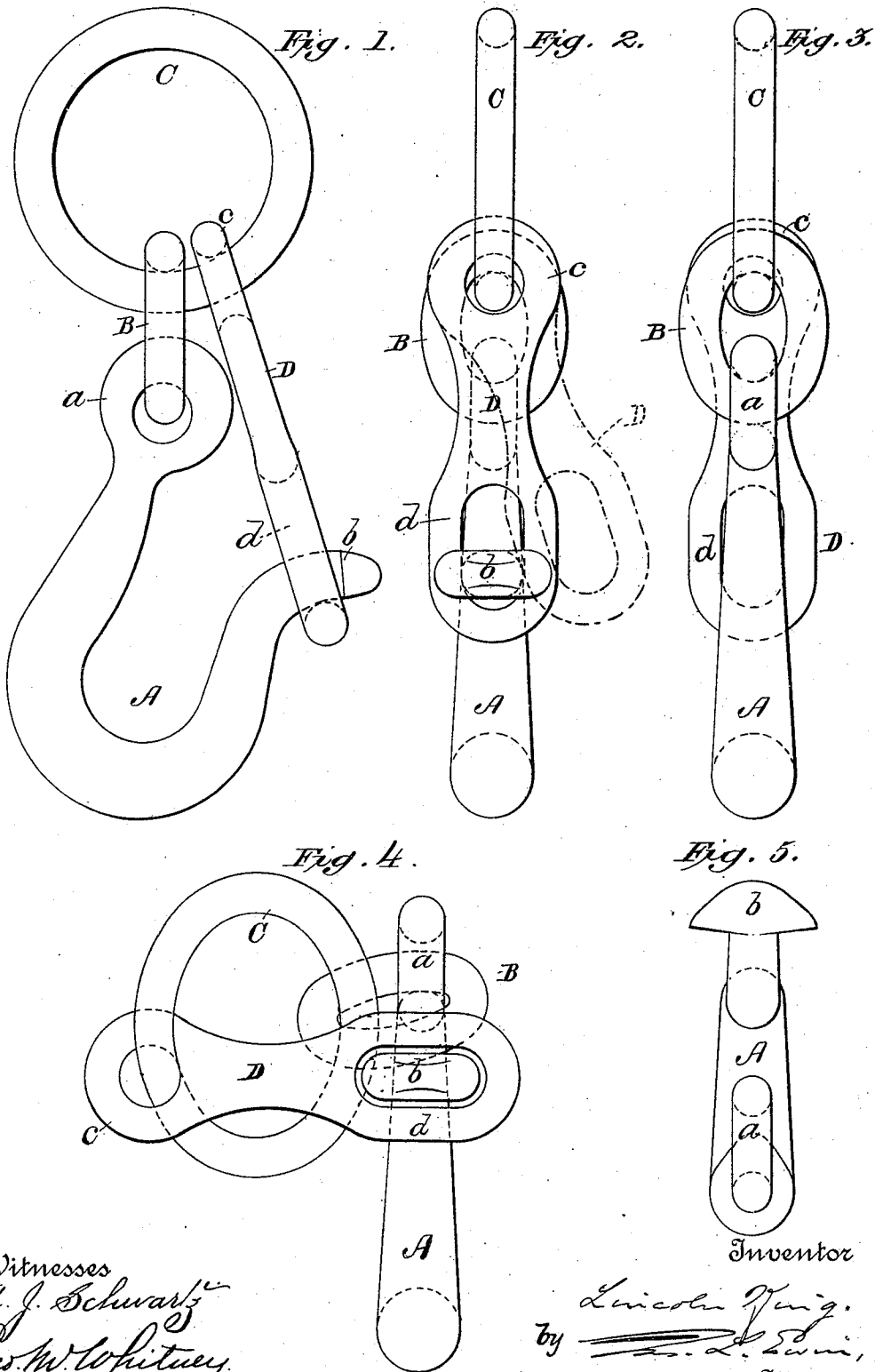


(No Model.)

L. KING.
SAFETY HOOK.

No. 486,181.

Patented Nov. 15, 1892.



Witnesses
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UNITED STATES PATENT OFFICE.

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SAFETY-HOOK.

SPECIFICATION forming part of Letters Patent No. 486,181, dated November 15, 1892.

Application filed July 27, 1892. Serial No. 441,407. (No model.)

To all whom it may concern:

Be it known that I, LINCOLN KING, a citizen of the United States, and a resident of the city of New York, in the State of New York, have
5 invented a new and useful Improvement in Safety-Hooks, of which the following is a specification.

This invention relates to hooks (large or small) used anywhere for suspending loads.
10 The improved safety-hook or "safe shackle-hook" is especially adapted for use in hoisting-tackle on wire guy-ropes and on hand-falls for all work which is likely to spread open hooks and for which safety-hooks having tightly-fitted or spring-fastened guards
15 are not suitable.

The invention consists in certain novel combinations of parts, as hereinafter set forth and claimed, having, respectively, the following objects, viz: first, to adapt the hook to be made as strong as may be necessary for any work and to be used as an open hook when locking is not required, the safety-link when in use being free from load strain until the
25 hook begins to spread, when the whole strength of the link goes to resist spreading; secondly, to securely lock the hook, so as to prevent spreading and so as to prevent the lashing, or whatever may be in the hook, from
30 escaping, by a one-part safety-link without the aid of springs, weights, or the like, and, thirdly, to facilitate and expedite interlocking the safety-link with the hook proper to so lock the hook.

35 A sheet of drawings accompanies this specification as part thereof.

Figure 1 of the drawings is a side view of the improved safety-hook locked. Figs. 2 and 3 are elevations projected from Fig. 1, showing the respective edges of the locked hook, the safety-link being also shown in dotted lines in Fig. 2 as it hangs when the device is being used as an open hook. Fig. 4 is a front
40 edge view illustrating the locking and unlocking operations; and Fig. 5 is a top view of the hook alone, showing its peculiar point more clearly.

Like letters refer to like parts in all the figures.

50 The hook proper A (shown detached by Fig. 5, as aforesaid, and hereinafter termed the "hook") has a suspension-eye *a* in the

plane of the body of the hook, which is permanently interlocked with a short link or "small ring" B, and this in turn is permanently interlocked with a main suspension-
55 ring C of suitable size, hereinafter termed the "large ring."

The parts above described are adapted to be made as strong as may be required for any
60 work and are designed to and do ordinarily sustain the entire load of the hook.

A safety-link D, which may likewise be of any desired strength, is permanently interlocked at one end with the large ring C in
65 front of the small ring B and at its other end is adapted to be and is ordinarily interlocked with the point *b* of the hook A. If it be desired to use the device as an open hook, it is only necessary to let the link D swing loosely,
70 as represented in dotted lines in Fig. 2. It will then offer no obstruction whatever.

To securely interlock the hook A and safety-link D when the latter is used, said point *b* of the hook is preferably made with lateral
75 projections and of a rounded broad-arrow shape, as best seen in Fig. 5, and to facilitate so interlocking the two the link D is connected with the large ring C by means of an eye *c*, distinct from the longitudinal loop *d*,
80 which embraces the round or substantially-round stem of said point *b* immediately behind its said lateral projections. The link D must be brought into a horizontal position, as represented in Fig. 4, in order to engage
85 its said loop *d* with said point *b* of the hook, and consequently must be brought into this position in order to disengage it. It is not therefore likely to be accidentally disengaged. Owing to its distinct eye *c* and loop
90 *d*, as above, the position of the link D is positively controlled by that of the large ring C in locking the hook, and this operation is thus facilitated and expedited. When the safety-hook is used on a "main fall" of hoist-
95 ing-tackle, for example, it is only necessary to lower away in order to put the parts in their locking and unlocking positions, as in Fig. 4.

If preferred, a safety-hook otherwise organized, as above, may have its parts so
100 proportioned as to distribute the load strain ordinarily between the small ring B and the safety-link D, and other like modifications

will suggest themselves to those skilled in the art.

Having thus described the said improvement, I claim as my invention and desire to patent under this specification—

1. The combination, in a safety-hook, of a hook proper having a suspension-eye in the same plane as its body, a small ring permanently interlocked with said eye, a main suspension-ring permanently interlocked with said small ring, and a safety-link which is permanently interlocked with said main ring and is adapted to interlock with the point of said hook proper, which is provided with an enlarged point or to hang loosely, said eye and small ring serving in either case ordinarily to sustain the entire load strain, substantially as hereinbefore specified.

2. The combination, in a safety-hook, of a hook proper having a suspension-eye in the same plane as its body and a point of broad-arrow shape with lateral projections, a small ring permanently interlocked with said eye,

a main suspension-ring permanently interlocked with said small ring, and a safety-link permanently interlocked with said main ring and having a longitudinal loop to interlock with said point of the hook proper, substantially as hereinbefore specified.

3. The improved safety-hook composed of the hook A, having a suspension-eye *a* in the same plane as its body and a locking-point *b* of broad-arrow shape with lateral projections, the small ring B, permanently interlocked with said eye *a*, the ring C, permanently interlocked with said small ring, and the safety-link D, permanently interlocked with said ring C by means of an eye *c* and having a distinct longitudinal loop *d* to interlock with said point *b*, substantially as hereinbefore specified.

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