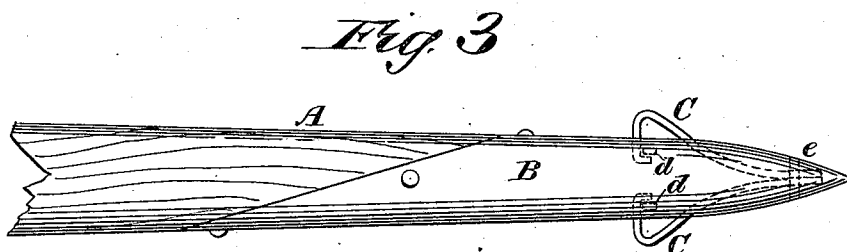
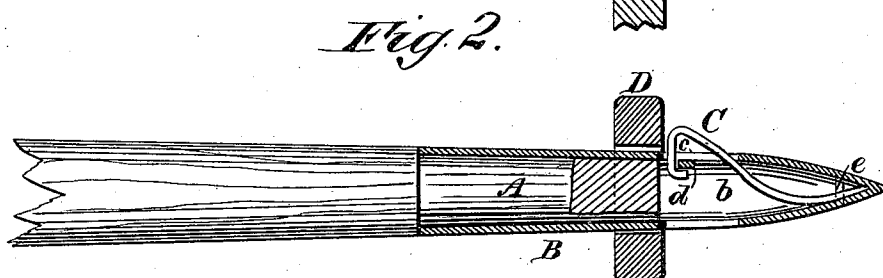
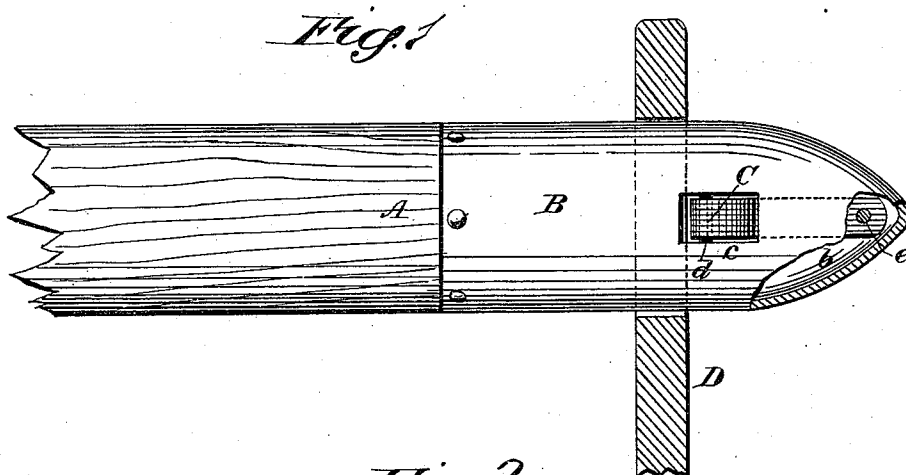


(No Model.)

G. CARLSON.
WHIFFLETREE HOOK.

No. 471,949.

Patented Mar. 29, 1892.



WITNESSES:

S. M. Apple.
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INVENTOR:

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UNITED STATES PATENT OFFICE

GUSTAVE CARLSON, OF SPARKS, ASSIGNOR OF ONE-HALF TO CHARLES H. CORWELL, OF VALENTINE, NEBRASKA.

WHIFFLETREE-HOOK.

SPECIFICATION forming part of Letters Patent No. 471,949, dated March 29, 1892.

Application filed June 23, 1891. Serial No. 397,180. (No model.)

To all whom it may concern:

Be it known that I, GUSTAVE CARLSON, of Sparks, in the county of Cherry and State of Nebraska, have invented a new and useful
5 Improvement in Tug or Trace Holding Attachments for Whiffletrees and the Like, of which the following is a full, clear, and exact description.

This improvement in whiffletree attachments, also applicable to neck-yokes, is applicable to both single and double trees and may be used on both light and heavy draft vehicles of different kinds, including buggies, carriages, wagons, and farm implements or
15 machinery of all kinds using whiffletrees and drawn or worked by horses or cattle.

The main object of the invention is to prevent the trace or tug from accidentally slipping off the whiffletree, and it more especially
20 relates to that description of stops at or near each end of the whiffletree which are formed of a yielding or spring-controlled lug or dog that, while it readily yields to admit of the tug or trace being passed to its place over the
25 end of the whiffletree, prevents the tug or trace from accidentally slipping off the end of the tree, yet permits of its easy removal when required.

The invention consists in an attachment of
30 this character of novel and improved construction, substantially as hereinafter described, and more particularly pointed out in the claim.

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

Figure 1 represents a plan view of the one end portion of a singletree with my invention applied and showing the end cap or tip in
40 which the end of the wooden tree fits as partly broken away; Fig. 2, a partly sectional and broken elevation or side view of the same. Fig. 3 is a longitudinal side view showing a modified construction of the end cap or tip
45 in which the end of the wooden tree fits, also showing both an upper and lower yielding lug or dog for operation in like manner as the single one; and Fig. 4 shows a side view of the one end of the doubletree of a wagon or
50 other heavy-draft vehicle, or it might be of the

neck-yoke, not tapered off to a point and the end cap or tip which fits the same made round to conform.

A indicates the one end portion of a wooden whiffletree, or, rather, Figs. 1, 2, and 3, of a singletree suitable for buggies or other light
55 drafts, and in Fig. 4 of an ordinary doubletree, such as used on wagons or other heavy drafts, or it might be a neck-yoke.

B is a metal cap or tip constructed to snugly
60 fit over each tapering end of the wooden tree A, which is reduced so that the exterior of the cap or tip will be flush with the body of the tree at their junction. Said cap or
tip may either be driven, as in Fig. 4, onto
65 the end of the tree or it may be slipped over the end thereof and be secured by screws, as shown in the other figures of the drawings, or be otherwise secured, and it may be made of
any desired length that is to be fitted over a
70 longer or shorter portion of the wooden tree. For buggies and light-draft vehicles the tip B or whiffletree attachment generally may be made of brass, copper, or other metal, nickel-plated or plain, while for heavy-draft vehicles
75 it may be made of malleable or cast iron or other suitable metal or metals.

C is the tug or trace-holding lug or dog, which is fitted to work in a slot *b*, cut in the end of the wooden tree A, and out through or
80 back within a corresponding slot *c*, formed in the cap or tip, and so that when shut down within said cap and tree it will not project beyond the outer surface or will go a little below the same to facilitate the slipping of the
85 trace on or off, to which end and to form a seat for the trace-holding lug or dog when shut down the cap or tip B where the slot *b* occurs is constructed to form a sunken bar *d*. The lug or dog C is formed of a single spring
90 bent to protrude through the slot *c* and when in its normal or raised condition to catch at its lower front end under the sunken bar *d* to keep it from unduly projecting through the slot *c*, and further bent throughout the main
95 portion of its body to lie wholly within the slot *b* in the tree, where it is secured at its fixed end by a pin *e*. Said spring, lug, or dog at its free or engaging end with the tug or trace is sloped on its back, but has a straight
100

inner face to provide for slipping the trace or tug fastening D, which may be of any suitable description, over it from the outer end of the tree or its cap when said free end of the spring-lug is depressed within the tree and when said spring is thrown upward or outward at its free end to prevent the tug or trace from accidentally slipping off the tree or its cap or tip B. To get the tug or trace off the tree when required, it is only necessary to depress the free end of the spring C within the tree till it rests on the bar *d*. This construction is preferable to having a spring or springs act directly on the body of the lug or dog. If desired, the spring lug or dog may be applied both above and below to the tree, as shown in Fig. 3.

The construction of the cap or tip B is such that it presents no inner shoulder or stop to prevent the tug or trace from moving or being adjusted as required along the tree after passing inwardly over the spring lug or dog C. Any suitable cockeye or fastening may be applied to the tug or trace.

To strengthen the tree and at the same time to give a more symmetrical or ornamental appearance to it, the cap or tip B may be constructed longer on its one side than the other or have an oblique inner end finish, as shown in Fig. 3.

Although the invention is here only shown

as applied to one end of the wooden tree, it of course is designed to apply it to each end thereof, and here it may be observed that with the exception of the slot in the end of the tree the metal cap or tip has a solid filling formed by the end of the tree, thus relieving it of strain, and the cap reinforcing the tree, as against pull by the tug or trace, said cap wholly surrounding or inclosing and supporting the end portion of the tree.

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

The combination of the wooden stock or tree A, having a slot *b* in either end, the metal cap or tip B, fitting over said end and provided with a slot *c* over or in line with the slot *b*, a sunken bar portion *d* beneath said slot *c*, and the trace or tug holding lug or dog C, composed of a single spring C, bent at its free end to protrude through the slot *c* and to catch when depressed under the bar portion *d*, and further bent throughout the main portion of its body to lie wholly within the slot *b* and secured at its fixed end to the tree and its cap, essentially as shown and described.

GUSTAVE CARLSON.

Witnesses:

W. E. HALEY,

M. V. NICHOLSON.