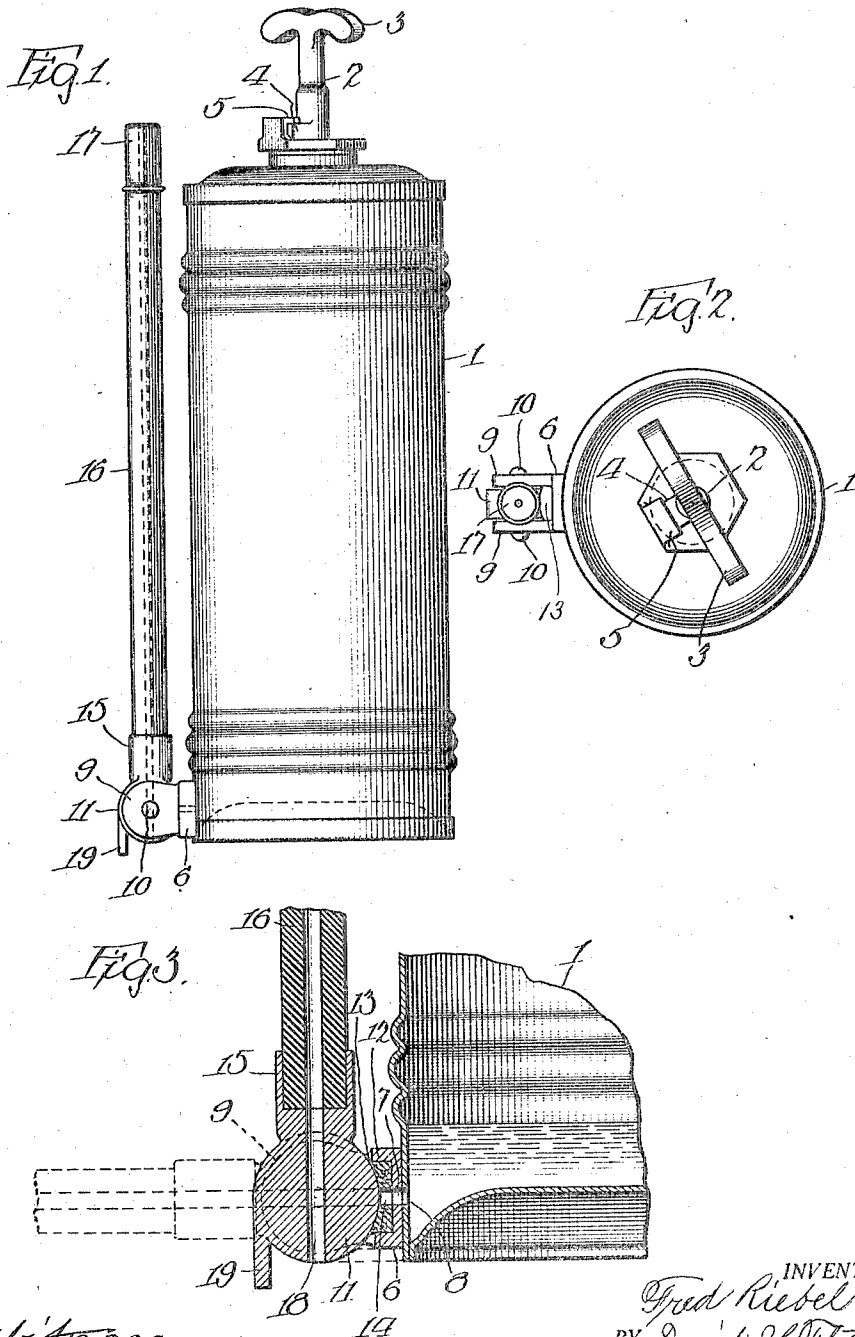


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DISCHARGING MECHANISM FOR LIQUID CONTAINERS.
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1,283,906.

Patented Nov. 5, 1918.



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DISCHARGING MECHANISM FOR LIQUID-CONTAINERS.

1,283,906.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FRED RIEBEL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and Improved Discharging Mechanism for Liquid-Containers, of which the following is a description, reference being had to the accompanying drawings, forming a part of this specification, in which corresponding numerals of reference in the different figures indicate like parts.

One of the difficulties in connection with appliances for permitting the discharge of liquid from liquid containers, such, for example, as spraying devices, fire-extinguishers and other like receptacles for holding chemicalized fluids, particularly those which are likely to stand for protracted periods, is that the chemicals employed, such, for example, as carbon tetrachlorid, water charged with carbonic acid or other well known compounds, are liable to so adhere to or affect the contacting metal surfaces as to result in corrosion, cementation or "freezing" of the parts to such an extent as to render them inoperative. This is particularly true in connection with the valve mechanism of portable fire-extinguishers, which frequently stand for months or years, and often become useless when needed, from the causes mentioned.

The primary object of my invention is to overcome this difficulty by so constructing the valve or discharge mechanism of such containers as to prevent corrosion or cementation of the coating parts and render them effective and operative at all times.

A further object is to so construct said device that the discharge valve may be opened and closed with one hand, and when closed, that complete and thorough drainage thereof of residual liquid may be insured;—all of which is hereinafter more particularly described and definitely pointed out in the claim.

In the drawings—

Figure 1, is an elevation of a portable fire extinguisher embodying the features of my invention,

Fig. 2, is a plan, and

Fig. 3, an enlarged central vertical section of the valve mechanism and a portion of the container.

Referring to the drawings, 1, indicates a

closed air-tight container preferably made from sheet-brass, copper or other rust-proof material. A suitable air-pump of well known construction, not shown, is located within said container. Said pump is provided with the usual protruding pump-rod 2 and handle 3, while a detent 4, upon said rod is arranged to engage a counterpart lug 5, to lock said rod in a normal position when not in use. The construction is common and need not be further described.

A socket-member, generally designated by 6, is brazed or otherwise rigidly attached to the exterior of the receptacle 1 at or near the base. Said member is provided with a horizontal bore 7, Fig. 3, in registration with a like opening 8, formed in the wall of the receptacle. The member 6 is provided with horizontally extended, parallel lugs 9, 9, having central transverse bores into which is secured trunnions or pivot-members 10, 10, for the pivotal support of a movable valve-member generally designated by 11.

The socket-member 6, is provided with a recess 12, at its rear, into which is closely fitted a plug 13, preferably formed from a non-metallic material such, for example, as cork, vulcanite, compressed-fiber or other analogous substance, but preferably the former, having a central bore 14, formed therein in communication with the bore 7. The greater portion of the part 11 is cylindrical, as shown, against the periphery of which cylindrical portion the plug 13 is closely fitted to prevent leakage.

Formed upon the part 11 is a tubular portion 15, into which is fitted a short flexible hose 16, of rubber or other suitable material, sufficiently stiff to enable it to normally maintain an upright position as shown. A nozzle 17, of any desired form for spraying or otherwise, as may be desired, is attached to the end of the hose 16. A bore 18, is formed through the axis of the valve-member 11 in the vertical plane of the bore 14 and in communication with the passage in the hose 16. When the valve-member 11 is in its normal position, the bore 18 is substantially vertical and the discharge opening 14 is closed. When, however, said valve-member is reversed, so that the part 15 and the connecting hose is in a horizontal position, as indicated in dotted lines in Fig. 3, the bores 14 and 18 are in registration; thus permitting the liquid in

the receptacle to be discharged. In order to insure registration of the bores 14 and 18, a lug 19, is formed upon the part 11 in position to engage the bottom of the part 6 and form a stop. It will be apparent then, that when the hose is in an upright position, the valve will be closed; and when it is moved downwardly to its limit, the valve will be open. It will thus be seen that the valve may be operated by the mere movement of the hose, which, while flexible, should be sufficiently stiff for that purpose. The valve-operating movement may readily be accomplished with one hand; which would obviously be an important advantage for many purposes, one of which would be its use by aviators who require the constant use of one hand for machine control.

Inasmuch as the contacting surfaces between the valve-members 11 and the plug 13 are not affected by the usual chemicalized fluids used for fire extinguishing, spraying or other analogous uses, the free operation of the valve is in no wise interfered with thereby and it may be relied upon to function at any time after long periods of rest.

Having thus described my invention, I claim:

A discharge mechanism for fluid containers, comprising, in combination, a socket-valve-member having a substantially horizontal bore therein in communication with said container, a non-metallic plug having an opening therein in registration with said bore, a movable valve-member arranged to rotate upon a horizontal axis at substantially right angles to that of said bore, the periphery of said movable member being concentrically curved and in close operative contact with said plug, said movable valve-member having a bore therethrough adapted when said member is in an abnormal position to register with that of said plug and when in a normal position to permit residual liquid to drain therefrom.

In witness whereof, I have signed this specification in the presence of two subscribing witnesses, this 6th day of July, 1918.

FRED RIEBEL.

Witnesses:

W. HARDING,

DAVID H. FLETCHER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."