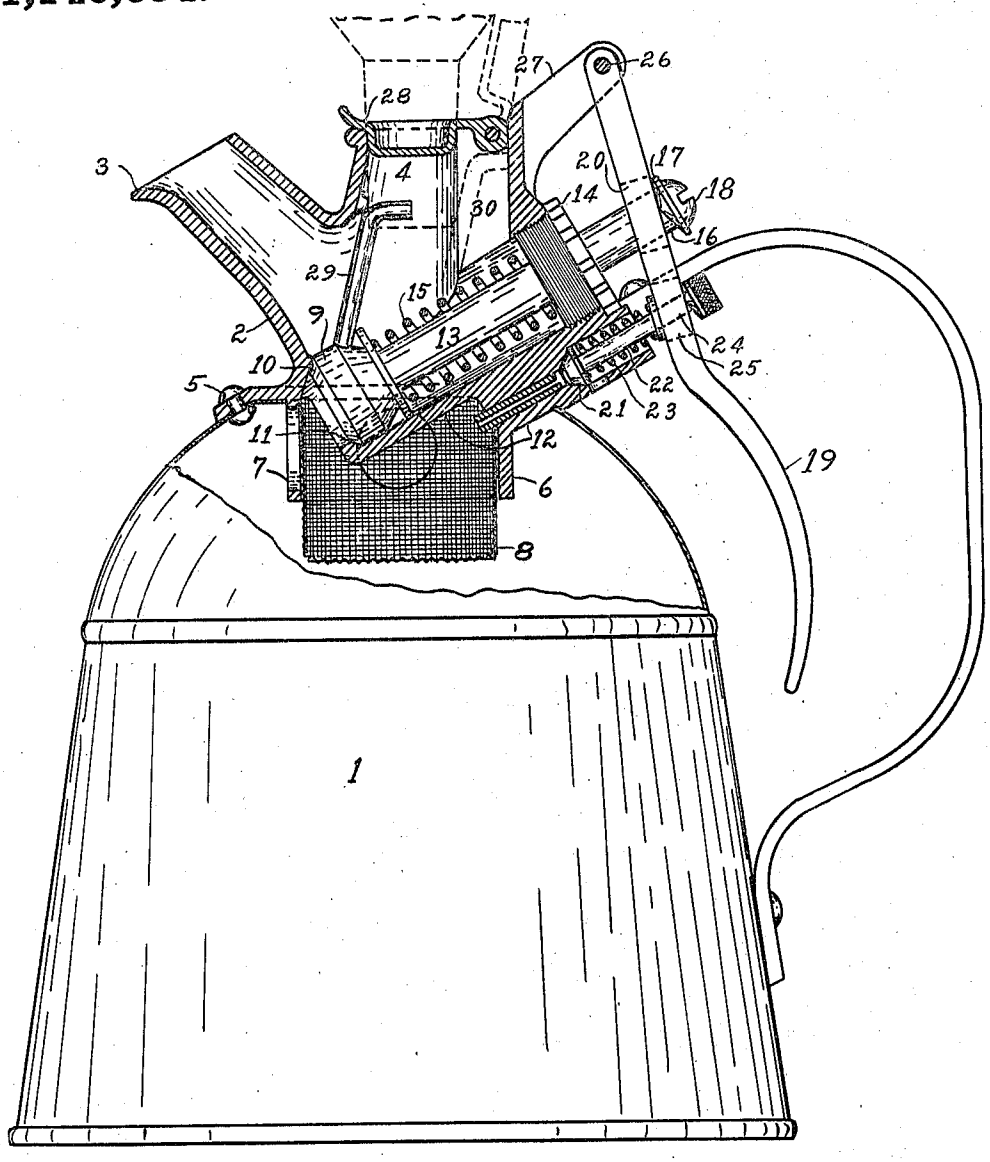
A. L. HANSEN.

SAFETY OIL CAN.

APPLICATION FILED AUG. 2, 1912.

1,140,034.

Patented May 18, 1915.



WITNESSES

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SAFETY OIL-CAN.

1,140,034. Specification of Letters Patent. Patented May 18, 1915.

Application filed August 2, 1912. Serial No. 712,838.

To all whom it may concern:

Be it known that I, AUGIE L. HANSEN, a citizen of the United States, residing at Chicago, county of Cook, and State of Illinois, have invented a certain new and useful Improvement in Safety Oil-Cans, of which the following is a specification.

My invention relates to that class of cans which are designed to hold explosive liquids, and has for its object to provide a can, which will permit the expansion of the fluid in the can, due to a change of temperature, to raise the valve from its seat and thus relieve the excess pressure without danger of an explosion, and has for its further object to provide a can which will not leak if accidentally overturned or even deliberately turned upside down, and has for its further object to provide a vertical inlet with securing means to hold the funnel in position during the operation of filling, and has for its further object to provide an air vent operated by the same lever which operates the valve, thus insuring a smooth and easy flow of the liquid.

My means of accomplishing the foregoing may be more readily understood by having reference to the accompanying drawings, which are hereunto annexed and are a part of this specification, in which:

The drawing illustrates a side view of my improved safety can, the upper part being broken away and shown in section for the purpose of clearness.

Similar reference numerals refer to similar parts throughout the entire description.

As shown in the drawing, 1 is the can proper, which has secured to its upper wall a casing 2, which contains the valve mechanism and the spout 3 for the egress of the liquid and the inlet opening 4. This casing is secured to the top of the can by means of rivets 5 or by any other suitable means.

The casing 2 has a downwardly projecting flange 6, which extends down within the interior of the can and which is provided with a plurality of openings similar to the opening 7, and is provided with a gauze 8 to prevent any possible passage of flame to the interior of the can.

9 is the valve proper, which is provided with a metal seat 10, which is preferably formed of lead or some other soft metal, so that it will constantly maintain a tight joint between itself and the valve seat 11 formed on the interior walls of the semicylindrical sleeve 12 cast or formed in the casing 2.

The valve 9 is provided with a stem 13, which extends out of the semicylindrical sleeve through a threaded plug 14. A coil spring 15 surrounds the valve stem 13 and operates to hold the valve securely to its seat. The outer end 16 of the valve stem 13 is provided with a washer 17, which is secured in position by means of a screw 18, the stem passing through a slot 20 formed in a manually operated lever 19.

21 is the valve for the air vent, which is provided with a stem 22, the latter being surrounded by a coil spring 23, which operates to hold the valve 21 to its seat. The said spring 23, bears against the washer mounted upon the valve seat 22, which bears against the lever 19. As the strength of the spring 15 is greater than that of the spring 23, it follows that the latter is unable to move the lever 19 outwardly. This makes a very cheap and satisfactory construction.

The outer end 24 of the valve stem 22 passes through a slot 25 formed in the lever 19. This lever is pivotally attached by means of a pin or pivot 26 to outwardly extending lugs 27 cast or formed on the chamber 2. 28 is a cap for closing the inlet opening 4.

The operation of the device is as follows: The manually operated lever 19 is drawn outwardly carrying with it the valve 9. This carries with it an upwardly extending rod 29, which is secured to the valve 9, a recess 30 being provided into which the rod 29 enters. The funnel is then inserted, as shown in the dotted lines, and the pressure of the spring serves to press the rod 29 against the funnel and hold it rigidly in position for filling the can.

It will be apparent to persons skilled in the art from the foregoing statement, that thus it is easily possible to fill the can without the slightest danger of the explosive fluid being spilled. At the same time upon removal of the funnel and the release by the operator of the manually operated lever 19, the coil springs 15 and 23 serve to instantly seat the valves 9 and 21, securely closing these openings, so that there is no possibility of the liquid escaping when the can is overturned. At the same time it will be noted that the valves open outwardly, therefore

any excess of pressure caused by change of temperature will merely operate to lift the valves and relieve the excessive pressure.

Having described my invention, what I regard as new and desire to secure by Letters Patent is:

1. A safety can having a casing secured thereto, a spout leading from said casing, a cylindrical sleeve formed in said casing, a valve seat at its lower end, an outwardly opening valve slidable in said cylinder fitting to the valve seat, a plug closing said cylindrical sleeve, a coil spring surrounding the valve stem, which holds said valve to its seat, a manually operated lever pivotally attached to said casing wall, there being a slot formed therein through which the valve stem passes, an outwardly opening air vent valve seated in a cylindrical passage, the stem of which passes through a slot in the lever, a coil spring which holds the vent closed under normal conditions and means to attach both valve stems to the lever.

2. A safety can having a casing secured thereto, a spout leading from said casing, a cylindrical sleeve formed in said casing, a valve seat at its lower end, a valve slidable in said cylinder fitting to the valve seat, a plug closing said cylindrical sleeve, a coil spring surrounding the valve stem, which holds said valve to its seat, a manually operated lever pivotally attached to said casing wall, there being a slot formed therein through which the valve stem passes, an air vent valve seated in a cylindrical passage, the inner end of which is separated from the interior of the can by wire gauze and the stem of which passes through a slot in the lever, a coil spring which holds the vent closed under normal conditions and means to attach both valve stems to the lever, whereby they can move freely outwardly without moving the lever.

3. A safety can having a casing secured thereto, a spout leading from said casing, a cylindrical sleeve formed in said casing, a valve seat at its lower end, an outwardly opening valve slidable in said cylinder fitting to the valve seat, a plug closing said cylindrical sleeve, a coil spring surrounding the valve stem, which holds said valve to its seat, a manually operated lever pivotally attached to said casing wall, there being a slot formed therein through which the valve stem passes, an air vent valve, seated in a cylindrical passage, the stem of which passes through a slot in the lever, a coil spring which holds the vent closed under normal conditions, means to attach both valve stems to the lever, a flange having a plurality of openings in its wall depending downwardly from said casing and a cap of wire gauze secured to said flange.

4. A safety can having a casing secured thereto, a spout leading from said casing, a cylindrical sleeve formed in said casing, a valve seat at its lower end, a valve slidable in said cylinder fitting to the valve seat, a plug closing said cylindrical sleeve, a coil spring surrounding the valve stem which holds said valve to its seat, a manually operated lever pivotally attached to said casing wall there being a slot formed therein through which the valve stem passes, an outwardly opening air vent valve, seated in a cylindrical passage, the stem of which passes through a slot in the lever, a coil spring which holds the vent closed under normal conditions, means to attach both valve stems to the lever, a flange having a plurality of openings in its wall depending downwardly from said casing, a cap of wire gauze secured to said flange, both the air vent and the main valve passage leading from said gauze protected chamber.

5. A safety can having a casing secured thereto, a spout leading from said casing, a cylindrical sleeve formed in said casing, a valve seat at its lower end, a valve opening outwardly and slidable in said cylinder fitting to the valve seat, there being a vertical passage extending up from said cylindrical passage having a recess at one side, a rod secured to the main valve extending up into said passage adapted to enter said recess when the valve is open, a plug closing said cylindrical sleeve, a coil spring surrounding the valve stem, which holds said valve to its seat, a manually operated lever pivotally attached to said chamber wall, there being a slot formed therein through which the valve stem passes, an air vent valve seated in a cylindrical passage, the stem of which passes through a slot in the lever, a coil spring which holds the vent closed under normal conditions and means to attach both valve stems to the lever.

6. A safety can having a casing secured thereto, a spout leading from said casing, a cylindrical sleeve formed in said casing, a valve seat at its lower end, a valve slidable in said cylinder fitting to the valve seat, there being a vertical passage extending up from said cylindrical passage having a recess at one side, a rod secured to the main valve extending up into said passage adapted to enter said recess when the valve is open, a cover for said vertical passage, a plug closing said cylindrical sleeve, a coil spring surrounding the valve stem, which holds said valve to its seat against internal pressure, a manually operated lever pivotally attached to said casing wall, there being a slot formed therein through which the valve stem passes, an air vent valve, seated in a cylindrical passage, the stem of which passes through a slot in the lever, a coil spring which holds the vent closed under normal conditions and means to attach both valve stems to the lever.

7. The combination with a can of a casing secured to its outer wall, a spout leading from said casing, an egress valve and a vent valve located in said casing, said valves opening outwardly, means to hold said valves normally closed, a manually operated lever pivotally attached to the wall of the said casing, and means to operatively connect said valve stems to said lever to permit their free movement without movement of the lever.

In witness whereof I have signed the foregoing specification.

AUGIE L. HANSEN.

Witnesses:
K. DOLBEY,
C. M. BAUMEISTER.