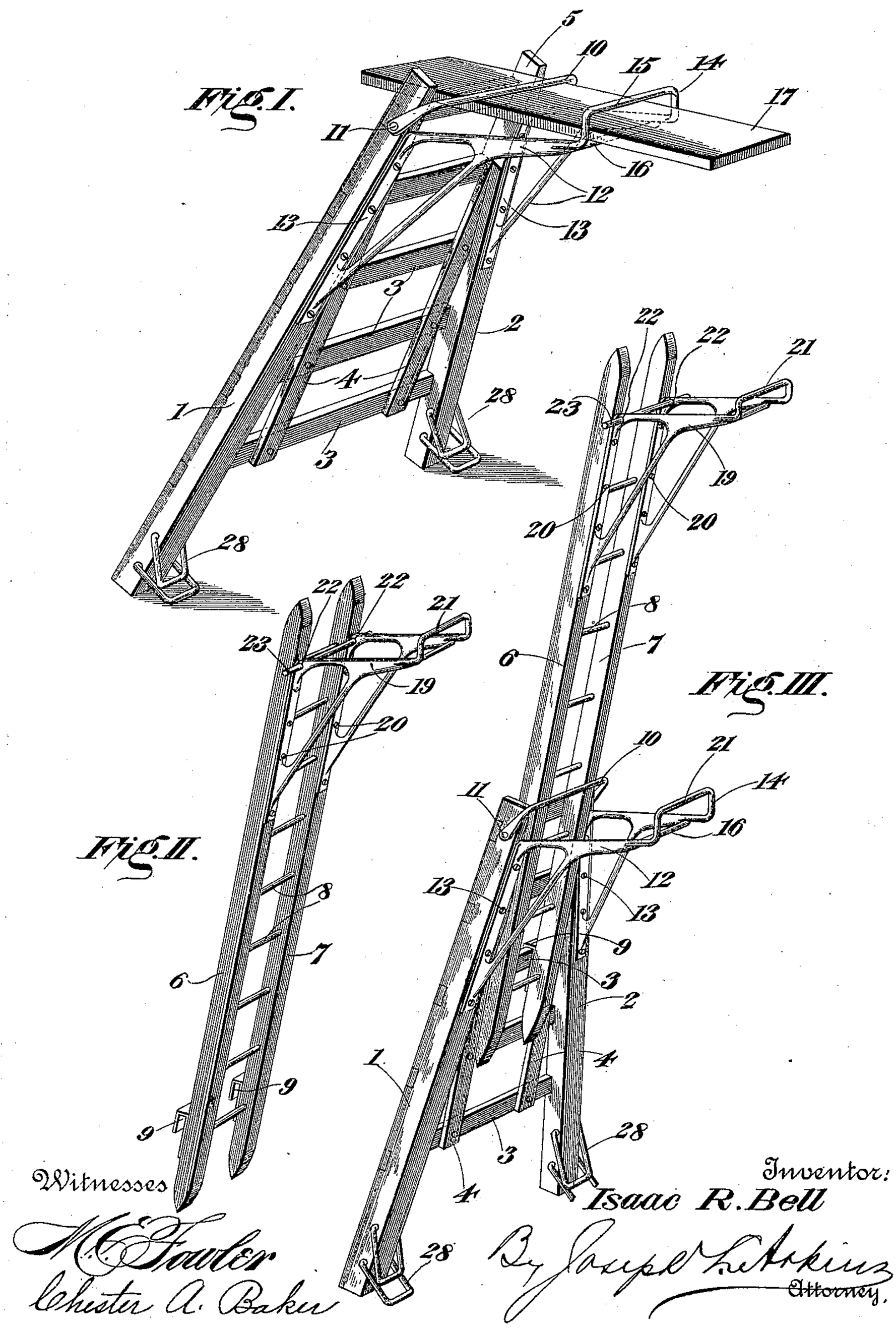
No. 616,762. Patented Dec. 27, 1898.

I. R. BELL.

COMBINED LADDER AND SCAFFOLD.

(Application filed Apr. 12, 1898.)

(No Model.) 2 Sheets—Sheet I.



Witnesses

M. C. Fowler

Chester A. Baker

Inventor:

Isaac R. Bell

By Joseph L. Atkins, Attorney.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

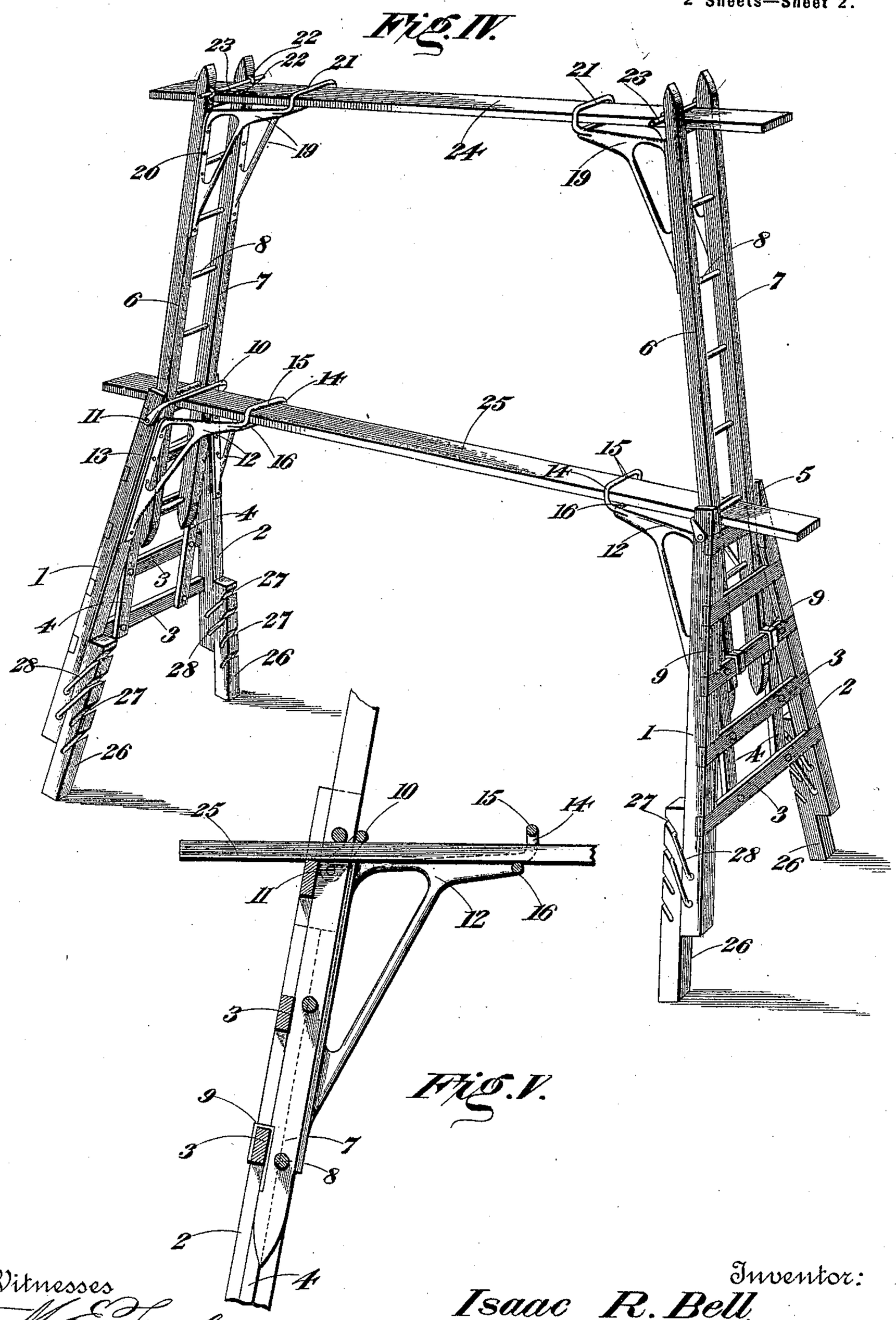
No. 616,762. Patented Dec. 27, 1898.

I. R. BELL.

COMBINED LADDER AND SCAFFOLD.

(Application filed Apr. 12, 1898.)

(No Model.) 2 Sheets—Sheet 2.



Witnesses
M. E. Fowler
Chester A. Baker

Inventor:
Isaac R. Bell,
By Joseph L. Atkins,
Attorney.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ISAAC R. BELL, OF OWENSBOROUGH, KENTUCKY, ASSIGNOR OF ONE-HALF TO J. D. LONG, OF SAME PLACE.

COMBINED LADDER AND SCAFFOLD.

SPECIFICATION forming part of Letters Patent No. 616,762, dated December 27, 1898.

Application filed April 12, 1898. Serial No. 677,350. (No model.)

To all whom it may concern:

Be it known that I, ISAAC R. BELL, of Owensborough, in the county of Daviess, State of Kentucky, have invented certain new and useful Improvements in a Combined Ladder and Scaffold, of which the following is a complete specification, reference being had to the accompanying drawings.

One object of my invention is to produce improvements in combined scaffolds and ladders whereby a scaffold of special stability may be readily constructed, to the platform of which access may be gained by the end members, which are in the shape of ladders.

Another object of my invention is to render available the end members as independent ladders, which may be extensible, if preferred, and also for effecting various combinations in scaffolds having different elevations and adapted to sustain one or more platforms.

In the accompanying drawings, Figure I is a perspective view of one of the base members of my scaffold provided with a platform that is adapted to support it against the side of a house or other structure, for example. Fig II is a perspective view of one of the extension members of my scaffold detached. Fig. III is a perspective view of one of the base members and one of the extension members united, but with platforms omitted. Fig. IV is a perspective view of a pair of base members and extension members united and supporting between them two platforms. In this figure also leg extensions upon the base members are illustrated. Fig. V is a sectional view illustrating the mode of uniting one of the base members and an extension member with an intermediate platform.

Referring to the figures on the drawings, 1 and 2 indicate, respectively, the two side pieces of the base members of my scaffold. They are preferably obliquely disposed toward each other, so as to afford a broad base, and are united, as by cross-pieces 3, which serve at the same time to form them into a stiff frame, and also being disposed at regular intervals to constitute a ladder, by means whereof access may be gained to the scaffold when the base member is employed in the construction of the same.

Between the side pieces 1 and 2 and secured to the cross-pieces 3 I provide parallel guide-strips 4, whose inner edges are in alinement with the tapered faces 5 of the upper ends of the side pieces 1 and 2. These guide-pieces serve to hold an extension member (see Fig. II) in place upon the base member.

The extension member is a ladder composed of side pieces 6 and 7, respectively, united by rungs 8. The outer faces of the side pieces 6 and 7 are parallel and of a width which enables them to fit snugly between the tapered faces 5 and guide-strips 4 when the extension member and base member are united, as illustrated, for example, in Fig. III.

The extension member is provided with hooks 9, which, overlapping the cross-pieces 3, as illustrated clearly in Fig. V, for example, afford means for adjusting the extension member to any desired height upon the base member. Each base member is provided with a retaining member 10, preferably pivoted, as indicated at 11, to the outer faces of the side pieces 1 and 2. This retaining member assists the hooks 9 in holding the extension member upon the base member.

12 indicates a bracket which is secured, as indicated at 13, to the side pieces 1 and 2 and which, extending outwardly, terminates in a loop 14. The loop is defined by upper and lower cross-pieces 15 and 16, respectively, between which is inserted in practice a platform 17. The platform when inserted through the loop 14 is held in place by the retaining member 10, which performs this function independently of or in connection with the previously-described function of supporting the extension member.

In the simplest combination in which the base member may be utilized, as illustrated in Fig. I, the platform 17 is inserted in the loop 14 and held in position by the retaining member 10, in which position the combined platform and base member may be utilized as a short scaffold by resting the end of the plat-

form projecting beyond the loop 14 against the wall of a house or similar structure without employment of other means of support.

Each extension member is provided with a bracket 19, secured, as indicated at 20, to the side pieces 6 and 7, respectively, of the extension member. The bracket 19 corresponds in every respect with the brackets 12 above described and is, like it, provided with a platform-retaining loop 21. Each bracket is preferably provided with apertures 22, through which a bar 23 may be inserted. The bar 23 serves to support a platform in the loop 21. In place of the bar 23 and apertures 22 a swinging retaining member similar to the retaining member 10 might be substituted; but as the bracket 19 is designed only to support a platform 24 between bars or extension-frames, as illustrated in Fig. IV, and as the tension upon the platform in that combination is downward and toward the center there is no necessity to provide against end thrust in that form of scaffold than there is in the form illustrated in Fig. I and previously described.

Referring further to the construction shown in Fig. IV, it may be observed that the structure shown therein comprehends a pair of base members and a pair of extension members assembled therewith, respectively. Each extension member is independently supported upon its base member and one or more platforms 24 and 25 may be employed, so that workmen may work from the same scaffold on different levels at the same time. In Fig. IV also I illustrate extension-legs 26, which, being provided with downwardly-extending obliquely-disposed clefts 27, afford means for engaging links 28 upon the ends of the side pieces 1 and 2, respectively, of the base members. By this means the length of the side pieces 1 and 2 may be securely and conveniently increased or shortened, as required.

What I claim is—

1. The combination with side pieces and cross-pieces constituting a frame, of a bracket secured to the side pieces, and a loop in the bracket adapted to support a platform, substantially as set forth.

2. The combination with side pieces and cross-pieces constituting a frame, of a bracket secured to the side pieces, a loop in the projecting end of the bracket, and a retaining member upon the side pieces in alinement with the loop, substantially as and for the purpose specified.

3. The combination with a pair of base members provided with brackets, and loops in the ends of the brackets, of a platform extending between the base members through the loops, substantially as set forth.

4. The combination with a pair of base members provided with brackets, and loops in the ends of the brackets, of a platform extending between the base members through the loops, and retaining members upon the base members adapted to coöperate with the loops for holding the platform in place within the loops, substantially as set forth.

5. The combination with a pair of base members and a pair of extension members adjustably secured to the base members, respectively, of brackets secured to the base members and extension members, respectively, loops in the end of each bracket, and platforms extending between the base members and the extension members, respectively, and through the loops of their respective brackets, substantially as set forth.

6. The combination with a base member, extension member adjustable thereon, and bracket upon the base member, of a retaining member upon the base member in alinement with the loop upon the bracket, and adapted to support the extension member in position, and also to hold the platform inserted through the loop, substantially as and for the purpose specified.

7. The combination with a base member, provided with extensible legs, of a bracket upon the base member, a loop in the end of the bracket, and a retaining member in alinement with the loop adapted to support upon the base member an extension member or platform within the loop of the bracket, or both, simultaneously, substantially as and for the purpose specified.

In testimony of all which I have hereunto subscribed my name.

ISAAC R. BELL.

Witnesses:
J. S. SMITH,
A. DEAL.