(No Model.)

J. L. CARROLL.

FLOORING JOINER.

No. 593,982. Patented Nov. 23, 1897.

Fig. 1.

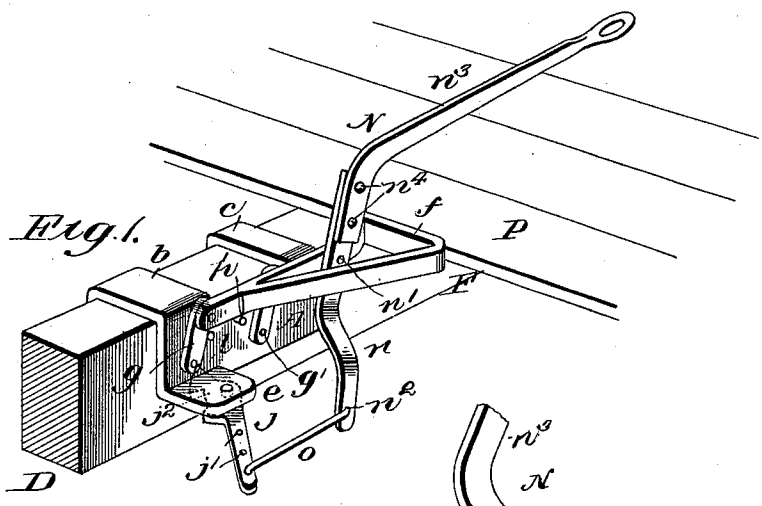


Fig. 2.

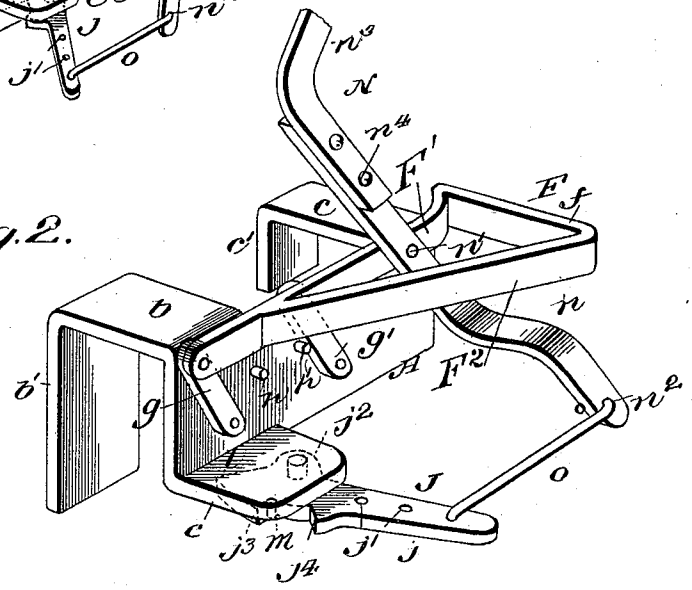
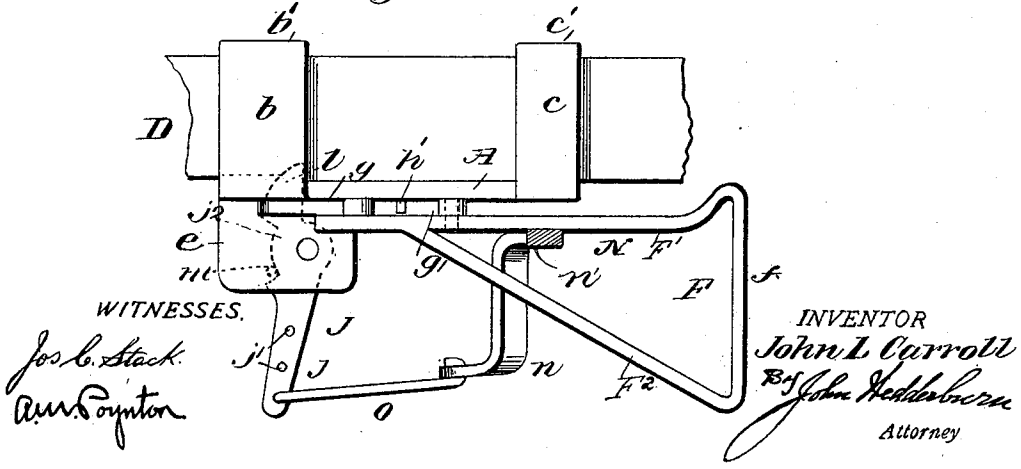


Fig. 3.



WITNESSES.

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UNITED STATES PATENT OFFICE.

JOHN L. CARROLL, OF CRESTON, IOWA.

FLOORING-JOINER.

SPECIFICATION forming part of Letters Patent No. 593,982, dated November 23, 1897.

Application filed March 15, 1897. Serial No. 627,495. (No model.)

To all whom it may concern:

Be it known that I, JOHN L. CARROLL, a citizen of the United States, residing at Creston, in the county of Union and State of Iowa, have invented certain new and useful Improvements in Flooring-Joiners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to certain new and useful improvements in devices for holding flooring-boards in position while the same are being secured to the joist, the object being to provide a simple and convenient form of tool to take the place of the wedges, &c., commonly employed, said tool being adapted to engage the joist and board and hold the latter firmly in position while being nailed.

To this end the invention consists in a tool having a body portion adapted to engage the joist and provided with means for attaching the same thereto and with a movable abutting member adapted to bind against the edge of the board which is to be secured in position and provided with suitable operating means for forcing the said attaching mechanism into engagement with the joist and also cause the said movable abutting member to take against the edge of the board and hold the same firmly in position until secured.

My invention also consists in certain other novel combinations and arrangements of parts, as will be hereinafter more fully described, and set forth in the appended claims.

In the accompanying drawings, Figure 1 is a perspective view showing my improved tool attached to a joist and engaging a board of the flooring to be laid. Fig. 2 is an enlarged detail perspective view of the tool, showing the position of the triangular abutting member and operating-lever and clutch device when out of engaging position. Fig. 3 is a plan view of the tool.

Referring to the drawings, the letter A designates the body portion of the tool, having at each end thereof a lateral projection *b c*, provided with downwardly-extending flanges *b' c'*, which extend downward parallel with the said body portion, but to a plane below the same. This body portion is provided at its lower edge and at one end thereof with a lateral flange or ear *e*.

In practice, when the device is applied to a joist D the body portion A rests against one side thereof, while the two downward extentions *b' c'* rest against the other side thereof and the lateral portions *b c* extend across the upper portion of the joist. The mechanism for attaching said body portion just described and holding it firmly in position upon the joist and the mechanism to abut against the edge of the board and hold the same while being secured to the joist comprises a triangular-shaped abutting member F, pivoted to the free ends of swinging arms or links *g g'*, the lower ends of which latter are pivoted upon said body portion A. The said pivoted abutting member F has its broad base *f* extended beyond the lines of the body portion and adapted to abut against the edge of the board P, and by this connection with said swinging arms is adapted to have said broad base *f* swung forward to bear against the edge of a board, pins *h h'* being provided on the body portion A to limit the backward and forward movement of said triangular abutment.

The clutch device J comprises an arm *j*, having a series of holes *j'* and an enlarged extremity j^2, pivoted to the under side of the lateral flange *e* of the body portion and provided with a cam projection or face portion *l*, adapted to impinge against the side of the joist. This enlarged extremity j^2 is provided with a slot having shoulders j^3 j^4, adapted to engage with a pin *m* on the under side of said lateral flange *e*, and thereby limit the forward and outward movement of the said clutch member.

A lever N is provided to swing the said triangular abutting member F and move said clutch J into and out of engagement with the floor board and joist, respectively. This lever is pivoted at *n'* to one of the arms F of the triangular abutting member and projects down through the space between the two arms F' F^2 thereof to a point below the body portion A and is provided in said lower end *n* with a hole n^2. A wire or rod *o* has a bent end inserted through said hole n^2 in the lever end, and the other end thereof is adapted to engage with either one of the said series of

holes j' in the arm of the pivoted clutch member J, whereby the throw of said clutch member may be varied as desired. The upper end n^3 of the handle is bent at an angle of forty-five degrees to the lower pivoted end n and made independent thereof and is attached thereto by two bolts n^4, whereby the handle may be unbolted and turned around in order that it may not come into contact with the wall when it is used for laying the first boards of the floor.

The operation is as follows: The body portion of the tool with its lateral and downwardly-projecting members is hung upon the joist D in juxtaposition to the board P, which is to be held. The lever N is then swung so as to force the pivoted clutch into contact with the side of the joist and to swing the broad base f into contact with the edge of the board. The pressure of the parts is equalized, so that the harder the floor-board has to be pressed the deeper the clutch-face is forced into the side of the joist, so that the tool is held firmly engaged with the members mentioned and cannot become accidentally disengaged therefrom while in use. The rod o, which connects the lower end of the pivoted lever to the arm of the clutch, may be engaged with either one of the series of holes in said clutch-arm, whereby the swing of the said clutch and movable abutting member may be decreased or increased correspondingly, so as to adapt the tool for all kinds of work.

My invention provides a simple and effective construction of tool which entirely dispenses with the pegs and other crude devices heretofore employed and firmly holds the board to be secured against the boards already laid and maintains said board in such position until it is secured to said joist.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. In a floor-board-securing device, the combination of a stationary body portion provided with means for engaging the joist, a movable member to abut against the edge of the board, links pivoted to the said stationary portion, and carrying the said movable member, a pivot clamp or clutch device provided with a series of openings in its arm and with a cam-face adapted to engage the side of the joist, a lever pivoted to the said board-pressing device, and a connection between the said lever and the arm of the said clamp or clutch and adapted to engage either opening therein, substantially as described.

2. In a floor-board-securing device, the combination of a body portion adapted to engage a floor-joist, a triangular-shaped floor-board-pressing device, the broad base of which is adapted to engage the edge of the board, links pivoting the apex or reduced end of the said pressing device to the body portion, a lever extending between the arms of the triangular pressing device and pivoted thereto, a clamping device to engage the joist, and a connection between the said clamping device and the lower end of the lever, substantially as described.

3. In a floor-board-pressing device, the combination of a body portion having two lateral extensions provided with downwardly-projecting flanges adapted to engage a joist and extending parallel with said body, a triangular-shaped movable member connected with said body and having its broad base adapted to bear against the edge of the board, a clamping device provided with an arm having a cam-face adapted to engage the side of the joist and hold the body portion secured thereto, a lever pivoted to the triangular presser and extending below the same, and a rod secured to the lower end of the lever and adapted to be adjustably connected with the arm of the clamp to vary the throw of the same, substantially as described.

4. In a floor-board-securing device, the combination with a stationary member adapted to engage a joist, of a triangular-shaped movable member pivoted to said stationary member and adapted to have its broad base press against the edge of the board, and a lever mounted on one arm of said triangular pressing device and extending down in the space between the arms thereof to a point below the same, means for engaging the joist and holding the stationary member thereon, and a connection between said holding means and the lower end of the lever.

5. In a floor-board-pressing device, the combination with a stationary body portion adapted to engage the floor-joist, of a movable member adapted to engage and press against the edge of the board to be secured, and a lever constructed in two parts, the upper portion of which is detachably connected with the lower portion bent at an angle thereto and movably secured to said lower portion, which latter is pivoted to said movable member, substantially as described.

6. In a floor-board-securing device, the combination of a stationary body portion to engage the floor-joist, a movable member adapted to press against the edge of the board to be secured, a clamp device adapted to be forced into and out of engagement with the floor-joist and carried by said body portion, a lever constructed in two parts, the lower one of which is pivoted to said floor-board-pressing device and the upper one of which is bent at an angle to said lower end and removably attached thereto, and a connection between the lower end of the lever and the clamp device.

7. In a floor-board-securing device, the combination of a body portion to engage the floor-joist, a triangular-shaped movable member attached thereto and having its upper end adapted to bear against the edge of a board, a clamp device to engage the joist and secure

the body portion thereto, a lever constructed in two parts, the lower one of which is pivoted to the said floor-pressing device and the upper portion of which is bent at an angle to said lower portion and removably secured thereto, and a connection between said clamp and the lower pivoted end of the lever.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JOHN L. CARROLL.

Witnesses:
EZEKIEL H. KILGORE,
FRANCIS BUCHWATTER.