

J. R. DEVOR.  
Attachment for Pumps.

No. 197,019.

Patented Nov. 13, 1877

Fig. 2.

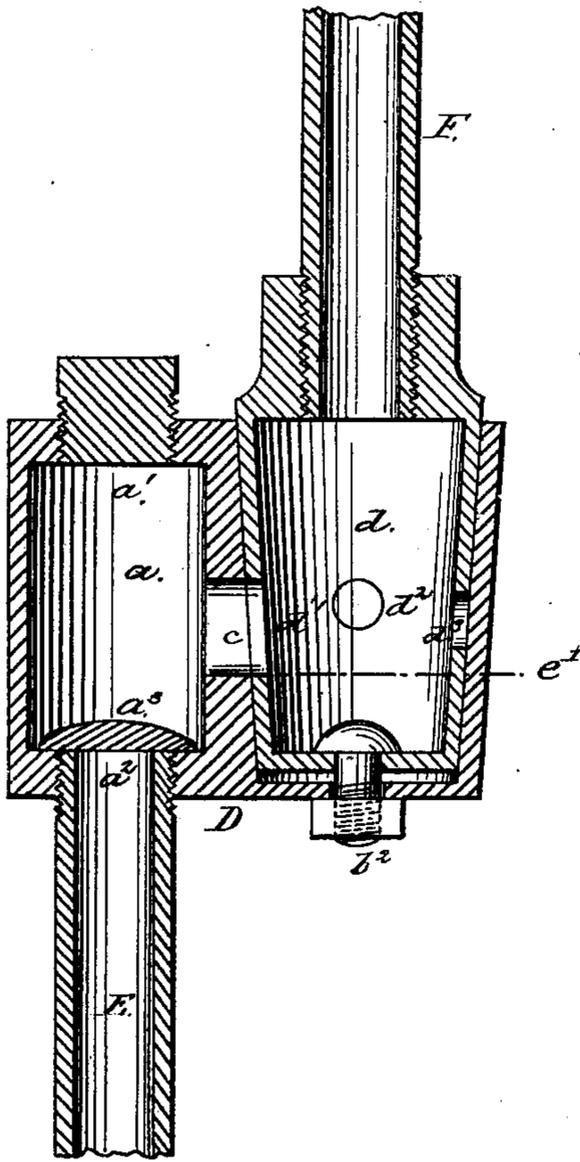


Fig. 1.

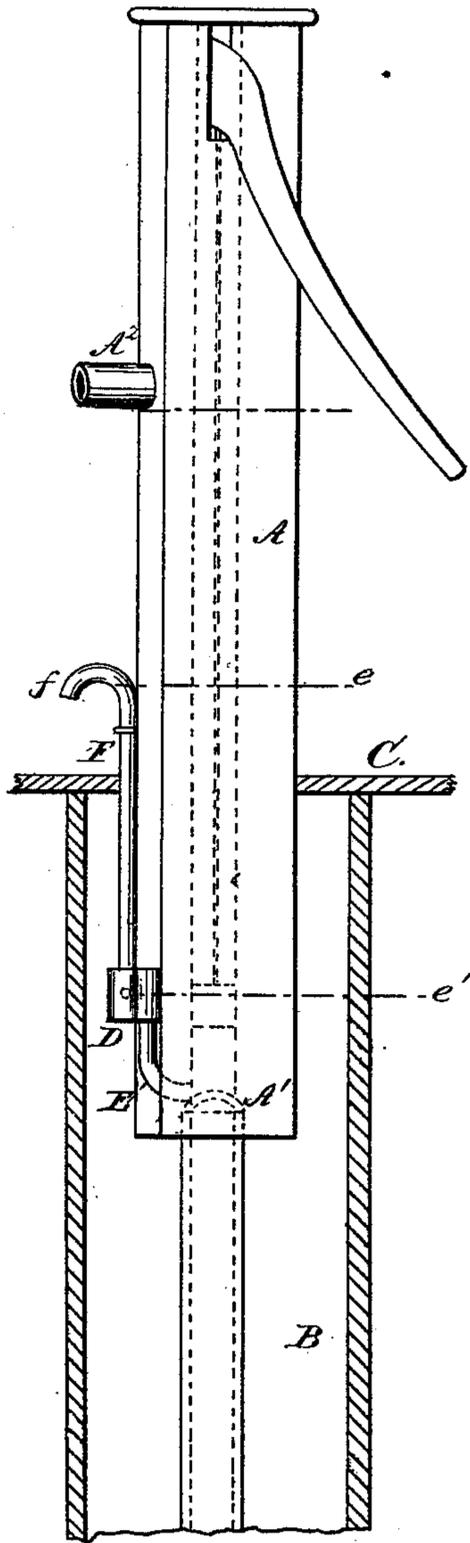


Fig. 3.

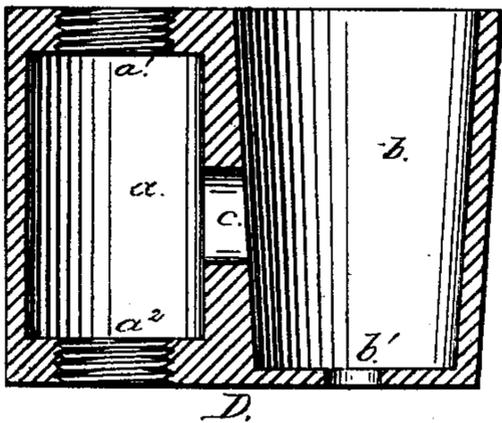


Fig. 4.

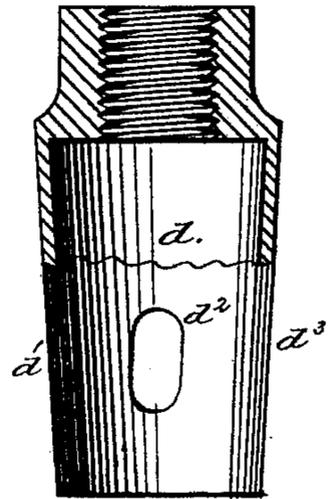
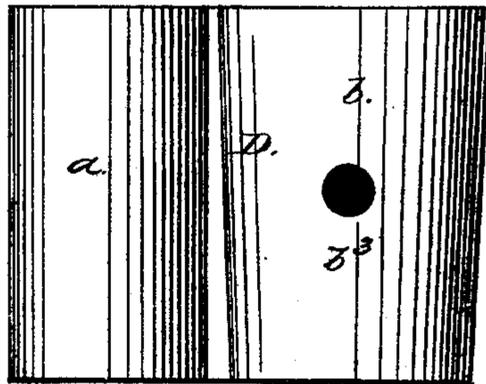


Fig. 5.



Witnesses:

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R. H. Lacey

Inventor:  
James R. Devor  
By R. H. Lacey  
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# UNITED STATES PATENT OFFICE.

JAMES R. DEVOR, OF GOSHEN, INDIANA, ASSIGNOR OF ONE-HALF HIS RIGHT  
TO A. S. ZOOK AND DANIEL ZOOK, OF SAME PLACE.

## IMPROVEMENT IN ATTACHMENTS FOR PUMPS.

Specification forming part of Letters Patent No. **197,019**, dated November 13, 1877; application filed  
May 7, 1877.

*To all whom it may concern:*

Be it known that I, JAMES R. DEVOR, of the city of Goshen, in the county of Elkhart and State of Indiana, have invented certain new and useful Improvements in Cold-Water Hydrants; 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 pertains to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in devices to be attached to pumps or other water-elevating devices, whereby cool fresh water may be obtained from the source or bottom of the well without drawing off or pumping the water out of the upper portion of the stock, and whereby an anti-freezing valve is also provided for use in winter.

The invention consists in a box having two communicating chambers, a drop-valve, a hollow revolving cut-off or valve, and supply and discharge pipes, constructed, arranged, and operating as hereinafter fully set forth.

In the drawings, Figure 1 shows a pump-stock with my device applied thereto. Fig. 2 is a vertical section of the device; and Figs. 3, 4, and 5 are detail views.

A is the pump-stock; B, the well, and C the platform over the mouth of the well. D is the box through which communication is made between the supply-pipe E and the discharge-pipe F. The lower end of the pipe E taps the water-course of the stock A, by preference, just above the valve A', while its upper end enters the box D. The lower end of the discharge-pipe F is secured in the revolving cut-off or valve, hereinafter described, while its upper end is extended to the upper side of the platform, as shown.

The box D is constructed with the chambers *a* and *b*, between which is a communicating passage or throat, *c*.

The chamber *a* is formed with the openings *a*<sup>1</sup> *a*<sup>2</sup> in its upper and under ends. The upper opening *a*<sup>1</sup> is closed by a screw-plug, and affords access to the chamber for the purpose of removing any obstructing substances which

may be drawn therein by the flowing water. The opening *a*<sup>2</sup> receives the upper end of the supply-pipe E, and is closed by the drop-valve *a*<sup>3</sup>.

The chamber *b* is open at its upper end, and its sides taper slightly, as shown, so as to insure a more perfect fit to the revolving cut-off, hereinafter described. Its bottom is perforated by a hole, *b*<sup>1</sup>, through which passes a retaining-bolt, *b*<sup>2</sup>, projecting from the under side or bottom of the cut-off. It is also perforated on its side by a vent-hole, *b*<sup>3</sup>, arranged in a horizontal plane with, and is placed, by preference, at a point at right angles to, the line passing through the throat or passage *c*.

*d* is a hollow cylindrical revolving valve or cut-off, which fits snugly in the chamber *b*, where it is held, with capability of being easily turned, by the retaining-bolt *b*<sup>2</sup>. Its upper end is provided with a suitable opening, in which is secured the lower end of the discharge-pipe F, by which it is turned in the chamber *b*, for purposes hereinafter explained. It is provided with the side openings or vents *d*<sup>1</sup> *d*<sup>2</sup> *d*<sup>3</sup>, which are arranged equidistant apart and half around the cylinder, as shown, thus leaving half the circumference solid and free from openings. These openings *d*<sup>1</sup> *d*<sup>2</sup> *d*<sup>3</sup> are so formed that when the cut-off is placed in the chamber *b*, they will be in the same horizontal plane with the throat *c* and vent *b*<sup>3</sup>.

The cut-off is turned by taking hold of the nozzle *f* of the discharge-pipe F, and turning the latter to the right or left, as may be required.

It will be readily comprehended that by turning the valve or cut-off *d* to the right or left, communication may be established or cut off between the pipes E and F, and that communication may be made with the vent *b*<sup>3</sup>, so that the water will be permitted to fall in the pump-stock to a level below the platform.

The parts being in the position shown in the drawings, if the water be pumped up in the stock A to the spout A<sup>2</sup>, the water will flow from the pipe F until the water in the stock falls to the point *e*, on a level with the nozzle *f*. If the nozzle *f* be now turned to the right one-quarter of a revolution, the opening *d*<sup>1</sup> will be brought opposite the vent *b*<sup>3</sup>, and the opening *d*<sup>2</sup> opposite the throat *c*, in which position

the water will flow out at the vent  $b^3$ , emptying the pipe F, and permitting the water to fall to the point  $e'$  in the pump-stock, below the platform; but if from the position shown in the drawings the nozzle  $f$  should be turned one-fourth revolution to the left, all communication between the pipes E and F would be cut off, the opening  $d^1$  would be brought to the vent  $b^3$ , and the water would flow out of the pipe F, while the water in the pump-stock would be held at the same level it was when the valve  $d$  was turned.

By this device it will be readily understood that to obtain cool water for drinking or other purposes, it is only necessary to raise the water to the spout  $A^2$ , when the water from the lower parts of the pump-stock will be caused by hydrostatic pressure to flow from the pipe F, thus obviating the necessity of pumping out the warm water from the upper part of the pump-stock in order to obtain the cooler water from below.

In winter, by opening the throat  $c$  and vent  $b^3$ , as above explained, the water will fall to

the point  $e'$ , where it cannot freeze. A small portion of water is always retained in the chamber  $a$ , below the line  $e'$ , for priming.

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

1. The combination, with a water-supplying device or pump-stock, of a pipe the lower end of which taps the water-course of the stock or device above the lower valve, and the upper end of which extends to the upper side of the platform or floor, and below the discharge spout or opening, for the purpose specified.

2. The combination, with a pump-stock, A, or other water-supplying device, and pipes E and F, of a box, D, and cut-off  $d$ , all constructed and arranged substantially as and for the purposes set forth.

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

JAS. R. DEVOR.

Witnesses:

T. A. SIMMONS,  
J. S. LEIB.