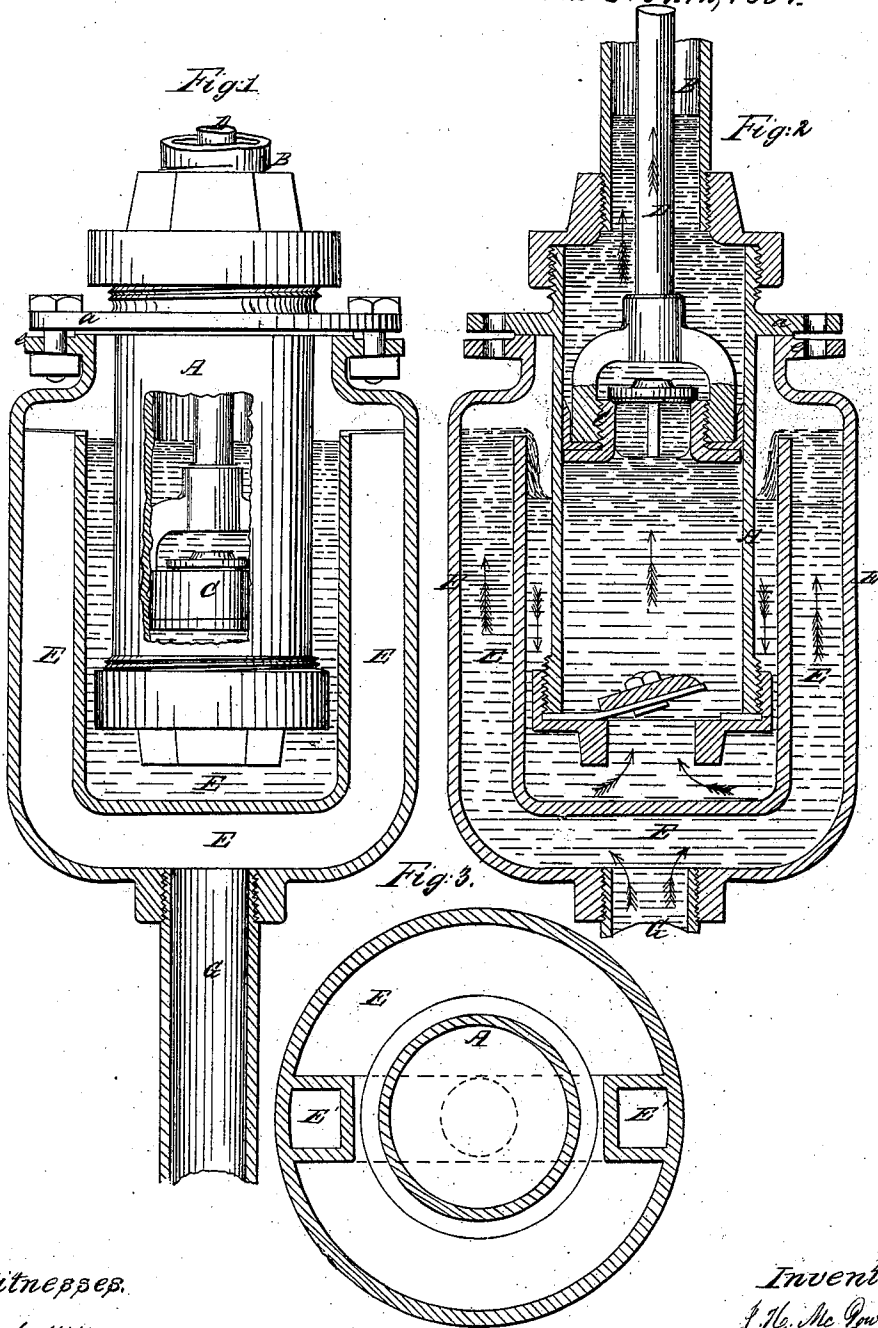


J. H. & T. J. McGowan,

Pump Lift.

N<sup>o</sup> 70,733.

Patented Nov. 12, 1867.



Witnesses.  
Frank Millward  
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# United States Patent Office.

JOHN H. MCGOWAN AND THEODORE J. MCGOWAN, OF CINCINNATI, OHIO.

*Letters Patent No. 70,733, dated November 12, 1867.*

## IMPROVEMENT IN PUMPS.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that we, JOHN H. MCGOWAN and THEODORE J. MCGOWAN, both of Cincinnati, Hamilton county, State of Ohio, have invented a certain new and useful Improvement in Suction-Pumps; and we do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

Our invention consists in so constructing the suction-coupling of an ordinary suction-pump that it is made to surround the pump-barrel, the space between the barrel and coupling being designed as a priming-chamber, which, as it has no connection at the bottom with the suction pipe, always remains full of water, and keeps the pump fully primed, and the bucket, at the lowest position of its stroke, totally immersed in the water, though the suction may be leaky, and run dry after every operation. In the accompanying drawings—

Figure 1 is an elevation of a common suction-pump, with our suction-coupling in section. The pump in this figure is supposed to be at rest.

Figure 2 exhibits an axial section of pump and coupling in action.

Figure 3 is a horizontal section, showing the construction of the priming-chamber.

A is the pump-barrel; B, the discharge pipe; C, the bucket, and D the bucket-rod. E is the suction-coupling, which has no direct opening at the bottom, but has an enclosed V-shaped duct or passage, E', formed in its bottom and sides, to which the suction pipe G connects, as shown. The coupling E is connected to the pump, near the top of the latter, by means of flanges *a e*, on pump and coupling respectively, the pump being suspended within the coupling, as shown, so that, when the latter is charged with water, the pump-piston, at its lowest position, shall be totally and permanently immersed.

Permanent priming, as is well known, keeps the leathers soft, and renders them more durable, and tends to insure a speedy and efficient suction, though the connections may be leaky and run dry.

It will be seen that, in our device for permanent priming, the water will remain in the chamber-coupling E, though the pipe G may be leaky and run dry, as in fig. 1; or that either the pipe G or pump A may be removed for repairs at will, without disturbing the water in the chamber.

We claim herein as new and of our invention—

A suction-pipe coupling, E E', in connection with a pump-cylinder or cylinders, A, so constructed as that, when attached to the pump, it will form a reservoir, which will maintain a constant supply of water, and in which the pump-cylinder is partly or wholly submerged, substantially as described and for the purpose specified.

In testimony of which invention we hereunto set our hands.

JOHN H. MCGOWAN,  
THEODORE J. MCGOWAN.

Witnesses:

GEO. H. KNIGHT,  
JAMES H. LAYMAN.