

R. G. SPAULDING.
EXTENSION-LADDER.

No. 178,480.

Patented June 6, 1876.

Fig. 1.

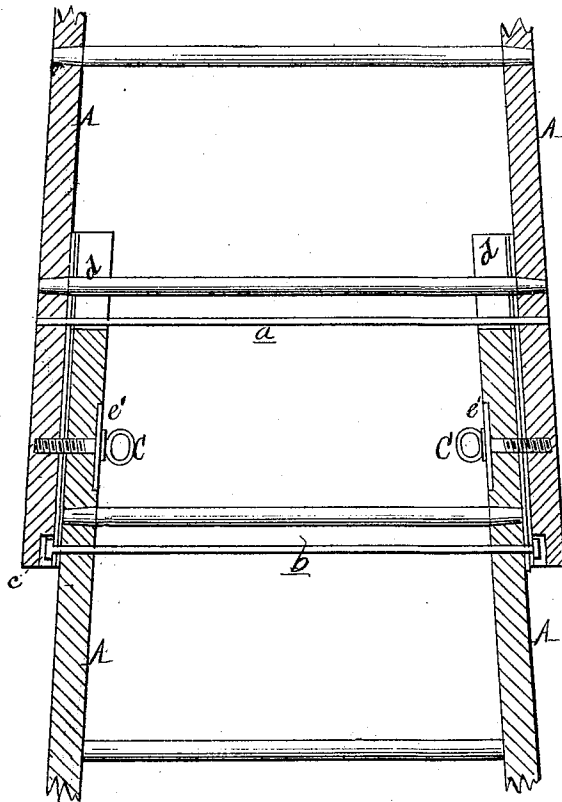
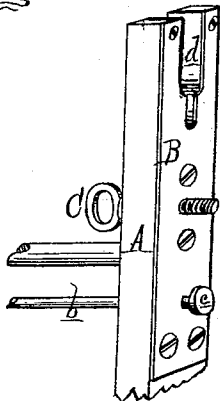
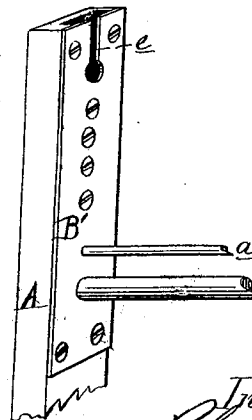


Fig. 2.



Attest.
Edward Parthel
Charles J. Kern

Fig. 3.



Inventor:
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UNITED STATES PATENT OFFICE.

ROSWELL G. SPAULDING, OF JONESVILLE, MICHIGAN.

IMPROVEMENT IN EXTENSION-LADDERS.

Specification forming part of Letters Patent No. **178,480**, dated June 6, 1876; application filed May 3, 1876.

To all whom it may concern:

Be it known that I, ROSWELL G. SPAULDING, of Jonesville, in the county of Hillsdale and State of Michigan, have invented an Improvement in Extension-Ladders, of which the following is a specification:

The nature of my invention relates to an improvement in extension-ladders of that class in which the sections are adapted to be locked one onto another until the required length of ladder is attained.

The invention consists in the novel and peculiar construction of the parts for locking the sections together, as more fully hereinafter set forth.

Figure 1 is a sectional elevation of parts of two ladder-sections locked together. Fig. 2 is a perspective view of the outer side of a section at the top thereof. Fig. 3 is a similar view of the inner side of a section at the foot thereof.

In the drawing, A A represent sections of a tapering ladder, the head of one section adapted to enter the foot of the other. The rounds of the ladder-sections are of wood, and below the round, next the foot of each section, there is an iron rod, *a*, which binds the sides together. Just below the top round there is a similar girt-round, *b*, whose ends project, each terminating in a head, *c*. B is a metal plate, fastened to the outer face of each side bar at the top, with a slot, *d*, cut down in both to receive the lower round and rod *a* of a section that may be slipped on. The inside of the foot of each side bar of a section is faced, in like manner, by a metal

plate, B', having a slot, *e*, cut in it to slip over the protruding end of the girt-round *b*, whose head *c* passes behind the said plate in a groove cut in the side bar, which not only prevents the foot from spreading, but, with the upper joint, serves to lock the two sections rigidly together.

The sections may be prevented from pulling apart by a screw-bolt, C, tapped through a nut, *e'*, let into each section near the top, to enter a socket in the foot of the section above. With three sections of the several lengths of eleven, fourteen, and seventeen feet, a height of forty feet may be reached, and, by varying the combinations of sections, seven different lengths of ladder can be had.

Owing to its ease of adjustment, great strength of joints, and facility with which any length of ladder within the limit of total length can be had, this ladder is especially adapted for use in fire departments, house-painting, and in other operations where strength and rapid adjustment are required.

What I claim as my invention is—

1. A ladder-section, A, having the metal round *a* at the foot, the metal round *b c* near the top, and the slotted metal plates B B', as and for the purpose set forth.

2. The screw-bolt C and nut *e'* in the upper part of each ladder-section A, for securing two such sections together, substantially as described.

ROSWELL G. SPAULDING.

Witnesses:

JOHN T. BLOIS,

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