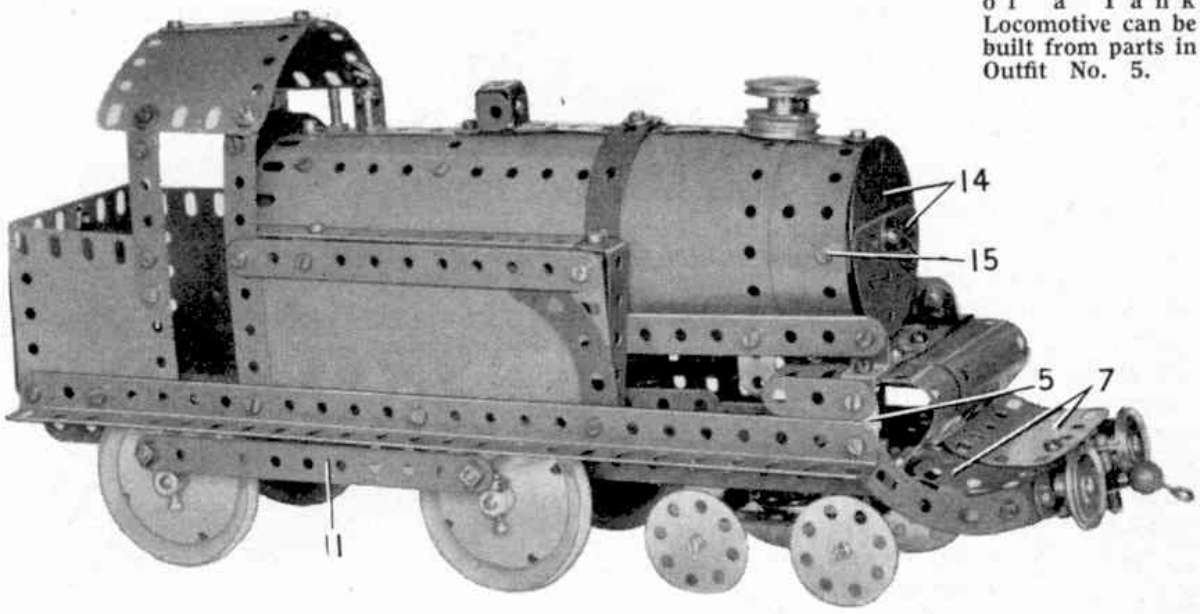

Fig. 1. This model of a Tank Locomotive can be built from parts in Outfit No. 5.

Tank Locomotive

A New Model for Outfit No. 5

CONSTRUCTION of the model Tank Locomotive shown in Fig. 1 is begun by bolting a 12½″ Angle Girder to each of the larger flanges of a 5½″ × 2½″ Flanged Plate 1. A Flanged Sector Plate, and a 2½″ × 1½″ Flanged Plate are then bolted to the 12½″ Angle Girders. A 3½″ Strip 2 is bolted across the Flanged Plate and a similar Strip is used to connect the 12½″ Angle Girders at their forward ends. Two more 12½″ Angle Girders 3 are attached to the 3½″ Strips by Angle Brackets, the bolts at the front holding also a 2½″ Curved Stepped Strip 4 and a Fishplate 5 in place, while those at the rear hold also a 2½″ × 2½″ Flexible Plate.

The buffer beam is made from two 2½″ Strips overlapped and is fixed by 1″ × 1″ Angle Brackets to the Curved Strips 4. A Reversed Angle Bracket 6 and a 1½″ Strip are bolted to the Fishplates 5 and a 2½″ × 1½″ Flexible Plate is bolted to each Reversed Angle Bracket to provide a saddle for the tank. Two U-section Curved Plates are then bolted to the 2½″ × 1½″ Flexible Plates. Two slightly curved 2½″ × 1½″ Flexible Plates 7 are bolted to a Double Bracket attached to the buffer beam. A 5½″ Strip is bolted at each side of the locomotive to the upper lug of the Reversed Angle Bracket 6.

Each of the side water tanks is made from a 5½″ × 2½″ Flexible Plate edged by a 2½″ Curved Strip and a 5½″ Strip and two 2½″ Strips overlapped two holes and fixed to the main 12½″ Angle Girders 3. A 5½″ Strip 8 is attached to the top of each tank by Angle Brackets and the front is filled in by a Double Angle Strip 9.

Each side of the coal bunker is a 2½″ × 2½″ Flexible Plate to which a 2½″ Strip 10 is bolted, and the rear consists of two 2½″ × 2½″ Flexible Plates.

The cab roof is made from two $\frac{11}{16}$″ radius Curved Plates bolted together, the same bolts holding also a 2½″ Strip on the outside as shown in Fig. 2. It is supported by Obtuse Angle Brackets fixed to the 2½″ and 5½″ strips. The driving wheels are Road Wheels fixed on 4″ Rods mounted in Flat Trunnions and Fishplates bolted to the inner pair of 12½″ Angle Girders. The Coupling Rods 11 on each side and 5½″ Strips lock-nutted at each end to an Angle Bracket that is fixed by a nut and bolt to the boss of one of the Road Wheels. Each bolt is fitted with a nut and then passed through the slotted hole of the Angle Bracket and screwed into the boss of a Road Wheel. The nut is then tightened against the boss to fix the Angle Bracket firmly in place.

The bogie unit consists of two 2½″ × ½″ Double Angle Strips and three 2½″ Strips, the centre one of which is bolted to a Bush

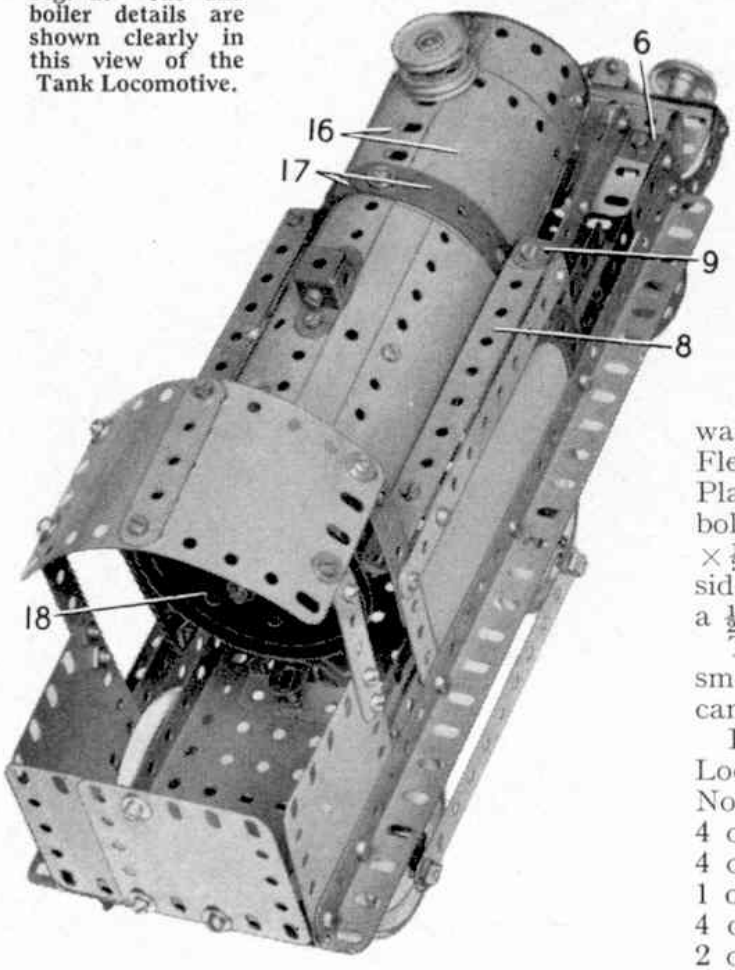

Fig. 2. Cab and boiler details are shown clearly in this view of the Tank Locomotive.

Wheel 12. The Wheels are six-hole and eight-hole Wheel Discs. The complete bogie swivels on a $1\frac{1}{2}$" Rod 13 that is held in the boss of the Bush Wheel and passes through a hole in a Reversed Angle Bracket and the $2\frac{1}{2}" \times 1\frac{1}{2}"$ Flanged Plate at the front end of the loco chassis. A Cord Anchoring Spring keeps the $1\frac{1}{2}$" Rod in place.

The smoke-box door of the boiler is made from two Semi-Circular Plates 14 (Fig. 1), fitted with a $2\frac{1}{2}" \times \frac{1}{2}"$ Double Angle Strip. Two $5\frac{1}{2}" \times 1\frac{1}{2}"$ Flexible Plates are curved to fit round the Semi-Circular Plates and are fixed to the lugs of the Double Angle Strip, one of the bolts holding them to the Double Angle Strip is marked 15. The $5\frac{1}{2}" \times 1\frac{1}{2}"$ Flexible Plates are extended to the rear by two $4\frac{1}{2}" \times 2\frac{1}{2}"$ Flexible Plates 16 bolted together to form a cylinder. The section of the boiler above the water tank is made from two $5\frac{1}{2}" \times 1\frac{1}{2}"$ Flexible Plates and two $5\frac{1}{2}" \times 2\frac{1}{2}"$ Flexible Plates. Two Formed Slotted Strips are bolted around the boiler as shown. A $2\frac{1}{2}" \times \frac{1}{2}"$ Double Angle Strip is fixed to the boiler sides and a 3" Pulley 18 is attached to it by a $\frac{1}{2}$" Bolt.

The boiler is completed by adding the smoke stack and dome, details of which can be seen in the illustrations.

Parts required to build the Tank Locomotive: 10 of No. 2; 2 of No. 3; 12 of No. 5; 2 of No. 6a; 4 of No. 8; 4 of No. 10; 4 of No. 11; 11 of No. 12; 2 of No. 12a; 4 of No. 12c; 2 of No. 15b; 1 of No. 17; 1 of No. 18a; 1 of No. 18b; 1 of No. 19b; 4 of No. 22; 2 of No. 22a; 1 of No. 24; 2 of No. 24a; 2 of No. 24c; 2 of No. 35; 118 of No. 37a; 110 of No. 37b; 20 of No. 38; 1 of No. 45; 1 of No. 48; 6 of No. 48a; 1 of No. 51; 1 of No. 52; 1 of No. 54; 4 of No. 90a; 2 of No. 111a; 5 of No. 111c; 1 of No. 115; 4 of No. 125; 2 of No. 126; 2 of No. 126a; 1 of No. 147b; 1 of No. 176; 4 of No. 187; 4 of No. 188; 4 of No. 189; 4 of No. 190; 2 of No. 191; 2 of No. 192; 2 of No. 199; 2 of No. 200; 1 of No. 212; 2 of No. 214; 4 of No. 215.

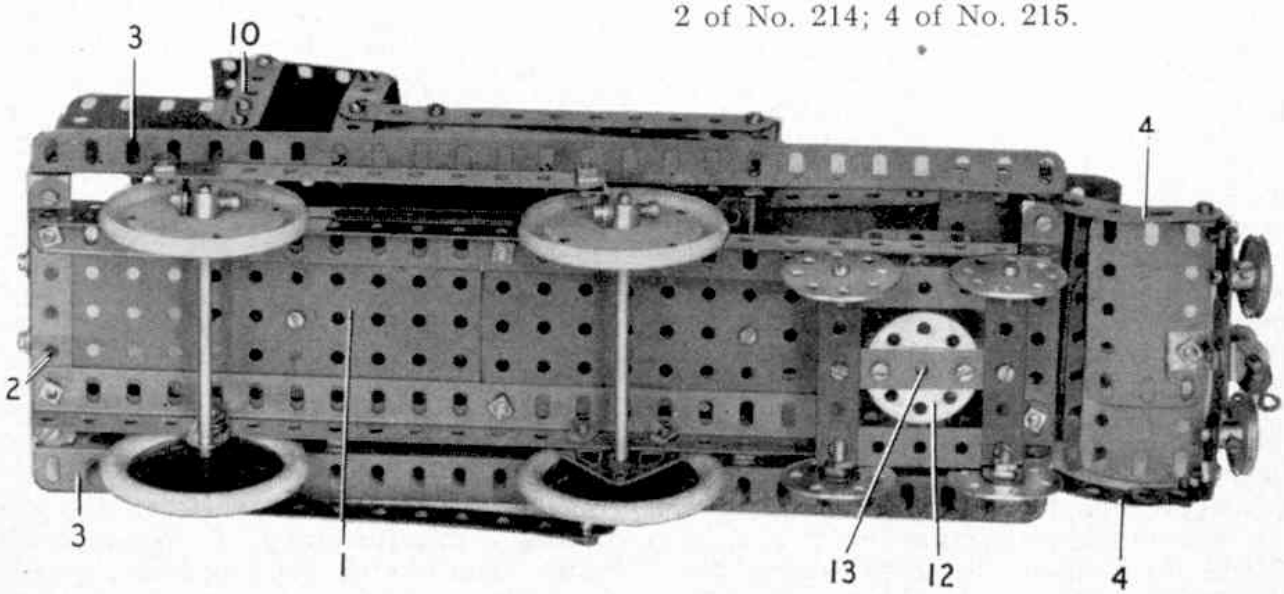

Fig. 3. An underneath view of the Tank Locomotive.