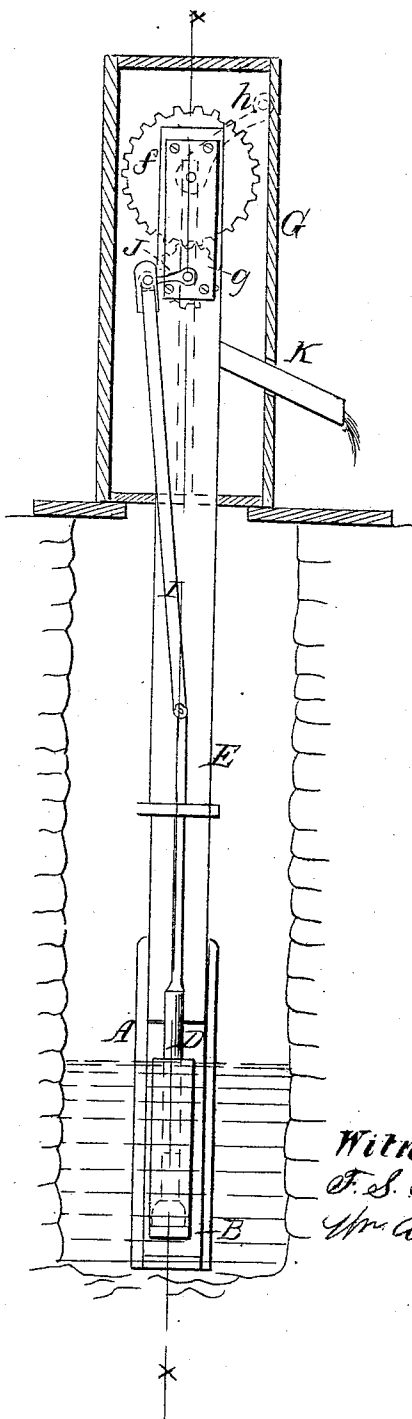


D. P. Henry,

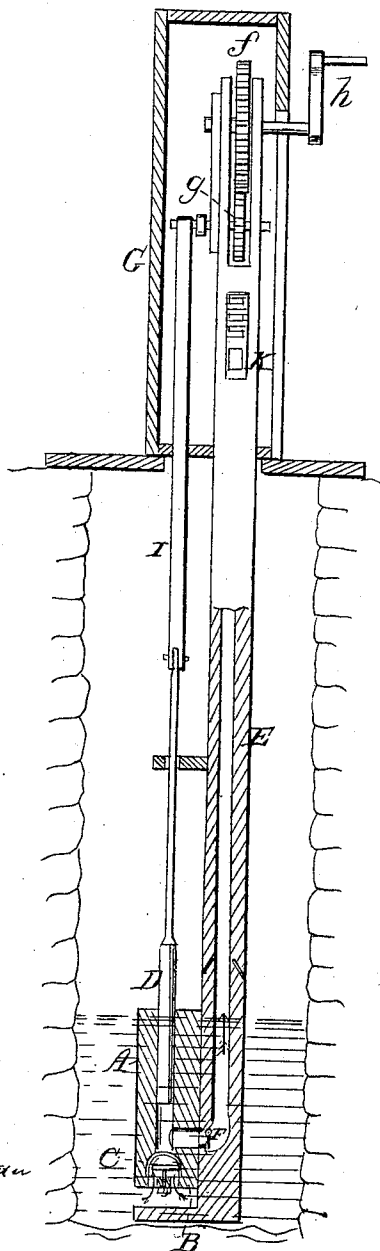
Lift Pump.

No. 89,662.

Patented May 4, 1869.



Witnesses
F. S. Spring
Wm. A. Morgan



Inventor.
D. P. Henry
per Wm. A. Morgan
Attorneys.

United States Patent Office.

D. P. HENRY, OF WINDSOR, ILLINOIS.

Letters Patent No. 89,662, dated May 4, 1869.

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 I, D. P. HENRY, of Windsor, in the county of Shelby, and State of Illinois, have invented a new and useful Improvement in Pumps; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to an improvement in submerged pumps, for raising water from wells and cisterns, and for other purposes, and it consists in the construction and arrangement of parts, as will be hereinafter more fully described.

Figure 1 is a side elevation of the pump.

Figure 2 is a sectional elevation through the line *x x*, of fig. 1.

Similar letters of reference indicate corresponding parts.

A represents the barrel of the pump, which is submerged, and receives the water at the lower end, as seen at B.

C is the valve-chamber.

D is the plunger.

E is the pump-tube which is attached to the barrel.

F is a stop-valve in the tube.

G represents the casing, or head of the pump, within which the gearing is operated.

The upper portion of the tube E is solid, and the gearing-wheel *f*, and pinion *g*, are attached thereto by suitable shafts, as seen in the drawing.

The shaft of the wheel *f* is a crank-shaft.

h is the crank by which the pump is operated.

I is the plunger-rod.

This rod is attached to a crank J, on the shaft of the pinion *g*.

It will be seen that by turning the crank *h*, a rapid motion will be given to the pinion-shaft and to the plunger.

The water is discharged from the tube through the spout K.

L indicates the surface of the water, and the pump is represented in the drawing as in use in a well.

The advantages of this arrangement are, that the pump works with more ease than any other, and raises water faster.

It is a forcing-pump exclusively, so that an air-valve is not necessary; consequently it is not liable to get out of order.

In going downward, the weight of the plunger and rod is balanced by the rising water, and in rising, the plunger is balanced by the water flowing into the barrel under it, so that the pump works nearly as easy when forcing water to a moderate height as when the barrel is empty.

I claim as new, and desire to secure by Letters Patent—

The pump-tube E, so constructed at its upper end above the discharge-spout K, as to receive between its sides the gear-wheels *f g*, and carrying at its lower end the pump-barrel A, in which the solid plunger D is operated from the crank-shaft of the gear-wheel *g*, by means of the jointed connecting-rod I, all arranged and operating as described, for the purpose specified.

D. P. HENRY.

Witnesses:

J. W. WESTON,

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