

WILLIAM TOLLAST.

Siruping Device for Bottling-Machines.

No. 126,103.

Patented April 23, 1872.

Fig. 1

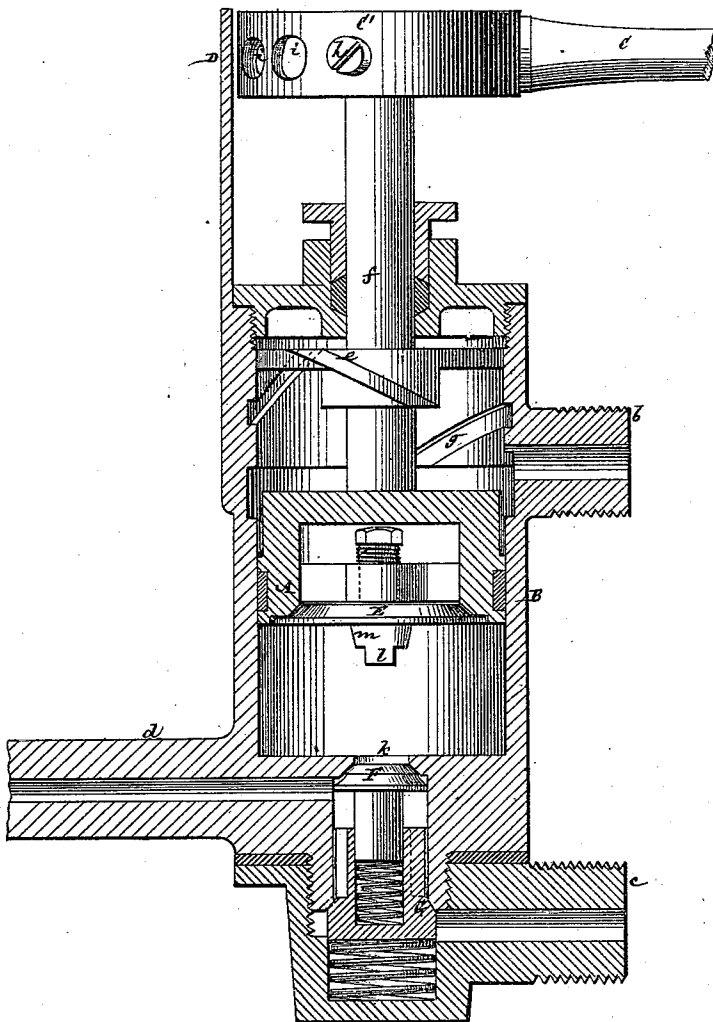
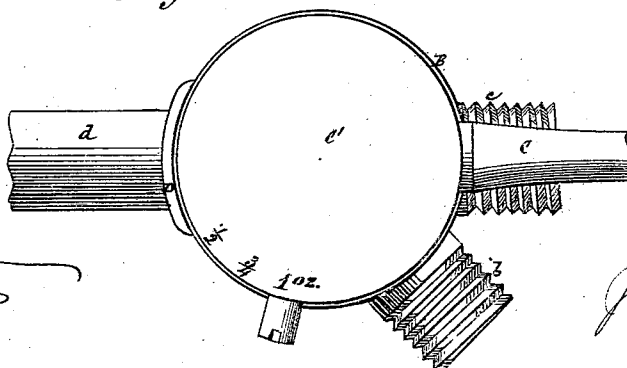


Fig. 2



Witnesses.

Fred Hynes
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UNITED STATES PATENT OFFICE.

WILLIAM TOLLAST, OF NEW YORK, N. Y.

IMPROVEMENT IN SIRUPING DEVICES FOR BOTTLING-MACHINES.

Specification forming part of Letters Patent No. 126,103, dated April 23, 1872.

To all whom it may concern:

Be it known that I, WILLIAM TOLLAST, of the city, county, and State of New York, have invented a new and useful Improvement in Siruping Devices for Bottling-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification, and in which—

Figure 1 represents a sectional elevation of an apparatus constructed in accordance with my invention, and Fig. 2 a plan of the same.

Similar letters of reference indicate corresponding parts in both figures.

My invention relates to devices for supplying a measured quantity of sirup into bottles when under the filling-head of a bottling-machine, combined with a supply of water charged with carbonic-acid gas under pressure, and caused to also pass through the siruping device, whereby the bottle is charged with sirup and filled with said water in a continuous manner while under the bottling-machine, to which the siruping device forms an attachment. The invention consists in a novel construction of device or apparatus for the purpose, including a particular combination of details, among which is a screw-plunger and system of valves operating in connection therewith, whereby efficiency is combined with simplicity, durability, and compactness.

Referring to the accompanying drawing, A is a piston which is worked in a close cylinder, B, that connects, as at *b*, with the sirup-reservoir; at *c*, with the soda-water generator or fountain; and at *d* with the filling-head of a bottling-machine. The piston A is restricted in its travel to the lower portion of the main body of the cylinder below the connection or point of attachment *b*, and is operated by turning it and causing a screw-disk or arms, *e*, on its rod *f* to run up and down a spiral groove, *g*, in the upper portion of the main body of the cylinder. C is a handle for turning the rod *f*, and which may be fitted with a graduated disk or concentric head, C', graduated on its face, and operating in concert with a fixed index or upright, D, to determine the rotation and rise and fall of the piston, ac-

cording to the quantity of sirup it is required to inject or supply in charging a bottle, the head C' being provided with a removable stop, *h*, fitting any one of a series of holes, *i*, to arrest the handle at its point or place of adjustment. Said piston is fitted with a valve, E, opening outward or downward, so that when the piston is raised it creates a vacuum which causes the sirup to flow from the inlet *b* through and below the piston, the height of the lift of the latter determining the amount of sirup so supplied; or, in other words, the space in the cylinder below the piston measuring the supply.

When the piston A is driven down it expels the sirup so received through an orifice, *k*, in the bottom of the cylinder controlled by a valve, F, and out through the passage *d* to the filling or bottling-head. This valve is carried by an independent lower valve, G, which controls the admission of soda-water by the inlet *c* to the space above said valve. These several valves E, F, and G are kept to their seats by springs when gaseous or fluid pressure is removed from them. While the sirup is being expelled through the orifice *k* the valve F is kept open by the pressure of the sirup, and the valve G kept closed in part by its spring and in part or mainly by the pressure of the gas-charged water; but as the piston A completes its downward stroke a projection, *l*, on its valve E strikes the valve F, and, by forcibly depressing it, lowers or opens the valve G, which admits the soda or gas-charged water from the inlet *c* to the space above said valve, and follows up the discharge of sirup through the outlet or passage *d*, thereby washing or clearing out the intervening space and fitting the bottle, as required. As the valve, E, however, by the action of the projection *l* on the valve F, opens the valve G, a stopper, *m*, attached to the valve E enters the orifice *k* and prevents the soda-water from passing into the body of the cylinder below the piston. When the piston is raised again the valves F and G close for a repetition in due course of the action, as before.

What is here claimed, and desired to be secured by Letters Patent, is—

1. The combination of the screw-piston or plunger A and its valve E with the close cyl-

inder B and index or measuring device, the sirup-inlet *b*, the valve F, and outlet *d* to the bottling-head, substantially as specified.

2. The combination, with the piston A and valve E, of the stopper *m* and projection *l*, the orifice *k* and the valves F and G, arranged in relation with each other and with the inlet *c*

and outlet *d*, essentially as and for the purpose or purposes herein set forth.

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Witnesses:

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