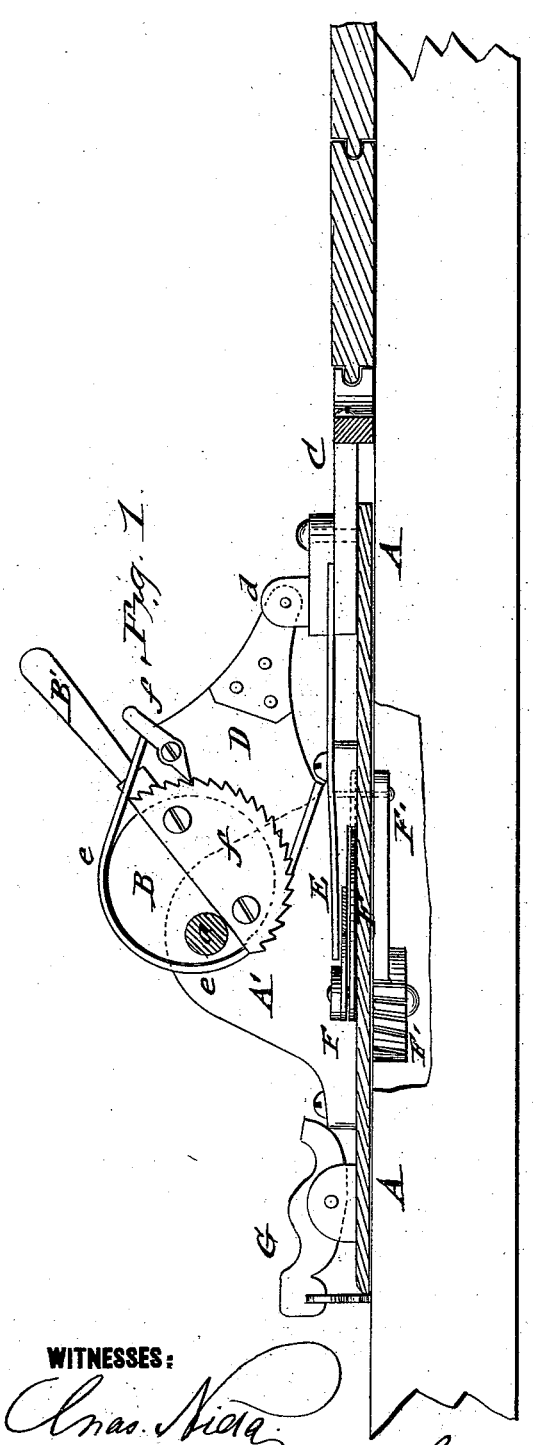
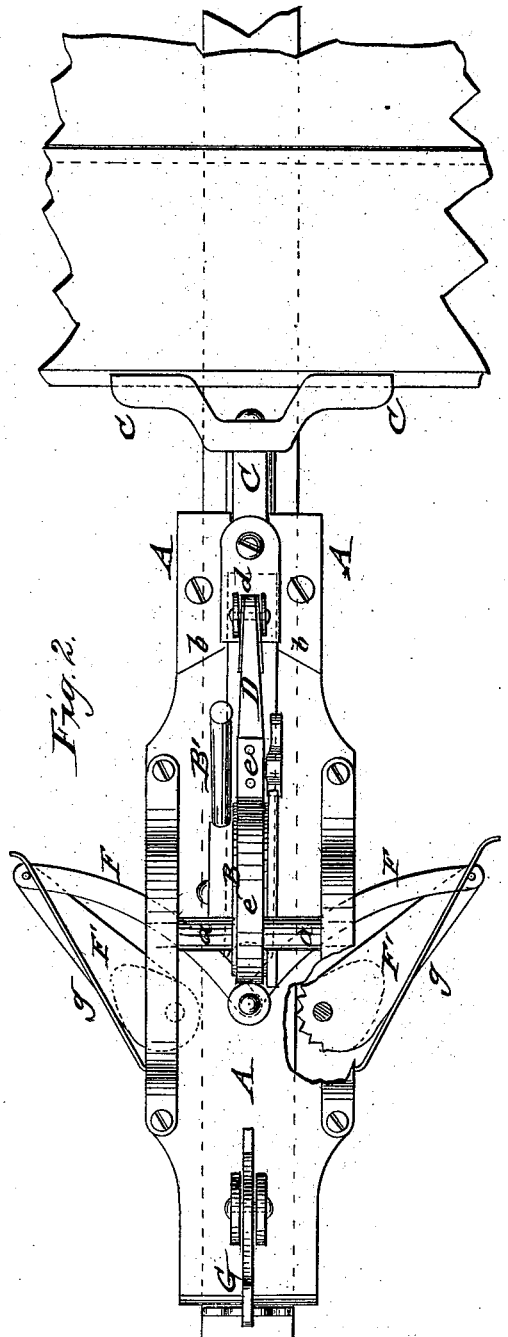
W. H. TARRANT.

FLOOR-CLAMPS.

No. 187,066. Patented Feb. 6, 1877.





WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM H. TARRANT, OF EAU CLAIRE, WISCONSIN.

IMPROVEMENT IN FLOOR-CLAMPS.

Specification forming part of Letters Patent No. **187,066**, dated February 6, 1877; application filed November 4, 1876.

To all whom it may concern:

Be it known that I, WILLIAM H. TARRANT, of Eau Claire, in the county of Eau Claire and State of Wisconsin, have invented an Improvement in Floor-Clamps, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a vertical longitudinal section, and Fig. 2 a top view, of my improved flooring-clamp.

Similar letters of reference indicate corresponding parts.

The invention refers to an improved flooring-clamp that may be used for laying single or double flooring, being readily applied to the flooring-boards and joists, and held in position thereon for nailing them to the joists.

The invention consists of an eccentric cam and lever that operates jointly a sliding bar for pushing the flooring-board, and spring-acted and serrated cam-levers that bind on the joists for securing the clamp-frame rigidly in position during work.

In the drawing, A represents the main or supporting frame of my improved flooring-clamp; and B the actuating-cam that is keyed eccentrically to a lateral pivot-shaft, *a*, turning in bearings of side standards A′ of frame A. A hand-lever, B′, is rigidly secured to the actuating-cam B, for swinging the same forward or back. A pushing-bar, C, is guided in ways *b* of the main frame, and connected with the actuating-cam by a lever, D, being pivoted to bar C at *d*, and applied to the cam by an encircling band, *e*.

The broad forward end or jaw of the pushing-bar is preferably grooved to fit over the tongue of the flooring-boards, so that the pressure will be thrown on the shoulders at both sides of the tongue. The face of the jaw is covered with leather or similar material, to prevent injury to the flooring.

The pushing-bar C connects, by a rearward-extending arm, E, with the pivot-bolt of two curved levers, F, that extend through slots of the side standards A′ to the outside of the clamp. The outer ends of the curved levers E are pivoted to the ends of cams F′, that are eccentrically fulcrumed to the under side of the main frame symmetrically to the longitudinal axis of the same. These cams F′ are serrated at the parts facing each other, the teeth being slanting outwardly for the purpose of causing them to "bite" into the sides of the joist on which the clamping device is placed when the actuating cam and lever are turned forward.

The forward motion of the pushing-bar is jointly accomplished with the strong griping action of the serrated cams on the joist, so that the flooring-board is pushed forward to form the joint with the adjoining board already laid.

A ratchet, *f*, of the actuating-cam B and pawl *f′* of the connecting-lever D, serves to lock the pushing-bar into position against the board, to admit the nailing of the same. When the actuating-cam is moved in opposite direction, the clamping action of the cams F′ is released, and the pushing-bar drawn back, the machine being then ready for the next joist. This is assisted by springs *g* bearing on the cams or levers, as shown in Fig. 2.

In laying double flooring, the two cams have to be detached, and a fulcrumed ratchet-dog, G, at the rear end used in place of the same. The end of frame A just touches the ratchet-dog, when the same is driven into the floor by a few light blows, so that the pressure is exerted on the ratchet close to the floor, enabling it to resist the same for joining the boards.

A light blow on the opposite end of the ratchet-dog releases the same, for moving the clamp into position for laying the next board.

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

The combination of supporting main frame A, side standards A′, actuating-cam B, hand-lever B′, connecting-lever D, pushing-bar C, and rear-extending arm E, with jointed and spring-acted levers F, and fulcrumed clamping cams or jaws F′, all constructed substantially as shown and described.

WILLIAM H. TARRANT.

Witnesses:

THOS. TARRANT,

SAMUEL WHITE.