(No Model.)

J. H. BURLICH.

AUTOMATIC CLOSING DEVICE FOR CAN SPOUTS.

No. 564,242. Patented July 21, 1896.

Fig. 1.

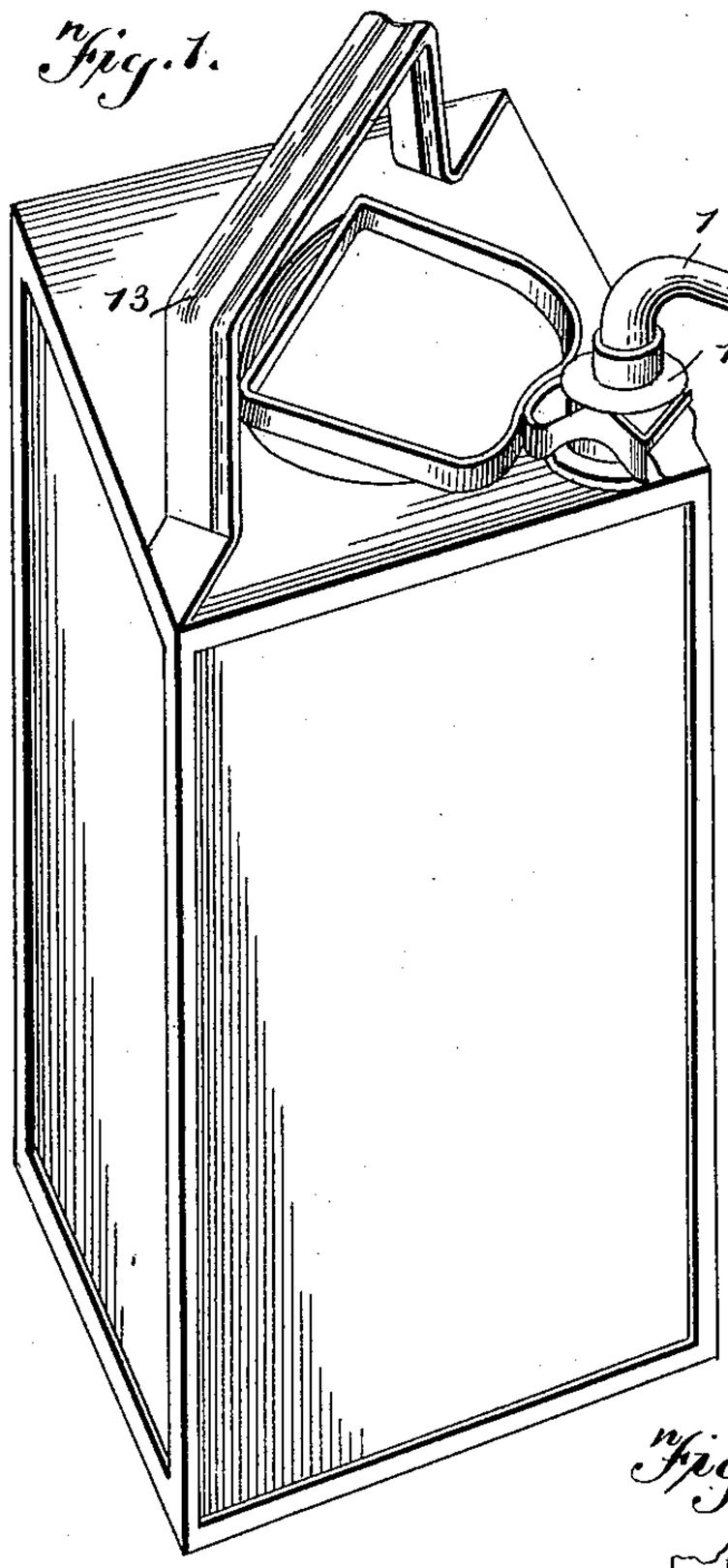


Fig. 2.

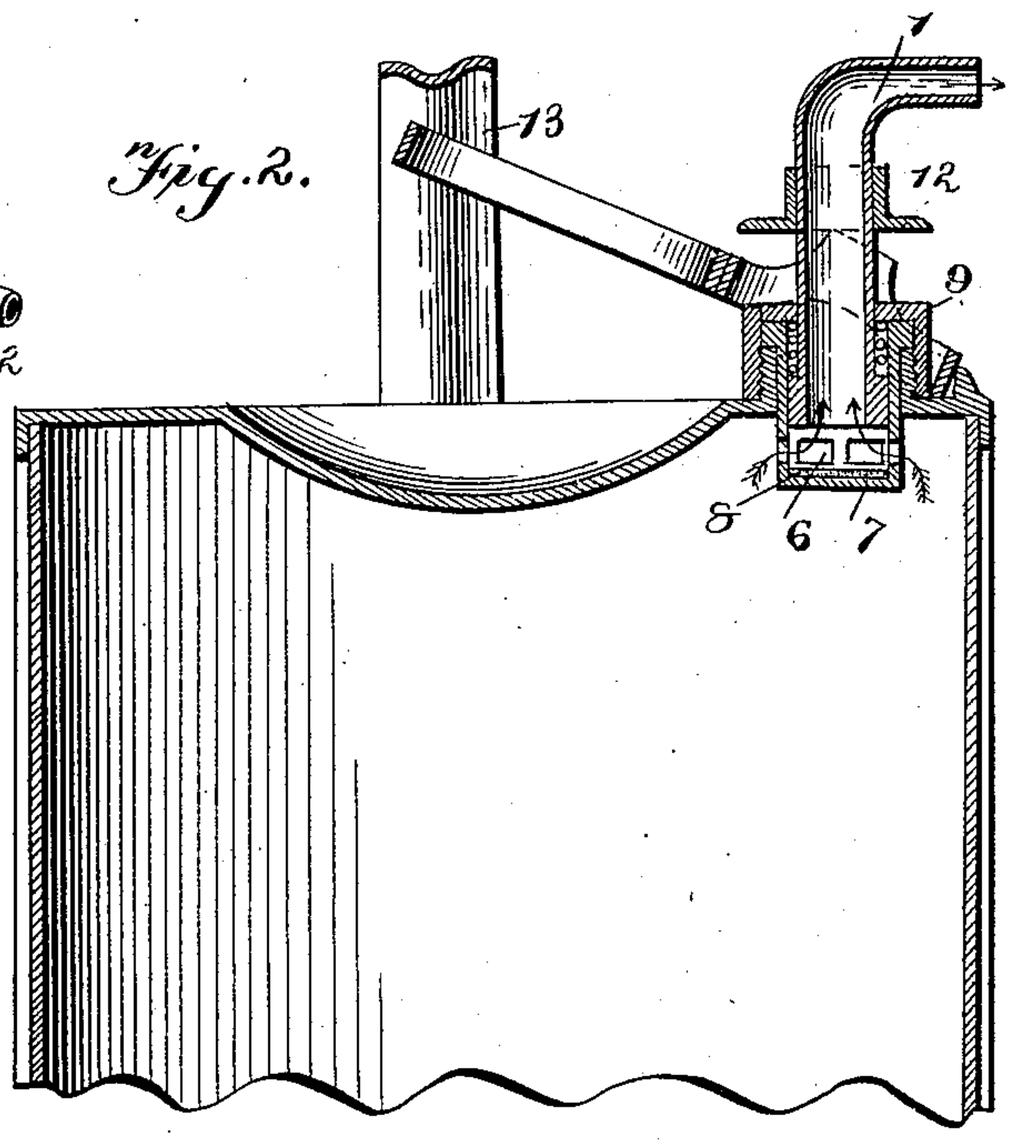


Fig. 3.

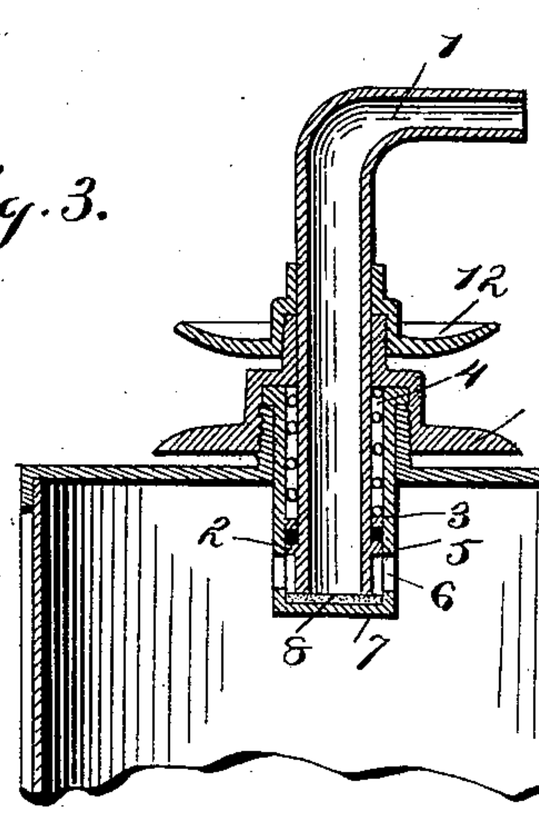


Fig. 4.

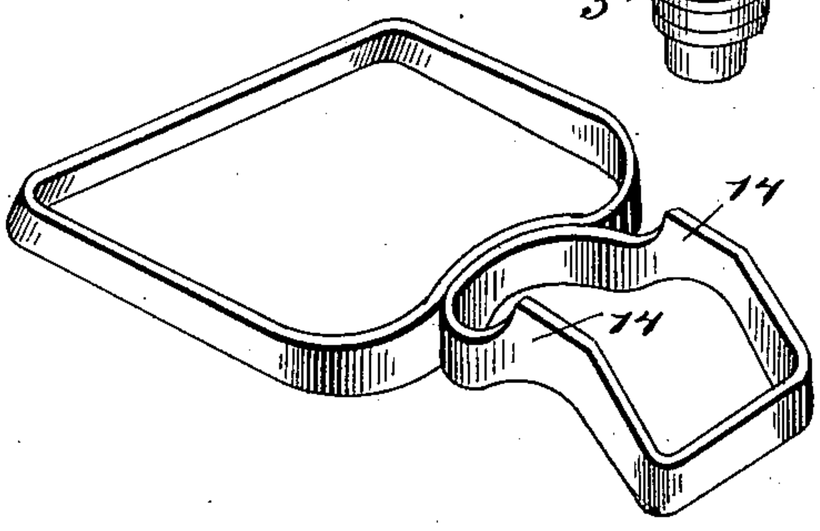


Fig. 5.

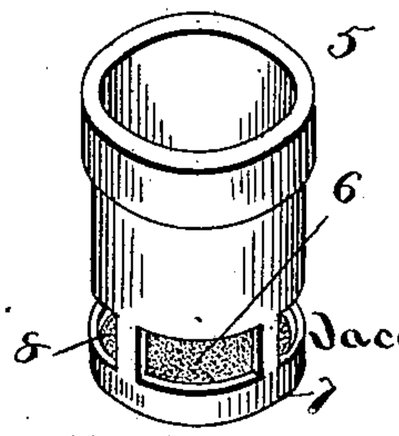
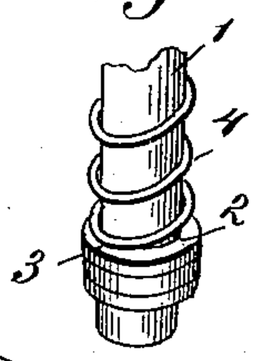


Fig. 6.



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UNITED STATES PATENT OFFICE.

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AUTOMATIC CLOSING DEVICE FOR CAN-SPOUTS.

SPECIFICATION forming part of Letters Patent No. 564,242, dated July 21, 1896.

Application filed February 8, 1896. Serial No. 578,576. (No model.)

To all whom it may concern:

Be it known that I, JACOB HENRY BURLICH, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Automatic Closing Devices for Can-Spouts; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

My invention relates to an improvement in automatic closing devices for can-spouts; and it consists in a perforated cap applied to the lower end of the discharge-spout, which is provided with a collar which fits inside of the perforated cap, combined with a spring which surrounds the discharge-spout, and is placed inside of the top of the perforated cap, a screw collar or cap which is applied to the screw-threaded discharge-nozzle of the can or cask in which the fluid is placed, and a collar applied to the discharge-spout, and by means of which the discharge-spout is operated either by hand or by a lever which is applied to the top of the can for that purpose, as will be more fully described hereinafter.

The object of my invention is to provide a device for automatically closing the discharge-spout of a can, and which remains normally closed and can only be opened when direct pressure is applied to the discharge-spout for the purpose of raising it, and which immediately closes as soon as the spout is released, thus rendering it impossible for the closing device to be left open or for waste to take place in case the can is upset or turned at an angle.

In the accompanying drawings, Figure 1 is a perspective of a top of a can to which my invention is applied, and showing the closing device operated by means of a lever. Fig. 2 is a vertical section of the same, taken through the closing device. Fig. 3 is a vertical section of the closing device provided with a collar which is to be operated by hand, the closing device being shown opened. Fig. 4 is a perspective of the lever that is applied to the discharge-spout for raising it. Fig. 5 is a perspective of the perforated cap. Fig. 6 is a detail.

1 represents a discharge-nozzle, which may be perfectly straight from one end to the other, or have its upper end given any suitable curve or bend, and which spout is provided with the enlarged portion 2 at its lower end and the square shoulder 3, against which the lower end of the spring 4 is made to bear. This enlarged end of the spout fits snugly within the cap 5, which incloses its lower end and which cap is provided with a series of openings 6 at its lower edge and a bottom 7, which is provided with a suitable valve or covering of leather, cork, or other material 8, for the purpose of making a tight joint with the lower end of the discharge-spout 1, which bears or rests normally against it. For the purpose of making a tight joint between this cap 5 and the discharge-spout, the enlarged portion of the spout may be provided with a packing of any suitable kind, or a packing may be placed upon the top of the shoulder 3, as may be desired. The manner of making a tight joint between the lower end of the discharge-spout 1 and the cap 5 is immaterial, as this forms no special part of my invention, and for which any suitable method of packing may be employed.

Between the shoulder 3 of the discharge-spout and the screw-cap 9, which is screwed upon the top of the discharge-spout 1 of the can, there is placed a spiral spring 4 of sufficient strength to keep the bottom of the cap 5 pressed tightly against the lower end of the discharge-spout. In screwing this cap 9 into position upon the can the spring is compressed with sufficient force to keep the lower end of the discharge-spout pressed tightly against the bottom of the cap 5, and thus prevent leakage either when the can is upset or turned at an angle or when the can is inverted.

Applied to the discharge-spout, above the screw-threaded cap 9, either by frictional contact or by any mechanical fastening that may be desired, is the flanged collar 12, by which the discharge-spout is operated, and which rests normally against the top of the screw-cap 9. In order to operate the discharge-spout, it must be raised by means of this

flanged collar against the pressure of the spring 4, so as to withdraw the lower end of the spout from the bottom of the cap 5, and thus leave the oil free to flow through the opening 6 and out of the discharge-spout. This upward pressure may be applied by means of a lever, as shown in Fig. 1, or by hand, as may be desired. If a lever is to be used, the lower side of the flange will be made straight, whereas if the hand is to be used, the flange will be made wider and preferably curved upward, as shown. The shape of this flange or the manner of applying it to the spout is a matter of small importance, as it forms no special part of this invention.

The great advantage of the construction here shown and described consists in the production of an automatic closing device through which leakage can never accidentally take place. The moment the pressure of the hand or the lever is relaxed the spring depresses the lower end of the discharge-spout and instantly shuts off the flow of liquid, and this flow cannot be reëstablished until the upward pressure is again removed.

As shown in Fig. 1, the lever is made in the form of two loops, the outer and larger one of which projects out under the handle 13 of the can, where it is in the most convenient position to be taken hold of, while the outer and smaller loop is merely large enough to encircle the discharge-spout and is provided with the two raised portions or flanges 14 upon opposite sides, and which bear directly against the under side of the flange upon the collar. Owing to these raised portions, but a very slight movement of the inner end of the lever is necessary to open the discharge-spout to its full extent. The outer end of the smaller loop is turned downward, as shown, and rests solidly upon the top of the can, which is provided with the shoulder 16 to prevent the lever from having any endwise movement, the outer end of the smaller loop being held between this shoulder and the screw-cap. The lever is thus prevented from moving endwise and is held down upon the can by the flange upon the collar.

Having thus described my invention, I claim—

1. In an automatic closing device, a discharge-spout having an endwise movement, a perforated cap applied to its lower end, a spring which keeps the lower end of the spout pressed downward, a screw-cap which is applied to the can, and against which the upper end of the spring bears, and a flange or handle applied to the discharge-spout, substantially as shown.

2. In an automatic closing device for cans, the discharge-spout having an enlarged lower end, a cap applied to the lower end of the discharge-spout, and provided with openings through its lower edge and a packed bottom, combined with a spring which is applied to the discharge-spout, a screw-cap through which the discharge-spout passes, and which is screwed upon the top of the can, and a flanged collar applied to the discharge-spout above the screw-threaded cap, and by means of which the discharge-spout is lifted above the openings 6 in the cap applied to its lower end, substantially as described.

3. A can, provided with a handle, and a shoulder to one side of its discharge-nozzle, combined with a lever having its outer end to catch behind the shoulder and to encircle the said nozzle, and provided with raised portions upon opposite sides of the nozzle and a handle portion which extends to or toward the handle upon the top of the can, combined with an automatic closing device, the spout of which has an endwise movement, and is operated by the lever, substantially as shown and described.

In testimony that I claim the invention set forth above I have hereunto set my hand this 1st day of June, 1895.

JACOB HENRY BURLICH.

Witnesses:

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