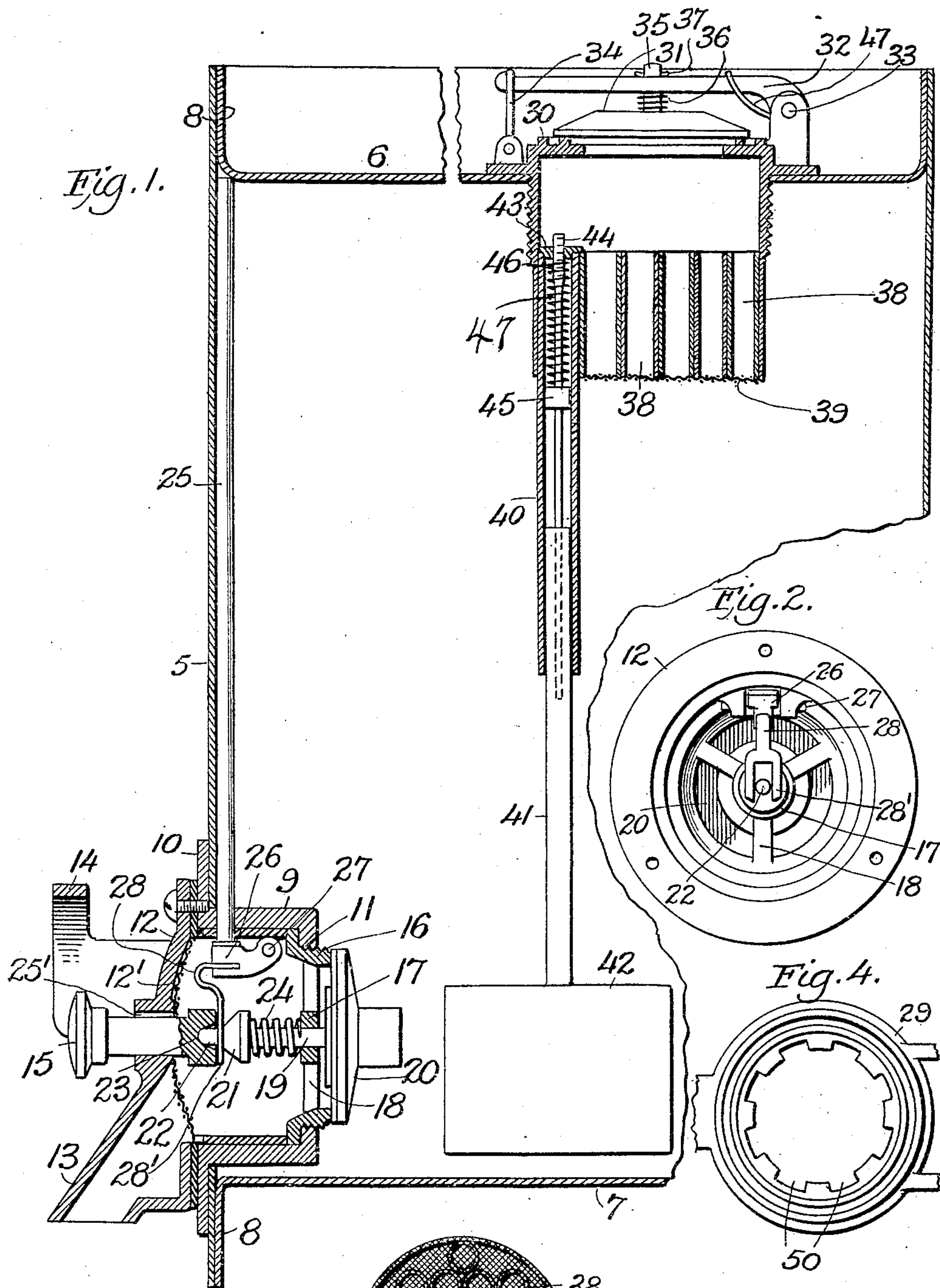


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SAFETY CONTAINER.
APPLICATION FILED DEC. 31, 1906.

931,370.

Patented Aug. 17, 1909.



WITNESSES:
James F. Duhamel. Fig. 3.
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UNITED STATES PATENT OFFICE.

WILLIAM ASBURY, OF NEW YORK, N. Y.

SAFETY-CONTAINER.

No. 931,370.

Specification of Letters Patent.

Patented Aug. 17, 1909.

Application filed December 31, 1906. Serial No. 350,269.

To all whom it may concern:

Be it known that I, WILLIAM ASBURY, a citizen of Great Britain, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Safety-Containers, of which the following is a specification.

This invention relates to tanks for holding fluids of a volatile and inflammable nature and consists of certain improvements in the inlet and outlet by which the fluid is placed in the tank and drawn therefrom, and certain means by which the inlet and outlet are adapted to prevent the ingress of a flame into, and the explosion of vapor within the container, an additional feature being the automatic inlet of air as fast as liquid is withdrawn from the container, all as more fully described in the following specification, set forth in the claims and illustrated in the drawings, in which—

Figure 1 is a vertical sectional view of certain parts of the tank or can showing my improved inlet and outlet and also an indicator applied to the former. Fig. 2 is a front elevation of the outlet with certain parts removed. Fig. 3 is an interior view of the inlet. Fig. 4 is a view showing the inlet opening with the valve removed.

The tank is of ordinary construction and is here shown as being made of sheet metal side 5 and top and bottom 6 and 7, the latter having flanges 8 by which they are secured to the side of the tank. Toward the bottom of the tank and around an opening in the side 5 is secured a thimble 9 having a flange 10, by which it is secured to the tank and the inner end of the thimble having an interior screw thread, 11. To the outer face of this thimble and against the flange 10 is secured a casting 12 which is provided with a spout 13 and a handle 14, and at its central point is provided with an opening through which plays a plunger 15. A sheet of wire gauze or perforated metal 12, serves to prevent a flame from passing into the tank and causing an explosion.

Screwed into the inner end of the thimble 9 is a valve-seat 16 with a central opening in a disk 17 carried by a spider 18. Through the opening in the disk 17 passes a valve stem 19, a valve 20 being carried on the inner side of the valve seat 16. The valve stem

19 is provided with a head 21 and a point 22, the said point being seated in a socket 23 at the inner end of the plunger 15, and a spring 24 between the spider and the head 21 serves to press the stem outward and seat the valve.

Entering the upper side of the thimble 9 is an air tube 25, which runs to the top of the tank and has its outlet in the space within the top 6 where the liquid rarely enters and consequently there is little or no danger of the fluid leaking into the interior of the tube. The lower end of this pipe 25 is closed by means of a valve 26 which is pivoted to the thimble at the point 27, and is provided with a spring 28, which has a fork 28¹, as shown in Fig. 2 and straddles the point 22 of the valve stem. When the plunger 15 is pressed inward it not only forces the valve stem back against the pressure of the spring 24 and opens the valve 20, but it also moves the spring 28 forward, thereby opening the valve 26, whereby air is admitted into the tube 25 through vent 25¹ and the upper portion of the tank, replacing liquid as fast as it passes out of the spout 13. The inlet valve is likewise provided with a thimble 29 secured to the upper side of the tank by a screw thread or other means and has a valve seat 30 for the valve 31. This valve is carried by a lever 32, which is pivoted at the point 33 and adapted to be held down or locked by a link 34 pivoted on the thimble and adapted to be swung up and over the end of the lever and prevent it from rising. The valve-stem 35 passes through a hole in the lever 32 and a spring 36 is interposed between the valve and the lever while a pin 37 passing through the stem above the lever secures it thereto. The lower end of the thimble 29 is filled with a plurality of small vertical tubes 38 and below these tubes is a wire gauze diaphragm 39.

An indicator or gage is provided with the tank for showing the height of liquid in the tank and consists of a tube 40 connected with the top of the tank and which may be carried by the thimble 29 and be a part of the same casting. Within this tube 40, and near its lower end slides a rod 41 having at its lower end a float 42 while the upper end of the tube 40 is provided with a cap 43, through which plays the upper portion of rod 41, which carries a scale and is indi-

cated by the numeral 44. Between the head 45 on the rod 41 is a spring 47 and as the height of the fluid in the tank increases the float and its rod 41 exerts a pressure on the
 5 spring 47, resulting in a proportionate projection of the marked portion 44 above the cap 43. A spring 47 serves to hold the valve 31 to its seat under normal conditions. In the thimble 29 there is an opening covered
 10 by a wire gauze 49 to admit of the exit of air during filling while preventing ingress of flame. Around the inlet opening are located venting channels, 50, to admit of the exit of air around the funnel that may be
 15 used. The tubes in the inlet prevent flaming, on account of the rapidity with which they conduct away heat, and the gauze at the lower end of the tubes will prevent ingress of flame into the container with re-
 20 sultant explosion and serves also as a strainer to keep foreign bodies from entering the container.

An important feature of this tank is the fact, that if the spout should be accidentally
 25 knocked off by rough treatment, the tank will still remain liquid tight.

From the construction it is evident that the front part of the faucet mechanism may be removed and replaced by a plate or cap
 30 for the purpose of shipment.

With the valve 20 of proper size, the liquid flowing out of the spout, 13, will not reach one-half the height of the casting, 12, so that there will be no leakage through the
 35 opening in the disk 17 and any liquid that might accidentally get into the air tube 25 is readily carried off.

As shown the valve 31 serves the purpose of a lid or cover for the inlet opening as
 40 well as a safety valve.

What I claim as new is:

1. In a container for liquids provided with an opening, the combination of a thimble adjusted to the container at the opening, a valve adjusted at the opening from the
 45 thimble into the container, a spring connected with said valve to close it, a pipe for the admission of air leading from the thimble into the body of the container, a valve adjusted at the opening of the thimble
 50 into the pipe, a piece, provided with a spout and with a perforation for the admission of air, adjusted at the opening of the thimble to the outside of the container, a plunger connected with the two valves, and gauze ex-
 55 tending across the spout and across the perforation, substantially as described.

2. In a container for liquids provided with an opening, the combination of a thimble adjusted to the container at the opening, a
 60 valve adjusted at the opening from the thimble into the container, a spring connected with said valve to close it, a pipe for the admission of air leading from the thimble into the body of the container, a valve ad-
 65 justed at the opening of the thimble into the pipe, a piece, provided with a spout and with a perforation for the admission of air, adjusted at the opening of the thimble to the outside of the container, and a plunger con-
 70 nected with the two valves, substantially as described.

Signed at New York, in the county of New York and State of New York, this 24th day of December, A. D. 1906.

WILLIAM ASBURY.

Witnesses:

C. A. O. ROSELL,
 CHARLES W. GIRSCH.