

A New Model Electric Roundabout

Dinky Toys Used with Meccano

THE fine model electric roundabout illustrated on this page has been designed specially to enable owners of Dinky Toy Motor Cars to use them in conjunction with their Meccano Outfits. The model is quite simple to build and is most realistic in motion, and as the cars are fitted with electric lights, it presents a really fascinating appearance.

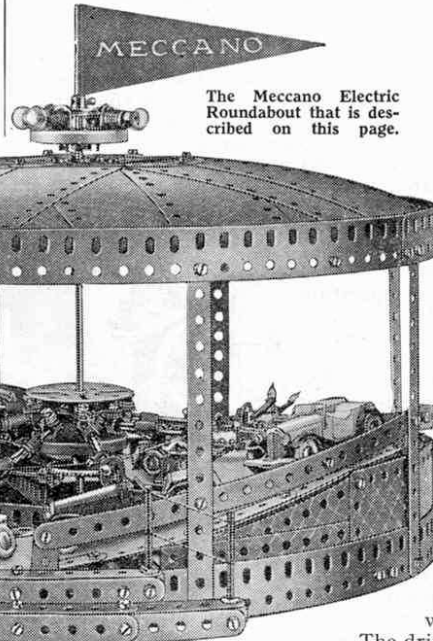
The cars run on a circular track consisting of a circle of cardboard or tinfoil 15½ in. in diameter. From the centre of this a disc 7½ in. in diameter is cut, and the outer edge of the circle is strengthened by means of 2½" Strips bolted in place as shown in the illustrations. It is very important to cut the track accurately to the diameter stated, otherwise difficulty will be experienced in fitting the Strips round the outer edge.

The construction of the frame on which the track is mounted is shown in the lower illustration, and neither this portion nor the body of the model should present any difficulty. The track is mounted on a framework of Angle Girders, which is constructed on four 5½" Angle Girders and four 4½" Angle Girders that radiate from a 4" Circular Plate as shown. Two Angle Girders diametrically opposite, are provided with vertical 2½" Angle Girders at their ends, and at a distance of 4½" from these with 2" Angle Girders. These pairs of Angle Girders are connected across their upper ends by 4½" Angle Girders, on which the highest portions of the track rest. At its lowest points the track is bolted to 4½" Angle Girders that are secured direct to the radial girders, and at its intermediate levels to 4½" Angle Girders secured to the radial girders by 1½" Angle Girders at the outside and Flat Brackets at the inside. Four Dinky Toy Two-seater and four Four-seater Sports Cars are connected together in a ring which is assembled as follows. The centre of the ring is a Bush Wheel to which are bolted eight Hinges, each Hinge carrying a Collar in which is secured a 3" Rod. The Cars are secured to the ends of the 3" Rods by means of a Flat Bracket, which is pushed between the chassis of each Car and underneath the seat. A 1" x ½" Angle Bracket is then bolted to the Flat Bracket, and to the Angle Bracket is fixed a Hinge that carries two ½" x ½" Angle Brackets.

The upper Angle Brackets form supports for the Pea Lamps that are used to decorate the model, and ¾" Bolts are pushed through the lower ones and are secured to the ends of the 3" Rods by means of grub screws in the longitudinal holes of the Couplings 1. Each Coupling is fitted with a bolt and these are linked together by cord as shown. The Pea Lamps are pushed tight against the Angle Brackets, and the wires are held close to the 3" Rods by insulating tape or gummed paper. One wire from each lamp is connected to the bolt that holds its Hinge in place. The remaining wires from the lamps are connected together and the method of incorporating them in the general circuit will be explained later.

The Cars are made to revolve by means of a 6" and a 5" Rod connected together by a Coupling. This compound rod is journaled at its lower end in a Bush Wheel that forms the centre of the base,

and at its upper end in a Face Plate. The Rod carries a 1½" Bevel Gear 2, a slip-ring and the radial Rods to which the Cars are connected. The slip-ring is a Wheel Flange 3 secured to but insulated by Insulating Bushes and Washers from a Bush Wheel. The bunch of wires from the Pea Lamps are electrically connected to the Wheel Flange, and for the sake of neatness all the other connections are covered by a Face Plate 4. In the illustration at the foot of this page the Face Plate is raised to reveal the construction of the revolving unit.



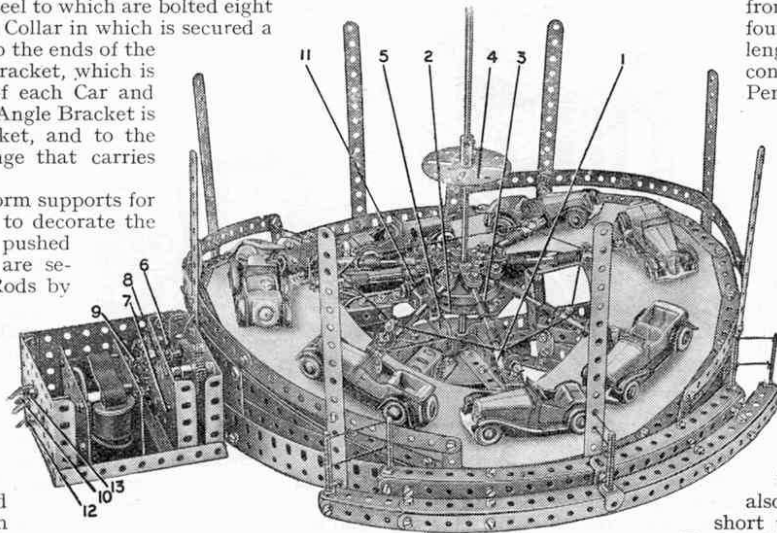
The Meccano Electric Roundabout that is described on this page.

The 1½" Bevel Gear 2 meshes with a ½" Bevel Gear 5, which is on the same Rod as the 57-teeth Gear Wheel 6. This Gear drives Rod 7 through two ¾" Pinions and a second 57-teeth Gear Wheel, and Rod 7 is provided with a 50-teeth Gear Wheel that meshes with a ¾" Pinion on Rod 8.

The drive is transmitted from Rod 8 to Rod 9 by means of a further 50-teeth Gear and a ¾" Pinion. Rod 9 and the armature shaft of the E1 Electric Motor that drives the model carry ¾" Sprockets, which are connected by Sprocket Chain.

Under the roof of the model are four 3.5 volt lamps, and the lighting circuit for these is as follows. The lamps are supported on 1½" x ½" Double Angle Strips, the 6 B.A. centre Screws of the Lamp Holders being carefully insulated from the Double Angle Strips. The four Screws are connected by a length of wire and one of them is connected also to an insulated Pendulum Connection that makes contact with the insulated Wheel Flange on top of the model. The outer cases of the four exterior Lamp Holders are in contact with the Wheel Flange, and the 6 B.A. Screws are electrically connected by contact with the rim of a 1" fast Pulley Wheel. A wire is taken from the insulated Pendulum Connection down one of the vertical roof supports and to the insulated Terminal 10. Terminal 10 is also connected to the insulated Pendulum Connection 11 that makes contact with 3.

The model Roundabout with the roof and part of the gear-box removed to show the interior arrangement.



The other Terminal, 12, which also is insulated, is connected by a short piece of wire to the insulated Terminal of the Motor. The third Terminal 13 is in electrical contact with the model.

The upper 6-volt controlled socket of a T6A Transformer should be connected to Terminal 12, and Terminal 10 to the upper 3.5-volt socket. The lower 6-volt controlled socket should be connected to Terminal 13, and the lower sockets of the 6-volt uncontrolled and the 3.5-volt tappings should be joined by a piece of wire.