N. M. BOWEN.

WHIFFLETREE-HOOKS.

No. 193,798. Patented Aug. 7, 1877.

Fig: 1.

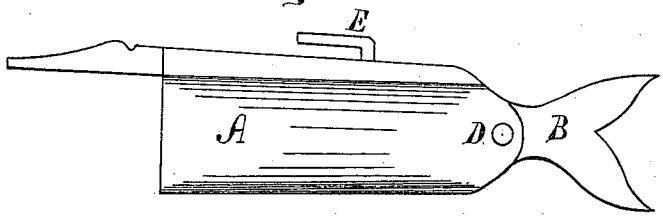


Fig: 2.

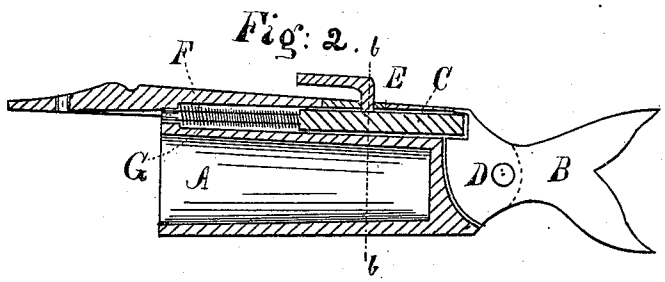
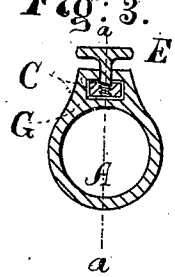


Fig: 3.



WITNESSES

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NEWTON M. BOWEN, OF KNIGHTSTOWN, INDIANA.

IMPROVEMENT IN WHIFFLETREE-HOOKS.

Specification forming part of Letters Patent No. **193,798**, dated August 7, 1877; application filed June 16, 1877.

To all whom it may concern:

Be it known that I, NEWTON M. BOWEN, of the city of Knightstown, county of Henry, and State of Indiana, have invented certain new and useful Improvements in Trace Attachments to Single-Trees, 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 my invention. Fig. 2 is a longitudinal section, drawn through the dotted line *a a*, Fig. 3. Fig. 3 is a transverse section, drawn through the dotted line *b b*, Fig. 2.

In the drawings, A represents the outside casing of my attachment, which, at the same time, acts as a ferrule to the single-tree. B is a single-tree tip, which is pivoted to the case A at D, on which to catch the trace. C is a bolt to hold the pivoted tip B in place. D is a pivot, on which the tip B turns when released from the bolt C. E is a lug, attached to the bolt C, by which to disengage it from the pivoted tip B. F is a spring, by which the bolt C is kept in contact with the pivoted tip B when not intentionally disengaged. G is a second chamber in the casing A, in which the bolt C works.

The importance of this chamber will be seen, when it is remembered that the wood of the single-tree is thereby kept entirely apart from the bolt, so that it cannot by any means bind the said bolt or keep it from working freely.

To prevent a too great strain from coming on the tip B, the end of the attachment is usually so made that the point of working contact between it and the trace will be over the pivot D, and part of the load thus thrown directly onto the casing or ferrule A.

The object of my invention is to provide a convenient means by which traces can be speedily detached from single-trees, so that in case of accident or runaway the horses may be freed from the vehicle immediately, and the common danger to life or limb resulting from such occurrences be thereby avoided; and also to make said invention convenient for common use, especially if the driver is inexperienced in the care and use of horses, as is usually the case with women and children.

This is accomplished by using the devices hereinbefore described in the following manner: There being one of these attachments on each end of a single-tree, connect them together by a strap between the lugs E. To the center of this strap attach a second, which pass up into the vehicle to a place convenient to the driver. By pulling this strap the bolt C will become disengaged from the tips B, and they will immediately fall forward, allowing the traces to slip therefrom, and thus at once freeing the animals.

My attachment is simple, compact, and durable, and its cost is but little more than that of the ferrule and tip ordinarily used, while its advantages are plainly apparent.

I am aware that a device of this character has heretofore been made in which a similar bolt has been operated from the inside of the single-tree; but this arrangement necessitates a special manufacture of the single-tree itself, and I do not claim it. My improvement, having the separate chamber G, in which the bolt C is operated, can be used on any single-tree, including those of the most ordinary construction.

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

In a single-tree attachment, the combination of the ferrule A, having one chamber for the reception of the end of the single-tree, and a separate chamber, G, for the reception and protection of the bolt C, with the pivoted tip B and the bolt C, having the lug E, all constructed, arranged, and operated substantially as herein shown and described, and for the purposes specified.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 6th day of June, A. D. 1877.

NEWTON M. BOWEN. [L. S.]

In presence of—
C. BRADFORD,
JOS. A. SAWYER.