

F. NORRIS.
Thill-Couplings.

No. 147,964.

Patented Feb. 24, 1874.

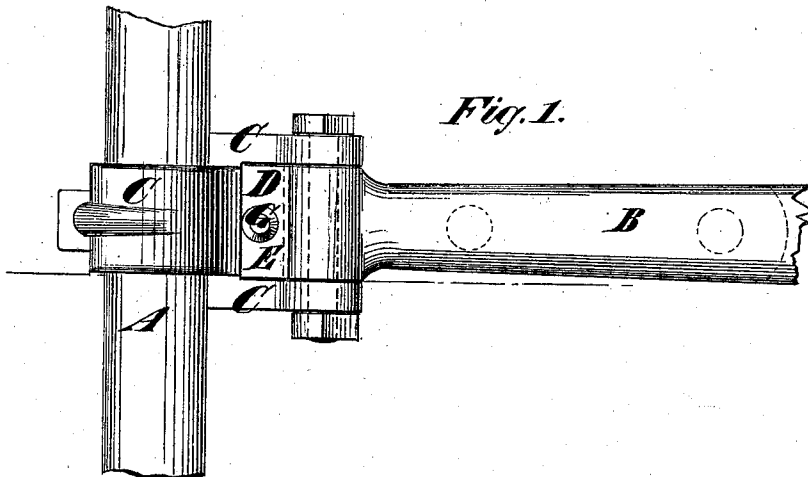


Fig. 1.

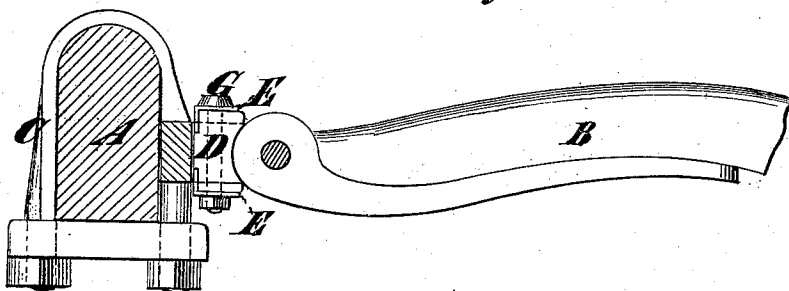
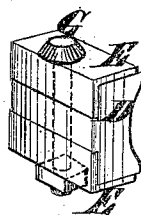


Fig. 2.

Fig. 3.



Witnesses.

John Becker
J. C. Hays

F. Norris
by his Attorneys
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UNITED STATES PATENT OFFICE.

FREDERICK NORRIS, OF WAPPINGER'S FALLS, NEW YORK, ASSIGNOR OF
ONE-HALF HIS RIGHT TO CLAYTON E. SWEET, OF SAME PLACE.

IMPROVEMENT IN THILL-COUPPLINGS.

Specification forming part of Letters Patent No. **147,964**, dated February 24, 1874; application filed
January 10, 1874.

To all whom it may concern:

Be it known that I, FREDERICK NORRIS, of Wappinger's Falls, in the county of Dutchess and State of New York, have invented an Anti-Rattling Device to be Applied to Thill-Couplings, of which the following is a specification:

This invention consists in a device intended to be applied to the ordinary thill-coupling now in common use, for the purpose of preventing the rattling of the shafts or thills therein, and obviating the wear consequently occasioned. Such device is composed of a block of india-rubber, shaped in front to conform to the rounded end of the thill, two caps or plates fitted to its top and bottom and lapping over its back edges, and a bolt or screw extending through the block from one to the other of the aforesaid plates, whereby provision is afforded for squeezing the block transversely to expand it in the direction of the thill, thereby to cause it to press against it and prevent rattling.

The great merit of this device is that the contrivances which expand it are all a part of it, and are entirely independent of the coupling to which it is applied.

Figure 1 in the accompanying drawing is a top view of an ordinary thill-coupling having applied to it the anti-rattling device which is the subject of this invention. Fig. 2 is a sectional side view of the same, and Fig. 3 is a perspective view of the anti-rattler detached from the coupling.

Similar letters of reference indicate corresponding parts in all the figures.

A represents the fore axle of a wagon or other vehicle; B, one of the thills thereof, and C the coupling connecting it thereto. I desire to call special attention to the coupling being of the form in common use, without any adaptation whatever to suit the anti-rattling device. It consists merely of a jack-clip, which embraces the axle, and has on its front two lugs that receive the end of the thill, and likewise receive the bolt which secures it in place. There is always in these couplings, in rear of the thill, a small space, as may be seen in Fig. 1, affording ample room for the anti-rattling device, which I now purpose to describe. It consists of a block, D, of india-rubber or other elastic material, made preferably of rectangu-

lar form, with its front hollowed out to adapt it to fit snugly against the rounded end of the thill. Plates E E fit on the upper and lower sides of this block, and, lapping over its back edges, afford a means of clamping or squeezing the block in the direction of their faces, through the medium of a screw or bolt, G, to cause its hollow front to impinge against the end of the thill and prevent it from rattling. Whenever the rubber, after the lapse of time, has become contracted, so that it fails to act on the thill, a turn of the nut on the bolt, or a turn of the screw when a screw is used, will draw the plates E E toward each other and squeeze the rubber, so that it will be expanded against the thill again.

It will be noticed that the bolt is arranged nearer the rear side of the rubber than its fore side. Owing to this it exerts a tendency to throw out the fore side rather than the rear side, when it is caused to squeeze the rubber. On account of this provision for repeatedly expanding the rubber it will remain serviceable for a very long time, for, indeed, it will only need renewing when it can no longer be expanded to impinge against the thills.

To facilitate the insertion of the device in a coupling, its bolt or screw is loosened to permit the rubber to compact laterally, whereby it is made much narrower, and this also will be done to facilitate its removal.

The great merit of this device is that the contrivances which produce its expansion are all contained in itself, and are nowise dependent on the construction of the coupling; wherefore it is admirably adapted to the common couplings, and can be applied to those already in use. The neatness of the device is manifest in the drawing, and therefore will need no comment here.

What I claim as my invention is—

In combination with the elastic block D, the independent angle-shaped face-plates E E, connected with the block by the compressing-bolt G, substantially as and for the purpose specified.

FREDK. NORRIS.

Witnesses:

MICHAEL RYAN,
FRED. HAYNES.