

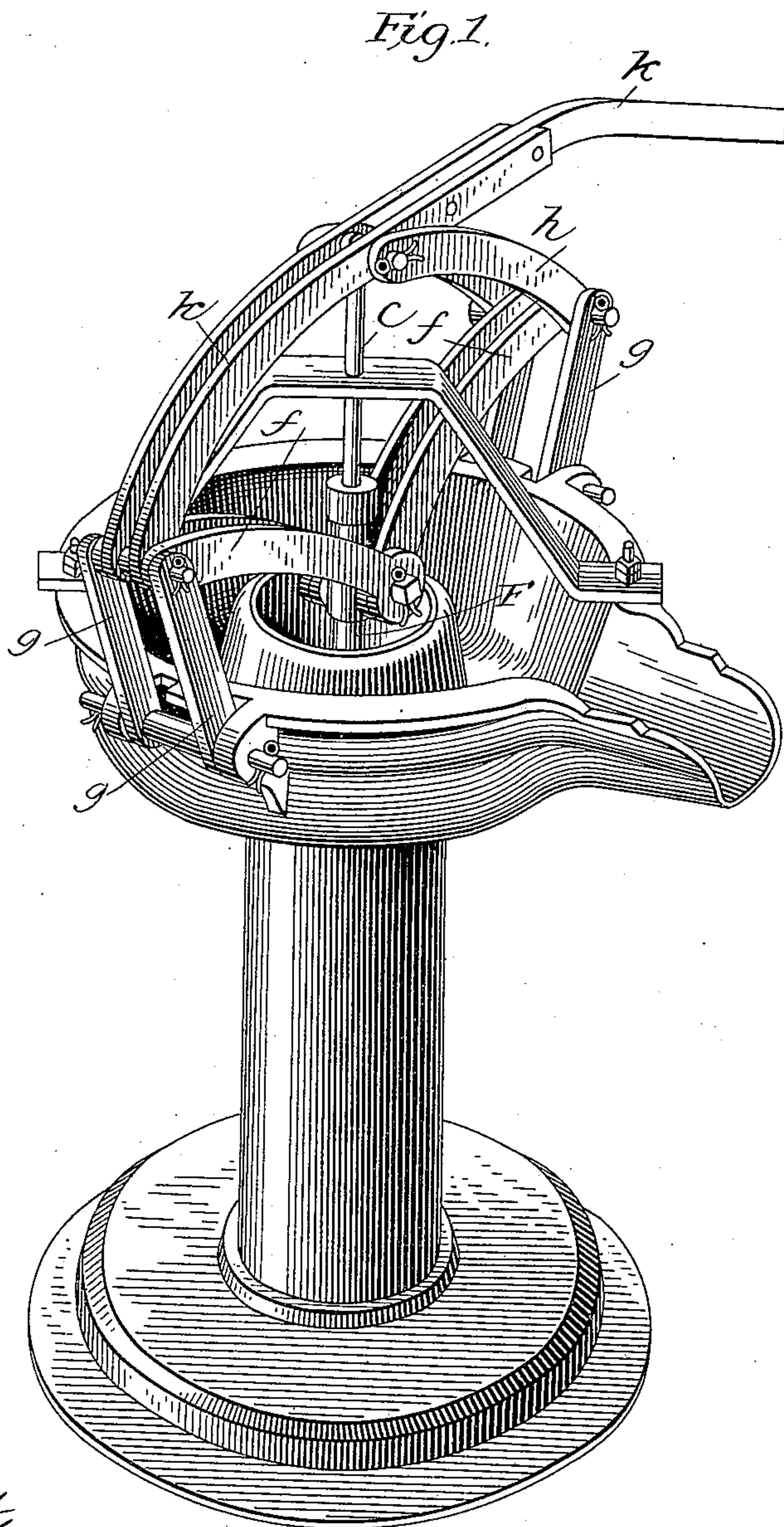
(No Model.)

2 Sheets—Sheet 1.

P. A. MYERS.
MECHANICAL MOVEMENT.

No. 333,477.

Patented Dec. 29, 1885.



Attest
Walter Donaldson.
J. L. Middleton

Inventor
P. A. Myers
by Joyner & Spear
Attys.

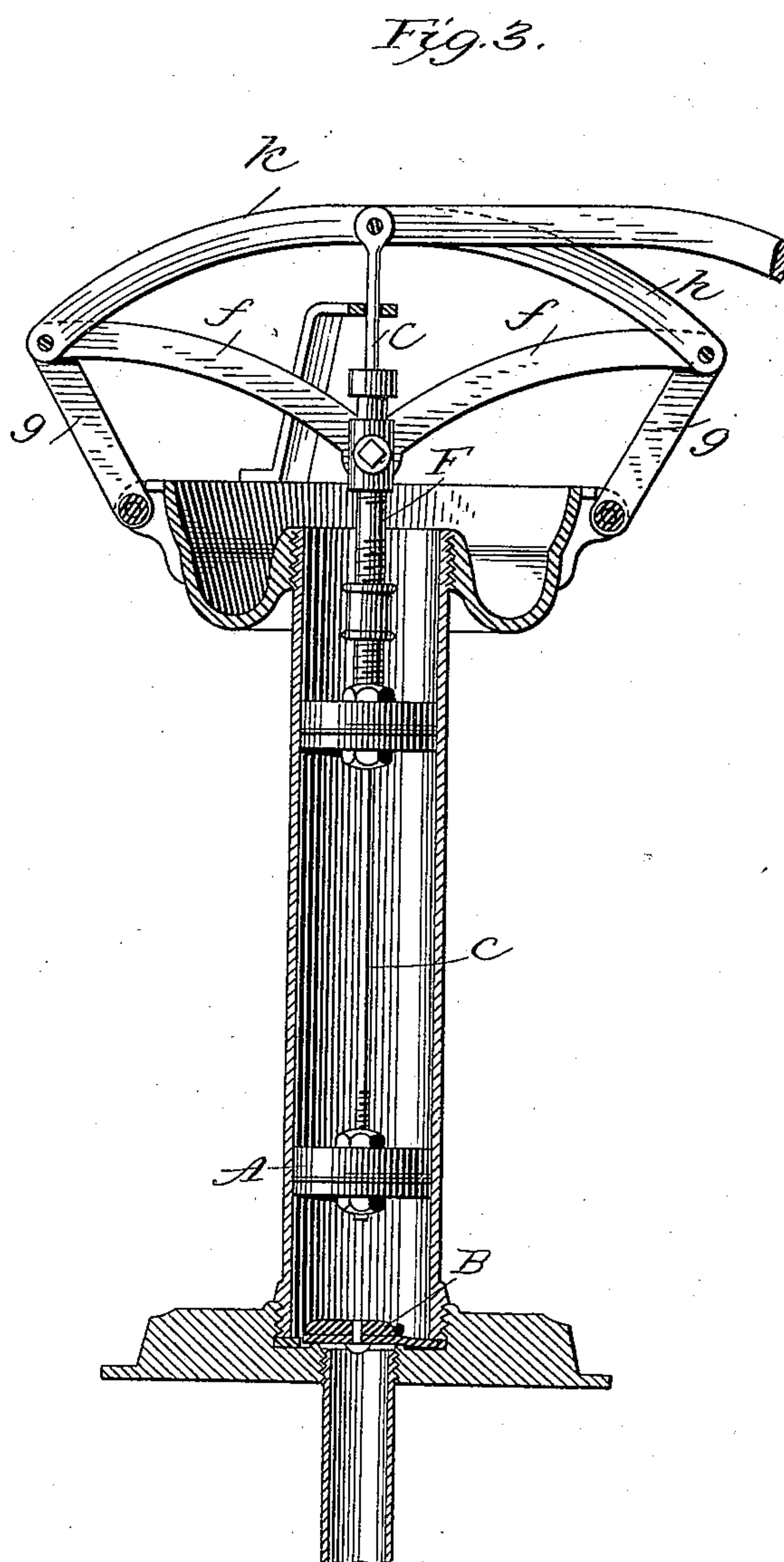
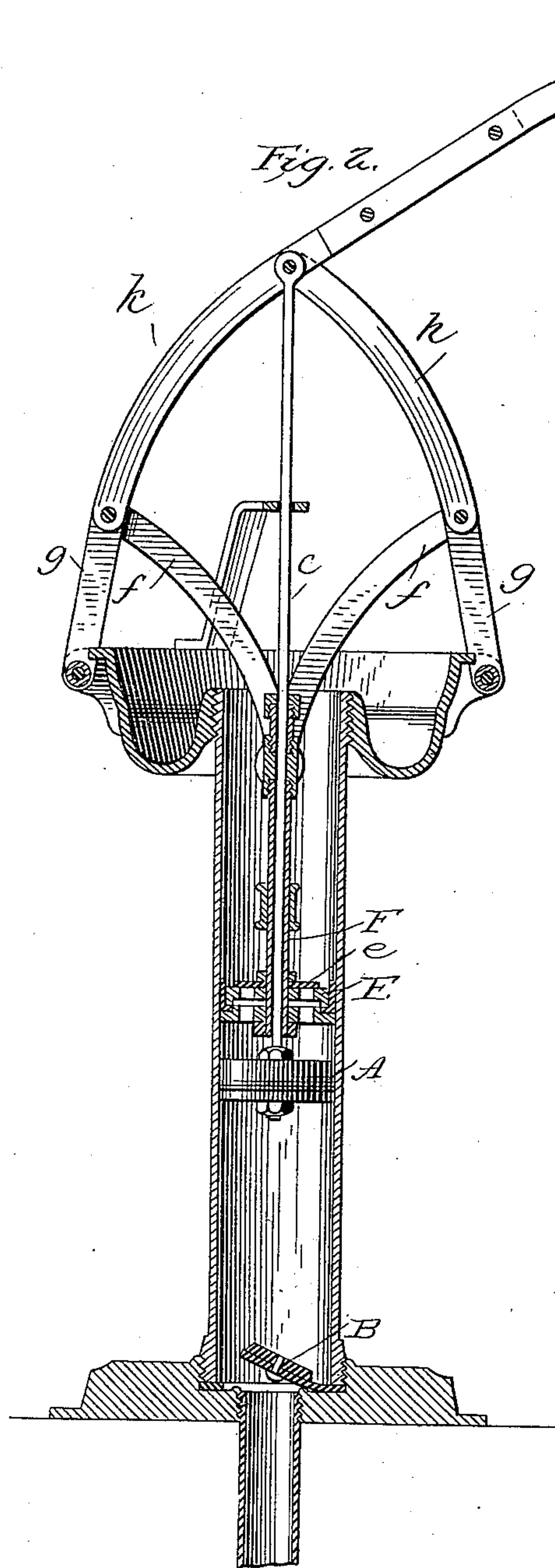
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2 Sheets—Sheet 2.

P. A. MYERS.
MECHANICAL MOVEMENT.

No. 333,477.

Patented Dec. 29, 1885.



Attest:
Hall & Maclean
J. L. Middleton

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UNITED STATES PATENT OFFICE.

PHILIP A. MYERS, OF ASHLAND, OHIO, ASSIGNOR OF ONE-HALF TO
FRANCIS E. MYERS, OF SAME PLACE.

MECHANICAL MOVEMENT.

SPECIFICATION forming part of Letters Patent No. 333,477, dated December 29, 1885.

Application filed October 6, 1885. Serial No. 179,136. (No model.)

To all whom it may concern:

Be it known that I, PHILIP A. MYERS, of Ashland, in the county of Ashland and State of Ohio, have invented a new and useful Improvement in Mechanical Movements; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention is an improved mechanical movement, and is designed for mechanism for operating pumps, churns, and similar devices in which a double piston is used, each part of the piston working independently and alternately with the other, so that while one is lifting the other is returning. This mechanism is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a pump, the improvement attached. Fig. 2 shows the pump and pistons, partly in section, and the mechanism for operating the pistons in side elevation and with the handle raised. Fig. 3 shows the same view as Fig. 1 with the handle lowered.

In these drawings, A represents the lower piston of the pump. It is an ordinary tight-fitting piston, with a valve on its upper surface which works by lifting the water. Below it is a check-valve, B. The lower piston, A, is attached to the piston-rod C. The upper piston, E, is like the lower, and has a valve, e. It is connected to a tubular piston-rod, F, through which the rod C passes. The tubular rod is connected by a pivot to the inner ends of links *ff*, which are preferably curved, as shown in Fig. 1. These links are pivoted at their outer ends to rocking standards *g g*, and the ends of these standards are again connected by means of a link, *h*, similar to the links *f*, and the handle *k*. Handle *k* is preferably formed at its pivoted end with a curve, and it and link *h* are pivoted one to the junction of *f* and *g* on one side, and the other to the junction of the corresponding parts on the other side. The link *h* is pivoted to the handle on a vertical

line with the pivots which connect the inner ends of links *ff* to the upper end of the tubular rod. The rocking standards have free movement toward and from each other. The inner piston-rod of the lower piston is carried up and connected by pivot to the junction of the handle and link *h*.

As shown in Fig. 1, when the handle is raised the lower piston is lifted; but the simultaneous inward movement of the standards *g g* through the arms *ff* pushes down the tubular piston-rod and the upper piston connected with it. The reverse movement of the handle reverses simultaneously the movement of the piston, and one piston is always descending while the other is rising with its load of water. Thus the pump, though having but one barrel, is double-acting. The rods are always maintained in the same vertical line without the aid of a pitman-connection.

The same construction is applicable without change to action for operating double dashers instead of pistons, or any other connection may be made when such double movement is required.

I claim as my invention—

1. The combination of the double pistons and rods centrally located, the combined links connected at their inner ends with the pistons, the standards supporting the outer ends of the said links and the operating-lever, substantially as described.

2. The combination of the central shaft connected with the upper links, the sleeve surrounding said shaft, connected to the lower links, the standards, and operating-lever, as set forth.

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

PHILIP A. MYERS.

Witnesses:

P. P. LEFEVRE,
F. L. MIDDLETON.