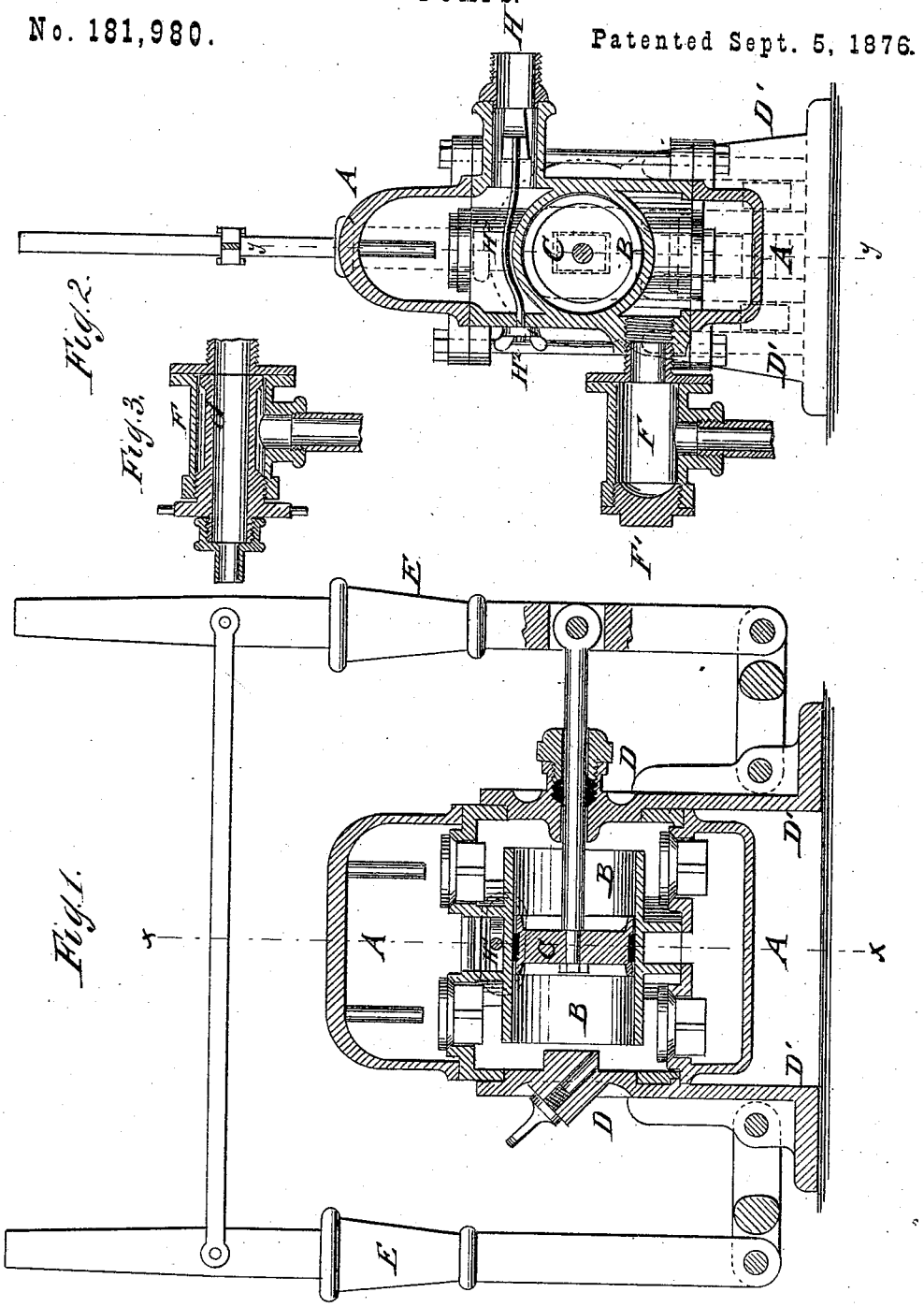
W. H. POLLARD.

PUMPS.

No. 181,980. Patented Sept. 5, 1876.



WITNESSES:

E. Wolff

John Goethals

INVENTOR:

W. H. Pollard

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM H. POLLARD, OF SENECA FALLS, NEW YORK, ASSIGNOR TO GOULD MANUFACTURING COMPANY, OF SAME PLACE.

IMPROVEMENT IN PUMPS.

Specification forming part of Letters Patent No. **181,980**, dated September 5, 1876; application filed August 14, 1876.

To all whom it may concern:

Be it known that I, WILLIAM H. POLLARD, of Seneca Falls, in the county of Seneca and State of New York, have invented a new and Improved Pump, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a vertical longitudinal section on line *y y*, Fig. 2, of my improved pump. Fig. 2 is a vertical transverse section of the same on line *x x*, Fig. 1; and Fig. 3, a detail section of the hose attachment to suction-opening.

Similar letters of reference indicate corresponding parts.

The object of this invention is to provide for vessels a pump which is attached to a stationary suction-pipe, extending down to the bottom of the hold of the vessel, so as to be used as a bilge-pump, for removing any water which may collect in the bilges from leaks or any other cause. By means of some small changes the pump may be also used as a force-pump, drawing in the water by a suction-pipe from the sea, and forcing it into the hold; and, by attaching a hose and nozzle to the spout, the pump may be used as a powerful hand fire-engine, by which water may be thrown to considerable distance. The pump is further so constructed that ready and convenient access for cleaning or repairing may be furnished to the different valves.

The invention consists, first, of the construction of the cylinder-heads and supports or feet in one piece, so as to raise the lower part of the pump, to admit the ready dropping of the bed-plate for getting at the lower valves. The invention consists, secondly, of the combination, with the suction-opening of a pump, of a T-joint, that may be connected to the stationary suction-pipe, or to a detachable sleeve to connect with an overboard suction-pipe; and, lastly, it consists of the combination of the discharge opening or spout, with an attachment to which a hose may be applied, for using the pump as a hand fire-engine.

In the drawing, A represents a double-acting suction and force pump, that is worked by a piston, C, sliding in an open cylinder, B, at the interior of the pump, by means of the jointed handles E. The piston works alternately on upper and lower valves in each direction, and produces a continuous suction and force action.

The pump-casing is made of horizontal sections, that are connected by vertical bolts, and is supported on extensions or feet D′ of the pump-heads D, which are cast in one piece with the feet, and screwed firmly to the pump-sections.

The feet D′ raise the lower part or bed-plate to such height above the floor or other place to which the pump is attached that the bed-plate may be readily dropped by unscrewing the bolts, so that thereby access is given in convenient manner to the lower valves, to clean or repair the same, without taking off the entire pump. This I consider as an important point, as it facilitates the handling of the pump, and affords access to all the parts in convenient manner.

A T-shaped casting or joint, F, is screwed into the suction-opening of the pump, and made, at the part that screws into the opening, equal in width with the same, while the outer part is made wider, and closed at the outer end with a screw-plug, F′.

The lower or under side of the T-joint F is connected with a stationary suction-pipe, that extends down into the bilge of the vessel, so that the pump acts in the usual manner as a bilge-pump when the plug is inserted.

By removing the plug and inserting a sleeve, G, that fits, by a collar at one end, to the interior of the T-joint, and against a shoulder formed by the wider and narrower part, and which screws, by a thread at the middle part, into the outer end of the T-joint, the sleeve closes the stationary suction-pipe.

The sleeve G, outside of the T-joint, is provided with the necessary projections for screwing it up, and also with another screw-thread or other device to which a hose-coupling for a portable suction-pipe may be attached. The water may thereby be drawn from the sea by placing the portable suction-pipe overboard, and the pump be used for washing decks, cleaning the holds of vessels, or extinguishing fires.

The discharge opening or spout of the pump is provided with an attachment, H, that is se-

cured to the same by a bolt, H^1, passing through the pump to the opposite wall of the same, and being attached thereto by a screw-nut, H^2. This secures the base-plate of attachment H tightly to the spout, and admits, then, the coupling of a leading hose to the threaded central pipe end of the attachment H, so that the water may be conveyed to any desired point.

When the pump is used as a bilge-pump the attachment H is detached, and the bolt-hole closed by a screw-plug. The pump may in this manner be used, by means of simple attachments, either as a powerful bilge-pump or as a force-pump, as required, so that its usefulness and adaptation for vessels of all kinds is greatly enhanced.

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

1. As an improvement in pumps, the combination of the cylinder-heads, cast in one piece with the feet or supports, with the pump-casing, in such a manner that the bed-plate is raised to suitable height from the floor or other point of support to give ready access to lower valves, substantially as specified.

2. The combination, with the suction-port of the pump, of a T-joint, F, closed by plug F', and with a stationary suction-pipe secured thereto, substantially as described.

3. The combination of the suction-port of the pump with a joint, F, having an enlarged main part, and with a sleeve, G, screwing and fitting therein, to attach hose and close stationary suction-pipe, substantially as set forth.

4. The combination, with the discharge port or opening of a pump, of an attachment, H, secured by bolt H^1 and screw-nut H^2, to apply a hose and nozzle, for using the pump as a force-pump, substantially as specified.

WILLIAM H. POLLARD.

Witnesses:

CORNELIUS S. HOOD,

ROBERT N. HEBBERD.