E. WHITNEY.

SCAFFOLD COUPLING STIRRUP.

APPLICATION FILED FEB. 23, 1909.

930,110.

Patented Aug. 3, 1909.

2 SHEETS—SHEET 1.

Fig. 1

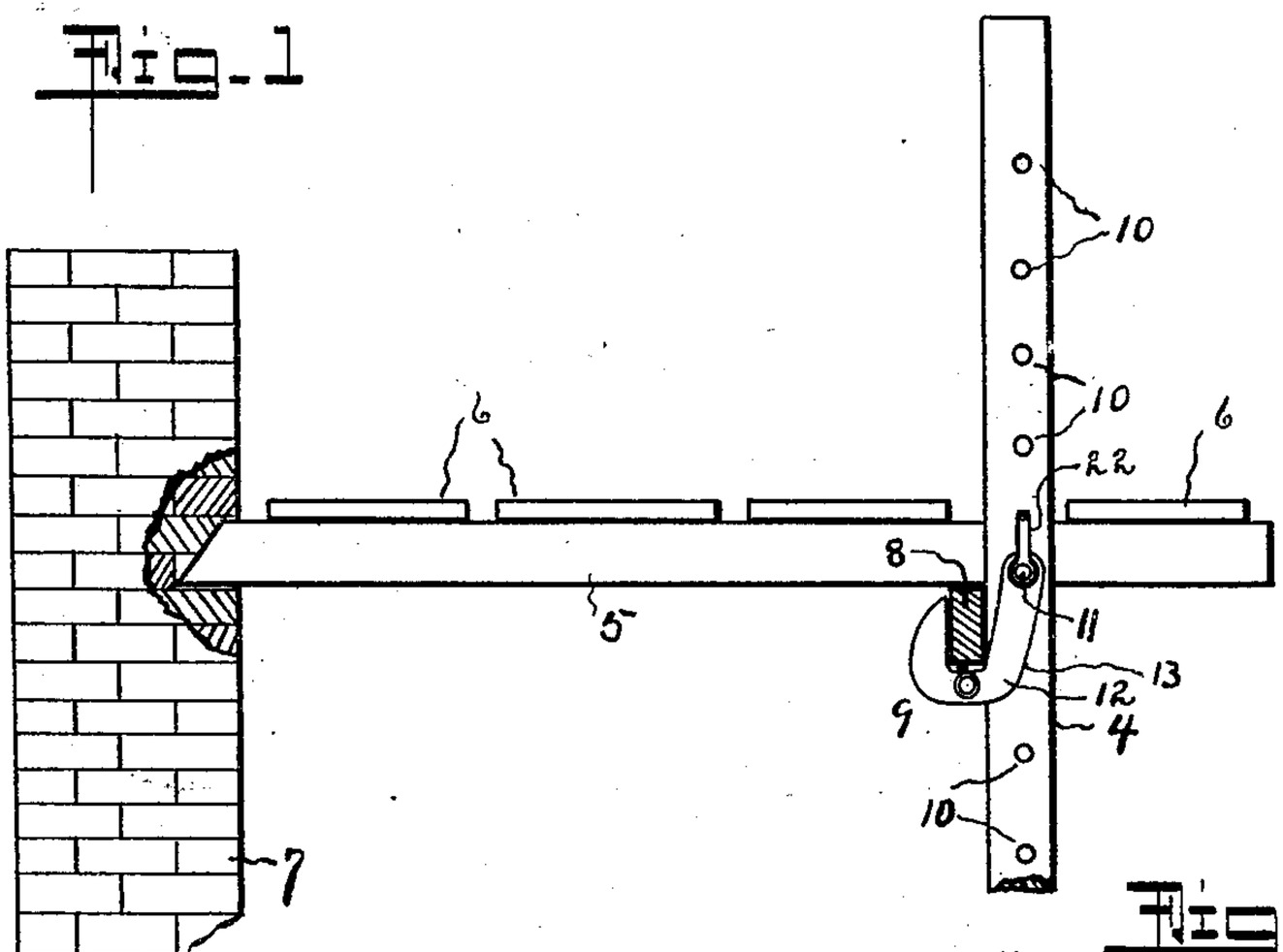

Fig. 3

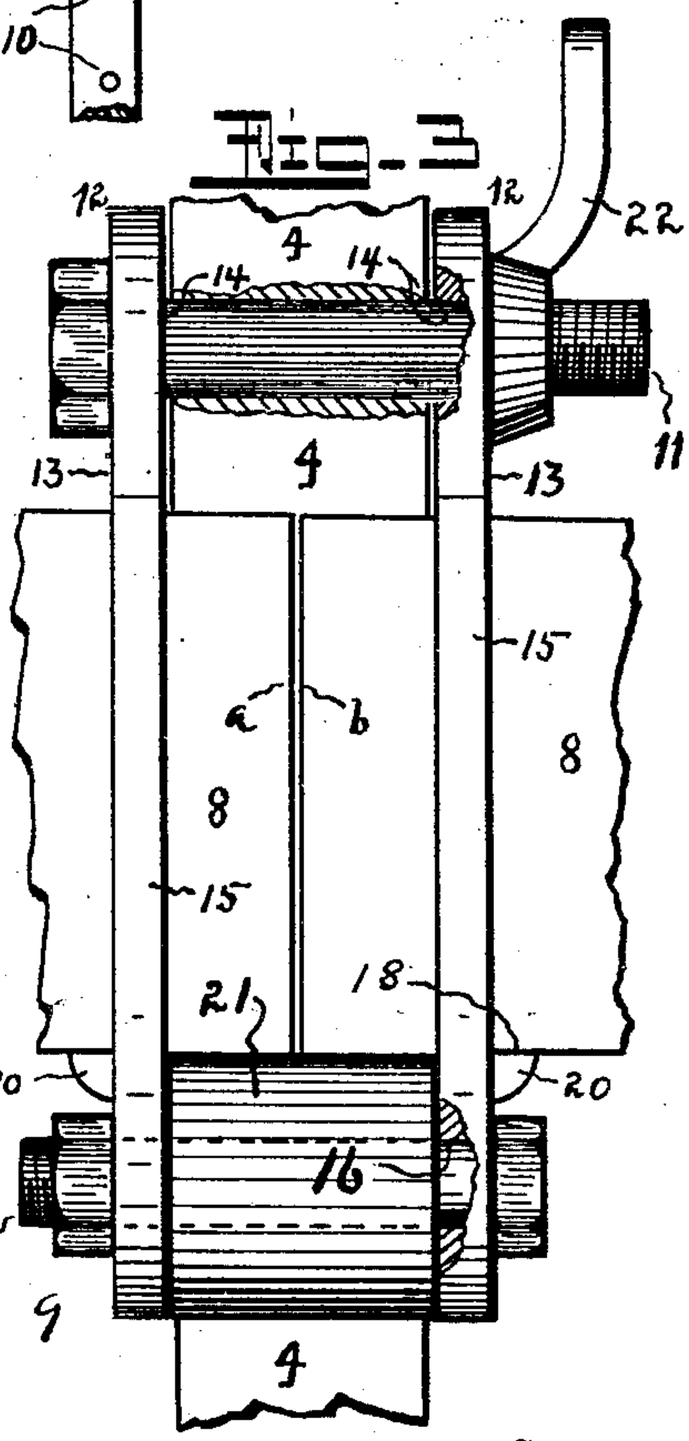

Fig. 2

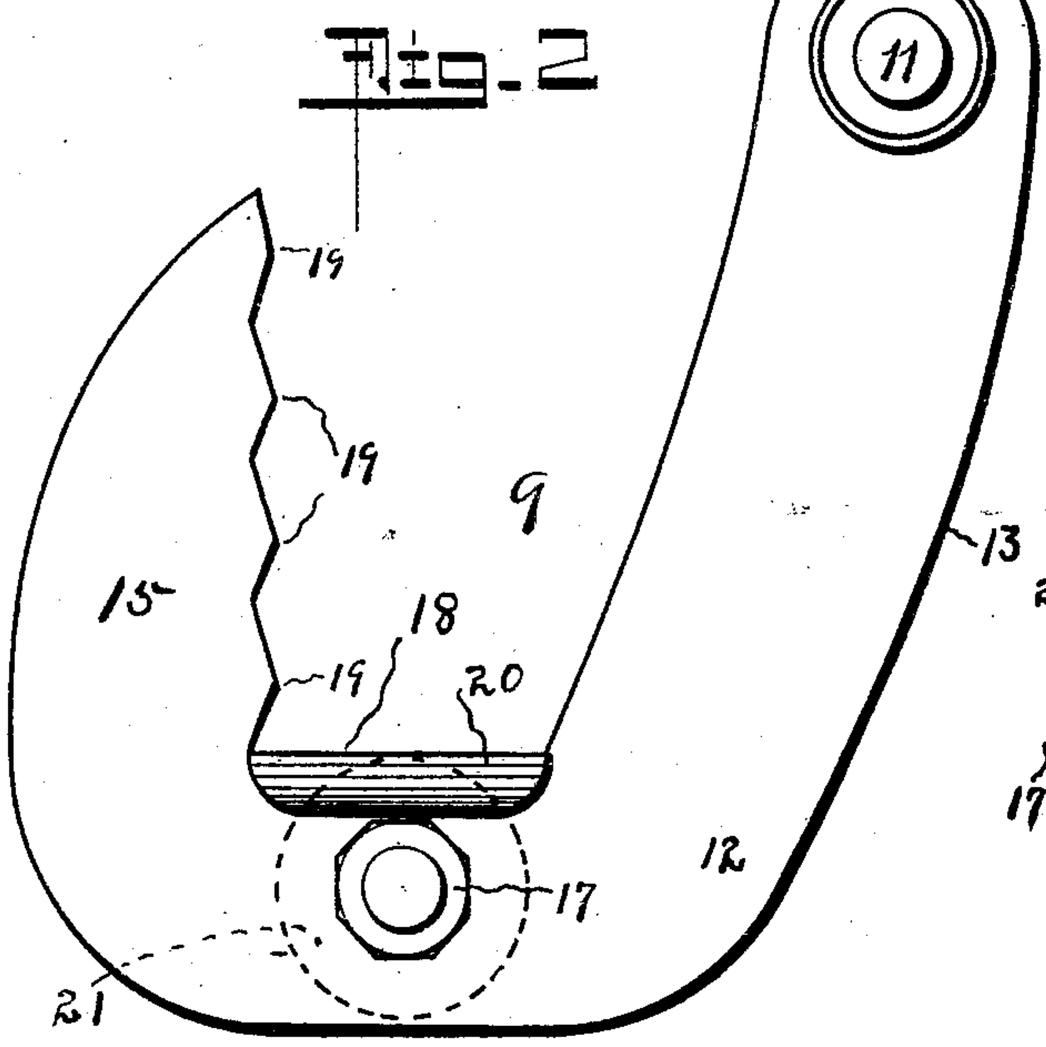

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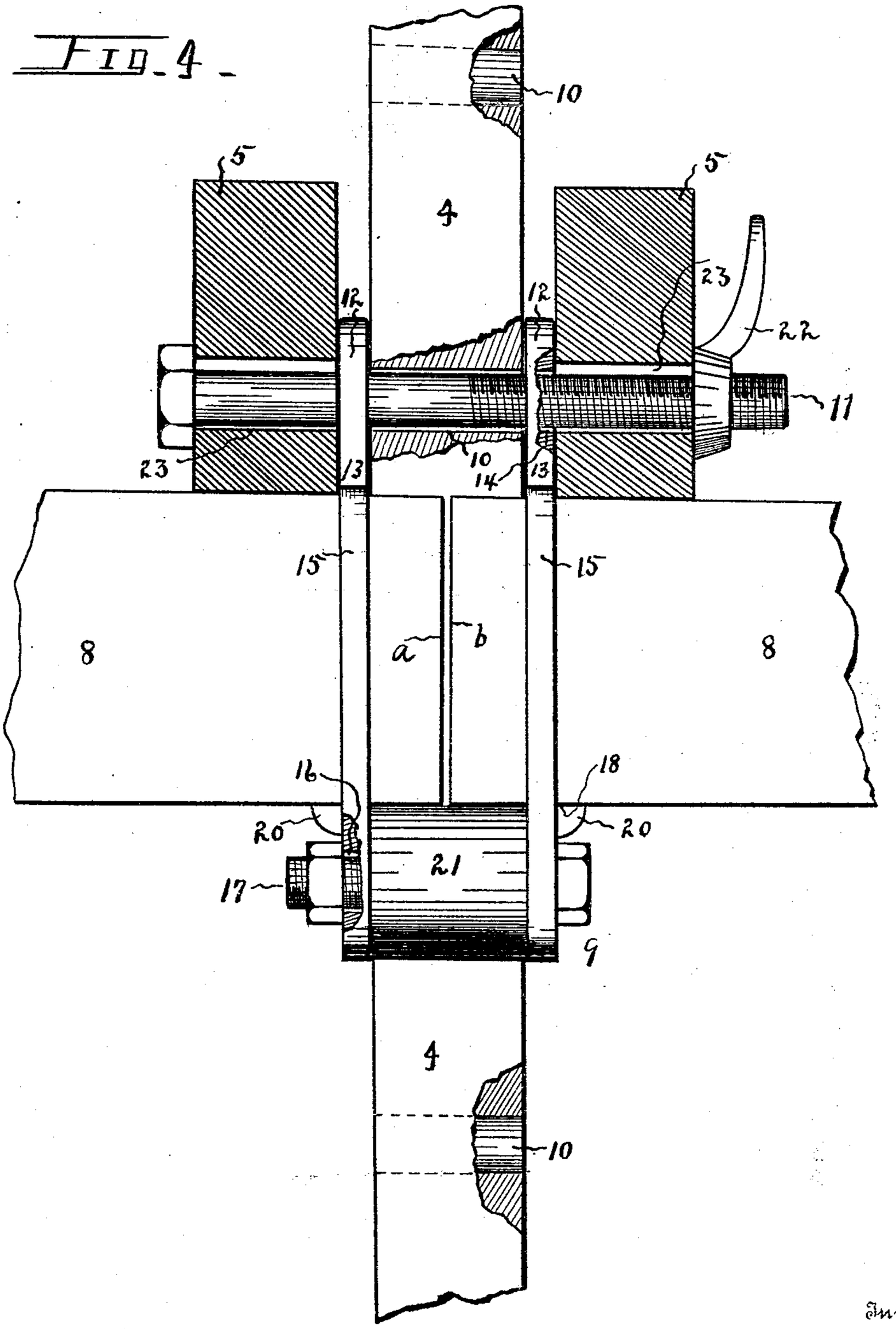
FIG. 4.



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SCAFFOLD-COUPLING STIRRUP.

No. 930,110. Specification of Letters Patent. Patented Aug. 3, 1909.

Application filed February 23, 1909. Serial No. 479,512.

To all whom it may concern:

Be it known that I, EGBERT WHITNEY, a citizen of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, have invented certain new and useful Improvements in Scaffold-Coupling Stirrups, of which the following is a specification.

This invention relates to a scaffold coupling stirrup, and has for its object the provision of a handy article for the use of builders, whereby the parts of a wall-scaffold may be readily connected and reliably secured.

It has heretofore been the custom when erecting brick buildings to employ saw-horses or carpenters-horses inside the building, placed transversely to the wall, side by side, and to lay planks thereon as a support or platform upon which workmen may stand. When the work has progressed and the wall becomes higher, other saw-horses are substituted of a greater height, and it has been an item of considerable expense and inconvenience for a building contractor to furnish and handle the supports mentioned.

By use of the herein described coupling stirrup a working platform may be sustained at any desired altitude; the parts may be quickly assembled or disassembled; no nails are used and there is no waste in lumber since the studding employed for the scaffold may afterward be used in the wall-partitions of the building.

The invention consists of the novel combination and arrangement of parts as described herein, pointed out by the appended claims and as illustrated in the accompanying drawing, wherein,—

Figure 1 is a side view of a scaffold with my newly invented coupling stirrup operatively mounted thereon. Figs. 2 and 3 are respective side and front views of the stirrup; Fig. 3 shows one of the side-members partly broken away to illustrate construction; also this figure shows the adjacent ends of the horizontal sustaining strips supported by the stirrup, the arms or side-members of the stirrup being astride the vertical post. Fig. 4 is a view similar to Fig. 3, cross-pieces being added thereto.

Referring now to the drawing, Fig. 1 shows a side view of a scaffold, comprising vertical posts or uprights 4 and cross-strips 5 with planks 6 supported thereon; the inner ends of cross strips 5 are supported by the wall 7, their outer ends resting upon horizontal supporting-strip 8, said strip 8 being secured to vertical posts 4 and extending parallel with the wall. The mason's scaffold thus described is not uncommon and it has been customary while building the wall, to lodge one end of cross piece 5 in the inner side of the wall, as a means for its support, the cross pieces being afterward detached and again employed for a support at a higher altitude, as the building of the wall progresses.

Instead of nailing the strips to vertical posts 4, I employ the removable supports illustrated by my newly invented stirrup 9, and it will be seen that if openings 10 are formed at longitudinal intervals in posts 4 for use in supporting therein the bolt 11, no nails will be required and the horizontal strips of the scaffold will be sustained by the stirrups at any desired altitude. Also by use of the herein described stirrup the adjustment of the parts to provide a platform at a higher altitude may be quickly made, and the lumber used for the scaffold will not be materially injured. I provide the stirrup 9 by use of two similarly formed, adjacently-disposed hook-members 12, each having a supporting-arm 13 with a bolt-aperture 14 at its upper end and provided with an integral up-turned jaw or engaging-arm 15. Members 12 are substantially parallel; their lower ends are apertured at 16, and they are rigidly connected, preferably by use of bolt 17 passing through bolt-apertures 16, and disposed transversely between members 12; the bolt traverses sleeve 21, this sleeve having a length substantially equal to the thickness of post 4.

The stirrup may be supported at various altitudes since bolt 11 engages within any one of apertures 10 of post 4, and when operatively mounted, the horizontal strip 8 will be engaged by arms or jaws 15 of the stirrup and will be pressed forcibly against the adjacent wall of the vertical post 4. The normal position of arms 15, when the stirrup is operatively mounted, is such that their contact face or side is substantially vertical or parallel with post 4, and since arms 13 are inclined outwardly and upwardly from their lower to their upper ends, a pressure upon the cross-strips or upon strip 8 will cause teeth 19, upon the inner face of arms 15 to engage that part of strip 8 with which they

come in contact, and if the weight upon the platform of the scaffold be increased, a greater lateral pressure of the teeth against said horizontal strip 8 will result; and thereby the parts will be reliably held together, strips 8 also being prevented from having any endwise movement. Intermediate arms 13 and 15 of the stirrup are provided supporting-lugs or flanges 20 having a flat upper surface 18; they extend outwardly from the sides of the stirrup, upon the horizontal plane of the upper edge of the sleeve, this being for the purpose of providing an adequate surface for a seating for the adjacent ends *a* and *b* of two strips 8, where these ends are joined in making a scaffold.

The herein described device is a very convenient article for the use of builders. While it should be constructed of high grade metal, it is not expensive, comparatively, in construction. Its use dispenses with saw-horses or the nailing together of lumber. At 22 a finger-nut is shown and by its use upon bolts 11 the stirrup may be readily removed from or adjusted and secured, bolts 11 entering any of openings 10 of vertical posts 4; the device affords a reliable support for horizontal supporting-strips or plates 8, cross-pieces 5 and other parts of a workman's platform; and as stated a greater or increased weight upon the scaffold causes an increased compression of strips 8 between the jaws 15 and the adjacent side of the vertical post of the scaffold.

Fig. 4 illustrates the use of the stirrup as a complete holding means for securing together the vertical post, horizontal supporting-strips 8 and cross-pieces 5. Cross pieces 5 are apertured as indicated at 23, and bolts 11 may be of any desired length to traverse the apertures of the cross-pieces, vertical post 4 and members 12 of the stirrup, whereby the several parts of the scaffold may be reliably held together by the device, and, by removing bolt 11 the scaffold may be elevated or lowered, since the vertical post 4 is provided with apertures 10 as described.

Apertures 23 of the cross pieces are of adequate size so that the cross pieces may move downward, longitudinally of upright 4, to allow a limited "settling" or downward movement of the horizontal supporting-plates 8, so that plates 8 may have a reliable support upon the stirrup, for, as above mentioned, it is by reason of this downward movement and pressure that the stirrup is caused to swing backward and teeth 19 caused to engage plates 8.

Having fully described my invention, what I claim and desire to secure by Letters Patent is,—

1. In combination with the vertical post, the horizontal supporting-plate and the cross piece of the scaffold, said cross piece being seated upon the horizontal plate, of a holding means comprising a stirrup having its upper end mounted upon the upright and cross piece, its opposite end being upturned to provide an intermediate seating for said horizontal supporting-plate.

2. In combination with the vertical post, the horizontal supporting-plate and the cross-piece of the scaffold, said cross-piece being seated upon the horizontal plate, of a holding means therefor, comprising a stirrup having its upper end pivotally mounted upon the vertical post and cross-piece, said stirrup having a supporting-arm extending below its pivotal mounting and provided with an upturned arm to embrace intermediate the vertical post and said arm, the horizontal supporting-plate.

3. In combination with the upright, the horizontal supporting-plate and the cross-piece of the scaffold, said cross-piece being seated upon the horizontal plate, of a holding means therefor, comprising a stirrup having its upper end pivotally mounted upon the upright and cross-piece, said stirrup having supporting-arms extending below its pivotal mounting at opposite sides of the upright, said supporting-arms being formed with upturned portions to embrace intermediate the upright and said upturned portions, the horizontal supporting-plate.

4. In combination with the apertured upright, the horizontal supporting-plate and the apertured cross-piece of the scaffold, said cross-piece being seated upon the horizontal supporting-plate, of a coupling means therefor, comprising a stirrup having a transverse member at its upper end traversing the apertures of the upright and cross-piece to provide a pivotal mounting; said stirrup having supporting-arms extending below said pivotal mounting at opposite sides of the upright, said supporting-arms being provided with upturned, toothed portions for engaging intermediate the upright and said upturned toothed portions, the horizontal supporting-plate.

In testimony whereof I have affixed my signature in presence of two witnesses.

EGBERT WHITNEY.

Witnesses:
HIRAM A. STURGES,
GEO. A. MAGNEY.