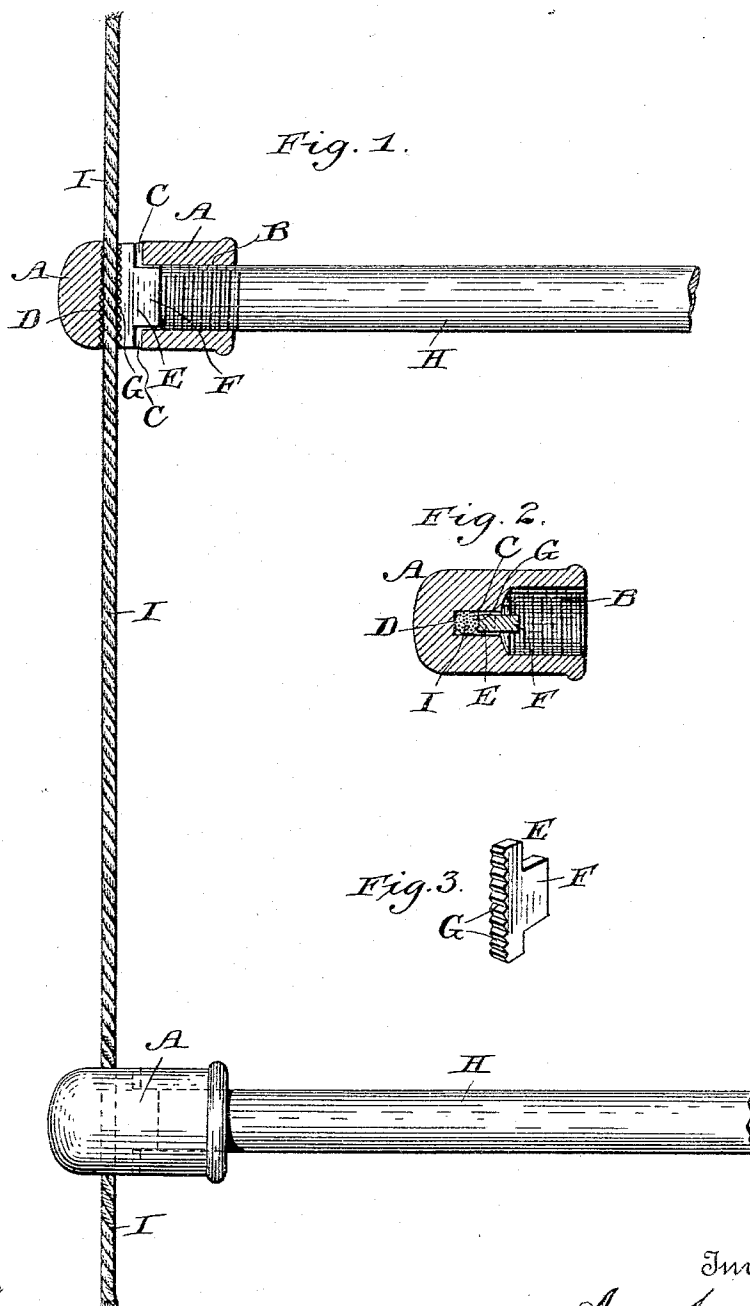


(No Model.)

A. CROSBY.
ROPE OR WIRE CABLE LADDER.

No. 531,783.

Patented Jan. 1, 1895.



Witnesses

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UNITED STATES PATENT OFFICE.

AUGUSTINE CROSBY, OF WATERTVILLE, MAINE.

ROPE OR WIRE-CABLE LADDER.

SPECIFICATION forming part of Letters Patent No. 531,783, dated January 1, 1895.

Application filed June 8, 1894. Serial No. 513,891. (No model.)

To all whom it may concern:

Be it known that I, AUGUSTINE CROSBY, a citizen of the United States, residing at Waterville, in the county of Kennebec and State of Maine, have invented certain new and useful Improvements in Rope or Wire-Cable 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 rope ladders and particularly to means for fastening the rungs of such to the ropes.

There has always been great difficulty in fastening the rungs of rope ladders so that they could not slip. My invention obviates this difficulty in the manner hereinafter to be stated.

In the accompanying drawings, Figure 1 is a plan view of a part of a ladder showing a vertical section of the iron or rung-tip which connects the rungs with the rope, and the other parts in the position they occupy when the ladder is finished. Fig. 2 is a horizontal section of the connecting iron or rung-tip, *i. e.*, a section through its axis at right angles to the section shown in Fig. 1. Fig. 3 is a detail perspective view of the washer or jaw used to prevent the rope from slipping.

A represents the connecting iron or rung-tip, which is closed at one end, and has a tubular screw-threaded opening or bore B at the other extending a sufficient distance to meet an oblong transverse opening C which traverses the said iron at right angles to its axis, and on the side opposite to opening B has corrugations or serrations D.

The oblong shaped hole or transverse opening C is made sufficiently large to admit of the jaw or washer E being slipped in so that its backwardly extending lug F will enter tubular bore B. On the outer face of said washer or jaw are the corrugations or serrations G.

H is a rung which is right hand screw threaded at one end and left hand screw threaded at the other.

I is the rope which passes through the iron or rung-tip A by the hole or opening C.

The parts are fastened together and the ladder completed as follows: The jaw or

washer E is slipped endwise into the hole or opening C until lug F is directly before the opening at the intersection of bore B and opening C, when E is slid back until it bears against the sides of opening C at the top and bottom of said intersection, whereby lug E enters the opening or bore B. The rope A is then drawn through the opening C. Then the end of rung H is screwed into the screw-threaded opening B as tightly as possible, thereby bearing against lug F and pressing washer E outward against rope A, which in turn is forced against corrugations D of hole C. The pressure exerted is very great and the serrated faces D and G clutch the rope so as to effectually prevent slipping.

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

1. In combination with a rung-tip or iron having an oblong transverse opening for the rope and a screw-threaded bore connecting therewith a jaw or washer bearing against the rope and having a rearward extension which enters the said bore, and a rung having a screw-threaded end which is adapted to engage the internal threads of the said tip or iron and bear against the said extension for the purpose set forth.

2. The combination of the iron or rung-tip A closed at one end and having an oblong transverse opening for the rope and a screw threaded bore connecting therewith, said oblong opening having serrations opposite the screw-threaded bore, and the rope I, with the washer or jaw E having a serrated or corrugated face and a rearwardly extending lug, said jaw or washer being adapted to fit in said oblong transverse opening so that said lug will enter said screw-threaded bore whereby on pressure being exerted on said lug the washer or jaw is pushed outward, thereby pressing said rope I against the serrated face of the oblong transverse opening, whereby said rope is firmly grasped, the serrated faces preventing slipping substantially as set forth.

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

AUGUSTINE CROSBY.

Witnesses:

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APPLETON H. PLAISTED.