(No Model.)

C. E. HOLMES.

FLOOR CLAMP.

No. 376,439. Patented Jan. 17, 1888.

Fig. 1.

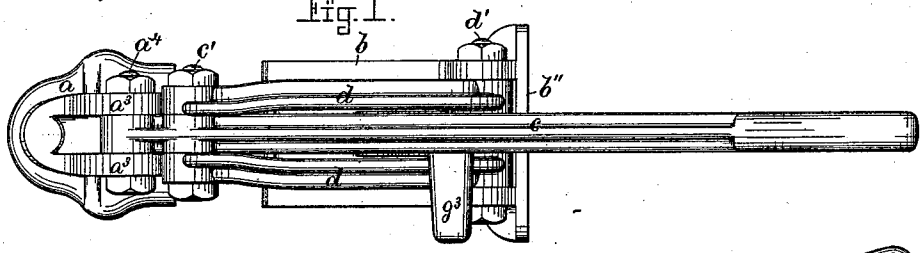


Fig. 2.

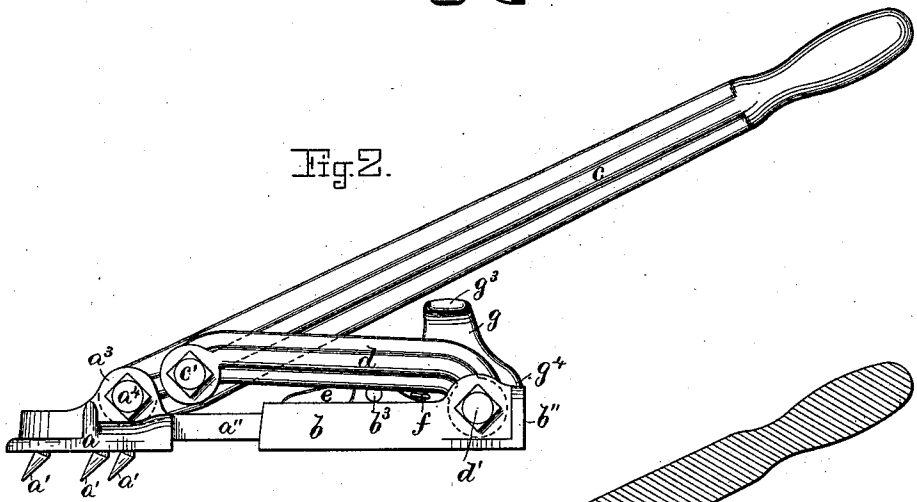


Fig. 4.

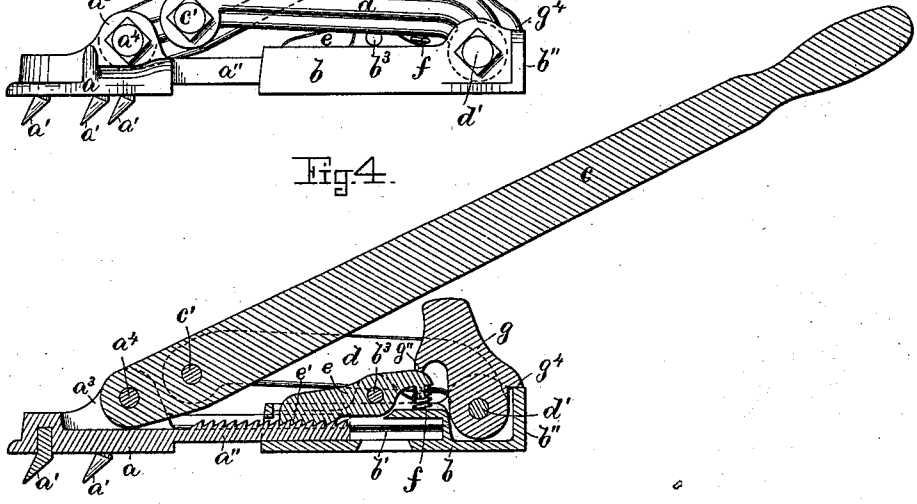
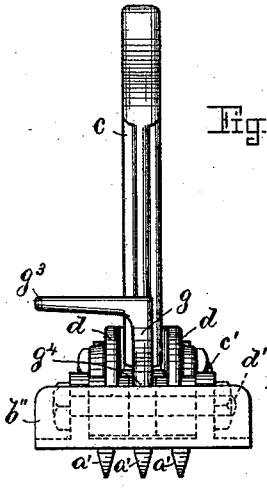


Fig. 3.



Witnesses
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by Albert Andrén.
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UNITED STATES PATENT OFFICE.

CHARLES E. HOLMES, OF HAVERHILL, MASSACHUSETTS.

FLOOR-CLAMP.

SPECIFICATION forming part of Letters Patent No. 376,439, dated January 17, 1888.

Application filed October 12, 1887. Serial No. 252,108. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. HOLMES, a citizen of the United States, and a resident of Haverhill, in the county of Essex and State of Massachusetts, have invented new and useful Improvements in Floor-Clamps, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention relates to improvements in floor-clamps for the purpose of jacking or setting the boards in laying floors and similar work, and it is carried out as follows, reference being had to the accompanying drawings, wherein—

Figure 1 represents a plan view of the invention, and Fig. 2 represents a side elevation of it. Fig. 3 is a front elevation of the device, and Fig. 4 is a vertical section of the same.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

a is the stationary part of the device, having teeth or prongs *a' a' a'*, adapted to be driven into the joist or bottom flooring, so as to hold said part *a* in a stationary position relative to such bottom flooring or joist. The stationary part *a* extends forward in the form of a serrated bar, *a''*, that projects into and is adapted to slide in grooves *b'* in the adjustable box or block *b*, as shown in Fig. 4. The stationary part *a* has ears or projections a^3 a^3 on its upper side, through which is inserted a pin or bolt, a^4, to which is pivoted the lower end of the hand-lever *c*, as shown. A short distance above the fulcrum-pin a^4 are pivoted to the lever *c* the rear ends of the links *d d* by means of a pin or bolt, *c'*, as shown in Figs. 1, 2, and 4. The forward ends of the links *d d* are pivoted at *d'* to the forward end of the adjustable box or block *b*, as shown.

b'' is the end or face of the adjustable box or block *b*, which face is forced against the edge of the board that is being set when the hand-lever *c* is swung forward to the position shown in Figs. 2 and 4.

To prevent the box or block *b* from going back after being forced forward by the hand-lever *c*, I pivot at b^3 to said box or block the pawl-lever *e*, having teeth or projections *e'* on its under side, adapted to lock and intermesh into the teeth on the serrated bar *a''*, as shown in Fig. 4. The teeth *e'* on the lever *e* are automatically interlocked with the teeth on the serrated bar *a''* by means of a coiled or equivalent spring, *f*, the lower end of which rests on the box or body *b* and the upper end of which acts on the forward end of the lever *e*, as shown in Fig. 4.

For the purpose of releasing the toothed pawl or lever *e* from the serrated bar *a''* after the board has been set up and nailed in place, I employ a treadle-lever, *g*, that is pivoted at *d'* to the front end of the box or body *b*, and said lever *g* has on its rear side a lip or projection, *g''*, that comes in contact with the forward end of the pawl-lever *e* when said treadle-lever *g* is depressed.

g^3 is a horizontal side projection or treadle on the lever *g*, as shown in Figs. 1, 2, and 3, upon which the operator places his foot and presses downward when it is desired to disengage the pawl-lever *e* from the serrated bar *a''*. The lever *g* has a lip or stop projection, g^4, adapted to rest against the upper edge of the face *b''* when the operator relieves his pressure on the treadle g^3, by which the forward rocking motion of said lever *g* is limited.

The operation of my improved floor-clamp is as follows: The lever *c* is swung back to a vertical or nearly vertical position after the lever *e* has been disengaged from the serrated bar *a''*, as above described. The face *b''* of the adjustable box or block *b* is then placed in contact with, or nearly with, the edge of the board that is to be set up. The stationary part *a* is then secured to the joist or under floor by driving its prongs *a' a' a'* into such joist or under floor. By swinging the handle *c* forward the links *d d* cause the block or box *b* to move forward and its face *b''* to be brought against the edge of the board that is to be set. The lever *c* is depressed or brought forward until the board is fully set, when the adjustable part *b* is automatically locked to the stationary part *a* by the serrated pawl-lever *e* and the serrated bar *a''*, as above described. After the board has been nailed in place, the operator places his foot on the treadle g^3 and depresses it, causing the pawl-lever *e* to be disengaged from the serrated bar *a''*, after which the lever *c* may be moved to a vertical position, or nearly so, and thereby causing the adjustable box or block *b* to be moved backward, when the prongs

a' a' a' may be released from the joist or under flooring, to which they have been temporarily secured, and the floor-clamp removed and placed in position for setting up another board or a portion of the same board, as occasion may require.

Having thus fully described the nature, construction, and operation of my invention, I wish to secure by Letters Patent and claim—

The improved floor-clamp, as described, composed of the stationary part a, having prongs or teeth a' a' a' and serrated bar a'', and the adjustable box or block b, having grooves for the reception of the said bar a'', and the lever c, pivoted to ears on the stationary part a, in combination with the links d d, pivoted to the lever c, and the adjustable block or box b, the spring-pressed pawl e, and treadle-lever g, pivoted to the adjustable box or block b, and having treadle g^3, pawl-operating projection g'', and stop projection g^4, as and for the purpose set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 7th day of October, A. D. 1887.

CHARLES E. HOLMES.

Witnesses:

EDMUND B. FULLER,

WILLIAM H. MOODY.