STRUCTATOR

Germany

TYPE	Mechanical Engineering
HOLE DIAMETER	4.3mm HOLE SPACING Not applicable
SETS IN SYSTEM	Total of I5: Basic I.2.3.4.5.6.7.8. Conversion Ia.2a.3a.4a.5a.6a.7a.
DIFFERENT PARTS	II6
COLOUR	Black and bright steel, some parts die-cast grey.
FIXING METHOD	Special tie-rods with various types of coupling. plates aluminium
MOTORS	I Clockwork - designed to look like an electric
PERIOD	From 1913 to reportedly c1917. However sets advertised in the UK until 1924. May even date to later.
MANUFACTURER	Bing & Co. Germany
COMMENTS	One of the failings of the system was rather flimsy models,the coupling parts are cast and tend to break if screw is over tightened. The three sizes of Artilery Wheel in the system were included before this type of wheel was included in the Meccano system. Manuals were printed in Bavaria. Boxes are linen covered with brown labels,with blue card inserts. This is a very interesting system in many ways. It is also one of the oldest. In the USA, STRUCTATOR was sold as BiNG'S CONSTRUCTOR. It is said to have been made by H, Heick of Nurnburg from 1919 to 1921 and sold as TECHNIKO/TECHNICO
OTHER SYSTEMS NEWSLETTER	6/115, 15/419, 18/523
MATERIAL SUPPLIED BY	F.A.B. and D.G.B. Collections

Bings' Construction Set

The Up-to-Date Toy

Patents applied for in U. S. A. and other Countries

Trade

Mark

Bavaria

Instructions and Designs

for Sets Nos. 1—5 and 1a—4a

Interesting—Instructive—Educational

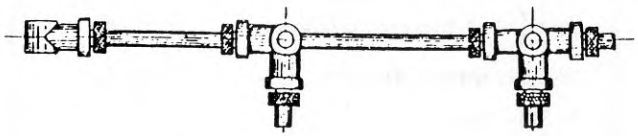
An Unlimited Variety of Models

Easily erected and as easily taken apart

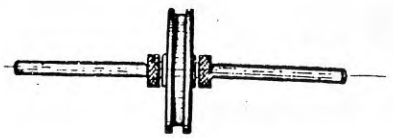
Soundly constructed Models without Screws

No. 2.

Separate Parts for Bings' Construction Sets.



Showing the principal joints fixed to a Standard Bar by means of Spring Washers.

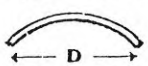


Showing a revolving wheel fixed between 2 Spring Washers on a Standard Bar.

No.		Price	Packing
1	T-Joints	$ 12.70 gross	12 pieces
2	Angle Joints	„ 11.40 „	12 „
3	Straight Joints . . .	„ 11.40 „	12 „
4	Wedge Rings . . .	„ 3.15 „	48 „
5	Spring Washers . .	„ 3.80 „	48 „
6	Standard Bars with thread		
	6/30 = 1¼ inches long . .	„ 1.60 „	24 „
	6/50 = 2 „ „ . .	„ 1.90 „	24 „
	6/70 = 2¾ „ „ . .	„ 2.55 „	24 „
	6/80 = 3⅛ „ „ . .	„ 3.15 „	12 „
	6/120 = 4¾ „ „ . .	„ 4.45 „	12 „
	6/150 = 6 „ „ . .	„ 4.45 „	12 „
	6/200 = 8 „ „ . .	„ 6.35 „	6 „
	6/250 = 9¾ „ „ . .	„ 9.50 „	6 „
	6/300 = 11¾ „ „ . .	„ 11.40 „	6 „
7	Standard Bars (plain)		
	7/25 = 1 inch long . . .	„ 1.30 „	24 „

No.		Price	Packing
7	7/30 = 1¼ inches long . .	$ 1.60 gross	24 pieces
	7/40 = 1½ „ „ . .	„ 1.90 „	24 „
	7/50 = 2 „ „ . .	„ 1.90 „	24 „
	7/60 = 2⅜ „ „ . .	„ 1.90 „	24 „
	7/75 = 2⅞ „ „ . .	„ 1.90 „	24 „
	7/80 = 3⅛ „ „ . .	„ 2.55 „	12 „
	7/90 = 3½ „ „ . .	„ 2.55 „	12 „
	7/100 = 4 „ „ . .	„ 3.15 „	12 „
	7/120 = 4¾ „ „ . .	„ 3.15 „	12 „
	7/150 = 6 „ „ . .	„ 3.80 „	12 „
	7/175 = 6⅞ „ „ . .	„ 4.45 „	12 „
	7/200 = 8 „ „ . .	„ 5.70 „	12 „
	7/250 = 9¾ „ „ . .	„ 6.35 „	6 „
	7/300 = 11¾ „ „ . .	„ 7.60 „	6 „
	7/350 = 13¾ „ „ . .	„ 7.60 „	6 „
	7/400 = 15¾ „ „ . .	„ 9.50 „	6 „
	7/500 = 19½ „ „ . .	„ 12.70 „	6 „
	7/600 = 23½ „ „ . .	„ 15.85 „	3 „
	7/750 = 29½ „ „ . .	„ 19.— „	3 „

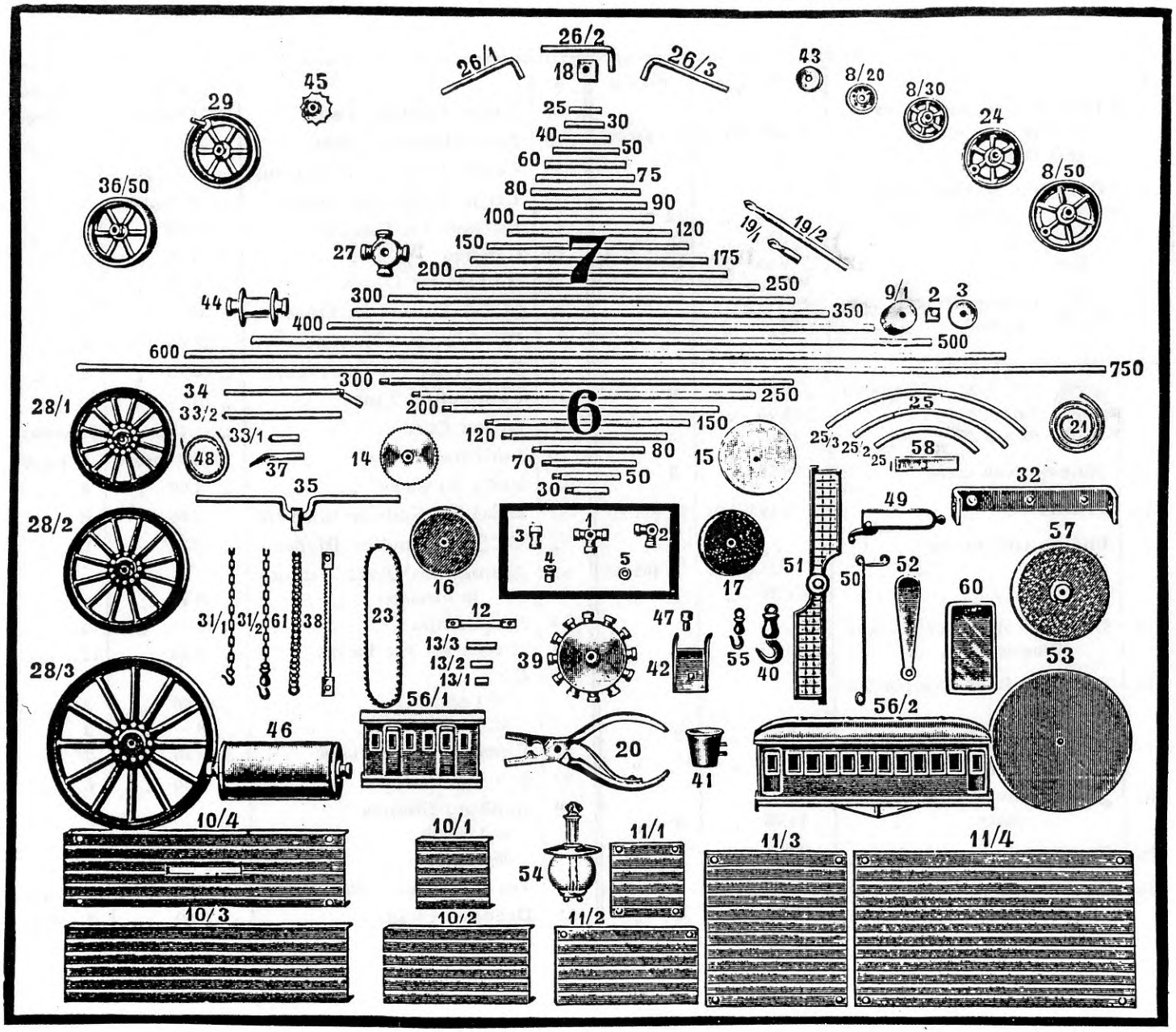
No.		Price	Packing
8	**Pulley Wheels**		
	8/20 = ¾ inches diam.	$ 15.85 gross	6 pieces
	8/30 = 1⅛ „ „	„ 19.— „	6 „
	8/50 = 2 „ „	„ 25.35 „	6 „
9/1	**Base Blocks**	„ 6.35 „	6 „
9/2	**Fixing Screws** for Base Blocks, square headed	„ 3.80 „	6 „
9/3	**Washers**	„ 1.30 „	6 „
10	**Plates,** bent up on both sides		
	10/1 = 2×2 inches . .	„ 9.50 „	6 „
	10/2 = 4×2 „ . .	„ 15.85 „	6 „
	10/3 = 8×2 „ . .	„ 25.35 „	6 „
	10/4 = 8×2 „ (with slot)	„ 28.50 „	6 „
11	**Plates,** flat		
	11/1 = 2×2 inches . . .	„ 7.60 „	6 „
	11/2 = 4×2 „ . . .	„ 11.40 „	6 „
	11/3 = 4×4 „ . . .	„ 22.20 „	6 „
	11/4 = 8×4 „ . . .	„ 31.65 „	6 „
12	**Rungs,** 1¼ inches long	„ 1.90 „	24 „
13	**Short Tubes** for filling out intervals		
	13/1 = ¼ inch long . .	„ —.30 „	100 „
	13/2 = ½ „ „ . .	„ —.40 „	100 „
	13/3 = ¾ „ „ . .	„ —.55 „	100 „
14	**Circular Saws**	„ 7.60 „	6 „
15	**Polishing Buffs** made up of 10 pieces of cloth	„ 9.50 „	6 „

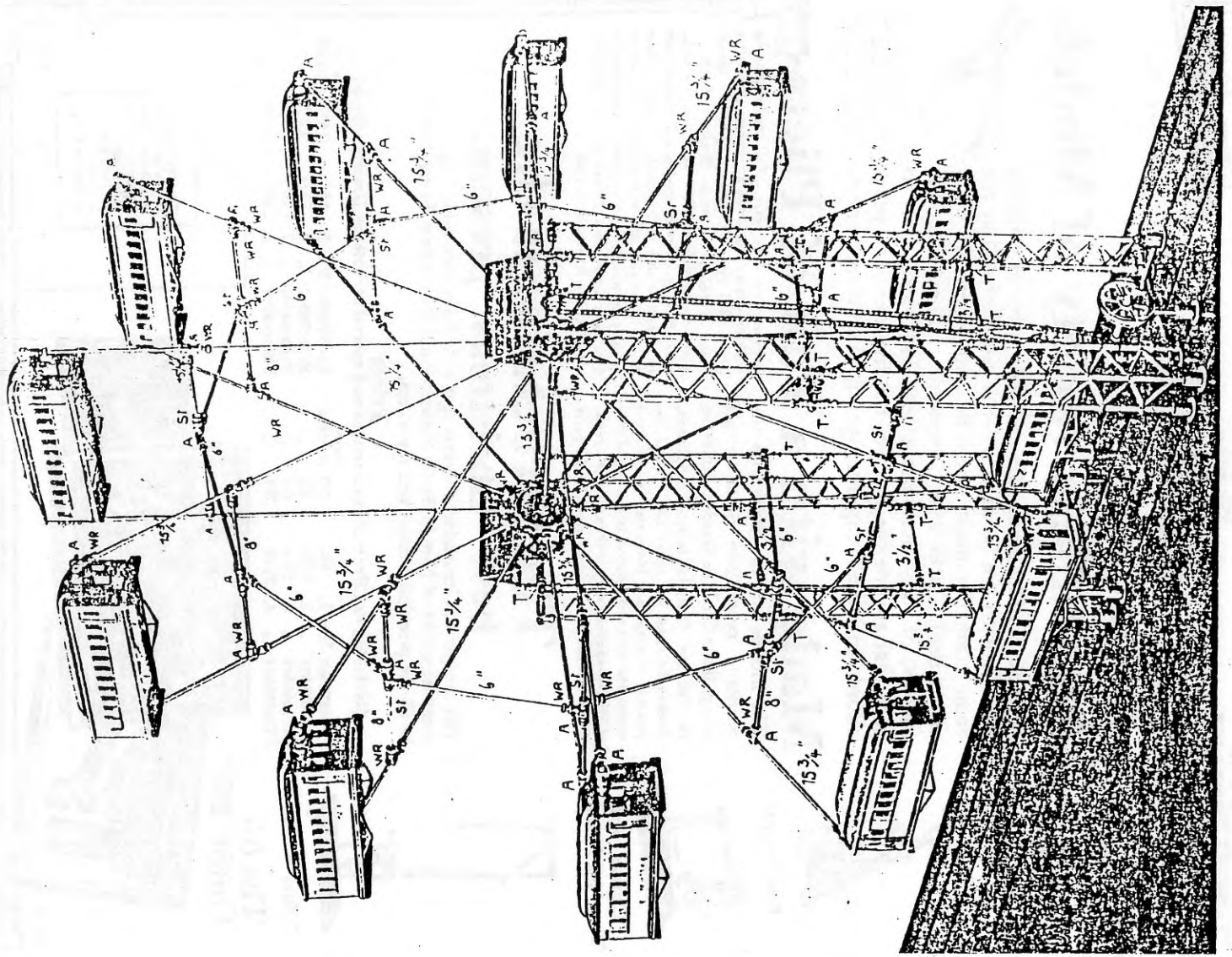
No.		Price	Packing
16	**Polishing Discs** covered with leather	$ 9.50 gross	6 pieces
17	**Emery Wheels** . .	„ 15.85 „	6 „
18	**Hammer Heads**	„ 12.70 „	6 „
19	**Drills**		
	19/1 = 1 inch	„ 4.45 „	6 „
	19/2 = 3½ inches	„ 6.35 „	6 „
20	**Bings' Construction Pliers** .	„ 41.20 „	3 „
21	**Driving Band**		
	21/1 thin	„ 10.60 per 5 yards	5 yards
	21/2 thick	„ 12.35 per 5 „	5 „
22	**Baseboards** with grooves		
	22/1 = 11½×6¼ inches with 3 grooves	„ 4.— doz.	3 pieces
	22/2 = 13¼×6⅞ inches with 3 grooves	„ 6.60 „	2 „
	22/3 = 14¼×8¾ inches with 4 grooves	„ 10.50 „	1 „
	22/4 = 15¾×11 inches with 5 grooves	„ 18.35 „	1 „
	22/5 = 23×11 inches with 6 grooves	„ 29.20 „	1 „
	22/6—8 = 28¾×11 inches with 6 grooves . . .	„ 37.— „	1 „
23	**Band Saws**	„ 9.50 gross	6 „
24	**Pulley Wheels** with flat tread for band saw	„ 21.— „	6 „
25	 **Bars** bent in half circles		
	25/1 D 2⅞ inches . .	„ 2.55 „	12 „

No.		Price	Packing
25	**Bars** bent in half circles		
	25/2 D = 4¼ inches . . .	$ 3.80 gross	12 pieces
	25/3 D = 6⅞ „ . . .	„ 5.— „	12 „
26	**Bars** bent in right angles		
	26/1 = 1½ inches long . .	„ 1.90 „	12 „
	26/2 = 2 „ „ . .	„ 2.55 „	12 „
	26/3 = 2⅜ „ „ . .	„ 6.35 „	12 „
27	**Centre Pieces** with 4 joints	„ 22.20 „	6 „
28	**Wheels,** japanned		
	28/1 = 2⅞ in. diameter	„ 9.50 „	6 „
	28/2 = 3½ „ „	„ 12.70 „	6 „
	28/3 = 4¼ „ „	„ 48.— „	4 „
29	**Wheels** with crank	„ 28.50 „	3 „
30	**Chains**	„ 6.60 per yards	10 yards
31	**Chains** with hooks		
	31/1	„ 3.15 gross	6 pieces
	31/2 heavy	„ 6.35 „	6 „
32	**Under-Frames** for Waggon Wheels	„ 6.35 „	3 „
33	**Standard Bars** with pointed ends		
	33/1 = 1 inch long . . .	„ 1.60 „	12 „
	33/2 = 3½ inches long . .	„ 3.15 „	12 „
34	**Jointed Standard** Bars	„ 11.40 „	6 „
35	**Standard Bars** with Crank .	„ 25.35 „	3 „
36	**Fly Wheels**		
	36/50 = 2 inches diameter .	„ 60.20 „	3 „

No.		Price	Packing
37	**Lathe Turning Tools** . .	$ 31.65 gross	3 pieces
38	**Saw Blades** (straight) . .	„ 31.65 „	3 „
39	**Centre Pieces** with 12 Joints	„ 15.85 doz.	1 „
40	**Large Hooks** for Chains .	„ 9.50 gross	6 „
41	**Buckets** for Dredgers . .	„ 12.70 „	6 „
42	**Catches**	„ 4.45 „	12 „
43	**Rollers** for Cranes	„ 9.50 „	6 „
44	**Drums** for Crane .	„ 38.— „	3 „
45	**Wheels** for Crane Chain .	„ 15.85 „	6 „
46	**Drums** for Printing Press .	„ 63.40 „	1 „
47	**Connecting Pins**	„ 5.— „	12 „
48	**Green Cord**	„ —.45 per yards	50 yards
49	**Indicator Arms**	„ 6.35 gross	6 pieces
50	**Rods** for above	„ 1.90 „	6 „
51	**Sails** for Windmill	„ 9.50 „	6 „
52	**Propeller Blades** .	„ 6.35 „	6 „
53	**Aluminium Discs** 4 inches in diameter	„ 69.75 „	1 „
54	**Arc Lamps**	„ 19.— „	3 „
55	**Hooks** for Arc Lamps . .	„ 4.45 „	12 „
56	**Cars**		
	56/1 small	„ 22.20 „	3 „
	56/2 large	„ 48.— „	3 „
57	**Emery Wheels,** large . .	„ 12.70 „	3 „
58	**Joining Plates**	„ 7.60 „	6 „
59	**Bending Shapes**		
	59/1 small	„ 60.20 „	1 „
	59/2 large	„ 95.— „	1 „
60	**Tin Boxes** with Celluloid Lid	„ 9.50 „	6 „
61	**Dredger Chain**	„ 9.50 „	6 yards

Separate Parts for Structator Outfits.

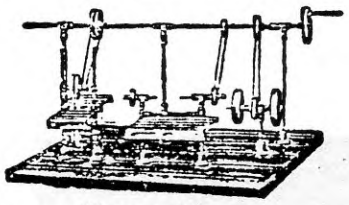




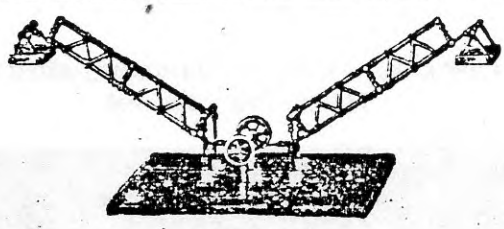
No. 150. Big Wheel
from Bings' Construction Set No. 3 or No. 7 and 7a.

Printed in Bavaria.

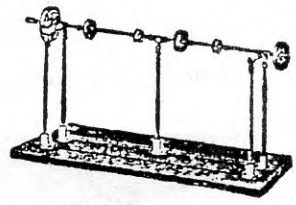
STRUCTATOR 7.



Factory, No. 4.



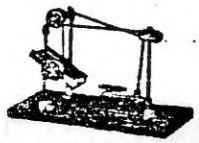
Flip-Flap.



Shafting, No. 2.

Band Saw.

Fire Escape.



Capstan with Threshing Machine.

Lifting Crane.

An endless variety of Models

You can build a practically endless variety of working models with the Structator—the simplest and at the same time the most scientific and ingenious Constructional Outfit ever invented. The Structator method of construction is a new discovery. It is so easy that anyone can master it in five minutes, yet it affords unlimited scope for ingenuity and inventiveness.

The special pair of Pliers given with the Structator Outfit is the only tool required to make any model.

Made with a Pair of Pliers

The Models you can make with the Structator range from quite simple things like a Chair or Garden Roller up to Factory Installations, Aeroplanes, Dockyard Cranes and other complex and fascinating structures. However intricate the model, the only tool required is the special Pair of Pliers—so much simpler than nuts or screws. All models can be taken to pieces and the parts used over and over again. Full instructions for making a large number of Structator models are given with every Outfit, and you can invent many more. A special Drawing Book is given with every outfit. It contains a technical drawing of every model, and space is left to reproduce this in freehand. A special Base Board is also provided with every Outfit, which ensures the stability of the models; and a special Structator Clockwork Motor can be obtained wherever the Structator is sold.

The Structator is the best Christmas present.

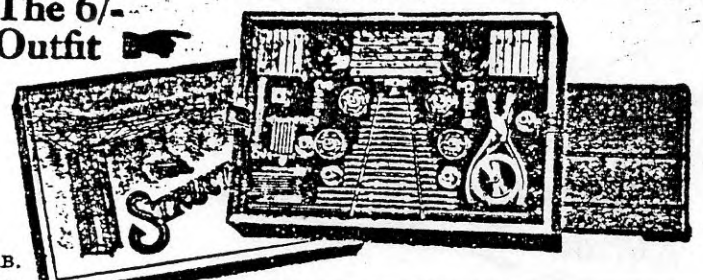
You can get the Structator wherever toys and models are sold. Special demonstrations of how to build Structator models are now being held in all the principal bazaars and toy stores.

Prices

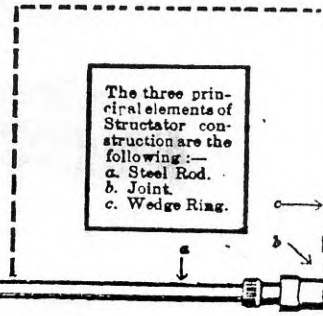
(including full Book of Instructions and special Structator Drawing Book):

		Makes			Makes
Structator No. 1,	6/-	30 models	Structator No. 5,	43/-	100 models
Structator „ 2,	12/-	48 „	Structator „ 6,	75/-	120 „
Structator „ 3,	18/-	66 „	Structator „ 7,	110/-	140 „
Structator „ 4,	27/6	84 „	Structator „ 8,	160/-	150 „

The 6/- Outfit



The three principal elements of Structator construction are the following:—
a. Steel Rod.
b. Joint.
c. Wedge Ring.



S.H.B.