

J. Johnson,

Pipe Wrench.

N^o 62,137.

Patented Feb. 19, 1867

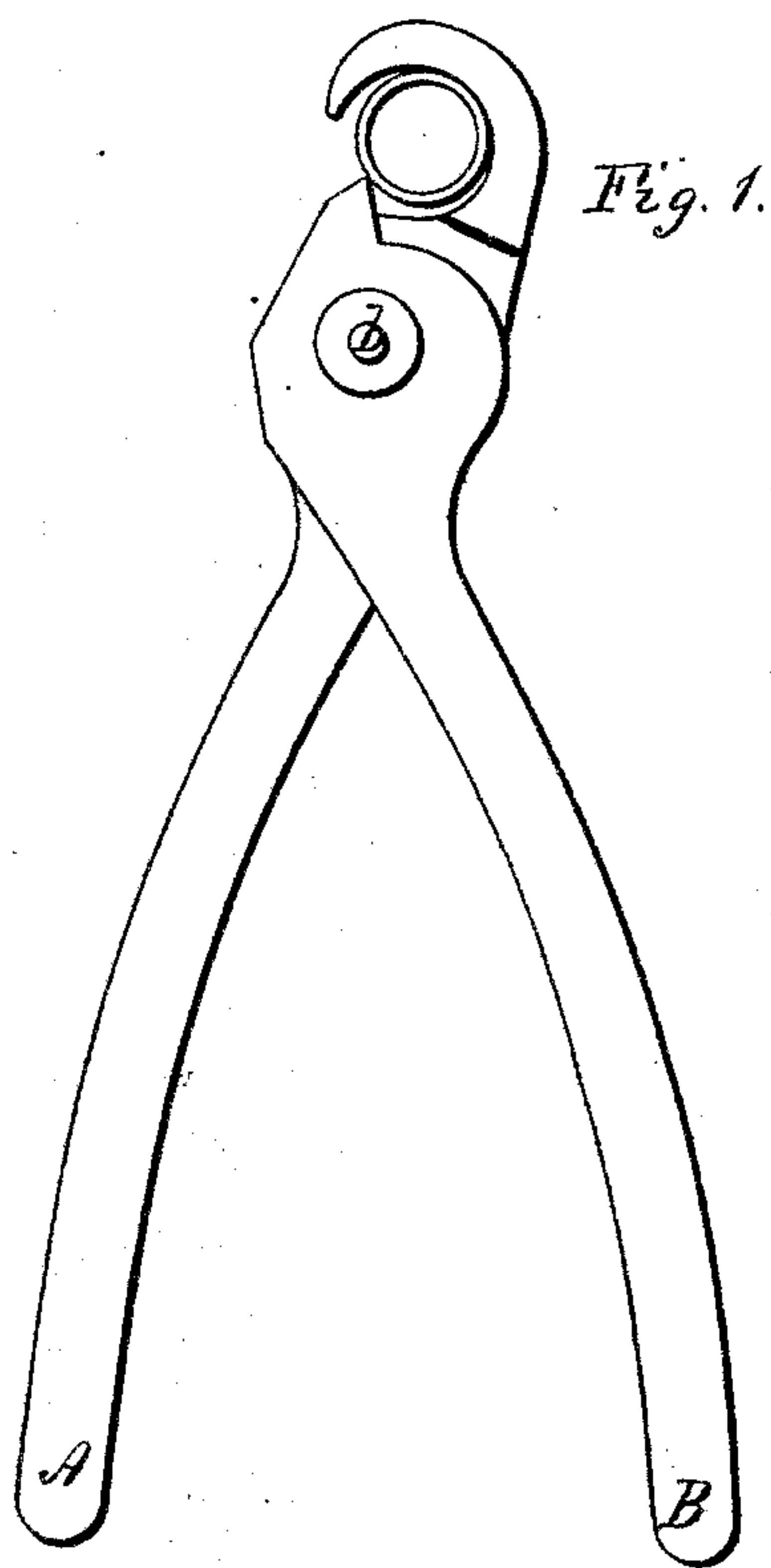


Fig. 1.

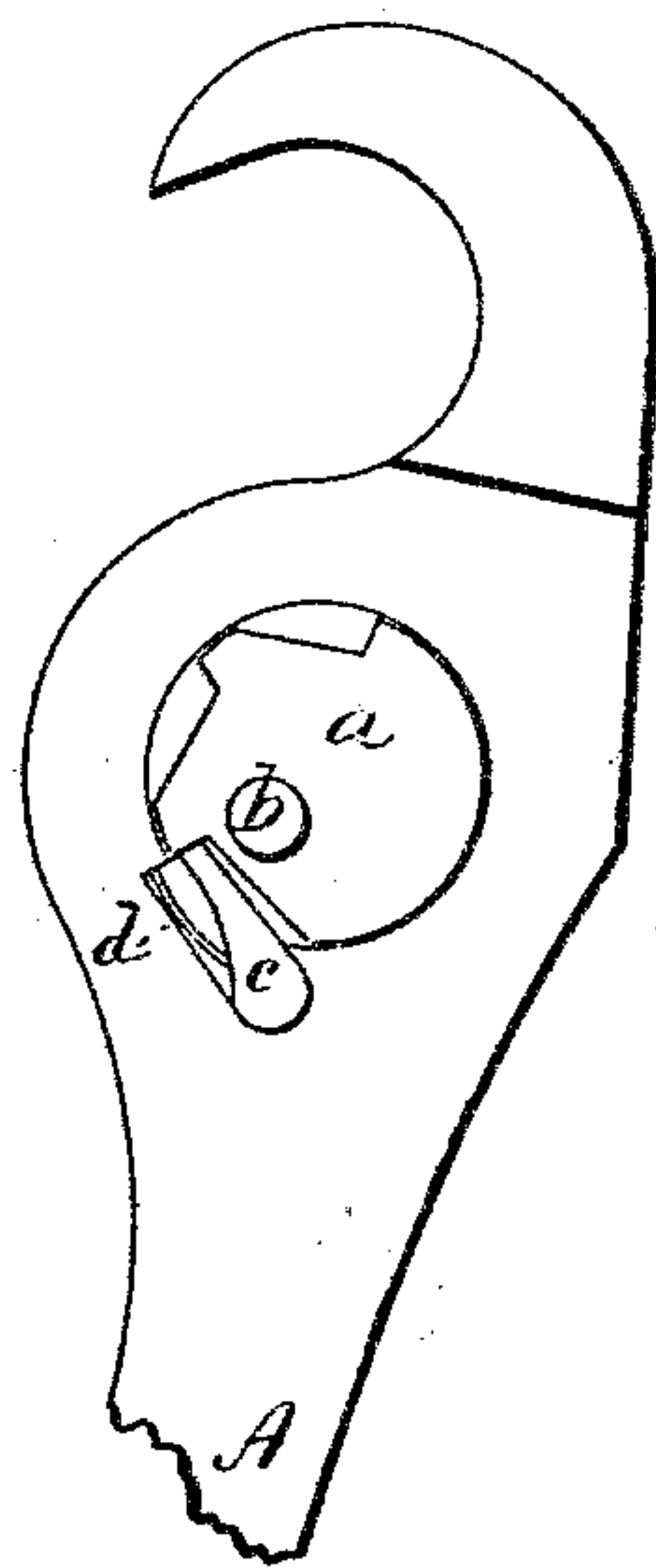


Fig. 2.

Witnesses;
Henry C. Houston
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Inventor;
John Johnson
By his attorney of record
William Henry Clifford

United States Patent Office.

JOHN JOHNSON, OF SACO, MAINE.

Letters Patent No. 62,137, dated February 19, 1867.

IMPROVEMENT IN PIPE-TONGS.

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, JOHN JOHNSON, of Saco, in the county of York, in the State of Maine, have invented a new and improved Gas-Pipe Tongs; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable others to make and use my invention, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 shows a side view of my invention.

Figure 2, a detail showing the form and construction of the wheel having the cams or ratchets.

In the laying of gas pipes tongs or pincers are frequently employed in uniting joints where more force is required than can be exerted by the unaided use of the hands, and pipes being made of different sizes, accordingly as they are designed for different uses or objects, or to convey a greater or less quantity of gas, pincers of different dimensions also are required, in order to fit the different sizes of the pipes. When made of the ordinary form, pincers of numbers corresponding to the various kinds of gas pipes are used by the workmen on these pipes, because, to insure a firm hold on the pipe, the jaws of the tongs or pincers must conform somewhat to the roundness of the pipe. My invention designs to produce a single pair of tongs that may be adapted to the various sizes of gas pipes. This is accomplished as follows: On the inner side of one of the arms composing the tongs, at that part where the two arms cross each other, is made a cavity or recess of the form necessary to accommodate the devices hereafter described, viz: an eccentric, upon whose periphery are two or more cams, a pawl or stop, and a spring, by whose force the stop or pawl is operated and held against the periphery of the eccentric. The eccentric is rigidly attached to the bolt or pivot that passes through one of the two arms of the tongs, where they cross each other, so that by turning the bolt with the hand, the eccentric will revolve also. Gas-pipe tongs are usually made with one of the jaws curved, so as to embrace somewhat the pipe. The other jaw is made smaller and of less curvature, and is used mostly for the purpose of binding and holding the pipe in the jaws, as is illustrated in fig. 1. By the revolution of the eccentric, located as before described, one of the jaws of the tongs is brought nearer or carried further from the other, accordingly as the eccentric is turned, thus lessening or augmenting the space between the parts and their capacity to encompass large pipe. As the bolt which is attached to the eccentric is, by the motion of the eccentric, moved further from the centre, the jaws are widened, and *vice versa*. The eccentric and bolt may move either arm of the tongs. In the accompanying drawings—

A B show the two arms of the tongs, *a* the eccentric, *b* the bolt, *c* the pawl or stop, and *d* the spring. The cavity or recess for the reception of the eccentric is seen in fig. 2. As the eccentric is turned, the stop *c* slips over the cams or ratchet and holds the eccentric, and consequently the jaw of the tongs that is controlled by it, in any desired position in relation to the other jaw. The eccentric may be made so as to turn upon a pivot affixed to a button or head on the outside of one of the arms, or it may be constructed upon the button, and the two turn together. The place for the admission of the eccentric may be extended quite through the arm, into which the same is placed, as illustrated in the drawing.

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

The combination and arrangement of the eccentric *a*, set into one of the arms of gas-pipe tongs, pawl *c* spring *d*, and the bolt *b*, operating as and for the purpose set forth.

JOHN JOHNSON.

Witnesses:

WILLIAM HENRY CLIFFORD,
HENRY C. HOUSTON.