

C. A. GREGORY.

Improvement in Apparatus for Filling Bottles.

No. 133,094.

Patented Nov. 19, 1872.

FIG. 1

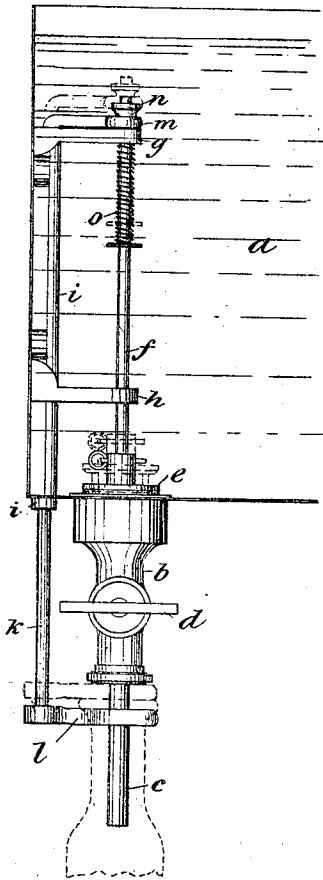
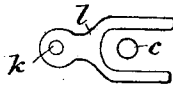


FIG. 2



Witnesses

Charles G. Simpson  
Frank H. Reynolds

Inventor

C. A. Gregory

# UNITED STATES PATENT OFFICE.

CHARLES A. GREGORY, OF QUEBEC, CANADA, ASSIGNOR OF ONE-HALF HIS RIGHT TO WESTON HUNT AND JOHN HENRY CLINT, OF SAME PLACE.

## IMPROVEMENT IN APPARATUS FOR FILLING BOTTLES.

Specification forming part of Letters Patent No. 133,094, dated November 19, 1872.

To all whom it may concern:

Be it known that I, CHARLES ALEXANDER GREGORY, of the city of Quebec, in the district of Quebec, in the Province of Quebec, Canada, have invented new and useful Improvements on the Apparatus for Filling Bottles; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, where—

Figure 1 represents a view of the apparatus, and Fig. 2 represents a plan looking up.

My invention has reference to a form of bottle-filler which may be termed self-acting, as the liquid is allowed to escape from the vessel by the pressure of the bottle which is being filled, and by withdrawing the bottle the flow is stopped, thus obviating any chance of wasting or spilling the fluid.

Similar letters of reference indicate like parts.

Letter *a* is the tank, reservoir, or vessel of any convenient size or shape, to the under side of which, in any suitable position, is attached a pipe, *b*, terminating in a screwed end, into which screws a short pipe, *c*, its length being regulated by that of the neck of the bottle into which it enters. *d* is a cock to regulate or stop the flow of the liquid from the tank *a* through the pipe *b*. The mouth of the pipe *b* is formed as a valve-seat to receive the valve *e*, which, when lowered, cuts off all communication between the tank *a* and pipe *b*. This valve is attached to a vertical rod, *f*, which can be moved up and down through guides *g* and *h*, through which, or a tube, *i*, secured to or carried out in any way from the side of the vessel, passes also another rod, *k*, to the lower end of which is secured, at right

angles to the rod, a fork, *l*. The upper end of this rod is bent over and terminates in an eye, *m*, which is placed over the rod *f* just above the guide *g*, and secured in place by a nut, *n*. On the rod *f* is placed a spiral spring, *o*.

The operation of my invention is as follows: When the reservoir *a* is filled to the required amount, the cock *d* is turned so as to regulate the rapidity of the flow of the liquid, the valve *e* preventing any escape of the fluid. The pipe *c* is then introduced into the neck of the bottle to be filled, and the bottle itself pressed upward, coming in contact with the fork *l* raises it, and with it the rod *k*, which, at the same time, lifts both the rod *f* and also the valve *e* from its seat, thus allowing the free discharge of the liquid from the reservoir, as shown by dotted lines in Fig. 1, into the bottle, which, when filled, is simply withdrawn, by that action releasing the fork *l* and allowing the rods *f* and *k* to resume their former positions and the valve *e* to drop properly into its seat, the guides *g* and *h* always keeping the rod *k*, and thus the valve *e*, in the proper position.

Having thus described the construction and operation of my invention, to which I have given the name of the "Universal Bottling Apparatus," I beg to state that what I claim is as follows:

The valve *e*, rods *f* and *k*, spiral spring *o*, and fork *l*, in combination with tank *a* and pipes *b* and *c* and cock *d*, operating substantially as described.

Montreal, 2d day of August, A. D. 1872.

C. A. GREGORY.

Signed in presence of—

CHARLES G. C. SIMPSON,  
FRAS. HY. REYNOLDS.