

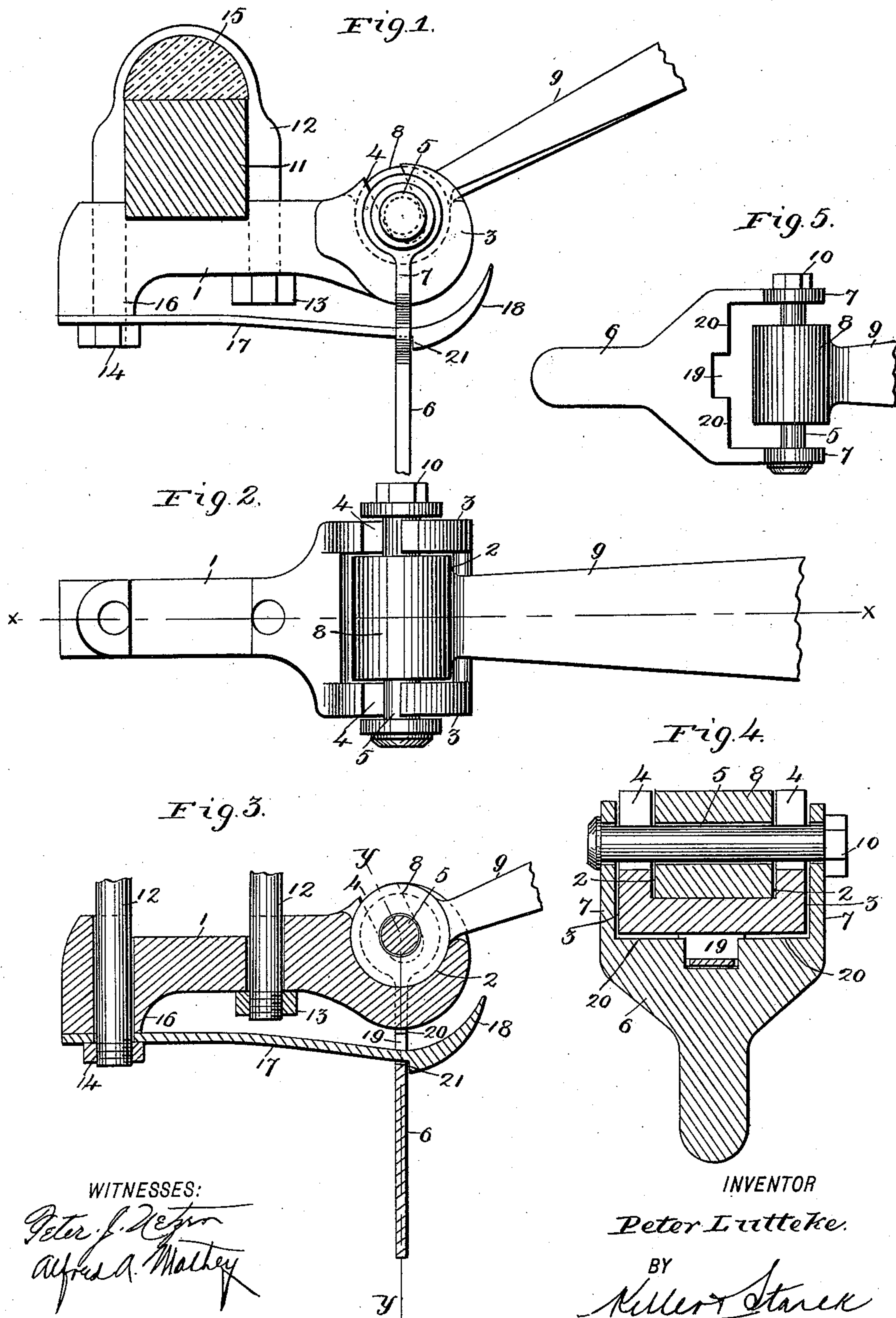
(No Model.)

P. LUTTEKE.

COMBINED THILL COUPLING AND ANTIRATTLER.

No. 570,100.

Patented Oct. 27, 1896.



WITNESSES:

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PETER LUTTEKE, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF TO
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COMBINED THILL-COUPLING AND ANTIRATTLER.

SPECIFICATION forming part of Letters Patent No. 570,100, dated October 27, 1896.

Application filed February 24, 1896. Serial No. 580,561. (No model.)

To all whom it may concern:

Be it known that I, PETER LUTTEKE, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in a Combined Thill-Coupling and Anti-Shaft-Rattler, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention has relation to improvements in thill-couplings; and it consists in the novel arrangement and combination of parts more fully set forth in the specification and pointed out in the claims.

In the drawings, Figure 1 is a side elevation of the device, showing the axle to which it is attached in section. Fig. 2 is a top plan view thereof with axle and securing-strap removed. Fig. 3 is a section on *xx* of Fig. 2. Fig. 4 is a section on *yy* of Fig. 3, and Fig. 5 is a detail of the swinging tongue and base of the shaft-iron carried thereby.

The object of my invention is to construct a combined thill-coupling and anti-shaft-rattler which will securely connect the shafts to the axle of the carriage or wagon and effectively prevent the rattling between the parts thus connected.

A further object is to construct a coupling which will be simple, durable, light, and cheap.

In detail the device may be described as follows:

Referring to the drawings, 1 represents the body portion of the coupling, whose forward end is provided with a cavity or socket 2, bounded by lateral walls 3, each side wall being provided with a U-shaped depression 4, inclined inwardly to the general longitudinal axis of the body portion 1, the object of the inclination of the depressions being to prevent any accidental upward displacement of the parts carried thereby, as will subsequently more fully appear. The depressions 4 are adapted to receive the coupling-pin 5, from the free projecting ends of which is suspended a tongue 6, said tongue being provided with arms 7, through which the pin passes and by means of which the tongue is freely suspended, the arms freely embracing the walls 3 and

being of sufficient depth or length to permit the tongue to swing freely about the forward end of the coupling body portion. The base or looped end 8 of the shaft-iron 9, to which the base of the wooden shaft is secured, is suitably rounded, so as to fit the base of the cavity 2 of the coupling, the pin 5, which passes through said looped end, serving to connect the several parts together, and when once assembled a nut 10 is secured to the projecting end of the pin.

The coupling 1 is secured to the polygonal portion of the axle 11 by means of a U-shaped strap 12, whose arms pass through the coupling, suitable bolts 13 14 securing said strap to the coupling and the strap itself embracing the axle proper and the wooden strip 15, by which it is generally covered or surmounted. The rear end of the coupling is provided with a depending lug 16, through which the long arm of the strap passes, the terminal nut 14 serving not only to retain said arm of the strap in place, but serving at the same time to retain in place one end of an elastic or spring latch 17, running the full length of the body of the coupling, the forward or free end thereof being provided with a curved tapering guiding portion or end 18, which, as the tongue 6 is swung around in the locking of the parts, passes through the notch 19, cut along the transverse edge 20, connecting the bases of the arms 7. When the tongue has been swung to the base of said tapering end, by which time it is approximately at right angles to the general length of the body of the coupling, the shoulder 21 at the base of said tapering portion 18 snaps over the base of the notch 19, securely locking the base of the shaft-iron 9 to the base of the socket 2 of the coupling.

As best seen in Fig. 4, the bases of the U-shaped depressions are a little below or exterior to the walls of the opening of the loop 8 of the shaft-iron, by which arrangement the resiliency of the spring locking-latch draws the outer surface of the loop 8 firmly against the base of the cavity 2, the draft being exerted through the arms 7 of the tongue against the ends of the pin 5 passing through the loop 8. In this manner the base of the shaft-iron is always held firmly against the

base of the cavity or socket 2, making the device perfectly noiseless and preventing any possible rattling among the several parts, the free end of the spring-latch always bearing
5 down on the swinging tongue.

In assembling the parts the loop 8 of the shaft-iron and the ends of the pin 5 are simultaneously and respectively inserted into the cavity 2 and the recesses 4, after which
10 the tongue is swung into position to lock with the spring-latch 17.

Having described my invention, what I claim is—

1. In a thill-coupling, a suitable body portion adapted to be secured to the axle of the carriage, a cavity or socket formed along the upper surface of the front end of the same, lateral walls bounding said cavity, a recess
15 formed in each wall, a shaft-iron having a looped base, a pin passing through said base and adapted to project at each end beyond the walls of the cavity, a swinging tongue depending from the projecting ends of the pin, a notch cut in the tongue, a spring locking-latch having one end secured to the body
20 portion and having a forward tapering end properly curved to ride freely in the notch formed in the tongue, and a shoulder formed at the base of the tapering end of the latch for snapping over or engaging the notch cut
25 in the tongue, substantially as set forth.

2. A shaft-coupling and anti-thill-rattler comprising a suitable body portion adapted to be secured to the axle of the carriage, a
35 depending lug formed at the rear end thereof, a cavity or socket formed along the upper surface of the front end of the same, lateral

walls bounding said cavity, a recess formed in each wall and inclined to the general axis of the body portion, a shaft-iron having a
40 looped base, a pin passing through said base, said looped base being adapted to be inserted into the cavity of the body portion, the walls of the opening or passage formed in the looped base being slightly raised above the bases of
45 the recesses formed in the lateral walls of the cavity of the body portion whereby the pin passing through the opening of the base of the shaft-iron is out of contact with the bases of said recesses, a swinging tongue having
50 arms embracing the side walls of the cavity of the body portion suspended from the opposite ends of the pin, the arms being of sufficient depth to permit the tongue to swing freely about the forward end of the body portion, a notch formed or cut in the tongue on
55 the line connecting the bases of the arms, a spring locking-latch having one end secured to the depending lug and having a forward tapering end properly curved to ride freely
60 in the notch cut in the tongue, and a shoulder formed at the base of the tapering end of the latch for snapping over or engaging the notch cut in the tongue whereby the several parts
65 when assembled are securely locked and the looped end of the shaft-iron is drawn tightly into the base of the cavity of the body portion, substantially as set forth.

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

PETER LUTTEKE.

Witnesses:

PETER J. NETZER,

ALFRED A. MATHEY.