No. 656,306. Patented Aug. 21, 1900.

D. TRUE.

OIL CAN.

(Application filed Jan. 28, 1899.)

(No Model.)

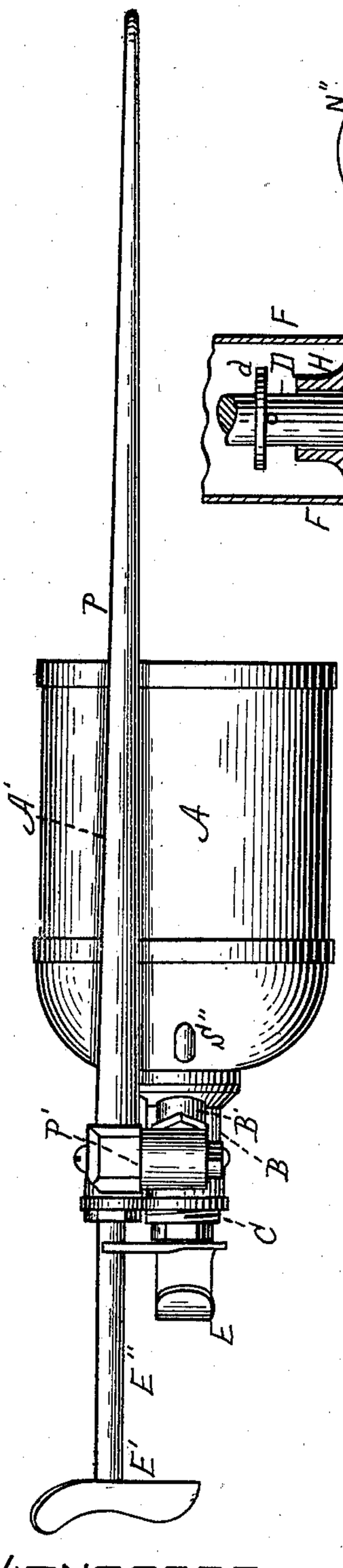

FIG. 1.

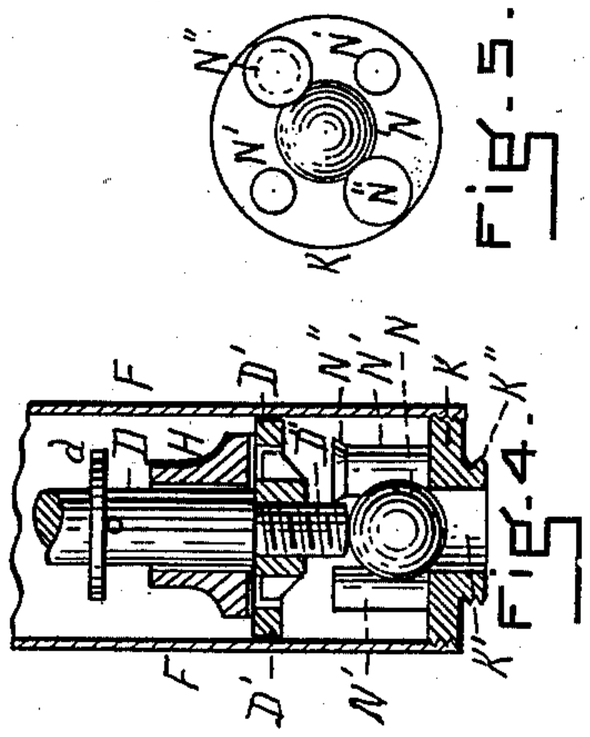

FIG. 4.

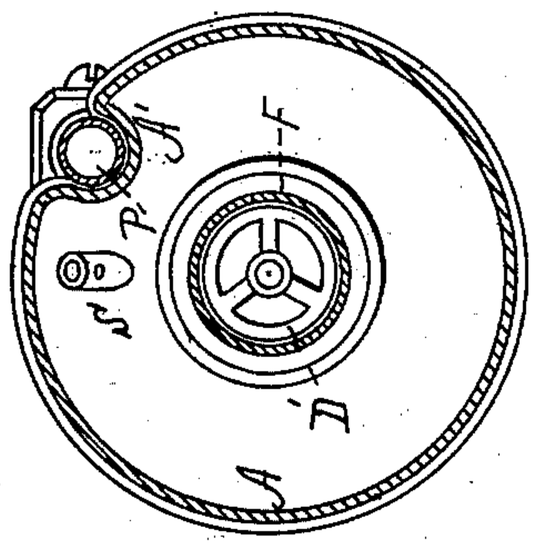

FIG. 3.

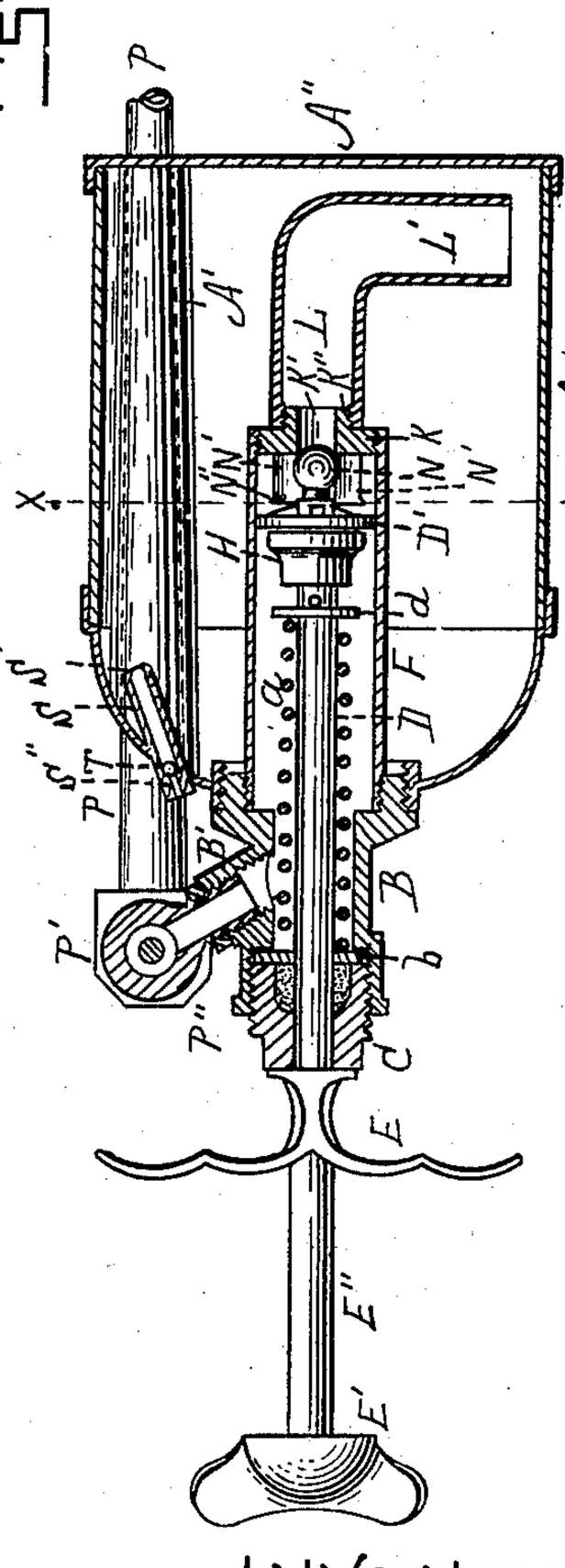

FIG. 2.

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OIL-CAN.

SPECIFICATION forming part of Letters Patent No. 656,306, dated August 21, 1900.

Application filed January 28, 1899. Serial No. 703,696. (No model.)

To all whom it may concern:

Be it known that I, DAVID TRUE, a citizen of the United States, residing in Amesbury, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Oil-Cans, of which the following is a specification.

This invention relates to that class of oil-cans in which a pump is employed for forcing the oil through a discharge-spout; and it consists in the novel construction and arrangement of parts hereinafter described, and which are in the nature of improvements upon or over the oil-cans illustrated and described in Letters Patent of the United States No. 547,048, granted to me October 1, 1895, and No. 589,515, granted to me September 7, 1897.

The nature of the improvements in detail is fully described below and illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of my improved oil-can when it is held horizontally for the purpose of extending the spout horizontally to some bearing which is sufficiently remote to render the folding of the nozzle or spout against or into the can advisable. Fig. 2 is a substantially-central vertical section of the same, a portion of the nozzle or spout being broken off. Fig. 3 is a cross-section taken on line X, Fig. 2. Fig. 4 is an enlarged vertical section in detail, taken centrally through the tube or well and the piston and sliding valve contained therein, showing the piston-rod and ball-valve in elevation. Fig. 5 is a plan view of the disk or plug screwed into the lower end of the well and its connections removed.

Similar letters of reference indicate corresponding parts.

A represents the reservoir or fount.

B is a tubular neck taking the place of the plug illustrated in the Letters Patent above referred to and screwed into the upper open end of the fount.

C represents a plug screwed into the upper end of the neck and centrally bored to receive the piston-rod D, actuated by the lifting-bar E through the aid of the hand-support E′ upon the rod E″, all substantially as described in the said Letters Patent.

F is a central tube or well extending down into the reservoir from the neck B, and within said well and upon or around the piston-rod are the piston D′, the spring *a* between the washer *b* and the disk *d*, said disk and piston being fixed or stationary on the piston-rod, and the sliding valve H, moving between the piston and the disk, none of said parts being new in this invention.

Screwed into the bottom of the well F is a disk or plug K, having a central passage K′ and a small central downward extension K″ around said passage. Screwed upon this extension is a pipe L, which extends down vertically to a point near the bottom of the fount, where it bends horizontally into the portion L′ and terminates in an open mouth near that wall of the reservoir which is on the opposite side from the nozzle. Lying on the upper edge of the opening K′ is a ball N of larger diameter than said opening, said ball being prevented from rolling horizontally by the posts N′, which extend up from the plug or disk K around the ball, a sufficient number of said posts being provided at their upper ends with heads or disks N″ of greater diameter than the posts to limit the vertical movement of the ball. The piston-rod D is provided at its lower end with an extension D″, which projects sufficiently beyond and below the piston D to touch and seat itself upon the ball N, so that when the parts are in their normal position the ball is held snugly over and closes the opening or port K′.

P is the nozzle, swinging vertically at the joint P′ from the tube P″, which screws into the tubular arm B′, integral with the neck B.

The side wall of the reservoir or fount A is provided with a vertical groove A′. The depth of this groove equals the diameter of the largest portion of the nozzle P, and the groove may be of even depth throughout its length or it may grow more shallow toward its lower end, the object being to allow the nozzle to lie within it, so that said nozzle will not project beyond the edges thereof. The bottom A″ of the reservoir is indented or grooved to correspond with the groove A′.

In practical operation when it is desired to oil a bearing, which is perhaps somewhat remote and substantially on a level with the hand of the user, the oil-can is held horizontally, as shown in Figs. 1 and 2, and the nozzle swung down into a horizontal position within the groove A′. It will be noticed that

the shank or rigid tubular connection between the joint of the nozzle and the neck is short enough to allow the nozzle P to lie wholly within the groove for the entire length thereof and parallel with the bottom of said groove.

The operation of the pump is substantially as described in the Letters Patent above referred to—that is to say, when the piston is lifted from the position indicated in the drawings by placing the fingers under the lifting-bar E and the palm of the hand on the support E′ the piston-rod D is raised, carrying with it the spider-shaped piston D′, whose openings are closed by the sliding valve H lying thereupon, and the oil above said valve is raised and forced into the nozzle. At the same time the ball N is lifted off its seat by atmospheric pressure and the oil within the fount passes through the pipe L L′ and flows through the port K′ and between the posts N′ into the well F, and follows up therein after the piston D. As soon as the lifting-bar E is released the spring *a* forces the piston and piston-rod down into the position indicated in the drawings, and the extension D″ of the piston-rod is forced by said spring against the ball N, thus pressing it down upon its seat and closing the port K′, so that siphonic action cannot take place and the oil pass up through the port and out through the nozzle, as would be liable to occur if the oil-can were in an upright position and the nozzle hanging down vertically and lying in the groove. It is evident that inasmuch as the extension D″ of the piston is rigid with the piston D′ it makes no difference whether the extension which is forced down upon the ball by the spring is integral with the piston-rod or the piston itself, provided it is of the length and shape to extend between the posts N′ to the ball-valve.

When the nozzle is held in the horizontal position shown, lying in the groove, the oil of course passes by gravity to the opposite side of the reservoir and lies upon the wall on that side. It is for this reason that the pipe or tube L is provided with the extension L′, opening against the wall on that side. This contrivance should not be confused with the flexible tube N shown in my Letters Patent above referred to, No. 589,515. In my present invention the pipe is a rigid elbow-pipe, and its mouth opens only and invariably toward the side which is opposite the nozzle and groove. In other words, it opens opposite to and parallel with the plane in which the nozzle swings.

A suitable contrivance for the supply of air is provided and consists of a diagonally-set tube S, containing a ball T, which is held between the contracted lower end S′ of the tube and the thickened walls S″ thereof, said tube being at such an angle that when the oil-can is placed in a horizontal position the ball will roll against the shoulder formed by the thickened walls S″.

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

1. In an oil-can of the character described, in combination, the body portion or reservoir A provided with a groove extending lengthwise or vertically the entire height of the vertical side of the cam next in the path of the nozzle, said groove being open at both ends; and the long nozzle P secured to the upper portion of the can and adapted to swing down into said groove and out therefrom, substantially as set forth.

2. In an oil-can of the character described, the well F supported within the body of the can; the disk or plug K secured to and constituting the bottom of the well and provided with the port K′; the piston and piston-rod D′ D, means for lifting the same and a spring for holding the same normally down; and a valve intermediate with the piston and said disk or plug, said valve being held on its seat and closing said port by the power of the spring acting on the piston-rod, whereby siphonic action through the nozzle is prevented when the parts are in their normal position, substantially as described.

3. In an oil-can of the character described, the well F supported within the body of the can; the disk or plug K secured to and constituting the bottom of the well and provided with the port K′; the piston and piston-rod D′, D, means for lifting the same and a spring for holding the same normally down; the ball-valve N intermediate with the piston and said disk or plug K and larger in diameter than the port therein; the posts N′ extending upward from said disk and constituting a cage for the ball; and a rigid projection extending downward from the valve D′ normally onto the ball between said posts, whereby the ball is held normally on its seat closing said port, substantially as set forth.

4. In an oil-can of the character described, the well F supported within the body of the can; the disk or plug K secured to and constituting the bottom of the well and provided with the port K′; the piston and piston-rod D′, D, means for lifting the same and a spring for holding the same normally down; the ball-valve N intermediate with the piston and said disk or plug K and larger in diameter than the port therein; the posts N′ extending upward from said disk and constituting a cage for the ball, a sufficient number of said posts being provided with the heads N″ of greater diameter than the posts to limit the vertical movement of the ball; and a rigid projection extending downward from the valve D′ normally onto the ball between said posts, whereby the ball is held normally on its seat closing said port, substantially as described.

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Witnesses:
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