E. B. BICKER.

TENON ANCHOR.

APPLICATION FILED APR. 12, 1920.

1,399,183.

Patented Dec. 6, 1921.

Fig. 1

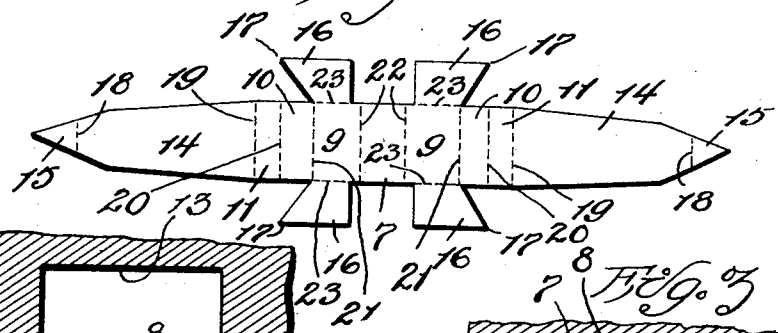


Fig. 2

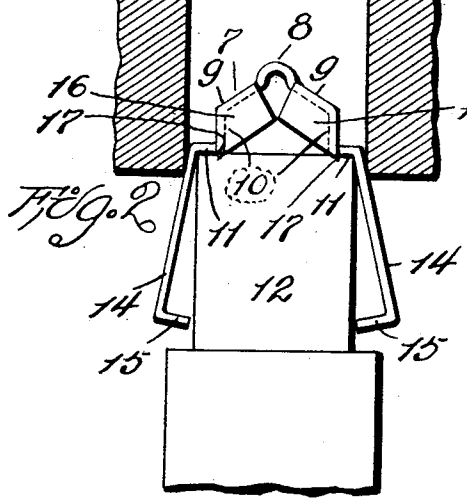


Fig. 3

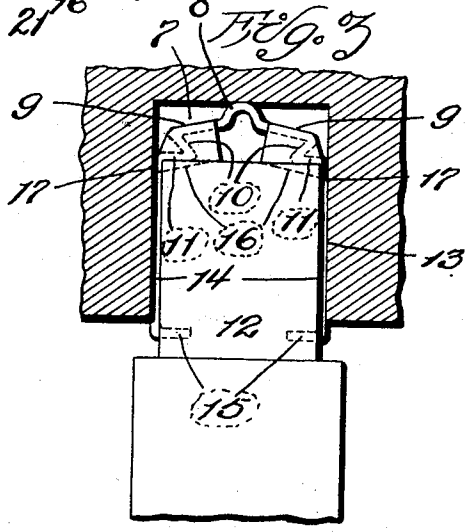


Fig. 4

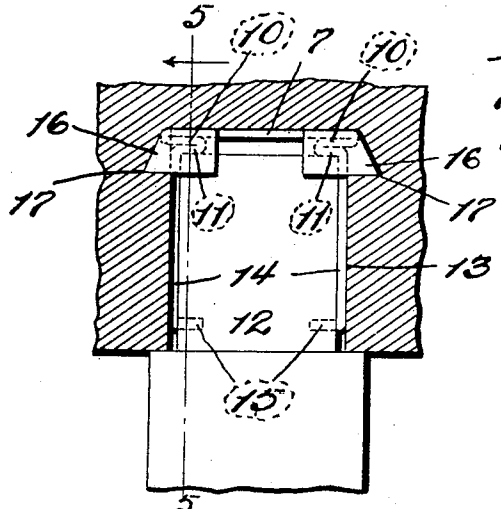


Fig. 6

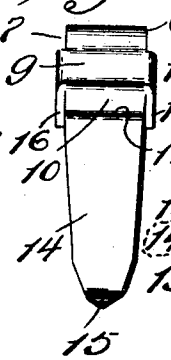
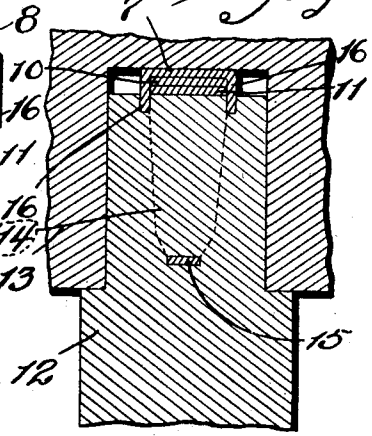


Fig. 5



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TENON-ANCHOR.

1,399,183. Specification of Letters Patent. Patented Dec. 6, 1921.

Application filed April 12, 1920. Serial No. 373,319.

To all whom it may concern:

Be it known that I, EDGAR B. BICKER, a citizen of the United States, residing at the city of St. Louis and State of Missouri, have invented a new and useful Tenon-Anchor, of which the following is a specification.

My invention relates to improvements in tenon anchors and my object is to provide a device of simple and inexpensive construction which may be fitted upon a tenon and which in the seating of the tenon automatically embeds in both the tenon and its mortise to act as a mechanical securing means between the tenons and its mortise.

A further object is to construct such a device of a single piece of sheet metal; and a still further object is to construct the mortise engaging elements of the device in a manner to permit their final seating in the mortise with a minimum of disturbance of the mortise material surrounding the engaging elements.

My improvements consist in the novel construction, arrangement and combination of parts as hereinafter fully, clearly and concisely set forth, definitely pointed out in my claim and illustrated by the accompanying drawing, in which—

Figure 1 is a plan of a blank out of which my tenon anchor is formed.

Fig. 2 is an elevation of a fragment of a tenon, having an anchor placed thereover and in condition for driving into a mortise, which is shown fragmentarily, in section.

Fig. 3 is a view similar to Fig. 2 showing the tenon partially driven, with the anchor secured thereto.

Fig. 4 is a view similar to Figs. 2 and 3 showing the tenon fully seated in the mortise and the anchor secured to both tenon and mortise.

Fig. 5 is a sectional elevation taken on the line 5—5 of Fig. 4 and

Fig. 6 is an end elevation of the device.

Referring by numerals to the drawings 7 designates the bridge, or body portion of the anchor, in which there is formed transversely thereof and at its longitudinal center an upwardly bent bead 8. On each longitudinal side of the bead the bridge inclines relative to the horizontal preferably downwardly and outwardly as at 9, 9, is then bent downwardly as at 10, 10, and then outwardly and horizontally as at 11, 11, which latter bends 11, 11 form shoulders against which the tenon 12 impinges during its driving into the mortise 13.

Extending downwardly, and inclined slightly outwardly, from the bends 11 are the legs 14, each having at its free, lower, end an inturned point 15.

Extending downwardly from each side of each bridge element 9, 9 are the flanges 16, whose lower outer corners constitute points 17, which constitute the securing means for the mortise, while the points 15 form the securing means for the tenon.

As shown in Fig. 1 all of the elements of the anchor, just recited are integrally connected, that is made of a single piece of material, and preferably of a piece of sheet metal which is die-cut from the blank, as illustrated.

The forming of the blank consists in bending the points 15, as shown in Fig. 2, (along the lines 18 Fig. 1) relative to the legs 14; bending the piece at the lines 19 to form the shoulders 11 and shape the legs; bending the piece at the lines 20 and 21 to form the bridge; bending along the lines 22, 22 to form the bead 8, and bending along the lines 23 to form the flanges 16.

The device is placed over the end of the tenon as in Fig. 2, with its shoulders 11, 11 resting on the top of the tenon, and the point 17, if desired pressed slightly into the top of the tenon to hold the anchor during its start into the mortise. The tenon and mortise are then brought together as shown in Fig. 3, in which act the points 15 are embedded in the tenon and the points 17 move along the wall of the mortise without engagement therewith, so that the mortise is not disturbed in a manner to effect its holding the points 17 when finally seated.

A further bringing together of the tenon and mortise to the positions shown in Fig. 4 straightens out the bead 8 which acts to project the flanges 16 outwardly (laterally) to embed their points 17 into the mortise as well as embed them (the flanges) into the tenon to serve as wedges to spread or increase the section of the tenon.

The anchor of my invention may be constructed at a minimum of expense and its placement to serve as a mechanical securing means between a tenon and its mortise involve a simple bringing together of the tenon and mortise, as by pressure or impacting.

I claim—

A tenon anchor, constructed of a single piece of material, and comprising legs having points for embedding in the tenon, a bridge having shoulders for engagement with the tenon, during the seating in the mortise, a plurality of flanges carried by the bridge each having a point for embedding in the mortise, there being a bend in the bridge between said legs for projecting the points of said flanges laterally to embed in the mortise, and said flanges arranged to embed in the end of the tenon upon a seating of the tenon in the mortise.

EDGAR B. BICKER.