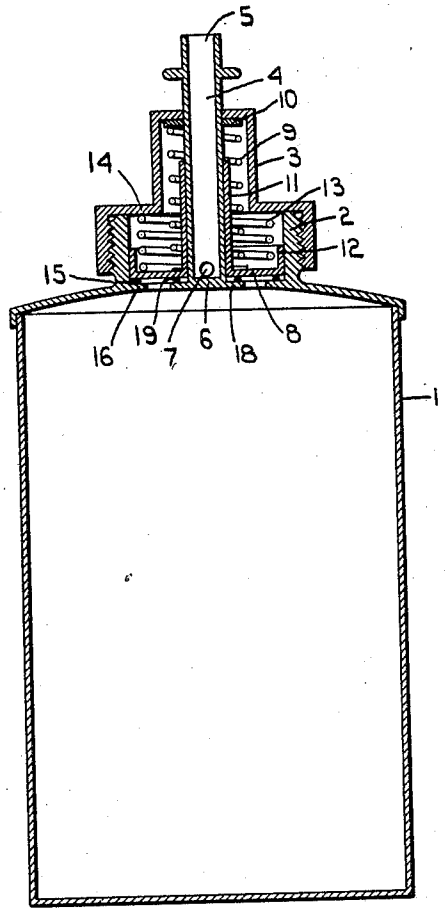
F. W. SHUTE.

CONTAINER FOR VOLATILE LIQUIDS.

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1,345,965. Patented July 6, 1920.



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CONTAINER FOR VOLATILE LIQUIDS.

1,345,965. Specification of Letters Patent. Patented July 6, 1920.

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To all whom it may concern:

Be it known that I, FREDERICK W. SHUTE, a citizen of the United States, residing at Amesbury, county of Essex, State of Massachusetts, have invented an Improvement in Containers for Volatile Liquids, of which the following description, in connection with the accompanying drawing, is a specification, like characters on the drawing representing like parts.

This invention relates to containers especially adapted for containing volatile liquids and it has for its object to provide a novel container having a discharge spout and discharge port through which the liquid may be discharged and which is so constructed that the discharge port will be automatically opened by pressure which may develop in the container due to vaporization of the liquid thereby to allow the vapor to escape before the container is subjected to sufficient internal pressure to burst the same.

In order to give an understanding of my invention, I have illustrated in the drawings a selected embodiment thereof which will be described, after which the novel features will be pointed out in the appended claims.

The drawings show a vertical section through a container embodying my invention.

My improved container is provided with a movably-mounted discharge spout having a discharge port and a valve member which normally closes said port. The discharge spout can be depressed manually to uncover the port thereby to permit the liquid to be poured out from the receptacle through the discharge spout, and the valve member is so constructed and arranged that when pressure develops within the container, the valve member will be moved relative to the spout thereby to uncover the discharge port and allow the vapor to escape.

The container is indicated at 1 and may have any suitable shape or construction. It is provided with a neck 2 to which is screw-threaded a cap member 3. The discharge spout through which the liquid is discharged is indicated at 4. It extends through the cap 3 and is provided with an open outer end 5 and a closed inner end 6. It is also provided adjacent its inner end with a discharge port 7 which is normally closed by a valve member 8. The discharge spout is depressible, and when it is depressed manually, the discharge port 7 is carried below the valve member 8 and is thereby uncovered or opened, thus permitting the contents of the container to be poured out through the spout 4. Said spout is normally held in its elevated position by means of a spring 9 which encircles the spout, and one end of which bears against the valve member 8 and the other end of which bears against the collar 10 fast on the spout. This collar 10 also acts as a stop member and by its engagement with the cap 3 limits the outward or spring-impelled movement of the spout.

The valve member 8 is provided with a sleeve or hub portion 11 through which the spout slides and is also of a diameter to fill the neck 2, said member having the upturned flange 12 at its periphery which engages the inner wall of said neck. The valve member is acted on by a spring 13 which backs against the shoulder portion 14 of the cap, said spring normally holding the valve member against a packing 15 supported on a flange or seat 16 extending inwardly from the neck. The spout 4 is provided at its inner end with a head 18 which engages a packing 19 situated beneath the valve member 8 and thus makes a tight joint therewith.

Normally the valve member 8 is resting on the packing 15 and thus makes a tight joint with the neck, and the head 18 of the spout rests against the packing 19 and thus makes a tight joint with the valve member, said parts being held in this position by the springs 9 and 13. The port 6 is situated so that under these normal conditions it is situated within the sleeve portion 11 of the valve member and is thus closed.

If it is desired to discharge some or all of the contents of the container the spout 4 is depressed against the action of the spring 9 thereby to carry the port 6 below the valve member. This opens the port 7 so that the contents can be poured from the container. When the spout is released the spring 9 will raise said spout into the position shown in the drawings, thus closing the port 7.

If internal pressure should develop within the container by reason of vaporization of the volatile liquid therein, such pressure will act on the valve member 8 and raise the latter against the action of the spring 13. As soon as the valve member has been lifted sufficiently to uncover the port 7 the vapor

in the container will escape through the spout, thus relieving the internal pressure and preventing the destruction of the container. When the pressure has been relieved, the spring 13 will force the valve member 8 downwardly against the seat 16, thus closing automatically the port 7.

I claim:

1. In a container, the combination with a container body, of a discharge spout having a discharge port, and a spring-pressed valve member normally closing said port but movable outwardly to open said port by pressure which develops in the container body, said spout being movable inwardly relative to the valve member to open the port.

2. In a container, the combination with a container body, of a discharge spout having a discharge port, a spring-pressed valve member normally closing said port but movable outwardly to open said port by pressure which develops in the container body, said spout being movable inwardly relative to the valve member to open the port, and springs acting against the valve member and spout and tending to hold them in their normal position.

3. In a container, the combination with a container body having a neck, of a cap screw-threaded thereto, a depressible discharge spout extending through the cap and provided with a discharge port, a valve member situated within the neck and normally closing said port, said valve member being movable outwardly by any pressure which develops within said body thereby to uncover the discharge port.

4. In a container, the combination with a container body having a neck provided at its inner end with a seat, of a cap secured to said neck, a valve member slidably mounted within the neck, a spring normally holding the valve member against said seat, a depressible discharge spout extending through the cap and valve member, a spring acting against said spout and normally holding it in elevated position, said spout having a discharge port which is closed by the valve when the latter and the spout are in their normal position.

In testimony whereof I have signed my name to this specification.

FREDERICK W. SHUTE.