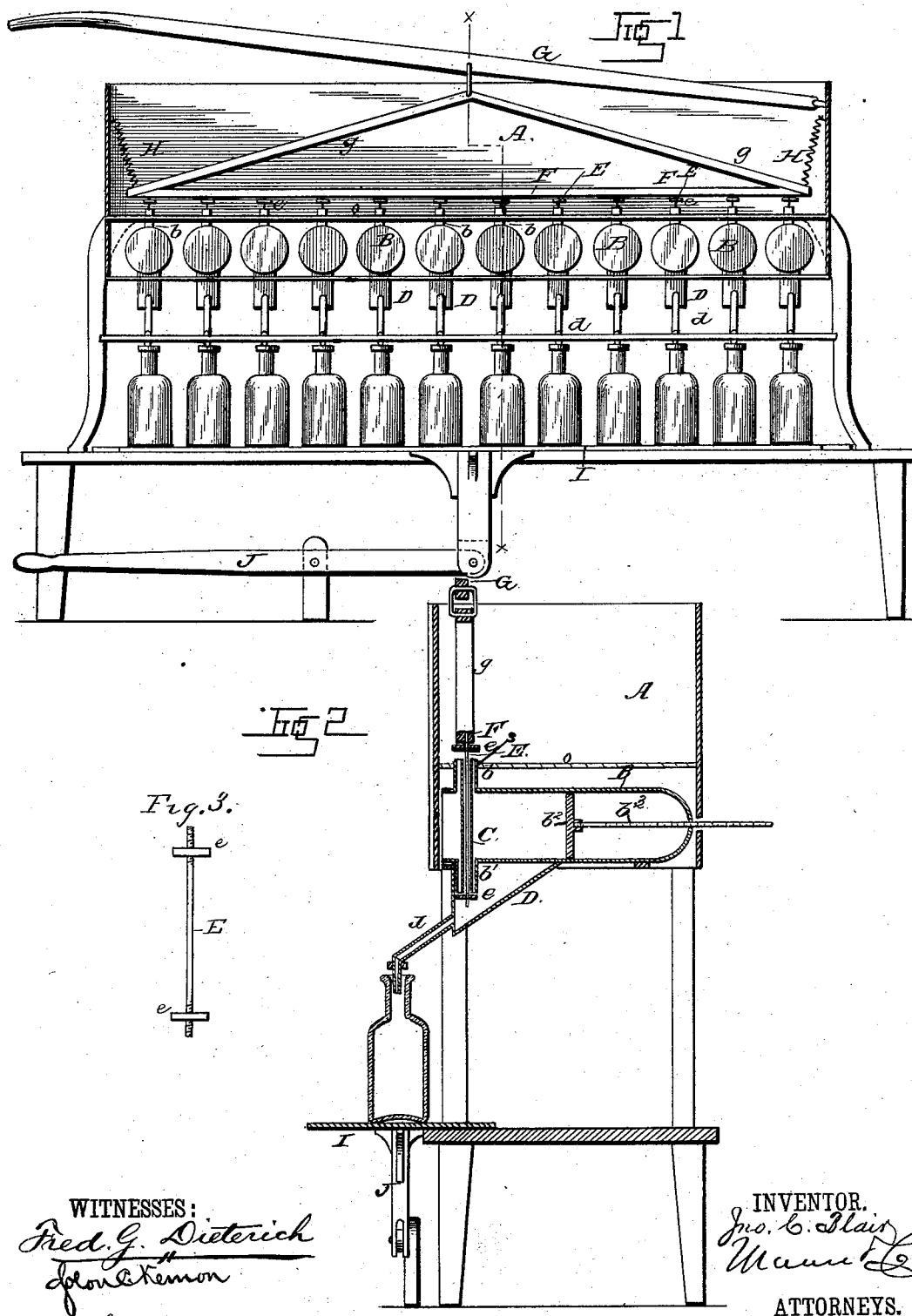


(No Model.)

J. C. BLAIR.
BOTTLING MACHINE.

No. 298,060.

Patented May 6, 1884.



UNITED STATES PATENT OFFICE.

JOHN C. BLAIR, OF LOUISVILLE, MISSISSIPPI.

BOTTLING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 298,060, dated May 6, 1884.

Application filed May 12, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. BLAIR, of Louisville, in the county of Winston and State of Mississippi, have invented a new and useful Improvement in Bottling-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same.

This invention consists, mainly, in certain special peculiarities of construction, fully described hereinafter, by means of which a very simple and efficient machine is obtained.

In the accompanying drawings, Figure 1 is a front elevation, partly in section; Fig. 2, a vertical cross-section on line *x x*, Fig. 1; and Fig. 3 is a detail view of the valve-rod and its adjustable valves.

A represents a tank for holding the liquids to be bottled, which may be constructed of any proper size, form, and material.

B represents one of a series of cylinders located below the tank, each of which is provided with a vertical tube, *b*, extending up through a hole, *s*, in the bottom O of the tank, and a vertical tube, *b'*, extending downward from the cylinder, as shown.

*b*² represents a piston located in the cylinder, and *b*³ a rod extending through one end wall of the cylinder, as shown. The piston-rod *b*³ is graduated, as clearly shown in Fig. 2. By means of this rod the capacity of the cylinder, which is gaged to ounces, can be determined at will.

C represents a small tube extending through the tubes *b b'* of the cylinder, by means of which proper provision is made for venting when the bottles are being filled.

D represents a cup of any proper form, located beneath the tube *b'* of each cylinder, which is provided with the bent discharge-tube *d*, as shown.

E represents valve-rods extending through the tubes of the cylinders, each of which is provided above and below the mouths of the tubes with a valve, *e*. The ends of each rod are threaded, and the valves are also threaded, as shown in Fig. 3, this construction being employed in order that the valves may be adjusted vertically upon the rod when desired, to vary the throw of the valves, so that they will operate more or less quickly.

F represents a bar extending the length of

the machine, which has attached thereto the upper ends of the valve-rods E, as shown.

G represents a lever pivoted upon the top of the tank, and *g g* connecting-bars by means of which the valve-bar F is united thereto.

H H represent springs of any proper construction, by means of which the valve-bar, after it has been depressed by the lever G, may be returned to its normal position when the lever is released.

I represents a platform adapted to support the bottles, which is itself held by the lever J, it being secured to the short arm of the same, as shown. When the parts are in their normal positions, the lever G remains undisturbed in its upward position, and hence the valve-bar F and its attached valve-rods are in their raised positions. The mouth of the tube *b* of the cylinder thus being exposed, and the mouth of the tube *b'*, being closed, the cylinder is filled with liquid, the precise amount being determined by the position of the piston. When the parts are in this position, and the platform, with its bottles properly arranged thereon, has been raised by the lever J to bring the mouths of the bottles over the ends of the tubes *d d*, the filling operation may be performed by simply depressing the lever G as a result of this action, and the valve-bar F is moved into its downward position, and consequently the upper valve also is so moved as to cover the mouth of the tube *b* of the cylinder, and prevent the entrance of liquid from the tank, and the lower valve so moved as to expose the mouth of tube *b'*, and permit the flow of liquid from the cylinder to the cups and bottles. When this result has been accomplished, the lever G is released to permit the parts to return to their normal position. The filled bottles being removed and the platform being again supplied, the described operation may be repeated.

Having thus described my invention, what I claim as new is—

1. The combination, with the cylinder B, having the tubes *b b'* and piston *b*², of the tube C, valves *e*, and chamber D, substantially as shown and described.

2. The combination, with the cylinder B, having tubes *b b'* and piston *b*², of the valve-rod E, threaded near its ends, adjustable valves *e* upon

said rod, and means for operating the valve-rod, substantially as shown and described.

3. The combination, with the tank A, having an orifice, *s*, in its bottom, of the cylinder B, provided with the tubes *b b'*, the former, *b*, passing through the orifice *s*, graduated piston *b*², and tube C, having adjustable valves *e* on its valve-rod E, substantially as shown and described.

4. The combination, with the tank A, having an orifice, *s*, in its bottom, valve-bar F,

connecting-bars *g*, and lever G, of the cylinder B, having tubes *b b'* and graduated piston *b*², tube C, valve-rod E, threaded near its ends, adjustable valves *e* upon said rod, platform I, and levers J, substantially as shown and described.

JOHN C. BLAIR.

Witnesses:

J. F. SHARP,

C. M. COLEMAN.