

(No Model.)

A. B. MAGUIRE.
STEP LADDER.

No. 586,341.

Patented July 13, 1897.

FIG. 1.

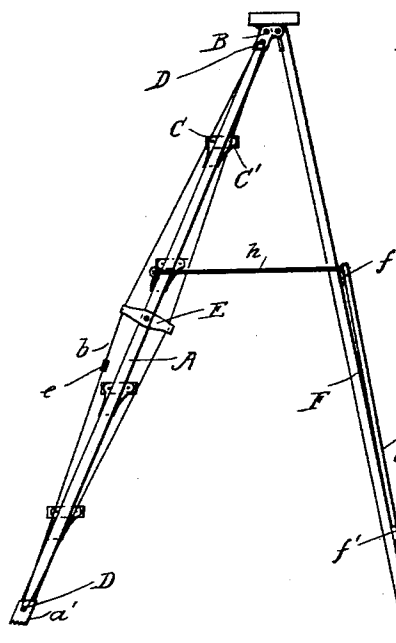


FIG. 2.

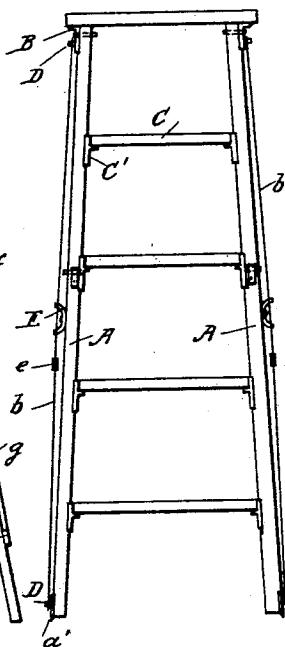


FIG. 3.

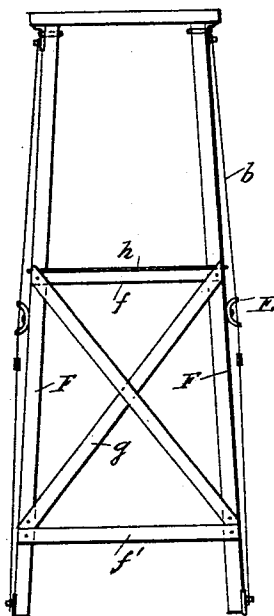


FIG. 4.

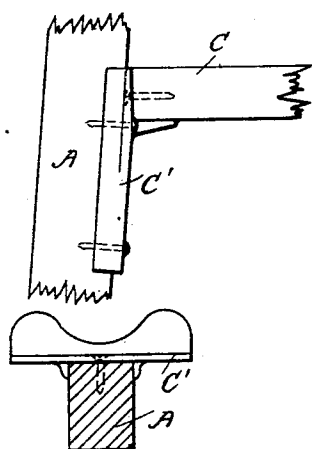
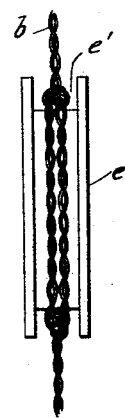


FIG. 5.

FIG. 6.



WITNESSES
 Frank L. Gregory
 Thos. C. Pole

INVENTOR
Albert B. Maguire.
by Herbert W. Jenner.
Attorney

UNITED STATES PATENT OFFICE.

ALBERT BURNHAM MAGUIRE, OF STRATFORD, CANADA.

STEP-LADDER.

SPECIFICATION forming part of Letters Patent No. 586,341, dated July 13, 1897.

Application filed January 18, 1897. Serial No. 619,644. (No model.)

To all whom it may concern:

Be it known that I, ALBERT BURNHAM MAGUIRE, a citizen of Canada, residing at Stratford, in the county of Perth and Province of Ontario, Canada, 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 appertains to make and use the same.

This invention relates to step-ladders; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a side view of the step-ladder. Fig. 2 is a front view, and Fig. 3 is a rear view. Figs. 4 and 5 are detail views of one of the brackets which support the steps. Fig. 6 is a detail side view of one of the devices for adjusting the tension of the truss-wires.

A are the two front legs, having serrated brackets *a'* secured to their lower ends to prevent them from slipping.

B is a hinge-bracket secured to the top of each leg A.

C are the steps of the ladder, secured to brackets C', which in turn are secured to the front legs A.

D are bolts or pins which project laterally from the brackets *a'* and B. E are the bridges, secured to the middle portions of the legs A. Trusses *b*, of twisted wire, are provided and are looped over the bolts D and spread apart by the bridges E. Each truss is provided with one or more grooved blocks *e*. Each block is rectangular in cross-section, so that it can be revolved by means of a wrench. The ends of the twisted wires which form the trusses are secured in the grooves *e'* of the blocks *e*, and the tension of the trusses is adjusted by turning the twisted wires.

The back legs F are pivoted at their upper ends to the bracket B in any approved manner. A brace *f* extends crosswise between the legs F at about the middle of their length,

and a brace *f'* extends crosswise between the said legs near their bottoms. Cross-braces *g* are arranged diagonally between the end portions of the braces *f* and *f'*. The upper part between the legs F is left open, so that a board can be passed between the legs and rest on either of the two steps which come next below the top step. The legs are held in their extended position by means of a bail *h*, the ends of which are pivoted to the front legs. The loop of the bail passes around the rear legs and rests upon the brace *f* when the legs are spread out. The bail is raised when the legs are folded.

Step-ladders made according to this invention are very light and rigid. They cannot slip, spread, or warp, and they are very cheaply constructed.

What I claim is—

1. In a step-ladder, the combination, with the front legs provided with steps, and lateral projections at the end portions of the said legs; of bridges secured to the middle portions of the said legs and projecting above and below them, continuous-wire trusses having their end portions looped over and slidable on the said projections and having their middle portions carried by the said bridges, and a wire-tightening device connecting the end portions of each said continuous-wire truss, substantially as set forth.

2. In a step-ladder, the combination, with the front legs provided with steps, and lateral projections at the end portions of the said legs; of bridges secured to the middle portions of the said legs, trusses of twisted wires carried by the said projections and bridges, and grooved rectangular blocks having the ends of the trusses secured to them and affording a means for tightening the trusses by twisting the wires, substantially as set forth.

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

ALBERT BURNHAM MAGUIRE.

Witnesses:

N. F. HARDING,
JENNIE MEGAR.