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JET ENGINE

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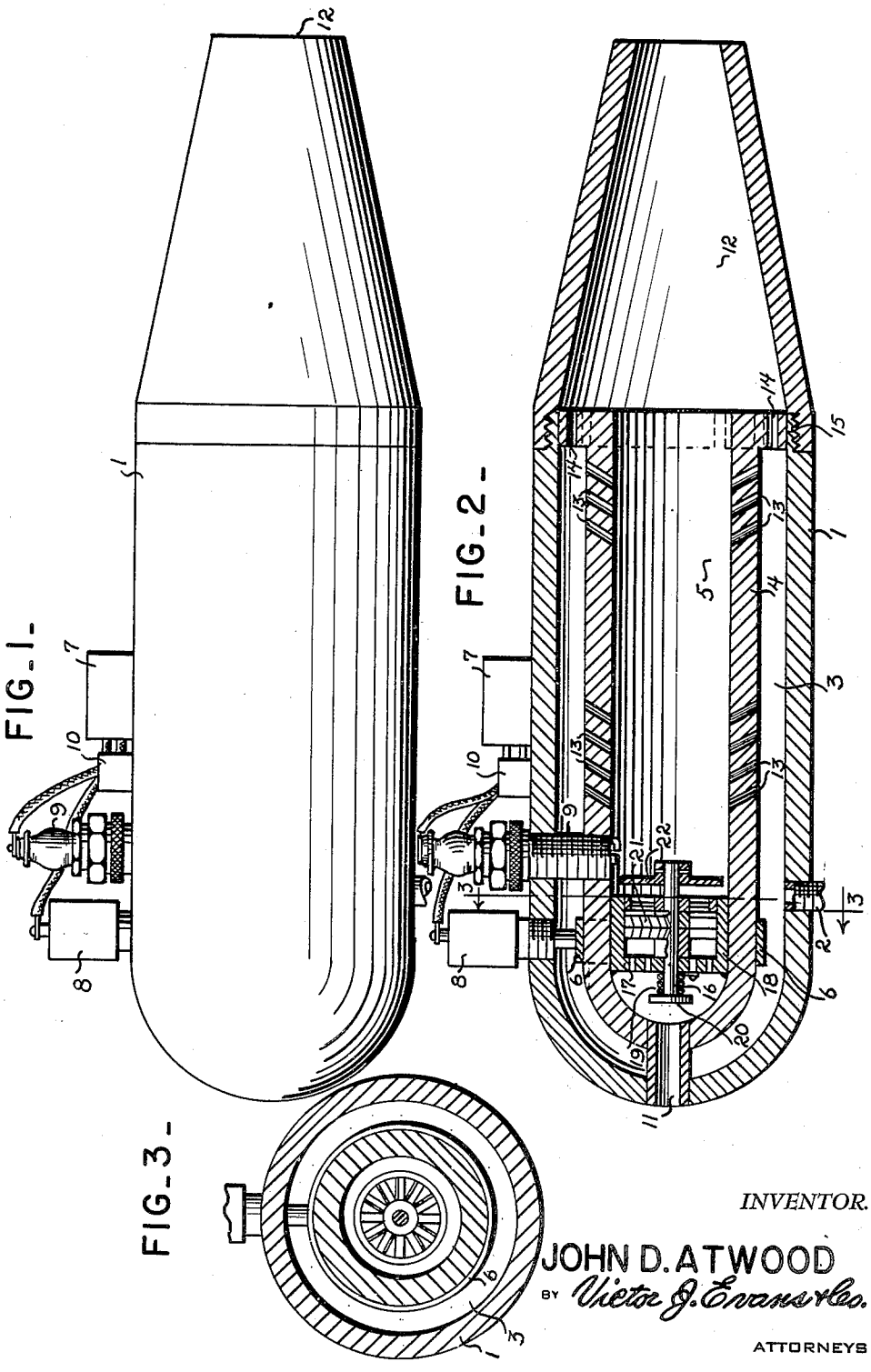


FIG. 1.

FIG. 2.

FIG. 3.

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JET ENGINE

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1 Claim. (Cl. 60—35.6)

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This invention relates to improvements in internal combustion engines of the jet propulsion type.

It is an object of the invention to provide an internal combustion engine of the jet type which is adapted for use on automobiles, or airplanes. The engine is also capable of being made of such a size as to enable it to be used on bicycles and motor scooters.

A further object is the provision of an engine of the jet propulsion type which can be quickly started by means of a heated plate, which hastens the vaporization of the fuel used in the engine.

A further object is the provision of means giving complete combustion of all gases, thus insuring steady power.

These and other objects are attained by the novel construction and arrangement of parts hereinafter described and illustrated by the accompanying drawing, forming a part hereof, and in which:

Fig. 1 is a side view of a jet engine embodying the invention.

Fig. 2 is a longitudinal sectional view of the engine.

Fig. 3 is a sectional view taken on the line 3—3 of Fig. 2.

Referring to the drawing, the jet engine is shown to comprise an outer casing 1, through which passes a fuel line 2 into a vaporizing chamber 3 positioned between the outer casing 1 and an inner casing 4. A fuel pump, not shown, feeds fuel into the fuel line 2. The inner casing 4 encloses the combustion chamber 5. Surrounding the inner casing 4 is a metal band 6 which is connected to a battery 7, to provide a hot plate for heating the gases, through a heating element 8, which upon being heated raises the temperature of metal band 6 by conduction.

A spark plug 9 extends into the combustion chamber 5. The plug 9, as well as heating element 8, is energized by the battery 7 from which the current is controlled by a switch 10.

At one end of the casing 1 is an air inlet 11 and at the other end is an exhaust nozzle 12. The casing 4 has a plurality of inwardly directed openings 13 to pass vaporized fuel from the vaporizer to the combustion chamber, and the flange 15 at the inner end of the nozzle has openings 14, which establish communication between the vaporizer chamber 3 and the nozzle 12. Some of the vaporized fuel may be drawn through the openings 14 into the nozzle 12 to provide a continued burning action therein.

Positioned in the casing 4 is an air intake device

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comprising a perforated plate 17 with side flanges 18. Slidably mounted in plate 17 is a shaft 16 having on one end an extension spring 19 which is anchored to the plate 17 and flange 20 on the end of the shaft. Rotatably mounted on the shaft 16 are V-shaped turbine vanes 21 which accept the air fed through the perforations of plate 17 and agitate it before forcing it into chamber 5 thereby insuring a thorough mixing of the air with the vaporized fuel coming into the chamber 5 through the nozzles 13. At the inner end of the shaft 16 is a solid plate 22. The spring is a contractible member and tends to move the solid plate 22 to a position to open the air inlet during exhaust, the pressure of the gases during combustion, forcing plate 22 in the direction of plate 17 to close the air supply into chamber 5.

The jet engine is simple in construction and can be made in many different sizes so that it is available for use on large and very small devices.

The above description is to be considered as illustrative and not limitative of the invention, of which modifications can be made without departing from the spirit and scope of the invention as set forth in the appended claim.

The invention having been described, what is claimed is:

In a jet engine, the combination which comprises a cylindrical outer casing having a closed arcuate end and a frustro-conical shaped open end, said frustro-conical shaped end providing a nozzle, an inner cylindrical casing having a closed arcuate inner end and an open outer end positioned in the said outer casing and spaced therefrom, the interior of said inner cylindrical casing providing a combustion chamber and the surrounding area between said inner cylindrical chamber and outer casing providing a vaporizing chamber, the open outer end of said inner cylindrical casing having a perforated annular flange thereon and the inner end of said casing having an opening therethrough, an air supply tube extended through the arcuate end of said outer casing and through the opening in the end of said inner casing, there being openings extended through the wall of the inner cylindrical casing providing communicating means between the vaporizing and combustion chambers, a transversely disposed perforated plate extended across the said inner cylindrical casing and spaced from the said arcuate inner end thereof, a shaft having a disc providing a solid plate on one end and having a flange on the opposite end carried by and longitudinally slidable in said plate, a spring on

said shaft for urging the said solid plate inwardly and toward the said perforated plate, a spark plug extended through the walls of the inner and outer cylindrical casing and into the inner cylindrical casing, and a heating means positioned around the inner end of the said inner cylindrical casing, said outer cylindrical casing having a fuel inlet connection therein.

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