

(No Model.)

C. E. DRURY.
CLEANING ATTACHMENT FOR OIL CANS.

No. 494,702.

Patented Apr. 4, 1893.

FIG. 1.

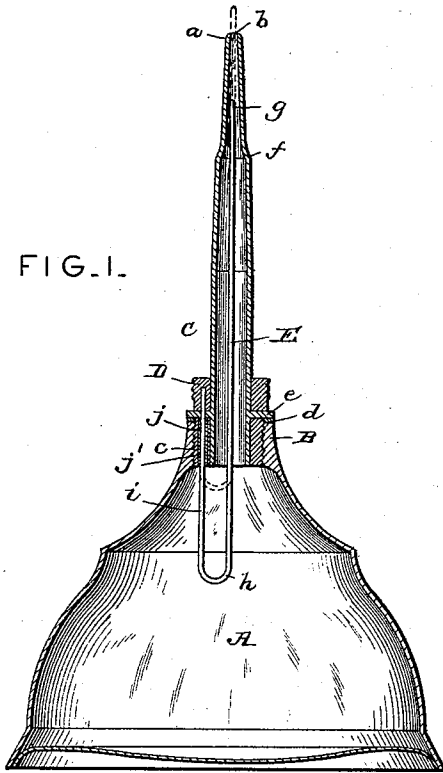


FIG. 2.

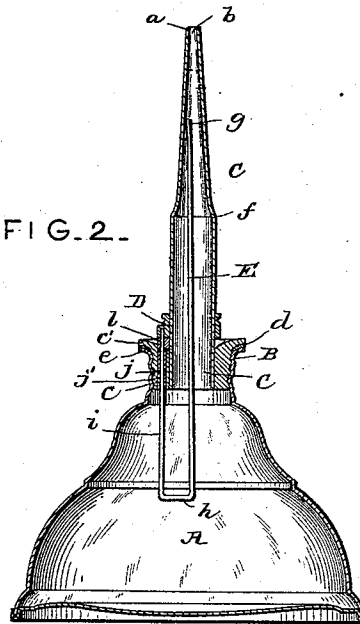


FIG. 3.

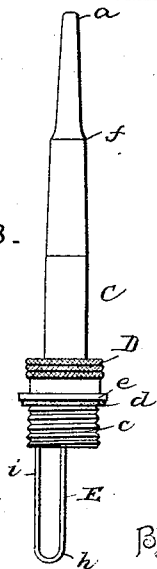
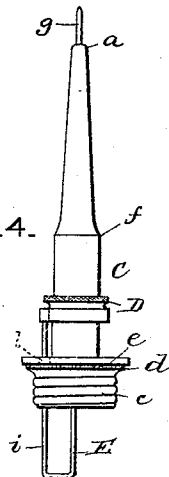


FIG. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES E. DRURY, OF GIRARD, PENNSYLVANIA.

CLEANING ATTACHMENT FOR OIL-CANS.

SPECIFICATION forming part of Letters Patent No. 494,702, dated April 4, 1893.

Application filed July 30, 1892. Serial No. 441,729. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. DRURY, a citizen of the United States, residing at Girard, in the county of Erie and State of Pennsylvania, have invented a new and useful Cleaning Attachment for Oil-Cans, of which the following is a specification.

My invention relates to an attachment for oil cans, and more particularly, to a device for cleaning the discharge tube without necessitating the detachment of the same from the oil can.

Heretofore, great inconvenience and consequent annoyance have been experienced in the use of ordinary oil cans, due to the fact that the discharge tube becomes filled and clogged with the impurities usually inherent in the oil contained in the can, or finding lodgment in the orifice in the end of said tube from contact with the grime or other foreign matter present about the lubricating orifices of machinery; and it has been previously necessary to unscrew the said discharge tube from the top of the can in order to cleanse the interior duct, which necessity obviously impedes the act of lubrication, and occasions loss of valuable time.

It is, therefore, the object of this invention to overcome the objections above noted, by the provision of a device of simple construction that will fulfill the function, and accomplish the result desired, in a quick and effective manner.

For the attainment of these objects my invention consists, in brief, in certain details of construction, arrangement and combination of parts, all of which will be more fully described hereinafter, and the specific points of novelty in which will be pointed out in the appended claim.

Referring to the accompanying drawings forming a part of this specification:—Figure 1 is a central vertical section showing the cleaning rod in and out-of-the-way, inactive position. Fig. 2 is a similar view showing a modification of discharge tube together with the differences of construction necessary for the application of my attachment. Fig. 3 is a detail elevation of Fig. 1, illustrating that form of discharge tube provided with my improvement, and detached from the oil can.

Fig. 4 is a similar view of the modification shown in Fig. 2.

Like letters of reference mark the same or corresponding parts in the several views of the drawings.

The oil can or receptacle A is of the usual shape and construction, here shown conical in outline, and made of some suitable metal, such as brass or zinc, and having at its apex or top the circular mouth B interiorly screw-threaded to receive and removably hold the correspondingly screw-threaded end of a discharge tube C, which, in turn, consists of the tubular discharge tube or nozzle, having a tapering circular point *a*, interiorly hollow and tapering to form a discharge duct finding outlet at the point through a small discharge aperture *b*. This tube C, at its rear extremity, terminates in a neck *c* exteriorly screw-threaded and fitting in the screw-threaded mouth B of the can; and *e* indicates a circular collar or disk formed integral with the body of the tube C, and constituting the terminal line of the neck *c*, being provided with an annular packing ring *d* located on the inner face of the said disk *e* adjacent to the neck *c*, which packing fits closely over the mouth B of the can A when the neck *c*, is screwed in the mouth of the can. From the collar *e* up to the point *f* the exterior of the tube is approximately of equal diameter, that is to say, does not begin to taper toward the point until the line marked *f* is reached, from which latter, both interiorly and exteriorly, the same tapers to a point, as before stated. The object of making the lower portion of the said tube straight in a manner described, is to permit thereon the vertical play or reciprocation of the thumb-sleeve D loosely embracing said tube C, and connected to the cleaning or plunger rod E in a manner hereinafter described. This sleeve D is roughened exteriorly in order to insure the grasp and retention of the fingers thereupon when it is desirable to slide said sleeve up or down upon the tube C.

The cleaning rod E comprises the longitudinal pointed front portion *g* approximately equal in length to the extent of the interior duct of the discharge tube, and is of the required rigidity to maintain itself out of con-

tact with the wall of the interior duct, and of the necessary elasticity to resume its previous form and situation after operation. The point of this front portion *g*, when not in use, rests against the tapering wall of the interior orifice of the discharge tube at a point some little distance to the rear of the discharge aperture so that the outward and downward flow of the oil through the tapering chamber, is not impeded by the presence of the cleaning rod. At its rear extremity the said rod *E* is provided with a curved *U* shaped bend *h* forming an integral connection between the forward portion *g* and the parallel exterior arm *i* attached at its upper outward extremity to the reciprocatory sleeve *D*, in any suitable or approved manner, such as that shown,—or in other words—the cleaning rod *E* is bent at its rear end into the arm *i* being carried back upon itself, as it were and connected to the said sleeve. Through the wall of the neck *c*, and near the outer edge of said wall is formed a longitudinal perforation *j* located in the same vertical plane as the exterior surface of the rear portion of the discharge tube *C*, and extending also through the collar or disk *e*; and through such perforation the arm *i* of the rod *E* slides or reciprocates in accordance with the movement of the sleeve *D*.

Owing to the penetrating nature of oil, and moreover the fact that the can is generally inverted for use, it may be found necessary in practice to provide the said aperture *j* with an oil tight packing to prevent the egress through said aperture. Accordingly, I have shown clearly in Fig. 1 the inner end or mouth of said aperture slightly enlarged to receive and retain the packing *j'* securely fastened in said aperture, and although permitting the movement of the rod therethrough, preventing the escape of oil.

In the modification shown in Fig. 2, there is no material difference in construction of the cleaning attachment, but owing to the fact that the neck *c* of the discharge tube is made distinct and separate from the said tube, and is formed of a different metal, I have deemed it necessary to provide this illustration showing the manner of applying my attachment to such construction. In this instance the screw-threaded neck *c* together with an annular flaring flange *c'* is substantially a shell made in one piece and swaged on the end of the tube *C*, the flaring portion *c'* fitting over and around the collar *e*; and by reason of this construction, the outer or exterior mouth of the aperture *j* is extended slightly beyond the horizontal plane of the said collar by a vertical thimble *l* projecting vertically in align-

ment with the sleeve *D*, by which construction the oil is prevented from leaking out of the upper end of said aperture.

From the foregoing description it will be manifest that in event of the duct of the discharge tube *C* becoming clogged with any matter impeding the flow or drip of the oil, the cleaning rod *E* can be moved from the position shown in Fig. 1 in a forward direction by an upward movement of the sleeve *D* on the exterior of the tube *C*, thus projecting and forcing the point of the cleaning rod *E* out through the terminal aperture *b*, and thereby freeing the tube or channel of any impediment lodged therein. Then by replacing the sleeve down against the collar *e* the end of the cleaning rod is retracted to the position shown in Fig. 1, the rear portion of said cleaning rod depending through the mouth of the can as shown clearly in Fig. 1.

This attachment can be applied to any of the ordinary existing cans by simply piercing a suitable hold through the collar *e*, and the wall of the neck *c*; then fitting the sleeve *D* over the body of the discharge tube *C*; and finally, inserting the bent cleaning rod *E* in the tube with its arm *i* suitably connected to the said sleeve.

By reason of its simplicity of construction and parts my attachment can be manufactured at a trifling expense, and applied at very small cost to all sizes of oil cans.

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

The combination with an oil can provided with a detachable discharge tube having a cylindrical portion near its lower end, said oil can being provided at the mouth of the receptacle with a vertical perforation, of a plunger rod arranged within the discharge tube and extending the entire length of the same and depending below the discharge tube and provided at its lower end with an upward bend and having an integral parallel portion extending upward through the vertical perforation and forming an arm, and a collar arranged on the cylindrical portion of the discharge tube and adapted to slide thereon to raise and lower the plunger, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

CHARLES E. DRURY.

Witnesses:

CALVIN J. HINDS,
GEO. W. KIBLER.