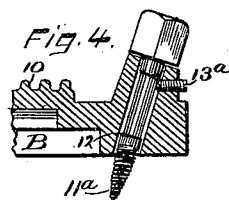
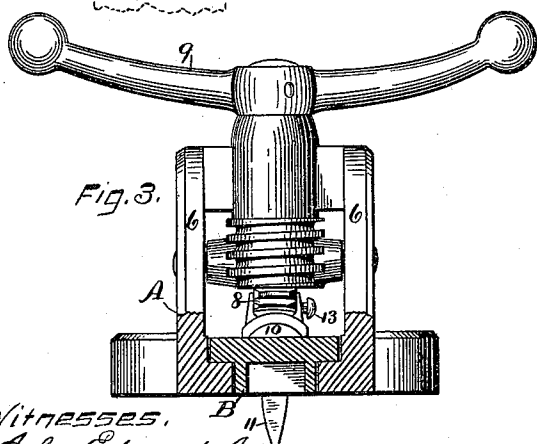
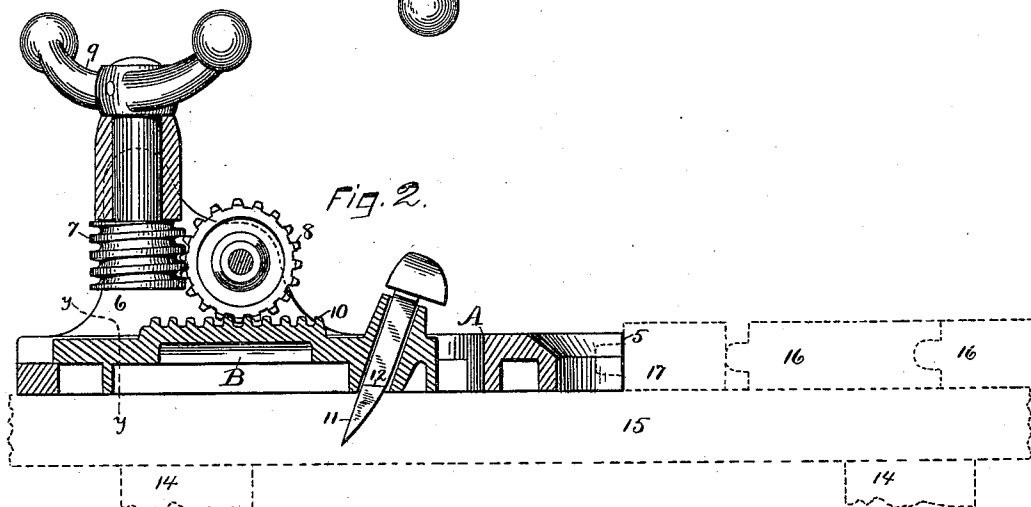
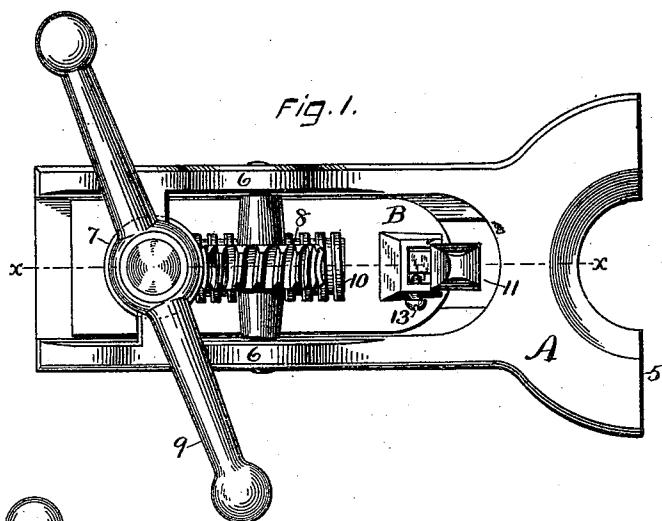


(No Model.)

E. A. SCHADE.
FLOOR CLAMP.

No. 466,142.

Patented Dec. 29, 1891.



Witnesses,
John Edwards Jr.
J. A. Lewis

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UNITED STATES PATENT OFFICE.

EDMUND A. SCHADE, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO THE
STANLEY RULE AND LEVEL COMPANY, OF SAME PLACE.

FLOOR-CLAMP.

SPECIFICATION forming part of Letters Patent No. 466,142, dated December 29, 1891.

Application filed May 9, 1891. Serial No. 392,172. (No model.)

To all whom it may concern:

Be it known that I, EDMUND A. SCHADE, a citizen of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Floor-Clamps, of which the following is a specification.

My invention relates to improvements in floor-clamps; and the objects of my improvement are simplicity and cheapness of construction and convenience and efficiency of the article.

In the accompanying drawings, Figure 1 is a plan view of my floor-clamp. Fig. 2 is a longitudinal section on line *x x* of Fig. 1, partly in elevation. Fig. 3 is a partial section on line *y y* of Fig. 2, with the upper portion in elevation; and Fig. 4 is a longitudinal section of a portion of the holding-bed with a modified form of holding-point.

A designates the frame or principal part of the machine, having a presser-face 5 at its front end and uprights or supports 6 6 toward its rear end, within which uprights I form the bearings for the screw or worm 7 and gear-wheel 8. The screw or worm is provided with an operating-handle 9, of any ordinary form, and the worm and gear wheel engage with each other, as shown, the handle turning on a vertical axis. Upon suitable ways in the middle portion of the frame A, near its base, is the holding-bed B, the relative movement of said bed and frame being in a direction that extends at right angles to the axis of the operating-handle. The upper part of the holding-bed is provided with a rack 10, which is engaged by the gear-wheel 8. At the front end of this holding-bed, within a suitable socket, I arrange the holding-point 11, the same being set somewhat upon an incline, as shown. The upper end of this point is headed, and toward the lower end is a holding-shoulder 12, whereby a set-screw 13 in said holding-bed, with its end projecting into the socket that contains the holding-point, will prevent said point from being removed therefrom by accident and at the same time will permit said point to have a degree of longitudinal motion sufficient to let

the extreme lower end of said point be raised up flush with the under face of said holding-bed.

The middle portion of the frame A is left open to permit the socket portion of the holding-bed to work within said open middle portion and to extend down practically into the same plane as the bottom face of said frame.

My floor-clamp may be used when laying a floor directly upon joist, or when laying a floor over an old one, or over one laid as a foundation for the floor proper. In Fig. 2 I have indicated in broken lines portions of the joist 14, the foundation-floor 15, and floor-boards 16, together with a temporary strip 17. The floor-clamp is placed in position with its holding-face 5 against the temporary strip or edge of the last floor-board, as may be desired. The handle 9 is revolved to bring the holding-bed to or near its most forward position within the frame, after which a blow or blows with a hammer upon the head of the holding-point 11 will force said point into the floor-foundation, so as to fasten the holding-bed in place. The handle 9 is then revolved in a direction to push the holding-frame firmly against the temporary strip or flooring to bring the last floor-board into place, when it can be nailed. The handle is then turned in the opposite direction to release the pressure of the frame, and by lifting upon the handle or rear part of the frame the holding-point can be readily withdrawn. If desired, the point might be first withdrawn by means of a claw-hammer or other tool.

In Figs. 1, 2, and 3 I have represented a smooth point, which is square in cross-section, while in Fig. 4 I have shown a point 11^a, with a square head, a round body, and tapering threaded portion at its lower end. It is also shouldered, as at 12, and held against accidental removal by the screw 13^a. This point will be started into the floor-support by a light blow and then screwed farther in. It is removed by unscrewing until it is loosened. These points, although somewhat different in details of construction, I consider equivalents in the general combination. I have represented the presser-face 5 of the frame as a

plain vertical face; but, if desired, it may be grooved to receive the tongue of the flooring, as indicated by the broken lines in Fig. 2.

I am aware that an English patent shows 5 and describes a flooring-clamp having a frame and attached holding-clamp, a vertical worm, a worm-wheel actuated by a lever-handle, and a toothed ram, also gearing with said worm-wheel and having a presser-face; also, that 10 a prior patent shows and describes a floor-jack having a head-block with a cam and operating-lever mounted thereon, and a holding-block having two sliding holding-claws at its rear edge, said block and head being ar- 15 ranged to slide relatively to each other on pins and grooves. All of said prior art is hereby disclaimed.

In my floor-clamp the holding-point is located between the driving mechanism and the 20 presser-face, so that pulling on said point in imparting a relative movement of the frame and holding-bed draws the holding-bed firmly down on the surface, upon which it rests without any tendency to cock or tip.

25 I claim as my invention—

1. The herein-described floor-clamp, consisting of a frame, a holding-bed fitted thereto

with a relative sliding movement, a presser-face on one of said parts, a longitudinally-reciprocating holding-point arranged within a 30 socket on the other of said parts to project from the under face thereof for being driven into the material upon which the clamp rests, and driving mechanism for imparting a relative 35 movement to said frame and bed, said holding-point being located between said driving mechanism and presser-face, substantially as described, and for the purpose specified.

2. The herein-described floor-clamp, consisting of the frame A, having the presser-face 5 40 at its front end and middle opening, the gear-wheel 8 and the worm 7, mounted on said frame, the holding-bed fitted within the middle opening of said frame and having the 45 rack 10 for engaging said gear-wheel, and the sliding holding-point arranged within a socket at the front end of said holding-bed and within the middle opening of said frame, substantially as described, and for the purpose specified.

EDMUND A. SCHADE.

Witnesses:

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