Nov. 6, 1923. 1,472,982

O. E. JUVINALL

BENCH CLAMP

Filed Dec. 1, 1922

Fig. 1.

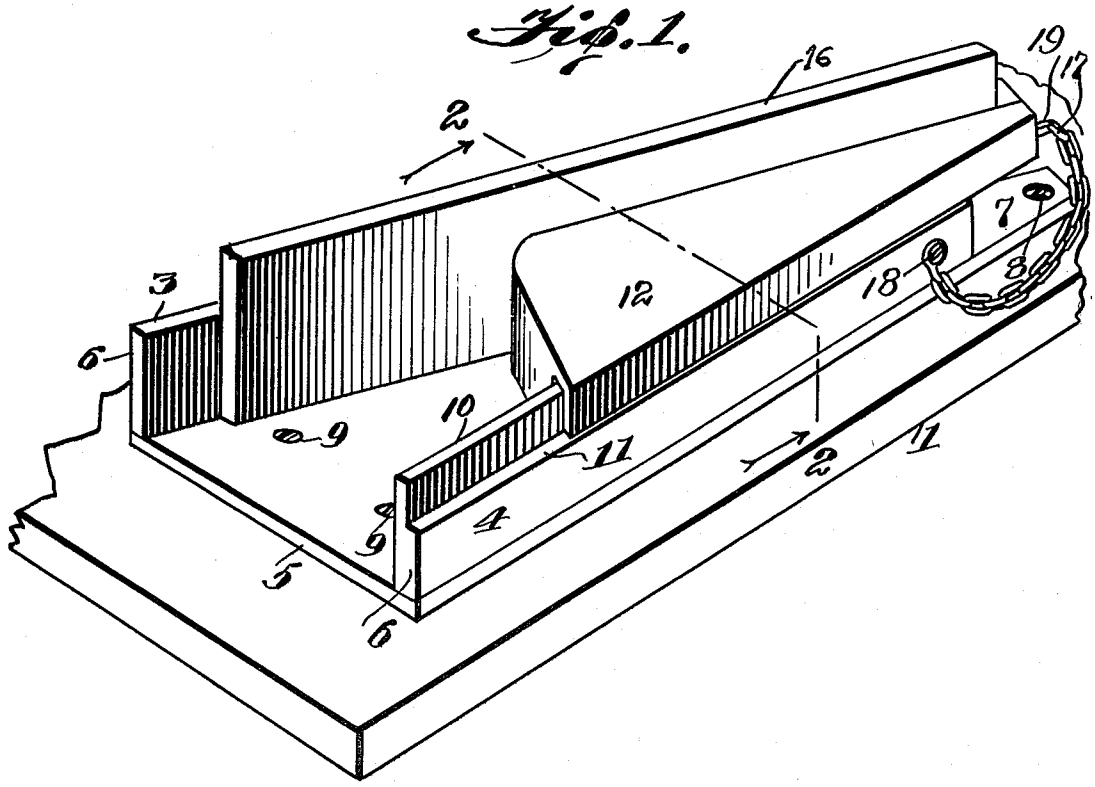


Fig. 2.

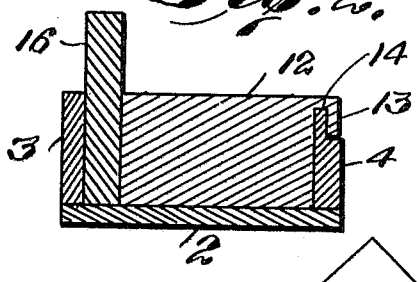
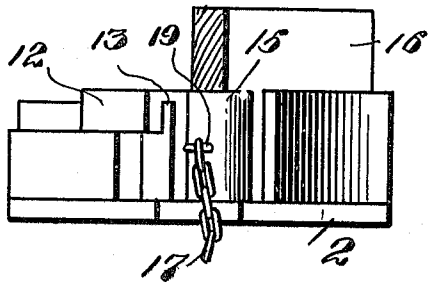


Fig. 3.



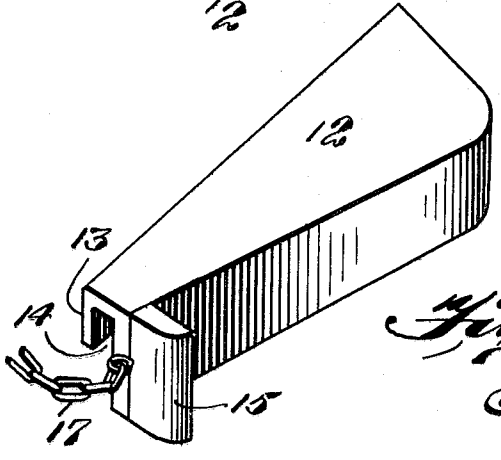


Fig. 4.

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UNITED STATES PATENT OFFICE.

ORLA EDWARD JUVINALL, OF DANVILLE, ILLINOIS.

BENCH CLAMP.

Application filed December 1, 1922. Serial No. 604,364.

To all whom it may concern:

Be it known that I, ORLA E. JUVINALL, a citizen of the United States, residing at Danville, in the county of Vermilion and State of Illinois, have invented certain new and useful Improvements in Bench Clamps, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a carpenter's bench clamp, and the object is the construction of a simple and efficient bench clamp which comprises a minimum number of parts, and which is simple and efficient in operation.

With these and other objects in view, my invention comprises certain novel combinations, constructions and arrangements of parts as will be hereinafter described, illustrated in the accompanying drawings, and more particularly pointed out in the appended claims.

In the drawings:

Figure 1 is a perspective view of a device constructed in accordance with the present invention.

Figure 2 is a section, taken on line 2—2, Fig. 1, and looking in the direction of the arrows.

Figure 3 is a front elevation view of the device.

Figure 4 is a perspective view of the wedge.

Referring to the drawings by numerals, 1 designates the support upon which my bench clamp is mounted. This bench clamp comprises a base plate 2, and two side plates 3 and 4. The rear end 5 of the base plate 2 terminates in the same vertical plane with the rear ends 6 of side plates 3 and 4, whereas, the base plate has a forwardly projecting portion 7, extending beyond the front ends of the side plates. In this extended portion 7 is an aperture for receiving screw 8, which assists in fastening the device to support 1. A pair of apertures are formed in the base plate 2 between side plates 3 and 4, for receiving screws 9, which screws assist in fastening the device to support 1.

The base plate and side plates constitute a substantially V-shaped frame that is provided with open ends, and which frame has an extended portion, constituted by portion 7.

The side plate 4 has a reduced, upper edge 10 and a track 11. The wedge 12 is provided with a depending side flange 13 that bears against track 11, and the reduced extension 10 extends into a longitudinally-extending groove 14, formed in the wedge 12. At the forward end of wedge 12 is a right-angled flange 15, against which the "work" 16 bears, so that when the "work" is shoved inwardly, within the frame, the wedge will be forced along with the "work," whereby the "work" is quickly "wedged" between the wedge and side plate 3. The moving of the wedge and the forming of the track upon a side plate, assists in preventing the wedge from being displaced, and causes the wedge to be in position at all times to allow the "work" to be quickly placed between the wedge and the side plate.

A chain 17, constituting a flexible connection, is securely fastened, at 18, to side plate 4, and it is also fastened, at 19, to the outer end of the wedge 12. The connecting of the frame and the wedge together, by a flexible connection, prevents loss of either part, and should the wedge become displaced off its track, the operator can quickly assemble the parts.

While I have described the preferred embodiment of my invention, and have illustrated the same in the accompanying drawings, certain minor changes or alterations may appear to one skilled in the art to which this invention relates, during the extensive manufacture of the same and I, therefore, reserve the right to make such alterations or changes as shall fairly fall within the scope of the appended claims.

What I claim is:

1. A bench clamp comprising a base plate, a jaw-forming wall and a track-forming wall carried by said base plate and converging toward one end thereof, a tapered gripping block resting upon said base plate between said walls and slidably fitting upon said track-forming wall and having an inner work-engaging side edge face extending parallel to the jaw-forming wall, the smaller end of said block being projectable between and beyond the converging ends of said walls, and a work-engaging flange extending transversely from the said end of said block and across the end of said jaw-forming wall to limit movement of the block in a work releasing direction.

2. A bench clamp comprising a base plate, a track-forming wall and a jaw-forming

wall extending longitudinally of said base plate in spaced relation with the jaw-forming wall extending at an incline towards the forward end of the track-forming wall, a gripping block slidable upon the base plate between the walls and having its forward end portion projectable between and beyond the forward ends of said walls, the side edge face of said block being parallel to the walls, and a side flange extending transversely from the forward end of said block across the forward end of said jaw-forming wall to limit rearward movement of the block and adapted to be engaged by the forward end of work positioned between the block and jaw-forming wall to cause movement of the block into gripping engagement with the work when the work and block are moved forwardly.

3. A bench clamp comprising a base plate, a jaw extending longitudinally of said base plate, a gripping block slidable longitudinally of the base plate and having movement towards the jaw when moved forwardly upon the base plate, and a flange extending transversely from the forward end of said block across the forward end of said jaw whereby rearward movement of the block may be limited by the said flange moving into engagement with the forward end of said jaw and the block caused to have forward movement into a gripping position by work placed between the jaw and block and moved forwardly.

In testimony whereof I hereunto affix my signature.

ORLA EDWARD JUVINALL.