(No Model.)

W. W. BURSON.

CLIP FOR WHIFFLETREES.

No. 399,831. Patented Mar. 19, 1889.

Fig. 1.

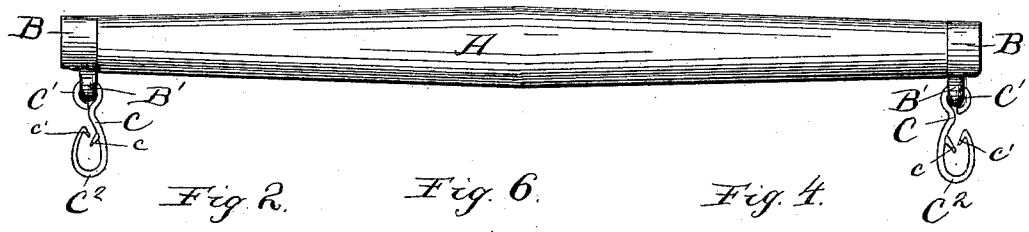


Fig. 2.

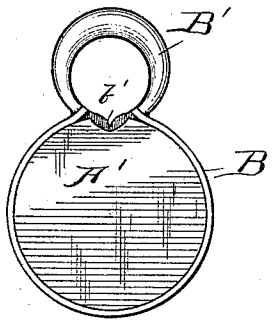


Fig. 6.

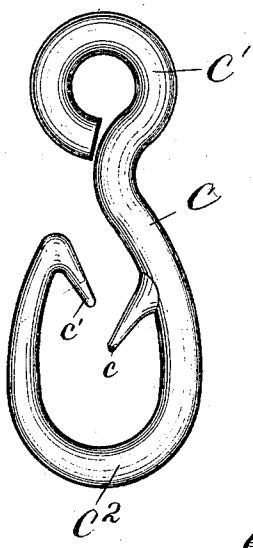


Fig. 4.

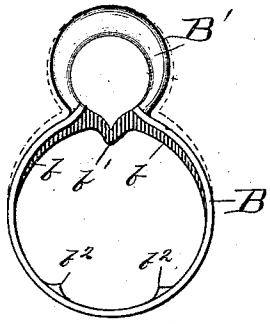


Fig. 3.

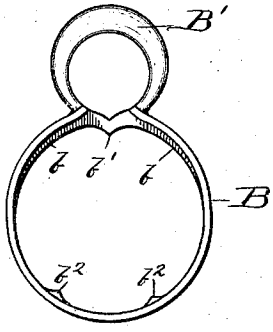
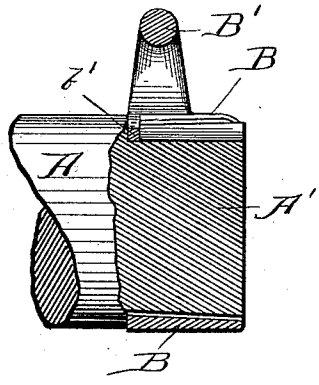


Fig. 5.



Witnesses:
Lew. E. Curtis.
Edw. S. Evarts

Inventor:
William Worth Burson.

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM WORTH BURSON, OF CHICAGO, ILLINOIS.

CLIP FOR WHIFFLETREES.

SPECIFICATION forming part of Letters Patent No. 399,831, dated March 19, 1889.

Application filed May 9, 1888. Serial No. 273,368. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM WORTH BURSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Clips and Hooks for Whiffletrees and other Purposes, of which the following is a specification.

My invention relates to improvements in clips and hooks for whiffletrees and other purposes; and the object of my invention is to provide a clip for the end of the whiffletree which can be cheaply made and put on the wooden part, so that it will not come off by ordinary use or shrinkage of the wood, and a hook which will not unhitch when not desired. I attain these objects by the devices shown in the accompanying drawings, in which—

Figure 1 shows whiffletree complete except central clip. Fig. 2 shows an end view of clip B attached to the wood. Fig. 3 shows clip B before placing upon the wood. Fig. 4 shows the same after bending to the wood, the dotted lines showing the original form. Fig. 5 is a section of the clip and end of the whiffletree-wood. Fig. 6 shows hook C.

Similar letters refer to similar parts throughout the several views.

The whiffletree A, or other similar appliances, is made of any desired form, and the end which is to receive the clip is made somewhat dovetailed shape—that is, the outer end is larger than the inner, Fig. 5. The clip B is made to fit the end of the whiffletree, and may be a circle or oval, as desired, and has the end which is next to the body of the wooden part of smaller internal diameter than the outer end, so that when it is pressed together it (the clip) shall be securely fastened in position, Fig. 4. The clip is made of malleable metal, and formed usually of two openings, that within the part B being for the reception of the wood, A, and that within the part B′ being for the reception of the hook C. These openings are connected by bar *b*, which has a re-entrant bend, *b′*, and serves as a flange on the closing side of the clip, which is open on that side, except bar *b*. This flange, when pressed into the wood, serves to hold the clip upon the same. Additional security is given by the points *b″ b″* on the opposite side of the opening when drawn into the wood by the closing of the clip. The hook C has the bent eye C′, Figs. 1 and 6, which connects with the clip at B′. Considerable trouble has been experienced from the liability of the "cockeye" of the tug coming out of hook C, as usually constructed. To obviate this trouble, the end of the hook has a return bend, *c′*, and this is met by the spur *c*.

It will be seen that the cockeye, drawing upon that part of hook C marked c^2 when in operation, will meet the spur *c* when the tug is slack, if following one part of the hook, or the return point *c′* if following the other side of the hook, and in either case would be prevented from unhooking. If the end of A is turned a true circle, then the clip inside the flanges *b b*, Fig. 3, except the points *b″ b″* and the re-entrant point *b′*, will be a circle, and these are easily forced through the enlarged end of A, and when the clip is pressed together these points are drawn into the wood, which, in connection with dovetailed form of the piece A, already described, securely holds it in position.

I prefer to make the bar *b* with a re-entrant point, *b′*, which may be drawn into the wood, as shown; but the bar may be of any other form, so that it shall bend or upset by the closing of the clip, and the same result obtained, except the advantage of the re-entrant point *b′* being drawn into the wood.

Instead of the hook C being hinged to the clip, as here, it may be made integral with the clip, still retaining all its desirable novel features, as here shown. When made integral with the clip, the hook will extend outward from C′, the clip retaining otherwise its afore-described form. Instead of clip C being formed of two openings separated by the bar *b*, it may have only a single opening, one side having a re-entrant bend similar to that shown at *b′*, which shall close into the wood when the sides of the clip are pressed together.

My clip is securely held in position by the bending together (see Fig. 4) of one side of the clip having a re-entrant curve, which draws the iron close to the wood, and when points or flanges are used on its inner end they are drawn into the wood, and the clip cannot come off until the wood is removed.

I have described my invention as having

the wood of the whiffletree where the clip fastens made "dovetail" shape—that is, larger at the outer than at the inner end of the clip. While this shape is recommended, it is by no means indispensable to the successful working of my clip. The end of the whiffletree may be straight or tapered. Still the clasping power of the clip, by means of its re-entrant bend, will hold it securely on the wood. If the wood shrinks from seasoning, as is frequently the case, the clip is readily tightened by additional closing of the clip at its re-entrant bend.

Since the clip is only employed as a means of connecting the hook to which the draft is to be applied to the whiffletree, I do not wish to confine myself to any particular mode of connecting the hook to the clip, as this connection may be varied to suit the convenience or wish of those using it.

Various modifications can be made on the within-described invention which would be readily understood by a skilled mechanic without going outside of the limits of this invention.

What I claim as my invention is—

1. A clip formed with two openings, the one which is to clasp the end of the wood having its inner end of less diameter than its outer, the other adapted to receive the draft-hook, having a connecting-bar between them adapted to clasp the end of the wood by the closing together of the sides of the clip at the union of the two openings, the connecting-bar being bent or upset in the operation, substantially as set forth.

2. A clip formed with two openings, the inner end being of less diameter than the outer end, provided with a connecting-bar and flanges or points on its inner end adapted to be closed upon the wood of the whiffletree by closing the sides of the clip between the two openings, substantially as set forth.

3. A clip having substantially a circular form to inclose the wood, except on one side, where the curve is re-entrant, provided with points or inwardly-projecting flanges on the inner end of the clip adapted to pierce and to clasp the wood by closing together the clip at the re-entrant curve, substantially as specified.

4. A clip having substantially a circular form to inclose the end of the whiffletree, except on one side, which is formed with a re-entrant curve adapted to clasp the wood by bringing the ends of the re-entrant curve nearer together, and a draft hook or ring connected therewith, substantially as set forth.

WILLIAM WORTH BURSON.

Witnesses:
S. F. WEYBURN,
F. ELMER LONG.