

Jan. 25, 1927.

W. A. MOSER

1,615,338

CLAMP

Filed Sept. 22, 1926

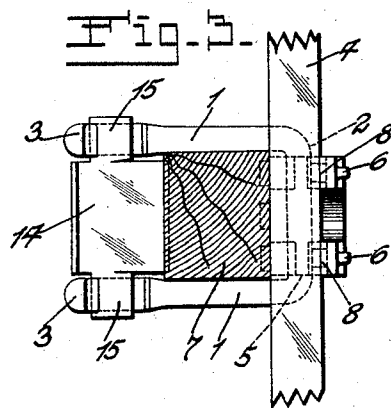
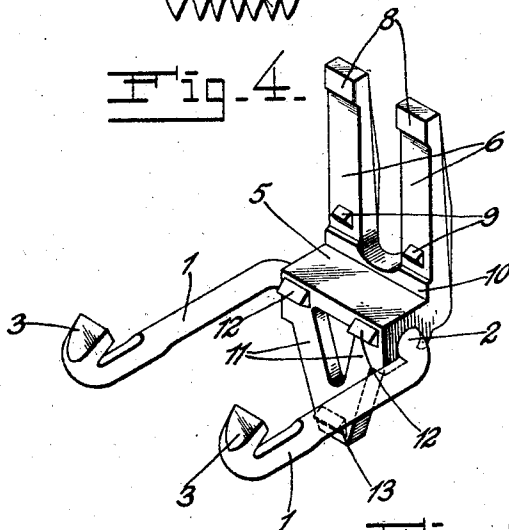
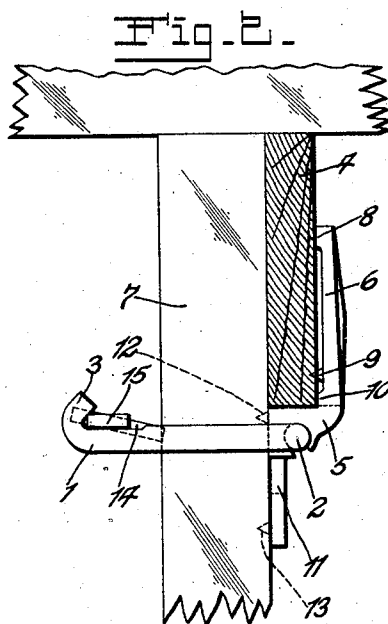
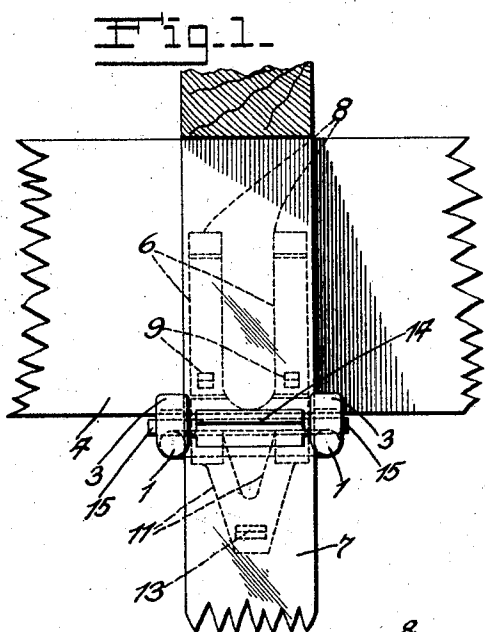
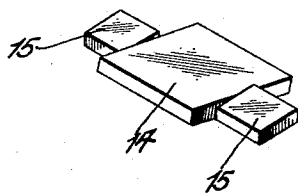


Fig. 5.



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UNITED STATES PATENT OFFICE.

WILLIAM A. MOSER, OF ST. LOUIS, MISSOURI.

CLAMP.

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This invention relates to clamps, and has special reference to clamps for supporting the removable false work erected and used in building concrete structures, and for other purposes.

An object of the invention is to provide a better clamp than has heretofore been available on the market for engagement with the upright shores of the false work to support the remaining portion of the frame upon which the concrete is poured and retained until it hardens. The clamp includes a locking block of novel construction whereby stronger clamping engagement of the device with the shores is obtained than is possible to obtain by devices of different constructions. For instance, by a clamping device of my improved construction and embodying my novel clamping block, clamping engagement of sufficient strength is obtained to support weights that will cause the clamp to crush the wooden shores. Whereas, in similar tests, I have determined that clamps of different construction as now on the market, will slip and will not retain rigid engagement with the shores. So that, by my improved clamping device, I am able to support several thousands of pounds more of weight than I have been able to support by use of other clamping devices available on the market.

Another object of my invention is to provide the improved clamp possessing the advantages and capabilities mentioned herein, reference being made to the drawing, in which—

Fig. 1 is an end view of the clamp in use.

Fig. 2 is a side elevation.

Fig. 3 is a plan view.

Fig. 4 is a perspective view of two members of the clamp in assembled relationship.

Fig. 5 is a perspective view of my improved clamping block.

The frame which embraces the shore or other part to which the clamp is to be attached comprises a strong metallic bar of approximate U-shape, including a pair of arms 1 integrally connected at one end by a cross part 2. On the opposite end, each of the arms 1 is formed with an integral hook 3. The arms 1 are essentially approximately equal in length and the hooks 3 are of duplicate construction, extending upwardly over the extremities of the arms 1 instead of downwardly. By extending the hooks 3 upwardly, and by using my improved clamp-

ing block, I have, in practice, been able to obtain the new and better results hereinbefore stated.

The angular supporting member for the horizontal part 4 of the false work comprises a base 5 pivoted longitudinally upon the connecting part 2 and having a pair of spaced upright arms 6 integral therewith and rising from the outer side edge of the body 5. In use, the part 4 to be supported is seated upon the body 5 between the upwardly extending arms 6 and the shore 7. Preferably, the arms 6 are provided with projections 8 near their upper ends and with teeth 9 on their inner sides near the body 5. In addition, a flat transverse shoulder 10 is at the lower ends of the arms 6 forming a strengthening thickened portion and also a surface arranged to contact with the outer side of the supported part 4 while the teeth 9 press into the part 4. Thus, while the flat surfaces of the parts 8 and 10 contact with the flat surface of the part 4, the intermediate portions of the arms 6 are out of contact with said part 4, except that the teeth 9 are forced into the body of the part 4, as clearly shown in Fig. 2.

The inner side of the body 5 has integral therewith a pair of depending arms 11 which are integrally united at their lower ends, forming a V-shaped structure. The inner side of the body 5 has a number of teeth 12 integral therewith and a similar tooth 13 is provided on the union of the arms 11. These teeth 12 and 13 are arranged to press into the shore 7 and form cooperative elements to prevent the clamp from slipping. This device whereby the part 4 is supported constitutes one of the clamping elements.

The other member of the clamp comprises a block 14 insertable between the ends of the arms 1 and provided on each end with an extended portion 15. The block 14 and arms 15 respectively are approximately flat, but are formed in an angular relationship, as will be seen in Fig. 5, so that when the arms 15 are seated upon the arms 1 under the hooks 3, the block 14 is in an inclined or oblique position (Fig. 2). The inner edge of the block 14 engages the side of the shore 7 opposite from the cooperating clamping member and when inserted in the manner shown, a very strong connection is obtained. The stronger clamping connection is obtained, partly at least, as a result of making the clamping edges of the block 14 in in-

clined planes with respect to the arms or extensions 15. As seen in Fig. 2, the clamping edge of the block 14 is below the plane of the upper side of the part 5 and, incidentally, below the plane of the teeth 12. The opposite side edges of the block 14 are different distances from the side edges of the arms or extensions 15 to adapt the device for clamping engagement with timbers of different thickness.

From the foregoing, it will be seen that my invention obtains all of its intended objects and purposes and is capable of application to various uses. I do not restrict myself unessentially, but what I claim and desire to secure by Letters Patent is:—

1. A clamp comprising an approximately U-shaped bar, an element pivoted on the connection between the arms of said bar to engage a support to which the clamp is to be attached, a projection on the inner side of said element to be assembled in said support, a hook on the end of each arm of said bar extending upwardly, a clamping block arranged to be inserted between the arms of said bar, and projections on the ends of said block seating on the upper sides of the arms

of said bar and engaging said hooks leaving the inner edge of said block extending obliquely downwardly between said arms of said bar below the plane of said projection on said element.

2. A clamp of the character described comprising an approximately U-shaped bar, an element pivoted on the connection between the arms of said bar, an arm extending upwardly from the outer portion of said element, a flat-faced projection integral with said arm near its upper and lower ends respectively and extending beyond the inner side of said arm and arranged to engage against a supported part leaving an intermediate portion of said arm out of contact with said supported part, a downwardly extending arm integral with the inner portion of said element arranged to bear against a support to which the clamp is to be attached, an upwardly extending hook on the free end of each of said arms, and a clamping element having detachable connection with said hooks and extending downwardly between said arms.

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