

# An Ocean Liner

## A Fine Model for Outfit No. 5

ALL the parts required to build the attractive liner shown in Fig. 1 are contained in Meccano Outfit No. 5.

The hull of the ship is made up of Flexible Plates of different shapes and sizes bolted together, the construction on both sides being the same.

The bows of the ship consist of two  $2\frac{1}{2}'' \times 1\frac{1}{2}''$  Triangular Flexible Plates bolted together with a  $\frac{3}{8}''$  Bolt.

Along the upper edges of the Flexible Plates a  $12\frac{1}{2}''$  Strip is bolted to another  $12\frac{1}{2}''$  Strip on the other side of the ship with a  $\frac{1}{2}''$  Bolt.

A  $5\frac{1}{2}'' \times 2\frac{1}{2}''$  Flexible Plate is bolted to the Triangular Plate and to the  $12\frac{1}{2}''$  Strip. Another  $5\frac{1}{2}'' \times 2\frac{1}{2}''$  Flexible Plate is bolted to the end of this Flexible Plate and in turn one half of a Hinged Flat Plate 1 is bolted to the  $5\frac{1}{2}'' \times 2\frac{1}{2}''$  Flexible Plate and to the  $12\frac{1}{2}''$  Strip. The latter is bolted to another  $12\frac{1}{2}''$  Strip overlapping five holes.

Two  $5\frac{1}{2}'' \times 1\frac{1}{2}''$  Flexible Plates are bolted together parallel and are attached to the Hinged Flat Plate 1 and to the  $12\frac{1}{2}''$  Strip. Next a  $2\frac{1}{2}'' \times 2\frac{1}{2}''$  Flexible Plate is bolted to the hull and to the  $12\frac{1}{2}''$  Strip. The stern is made up of two  $2\frac{1}{2}'' \times 2\frac{1}{2}''$  U-section Curved Plates 2. A  $5\frac{1}{2}''$  Strip is curved and attached to the hull by Fishplates as shown.

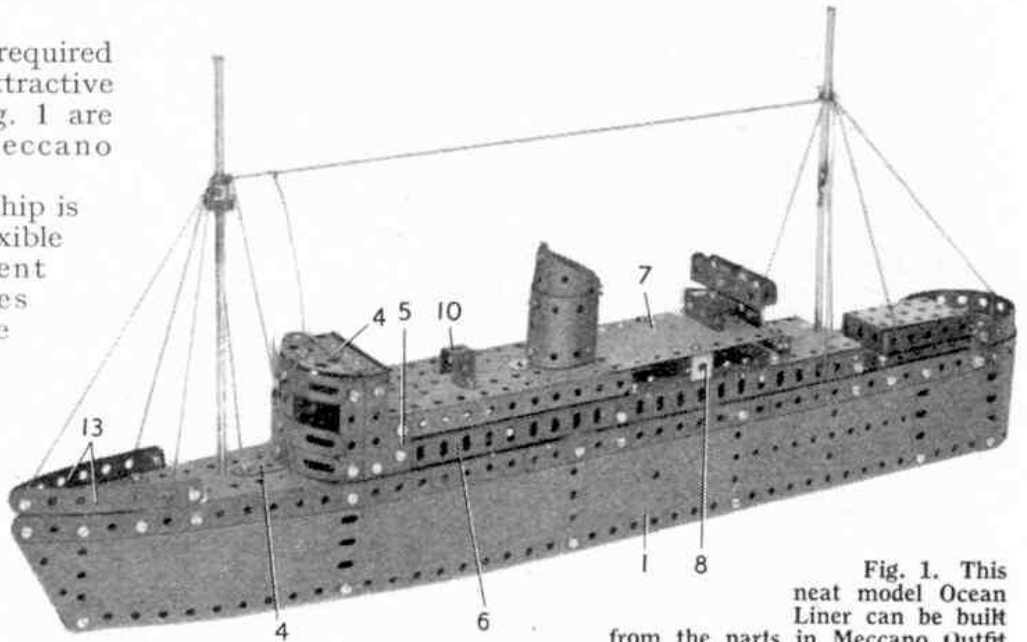


Fig. 1. This neat model Ocean Liner can be built from the parts in Meccano Outfit No. 5.

The hull is strengthened on each side by two  $12\frac{1}{2}''$  Strips bolted to the bottom edges of the Flexible Plates, on the inside. In the bows of the ship a Flanged Sector Plate 3 is bolted to the  $12\frac{1}{2}''$  Strips at their fifth and thirteenth holes by its flanges. Two  $2\frac{1}{2}''$  Strips are bolted upright in the thirteenth and fourteenth holes of the  $12\frac{1}{2}''$  Strip respectively. At the tops of these  $2\frac{1}{2}''$  Strips two  $2\frac{1}{2}'' \times \frac{1}{2}''$  Double Angle Strips are bolted. Two  $1'' \times 1''$  Angle Brackets 4 are bolted together and are attached to the Flanged Sector Plate, and to them three Formed Slotted Strips are bolted to form the curved front of the bridge. The roof is a  $2\frac{1}{2}''$  Stepped Curved Strip, which is bolted to the upper  $1'' \times 1''$  Angle Bracket. Another  $2\frac{1}{2}''$  Strip 5 is bolted to the hull by its middle hole.

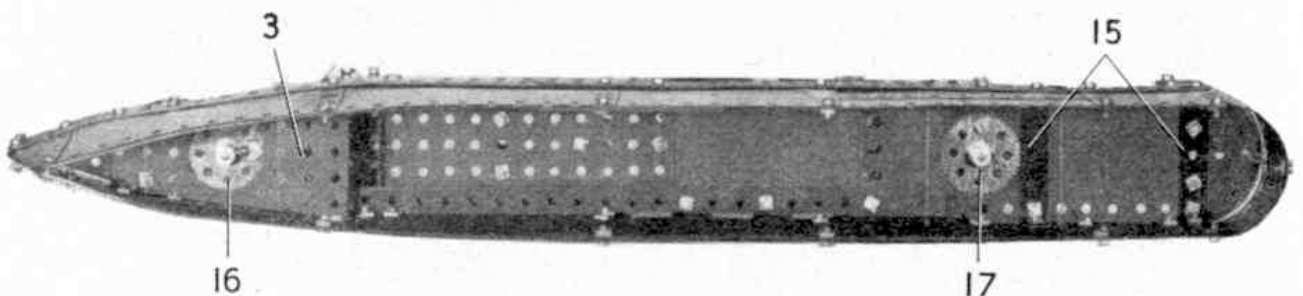


Fig. 2. The interior of the hull of the Ocean Liner.

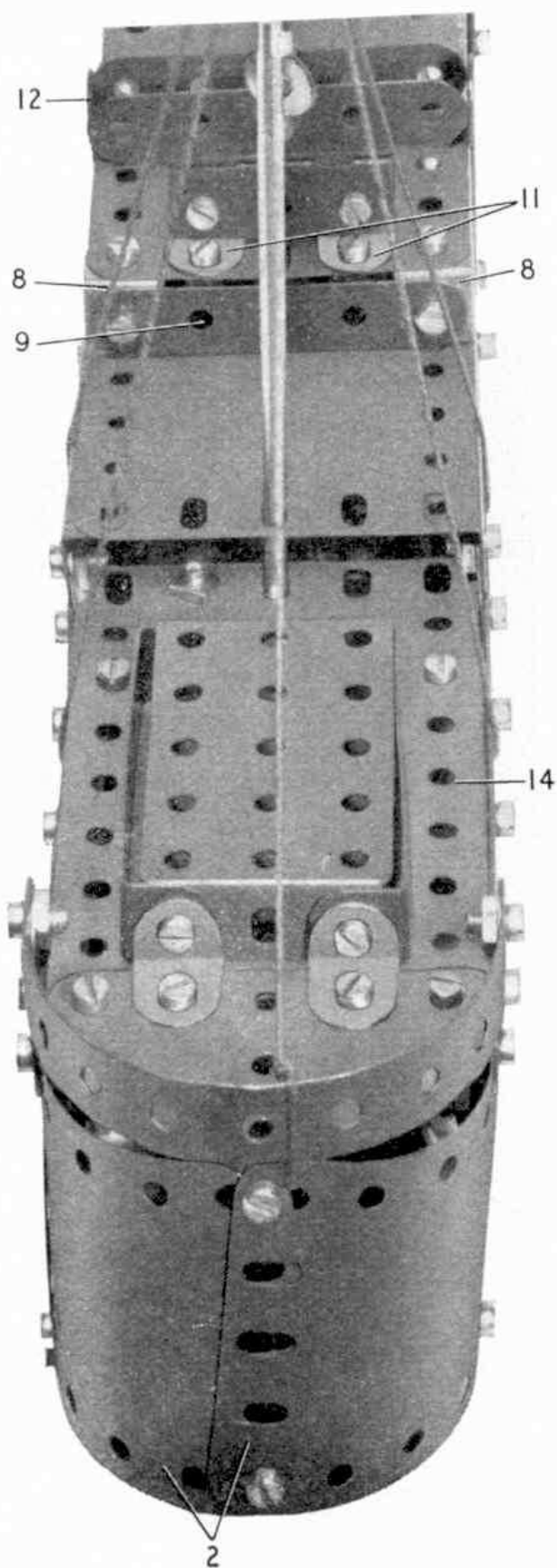
On each side of the hull a  $12\frac{1}{2}$ " Angle Girder 6 is bolted in the second hole of the  $2\frac{1}{2}$ " Strips 5 and is fastened at its other end by a Fishplate to the hull. One of them is also fastened at its centre to the hull by a  $1\frac{1}{2}$ " Strip. The  $12\frac{1}{2}$ " Angle Girder is connected to the hull by a  $2\frac{1}{2}$ " Strip. The upper deck, to which the funnel is fixed, is a  $5\frac{1}{2} \times 2\frac{1}{2}$ " Flanged Plate, and it is extended towards the stern by a  $4\frac{1}{2} \times 2\frac{1}{2}$ " Flexible Plate 7. The latter is supported by four Double Brackets 8 and the stern end of the deck is closed in by means of a  $2\frac{1}{2}$ " Strip 9 bolted to two of the Double Brackets as shown.

The funnel consists of two  $2\frac{1}{2} \times 1\frac{1}{2}$ " Flexible Plates and two  $2\frac{1}{2} \times 1\frac{1}{2}$ " Triangular Flexible Plates. It is attached to the deck by means of an Angle Bracket. The wireless cabin is represented by a Double Bent Strip 10. The superstructure at the stern end of the upper deck consists of two Trunnions bolted together. One of the Trunnions is bolted to Angle Brackets 11 which in turn are bolted to the deck. Two  $2\frac{1}{2}$ " Strips and a  $2\frac{1}{2} \times \frac{1}{2}$ " Double Angle Strip 12 are fixed by Angle Brackets to the Trunnions.

In the bow of the ship two  $3\frac{1}{2}$ " Strips 13 are bolted together and connected to the  $12\frac{1}{2}$ " Strips by Fishplates. Two  $2\frac{1}{2}$ " Strips are bolted to the Flanged Sector Plate.

At the stern the deck is filled in by a Semi-Circular Plate and a  $4\frac{1}{2} \times 2\frac{1}{2}$ " Flexible Plate 14. These are bolted to two  $2\frac{1}{2} \times \frac{1}{2}$ " Double Angle Strips 15. The stern deck-house is formed by a  $2\frac{1}{2} \times 1\frac{1}{2}$ " Flanged Plate and two  $2\frac{1}{2} \times \frac{1}{2}$ " Double Angle Strips, and is attached to two Angle Brackets at its rear end, and these in turn are bolted to the deck. The fore-mast consists of a 5" Rod and a  $3\frac{1}{2}$ " Rod joined by a Rod Connector. The crow's nest is a  $\frac{1}{2}$ " Pinion. The aft mast consists of a  $4\frac{1}{2}$ " Rod joined to a  $3\frac{1}{2}$ " Rod by a Rod and Strip Connector. The fore-mast is held in the boss of a Bush Wheel 16 fixed underneath the Flanged Sector Plate. The rear mast is fixed in the boss of a 57-tooth Gear 17 bolted to the underside of the  $4\frac{1}{2} \times 2\frac{1}{2}$ " Flexible Plate 14. The model is completed by arranging rigging cords as shown.

Fig. 3. A semi-plan view of the stern decks of the Ocean Liner.



Parts required to build the Ocean Liner: 8 of No. 1; 1 of No. 2; 2 of No. 3; 12 of No. 5; 2 of No. 6a; 2 of No. 8; 7 of No. 10; 4 of No. 11; 9 of No. 12; 2 of No. 12a; 1 of No. 15; 1 of No. 15a; 2 of No. 16; 1 of No. 24; 1 of No. 25a; 1 of No. 27d; 96 of No. 37a; 93 of No. 37b; 2 of No. 38; 1 of No. 40; 1 of No. 48; 7 of No. 48a; 1 of No. 51; 1 of No. 52; 1 of No. 54; 1 of No. 90a; 2 of No. 111a; 1 of No. 111c; 2 of No. 126; 1 of No. 176; 3 of No. 188; 4 of No. 189; 3 of No. 190; 2 of No. 191; 4 of No. 192; 1 of No. 198; 2 of No. 200; 1 of No. 212; 1 of No. 213; 1 of No. 214; 3 of No. 215; 4 of No. 221.