

Main Features and Advantages of the "Howarth" Silencer.

The chief aim in Silencer efficiency is Silence without Loss of Power. Silence alone, can be obtained quite easily by the crudest means, but the ideal Silencer must be constructed on thoroughly scientific principles.

In the "HOWARTH" Silencer, the high velocity gases are allowed to pass straight through a central tube with almost negligible impedance, the tube having an open conical end. Meanwhile, the slower moving gases pass through long slots from the central tube to an outer cone. Escaping through the open end of this, they pass through a ring of large holes in the middle baffle into a second cone, whence they emerge through wide apertures, into the common outlet.

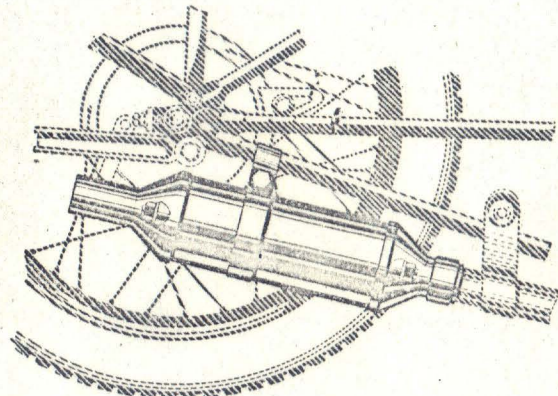
The Silencer is made up entirely from sheet steel, and steel pressings. Its components are ingeniously divided into an inner and outer welded assembly, having no loose parts. These can be separated instantly for cleaning, by the removal of the two end-cap nuts.

The Silencer, whilst being primarily designed for use as an auxiliary to standard exhaust systems, can also be used very satisfactorily as a quick-detachable fitment for racing machines with open exhaust pipes.

Patentees and Manufacturers:

THE SCOTT MOTOR CYCLE CO. LTD.,
ShIPLEY, YORKSHIRE.

THE HOWARTH A.C.U. GOLD MEDAL SILENCER



PROV. PATENT.

15/-
*Clips and Fittings
Extra.*

A high quality
Super Silencer,
admirably adapted for

All Makes of Machines.

Designed and Manufactured by

The Scott Motor Cycle Co. Ltd.

Saltaire, Shipley, Yorkshire.

Telephone: Shipley 337.

Telegrams: "Twio," Shipley.

Official A.C.U. Proof of Efficiency.

The results of the A.C.U. Silencer Trials have been keenly awaited by motor cyclists, and an unusual amount of interest has been displayed by the general public. The need for more silent Motor Cycles has been realised by all, but up to the present time no satisfactory method giving high efficiency had been found.

The A.C.U. Gold Medal awarded to the Howarth Silencer now provides convincing proof that this inexpensive and simple fitment possesses the highest attainable order of all-round efficiency. This competition was open to every make of silencer, whether marketed or experimental.

The official tests were carried out in a most exacting manner, and were very comprehensive in their nature. Of the marks awarded for merit, 70% applied to relative degree of Silence, 15% to Avoidance of Back-pressure, 10% to Lightness and 5% to Compactness.

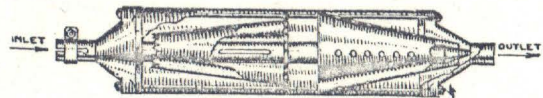
The actual Silence Tests were made on the road, with a popular 4-stroke machine, running under adverse conditions, up a gradient of 1 in 6, at a given speed, the Judges not being allowed to identify the vehicles passing them. In addition to the standard machines with competing silencers, these included various cars and motor cycles with their standard silencing systems. Five independent observations were taken, and all closely agreed.

The Back-pressure Tests were carried out with a standard engine, on the bench, running at full throttle, and loaded to reduce the r.p.m. to 2,000 with open exhaust, and marks were awarded according to how little the speed varied.

The thoroughness and dependability of these tests, are therefore beyond dispute.

The HOWARTH SILENCER came through remarkably well and proved itself most efficient.

HOWARTH Silencer.



Shown in part section.

The "HOWARTH" Silencer is simple to fit to practically any make of machine, provided with $1\frac{1}{4}$ ins. diameter Exhaust Pipe. (Adapters for other size pipes at small extra charge). Its margin of efficiency is quite ample to silence engines satisfactorily without any intermediate Expansion Box, whilst, if used as an auxiliary tail-pipe-silencer on practically any standard system, it makes the exhaust almost inaudible.

Standard finish—Dull Black with Black fittings.

Special burnished Nickel finish—5/- extra per Silencer.

*If ordered by post, add 1/- per Silencer for Packing and Carriage.
If required for use on Scott Machines, see Special Leaflet.*

"HOWARTH" Silencers can be obtained direct, or through any of the Company's Depots. They can also be supplied by any Motor Cycle Dealer.

Silence without Back-pressure.

Light and Neat—only 12 inches long.

Robust all-steel construction.

No loose parts to rattle.

No small holes to rust.