

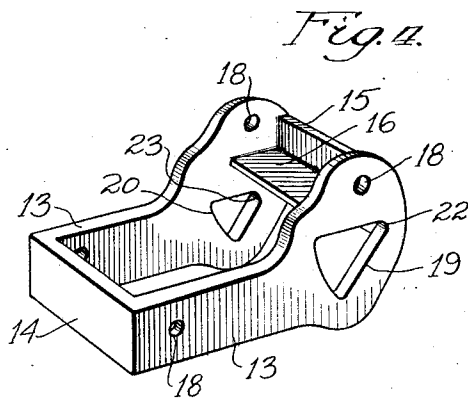
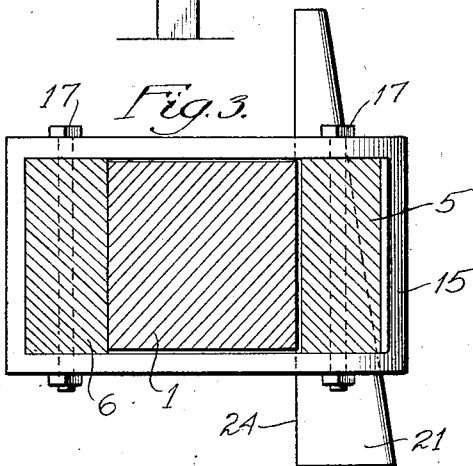
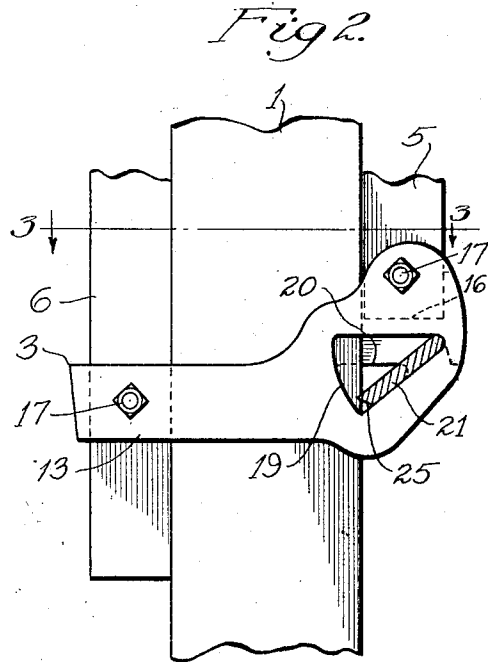
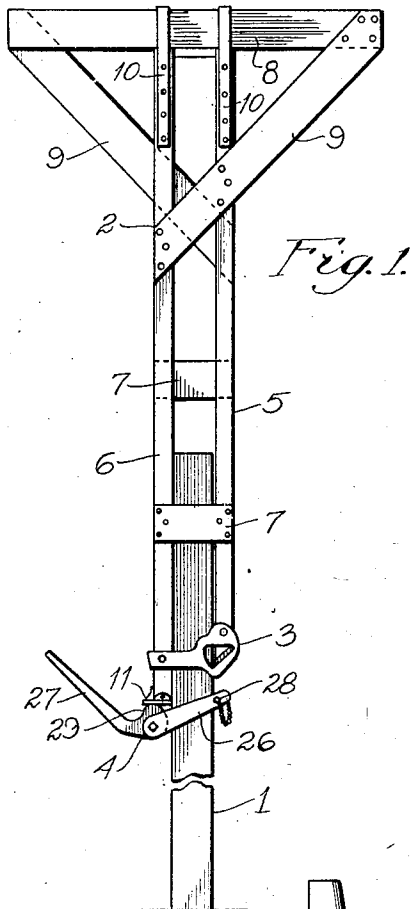
Nov. 20, 1928.

1,692,152

G. B. BOSCO

TIMBER CLAMP

Filed Feb. 12, 1927



Witnesses:
Arthur M. Framke
John A. Titus

Inventor:
George B. Bosco,
By, Rummel & Rummel,
Attys:

UNITED STATES PATENT OFFICE.

GEORGE B. BOSCO, OF CHICAGO, ILLINOIS.

TIMBER CLAMP.

Application filed February 12, 1927. Serial No. 167,697.

The main objects of this invention are to provide an improved form of clamp for adjustably securing together two timbers; to provide an improved timber clamp particularly adapted for clamping together the two struts of an adjustable shore; to provide improved means for supporting the clamp on one of the struts in position to slidably embrace the other strut; to provide improved gripping means for adjustably fastening the clamp to said other strut; and to provide gripping means of this kind which is adapted to increase in its gripping power with an increase in the load sustained by the struts.

15 An illustrative embodiment of this invention is shown in the accompanying drawing, wherein:—

Figure 1 is a side elevation of a shore to which an improved clamp has been applied.

20 Fig. 2 is an enlarged side elevation of the clamp, showing portions of the struts to which it is applied.

Fig. 3 is a transverse section, taken on the line 3—3 of Fig. 2.

25 Fig. 4 is a perspective of the clamp without the wedge.

A timber clamp to which this invention is applied is adapted for securing together timbers of various kinds, but, in the specific embodiment herein illustrated, the improved clamp is applied to the struts of an adjustable shore.

In the form shown, the shore, to which the improved clamp is applied, comprises a pair of telescoping timbers or struts 1 and 2 adapted to be clamped together by an improved clamp 3 and adapted for initial adjustment by means of an adjusting tool 4.

40 The strut 1 comprises preferably a post of standard construction such as a 4 x 4 timber.

The post 2 comprises a pair of bars 5 and 6 arranged in substantially parallel spaced relation and connected together by cross pieces 7. The bars 5 and 6 are preferably 2 x 4 timbers. Supported on the upper extremities of the bars 5 and 6, is a bearing member 8, which is fastened to the bars by inclined braces 9 and bands 10 to form a T-head for supporting the load. The bar 6 is slightly longer than the bar 5 and is provided with a bearing shoe 11 adapted for engagement with the adjusting tool 4 for the purpose of obtaining a fine initial adjustment of the struts, as hereinafter described. Adjacent the lower end of the strut 2, the bars 5 and 6 are secured to the improved timber clamp 3.

In the form shown, the clamp 3 comprises a fitting which is supported on the strut 2, and which is provided with a central opening 12 for receiving the post 1, to which the fitting is adapted to be locked by improved gripping means arranged at one end of the opening 12.

In the specific construction shown, the fitting comprises a collar having a pair of side members 13 arranged in substantially parallel spaced relation and connected together by end members 14 and 15. The end member 15 is formed so as to provide a shelf 16 on which the lower end of the bar 5 is seated. The collar is rigidly secured to the bars 5 and 6 of the strut 2 by bolts 17 extending through apertures 18 in the side members 13.

Formed in the side members 13 adjacent the shelf 16, are slots 19 and 20 substantially triangular in shape arranged to provide a keyway for a wedge 21. The slot 20 is smaller than the slot 19, so as to accommodate the reduced end of the wedge. The wedge 21 is fulcrumed in the outer corners 22 and 23 of the slots so as to permit the inner edge 24 of the wedge to swing into and out of engagement with the opposed face of the post 1. The slots 19 and 20 are arranged so as to permit the wedge to extend a considerable distance into the opening 12 to enable the inner edge of the wedge to bite into the material of the post 1. The biting edge of the wedge is slightly tapered as shown at 25.

The tool 4, by which the shore may be initially adjusted, comprises a supporting member in the form of a substantially U-shaped stirrup 26, on which is pivoted an operating lever or jack 27. The stirrup 26 embraces the post 1 and is provided with a removable locking pin 28 securing it against withdrawal. The lever 27 is provided with a cam 29 adapted to engage the shoe 11 for lifting the strut 2 when the lever 27 is raised.

In operation, a rough adjustment of the shore is obtained by manually lifting the strut 2 to approximately the required height. The tool 4 is then moved upwardly on the post 1 until the cam 29 engages the shoe 11. By raising the lever arm 27, the strut 2 may be lifted further to obtain the fine adjustment. After the shore has been adjusted, the wedge 21 is driven into its keyway and the tool 4 is then removed. Any settling of the shore, after the tool 4 has been removed, will cause the wedge 21 to swing around its fulcrum thereby forcing the biting edge 24 into the

post 21 to increase the gripping action of the clamp.

Although but one specific embodiment of this invention has been herein shown and described, it will be understood that numerous details of the construction shown may be altered or omitted without departing from the spirit of this invention as defined by the following claims.

10 I claim:

1. A clamp for securing together two timbers comprising a fitting adapted for support on one of the timbers, means for securing said fitting against angular movement relative to the timbers, said fitting having a keyway of substantially triangular shape, and a wedge seated in said keyway and fulcrumed in one corner thereof, the edge of said wedge opposite the fulcrum being adapted for engagement with the other timber.

2. A clamp for securing together three timbers comprising a fitting adapted to be supported on one of the timbers and having an opening for receiving another, a seat on said fitting at one side of said opening for engaging an extremity of the third timber, said fitting having a triangular keyway therein adjacent said seat, and a wedge seated in said keyway and fulcrumed in one corner thereof for engagement with said other timber.

3. A clamp for securing together two timbers comprising a fitting having a pair of side members adapted for support on one of the timbers, means for securing said side members against angular movement relative to the timbers one of said side members having a substantially triangular keyway there-

in, and a wedge fulcrumed in said keyway and adapted for engagement with the other timber.

4. A clamp for securing together two timbers comprising a collar having a pair of side members and connecting end members adapted for support on one of the timbers and having an opening for receiving the other, means for securing said side members against angular movement relative to the timbers one of said end members forming a seat for an extremity of the one timber, said side members having a pair of substantially triangular openings therein adjacent said seat to form a keyway, and a wedge seated in said keyway and fulcrumed in one corner of each of said slots, the edge of said wedge opposite the fulcrum extending into said opening for engagement with the face of said other timber adjacent said seat.

5. An adjustable shore comprising a post, a pair of substantially parallel timbers arranged to slidably engage respectively opposite sides of said post, a collar having a pair of side members and connecting end members, one of said end members forming a shelf for engagement with an extremity of one of the timbers, said collar having an opening through which said post extends, a portion of the other timber also extending through said opening, a substantially triangular keyway formed in said side members adjacent said shelf, and a wedge fulcrumed in said keyway and extending into said opening to engage said post.

Signed at Chicago this 9th day of February, 1927.

GEORGE B. BOSCO.