(No Model.)

W. C. WENTWORTH.

WHIFFLETREE HOOK.

No. 486,551. Patented Nov. 22, 1892.

Fig. 1.

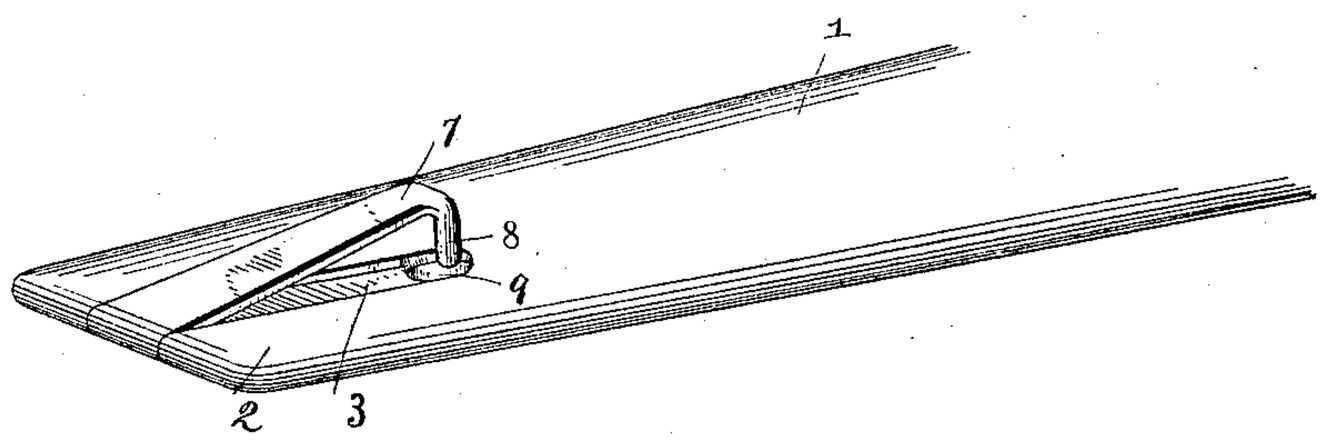


Fig. 2.

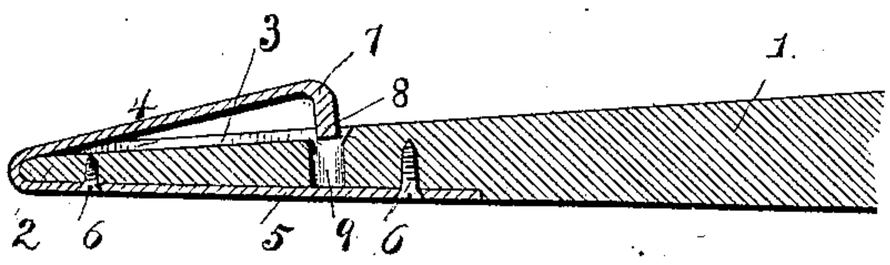
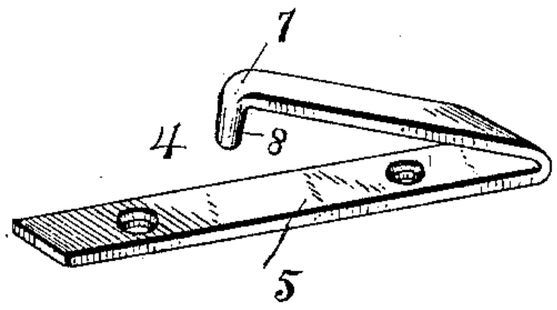


Fig. 3.



Witnesses
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N. J. Riley

Inventor
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UNITED STATES PATENT OFFICE.

WILLIAM C. WENTWORTH, OF DEXTER, MAINE.

WHIFFLETREE-HOOK.

SPECIFICATION forming part of Letters Patent No. 486,551, dated November 22, 1892.

Application filed September 9, 1891. Serial No. 405,219. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. WENTWORTH, a citizen of the United States, residing at Dexter, in the county of Penobscot and State of Maine, have invented a new and useful Whiffletree-Hook, of which the following is a specification.

The invention relates to improvements in whiffletree-hooks.

The object of the present invention is to provide for whiffletrees of carriages, similar vehicles, sleighs, and the like a whiffletree-hook which will be strong and durable, which will present a neat and attractive appearance, and which will not retard the fastening or placing of a trace on a whiffletree or wear the same when fastened.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

In the drawings, Figure 1 is a perspective view of a portion of a whiffletree provided with a hook constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view. Fig. 3 is a detail perspective view of the hook or spring.

Referring to the accompanying drawings, 1 designates a whiffletree provided at its end 2 with a groove 3, arranged on the upper and lower faces of the whiffletree and adapted to receive a spring 4, which is constructed of flat metal and is approximately V-shaped and has its lower arm or portion 5 secured in the groove on the lower face of the whiffletree by screws 6, arranged in countersunk openings of the spring, whereby their heads are arranged flush with the lower face of the springs, so that they will not retard or interfere with the placing or removal of a trace. The spring passes around the end of the whiffletree and is not secured on the upper face of the same; but the upper arm or portion 7, which is shorter and stiffer than the lower portion, receives the full force of the spring, which is strongest at the extreme end of the whiffletree, and which would have its tension decreased were the upper arm or portion 7 secured intermediate its ends. The extreme end of the upper arm or portion 7 is provided with a depending lug 8, arranged to prevent accidental removal of a trace and adapted to be depressed into a circular depression 9, arranged at the inner terminus of the groove in the upper face of the whiffletree. The depending lug, which forms a shoulder against which the trace abuts, is rounded, so that it will not wear the trace.

It will be seen that the rounded lug of the upper arm or portion of the spring or hook drops into a small round hole or socket, which in no wise weakens the whiffletree, as would be the case were a wide flat lug employed; that the rounded lug coming against the trace causes less friction and wear and is much stronger than a thin square shoulder or lug; that the spring is fastened to the lower face of the whiffletree by countersunk screws, which do not retard the passage of the trace in placing it on a whiffletree or removing it therefrom, as would be the case were rivets employed with projecting heads, and that the upper portion or arm of the spring begins to bend from the extreme end of the whiffletree, where the strength of the spring is the strongest, thereby enabling a much lighter and shorter spring to be employed. It will be seen that the upper arm or portion of the spring is straight and may be depressed into the groove, so that a trace may be removed without coming in contact with the spring and being retarded and worn. It will also be observed that the lower arm 5 is of greater length than the spring 4 and covers the lower side of the opening or recess 9, and at the same time provides an under metallic wearing-surface with which the trace contacts and avoids wear directly upon the under side of the whiffletree. Furthermore, by this construction the spring 4 is prevented from becoming broken by being depressed below a predetermined extent by having the end of the rounded lug to strike thereagainst. The tendency of the continual movement of the spring 4 over and against the end of the whiffletree would be to wear away the recess and increase the movement or depth of depression of said spring, and consequently the lug 8, bearing against the exposed portion of the arm 5 over the lower part of the recess or opening 9, would always result in the same

depth of depression of the said spring and avoid straining of the bend between the latter and the arm 5.

What I claim is—

A whiffletree provided at one end with a groove extending inward from the central portion thereof on the upper and lower sides of the same and the upper part of said groove having an opening at the termination thereof that extends through the whiffletree, in combination with a spring attachment for retaining a trace on a whiffletree, consisting of an upper spring having an inner angularly-bent end formed into a rounded lug adapted to be pressed through the opening at the termination of the upper groove of the whiffletree and bent at its outer end and continued in a lower arm of greater length than the spring portion that covers the lower part of the opening through the whiffletree and also extends beyond the said opening to provide an under wearing-surface, said lower arm being rigidly secured against movement to the under side of the whiffletree and embedded in the lower groove to form a flush joint and also forming a limitation for the downward depression of the spring by having the lug of the latter contact therewith, substantially as described.

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

WILLIAM C. WENTWORTH.

Witnesses:
B. C. WENTWORTH,
THOS. H. B. PIERCE.