(No Model.)

J. N. RICHEY.

LADDER.

No. 587,608. Patented Aug. 3, 1897.

Fig. 1.

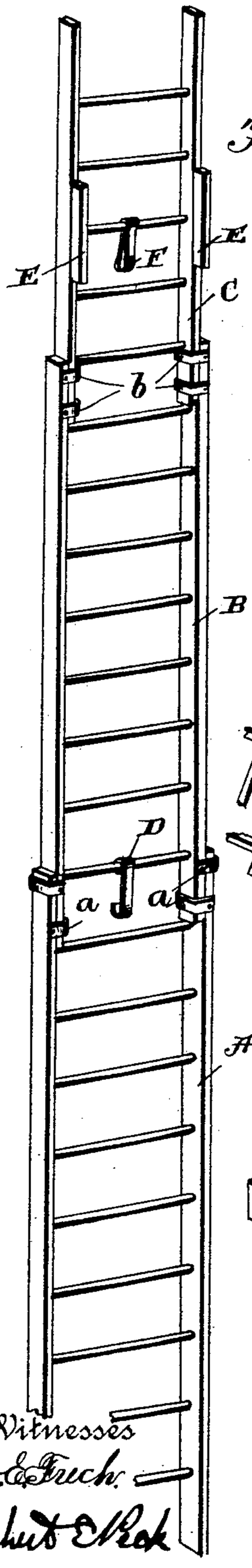


Fig. 2.

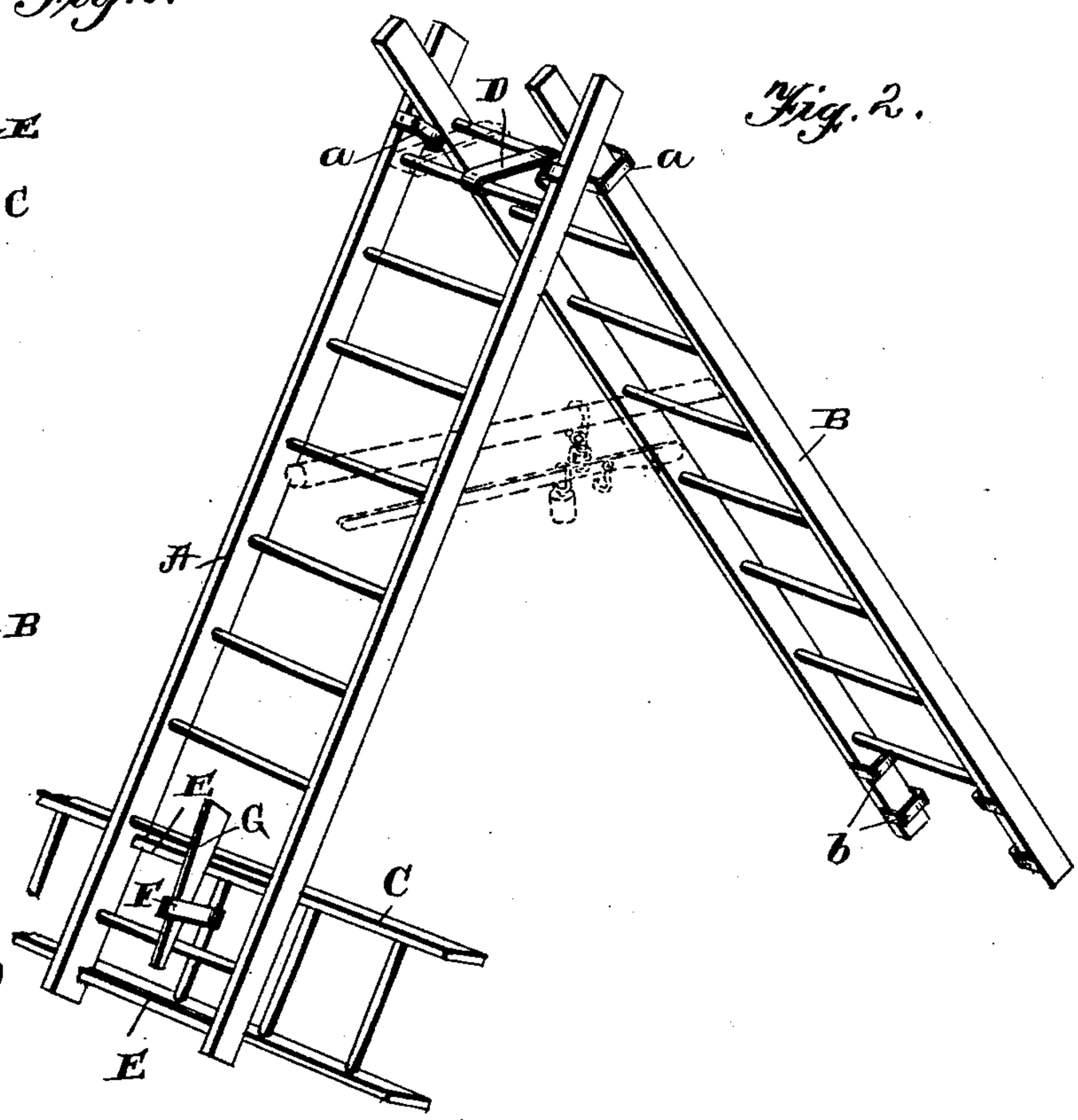


Fig. 3.

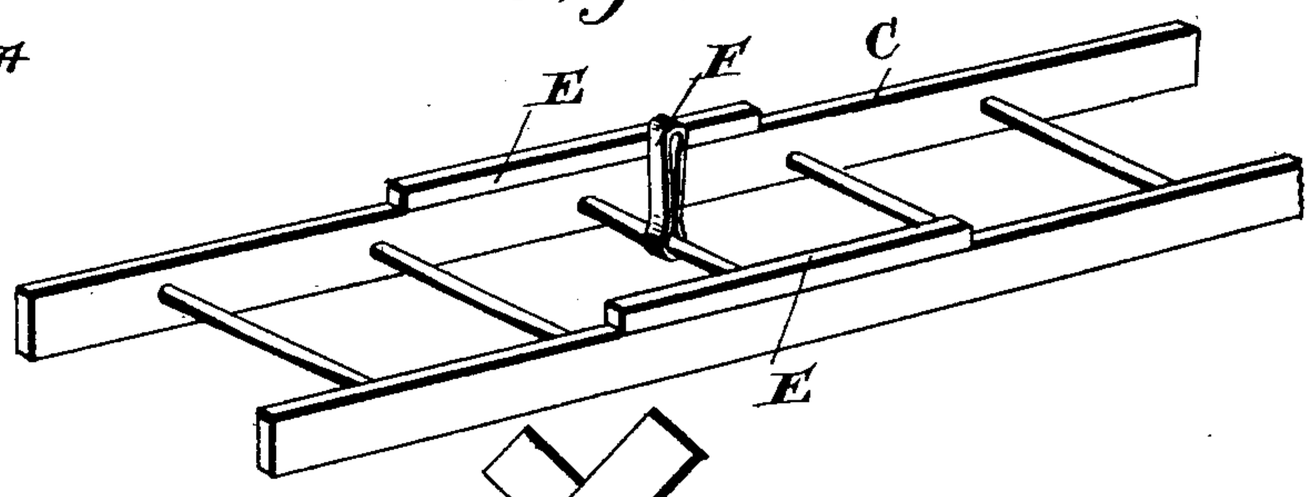
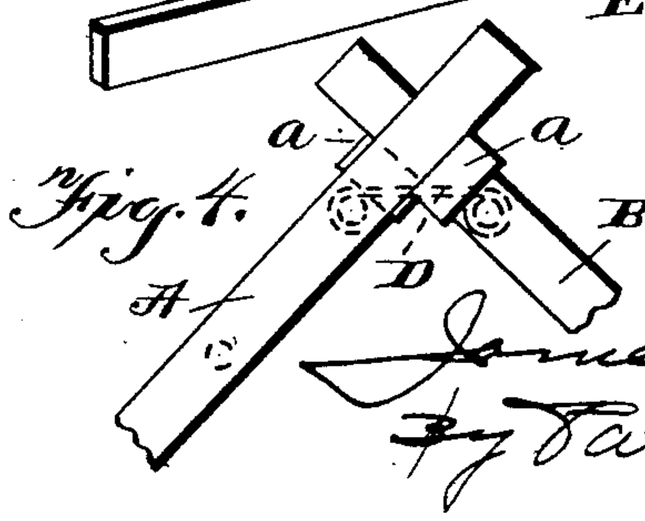


Fig. 4.



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UNITED STATES PATENT OFFICE.

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LADDER.

SPECIFICATION forming part of Letters Patent No. 587,608, dated August 3, 1897.

Application filed March 2, 1897. Serial No. 625,729. (No model.)

To all whom it may concern:

Be it known that I, JAMES N. RICHEY, of Carmichael's, in the county of Greene and State of Pennsylvania, have invented certain new and useful Improvements in Ladders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

This invention relates to ladders, and the object is to provide an improved combination of ladder-sections adapted to form an extension-ladder, a step-ladder, and also a convenient support for elevating and weighing purposes.

The invention consists in the novel features of construction hereinafter fully described and claimed, and illustrated by the accompanying drawings, in which—

Figure 1 is a perspective view of the extension-ladder. Fig. 2 is a similar view of the step-ladder. Fig. 3 is a detail view of the smallest section, which forms the foot for the step-ladder. Fig. 4 is a detail view.

To form an extension-ladder, sections A and B are arranged in line, the latter being narrower than the former, so as to fit therein, and each section carrying loops or keepers in which the terminals of the rails of the other section fit, thus securely uniting the sections. Short section C, which is narrower than section B, is then moved endwise between the rails of the latter and into keepers *b*, or if the ladder is sufficiently long without this short section it may be omitted, and of course any one section may be used alone when desired.

To form a step-ladder and also a convenient support for weighing, &c., as indicated in dotted lines in Fig. 2, sections A and B are arranged in inverted-V form, the section ends being interlocked, with the rail extremities bearing against the projecting keepers *a*, whereby they are most effectually braced, one against the other, and in this position they are securely bound by keeper D, uniting the upper rungs of the sections. A step-ladder is thus provided which may be ascended at either side, or which may, if so desired, be occupied by two persons at the same time.

In order that the ladder may be more secure in its upright position, short section C may be arranged transverse the lower end of one of the sections to form a foot, and for this purpose said section is provided on one side with cleats E, equal in length to the space between the longitudinal rails of the section to which it is secured, whereby it is held from longitudinal movement when in the position described and is firmly secured to said section by keeper F, secured to one of the rungs and adapted to extend between the two lower rungs of the step-ladder section and receive the vertical key G, as shown, and said key wedging against the rungs makes the connection most secure.

The step-ladder may also be conveniently used for suspension purposes and for weighing with steelyards, as shown in dotted lines, or to form a support for sustaining articles while being elevated and for many other and varied uses, as will be apparent.

In Fig. 4 the step-ladder sections are spread to form a right angle, thereby constituting a convenient roofing-ladder. To enable the sections to spread to this position, keeper D is moved to the ends of the rungs, as shown in dotted lines in Fig. 2, where they are tapering and of less diameter than their central portions.

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

1. A ladder comprising three sections adapted to be secured together to form an extension-ladder, two of the sections being adapted to be secured together in opposite inclined position to form a step-ladder, the third section adapted to be arranged in transverse position adjacent the base of one of the inclined sections to form a foot, and devices carried by said third section for securing it in said transverse position, substantially as shown and described.

2. A ladder including two sections adapted to be secured together in oppositely-inclined position to form a step-ladder, a third section adapted to be arranged transversely at the base of one of the inclined sections to

constitute a foot, cleats on said transverse section adapted to fit between the rails of the inclined section, the loop extended from the transverse section, and the wedge adapted to pass therethrough for tying said section to the rungs of the inclined section, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES N. RICHEY.

Witnesses:
SAMUEL B. GILBERT,
JOSEPH B. RICHEY.