

E. H. ADAMS & A. F. GATES.

PIPE-WRENCH.

No. 172,365.

Patented Jan. 18, 1876.

Fig. 1.

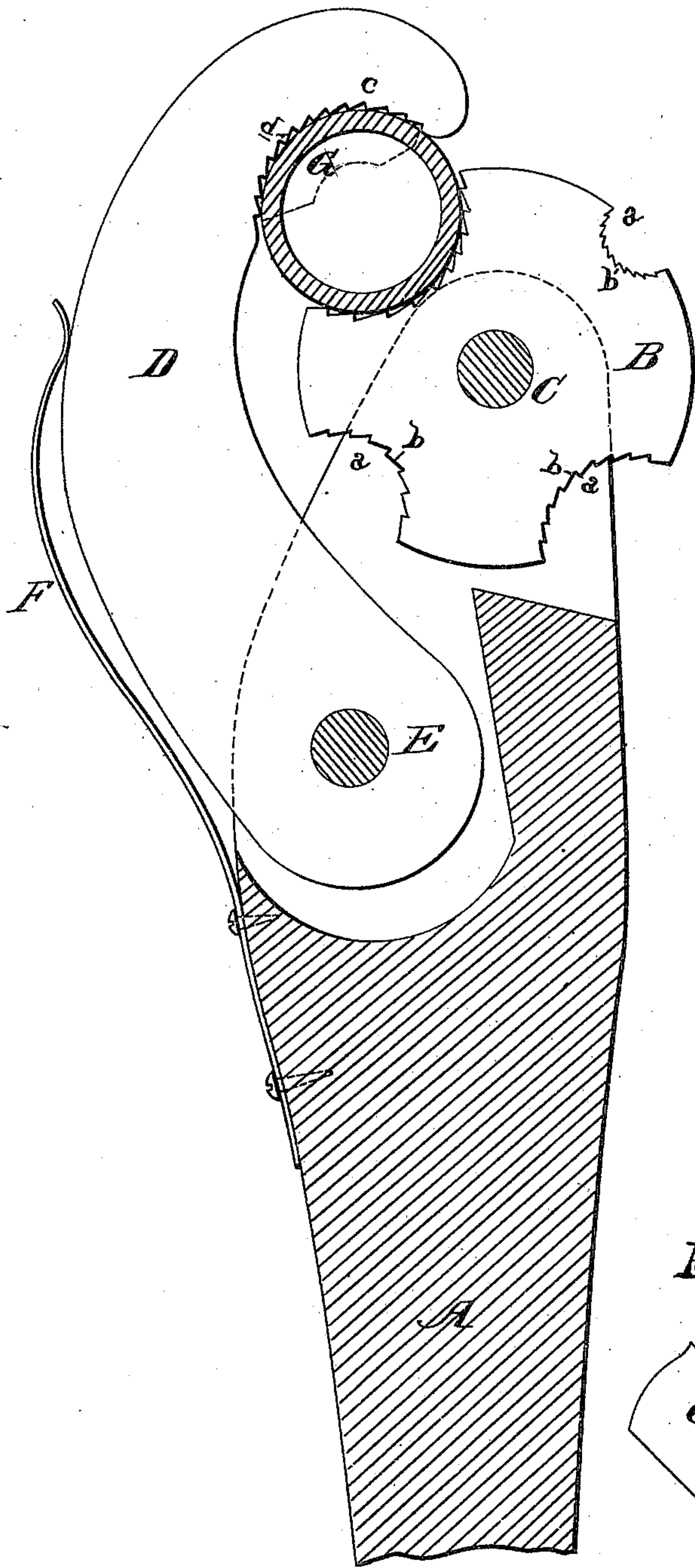


Fig. 2.

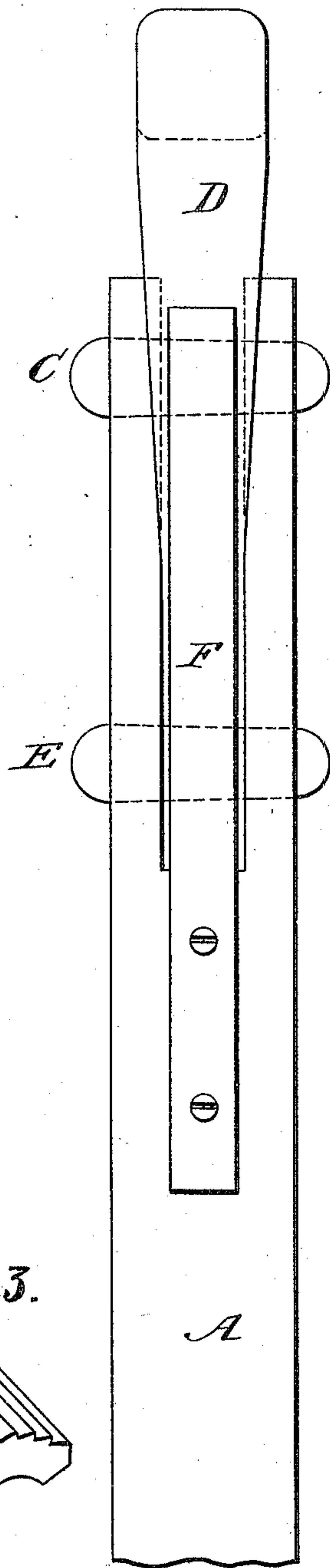
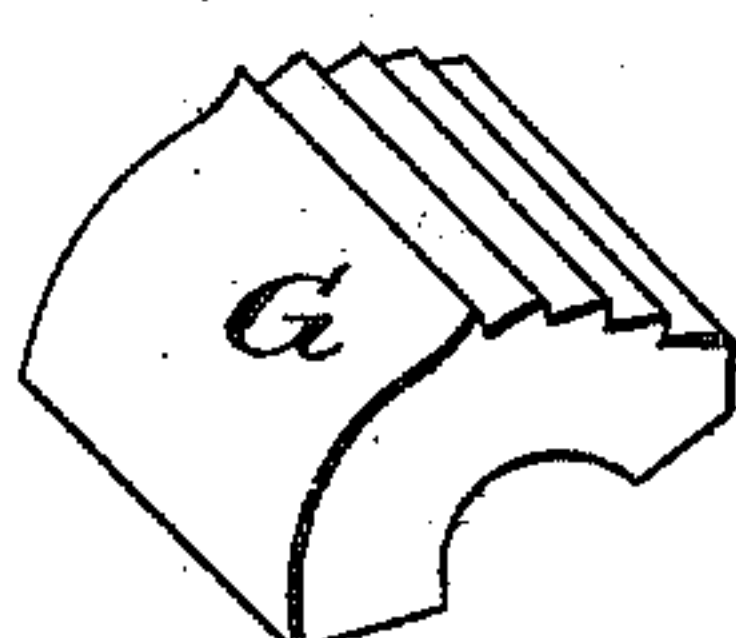


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

ELIPHALET H. ADAMS AND ASHER F. GATES, OF ST. JOSEPH, MICHIGAN,
ASSIGNORS OF ONE-THIRD THEIR RIGHT TO ALEXANDER H. SCOTT, JR.

IMPROVEMENT IN PIPE-WRENCHES.

Specification forming part of Letters Patent No. 172,365, dated January 18, 1876; application filed
October 26, 1874.

To all whom it may concern:

Be it known that we, ELIPHALET H. ADAMS and ASHER F. GATES, of St. Joseph, in the county of Berrien and State of Michigan, have invented an Improvement in Pipe-Wrenches, of which the following is a specification:

The object of our invention is the production of a wrench more particularly designed for the purpose of holding gas and water pipe, and screwing it together, but also used to secure locomotive steam-chest studs, and to turn all kinds of pipes and bolts, that will be strong and durable, and capable of being used with pipes and bolts of various sizes; and our invention herein consists in providing such a wrench with a revolving disk, having cut in its periphery notches, circular in outline, of different sizes, corresponding to the various sizes of pipe, such notches being armed with teeth; and, further, in the combination of such a disk with a pivoted hook-jaw, having a circular notch or seat, between which and the said revolving disk the pipe or bolt to be turned is placed; and, further, in the combination of a revolving disk, constructed as described, with a pivoted jaw and a spring, which presses on said jaw and throws it forward, for the purposes more fully hereinafter explained.

To enable others skilled in the art to make and use our invention, we now proceed to describe it in connection with the drawings, in which—

Figure 1 is a side elevation, with the handle in section to show the working parts; Fig. 2, an elevation from the back of the wrench, and Fig. 3 a separate view of the false piece.

Similar letters denote corresponding parts in each figure.

A represents the handle of the wrench, having a slot in its end. B is a revolving disk, secured at the end of the handle by a bolt, C, on which it revolves, partly within and partly without said slot. This disk has cut in its periphery notches or seats *a*, of different sizes, armed with teeth *b*. D is a hook-jaw, pivoted at the bottom or inner end of the slot before mentioned by a bolt, E. This jaw is made in the form of a hook, and long enough so that, when moved backward and forward, its end

will move clear of the disk. A seat or notch, *c*, is cut in its end, similar to the largest seat in the disk, and is armed with teeth *d*.

The operation of our wrench is as follows: The disk is revolved until the required size of seat is opposite the seat in the jaw. Then the jaw is lifted and placed over the pipe or bolt, so that the same lies between the seat in the jaw and that in the disk. In operation the wrench is held in such a position that the jaw will drop of its own weight, and thus get a strong gripe on the pipe. The teeth are arranged on an incline, so that by motion of the wrench in one direction they will gripe the pipe, and by the reverse motion will slide over it.

In small wrenches, intended for work in close places, a spring, F, is secured on the back of the wrench, pressing on the jaw, so that it will throw said jaw forward and allow the wrench to be worked in any position.

The false piece G is intended to be used when the pipe or bolt to be turned is very much smaller than the seat on the hook-jaw, and is placed in said seat, and has teeth to engage with the teeth in the seat, so as not to slip in the seat when the wrench is applied.

The bolts C and E can be removed, and the disk and jaw taken out, and other disks and jaws, with seats varying on a larger or smaller scale, can be used in the same handle.

Having thus described our invention and some of its advantages, what we claim as new, and desire to secure by Letters Patent, is—

1. In a pipe-wrench, the revolving disk B, provided with semicircular seats of different sizes, armed with teeth, substantially as described and shown.

2. In a pipe-wrench, the combination of a revolving disk, having seats or notches of different sizes, with a pivoted jaw provided with a seat, substantially as described and shown.

3. In a pipe-wrench, the combination of a revolving disk, having seats or notches, with a pivoted jaw and a spring to throw such jaw forward, substantially as described and shown.

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