

(No Model.)

A. W. THIERKOFF.
PUMP.

No. 576,916.

Patented Feb. 9, 1897.

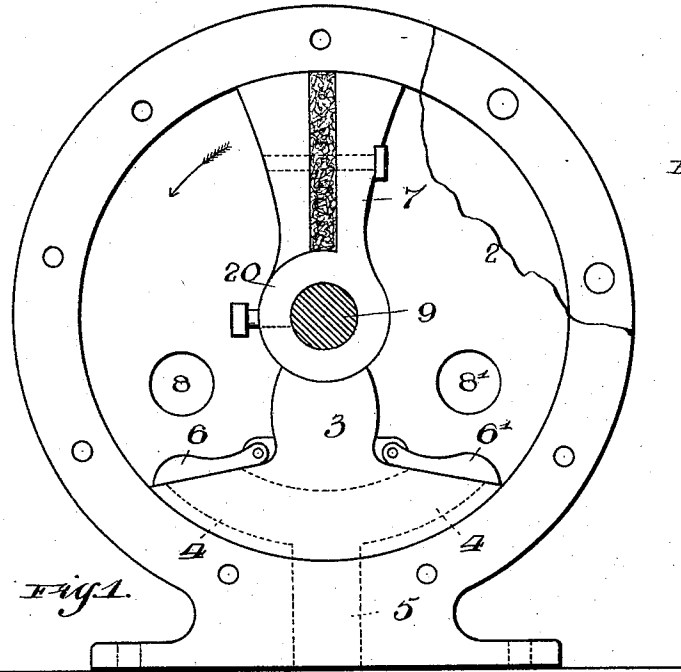


Fig. 4.

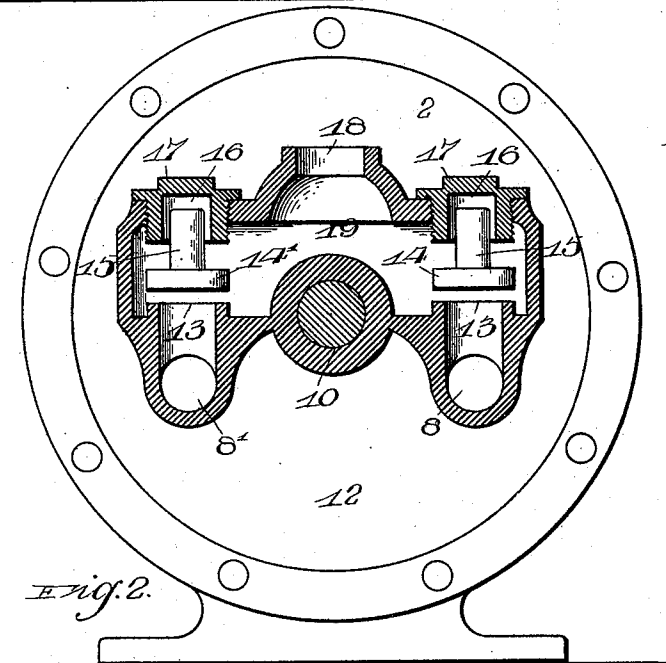
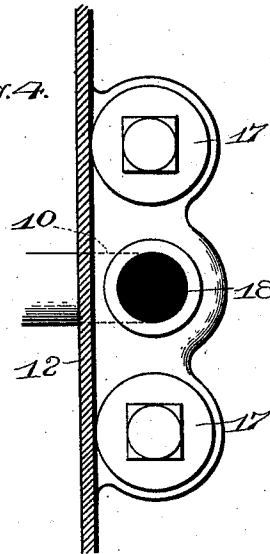
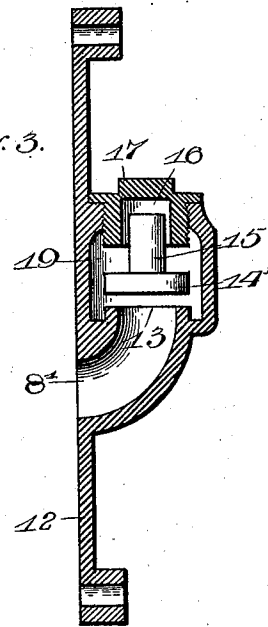


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

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PUMP.

SPECIFICATION forming part of Letters Patent No. 576,916, dated February 9, 1897.

Application filed June 10, 1896. Serial No. 594,985. (No model.)

To all whom it may concern:

Be it known that I, ANTHONY W. THIERKOFF, a citizen of the United States, residing at Redding, in the county of Shasta and State of California, have invented certain new and useful Improvements in Pumps; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has relation to improvements in pumps, and more particularly to that class set forth in Letters Patent No. 565,646, granted to me on the 11th day of August, 1896, to which reference is made; and the object is to simplify and reduce the cost of construction of a pump of this class without impairing its efficiency; and to these ends the novelty consists in the construction, combination, and arrangement of the parts of the same, as will be hereinafter more fully described, and particularly pointed out in the claim.

In the accompanying drawings the same numerals of reference indicate the same parts of the invention.

Figure 1 is a side elevation of my improved pump with one side removed, showing the exhaust-port holes, oscillating piston, and inlet-valves in place. Fig. 2 is a longitudinal vertical section of one of the sides containing the exhaust-valves. Fig. 3 is a transverse vertical section of the same on the line of one of the exhaust-valves. Fig. 4 is a top plan view of the same side, showing the integral casing of the exhaust-valves.

2 represents the cylindrical casing, and it is interiorly provided with a radial partition 3, having a cored inlet-passage 4 communicating with the main induction-inlet 5. The outer ends of the inlet-passage 4 is provided with ordinary foot-valves 6 6', and 7 is the oscillating piston, which has a movement approximately from one exhaust-port 8 around the cylindrical casing 2 to about the mouth of the other exhaust-port 8', and its hub is secured to and oscillates with the driving-shaft 9, one end of which passes through a stuffing-box on the plain side of the casing, (not shown,) and this end of the shaft is connected to the motor, so as to give the piston 7 the necessary oscillating motion to operate

the pump. The other end of said shaft 9 is journaled in a bearing 10, located in the opposite side 12, which is provided with the exhaust-ports 8 8', the upper end of each terminating in a valve-seat 13, on each of which is seated a vertically-reciprocating puppet or check valve 14 14', the stem 15 of which has a vertical movement in the guide-opening 16 in the removable screw-cap 17. These exhaust-openings 8 8' are connected with the induction-opening 18 by a common passage 19. The sides of the casing, one of which is referred to by the numeral 12 and shown in Figs. 3 and 4, are removably secured to said casing in the usual manner by bolts.

The construction of the pump is so simple as to require little further description.

The construction and operation of the valves are such as to particularly adapt the pump for mining use when sand, gravel, and grit are found in the water, and which will have little or no action on the valves or their seats, which, however, are easily accessible for renewal, as seen.

Although I have specifically described the construction and relative arrangement of the several elements of my invention, I do not desire to be confined to the same, as such changes or modifications may be made as clearly fall within the scope of my invention without departing from the spirit thereof.

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

In a pump, the combination with the circular casing provided with a partition in said casing, having a cored inlet-passage 4 communicating with the main induction-inlet 5, hinged foot-valves 6 6', removable sides for said casing, one of said sides having the exhaust-ports 8 8', the puppet-valves 14 14', and the removable cap 17, substantially as shown and described.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

ANTHONY W. THIERKOFF.

Witnesses:

FRANK C. CARR,
JAMES G. ESTESS.