

June 6, 1967

F. S. BEST

3,323,616

MASON'S SCAFFOLD

Filed Oct. 22, 1965

3 Sheets-Sheet 1

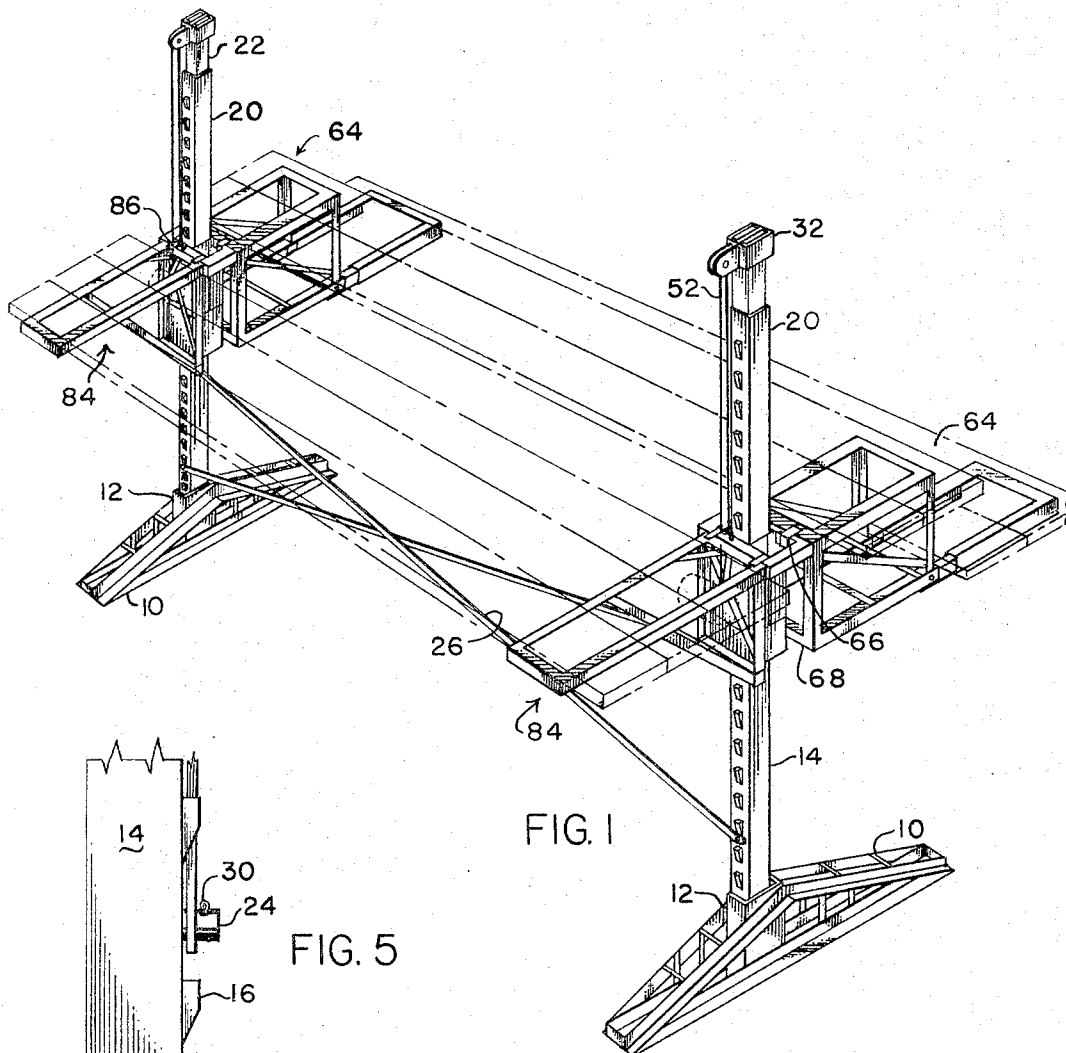


FIG. 1

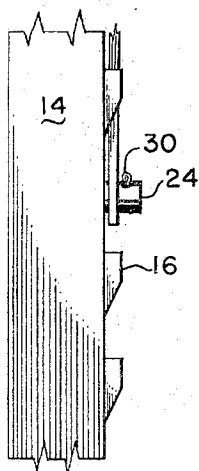


FIG. 5

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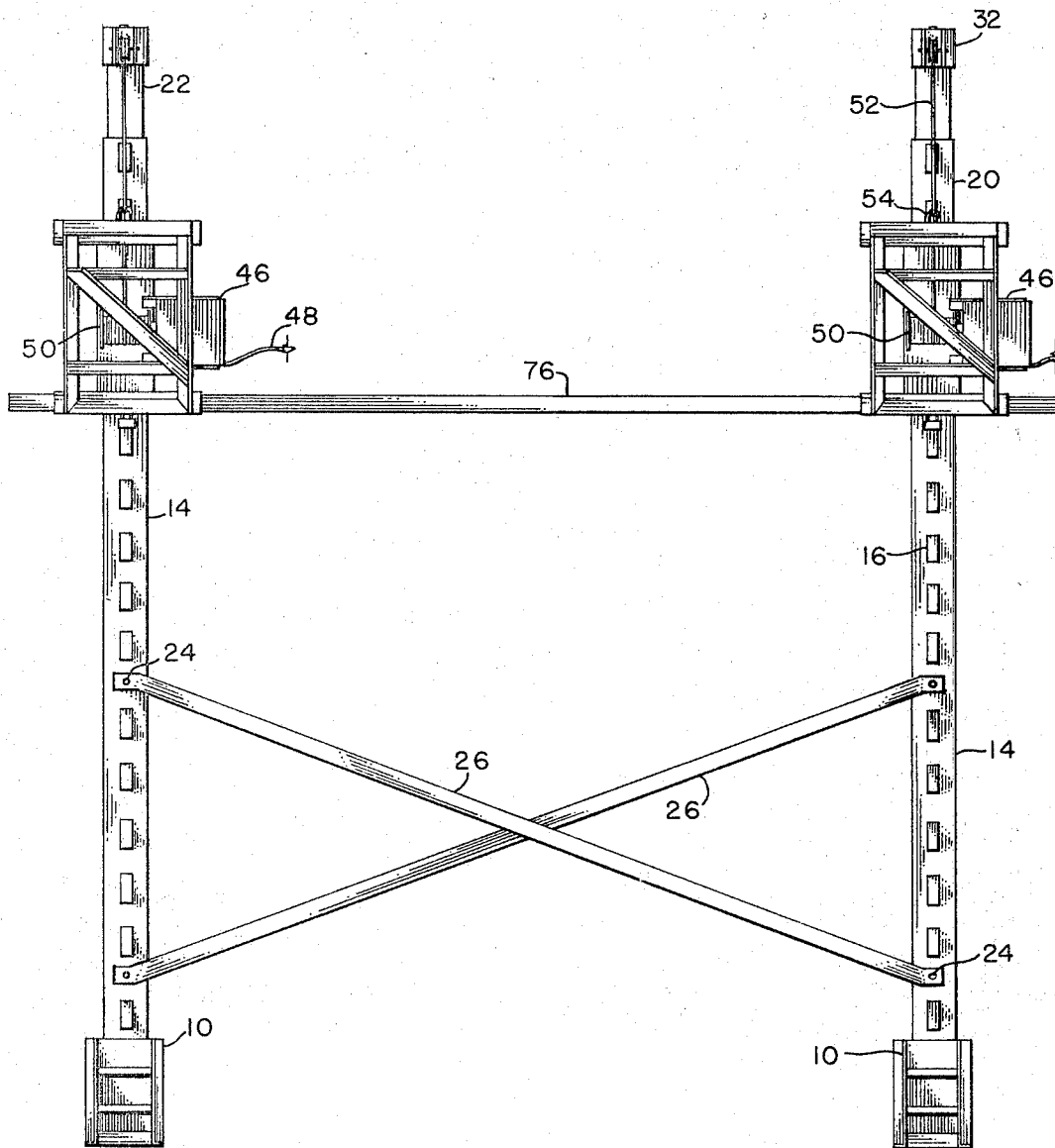


FIG. 2

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3 Sheets-Sheet 3

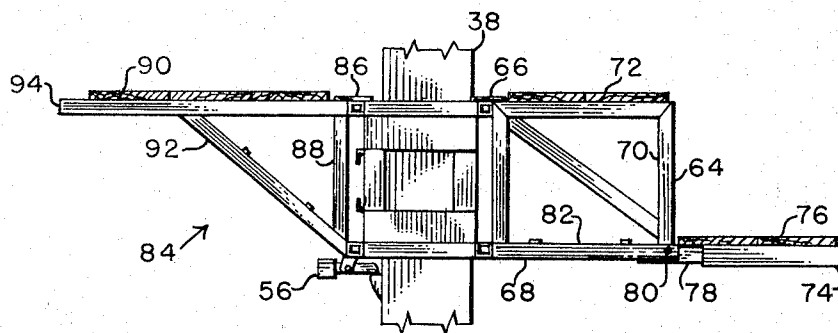


FIG.3

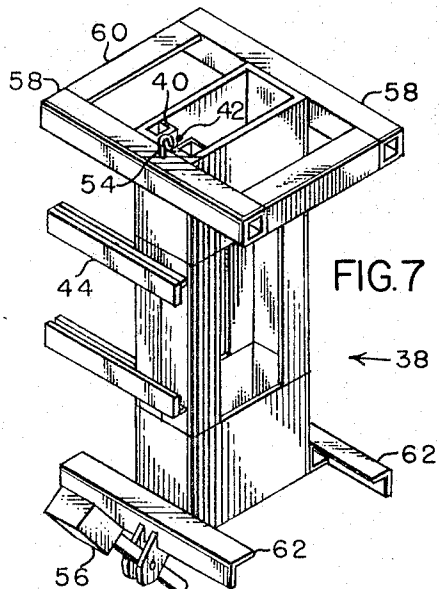
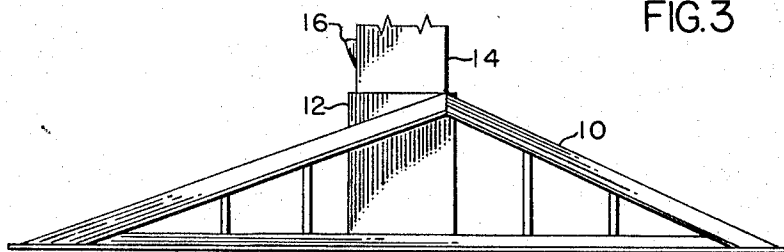


FIG. 7

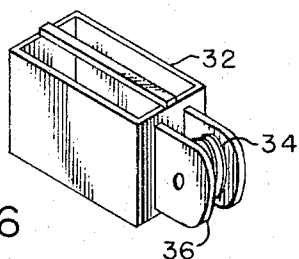


FIG.6

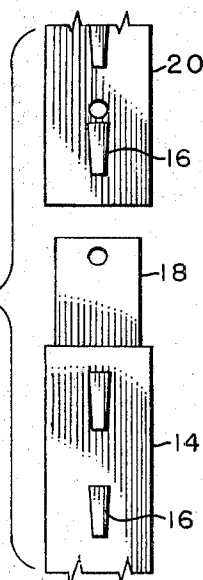


FIG. 4

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MASON'S SCAFFOLD

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4 Claims. (Cl. 182-146)

This invention relates to scaffolds and, more particularly, to a scaffold having a motorized drive for raising and lowering the walkways and adapted for use by masons.

This scaffold has at least two standards with a sleeve around each standard with a cable hoist mechanism for raising and lowering the sleeve. Walkway planks are placed on benches attached to the sleeve.

An object of this invention is to provide a mason's scaffold.

Another object of this invention is to provide a mason's scaffold with a motorized unit for raising and lowering.

Another object is to provide a mason's scaffold which is readily assembled and disassembled into parts which are readily transported by a single person onto a truck for moving and storage.

Further objects are to provide a scaffold which is readily adjustable so that the working planks may be moved toward or away from the vertical standards in the event the standards or the wall are not plumb.

Still further objects are to achieve the above with a device that is sturdy, compact, durable, simple, versatile, safe, and reliable, yet inexpensive and easy to manufacture and operate.

The specific nature of the invention as well as other objects, uses, and advantages thereof will clearly appear from the following description and from the accompanying drawings, the different view of which are not necessarily to the same scale, in which:

FIG. 1 is a perspective view of a scaffold according to this invention with the planks shown in phantom.

FIG. 2 is an elevational view of a scaffold with the laborer's planks and material planks removed for clarity.

FIG. 3 is a partial side elevational view of one standard with sleeve and benches and base. The motorized winch is not shown for clarity.

FIG. 4 is a partial detailed exploded view of the standards.

FIG. 5 is a partial side elevational view of one standard with cross brace.

FIG. 6 is a perspective view of one of the caps.

FIG. 7 is a perspective view of the sleeve unit.

Referring more particularly to the drawings, it may be seen that the base or shoe 10 is in the form of a triangle. The base or shoe 10 is made of structural steel. The base 10 has a box 12 which is rectangular in cross section with an open top.

The bottom of standard 14 telescopes within the box 12. The standard 14 is rectangular in cross section and tubular. A plurality of teeth 16 protrude from the back of the standard. The front of the standard is approximately at the center of the base so that the base extends about an equal distance to the front and to the rear of the standard from the front of the standard. In practice, the teeth 16 are spaced four inches on center for purposes to be explained later. Smooth pin 18 extends from the top of each standard. There are no teeth on the pin 18 and the dimensions of the pin 18 are those of the standard less the thickness of the metal of the standard. Therefore an extension standard 20 of identical cross section may be telescoped over the pin 18. It will be noted also that each extension standard 20 has a pin 22 on the top of it so that the standards may be extended upward to construct a multi-storied structure.

As a matter of design, each of the standards 14 and the extension standards 20 are eight feet in length. However, it will be noted that the extension standards have the teeth 16 extending down to the very end of the standard whereas the standard 14 has no teeth for the first 14 inches so that it will readily telescope within the box 12.

Cylindrical lugs 24 are also attached (as by welding) to the back of the standards 14 and 20. Cross braces 26 have holes in the ends thereof which are of the same diameter as lugs 24. Therefore, the cross braces may be fitted over the lugs and cotter keys 30 placed through holes in the ends of the lugs 24. In this fashion, the standards may be braced together. The cross braces 26 are constructed of tubular material such as pipe with the ends flattened so that a plurality of cross braces may be attached to a single lug 24.

Cap 32 telescopes over pin 22 of the top standard 20 (FIGS. 5 and 6). Sheave 34 is journaled within bracket 36 to the cap 32.

Sleeve 38 is telescoped around the standard 14 and is mounted for sliding travel up and down the standard 14 and the extension standard 20 (FIGS. 3 and 7). It is noted that the inside width of the sleeve 38 is equal to the outside width of the standards 14 and 20 plus clearance. The depth of the sleeve 38 is equal to the depth of the standards 14 and 20, plus the length of the teeth plus clearance. To maintain the sleeve snug upon the standards, two angle irons 40 are welded within the sleeve so that the sleeve fits snug around the standards, but there is a central slot 42 between the angle irons providing passage for the teeth 16 and the lugs 24.

Brackets 44 attached to the sleeve 38 provide a mounting for the motorized winch 46 (FIG. 2). The motorized winch is provided with electrical power through cables 48. Also there are suitable controls not shown so that the winch may be rotated in either direction. Drum 50 of the winch is immediately to the rear of the standard 14. The cable 52 is reeved around the sheave 34 and is attached to hook 54 upon the back of the sleeve 38. Therefore, upon operation of the winch 46 the sleeve 38 is either raised or lowered.

Locking dog 56 is pivoted to the bottom of the sleeve 38 and cooperates with the teeth 16 to prevent the sleeve from moving down the standard. The locking dog 56 may be manually disengaged from the teeth 16 to permit lowering when this direction of travel is desired. However, the locking dog 56 prevents accidental lowering to the injury of workmen upon the scaffolding.

A square tubular bar 58 is attached to the front and another to the rear of the top of the sleeve 38. They are connected at their ends by braces 60. Angle bars 62 are welded to the bottom of the sleeve 38 on the front and rear thereof. The mason's bench 64 has a pair of clips 66 which fit over the top bars 58 (FIGS. 1 and 3). Structural horizontal brace 68 at the rear bottom of the mason's bench abuts against one of the bottom bars 62. Thus it may be seen that the mason's bench is detachably connectable to the front of the sleeve 38. The mason's bench includes a rectangular frame 70 adjacent to the standards. Plank 72 is extended across this rectangular frame to form a convenient platform for the placement of material for the mason. It is 20 inches above the surface of the extension 74. Walkway plank 76 is extended across extension 74 to provide a walkway for the mason. The height of the material upon the rectangular frame 70 provides an ideal workspace for the mason to conveniently take the material from the material plank 72 upon the rectangular frame. The extension 74 is slidably attached to bars 78. The bars 78 are pivoted by bolts 80 to bottom member 82 of the rectangular frame 70. The extension 74 is slidably connected to the bars 78. Therefore, if the wall

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is not plumb, the extension 74 can be extended additional distance away from the standards 14 so that it is maintained adjacent to wall.

As stated before, the mason's bench 64 is readily detachable from the standards for easy handling and transportation and storage.

The extension 74 may be pivoted up so that it is easier to transport and store. Also, when first beginning the wall, it can be folded up so that it is not in the way of workmen at this time.

Laborer's bench 84 also has a pair of clips 86 at the top of the breast 88 (FIGS. 1 and 3). The clips 86 fit over the top bars 58 of the back of the sleeve 38 and the bottom of the breast 88 abuts the bottom bars 62, therefore securely but removably attaching the laborer's bench to the sleeve 38. Laborer's planks 90 may be extended from the laborer's bench 84 upon one of the standards to the laborer's bench on the other. Thus, there is formed a convenient walkway for laborers to walk upon and work upon to receive material and place it upon the material planks 72 for the convenience of the mason. The laborer's plank 90 are at the same height as the material plank 72. Angle brace 92 provides a suitable brace for the platform 94 of the laborer's bench.

Thus it may be seen that I have provided a convenient scaffold which may be readily raised four inches. Therefore, it can be set to the most convenient working height for the mason. Each time a course of bricks are laid, the scaffold is raised four inches so that the locking dogs 56 lock upon the next highest tooth 16. Therefore, the mason is always operating at his most convenient working height, reducing fatigue and permitting more efficient work.

It will be apparent that the embodiment shown is only exemplary and that various modifications can be made in construction, materials, and arrangement within the scope of the invention as defined in the appended claims.

I claim as my invention:

1. A scaffold having:

- (a) at least two shoes,
- (b) each shoe having an open top box therein,
- (c) a vertical standard telescoped in each box,
- (d) a pin in the top of the standard,
- (e) an extension standard telescoped over said pin,
- (f) a pin in the top of the extension standard,
- (g) a cap telescoped over the pin of the extension standard,
- (h) a sheave journaled to the cap,
- (j) the standard and extension standard having identical rectangular cross sections,
- (k) at least two lugs extending from the back surface of each standard,
- (m) a plurality of teeth extending from the back surface of each standard,
- (n) a sleeve telescoped over each standard,
- (o) a slot in each sleeve to provide passage of the sleeve over the lugs and teeth,

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(p) cross braces extending from the lugs of one standard to the lugs of another of said standards,

(q) a locking dog on each sleeve engaging said teeth on the standard to prevent the sleeve from accidentally sliding down,

(r) a winch on each sleeve,

(s) a cable wound on the winch and reeved through the sheave and back to the sleeve, thus providing means for raising and lowering the sleeve, and

(t) means on each sleeve for placing a plank thereon to provide a walkway from one standard to the other.

2. The invention as defined in claim 1 with the additional limitations of:

(u) a top horizontal bar attached at the top of each sleeve.

(v) a bottom horizontal bar attached to the bottom of each sleeve,

(w) at least one bench on each sleeve,

(x) at least two clips on each bench clipped over the top horizontal bar,

(y) each bench having structure which abuts said bottom horizontal bar, and

(z) planks extending from one of the benches to one of the benches of one of the other standards, thus forming a walkway.

3. The invention as defined in claim 2 with the additional limitation of at least one of said benches constructed as follows:

(aa) a rectangular frame which carries a plank,

(bb) a bar pivoted to the rectangular frame which carries said plank, and

(cc) extensions slidably attached to the bar for extending the planks further from the standard, if desired.

4. The invention as defined in claim 3 with the additional limitations of:

(dd) each sleeve having two top horizontal bars,

(ee) two bottom horizontal bars, and

(ff) two of said benches for each sleeve, one bench on each side of each sleeve.

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