

No. 621,464.

Patented Mar. 21, 1899.

J. SCHNABEL.  
WHIFFLETREE HOOK.

(Application filed July 9, 1898.)

(No Model.)

Fig. 1.

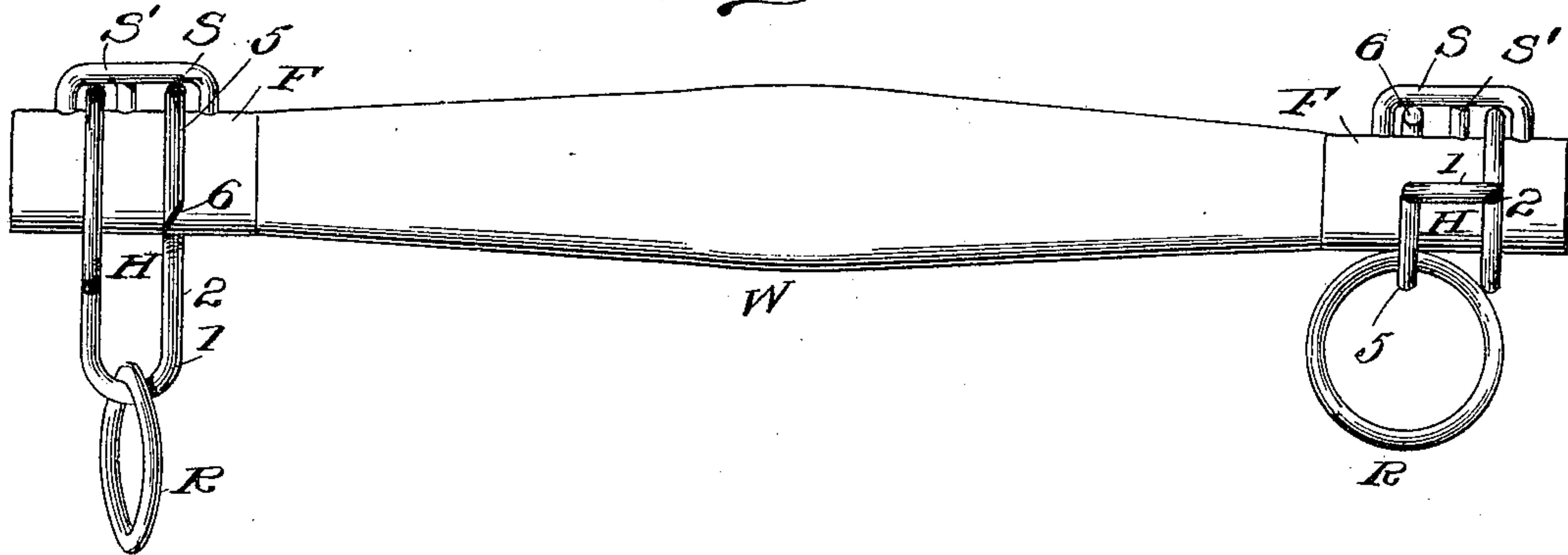


Fig. 2.

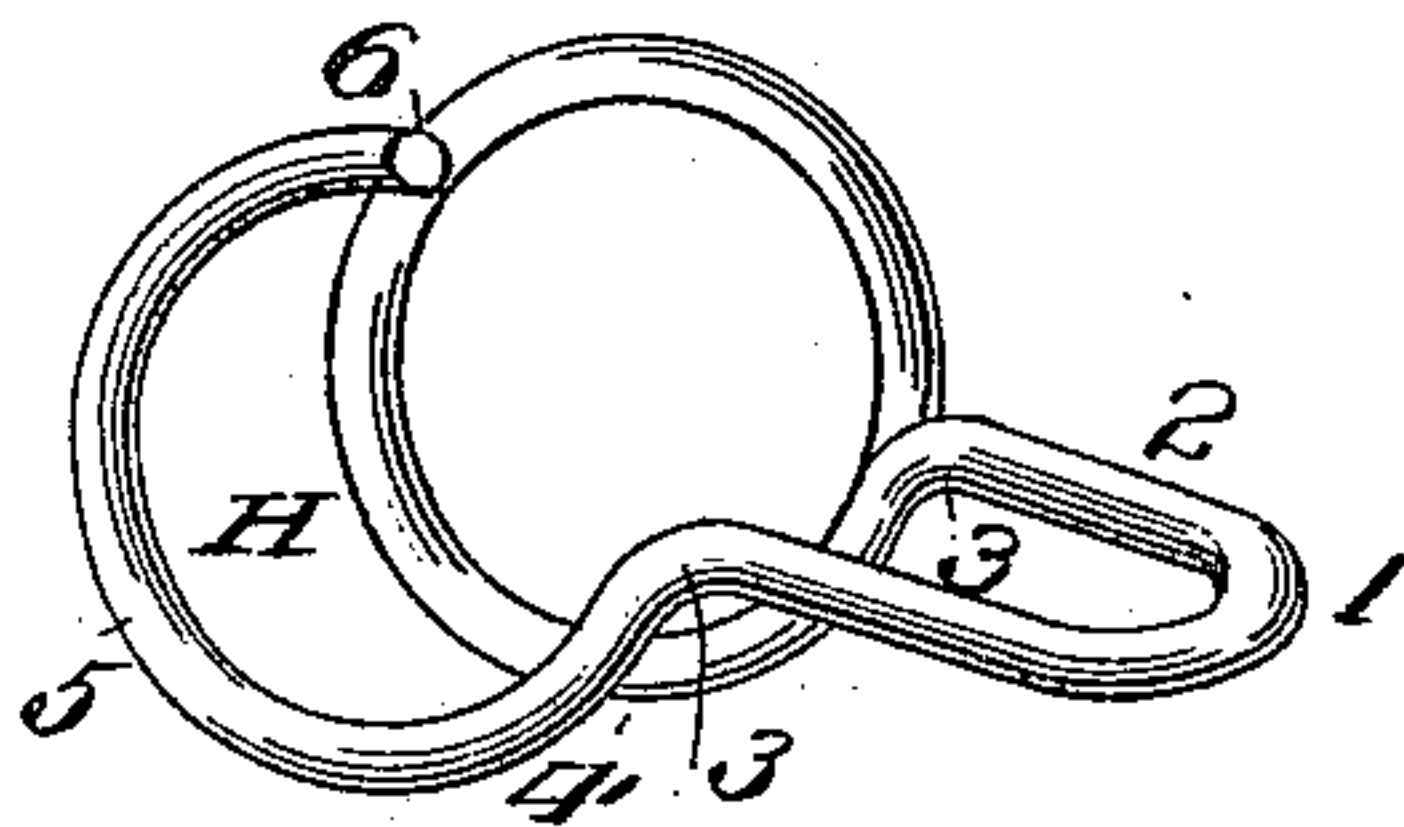
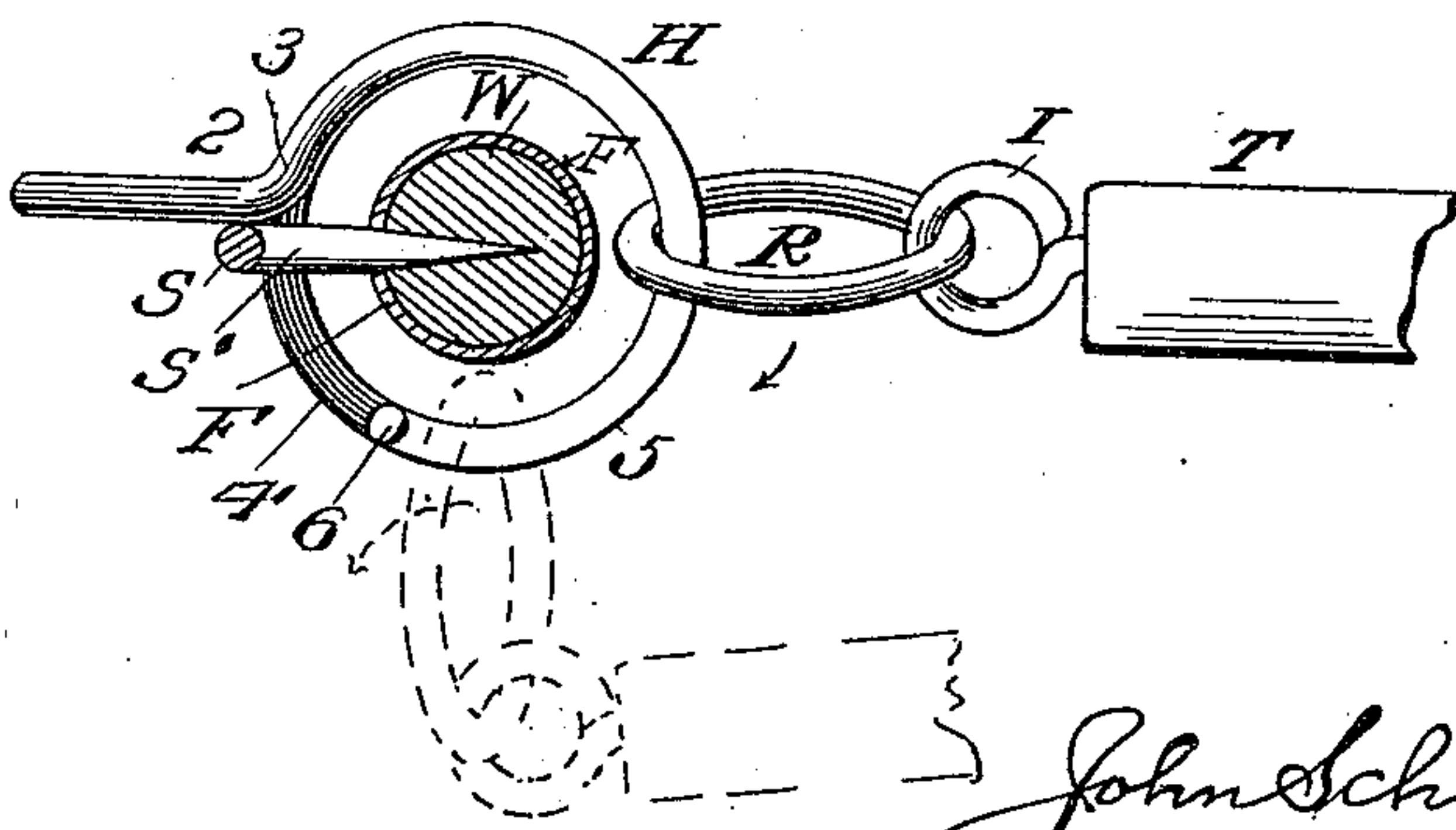


Fig. 3.



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# UNITED STATES PATENT OFFICE.

JOHN SCHNABEL, OF TAMPICO, ILLINOIS.

## WHIFFLETREE-HOOK.

SPECIFICATION forming part of Letters Patent No. 621,464, dated March 21, 1899.

Application filed July 9, 1898. Serial No. 685,475. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN SCHNABEL, a citizen of the United States, and a resident of Tampico, Whiteside county, State of Illinois, have invented certain new and useful Improvements in Whiffletree-Hooks; and my preferred manner of carrying out the invention is set forth in the following full, clear, and exact description, terminating with claims particularly specifying the novelty.

This invention relates to carriages and wagons, and more especially to that class of devices used therein which are known as "whiffletree-hooks;" and the object of the same is to produce a very simple and inexpensive hook of this character which will not become automatically and accidentally detached from the trace, but which can be instantaneously and readily disconnected therefrom when desired.

To this end the invention consists, essentially, in a member, as of stiff wire or the like, engaging the trace at its center and bent into two substantially parallel arms, one of which forms a complete ring loosely surrounding the whiffletree and the other of which forms the hook proper and extends for about three-fourths of the distance around the whiffletree; and the invention further consists in other details of construction coöperating with said member and tending to produce a complete device, all as hereinafter more fully described and as illustrated in the drawings, wherein—

Figure 1 is a plan view of a whiffletree having hooks of my improved construction, one of which stands as in operative position and the other of which has been turned to the rear for a quarter of a revolution. Fig. 2 is an enlarged perspective detail of this improved whiffletree-hook removed. Fig. 3 is a cross-section through the whiffletree, showing the hook as having been turned for a half-revolution to the rear, so that its projection rests on the staple at the back of the whiffletree and indicating in dotted lines the manner in which the trace-ring is to be disconnected from the hook proper.

In the drawings, the letter W designates a whiffletree of any usual or approved character, preferably having ferrules F at its ends, and projecting to the rear from each ferrule is an elongated staple S. This may be of any

suitable construction, although I prefer to divide it into two portions by means of a pin or other device S', constituting a partition and standing, preferably, nearer the outer end of the staple than the inner, as best seen in Fig. 1.

H is the hook, forming the gist of the present invention.

T is the trace, possibly having an eye I at its rear end, and R is the trace-ring, connected with the trace or the eye thereof and intended for removable engagement with this hook.

Coming now more particularly to the construction of the hook itself, as clearly seen in Fig. 2, a stiff piece of wire is bent, as at 1, at about its center and thence extends in parallel-spaced arms 2, constituting what I will call the "projection." Then these arms are bent downward, as at 3. One of them is continued around into a ring 4 and the other is bent, as at 5, in about three-quarters of a circle and terminates, as at 6. In rear of the bend 1 the two sides of this hook member stand truly parallel, and the hook proper, which terminates at 6, forms about three-fourths of a complete circle struck on the same axis as that of the ring 4. Care should be taken that this circle is slightly larger on its interior diameter than the exterior diameter of the ends of the whiffletree W, which, as above stated, are preferably surrounded by metal ferrules F. There are two of these hook members H, which are duplicates of each other, except that the hooks proper, 6, preferably stand toward the center of the whiffletree, as seen in Fig. 1. These members are applied in position and the staples S, with their partitions S', inserted into the rear of the whiffletree ends, preferably through the rear sides of the ferrules F, as shown. The smaller outer portion of each staple then loosely, but snugly, embraces the ring 4, while the larger inner portion loosely embraces the hook proper, 6.

In operation the trace-ring R being connected with the hook member H, as seen at the bottom of Fig. 1, and it being desired to disconnect it therefrom the operator grasps the forward projection of the member H and turns it to the rear around the whiffletree, as indicated at the top of Fig. 1, the ring R being carried down over the innermost bend 3 under the body 5 of the hook proper. Continued turning of the projection over to the



rear finally brings the parts to the position shown in Fig. 3, and the ring R is then carried down, as seen in dotted lines in this view, until it slips off the extremity 6 of the hook proper. To reconnect the trace with the hook, the operation is simply reversed.

The peculiar construction of this device possesses certain advantageous characteristics, chief among which may be mentioned its extreme simplicity and its cheapness of manufacture. When in operative position, as seen at the bottom of Fig. 1, should the horse be backed or from any other reason the trace be loosened, the weight of the ring and of the projection will simply cause the latter to turn down and hang beneath the whiffletree, and it is obvious that the farther the hook member turns downward the farther the hook proper is pushed through the staple. When the trace is again tightened, the hook member is brought into the position shown at the bottom of this view. In the act of disconnecting the ring R from the hook the former is passed onto the innermost arm 2 and over its bend 3, and then the projection is raised to the position seen at the top of Fig. 1 and turned over to the rear onto the staple in the position seen in Fig. 3, during which movement the ring R slides on the body 5 of the hook proper, which is obviously permitted by reason of the fact that the circle inscribed by said hook proper is larger than the diameter of the whiffletree, whereby the body of the ring is not pinched between them. A slightly-further pull on the trace to the rear permits the ring R to be passed off the free end 6 of the hook proper. Here, again, the weight of the projection causes the parts to remain normally in this position, as seen in Fig. 3, and hence the extremities 6 of the hooks are in ready position to receive the rings when the horse is to be again attached to the whiffletree. Hence the projection formed by the two arms 2 and their intermediate bend 1 serves a triple purpose, viz: When in use, it receives the ring R and holds it away from the hook. When the trace is loose, its weight causes the projection and ring to descend and the hook to pass even farther through the staple, and when the hook is not in use the weight of this projection causes it to rest on the staple S, so that the extremity 6 of the hook is always ready for instantaneous reception of the ring. While any approved form of staple may be used in this connection, I prefer that illustrated herewith and also, preferably, with the partition S', my reason being that the smaller portion of the staple at the outside of this partition accurately guides the ring as it turns around the whiffletree and the larger portion of the staple inside the partition presents an opening of sufficient size to readily

receive the free end 6 of the hook proper when the hook member is to be turned from the position shown in Fig. 3 into a locked position.

What is claimed as new is—

1. In a whiffletree-hook, the combination with the hook member comprising a bend and two substantially coincident rings, one of which is left slightly open to form the hook proper; of the whiffletree having a ferrule around its end, an elongated staple in the rear side of said ferrule and spanning said ring, and a partition in said staple between the rings, as and for the purpose set forth.

2. In a whiffletree-hook, the combination with the hook member comprising a bend and two substantially coincident rings, one of which is left slightly open to form the hook proper; of the whiffletree, an elongated staple in its rear face spanning said rings, and a partition across the staple between the rings and nearer the closed ring than the open one, as and for the purpose set forth.

3. In a whiffletree-hook, the combination with the whiffletree having a rounded end, and a staple in its rear side; of the hook member comprising a bend and two substantially coincident rings surrounding the whiffletree and passing through the staple, one of them being left slightly open to form the hook proper and the interior diameter of the rings being greater than the diameter of the whiffletree at this point, as and for the purpose set forth.

4. In a whiffletree-hook, the combination with the whiffletree having a guiding device at its rear side; of the hook member comprising two substantially coincident and spaced rings, one of which is left slightly open to form the hook proper and both of which surround the end of the whiffletree, and a projection extending from these rings normally in a forward direction, as and for the purpose set forth.

5. The herein-described whiffletree-hook for use as set forth, the same consisting of a stiff piece of wire bent at its center at 1 into two parallel arms 2, thence bent downward at 3, with one side formed into a complete ring 4, and the other side 5 formed into an incomplete ring standing parallel with but remote from said complete ring and terminating at 6 in a hook proper so as to comprise substantially three-fourths of a circle, as and for the purpose mentioned.

In testimony whereof I have hereunto subscribed my signature on this the 6th day of July, A. D. 1898.

JOHN SCHINABEL.

Witnesses:

A. T. GLASSBURN,  
F. L. PITNEY.