H. BEARD.

Anti-Rattling Spring for Thill-Couplings.

No. 196,554 Patented Oct. 30, 1877.

Fig. 1.

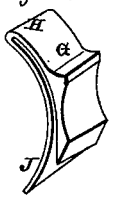


Fig. 2.

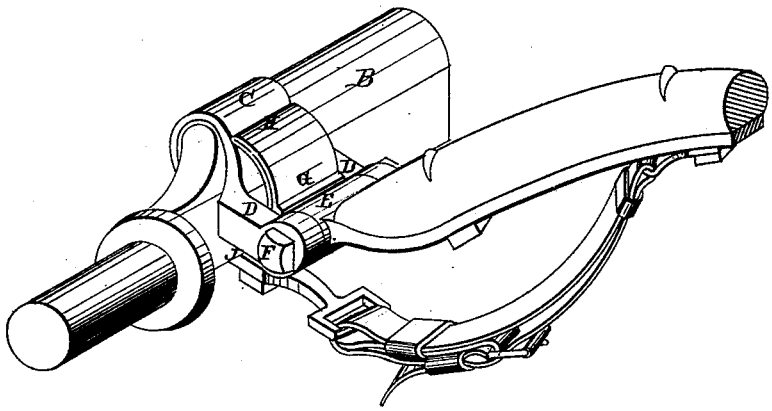
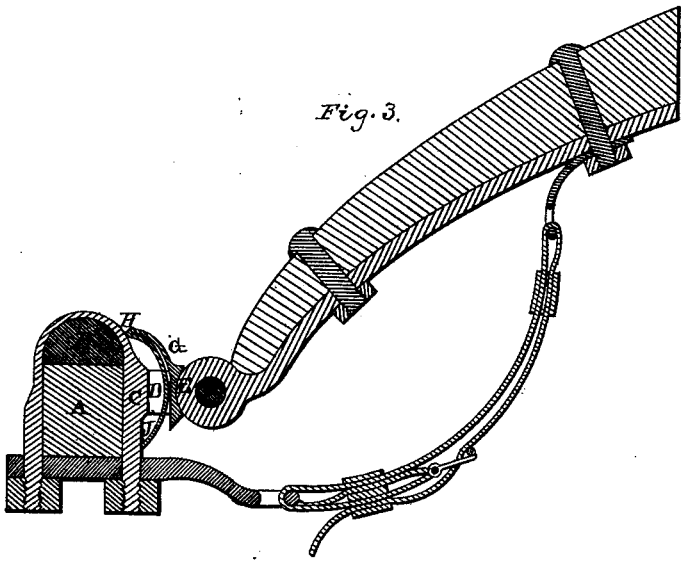


Fig. 3.



WITNESSES.

J. Wm. Garner

H. S. D. Haines

INVENTOR.

Horace Beard

per

F. A. Lehmann,

atty.

UNITED STATES PATENT OFFICE.

HORACE BEARD, OF WILTON, NEW HAMPSHIRE.

IMPROVEMENT IN ANTI-RATTLING SPRINGS FOR THILL-COUPLINGS.

Specification forming part of Letters Patent No. **196,554**, dated October 30, 1877; application filed October 12, 1877.

To all whom it may concern:

Be it known that I, HORACE BEARD, of Wilton, in the county of Hillsborough and State of New Hampshire, have invented certain new and useful Improvements in Springs for Thill-Couplings; and I do hereby 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in thill-coupling springs, and is designed to prevent carriage thills and poles from rattling. It does not require a special coupling for its accommodation, but can be used in couplings of various kinds. It is so constructed that it can be inserted without taking off the safety-strap and without uncoupling the thill—an operation which necessitates the removal of the wheel in order to withdraw the coupling-bolt. The manner of its insertion is peculiar to itself, and gives it a superiority over other coupling-springs.

The following is a description of my invention and of the manner of its insertion, reference being had to the accompanying drawings.

Figure 1 is a perspective view of my invention, which consists of a metallic spring which rises nearly in the form of a half-circle until it reaches the highest point, where it bends abruptly, and is folded downward upon itself along the convex surface until it reaches the place of the greatest swell, where it assumes a wedge-like shape, and has a horizontal concavity across its front. Fig. 2 is a perspective view of a thill-coupling with my invention in position. Fig. 3 is a longitudinal section of the same.

A and B are the axle and bed-piece, around which is the clip C, from which project two arms, D, between which is the eye E, through which passes the bolt F, on which it turns. G is the spring, which is in contact with the clip at H and J, and presses forcibly against the eye E. This pressure keeps the spring in place, and prevents all rattling of the thill.

To insert the spring, its lower end is placed in the opening between the clip and eye, and pressure or percussion upon the top of the wedged-shape portion forces it into position.

Having thus described my invention, I claim—

A metallic spring which rises nearly in the form of a half-circle until it reaches its highest point, where it bends abruptly, and is folded downward upon itself along the convex surface until it reaches the place of the greatest swell, where it assumes a wedge-like shape, and has a horizontal concavity across its front, substantially as shown and described, to be used in the manner and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 5th day of October, 1877.

HORACE BEARD.

Witnesses:
H. W. PUTNAM,
ABRAM A. RAMSEY.