

Bradshaw & Lyon, Wrench.

N^o 79,306.

Patented June 30, 1868.

Fig. 1.

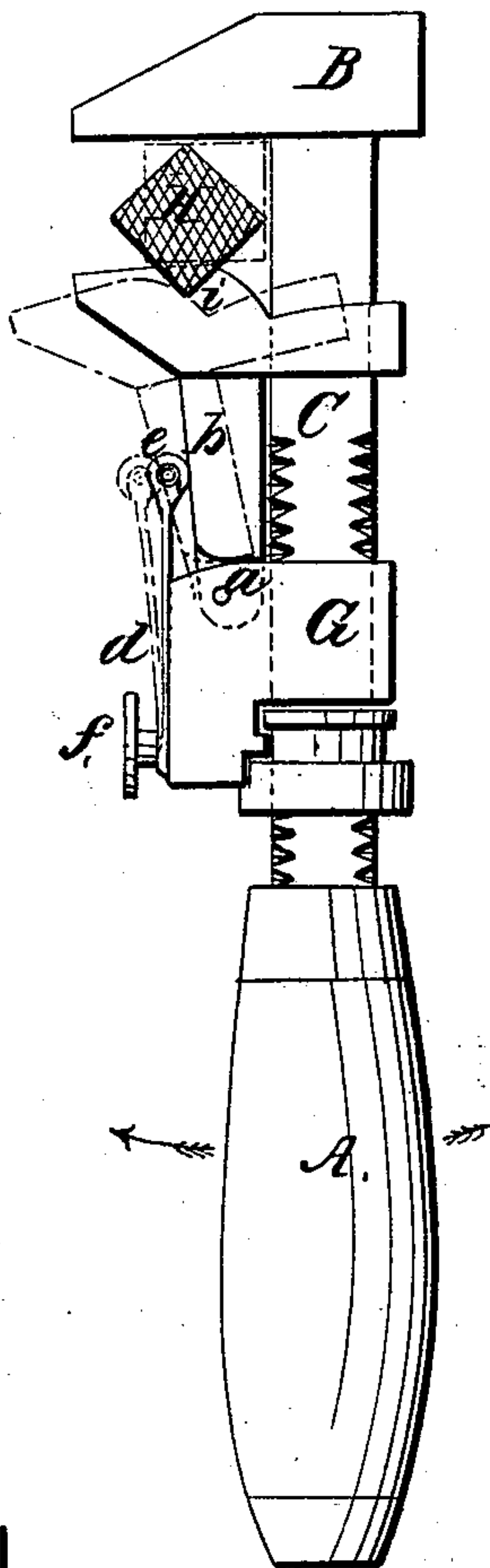


Fig. 2.

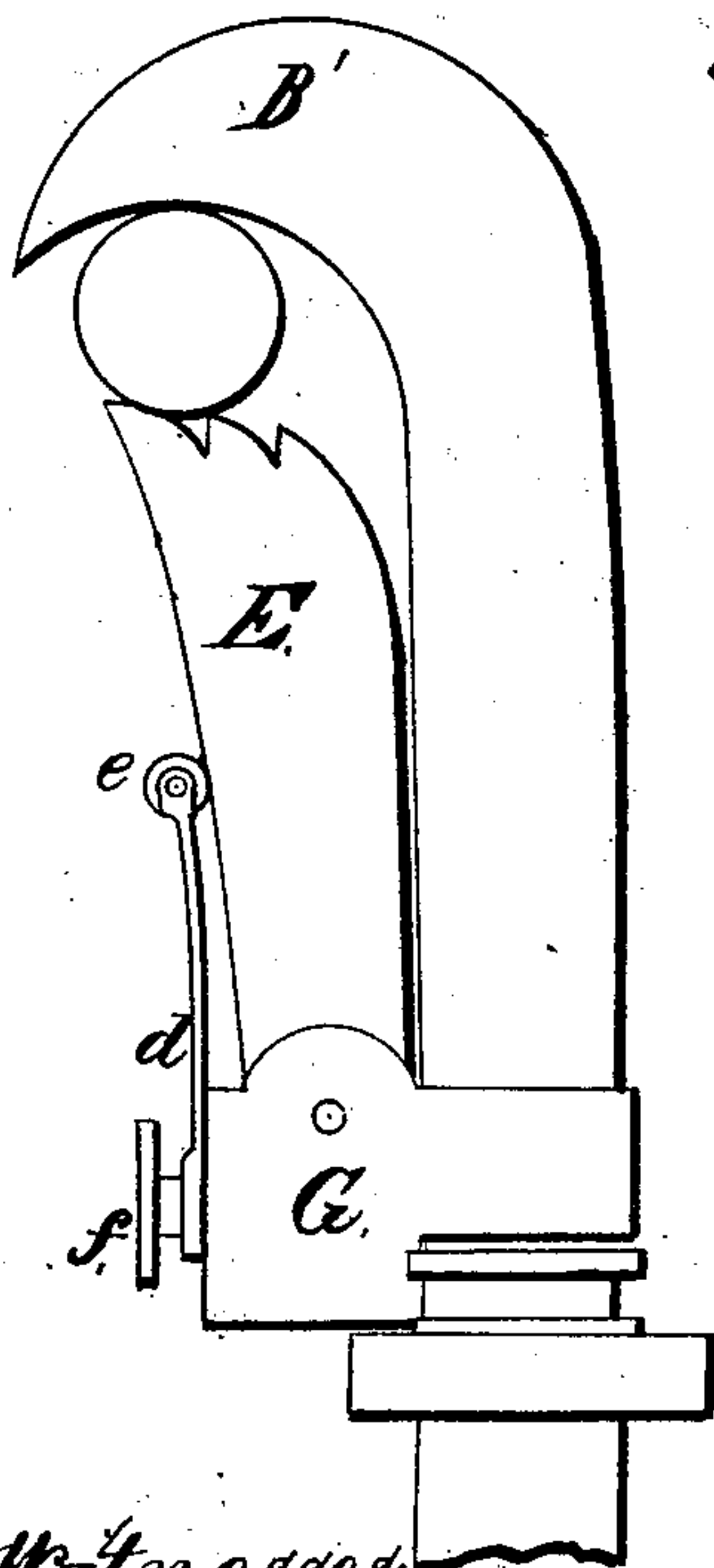
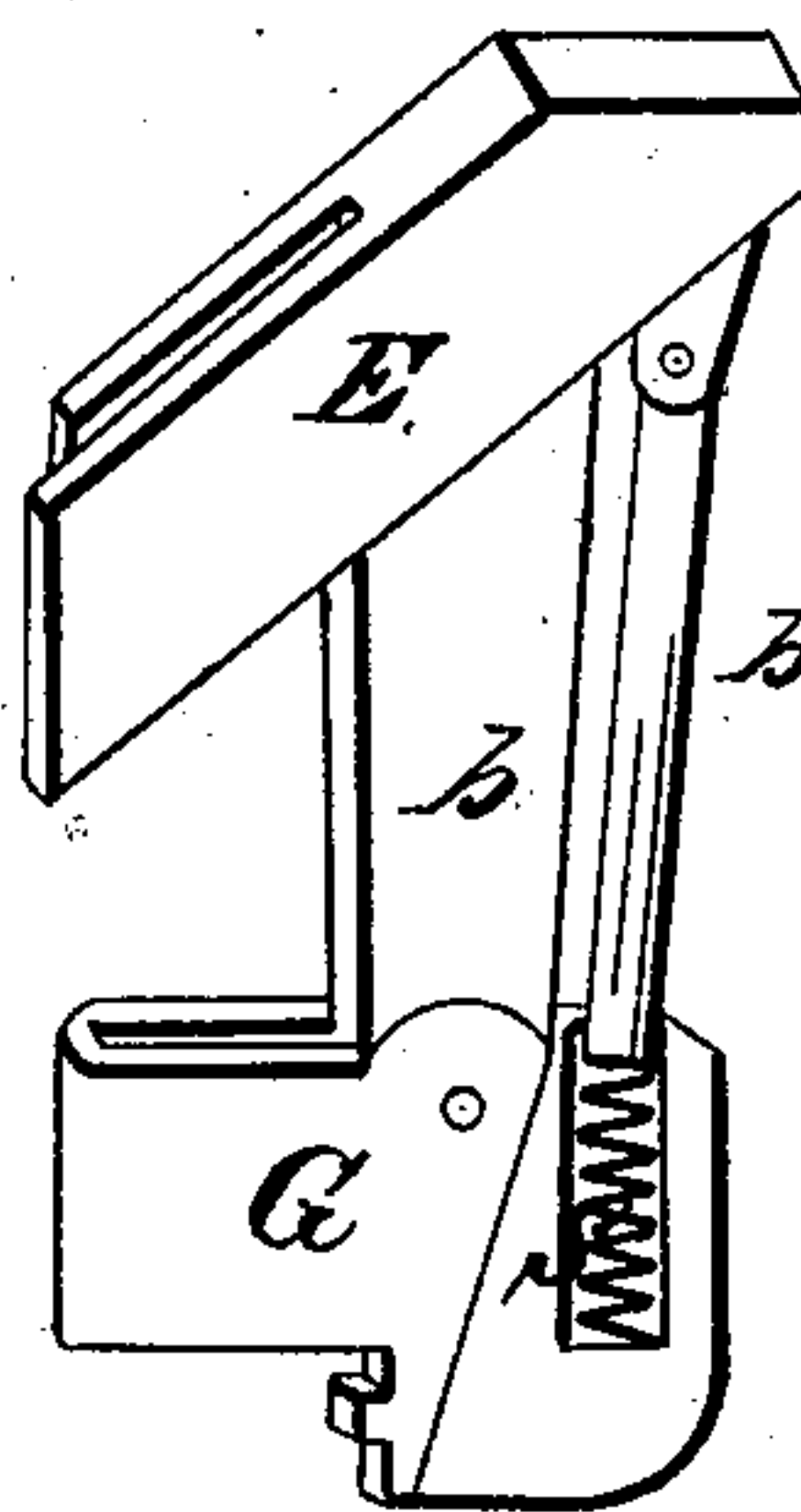


Fig. 3.



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WILLIAM BRADSHAW AND CHARLES LYON, OF DELPHI, INDIANA.

Letters Patent No. 79,306, dated June 30, 1868.

IMPROVEMENT IN 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 we, WILLIAM BRADSHAW and CHARLES LYON, of Delphi, in the county of Carroll, and State of Indiana, have invented a new and improved Wrench; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

Figure 1 is a side view of our improved wrench.

Figure 2 is a modification of the same.

Figure 3 is a detail view of another modification of the spring-jaw.

Similar letters of reference indicate corresponding parts.

The nature of this invention relates to the class of wrenches generally called "monkey-wrenches," and consists of the devices hereinafter set forth.

The handle A, shank C, nut D, and jaw B, are of the usual construction. The jaw E, however, instead of encompassing the shank C, and being thereby held to move along upon it, is, in our improved wrench, hinged to the saddle G by the rivet *a* and arm *b*. The base of the jaw E is slotted, to rest upon and on each side of the shank C, and slide along upon it when actuated to do so by the nut D, for the said jaw is pressed down upon the shank by a spring, *d*, having a roller, *e*, as shown, the said spring being affixed to the saddle G by a set-screw, *f*, as shown.

By this device the jaw E is thrown up from the nut H when the same is being unscrewed, by simply turning the wrench on the nut H as a centre, by which operation the jaw E is lifted from the shank, as shown at fig. 1. In order that this operation of turning the wrench on the nut may be rendered possible, the lower part of the movable jaw is cut away, as shown at *i*, so that the corner of the nut may slip past the lifted jaw, as shown in the same figures.

When the wrench is turned in the contrary direction, the jaw, actuated by the spring, moves back to take a firm hold on the nut.

Thus, by moving the wrench on the nut as a centre, the jaw E is thrust out, and the necessity of removing the wrench from the nut at each turn is avoided.

A modification, suitable for a pipe-wrench, is shown at fig. 2. Its operation is obvious, being the same in principle to that above described.

Another modification of the jaw E is shown at fig. 3. In this modification the jaw is made slanting instead of being cut away, as shown at *i*, in fig. 1, and the arm *b'* abuts against a coiled spring, *s*, in a recess in the saddle, as shown.

We claim as new, and desire to secure by Letters Patent—

The open-backed jaw E, in combination with the links *b* and shanks C, substantially as described for the purpose specified.

The above specification of our invention signed by us, this 7th day of February, 1868.—

WM. BRADSHAW,
CHARLES LYON.

Witnesses:

ARTHUR E. PIERCE,
CHRISTIAN GROS.