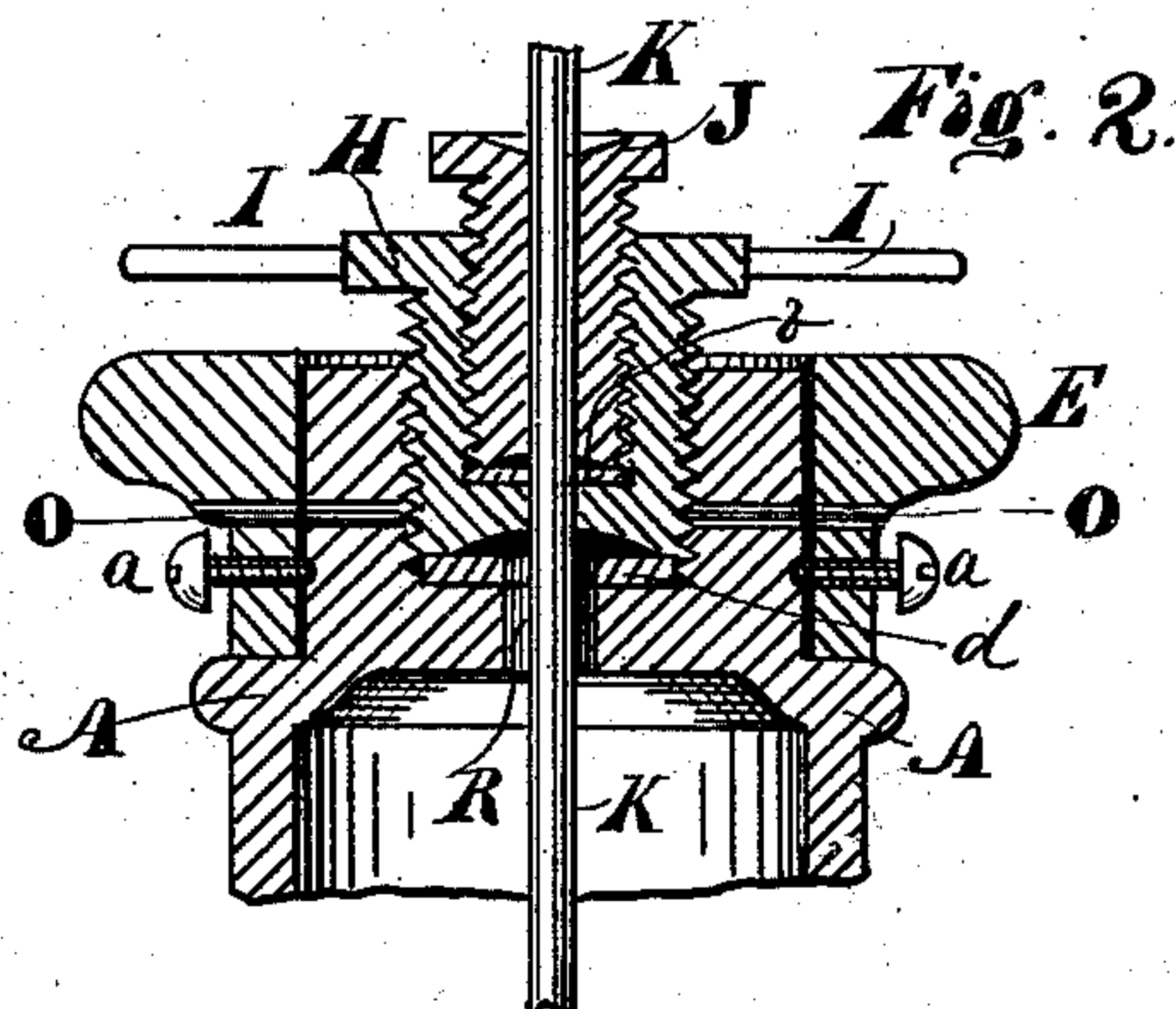
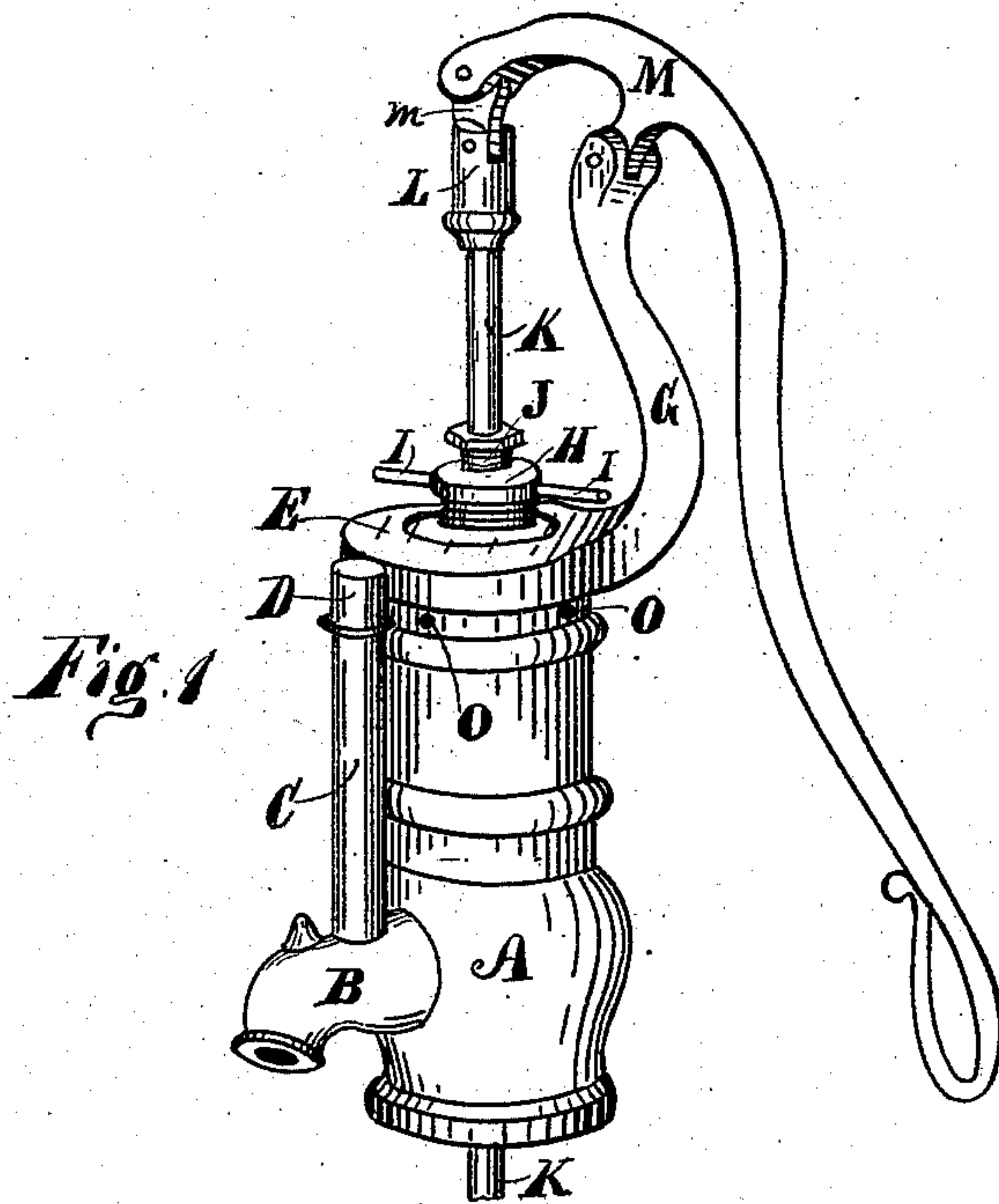


L. D. RAILSBACK.
Pump.

No. 225,417.

Patented Mar. 9, 1880.



WITNESSES;
Belora Phillips
G. F. Bennett.

INVENTOR.
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UNITED STATES PATENT OFFICE.

LAFAYETTE D. RAILSBACK, OF INDIANAPOLIS, INDIANA.

PUMP.

SPECIFICATION forming part of Letters Patent No. 225,417, dated March 9, 1880.

Application filed August 13, 1879.

To all whom it may concern:

Be it known that I, LAFAYETTE D. RAILSBACK, of Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Improvement in Pumps, of which the following is a description, reference being had to the accompanying drawings.

The object of my invention is to provide a pump-spout with an air-chamber tube; also, to provide the top of a pump with a double stuffing-box, by means of which the pump can be used as an ordinary suction-pump or converted into a force-pump.

My invention consists, mainly, in the new construction and arrangement of devices, also in the new combination of old elements, all of which, singly or combined, are deemed essential in my newly-organized pump, as will be first fully described in the specification, and then set forth in the claims.

In the accompanying drawings, in which like letters of reference in the different figures indicate like parts, Figure 1 represents a perspective view of my improved pump, and Fig. 2 is an enlarged vertical section of the upper part of the pump.

A represents any ordinary iron pump-stock provided with a spout, B, bracket G, handle M, link *m*, and piston-rod L K, all in the usual manner.

The upper part of the pump-barrel A is closed, except a small hole, R, in the center, which is a little larger than the rod K, in which said rod K operates. Above the hole R is a chamber provided with a screw-thread, in which the stuffing-box H is secured, having a gasket, *d*, below, with a hole in its center larger than the rod K, as shown in Fig. 2.

The stuffing-box H is also bored out above and provided with a screw-thread to receive the stuffing-box J and gasket *b*. The gasket *b* is designed to make a snug joint with the rod K and prevent leakage.

The stuffing-box H is provided with pins or rods I I, by means of which it is easily screwed down onto the gasket *d*, to make a tight joint, or screwed away from said gasket, in order to admit or expel air from the cylinder A, as will be hereinafter described.

The chamber in which the stuffing-box H fits is provided with several air-holes, O O, drilled in the side walls, which communicate with the space between the cylinder A and bracket-ring E, or through said ring to the outside, as shown.

The spout B is provided with a vertical pipe or tube, C, which has the cap D screwed on its upper end, thus forming a straight air-chamber on the spout.

The improvement in adopting the pipe air-chamber on the spout B over the old-fashioned air-chamber consists of a gain of two advantages—first, the pipe being straight and having no enlargement at the top, there is nothing, as soon as the pump stops, to retard the immediate expulsion and drain of the portion of water which always collects in an air-chamber and dribbles out at each stoppage of the use of the pump; second, in making the pump, in the cheapness and ease of attaching the air-chamber to the spout, it only being necessary to cut a female screw in the spout and a male screw on the pipe, thus making the cheapest air-cell known, and one which will never retain water after the pump stops.

The operation of my improved pump is as follows, to wit: If it is desired to use the pump as an ordinary suction-pump, then the stuffing-box H is screwed up until air can be admitted or expelled through the air-holes O O and hole R in the gasket *d* and upper end of the cylinder. Should it be desired to use the pump as a force-pump, then the stuffing-box H is screwed down, thus shutting off the air-holes O O.

The hose can be attached to the spout B in any ordinary manner, and the pump will be converted into a force-pump, the air retained in the upper part of the cylinder A and in the tube C causing a steady pressure and a regular, even flow of water.

What I claim as new, and desire to secure by Letters Patent, is—

1. In combination with a pump-barrel, A, provided with air-holes O O, the stuffing-box H and gasket *d*, as and for the purpose specified.

2. In combination with the pump-barrel A, provided with air-holes O O, the stuffing-box H and gasket *d* and the stuffing-box J and gasket *b*, as and for the purpose specified.

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

LAFAYETTE D. RAILSBACK.

Witnesses:

E. O. FRINK,
G. H. RENNETT.