(No Model.)

T. H. WATERHOUSE.

SAFETY TRIP FOR HANGING HARNESS.

No. 585,415. Patented June 29, 1897.

Fig. 1.

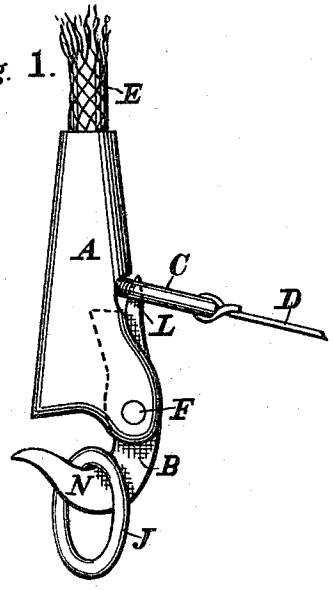


Fig. 2.

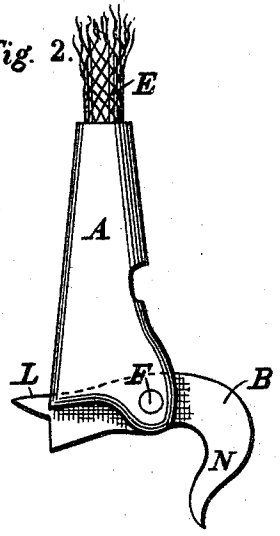


Fig. 3.

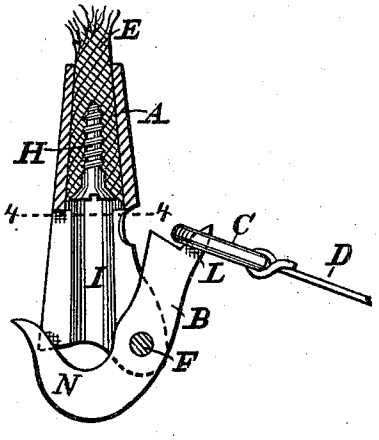
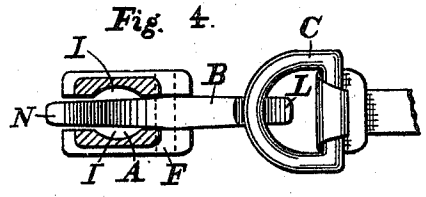


Fig. 4.



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UNITED STATES PATENT OFFICE.

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SAFETY-TRIP FOR HANGING HARNESS.

SPECIFICATION forming part of Letters Patent No. 585,415, dated June 29, 1897.

Application filed September 12, 1896. Serial No. 605,621. (No model.)

To all whom it may concern:

Be it known that I, TITUS H. WATERHOUSE, a citizen of the United States, residing at Rochester, in the county of Monroe, in the State of New York, have invented an Improvement in Safety-Trips for Hanging Harness, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to an improved safety-trip for hanging harness, which improvement is fully described and illustrated in the following specification and the accompanying drawings, the novel features thereof being specified in the claim annexed to the said specification.

In the accompanying drawings, representing my improvement, Figure 1 is a side elevation showing my improved safety-trip engaged with a ring or hoop attached to the harness. Fig. 2 is a side view of the same, showing the latch open. Fig. 3 is a central vertical section of the same, showing the manner of tripping the latch. Fig. 4 is a section on the line 4 4, Fig. 3, showing the parts below that line.

The operation of my improved safety-trip will be understood from the accompanying drawings when it is stated that it consists, essentially, of the suspended slotted body A, the pivoted hook or latch B, and the tripping-ring C, and that the harness, which normally hangs on the hook of the latch, is released by a pull on the strap or cord D, which swings the latch into the position indicated in Fig. 3, so that the ring C is disengaged from the latch, and the harness is then allowed to free itself from the hook. The body A of the trip is slotted to receive the latch B, which is pivoted at F, so that it may swing freely in the slot. The body A is also preferably perforated, with a tapering hole, as indicated in Fig. 3, to receive the suspending rope or cord E, which is fastened to the body by the insertion of the screw H, Fig. 3, suitable channels I I being made in the inner faces of the slot in the body to permit the insertion of the screw. In my ordinary practice the rope E passes over suitable pulleys and is counterweighted, so that the harness or that portion of it which is supported by any particular trip may be raised or lowered. The rope E may, however, be attached to any suitable support. The harness is attached in any preferred way to a suitable ring or hook J, which normally hangs upon the lower hook-shaped portion of the latch and is sustained thereby so long as the tripping-ring C is interposed between the lug L on the latch and the body A. A pull on the strap or cord D causes the ring C to swing the latch on its pivot, as indicated in Fig. 3, until the ring C is disengaged from the lug L, and then the weight or any motion of the harness will disengage the suspension-ring J from the latch, its hooked portion swinging outward, as represented in Fig. 2. The surface of the lug L is preferably beveled upward and outward, as indicated in the drawings. When the harness hangs on the hook, the tripping-ring C is held in contact with the body A by the lug L and acts as a stop to prevent the lug end of the latch being thrown past the body by the load on the hook, which load would otherwise turn the latch and slip off the hook. Normally the loaded hook is held away from the body, as shown, so that a pull on the lug by means of the tripping-ring C can raise the load until the lock is stopped by the body or until the lug is so far turned that the ring C or the like will slip from it and permit the latch to freely return and discharge its load. The harness can thus be disengaged from the latch by pulling the ring C outward, as indicated in Fig. 3. The lower end of the latch is given a suitable hook shape, as indicated at N, being bent upward and inward under the body in a form adapted to engage with and retain the suspension-ring until the latch is tripped, as already described.

My improved safety-trip is designed especially for use in connection with fire-engines, patrol-wagons, ambulances, or other vehicles where it is required to start immediately on call by signal or telephone, but it is capable of being employed in other situations.

In the application of my invention to the harness of fire-engine horses or police-patrol horses, &c., the harness is normally suspended from the ring J, its weight serving to press the lug L on the latch against the body A, with the tripping-ring C interposed. Upon the receipt of an alarm or call the horses take their places, the harness is drawn down and secured in place, and the driver, when notified that the horse or horses are ready, by a pull on the reins, to which the strap or straps

D are attached, releases the suspension-ring from the hook N of the latch, and the vehicle is ready to start.

My improved trip is cheap and durable in construction and entirely safe and reliable in practical operation. It is entirely free from springs or other devices which may become deranged or fail to work and has proved practical and useful on extended trial lasting over a considerable period of time.

I claim—

In a device for suspending harness or the like, a suspending body A, a latch B having a hook and lug on opposite ends, an intermediate pivot, and a tripping device normally situated between the lug and body and acting as a stop to the lug end of the latch and adapted to turn the latch on its pivot and raise the object or load to permit the automatic disengagement both of the tripping device and of the load, substantially as described.

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