(No Model.)

L. E. WATERMAN.

WHIFFLETREE HOOK.

No. 454,413. Patented June 16, 1891.

Fig. 2.

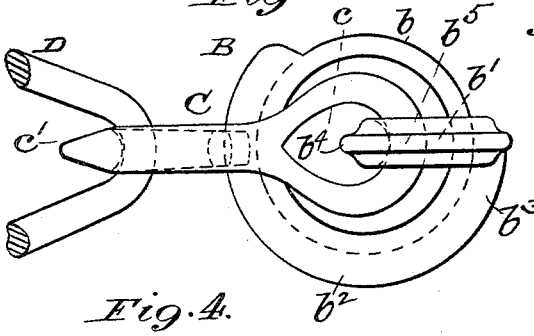


Fig. 1.

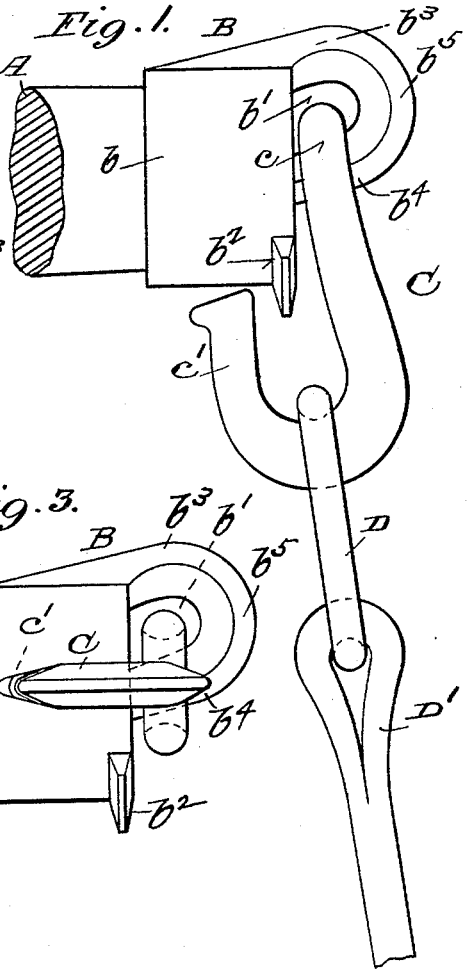


Fig. 4.

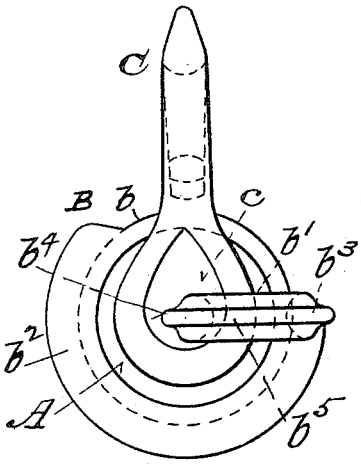


Fig. 3.

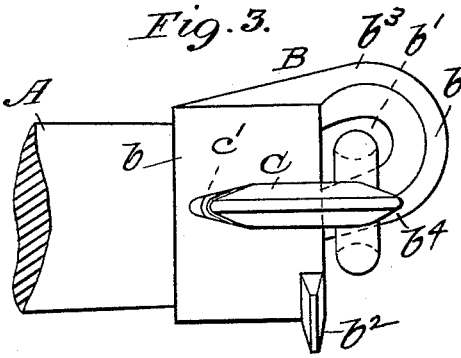


Fig. 6.

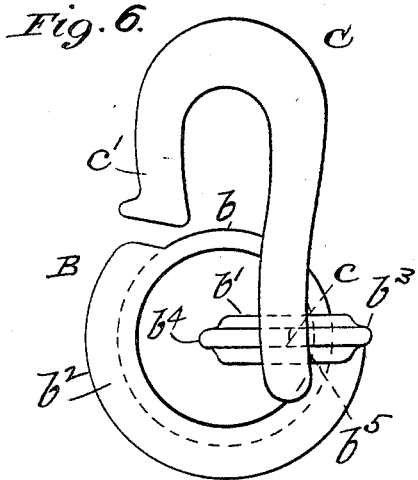
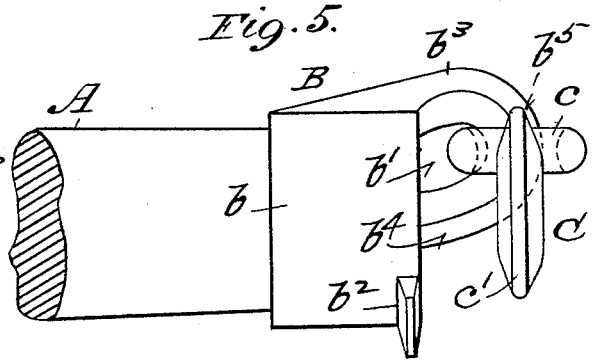


Fig. 5.



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WHIFFLETREE-HOOK.

SPECIFICATION forming part of Letters Patent No. 454,413, dated June 16, 1891.

Application filed November 17, 1890. Serial No. 371,770. (No model.)

To all whom it may concern:

Be it known that I, LEWIS E. WATERMAN, of Moline, Illinois, have made a new and useful Improvement in Singletree-Clips, of which the following is a full, clear, and exact description.

The improvement relates to that class of singletree-clips in which the clip-hook is adjustable and the clip and hook are relatively constructed to enable the hook to be turned upon the clip, and in one of its positions—namely, that which the hook assumes when drawn by the trace to hold the trace so that it cannot become unhitched, and in another of its positions to allow of the trace being detached.

The improvement consists in the special mode of constructing and combining the clip and hook, substantially as is hereinafter set forth and claimed, aided by the annexed drawings, making part of this specification, in which—

Figure 1 is a plan of the improved clip. The view includes the end of the tree to which the clip is attached; Fig. 2, an outside elevation of the parts of and as in Fig. 1; Fig. 3, another plan analogous to that of Fig. 1, but omitting the trace, and showing the clip-hook upturned into a vertical position and pointing inward; Fig. 4, an outside elevation of the parts as in Fig. 3; Fig. 5, another plan, but showing the clip-hook turned from its position of Fig. 3, so as to be in a vertical position, but to point away from the tree; and Fig. 6 a side elevation of the parts as in Fig. 5.

The same letters of reference denote the same parts.

A represents the singletree.

B represents the clip, and C represents the clip-hook.

The tree is of the customary form. The clip consists of the band b, which encircles the end of the tree, an eye b', which projects sidewise from the band, and a flange b^2 upon the band and extending from the point at which the rear portion b^3 of the eye connects with the band downward, around, and upward upon the band nearly to the top thereof, substantially as shown. The hook has an eye c, which engages with the clip-eye b', and thereby joints the hook to the clip, and the point c' of the hook projects in a plane at right angles to the eye c. The clip and hook are also so relatively contrived that the hook can be turned upon the clip-eye to enable the point of the hook to overhang the band of the clip within the plane of the flange upon the band, and in this relation to the clip to be rotated upon the forward portion b^4 of the clip-eye from an upright or a substantially upright position forward and downward and around the clip, and upward until the back of the hook encounters the rear side of the portion b^3 of the clip-eye, and from this last-named position the hook can be rotated backward again into an upright position and until it encounters the front side of the portion b^3 of the clip-eye. The flange b^2 is omitted at the top of the band b. This permits of another movement of the hook—namely, the turning of the hook from the described position in which it overhangs the clip-band into a position in which the hook points away from the clip-band sufficiently to enable the trace-hook D to be attached to or detached from the clip-hook C. In all of the other positions of the clip-hook the flange b^2 prevents it (the clip-hook) from being thus turned. In the first-described movement of the clip-hook it rotates, as stated, upon the portion b^4 of the clip-eye. In the last-described movement the hook-eye b' is slipped from the portion b^4 of the clip-eye onto the outer portion b^5 of the clip-eye—that is, to hitch the trace D′ the clip-hook is turned into its position shown in Figs. 5 and 6. The trace-hook is slipped onto the clip-hook, and then the clip-hook is turned into its position shown in Figs. 3 and 4, after which the clip-hook is rotated upon the clip-eye to bring the parts into the position shown in Figs. 1 and 2. To unhitch the trace the described procedure is reversed, the parts being first turned into the position indicated in Figs. 3 and 4 and then into the position of Figs. 5 and 6, when the trace can be detached, as stated. Two movements of the clip-hook must therefore be effected before the trace can be unhitched. The accidental detachment of the trace is thus not likely to occur, especially in view of the fact that the clip-

hook has to be both pushed and pulled, and when pulled to be turned sidewise from the plane in which it has been previously pushed.

I claim—

1. The herein-described singletree-clip and clip-hook, in combination, said clip having the band-eye projecting from the end of said tree, and flange extending around said tree, as described, and said hook having the eye and point, as described.

2. A singletree-clip having a band adapted to be applied to the tree and having an eye projecting endwise outward from said band, in combination with a clip-hook, said hook having an eye which engages with said clip-eye and the point of said hook projecting at right angles to the plane of said hook-eye, substantially as described.

Witness my hand this 1st day of November, 1890.

LEWIS E. WATERMAN.

Witnesses:
J. B. KERNS,
W. J. ENTRIKIN.