

J. J. GRANT.

Improvement in Tap-Wrenches.

No. 129,472.

Patented July 16, 1872.

Fig. 1.

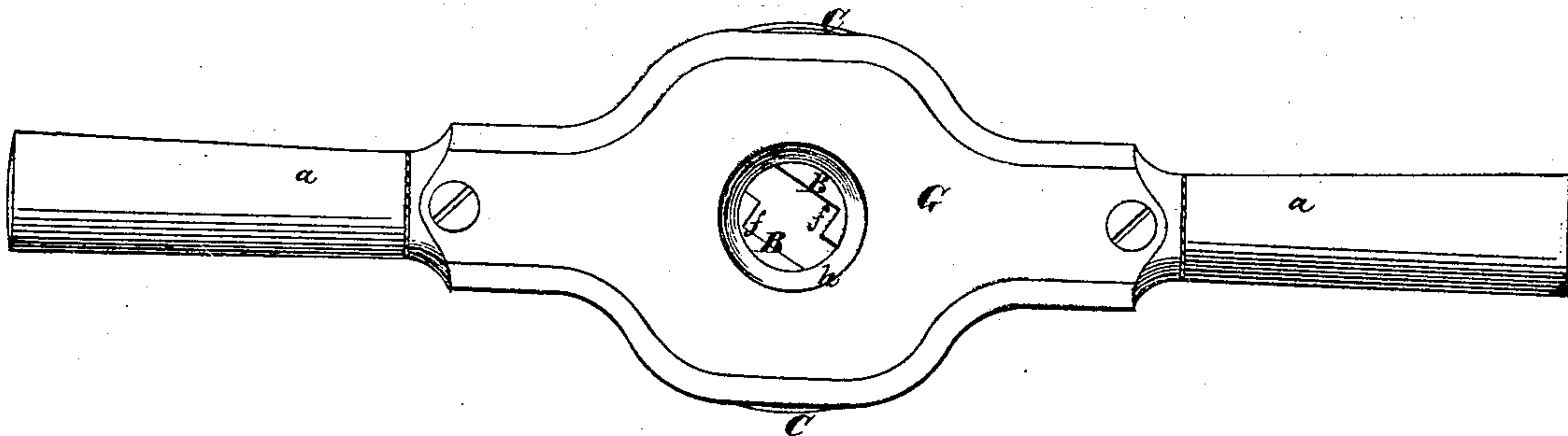


Fig. 2.

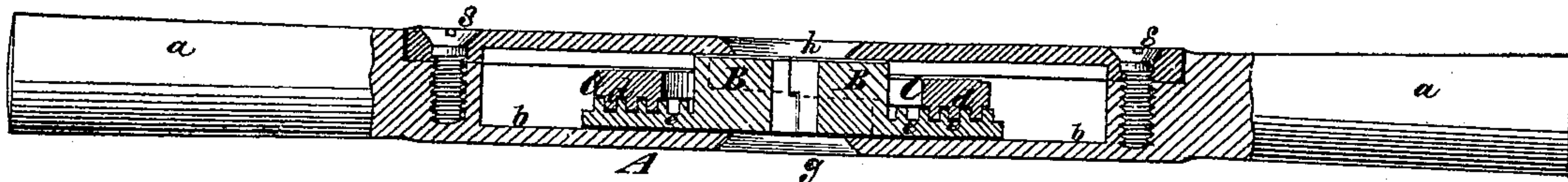


Fig. 3.

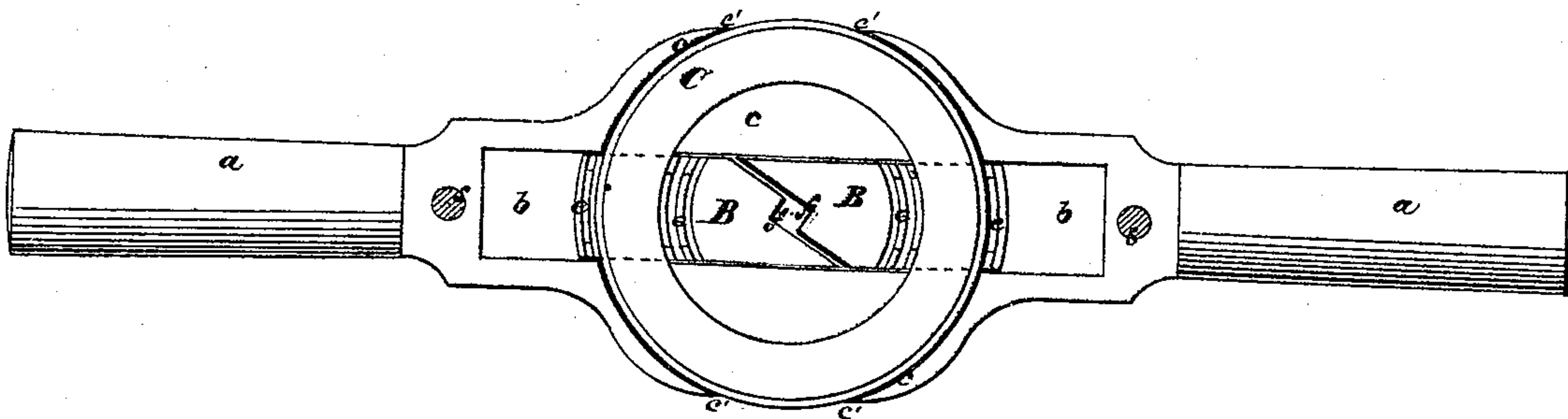
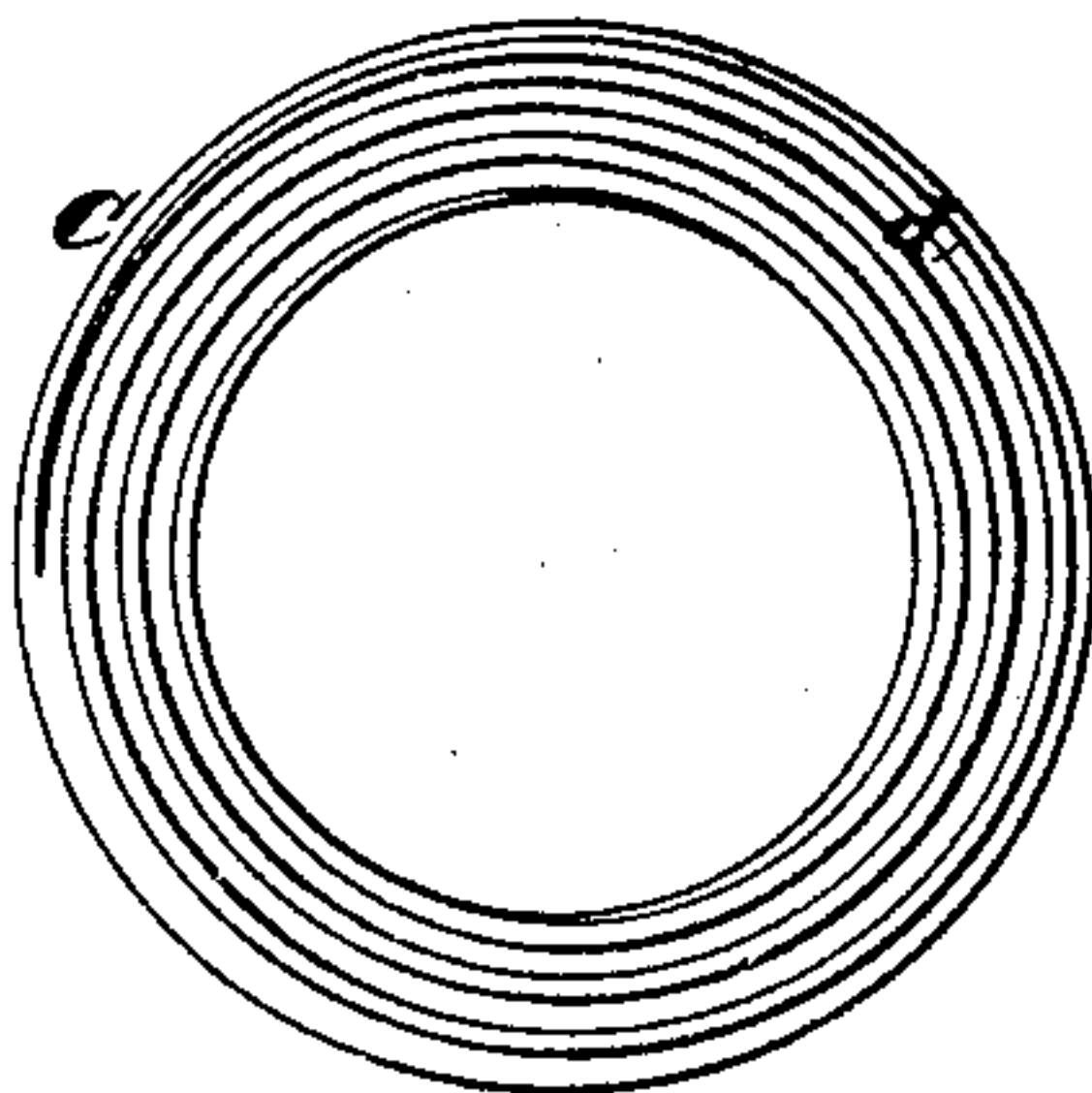


Fig. 4.



Witnesses:

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IMPROVEMENT IN TAP-WRENCHES.

Specification forming part of Letters Patent No. 129,472, dated July 16, 1872.

Specification describing an Improved Tap-Wrench, invented by JOHN J. GRANT, of Greenfield, in the county of Franklin and State of Massachusetts.

My improvement relates to that class of tap-wrenches in which the jaws are rendered adjustable; and the nature thereof consists in certain improvements in the details of the construction of the same hereinafter described and shown.

In the accompanying drawing, Figure 1 is a face view of a wrench constructed according to my invention. Fig. 2 is a longitudinal section of the same. Fig. 3 is a facial section of the same; and Fig. 4 is a view of a ring by which the jaws of the wrench are operated.

Similar letters of reference indicate corresponding parts in the several figures.

A is the stock of the wrench, which is provided with handles *a a*, in the usual manner, and has formed within it a longitudinal parallel-sided recess, *b*, in which the sliding jaws B B work. This recess is intersected centrally by a circular recess, *c*, within which there is fitted, above or outside the jaws B B, a ring, C, by which the jaws are operated, there being at the bottom of this recess a central opening, *g*, in the stock, through which the tap to be held is inserted to the jaws. Each jaw has formed in it a right-angled notch, *f*, the two notches *f f* being intended to receive opposite angles of the square head of the tap, or of any other square article, and so to hold it. The meeting-faces of said jaws are oblique to their length, so that throughout their adjustment a square opening is preserved between them, and the said faces form bearings for the whole width of two of the sides of the head of the top or other square article, the angles of which are received in the notches *f f*. The ring C has formed on its under side a spiral convolute thread, *d*, which works in corresponding grooves *e e* in the adjacent faces of the jaws B B. This ring has a milled periphery, portions of which project through

openings *c' c'*, in opposite sides of the central recess *c* in the stock, to provide for its manipulation by the thumb and fingers to adjust the jaws. The ring, and the jaws too, are retained in place within the stock of the wrench by a cap-plate, G, which covers them, and which is secured to the stock by screws *s s*. This plate is provided with a central hole, *h*, corresponding with the one, *g*, in the stock.

To operate the wrench, the projecting portions of the milled periphery of the ring C are manipulated to turn the ring, for the purpose of moving the jaws B B in or out, to adjust them to the size of the head of the tap or other article to be held. This is effected by the spiral convolute thread on the inner side of the ring working within the spiral grooves in the jaws, and so moving them away from or toward each other.

I am aware that the jaws of wrenches have been rendered adjustable in various ways, and that a disk provided with a spiral convolute ring has been used for that purpose; (see the patent to J. D. Dale dated August 21, A. D. 1855;) but the object of my invention is not only to produce an adjustable wrench, but to so combine the parts constituting the same as to facilitate the manufacture thereof, and enhance the convenience with which the implement may be used.

I therefore claim and desire to secure by Letters Patent—

A tap-wrench, formed by the combination of the stock A having formed within it the parallel-sided recess *b*, intersected centrally by a circular recess, *c*, and provided with openings *c' c'* and *g*; the jaws B provided with notches *f f* and grooves *e e*; the annular thumb-piece C having a milled periphery, and upon the under side of which is formed a spiral convolute thread, *d*; and the cap-piece G provided with an opening, *h*, and secured in position by the screws *s s*.

Witnesses: JOHN J. GRANT.

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