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PATENTED OCT. 10, 1905.

J. B. LOCKERBY.
EXTENSION STEP LADDER.
APPLICATION FILED NOV. 2, 1904.

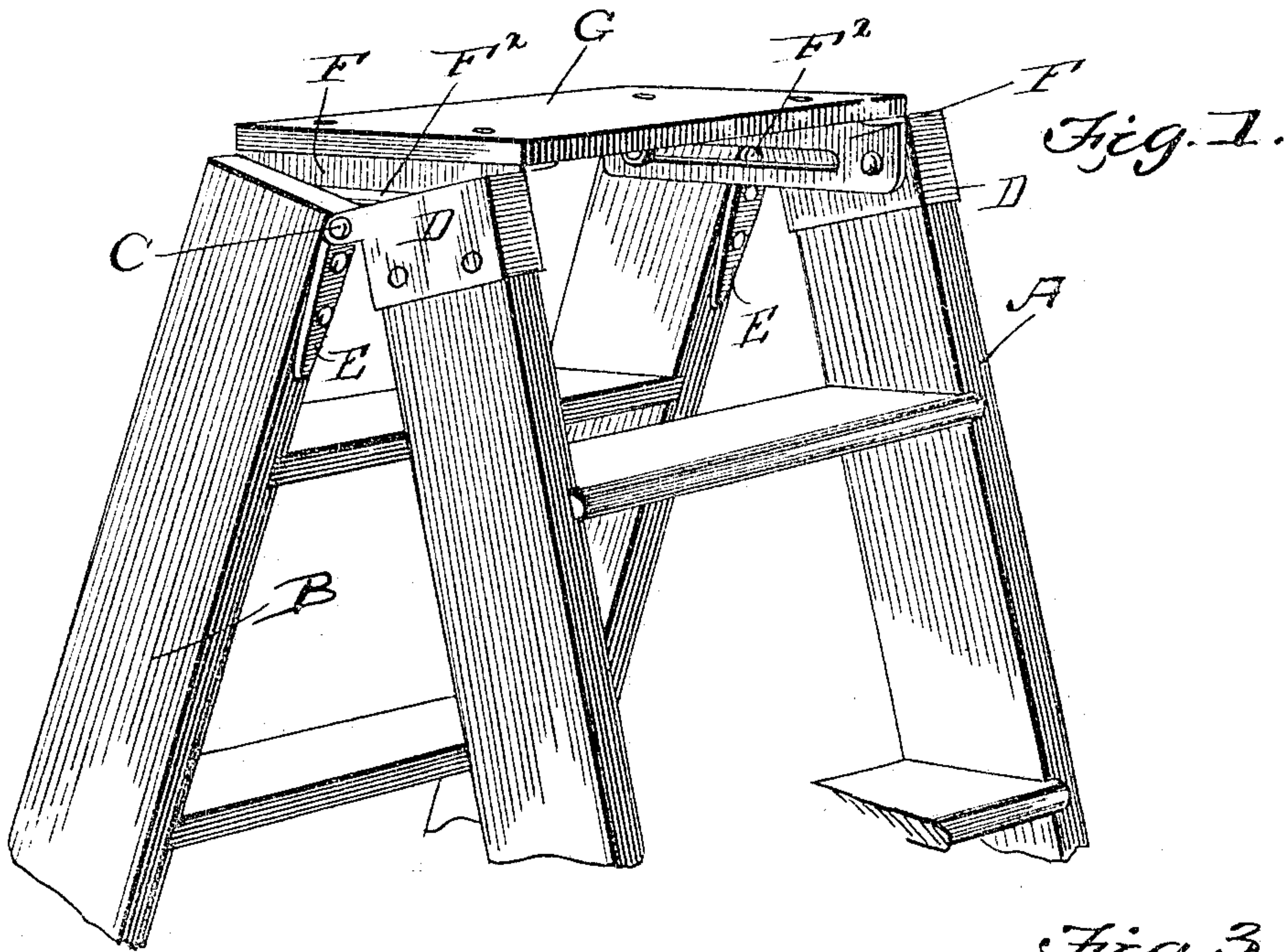


Fig. 2

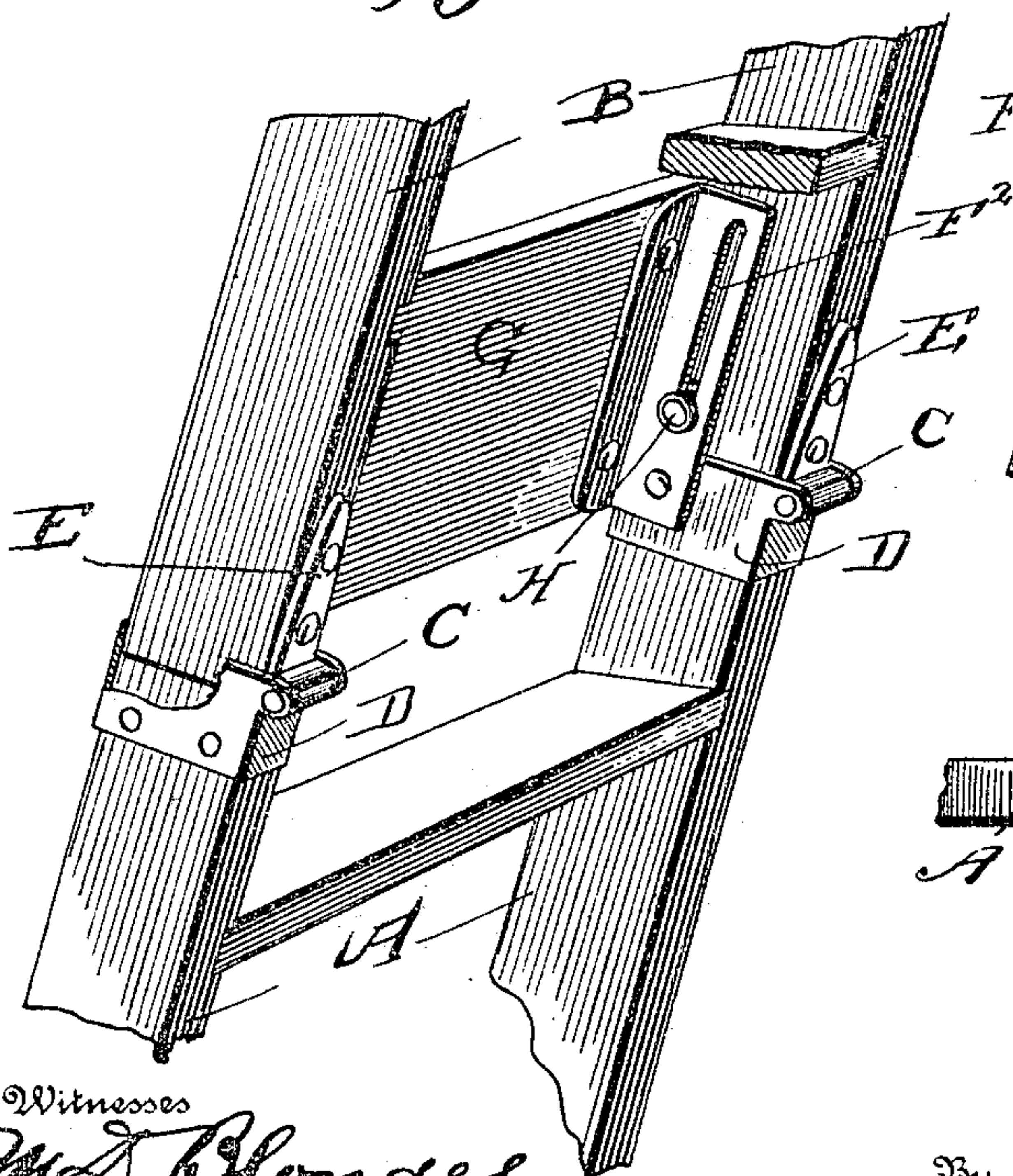


Fig. 3.

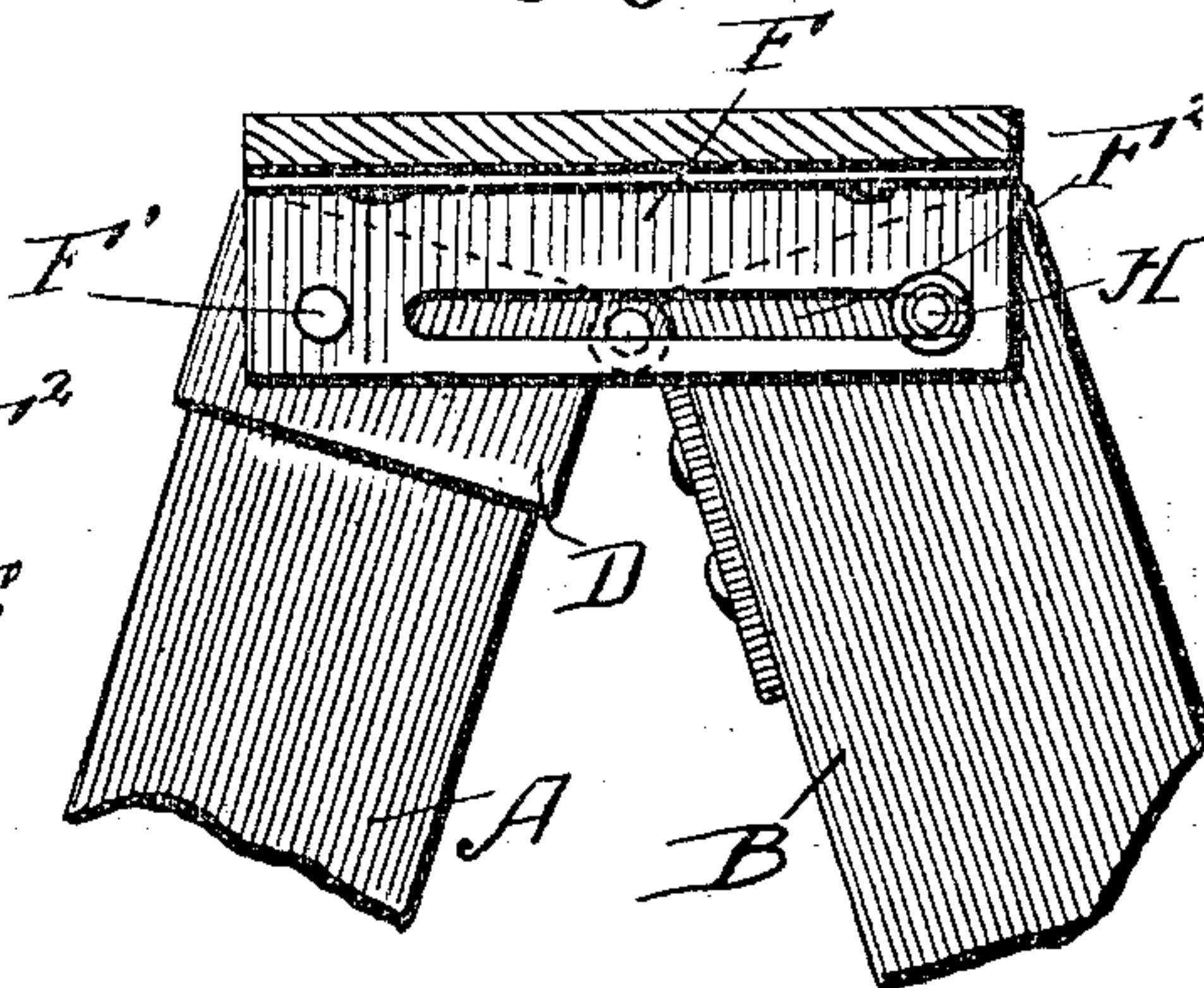
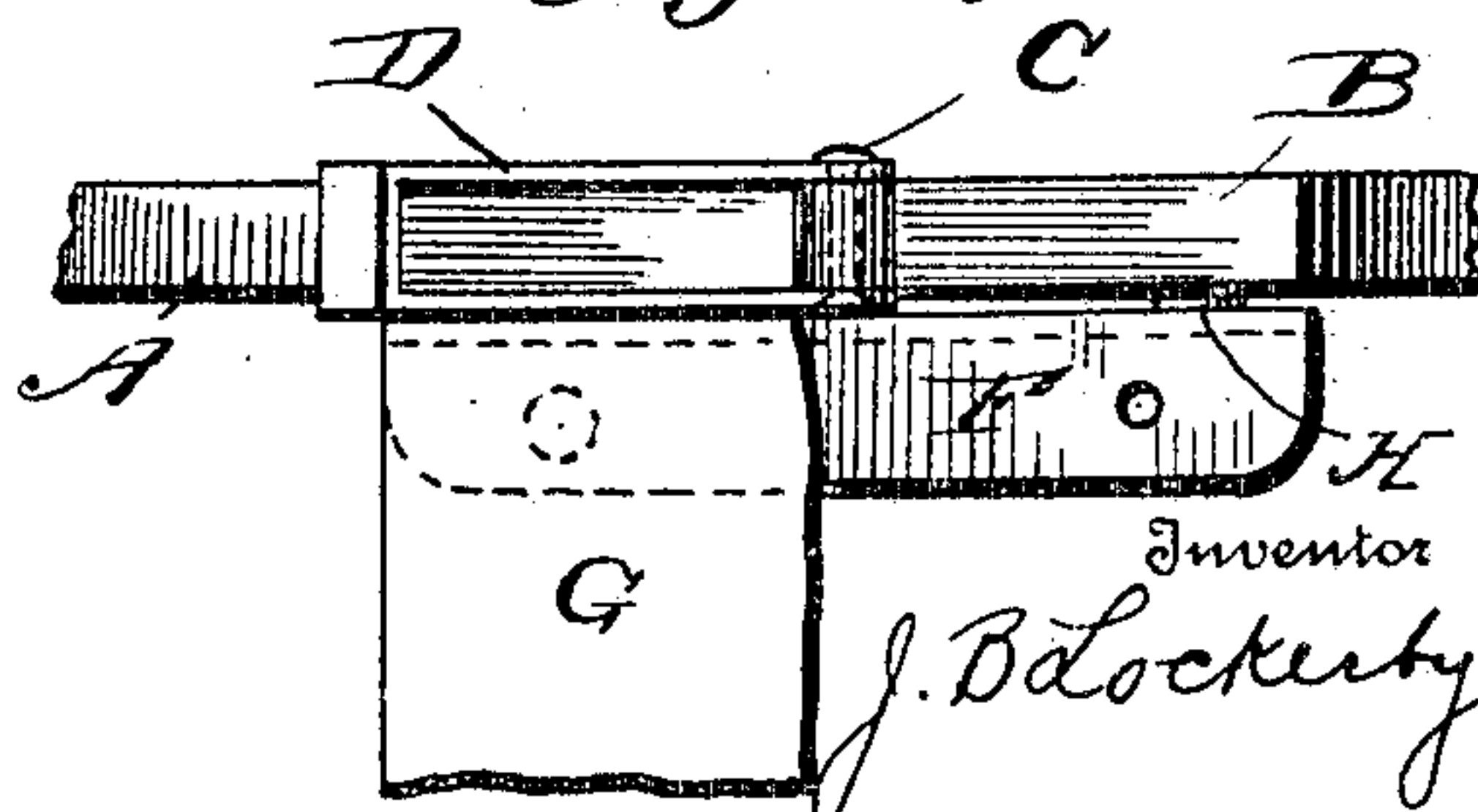


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE

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EXTENSION STEP-LADDER.

No. 801,531.

Specification of Letters Patent.

Patented Oct. 10, 1905.

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To all whom it may concern:

Be it known that I, JEROME B. LOCKERBY, a citizen of the United States, residing at Ithaca, in the county of Tompkins and State of New York, have invented a new and useful Improvement in Extension Step-Ladders, of which the following is a specification.

This invention relates generally to ladders, and more particularly to a combination step-ladder and extension-ladder, the object being to provide a simple and efficient form of connection between the sections of the ladder, whereby a shelf can be maintained in a horizontal position at the upper end of the ladder when used as a step-ladder and which will fold out of the way when the sections are shifted to produce an extension-ladder.

With these objects in view the invention consists in the novel features of construction hereinafter fully described, and pointed out in the claims.

In the drawings forming a part of this specification, Figure 1 is a perspective view showing my invention applied to the two sections of the ladder, said sections being arranged as a step-ladder. Fig. 2 is a view showing the parts arranged as an extension-ladder. Fig. 3 is a sectional elevation showing the parts arranged as a step-ladder; and Fig. 4 is a top plan view of one end, a portion of the shelf being broken away to disclose the flanged plate to which it is secured.

In carrying out my invention I employ two ladder-sections A and B, which are constructed the same as ladder-sections now in use. These sections are hinged at C, one section of the hinge D being in the form of a rectangular ferrule, as shown, and to which the leaf E is connected. The section D of the hinge is connected to section A of the ladder, and the leaf E is connected to section B of the ladder. It will of course be understood that there are two hinges, one for each side rail of the ladder. The rectangular ferrule-section D projects above the edges of the side rails of the section A, as most clearly shown in Fig. 2, so that when the sections are turned to provide an extension-ladder the ends of the section B fit into the ferrules D. This makes a much tighter joint and prevents wobbling of the parts. In order to provide a shelf which will always be maintained in a horizontal position

when the device is used as a step-ladder and which will fold out of the way when the sections are extended, I employ two flanged plates or bars F, hinged at F' to the hinged section D, upon the inner face thereof, and slotted longitudinally, as shown at F², for the greater portion of its length, said slot being produced in the vertical member of the plate and in an alinement with the pivot F'. The shelf G is rigidly secured to the horizontal member or flange of the plate. A headed stud or pin H is secured to each side rail of the section B, adjacent the hinged end, which headed stud is adapted to engage the slotted plate, so that as the sections are shifted the plate will be guided to its proper position, and it will be understood that when the sections are arranged as a step-ladder the flanged plates, and consequently the shelf, will be held in a horizontal position, no matter what be the angle between the sections, and when the sections are adjusted to provide an extension-ladder, as shown in Fig. 2, the flanged plates, and consequently the shelf, are brought into alinement with the side rails of the ladder, and consequently will not interfere with the proper use of the said extension-ladder.

It will thus be seen that I provide an exceedingly cheap, simple, and efficient form of connection between the ladder-sections and which will enable said sections to be arranged in the manner and for the purposes hereinbefore described.

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

1. The combination with the ladder-sections hinged together, of the flanged, slotted plates pivotally connected to one section, the headed studs connected to the other section and adapted to engage the slots in the plate, and the shelf connected to the flanged plates, as set forth.

2. The combination with the ladder-sections, of the hinges connecting said sections, one member of each hinge comprising a rectangular ferrule, the flanged slotted plates connected to said ferrules, the headed studs connected to the other section of the ladder and adapted to engage the slotted plates, and the shelf connected to said slotted plates as set forth.

3. The combination with the ladder-sections,

of the hinges connecting said sections, one member of each hinge comprising a rectangular-shaped ferrule, the ends of said ferrule projecting beyond the ends of the side rails
5 of the ladder-section to which they are attached, the flanged and slotted plates pivotally connected to said ferrules, the shelf con-

nected to the flanged plates, and the studs carried by the other ladder-section and adapted to engage the slotted plates as set forth.

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