

G. G. SHAW.
FLOOR-CLAMP.

No. 178,677.

Patented June 13, 1876.

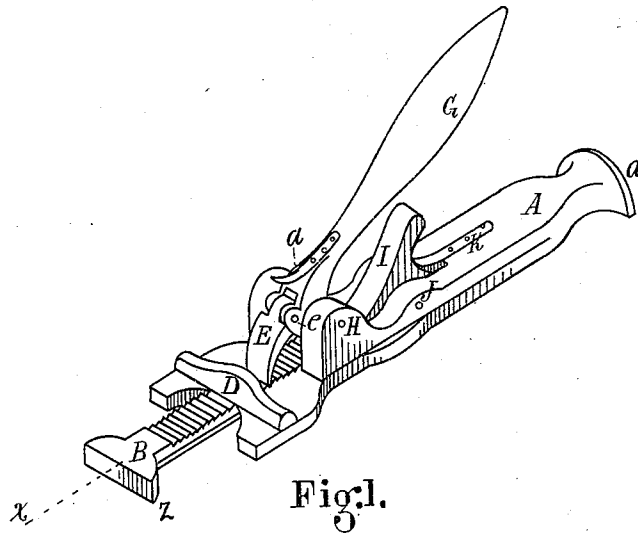


Fig. 1.

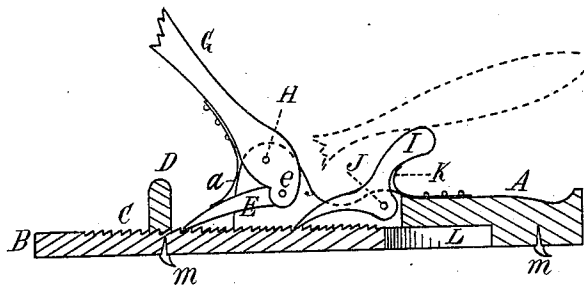


Fig. 2.

Witnesses:
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UNITED STATES PATENT OFFICE.

GEORGE G. SHAW, OF BIDDEFORD, MAINE.

IMPROVEMENT IN FLOOR-CLAMPS.

Specification forming part of Letters Patent No. **178,677**, dated June 13, 1876; application filed April 5, 1876.

To all whom it may concern :

Be it known that I, GEORGE G. SHAW, of Biddeford, in the county of York, State of Maine, have invented a certain new and useful Improvement in Floor-Clamps, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which my invention appertains to make and use the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 is an isometrical perspective view, and Fig. 2 a vertical longitudinal section taken on the line *x* in Fig. 1.

Like letters of reference indicate corresponding parts in the different figures of the drawing.

My invention relates to that class of tools or implements which are employed by carpenters for jacking or setting the boards in laying floors and similar work; and consists in a novel construction and arrangement of the parts, as hereinafter more fully set forth and claimed, by which a more effective device is produced than is now in ordinary use.

The nature and operation of my invention will be readily understood by all conversant with such matters from the following description.

In the drawing, A represents the body of the jack, which is slotted longitudinally at L to receive the serrated sliding bar B. A lever, G, is pivoted at H in uprights or standards rising from the sides of the body A, and jointed to the lower end of this lever, at *e*, there is an actuating-pawl, E. A retaining-pawl, I, is pivoted at J, and provided with the spring K, acting expansively to keep it in contact with the teeth on the bar B. A cross-bar, D, preferably cast integral with the body of the jack, is arranged at the bifurcated end of the body A to strengthen the same, and is extended upwardly to form a guard or stop for the pawl E. A spring, *a*, is secured to the upper side of the lever G near the pivot H. The object of this spring is to force the pawl E into contact with the teeth on the bar B when the lever G is in the position shown in Fig. 2, the action of the spring being inconstant at other times. The bar B is fitted to work in proper ways or rundlets (not shown)

within the body A, which is provided upon one of its sides with spurs *m m*, to retain it in any desired position when the implement is employed in laying floors.

In the use of my improved implement as a floor-jack, it is first secured firmly in a horizontal position by means of the spurs *m m*, which, for that purpose, may be caused to intersect with the under floor or floor-timbers; or, when convenient, the foot *d* may be permitted to abut against a post or other immovable object, in which case the spurs will not be required. The bar B is then moved until its head or top *z* is brought in contact with the edge of the board, or with a guard interposed in the usual manner, when, by rocking or vibrating the lever G, the pawl E, acting upon the bar, will force the board into a proper position for nailing, where it will be held by the pawl I, all in a manner which will be readily understood from the foregoing description.

The lever G is pivoted at such a distance above the plane of the bar B as to permit the joint *e* of the pawl E to pass between the bar and the center of motion of the lever when the lever is thrown forward or upward, as shown in Fig. 2.

The object of this construction and arrangement of the pawl and lever is to obtain a duplex or double action of the pawl. For instance, the lever being in the position shown in Fig. 2, if now it is thrown back toward the pawl I, the joint *e* will pass a line drawn at right angles to the bar through the pivot H, and the pawl E will continue to act on the bar until the joint arrives at a line drawn in parallelism with the bar through the pivot H, when the pawl will cease to act, and, as the lever continues its course, will fall by gravitation and take a fresh hold of the bar. If, now, the movement of the lever is reversed, the pawl E will again act upon the bar until the joint *e* passes between the bar and pivot H, when it will be released preparatory to taking another hold, the pawl I retaining the bar in its advanced position whenever the pawl E ceases to act.

It is sometimes desirable in the use of the implement to detach the pawl I, in order to slide the bar down or inwardly, when both hands of the workman are so employed as to render it inconvenient to operate the pawl di-

rectly. To obviate this difficulty the outer end of the pawl is elongated to such an extent and in such a direction that when the lever G is depressed, as shown by the dotted lines in Fig. 2, it will be brought into contact with the pawl and elevate it from the bar.

It will be obvious that the improved implement described is well adapted for use as a carriage-jack, and for a variety of other purposes where great power is required to be exerted in a limited space.

I am aware of the patent granted to H. Chilson, No. 153,422, and hereby disclaim the construction therein shown and described.

Having thus explained my invention, what I claim is—

In a floor-jack, the lever G, pawls E and I, and serrated bar B, constructed as described, so that the pivoted head of the pawl E will pass and repass a line between the fulcrum of the lever and the bar as the lever is alternately thrown backward and forward, as and for the purpose set forth.

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Witnesses:

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