(No Model.)

2 Sheets—Sheet 1.

W. EAMES.

PUMP.

No. 280,920. Patented July 10, 1883.

Fig. 1.

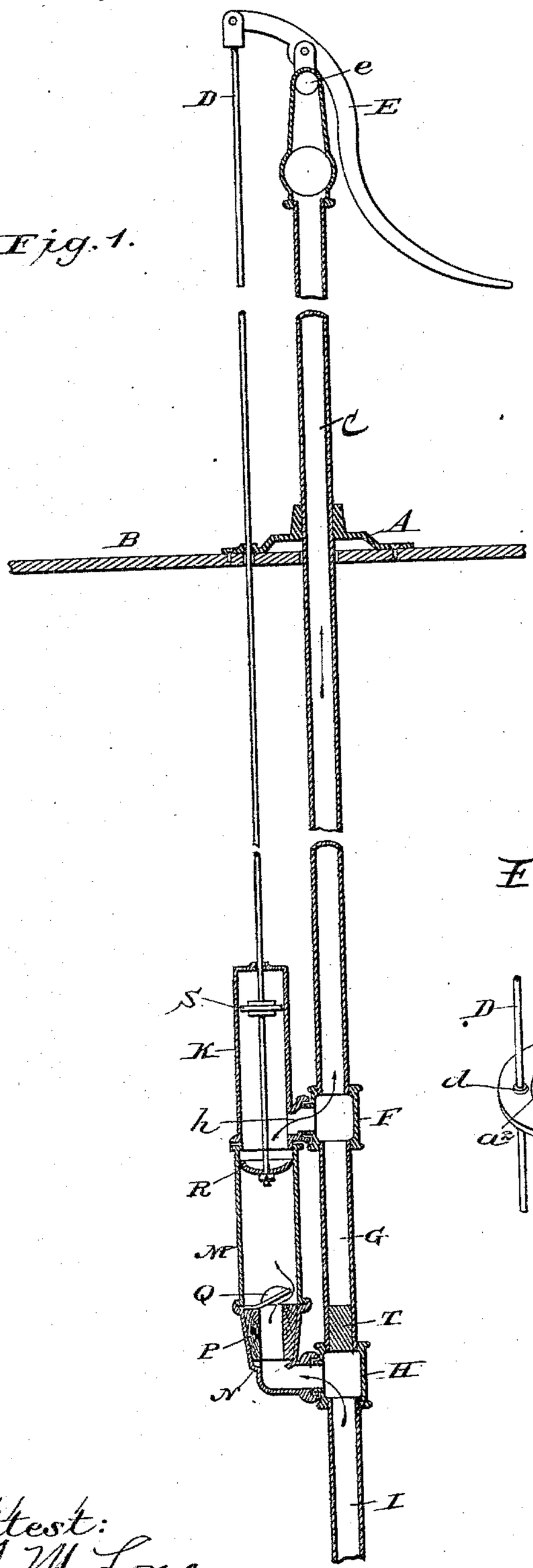


Fig. 2.

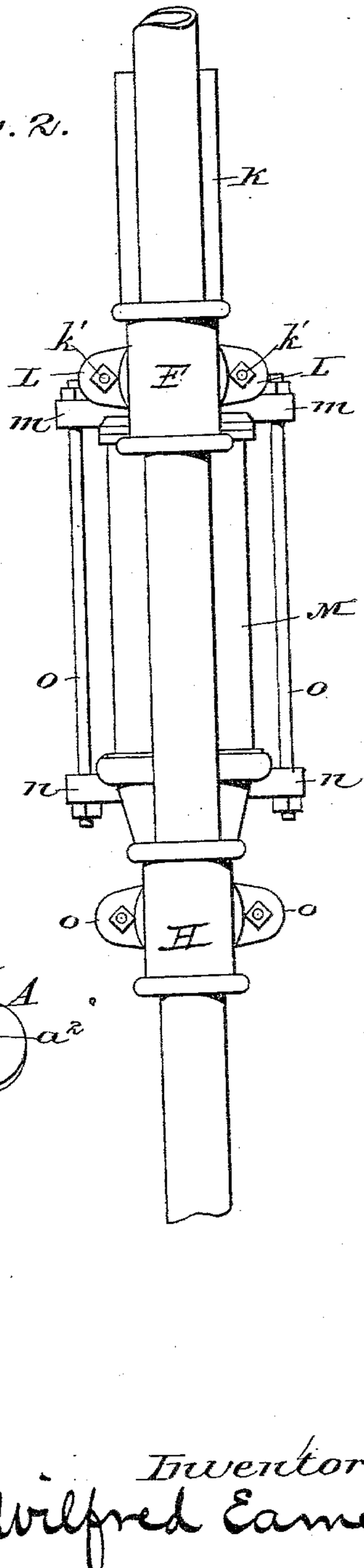
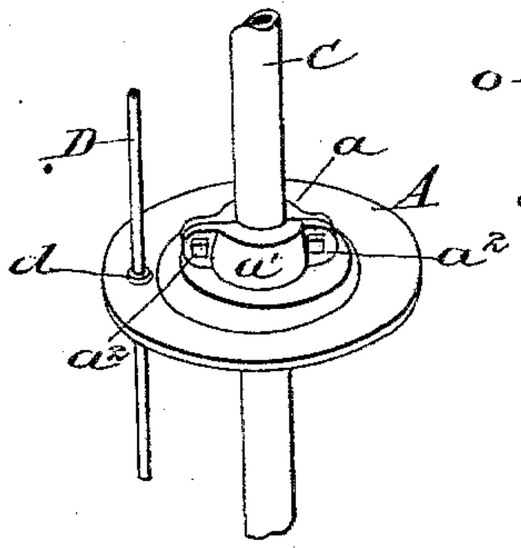


Fig. 3.



Attest:
A. M. Long
Jas. L. Halley

Inventor.
Wilfred Eames.
By, H. A. Lumis Atty.

(No Model.)

2 Sheets—Sheet 2.

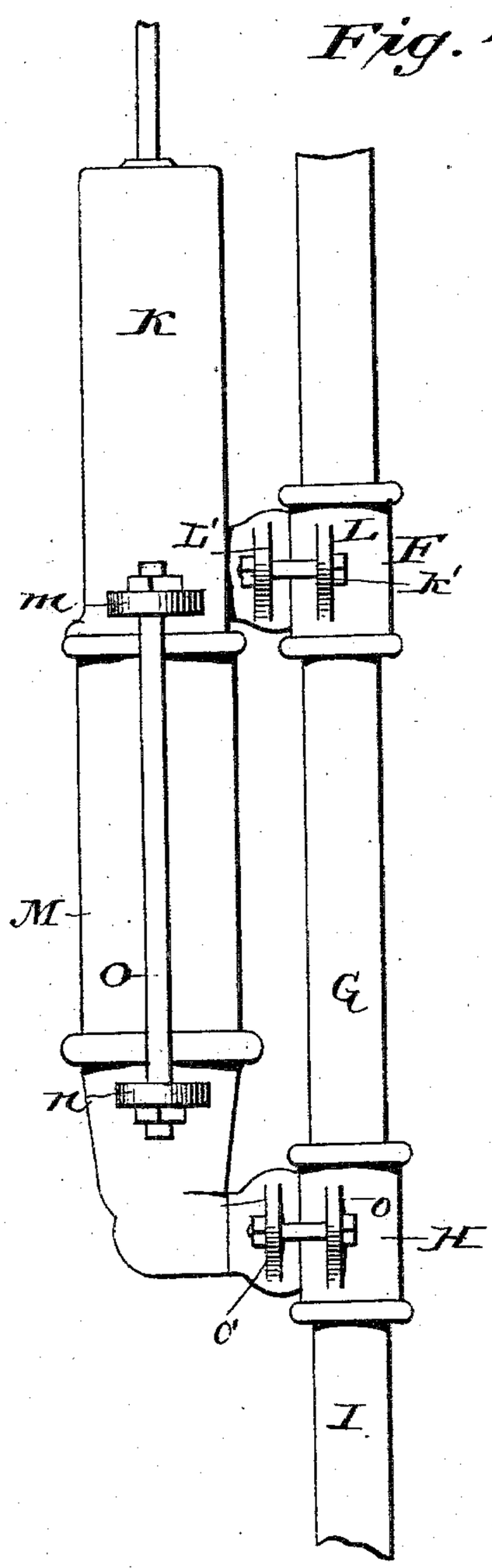
W. EAMES.

PUMP.

No. 280,920.

Patented July 10, 1883.

Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

WILFRED EAMES, OF EVANSVILLE, INDIANA, ASSIGNOR TO THE EVANSVILLE PUMP COMPANY, OF SAME PLACE.

PUMP.

SPECIFICATION forming part of Letters Patent No. 280,920, dated July 10, 1883.

Application filed May 25, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILFRED EAMES, a citizen of the United States, residing at Evansville, in the county of Vanderburg and State of Indiana, have invented certain new and useful Improvements in Pumps, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention has relation to force-pumps, and more particularly to that class where the pumping mechanism is located under the platform of the well, or at any distance below the surface of the ground; and the object is to provide a pump for the ready, rapid, and effective raising or forcing of the water, and to accomplish it in the simplest possible manner, so that there will be no complicated parts or undue liability to get out of order; and to that end the novelty consists in the construction of the same, as will be hereinafter more fully described.

In the accompanying drawings similar letters of reference indicate like parts of the invention.

Figure 1 is a vertical sectional elevation of my improved pump. Fig. 2 is a rear elevation of the pump-cylinders and connections; and Fig. 3 is perspective detail of the pump-base. Fig. 4 is side elevation of the pump-cylinder and connections.

A is the base, secured to the platform B. This base A has cast thereon a clamp, *a*, and *a'* is a similar clamp secured to the former by bolts a^2, so that the pump-standard C may be clamped at any desired position.

D is the piston-rod, which passes through a guide, *d*, in the base A.

E is the handle, which is fulcrumed in top *e* of the standard C, while its shorter end is hinged or pivoted to the upper end of the piston-rod D. The plug P is conical in shape, and its base, being uppermost, is securely held in place by friction, thus dispensing with any other fastening device, and at the same time it may be readily withdrawn, when necessary, for repairs. In order to adapt or adjust the handle E to the height of a person, the bolts a^2 in the base A are loosened and the standard C raised or lowered as desired. The bolts are then screwed up, so as to clamp the standard between the parts *a* and *a'* at any desired height. The standard C may extend down into the well any distance. To its lower end is secured (preferably by screw-threads) a T-connection, F, and to the lower end of this connection F is secured a short pipe, G, of the same diameter as the standard C. This pipe G has a T-connection, H, similar to connection F. I is a suction-pipe secured thereto, which extends down into the water.

K is the top pumping-cylinder, provided with an outlet, *h*, which communicates with the upper connection, F. The cylinder is secured to the connection by means of the bolts *k' k'*, passing through the lugs L and L'.

M is the lower cylinder, and consists of a straight piece of pipe turned true on the ends, so as to make a joint with the bottom of the upper cylinder, K, and with the elbow N.

m m are lugs on the cylinder K, and similar lugs, *n n*, are on the elbow N, and these are connected by the bolts O, so that the cylinder M is clamped between the top cylinder, K, and the elbow N. This elbow N is provided with lugs *o' o'*, by means of which it is bolted to similar lugs, *o o*, on the connection H. The upper part of the elbow N is conical in shape, and has a wooden plug, P, to which is secured the valve Q. The lower end of the piston-rod D has a rubber cup-shaped valve-piston, R, working in the cylinder M; and S is an ordinary form of piston in the top cylinder, K.

In operation the piston-rod is raised and the water drawn through the suction-pipe I, connection H, elbow N, and valve Q, so as to fill the cylinder M. The downstroke of the piston-rod then forces the piston R to the bottom of the cylinder M, and the water that is above is forced by the piston S through the outlet *k* up the standard C and discharged through the spout (not shown) in the top.

T is a removable wooden plug in the lower end of the pipe G, which prevents the suction-water passing through said pipe, and causes it to take the course above mentioned through the cylinders.

When the pump is not in use, the column of water remaining in the standard C allows whatever sediment or foreign matter it may contain to fall by gravity and settle in the pipe G, thus preventing its injuring the cylinders and insuring the discharge of clear water.

Where the pump is used for pumping water and sand in driven wells, the sand falls into the pipe G and does not injure the facing of the valve Q.

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—

1. The standard C, having connection F and pipe G, provided with plug T, in combination with the connection H, elbow N, and pump-cylinders K M, as and for the purpose set forth.

2. The cylinder K, having lugs *m m* and outlet *h*, cast in one piece, the elbow N, having lugs *n n*, in combination with the cylinder M, bolts O O, and connections F H, and pipe G, as and for the purpose set forth.

3. The connections F H, having lugs L *o*, in combination with the cylinders K M, the former having lugs L′, and the elbow N, having lugs *o*′, as and for the purpose set forth.

4. The elbow N, having conical upper portion, and provided with the conical wooden plug P, inserted so its base forms the seat for the valve Q, as set forth.

5. In a force-pump, the pipe G, provided with removable plug T, forming a sand-chamber, in combination with the couplings F H, standard C, cylinder M, and elbow N, as and for the purpose set forth.

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

WILFRED EAMES.

Witnesses;
H. J. ENNIS,
E. H. BRADFORD.