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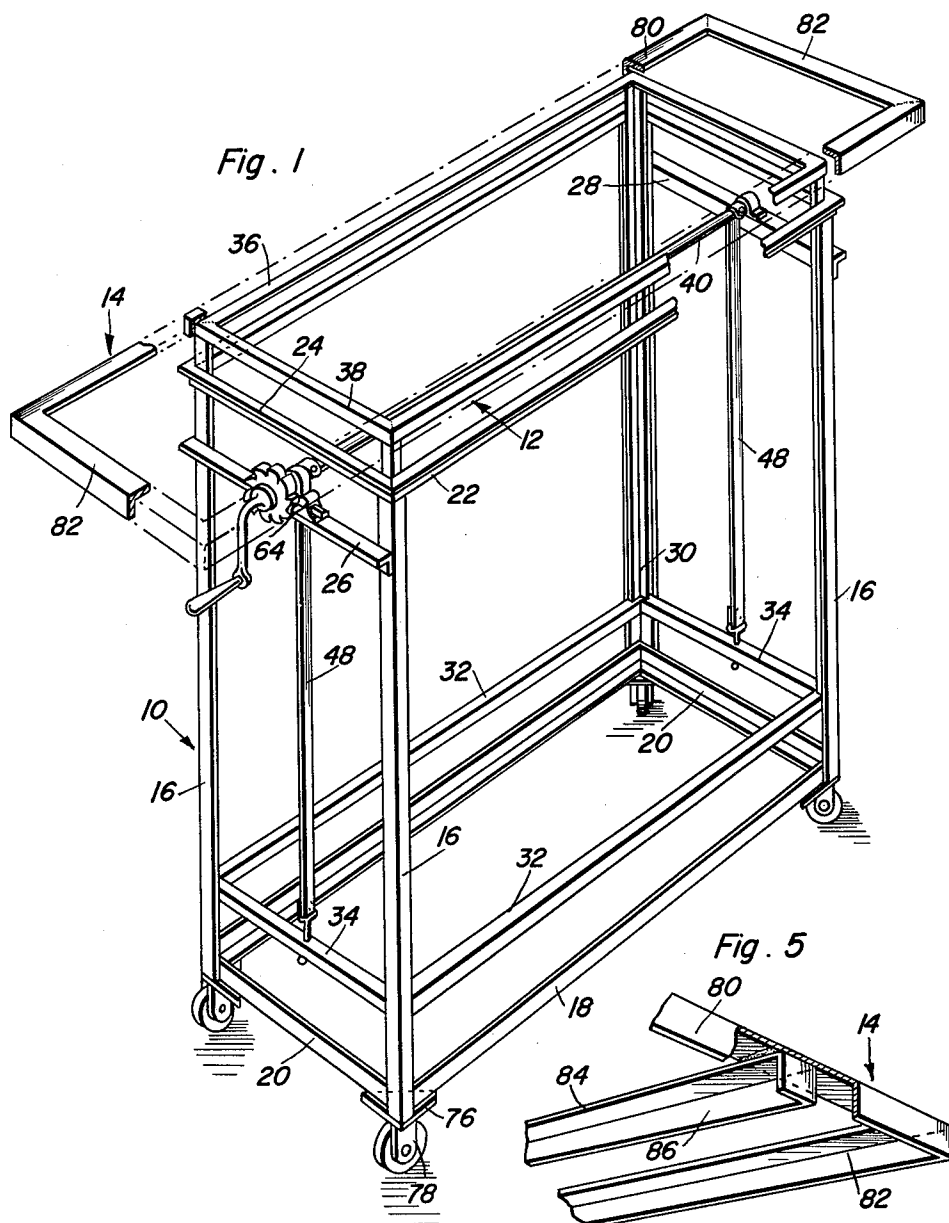
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ADJUSTABLE BUILDING PANEL SCAFFOLD

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2 Sheets-Sheet 1



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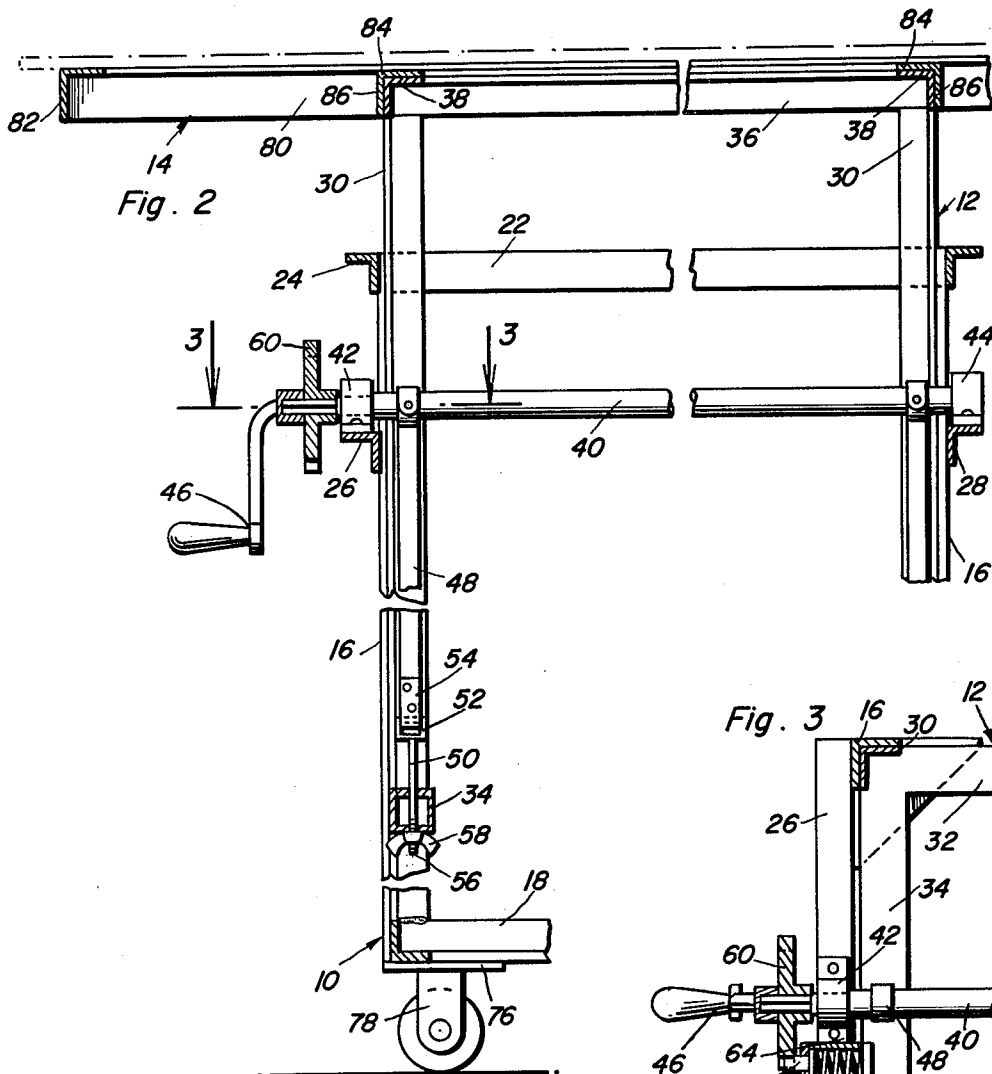
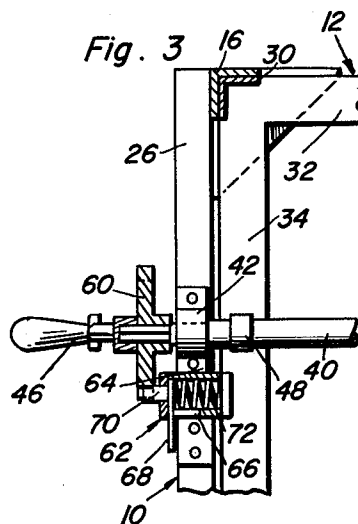
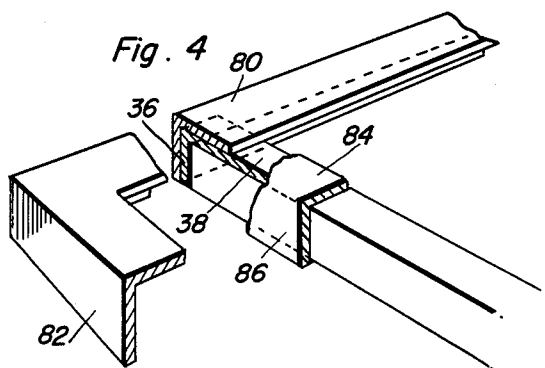
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ADJUSTABLE BUILDING PANEL SCAFFOLD

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7 Claims. (Cl. 254-4)

This invention comprises a novel and useful adjustable building panel scaffold and more particularly pertains to a mobile vertically adjustable platform to assist in elevating building panels into proper position to enable their application to an overhead portion of a building structure by a single worker.

The primary object of this invention is to provide an improved scaffold construction specifically adapted for use in aiding the worker in properly positioning wall or ceiling panels in readiness for their attachment to a building structure.

A specific object of the invention is to provide a frame-like mobile scaffold construction consisting of a mobile base having a vertically telescoping and vertically adjustable carriage slidably mounted thereon which carriage is provided with suitable support surfaces for building panels or other members which are awkward to handle, to facilitate their positioning in various vertical elevations in readiness for their attachment to a building structure and the like.

A further and more specific object of the invention is to provide an adjustable scaffold in accordance with the preceding objects wherein improved means are provided to facilitate the elevation of the vertically movable carriage with its load thereon in a simple manner and with a minimum of exertion on the part of the worker.

Yet another object of the invention is to provide a device in accordance with the preceding objects wherein the carriage is compactly guided and telescopically mounted within the framework of the mobile base of the device whereby the framework of the carriage is not only guided by the framework of the base but serves to rigidify the latter.

A still further specific object of the invention is to provide an adjustable scaffold pursuant to the foregoing objects and having a platform projecting laterally beyond the top surface of the scaffold adjustable carriage and providing an additional supplemental supporting surface and which platform shall be readily attachable to and removable from the carriage.

And a final specific object of the invention is to be enumerated herein is to provide a portable scaffold consisting of a mobile base, a vertically adjustable carriage mounted upon said base and an auxiliary platform removably supported upon said carriage and with the top surfaces of the base, carriage and platform being of an open framework whereby access therethrough may be had from therebeneath to the underside of panels or other objects supported by the scaffold.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a perspective view of the adjustable building panel scaffold in accordance with this invention certain parts of the vertically movable carriage and the removable auxiliary platform carried thereby being broken away and the carriage being shown in its lowered position upon the base;

FIGURE 2 is a fragmentary detail view in vertical section, parts being broken away and showing a portion of the base, of the movable carriage guidingly and slidably mounted thereon and of the elevating means for effecting adjustment of the carriage upon the base;

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FIGURE 3 is a further detail view in horizontal section taken substantially upon the plane indicated by the section line 3-3 of FIGURE 2 and showing a portion of the manually operated elevating and locking means for the carriage;

FIGURE 4 is a fragmentary detail view in perspective of a portion of the frame structure of the carriage and of the auxiliary platform; and

FIGURE 5 is a further detail view in perspective of still another portion of the scaffold platform.

Referring first to FIGURE 1 it will be seen that the adjustable scaffold includes a mobile base designated generally by the numeral 10, a vertically slidable carriage indicated generally at 12 together with a removable platform detachably mounted upon the carriage as indicated generally at 14. The base, carriage and platform are each of generally rectangular construction and each comprises an open framework formed preferably by structural angle members.

The base consists of vertical angle member legs 16 at each of the four corners thereof and which are rigidly connected at their lower ends by the horizontal side angle members 18 and transverse angle end members 20, these members having inwardly projecting horizontal flanges for a purpose to be subsequently set forth. At their upper ends, the base legs 16 are rigidified by the horizontally disposed side angle members 22 and end angle members 24, these members being disposed upon the exterior rather than the interior surfaces of the legs as was the case with the lower angle members 18 and 20, and having their vertical flanges secured to the vertical surfaces of the legs and their horizontal flanges projecting outwardly from the legs at the upper ends thereof. As will be noted, the lower angle members 18 and 20 have their vertical surfaces secured to the inside vertical surface of the legs while their horizontal surfaces project inwardly of the base towards each other.

Adjacent its upper end the base is provided with a pair of cross members 26 and 28 each of which is likewise preferably an angle member having its vertical flange secured to the outer surfaces of the vertical legs and having its horizontal flange disposed upon its upper surface.

The carriage 12 likewise is of generally rectangular shape, said carriage also including vertical angle members 30, see FIGURES 2 and 3 in particular at each of the four corners thereof and providing vertical legs which are slidably and guidingly telescopically received within the vertical legs 16 of the base for vertical adjustment of the carriage relative to the base.

The corner legs 30 of the carriage 12 are rigidly connected together at their lower and upper ends. Thus, there are provided the horizontal side members 32 and the horizontal transverse end members 34 at the lower ends with corresponding horizontal side angle members 36 and horizontal angle end members 38 at the upper ends thereof. As in the case of the base, the carriage horizontal members are similarly disposed so that in the lowered position of the carriage, as shown in FIGURE 2, the lower set of horizontal members of the carriage may rest upon the intumed horizontal flanges of the lower set of horizontal angle members of the base to support the weight of the carriage thereon.

An actuating means is provided for lifting and lowering the telescopically mounted carriage through the open upper end or top of the base.

For this purpose there is provided a horizontally extending shaft 40 journaled in pillar blocks or bearings 42 and 44 mounted upon the cross bars 26 and 28 respectively upon the base. At one end thereof, the shaft 40 is provided with a manually operated handle or crank 46. The shaft 40 is operatively connected to the carriage as by means of a pair of straps or webbing 48 which are

secured to the shaft for winding thereon in any suitable manner, and which at their lower ends are provided with fasteners 50. Conveniently, as shown in FIGURE 2, these fasteners may consist of bolts having eyes 52 at one end for reception in loops 54 of the webs or straps 48, and be threaded as at 56 at their other ends for reception of a wing nut 58. The bolts extend through the lowermost transverse horizontal angle or frame members 34 of the carriage so that by adjusting the wing nuts 58, the carriage may be adjusted with respect to the webs or straps.

As so far described it will be apparent that upon rotation of the shaft 40, the carriage will be raised or lowered, it being guided in this action and being slidably mounted upon the cooperating angle members 30 of the carriage which slidably engage within the angle members 16 of the base. By the disposition of the lifting thrust at both ends of the carriage and by the provision of the individual adjusting means provided for the fasteners 50, it is evident that the carriage may be retained in proper sliding position in the base.

In order to selectively lock the carriage in vertically adjusted positions, there is provided a locking means consisting of a ratchet wheel 60 fixedly secured to the end of the shaft 40 adjacent the manual operating handle 46, and with which cooperates a pawl indicated generally by the numeral 62. The latter consists of a housing or casing 64 suitably mounted upon the cross bar 26 of the base and provided with a longitudinal slot 66 in one side wall thereof through which extends a manually operated arm or lever 68. This lever carries a locking pin 70 which is resiliently urged as by a spring 72 outwardly of the housing and into engagement with the teeth of the ratchet wheel 60. The ratchet is released merely by depressing the lever 68 and causing the same to slide inwardly of the slot 66 in the housing to disengage the pin 70 from the ratchet teeth so that the shaft 40 may be manually adjusted to raise or lower the carriage.

In order to impart mobility to the structure, the bottom frame members 18 and 20 of the base are provided with triangular gusset plates 76 in which are journaled castor wheel units 78.

As thus far described, it will now be apparent that building panels such as plaster board, ceiling or wall panels and the like may be rested upon the top of the carriage and may be vertically manually adjusted by operating the shaft 40. Thus, a ceiling panel may be held against a ceiling while it is being secured in place by the workman, or a wall panel may be held in proper position against a wall structure for attachment thereto. Further, the adjustable scaffold may be utilized for various other purposes for vertically positioning different articles for a workman if desired.

In some instances, it is desired to support building panels or other objects of a considerably greater area or size than can be conveniently carried by the carriage itself. For this purpose the platform 14 is removably mounted upon the top of the carriage. The platform also consists of an open framework of rectangular configuration comprising the horizontal, longitudinal and transverse angle member 80 and 82 respectively, with the angle members 80 and 82 having upper horizontal flanges which are intumed or inwardly directed and vertical outer flanges which latter flanges of the member 80 are adapted to embracingly engage the corresponding vertical flanges of the carriage upper side frame members 36. This relationship is shown clearly in FIGURE 4. In addition, in order to prevent endwise displacement of the platform upon the open top of the carriage, the platform is provided with transverse angle members 84 which are connected between the side members 80 and which likewise have vertical depending flanges 86, see FIGURE 5, which are adapted to embrace the upper transverse frame members 38 of the carriage to prevent endwise shifting of the platform thereon.

Since the platform is considerably longer than the carriage, use of the platform serves to increase the effective length of the carriage and thus enables it to support considerably larger building panels than would be otherwise convenient or possible. It will be appreciated that the worker can by virtue of the open top construction of the carriage, the base and the platform obtain access to the underside of a building panel when it is desired to secure the latter against a ceiling or the like.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. An adjustable building scaffold comprising, in combination, a vertically telescoping, rectangular base and carriage each of open framework construction and each including vertical legs at their corners with upper and lower side and end angle members connecting and rigidifying the associated legs, each of said legs comprising an angle member with the carriage having its legs nestingly, slidably and guidingly received in those of the base, said base having an opening top through which said carriage is slidable, said carriage including a rectangular open-frame top for receiving thereon a wall panel and through which said panel is accessible, said open-frame carriage top comprising side and end angle members affixed to the upper end portions of the carriage legs, and a generally rectangular auxiliary panel-supporting platform removably mounted longitudinally on the carriage top and projecting beyond the ends thereof, said platform being of open framework construction for access to a panel thereon through said platform and said carriage top, said platform comprising side angle members nestingly receiving the upper, side angle members of the carriage and further comprising end angle members extending between the end portions of the platform side angle members in outwardly spaced parallelism with the upper, end angle members of the carriage, said platform still further comprising intermediate transverse angle members extending between said platform side angle members at longitudinally spaced points and nestingly receiving said upper, end angle members of the carriage for retaining the platform against longitudinal movement on the carriage, and means for raising and lowering the carriage.

2. The combination of claim 1, together with supporting casters for the base mounted on the lower ends of the legs thereof.

3. The combination of claim 1, said means including a longitudinal shaft rotatably mounted on the upper portion of the base, straps windable on the shaft and having one end connected to the lower portion of the carriage, a hand crank on the shaft, and means for locking the shaft against rotation.

4. A building scaffold comprising a base, a vertically telescoping, vertically adjustable carriage slidably and guidingly mounted upon said base and projectable upwardly thereabove and an auxiliary platform removably supported upon the top of said carriage, said base, carriage and platform each consisting of an open framework construction having each an open frame top with said tops being disposed in overlying relation whereby access may be had therethrough from therebeneath to a panel or other object supported upon said platform, said base and carriage having at their corners vertical nested and slidably engaged legs, means connected to said carriage for adjustably raising and lowering the latter upon said base, said platform having side members with depending flanges embracing therebetween the sides of the carriage open-frame top, said platform overlying said carriage top and projecting beyond and overhanging at least one mar-

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ginal edge of said carriage top, said platform top including depending transverse intermediate members releasably embracing therebetween the ends of said carriage top and releasably but stationarily securing said platform in position upon said carriage top.

5. A building scaffold comprising a base, a vertically telescoping, vertically adjustable carriage slidingly and guidingly mounted upon said base and projectable upwardly thereabove and an auxiliary platform removably supported upon the top of said carriage, said base, carriage and platform each consisting of an open framework construction having each an open frame top with said tops being disposed in overlying relation whereby access may be had therethrough from therebeneath to a panel or other object supported upon said platform, each of said base and carriage framework constructions including vertical legs rigidly connected by upper and lower sets of side and end members, corresponding legs of said base and carriage having vertically extending slidably engaged guide surfaces, means connected to said carriage for adjustably raising and lowering the latter upon said base, said platform having side members with depending flanges embracing therebetween the sides of the carriage open-frame top, said platform overlying said carriage top and projecting beyond and overhanging at least one marginal edge of said carriage top, said platform top including depending transverse intermediate members releasably embracing therebetween the ends of said carriage top and

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releasably but stationarily securing said platform in position upon said carriage top.

6. The combination of claim 4 including transverse bearing support members each mounted upon a pair of legs at one end of said base, said raising and lowering means comprising a longitudinal shaft extending through said base and carriage and rotatably journaled upon said support members, connecting means comprising flexible tension elements having one end of each secured to the lower portion of a carriage end and having the other end of each secured to said shaft.

7. The combination of claim 6 including a locking means mounted upon said shaft and frame and operable to releasably lock said shaft in rotationally adjusted positions, said locking means including a ratchet wheel fixed to said shaft and a pawl cooperating with said ratchet wheel and mounted upon said base.

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