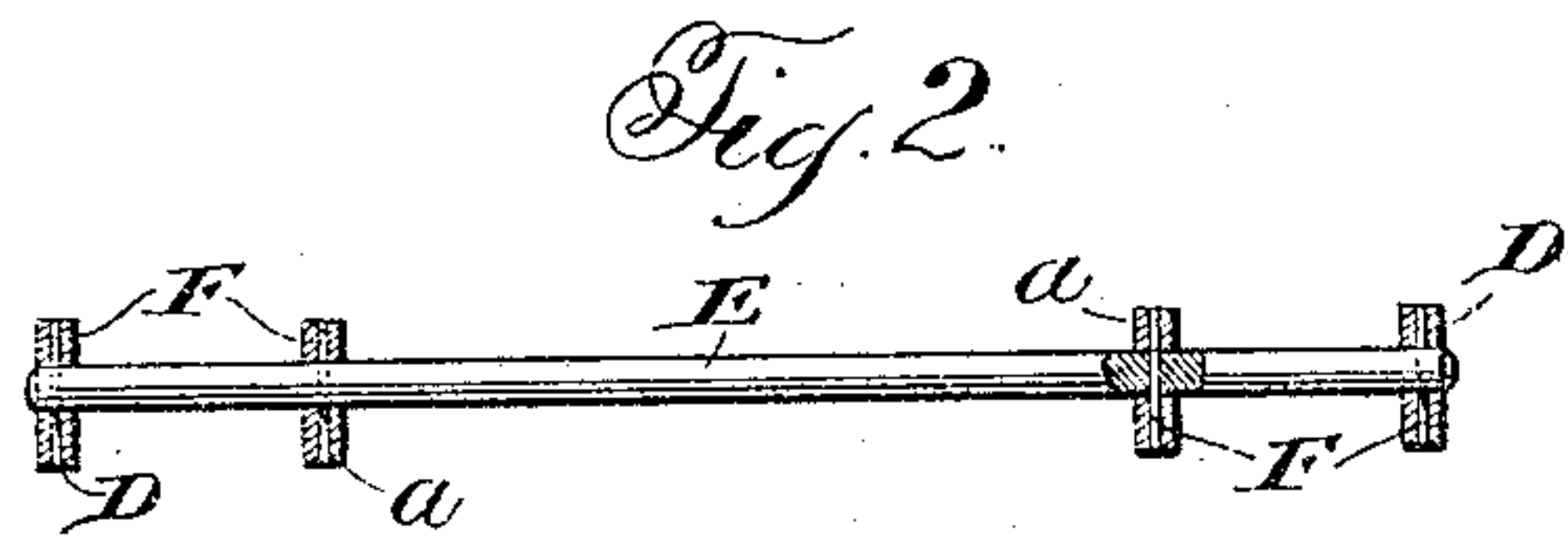
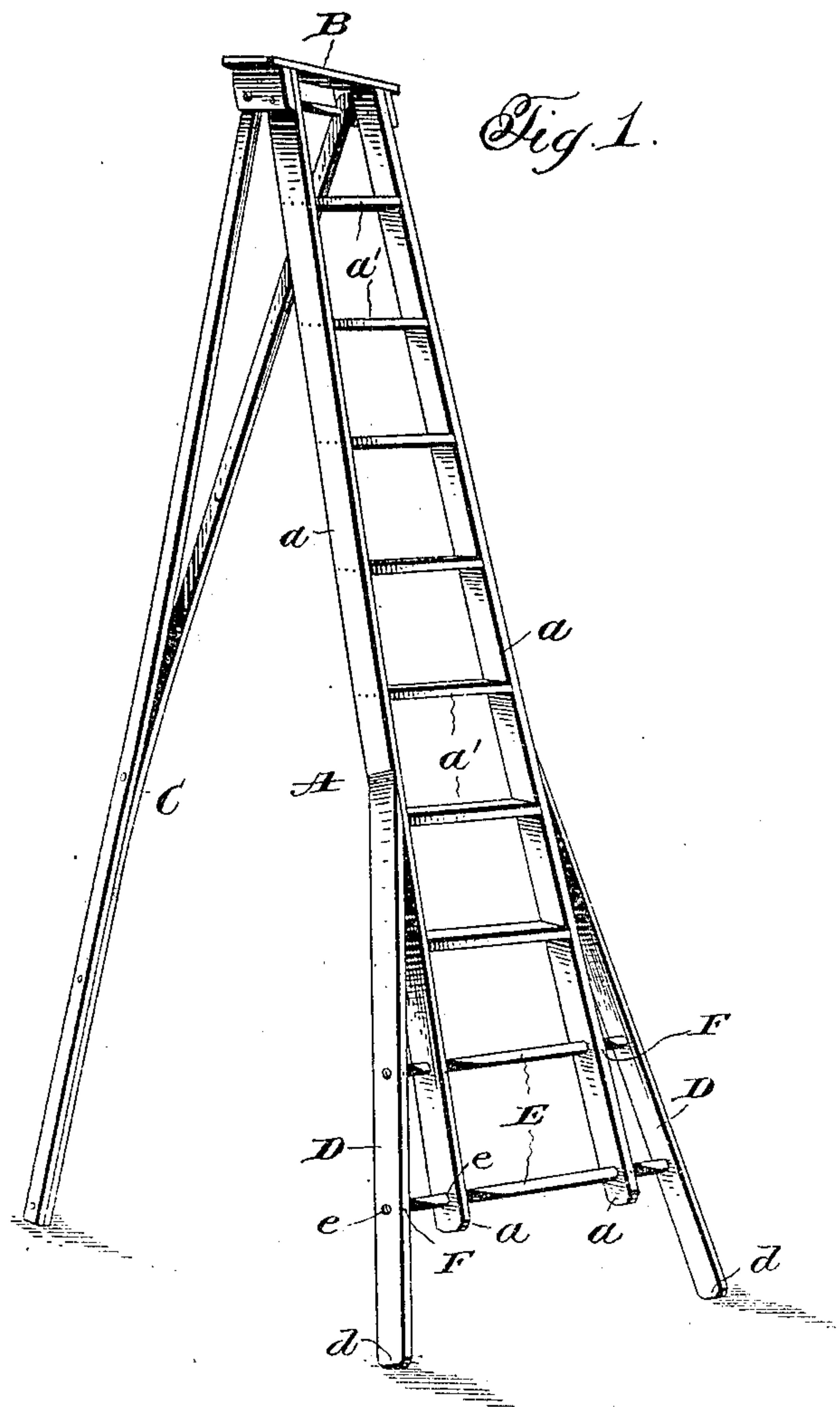


No. 808,124.

PATENTED DEC. 26, 1905.

J. S. TILLEY.
STEP LADDER.

APPLICATION FILED APR. 17, 1905.



Witnesses:

James Hutchinson.
Calvin T. Milans.

Inventor:

John S. Tilley,

By McCormilans Attorneys:

UNITED STATES PATENT OFFICE.

JOHN S. TILLEY, OF WATERVLIET, NEW YORK.

STEP-LADDER.

No. 808,124.

Specification of Letters Patent.

Patented Dec. 26, 1905.

Application filed April 17, 1905. Serial No. 255,933.

To all whom it may concern:

Be it known that I, JOHN S. TILLEY, a citizen of the United States, residing at Watervliet, in the county of Albany and State of New York, have invented certain new and useful Improvements in Step - Ladders, of which the following is a specification, reference being had therein to the accompanying drawings.

15 This invention relates to step-ladders, and has for a primary object the provision of a device of this character possessing, generally speaking, the desirable characteristics of the tripod or three-legged type of ladder and provided with improvements rendering the same
20 strong and durable, as also sufficiently rigid, to resist loosening or separation of the parts, whereby to overcome the tendency of either of the fore legs or feet to creep or spring out of their normal alinement under torsional stress to which tripod ladders are subjected, with the resultant effect that the ladder is under comparatively short use impaired to
25 such an extent as to at least become noticeably unsteady and frequently dangerous.

With the above-stated object in view a convenient embodiment of the invention comprises a step-ladder having two fore legs and a relatively centrally arranged back leg, the back leg being pivotally connected at its
30 upper end to the upper ends of step-supporting bars, and said bars and the steps carried thereby being in turn supported by the fore legs secured thereto and projecting laterally therefrom in a divergent manner to constitute the base of the ladder, in combination
35 with a series of broad flat steps mounted between the side bars and extending for the greater portion of their length, and combined
40 brace - rods and steps passing through the lower ends of the side bars and the fore legs and secured thereto.

The novel details in the construction and arrangement of the several parts of the ladder will be apparent from the detailed description hereinafter when read in connection
45 with the accompanying drawings, forming part hereof, and wherein the before-mentioned embodiment of the invention is illustrated.

In the drawings, Figure 1 is a perspective view of the ladder, and Fig. 2 is a transverse sectional view through one of the combined brace-rods and steps.

55 Referring more specifically to the drawings, wherein like reference characters refer

to corresponding parts in the two views, A designates the ladder proper, the same comprising relatively wide side bars *a* and broad flat steps *a'* of a width substantially that of said side bars and firmly secured at convenient distances apart therebetween. At the upper end of the portion A of the ladder is mounted the usual top piece or platform B, to which is pivoted a back leg C, the latter
65 being arranged centrally of a pair of fore legs D. These fore legs are approximately the same width as the side bars *a* and are secured directly thereto at their upper ends at points relatively near the lower end of the side bars and diverge outwardly therefrom, as clearly indicated in Fig. 1, to provide bearing-points
70 *d* at a distance apart much greater than the width of the ladder proper. That the portion A of the ladder may be rigidly supported upon the fore legs D and also that said fore legs may be firmly braced I provide the lower ends of the side bars *a* and the braces E with
75 alined apertures *e* of a shape and size to receive and encompass combined brace-rods and steps E, the same being held in place by a snug engagement between the same and the walls of the apertures *e* and also through the medium of locking-pins F, passing through the side bars *a* and fore legs D into said brace-
80 rods. Owing to this arrangement any lateral loosening or play of the brace-rods is absolutely prevented, and consequently the fore legs cannot creep or spring out of their normal alinement, thereby effectually overcoming this disadvantage, which would be incident to the ladder were the brace-rods secured to the front or rear edges of the side bars *a* and legs D. The arrangement also enables the construction of the parts just described within the width of the side bars *a*,
85 which will permit close folding of the back leg B.

It is to be understood that changes and alterations may be made in the particular embodiment of the invention herein disclosed without departing from the spirit of the invention.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

A step-ladder comprising a pair of relatively broad side bars *a* carrying therebetween a series of broad flat steps *a'*, extending for the greater portion of the length of said side bars, a pair of correspondingly-broad fore legs D secured to said side bars

and diverging downwardly and outwardly therefrom and for some distance therebelow, the bottom ends of said fore legs being free and bordering an unobstructed space beneath
5 the side bars, the lower ends of the side bars and the fore legs being formed with a plurality of series of alined circumferentially-inclosed apertures *e*, brace-rods *E* formed complementary to and passing through said aper-
10 tured portions of the side bars and fore legs and confined against lateral movement in any direction by the walls surrounding the said apertures, means for preventing longi-

tudinal movement of the brace-rods in said apertures, and a pivoted back leg occupying 15 a central position relative to the fore legs, those portions of the brace-rods intermediate the side bars constituting steps below the lowermost of the broad steps *a'*.

In testimony whereof I affix my signature 20 in presence of two witnesses.

JOHN S. TILLEY.

Witnesses:

ROSE LEACH,
RUTH D. TANNER.