(No Model.)

G. ALBEE.

EXTENSION LADDER.

No. 364,461. Patented June 7, 1887.

Fig. 1.

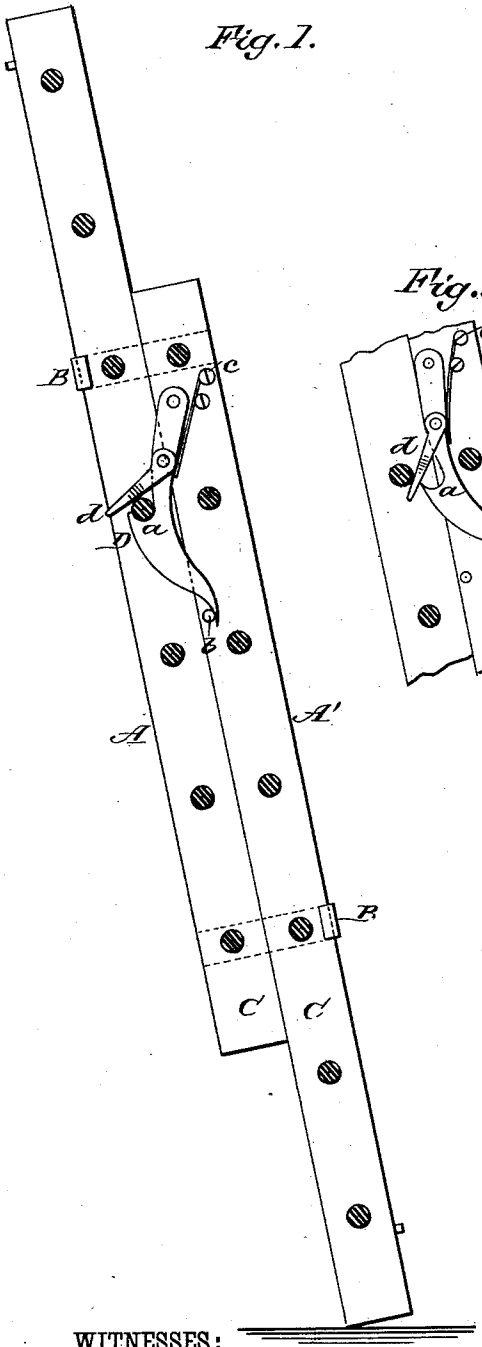
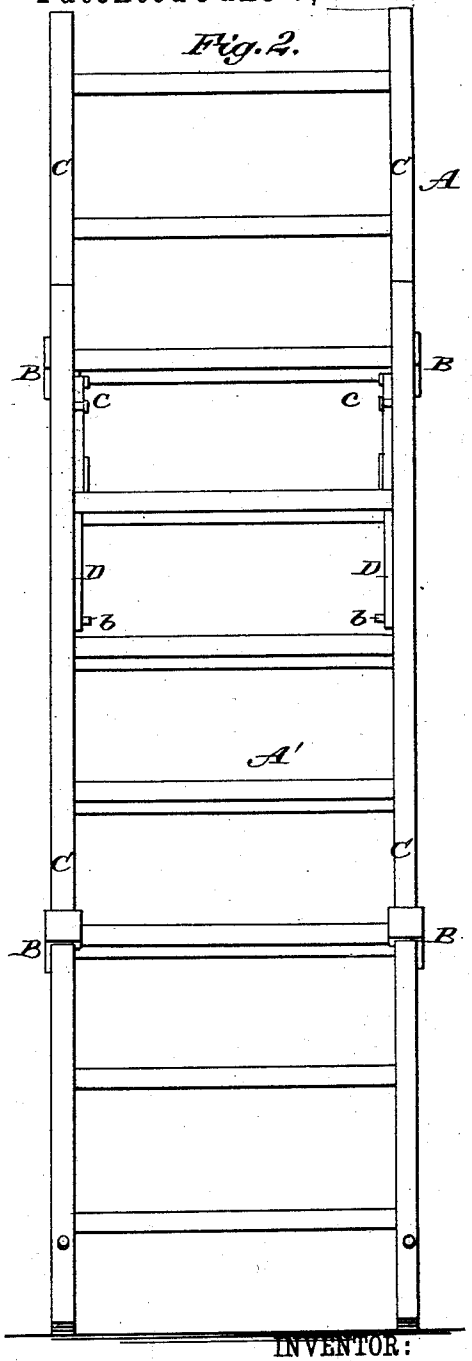


Fig. 3.

Fig. 2.



WITNESSES:

H. C. Berger

C. Sedgwick

INVENTOR:

G. Albee

BY Munn & Co.

ATTORNEYS.

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

GEORGE ALBEE, OF SUSQUEHANNA, PENNSYLVANIA.

EXTENSION-LADDER.

SPECIFICATION forming part of Letters Patent No. 364,461, dated June 7, 1887.

Application filed May 19, 1886. Serial No. 202,654. (No model.)

To all whom it may concern:

Be it known that I, GEORGE ALBEE, of Susquehanna, in the county of Susquehanna and State of Pennsylvania, have invented a new and useful Improvement in Extension-Ladders, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which—

Figure 1 is a side sectional elevation of my improved ladder. Fig. 2 is a front elevation. Fig. 3 is a detail view of the hook, showing the relation of the parts when the ladder is shortened.

Similar letters of reference indicate corresponding parts in the different figures of the drawings.

The object of my invention is to provide a simple and convenient extension-ladder which will be automatically fastened when extended, and which may be unfastened and shortened without handling the fastening devices.

The invention consists in the peculiar construction and arrangement of parts, as hereinafter fully described, and pointed out in the claim.

The ladder-sections A A′, which are similar to each other, are provided on opposite sides, near their ends, with clips B, the clips upon one ladder-section being oppositely arranged with respect to the clips on the other ladder-section, the clips of each ladder-section being bent over to engage the side bars, C, of the other ladder-section, so that the ladder-sections may be slid upon each other to extend or shorten the ladder.

To the inner surface of each side bar C of the ladder-section A′, near the upper end thereof, is pivoted a hook, D, which is prolonged beyond the notch *a*, formed therein, and is curved backward to engage a stop-pin, *b*, projecting from the side of the side bar, and limiting the outward movement of the hook D, so that it is normally held in the path of the rounds of the ladder-section A. A flat spring, *c*, secured to the side bars, C, of the ladder-section A′, presses against the back of the hook D and forces the hook D outward in the direction of the ladder-section A.

To the side of the hook D, above the notch *a*, is loosely pivoted a latch, *d*, which is bent laterally or offset, so that it may fall by its own gravity into contact with the point of the hook D when the hook is released from one of the rounds of the ladder-section A. The hooks D, upon opposite sides of the ladder, are similar, and when the ladder-section A is pushed upward its rounds engage the prolonged end of the hook D and push it backward. They also raise the latch *d* from the point of the hook, so that any one of the rounds of the section A may be brought into engagement with the hook D before the latch *d* drops forward onto the point of the hook.

By allowing the ladder-section A to drop, so as to permit the round to rest in the notch *a*, the section A will be retained in the desired position. When it is desired to shorten the ladder, the section A is raised sufficiently to allow the latch *d* to drop from the round and rest upon the point of the hook D, when the ladder-section A may be lowered, the rounds riding over the latches *d*, as shown in Fig. 3, being in this manner prevented from dropping into the notches *a* of the hooks.

It will thus be seen that when it is desired to extend the ladder all that is required is to push the section A upward and bring one of its rounds into engagement with the hooks D, and when it is desired to shorten the ladder it is only necessary to raise the section A sufficiently to allow the latches *d* to drop onto the points of the hooks D, when the section A may be allowed to fall by its own gravity.

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

In an extension-ladder, the combination, with the sections A A′, the section A′ being provided with pins *b*, of the hooks D, having backwardly-curved extensions beyond the notches *a* in the hooks, the springs *c*, and the latches *d*, pivoted to the hooks, substantially as herein shown and described.

GEORGE ALBEE.

Witnesses:
JAMES L. BAGLEY,
DAVID MASON.