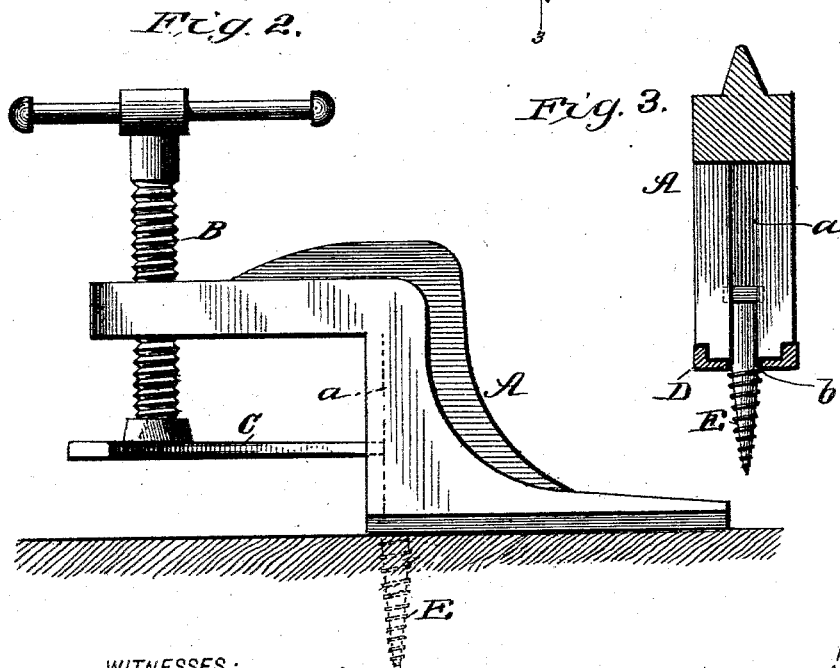
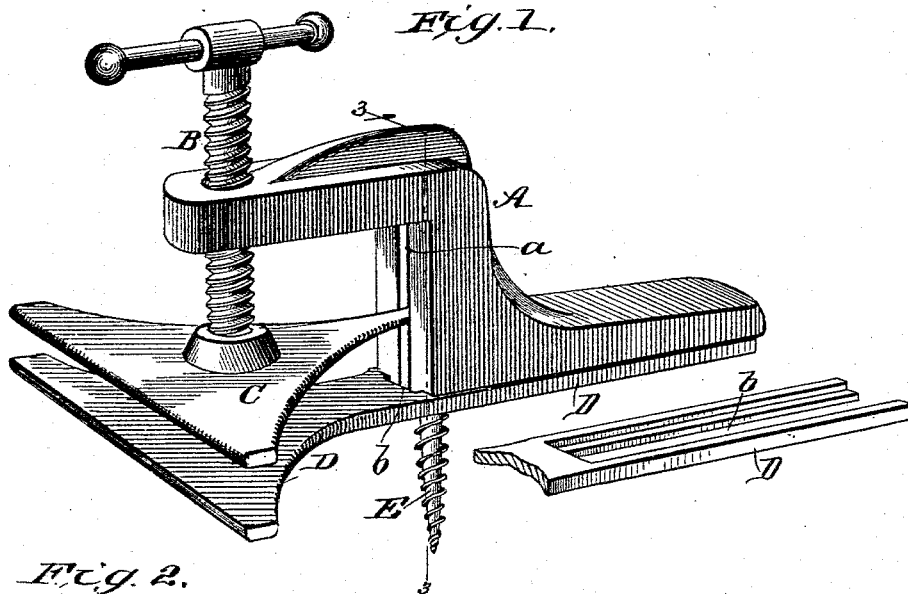


(No Model.)

J. FRANK & F. H. FRANKENBERG.
SCREW CLAMP.

No. 490,143.

Patented Jan. 17, 1893.



WITNESSES:

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JOSEPH FRANK AND FRANK H. FRANKENBERG, OF PUEBLO, COLORADO.

SCREW-CLAMP.

SPECIFICATION forming part of Letters Patent No. 490,143, dated January 17, 1893.

Application filed February 11, 1892. Serial No. 421,189. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH FRANK and FRANK H. FRANKENBERG, residing at Pueblo, in the county of Pueblo and State of Colorado, have invented a new and Improved Screw-Clamp, of which the following is a specification.

Our invention is adapted for various applications in practical use, more especially as a bench and saw clamp. It is self-fastening, being provided with a pointed screw which is so attached to, and arranged in relation with, the body, or main portion of the clamp, that it may be easily inserted in any object to which it is desired to secure the clamp for temporary use. The base of the body of the clamp is rabbeted to adapt it to fit and slide in a guideway formed in a detachable base plate, and the fastening screw above referred to projects through a longitudinal slot also formed in the middle of such guideway. A follower or clamping plate is swiveled to the hand screw that works in the elevated front end of the clamp, and its rear portion is extended and tapered to adapt it to work in a vertical guide-groove formed in the body of the clamp, so that, in rotating the screw, the follower is prevented from rotating while being adjusted by the hand screw, but is free to assume different inclinations.

In the accompanying drawings—Figure 1 is a perspective view of the clamp, and a portion of the slotted base, shown separate. Fig. 2 is a side view of the clamp proper, without the slotted base. Fig. 3 is a vertical section, on line 3—3 of Fig. 1.

The frame or body, A, of the clamp is substantially right-angular in form. The hand screw, B, has a swivel connection with the flat-faced follower, C, and works in a threaded hole in the front end of frame A.

The follower, C, is approximately triangular in shape, and its rear or inner angle is extended, to adapt it to work in a guide-groove, *a*, formed in the front side of the vertical portion of the body A. Thus, when the screw, B, is rotated, it adjusts the follower, C, up or down, correspondingly; but in such movement the follower is prevented from rotating

with the screw, by reason of its engagement with the groove, *a*.

The horizontal, rear portion of the body, A, works in a guideway formed in the rear portion of a bed, or base plate, D, and the pointed fastening screw, E, attached to the body, projects through the central longitudinal slot, *b*, in such part D. This screw is permanently attached to the body, A, at a point contiguous to the grooved side of its vertical portion. In practice, the two parts are connected with each other in the process of casting, so that they form, practically, one integral structure.

In use, the clamp proper may be secured to any object—with or without the slotted base plate, D—by rotating the body, A, and thus inserting the screw, E, therein. In this way, the clamp may be attached to a carpenter's bench at any selected point on its table, or to a floor, window frame, wall of a house, a tree, or a log, &c. In some cases, however, I propose to use a blunt or pointless screw, and to provide for its insertion by first boring a hole by means of a bit, or analogous tool.

The front edge of the follower, C, is extended to a width of several inches, and the base plate, D, is chiefly used in conjunction with it, for the purpose of clamping saw-blades. The slot in the base plate adapts it to be adjusted, as required to clamp the saw blades at the required point. The swivel connection between the screw B and follower C, and the adaptation of the tapered rear end of the latter to turn in the vertical groove *a*, of frame A, makes the follower self-adjusting in respect to its plane of inclination, so that it will adapt itself to the surface of any object it is desired to clamp.

Having thus described our invention, what we claim and desire to secure by Letters Patent is—

1. In a screw clamp, the combination with the screw B, and the angular frame A, having a groove in its vertical portion, of the follower C having a swivel connection with said screw and provided with a tenon which projects into said groove and is adapted to turn therein, so that the follower may assume different inclinations as specified.

2. In a screw clamp, the combination, with the body, A, and the fastening screw attached to and projecting from its under side, of the base plate having a longitudinal slot and a
5 guideway in its rear portion, as shown and described.

3. In a screw clamp, the combination, with the body, A, and its fastening screw, of the slotted base plate having its front end ex-

tended as shown, the adjusting screw and the follower, adapted to co-act with the base plate, as shown and described.

JOSEPH FRANK.

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Witnesses:

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