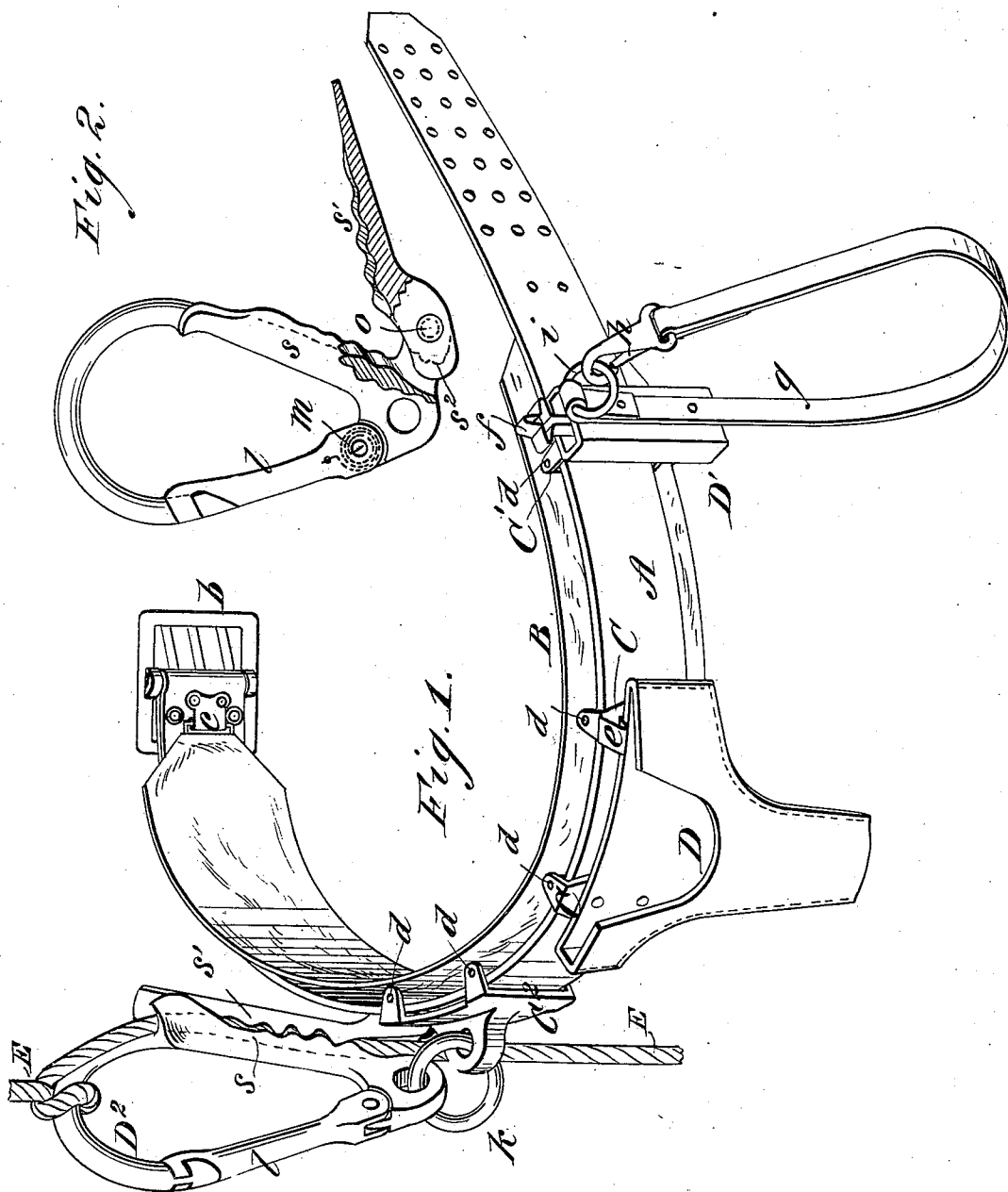


(No Model.)

E. J. CLAGHORN.
SAFETY BELT.

No. 312,085.

Patented Feb. 10, 1885.



WITNESSES:

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EDWARD J. CLAGHORN, OF NEW YORK, N. Y., ASSIGNOR TO MARY A. SEITZ,
OF SAME PLACE.

SAFETY-BELT.

SPECIFICATION forming part of Letters Patent No. 312,085, dated February 10, 1885.

Application filed June 24, 1884. (No model.)

To all whom it may concern:

Be it known that I, EDWARD J. CLAGHORN, of Fordham, in the city, county, and State of New York, have invented certain new and useful Improvements in Safety-Belts, of which the following is a full, clear, and exact description.

This invention relates to belts designed to be applied to the person, and provided with hooks and other attachments for securing the person to a fixed object, as also for making an interrupted or uninterrupted descent therefrom, and for carrying tools and other appliances, so as to leave the hands and feet of the user at liberty when working at an elevation or during his ascent and descent.

The invention, which is intended for the use of tourists, sailors, painters, farmers, firemen, telegraph-men, and others, as distinguished from a mere fireman's belt, consists in an outer stout belt having combined with it an inner belt, which may be broader and lighter than the outer belt, and which is arranged to have a longitudinal opening or space between it and the outer belt; also, in certain attachments for ropes or straps, including a peculiarly-constructed suspension-hook, which attachments are adjustable along the outer belt, for securing the wearer of the compound belt from falling, to aid in his descent, and for carrying tools and other appliances, substantially as hereinafter described.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 represents a view in perspective of my improved safety-belt, with its attachments, and Fig. 2 a partly-broken and sectional view of a suspension and friction hook forming one of said attachments.

The belt, which may be made of leather and webbing or other suitable material or materials, and of sufficient length to pass around the waist of the person using it, is provided at one of its ends with a buckle, *b*, for the other end to engage with when securing the belt to the person; or any other suitable fastening may be used in place of the buckle. Said belt, taken as an entirety, is a combination of two belts, the one, *A*, of which is an outer

one, and should be made of strong leather or other stout material, and the other, *B*, of which is an inner and wider one, and may be made of webbing or light leather. This inner belt, *B*, which is extended nearly throughout the whole length of the outer belt, is secured by any suitable fastening, *c*, at each of its ends, or by sewing or otherwise, firmly to the outer belt, and may also be secured to the outer belt at one or more intermediate points, if desired; but it is wholly detached otherwise from the belt *A*, so as to leave a through opening or space down between the two belts. The object of this construction is that the inner belt, *B*, shall form a protection for the clothes of the wearer as the attachments hereinafter described are slid along the outer belt. It also serves to prevent said attachments from catching on buttons or other projections from the clothing. The purposes of these attachments are that persons ascending or descending ladders, telegraph-poles, ships' rigging, fire-escapes, trees, rocks, or other lofty objects may quickly and securely fasten or attach such article to the compound belt as may be required for use, and so that they may make the ascent or descent without incumbrance to either hands or feet, and so that they may stop at any intermediate height, and control their descent with perfect safety, or fasten or attach their persons at any point in the ascent or descent to the rounds or slats or frame of a ladder or other device, or to any projecting point or rope of rigging, or to limbs of trees, in such a manner that said persons will be perfectly secure, and at the same time have the free use of both hands and feet and be at liberty to turn their bodies in any direction, the belt, with its attachments, serving to enable the wearer to rescue persons in danger, or to perform any duty required of him under the circumstances above named or similar ones. Said attachments are or may be as follows: Upon the outer belt, *A*, which may be termed the "main belt," or "belt proper," are arranged any number of slides or sliding bands, *C C' C''*, made of metal, leather, or other suitable material. These slides are here shown as mainly made of metal, with rollers *d* at their backs to provide for the free run of them upon and along the outer belt, *A*, between the points of

attachment of the inner belt to the outer one, which latter belt they inclose. The slide C is represented as having attached to it in front a leather or other suitable hatchet-carrying device, D, which may or may not be fitted with a spring-holder, *e*. The slide C' has a front socket-like attachment, D', internally fitted with a spike or nail-holder, *f*, and having attached to it a strap, *g*, provided at its free end with a spring snap or other hook, *h*, which engages with a ring, *i*. This strap D' forms a convenient loop through which the end of a hose-pipe or within which any other article or tool may be carried.

The slide C², which may be termed the principal one, has attached to it by a ring, *k*, in front, a stout spring snap-hook, D², for the purpose of sustaining the weight of the person wearing the belt. The snap portion *l* of this hook is kept closed by a coiled spring, *m*, applied to the joint of the snap. The opposite side of the hook is constructed with a fixed corrugated or rope-clamping jaw, *s*, and has pivoted to it a corrugation or roughened outer clamping-jaw, *s'*, that when closed against the fixed jaw *s* admits of the hook, with the person carried by the belt, descending the pendent portion of the suspension-rope E, but not with too great or dangerous freedom, by reason of the roughened or corrugated surfaces of the jaws *s* *s'*, which are kept closed by the hand of the operator, who may regulate the slip as required. The jaw *s'* has a gripping lower roughened or corrugated extension, *s''*, beyond the pivot *o* of said jaw, so that when said jaw is thrown out or open, as shown in Fig. 2, said corrugated extension or cam-like portion *s''* will tightly grip or hold on the rope, and the weight of the attached person will only add to the tightness of the hold. This provides for the suspension of the person at different altitudes. The suspension-rope E is otherwise connected with the hook D² by giving said rope one or more twists or twirls around the bow of the hook,

as shown, which will further retard too rapid descent, and the upper portion of the rope may be secured in any suitable way to the object from which the person is to be suspended; or the hook, if desired, may be directly attached to said object, either through a looped rope engaging with the hook or otherwise.

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

1. In a safety-belt for tourists and others, the combination of the inner and outer belts, united to each other, as described, so as to form a space between them, and adjustable slides or bands fitted to move on and along said outer belt between its points of attachment to the inner belt, and provided with attachments for securing the person of the wearer of the belt, and for other purposes, substantially as specified.

2. The within-described compound safety-belt, which consists of a stout outer belt, A, having a fastening at its ends, an inner belt, B, any number of slides or sliding bands, C C' C², arranged for adjustment along the outer belt and between it and the inner belt, and a suspension-hook and tool-holding or other like attachments carried by said slides, essentially as described.

3. The combination, with the connected belts A B, arranged to leave a through space between them, of the slide C² and the spring snap suspension-hook D², having fixed and pivoted jaws *s* *s'*, substantially as specified.

4. The combination of the outer belt, A, having a fastening at its ends, the broader inner belt, B, united to the outer belt, so as to leave a free space between them, the slides C C' C², the tool-pocket or carrying device D, the looping-strap *g*, and the spring snap suspension-hook D², essentially as described.

EDWARD J. CLAGHORN.

Witnesses:

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EDWARD M. CLARK.