	..	2
No. 63 " " 8 in.	..	..	..	6
No. 66 Brackets	..	..	..	36
No. 67 Metal plates, 8 x 3 in.	..	..	..	1
No. 68 " " 3 x 3 in.	..	..	..	1
No. 71 Eaves, 8 in.	..	..	..	2
No. 74 Trunnions	..	..	..	4
No. 75 Flanged wheels	..	..	..	4
No. 77 Axle rods, 3½ in.	..	..	..	2
No. 82 Collars	..	..	..	5
No. 83 Handle axle	..	..	..	1
No. 84 Washers	..	..	..	8

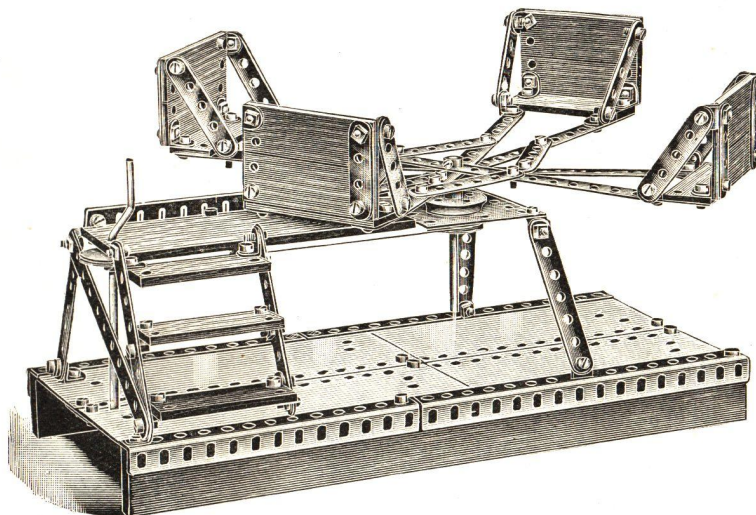
Cord fastened to handle axle and bottom plate of rising platform, allows the model to work perfectly.

ROUNDAABOUT.

PARTS REQUIRED.

No. 9 Floor	..	..	1
No. 23 Platform centre..	..	..	2
No. 25 Wood slips, 3 x 1 in.	..	..	15
Nos. 50 & 51 Nuts and screws	..	..	95
No. 53 Angle bars, 6½ in.	..	..	2
No. 54 " " 8 in.	..	..	3
No. 56 Metal strips, 2 in.	..	..	8
No. 57 " " 2½ in.	..	..	8
No. 58 " " 3 in.	..	..	4
No. 59 " " 3½ in.	..	..	4
No. 60 " " 4 in.	..	..	2
No. 61 " " 5½ in.	..	..	3
No. 63 " " 8 in.	..	..	1
No. 64 " " 12 in.	..	..	3
No. 66 Brackets	..	..	38
No. 67 Metal plates, 8 x 3 in.	..	..	4
No. 68 " " 3 x 3 in.	..	..	1
No. 75 Flanged wheels	..	..	1
No. 76 Grooved wheels..	..	..	3
No. 77 Axle rod, 3½ in.	..	..	1
No. 82 Collars	..	..	1
No. 84 Washers	..	..	2
No. 83 Handle axle	..	..	1
No. 97 Wood screws	..	..	6

Model No. 198.

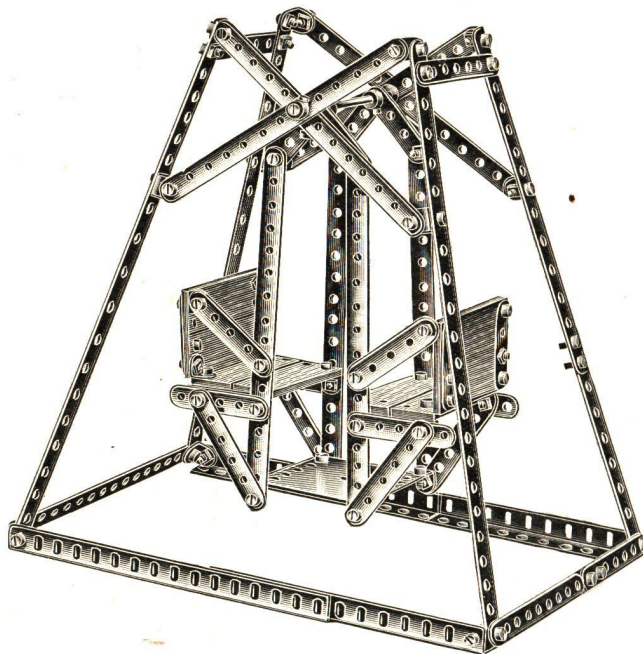


This model can be worked by using cord on the pulley wheels.

Primus Engineering.

MADE WITH No. 3 OUTFIT, or Nos. 2 and 2S.

Model No. 199.



SWING.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in. ..	..	..	8
Nos. 50 & 51 Nuts and screws ..	..	..	85
No. 53 Angle bars, 6½ in. ..	..	..	2
No. 54 „ „ 8 in. ..	..	..	2
No. 56 Metal strips, 2 in. ..	..	..	8
No. 57 „ „ 2½ in. ..	..	..	6
No. 58 „ „ 3 in. ..	..	..	4
No. 59 „ „ 3½ in. ..	..	..	3
No. 61 „ „ 5½ in. ..	..	..	2
No. 62 „ „ 6½ in. ..	..	..	4
No. 63 „ „ 8 in. ..	..	..	6
No. 64 „ „ 12½ in. ..	..	..	3
No. 66 Brackets ..	..	..	34
No. 68 Metal plate, 3 x 3 in. ..	..	..	1
No. 77 Axle rods, 3½ in. ..	..	..	1
No. 82 Collars ..	..	..	6

BALCONY.

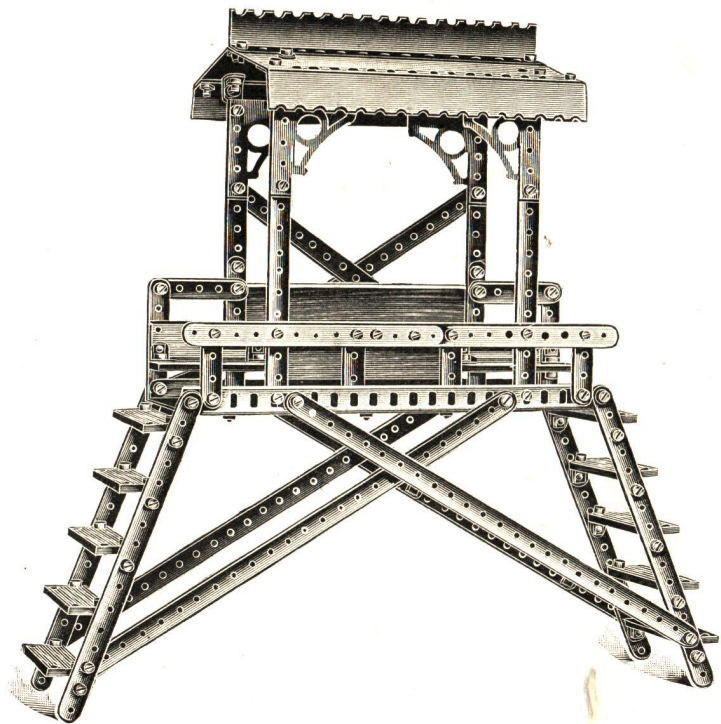
PARTS REQUIRED.

No. 9 Floor ..	..	..	1
No. 25 Wood slips, 3 x 1 in. ..	..	..	14
Nos. 50 & 51 Nuts and screws ..	..	..	114
No. 53 Angle bars, 6½ in. ..	..	..	2
No. 54 „ „ 8 in. ..	..	..	2
No. 56 Metal strips, 2 in. ..	..	..	4
No. 57 „ „ 2½ in. ..	..	..	3
No. 58 „ „ 3 in. ..	..	..	2
No. 59 „ „ 3½ in. ..	..	..	3
No. 60 „ „ 4 in. ..	..	..	1
No. 61 „ „ 5½ in. ..	..	..	4
No. 62 „ „ 6½ in. ..	..	..	4
No. 63 „ „ 8 in. ..	..	..	6
No. 64 „ „ 12 in. ..	..	..	3
No. 65 Architraves ..	..	..	4
No. 66 Brackets ..	..	..	28
No. 67 Metal plates, 8 x 3 in. ..	..	..	4
No. 70 Ridge tiles, 8 in. ..	..	..	1
No. 71 Eaves, 8 in. ..	..	..	2
No. 84 Washers ..	..	..	8

Form the floor of the balcony by bolting two 8 x 3 metal plates.

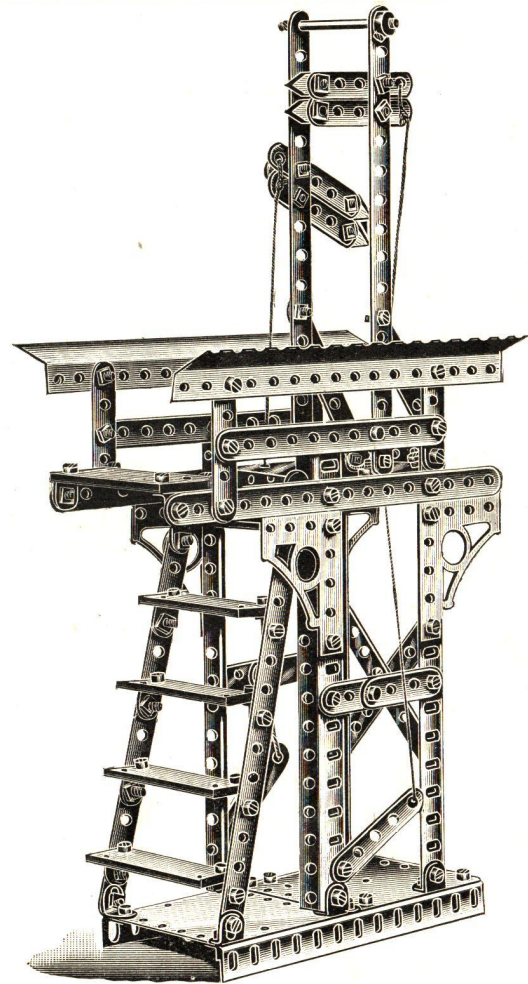
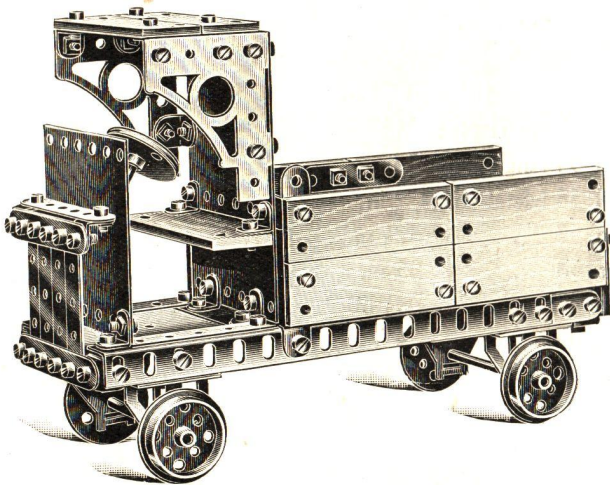
The back is made from No. 9 floor, which is held in position by the two cross supports.

Model No. 200.



Primus Engineering.**MADE WITH No. 3 OUTFIT, or Nos. 2 and 2S.****Model No. 201.****SIGNAL GANTRY
WITH DOUBLE ARMS.****PARTS REQUIRED.**

No. 11 Posts	4
No. 25 Wood slips, 3 x 1 in.	6
Nos. 50 & 51 Nuts and screws	93
No. 53 Angle bars, 6½ in.	2
No. 54 „ „ 8 in.	2
No. 56 Metal strips, 2 in.	6
No. 57 „ „ 2½ in.	8
No. 58 „ „ 3 in.	4
No. 59 „ „ 3½ in.	1
No. 60 „ „ 4 in.	2
No. 61 „ „ 5½ in.	2
No. 63 „ „ 8 in.	6
No. 65 Architraves	4
No. 66 Brackets	28
No. 68 Metal plates, 3 x 3 in.	3
No. 71 Eaves 8 in.	2
No. 77 Axle rod, 3½ in.	1
No. 82 Collars	2
No. 87 Lamps and nuts	2

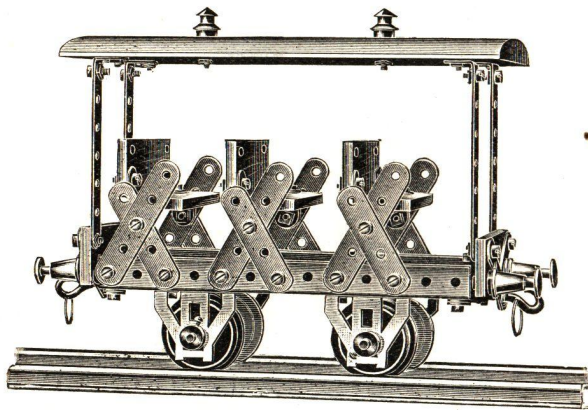
**Model No. 202.****MOTOR TRANSPORT WAGON.****PARTS REQUIRED.**

No. 25 Wood slips, 3 x 1 in.	14
Nos. 50 & 51 Nuts and screws	72
No. 54 Angle bars, 8 in.	2
No. 56 Metal strips, 2 in.	8
No. 57 „ „ 2½ in.	4
No. 58 „ „ 3 in.	4
No. 59 „ „ 3½ in.	2
No. 65 Architraves	2
No. 66 Brackets	24
No. 67 Metal plates, 8 x 3 in.	1
No. 68 „ „ 3 x 3 in.	3
No. 72 Straight hinges	2
No. 74 Trunnions	4
No. 75 Flanged wheels	4
No. 76 Pulley wheel	1
No. 77 Axles, 3½ in.	2
No. 78 „ „ 2½ in.	1
No. 82 Collars	2

Primus Engineering.

MADE WITH No. 4 OUTFIT, or Nos. 3 and 3S.

Model No. 250.

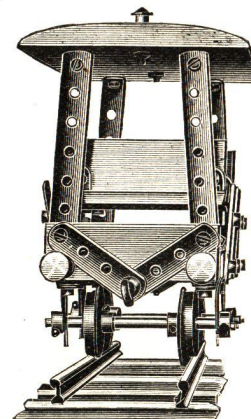


TOURIST CAR WITH ROOF.

PARTS REQUIRED.

No. 9 Wood floor	..	..	..	..	1
No. 10 Roof	..	..	..	..	1
No. 25 Wood slips, 3 x 1 in.	..	..	..	..	8
Nos. 50 & 51 Nuts and screws	..	..	..	..	56
No. 56 Metal strips, 2 in.	..	..	..	..	10
No. 57 " " 2½ in.	..	..	..	..	6
No. 59 " " 3½ in.	..	..	..	..	4
No. 63 Angle bars, 6½ in.	..	..	..	..	2
No. 66 Brackets	..	..	..	..	22
No. 74 Trunnions	..	..	..	..	4
No. 75 Flanged Wheels	..	..	..	..	4
No. 77 Axles, 3½ in.	..	..	..	..	2
No. 84 Washers	..	..	..	..	16
No. 85 Buffers and nuts	..	..	..	..	4
No. 86 Coupling hooks	..	..	..	..	2
No. 87 Lamps	..	..	..	..	2

The wood floor is fixed in the same manner as described for the Goods Truck on page 25. Square metal plates can be adapted instead, in which case the list of materials required will be slightly varied.

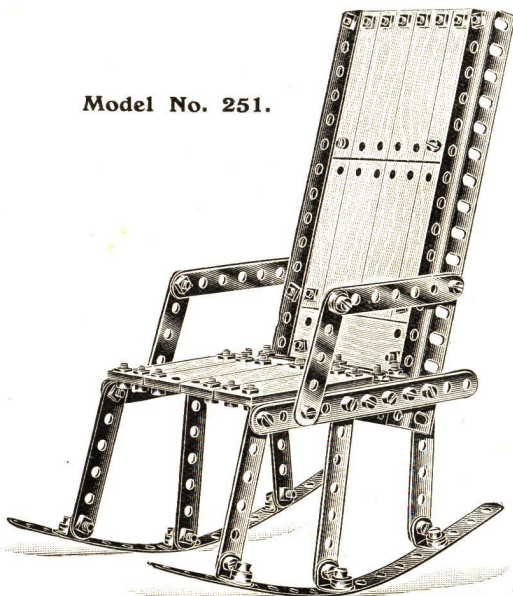


Model No. 251.

ROCKING CHAIR.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in.	..	..	..	14
Nos. 50 & 51 Nuts and screws	..	..	..	68
No. 54 Angle bars, 8 in.	..	..	..	2
No. 56 Metal strips, 2 in.	..	..	..	2
No. 57 " " 2½ in.	..	..	..	4
No. 58 " " 3 in.	..	..	..	6
No. 59 " " 3½ in.	..	..	..	7
No. 60 " " 4 in.	..	..	..	2
No. 61 " " 5½ in.	..	..	..	2
No. 63 " " 8 in.	..	..	..	2
No. 66 Brackets	..	..	..	14
No. 84 Washers	..	..	..	18

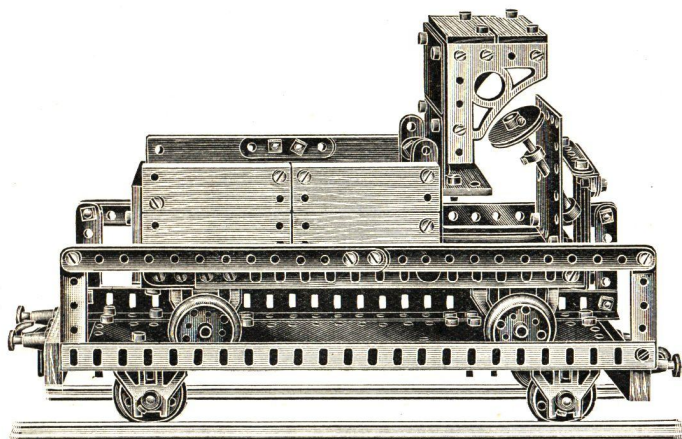


Primus Engineering.

MADE WITH No. 4 OUTFIT, or Nos. 3 and 3S.

MOTOR TRANSPORT TRUCK AND MOTOR CAR.

Model No. 252.



PARTS REQUIRED.

No. 4 Buffer blocks	2
No. 25 Wood slips, 3 x 1 in. ..	14
Nos. 50 & 51 Nuts and screws ..	118
No. 54 Angle bars, 8 in. ..	2
No. 55 " " 12 in. ..	2
No. 56 Metal strips, 2 in. ..	10
No. 57 " " 2½ in. ..	8
No. 58 " " 3 in. ..	5
No. 59 " " 3½ in. ..	3
No. 60 " " 4 in. ..	3
No. 62 " " 6½ in. ..	4
No. 65 Architraves	2
No. 66 Brackets	28
No. 67 Metal plates, 8 x 3½ in. ..	1
No. 68 " " 3 x 3 in. ..	7
No. 72 Straight hinges	2
No. 74 Trunnions	8
No. 75 Flanged wheels	8
No. 76 Grooved wheel	1
No. 77 Axle rods, 3½ in. ..	8
No. 78 " " 2½ in. ..	1
No. 82 Collars	6
No. 84 Washers	3
No. 85 Buffers and nuts	4
No. 86 Coupling hooks and nuts ..	2

The base of truck is made of two 12 in. angle bars connected by 4 in. strips, on which are screwed one 8 x 3 in. and one 3 x 3 in. metal plates.

The floor of the motor itself consists of three 3 x 3 in. metal plates attached to 8 in. angle bars.

MOUNTAIN RAILWAY.

PARTS REQUIRED.

No. 10 Roof	1
No. 23 Plain planks	2
No. 25 Wood slips, 3 x 1 in. ..	6
Nos. 50 & 51 Nuts and screws ..	98
No. 53 Angle bars, 6½ in. ..	2
No. 54 " " 8 in. ..	4
No. 55 " " 12 in. ..	2
No. 56 Metal strips, 2 in. ..	8
No. 57 " " 2½ in. ..	7
No. 60 " " 4 in. ..	2
No. 61 " " 5½ in. ..	2
No. 62 " " 6½ in. ..	3
No. 66 Brackets	40
No. 68 Metal plates, 3 x 3 in. ..	7
No. 75 Flanged wheels	4
No. 76 Grooved wheels	1
No. 77 Axle rods, 3½ in. ..	2
No. 78 " " 2¾ in. ..	1
No. 82 Collars	2
No. 84 Washers	20
No. 97 Wood screws	6

The No. 23 planks form the base on which the metal work is fixed by means of wood screws passing through brackets.

Use cord as illustrated for working this model.

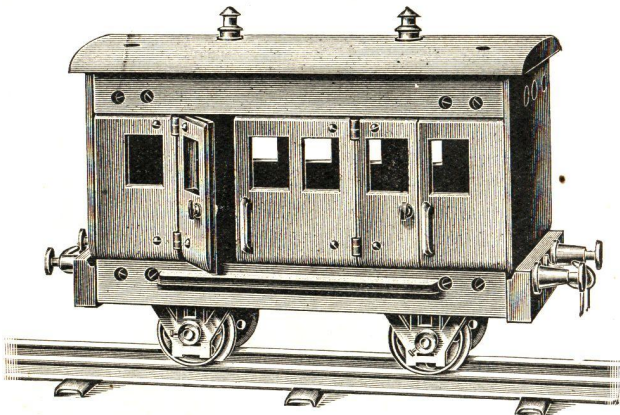
Model No. 253.



Primus Engineering.

MADE WITH No. 4 OUTFIT or Nos. 3 and 3S.

Model No. 254.



RAILWAY CARRIAGE.

PARTS REQUIRED.

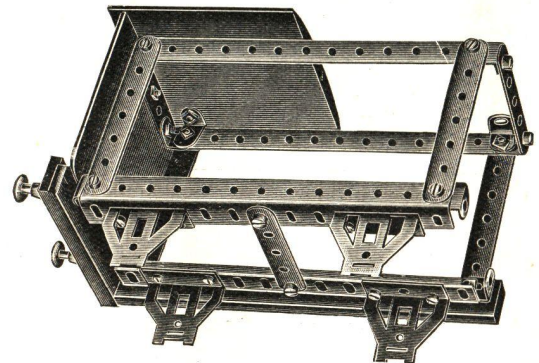
METAL.

Nos. 50 & 51 Nuts and screws	40	No. 82 Collars	..	4
No. 53 Angle bars, 6½ in.	2	No. 84 Washers	..	4
No. 57 Metal strips, 2½ in.	3	No. 85 Buffers and nuts	..	4
No. 59 " " 3½ in.	4	No. 86 Coupling hooks and nuts	..	2
No. 62 " " 6½ in.	2	No. 87 Lamps and nuts	..	2
No. 66 Brackets	14	No. 88 Door handles	..	4
No. 73 Bent hinges	4	No. 90 Side rails	..	4
No. 74 Trunnions	4	No. 91 Carriage door nuts and screws	..	16
No. 75 Flanged wheels	4			
No. 78 Axles, 2½ in.	2			

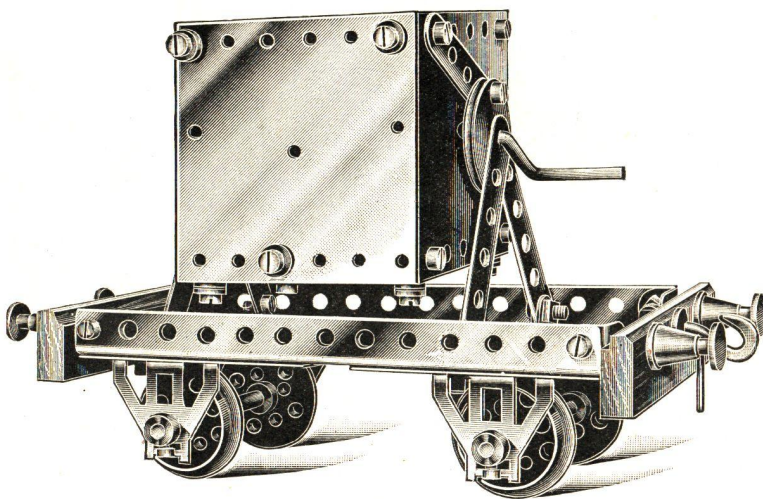
WOOD.

No. 1 Side rails	..	2	No. 8 Central	..	2
No. 2 Ditto, with footboards	2	No. 9 Floor	..	1	
No. 4 Buffer blocks	..	2	No. 10 Roof	..	1
No. 5 R. H. Window	..	2	No. 16 Doors	..	4
No. 6 L. H. " "	..	2	No. 18 Ends	..	2

Make up the whole metal frame and be careful in fixing brackets. Then fit on side rails, one buffer block and one end; slide windows and doors in the grooves—put in floor, and lastly fix on second buffer block and then the second end. The screw for fastening this should be put in and the nut carefully adjusted inside by opening the two doors and sliding the windows along to give space. The floor is fitted in same as in Heavy Goods Truck, page 25.



Model No. 255.



TIPPING TRUCK.

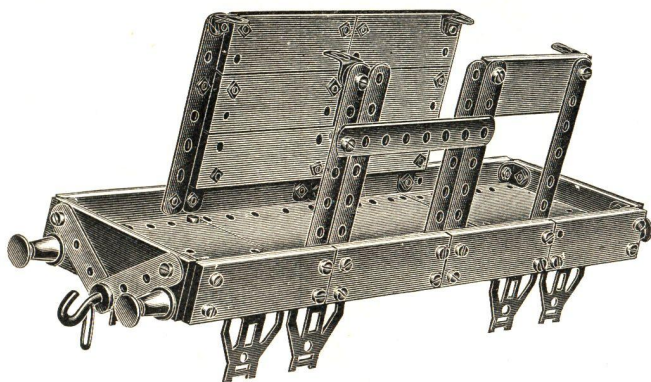
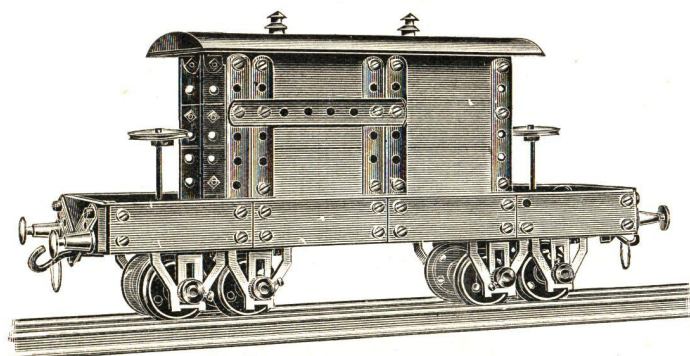
PARTS REQUIRED.

No. 4 Buffer blocks	..	2
Nos. 50 & 51 Nuts and screws	..	39
No. 56 Metal strips, 2 in.	..	1
No. 58 " " 3 in.	..	4
No. 63 Angle bars, 6½ in.	..	2
No. 66 Brackets	..	18
No. 68 Metal plates, 3 x 3 in.	..	7
No. 74 Trunnions	..	4
No. 75 Flanged wheels	..	4
No. 76 Pulley wheels	..	1
No. 77 Axle rods, 3½ in.	..	2
No. 82 Collars	..	5
No. 83 Handle axle	..	1
No. 84 Washers	..	28
No. 85 Buffers and nuts	..	4
No. 86 Coupling hooks	..	2

Primus Engineering.

MADE WITH No. 4 OUTFIT, or Nos. 3 and 3S.

Model No. 256.



DOUBLE BRAKE VAN ON 8 WHEELS.

PARTS REQUIRED.

No. 10 Roof 1	No. 68 Metal plates, 3 x 3 in. 2
No. 25 Wood slips, 3 x 1 in. 22	No. 74 Trunnions 8
Nos. 50 & 51 Nuts and screws 84	No. 75 Flanged wheels 8
No. 55 Angle bars, 12 in. 2	No. 76 Grooved pulley wheels (for brakes) 2
No. 56 Metal strips, 2 in. 4	No. 77 Axle rods, 3½ in. 4
No. 59 " " 3½ in. 10	No. 78 " " 2½ in. 2
No. 60 " " 4 in. 2	No. 82 Collars 12
No. 66 Brackets 12	No. 84 Washers 12
No. 67 Metal plates, 8 x 3 in. 1	No. 85 Buffers and nuts 4
	No. 86 Coupling hooks 2
	No. 87 Lamps 2

In this model the No. 25 wood slips for the body are fitted inside the frame; this is important, as the roof screw-holes are 2 in. centres, and by fixing the brackets inside the wood body at back this width will be found exact. Washers are used between the brackets and 3½ in. strips in the front to adjust the width.

The base is composed of one 8 in. plate and two 3 in. plates bolted together.

Two grooved wheels are used to simulate the brake wheels, and are fitted to 2½ in. axles and secured by means of collars above and below the base plates.

SINGLE BRAKE VAN.

PARTS REQUIRED.

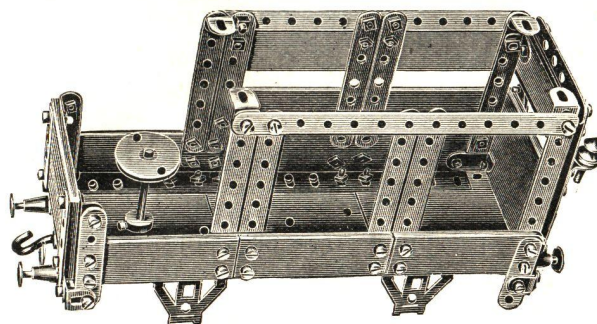
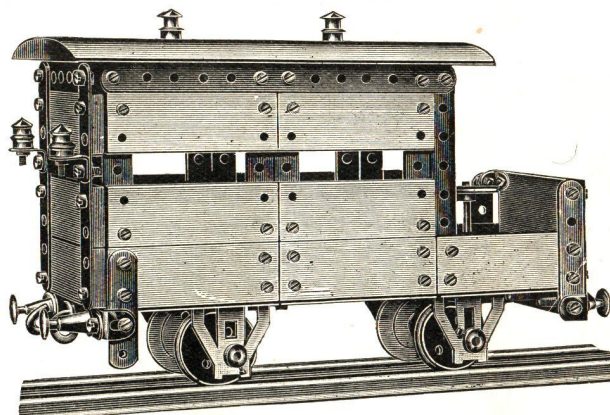
No. 10 Roof 1	No. 75 Flanged wheels 4
No. 25 Wood slips, 3 x 1 in. 24	No. 76 Grooved pulley wheel (for brake) 1
Nos. 50 & 51 Nuts and screws 72	No. 77 Axles, 3½ in. 2
No. 54 Angle bars, 8 in. 2	No. 78 " 2½ in. 1
No. 56 Metal strips, 2 in. 4	No. 82 Collars 6
No. 57 " " 2½ in. 2	No. 84 Washers 12
No. 58 " " 3½ in. 12	No. 85 Buffers and nuts 4
No. 60 " " 4 in. 2	No. 86 Coupling hooks 2
No. 61 " " 6½ in. 2	No. 87 Lamps 2
No. 66 Brackets 16	
No. 74 Trunnions 4	

In this model the chassis is built up like Truck on page 24. In making the body the No. 25 wood slips are fitted OUTSIDE the frame, and washers are used to adjust the brackets to fit roof as in front of previous model.

The base plates are bolted on to the angle bars BELOW, and secured by the screws that fix the trunnions

This is an exceptionally handsome model, and should be made after the previous one, as it is a little more difficult.

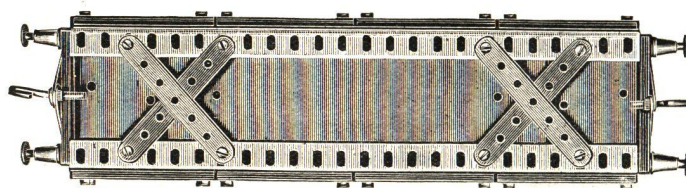
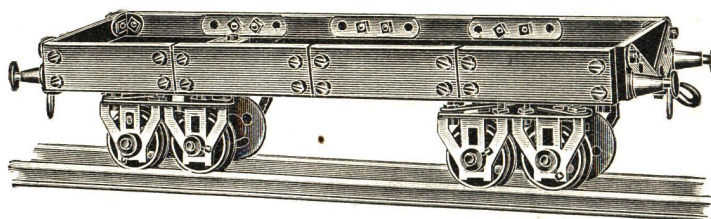
Model No. 257.



Primus Engineering.

MADE WITH No. 4 OUTFIT, or Nos. 3 and 3S.

Model No. 258.



Base of Truck.

EXPRESS TRUCK ON BOGIES.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in.	10	No. 74 Trunnions	8
Nos. 50 & 51 Nuts and screws	64	No. 75 Flanged wheels	8
No. 55 Angle bars, 12 in.	2	No. 78 Axles, 2 3/4 in.	4
No. 56 Metal strips, 2 in.	10	No. 82 Collars	8
No. 58 „ „ 3 in.	4	No. 84 Washers	22
No. 59 „ „ 3 1/2 in.	8	No. 85 Buffers and nuts	4
No. 66 Brackets	8	No. 86 Coupling hooks	2
No. 67 Metal plate, 8 x 3 in.	1	No. 92 Knob screws and nuts	2
No. 68 Metal plates, 3 x 3 in.	2		



Elevation of Bogie.



Bogie Frame.

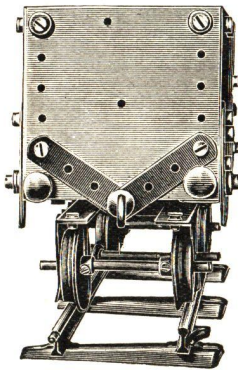
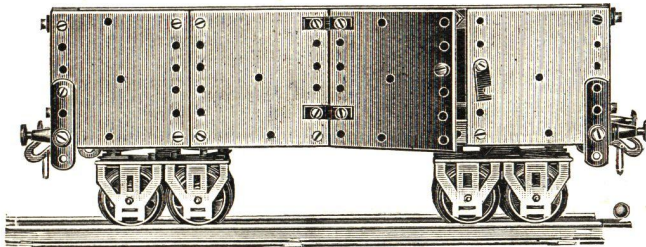
The Bogie frame is made up with two 3-in. strips for sides and two 3 1/2-in. strips for cross pieces ; washers are set on the screws at opposite corners to level up the cross strips.

It is secured to the truck through the central holes of end base plates by means of knob screws double nipped, and washers are used on the screws to provide clearance for the truck to swing on the bogies.

Primus Engineering.

MADE WITH No. 4 OUTFIT, or Nos. 3 and 3S.

Model No. 259.



EXPRESS COAL TRUCK ON BOGIES.

ALL METAL.

PARTS REQUIRED.

Nos. 50 & 51 Nuts and screws 66	No. 75 Flanged wheels . 8
No. 55 Angle bars, 12 in. 2	No. 78 Axles, 2½ in. .. 4
No. 56 Metal strips, 2 in. 10	No. 82 Collars 8
No. 58 " " 3 in. 4	No. 84 Washers 28
No. 59 " " 3½ in. 8	No. 85 Buffers and nuts. 4
No. 66 Brackets .. 8	No. 86 Coupling hooks and nuts 2
No. 68 Metal plates, 3 x 3 in. .. 14	No. 92 Knob screws and nuts 2
No. 72 Straight hinges.. 4	No. 95 Catches 2
No. 74 Trunnions .. 8	

The ends should be fitted to the angle bars first and the sides fitted on afterwards.

The base and frames are made up as on the Express bogie truck.

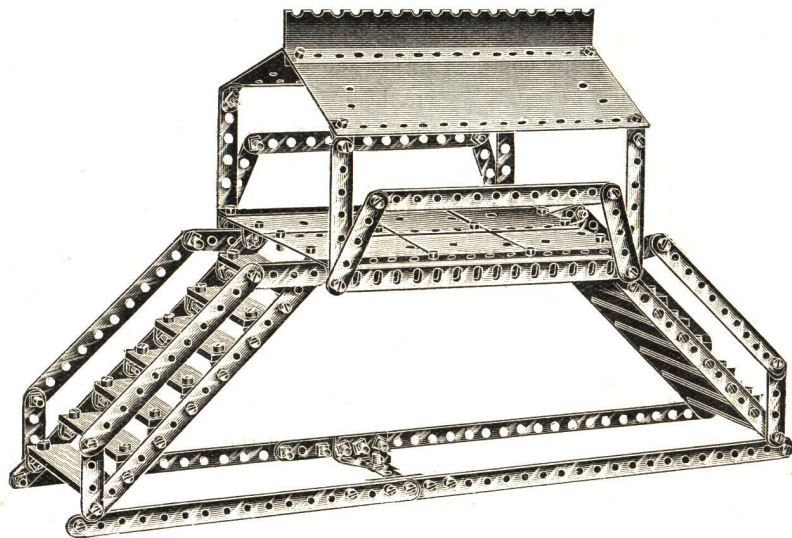
Washers are again important, and two each are used on the corner screws at ends and lower screws at sides, beneath the buffers and on the knob screws and bogie frames.

BRIDGE .

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in. .. 14
Nos. 50 & 51 Nuts and screws.. 118
No. 54 Angle bars, 8 in. .. 2
No. 56 Metal strips, 2 in. .. 8
No. 57 " " 2½ in. .. 4
No. 58 " " 3 in. .. 1
No. 59 " " 3½ in. .. 4
No. 61 " " 5½ in. .. 4
No. 62 " " 6½ in. .. 2
No. 63 " " 8 in. .. 6
No. 64 " " 12 in. .. 2
No. 66 Brackets 36
No. 67 Metal Plates, 8 x 3 in. .. 2
No. 68 " " 3 x 3 in. .. 6
No. 70 Ridge tile, 8 in. . . . 1
No. 74 Trunnions 2

Model No. 260.



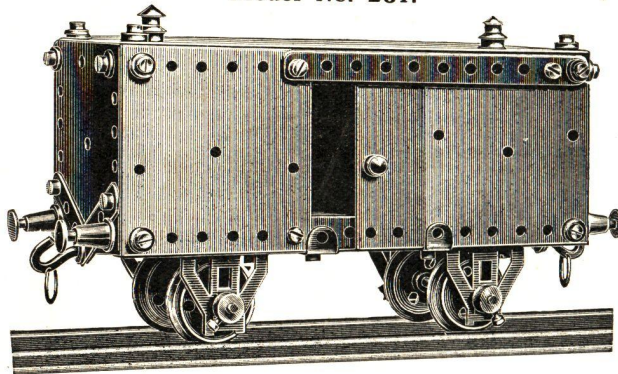
Primus Engineering.

MADE WITH No. 4 OUTFIT, or Nos. 3 and 3S.

ARMoured TRUCK.

WITH SLIDING DOOR.

Model No. 261.



PARTS REQUIRED.

Nos. 50 & 51 Nuts and screws	..	..	..	38
No. 54 Angle bars, 8 in.	..	..	..	2
No. 56 Metal strips, 2 in.	..	..	..	4
No. 61 „ „ 5½ in.	..	..	..	4
No. 66 Brackets	..	..	..	16
No. 67 Metal Plates, 8 x 3 in.	..	..	..	2
No. 68 „ „ 3 x 3 in.	..	..	..	8
No. 75 Flanged wheels	..	..	..	4
No. 77 Axles, 3½ in.	..	..	..	2
No. 82 Collars	..	..	..	4
No. 84 Washers	..	..	..	34
No. 85 Buffers and nuts	..	..	..	4
No. 86 Coupling hooks	..	..	..	2
No. 87 Lamps	..	..	..	2
No. 92 Knob screws and nuts	..	..	..	2

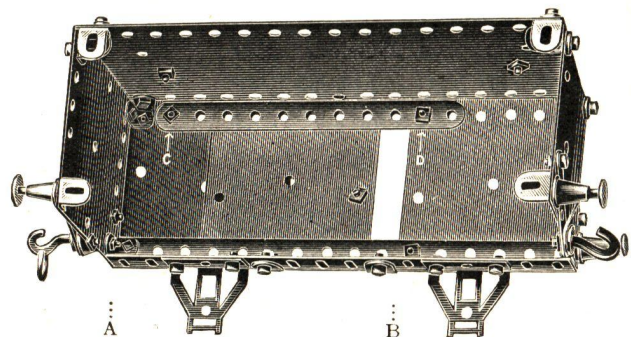
1. Fix Trunnions on angle bars.

2. Fix up the two ends, fix buffers and a washer beneath each; see that the brackets are right way; put two washers beneath each screw in the corners; then fit 2 in. strips and coupling hooks.

3. Fit on the plates for one side, and note when fixing the 5½ in. strips one goes inside and one out, and washers must be put between the inside strip, at C and D, and the 3 x 3 in. plates, so as to allow for the door to slide in, also washers must be put between plates and angle bars at A and B.

4. Fix on roof with lamps and lay floor loose inside.

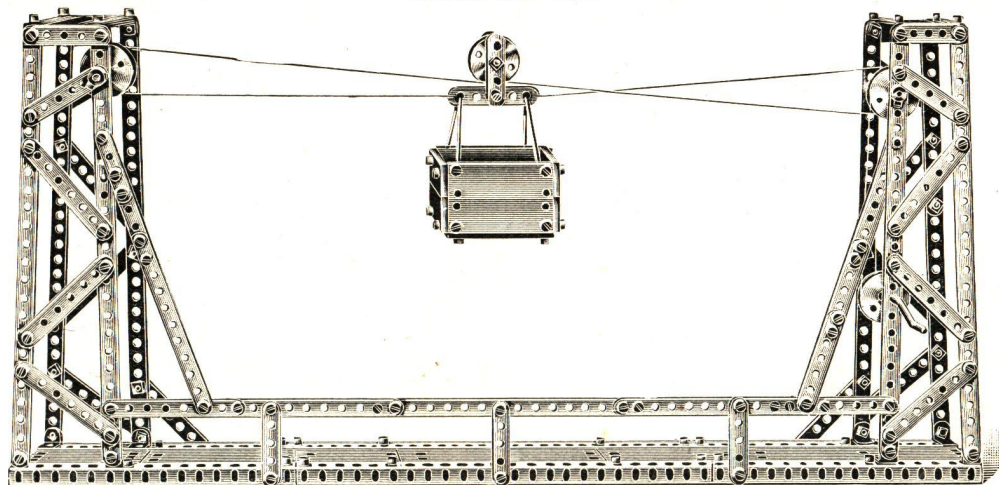
5. Fit on second angle bar and remainder of 2 in. side. The second door can then be slipped in the groove and secured by the two angle brackets. Knob screws for handles can be fixed last, and the floor will rest on the screws of buffers. Wheels are fitted as in other models.



Primus Engineering.

MADE WITH No. 4 OUTFIT, or Nos. 3 and 3S.

Model No. 262.

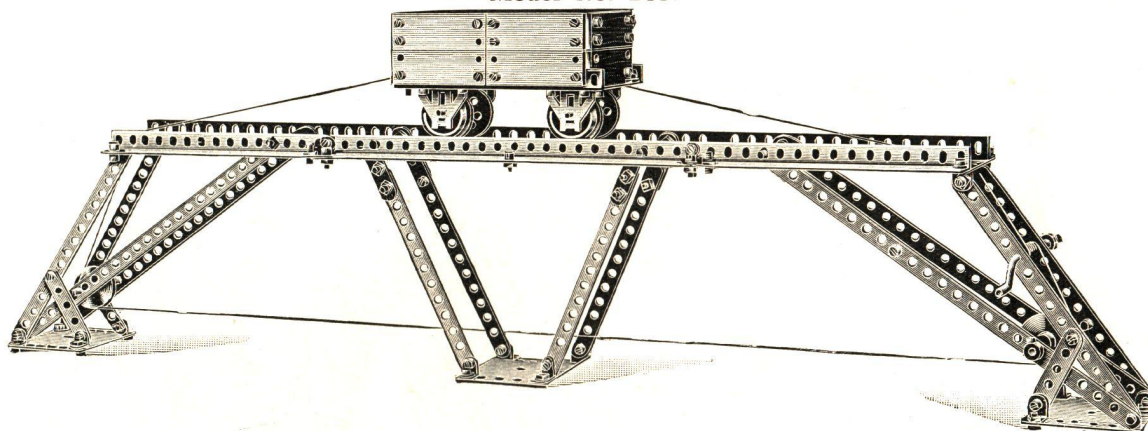
**TRANSPORTER BRIDGE.**

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in. .. 11	No. 60 Metal strips, 4 in. .. 3	No. 75 Flanged wheels .. 4
Nos. 50 & 51 Nuts and screws .. 144	No. 61 „ „ 5½ in. .. 3	No. 76 Grooved wheels .. 2
No. 54 Angle bars .. 4	No. 62 „ „ 6½ in. .. 3	No. 77 Axle rods, 3½ in. .. 2
No. 55 „ „ .. 2	No. 63 „ „ 8 in. .. 6	No. 82 Collars .. 8
No. 56 Metal strips, 2 in. .. 12	No. 64 „ „ 12 in. .. 3	No. 83 Handle axle .. 1
No. 57 „ „ 2½ in. .. 8	No. 66 Brackets .. 28	No. 84 Washers .. 20
No. 58 „ „ 3 in. .. 7	No. 67 Metal plates, 8 x 3 in. .. 3	No. 92 Knob screws .. 2
No. 59 „ „ 3½ in. .. 14	No. 68 „ „ 3 x 3 in. .. 2	No. 96 Signal rods .. 2

Use cord as illustration for working this model.

Model No. 263.

**OVERHEAD TRAVELLING TRUCK.**

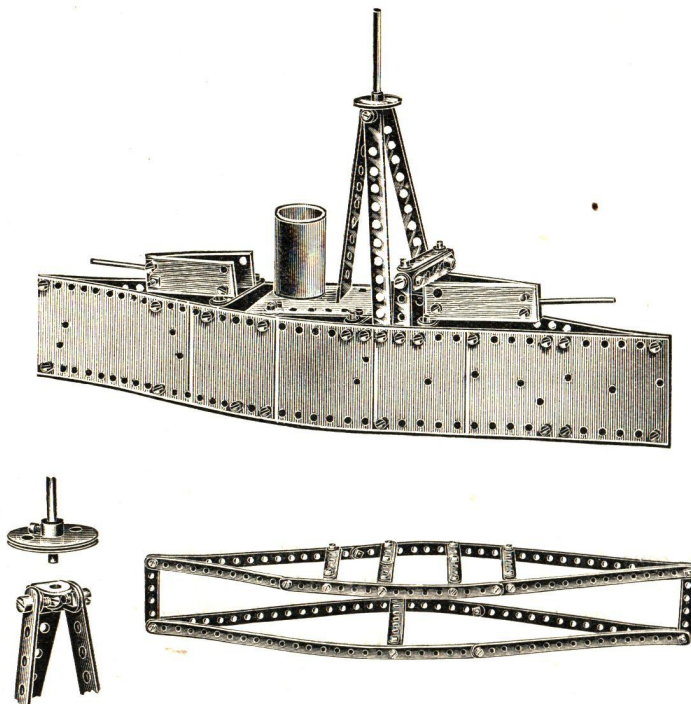
PARTS REQUIRED.

No. 1 Grooved side rail .. 1	No. 57 Metal strips, 2½ in. .. 4	No. 75 Flanged wheels .. 4
No. 9 Floor .. 1	No. 58 „ „ 3 in. .. 1	No. 76 Grooved wheels .. 2
No. 17 Truck sides .. 2	No. 59 „ „ 3½ in. .. 4	No. 77 Axles, 3½ in. .. 3
No. 18 Truck ends .. 2	No. 61 „ „ 5½ in. .. 1	No. 78 „ „ 2¼ in. .. 2
Nos. 50 & 51 Screws and nuts .. 86	No. 62 „ „ 6½ in. .. 4	No. 82 Collars and screws .. 8
No. 53 Angle bars, 6½ in. .. 2	No. 63 „ „ 8 in. .. 1	No. 83 Handle axles .. 1
No. 54 „ „ 8 in. .. 4	No. 64 „ „ 12½ in. .. 3	No. 86 Coupling hooks .. 1
No. 55 „ „ 12 in. .. 2	No. 66 Brackets .. 22	
No. 56 Metal strips, 2 in. .. 8	No. 68 Metal plates, 3 x 3 in. .. 3	Use cord as shown in illustration.

Primus Engineering.

MADE WITH No. 4 OUTFIT, or Nos. 3 and 3S.

Model No. 264.



BATTLESHIP CRUISER.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in. ..	..	..	4
Nos. 50 & 51 Nuts and screws ..	..	..	68
No. 56 Metal strips, 2 in. ..	..	..	4
No. 57 " " 2½ in. ..	..	..	2
No. 58 " " 3 in. ..	..	..	6
No. 60 " " 4 in. ..	..	..	1
No. 61 " " 5½ in. ..	..	..	2
No. 62 " " 6½ in. ..	..	..	2
No. 63 " " 8 in. ..	..	..	5
No. 64 " " 12½ in. ..	..	..	3
No. 66 Brackets ..	..	..	22
No. 67 Metal plates, 8 x 3 in. ..	..	..	4
No. 68 " " 3 x 3 in. ..	..	..	7
No. 75 Flanged wheels ..	..	..	2
No. 76 Pulley wheels ..	..	..	1
No. 77 Axle rods, 3½ in. ..	..	..	2
No. 78 " " 2¾ in. ..	..	..	2
No. 82 Collars ..	..	..	2
No. 84 Washers ..	..	..	22

Cardboard wrapped round the two flanged wheels secured on one of the 3½ in. axle rod, forms the funnel; this is secured on the 3 x 3 plate by means of collars.

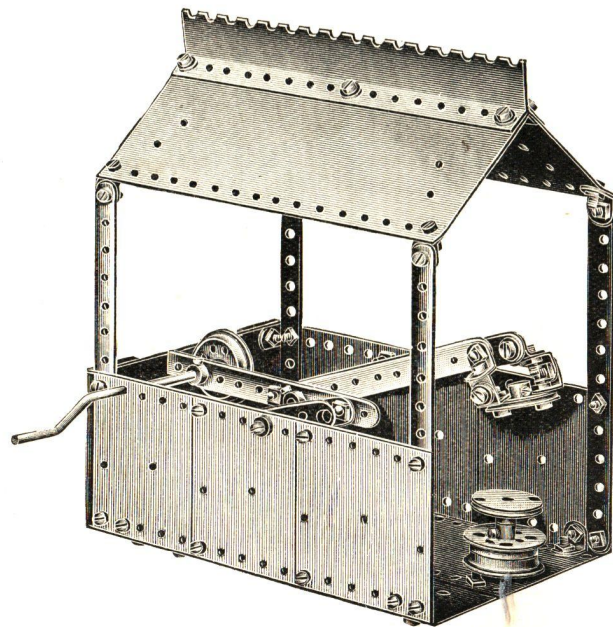
AUTOMATIC HAMMER IN SHED.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in. ..	..	..	2
Nos. 50 & 51 Nuts and screws ..	..	..	70
No. 56 Metal strips, 2 in. ..	..	..	5
No. 57 " " 2½ in. ..	..	..	3
No. 58 " " 3 in. ..	..	..	1
No. 59 " " 3½ in. ..	..	..	1
No. 61 " " 5½ in. ..	..	..	2
No. 62 " " 6½ in. ..	..	..	4
No. 66 Brackets ..	..	..	24
No. 67 Metal plates, 8 x 3 in. ..	..	..	4
No. 68 " " 3 x 3 in. ..	..	..	7
No. 70 Ridge tiles, 8 in. ..	..	..	1
No. 75 Flanged wheels ..	..	..	3
No. 76 Pulley wheels ..	..	..	2
No. 77 Axle rods, 3½ in. ..	..	..	1
No. 79 " " 2 in. ..	..	..	1
No. 82 Collars ..	..	..	7
No. 83 Axles ..	..	..	1
No. 84 Washers ..	..	..	19

The hammer works on a similar principle to that illustrated on page 22.

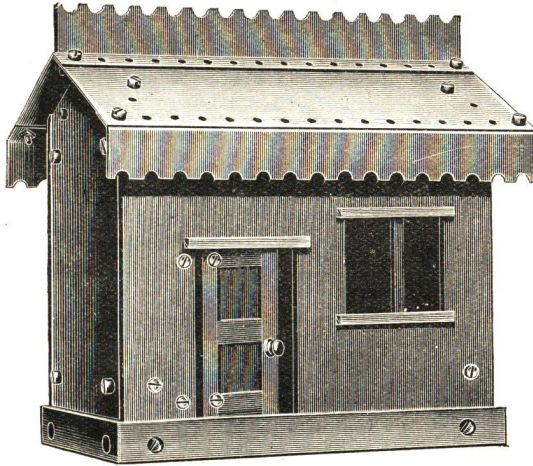
Model No. 265.



Primus Engineering.

MADE WITH No. 5 OUTFIT.

Model No. 302.



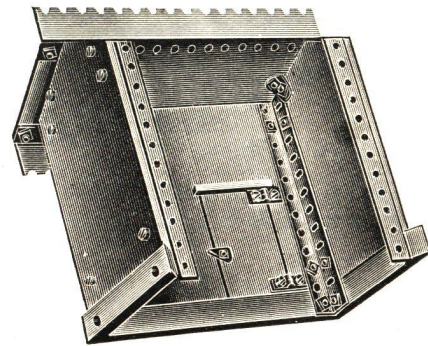
WOOD STATION HOUSE WITH METAL ROOF.

PARTS REQUIRED.

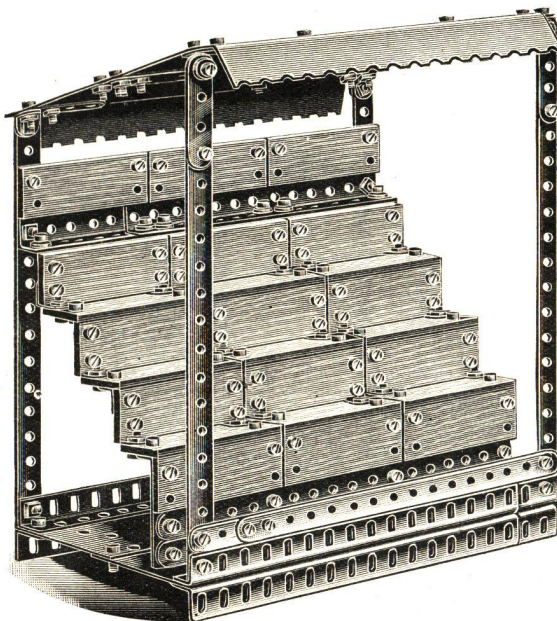
No. 12 House, front rails ..	2	Nos. 50 & 51 Nuts and screws..	48
No. 13 „ side „ ..	2	No. 52 Angle bars, 6 in. ..	4
No. 14 „ sides ..	2	No. 66 Brackets ..	4
No. 15A Window sills ..	4	No. 67 Metal plates, 8 x 3 in. ..	2
No. 15B House, back ..	1	No. 70 Ridge tile, 8 in. ..	1
No. 15F „ front ..	1	No. 71 Eaves, 8 in. ..	2
No. 15D Sash bars ..	2	No. 72 Straight hinges ..	4
No. 16 Doors ..	2	No. 92 Knob screws for door	
No. 16A Lintels ..	2	handles) ..	2
No. 26 Window glass ..	2	No. 93 Turn-buttons ..	2

The drawing clearly shows the way the house is fitted up. The glass for windows is pushed in the grooves before the front and back are screwed to the angle bars.

Fit up the base frame and ends first.



Model No. 303.



GRAND STAND.

PARTS REQUIRED.

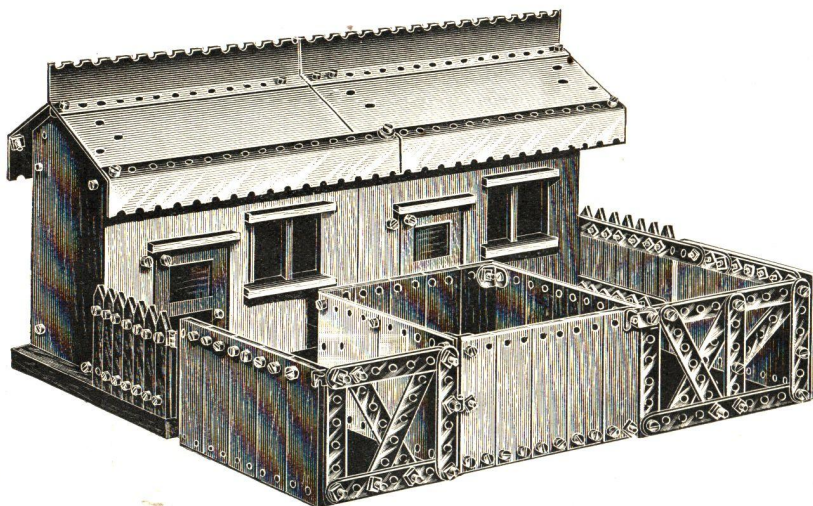
No. 25 Wood slips, 3 x 1 in. ..	24
Nos. 50 & 51 Nuts and screws ..	154
No. 52 Angle bars, 6 in. ..	3
No. 53 „ „ 6½ in. ..	2
No. 54 „ „ 8 in. ..	5
No. 56 Metal strips, 2 in. ..	14
No. 58 „ „ 3 in. ..	5
No. 59 „ „ 3½ in... ..	2
No. 61 „ „ 5½ in... ..	3
No. 62 „ „ 6½ in... ..	2
No. 63 „ „ 8 in. ..	8
No. 66 Brackets ..	48
No. 67 Metal plates, 8 x 3 in. ..	4
No. 68 „ „ 3 x 3 in. ..	2
No. 71, Eaves, 8 in... ..	2
No. 84 Washers ..	24

Primus Engineering.

MADE WITH No. 5 OUTFIT.

BUNGALOW.

Model No. 300.



The back of the bungalow is made of metal plates bolted together ; the roof is built and laid on last.

PARTS REQUIRED.

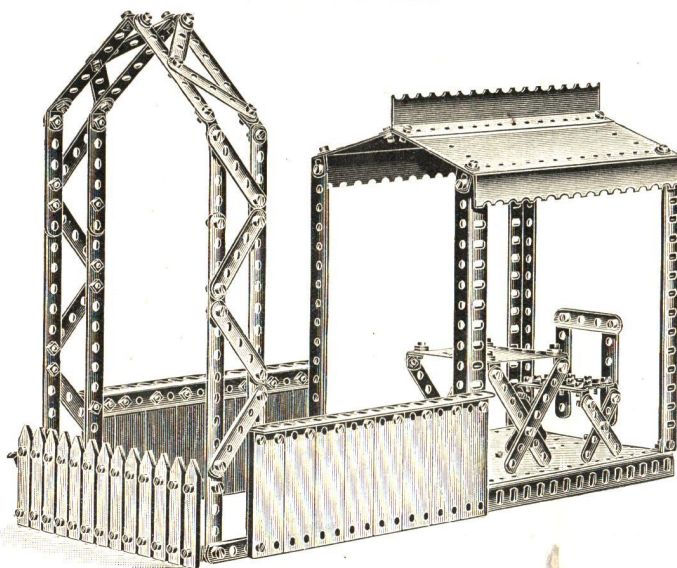
No. 11 Posts	14
No. 14 Sides of station ..	2
No. 15A Window sills ..	4
No. 15D „ sash ..	2
No. 15F Front of house ..	1
No. 15B Back of house ..	1
No. 16 Doors	2
No. 16A Lintels	2
No. 19 Baseboard	1
No. 25 Wood slips, 3 x 1 in.	25
No. 26 Glass	2
Nos. 50 & 51 Nuts and screws	150
No. 56 Metal strips, 2 in. ..	7
No. 57 „ „ 2½ in. ..	3
No. 58 „ „ 3 in. ..	5
No. 59 „ „ 3½ in. ..	14
No. 60 „ „ 4 in. ..	1
No. 66 Brackets	16
No. 67 Metal plates, 8 x 3 in.	8
No. 68 „ „ 3 x 3 in. ..	4
No. 69 Ridge tiles, 6½ in. ..	1
No. 70 „ „ 8 in. ..	1
No. 71 Eaves, 8 in. ..	4
No. 72 Straight hinges ..	6
No. 84 Washers	6
No. 88 Door handles ..	2
No. 92 Knob screws ..	4
No. 95 Catches	2

TEA GARDEN.

PARTS REQUIRED.

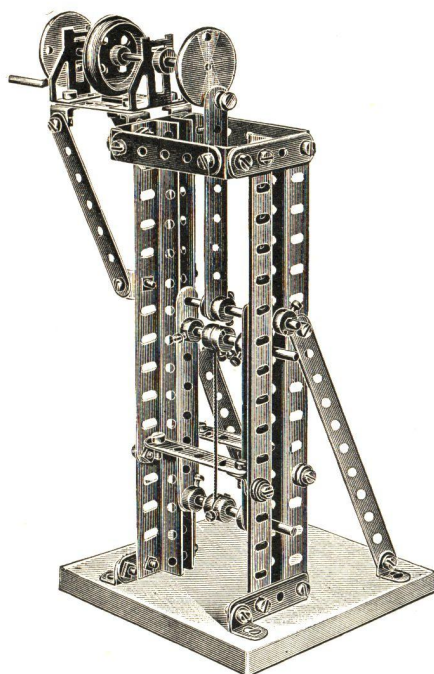
No. 11 Posts	13
No. 25 Wood slips, 3 x 1 in. ..	16
Nos. 50 & 51 Nuts and screws	135
No. 54 Angle bars, 8 in. ..	8
No. 56 Metal strips, 2 in. ..	13
No. 57 „ „ 2½ in. ..	16
No. 58 „ „ 3 in. ..	6
No. 59 „ „ 3½ in. ..	8
No. 61 „ „ 5½ in. ..	2
No. 63 „ „ 8 in. ..	4
No. 66 Brackets	23
No. 67 Metal plates, 8 x 3 in. ..	4
No. 70 Ridge tiles, 8 in. ..	1
No. 71 Eaves, 8 in. ..	2
No. 72 Straight hinges ..	2
No. 84 Washers	23
No. 95 Catches	1

Model No. 301.



MADE WITH No. 5 OUTFIT.

Model No. 304.



VERTICAL SAW.

PARTS REQUIRED.

Nos. 50/51 Nuts and screws	37	No. 74 Trunnions ..	2
No. 54 Angle bars, 8 in.	4	No. 75 Flanged wheel ..	1
No. 56 Metal strips, 2 in. ..	6	No. 76 Pulley do. ..	2
No. 57 „ „ 2½ in... 4		No. 77 Axles, 3½ in. ..	3
No. 59 „ „ 3½ in... 2		No. 82 Collars ..	13
No. 60 „ „ 4 in. .. 3		No. 83 Handle Axles ..	1
No. 61 „ „ 5½ in... 2		No. 84 Washers ..	1
No. 66 Brackets 18		No. 97 Wood screws ..	4

The crank arm is fitted to the grooved wheel by means of knob screw with washers and double nutted.

The frame to carry saw is composed of four 2 in. strips with three 3½ in. Axle Rods and held together by Collars. Two of the collars are placed OUTSIDE the angle bars on the upper rod, to make it slide easily in the grooves.

A fret-saw can be placed between the collars—as shown—to complete the model. The saw is not included in the outfit. Most boys already have some, and if not they can be obtained at any iron-monger's for a penny.

HIGH LEVEL BRIDGE WITH COVERED GALLERY
AND RIGHT ANGLE STAIRWAYS.

PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in.	..	18
Nos. 50/51 Nuts and screws	..	144
No. 54 Angle bars, 8 in.	..	4
No. 56 Metal strips, 2 in.	..	8
No. 58 „ „ 3 in.	..	4
No. 59 „ „ 3½ in.	..	4
No. 62 Angle bars, 6½ in.	..	4
No. 63 Metal strips, 8 in.	..	11
No. 66 Brackets .. ..	..	46
No. 67 Metal plates, 8 x 3 in.	..	4
No. 71 Eaves, 8 in.	..	4
No. 84 Washers .. ..	..	6
No. 87 Lamps.. ..	..	4

This model can be raised on piers to suit height of platforms, and can be made wider for double rails by the use of 12 in. Angle Bars and other parts to correspond.

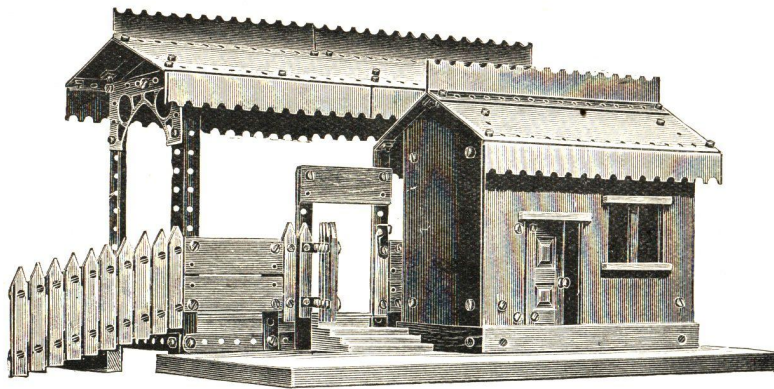
Model No. 305.



Primus Engineering.

MADE WITH No. 5 OUTFIT.

Model No. 306.



STATION & STATION HOUSE.

The parts for this handsome model are given on pages 30 and 49, and only large wood base-board is added to the make it a complete Station.

Signal Posts, Lamps and High Level Bridge can be added as desired.

With the No. 5 Outfit, the Carriage, Goods Truck, Side Station, Station House, and High Level Bridge with Covered Gallery, can be made up complete at the same time, as well as many other smaller models.

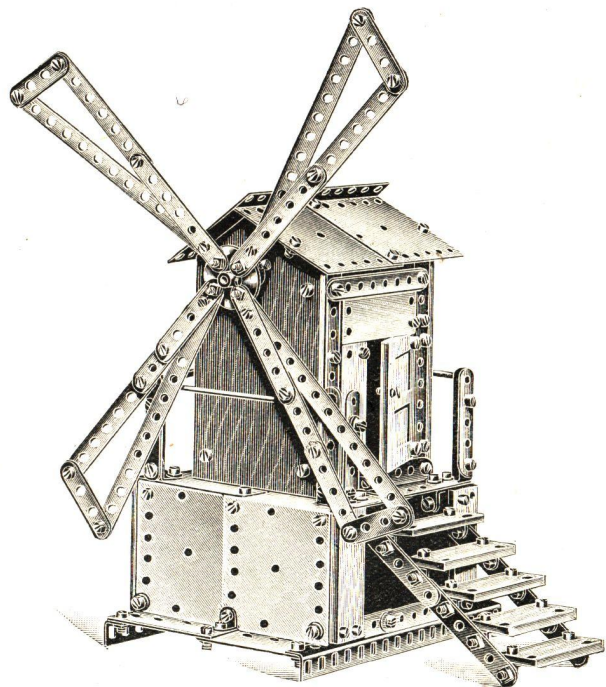
WINDMILL.

PARTS REQUIRED.

No. 14 Sides of station	..	..	..	2
No. 16 Door	..	..	..	1
No. 25 Wood slips, 3 x 1 in.	..	..	..	14
Nos. 50 & 51 Nuts and screws	..	..	..	187
No. 54 Angle bars	..	..	..	2
No. 56 Metal strips, 2 in.	..	..	..	15
No. 57 " " 2½ in.	..	..	..	12
No. 58 " " 3 in.	..	..	..	6
No. 59 " " 3½ in.	..	..	..	14
No. 60 " " 4 in.	..	..	..	3
No. 61 " " 5½ in.	..	..	..	4
No. 62 " " 6½ in.	..	..	..	4
No. 66 Brackets	..	..	..	54
No. 67 Metal plates, 8 x 3 in.	..	..	..	2
No. 68 " " 3 x 3 in.	..	..	..	14
No. 72 Straight hinges	..	..	..	2
No. 75 Flanged wheels	..	..	..	2
No. 78 Axle rod, 2¼ in.	..	..	..	1
No. 82 Collars	..	..	..	3
No. 84 Washers	..	..	..	38
No. 88 Carriage door handle	..	..	..	1
No. 96 Signal rods	..	..	..	3

To fit the sails, which are made on a flanged wheel and then fitted on a No. 78 axle rod, it will be found necessary to drill a hole in a No. 14 station side.

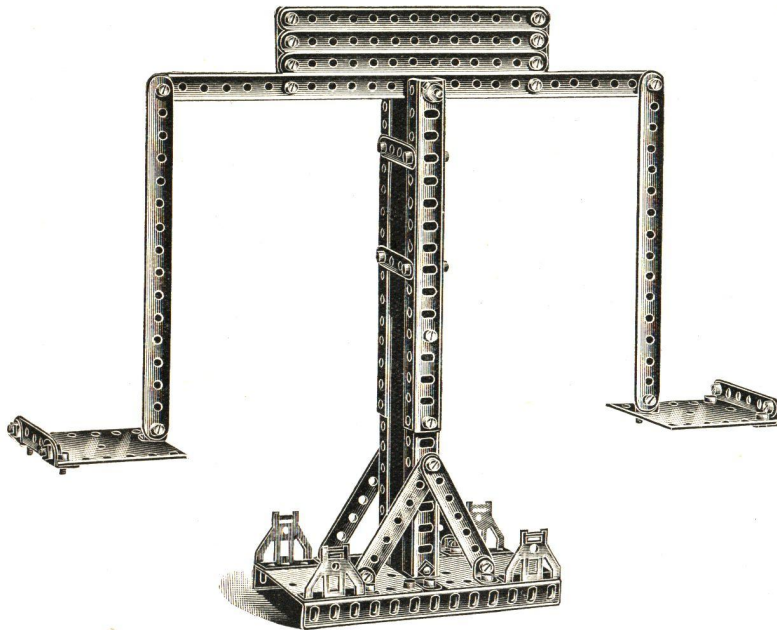
Model No. 307.



Primus Engineering.

MADE WITH No. 5 OUTFIT.

Model No. 308.



SCALES.

PARTS REQUIRED.

Nos. 50 & 51 Nuts and screws..	58
No. 52 Angle bars	4
No. 53 „ „	2
No. 54 „ „	4
No. 56 Metal strips, 2 in. ..	6
No. 58 „ „ 3 in. ..	3
No. 59 „ „ 3½ in. ..	4
No. 62 „ „ 6½ in. ..	3
No. 63 „ „ 8 in. ..	2
No. 64 „ „ 12½ in. ..	1
No. 66 Brackets	12
No. 68 Metal plates, 3 x 3 in. ..	4
No. 74 Trunnions	4
No. 78 Axle rods, 2¾ in. ..	1
No. 82 Collars	6

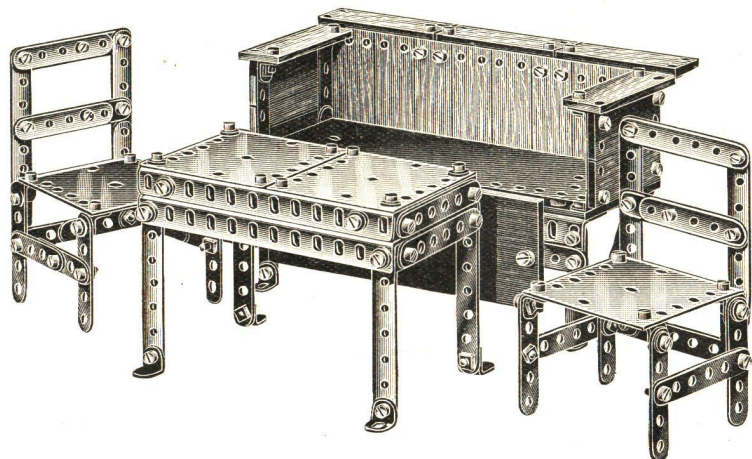
A SMOKING LOUNGE.

LOUNGE, TABLE AND TWO CHAIRS.

PARTS REQUIRED.

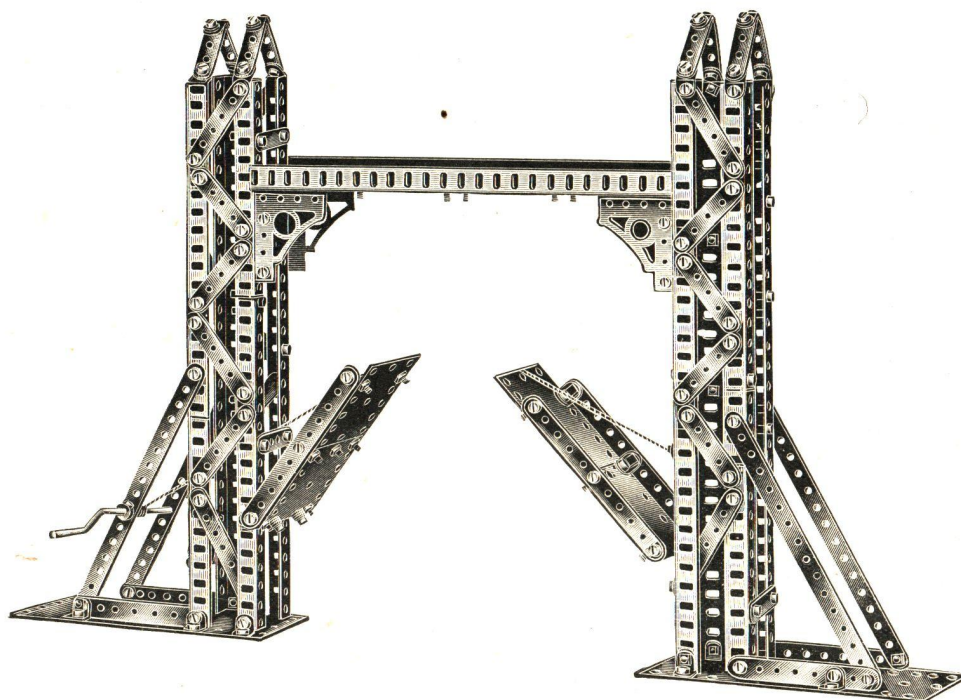
No. 9 Floor	1
No. 25 Wood slips, 3 x 1 in. ..	25
Nos. 50 & 51 Nuts and screws ..	124
No. 52 Angle bars	4
No. 54 „ „	2
No. 56 Metal strips, 2 in. ..	16
No. 57 „ „ 2½ in. ..	15
No. 58 „ „ 3 in. ..	8
No. 59 „ „ 3½ in. ..	5
No. 60 „ „ 4 in. ..	3
No. 66 Brackets	48
No. 67 Metal plates, 8 x 3 in. ..	1
No. 68 „ „ 3 x 3 in. ..	6
No. 84 Washers	24

Model No. 309.



MADE WITH No. 5 OUTFIT.

Model No. 310.



TOWER BRIDGE.

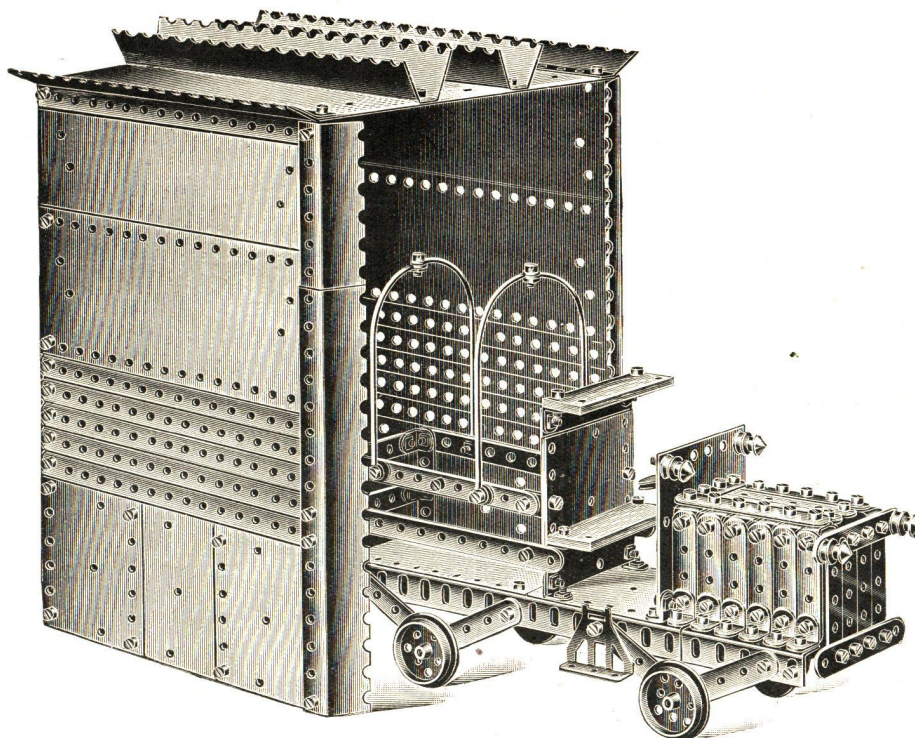
PARTS REQUIRED.

[illegible]

To make the bridge open and close, one cord fits direct on to the handle, while the other is taken through the tower over the top platform and thence on to the axle handle.

MADE WITH No. 5 OUTFIT.

Model No. 311.



MOTOR CAR AND GARAGE.

PARTS REQUIRED.

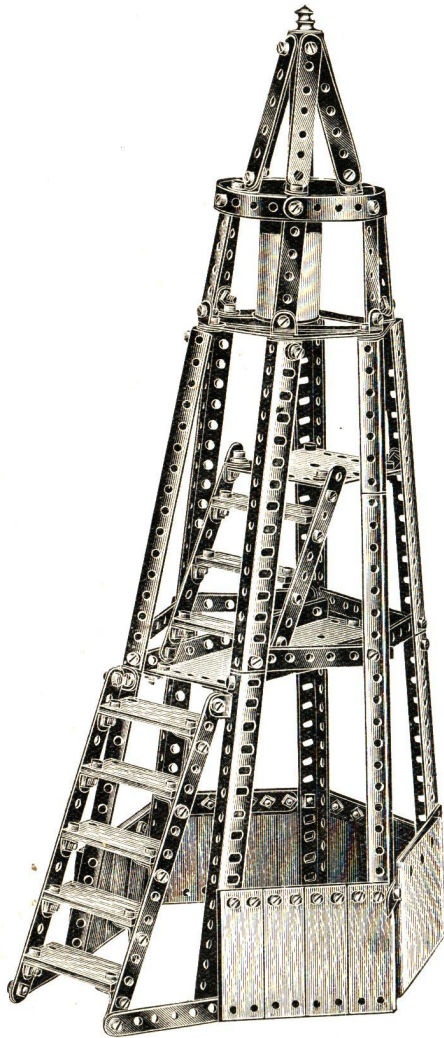
No. 25 Wood slips, 3 x 1 in...	..	..	..	2	No. 66 Brackets	..	..	..	..	50
Nos. 50 & 51 Nuts and screws	..	..	..	174	No. 67 Metal plates, 8 x 3 in.	..	..	..	..	10
No. 53 Angle bars, 6½ in.	..	..	..	6	No. 68 „ „ 3 x 3 in.	..	..	..	..	12
No. 54 „ „ 8 in.	..	..	..	2	No. 70 Ridge tiles, 8 in.	..	..	..	..	2
No. 56 Metal strips, 2 in.	..	..	..	14	No. 71 Eaves, 8 in.	..	..	..	..	8
No. 57 „ „ 2½ in.	..	..	..	16	No. 74 Trunnions	..	..	..	..	2
No. 58 „ „ 3 in.	..	..	..	8	No. 75 Flanged wheels	..	..	..	..	4
No. 60 „ „ 4 in.	..	..	..	2	No. 76 Grooved wheels	..	..	..	..	1
No. 61 „ „ 5½ in.	..	..	..	2	No. 77 Axle rods, 3½ in.	..	..	..	..	3
No. 62 „ „ 6½ in.	..	..	..	3	No. 82 Collars	..	..	..	..	2
No. 63 „ „ 8 in.	..	..	..	12	No. 84 Washers	..	..	..	..	10
					No. 87 Lamps and nuts	..	..	..	..	4
					No. 96 Signal rods	..	..	..	..	4

The lower portion of the garage is made on 6½ in. angle bars, which hold the plates and metal strips. Higher, brackets are sufficient where the 8 x 3 plates are used. The construction of the motor is simple and is clearly shown in the illustration.

Primus Engineering.

MADE WITH No. 5 OUTFIT.

Model No. 312.



LIGHTHOUSE.

PARTS REQUIRED.

No. 3 Carriage end	..	..	..	..	..	1
No. 25 Wood slips, 3 x 1 in.	..	..	..	..	..	25
Nos. 50 & 51 Nuts and screws	..	..	..	..	..	150
No. 52 Angle bars, 6 in.	..	..	..	..	..	4
No. 54 „ „ 8 in.	..	..	..	..	..	8
No. 55 „ „ 12 in.	..	..	..	..	..	2
No. 56 Metal strips, 2 in.	..	..	..	..	..	2
No. 57 „ „ 2½ in.	..	..	..	..	..	14
No. 58 „ „ 3 in.	..	..	..	..	..	7
No. 59 „ „ 3½ in.	..	..	..	..	..	13
No. 60 „ „ 4 in.	..	..	..	..	..	1
No. 61 „ „ 5½ in.	..	..	..	..	..	3
No. 63 „ „ 8 in.	..	..	..	..	..	2
No. 66 Brackets	..	..	..	..	..	45
No. 68 Metal plates, 3 x 3 in.	..	..	..	..	..	3
No. 75 Flanged wheels	..	..	..	..	..	2
No. 76 Grooved wheels	..	..	..	..	..	1
No. 77 Axle rod, 3½ in.	..	..	..	..	..	1
No. 84 Washers	..	..	..	..	..	16
No. 87 Lamp	..	..	..	..	..	1

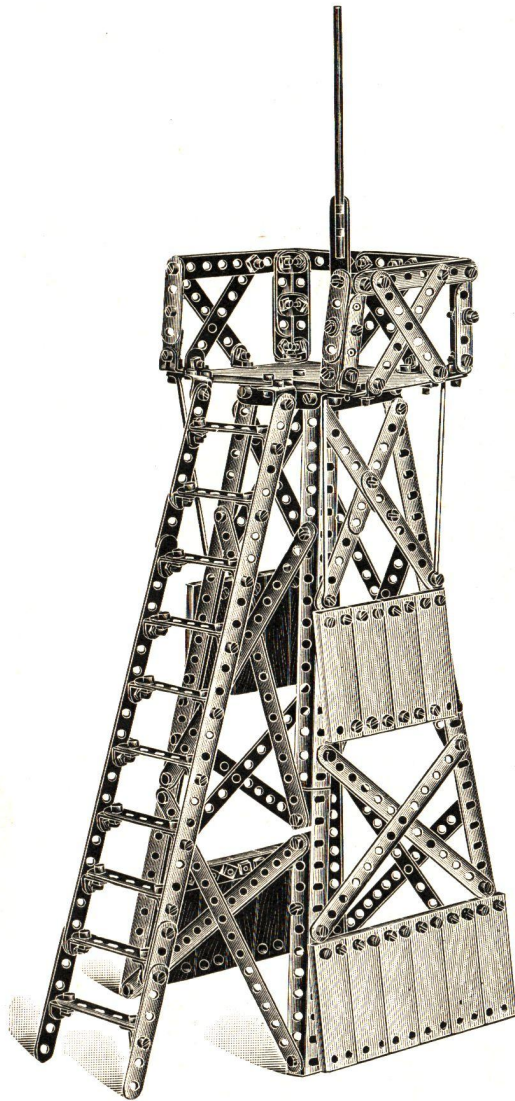
The skeleton is made on angle bars, screwed together and secured by metal strips which are slightly bent. The platforms are made of 3 x 3 plates.

To form the lantern slightly curve six 2½ in. strips. The beacon light is made by rolling pink paper round two flanged wheels, one being placed at the top and the other near the bottom of a 2¾ in. axle, which is kept securely in position by fixing a pulley wheel to the portion below a 4 in. metal strip.



MADE WITH No. 5 OUTFIT.

Model No. 313.



PYLON.

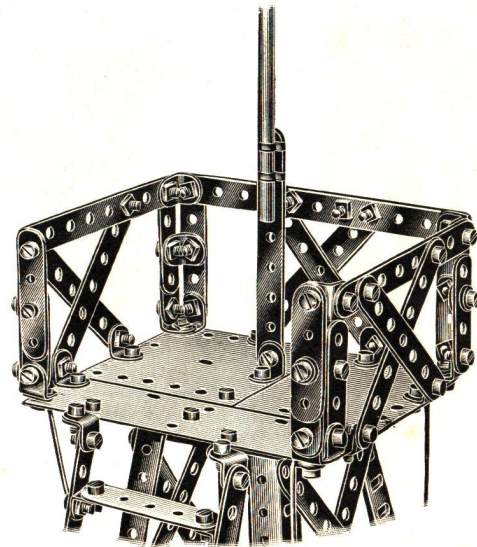
PARTS REQUIRED.

No. 25 Wood slips, 3 x 1 in.	..	..	..	..	20
Nos. 50 & 51 Screws and nuts	..	..	..	..	190
No. 53 Angle bars, 6½ in.	..	..	..	..	2
No. 54 „ „ 8 in.	..	..	..	..	4
No. 55 „ „ 12 in.	..	..	..	..	2
No. 56 Metal strips, 2 in.	..	..	..	..	16
No. 57 „ „ 2½ in.	..	..	..	..	16
No. 58 „ „ 3 in.	..	..	..	..	5
No. 59 „ „ 3½ in.	..	..	..	..	12
No. 60 „ „ 4 in.	..	..	..	..	4
No. 61 „ „ 5½ in.	..	..	..	..	2
No. 62 „ „ 6½ in.	..	..	..	..	4
No. 63 „ „ 8 in.	..	..	..	..	8
No. 64 „ „ 12 in.	..	..	..	..	2
No. 66 Brackets	..	..	..	..	44
No. 68 Metal plates, 3 x 3 in.	..	..	..	..	4
No. 84 Washers	..	..	..	..	6
No. 96 Signal rods	..	..	..	..	4

The four sides are built up with angle bars joined together. The sides are metal strips on which are screwed the No. 25 wood slips.

The observation platform is made as illustrated; the floor consists of four 3 x 3 in. metal plates. The signal is an axle rod fixed to a 3½ in. metal slip by means of wire.

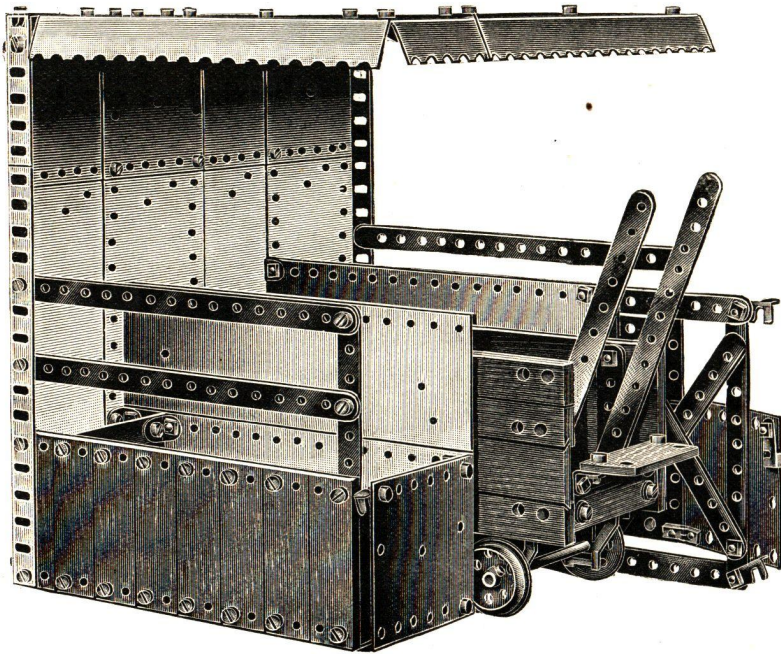
The ladder is made of metal slips fitted by means of brackets.



Primus Engineering.

MADE WITH No. 5 OUTFIT.

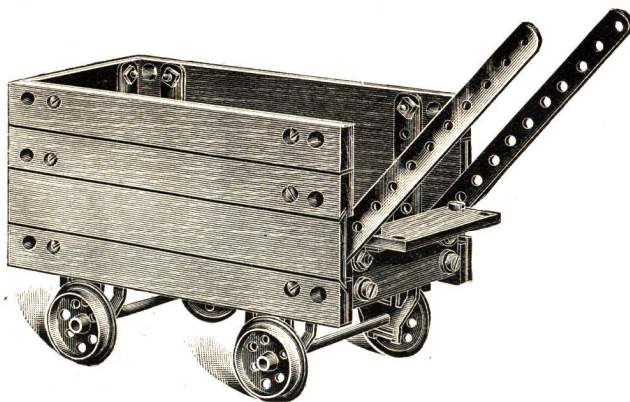
Model No. 314.



STABLE FOR
TWO HORSES
WITH CART.

PARTS REQUIRED.

No. 1 Side rails	..	..	..	..	6
No. 17 Truck sides	..	..	..	..	2
No. 25 Wood slips, 3 x 1 in.	..	..	..	..	25
Nos. 50 & 51 Nuts and screws	..	..	..	..	166
No. 52 Angle bars, 6 in.	..	..	..	..	1
No. 53 " " 6½ in.	..	..	..	..	5
No. 54 " " 8 in.	..	..	..	..	2
No. 56 Metal strips, 2 in.	..	..	..	..	15
No. 57 " " 2½ in.	..	..	..	..	2
No. 59 " " 3½ in.	..	..	..	..	4
No. 61 " " 5½ in.	..	..	..	..	4
No. 62 " " 6½ in.	..	..	..	..	2
No. 63 " " 8 in.	..	..	..	..	8
No. 66 Brackets	..	..	..	..	16
No. 67 Metal plates, 8 x 3 in.	..	..	..	..	10
No. 68 " " 3 x 3 in.	..	..	..	..	15
No. 71 Eaves, 8 in.	..	..	..	..	4
No. 72 Straight hinges	..	..	..	..	6
No. 75 Flanged wheels	..	..	..	..	4
No. 77 Axle rods, 3½ in.	..	..	..	..	2
No. 84 Washers	..	..	..	..	42
No. 95 Catches	..	..	..	..	4



The construction of this model is made sufficiently clear by the illustration; in the horse stalls, mangers made of No. 25 wood slips are fitted by means of brackets as shown.

The cart is made of No. 1 side rails and No. 17 truck sides, the wheels being fixed on to trunnions.

Primus Engineering.

MADE WITH No. 5 OUTFIT.

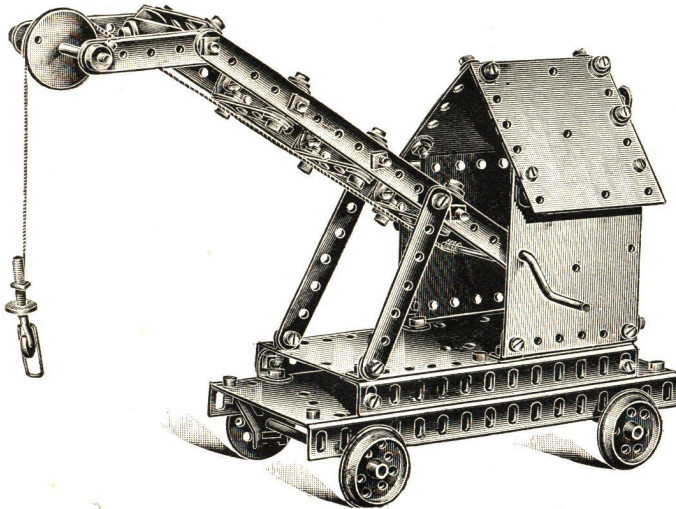
CRANE TRUCK.

PARTS REQUIRED.

Nos. 50 & 51 Nuts and screws	..	..	72
No. 52 Angle bars	..	..	2
No. 54 " "	..	..	2
No. 56 Metal strips, 2 in.	..	..	8
No. 57 " " 2½ in.	..	..	5
No. 59 " " 3½ in.	..	..	2
No. 63 " " 8 in.	..	..	2
No. 66 Brackets	..	..	39
No. 67 Metal plates, 8 x 3	..	..	1
No. 68 " " 3 x 3	..	..	7
No. 75 Flanged wheels	..	..	4
No. 76 Grooved wheels	..	..	1
No. 77 Axle rods, 3½ in.	..	..	2
No. 78 " " 2¾ in.	..	..	1
No. 82 Collars	..	..	3
No. 84 Washers	..	..	32
No. 86 Coupling hook	..	..	1

Use cord as illustration.

Model No. 315.



HOUSE BOAT.

PARTS REQUIRED.

No. 1 Side rails	..	..	4
No. 5 R.H. Windows	..	..	2
No. 6 L.H. " "	..	..	2
No. 7 Doors..	..	..	2
No. 8 C. Windows	..	..	2
No. 10 Roof	..	..	1
No. 25 Wood slips, 3 x 1 in.	..	..	7
Nos. 50 & 51 Nuts and screws	..	111	
No. 53 Angle bars, 6½ in.	..	..	2
No. 56 Metal strips, 2 in.	..	..	9
No. 57 " " 2½ in..	..	..	3
No. 58 " " 3 in.	..	..	1
No. 59 " " 3½ in..	..	10	
No. 60 " " 4 in.	..	..	2
No. 61 " " 5½ in..	..	..	5
No. 62 " " 6½ in..	..	..	4
No. 63 " " 8 in.	..	..	5
No. 64 " " 12½ in..	..	..	3
No. 66 Brackets	..	..	36
No. 67 Metal plates, 8 x 3	..	..	2
No. 68 " " 3 x 3	..	..	8
No. 73 Bent Hinges	..	..	4
No. 82 Collars	..	..	-
No. 87 Lamps	..	..	4
No. 92 Knob screws	..	..	4
No. 96 Signal rods	..	..	2

Model No. 316.

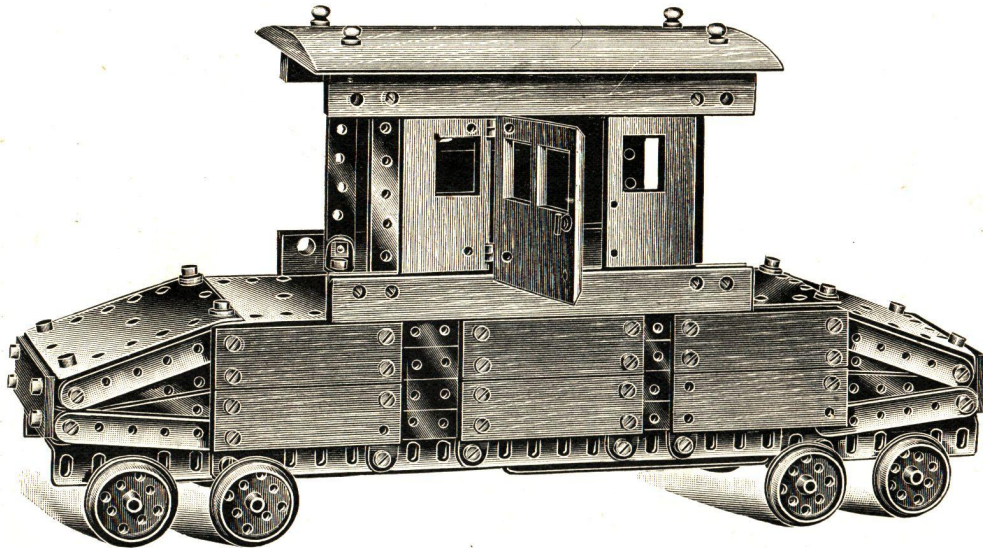


It is recommended that the boat be made first; its construction is simple and is sufficiently explained in the illustration. The house is built on the same principle as the railway carriage illustrated on page 42, with the exception that the roof is reversed, and one end is hinged to form a canopy. The floor is made of 3 x 3 in. metal plates.

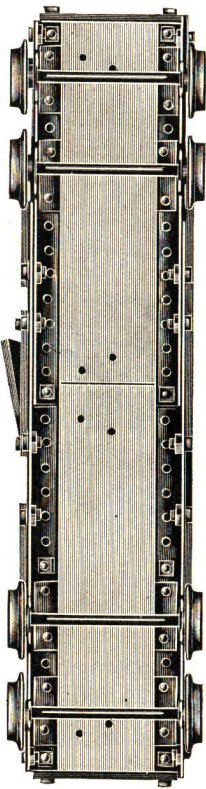
Primus Engineering.

MADE WITH No. 5 OUTFIT.

Model No. 317.



METROPOLITAN ELECTRIC LOCOMOTIVE.



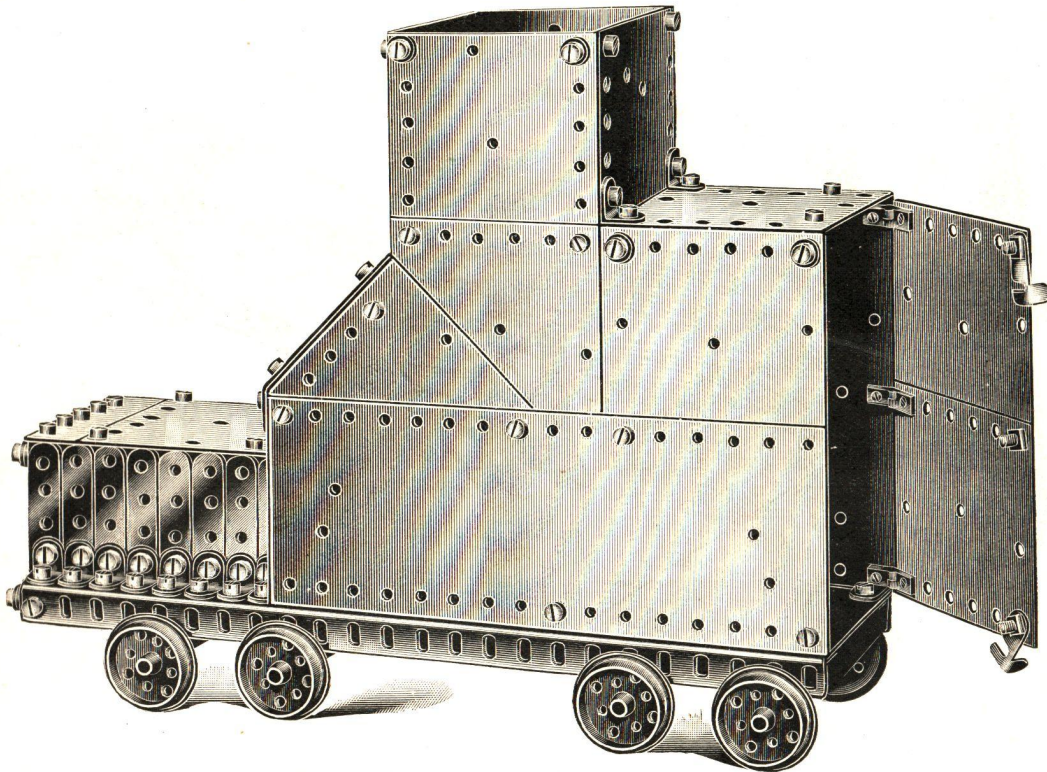
PARTS REQUIRED.

No. 1 Side rails	..	..	..	..	..	..	..	..	..	..	4
No. 5 R.H. Windows	..	..	..	..	..	..	..	..	..	..	2
No. 6 L.H.	..	..	..	..	..	..	..	..	..	..	2
No. 8 Centre	..	..	..	..	..	..	..	..	..	..	2
No. 10 Roof	..	..	..	..	..	..	..	..	..	..	1
No. 25 Wood slips, 3 x 1 in.	..	..	..	..	..	..	..	..	..	..	14
Nos. 50 & 51 Nuts and screws	..	..	..	..	..	..	..	..	..	..	106
No. 54 Angle bars, 8 in.	..	..	..	..	..	..	..	..	..	..	2
No. 55 " " 12 in.	..	..	..	..	..	..	..	..	..	..	2
No. 56 Metal strips, 2 in.	..	..	..	..	..	..	..	..	..	..	16
No. 57 " " 2½ in.	..	..	..	..	..	..	..	..	..	..	15
No. 58 " " 3 in.	..	..	..	..	..	..	..	..	..	..	8
No. 59 " " 3½ in.	..	..	..	..	..	..	..	..	..	..	6
No. 62 " " 6½ in.	..	..	..	..	..	..	..	..	..	..	2
No. 66 Brackets	..	..	..	..	..	..	..	..	..	..	29
No. 67 Metal plates, 8 x 3 in...	..	..	..	..	..	..	..	..	..	..	2
No. 68 " " 3 x 3 in...	..	..	..	..	..	..	..	..	..	..	4
No. 73 Bent Hinges	..	..	..	..	..	..	..	..	..	..	2
No. 74 Trunnions	..	..	..	..	..	..	..	..	..	..	8
No. 75 Flanged wheels	..	..	..	..	..	..	..	..	..	..	8
No. 77 Axle rods	..	..	..	..	..	..	..	..	..	..	4
No. 84 Washers	..	..	..	..	..	..	..	..	..	..	20
No. 88 Door handle	..	..	..	..	..	..	..	..	..	..	1
No. 91 Door screws	..	..	..	..	..	..	..	..	..	..	4
No. 92 Knob screws	..	..	..	..	..	..	..	..	..	..	4

The floor is built with two 8 x 3 in. metal plates, held together with screws, and 8 in. angle bars. The wheels are on trunnions. The sides are built up with metal strips, horizontal and vertical, also 3 x 1 in. wood slips.

MADE WITH No. 5 OUTFIT.

Model No. 318.



ITALIAN ARMOURD MOTOR CAR.

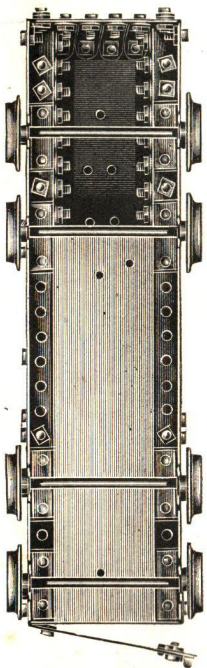
PARTS REQUIRED.

Nos. 50 & 51 Nuts and screws	..	..	..	..	..	..	..	..	116
No. 56 Metal strips, 2 in.	..	..	..	..	..	..	..	..	16
No. 57 „ „ 2½ in.	..	..	..	..	..	..	..	..	4
No. 55 Angle bars, 12 in.	..	..	..	..	..	..	..	..	2
No. 66 Brackets	..	..	..	..	..	..	..	..	41
No. 67 Metal plates, 8 x 3 in.	..	..	..	..	..	..	..	..	5
No. 68 „ „ 3 x 3 in.	..	..	..	..	..	..	..	..	14
No. 72 Straight hinges	..	..	..	..	..	..	..	..	3
No. 74 Trunnions	..	..	..	..	..	..	..	..	8
No. 75 Flanged wheels	..	..	..	..	..	..	..	..	8
No. 77 Axle rods, 3½ in.	..	..	..	..	..	..	..	..	4
No. 84 Washers	..	..	..	..	..	..	..	..	23
No. 95 Catches	..	..	..	..	..	..	..	..	2

The body is made entirely of 3 x 3 in. and 8 x 3 in. plates, held together by means of brackets, one 3 x 3 in. plate on either side being placed diagonally to fit in the space. A glance at the large and small illustrations will show the method of fixing.

The floor of the car is built with one 8 x 3 in. metal plate, with its end at the rear of the model.

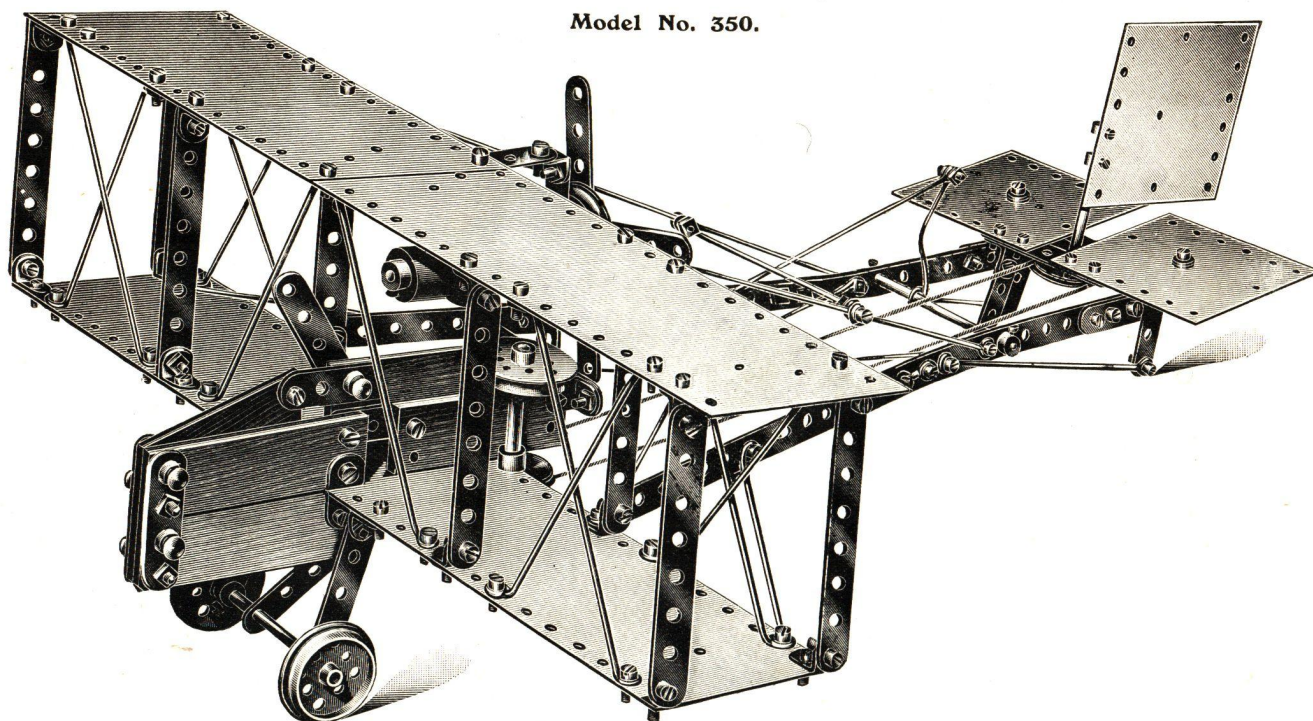
The wheels are fixed by using trunnions.



Primus Engineering.

MADE WITH No. 5 OUTFIT, and Additional Parts.

Model No. 350.



H. FARMAN BIPLANE.

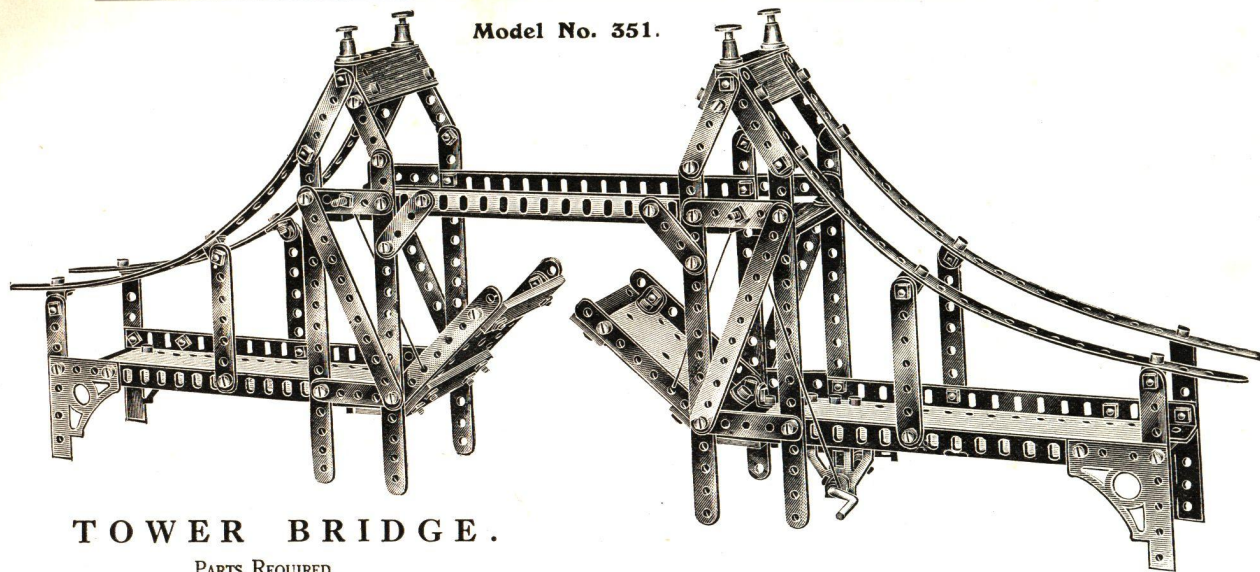
MADE WITH ADDITIONAL PARTS.

										With No. 5 Outfits.	Additional parts.
No. 25 Wood slips, 3 x 1 in.	..	..	..	..	..	..	..	..	..	6	..
Nos. 50 & 51 Nuts and screws	..	..	..	..	..	..	..	..	..	112	..
No. 56 Metal strips, 2 in.	..	..	..	..	..	..	..	..	..	16	..
No. 57 " " 2½ in.	..	..	..	..	..	..	..	..	..	4	..
No. 60 " " 4 in.	..	..	..	..	..	..	..	..	..	3	..
No. 64 " " 12½ in.	..	..	..	..	..	..	..	..	..	2	..
No. 66 Brackets	..	..	..	..	..	..	..	..	..	34	..
No. 67 Metal plates, 8 x 3 in.	..	..	..	..	..	..	..	..	..	4	..
No. 68 " " 3 x 3 in.	..	..	..	..	..	..	..	..	..	3	..
No. 75 Flanged wheels	..	..	..	..	..	..	..	..	..	4	..
No. 76 Grooved wheels	..	..	..	..	..	..	..	..	..	3	..
No. 77 Axle rods, 3½ in.	..	..	..	..	..	..	..	..	..	4	..
No. 78 " " 2¾ in.	..	..	..	..	..	..	..	..	..	2	..
No. 82 Collars	..	..	..	..	..	..	..	..	..	13	..
No. 84 Washers	..	..	..	..	..	..	..	..	..	20	..
No. 92 Knob screws	..	..	..	..	..	..	..	..	..	4	..
No. 96 Signal post rods.	..	..	..	..	..	..	..	..	..	12	..

The planes are made with 8 x 3 in. metal plates, overlapping and screwed together. Signal post rods are used for the stays, and as connecting rods for steering. Cord is used as illustration for operating the rudder.

Primus Engineering.

MADE WITH No. 5 OUTFIT and Additional Parts.



TOWER BRIDGE.

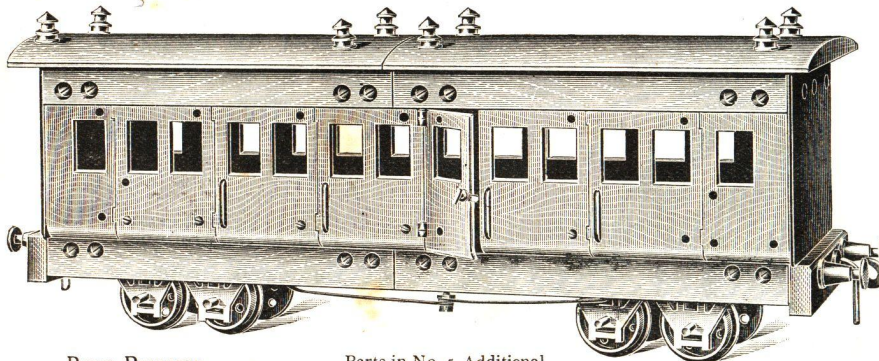
PARTS REQUIRED.

No. 25 Wood slips, 3 x 3 in.	16
Nos. 50 & 51 Nuts and screws	115
No. 54 Angle bars, 8 in.	6
No. 56 Metal strips, 2 in.	6
No. 57 " " 2½ in.	16
No. 58 " " 3 in.	3
No. 59 " " 3½ in.	4
No. 60 " " 4 in.	3
No. 61 " " 5½ in.	4
No. 63 " " 8 in.	8
No. 64 " " 12½ in.	3

No. 66 Brackets	36
No. 67 Metal plates, 8 x 3 in.	8
No. 68 " " 3 x 3 in.	2
No. 74 Trunnions	2
No. 82 Collars	4
No. 83 Handle axle	1
No. 84 Washers	1
No. 85 Buffers and nuts	4
No. 87 Lamps	2

Extra part :—1 No. 64—12½ in. Metal strip.
Use cord as illustrated for raising the bridge.

The roadway entrances of bridge are 8 x 3 in. metal plates, as is the upper bridge. The rising parts are 3 x 3 in. metal plates. Otherwise the model is easily built.



Model No. 352.

SALOON
CARRIAGE.

PARTS REQUIRED.

	Parts in No. 5	Additional
	Outfit.	Parts.
No. 1 Side rails	6	2
No. 3 C. Ends	2	—
No. 4 Buffer block	2	—
No. 5 R.H. Windows	2	—
No. 6 L.F. "	2	—
No. 7 Carriage Doors	2	—
No. 8 Carriage windows	2	8
No. 10 Roof	2	—
Nos. 50 & 51 Nuts and screws	57	—
No. 53 Angle bars, 6½ in.	4	—
No. 56 Metal strips, 2 in.	3	—
No. 57 " " 2½ in.	8	—
No. 58 " " 3 in.	1	—
No. 59 " " 3½ in.	10	—
No. 63 " " 8 in.	2	—

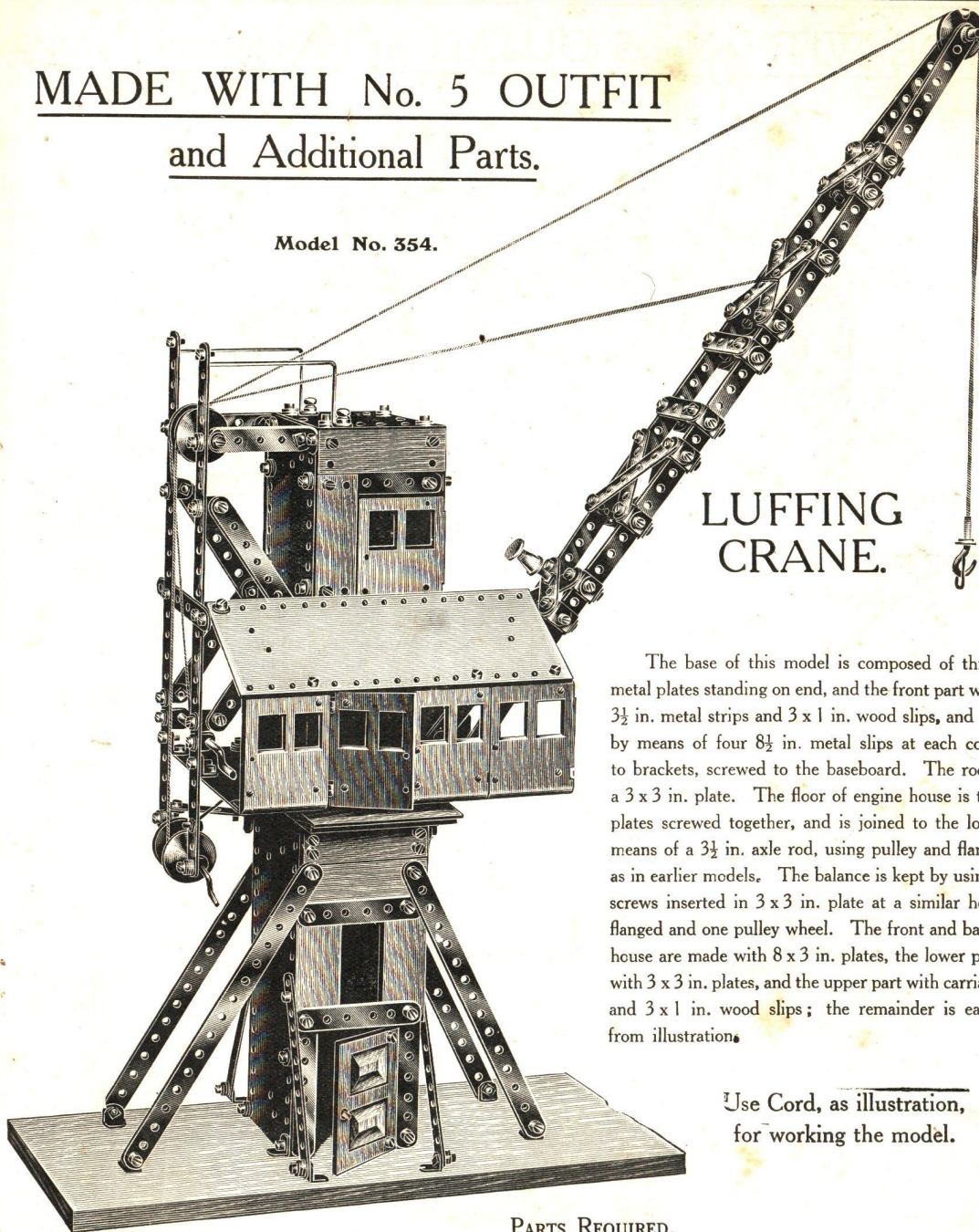
	Parts in No. 5	Additional
	Outfit.	Parts.
No. 66 Brackets	12	—
No. 73 Bent hinges	4	—
No. 74 Trunnions	8	—
No. 75 Flanged wheels	8	—
No. 76 Grooved wheels	2	—
No. 78 Axles, 2½ in.	4	—
No. 85 Buffers and nuts	4	—
No. 86 Coupling hooks	2	—
No. 87 Lamps	6	2
No. 88 Door handles	2	—
No. 90 Carriage rails	4	4
No. 91 Door screws	16	—
No. 92 Knob screws	2	—
No. 96 Signal post rods	4	—

The metal framework of saloon should be made first; join two 8 in. angle bars with a 2½ in. metal strip, leaving only the central hole between them. This applies to both sides. The top is supported with three 4 in. slips each side, and the top sides are made by joining one 8½ in. and one 6½ in. metal slips. Then fix wood as illustration. Bogie wheels, see page 44.

Primus Engineering.

MADE WITH No. 5 OUTFIT and Additional Parts.

Model No. 354.



LUFFING CRANE.

The base of this model is composed of three 8 x 3 in. metal plates standing on end, and the front part with 3 in. and 3½ in. metal strips and 3 x 1 in. wood slips, and is supported by means of four 8½ in. metal slips at each corner, joined to brackets, screwed to the baseboard. The roof of base is a 3 x 3 in. plate. The floor of engine house is two 8 x 3 in. plates screwed together, and is joined to the lower part by means of a 3½ in. axle rod, using pulley and flanged wheels, as in earlier models. The balance is kept by using four knob screws inserted in 3 x 3 in. plate at a similar height to one flanged and one pulley wheel. The front and back of engine house are made with 8 x 3 in. plates, the lower parts of sides with 3 x 3 in. plates, and the upper part with carriage windows and 3 x 1 in. wood slips; the remainder is easily gleaned from illustration.

Use Cord, as illustration,
for working the model.

PARTS REQUIRED.

	From No. 5 Outfit.	Additional parts.		From No. 5 Outfit.	Additional parts.		From No. 5 Outfit.	Additional parts.
No. 8 Central windows..	2	.. 4	No. 61 Metal Strips, 5½ in.	4	.. 4	No. 79 Axle rods, 1½ in. ..	1	.. -
No. 16 Door ..	1	.. -	No. 63 " " 8 in.	4	.. -	No. 82 Collars ..	8	.. -
No. 18 Carriage ends ..	1	.. -	No. 64 " " 12½ in.	3	.. 3	No. 83 Handle axle ..	1	.. 1
No. 19 Baseboard ..	1	.. -	No. 66 Brackets ..	78	.. 37	No. 84 Washers ..	48	.. 90
No. 25 Wood slips ..	8	.. -	No. 67 8 x 3 Plates ..	8	.. -	No. 85 Buffers ..	1	.. -
Nos. 50 & 51 Nuts and screws ..	202	.. -	No. 68 3 x 3 " ..	4	.. -	No. 86 Coupling hook ..	1	.. -
No. 56 Metal strips, 2 in.	14	.. -	No. 72 Hinges ..	2	.. -	No. 88 Door handle ..	1	.. -
No. 57 " " 2½ in.	4	.. -	No. 73 Bent hinges ..	2	.. -	No. 91 Door screws ..	16	.. 1
No. 58 " " 3 in.	8	.. 3	No. 75 Flanged wheel ..	1	.. -	No. 92 Knob screws ..	4	.. 3
No. 59 " " 3½ in.	6	.. -	No. 76 Grooved wheels ..	4	.. 3	No. 96 Wire rods ..	3	.. -
No. 60 " " 4 in.	3	.. -	No. 77 Axle rods, 3½ in. ..	2	.. -	No. 97 Wood screws ..	8	.. -

MADE WITH OUTFIT No. 5, and Additional Parts.

BIG WHEEL.

PARTS REQUIRED.

					Parts from No. 5 Outfit.	Additional parts.
No. 3 Carriage ends	..	..	..	..	2	14
No. 25 Wood slips, 3 x 1 in.	..	..	..	..	25	23
Nos. 50 & 51 Nuts and screws	..	..	..	..	312	195
No. 53 Angle bars, 6½ in.	..	..	..	..	4	-
No. 55 " " 12 in.	..	..	..	..	2	4
No. 56 Metal strips, 2 in.	..	..	..	..	16	32
No. 58 " " 3 in.	..	..	..	..	8	36
No. 60 " " 4 in.	..	..	..	..	3	29
No. 61 " " 5½ in.	..	..	..	..	4	-
No. 63 " " 8 in.	..	..	..	..	12	32
No. 64 " " 12½ in.	..	..	..	..	3	19
No. 66 Brackets	..	..	..	..	78	66
No. 68 Metal plates, 3 x 3 in.	..	..	..	..	10	6
No. 74 Trunnions	..	..	..	..	2	-
No. 75 Flanged wheels	..	..	..	..	2	-
No. 77 Axle rods, 3½ in.	..	..	..	..	4	12
No. 82 Collars	..	..	..	..	13	23
No. 84 Washers	..	..	..	..	48	22
No. 96 Signal post rods	..	..	..	..	4	12

SPECIAL :—

1 Special 12-inch axle rod, price 1s.
1 8-in. Angle bar cut in half, price 3d.

MEASUREMENTS :—

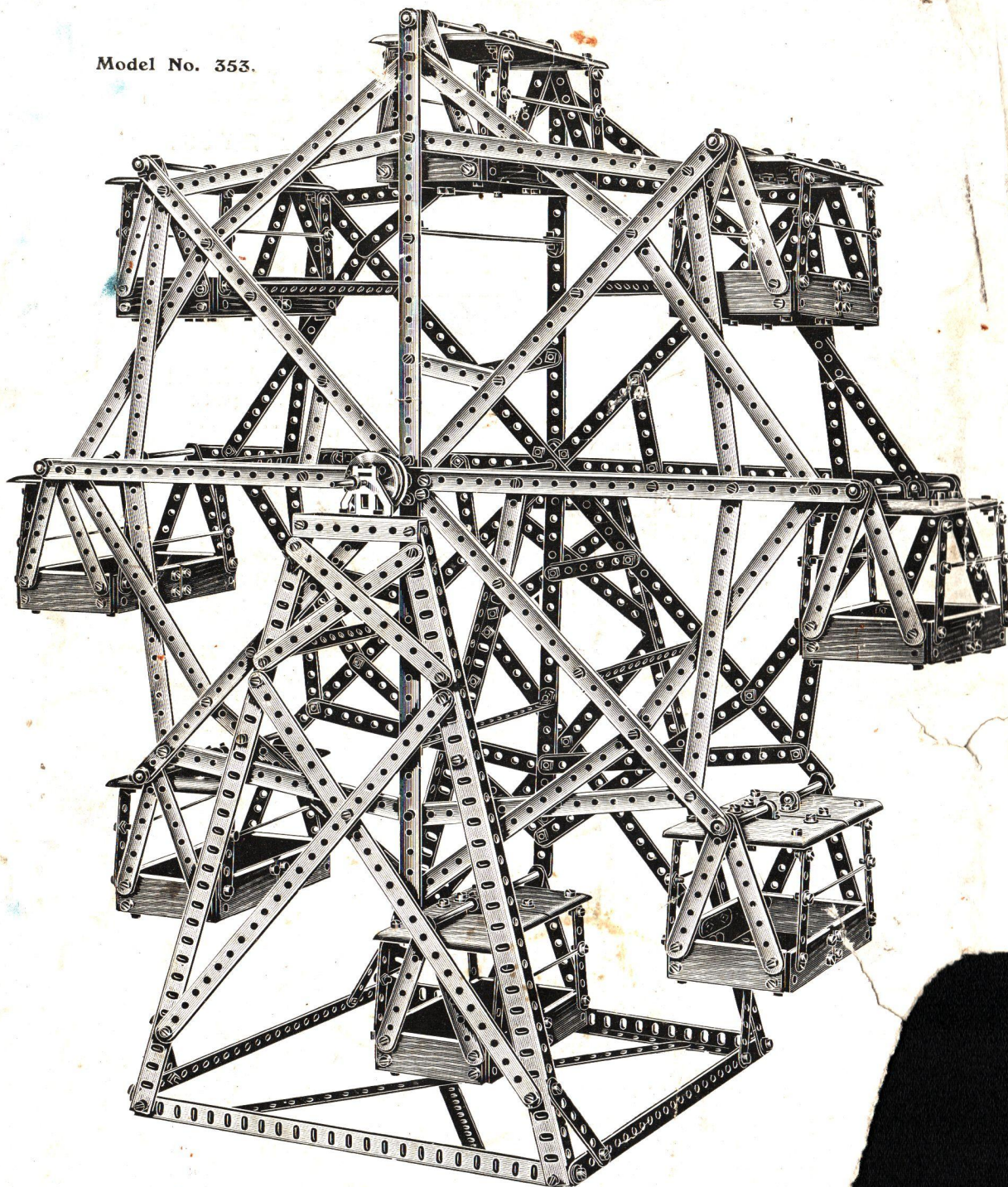
Height	..	..	..	..	28½ inches
Width	..	..	..	..	25 "
Diameter of wheel	..	..	..	..	23 "
Depth of wheel	..	..	..	..	8½ "

The stand should be built, and then the framework of the wheel.

The roofs of the carriages are made with two carriage ends, placed lengthways, and are joined together with 2-in. metal strips. Two extra holes require to be made in each, for brackets to be fixed to for sides to hang from. The model otherwise is straightforward.

PRIMUS ENGINEERING.

Model No. 353.



MODEL OF BIG WHEEL.

An excellent and truly realistic model of the Big Wheel, standing $28\frac{1}{2}$ inches high, with that it can be made to revolve by means of a small electric, clockwork model or vertic