D. McLEOD.

SCAFFOLD FOR SHIP CONSTRUCTION.

APPLICATION FILED JAN. 12, 1920.

1,409,559. Patented Mar. 14, 1922.

Fig. 1

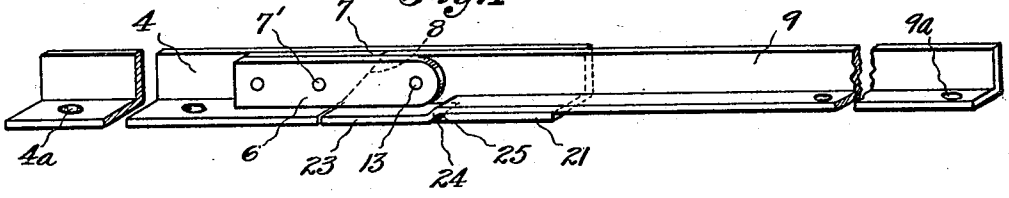


Fig. 2

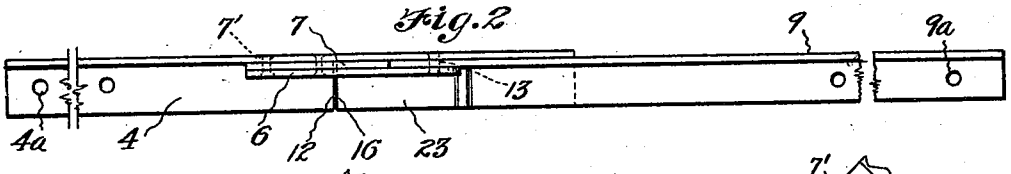


Fig. 3

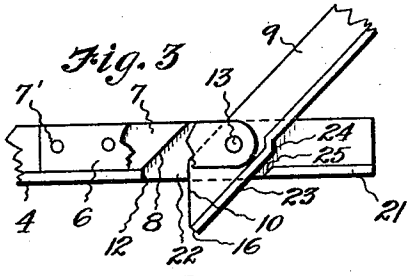


Fig. 4

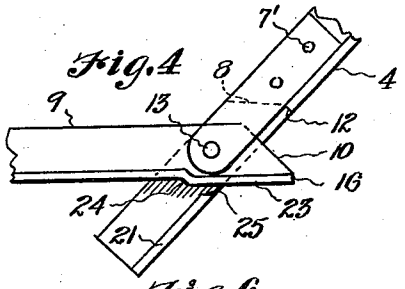


Fig. 5

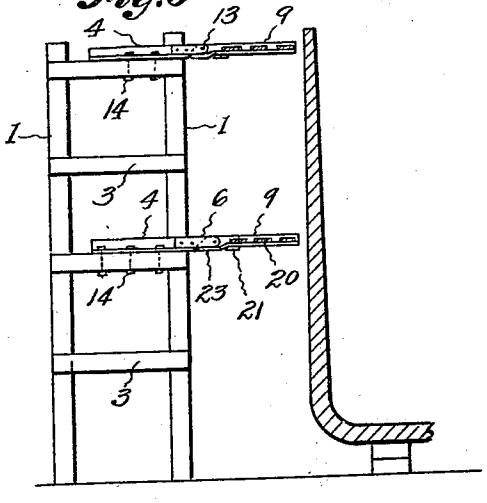
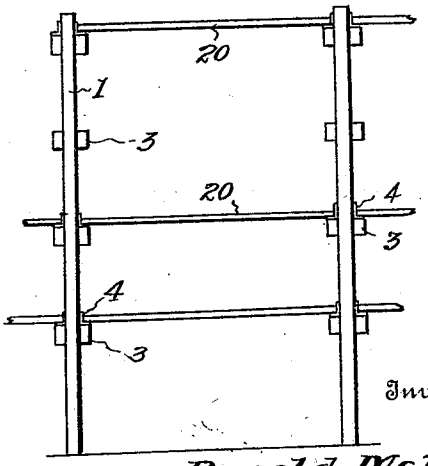


Fig. 6



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SCAFFOLD FOR SHIP CONSTRUCTION.

1,409,559. Specification of Letters Patent. Patented Mar. 14, 1922.

Application filed January 12, 1920. Serial No. 350,874.

To all whom it may concern:

Be it known that I, DONALD McLEOD, a citizen of Great Britain, and resident of the city of Tacoma, county of Pierce, and State of Washington, have invented certain new and useful Improvements in Scaffolds for Ship Construction, of which the following is a specification.

This invention relates to new and useful improvements in scaffolds and more particularly to scaffolds employed in ship construction, and it has for its object the provision of an improved device of this nature constructed in such manner as to adapt it to support platforms of varying widths. This is desirable because the practice varies in different ship-yards, with respect to the number of planks employed to constitute a platform, and in addition, the fact that the sides of ships are not constructed on straight lines, results in certain portions of the ship being spaced further from the upright portion of the scaffolding than other portions thereof and it, therefore, becomes desirable to provide means for easily and quickly varying the extent to which the platform supporting parts of the structure project beyond the vertical portions of the scaffolding in accordance with the space available.

A further object of the invention resides in providing a structure of the character indicated, which will possess the necessary rigidity when in use but will be capable of being folded to occupy a smaller space when being transported from place to place.

Further objects and advantages of the invention will be set forth in the detailed description which now follows.

In the accompanying drawing:

Figure 1 is a perspective view of a scaffold bracket.

Figure 2 is a plan view of the same.

Figure 3 is a fragmentary side elevation showing the bracket in partly folded position.

Figure 4 is a similar view showing the parts in the position they occupy when reversed.

Figure 5 is an end elevation of the scaffold brackets, supported upon upright members which constitute the frame of the scaffold.

Figure 6 is a side elevation of the scaffold parts as shown in Figure 5.

Like numerals designate corresponding parts throughout the several figures of the drawing.

In the drawing, 1 designates uprights, which, with the connecting transverse members 3 constitute the upright portions of the frame of the scaffold. Secured to the transverse members 3 are scaffold brackets each comprising a pair of members pivotally connected end to end, and either of which is adapted to constitute the element that is secured to the corresponding transverse member 3. In the present instance I have shown the members 4 as being secured to the transverse members 3 while the members 9 are pivotally connected to the members 4 at 13. Each of the members 4 and 9, of the bracket, are formed of angle iron of L-shape in cross section, and the vertical portions of the members 9 project into spaces formed between the vertical portions of the members 4 and plates 6, said plates being held in spaced relation to the vertical portions of the members 4 by filling blocks 7, the several parts being tied together by rivets or other fastening devices 7'.

It will be noted, by referring to Figure 5, that the members 9 are materially shorter than the members 4, and it will also be seen that each of the members 4 and 9 is provided with openings 4^a and 9^a, respectively, which serve to receive bolts or other fastening devices, indicated at 14, by which the scaffold brackets are secured to the corresponding transverse members 3. It will be noted that by virtue of the construction described, the inner ends of the vertical portions of the members 9 are brought into alinement with the filling blocks 7, and these parts are correspondingly beveled at 10 and 8, respectively, in such manner as to permit these members to be folded above the horizontal with respect to each other but not below the horizontal.

Additional rigidity and strength is given the bracket by extending the end of the member 4 a short distance beyond the pivot point 13, so that an end portion 21 of the horizontal flange thereof will underlie and support the member 9. This to a certain extent relieves the pivot member of strain, and prevents lateral movement of the extended member.

To permit upward folding of the extended member a portion of the horizontal flange of the supporting member is cut away between the end of the filling block 7 and slightly forward of the pivot point, as at 22, so that the end of the swinging member may move

downwardly therethrough when the outer end of the bracket is raised. Furthermore, a portion 23 of the lower flange of the member 9 is offset so as to fill the open space of the fixed member when the bracket is extended and the confronting portions of the members 4 and 9 abut each other at 12 and 16, and an inclined shoulder 24, which leads into the offset flange 23, engages a correspondingly inclined face 25 at the end of the flange portion 21 to wedge the parts tightly in abutment and give stiffness to the bracket.

It is to be noted that when the scaffold brackets are attached to the transverse members 3 of the frame work of the scaffold, the pivot points 13 lie outwardly of the said uprights. If it becomes necessary to move the scaffold, as a whole, from one place to another, the members 9 may be folded over upon the members 4 during the transportation of the scaffold. It will be readily understood that when the members 4 are secured to the transverse members 3 the horizontal portions of the members 9 constitute the supports for planks 20, these planks constituting the supports upon which a workman may stand, and it will further be understood that when the members 9 are secured to the transverse members 3 by the reversal of the scaffold brackets, the horizontal portions of the members 4 then constitute the support for said planks.

It is to be understood that the invention is not limited to the precise construction set forth but that it includes within its purview whatever changes fairly come within either the terms or the spirit of the appended claims.

What I claim as new is:

1. The combination with a scaffolding structure including uprights and horizontal, transverse members fixed to and uniting said uprights, of platform supports each comprising inner and outer pivotally connected members with the inner members thereof attached to the transverse members of the scaffolding structure in such position that the pivot points of said platform supports will lie outwardly of the said uprights, and in such manner as to permit the outer members thereof to fold upwardly above the horizontal, and each of said inner members having a flanged portion thereof extended beyond the pivotal point to underlie and serve as a support for the outer member.

2. A construction as in claim 1 wherein the same platform supports each comprises a pair of angle iron members substantially L-shaped in cross section with their ends overlapping and pivotally connected; the flange of the lower member being extended to engage the under side of the upper member and being cut away between the pivotal point and inner end of the upper member to permit the latter to be swung upwardly at its outer end.

3. A construction as in claim 2 wherein an abutment is fixed to the outer angle member adjacent the pivotal point and the flange of the inner member is offset to seat within the opening where the lower flange of the outer member is cut away and is adapted to engage the said abutment member when the parts are extended horizontally.

4. The combination with a scaffolding structure including uprights and substantially horizontal transverse members fixed to and uniting said uprights, of platform supports comprising inner and outer angle iron members adapted to be interchangeably attached to the horizontal, structural members with the pivot points disposed outwardly of the uprights; said members being substantially L-shaped in cross section, overlapped and nested at their ends and pivotally connected together in such a manner as to permit the extended member to fold upwardly above the horizontal but not downwardly below the horizontal; the distance from the pivotal point to the end of one member being materially greater than the distance from the pivotal point to the end of the other of said members, an abutment fixed to the outer angle member having an inclined face adapted to be engaged by the correspondingly inclined inner end of the inner angle member when the parts are horizontal, the lower flange of the outer member being cut away between the said abutment and pivotal point to permit the end of the inner member to swing downwardly therethrough.

Signed at Tacoma, Washington, this 30th day of December, 1919.

DONALD McLEOD.