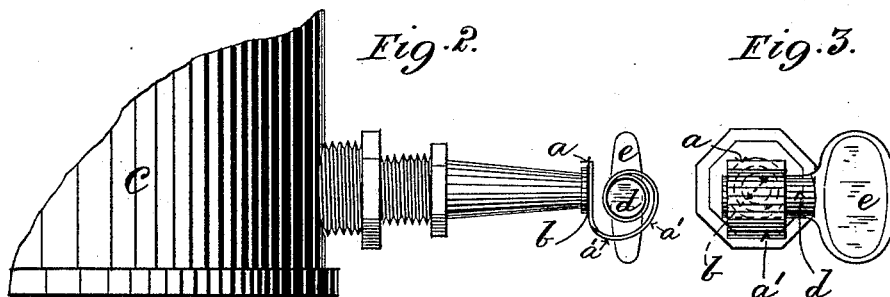
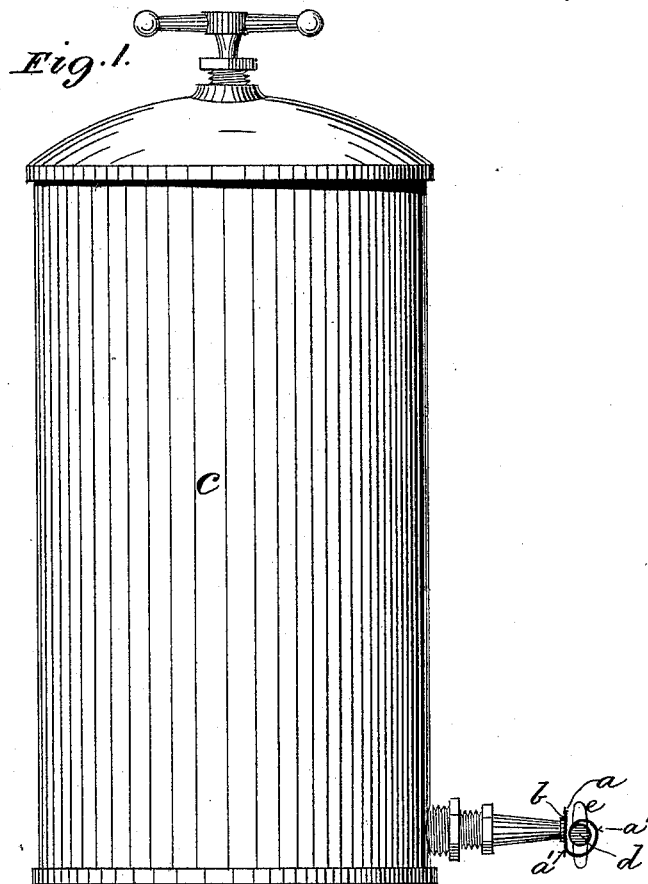


(No Model.)

J. L. BRADLEY.  
CLOSING AND SEALING DEVICE FOR DISCHARGE OPENINGS OF FIRE  
EXTINGUISHERS.

No. 421,347.

Patented Feb. 11, 1890.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

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## CLOSING AND SEALING DEVICE FOR DISCHARGE-OPENINGS OF FIRE-EXTINGUISHERS.

SPECIFICATION forming part of Letters Patent No. 421,347, dated February 11, 1890.

Application filed September 12, 1889. Serial No. 323,750. (No model.)

*To all whom it may concern:*

Be it known that I, JAY L. BRADLEY, a citizen of the United States, residing at the city of St. Louis, State of Missouri, have invented a certain new and useful Improvement in Closing and Sealing Device for the Discharge-Openings of Fire-Extinguishers or other Vessels, of which the following is a full, clear, and exact description.

My invention relates to an improved device for closing and hermetically sealing the discharge-apertures of vessels containing liquids or gases under pressure or not, as the case may be, and is particularly applicable to that class of fire-extinguishers charged with carbonic-acid gas or other chemicals; and my invention has for its object to prevent the leakage and setting fast by corrosion, as occurs with ordinary cocks or taps, to insure a certain and immediate discharge of the contents of the vessel when required, and to render impossible any tampering with the device without detection.

It consists in a detachable sealing plate or closure for the nozzle or discharge opening of a fire-extinguisher or other sealed vessel, said sealing-plate provided with an extension piece or band, or itself being in the form of a band or strip, to one end of which is attached transversely the shank of a key for coiling the band, and thereby detaching it or stripping it from the discharge-orifice of the vessel. Preferably, the band or extension of the sealing-plate is loosely coiled or wrapped around the shank of the key when attached to the vessel, as the device is thereby rendered more compact, and is ready for use by simply tightening the coil.

On the accompanying drawings, Figure 1 represents a side elevation of my improved closing and sealing device as applied to the discharge-opening from a chemical fire-extinguisher; Fig. 2, a similar view of the device and its adjacent parts on an enlarged scale, and Fig. 3 a front elevation of the device as seen in Fig. 2.

Like letters of reference denote like parts in all the figures.

*a* represents a metal plate, (or cover-piece,) which is placed over the discharge-opening *b* from the chamber or vessel *c* of a chemical fire-extinguisher and secured to the edge or surface surrounding the opening *b* by a soldering of metallic alloy, which is fusible at a certain temperature, or other suitable adhesive material, so as to hermetically seal the opening *b* and prevent escape thereat of the contents of the chamber *c*.

Attached to or forming a continuation of the closing-plate *a* is a spiral (or flexible) band *a'*, within the inner convolution or other convenient part of which is soldered or otherwise attached the shank *d* of a key or handle *e*.

In the case of undue temperature arising in the vicinity of the fire-extinguisher, the fusible solder whereby the plate *a* is sealed over the opening *b* will melt, and the plate *a* becoming thereby detached the chemicals (or other ingredients) within the vessel *c* are immediately and freely discharged therefrom through the opening *b*. The weight of key *e* and its shank *d* will become a factor in detaching the sealing-plate when the fusible solder which holds it has become affected by heat; or the contents of the vessel *c* may be discharged by wrenching the plate *a* and its soldering from the opening *b* by means of the key or handle *e* and band *a'*.

By my invention, which dispenses with or may be used as an auxiliary to the ordinary cocks or taps, a perfect sealing of the discharge-opening is effected and leakage or abstraction of the contents of the vessel prevented.

The coiling of the band *a'* around the shank *d* of key *e* removes the sealing-plate *a* from the nozzle or opening *b* without injuring either the discharge-orifice or the sealing-plate, so that the sealing-plate can be readily replaced with fusible solder by unskilled labor.

I claim as my invention—

1. A sealing device for closing the discharge-orifice of a vessel, consisting of a flexible metallic strip or band adapted to be soldered over such discharge-orifice and having a coil

ing-key attached transversely thereto, substantially as and for the purposes specified.

2. In a sealing device for closing the discharge-orifice of a vessel, the combination,  
5 with a sealing-plate having a coiled extension, of a coiling-key having its shank inserted within the coiled strip and attached transversely thereto, substantially as and for the purposes specified.

In testimony whereof I have affixed my signature, in presence of two witnesses, this 7th day of September, 1889.

JAY L. BRADLEY.

Witnesses:

PAUL BAKEWELL,  
JOS. W. CROOKES.