

Anchoring Spring and a Nut above the Support. An electrical Terminal Nut is fixed on the top end of the Screwed Rod to serve as a handwheel.

Canopy

This brings us to the canopy, but before dealing with it, it is advisable to fit the two centre canopy stays which are, in fact, only imitations, not actually being connected to the canopy. The flywheel must first be removed to allow access to the left-hand stay. Each stay consists of a Rod and Strip Connector 55 bolted to the top forward hole of Flat Girder 9, the securing Bolt also fixing an Angle Bracket to the inside of the Girder. Attached to the free lug of this Angle Bracket, but spaced from it by a Washer, is a second Angle Bracket 56, the free lug of which projects upwards as shown. Note that the two Angle Brackets should be bolted together before being fixed to the Flat Girder. A 1 in. Rod is fixed in each Rod and Strip Connector.

Construction of the canopy, proper, should present no problems. Four $7\frac{1}{2}$ in. Strips 57, a $1\frac{1}{2}$ in. Strip 58 and a $5\frac{1}{2}$ in. Strip 59 are connected together at the ends and through their third and fifth holes by four slightly curved $2\frac{1}{2}$ in. Strips 60, at the same time fixing six $2\frac{1}{2} \times 1\frac{1}{2}$ in. Plastic Plates 61 in position. Note that the Strips and Plates are situated so as to leave a space towards the front centre of the canopy, through which the chimney will project. Note also that front corner fixing is achieved, not by Bolts, but by Long Threaded Pins 62, the Plastic Plates being protected by electrical Thin Washers. Long Threaded Pins 63, fitted with Thin Washers, are also used to fix the rear ends of inside Strips 57 to Strips 60. The rear end of Strip 59, on the other hand is secured by a Bolt screwed into one transverse bore of a Threaded Boss 64, in the longitudinal bore of which a $\frac{1}{2}$ in. Bolt, carrying two Fishplates separated by five Washers, is fixed. Secured in the free end holes of the Fishplates is a Pivot Bolt on which a $\frac{1}{2}$ in. Pulley 65 is mounted

between the Fishplates, this assembly representing the lifting tackle usually fitted to showman's traction engines. A $7\frac{1}{2}$ in. compound narrow strip 66, built up from one $4\frac{1}{2}$ in. and two $2\frac{1}{2}$ in. Narrow Strips, is attached to each side of the canopy by three Angle Brackets, positioned as shown. All the holes in the compound strip are fitted with Set Screws to represent lamps.

Finally, a removable chimney extension 67 is supplied by two Short Couplings, each separated from an ordinary Coupling by a Washer, all being mounted on a $2\frac{1}{2}$ in. Rod, using $7/64$ in. Grub Screws. The assembly is held between the free lugs of four Angle Brackets bolted to the canopy, where it is held by $\frac{3}{8}$ in. Grub Screws protruding from the Couplings through the holes in the Angle Brackets' lugs. The finished canopy is then mounted in position by fixing Threaded Pins 62 and 63 in Rod and Strip Connectors 43 and 20 respectively. With the model completed, it is easy to see why it gained the Meccano Cup for Mr. Halliday!

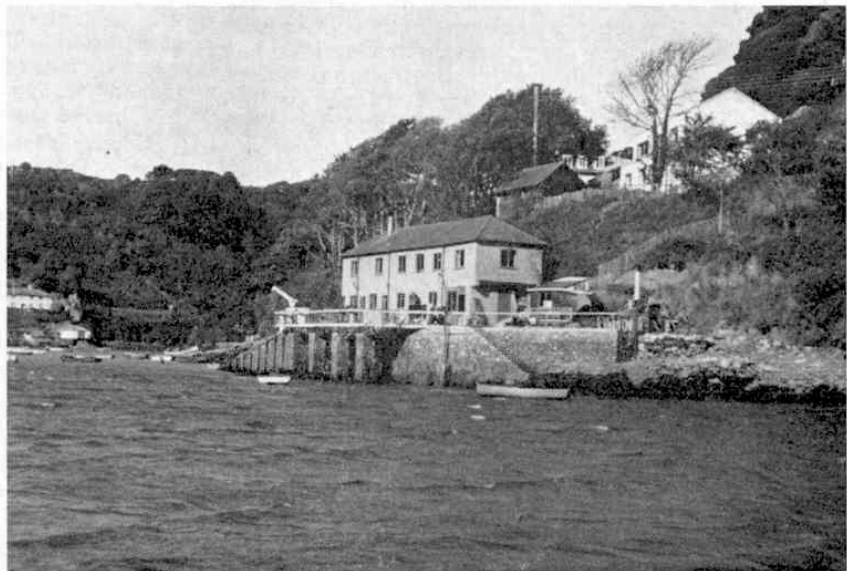
PARTS REQUIRED

4-1b	4-22a	3-63	1-125
1-2	1-23	2-63c	1-133a
2-3	2-24	2-63d	4-136
6-5	2-24c	4-64	4-137
4-6a	1-25	64-69	1-147b
2-9c	2-26	4-69b	1-147c
2-9f	1-26c	24-69c	1-154a
15-10	1-27d	1-77	1-155
1-11	4-28	1-81	1-171
27-12	66-37b	1-82	3-176
2-12a	144-37a	1-103e	6-194
5-12b	109-38	3-103f	10-212
6-12c	2-38d	2-103g	4-231
1-16	1-46	3-103h	4-235
2-16a	4-55a	2-111	2-235d
2-17	10-59	7-111a	3-542
3-18b	1-62	16-111c	1-543
1-22	1-62a	7-115a	6-544
			6-651

1-No. 1 Clockwork Motor Drive Pinion

PREVENTING SHIP FOULING

by
Alan P. Major



The Red Hand Marine Coatings Station at Newton Ferrers in Devonshire.

AT THE DEPARTMENT OF BOTANY, Leeds University, Yorkshire, Dr. L. V. Evans, in collaboration with Dr. Christie, a biochemist working for International Red Hand Marine Coatings at the latter's Newton Ferrers Marine Biological Station,

(Continued overleaf)