

UNITED STATES PATENT OFFICE.

NEWTON M. BOWEN, OF KNIGHTSTOWN, INDIANA.

IMPROVEMENT IN WHIFFLETREE-HOOKS.

Specification forming part of Letters Patent No. **204,946**, dated June 18, 1878; application filed January 19, 1878.

To all whom it may concern:

Be it known that I, NEWTON M. BOWEN, of Knightstown, county of Henry, and State of Indiana, have invented certain new and useful Improvements in Whiffletree-Hooks, of which the following is a specification:

Reference is had to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts.

Figure 1 is a side view of portions of a whiffletree embodying my invention. Fig. 2 is a longitudinal sectional view of one end thereof on a larger scale; and Fig. 3 is a transverse sectional view looking to the left from the dotted line *x x*.

In said drawings, A is part of an ordinary whiffletree; B, the ferrule on the end thereof; C, a circular-seated tip, which fits into a slot in the end of the ferrule B. *c* is the pivot on which the tip C turns. D is a locking-bolt, which extends from the end of the whiffletree A through the hollow space in the ferrule B into a notch in the tip C, which it holds firmly in position. E is a spring on the bolt D, which operates to keep said bolt engaged with the tip C. F is a rod, which is attached to a projection, *d*, on the side of the bolt D, and runs through the chamber G to the outside of the whiffletree. H is a lever. On the rod F are a number of cogs, into which similar cogs on the lever H mesh. *h* is a pivot, on which the lever H turns. I is a metal plate, fitting in a groove between the chamber G and the whiffletree, and which protects the rod or other device which operates in said chamber from any contact with the wood. This plate also forms a stop for the purpose of checking the backward movement of the bolt D by having its forward end properly placed to strike the projection on the side of the bolt. This manner of dividing the two chambers in the ferrule is also much superior to casting them separate. J is a plate or washer, through which a hole is formed to constitute a bearing for the rear end of the bolt D, and which is held in place by the rear end of the whiffletree. It may be joined to the plate I if desired, or the two may be made together.

In use, one of these improved tips or hooks

is placed upon each end of the whiffletree, as indicated in Fig. 1. Attach one end of a strap or cord to each one of the levers H and pass the middle portion up into the carriage, where it can be reached by the driver. When it is wished to detach the horses by reason of their running away, or for any other cause, pull on this strap, which will operate the levers, and thus draw the bolts and release the tips, which will immediately fall forward, when the traces will at once slip off and the animals be freed from the carriage.

If desired, these levers may be dispensed with, and the strap or cord be attached to the rods F directly. In this case it is best to have one strap run from one rod to the other, and attach to its center a second strap, which runs up into the carriage, and the pulling of which will accomplish the same result as that just described. When this construction is used it is obvious that the cord or strap may be run into the chamber G and be attached directly to the projection on the side of the bolt D; but this will usually be found to be undesirable, as the sides of the chamber would wear flexible material too rapidly. The principal advantage of having the lever H is to obtain a greater leverage.

My present invention consists of improvements in that for which Letters Patent of the United States No. 193,798 were granted me, bearing date the 7th day of August, A. D. 1877. Said improvements enable me to centrally lock the movable tip, while I still operate the locking-bolt from the outside, and to obtain additional leverage in operating the locking-bolt when necessary, which is generally the case, especially with heavy carriages. I also have an improved way of dividing the two chambers.

My device is simple, durable, and efficient. By the construction shown I get all the advantage of a central lock for the tip without necessitating any other than the ordinary construction of the whiffletree itself.

I am fully aware that other devices for this purpose have been invented, and therefore confine myself to the devices covered by my claims.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a whiffletree-hook in which are two separate chambers divided by the removable plate I, the combination, with the movable tip C, of the centrally-locking bolt D, said bolt being provided with a projection, *d*, by which [it is] connected with a rod or strap in the separate chamber G, substantially as shown and specified.

2. In a whiffletree-hook in which are two separate chambers divided by the removable plate I, the combination of the movable tip C, locking-bolt D, having projection *d*, spring E, ratchet-bar F, and cogged lever H, substantially as herein shown and described, and for the purpose specified.

3. A whiffletree-hook provided with a removable plate, I, forming the division between the chamber in the ferrule, into which the end of the whiffletree enters, and the separate chamber G, in which the operating-rod is situated, substantially as herein shown and described.

In witness whereof I have hereunto set my hand and seal at Knightstown, Indiana, this 11th day of January, A. D. 1878.

NEWTON M. BOWEN. [L. S.]

In presence of—

JOHN W. WHITE,
CARY E. WHITE.