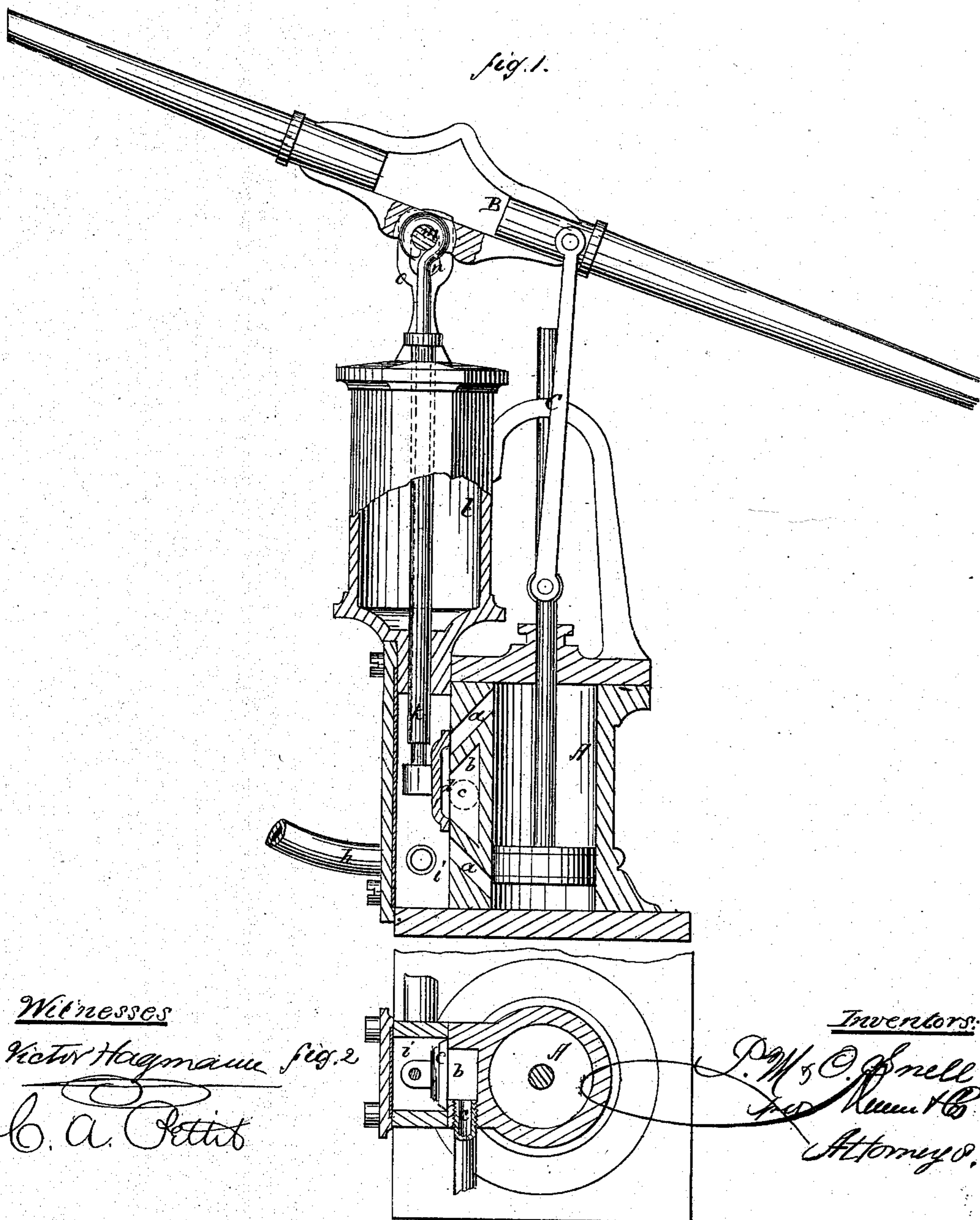


P. M. & O. SNELL.
PUMP.

No. 104,786.

Patented June 28, 1870.



United States Patent Office.

PETER M. SNELL AND OSCAR SNELL, OF WILLIAMSBURG, OHIO.

Letters Patent No. 104,786, dated June 28, 1870.

IMPROVEMENT IN PUMPS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, PETER M. SNELL and OSCAR SNELL, of Williamsburg, in the county of Clermont and State of Ohio, have invented a new and useful Improvement in Fire and Deck-Pumps; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a sectional elevation, and

Figure 2 is a sectional plan.

This invention consists in the application of a lever having a movable fulcrum placed in vertical slots, said fulcrum being directly connected with a slide-valve to the operation of the piston of a force-pump, for the purpose of giving the slide-valve the movement requisite to opening and closing the cylinder ports.

In the drawing—

A is the cylinder;

a a, the ports;

b, the chamber between the ports into which the inlet-pipe c opens, and which chamber opens by a passage, d, into the central chamber of the slide-valve e; and

h is the delivery-pipe, opening out of the valve-race i below the valve.

The valve-stem k passes through the air-chamber l, and is jointed at its upper extremity to the middle of the pivot m, which passes through the center of the lower limb of the lever B.

The pivot m projects to each side of the lever B, and forms trunnions, which occupy vertical slots n in the standards c-c, that rise from the top of the air-chamber, and sustain the lever between them.

C is a pitman connecting the piston-rod with the lever.

Suppose the piston to be at the bottom of the cylinder. On raising it, by means of the lever B, the trunnions must lie in the bottoms of the slots n, and the valve e be at its lowest position, leaving the upper port a open, and putting the central valve-chamber into communication both with the passage d and lower port a, so that water from the cylinder flows out of the upper port through the valve-race, and out by the delivery-pipe, and water from the inlet-pipe flows from the chamber b, through the lower port, into the cylinder.

On lowering the piston, owing to the resistance of the water in the cylinder, the trunnions are raised to the tops of the slots n, and lift the slide-valve, so that it opens the lower port and establishes communication between the chamber b and the upper port. Hence the placing of the trunnions in slots gives the requisite movement to the slide-valve.

Having thus described our invention,

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

A force-pumplever, having a movable fulcrum connected with the valve that controls the cylinder-ports in the manner described, and for the purpose of giving the requisite motion to the same.

PETER M. SNELL.
OSCAR SNELL.

Witnesses:

SARAH FRAZIER,
J. S. B. FRAZIER.