

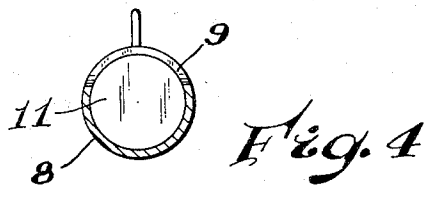
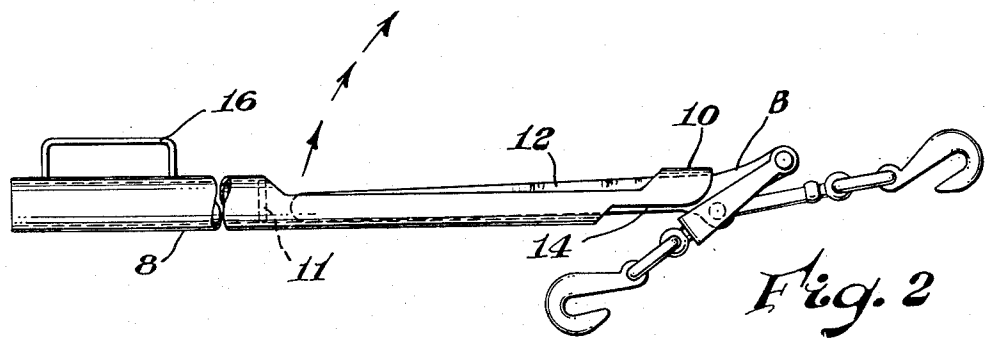
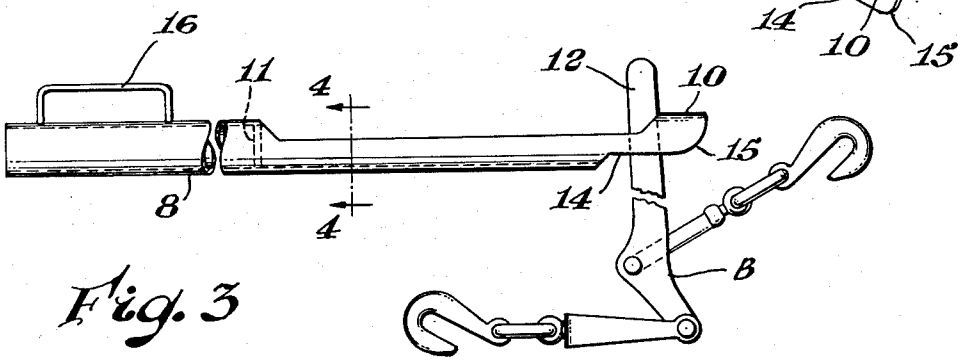
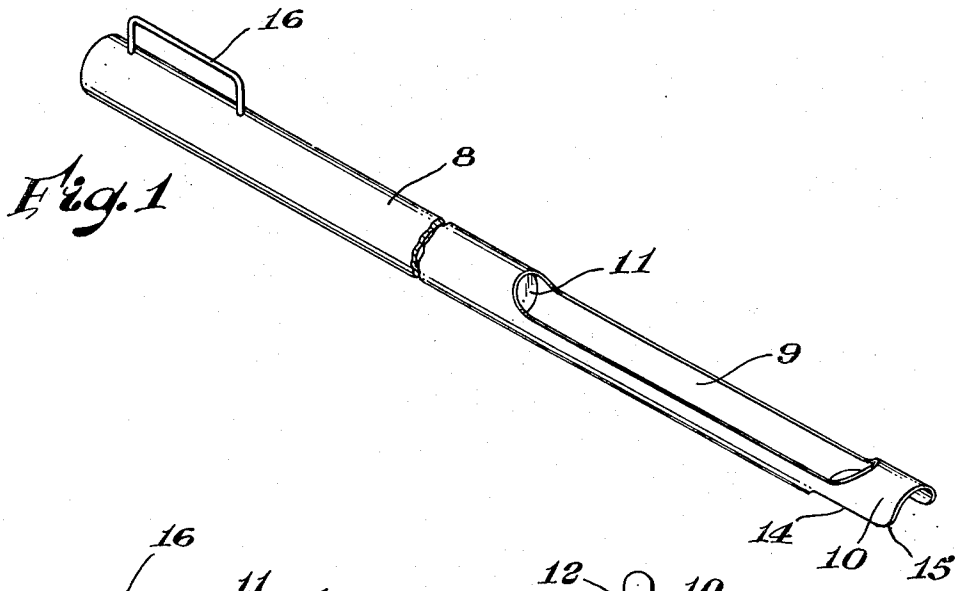
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3,179,373

SAFETY BINDER RELEASE TOOL

Filed Nov. 22, 1963



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3,179,373

SAFETY BINDER RELEASE TOOL

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2 Claims. (Cl. 254-78)

This application is a continuation-in-part of application, Serial No. 270,291, filed April 3, 1963 and now abandoned.

This invention relates to a safety load binder release device and more particularly to a release device for use in connection with load binders to insure their easy and safe application and release.

Load binders of the type herein referred to are used to connect the end sections of chains used to secure a load in position on a vehicle of any kind and are adjustable to tighten the chain to firmly secure the load on the vehicle. In order to firmly secure the load on the vehicle, the binder is applied and subjected to considerable tensile stress which, due to highway conditions and load shift, may be increased during travel from one location to another.

Before removal of a load secured by a load binder, it is necessary to release the binder by swinging the binder lever to unlocked position, and inasmuch as this lever is relatively short and under considerable tension, it is sometimes released and the operator is unable to hold it; consequently, it swings free, creating a very severe injury hazard to the operator and those in close proximity to the lever and load. It is, therefore, the prime object of the invention to provide an elongated safety load binder release which telescopically fits over the binder lever and provides the necessary leverage to control the locking and release of the binder without danger to the user and those working with him.

Another object of the invention is to provide a safety release device which can be readily applied to conventional load binders used to draw chains tightly and secure loads of steel, construction equipment, machinery, logs, and other materials handled on vehicles of all kinds for delivery from one place to another, and which is adapted to permit easy and safe locking and release of the load binder to permit securing and/or release of the load.

Another object of the invention is to design a very simple, practical, and inexpensive lightweight safety device that is easy to apply, and which provides sufficient added leverage to the load binder locking lever to make it easy and safe for the user and those about him to swing the lever to unlocked position and release the load.

A further object is to provide a very simple device which can be readily and economically manufactured and assembled and which can be easily applied and used by truck drivers and others in the general transportation field in which load binders are used.

With the above and other objects in view, the present invention consists in the combination and arrangement of parts, hereinafter more fully described, illustrated in the accompanying drawings, and more particularly pointed out in the appended claims; it being understood that changes may be made in the form, size, proportion and minor details of construction, without departing from the spirit, or sacrificing any of the advantages of the invention.

In the drawing:

FIG. 1 is a perspective view of my new safety release device.

FIG. 2 is a side elevational view showing my release device in position on a load binder, the arrows showing the direction of swing of the lever when it is being swung to unlocked position.

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FIG. 3 is a view similar to FIG. 2 showing the load binder being removed from the safety release device.

FIG. 4 is a transverse sectional view of my safety release device taken on the line 4-4 of FIG. 3.

Referring now more specifically to the drawing in which I have shown the preferred embodiment of my invention:

The numeral 8 indicates a cylindrical, hollow body member of predetermined length and diameter formed as clearly shown in FIG. 1 of the drawing, the upper section being cut away as shown to provide an elongated swing-out opening 9 at a point intermediate its length, said opening being spaced from the front end to provide a cross brace 10 at the one end of the body, and for a purpose to be presently described.

A disk-shaped member 11 is mounted in the body 8 at the inner end of the elongated opening 9 and serves to limit inward travel of the load binder lever 12 when mounted in position, and a slotted opening or passage 14 is provided in the bottom wall of the body member 8 at a point directly below the cross brace 10 and extends beyond the inner end of said brace, the outer end of the body member being curved and rounded as at 15, so that it can be readily fitted over the binder handle 12 when desired, and a hand grip 16 is provided at the free end of the device to facilitate grasping the upper end of the device when handling same.

In practice, a binder may be safely released by simply inserting the lever 12 through the slotted passage 14 and under the cross brace 10, thence into the swing-out recess 9, and thence up and under the cross brace 10. As the lever moves into parallel alignment with the body 8 (see FIG. 2 of the drawing), the upper edge of the lever bears against the cross brace 10, and its upward movement in the recess, is limited by the disk 11. When unlocking, the lever 12 may be safely released by simply inserting said lever under the cross brace 10 and into the swing-out opening 9, then by grasping handle 16 and lifting outward, the tension on lever 12 is released, and at this point the tension turns into inertia and forces the handle 12 of binder 3 to swing out of the open swing-out opening 9, and simultaneously push up on the cross brace 10, while the lower recess 14 allows the inertia to swing the handle 12 of binder B inside of the device and completely and safely disengage in the hands of the user.

The operation of the disclosed device is believed to be apparent from the foregoing description. The disclosed embodiment is representative of the presently preferred form of the invention, but is intended to be illustrative rather than definitive thereof. The invention is defined in the claims.

I claim:

1. A safety binder release tool comprising: a hollow, cylindrical body member formed with an elongated swing-out opening in the upper face thereof, one end of said opening terminating in a relatively short cross brace section spanning the upper face of the cylindrical body member, and an open recessed passage in the lower face of said body member below said cross brace section and extending a predetermined distance beyond the inner end of the cross brace to permit passage of a load binder handle therethrough and into said cylindrical body member to permit swinging said handle into and out of said swing-out opening.

2. A one-piece hollow cylindrical body member formed with an elongated swing-out opening in the upper face thereof at a point intermediate its length; a stop provided in the body member directly adjacent one end of said elongated opening, the opposite end of said elongated opening terminating in a relatively short cross brace sec-

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tion spanning the upper face of the cylindrical body member; a recessed passage in the lower face of said body member directly below said cross brace section and extending a predetermined distance beyond the inner end of said cross brace to permit passage of a load binder handle therethrough and into said body member, and a handle on said body member adjacent the upper end thereof.

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