

No. 711,636.

Patented Oct. 21, 1902.

J. G. LESHER.

ANTIRATTLER AND BOLT LOCK FOR THILL COUPLINGS.

(Application filed Mar. 19, 1902.)

(No Model.)

Fig. 1.

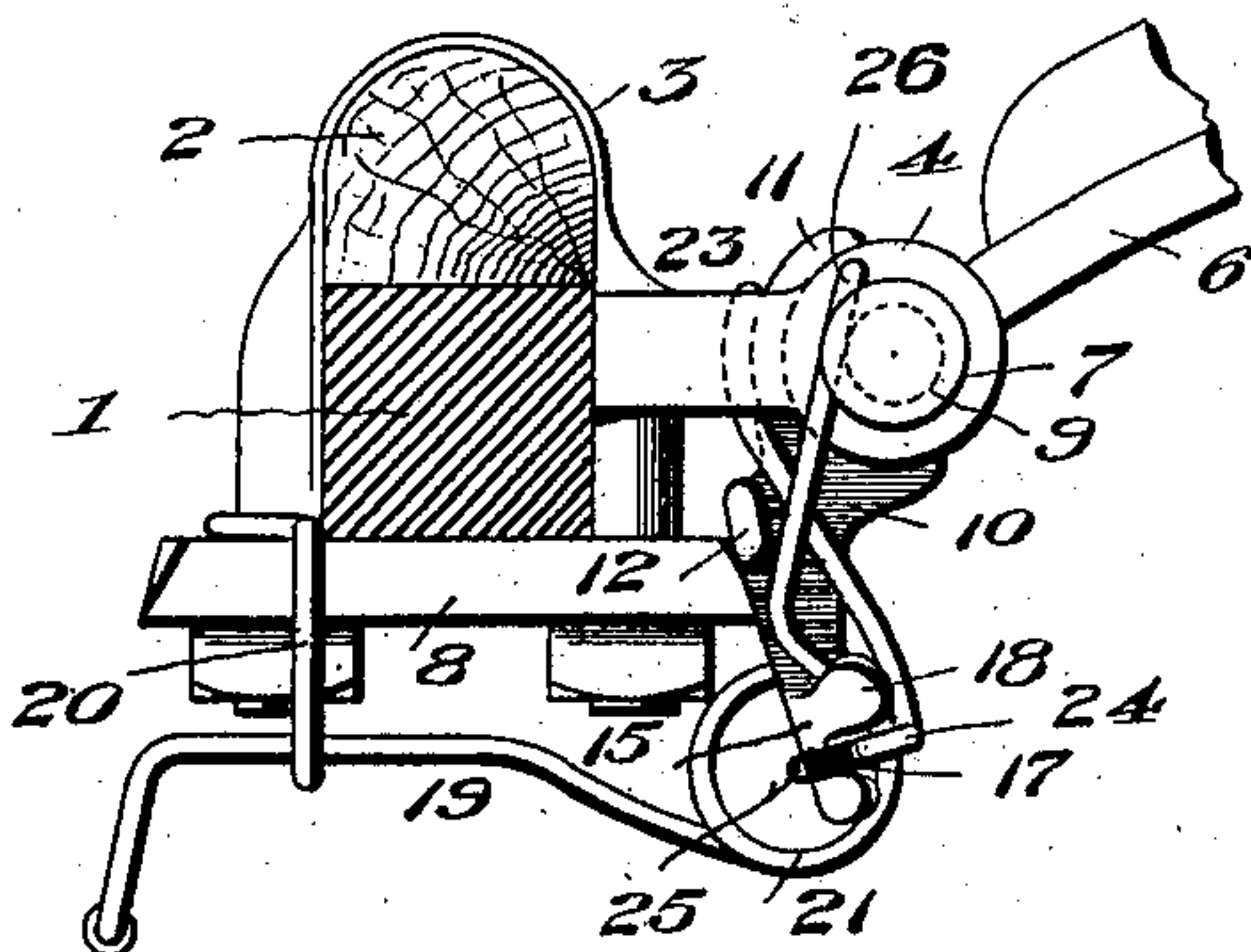


Fig. 2.

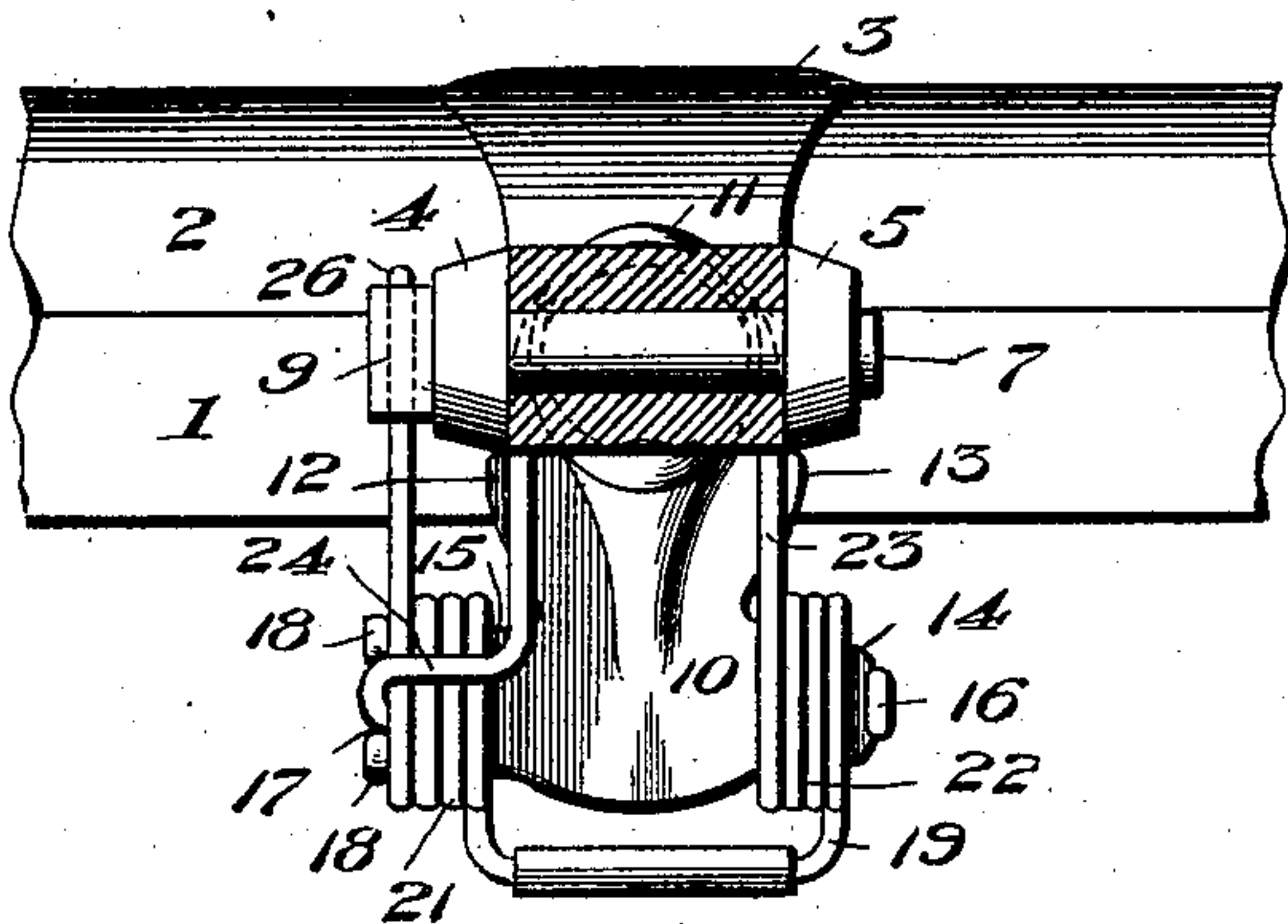


Fig. 3.

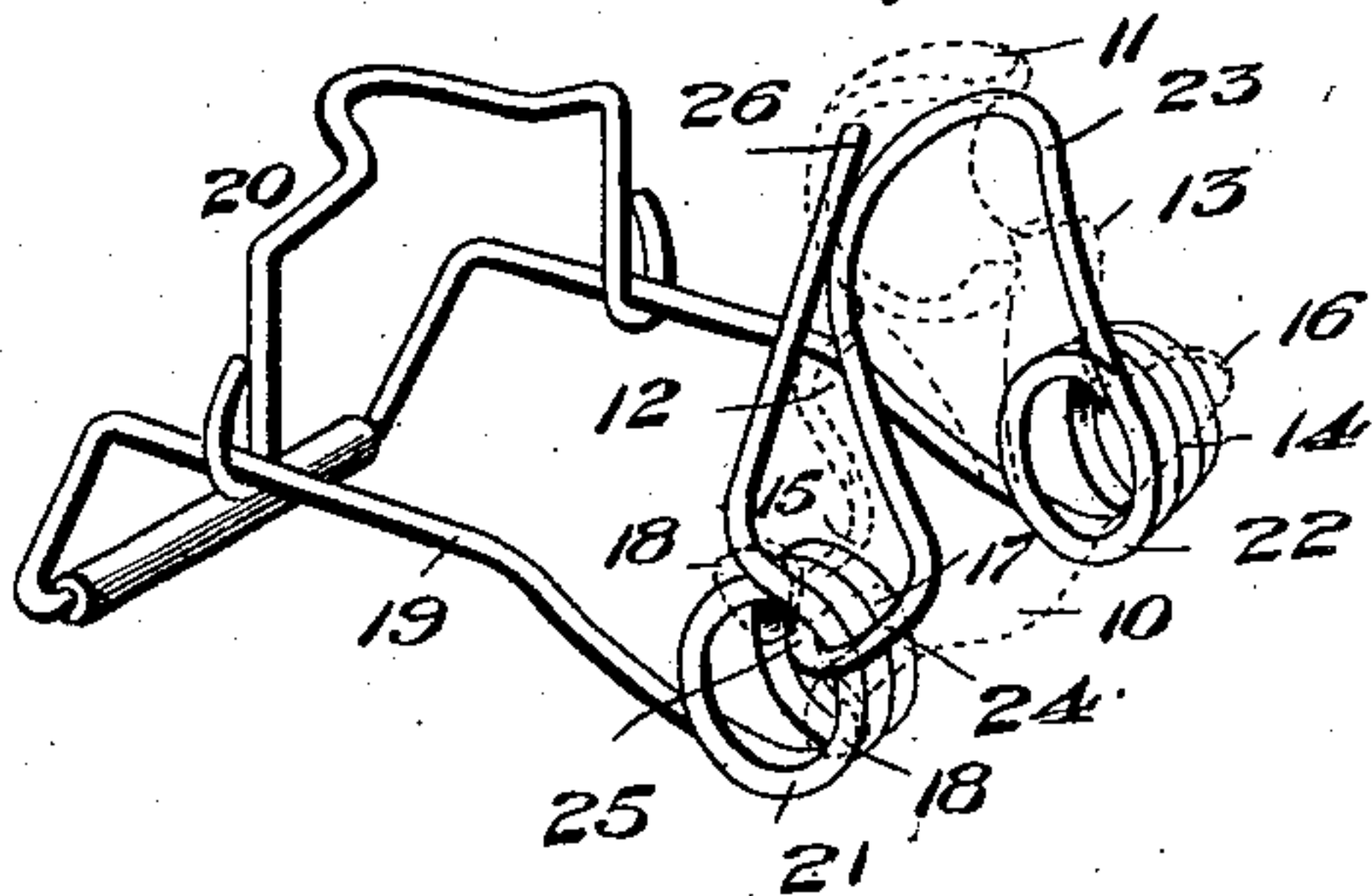
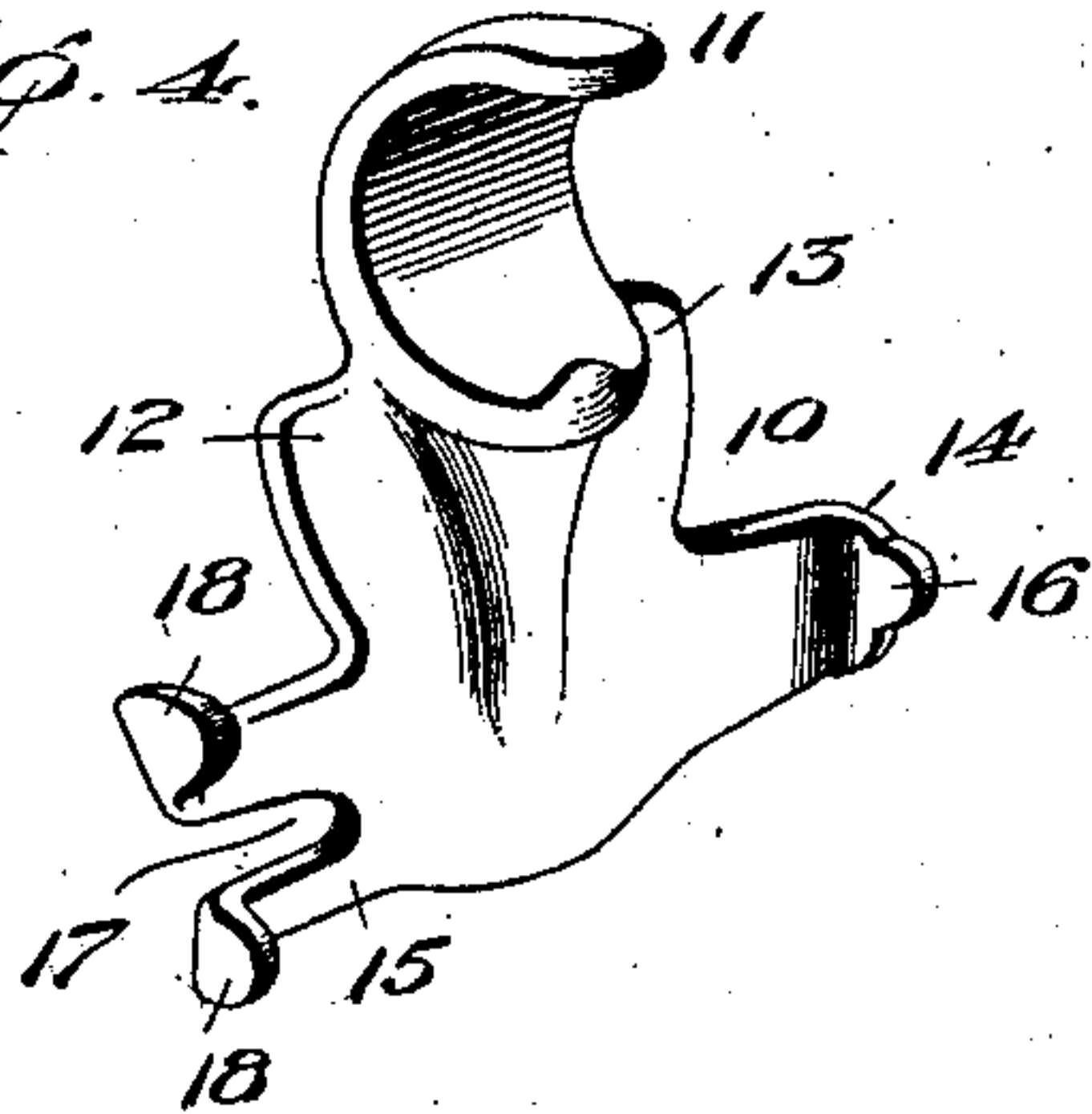


Fig. 4.



Witnesses

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# UNITED STATES PATENT OFFICE.

JACOB G. LESHER, OF GREENCASTLE, PENNSYLVANIA.

## ANTIRATTLER AND BOLT-LOCK FOR THILL-COUPPLINGS.

SPECIFICATION forming part of Letters Patent No. 711,636, dated October 21, 1902.

Application filed March 19, 1902. Serial No. 98,978. (No model.)

*To all whom it may concern:*

Be it known that I, JACOB G. LESHER, a citizen of the United States, residing at Greencastle, county of Franklin, and State of Pennsylvania, have invented certain new and useful Improvements in Antirattler Attachments and Bolt-Locks for Thill-Couplings, of which the following is a specification.

This invention relates to antirattler attachments and bolt-locks for thill-couplings.

The object of the invention is the provision of an improved, simple, and inexpensive device adapted for easy and convenient application to an ordinary thill-coupling to prevent rattling of the same and to secure the thill-bolt against detachment, thus obviating the necessity of using a nut on the bolt.

Having the foregoing object in view, the invention consists of an antirattler attachment and bolt-lock comprising certain improved features and novel arrangements and adaptations of parts more fully set forth hereinafter and embodied in the appended claims.

In the accompanying drawings, Figure 1 is a side elevation, with the vehicle-axle shown in section, illustrating the adaptation of the invention to an ordinary thill-coupling; Fig. 2, a front view; Fig. 3, a detail perspective view illustrating the device detached and showing the wear-plate in dotted lines, and Fig. 4 a detail of the wear-plate.

The numeral 1 designates the axle, and 2 the stock, while 3 is the clip or shackle, having the usual ears 4 and 5 for receiving therebetween the thill-iron 6, which is pivoted on the bolt 7, while 8 is the clip plate or yoke by which it is held on the axle. The head of the bolt 7 has in one side face a groove or notch 9.

The numeral 10 designates a wear-plate which is provided with the wear face or member 11, adapted to bear against the rounded portion of the thill-iron 6, and this wear-plate is provided with the ears 12 and 13 and the arms or extensions 14 and 15, located below the ears. The extension 14 has a lug 16 projecting out therefrom, and the extension or arm 15 is slotted or split at 17, forming two fingers, each of which has a lug 18.

The numeral 19 designates a piece of springy material which has one portion extending back underneath the yoke 8 and held to the

latter by the bail 20, while this spring-wire is formed into two coils 21 and 22, which surround the arms 15 and 14, and also has a loop 23, which bears against the ears 12 and 13 and the back of the wear-face, whereby the wear-face is held against the rounded portion of the thill-iron 6 at all times. It will be observed that the coil 22 is formed in an intermediate portion of the wire and is held against lateral displacement from the arm 14 by the lug 16, while that portion of the wire after passing up and behind the wear-face passes down and crosses over the coil 21, as shown at 24, and then is passed back and provided with a bent end 25, which is received in the slot 17, so that the coil 21 is held from lateral displacement not only by the lug 18, but also by this portion of the wire. The coil 21 is formed near the other end of the wire, and that end is extended at 26 and received in the groove 9 of the bolt, in consequence of which the bolt is locked.

The tension of the springs maintains the wire face of the wear-plate in constant contact with the rounded portion of the thill-iron and takes up any looseness of connection between the thill-iron and the bolt, and thus prevents rattling of the parts while the bolt is locked, and hence can not jar loose.

One of the principal advantages of my construction over others heretofore known to the art is that provision is made for both taking up all the wear of the parts and locking them, while the peculiar construction of the wear plate or member prevents any displacement of the spring or the spring-coils, regardless of any hard usage to which the device may be put.

It will be obvious that the invention is in the nature of an attachment which can be readily applied to an ordinary form of thill-coupling without disturbing any of the parts thereof, it being only necessary to provide a bolt with a groove in its head to accommodate the locking end of the spring.

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

1. In a device of the class described, the combination with a wear-plate having arms, one of which is provided with an outwardly-extending lug and the other being slotted or



split, forming fingers, said fingers having  
outwardly-turned lugs, of a piece of springy  
or resilient material provided with coils which  
surround the arms, said resilient material ex-  
5 tending back of the wear-plate and engaged  
therewith and having an end portion extend-  
ing across the coil on the split arm and bent  
back and having a portion received in said  
slotted or split portion of the arm, the lugs  
10 on the arms being adapted to retain the coils  
on said arms.

2. In a device of the class described, the  
combination with an axle clip or shackle and  
a thill, of a bolt connecting said thill and  
15 shackle, a wear-plate adapted to bear against  
the pivotal portion of the thill and provided  
with arms, one of which has an outwardly-  
extending lug and the other arm being split,  
forming fingers, said fingers having out-

wardly-extending lugs, a piece of springy 20  
material having a portion anchored to the clip  
and formed with coils which surround the  
arms, the coil surrounding the split arm be-  
ing provided with an extension which en- 25  
gages with the bolt to prevent turning there-  
of and the other end of the resilient piece of  
material extending back of the wear-plate  
and holding it against the thill and termi-  
nating in a portion extending across the coil  
on the split arm, rebent and provided with 30  
an end which is received in the slot between  
the fingers.

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

JACOB G. LESHER.

Witnesses:

W. A. WHISLER,  
PAXTON M. CANTNER.