

(No Model.)

R. WALKER.
STEP AND EXTENSION LADDER.

No. 302,066.

Patented July 15, 1884.

FIG. 3

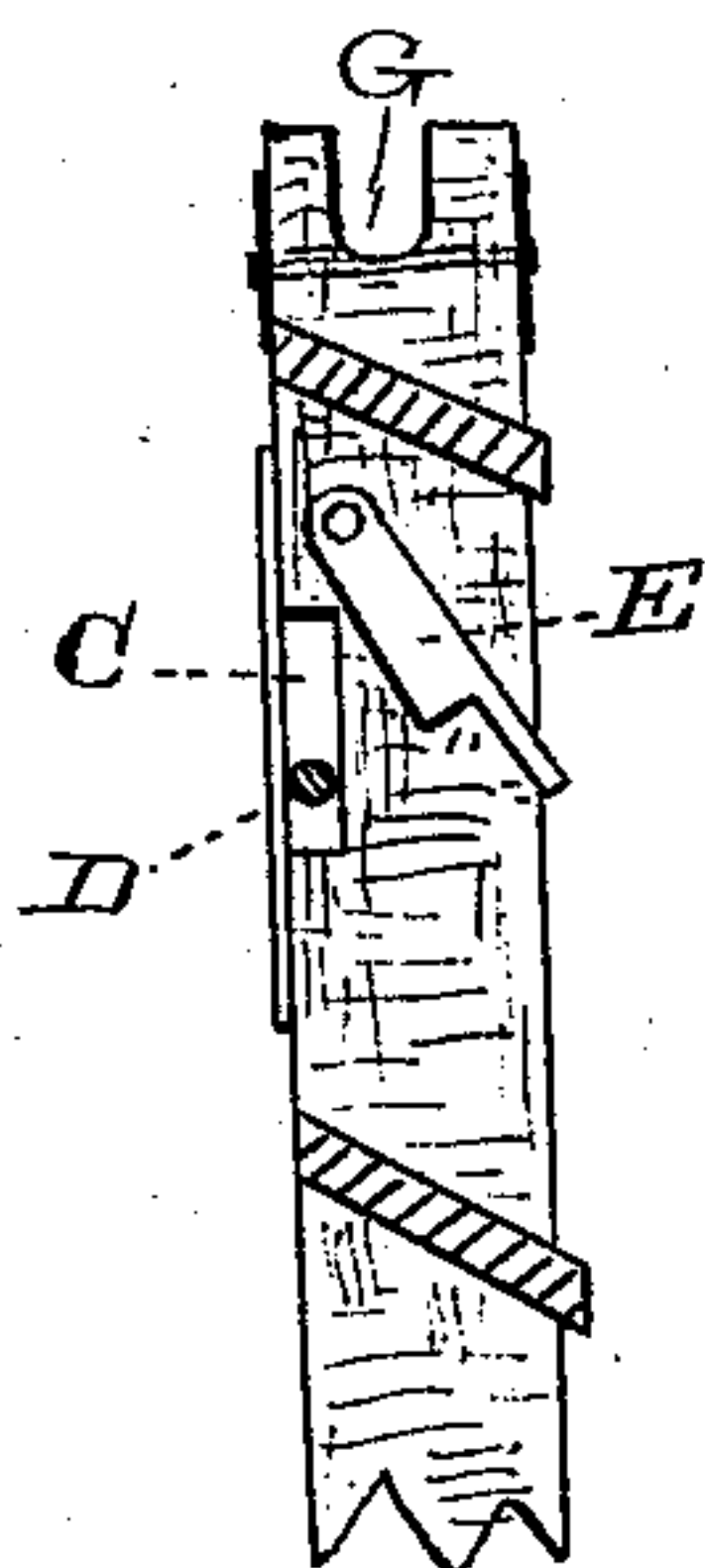


FIG. 2

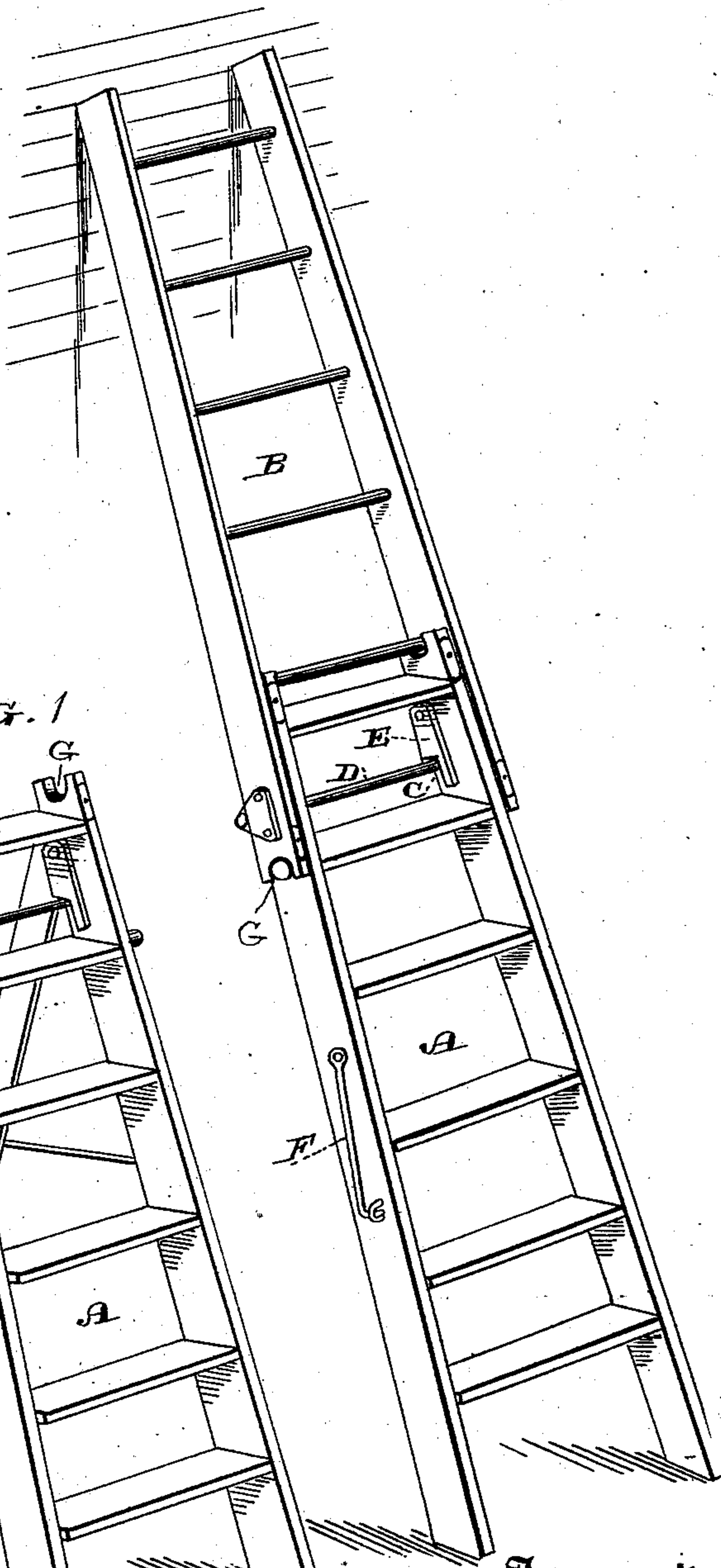
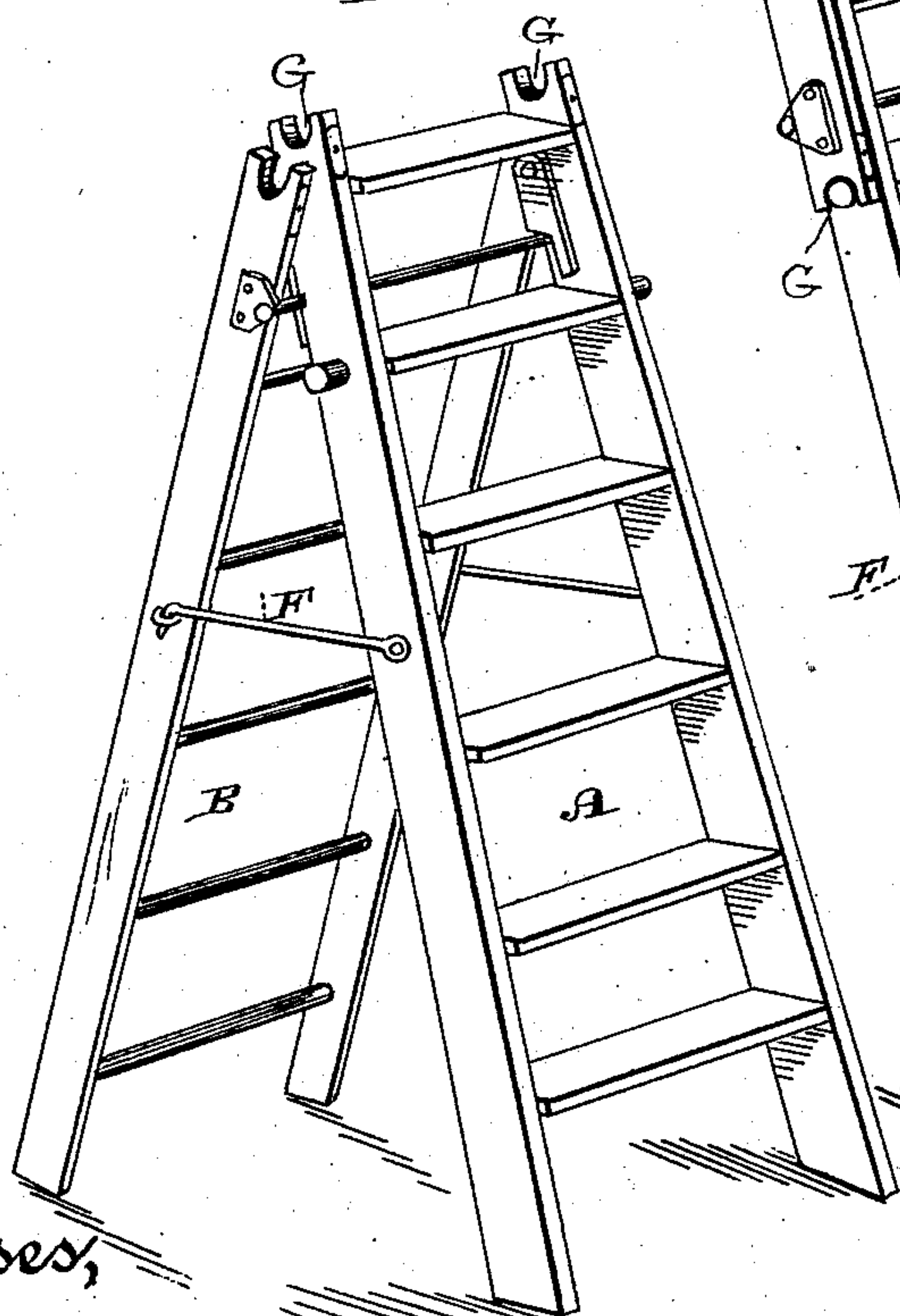


FIG. 1



Witnesses,
Geo. H. Strong,
J. T. House.

Inventor,
Robt. Walker
By
Dewey & Co.
attorneys

UNITED STATES PATENT OFFICE.

ROBERT WALKER, OF OAKLAND, CALIFORNIA.

STEP AND EXTENSION LADDER.

SPECIFICATION forming part of Letters Patent No. 302,066, dated July 15, 1884.

Application filed April 24, 1884. (No model.)

To all whom it may concern:

Be it known that I, ROBERT WALKER, of the city of Oakland, county of Alameda, and State of California, have invented an Improvement in Step and Extension Ladders; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to a ladder which may be used as an extension or as a step ladder at will.

It consists of two ladder-sections united by a rod and slotted connections, so that the two parts being united at one end may be separated at the other, in a manner of an ordinary step-ladder; or by extending the two in line they may be locked together, so as to form a rigid continuous ladder of nearly double the length of either section.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a view of my device arranged as a step-ladder. Fig. 2 shows it extended. Fig. 3 is a detail of construction.

A and B are the two sections of my ladder. The part A may preferably have broad steps, like those of an ordinary step-ladder. Upon the back and near the upper end is formed a slot, C, through which a rod, D, passes. This rod is at its outer ends securely fixed to the sides of the section B, near the end which is adjacent to the section A, this section being wider than the section A, but just fits outside of it, as shown in Fig. 1. When the two sections stand as shown in this figure, the rod D is held at the lower part of the slot C and prevents it from moving by two latches, E, which are hinged to part A, so that they may be caused to swing down against the rod, and thus hold it.

The usual hooks, F, or similar appliance, may be used to prevent parts from separating when used as a step-ladder. When it is desired to form an extension-ladder, the latches are thrown back, so as to allow the rod D to slip to the upper part of the slot C. The ladders are then turned about this rod until they are in a straight line. The adjacent ends of each of the ladder-sections have semicircular notches or grooves G formed in them. The notches

in the upper end of the part A fit upon the lower round of the part B when the two sections are moved toward each other. The sides of section A lie between the sides of B. The notches in the ends of the sides B fit over the rounded extensions of the second step from the upper end of the part A, this extension projecting out through the sides, so that the notches may fit them, as in Fig. 2; or, if desired, independent projecting lugs may be fixed to either section to receive the notches in the ends. When the two sections have been pressed together, the rod D will slip down to the bottom of the slot C, and the latches E may again be pressed down, so as to hold the rod securely against the lower edge of the slot. The two sections are thus rigidly locked in line with each other, and form a ladder nearly double the length of either section and more rigid than if made in a single piece.

In order to strengthen the ends of the sections where the notches or grooves are made, short bolts pass through them from one edge to the other, and may be secured by nuts or by riveting long washers at each side, so that the strain upon these notches will not split the ends of the sections or break them off.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The section A, having slots C upon the rear side, and the latches E pivoted to it, in combination with the section B, the sides of which extend outside of A, and the rod D, secured to them and passing through the slots, substantially as herein described.

2. An extension-ladder consisting of sections A and B, having the ends notched so as to be locked upon the rounds of the sections, in combination with the locking mechanism, as described, by which the two parts may be held in place and prevented from separating, substantially as described.

In witness whereof I have hereunto set my hand.

ROBERT WALKER.

Witnesses:

S. H. NOURSE,
H. C. LEE.