

C. G. Udell.

Extension Ladder.

Patented Mch 26. 1867.

No 63,188.

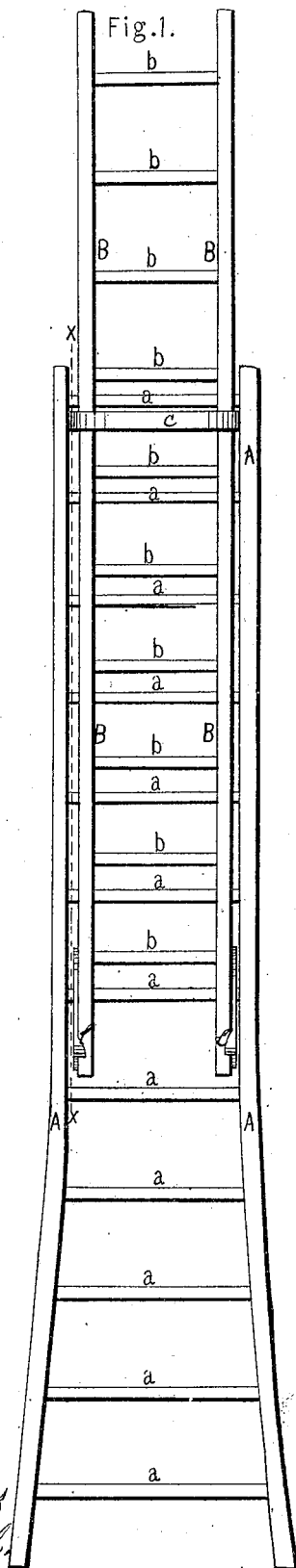
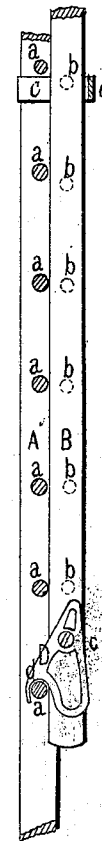


Fig. 2.



Witnesses:

N. E. May
A. H. Churchill

Inventor:

Calvin G. Udell.

UNITED STATES PATENT OFFICE.

CALVIN G. UDELL, OF CHICAGO, ILLINOIS.

IMPROVED EXTENSION-LADDER.

Specification forming part of Letters Patent No. 63,188, dated March 26, 1867.

To all whom it may concern:

Be it known that I, CALVIN G. UDELL, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Extension-Ladders; and I do hereby declare and make known that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and the letters and figures marked thereon, which form part of this specification.

To enable those skilled in the art to understand how to construct and use my invention, I will proceed to describe the same with particularity, making reference in so doing to the aforesaid drawings, in which—

Figure 1 represents a front elevation of my invention; and Fig. 2, a side view of the same, in section, at the line *x* in Fig. 1.

Similar letters of reference in the different figures denote the same parts of my invention.

A A represent the upright standards of a ladder, constructed substantially in the ordinary manner, the lower ends thereof being curved outward, so as to afford a broad base to the ladder, *a* representing the ordinary rungs or steps, as shown. Near the upper end of the said ladder A there is attached a band of iron, extending across the ladder, leaving a space between it and the rungs *a* sufficient to enable a second ladder, B, to slide up and down, as shown in the drawings, the upper ends of the standards B being beveled or curved upward in the form of a sled-runner, so as to facilitate the upward motion of the said section of the ladder when resting against the side of a building or other elevation which it may be desired to ascend.

At or near the lower ends of the standards B there are pivoted the movable hooks or catches D, C representing the screw or pivot upon which said catches turn. These catches are so constructed and attached to the standards B that as said section B of the ladder is

moved up the catches swing upward in passing the rungs *a*, but drop immediately after having passed, so as to bring the recess *d* upon the rung *a* at any point of the ladder, and thus secure the ladder in place, the band or bar C clamping the two parts A and B together, and forming a strong extension-ladder, either of the sections of which may be used separately when desired.

The catches D are prevented from dropping too far by the lugs *l*, which rest upon the upper side of the standards A, as shown in Fig. 1. There are similar lugs upon the lower side of the catches D, which rest against the lower surface of the standards A, and prevent the catches from turning too far upon their pivots, which are constructed as shown in Fig. 3, for the purpose of giving all necessary strength to the device.

There are small recesses cut into the standards B, which allow the last-mentioned lugs to lie in flush with the standard, and thus facilitate the sliding of the section B upon the section A.

Two or more sections of ladders may be secured together in the manner above mentioned, according as it may be required.

Having described the construction and operation of my invention, I will now specify what I claim and desire to secure by Letters Patent.

I claim—

1. In combination with a section or sections of an extension-ladder, the pivoted catches D, arranged and operating substantially as and for the purposes specified.

2. I claim the combination of the sections A B, the catches D, and bar C, arranged and operating substantially as described.

CALVIN G. UDELL.

Witnesses:

W. E. MARRS,
GEO. L. WATERMAN.