

[54] **QUAD JET**
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abandoned.
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261/41 C, 23 A, 115, 116, 118, DIG. 56, DIG.
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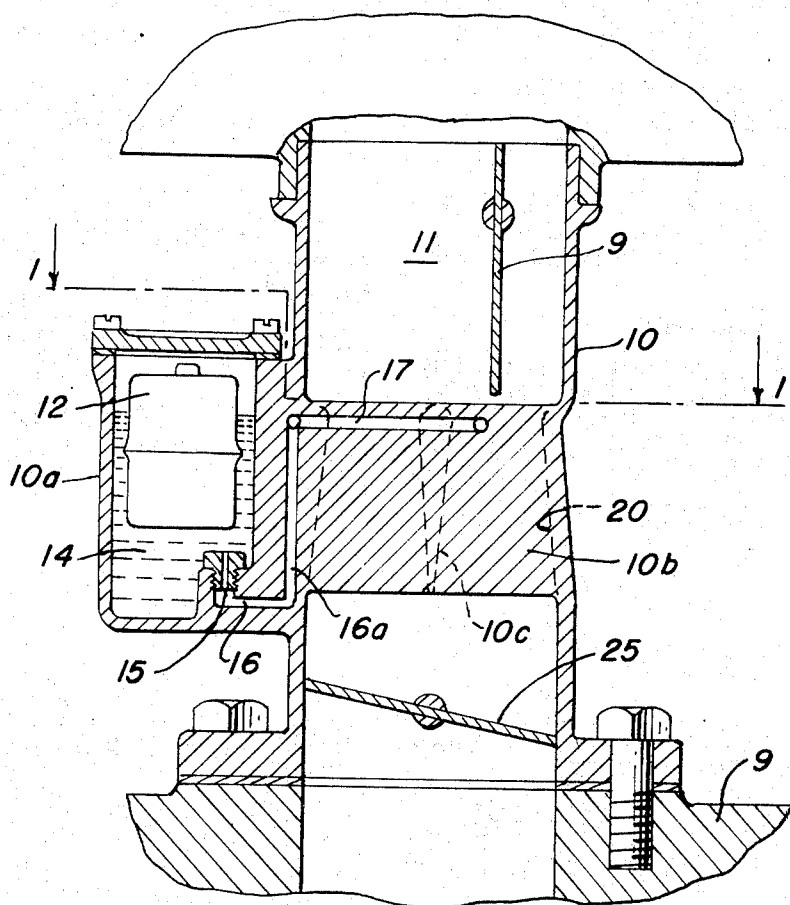
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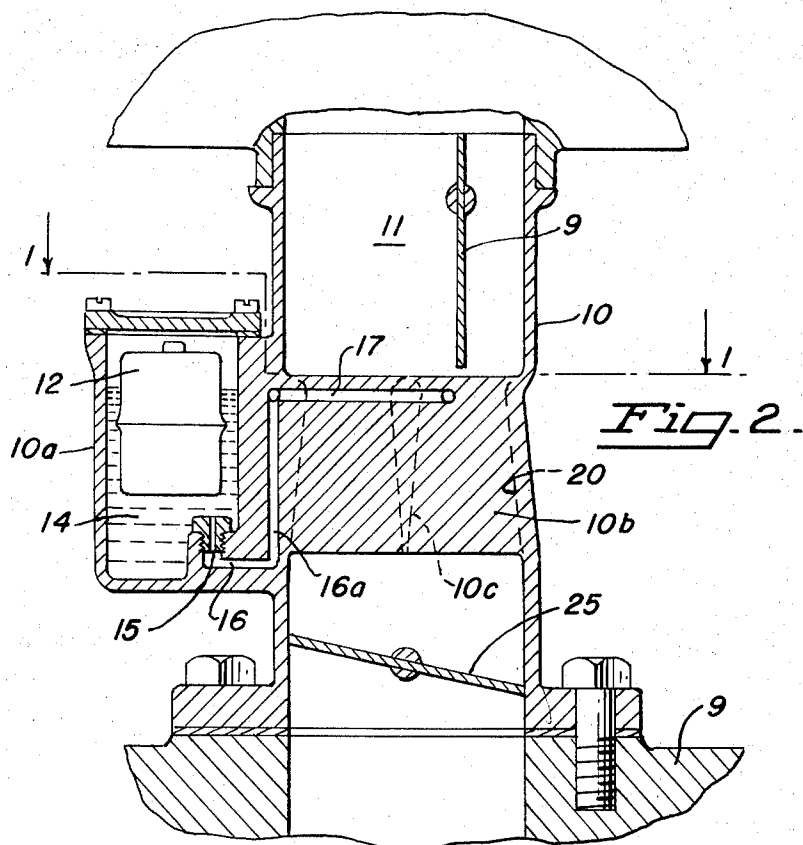
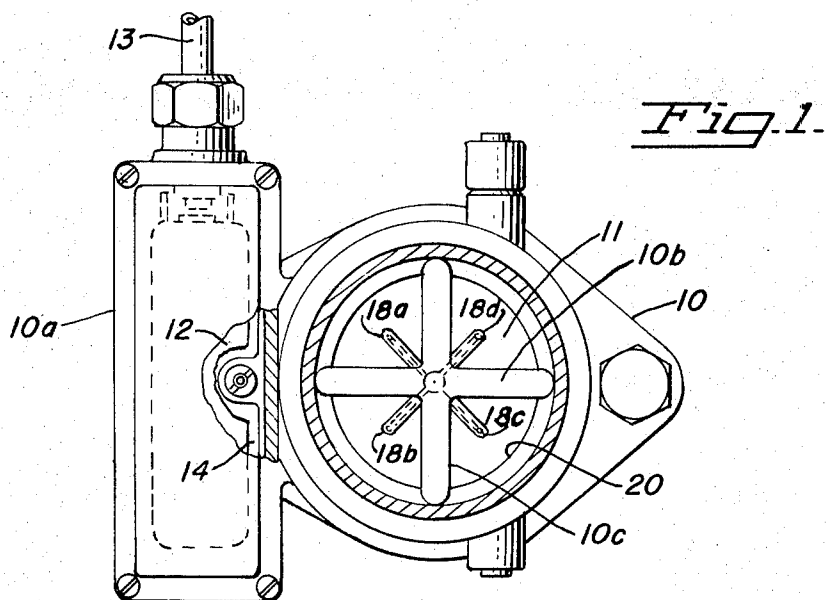
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[57] **ABSTRACT**

This invention pertains to a carburetor having four main fuel nozzles in place of a lesser number and at the ends of tube extensions for improved atomization of the main fuel nozzle, by the use of streamlined vanes in the form of a cross between the four main fuel outlets.

2 Claims, 2 Drawing Figures





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QUAD JET

An object of this invention is as stated in the abstract.

Other objects are the streamlined vanes in the form of a cross in the main venturis to divide the flow into four parts each with a main fuel outlet nozzle in the path of air flow through each of the four main air passages through the venturi on the upstream side of the butterfly.

Another object is to provide a main fuel outlet in each of four portions of the main air passage through a single venturi in this quad jet carburetor.

Another feature is the use of a single butterfly throttle under four air fuel mixing chambers.

Other features will be pointed out in the accompanying specification and claims.

I have illustrated my invention in the accompanying drawings, in which:

FIG. 1 is a plan view, partly cut away, of a preferred form of the invention as applied to a carburetor.

FIG. 2 is a side elevation, partly cut away, of the same structure shown in FIG. 1.

In these figures I have shown a carburetor 10 with a main air passage 11 therethrough connected to an inlet manifold 9; a choke valve 9 may be used. Fuel enters through pipe 13 under pressure and float 12 regulates the flow to a required level of fuel 14 in float bowl 10a. Fuel flows through orifice 15, passages 16, 16a, 17 to outlet tubes 18a, 18b, 18c, 18d in the main air path through the quartered flow past venturi 20. The quartering is by streamlined vanes 10b and 10c set at right angles to each other to provide a quartering of the flow through venturi 20 and a main fuel nozzle for each quarter of the flow.

A throttle valve 25 and idle circuit of any suitable de-

sign may be used. This quad jet in a single barrel carburetor will produce improved main jet atomization. I have illustrated my inventions in these various forms; however, many other variations may be possible within the scope of this invention.

To those skilled in the art to which this invention relates many changes in construction and widely differing embodiments and applications of the invention will suggest themselves without departing from the spirit and scope of the invention. The disclosures and description herein are purely illustrative and are not intended to be in any sense limiting.

I claim:

1. In a carburetor for mixing fuel and air to form a combustible fluid for a combustion engine, a main conduit for air flow supplying primary air to the carburetor, said conduit being formed upstream thereof with a single venturi throat, a throttle for the mixture downstream of said venturi throat, means for dividing the conduit into a plurality of passageways each having an inner wall which includes a portion of the inner wall of the conduit, said means for dividing including partitions extending radially inward from the conduit wall at and adjacent the location of the venturi throat, and nozzle means for supplying fuel having an outlet in each of the passageways in the plane of the venturi throat, said partitions comprising planar-walled vanes which are equi-angularly spaced about the conduit wall, each of the vanes being tapered with their opposite surfaces converging in the direction of air flow.

2. In a carburetor according to claim 1 in which the vanes are attached to the inner wall of the conduit.

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