(No Model.)

T. J. McCORMICK.

STEP LADDER.

No. 569,119. Patented Oct. 6, 1896.

Fig. 1.

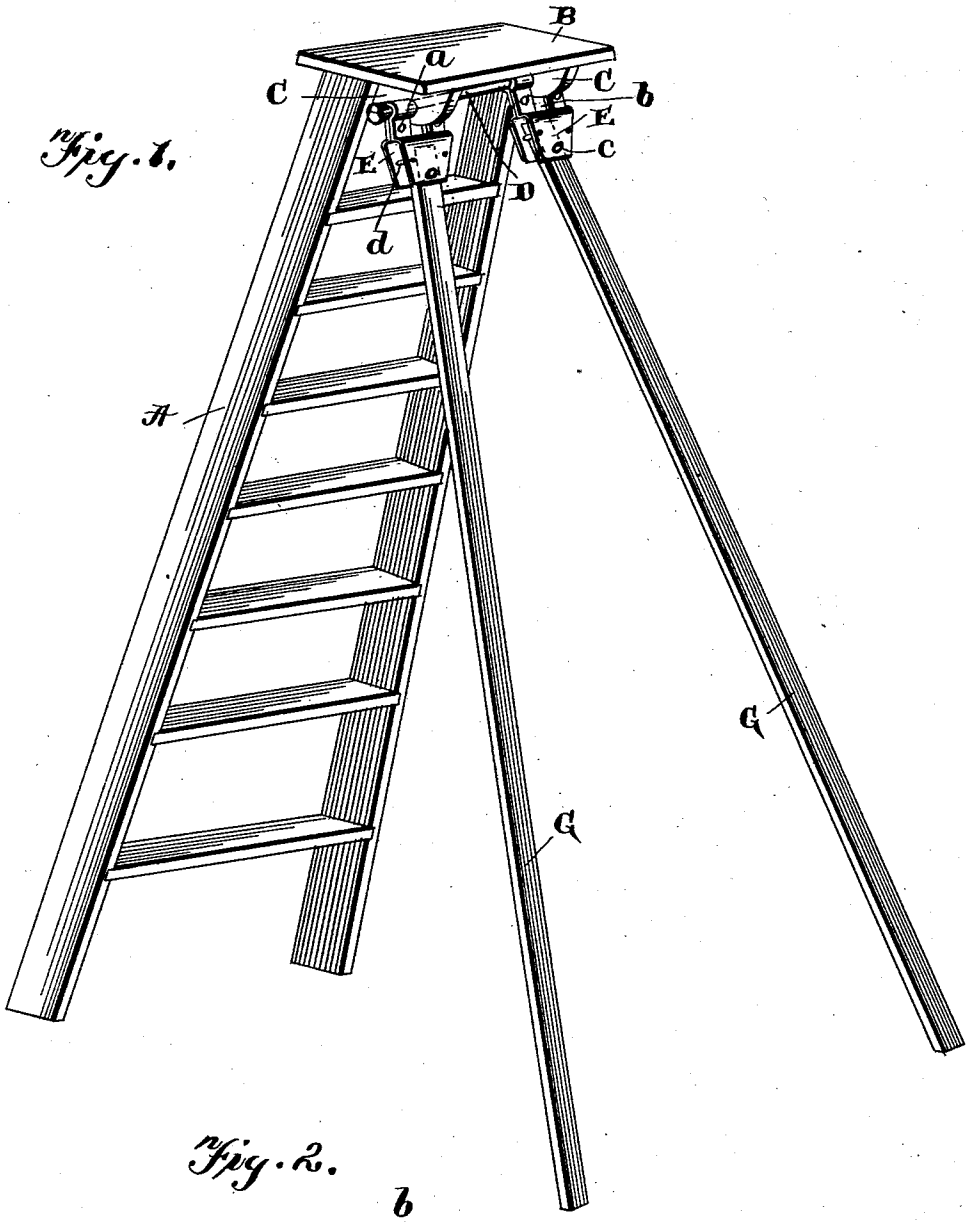
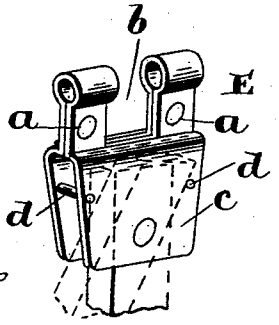


Fig. 2.



Witnesses
Geo. E. Fuchs.
James V. Perara

Inventor
Theodore J. McCormick
by Pattison & Nesbit
Attorneys

UNITED STATES PATENT OFFICE.

THEODORE J. MCCORMICK, OF POMONA, CALIFORNIA.

STEP-LADDER.

SPECIFICATION forming part of Letters Patent No. 569,119, dated October 6, 1896.

Application filed October 28, 1895. Serial No. 567,152. (No model.)

To all whom it may concern:

Be it known that I, THEODORE J. MCCORMICK, of Pomona, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Step-Ladders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to improvements in step-ladders, and it pertains to that class of ladders which are provided with independently-swinging supporting-feet, all of which will be fully described hereinafter.

The object of my invention is to provide an improved hinge in and to which the upper ends of the said independently-swinging legs are pivoted, the same being constructed to limit the lateral movement of the legs through the medium of stops adapted to engage the pivoted ends of said legs.

In the accompanying drawings, Figure 1 is a perspective view of a ladder which embodies my invention. Fig. 2 is an enlarged detached perspective view of one of the hinges.

A represents the step portion of an ordinary step-ladder, which is provided with the top B, and beneath the top B the supports C. Passing through these supports or brackets C is a pivotal bolt D, upon which the hinges E are pivoted. These hinges, as shown in Fig. 2, consist of sheet-metal doubled upon itself with the doubled ends beyond the opening for the pivotal bolt riveted together, as shown at *a*, and then the two parts of the sheet metal bent outward to form a space, as shown, in which the upper ends of the supporting-legs G are pivoted. The doubled ends of the hinges are provided with the slots *b*, thus forming two ears upon each hinge, and these ears straddle the brackets C, so that through this construction the hinges are held against lateral movement upon the said pivotal bolt, and therefore always supported in their proper position. As here shown, the upper ends of the supporting-legs are pivoted near the lower portion of the hinges, at the point *c*, and the hinges are provided with the transverse bolts *d*, which form stops for the upper ends of the legs to prevent them moving laterally beyond the prescribed limit regulated by the distance between the said bolts. Instead of the bolt, however, it will be readily understood that projections of any character upon the inner side of the hinges, adapted to be engaged by the upper ends of the said legs, would effect the same purpose. These bolts, if desired, may be provided with shoulders to prevent the hinges being squeezed together, or they may be simply bolts or pins passed through the hinges with their ends riveted; also, instead of pivoting the legs at a point slightly below their upper ends it will be readily conceived that they may be pivoted at their extreme ends and the stops or pins placed in the hinges below the pivotal point, and the same result practically accomplished, in that they would then provide stops for limiting the lateral movement of the swinging legs.

It will be seen from this description that each leg has a compound movement, that is, adapted to swing away from the step portion of the ladder upon the hinges, and adapted to be moved laterally by being pivoted themselves to said hinges. The object of providing the legs with this compound movement is that the ladder is thus adapted to be solidly and firmly supported upon irregular surfaces, which would not be the case if the legs were firmly connected together in the ordinary manner.

The hinges which I here show are simple and cheap and effect the desired result, preventing the legs from springing outward beyond a certain point, and thus preventing the ladder from falling by an overdue spreading of the legs, as will be readily understood.

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

1. In a step-ladder, the combination of the step provided at its under side at opposite ends with supporting-brackets, a hinge-bolt passing through said brackets, supporting-legs having hinges provided with hinge-ears which receive the said bolt, the hinge-ears of each hinge straddling the bracket with the ears at the inner and outer sides respectively.

2. A hinge for step-ladders consisting of separated parallel portions having at one end

a hinge-eye, a supporting-leg pivoted below its upper end between the said parallel separated portions, and stops or projections supported by the parallel portions at their inner sides and situated a distance apart greater than the width of the adjacent portion of the leg, whereby the leg is permitted only a limited amount of lateral movement upon its pivotal point, substantially as and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

THEODORE J. McCORMICK.

Witnesses:
N. P. WILKINSON,
H. S. FINNEY.