July 8, 1924. 1,500,347

J. STUBBERS

FILLING CAN

Filed Feb. 17, 1922

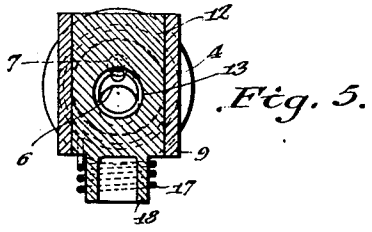


Fig. 5.

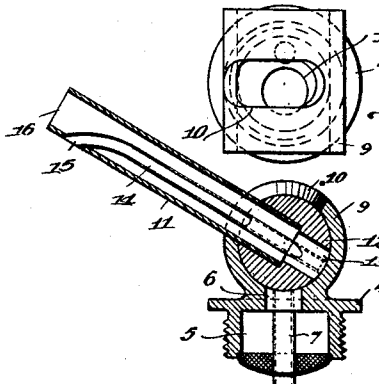


Fig. 6

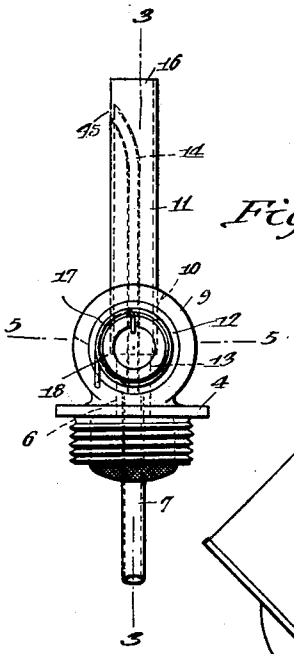


Fig. 2.

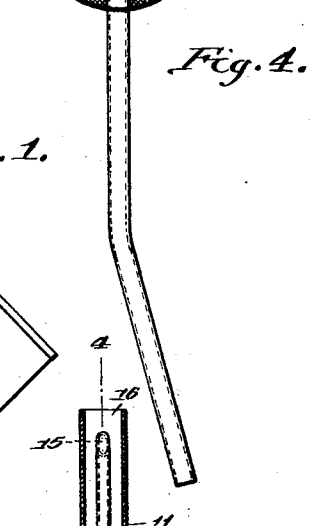


Fig. 4.

Fig. 1.

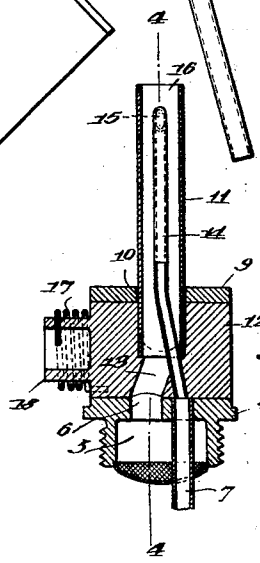


Fig. 3.

INVENTOR.

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Patented July 8, 1924. 1,500,347

UNITED STATES PATENT OFFICE.

JOSEPH STUBBERS, OF CINCINNATI, OHIO, ASSIGNOR TO THE INCANDESCENT LIGHT & STOVE COMPANY, OF CINCINNATI, OHIO, A CORPORATION OF OHIO.

FILLING CAN.

Application filed February 17, 1922. Serial No. 537,310.

To all whom it may concern:

Be it known that I, JOSEPH STUBBERS, a citizen of the United States, and residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and useful Improvement in Filling Cans, of which the following specification is a full disclosure.

My invention relates to a fuel oil container and nozzle for filling lamps, stoves, lighting or heating apparatus, and the like.

An object of the invention is to prevent the overflow of the lamp or receptacle during the filling operation.

Another object is to provide a container with a nozzle, which can be placed in the receiving orifice of the lamp or receptacle, the flow of oil therethrough being started by tilting the container and stopped automatically when the oil in the receptacle reaches the level of the nozzle orifice.

Another object of the invention is to provide means for automatically normally holding the nozzle in a position to close the valve, which can be opened for a filling operation by first inserting the same into the receiving aperture and subsequently tilting the oil container.

Another object of my invention is to provide an air inlet instrumentality, operating to open and close with the nozzle valve.

Another object is to provide a cheap and simple construction.

Another object of the invention is to provide an air-tight and non-leaking valve nozzle, the gas in the container not being exposed to the air while filling. On the contrary, any vapor in the lamp being filled, instead of escaping into the room, endangering fire hazard, will enter the filling can through the displacement duct.

Other objects of the invention will be set forth in the description of the accompanying drawings, of which.

Figure 1 is a side elevation illustrating my device in use.

Figure 2 is a side elevation of the detached nozzle, with its elements disposed as in filling position.

Figure 3 is a section on line 3—3, Fig. 2.

Figure 4 is a section on line 4—4, Fig. 3, showing the nozzle in normal position.

Figure 5 is a plan section on line 5—5, Fig. 2.

Figure 6 is a plan view of the cap and sleeve, the valve and nozzle being removed.

For the convenience of illustration, I have shown a lamp 1, with the oil filling aperture 2. The container or fuel oil can is of ordinary construction made air-tight with the filling aperture 3 at the top and adjacent the periphery. The valve nozzle has screw threaded connection with said aperture 3. This nozzle has, just above the screw threads, a cap portion 4, provides an air space 5, and is formed with a fuel outlet 6. Secured in this cap portion 4 is an air inlet tube or duct 7 extending to the bottom of the container, and preferably bent to occupy the opposite corner 8, at the bottom of the can, for admitting air into this extreme corner, which is the highest level when the can is tilted to filling position. Secured upon this cap portion 4 is a bushing sleeve or annular valve seat 9, having a segmental aperture 10, through which the filling tube 11 slidingly projects, the said tube being socketed in a valve member 12. This cylindrical valve member 12 is rotatively secured in said sleeve 9. It is provided with a diametrical conduit 13, the upper end of which registers with the lower end of tube 11 secured in said member 12, and the lower end of which is in registry with the orifice 6 in filling position, and in non-registry therewith in normal position. Within the tube 11, and traversing the valve member 12, is an air inlet tube 14, in registry with the duct 7, for a filling operation, but out of registry therewith in normal position.

The upper end or terminal of this tube 14 is turned laterally and forms an air inlet 15 in the wall of tube 11 adjacent its oil outlet 16. Preferably I provide a coil spring 17 on a projecting hub 18 of valve member 12, one end of which is secured to the hub 18 and the opposite end to the cap portion 4, to hold this valve with its respective openings in non-registering position under normal conditions.

In operation, the tube 11 is placed in the receiving aperture, the can tilted, swinging the tube 11 and the valve member 12 in the sleeve 9, to move the respective liquid and air conduits into proper registry. The air travels through the tube 14 to the upper corner of the can, allowing the liquid to flow through the outlet 16 into the lamp.

Of course, the container will continue to fill the lamp only so long as air is being ad-

mitted through this tube 14, and, when the fuel rises in the lamp to a predetermined level, it will seal the air inlet 15 and automatically stop the filling operation, preventing the lamp from becoming overfilled.

Having described my invention, I claim:

A nozzle for attachment to fuel containers comprising an annular valve seat having an aperture, two ports, and a cap portion by which it is secured to the container, a rotatable valve member in said annular valve seat having a three-way passage two openings of which are adapted to register with said ports, the third with a portion of said aperture, a filling tube on said valve and rotatable therewith, extending through said aperture and seated in one passage of the three-way opening, an air intake tube extending from a point near the extremity of the filling tube to an opening of the three-way passage which registers with a port in the annular valve seat, an air inlet duct from the last designated port into the fuel container, thereby making two closable passages from the inside of the container to the end of the filler tube isolated from each other.

In witness whereof, I hereunto subscribe my name, as attested by the two subscribing witnesses.

JOSEPH STUBBERS.

Witnesses:

L. A. Beck,

R. Kistner.