

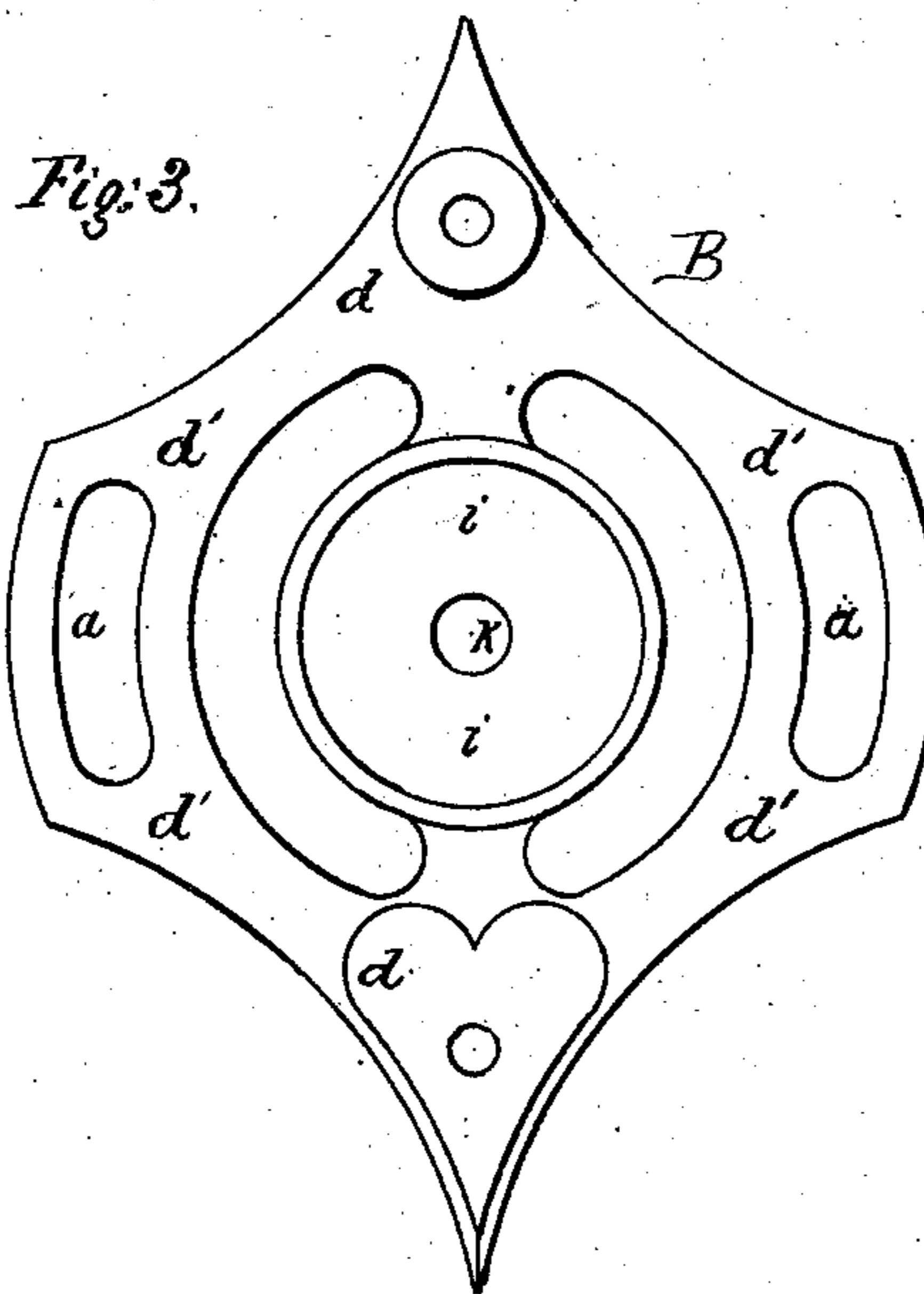
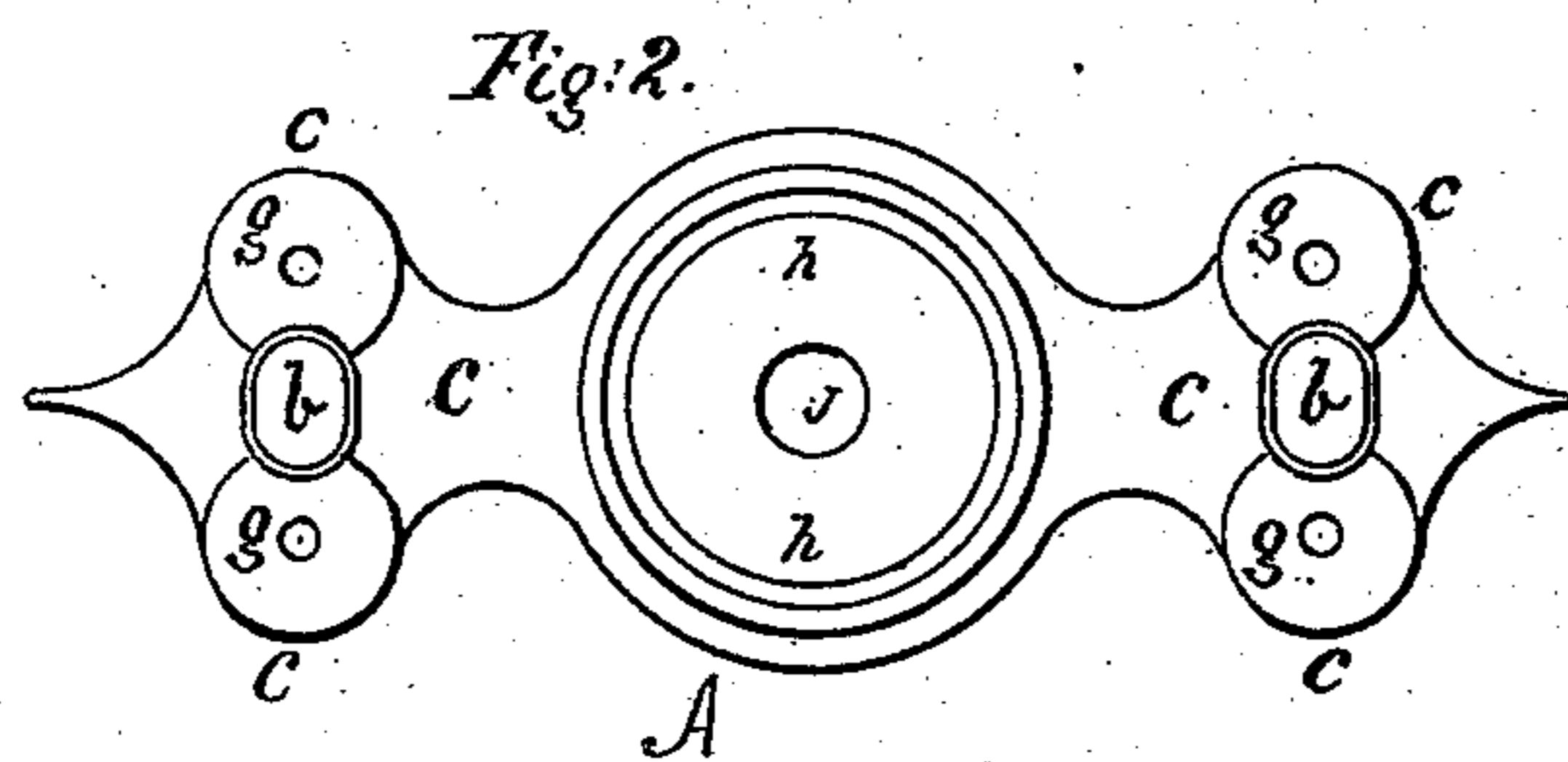
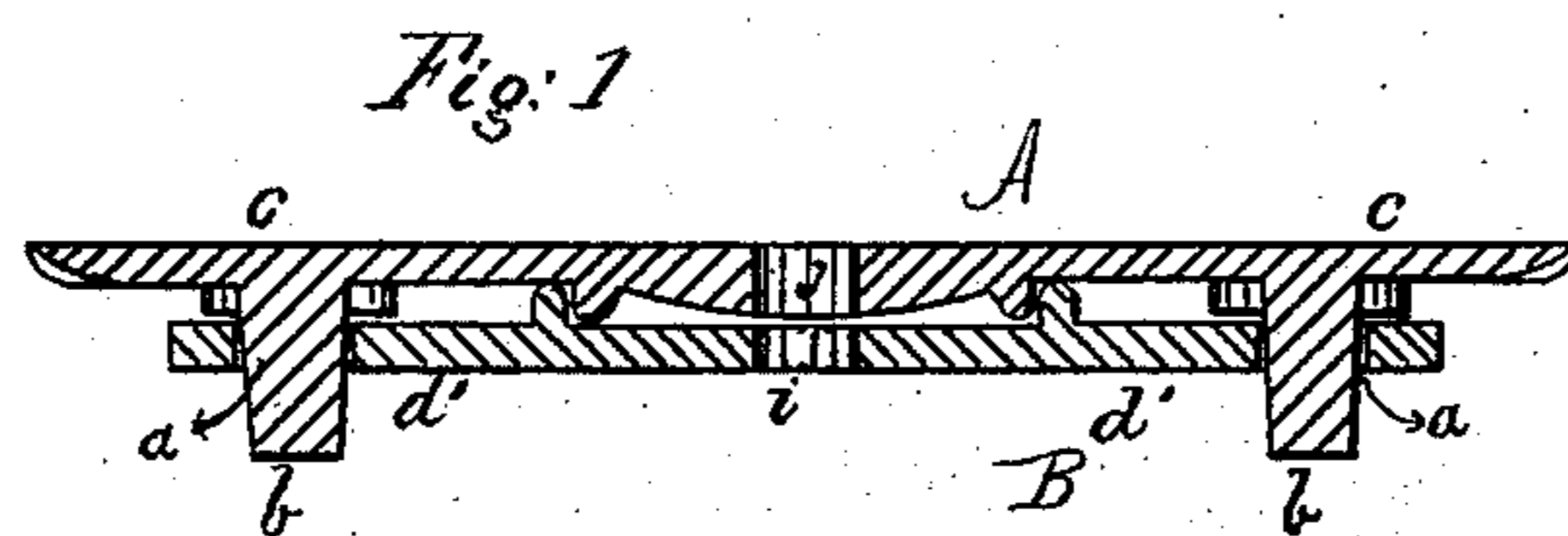
(No Model.)

D. H. LIDDY.

COUPLING PLATE FOR WHIFFLETREES.

No. 294,644.

Patented Mar. 4, 1884.



WITNESSES:

H. D. Stearns
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UNITED STATES PATENT OFFICE.

DENNIS H. LIDDY, OF MONTICELLO, IOWA.

COUPLING-PLATE FOR WHIFFLETREES.

SPECIFICATION forming part of Letters Patent No. 294,644, dated March 4, 1884.

Application filed February 26, 1883. (No model.)

To all whom it may concern:

Be it known that I, DENNIS H. LIDDY, a citizen of the United States, residing at Monticello, in the county of Jones and State of Iowa, have invented new and useful Improvements in Coupling-Plates for Whiffletrees, of which the following is a specification, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

This invention has relation to improvements in equalizers for vehicles; and it consists in the construction and novel arrangement of parts, as will be hereinafter more fully set forth, and particularly pointed out in the claim appended.

Figure 1 is a representation of a longitudinal sectional view of my device. Fig. 2 is a bottom plan view of the upper plate of the same, and Fig. 3 is a plan view of the under plate.

Referring by letter to the drawings, A indicates the single-tree or whiffletree plate, and B the pole or shaft cross-bar plate, both of which are provided with a central aperture, J, for the passage of the draw-bolt. The upper plate is provided with opposite branches, C C, the under sides of which are provided with downwardly-projecting studs *b*, and diametrically opposite these studs, adjacent thereto, are bossed apertures *g*, for the passage of screws or the like, by which the said plate may be secured to a single-tree or whiffletree. The plates on their adjacent faces are provided with an annular flange, *h*, which are about the same depth as the bosses *g*, and have a frictional engagement when the device is in operation, the bosses bearing upon the upper face of the under plate, B. The plate B is pro-

vided with branches *d d'*, the former having perforations for the reception of screws, by which it may be secured to a vehicle-tongue or the cross-bar of shafts, and the latter provided with elongated semicircular slots *a* to receive the studs *b* of the upper plate, A. These slots are of sufficient length to allow the proper amount of play for the whiffletrees or single-trees; but upon starting the vehicle, or at any time during its movement, the unevenness of draft will be prevented by the engagement of the studs *b* with the front and rear walls of the slots *a*.

I am aware that it is not new to provide the cross-bar of shafts with a plate having a central aperture for the passage of the king-bolt, and a semicircular slot for the reception of a stud which extends downwardly from a plate secured to the whiffletree to limit the movement of the same, and therefore do not claim such construction, broadly; but,

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The plate A, provided with the central draw-bolt aperture, the extensions C, having the under bossed perforations, *g*, studs *b*, and annular flanges *h*, in combination with the under plate, B, having the branches *d* and *d'*, the former having perforations, and the latter elongated slots *a*, the central draw-bolt aperture, and the annular flange, all adapted to operate substantially as and for the purposes specified.

DENNIS H. LIDDY.

Witnesses:

H. H. STARKE,
FRANK C. JACKSON.