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H. A. TRESTER

CAM CLAMPING DEVICE

Filed March 21, 1925

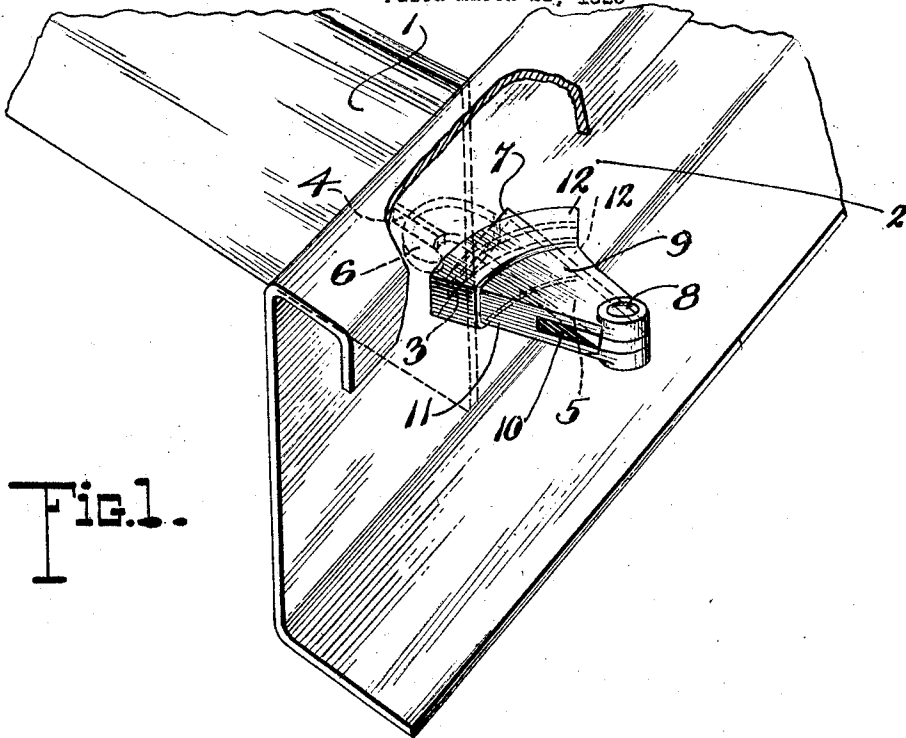


Fig. 1.

Fig. 2.

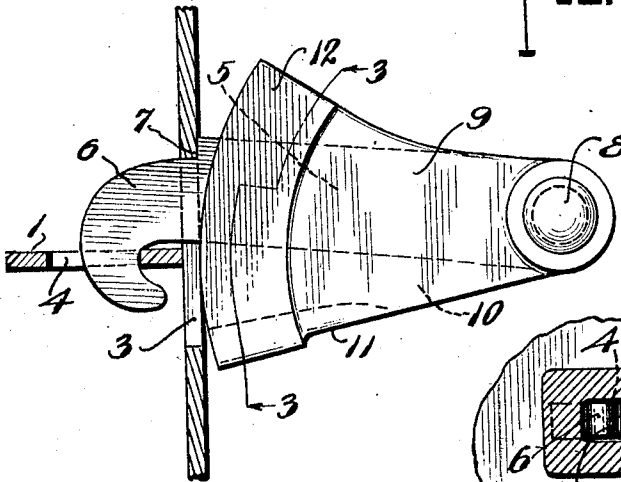
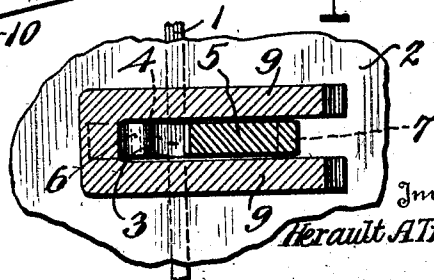


Fig. 3.



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# UNITED STATES PATENT OFFICE.

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## CAM-CLAMPING DEVICE.

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*To all whom it may concern:*

Be it known that I, HERAULT A. TRESTER, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Cam-Clamping Devices, of which the following is a specification.

This invention resides in the provision of a simple clamping device adapted primarily for use in connecting metal plates and especially suitable to be employed in conjunction with metal forms of different types wherein plate elements are desired to be firmly connected with one another to avoid accidental relative movement, or their relative displacement.

In its preferred form, the invention comprises a hook member, and a camming or wedge member connected therewith to positively hold the hook member in engagement with a part with which it may be interlocked, the camming member acting upon a separate part, plate or form to be held in any predetermined relation with respect to the part with which the hook co-operates.

For a full understanding of the invention, including its merits and construction, from a practical standpoint, reference is to be had to the accompanying drawings in which:

Figure 1 is a perspective view showing the invention as it is employed for connecting the divisional plate of a curb or gutter form, with one of the side rails or forms.

Figure 2 is a horizontal sectional view of the same parts showing the camming member in operative position.

Figure 3 is a cross sectional view taken on the line 3—3 of Fig. 2.

In the carrying out of my invention, I have simply illustrated it in one of its adaptations of use, as when employed in conjunction with what are commonly known as curb and gutter forms.

The drawings illustrate at 1 a division plate of a curb form and at 2 the side rail or form. The side rail or form is provided with a slot or rectangular opening 3 and a similar slot or opening 4 is formed in the plate 1.

The device of the invention includes the hook 5 embodying a hook shaped extremity 6 and a shank formed with a shoulder 7. The hook 5 is provided with an opening at its end opposite the extremity 6 and a pivot

pin 8 passes through said opening. Mounted on the hook 5 by means of the pivot pin 8 is a cam or wedge 9 composed of spaced sides adapted to receive the body of the hook 5 therebetween and having one end bifurcated as at 10 to provide spaced parts at opposite sides of the hook and formed with openings through which the pivot pin 8 passes. The spaced sides of the cam 9 are connected by a web or wall 11 integral with the sides, and the end of the cam opposite its pivotal point is considerably enlarged transversely and provided with curved camming or wedging surfaces 12.

The invention is so simple in its construction that its operation is almost obvious. For connecting the parts such as described the hooking extremity 6 of the hook 5 is engaged in the slot 4 after the shank of the hook has been passed through the opening 3 of the rail 2. The shoulder 7 abuts with the outer side of the rail 2 and when the parts are so disposed as seen in Fig. 1, the cam 9 by pivotal movement is shifted to bring its surfaces 12 into engagement with the outer face of the rail 2. In this action the surfaces 12 perform their camming or wedging function pulling outwardly on the hook extremity 6 and thus rigidly clamping the parts 1 and 2 together in a self-evident manner. The part 11 of the cam 9 provides a convenient and useful hammering portion and the clamping hook device of the invention is susceptible of quick action for connecting parts like the parts 1 and 2, and removal, by tapping with the hammer and actuating the cam 9 in opposite directions. The member 9 is of U-shape in cross section and the surfaces 12 are eccentric to the pivot member 8.

The hook extremity of the hook 5 will be seen to be tapered in order to permit of the easy withdrawal of the clamp as the concrete has been poured and set against the form members and division plates or other equivalent members with which the clamp may be used.

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

1. In a device of the class described, in combination, a hook having a hook extremity at one end, and a camming member pivoted at one end to a point adjacent to the other end of the hook, said camming member

being composed of spaced sides connected adjacent to their free ends by a web, the said camming member extending from its pivotal axis, along side the hook and being adapted to freely swing in its camming action to and from a position in which the hook body is received between the sides of the camming member, the said camming member furthermore having a camming surface at the end thereof opposite its pivoted end.

2. In combination, a hook having at one end means to engage a plate or like part and provided at its other end with a pivot, a camming member of "U-shape" in transverse cross-section so as to embrace the body of the hook, connected with said pivot so as to freely swing to and from a position where it embraces or receives said hook body, said camming member having a relatively large camming surface at its free end adapted to cooperate with a plate or similar member arranged against the plate with which the hook extremity of the hook is adapted to engage.

3. In combination, a hook having at one end means to engage a plate or like part and provided at its other end with a pivot, a camming member of "U-shape" in transverse cross-section so as to embrace the body of the hook, connected with said pivot so as to freely swing to and from a position where it embraces or receives said hook body, said camming member having a relatively large camming surface at its free end adapted to cooperate with a plate or similar member arranged against the plate with which the hook extremity of the hook is adapted to engage, the said camming member tapering in form from its free end for a camming surface thereof, toward its pivoted end, and its "U" formation comprising a web integral with the sides that are adapted to receive or embrace the body of the hook, said web forming a hammering contact element for facilitating the camming action of the device.

4. In a device of the class described, in combination, a hook having a hook extremity at one end, and a camming member pivotally mounted on the hook, a pivotal connection between the two located at the end of the hook opposite said extremity, and a camming surface carried by said camming member and shiftable in a plane adjacent to the said hook extremity of the hook, the hook having a shoulder at the edge thereof opposite the mouth of its hook extremity.

5. In a device of the class described, in combination, a hook having a hook extremity at one end, and a camming member pivotally mounted on the hook, a pivotal connection between the two located at the end of the hook opposite said extremity, and a camming surface carried by said camming member and shiftable in a plane adjacent to the said hook extremity of the hook, the camming member being composed of spaced sides having a web connecting said sides from their free ends to a point spaced from the pivot of the member.

6. In a device of the class described, in combination, a hook having a hook extremity at one end, and a camming member pivotally mounted on the hook, a pivotal connection between the two located at the end of the hook opposite said extremity, and a camming surface carried by said camming member and shiftable in a plane adjacent to the said hook extremity of the hook, the hook having a shoulder at the edge thereof opposite the mouth of its hook extremity, the camming member being of U-shape in cross section so as to receive the hook between its sides.

7. In a device of the class described, in combination, a hook having a curved hook extremity, and a camming member of U-shape in transverse cross section pivoted on said hook so as to receive the body of the hook therebetween.

In testimony whereof I affix my signature.

HERAULT A. TRESTER.