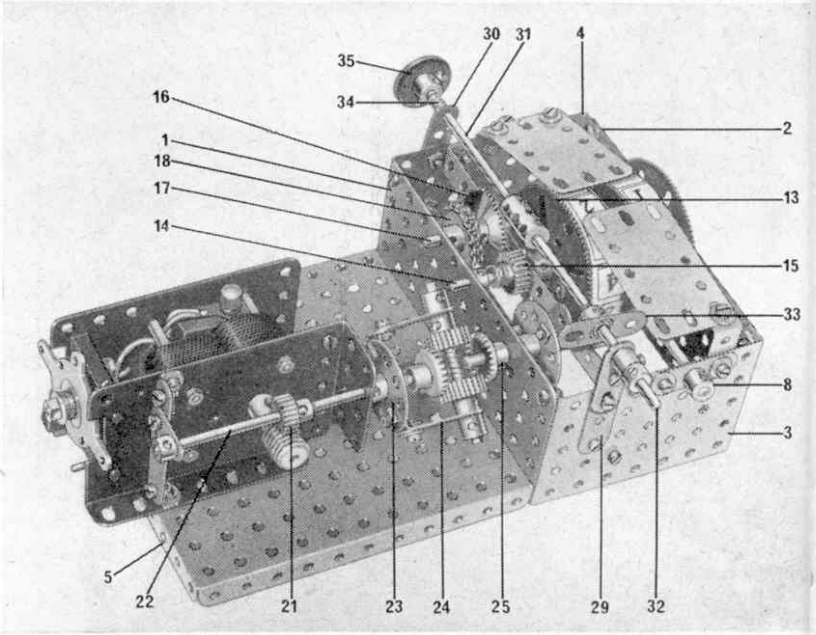
BUILD WITH 'SPANNER'

A Meccano counting machine...



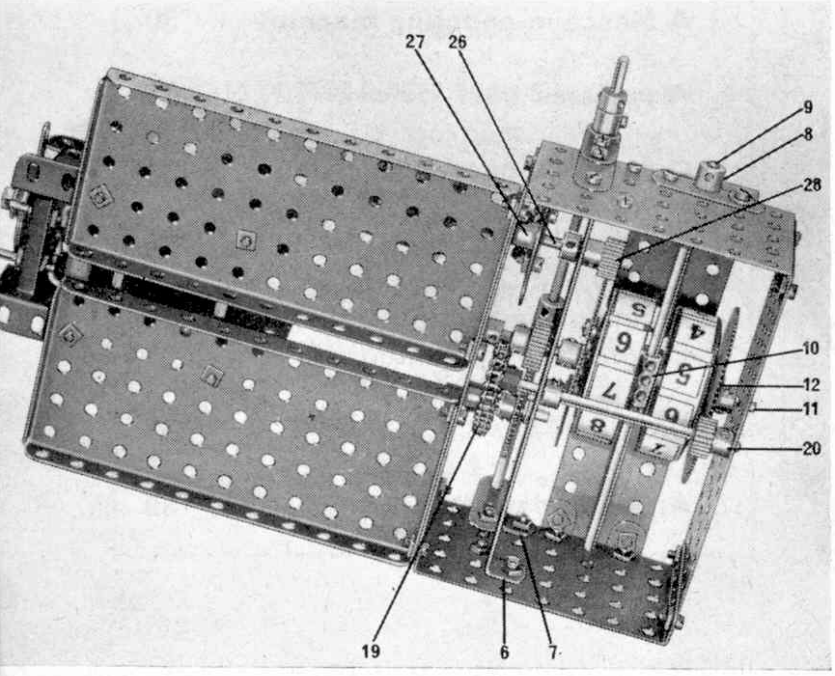
The Meccano Counting Machine, building instructions for which are given in this article.

SCALE REPRODUCTIONS of structures such as cranes and bridges, or models based on the many different types of road vehicles in existence today, are popular with constructors working in Meccano. But I know from experience that working technical apparatus, in its own right, also appeals to many builders. Here are details of an intriguing yet uncomplicated machine which is capable of counting up to 99.

A rectangular box, constructed from two 5½ in by ½ in Flat Plates 1 and 2 and two 3½ in by 2½ in Flanged Plates 3 and 4, is bolted to two 5½ in by 2½ in Flanged Plates 5. Two 5½ in by ½ in Double Angle Strips 6 and 7 are then fixed between the insides of Plates 3 and 4, while a Double Arm Crank 8 is attached to the outside of each Plate, at the position indicated. A 6½ in Rod 9 with a Coupling 10 secured in the centre, is journalled in these Cranks.

A 2½ in Rod 11, carrying a 2½ in Gear Wheel 12 with a Boiler End attached, is mounted as shown, using the centre transverse bore of the Coupling and one hole of Plate 2 as bearings. Another Gear Wheel 13 with Boiler End is placed on a 2 in. Rod 14, which is similarly mounted after being passed through the centre hole of Double Angle Strip 7. This Rod carries a ¾ in Pinion 15 that engages with a 50 tooth Gear Wheel 16 on a 1½ in Rod 17. A ¾ in Sprocket Wheel 18 is also secured on this Rod, and drives a further ¾ in Sprocket Wheel 19 on a 3½ in Rod, on which is fastened a ½ in Pinion 20 and a Collar. Note that a strip of paper is glued to each Boiler End and the numbers 0 to 9 spaced evenly around the perimeter. An E15R Motor, to one side of which a Girder Bracket and a 2½ in Strip held by Angle Brackets are bolted, is fixed to Flanged Plates 5 then a 1 in Corner Bracket is attached to the 2½ in Strip. Next, a ½ in

The Counting Machine, viewed from beneath.



Parts required.—4 of No. 5; 2 of No. 12; 1 of No. 12b; 2 of No. 12c; 1 of No. 14; 1 of No. 15a; 2 of No. 16; 2 of No. 16b; 2 of No. 18a; 1 of No. 22; 2 of No. 24; 3 of No. 25; 3 of No. 26; 1 of No. 27; 2 of No. 27c; 2 of No. 29; 1 of No. 32; 47 of No. 37a; 47 of No. 37b; 18 of No. 38; 2 of No. 48d; 2 of No. 52; 2 of No. 53; 6 of No. 59; 3 of No. 62; 3 of No. 62b; 2 of No. 63; 2 of No. 70; 1 length of No. 94; 2 of No. 96; 2 of No. 120b; 1 of No. 133a; 1 of No. 161; 2 of No. 162a; 2 of No. 188; 1 of No. 230; 1 of No. 231; 1 E15R Electric Motor.