

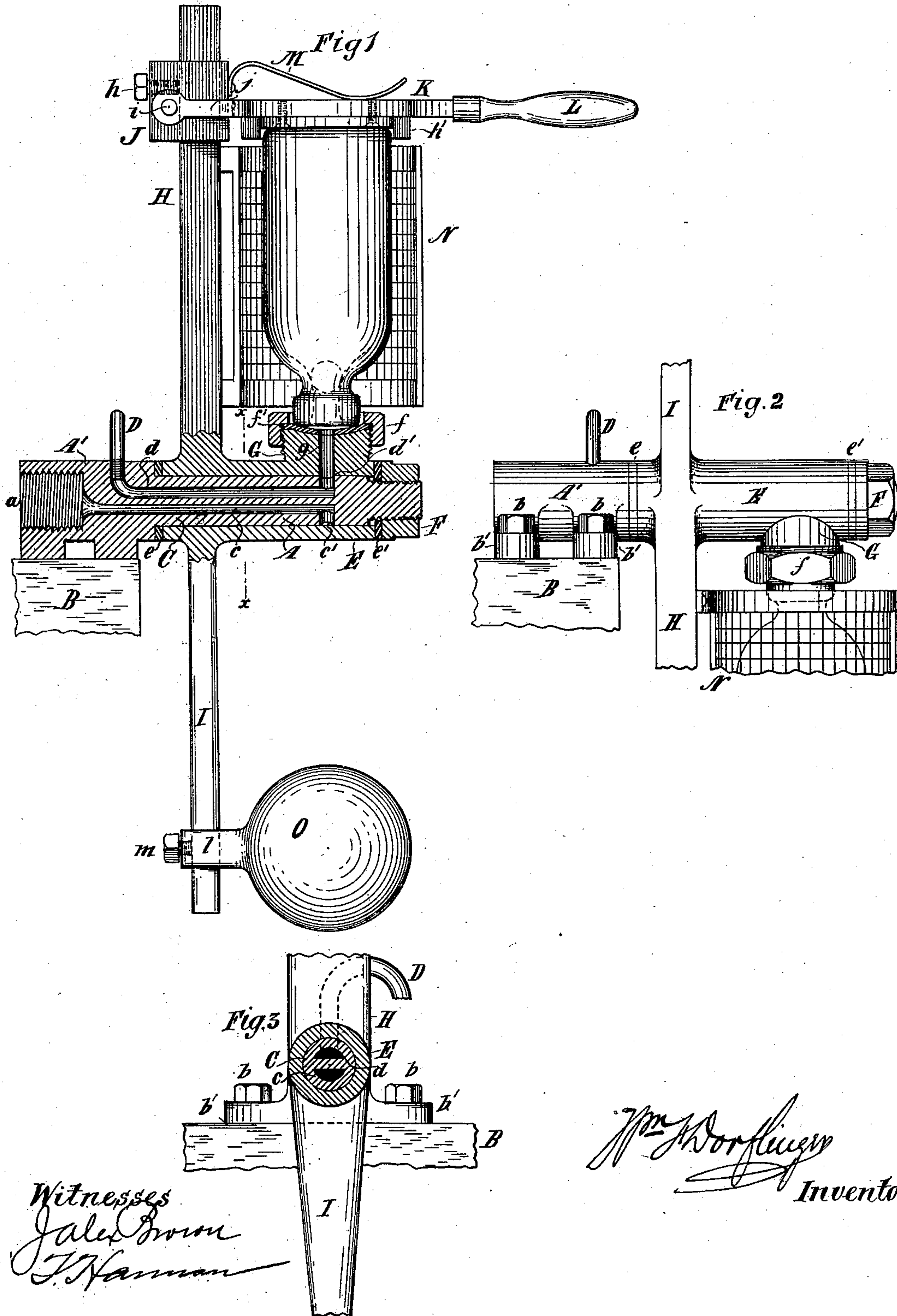
(No Model.)

W. F. DORFLINGER.

BOTTLING MACHINE.

No. 334,357.

Patented Jan. 12, 1886.



Witnesses  
J. A. Brown  
J. H. Haman

W. F. Dorflinger  
Inventor



# UNITED STATES PATENT OFFICE.

WILLIAM F. DORFLINGER, OF NEW YORK, N. Y.

## BOTTLING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 334,357, dated January 12, 1886.

Application filed June 29, 1885. Serial No. 170,096. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM F. DORFLINGER, of New York, in the county and State of New York, have invented a certain new and useful Improvement in Bottling-Machines, of which the following is a specification.

My improvement relates to machines employed in bottling aerated beverages, and is especially applicable to the use of bottles in which an internal ball-stopper is held up in the neck of the bottle by gaseous pressure from within the bottle.

I will describe in detail a bottling-machine embodying my improvement, and then point out the novel features in the claim.

In the accompanying drawings, Figure 1 is a sectional side elevation of a bottling-machine embodying my improvement. Fig. 2 is a view of certain parts on an enlarged scale, certain portions being broken away and a cage or bottle-guard employed therein being in a different position from that shown in Fig. 1; and Fig. 3 is a cross-sectional view of certain parts, taken on the plane of the dotted line *x x*, Fig. 1.

Similar letters of reference designate corresponding parts in all the figures.

A designates the plug of a cock, here shown as provided with a screw-thread socket, *a*, in a portion, *A'*, thereof, which affords means by which a pump may be attached to the bottling-machine. I have shown bolts *b* passing through holes in projection *b'* upon the portion *A'* of the plug, by which the plug is secured to a support, B. The plug A has a straight cylindrical portion, C, of less diameter than the portion *A'* thereof. Passages or ducts *c d* extend for a distance through the plug. The passage or duct *c* opens at one end into the socket *a* and terminates at the other end in a port, *c'*, at the outside of the portion C of the plug. The passage or duct *d* communicates at one end with an overflow-pipe, D, secured upon the portion *A'* of the plug, and terminates at the other end in a port, *d'*, at the outside of the portion C of the plug opposite the port *c'*. The ports *c' d'* are arranged in the direction of the diameter of the plug.

E designates the shell of the plug. As shown, it is cylindrical. It may be turned freely about the portion C of the plug. Packing material *e*, of any suitable kind, is inter-

posed between one end of the shell E and the portion *A'* of the plug. Similar packing material, *e'*, is interposed between the other end of the shell, and a nut, F, screwed upon the screw-threaded outer end of the portion C of the plug. The nut F secures the shell E in position upon the plug. A screw-threaded neck, G, extends from the shell E at right angles to the length thereof. A hollow nut, *f*, is screwed upon the neck, and secures a ring of packing material, *f'*, preferably of india-rubber, upon the end of the neck G. A passage or duct, *g*, extends longitudinally through the neck G. A hole in the packing material *f* affords communication from the passage or duct *g* to the external atmosphere. When the shell E is rotated, the inner end of the passage or duct *g* may be brought into coincidence with either of the ports *c' d'*, as desired.

Arms H I extend in opposite directions from the shell E, near the portion *A'* of the plug. These arms are preferably made integral with the shell; but they may be made separately and secured thereto by collars and bolts, or otherwise, if desirable.

J is a sliding piece or collar upon the arm H, adapted to be moved along thereon, and to be secured in different positions by means of a set-screw, *h*. An arm, K, is pivotally connected to the collar J by means of a pin or pivot, *i*, passing through a forked end, *j*, upon said arm and an aperture in the collar J. The arm K may be swung upon the pin or pivot, *i*. A handle, L, is arranged upon the outer end of the arm K. Upon one side of the arm K is a socket, *k'*. (Shown as secured to said arm by screws.) This socket is adapted to receive the bottom of a bottle when the arm K has been swung into a position where the bottle may be received. A bottle placed in the socket *k* will have its mouth extending into the hollow nut *f* upon the neck G of the shell, and resting against the packing material *f'*. A flat spring, M, secured at one end upon the collar J and bearing near the other end upon the arm K, tends to secure the bottle in this position. The arm K thus constitutes a swinging support for the bottle. By adjusting the collar J lengthwise upon the arm H, bottles of different lengths may be accommodated.

N designates a cage or bottle-guard extend-



ing semicircularly about the bottle. It may be made of wire-netting mounted upon a frame, as is usual. It is secured by bolts or otherwise to the arm H.

5 O designates a counterbalance-weight. It is secured by means of a collar, *l*, and set-screw *m* upon the arm I. It may be adjusted into different positions upon said arm by means of the set-screw *m*. This counterbalance-  
10 weight facilitates the rotation of the shell E and its appurtenances about the plug A.

When the bottle is to be filled, the shell E is rotated by means of the handle L and arm K into the position shown in Fig. 2. The pas-  
15 sage *g* is then coincident with the port *c'*, and the liquid readily flows into the bottle. When the latter is filled, the shell is rotated into the position shown in Fig. 1. The passage *g* be-  
20 ing then coincident with the port *d'*, the ball-stopper falls into the mouth of the bottle and closes it, and the surplus liquid passes off through the duct *d* and overflow-pipe D.

It will be seen that by my arrangement I construct a very simple and efficient bottling-machine, which may be made very cheaply, 25 and is not liable to get out of order.

What I claim as my invention, and desire to secure by Letters Patent, is—

In a bottling-machine, the combination, with the plug of a cock, of a rotary shell surround- 30 ing said plug, an arm rigidly secured to said shell, a collar fitting about said arm and adjustably secured thereto, and a swinging support for a bottle, supporting the bottle at its base, pivotally connected to said collar, and 35 swinging toward and from the axis of the cock, substantially as specified.

WM. F. DORFLINGER.

Witnesses:

J. ALEX. BROWN,

T. HANNAN.