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SCAFFOLD HANGER

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Fig. 1.

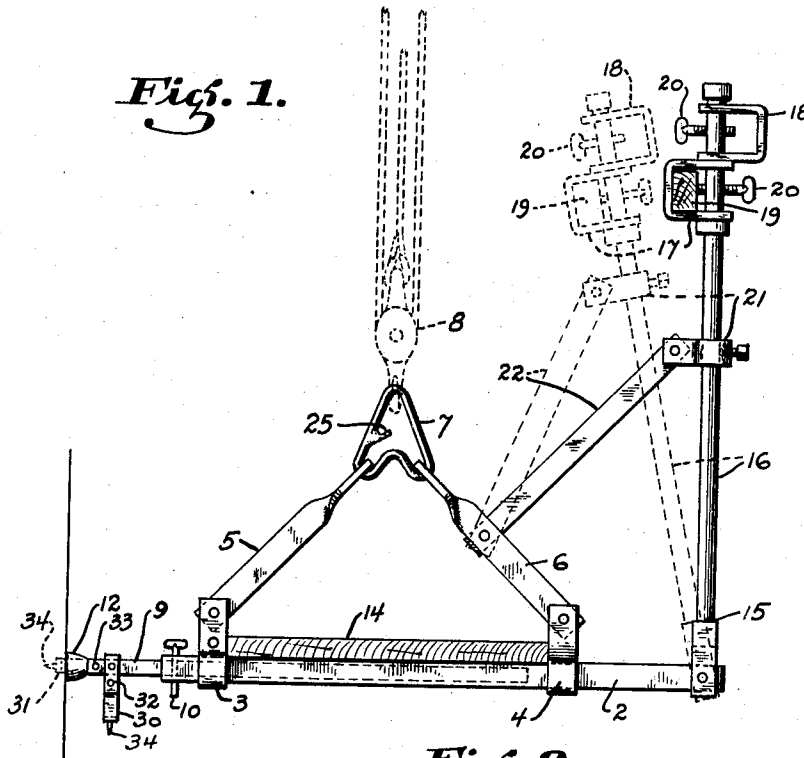


Fig. 2.

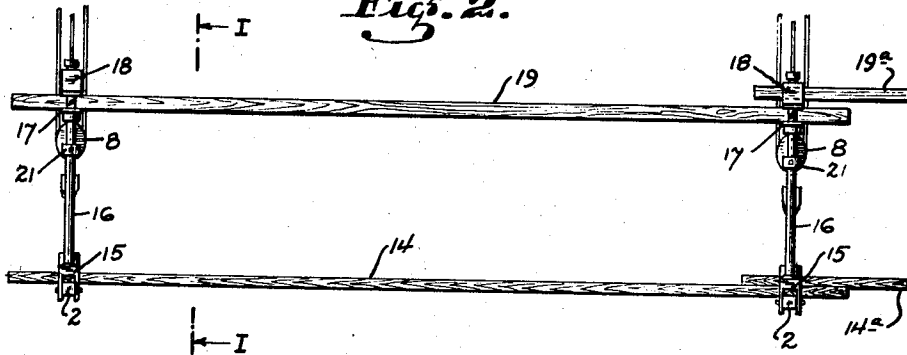
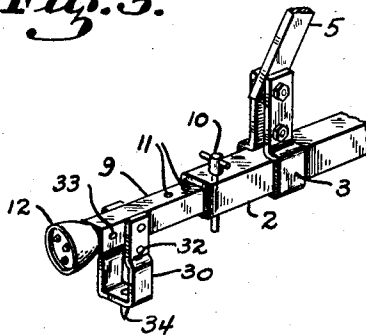


Fig. 3.



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SCAFFOLD HANGER

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6 Claims. (Cl. 304—16)

This invention relates to suspended scaffolds such as are used by painters and other building mechanics when working on the exterior vertical walls of a building, the invention being particularly directed to the hangers whereby the planks forming the working platform are supported.

By means of the extension bar, the plank 14 upon which the painters stand, or the scaffold as a whole, may be maintained at any distance desired from the face of the building.

On the outer end of the crossbar 2 is a pivoted socket member 15. This carries an upright member or post 16, on the upper end of which are mounted yokes 17 and 18 which are provided for the purpose of receiving a safety bar or rail 19, which is secured against removal by clamping screws 20 or the like. Where a single plank is employed, as shown in Fig. 2, only one safety bar or rail 19 will be employed, but if a comparatively long stretch of wall surface is being worked upon, two or more planks will be used, and a third or fourth hanger, not shown, will be employed. When an additional plank 14a is added, an additional safety rail, indicated at 19a, will also be employed. It is for this reason that the two yokes such as shown at 17 and 18 are provided.

Slidably mounted on the post 16 is a sleeve 21, and connecting said sleeve with the arm 6 is a link 22. By raising or lowering the sleeve 21 on the post 16, the post together with the safety rail 19 may be swung inwardly or outwardly with relation to the plank on the scaffold, thereby permitting adjustment of the rail with relation to planks of varying width. One adjusted position of the post and safety rail 19 is shown in dotted lines in Fig. 1.

When the scaffold is pulled up as high as possible, that is, when it is positioned directly under the roof of a building, there is a tendency for the plank 14 to tilt inwardly towards the building. To compensate for this, a pin 25 is formed in the link 7 over which the upper end of the arm 5 may be hooked, thus lifting the inner side of the scaffold and leveling it. When the scaffold is lowered the plank 14 tends to hang horizontal and the arm 5 may then be lowered to the lower end of the link 7, as shown in Fig. 1.

The inner end of the extensible bar 9 which carries the rubber bumper 12 is commonly known as the fender or bumper end of the scaffold hanger. It sometimes happens that the bumper or fender end will align with the wooden frame separating two windows, and as there is danger that the scaffold may sway slightly so that the bumper or fender will slide off the window frame and break the windows, a U-shaped link such as shown at 30 (see Fig. 3) is provided. This is swung to the dotted line position shown at 31 (see Fig. 1), and it is there secured by placing a pin through the perforations indicated at 32 and 33.

The object of the present invention is generally to improve and simplify the construction and operation of scaffolds of the character described; to provide a scaffold hanger which is adjustable to planks of different widths; to provide a hanger which is adapted to be hung from a block and tackle and which will automatically center itself with relation to the width of the plank, regardless of the varying widths of the planks employed; to provide a hanger which clamps and grips the plank so that it will not be released and slide out of the hangers as usually happens when a plank breaks at any point between the hangers; to provide a hanger which permits the use of safety bars or rails; and further, to provide means whereby the safety rail may be adjusted to assume the best position with relation to planks of varying width.

The scaffold hanger is shown by way of illustration in the accompanying drawing, in which Fig. 1 is an enlarged cross section taken on line I—I of Fig. 2;

Fig. 2 is a side elevation of the scaffold and the hangers employed; and

Fig. 3 is a perspective view of the inner end of one of the crossbars whereby the scaffold plank is supported.

The scaffold hanger consists of a crossbar 2, to one end of which is suitably secured a fork-shaped lug 3. Slidably mounted on the crossbar is a second fork-shaped lug 4. Pivotedly secured to the upper end of each of said lugs are arms 5 and 6 respectively, the upper ends of which are hung in a heart-shaped link 7. This in turn is adapted to be hung from a block and tackle generally indicated at 8, whereby the scaffold is suspended from the roof or other support on the building.

The crossbar 2 is in this instance tubular and square in cross section, but it might be round in cross section. Telescoping within it is an extension bar 9 (see Figs. 1 and 3). The inner end of the crossbar 2 has a hole made in it to receive a pin 10. The extension bar 9 is provided with a series of holes 11, and when it is extended to the desired length or distance the pin 10 is passed through the holes to lock or secure the bar 9 in its adjusted or extended position. On the inner end of the bar 9 is secured a rubber pad or bumper

The inner end of the U-shaped link has a pointed pin 34 which enters the woodwork and thus holds the bumper or fender end against sliding off the woodwork and breaking the window.

5 It will of course be understood that there are two hangers for the plank 14 upon which the workmen stand, that is, there is one hanger at each end. Sometimes the distance between the two hangers is fairly great, and one thing that
10 has happened time and again is that too many men have been placed on a plank and it breaks in the middle. When this happens the two broken ends will slide off the crossbars 2, and the men and the plank ends will fall to the
15 street. By constructing the scaffold hanger as here shown, there is an ice-tong action between the arms 5—6 and the fork-shaped lugs 3 and 4. That is, there is a continuous inward pull on the arms 5 and 6 which tends to grip the plank
20 securely between the members 3 and 4; also, there is a tendency to tilt the lug 4, causing it to bite into the edge of the plank and securely grip the same. Thus, if the plank should break
25 in the middle, while it would tip and hang downwardly, it would still be gripped between the members 3 and 4, and if the men were quick, when a break occurred they could grasp the plank ends and hang onto them, as the plank
30 ends would not slide out from between the members 3 and 4.

Another advantage of this arrangement is that no matter how wide the plank, the block and tackle will always centralize itself with relation to the plank. The adjustable back rail 19
35 is another important feature, and so is the extensible or adjustable bar 9 which spaces the plank or scaffold from the face of the building.

While certain features of my invention have been more or less specifically described and illustrated, I nevertheless wish it understood that
40 changes may be resorted to within the scope of the appended claims, and that the materials and finish of the several parts employed may be in accordance with the judgment of the manufacturer or the demands of varying conditions of use.

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

50 1. A scaffold hanger of the character described comprising a crossbar, a pair of lugs on the bar adjustable and tiltable thereon to receive between them planks of varying widths, a link hung
55 from a suspending device, a pair of arms suspended from said link, and a pivotal connection between the lower end of each arm and an adjacent lug whereby when weight is applied to the plank the arms tend to tilt and pull the lugs
60 toward each other to clamp and secure the plank between them.

2. A scaffold hanger of the character described comprising a crossbar, a lug fixed adjacent the inner end of the crossbar, a second lug slidably
65 mounted on the crossbar, said lugs adapted to engage opposite sides of a plank placed on the crossbar, said sliding lug having a slight tilting movement on the crossbar, a pair of suspending

arms pivoted at their lower ends one to each lug, said arms tending to pull the sliding lug against the fixed lug and at the same time to tilt the sliding lug so as to cause it to bite into the side
5 of the plank and secure the plank between the lugs, an elongated suspending link connecting and forming a pivotal hanger for the upper ends of the arms, and a pin intermediate the ends of the link from which one of the arms may be
10 suspended.

3. A scaffold hanger of the character described comprising a crossbar, a lug fixed adjacent the inner end of the crossbar, a second lug slidably
15 mounted on the crossbar, said lugs adapted to engage opposite sides of a plank placed on the crossbar, said sliding lug having a slight tilting movement on the crossbar, a pair of suspending arms pivoted at their lower ends one to each lug, said
20 arms tending to pull the sliding lug against the fixed lug and at the same time to tilt the sliding lug so as to cause it to bite into the side of the plank and secure the plank between the lugs, and a suspending link connecting and forming a pivotal
25 hanger for the upper ends of the arms.

4. In a scaffold hanger of the character described a pair of crossbars adapted to receive
30 and form a support for the opposite ends of a plank, suspension means from which the crossbars and plank are hung, a socket member pivoted to the outer end of each crossbar, an upright post in each socket member, a yoke at the upper end of each post, a safety rail secured in
35 and carried by said yokes, a sleeve vertically adjustable on each post, a link connecting each sleeve with the suspension means, said sleeves and links adapted to impart a tilting movement
40 to the posts and safety rail carried thereby to adjust the safety rail to or away from the plank, and means for securing the sleeves on the posts when the safety rail is adjusted.

5. In a scaffold hanger of the character described a pair of crossbars adapted to receive and
45 form a support for the opposite ends of a plank, suspension means from which the crossbars and plank are hung, an upright post on the outer end of each crossbar, a pivotal connection between said posts and the crossbar, a yoke on the upper end of each post, a safety rail secured in
50 and carried by said yokes, a vertically adjustable member on each post, and a link connecting each vertically adjustable member with the suspension means, said vertically adjustable member and
55 links adapted to impart a tilting movement to the posts and safety rail carried thereby, to adjust the safety rail to or away from the plank.

6. In a scaffold hanger of the character described, the combination with the crossbars, the plank, and the suspension means whereby the crossbar and plank are supported, of a U-shaped
60 member pivotally secured to the inner end of each crossbar, said U-shaped members adapted to be swung into alignment with the crossbars, means for securing said U-shaped members when in alignment with the crossbars, and a pointed
65 pin on the outer end of each U-shaped member.

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