

(No Model.)

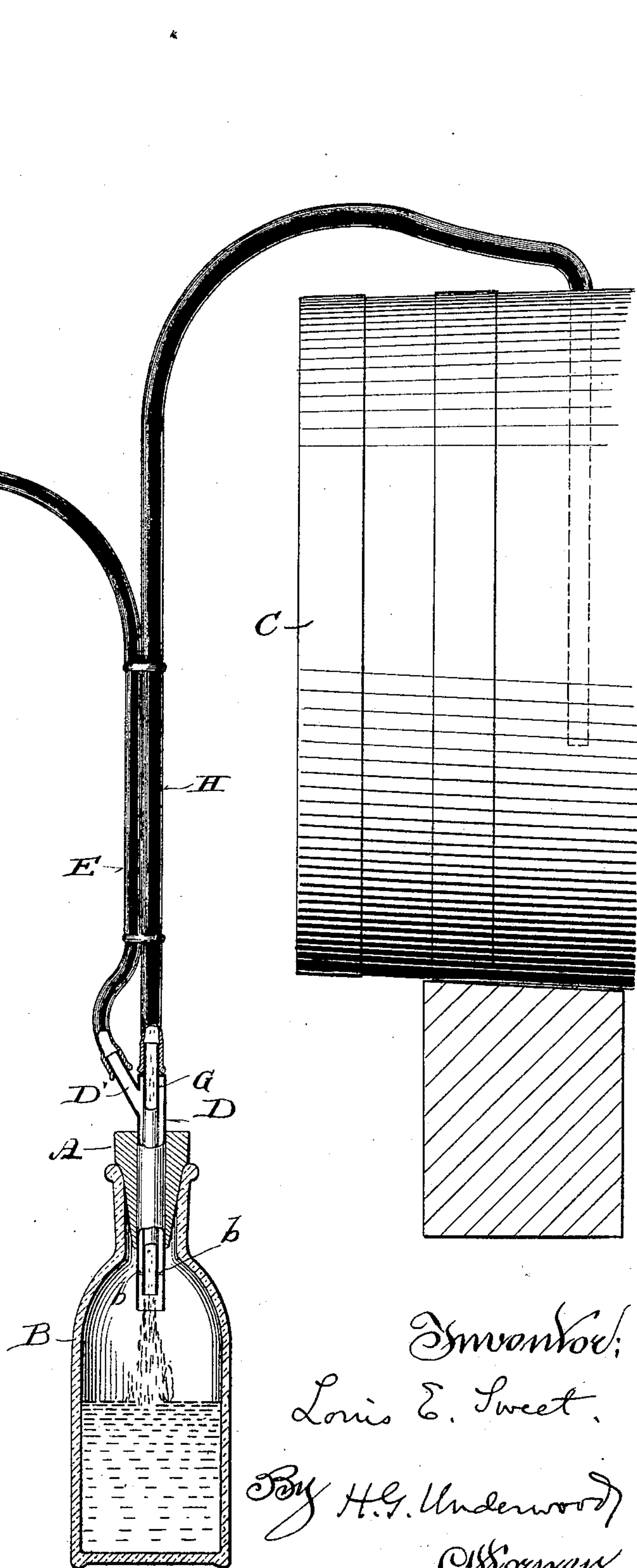
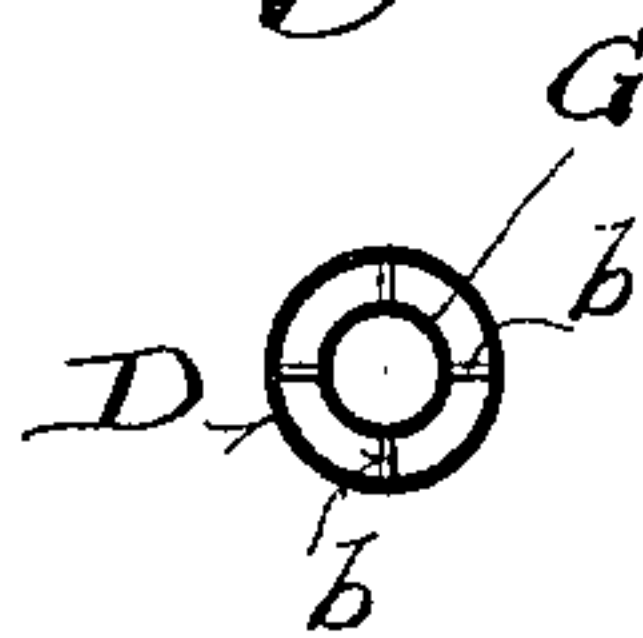
L. E. SWEET.
SIPHON PUMP.

No. 583,205.

Patented May 25, 1897.

Fig. 1.

Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

LOUIS E. SWEET, OF FOND DU LAC, WISCONSIN.

SIPHON-PUMP.

SPECIFICATION forming part of Letters Patent No. 583,205, dated May 25, 1897.

Application filed July 18, 1896. Serial No. 599,590. (No model.)

To all whom it may concern:

Be it known that I, LOUIS E. SWEET, a citizen of the United States, and a resident of Fond du Lac, in the county of Fond du Lac and State of Wisconsin, have invented certain new and useful Improvements in Siphon-Pumps; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention has for its object to provide a simple, economical, and effective automatic cut-off siphon-pump; and it consists in certain peculiarities of construction and combination of parts hereinafter set forth with reference to the accompanying drawings and subsequently claimed.

In the drawings, Figure 1 represents an elevation of my siphon-pump, partly in section. The illustration also shows said pump in connection with a barrel and a vessel being filled with contents from the barrel. Fig. 2 represents a horizontal section of a pair of tubes embodied in the nozzle portion of the pump.

Referring by letter to the drawings, A represents a plug of rubber or other suitable material constituting a stopper for the mouth of a jug, bottle, or other vessel B, into which contents of a barrel or other receptacle C are to be siphoned.

Extending through the plug A to come below the same a limited distance is a tube D, of metal or other suitable stiff material, provided above said plug with a branch D' for the engagement of one end of a section E of flexible tubing, the latter being preferably rubber, such as can be had in various quantities in open market. The other end of the tubing E is for the engagement of an ordinary two-valve hand air-bulb F of well-known construction, such bulbs being also obtainable in open market. Another tube G, of metal or other suitable stiff material, passes through the otherwise closed upper end of tube D and terminates at a predetermined distance above the lower end of the latter tube, the diameters of said tubes being such that an air-space is formed between the two, this air-space being in communication with the branch D' of the larger tube. Braces b are employed between the tubes D G to center and stay the lower portion of the latter tube.

That portion of the tube G extending above tube D engages with one end of another section H of flexible tubing, and the other end of this tubing is for insertion in the receptacle from which contents are to be siphoned.

In practice the plug A is put tight in the mouth of the vessel into which liquid is to be siphoned, and the bulb F is engaged with the tubing E to have its discharge end outermost, the other tubing H being inserted in the barrel or other receptacle C from which contents are to be siphoned. The bulb F is now operated at an elevation, preferably above the receptacle C, to exhaust air from the vessel B and thereby induce a flow of contents from said receptacle, this flow continuing until the liquid rises in said vessel as high as the mouth of G to automatically stop the flow. The operator may now remove the plug A from vessel B and stop its end with his finger to prevent further flow until said plug is placed in the mouth of another vessel, it being also practical to pinch tubing H to hold back the contents of the receptacle from which contents are being drawn. The vessel having been partially or wholly filled with liquid from the receptacle the bulb F may be reversed and operated to inject air that forces what liquid is in tubing H back into said receptacle, this being a matter of considerable advantage.

The automatic stopping of the flow of liquid through the siphon is also a matter of considerable advantage, as it gives the operator of the siphon-pump opportunity to attend to other duties without fear that the siphon will waste, the air-bulb being placed above the contents in the receptacle when said operator leaves the pump.

The siphon-pump herein set forth is of especial advantage in drawing heavy liquids, as it cannot, when properly operated, become clogged up. Consequently it is always ready for use.

While I have described a preferable construction of my siphon-pump, the latter need not necessarily involve the sections of flexible tubing herein set forth, it being practical to have all the tubing of stiff material, provided a siphon-bend is made in tube through which the liquid is to be drawn.

To use my device in filling an open vessel or one in which the opening is larger than the

rubber stopper A, the operator stops the lower end of the tube D with his finger until the air is exhausted and the flow of liquid started, for which purpose the inner tube G is made
5 to terminate above the lower end of the tube D, and this is an important advantage of my device.

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

1. A siphon-pump comprising a suitable plug, a tube extending through the plug and provided above the same with a branch, an air-bulb in flexible-tubing connection with
15 the tube branch, another tube passed through the otherwise closed upper end of the one aforesaid, the diameters of said tubes being such that an air-space is formed between the two in communication with said branch, and
20 a section of flexible tubing engaged with the outermost portion of the tube having the least diameter.

2. A siphon-pump comprising a plug, a tube extending through the plug and connected

above the same with an air-bulb, another
25 tube of less diameter than the one aforesaid extended down through the otherwise closed upper end of the same, and a siphon-tube connected to the outer portion of the tube of
30 least diameter, this latter tube being terminated within the one that engages said plug.

3. A siphon-pump comprising a plug, a tube extending through the plug and connected
above the same with a two-valve air-bulb, another tube of less diameter than the one
35 aforesaid extended down through the otherwise closed upper end of the same, and a siphon-tube connected to the outer portion of the tube of least diameter, this latter terminating within the one engaging said plug.
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In testimony that I claim the foregoing I have hereunto set my hand, at Fond du Lac, in the county of Fond du Lac and State of Wisconsin, in the presence of two witnesses.

LOUIS E. SWEET.

Witnesses:

WALDO SWEET,
ROBT. WIRTZ.