(No Model.)

H. F. BOCK.

WHIFFLETREE HOOK.

No. 345,103. Patented July 6, 1886.

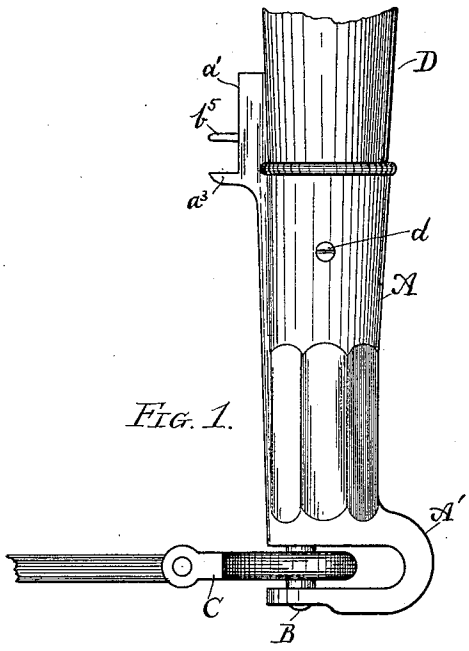

FIG. 1.

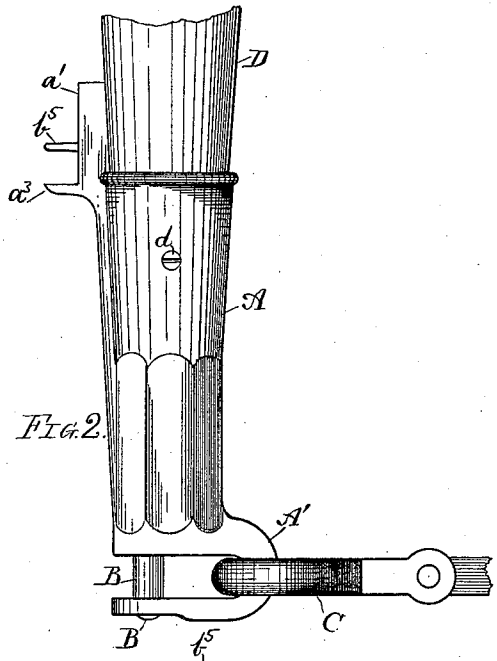

FIG. 2.

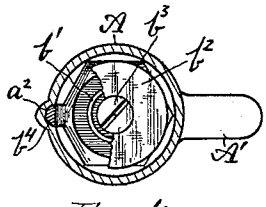

FIG. 4

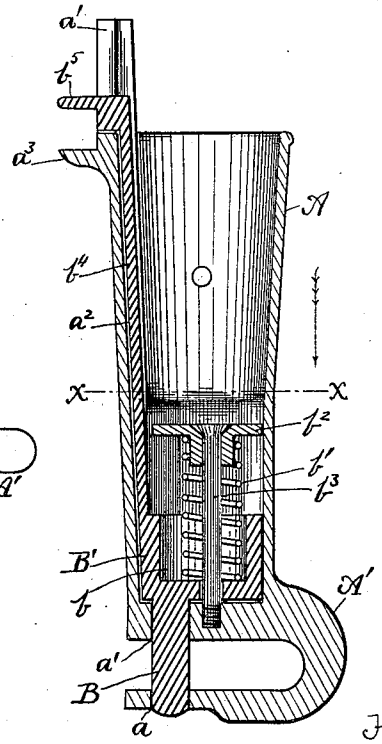

FIG. 3.

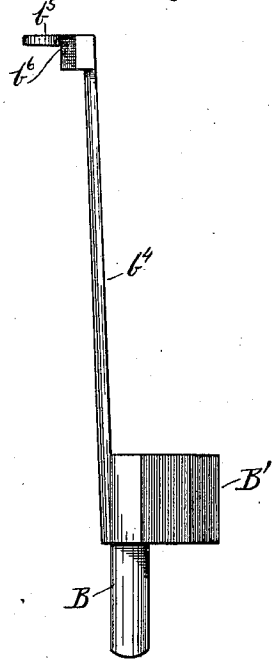

FIG. 5.

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HENRY F. BOCK, OF LANSING, ILLINOIS.

WHIFFLETREE-HOOK.

SPECIFICATION forming part of Letters Patent No. 345,103, dated July 6, 1886.

Application filed December 4, 1885. Serial No. 184,654. (No model.)

To all whom it may concern:

Be it known that I, HENRY F. BOCK, of Lansing, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Reversible Whiffletree-Hooks, of which the following is a description, reference being had to the accompanying drawings, in which—

Figure 1 is a top view of said hook as applied to buggies and other light-draft work. Fig. 2 is a like view showing the same as applied to wagons and other heavy articles. Fig. 3 is a horizontal longitudinal sectional view of the same. Fig. 4 is a transverse sectional view taken upon the line *x x*, Fig. 3, viewed in the direction of the arrow there shown; and Fig. 5 is a detail view of the sliding bolt.

Like letters of reference designate corresponding parts in the different figures.

The object of my invention is to provide a reversible whiffletree-hook which may be so constructed that when one side becomes worn it may be reversed and still perform effective service.

A further object is to lock the tug in place when secured to the hook, and thus prevent accidental detachment.

A still further object is to provide means for operating the locking mechanism and supporting the outer end of the bolt, so that the latter may be used as a point of draft, and when so used the tug may be attached to or allowed to drop out of engagement therewith upon merely retracting the bolt and without twisting the tug. Moreover, I purpose to render said device strong and effective, as well as cheap and durable.

In the drawings, A represents a metal ferrule, preferably cast in malleable iron, and having formed upon one end and as a part thereof the hook A′, provided with a perforation, *a*, Fig. 3, opposite a corresponding perforation, *a′*, in the end of the ferrule, through which is protruded a bolt, B, as clearly shown in the drawings. The bolt B is provided with an enlarged base or bearing portion, B′, which may be square, triangular, or of any polygonal form in transverse section, but preferably hexagonal, as shown in Fig. 5. A portion of the interior of the ferrule A is made of a corresponding shape for the reception of said bearing portion, which shape is continued from the closed end of said ferrule back a sufficient distance to permit a full retraction of the bolt B, so as to allow the cockeye C of the tug to be readily inserted within the hook A′. The part B is hollowed, as shown at *b*, Fig. 3, for the reception of one end of a spiral spring, *b′*, the opposite end of which abuts against a washer, b^2, which rests upon a seat formed by the polygonal interior formation of the ferrule, as shown in Fig. 4, and is rigidly retained in place by means of a screw, b^3, which passes loosely through a perforation in the part B′, and is secured in the outer end of the ferrule, as shown in Fig. 3. The bolt B is thereby retained in a normal position by the pressure of the spring, as shown in Fig. 3. Attached rigidly to the part B′ is an extension or tang, b^4, extending beyond the open end of the ferrule A. A thumb-piece, b^5, is attached to the end of said extension, and is retained in place by means of guides *a′ a′*, formed by extending portions of said ferrule. Grooves b^6, one of which is shown in Fig. 5, are formed upon opposite sides and at the base of said thumb-piece, into which said guides *a′* are fitted. An offset or groove, a^2, is formed in the side of the ferrule for the reception of the part b^4, thus enabling the whiffletree D, Figs. 1 and 2, to be inserted in the ferrule without cutting away any portion, and thereby rendering the part weaker.

A guard, a^3, is formed upon the ferrule near to the thumb-piece b^5, to prevent the bolt B from being accidentally withdrawn.

It is obvious that the bolt B may be retracted at will by means of the thumb-piece b^5, and either said bolt or the hook A′ may be used as a point of draft, according as the ferrule is placed upon the whiffletree. For light work I prefer the adjustment shown in Fig. 1, as the attachment and detachment of the tug is thereby rendered more simple.

Upon removing the screw or bolt *d* and turning the ferrule half-way around, the screw may be again inserted and the reversal accomplished as desired.

I am aware that whiffletree-ferrules having sliding spring-bolts for attaching the trace, and thumb-pieces or equivalent means for retracting said bolts have been constructed, and I do not claim these features, broadly.

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

A reversible whiffletree-hook consisting of the combination of the ferrule A, hook A′, cast therewith and perforated at *a*, bolt B, having enlarged hollow polygonal portion B′, stem b^4, thumb-piece b^5, spring *b*′, bolt b^3, and washer b^2, all constructed and arranged as specified, whereby a large bearing-surface may be provided upon the part B′, for preventing rapid wear, substantially as described.

HENRY F. BOCK.

Witnesses:
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