

No. 790,188.

PATENTED MAY 16, 1905.

W. W. COOK.
BENCH CLAMP.

APPLICATION FILED SEPT. 8, 1904.

Fig. 1.

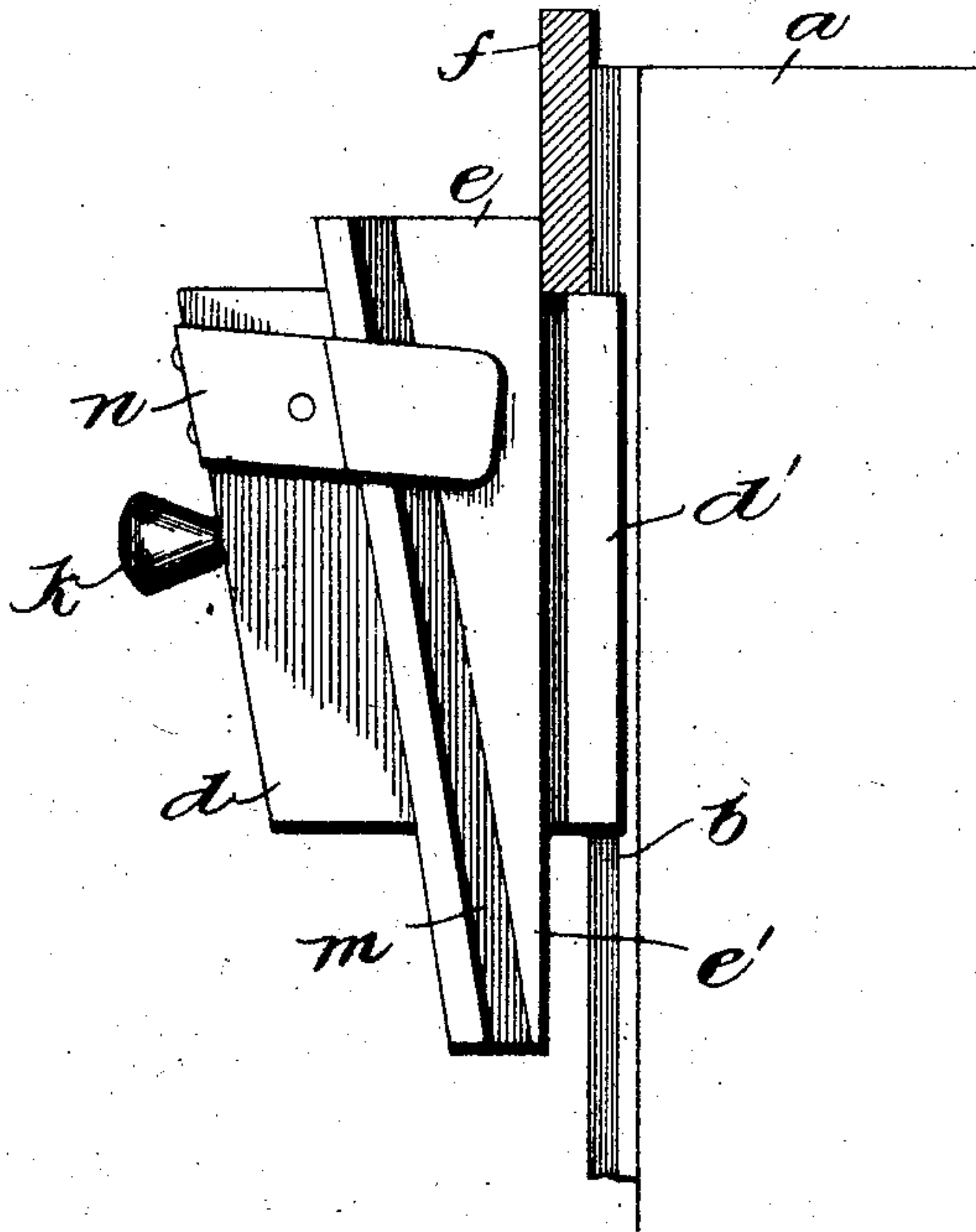


Fig. 2.

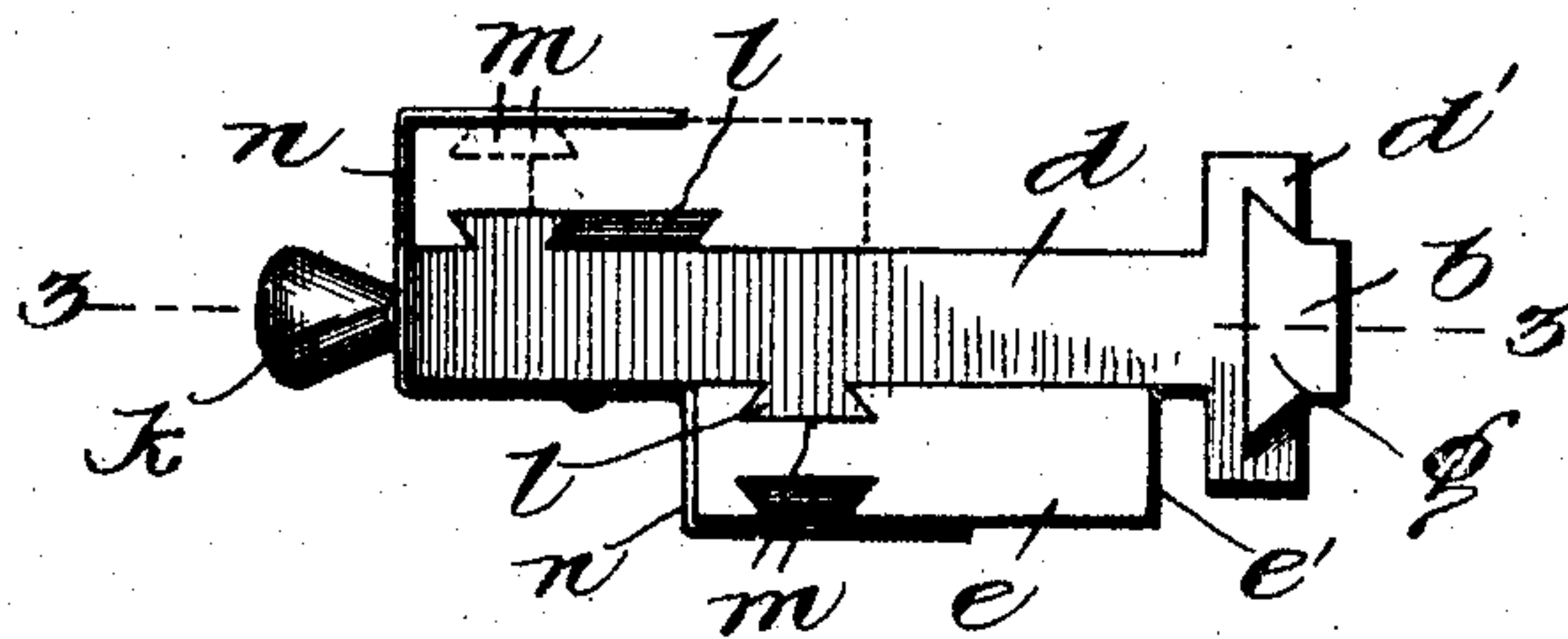
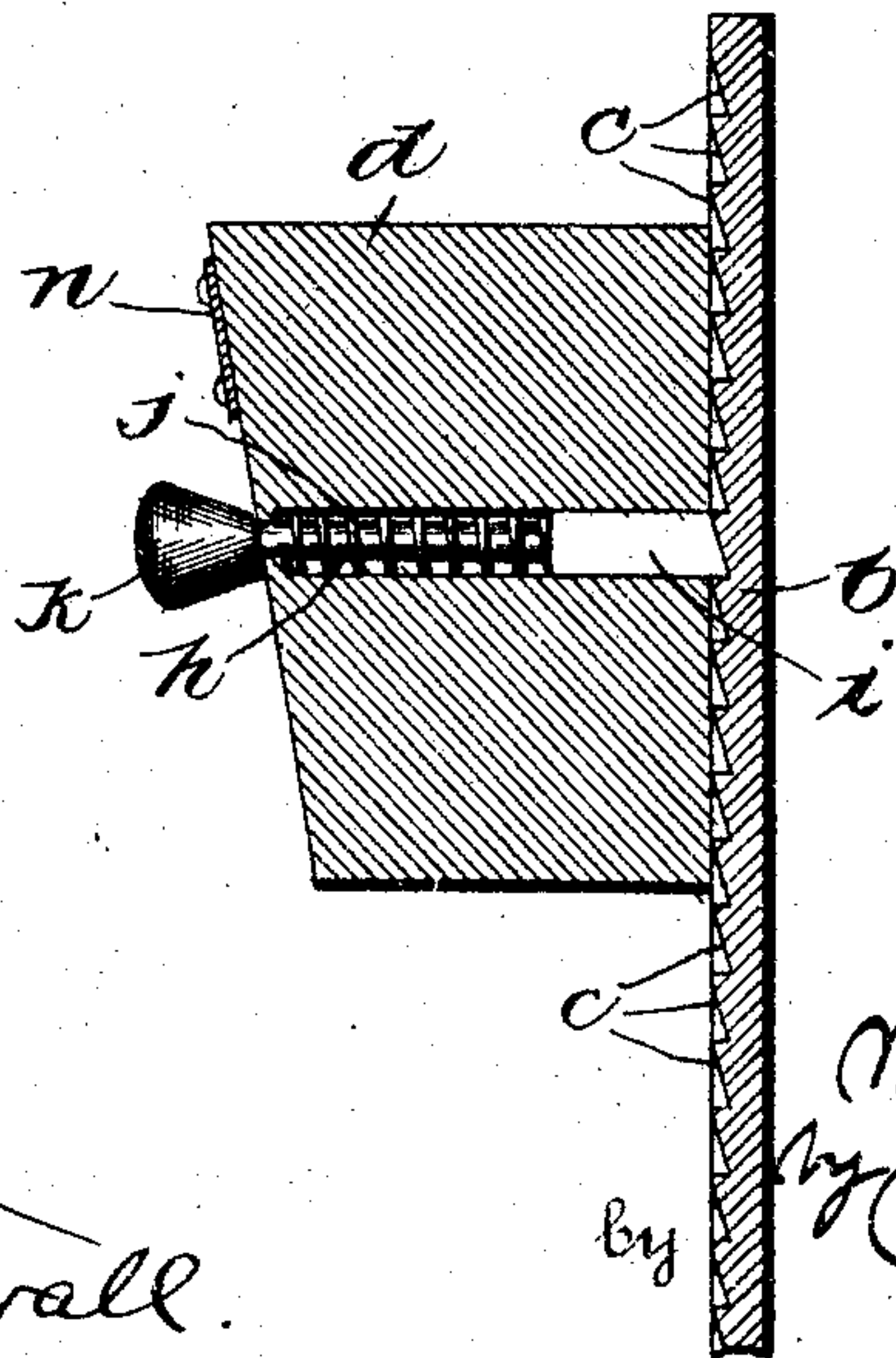


Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM W. COOK, OF ATLANTA, GEORGIA.

BENCH-CLAMP.

SPECIFICATION forming part of Letters Patent No. 790,188, dated May 16, 1905.

Application filed September 8, 1904. Serial No. 223,779.

To all whom it may concern:

Be it known that I, WILLIAM W. COOK, a citizen of the United States, residing at Atlanta, in the county of Fulton and State of Georgia, have invented certain new and useful Improvements in Bench-Clamps; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same

This invention relates to an improved attachment for carpenter's, cabinet-maker's, or other mechanics' work-benches in the nature of an adjustable bench-rest and clamp constructed more particularly to support the rear ends of panel-boards or articles of a similar nature while their edges are being finished and straightened.

The objects of this invention are to improve on a device of such character by making the same adjustable so as to suit any length of board from the vise to the full length of the bench and also any thickness of board within reasonable limits, clamping the same firmly in position against the bench.

A further object is to provide an attachment or device of the character named which will be simple, strong and durable, inexpensive to manufacture, and well adapted to the use for which it is designed.

To the accomplishment of these objects and such others as may hereinafter appear the invention comprises the novel construction and combinations of parts hereinafter described, and particularly pointed out in the appended claims, reference being had to the accompanying drawings, showing the preferred embodiments thereof, wherein the same reference characters designate like parts throughout the several views, and in which—

Figure 1 shows an elevational view of one side of the invention. Fig. 2 shows a plan view of the invention, and Fig. 3 shows an elevational sectional view on line 33 of Fig. 2.

Referring to the drawings, *a* represents a portion of a work-bench to which the device is attached; *b*, a member, preferably in the form of a rack provided with teeth *c*, constructed to allow a free movement in one di-

rection of the member *d*, which forms a rest, and also carries a member *e*, which acts as a clamping-jaw. The panel or other article acted upon is represented at *f*, Fig. 1.

The supporting member *b* is preferably attached to a face of the work-bench by any suitable means in a substantially vertical position and may be flared outwardly in the form of a dovetail adapted to fit into a similar groove formed in one edge of the rest *d*, as shown at *g*, thus allowing member *d* to be vertically adjustable on member *b*. Suitably secured to member *d*, preferably within a recess *h* conveniently located, is a key or pin *i*, constructed to engage with the teeth *c* and hold the member *d* in any desired position of vertical adjustment. This key is provided with a coiled spring *j*, wound about a portion of its shank, or any other suitable and convenient means for keeping the key in close engagement with the teeth. When placed in a groove, as shown, the shank projects outside the member *d* and is provided with a suitable operating-handle, as a button *k*. The formation of the teeth *c* is such that the rest *d* is readily adjustable in one direction of movement—that is, the upward—without manipulation of the key *i*; but to move the rest downwardly the key must first be removed from engagement with the teeth on the member *b*, when it will fall by gravity. The member *d* is also provided with a number of guideways, preferably in the form of ribs *l*, two being here shown, (see Fig. 2,) which are alternately disposed on opposite sides of said member and at varying distances from its inner face *d'* and extend from top to bottom thereof at a predetermined angle to said inner face, the distance of the top of the ribs being greater than the distance of their bottoms therefrom. These ribs are preferably in the form of a dovetail in cross-section; but this is not essential.

The clamping or wedging jaw *e* is provided with means for engaging the guideways on the member *d*, as grooves *m*, one in each face, and are so formed that they fit snugly on the ribs *l* and have a sliding movement thereon. The grooves *m* are placed at a similar angle

with reference to the face e' of jaw e as the ribs l are placed with reference to the face d' of the rest d . It is then readily seen that as the jaw e is moved upwardly or downwardly upon the inclined ribs l the space between said jaw and the member b or work-bench a grows either greater or less, the face e' of said jaw being brought into successive parallel vertical planes.

10 In case dovetail or other locking ribs l and grooves m are not used means independent of the connecting guiding means must be provided to hold the jaw e in place against the rest d , and to this end a spring n is secured about the outer end of rest d , so shaped
15 as to embrace said jaw when mounted on any one of said ribs and prevent it from slipping therefrom. If desired, spring n may also be used in connection with the dovetail ribs and
20 grooves, thus materially strengthening the device.

In operation one end of the work-piece f is placed on the rest d , and said rest is vertically adjusted until the same is in proper position above the top of the work-bench, when
25 the piece is clamped or wedged firmly against the bench by means of jaw e . The various ribs l are for accommodating various widths of work-pieces—that is, if the same would project beyond the first rib the jaw is shifted to
30 the next rib farther out, which is preferably located on the other side of rest d , as this allows of a greater and more accurate range of adjustment, and so on for greater widths.

35 While the invention has been described with particular reference to the details of construction, it should be understood that it is not to be limited thereto, as many and various changes, alterations, and substitutions

may be made therein and still fall within its scope and principle; but

What I do claim, and desire to secure by Letters Patent, is—

1. In a bench-clamp, a suitably-supported work-rest provided with diagonally-arranged parallel guideways extending from top to bottom of each side and alternately disposed at varying distances from one end of said rest, and a clamping-jaw constructed to engage with and be guided by any of said ways
45 in its movement, substantially as described. 50

2. In a bench-clamp, a suitably-supported work-rest provided with diagonally-arranged parallel guideways extending from top to bottom of each side and alternately disposed at varying distances from one end of said rest, a clamping-jaw constructed to engage with and be guided by any of said ways in its movement, and separate means for holding said jaw in any desired position, substantially as described. 60

3. In a bench-clamp, a suitably-supported work-rest, provided with diagonally-arranged ribs on each side alternately disposed at varying distances from one end of said rest, and
65 a clamping-jaw having a pair of diagonally-arranged grooves oppositely disposed in its sides constructed to engage said ribs and obtain a diagonally-sliding movement bringing its clamping-face into successive parallel vertical planes, substantially as described. 70

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM W. COOK.

Witnesses:

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