ABSTRACT OF THE DISCLOSURE

A portable lean-to scaffold which is vertically adjustable and has a footing for distributing its weight against the ground, self-aligning wall engaging shoes and friction pads for preventing a board laid across the scaffold from slipping.

This invention relates to scaffolds for use by workmen, such as painters and others, who are obliged to work high up alongside walls. More specifically it relates to scaffolds of the lean-to type; the present invention being an improvement over applicant's earlier granted U.S. Patent No. 3,213,965.

A principal object of the present invention is to provide an improved portable lean-to scaffold which, besides containing all the advantageous features of the above original U.S. Patent, also includes self-contained means for being vertically adjustable, thereby allowing workmen to reach more comfortably an area being worked.

Another object of the invention is to provide an improved portable, lean-to scaffold which has an improved footing to distribute the weight of the scaffold against the ground in a more vertical direction thereby lessening the possibility of the scaffold from slipping.

Another object of the present invention is to provide an improved portable lean-to scaffold having wall engaging means that are self-aligning, thereby offering a maximum frictional engagement therewith, regardless of the angle of inclination of the scaffold. Moreover, this invention provides an improved portable lean-to scaffold having improved friction means to prevent a board placed across the top of the scaffold from sliding into a dangerous position.

Other objects are to provide an improved portable lean-to scaffold which is simple in design, inexpensive to manufacture, rugged in construction, easy to use and efficient in operation.

These and other objects will be readily evident upon a study of the following specification and the accompanying drawing, wherein:

FIGURE 1 is a front elevation view of the invention shown in operative use leaning against a wall,

FIGURE 2 is a side elevation view thereof,

FIGURE 3 is an enlarged cross-sectional view taken on the line 3-3 of FIGURE 2, and

FIGURE 4 is an enlarged cross-sectional view taken on the line 4-4 of FIGURE 2.

Referring now to the drawing in detail, the reference numeral 10 represents an improved portable lean-to scaffold according to the present invention, wherein there are a pair of supporting post assemblies 12, which, in an operative use, are connected together by a supported board 14 placed thereacross.

Each of the post assemblies 12 includes a telescoping leg 16 comprised of an upper section 18 and lower section 20 which are made from fabricated sheet metal, such as aluminum so as to be light in weight. The sections 18 and 20 are formed into longitudinal channel configurations and are interferred for longitudinally slidable adjustment relative to each other. Each section includes a longitudinal, inverted groove 22 along each longitudinal side between which there is an upright central groove 24, which has cleats 24a for climbing up to the scaffold plank.

The upper end of the upper section 18 is secured pivotally free by means of rivets 26 to a shoe 28 which thus is self-aligning to rest flat against a wall 30 irrespective of the inclined angle of the leg.

The lower end of the lower section 20 is likewise secured pivotally free by means of rivets 32 to a shoe 34 for the same improved friction purpose.

A brace assembly 36 is secured to the lower section 20 for providing a broader base to support the leg assembly for providing support against the ground in a more vertical direction, thereby helping to prevent slippage of the leg. The brace assembly includes a prop 38 pivoted at one end on a rivet 40 and retained within restricted pivot limits relative to the leg by arresting linkage 42.

The upper and lower sections are secured together in selected adjustment by a pin 44 on a chain 46, and which engages selected openings 47 and 48 of the upper and lower sections, respectively.

A bracket assembly 50 is adjustably secured to the leg and serves as support means for one end of board 14 upon which workmen may sit or stand. The bracket assembly includes a base 54 which is carried within central groove 24 and secured therein by a bolt 56 passing through the leg. The base 54 has a plurality of openings 58 along its length for the purpose of selectively being engaged by bolts 60 and 62 which engage one end of a horizontal metal bar 64 and one end of an upstanding metal prop 66, respectively, the bar and prop being connected together at their other ends by a bolt 68. A rubber pad 70 is secured to the upper side of bar 64 to improve frictional hold against the boards 52 and prevent the same from moving longitudinally off the bracket assembly.

In operative use, the leg elements are adjusted for elevation and secured together. The bracket is adjusted for position and to assure that the board is level. The brace assembly 36 is spread out and the scaffold rested against the side of the wall, ready for use.

While various changes may be made in the detail construction, it is understood that such changes will be within the spirit and scope of the present invention as is defined by the appended claims.

1. In a portable, lean-to scaffold, the combination of a plurality of post assemblies for supporting a horizontal board therebetween, each of said post assemblies including a telescopic leg comprising an upper and lower section, made of light weight sheet metal and being channel configured in a longitudinal direction, said sections being slidably interfit together, each said section including a longitudinal inverted groove along each longitudinal edge and an upright central groove therebetween and provided along its length with transverse cleats for climbing, a triangular bracket secured therewithin said channel, said bracket including a base having a plurality of openings along its length for receiving a bolt secured to one end of a horizontal bar and to one end of a prop, the opposite ends of said bar and prop being pivotally secured together, said bar having friction means on its upper side for supporting said board thereupon and prevent slipping thereof, friction means at the upper end of said upper section and the lower end of said lower section to resist slipping of said leg, and means at the lower end of said lower section for imparting a more vertical supporting force when said leg is in an inclined position, to prevent slipping thereof.

2. The combination as set forth in claim 1, wherein said friction means at the upper end of said upper section and the lower end of said lower section comprises a self-aligning shoe secured pivotally free to said end of said
3. The combination as set forth in claim 2, wherein said means to impart said vertical force comprises a brace assembly, said brace assembly including a prop secured pivotally free at one end to an intermediate portion of said lower section and an arresting linkage between said prop and a lower end of said section to limit the pivotal distance of said prop, said linkage consisting of a pair of rods one end of each of said rods secured pivotally free to an opposite end of said prop and said lower section respectively, the other ends of said rods secured pivotally free to one another and a lower end of said section to limit the pivotal distance of said prop.

5. The combination as set forth in claim 4, wherein said friction means on said horizontal bar comprises a rubber pad secured on said bar.

References Cited

UNITED STATES PATENTS

544,520 8/1895 Reifenstein 182—46
840,365 1/1907 Pease 182—107
2,168,111 8/1939 Barnes 182—46
2,800,371 7/1957 Quercetti 182—117
2,812,220 11/1957 King 182—230
3,213,965 10/1965 Fedoryk 182—117

REINALDO P. MACHADO, Primary Examiner.

U.S. Cl. X.R.

182—230