April 2, 1940. R. A. UECKER ET AL 2,195,906

SCAFFOLD

Filed June 8, 1939

Fig. 1.

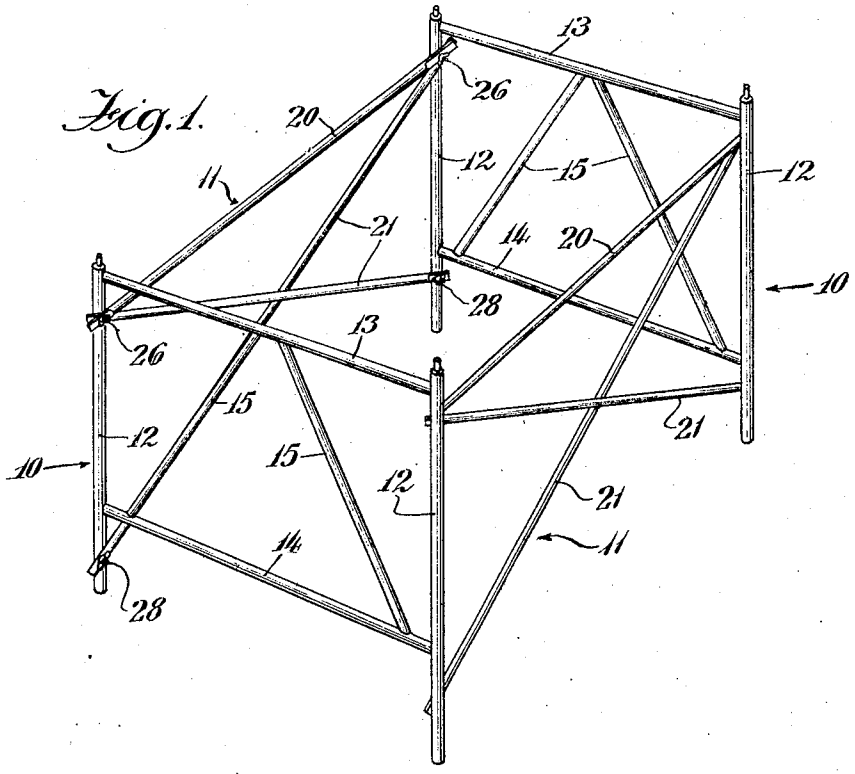


Fig. 2.

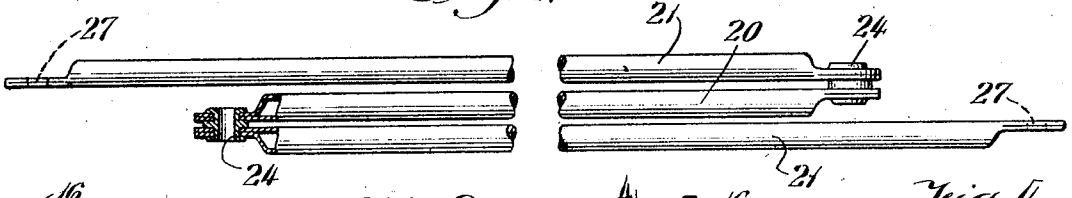


Fig. 3.

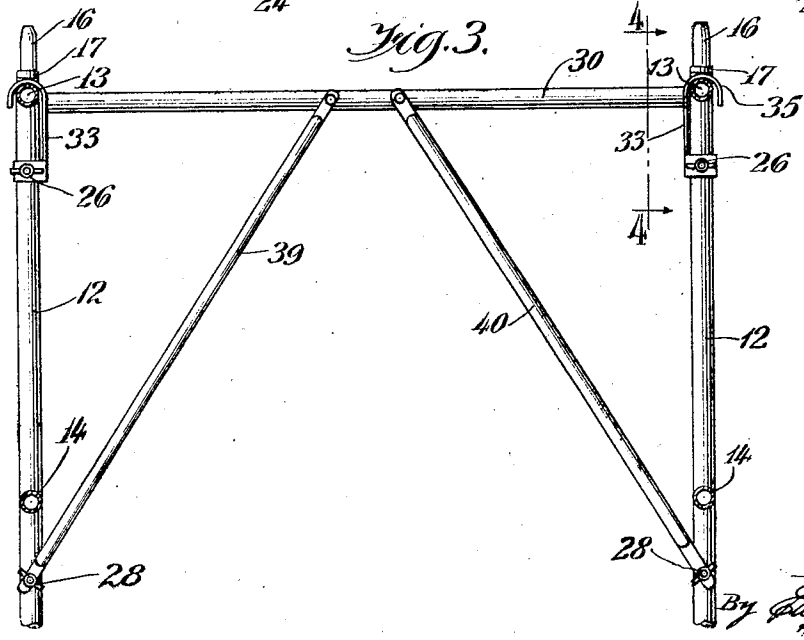
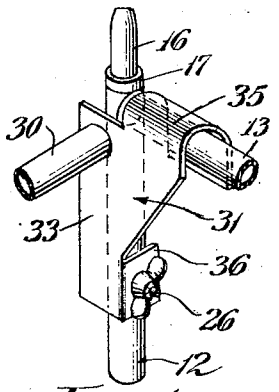


Fig. 4.



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SCAFFOLD

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Application June 8, 1939, Serial No. 278,100

3 Claims. (Cl. 304—2)

This invention relates to scaffolds and more particularly to a sectional scaffold adapted to be increased in height by the addition of sections thereto.

One object of the present invention is to produce a scaffold which will reduce the possibility of accidents.

Another object is to produce a sectional scaffold which will be fast and simple to erect.

A further object is to produce a sectional scaffold which will have increased strength in the bracing.

Other objects will be apparent from the following description when taken in connection with the accompanying drawing.

According to the present invention, a scaffold is built of a plurality of tiers of end frames, the end frames in each tier being connected by a horizontal brace and a pair of diagonal braces.

In the drawing:

Fig. 1 is a perspective view of one tier of a scaffold embodying the present invention;

Fig. 2 is a plan view of the scaffold bracing shown in Fig. 1;

Fig. 3 is an elevational view of a modified form of scaffold bracing, shown applied to a scaffold; and

Fig. 4 is a perspective view of the bracket employed on the bracing shown in Fig. 3.

In the drawing the scaffold is shown as comprising a single tier, and is composed of a pair of end frames 10—10 spaced from each other and joined by cross braces 11—11.

The end frames 10 each comprise a pair of vertical posts 12—12 joined near their tops by a horizontal support 13 and joined intermediate their tops and bottoms by a second horizontal support 14. Shear braces 15 join the two supports 13 and 14. The horizontal supports 13 and 14, the posts 12, and the shear braces 15 are integrally connected with each other preferably by welding so as to form a rigid end frame adapted to be set up and taken down as a unit.

The posts 12 are preferably made tubular to receive tubular coupling pins 16. The pins each have collars 17 intermediate the ends. The collars 17 rest on top of the lower posts and retain the lower half of the pins in the posts. The posts of the superposed section are received over the tops of the pins 16 and rest on the tops of the collars 17.

As seen in Figs. 1 and 2, the cross braces 11 each have a horizontal brace 20, preferably of tubular material, with the ends flattened on the opposite sides of the tube, and diagonal braces 21—21 connected to the flattened ends of the horizontal brace 20. The connection between the brace 20 and the braces 21 is made with a hollow pivot 24 the aperture in which is receivable over bolts 26—26 on the posts 12 and secured thereon by wing nuts. The free ends of the diagonal braces 21 are provided with holes 27 which engage over bolts 28 on the lower ends of the posts 12 to support the end frames vertically. By having the connection 24 pivotal the braces may be folded into a flat compact bundle suitable for shipping and convenient to use.

The form of the invention shown in Fig. 3 is made with a horizontal brace 30 which is provided with a bracket 31 at each end. The bracket 31 comprises a plate 33 at right angles to the brace 30 to which the brace 30 is fixed. The upper portion of the plate 33 is provided with a hook 35 which engages over the horizontal support 13, while the lower portion of the plate 33 has an ear 36 extending at right angles to the plate 33. The ear is provided with an aperture engageable over the bolt 26 to secure the brace in place.

The brace 30 has a pair of diagonal braces 39—40 pivotally connected thereto in the central part of the brace 30, which braces have apertures in the ends opposite the pivots which engage over the bolts 28 to maintain the frames vertical.

The above construction provides a scaffold which is safer for the worker because the upper brace 20 in Fig. 1 and the brace 30 in Fig. 3 perform additional duty as guard rails to prevent workers from falling through the bracing. The construction is light and strong, and fast to erect.

Having thus described the invention it is realized that it is susceptible to various changes and modifications and it is not, therefore, desired to limit the invention to the precise forms herein shown and described but only by the scope of the appended claims.

The invention is hereby claimed as follows:

1. A sectional scaffold of the character described comprising, a pair of end frames spaced from each other, each end frame comprising a horizontal support, two vertical posts, one at each end of said support and integrally connected thereto, and a bolt fixed on each of said posts adjacent the upper ends thereof, a horizontal brace, a pair of diagonal braces, an apertured pivot connecting one end of one diagonal brace with one end of said horizontal brace, an apertured pivot connecting one end of the other di-

agonal brace with the opposite end of said horizontal brace, said apertured pivots being receivable over the bolts on corresponding posts of adjacent sections to secure the braces to said posts, and means to connect the free ends of said diagonal braces to the lower ends of the posts of the opposite end frames.

2. A scaffold adapted to be increased in height by the addition of sections thereto comprising, a first end frame having a pair of spaced vertical posts, a horizontal support integrally connected to and between said posts, means integrally connected between said posts and said horizontal support to form a rigid end frame, a first connecting member formed integrally on each of said posts adjacent the upper end thereof, and a second connecting member formed on each of said posts adjacent the lower end thereof, a second end frame spaced from and substantially parallel to said first end frame, said second end frame comprising a pair of spaced vertical posts, a horizontal support integrally joined to and between said posts, means integrally joining said posts with said horizontal support to form an integral end frame, connecting means formed on each of said last named posts adjacent the upper ends thereof, connecting means formed on each of said last named posts adjacent the lower ends thereof, a brace joining a post of one end frame with the corresponding post of said other end frame and secured thereto through the upper connecting means on the said posts, and bracing means joining the corresponding posts between said upper connecting means of the one said post and the lower connecting means of the other said post.

3. A scaffold of the type adapted to be increased in height by the addition of sections thereto comprising, a first end frame having a pair of spaced vertical posts, a horizontal support integrally connected to and between said posts, means integrally connected between said posts and said horizontal support to form a rigid end frame, a first connecting member formed on each of said posts adjacent the upper end thereof, and a second connecting member formed on each of said posts adjacent the lower end thereof, a second end frame spaced from and substantially parallel to said first end frame, said second end frame comprising a pair of spaced vertical posts, a horizontal support integrally joined to and between said posts, means integrally joining said posts with said horizontal support to form an integral end frame, connecting means formed on each of said last named posts adjacent the upper ends thereof, connecting means formed on each of said last named posts adjacent the lower ends thereof, a brace joining a post of one end frame with a corresponding post of the other end frame, said brace being affixed to the upper connecting means of each of said posts, a brace affixed between the upper connecting means of the said post of said first end frame and the lower connecting means of the said post of said second end frame and a brace affixed between the upper connecting means of the said post of said second end frame and the lower connecting means of the said post of said first end frame.

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