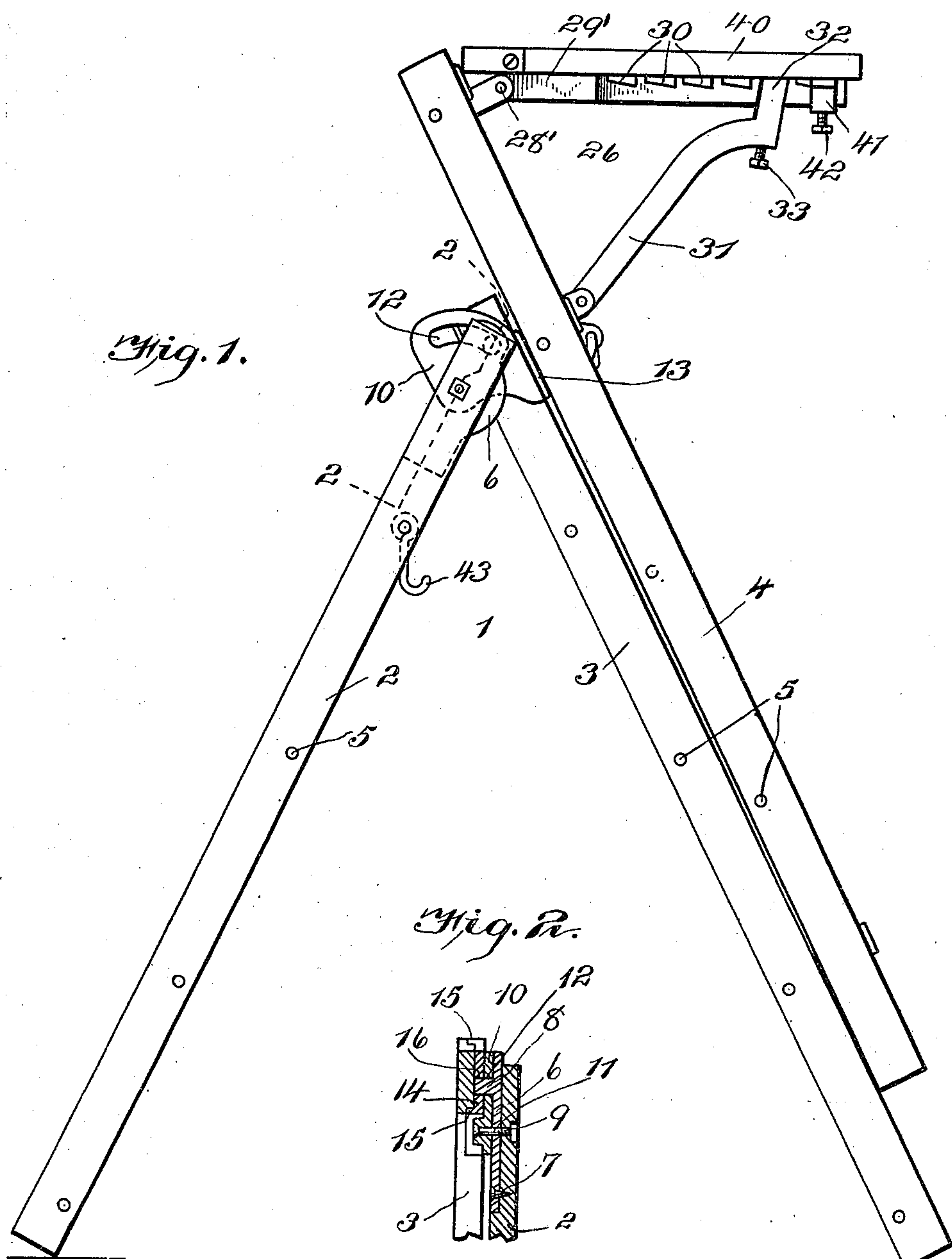


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ADJUSTABLE LADDER BRACKET,
APPLICATION FILED JULY 18, 1910.

Patented June 20, 1911.

3 SHEETS—SHEET 1.



Witnesses

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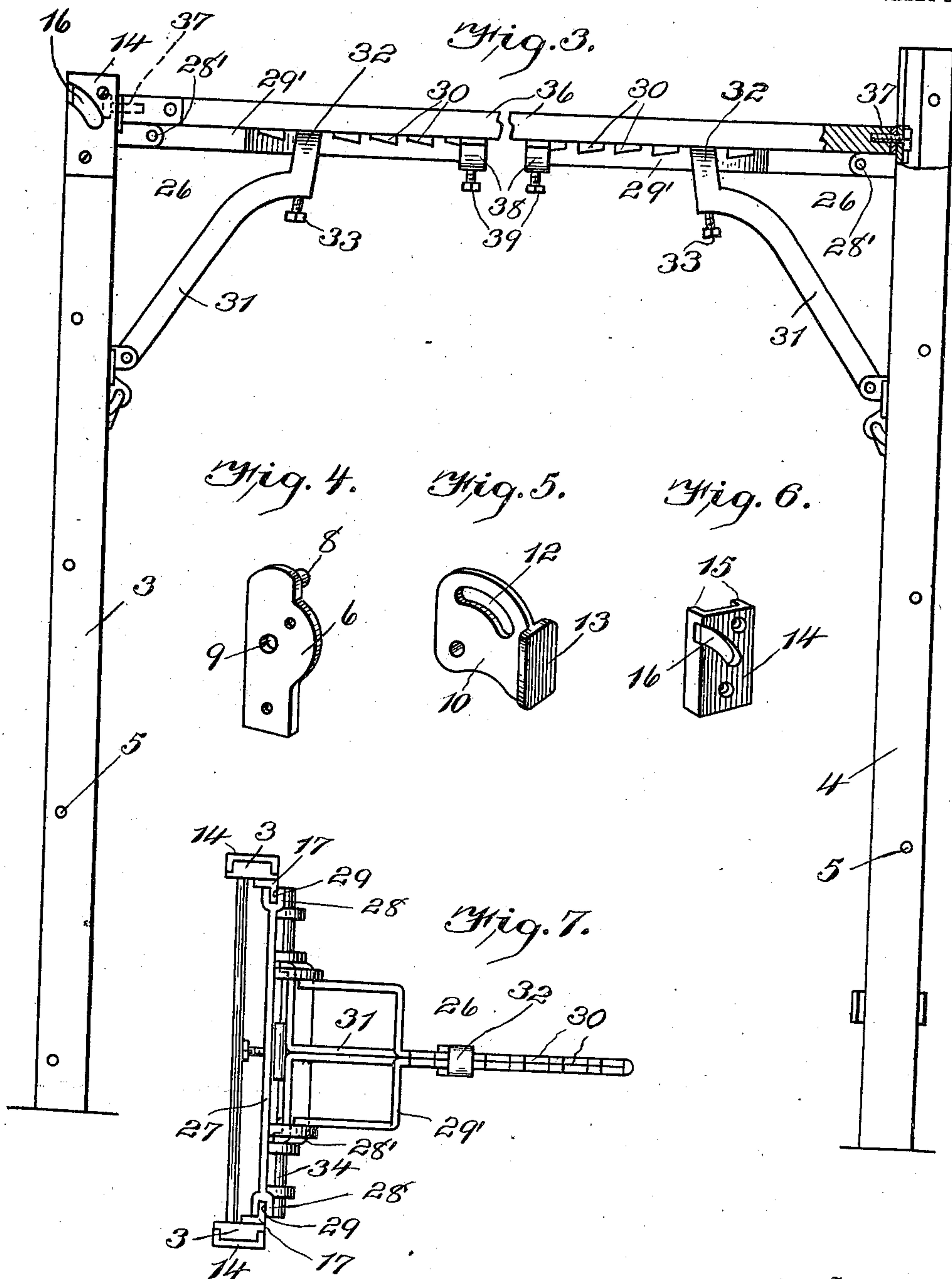
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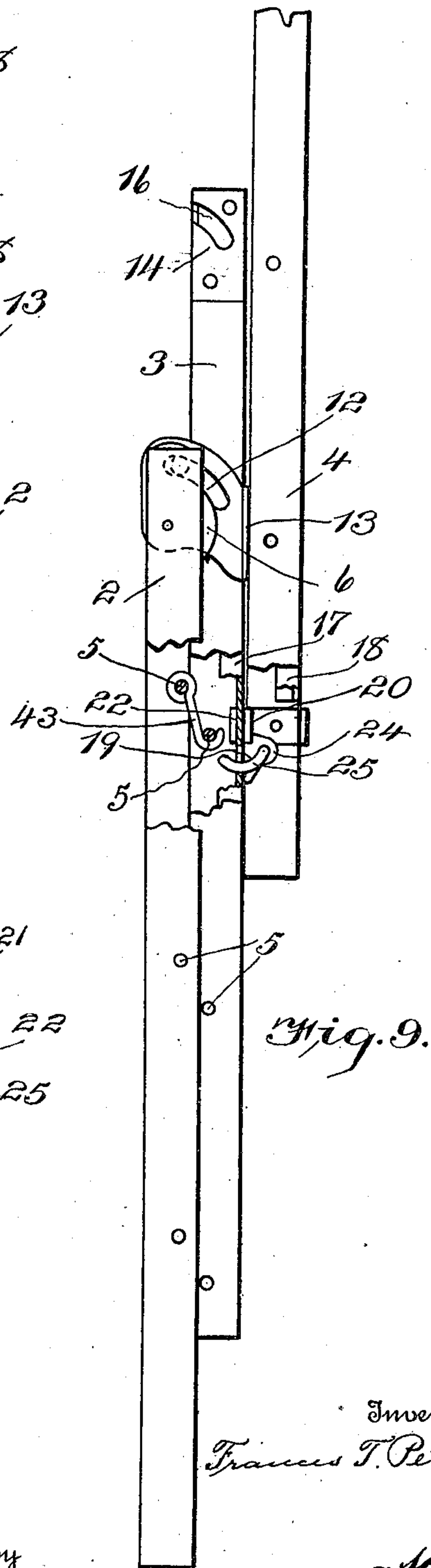
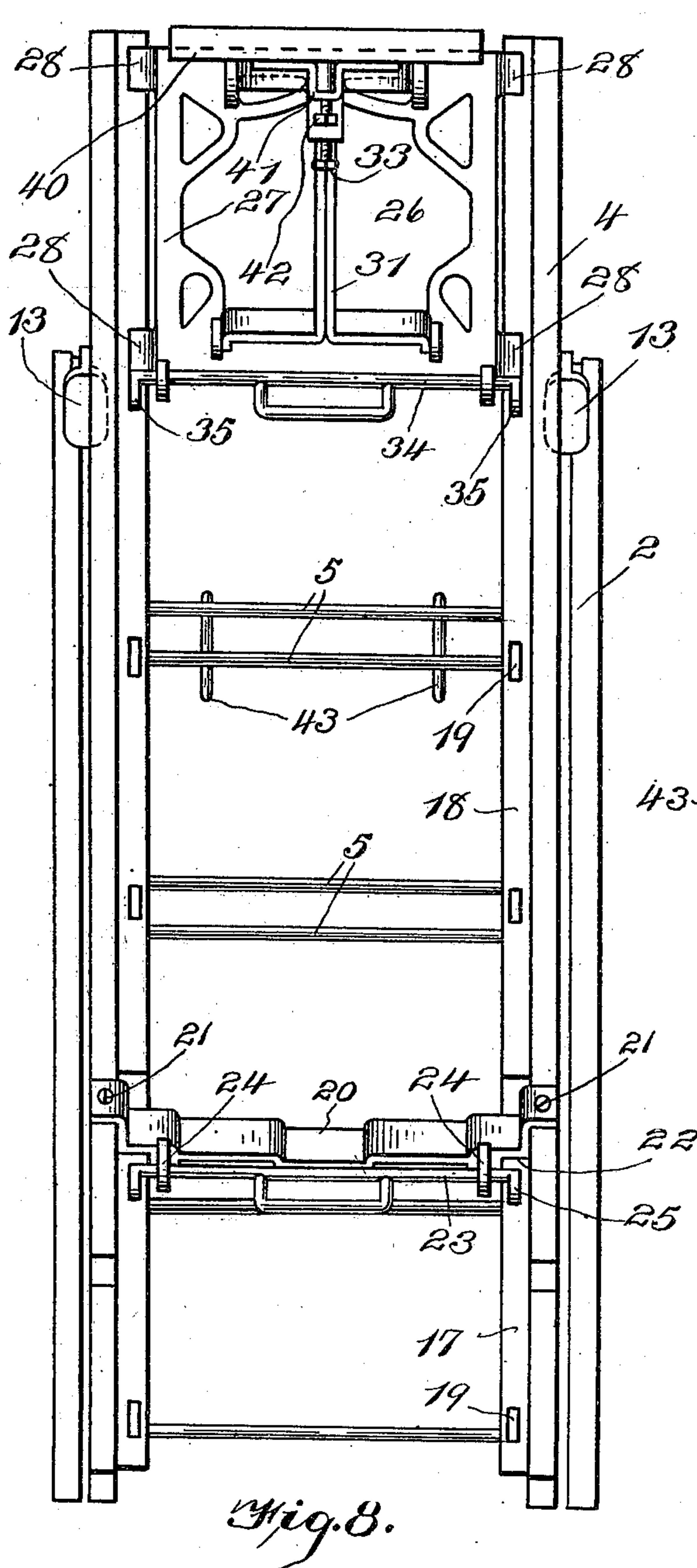
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UNITED STATES PATENT OFFICE.

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ADJUSTABLE LADDER-BRACKET.

995,899.

Specification of Letters Patent. Patented June 20, 1911.

Application filed July 18, 1910. Serial No. 572,545.

To all whom it may concern:

Be it known that I, FRANCIS T. PETERS, a citizen of the United States, residing at Terre Haute, in the county of Vigo and State of Indiana, have invented certain new and useful Improvements in Adjustable Ladder-Brackets; 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to an adjustable ladder bracket and has for its object to provide an extension ladder and a bracket so constructed and arranged that a rigid platform can be constructed in connection with the ladder to be used by mechanics and others for various purposes.

This invention also has for its object to provide a novel construction and arrangement of the extension ladder in such manner that it can be employed in the capacity of a step ladder, and also if desired maintain a platform at the top of the ladder or at any other desired point thereon.

With these objects in view my invention consists in the novel construction and arrangement of the extension ladder; and my invention also consists in the novel construction and arrangement of the ladder bracket.

My invention also consists in certain other novel details of construction and in combination of parts all of which will be first fully described and afterward specifically pointed out in the appended claims.

Referring to the accompanying drawings: Figure 1 is an elevation showing the ladder used in the capacity of a step ladder and having the adjustable ladder bracket and platform arranged at the top thereof. Fig. 2 is a vertical sectional view taken on line 2—2 of Fig. 1. Fig. 3 is an elevation showing the ladder and ladder brackets supporting a platform. Fig. 4 is a perspective view of one of the plates employed on one section of the ladder. Fig. 5 is a perspective view of one of the pivoted retaining plates. Fig. 6 is a perspective view of one of the plates on one section of the ladder. Fig. 7 is a top plan view illustrating the bracket applied to the ladder. Fig. 8 is a front elevation of the ladder and bracket, and, Fig. 9 is a side

elevation partly in section showing the device employed as an extension ladder.

Like numerals of reference indicate the same parts throughout the several figures in which:

1 indicates the ladder comprising the three sections 2, 3 and 4, the section 2 being the bottom section as shown in Fig. 9, the section 3 being the intermediate section, and the section 4 being the top or highest section. Each of the sections is provided with rungs 5 as clearly shown in the several figures.

The bottom section 2 is provided at its top at each side thereof with a plate 6, said plate being shown in Fig. 4, and is secured to the section 2 by screws 7 as shown in Fig. 2. The plate 6 is provided with a lug or projection 8, and pivoted on said plate at 9 is a pivoted retaining plate 10, said pivoted plate 10 being secured to the plate 6 and to the lower ladder section 2 by means of a bolt 11; and as will appear from Fig. 5 the plate 10 is provided with a curved slot 12 through which the lug or projection 8 of the plate 6 passes as is clearly shown in Fig. 2. Formed on the plate 10 is a face or flange 13, said face or flange 13 being for the purpose of retaining the intermediate section 3 as clearly shown in Figs. 1 and 9.

Carried on the upper end on each side of the intermediate section is a plate 14, said plate being shown in perspective in Fig. 6 and in elevation in Fig. 9, said plate being provided with flanges 15 between which the intermediate section 3 enters, and said plate is secured to said section by means of screws or any other approved manner. As will appear from Figs. 6 and 9 the plate 14 is provided with a curved slot 16 within which slot the lug or projection 8 of the plate 6 enters as is clearly shown in Figs. 1 and 2.

As will appear from Fig. 7 a longitudinal angle iron or strip 17 is arranged on the inside of each side piece of the intermediate section 3, and a similar angle iron 18 is provided on the inner edge of each side piece of the top ladder section 4 as is clearly shown in Fig. 8. Each of the angle irons or strips 17 or 18 is provided with slots 19 as clearly shown in Figs. 8 and 9.

Carried on the upper section 4 near the bottom thereof as shown in Figs. 8 and 9 is a guiding piece 20, said guiding piece extends transversely across the section 4 and is rigidly secured thereto as by screws 21

or in any other approved manner. Each end of the guiding piece 20 is provided with a vertical slot 22 through which the angle iron or strip 17 on the intermediate section 3 slides, as seen in Fig. 7 and as will appear from Figs. 8 and 9 a transverse rod 23 pivoted in lugs 24 on the piece 20 locks the upper section 4 and intermediate section 3 securely together by means of the extensions 25 entering the slots 19 in the angle iron or strip 17. By means of this construction the upper section 4 can slide on the intermediate section 3 and can be locked thereto at intervals as will be clearly apparent from Fig. 8.

Referring now to the ladder bracket 26 it will be seen that the same comprises a frame 27 having extensions 28 at each corner thereof, each extension 28 being provided with a vertical slot 29 as shown in Fig. 7, said slots being arranged for the purpose of allowing the bracket 26 to slide freely on the angle irons or strips 17 and 18 on the intermediate section 3 or top section 4, and by means of this construction the bracket 26 can be arranged on either section desired as shown in Figs. 1 and 3. Referring to Fig. 3 it will be seen that the bracket 26 is carried on the intermediate section 3, while an identical bracket 26 is carried on the top or upper section 4 when it is desired to arrange the ladder for the purpose of forming a platform or scaffold as illustrated in Fig. 3, it being clearly understood that in this instance two ladder brackets 26 are required.

Pivoted on the frame 27 of the bracket 26 at 28' is the bracket arm 29', said bracket arm being provided in its top edge with a series of notches 30; and pivoted to the frame 27 below the arm 29' is the supporting arm 31, said supporting arm 31 being provided at its outer end with a loop 32 through which the bracket arm 29' passes as is clearly shown in Figs. 1 and 3, a set screw 33 being provided in the loop 32 for engagement with the bracket arm 29, it being understood that the top of the loop 32 enters one of the notches 30 in the arm 29 and is held therein against movement by means of the set screw 33.

Pivoted at the bottom of the frame 27 as shown in Fig. 8 is a rod 34, said rod being provided with extensions 35 on each end thereof for the purpose of entering the perforations or slots 19 in the angle irons or strips 17 and 18, and by means of this construction the ladder bracket is locked to the ladder section at any desired point thereon.

When employing the ladder in the capacity shown in Fig. 3, a plank or platform 36 is placed on the ladder brackets 26 and a bolt 37 is employed at each end of the plank or platform 36, said bolt passing through each of the frames 27 of each bracket and entering the ends of the plank or platform

36 as clearly shown in Fig. 3 for the purpose of more securely tying or locking the plank or platform 36. I provide two clips 38 secured to the plank 36 through which the bracket arms 29' pass, a set screw 39 being employed in each clip 38 for securely locking the same to the bracket arms 29'.

When employing the ladder in the capacity shown in Fig. 1 the supporting arm 31 is carried along the bracket arm 29' and is caused to enter a notch 30 which will cause the bracket to maintain a horizontal position, and a small platform or plank 40 is secured to the bracket arm 29' by means of a clip 41 and set screw 42 the same as has just been described in reference to Fig. 3.

Having thus described the several parts of my invention its operation is as follows: When employing the device as an extension ladder the intermediate section 3 is slid along the lower section 2 and as the lower section 2 is provided with two hooks 43 arranged on one of the rungs 5 said hooks are made to engage one of the rungs 5 of the intermediate ladder section 3 thus securely tying the sections together at any desired point as shown in Fig. 9. The upper or top section 4 is then slid along the intermediate section 3 and by means of the pivoted rod 23 on the guiding piece 20 the projections 25 on the ends of said rod are caused to enter the slots 19 in the angle iron or strip 18 of the intermediate section 3 thus securely locking the said upper section 4 and intermediate section 3 together at any desired point.

When employing the device in the capacity of a step ladder as shown in Fig. 1 the hooks 43 on the lower section 2 are disengaged from the rung 5 of the intermediate section 3 and the lower section 2 is slid along the intermediate section 3 until the top ends of each section are substantially even as shown in Fig. 1. When in this position and by further moving the sections in the relative inclinations indicated the laterally opening upper end of the curved slot 16 of the plate 14 on the intermediate section 3 is carried into position as shown which allows the lug or projection 8 of the plate 6 on the lower section 2 to pass into the curved slot 16 of the plate 14 and as the face or flange 13 of the pivoted plate 10 is in engagement with the outer edge of the intermediate section 3 the two sections are securely locked together as is at once apparent. By means of this construction and by means of the slot 12 in the pivoted plate 10 a considerable range of angularity is possible between the lower section 2 and intermediate section 3. However to enable the device to assume a rigid position the lower section 2 and intermediate section 3 should be carried into position shown in Fig. 1 in which position the lug 8 of the plate 6 rests at the end of the curved

slot 16 in the plate 14. The lower section 2 and intermediate section 3 being arranged as just described the top section 4 is raised or lowered on the intermediate section 3 to any desired point and is locked thereto by means of the projections 25 of the pivoted rod 23 entering the slots 19 in the angle iron or strip 18 as clearly shown in Fig. 8. When the sections have been thus arranged the ladder bracket 26 is moved on the upper section 4 to any desired point and locked in the manner as just described.

When employing the device in the capacity of a scaffold or platform as shown in Fig. 3 the ladder sections are disengaged one from the other, and one ladder bracket 26 is applied to the intermediate section 3 while an identical bracket 26 is applied to the upper ladder section 4, and said brackets being locked to said sections a platform or plank 36 is applied to the brackets in the manner as above described. By means of this construction the ladder can be employed either in the capacity of an extension ladder, in the capacity of a step ladder or in the capacity of a rigid platform or scaffold, it being of course understood that the ladder bracket 26 can be disengaged from the ladder when employing the same in the capacity of a step ladder, and the ladder bracket 26 may or may not be employed in connection with the device when it is being used in the capacity of an extension ladder.

Having thus fully described my invention what I claim as new and desire to secure by Letters Patent of the United States, is:—

1. In a device of the character described, the combination with ladder-sections, of means providing for a sliding connection therebetween and locking means therefor including a pivoted member, means for suspending said pivoted member from a ladder-section, said pivoted member having lateral arcuate extensions having a locking action upon said sliding means of connection.

2. In a device of the character described, the combination with ladder sections, of means providing for a sliding connection

therebetween and locking means therefor including a transverse bar fixed to one of said ladder-sections, said transverse bar member having lugs and a pivoted member hung in said lugs and provided with arcuate lateral extensions having a locking action upon said sliding means of connection.

3. In a device of the character described, the combination with ladder sections, of means providing for sliding connection therebetween and locking means therefor including angular guide-members upon one of said sections, a transverse bar member having openings therein fixed to a second ladder-section, and a pivoted member hung from said transverse bar member and having arcuate lateral extensions received by said openings.

4. In a device of the character described, the combination with ladder-sections, of means providing for sliding connection therebetween, and locking means therefor including guide-members upon one of said ladder-sections, a transverse bar member fixed to a second ladder-section and having outstanding lugs, a pivoted member hung in said lugs and having lateral arcuate extensions, said guide members having apertures therein receiving said extensions for effecting a locking action therewith.

5. In a device of the character described, the combination of ladder-sections, one ladder-section having vertical strips along its inner surface, a guiding member fixed to a second ladder-section and having slots in its ends receiving said vertical strips, a pivoted rod-member having arcuate lateral extensions, said guiding member having outstanding lugs forming bearings for said pivoted rod-member and said vertical strips having apertures therein receiving said extensions.

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

FRANCIS T. PETERS.

Witnesses:

ORA D. DAVIS,
MABEL WARNER.