

March 30, 1926.

1,578,262

H. G. CAMPBELL

ROTARY MIXING DEVICE

Filed Sept. 27, 1924

Fig. 1.

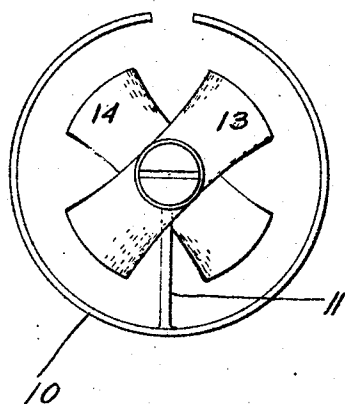
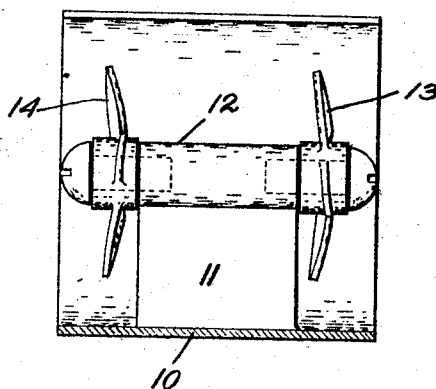


Fig. 2.



Inventor.
Henry G. Campbell
by *Heard, Smith & Tennant.*
Attys

UNITED STATES PATENT OFFICE.

HENRY GORDON CAMPBELL, OF PERTH, WESTERN AUSTRALIA, AUSTRALIA, ASSIGNOR OF ONE-HALF TO ALFRED STEPHENS, OF VICTORIA PARK, WESTERN AUSTRALIA, AUSTRALIA.

ROTARY MIXING DEVICE.

Application filed September 27, 1924. Serial No. 740,214.

To all whom it may concern:

Be it known that HENRY GORDON CAMPBELL, of 229 William Street, Perth, in the State of Western Australia, Commonwealth of Australia, has invented an Improvement in Rotary Mixing Devices, of which the following description, in connection with the accompanying drawing, is a specification, like characters on the drawing representing like parts.

This invention relates to a rotary mixing device.

The invention particularly relates to a rotary mixing device for an internal combustion engine in which it is inserted between the carburetor and the engine manifold.

It is well known that the conventional means for charging air with vapour to obtain a mixture to be subsequently exploded in the cylinder is comparatively inefficient in that the atomization is imperfect.

The present invention consists broadly in interposing between the carburetor and the engine manifold a member or members rotatable by the engine suction, whereby atomization is improved and the mixture becomes substantially uniform in composition.

To enable the invention to be more readily understood reference will now be made to the accompanying drawings, in which:—

Fig. 1 is a side elevation of the atomizer, and

Fig. 2 is a front elevation thereof, partly sectional.

In these drawings a split sleeve 10 is made of such a size that by slight compression it can be inserted in the conduit leading to the manifold. When inserted, elasticity will result in it being firmly held in position.

Springing from the inner periphery of the sleeve there is provided a standard 11 of a shape designed to give but a small resistance to the flow of gas. The upper part of this standard is enlarged at 12, such enlargement occupying a central position in the sleeve 10. Into each end of this enlargement are fixed spindles. On to the projecting spindles are placed the bosses of small propellers 13 and 14, that have oar shaped blades.

These propellers are so arranged that under the propelling influence they will rotate in opposite directions.

To maintain the propellers on the spindles a head is fitted to each end so that each propeller has its movement in one direction limited by the enlargement, and in the other direction limited by the head.

It will be an obvious modification of the invention to dispense with the split sleeve and to attach the standard directly in and to the manifold.

I claim:—

A rotary mixing device for internal combustion engines comprising a split sleeve adapted to be accommodated in the intake manifold, a standard extending inwardly radially from said sleeve opposite the split thereof, said standard having an enlarged end situated axially of the sleeve, a headed stud carried by said enlarged portion of the standard at each end thereof, and a propeller mounted on each stud, said propellers being constructed to rotate in opposite directions under the influence of a current passing through the sleeve.

Dated this 14th day of August, 1924.

HENRY GORDON CAMPBELL.