

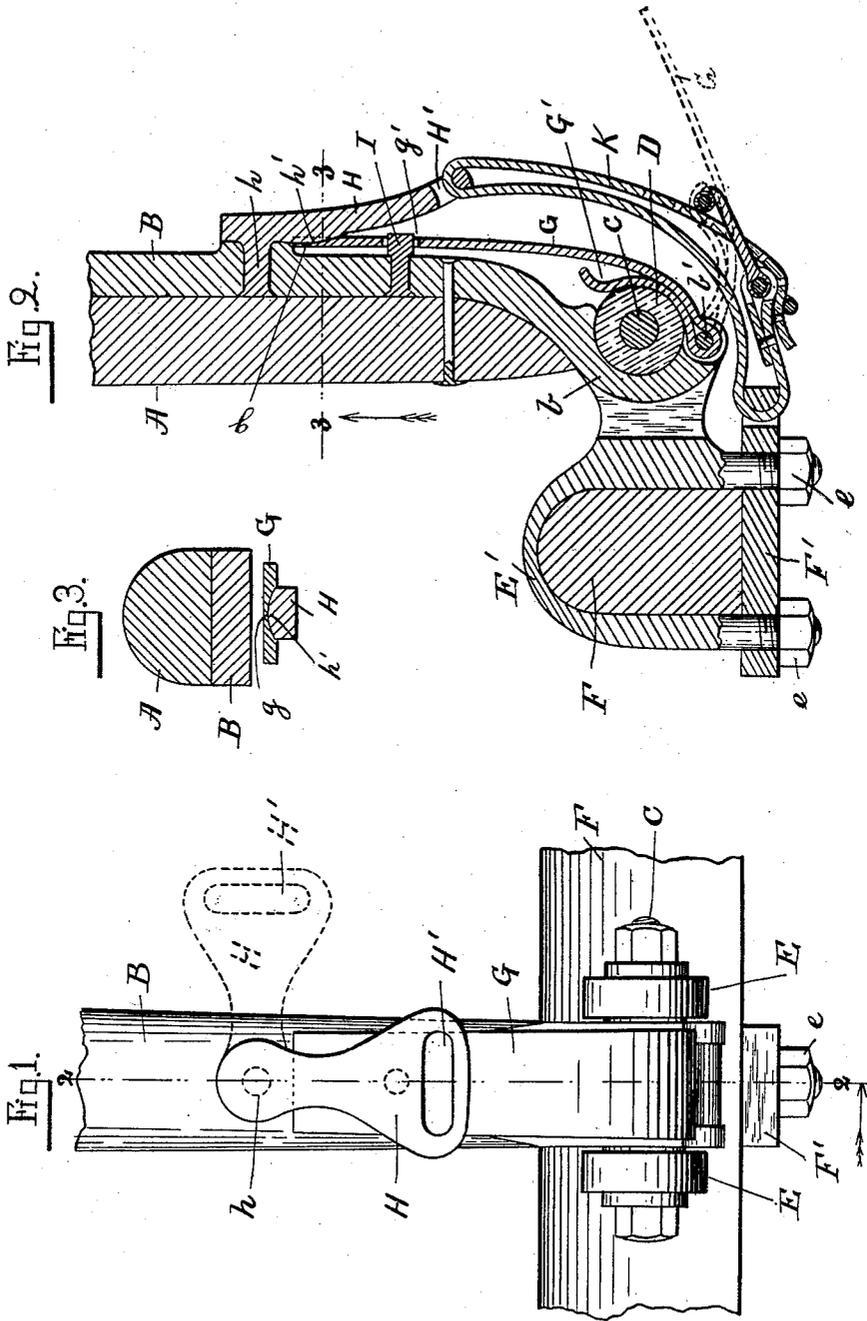
No. 716,513.

Patented Dec. 23, 1902.

S. R. BAILEY.
SHAFT SHACKLE FOR VEHICLES.

(Application filed Apr. 30, 1902.)

(No Model.)



Witnesses.

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UNITED STATES PATENT OFFICE.

SAMUEL R. BAILEY, OF AMESBURY, MASSACHUSETTS.

SHAFT-SHACKLE FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 716,513, dated December 23, 1902.

Application filed April 30, 1902. Serial No. 105,294. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL R. BAILEY, a citizen of the United States, and a resident of Amesbury, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Shaft-Shackles for Vehicles, of which the following is a specification.

This invention relates to improvements in shaft-shackles for vehicles; and it has for its object a device of improved and simplified construction capable of being readily applied to and detached from the clip.

My invention consists in the features and in the construction and arrangement of parts hereinafter described, and definitely pointed out in the claims following the description, reference being had to the accompanying drawings, forming a part of the specification, wherein—

Figure 1 is a front elevation of my improved shaft-shackle, showing the same applied to a thill-coupling of a vehicle-axle. Fig. 2 is longitudinal section on the line 2 2 shown in Fig. 1; and Fig. 3 is a cross-section on the line 3 3 shown in Fig. 1.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

Referring to the drawings, A indicates one end of a carriage thill or shaft secured in a suitable manner to the shaft-iron B. The shaft-iron B is provided at its front or inner end with a preferably semicircular jaw *b*, adapted to encompass a portion of the thill-coupling bolt C or an elastic sleeve D, located thereon, as shown. The bolt C is pivotally connected to the ears E E of the clip E', which is secured to the carriage-axle F by means of the plate F' and nuts *ee*, as is common in devices of this kind. To the lower or inner end of the shaft-iron jaw *b* is pivoted at *b'* a yielding spring-metal bar G, the upper end of which is adapted to be detachably clamped or secured to the shaft-iron B in any suitable or desirable manner, and for such purpose I have shown in the drawings preferably a lever H, pivotally connected by means of a pin *h* to the shaft-iron B, said pin being made integral with or attached to the lever H and preferably journaled in a perforation in the shaft-iron B, as shown in Figs. 1 and 2; but,

if so desired, said lever H may be pivotally connected to a pin projecting from the shaft-iron B without departing from the essence of my invention.

The under side of the pivoted lever H is preferably provided with a locking projection *h'*, adapted to enter a recessed or cut-away portion *g* on the free end of the spring-metal bar G, (shown in Figs. 2 and 3,) or vice versa, so as to prevent the said lever H from being accidentally disconnected from the spring-metal bar G by the jolting or jarring of the carriage.

In practice I secure to the under side of the shaft-iron B a pin or projection I, adapted to enter a perforation *g'* in the spring-metal bar G, so as to prevent the latter from moving sidewise, particularly when the lever H is swung from the locked position (shown in full lines in Fig. 1) to the unlocked position (shown in dotted lines in said Fig. 1) or vice versa. Preferably in one piece with the spring-bar G is made an auxiliary curved spring G', adapted to be held by the spring-bar G in contact with the rubber sleeve D or coupling-bolt C when the main spring-bar G is held in the locked position shown in the drawings, thus causing a steady yielding compression to be exerted on the rubber sleeve D or coupling-bolt C, by which wear and tear on such parts are automatically taken up and the joint prevented from rattling.

Although I have hereinabove shown and described the invention as applicable to thills on vehicles, I wish to state that I do not confine myself to such use only, as it may be used to equal advantage on vehicles, poles, or similar vehicle devices.

To couple the thill to the bolt of the axle-clip, it is only necessary, first, to turn the spring-metal bar G to the position shown in dotted lines in Fig. 2, after which the jaw *b* is placed over the thill-coupling bolt or its rubber sleeve, after which the said metal spring-bar G and its auxiliary spring G' are swung to the position shown in full lines in Fig. 2, and secured in such position by swinging the lever H from the position shown in dotted lines in Fig. 1 to that shown by full lines in Figs. 1 and 2.

To uncouple the device, it is only necessary to turn the lever H from the position shown

in full lines in Fig. 1 to that shown by dotted lines in said Fig. 1, causing the spring-bar G to be released, and then turned to the open position, (shown by dotted lines in Fig. 2,) when the jaw *b* may be readily disconnected from the thill-coupling bolt or its yielding or rubber sleeve.

In practice I prefer to provide the free end of the lever H with a suitable perforation H', adapted to receive a strap K, connected to the thill-coupling plate F' or axle in any suitable manner, which strap serves when so connected as a means to prevent the locking-lever H from being accidentally unlocked from the spring-bar G by the jolting of the carriage, or otherwise.

What I wish to secure by Letters Patent and claim is—

1. In a shaft-shackle, the combination with the thill-iron terminating at its extremity in a jaw adapted to encompass or hold the coupling-bolt or its elastic cushion, of a yielding spring-metal bar or plate, G, provided with an auxiliary spring-plate G', pivotally connected to the thill-iron and adapted to bear with a steady pressure against the coupling-bolt or its elastic sleeve and provided with means for securing it thereto when in use substantially as and for the purpose set forth.

2. In a shaft-shackle, the combination with a thill-iron terminating at its extremity in a jaw adapted to encompass or hold the coupling-bolt or its elastic cushion, of a yielding spring-metal bar or lever G, provided with an auxiliary spring-plate G', pivotally con-

nected to the thill-iron, a locking-lever H, pivotally connected to the thill-iron and adapted to serve as a means for securing the spring-bar G, in its normal position when in use substantially as and for the purpose set forth.

3. In a shaft-shackle, in combination with a thill-iron terminating at its extremity in a jaw adapted to encompass or hold the coupling-bolt or its elastic cushion, a yielding spring-metal bar or plate G, provided with an auxiliary spring G', pivotally connected to the thill-iron, a locking-lever H, pivotally connected to the thill-iron and means for interlocking said spring-metal bar to the lever H, and thill-iron, substantially as and for the purpose set forth.

4. In a shaft-shackle, the combination with a thill-iron terminating at its extremity in a jaw adapted to encompass or hold the coupling-bolt or its elastic cushion of a metal bar or lever G, pivotally connected to the thill-iron, a locking-lever H, pivotally connected to the thill-iron and a pin or projection I, on the thill-iron adapted to positively interlock with a perforation or recess *g'* on the bar G, serving as means for securing the latter in its normal position when in use substantially as and for the purpose set forth.

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

SAMUEL R. BAILEY.

Witnesses:

ALBAN ANDRÉN,
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