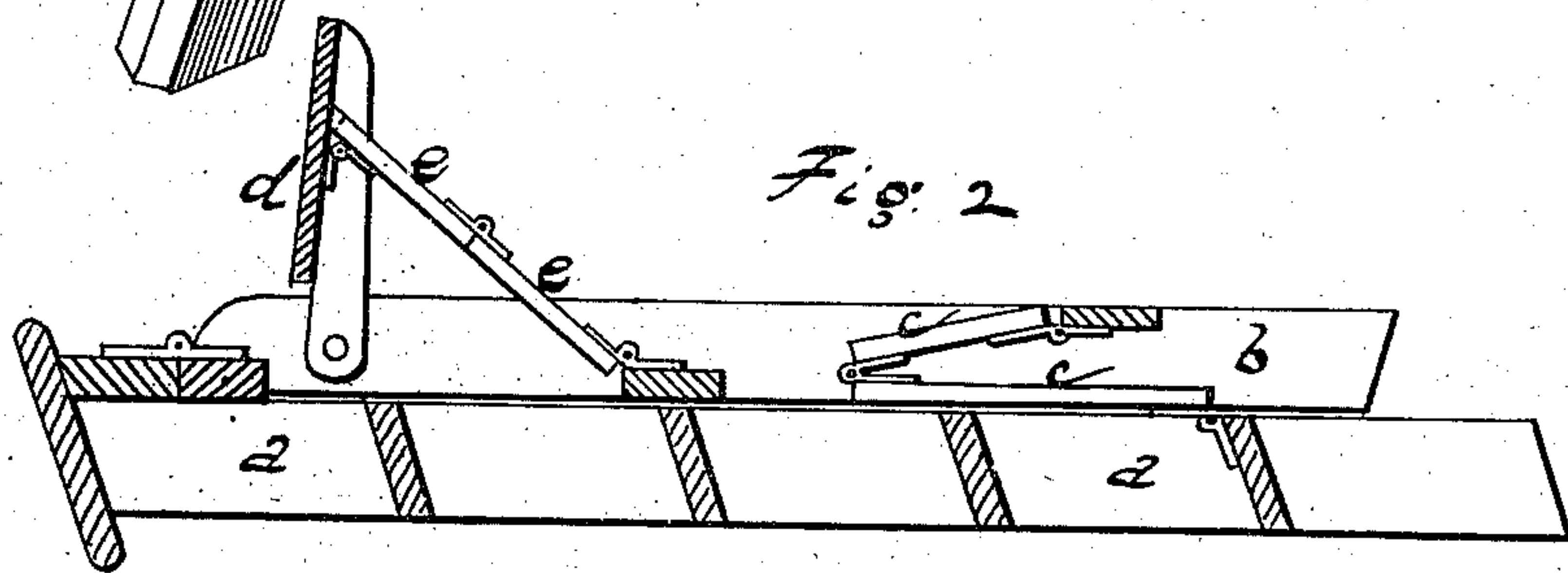
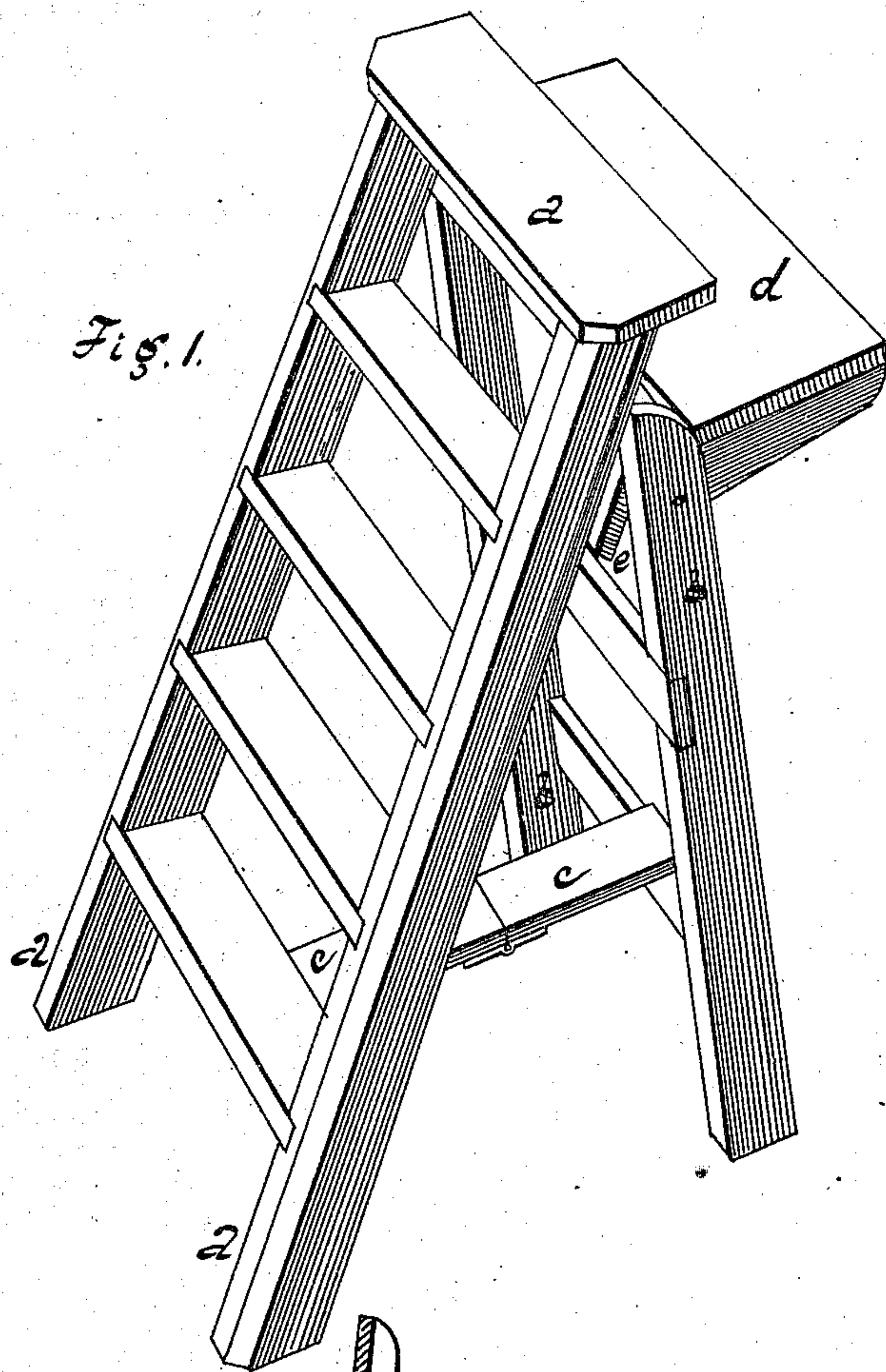


W. L. POTTER.
Step-Ladder.

No. 161,059.

Patented March 23, 1875.



Witnesses.

John Pollitt
Geo. E. Nolan.

Inventor

Wilson L. Potter
By W. E. Simonds Atty.

UNITED STATES PATENT OFFICE.

WILSON L. POTTER, OF HARTFORD, CONNECTICUT.

IMPROVEMENT IN STEP-LADDERS.

Specification forming part of Letters Patent No. **161,059**, dated March 23, 1875; application filed January 25, 1875.

To all whom it may concern:

Be it known that I, WILSON L. POTTER, of Hartford, in the county of Hartford and State of Connecticut, have invented an Improved Combined Step-Ladder and Shelf, of which the following is a specification, reference being had to the accompanying drawing, where—

Figure 1 is a perspective view of a step-ladder and shelf combined embodying my said improvements. Fig. 2 is a view of the same, folded up, in longitudinal section, the plane of the section being one side or off the center. The shelf is not folded down.

The device is a folding step-ladder, with a folding shelf attached thereto, making use of adaptations of the principle of the toggle or knee joint for the adjustment of the ladder and of the shelf for use.

I denote the whole of the ladder proper by the letter *a*, to which ladder is hinged the supporting-frame *b*. When the ladder is adjusted for use the frame *b* is swung out, as shown in Fig. 1; when folded up, the ladder and the frame lie together, as shown in Fig. 2. The free ends of the ladder and frame are connected by the two pieces *c c*, hinged, respectively, to the ladder and frame, and also hinged together, thus constituting a knee or toggle joint, and it is set centrally of the ladder and

frame, so as to dispense with the necessity for more than one of these joints. The shelf *d* is hinged to the frame *b*, and is connected to one of the cross-bars of this frame by toggle-joint parts *e e*, hinged at the ends and hinged together.

The use of these toggle-joints for these purposes has peculiar practical advantages: When the apparatus is folded up there are no loose or dangling ends or pieces to be knocked or broken off; the apparatus folds up in the most compact possible manner; the ends of the joints being connected permanently to other parts, an uninstructed user has no difficulty in adjusting the device for use or in folding it up—he can make no mistake; the adjustments are accomplished by a single movement; the construction is a strong and sure one; and withal it is cheap.

I claim as my invention—

The combination of the ladder *a*, the hinged frame *b*, the centrally-set toggle-joint *c*, the hinged shelf *d*, and the toggle-joint *e*, all substantially as and for the purpose set forth.

WILSON L. POTTER.

Witnesses:

WM. E. SIMONDS,
JAS. S. BAISDEN.