

E. J. SCHNEIDER.
STEP LADDER HINGE.

No. 176,074.

Patented April 11, 1876.

Fig. 1.

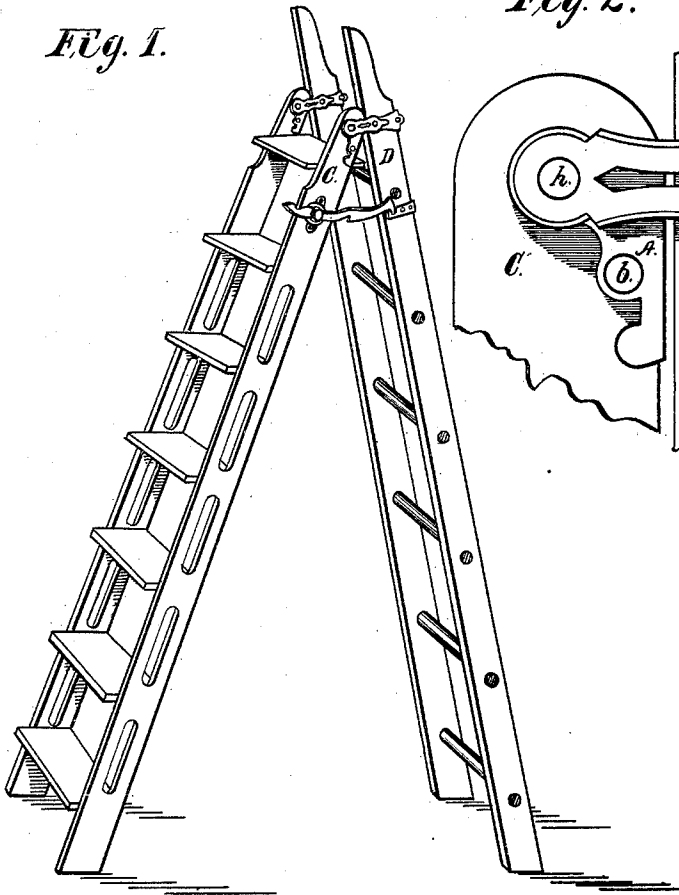


Fig. 2.

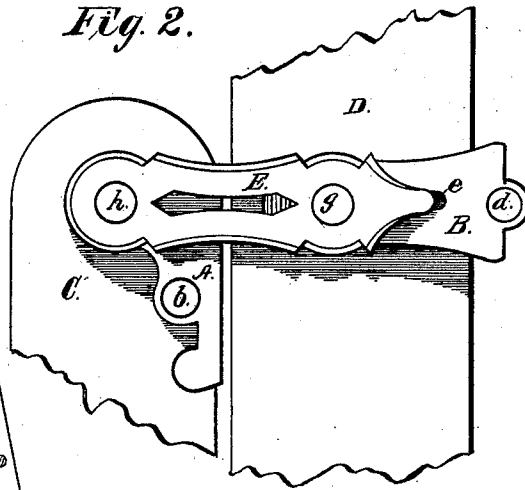
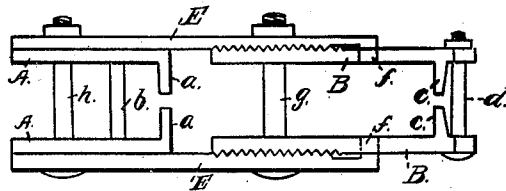


Fig. 3.



Witnesses;
Chas. M. Peck
L. Greulich

Inventor;
Edward J. Schneider
by his Atty's
Peck & Co.

UNITED STATES PATENT OFFICE.

EDWARD J. SCHNEIDER, OF DAYTON, OHIO, ASSIGNOR OF ONE-THIRD HIS
RIGHT TO MICHAEL SCHNEIDER, OF SAME PLACE.

IMPROVEMENT IN STEP-LADDER HINGES.

Specification forming part of Letters Patent No. **176,074**, dated April 11, 1876; application filed
March 24, 1876.

To all whom it may concern:

Be it known that I, EDWARD J. SCHNEIDER, of Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Step-Ladder Hinges; and I do hereby declare the following to be a full, clear, and exact description of the same.

This invention relates to that class of step-ladders which have their side bars hinged together at the top to enable the ladder to be opened when required as an ordinary extension ladder; and my improvement consists in producing a hinge which is readily adjustable to various widths and thicknesses of the side bars, as will be herewith described, and the invention distinctly pointed out in the claim.

To enable others skilled in the art to which my invention appertains to make and use the same, I would thus proceed to describe it, referring to the accompanying drawings, in which—

Figure 1 is a perspective view of a step-ladder provided with my improved hinge. Fig. 2 represents a side view of the hinge on a larger scale applied to broken sections of the bars. Fig. 3 is a top view of the hinge in connected form.

Corresponding letters of reference indicate like parts in all the figures.

A A represent two pieces of metal, Figs. 2 and 3, with flanges *a* at one end. These are of the shape represented, and are clamped on one of the side bars C of the ladder by a bolt, *b*, passed through them and the bar. They constitute the pivotal bearings upon which the hinge turns, and prevent the wearing of the wood. On the opposite edge of the other bar, Fig. 2, are two flanged metal pieces, B, (*e*, Fig. 3, representing the flanges,) which embrace the sides of the bar D, and are clamped by the bolt *d* passed through their ends at the edge of the bar. Through each is a centrally-located slot, *e*, Fig. 2, and their outer faces are serrated or notched transversely. E E are

the two connecting pieces of the shape represented in Fig. 2. At one end they have studs *f*, dotted lines, Fig. 3, that enter the slots *e* of the pieces B. Their inner faces are serrated or notched transversely to fit the serrations upon the pieces B, and a bolt, *g*, passed through them and the pieces B, and the bar D securely and rigidly clamps them in place. The opposite ends of the pieces E E fit upon the pieces A, and are secured by a bolt, *h*, passed through the pieces E and A and the bar C, which forms the pivot upon which the hinge turns.

It will be readily seen that by means of nuts upon the ends of the bolts the hinge as a whole can be adjusted to fit various thicknesses of bars, and also by means of the serrations and the studs *f* in the slots *e*, that the pieces E and B are adjustable upon each other to accommodate the hinge to various widths of bars. Thus, as it sometimes occurs in the manufacture of ladders of this description that the bars vary in size, by the employment of my improved hinge the evil that would otherwise occur with an ordinary hinge is remedied.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The herein-described hinge, consisting of the flanged bearing-pieces A, the flanged, serrated, and slotted pieces B, and the serrated connecting pieces E, when arranged and connected in the manner and for the purpose specified.

2. The combination, with the bars C and D, of a step-ladder of the herein-described hinge, constructed and arranged substantially in the manner and for the purpose specified.

Witness my hand this 20th day of March, A. D. 1876.

EDWARD J. SCHNEIDER.

Witnesses:

CHAS. M. PECK,
PATRICK H. GUNCKEL.