June 21, 1927.

1,632,918

G. H. OLSON

CEMENT FORM HOLDER

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Fig. 1

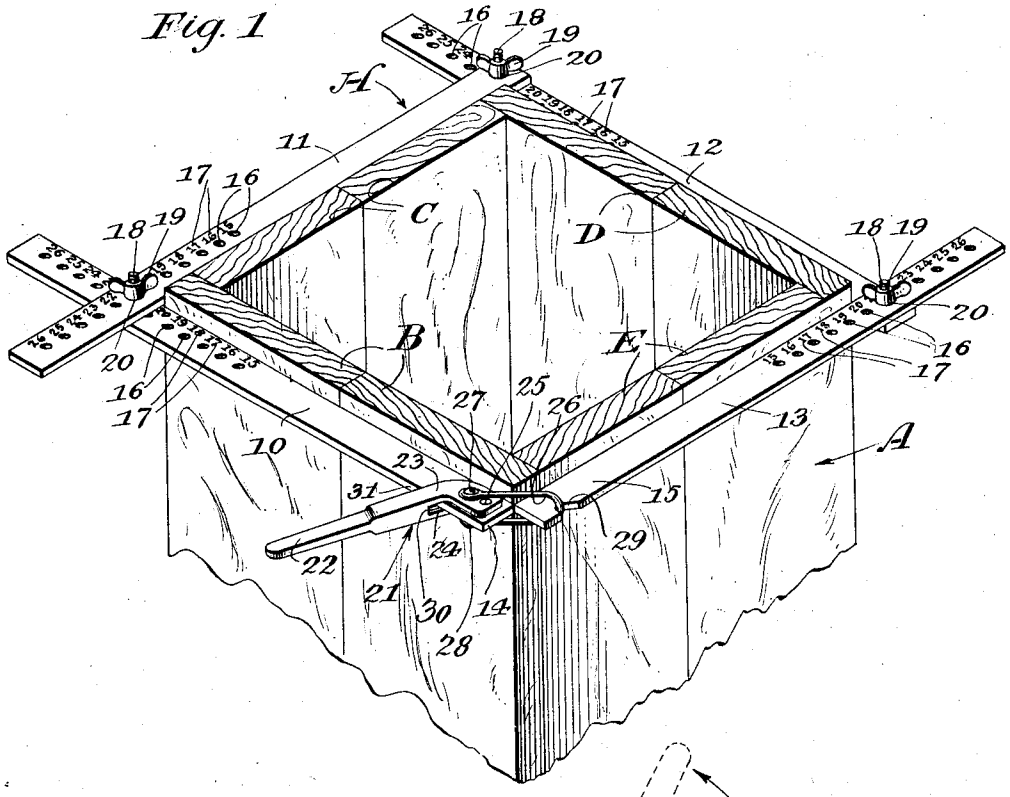
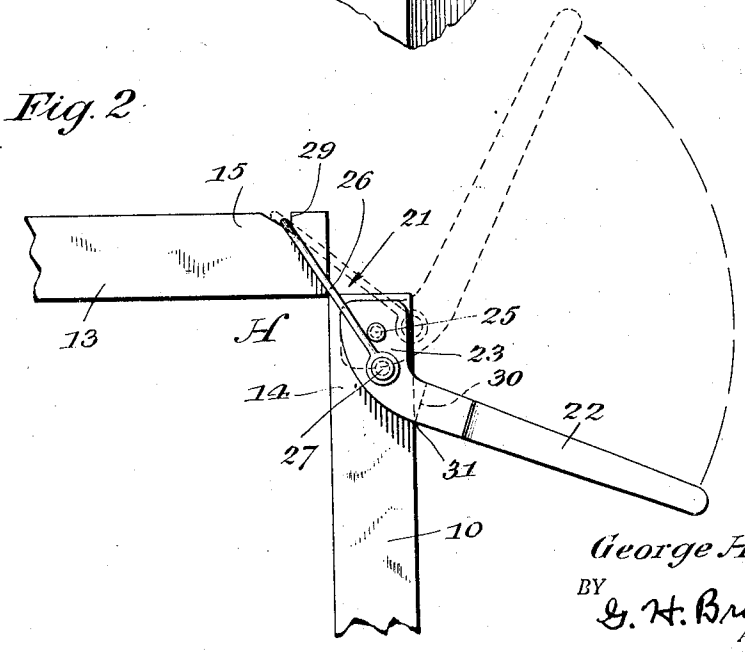


Fig. 2



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UNITED STATES PATENT OFFICE.

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CEMENT-FORM HOLDER.

Application filed October 1, 1925. Serial No. 59,828.

This invention relates to holders for cement forms, and an object of the invention is to provide an improved and novel holder of the present character equipped with a simple and unique form of clamp adapted to lock the holder upon a form.

A more specific object is to provide a holder for cement forms which will include a plurality of bars pivoted to each other and each adapted to engage a face or wall of a form, and a clamp device, associated with an end portion of one of said bars and designed to be associated with an end portion of another of said bars, adapted to be manipulated to positively lock the holder upon a form with each bar in operative form-holding position against a face or wall of said form.

A further specific object is to provide a holder for cement forms consisting of a plurality of bars pivoted to each other and including two bars each having a free end portion, and a clamp device, upon one of said free end portions and capable of engaging with the other of said free end portions, adapted to be manipulated to draw said free end portions together and thus positively lock the holder upon a form.

A further specific object is to provide each holder bar with spaced apart perforations for receiving the pivotal means securing the bars together, and to also provide each bar with graduations adjacent said perforations, whereby the holder can be quickly and easily set to a size adapted to nicely grip each face or wall of a form when the clamp device shall have been manipulated to lock said holder.

And yet a further object is to provide in the form holder, a practical, efficient and dependable clamp device of simple and economical construction adapted to manipulate the holder in the manner as set forth.

With the above objects in view, as well as others which will appear as the specification proceeds, the invention comprises the construction, arrangement and combination of parts as now to be fully described and as hereinafter to be specifically claimed, it being understood that the disclosure herein is merely illustrative and meant in no way in a limiting sense, changes in details of construction and arrangement of parts being permissible so long as within the spirit of the invention and the scope of the appended claims.

In the accompanying drawing forming a part of this specification,

Fig. 1 is a perspective view of the improved holder as in use, a square or rectangular form being disclosed; and

Fig. 2 is an enlarged fragmentary elevational view detailing the clamp device.

With respect to the drawing and the characters and numerals of reference indicated thereon, A represents a cement form of square or rectangular configuration, B, C, D, E indicate the individual walls of said form, each wall including two panels, as disclosed, and H denotes, generally, the holder of the invention.

Of the holder H, 10, 11, 12 and 13 are bars all pivoted to each other, the bar 11 being pivoted between the bars 10 and 12, the bar 12 being pivoted between the bars 11 and 13, the bar 10 having a free end portion 14, and the bar 13 having a free end portion 15. Each bar has spaced apart perforations 16, and adjacent the perforations the bars are graduated, as indicated at 17.

All of the pivotal means between the bars 10, 11 and 11, 12 and 12, 13 may be duplicates. As disclosed, each pivotal means consists of a bolt 18 passing through adjoining bars, and a wing nut 19 upon the bolt.

As will be noted, only one end portion of each bar has spaced perforations. Each bar 11, 12 has a single perforation 20 in its end portion opposite its spaced apart perforations, so that the pivotal means between bars 11, 12 and 12, 13 pass through a perforation 20 and a selected perforation 18. The pivotal means between bars 10 and 11 passes through selected perforations 18, one in each bar.

The bars 10, 11, 12 and 13 are adapted to engage the outer surface of the form as disclosed, to hold the same in set position, in such manner that the bars engage the outer faces of the walls B, C, D and E, respectively, and so that the free end portions 14 and 15 of the bars 10 and 13, respectively, are adjacent to or contiguous with each other. Clearly, the spaced apart perforations and their graduations provide for adjusting the bars to size to fit the form.

Numeral 21 denotes, generally, a clamp device adapted to draw the free end portions 14 and 15 together to positively lock the holder upon the form. Of this clamp device, 22 is a bifurcated clamping lever having legs 23, 24 pivoted at opposite sides of the end

portion 14 as indicated at 25, and 26 is a hook link having one of its ends pivoted upon the leg 23 at 27 and its other end pivoted upon the leg 24 at 28, the hook link being adapted to engage a notch 29 in a side edge of the end portion 15.

In dotted lines in Fig. 2 the clamp device is shown as when ready for manipulation to lock the holder to the form, or as when the holder is to be released. In full lines in said Fig. 2, (and also in Fig. 1), the clamp device is shown as when the holder is locked in its operative position. Evidently, the clamping lever 22 and the hook link 26 provide a toggle, and when the clamping lever 22 is swung upon its fulcrum 25 from the dotted line position in Fig. 2 toward the full line position therein to situate the pivoted ends of the hook link just beyond their dead center position, the bars 10 and 13 are locked together and the holder is thus locked upon the form, any tendency of said bars 10 and 13 to move apart being resisted by the engagement of the end surface 30 of the lever 22 (between the legs 23 and 24 thereof) with the outer edge 31 of the bar 10, as will be clear from the drawing. To release the clamp device, the clamping lever is swung from its full line position toward its dotted line position until the ends of the hook link are beyond dead center position, as will also be obvious.

Particular attention is called to the fact that the clamp device is not only adapted to secure the holder upon a form, but is also adapted to draw the free end portions 14 and 15 of the bars 10 and 13 toward each other to positively lock the holder upon a form, so that each of the bars, when set to proper size, can nicely and positively grip each face or wall of the form.

Having thus fully described the invention, what I claim as new and desire to secure by Letters Patent is:

1. In a holder of the character described, a bifurcated clamping lever and a holder bar upon which the lever is pivoted, said bar being arranged between legs of said lever, and a hook link adapted to engage a different holder bar and having its ends, respectively, pivoted upon said lever legs, the link and lever providing a toggle adapted to be swung beyond a dead center position to lock said bars to each other, and the end portion of said lever between its legs being adapted to arrest the movement of said toggle when it has passed said dead center position.

2. A holder of the character described, comprising a pair of relatively movable bars one of which is provided with a notch and the other of which has thereon a bifurcated clamping lever the legs of which are pivoted at opposite sides of said other bar, a hook link adapted to engage said notch and having its ends, respectively, pivoted upon said lever legs, said link and lever providing a toggle adapted to be swung beyond a dead center position to draw said bars together and lock them to each other, the end portion of said lever between its legs being normally spaced from said other bar but being adapted to engage said other bar when the lever is in the locked position of said toggle.

3. A holder of the character described, comprising a plurality of bars pivoted to each other and including two bars each having a free end portion, a clamp device upon one of said free end portions, said clamp device comprising a lever having legs pivoted at opposite sides of said free end portion, a hook link adapted to engage a notch in the other free end portion and having its ends, respectively, pivoted upon said lever legs, said link and lever providing a toggle adapted to be swung beyond a dead center position to draw said free end portions together and lock them to each other, a part of said lever between its legs being normally spaced from the bar having said lever but being adapted to engage the bar when the lever is in the locked position of said toggle, whereby said bar having the lever is adapted to arrest the movement of said toggle when past its dead center position.

Signed at Bridgeport, in the county of Fairfield, and State of Connecticut, this 1st day of September, A. D., 1925.

G. H. OLSON.