

*W. E. Ludlow,  
Ladder.*

*No. 94,423.*

*Patented Aug 31, 1869.*

FIG. 1.

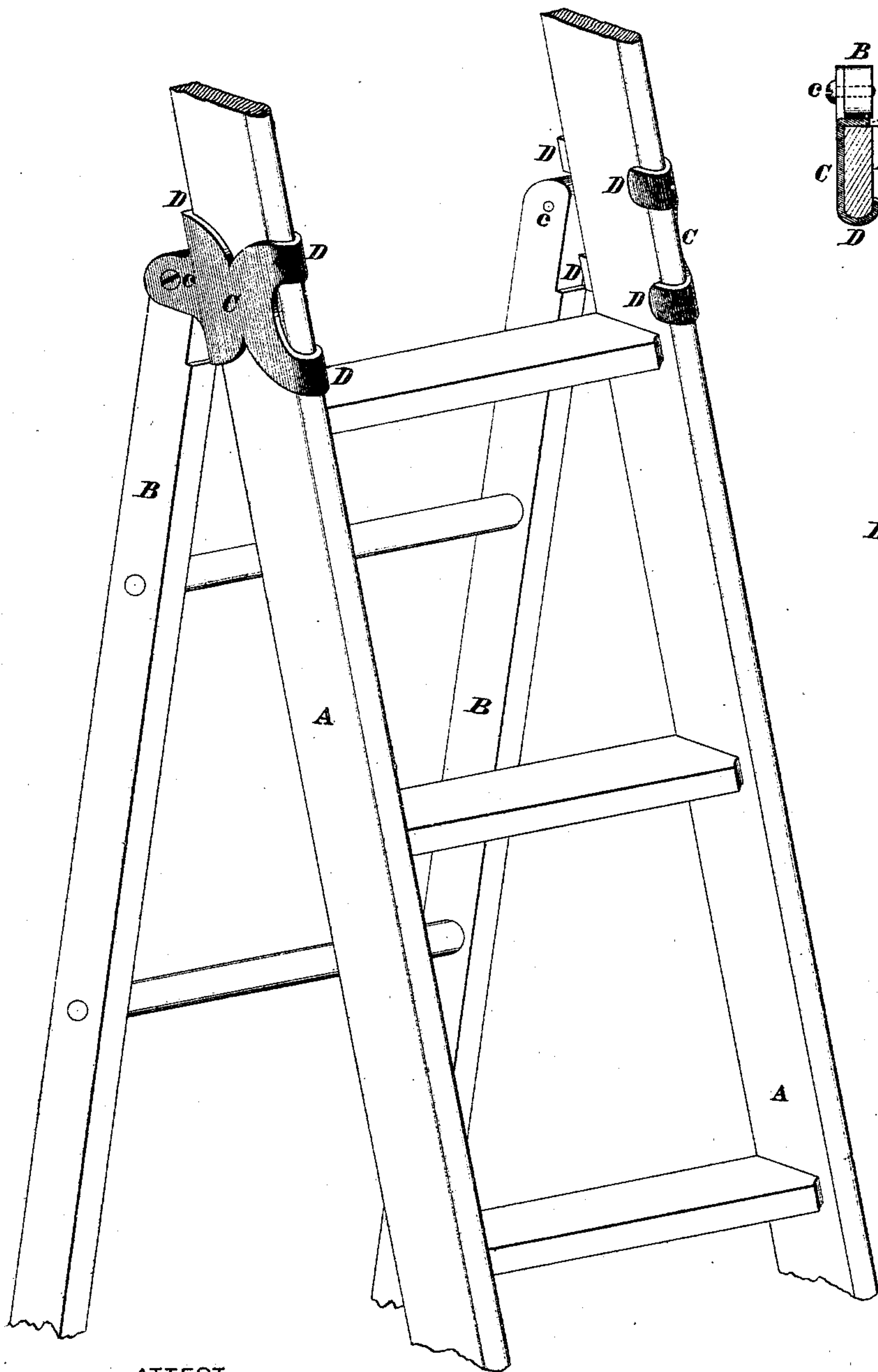


FIG. 2.

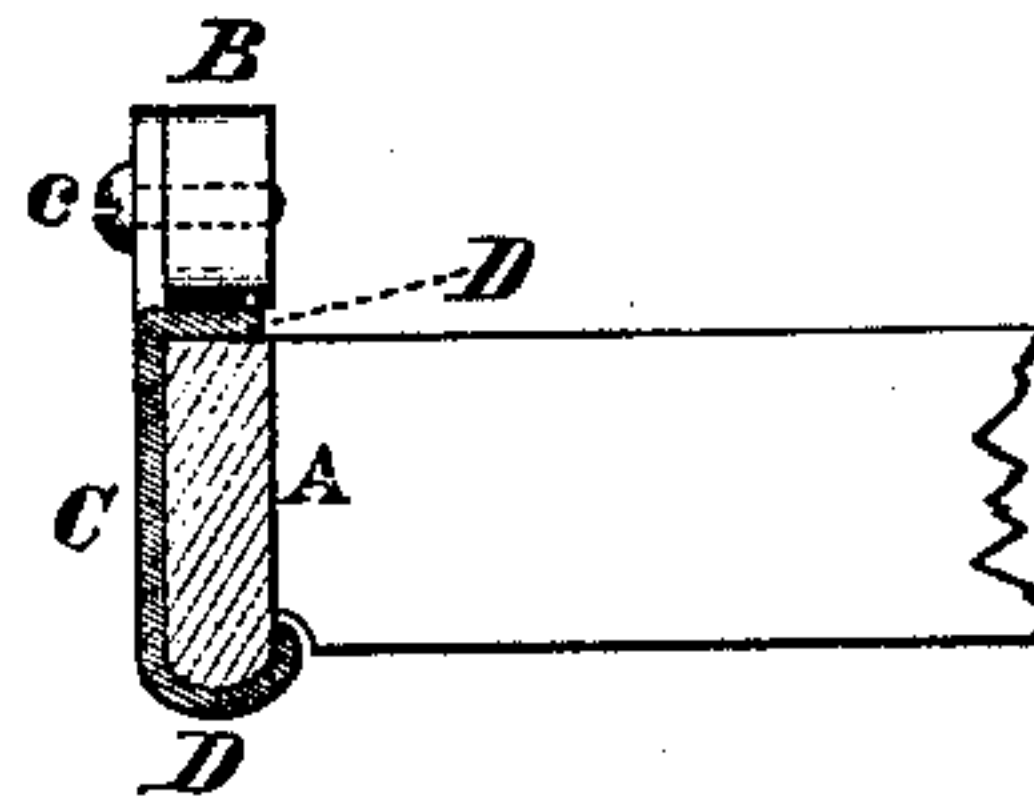
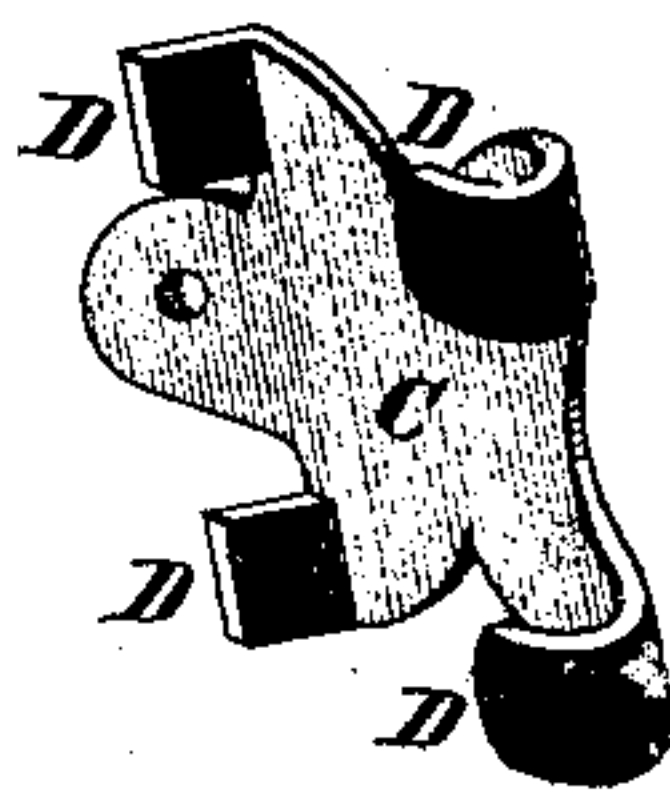


FIG. 3.



*W. E. Ludlow  
by his Attorneys,  
Knight Bros.*

ATTEST.

*Jas. H. Layman.  
Sam. Knight.*

# United States Patent Office.

WILLIAM E. LUDLOW, OF CINCINNATI, OHIO, ASSIGNOR TO HENRY C. METCALFE, OF SAME PLACE.

*Letters Patent No. 94,423, dated August 31, 1869.*

## IMPROVED STEP AND EXTENSION-LADDER.

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

### *To whom it may concern:*

Be it known that I, WILLIAM E. LUDLOW, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Improvement in Step and Extension-Ladders; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

This invention relates to the class known as step and extension-ladders, and is particularly designed as an improvement on that patented to Charles Croley, of Dayton, Ohio, on the 13th day of August, 1867.

My improvement consists in a form of slide or clip, which, while of cheaper application, is free from the liability to bind and get out of place, to which Croley's slide is subject.

Figure 1 is a perspective view of my improved slide in position on the ladder.

Figure 2 is a transverse section thereof.

Figure 3 shows one of my slides detached.

A and B are portions of the two members of a step and extension-ladder.

My slide C is pivoted at *c* to the portion B, as in Croley's, but differs from his in having no tongue,

nor any groove in the member A to receive the same; which tongue and groove, beside their expense, are objectionable from their liability to bind and get out of order, especially in out-door use, owing to the expansion and shrinkage of the wood-work. It is found that if the fit between the tongue and groove is made sufficiently free to work easily in all weathers, the ends of the tongue will at times ride on and destroy the sides of the groove—a defect that rapidly increases with use.

Instead of Croley's tongue and groove, I simply prolong my slide a considerable distance up and down, and furnish it with four claws or lips, D, which embrace the edges of the member A.

I claim herein as new, and of my invention—

The parts C c D, composing a sliding joint for a step and extension-ladder, as set forth.

In testimony of which invention, I hereunto set my hand.

WILLIAM E. LUDLOW.

Witnesses:

GEO. H. KNIGHT,  
JAMES H. LAYMAN.