

No. 695,446.

Patented Mar. 18, 1902.

G. DOHERTY.  
BOTTLE RINSING MACHINE.

(Application filed July 25, 1901.)

(No Model.)

3 Sheets—Sheet 1.

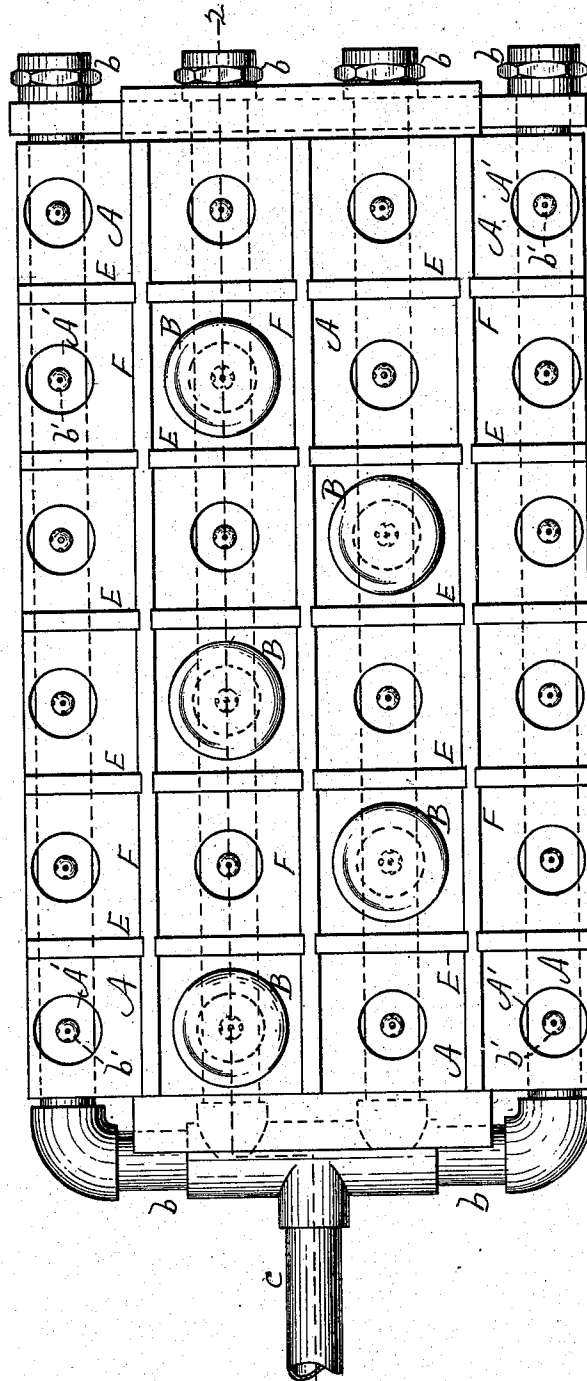


FIG. 1.

WITNESSES:

A. A. Bonney.  
E. O. Small.

INVENTOR:  
George Doherty,  
By his Atty  
Spencer Williams

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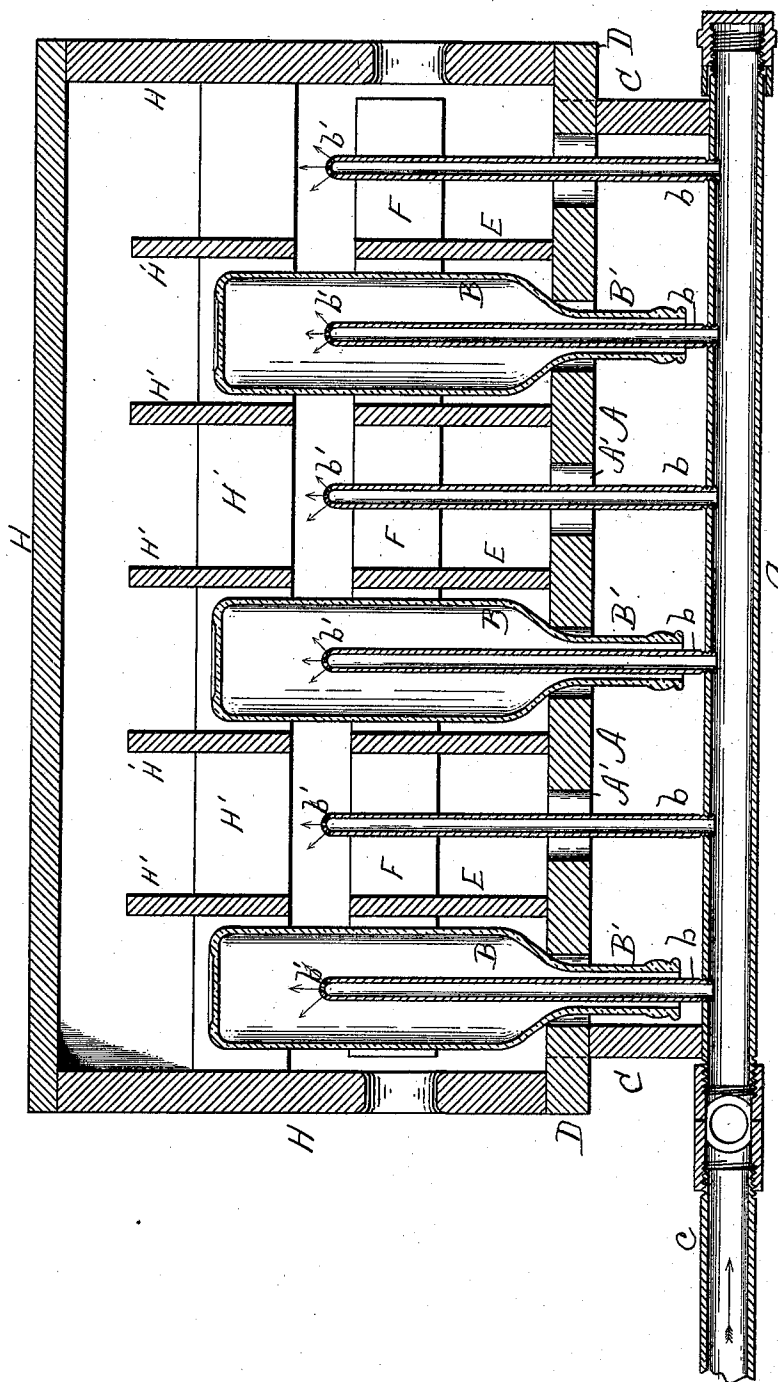


FIG. 2.

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INVENTOR:

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By his Atty.  
Henry Williams.

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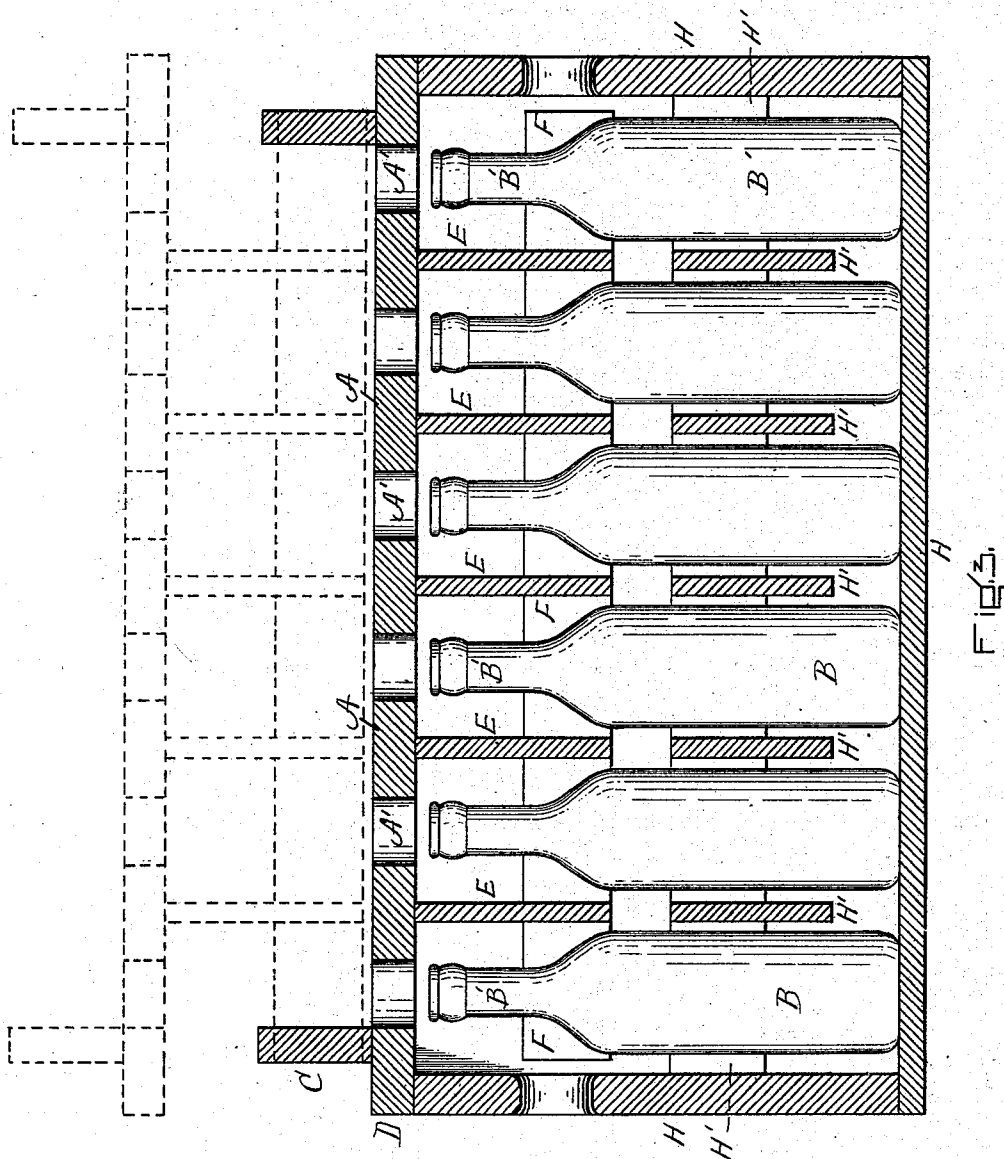
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WITNESSES:

A. F. Bonney.  
E. P. Small.

INVENTOR

George Doherty,

By his Att'y.

Henry Williams

# UNITED STATES PATENT OFFICE.

GEORGE DOHERTY, OF BOSTON, MASSACHUSETTS.

## BOTTLE-RINSING MACHINE.

SPECIFICATION forming part of Letters Patent No. 695,446, dated March 18, 1902.

Application filed July 25, 1901. Serial No. 69,693. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE DOHERTY, a citizen of the United States, residing in Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Bottle-Rinsing Machines, of which the following is a specification.

This invention has for its object to provide an improved rinsing-machine which will rinse a number of bottles—say a case of twenty-four bottles—at one operation and will enable the twenty-four bottles to be removed and placed in the case at a second and single operation. By this means the number of bottles usually contained in a case can be rinsed, removed from the rinsing-machine, and placed in the case for filling in a very short time.

The nature of the invention is fully described in detail below and illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of my improved contrivance with a few bottles in position for rinsing. Fig. 2 is a vertical section taken on line 2, Fig. 1, with the case reversed and in position on the bottle-frame. Fig. 3 is a horizontal vertical section of the case and frame removed from the rinsing-machine and reversed from the position indicated in Fig. 2, dotted lines showing the frame removed from the case.

Similar letters of reference indicate corresponding parts.

*a* represents a series of horizontal pipes, from which extend vertically the tubular spindles or rinsing-pipes *b*, provided at their upper ends with suitable perforations *b'*. The pipes *a* are closed at one end and at the other end are connected with the supply-pipe *c*. This arrangement is substantially as is now common in bottle-rinsing machines.

I prefer to provide twenty-four spindles *b* at equal distances apart and arranged to coincide with the arrangement of twenty-four bottles in an ordinary case. *A* represents a base or bottom of a rectangular frame provided with holes *A'*, arranged to receive and register with the necks *B'* of bottles *B* as they are packed in a case. This base *A* has two downwardly-extending supports *C* near its opposite ends and a pair of horizontally-extending cleats *D* at its opposite ends, serving the purpose of handles and supporting ledges.

Secured to its upper surface and extending vertically therefrom between the transverse rows of holes *A'* are cross-partitions *E*, and extending longitudinally with the base and at right angles with the cross-partitions and secured thereto by means of suitable recesses in the latter are longitudinal partitions *F*, located above the spaces between the longitudinal rows of holes *A'*. The upper edges of these partitions are flush with each other. The whole—that is, the parts *A*, *B*, *C*, *D*, *E*, and *F*—constitute a frame, which I term the “bottle-frame.”

*H* represents a case of suitable size to receive two dozen bottles in its rack *H'*, which coincides with the partitions *E F* and is constructed as usual. The bottle-frame is of such a size and shape as to allow the case to extend over it (or to drop into the case) until the end edges of the case strike the handles or ledges *D*.

In practice a number of bottles—say twenty-four, which would be a caseful—are placed neck down in the holes *A'* in the base *A* of the bottle-frame, and the said frame is then set by means of its supporting-feet *C* on the rinsing-machine *a* and over the rinsing-spindles *b*, as in Fig. 1, the bottle-frame being as shown in both Figs. 1 and 2. After the bottles have been washed in the ordinary manner the case *H* is reversed and placed over the bottle-frame, with its ends resting on the handles or ledges *D*, as shown in Fig. 2. Then the bottle-frame and case are lifted bodily and together off the rinsing apparatus by means of the handles *D*, carrying with them the bottles *B*, whose bodies are too large to pass through the openings *A'*. Then the case is reversed, so as to bring the bottles right side up on the bottom thereof, as in full lines in Fig. 3, and the bottle-frame lifted off, as in dotted lines in Fig. 3. The bottles are then ready to be refilled. Thus it will be seen that a case of twenty-four bottles can have the bottle-frame applied to it, be reversed, and the bottles dropped all together over the rinsing-spindles and cleaned all together and the case of bottles lifted off the rinsing-machine and reversed, so that practically it takes but little more time to rinse two dozen bottles than to rinse a single bottle by the old method of placing bottles one

at a time upon the rinsing-spindles and removing them singly or, at most, two or three at a time.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In combination, the rinsing-machine proper comprising the pipes *a, c* and rinsing-spindles *b*; the bottle-frame comprising the base *A* provided with the holes *A'*, the transverse partitions *E* and longitudinal partitions *F*, the feet *C*, and the lifting-handles or supporting-ledges *D*; and the case *H, H'*, all substantially as and for the purpose set forth.
2. In a rinsing-machine, the bottle-frame

comprising the base *A* provided with the holes *A'*, the transverse partitions *E*, and longitudinal partitions *F*; the feet *C* for supporting the frame on the rinsing-machine; the horizontal lifting-handles or supporting-ledges *D* secured to the opposite ends of the frame; and the case *H, H'*, all substantially as and for the purpose described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE DOHERTY.

Witnesses:

HENRY W. WILLIAMS,  
A. N. BONNEY.