S. M. COLE.
Pump.

No. 203,421. Patented May 7, 1878.

Fig. 1.

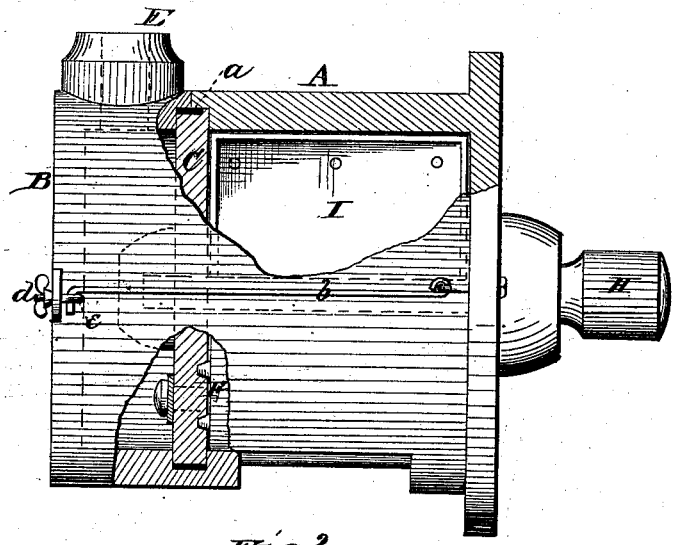


Fig. 3.

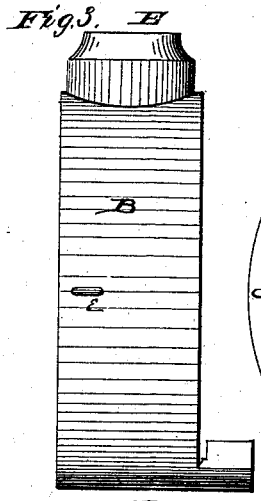


Fig. 2.

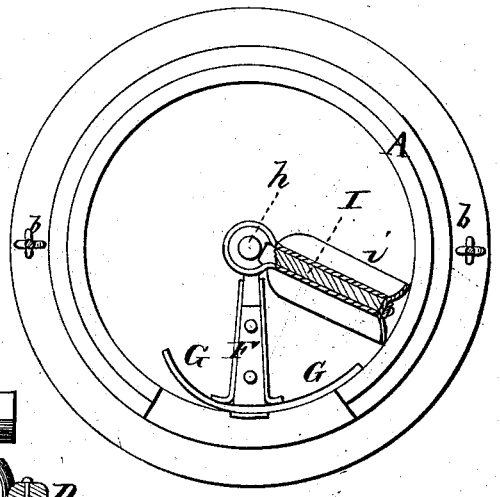
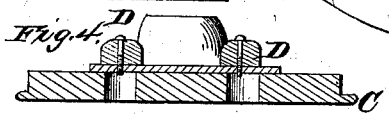


Fig. 4.



WITNESSES
Frank L. Ouland
H. A. Toulmin.

By

INVENTOR
Sherman M. Cole
Alexander Mason
Attorneys

UNITED STATES PATENT OFFICE.

SHERMAN M. COLE, OF ANAMOSA, IOWA.

IMPROVEMENT IN PUMPS.

Specification forming part of Letters Patent No. **203,421**, dated May 7, 1878; application filed April 15, 1878.

To all whom it may concern:

Be it known that I, SHERMAN M. COLE, of Anamosa, in the county of Jones, and in the State of Iowa, have invented certain new and useful Improvements in Pumps; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of an oscillating pump, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a side view, partly in section, of my pump. Figs. 2, 3, and 4 are detailed views of parts of the pump.

A and B represent two casings, forming, when put together, the horizontal pump-cylinder, and in the joint between the two casings is inserted a disk, C, which forms a division between them. Around this disk is placed suitable rubber packing *a*, as shown, and when the two casings or chambers are fastened together it forms a water-tight joint between them. The two casings are connected together by rods *b b*, which hook into eyes *e e*, and these eyes are adjusted and the hooked rods drawn tight by thumb-nuts *d d*, as shown in Fig. 1. The chamber B is, at the top, provided with the outlet E, and at the bottom there are two valves, D D, opening into said chamber from the chamber A. These valve-openings are located, one on each side of an abutment or partition, F, running the entire length of the chamber A, from the center vertically downward to the bottom, and on each side of this abutment, at the bottom of the casing, is a valve, G, for opening and closing the inlets to the chamber A. Centrally through the chamber A is passed a horizontal shaft, *h*, to the outer end of which a pulley or other device, H, is attached, for applying power to the pump in any suitable or convenient manner. To this shaft *h* is secured a wing, I, which extends the entire length of the chamber A, and has suitable packing *i* all around its edges on both sides. The wing I is rotated from one side to the other, and vice versa, drawing in the water behind it, and forcing that ahead of it, through the corresponding valve D, into the chamber B, and out through the exit E.

The pump is intended to be submerged in the well, and is easily operated.

The construction of the pump is such that it can be cheaply made, and can easily and quickly be taken apart when required to renew the packing.

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

1. The combination of the casings or chambers A B, with interposed disk C and rubber packing *a*, the hooked rods *b*, eyes *e*, and thumb-nuts *d*, as and for the purposes herein set forth.

2. The combination of the chambers A B, disk C, with valves D D, abutment F, valves G G, and shaft *h*, with wing I, all constructed and arranged to operate substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 2d day of April, 1878.

SHERMAN M. COLE.

Witnesses:
ROBERT T. DOTT,
ROBERT DOTT.