

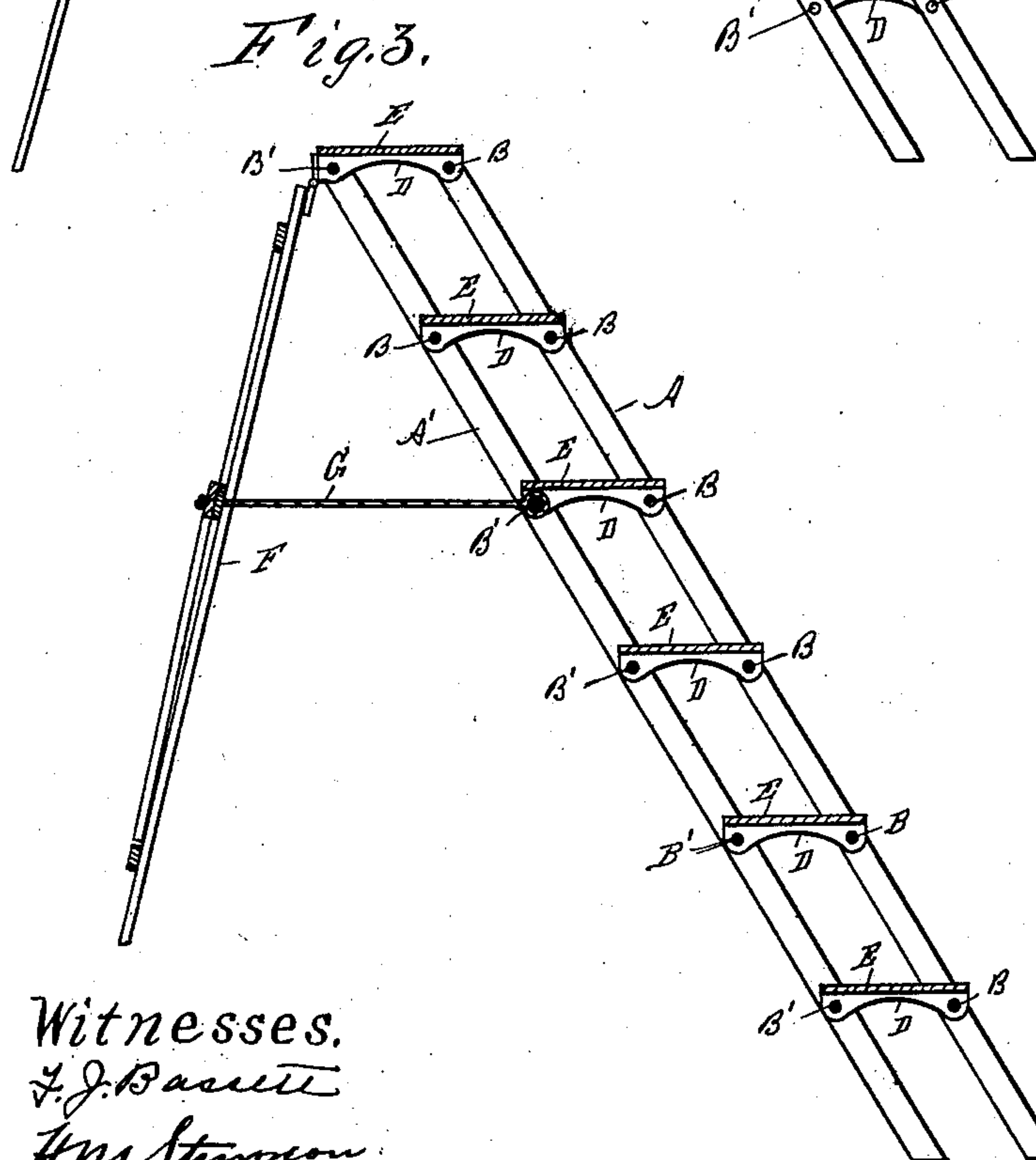
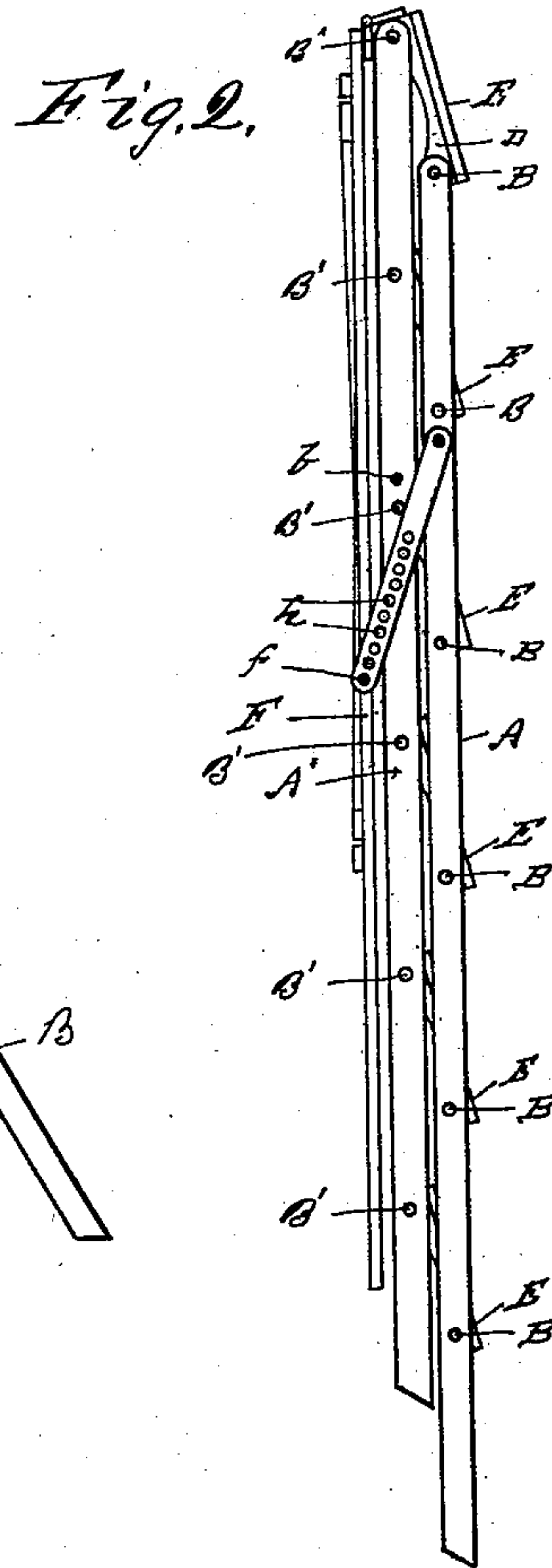
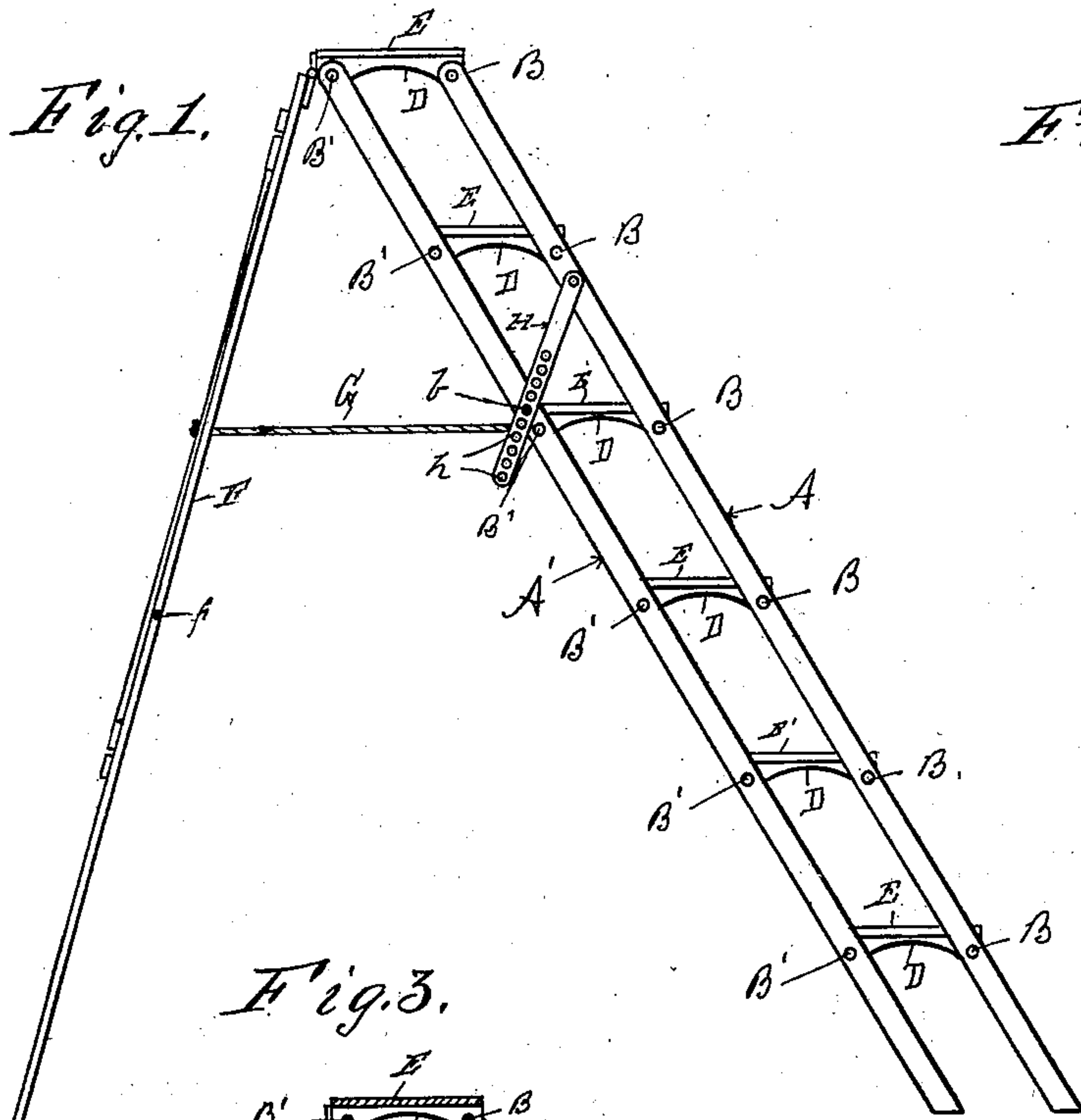
No. 705,475.

Patented July 22, 1902.

V. B. ST. JOHN.
STEP LADDER.

(Application filed Oct. 24, 1901.)

(No Model.)



Witnesses.
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UNITED STATES PATENT OFFICE.

VOLNEY B. ST. JOHN, OF ERIE, PENNSYLVANIA.

STEP-LADDER.

SPECIFICATION forming part of Letters Patent No. 705,475, dated July 22, 1902.

Application filed October 24, 1901. Serial No. 79,853. (No model.)

To all whom it may concern:

Be it known that I, VOLNEY B. ST. JOHN, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Step-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 appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, forming part of this specification.

My invention relates to improvements in step-ladders, and has for its object the construction of a step-ladder, so that the steps thereof will be horizontal at whatever angle the step-ladder is set up and which can be folded together into a compact bundle for transportation.

The features of my invention and the construction thereof are hereinafter set forth and explained, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a step-ladder embodying my invention. Fig. 2 is a side elevation of the step-ladder folded together. Fig. 3 is a vertical central section of the step-ladder.

In the drawings illustrating my invention, A A and A' A' are the side bars of the ladder. The side bars A are secured together by rungs B and the side bars A' by rungs B'. Upon each pair of rungs B B' there are cross bars or lags D D, which are pivoted on the rungs B B', so as to turn freely thereon. Upon these cross bars or lags D D, I secure steps E, which by means of this construction I am enabled to make of such width that there is room for the entire foot of the operator thereon, and as the steps swing freely on the rungs B B' the steps are always horizontal at whatever angle the side bars may be set up.

To support the upper end of the step-ladder, I hinge thereto a brace or leg F of the usual construction, from which I connect a rope or other suitable form of brace G to one of the rungs B' of the step-ladder.

To prevent the steps E from tipping in case the operator should step too heavily on the front edges thereof, I pivot an adjustable brace H to one of the side bars B and provide a stud *b* in the other side bar B', with which the brace H engages, it being provided with a number of holes *h*, so that it will engage the stud *b* at whatever angle the ladder is set up. I also place a stud *f* on the brace or leg F, with which the brace H is adapted to engage when the step-ladder is folded together, as illustrated in Fig. 2.

Having thus described the construction of my improved step-ladder, its operation is so obvious that further description thereof is unnecessary.

Therefore what I claim as new, and desire to secure by Letters Patent of the United States, is—

In a step-ladder, the combination, with four side bars A A A' A' arranged in pairs, of a series of steps E each step being pivotally connected with the four side bars, a rear leg or brace F pivotally connected with the top of the rear side bars A' and provided with a projecting pin *f*, a pin *b* projecting from one of the rear side bars A', and a locking-brace H pivoted to one of the front side bars A and provided with a longitudinal series of holes for engaging with the pins *f* and *b*, substantially as set forth.

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

VOLNEY B. ST. JOHN.

Witnesses:

HAROLD M. STURGEON,
F. J. BASSETT.