April 21, 1931. F. A. DAVIDSON 1,801,904

SCAFFOLD STAGE

Filed April 8, 1929



Fig. 1.

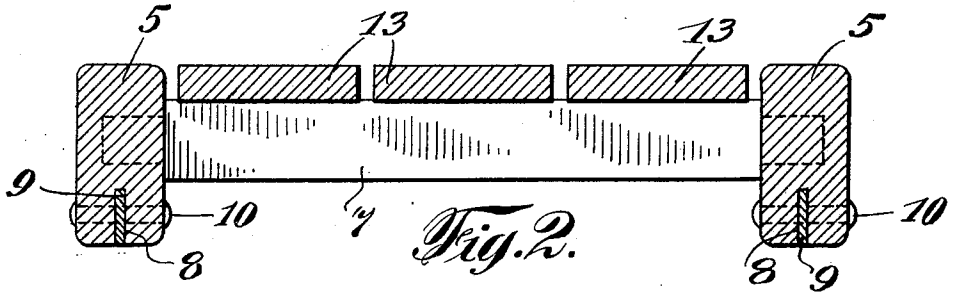


Fig. 2.

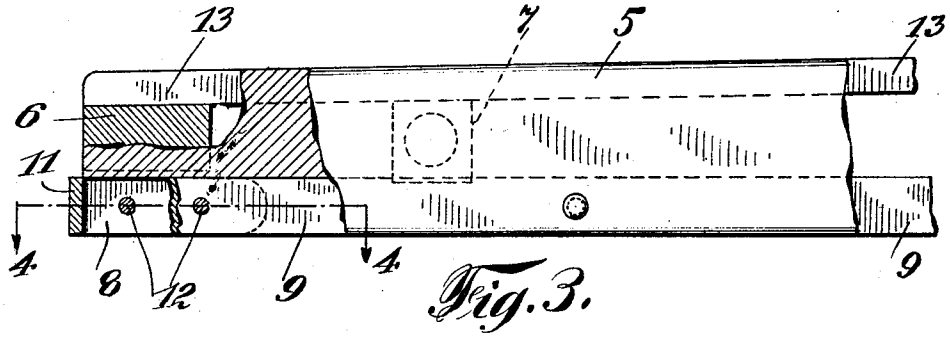


Fig. 3.

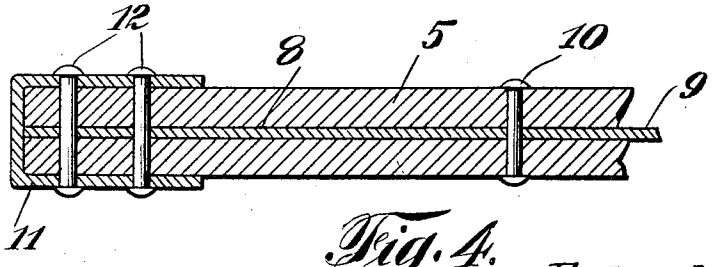


Fig. 4.

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UNITED STATES PATENT OFFICE

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SCAFFOLD STAGE

Application filed April 8, 1929. Serial No. 353,375.

This invention relates to an improved scaffold stage, and has for its primary object and purpose to provide a stage for use in connection with ladder, or swinging suspended scaffolds such as are used by painters, and which will be very light in weight so that it may be easily handled with a minimum of manual labor, while of exceedingly strong and durable construction and therefore, possessing great load sustaining capacity.

It is a more particular object of the invention in one practical embodiment thereof, to provide a scaffold stage having parallel side rails connected at spaced intervals by transverse bars upon which the platform slats are secured, and said side rails having incorporated in their lower edge portions longitudinally continuous metal reinforcing bars.

It is another detail object of the invention to provide the side rails of the stage with U-shaped metal clips embracing each end thereof and connected with said longitudinally extending reinforcing bar by transverse rivets extending through the rail. A further detail feature of the device resides in the provision of cambered side rails which gradually decrease or taper in width from their central portions to the opposite ends thereof, thus insuring the necessary strength while contributing to the lightness of the structure, as a whole.

With the above and other objects in view, the invention consists in the improved scaffold stage and in the form, construction and relative arrangement of its several parts as will be hereinafter more fully described, illustrated in the accompanying drawings, and subsequently incorporated in the subjoined claims.

In the drawings, in which I have illustrated one simple and practical form of the invention, and in which similar reference characters designate corresponding parts throughout the several views,—

Figure 1 is a perspective view of the scaffold stage showing one practical construction thereof;

Fig. 2 is an enlarged transverse sectional view;

Fig. 3 is a fragmentary side elevation partly in section showing one end portion of the stage, and

Fig. 4 is a horizontal sectional view taken on the line 4—4 of Fig. 3.

Referring in detail to the drawings, 5 designates the two side rails of the platform stage which may be of any desired predetermined length and are of a suitable light strong wood, such as spruce. These rails are preferably cambered, the upper edge of each rail from the center thereof, extending convergently in opposite directions with respect to the lower edge of the rail. In other words, these rails are of greatest width at their central portions and gradually taper or decrease in width towards their opposite ends.

The rails 5 are spaced apart a suitable distance in accordance with the predetermined width of the stage and are rigidly connected with each other at their opposite ends by means of the heavy transverse bars 6, preferably of oak. Also at spaced intervals, the rails 5 are connected by the transverse bars 7, preferably of ash. Also, I preferably though not necessarily use dowel joint connections between the ends of the bars 7 and the side rails while the end bars 6 are rigidly fixed to the side rails by means of suitable screws, nails or other suitable fastening elements.

In order to reinforce and strengthen the side rails 5, I provide each of these rails in its lower edge with a continuous longitudinally extending groove or kerf 8 in which a longitudinally continuous steel reinforcing bar 9 is tightly fitted. At suitably spaced intervals, this bar is rigidly fixed to the side rail and held in the groove 8 by the transverse rivets 10.

As a further means for protecting the ends of the reinforcing bar 9, I provide the U-shaped metal plates or clips 11 embracing each end of the rail 5 and having their end portions extending longitudinally upon the opposite sides of the rail below the plane of the cross bar 6. The end of the reinforcing bar 9 is thus covered and protected by the intermediate portion of this metal plate which extends across the end face of the rail. This plate is rigidly fixed to the rail by means of the rivets 12 extending transversely thereof and

through the ends of the bar 9 and the ends of the plate 11. In this manner, an exceedingly strong and durable structure is produced.

Between the side rails 5 of the stage, the platform slats 13 are arranged and nailed or otherwise permanently secured to the cross bars 6 and 7. The upper surfaces of these slats are flush with the upper edges of the side rails 5 so that a firm, even and secure footing is provided.

From the foregoing description considered in connection with the accompanying drawing, the construction and several advantages of my improved platform stage will be clearly understood. Such stages for the support of the mechanics or workmen may be supported between spaced ladders upon the rungs of which the stage rests at its opposite end, or the device may be used as a painter's swinging stage. It will be seen that owing to the improved reinforced construction of the side rails, I am enabled to manufacture such stages in lengths from ten to twenty-four feet and of various widths, employing comparatively light woods.

Thus, the stage structure as a whole will be relatively light in weight so that it can be easily handled by the workmen in arranging the same in position for use or in dismantling. Also, in view of the relatively simple construction of the several parts, it will be apparent that such a stage can be rapidly manufactured in large quantities and sold at a comparatively low price.

While I have above referred to a particular practical embodiment of my present improvements which has been found highly satisfactory in use, it is nevertheless to be understood that the essential features thereof might also be incorporated in various other alternative structural forms, and I accordingly reserve the privilege of resorting to all such legitimate changes in the several detail parts as may be fairly embodied within the spirit and scope of the invention as claimed.

I claim:

1. A scaffold stage comprising parallel side rails, transverse platform supporting bars rigidly connecting the side rails with each other, a continuous longitudinally extending metal reinforcing bar rigidly secured in the lower edge portion of each side rail, U-shaped metal plates embracing the ends of each side rail, and spaced transverse fastening members extending through said rail, the reinforcing bar and the ends of said U-shaped plates.

2. A scaffold stage comprising longitudinally cambered wood side rails, spaced transverse bars rigidly connecting the side rails with each other, platform slats fixed upon said transverse bars having their upper surface flush with the upper edges of the side rails, the lower edge of each side rail having a continuous longitudinally extending groove therein, metallic reinforcing means permanently fixed in said groove, and protecting plates for said reinforcing means secured to the ends of said rails and closing the ends of said grooves.

3. A scaffold stage comprising parallel side rails, transverse platform supporting bars rigidly connecting the side rails with each other, each of said side rails having a continuous longitudinally extending groove in its lower edge, a metal reinforcing bar positioned in said groove, protecting plates embracing the ends of the rail and closing the ends of said grooves, and a common means permanently and rigidly securing said plates and the ends of the reinforcing bar to the rail.

In testimony that I claim the foregoing as my invention, I have signed my name hereto.

FREDERIC A. DAVIDSON.