

W. G. TILTON.

BENCH-DOG.

No. 173,831.

Patented Feb. 22, 1876.

Fig 1

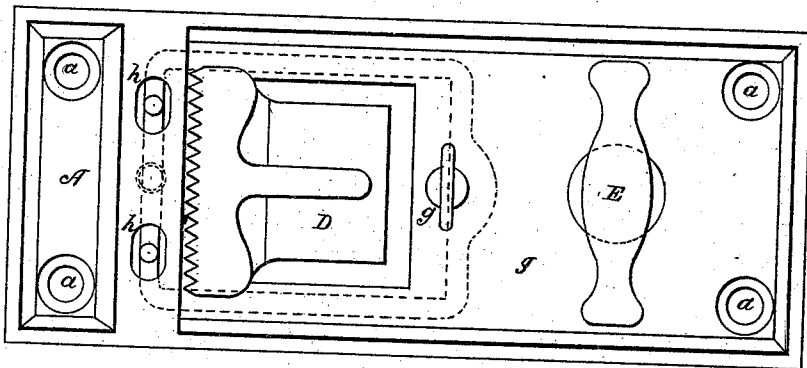
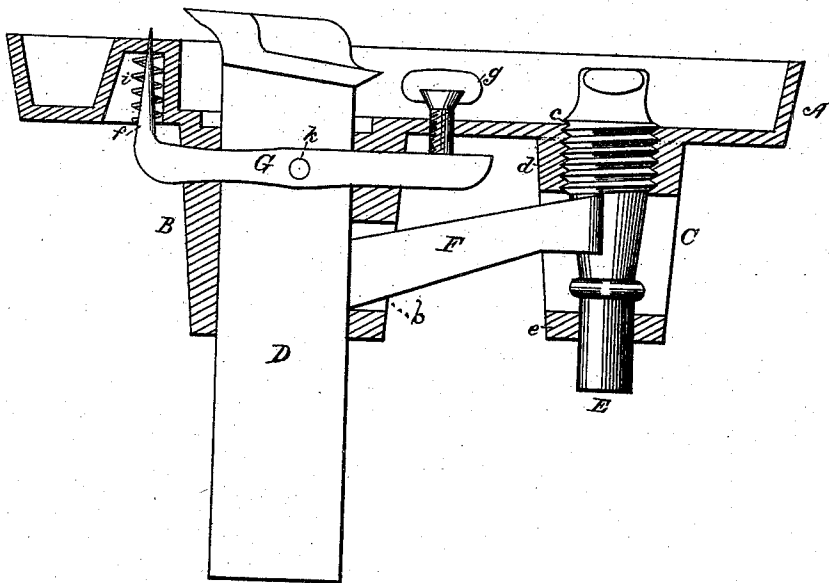


Fig 2



Attest:
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UNITED STATES PATENT OFFICE.

WHEELOCK G. TILTON, OF CLINTON, MASSACHUSETTS.

IMPROVEMENT IN BENCH-DOGS.

Specification forming part of Letters Patent No. **173,831**, dated February 22, 1876; application filed July 17, 1875.

To all whom it may concern:

Be it known that I, WHEELOCK G. TILTON, of the town of Clinton, county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Bench-Hooks; and I do hereby declare the following to be such a full, clear, and exact description thereof as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, and to the letters of reference marked thereon, similar letters indicating corresponding parts in the different figures.

Figure 1 is a plan, showing that portion of the device which is seen upon the upper side of the bench. Fig. 2 is a vertical longitudinal section on line *xx* of Fig. 1.

The object of this invention is to produce a bench-hook that shall not only act as a stop to the material being planed, and resisting the thrust of the plane, but shall also prevent the withdrawal of the material from its connection with the hook during the retrograde movement of the plane; and the invention consists in the construction and arrangement of the parts, as will be hereinafter fully set forth, and then specifically pointed out in the claims.

A in the drawing, represents the cast-metal bed-piece, of polygonal form, which is inserted into a suitable recess formed in the work-bench for its reception, and is secured therein by screws passing through the holes *a* situated in sunken recesses at each end of the bed. It is also provided with two downwardly-projecting parts, B and C, the first of which is perforated by a square mortise, and serves as a guide for the bench-hook D, the other projection C serving to form the bearing in which the screw-wedge E is carried, as well as a guide for one end of the clamping-bar F, the other end of which passes through the opening *b* in one side of guide B, and bears against the bench-hook D. The screw-wedge E is formed with a screw-thread at *c*, which works in the nut *d*, forming a part of the projection C of the bed-piece, the conical

part of the wedge bearing against a semicircular recess in the end of the bar F, and its straight lower part resting in the bearing *e* at the bottom of the projection C.

It will be apparent that when the screw-wedge is turned to the right its conical part will force the bar F against the bench-hook, holding it firmly in any position in which it may be placed, and that when it is rotated in the opposite direction the bench-hook will be released, and may be elevated or depressed at pleasure.

Pivoted to the guide B, and encircling it, is a rectangular frame, G, capable of oscillation upon the pivots *k*, one end of which carries two or more spurs, *f*. These spurs are so placed that when the opposite end of the frame is depressed by means of the thumb-screw *g* they pass upward through orifices *h* in the bed and enter the material upon the bench, thus preventing its withdrawal from the teeth of the bench-hook by the retrograde movement of the plane or other similar movement of the operating tools; but when it is desired to release the material from the grasp of the device it is readily accomplished by reversing the movement of the screw *g*, when the springs *i* will force downward the spurs *f*, thus withdrawing them from the material upon the bench, and allowing it to be removed without difficulty. If desired, the springs *i* may be dispensed with, the screw *g* being connected directly to the oscillating frame by a universal joint, or the screw may have its bearing in the bed and operate upon a swiveling nut secured to this frame.

It will be obvious that this device will relieve the workman from the necessity of securing his material upon the bench by stops, hooks, or other means, placed at the rear of the article, thus saving much time lost in adjusting such devices, as well as preserving the bench from disfigurement by their use.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent, the following—

1. The oscillating or tilting frame G, provided with the spurs *f*, constructed and oper-

ating in the manner and for the purpose specified.

2. The bed-piece A and hook D, in combination with the oscillating frame G, provided with spurs *f*, springs *i*, and thumb-screw *g*, as and for the purpose set forth.

3. The bed-piece A, provided with the guides B and C, in combination with the spur-carrying frame G, bench-hook D, bar F, and

wedge-screw E, substantially as and for the purpose specified.

In testimony that I claim the foregoing as my own I hereunto affix my signature in presence of two witnesses.

WHEELLOCK G. TILTON.

Witnesses:

CHRISTOPHER C. STONE,
C. W. GOULD.