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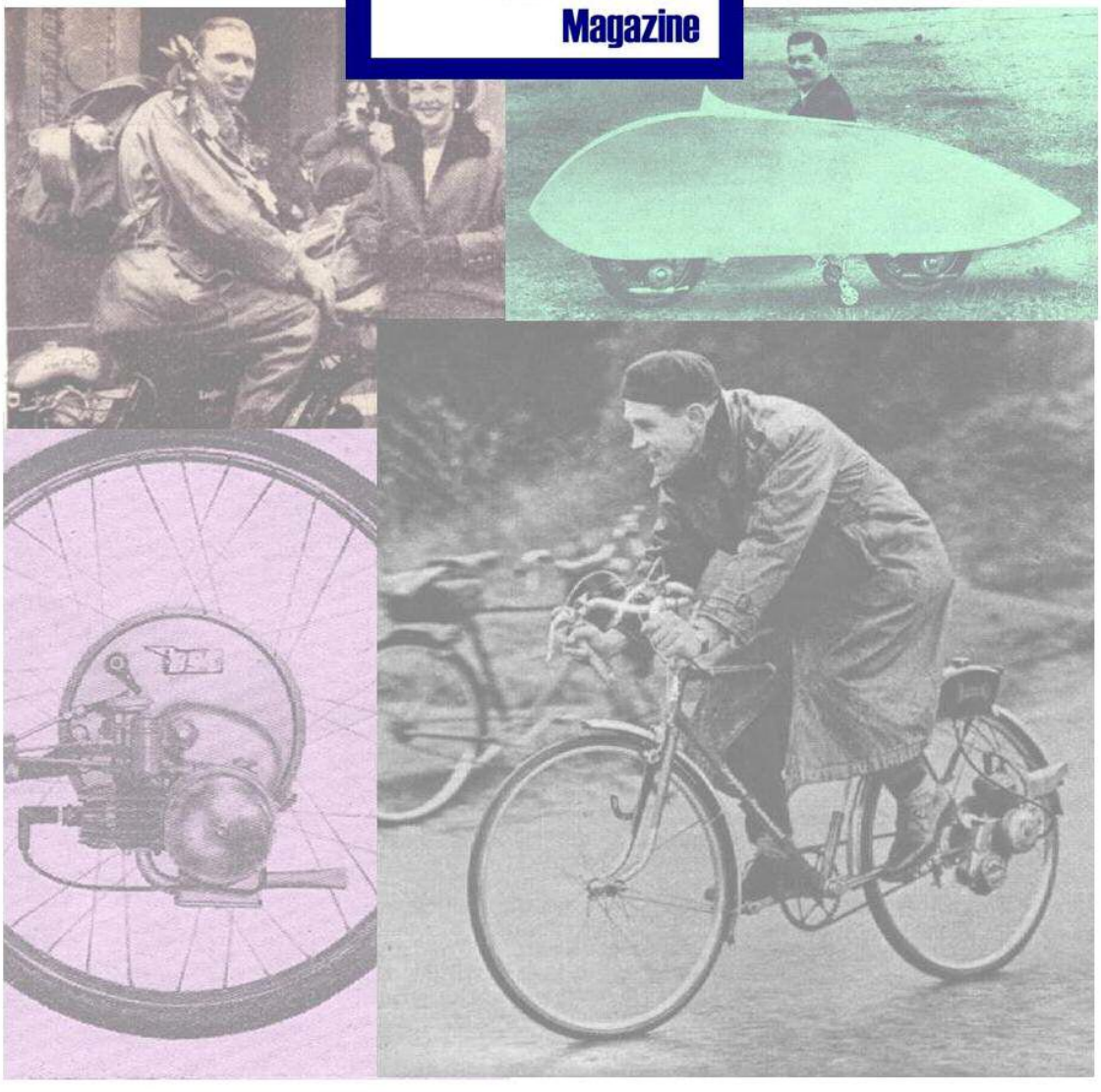
Cyclemotor Autocycle C Moped



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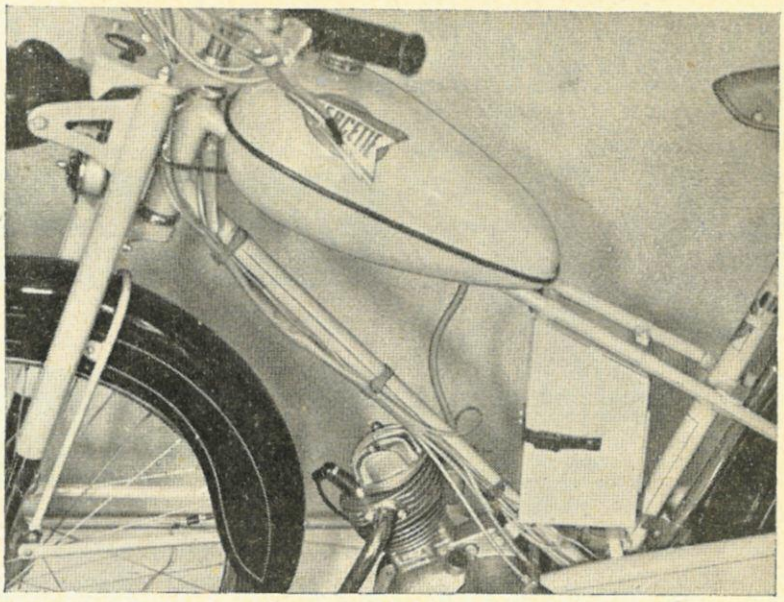
CONVERSION TO BATTERY LIGHTING

A practical arrangement for any mo-ped

by G. A. Anderson



BECAUSE of the many disadvantages associated with direct lighting from flywheel generators, some four months ago I converted my *Mercury* " *Mercette* " to accumulator lighting. The *Mercette* is fitted with a *Wipac* Series 90 generator, which, like the majority of those fitted to mopeds and scooters is a constant wattage type —that is—at its rated load of 1½ amps it gives 6 volts, but as the load is reduced so the voltage rises. This characteristic was used, with the aid of a metal rectifier, to trickle charge the battery.

The rectifier is of the 6-volt, 2-amp, half wave type and is available from the makers, Champion Products, Ltd., 43 Uplands Way, London, N.21 (Price 9/- plus 6d. for postage and packing). The jacks and lugs used are obtainable through all radio dealers.

It should be realised that the charging current cannot equal the lighting load so that to maintain the battery in a fully charged condition the ratio of day to night riding must, in the case of a 9 watt (1½-amp.) lighting load, be at least 2:1. If the lighting load is increased, as I have to 22 watts, (15 watt main/dip, 3 watt tail, 1 watt speedometer lamp, 3 watt stoplamp), it is essential to give the battery a periodical charge. This can be done without removing the battery from the machine if a 6-volt, 1-amp charger is obtained and a jack is fitted to the battery carrier. The battery advised is a *Varley* MC 5/9, a medium capacity " dry " accumulator of reasonable bulk, 3¾in. x 3½in. x 6½in., designed for lightweight motor cycles.

The diagram, *Fig.* 2, is self explanatory, the ammeter, a centre zero 4-0-4 amp, is not essential and can be omitted if desired. In the photograph of the *Mercette* the battery is in the home made aluminium case with the charging/parking lamp jack mounted on the off side. The ammeter, rectifier and the control jack are mounted on the aluminium fitting behind the head lamp. The *Mercette* frame lends itself very well to this adaptation, but in most cases the box and head can be adapted to other makes of machines. The only points to be careful of are, the rectifier must be insulated from the frame and be protected from rain but be in a good cooling draught of air, the jacks are *Igranic Midget* type P73, this type of jack has an insulated mounting bush which is essential especially for the charging jack. The plugs are also *Igranic* type P04. The control jack can also be used as an ignition switch on those machines that provide a lead connected to the contact breaker. It is merely necessary to connect the bottom long tag on the jack to frame, and the bottom short tag to ignition lead, with plug out these tags connect together, inserting the plug opens these tags and connects the two long tags together. Note that the control plug connections are wired together.

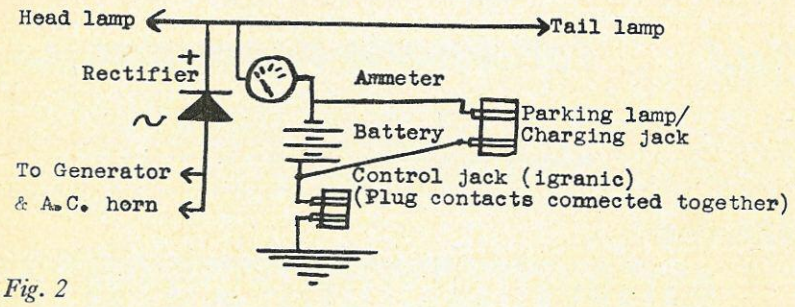


Fig. 2