

T. Vogelmann,

Step Ladder.

No. 67,235.

Patented July 30, 1867.

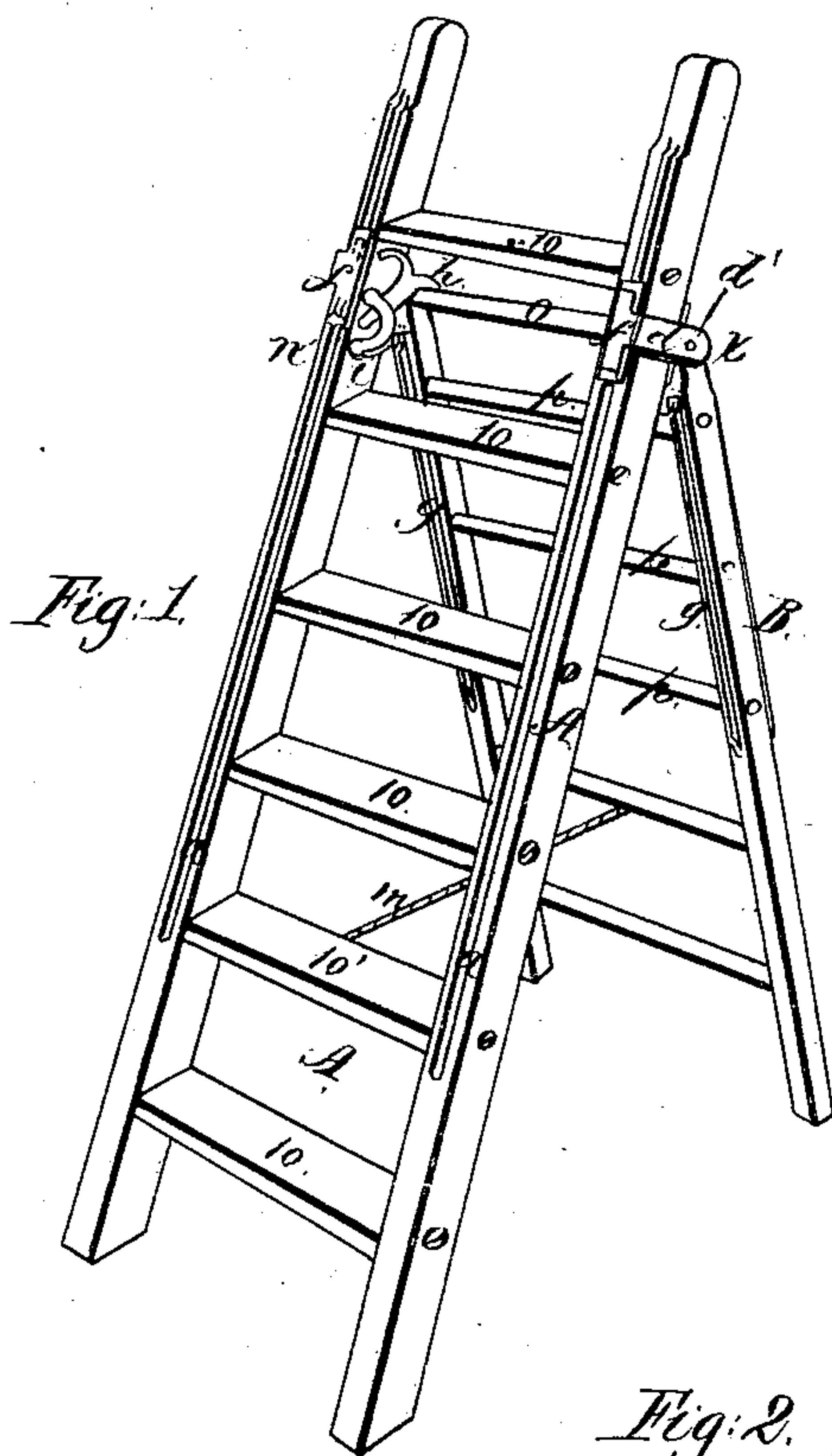


Fig. 1.

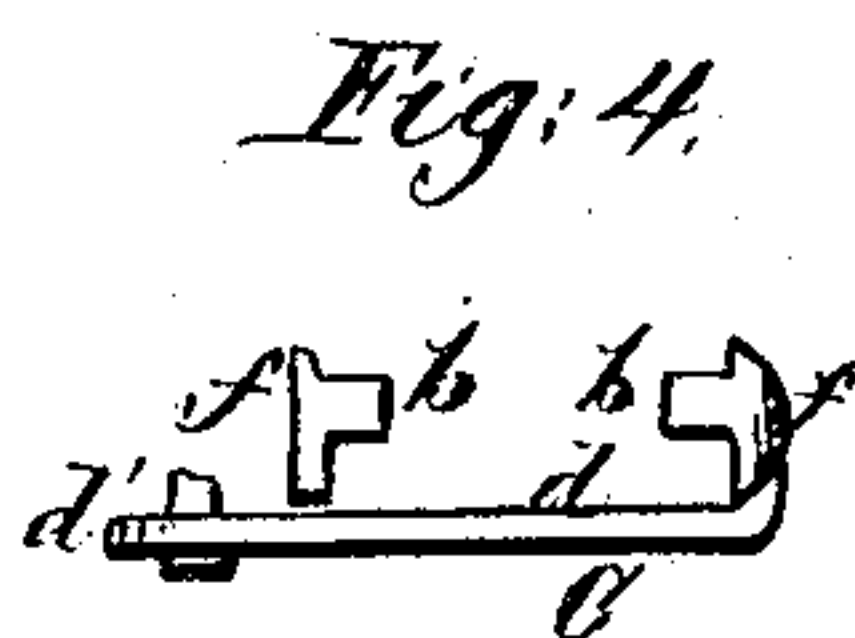


Fig. 4.

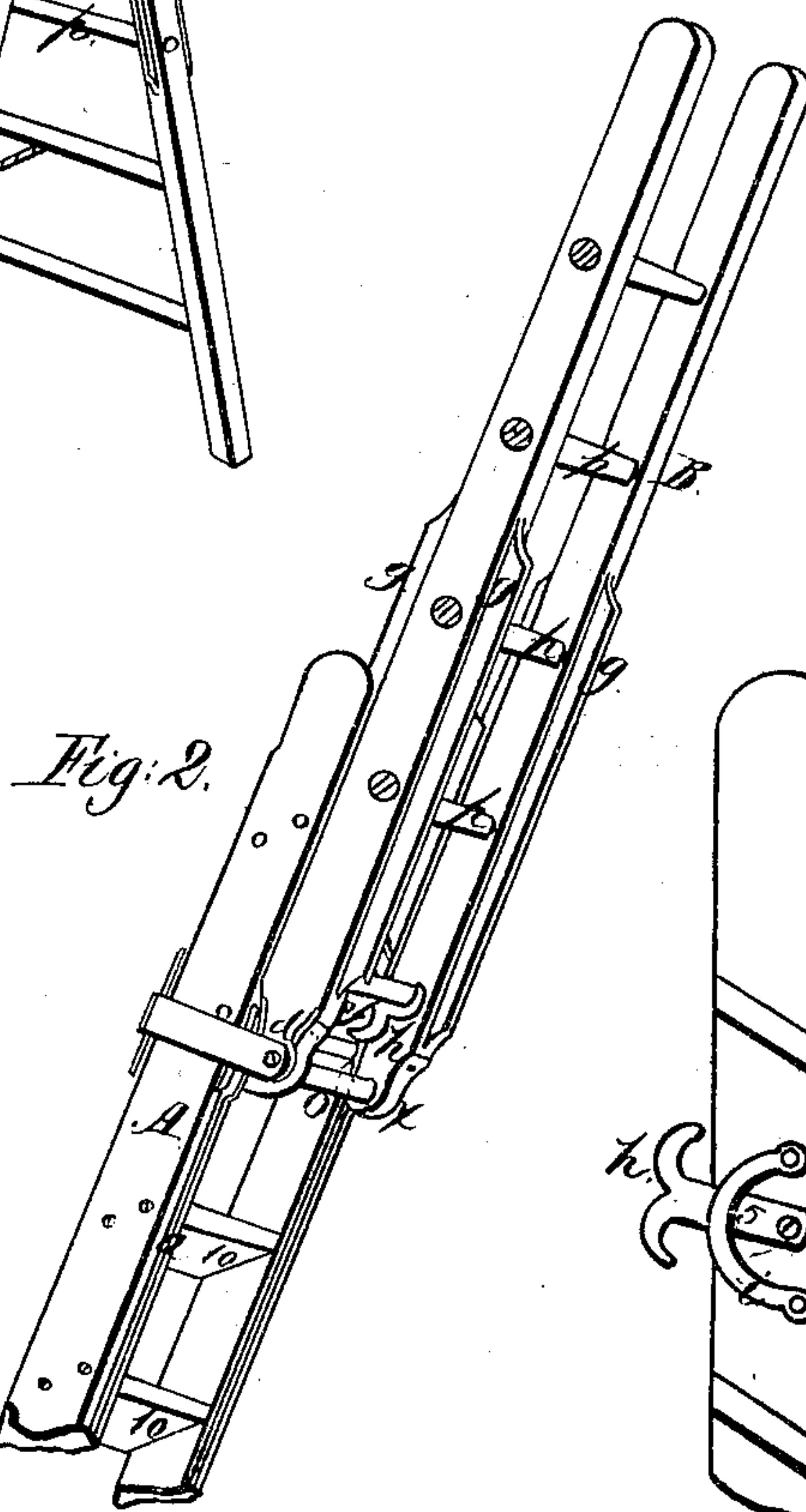


Fig. 2.

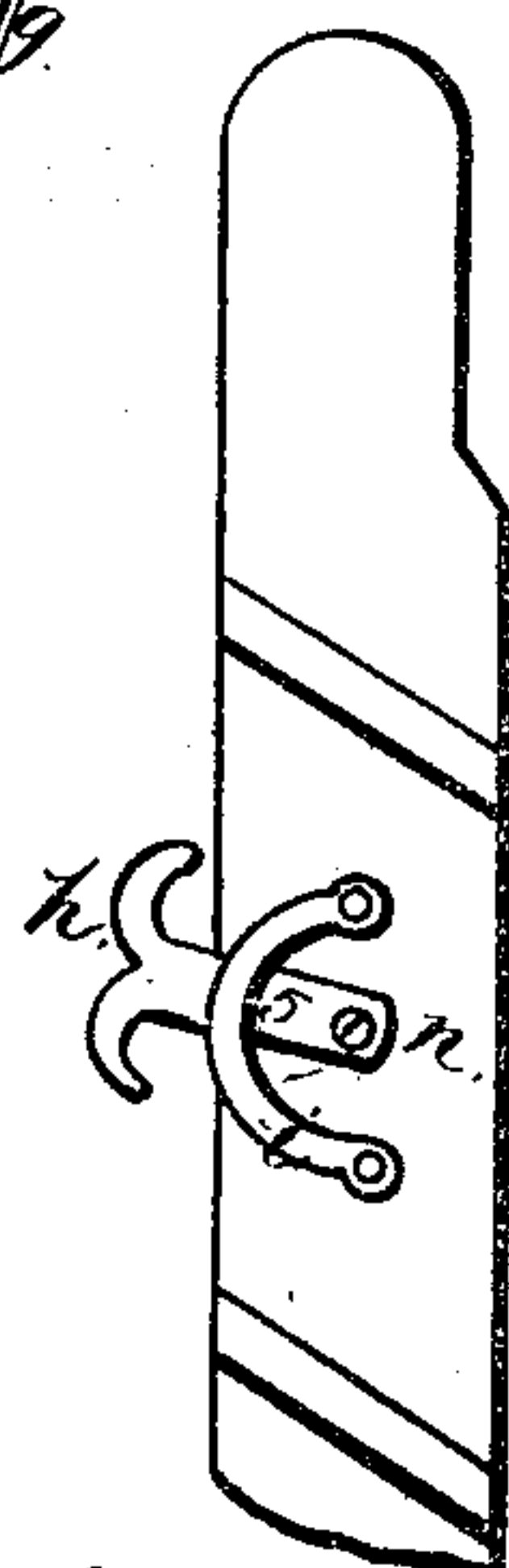


Fig. 3.

Witnesses:

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United States Patent Office

TIMOTHEUS VOGELMANN, OF HAMILTON, OHIO.

Letters Patent No. 67,235, dated July 30, 1867.

IMPROVED STEP-LADDER.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, TIMOTHEUS VOGELMANN, of Hamilton, in Butler county, in the State of Ohio, have invented certain new and useful improvements in Step-Ladders; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 represents my improved ladder complete.

Figure 2 represents the same, adjusted as an extension-ladder, part being broken away.

Figure 3 is a part of one of the rails, to show the double hook and bracket.

Figure 4 represents the sliding clasp and part of the hinge detached.

My improved ladder is designed to be used as a self-sustaining step-ladder, and as an adjustable extension-ladder, which may be folded in a compact manner for transportation.

The drawings represent the ladder A, with steps 10, having the ladder B hinged to it, the latter being made with "rounds" instead of steps. The ladder A is made with grooves, *a*, in the edges of its rails, in which the tongues *b* of clasps C fit loosely, so as to be easily adjusted up and down, as occasion may require. The strap *d* of clasp C extends out, as seen at *d'*, to form a hinge for the ladder B. The traversing blocks *f* are part and parcel of the same piece with tongues *b*, and this portion of the clasp may be made of wood, and the part *d* *d'* may be made of iron, and bolts or rivets may be used to connect them. The ribs *g*, on the edges of the rails of the hinged ladder B will fit into the grooves *a a* of ladder A, in which grooves the tongues *b* will slide to adjust the ladder B to any desired position. Ladder B, when standing as a support for ladder A, as represented in fig. 1, is so adjusted, by sliding the hinge-clasp C, as to bring the upper round *o* under the hooks *h*, which are turned upon their hinge upwards for the purpose of fastening the ladder B, by preventing clasps C from sliding. The metal double hooks *h* are formed with a shoulder, and are secured on the inner sides of the rails of ladder A by a screw and curved bracket, *i*, which permit the hooks *h* to be moved upon the hinge or screw pivot *n* in the arc of a circle up or down, to bring either of the hooks upon a round of ladder B to support it either as a step-ladder or as an extension-ladder, seen in fig. 2. In adjusting double hooks *h*, the shoulders formed upon their shanks at *5* will move along the inner curved edges of brackets *i*, which assist in strengthening the fastening. The brackets *i* serve to limit the movement of the hooks *h* in both directions. The cord *m*, fastened by one end to a round of ladder B, may be readily secured to or detached from the double spring-catch under the step 10', to hold ladder B from moving outwards, when the whole structure is adjusted as a step-ladder. When the ladders are adjusted for the extension-ladder, either of the rounds *o* and *p* may be brought in connection with hooks *h*, which, together with the hinge-clasp C, constitute a secure fastening to retain the two ladders in a parallel relation to each other, and the ribs *g* of ladder B fit in the grooves *a* of ladder A, and thereby prevent lateral strain on the hinge-clasp and double hooks *h*. The hinge-clasp C, with its ladder B, may be moved in either direction past the double hooks *h*, by adjusting the hooks so that the upper round *o* will fit into the depression at the vertex of the shank of the double hook; and as the clasp moves past the hooks the round *o* will cause the hooks to turn on their joints either up or down, according to the direction the ladder B is at the time of being moved.

From the foregoing description it will be understood that my ladder will serve the double purpose of a step-ladder and an extension-ladder, and may be conveniently folded together, or the two sections or ladders detached from each other by sliding the hinge-clasp off of the ends of the rails of ladder A.

Having fully described my improvements in step-ladders, what I claim therein as my invention, and desire to secure by Letters Patent, is—

1. The ladder A, constructed with the grooves *a a*, in combination with the ladder B, constructed with the ribs *g*, arranged and operating in the manner and for the purpose described.
2. The hinge-clasp C, represented in fig. 4, in combination with the rails of ladder A, all constructed, arranged, and operating in the manner and for the purpose described.
3. The combination of double hooks *h* and brackets *i*, constructed, arranged, and operating with hinge-clasp C and ladder B, in the manner and for the purpose specified.

In testimony whereof I have hereunto set my hand this 27th day of February, 1867.

TIMOTHEUS VOGELMANN.

Witnesses:

H. P. K. PECK,

A. L. PECK.