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F. ELLS.  
IMPROVEMENT IN

LADDERS.

No. 122,238.

Patented Dec. 26, 1871.

Fig. 1.

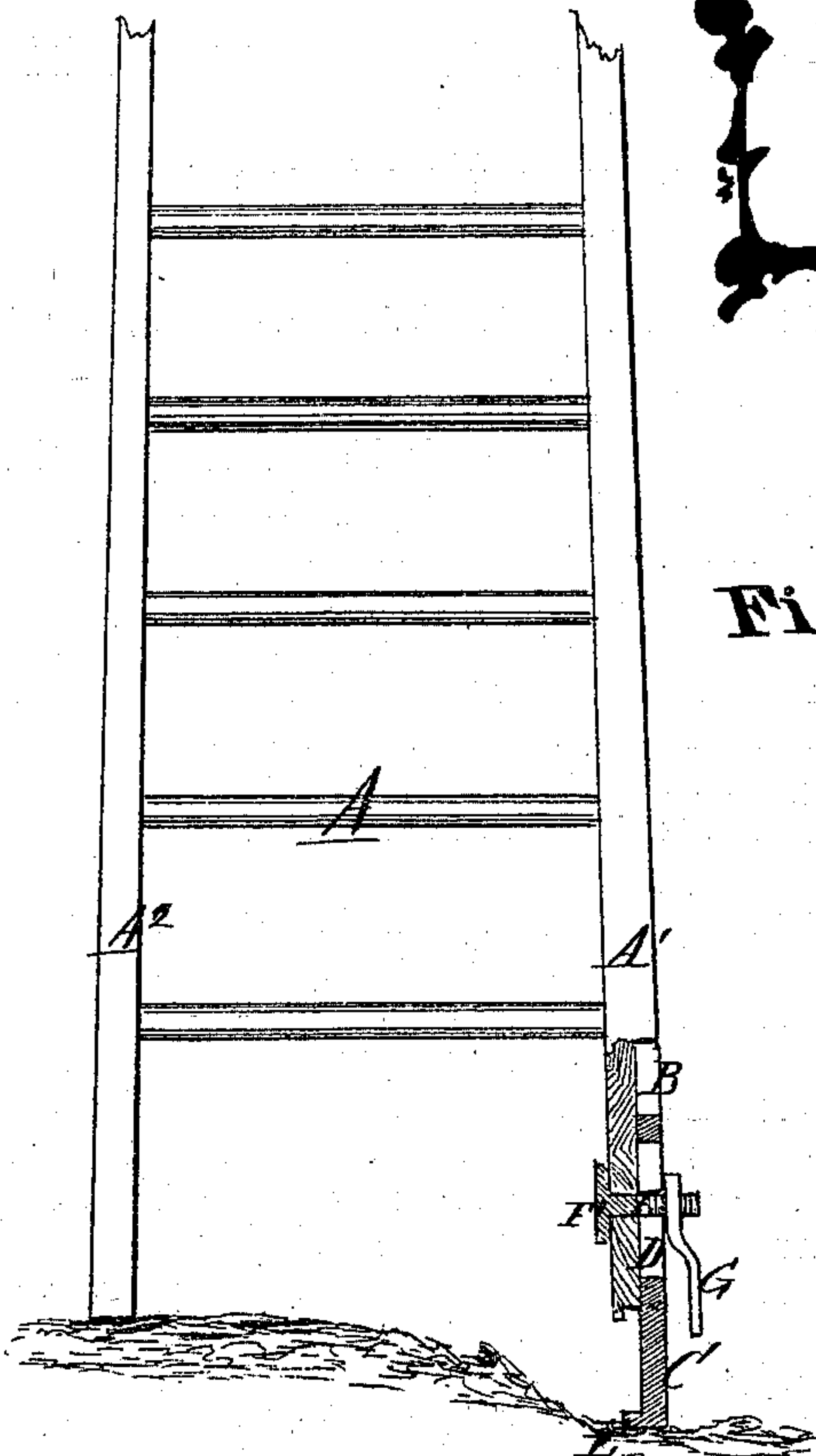


Fig. 2.

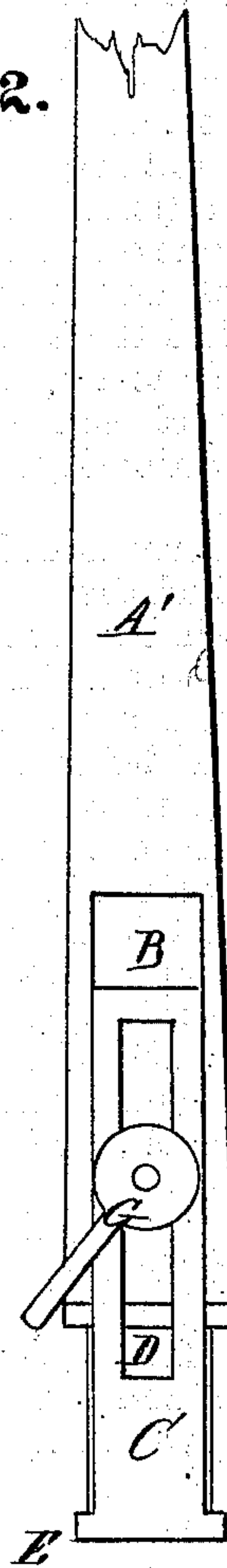
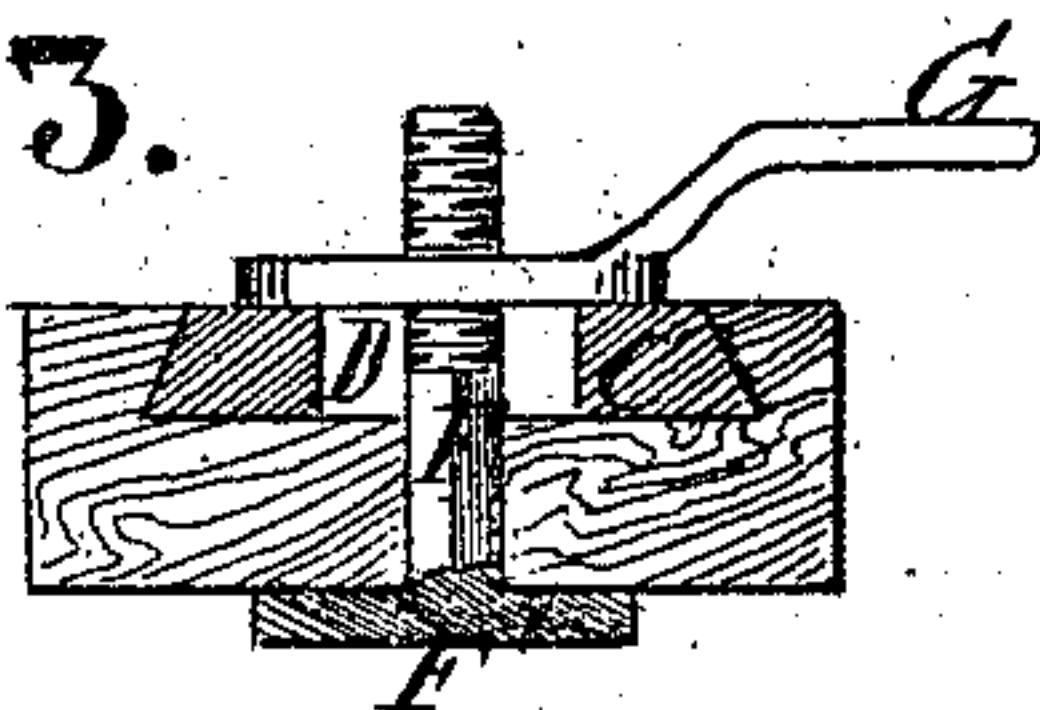


Fig. 3.



Witnesses.

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# UNITED STATES PATENT OFFICE.

FREDERICK EELLS, OF WALTON, NEW YORK.

## IMPROVEMENT IN LADDERS.

Specification forming part of Letters Patent No. 122,238, dated December 26, 1871.

*To all whom it may concern:*

Be it known that I, FREDERICK EELLS, of Walton, in the county of Delaware and State of New York, have invented a new and valuable Improvement in Ladders; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a front elevation and partial section of my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a horizontal section.

This invention has relation to an improvement in ladders, by means of which they may be adapted to inclined ground, and will stand as firmly on the side of a hill or declivity as on a horizontal plane. The novelty consists in the application to one of the sides or legs of the ladder of a slotted slide, having beveled edges to fit and move up and down in a dovetailed recess cut in the side of the ladder at the lower end, a clamp-screw and nut being provided to secure said slide at any point to which it may be adjusted. By this arrangement, as hereinafter described, it will be apparent that the bulk of the end of the ladder-rail, to which the slide is attached, is not thereby increased when the ladder is to be used on level ground.

In the accompanying drawing illustrating my invention, the letter A designates a ladder, and B a long dovetailed recess cut in one of the sides A<sup>1</sup> thereof, and holding a bevel-edged slide, C, having a longitudinal slot, D, and constructed with a flange, E. The latter fits against the lower end

of the ladder side when the slide is pushed the whole way into the recess, a notch being cut to receive it and make it even with the opposite side. F indicates a clamp-screw, which passes from the inner face of the ladder side piece A<sup>1</sup> through the slot D. F' is a head formed on said screw to rest against the side A<sup>1</sup>, and G a nut placed on its outer end. The shank *z* of the screw next the head is squared to prevent it from turning.

This ladder is adapted to use on an inclination by placing the leg or side A<sup>2</sup> above and drawing out the slide C as far as necessary to make the ladder stand evenly, and securing it firmly by tightening the nut G, which may, for convenience, have an arm or hand-piece, *g*. This handle or crank also serves to give greater purchase in tightening the screw.

I am aware that it is not new to attach an adjustable slide to the end of the ladder-rail; hence I do not claim such broadly; but

Having fully described my invention, I claim—

The slide C, constructed with bevel-edged flange E turned inward, and longitudinal slot D, the clamp-screw F, and crank-nut G, in combination with the ladder A provided with the dovetailed recess B, all constructed and arranged as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

FREDERICK EELLS.

Witnesses:

G. C. STEELE,  
GEORGE MIDDLEMIST.

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