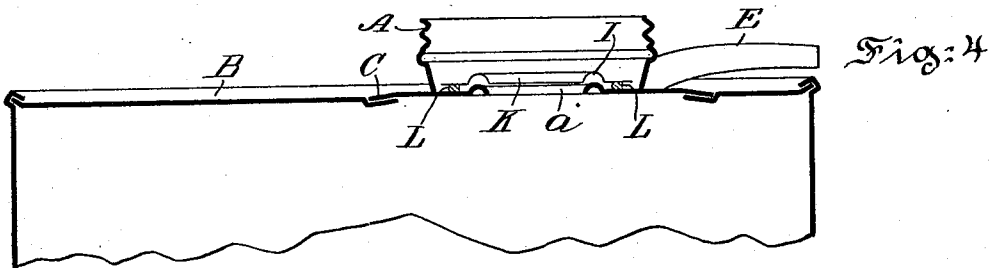
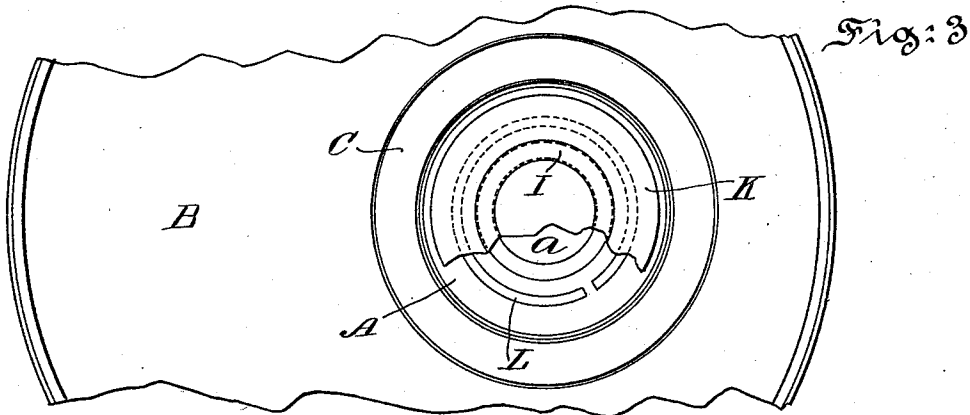
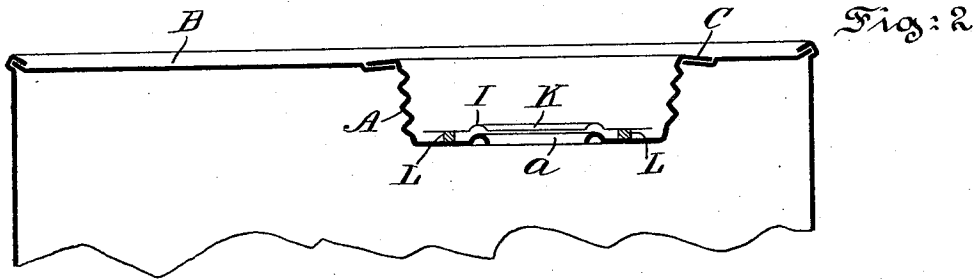
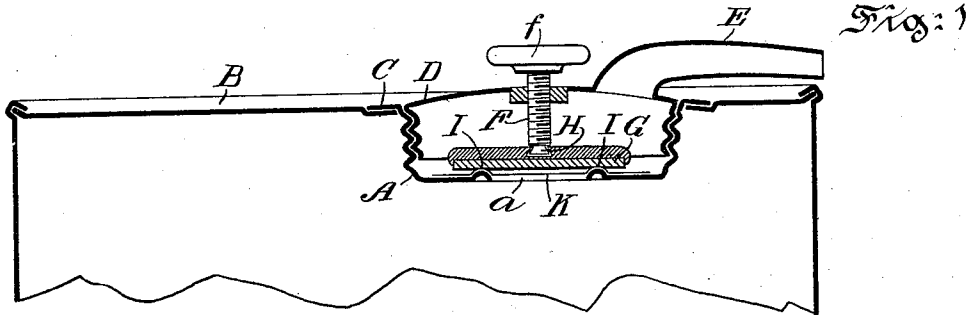


(No Model.)

B. F. WARREN.
FAUCET FOR OIL CANS.

No. 528,244.

Patented Oct. 30, 1894.



Witnesses:
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UNITED STATES PATENT OFFICE.

BENJAMIN F. WARREN, OF BROOKLYN, NEW YORK.

FAUCET FOR OIL-CANS.

SPECIFICATION forming part of Letters Patent No. 528,244, dated October 30, 1894.

Application filed September 1, 1894. Serial No. 521,964. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. WARREN, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Faucets for Oil-Cans, of which the following is a specification.

My invention has relation to faucets and to the mode of sealing of the same; and it relates more particularly to the sealing of that class designated as "filler" faucets because consisting of separable parts and having an opening in that part of the faucet which is permanently attached to the can and through which the same is filled with oil or other liquid. In the shipping of oil in cans provided with such general type of faucets, it is customary as well as necessary to hermetically seal the opening or that part permanently attached to the can in order to prevent leakage of the fluid therefrom in transportation or otherwise. Hitherto it has been customary to score the metal nearly through the faucet to render it easy to cut or punch out a disk of metal inside a ring so scored thereof. The objection, however, to such arrangement is that a slight variation in the exerted pressure in the scoring of the metal is liable to cut entirely through the metal and thus breaking the seal intended to be established and causing thereby leakage of the contents of the can or similar vessel. The mode which has been in the past most generally employed is to cut a circular piece of metal entirely out from the bottom of the faucet and afterward to seal the opening with a small piece of taggers tin of approximately the same size as the opening made, this piece being kept in position either by soldering it onto the under side of the bottom of the faucet or by forcing it into position by hydraulic or other pressure. This has given better results than the mode of scoring the metal, but by reason of the small surface of contact between the disk and the bottom of the faucet extreme care has to be exercised in soldering, which is done by hand irons and requires expert practice to insure a perfect joint and adding very considerably to the cost of making such a faucet. Then the forcing of the disk into required position by hydraulic or other pressure is also unsatisfactory by reason of the

different thicknesses of metal of the faucet and because in sealing it is difficult to bring the surfaces sufficiently close together to prevent leakage, when the can is filled with a penetrating liquid, such as kerosene oil.

The principal objects of my invention are, first, to entirely obviate the above mentioned disadvantages and to provide a comparatively simple, durable and effective faucet for oil cans; and, second, to provide an efficient and entirely reliable faucet for a can adapted to contain oil or other liquid and in which leakage is prevented.

My invention consists of the improvements in faucets for oil cans or the like constructed and arranged in substantially the manner hereinafter described and claimed.

The nature and scope of my invention will be more fully understood from the following description taken in connection with the accompanying drawings forming part hereof, and in which—

Figure 1, is a sectional view through a faucet sealed to the can below the top thereof and of the type designated as a "low screw" faucet with a seal and a plug screwed down thereon and constituting a valve in a closed position, the said view embodying a faucet of my invention. Fig. 2, is a similar view of the cup-shaped body of the faucet of my invention, having the cap and plug of Fig. 1, removed and with a taggers tin seal or metal piece detached therefrom. Fig. 3, is a horizontal plan of the cup-shaped body of the faucet, with a portion of the disk removed to expose to view the ring of solder for securing the disk to the body of the faucet about the opening in the bottom thereof; and Fig. 4, is a sectional view of a slightly modified form of faucet arranged above the top of the can and the same designated as a "high screw" faucet with the disk and solder shown so as to be "sweated" or soldered together to constitute a tight joint so as to prevent leakage of fluid from the can or other similar vessel.

Referring to the drawings A, is the cup-shaped body of the faucet, which is secured to the can B, by means of the flange C, in any suitable manner.

D, is the removable cap of the faucet with its spout E.

F, is a threaded stem with a head f, at one

end and having at the other end a plug G, connected with the said stem by means of a swivel joint H, in order to allow the said plug to firmly seat itself to the valve seat I, established without torsional friction.

K, is a disk of thin taggers tin or other metal surrounding and overlapping the opening α , in the bottom of the faucet A, and resting at first on the annulus or ring of solder L, as clearly illustrated in Figs. 2, 3 and 4, and afterward the same is firmly secured to the bottom of the cup A, so as to seal the opening α , and constitute a valve seat in engagement with the plug G, as illustrated in Fig. 1.

The disk K, in the expansion of the same covers nearly the entire area of the bottom of the cup A.

In Fig. 4, the faucet A, is the same as that of Figs 1, 2 and 3, with the exception that the body thereof is made to reversely taper and has the rim or flange C, at the base instead of the top as in Fig. 1, and the spout E, extends downward through the said flange or rim which is adapted to be soldered or otherwise secured to the head of the can B. The cap D, with its accessories hereinbefore described is fitted into and engages with the said faucet in substantially the manner already explained in connection with Figs. 1, 2 and 3, of the drawings.

In practice the ring of solder is dropped into the cup A, and is guided to position by the annular projection on the bottom of the cup. The taggers tin or metal seal K, is then placed on top of the ring or annulus of solder and a metal form is employed to hold the parts together and exerts a slight pressure between them, and the bottom of the cup is exposed to the flame of a blast-furnace. After a few seconds exposure to such flame action to melt the solder, by the slight pressure exerted between the seal and the cup, the solder is caused to flow evenly and smoothly so as to cover the entire space to make a very perfect joint; and at the same time the annular projection on the bottom of the cup and the corresponding indentation on the seal cause the two parts to come together very evenly thereby insuring an absolutely perfect seal being established to prevent leakage from the can or similar vessel. It may be here remarked that the labor cost of sealing faucets, according to my invention, is much reduced as compared with the hitherto practiced modes of soldering or sealing faucets, without

the necessity of skilled labor, because largely automatic. Moreover, an ordinary workman can turn out a much larger number of faucets in a given time made according to my invention than a skilled workman can by the old practiced modes of providing cans with filler faucets.

Another advantage of the seal located above the bottom of the cup-shaped body of the faucet instead of below it, as has heretofore been the custom, is that the plug G, of the valve rests directly on the taggers tin seal at I, and tends to hold it in position. This is important, as large numbers of faucets are used on oil cans exported in sailing ships, and the swashing of the oil caused by the motion of the vessel develops any weakness that may exist, resulting in the rupture of the seal ordinarily used, and likewise in many instances of the faucet. The large surface of contact provided by the construction of a faucet of the present invention makes a very strong joint and the chances of rupture as above are reduced to a minimum.

Having thus described the nature and objects of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. An oil can faucet provided with a cup-shaped body having a flange and secured to a can, a removable cap provided with a spout and with a threaded stem connected with a plug by a swivel connection to permit of said plug seating with a valve without torsional friction and a disk of taggers metal adapted to cover an opening in the bottom of said faucet, substantially as described.

2. An oil can faucet provided with a depressed body having a flange or rim seating with and adapted to be sealed to a can and having an opening in the bottom, a metal disk or piece adapted to be sealed to a ring or annulus by soldering or sweating of the same thereto, a cap provided with a spout and a threaded stud or stem having a plug in swivel connection therewith and held to said metal disk or piece, substantially as and for the purposes described.

In testimony whereof I have hereunto set my signature in the presence of two subscribing witnesses.

BENJAMIN F. WARREN.

Witnesses:

W. J. SLOAN,
E. H. SHELLEY.