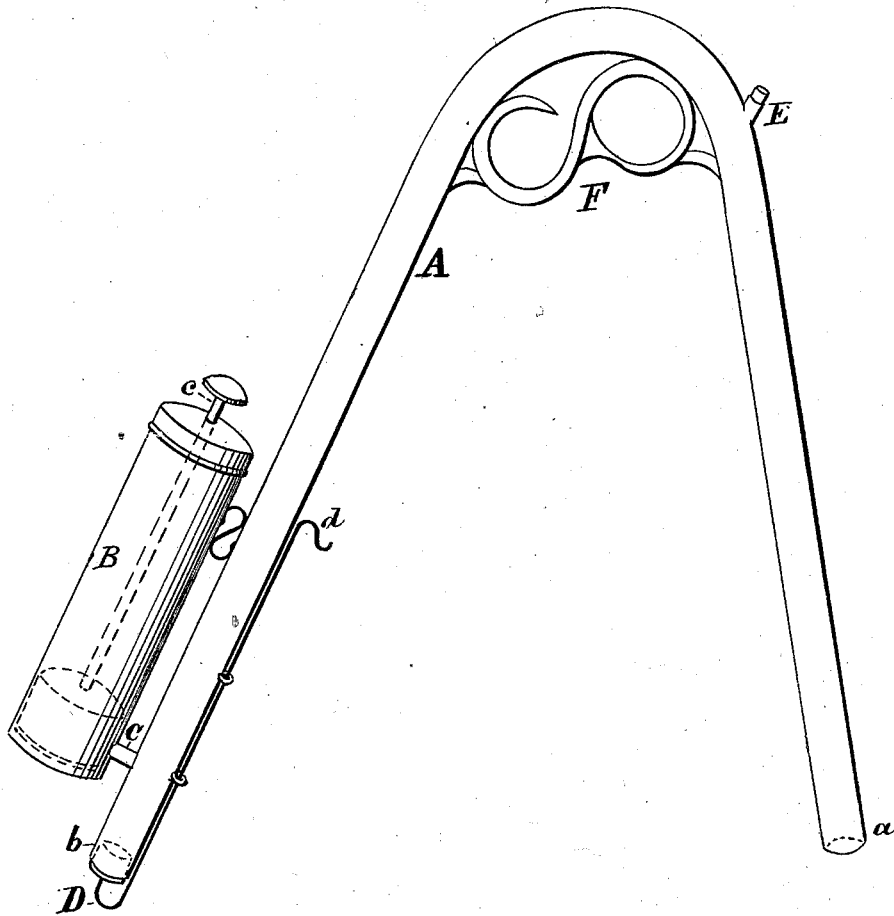


E. CARDARELLI.
Siphon.

No. 201,746.

Patented March 26, 1878.



Witnesses :
H. A. Daniels
G. B. Towles.

Inventor :
Emilio Cardarelli

UNITED STATES PATENT OFFICE.

EMILIO CARDARELLI, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN SIPHONS.

Specification forming part of Letters Patent No. **201,746**, dated March 26, 1878; application filed February 20, 1878.

To all whom it may concern:

Be it known that I, EMILIO CARDARELLI, of Washington city, in the District of Columbia, have invented certain new and useful Improvements in Siphons; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to siphons used for drawing various liquids from casks and other vessels, the object of the invention being to produce a siphon which is readily adjusted and put in operation, and the liquid to be drawn is quickly started and caused to run through the siphon.

The accompanying drawing represents a siphon with my improvements applied thereto.

In my construction a siphon of ordinary form has an air-pump attached thereto at or near its outer or discharge end, having communication with the siphon for the purpose of exhausting the air from it, so that the liquid is caused to flow through the siphon.

The suction-tube of the pump is constructed of such size as to contain just the quantity of air held by or contained in the tube forming the siphon, so that by a single upward stroke or draft of the rod holding the plunger the air is exhausted from the siphon and drawn into the suction-tube, and the liquid to be drawn immediately commences to flow through the siphon without entering the air-exhausting pump.

A suitable stopper is provided for the end of the siphon from which the liquid is discharged, so that the outlet is readily opened or closed. The siphon has also an air-vent, which is kept closed during the drawing of liquid, and is opened when it is desired to stop the flow.

A designates the main tube forming the si-

phon, the end of the tube which is placed in the liquid to be drawn being marked *a*, and the end from which the liquid is discharged being indicated by *b*.

B is the suction-tube of the air-pump, secured to the siphon at or near the discharge end *b*, and within which tube B is the rod *c*, holding the plunger.

C indicates the communication between the suction-tube B and the siphon, and D the stopping or closing apparatus, having the rod and handle *d* for opening and closing the discharge end *b*.

E is the air-vent, with suitable means for opening and closing the same, the vent being opened when it is desired to stop the flow of liquid through the siphon.

The brace F serves to strengthen and support the siphon.

When the siphon is placed in position for drawing liquid from a tank or other vessel, the plunger-rod *c* is drawn upward as far as the construction of tube B will permit, and as the tube B will hold just the quantity of air that is contained in tube A, the latter becomes immediately exhausted of air, the same having passed through tube C into the tube B. The tube A being filled, the stopper D is pushed downward, and the discharge end of the siphon is opened, so that the liquid passes out and continues to flow through the tube A until stopped by opening the vent E.

Having described my invention, I claim—

In combination with the longer leg of a siphon, the air-exhausting pump B *c* and stopper D, having the guided operating-rod *d*, substantially as set forth.

In testimony that I claim the foregoing as my own I have affixed my signature in presence of two witnesses.

EMILIO CARDARELLI.

Witnesses:

G. B. TOWLES,
H. A. DANIELS.