

MEET THE CUP WINNER

Here she is at last—the magnificent little Showman's Traction Engine, designed and built by Mr. H. J. Halliday of London, which won the Meccano Cup at this Year's Model Engineer Exhibition.

Spanner describes the magnificent Traction Engine which gained the Meccano Cup at this year's M.E. Exhibition

NEVER LET IT BE SAID that Meccano Magazine does not keep its word! In the write-up on this year's Model Engineer Exhibition in the April issue we reported that the Meccano Cup was won by veteran modeller H. J. Halliday with an outstanding miniature Traction Engine which, despite its small size, was packed with detail and we promised at the time that we would do our best to feature it in full in a "subsequent edition". Well, this is that subsequent edition and here follows a full constructional article!

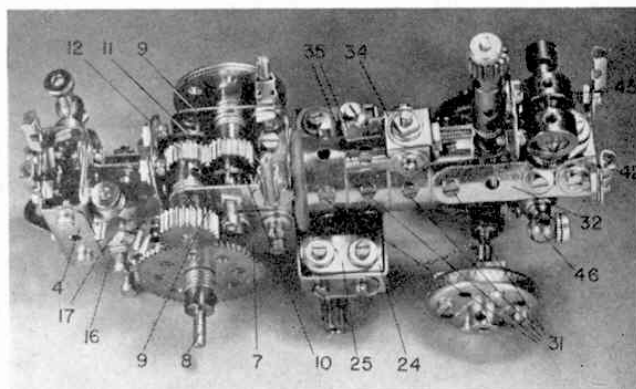
Just before describing the model, however, I would like to extend my personal congratulations to Mr. Halliday for a first-class model. It is only eight inches long, yet is overflowing with realistic detail. When pushed along, various gears and a flywheel spin merrily around and it even includes working steering, although this is controlled, not from the cab, but by a pinion protruding from beneath the belly tank. A very interesting visual effect has been obtained by the liberal use of brass-finished Set Screws which con-

trast well with the silver-coloured parts. In fact, Set Screws have been used in many cases in place of standard Bolts, their slightly smaller size enabling them to fit into places where the ordinary Bolts might prove a little awkward. When fitting Bolts, by the way, Mr. Halliday stresses the importance of using Washers beneath the heads of all Bolts passing through elongated holes, particularly the holes in the Plastic Plates of the canopy. This is a standard practice which should always be followed.

Tender

Dealing first with the construction of the body, or tender, the base of this section is a 3 in. Flat Girder 1 to which two 3 in. Angle Girders 2 are bolted, using their circular holes, the forward securing Bolts also fixing two Fishplates 3 in position through their elongated holes. The free ends of these Fishplates are brought together as shown. Attached to the rear ends of Girders 2 through their circular holes are two Angle Brackets, the heads of the fixing Bolts uppermost. Bolted to the vertical lugs of these Brackets are two 1½ in. Angle Girders 4, the rear securing Bolts also fixing a 1 × ½ in. Angle Bracket 5 and a 1 in. Triangular Plate 6 in position. Note that the apex of this Triangular Plate is bent rearwards at 90 degrees to form a towing lug, while bolted to the free lug of Angle Bracket 5 are two Rod and Strip Connectors spaced from the Bracket and from each other by two Washers in each case. Right-hand Angle Girder 4 is also bolted to nearby Girder 2.

Now fixed through their round holes to the vertical flanges of Angle Girders 2 are two 2 in. Flat Girders 7, these being positioned in the upper limits of the elongated holes of Girders 2. Journalled in the lower third holes of these Girders and in the corresponding holes of Girders 2 is a 4 in. compound rod 8 on which a Collar and a Coupling are mounted between the girders. The compound rod consists of two 2 in. Rods,



In this view, the canopy and rear wheels have been removed to show the layout of the gear arrangement in the tender section.