

W. H. McNUTT.  
SAFETY CAN.

APPLICATION FILED DEC. 29, 1906.

FIG. 5.

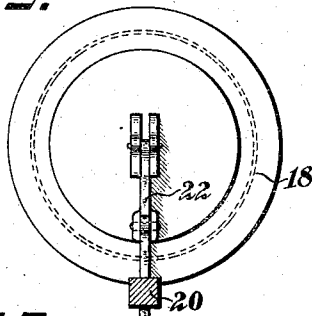


FIG. 6.

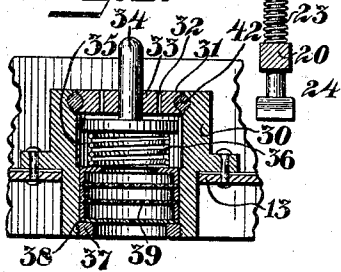


FIG. 2.

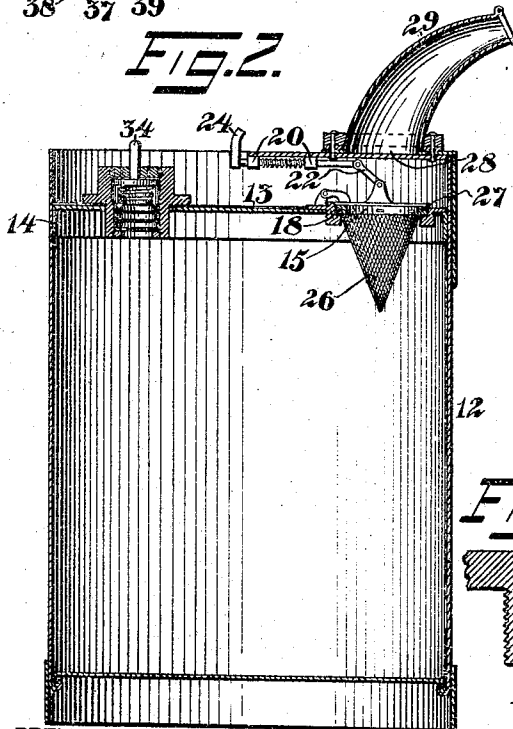


FIG. 1.

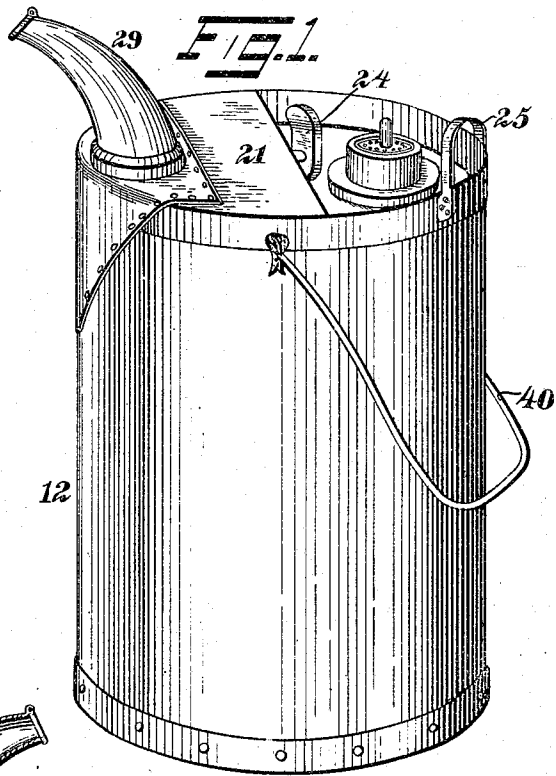


FIG. 3.

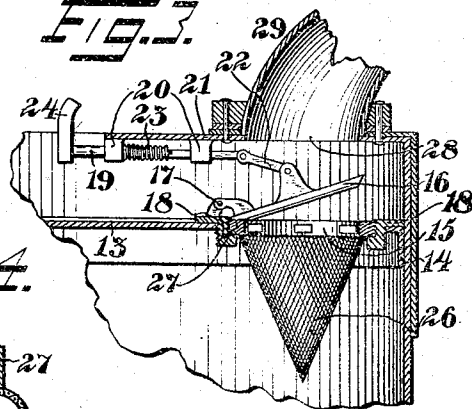
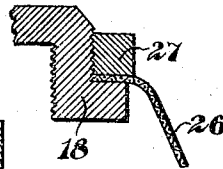


FIG. 4.



Witnesses:

*W. Fleischer*  
*H. D. Penney*

Inventor:

*W. H. McNutt*

By his Attorney,

*F. H. Richards*

# UNITED STATES PATENT OFFICE.

WILLIAM H. McNUTT, OF NEW YORK, N. Y., ASSIGNOR TO THE NON-EXPLOSIVE SAFETY NAPHTHA CONTAINER COMPANY, OF NEW YORK, N. Y., A CORPORATION OF SOUTH DAKOTA.

## SAFETY-CAN.

No. 858,898.

Specification of Letters Patent.

Patented July 2, 1907.

Application filed December 29, 1906. Serial No. 349,953.

*To all whom it may concern:*

Be it known that I, WILLIAM H. McNUTT, a citizen of the United States, residing in New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Safety-Cans, of which the following is a specification.

This invention relates to cans or receptacles especially designed for containing explosive fluids such as gasoline, kerosene or naphtha or the like and has for an object to provide improved means for facilitating the pouring out of the contents, at the same time insuring against the presence of heat or flame in the vicinity of the can from causing ignition of vapor in the can, or its contents, and thereby preventing all liability of explosion.

A further object of the invention is to provide an improved form of valve for admitting air into the vessel as its contents are poured out.

Another object of the invention is to provide an improved form of outlet valve that is normally closed, and which will remain closed except during the application of pressure to retain it in the open position.

A further object of the invention is to provide an improved means for facilitating the pouring of the liquid into the vessel.

In the accompanying drawing showing one embodiment of the present invention, Figure 1 is a view in perspective. Fig. 2 is a vertical section through the device. Fig. 3 is a vertical fragmentary section showing the outlet valve and adjacent parts. Fig. 4 is a fragmentary section showing the securing of the conical filter. Fig. 5 is a plan view of the outlet valve mechanism; and Fig. 6 is an enlarged section through the air valve.

The can or receptacle denoted generally by 12 is shown as cylindrical with a top member 13 inserted below the top edge of the side of the can, providing a projecting side portion 14. At one side of the top member is an opening 15 in which is arranged a valve 16 pivoted at 17 on a threaded sleeve 18 that is screwed into the opening 15 in the top member. A bar 19 is slidable in blocks 20 carried by a plate 21 of semi-circular form secured at the end of the projecting side portion 13. A link 22 pivotally connects valve 16 with the bar 19 and a coil spring 23 serves to advance the bar to move and retain the valve in the closed position as shown in Fig. 2. A suitable finger member 24 projects upward from the free end of the bar 19. The valve is opened by sliding the bar by engagement of its finger portion 24. And this may be facilitated by the use of a handle member 25 secured to the can side to the rear of the handle finger 23; the fingers can grasp the handle 25, while the thumb can engage the finger portion 24, which will facilitate the opening of the valve and retain it in the open position. A conical member of wire

gauze or perforated metal 26 is secured at the opening in the sleeve 18 by means of a threaded ring 27. This will prevent flame reaching the vapor or gas contained in the vessel and prevent explosion. The semi-circular plate 21 forms a chamber or pocket with the top 18 and the interposed portion of the side member 14, when the can is tipped. An opening 28 is provided in the plate 21 at which opening is secured a tapering spout 29 as shown.

When it is desired to pour out the contents of the can, it is inclined in the direction of the spout and the valve opened by the finger piece 24. The pocket between the semi-circular plate 21 and the can head will insure the oil flowing out of the spout 29, at the same time preventing flame passing towards the opening in the can. When it is desired to fill the can, it is inclined slightly in this same direction, and the gasoline or other liquid is poured on top of the can to run down in the pocket under the plate 21, the valve 16 being held open at such time, when the oil will flow in through the wire cone 26.

In order to permit entrance of air into the can when its contents is being poured out, an opening is provided that is closed by a kind of check valve that will be normally closed but when the pressure of air in the can becomes reduced by reason of the contents being poured out, the valve will open and the air will enter until the normal pressure is established.

A form of valve is shown in Figs. 1 and 6 in which is a sleeve member 30 secured at an opening 31 in the top member 13, by any suitable means such as by rivets. The sleeve 30 has a top member 31 held in place by any suitable means, in the present instance being secured by a fusible ring 32, whereby upon considerable heat being generated in the vicinity, this ring will melt and the disk can blow out. The disk 31 is provided with small apertures 32 for admission of air. At its middle portion is a large aperture 33 through which projects the stem 34 of a disk valve 35 that is normally retained against the inner ends of the ports 32 by a coil spring 36; the diameter of the valve 35 being somewhat less than the bore of the sleeve to permit air to flow around its edge. The lower end of the bore in the sleeve is threaded, into which screws a threaded ring 37, that supports a sleeve 38, on the top of which rests the coil spring 36. Suitable apertured plates, or wire gauze disks 39 are provided in the lower portion of the sleeve 30, to prevent any possible access of flame through this inlet member. From this construction, it will be seen that the ports or apertures 32 are normally closed by the valve to the air by action of the coil spring but when the contents of the can is being poured out, the reduced pressure in the can will cause the atmospheric pressure to open the valve and admit air through the ports 32, until equilibrium is estab-

lished. This valve will have the further advantage of preventing the air forcing itself back through the spout 29 when the gasoline is being poured out, or forcing itself through the pocket under the plate 21. The can 5 may be provided with the usual bail 40 if desired.

Having thus described my invention, I claim:

1. In a safety can, the combination of a cylindrical vessel having a closed top with the side edge projecting above the top member, an opening in the top member adjacent one side, a valve pivoted adjacent said opening and arranged to close the opening from the top, a plate extending across the projecting side member above said opening and forming a pocket therewith, a spout projecting from an opening in said plate, an operating member connected 10 with said valve, and means for yieldably retaining the valve in the closed position.

2. In a safety can, the combination of a cylindrical vessel having a closed top with the side edge projecting above the top member, an opening in the top member adjacent one side, a valve pivoted adjacent said opening and arranged to close the opening from the top, a plate extending across the projecting side member above said opening and forming a pocket therewith, a spout projecting from an opening in said plate, an operating member connected 20 with said valve, means for yieldably retaining the valve in the closed position, a bar slidably mounted on said plate, a link connecting said bar with said valve, and a spring on said bar yieldably retaining the valve closed.

3. In a safety can, the combination with a vessel having a closed top provided with an opening, a sleeve secured in said opening, a disk closing the outer end of said sleeve and secured therein by a fusible ring, the disk 30 having a central opening also having minute ports there-

in, a valve of smaller diameter than the bore of the sleeve and provided with pin operating in the opening in the disk, whereby the valve is movable to close said ports in the disk, the sleeve having an apertured wall at an intermediate portion, and a coil spring between said wall and the valve yieldably retaining the valve closing said ports. 35

4. In a safety can, the combination with a vessel having a closed top provided with an opening, a sleeve secured in said opening, a disk closing the outer end of said sleeve and secured therein by a fusible ring, the disk having a central opening, a valve of smaller diameter than the bore of the sleeve and provided with pin operating in the opening in the disk, whereby the valve is movable to close said ports in the disk, the sleeve having an apertured wall at an intermediate portion, a coil spring between said wall and the valve yieldably retaining the valve closing said ports, and one or more disks with minute openings extending across the bore of the sleeve at its inner end portion. 40 45 50

5. In a safety can, the combination with the top having an opening therein, of a sleeve secured in said opening, a disk closing the outer end of said sleeve and secured therein by solder, the disk having a plurality of minute openings therein, a valve in the sleeve, a spring in the sleeve engaging the valve to press it against said openings to normally close the openings, the valve being smaller than the said disk secured in the sleeve by solder, whereby the melting of the solder by heat, will permit the spring to force the valve and disk out of the sleeve. 55 60

Signed at Nos. 9 to 15 Murray street, New York, N. Y., this 20th day of December, 1906.

WILLIAM H. McNUTT.

Witnesses:

FRED. J. DOLE,  
JOHN O. SEIFERT.