N. Y. SHAW.

WHIFFLETREE HOOK.

No. 190,913. Patented May 15, 1877.

Fig. 1.

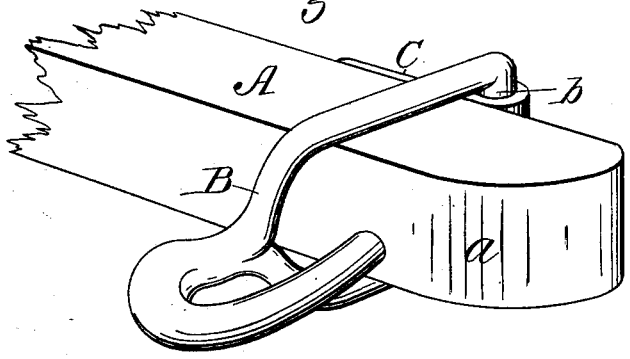


Fig. 2.

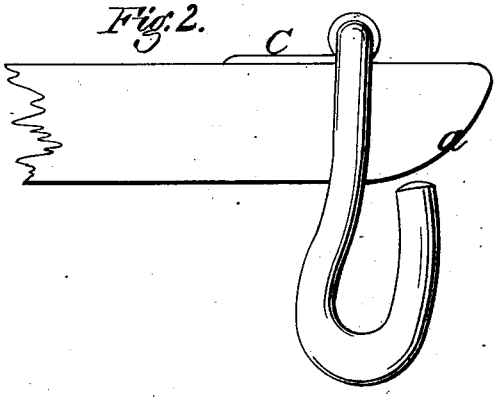


Fig. 3.

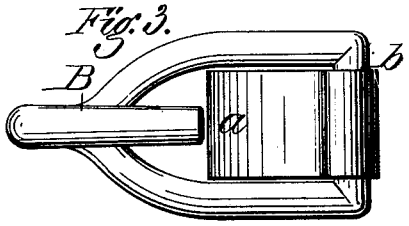
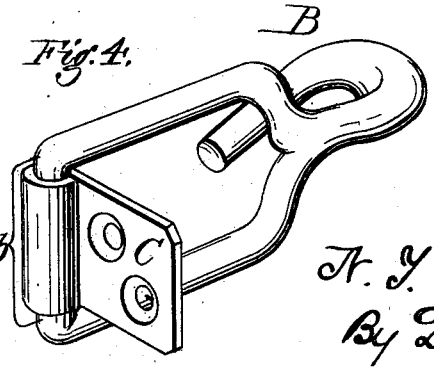


Fig. 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

NATHAN Y. SHAW, OF FREEHOLD, NEW YORK.

IMPROVEMENT IN WHIFFLETREE-HOOKS.

Specification forming part of Letters Patent No. **190,013**, dated May 15, 1877; application filed March 20, 1877.

To all whom it may concern:

Be it known that I, NATHAN Y. SHAW, of Freehold, in the county of Greene and State of New York, have invented certain Improvements in Trace-Fasteners, of which the following is a specification:

My invention relates to that class of hooks which are pivoted to the single-tree and arranged to swing laterally, in order to permit the attachment or removal of the trace. The object is to render this class of hooks cheaper and more simple, to reduce the amount of metal required, to prevent them from chafing and wearing the whiffletree, and to prevent them from catching and binding in such position as to permit the escape of the trace accidentally.

To this end the invention consists in extending the rear end of the hook entirely around the single-tree, and giving its rear end a straight vertical form, and mounting it in a flat bearing-plate, by which it is held and guided while being permitted to swing laterally.

Figure 1 represents a perspective view of my device in position on a single-tree; Fig. 2, a top plan view of the same; Fig. 3, a side view of the same looking against the end of the single-tree; Fig. 4, a perspective view of the device detached from the single-tree.

A represents the wooden single-tree, having its back flattened, and its end *a* rounded on the front side, as shown, in order to permit the nose of the hook to swing past the same. B represents the hook, made in one piece, with a nose curved around on one side, and a rear end, adapted to loosely encircle the end of the single-tree, as shown.

As clearly shown in Figs. 1, 3, and 4, the extreme rear end of the hook is fashioned into a straight vertical pivot, *b*, which is mounted, as shown, in a closely-fitting socket or bearing in one end of a flat metal plate, C, which latter is secured firmly to the back of the whiffletree, in the manner shown. This construction and arrangement, while permitting the hook to swing laterally, in order that the trace may be applied or removed, prevents the hook from sagging or wearing upon the single-tree, and also from dropping down and catching on the end of the single-tree when swung outward in such manner as to endanger the release of the trace.

The plate and bearing being on the back of the single-tree throw the entire strain directly on the tree, the full strength of which is thus utilized. As the plate is applied to, and the hook draws directly against, the back of the tree, there is no tendency to displace the plate or the hook, and consequently the latter may be made extremely light and neat, and secured by small screws instead of the heavy bolts hitherto employed for attaching the hooks.

The plate C is preferably made in the manner shown of a small plate of wrought metal, having one end curled around the bearing of the hook, and the other provided with holes to receive the fastening-screws. The plate must, of course, be arranged to extend slightly above the level of the single-tree, or order to prevent the hook from sliding down and wearing thereon, and also that the hook must be given the straight vertical pivot or bearing, in order to maintain it under all circumstances in the horizontal position. The straight vertical bearing of the hook in the plate, and the application of the plate to the back of the single-tree when the hook is constructed to operate as shown, are the two distinctive and important features of my arrangement, and it is to them that my invention is limited, the laterally-swinging hooks having, I am aware, been hitherto constructed in various forms, and arranged in various ways.

When the trace is to be applied the hook is swung outward until its nose is clear of the whiffletree, and then, after the application of the trace, the hook is swung forward in the position shown in the drawing, so that its nose stands in close proximity to the tree and prevents the trace from escaping.

Having described my invention, what I claim is—

1. The combination of the single-tree A, having the rounded end *a*, the hook B encircling the whiffletree and having the straight vertical bearing *b*, and the plate C, attached to the rear side of the single-tree, and clasping closely around the bearing or

pivot of the hook, as and for the purposes shown and described.

2. The hook B, provided with the laterally-curved nose and having its rear end adapted to encircle the single-tree, and provided with the straight vertical journal *b*, in combination with the plate C, closely embracing the latter, as shown and described, and for the purpose set forth.

NATHAN Y. SHAW.

Witnesses:
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