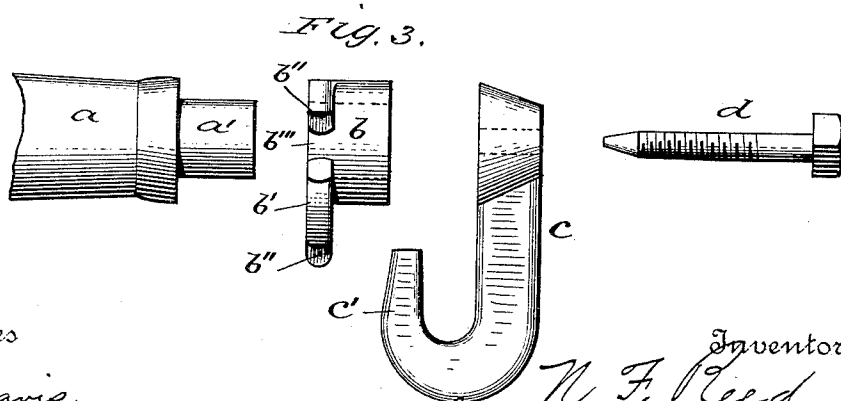
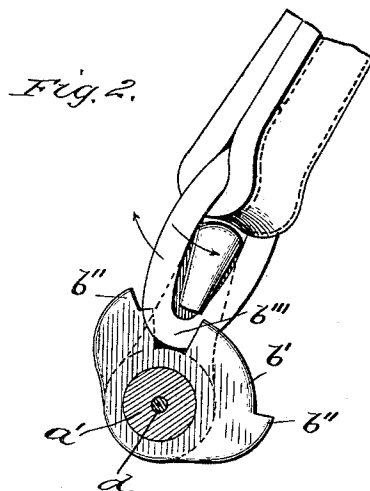
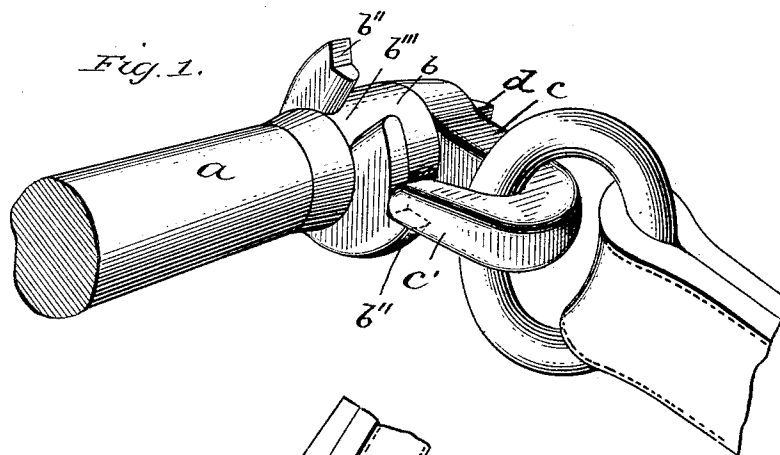


(No Model.)

N. F. REED.
WHIFFLETREE HOOK.

No. 468,019.

Patented Feb. 2, 1892.



Witnesses

W. R. Davis.
E. J. Kussen.

Inventor
N. F. Reed
By *his Attorneys*

Alexander Davis

UNITED STATES PATENT OFFICE.

NATHAN F. REED, OF HYDE PARK, VERMONT, ASSIGNOR OF ONE-HALF TO
CHARLES E. WHITCOMB, OF SAME PLACE.

WHIFFLETREE-HOOK.

SPECIFICATION forming part of Letters Patent No. 468,019, dated February 2, 1892.

Application filed September 2, 1891. Serial No. 404,542. (No model.)

To all whom it may concern:

Be it known that I, NATHAN F. REED, a citizen of the United States, residing at Hyde Park, in the State of Vermont, have invented certain new and useful Improvements in Whiffletree-Hooks, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 represents a perspective view of the improved hook; Fig. 2, a transverse section thereof, and Fig. 3 a plan view of the parts detached.

In the drawings, *a* designates a portion of a singletree or whiffletree having its end reduced in diameter, as at *a'*, for the reception of a metal ferrule or sleeve *b*, which is fitted tightly on it, so as not to turn independently of it. Formed on the inner end of this ferrule and projecting forwardly and upwardly therefrom is a radial segmental flange *b'*, which is provided at its ends with radial stops *b''*, and which has formed in it, near one of the said stops, a radial notch *b'''*, whose bottom is flush with the surface of the ferrule. Pivoted on a bolt *d*, which is screwed into the end of the whiffletree, is a swinging trace-hook *c*, which is loosely confined between the head of the bolt and the outer end of the ferrule and whose hook portion *c'* extends forwardly and inwardly and terminates close to the periphery of the segmental flange *b'*. This hook has a limited movement upon its pivot, the stops *b''* (which impinge against the end of the hook *c'*) serving to restrict its rotative movement. When in position, the trace-hook lies preferably in a substantially horizontal position and rests normally upon the lower stop *b''*. The ring of the trace is readily engaged and disengaged by simply raising the hook to a position about even with the radial

notch *b''* and then turning the ring sidewise sufficiently to pass it through the notch, as shown in Fig. 2. When in working position, as shown in Fig. 1, it will be impossible for the ring to accidentally work out, as is evident.

This invention will not only serve efficiently as a means of detachably connecting traces to singletrees and doubletrees, but it may also be employed with equal advantage to connect breast-chains to neck-yokes and for other analogous purposes.

The device is extremely simple and inexpensive and is not liable to become inoperative from rough usage.

Having thus fully described my invention, what I claim is—

The combination, with a whiffletree, of a ferrule or sleeve rigidly secured thereon and provided on its inner end with a forwardly and upwardly extending flange *b'*, said flange being provided at its upper end with an upwardly extending stop and at its lower end with a forwardly-projecting stop, a radial slot *b'''* being formed in this flange between the aforesaid stops, this slot extending inwardly and terminating approximately flush with the surface of the sleeve, and a hook *c*, pivoted on a headed horizontal bolt secured in the end of the tree, the free end of this hook being bent inwardly and terminating close to the periphery of the flange between the stops thereon and adapted to pass over the slot, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

NATHAN F. REED.

Witnesses:

L. E. HARRINGTON,
R. C. SMITH.