

Nov. 25, 1924.

A. D. STOUT

1,516,871

FUEL FILTER, STRAINER, AND SEPARATOR FOR INTERNAL COMBUSTION ENGINES

Filed March 2 1921

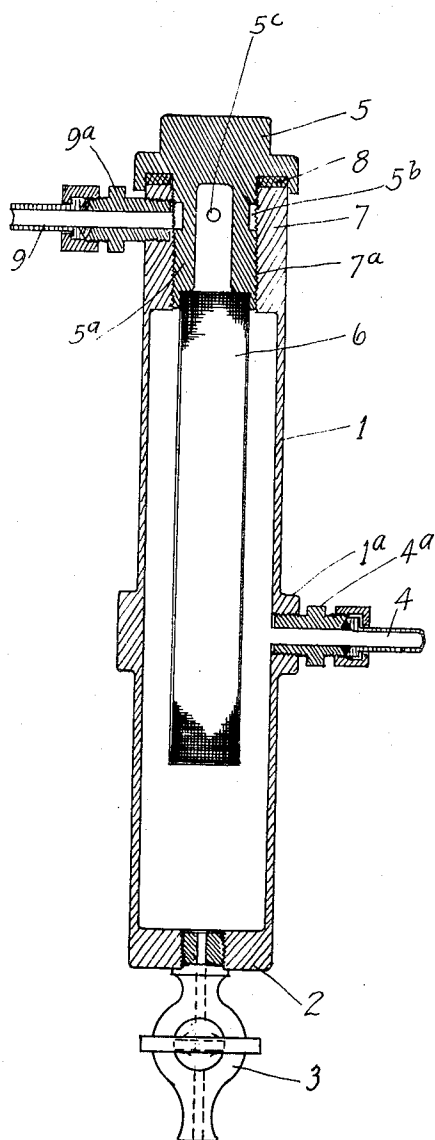


FIG. 1

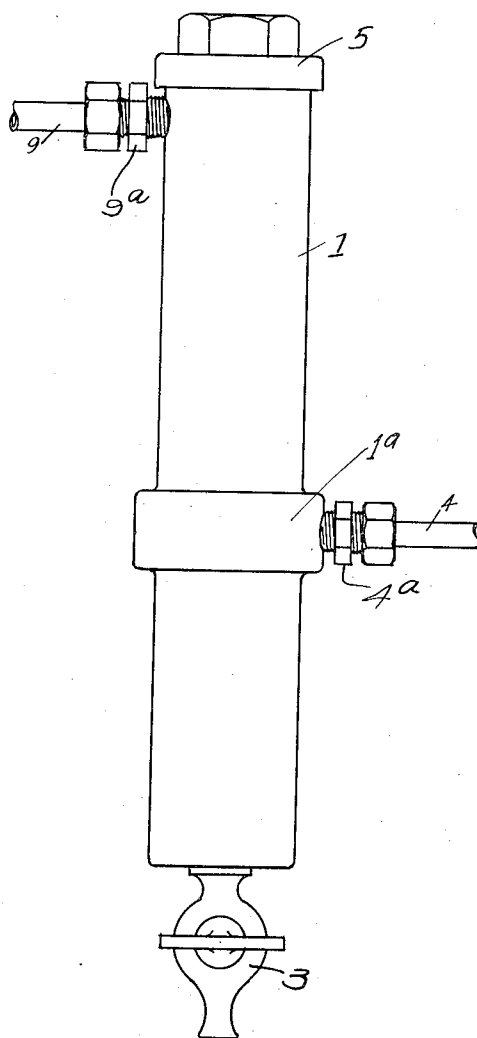


FIG. 2

INVENTOR.
ALONZO D. STOUT
BY *A. B. Bowman*
ATTORNEY

Patented Nov. 25, 1924.

1,516,871

UNITED STATES PATENT OFFICE.

ALONZO D. STOUT, OF SAN DIEGO, CALIFORNIA, ASSIGNOR OF ONE-HALF TO LEON H. STOUT, OF SAN DIEGO, CALIFORNIA.

FUEL FILTER, STRAINER, AND SEPARATOR FOR INTERNAL-COMBUSTION ENGINES.

Application filed March 2, 1921. Serial No. 448,992.

To all whom it may concern:

Be it known that I, ALONZO D. STOUT, a citizen of the United States, residing at San Diego, in the county of San Diego and State of California, have invented a certain new and useful Fuel Filter, Strainer, and Separator for Internal-Combustion Engines, of which the following is a specification.

My invention relates to a device for filtering, straining and separating water from the fuel for internal combustion engines, and the objects of my invention are: First, to provide a device of this class in which the fuel is cleansed ready for use before it reaches the carbureter. Second, to provide a device of this class which may be positioned in any location in the fuel conductor between the fuel tank and the carbureter. Third, to provide a device of this class which may be easily, expeditiously and readily taken apart cleaned and re-assembled. Fourth, to provide a device of this class in which water or other deleterious matter in the fuel will be separated from the fuel in its passage from the tank to the carbureter and from which said water or other deleterious matter may be drained and Fifth, to provide a device of this class which is very simple and economical of construction, durable, easy to install, and applicable for use in connection with all kinds of self propelled vehicles now in use.

With these and other objects in view as will appear hereinafter, my invention consists of certain novel features of construction, combination and arrangement of parts and portions, as will be hereinafter described in detail and particularly set forth in the appended claims, reference being had to the accompanying drawings, and to the characters of reference thereon which form a part of this application, in which:

Figure 1, is a longitudinal sectional view of the device, showing some of the parts in elevation to facilitate the illustration, and showing the fuel conducting line in connection therewith fragmentarily, and Figure 2, is a side elevational view of said device.

Similar characters of reference refer to corresponding parts and portions throughout the views of the drawings.

The main body member 1, plug 2, drainage valve 3, inlet conductor 4, cap plug 5, screen 6, re-enforcing member 7, gasket 8,

and outlet conductor 9, constitute the principal parts and portions of my fuel filter and strainer for internal combustion engine.

The body 1, consists of a metallic tube which is preferably thin and light. It is provided in the one end with an annular re-enforcing member 7 which is preferably sweated therein and provided with an internal thread, adapted for the thread on the cap plug member 5, this cap plug member 5 is provided with an inwardly extended portion 5^a, which is provided with a groove 5^b, therein, which serves as a by-pass for the fuel, which by-pass is adapted to communicate with the outlet 9, through a hole in the outlet conductor connection 9^a, which is screwed into a hole in the members 1 and 7, and this by-pass 5^b communicates with the interior of the portion 5^a, by means of a hole 5^c. Secured to the portion 5^a and extending downwardly some distance in the member 1, is provided a fine mesh screen 6, which is of suitable mesh to permit the fuel to pass through but will not permit water. It will be noted that the outside diameter of this screen is smaller than the internal thread 7^a so that the screen can be drawn with the cap 5, for cleaning said screen on the outside. This cap 5 is provided with an annular recess in which is mounted a gasket 8, which serves to provide a tight joint between the cap 5 and the end of the body 1, and member 7. This body 1 is provided intermediate its ends with a re-enforcing portion 1^a, in which is secured the inlet conductor 4, by means of the connection 4^a.

It will be here noted that the connections 4^a and 9^a and conductors 4 and 9 are of the ordinary or conventional type of conductor and connection and provided with stuffing boxes for providing tight joints. Secured in the opposite end of the member 1 from the cap 5 which is preferably the lower end is a plug 2, which is preferably sweated therein and it is threaded internally adapted for the valve 3, which is an ordinary or conventional valve used for drainage purposes.

Though I have shown and described a particular construction, combination and arrangement of parts and portions I do not wish to be limited to this particular construction, combination and arrangement but desire to include in the purview of my in-

vention the construction, combination and arrangement substantially as set forth in the appended claims.

It is obvious that with this construction, there is provided a device for filtering, straining and separating water from fuel to be used for internal combustion engines which may be positioned in any location between the fuel tank and carbureter; that this device will prevent dirt, water and other deleterious matter from passing to the carbureter; that the device may be readily drained; that the screen 6 may be readily removed and cleaned and that the device as a whole is very simple of construction and operation.

Having thus described my invention what I claim as new, and desire to secure by Letters Patent is:

1. A device of the class described, including a relatively long tube positioned vertically and provided with reduced, internally threaded openings at its upper and lower ends communicating with its interior, a screw plug positioned in the threaded opening at the upper end of said tube provided with an outwardly and downwardly extending flange adapted to fit over the upper end of said tube and provided with a central hole extending from the lower end of said plug and also provided with a port communicating with said central hole and extending outwardly through the threaded portion of said screw plug, a relatively long tubular screen secured to the lower end of said plug and suspended in

said tube, its interior communicating with the central hole in said screw plug, a conductor communicating with the interior of said tube intermediate its ends and near the lower end of said screen, and another conductor communicating with the hole in said screw plug and the interior of said screen.

2. A device of the class described, including a tube positioned vertically and provided with a reduced portion at its upper end, which reduced portion is threaded internally, a screw plug positioned in the threaded opening in the upper end of said tube provided with an outwardly and downwardly extending flange adapted to fit over the upper end of said tube and provided with a central hole extending from the lower end of said plug and also provided with a port communicating with said central hole and extending outwardly through the threaded portion of said screw plug, a relatively long tubular screen secured to the lower end of said plug and suspended in said tube, its interior communicating with the central hole in said screw plug, a conductor communicating with the interior of said tube intermediate its ends and near the lower end of said screen, and another conductor communicating with the hole in said screw plug and the interior of said screen.

In testimony whereof, I have hereunto set my hand at San Diego, California, this 25th day of February, 1921.

ALONZO D. STOUT.