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BEAM FORM CLAMP

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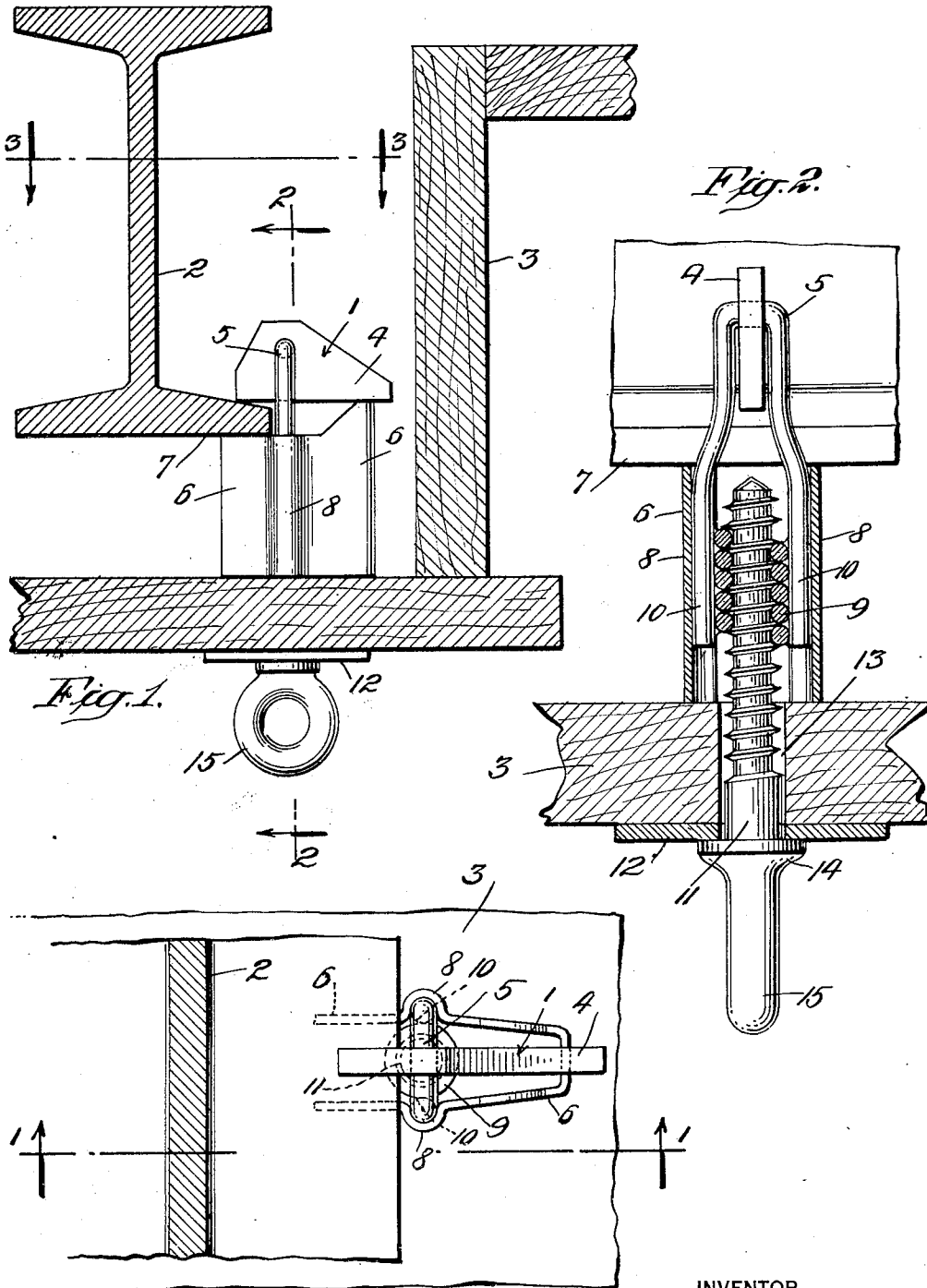


Fig. 3.

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BEAM FORM CLAMP

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The object of my invention is to provide a clamp which will securely hold a form about an I-beam when the same is poured in the conventional manner to protect the beam and thereafter permit a ready removal of the form and a portion of the clamp, the remainder being embedded in the concrete where it remains. A further object is to provide a nut securely held to the beam which will be useful for supporting machinery or other devices held from the ceiling. These and other objects are accomplished by my invention, one embodiment of which is hereinafter more particularly set forth.

For a more detailed description of my invention, reference is to be had to the accompanying drawings, forming a part hereof, in which

Figure 1 is a sectional view of a beam showing my improved clamp holding a form in place, the section being taken on the line 1-1 of Fig. 3, looking in the direction of the arrows;

Figures 2 and 3 are enlarged sections taken on the lines 2-2 and 3-3 respectively of Fig. 1, looking in the direction of the arrows.

Throughout the various views of the drawings, similar reference characters designate similar parts.

My improved clamp 1 may be applied to a beam 2 which is preferably an I-beam although it may be any suitable shape, to secure a form 3 in place while the same is poured.

The clamp 1 is composed of a lever 4 with a fulcrum 5 which draws one end of the lever against a bent plate 6, and the other end against a flange 7 of the beam 2, another surface of this flange 7 being pressed by the bent plate 6. The bottom part of bent plate 6 rests on the wooden form 3 and spaces the form at the required distance from the beam to the depth of fireproofing. It will be noted that the bent plate 6 has a top with two levels, the upper level being raised so as to engage the rear of the lever 4 and the other edge being lowered so as to rest against the lower surface of the web 7, and the difference between the two levels is substantially the thickness of the flange 7. This is a desirable but not an essential feature of my in-

vention. The bent plate 6 is preferably expanded at its longitudinal centre and adjacent to the fulcrum 5 so as to provide guides 8 for this fulcrum which fits these grooves, one on each side with a tight sliding fit, so that the parts will not readily become detached when once they are assembled.

The fulcrum 5 is bent something in the shape of a hairpin with the lower ends slightly separated, and connected by the helix 9 which is welded to the ends 10 of this fulcrum 5, and these ends slide as above stated in the guides 8. The helix is adapted to engage an eye-bolt 11 which passes through a perforated plate 12 and through a perforation 13 in the form 3, as indicated, and a flange 14 just above the loop 15 of this eye-bolt presses against the plate 12 as indicated, so that when the bolts are assembled as shown, the plate 12 presses the form 3 against the part 6 and draws the lever 4 through the fulcrum 5 against the flange 7 and the part 6 as above stated, so that the parts above mentioned are held firmly.

It will be understood that as many of these clamps are employed as necessary to properly support the form and more than this if desired, for a reason which will appear below.

After concrete has been poured into the forms and has set in the conventional manner, the forms may be readily removed by placing a hook through each eye 15 and unscrewing the eye-bolt 11. This can be done by a man standing on a floor below, who reaches up with his hook and operates as above stated. Once the eye-bolts are removed, the form 3 comes right down and thereafter may be used again in the same manner. The clamp remains permanently in place except for the eye-bolt 11 and the plate 12 which may be used again after the eye-bolt has been greased so as not to adhere to any concrete that may reach it. The parts which remain in place may be engaged by screws similar to the eye-bolt above described so as to hold machinery or other fixtures to the ceiling on the underside of the concrete or they may be used to support a false ceiling if such be desired. If no such use be desired, the holes left by the eye-bolts may be plugged with

concrete and a finishing coat may either be placed or not placed over the concrete, as desired.

While I have shown and described one embodiment of my invention, it is obvious that it is not restricted thereto, but that it is broad enough to cover all structures that come within the scope of the annexed claims.

Having thus described my invention, what I claim is:

1. In a device of the class described, a bent plate having guides therein, a fulcrum adapted to slide in said guides and provided with a lever, with one end to engage the plate and the other end adapted to press against a beam and force the same against a plate, and a helix secured to said fulcrum, and adapted to receive a bolt.

2. In a device of the class described, a bent plate having guides therein, a fulcrum adapted to slide in said guides and provided with a lever, with one end to engage the plate and the other end adapted to press against a beam and force the same against a plate, and a helix secured to said fulcrum adapted to receive a bolt, and a bolt in said helix.

3. In a device of the class described, a bent plate having guides therein, a fulcrum adapted to slide in said guides and provided with a lever, with one end to engage the plate and the other end adapted to press against a beam and force the same against a plate, and a helix secured to said fulcrum adapted to receive a bolt, and an eye-bolt in said helix.

In testimony whereof, I have hereunto set my hand this 2nd day of January, 1930.

T. C. SCHENK.

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