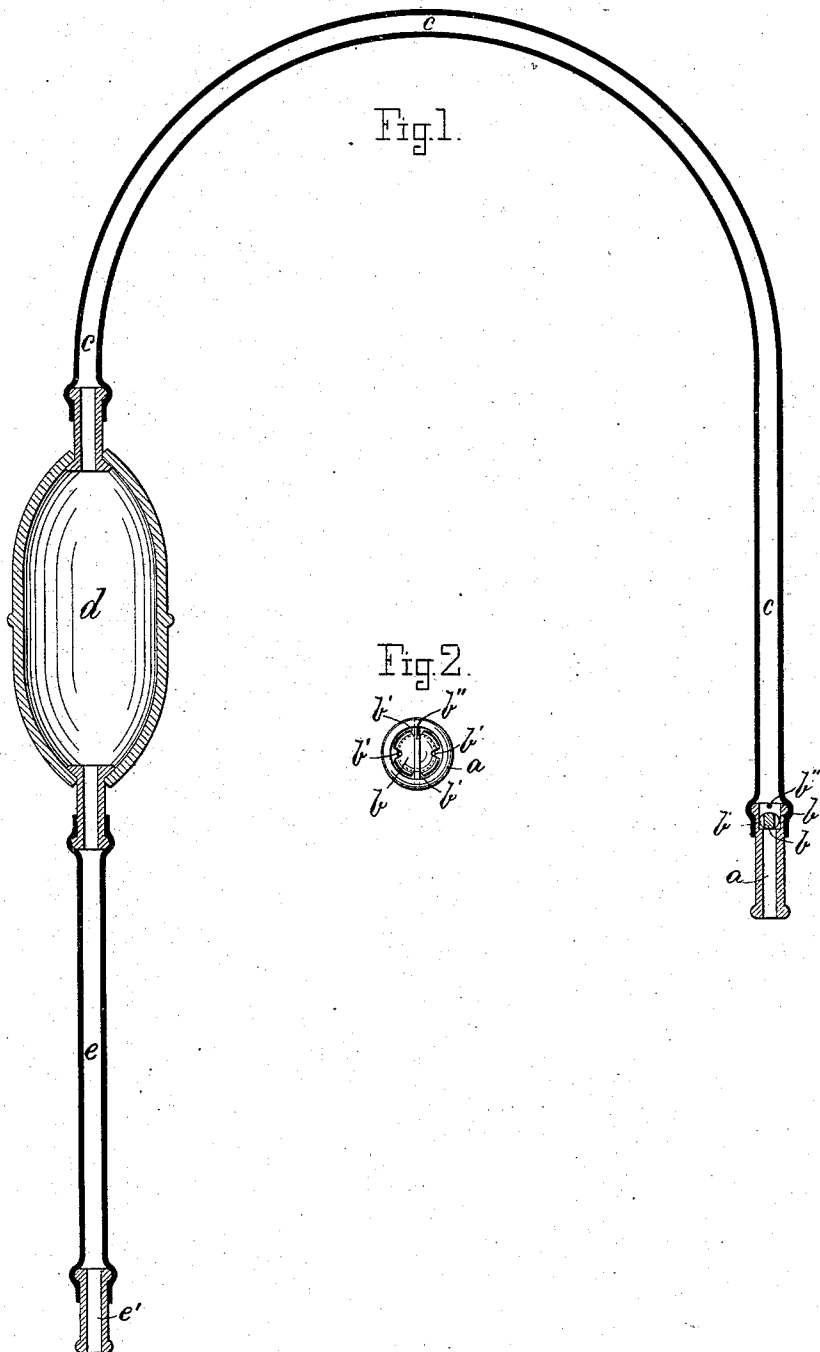


(No Model.)

H. S. LATHE & A. L. CROSS.
Siphon.

No. 241,551.

Patented May 17, 1881.



Witnesses.

Henry Chadbourne.
John H. Foster

Inventors.

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UNITED STATES PATENT OFFICE.

HIRAM S. LATHE AND ALONZO L. CROSS, OF LYNN, MASSACHUSETTS.

SIPHON.

SPECIFICATION forming part of Letters Patent No. 241,551, dated May 17, 1881.

Application filed November 4, 1880. (No model.)

To all whom it may concern:

Be it known that we, HIRAM S. LATHE and ALONZO L. CROSS, both citizens of the United States, residing at Lynn, in the county of Essex and State of Massachusetts, have jointly invented certain new and useful Improvements in Siphons; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to improvements in siphons; and it is particularly adapted for the purpose of drawing wines and liquors from barrels or other receptacles and to deliver such liquors into bottles, although the invention is equally useful for the purpose of drawing other kinds of liquids.

The invention is carried out as follows, reference being had to the accompanying drawings, in which—

Figure 1 represents a longitudinal section of our improved siphon, and Fig. 2 represents an end view of the suction-nozzle and its valve.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

a is the suction-nozzle, within which is located the partial valve *b*, which is provided with a number of notches, *b' b' b'*, around its circumference, as shown, and said partial valve is made of such a suitable material that it is of nearly the same specific gravity as the liquid that is drawn.

b'' is a stop-wire within the nozzle *a*, to prevent the partial valve *b* from rising out of the said nozzle.

c is the flexible suction-pipe, that is connected in its lower end to the suction-nozzle *a*, as shown.

e is the flexible delivery-pipe, with its delivery-nozzle *e'*, and *d* is a flexible bulb interposed between and connecting the suction and delivery pipes *c* and *e*, as shown.

The operation is as follows: After the suction-nozzle *a* has been submerged in the liquid the bulb *d* is squeezed together by the operator and the delivery-pipe *e* compressed between the fingers and held so, allowing the bulb *d* to expand and to draw the liquid up through the nozzle *a* and pipe *c*, and when the bulb *d* is fully expanded the pressure by the fingers on the delivery-pipe *e* is released, and the bulb *d* is again squeezed, the pipe *e* compressed, and the bulb *d* allowed to expand until the liquid is drawn through the whole of the pipe *c*, bulb *d*, and pipe *e*, when it will continue to flow out in a continuous stream through the nozzle *e'*, if the latter is kept below the suction-nozzle *a*. By making the partial valve *b* with a number of notches, *b' b'*, around its circumference, as described, the siphon can easily be emptied of its contents, when the desired amount of liquid has been drawn, simply by raising the delivery-pipe *e* above the end of the suction-nozzle *a*, when the liquid will run automatically out through the latter and through the notches *b' b' b'* on the partial valve *b*. By this arrangement we produce a simple and durable siphon for drawing liquids which is only provided with one single partial valve, and in which a flexible bulb is employed for obtaining the necessary suction-power to start the flow of the liquid.

Having thus fully described the nature, construction, and operation of our invention, we wish to secure by Letters Patent, and claim—

The herein-described siphon, consisting of the suction-nozzle *a*, its partial notched valve *b b' b'*, suction-pipe *c*, flexible bulb *d*, and the flexible delivery-pipe *e e'*, all combined and arranged substantially in a manner and for the purpose set forth.

In testimony whereof we have affixed our signatures in presence of two witnesses.

HIRAM S. LATHE.
ALONZO L. CROSS.

Witnesses:

ALBAN ANDRÉN,
HENRY CHADBURN.