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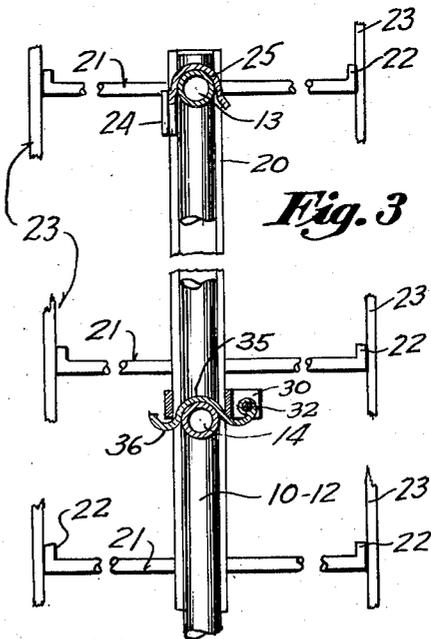
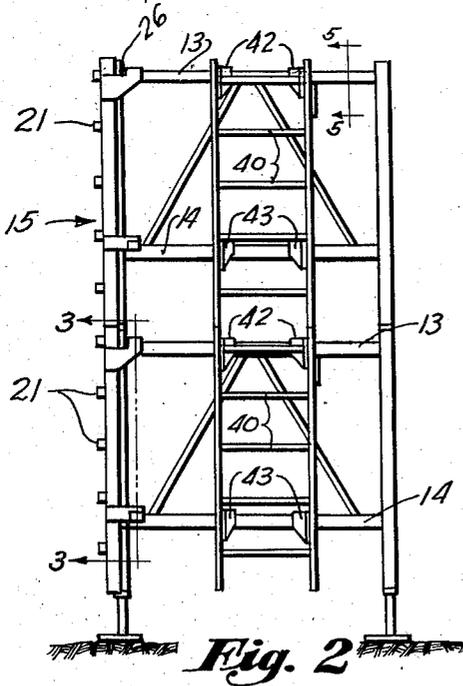
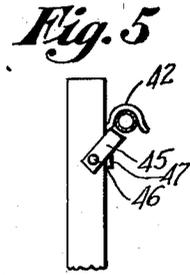
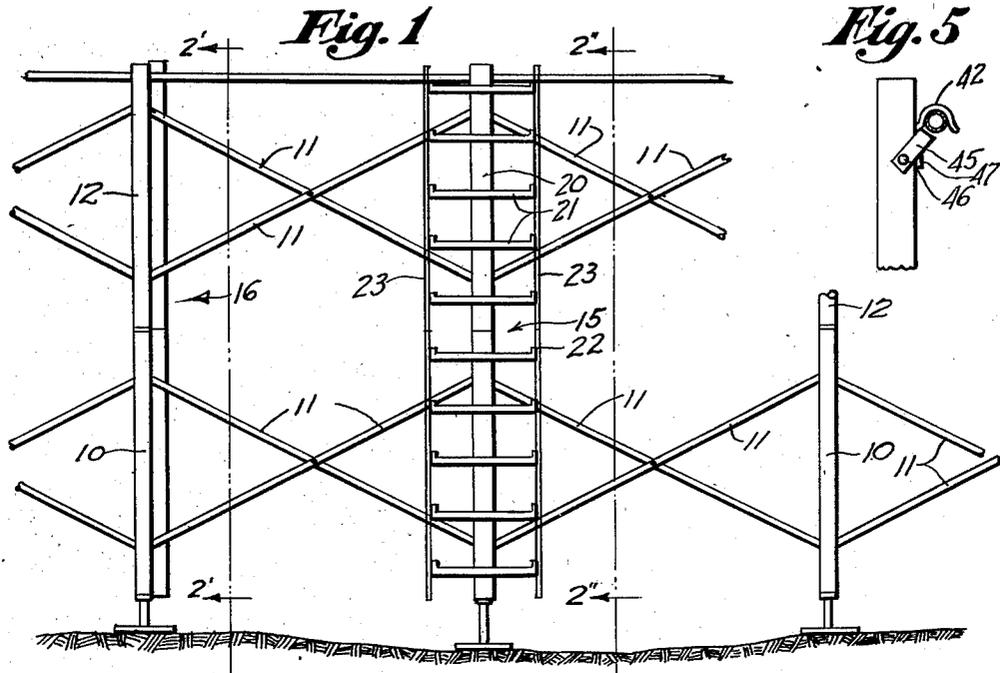
R. A. UECKER ET AL

2,125,829

SCAFFOLD LADDER

Filed Nov. 13, 1935

2 Sheets-Sheet 1



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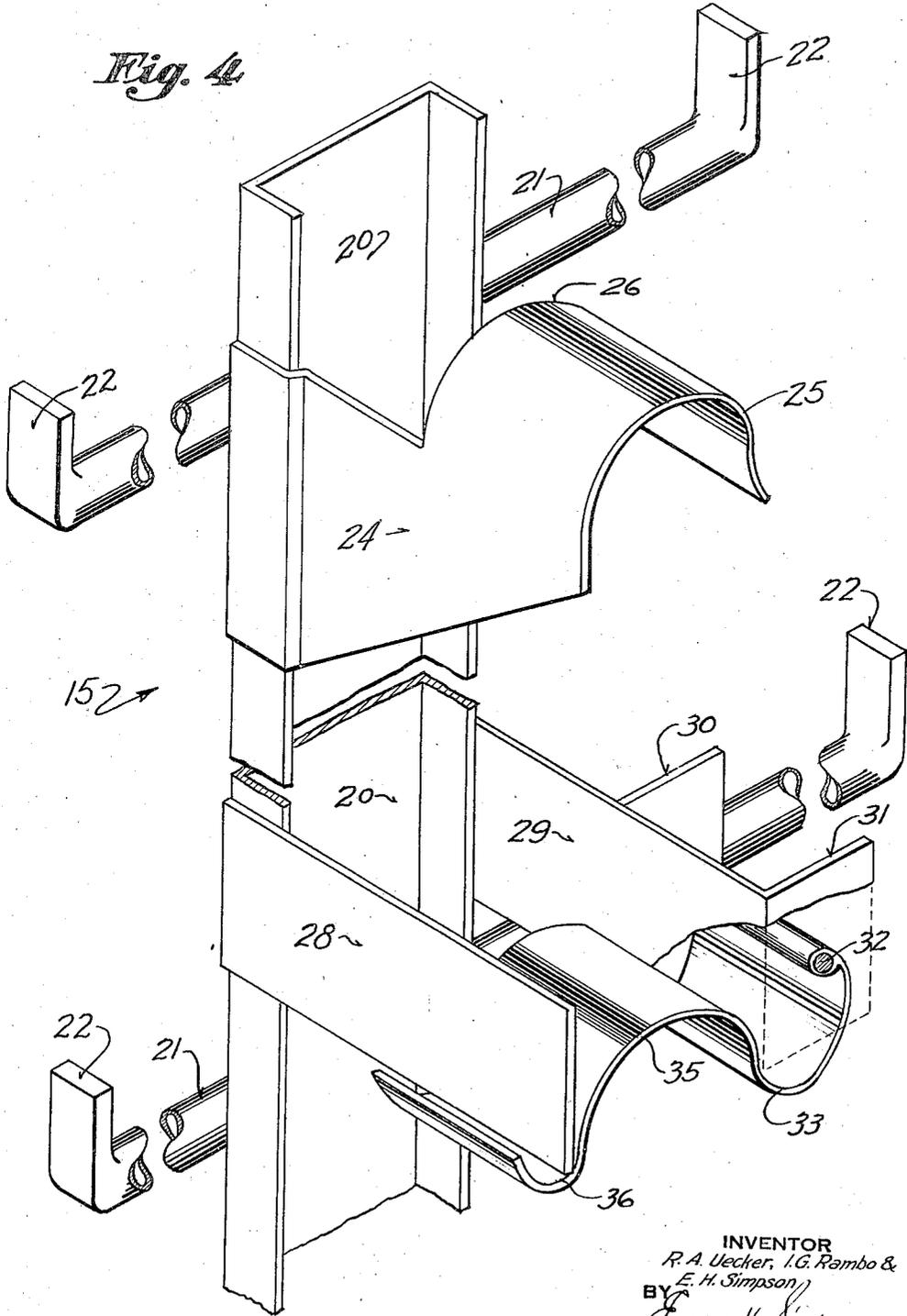
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Fig. 4



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## UNITED STATES PATENT OFFICE

2,125,829

## SCAFFOLD LADDER

Reinhold A. Uecker and Ingar G. Rambo, Milwaukee, and Eugene H. Simpson, West Allis, Wis., assignors, by mesne assignments, to Safeway Steel Scaffolds Co. of America, Wilmington, Del., a corporation of Delaware

Application November 13, 1935, Serial No. 49,486

7 Claims. (Cl. 228—45)

This invention relates to ladders and more particularly to a ladder for use in connection with a sectional scaffold.

One object of the invention is to provide a scaffold ladder which will attach to the end frames of a scaffold.

A further object is to provide a removable sectional ladder for use on scaffolds, which can be added to as the height of the scaffold increases.

Another object is to provide a ladder which may be locked to a scaffold section to insure against it becoming unfastened and causing the worker to fall.

A further object is to provide a ladder which will be safe to use and which will be simple and economical to manufacture.

Further objects will become apparent from the following description taken in connection with the accompanying drawings, in which:

Fig. 1 is a side view of a scaffold of the type described in the United States Patent to Reinhold A. Uecker, issued June 9, 1936, No. 2,043,498, showing two types of ladders, as applied to the scaffold, which embody the principles of the present invention.

Fig. 2 is a cross-section on the line 2'-2' and 2''-2'' of Fig. 1 looking in the direction of the arrows.

Fig. 3 is a cross-section on the line 3-3 of Fig. 2 showing the fastening means of one type of ladder.

Fig. 4 is an enlarged perspective view of the type of ladder shown in Fig. 3.

Fig. 5 is a detail of the holding and locking means on another type of ladder.

In the drawings, the scaffold is of the type shown and described in the above mentioned patent to Reinhold A. Uecker, No. 2,043,498, and is composed of a plurality of end frames 10 which are spaced from each other and connected by cross braces 11 which may be pivoted at the center as disclosed in the aforesaid patent. The scaffold is built up by adding other end frames 12-12 superimposed on the sections 10 in the manner disclosed in the Uecker patent. Each of the frames 10 and 12 have cross braces 13 and 14 which may support scaffold planking.

The present invention contemplates a ladder to be attached to the end frames 10, 12 to enable workmen to readily ascend and descend the scaffold.

While the ladder is preferably on the outside of the scaffold as shown at 15, the invention also contemplates placing the ladder within or on the end of the scaffold as shown at 16.

The ladder 15 which is best shown in Fig. 4, is preferably made on a channel 20 with rungs 21 welded or otherwise suitably fixed thereto. The ends of the rungs 21 may be turned up as shown at 22 and joined by a guard 23.

A bracket 24 is fixed to the upper end of the channel 20 and extends parallel to the legs of the channel and terminates in a semi-circular bend 25 which engages the cross bar 13 to support the upper end of the ladder. It will be noted that the inner edge 26 of the bend 25 abuts the inner edge of the vertical member of the end frame, as shown in Fig. 2, and prevents the forward movement of the ladder.

The lower end of the ladder is supported by a bracket comprising a pair of wings 28-29 fixed to the legs of the channel 20. The wing 29 has a pair of brackets 30-31 formed thereon which support a pin 32. The pin 32 has a curved strap 33 mounted to rotate thereon. The strap 33 has a main curvature 35 which receives the cross piece 14 and a reverse curve 36 which is supported on the wing 28.

A second form of ladder is shown in Figs. 1, 2 and 5 at 16. In this modification rungs 40 are connected between two parallel supports and are held on the end frames 10 and 12 by four brackets 42-42 and 43-43 which hook over the supports 13 and 14 respectively. The ladder 16 is prevented from loosening by a link 45, best shown in Fig. 5, which is pivoted on the outside as shown at 46 and prevents the bracket 42 from being withdrawn from the support 13. A stop 47 limits the movement of the link 45.

The ladders shown may be connected to any sections desired, and the ladder built up to the full height of the scaffold.

While two modifications of the invention have been shown as applied to the Uecker scaffold it will be realized that these are merely illustrative of the invention, and that various types of scaffolds and other modifications of ladders may be resorted to without departing from the spirit of the invention as defined by the appended claims.

What is claimed as new and desired to secure by Letters Patent is:

1. In combination with a scaffold comprising a plurality of end frames superimposed on each other, each end frame including a pair of vertical posts an upper and a lower horizontal brace joining said posts, a ladder comprising, a supporting member, a plurality of rungs carried from said supporting member, and a pair of brackets engageable over the upper and lower braces respectively, to support the ladder.

2. In combination with a scaffold comprising a plurality of end frames superimposed on each other, each of said end frames comprising a pair of vertical posts and a horizontal brace joining said posts, a ladder comprising, a supporting member embracing one of said posts, a plurality of rungs carried from said supporting member and extending substantially at right angles thereto, and means attached to said ladder and engageable with said horizontal brace to support the ladder from the brace.

3. In combination with a scaffold comprising a plurality of end frames superimposed on each other, each end frame including a pair of vertical posts and a pair of horizontal braces joining said posts, a ladder comprising, a supporting member embracing one of said posts, a plurality of rungs carried from said supporting member and extending substantially at right angles thereto, and a pair of brackets fixed to said supporting member and engageable over the upper and lower braces respectively, to support the ladder from said braces.

4. In combination with a scaffold comprising, a plurality of end frames superimposed on each other, each of said end frames including a pair of vertical posts, and a horizontal brace joining said posts; a ladder comprising, a central support embracing one of said posts, a plurality of rungs carried from said support, and a bracket carried by said support and engageable with said brace to support the ladder, and engageable with the post to prevent forward movement of the ladder.

5. In combination with a scaffold comprising, a plurality of end frames superimposed on each other, each of said end frames including a pair of vertical posts, and a horizontal brace joining said posts; a ladder comprising, a central support embracing one of said posts, a plurality of rungs carried from said support and extending substantially at right angles thereto, a bracket

carried by said support engageable with said brace to support the ladder and engageable with the post to prevent forward movement of the ladder, and means on the opposite end of the ladder from said bracket to prevent movement of that end of the ladder.

6. In combination with a scaffold comprising, a plurality of end frames superimposed on each other, each of said end frames including a pair of vertical posts, and an upper and a lower horizontal brace, said lower brace being spaced from said upper brace and from the lower end of the posts, said braces forming with said posts a substantially rectangular frame; a ladder comprising a central support embracing one of said posts, a plurality of rungs carried from said support and extending substantially at right angles thereto, a bracket carried by said support engageable with the upper brace to support the ladder and engageable with the post to prevent forward movement of the ladder at the upper end, means adjacent the lower brace to prevent movement of the lower end of said ladder, and a support connected to said last named means and engageable with said lower brace to form a supplemental support for the ladder.

7. In combination with a scaffold comprising, a plurality of end frames superimposed on each other, each of said end frames including a pair of vertical posts, and a horizontal brace joining said posts; a ladder comprising, a supporting member, a plurality of rungs carried by said supporting member, means attached to said ladder and engageable with said horizontal brace to support the ladder from the brace, and means pivoted relative to the supporting member engageable with the horizontal brace to lock said last named means against disengagement.

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