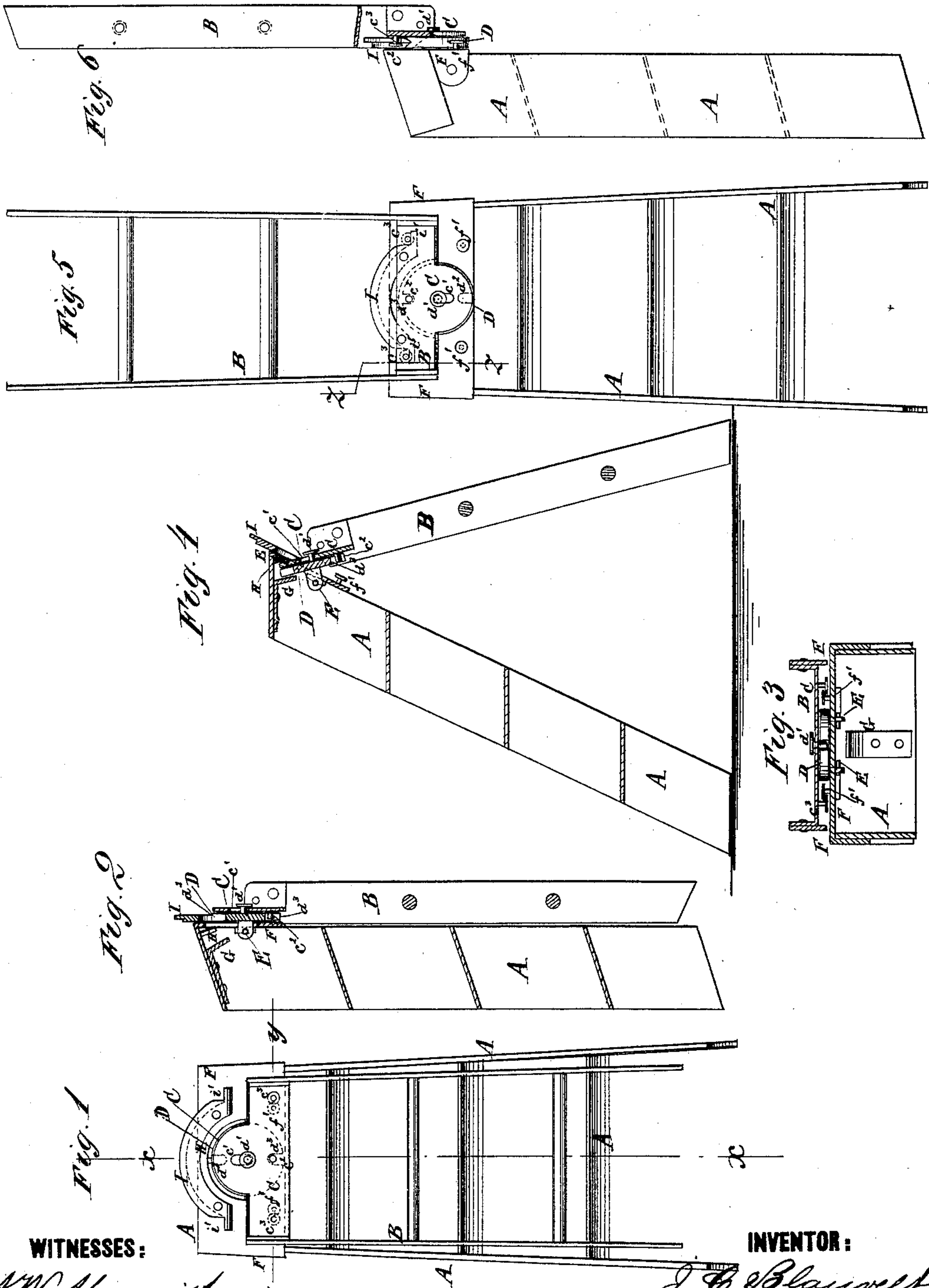


J. C. BLAUVELT.

STEP-LADDER.

No. 176,214.

Patented April 18, 1876.



WITNESSES:

A. W. Almqvist
John Goethals

INVENTOR:

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UNITED STATES PATENT OFFICE.

JOHN CALVIN BLAUVELT, OF BLAUVELTVILLE, NEW YORK.

IMPROVEMENT IN STEP-LADDERS.

Specification forming part of Letters Patent No. 176,214, dated April 18, 1876; application filed March 13, 1876.

To all whom it may concern:

Be it known that I, JOHN C. BLAUVELT, of Blauveltville, in the county of Rockland and State of New York, have invented a new and useful Improvement in Step-Ladders, of which the following is a specification:

Figure 1 represents my improved step ladder folded. Fig. 2 is a longitudinal section of the same, taken through the line *x x*, Fig. 1. Fig. 3 is a horizontal section of the same, taken through the line *y y*, Fig. 1. Fig. 4 is a longitudinal section of the same arranged for use as a step-ladder. Fig. 5 represents the same extended for use as a ladder. Fig. 6 is a side view of the same, partly in section, through the line *z z*, Fig. 5.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved step-ladder, which shall be so constructed that it may be readily adjusted for use as a ladder without its being necessary to turn it away from the wall or other object, extend it, and then turn it back, and which shall be simple in construction, and strong, durable, reliable, and safe in use.

The invention consists in the plate and its slot and pins, the circle with its lugs and notches, the plate with its opening, the concavo-convex plate with its shoulders, and the stop and the pin, in combination with each other and with the parts of a step-ladder, as hereinafter fully described.

A represents the front part, and B the rear part, of a step-ladder, which are constructed in the usual way. C is a plate, attached to the upper end of the rear part B of the step-ladder, in line with its inner side, and which has a semicircular projection formed upon its upper part. In the projection of the plate C is formed a short slot, *c*¹, extending upward from the center of the circle, of which said projection is a part, to receive the pivot or bolt *d*¹, that pivots the rear part B of the ladder to the center of the circular plate D. Upon the rear side of the circle D are formed, or to it are attached, lugs E, by which it is pivoted to the plate F, attached to the inner side of the upper end of the part A of the ladder, so that the upper part of the said circle D may swing through a semicircular opening in

the said plate F until its rearward movement is limited by the stop G, attached to the under side of the top step of the said part A of the ladder. H is a point or pin attached to the under side of the top step of the part A, at such a distance in front of the stop G as to receive the upper edges of the circle D and plate C between it and the said stop G. In the upper edge of the circle D is formed a notch, *d*², to pass over the pin H, and to receive the pin *c*², attached to the lower part of the plate C. In the lower edge of the circle D is formed a notch, *d*³, to receive the said pin *c*². To the end parts of the plate C are attached two pins, *c*³, made with flat heads, one or the other of which, when the ladder is being adjusted, moves along the convex rabbeted upper edge of the plate I, attached to the plate F, with its head overlapping the rear side of the said edge, and both of which, when the ladder is extended, rest upon shoulders *i*¹, formed upon the ends of the said plate I. The pin *c*², when the ladder is being adjusted, moves along the concave lower edge of the plate I. To the end part of the plate F, near its lower edge, are attached two pins, *f*¹, made with flat heads, to interlock with the heads of the pins *c*³ when the ladder is folded, and the pin *d*¹ is in the lower part of the slot *e*¹, to prevent the parts A B from separating when the folded ladder is being carried.

To open the ladder for use as a step-ladder, the part B is drawn downward, bringing the pin *d*¹ into the upper part of the slot *e*, withdrawing the pin *c*² from the lower notch *d*³ of the circle D, and unlocking the heads of the pins *c*³ *f*¹. The lower end of the part B is then swung outward until the upper part of the circle D strikes the stop G. The part B is then slid upward, bringing the upper edge of the plate C behind the plate, bringing the pin *d*¹ into the lower end of the slot *e*¹, and bringing the pin *c*² into the lower notch *d*³ of the circle D.

In adjusting the step-ladder as an extension-ladder, the part B is drawn downward to unlock it, is moved inward parallel with the part A, and is then swung around laterally, upon the pin *d*¹ as a pivot, through half a revolution, and slid downward, bringing the pins *c*³ upon the shoulders *i*¹ of the plate I, and bring-

ing the pin c^2 into the upper notch of the circle D, which locks the parts A B securely in place.

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

The plate C and its slot c^1 and pins c^2 c^3 , the circle D, with its lugs E and notches d^1 d^2 , the plate F, with its opening, the concavo-convex

plate I, with its shoulders i' , and the stop G and pin H, in combination with each other and with the parts A B of a step-ladder, substantially as herein shown and described.

JOHN CALVIN BLAUVELT.

Witnesses:

A. T. BLAUVELT,

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