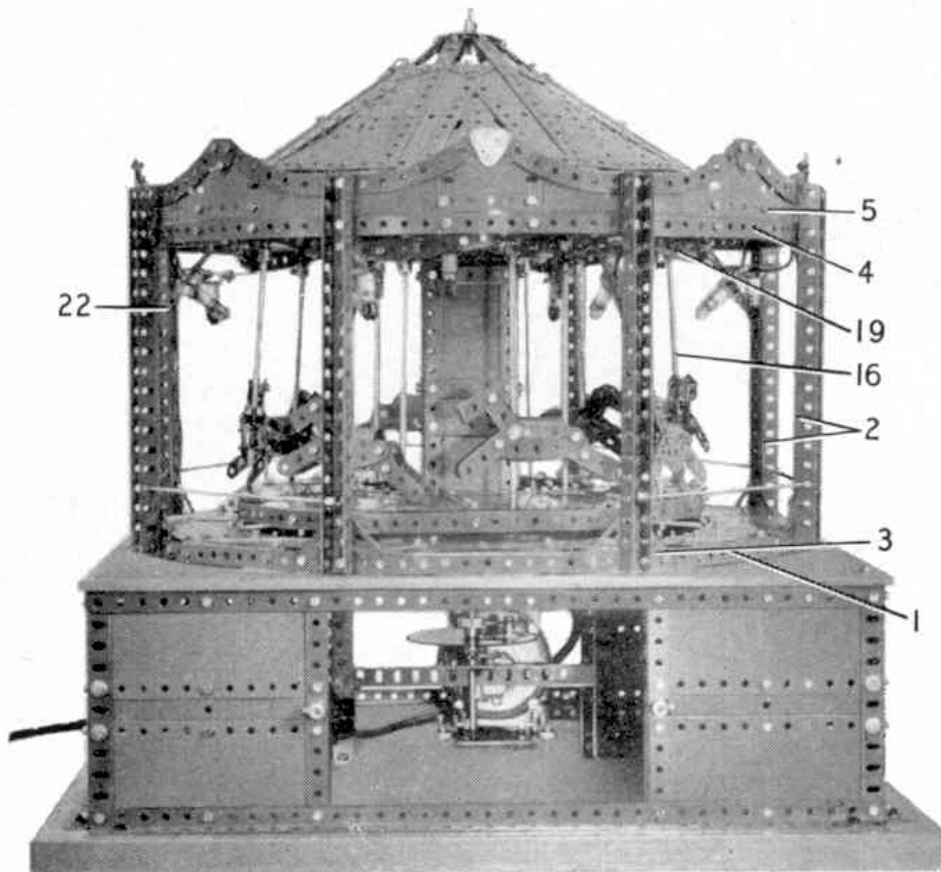


Fig. 1. A model Carousel that has proved very attractive when displayed in Meccano dealers' windows.



## A Model Carousel

constructed from Angle Girders and it measures  $18\frac{1}{2}$ " long  $\times$   $18\frac{1}{2}$ " wide  $\times$   $5\frac{1}{2}$ " high. It is plated in with Flexible Plates of various sizes and a circle of  $4\frac{1}{2}$ " Strips and  $3\frac{1}{2}$ " Angle Girders 1 is bolted to the top of the base.

NO doubt many readers will have seen the model Carousel that has been on display in many Meccano dealers' premises for some time. This model has attracted considerable public interest and consequently we have received many enquiries for details of its construction. We are therefore giving some details of the model here for the benefit of any readers who may wish to build a version of it for themselves. We must point out, however, that the original dealer's model was powered by a special High Voltage Motor, this being necessary in view of the fact that these display models have to stand up to continuous operation without attention over a period of many months. However, for ordinary use the model can be powered by an E15R Motor fitted in the base and suitably connected by gearing or Chain and Sprocket drive to the centre shaft of the model. The model as described here does not include the lighting arrangements.

The base of the model is

columns 2, each consisting of two  $9\frac{1}{2}$ " Angle Girders (Fig. 4), are bolted round the circle as shown and they are each braced at their lower ends by a  $2\frac{1}{2}$ " Triangular Plate 3. The mounting platform is made up from  $3\frac{1}{2}$ "  $\times$   $2\frac{1}{2}$ " Flexible Plates bolted to each other and to the Angle Girders.

The upper part of the stationary superstructure is made up of  $7\frac{1}{2}$ " Strips 4, bolted to the  $9\frac{1}{2}$ " Angle Girders, and Flexible Plates 5 are bolted above the Strips. An edging formed from Curved Strips completes this part of the model.

A circle of  $5\frac{1}{2}$ " Curved Strips 19 (Fig. 4) bolted together to form an undulating ring as shown, is connected to the  $9\frac{1}{2}$ " Angle Girders 2 by means of  $2\frac{1}{2}$ "  $\times$   $\frac{1}{2}$ " Double Angle Strips 20. Two Washers separate the ring from the Double Angle Strips, which are supported by  $3\frac{1}{2}$ " Strips 22 slightly bent at each end and bolted to the  $9\frac{1}{2}$ " Angle Girders.

The central tower (Fig. 2) is in the form of a square and is built from  $7\frac{1}{2}$ " and  $2\frac{1}{2}$ " Angle Girders. A Ball Thrust Race Toothed Disc 6 is fixed to the  $2\frac{1}{2}$ "

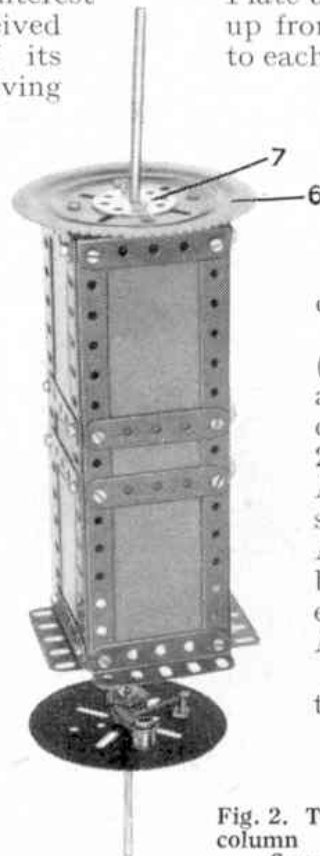


Fig. 2. The centre column of the Carousel.

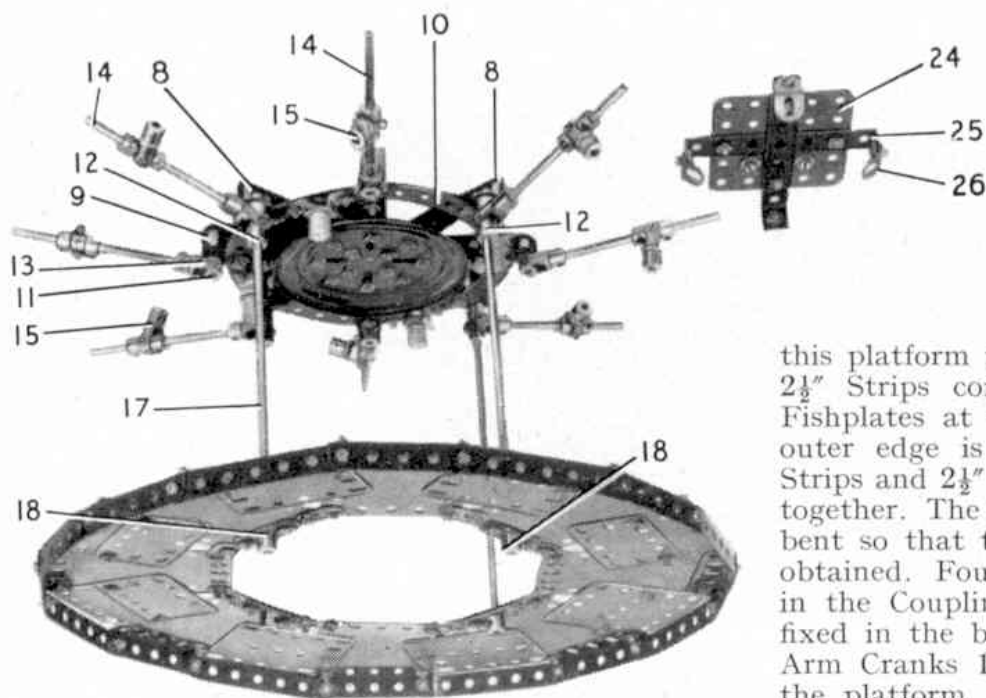


Fig. 3. The rotating platform of the Carousel and the radial arms that carry the Rods on which the horses are mounted.

Angle Girders at the upper end and a Wheel Disc 7 is bolted at the centre of the Disc to provide a bearing for the centre shaft.

Four 3" Angle Girders 8 (Fig. 3) are bolted to the round holes of a Ball Thrust Race Flanged Disc and a 2½" Angle Girder 9 is bolted to each of the slotted holes of the Flanged Disc. The Angle Girders are linked to one another by a ring made of Curved Strips 10. A Crank 11 is bolted to each of the 2½" Angle Girders with its boss on the outside, and a Coupling 12 is held on a ¾" Bolt at the outer end of each of the 3" Angle Girders. A Fork Piece 13 is connected to the boss of each Crank and a similar part is also fixed to the centre hole of each Coupling. A 4" Rod 14 is fixed in the boss of each Fork Piece and each Rod carries two Collars, one on each side of a Swivel Bearing 15. The outer ends of the Rods 14 rest on the ring 19. Eight 8" Rods 16 are held in the bosses of the Swivel Bearings and at their

lower ends they protrude into the slotted holes of the 2½" Flexible Plates of the platform.

The horses are built up as shown and are fixed to the 8" Rods 16.

The inner edge of this platform forms a ring of eight 2½" Strips connected together by Fishplates at the inner end. The outer edge is made up from 3½" Strips and 2½" Angle Girders bolted together. The 3½" Strips are slightly bent so that the required shape is obtained. Four 8" Rods 17 are held in the Couplings 12 and they are fixed in the bosses of four Double Arm Cranks 18 bolted underneath the platform. When the rotating structure is assembled in place the 4" Rods 14 bear on the curved built-up ring 19.

The ribs of the canopy (Fig. 4) consist of 9½" Strips edged by 3½" and 2½" Strips and filled in with Plates. A Bush Wheel 27 with eight holes, is attached to the top of the canopy ribs by Obtuse Angle Brackets 28. A 2½" x 2½" Plate 24 (Fig. 3) is bolted to two Double Angle Strips 25. Obtuse Angle Brackets 26, which are bolted to each of the lugs of the 3½" x ½" Double Angle Strips, are bolted in turn to the canopy ribs at the fourth hole from the centre.

The model can be powered by an E15R Electric Motor situated inside the base in a suitable position to transmit its drive to the compound centre shaft of the model, which is fixed in the boss of the Ball Thrust Bearing. The horses are fixed to the 8" Rods held in the bosses of the Swivel Bearings.

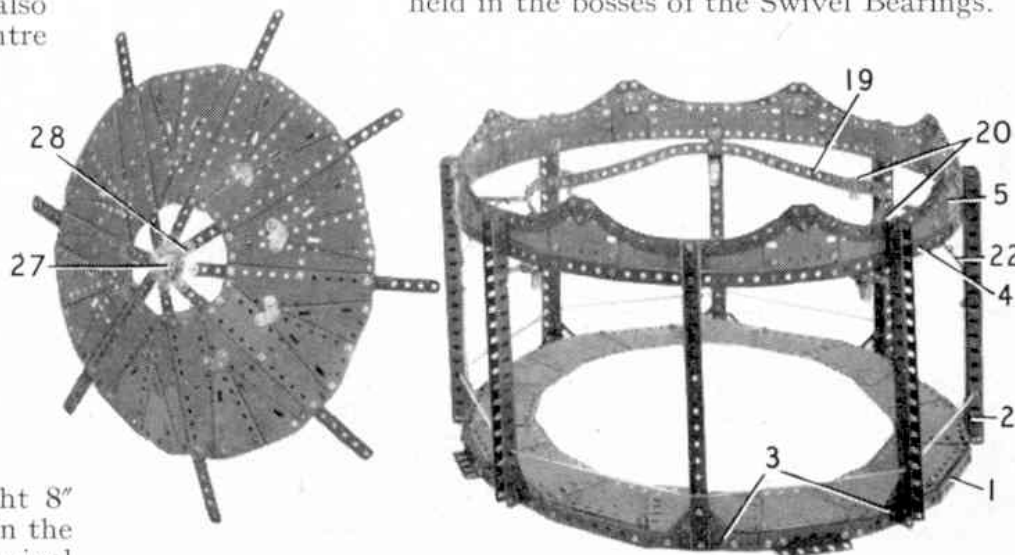


Fig. 4. The stationary superstructure and roof of the Carousel.