Dec. 20, 1955 L. S. HOLMBOE 2,727,712

SHORE HEAD BRACE

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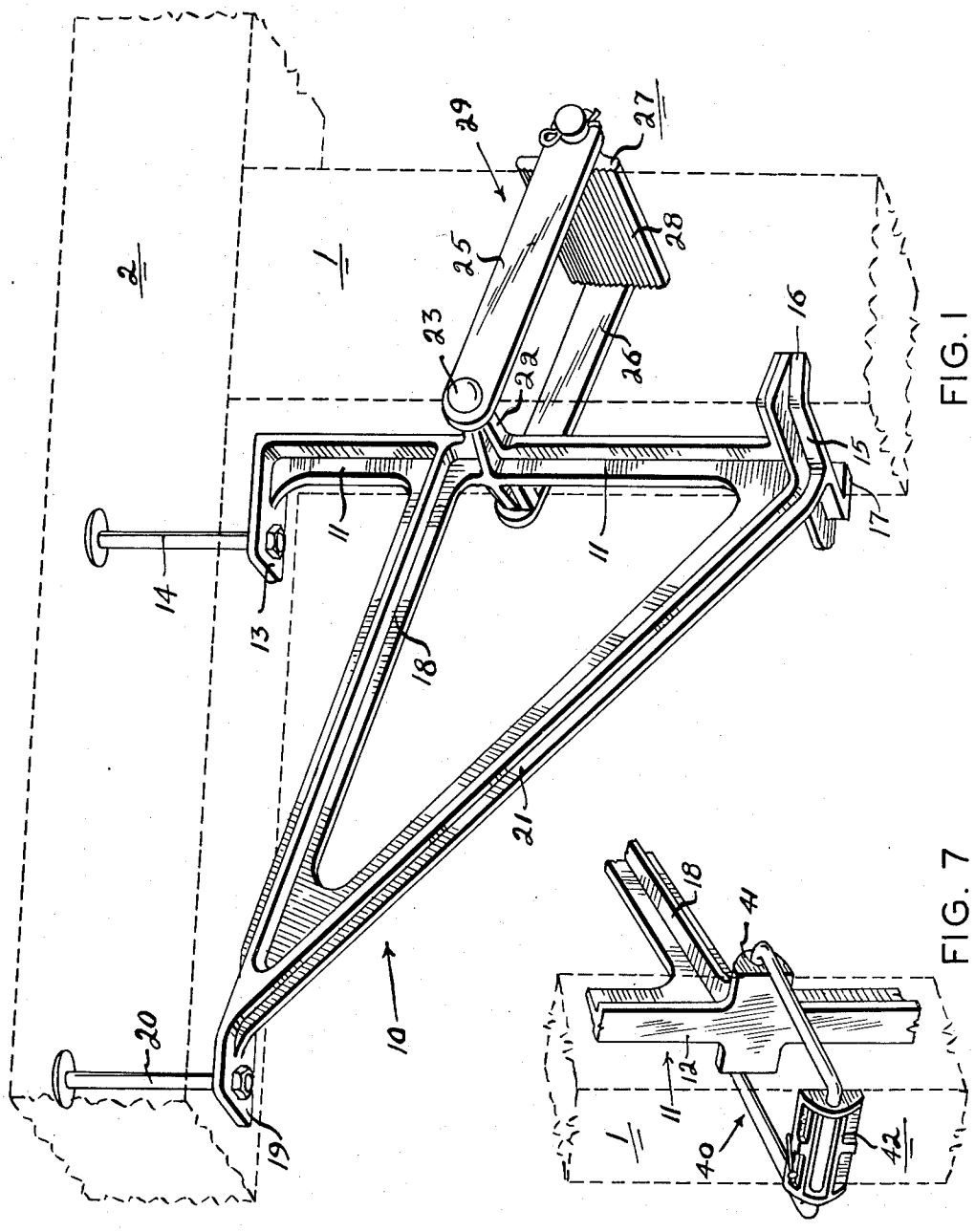


FIG. 1

FIG. 7

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SHORE HEAD BRACE

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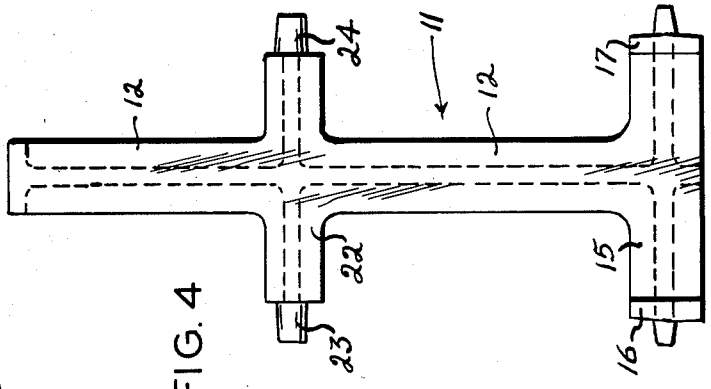


FIG. 4

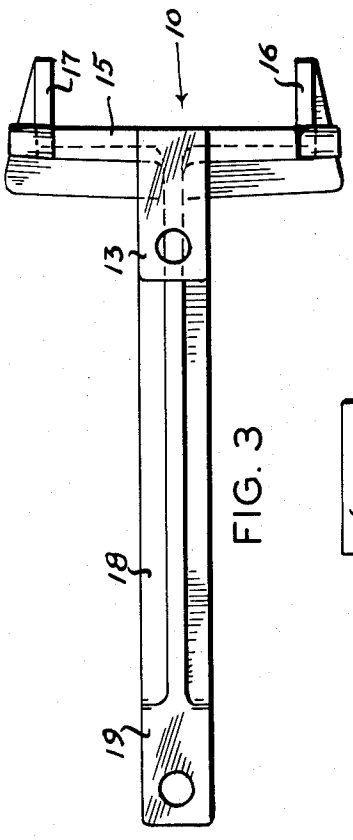


FIG. 3



FIG. 6

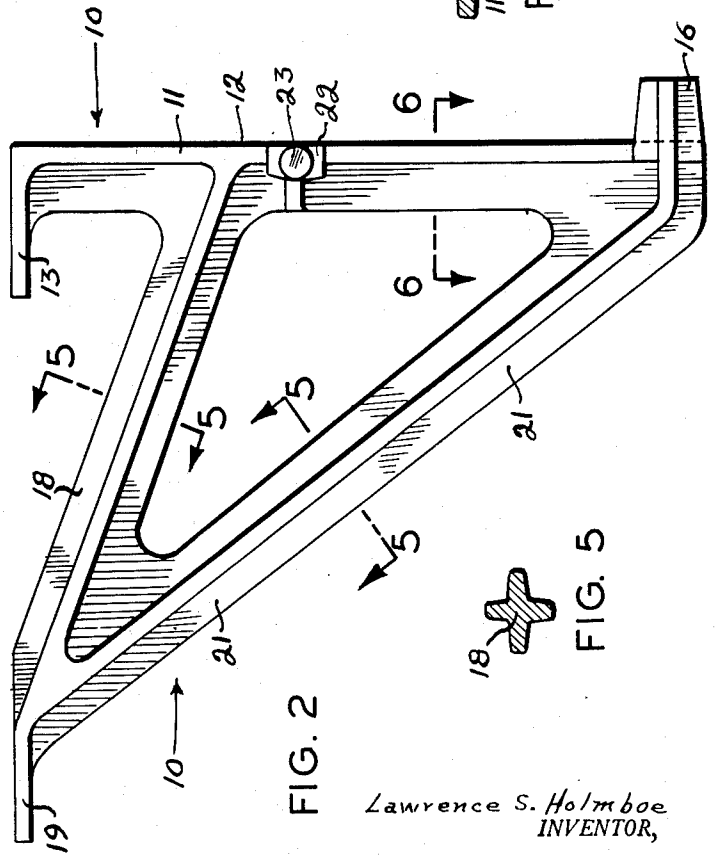


FIG. 2

FIG. 5

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SHORE HEAD BRACE

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Application December 18, 1952, Serial No. 326,642

1 Claim. (Cl. 248—357)

The present invention relates to shores for concrete forms, and more particularly to braces or brackets for removably attaching cross-heads on the upper ends of shore posts.

In constructing forms for horizontal floor slabs, lintels and beams, it is conventional practice to support such forms by wooden posts, each of which is equipped with a horizontal cross-piece or head which is usually from two to four feet in length. Such shore posts and their heads are usually formed of wooden four by four material, with the cross-heads being nailed to the upper ends of the posts. The pieces of the shore are most often cut to size and are nailed together on the job as the form construction progresses, and after the concrete has been poured and has set, the shores are wrecked and thereafter become junk or kindling material.

In order to relegate the four by four shore material only to use for shore forming purposes, so that it can be repeatedly used on different jobs, it has been found advantageous to removably connect the cross-head pieces to the upper ends of the shore posts, so that they may be wrecked without damage to either the posts or to the cross-heads. This connection is accomplished by the use of metal braces or brackets so designed that the cross-heads may be connected to and removed from the posts without damage to either.

The device of the present invention relates to such connecting braces or brackets.

The principal object of the invention is to provide a shore head bracket which, when once installed on the cross-head, makes it a simple matter to install the head on a shore post or to remove it therefrom.

A further object is to provide a bracket of this class by which the cross-piece is clamped to the shore post without damage to the post by the use of nails or the like.

Another object is to provide a shore head clamp which under normal stresses and strains adequately braces the head against rocking movement with relation to the post.

An additional object is to provide a shore head clamp which is permanently bolted to the head, and which merely slips over the upper end of the shore post somewhat in the nature of a socket.

A still further object is to provide a shore head clamp which is comparatively cheap to manufacture.

Other objects will be apparent from the following description when taken in conjunction with the accompanying two sheets of drawings, wherein:

Figure 1 is a perspective view showing the clamp of the present invention operatively installed on a shore head and post, the head and post being shown in dotted lines;

Figure 2 is a side elevational view of the brace body;

Figure 3 is a top view of the same;

Figure 4 is an elevational view looking at the right hand face of the brace as it is depicted in Fig. 2;

Figure 5 is a transverse sectional view taken along either of the lines 5—5 of Fig. 2;

Figure 6 is a transverse sectional view taken substantially along the line 6—6 of Fig. 2; and,

Figure 7 is a fragmentary perspective view showing a slightly different embodiment of the invention.

Like characters of reference designate like parts in those figures of the drawings in which they occur.

In the drawings:

The reference numeral 1 indicates a conventional 4" x 4" wooden shore post, and the reference numeral 2 indicates a conventional cross-piece or shore head formed of similar material.

The device of the present invention is designed to clamp the head 2 in a horizontal position upon the upper end of the post 1.

The clamping mechanism of the present invention, per se, consists substantially of a brace body 10 preferably made of cast steel, said body including an elongated vertical leg 11 having a flat outer face or surface 12 adapted to fit flatly against one side face of the post 1. The upper end of the leg 11 has a perpendicular flange or lip 13 which is perforated to receive a bolt 14 whereby it may be permanently anchored to the lower surface of the cross-head 2. The lower end of the leg 11 is provided with an integral horizontal foot member 15, adapted to contact the face of the post 1, and provided at its ends with laterally projecting, parallel, flanges or lugs 16 and 17 which are adapted to flatly contact the opposite side faces of the post to assist in preventing any lateral rocking movement of the leg 11 with relation thereto.

The brace body 10 further includes a laterally projecting upper arm 18 which at one end is integral with the leg 11, and which slants upwardly therefrom toward the lower face of the cross-head 2. The outer or free end of the arm 18 is equipped with a flat flange 19 which is through perforated to receive a bolt 20 by which the arm is firmly anchored to the cross-head 2. A lower arm 21 extends upwardly from the lower end of the leg 11 to the outer end of the upper arm 18, and is integral with both.

Intermediate its ends, the vertical leg 11 is provided with an integral cross-member 22 having its extreme end portions cylindrically formed to provide two trunnions or pivot pins 23 and 24 (Fig. 4). The two end portions or trunnions 23 and 24 respectively mount pivotally the similar ends of two straight strap-like links 25 and 26 which lie parallel to each other, and which pivotally support a post clamping plate or shoe 27 between their outer ends. The shoe 27 is provided with a flat ribbed face 28 which is adapted to frictionally engage that face of the post 1 which lies opposite to the leg 11. The links 25 and 26 are slightly longer than the thickness of the post 1, so that the shoe 27 normally assumes a position slightly below the level of the trunnions 23 and 24. The links 25—26, and the shoe 27 combine to form what might well be termed a pivoted stirrup 29.

When the clamping mechanism is once bolted to the shore head, as above described, the shore head may be removably installed upon the upper end of the post 1 by merely passing the stirrup 29 over the said upper end and then seating the cross-head upon the post. The shoe 27 may then be tapped downwardly with a hand hammer to snugly engage the ribbed face 28 with the side surface of the post. Only a slight blow with the hammer is necessary for this purpose.

In order to release the clamping mechanism from the post so that the head 2 may be removed therefrom, it is only necessary to drive the shoe 27 upwardly a slight distance with a hammer. This may be done by a single blow of the hammer.

In Fig. 7 is illustrated an embodiment of the invention which utilizes a post clamping stirrup which is slightly different in construction than the clamping stirrup 29.

In this latter embodiment, the cross-member 22 does not have the two trunnions 23 and 24. Instead, the ends

of the cross-arm are provided with laterally projecting ears which are alignedly perforated to receive one end extent of an endless rectangular stirrup **40** which is made of metal rod material. One of such identical ears is shown, and is indicated by the reference numeral **41**. The opposite end extent of the stirrup **40** pivotally supports a clamping shoe **42** which is designed to rock upon the rod material of the stirrup **40**, as shown. The embodiment shown in Fig. 7 operates the same as the embodiment illustrated in the other figures of the drawings.

Obviously the invention is susceptible to some change or alteration without defeating its practicability, and I therefore do not wish to be confined to the preferred embodiment shown in the drawings and described herein, further than I am limited by the scope of the appended claim.

I claim:

A shore head brace and clamp for removably attaching a shore head to the upper end of a shore post and comprising an integral metal brace body of right triangular outline having a vertical leg with an outer surface adapted to engage a lateral face of the shore post and terminating in a first shore head supporting flange portion at one end and a transversely extending flange having spaced and parallel outwardly projecting lugs at the other end adapted to engage opposite side faces of

the shore post, a lower arm extending from the other end of said vertical leg and away from the shore post engaging surface thereof and terminating in a second shore head supporting flange portion coplanar with said first flange portion, an upper arm connecting said second flange portion with an intermediate portion of said vertical leg, a cross-member integral with and extending axially in opposite directions from said vertical leg adjacent the juncture of said upper arm therewith and perpendicular to the general plane of the brace body, trunnions formed on the ends of said cross-member and a stirrup pivotally connected to the trunnions, said stirrup being adapted to receive a shore post and having a plate with a gripping surface pivoted thereon for clamping the shore post to said vertical leg.

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