

# Easy Model-Building

## Spanner's Special Section for Juniors

**A** BREAKDOWN Lorry built from Outfit No. 2 and a Cargo Ship designed to make use of the parts in Outfit No. 4, are the two new models that I have selected for you this month.

You can start making the Breakdown Lorry by bolting a  $5\frac{1}{2}$ "  $\times$   $1\frac{1}{2}$ " Flexible Plate to each side of a  $5\frac{1}{2}$ "  $\times$   $2\frac{1}{2}$ " Flanged Plate 1. The Flexible Plates form the sides of the cab and the body, and they should be lengthened towards the front by  $2\frac{1}{2}$ "  $\times$   $1\frac{1}{2}$ " Flexible Plates 2 to make the sides of the bonnet. Now bolt a  $2\frac{1}{2}$ "  $\times$   $\frac{1}{2}$ " Double Angle Strip 3 between the Flexible Plates, and fix an Angle Bracket and a Fishplate 4 to the front of each of the Plates 2. Make the radiator by bolting

fixed to the sides of the cab.

Next the wheels can be fitted to the model. These are 1" Pulleys with Motor Tyres and the axles are  $3\frac{1}{2}$ " Rods. The rear axle is supported in  $2\frac{1}{2}$ " Stepped Curved Strips bolted to Flanged Plate 1, and the front axle is mounted in Fishplates fixed to the Flexible Plates 2. Space the front wheels from the Fishplates by Washers. The front mudguards are slightly curved  $2\frac{1}{2}$ " Strips, and they are bolted to Angle Brackets.

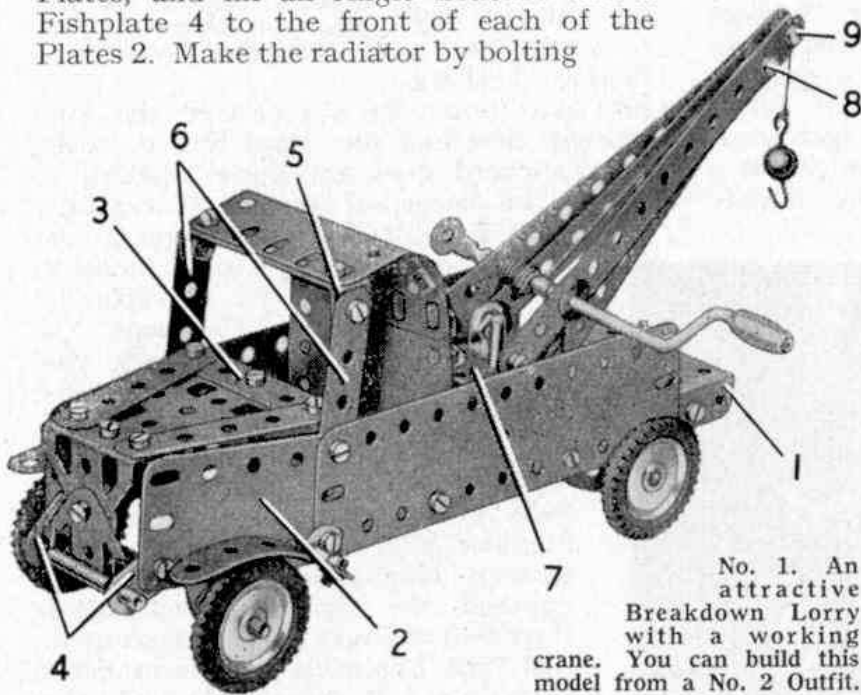
To make the crane bolt four Angle Brackets to a Bush Wheel 7. Fix a  $5\frac{1}{2}$ " Strip to each Angle Bracket and connect the Strips together by a  $\frac{3}{8}$ " Bolt 8, using a nut and two Washers to space apart the Strips on each side. Pass a second  $\frac{3}{8}$ " Bolt 9 through one Strip and fix it in the one on the opposite side by two nuts.

The crane is mounted on the lorry so that it can be turned from side to side. Fix a 2" Rod in the Bush Wheel 7 and pass this Rod through Flanged Plate 1, and through one lug of a  $\frac{1}{2}$ " Reversed Angle Bracket, which you should bolt underneath the Flanged Plate. Use a Spring Clip to hold the Rod in place. Now take a Crank Handle and pass it through two of the  $5\frac{1}{2}$ " Strips, at the same time screw a

Cord Anchoring Spring on its shaft between the two Strips. Hold the Crank Handle in place with a Spring Clip and a Rod and Strip Connector. Tie a short piece of Cord to the Cord Anchoring Spring, pass it over the Bolt 9 and attach to its free end a small Loaded Hook.

Parts required to build the Breakdown Lorry: 4 of No. 2; 6 of No. 5; 4 of No. 10; 8 of No. 12; 2 of No. 16; 1 of No. 17; 1 of No. 19g; 4 of No. 22; 1 of No. 24; 4 of No. 35; 44 of No. 37a; 40 of No. 37b; 6 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; 2 of No. 126a; 4 of No. 142c; 1 of No. 176; 2 of No. 188; 2 of No. 189; 1 of No. 190; 1 of No. 199; 1 of No. 212.

The Cargo Ship is shown in Figs. 2 and 3. Each side of the hull, starting from the



No. 1. An attractive Breakdown Lorry with a working crane. You can build this model from a No. 2 Outfit.

together two Trunnions, then fix the lower one of these to the Angle Brackets already mentioned. Pass a 2" Rod through the Fishplates 4 and use Spring Clips to hold it in place.

To make the top of the bonnet bolt two  $2\frac{1}{2}$ " Strips between the Double Angle Strip 3 and the radiator, and fix one Flat Trunnion to the Double Angle Strip and another to the radiator. You should make the back and roof of the cab by bolting together a  $2\frac{1}{2}$ "  $\times$   $2\frac{1}{2}$ " Flexible Plate and a U-section Curved Plate. Now open the U-section Curved Plate out slightly and fix to it a  $2\frac{1}{2}$ "  $\times$   $\frac{1}{2}$ " Double Angle Strip 5. Bolt the Double Angle Strip to two  $2\frac{1}{2}$ " Strips 6

proW, is made from a  $2\frac{1}{2}'' \times 1\frac{1}{2}''$  Triangular Flexible Plate 1, a  $2\frac{1}{2}'' \times 2\frac{1}{2}''$  Flexible Plate, a  $5\frac{1}{2}'' \times 1\frac{1}{2}''$  Flexible Plate, a  $5\frac{1}{2}'' \times 2\frac{1}{2}''$  Flexible Plate 2, a  $2\frac{1}{2}'' \times 1\frac{1}{2}''$  Flexible Plate and a  $4\frac{1}{2}'' \times 2\frac{1}{2}''$  Flexible Plate 3. These Plates are bolted together and are strengthened on the inside by two  $12\frac{1}{2}''$  Strips. A  $2\frac{1}{2}'' \times 1\frac{1}{2}''$  Triangular Flexible Plate 4 and a  $3\frac{1}{2}''$  Strip 5 are fixed to each side of the hull as shown.

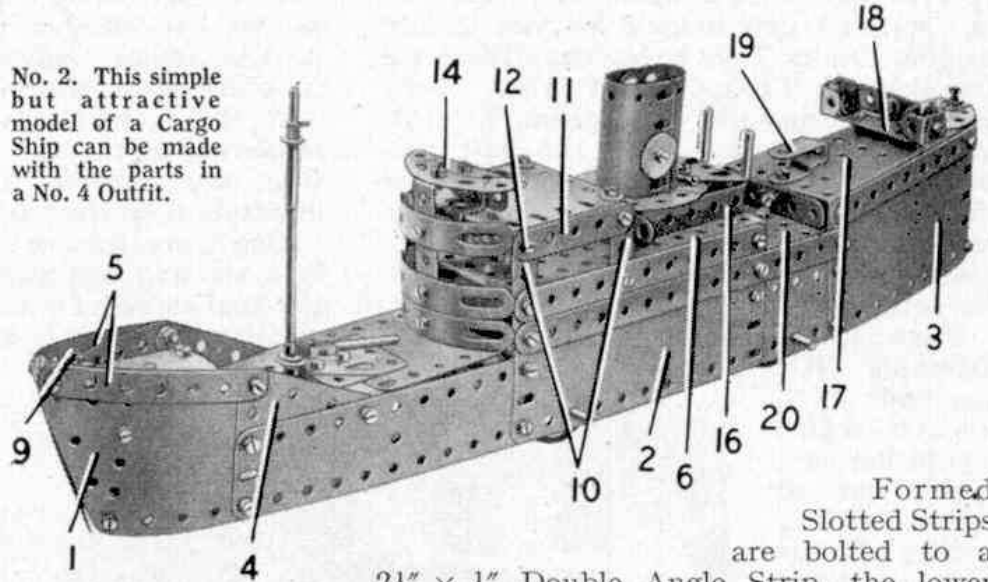
The sides are connected at the prow by Angle Brackets, and at the stern by a  $1\frac{1}{16}''$  radius Curved Plate. A  $5\frac{1}{2}'' \times 2\frac{1}{2}''$  Flanged Plate 6 is fixed between the upper edges of Plates 2 and two  $5\frac{1}{2}''$  Strips are bolted to the outside of each of these Plates. The lower  $5\frac{1}{2}''$  Strip on each side is extended towards the stern by another  $5\frac{1}{2}''$  Strip, which is fixed also to the Plate 3. The upper edges of the Plates 3 are strengthened by curved  $5\frac{1}{2}''$  Strips.

The deck at the prow is made by fixing a Flanged Sector Plate 7 and a  $2\frac{1}{2}'' \times 2\frac{1}{2}''$  Flexible Plate between the sides. Two Semi-Circular Plates 8 are attached to the Plates 4 by Angle Brackets, and are connected by two Fishplates joined by a  $\frac{3}{8}''$  Bolt 9. The foremast is made from a  $3\frac{1}{2}''$  and a  $1\frac{1}{2}''$  Rod joined by a Rod Connector and is fixed in a Bush Wheel.

The bridge is made by bolting

two vertical  $2\frac{1}{2}''$  Strips 10 to each side. These support a  $2\frac{1}{2}''$  Strip 11, and a  $2\frac{1}{2}'' \times \frac{1}{2}''$  Double Angle Strip is held between the front pair of Strips 10 by bolts 12. A  $2\frac{1}{2}'' \times 2\frac{1}{2}''$  Flexible Plate is connected to the Strips 11 by Angle Brackets. Three

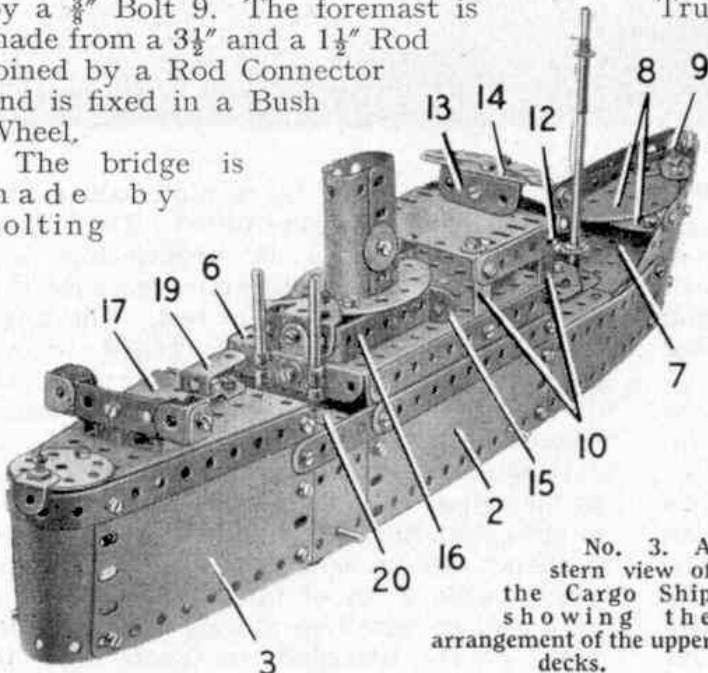
No. 2. This simple but attractive model of a Cargo Ship can be made with the parts in a No. 4 Outfit.



Formed Slotted Strips are bolted to a  $2\frac{1}{2}'' \times \frac{1}{2}''$  Double Angle Strip, the lower lug of which is fixed to the foredeck. The upper lug supports a  $2\frac{1}{2}''$  Stepped Curved Strip and a Trunnion 13. A  $2\frac{1}{2}''$  Strip 14 is bolted to the Trunnion, which is attached to one lug of a  $\frac{1}{2}''$  Reversed Angle Bracket fixed to the Double Angle Strip held by bolts 12.

The funnel consists of two U-section Curved Plates fixed to a  $2\frac{1}{2}''$  Strip 15, which is attached to two  $2\frac{1}{2}'' \times \frac{1}{2}''$  Double Angle Strips 16 bolted to a Trunnion. Two  $2\frac{1}{2}''$  Stepped Curved Strips are connected to the Trunnion by Fishplates. The Trunnion is attached to a Fishplate bolted to the Plate 6, the bolt holding also two Right Angle Rod and Strip Connectors carrying 2" Rods.

A  $2\frac{1}{2}'' \times 1\frac{1}{2}''$  Double Angle Strip 18 and a Bent Strip 19 are fixed to a Flanged Sector Plate 17. A Reversed Angle Bracket bolted to Plate 17 supports a  $2\frac{1}{2}'' \times 1\frac{1}{2}''$  Flanged Plate.



No. 3. A stern view of the Cargo Ship showing the arrangement of the upper decks.

- Parts required to build the Cargo Ship: 4 of No. 1; 8 of No. 2; 2 of No. 3; 9 of No. 5; 5 of No. 10; 2 of No. 11; 8 of No. 12; 3 of No. 16; 2 of No. 17; 2 of No. 18a; 4 of No. 22; 1 of No. 24; 1 of No. 24a; 4 of No. 35; 87 of No. 37a; 79 of No. 37b; 14 of No. 38; 2 of No. 38d; 1 of No. 44; 1 of No. 48; 6 of No. 48a; 1 of No. 51; 1 of No. 52; 2 of No. 54; 4 of No. 90a; 6 of No. 111c; 2 of No. 125; 2 of No. 126; 2 of No. 126a; 4 of No. 155; 1 of No. 176; 2 of No. 188; 2 of No. 189; 4 of No. 190; 2 of No. 191; 2 of No. 192; 2 of No. 199; 1 of No. 200; 1 of No. 212; 2 of No. 212a; 1 of No. 213; 2 of No. 214; 3 of No. 215; 4 of No. 221.