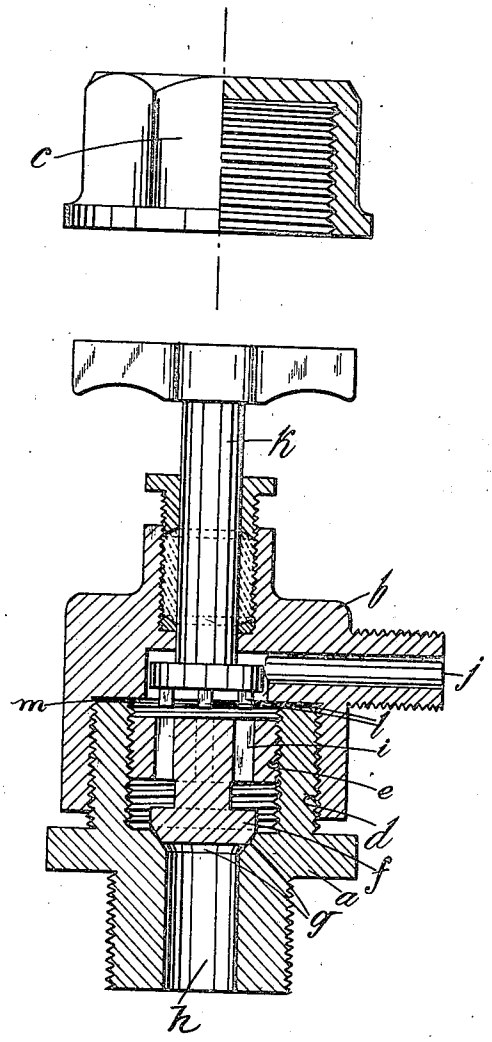
A. HENNING.

VALVE AND CAP FOR DRUMS AND THE LIKE VESSELS.

APPLICATION FILED MAR. 19, 1921.

1,435,004.

Patented Nov. 7, 1922.



INVENTOR.

A. Henning.

Atty.

Patented Nov. 7, 1922. 1,435,004

UNITED STATES PATENT OFFICE.

ALBERT HENNING, OF LEYTONSTONE, LONDON, ENGLAND.

VALVE AND CAP FOR DRUMS AND THE LIKE VESSELS.

Application filed March 19, 1921. Serial No. 453,858.

To all whom it may concern:

Be it known that I, ALBERT HENNING, a citizen of the United Kingdom of Great Britain and Ireland, and resident of Leytonstone, London, E. 11, England, have invented certain new and useful Improvements in and Relating to Valves and Caps for Drums and the like Vessels, of which the following is a specification, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a valve for use with vessels containing volatile liquids or compressed gas and is of that type which comprises a body part fitted to the vessel and having a valve in it capable of being screwed up and down (opened and closed) by a handle mounted in another part provided with an outlet nozzle.

According to my invention the valve is provided with passages through it so positioned that when it is opened the gas or liquid will pass through these passages and out through the nozzle without the necessity of lifting the valve past the nozzle. The said passages also form a means by which the handle or key can rotate the valve.

To protect the valve in transit the nozzle body part can be removed after the valve has been screwed down and a cap or cover of known or convenient kind screwed onto the body part containing the valve thus very securely and doubly sealing the outlet from the vessel.

The removable part may have more than one nozzle and it or they may be used for both filling and emptying the vessel.

The construction according to the present invention can be so arranged that projecting portions such as are apt to get injured during transit of the containers are absent, and the fitting in ordinary cases will occupy very little more room than the usual type of screw bung fitted to drums used for non-volatile liquids.

An important feature of the construction according to the invention is that the effective portions of the valve are completely protected from the combined action of atmospheric air and moisture, and that the operative portions of the valve are for the most part only applied when the valve is actually in use during the charging or emptying of the container. This point is of importance in the case of valves for containers for corrosive materials as chlorine or sulphur dioxide.

An example of my invention is shown in the accompanying drawing which is a central vertical section, and

a represents the portion of the arrangement permanently attached to the container fitted internally with a plug which may be screwed down on to the seating shown.

b represents the replaceable fitting shown in position and comprising the operative portion of the valve and carrying an outlet connection *j*.

c reprecsents the protecting cap which is interchangeable with *b* carrying a gasket to ensure a gas-tight joint.

The permanent fitting *a* together with the plug, which screws down on to the seating *g* enables the passage *h* to be opened or closed at will, as the plug is externally threaded, and the fixture *a* is internally threaded at *e*. The fixture *a* is externally threaded at *d*, so that the cap *c* or the interchangeable fitting *b* may be screwed on at will. In order to permit a connection to be established to the inside of the drum, it is necessary that provision be made for the fluid to pass the plug *f* when this is in the open position, and in this case holes *i* are provided, three of which are shown. These holes *i* also serve to engage the projections *l* so that the plug may be raised and lowered by turning the handle. The opening *j* is threaded to receive a suitable pipe connection.

The spindle *k* passes through a small packing box, so that leakage during the period of operation of the valve is avoided. In order to prevent leakage through the screw threads *d*, the cap *c* and the interchangeable fitting *b* may be provided with a suitable packing ring *m*. During transit or during periods of storage, when it is not required to draw off the contents from the containers, the cap *c* is screwed into position, and the effective portions of the valve are thoroughly protected thereby, and absence of leakage assured. In such cases where a large number of containers have to be dealt with, it will in general be necessary to provide for each container the permanent fittings *a* with the internal plug *f* and the cap *c*. It will, however not be necessary to provide for each container the portion *b* as one fitting of this description will will be sufficient for charging and emptying a number of containers.

What I claim is:—

A fitting for containers and the like, comprising a valve casing part adapted to be

fixed to the container, a valve member threaded in said casing part, a valve carried by said valve member and cooperating with a seat in said casing part, said valve member being formed with longitudinally extended passages, a second valve casing part adapted for removable threaded connection with the first casing part and formed with an outlet, a valve operating member movable in said second casing part and formed at the lower end with projections adapted to engage in the passages in said valve member, whereby to rotate the valve member, and a cover adapted to engage said first casing part interchangeable with said second casing part.

In witness whereof I have hereunto set my hand in presence of two witnesses.

ALBERT HENNING.

Witnesses:

FLORENCE GILBECK.

RICHARD CHARLES DENNYSON.