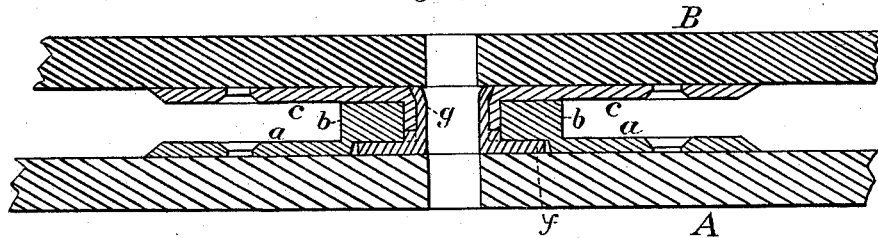


H. K. PORTER.  
Center-Plate for Whiffletrees.

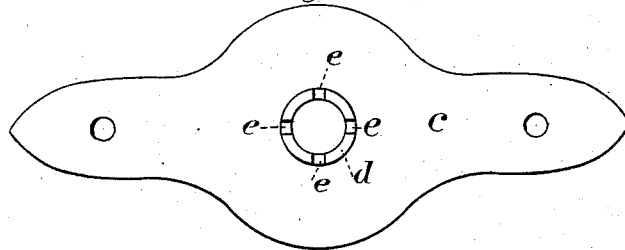
No. 216,454.

Patented June 10, 1879.

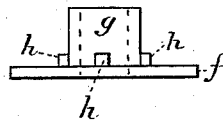
*Fig. 1*



*Fig. 2*



*Fig. 3*



*Witnesses.*

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# UNITED STATES PATENT OFFICE.

HENRY K. PORTER, OF BOSTON, MASSACHUSETTS.

## IMPROVEMENT IN CENTER-PLATES FOR WHIFFLETREES.

Specification forming part of Letters Patent No. **216,454**, dated June 10, 1879; application filed January 21, 1879.

*To all whom it may concern:*

Be it known that I, HENRY K. PORTER, of Boston, State of Massachusetts, have invented Improvements in Whiffletree-Centers, of which the following is a specification.

This invention relates to the centers or couplings by which the whiffletree of a vehicle is attached to the cross-bar; and the invention consists in a coupling formed with a main part or member to be secured to the cross-bar, another main part or member to be secured to the whiffletree, and an internal member formed with a base-flange and hollow boss or thimble, such flange being recessed into one of the main parts, and the thimble being interlocked with one of such main parts, such thimble also serving as a rivet, by which all the parts are permanently secured together.

Figure 1 is a vertical longitudinal section, as taken in the axis of the cross-bar and whiffletree, and through the center of the coupling. Fig. 2 is an under-side view of the main member of the coupling, which interlocks with the interior member. Fig. 3 is a side elevation of the interior member.

In these views, A represents the cross-bar, and B the whiffletree. *a* is the lower main member, secured to the cross-bar, and *b* is a hollow boss formed thereon. *c* is the main member, attached to the whiffletree. On this

part is formed a thimble or hollow boss, *d*, fitting into the hole in boss *b*, and in the face of thimble *d* are cut the recesses *e*, as shown in Fig. 2. *f* is the base-flange of the interior member, and *g* is the thimble or hollow boss formed thereon, and around the base of which are the lugs *h*, which fit into the recesses *e* in thimble *d* of part *c*.

A circular recess in the under side of part *a* receives the base-flange *f*, as shown in Fig. 1. When the three parts are brought together, as shown in Fig. 1, the thimble *g* is expanded to fit the countersink in the upper side of part *c*, thereby securing all the parts together. The part *c* and the interior member being interlocked, and therefore moving together, the broad surfaces between flange *f* and the recess in part *a*, and the face of boss *b*, and the under side of member *c*, receive the wear resulting from use.

I claim as my invention—

In a whiffletree-center, the main parts or members, and an interior member formed with a base-flange and hollow pivot or thimble, and interlocked and combined with the other parts, substantially as set forth.

HENRY K. PORTER.

Witnesses:

T. W. PORTER,  
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