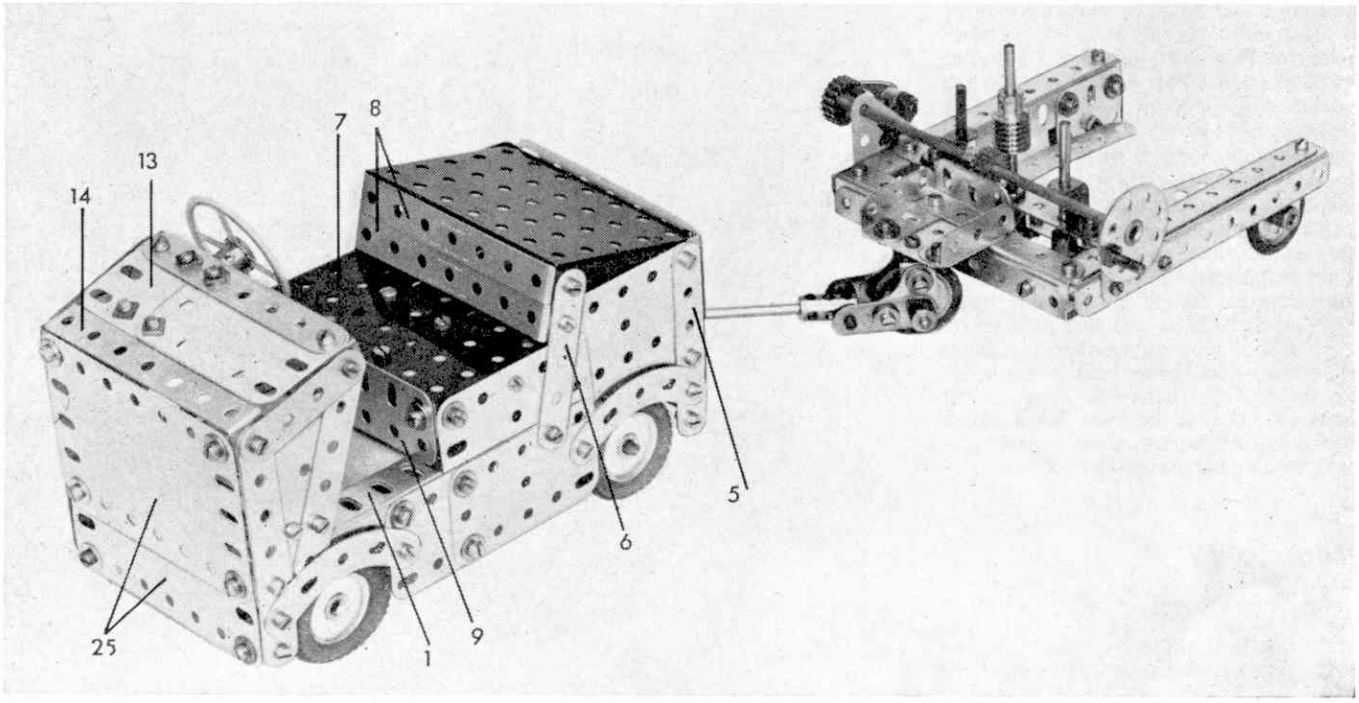
Just like the real one—this Meccano Baggage Truck is electrically driven. It uses the new Power Drive motor and gear box!

THE MECCANO BAGGAGE TRUCK Part 1



A splendid working model of a Lansing Bagnall Tractor and Trailer, motive power for which is supplied by the new Power Drive Unit. Building instructions for the Tractor are given in the accompanying article. The Trailer will be described next month

ASK any young boy what railway stations call to mind and the answer will almost certainly be 'trains'. If the same question had been asked of me as a boy, I would immediately have thought of those delightful baggage trucks that zoom up and down the platforms, often with a line of trailers strung out behind. For some reason I always found these fascinating and, if anything, more interesting that the trains themselves. I am particularly pleased, therefore, to be able to describe this excellent Meccano tractor and trailer, both of which are reproductions of actual equipment manufactured by Lansing Bagnall Ltd., of Basingstoke, Hants., who supply most of the powered luggage trucks found at railway stations.

This model, based on the Lansing Bagnall TD 220, is something of a milestone in Meccano Magazine history, as it is the first 'M.M.' model to be fitted with the new Power Drive Unit—a powerful D.C. Motor complete with a built-in 6-speed gear box. Lack of space prohibits me from describing the Trailer this month, but building instructions for the Tractor are as follows :

Two 7½ in. Angle Girders 1 are connected by a 3½ in. by 2½ in. Flanged Plate 2 and a 3½ in. by 2½ in. Flexible Plate 3 overlapped by a 3½ in. Strip 4. Bolted to the vertical flange of each Angle Girder are four 2½ in. by 1½ in. Flexible Plates, arranged as shown in the illustrations. The rearmost of these Plates is overlapped by a 3 in. Strip 5, at the same time bolting an Angle Bracket in place at the top. A 2½ in. Strip 6 is added to the side of the model then Strips 5 and 6 at each side are joined by a second 3½ in. by 2½ in. Flanged Plate. Another 3½ in. by 2½ in. Flanged Plate 7 is bolted in place as shown, the Strips 6 are connected by two 3½ in. by ½ in. Double Angle Strips 8.

Motor mounting

Four Double Brackets are bolted to the underside of Flanged Plate 7, and the Power Drive Unit is secured to the other lugs of these Double Brackets. Actually, it would be more advisable to fix the Motor in place before attaching the Flanged Plate to the model. A 3½ in. Flat Girder 9 is fixed between the sides by Angle Brackets.

A 2½ in. by 1½ in. Triangular Flexible Plate 10, overlayed and enlarged slightly by a 3½ in. Strip 11, a 3 in. Strip and

2 in. Strip, is bolted to the front of each Angle Girder 1. Note that the 3 in. Strip is secured to the Triangular Flexible Plate by a Fishplate 12. Front and rear mudguards are provided by 2½ in. Stepped Curved Strips, as shown.

The top of the bonnet is composed of a compound 3½ in. by 2½ in. Plate 13, obtained from two 2½ in. by 1½ in. Flexible Plates overlaid by a 3½ in. Strip, and a 3½ in. by 1½ in. Double Angle Strip 14, the compound plate being connected to the sides by Angle Brackets. Before fitting the bonnet top, however, it is best to add the appropriate part of the steering mechanism. Two 1½ in. by ½ in. Double Angle Strips, the off-side one being extended one hole by a 2 in. Strip 15, are bolted to the underside of the bonnet. A 2½ in. Rod 16, carrying a Steering Wheel, and a ½ in. Pinion, is journalled in the right-hand Double Angle Strip, while a 2 in. Rod carrying another ½ in. Pinion and a Collar, is journalled in the other. The two Pinions are in constant mesh with each other.

Front and rear axle arrangements

Two ½ in. Reversed Angle Brackets are attached by ½ in. Bolts to the underside of Strip 4, being separated from it by a Collar on the shank of each Bolt. A 2½ in. Strip 17 is bolted to the free lugs of these Reversed Angle Brackets and two Double Brackets, each carrying a 1½ in. Strip 18 between its lugs, are lock-nutted through the end holes of this Strip, ⅜ in. Bolts being used. Lock-nutted between Strips 18 is another 2½ in. Strip, to which a Fishplate 19 is bolted. A 1½ in. Rod carrying a 1 in. fixed Pulley with Motor Tyre 20 and a Collar, is journalled in the lugs of each Double Bracket.

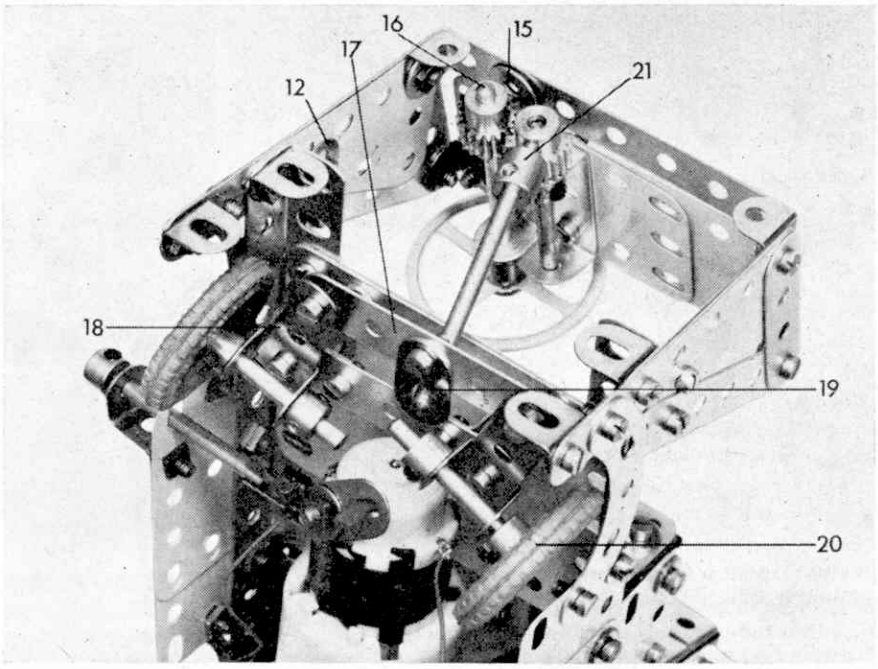
Fixed in the boss of the ½ in. Pinion on the 2 in. Rod is a Rod Socket 21. Mounted in this is a 2 in. Rod which fits into the elongated hole of Fishplate 19.

At the rear, two 1½ in. Angle Girders 22, each extended by a Flat Trunnion, are fixed to Flanged Plate 2. A 2½ in. Rod 23 carrying a ½ in. Pinion, a ¾ in. Contrate Wheel and a Collar, is journalled in the centre vertical holes of the Flat Trunnions. The Contrate is in constant mesh with a ½ in. Pinion fixed on the Motor output shaft, while the Pinion is in constant mesh with another ½ in. Pinion 24 on a 3½ in. Rod, journalled in the apex holes of the Flat Trunnion. 1 in. fixed Pulleys with Motor Tyres hold the Rod in place.

Two 3½ in. by 2½ in. Flexible Plates 25, attached to the sides by Angle Brackets, complete the front of the model, while another 3½ in. by 2½ in. Flexible Plate 26, fixed to a 3½ in. by ½ in. Double Angle Strip by Hinges, encloses the rear. The Double Angle Strip which carries a Small Fork Piece on a ½ in. Bolt, is bolted between Strips 5.

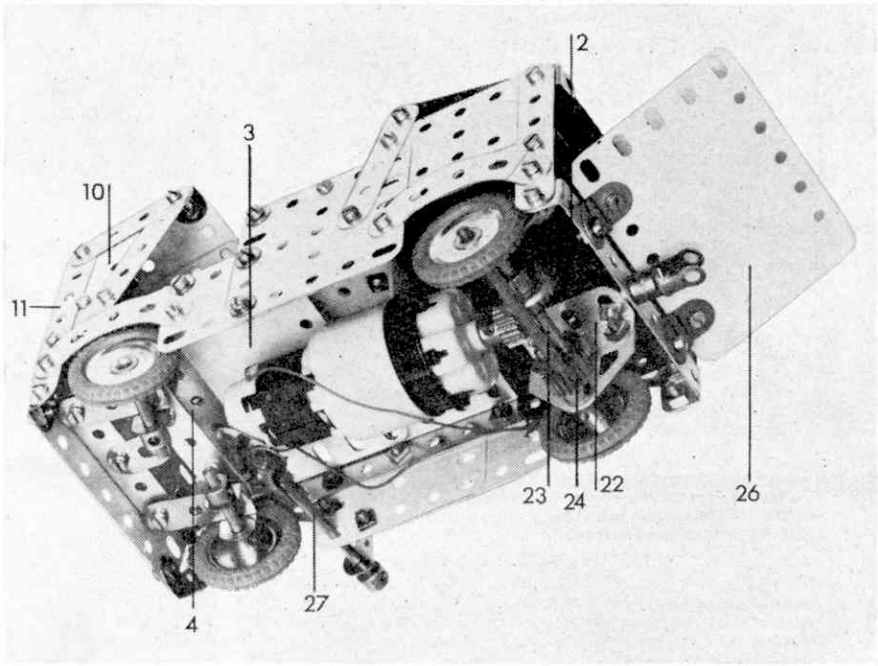
Finally, a stop-start lever is provided by a 2 in. Rod 27, journalled in the side of the model, and in a ½ in. Reversed Angle Bracket bolted to the side. A Rod and Strip Connector, extended by a Fishplate, is fixed on the Rod, as also is a Collar. The Fishplate fits over the forward / reverse / stop switch of the Motor.

As you will have guessed, the above-mentioned Small Fork Piece serves as the towing hook for the trailer, which I will be describing next month. For those of you interested in mechanical handling, I have some technical facts concerning the real-life trailer, so look out for them in the next issue. — **Spanner**



In this view of the Tractor, the front of the model has been removed to show the steering arrangement

An underneath view of the Tractor showing the Power Drive Unit and drive to the rear wheels



Parts required

4 of No. 3	4 of No. 22	1 of No. 116a
4 of No. 4	5 of No. 26	3 of No. 125
4 of No. 5	1 of No. 29	2 of No. 126a
3 of No. 6	92 of No. 37a	4 of No. 142c
2 of No. 6a	81 of No. 37b	1 of No. 179
2 of No. 8b	20 of No. 38	1 of No. 185
2 of No. 9f	2 of No. 48	10 of No. 188
4 of No. 10	4 of No. 48b	4 of No. 190a
6 of No. 11	3 of No. 53	1 of No. 212
12 of No. 12	7 of No. 59	2 of No. 221
1 of No. 16	4 of No. 90a	1 Power Drive
2 of No. 16a	1 of No. 103d	Unit set at a
1 of No. 16b	3 of No. 111a	ratio of 32:1
2 of No. 17	2 of No. 111c	on 4½ volts
2 of No. 18a	2 of No. 114	