(No Model.)

W. E. MURBARGER.

ANTI-RATTLER SPRING FOR THILL COUPLINGS.

No. 417,072. Patented Dec. 10, 1889.

Fig. 1.

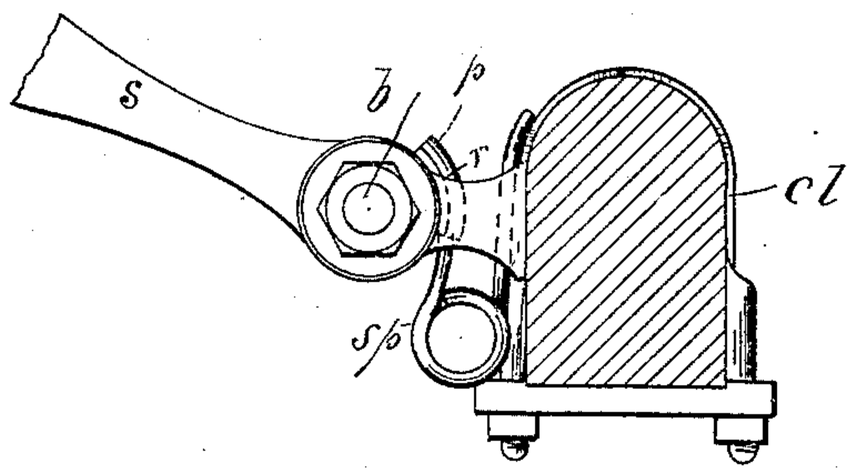
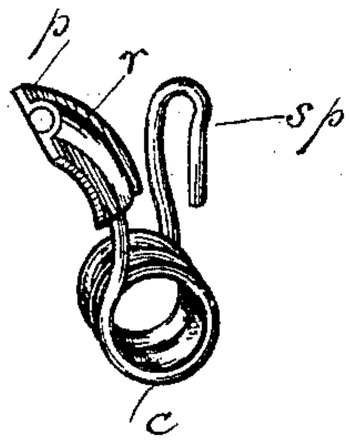


Fig. 2.



WITNESSES.

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WILLIAM E. MURBARGER, OF INDIANAPOLIS, INDIANA.

ANTI-RATTLER SPRING FOR THILL-COUPLINGS.

SPECIFICATION forming part of Letters Patent No. 417,072, dated December 10, 1889.

Application filed September 12, 1889. Serial No. 323,784. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. MURBARGER, of Indianapolis, county of Marion, and State of Indiana, have invented certain new and useful Improvements in Anti-Rattler Coupling-Springs; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like letters refer to like parts.

My invention relates to the construction of anti-rattling springs for thill-couplings, and will be understood from the following description.

In the drawings, Figure 1 is a side view of my spring in place, the axle being shown in cross-section. Fig. 2 is a perspective view of the spring detached.

The spring consists of a single coil of wire, one end upturned to form a loop *l* for bearing against the back of the clip, and the end forming this loop is bent to one side, so as to bring the center of the loop above the center of the coil of the spring. The other end of the coiled wire is turned up and bent forward and carries a concave plate *p*, which has a rib *r* to receive the end of the wire, and this end is bent to one side, so as to bring the rib *r* back in line with the center of the loop formed at the other end of the wire, so that when pressed together the rib will pass between the bars of the loop, making the device more closely compressible, so as to take up less room, and adapt it for use in couplings where there is little space left between the eye of the shaft-iron and the back of the clip. The plate *p*, carried upon the free end of the wire, is preferably formed concave on its inner face, so as to bear more closely at all points against the eye of the shaft-iron.

My spring therefore consists of a single piece of wire with a single coil, one free end forming a loop for the back bearing and the other free end carrying a plate for the front bearing. It is less expensive to make than where two coils are used and takes up much less room when set in position, while at the same time the bearing is directly centered over the single coil that composes the spring, the arms of the wire being bent in opposite directions, as hereinbefore mentioned.

I am aware that wire springs have been used as anti-rattlers in thill-couplings; but in all of these the spring is composed of double coils, some carrying a loose plate and others having T ends formed on the flattened wire; but all of these are objectionable, as a double coil makes the spring too large, requires an unnecessary amount of wire, adding considerably to the expense and taking up so much room that they cannot be used in couplings where there is little space left between the shaft-iron and the back of the clip. By the peculiar construction of my device I am enabled with a single coil to accomplish a new and better result than has been before accomplished with double coils of wire.

I do not broadly claim, therefore, the use of a coiled wire as an anti-rattler spring for thill-couplings; but I am not aware that any spring has been heretofore used composed of a single coil of wire having a plate carried upon one of its free upturned ends for bearing against the shaft-iron, while the opposite upturned end forms a bearing for the back of the clip.

While the loop at the back of the spring is preferable, yet it could be used without, provided the rear end is extended up and backward to form a bearing against the back of the clip.

What I claim as my invention, and desire to secure by Letters Patent, is the following:

1. An anti-rattler spring for thill-couplings, comprising a single coil of wire having arms on the opposite sides of such spring, one of such arms extending upward and backward, forming a loop and having a bearing against the clip, the other extending upward and forward and carrying a plate for bearing against the shaft-iron, substantially as shown and described.

2. An anti-rattler spring for thill-couplings, composed of a single coil of wire, the rear end upturned to form a loop for bearing against the back of the clip, its front and

free end extended upward and forward and carrying a plate for bearing against the shaft-iron, the free ends of the wire bent in opposite directions, so as to bring the forward plate-carrying end in line with the center of the loop at the other end, substantially as shown and described.

In witness whereof I have hereunto set my hand this 4th day of September, 1889.

WILLIAM E. MURBARGER.

Witnesses:
C. P. JACOBS,
E. B. GRIFFITH.