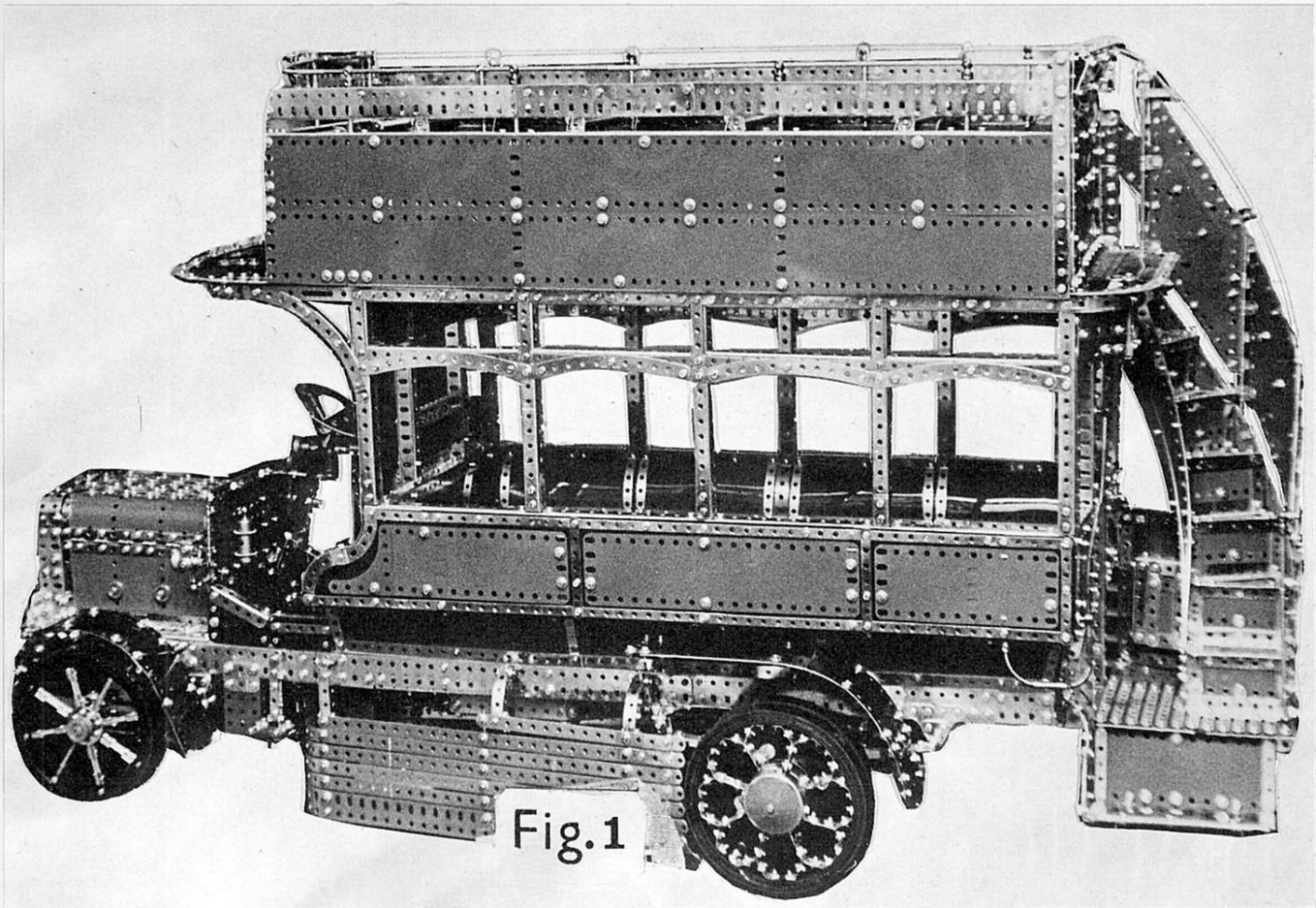

Fig. 1

# LONDON GENERAL OMNIBUS

## A Veteran Scale Model of Fine Appearance

### Built by Peter Matthews

### Described by Bert Love

Not only is Peter Matthews a leading authority on the Meccano system from its date of origin and an ardent collector, he is also an outstanding modeller in his own right. The first-class model of a veteran London "GENERAL" omnibus featured in this article bears witness to his skill and is just one of dozens of top class models built by members of the Transvaal Meccano Guild for one of their many public exhibitions.

There is no doubt that Peter's bus is the largest scale model of its kind which has ever been published in the Meccano Magazine, the 5½" Circular Girders on front and rear wheels begin to give the reader some idea of its size. In fact, if Meccano Axle Rods and Handrail Couplings set the scale, then a model of this size is called for to maintain proportions. These veteran buses saw sterling service both in a military and civilian capacity during and after the First World War, moving thousands of allied soldiers across France and Belgium and millions of passengers in the London area which is Peter's native region. Nor is this his first attempt at the veteran "GENERAL" as Fig. 2 will show. Some ten years ago, Peter produced a replica of a prize-winning model first entered for a Meccano competition by the late Stewart Wilson almost sixty years ago! He showed it at a U.K. Meccano Club meeting and had built the model from faded photographs of the original and used genuine vintage all-nickel parts of the old Meccano days.

An illustration of the model, taken by the author, is included here to underline the great contrast in model-building standards between the two models. This in no way detracts from the charm of the simpler model, built by Stewart from a modest outfit and a limited range of parts. It still captured the outlines of this early bus very successfully and included clockwork drive, steering, brakes and many structural features of the prototype.

No building instructions are available for Peter's model, but the advanced constructor will glean much from the 'open' construction of the bus and should learn more from the general observations in this article. Choice of colour schemes enabled the model to be reproduced in red, silver and black, as the prototype's original livery was commonly found in service with the London General Omnibus Company. It is actually the 'B' type bus and Fig. 1 shows the model on completion of the structural work. Based on a 'squared-up' chassis of long Angle Girders in deep section by overlaid Flat Girders, the model has a length of something over 3ft. 6in., or above 110 cm.

Semi-elliptic springs starting with 7" Strips secured by right-angled Rod and Strip Connectors to chassis points at the rear are used for the back axle, a swinging shackle being mounted on the forward end of the spring just inside the pedestrian 'fender' arch. For the front springs, the position of the swinging shackle is reversed. Main chassis members remain at the width of the driving cab floor, at 5½", but the passenger compartment widens to 9½" giving a sloped-up overhang above the rear wheels. This permits bench seats to be fitted on the lower deck, running fore and aft with red Plastic Plate 'upholstery' right the way along. Each passenger window has a 5½" width with square pillars of paired 7½" Angle Girders, forming closed box construction, running between the horizontal 24½" Angle Girders in channel section.

Window heads are box girders again, 5½" long, set between the vertical 7½" pillars and finished with 5½" Curved Strips, bolted on centrally and secured at their ends by Fishplates which make allowance by their slotted holes for the fact that a 5½" Curved

Strip will not match up with 11-hole spacing. Much of this information is obvious from a close study of Fig. 1 where, again, it will be seen that the three sets of twin 9½" Flexible Plates, overlapped by one set of slotted holes at two joins, gives an overall length to the top deck of 27½", the forward part of the upper deck being cantilevered over the driver's cab.

Passengers had to be 'high steppers' to negotiate the platform and stairs of the 'B' type omnibus as the high 'risers' on the stairs were not really convenient for the long hobble skirts fashionable at the time. However, most of the ladies who did make use of the motor omnibus at the time preferred to ride inside; the unprotected upper deck was the ruin of many a hat for the more adventurous females! The main boarding step on the model is 5½" wide and 2½" deep, the curving staircase being 2½" wide with 2" 'risers'.

Fig. 3 features Peter Matthews alongside the driver's cab and this gives the reader a further indication of the size of the model. This illustration shows the bus on completion with its number 11 route indicator and the destination sign boards along the sides. These bear the legends HAMMERSMITH - WALTHAM - VICTORIA - STRAND - LUDGATE CIRCUS - BANK, while the upper deck board shows SHEPHERDS BUSH - LIVERPOOL St.

Probably the most outstanding features of this model are the unique front and rear wheels, built up with great pains to simulate those of the prototype. Circular Girders are used for all of the wheel rims and the eight spokes required for the front wheels are short Axle Rods set in pairs of Rod and Strip Connectors bolted to 8-hole Wheel Discs and Bush Wheels at the hub and to the holes of the Circular Girders at the rim. Either heavy rubber driving belts from a vacuum cleaner or multi-layers of black fabric adhesive insulating tape may be used for the solid tyres of the prototype.

Of particular interest is the 'fretwork' construction on the rear wheels, carried out in Obtuse Angle Brackets and Fishplates to reproduce the cast iron ornamental wheels of the original 'B' type omnibus and Peter has made a major break-through with his unique assembly. Rear wheels were twin on the original, with a slight gap between them. In the model, this gap is set by the width of a Collar into which a standard Bolt is screwed to hold the Obtuse Angle Bracket forming the first part of the 'curve' of the ornamental casting. Two Boiler Ends provide each hub of the rear wheels and the continuation of further Obtuse Angle Brackets and Fishplates are secured to four points on the inner Boiler End by Angle Brackets and by further Angle Brackets to the pierced holes of a 3½" Gear Ring locked on to a 2½" Gear on the back axle.

Main drive is by an electric motor under the bonnet through a simple clutch and typical 'crash' gearbox of the period, the outboard gear lever being clearly seen in Fig. 3 together with the hand brake. Lamps, dashboard fittings and driver's seat are all fabricated from standard Meccano parts and a comprehensive set of handrails is provided from platform to the full extent of the top deck by the skilful use of standard Axle Rods, Crank Handles, Flexible Coupling Units, Handrail Supports, Handrail Couplings and Right-angled Rod and Strip Connectors. Plain Rod Connectors help to ensure a smooth run of the handrails. Narrow Strips provide 'scraper' bars on the platform floor.

In Fig. 3, just to the rear of the driver's cab and below the overhang of the lower deck is a toolbox with hinged lids. The bonnet cover in Flexible Plates is double hinged so that the 'engine' can be inspected or serviced and a curve 12½" Flat Girder provides a rugged frame for the massive radiator. The final touch is given by the permanently-hung starting handle at the front made from Threaded Pins, Rods and Short Couplings.

As a glance at the illustrations will show, Peter has produced an excellent reproduction of the chosed subject and it is interesting to note what served as his main source of reference. It was, in fact, a small-scale model which can be seen, in white silhouette, in the foreground of Fig. 2. A beautiful up-scaling job!

**Fig. 1 left, Peter Matthew's "B" type London General Omnibus of World War I vintage as it appeared upon completion of the structural work.**

**Fig. 2 right, Peter's first attempt at a 'General' was in 1969 with this version, in vintage nickel parts, of the late Stuart Wilson's original prize-winning model of 1916. Compare the advances in modelling with Figs. 1 and 3.**
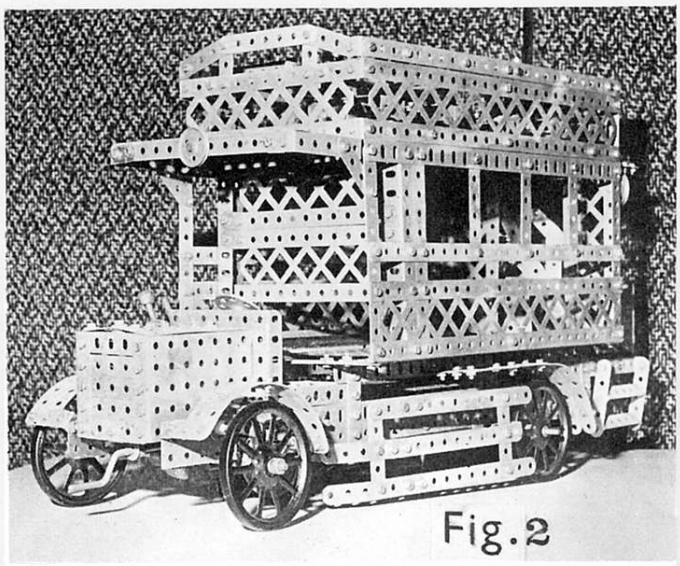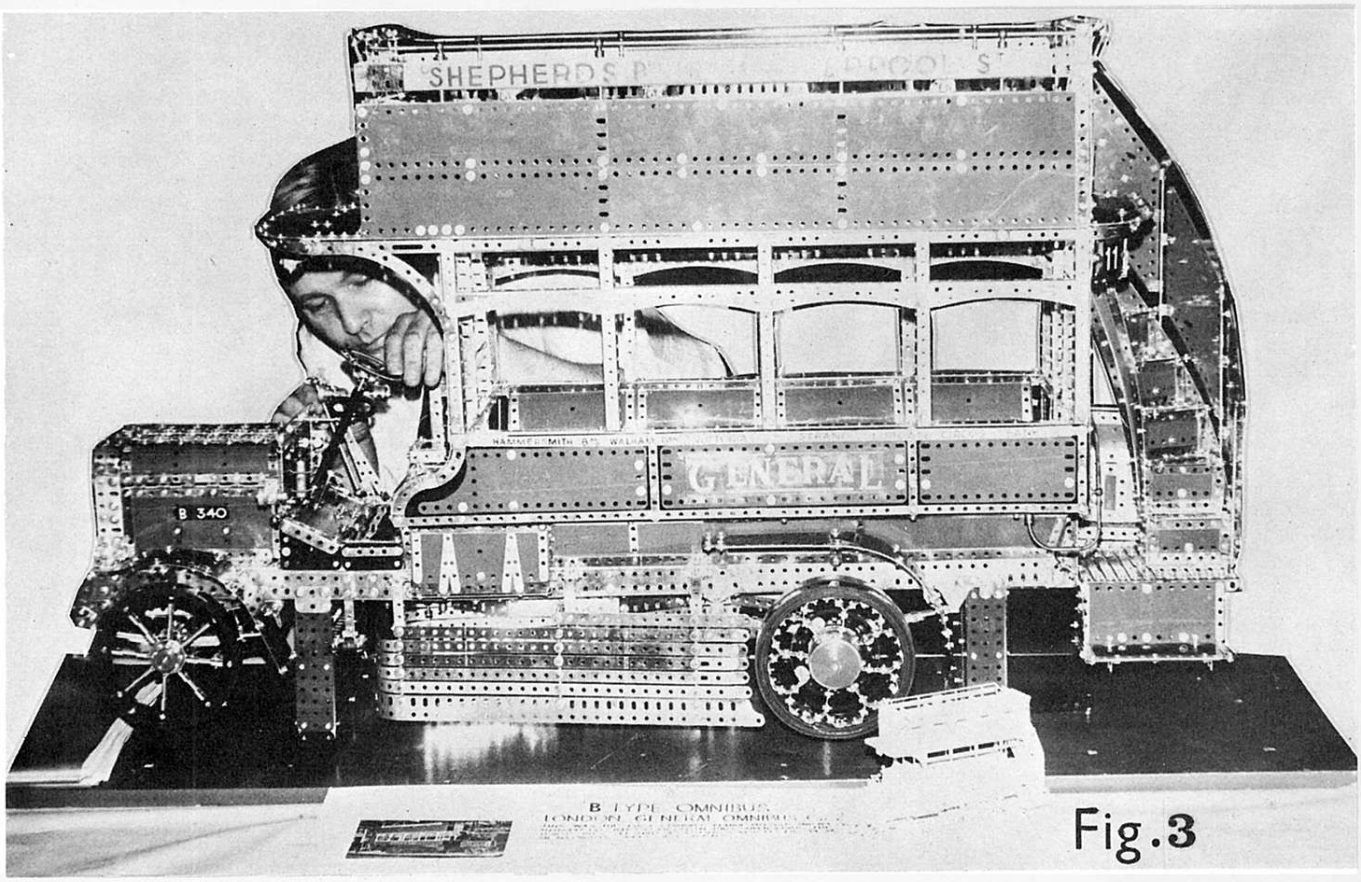
**Fig. 3 below, Peter Matthews pictured with the finished model. Note the unique ornamental construction of the rear wheels.**