

E. HUDSON.
STEP LADDER.

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947,409.

Patented Jan. 25, 1910.

Fig. 1.

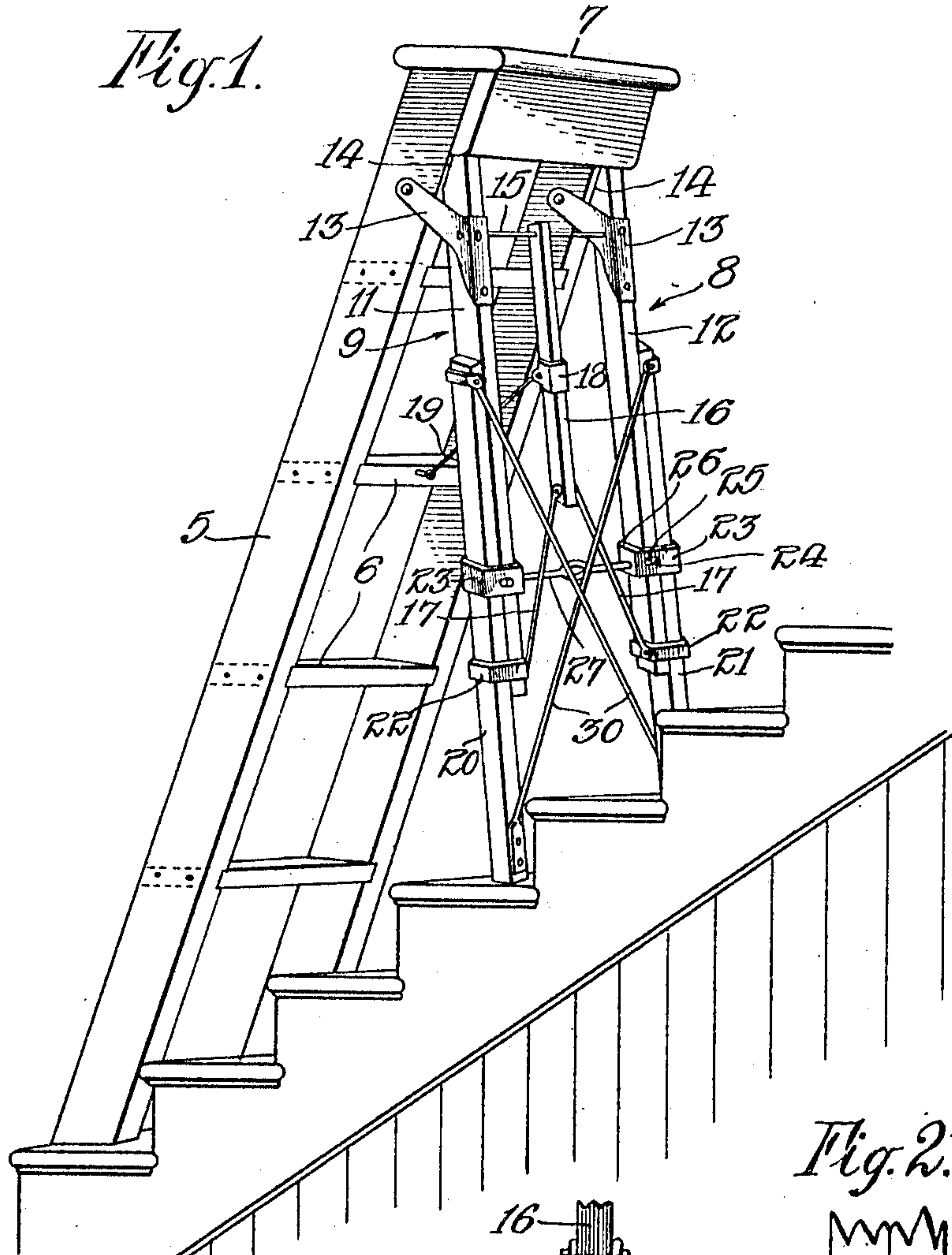
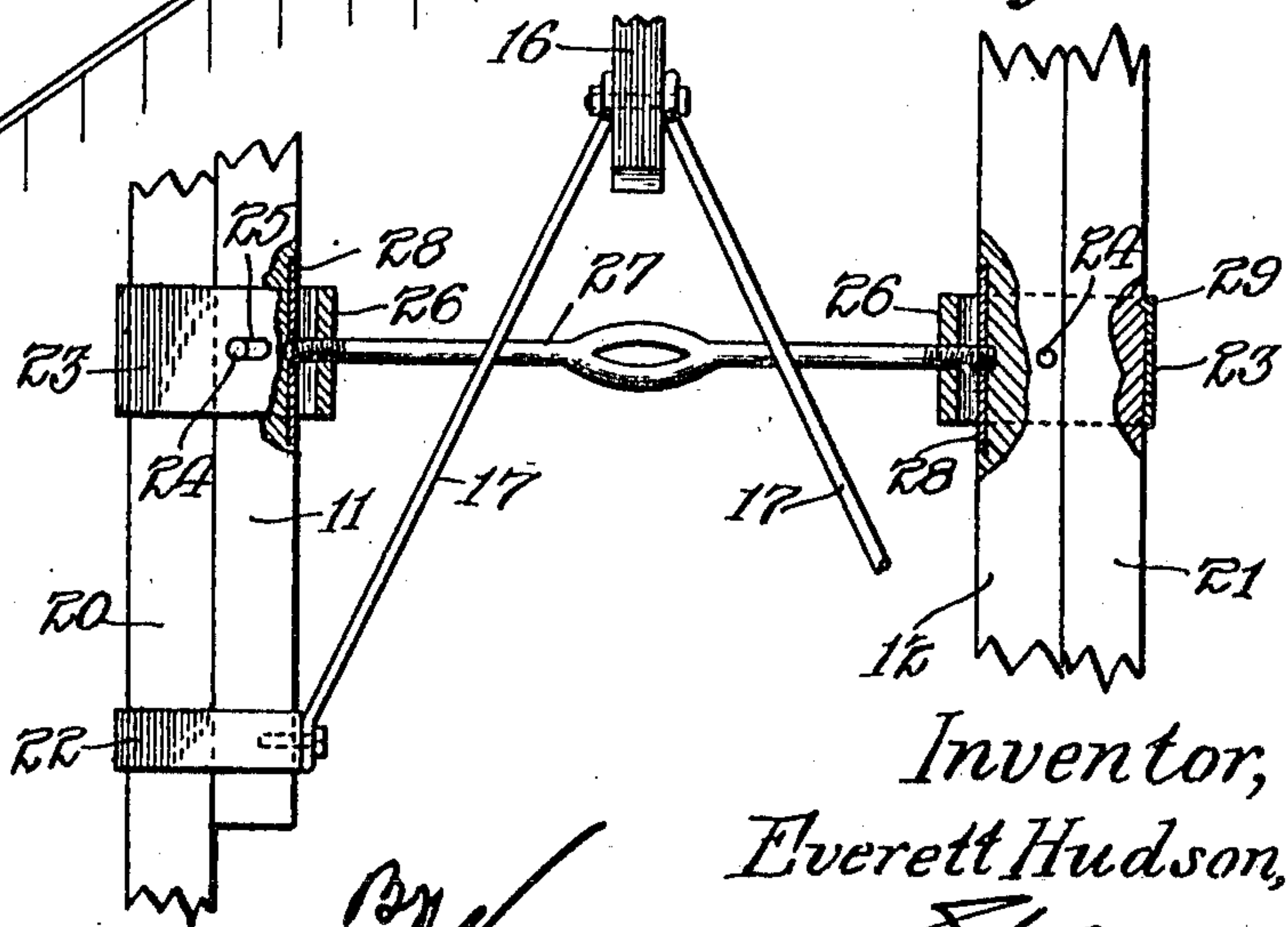


Fig. 2.



Witnesses,

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UNITED STATES PATENT OFFICE.

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STEP-LADDER.

947,409.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, EVERETT HUDSON, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Step-Ladders, of which the following is a specification.

My invention relates more particularly to that class of ladders which are provided with hinged supporting legs, and a prime object thereof is to provide a ladder in which the length of the supporting legs or braces are adjustable, thus enabling me to utilize the ladder on uneven surfaces, such as stairs, hills and like places.

In the accomplishment of the above objects I preferably employ a ladder of usual construction provided with hinged braces or supports, each support being divided into two sections, suitable adjusting mechanism being secured thereto so as to enable a user to instantly adjust the supports to the foundation on which the ladder rests.

In the drawings hereto annexed and forming a part of this specification, Figure 1—is a perspective view of my improved ladder used in a typical situation. Fig. 2—is a detail view of a portion of the brace rods with the adjusting mechanism secured thereto, portions being in section.

Referring more particularly to the drawings, 5 designates the side rails of a ladder of usual form, 6 the steps secured therebetween, and 7 a stop board secured transversely to the upper rear faces of the side rails. Pivotally secured to the side rails and adjacent to the board 7 is an adjustable ladder supporting frame 8 preferably formed of two members, an upper member 9 and a lower member 10 secured thereto. Member 9 consists of two supporting bars 11 and 12 pivotally secured to the side rails of the ladder by means of metallic hinges 13 of any preferred form. The upper ends of the bar are chamfered as at 14 so that they will form a bearing surface against the rails of the ladder when the supporting frame is in its extended position. Supporting bars 11 and 12 of the upper member of the frame are provided at a point adjacent the hinges with a horizontally disposed bar 15 to which is pivotally secured in the center thereof a downwardly depending wooden bar 16, to the ends of which are secured by bolts brace rods 17 which extend downwardly at an angle and are rigidly secured to the ends of

the bars 11 and 12. Mounted on bar 16 is a yoked slide 18, to which is pivotally secured a bar 19, the other end of which is pivotally secured to one of the steps of the ladder and which is adapted to limit the outward movement of the supporting frame.

Slidably secured to the outer side faces of supporting bars 11 and 12 are bars 20 which form the lower member of the supporting frame. These bars are held in slidable engagement with the upper bars 11 and 12 by means of rectangular bearing sleeves 22 which embrace the bars of both members, and by metallic bearing sleeves 23 which are loosely mounted on the bars of both members and directly above sleeves 22. These sleeves or bearings are adapted to be held in place on the bars of both members by pins 24 mounted on bars 11 and 12. The pins project through transverse slots 25 formed in sleeves 23 which permit of a transverse movement of the sleeves, thereby permitting an engagement or disengagement of the two members of the supporting frames. The inner opposite sides 26 of sleeves 23 are preferably thicker than the other sides so as to form bearings for a horizontally disposed locking rod 27, the ends of which are provided with a right and left hand screw-thread respectively. The end of this rod is adapted to enter screw-threaded apertures formed in the center of the sides 26 and thence through apertured plates 28 secured to the bars 11 and 12 contacting therewith. The inner faces of the outer sides may be provided with spurs 29 to assist in locking the bars of the supporting members together. The bars of the lower supporting member are preferably provided with cross-braces attached to the upper and lower ends thereof.

When it is desired to place the ladder on an uneven surface, such as a flight of stairs as illustrated in the drawings, the locking rod 27 is rotated until sleeves 23 are released from engagement with bars 20 and 21 so that the lower frame is free to move on the upper. When the lower frame has been properly adjusted, the bar 27 is again rotated to lock the frames together when the ladder is in position for use.

It will be observed from the foregoing description that I have produced a ladder that will admirably subserve the purpose for which it was designed.

Having described my invention, what I

claim as new and desire to secure by Letters Patent is:—

In a device of the class described, a ladder construction, a pair of pivoted adjustable
5 supports therefor, said supports divided into two members slidably connected together, bearing sleeves loosely embracing the two members, said sleeves being provided with screw-threaded apertures, and a threaded
10 locking bar, the ends of said bar being in screw-threaded engagement with the apertures in the sleeve and bearing against the

oppositely disposed faces of two of the supporting members, whereby the sleeves may be forced in locked engagement with said 15 members.

In witness that I claim the foregoing I have hereunto subscribed my name this 15th day of January, 1909.

EVERETT HUDSON.

Witnesses:

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