

(No Model.)

W. E. MURBARGER.

ANTI RATTLER FOR THILL COUPLINGS.

No. 344,786.

Patented June 29, 1886.

Fig. 1.

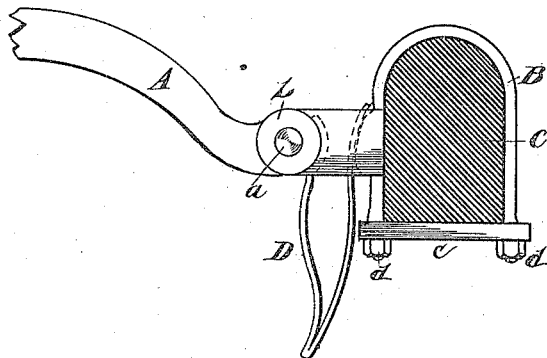


Fig. 2.

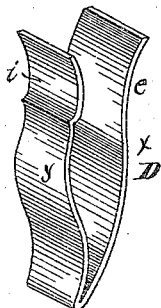
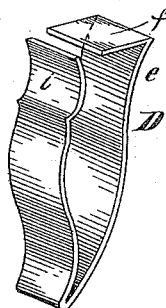


Fig. 3.



Att set

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UNITED STATES PATENT OFFICE.

WILLIAM E. MURBARGER, OF DAYTON, OHIO.

ANTI-RATTLER FOR THILL-COUPPLINGS.

SPECIFICATION forming part of Letters Patent No. 344,786, dated June 29, 1886.

Application filed November 16, 1885. Serial No. 182,976. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. MURBARGER, a resident of Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Anti-Rattlers for Thill-Couplings, of which the following is a specification.

The object of my invention is, first, to provide an anti-rattler spring which can be readily inserted and taken out of the space between the thill and axle without removing the thill.

Another object of my invention is to provide a spring, the arms of which have reverse curves upon them fitting and engaging with the clip of the axle upon one side and the curve of the end of the thill upon the other, so as to be held in place by the tension of the spring.

Other objects of my invention are, to produce a cheaper and better device than those hitherto employed for this purpose, all of which will be fully set forth in the description of the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side elevation of my improvement attached to the thill and axle; Fig. 2, a perspective view of the spring shown in Fig. 1; Fig. 3, a perspective view of a modification of the same.

A represents the thill; *a*, the hinge-bolt; *b*, the ear of the jack-clip; B, the strap of the clip; C, the axle; *c*, a clamp-bar; *d*, the nuts for securing the same to the axle. These parts are made of any well-known form of construction.

D represents a spring, which is preferably made of leaf-steel.

e represents a concave formed in the back arm of the spring, and *i* a concave formed in the front arm of the spring. These curves or concaves are made to conform to the shape of the curved portion of the clip and of the heel of the thill, respectively, and the tension of the spring is adjusted so that it forces these arms apart and holds them firmly against their bearing-abutments on the front and rear arms.

The arms of the spring are made, preferably, with an abrupt bend at the lower end, and preferably curved to the front, for two purposes: first, to increase the tension of the spring; second, to obtain a pointed end which can readily be inserted into the space between the thill and clip and be driven down into

the position shown in Fig. 1. The distance between the lines *x y* being greater than the space between the thill and clip prevents the spring from jumping out, and the two arms can be compressed sufficiently to allow it to pass into its place.

A V-shaped spring having the reverse curves *e i* at its upper end will accomplish one of the objects of my invention—to wit, that of being readily inserted in position by driving in; but the point will be likely to catch upon the bar *c*. By curving or bending the point of the spring forward this difficulty is avoided. This spring, however, may be inserted from the bottom by compressing the arms sufficiently to allow the extreme points to be inserted up through the space; but it is not as convenient as insertion from the top.

I do not wish to limit the first and second clauses of claim herein to the spring made from sheet or leaf metal, as other spring material with the same reverse-curved arms could be substituted and perform a part of the objects of my invention.

The spring shown in Fig. 3 is the same as that shown in Fig. 2, except it has a cap, *f*, projecting from one of the arms of the spring toward the other arm, the free end being slightly raised above it, so as to allow the spring to be compressed sufficiently to insert it into its place. This cap serves only the purpose of filling the space to prevent dirt from dropping in between the arms of the spring.

Having thus described my invention, what I claim is—

1. An anti-rattler spring of V form, having arms provided with reverse curves *e i* at their ends, and with extended or convex portions *x y* between the V-point and reverse curves, the space between said convexities being greater than the space between the jack-clip and thill-heel, substantially as described.

2. An anti-rattler spring of V form, provided with two arms having reverse curves *e i* at their free ends, and with its lower end bent abruptly and curved forward, substantially as described.

In testimony whereof I have hereunto set my hand.

WILLIAM E. MURBARGER.

Witnesses:

JAMES CAMPBELL,
E. E. MOORE.