

BUILD THIS FINE MODEL

Meccano Roundabout

FAIRGROUNDS are a plentiful source of ideas for the keen Meccano model-builder. At one time they consisted almost entirely of roundabouts and side-shows, but very often nowadays other novel and exciting mechanical contrivances contribute to the "fun of the Fair", ensuring a great variety of

thrills. But the traditional roundabout is far from being ousted, and an excellent Meccano model of one, which can be built from Outfit No. 7, was described and illustrated in the March 1961 *M.M.* Here is another, this time for Outfit No. 8.

One side of the base of the Roundabout shown in Fig. 1, is a $12\frac{1}{2}'' \times 2\frac{1}{2}''$ Strip Plate,

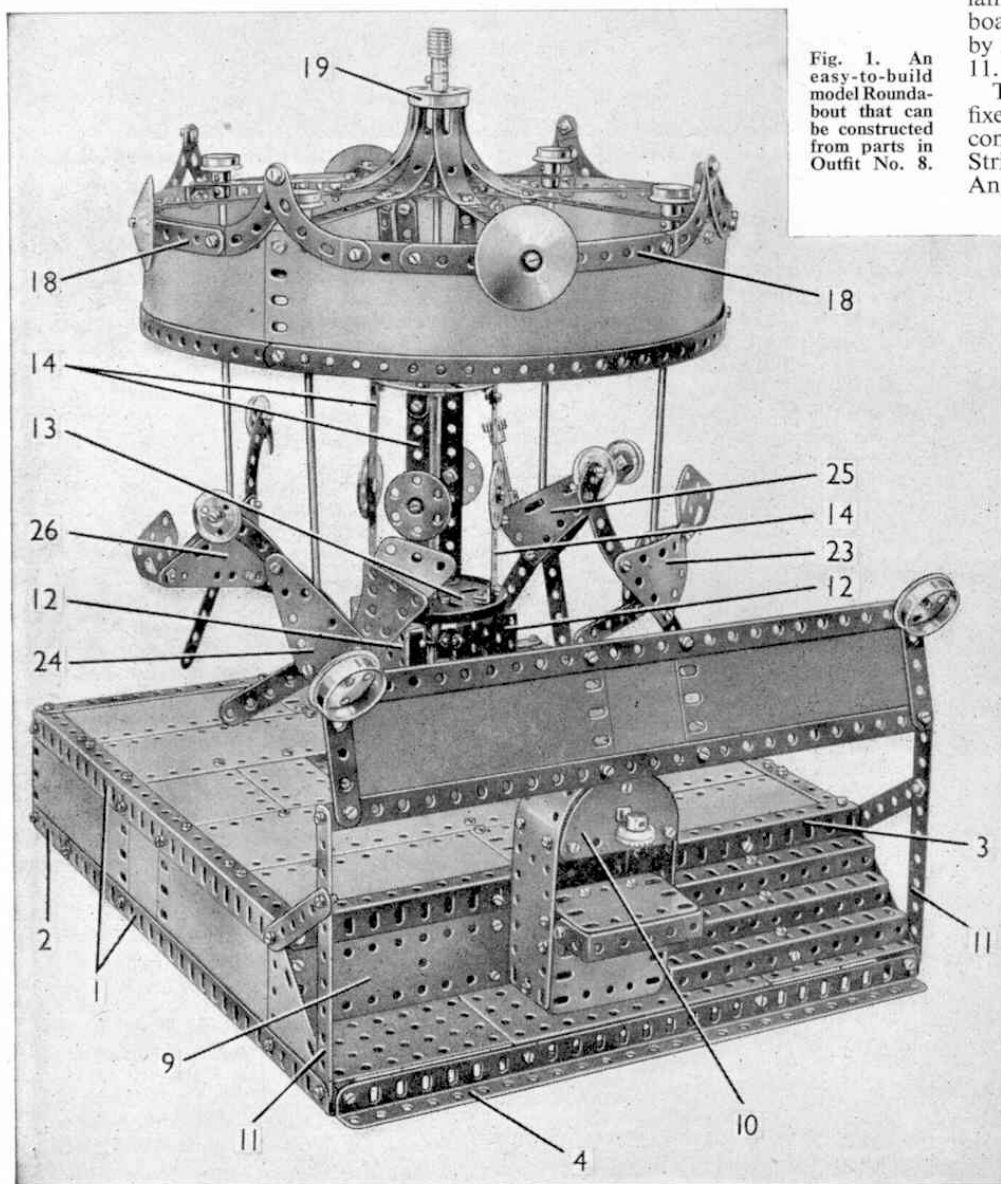


Fig. 1. An easy-to-build model Roundabout that can be constructed from parts in Outfit No. 8.

and the other side and back are each formed by one $2\frac{1}{2}'' \times 2\frac{1}{2}''$ and two $5\frac{1}{2}'' \times 2\frac{1}{2}''$ Flexible Plates. The sides are strengthened by $12\frac{1}{2}''$ Angle Girders and $2\frac{1}{2}''$ Strips 2, and the front corners are connected by $12\frac{1}{2}''$ Angle Girders 3 and 4. Two $12\frac{1}{2}''$ Angle Girders are bolted across the top of the base and a $5\frac{1}{2}'' \times 2\frac{1}{2}''$ Flanged Plate 6 is fixed to them. The top is completed by two $12\frac{1}{2}'' \times 2\frac{1}{2}''$ Strip Plates 7, and by Flexible Plates of various sizes arranged as shown.

A $5\frac{1}{2}'' \times 2\frac{1}{2}''$ Flanged Plate and two $3\frac{1}{2}'' \times 2\frac{1}{2}''$ Flanged Plates 8 are fixed to the front of the base, and a $5\frac{1}{2}'' \times 1\frac{1}{2}''$ Flexible Plate 9 is bolted to two vertical $2''$ Strips. The $5\frac{1}{2}''$ Angle Girders that form the steps are attached to two $\frac{1}{2}''$ Reversed Angle Brackets.

The Semi-Circular Plate 10 forming the top front of the pay-box, and a similar part at the back of it, are fixed to $2\frac{1}{2}'' \times \frac{3}{4}''$ Double Angle Strips bolted between the sides. The $\frac{3}{4}''$ Contrate that represents a lamp is screwed on to a $\frac{1}{2}''$ Bolt. The name board over the entrance steps is attached by $1'' \times \frac{1}{2}''$ Angle Brackets to two $5\frac{1}{2}''$ Strips 11.

Two $3\frac{1}{2}'' \times 2\frac{1}{2}''$ Flanged Plates 12 are fixed to the Flanged Plate 6 and are connected by two $2\frac{1}{2}'' \times \frac{1}{2}''$ Double Angle Strips. The $4\frac{1}{2}''$ Strips 14 are attached by Angle Brackets to a $3''$ Pulley 13 and to a Face Plate 15. The Pulley 13 is bolted to the Plates 12.

Four $3\frac{1}{2}''$ Strips 16 are connected by Angle Brackets to a Bush Wheel and to a Face Plate 17 that carries eight $5\frac{1}{2}''$ Strips arranged radially. The rim of the canopy is made from three $12\frac{1}{2}'' \times 2\frac{1}{2}''$ Strip Plates and is attached to the radial $5\frac{1}{2}''$ Strips by Angle Brackets. Each of the built-up strips 18 is made from a $5\frac{1}{2}''$ and a $1\frac{1}{2}''$ Strip. The pinnacle at the centre of the canopy is capped by a $1\frac{1}{2}''$ Flanged Wheel 19. The canopy is fixed to an $11\frac{1}{2}''$ Rod 20 that passes freely through the Pulley 13.

The model can be driven either by hand or from an Electric Motor, whichever may be desired. If driven by Motor, the latter can be bolted under the base and connected by a driving band to a $1\frac{1}{2}''$ Pulley on the $3\frac{1}{2}''$ Rod 21. A Worm fitted on this Rod should be arranged to drive a 57-tooth Gear 22, fixed on a $4''$ Rod joined to the Rod 20 by a Coupling.

For hand drive the Rod 21, should be extended through the side of the base and fitted with a handwheel.

The body of the bird 23 is made from two $2\frac{1}{2}'' \times 2''$ Triangular Flexible Plates joined at their lower corners by a Double Bracket. The legs are $2\frac{1}{2}''$ Strips, the tail is a Flat Trunnion, and the head is a $1''$ loose Pulley attached to a $2\frac{1}{2}''$ Curved Strip. The beak is a Fish-plate.

The body of the bird 24 is formed by two $2\frac{1}{2}'' \times 1\frac{1}{2}''$ Triangular Flexible

Fig. 2.
Inside the base of the Roundabout. The model can be arranged for either hand or motor drive as desired.

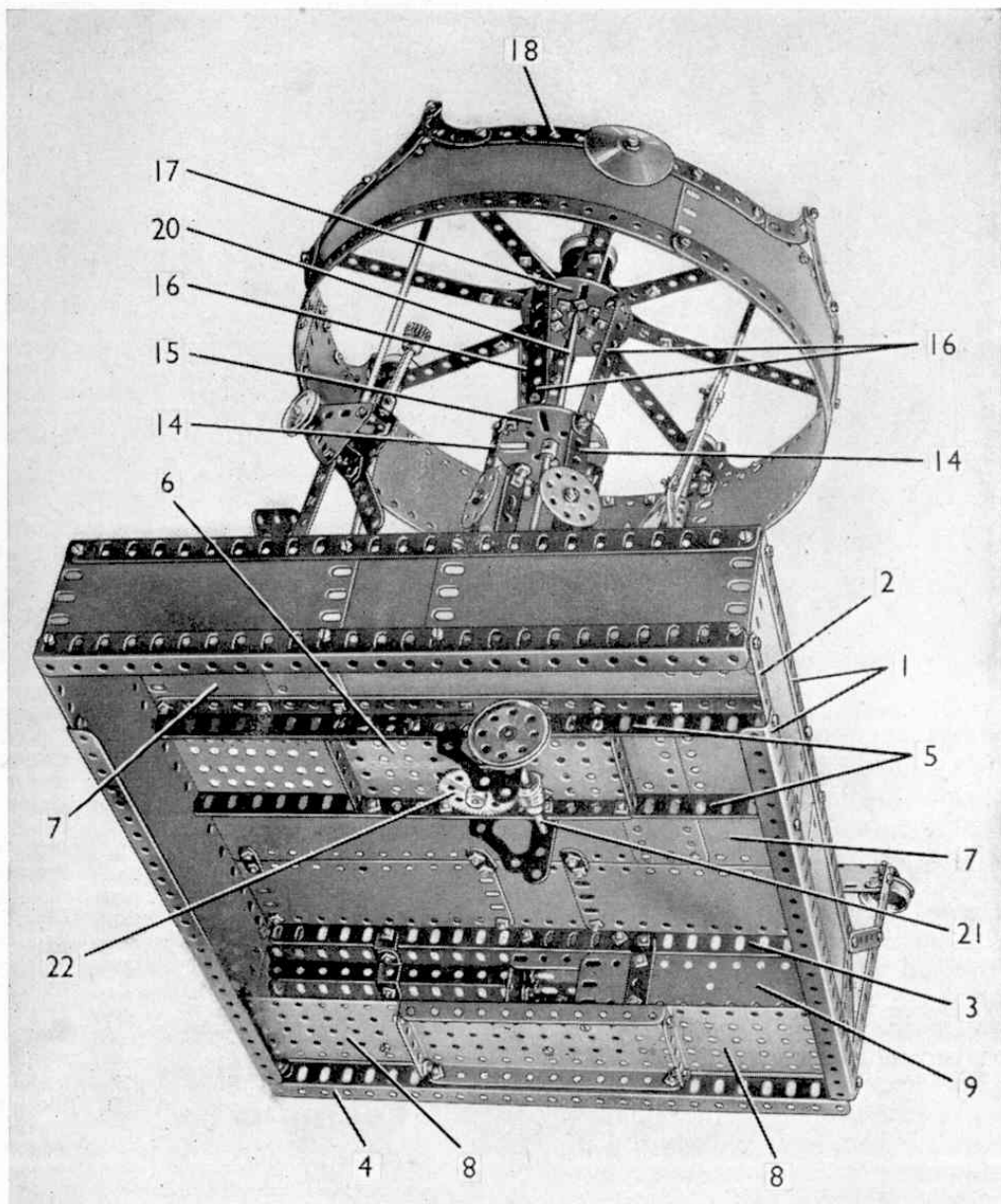
Plates connected at their lower corners by a Double Bracket. The tail consists of two further $2\frac{1}{2} \times 1\frac{1}{2}$ Triangular Flexible Plates, and the head is a 1" loose Pulley supported by a $2\frac{1}{2}$ " Curved Strip. The legs are $2\frac{1}{2}$ " Strips.

The bird 25 is made by connecting together two $3\frac{1}{2} \times 1\frac{1}{2}$ Triangular Flexible Plates at their lower corners by means of a Double Bracket. The head is a 1" loose Pulley fixed to the top corners of the Plates, and the tail is a $\frac{1}{2}$ " Pinion held on a 2" Rod supported in a large Fork Piece. The legs are $2\frac{1}{2}$ " Strips.

The body of the bird 26 consists of two $3\frac{1}{2} \times 2$ Triangular Flexible Plates and these also are connected by a Double Bracket. The legs are $2\frac{1}{2}$ " Strips and the tail is a Flat Trunnion. The head is a 1" loose Pulley supported by a $2\frac{1}{2}$ " Curved Strip, and the beak is a Pawl without boss.

Three of the birds are supported by $6\frac{1}{2}$ " Rods extended by 2" Rods, and the fourth is mounted on an 8" Rod. The $6\frac{1}{2}$ " and 2" Rods are connected together by a Coupling and two Rod Connectors. Each of the supporting Rods is held by Spring Clips in the Double Bracket placed between the Triangular Flexible Plates that form the bodies of the birds. The upper end of each Rod is held by a $\frac{3}{4}$ " Flanged Wheel and a Collar in one of the $5\frac{1}{2}$ " Strips bolted to the Face Plate 17.

Parts required to build the model Roundabout: 5 of No. 1; 14 of No. 2; 4 of No. 2a; 4 of No. 3; 4 of No. 4; 10 of No. 5; 2 of No. 6; 4 of No. 6a; 10 of No. 8; 3 of No. 9; 7 of No. 10; 4 of No. 11; 32 of No. 12; 2 of No. 12a; 2 of No. 12b; 2 of No. 12c; 1 of No. 13; 1 of No. 13a; 3 of No. 14; 1 of No. 15b; 1 of No. 16; 4 of No. 17; 1 of No. 19b; 3 of No. 20; 4 of No. 20b; 1 of No. 21; 4 of No. 22a; 1 of No. 24; 2 of No. 24a; 2 of No. 24c; 1 of No. 26; 1 of No. 27a; 1 of No. 29; 2 of No. 32; 4 of No. 35; 268 of No. 37a; 260 of No. 37b; 14 of No. 38; 1 of No. 46; 1 of No. 48; 7 of No. 48a; 2 of No. 51; 2 of No. 52; 4 of No. 53; 5 of No. 59; 2 of No. 63; 3 of No. 90; 8 of No. 90a; 2 of No. 108; 2 of No. 109; 6 of No. 111a; 5 of No. 111c; 1 of No. 116; 2 of No. 125; 2 of No. 126a; 1 of No. 147c; 1 of No. 186b; 4 of No. 187a; 2 of No. 188; 5 of No. 189; 8 of No. 190; 2 of No. 191; 10 of No. 192; 6 of No. 197; 2 of No. 213; 2 of No. 214; 8 of No. 215; 4 of No. 221; 2 of No. 222; 2 of No. 223; 2 of No. 224; 2 of No. 225.



A BRIDGE STORY

Over the last few years the Western Region of British Railways, which uses and maintains 12,695 bridges, has reconstructed a bridge nearly once a week: 48 in 1958, 41 in 1959, 50 in 1960.

Each bridge has a life and each life has to be renewed by giving the bridge a new superstructure. The most involved job is rebuilding bridges carrying tracks over roads. There are more than 7,700 of them, and on a heavily-worked section, such as that between Paddington and Reading, which carries about 500 trains every 24 hours, the renewal of a bridge spanning a road which must be widened at the same time poses such questions as, "How much time have we got?" and "How can we do the job in that time?" These in turn produce a chain reaction of planning which

brings in almost every railway department.

If possible, every reconstruction is planned for the winter months, because there are fewer trains then and the crucial stages of removing the track are planned for weekends. So, the moment the last train on Saturday night crosses the site (it may be early Sunday morning) the work of renewal begins. And it has to be finished before the arrival of the first train on Monday morning!

Winter and darkness produce difficulties of their own. There may be cranes on each side of the bridge: behind the cranes and on the adjoining track there are ballast trains, Engineer's trains, strings of wagons loaded with equipment. The only area of light is near the bridge itself, but the gangs still go on even in the worst conditions. They are expert men, and for them to exceed the planned occupation time is hardly known.