

FIG 10

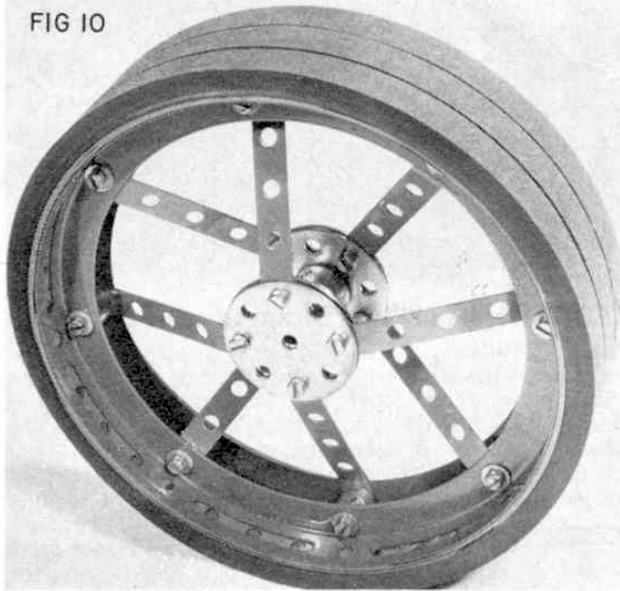


Fig. 10: A partially-completed dished wheel for a traction engine using 2½ in. Narrow Strips for spokes. Eight-hole Wheel Discs are used to "sandwich" the spokes.

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Hooks, while governors made from Small Fork Pieces can be authentically driven by Contrate gearing, the boss of the Contrate acting as its own pulley. Gear drives are very simple in traction engines, a sliding gear rod carrying two or three change speed gears or Pinions on horizontal bearings to mesh with the crankshaft gear, as shown in Fig. 7. In some cases, as in Fig. 9, auxiliary gearing is required from the main motion to drive a ploughing winch drum, giving the modeller excellent scope to extend the mechanisms.

Wheel construction is a problem with realism in mind. Hub Discs are commonly used and, when staggered by Reversed Angle Brackets as shown in Fig. 1, a fair likeness is achieved. However, spoked and dished wheels can be neatly assembled from Circular Girders and Narrow Strips, as shown in Figs. 10 and 11. No Bolts protrude through the rims, Plastic or Flexible 1½ in. Plates being used for the rim construction. These Plates are simply held in place by the elastic properties of Meccano heavy-duty Driving Bands placed on in layers, or by the use of commercial rubber rings, or vacuum cleaner driving belts. As a

FIG 11



Fig. 11: A completed 16-spoke dished wheel for a Showman's Road Locomotive. The outer rim of the wheel is made from 5½ × 1½ in. Flexible or Plastic Plates trapped by rubber tyres or bands.

last resort, black fabric insulating tape can be wound on to make very effective-looking traction engine "tyres". Agricultural engines can be left, with advantage, with the "bare" look.

Many enthusiasts prefer to model on a larger scale, using the 9 in. Flanged Ring, Part No. 167b, as a standard for their rear wheels as this size gives easier scope for detail work. As an alternative, however, satisfactory wheels for this larger scale can be based on rings of 4½ in. Curved Strips, as shown in Fig. 12, and these have the advantage of multiple perforations for spoke attachments, etc. Hub details can then be built in to give the detailed finish.

One thing is certain: provided care is taken with construction and attention is paid to detail, traction engines can be built with great success in the medium of Meccano.

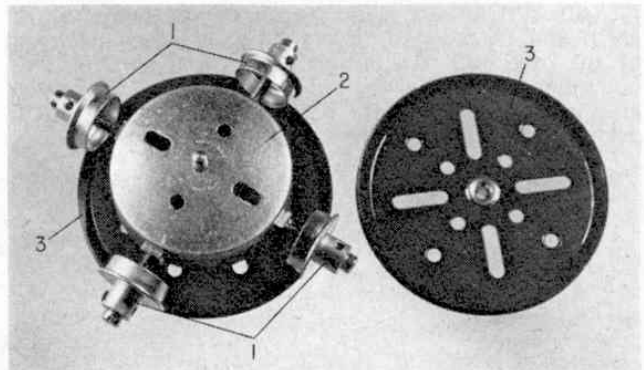
**AMONG THE MODEL BUILDERS** *Continued from page 439*

**Simple Roller Race**

As a parting shot, this month, I leave you with yet another simple Roller Race (we've had quite a lot of them, recently!) this particular example coming from Mr. G. Relins of Leamington Spa, Warwickshire. Free-running ¾ in. Flanged Wheels 1 are mounted, boss outwards, on 1½ in. Bolts locked by Nuts in the flange of a Boiler End 2. The Flanged Wheels run on the lips of two 3 in. Pulleys 3, the whole unit being centralised by a Rod journalled in the bosses of the Pulleys and passed through the centre hole in the Boiler End. As I say, it's simple, but useful for larger models.

**PARTS REQUIRED**

- |       |       |        |
|-------|-------|--------|
| 1—18a | 4—20b | 4—111d |
| 2—19b | 8—37a | 1—162a |



This simple Roller Race, suitable for larger models, was designed by Mr. G. Relins of Leamington Spa, Warwickshire.