

#### (13)—Meccano Compasses

(R. Garton, Chelsea, S.W.3)

The novel Compasses illustrated in Fig. 13 comprise an ingenious adaptation of Meccano parts, and form an extremely useful instrument. The legs consist of two  $5\frac{1}{2}$ " Curved Strips (1) meeting together within the slot of a Strip Coupling (2), and having their lower ends inserted in further Strip Couplings (3) and (4). Flat Brackets (5), bolted at (6) to the legs, are inserted in these Strip Couplings also, in order that their thickness, together with that of the  $5\frac{1}{2}$ " Curved Strips, shall be sufficient to enable the Couplings to be secured rigidly to the legs by means of the bolts shown, which pass through both jaws of the Couplings.

A piece of pencil-lead is secured by the set-screw of coupling (3), and a small nail, from which the head has been cut or filed

away, is gripped by the set-screw of Coupling (4).

Two  $2\frac{1}{2}$  Strips (7) serve to strengthen the legs, and the end hole of one also answers as a guide-slot for the sliding  $2\frac{1}{2}$ . Curved Strip (8). Sufficient clearance is obtained for this purpose by placing Washers on the bolts between the  $2\frac{1}{2}$ " Strip and  $5\frac{1}{2}$ " Curved Strip.

# (14)—Steam Dome for Locomotive

(C. W. Parkin, Grimsby)

Although a large number of readers have been actively engaged recently in model locomotive building, it is doubtful whether many have realised the possibilities that the Meccano Cone Pulley offers in connection with the design of a really effective steam dome. Charles Parkin draws our attention to its merits in this direction, however, and we illustrate his idea in Fig. 15.

It will be seen from this that the Cone Pulley (1) is secured by its set-screw to the shank of a \(\frac{3}{4}\)" Bolt (2) which is mounted in the centre hole of a

Double Bent Strip (3). The latter is bolted to the ends of the Strips (4), forming part of the boiler shell, in an inverted position, i.e., with the head of the bolt (2) inside the boiler. Thus when the remainder of the boiler is built up on either side of the Strips (4), the Double Bent Strip and the boss of the "dome" are hidden from view.

### (15)—Hack Saw

(G. Boedeker, Croydon)

A practical tool for model-makers is shown in the Meccano hack-saw (Fig. 14). It is constructed entirely with Meccano parts with the exception of the saw blade, which should be about 10" in length.

The frame is built up from two 121" and four  $2\frac{1}{2}$  Angle Girders, bolted flange to flange, and braced at each end by an Architrave to secure extra rigidity. front 2½" Girders (5) are splayed to secure a 1½" Girder (4) between their ends. A 2" Threaded Rod is passed through the centre hole of this Girder (4) and its end is secured very tightly by the set-screw of a Strip Coupling (3), in the slot of which the saw blade (1) is carried. A nut placed on the Threaded Rod and screwed against the end of the Coupling (3) will prevent any tendency of the Rod to turn. An Octagonal Coupling (6), mounted on the Threaded Rod, forms a simple adjustment device, a few turns of which stretches the

# (16)—Fret-Saw

(D. G. Knibbs, Birmingham; Herbert Hart, London, S.E.21; and Oswald Yeomans. Redditch)

We have received a large number of suggestions for Meccano fret-saw frames, and after careful consideration we decided to select three of the best contributions and to construct a model from these incorporating the most interesting points suggested. This model is shown in Fig. 16.

The various parts of the frame are duplicated to obtain additional strength. It is made up from two pairs of 12½ Strips (2) braced by 3" Strips (3). The Firet-saw (4) is gripped between the Flat Brackets (5) and between the ends of two  $3\frac{1}{2}$ " Strips (6). The latter, together with four 3" Strips (7), form the handle, the shape of which is improved by mounting three Collars (8), with set-screws removed, on ½" Bolts between the outer ends of the Strips.

We may here remind readers who are interested in the subject of Meccano fret-saws, that an interesting model in which a fret-saw was operated by an electric motor, was described in the "M.M." for October 1923. Such an arrangement should prove a real boon to

fretwork enthusiasts.

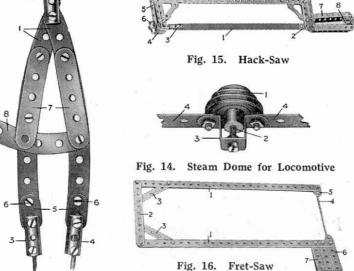


Fig. 13. Compasses

taut. It will be noted that the opposite end of the latter is bolted between two Flat Brackets (2).

In place of the wooden grip used by our Contributor, we have constructed a Meccano handle from which neither bolts or sharp edges protrude to hurt the hand. sists of four  $3\frac{1}{2}'' \times \frac{1}{2}''$  Double Angle Strips (7) bolted to a Bush Wheel (8) and to the lower four holes in the end 2½" Girders of the frame.

## (17)—Meccano "Toaster"

(E. W. Griffith, Cheltenham)

E. W. Griffith sends a seasonable suggestion for a Meccano "Toaster," which he declares enables one to toast bread, muffins, etc. before a roaring fire in the good old-fashioned way without the unpleasantness of scorched hands and face. The apparatus consists of a vertical 111 Axle Rod secured to a pedestal formed from two  $5\frac{1}{2}'' \times \frac{1}{2}''$  Double Angle Strips crossed one upon the other, with their centre holes secured to the bottom

of the upright Rod by means of a Bush Wheel or similar part. A Coupling sliding upon this Rod may be secured in any position by its set-screw, and supports horizontal Rod which in turn carries at its outer end another Coupling supporting two short Rods placed at right-angles. The latter, again, are connected by Couplings to two further Rods forming prongs on which to secure the bread, etc. for toasting. A series of Flanged-Wheels mounted at