Mar. 27, 1923. 1,449,638

H. A. TRESTER

SCAFFOLD BRACKET

Filed May 20, 1920

Fig. 1.

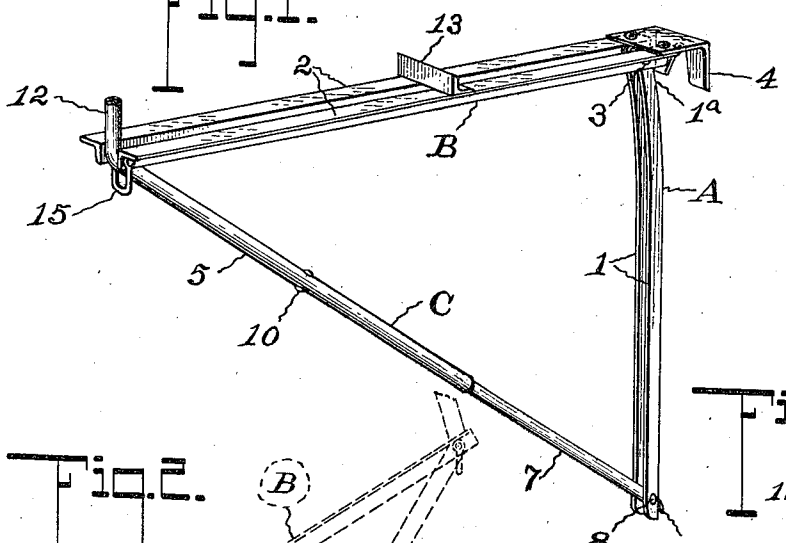


Fig. 2.

Fig. 3.

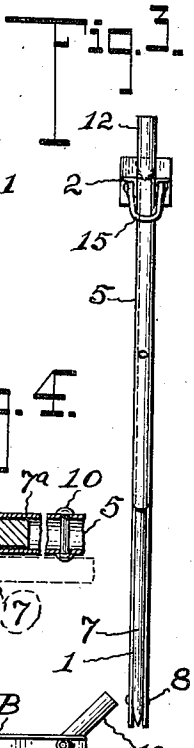


Fig. 4.

Fig. 5.

Fig. 6.

Fig. 7.

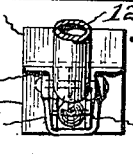
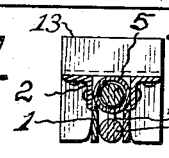


Fig. 8.



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UNITED STATES PATENT OFFICE.

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SCAFFOLD BRACKET.

Application filed May 20, 1920. Serial No. 382,806.

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 a Scaffold Bracket, of which the following is a specification.

The present invention relates to certain new and useful improvements in scaffold or staging brackets, and has for its object to provide a device of this character which embodies novel features of construction whereby it can be easily and quickly collapsed so as to occupy a small amount of space for shipment or storage.

Further objects of the invention are to provide a collapsible bracket of this character which is comparatively simple and inexpensive in its construction, which will stand the usual rough handling and hard usage without danger of breaking or getting out of repair, and which embodies a peculiar construction whereby it is impossible for the bracket to be collapsed by mistake or accident when it is in operative position.

With these and other objects in view, the invention consists in certain combinations and arrangements of the parts, as will more fully appear as the description proceeds, the novel features thereof being pointed out in the appended claims.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawing, in which:—

Figure 1 is a perspective view of a collapsible scaffold bracket constructed in accordance with the invention, the bracket being shown with the parts thereof in the position assumed when the bracket is expanded for use.

Figure 2 is a side elevation of the scaffold bracket, showing the same in operative position by full lines, and in the position assumed preparatory to folding the diagonal brace by dotted lines.

Figure 3 is a front elevation of the bracket when in operative position.

Figure 4 is a detail sectional view through the middle portion of the diagonal brace, showing the position of the hinged joint when the telescoping members are drawn apart to uncover the said joint, the members being shown by full lines as in alinement with each other, and the collapsed position being indicated by dotted lines.

Figure 5 is a side elevation of the bracket when folded.

Figure 6 is a bottom plan view thereof.

Figure 7 is an enlarged end view of the collapsed bracket, the end of the railing supporting arm being broken away.

Figure 8 is an enlarged transverse sectional view on the line 8—8 of Figure 5, looking in the direction of the arrows.

Corresponding and like parts are referred to in the following description and indicated in all of the views of the drawing by like reference characters.

Referring to the drawings, which illustrate one possible embodiment of the invention, the reference character A designates the upright or vertical member of the bracket, B the horizontal or floor supporting member of the bracket, and C the diagonal brace which extends between the outer ends of these members and holds them rigidly in position when the bracket is in use. The upright member A is shown as formed of a pair of spaced flat bars 1, the member B being similarly formed of a pair of spaced angle iron bars 2 which are pivotally connected at 3 to the bars 1. The pivot ends of the bars 1 are preferably inclined inwardly, as indicated at 1^a so that the bars 1 are susceptible of being folded flat against the angle iron bars 2, as indicated by Figure 5. The pivot end of the horizontal floor supporting member B is provided with a rearwardly extending hook member 4 which is adapted to engage the frame work of the building or other structure upon which the bracket is mounted, as indicated by Figure 2.

The diagonal brace C is formed in sections which have a sliding engagement with each other and are connected by a hinge joint which enables the brace to be broken and collapsed when the scaffold bracket is folded, the sliding action providing a means for locking and releasing the hinge joint, as will be hereinafter more fully described. The section 5 of the diagonal brace which is pivotally connected at 6 to the outer end of the floor supporting member B has a tubular formation and slidably receives the upper end of the rod 7 which is pivotally connected at 8 to the lower end of the upright member 1. The rod 7 is formed in sections

which are pivotally connected by a link 9, said link providing a hinge joint which enables the brace to be folded inwardly when the link is drawn out of the tube 5, as indicated by the dotted line position of the parts shown by Figure 2.

When the bracket is in operative position, as indicated by Figure 1, with the floor supporting member B arranged at substantially right angles to the upright member A, the hinge joint of the brace, provided by the link 9, is housed within the lower end of the tubular member 5 so that the hinge is prevented from functioning and the two members 5 and 7 are held rigidly in alinement with each other. The upper end section of the rod 7 is then in engagement with a suitable stop member such as a pin 10 which extends transversely across the member 5 and serves to limit the telescoping of the rod 7 in the tubular member 5. It will be obvious that when the link 9 is housed within the member 5 it will be impossible to break the diagonal brace at the hinge joint for the purpose of folding the same, and the bracket will be locked rigidly in a distended position. When it is desired to fold the bracket the members A and B thereof must first be swung apart to provide an obtuse angle between the same, as indicated by dotted lines on Figure 2. This slides the telescoping members of the diagonal brace apart and uncovers the link 9 of the rod 7. Provision may be made for preventing the telescoping members from being entirely pulled apart by slightly crimping the lower end of the tubular member 5 at 5^a, and slightly flaring the upper end of the rod 7 at 7^a, this being indicated more clearly by Figure 4. After the link 9 has thus been completely drawn out of the tubular member 5 the diagonal brace C can be broken at the hinge joint and swung inwardly. This enables the two members A and B of the bracket to be folded toward each other and brought into a close engagement, as indicated by Figure 5. Owing to the fact that the floor supporting member B must be swung upwardly before the diagonal brace can be folded, it will be obvious that there will be no danger of the bracket being collapsed by mistake or accident when it is set up in operative position, since in order to collapse the bracket it will be necessary to lift the entire load supported thereby. In fact, the construction is such that the load carried by the bracket really serves as a means for locking the bracket in a distended position.

When the bracket is folded the tubular member 5 of the diagonal brace is received within the recess or pocket between the spaced angle iron strips 2 of the member B, while the rod 7 of the diagonal brace is received within the space between the bars 1 of the member A. This enables the entire bracket to be very compactly folded so that it can be packed in a small amount of space for shipment or storage. The lower end of the rod 7 of the diagonal brace may be extended slightly beyond the pivot point 8 and terminate in a prong 11 which will operate to penetrate the structure to which the bracket is applied and assist in holding the hook member 4 in operative position. The upper end of the tubular member 5 of the diagonal brace may be extended beyond the pivot point 6 thereof terminating in an angular arm 12 which will co-operate with flanged strips 13 on the member B to hold the flooring boards 14 against displacement. These angular arms 12 may also provide a means for attaching the upright members of a railing to the outer ends of the brackets. The outer end of the member B is shown as provided with a keeper 15 which is pivoted thereto and can be swung into engagement with other members of the bracket to lock them in a folded position, as indicated by Figures 5 and 6. For the purpose of illustrating the idea of the invention I have shown and described one particular embodiment thereof in detail, although it will be understood that many changes and modifications can be made in the structural details without departing in any manner from the spirit of the invention.

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

1. A collapsible scaffold bracket including an upright member, a floor supporting member pivotally connected thereto, and a diagonal brace formed in sections having both a sliding and a hinge connection, whereby the said sections can be folded together or held rigidly in an extended position.

2. A collapsible scaffold bracket including an upright member, a floor supporting member pivotally connected thereto, and a diagonal brace formed in slidably connected sections, one of said sections having a hinge joint which is overlapped and locked by the other section when the bracket is in normal position, thereby enabling the brace to be either folded or held in an extended position.

3. A collapsible scaffold bracket including an upright member, a floor supporting member pivotally connected thereto, and a diagonal brace formed in sections which have a telescoping engagement with each other, one of said sections being provided with a hinge joint which is received within the other section and rendered inoperative when the bracket is in operative position, thereby enabling the brace to be either folded or held in an extended position.

4. A collapsible scaffold bracket including

an upright member, a floor supporting member pivotally connected thereto, a diagonal brace extending between the free ends of the said members and formed in sections which are pivotally connected to the respective members, one of said sections being tubular and telescopically receiving the other section, said other section being formed with a hinge joint which is received within the tubular section and rendered inoperative when the bracket is in operative position, and stop means for limiting the telescoping action of the sections, the hinged joint being adapted to be withdrawn from the first-mentioned tubular section to admit of the diagonal brace being collapsed.

5. A scaffold bracket including an upright member, a floor supporting member collapsible against the upright member, and a diagonal brace formed in complemental sections adapted to cooperate with each other to hold the floor supporting member in operative position, one of the brace sections being formed with a hinge joint which is normally in engagement with the other section, whereby said joint is rendered inoperative although it is adapted to be disengaged from the other section whereupon the brace can be folded at the hinge joint and the bracket collapsed.

6. A collapsible scaffold bracket including an upright member, a floor supporting member pivotally connected thereto and adapted to be folded against the same, each of said members being formed of spaced bars, and a diagonal brace pivotally connecting the ends of the members and formed in telescoping sections, one of said telescoping sections having a hinge joint which is overlapped and locked by the other section when the bracket is in normal position, the hinge enabling the brace to be folded when the telescoping sections are pulled apart and the parts of the brace being received between the spaced bars of the upright member and floor supporting member respectively when the bracket is collapsed.

In testimony whereof I affix my signature.

HERAULT A. TRESTER.