

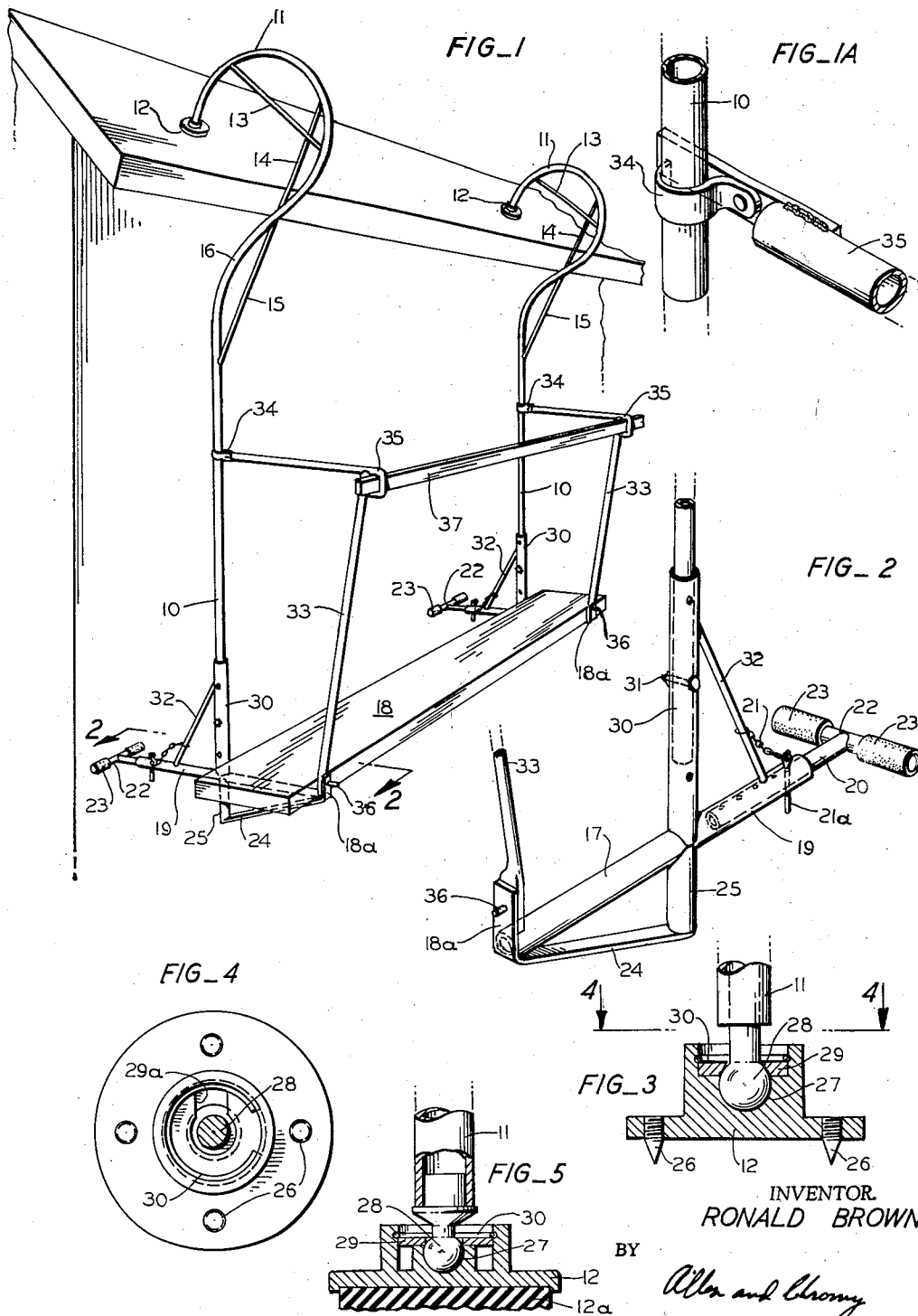
Nov. 24, 1964

R. BROWN
SCAFFOLD SUPPORT

3,158,223

Filed Sept. 10, 1962

2 Sheets-Sheet 1



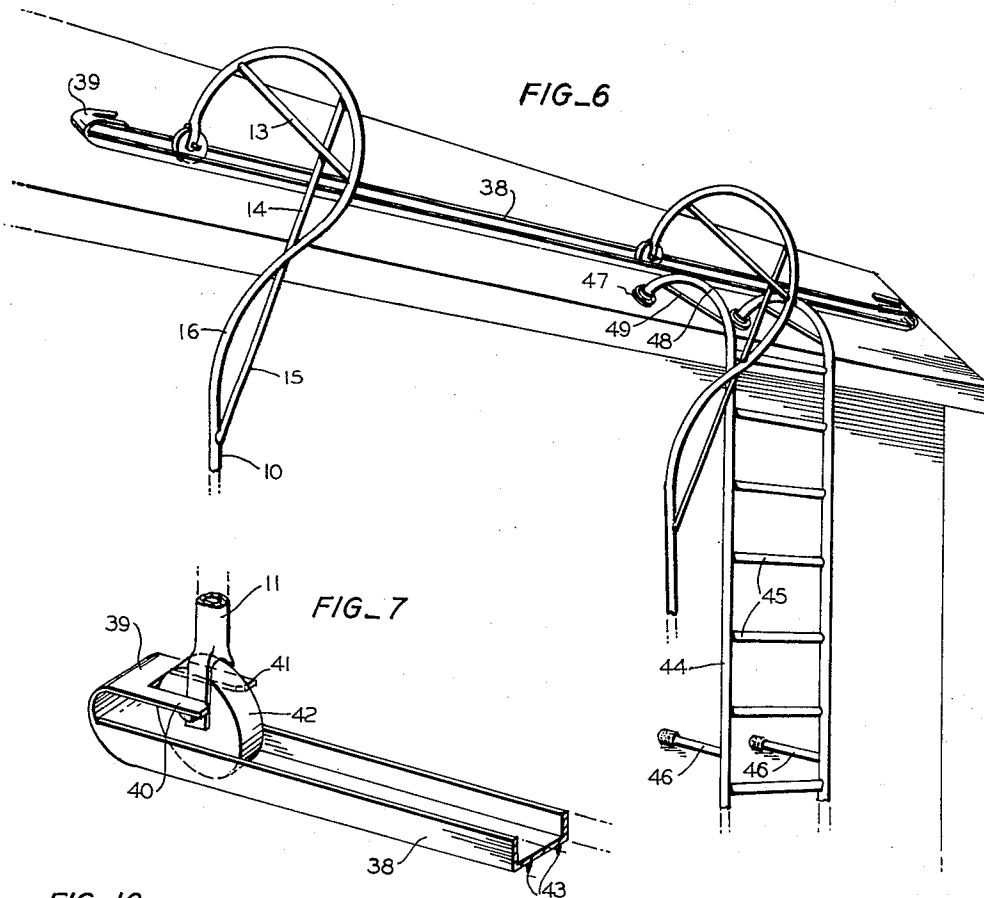
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2 Sheets-Sheet 2



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1

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SCAFFOLD SUPPORT

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4 Claims. (Cl. 182—36)

This invention relates to scaffold supports in general. More particularly, this invention relates to scaffold supports that are adapted to be supported from the edge of a roof.

This application is a continuation in part of my application Serial No. 682,674 filed September 9, 1957, now abandoned.

An object of this invention is to provide an improved scaffold support.

Another object of this invention is to provide an improved scaffold support having a hook portion that is arranged to extend over the edge of a building roof and in which the vertical body portion of the scaffold support is substantially directly under the roof engaging pad of the hook so that the weight on the scaffold presses the pad against the roof.

Other and further objects of this invention will be apparent to those skilled in the art to which it relates from the following specification, claims and drawing.

In accordance with this invention, there is provided an improved scaffold support that is of sturdy and economical construction and which may be used to support a plank for use by painters, along the side of a low building. This scaffold support may be made of light weight material to facilitate use thereof and its convenient use saves considerable time for painters and house repairmen. This scaffold support is preferably made of a tubular material that is formed in the shape of a hook at the upper end thereof so as to enable the workman to hook the support over the edge of the roof. A suitable pad having one or more projecting pointed elements for engaging the roof is attached to the end of the hook by means of a swivel joint to provide a positive grip support. The bottom portion of the scaffold support is supported by the aforesaid pad so that it hangs below said pad and substantially in vertical alignment therewith. Thus the load on the scaffold is in effect hung under said pad. The lower part of the scaffold support is also provided with a pair of laterally-extending elements, one of which is adjustable and is adapted to be extended to engage the side of a building and provide proper spacing between said side and the scaffold plank which is supported on the other of these laterally extending elements. In this way the scaffold plank is supported at the optimum distance away from the side of the building so that the scaffold is adapted for efficient use by painters and like workmen.

In a modified form of this apparatus there is provided a rail that is adapted to be placed on the building roof for the purpose of supporting the scaffold supports. In this case the upper portions of the scaffold supports are each provided with a caster or roller arrangement which is adapted to ride in the aforesaid rail whereby the scaffold supports may be shifted with respect to the side of the building on which work is being done simply by rolling the scaffold supports in the aforesaid rail. The rail in this case may be provided with suitable spikes or other means for engaging the roof to prevent the rail from sliding on the roof.

Also in cases where this scaffold support is to be used for working on taller buildings such as the second story of a two-story house it may be desirable to shift the rail and scaffold supports from one part of the building to another. In such cases a ladder that is also provided with an upper hook shape portion that is provided with suitable roof engaging pads may be used by the work-

2

men for climbing off of the scaffold and up onto the roof. After the workmen are on the roof of the building they can handle the upper part of the scaffold support and the rail so as to move these members around to the desired portion of the building roof without climbing to the ground and also without using relatively long ladders which rest on the ground.

These and other features of this invention will be set forth in detail in the following specification, claims and drawing in which, briefly:

FIG. 1 is a view showing a pair of supports of this invention employed for supporting a scaffold plank from the roof of a building;

FIG. 1A is a detail view of the guard lock;

FIG. 2 is a fragmentary detail view showing the adjustable spacer leg or arm employed in this scaffold support;

FIG. 3 is a sectional view showing the roof-engaging pad employed on this scaffold support and this view is taken along the line 3—3 of FIG. 4;

FIG. 4 is a plan view showing further details of construction of the roof-engaging pad;

FIG. 5 is a sectional view showing a modified form of roof-engaging pad;

FIG. 6 is a fragmentary view of a scaffold support employing a roof engaging rail member; the hook shaped upper parts of the scaffold support are provided with casters or rollers for engaging this rail;

FIG. 7 is a detail view of one end of the roof engaging rail which is provided with bifurcated means for receiving the caster end of a scaffold support;

FIG. 8 is a side view of one end of the roof engaging rail showing the caster end of the scaffold support hooked in the bifurcated end of the rail and also showing, in broken lines, this caster end of the scaffold support moved away from the bifurcated end of the rail;

FIG. 9 is a sectional view taken along the line 9—9 of FIG. 8; and

FIG. 10 is a side view of the ladder employed in accordance with this invention.

Referring to the drawing in detail, there is shown in FIG. 1 an embodiment of this invention wherein two scaffold supports constructed in accordance with this invention are employed for supporting the scaffold plank, these scaffold supports being arranged to support the plank 18 near the respective ends thereof. These plank supports are both of identical construction and therefore only one will be described in detail.

Each plank support comprises a tubular body member 10 provided with hook portion 11, the bottom end of which is integral with the body 10 and the free end of which is provided with a roof-engaging pad 12, that is joined thereto by means of a swivel which will be described in detail hereinafter. The hook portion 11 is shaped so that the member 10 extends downward below the pad 12 substantially in vertical alignment therewith when the support is hung on the roof of a building.

The hook portion 11 is provided with cross braces 13 and 14 that are of X-shape and are welded together at the point where they cross each other. The ends of these cross braces are welded to the hook portion 11 at spaced points to increase the strength of this portion and also permit making this portion of much lighter stock. The bend portion 16 where the bottom of the hook 11 joins the straight portion of the body of the scaffold frame may also be braced by a member 15, the ends of which are welded to the hook portion 11 and to the body portion 10, respectively.

A plank supporting member 17 is welded to the tubular member 30 that is adapted to receive the bottom part of the body 10 and is attached thereto by the bolt 31 which extends through holes formed in the member

3

30 and body 10. Additional holes are provided in the member 30 so that it may be adjusted with respect to the body 10 and the height of the scaffold plank 18 either raised or lowered. The end of the member 17 is provided with an up-standing member 18a, the purpose of which is to prevent the plank 18 from sliding off of the end thereof and this up-standing member may be formed from the end of the bracket 24 that is attached to the free end of the member 17 and to the bottom of the projection 25 of the body portion 10.

Another laterally extending arm 19 is provided to the bottom of the body portion 10 and this arm 19 extends in a direction opposite to that of the member 17. The arm 19 is hollow and is adapted to receive the member 20 which is provided with a cross member 22 that is attached to the outer end thereof. A pair of sleeves 23 of resilient material such as rubber are supported on the cross member 22 and form the building engaging elements of the scaffold support as shown in FIG. 1.

The arm 20 is provided with a pin receiving aperture which are adapted to be aligned with different pin receiving apertures in the arm 19 and in which the pin 21 may be lodged so that different lengths of the arm 20 may be extended from the hollow member 19 whereby the working length of the combined arms 19 and 20 may be varied to provide for different spacing of the plank 18 with respect to the side of the building. In this way the optimum distance may be selected by the workmen employing this support. A brace 32 is also attached to the arm 19 and the tubular member 10 to strengthen the joint between the members 19 and 30.

The upstanding member 18a is also provided with a hole for receiving the pin 36 that is attached to the lower part of the guard support 33. This guard support is of an inverted L-shape and the upper horizontal member thereof is provided with a lock 34 that is pivotally attached thereto. The lock 34 is provided with an arcuate portion that is adapted to hug the body member 10 so that the guard is attached to this body member and is held thereon. The guard support 33 is provided with a loop portion 35 in the angular part thereof. This loop portion is made of a configuration such as to receive the board or plank 37 which may be an ordinary 2 by 4 if desired. Thus this board 37 is supported on the scaffold support and provides a guard rail for the workmen using the scaffold. The board 37 may be fitted into the loop 35 so as to be snugly received therein. On the other hand, if the fit between the board 37 and the loops 35 is loose, an additional fastening member such as a rope may be attached to the board and tied around the guard support 33 to hold these members assembled.

The pad 12 which is shown in detail in FIGS. 3 and 4 is attached to the upper end of the hook portion 11 by means of a ball and socket joint. The ball 28 is lodged in the socket 27 formed in the body of the pad and this ball is held in said socket by means of a retaining member 29 which is provided with a slot 29a so that this retaining member may be placed over the ball 28. The retaining member 29 is held in the recess formed in the body of the pad 12 by means of a split spring 30 that is lodged in a suitable groove provided therefor.

A plurality of pointed members 26 are threaded into suitable holes formed in the pad 12. These pointed members are provided for the purpose of engaging the roof and they prevent slipping of the pad 12.

A modified form of pad such as shown in FIG. 5 may be employed in which the pointed members 26 are replaced by a resilient member 12a which may be made of rubber or the like and the bottom surface of which is roughened so that it effectively grips the roof and prevents it from slipping down the roof.

The body member 10 and the hook portion 11 are preferably made of tubular material such as steel, aluminum, aluminum alloy, magnesium or magnesium alloy. These

4

parts may of course be made of angle or channel shapes if desired. Furthermore the body portion 10 may be made adjustable so that the length thereof may be varied if desired, and this may be accomplished by making this body portion in two telescoping parts whereby one part is telescoped over the other much in the same manner as the arms 19 and 20 are made of telescoped parts and held together by the pin 21. A similar pin and aperture arrangement may be employed for holding the two parts of the body 10 together.

In another embodiment of this invention the scaffold support employing the substantially vertical member 10 and the hook-shaped portion 11 is provided with a caster or roller 42 that is pivotally attached by means of a small pin 43 to the bifurcated end of the hook-shaped portion 11 as shown in FIGS. 6-9. The caster 42 is adapted to be rolled or moved in the channel shaped rail 38 which is positioned on the roof of the building as shown in FIG. 6 and which is provided with pointed members 43 at spaced intervals on the bottom surface thereof for making positive and slide-free engagement with the roof.

The rail member 38 may be of such length that it permits substantial movement of the scaffold support along the side of the building and thus eliminates the necessity of the workmen getting down off of the scaffold in order to move or adjust the scaffold support. After they have completed work on the side of the building adjacent to the scaffold support they can simply brace themselves against the building to move the members 23 out of contact with the building and then move the scaffold supports on the rollers 42 in the rail 38. Thus by employing this rail arrangement the workmen may work in uninterrupted fashion along a substantial length of the building as determined by the length of the rail 38. The rail 38 may be made of light materials such as aluminum or magnesium or alloys thereof, so that it may be easily handled. This rail also is provided with inwardly curved end portions 39 which are bifurcated and are thus provided with two spaced extending portions 40 and 41 which are spaced just enough to receive the caster support therebetween.

The members 40 and 41 engage the end portions of the pin 43 which passes through the caster and through the bifurcated part of the member 11. Thus when the upper parts of the scaffold support are hooked in the ends of the rail 38 between the members 40 and 41, the rail 38 may be lifted off of the roof by two workmen and carried to be positioned on another part of the roof in cases where this scaffold support is employed on relatively low or one-story building.

On the other hand where this scaffold support is employed on buildings of two stories a ladder unit 44 is provided to enable the workmen to climb to the top of the roof off of the scaffold. In that case the workmen can lift the scaffold support by gripping the hook portions 11 thereof and moving the scaffold support to another part of the building. The ladder 44 is provided with a pair of side members and a plurality of rungs 45 having the ends thereof attached to the respective side members. Spacer members 46 are provided between the lower part of the sides of the ladder to space this part of the ladder from the side of the building as shown in FIGS. 6 and 10. The upper part 48 of the ladder is of hook-shape and this part is provided with bracing members 49. Suitable pads 47 which may be of the construction shown in FIGS. 3, 4 and 5 are provided to the upper ends of the side members to engage the roof of the building.

While I have described an embodiment of this invention in detail, it is of course understood that I do not desire to limit this invention to the exact detail set forth except insofar as those details are defined by the following claims.

I claim:

1. A scaffold support of the type adapted to be used for supporting a scaffold plank along the side of a low building for use by painters and like workmen comprising an elongated element having a substantially straight body portion and a curved portion at the top of said body portion, the free end of said curved portion having means for gripping the roof of the building, said elongated element being of relatively light weight so that the workman may grip the bottom part of said body portion and place said means on the top of the roof in position for use, said curved portion being adapted to extend around the eave of the building roof for supporting said straight body portion depending under said eave substantially vertically under said means so that said substantially straight body portion is supported by said curved portion substantially parallel to and adjacent to the side of the building, a spacer arm attached to the lower part of said straight body portion and extending laterally therefrom to engage the aforesaid side of the building, a scaffold plank supporting element attached to the lower part of said body portion, said plank supporting element extending laterally from said body portion in a direction opposite to that of said spacer arm to support the scaffold plank adjacent to the aforesaid side of the building and well beneath the eave of the building so that the scaffold plank may be used as a support for workmen painting, finishing or repairing the aforesaid side of the building, an inverted L-shaped member, means for removably attaching the upper part of said last mentioned member to said substantially straight body portion, means for detachably attaching the bottom part of said last mentioned member to said plank supporting element, said last mentioned means comprising an outwardly extending pin attached to the lower end part of said last mentioned member, said plank supporting element having an upstanding end part of the outer end thereof provided with a hole for receiving said outwardly extending pin when said lower end part of said last mentioned member is positioned between said scaffold plank and said upstanding end part, and means for removably attaching a guard rail to said inverted L-shaped member.

2. A scaffold support of the type adapted to be used for supporting a scaffold plank alongside of a low building as set forth in claim 1, further characterized in that said means for removably attaching a guard rail to said

inverted L-shaped member comprises means at the angle portion of said inverted L-shaped member for slidably receiving the guard rail so that said guard rail cannot be removed except by longitudinally sliding it with respect to said inverted L-shaped member.

3. A scaffold support of the type adapted to be used for supporting a scaffold plank alongside of a low building as set forth in claim 1, further characterized in that said means for removably attaching a guard rail to said inverted L-shaped member comprises a loop at the angle portion of said inverted L-shaped member for slidably receiving the guard rail so that said guard rail cannot be removed except by longitudinally sliding it with respect to said inverted L-shaped member, said guard rail when positioned in said loop preventing turning of said L-shaped member on said pin.

4. A scaffold support of the type adapted to be used for supporting a scaffold plank along the side of a low building as set forth in claim 1 further characterized in that the means for gripping the roof of the building comprises an elongated channel member having a plurality of pins on the bottom thereof for engaging the roof of the building, the ends of said elongated member being intumed and bifurcated, a caster rotatably attached to the free end of said curved portion, the bifurcated end portion of said elongated channel member being intumed and extending up over the channel so that it will encompass and grip said caster whereby said body portion of said elongated element may be used for lifting said elongated channel member when said caster is hooked under said bifurcated inwardly turned portion of said channel member.

References Cited by the Examiner

UNITED STATES PATENTS

842,331	1/07	Palmer	182—150
1,179,391	4/16	Bachman	182—108
1,558,425	10/25	Yetter	182—150
1,669,329	5/28	Elder	182—150
2,170,689	8/39	Loomis	182—150
3,066,757	12/62	Robinson	182—36

FOREIGN PATENTS

284,685 11/52 Switzerland.

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