

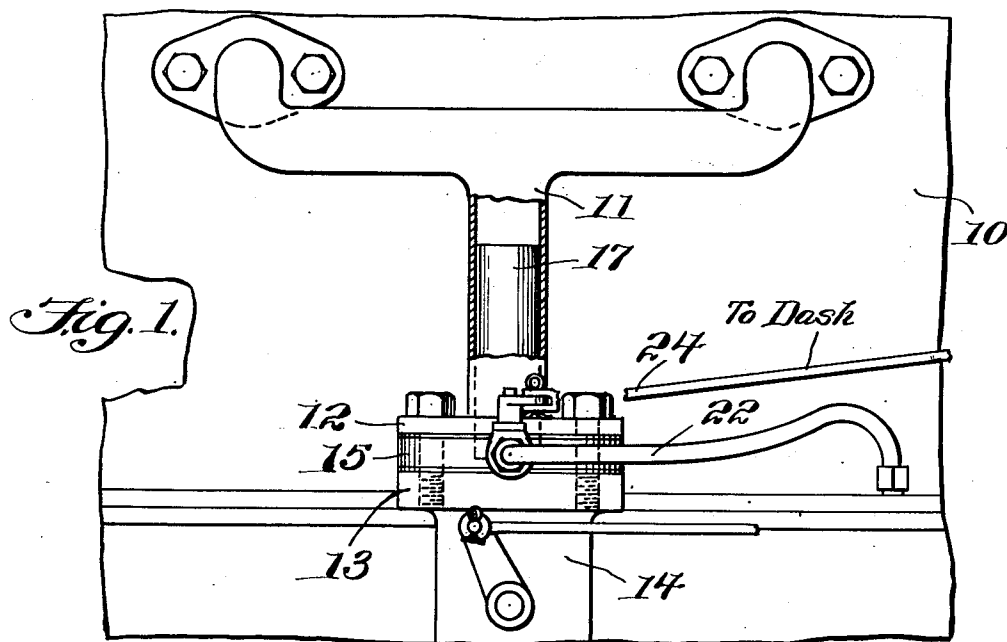
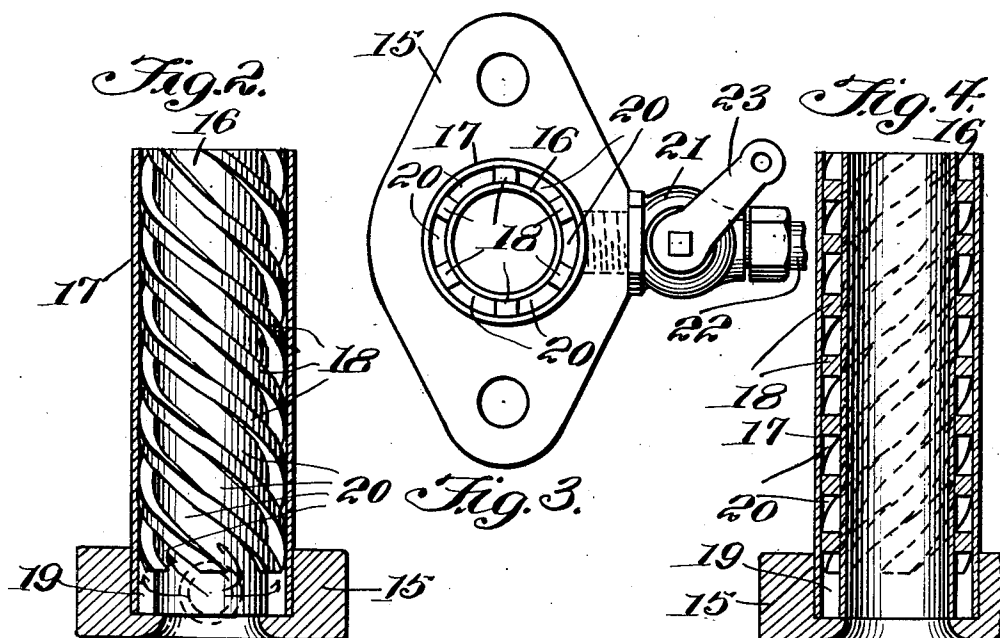
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GASOLINE SAVER

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GASOLINE SAVER

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This invention relates to certain new and useful improvements in fuel saving and combustion promoting devices primarily designed for use and application upon the intake manifolds of internal combustion engines.

One of the principal objects of the invention consists of a diffusing and mixing element designed for coaction with the intake manifold for simultaneously admitting auxiliary fuel.

More specifically stated the mixing element and diffuser is provided with a conduit to establish means of communication between same and the engine crank case whereby oil and otherwise wasted fuel vapors may be returned to the intake manifold to facilitate better combustion and lubrication.

With the above and other objects in view, the invention further consists of the following novel features and details of construction, to be hereinafter more fully described, illustrated in the accompanying drawing and pointed out in the appended claim.

In the drawing:—

Figure 1 is a fragmentary side elevation of a motor vehicle engine with the intake manifold partly broken away to illustrate the relative arrangement of the invention.

Figure 2 is a sectional view taken through the invention disclosing the arrangement of the diffuser.

Figure 3 is a top plan view of the invention.

Figure 4 is a view similar to Figure 2 disclosing the specific details of construction embodied in the invention.

Referring to the drawing in detail wherein like characters of reference denote corresponding parts, the reference character 10 indicates generally an internal combustion engine having an intake manifold 11 provided with an attaching flange 12 upon one end thereof for connection with a similar flange 13 upon the throat 14 of a carburetor, not shown.

The invention primarily resides in the provision and arrangement of a gasket 15 to be located between the attaching flanges 12 and 13 in the manner suggested in Figure 1 of the drawing and to dispose spaced telescopi-

cally associated inner and outer sleeve members 16 and 17 within the bore of the intake manifold. The adjacent walls of the sleeves 16 and 17 are held spaced apart by spirally arranged partitions or separators 18. The partitions fall short of the lowermost ends of the sleeves to provide or otherwise define an annular compartment 19 therebeneath in communication with the several passageways 20 defined between the several partitions. A valve member 21 carried by the gasket 15 is in communication at the discharge end thereof with the compartment 19 and connected at its opposite end through a conduit 22 with the crank case of the engine either directly as shown or with the breather pipe, not shown. The valve member is also provided with a crank arm 23 having connection with a throttle rod 24 to be controlled from the instrument panel of the vehicle and preferably located within convenient reach of the driver.

From the foregoing it is understood that the suction action created through the intake manifold 11 will be sufficient to draw the oil and fuel vapors from the crank case, through the conduit 22, the channels 20 and commingle same with the fuel mixture whereby a more combustible form of fuel will be introduced into the several cylinders and the pistons lubricated without fear of fouling the spark plugs.

The invention is susceptible of various changes in its form, proportions and minor details of construction and the right is herein reserved to make such changes as properly fall within the scope of the appended claim.

Having described the invention, what is claimed is:—

A device for conducting gas from the crank case into the intake manifold of an internal combustion engine comprising a gasket having an opening with a recess at one end of the opening, spaced sleeves nested one within the other and resting at their ends upon the bottom wall of the recess, said sleeves adapted to be housed in the manifold, means for admitting fluid from the crank case into the recess and within the outer sleeve and at the outer surface of the inner sleeve, the inner sleeve being in alignment with the opening in the

gasket and spirally disposed partition ribs interposed between the inner and outer sleeves, the lower ends of the partition ribs being spaced above the inlet opening of the gasket.

5 In testimony whereof I affix my signature.

MARTIN D. KENNEDY.

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