J. N. Freestone,

Wrench.

No. 68,431. Patented Sep. 3, 1867.

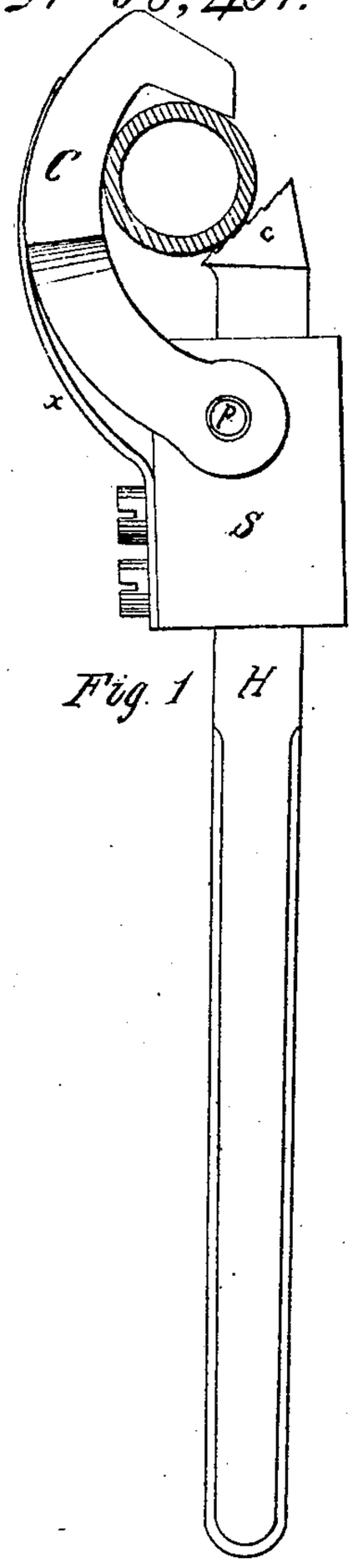

Fig. 1

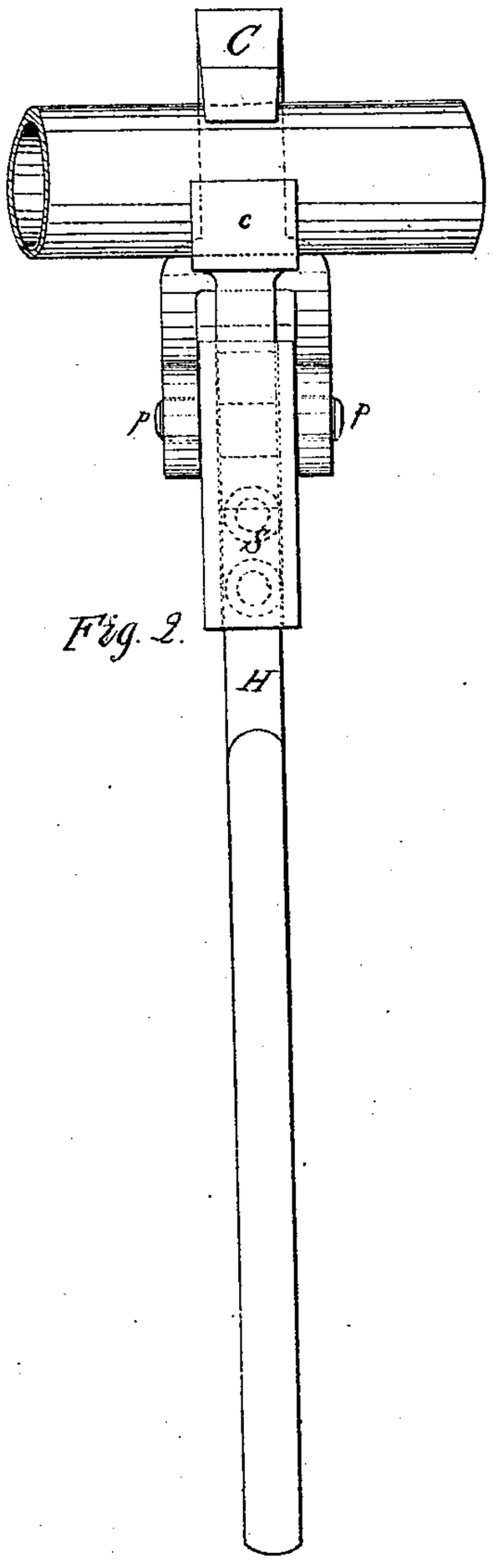

Fig. 2.

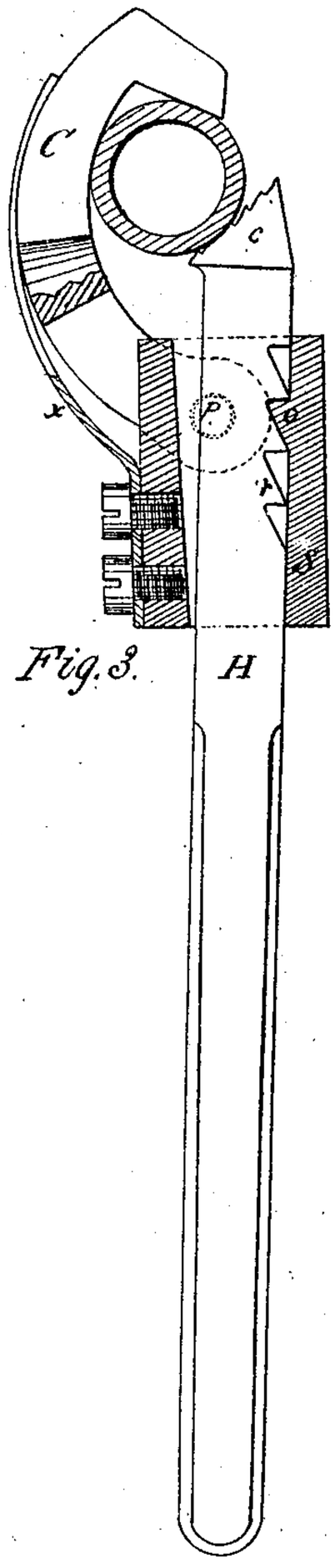

Fig. 3.

Witnesses.

Wm. Whittlesey

John Rogers

Inventor

James N. Freestone

United States Patent Office.

JAMES N. FREESTONE, OF WILLIAMSBURG, NEW YORK.

Letters Patent No. 68,431, *dated September* 3, 1867.

IMPROVED WRENCH.

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

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JAMES N. FREESTONE, of Williamsburg, Kings county, and State of New York, have invented a new and improved Pipe-Wrench; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in providing the sliding-piece (which in ordinary wrenches forms the lower jaw) with fulcrum-pins, to which I connect an independent movable angular-shaped claw; this claw forms the upper jaw of the wrench. The lower or corresponding jaw I form at the upper end of the wrench-handle; the object of the whole combination being to secure a firmer grasp in holding either a pipe or a bolt, &c.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

Figure 1 represents a side view of the wrench.

Figure 2 is a front view of the same.

Figure 3 is also a side view and section of sliding-piece.

The sliding-piece S which usually forms the lower jaw of an adjustable wrench is provided with two fulcrum-pins, *p p*, situate one on each side of said sliding-piece S. Connected to the fulcrum-pins *p p* is a movable angular-shaped claw, C; this claw forms the upper jaw of the wrench. The lower jaw *c* is formed by the peculiar tooth-shaped upper end of the wrench-handle H. This handle is made to pass through the mortise within the sliding-piece S. This handle has a toothed rack, *r*, which gears into one or more teeth, *o*, contained within the mortise of the sliding-piece S, for the purpose of adjusting the distance between the upper and lower jaw. A spring, *x*, is firmly secured to the back of the sliding-piece S, which causes the claw C to keep its proper position. Now, by grasping a pipe, a bolt, or their equivalent, within the jaws of the wrench, and drawing the handle H in the proper direction, the teeth of the rack *r* will engage the tooth or teeth *o* of the sliding-piece S, and the fulcrum-pins *p p* are made to describe a circle, whose centre lies within a point of the lower jaw *c;* this causes the upper jaw C to move towards the lower or corresponding jaw *c*. The motion of the wrench-handle H tightens the grasp, and renders the wrench most efficient for its purpose.

Claim.

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

The sliding-piece S, with its tooth O, handle H, jaw C, and spring X, all constructed and arranged to operate substantially as described.

JAMES N. FREESTONE.

Witnesses:

SAM'L MULLEPHER,
JOHN ROGERS.