

R. F. Delmot,

Ladder.

No. 113273.

Patented Apr. 4. 1871.

Fig. 2.

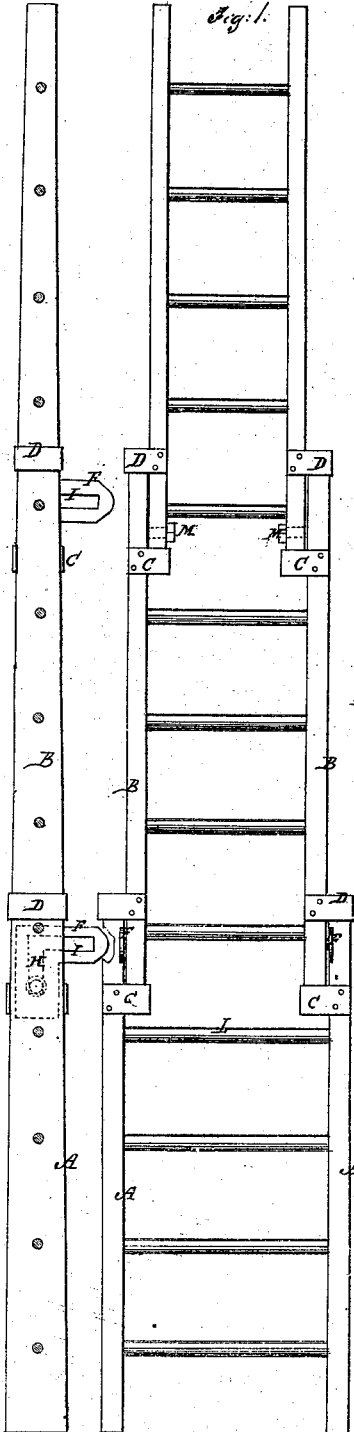


Fig. 3.

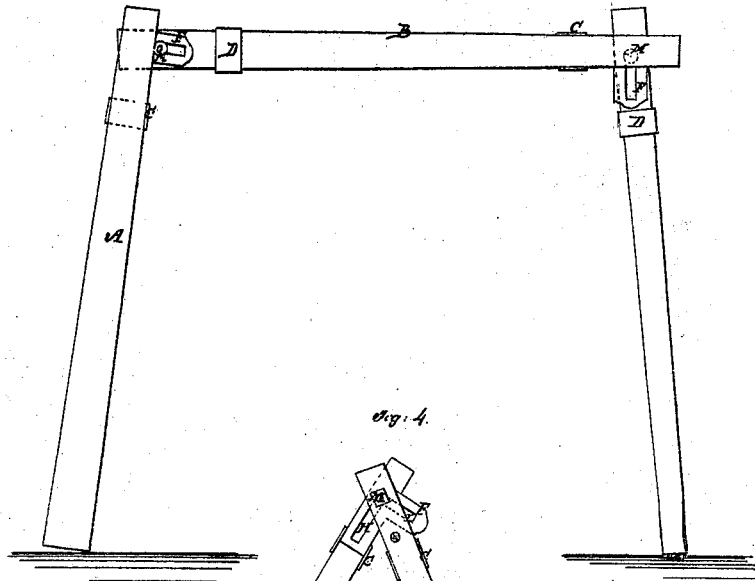
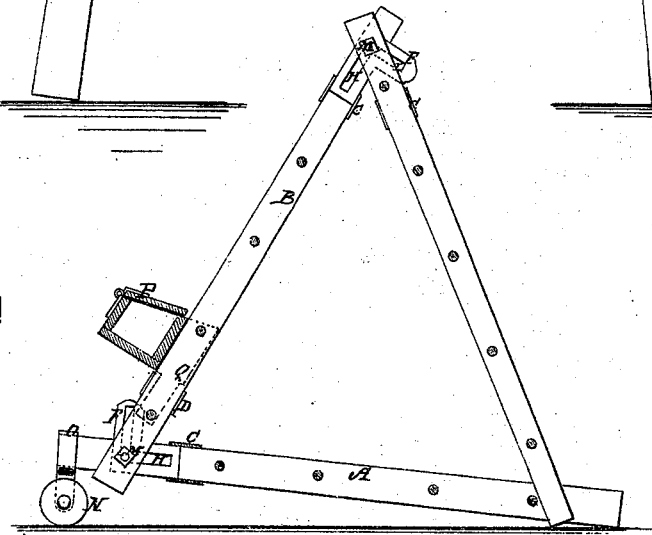


Fig. 4.



Witnesses:

*Chas. Nida
L. J. Nade*

Inventor:

*R. F. Delmot
for
Munn & Co*

Attorneys.

United States Patent Office.

RENSELAER F. DELMOT, OF FLEMINGTON, PENNSYLVANIA.

Letters Patent No. 113,273, dated April 4, 1871.

IMPROVEMENT IN EXTENSION-LADDERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, RENSELAER F. DELMOT, of Flemington, in the county of Clinton and State of Pennsylvania, have invented a new and useful Improvement in Extension-Ladders; 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 drawing forming part of this specification.

This invention relates to improvements in extension-ladders; and consists in jointing the sections together by means of trunnions on the one section, arranged in angle-plates attached to the other section, having right-angled slots, and arranged so that one part of the slot is parallel with the bars of the section to which the said plates are attached; and the other parts are perpendicular thereto and to the rods connecting the bars, so that one section may swing on the other and slide up and down on it.

It also consists in an arrangement of yokes on the bars of each section, so that, when the two sections are slid together, the ends of one will be engaged in the yokes of the other, in a manner to be held rigidly in the extended position.

The invention also comprises certain adjuncts to the said ladder, all as hereinafter described.

Figure 1 is a front elevation of my improved ladder.

Figure 2 is a sectional elevation of the same.

Figure 3 is a side elevation, showing how the ladder may be folded up and used for a scaffold, and

Figure 4 is a sectional elevation, showing how it may be arranged for a step-ladder.

Similar letters of reference indicate corresponding parts.

A represents the side rails of a lower section, and

B the rails of an upper one.

C are the bands or yokes on the lower rails, near the upper ends, for the reception of the lower ends of the rails B.

D are the yokes of the rails B, near the lower ends, for the reception of the upper ends of A.

The yokes C project inside the rails A the thickness of rails B; the yokes D project outward from the rails B the thickness of rails A so that, the section B, being as much narrower than A as required for it to slide between the rails A, the ends of each part will be received into the yokes of the other when the one is slid into the other.

The bars A have the angle-plates F let into them at the inner sides, near the upper ends, flush with the

surfaces, as shown, which plates have the angular slots H I so arranged that the parts H are parallel with the bars A, and the parts I perpendicular to the cross-bars L.

The upper section is provided with the stud-pins or trunnions M, which are fitted in the slots of plates F. The plates may be on the upper sections and the stud-pins on the lower one, if preferred.

It will be seen that, when the sections are arranged in a right line, and slid together so that the stud-pins M are moved to the bottoms of the slots H, the side-bars will be engaged with the yokes, so as to be held very rigidly in the extended position; but, when slid the other way, and the stud-pins brought up into the parts I of the slots, the ends of the side rails will be disengaged from the yokes, and the sections may be folded over on each other, in a very compact form, for storage or transportation, the said slots I permitting the necessary lateral movement of one section with the other at the joints; or, they may be arranged, as represented in fig. 3, for use as a scaffold, each end of which is a ladder; or, again, being arranged as shown in fig. 4, it may serve as a step-ladder, and, in this position, it may have a wheel, N, attached to one end of each of the bottom side rails by a yoke, O, to be rolled along the ground for moving from place to place, the other ends being raised by the operators.

In this latter position it may have a tool-box, P, mounted on it, as shown, for moving with it, said tool-box having the pieces Q attached, one at each end and at the back, so that, when the ladder rests against the side rails of the middle section, above the yokes D thereof, they will extend into the latter and hold the box in place.

I prefer to employ three sections in one ladder, but may have more or less.

Having thus described my invention,

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

1. The combination of two or more sections of a ladder, the yokes C D, the slotted angle-plates F, and the stud-pins M, all substantially as specified.

2. The combination, with the rails A, of the wheels N and yokes O, substantially as specified.

3. The combination, with the rails B and yokes D, of the tool-box P, when provided with the pieces Q, all substantially as specified.

RENSELAER F. DELMOT.

Witnesses:

SOLOX WOOD,
JACOB SLENKER.