

Jan. 16, 1940.

R. C. BROWN

2,187,642

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Filed April 4, 1939

2 Sheets-Sheet 1

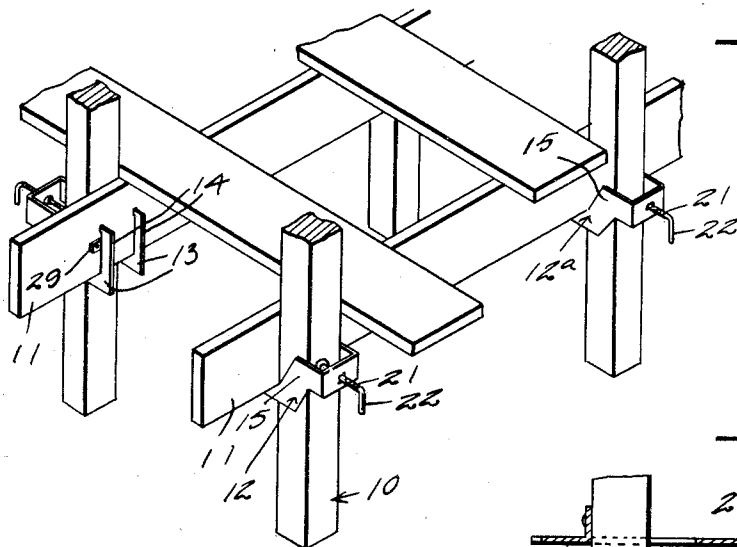


FIG. 1

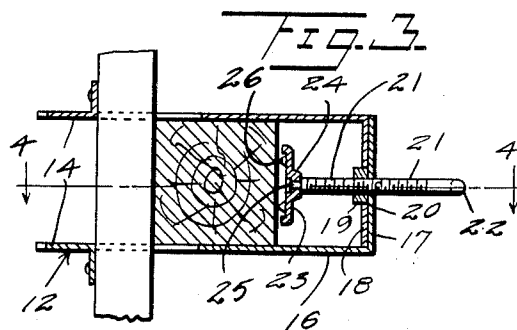


FIG. 3

FIG. 2

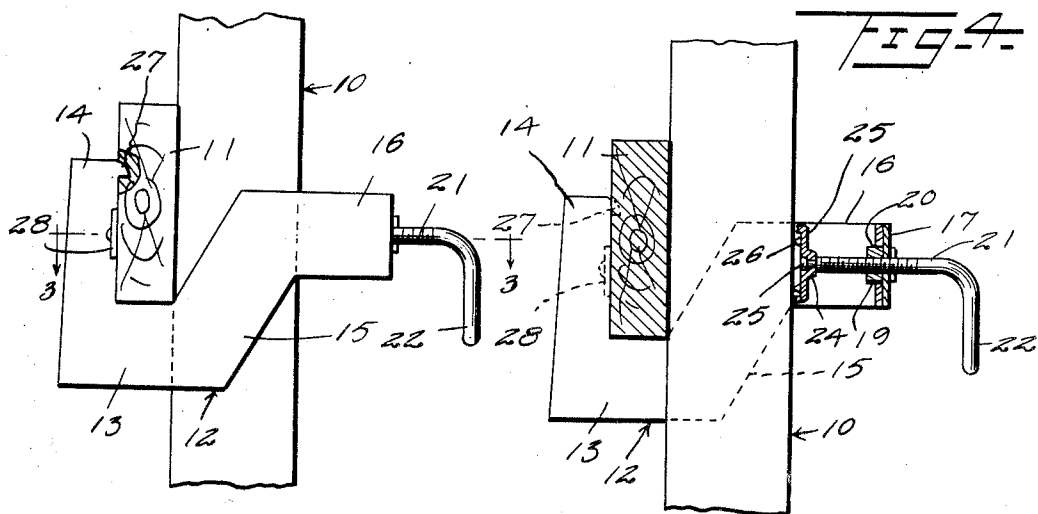


FIG. 4

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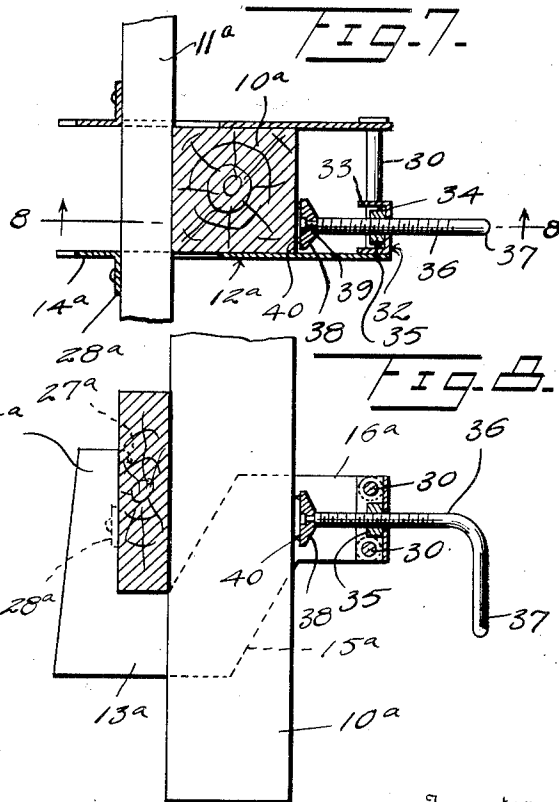
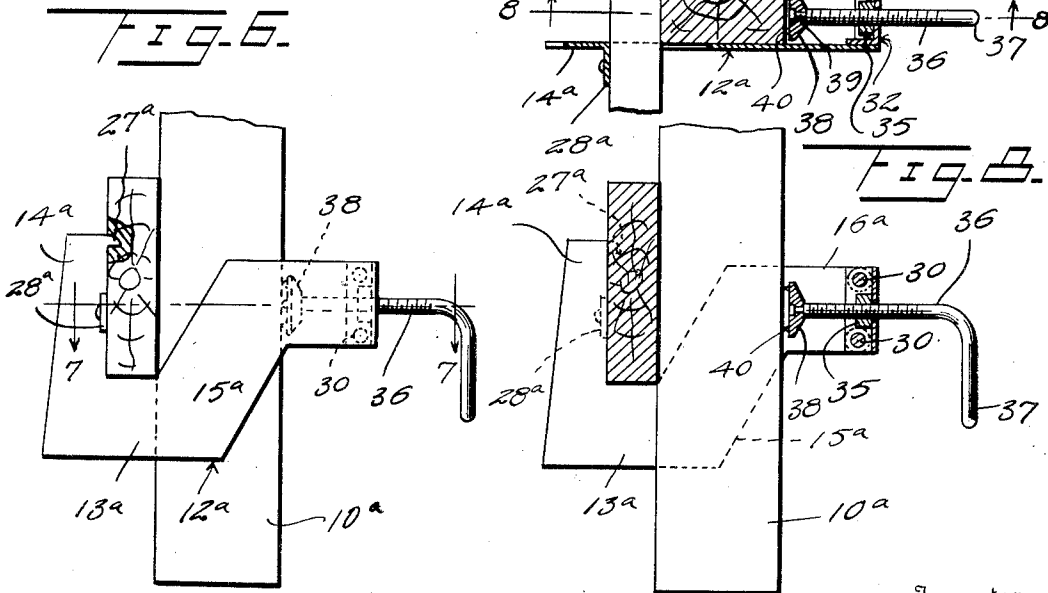
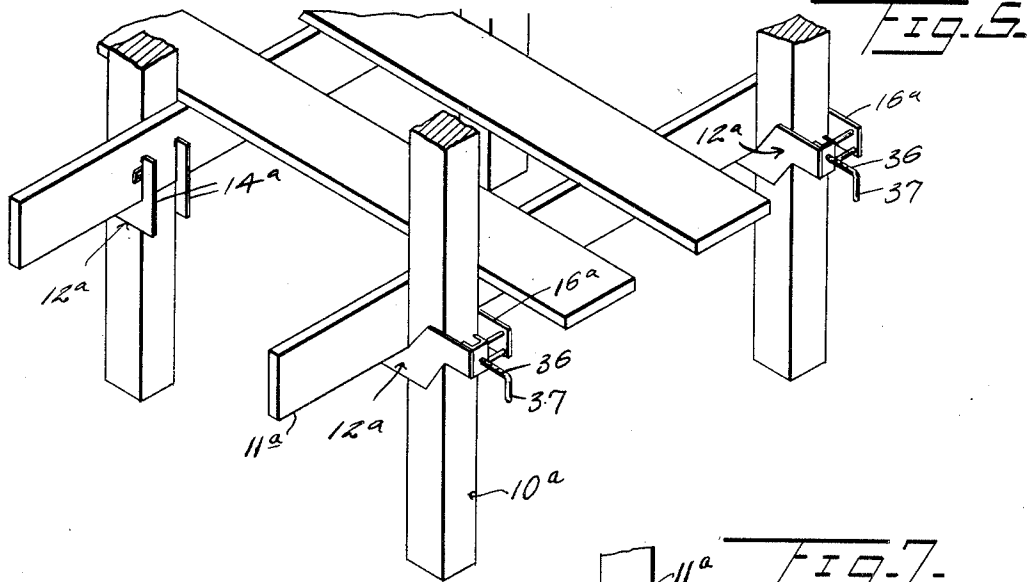
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UNITED STATES PATENT OFFICE

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BRACKET

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Application April 4, 1939, Serial No. 266,024

6 Claims. (Cl. 304—40)

This invention relates to brackets and more particularly to a clamping bracket designed for use in assembling a scaffold.

An object of this invention is to provide an improved bracket or clamping means which is so constructed that it will eliminate the use of nails or bolts in building up a scaffold.

Another object of this invention is to provide an improved clamp or bracket which is so constructed that it can be used with different sizes of lumber and which will firmly hold the several parts together.

A further object of this invention is to provide a bracket or clamp of this character which can be used with different sizes of lumber or material and which will not unduly injure or mar the material.

A still further object of this invention is to provide a bracket or clamp of this kind which includes means whereby additional scaffold members may be secured to the clamp or bracket.

To the foregoing objects and to others which may hereinafter appear, the invention consists of the novel construction, combination and arrangement of parts as will be more specifically referred to and illustrated in the accompanying drawings, wherein are shown embodiments of the invention, but it is to be understood that changes, variations and modifications may be resorted to which fall within the scope of the invention as claimed.

In the drawings:

Figure 1 is a fragmentary perspective view of a scaffold having a bracket or clamping means mounted thereon constructed according to an embodiment of this invention,

Figure 2 is a detail side elevation of the bracket or clamp,

Figure 3 is a sectional view taken on the line 3—3 of Figure 2,

Figure 4 is a sectional view taken on the line 4—4 of Figure 3,

Figure 5 is a fragmentary perspective view of a scaffold having a modified form of bracket or clamp mounted thereon,

Figure 6 is a detail side elevation of the modified form of bracket,

Figure 7 is a sectional view taken on the line 7—7 of Figure 6, and

Figure 8 is a sectional view taken on the line 8—8 of Figure 7.

Referring to the drawings and first to Figures 1 to 4, the numeral 10 designates generally vertically disposed or upright members comprising posts formed out of lumber. In order to provide

a means whereby a ledger member or horizontally disposed plank supporting member may be secured to the posts 10, I have provided a bracket or clamp generally designated as 12 which is adapted to clamp the ledger or plank supporting member 11 to the posts or vertical members 10.

The clamp or bracket 12 includes a pair of spaced, parallel, upstanding substantially U-shaped clamping members of like form each consisting of a horizontally disposed substantially rectangular bight 13 arranged on its lower lengthwise edge and constituting a support, an upstanding forward leg 14 disposed substantially at right angles to the bight 13 and constituting a jaw having a vertical inner edge, and an upstanding rearwardly inclined rear leg 15 disposed at an obtuse angle to the bight 13, of less length than leg 14 and constituting a retainer. The legs 14 and 15 have upper free ends and at lower ends merge into the upper edge of the bight 13. The legs 14, 15 are disposed in spaced relation. The leg 15 has projecting rearwardly from its rear edge a horizontally disposed substantially rectangular extension 16 disposed on its lower lengthwise edge. The extension is arranged at an obtuse angle relative to the leg 15 and at right angles to the leg 14. The top edge of the extension is flush with the upper edge of the leg 15. The bight 13, leg 14, leg 15 and extension 16 of a U-shaped clamping member are integral with each other. The extensions 16 are arranged in parallel spaced relation and are connected together by an upstanding coupling member or plate 17 which may be integral with or secured to the extensions 16 by any suitable means. Preferably the plate or member 17 will be integral with the rear ends of the extensions 16. The upper edges of the legs 15 and extensions 16 are arranged below the upper edges of the legs 14. A bracing plate 18 may be disposed between the two extensions 16 at their inner ends and positioned in face abutting relation to the connecting member 17, being welded or otherwise secured to the connecting member 17.

The connecting member 17 and the bracing member 18 have a nut or threaded boss 19 secured thereto and preferably the inner side of the nut 19 may be countersunk in the bracing member 18 and welded or otherwise secured in the countersunk portion 20 thereof so that the nut 19 will be firmly held against movement relative to the connecting member 17 and the bracing plate. A threaded shaft or movable jaw operating member 21 is threaded through the nut or boss 19 and at its inner end the shaft 21 is pro-

vided with a crank or handle 22. In the present instance, the handle 22 is formed integral with the shaft 21, being disposed at right angles to the length of the shaft 21.

5 A movable jaw or clamping member 23 provided with a boss 24 in the center thereof is swivelly mounted as at 25 on the outer end of the shaft 21. This jaw or pressure member 23 is provided on the outer face thereof with a plu-
10 rality of tangs 26 which are adapted to bite into the confronting side of the post 10. The movable jaw 23 is disposed between the two extensions and is movable toward or away from the fixed or stationary jaw members 14.

15 Each jaw member 14 is provided adjacent the free end thereof and on its inner edge with a tang 27 and each jaw member 14 is also provided at a point intermediate the free end thereof and the bight 13 with a laterally projecting ear, abutment or extension 28. The ear, abutment or ex-
20 tension 28 is adapted to abut against the adjacent face of the ledger or horizontal plank supporting member 11 and is provided with an opening 29 through which a securing means in the form of a nail or the like may be extended. These
25 laterally projecting ears, abutments or extensions 28 not only provide a means whereby a substantially wide clamping surface may be presented to the ledger 11, but also provide a means
30 whereby additional scaffolding may be secured to the ledger and to the bracket or clamp 12. The ears, abutments or extensions 28 are disposed at right angles to and are flush with the vertical inner edges of the legs 14.

35 In Figures 5 to 8, there is disclosed a modified form of this bracket or clamp wherein a pair of spaced apart stationary jaw members 14a are provided which are similar to the jaw members 14. A right angular ledger supporting member
40 13a is formed integral with the jaw member 14 and extends at right angles thereto. A substantially short and obtusely disposed leg 15a is formed integral with the bight or supporting member 13a and is substantially shorter in length
45 than the jaw member 14a. An extension 16a is formed integral with the leg 15a and extends at an obtuse angle to the leg 15a and is positioned at a substantial right angle to the jaw or leg 14a.

50 The two jaw or clamping members 14a with the supporting member 13a, the leg 15a and extension 16a are held in spaced apart parallel relation by a pair of parallel and spaced apart connecting rods 30. These rods 30 are secured in any suitable manner as by welding, riveting or
55 the like to the extensions 16a. A substantially U-shaped slide member 32 is slidably mounted on the two bars 30, the legs 33 of the slide member 32 slidably engaging the bars 30 and the bight 34 being disposed inwardly and in spaced
60 relation to the bars 30. A nut or threaded boss 35 is fixedly secured to the outer side of the bight 34 being positioned between the parallel legs 33 and also positioned between the two parallel bars 30. A threaded shaft or jaw operating member
65 36 is threaded through the boss 35 and is provided on its inner end with a handle or operating member 37 which in the present instance is formed integrally with the shaft 36. A movable jaw or clamping plate 38 is swivelly mounted as
70 at 39 on the outer end of the shaft 36 and is provided on its outer face with a plurality of tangs 40 adapted to bite into the confronting side of a post 10a.

75 The jaw member 14a adjacent the free or upper end thereof is provided with a tang 27a and

each jaw member 14 is also provided with a laterally projecting jaw 28a similar to the jaw 28.

In the use of this clamp or bracket 12, the posts 10 are set up in a substantially vertical position and then the ledger or plank supporting members 11 are placed against one side of the posts 10. The clamp or bracket 12 is adapted to straddle or engage on opposite sides of a post 10 with the jaw members 14 projecting beyond the adjacent space of a post 10. The ledger or plank supporting member 11 is then seated on the supporting member or bight 13 whereupon the movable jaw member 23 is moved outwardly or toward the post 10. As the movable jaw member 23 is moved to a clamping position, the tangs 26 will bite into the confronting face of the post 10 and at the same time the tangs 27 will also bite into the confronting face of the ledger or plank supporting member 11. The bracket 12 has been constructed for use with supporting posts of a special thickness, and normally engage the opposite sides of the posts 10. However, the post 10 may be substantially smaller than the space between the two clamping members 14.

25 The device shown in Figures 5 to 8 may be used with different sizes of posts, the slide member 32 being shiftable along the bars 30 so as to position the clamping plate 38 in the desired position relative to the post 10a. In other respects the clamp 12a is similar to the clamp 12.

What I claim is:

1. A scaffold bracket comprising a pair of substantially U-shaped clamping members disposed in spaced apart relation, one leg of each member constituting a stationary jaw and disposed at right angles to the bight, the other leg of each member being substantially shorter in length than said one leg and disposed at an obtuse angle to the bight, an obtusely disposed extension integral with said other leg and disposed at right angles to said one leg, a pair of parallel bars connecting said extensions together, a slide engaging said bars, a shaft threaded through said slide, and a movable jaw swivelly carried by said shaft.

2. A scaffold bracket comprising a pair of substantially U-shaped clamping members disposed in spaced apart relation, one leg of each member constituting a stationary jaw and disposed at right angles to the bight, the other leg of each member being substantially shorter in length than said one leg and disposed at an obtuse angle to the bight, an obtusely disposed extension integral with said other leg and disposed at right angles to said one leg, a pair of parallel bars connecting said extensions together, a U-shaped slide engaging said bars, shaft threaded through the bight of said slide, and a movable jaw swivelly carried by said shaft.

3. A scaffold bracket comprising a pair of substantially U-shaped clamping members disposed in spaced apart relation, one leg of each member constituting a stationary jaw and disposed at right angles to the bight, the other leg of each member being substantially shorter in length than said one leg and disposed at an obtuse angle to the bight, an obtusely disposed extension integral with said other leg and disposed at right angles to said one leg, a pair of parallel bars connecting said extensions together, a U-shaped slide between said extensions and having the opposite legs thereof slidable on said bars, a nut carried by the bight of said slide, a jaw operating shaft threaded through said nut, and a movable jaw swivelly carried by said shaft.

4. In a scaffold bracket, a pair of spaced par-

allel substantially U-shaped clamping members of like form, each consisting of a horizontal substantially rectangular bight disposed on its lower lengthwise edge and constituting a support, an upstanding forward leg disposed at right angles to the bight and constituting a jaw formed with a vertical inner edge, an upstanding rearwardly inclined rear leg disposed at an obtuse angle to the bight, of less length than said forward leg and constituting a retainer and a substantially rectangular extension projecting from the upper portion of said rear leg, having its upper end flush with the upper edge of the rear leg, arranged at an obtuse angle relative to the rear leg and arranged at right angles relative to the forward leg, said legs merging at their inner ends into said bight and arranged in spaced relation, said extensions being disposed in parallel spaced relation, means for securing the rear ends of said extensions together, and an adjustable jaw connected with said means and extending between said extensions.

5. In a scaffold bracket, a pair of spaced parallel substantially U-shaped clamping members of like form, each consisting of a horizontal substantially rectangular bight disposed on its lower lengthwise edge and constituting a support, an upstanding forward leg disposed at right angles to the bight and constituting a jaw formed with a vertical inner edge, an upstanding rearwardly inclined rear leg disposed at an obtuse angle to the bight, of less length than said forward leg and constituting a retainer and a substantially rectangular extension projecting from the upper portion of said rear leg, having its upper end flush with the upper edge of the rear leg, arranged at an obtuse angle relative to the rear leg and arranged at right angles relative to the forward leg, said legs merging at their inner ends into said bight and arranged in spaced relation, said extensions being disposed in parallel spaced

relation, means for securing the rear ends of said extensions together, and an adjustable jaw connected with said means and extending between said extensions, the forward leg of each clamping member being provided intermediate its ends with an outwardly directed apertured abutment flush with and disposed at right angles to the said vertical inner edge of such leg.

6. In a scaffold bracket, a pair of spaced parallel substantially U-shaped clamping members of like form, each consisting of a horizontal substantially rectangular bight disposed on its lower lengthwise edge and constituting a support, an upstanding forward leg disposed at right angles to the bight and constituting a jaw formed with a vertical inner edge, an upstanding rearwardly inclined rear leg disposed at an obtuse angle to the bight, of less length than said forward leg and constituting a retainer and a substantially rectangular extension projecting from the upper portion of said rear leg, having its upper end flush with the upper edge of the rear leg, arranged at an obtuse angle relative to the rear leg and arranged at right angles relative to the forward leg, said legs merging at their inner ends into said bight and arranged in spaced relation, said extensions being disposed in parallel spaced relation, means for securing the rear ends of said extensions together, and an adjustable jaw connected with said means and extending between said extensions, the forward leg of each clamping member being provided intermediate its ends with an outwardly directed apertured abutment flush with and disposed at right angles to the said vertical inner edge of such leg, and the forward leg of each clamping member formed at the upper end terminal portion of its vertical inner edge with a rearwardly extending prong arranged above and disposed at right angles to the abutment on such leg.

ROBERT C. BROWN.