

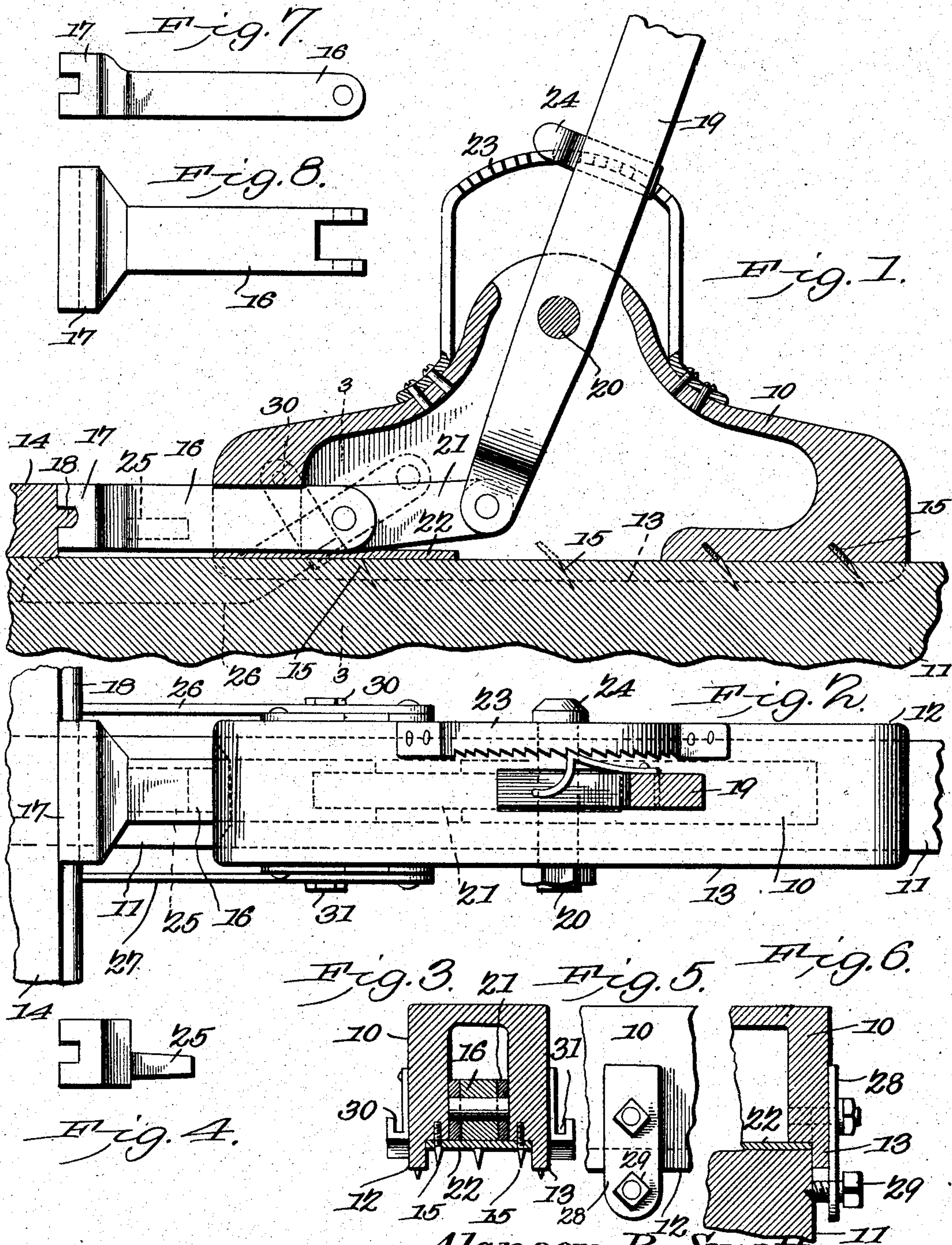
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A. R. SWETT & F. A. SISSON.

FLOOR CLAMP.

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UNITED STATES PATENT OFFICE.

ALANSON R. SWETT AND FRANK A. SISSON, OF AINSWORTH, NEBRASKA.

FLOOR-CLAMP.

SPECIFICATION forming part of Letters Patent No. 781,312, dated January 31, 1905.

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To all whom it may concern:

Be it known that we, ALANSON R. SWETT and FRANK A. SISSON, citizens of the United States, residing at Ainsworth, in the county of Brown and State of Nebraska, have invented a new and useful Floor-Clamp, of which the following is a specification.

This invention relates to implements employed for forcibly pressing the contiguous edges of flooring, sheathing, and similar material closely together in securing the same to the substructure, and has for its object to produce a simply-constructed and efficient device of this character which may be employed upon the joist when the material is to be attached directly to the joist or adapted with equal facility for operation upon the material resting upon a level subfoundation.

With these and other objects in view, which will appear as the nature of the invention is better understood, the same consists in certain novel features of construction, as hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which corresponding parts are denoted by like designating characters, is illustrated the preferred form of the embodiment of the invention capable of carrying the same into practical operation, it being understood that the invention is not necessarily limited thereto, as various changes in the shape, proportions, and general assemblage of the parts may be resorted to without departing from the principle of the invention or sacrificing any of its advantages, and the right is therefore reserved of making all the changes and modifications which fairly fall within the scope of the invention and the claims made therefor.

In the drawings thus employed, Figure 1 is a longitudinal sectional elevation of a floor-clamp constructed in accordance with the invention. Fig. 2 is a plan view of the same. Fig. 3 is a transverse section on the line 3 3 of Fig. 1. Fig. 4 is a side view of the detachable and reversible clamping-head. Figs. 5 and 6 are details of the frame, illustrating a modification in construction. Figs. 7 and 8 are

detached views of the pressure-bar, illustrating a modified form of the same.

The improved device comprises a frame or "head" 10 of any suitable material, such as wood or metal or a combination of wood and metal, and adapted for resting upon the floor-joist (represented at 11) and provided with longitudinal guide-ribs 12 13 for engaging the sides of the joist when the device is employed upon the flooring (represented at 14) to be attached directly to the joist.

When the device is employed upon flooring attached to a level subfoundation, as when the flooring is laid over sheathing, the ribs 12 13 will rest upon the foundation.

The bottom of the frame 10 and likewise the ribs 12 13 are provided with inclined spurs 15 to enter the joist or subfoundation, according as to which it rests upon, to cause the frame to "grip" the part upon which it rests and prevent slipping upon the same when the clamping force is applied, as hereinafter explained.

Mounted for movement longitudinally of the frame 10 and near its lower side is a pressure-bar 16, projecting from one end of the frame and terminating in head 17, having a groove for engaging the tongue 18 on the flooring 14.

An operating-lever 19 is pivoted at 20 in the frame 10 and connected at its lower end by a link 21 to the inner end of the bar 16.

The bar 16 is supported in position by a guide-plate 22, detachably connected to the frame 10.

Attached to the frame 10 is a curved notched segment 23, and the lever 19 is provided with means, such as a resilient pawl 24, for engaging the notches to maintain the lever at any desired point.

The head 17 of the pressure-bar 16 is detachable therefrom and reversible thereon, as by rectangular tenon 25 on the head engaging a corresponding mortise or socket in the bar, and this tenon is set to one side of the vertical center a distance equal to one-half of the depth of the ribs 12, so that when placed in one position the groove in the head will en-

gage the tongue on the flooring 14, with the frame 10 resting upon the joist, and when reversed in position the groove in the head will engage the tongue on the flooring with the ribs resting upon the sheathing or subfoundation level with the under surface of the flooring.

By merely reversing the position of the head 17 the device may be adapted for use upon the joist or upon a subfloor under the flooring to be clamped. The same result may be accomplished by forming the pressure-bar with the head 17 set to one side of its center in the same manner as shown in Figs. 7 and 8 and reversing the pressure-bar bodily when the device is to be changed, as above noted; but the results would be the same and the manner of producing the desired results substantially the same.

Pivoted to the frame 10 at opposite sides and supported by hangers 30 31 are bars 26 27 for extension in advance of the frame, these bars fitting under the floor on opposite sides of the joist and serving to prevent displacement of the clamping-head and at the same time afford a support for the clamp as a whole and prevent its movement from the approximately vertical operating position. When not required, the bars may be folded back to inoperative position.

When the device is employed for assisting in attaching sheathing or ceiling material, a bar 28 is mounted to swing upon the frame at one side and with a set-screw 29 in one end for engaging the studding or joist to enable the frame to be temporarily and adjustably connected in vertical or reversed position. By this simple arrangement it will be obvious that a strong leverage force may be applied against the edge of the flooring 14 to force it into close engagement with the next member and any curves or irregularity in the same may be easily corrected.

Having thus described our invention, what we claim is—

1. In a floor-clamp, a pressure-bar, means for operating the same, and a detachable clamping-head having a grooved face engaging the

tongued strips of flooring, said clamping-head being reversible to permit the adjustment of the device to different horizontal planes.

2. A floor-clamp adjustable to different horizontal planes, and having means for engaging a joist, and a detachable and reversible clamping-head adjustable to positions corresponding to the operative position of the floor-clamp.

3. In a device of the class described, a frame having spaced longitudinal ribs for engaging the sides of the joist and with inclined spurs for engaging the joist and with inclined spurs in said ribs for engaging a level surface when the frame is placed thereon, a pressure-bar slidably disposed in said frame and having a head for engaging the flooring and reversible in the frame, a lever pivoted in said frame and a link between said lever and pressure-bar.

4. In a device of the class described, a frame for resting on the joist and having inclined spurs for engaging the same, a pressure-bar slidably disposed in said frame adjacent to the joist and having a head for engaging the flooring to be clamped, a lever pivoted in said frame, and connected for operating said pressure-bar, and holding members movably connected to said frame for projection beneath the flooring.

5. In a device of the class described, a frame for resting on the joist and having inclined spurs for engaging the same, a pressure-bar slidably disposed in said frame adjacent to the joist and having a head for engaging the flooring to be clamped, a lever pivoted in said frame, and connected to said pressure-bar, holding guide members movably connected to said frame for projection beneath the flooring, and foldable rearwardly of the frame when not in use, and stops for limiting the movement in one direction.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

ALANSON R. SWETT.
FRANK A. SISSON.

Witnesses:

BYRON B. MASTICK,
FRED. E. MASTICK.