

A. WARTH.
TAP FOR OIL PACKAGES.

No. 110,611.

Patented Dec. 27, 1870.

Fig. 1.

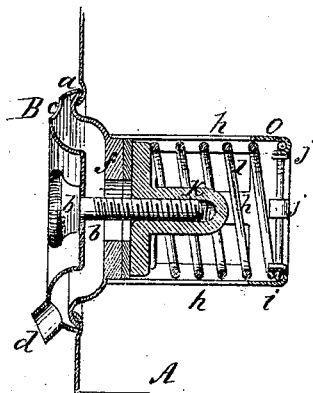


Fig. 2.

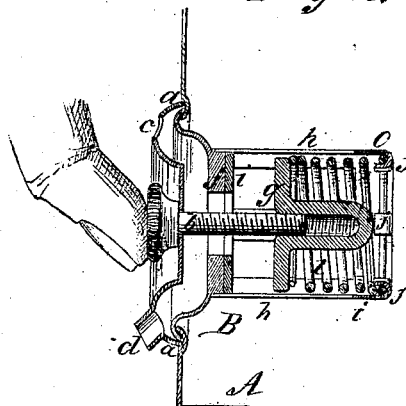


Fig. 3.

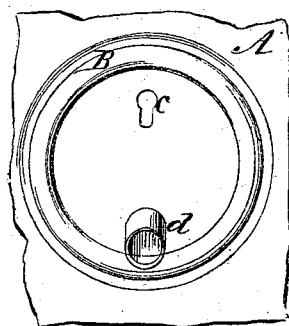
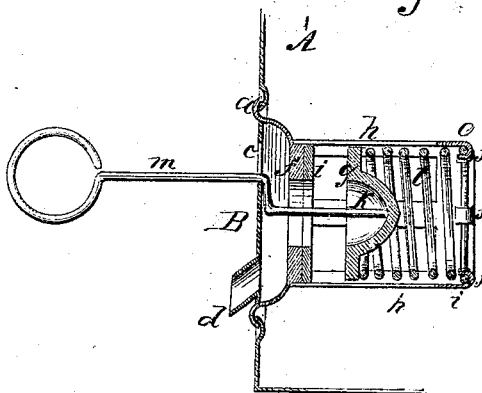


Fig. 4.



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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN TAPS FOR OIL-PACKAGES.

Specification forming part of Letters Patent No. **110,611**, dated December 27, 1870.

To all whom it may concern:

Be it known that I, ALBIN WARTH, of Stapleton, in the county of Richmond and State of New York, have invented a new and useful Improvement in Taps for Liquid-Packages; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification, in which drawing—

Figure 1 represents a longitudinal central section of this invention when the tap is closed. Fig. 2 is a similar section of the same when the tap is open. Fig. 3 is a front view of a modification thereof. Fig. 4 is a longitudinal central section of this modification when the valve is open.

Similar letters indicate corresponding parts.

This invention consists in a spring-valve for petroleum and other packages and vessels, wherein a screw is combined with the spring in such a manner that the valve can be closed by turning the screw down into the valve, and when the screw is turned out the valve can be pushed open against the spring by pressing against the head of the screw, the extent of the opening of the valve being determined by the degree to which the screw is turned out.

By this construction the screw, when unscrewed more or less, serves as the medium for opening the valve by a direct thrust against the force of the spring. The valve can also, whenever the screw is loosened more or less, be forced open by like direct pressure applied from without, through the openings in the disk, by means of a rod introduced against the valve, as shown in Fig. 4, where, instead of the thrust against the head of the screw, a bent rod is introduced through the vent-hole in the cup-shaped disk, so that its end bears against the valve, and by pushing the rod the spring is forced back and the valve is opened to the required extent.

The letter A designates a case or package, in connection with which my improved tap is here shown.

The letter B designates the tap, which has at the outer end a cup-shaped disk, C, whose

flange or rim *a* is soldered to the edges of a suitable opening made in the side of the package. The inner part of the disk is provided with a valve-seat, *f*, and from that part of the disk, or from the rim of the valve-seat, extend guides *h*, between which the valve has its movements. The outer ends of the guides *h* are united by a ring, O, whose outer edge is provided with several hooks, *j*, to receive and confine the outer end of the spring of the tap.

The letter *g* designates the valve, and the same is provided with a socket, *k*, on its face side to receive the screw or implement by which the valve is forced back against the spring, the socket being tapped to allow the screw to work into and out of the valve. Behind the valve *g*, and confined within the guides and ring *h* O, is the spring *l*, whose outer end is held by the hooks *j*, and whose inner end comes against the valve *g*, surrounding its socket *k*, as is shown in the drawing.

The valve has a packing-ring, *i*, which can be secured to the face of the valve, or to the seat, as preferred.

The screw *b* passes through the disk B, the shoulder on the under side of its head coming down upon the disk when it is screwed in or when it is pushed inward by hand.

I make the disk strong enough to enable it to withstand the pressure to which it is exposed in the opening and closing of the valve.

The exterior of the disk B is provided with a spout, *d*, for the discharge of liquid from the package, and with a vent-hole, *e*, through either of which I can insert a rod, *m*, bent to a suitable shape, so as to push the valve open.

The bend in the rod *m* can be so made as to catch within the disk after it has been introduced far enough to open the valve, and thereby keep the valve open as long as desired without requiring the attendant to continue pushing it against the valve.

It will be observed that when the screw is partially unscrewed the valve can be opened by pushing against the head of the screw, the distance the screw is turned out forming a limit to the opening of the valve, and when the screw is turned up the valve is thereby locked, so that it cannot be pushed open by

means of the rod *m* or other device, which can be introduced through the openings in the disk.

What I claim as new, and desire to secure by Letters Patent, is—

1. The ring *O*, formed with the guides *h* and hooks *j*, spring *l*, valve *g*, valve-seat *f*, and plate *a*, provided with the vent *c*, and spout *d*, the whole combined and operating together substantially as described.

2. In combination with the elements of the preceding claim, the hook *m*, substantially as described.

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Witnesses:

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