

(No Model.)

E. W. FISH & C. C. BEEBE.
WHIFFLETREE HOOK.

No. 457,312.

Patented Aug. 4, 1891.

Fig. 2.

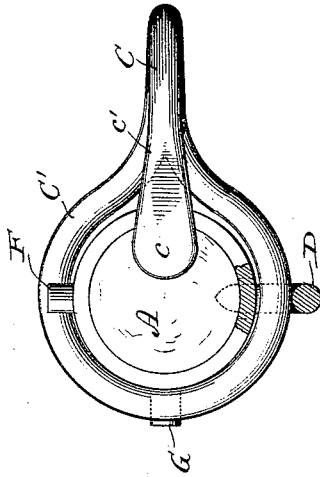


Fig. 4.

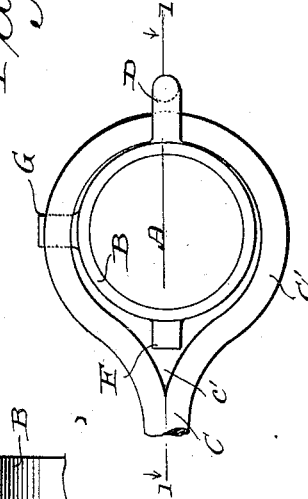


Fig. 5.

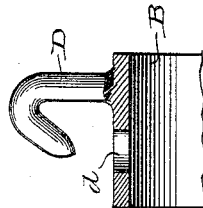


Fig. 1.

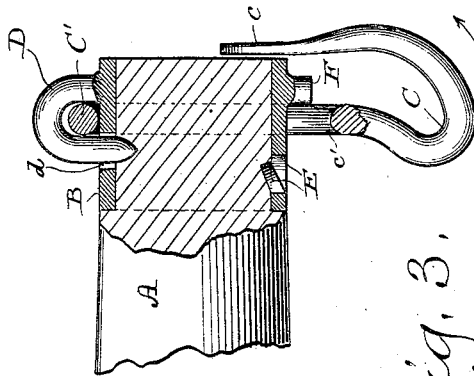
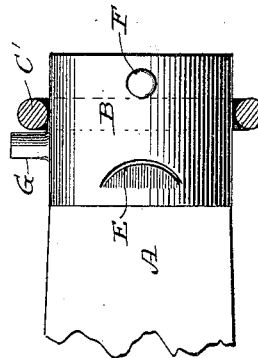


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

EDWIN W. FISH AND COLDWELL C. BEEBE, OF RACINE, WISCONSIN; SAID
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WHIFFLETREE-HOOK.

SPECIFICATION forming part of Letters Patent No. 457,312, dated August 4, 1891.

Application filed May 1, 1891. Serial No. 391,214. (No model.)

To all whom it may concern:

Be it known that we, EDWIN W. FISH and COLDWELL C. BEEBE, both citizens of the United States, and residents of Racine, in the county of Racine, and in the State of Wisconsin, have invented certain new and useful Improvements in Whiffletree-Hooks; and we do hereby declare that the following is a full, clear, and exact description thereof.

Our invention relates to certain new and useful improvements in whiffletree-hooks; and it consists in the matters hereinafter described, and pointed out in the appended claims.

In the accompanying drawings, illustrating our invention, Figure 1 is a view, partly in section, of one end of a whiffletree with our improved device applied thereto. Fig. 2 is an end view of the same, illustrating a changed position of the hook. Fig. 3 is a plan view of the end of the whiffletree, illustrating more particularly the construction of the ferrule, which is placed upon the end of the whiffletree. Fig. 4 is an end elevation of the whiffletree with the hook in the position shown in Fig. 1. Fig. 5 is a detail view of a portion of the ferrule.

In said drawings, A indicates the whiffletree; B, the ferrule upon the end of the same; and C indicates as a whole the whiffletree-hook, which is engaged with said ferrule.

The hook C is provided with a loop or ring C', adapted to be placed upon the outside of the ferrule B, as shown in the drawings.

The ferrule B is provided upon one side with a laterally-projecting pin or hook D, and is further provided with an aperture *d* adjacent to said pin D, as shown more particularly in Fig. 5 of the drawings.

As shown in Figs. 1, 2, 4, and 5, the whiffletree-hook is secured upon the outside of the ferrule B by having the loop or ring C' slipped over the outside of said ferrule and the pin or hook D then bent down over the said ring, so as to embrace said ring and secure the same to the ferrule, while permitting it to revolve freely about the ferrule.

As shown in the drawings, the pin D is bent down and its end is driven into the aperture *d* and forced into the wood of the whiffletree. Upon the opposite side of the ferrule from the pin or hook D is provided a lip E, said

lip being formed by cutting through the said ferrule, as shown more particularly in Figs. 1 and 3, and when the ferrule is placed upon the end of the whiffletree said lip is driven inwardly and forced into the wood of the whiffletree, as in Fig. 1. The pin D and the lip E being both forced into the wood of the whiffletree upon opposite sides thereof serve to hold the ferrule very securely upon the end of the whiffletree and prevent any liability of said ferrule becoming loose.

A lug F is formed upon the outside of the ferrule B, preferably opposite to the point of engagement of the loop C' of the hook C therewith, and a second lug or stud G, preferably located substantially at right angles to the lug F, is also provided, said studs or lugs being arranged at different distances from the end of the ferrule B, so as to come upon opposite sides of the loop or ring C', as shown more particularly in Fig. 2 of the drawings.

The end *c* of the hook C is bent so as to extend rearwardly adjacent to the end of the whiffletree, and, as shown more particularly in Fig. 1, rests close to the end of the whiffletree, so as to form a closed hook for engaging with the trace, and thus preventing any liability of the trace becoming accidentally disengaged therefrom.

The loop C' is made to conform to the outside of the ferrule for the greater part of the circumference, and is provided with a notch *c'* upon its inner surface of a size sufficient to pass the stud or lug F when the hook C is rotated so as to bring said notch opposite to said lug.

The operation of our improved device is as follows: The user rotates the hook C so as to bring the notch *c'* opposite to the stud F, when the hook may be swung outwardly in the direction indicated by the arrow in Fig. 1, the notch *c'* passing over the stud F and the end *c* moving away from the end of the whiffletree, so as to leave a sufficient space between the end of said hook and the end of the whiffletree for the engagement of the trace with said hook. The eye in the end of said trace is then slipped over the hook C and said hook swung back into its original position, so as to bring the end *c* thereof close against the end of the whiffletree, as before described.

The parts now occupy the position shown in Figs. 1 and 4, the stud F being located at the top side of the whiffletree and the hook C being also directed upwardly. The operator
 5 now rotates the hook C about the ferrule B, so as to bring the said hook to the forward side of the whiffletree and into the position shown in Fig. 2. In this position the circular
 10 part of the loop C' is located between the studs F and G, and is also held upon the side opposite to the stud F by a staple formed by the bent pin D. The stud F being upon
 15 the side of the loop or ring C' adjacent to the end of the whiffletree, and the stud G being upon the opposite side of said loop, serve, in connection with the staple D, to hold the hook C rigidly in the position shown
 20 in Fig. 2 and to prevent any lateral movement of said hook. It will be seen that by this construction the connection between the trace and the whiffletree-hook is rendered very secure, and all liability of the trace becoming
 25 accidentally disengaged therefrom is obviated, inasmuch as it is necessary in order to disengage said trace from said hook to first rotate the hook into the position shown in Fig. 1, and then to swing said hook outwardly, so as to afford a sufficient space for the removal of the trace from the end c of said hook.

30 It will be seen that by our improvement we are enabled to provide a very cheap, simple, and durable form of device, and one which insures positive safety against accidental displacement of the trace.

35 We prefer to form the ferrule B from malleable iron, and to form the pin or hook D integral therewith, as shown. By forming the said ferrule of malleable iron we are enabled to readily bend the hook D to form the staple
 40 and to bend the lip E inwardly, as before described.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent of the United States, is—

45 1. The combination, with a whiffletree end, of a ferrule located upon the outside of said end and provided with a pin or hook upon one side made integral therewith and an aperture adjacent to said pin or hook, and a lip
 50 upon the opposite side of the said ferrule also made integral therewith, said pin and said lip being adapted to be struck into the wood of the whiffletree to secure the ferrule in po-

sition upon the same, substantially as described.

55 2. The combination, with a whiffletree end, of a ferrule located upon the outside of said end, a pin or hook made integral with said ferrule, an aperture in said ferrule adjacent to said pin or hook, a ring or loop adapted to
 60 be placed upon the outside of said ferrule and provided with a hook adapted for engagement with the end of the trace, the end of said hook being arranged to extend across
 65 the end of the whiffletree and to rest against or near thereto, said ring being revolubly secured upon the outside of the ferrule by bending the said pin or hook on said ferrule around
 70 said ring and forcing the end of the same into the adjacent aperture in said ferrule, and lugs projecting from the outer surface of the ferrule and adapted to engage with opposite
 sides of said ring, substantially as and for the purposes described.

75 3. The combination, with a whiffletree end, of a ferrule located upon the outside of said end, a pin or hook made integral with said ferrule, an aperture in said ferrule adjacent to said pin, a lip formed upon the opposite
 80 side of said ferrule and also made integral therewith, a ring adapted to be placed upon the outside of the ferrule and provided with a projecting hook, said pin being arranged to be bent over said ring and to be passed through
 85 said adjacent aperture and forced into the wood of the whiffletree and said lip being also adapted to be bent inwardly and forced into the wood, the hook upon the said ring being
 90 arranged to extend outside of and against the end of the whiffletree, studs or lugs upon the ferrule arranged to come upon opposite sides of the said ring, and a notch in said ring adapted to be passed over one of said studs or lugs, so as to permit said ring to be swung
 95 about its connection with said ferrule, substantially as and for the purposes described.

In testimony that we claim the foregoing we have hereunto set our hands, at Racine, in the county of Racine and State of Wisconsin, in the presence of two witnesses.

EDWIN W. FISH.
 COLDWELL C. BEEBE.

Witnesses:

PETER NELSON,
 JAMES SMOLLEY.