13. REVOLUTION COUNTER

DESCRIPTION

The engineer often wants to know how many revolutions a shaft has made, how many copies a printing machine has made, etc. Revolution counters tell him all he wants to know.

CONSTRUCTION

Start by making the outline frame. Then bolt through end hole of an F5 to centre hole of front top F9. Bolt through outside hole of a P29 to centre hole of the F5. Make gear assembly as shown in Fig. 2 by fitting a P29 to an S55 and adding 1 NI/BI as striker for first gear and similarly for the second gear, but with 8 NI/BI in place of the single NI/BI (SCD33). Now fit ends of the S55's through opposing holes of the P29 on frame so that the bolt ends on the gear wheels face each other. Make sure that the bolt ends will strike on opposite gears as the shafts revolve.

Make a P29/F5 as used on frame and fit to rear F9, to form end bearings for the gear shafts. Lock nut ends (SCD19) leaving shaft of the first gear protruding. To this shaft, fit crank (SCD14).

Note that the two pointers overlap each other when crossing the centre line of the dial.

SPECIFICATION			
Part No.		Part No.	
A1	4	N1	36
B1	24	P29	4
F5	3	S25	1
F9	3	S55	2
F13	2	U2	2
F17	2		

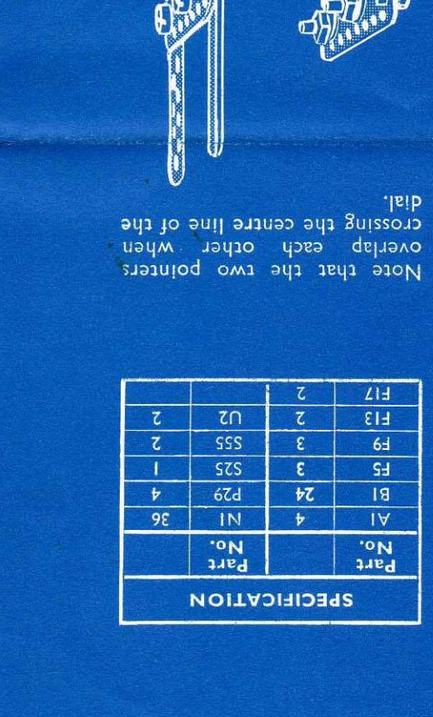


Fig. 1

Fig. 2—Enlarged view of Gearing

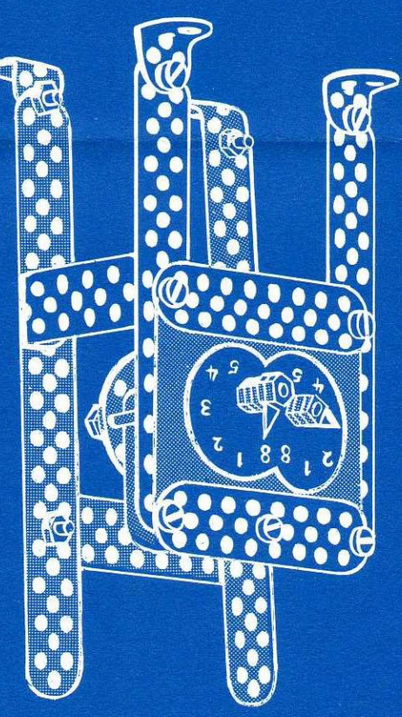


Fig. 3—Side view

Reference number of this sheet is No.1/13/H Trix Construction Sets, 310 Summer Lane, Birmingham 19.

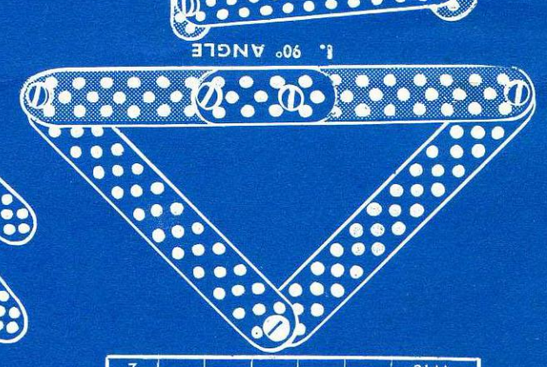
Further copies 6d. each.

MODELS 1-6

SPECIFICATIONS						
Part No.	Model No.					
	1	2	3	4	5	6
B1	5	5	8	8	8	4
F5	1	4	2	4	4	2
F9	2	2	4	4	4	2
F13	2	2	2	2	2	2
N1	5	5	12	16	19	16
P29			3		3	
S55				2	2	3
U2			2	2	2	2
W16						2

CONSTRUCTION

The building of these models is quite straightforward and can be clearly seen from the illustrations. When building the buffers, make the framework and then add the buffer stops. In the Tricar, SCD9 is used for front wheel and SCD13 for handle-bars, rear axle S55, wheels P29's. Use SCD18 for attaching arms and legs of Jumping Jack.



1. 90° ANGLE

4. PARK BENCH

3. JUMPING JACK

2. ARROW

5. TRI-CAR

6. BUFFERS

MODELS 7-10

CONSTRUCTION

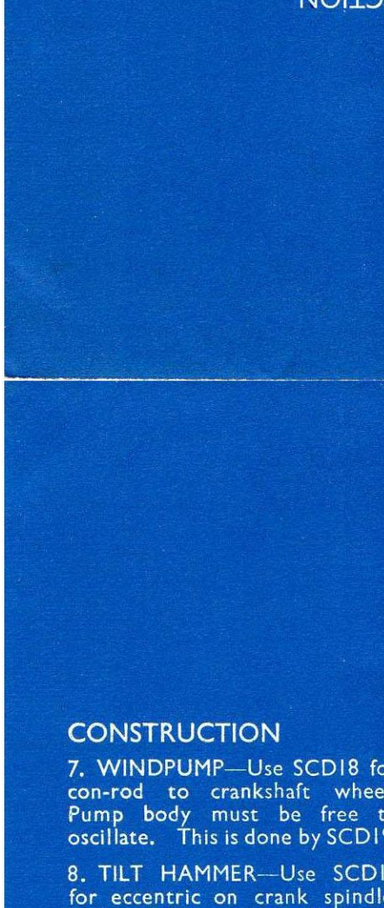
7. WINDPUMP—Use SCD18 for con-rod to crankshaft wheel. Pump body must be free to oscillate. This is done by SCD19.

8. TILT HAMMER—Use SCD12 for eccentric on crank spindle. Make table from one P29, one C1 and one A1. Be sure that hammer arm is free to swing on cross shaft.

SPECIFICATIONS				
Part No.	Model No.			
	7	8	9	10
A1	4	4	2	4
B1	13	18	24	23
C1		1		
F5	3	4	3	4
F9	4	4	4	4
F13	2	1	1	1
F17	2	4	4	4
N1	33	36	36	35
P29	4	4	4	4
S25	2	2	2	1
S55	4	3	1	2
U1	2	2	2	2
U2	2	2	2	2
W10	1			
W16	2	1	2	2
Sp.			2	

9. BANDSAW—Use SCD10 for band pulleys. Two Sp. form saw table side supports. Use SCD14 for crank.

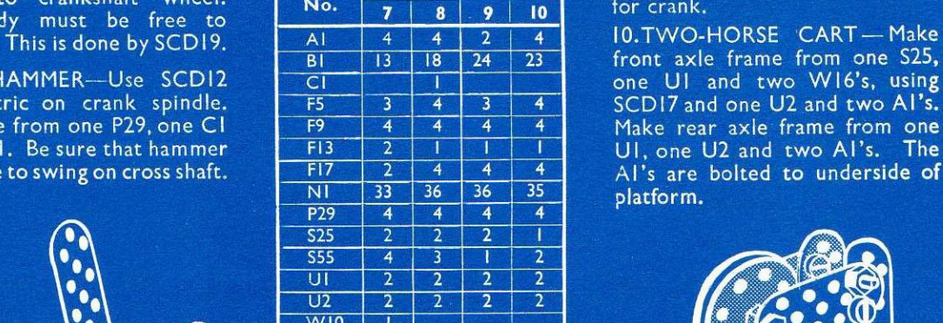
10. TWO-HORSE CART—Make front axle frame from one S25, one U1 and two W16's, using SCD17 and one U2 and two A1's. Make rear axle frame from one U1, one U2 and two A1's. The A1's are bolted to underside of platform.



7. WINDPUMP

8. TILT HAMMER

9. BANDSAW



10. TWO-HORSE CART

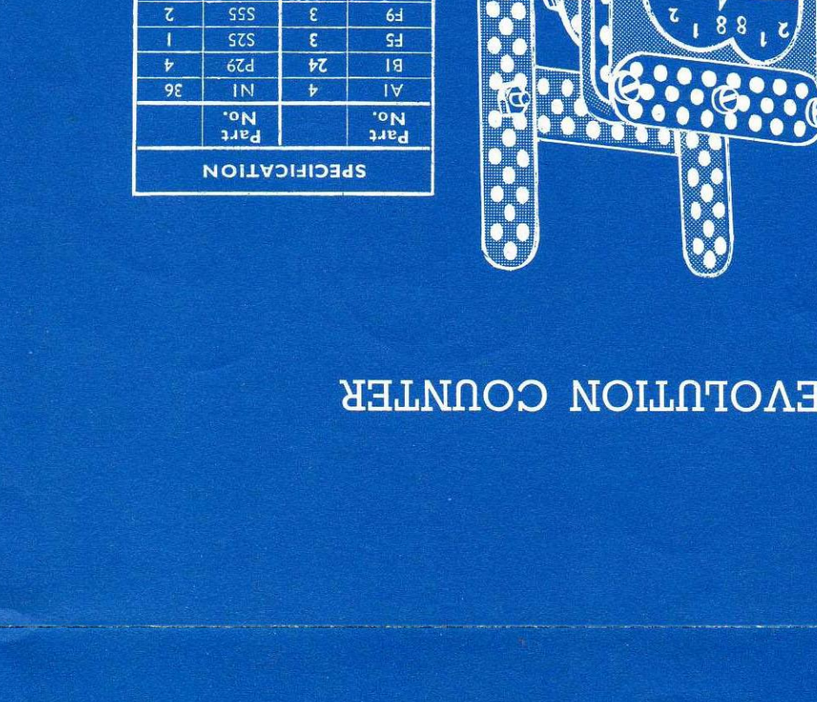
MODELS 11, 12

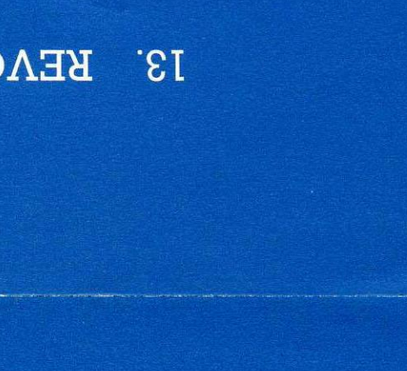
11. SWIVEL CRANE

DESCRIPTION

In practice the frame carrying the windlass would be free to swivel on a pivot and the crane would thus work over a circular area. Often used in stonemasons' yards.

SPECIFICATION			
Part No.		Part No.	
A1	4	P29	3
B1	18	S25	1
C1	1	S55	4
F5	4	U1	2
F9	4	U2	2
F13	2	W10	1
F17	4	W16	2
N1	36	Sp	2





CONSTRUCTION

Frame is made at rear end by F9's set vertically on one U2, braced at the top by a further U2 to which are attached two F17's. The jib, two F17's, spaced by U1's top and bottom is held by two F13's.

The front uprights are F9's, secured at the lower end by A1's also attached to F5's, which form the bearings for the wheels.

The winding gear (SCD22) carries the rope which runs over an SCD11 at the head of the jib.

12. LAWN MOWER

SPECIFICATION					
Part No.		Part No.		Part No.	
A1	2	F13	1	S55	3
B1	4	N1	28	U1	2
F5	3	P29	4	U2	2
F9	2	S25	1		

CONSTRUCTION

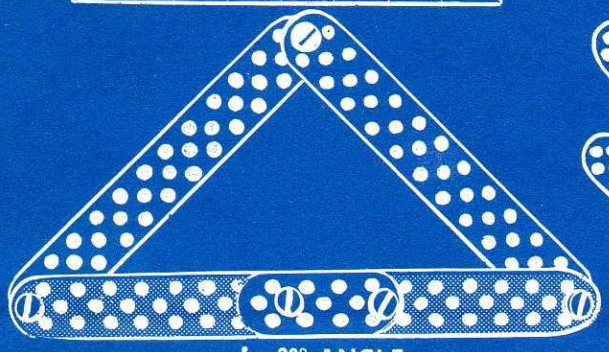
Use SCD9 for front axle assembly. Use SCD13 for handle, grass box and rear crossbar. Make cutters as shown in cutaway illustration.

MODELS 1-6

SPECIFICATIONS						
Part No.	Model No.					
	1	2	3	4	5	6
BI	5	5	8	8	8	4
F5	1	4	2	4	4	2
F9	2	2	4	4	4	2
F13	2	2	2	2	2	2
NI	5	5	12	16	19	16
P29			3		3	
S55				2	2	3
U2			2	2	2	2
W16						2

CONSTRUCTION

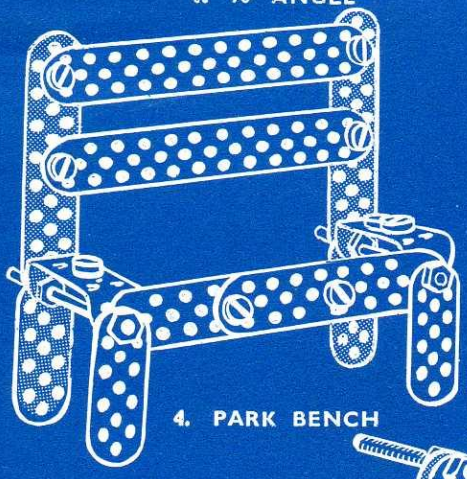
The building of these models is quite straightforward and can be clearly seen from the illustrations. When building the buffers, make the framework and then add the buffer stops. In the Tricar, SCD9 is used for front wheel and SCD13 for handle-bars, rear axle S55, wheels P29's. Use SCD18 for attaching arms and legs of Jumping Jack.



1. 90° ANGLE

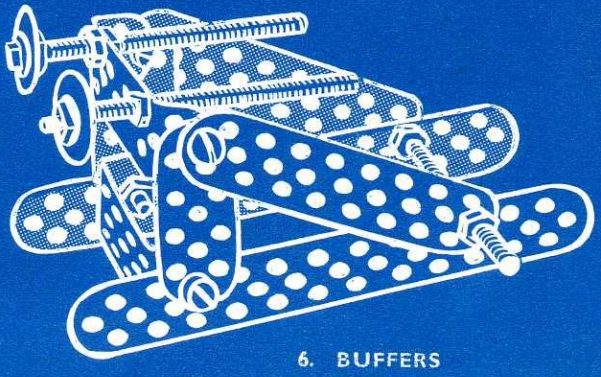
2. ARROW

3. JUMPING JACK



4. PARK BENCH

5. TRI-CAR



6. BUFFERS

MODELS 7-10

CONSTRUCTION

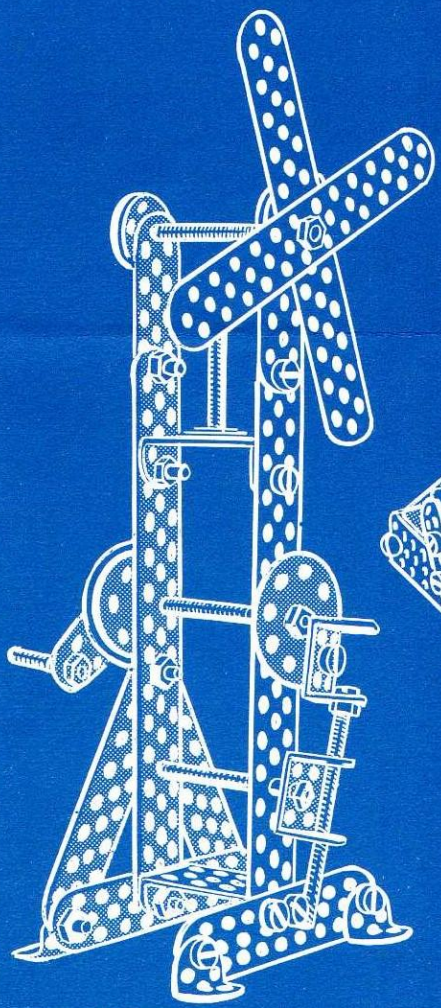
7. WINDPUMP—Use SCD18 for con-rod to crankshaft wheel. Pump body must be free to oscillate. This is done by SCD19.

8. TILT HAMMER—Use SCD12 for eccentric on crank spindle. Make table from one P29, one C1 and one A1. Be sure that hammer arm is free to swing on cross shaft.

SPECIFICATIONS				
Part No.	Model No.			
	7	8	9	10
A1	4	4	2	4
B1	13	18	24	23
C1		1		
F5	3	4	3	4
F9	4	4	4	4
F13	2	1	1	1
F17	2	4	4	4
N1	33	36	36	35
P29	4	4	4	4
S25	2	2	2	1
S55	4	3	1	2
U1	2	2	2	2
U2	2	2	2	2
W10	1			
W16	2	1	2	2
Sp.			2	

9. BANDSAW—Use SCD10 for band pulleys. Two Sp. form saw table side supports. Use SCD14 for crank.

10. TWO-HORSE CART—Make front axle frame from one S25, one U1 and two W16's, using SCD17 and one U2 and two A1's. Make rear axle frame from one U1, one U2 and two A1's. The A1's are bolted to underside of platform.



7. WINDPUMP

8. TILT HAMMER

9. BANDSAW

10. TWO-HORSE CART

MODELS 11, 12

11. SWIVEL CRANE

DESCRIPTION

In practice the frame carrying the windlass would be free to swivel on a pivot and the crane would thus work over a circular area. Often used in stonemasons' yards.

SPECIFICATION			
Part No.		Part No.	
A1	4	P29	3
B1	18	S25	1
C1	1	S55	4
F5	4	U1	2
F9	4	U2	2
F13	2	W10	1
F17	4	W16	2
N1	36	Sp	2

CONSTRUCTION

Frame is made at rear end by F9's set vertically on one U2, braced at the top by a further U2 to which are attached two F17's. The jib, two F17's, spaced by U1's top and bottom is held by two F13's.

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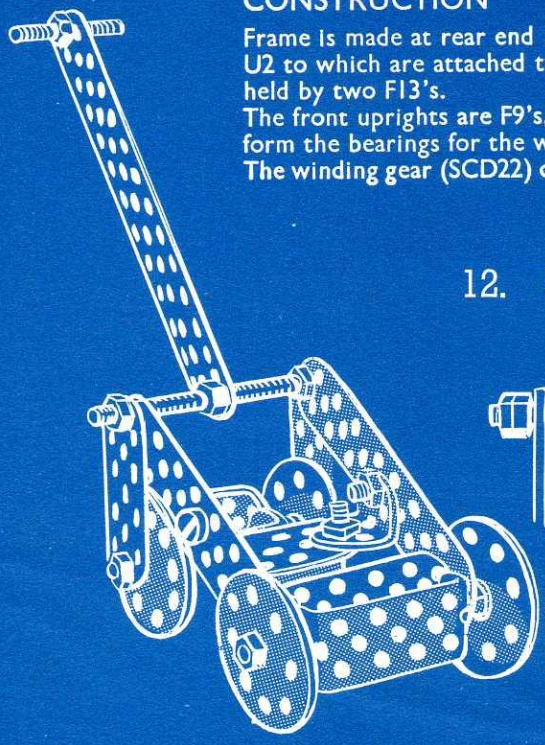
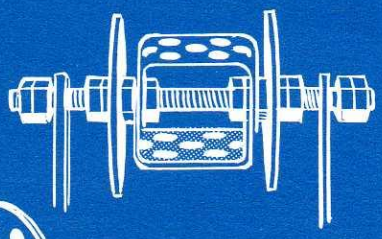
12. LAWN MOWER





SPECIFICATION					
Part No.		Part No.		Part No.	
A1	2	F13	1	S55	3
B1	4	N1	28	U1	2
F5	3	P29	4	U2	2
F9	2	S25	1		

CONSTRUCTION

Use SCD9 for front axle assembly. Use SCD13 for handle, grass box and rear crossbar. Make cutters as shown in cutaway illustration.

13. REVOLUTION COUNTER

DESCRIPTION

The engineer often wants to know how many revolutions a shaft has made, how many copies a printing machine has made, etc. Revolution counters tell him all he wants to know.

CONSTRUCTION

Start by making the outline frame. Then bolt through end hole of an F5 to centre hole of front top F9. Bolt through outside hole of a P29 to centre hole of the F5. Make gear assembly as shown in Fig. 2 by fitting a P29 to an S55 and adding 1 N1/B1 as striker for first gear and similarly for the second gear, but with 8 N1/B1 in place of the single N1/B1 (SCD33). Now fit ends of the S55's through opposing holes of the P29 on frame so that the bolt ends on the gear wheels face each other. Make sure that the bolt ends will strike on opposite gears as the shafts revolve.

Make a P29/F5 as used on frame and fit to rear F9, to form end bearings for the gear shafts. Lock nut ends (SCD19) leaving shaft of the first gear protruding. To this shaft. fit crank (SCD14).

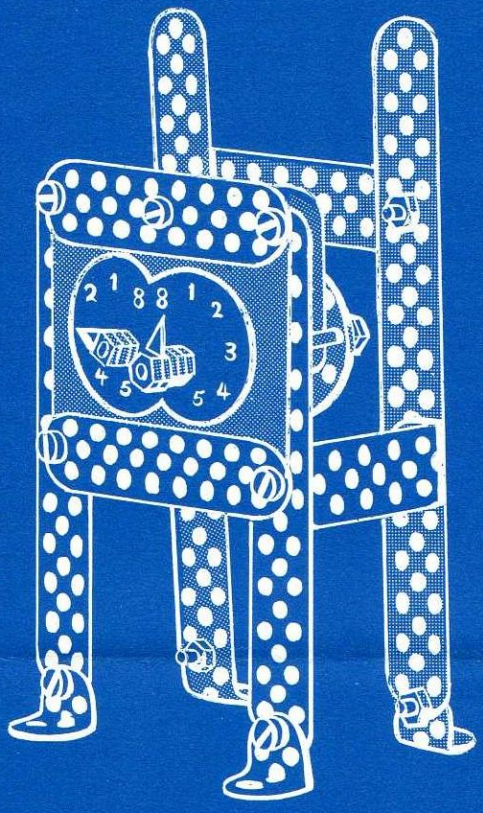


Fig. 1

SPECIFICATION			
Part No.		Part No.	
A1	4	N1	36
B1	24	P29	4
F5	3	S25	1
F9	3	S55	2
F13	2	U2	2
F17	2		

Note that the two pointers overlap each other when crossing the centre line of the dial.

Fig. 2—Enlarged view of Gearing

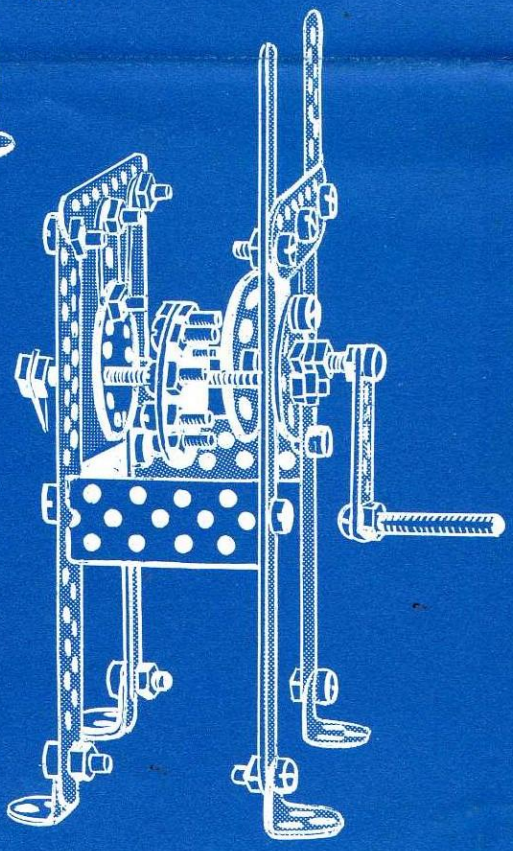


Fig. 3—Side view

Reference number of this sheet is No.1/13/H Trix Construction Sets, 310 Summer Lane, Birmingham 19.

Further copies 6d. each.