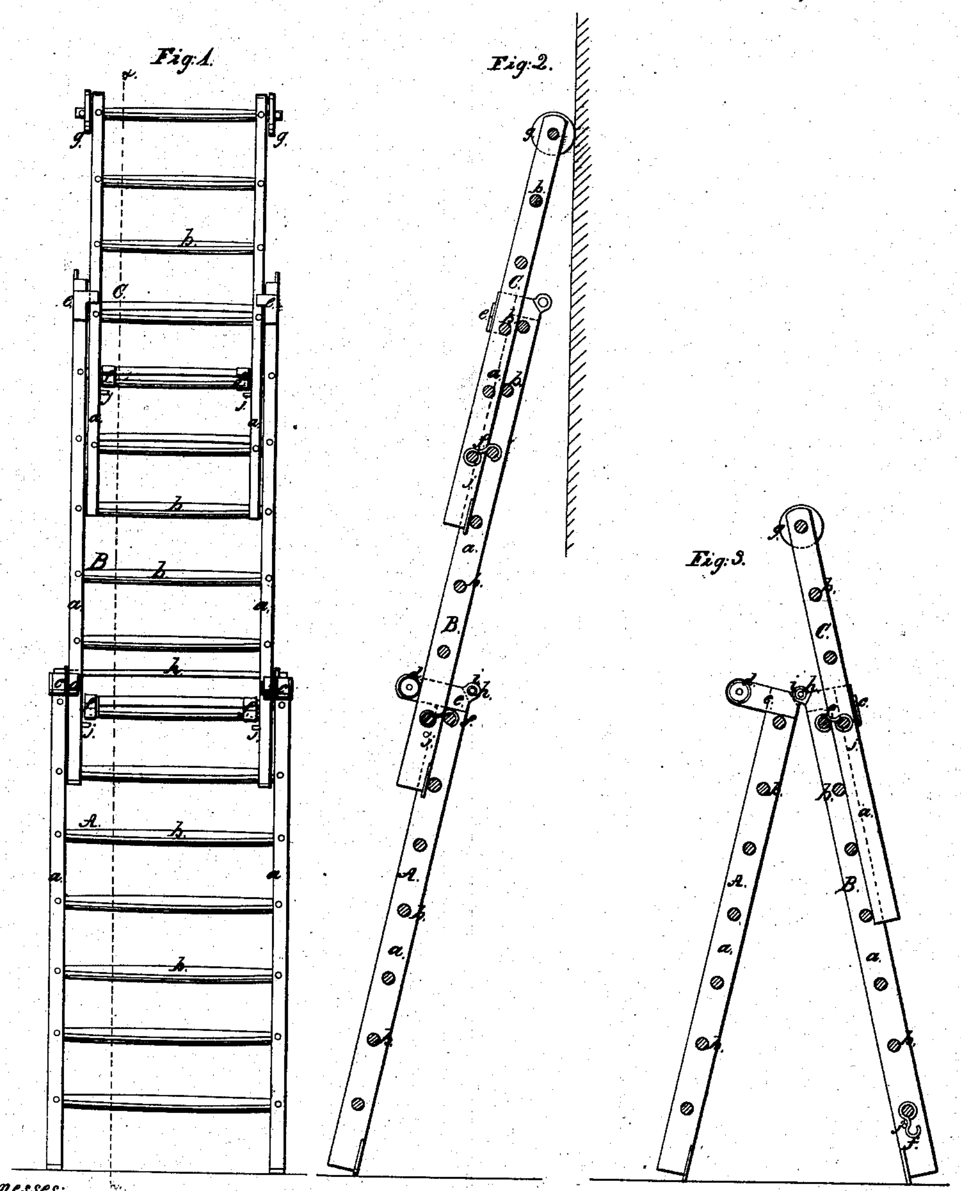
J. L. Ripley.

Extension Ladder.

No 48,210. Patented Jun. 13, 1865.



Witnesses:

James R Hall

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Inventor:

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UNITED STATES PATENT OFFICE.

JOHN L. RIPLEY, OF FREMONT, OHIO.

IMPROVED EXTENSION-LADDER.

Specification forming part of Letters Patent No. **48,210**, dated June 13, 1865.

To all whom it may concern:

Be it known that I, JOHN L. RIPLEY, of Fremont, in the county of Sandusky and State of Ohio, have invented a new and Improved Extension-Ladder; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a view of my invention adjusted as a long ladder and partially extended; Fig. 2, a side sectional view of Fig. 1, taken in the line *x x*; Fig. 3, a side sectional view of the same adjusted as a step-ladder.

Similar letters of reference indicate like parts.

This invention consists in a combination of a series of ladders arranged in such a manner that they may be adjusted together and extended with the greatest facility, so as to form a long ladder to be used against buildings, &c., and be also capable of being adjusted together so as to form an extension step-ladder, when the latter is required.

In the following description the invention is shown composed of three sections or ladders, A B C. The former one, A, is rather wider than B, and is also made heavier, while B is wider and heavier than C. (See Fig. 1.) They are all constructed in the usual manner with side pieces, *a a*, having rounds *b* fitted in them.

To the upper ends of the side pieces, *a a*, of the ladder A there are secured at right angles metal plates or arms *c c*, at the ends of which, at their inner sides, rollers *d d* are fitted, behind which the side pieces, *a a*, of the ladder B are placed. These rollers *d d* serve as guides for the ladder B, and admit of it being raised and lowered, drawn inward or shoved out from A with the greatest facility.

The upper ends of the side pieces, *a a*, of the ladder B have metal plates *e e* secured to them at right angles, and the outer ends of these plates are bent over inward or toward each other to form guides for the ladder C, the side pieces of which fit and work within or at the inner side pieces of B, the latter being fitted within the side pieces of A, as shown in Fig. 1. By this arrangement it will be seen that the ladder C may be readily extended or drawn out from B, and B readily extended or drawn out from A, and the ladders B C may be retained at any point within the scope of their movement by means of hooks *f f*, attached to their lowest rounds, and these rounds may be allowed to turn in their side pieces to facilitate the adjustment of the hooks over the rounds of the ladder over which they slide or move. (See Fig. 2.)

The upper ends of the side pieces of the ladder C have rollers *g* fitted to them, in order to admit of the ladders being extended when adjusted against a building, and by a person on the ladder, said rollers diminishing friction and insuring an easy movement or extension when power is applied to the lower end of B or C. These rollers also admit of the ladder, when closed, being moved or transported from place to place with facility, the rollers running on the ground and the operator having hold of the lower ends of A and B.

In order to convert the device into an extension step-ladder, the ladders A B are placed back to back, and a rod, *h*, passed through eyes *i* in the plates *e e*, (see Fig. 3,) the ladder C being adjusted to B, as before.

The side pieces, *a*, of the ladders B C have pins *j* driven in them for the hooks *f* to rest against when turned back or free from the rounds of the ladders over which they catch when the ladders are extended.

I claim as new and desire to secure by Letters Patent—

The combination of the rollers *d* and *g*, plates *e* and *c*, hooks *f*, eyes *i*, pin *h*, with the ladders A, B, and C, when constructed and arranged as and for the purposes specified, constituting a combined step and extension ladder.

JOHN L. RIPLEY.

Witnesses:

GEORGE J. KREBS,

MARTIN A. SHRENK.