F. NOWODWORSKI.

PORTABLE SCAFFOLD.

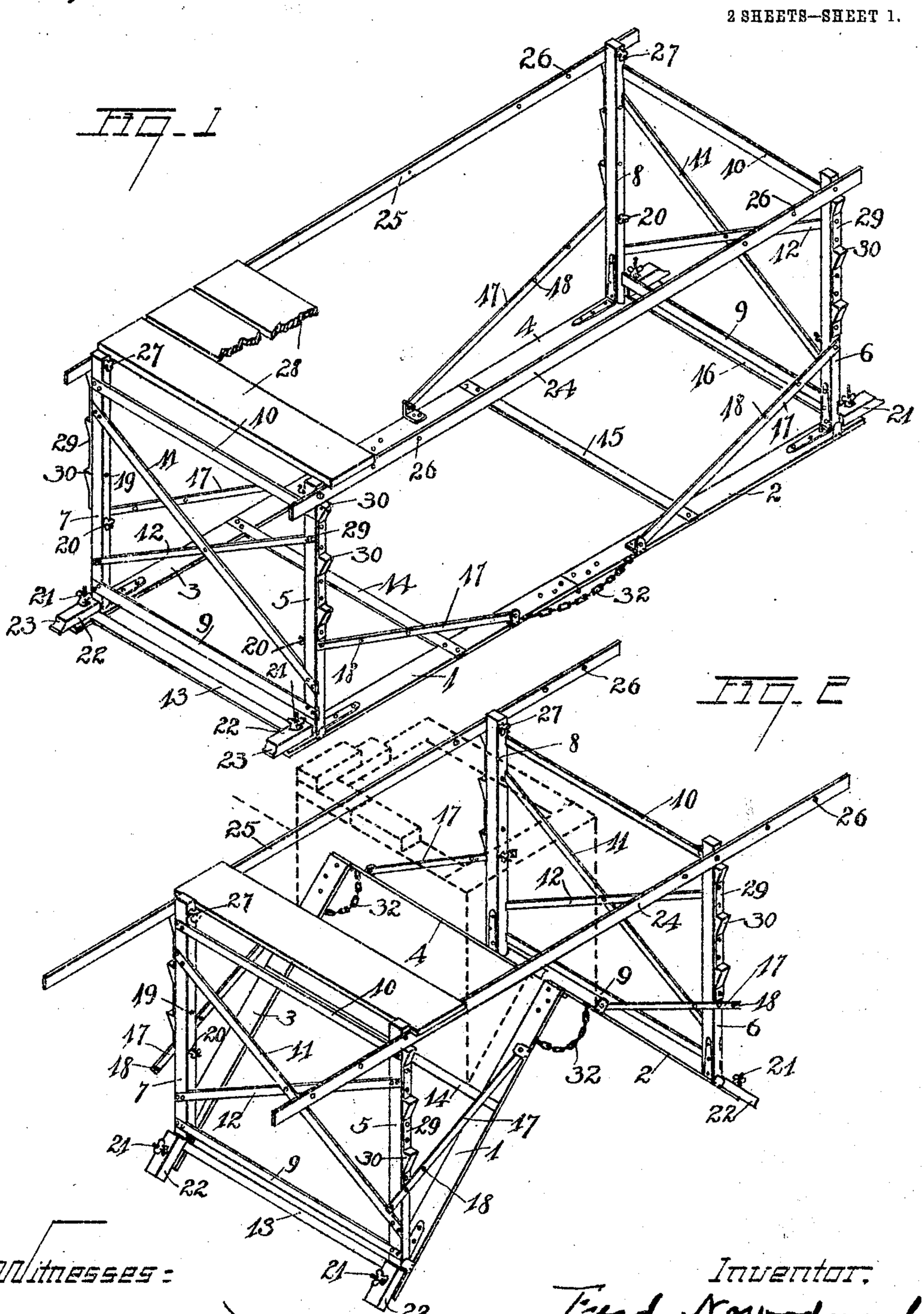
APPLICATION FILED NOV. 15, 1909.

956,406.

Patented Apr. 26, 1910.

2 SHEETS—SHEET 1.

Fig. 1



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2 SHEETS—SHEET 2.

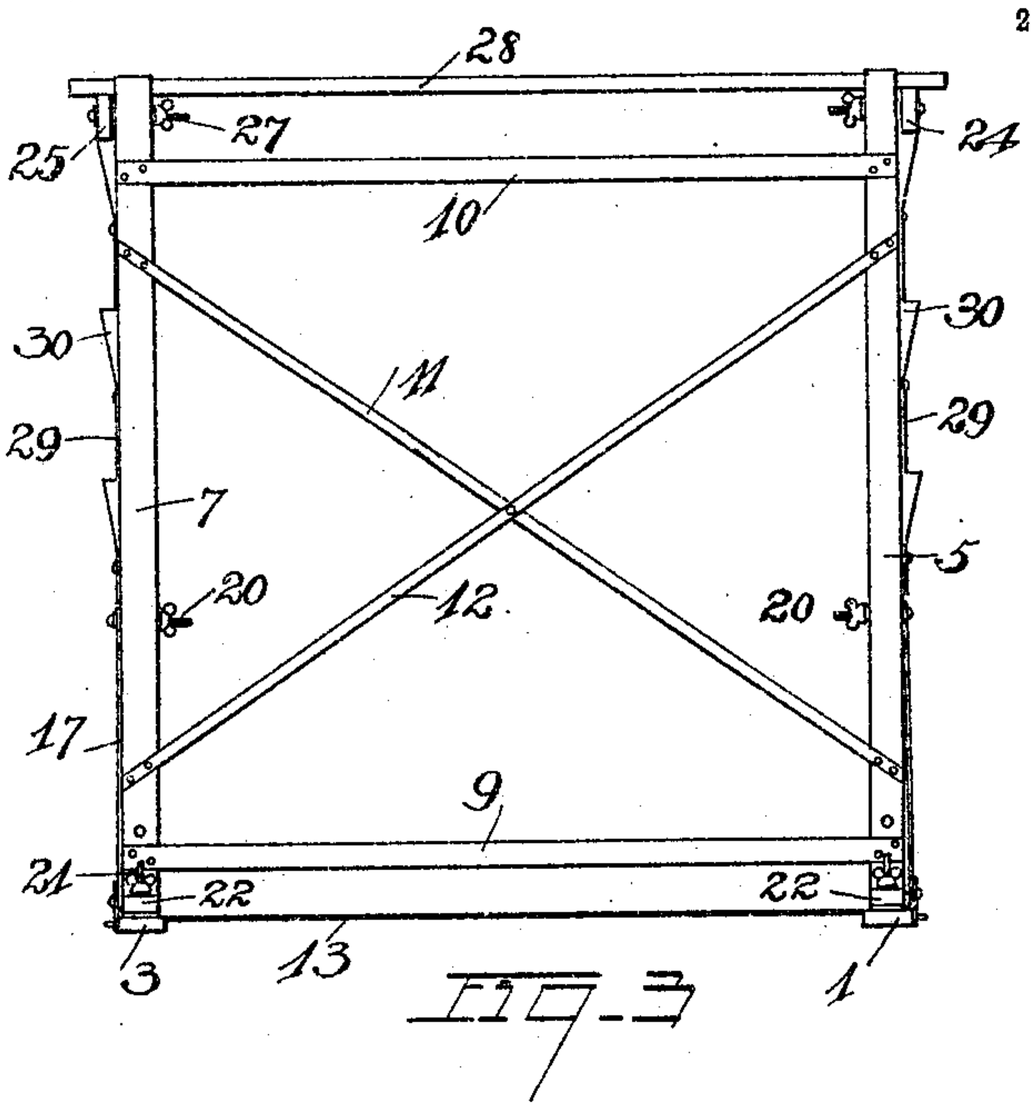

Fig. 3

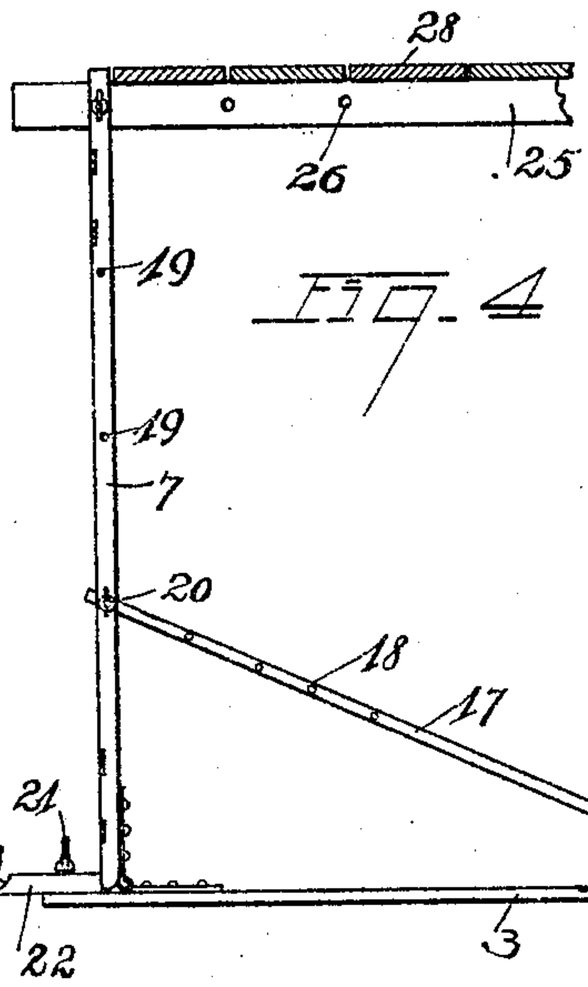

Fig. 4

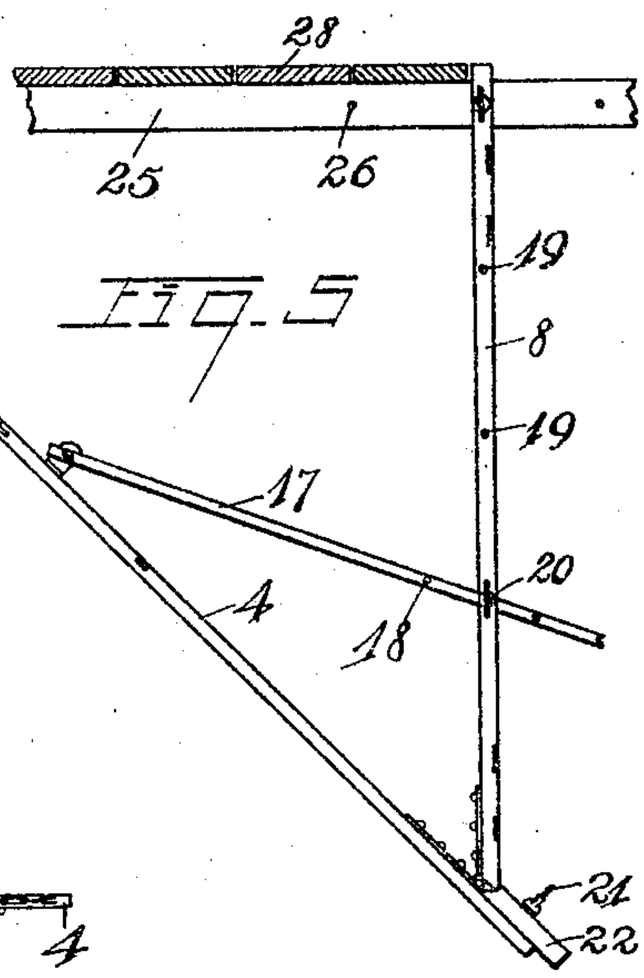

Fig. 5

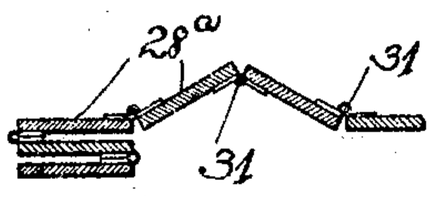

Fig. 6

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UNITED STATES PATENT OFFICE.

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PORTABLE SCAFFOLD.

956,406. Specification of Letters Patent. Patented Apr. 26, 1910.

Application filed November 15, 1909. Serial No. 528,014.

To all whom it may concern:

Be it known that I, FREAD NOWODWORSKI, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Portable Scaffolds, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

This invention relates to portable scaffolds for use by plasterers, paper hangers, brick layers, etc., and it has for its objects the production of a scaffold which shall be light of weight, economical in manufacture, convenient in erection and strong and rigid when in use.

A further object of the invention is the production of a scaffold which shall be collapsible for shipment or storage, which shall be adjustable to different heights and which shall be adapted for erection and use upon flat surfaces or upon the ridges or roofs of buildings.

Further objects of the invention will be set forth in the following specification which is descriptive of the accompanying drawings, in which—

Figure 1 is a perspective view showing my scaffold erected in a form for use upon flat surfaces, such as a floor; Fig. 2 is a perspective view of my scaffold showing the same adjusted for use upon the ridge of a roof, a chimney being indicated in dotted lines within the scaffold; Fig. 3 is an end elevation of the scaffold as shown in Fig. 1; Fig. 4 is a longitudinal section taken through one end of the scaffold arranged as shown in Fig. 1; Fig. 5 is a longitudinal section taken through one end of the scaffold arranged as shown in Fig. 2; and Fig. 6 is a sectional view showing a modified form of the platform for the scaffold.

Taking up a complete description by the use of reference characters, 1 and 2 represent the two sections of one of the base rails of the scaffold, the hinge pintle pin being removable, for a purpose hereinafter stated.

3 and 4 represent the two sections of the other base rail, said sections being also hinged at their adjacent ends, the pintle pin of the hinge being also removable. Near the outer ends of the sections 1 and 2, I pivot upright members 5 and 6, respectively, and similar upright members 7 and 8 are hinged to the sections 3 and 4, respectively, near their outer ends. The pairs of upright members at the ends are joined on their outer sides by parallel braces 9 and 10, and also by diagonal braces 11 and 12, the diagonal braces being preferably joined together at their intersection. The uprights thus braced form a very rigid construction. The sections of the base rails are joined together by parallel braces 13, 14, 15 and 16, said braces providing the necessary rigidity for the base portion of the scaffold.

Pivoted to brackets that are secured to the sections 1, 2, 3 and 4 near the hinges joining said sections, are braces 17, said braces having a series of perforations 18 near their outer ends. The uprights 5, 6, 7 and 8 are also provided with a series of perforations 19 which may be brought into register with the perforations 18 in the braces 17 so that the uprights may be secured to said braces by the bolts 20. As shown in Fig. 1, the bolts 20 pass through the outer perforations of the braces 17 and through the lower openings of the uprights, whereby the uprights are held at substantially right angles to the base rails. For still further strengthening the upright members, I secure to the projecting ends of the sections 1, 2, 3 and 4, by means of bolts 21, blocks 22, said blocks having one of their ends square, and the other end rounded or tapered, as shown at 23. When the upright members are in the position shown in Fig. 1 the square ends of the blocks 22 are forced against the outer faces of the said members, and the blocks are then secured in position by means of their bolts. When the upright members are at an angle other than 90 degrees with respect to the base rails, the tapered ends 23 of the blocks 22 are inserted under the lower ends of the uprights. This is accomplished by merely reversing the blocks 22, moving their tapered ends 23 under the lower ends of the uprights and then clamping them in place by the bolts 21. This position of the blocks is shown in Figs. 2 and 5. The side pairs of the upright members are secured together by longitudinal rails 24 and 25, the rail 24 joining the uprights 5 and 6 and the rail 25 joining the uprights 7 and 8. The rails 24 and 25 are each provided near their ends with a series of holes 26 through which bolts 27 may be passed, said bolts also passing through the perforations 19 of the upright members. In Fig. 1 the bolts 27 are shown as passing through the end perforations of the top rails and through the top

perforations of the uprights. As thus assembled, the base rails, the top rails and the upright members on each side of the scaffold form a rectangle. Upon the top rails 24 and 25, flooring 28 may be laid to form a platform. The top rails 24 and 25 are supported in part by the bolts 27; but I prefer to strengthen the structure by securing to the outer edges of the upright members, bars or plates 29 which have outwardly projecting bracket lugs or stops 30 upon which the lower edges of the top rails may rest. Each of the bars or plates is shown as provided with three of the bracket lugs, although the number of such lugs obviously may be varied as desired. By laying the top rails 24 and 25 upon corresponding lugs on the upright members, the height of the scaffold may be adjusted.

In Fig. 1 the scaffold is shown assembled for use upon a flat surface. It is frequently necessary to use the scaffold upon irregular surfaces, such as upon the ridge of a roof while building a chimney; and, in Figs. 2 and 5, I have shown the scaffold assembled for this purpose, the chimney being built through the scaffold, as appears from the dotted lines. As will be seen, the bolts 20 have been removed from the end perforations 18, and have been extended through one of the other of said perforations, the sections 1, 2, 3 and 4 of the base rails being elevated at their inner ends so as to fit over the ridge of the roof. Even in this case it is desirable to have the upright members 5, 6, 7 and 8 stand vertical and, as the sections 1, 2, 3 and 4 must fit the sides of the roof, the particular perforations 18 employed will depend upon the pitch of the roof. By selecting the proper perforations for the bolts 20, the scaffold may be fitted to any pitch of roof. As the chimney is built up the scaffold may be adjusted higher and higher until the top rails 24 and 25 reach the tops of the uprights, or rest upon the upper lug or stop 30.

In Figs. 1, 4 and 5 the flooring 28 is shown as made up of separated boards. I may, however, hinge these boards together edge to edge so as to fold up into a compact package. Such construction is shown in Fig. 6, where 28^a represents the boards forming the platform, said boards being hinged together at 31.

In using my scaffold for building chimneys, as in Fig. 2, it is desirable to have the same removable without the necessity of lifting it over the top of the chimney which may, in some cases, extend a considerable distance above the roof. To facilitate such removal, the pintle pins for the hinges between the members of the base rails may be removed, as before stated, and the two halves or sections of the scaffold may then be moved apart so as to clear the chimney. In such case, however, there is a liability of one or both of the halves of the scaffold sliding off the roof. To prevent such trouble, the members of the base rails are attached together by means of chains or other flexible connections 32, which may be made of any suitable length. While Fig. 2 shows one of these chains for each base rail, it is obvious that one chain will suffice.

Having thus described my invention, what I claim is:

1. In a portable scaffold, the combination with a pair of base rails, each of said rails being formed of a pair of sections hinged together, of an upright for and hinged to each one of said sections of the base rails, the uprights being arranged in pairs at the ends of the scaffold, braces connecting the base rails, and also connecting the uprights forming each end pair, braces connecting each section of the base rails with its respective upright, said latter braces and uprights each being provided with a plurality of perforations for bolts, said plurality of perforations permitting the uprights to stand at various angles with respect to the sections of the base rails, top rails adjustably secured to the upright members, and boards forming a floor and resting upon the top rails, the construction being such that the top rails and base rails may extend parallel to each other or the base rail sections may be partially closed on their hinges, so as to adapt the scaffold for irregular surfaces.

2. In a portable scaffold, the combination with a pair of base rails, each of said rails being formed of a pair of sections hinged together, of a pair of upright members for each base rail, said members being hinged to the respective sections of the base rail near the ends of the latter, connections between the base rails and the upright members at the ends of the scaffold, a brace connecting each upright member with its respective base rail section, whereby the angle between the upright member and its section may be varied as desired, top rails carried by the side upright members and means on the upright members for holding the top rails in a plurality of positions of adjustment.

3. In a portable scaffold, the combination of a pair of base rails, each of said rails being formed of a pair of sections detachably hinged together, flexible connections joining the hinged ends of the sections in each base rail, an upright member for and hinged to each base rail section, a brace connected with each section and adjustably connected to the respective upright member, whereby the angle of said members with respect to their base rail sections may be varied, top rails carried by the upright members, and means on said members for permitting adjustment of the top rails, the construction being such that the base of the scaffold may be fitted to an irregular shaped surface and

the hinges for the base rail sections may be detached, whereby the scaffold may be divided into halves and the halves separated, for the purpose specified.

4. In a portable scaffold, the combination with a pair of base rails, each of said base rails being formed of a pair of sections hinged together, of a pair of uprights for each base rail, said uprights being hinged to the respective sections of the base rail near the ends thereof, blocks adjustably secured upon the base rails in position to bear against the uprights, connections between the base rails and each upright, said connections being adjustable, whereby the angle between the upright and its base rail may be varied as desired.

5. In a portable scaffold, the combination with a pair of base rails, each of said base rails being formed of a pair of sections hinged together, of a pair of uprights for each base rail, said uprights being hinged to the respective sections of the base rail near the ends thereof, blocks adjustably secured upon the base rails in position to bear against the uprights, said blocks being formed with a square end and a tapered end, the square ends bearing against the uprights when the angle between the base rails and uprights is ninety degrees and the tapered ends bearing against the uprights when the angle between the base rails and the uprights is other than ninety degrees, connections between the base rails and each upright, said connections being adjustable, whereby the angle between the upright and its base rail may be varied as desired.

6. In a portable scaffold, the combination, with a pair of base rails, each comprising a pair of sections hinged together, of a pair of uprights for each base rail, said uprights being hinged each to a section of said rail, a brace for each upright, and a pair of top rails disconnected from said base rails and supported each by a pair of side uprights.

7. In a portable scaffold, the combination of a base member hinged intermediate of its ends, a top member independent of the hinged portion of the base member, uprights connecting the top member with the base portion near its ends, and braces for the uprights.

In testimony whereof, I hereunto affix my signature in the presence of two witnesses.

FREAD NOWODWORSKI.

Witnesses:

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A. J. HUDSON.