

F. & C. Kuremann & B. Hoerstmann.

N^o 28,039. Extension Ladder.

Patented Apr. 24, 1860.

Fig. 1.

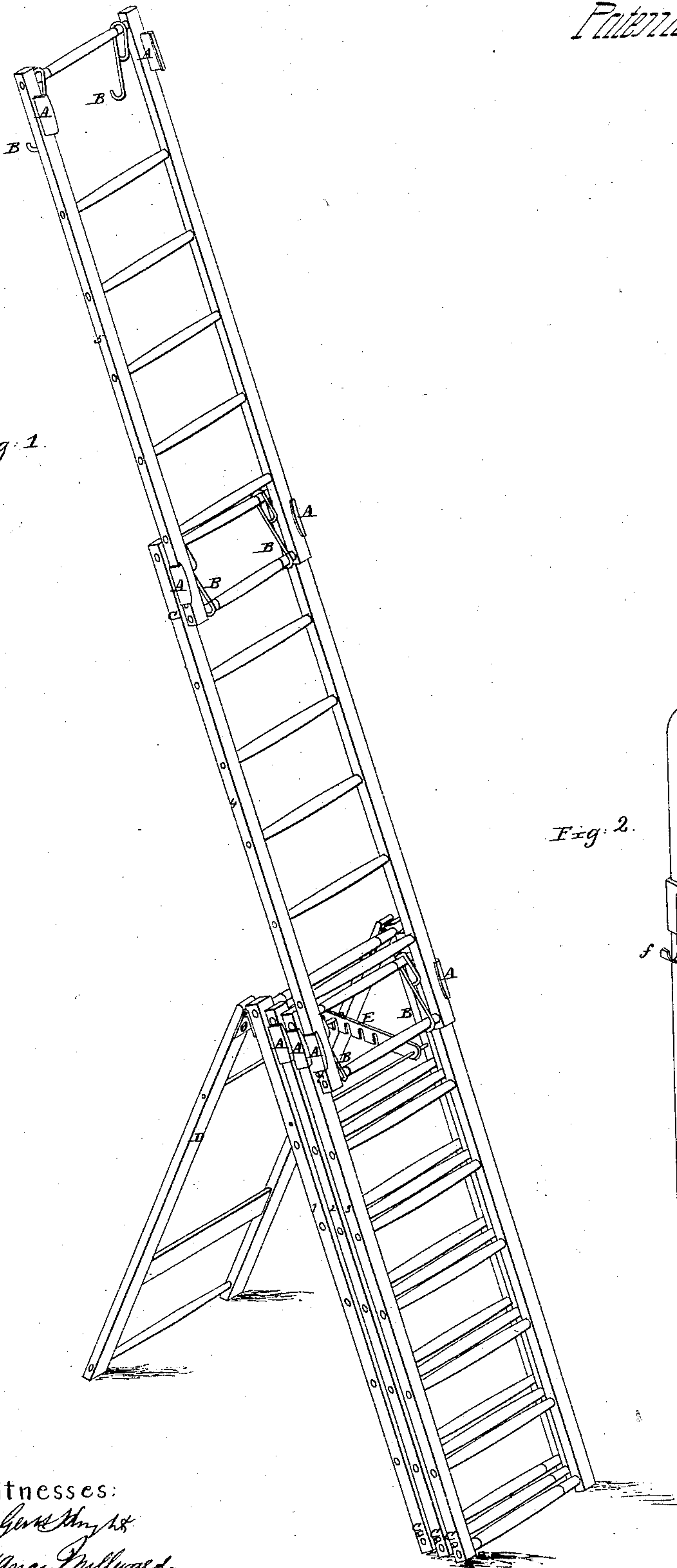
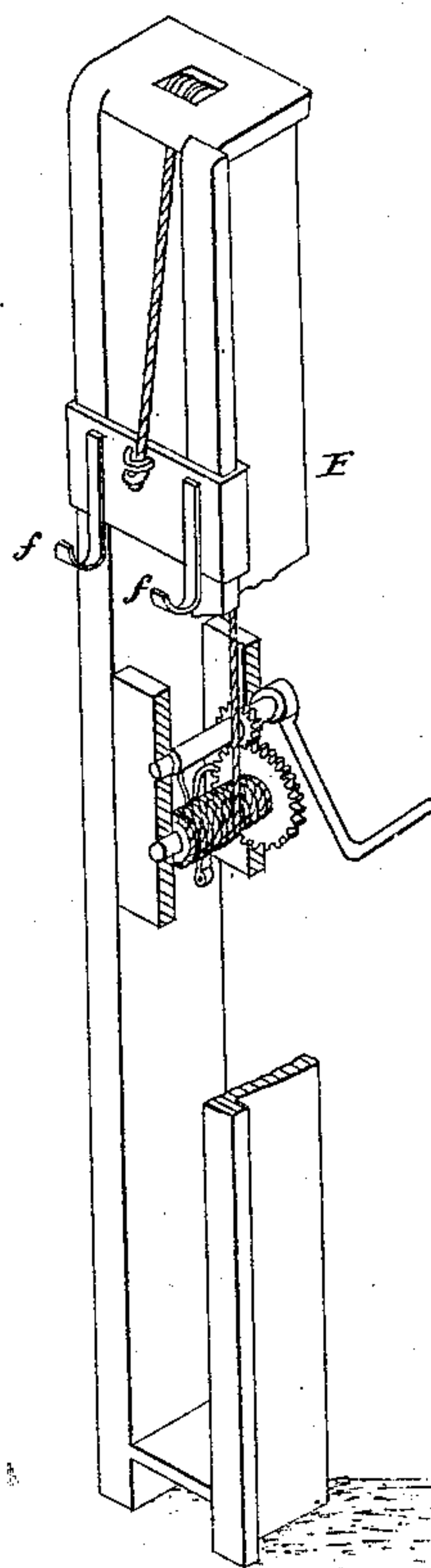


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

F. KAVEMANN, C. KAVEMANN, AND B. HOERSTMANN, OF CINCINNATI, OHIO, ASSIGNORS TO
FREDERICK KAVEMANN AFORESAID.

EXTENSION-LADDER.

Specification of Letters Patent No. 28,039, dated April 24, 1860.

To all whom it may concern:

Be it known that we, FREDERICK KAVEMANN, CHARLES KAVEMANN, and BANNERT HOERSTMANN, all of Cincinnati, Hamilton
5 county, Ohio, have invented a certain new and useful Improvement in Extension-Ladders; and we do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings, making part of this
10 specification, in which—

Figure 1, is a perspective view of a ladder partly extended. Fig. 2 is a perspective
15 view of the jack employed to extend the ladder.

1, 2, 3, 4, 5, are sections adapted to be slid one upon another, while securely held together by clips A.

B are hooks by means of which either section
20 tion may be held or retained to a more or less extended position.

Stops C limit the extreme ascent of the several sections. Hinged to the upper end of section 1 is a brace D held to any desired
25 position by a rack E. Each section in the order enumerated is made somewhat narrower and lighter than its predecessor.

F is a jack by which one section after another may be elevated the claws *f* being
30 applied to a round of the section to be raised, and the jack resting upon the ground.

It will be seen that should only a part of

the ladder be wanted one two or more of the lighter sections can be attached together by drawing backward out of the clips of the
35 section below. It is also apparent that the ladder when extended and leaning against a building may be shifted in position by persons in or on the building.

The use of a disconnected jack in preference to a windlass permanently attached
40 to the ladder or its frame admits of the application of the same windlass to successive sections of the ladder with great rapidity and ease and affords greater facility for conveying the ladders from place to place and
45 using them within contracted area.

We claim as new, and of our invention—

The described combination of the disconnected jack F *f*, with the sliding and detachable sections 1, 2, 3, 4, 5, clips A, hooks
50 B, stops C, brace D, and rack E, the whole being constructed and arranged and operated in the manner and for the purposes set forth.
55

In testimony of which invention, we hereunto set our hands.

F. KAVEMANN.
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B. HOERSTMANN.

Witnesses:

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