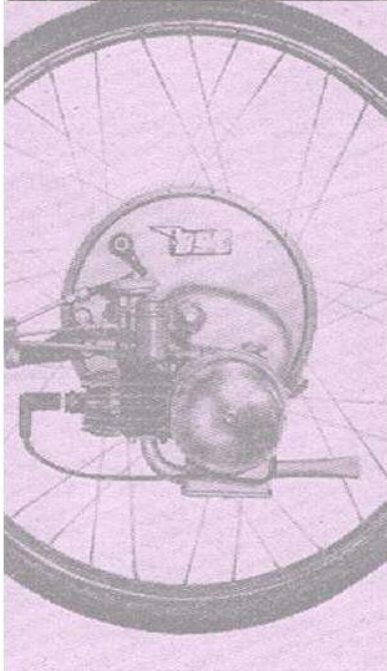


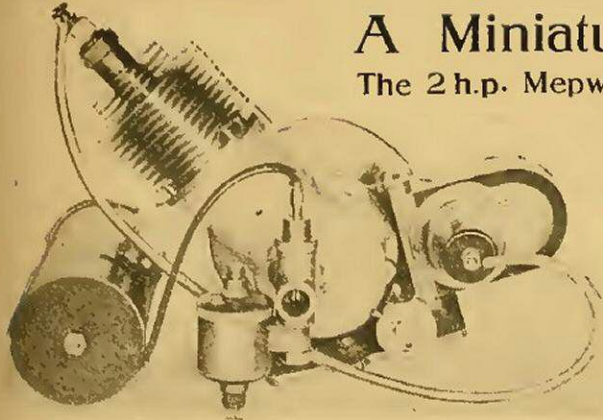
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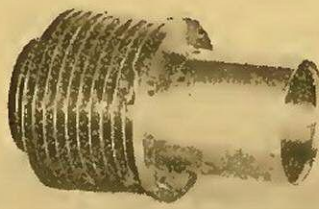
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A Miniature Two-stroke Engine.

The 2 h.p. Mepward Power Unit for Scooters and Auxiliaries



The Mepward two-stroke scooter engine of 116 c.c.



The crank case and cylinder Note the ports in the cylinder barrel.



THE promises of increased production of motor scooters are very apparent. Each week a newcomer, incorporating advanced designs, joins the ranks of the producers of the miniature motor cycle. An experienced and enterprising firm, Messrs. Mepsted and Hayward, 32, Rodney Street, Pentonville, London, N.1, has recently placed on the market an interesting little power unit possessing many of the features which render it suitable for adaptation to motor scooters. Two models are made, one of which is

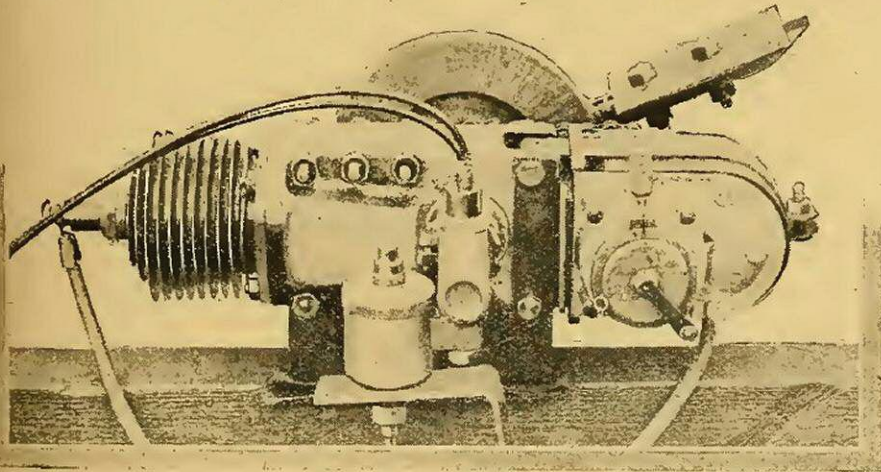
constructed primarily for attachment to pedal cycles. The scooter engine, which is of the two-stroke two-port type, has very small external dimensions. The latest pattern Fellows magneto is fitted, the miniature size of which is in keeping with the remainder of the engine, and this can be mounted in different positions around the crank case. A steel cylinder is used, having a bore and stroke of 54 x 51 mm. (116 c.c.), which, being cut from the solid, enables the walls, ports, and fins to be

machined to more exact dimensions than when a casting is used. The cylinder is let into an extension of the crank case to a point beyond the ports. The crank case is an aluminium casting, the flywheel side of which receives a plate which acts as a support for the magneto platform and forms one of the main bearings. On the other side of the crank case a phosphor bronze bush is located in the casting and supports the other end of the nickel steel crankshaft. Ribs (not shown in the photograph) are cast in the exhaust port (formed in the crank case extension mentioned above) to assist the dispersal of heat, whilst the inlet port is provided with a diaphragm valve, which latter and the crank case are covered by patents.

Petrol Lubrication.

Lubrication is on the petrol system. A petrol tank, however, is not included in the outfit, as the disposition of the engine necessitates many variations in design. Steel stampings are used both for the connecting rod and flywheel.

The second model, suitable for pedal cycles, is similar in construction to the scooter engine, with the exception of the position and method of mounting the magneto. In this case it is held by spring bands to the bottom of the crank case, which latter differs from the first design, inasmuch as both main bearings are made integral with the casting, whilst one side is held to the remainder of the crank case by means of bolts.



The Mepward power unit, as designed for use on a pedal bicycle.

IS PETROL TO BE DEARER?

THE daily press during last week succeeded in creating such a scare as is seldom caused in motoring circles. Petrol prices were to be increased by as much as 8d. per gallon, we were to be shamelessly fleeced, and, in fact, all was lost. But is the price of petrol going up? Who knows? Certainly not the journalists who created the scare. At the time of writing nothing whatever has been decided by the oil importers. No joint meeting of the representatives of the various petrol companies has been convened to discuss the matter, and, though a "lightning" decision may be made at any moment, the probability is that there will be no increase in the immediate future.

If a rise is decided upon it will be excused, almost certainly, by the importers on the score of high sea freight rates and the increased railway goods rates, the last-named being raised by 60% on consignments weighing less than three tons, and by 50% on heavier consignments, while the rate for "empties" has been doubled. So far as sea freight rates are concerned, it is difficult to get at the true facts, for the oil companies own most of the tankers, and can establish any rates they like, the precise figures being merely book-keeping entries. The outstanding fact is that a cargo of petrol can be purchased f.o.b. New York at approximately 1s. 2d. per gallon, and it is sold in England at 3s. 0½d. per

gallon. There is an import duty of 6d. per gallon to be paid to the British Government, so that a cargo bought f.o.b. New York at 1s. 2d. would cost landed in England 1s. 8d. per gallon, and to that figure must be added the value of freight and insurance. Also, we must add the retailer's profit of 4½d. per gallon and the cost of distributing the petrol from the depots to the garages. Figures for that item and sea freight are kept secret. The question at the moment is, taking 2s. 0½d. as the cost of petrol in England, after the import duty and the retailer's profit have been paid, is not 1s. a gallon ample to provide for freight, insurance, and distribution? We trust that the Profiteering Committee will be able to solve the riddle.