

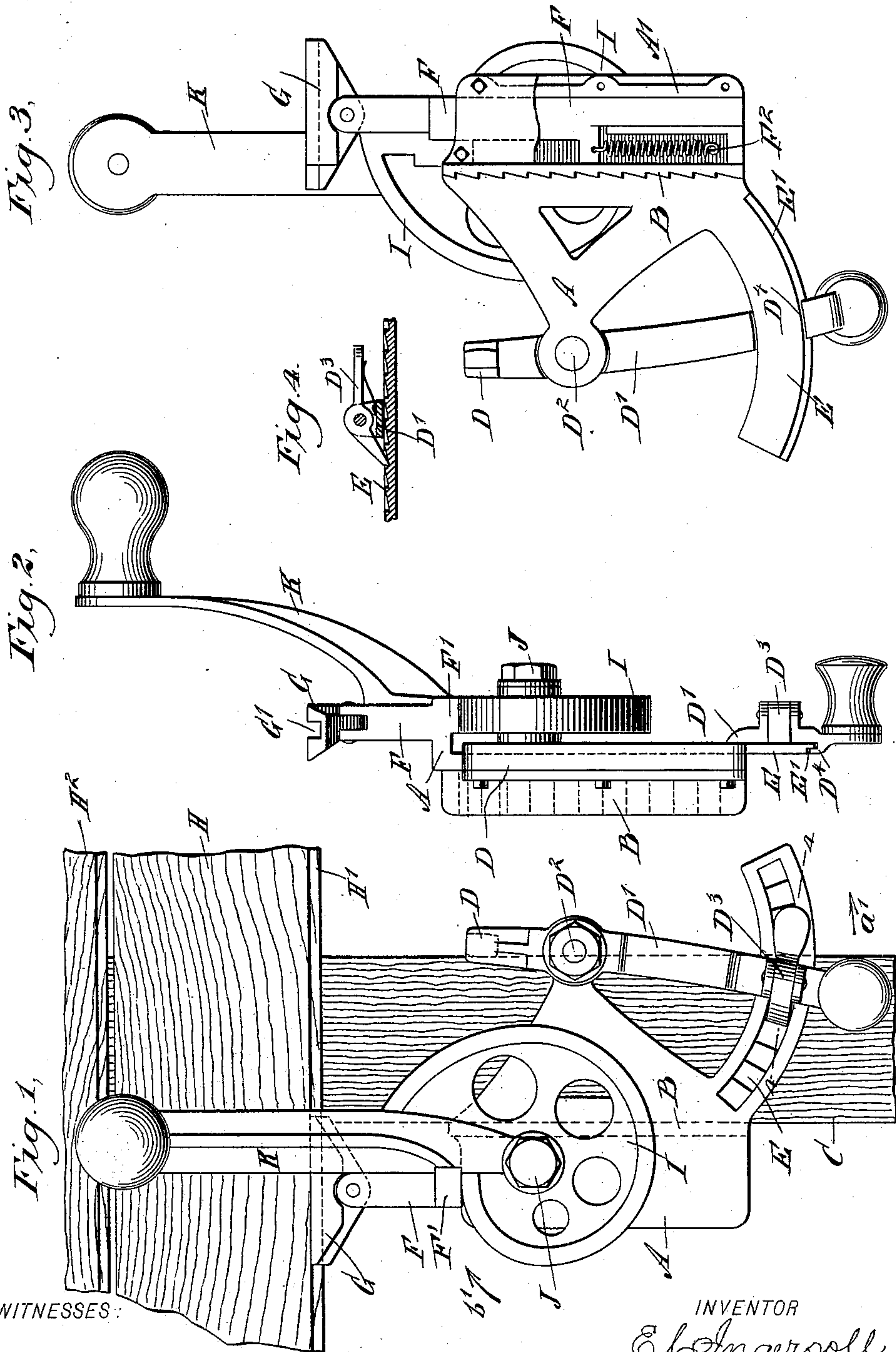
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Patented Aug. 2, 1898.

E. C. INGERSOLL.
FLOOR CLAMP.

(Application filed July 1, 1897.)

(No Model.)



WITNESSES:

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EDWIN C. INGERSOLL, OF PHILADELPHIA, PENNSYLVANIA.

FLOOR-CLAMP.

SPECIFICATION forming part of Letters Patent No. 608,458, dated August 2, 1898.

Application filed July 1, 1897. Serial No. 643,115. (No model.)

To all whom it may concern:

Be it known that I, EDWIN C. INGERSOLL, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and Improved Floor-Clamp, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved floor-clamp which is simple and durable in construction and more especially designed for the use of carpenters to conveniently force a loose floor-board in engagement with the one already fastened to the joist to facilitate nailing the board in place.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the improvement as applied. Fig. 2 is a side elevation of the same. Fig. 3 is an inverted plan view of the improvement, and Fig. 4 is a cross-section of part of the same on the line 4 4 of Fig. 1.

The improved floor-clamp is mounted on a suitably-constructed frame A, having a downwardly-extending flange B, preferably toothed at one face to engage one side of a joist C or other support on which the floor-boards are fastened. A jaw D is adapted to engage the opposite side of the joist C directly opposite the forward end of the flange B, as is plainly shown in Fig. 1, and this jaw D depends from a lever D', fulcrumed at D² on the frame A, the handle end of the lever carrying a spring-pressed pawl D³, adapted to engage one of a series of teeth in a toothed segment E, extending on the frame A and forming an integral part therewith. The lever D' is also provided on its under side with a lever-guide D⁴, engaging a segmental recess or shoulder E' on the under side of the toothed segment E, so as to hold the lever D' in proper position and against up-and-down movement.

Now it will be seen that when the frame A is placed in position on the joist C, with the toothed flange B resting on one side thereof, then the frame can be clamped in place by swinging the lever D' to the right in the di-

rection of the arrow a' to cause the jaw D to move in firm contact with the other side of the joist, the main portion of the frame resting on the top of the joist, as indicated in Fig. 1. In moving the lever D' as indicated the pawl D³ will snap into one of the teeth of the segment E, so as to lock the lever D' and the jaw in place when the frame A is clamped in position on the joist C.

The frame A is provided with a guideway A', in which is fitted to slide a presser-foot bar F, on the outer end of which is pivoted a presser-foot G, formed with a longitudinally-extending groove G' for accommodating the flange H' of the floor-board H to be forced in position against the floor-board H², already secured in place on the joist C or other support. The presser-foot G is adapted to engage the floor-board H at the outer side thereof, as is plainly indicated in Fig. 1, and slightly at one side of the joist C, so that the presser-foot is not in the way when driving the nails through the board H into the joist C to fasten the board to the joist. The bar F is formed with an offset F' in alinement with the presser-foot G and riding on the peripheral surface of a spiral cam I, mounted to turn on a stud J, carried by the frame A.

A handle K is secured on the top face of the cam I and is adapted to be taken hold of by the operator to turn the spiral cam I in the direction of the arrow b' to cause the bar F to slide outward, so as to move the presser-foot G first in contact with the board H and then move the board along and finally force it in engagement with the fixed board H². The return or inner movement of the presser-foot G and the bar F is obtained by a spring F², arranged in the frame A and connected with the bar F, as is plainly indicated in Fig. 3. Thus when the arm K is turned in the inverse direction of the arrow b' the shoulder F' is held in peripheral contact with the cam I by the action of the said spring F².

In starting the device the several parts are in the position shown in Fig. 1, with the shoulder F' of the bar F at the innermost part of the cam-surface of the spiral cam I and with the arm K extending parallel with the said bar. Now it is evident that when the handle K is swung around to cause the cam I to move the presser-foot G and the

board II, as above described, the said handle moves away from the board II to give free access to that part of the board resting directly on the joist C and allow of conveniently driving the nails, as above mentioned, to fasten the board II in place and after it is forced in contact with the board II². When this has been done, the operator returns the handle K to its former position and presses on the finger-piece of the pawl D³ to release the lever D' and to permit of moving the same in the inverse direction of the arrow a' to unlock the frame from the joist C. The device can now be placed on another joist, and the above-described operation is repeated.

It will be seen that the device is very simple and durable in construction, is not liable to get out of order, and is easily placed in position and manipulated for the purpose mentioned.

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

1. A floor-clamp comprising a frame having a downwardly-extending flange toothed at one face and adapted to engage one side of a joist or like support, a lever fulcrumed on the frame and carrying a depending jaw at one end, the said jaw being adapted to engage the opposite side of the joist at a point opposite the forward end of the said toothed flange, the said lever carrying a spring-pawl near the other end, a segment forming an integral lateral extension of the said frame and provided with teeth on its upper face for en-

gaging the said pawl, the said lever being provided on its under face with a guide engaging a segmental recess on the under side of the toothed segment whereby the lever is held against up-and-down movement, the said frame being provided with a guideway and a bar carrying a presser-foot and adapted to slide in said guideway, the said guideway being located at the outer side of the toothed flange and parallel therewith, whereby the presser-foot engages the board to be nailed at one side of the joist, as and for the purpose set forth.

2. A floor-clamp comprising a frame having a downwardly-extending offset member, a lever fulcrumed on the frame and provided at one end with a jaw projecting into the plane of the offset member to coact with the latter in clamping the device in place, a spring-pressed pawl carried by the opposite or handle end of the lever, the said frame being provided with a laterally-extending segment provided with teeth on its upper face adapted to be engaged by the said pawl, the said toothed segment being provided with a guideway formed on its under face and adapted to be engaged by a guide on the said lever, and means carried by the frame for exerting pressure on the flooring-boards, substantially as described.

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Witnesses:

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