

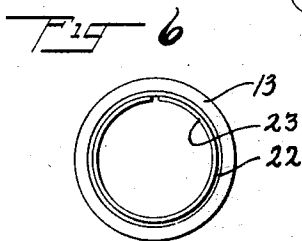
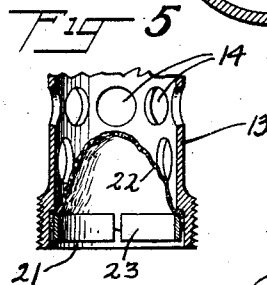
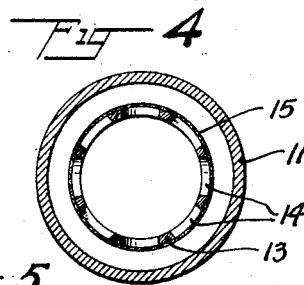
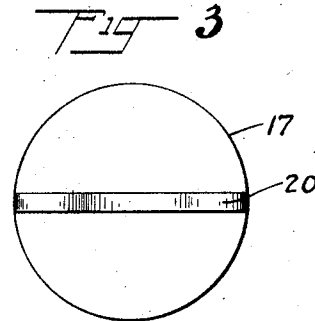
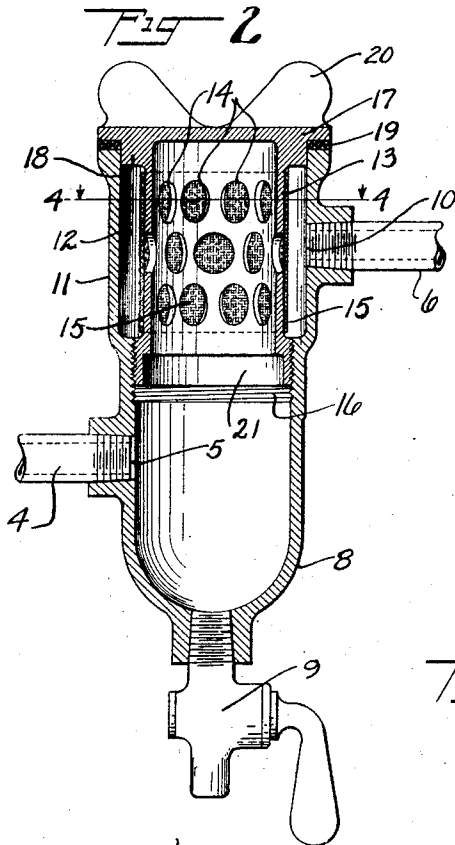
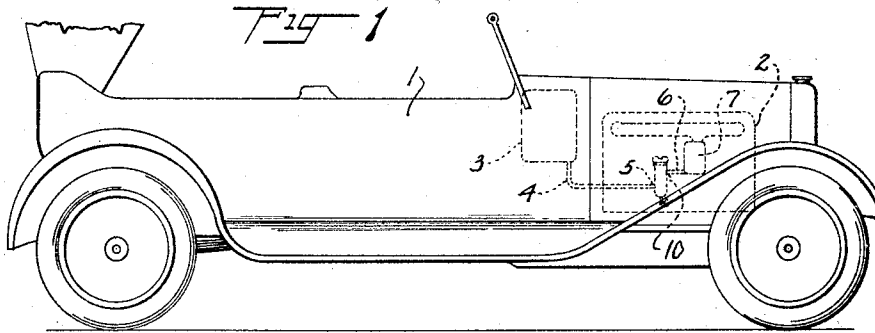
April 6, 1926.

1,579,485

P. J. PICCIRILLI

STRAINER

Filed August 18, 1921



Gasquale J. Piccirilli INVENTOR
BY
Thomas Howe ATTORNEY

Patented Apr. 6, 1926.

1,579,485

UNITED STATES PATENT OFFICE.

PASQUALE JOSEPH PICCIRILLI, OF NEW YORK, N. Y.

STRAINER.

Application filed August 18, 1921. Serial No. 493,230.

To all whom it may concern:

Be it known that I, PASQUALE JOSEPH PICCIRILLI, a citizen of the United States of America, residing at city, county, and State of New York, have invented new and useful Improvements in Strainers, of which the following is a specification.

This invention relates to means for straining fluids and is particularly desirable for use in connection with the supply of gasoline to internal combustion engines such as are employed to supply motive power for automobiles and the like.

The present invention is an improvement upon the device of my application S. N. 343,886 filed December 10, 1919.

The main object of the invention is to provide a device of the same general character as that of my prior application above referred to but which shall be simpler and be more readily and inexpensively made.

Other and ancillary objects of the invention will appear hereinafter.

In the accompanying drawings which illustrate the invention—

Fig. 1 is a side elevation of an automobile having an engine with a gasoline supply fitted with the invention;

Fig. 2 is a vertical, transverse, central section through the straining device, the scale being enlarged from that on which Fig. 1 is drawn and being a full sized view of the device as it has actually been built;

Fig. 3 is a top plan view of the apparatus of Fig. 2;

Fig. 4 is a section on the line 4—4 of Fig. 2;

Fig. 5 is a central longitudinal section of a modified form of strainer member partly broken away; and

Fig. 6 is a bottom plan of the device of Fig. 5.

Referring to the drawings and first to Figs. 1 to 4 inclusive, the automobile 1 has the usual propelling, internal-combustion engine as indicated at 2. The source of supply of gasoline may be a tank 3 communicating by a pipe 4 with the inlet opening 5 of the straining device whence a pipe 6 leads to the carburetor 7 whence a combustible mixture is supplied to the engine in a well known way.

The strainer comprises a casing having a bulb-like portion 8 at its lower end forming a sedimentation chamber from the lower end of which the contents may be drained by

opening the cock 9, this cock being normally closed. The inlet opening to the casing is at 5 while the outlet is at 10. The top of the casing comprises a cylindrical portion 11. Within the cylindrical portion 11 and spaced therefrom by a circumferential clearance 12 is a cylindrical or tubular drum 13 having a number of circumferential apertures 14 through which fluid may pass from the interior of the frame to the clearance 12.

Wrapped about the frame 13 and held in intimate relation thereto so that fluid cannot pass from the inside of the frame 13 to the clearance 12 without passing through it is a sheet or strip of wire gauze 15 forming a strainer for the fluid, and it is to be observed that any matters strained out of the fluid have a practically unobstructed fall into the sedimentation chamber in the bottom of the casing.

The lower end of the frame 13 is provided with screw-threads engaging with suitable cooperating threads 16 in the wall of the casing between the inlet and outlet openings. At its upper end the frame carries the casing cap 17 which is integrally formed with it and serves to close the upper end of the casing. Also there is a shoulder 18 secured to the frame 13, which fits closely within the cylindrical wall 11 of the casing so as to cause any sidewise pull upon the cap to be taken up by the casing body instead of by the threaded connection at 16. The apparatus would be liable to be injured in the latter case. To provide a tight joint a gasket 19 is interposed between the cylindrical portion 11 and cap of the casing, while finger pieces 20 provide means for readily turning the cap and frame in screwing them into position in the casing.

It will be seen that, as in my prior application referred to, instead of the fluid being forced through the strainer by the force of gravity as in other structures, it passes through the strainer by rising therethrough as the lower part of the casing fills up which is much better adapted to leave behind it any impurities.

It will be observed that by the present construction a very large surface of strainer through which the fluid strained may pass, is provided so that in passing through the strainer there is even a larger unobstructed passage for the fluid than is provided by the areas of the inlet and outlet openings. The result is that the strainer produces no appre-

ciable obstruction to the flow of fluid through the system.

It will further be seen that by the present invention a remarkably simple structure is produced. In fact it may be built in two pieces as shown, one for the casing (substantially cylindrical in form) and the other for the closing cap at one end in combination with the strainer. The strainer may be readily removed and cleaned at any time desired by unscrewing and removing the strainer and cap.

It will be seen that the lower end of the frame 13 is provided with a circumferential countersunk recess 21. Instead of applying the straining gauze to the frame as above referred to, the straining means may consist of a hollow or tubular piece of straining material 22 such as chamois (see Figs. 5 and 6) which is held in place by an incomplete spring ring 23 placed in the recess 21 and gripping the straining material against its side.

While the invention has been illustrated in what is considered its best application it may have other embodiments without departing from its spirit and is not therefore limited to the structures shown in the drawings.

What I claim is:

1. In a straining device, the combination with a casing having a cap and inlet and outlet openings at different levels, of a strainer-carrying frame secured to said cap in screw-threaded engagement with said casing between said openings and extending upwardly from said screw-threaded engagement and straining means carried by said frame.

2. In a straining device, the combination with a casing having inlet and outlet openings at different levels, a sediment chamber at its lower end and a cap for closing its upper end, of a substantially cylindrical strainer-carrying frame secured to and depending from said cap and in screw-threaded engagement at its lower end with said casing between said openings, there being a clearance between said casing and said frame and said frame having openings through which the fluid can pass from the interior thereof to said clearance, the outlet opening opening into said clearance, and a strainer carried by said frame.

In testimony whereof I have signed this specification this 17th day of August 1921.

PASQUALE JOSEPH PICCIRILLI.