

(No Model.)

C. L. GOEHRING.

THILL COUPLING.

No. 360,771.

Patented Apr. 5, 1887.

Fig. 1.

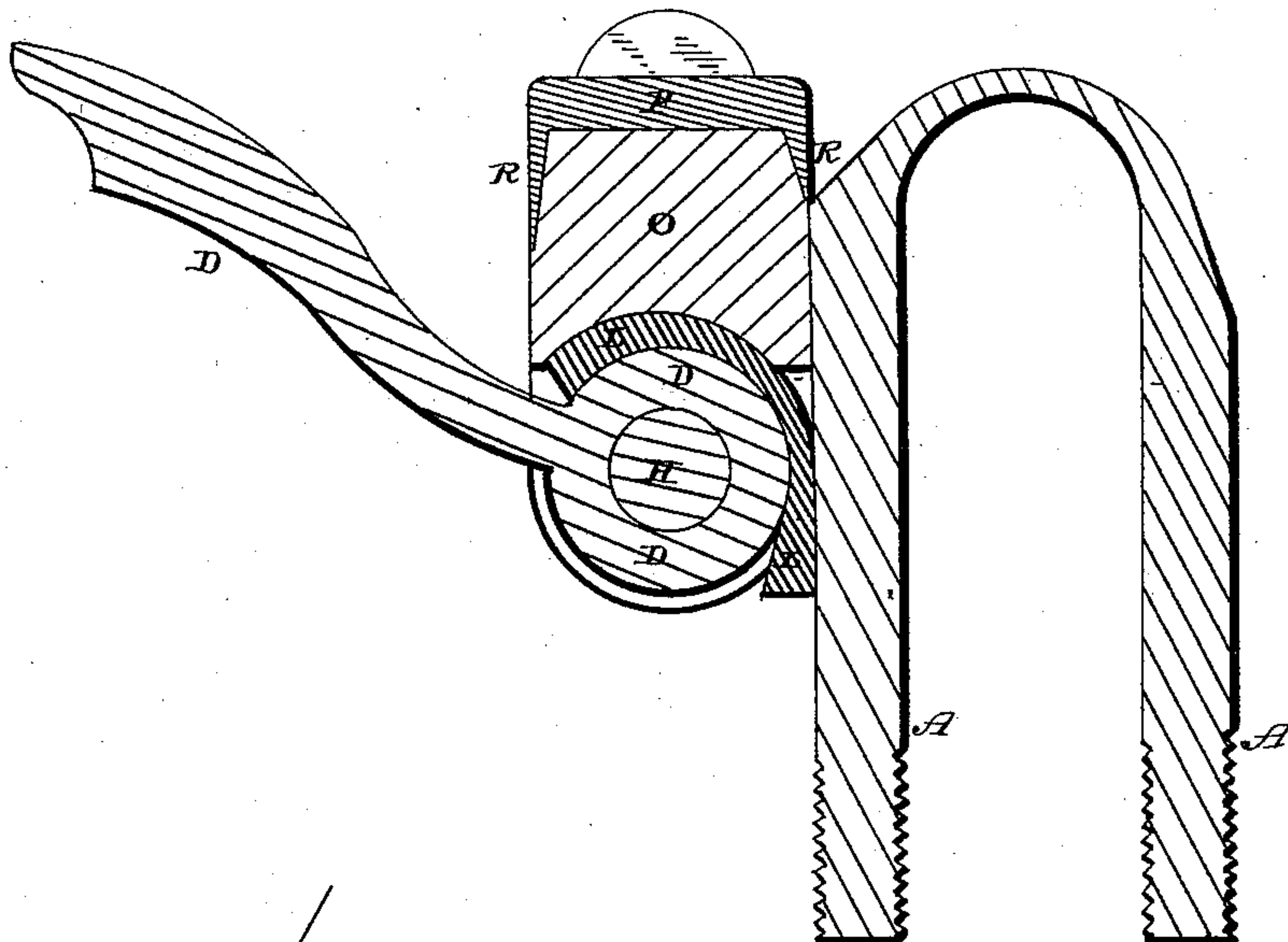
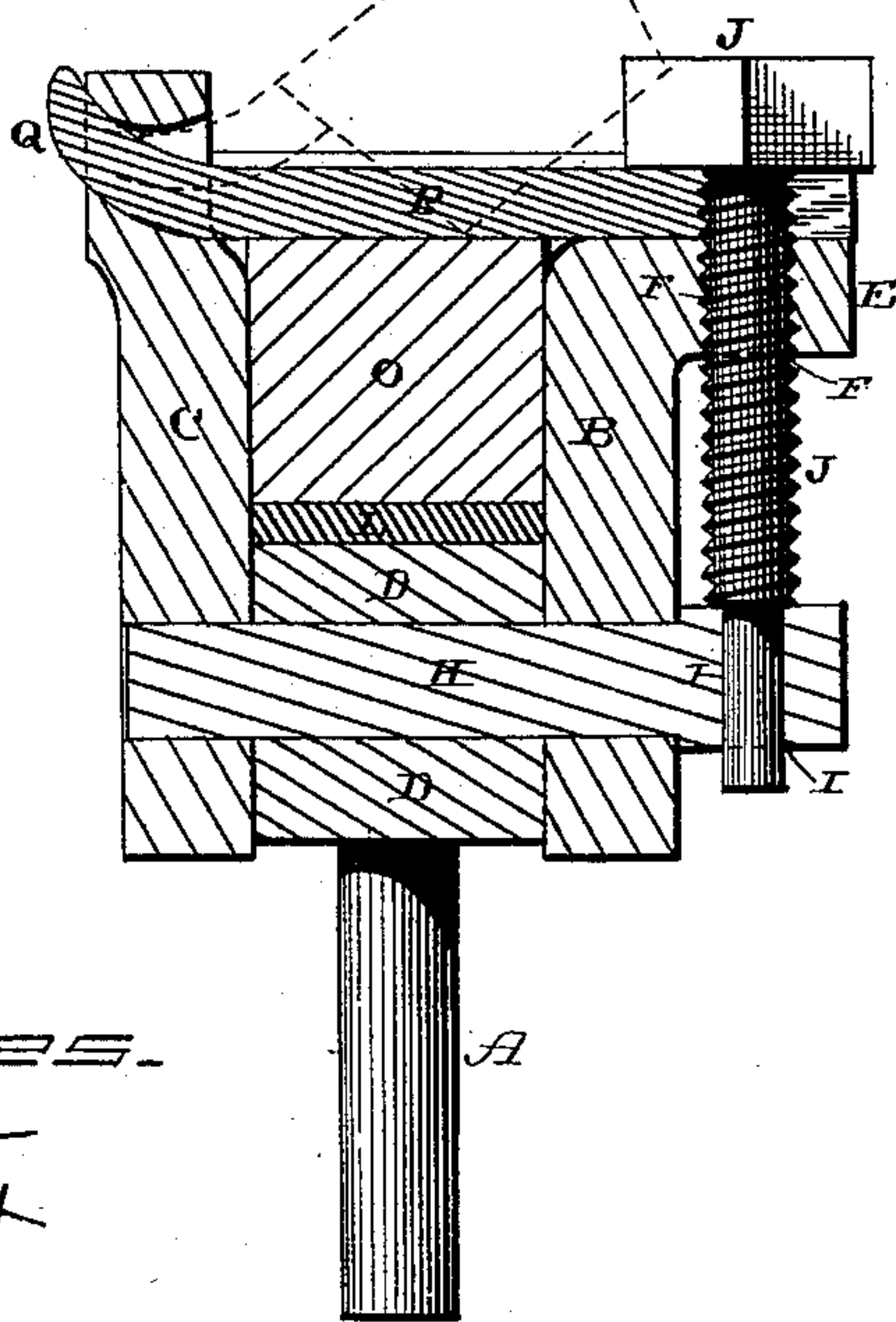


Fig. 2.



WITNESSES.
L. F. Gardner
A. W. Bucht

Inventor
C. L. Goehring,
per J. A. Lehmann, atty.

UNITED STATES PATENT OFFICE.

CHARLES L. GOEHRING, OF ALLEGHENY, PENNSYLVANIA.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 360,771, dated April 5, 1887.

Application filed November 20, 1886. Serial No. 219,510. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. GOEHRING, of Allegheny, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in 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-couplings; and it consists in the combination of the clip and the two parts which form the shackle with the thill-iron, the bolt which passes through both the shackle and the thill-iron, suitable devices for preventing rattling, a clamping device for compressing the anti-rattling device upon the thill-iron, a tightening-bolt which passes down through the clamping device and one of the parts of the shackle, and the bolt which passes through the shackle and the thill-iron, all of which will be more fully described hereinafter.

The object of my invention is to provide a thill-coupling for vehicles in which the same screw-bolt which compresses the anti-rattling device upon the top of the thill-iron shall also lock in position the pivotal bolt or rod upon which the thill-iron turns, to produce a coupling in which the parts are few, simple, and reliable in every way.

Figures 1 and 2 are vertical sections taken at right angles to each other.

A represents an ordinary clip, and B C the two ears which form the shackle, between which the thill-iron D is held. Both of these ears project a suitable distance forward in front of the clip in the usual manner, and the upper end of the ear B is turned outward at right angles, so as to form the shoulder E, through which is made a screw-threaded opening, F. The upper portion of the ear C projects upward to any desired distance and has a smooth opening made through it. Each of the ears has a smooth opening made through its lower portion, and passing through these two ears and the thill-iron is a smooth bolt, H, which forms the pivot upon which the thill-iron turns. The outer end of this bolt is en-

larged, and through it is made a smooth opening, I, through which passes the lower end of the clamping-screw J, for the purpose of both holding the bolt in position and preventing its working out and from turning around in its bearing, and thus causing any unnecessary wear.

Placed upon the top of the thill-iron, and in between the two ears B C, is a leather washer, L, which serves to prevent the turning movement of the thill-iron from wearing or injuring the block of rubber O. This leather washer is cut out at its center, so as to make it thickest at its ends, and these thickened ends serve to hold and retain the washer in position, so that it will not work loose and drop out. The piece of gum or rubber which is placed upon the top of the leather washer is held in position by means of the clamping-plate P, which has a prong or projection, Q, at one end to pass through the opening in the upper end of the ear C and an opening in its other end for the clamping-screw J to pass through. This clamping-plate is provided with flanges R, which catch upon opposite sides of the piece of rubber, and thus hold it securely in place. When this clamping-plate is first put in position, and before the screw J is tightened in place, the plate projects upward at the end through which the clamping-screw passes, and in proportion as this screw is turned downward the clamping-plate is brought into a horizontal position. The screw-threaded portion of the bolt passes through the shoulder on the ear B, while its smooth lower end passes through the pivotal bolt, and thus both holds the bolt in position and prevents it from turning around. In proportion as the clamping-plate is forced downward into a horizontal position, so the leather washer and the block of rubber which form the anti-rattling devices are compressed upon the top of the thill-iron, and thus preventing the slightest rattling noise while the vehicle is in motion.

It will be noticed that the screw performs the threefold function of clamping the anti-rattling device upon the thill-iron, holds the clamping-plate in position, and prevents the pivotal bolt from having any movement whatever after it is once fastened in position. The

upward pressure of the rubber prevents this bolt working loose, and as long as it is in position it is absolutely impossible for the pivotal bolt to become displaced.

5 Having thus described my invention, I claim—

10 1. In a thill coupling, the combination of the clip, the two ears which are secured thereto, one of the ears being turned outward at its upper end, so as to form a shoulder, the thill-iron, the pivotal bolt upon which the iron turns, the anti-rattling devices, the clamping-plate, and the screw-bolt, substantially as shown.

15 2. In a thill-coupling, the combination of the perforated ears, one of which has a shoulder formed upon its upper end, the anti-rattling devices, the clamping-plate, the screw-bolt, which is smooth upon its lower end, and

the perforated pivotal bolt upon which the thill-iron turns, substantially as described.

3. In a thill-coupling, the combination of the ear B, having its upper end turned outward, so as to form a shoulder, through which is made a screw-threaded opening, the ear C, 25 having a perforation through its upper end, the clamping-plate, which has a prong at one end and an opening at the other, and which bears upon the top of the block of rubber, the screw-bolt, and the perforated pivotal rod which 30 passes through both of the ears and the thill-iron, substantially as set forth.

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

C. L. GOEHRING.

Witnesses:

JAMES G. WYMAN,

JOHN MILBY.