

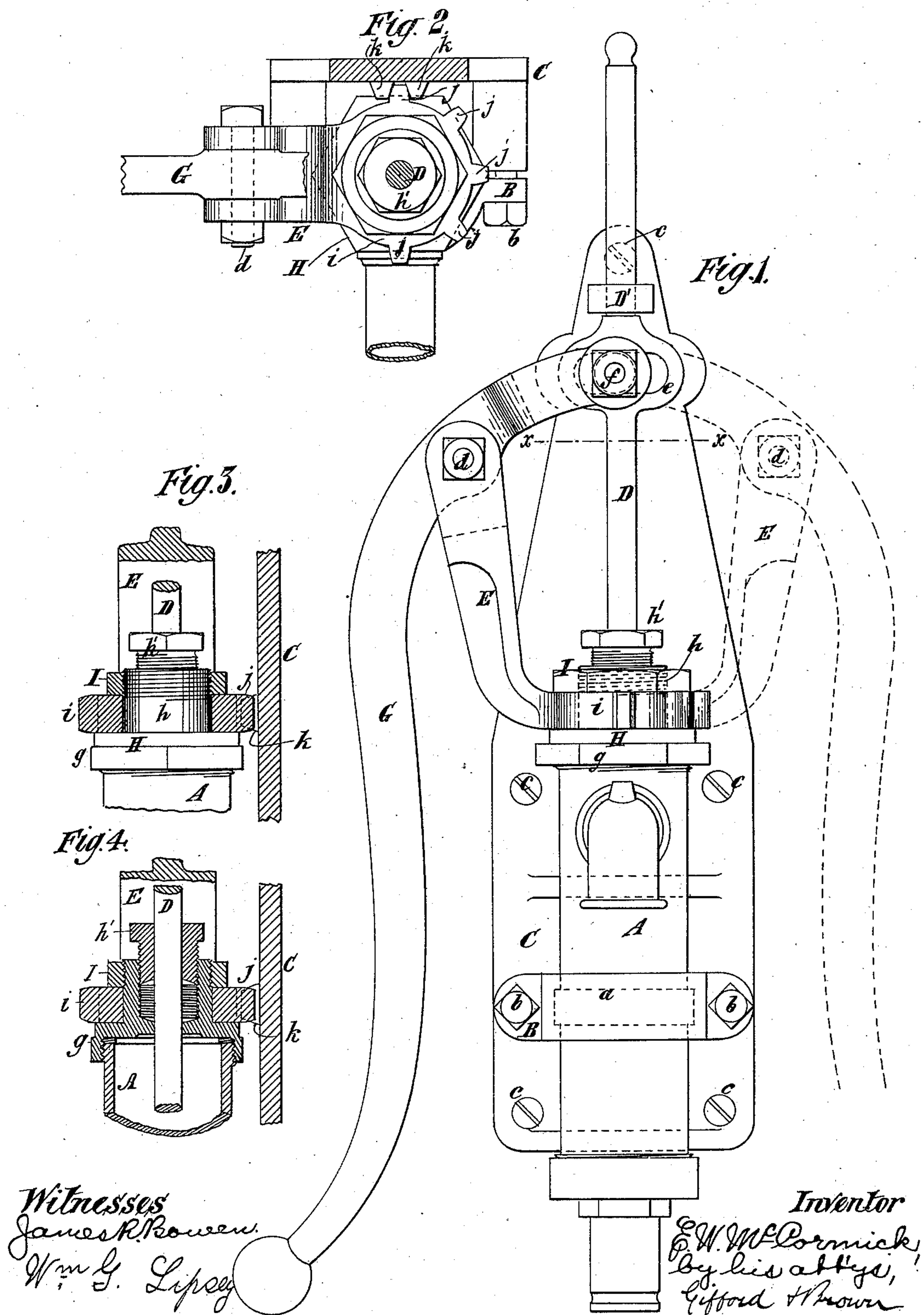
(No Model.)

E. W. McCORMICK.

LIFT PUMP.

No. 308,683.

Patented Dec. 2, 1884.



UNITED STATES PATENT OFFICE.

EDWARD W. McCORMICK, OF NEW YORK, N. Y., ASSIGNOR TO CHARLES HARRISON, OF SAME PLACE.

LIFT-PUMP.

SPECIFICATION forming part of Letters Patent No. 308,683, dated December 2, 1884.

Application filed April 2, 1884. (No model.)

To all whom it may concern:

Be it known that I, EDWARD W. McCORMICK, of New York, in the county of New York and State of New York, have invented
5 a certain new and useful Improvement in Pumps, of which the following is a specification.

My improvement relates to hand-pumps; and the object of the improvement is to provide for adjusting the handle of such a pump
10 into a variety of positions and securing it in place when adjusted.

I will describe a pump embodying my improvement, and then point out the various
15 features in claims.

In the accompanying drawings, Figure 1 is a front view of a pump embodying my improvement, the handle and its fulcrum being shown in a second position in dotted lines.
20 Fig. 2 is a horizontal section taken at the plane of the dotted line *x x*, Fig. 1. Fig. 3 is a sectional elevation of certain parts, and Fig. 4 is a central vertical section of all the parts shown in Fig. 3 except the piston-rod.

Similar letters of reference designate corresponding parts in all the figures.

A designates the pump barrel or cylinder. It may be made of any suitable metal. It is provided with a collar or circumferential
30 flange, *a*, for engagement with a strap, B, which is internally grooved to fit it, and is fastened by screws *b* to a base-piece or back piece, C, to secure the pump-barrel to the latter. The base-piece C may be of any suitable form. It is adapted to be secured to any
35 support by means of screws *c*.

The piston working in the pump-barrel may be of any appropriate construction. It is provided with a rod, D, whereby motion may be
40 imparted to it. This rod works in a guide-piece, D', extending from the base-piece C.

E designates a fulcrum-piece secured to the pump-barrel.

G designates a handle, connected near the
45 upper end to the fulcrum-piece E, and at the upper end to the piston-rod D. The fulcrum-piece E is bifurcated to receive the handle G, and the handle is secured to it by a bolt, *d*, passing through it and the handle. The handle G, at the upper end, is bifurcated to embrace a yoke, *e*, with which the piston-rod is

provided. A bolt, *f*, passes through the bifurcated end of the handle and through the yoke. The yoke affords provision for the movement of the bifurcated end of the handle
55 through an arc of a circle, while the piston-rod moves in a straight line.

I will now describe the manner of connecting the fulcrum-piece E to the pump-barrel.

H designates the cap of the barrel A. It
60 has an internally-screw-threaded rim, *g*, which surrounds the upper part of the barrel and engages with a screw-thread on the same. Its rim has on the exterior polygonal faces, to which a wrench may be applied for turning
65 it. From the cap H extends a cylindric neck, *h*, forming the body of a stuffing-box. The cap *h'* of the stuffing-box is inserted in the upper end of the neck, and preferably will be screwed therein. The fulcrum-piece E has at
70 the lower end a ring, *i*, which fits around the neck *h*. A nut, I, is fitted to the neck *h* of the cap H, above the ring of the fulcrum-piece, and screwed thereon. This nut secures the ring in position against the top of the cap H.
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On the exterior of the ring *i* are a number of spurs or teeth, *j*. As shown, they are arranged radially. The base-piece C is provided with a pair of teeth or spurs, *k*, with which any of the spurs or teeth *j* may engage. By
80 loosening the nut I the fulcrum-piece E may be raised to disengage from the teeth or spurs *k* of the base-piece the tooth or spur *j* of the fulcrum-piece that has been engaged therewith, whereupon the fulcrum-piece and handle
85 may be turned to any desirable position. After their adjustment the fulcrum-piece is lowered so as to engage another of the teeth *j* with the teeth or spurs *k* of the base-piece. The nut I will then be screwed down upon the
90 ring of the fulcrum-piece, to secure it in the position into which it shall have been adjusted.

It will be seen that by my improvement the handle of a pump may be adjusted into a variety of positions and secured there.

All the parts described may be made of any suitable metal.

The packings of the piston and stuffing-box may be of any desirable kind.

The inlets and outlets of the pump, as also
100 the valves, may be constructed and made to operate in any suitable manner.

The adjustments of the handle may be made without taking down the pump after it has been once set up. Of course the spurs or teeth may be arranged differently, and may be of 5 any suitable number.

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

1. In a pump, the combination, with a barrel, of a fulcrum-piece secured thereto, spurs 10 on said fulcrum-piece, a base-piece, spurs or teeth on said base-piece, and a handle pivotally connected to said fulcrum-piece, substantially as described, whereby the spurs or teeth on the fulcrum-piece may be moved into en-

gagement with the spurs or teeth on the base- 15 piece to secure the fulcrum-piece, and out of such engagement to admit of the fulcrum-piece being moved around to vary the position of the handle.

2. The combination of the barrel A, cap H, 20 provided with the neck *h*, the fulcrum-piece E, the spurs or teeth *j*, the base-piece C, the spurs or teeth *k*, and the nut I, substantially as specified.

EDWARD W. McCORMICK.

Witnesses:

WM. H. RIBLET,
MORTIMER J. ENNIS.