I. & C. ERSKINE.

Ladder.

No. 162,364. Patented April 20, 1875.

Fig 1

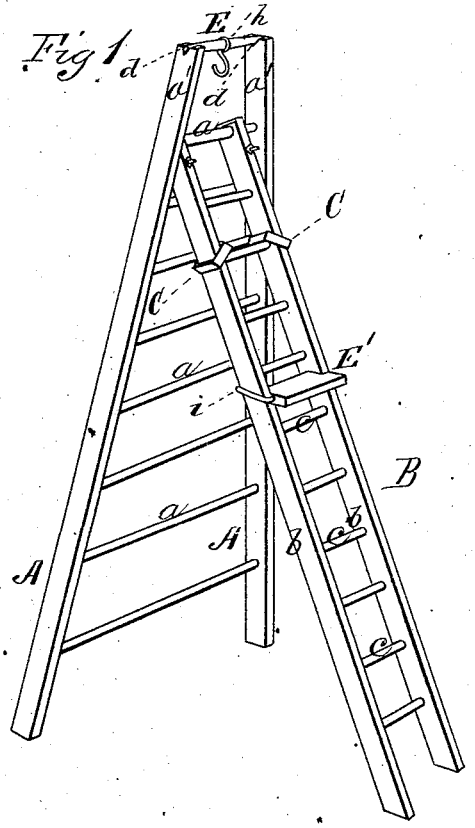


Fig 2

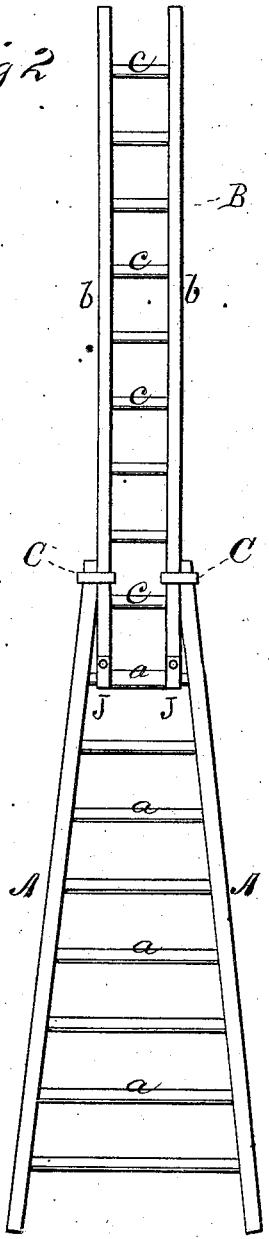
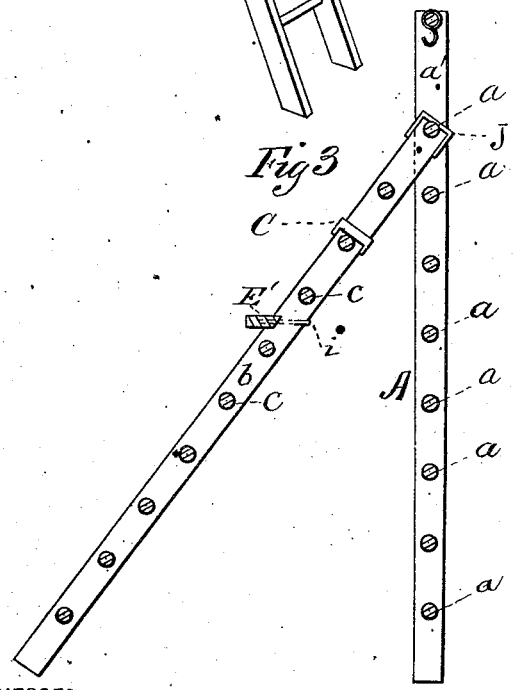


Fig 3



WITNESSES

Mary F. Utley.
Frank J. Masi

INVENTORS.

Irving Erskine
Charles Erskine
Chipman Fosnum & Co
ATTORNEYS

THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

UNITED STATES PATENT OFFICE.

IRVING ERSKINE AND CHARLES ERSKINE, OF BOWLING GREEN, KENTUCKY.

IMPROVEMENT IN LADDERS.

Specification forming part of Letters Patent No. **162,364**, dated April 20, 1875; application filed December 12, 1874.

To all whom it may concern:

Be it known that we, IRVING ERSKINE and CHARLES ERSKINE, of Bowling Green, in the county of Wood and State of Kentucky, have invented a new and valuable Improvement in Ladders; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a perspective view of our ladder, and Fig. 2 is a plan view of the same. Fig. 3 is a vertical sectional view.

This invention has relation to step-ladders, which are capable of being converted into extension-ladders by causing the support of the ladder proper to be provided with rounds, and pivoting the same to the upper end thereof; and the nature of the invention consists in combining with a ladder, and the rung-provided rear support therefor, slide-ties, permanently applied upon the rails of the latter and adapted to be engaged over the upper ends of the former, whereby an adequate means is provided for holding the same in position when it is vibrated upward to form an extension-ladder. It furthermore consists in a detachable rest, having hooks in each end adapted to engage with the rails of the upper ladder, the said step fitting between the said rails, and having beveled surfaces bearing upon their upper surfaces, whereby a platform is provided, upon which the operator may stand, thereby adding greatly to his comfort, and giving him the use of both hands, as will be hereinafter more fully explained.

In the annexed drawings, A designates the rails, and *a* the rungs or rounds, of a ladder, in connection with which I propose to show my improved method of converting the same, with its supports B, into a practical and effective extension-ladder. The rails A converge upwardly from bottom to top, and consequently the section of ladder of which they form part is broader at bottom than at top. The upper round *a* is applied to rails A a considerable distance below their upper extremities, and is used as a pin, upon which the round-provided rear support B is designed to pivot, and it likewise consists of two rails, *b*, having rounds *c*, the former being arranged at such a distance apart as to be capable of being pivoted to the said upper round, and, when extended, as shown in Fig. 2, to fit snugly between the upper ends of rails A. When the two ladders are thus extended they are rigidly secured by means of metallic slides C, which are permanently applied upon the rails *b* of rear support B, and are adapted to be engaged over the ends of rails A, as shown in Fig. 2, and when thus engaged prevent all casual displacement, whereby an operator would be precipitated to the ground. The ladder B being hinged to rails A some distance below the upper ends thereof, a space, *a'*, unprovided with rounds extends above the junction of the same, as shown in Figs. 1 and 3, which I utilize in the following manner, to wit: The extreme upper ends of rails A are notched, and in the notches, which I shall designate by the letter *d*, a cross-bar, E, is applied, having a pendent hook, *h*, by means of which a paint-can or other like bailed vessel may be hung therefrom. By this means the can hangs perpendicularly from the hook, and is entirely out of the way of the painter, and in convenient position for allowing the brush to be placed therein. Another important advantage of this construction—hinging the upper ladder some distance below the lower one—is that by this means the length of the weight-arm of the lever, formed when ladder B is extended, is considerably lengthened, thereby decreasing the leverage of the power-arm, and consequently greatly diminishing the risk of casual breakage, while securing an unusual degree of rigidity for the same.

In practice, we propose to use metallic straps J, embracing the upper round *a* of the lower ladder, and rigidly secured in any suitable manner to the lower ends of rails *b*, thereby effecting a casual detachment of the upper from the lower ladder. E' designates a step, provided with hooks *i*, pivoted in any suitable manner to its ends, which are adapted to be engaged, when the same is put in place, over the rails *b* of ladder B, whereby the said step is rigidly but detachably secured to the same, affording a broad strong platform, upon

which the painter may stand at ease, and allowing him the use of both hands. This step being detachable is capable of being applied at any desired point of ladder B.

What we claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the ladder A *a*, and the ladder B hinged thereto, of the metallic slides C, substantially as specified.

2. The combination of the cross-bar E, having hook *h*, with the rails A of the lower ladder having notches *d*, substantially as specified.

3. The combination, with the upper ladder B, of the detachable step E′, having hooks *i* adapted to be engaged over the rails B of the said ladder, substantially as specified.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

IRVING ERSKINE.
CHARLES ERSKINE.

Witnesses:
A. J. NEELE,
THOMAS MEEHAN.