No. 636,444. Patented Nov. 7, 1899.

G. T. MURRAY, Dec'd.

A. C. MURRAY & C. NAUSS, Administrators.

STEP LADDER.

(Application filed May 17, 1899.)

(No Model.)

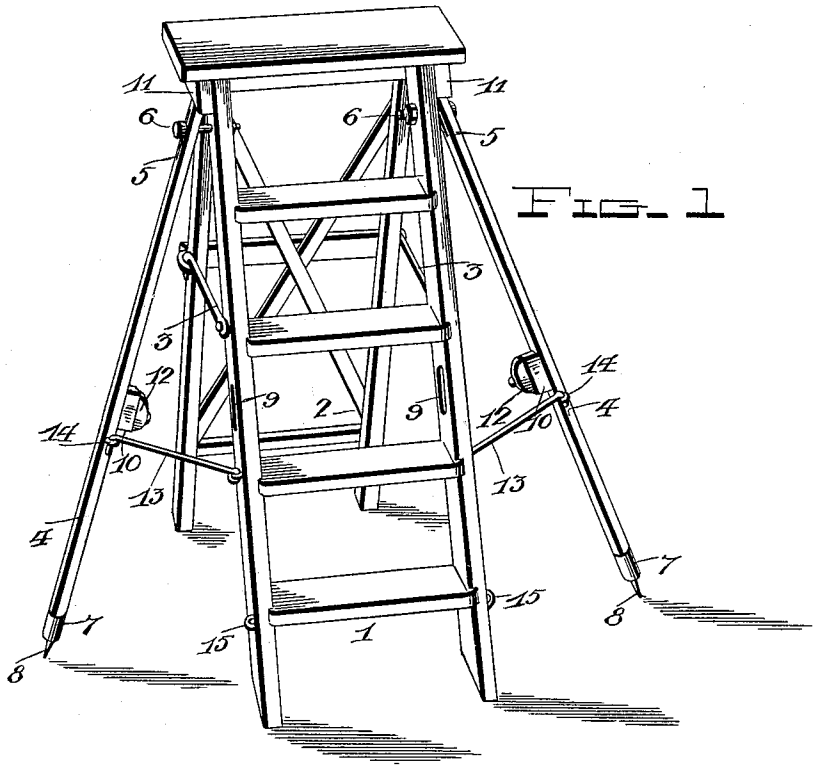
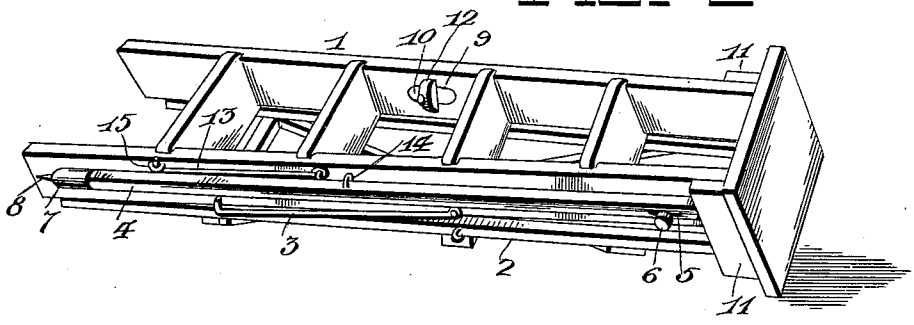


Fig. 1

Fig. 2



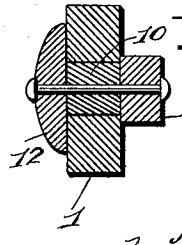


Fig. 3

Witnesses
D. L. Jenkins
J. Allison

Anna C. Murray and
Christian Nauss,
Administrators of the Estate of
by George T. Murray, Inventor
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Attorneys

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UNITED STATES PATENT OFFICE.

ANNA C. MURRAY AND CHRISTIAN NAUSS, OF HARRISBURG, PENNSYLVANIA, ADMINISTRATORS OF GEORGE T. MURRAY, DECEASED.

STEP-LADDER.

SPECIFICATION forming part of Letters Patent No. 636,444, dated November 7, 1899.

Application filed May 17, 1899. Serial No. 717,230. (No model.)

To all whom it may concern:

Be it known that we, ANNA C. MURRAY and CHRISTIAN NAUSS, citizens of the United States, residing at Harrisburg, in the county of Dauphin and State of Pennsylvania, having been duly appointed administrators of the estate of GEORGE T. MURRAY, late a citizen of the United States, and a resident of Harrisburg aforesaid, (as by the letters of administration appointing us such administrators will fully appear,) do hereby make application for Letters Patent for the Improvement in Step-Ladders invented by the said GEORGE T. MURRAY, which said invention is fully set forth and described in the following specification.

This invention relates to certain novel improvements in step-ladders; and the object is to improve the construction and increase the stability and safety of the ladder when in use.

To this end the invention consists in the construction, combination, and arrangement of the several elements of the device, as will be hereinafter more fully described, and particularly pointed out in the claim.

In the accompanying drawings the same reference characters indicate the same parts of the invention.

Figure 1 is a perspective view of the improved ladder as it appears in use. Fig. 2 is a similar view of the ladder as it appears when closed, and Fig. 3 is a detail section taken transversely through one of the legs on the line of the button.

1 denotes the ladder, and 2 the legs, which are held in their extended position by the hooked rods 3 3.

4 4 denote the auxiliary braces, formed at their upper ends with a slot 5 to receive the bolt 6, by means of which the said braces are pivotally secured to the sides near the upper end of the ladder proper. The free end of each brace 4 is provided with a ferrule 7 and a spike 8 to prevent the brace slipping when extended laterally, as shown in Fig. 1.

9 9 denote slots formed in the side rails of the ladder-frame, and 10 denotes a block or cleat fixed to each brace 4, and 12 denotes a button pivoted on the cleat and arranged to pass through the slot 9, and the button is then turned at right angles to the slot to secure the brace in place when not in use.

13 13 denote auxiliary rods pivoted to the side rails of the ladder, and their hooked ends engage the staples 14 14 on the auxiliary braces 4 to hold them in position when extended, as shown in Fig. 1, and when the ladder is folded the hooked ends of said rods 13 are secured in the staples 15, fixed in the side rails and arranged contiguous to the braces 4, so that when the latter are folded in place, as shown in Fig. 2, the braces 4 will prevent the hooked ends of the rods from becoming detached from the staples 15.

When the braces are in use, as shown, the upper end abuts against the cross-bar 11, so as to form a secure brace and take the strain off of the bolt 6.

Various changes may be made in the details without departing from the spirit of the invention as embraced in the claim.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent of the United States, is—

The combination with the ladder 1 having its side rails formed with the slots 9 9, and the lateral bolts 6 6 fixed to the upper ends of said side rails; of the auxiliary braces 4 4 formed at their upper ends with the slots 5 5 having a sliding engagement with said bolts 6 6, the cleats 10 10 fixed to said braces 4 4, the buttons 12 12 pivoted to said cleats, so as to be locked in said slotted side rails and means for securing said auxiliary braces in an extended position, substantially as and for the purpose set forth.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

ANNA C. MURRAY.
CHRISTIAN NAUSS.

Witnesses:
THOS. S. PETERS,
EMMA MURRAY.