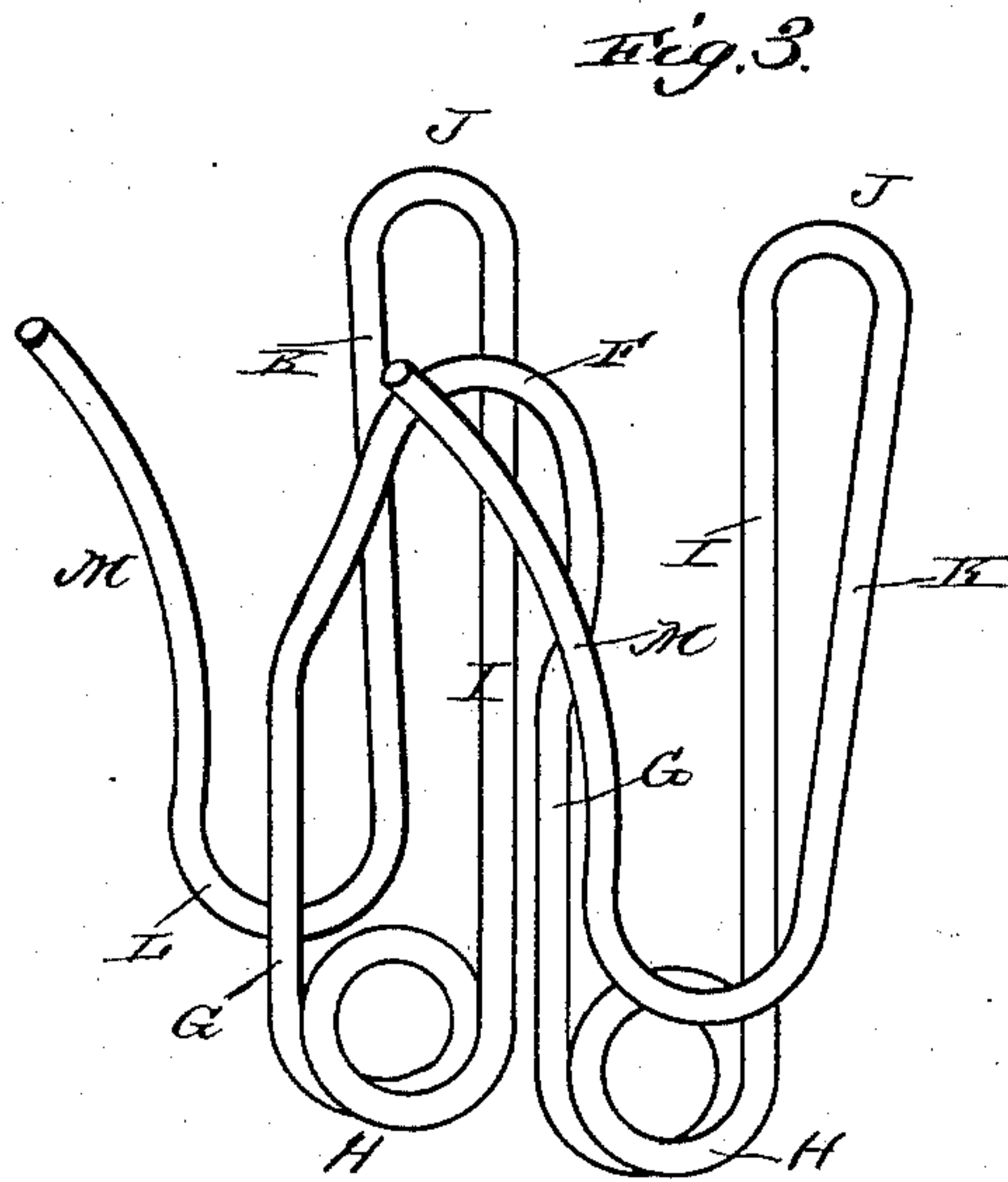
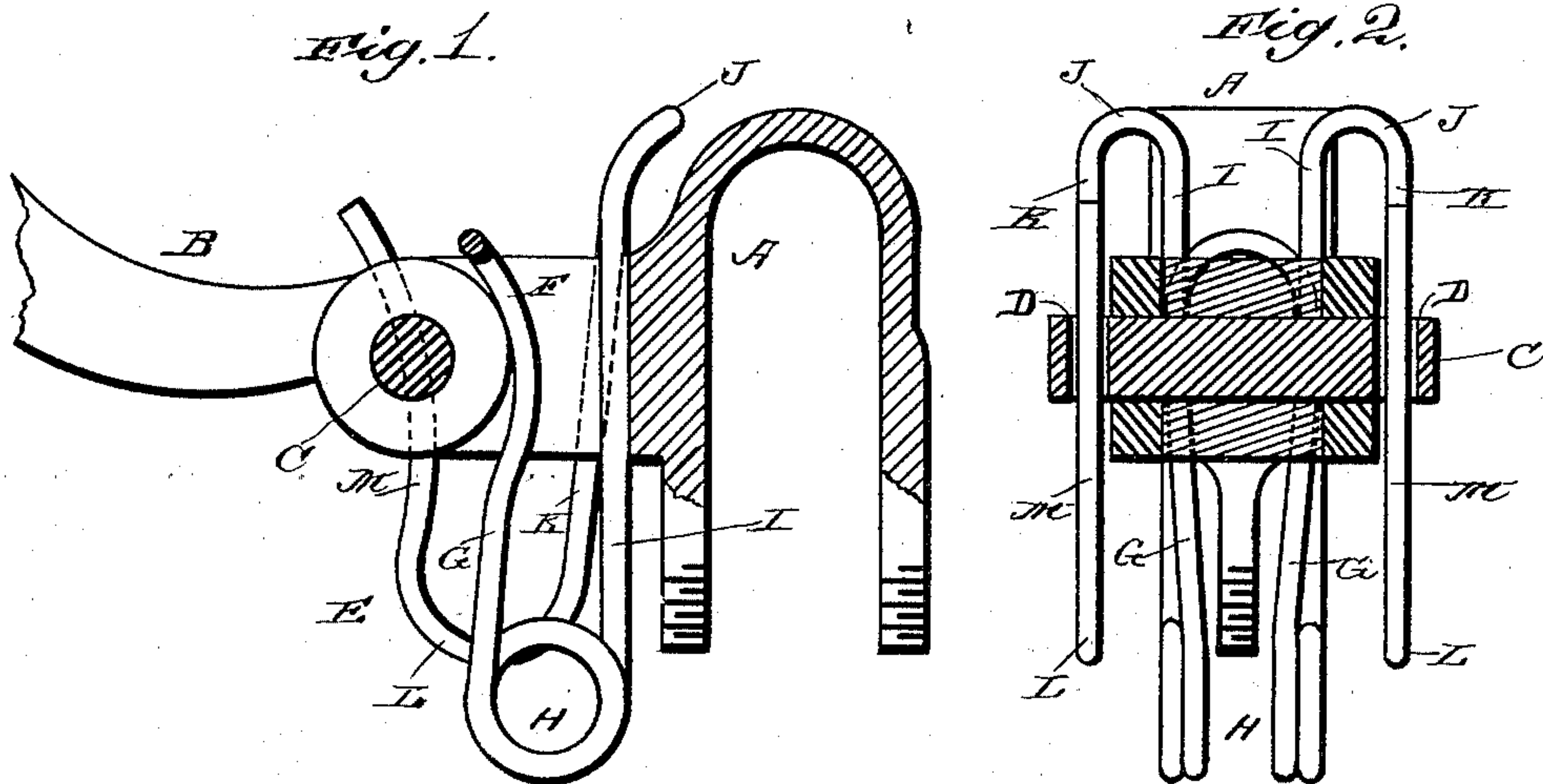


(No Model.)

A. B. PERINE.  
THILL COUPLING.

No. 324,725.

Patented Aug. 18, 1885.



WITNESSES  
*E. H. Bates*  
*P. L. Mas*

INVENTOR  
*A. B. Perine*  
*by Anderson & Smith*  
*his* ATTORNEYS

# UNITED STATES PATENT OFFICE.

AARON B. PERINE, OF TOPEKA, KANSAS.

## THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 324,725, dated August 18, 1885.

Application filed February 19, 1885. (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 vertical sectional view of my device. Fig. 2 is a cross-sectional view of the same, and Fig. 3 is a perspective view.

This invention has relation to improvements in thill-couplings; and it consists in the construction and novel arrangement of devices, all as hereinafter fully explained, and particularly pointed out in the appended claims.

Referring by letters to the accompanying drawings, A designates the shackle, and B is the thill-iron, both of which are of the usual construction, and C is the coupling-bolt, made without a head and provided at each end with perforations D, adapted to receive the securing ends of the spring anti-rattler hereinafter described.

E indicates the combined anti-rattler and bolt-securer, consisting of a single piece of spring-wire. The central portion, F, of this wire is bent upward in loop form and bears against the eye of the thill-iron. The branches G of this loop are extended downward and are formed into coil-springs H, and the branches I continue therefrom, running upwardly parallel to the branches G, and are at J outwardly and downwardly bent to form lateral branches K, these being at their lower portions bent forward and upward, as at L, the terminal ends or branches M being curved forwardly and adapted to pass through the perforations in the bolt, thus securing the latter in position.

If desirable, one end of the bolt may be headed and one of the lateral branches dispensed with, the result, however, remaining the same.

It will be seen that the branches G of the spring anti-rattler bear against the clip, while the central loop portion has its bearing against the rear portion of the thill-iron, and serves to prevent the bolt from rattling in the eye of said thill-iron.

The curved lateral spring branches not only securely hold the bolt in position, but also press the same forward in the clip-bearings. It will be seen that the outward bend at J is at a sufficient height from the central portion to allow the branches I to be placed in the shackle and the thill eye and bolt put in position before the loop F and spring have been adjusted, thus allowing the tension of the spring to be removed from the thill-eye before the bolt is taken out, and also permitting the joints or ends of the wire to enter the holes in the bolts before the spring has been adjusted.

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

The improved spring anti-rattler herein described, consisting of a single piece of wire bent upwardly to form a central loop, F, the lower ends of the branches of which are provided with coils H H, from which rise vertically lateral loops K K, and the free arms M of these loops rise upwardly and slightly curve forward to pass through perforations in the opposite ends of the securing-bolt C, the whole constructed and adapted to serve in a thill-coupling substantially as set forth.

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

AARON B. PERINE.

Witnesses:

S. BARNUM,  
HENRY WASHINGTON.