

[54] **GROUND SUPPORTED SCAFFOLDING**

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182/184**

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[58] Field of Search 182/132, 178, 179, 224,
182/225, 184

[56] **References Cited**

UNITED STATES PATENTS

1,339,661	5/1920	Milton	182/132
2,988,181	6/1961	Darrey	182/82

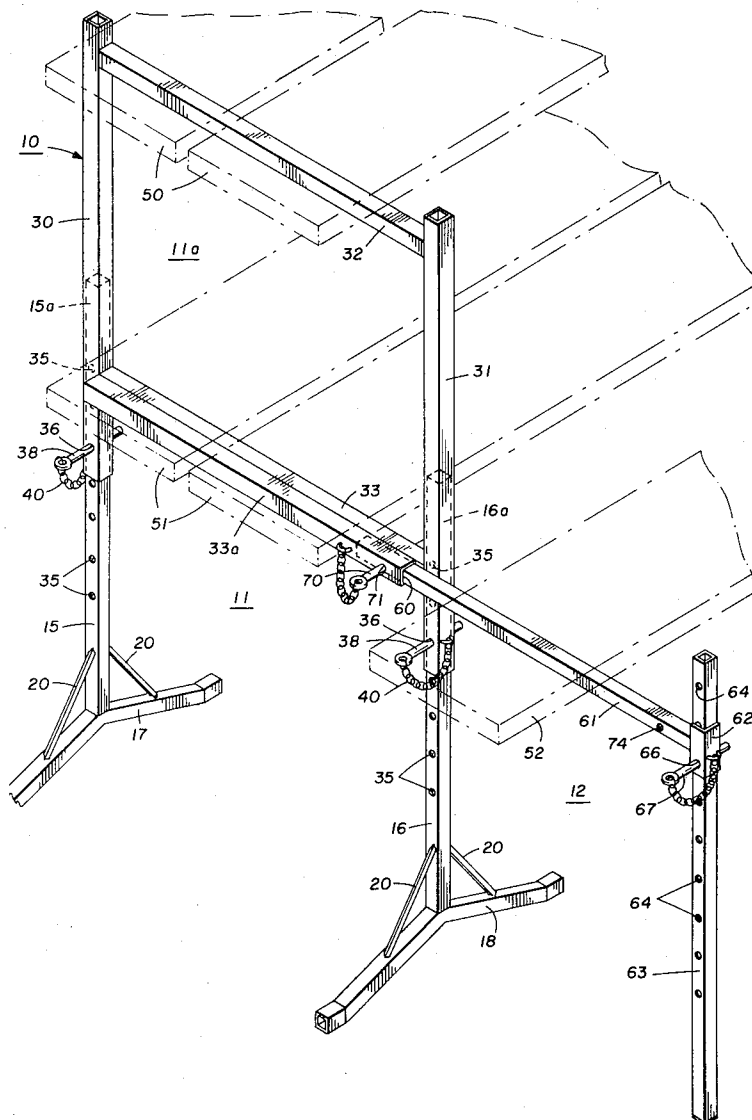
3,480,110 11/1969 Coleman 182/132

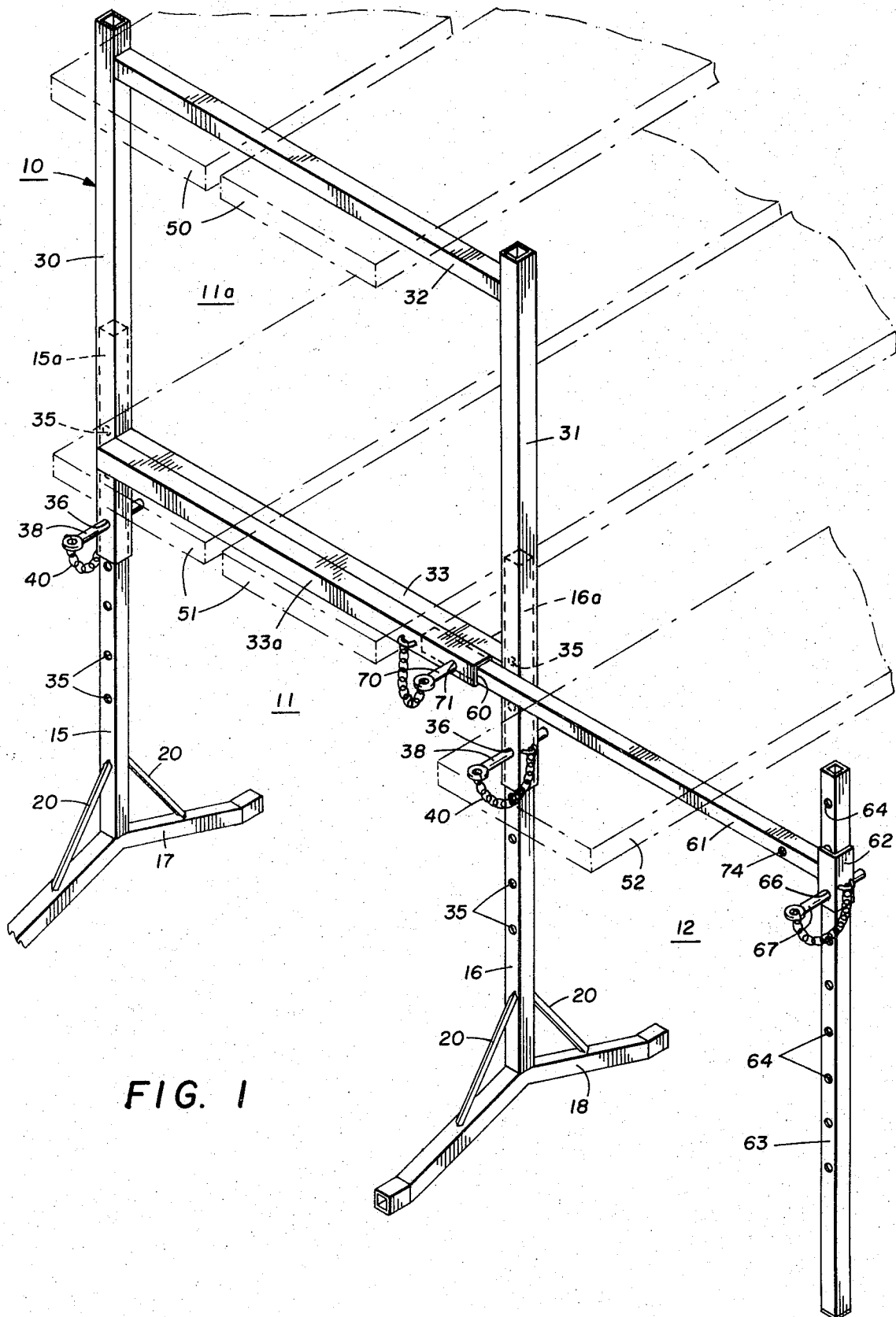
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[57] **ABSTRACT**

Disclosed is scaffolding including ground engaging standard supports having a materials platform support portion and a workman's platform support portion mutually vertically adjustable, as well as laterally translatable adjustable with respect to one another, channel means associated with the materials platform support portion enabling the lateral translatable adjustment while the materials platform support portion is loaded.

4 Claims, 4 Drawing Figures





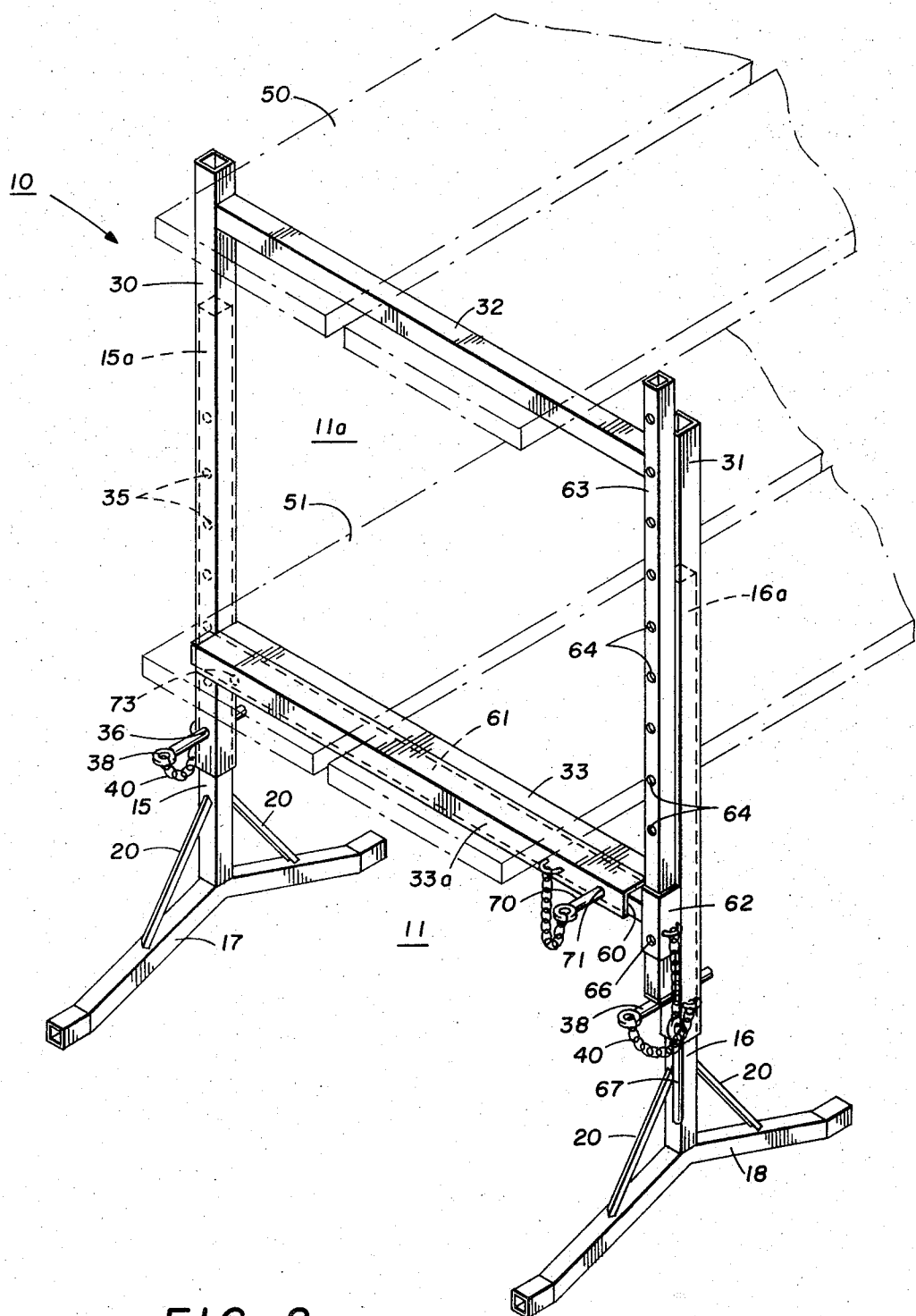


FIG. 2

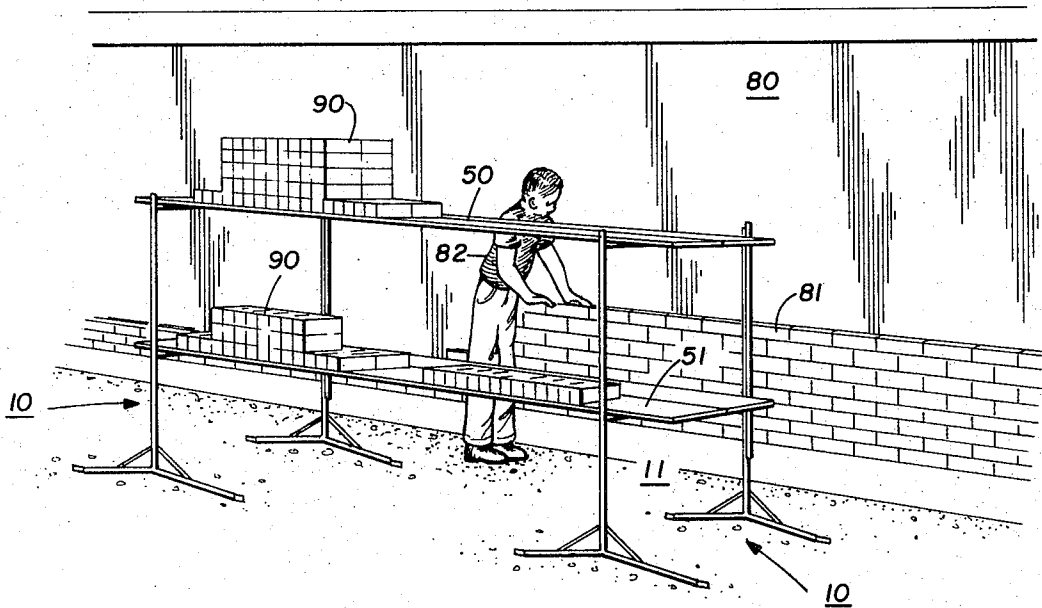


FIG. 3

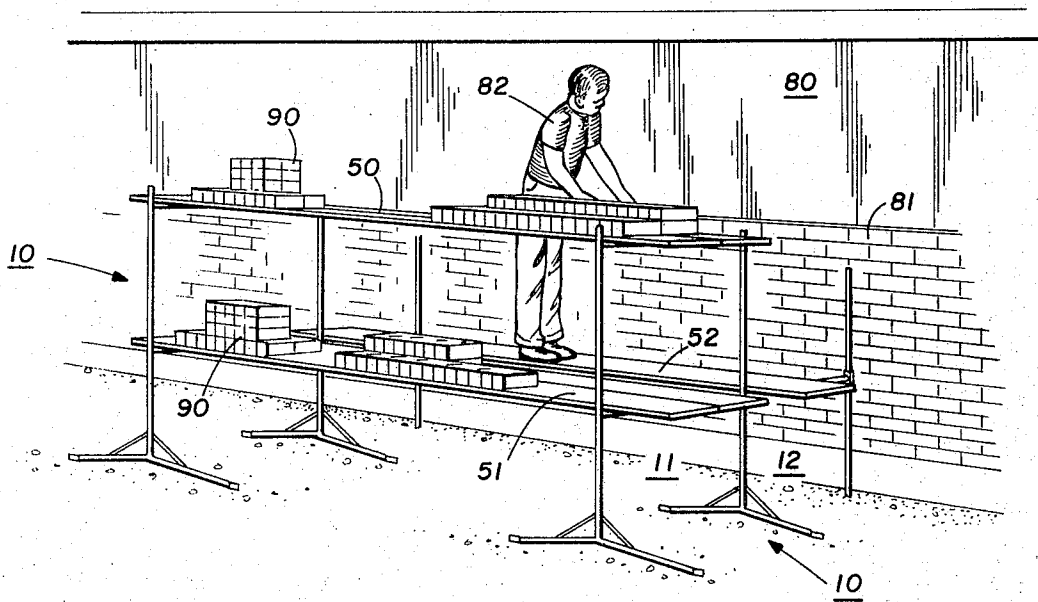


FIG. 4

GROUND SUPPORTED SCAFFOLDING

This invention pertains to scaffolding, more particularly to scaffolding of the ground supported type, and even more particularly to ground engaging scaffolding standards having platform support portions vertically and laterally extendible.

The need for providing supports for materials such as brick, mortar, and the like for, as well as elevated supports for workmen or masons engaged in, the erection of building walls has resulted in the development of a wide range of scaffolding structures providing such support. While presently employed scaffolds have generally served this intended purpose, they have not been entirely satisfactory for all conditions of service.

Specifically, most of the designs of scaffolding now being utilized in the construction of building walls, and particularly those of the ground supported type, include only a single platform support upon which both the workman and his materials can be disposed. The scaffold, during the time the workman is at ground level, is initially loaded with bricks and other materials, and positioned away from the wall a sufficient distance to enable the mason to pass therebetween. After the height of the wall being constructed reaches a level necessitating the elevation of the workman by the scaffold, the scaffolding must be moved to a position adjacent the wall to enable access thereto by the workman. To enable this movement, however, requires the bricks and other materials to initially be unloaded, thus resulting in a needless loss of time. Furthermore, since the platform upon which the workman is now supported also provides the materials receiving platform, continuous stooping or bending by the workman from the erect or standing position is required. With respect to scaffolding which has included both a workman's platform support and a separate materials receiving platform support, these platforms have generally been rigidly coupled to one another; and the workman's platform consequently obstructs the movements of the workman while he is disposed at ground level.

It is therefore a principal object of the present invention to provide new and improved scaffolding.

It is another object of the invention to provide new and improved ground supported scaffolding.

It is a further object of the invention to provide new and improved scaffolding standard supports of the ground engaging type which are adapted for the convenient support of both materials receiving platforms and workman's platforms and which do not require the unloading of the materials therefrom between the time the workman is disposed at ground level and is to be elevated and supported by the scaffolding.

It is an even further object of the invention to provide new and improved ground supported scaffolding particularly suited for use by workmen or masons engaged in the construction of a building wall which assists in minimizing the time involved with such construction.

In accordance with these and other objects, the present invention is directed to the features of a ground engaging scaffolding standard adapted for supporting first and second sets of platforms, one set of platforms being disposed for supporting a workman, the other set of platforms suitably located for the receipt of materials. The standard comprises a first materials receiving platform support portion, and a second workman's platform support portion which is operatively movable,

specifically laterally translatable, between a retracted position and a laterally extended position, means being provided to enable this lateral translation while the materials receiving platform is fully loaded. Additionally, both the workman's platform and the materials receiving platform can be simultaneously vertically adjusted to not only elevate the workman to a desired height, but to also maintain the materials within easy reach of the workman at this height.

These and other features, advantages and objects of the invention will become more readily understood from the following detailed description taken in conjunction with the attached drawings wherein like numerals refer to corresponding parts and wherein:

FIG. 1 is a pictorial view of one of the scaffolding standards constructed in accordance with the invention illustrating the workman's platform support portion laterally extended from the materials receiving platform support portion;

FIG. 2 is a pictorial view similar to that shown in FIG. 1 but with the workman's platform support portion retracted with the materials platform support portion; and

FIGS. 3 and 4 illustrate the use of the scaffolding in the construction of a building wall with the workman being disposed at ground level and at an elevated position supported by the scaffolding, respectively.

The scaffolding, in accordance with the present invention, includes a pair of identical standards or supports which are adapted for supporting sets of platforms transversely extending therebetween, one set of platforms being disposed for supporting a workman, another set of platforms suitably located for the receipt of materials.

Referring initially to FIG. 1, one of these standards 10 is illustrated as including a first platform support portion 11 and a laterally extendible second platform support portion 12. The first support portion 11 includes a pair of laterally spaced vertically extending legs 15 and 16 respectively secured to, and supported by, a pair of base members 17 and 18 by means of leg braces 20. End portions 15a and 16a of the legs 15 and 16 are telescopically received by hollow vertically extending legs 30 and 31 of an A shaped platform support frame 11a. The frame 11a includes horizontally extending and parallel spaced beams 32 and 33 rigidly connecting the parallel legs 30 and 31.

The legs 15 and 16 are provided with rows of openings or apertures 35 passing therethrough in aligned opposed pairs, apertures 36 also being provided at the lower extremity of legs 30 and 31. It is thus noted that the relative vertical position of the frame 11a (and thereby the relative vertical position of the transverse beams 32 and 33) may be varied by telescopically transporting the legs 30 and 31 over the legs 15 and 16 to position the frame 11a at the desired height and to align the opposed apertures 36 with one paired set of apertures 35 at this height. The frame is then secured at this position by retainer pins 38 extending through the soaligned apertures. For convenience, the retainer pins 38, when not in use, may be held by flexible chain means 40 coupled to legs 30 and 31, as illustrated. The entire support portion 11, and particularly the vertical legs 15, 16, 30, and 31, are preferably formed of square metal tubing.

The transverse bars 32 and 33 respectively provide supports for one end of conventional scaffold boards or

platforms 50 and 51 which would extend between, and be likewise supported by transverse bars 32 and 33 of, a mating standard 10. As subsequently described, the boards 50 and 51 will provide materials platforms for supporting bricks or the like.

In accordance with a unique feature of the present invention, a hollow bar means 33a is secured to support 33 in the manner illustrated, and has an elongated opening 60 through which a horizontally extending member 61 of the support portion 12 can be telescopically received. The hollow beam 33a can be a separate enclosed structure as illustrated in the drawings, or could be a channel extension formed as an integral part of the beam 33 to define the transversely extending opening 60.

Rigidly coupled to, and preferably at one end of, the bar 61 is a sleeve 62 having an opening defined therein for slidably receiving a vertically extending leg 63. The leg 63 is provided with a row of openings 64 passing therethrough and are disposed for selective alignment with an opening 66 passing through the sleeve or collar 62, thereby to enable the vertical positioning of the leg 63 with respect to the ground, a retaining pin 67 provided to pass through the aligned openings 66 and 64 for securing the leg 63 at the desired location.

The bar 61 (and consequently the support portion 12) can be laterally translated from the retracted position (shown in FIG. 2) to the fully extended position (illustrated in FIG. 1). It is to be noted that the weight of the boards 51, as well as of any materials disposed upon these boards, is carried by the support 11, and particularly by the rigid beams 33 and 33a. Thus, the bar 61 is free to slide within the elongated opening 60, and the support portion 12 can consequently be laterally extended and retracted, even though the materials platform 51 be fully loaded.

When the platform support 12 is fully extended, it can be secured in that position by disposing a retainer pin 70 flexibly coupled to the support bar 33a through mutually aligned apertures 71 and 73 of the bar 33a and bar 61, respectively. The support leg 63 is then locked in position by the pin 67. The support 12 is now positioned for supporting one end of a scaffold board or platform 52 which rests upon the top of support arm 61. This board 52, as subsequently described, provides the workman platform of the scaffolding.

The support portion 12 may be "locked" in position in its fully retracted position (shown in FIG. 2) by passing the retaining pin 70 through the mutually aligned apertures 71 and 74 in the bar 33a and bar 61, respectively. It is also to be noted by reference to FIG. 2 that when the support portion 12 is in its retracted position, the vertically extending leg 63 may be elevated from engagement with the ground and rests upon the retainer pin 38.

Referring now to FIGS. 3 and 4, the operation of the scaffolding of the present invention is now described. Accordingly, and with initial reference to FIG. 3, a pair of standards 10 are disposed in a spaced relationship with respect to one another in a direction parallel to the wall 80. The platforms 50 and 51 extending between and supported by the standards have bricks 90, for example, disposed thereon, the scaffolding disposed a convenient distance from the wall 80 to enable the workman or mason 82 to pass therebetween. Initially, the erection of the building wall to the height illustrated in FIG. 3 does not require that the workman be ele-

vated and, during this time, each scaffolding standard 10 is desirably in the position as shown in FIG. 2. Specifically, the frame 11a is at a lowered vertical position, and the support portion 12 is in its retracted and stored position.

When the height of the wall 81 reaches a level requiring the workman 82 to be elevated, the platform support portion 12 is laterally extended to the position shown in FIG. 1, the platform boards 52 placed upon the bars 61, and the mason is elevated to continue his work in the manner illustrated in FIG. 4. Since the elongated bars 61 are easily and conveniently translated within the channel defined by the rigid housing 33a, there is no necessity to remove the bricks 90 or other materials from the platform boards 50 and 51 to effect this lateral extension, and the erection of the wall may continue without interruption.

It is also to be particularly noted that the frame 11a is elevated along with and to the same degree as the elevation of the support platform portion 12 so that the platform 50 is always maintained at a convenient height to enable the workman 82 to have easy access to the materials thereon without stooping or bending from an erect or standing position. Thus, the erection of the building wall 81 can proceed without needless loss of time.

In summary, it can be seen that the use of the scaffolding utilizing the standards or supports constructed in accordance with the present invention allows for the initial loading of bricks and other materials on the scaffolding platforms, and the continuation of the bricklaying or masonry work from ground level to the required elevation without needless interruptions occasioned by having to continuously move, load, and unload the scaffolding, thus resulting in substantial savings in time and money.

Various modifications to the disclosed embodiment, as well as alternate embodiments of the present invention may become apparent to one skilled in the art without departing from the spirit and scope of the invention as defined by the appended claims.

What is claimed is:

1. In a scaffold assembly of the type having a support structure for supporting materials receiving platforms and a separate workman's platform, the improvement wherein said support structure comprises:

a. a first platform support for supporting a materials receiving platform comprising a ground engaging base portion, frame means vertically adjustable with respect to said base portion and defined by a pair of laterally spaced vertically extending leg portions and at least one horizontally extending support beam,

b. elongated sleeve means disposed between said leg portions and defining an elongated channel extending transverse to said vertically extending leg portions and parallel to said at least one horizontally extending support beam, said sleeve means being rigidly secured to said frame means immediately adjacent said support beam in a manner which maintains said channel stationary with respect thereto,

c. a second platform support laterally movable between a first support position extending from said first platform support for supporting a workman's platform and a second stored position retractably retained within the confines of said first platform

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support; said second platform support comprising an elongated horizontal beam for supporting said workman's platform and telescopically received within the elongated channel of, and supported by, said sleeve means; substantially the entire length of said elongated horizontal beam being disposed within the horizontal span of the pair of laterally spaced leg portions of said frame means when said second platform support is disposed in said second stored position, and

d. means for releasably locking said second platform support in the first support position and the second support position.

2. The improvement as defined by claim 1 wherein said elongated sleeve means has a top surface coplanar with the top support surface of the horizontally extend-

ing support beam of said frame means.

3. The improvement as defined by claim 2 wherein said frame means is further defined by a second horizontally extending support beam; said frame means is in telescoping relationship with said base portion; and said second platform support further comprises a ground engaging leg vertically adjustable with respect to the elongated horizontal beam of said second platform support.

10 4. The improvement as defined by claim 3 further including releasable locking means for vertically positioning said frame means with respect to said base portion, said releasable locking means supporting said ground engaging leg when said second platform support is in its second stored position.

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