(No Model.)

A. B. PERINE.

THILL COUPLING.

No. 306,347. Patented Oct. 7, 1884.

Fig. 1.

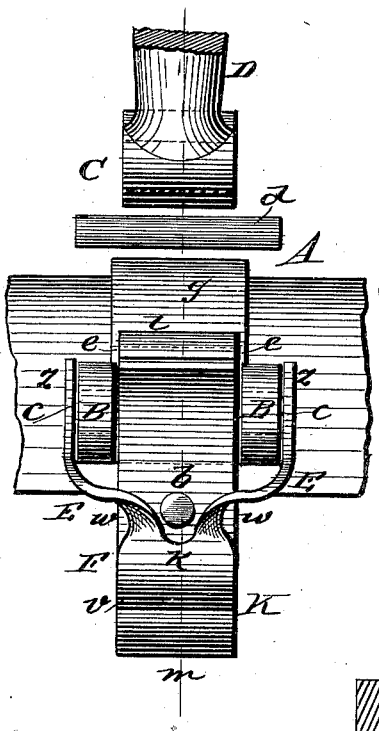


Fig. 2.

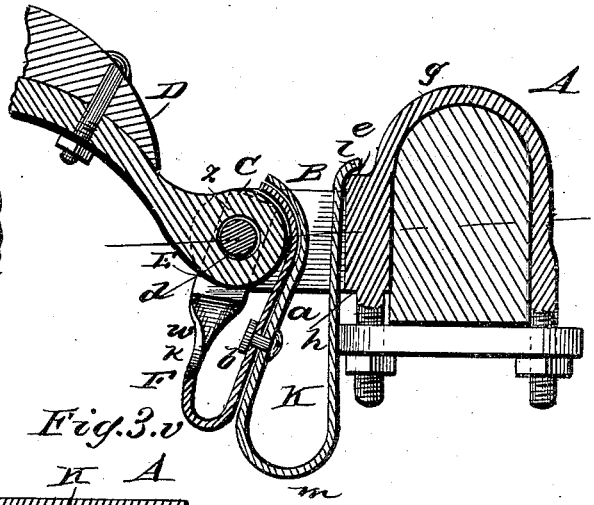
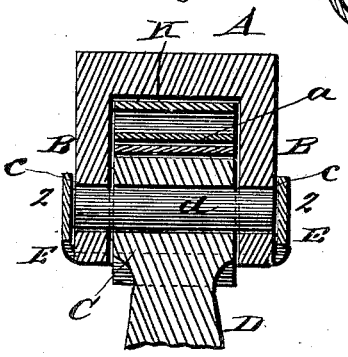


Fig. 3.



WITNESSES

Phillellasi.

E. H. Bates

INVENTOR

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UNITED STATES PATENT OFFICE.

AARON B. PERINE, OF TOPEKA, KANSAS.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 306,347, dated October 7, 1884.

Application filed June 12, 1884. (No model.)

To all whom it may concern:

Be it known that I, AARON B. PERINE, a citizen of the United States, residing at Topeka, in the county of Shawnee and State of Kansas, have invented certain new and useful Improvements in Thill-Couplings; and I do declare the following to be a full, clear, and exact description of the invention, 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, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a plan view of my device with the thill detached. Fig. 2 is a vertical sectional view of the same, and Fig. 3 is a transverse sectional view.

This invention has relation to spring-steel anti-rattlers for shaft-couplings; and it consists in the construction and novel arrangement of devices, as hereinafter set forth, and pointed out in the appended claims.

In the accompanying drawings, the letter A designates the shackle-clip, which is attached to the axle. This clip has the arms B, which are perforated at *c* for the passage of the headless pivot-pin *d*. A shoulder, *e*, is formed on the shackle where it joins the clip-band *g*, and a shoulder, *h*, is usually formed in the lower back portion of the shackle.

C represents the eye of the thill-iron D.

K represents the spring-steel anti-rattler, which is made, preferably, of a single piece of band-steel, bent in form as hereinafter set forth. First, the end of the steel band is bent to provide an offset, *l*, which engages the shoulder *e* of the shackle-clip, and therein the steel band, seated in the interval between the shackle-arms, descends below said arms in front of the offset *h*, and returning in loop form, as shown at *m*, extends again between the shackle-arms upward. Then the branches of the band are brought to engage one another, as shown at *a*, to form the portion of double thickness, which bears against the back of the eye C of the thill-iron, and operates to prevent the rattling thereof upon the pivot-pin. A rivet, *b*, passed through the doubling *a* below the bearing part, is designed to hold the branches together if the front part should happen to be worn through by the working of the eye of the thill-iron. The front or bearing branch, F, of the double portion of the band descending below the arms of the shackle is bent upward in front, as shown at *v*, and being split in the middle from the point *k*, the lateral arms E thus formed are spread and twisted one-quarter around, as indicated at *w*, so that the terminal portion *z* will fit neatly against the outside surfaces of the arms B of the shackle, covering the apertures *c*, and holding the pivot-pin in position. The front loop branch, F, which is divided to form the guards for the pivot-perforation, holds its position without being affected by the pressure upon the back portion which forms the anti-rattler. This steel-band anti-rattler is effective and durable, is easily manufactured, and readily applied.

Having described this invention, what I claim and desire to secure by Letters Patent, is—

1. The spring-steel-band anti-rattler, having the rear spring loop doubled at *a* to form the spring bearing riveted at *b*, and having the looped front portion split and spread in twisted form to provide the side guards for the pivot-pin, substantially as specified.

2. The combination, with the shackle-clip and thill-iron, of the spring-band doubled at *a* to form the bearing against the eye of the thill-iron looped downward below the arms in rear of said bearing to engage the shackle, and looped downward in front and split to form the guards at the sides of the shackle-arms for the pivot-pin, substantially as specified.

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

AARON B. PERINE.

Witnesses:

T. W. KINCAID,

GEO. A. CALKINS.