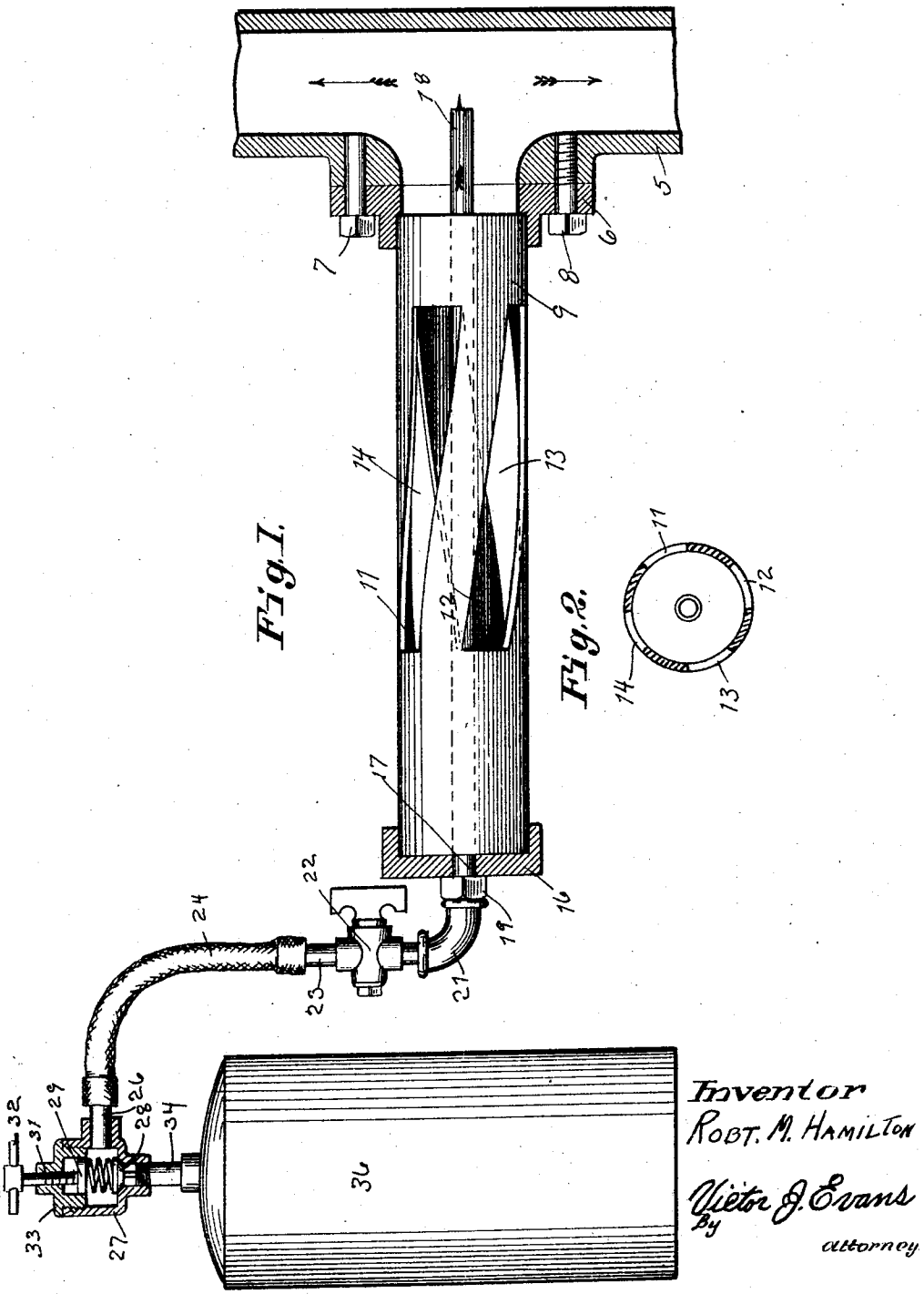
July 21, 1925. 1,547,122

R. M. HAMILTON

ENGINE ATTACHMENT

Filed Feb. 21, 1924



Patented July 21, 1925. 1,547,122

UNITED STATES PATENT OFFICE.

ROBERT M. HAMILTON, OF ANDERSON, CALIFORNIA.

ENGINE ATTACHMENT.

Application filed February 21, 1924. Serial No. 694,443.

To all whom it may concern:

Be it known that I, ROBERT M. HAMILTON, a citizen of the United States, residing at Anderson, in the county of Shasta and State of California, have invented new and useful Improvements in Engine Attachments, of which the following is a specification.

This invention relates to improvements in engine attachments and has particular reference to a device for employing a dry gas for internal combustion purposes.

Another object is to produce a device which will eliminate the ordinary carburetter.

A still further object is to produce a device of this character which is simple in construction, cheap to manufacture, easy to install and one which may be applied to the ordinary engine without altering the construction of the same.

Other objects and advantages will be apparent during the course of the following description.

In the accompanying drawings forming a part of this specification and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a cross section of an internal combustion engine manifold having my device applied thereto, and

Figure 2 is a cross section of the air intake pipe.

At the present time it is customary to employ a carburetter of complicated construction to deliver the right proportion of gasoline vapor to an engine. These carburetters are delicate, easily disarranged and applicant has therefore sought to obviate these difficulties by employing the use of dry gas such as Presto-Lite, thereby simplifying the mixing arrangement commonly termed a carburetter.

In the accompanying drawings wherein for the purpose of illustration is shown a preferred embodiment of my invention, the numeral 5 designates the customary manifold of an internal combustion engine, to which is removably secured a fitting 6 which is held by plates 7 and 8.

Suitably secured to the fitting 6 is a tube 9 having elongated ports 11, 12, 13 and 14 formed therein. By viewing Figure 1 it will be noted that these ports if extended will form a spiral arrangement.

The opposite end of the tube 9 is provided with a cap 16 within which is secured a pipe 17 of smaller diameter than the pipe 9. It will be noted that this pipe 17 extends into the manifold 5 as shown at 18.

A union 19 is connected to the pipe 17 and to an elbow 21, to which elbow a stop cock 22 is secured. This stop cock has a nipple 23 to which a flexible pipe 24 is attached, the opposite end being attached to a nipple 26 secured to a valve casting 27. This valve casting has mounted therein a spring-pressed valve 28, the tension of which is adjusted by a plunger 29 secured to a rod 31 having a handle 32 and a guide cap 33. A pipe 34 connects the casting 27 to a storage tank 36 within which the dry gas is contained.

The operation of my device is as follows:—

Assuming that the parts have been attached to an engine, the plunger 29 is adjusted so as to allow the correct pressure of gas to escape past the valve 28, thence through the nipple 26, pipe 24, nipple 23 and the stop cock 22. When the stop cock 22 is opened the gas will then pass through the elbow 21 and pipe 17 into the manifold 5.

As soon as the engine starts to turn over it will cause a suction which will draw air through the ports 11, 12, 13 and 14, which air will mix with the gas forming a combustible mixture. By forming the ports on an incline or spiral it has been found that a greater quantity of air will be taken in and that a whirling motion will be started thereby causing a better mixture of gas and air to be delivered to the cylinders, of the engine.

It will thus be seen that I have provided a device which accomplishes all the objects above set forth and one which is simple in construction.

It is to be understood that the form of my invention herewith shown and described is to be taken as a preferred example of the same and that various changes in the shape, size and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

Having thus described my invention, I claim:—

1. In a device of the character described, the combination with a manifold of a fitting adapted to be secured to said manifold, a tube secured to said fitting, spirally ar-

ranged ports formed in said tube, a cap secured to the opposite end of said pipe from said fitting, a pipe of smaller diameter than said first mentioned pipe mounted within said cap and extending through said first mentioned pipe and into said manifold, and means for delivering a dry gas to said second mentioned pipe.

2. In a device of the character described, the combination with a manifold of an internal combustion engine of a fitting adapted to be secured to said manifold, a pipe secured to said fitting, said pipe having spirally arranged ports formed therein, a cap secured to the opposite end of said pipe from said fitting, a pipe of smaller diameter than said first mentioned pipe secured to said cap and extending through said first mentioned pipe to a point within said manifold, a valve connected to said second mentioned pipe, a supply tank, a pressure regulating valve secured to said tank, and means for conducting gas from said pressure regulating valve to said first mentioned valve.

In testimony whereof I affix my signature.

ROBERT M. HAMILTON.