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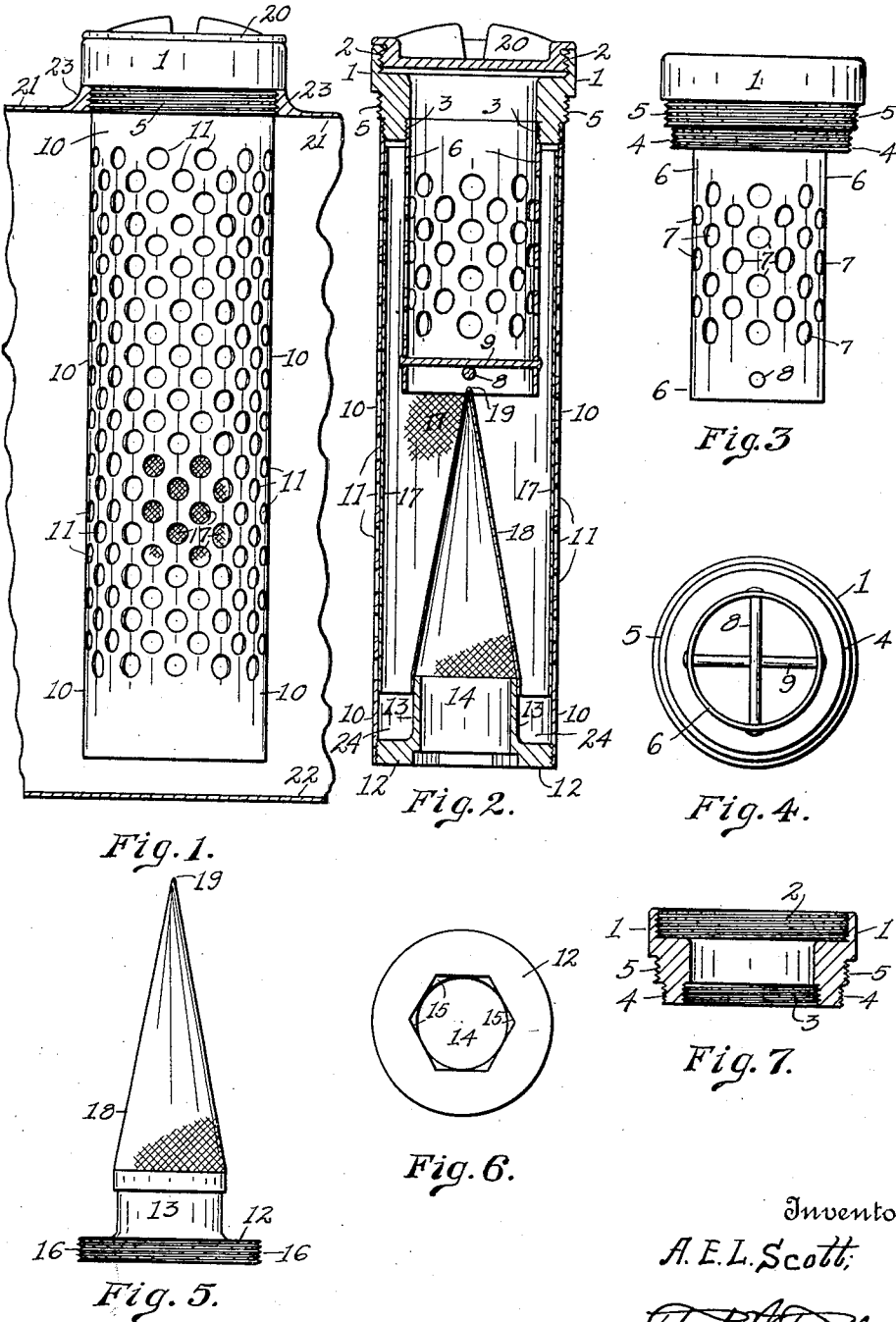


Fig. 6.

Fig. 7.

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GASOLINE STRAINER.

Application filed May 28, 1921. Serial No. 473,497.

To all whom it may concern:

Be it known that I, ARTHUR E. L. SCOTT, a citizen of the United States, residing at Spartensburg, in the county of Randolph, State of Indiana, have invented new and useful Improvements in Gasoline Strainers, of which the following is a full, clear, and comprehensive specification and exposition, being such as will enable others to make and use the same with exactitude.

The object of my present invention, broadly speaking, is to provide a strainer for gasoline as it enters the service tank in an automobile or the like, the same being strong and durable in construction, automatic in operation, efficient and economical in practice, easily installed in operative position, and which can be manufactured and sold at a comparatively low price.

It is well known that nearly all gasoline contains more or less dirt or other matter, such as flakes of rubber, cotton, or fabric which come usually from the filling hose, and also particles carried thereto by the wind as the gasoline is being transferred, all of which interferes with the proper functioning of the motor to which the gasoline is being supplied, therefore the primal object of this invention is to overcome said objections by absolutely preventing such matter from entering the tank either with the gasoline or otherwise through the filling aperture when the cap is removed from the filling aperture.

Other objects and particular advantages of the invention will suggest themselves in the course of the following specification and that which is new and useful will be brought out in the claims.

The preferred means for carrying out the principles of my invention in a practical and efficient manner is shown in the accompanying drawings, in which—Figure 1 is an outside elevation of my device as located in operative position in a tank, a portion only of the latter being shown and that in section. Figure 2 is a longitudinal central section taken vertically through the device. Figure 3 is a side elevation of the head and the guard as they would appear separated from the other parts. Figure 4 is a plan view of the lower end of the parts shown in Fig. 3. Figure 5 is a side elevation of the base member and of the cone strainer which is attached thereto, showing the same as removed from the other parts. Figure 6 is a bottom plan

view of the base member. And Figure 7 shows the head alone and partly in section.

Similar indices denote like parts throughout the several views. In order that the construction, the operation, and the advantages of this invention may be more fully understood and appreciated I will now take up a detailed description thereof in which I will set forth the same as fully and as clearly as I may.

Referring now to the drawings in detail: Numeral 1 denotes the ring-like head which carries the four sets of screw-threads, as follows: The internal thread 2 at the top; the internal thread 3 at the lower end; the external thread 4 at the lower portion; and the external thread 5 in the central portion, that is above the threads 4 and outward therefrom as shown.

Numeral 6 denotes the tubular guard, which is open at both ends and its wall has a multitude of apertures 7 formed there-through.

The upper end of the guard 6 is exteriorly threaded to fit the threads 3 as indicated in the drawings.

Located near the lower end of the guard 6 are the two crossbars 8 and 9, for the purpose hereinafter made apparent.

Numeral 10 denotes the tubular body, and it is provided with a plurality of apertures 11 formed therethrough.

The upper end of the body 10 is interiorly threaded to run on the threads 4, and the lower end of the body 10 is interiorly threaded to receive the threads 16 of the laterally extending flange portion 12 of the base. Extending up from the member 12 is the tubular flange 13, which is of less diameter than is the member 12, and a central aperture 14 extends centrally through the members 12 and 13. A hexagonal socket 15 is formed in the center of the lower face of the member 12 whereby a wrench may be engaged to turn the base and the body with relation to each other.

A screen 17 extends around in contact with the inner wall or face of the body 10, and it covers all of the apertures 11.

Also a screen 18, of conical shape, has its lower end secured around the flange 13, from which it extends upward terminating in the apex 19.

Numeral 20 denotes a cap which is provided with threads to engage with the threads 2.

Numeral 21 denotes the top, and 22 denotes the bottom of a tank, there being a filling aperture formed in the top 21 around which is formed a boss 23 which is interiorly threaded to receive the threads 5 of the head, or the threads of the cap 20.

The cap 20 may be the usual cap which, when my invention is not used, is screwed into the boss 23 to close the filling aperture.

Operation: The device is first assembled by screwing the base 12—13 into the lower end of the body 10 by means of a wrench, with the screen 18 projecting up into the body 10, the screen 17 being first permanently secured in position. The guard 6 should be screwed in the head 1 as in Fig. 3, after which the guard 6 is to be inserted into the upper end of the body 10 and the head 1 and the body 10 are then turned reversely to each other until they are secured tight together.

One may now remove the cap 20 from the boss 23, after which the device is inserted until the threads 5 engage the threads in the boss 23 whereby the device will be assembled in operative position as shown in Figs. 1 and 2, after which the cap may be inserted in the head 1 and becomes the regular closure therefor, as shown.

Now in order for one to fill his tank with gasoline he has only to remove the cap 20, after which the filling nozzle may be inserted in the guard 6 but limited in distance by the bars 8 and 9 in order that the screens may not be damaged by the nozzle.

From the above it is clear that all of the gasoline which enters the tank through the filling aperture must pass through one or the other of the screens 17 and 18, which together afford a large screen area. It will be seen also that all of the dirt or sediment which does not pass through the screens will collect upon the base in the space indicated by numeral 24, from where it may be removed by unscrewing the body 10 and removing it from the tank and then removing the base from the body as it is shown in Fig. 5.

After my invention is installed as set

forth it is evident that it will absolutely prevent the introduction of anything into the tank except that which is able to pass through one or the other of said screens.

It is to be understood that various changes may be made in the several details of construction and in the arrangement of the parts without departing from the spirit of my invention and without sacrificing any of the advantages thereof.

Having now fully shown and described my invention, what I claim and desire to secure by Letters Patent of the United States, is—

1. A gasoline strainer comprising a head adapted to be screwed into a tank in place of the regular filler cap with the regular filler cap adapted to be screwed into said head, a tubular body extending down from said head and having apertures formed through the wall thereof, a screen disposed over all of said apertures in the body, a base screwed into the lower end of the body, there being an aperture formed centrally through said base, and a conical screen secured to the base and around said aperture therein and tapering upward into the central portion of the body.

2. A gasoline strainer comprising a head, a cap for the head, a tubular body extending down from the head and having apertures in the wall thereof, a screen disposed over said apertures, a base having a central aperture therethrough and adapted to be secured in the lower end of the body, a conical screen secured to the base and extending upward from around the aperture therein, a tubular guard extending down from the head into said body and having apertures formed through the wall thereof, and cross-bars extending across the lower end of said guard, all substantially as set forth.

In testimony whereof I have hereunto subscribed my name to this specification in the presence of two subscribing witnesses.

ARTHUR E. L. SCOTT.

Witnesses:

ROBT. W. RANDLE.

R. E. RANDLE.