

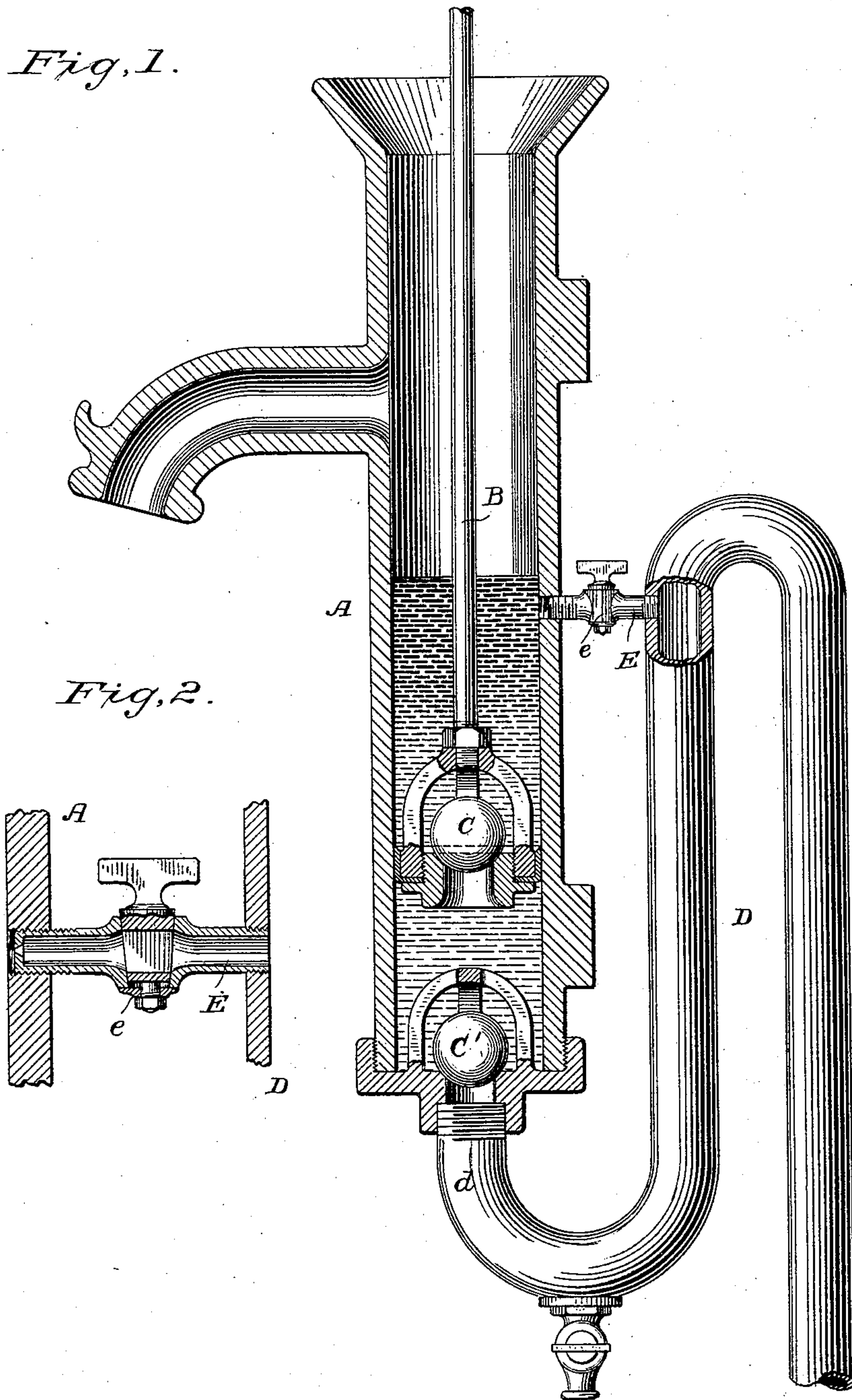
(No Model.)

J. STEVENS.  
PUMP.

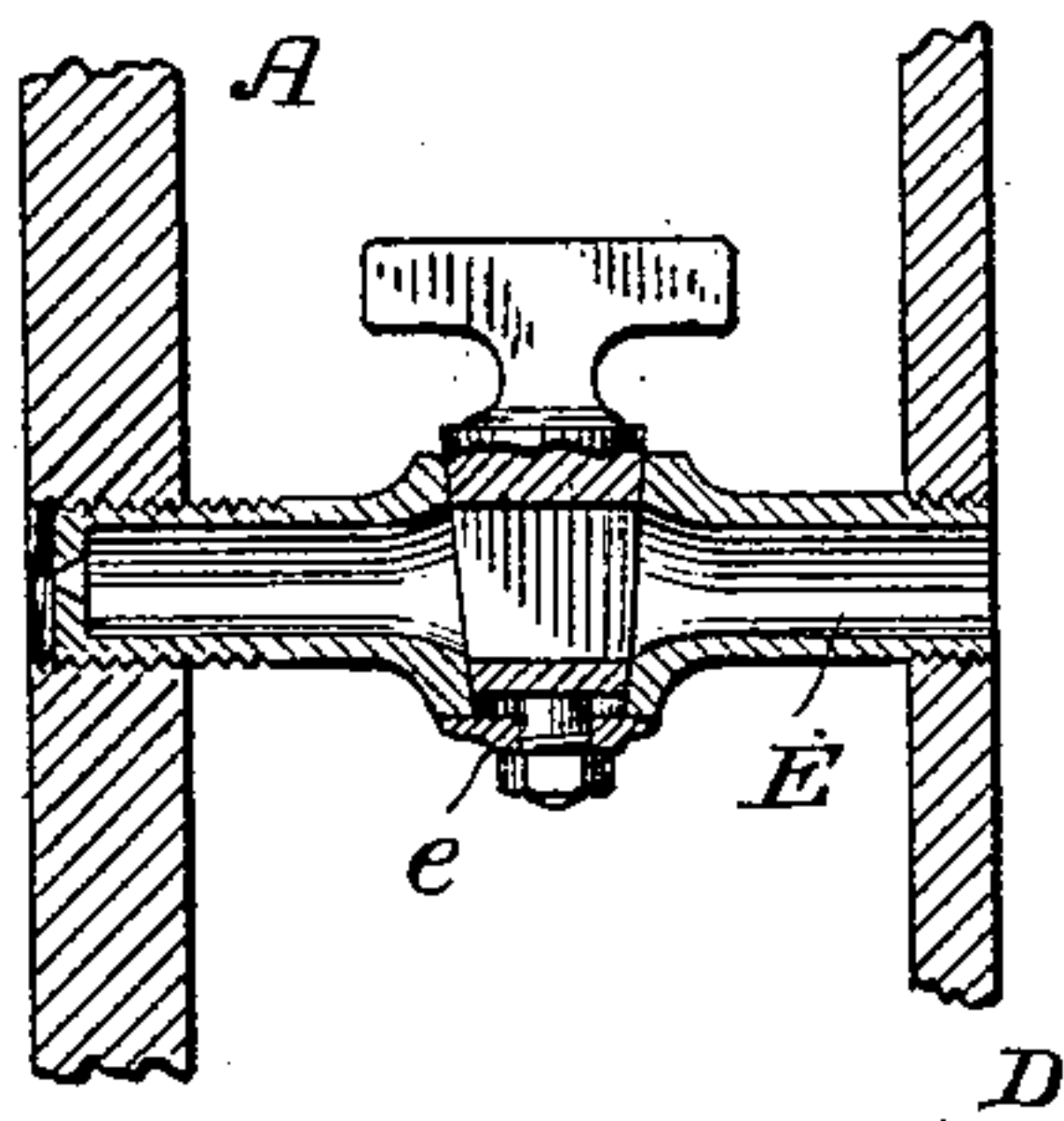
No. 407,699.

Patented July 23, 1889.

*Fig. 1.*



*Fig. 2.*



WITNESSES

*Wm A. Skinkle*  
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INVENTOR

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# UNITED STATES PATENT OFFICE.

JOHN STEVENS, OF NEENAH, WISCONSIN.

## PUMP.

SPECIFICATION forming part of Letters Patent No. 407,699, dated July 23, 1889.

Original application filed February 1, 1883, Serial No. 83,719. Divided and this application filed April 20, 1885. Serial No. 162,783. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN STEVENS, a citizen of the United States, residing at Neenah, in the county of Winnebago and State of Wisconsin, have invented certain new and useful Improvements in Pumps, of which the following is a specification.

In an application filed by me in the Patent Office of the United States on the 1st day of February, 1883, Serial No. 83,719, of which the present is a division, and upon which Letters Patent of the United States No. 384,648 were issued to me on the 19th day of June, 1888, I have described certain improvements in pumps, of which the salient features are that between the pump-barrel and the source of supply there is a siphon-bend in the conduit connected with the upper part of the barrel-chamber by a diminishing aperture or air-duct to keep the pump primed and to prevent clogging, and that the aperture or air-duct, whether diminishing or not, can be positively and permanently closed by means of a stop-cock, that the suction of the longer leg of the siphon may draw off the priming and leave the pump empty if occasion renders this desirable.

The specific construction described in said application is perhaps too expensive for general manufacture, and at least requires that pumps already in place shall be discarded and a new one after such pattern purchased.

The object of the present improvement is to render my invention applicable to ordinary pumps already set up and in use, and it will be understood from the ensuing description.

In the drawings, Figure 1 is a vertical section through a pump cylinder or body of the ordinary construction with my improvement applied thereto, and Fig. 2 a detail of one of the elements of said improvement.

A is the barrel of the pump, B the piston-rod, and C C' the upper and lower valves, which may either be puppet and clack or ball valves, but are shown as ball-valves.

D is the supply-pipe, which alongside of the barrel is bent into siphon form and has its shorter leg rebent to bring its end upright and parallel with the main portion. This rebent end *d* is screw-threaded to take into the

usual seat in the bottom of the barrel, which of course will have a female screw to receive it, and then by whirling the body part about the barrel the supply-pipe will be driven home and the connection made.

In order to provide an air-duct between the barrel and the upper part of the siphon, as required by my invention, the two will be connected at such point by a short and contracted pipe E, which may be applied in any suitable manner, the best method known to me being as follows: The siphon is screwed into the barrel until it has reached a tight fit, the aperture for the connecting-pipe first having been made in said siphon. The spot at which the aperture for said air-duct or connecting-pipe is to be drilled in the pump-barrel will now be determined by leveling from the opposite aperture in the siphon, and the latter will be turned back slightly, so as to allow the drill to be applied. When the aperture has been bored and screw-threaded, the connecting-pipe will be put in position and screwed in until its end projects a sufficient distance inside the pump-cylinder to permit the siphon to be returned to place. It will then be reversed and unscrewed, driving the opposite end, suitably threaded, into the aperture in the siphon until it is properly fitted into both of its seats. This connecting-pipe should have a very small opening into the pump-barrel, as in the construction described in the original application, of which this is a division. To obtain such diminished opening, the end which enters the barrel may be upset and a drill introduced from the other end to bore a flaring aperture therein, with the flare away from the barrel, as shown.

The connecting-pipe or air-tube will be furnished with a stop-cock *e* for the same purpose as that closing the aperture in the construction above alluded to. The bend at the foot of the shorter leg of the siphon should also be furnished with a discharge-cock corresponding in office with the discharge-cock described in the parent application.

I claim as my invention—

1. The combination, substantially as hereinbefore set forth, of the pump-barrel, the supply-pipe having the siphon-bend and the

rebend at its end and screw-threaded into a seat at the bottom of the barrel, and the contracted connecting-pipe or air-tube between the upper bend of the siphon and the pump-  
5 barrel.

2. The combination, substantially as here-  
inbefore set forth, of the pump-barrel, the supply-pipe bent into siphon form and rebent at the end of its shorter leg to screw into a  
10 seat at the bottom of the barrel, the contracted connecting-pipe or air-tube between the upper bend of the siphon and the pump-barrel, and the stop-cock in said pipe.

3. The combination, substantially as here-  
15 inbefore set forth, of the pump-barrel, the supply-pipe bent into siphon form and having a rebend at the end of the shorter leg of the siphon to screw into a seat at the bottom of the barrel, the contracted connecting-pipe or

air-tube between the upper bend of the siphon 20 and the barrel, and the diminishing aperture opening from the end of said connecting-pipe into the barrel-chamber.

4. The combination, substantially as here-  
inbefore set forth, of the pump-barrel, the sup- 25 ply-pipe bent into siphon form alongside the barrel and rebent at the foot of its shorter leg to screw into the seat at the bottom of said barrel, the contracted connecting-pipe or air-  
tube between the upper bend of the siphon 30 and the pump-barrel, the diminishing aperture from the end of said connecting-pipe into the chamber of the barrel, and the stop-cock in said connecting-pipe.

JOHN STEVENS.

Witnesses:

ALEX. MCNAUGHTON,  
NORMAN WILLARD.