

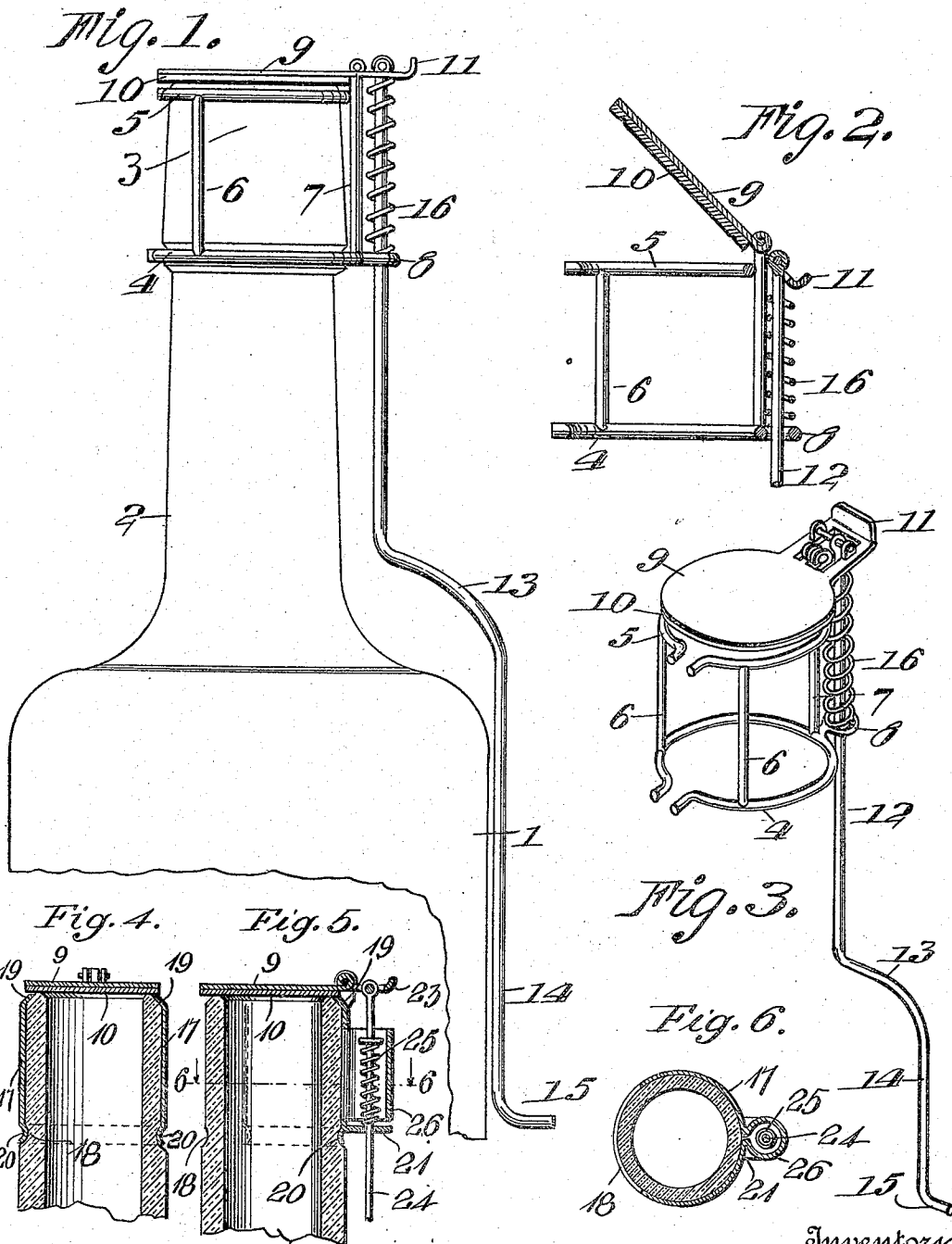
J. RICHARDS & H. AHNFELDT.

BOTTLE CLOSURE.

APPLICATION FILED APR. 5, 1909.

941,651.

Patented Nov. 30, 1909.



Witnesses
 E. D. Brown
 C. H. Giesbauer

Inventors
 Joseph Richards and
 Henrik Ahnfeldt,
 by *A. B. Wilson & Co*
 Attorneys

UNITED STATES PATENT OFFICE.

JOSEPH RICHARDS AND HENRIK AHNFELDT, OF BUTTE, MONTANA.

BOTTLE-CLOSURE.

941,651.

Specification of Letters Patent.

Patented Nov. 30, 1909.

Application filed April 5, 1909. Serial No. 487,955.

To all whom it may concern:

Be it known that we, JOSEPH RICHARDS and HENRIK AHNFELDT, citizens of the United States, residing at Butte, in the county of Silverbow and State of Montana, have invented certain new and useful Improvements in Bottle-Closures; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to bottle closures and the object thereof is to provide a simple and effective device of this character which may be applied to bottles having mouths of various sizes and which is normally held yieldably in closed position and which will automatically close after it is opened.

Another object is to provide a closure adapted to be opened by a slight pressure of the hand grasping the bottle, thus rendering it especially adapted for a waiter having his other hand occupied.

With these and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings:—Figure 1 is a side elevation of a bottle with this improved closure applied and in closed position; Fig. 2 is a vertical, sectional view with the closure opened; Fig. 3 is a perspective view of the closure detached; Fig. 4 is a vertical section showing another form of closure support applied; Fig. 5 is a similar view taken at right angles to Fig. 4; and Fig. 6 is a horizontal section thereof.

In the embodiment illustrated, a bottle, 1, of ordinary construction is shown having a neck, 2, to the mouth, 3, of which this improved closure is applied.

The bottle engaging closure supporting member is shown in Figs. 1 to 3 in the form of a wire ring, 4, which is designed to be passed around the neck of the bottle in the groove provided at the base of the usual flange arranged on the bottle mouth. The wire ring tightly clamps the closure to the bottle mouth and preferably is provided with a similar ring, 5, arranged around the edge of the bottle mouth which is connected with the ring, 4, by means of braces, 6 and 7.

An apertured lug, 8, extends from the member, 4 for a purpose to be described. A cover, 9, is hingedly connected with the ring, 5, preferably at a point adjacent the brace, 7, and has a cork or rubber lining, 10, arranged on its inner face to form a liquid—or airtight closure for the bottle. An apertured arm, 11, extends laterally from the cover member being preferably made integral therewith and is disposed in vertical alinement with the lug, 8, carried by the member, 4. An operating rod or wire, 12, is passed through the apertures in the lug, 8, and the arm, 11, and is offset at 13 to conform to the shape of the bottle, 1, and the lower portion, 14, thereof extends approximately parallel with the body of the bottle and is provided at its lower end with a hook-like member, 15, for engagement with the finger of the user. A coiled push spring, 16, is arranged on said rod, 12, between the lug, 8, and the arm, 11, and holds said closure in closed position and the tension thereof is exerted to close the cover, 9, after it has been opened.

In the use of this device, the parts being assembled as shown in Fig. 1, the user grasps the bottle in one hand and to open the closure he presses inwardly on the offset portion 13 of the rod, 12, or exerts a downward pressure on the hook 15, thereof, which draws the rod downwardly against the tension of the spring, 16, and forces the cover, 9, into open position. When pressure is removed from the rod 12, the spring exerts its tension to close the cover.

In Figs. 4, 5 and 6 the preferred form of bottle engaging member is shown comprising a spring metal band 17, of a width sufficient to span the space between the groove 18 in the bottle neck and its mouth. This band is preferably provided at its upper edge with an intumed flange 19, curved transversely to fit hook-like over the edge of the outer mouth and near its lower edge with a longitudinally extending rib-like element 20, formed on its inner face to fit in the groove 18, of the bottle neck. This band preferably extends about two-thirds more or less around the bottle neck and is provided intermediately of its ends near its lower edge with an apertured laterally extended lug 21, adapted to register with an apertured arm 22, on the lid 23, hinged to said band at its upper end above and in alinement with said lug 21. An operating rod 24, similar in shape to the rod 16, ex-

tends through the apertures in lug 21 and arm 22, and is connected to the latter. A coiled push spring 25, is mounted on said rod between said lug 21, and arm 22, and is preferably housed within a casing 26, formed on the band 17. The operation of the device is the same as that above described.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention as defined in the appended claims.

We claim as our invention:—

1. A bottle closure comprising a pivoted cover having an apertured extension, means for securing said cover to a bottle mouth, said means being provided with an apertured extension spaced from said cover extension, an operating member mounted to slide in said extensions and a coiled push spring arranged on said member between said extensions to hold said cover yieldably in closed position, said member being operable to open said cover against the tension of said spring.

2. A bottle closure comprising a pivoted

cover having an apertured lateral extension, means for securing said cover to a bottle mouth, said means having an apertured lateral extension spaced vertically from said cover extension, an operating member mounted to slide in said extensions and a coiled push spring arranged on said member between said extensions to hold said cover yieldably in closed position, said member being operable to open said cover against the tension of said spring.

3. A bottle closure comprising a spring metal band constructed to engage a bottle neck, a cover member hinged to said band and having a laterally extended apertured arm arranged at its pivotal connection with said band, an apertured lug extending laterally from said band and spaced from and in position to register with said cover arm, an operating rod slidably mounted in said apertured lug and arm, and having an offset portion intermediately of its ends and a coiled spring arranged on said rod between said lug and arm.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

JOSEPH RICHARDS.
HENRIK AHNFELDT.

Witnesses:

L. A. SMITH,
W. H. KITTO.