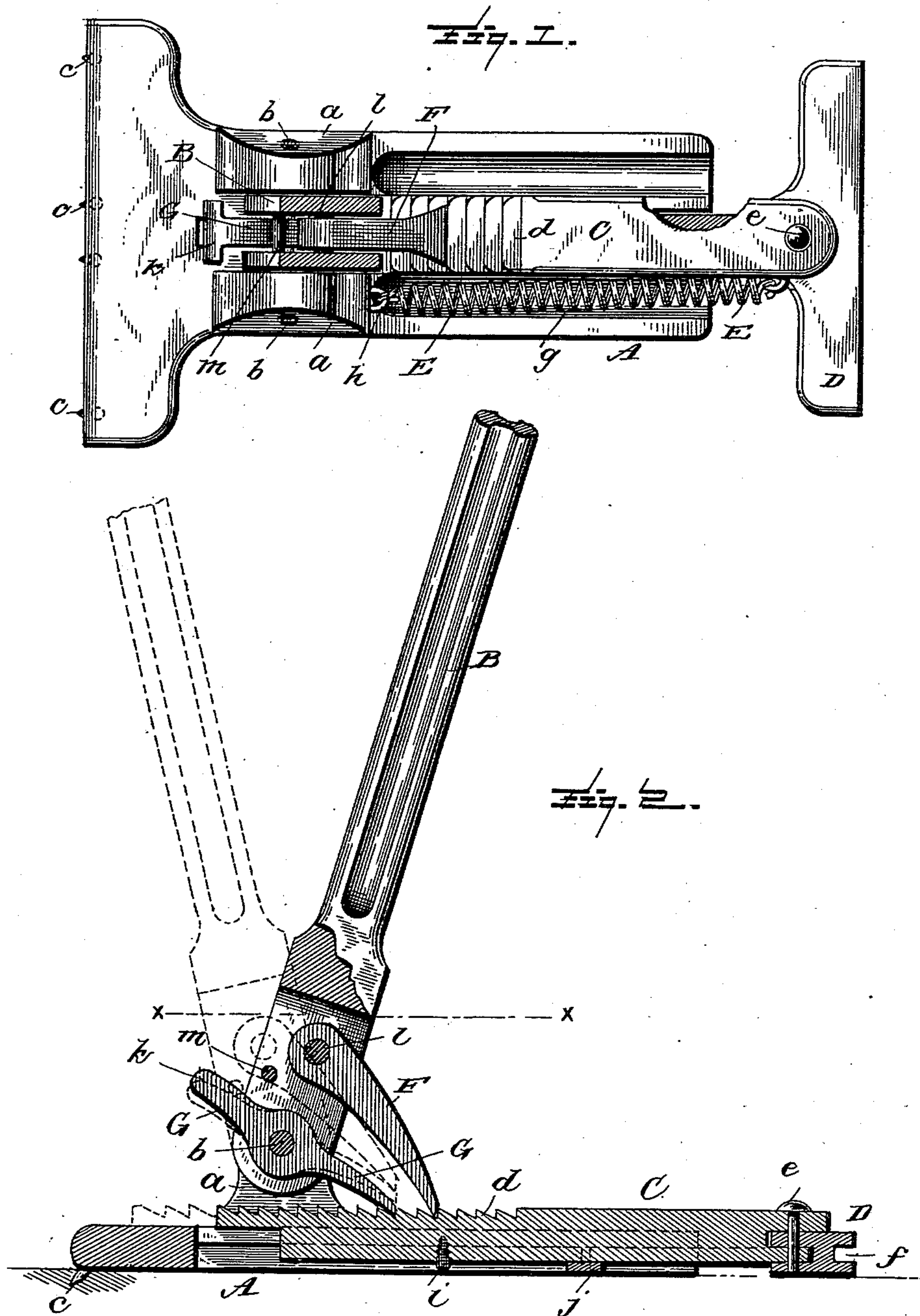


(No Model.)

C. H. WARREN & C. A. JORDAN.
FLOOR CLAMP.

No. 420,288.

Patented Jan. 28, 1890.



WITNESSES
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UNITED STATES PATENT OFFICE.

CHADBOURNE H. WARREN AND CHARLES A. JORDAN, OF AUBURN, MAINE.

FLOOR-CLAMP.

SPECIFICATION forming part of Letters Patent No. 420,288, dated January 28, 1890.

Application filed November 2, 1889. Serial No. 329,055. (No model.)

To all whom it may concern:

Be it known that we, CHADBOURNE H. WARREN and CHARLES A. JORDAN, citizens of the United States, residing at Auburn, in the county of Androscoggin and State of Maine, have invented certain new and useful Improvements in Floor-Clamps; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

This invention relates to certain new and useful improvements in floor-clamps of that class consisting of a body portion, a bar having a grooved head-piece and ratchet-teeth, and a pivoted lever carrying two pawls, one adapted to move the bar and the other serving as a retaining-pawl.

Our improvements consist in a retracting-spring for the bar working in a recess in the body portion, and in a cross-pin carried by the operating-lever and adapted to engage the tail-piece of the retaining-pawl to release the same from engagement with the rack-bar, all as more fully hereinafter described, shown in the drawings, and then particularly pointed out in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a top plan, partly in section, the section being taken on the line *xx* of Fig. 2, of a floor-clamp embodying our improvements. Fig. 2 is a vertical longitudinal section through the same.

Referring now to the details of the drawings by letter, A designates the body, provided with ears *a*, between which is pivoted upon the transverse pivot *b* the operating-lever B. Projecting downwardly and preferably at an angle from the outer end of the body A are the sharp spurs *c*, adapted to engage the under floor or a beam and thereby anchor the clamp.

C is the bar moving in suitable guides in the body A and provided upon its upper face with teeth *d*. To the outer end of this bar there is pivoted upon a vertical pivot *e* a head-piece or bar D, provided along its outer edge with a longitudinal groove *f* for receiving the

tongue of the loose board which it is to act upon.

The upper face of the body A, forward of the ears *a*, is provided with a longitudinal recess or channel *g*, designed to receive a coiled retracting-spring E, one end of which is connected to some fixed part, as to one of the ears *a*, in any suitable manner—as, for instance, by means of an eye or staple *h*—and the other end is connected with the bar C near its outer end. The spring is seated in this recess or channel and is arranged beneath the upper face of the bar, so as to be out of the way and not liable to injury.

Projecting from the underside of the bar C is a pin *i*, and secured across the under face of the body is a plate or bar *j*, against which said pin is designed to strike to limit the movement of the bar.

The lower end of the lever B is bifurcated, as shown, and between the bifurcations are pivoted the two pawls F and G, the pawl G being pivoted upon the pivot *b* of the lever B and extended beyond its pivot to form a tail-piece *k*, as shown clearly in Fig. 2. The pawl F is pivoted upon a separate pivot *e* and is designed to extend beyond the pawl G.

Passed through the forks of the bifurcated end of the lever B, between the pivots of the pawls F and G and a little to the rear thereof, is a pin or bar *m*.

The operation is simple and apparent, and is similar to that of analogous devices of this character, except in the following particulars: After the board has been forced up in the usual manner and nailed the lever B is moved slightly to the rear, as indicated by dotted lines in Fig. 2, when the pin *m* presses against the tail-piece *k* and releases its other end from engagement with the teeth of the bar C, when the spring E brings the bar and its head-piece back to their normal position. This affords a great saving in time and labor. As the lever is moved forward to move the rack-bar C, the pin *m* is moved away from the tail-piece *k* of the pawl G, when the latter falls into engagement with the teeth of the bar.

What we claim as new is—

1. The combination, with the body, the toothed bar, and the pivoted lever, of the two pawls, one pivoted to said lever, and the

other journaled on a cross-bar *b*, and one of them provided with a tail-piece, and a transverse pin on the lever arranged to engage said tail-piece, substantially as and for the purpose specified.

2. In a floor-clamp, the combination, with the body formed with a longitudinal groove upon its upper face, of the lever, the pawls, one of which is pivoted thereto and the other journaled on the cross-bar *b*, the toothed bar, and the spring arranged in the groove in the body with one end attached to the bar and the other end to the body, substantially as described.

3. In a floor-clamp, the combination of the body, the sliding toothed bar, the pivoted

lever, the pivoted pawls, one of which is pivoted on the pivot of the lever, one of said pawls having a tail-piece, a transverse pin on said lever between the pivots of the pawls, and a coiled spring attached at one end to the bar and at the other to the body, substantially as shown and described, and for the purpose specified.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

CHADBOURNE H. WARREN.

CHARLES A. JORDAN.

Witnesses:

TASCUS ATWOOD,
DAVID S. CURTIS.