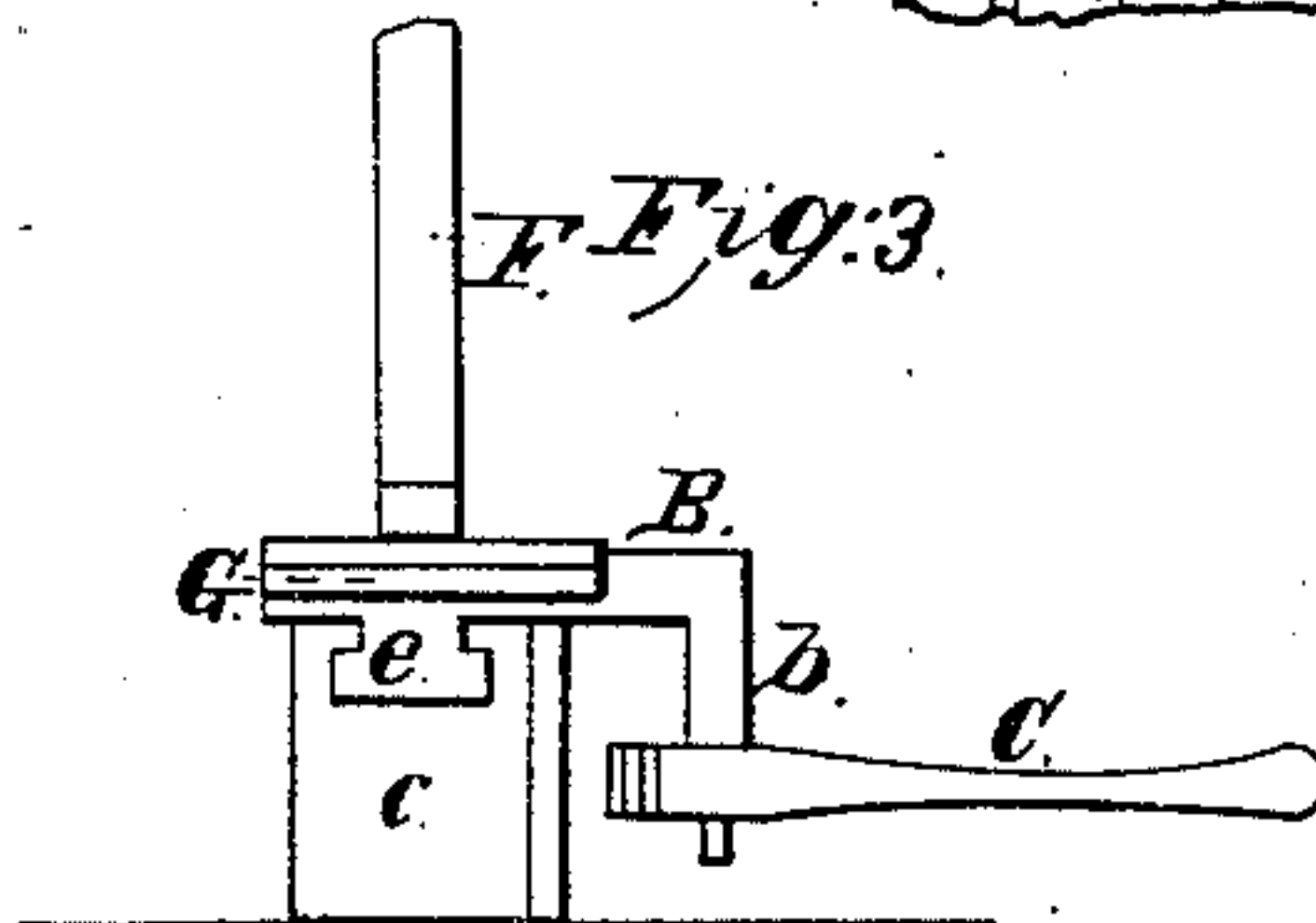
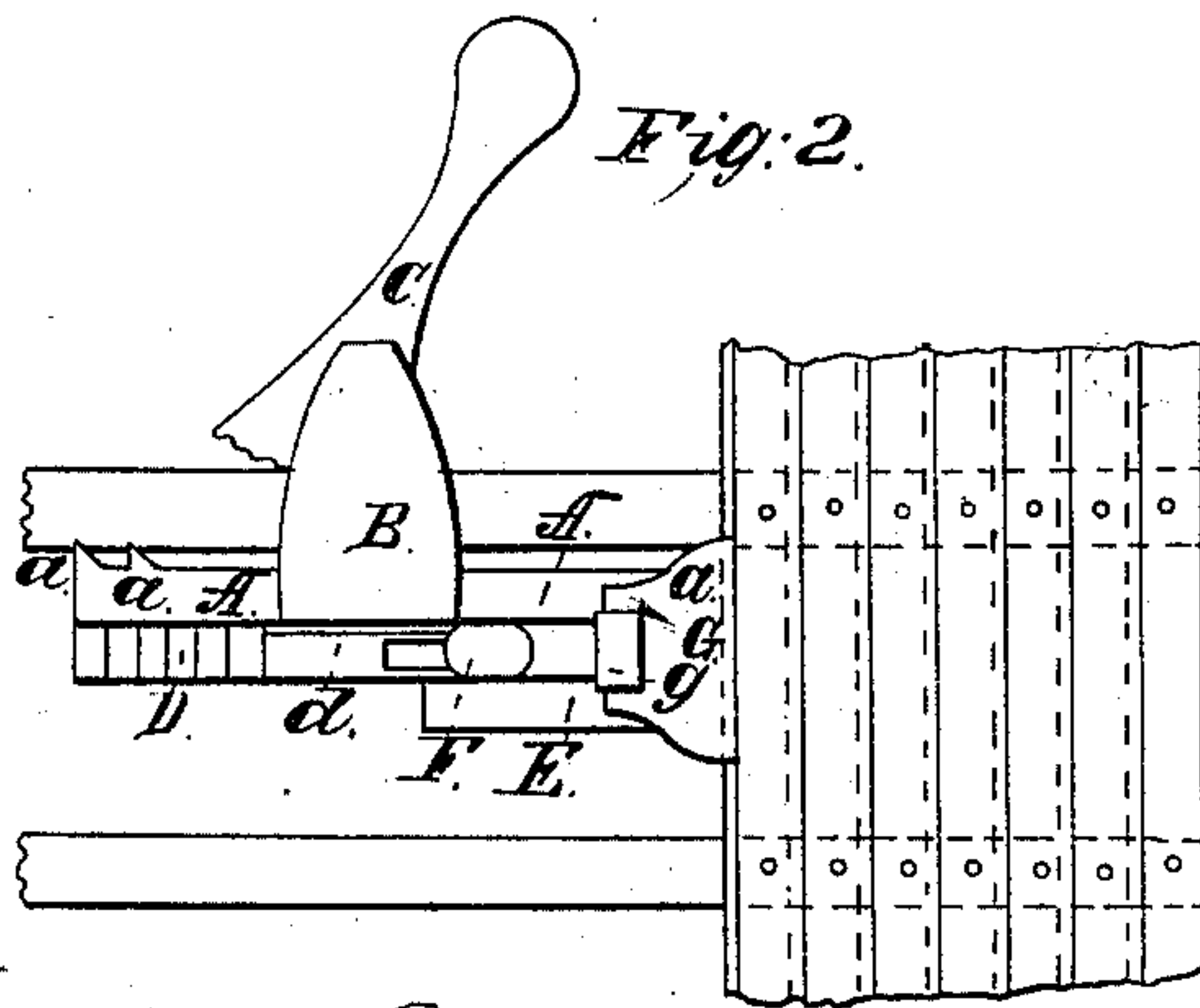
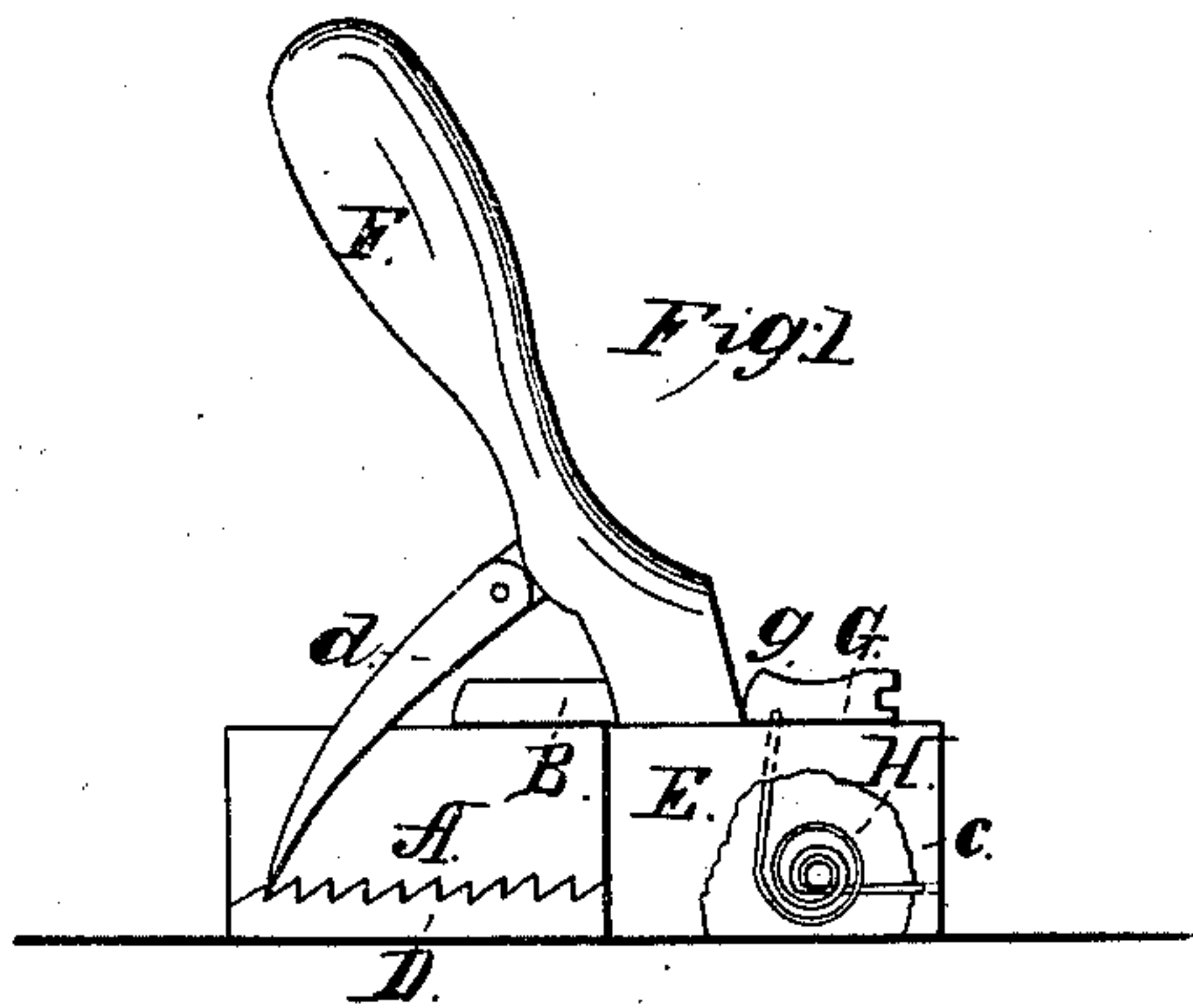


F. S. Mack,
Floor Clamp.
N^o 80,079
Patented July 21, 1868.



Witnesses:
Jesse Zepp
Chas. Lippitt

Inventor:
Fredrick S. Mack, per
G. B. Jowles Atty.

United States Patent Office.

FREDERICK S. MACK, OF GALESBURG, ILLINOIS.

Letters Patent No. 80,079, dated July 21, 1868.

IMPROVEMENT IN FLOOR-CLAMPS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, FREDERICK S. MACK, of the city of Galesburg, in the county of Knox, and State of Illinois, have invented a new and useful Improvement in Floor-Clamps; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side elevation.

Figure 2 is a plan or top view.

Figure 3 is a front end view.

Like letters in the figures of the drawings indicate like parts.

The nature of my invention consists—

First, in the construction of a floor-clamp, with a plate, having at either end thereof transverse angular knives, the said plate having also a fulcrum and lever, properly arranged and attached to the plate, whereby the clamp may be applied and adjusted to any thickness of joist, and held fast at any point thereon, while clamping the flooring, by the lever being pressed against the joist. The lever, having a suitably-curved serrated surface on the end thereof, will be caused to bite the joist, as will the knives in like manner on the opposite side, and thus hold the clamp, for the purpose as aforesaid.

Second, in the arrangement of a ratchet-bar and short plate with the plate as above described, forming a receptacle for the fulcrum of floor-clamp lever, coiled spring, and slide, having a friction-roller, the said spring and slide being so arranged, whereby the flooring may be clamped by the slide being forced against the flooring, by the pressure of the lever on the roller of the slide, and the lever, thus held by a clutch pivoted thereto, catching into one of the teeth of the ratchet-bar, the spring forcing the slide back, when clutch is released from the ratchet-bar after flooring has been clamped.

To enable any one skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A represents the plate, with the angular knives *a* across at either end thereof.

B is a piece attached to about the centre of the plate, on the top edge thereof, and projecting sufficiently out therefrom to give room for a proper operation of the lever C, which is suitably attached to the pivot of a piece, *b*, projecting downwards from the piece B.

D represents the ratchet-bar, which is attached to the side of the plate A, flush with the bottom edge thereof.

E is the short plate, which is attached to the end of the ratchet-bar on the side thereof, and to a piece, *c*, at the front end of the clamp, of the same thickness as the bar, so as to form a place for the operation of the lever-slide and spring.

F is the floor-clamp lever, which is attached to a pivot passed through the plates. *d* is the clutch pivoted to the lever.

G is the slide, which is attached to a bar, *e*, on the under side thereof, which bar has a tongue on either side of it, fitting in grooves in the sides of the two plates, and sufficiently loose therein to allow the slide to operate freely on the top edges of the plates. *g* is the friction-roller, which is suitably pivoted to the slide.

H is the coiled spring, which is attached to a rod passed through the plates, one end of which is fastened to the front piece *c* and the other to the slide.

Operation: The clamp is applied in the manner seen in fig. 2, (in which figure are represented flooring and joists,) by the plate A being placed on the side of the joist at the point desired, and the lever C, which is on the other side, is then pressed outwardly until the plate is tightly clamped to the joist, when the lever F is then taken hold of and pressed against the slide, which, having a groove therein fitting over the tongue of the flooring, forces the flooring up until a tight-fitting joint is secured, the clutch holding the lever while the operator is attending to the nailing of it.

When the clutch is disengaged from the ratchet, the spring forces the slide back to its proper position, ready for another operation.

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

The arrangement of the coiled spring H, for forcing the slide or driver G back, and the roller g, for relieving the driver of friction when operated upon by the lever F in clamping the flooring, in the manner as herein shown and set forth.

As evidence that I claim the foregoing, I have hereunto set my hand, in the presence of two witnesses.

FREDERICK S. MACK.

Witnesses:

J. J. TUNNICLIFF,

T. G. FROST.