Feb. 28, 1928. 1,660,905

J. C. ALLMAN

CONCRETE FORM CLAMP

Filed Sept. 22, 1926 2 Sheets-Sheet 1

Fig. 1.

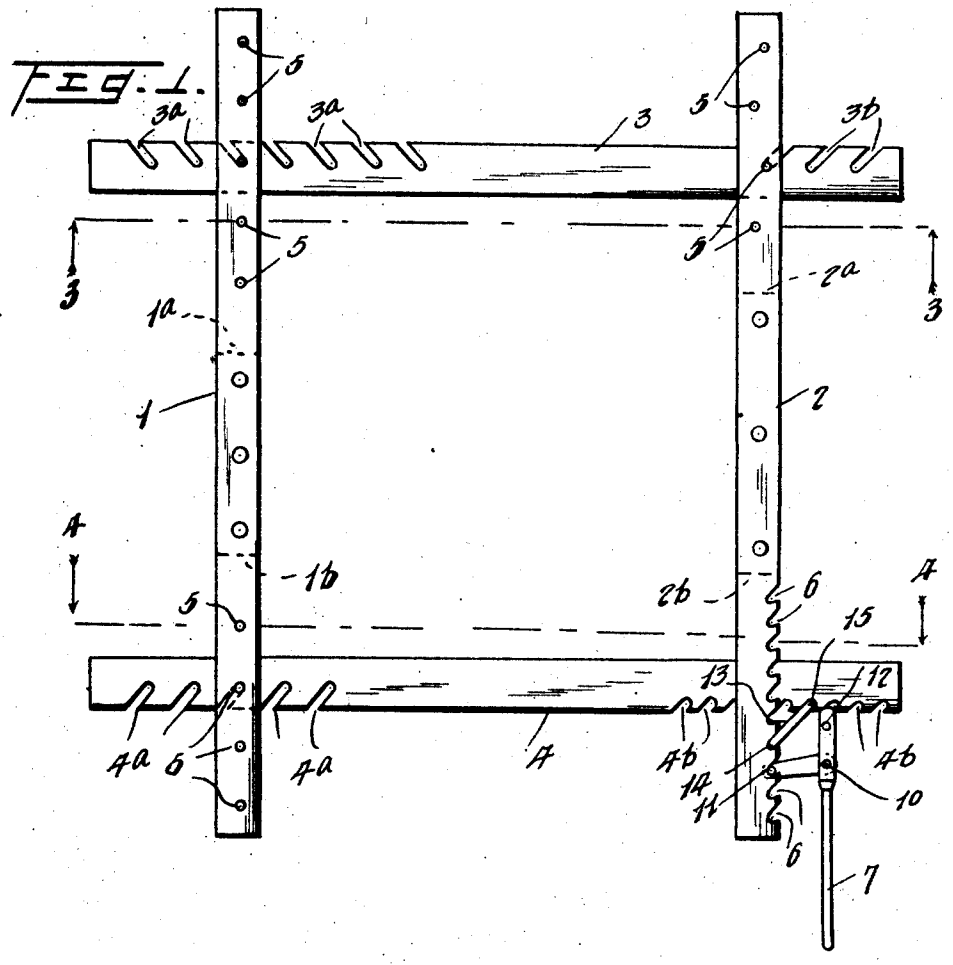
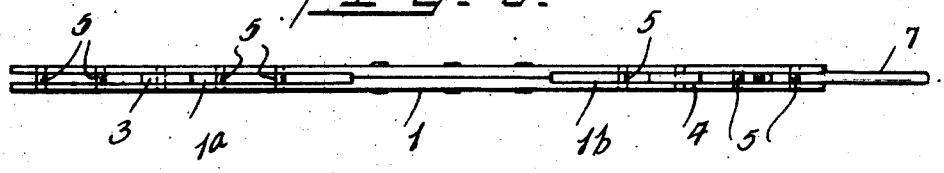


Fig. 2.



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Fig. 3.

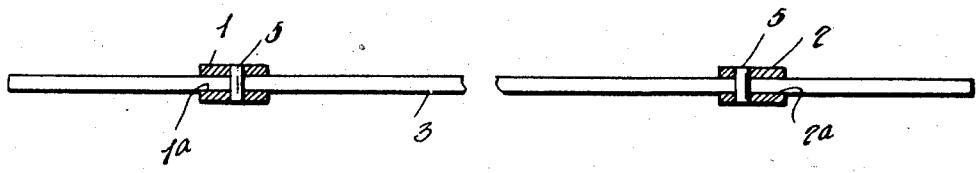


Fig. 4.

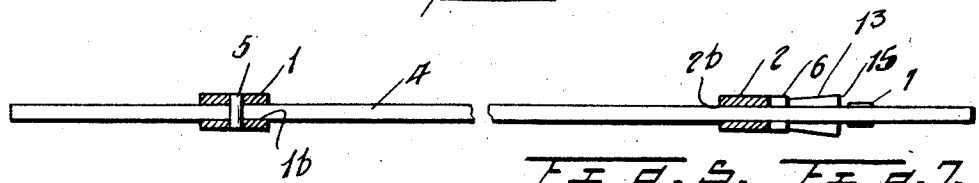
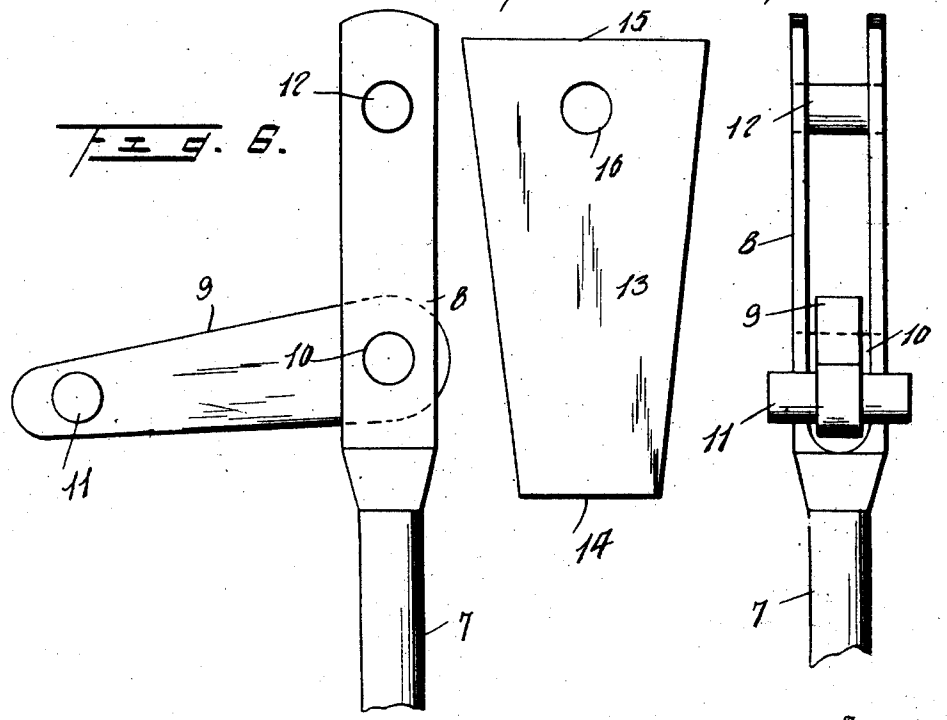


Fig. 5. Fig. 7.

Fig. 6.



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UNITED STATES PATENT OFFICE.

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CONCRETE-FORM CLAMP.

Application filed September 22, 1926. Serial No. 137,110.

The invention relates to means for holding assembled concrete forms and has for its object the provision of a clamping means that is quickly and easily assembled and will effectively hold the parts of the form together and may be quickly dismembered when it is desired to remove the form from the completed molded object.

A further object of the invention is the provision of a clamp comprising separable members adapted to be adjustably secured together to form a polygon enclosing the form members, with means to strain the clamp into intimate relation with the form members and means to hold the clamp in strained position.

A further object of the invention is the provision of a clamp made up of two members having bifurcated ends, and other members adapted to fit between the fingers of the bifurcated ends and having oblique notches in one of their edges to engage pins straddling the bifurcated ends of one of the bifurcated members and one end of the other bifurcated member. The remaining end of the last mentioned bifurcated member and the end of the other member in lapped relation therewith are notched to receive a latch member to hold the device in clamping position.

The invention will be described in detail hereinafter and will be found illustrated in the accompanying drawings in which

Figure 1 is a plan view of a concrete form made in accordance with the invention,

Figure 2 is an edge view,

Figures 3 and 4, sectional views on the planes indicated by the lines 3—3 and 4—4 of Figure 1,

Figure 5, a plan view of a latch member, and

Figures 6 and 7 plan and edge views, respectively, of the straining tool.

In the drawings similar reference characters will be used to designate corresponding parts throughout the several views.

The device as disclosed in the drawings is designed to be used for holding the form members for casting a column or pillar, but obviously the device to be hereinafter described may be differently proportioned, without departing from the spirit of the invention to hold form members for different kinds of concrete casting, so that the invention is not limited to the specific arrangement as shown except where limited in the appended claim.

The form clamp comprises members 1, 2, 3, and 4 that may be made of any suitable material, and as hereinbefore stated of any relative proportions. The members 1 and 2 have their ends bifurcated as shown at 1^a, 1^b, 2^a and 2^b, respectively. The bifurcated ends 1^a, 1^b, and 2^a have a series of pins 5 secured therethrough and straddling the space between the fingers of the bifurcation, while the bifurcated end 2^b is provided with a series of notches 6 arranged at substantially an angle of 45 degrees to the edge of the part 2.

The member 3 is provided with notches 3^a at one of its ends, and notches 3^b at its other end, said notches being on angles of substantially 45 degrees, and the part 3 is adapted to fit between the fingers of the bifurcated ends 1^a and 2^a and the notches 3^a and 3^b will engage pins 5 therethrough, it being understood that in adjusting the clamp on the mold one of the pins on each member 1 and 2 is selected to engage one of the notches in the respective end of the member 3 to snugly engage the members 1, 2, and 3 on the mold. The member 4 is provided with notches 4^a in one of its ends corresponding to the notches 3^a and 3^b, hereinbefore described, and member 4 is adapted to fit between the fingers of the bifurcated ends 1^b and 2^b of the members 1 and 2 and be adjusted to snugly engage the mold by arranging one of the pins 5 in one of the notches 4^a. The other end of part 4 is provided with notches 4^b similar to the notches 6 in the part 2, and the purpose of the notches 6 and 4^b will be now described.

After the members 1, 2, 3, and 4 have been assembled around the mold as hereinbefore described, the members are strained into clamping relation by means of a tool illustrated in Figures 6 and 7, this tool comprising a handle 7 having a bifurcated end 8 between the legs of which is pivoted an arm 9 by means of a pin 10, and has a transverse pin 11 adjacent to its free end, and the ends of the pin extend above and below the upper and lower surface of the arm to form lugs adapted to engage alined notches 6 in the end 2^b of the part 2, and a pin 12 straddling the legs of the bifurcated end adjacent

to their outer ends that is adapted to engage one of the notches 4^b in the end of the part 4.

The tool described is in the nature of a toggle lever, and it will be apparent that when it is in the position as indicated in Figure 1, the lever may be operated to strain the ends of the members 2 and 4 to clamp the members around the form. To hold the clamp in a strained position, a latch member such as illustrated in Figure 5 is inserted as indicated, in Figure 1 to engage in oppositely disposed notches 4^b and 6 to hold the clamp in strained position. The latch comprises a plate 13 of tapered formation, the narrow end 14 being adapted to engage in notches 4^b while the wider end 15 straddles the bifurcated end 2^b and engages the notches therein. The opening 16 in the plate 13 may be used for insertion of a tool for removing the latch when the clamp is to be dismembered, and may also be used for suspending the latch member from a pin or other holder when not in use.

It will be apparent that to dismember the clamp the toggle lever illustrated in Figures 6 and 7 may again be used to strain the lapped ends of the members 2 and 4 so that the latch plate 13 may be removed, and the parts will then be readily removable from the mold. It will also be apparent that as the different parts of the clamp may be disassembled the structure admits of storage of the parts of the clamp and the toggle lever.

What is claimed is:—

A clamp, comprising separable bars, some of said bars having bifurcated ends, the other of said bars engaging between the legs of said bifurcated ends in lapped relation, notches in the last mentioned bars, pins bridging both ends of one of said bifurcated bars and one end of the other of said bifurcated bars to engage notches in the second mentioned bars, the notches engaged by said pins inclining outwardly towards the adjacent ends of the bars to draw the engaged bars inwardly of the clamp, the remaining end of one of the bifurcated bars being notched, the notches in the bifurcated bar and the adjacent end portion of the bar engaged thereby being inclined inwardly of the respective bars, and a latch to engage the oppositely disposed last mentioned notches.

In testimony whereof I affix my signature.

JOHN C. ALLMAN.