

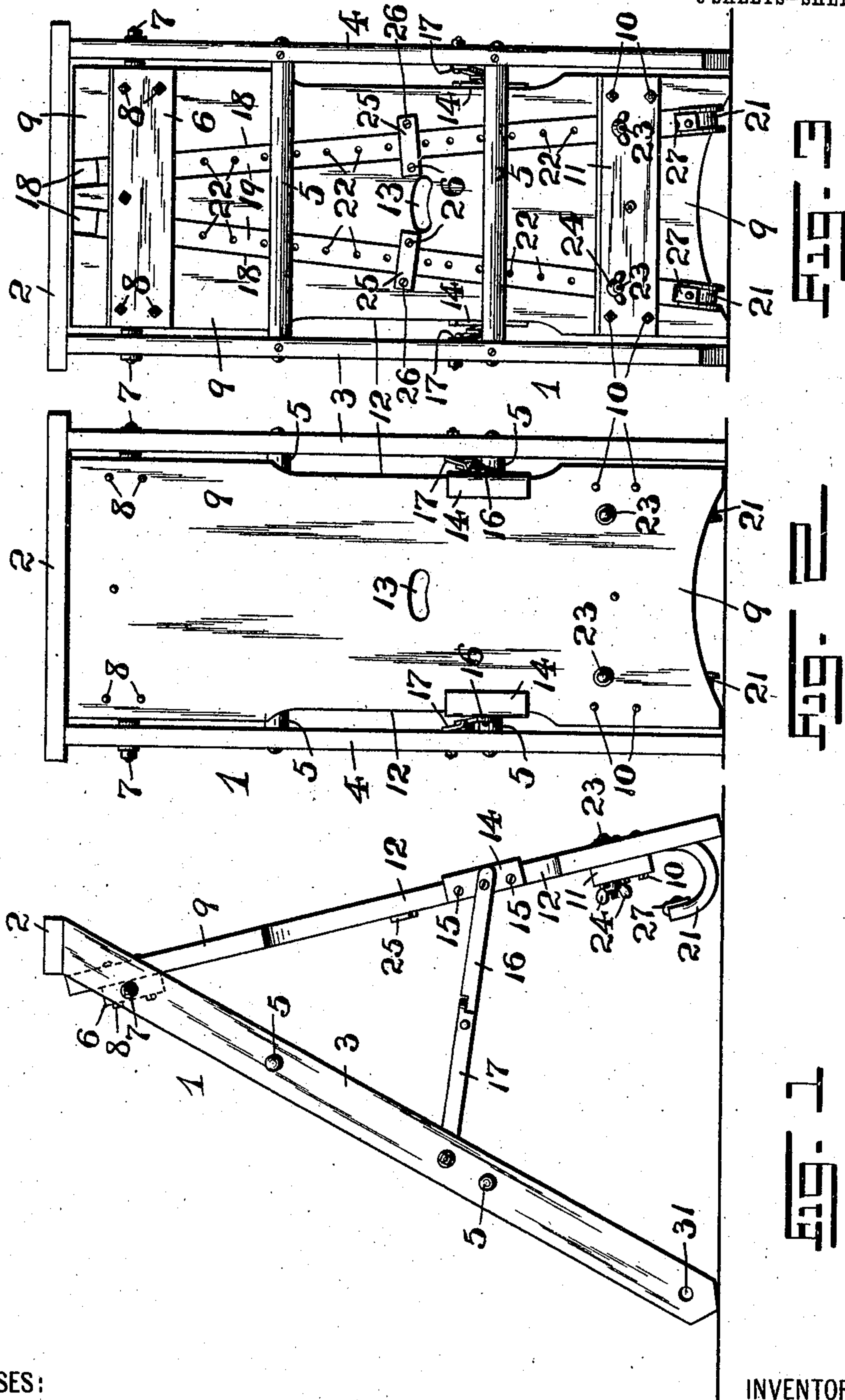
No. 847,528.

PATENTED MAR. 19, 1907.

F. THOMAS.
COMBINED LADDER AND JACK.

APPLICATION FILED JAN. 30, 1906.

3 SHEETS—SHEET 1.



WITNESSES:

Geo. D. Richards

Frederick Jamison

INVENTOR:

Frederick Thomas

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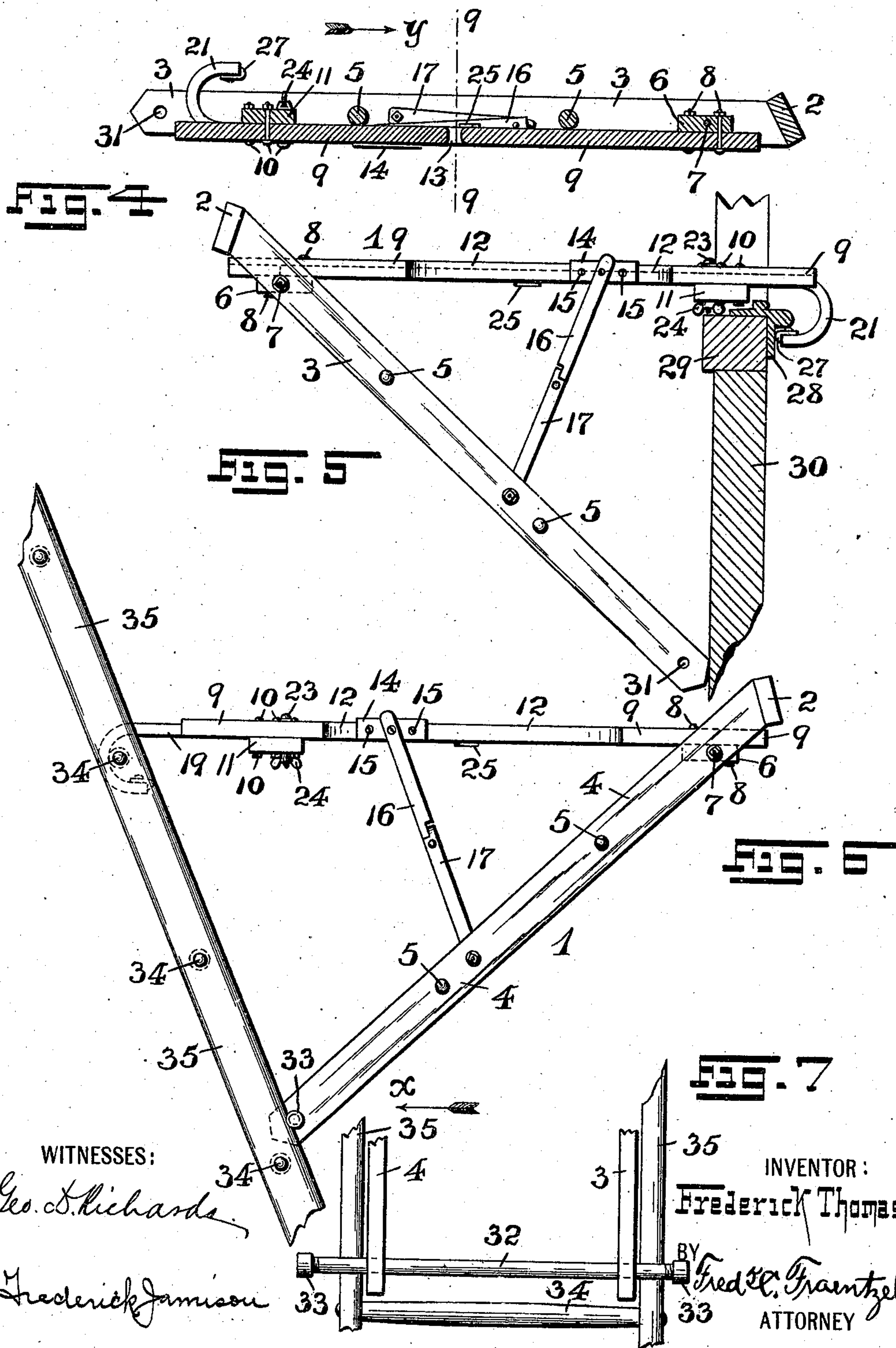
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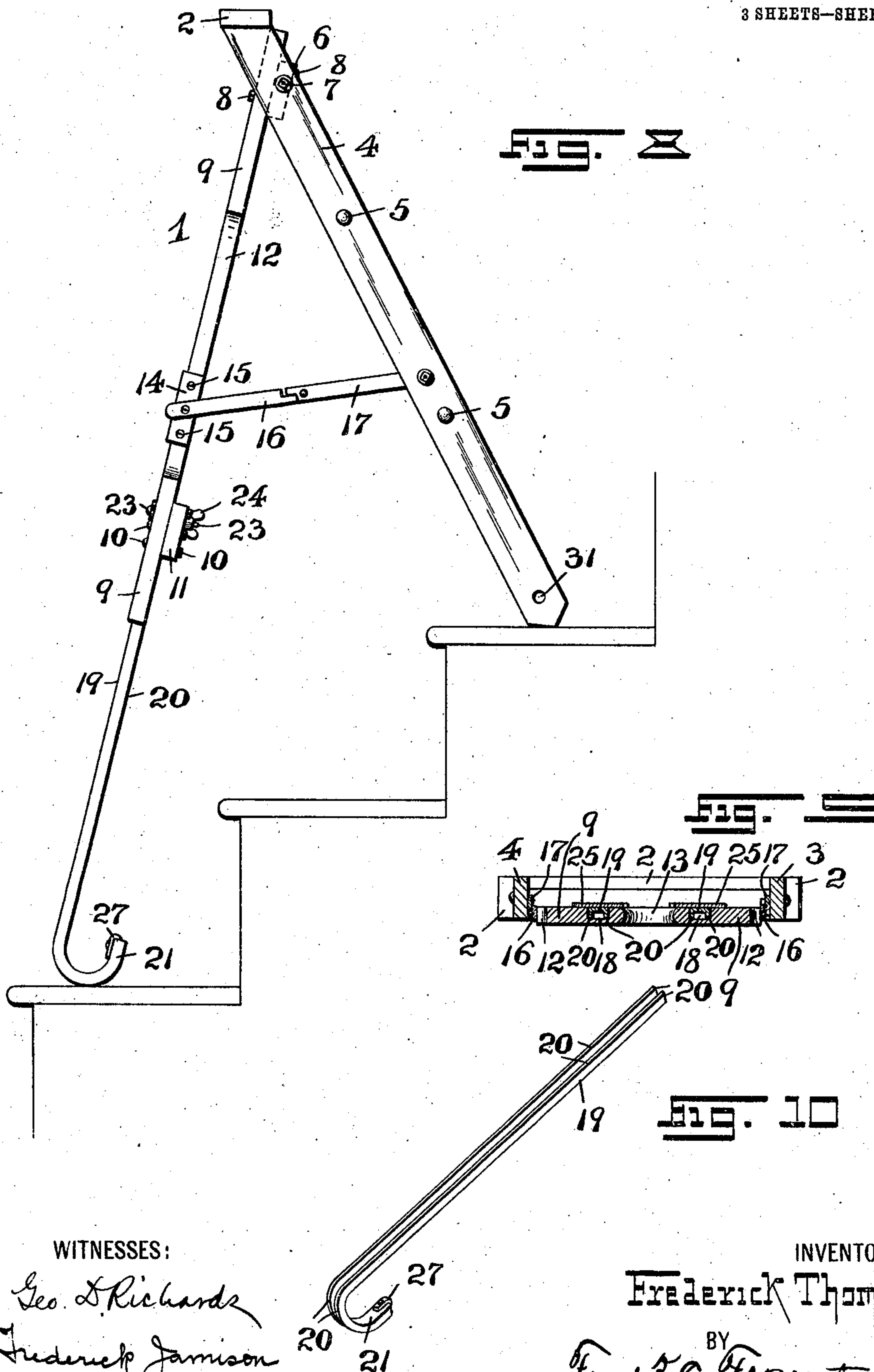


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UNITED STATES PATENT OFFICE.

FREDERICK THOMAS, OF NEWARK, NEW JERSEY.

COMBINED LADDER AND JACK.

No. 847,528.

Specification of Letters Patent.

Patented March 19, 1907.

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To all whom it may concern:

Be it known that I, FREDERICK THOMAS, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in a Combined Ladder and Jack; and I do hereby declare the following to be a clear, full, 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The present invention has reference to a novel device which is capable of being put to many uses, and serves more especially as a step-ladder, as a window jack or bracket, and as a ladder-bracket for the use of painters, decorators, and the like, and, furthermore, to provide a jack for the support of a platform or staging, the jack having slidably and adjustably arranged supports or legs whereby the device can be properly located upon an uneven surface or upon a stairway, as will hereinafter more fully appear.

The invention therefore has for its principal objects to provide a novel and simply-constructed device, which I will hereinafter term the "combined jack and ladder," which can be put to many different uses, which shall be of a light, durable, and cheap construction, which may be adjusted so as to fit over the window-sill of any window, which may be used upon an uneven surface or stairway as a support for staging, which may be fitted to and used with any form of ladder, such as is used by painters upon the outside of a building, as a bracket for the support of the staging upon which the men stand, which may be used as an ordinary step-ladder, and which when not in use may be folded so as to take up but very little space.

A further and very important object of this invention is to provide a window-jack which is of a safe construction and can be applied to a window-sill either on the outside or inside of a building for "setting-in" glass, painting, or washing the windows.

Other objects of this invention not at this time more particularly mentioned will be clearly understood from the following description of the said invention.

My invention consists, primarily, in the

novel jack and ladder hereinafter set forth; and, furthermore, this invention consists in the various arrangements and combinations of devices and parts, as well as in the details of the construction of the same, all of which will be hereinafter more fully described and then finally embodied in the clauses of the claims which are appended to and which form an essential part of this specification.

The invention is clearly illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the combined jack and ladder embodying the principles of the present invention, and Figs. 2 and 3 are the two opposite face views of the same. Fig. 4 is a central longitudinal section of the said combined jack and ladder, the parts of the same being shown in their closed or folded relation. Fig. 5 is a side elevation of the combined jack and ladder and vertical sectional representation of a window-sill and wall, showing the use of the combined jack and ladder as a window-bracket. Fig. 6 is a side elevation of a portion of an ordinary ladder, showing the application thereto of my combined jack and ladder as a shelf, support, or bracket; and Fig. 7 is a detail view of a portion of the ladder and lower part of the combined jack and ladder in its supporting engagement with the side pieces of the ladder looking in the direction of the arrow X in said Fig. 6. Fig. 8 is a side elevation of the combined jack and ladder, showing its use with a stairway. Fig. 9 is a cross-section taken on line 9 9 in Fig. 4 looking in the direction of the arrow Y, and Fig. 10 is a perspective view of one of the adjustable legs or supports of the jack and ladder.

Similar characters of reference are employed in the said above-described views to indicate corresponding parts.

Referring now to the said drawings, the reference character 1 indicates the complete jack and ladder, and the same comprises a top piece or bar 2, at or near the ends of which are suitably secured and extend downwardly at suitable angles from the lower side of the said top piece or bar 2 a pair of side pieces 3 and 4, which are connected at suitable intervals by ladder-rounds 5 or by other connecting members, such as flat pieces forming steps.

The reference character 6 indicates a suitable brace through which extends a suitable pivot or rod 7, having its end portions suit-

ably and pivotally connected with the upper portions of the respective side pieces 3 and 4 of the step-ladder formed by the said side pieces and the rounds or steps 5. Suitably secured upon the front of this brace 6 by means of bolts and nuts 8, as shown, or in any other suitable manner is a board 9, or the equivalent thereof, substantially as illustrated. Secured upon the lower portion of the back of said board 9 by means of the bolts and nuts 10 or in any other desirable manner is another brace 11. The longitudinal edge portions of the said board 9 are preferably cut away, as at 12, and the said board 9 may also be provided with an opening 13 for the insertion of the hand for carrying the device when folded or with any other suitable and desirable means with that end in view. Suitably arranged along the cut-away edge portions 12 of the said board 9 are plates 14, which may be bent at an angle, so as to embrace the edges and face of the board 9, preferably in the manner shown in Figs. 1, 2, and 3 of the drawings. The plates 14 may be secured in place by means of screws 15, as shown. The side pieces 3 and 4 of the ladder portion and the said board 9 are connected by a pair of folding stays or holding members 16 and 17 of the usual construction, the same being arranged upon the opposite side of the step-ladder formed to hold the parts in their opened relation. (Indicated more particularly in Figs. 1, 5, 6, and 8 of the drawings.) In the back the said board 9 is formed with a pair of grooves or channels 18, and in each channel is slidably and adjustably arranged a bar or rod 19, forming a leg or support, substantially as and in the manner to be presently set forth. For strength these bars or rods 19 are preferably made with marginal ribs or shoulders 20, and at their lower ends they are bent substantially as shown to provide suitable holding or retaining hooks 21, which also form foot-pieces. A series of holes or perforations 22 are also provided in each bar or rod 19, as clearly shown in Fig. 3 of the drawings. These bars or rods 19 are slipped into the said grooves or channels 18, with their ribs or shoulders 20 resting upon the inner face of the board 9, and are held or secured in their adjusted positions by means of bolts 23, which extend through the body of the board 9, through the correspondingly-located holes or perforations 22 in the respective bars or rods 19, and through the brace 11, suitable nuts 24, usually provided with ears which form finger-pieces, being used to rigidly secure the rods or bars 19 in place, as will be clearly understood. To prevent any undue movement of the rods or bars 19 from within the said grooves or channels 18, especially when pulled out, and to remove any undue strain from the bolts 23, plates 25 may be arranged directly across the said grooves or channels 18 and over the said

rods or bars 19, as shown, the said plates being secured in place by means of screws 26 or other suitable fastening means.

When the parts are all of them in their assembled relation, the hook-shaped portions or foot-pieces 21 extend toward the step-ladder portion, as shown. When the device is to be used as a bracket in connection with the window-sill, as shown in Fig. 5 of the drawings, that the said hook-shaped portions or foot-pieces 21 will not scratch or mar the wood each portion or foot-piece 21 has suitably secured thereto a cushion 27, which may be leather, rubber, or any other suitable material.

Having described the general construction of the combined jack and ladder, I will now briefly set forth its manipulation and the various uses to which the device may be put.

In Fig. 4 the hinged or pivoted portions are shown in their folded or closed relation and may be readily opened out to provide a device useful as a step-ladder, as clearly indicated in Fig. 1 of the drawings. When the device is to be used as a window jack or bracket, in the manner clearly indicated in Fig. 5 of the drawings, the bolts 23 and nuts 24 are removed and the bars or rods 19 moved out the proper distance to permit of the holding or retaining hooks 21 of said bars to be arranged over and brought in holding engagement with a part 28 or other portion of a window-sill 29, the bolts 23 having again been passed through the parts and by means of their nuts 24 fixing the bars or rod 19 in their adjusted positions. When in this position the lower ends of the side pieces 3 and 4 of the ladder portion will bear against the wall 30 and will serve as braces to retain the device in a proper and safe position. In a like manner the combined jack and ladder may be used with an ordinary ladder, such as is used by painters, carpenters, and others, to provide a bracket or a support of a staging. In that case the lower end portions of the side pieces 3 and 4 are made with holes or perforations 31, a bar 32 being arranged in said holes or perforations 31 and extending across the lower portion of the ladder member of the device, as clearly shown in Figs. 6 and 7 of the drawings. The respective ends of the said bar 32 project beyond the said side pieces 3 and 4 and may be screw-threaded, as shown, to provide a means for the reception of suitable caps or heads 33, which will prevent accidental lateral displacement of the bar from the side pieces 3 and 4.

In using the combined jack and ladder, after the proper adjustment of the rods or bars 19 their holding or retaining hooks 21 are arranged over a round 34 of the ladder, with the portions of the bar 32 resting against the side pieces 35 of the ladder, all as clearly represented in the said Figs. 6 and 7. The

rods or bars 19 also have a long range of adjustment, so as to permit the combined jack and ladder to be properly placed upon an uneven surface or upon the steps of a stairway, as clearly illustrated in Fig. 8 of the drawings.

From the foregoing description of my invention it will be clearly seen that I have devised a simply-constructed device which is easily manipulated so as to be capable of use as a step-ladder, a bracket, jack, and a support for the various uses hereinbefore stated and also for other uses not here mentioned.

I claim—

1. A combined ladder and jack, comprising a top piece or bar, a ladder member connected therewith, a brace pivotally connected with the side pieces of said ladder, a board secured to said brace, said board being provided with longitudinally-extending grooves, a channel-shaped rod or bar in each groove, and a retaining or holding hook at the end of each rod or bar adapted to be arranged over a window-sill or other object, and said ladder acting as a support, substantially as and for the purposes set forth.

2. A combined ladder and jack, comprising a top piece or bar, a ladder member connected therewith, a brace pivotally connected with the side pieces of said ladder, a board secured to said brace, said board being provided with longitudinally-extending grooves, a channel-shaped rod or bar in each groove, and a retaining or holding hook at the end of each rod or bar adapted to be arranged over a window-sill or other object, and said ladder acting as a support, and means connected with said rods or bars for adjustably securing each rod or bar in a groove, substantially as and for the purposes set forth.

3. A combined ladder and jack, comprising a top piece or bar, a ladder member connected therewith, a brace pivotally connected with the side pieces of said ladder, a board secured to said brace, said board being provided with longitudinally-extending grooves, a channel-shaped rod or bar in each groove, and a retaining or holding hook at the end of each rod or bar adapted to be arranged over a window-sill or other object, and said ladder acting as a support, and means connected with said rods or bars for adjustably securing each rod or bar in a groove, substantially as and for the purposes set forth.

4. A combined jack and ladder, comprising a ladder member and a board, said board being provided with grooves, a means of pivotal connection between said ladder member and board, a channel-shaped rod in each groove, a retaining or holding hook upon the free end of each rod, adapted to be arranged over the round of another ladder, each rod being provided with a series of holes or perforations, bolts and nuts for securing said rods in their adjusted positions, and a supporting means connected with said ladder member adapted to be brought in supporting engagement with the side pieces of said other ladder, substantially as and for the purposes set forth.

5. A combined jack and ladder, comprising a ladder member and a board, said board being provided with grooves, a means of pivotal connection between said ladder member and board, a channel-shaped rod in each groove, a retaining or holding hook upon the free end of each rod, adapted to be arranged over the round of another ladder, each rod being provided with a series of holes or perforations, bolts and nuts for securing said rods in their adjusted positions, and a supporting means connected with said ladder member adapted to be brought in supporting engagement with the side pieces of said other ladder, consisting of a laterally-extending rod or bar, and a cap or head upon each end of said bar, substantially as and for the purposes set forth.

In testimony that I claim the invention set forth above I have hereunto set my hand this 22d day of January, 1906.

FREDERICK THOMAS.

Witnesses:

FREDK. C. FRAENTZEL,
GEORGE D. RICHARDS.