

J. C. WRIGHT.

PUMP.

No. 189,983.

Patented April 24, 1877.

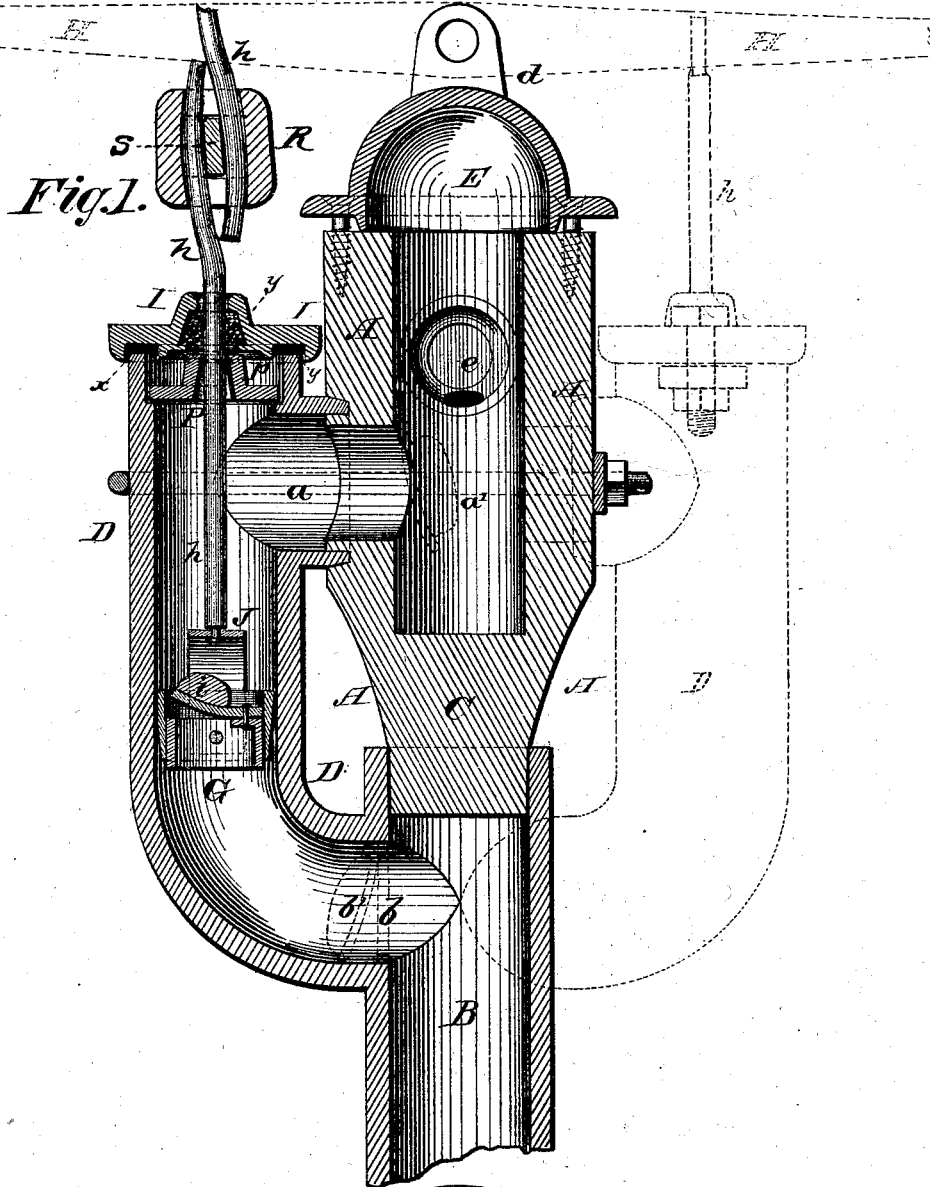


Fig. 1.

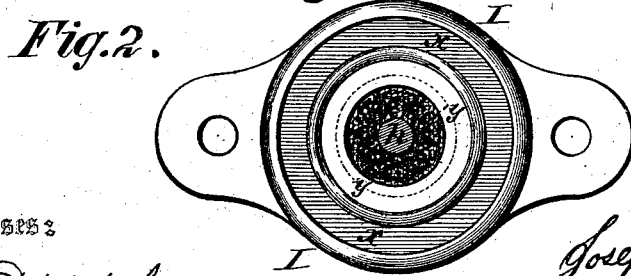


Fig. 2.

Witnesses:

P. B. Dietrich
Wm. Supperman

Inventor:

Joseph C. Wright

Per: *C. H. Watson & Co.* Attorneys.

UNITED STATES PATENT OFFICE.

JOSEPH C. WRIGHT, OF CINCINNATI, OHIO.

IMPROVEMENT IN PUMPS.

Specification forming part of Letters Patent No. **189,983**, dated April 24, 1877; application filed February 22, 1877.

To all whom it may concern :

Be it known that I, JOSEPH C. WRIGHT, of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Pumps; 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

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

In the annexed drawing, Figure 1 is an enlarged vertical section, showing it with one cylinder only. Fig. 2 is a detailed view of a part thereof.

The object of my invention is to produce a cheap force-pump to be used in common wells at dwellings and barns or stables in the country, or in small towns where there are no water-works; and it consists in the construction and combination of parts, as will be hereinafter more fully described, and pointed out by the claims.

A represents the ordinary pump-stock, with tubing B of sufficient length to suit the depth of the well. On one or two sides of the stock A are attached one or two cylinders, D D, communicating with the interior of the stock by passages *a* and *b* at or near the top and bottom, respectively, of the cylinders, and in these passages are placed suitable check-valves *a'* and *b'*, respectively. Between the passages *a* and *b*, in the stock A, is a plug, C, forming a part of the stock A, for the purpose of cutting off the escape of the water from the tubing. On top of the stock A is an air-globe or hollow cap, E, provided on top with a lug, *d*, to which the handle or lever H is pivoted. The stock is thus left entire, with the exception of the hole *e* for the spout to be screwed in.

The chambers or cylinders may be made of iron or other suitable material; but I prefer to make the center of each cylinder of glass, and the heads or ends of iron, the three parts being then united by means of bolts passing through ears on the sides of the heads.

Each cylinder D is covered by a cap or head, I, having an annular recess, with packing *f* to make a tight joint with the upper end of the cylinder. *h* is the piston-rod, connecting the handle H with the plunger G, and passing through a center hole in the head I, the lower end of the rod *h* attached to a bail, J, fastened to the plunger, and in the plunger is an ordinary valve *i*. On the under side of the plate or head I, around the rod *h*, is a recess for the reception of packing *y*, and on the rod *h* is a sliding plate, P, having on its upper side a projecting hub, *p*, as shown.

During the operation of the pump the pressure of the water forces the plate P upward, so that the hub *p* will enter the packed recess *y* and compress the packing therein, thus forming an automatic or self-acting packing-box.

This pump may be used either with one or two cylinders, as desired, and can easily be adjusted to all depths of wells.

Each rod *h* is preferably made in two parts connected by a coupling-block, R. This block has a longitudinal opening for the passage of the inner ends of the two parts of the rod *h*, and a transverse slot for the passage of a key or wedge, S, by which the two parts of the rod are fastened in the block, thus enabling the operator to adjust the rod *h*, as required.

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

1. The combination of the cylinder D, head I, with packed recess *y* on its under side, the piston-rod *h*, and the sliding plate P with projecting hub *p*, substantially as and for the purposes herein set forth.

2. The longitudinally and transversely slotted coupling-block R, in combination with the two parts of the rod *h* and the key S, substantially as and for the purposes herein set forth.

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

JOSEPH C. WRIGHT.

Witnesses:

ELSWORTH MAPES,
E. A. MAPES.