

J. Kuneman,

Wood Clamp.

N^o 81,381.

Patented Aug. 25, 1868.

Fig. 1

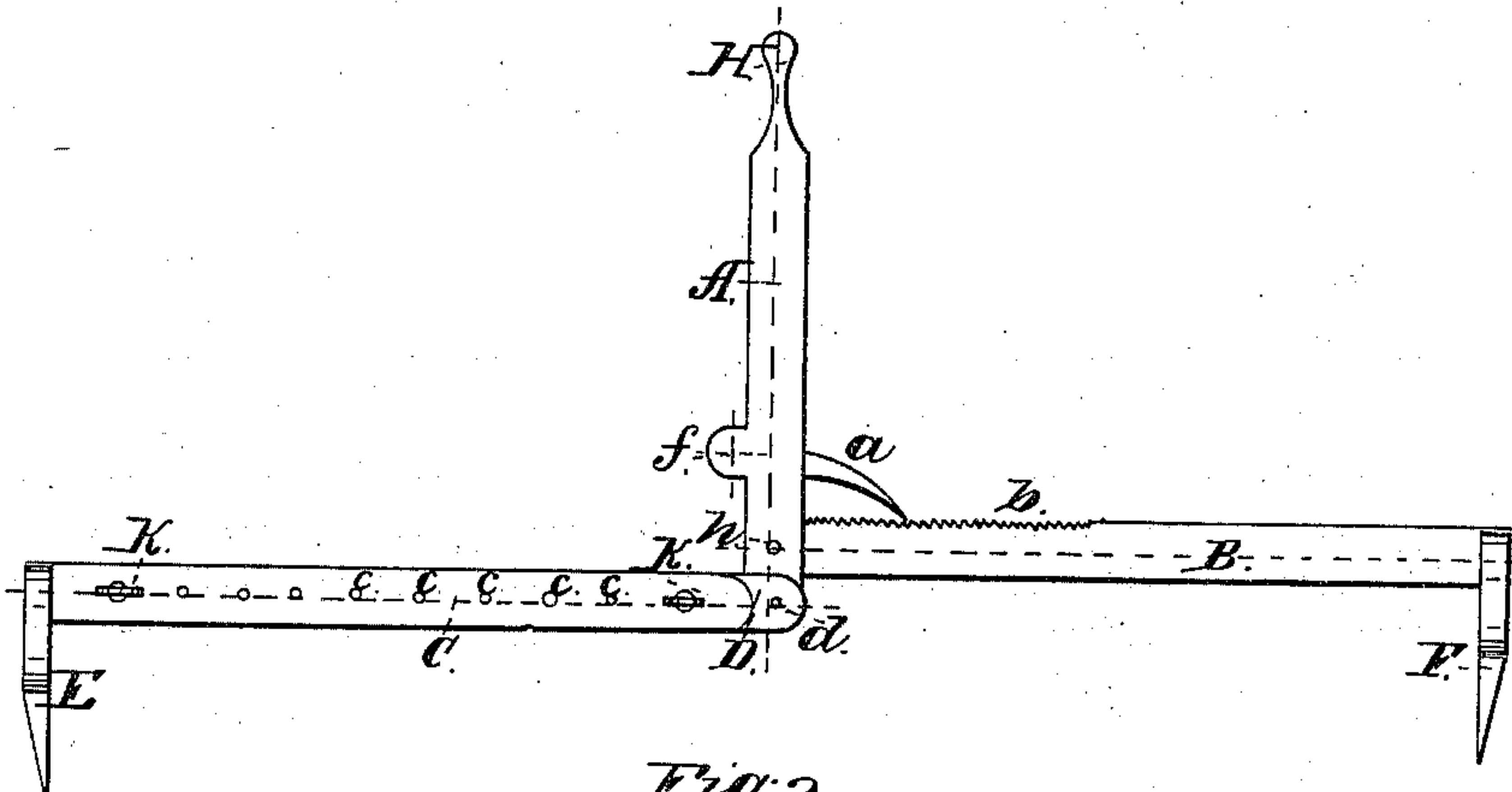


Fig. 2

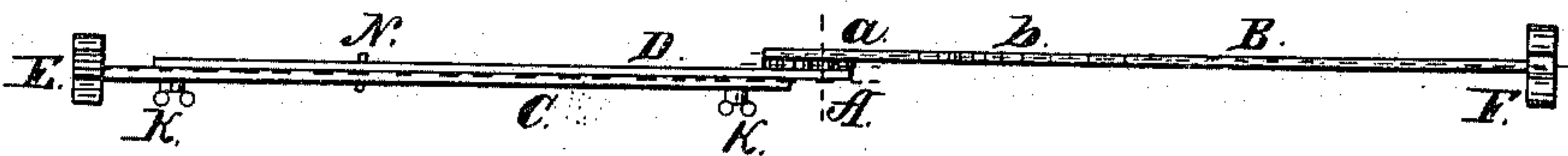


Fig. 3

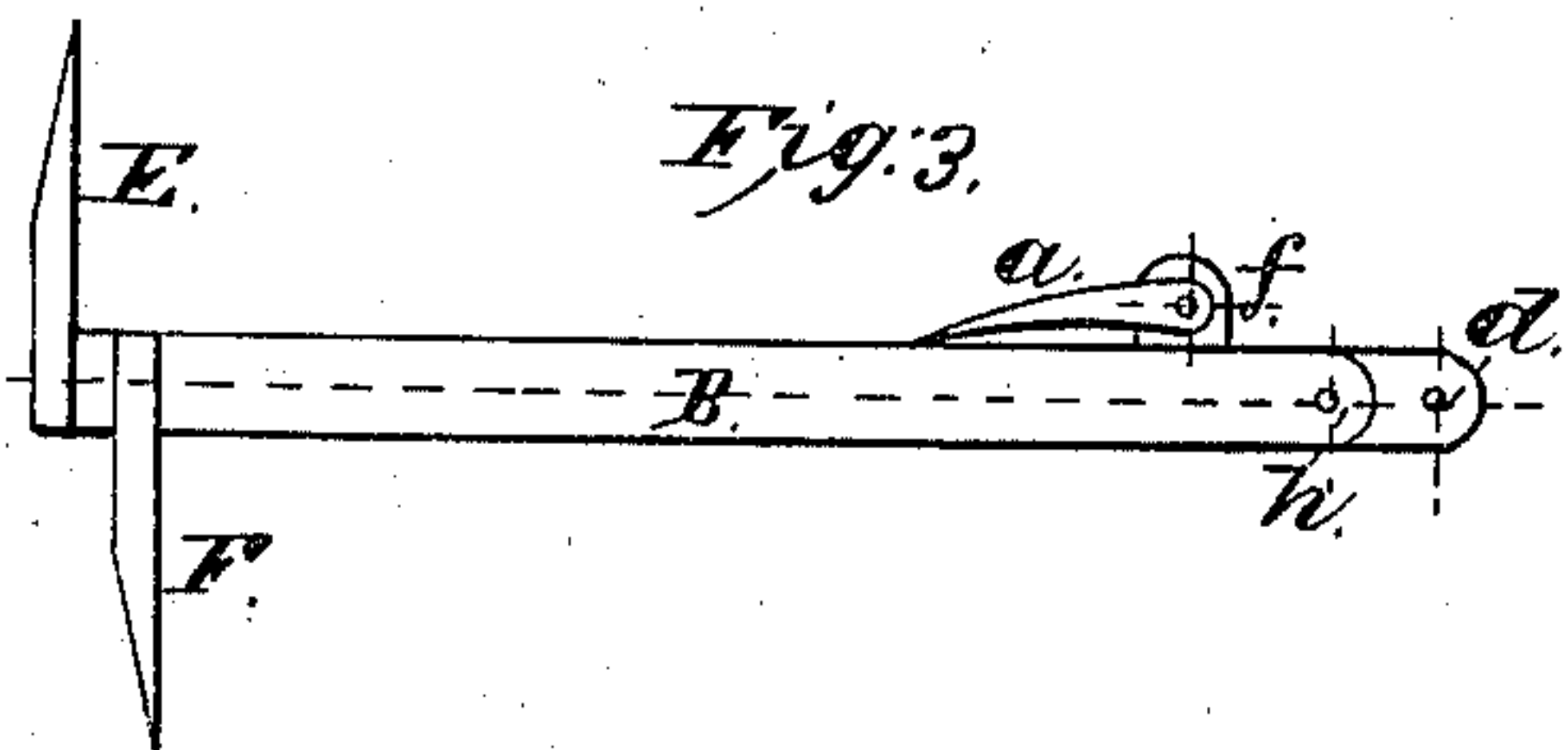


Fig. 5

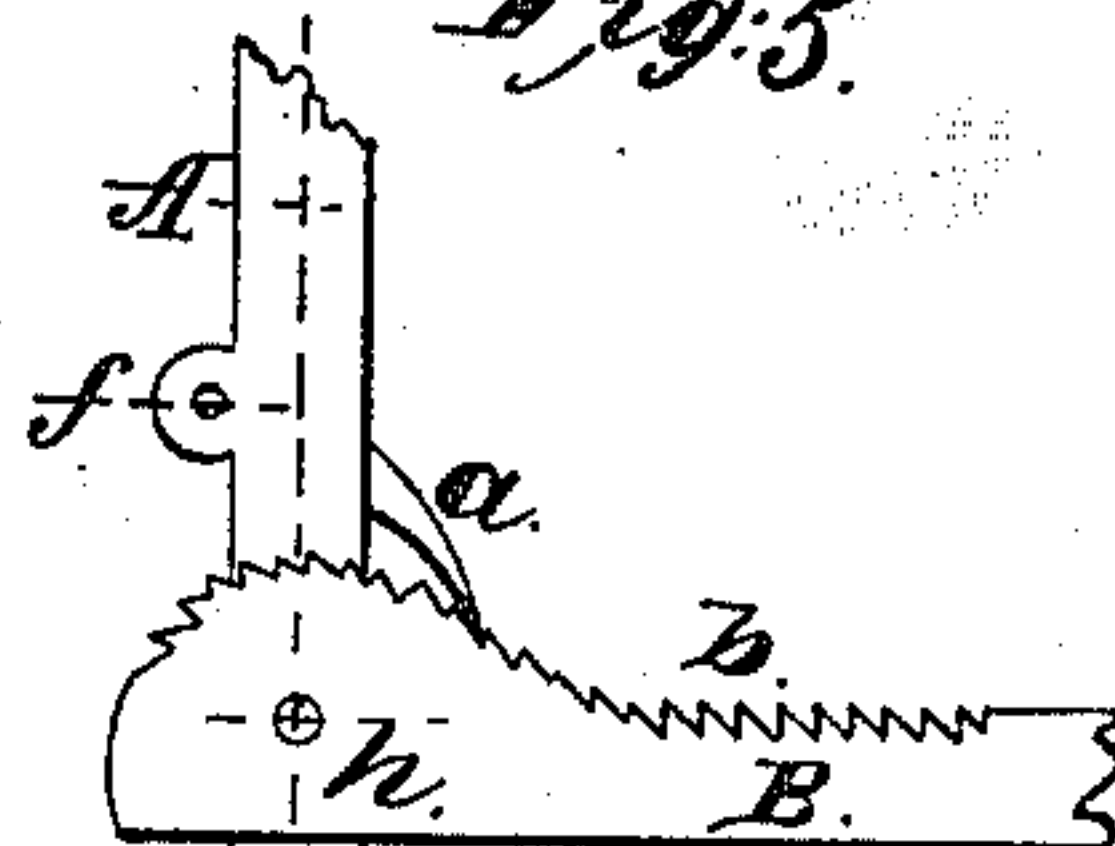


Fig. 4

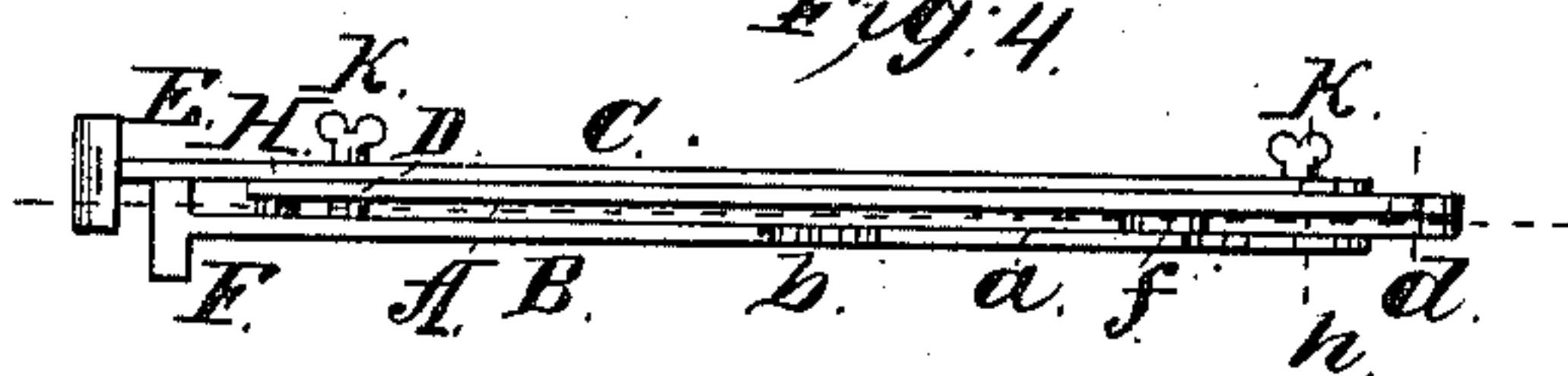
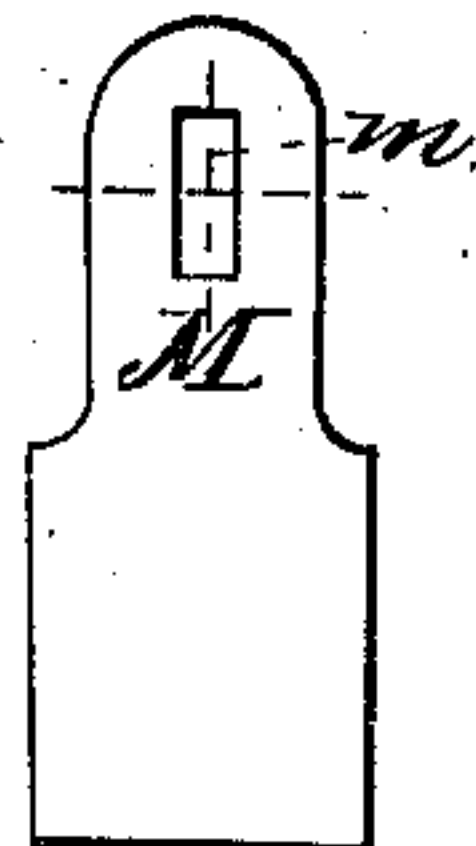


Fig. 6



Witnesses:
Ed. A. Beubon
Walter Prince

Inventor:
Jacob Kuneman
BY. J. A. Abbott

United States Patent Office.

JACOB KUNEMAN, OF CANTON, OHIO.

Letters Patent No. 81,381, dated August 25, 1868.

IMPROVEMENT IN JOINERS' CLAMPS.

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, JACOB KUNEMAN, of Canton, in the county of Stark, and State of Ohio, have invented an Improved Joiners' Clamp; and I do hereby declare that the following is a full, clear, and exact description of my invention, reference being had to the accompanying drawings, forming a part of this specification, and to the letters of reference marked thereon, of which drawings—

Figure 1 is an elevation of my improved clamp when extended for use.

Figure 2 is a plan of the same.

Figure 3 is an elevation, showing clamp folded for transportation.

Figure 4 is a plan of the same.

Figure 5 is an elevation, showing another mode of constructing the ratchet-bar.

Figure 6 is an elevation of an adjustable head-block.

The nature of my invention consists in the novel mode of constructing a clamp, which is used for gluing up doors, or any other wide bodies, and is so arranged that the several parts of said clamp can be easily folded up into a small compass, so as to render it easy of transportation, thereby enabling any carpenter, who needs such clamp, to carry one of simple and durable construction in his tool-chest with his other tools.

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

The main bars B C D of my improved clamp are made of iron, or any other suitable material, and on the ends of the bars B and C are secured the head-blocks F and E, between which the door or body to be clamped is placed.

The bars C and D are provided with holes *c c*, and are united by bolts in said holes, which have their heads countersunk in the bar D, and are secured by hand-nuts *k k*, as shown, so that, by taking off these nuts, the bolts can be changed into different holes *c*, and the bars C and D changed, so as to vary the distance between the heads E and F.

The bar D is secured to the clamp-lever A by a bolt, *d*, and the bar B is secured to the same lever by the bolt *h*.

The ratchet-teeth *b* are cut on the bar B, and the pawl *a* is pivoted to the clamp-lever A, by a bolt, *f*, as shown.

It is readily seen that, by drawing the handle H of the lever A toward the head-block E, the blocks E and F will be drawn together, and will be retained in any desired position by the pawl *a* catching in the ratchet-teeth *b*.

Where a very powerful clamp is desired, the clamp is so adjusted as to allow the lever A to come down to nearly a horizontal position before commencing to clamp hard, when the power is that of a toggle-joint.

In this case, the ratchet-bar B is made as shown in fig. 5, the ratchet-teeth *b* being arranged in the form of a circle, with its centre at *h*, when the pawl *a* will hold the clamp-lever A in any desired position.

A block, M, shown in fig. 6, having a hole, *m*, of a size equal to the united cross-section of the two bars C and D, may be used on the said bars, as shown in fig. 1, when a body of less width than the distance between the head-blocks E and F is to be clamped, a pin, N, being inserted in a hole, *e*, behind said block, as shown, to secure it in position, or the head E may be filed off at the side, so as to allow the bar D to extend beyond it, which will also allow a smaller adjustment of the clamp.

When the clamp is to be laid away, it is folded up, as seen in figs. 3 and 4; thus being in a convenient form for transportation.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A joiners' clamp, composed of a clamp-lever, A, with pawl *a*, ratchet-bar B with ratchet-teeth *b*, and clamping-head block F, and bar C D, with holes *c c*, connecting-bolts *k k*, and clamping-head block E, when said ratchet-bar B is pivoted to the lever A, between the bar C D and the ratchet *a*, and the whole clamp is so arranged as to fold up in the form shown, substantially as and for the purposes herein specified.

As evidence that I claim the foregoing, I have hereunto set my hand in the presence of two witnesses, this 9th day of May, A. D. 1868.

JACOB KUNEMAN.

Witnesses:

JOB ABBOTT,

ED. N. BEEBOUT.