

(No Model.)

S. M. CHASE.
PUMP.

No. 588,218.

Patented Aug. 17, 1897.

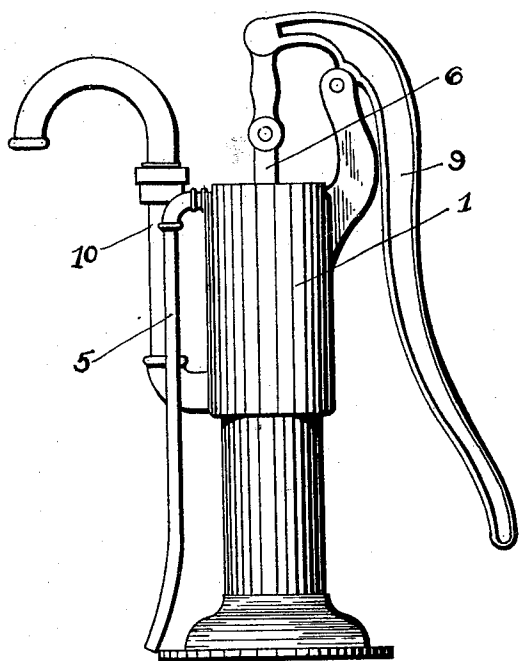


Fig. 1

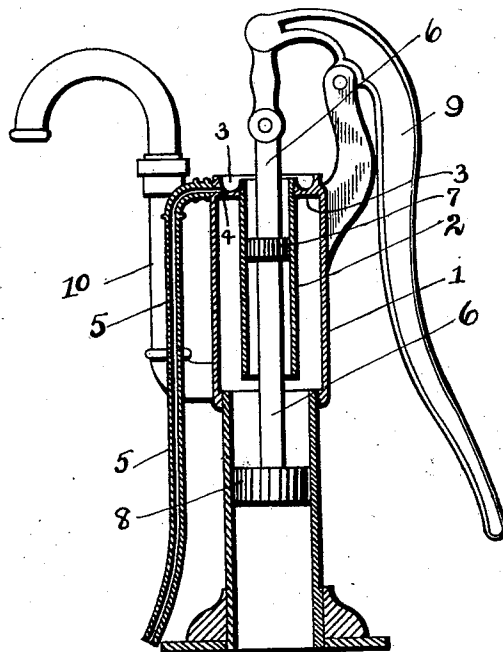


Fig. 2

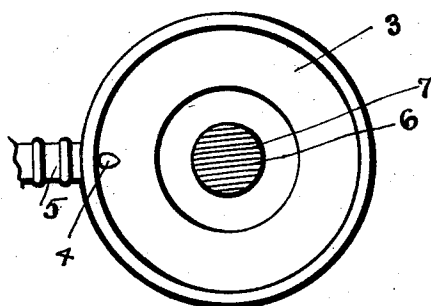


Fig. 3

Witnesses
Lawrence L. Bernard
A. L. Phelps

Inventor
Sherwood M. Chase.
By his Attorney
C. C. Shepherd.

UNITED STATES PATENT OFFICE.

SHERWOOD M. CHASE, OF COLUMBUS, OHIO.

PUMP.

SPECIFICATION forming part of Letters Patent No. 588,218, dated August 17, 1897.

Application filed April 22, 1896. Renewed February 23, 1897: Serial No. 624,730. (No model.)

To all whom it may concern:

Be it known that I, SHERWOOD M. CHASE, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Pumps, of which the following is a specification.

My invention relates to the improvement of force-pumps; and the objects of my invention are to provide a force-pump with an improved receptacle for the leakage or overflow water which may escape through the upper end of the inner pump-cylinder and to produce other improvements in details of construction and arrangement of parts which will be more fully pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a view in elevation of a pump-body having my improvement therein. Fig. 2 is a central vertical section of the same, and Fig. 3 is a plan view of the pump-body.

Similar numerals refer to similar parts throughout the several views.

1 represents the body or external cylinder of a double-action pump.

2 represents the smaller and internal cylinder, which, as is usual in this class of pumps, is supported in the upper and larger portion of the external cylinder 1.

As indicated in the drawings, I form integral with the upper end of the cylinder 1 an inwardly-projecting extension, which, as shown, is in the form of an annular cup or flange 3, having a continuous groove in its upper surface. This annular cup has screwed into its central portion the upper and externally-threaded end portion of the internal cylinder 2. Leading outward from the lower portion of this cup groove or depression and through the wall of the upper portion of the cylinder 1 is a port 4, with which communicates the upper end of an outwardly and downwardly extending outlet-pipe 5.

6 represents the pump plunger-rod, which extends downward and through the inner cylinder 2 and which carries in its upper portion the usual plunger-head 7, which fits and slides within the cylinder 2. The lower end of this plunger-rod also carries thereon the usual lower plunger-head 8, which fits and slides in the lower and smaller portion of the cylinder 1 in the ordinary manner.

9 represents the pump-handle, which has its upper end jointly connected with the upper end of the rod 6 and which is fulcrumed in the usual manner to the outer side of the outer cylinder.

10 represents the usual pump-spout, which leads from the lower portion of the cylinder and through which is adapted to be discharged, in the well-known manner, water from the pump.

The operation of the general form of pump herein described is well known, and a description thereof is considered unnecessary. It is also well known that in operating pumps of this class a small portion of the water contained in the inner cylinder often finds its way between the plunger-head 7 and the inner surface of the inner cylinder, and this leakage or overflow is carried upward by said plunger and discharged in small quantities onto the top of the pump-body. By the construction which I have described it is obvious that the cup 3 will serve as a receptacle for this leakage and that from said cup the water will pass outward into and downward through the outlet-pipe 5, this pipe preferably being directed into a sink.

From the above-described construction and operation it will be seen that simple and effective means are provided for collecting and carrying away the water which may leak past the plunger, and that the means employed are exceedingly simple and may be produced at comparatively slight expense.

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

In a pump the combination with the external cylinder 1, a discharge-spout leading therefrom, an inwardly-extending annular cup formed with the upper portion of said external cylinder and an outlet-pipe leading from said cup, of the internal cylinder 2 supported centrally from said cup, a plunger-carrying rod passing through said inner cylinder and means for operating said plunger-rod, substantially as and for the purpose specified.

SHERWOOD M. CHASE.

In presence of—

J. WESTLEY FISHER,
LAURENCE L. BARNARD.