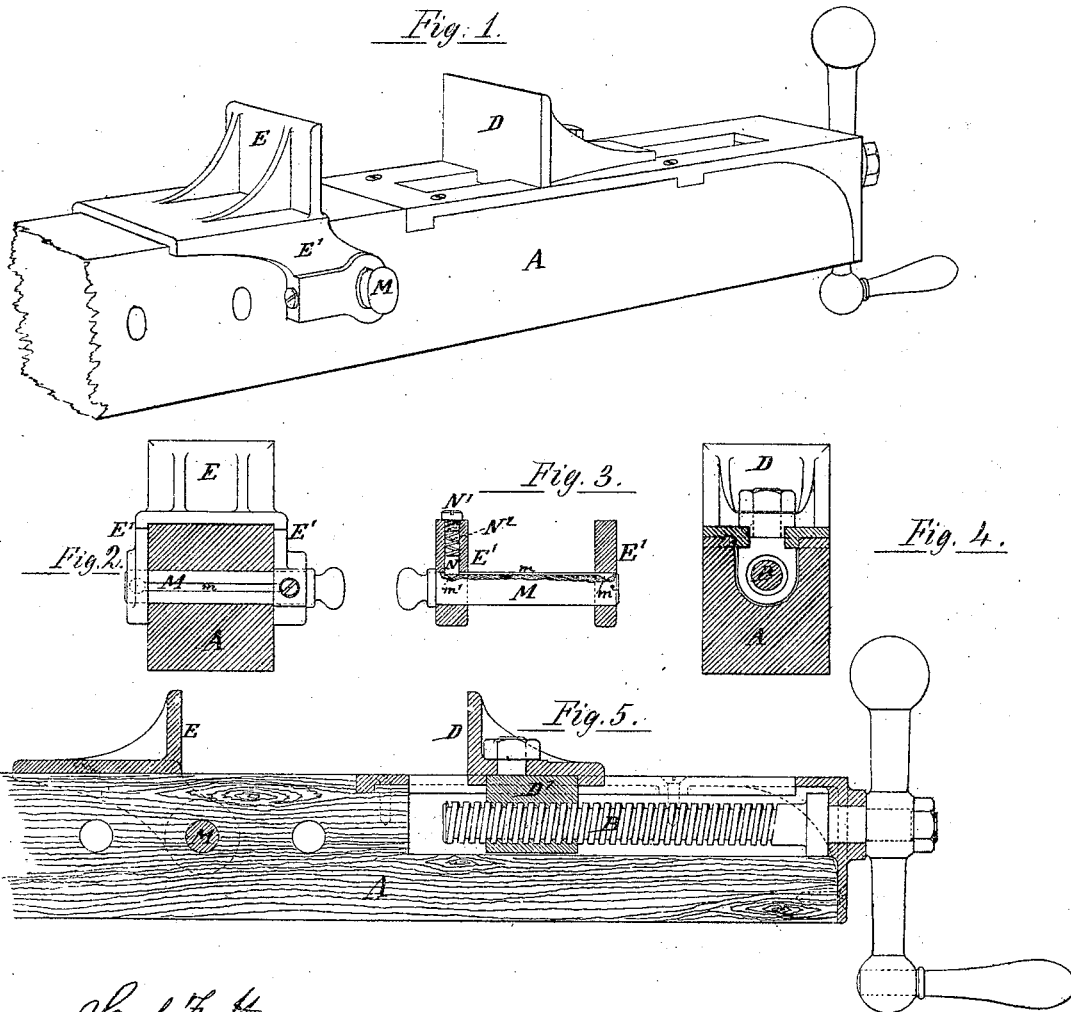


WILLIAM H. GOODCHILD.
Improvement in Joiners' Clamps.

No. 114,800.

Patented May 16, 1871.



Saml. H. Hay

Witnesses.

William H. Goodchild

Chas. W. Cohen

Inventor.

UNITED STATES PATENT OFFICE.

WILLIAM H. GOODCHILD, OF CENTREVILLE, NEW JERSEY.

IMPROVEMENT IN JOINERS' CLAMPS.

Specification forming part of Letters Patent No. 114,800, dated May 16, 1871.

To all whom it may concern:

Be it known that I, WILLIAM H. GOODCHILD, of Centreville, county of Hudson, and State of New Jersey, joiner, have invented certain new and useful Improvements in Joiners' Clamps.

The main portion of my improved clamp may correspond with that described in another patent issued to me of even date herewith. The novelty in this patent relates to the means of holding the adjustable tail-block. The means which I employ in this invention correspond more nearly with those long in use. I employ a pin which may extend through any one of a series of holes in the clamp-stick. As heretofore operated the pins have been secured by nuts, and much time and labor have been involved in any adjustment of the tail-block. My improvement allows them to be adjusted instantly. It furthermore avoids the risk of loss of the pin or nut which is involved in the use of the ordinary devices. I employ a pin which is never entirely liberated. It is drawn out sufficiently to liberate the tail-block, and is reset in the same or another hole with a very simple movement, and is retained in either position by a spring-catch.

The following is a description of what I consider the best form of carrying out the invention.

The accompanying drawing forms a part of this specification.

Figure 1 is a perspective view. Fig. 2 is a cross-section through the clamp-stick, in the plane of the locking-pin of the tail-block. Fig. 3 is a horizontal section through the tail-block and locking-pin alone. Fig. 4 is a cross-section behind the head-block, and Fig. 5 is a longitudinal section.

The drawing shows the novel parts, with so much of the other parts as is necessary to indicate their relation thereto.

A is the clamp-stick; D, the head-block; B, the operating-screw, and E the tail-block.

Wings E' E', forming a portion of the tail-block, extend down each side of the clamp-stick and receive the locking-pin. M is the locking-pin. In its surface are two deep conical

recesses, $m^1 m^2$, connected by a shallower V-shaped groove, m . In one of the wings is a spring, N^2 , secured by a screw, N^1 , and acting to press constantly inward toward the pin M the small stop-piece N. This stop-piece has a conical end, corresponding with the recesses $m^1 m^2$ in the holding-pin M.

While the device is in use the parts are in the position indicated in the figures.

When it is desired to adjust the tail-piece the locking-pin M is seized and drawn forcibly outward. This movement lifts or throws out the stop-piece N, and allows the pin M to be withdrawn until the opposite recess, m^2 , is presented opposite the stop-piece N, into which the stop-piece springs and holds the pin M in its drawn-out position, but without liberating it entirely from the device. In this condition the tail-block may be adjusted backward or forward on the clamp-stick, and when in the right position, the pin M, being again forced inward by the hand, enters another of the holes in the clamp-stick, and the conical point of the stop-piece N traverses backward along the groove m , and again engages in the same deep recess, m^1 , in which it is represented in the figures.

This device reduces the consumption of time of the adjustment of the tail-block to an almost indefinitely small limit, and the pin m , being always kept in the tail-block, is not liable to loss or injury.

I claim as my invention—

The fastening-pin M, recessed as specified, in combination with the locking-stop N, spring n , confining means N^1 , and adjustable tail-block E, and adapted to serve, relatively to the clamp-stick A, head-block D D', and operating-screw B, substantially as herein set forth.

In testimony whereof I have hereunto set my name in presence of two subscribing witnesses.

W. H. GOODCHILD.

Witnesses:

C. C. LIVINGS,
J. A. SURFLEET.