

## New Meccano Model Perforating Machine

CONSTRUCTION of the model perforating machine shown in Fig. 1 should be begun by bolting two  $12\frac{1}{2}$ " Strips and two  $12\frac{1}{2}$ " compound strips to a  $5\frac{1}{2} \times 2\frac{1}{2}$ " Flanged Plate that forms the base of the model. The compound strips are built up from two  $5\frac{1}{2}$ " and one  $2\frac{1}{2}$ " Strip, and each side of the model is filled by a  $5\frac{1}{2} \times 2\frac{1}{2}$ ", a  $4\frac{1}{2} \times 2\frac{1}{2}$ " and a  $2\frac{1}{2} \times 2\frac{1}{2}$ " Flexible Plate. The sides are extended upwards by a  $2\frac{1}{2}$ " Strip 1 and a Semi-Circular Plate, and are braced by two  $2\frac{1}{2}$ " Strips attached to them by Angle Brackets. A  $2\frac{1}{2} \times 2\frac{1}{2}$ " Curved Plate and a  $2\frac{1}{2} \times 1\frac{1}{2}$ " Flexible Plate complete the top.

The press bed consists of a  $2\frac{1}{2} \times 2\frac{1}{2}$ " and a  $2\frac{1}{2} \times 1\frac{1}{2}$ " Flexible Plate and is attached to the  $5\frac{1}{2}$ " Strips 2 and  $12\frac{1}{2}$ " Strips by Angle Brackets.

The model is driven from the handle 3 formed by attaching a  $\frac{3}{4}$ " Bolt to a 3" Pulley. The Pulley is locked on a  $1\frac{1}{2}$ " Rod passed through a Reversed Angle Bracket 4 and a Flat Trunnion. A  $\frac{1}{2}$ " Pinion on this Rod engages with a 57-tooth Gear Wheel 5, which is fast on a  $3\frac{1}{2}$ " Rod 6 mounted in two  $2\frac{1}{2} \times \frac{1}{2}$ " Double Angle Strips. Rod 6 carries on its end a Bush Wheel to which a  $2\frac{1}{2}$ " Strip 7 extended by a Fishplate, is pivotally attached.

The perforating tools are two 2" Rods, which are fixed by Spring Clips in a sliding

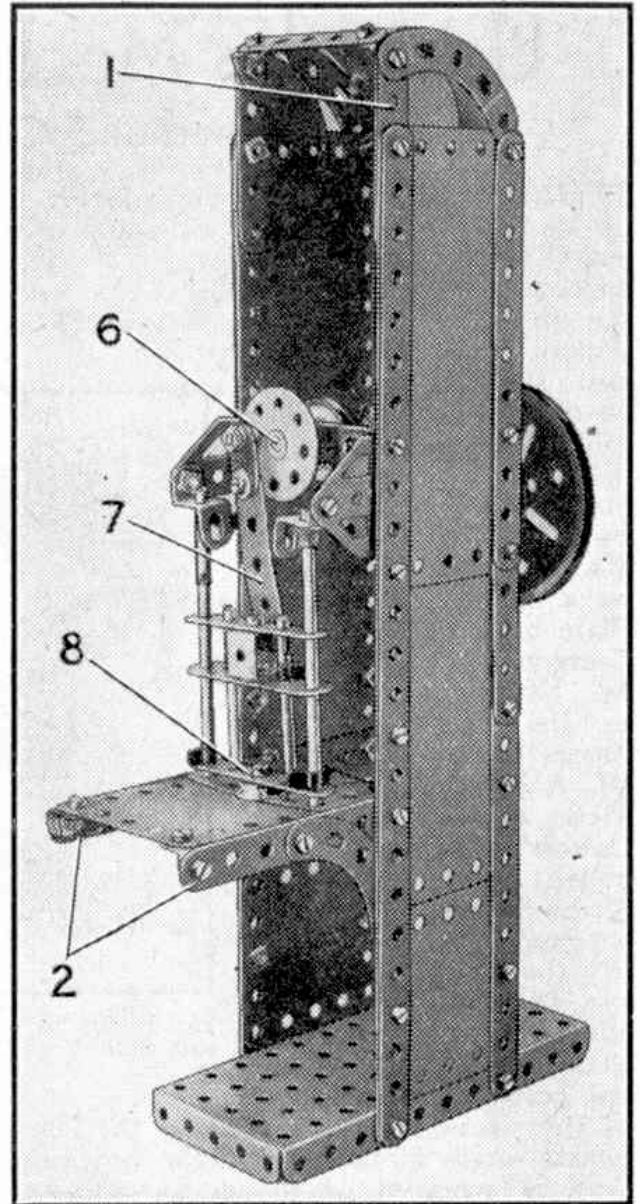


Fig. 1. A simple perforating machine suitable for operation from a Magic Motor.

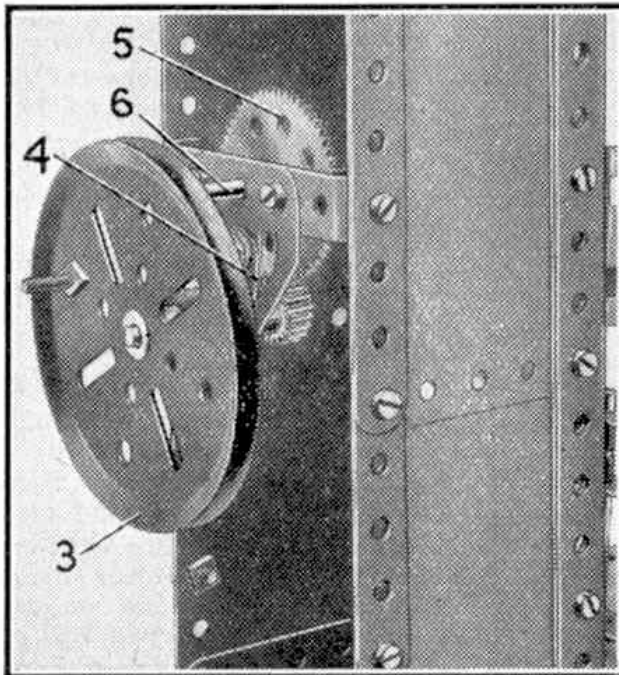


Fig. 2. A rear view of the perforating machine showing the driving arrangement.

head consisting of two  $2\frac{1}{2}$ " Strips connected by two Double Brackets. The head slides up and down two guides consisting of 4" Rods held at the lower ends in the  $2\frac{1}{2}$ " Strip 8 by Spring Clips and at their upper ends in Reversed Angle Brackets by a Cord Anchoring Spring and a Rod Connector. The Strip 8 is spaced from the press bed by a  $\frac{1}{2}$ " loose Pulley. The rear Double Bracket in the sliding head is pivotally attached by means of a lock-nutted bolt to the lower end of the  $2\frac{1}{2}$ " Strip 7.

Parts required to build model Perforating Machine: 2 of No. 1; 6 of No. 2; 9 of No. 5; 1 of No. 10; 2 of No. 11; 8 of No. 12; 2 of No. 15b; 1 of No. 16; 2 of No. 17; 1 of No. 18a; 1 of No. 19b; 1 of No. 22; 1 of No. 23; 1 of No. 24; 1 of No. 26; 1 of No. 27; 6 of No. 35; 50 of No. 37; 6 of No. 37a; 6 of No. 38; 2 of No. 48a; 1 of No. 52; 4 of No. 90a; 2 of No. 111c; 3 of No. 125; 2 of No. 126; 1 of No. 126a; 1 of No. 176; 2 of No. 188; 2 of No. 190; 2 of No. 191; 2 of No. 192; 2 of No. 200; 1 of No. 213; 2 of No. 214.