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W. G. OSBORNE

2,329,415

SCAFFOLD

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Fig. 1.

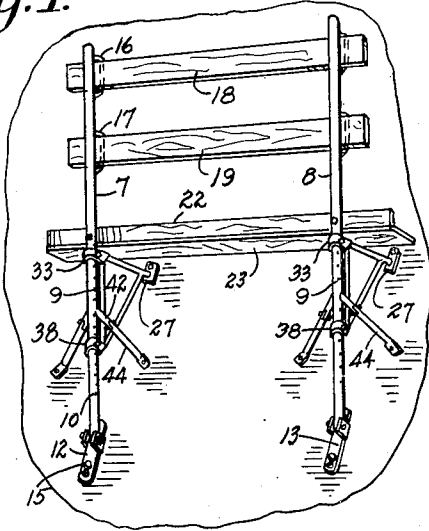


Fig. 2.

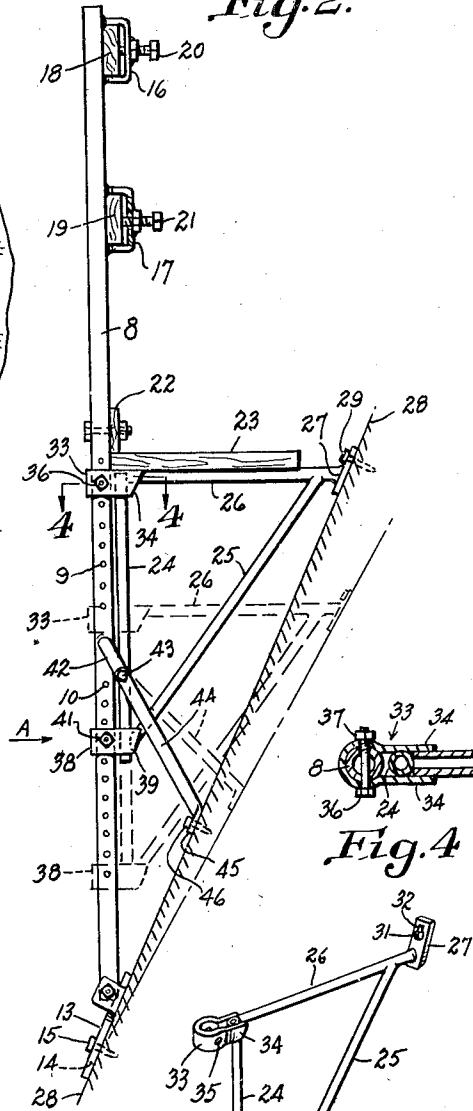


Fig. 3.

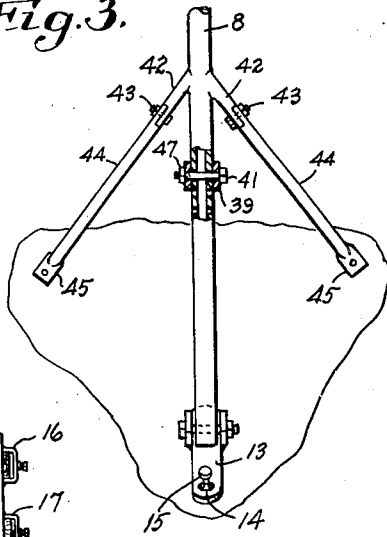


Fig. 4.

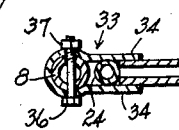


Fig. 5.

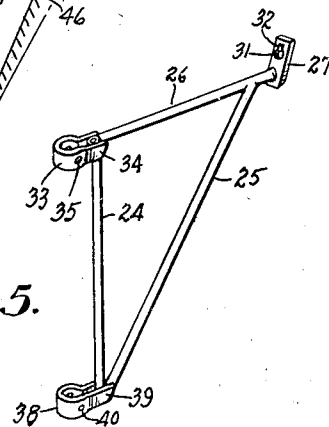
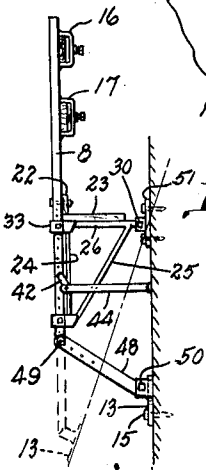


Fig. 6.



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5 Claims. (Cl. 304—20)

My invention relates to a scaffold and the principal object is to provide scaffold that is adapted to be mounted upon roofs of different pitches. An important use of the present invention is for use upon the curved roofs of aircraft hangars. The adaptability of the present device permits it to be used upon a variety of pitches from substantially a vertical surface to a surface having a sharply acute angle to the horizontal.

My invention also has for its objects to provide such means that are positive in operation, convenient in use, easily installed in a working position and easily disconnected therefrom, economical of manufacture, relatively simple, and of general superiority and serviceability.

The invention also comprises novel details of construction and novel combinations and arrangements of parts, which will more fully appear in the course of the following description. However, the drawing merely shows and the following description merely describes embodiments of the present invention, which are given by way of illustration or example only.

In the drawing, like reference characters designate similar parts in the several views.

Fig. 1 is a perspective view of an embodiment of my invention.

Fig. 2 is an enlarged side elevation of said embodiment showing same mounted in position.

Fig. 3 is a fragmentary view looking in the direction of arrow A of Fig. 2.

Fig. 4 is an enlarged section taken on line 4—4 of Fig. 2.

Fig. 5 is a perspective view of an element comprised in said embodiment.

Fig. 6 is a modified construction of the present invention.

Referring more in detail to the drawing, the reference numerals 7 and 8 designate upstanding members of my scaffold. The lower portions of the members 7 and 8 have series 9 and 10 of horizontal openings. The lower ends of the members 7 and 8 respectively have pivotally mounted feet 12 and 13. Each foot has an opening 14 through which a spike or nail 15 may be removably driven.

The upper portions of members 7 and 8 have U-shaped clamps 16 and 17 for removably clamping cross bars 18 and 19, to provide a rearward guard for men working on the present scaffold. Bolts 20 and 21 removably clamp the bars 18 and 19 in position. A foot-board 22 is suitably bolted to the upstanding members 7 and 8 adjacent the rear edge of platform 23.

The platform 23 is supported upon a triangular

or three-sided member having an upright member 24 and a therewith angularly disposed member 25, which is really the hypotenuse of the right-angled triangle. The members 24 and 25 together support the cross member 26, which in turn supports the platform 23. The outer end of the cross member 26 carries a foot 27 which is fastened to the inclined surface 28 by means of a spike or nail 29. It is believed clear without further illustration that the foot 27 may be pivoted on the cross bar 26, as shown at 30 in Fig. 6. The opening 31 in the foot 27 for the spike or nail 29 may be of inverted key-hole shape, whereby the spike 29 may be first driven into the surface 28. Then the enlarged portion of the opening 31 may be placed over the head of the spike 29 and as the foot 27 settles down, the reduced portion 32 of the opening engages the shank of the spike or nail 29. The opening 31 is also preferably of the same inverted key-hole shape so that the spike or nail 15 likewise may be first driven into the surface 28 and the foot 13 then placed thereover and allowed to settle down until the narrowest part of the opening 31 engages the shank of the spike 15.

A clip 33 has leg portions 34 that are welded at opposite sides of a corner provided by the angularly arranged members 24 and 26. The clip 33 has opposed openings 35 that may be aligned with openings 9 in the upstanding members 7 and 8. Bolts 36 are passed through the aligned openings and have nuts 37 holding the bolts in place.

A lower clip 38 has legs 39 welded at opposite sides of the corner provided by adjacent ends of angularly arranged members 24 and 25. Opposed openings 40 are arranged to be placed opposite selected ones of the openings 10. Bolts 41 are passed through the aligned openings, with suitable nuts 47 holding the bolts in position.

Forked members 42 have pivotal connections 43 with braces 44. Feet 45 at the outer ends of the braces 44 may be fastened to the surface 28 by means of nails 46.

In the form shown in Fig. 6, bracing links 48 preferably pivotally connect with the lower ends of the upstanding members 7 and 8, as shown at 49 and pivotally connect with the feet 13, as indicated at 50. With the exception of the bracing links 48 and the feet 51 being pivotally connected at 30 to the cross bars 26, and having two spikes or nails, the construction shown in Fig. 6 is similar to that previously described. The modification shown in Fig. 6, may be used on either a substantially vertical surface (as shown in full lines),

or on an inclined surface (as indicated in broken lines in Fig. 6).

In the use of my said invention, the spikes or nails 15 and 29 are driven in the side of the roof 28 or other place where the present scaffold is to be used. The distance between the narrow portions of the slots 14 and 32 is known, so that these spikes may be properly placed. Then the larger portions of the openings 14 and 31 are placed over the spikes or nails 15 and 29 respectively, and the feet 13 and 27 thereupon settle down with the shanks of the spikes in the narrower portions of the openings. The feet 45 of the braces 44 are then nailed to the surface in between the previously mentioned spikes or nails, as suggested at 46. The platform 23 provides a satisfactory and safe working position for a workman, with the bars 18, 19 and 22 acting as guards.

When it is decided to move the present scaffold to another roof of a different pitch or to another part of the same roof, that has a different pitch, the nails 46 are first removed. The scaffold is then lifted down by reversing the aforementioned operation. The spikes or nails 15 and 29 are thereupon applied to the new position and the previous arrangement followed. In order to adapt the scaffold to different pitches of roofs, the bolts 36 and 41 are removed and the triangular frame, comprising the members 24, 25 and 26, is raised, if the pitch is greater (as indicated in the full lines 28 in Fig. 2), or lowered if the pitch is less (as shown in broken lines in Fig. 2).

While I have illustrated and described what I now regard as the preferred embodiments of my invention, the constructions are, of course, subject to modifications without departing from the spirit and scope of my invention. I, therefore, do not wish to restrict myself to the particular forms of construction illustrated and described, but desire to avail myself of all modifications that may fall within the scope of the appended claims.

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

1. In a scaffold, upstanding means, normally substantially horizontal platform-supporting means extending outwardly from the upstanding means, the supporting means being slidable up and down the upstanding means, pivotal connections at the lower end of the upstanding means and at the outer end of the supporting means for connecting with different pitches of surfaces, said upstanding means having rigidly extending forks between said pivotal connections, divergent braces, each having a pivotal connection with one of said forks and having means at its outer end to be fastened to the surface upon which the scaffold is mounted, between the said pivotal connections of the upstanding means and said supporting means.

2. In a scaffold, the combination of upstand-

ing means, triangular supporting means mounted to slide up and down on the upstanding means to engage different pitches of surfaces, a side of the triangular support being arranged substantially horizontally for the support of a platform, headed nails adapted to be driven into different pitches of surfaces upon which the scaffold is mounted, a substantially flat side on the triangular supporting means being arranged to be opposite such surfaces, and pivoted feet on the lower end of the upstanding means and on the outer end of the platform support, said feet being provided with openings large enough to be passed over the heads of the nails, and the openings having reduced upper portions smaller than the heads of the nails respectively, but large enough to admit the shanks of the nails to receive such shanks when the feet settle down upon the nails.

3. In a scaffold, upstanding means, triangular supporting means mounted to slide up and down on the upstanding means to engage different pitches of surfaces, a side of the triangular support being arranged substantially horizontally for the support of a platform, the support having a non-pivotal connection with the upstanding means, a pivoted foot on the outer end of said platform support, and a link connecting another pivoted foot with a lower portion of the upstanding means, to maintain the scaffold in a desired position.

4. A scaffold including an upright supporting member, a platform supporting frame horizontally outstanding from said member and vertically adjustably connected thereto having a pivoted foot at its outer end, a link pivotally connected to the lower portion of said member below the frame and having a pivoted foot at its outer end, the link and frame being in such relative proportions as to permit alignment of their said pivoted feet along lines vertically parallel with the upright member and at various angles inclined with respect to said upright.

5. A scaffold including an upright supporting member, a platform supporting frame horizontally outstanding from said member and vertically adjustably connected thereto having a pivoted foot at its outer end, a link pivotally connected to the lower portion of said member below the frame and having a pivoted foot at its outer end, and braces pivotally connected to and outstanding from the upright member at an intermediate point thereof and having attaching members at their outer ends, the frame links and braces being shiftable to points aligning the pivoted feet and attaching members thereof vertically parallel with the upright member and at various angles inclined with respect to said upright member.

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