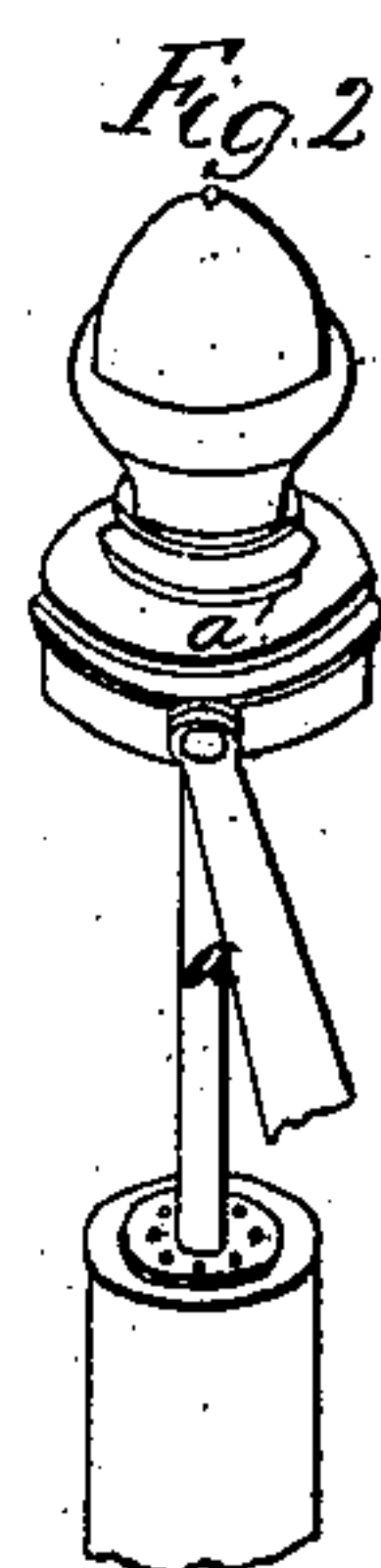
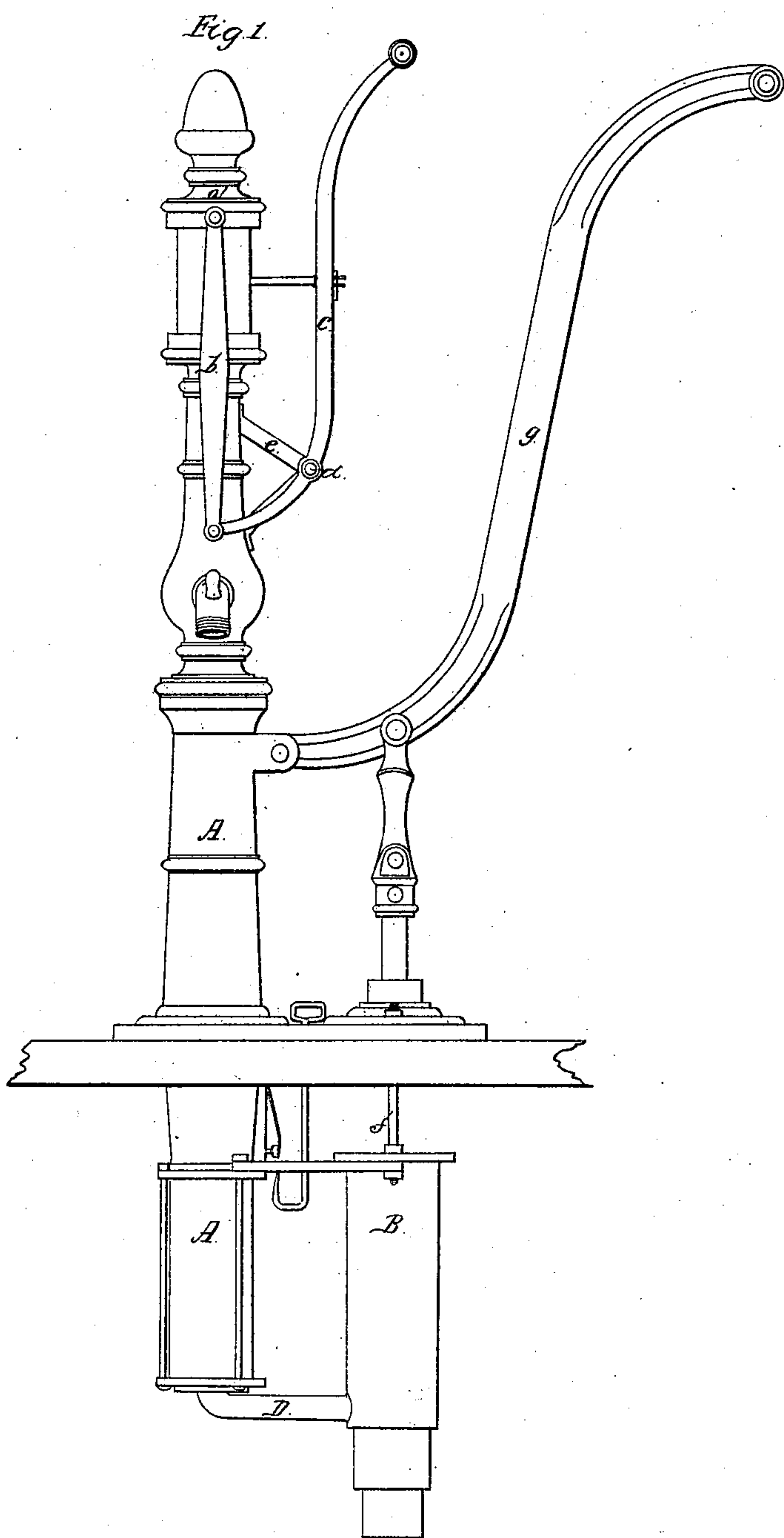


F. B. Hyatt,

Force Pump,

N^o 4,583.

Patented June 16, 1846



UNITED STATES PATENT OFFICE.

F. B. HYATT, OF MAYSVILLE, KENTUCKY, ASSIGNOR TO SAML. K. SHARPE.

PUMP FOR WATER.

Specification of Letters Patent No. 4,583, dated June 16, 1846.

To all whom it may concern:

Be it known that I, F. B. HYATT, of Maysville, in the county of Mason and State of Kentucky, have invented a new and useful Improvement on Suction and Force Pumps, and that the following is a full, clear, and exact description of the principle or character thereof, which distinguishes it from all other things before known, and of the manner of making, constructing, and using the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1, is a side elevation and Fig. 2, a view of the top or puppet valve in the suction part of the pump, by which it is turned into an air vessel for the force pump at will.

In the accompanying drawings, (A) represents the suction barrel of the pump; that is a straight cylinder of sufficient length, and attached to a platform, about one third of it, more or less, extending below said platform; this part of the pump is furnished with the ordinary spout, on which a screw may be cut for attaching a hose, when the forcing pump is used as a fire engine, as hereinafter described. On the top of this cylinder there is a cover through which the pump rod (*a*) works, and has a number of holes in it all around said rod to admit air into the cylinder when it is used as a suction pump; and to the upper end of the pump rod is affixed a valve (*a'*) of as great a diameter as the top of the cylinder, this serves when down as the cap of the pump, as well as to close the holes in the cover above named; it is furnished with a piece of leather on its under side to make an air tight joint when it is down and thus supercede the necessity of passing the rod through a stuffing box and the consequent friction attendant thereon; the cap is connected by pitmen (*b*), (one on each side) with a double pump handle (*c*), the sides of which are connected together by proper cross bars the fulcrumed (*d*) being placed in a bracket (*e*) affixed to one side of the cylinder and

above this there is a grip or projecting arm having a slit in its end to receive a cross bar of the handle, when raised by means of a key to hold it up and keep the valve (*a*) above named down tight in the position shown in Fig. 1.

It will be obvious that a common pump box is necessary at the lower end of the rod (*a*) but no particular description or representation of it is necessary to the understanding of my improvements.

Parallel with the cylinder (A) is a cylinder (B) shorter, and placed entirely below the platform; this connects with cylinder (A) by a short horizontal pipe (D); in this cylinder there is a plunger of the usual construction for forcing pumps, and its valve rod (*f*), which extends up through the platform, is connected with a long brake (*g*), and is used only when a forcing pump or fire engine is required; at ordinary times this brake is removed, and the double handle or brake only operated.

When the lower brake (*g*) is in action the double one is drawn up (as in Fig. 1) and fastened which brings down the cap valve (*a*) tight to its seat as above described and forms cylinder (A) into a secondary air chamber, thus making of the pump a perfect fire engine.

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

The combination of a forcing and a lifting pump substantially as herein described so that the lifting pump can be formed into a surrounding air chamber for the purposes set forth, by means of a cap valve as represented at (*a*) by which the top can be made tight without passing the rod through a stuffing box, the whole being arranged and combined substantially as above specified.

F. B. HYATT.

Witnesses:

A. C. RESPESS,

S. S. WADSWORTH.