

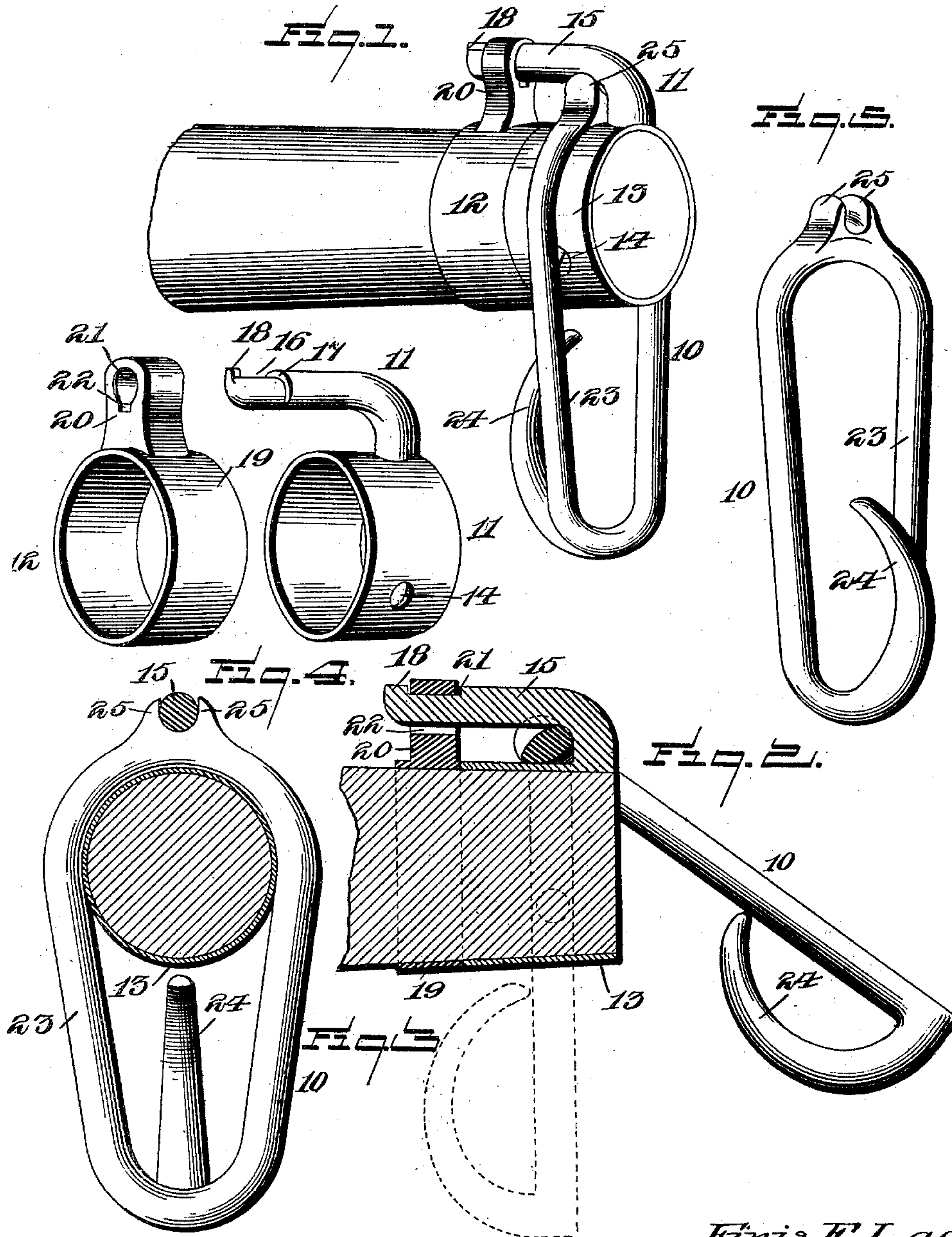
No. 667,884.

Patented Feb. 12, 1901.

F. E. LACK.
SINGLE TREE CLIP.

(Application filed Mar. 14, 1900.)

(No Model.)



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SINGLETREE-CLIP.

SPECIFICATION forming part of Letters Patent No. 667,884, dated February 12, 1901.

Application filed March 14, 1900. Serial No. 8,671. (No model.)

To all whom it may concern:

Be it known that I, FINIS EWING LACK, a citizen of the United States, residing at Paducah, in the county of McCracken and State of Kentucky, have invented a new and useful Singletree-Clip, of which the following is a specification.

In the construction of ordinary singletree-clips after the ferrule has been made the end of the hook-blank is passed through the eye and then bent around and welded, forming the link of the hook. In this operation the ferrule is often broken, which renders the hook worthless, for it is evident that after the link has been welded it cannot be passed through the eye of another ferrule. Another disadvantage of the ordinary device is that instead of pulling around the whiffletree, so that the strain will be upon the same, it often happens that the hook is accidentally turned over, so that the strain comes directly upon the eye of the ferrule and invariably breaks it, rendering the entire device useless. These defects and disadvantages are overcome in the present invention, which provides means whereby the hook may be removed from the ferrule and replaced whenever desired. It furthermore provides simple means for holding the hook in proper position with relation to the singletree, so that it may not be accidentally displaced.

The preferred form of the invention is described in the following specification and shown in the accompanying drawings, which form a part of the same, and in which—

Figure 1 is a perspective view. Fig. 2 is a horizontal longitudinal section. Fig. 3 is a vertical cross-section. Fig. 4 is a perspective view of the retaining-ring and ferrule in an unlocked position. Fig. 5 is a perspective view of the singletree-hook.

Similar reference-numerals refer to similar parts throughout the several figures of the drawings.

The device comprises the singletree-hook 10, the ferrule 11, and the retaining-ring 12. The ferrule 11 comprises a cylindrical sleeve 13, which fits snugly over the end of the tree and has an opening 14 for the reception of a fastening-screw, by means of which the sleeve is secured to the end of the singletree. Projecting from the outer end of one side of the

sleeve 13 is an offset locking-arm 15, which is bent at right angles to extend substantially parallel with the sleeve 13 and form an elongated throat or pivot space between the same and the body of the sleeve for the reception of the hook 10. The end of the locking-arm projects beyond the plane of the inner edge of the sleeve 13, and it is cut away, as at 16, the inner end of such cut-away portion forming an abutment 17 in the same plane as the inner edge of the sleeve 13 and the projecting end of said cut-away portions being provided upon its outer side with the lug 18.

The retaining-ring 12 consists of a circular collar 19, adapted to aline with the cylindrical sleeve 13 and fit snugly upon the singletree. The collar 19 is provided with a projecting ear 20, which has a keyhole-opening 21, the longitudinal slot 22 of said keyhole-opening being in the under side.

The retaining-ring 12 is adapted to be locked to the ferrule 11 in the following manner: The ring 12 is inverted, so that the opening 21 of the ear alines with the cut-away portion 16, and the longitudinal slot 22 is alined with the lug 17. The ear 20 is then slid upon the cut-away portion, and the space between the shoulder 17 and the lug 18 being equal to the thickness of the stud 20 when the collar 19 is rotated to aline with the sleeve 13 and the lug 18 and the groove 22 being out of alinement and the sleeve 13 and the collar 19 having been placed upon the singletree the two sections are securely locked together while in place.

From the above description it will be seen that the ring-section is journaled upon the arm 15 eccentrically to the sleeve-section, so that when the two sections are alined they are inseparably interlocked, and in order to release the hook 10 the ring-section must be rotated upon the offset arm 15.

The singletree-hook 10 consists of a link 23, one end of which is provided with the usual hook 24 and the opposite end being provided with a pair of projecting studs 25. The portion of the link between these studs is of an oblong shape in cross-section, the major axis of said oblong portion being of greater length than the width of the throat or pivot space between the adjacent surfaces of the ferrule 11 and the arm 15, as shown in Fig.

2. The link of this hook surrounds the sleeve 23, and the locking-arm 15, passing between the studs 25, prevents its revolving upon the sleeve 23, and at the same time, as clearly 5 shown in Fig. 2, the length of the major axis of the link between the two studs 25 limits the lateral swinging movement of the link. By this simple means an inexpensive and efficient singletree attachment is constructed 10 that will allow a ready removal and replacement of any part that becomes worn out or broken. Furthermore, the hook is always held in proper position, so that there is no liability of its becoming displaced and breaking 15 the eye of the ferrule.

While this invention has been described as being used in connection with a singletree, it will be evident that the ferrule may be used with equal advantage on a neck-yoke by 20 using a ring instead of the hook shown, and it is to be understood that the device is not to be limited to the exact construction shown, as various changes in the size, shape, proportion, and minor details of construction may 25 be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

Having now fully described my invention, what I claim as new, and desire to secure by 30 Letters Patent, is—

1. In a device of the class described, a ferrule comprising two sections, and an arm connecting the sections and offset from the peripheries thereof, one of said sections being 35 journaled upon the arm and rotatable thereon as an axis to bring the sections in position for the release of the hook, substantially as described.

2. A device of the class described, comprising 40 two sections separably interlocked and having an eccentrically-located journal connection.

3. In a device of the class described, a ferrule comprising two sections, one of which 45 has an arm offset from its periphery, the other section having an interlocking engagement with said offset arm and rotatable thereon as an axis, substantially as described.

4. In a device of the class described, a ferrule comprising a sleeve-section and a ring- 50 section, an arm carried by the sleeve-section and offset and spaced from the periphery of said sleeve-section, said arm having its end provided with a stud, a projection arranged upon the ring-section and having a keyhole- 55 opening therein which receives the arm of the sleeve-section, whereby the two sections are separably interlocked and the ring-section is journaled on the arm eccentrically to the sleeve-section during the locking and 60 unlocking movements, substantially as described.

5. In a device of the class described, the combination with a sleeve, of an arm carried by the sleeve, the main portion of said arm 65 being substantially parallel to the outer face of the sleeve, the end of said arm projecting beyond the plane of the inner face of said sleeve and provided with a projecting lug, a retaining-ring having a projecting ear pro- 70 vided with a keyhole-opening adapted to receive the end of the arm, said keyhole-opening being so arranged that when the arm is engaged therein and the sleeve and ring are aligned, the lug will be out of alignment with 75 the keyhole-opening and the end of the arm will be inseparably interlocked therein, substantially as described.

6. In a device of the class described, the combination with a clip having an elongated 80 throat-opening with substantially parallel sides, of a link provided with a portion having a free longitudinal movement in the throat, said portion being oblong in cross-section and having its major axis of greater 85 length than the width of the throat to restrict the swinging movement of the link, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 90 the presence of two witnesses.

FINIS EWING LACK.

Witnesses:

GEO. W. GREIF,
J. M. BROWN.