

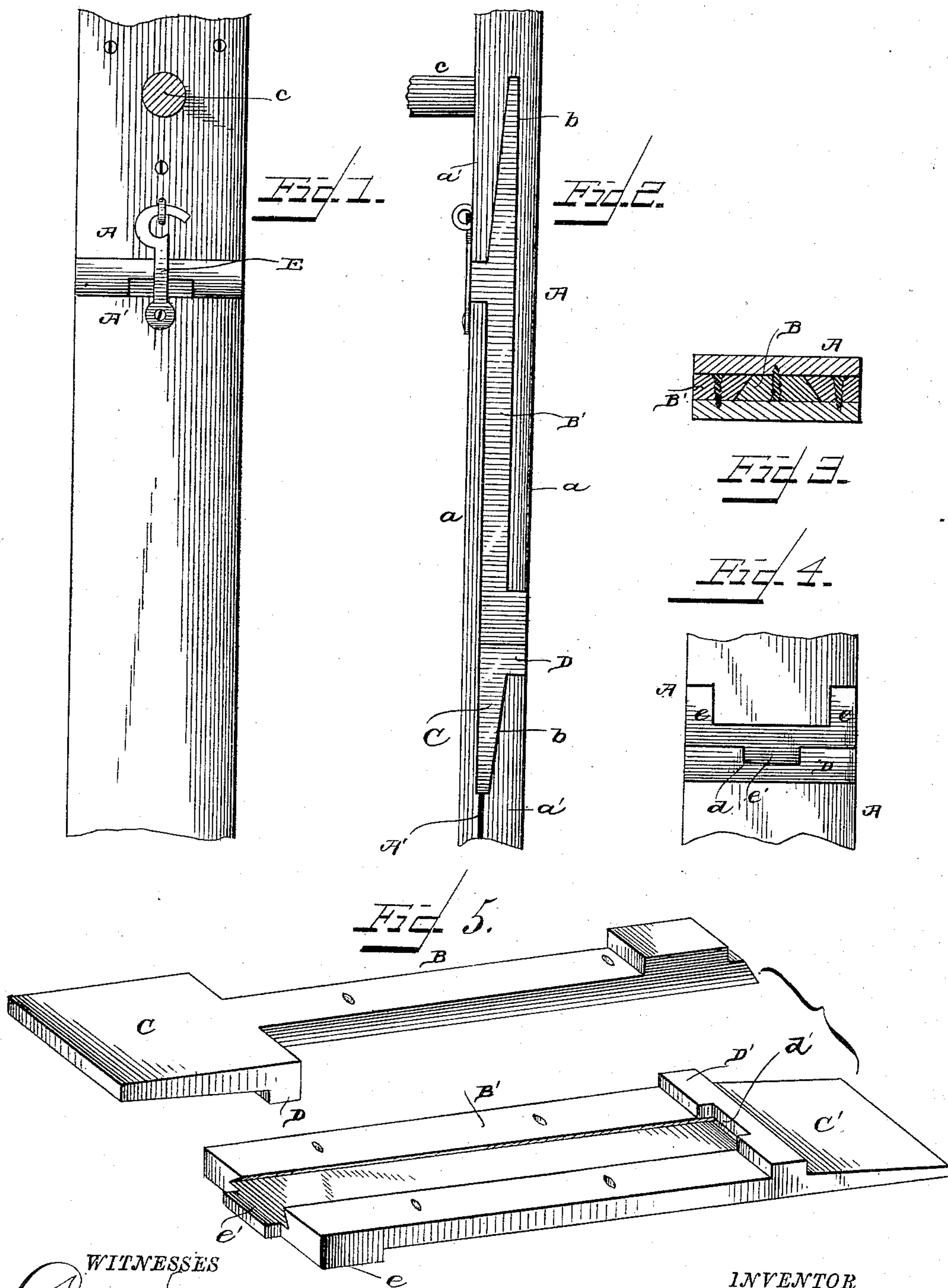
(No Model.)

H. H. SCHUMANN.

LADDER.

No. 319,330.

Patented June 2, 1885.



WITNESSES

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# UNITED STATES PATENT OFFICE.

HENRY H. SCHUMANN, OF TROY, PENNSYLVANIA, ASSIGNOR OF ONE-THIRD  
TO CHARLES MUTH, OF SAME PLACE.

## LADDER.

SPECIFICATION forming part of Letters Patent No. 319,330, dated June 2, 1885.

Application filed March 23, 1885. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY H. SCHUMANN, a citizen of the United States, residing at Troy, in the county of Bradford and State of Pennsylvania, have invented a new and useful Improvement in Ladders, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to a jointed or sectional ladder; and it has for its object to provide improved means for connecting the meeting ends of the sections which shall be simple in their construction, strong and durable, light, and readily connected or disconnected, when desired.

With these ends in view the invention consists in the improved construction and combinations of parts hereinafter fully described, and pointed out in the claims.

In the drawings, Figure 1 is a side elevation of a sufficient portion of a ladder to illustrate my invention. Fig. 2 is a front elevation. Fig. 3 is a horizontal section. Fig. 4 is a side elevation taken on the inner side of the ladder, and Fig. 5 is a detail view of the connecting-plates detached.

In the accompanying drawings, in which like letters of reference indicate corresponding parts in all the figures, A A' represent the meeting sides of the ladder, each of which is composed of two strips, *a a'*, the strip *a* extending a considerable distance beyond the strip *a'*, the latter strip being recessed or cut away at *b*. It will be seen, however, that, if desired, said sides might be of a single strip of material, and be recessed to form the extended portions, and also provided with the recesses *b*. In case two strips are employed to form one of the sides of a section of the ladder the said strips are bolted together. Holes or openings are made at suitable points upon the sides of the sections for the reception of rungs *c*.

It will be seen that by recessing or cutting away the meeting ends of the sides, when said sides are lapped and secured together, a smooth joint will be formed.

B represents a dovetailed metal plate secured to the inner side of strip *a* of section A',

and having its upper end projected beyond the upper end of said strip. Its lower end is formed with a wedge-shaped extension, C, which is adapted to fit the recess *b* in section A', and be secured therein by screws or equivalent fastening. The plate B is formed with a shoulder, D, which is adapted to fit and bear against the upper end of strip *a'*, and said shoulder is formed with a recess, *d*.

B' represents a plate secured to the strip *a* of section A. The said plate B' is provided with a dovetailed slot to receive the plate B, and has at its end a cross-strip, *e*, having a tongue, *e'*, to fit the recess *d* in the shoulder of plate B. The plate B' is provided with a wedge-shaped extension, C', which fits between the strips *a a'* of side A, and is also formed with a shoulder, D', having a recess, *d'*, to receive the projected end of the plate B. A hook, E, is pivoted to the side A', and is adapted to engage an eye on side A, and thus securely hold said sides together.

By the construction shown and described the meeting ends of a ladder may be firmly and securely held together, and all movement will be prevented.

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

1. The combination, in a sectional ladder, of the sides having reduced meeting ends, and plates secured to said ends, one of said plates having a dovetailed flange, while the other is provided with a dovetailed slot to receive the same, substantially as set forth.

2. The combination, in a sectional ladder, of the sides having reduced meeting ends, plates having wedges to fit recesses in said sides, shoulders having recesses, and tongues to fit said recesses, and means for holding said sides against vertical draft, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

HENRY H. SCHUMANN.

Witnesses:

L. H. OLIVER,  
WM. McNAMARA.