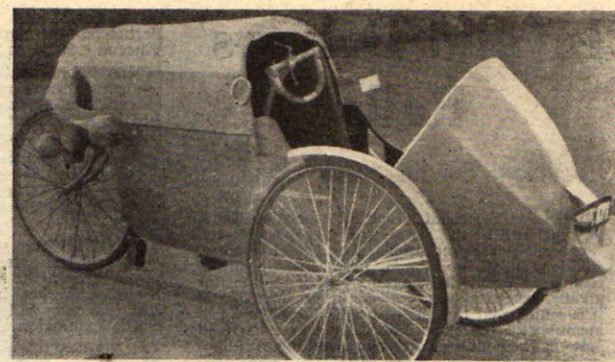


Engine mounting and tie-rod layout of the steering



The motorized tricycle with its calico-covered body

A Light Three-wheeler

A 45 c.c. Motorized Tricycle with Open-car Weather Protection

IN this post-war era the clip-on type motor attachment has become quite commonplace on both solo and tandem bicycles. It is doubtful, however, whether many have seen a motor-assisted pedal tricycle such as is illustrated on this page. This vehicle, which is said to afford weather protection equal to that of an open car, with running costs lower than those of a lightweight motor cycle, was constructed by J. I. Brereton, of Warwick.

Basis of the tricar is lady's second-hand tricycle with two-speed chainwheel gear; it was purchased for the modest sum of 10s. First, the frame was extended some 18in by lengthening the seat-stays and chain-stays. The cost of brazing the tubes was 17s 6d. A sling seat made of leather was suspended at one end from the seat-pillar, and supported at the other by wood blocks mounted on the cross-piece between the rear wheels.

Next, the steering was adapted to the new riding position by extending two tie-rods back from the cut-short handlebar stubs to a half-wheel mounted on the seat pillar. A very light body was made, consisting of calico on $\frac{1}{2} \times \frac{3}{4}$ in ash formers. Some idea of the lightness of this construction may be gained from the fact that the "bonnet" top weighs only 2½lb. Total weight of the vehicle is estimated to be under 100lb, of which 20lb is accounted for by the power unit.

The tricycle was equipped with a very efficient brake operating on the differential. Adaptation of this to the new riding position presented some difficulties, but it was even-

tually arranged to be applied by a handle on the right-hand side of the machine. Both brakes and engine power are adequate for Midlands hills, and all the local gradients are surmountable with a little pedal assistance.

The power unit, a 45 c.c. Cymota, was installed normally on the front wheel, but the steel cowl was discarded in favour of one fashioned from sheet aluminium in the interest of weight reduction.

Utility aspect of the vehicle is shown by the fact that it has conveyed its owner from Warwick to his place of employment at Wellesbourne, a distance of eight miles each way, for the past eight months. Total mileage to date is over 3,500 miles, and petrol consumption is approximately 190-200 m.p.g. Mr. Brereton claims that his "special" will cruise comfortably at 20-25 m.p.h. In use, the vehicle gives remarkably good weather protection; indeed, its owner claims that even a raincoat is unnecessary under most conditions. No special treatment other than painting has been applied to the fabric "body" of the machine.

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