

B. F. Bee,

Wrench.

No. 87,133.

Patented Feb. 23, 1869.

Fig. 1.

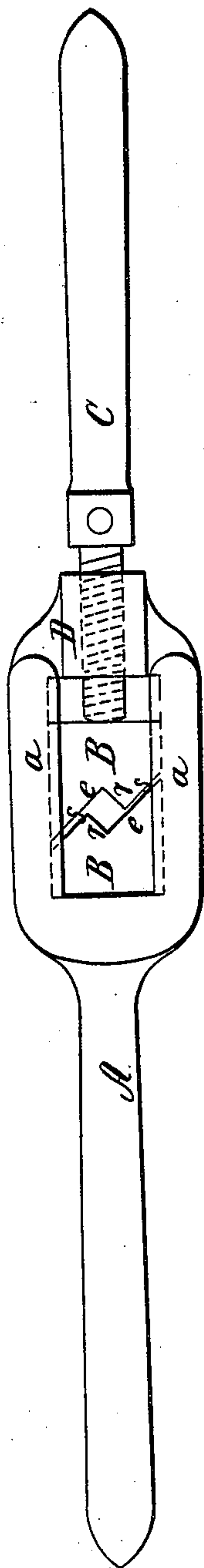


Fig. 3.

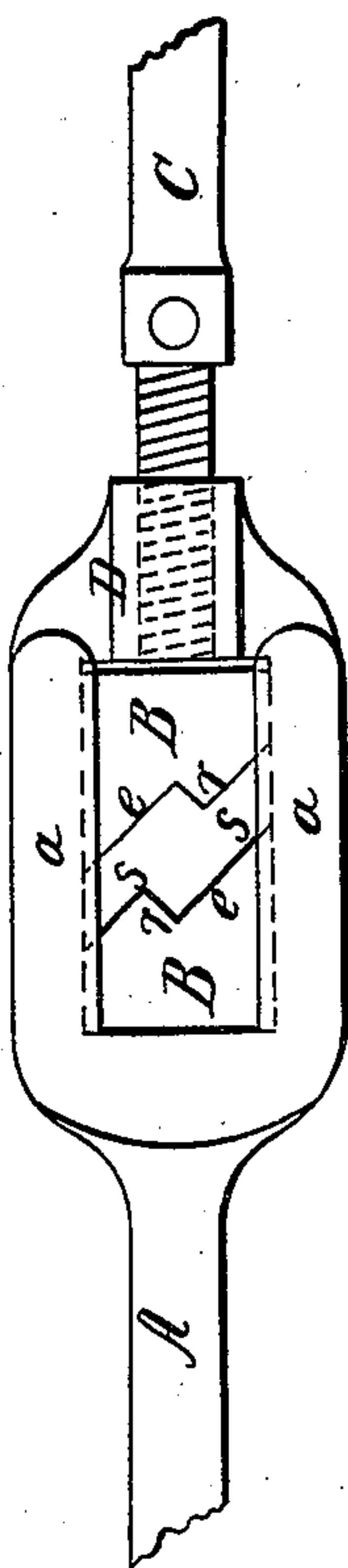
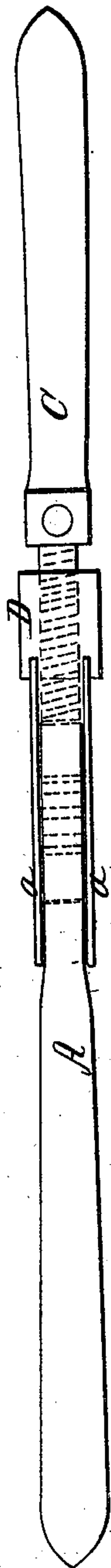


Fig. 2.



Witnesses;  
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BENJAMIN F. BEE, OF HARWICH, MASSACHUSETTS.

*Letters Patent No. 87,133, dated February 23, 1869.*

**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, BENJAMIN F. BEE, of Harwich, in the county of Barnstable, in the State of Massachusetts, have invented a new and improved Mode of Constructing Wrenches, or levers for turning taps, rimmers, &c.; 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 constructing a wrench or lever with movable blocks of metal, which may be adjusted to fit tightly upon the head of the tap or rimmer, and giving the surfaces of contact such form as shall insure a fair bearing upon two entire sides of the head, at the same time embracing the corners, so as to prevent any rocking tendency in the lever.

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

I construct my stock, A, of any material possessing the requisite strength, and in any of the usual forms of stocks for holding dies, &c., (not confining myself to the form herein described,) with the oblong space for receiving the blocks B B. These, being properly fitted to the oblong space, are kept therein by the plates *a a*, or by any other convenient method.

The piece C is fitted, as a screw, at one end, which works in the stock at D, and becomes the means of adjusting the blocks B B, so as to close them upon the head of the tool used, and also completes the leverage for turning the same.

The blocks B B are constructed with a notch in that edge of each of them which is opposite the other; and one side, *e*, of this notch is constructed longer than the other side, *r*. Moreover, the die is sloped off at the end of the shorter side of the notch, as at *s*, so that the longer side of the notch of either block can overlap the shorter side of the notch of the opposite block. Hence, when the blocks are applied to a tap-head, the longer side of each notch of a block bears against the entire side of the tap-head, whether it be large or small,

while the notch embraces the adjacent corner of the head, thus enabling the wrench to gripe the head, and hold it firmly.

The wrench, fitted with blocks of this form, therefore, combines the capacity of adjustment to the size of the tap-head, with the capacity of bearing against the entire opposite sides of the head, and also of embracing the head cornerwise, so that the wrench is centred upon the tap-head, and cannot move laterally.

The blocks B B should be of a metal which may be hardened and tempered, as allowing them to be too soft impairs their efficiency, and works a destruction of the heads of the tools upon which they are used.

The surfaces of contact should be of such form as always to embrace a rectangle of greater or less dimensions.

The operation is sufficiently plain from the foregoing description.

The advantages of an adjustable clamping-lever for turning this class of tools are very great, as the tool can be guided with accuracy, and the durability of the parts greatly enhanced.

The advantages of the form of the blocks B B, herein described, are also apparent, as a wide range of sizes can be accommodated, with a sufficiency of bearing in each case, and perfect steadiness secured.

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

1. The combination of the adjustable stock and blocks, having notches of unequal length, with the longer side of the notch of one block arranged to overlap the shorter side of the notch of the opposite block, substantially as before set forth.

2. The block, having a notch, with sides of unequal length, and being sloped off at the end of the shorter side of the notch, substantially as before set forth.

BENJAMIN F. BEE.

Witnesses:

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GEO. N. MUNSELL.