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SCAFFOLD

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3 Sheets-Sheet 1

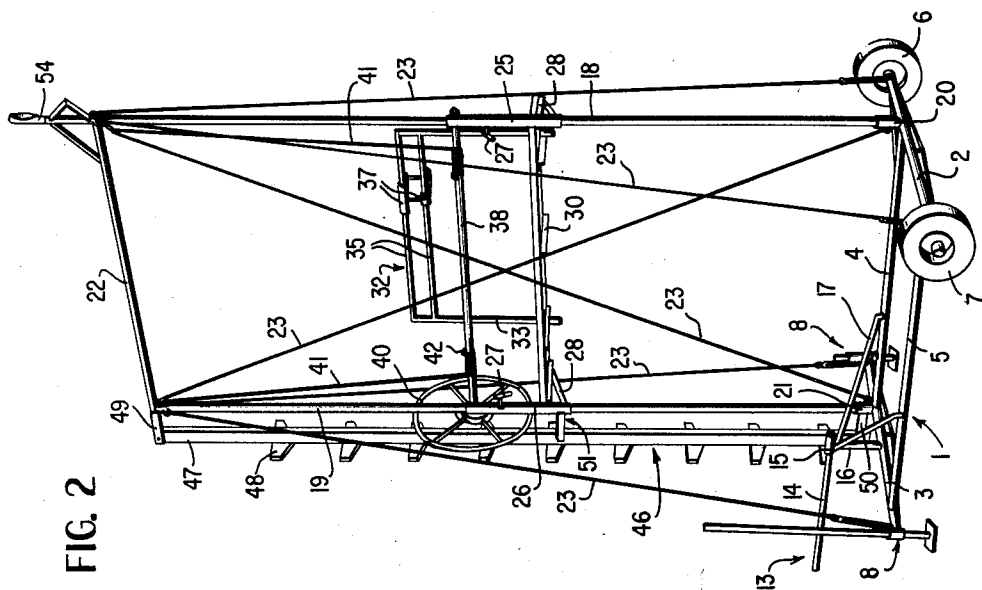


FIG. 2

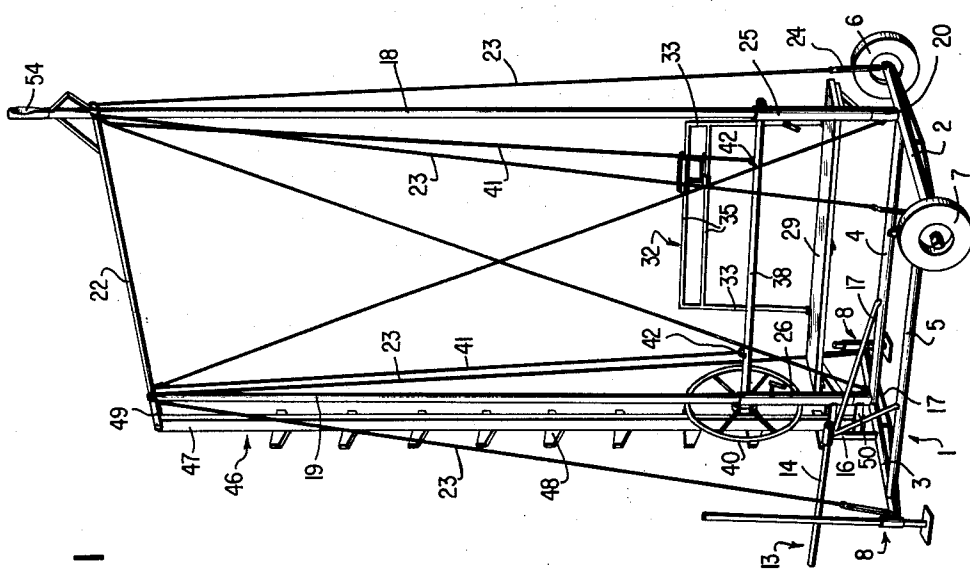


FIG. 1

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3 Sheets-Sheet 2

FIG. 3

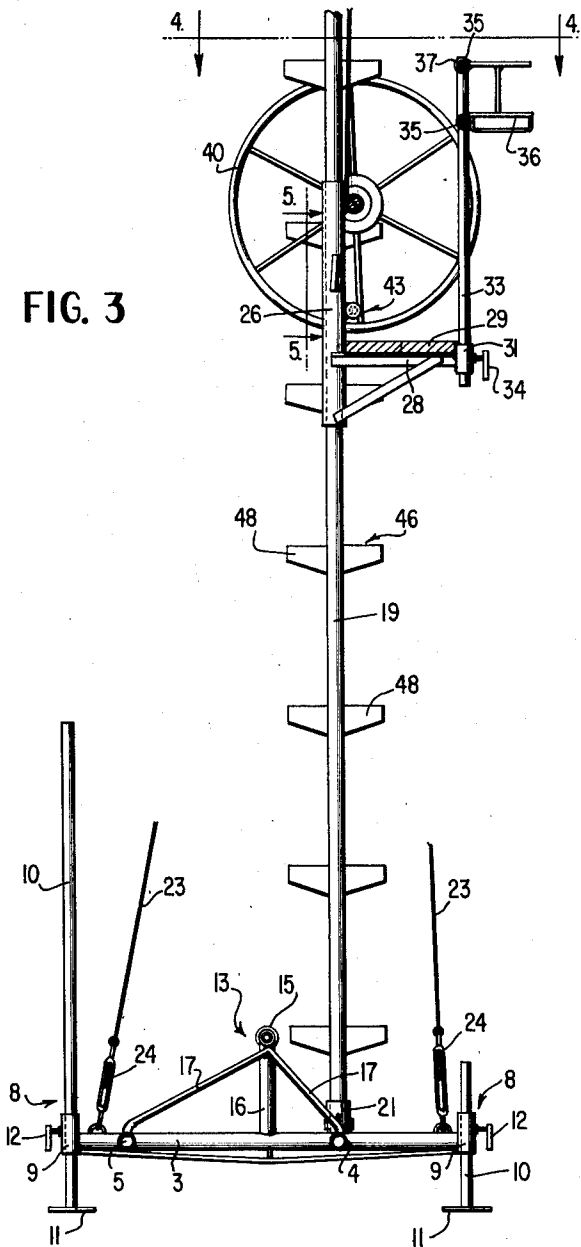
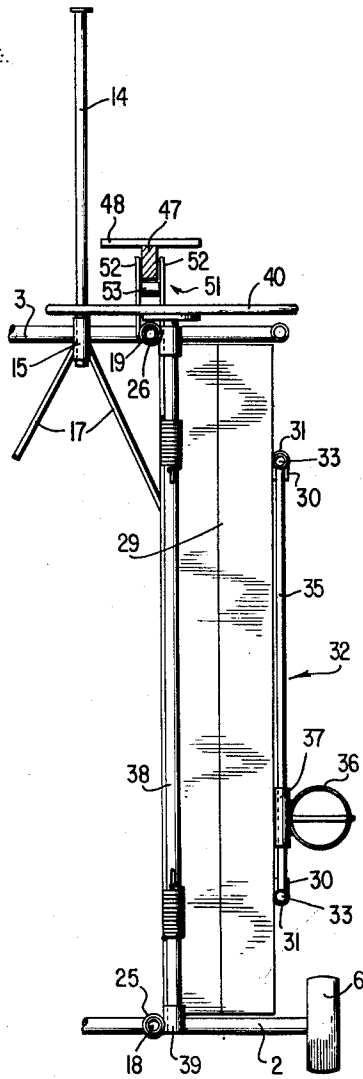


FIG. 4



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3 Sheets-Sheet 3

FIG. 6

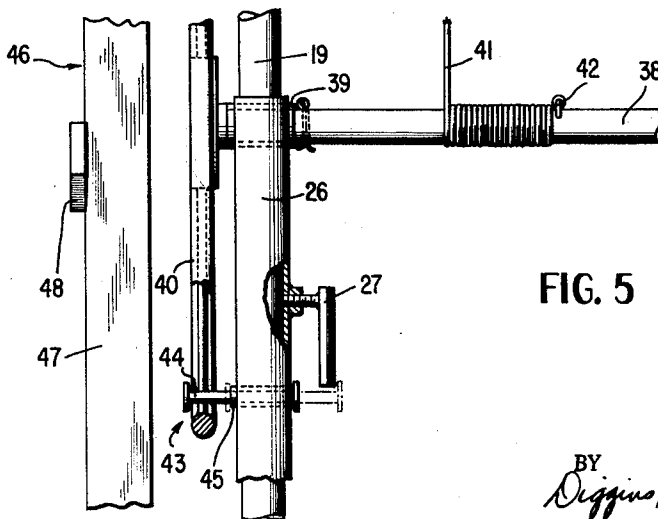
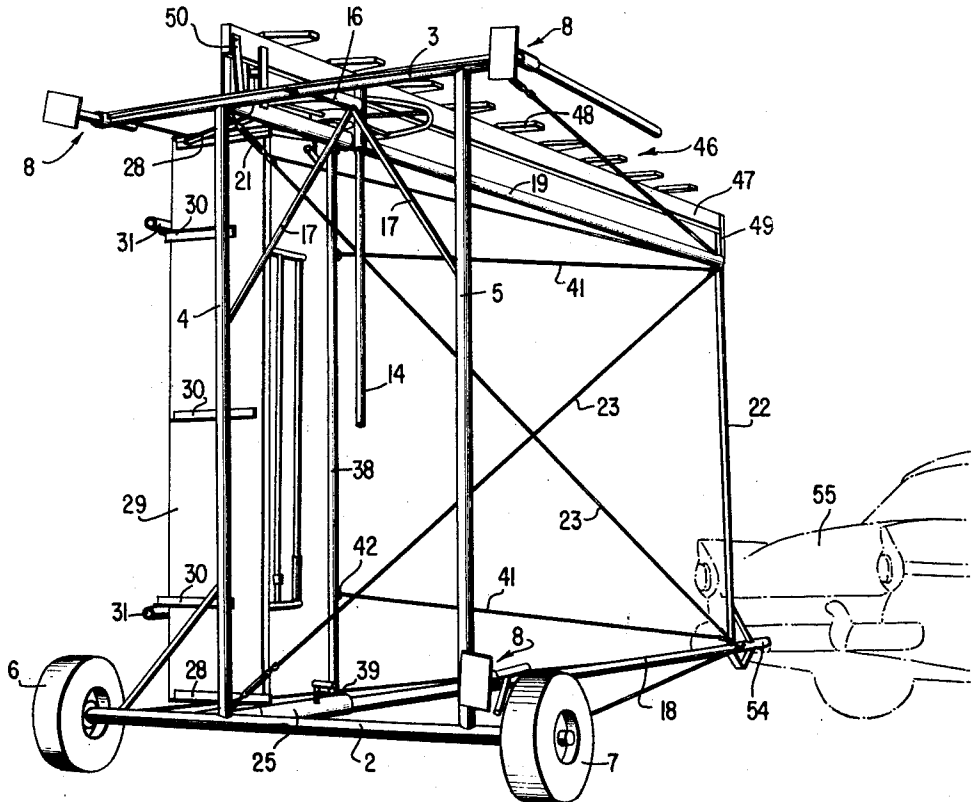


FIG. 5

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3 Claims. (Cl. 182-16)

This invention relates to an improved scaffold, and more particularly to a light-weight, portable, vertically adjustable scaffold.

The scaffold of the present invention comprises, essentially, a generally rectangular shaped base of tubular construction, said base having a pair of wheels at one end thereof and vertically adjustable legs at three corners of the base to provide stability when the scaffold is in the operative position. A pair of spaced vertical support members are secured to the base and a platform or walk-board, having means actuated by the operator for raising and lowering the platform to desired height, is slidably mounted on the vertical support members, one of said support members being provided with a trailer-hitch, whereby the scaffold can be easily transported. The platform is also provided with a vertically adjustable railing having a bucket holder slidably mounted thereon.

An object of the invention is to provide an improved light-weight, portable scaffold.

Another object of the invention is to provide an improved portable scaffold having vertically adjustable legs to stabilize the scaffold when in an operative position and lever means for either tilting the scaffold while adjusting the legs or to maneuver the scaffold at the job site.

Yet another object of the invention is to provide an improved portable scaffold having trailer hitch means for attaching the scaffold to a vehicle whereby the scaffold may be easily transported.

Still another object of the invention is to provide an improved portable scaffold having a vertically adjustable platform and means actuated by the operator for raising and lowering the platform to a desired height.

A further object of the invention is to provide a scaffold platform with a vertically adjustable railing having a bucket holder slidably mounted thereon.

With these and other objects in view, which may be incident to my improvements, the invention consists in the parts and combinations to be hereinafter set forth and claimed, with the understanding that the several necessary elements comprising my invention, may be varied in construction, proportions and arrangements, without departing from the spirit and scope of the appended claims.

In order to make my invention more clearly understood, I have shown in the accompanying drawings means for carrying the same into practical effect, without limiting the improvements in their useful application to the particular constructions which, for the purpose of explanation, have been made the subject of illustration.

In the drawings:

FIGURE 1 is a perspective view of the portable scaffold of the present invention showing the platform in the lowermost position;

FIG. 2 is a perspective view of the scaffold similar to FIG. 1; however, showing the platform in a raised position;

FIG. 3 is a fragmentary, side elevational view of the scaffold;

FIG. 4 is a view taken along line 4-4 of FIG. 3;

FIG. 5 is a view taken along line 5-5 of FIG. 3; and

FIG. 6 is a perspective view showing the scaffold attached to a vehicle for transporting the scaffold.

Referring to the drawings, and more particularly to FIGS. 1, 2 and 6, the scaffold of the present invention comprises a rectangular shaped base 1 formed by a pair of parallel, spaced tubular members 2 and 3 rigidly se-

cured to the ends of and extending transversely to another pair of parallel, spaced tubular members 4 and 5.

Wheels 6 and 7 are rotatably mounted on each end of the tubular member 2 to facilitate the transportation of the scaffold, to be described more fully hereinafter, and adjustable legs 8 are provided at each end of the tubular member 3 and on the tubular member 5 in proximity to the wheel 7, whereby the scaffold may be stabilized when in an operative position.

As will be seen in FIG. 3, each of the legs 8 comprises a sleeve 9 rigidly secured to the tubular member 3 and having a shaft 10 slidably mounted therein, the lower end of the shaft being provided with a flat plate member 11 forming a foot for the leg. Each of the sleeves is provided with a dog 12 threadably received therein, the end of said dog grippingly engaging the shaft when tightened to thereby hold the shaft and associated plate in an adjusted position.

In order that the scaffold may be tilted to either adjust the legs or to manually move the scaffold at the job site, a handle 13 is provided comprising a rod 14 slidably mounted in a sleeve 15 which is rigidly secured to a vertically extending tubular member 16 carried by the tubular member 3, a pair of convergent frame members 17 having their divergent ends secured to the tubular members 4 and 5 are also provided to further support the sleeve 15. By this construction and arrangement, when it is desired to maneuver the scaffold, the rod 14 can be pulled outwardly to a position shown in FIGS. 1 and 2, and when transporting the scaffold the rod 14 can be pushed inwardly to an out-of-the way position as illustrated in FIG. 6.

The superstructure of the scaffold comprises a pair of parallel vertically extending tubular members 18 and 19 having their lower ends inserted within socket members 20 and 21 rigidly secured to the tubular members 2 and 3, respectively; the socket members being provided with set screws or other suitable securing means for locking the ends of the tubular members within the sockets. The upper ends of the vertically extending members 18, 19 are rigidly connected together by a transverse tubular member 22, and guy wires 23 are provided which extend from the upper ends of the tubular members 18 and 19 to the outer ends of the tubular members 2 and 3, and to the diagonally opposite socket members 20 and 21, the lower ends of the guy wires having turnbuckles 24 for adjusting the tension of the wires.

The platform assembly for the scaffold comprises a pair of tubular sleeves 25 and 26 slidably mounted on the vertically extending tubular members 18 and 19, respectively, each of the tubular sleeves being provided with a dog 27 (FIG. 5) threadably received therein for locking the sleeves relative to the respective vertical tubular member to thereby maintain the platform at a desired height, to be described more fully hereinafter. Each of the sleeves is provided with a bracket member rigidly secured thereto for supporting a platform 29 at each end thereof, the platform being provided with spaced, angle-iron members 30 for reinforcing the platform. As will be seen in FIG. 6, the end portions of the two angle iron members on each sides of the intermediate angle irons project outwardly beyond the edge of the platform to provide a support for a pair of tubular sleeves 31 (FIG. 3) rigidly secured thereto. The platform 29 is further provided with a railing 32 comprising a pair of vertical tubular members 33 adjustably mounted within the sleeves 31 and adapted to be held in an adjusted position by means of dogs 34 threadably mounted within the sleeves. The upper end portions of the railing vertical members are interconnected by a pair of spaced, parallel, horizontally disposed tubular members 35 which form a track for a receptacle holder 36 having a tubu-

lar portions 37 slidably mounted on the horizontal member 35. By this construction and arrangement the height of the railing can be selectively adjusted relative to the platform and the receptacle holder carrying, for instance a bucket of paint, can be moved in a horizontal direction by sliding the holder along the horizontal members of the railing, whereby the paint bucket is at a proper height for easy use by the painter and any possibility of the paint bucket being turned over or coming loose during use or when the height of the platform is being adjusted is precluded.

In order to raise and lower the platform 29, a rotatable shaft 33 is journaled at each end thereof within a cylindrical bearing member 39 (FIG. 5) secured to the sleeves 25 and 26, the end of the shaft adjacent the sleeve 26 having a spoked wheel 40 secured thereto for manually rotating the shaft 33. A pair of cables 41 are provided, each of said cables having one end connected to the upper end portion of the tubular members 18 and 19, and the opposite end connected to the shaft 33 as at 42, whereby when the wheel 40 is turned to rotate the shaft 33 the cables 41 become wound thereon to thereby lift platform 29 to the desired height, as will be seen in FIG. 2. The diameter of the wheel is of such a dimension so as to provide adequate leverage for raising and lowering the platform and by providing a wheel, rather than a crank, if the operator should happen to lose his grip, he can easily grab the turning wheel on the circumferential surface thereof without endangering himself.

As will be seen in FIG. 5, a detent member 43 is provided comprising a pin 44 slidably mounted within a tube 45 secured to the sleeve 26, whereby when the pin is moved to the extended position it engages one of the spokes of the wheel 40 to thereby prevent the wheel from turning, and when the pin 44 is moved to the dotted line position the wheel is released so that the platform may be either raised or lowered. In connection with the use of the detent member 43, normally the detent is adequate to hold the platform at the desired height; however, when the platform is being used to support extreme weight, or as an added safety factor, the dogs 27 can also be employed to lock the sleeves 25 and 26 at an adjusted position relative to the tubular members 18 and 19.

A ladder 46 comprising a vertically extending support member 47 having a plurality of transversely extending rungs 48 secured thereto is mounted adjacent the tubular member 19 and is maintained in spaced, parallel relationship with respect to the tubular member by means of strut members 49 and 50 carried by the upper and lower end portions of support member 47 and rigidly secured to the upper end portion of the tubular member 19 and to the socket member 21, respectively. As will be seen in FIGS. 2 and 4, an additional strut 51 is provided between the sleeve 26 and the ladder support member 47, and comprises a pair of spaced, parallel arms 52, each having one end rigidly secured to the sleeve 26 and the opposite end being in proximity to the side face of the support member 47, the arms also being interconnected by a transversely extending bearing member 53 mounted between the arms 52 in proximity to the edge of the support member. By this construction and arrangement, when the platform is being raised or lowered, the strut 51 slides along the ladder support member 47 to thereby prevent the sleeve 26 from turning about tubular member 19, whereby the wheel 40 and associated shaft 33 are maintained in proper alignment with respect to the ladder and the tubular members 18 and 19.

One of the main features of the present invention is the ease by which the scaffold can be transported from place to place without disassembling it; this is accomplished by providing the upper end portion of tubular member 18 with a trailer hitch 54 adapted to be con-

nected to the rear bumper of vehicle 55 as shown in FIG. 6.

In the operation of the scaffold, after it has been transported to the place to be used, it is erected to a position as shown in FIG. 1. The handle 13 is pulled outwardly to provide a lever whereby the scaffold may be lifted to adjust the legs 8 to level the scaffold or to manually move the scaffold at the job site. The operator, while climbing the ladder 46, turns the wheel 40 to lift the platform 29 to the desired height, as shown in FIG. 2. The detent 43 is then extended to engage one of the spokes of wheel 40, and if desired, the dogs 27 are tightened. The height of the railing 32 can then be adjusted by means of dogs 34 and the receptacle holder 36 can be used as described hereinabove.

There has been described and illustrated a device capable of performing all of the specifically mentioned objects of this invention as well as others which are apparent to those skilled in the art. Various uses of the present invention may be made employing the described structure. Accordingly, it is apparent that variations as to operation, size and shape, and rearrangement of elements may be made without departing from the spirit of the invention. Accordingly, limitation is sought only in accordance with the scope of the following claims.

I claim:

1. A transportable scaffold of the character described comprising a substantially rectangular base, a pair of wheels rotatively mounted on one end of said base at the corners thereof, adjustable legs mounted upon the corners of said base, a platform support unit secured to said base and extending vertically therefrom, said platform support unit including a first elongated tubular support member having one end secured to said base at a point centrally of said wheels, a second elongated tubular support member mounted substantially parallel to said first support member at the opposite end of said base, and a transverse support bar secured to said first and second support members and extending horizontally therebetween, a platform assembly including support sleeve units slidably mounted upon said first and second support members, said support sleeve units including means to engage said support members to lock said support sleeve units thereto, a platform secured to each of said support sleeve units and extending substantially between said first and second support members, means operably connected to and movable with said platform for raising and lowering said platform relative to said first and second support members, said raising and lowering means including a rotatable shaft spaced above said platform and journaled at each end to said support sleeves, cable means having one end attached to the upper portion of said platform support unit above said platform and an opposite end secured to said shaft, a wheel secured to one end of said shaft to facilitate the manual rotation thereof, detent means mounted upon one of said support sleeves adjacent said wheel, said detent means adapted to engage the wheel to lock said wheel at a desired position, and a trailer hitch secured to the upper end of said first support member.

2. A transportable scaffold of the character described comprising a substantially rectangular base, a pair of wheels rotatively mounted on one end of said base at the corners thereof, adjustable legs mounted upon three corners of said base, each such leg including a sleeve rigidly secured to said base, a shaft having a lower end terminating with a flat plate extending below said base, said shaft being mounted for vertical sliding movement within said sleeve, and locking means on said sleeve for locking said shaft in an adjusted position within said sleeve, a platform support unit secured to said base and extending vertically therefrom, said platform support unit including a first elongated tubular support member having one end secured to said base at a point centrally of said wheels, a second elongated tubular support member

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mounted substantially parallel to said first support member at the opposite end of said base, said second support member being of shorter length than said first support member, and a transverse support bar secured to said first and second support members and extending horizontally between the terminal ends of said second support member and a point on said first support member, a platform assembly including support sleeve units slidably mounted upon said first and second support members, said support sleeve units including means to engage said support members to lock said support sleeve units thereto, a platform secured to each of said support sleeve units and extending substantially between said first and second support members, means operably connected to and movable with said platform for raising and lowering said platform relative to said first and second support members, said raising and lowering means including a rotatable shaft spaced above said platform and journaled at each end to said support sleeves, cable means having one end attached to the upper portion of said platform support unit above said platform and an opposite end secured to said shaft, a spoked wheel secured to one end of said shaft to facilitate the manual rotation thereof, detent means mounted upon one of said support sleeves adjacent said wheel, said detent means adapted to engage the spokes of said wheel to lock said wheel at a desired position, a vertically extending ladder mounted adjacent one of said support members and secured thereto at each

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end thereof, ladder aligning means attached to the support sleeve adjacent said ladder, said ladder aligning means being movable with said support sleeve and including spaced strut members for engaging and laterally confining said ladder, a handle slidably mounted upon said base, and a trailer hitch secured to the upper end of said first support member, said trailer hitch being positioned upon said first support member at the terminal end portion thereof outwardly of said transverse support bar.

3. A transportable scaffold according to claim 2, wherein the platform is provided with a railing, said railing comprising a pair of spaced vertically extending members adjustably mounted on said platform for movement in a vertical plane, and a transversely extending member connected between the upper ends of said vertically extending members.

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