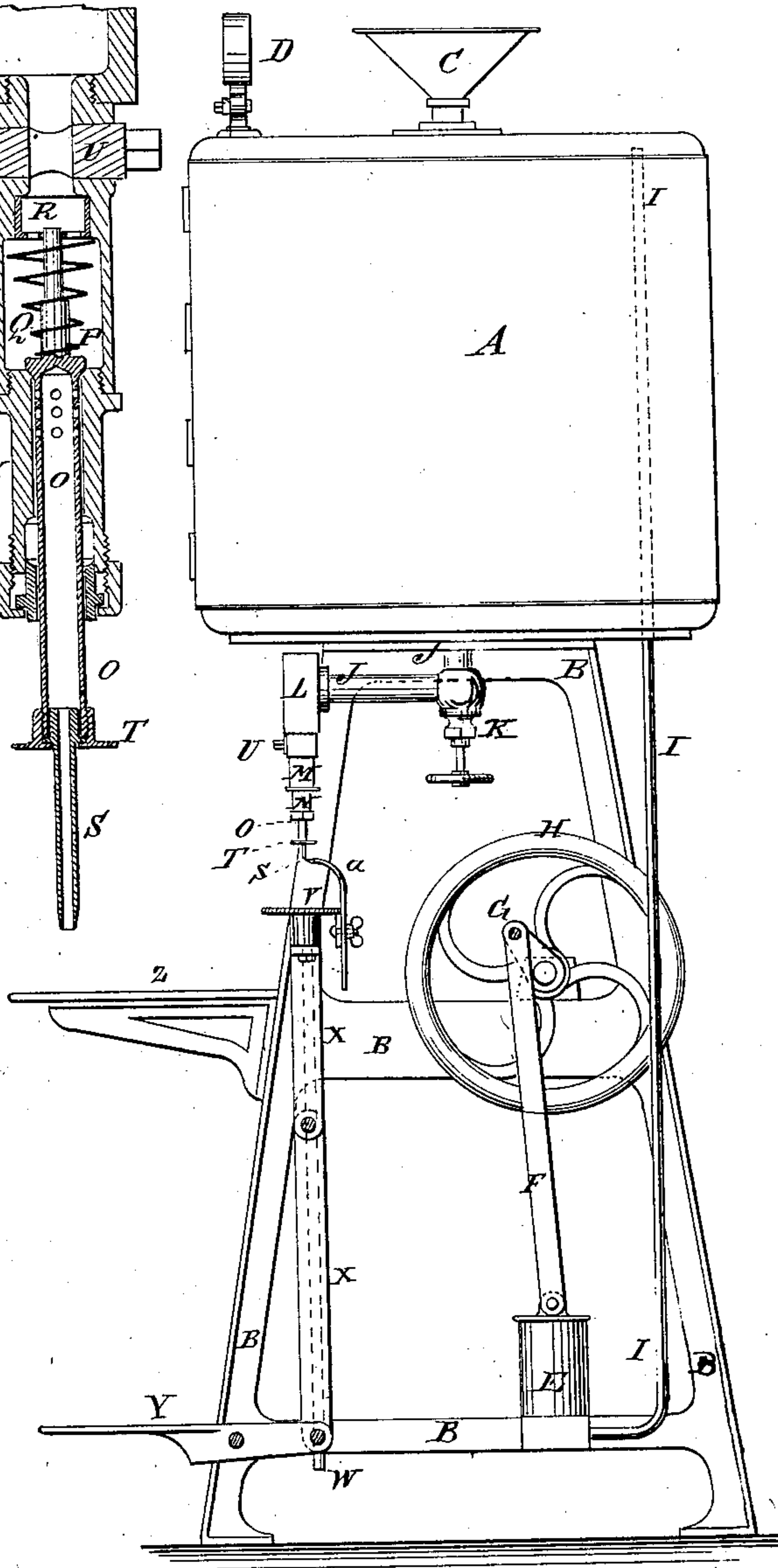
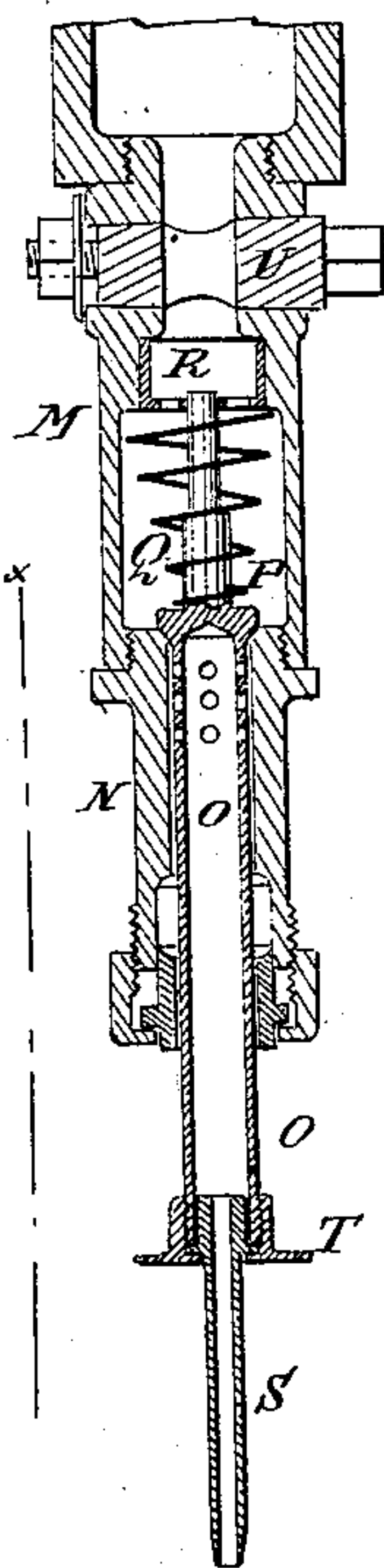


E. KLEIBER.  
Bottle Filler.

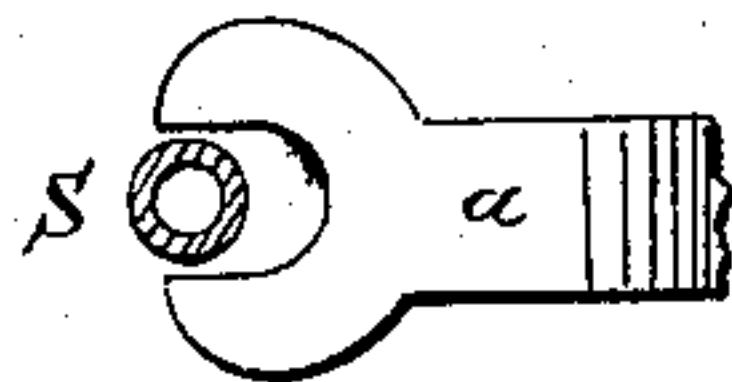
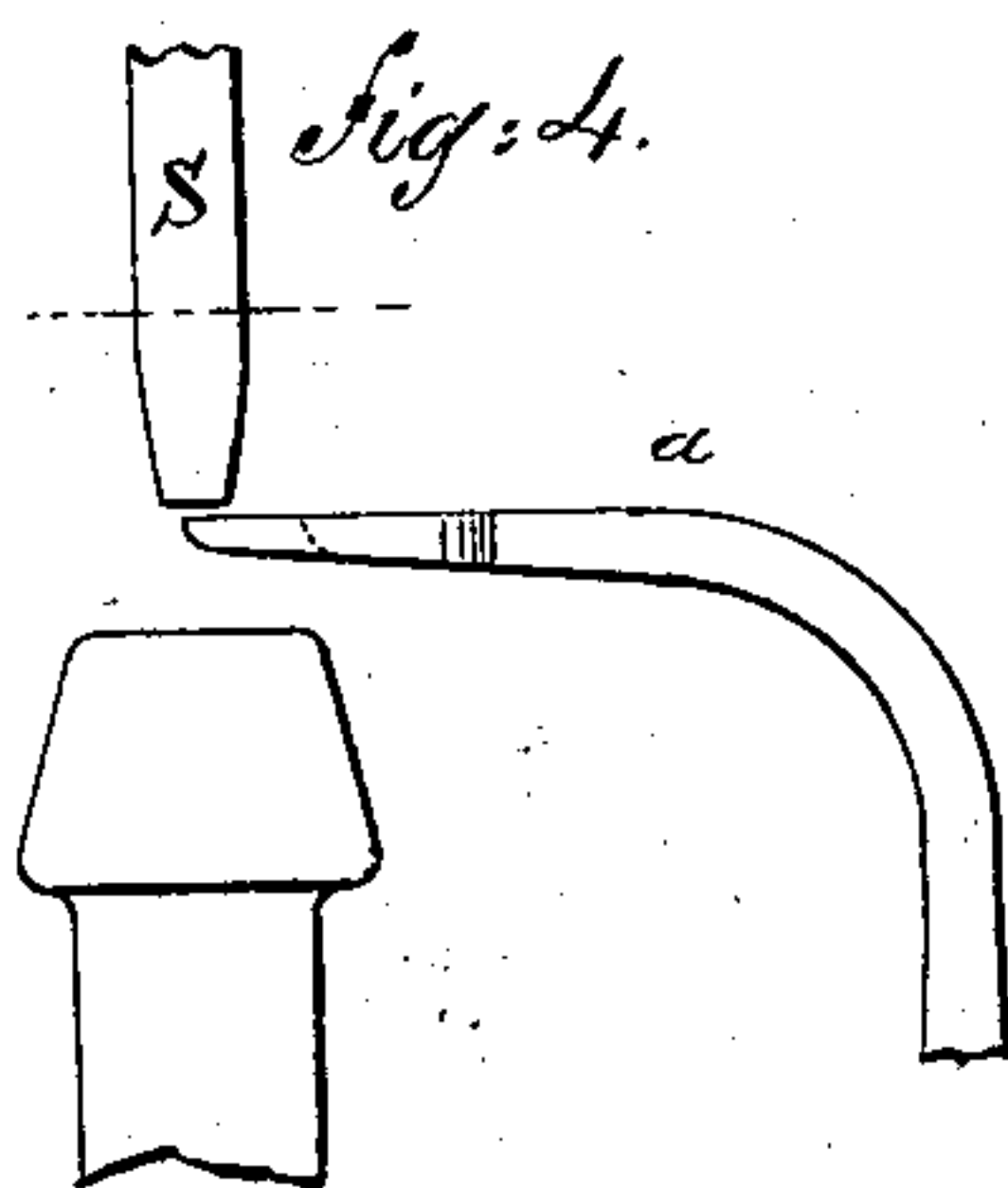
**Patented Dec. 28, 1880.**

*Fig: 2.*



*Fig: 5.*

WITNESSES:  
Chas. Nida,  
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C. Kleiber.

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**ATTORNEYS.**



# UNITED STATES PATENT OFFICE.

EMILE KLEIBER, OF NEW ORLEANS, LOUISIANA.

## BOTTLE-FILLER.

SPECIFICATION forming part of Letters Patent No. 236,043, dated December 28, 1880.

Application filed July 3, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, EMILE KLEIBER, of New Orleans, in the parish of Orleans and State of Louisiana, have invented a new and useful Improvement in Bottle-Fillers, of which the following is a specification.

Figure 1 is a front elevation of the improvement. Fig. 2 is a side elevation, partly in section, taken through the line *xxx*, Fig. 1. Fig. 3 is a sectional elevation of one of the cocks enlarged. Figs. 4 and 5 represent an arm for opening the cocks.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish machines for filling bottles with viscid oils and other fluids and liquids, so constructed that the fluid will be forced out by air-pressure and the cocks will be opened by the rise of the bottles to be filled.

The invention consists in constructing a bottle-filler of a tank having pressure-gage and discharge-pipe, the air-pump having its discharge-pipe connected with the pressure-tank, the distributing-chamber, the discharge-cocks having nozzles and flanges, the movable shelf to receive the bottles, the treadle, and the curved and slotted arms to open the discharge-cocks, as will be hereinafter fully described.

A represents the tank to receive the oil or other fluid, and which is mounted upon a frame, B, of convenient height. The tank A is provided with a funnel, C, for convenience in pouring in the fluid, and with a pressure-gage, D, to indicate the pressure upon the fluid.

To the lower part of the frame B is attached an air-pump, E, to the piston-rod of which is pivoted the lower end of a connecting-rod, F. The upper end of the connecting-rod F is pivoted to a crank, G, attached to the journal of the hand wheel or crank H, which is pivoted to the upper part of the frame B. The discharge-pipe I of the air-pump E passes up through the bottom of the tank A and terminates near the top of the said tank, so as to discharge the air above the liquid that may be in the said tank and put the said liquid under pressure.

To the bottom of the tank A is secured the end of a bent pipe, J, which is provided with

a valve, K, so that the escape of the liquid can be prevented when desired. The other end of the pipe J is connected with a chamber, L, secured at its ends to brackets attached to the frame B.

To the bottom of the chamber L are secured the barrels M N of a number of cocks. The lower parts, N, of the barrels have tubes O placed within them, which are made tight by stuffing-boxes at the lower ends of the said parts N of the barrels. The upper ends of the tubes O are closed, and have flanges P formed upon them to rest upon the upper ends of the parts N and serve as valves to prevent the liquid from escaping. In the sides of the upper parts of the tubes O are formed a number of apertures to allow the liquid to flow out when the said tubes are raised. The tubes O are held down by spiral springs Q, the lower ends of which rest upon the closed upper ends of the said tubes O, and their upper ends rest against perforated plates or spiders R, placed in the upper parts, M, of the cock-barrels, and resting against shoulders formed in the said parts M. In the lower ends of the tubes O are secured the upper ends of small tubes or nozzles S, of such a size as to readily enter the mouths of the bottles to be filled. To the lower ends of the tubes O are also attached flanges T, for the bottles to strike against, so that the tubes O may be raised to allow the liquid to flow out by the rise of the bottles to be filled.

In the upper part, M, of each barrel is placed a valve, U, so that the liquid can be shut off from any of the cocks when desired.

The bottles, while being filled, rest upon a shelf, V, to which are attached guide-rods W, which pass through guide-holes in the frame B, or in brackets attached to the said frame.

To the center of the shelf V is hinged the upper end of a jointed rod, X, the lower end of which is hinged to a treadle, Y. The treadle Y is hinged to the lower part of the frame B in such a position that it may be readily reached and operated by the attendant with his feet.

To the forward part of the frame B, a little below the shelf V, is placed a stationary shelf, Z, to receive the bottles before they have been placed upon the said shelf V, and after they



have been filled and removed from the said shelf V.

In using the machine the air-pump E is worked to put the liquid in the tank A under the desired pressure, the valve K is opened, and a set of bottles to be filled is placed upon the shelf V directly beneath the nozzles S of the cocks. The treadle Y is then operated to raise the shelf V, bringing the bottles to be filled over the nozzles S, until the upper ends of the bottles strike the flanges T and raise the valve-tubes O, allowing the liquid to flow into the bottles, filling them equally. When the bottles are filled the foot-pressure upon the treadle Y is withdrawn, and the springs Q force the valve-tubes O down and stop the outflow of the liquid instantly. The filled bottles are then removed and replaced with empty ones, and the operation is repeated until the air-pressure in the tank A becomes so much reduced as to no longer cause a free outflow of the liquid. The air-pump E is then operated to force another supply of air into the tank A, when the operation of filling the bottles is continued. In this way the bottles can be filled very rapidly.

If desired, curved arms *a* may be bolted adjustably to downwardly-projecting lugs formed upon or attached to the inner part of the shelf V. The upper parts of the arms *a* are bent outward, as shown in Figs. 2 and 4, and their ends are slotted or forked, as shown in Fig. 5, to receive the nozzles S. The arms *a* are made of such a length that their upper ends will be a little above the upper ends of the bottles, as shown in Fig. 4, so as to strike against the flanges T and raise the valve-tubes O to allow the liquid to flow into the bottles. This construction I prefer, as it allows the air in the bottles to escape freely as the liquid flows into the said bottles.

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

1. A bottle-filler constructed substantially as herein shown and described, consisting of the tank A, having pressure-gage D and discharge-pipe J, the air-pump E F G H, having

discharge-pipe I, leading into the upper part of the tank A, the distributing-chamber L, the discharge-cocks M N O Q, having nozzles S and flanges T, the movable shelf V, having guides W, the treadle X Y, and the curved and slotted arms *a*, as set forth.

2. In a bottle-filler, the combination, with the tank A, having pressure-gage D and discharge-pipe J, of the air-pump E F G H, having its discharge-pipe I connected with the tank A, the distributing-chamber L, the discharge-cocks M N O Q, having nozzles S and flanges T, and the movable shelf V, substantially as herein shown and described, whereby the cocks will be opened and closed by the rise and descent of the bottles, as set forth.

3. In a bottle-filler, the combination, with the distributing-chamber L, of the cock-barrels M N, the springs Q, and the perforated tubes O, having valve-flanges P upon their closed upper ends, substantially as herein shown and described, whereby the liquid will be allowed to flow out when the tubes are raised, as set forth.

4. In a bottle-filler, the combination, with the nozzles S of the discharge-cocks M N O Q, of the flanges T, substantially as herein shown and described, whereby the cocks will be opened to discharge the liquid by the tops of the bottles, as set forth.

5. In a bottle-filler, the combination, with the movable shelf V, that carries the bottles, and with the flanges T, attached to the nozzles S of the discharge-cocks, of the curved and slotted arms *a*, substantially as herein shown and described, whereby the discharge-cocks will be opened by the rise of the shelf, as set forth.

6. In a bottle-filler, the combination, with the discharge-cocks M N O Q, of the valves U, substantially as herein shown and described, whereby the escape of the liquid through the cocks can be prevented, as set forth.

EMILE KLEIBER.

Witnesses:

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WM. J. DUNN.