

S. JONES.

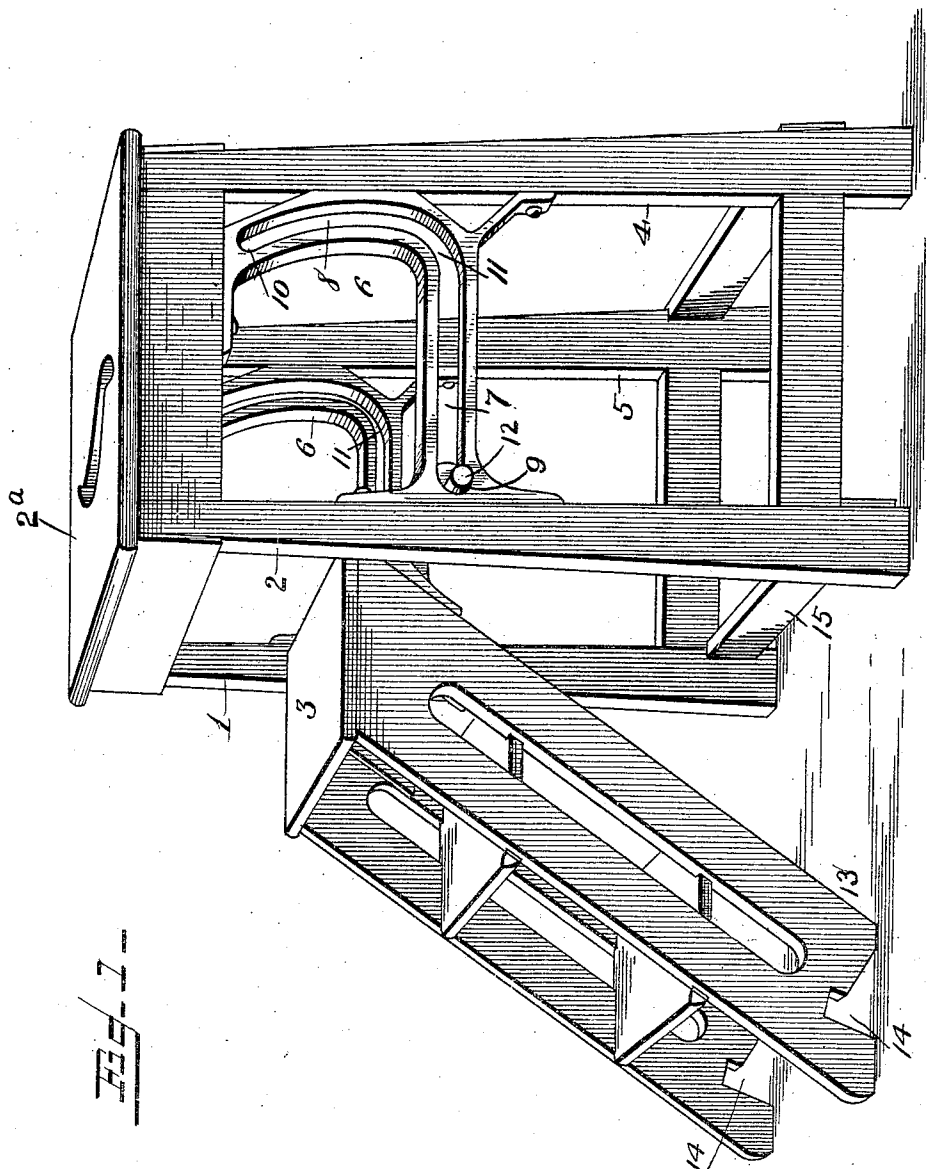
STEP LADDER.

APPLICATION FILED JUNE 3, 1909.

934,316.

Patented Sept. 14, 1909.

2 SHEETS—SHEET 1.



Witnesses

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STEP LADDER.

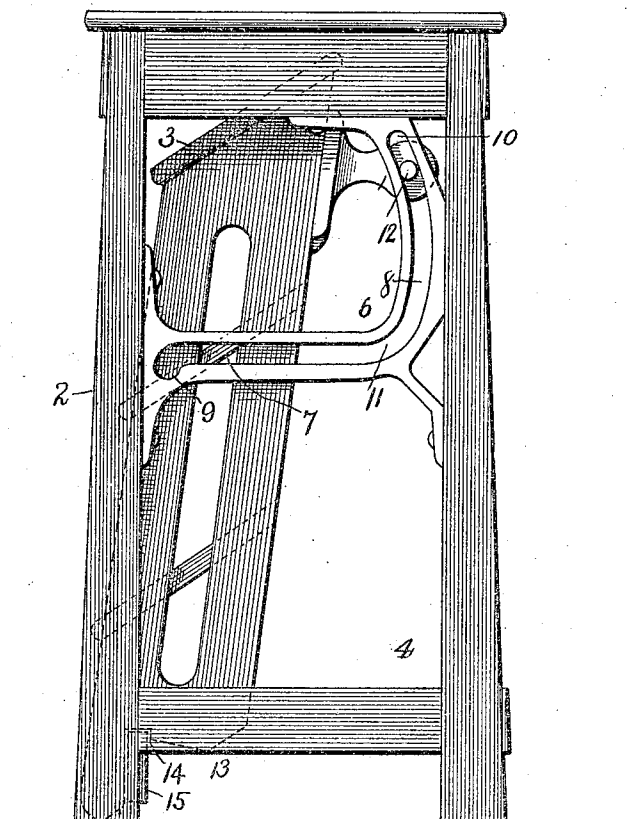
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2 SHEETS—SHEET 2.

Fig. 2.



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UNITED STATES PATENT OFFICE.

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STEP-LADDER.

934,316.

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To all whom it may concern:

Be it known that I, SIMON JONES, of New York, in the county and State of New York, have invented certain new and useful Improvements in Step-Ladders, of which the following is a specification.

This invention relates to a new and useful improvement in step ladders, more especially the kind to be used in libraries and other places where there is considerable use of ladders and where they have to be frequently moved from point to point.

The invention is designed to produce a step ladder in which the supporting-frame and step-portion are not only securely locked together when in use, but also when not in use to be compactly united and at the same time locked in such compacted position against accidental dislodgment.

In the accompanying drawings, which form a part of this specification, Figure 1 represents a perspective view of a step ladder provided with the invention ready for use. Fig. 2 represents a side view of a step ladder, provided with the invention, when the parts are compacted together for packing or transportation.

In these drawings, the numeral 1 represents a step ladder consisting of the stationary-frame or stationary-portion 2 and the step-portion 3. The stationary-frame or stationary-portion 2 has a top or upper platform 2^a and sides 4 and 5. Secured to and inside of the sides 4 and 5 of the stationary-frame 2 are the trunnion-tracks 6. These trunnion tracks consist of a horizontal portion 7 and a vertical portion 8. At the front end of the horizontal portion 7 there is made a slight downward depression 9. The vertical portions 8 are made with a slight curvature from their top ends 10, this curvature increasing so that it has a sharp turn 11 where the horizontal portion 7 and the vertical portion 8 run into each other, so that there is a continued trunnion slot from the depression 9 clear around an end 10 with a sharp turn at 11 and a diminishing turn toward the upper end 10 of the upper portion of the slot.

The step-portion 3 of the step ladder is provided at the top of each side with a trunnion 12 and at the bottom 13 of each side with a notch 14. The trunnions 12 of the step-portion 3 are placed in the trunnion tracks 6 resting in the slots of these tracks and extending therethrough. The notches

14 of the step-portion 3 are adapted to fit snugly over the bottom rail 15 of the stationary-portion 2 of the step ladder.

In use, the step ladder is arranged as shown in Fig. 1. Here the trunnions 12 rest in the depressions 9 of the trunnion tracks 6 so that the step-portion is effectually locked against any accidental dislodgment, and the ladder may be used in perfect safety. When it is desired to compact the ladder for transportation or packing, the steps are slightly lifted so as to remove the trunnions 12 from the depressions 9. Then the step-portion 3 is pushed toward and within the stationary-portion 2, the trunnions 9 sliding along the horizontal portions 7 of the trunnion tracks 6. As soon as the trunnions reach the sharp turn 11 of the slots in the trunnion tracks, the step-portion 3 is given an upward movement which continues until the trunnions 9 reach the upper ends 10 of the vertical portions 8 of the slots of the trunnion tracks 6. The length of the vertical portions 8 of the slots should be such that when the trunnions 9 reach the extreme top end of these vertical portions 8, the lower end 13 of the step-portion 3 may be clear, the bottom rail 15 of the stationary-portion 2 of the step ladder allowing the notches 14 to come over the top of the bottom rail 15 of the stationary-portion 2 of the step ladder. As soon as this is done, the step-portion is allowed to drop so that the notches 14 fit over the bottom portion 15 of the stationary-portion of the step ladder, thus firmly locking the step-portion from any accidental dislodgment from the stationary-portion 2. To withdraw the step-portion 3 from the stationary-portion 2, the step-portion 3 is raised sufficiently for the notches 14 to clear the bottom rail 15, the play of the trunnions 9 at the extreme top of the slot permitting this lift. The step-portion 3 is then pulled out from the stationary-portion 2, the trunnions 9 sliding down and along the slots in the trunnion tracks and falling into the depressions 12, when the parts are again securely locked, as shown in Fig. 1.

Having described my invention, what I claim is:

1. A step ladder consisting of a stationary-portion and a movable step-portion, the stationary-portion having a top or upper platform and two sides, and on each side trunnion tracks provided with a slot con-

sisting of a horizontal and a vertical portion, the vertical portion having a slight curve and the slot having a sharp curve between the horizontal portion and the vertical portion, the horizontal portion being provided with a depression at its front end, and the step-portion provided with trunnions adapted to the slots of the trunnion tracks.

- 10 2. A step ladder consisting of a stationary-portion and a step-portion, the stationary-portion having a top or upper platform and two sides, and on the sides provided

with trunnion tracks and the step-portion provided at the top with trunnions adapted to such tracks and at the bottom with a notch adapted to engage the lower part of the stationary portion. 15

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses. 20

SIMON JONES.

Witnesses:

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