

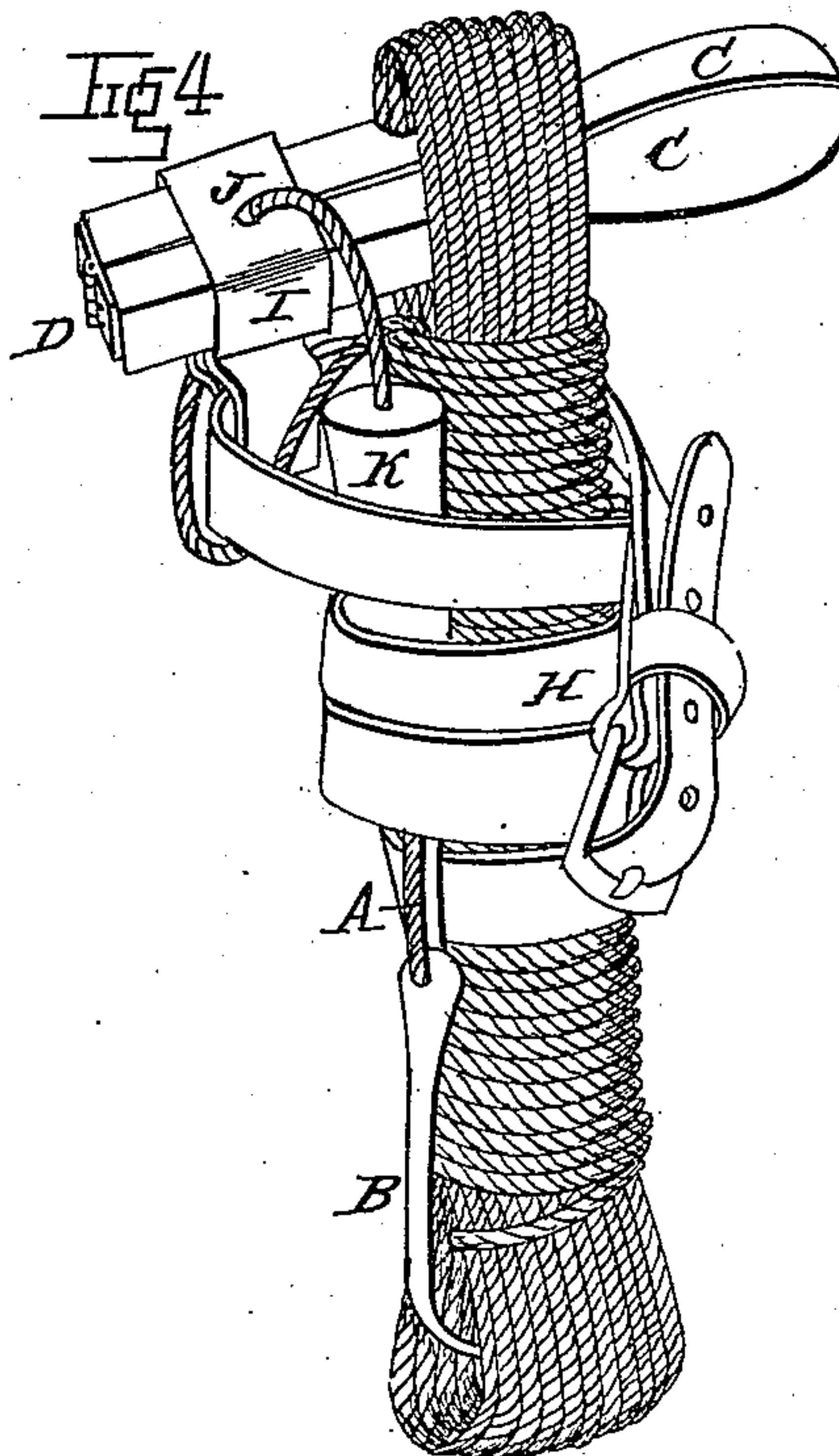
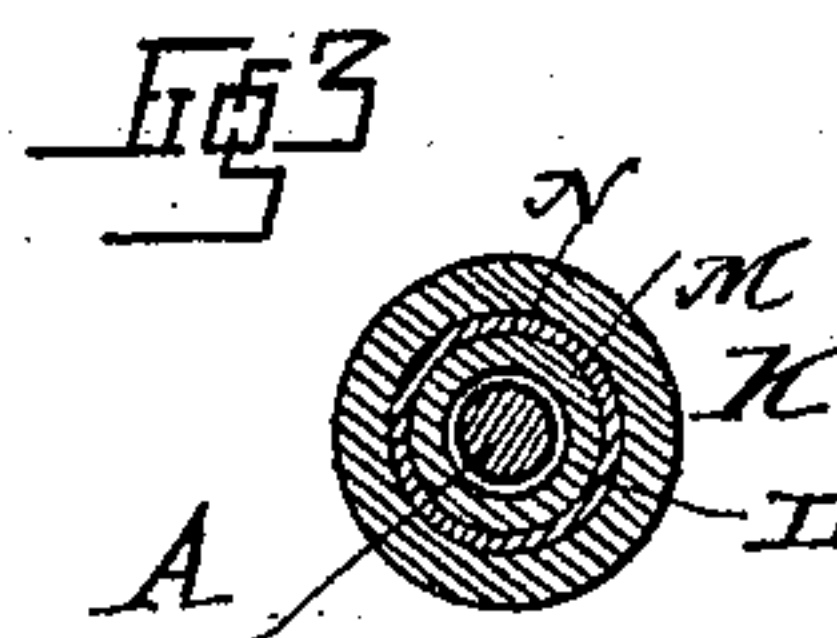
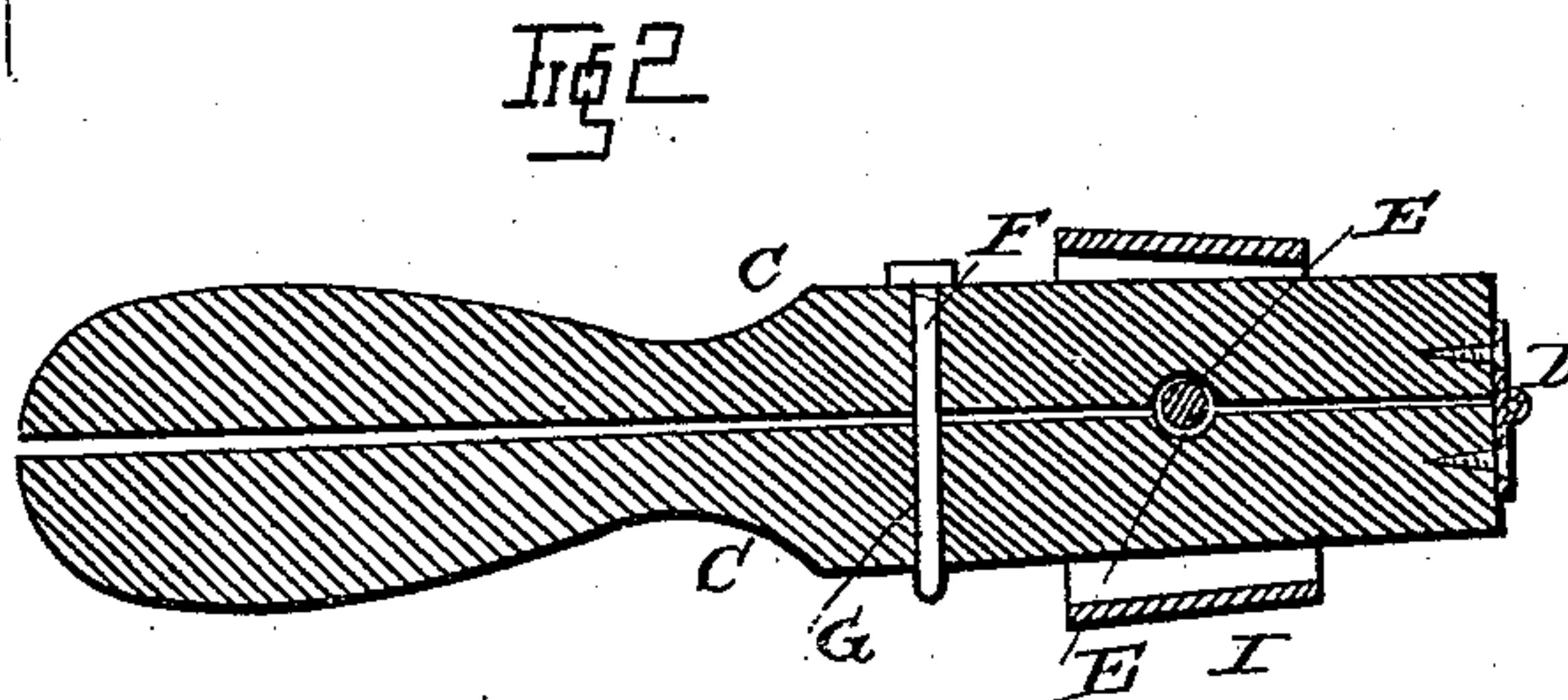
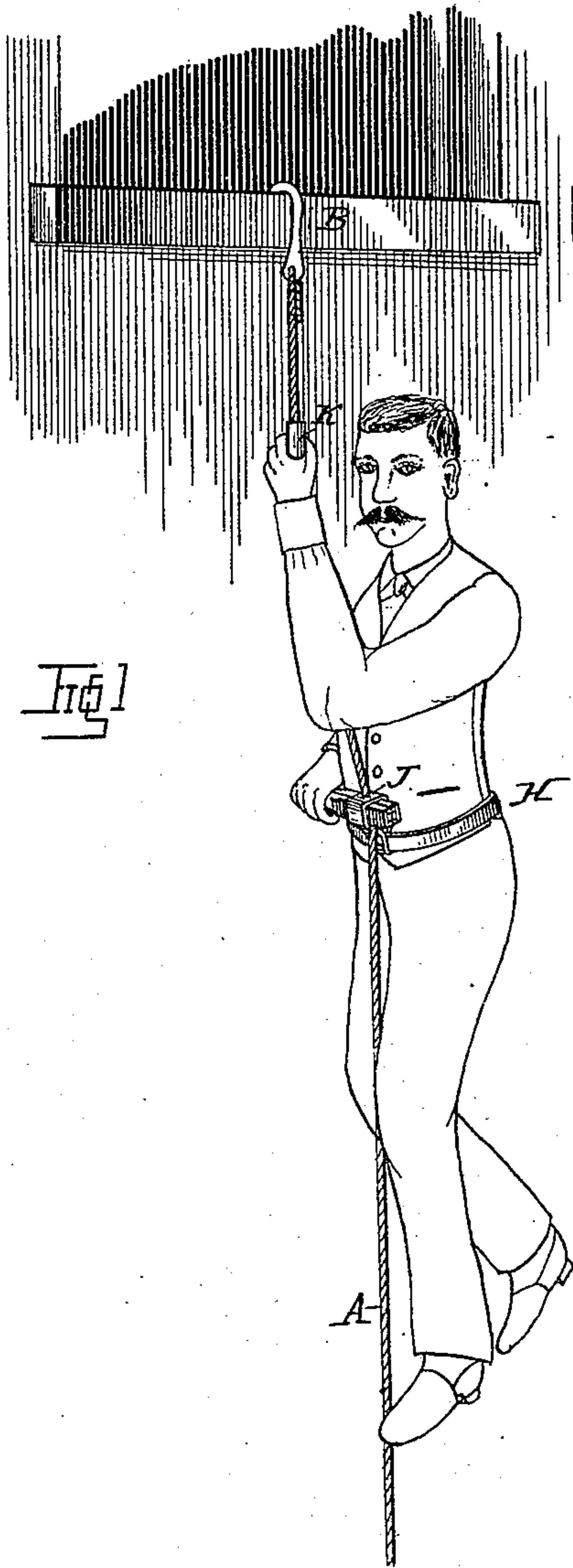
(No Model.)

F. R. WOODWARD.

FIRE ESCAPE.

No. 287,491.

Patented Oct. 30, 1883.



WITNESSES:

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UNITED STATES PATENT OFFICE.

FRANK R. WOODWARD, OF HILL, NEW HAMPSHIRE.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 287,491, dated October 30, 1883.

Application filed February 2, 1883. (No model.)

To all whom it may concern:

Be it known that I, FRANK R. WOODWARD, of Hill, in the county of Merrimack and State of New Hampshire, have invented certain
5 new and useful Improvements in Fire-Escapes; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use
10 the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved fire-escape ready for use. Fig. 2 is a
15 longitudinal sectional view of the clamp of the same. Fig. 3 is a cross-section through the sliding sleeve, and Fig. 4 is a perspective view of the device packed for transportation.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to friction fire-escapes; and it consists in the improved construction and combination of parts of the same, as hereinafter more fully described and
25 claimed.

In the accompanying drawings, the letter A indicates a strong rope, which is preferably braided or woven, to prevent twirling of the rope when stretched, and to the end of which
30 is fastened a strong hook, B, adapted to grapple and hold fast to any sufficiently strong object it may be placed against. This rope passes between and is clamped by two strong arms, C C, of wood or any other desirable material,
35 bearing with their flat inner sides against each other, and fastened together at one end by means of a hinge, D. The outer sides of the free ends of these arms are rounded, so that they both form a handle, which may be grasped
40 with the hand, holding the two arms together, while the inner surfaces of the arms have two transverse grooves, E, near the hinge, in which the rope slides, and the arms are prevented from becoming displaced by twisting or too
45 great strain by a slightly-curved pin or bolt, F, fastened in one arm and projecting through a perforation, G, in the other arm. A strap or belt, H, adapted to be buckled around the
50 arms by means of a loop, I, of leather, which

passes around the inner ends of the arms, and is provided with two perforations, J, through which the rope passes into and from the clamp. To afford the person descending in the device a further hold upon the rope, and to prevent
55 his burning his hands by the friction upon the rope, a sleeve, K, slides upon the rope above the clamp. This sleeve consists of an inner tube, L, of leather, wood, or metal, around which is wound a layer of paper or thin card-
60 board, M, which again is surrounded and held by a sleeve, N, of leather, the interposed layer of paper being a non-conductor of heat, preventing any heat from injuring the hand. The sleeve K not only serves as a support for the
65 one hand, but may be used in connection with the clamping-arms in governing the speed while descending.

By the foregoing description, taken in connection with the accompanying drawings, the
70 operation of my device will be easily understood. In the case of fire, the apparatus, which may be suspended in the room within easy reach, or which, by its occupying but little
75 space, may be carried, by a person traveling, in a trunk or satchel, is hooked to the window-sill or other rigid object, and the person may govern his speed, sliding down upon the rope by clamping the rope tighter or looser,
80 and may stop himself entirely upon the rope with very little exertion of power.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The sliding sleeve K, consisting of the inner tube, L, paper tube M, and outer sleeve, N, as and for the purpose shown and set forth.

2. As an improvement in fire-escapes, the combination of the rope A, clamping-arms C, and strap H, fastened to the clamping-arms by
90 loop I, having perforations J, as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

FRANK R. WOODWARD.

Witnesses:

WM. SECHER,
JAMES F. REILY.