(No Model.)

T. P. RANDALL.

WHIFFLETREE HOOK.

No. 422,628. Patented Mar. 4, 1890.

Fig. 1.

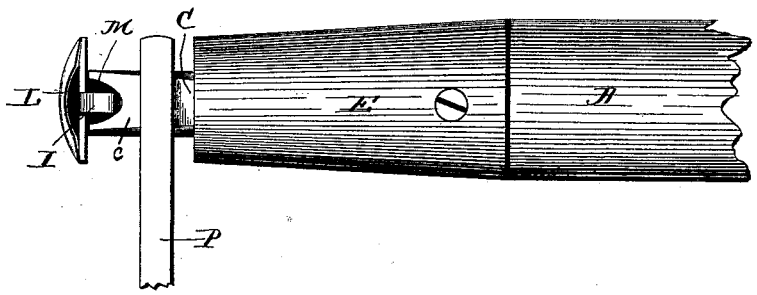


Fig. 2.

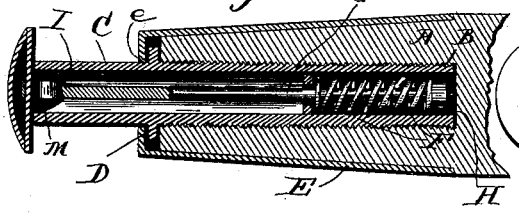
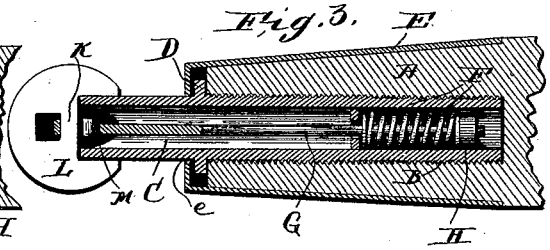


Fig. 3.



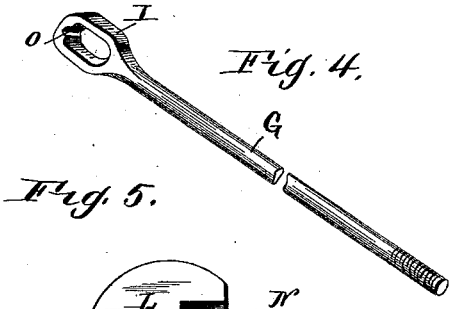
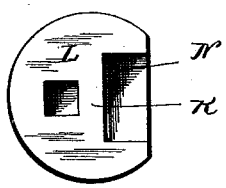


Fig. 4.

Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

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WHIFFLETREE-HOOK.

SPECIFICATION forming part of Letters Patent No. 422,628, dated March 4, 1890.

Application filed May 23, 1888. Renewed July 31, 1889. Serial No. 319,349. (No model.)

To all whom it may concern:

Be it known that I, TIMOTHY P. RANDALL, a citizen of the United States, residing at Greenville, in the county of Montcalm and State of Michigan, have invented new and useful Improvements in Whiffletree-Hooks, of which the following is a specification.

The invention relates to improvements in whiffletree-hooks; and it has for its object to provide improved means for securing the hook to the whiffletree, and, furthermore, to provide improved means for actuating the movable button or hook.

The invention consists in a certain novel construction and arrangement of devices, fully set forth hereinafter in connection with the accompanying drawings, wherein—

Figure 1 is a plan view of a whiffletree provided with the improved hook. Fig. 2 is a longitudinal central sectional view taken vertically. Fig. 3 is a similar view, with the button arranged flat in position to enable the end of the trace to be attached thereto. Fig. 4 is a detail view of the sliding rod. Fig. 5 is a detail view of the button.

Referring to the drawings, A designates a portion of the whiffletree, in the end of which is formed a recess B, and C designates the tubular shank of the whiffletree-hook, which is arranged at its inner end in the said recess. This tubular shank is provided with a flat or squared outer end and may be threaded, as shown in the drawings, and screwed into the recess B to more firmly secure it in place. A lateral collar D is arranged on the tubular shank near its outer end, and the portion of the shank beyond the collar is flattened on one side, as shown at *c*. This collar bears against the end of the whiffletree around the recess, and E represents a ferrule, which fits over the end of the whiffletree and is provided in its smaller end with an aperture *e*, which embraces the flat portion of the shank. The said aperture is smaller than the collar, so that the latter cannot pass therethrough, and therefore the end of the ferrule bears on the outer side of the collar and firmly locks the shank in the end of the whiffletree, from which it cannot be removed until the ferrule is loosened.

A coiled spring F is located in the tubular shank, and through the center of the spring passes the sliding rod G, upon the inner end of which is screwed the nut H, which bears against the end of the spring. The outer end of the sliding rod is provided with an eye or loop I, which embraces a short transverse bar K on the inner side of the button L. When the button is vertical or flat on the end of the shank, the bar K is flat on the end of the shank, and the sliding rod, with an eye or loop, is within the tubular shank; but when the button is turned to a horizontal position the bar K is turned up on edge on the end of the shank, and the rod G is drawn outward against the strength of the spring.

The upper flattened side of the shank at its outer end is provided with a notch M, and the side of the loop or eye projects into the notch when the button is in its normal position, and when the button is turned a recess N in its inner side receives the upper flattened side of the shank, thereby bringing the button almost in alignment with the shank. The object of this is to enable the trace to be easily passed over the button in placing it on and removing it from the shank. It will be seen that as the button is turned from its vertical to its horizontal position the bar K turns in the loop or eye on the end of the sliding rod, the edge of the said bar bearing against the outer end of the loop or eye, and O represents a small notch or depression which is formed in the outer end of the loop or eye to engage the edge of the bar K as the button reaches its horizontal position. This forms a catch to hold the button in position, and it is disengaged by simply turning the button, the notch not being deep enough to prevent the edge of the bar from slipping out. The trace P is shown in Fig. 1 applied to the hook.

In order to secure the improved hook to the whiffletree, the ferrule is arranged on the outer end of the shank before the sliding rod (which carries the button) is placed in the shank. The nut is then screwed on the end of the sliding rod, the end of the shank is screwed in the recess in the end of the whiffletree until the collar thereon bears

against the end of the latter, and, lastly, the ferrule is driven down in place and secured by small screws passed through its sides and engaged in the whiffletree.

Having thus described my invention, I claim—

1. In a whiffletree-hook, the combination, with the tubular shank having a flat or square outer end, of the sliding rod mounted in the shank and having a loop or eye on its outer end and provided with a spring, whereby it is drawn inward, and the button provided with a transverse bar passing through the loop or eye, whereby the inner side of the button is normally held against the flat outer end of the shank, substantially as described.

2. In a whiffletree-hook, the combination, with the tubular shank, of the spring-actuated rod mounted therein and provided with a loop or eye, having a notch O, and the button provided with a transverse bar passing through the loop or eye and adapted to engage the said notch to hold the button in the desired position, substantially as described.

3. In a whiffletree-hook, the combination, with the tubular shank having a notch M in one side at the outer end, of the spring-actuated rod mounted in the shank and provided at its outer end with a loop or eye which projects through the notch M, and the button bearing against the end of the shank and provided with a bar K, passing through the loop or eye, as specified.

4. In a whiffletree-hook, the combination, with the tubular shank provided at its outer end in one side with a notch M, of the sliding rod mounted in the shank and provided at its outer end with a loop or eye projecting through the said notch and the button provided with a bar K, mounted in the loop or eye and having a recess N, adapted to fit the end of the shank when the button is raised on edge, substantially as specified.

5. In a whiffletree-hook, the combination, with the tubular shank having a flat end and a flattened side adjacent to the end, of the button provided with a flat inner side and connected to the outer end of a sliding rod, whereby the inner side of the button is adapted to bear against either the end or the side of the shank, substantially as specified.

6. In a whiffletree-hook, the combination, with the tubular shank fitting in a recess in the end of the whiffletree and provided with a collar bearing against the end of the same, and the movable button at the outer end of the shank, of the ferrule fitting over the outer end of the whiffletree, bearing at its outer partly-closed end on the outer side of the said collar, and secured at its inner end to the whiffletree, substantially as specified.

7. In a whiffletree-hook, the combination of the tubular shank mounted in the end of the whiffletree and having a collar bearing against the end of the same, the ferrule embracing the outer end of the shank and bearing on the said collar, and the pivoted button at the outer end of the shank, substantially as and for the purpose specified.

8. The combination, with a whiffletree having a recess B therein and the ferrule arranged on the end of the whiffletree, and having an aperture in its end aligned with the recess B, of the hook having a shank mounted in the aligned recess and aperture and provided with a collar, which is arranged between the end of the whiffletree and the end of the ferrule, substantially as specified.

9. In a whiffletree-hook, the combination of the threaded tubular shank having a collar D and a flattened outer end, the ferrule embracing the end of the whiffletree and engaging the collar D, the coiled spring mounted in the shank, the sliding rod passing through the center of the spring and having a nut on its inner end bearing against the end of the spring, and the recessed button mounted on the outer end of the said rod, substantially as and for the purpose specified.

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

TIMOTHY P. RANDALL.

Witnesses:

C. H. PALMER,

D. M. WOLFE.