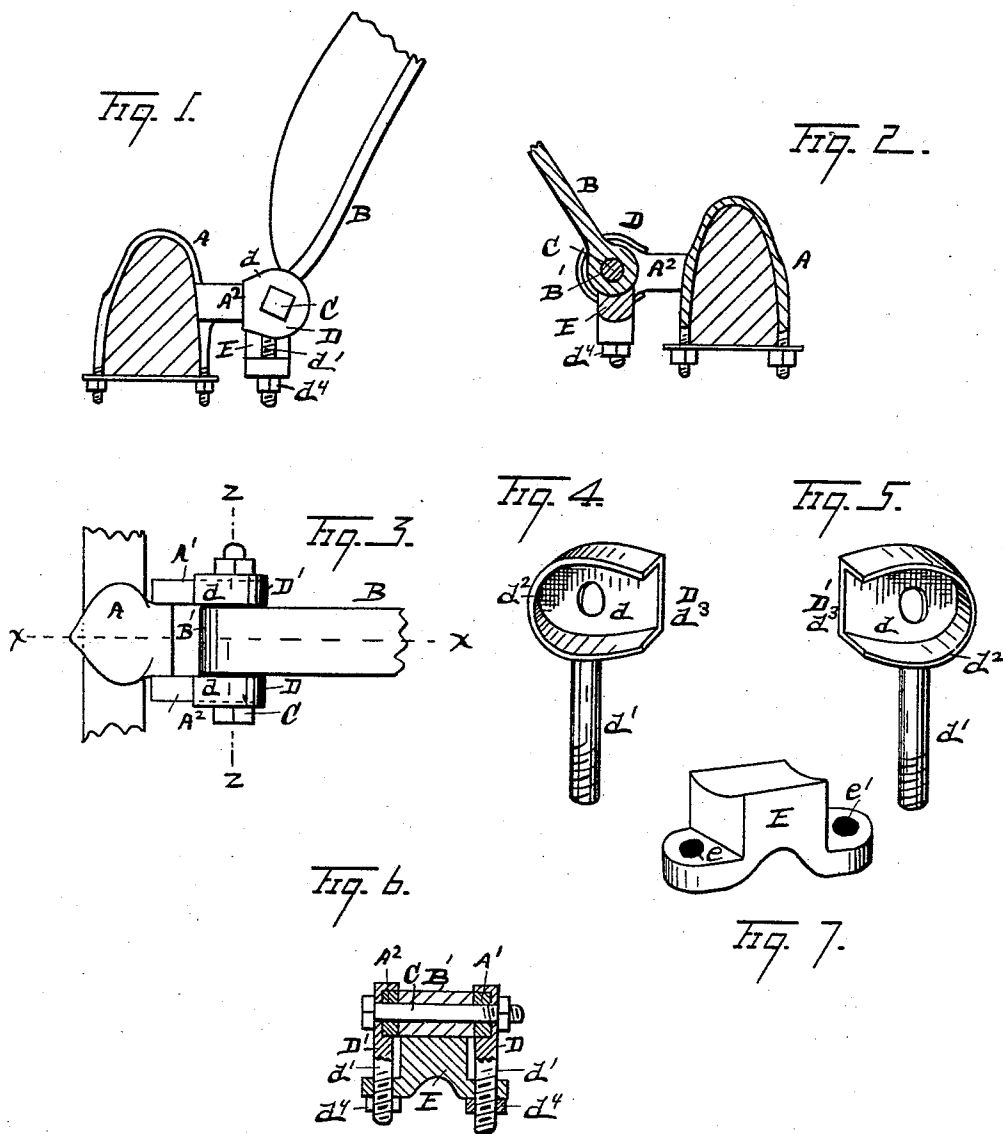


(No Model.)

W. DANZ.
THILL COUPLING.

No. 486,436.

Patented Nov. 22, 1892.



Witnesses
John Schuman
John F. Miller

Inventor
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UNITED STATES PATENT OFFICE.

WILLIAM DANZ, OF DETROIT, MICHIGAN.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 486,436, dated November 22, 1892.

Application filed April 6, 1892. Serial No. 428,061. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM DANZ, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Anti-Shaft-Rattlers and Shackle-Clip Protectors; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to certain new and useful improvements in an anti-shaft-rattler and shackle-clip protector for vehicles; and it consists of the combinations of devices and appliances hereinafter specified and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation showing the axle in section. Fig. 2 is a vertical cross-section on the line $x x$, Fig. 3, in reverse position. Fig. 3 is a plan view. Figs. 4 and 5 are separate views of the two cheek-pieces. Fig. 6 is a vertical section on the line $z z$, Fig. 3. Fig. 7 is a separate view of the yoke.

The object of my invention is to provide an article of this description which shall be simple, economical, durable and efficient, and which may be readily applied. To this end I carry out my invention as follows:

A represents a shackle-clip of usual form, provided with perforated ears $A' A^2$.

B is the customary shaft-iron provided with an eye B' , journaled in said ears.

C is the bolt passed through said ears and the eye of the shaft-iron, whereby the shaft-iron is journaled in the ears of the clip-iron.

D and D' represent separable cheek-pieces, each constructed with a perforated head d and with a screw-threaded arm d' . The heads d are constructed with flanges d^2 to set over the edges of the ears $A' A^2$, the flanges terminating on one side, as shown at d^3 to allow the head to set snug upon the ear. The heads of these cheek-pieces are engaged upon the bolt C over the ears $A' A^2$ of the clip-irons, the bolt passing through the said heads.

E denotes a bearing-yoke perforated at its extremities, as shown at $e e'$, said extremities being engaged upon the stems d' of each of

said cheek-pieces. This yoke has a bearing upon the eye of the shaft-iron and is held in place upon said stems by nuts d^4 , located upon the stems. By setting up said nuts the yoke may have any desired pressure upon the eye of the shaft-iron. Should the yoke or shaft-iron become worn, the yoke can readily be tightened up by means of said nuts. By making the yoke of suitable metal its durability will be very great. The construction is simple. The parts may be readily adjusted and are not liable to get out of order. The yoke has, preferably, a concave face adjacent to the shaft-iron.

It will be seen that by properly tightening the yoke into engagement with the eye of the shaft-iron said eye may be raised, so as to take off the strain of the shaft-iron from the bolt and communicate it through the yoke to the cheek-pieces and thence upon the ears $A' A^2$ of the clip, thereby preventing the wearing of the bolt and the perforations of the ears of the clip. The cheek-pieces may be so constructed as to be readily applied to ordinary shackle-clips. They are made rights and lefts. By simply varying the sizes of the patterns the cheek-pieces may be made to conform to various shackle-clips in common use, so that they may be kept in stock by dealers in this class of goods and be furnished to users. They may readily be applied to any ordinary shackle-clips by any person, their application requiring no skilled labor for that purpose. A suitable elastic packing may or may not be employed between the yoke and the eye of the shaft-iron.

The feature of the device whereby the yoke and cheek-pieces attached to the ear-pieces $A' A^2$ may be made practically to carry the shaft and protect the bolt and ears from wear is one of much importance. An extra bolt is required for the attachment of the cheek-pieces to said ears and serves simply to hold the parts together. It is evident that the cheek-pieces so mounted upon the ear-pieces cannot be turned thereon.

What I claim as my invention is—

1. The combination, with a shackle-clip provided with perforated ears, of a shaft-iron, a bolt journaling the shaft-iron between said ears, cheek-pieces $D D'$, each provided with a perforated head and a screw-threaded stem

engaged upon said bolt, and a yoke adjustably engaged at its extremities upon said stems, whereby the yoke may be forced into engagement with the shaft-iron, substantially as described.

5 2. The cheek-pieces D D', each provided with a perforated head and a screw-threaded stem, having, in combination therewith, a yoke adjustably engaged at its extremities upon
10 said stems, substantially as and for the purpose described.

3. As an article of manufacture, the cheek-pieces D D', each provided with a perforated

head and a screw-threaded stem, a yoke engaged at its extremities upon said stem, and 15 nuts engaged upon said stem to hold and adjust said yoke, said heads each constructed with a flange d^2 , open at one side as at d^3 , substantially as and for the purpose described.

In testimony whereof I sign this specification 20
in the presence of two witnesses.

WILLIAM DANZ.

Witnesses:

N. S. WRIGHT,

JOHN F. MILLER.