2 Sheets—Sheet 1.

W. GARVENS.

Pump.

No. 221,167. Patented Nov. 4, 1879.

Fig. 1.

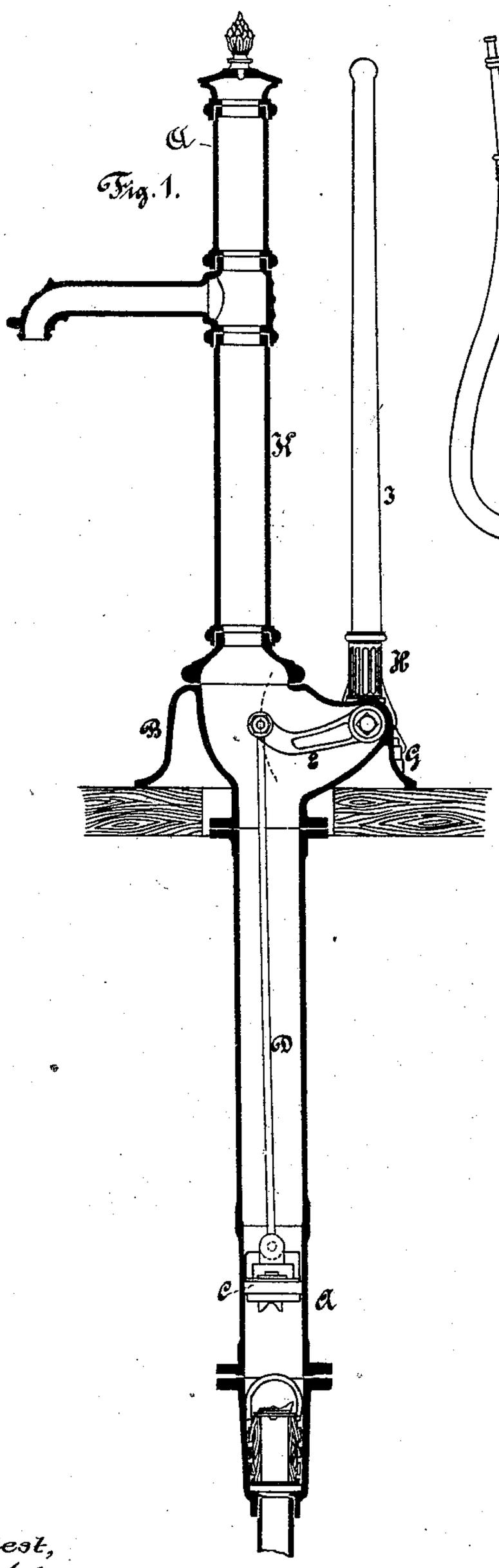
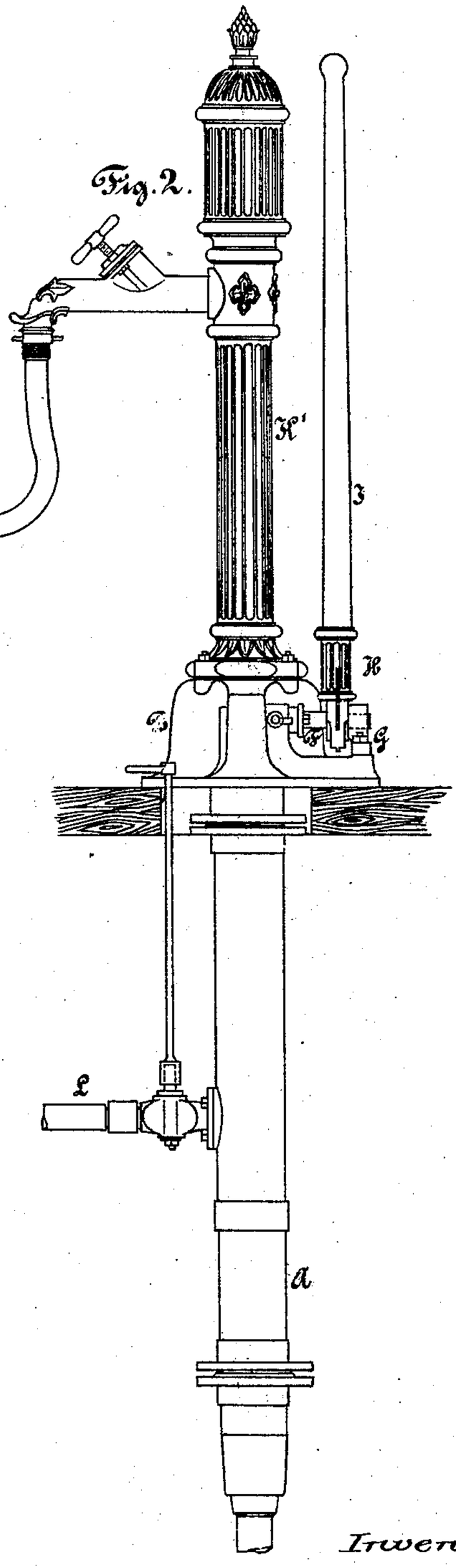


Fig. 2.



Attest,
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Hays

2 Sheets—Sheet 2.

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Pump.

No. 221,167. Patented Nov. 4, 1879.

Fig. 3.

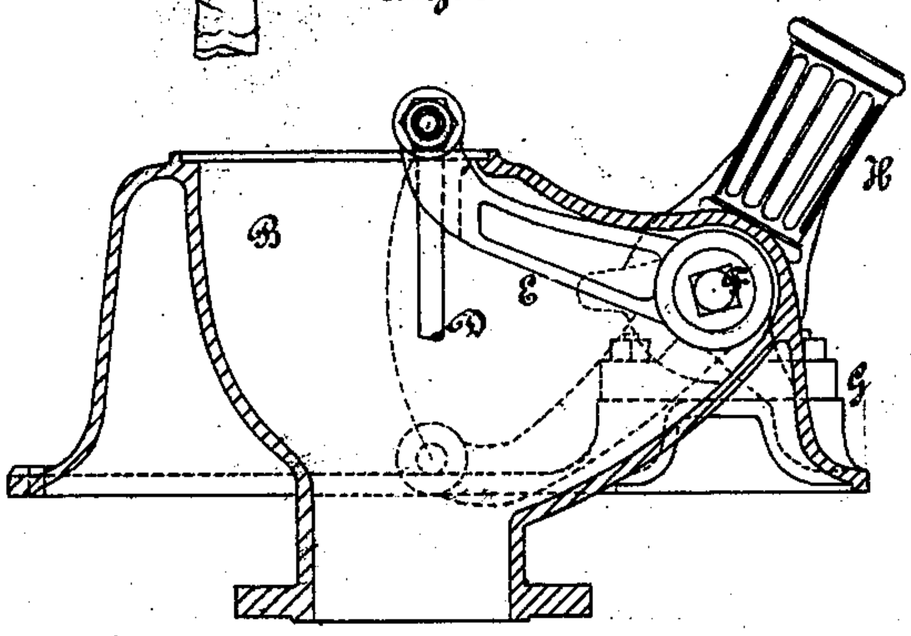
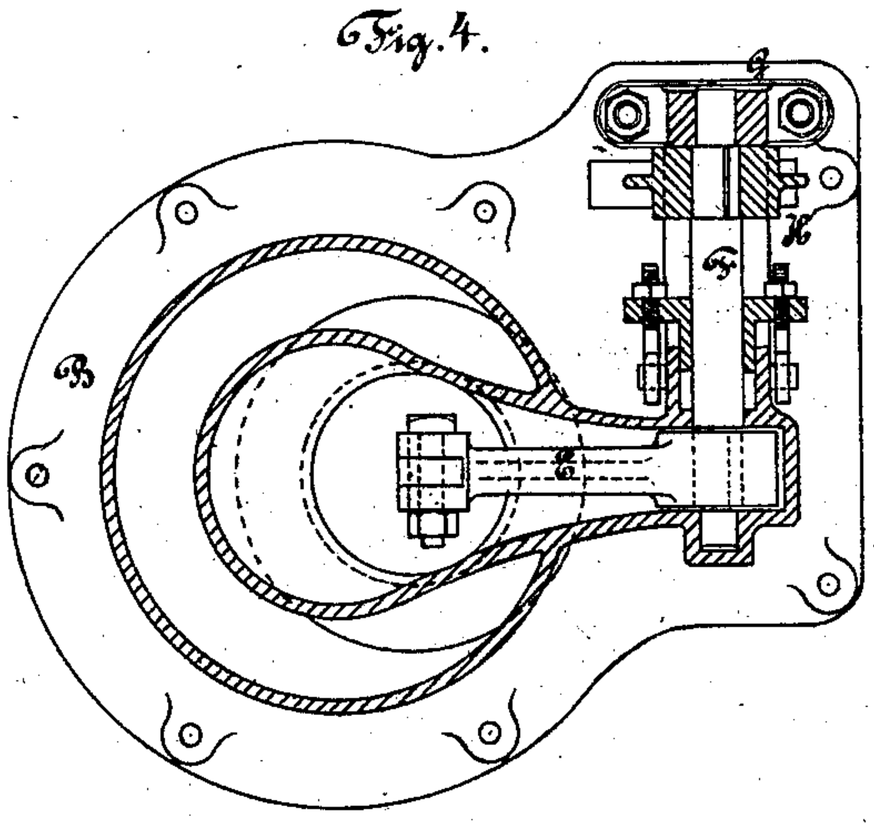


Fig. 4.



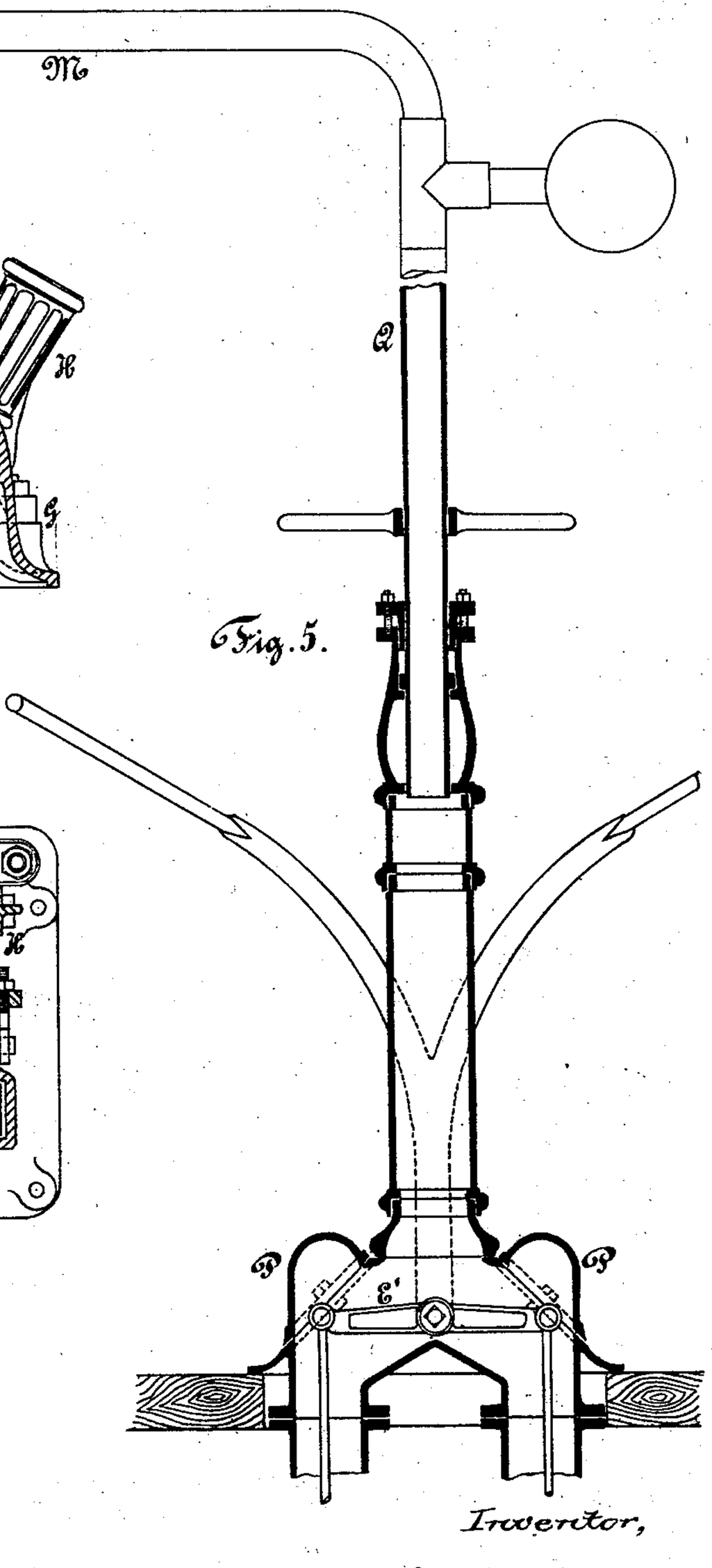


Fig. 5.

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UNITED STATES PATENT OFFICE.

WILHELM GARVENS, OF HANOVER, PRUSSIA.

IMPROVEMENT IN PUMPS.

Specification forming part of Letters Patent No. **221,167**, dated November 4, 1879; application filed May 12, 1879.

To all whom it may concern:

Be it known that I, WILHELM GARVENS, of Hanover, Prussia, manufacturer, have invented certain Improvements in Pumps, of which the following is a specification.

This invention relates to improvements in pumps for domestic and industrial purposes; and it consists in the use of a pedestal forming a closed chamber which contains the internal working parts of a pump, and made so as to be entirely independent of any variations in the arrangement of both the standard and the barrel of the pump.

The said pedestal is constructed in such a manner that the parts therein contained may be operated from the outside by means of a shaft passing through a suitable stuffing-box, the outside part of the said shaft being provided with a lever acted upon in the usual manner.

To the upper part of the said pedestal is secured a standard or stand-pipe of the desired size and description, provided with one or more spouts, and to its lower part the barrel containing the piston and the necessary valves, the pedestal itself being fixed to the cover of the well or reservoir from which water is to be drawn.

In Figures 1 and 2 of the accompanying drawings, A is the barrel, secured by a flange to the pedestal B, bearing upon the cover of the well. The piston C is jointed, by the intervention of its rod D, to a lever, E, made fast upon the shaft F. This shaft passes toward the outside of the pedestal B through a stuffing-box, and is supported at its end in a special bearing, G. Upon the outside part of the said shaft is fixed a socket, H, for the reception of the lever I.

Figs. 3 and 4 represent, on a larger scale, sections of the pedestal with its internal arrangement, which forms the main part of this invention, and upon which may be secured any kind of standard to suit the requirements of the users, as above stated.

The accompanying drawings contain different kinds of standards for some of the most frequent uses. Fig. 1 shows a simple standard with spout, and Fig. 2 a standard with spout and with an air-vessel, the spout having a stop-valve, and its end being screwed, so as to receive a hose-pipe for watering and other purposes. The barrel A is provided with a cock by means of which the water may be directed into a pipe, L, for leading it through the wall of the well.

The pump-standard might have two spouts placed at different heights, the lower one of which could be closed by a screwed cap. Under the other spout might be adapted a bracket or support, upon which is placed the vessel to be filled, or the wooden buckets carried on the back, as is usual in the south of Germany.

Instead of a straight standard a bent tube might be used, serving at the same time as a spout. By this arrangement any kind of standard may be fixed to the pedestal, thus avoiding the necessity, under which pump-makers are at present, of having a great selection of ready-finished pumps in stock to meet the different requirements of the users.

It will be observed that whenever the standard is detached from the pedestal ready access is obtained to the interior working parts, and the piston as well as the valve may be extracted from the barrel, provided, however, that the said valve be constructed suitably for the purpose, as shown in the drawings.

Fig. 5 represents a modified arrangement of pedestal adapted for two pump barrels or cylinders, the piston-rods of which are jointed to a double-branched lever, E′, keyed on a shaft passing to the outside of the pedestal, as in Figs. 1 to 4. The outside working-lever is shown in Fig. 5 as being also double-branched.

P P are covers placed above the pump-barrels, so that when these covers are removed access is obtained to the interior of the pedestal in a similar manner as by the removal of the standard of the pumps shown in Figs. 1 and 2. With the standard of this pump a movable discharge-pipe, M, is supposed to be combined, serving for filling water-carts, small locomotives, &c. The standard may also be fitted with a spout provided with a stop-valve, as in Fig. 2.

In addition to the main advantage of this invention which has already been mentioned, the described construction of pump presents the further advantages that the internal parts of the pump are very readily accessible, and that no dirt can enter into the pump or the

well, as is generally the case with the ordinary constructions of pumps, on account of the holes necessary to the working of the lever or the piston-rod. Moreover, the shaft of the lever being very securely mounted in its bearings, the working parts of the mechanism are not liable to become loose and to take play, and the power applied to the lever is utilized very advantageously.

It is finally to be remarked that the above-described pedestal might be combined with separate pumps having special discharge-pipes and suitable connecting-rods, provided, however, that the form of pedestal shown in the drawings be modified according to the purpose for which it is intended.

I claim as my invention—

A pedestal, supporting a standard or stand-pipe above, and a barrel containing the piston and its accessories below, in which pedestal is contained the internal working parts of a pump, arranged as above described and shown, and for the purposes set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILHELM GARVENS.

Witnesses:
A. M. SIMAN,
OTTO DAVISSON.