(No Model.)

M. LUTGEN.

FLOOR CLAMP.

No. 493,506. Patented Mar. 14, 1893.

Fig: 1.

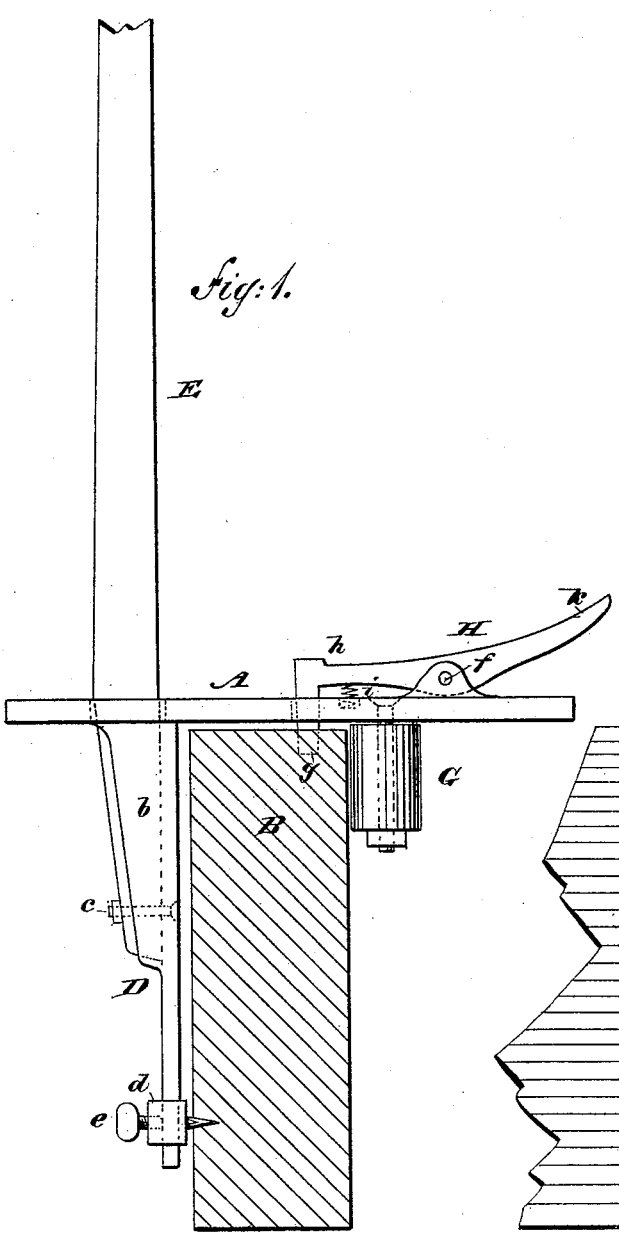
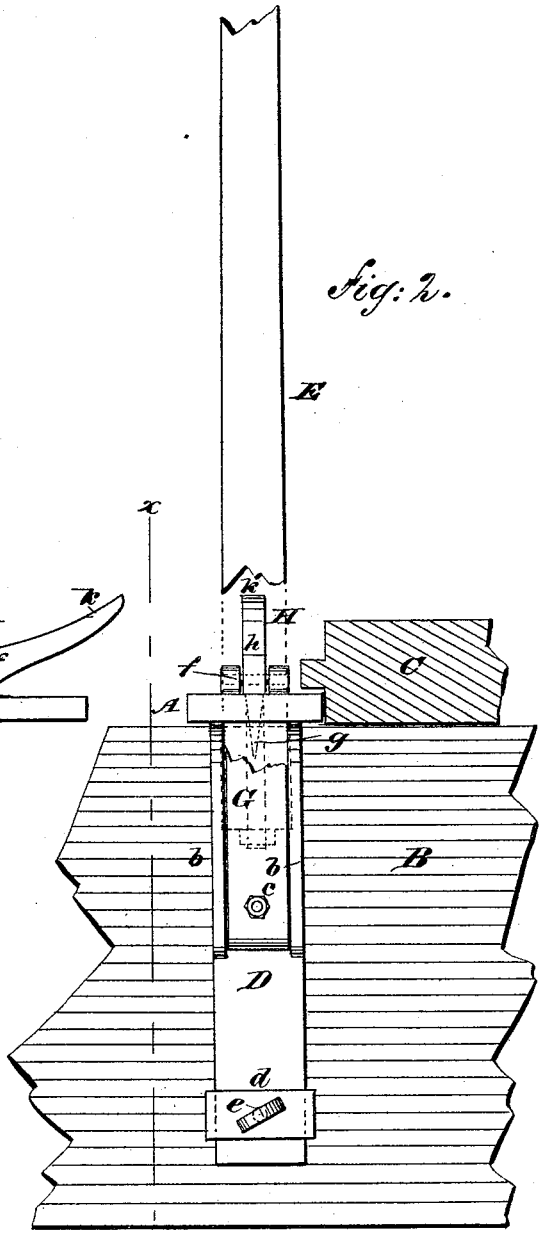


Fig: 2.



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UNITED STATES PATENT OFFICE.

MATHIAS LUTGEN, OF WEST BEND, IOWA.

FLOOR-CLAMP.

SPECIFICATION forming part of Letters Patent No. 493,506, dated March 14, 1893.

Application filed March 16, 1892. Serial No. 425,178. (No model.)

To all whom it may concern:

Be it known that I, MATHIAS LUTGEN, of West Bend, in the county of Palo Alto and State of Iowa, have invented a new and useful Improvement in Floor-Clamps, of which the following is a full, clear, and exact description.

This invention relates to devices for laying floors, that is, for clamping and pressing up the boards of a floor while it is being laid, to close the joints between the boards, and to provide for nailing the boards while so closed and held one against the other, and the invention consists in a novel and advantageous construction and combination of parts in a device of this description, substantially as hereinafter described and more particularly pointed out in the claims.

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

Figure 1 represents a front elevation of a floor clamping device embodying my invention and as applied to a joist, which latter is shown in section taken upon the line *x*—*x* in Fig. 2; and Fig. 2 is a partly broken side elevation of the device applied to the joist, and in position for operating upon a floor board which is shown in section.

A, indicates a main or base plate which when the tool is in position for operation, lies crosswise over the top of the joist B, and in forcing up a floor board C, acts upon the lower edge of said board beneath its tongue, for which purpose said plate, that may be of any suitable length and width, is usually of only a quarter of an inch thickness, more or less, to prevent smashing or injuring of the tongue of the board.

D, is a leg projecting downward from the plate A, designed to lie in proximity to one side of the joist B, and constructed with side flanges *b b*. This leg, which is a fixed attachment to, or integral part of the plate A, serves to receive between its flanges *b*, and has secured to it, as by bolt *c*, the operating lever E, that runs down loosely or freely through an aperture in the plate A, for the purpose, and projects a suitable distance above said plate. This handle or lever need not usually be over twenty six inches in length, or even less. Applied to this leg, below the lever E, is a set-screw carrier *d*, capable of being slid up or down the leg to adapt the tool or device to different thicknesses of joist, and carrying a set or thumb screw *e*, which enters the side of the joist to hold the carrier *d* at its adjustment, and which serves as the fulcrum for laterally moving the lever E and plate A.

G, is a removable roller arranged to work upon the opposite side of the joist to that on which the leg D is. This roller serves to facilitate the free movement of the tool along the joist when adjusting it to its work. Said roller is preferably made of hard wood and the handle or lever E also of wood, but the other parts of the tool are preferably constructed of steel or other metal to give durability to the tool. The roller G is secured by a bolt and nut to the plate A, and may readily be removed and a larger roller be substituted for it, or when worn out or broken another one of like size be substituted for it when required.

H, is a trip lever or dog to fasten the tool to the joist when the floor or a board thereof is being laid and forced up to place. This dog, which is fulcrumed at *f* to the plate A, is provided at its entering end with a spike or blade *g*, and striking upon the head *h* with a hammer serves to drive it into the joist against the pressure of a spring *i*, which operates to hold the dog or its blade *g* from engagement with the joist when required, by applying pressure with the foot to the opposite end *k* of the dog. The spike or blade *g* passes through an enlarged aperture in the plate A, to allow of a free movement of the parts.

A floor clamping tool thus constructed is not a combination of tools, but a complete device or single tool in itself, and need not take any more room in a tool chest than an ordinary plane. It is easily manipulated with either the right or left hand and quickly placed into or out of working position. There is no necessity for the operator to get on his knees to fasten it to or free it from its place, and while holding the hammer in one hand the tool may be held in the other. When the plate A, is forced up by the lever E, to drive up the board C against or into joint with the adjacent board, then by striking on the head *h* of the dog which fastens the tool, a nail may be driven through the board C into the joist

the tool is secured to. After the nail has been driven to its place, the foot is applied to the end *k* of the dog to release the tool for a succeeding operation. When the floor is laid or to within a short distance, say one and one-half inch of the wall, this tool will work just as well as on any part of the floor, which ratchet clamps and blocks do not admit of.

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

1. The combination, with the sliding plate A, its leg D, vertically-adjustable carrier *d* on said leg having an attached fulcrum or set screw *e*, and the lever E, of the roller G depending from the plate A, and spaced from and parallel with the leg D, essentially as described.

2. The combination in a floor clamp of the following elements, to wit: a horizontal plate adapted to bear on the top of a joist, and having a pendent leg having a securing device adapted to be driven into the joist, and fulcrum the complete implement, an upwardly projecting lever for laterally rocking the implement with the securing device as a fulcrum, and a dog pivoted on said plate and movable therewith in response to the throw of the lever, the dog serving when driven, to prevent return movement of the implement on its fulcrum, substantially as described.

3. The combination in a flooring clamp of the following elements, to wit: a horizontal base plate carrying an operating lever and adapted to bear on the top of a joist and having a pendent leg and means for fulcruming the leg to the joist, a pendent roller on the plate, spaced from and parallel with the leg, and a rocking dog, movable with the plate when the latter is rocked by its lever and adapted to be entered into the joist for serving to hold the implement against return movement on its fulcrum, substantially as described.

4. The combination in a flooring clamp of a base plate carrying a lever, and means for fulcruming the body of the implement on a joist and a rocking dog movable with the plate in response to the throw of the lever, and adapted to be driven into the joist for preventing movement on its fulcrum the lever serving to rock the complete implement on its fulcrum, substantially as described.

5. The combination in a floor clamp, of a base plate having an operating lever and formed with a pendent leg having a device for bodily fulcruming the implement, and a pendent roller spaced from and parallel with the said leg, substantally as described.

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Witnesses:
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