

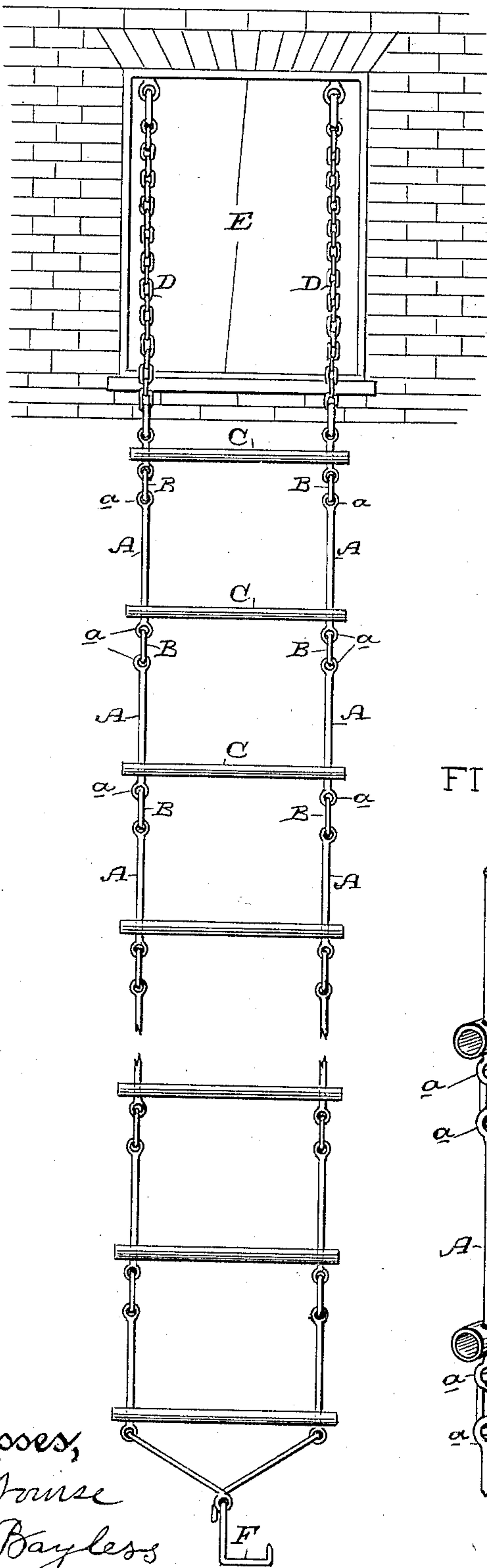
(No Model.)

W. M. PENRY.
FOLDING LADDER.

No. 461,984.

Patented Oct. 27, 1891.

FIG. 1



Witnesses,
J. A. Bayless

FIG. 2

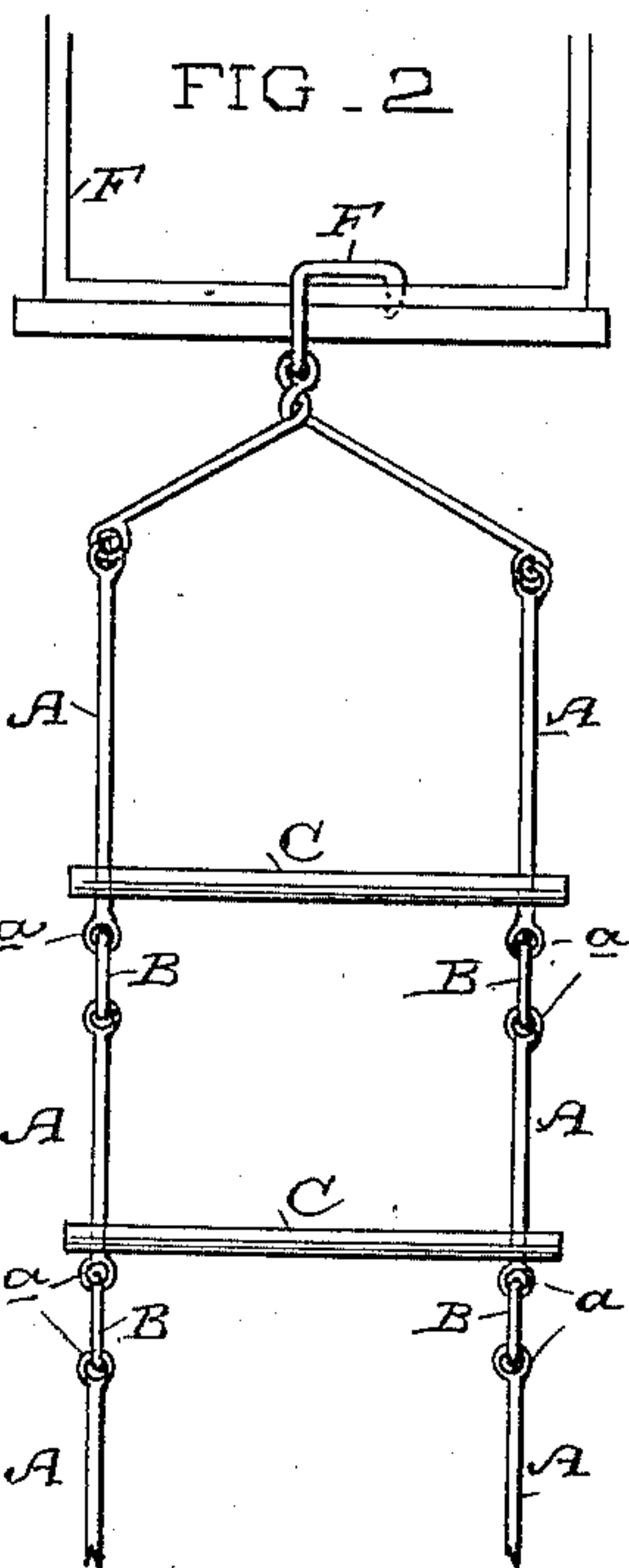
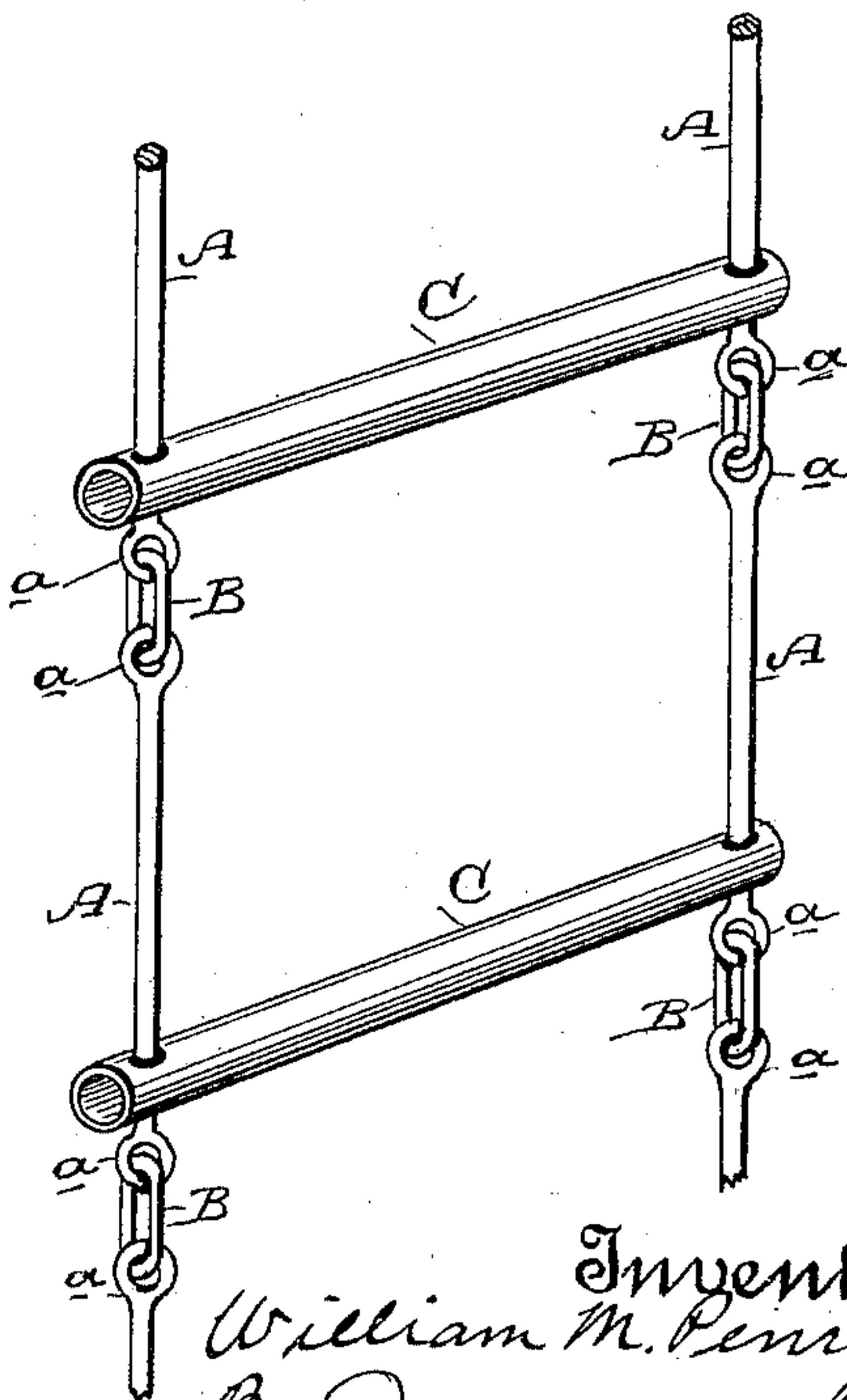


FIG. 3



Inventor,
William M. Penry,
By Dewey & Co
attys

UNITED STATES PATENT OFFICE.

WILLIAM M. PENRY, OF JACKSON, CALIFORNIA.

FOLDING LADDER.

SPECIFICATION forming part of Letters Patent No. 461,984, dated October 27, 1891.

Application filed May 29, 1891. Serial No. 394,541. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM M. PENRY, a citizen of the United States, residing at Jackson, Amador county, State of California, have
5 invented an Improvement in Folding Ladders; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to that class of ladders made of rigid sections jointed together, whereby it may be folded into small compass when not in use and readily extended when required.

My invention consists in the novel construction of sections hereinafter fully described, and specifically pointed out in the claims, the whole forming a folding ladder adapted for various uses, principally as a fire-escape.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is an elevation of my ladder. Fig. 2 is an elevation showing it reversed. Fig. 3 is a perspective view of a portion of
25 my ladder.

A are rigid rods or bars which form the sides of the ladder. These have end stops *a*. The several rods or bars A are connected on each side by links B.

30 C are the ladder-rounds, preferably made of light tubular metal. The side rods or bars A pass freely through the ends of the rounds, and said rounds, being located between the end stops *a* of said rods or bars, can slide thereon between said stops and are limited and fixed thereby.

The whole ladder is light and strong and can be folded into small compass, each section bending at the connecting-links. One
40 advantage of the sliding rounds is that in folding they may by their movement avoid interference and lie to a great extent without touching each other, or avoid lying on top of each other, thereby occupying less space.

Another advantage is that the ladder may be readily reversed end for end, and the rounds will slip down to what then becomes the lower ends of the side rods or bars. This advantage is particularly present in the use of the
50 ladder as a fire-escape, for which purpose I connect one end of it by means of chains D with any suitable portion of the window-casing E.

The ladder will lie in small compass within the room when not in use, and when required
55 can be dropped out of the window, remaining fast at its upper end. Its free end is provided with a hook F of suitable character, and said end can be raised by a suitable pole or rod and the hook caused to engage some
60 point above—as, for example, a higher window-sill or the eaves. In this case the ladder is reversed; but the rounds will slip down the side rods or bars to proper position, or either
65 end of the ladder may be raised from the ground and the rounds will fall to proper position.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A folding ladder consisting of rigid rods or bars forming the sides, links connecting their adjacent ends, whereby they may be folded, and rounds fitted to and adapted to slide upon said rods or bars, substantially as
75 herein described.

2. A folding ladder consisting of the rigid rods or bars forming the sides and having the end stops, the links flexibly connecting said rods or bars on each side, and the rounds fitted and adapted to slide upon the rods or bars between their end stops, substantially as
80 herein described.

3. A folding ladder consisting of the rigid rods or bars forming the sides and having the
85 end stops, the links flexibly connecting said rods or bars on each side, and the rounds fitted and adapted to slide upon the rods or bars between their end stops, and a connection at each end of the ladder, substantially as herein
90 described.

4. A folding ladder consisting of the rigid rods or bars forming the sides and having the end stops, the links flexibly connecting said rods or bars on each side, and the rounds fitted and adapted to slide upon the rods or bars
95 between their end stops, and a connection at each end of the ladder consisting of the chains at one end and the hook at the other end, substantially as herein described.

In witness whereof I have hereunto set my hand.

WILLIAM M. PENRY.

Witnesses:

S. H. NOURSE,
J. A. BAYLESS.