

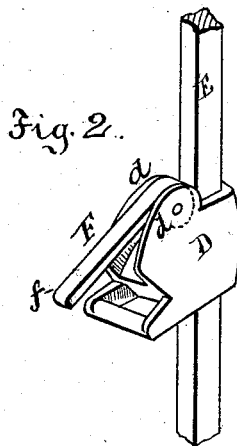
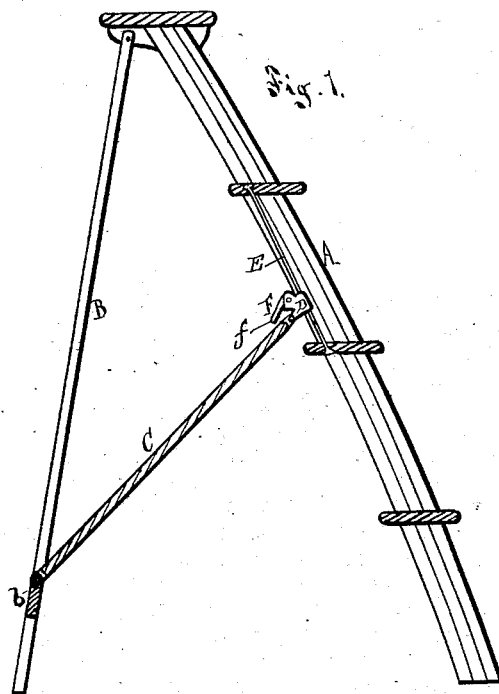
(No Model.)

H. P. SPENCER.

STEP LADDER.

No. 267,118.

Patented Nov. 7, 1882.



Attest:
J. S. Mayne
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Inventor:
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By
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UNITED STATES PATENT OFFICE.

HENRY P. SPENCER, OF HOWELL, MICHIGAN.

STEP-LADDER.

SPECIFICATION forming part of Letters Patent No. 267,118, dated November 7, 1882.

Application filed May 24, 1882. (No model.)

To all whom it may concern:

Be it known that I, HENRY P. SPENCER, of Howell, in the county of Livingston and State of Michigan, have invented new and useful
5 Improvements in Step-Ladders; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

10 The nature of this invention relates to certain new and useful improvements in the construction of step-ladders, the object of the invention being to provide a simple but safe means for locking the extension-brace to its
15 adjusted position; and the invention consists in the peculiar construction of the locking device, and in the construction, arrangement, and combination of the parts, all as more fully hereinafter set forth.

20 Figure 1 is a sectional side elevation of a step-ladder provided with my device or improvement. Fig. 2 is a perspective of my improved locking device detached.

In the accompanying drawings, A represents
25 the main and step portion of a step-ladder, of any suitable construction, which is provided with the prop-frame B, which is hinged or otherwise pivotally secured to the upper end of the ladder A, the lower ends of this prop-
30 frame being rigidly secured together by means of the girt *b*.

When the ladder is set up for use the prop-frame is extended or opened rearward, so as to support the ladder proper in an inclined position, and so that the steps thereof will be
35 upon horizontal planes. To prevent the accidental closing up of the ladder, I pivotally secure to the girt *b*, in any convenient manner, one end of the brace-bar C, the opposite end
40 of which has properly secured to it a sleeve, D, which embraces the square rod E, which

connects together two adjacent steps of the ladder, near the rear edges thereof. This sleeve D is provided with two ears, *d*, between which is fulcrumed the cam-lever F in such manner
45 that the face of the cam will impinge against the bar E, and the gravity of the arm *f* of which will automatically lock the sleeve to the square rod E at any desired point.

In practice, after the prop-frame B has been
50 extended, and it is desired to lock the same against its accidental closing, the sleeve D will have slipped down upon the rod, where it can be rigidly secured by depressing the lever E, causing its cam to come in contact with the
55 bar and securely lock it within the recess of the sleeve D, through which it slides. By raising or disengaging the cam-lever the prop-frame can be readily closed, the sleeve sliding up the bar, and in this position it can be again
60 locked, if desired, as before.

I deem the square rod E important in preventing the sleeve D from turning and the brace from twisting, and as it gives greater
65 friction-bearing to the cam than a round rod possibly could, and the gravital lever-arm important, as it automatically locks the parts together.

I am aware of the Patent No. 157,556, and I do not therefore claim a sliding sleeve provided with a set-screw, as shown in said patent.
70

What I claim as my invention is—

In a step-ladder, the combination, with the ladder A, prop B, brace-bar C, and sleeve D,
75 of the square or rectangular bar E and cam F, having gravital arm *f*, all constructed, arranged, and operating as and for the purposes set forth.

HENRY P. SPENCER.

Witnesses:

H. S. SPRAGUE,
E. SCULLY.