Feb. 9, 1937. H. A. TILDSLEY 2,070,459

CLAMP

Filed Nov. 27, 1935

FIG. 1.

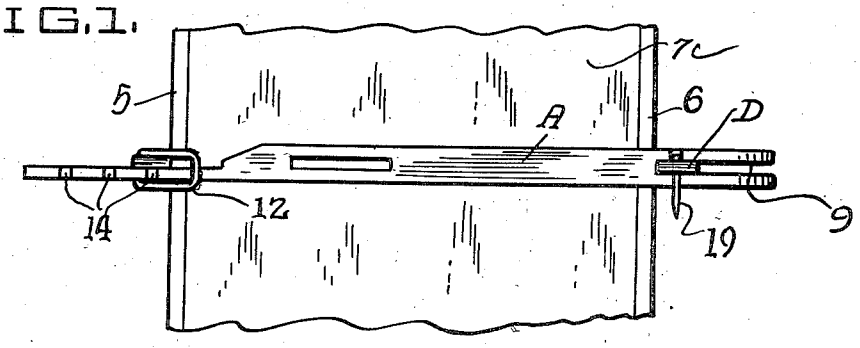


FIG. 2.

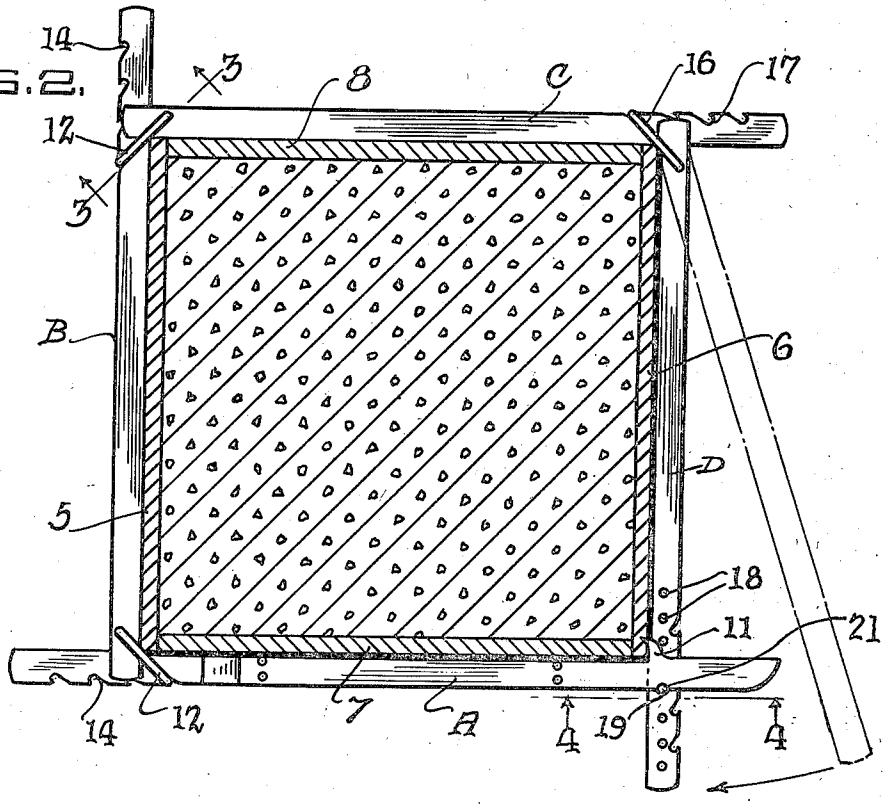


FIG. 3.

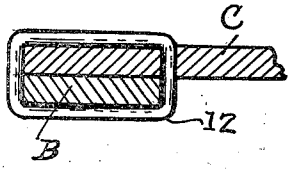
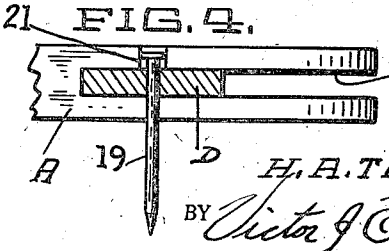


FIG. 4.



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CLAMP

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2 Claims. (Cl. 144—291)

This invention relates to improvements in clamps and has particular reference to a clamp for holding form boards such as are commonly employed in the casting of concrete and other plastic substances.

The principal object is to produce a clamp which may be adjusted to various sizes of forms and one which may be readily handled by a single person, in counter-distinction to clamps which require one or more laborers to install.

A further object is to produce a clamp which may be adjustably secured to any form having a plurality of straight sides, such as square columns or octagonal columns.

A still further object is to produce a device which is economical to manufacture and one which may be salvaged when the form boards are removed.

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

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

Fig. 1 is a side elevation of a form having my clamp attached thereto,

Fig. 2 is a top plan view of Fig. 1,

Fig. 3 is an enlarged cross sectional view on the line 3—3 of Fig. 2, and

Fig. 4 is an enlarged cross sectional view taken on the line 4—4 of Fig. 2.

In the building of columns, particularly concrete columns, it is necessary to employ form boards between which the concrete is poured. These boards may be set up in various shapes such as a rectangular structure, octagonal or hexagonal. In order to hold these form boards in a simple manner, I have devised a clamp which is progressively carried around the form and locked in place. I have further provided means whereby the progressive action is dependent upon a plurality of linked arms which may be adjusted relative to each other so as to produce desired links.

In the accompanying drawing wherein for the purpose of illustration is shown a preferred embodiment of my invention, the numerals 5, 6, 7 and 8 designate four form boards, such as would be employed in building a square column. My invention consists of a series of bars A, B, C and D. The bar A is bifurcated as indicated by the numeral 9 and is provided on its inner edge with a hook 11 adapted to engage the form board 6, the bifurcated end of said bar being adapted to receive the free end of bar D. The bars B and C are identical and each are provided with a link 12 adapted to enter notches 14 formed in the bars A or B, as the case may be. The bar D has a link 16 similar to the links 12 also adapted to engage notches 17 formed in the bar C. This bar D has a series of pin receiving openings 18 extending therethrough and when the end of the bar D is passed through the bifurcation 9, as shown in Figs. 1 and 2, a pin 19 preferably in the form of a nail may be passed through the proper openings and come to rest in a notch 21 formed in the outer edge of the bar A.

With this construction, the manner of employing my bars is as follows:—

First the bar A is placed adjacent the side 7 of the form with the hook 11 engaging the corners of the form. This hook will grip the edge of the form board 6 and will, therefore, be held in place when the operator moves to the opposite end of the bar. The bar B is then placed so that the same overlaps the end of the bar A with the link 12 engaging the proper notch in the bar A. The bar C is then engaged with the bar B in the same manner, as is also the bar D. The bar D will have its free end passing through the bifurcation 9 and then the pin 19 is placed. Thus the operator may move around the structure until the entire clamp has been properly arranged and is securely fastened in place.

It will be apparent that the lever and link arrangement between the various bars enables the same to be tightly engaged with the clamp boards, thus making a strong structure.

It is to be understood that the form of my 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 my invention, I claim:—

1. In a device of the class described, a plurality of bars, means forming a clamp for concrete forms comprising means for hinging certain of said bars to the next succeeding bar, comprising links pivoted in the ends of the bars and capable of engaging notches formed in the opposite ends of adjacent bars, one of said bars having a bifurcated end capable of receiving the free end of another of said bars, and a locking pin extending through the end of said last mentioned bar and capable of adjustably retaining the bifurcated bar securely against the form.

2. In a device of the class described, a clamp

comprising a bar adapted to contact a concrete form, said bar having a bifurcated end and a form engaging hook formed at one end, a second bar pivotally and adjustably connected to the free end of said first mentioned bar, and another bar connecting said last mentioned bar, certain of said bars having links pivoted in the ends thereof and link engaging notches formed in the opposite ends thereof, the end bar of the series engaging the first mentioned bar and passing through the bifurcation formed therein, and a locking pin extending through said last mentioned bar and engaging a notch formed in said first mentioned bar.

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