

# New Meccano Models

## From Outfits Nos. 00, 2 and 4

THIS month we are describing three models specially for the owners of small Outfits. The Luffing Crane seen in Fig. 1 is built with the most recent addition to the range of Meccano Outfits, the new Outfit No. 00. The simple but realistic Breakdown Lorry (Fig. 2) is designed for construction from Outfit No. 2, while the Planing Machine illustrated in Fig. 3 can be built from the parts in

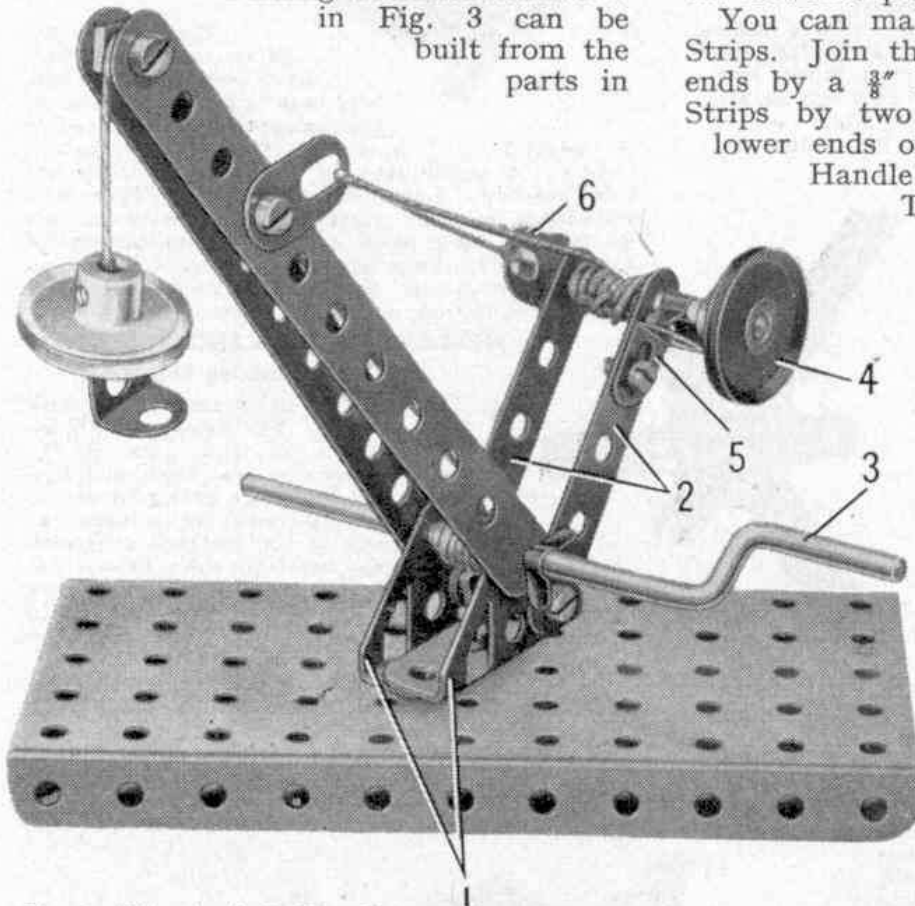


Fig. 1. This simple Luffing Crane makes a good subject for the owner of a No. 00 Outfit.

Outfit No. 4. All three models are working models and will provide great fun when they are completed.

We are describing the Crane first. The base of this is a  $5\frac{1}{2} \times 2\frac{1}{2}$ " Flanged Plate, and on it are mounted two Trunnions 1 that form the swivelling part of the model. They are fixed tightly together by a nut on a  $\frac{3}{8}$ " Bolt, which is pushed through the centre holes in the flanges of the Trunnions. The end of the Bolt is then inserted in the centre hole of the Flanged Plate, and is fitted with a nut. This nut must not fix the Bolt tightly in the Flanged Plate however, and a second nut is screwed

tightly against the first in order to prevent it from unscrewing. If this is done correctly the Bolt and the Trunnions will be able to swivel freely on the base plate. Now bolt a  $2\frac{1}{2}$ " Strip 2 tightly to each Trunnion, using a bolt passed through the large triangular hole. Place a Washer on the bolt before the nut and then screw the nut into place.

You can make the jib from two  $5\frac{1}{2}$ " Strips. Join these together at their top ends by a  $\frac{3}{8}$ " Bolt fixed in one of the Strips by two nuts. Now mount the lower ends of the Strips on a Crank Handle 3 outside the Trunnions.

This Crank Handle is supported in the holes at the pointed ends of the Trunnions and is held in place by Spring Clips.

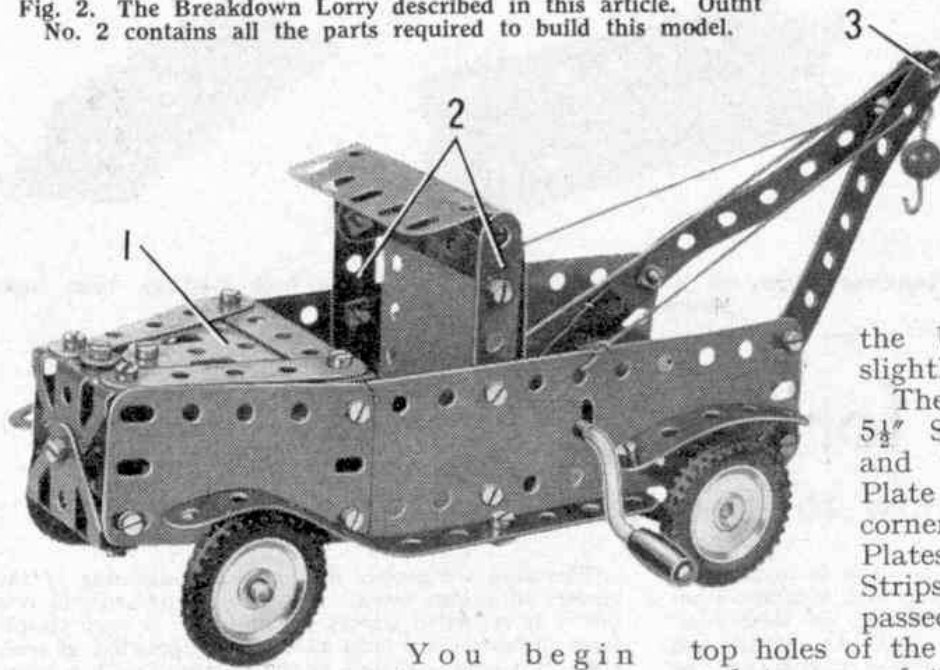
The next step in the construction of the Crane is to arrange the winding handle that controls the luffing or raising and lowering movement of the jib. Fix a 1" Pulley 4 on a 2" Rod, passed through the top holes of the Strips 2. Hold the Rod in position with two Spring Clips. Bolt an Angle Bracket 5 to one of the Strips, so that it presses against the lugs of the Spring Clip of one side. The Spring Clip will then be prevented

from turning with the 2" Rod, and it will act as a brake to prevent the Rod from turning too freely. Tie a piece of Cord to the Rod between the Strips 2 and pass it through a Fishplate bolted to the jib. Then tie the end of the Cord to a Fishplate 6 held on the 2" Rod.

Tie a piece of Cord to the Crank Handle between the Trunnions and take it over the top of the jib, before attaching to it a 1" Pulley and an Angle Bracket.

Parts required to build the Luffing Crane: 2 of No. 2; 2 of No. 5; 2 of No. 10; 2 of No. 12; 1 of No. 17; 1 of No. 19s; 2 of No. 22; 2 of No. 35; 10 of No. 37a; 4 of No. 37b; 2 of No. 38; 1 of No. 52; 2 of No. 111c; 2 of No. 126.

Fig. 2. The Breakdown Lorry described in this article. Outfit No. 2 contains all the parts required to build this model.

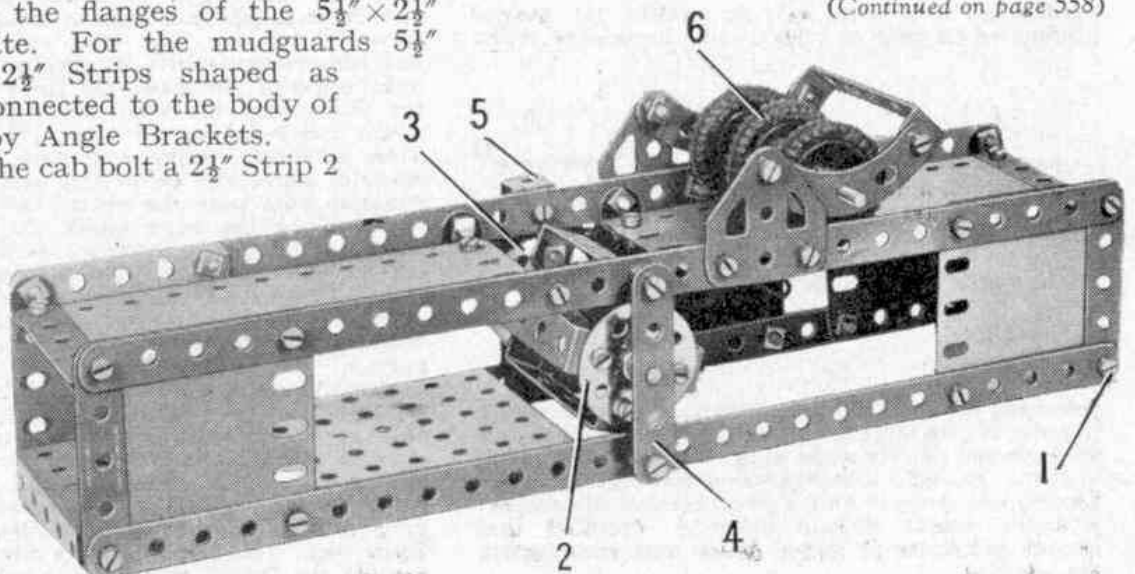


You begin building the Breakdown Lorry shown in Fig. 2 by bolting a  $5\frac{1}{2}'' \times 1\frac{1}{2}''$  Flexible Plate along each of the longer sides of a  $5\frac{1}{2}'' \times 2\frac{1}{2}''$  Flanged Plate that forms the chassis and platform. For the sides of the bonnet use  $2\frac{1}{2}'' \times 1\frac{1}{2}''$  Flexible Plates and connect them by Angle Brackets to the radiator, which consists of two Trunnions bolted together. Fill in the top of the bonnet with three  $2\frac{1}{2}''$  Strips arranged as shown and bolt them to the flange of the upper Trunnion. Attach the rear ends of the Strips to the sides of the bonnet by Angle Brackets. Now attach the Flat Trunnion 1 to the top of the radiator with a Fishplate.

The front wheels should be fixed on a  $3\frac{1}{2}''$  Rod mounted in Fishplates bolted to the  $2\frac{1}{2}'' \times 1\frac{1}{2}''$  Flexible Plates. The rear wheels also should be fixed on a  $3\frac{1}{2}''$  Rod supported in  $2\frac{1}{2}''$  Stepped Curved Strips attached to the flanges of the  $5\frac{1}{2}'' \times 2\frac{1}{2}''$  Flanged Plate. For the mudguards  $5\frac{1}{2}''$  Strips and  $2\frac{1}{2}''$  Strips shaped as shown are connected to the body of the model by Angle Brackets.

To make the cab bolt a  $2\frac{1}{2}''$  Strip 2 vertically

Fig. 3. This model of a woodworkers' Planing Machine is driven by a Magic Clockwork Motor, and can be built with a No. 4 Outfit.



to each side. Then connect these Strips by a  $2\frac{1}{2}'' \times \frac{1}{2}''$  Double Angle Strip, which is used to support the  $2\frac{1}{2}'' \times 2\frac{1}{2}''$  Flexible Plate and the U-section Curved Plate that form the back of the cab and the roof.

You should open out the U-section Curved Plate slightly before fixing it in place.

The crane is made from two  $5\frac{1}{2}''$  Strips shaped as shown and bolted to the Flanged Plate and to the top rear corners of the  $5\frac{1}{2}'' \times 1\frac{1}{2}''$  Flexible Plates. Now brace the  $5\frac{1}{2}''$  Strips by a length of Cord passed through the next to

top holes of the Strips and tied at each end to one of the Flexible Plates. The top ends of the  $5\frac{1}{2}''$  Strips should be connected by a  $\frac{3}{8}''$  Bolt 3. Pass a Crank Handle through the centre holes of the  $5\frac{1}{2}'' \times 1\frac{1}{2}''$  Flexible Plates and to it tie a length of Cord. Pass the Cord over the Bolt 3 and attach its free end to a small Loaded Hook.

A towing attachment at the back of the lorry is provided by a  $\frac{1}{2}''$  Reversed Angle Bracket bolted to the  $5\frac{1}{2}'' \times 2\frac{1}{2}''$  Flanged Plate.

Parts required to build the Breakdown Lorry: 4 of No. 2; 6 of No. 5; 3 of No. 10; 6 of No. 12; 2 of No. 16; 1 of No. 19g; 4 of No. 22; 2 of No. 35; 40 of No. 37a; 37 of No. 37b; 4 of No. 38; 1 of No. 40; 2 of No. 48a; 1 of No. 52; 1 of No. 57c; 2 of No. 90a; 2 of No. 111c; 1 of No. 125; 2 of No. 126; 1 of No. 126a; 4 of No. 142c; 2 of No. 188; 2 of No. 189; 1 of No. 190; 1 of No. 199.

Our third new model is the woodworkers' Planing Machine shown in Fig. 3. Each side of the machine bed is made by

(Continued on page 558)