H. K. PORTER.
Whiffletree-Coupling.

No. 198,042. Patented Dec. 11, 1877

Fig. 1.

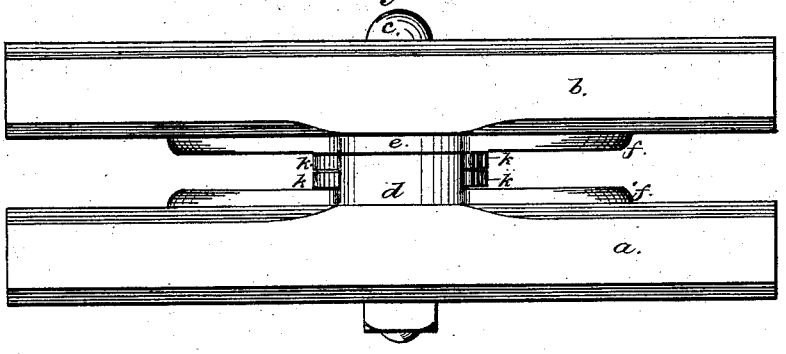


Fig. 2.

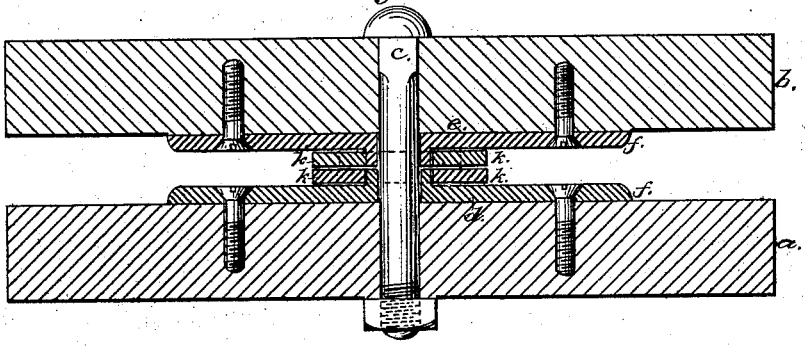


Fig. 3.

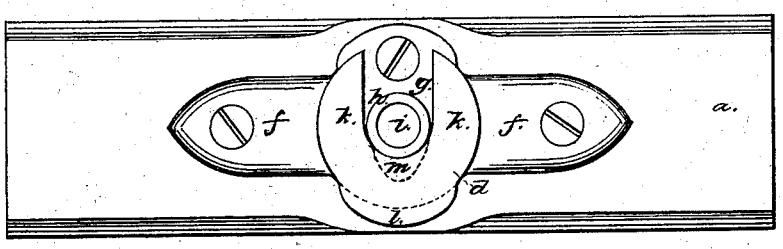
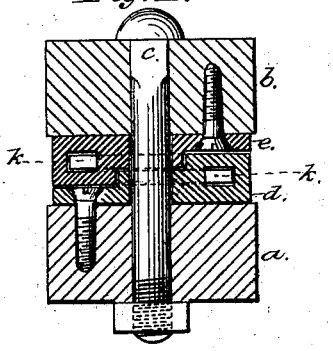


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

HENRY K. PORTER, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN WHIFFLETREE-COUPLINGS.

Specification forming part of Letters Patent No. **198,042**, dated December 11, 1877; application filed May 19, 1877.

To all whom it may concern:

Be it known that I, HENRY K. PORTER, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful and Improved Whiffletree Center or Coupling, of which the following is a specification:

This invention relates to that class of whiffletree-centers the two halves or parts whereof are susceptible of being interlocked, whereby the pivot-bolt is partially relieved of the strain and wear incident to use, which is borne by the interlocking devices.

My invention consists in a cast-metal center, the two halves whereof I usually form alike, each such half consisting of a sole or bed plate, (which is secured directly to the whiffletree or cross-bar,) an annular ring or nipple being formed upon such sole-plate, and a locking-plate united to such sole-plate through the medium of such nipple and a uniting-arc, as shown, each such locking-plate being formed with an open slot, having an interior semicircular termination, which bears against and is pivoted upon the said nipple of the other half, all as will be fully described.

In the drawings, Figure 1 is a front elevation of the central portion of the cross-bar and whiffletree with my invention applied thereto. Fig. 2 shows the same parts in section, taken longitudinally to the cross-bar and whiffletree, in the center thereof. Fig. 3 is a top or plan view of the cross-bar with its half of the center as applied thereto; and Fig. 4 is a section of Fig. 1, taken transversely to the cross-bar and whiffletree, and shown as if the vehicle was being drawn to the right hand of said view.

In these figures, *a* is the cross-bar. *b* is the whiffletree. *c* is the pivot-bolt. *d* is the half of the center applied to the cross-bar, and *e* is the half secured to the whiffletree. The description of the details of either of these halves will answer for both. *f f* are ears formed upon the sole-plate, and through which the wood-screws pass for securing it to the wood, as shown. *g* is the center or sole plate, upon which is formed the circular boss or nipple *h*, with the bolt-hole *i* therein. *k k* is the locking-plate, through which is cut an open slot, the inner end of which terminates in a semicircle of a radius equal to and coincident with the outer periphery of nipple *h*. This plate is distant from plate *g* far enough to admit the locking-plate of the other half between them; and plates *g* and *k k* are united by a projection of ring *h*, (shown at *m*,) and a projection, (shown at *l*,) which two parts extend from one plate to the other. The nipple or ring *h* rises from the sole-plate to the under side of the locking-plate, so that the concave termination in this plate bears against and is pivoted upon the nipple of the other half of the center.

The relation of each half of the center to the other is plainly shown in Figs. 2 and 4, and the limited space between connection *l* and *m*, as also the converging form of the latter, allows the requisite space for the points of the locking-plate when the whiffletree is vibrated out of line with the cross-bar.

It will be apparent from the drawings, and also from the fact that the halves of the center are duplicates, that the locking-plate *k k* of each half is interlocked between the sole and locking plates of the other half, and that the pivotal wear is distributed over two semicircles of the ring *h*, instead of being confined to one, as in the usual manner.

Instead of the ears *f f*, the body of the center may be extended enough to receive the wood-screws, and I do not confine myself to, nor do I claim, any outline or configuration of the body of the center; but

What I do claim is—

1. A whiffletree-center each half whereof is formed with the sole-plate *g* and the interlocking plate *k k*, having a section or space cut away from the center to the periphery of the interlocking plate, whereby each interlocking plate is insertible between the plates of the other half of the center, and astride the annular nipple or ring formed therein, substantially as described and shown.

2. In an interlocking whiffletree-center, the two annular bearings *h*, and the semicircular seats in the locking-plates *k k*, whereby each half of the center is provided with both a convex and concave semicircular pivotal bearing, substantially as described and shown.

3. In a whiffletree-center provided with the sole and locking plates, as described, the connections *m* and *l*, for uniting said plates, substantially as described and shown.

HENRY K. PORTER.

Witnesses:

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