

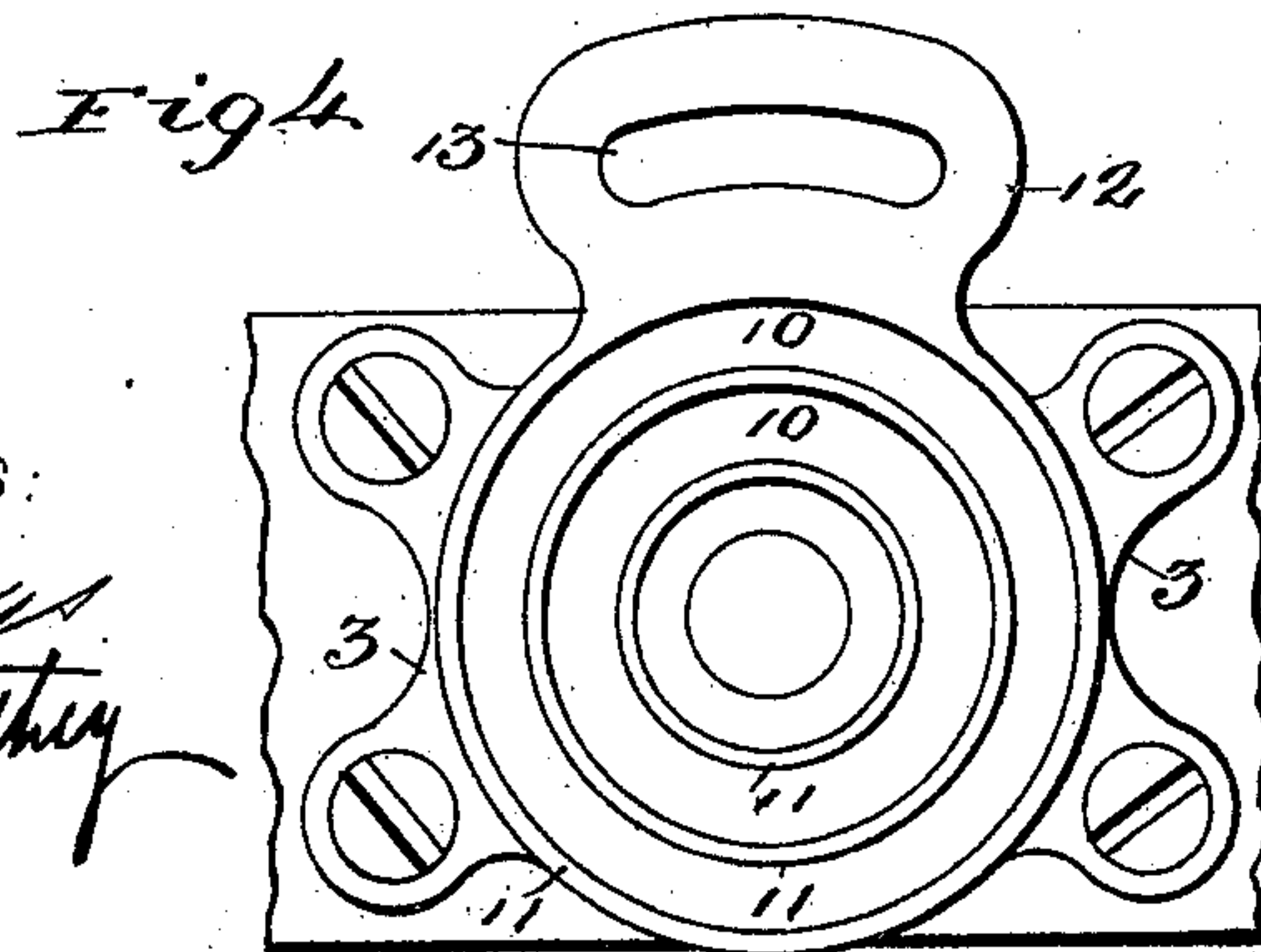
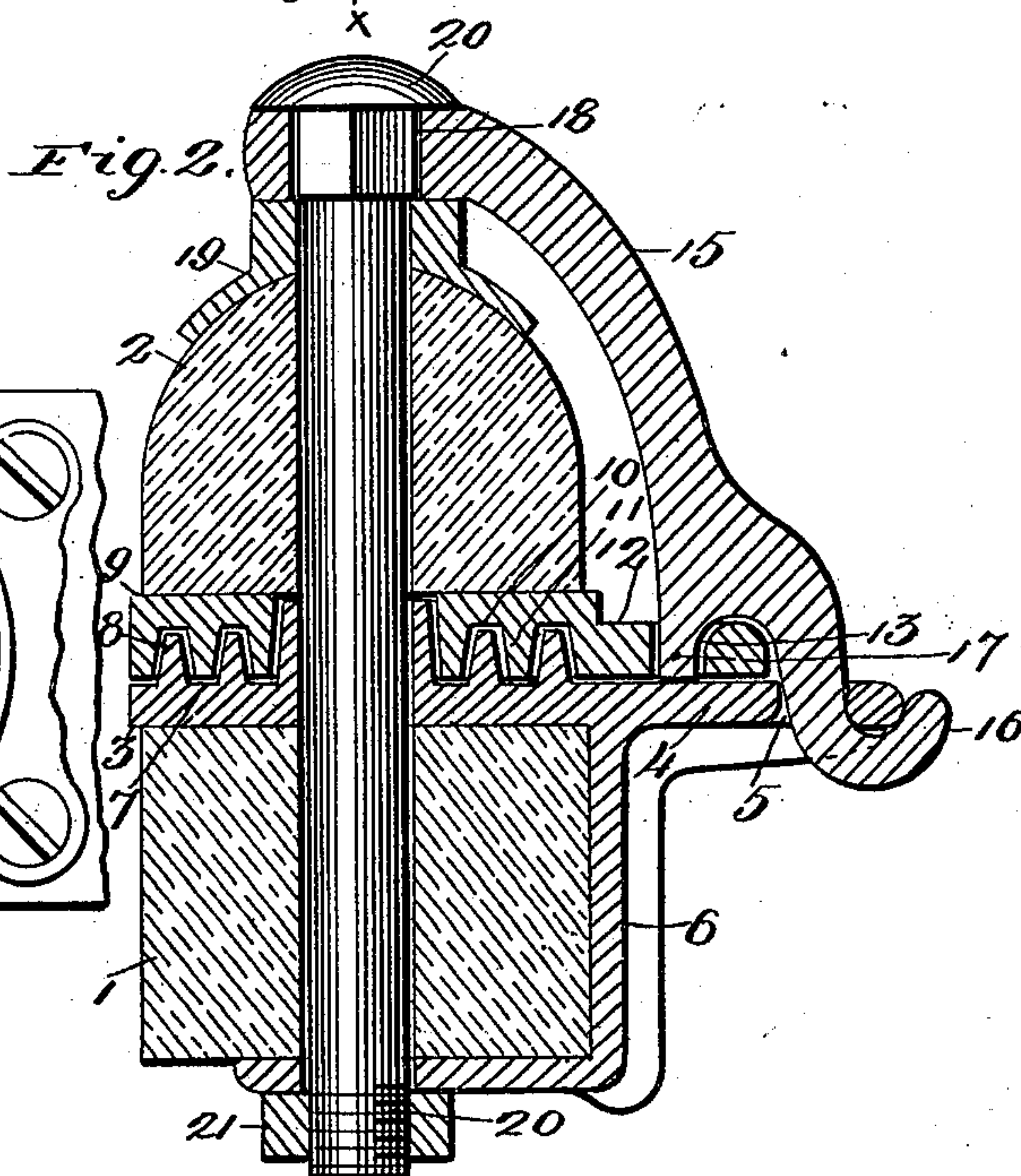
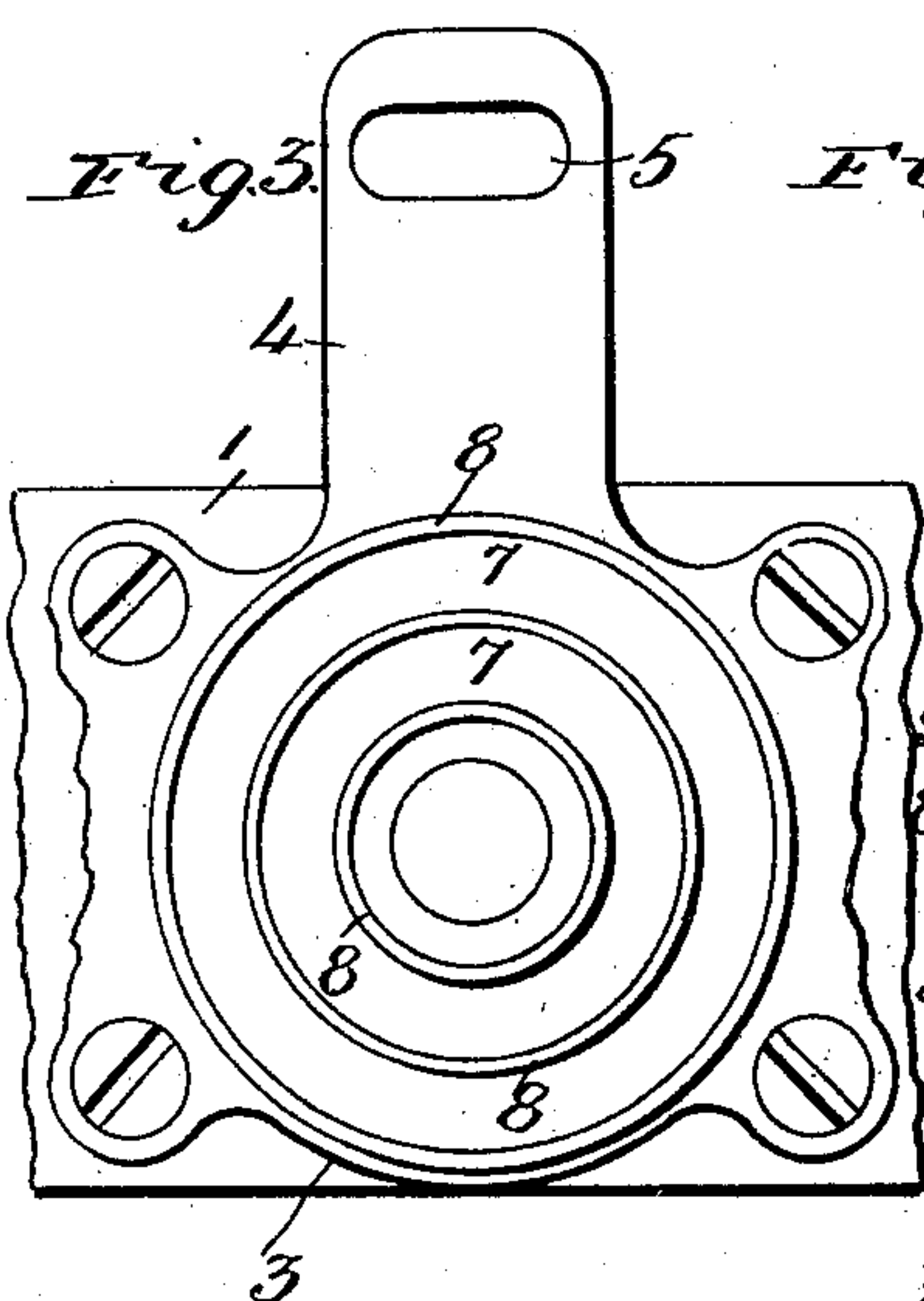
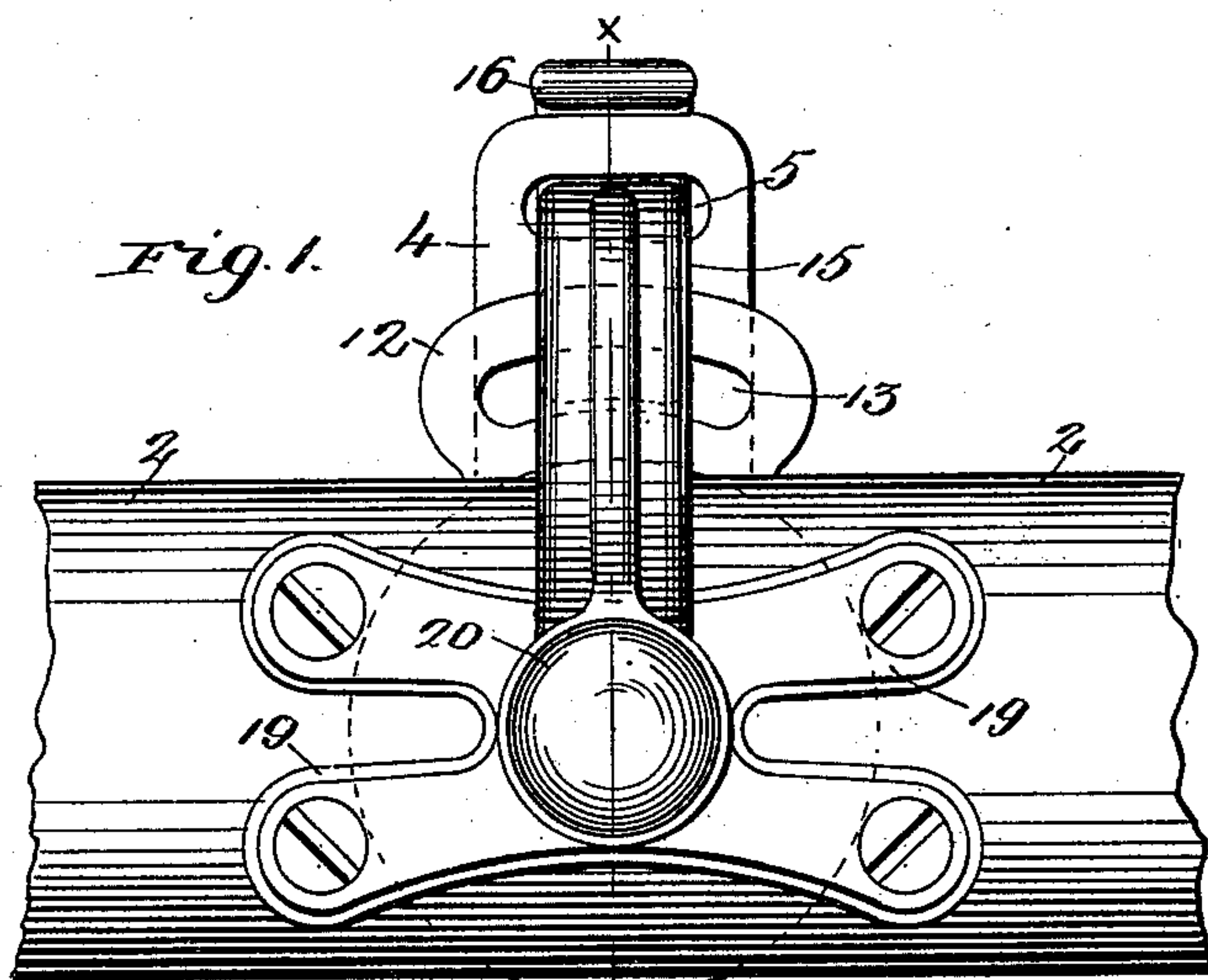
No. 617,577.

Patented Jan. 10, 1899.

A. KAST & W. RABICH.
WHIFFLETREE COUPLING.

(Application filed Aug. 5, 1898.)

(No Model.)



WITNESSES:

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ANTON KAST AND WILLIAM RABICH, OF ST. LOUIS, MISSOURI.

WHIFFLETREE-COUPLING.

SPECIFICATION forming part of Letters Patent No. 617,577, dated January 10, 1899.

Application filed August 5, 1898. Serial No. 687,809. (No model.)

To all whom it may concern:

Be it known that we, ANTON KAST and WILLIAM RABICH, citizens of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Whiffletree-Couplings, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part thereof.

Our invention relates to improvements in whiffletree-couplings; and it consists in the novel combination and arrangement of parts, as will be hereinafter more particularly described in the specification and pointed out in the claim.

In the drawings, Figure 1 is a top plan view of our complete invention. Fig. 2 is a vertical longitudinal section of the same taken on the line $x x$ of Fig. 1. Fig. 3 is a detail plan view of one of the sections, and Fig. 4 is also a detail plan view of the other section.

The object of our invention is to construct a simple and practical whiffletree-coupling, whereby the parts comprising the same may be readily cast without the employment of hand labor, usually necessary to fit the parts; and it consists of two friction or bearing plates, each of which is provided with concentric grooves forming concentric ribs, which coöperate in a manner to be hereinafter described; an extension forming a part of the lower plate and provided with a slot, the lower plate also provided with an extension or lip having a curved slot; a brace the lower end of which is provided with a hook which is received by the slot of the extension of the lower plate; a heel forming a part of said brace and received by the curved slot of the lip forming a part of the upper plate; a securing-bolt passed through the upper end of the brace and remaining parts comprising our invention, and in other details in the construction and arrangement of parts, as will be hereinafter more fully described.

Referring to the drawings, 1 represents the transverse draft-bar of a shaft or pole of a vehicle, to which is secured the lower section of our invention, and 2 the whiffletree, to the opposite ends of which the traces are attached and to which is secured the other section. The lower bearing-plate 3 is provided with a rear extension 4, which is pro-

vided with a slot 5, and forming an integral part of said plate and depending therefrom is a right-angular extension 6, which, together with the plate 3, embraces the draft-bar 1 and is secured to the latter in any suitable and mechanical manner. The upper surface of the plate 3 is provided with a series of concentric grooves 7, forming similar ribs 8, and formed on the lower surface of the upper bearing-plate 9 are also formed concentric grooves 10, forming similar ribs 11, the grooves on one plate receiving the ribs of the other plate, whereby when the plates are united all draft is removed from the securing-bolt where the said plates coöperate, and further serve to thoroughly retain the lubricating material desired to be used to cause the plates to freely turn upon one another.

Forming an integral part of the upper bearing-plate 9 is a lip 12, having a curved slot 13, the lower surface of said lip bearing upon and in movable contact with the upper surface of the extension 4 of the lower plate 3.

In order to thoroughly relieve the securing-bolt 20 from all strain when draft is applied to the whiffletree, we employ a brace 15, the lower end of which terminates in a hook 16, which is received by the slot 5 of the extension 4 of the plate 3, and forming an integral part of said brace is a heel 17, which is received by the slot 13 of the lip 12, forming a part of the upper plate 9, the said heel and its coöperation with the said slot serving to limit the movement of the whiffletree in either direction, and thus dispensing with the ordinary straps and other devices used for this purpose. The upper end of the brace 15 is provided with an opening 18, and secured to the upper curved surface of the whiffletree and interposed between the latter and the said upper end of the brace is a plate 19, a securing-bolt 20 being passed through the opening in the brace, plate 19, whiffletree 2, bearing-plate 3, draft-bar 1, and right-angular extension 6 of said last-named plate, whereby the various parts comprising our invention are removably secured together, a nut 21 being screwed on the lower end of said bolt for holding the same in position.

From the foregoing description it will be seen that we have not only constructed a

simple and durable whiffletree-coupling, but one that will withstand the rough usage to which the same is necessarily subjected, the bolt for securing the several parts being relieved of all strain and wear, and consequently the coupling will remain in perfect operative condition notwithstanding the constant strain brought upon it.

Having fully described our invention, what we claim is—

A whiffletree-coupling comprising two bearing-plates, concentric grooves formed on the contacting surfaces of said plates leaving similar ribs, an extension forming an integral part of the lower plate and provided with a slot, a right-angular extension also forming a part of said plate, a lip extending from the upper plate and provided with a curved slot, the lower surface of said lip bearing upon

and in movable contact with the upper surface of the extension of the lower plate, a brace the lower end of which is provided with a hook which is received by the slot formed in the extension of the lower plate, a heel also forming a part of the said brace and received by the slot in the lip of the upper plate, a plate secured to the upper surface of the whiffletree, a bolt passed through the upper end of the brace and a nut adapted to be screwed on the lower end of said bolt, substantially as and for the purpose described.

In testimony whereof we affix our signatures in presence of two witnesses.

ANTON KAST.

WILLIAM RABICH.

Witnesses:

ALFRED A. MATHEY,

C. F. KELLER.