April 15, 1941. A. STEACH 2,238,831

WORK HOLDING CLAMP

Filed March 18, 1939

Fig. 1.

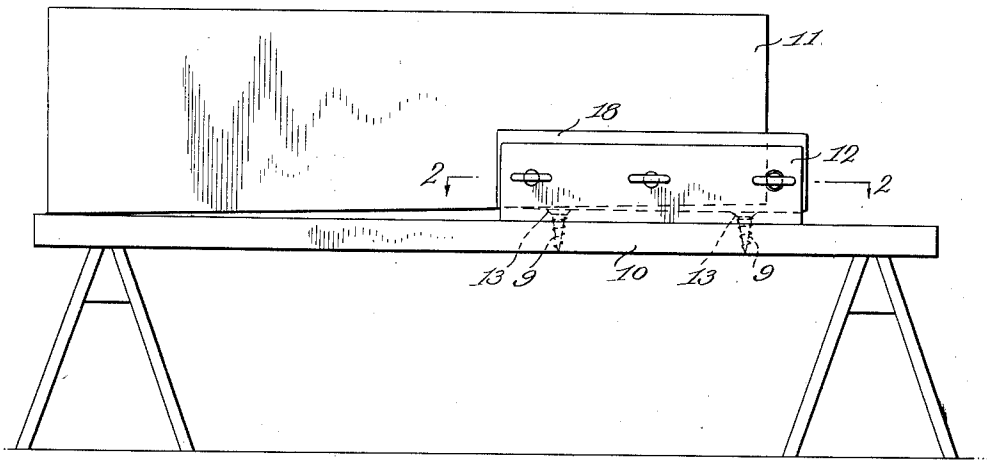
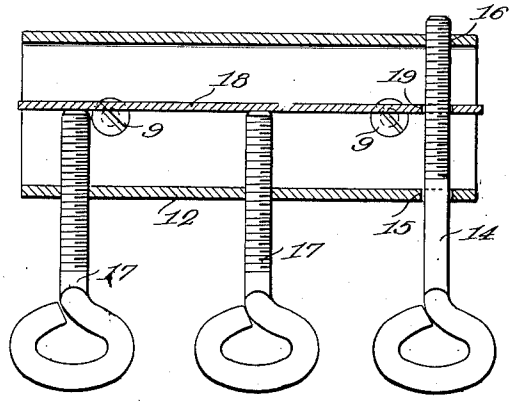


Fig. 2.



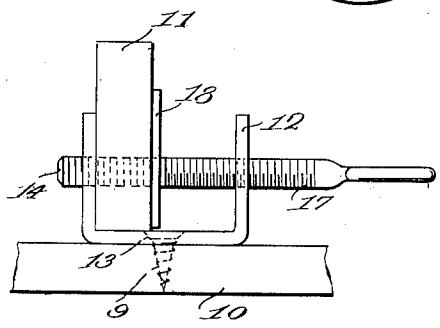


Fig. 3.

Alexander Steach
INVENTOR

BY Victor J. Evans & Co.
ATTORNEYS

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WORK HOLDING CLAMP

Alexander Steach, Dedham, Mass.

Application March 18, 1939, Serial No. 262,725

1 Claim. (Cl. 144—296)

This invention relates to a work holding clamp and has for an object to provide a work holding clamp comprising an elongated frame of U-shape in cross section having set screws to hold a pressure plate in position against the work, and also having a thumb screw to restrict endwise movement of the work in the frame and prevent loss of the pressure plate from the frame.

A further object is to provide a device of this character which will be formed of a few simple and durable parts which will be inexpensive to manufacture and which will not easily get out of order.

With the above and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter fully described and claimed, it being understood that various modifications may be resorted to within the scope of the appended claim without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawing forming part of this specification,

Figure 1 is a front elevation of the clamp showing a piece of material held securely in the frame.

Figure 2 is a longitudinal sectional view of the clamp taken on the line 2—2 of Figure 1.

Figure 3 is an end elevation of the clamp shown in Figure 1.

Referring now to the drawing in which like characters of reference designate similar parts in the various views, 10 designates a work bench and 11 designates a board or other work.

The clamp comprising the subject matter of this invention comprises an elongated frame 12 of U-shape in cross-section. The frame is provided with openings 13 in the bottom to receive screws 9 to secure the frame to the work bench 10 or the like. A thumb screw 14 is located at one end of the frame 12 and passes freely through an opening 15 in the front side of the frame. The thumb screw is threadedly engaged in an opening 16 in the rear side of the frame. Short set screws 17 are threadedly engaged in openings in the front side of the frame.

A combined pressure and protecting plate 18 is located within and extends longitudinally of the frame 12 and is provided with an opening 19 of larger diameter than the thumb screw through which the thumb screw 14 passes loosely to permanently connect the pressure plate to the frame 12. The plate 18 serves to protect the work from being damaged by the short set screws 17 and also holds the work secured in the frame. The thumb screw 14 forms a stop to limit endwise movement of the work in the frame.

In operation the plate 18 clamps the work to the rear side of the frame 12 when the set screws 17 are tightened. When one of the set screws is tightened and the other set screw is loosened, a tapered or wedge-shaped piece of work may be clamped by the plate to the rear side of the frame. The opening 19 being of larger diameter than the thumb screw permits the plate to pivot on the thumb screw when tapered work is to be clamped in the frame.

From the above description it is thought that the invention will be fully understood without further explanation.

What is claimed is:

A work holding clamp comprising an elongated frame of U-shape in cross section, a thumb screw disposed at one end of the frame passing freely through an opening in the front side of the frame and screw threadedly engaged in an opening in the rear side of the frame, said thumb screw extending transversely across the U-shaped frame and forming a stop to limit endwise sliding movement of a piece of work longitudinally between the sides of the frame, set screws engaged through the front side of the frame, and a combined pressure and protecting plate against which the set screws exert pressure to clamp the work to the rear side of the frame, said plate being adapted to be adjusted by tightening one set screw and loosening the other set screw to pivot the plate on the thumb screw to hold tapered or wedge-shaped work, said plate being disposed within and extending longitudinally of the frame, said plate being provided with an opening of larger diameter than the thumb screw to receive the thumb screw and permit the thumb screw to slidably and pivotally and permanently connect the plate to the frame.

ALEXANDER STEACH.