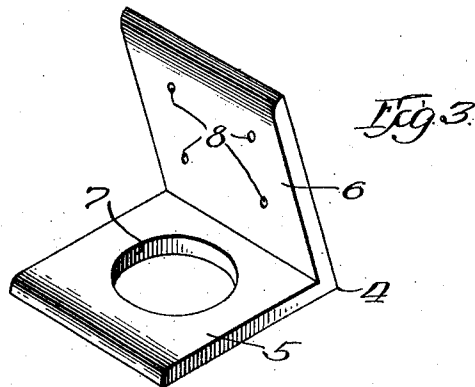
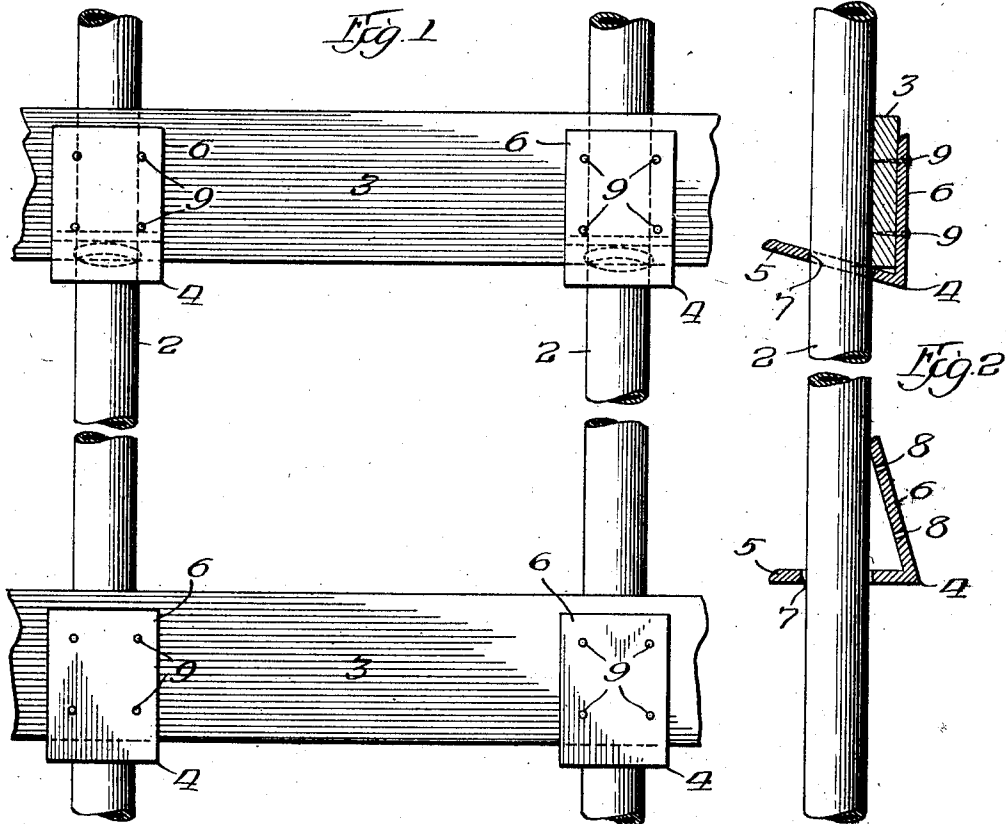


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C. L. MEYER
SHORE BRACE CLIP

Filed May 4, 1927



Witness:
[Signature]

Inventor:
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UNITED STATES PATENT OFFICE.

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SHORE-BRACE CLIP.

Application filed May 4, 1927. Serial No. 188,788.

This invention pertains to building construction and more particularly to a device for bracing shores used for supporting formwork during the construction of concrete floors, beams, joists and the like.

While the invention is primarily designed for and applicable to steel shores it is also adaptable for use in connection with shores made of wood and the like, but as steel or other metal shores are fast supplanting wooden shores the invention in its preferred form will be described and illustrated in connection with the former. Ordinarily wooden shores may be braced by connecting them together by transversely disclosed boards in any of a large number of different ways, but when steel shores are used it is very difficult to connect the transverse bracing members to the shores whether the transverse bracing members be of wood or metal. In some instances the transverse bracing members have been bolted to the shores, but this has entailed the large expense of drilling the shores et cetera and has made the resulting structure inflexible from the standpoint of adjustability. It will be appreciated that it may often be desirable to arrange the bracing members in different positions with respect to the shores and to brace them at predetermined points, but if the brace members must be connected to the shores by bolts and the like which require preformed holes in the shores, such adjustability cannot be obtained unless the shore be drilled at a large number of places. If, however, the shore is drilled at a large number of places it is weakened thereby and the transverse bracing members may not even then be adjusted to a nicety. Other arrangements have been utilized and tried, but none are entirely satisfactory for various reasons too numerous to be mentioned here.

One of the primary objects of my invention is to provide a novel shore bracing construction whereby any number of shores may be braced together and from any direction as well as at any desirable height or heights. In this connection the arrangement is such that the bracing members may be adjusted to a nicety vertically or circumferentially of the shores.

Another object of the invention is to provide a novel type of bracing clip for supporting the bracing member on and adjacent the shores at any desired height or in any de-

sired direction and to which the bracing members may be secured.

Many further objects of the invention, as well as the advantages and mode of use, will be or should become readily appreciated upon reading the following description and claims and after viewing the drawing in which:

Fig. 1 is an elevational view of fragmentary portions of hollow cylindrical shores braced from one another after the teaching of my invention.

Fig. 2 is an end view of the structure illustrated in Fig. 1, and

Fig. 3 is an enlarged detail perspective view of a preferred form of bracing clip constructed in accordance with the invention.

Considering the drawing in detail, the hollow cylindrical shores 2 when supporting heavy load, such as a concrete floor or beam while ordinarily made of great strength, nevertheless tend somewhat to buckle or sway under the loads imposed and for such reason must be suitably braced. Ordinarily wooden bracing members, such as boards 3, are nailed to the shores when the latter are made of wood and extend transversely of the latter from one another, but since continual nailing weakens the shores and nails cannot be driven into a shore of steel or iron I have provided a device which will obviate such difficulties as well as those previously mentioned.

The device in the form illustrated consists of an angle plate generally designated 4 having integrally connected legs 5 and 6 preferably disposed at an angle slightly less than a right angle to one another. The leg 5 in the present form of invention is provided with a circular opening 7 slightly greater in diameter than the diameter of the shores as is more clearly to be seen in Fig. 2 and at such distance from the juncture of the two legs that the leg 6 will just clear the side of the shore when the clip is disposed or slid thereover, as shown in the lower portion of Fig. 2.

When the clips are placed upon the shores, as shown in the lower portion of Fig. 2, the greatest weight of the clip being on the side of the shore adjacent which the leg 6 is disposed will cause the clip to swing downwardly about a pivot in space coincident with the diameter of the opening midway between the upper and lower sides of the leg 5 and coin-

cident with a diameter of the shore until the marginal edges of the leg 5 about the aperture 7 engage with the sides of the shore and bite against the same as shown in the upper portion of Fig. 2. In this position the leg 6, depending upon its angular relation to the leg 5 and the relative diameters of the apertures 7 and the shore 2, will preferably lie substantially parallel with the adjacent side of the shore in the direction of its length. Preferably the arrangement is such that the leg 6 will be spaced from the adjacent side of the shore a distance just equal to the thickness of the bracing member 3 so that the latter may be disposed in the gap thus formed with little, if any, room to spare.

The leg 6 of each clip is drilled or otherwise provided with several small perforations or holes 8 through it so that nails or screws 9 may be driven through them into the bracing members 3 for securing the latter relatively thereto and to the shores. With this arrangement the additional weight of the members 3 aids in tightly locking the clips 4 to the shores and against downward displacement thereon, and the shores will not only be braced against buckling toward or away from one another but by reason of the comparatively wide transverse width of the legs 5 and 6 the shores will be substantially braced against buckling in other directions. Of course, if other shores are behind the shores illustrated in Fig. 1 bracing members may be connected between them and the shores 2 transversely of the bracing members 3 in a manner similar to that above. It will also be appreciated that the clips 4 may be adjusted about the shores at any height or raised or lowered to any height along the shores for nicety of adjustment.

Having shown and described one form of my invention only for the purpose of illustrating the same, I do not desire to be limited thereto since many variations and modifications will occur to those skilled in the art after the invention has been explained to them, but only by the spirit of the invention and the scope of the appended claims.

I claim:

1. A clip of the character described comprising, a substantially V-shaped element the angle included between the legs of the element

being less than 90 degrees, one of the legs having an aperture therethrough, said aperture being of greater dimensions in one direction than the corresponding transverse dimension of a shore adapted to be passed therethrough, whereby certain of the edges of the said leg about said aperture will be engaged with said shore on substantially opposite sides thereof when the other said leg of said element extends substantially parallel with the side of the shore.

2. A clip of the character described comprising, a substantially V-shaped element the angle included between the legs of the element being less than 90 degrees, one of the legs having an aperture therethrough, said aperture being of greater dimensions in one direction than the corresponding transverse dimension of a shore adapted to be passed therethrough, whereby certain of the edges of the said leg about said aperture will be engaged with said shore on substantially opposite sides thereof when the other said leg of said element extends substantially parallel with the side of the shore, the other leg of the said element having apertures therethrough for the passage of nails and the like.

3. In combination, a pair of shores in spaced parallel relation, a shore brace clip on each shore, each clip comprising a pair of plates joined together along one edge of each to provide a substantially V-shaped element, one of said plates having an aperture therethrough of greater dimensions than the corresponding dimensions of the shore passing therethrough, said aperture being so spaced from the plate adjacent the plate through which it is formed as to permit the shore to clear said adjacent plate when the shore is passed through the aperture, said adjacent plate being substantially parallel its shore when in position and said adjacent plate when substantially parallel with the side of the shore being spaced therefrom, and a transverse member disposed between said adjacent plates and said shores in the spaces provided between said adjacent plates and their respective shores and holding said plates and shores in their aforesaid related positions.

In witness of the foregoing I affix my signature.

CHARLES LOUIS MEYER.