(No Model.)

E. H. BURNSON.

FLOOR CLAMP.

No. 442,607. Patented Dec. 16, 1890.

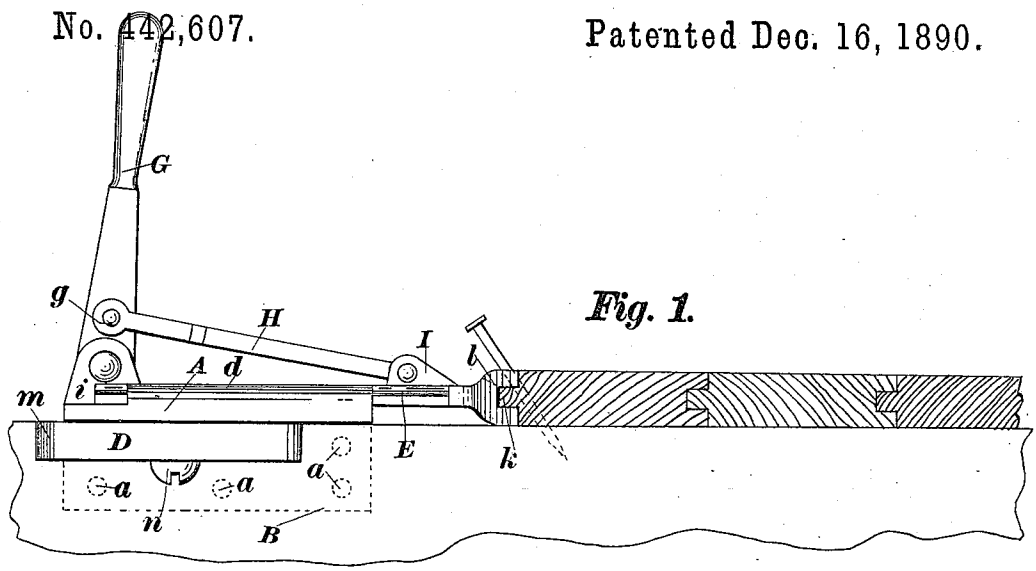


Fig. 1.

Fig. 2.

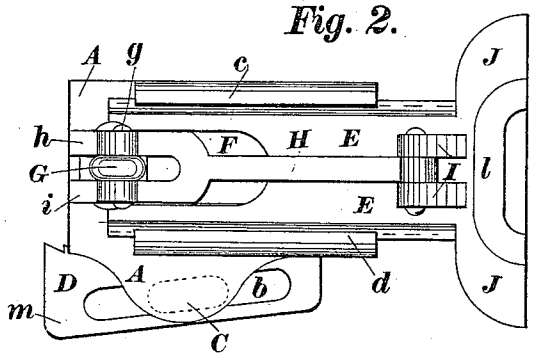


Fig. 4.

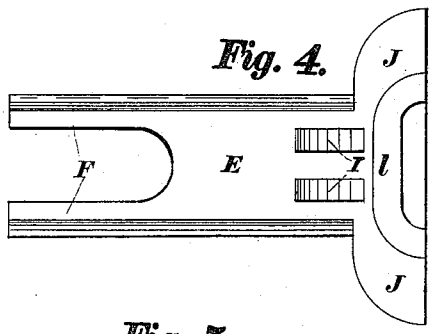
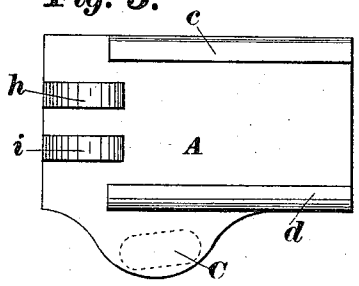


Fig. 5.



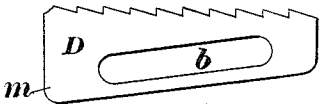


Fig. 6.

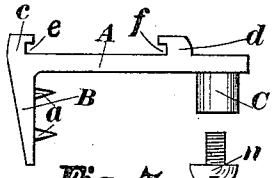


Fig. 7.

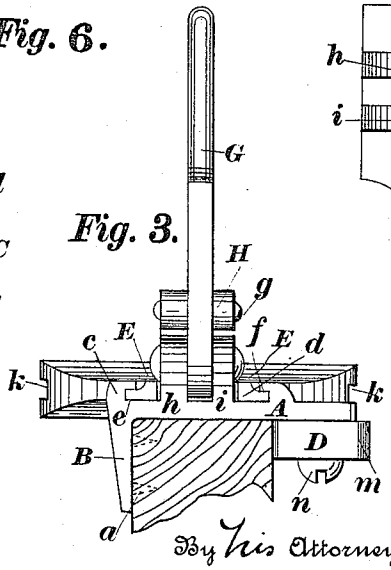


Fig. 3.

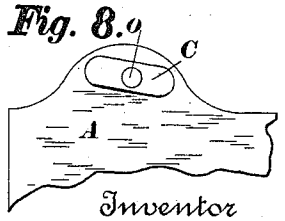


Fig. 8.

Witnesses
Ida G. Rock.
Robert Bruce

By his Attorney
Oscar Snell

Inventor
Erick H. Burnson

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ERICK H. BURNSON, OF CHICAGO, ILLINOIS.

FLOOR-CLAMP.

SPECIFICATION forming part of Letters Patent No. 442,607, dated December 16, 1890.

Application filed March 21, 1890. Serial No. 344,709. (No model.)

To all whom it may concern:

Be it known that I, ERICK H. BURNSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Floor-Clamps, of which the following is a specification.

My invention relates to that class of tools which are used to force to position and hold flooring-boards while they are being secured in place.

One of the principal objects I desire to attain in the construction of this tool is compactness, and another object is a construction which, with very slight change, can be used for laying flooring-boards on joists or upon the top of other flooring.

Still another object is a combination of parts which are both simple and durable and which can be produced at small cost.

I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side view showing position of clamp attached to a joist and in the act of forcing up a flooring-board to the position for nailing. Fig. 2 is a top view of clamp detached from the joist. Fig. 3 is a rear end view of clamp attached to a joist. Fig. 4 is a top view of slide. Fig. 5 is a top view of base to which most of the operative parts are attached; Fig. 6, a top view of serrated wedge. Fig. 7 is an end view of base-plate. Fig. 8 is a bottom view of part of the base-plate, showing attachment for wedge shown in Fig. 6.

Similar letters refer to like parts throughout the several views.

A is the base-plate, which consists of an L-shaped piece of metal in cross-section, there being a downward projection B. (Shown in dotted lines in Fig. 1 and in solid lines in Figs. 3 and 7.) To this part B are secured a number of short stout projections *a*, Figs. 1, 3, and 7, which engage with the side of the joist.

On the opposite side of the base A is a downwardly-projecting part C. (Shown in dotted lines, Figs. 2 and 5, and in solid lines, Figs. 7 and 8.) There is a serrated wedge D, Fig. 6, which has a long slot *b* passing vertically through it. This slot *b* is fitted to the projection C, so as to slide easily when in the position shown in Figs. 1, 2, and 3. The wedge D is held in position on the part C by means of a screw *n*, which screws into the hole *o*, Figs. 7 and 8. Thus the wedge is held up against the bottom of the base A and is free to slide longitudinally, and the head of the screw being larger than the width of slot *b* the wedge is effectually prevented from falling off of the part C. The base A has upward projections *c* and *d*, which have longitudinal grooves *e* and *f*, as shown in Fig. 3. Into the grooves *e* and *f* is fitted a slide E, Figs. 1, 2, 3, and 4.

In order that the slide E be provided with sufficient length to give stability in the grooves *e f*, and at the same time the whole tool be made as short and compact in length as possible, the slide E is bifurcated at its rear end at F, so that it can straddle the lugs *h* and *i*, to which lugs the operating-lever G is pivoted at its lower end, Figs. 1 and 3. The pitman H is pivoted to the lever G at *g* and to the lugs I at the front end of slide E, Figs. 1 and 2.

The head J of the slide E has a groove *k* to fit the tongue of the flooring, Fig. 1. This head J is cut away at the top front end at *l* down to the groove *k*, Figs. 1 and 2, to provide an opening to "secret-nail" the flooring-board while the clamp holds the board in position, as will be fully understood by those skilled in the art.

In operation the clamp is placed upon the top of a joist with the downward projection B on one side and the wedge D on the other, as shown in Fig. 3. If the clamp is placed on the joist in the right position for forcing a board up to position, the wedge D is slid forward by the hand of the operator at *m*, causing the projection B to be drawn up close to the joist, when, if the lever G is moved forward, it will, by the action of connection H, cause the slide E to move forward until its head J contacts with the flooring-board, when the power on lever G will cause the base A to slide backward, together with its projection B, the wedge remaining stationary through the action of its serrations, Fig. 6, which action will cause the projection C, Fig. 7, to slide upon the inclined side of the slot

b of wedge D, and, drawing the base-plate A sidewise, cause the protruding points *a* on downward projection B to force their way into the side of the joist and prevent any further backward movement of the base-plate, when the whole force placed on lever G will be used to move the flooring-board to its position for nailing. After the board is secured in place one tap of the hammer used in nailing upon the small end of the wedge D will loosen the clamp from the joist, when it can be lifted to another position and again secured, as described. It will be seen that the action of the wedge D causes the clamp to hold stronger in proportion as greater power is applied to lever G in forcing the flooring-board up to place.

This tool is adapted to use in laying the top boards in double flooring by having a base-plate with no downward projections B or C and no wedge D, the bottom of the base being smooth, with the exception of several hooked points projecting downward to hook into the surface of the under floor. This is mentioned, however, to show its adaptation to laying all kinds of flooring.

What I claim as new, and desire to secure by Letters Patent, is—

In a floor-clamp, the combination of operating-lever G, pivoted to lugs *h* and *i* of base-plate A, connection H, pivoted to operating-lever G and slide E, said slide E being bifurcated at its rear end to straddle lugs *h* and *i*, base-plate A, having upward projections *c* and *d*, in which are longitudinal grooves *e* and *f*, and slide E, operating in said grooves *e* and *f*, for the purpose and in the manner as hereinbefore described.

ERICK H. BURNSON.

Witnesses:
LYMAN A. BOOTH,
ANDREW H. BURNSON,