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CONCRETE FORM CLAMP

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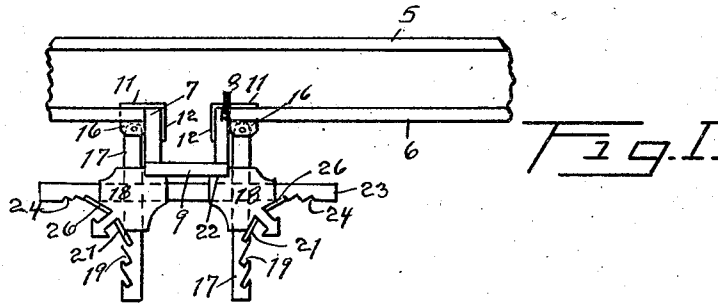


Fig. I.

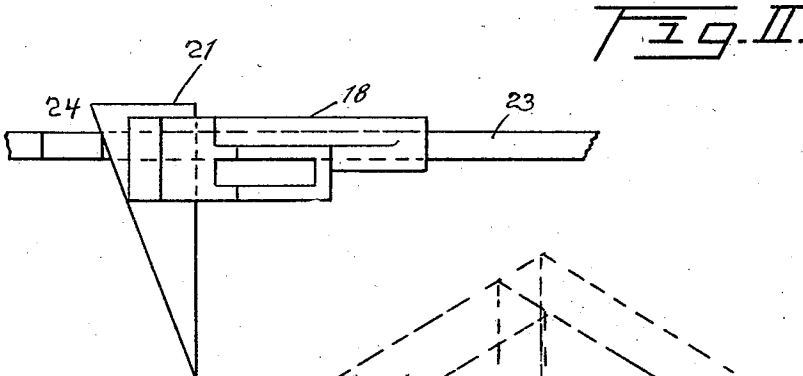


Fig. II.

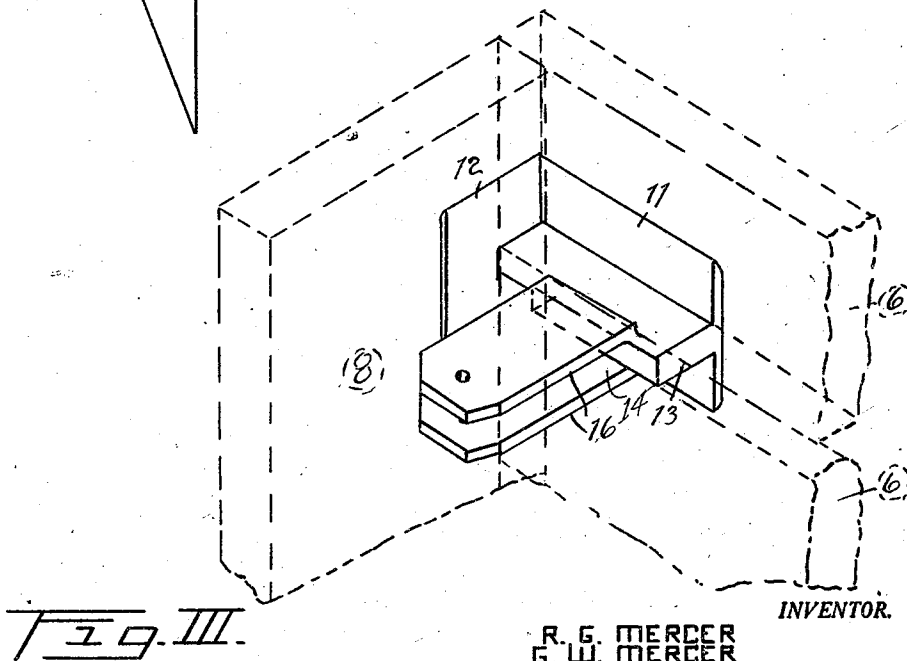


Fig. III.

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## CONCRETE-FORM CLAMP.

Application filed September 10, 1927. Serial No. 218,702.

This invention relates to improvements in concrete form clamps.

The principal object of this invention is to provide a form clamp which may be used with the ordinary concrete forms for the purpose of holding the column form boards to the wall form boards.

Another object is to produce a clamp which may be employed in conjunction with ordinary form boards without altering their customary arrangement.

A further object is to produce a device which is economical to manufacture.

A still further object is to produce a clamp which is capable of various adjustments so as to accommodate columns of various sizes.

Other objects and advantages will be apparent during the course of the following description.

In the accompanying drawings forming a part of this specification and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a fragmentary top plan view of a concrete form showing a column form with our clamps applied thereto,

Figure 2 is a side elevation on an enlarged scale on one of the clamp members, and

Figure 3 is an enlarged perspective detail view showing the position the securing element will assume in relation to the form boards.

At the present time in constructing concrete structures where it is required to place a column in conjunction with the concrete wall, it is necessary to build out from the wall or form boards for the wall, a projecting form into which the concrete will be placed for casting the column. These projecting forms have been heavily constructed and nailed tight and otherwise secured to the form boards of the wall, which securing operation was a tedious one and also an expensive one.

Applicants have therefore produced a clamp which may be employed in conjunction with the wall boards in such a manner that the form boards for the columns may be quickly and securely fastened and held in place both before and after the forms have been filled.

Referring to the drawings particularly to Figure 1, it will be noted that the numerals 5 and 6 refer to parallel form boards between which concrete may be poured. These form

boards are common in concrete construction. The numerals 7 and 8 refer to form boards which will hereafter be termed the column form boards and taken with the board 9, form an offset in the mold which offset will cast a projection upon the wall 6 in the form of a column.

It is of course understood that if it is only desired to cast a projection from the side of the wall for a short distance, the same can be accomplished with our clamps.

In order to hold the column boards 7, 8 and 9, we first employ securing elements which are best illustrated in Figure 3. These securing elements are in the form of an angular plate having sides 11 and 12 preferably formed at right angles to each other. The plate 11 is provided with a web 13 which is recessed at 14 and has parallel anchor bars 16 extending therefrom.

It will be noted that these anchor bars are secured to the forward edge of the web 13 and have their rear ends in the same plane as the recess portion 14. This permits the form boards 6 shown in dotted lines in this figure to abut the web 13 and to lie behind the end of the anchor bars, while the recess 14 permits the column board 8 to abut the form boards 6 and to lie between the plate 12 and the anchor bars 16. As the securing elements and associated parts are identical on both sides of the column, but one set will be described.

Pivotaly secured between the anchor plates 16 is a pivoted draw bar 17. This bar is adapted to pass through a casting 18 and has recesses 19 formed therein, which recesses cooperate with a wedge 21 in such a manner that when the wedge is moved in one direction it will exert pressure between the draw bar 17 and the casting 18 in such a manner as to move the casting toward the securing element. In doing this one edge 22 of the casting will contact the column board 9 thereby securely clamping the same. As the arrangement of the opposite side of the device is identical, the same action will take place.

In order to draw the castings 18 toward each other a cross bar 23 is provided, which cross bar has notches 24 formed therein, the notches at the opposite ends being opposed to each other, therefore by the employment of a wedge 26 upon each side of the device as illustrated in Figure 1, pressure may be brought against both of the castings in such

a manner as to move them toward each other thereby further clamping the form board 9.

It is understood that the clamping members 18 have slideways therethrough through which the draw bars and cross rod have a sliding engagement.

It will thus be seen that we have produced a device which will accomplish all of the objects above set forth.

10 It is to be understood that the form of our invention herewith shown and described is to be taken as a preferred example of the same and that various changes relative to the material, size, shape and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

Having thus described our invention, we claim:—

20 1. In a device of the character described, a securing element adapted to be retained in contact with the form boards of a concrete form, anchor bars formed integral with said securing element, a draw bar pivoted to said

anchor bars and a clamping element carried by said draw bar for the purpose specified. 25

2. In a device of the character described, a securing element comprising a plate having angularly disposed sides, a web carried by one of said sides, anchoring means carried by said web, a draw bar secured to said anchoring means and a slidable member movable on said draw bar for the purpose specified. 30

3. In a device of the character described, a securing element comprising a plate having angularly disposed sides, a web carried by one of said sides, anchoring means carried by said web, a draw bar secured to said anchoring means, a slidable member movable on said draw bar, a cross bar slidably positioned in said slidable member and means for fixedly securing said slidable member to said draw bar and said cross bar. 35 40

In testimony whereof we affix our signatures.

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