

(No Model.)

G. W. LAKE.
DOOR OR WINDOW CLAMP.

No. 514,085.

Patented Feb. 6, 1894.

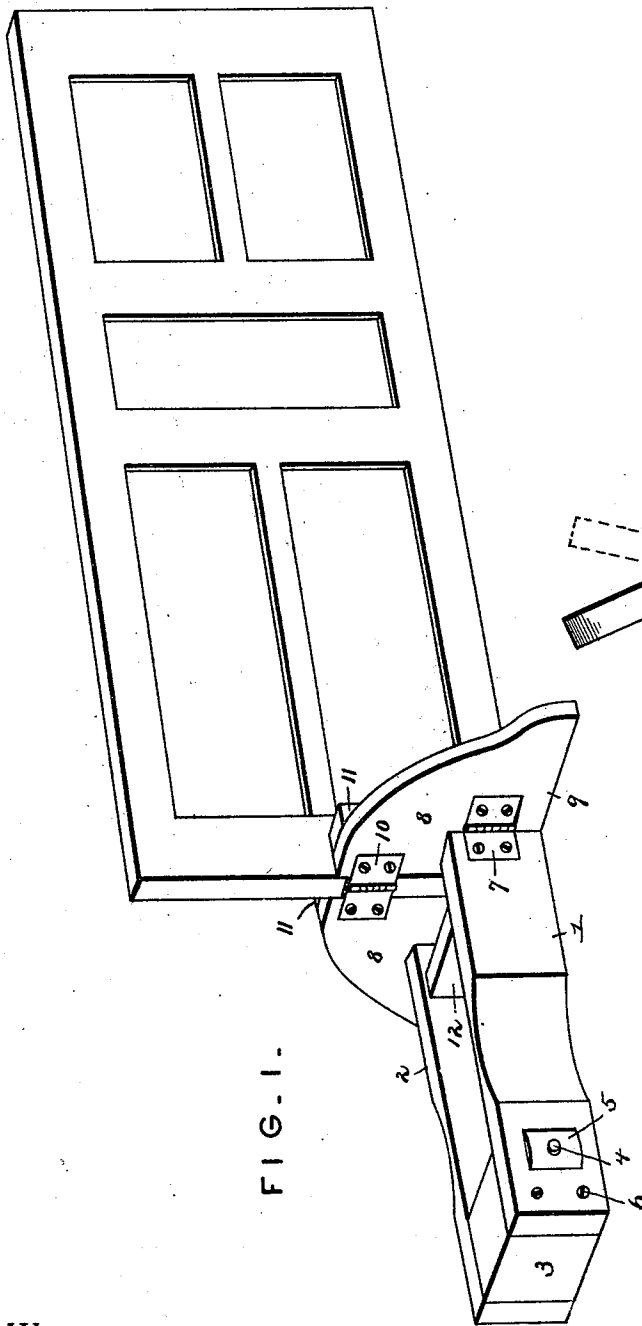


FIG. 1.

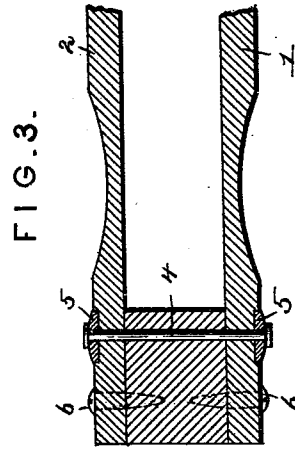


FIG. 3.

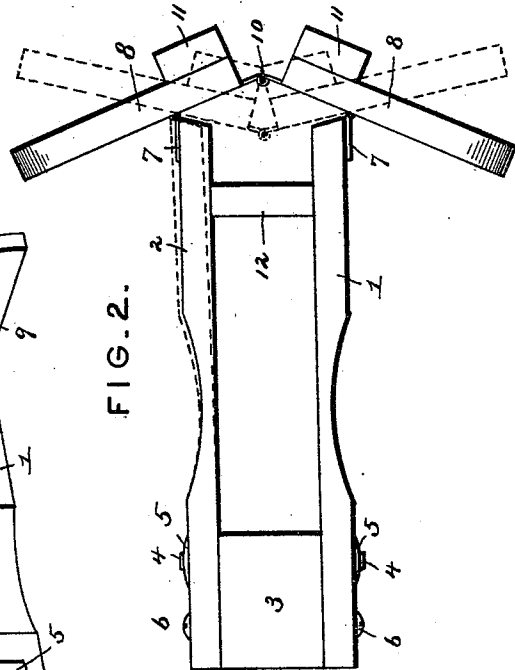


FIG. 2.

Witnesses

Harry L. Amer.

[Signature]

By his Attorneys,

[Signature]

Inventor

George W. Lake.

UNITED STATES PATENT OFFICE

GEORGE W. LAKE, OF MONTICELLO, IOWA, ASSIGNOR OF ONE-HALF TO
CHARLES H. RASTEDE, OF SAME PLACE.

DOOR OR WINDOW CLAMP.

SPECIFICATION forming part of Letters Patent No. 514,085, dated February 6, 1894.

Application filed April 14, 1893. Serial No. 470,361. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. LAKE, a citizen of the United States, residing at Monticello, in the county of Jones and State of Iowa, have invented a new and useful Door or Window Clamp, of which the following is a specification.

My invention relates to a device for temporarily supporting in an upright position a door, window-sash, plank or board so as to permit the carpenter or other artisan to plane off or operate upon the upper edge of the article thus supported.

The objects of my invention are to provide a simple, effective and inexpensive contrivance which is capable of engaging a vertical edge of the article to be supported in order that the lower edge of such article may rest upon the floor, bench or other support; and, furthermore, to provide a device of the class named which will engage without marring the article supported.

Further objects and advantages of my invention will appear in the following description, and the novel features thereof will be particularly pointed out in the claims.

In the drawings—Figure 1 is a perspective view of the clamp embodying my invention, applied in the operative position to a door. Fig. 2 is a plan view of the clamp, showing the jaws extended or expanded in full lines, and in their clamped positions in dotted lines. Fig. 3 is a plan view in section.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

1 and 2 represent, respectively, parallel spaced side springs or plates, between the rear ends of which is arranged a space-block 3 to which the rear ends of the side springs or plates are firmly secured. Extending transversely through the space-block and registering perforations in the side springs or plates is a rivet pin 4, whose ends extend through washer plates 5 arranged upon the outer surfaces of the side springs or plates and are headed, and in addition to this securing device, screws 6 are employed at the rear extremities of the springs or plates.

The front ends of the side springs or plates are beveled, as shown clearly in Fig. 2 of the

drawings, and to the outer surface of said beveled ends are secured hinges 7 which form the connection between the front ends of the side springs or plates and intermediate points of the triangular jaws 8. These jaws are provided with bases 9 which are in alignment with each other and are respectively perpendicular to the inner edges of the jaws, such inner edges being connected pivotally together by means of hinges 10 which are so disposed as to form, when the jaws are in transverse alignment, an interval into which the edge of the door, or window-sash, or other article is adapted to fit. Secured to and flush at their inner edges with the vertical edges of the jaws are cleats 11 thereby increasing the surface of the clamping portions of the jaws.

The strengthening bar or check 12 is arranged between the side springs or plates adjacent to their front ends and secured at one end rigidly to one of said springs or plates, the other end being free from the twin spring or plate. The advantage derived from this construction is that the springs or plates are enabled to separate at their front ends to permit of the adjustment of the jaws to fit the article to be clamped. The side springs or plates are concaved or hollowed at their outer faces near their rear ends in order to enhance the spring action of such parts.

From the above description it will be understood that the tendency of the side springs or plates is toward each other, thereby holding the jaws either in the open position, shown in full lines in Fig. 2, in which position the free ends of the springs or plates are in contact with the ends of the check bar, or in the position shown in dotted lines of said Fig. 2 in which the inner edges of the jaws are in contact, and the free ends of the springs or plates, as in the other position, are in contact with the ends of the check. Thus, the parts being in the position shown in full lines in Fig. 2 and resting upon the floor or bench, it is necessary, to operate the clamp, merely to insert the vertical edge of a door, or window-sash between the edges and press said vertical edge against the hinge connections by which said jaws are united, to cause said jaws to approach each other and by the force of

the springs or plates clamp the edge of the door or window-sash and hold the latter in the desired position.

5 The arrangement by which the lower edge of the door or window-sash is allowed, while supported, to rest upon the floor or bench, enables the carpenter or other artisan to maintain the article in a horizontal position and in more convenient position for treatment.

10 It will be understood that the bases of the jaws are in the plane of the lower edges of the side springs or plates, and the space-block, check, and cleats all terminate at their lower ends flush with said lower edges of the jaws and springs or plates.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of my invention.

20 Having described my invention, what I claim is—

1. In a clamping device, the combination with spaced parallel springs or plates and permanent connections between their rear ends, 25 of jaws hinged together and to the front ends of said springs or plates and adapted to be held in their closed and open positions by said springs or plates, substantially as specified.

2. In a clamping device, the combination 30 with spaced parallel springs or plates and permanent means for connecting their rear ends,

of jaws hinged together and to the front ends of said springs or plates and having their bases or lower edges in the plane of the lower edges of said springs or plates, substantially as specified. 35

3. In a clamping device, the combination of side springs or plates, permanent connections between their rear ends, and a check bar between their free front ends, of jaws 40 hinged together and to the front ends of said springs or plates, the inner or adjacent edges of said jaws being separated, substantially as specified.

4. In a clamping device, the combination 45 of twin parallel side springs or plates, a permanent connection between their rear ends and capable of lateral vibration at their front ends, jaws having bases perpendicular to their clamping edges, and connections between said 50 jaws and the front ends of said side springs or plates whereby the jaws are held normally in their clamping positions by the springs or plates, substantially as specified.

In testimony that I claim the foregoing as 55 my own I have hereto affixed my signature in the presence of two witnesses.

GEORGE W. LAKE.

Witnesses:

W. H. HUGHES,
CHARLES H. RASTED.