No. 610,105. Patented Aug. 30, 1898.

A. G. THAYER.

STRAP OR ROPE CLAMP AND TIGHTENER.

(Application filed Jan. 18, 1898.)

(No Model.)

Fig. 1.

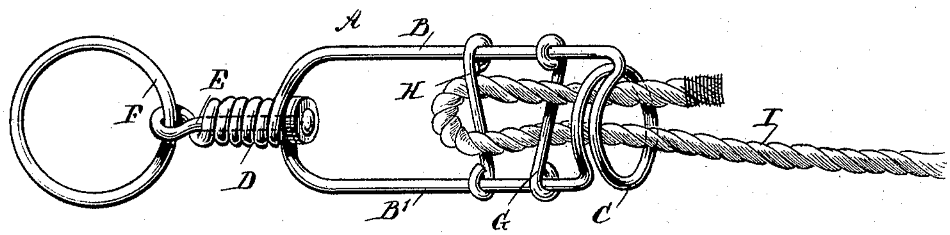


Fig. 2

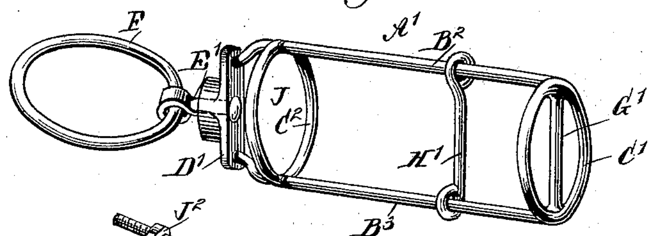


Fig. 3.

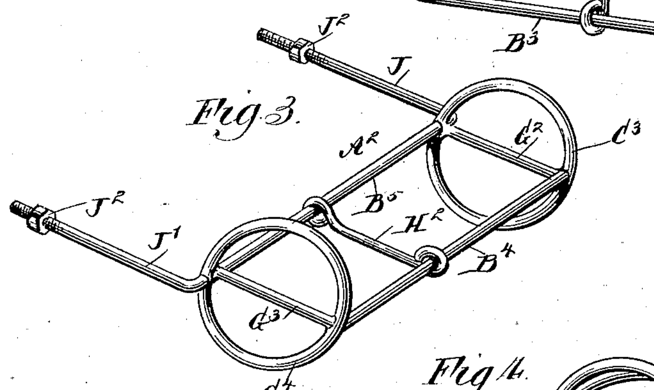
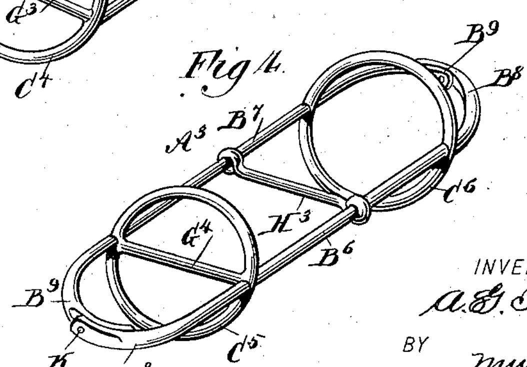


Fig. 4.



WITNESSES:

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AARON GRANT THAYER, OF KENSINGTON, KANSAS.

STRAP OR ROPE CLAMP AND TIGHTENER.

SPECIFICATION forming part of Letters Patent No. 610,105, dated August 30, 1898.

Application filed January 18, 1898. Serial No. 667,029. (No model.)

To all whom it may concern:

Be it known that I, AARON GRANT THAYER, of Kensington, in the county of Smith and State of Kansas, have invented a new and Improved Strap or Rope Clamp and Tightener, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved strap or rope clamp and tightener which is simple and durable in construction and arranged to permit of readily and securely attaching the end of a rope or strap or detaching it whenever desired, the device being especially serviceable for use on halters for tying horses, cattle, or other stock to mangers or the like; but the device can also be used for various other purposes.

The invention consists of novel features and parts and combinations of the same, as will be described hereinafter and pointed out in the claims.

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

Figure 1 is a perspective view of the improvement with the rope end attached, and Figs. 2, 3, and 4 are perspective views of other forms of the improvement.

The improved device as shown in Fig. 1 is provided with a frame A, preferably made of a single piece of wire bent to form two parallel guide-bars B B′, terminating at one end in a ring C and formed into a bearing D at the other end, the bearing receiving a swivel E, connected with a ring F, for attaching the device to a suitable support. On the guide-bars B B′, next to the ring C, is mounted to slide a cross-bar G, and a similar cross-bar H is fitted to slide on said bars B B′ between the cross-bar G and the swivel end of the frame A. One end of a rope I, attached to the device, is passed through the ring C, then to the rear of the cross-bar G, then over the front of the cross-bar H and doubled around the same, to be then passed over the front of the cross-bar G back into the ring C, as shown in Fig. 1. Now it is evident that when a pull is exerted on the rope I the doubled-up end of the rope on the cross-bar H pulls on the latter and draws the same toward the other cross-bar G and the ring C; but as the free end of the rope is in contact with the cross-bars H and G on the opposite sides and also with the inner wall of the ring C it is evident that the rope will not pull through, but will be drawn tight and clamped in position between the said bars H and G and the ring C. When it is desired to unfasten the rope, the operator simply slides the cross-bar H toward the swivel end to permit of readily pulling the free end of the rope out of the several parts and the entire rope end from the device.

In the arrangement shown in Fig. 2 I provide a frame A′, having parallel guide-bars B^2 B^3, terminating at one end in a ring C′ and provided at the other end with a ring C^2 and with a head-piece D′, containing a swivel E′, connected with a ring F. The ring C′ is provided with a diagonal cross-bar G′, integral with the ring, and on the guide-bars B^2 B^3 is mounted to slide a cross-bar H′, around which the end of the rope is doubled up, as previously explained in reference to Fig. 1, the free end of the rope extending at one side of the cross-bar G, and the main portion of the rope being at the other side thereof. Thus when a pull is exerted on the rope the bar H′ is drawn toward the ring C′ and its cross-bar G′ to securely clamp the rope end in place.

The device illustrated in Fig. 3 is provided with a frame A^2, having parallel guide-bars B^4 B^5, terminating in rings C^3 C^4, provided with cross-bars G^2 G^3, respectively, similar to the cross-bar G′ in the ring C′. A single movable cross-bar H^2 is fitted to slide on the guide-bars B^4 B^5 between the rings C^3 C^4, so that the rope or strap can be used for either end of the frame. The bar B^5 of the frame A^2 is provided at its ends with arms J J′ for fastening the frame to a manger or other support, the rods being preferably threaded at their outer ends to receive nuts J^2, as indicated in said figure.

The frame A^3 (shown in Fig. 4) is provided with guide-bars B^6 B^7, connected with each other by rings C^5 C^6, of which the ring C^5 has a cross-bar G^4, and between the rings is fitted to slide on the guide-bars B^6 B^7 the cross-bar H^3, adapted to receive the doubled-up end of the rope passed through the ring C^5 into the frame. The bars B^6 B^7 have their ends B^8 B^9 extended beyond the rings C^5 C^6, the ends being bent over so as to overlap, as plainly indicated

in said Fig. 4, a suitable bolt or other means K being employed for fastening the overlapped ends together. By this arrangement loops are formed which can be opened for conveniently attaching a halter without requiring ripping the halter open.

In the various forms described it is evident that the operation is the same as previously described with reference to Fig. 1, it being understood that the end of the rope can be readily placed in position and drawn tight to securely fasten the end of the rope in place on the device and also permit of conveniently unfastening the rope whenever desired.

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

1. A clamp, comprising a frame having guide-bars, a ring and cross-bar for the admission of a rope or strap, and a slidable cross-bar on said guide-bars and arranged to operate in conjunction with said ring and cross-bar, to securely clamp the end of the strap or rope in place, substantially as shown and described.

2. A clamp, comprising a frame having longitudinal guide-bars, a ring connecting said bars and located in a plane approximately perpendicular to the common plane of said guide-bars, a cross-bar likewise connecting said guide-bars, and another cross-bar slidable upon the guide-bars, substantially as described.

3. A clamp, comprising a frame having longitudinal guide-bars, transverse rings connecting the ends of said guide-bars, a stationary cross-bar in one of said rings, and a movable cross-bar mounted to slide on the guide-bars between the rings, substantially as described.

4. A clamp, comprising a frame having parallel guide-bars, a ring on both ends of said frame, and two cross-bars on the frame, one movable on the said guide-bars, the latter extending beyond said ring and being bent over so as to overlap, as shown and described.

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Witnesses:
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