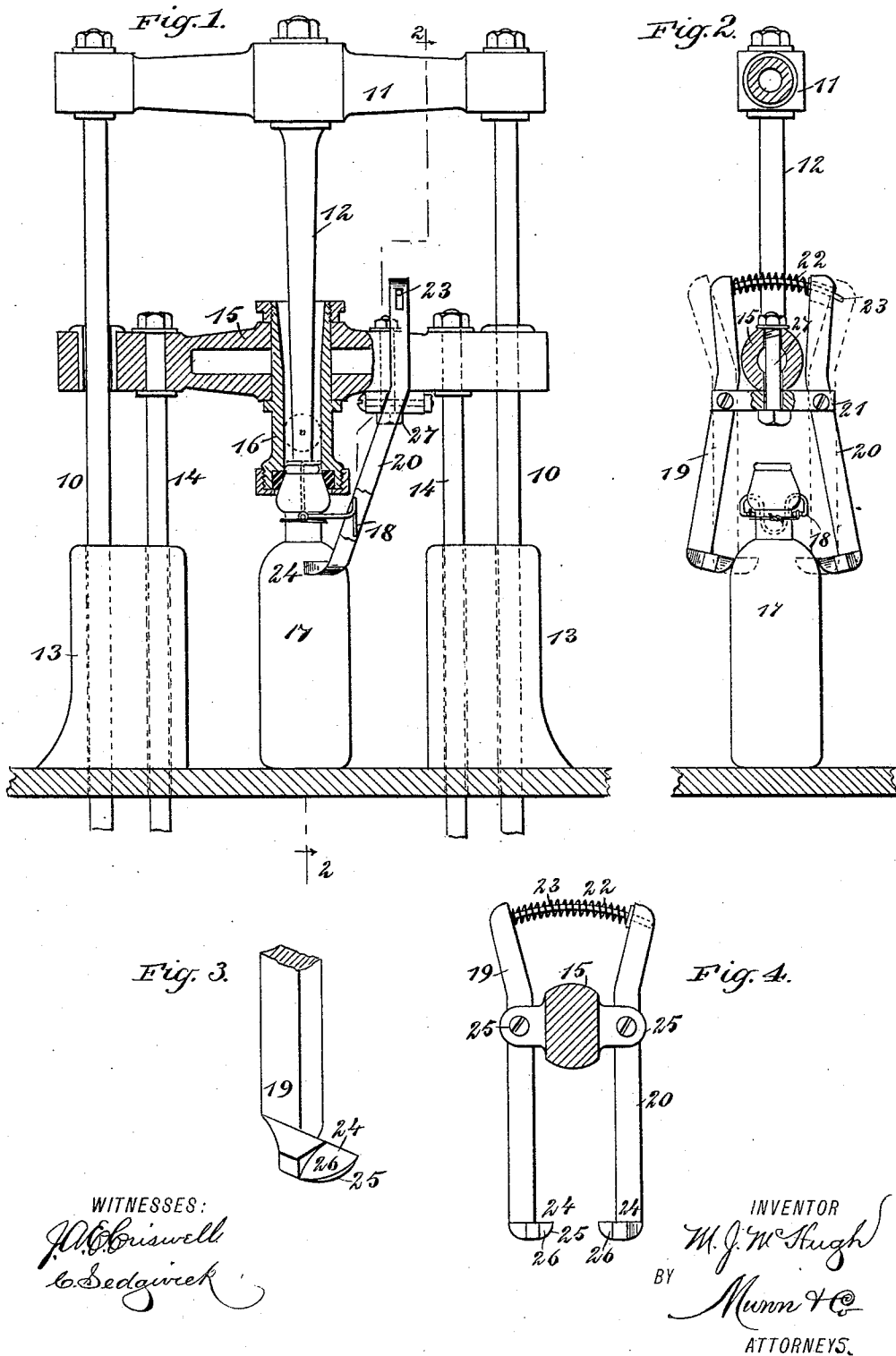


(No Model.)

M. J. McHUGH.  
BOTTLE FILLING APPARATUS.

No. 479,298.

Patented July 19, 1892.



# UNITED STATES PATENT OFFICE.

MICHAEL J. MCHUGH, OF JERSEY CITY, NEW JERSEY.

## BOTTLE-FILLING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 479,298, dated July 19, 1892.

Application filed July 27, 1891. Serial No. 400,803. (No model.)

*To all whom it may concern:*

Be it known that I, MICHAEL J. MCHUGH, of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and useful Improvement in Bottle-Filling Apparatus, of which the following is a full, clear, and exact description.

My invention relates to an improvement in bottle-filling apparatus, and has for its object to provide a device used in connection with an apparatus for filling bottles, which will automatically carry the cork-retaining bail from an unlocked position to a locked position over the cork at a proper time.

A further object of the invention is to provide such a device capable of being applied expeditiously, conveniently, and economically to any bottle-filling machine.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of a portion of a bottle-filling apparatus, the attachment thereto being partly in section. Fig. 2 is a vertical section taken practically on the line 2 2 of Fig. 1. Fig. 3 is a detail perspective view of the lower end of one of the legs of the device, adapted for attachment to the machine; and Fig. 4 is a cross-section through the bottom of the machine, illustrating the application of the device thereto and illustrating, further, a modification in the mode of attachment.

That portion of the bottling-machine illustrated in the drawings consists of two outer uprights 10, carrying at their upper ends a cross-head 11, to which cross-head, at or near the center, a downwardly-extending plunger 12 is secured, the lower ends of the uprights 10 having movement in suitable guide-blocks, 13 and two inner uprights 14, spaced at suitable distances apart, the lower ends of which, also, have movement in the guide-blocks 13, the upper ends of said inner uprights being connected by a cross-head 15. The cross-head 15 carries a hollow cylinder 16, in which cylinder the corks adapted to be forced into

the bottles 17 by the plunger 12 are located. The lower end of the cylinder is provided with a suitable opening to neatly fit over the mouth of a bottle, and the bottle to be filled is placed upon a suitable support beneath the downward path of the cylinder.

Through suitable apertures in the cylinder 16 the liquids and gases with which a bottle is to be filled pass in the usual manner, and the bottles, in connection with which the attachment constituting the subject-matter of this specification is employed, are provided with the ordinary form of wire-locking bails 18, adapted to hold the corks in the bottles. These bails are pivoted to the yokes which surround the necks of the bottles, and the upper portion of each bail is provided with a central essentially-U-shaped projection. As heretofore stated, this locking-bail is well known in the trade.

The device which is adapted to manipulate the locking-bail of the bottle to be filled consists of two opposed levers 19 and 20, which levers are fulcrumed, ordinarily, at opposite ends of a cross-bar 21, the fulcrum of the levers being located nearer their upper than their lower ends. The levers may be of any desired shape in cross-section. Ordinarily, however, they are rectangular, and from the fulcrums downward the levers are inclined laterally, so that they stand at an angle to those portions above the fulcrums, which latter portions are straight, or practically so, and their lower ends are normally forced in direction of each other through the medium of a spring 22, or the equivalent thereof, coiled around a tongue 23, which tongue is secured to the upper end of one lever and passes freely through the upper end of the opposite lever, the tension of the spring being normally exerted in direction of its ends.

Each lever is provided with a foot 24, the feet extending inward opposite each other. These feet are horizontally located, and their inner ends are preferably given a cylindrical shape, as shown at 25 in Fig. 3, and the upper surface at the inner end is inclined downward and outward, as shown at 26 in the same figure.

When the device is constructed as above described, it is fastened to the cross-head 15 at one side of the cylinder 16 by means of a

bolt 27 or the equivalent thereof. When the device has been properly attached to the cross-head 15, the lower ends of the levers are inclined in direction of the bottle, and when the cylinder is in engagement with the mouth of the bottle the feet of the levers will engage with the body thereof, as shown in Fig. 1.

In Fig. 4 I have illustrated a slightly-different mode of attaching the levers to the bottling-machine, and this consists in forming at opposite sides of the cross-head ears 25, the levers being pivoted to said ears, otherwise the construction of the device is the same as heretofore described.

In the operation of the attachment the cork is placed in the upper portion of the cylinder 16 and said cylinder is forced downward to an engagement with the neck of an empty bottle, the bail having been placed in a horizontal position, and after the bottle has been filled the upper cross-head is forced downward, carrying with it the plunger 12, and said plunger engaging with the cork drives it firmly to place in the mouth of the bottle. At this time the feet of the device will be in engagement with the sides of the body of the bottle and the next step is to elevate the cross-head 15, carrying the device, the plunger remaining in position upon the cork. As the cross-head 15 ascends, the feet of the device engage with the sides of the bail and carry said bail upward, forcing it over the cork, the U-shaped portion of the bail passing around the plunger. As the cross-head is carried farther upward the feet of the device free themselves from the bail by reason of the inclination 26 given to their inner upper surfaces. As the cross-head ascends the spring 22 forces the feet of the device to follow closely the contour of the bottle.

It will be observed that the device above described is exceedingly simple and that it is positive in its action and economic in its construction.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a corking-machine, the combination, with the cross-head carrying the cork-tube, of

pivoted levers depending from cross-head and having feet at their lower ends to engage the bail and seat it over the cork when the cross-head is moved away from the bottle, the said feet projecting inwardly under the lower end of the cork-tube to be pressed apart by the bottle in the descent of the cross-head, substantially as set forth.

2. In a corking-machine, the combination, with the cross-head carrying the cork-tube, of a bail-seater comprising two depending levers at opposite sides of the cross-head and provided with inward-projecting feet and a spring pressing the lower ends of the levers toward each other, substantially as set forth.

3. In a corking machine, the combination, with the cross-head carrying the cork-tube, of a bail-seater depending from the cross-head and comprising two levers having inward-projecting feet provided with inclined upper faces, substantially as set forth.

4. In a corking-machine, the combination, with the cross-head carrying the cork-tube and provided with a vertical bolt-aperture, of the bail-seater comprising a cross-bar having a bolt extending up through said aperture, levers depending from the ends of the bar and having inward-projecting feet at their lower ends, and a spring throwing said lower ends toward each other, substantially as set forth.

5. A bail-seating attachment for corking-machines, comprising two levers provided at their lower ends with inward-projecting feet inclined on their upper faces, a spring pressing the lower ends toward each other, and an attaching-bar connecting the said levers, substantially as set forth.

6. A bail-seating attachment for corking-machines, comprising an attaching cross-bar, two levers pivoted between their ends to the ends of said bar and inclined outward from their pivotal points, feet formed on the lower ends of the levers, and a spring between and forcing the upper ends of the levers apart, substantially as set forth.

MICHAEL J. MCHUGH.

Witnesses:

J. FRED ACKER,  
E. M. CLARK.