W. E. MURRAY.

SAFETY-HOOKS.

No. 193,773. Patented July 31, 1877.

Fig. 1.

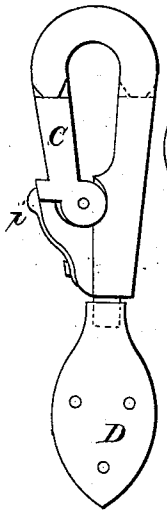


Fig. 2.

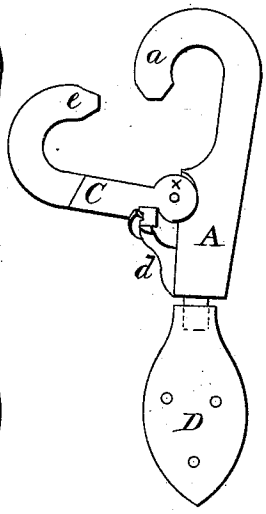
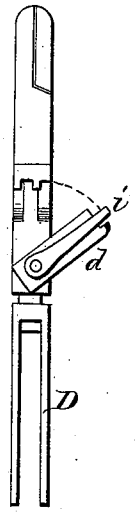


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

WILLIAM E. MURRAY, OF UKIAH, CALIFORNIA.

IMPROVEMENT IN SAFETY-HOOKS.

Specification forming part of Letters Patent No. **193,773**, dated July 31, 1877; application filed June 1, 1877.

To all whom it may concern:

Be it known that I, WILLIAM E. MURRAY, of Ukiah, in the county of Mendocino, and in the State of California, have invented certain new and useful Improvements in Safety-Hooks; and hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of the parts of a safety-hook for harness, and other purposes, as will be hereinafter fully described.

In order that those skilled in the art may make and use my invention, I will proceed to describe its construction and operation.

In the accompanying drawings, making part of this specification, Figures 1 and 2 represent side views of the hook, in different positions, opened and closed. Fig. 3 represents an edge view.

In the figures, A represents the body of the hook, *a* being its hooked end.

C represents an auxiliary hook, with a hooked end, *e*, which, when fitted up snugly by the side of the hook *a* on the body forms a safety hook or loop.

The hook C is pivoted to the body A, as represented, and is provided near its lower or pivoted end with a flange, in which a notch is cut.

d represents a small metallic stop, to which is connected a spring, *i*. This stop is pivoted to the body A near the pivoted end of hook C. It may be turned on its pivot to one side, but when in line with the hook C the spring *i* catches into the notch on the flange of the hook C, and its end catches behind the flange in order to securely fasten the hook in place.

It will readily be seen that when the two hooks have been closed together upon a link or other object, and then fastened by means of the stop *d*, it will be impossible to release the link without first releasing the spring from the notch in the flange, and then turning the stop to one side. This gives a chance for the hook C to be thrown back to open the loop. D is an ordinary swivel-clamp.

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

In a safety-hook, the combination of the body A, having hooked end *a*, swinging hook C pivoted thereto, the laterally-swinging stop *d*, and spring *i*, all arranged and operating substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 12th day of May, 1877.

WILLIAM ELILE MURRAY.

Witnesses:

J. T. ROGERS,

J. S. HAILE.