J. B. KRINER.

WHIFFLETREE COUPLING.

APPLICATION FILED SEPT. 6, 1907.

914,428. **Patented Mar. 9, 1909.**

FIG. 1.

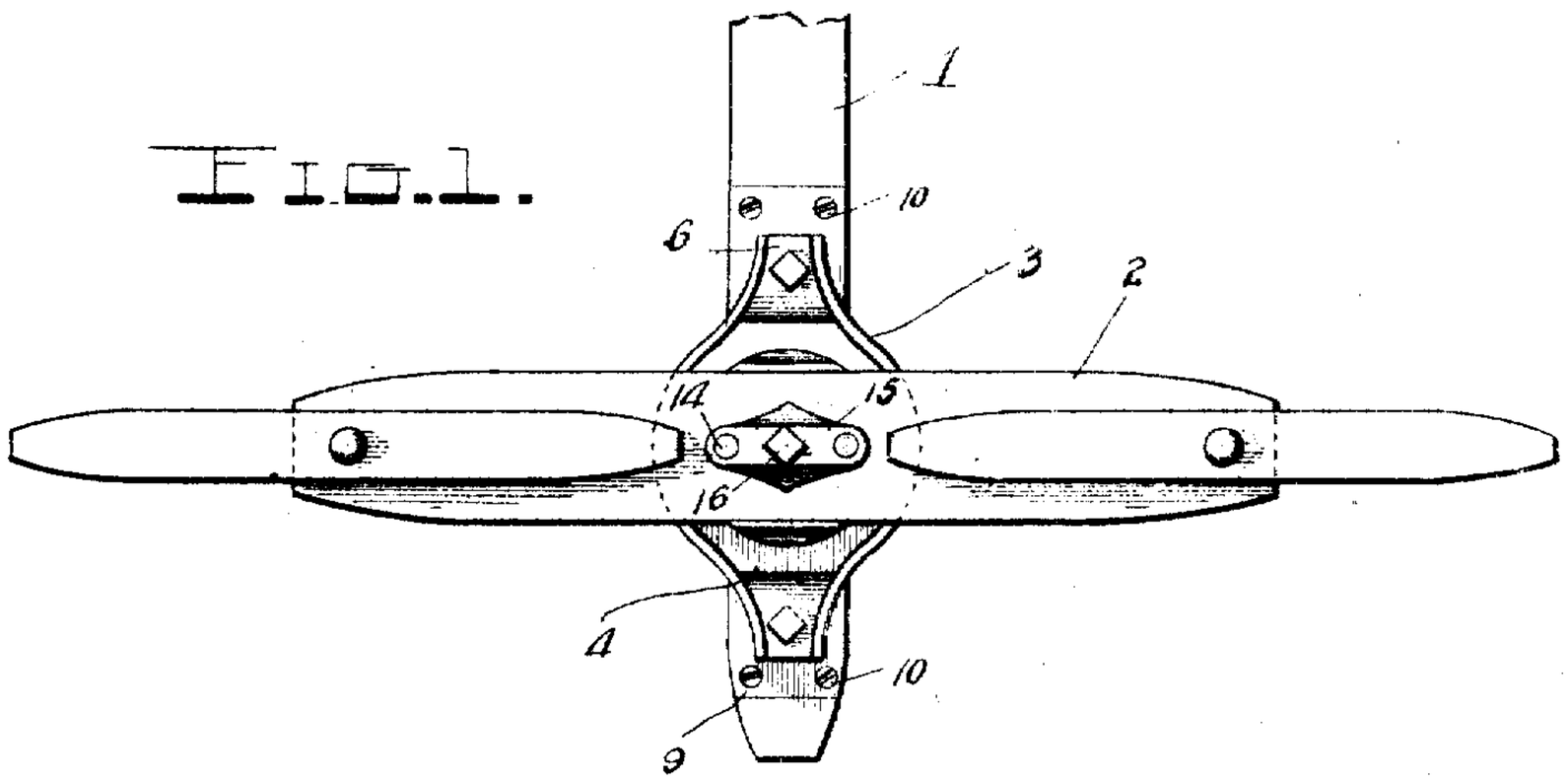


FIG. 2.

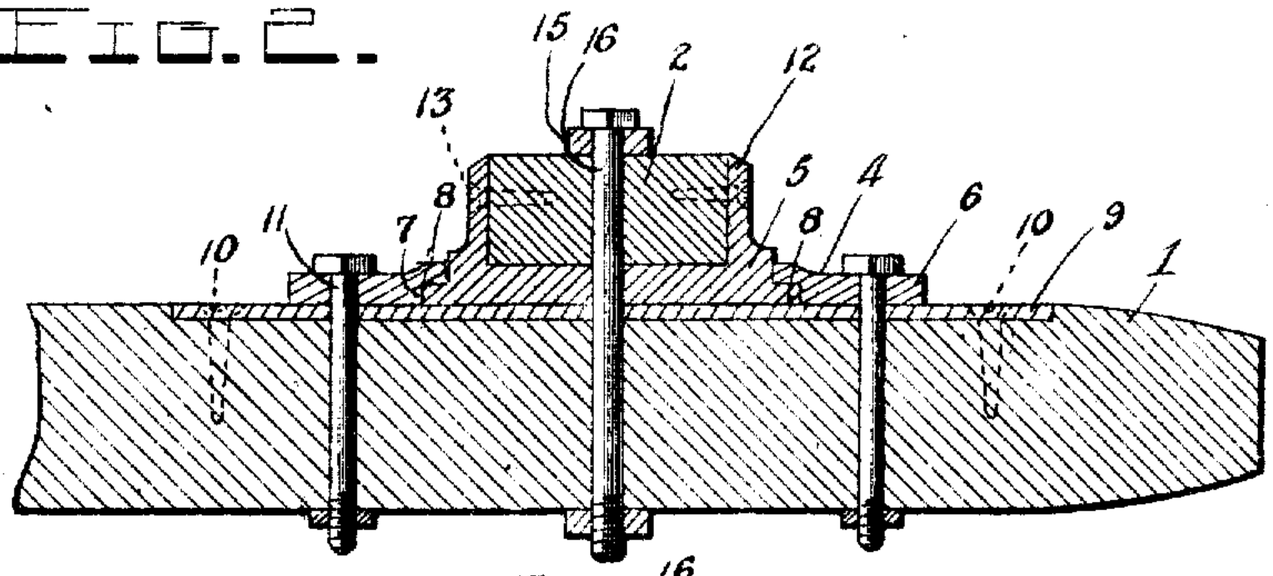
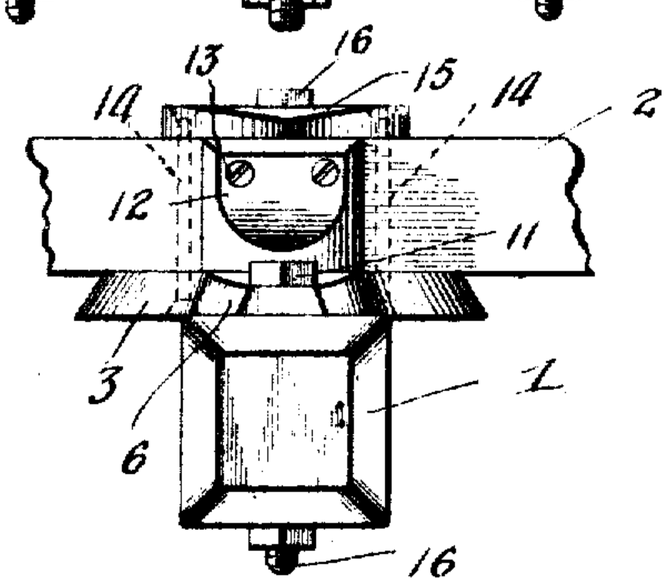


FIG. 3.



Witnesses
Chas. L. Griesbauer.
E. Rousseau

Inventor
J. B. Kriner
By Watson E. Coleman
Attorneys

UNITED STATES PATENT OFFICE.

JESSE B. KRINER, OF NOVINGER, MISSOURI.

WHIFFLETREE-COUPLING.

No. 914,428. Specification of Letters Patent. Patented March 9, 1909.

Application filed September 5, 1907. Serial No. 391,487.

To all whom it may concern:

Be it known that I, JESSE B. KRINER, a citizen of the United States, residing at Novinger, in the county of Adair and State of Missouri, have invented certain new and useful Improvements in Whiffletree-Couplings, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to improvements in couplings for connecting whiffletrees to the tongues or poles of vehicles, and it consists in the novel construction and the combination and arrangement of parts hereinafter described and particularly pointed out in the claim.

The object of the invention is to provide a coupling device of this character which will be simple and inexpensive in construction and strong and durable in use, and which will obviate the wear upon both tongue and whiffletree and hold the latter in a flat horizontal position upon the former.

The above and other objects are attained in the preferred embodiment of the invention illustrated in the accompanying drawings in which,

Figure 1 is a top plan view, Fig. 2 is a vertical longitudinal section, Fig. 3 is a detail end elevation.

In the drawings 1 denotes a draft tongue or pole, 2 a whiffletree or double tree and 3 my improved coupling device which consists of a stationary base plate or member 4 and a rotary plate or member 5. These two members are preferably in the form of castings and the member 4 is of circular form with extensions 6 at diametrically opposite points. Said member 4 has a central opening to receive the member 5 and in its bottom face and concentric with said opening is an annular channel or groove 7 adapted to receive an annular flange 8 upon the member 5. This construction allows the member 5 to rotate within the member 4 and in order to prevent the rotary movement of the former from wearing the upper surface of the tongue 1 I preferably provide a sheet metal wear-plate 9 upon which said base rests. This plate 9 is secured upon the top of the tongue by fastenings 10 and also by bolts 11 which pass through apertures in the tongue and the extensions 6 of the base plate 4 and secure the latter upon the tongue, as clearly shown in Fig. 2. Upon the top of the rotary member 5 are upwardly projecting lugs 12 adapted to receive the whiffletree or double-tree 2 between them, as shown. Said lugs 12 are apertured to receive fastening screws 13 which retain the whiffletree in position. The whiffletree is further secured to the rotary member 5 by vertical rivets or similar fastenings 14 passed through said member, the whiffletree and the reinforcing and wear-plate 15 arranged upon the top of the whiffletree.

In order to reinforce the parts of the coupling device and strengthen the pivotal connection between the whiffletree and tongue I provide a vertical pivot bolt 16 which is passed concentrically through the plate 15, the whiffletree, the rotary member 5, and the tongue, as shown in Fig. 2. This bolt effectually strengthens and connects said parts and also serves as a pivot for the whiffletree and the plates 5, 15, which it carries.

From the foregoing it will be seen that the invention provides a whiffletree coupling that is exceedingly rigid, strong and durable and which may be produced at a comparatively small cost. The provision of the wear plate 9 effectively prevents the rotary member from cutting into the tongue. The provision of the pivot bolt 16 in connection with the flange 8 of the rotary member 5 provides an exceedingly strong and rigid pivotal connection. The reinforcing plate 15 upon the top of the whiffletree and the bolts 14 which unite said plate, said whiffletree and said rotary member render the whiffletree exceedingly strong at its center which is the main point of strain.

Having thus described my invention what I claim is,

The combination of a tongue of a vehicle with a wear plate, a coupling device comprising a stationary base plate having extensions, means for securing the extensions to the tongue, said base plate having a circular opening therein provided with an annular flanged groove therein, a rotary plate inserted in the opening of the base plate and having a surrounding right angular projecting portion to contact with and rotate within the flanged groove of the stationary base plate, the bottom surface of the rotary plate being entirely mounted on the wear plate, bolts passing through the base plate and through the wear plate and also through the tongue, nuts on said bolts, said rotary plate having lugs projecting upwardly

therefrom, a whiffletree mounted between said lugs and contacting with the upper surface of the rotary plate, means secured transversely to the whiffletree to hold the same between said lugs, a reinforcing plate secured on the upper surface of the whiffletree, a bolt inserted through said reinforcing plate, and also respectively through the whiffletree, rotary plate, wear plate and through the tongue, and a nut on said bolt to clamp the whiffletree and tongue so as to permit of the rotation of the rotary plate on the upper surface of the wear plate, substantially as specified.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

JESSE B. KRINER.

Witnesses:

C. H. KROYLES,

W. H. SNIGHER.