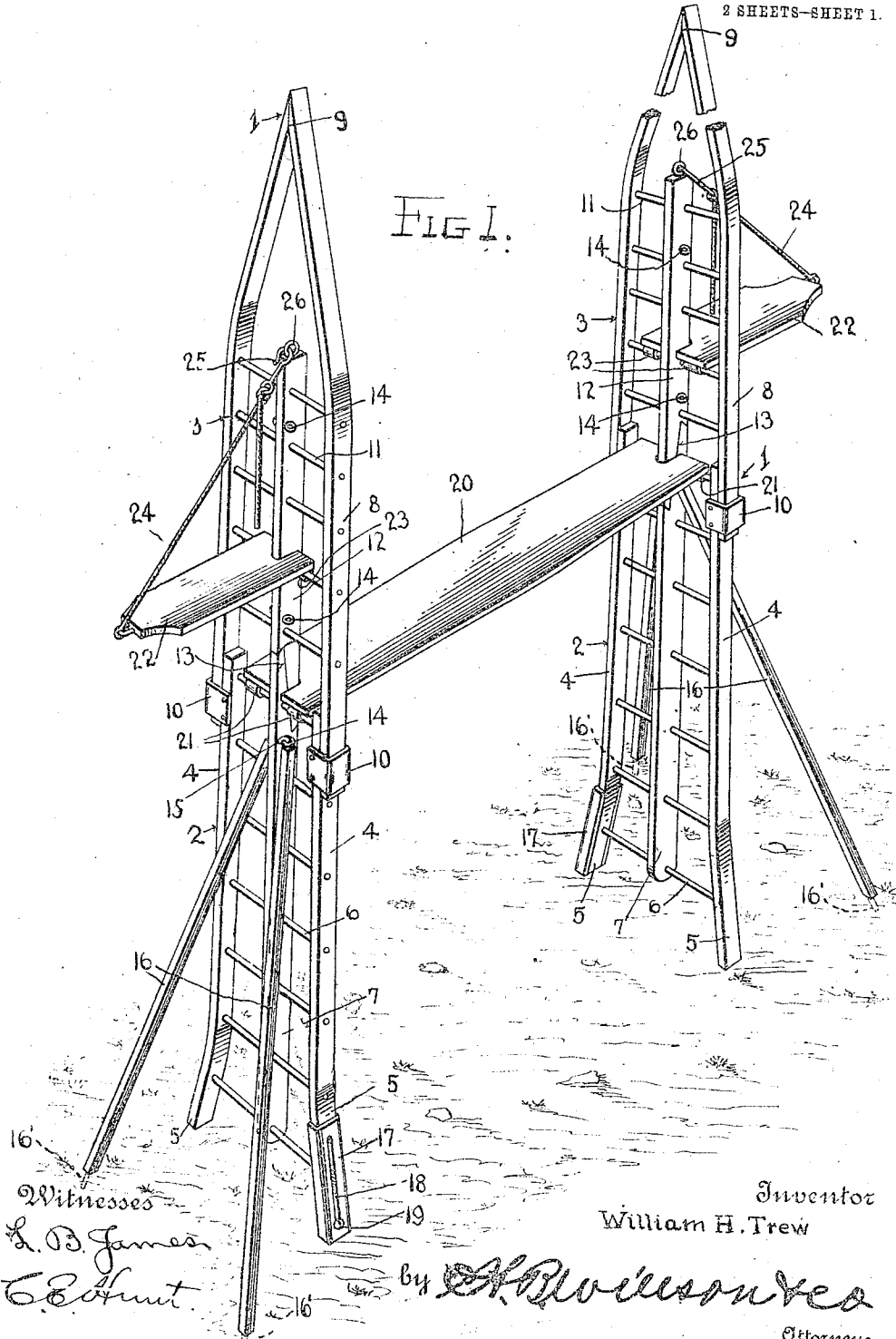


1,048,172.

Patented Nov. 5, 1912.

2 SHEETS-SHEET 1.

FIG. 1.



Witnesses
 L. D. James
 C. E. Hunt.

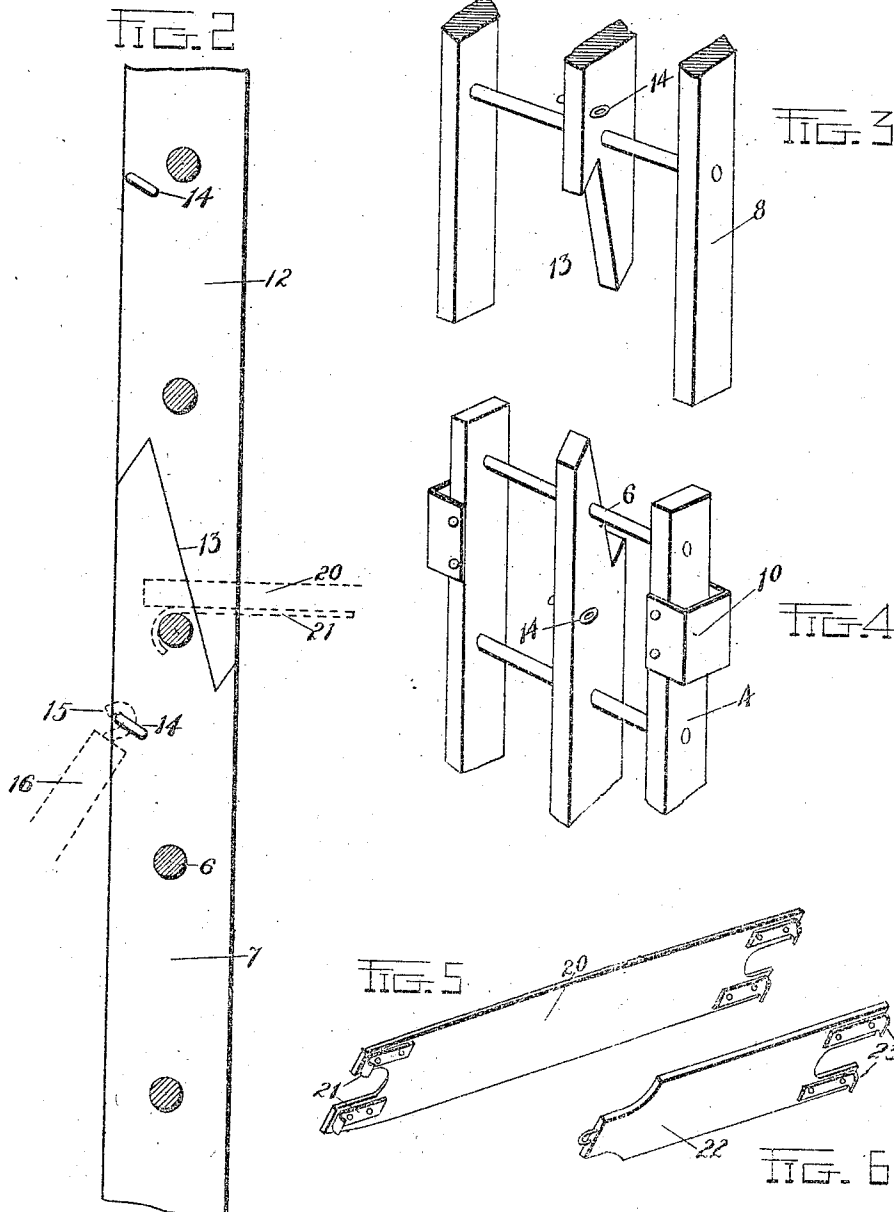
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PORTABLE SCAFFOLD.
APPLICATION FILED SEPT. 15, 1911.

1,043,172.

Patented Nov. 5, 1912.
2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

WILLIAM H. TREW, OF EDGEWATER, COLORADO.

PORTABLE SCAFFOLD.

1,043,172.

Specification of Letters Patent.

Patented Nov. 5, 1912.

Application filed September 15, 1911. Serial No. 649,535.

To all whom it may concern:

Be it known that I, WILLIAM H. TREW, citizen of the United States, residing at Edgewater, in the county of Jefferson and State of Colorado, have invented certain new and useful Improvements in Portable Scaffolds; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in portable scaffolds, and more particularly in the construction of the ladders forming a part thereof.

One object of the invention is to provide a scaffold having its supporting members in the form of extension ladders which, when not in use for forming a scaffold may be employed as ordinary ladders or as step-ladders.

Another object is to provide a scaffold of this character which will be simple, strong and durable in construction, efficient and reliable in operation and which is particularly adapted for use in picking fruit.

With these and other objects in view, the invention consists of certain novel features of construction, and the combination and arrangement of parts as will be more fully described and claimed.

Briefly stated, the invention primarily consists of a ladder for the purpose described, having a centrally disposed strengthening bar the detachable interlocking complemented abutting ends of which are notched, inclined and pointed, said ends being held in proper alinement with the oppositely disposed slidably attached members of the ladder by rungs which are located adjacent to said interlocking ends of the bars thus constructed.

In the accompanying drawings: Figure 1 is a perspective view of my improved scaffold arranged in position for use; Fig. 2 is a vertical sectional view through a portion of one of the end supporting members of the scaffold; showing more clearly the manner in which the central bars 12 of the sections of the members are joined; Fig. 3 is a perspective view of the lower end of the upper section of one of said end members; Fig. 4 is a similar view of the upper end of the lower section of one of said members; Fig. 5 is a detail perspective view of the lower side of the platform supported by the end members

of the scaffold showing more clearly the means whereby the ends of the platform are connected with the sections of the supporting members; Fig. 6 is a similar view of one of the adjustable supporting platforms which are provided to support a bucket or other object employed in connection with the scaffold.

My improved scaffold comprises end supporting members in the form of extension ladders 1 each of which consists of a lower section 2 and an upper section 3. The lower sections 2 comprise side bars 4 the lower ends of which are preferably curved or flared outwardly as shown at 5 thereby forming a firmer support for the lower end of the ladders. The side bars 4 are connected together by a series of rungs 6 which are spaced the usual distance apart. In addition to the side bars 4 the sections of the ladder are also provided with centrally disposed bars 7 through which the rungs 6 pass. The centrally disposed bars 7 form braces and additional strengthening devices for the ladder.

The upper section 3 of the ladder comprises side bars 8 the upper ends of which are curved or bent inwardly and are brought together as shown at 9 to form pointed upper ends on the sections 3 of the ladder. The lower ends of the side bars 8 are adapted to engage sockets or keepers 10 secured to the upper ends of the side bars 4 of the lower ladder sections whereby said upper sections of the ladder are held in engagement with the lower sections. The side bars 8 of the upper sections of the ladder are connected together by rungs 11 and said upper sections are also provided with centrally disposed bars 12 through which the rungs 11 are passed as shown. The meeting ends of the central bars 12 of the upper ladder sections and the central bars 7 of the lower ladder sections are notched to form interlocking angularly formed abutting ends 13 whereby when the ladder sections are assembled and the meeting ends of the bars 6 and 12 are brought together an interlocking joint is formed between said ends which will effectively prevent any lateral or longitudinal movement or disengagement of the ladder sections and will relieve the sockets or keepers 10 of a great amount of strain, said keepers holding the sections against transverse movement relative to each other and being used in connection with the interlocking

abutting ends of the central bars avoids the necessity of using connecting bolts for the sections. The sections when united as shown and described may be quickly connected and disconnected and without the use of tools and yet reliably held in engagement when in operative position. It is obvious that to disconnect the sections it is necessary only to move one of them longitudinally relatively to the other to disengage the ends of the side bars of one member from the keepers on the side bars of the other member.

The complemented abutting interlocking ends 13 of the centrally disposed bars are notched, inclined and pointed, and the rungs 6 are positioned in such a manner that one rung of one section is arranged through the bar within the inclined portion thereof whereby its reduced end is rendered rigid. The interlocking reduced end of the bar of the other section, however, is not strengthened by a rung, and therefore is permitted to yield along its length whereby, when the sections are united and the flat edges of the reduced ends of said bars are in contact, any lateral spring of the ladder will not injure or release the sections.

Arranged at suitable positions on the opposite sides of the central bars 6 and 12 of the ladder sections are eyes 14 with which are adapted to be engaged eyes 15 on the upper ends of inclined brace bars 16 the lower ends of which are engaged with the ground or surface on which the scaffold rests and thereby firmly brace and support the end members of the scaffold. The brace bars 16 are preferably provided on their outer ends with metal points or spikes 16' which are adapted to be forced into the ground thus firmly fastening the ends of the bars. By providing a plurality of eyes 14 one or more pairs of brace bars of different length may be connected with the end sections or ladders of the scaffold whereby the ladder is firmly supported. Slidably engaged with the lower end of one of the side bars 2 of each of the lower ladder sections is a channel iron extension bar 17 said bar having formed therein a longitudinally disposed slot 18 with which and the adjacent portion of the bar 2 is adapted to be engaged a clamping screw 19 whereby the bar 18 is securely fastened in its adjusted position thus providing means for supporting the ladder sections in a vertical or perpendicular position on uneven surfaces as will be readily understood.

Adapted to be engaged with and supported by the ladder sections is a platform 20 said platform comprising a board having its ends notched to fit around the central bars 6 or 12 of the ladder sections whereby said ends of the board or platform are adapted to engage and rest on the rungs of the ladder sections. The ends of the board

are held in position on the rungs of the ladder sections by suitable hooks 21 arranged on the lower side of the ends of the board and adapted to be hooked over the rungs of the ladder sections as shown. The board or platform 20 may be of any desired length and when the scaffold is employed for picking fruit, is preferably arranged through the central portion of the tree so that the fruit on both sides of the tree may be reached.

In addition to the platform 20 I preferably also provide bucket supporting platforms 22 in the form of short sections of boards having their inner ends notched to fit around the outer sides of the central bars 12 of the upper ladder sections whereby said ends of the boards may be engaged with the rungs 11 of said upper ladder sections. The notched ends of the boards or platforms 22 have secured to their under side, hooks 23 which are adapted to be hooked over the rungs 11 thereby securely fastening the inner ends of the boards to the ladder sections. The outer ends of the boards 22 are preferably supported by means of cords 24 which are secured to suitable eyes or staples arranged in the outer ends of the boards and have secured to their opposite ends hooks 25 which are adapted to be engaged with eyes 26 arranged in the upper ends of the central bars 12 of the upper ladder sections as shown. By thus constructing and arranging the platform 22 the same may be engaged with any of the rungs of the ladder sections and thus adjustably supported at the desired position.

By constructing my improved scaffold as herein shown and described it will be readily seen that the parts of the same may be quickly and easily disassembled and the end member employed as extension ladders the sections of which are adapted to be readily taken apart and used separately either as ordinary ladders or as step-ladders. By bringing the upper ends of the side bars of the ladders together as herein shown and described said ends may be readily projected in among the branches of the trees or engaged with narrow spaces against which the upper ends of an ordinary ladder cannot be placed.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as claimed.

Having thus described my invention, what I claim is:

A ladder composed of detachably connect-

ed sections each comprising side bars, a centrally disposed bar forming a strengthening and interlocking member for each of said sections, said centrally disposed bars having complemented abutting ends notched, inclined and pointed for engagement with each other to hold the sections in an extended position, rungs connecting the opposite side bars and centrally disposed bars, one of said sections being arranged through the central bar within the inclined reduced portion, and one of the rungs of the other section being passed through the central bar adjacent to the inclined portion thereof, whereby the interlocking end of one of the

centrally disposed bars is rigidly held in position in respect to the side bars while the interlocking end of the other bar is permitted to yield, and means for detachably and slidingly connecting the meeting ends of the side bars of said sections.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM H. ^{his} X TREW.
mark

Witnesses:

ARCHER H. BROWN,
JOHN COFFMAN.