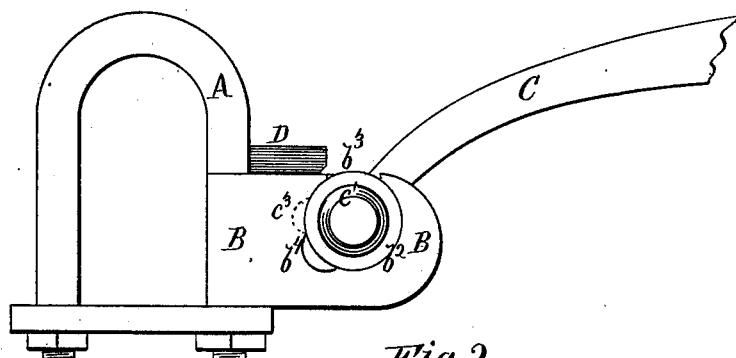


H. W. WILSON & A. GANDY.  
Thill-Coupling.

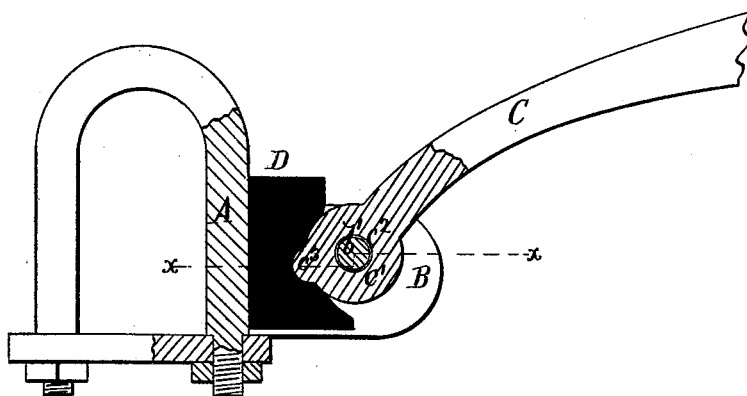
No. 220,456.

Patented Oct. 7, 1879.

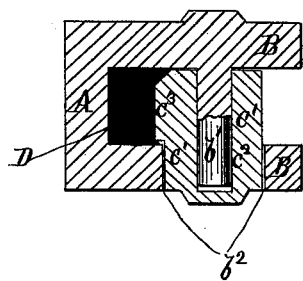
*Fig. 1.*



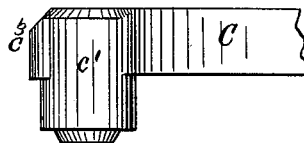
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



WITNESSES:

*Henry N. Miller*  
*C. Sedgwick*

INVENTOR:

*H. W. Wilson*  
*A. Gandy*  
BY *Mulm Ho*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

HENRY W. WILSON AND ALONZO GANDY, OF FREEPORT, OHIO.

## IMPROVEMENT IN THILL-COUPPLINGS.

Specification forming part of Letters Patent No. **220,456**, dated October 7, 1879; application filed August 4, 1879.

### *To all whom it may concern:*

Be it known that we, HENRY W. WILSON and ALONZO GANDY, of Freeport, in the county of Harrison and State of Ohio, have invented a new and useful Improvement in Anti-Rattling Thill-Couplings, of which the following is a specification.

Figure 1 is a side view of one improved thill-coupling. Fig. 2 is a vertical section of the same. Fig. 3 is a horizontal section of the same, taken through the line *xx*, Fig. 2. Fig. 4 is a detail view of the roller or head of the thill-iron.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved thill-coupling which shall be simple in construction, neat in appearance, strong, and durable, which will allow the thills to be readily attached and detached, and which will prevent any noise or rattling when in use.

The invention consists in a thill-coupling formed by the combination of the jaws provided with the pin, the hole, the slot, and the notch, the roller provided with the socket and the projection, and the rubber block, with each other and with the axle-clip and the thill-iron, as hereinafter fully described.

A represents the axle-clip, which is made and secured to the axle in the usual way. Upon the forward arm of the clip A are formed two jaws, B, upon the inner side of one of which is formed a pin, *b*<sup>1</sup>, which is made of such a length as to project through or nearly through a hole, *b*<sup>2</sup>, formed in the other jaw.

The hole *b*<sup>2</sup> is made of such a size as to allow the roller or cylindrical head *c*<sup>1</sup>, formed upon the end of the thill-iron C, to pass through it, the shank or neck of the said thill-iron passing through a slot, *b*<sup>3</sup>, leading from the upper edge of the jaw B down to the hole *b*<sup>2</sup>.

The slot *b*<sup>3</sup> is so formed that the roller *c*<sup>1</sup> can be passed into and out of the jaws B only when the thills are raised into an upright position.

The inner end of the roller *c*<sup>1</sup> is made flush with the side of the thill-iron C, and its other end projects so as to pass through the hole *b*<sup>2</sup> of the jaw B and be flush with the outer surface of the said jaw.

In the inner end of the roller *c*<sup>1</sup> is formed a

perforation or socket, *c*<sup>2</sup>, of such a size and depth as to receive and fit upon the pin *b*<sup>1</sup>.

Upon the side of the part of the roller *c*<sup>1</sup> that is between the jaws B is formed a projection, tooth, or rib, *c*<sup>3</sup>, in such a position that when the thills are raised into an upright position to attach or detach them, the said projection *c*<sup>3</sup> will be opposite, and can pass through a notch, *b*<sup>4</sup>, formed in the jaw B at the side of the hole *b*<sup>2</sup>, and can move across the forward side of the rubber block D, placed in the inner part of the space between the jaws B.

With this construction, as the thills are moved down into position for use, the projection *c*<sup>3</sup> will be pressed more and more tightly against the rubber block D, so that all rattling will be prevented.

The inner end of the roller *c*<sup>1</sup> and of the projection *c*<sup>3</sup> are beveled, so that they may slip past the rubber block D easily when being inserted, and so that the rubber may fit around them snugly.

Should the rubber block D wear, it may be readily replaced by a new one; or a thin strip of leather, wood, or other material may be slipped in at its inner side.

The outer side of the jaw B, upon the inner side of which the pin *b*<sup>1</sup> is formed, and the outer or projecting end of the roller *c*<sup>1</sup>, may be so formed as to represent bolt-heads, to give a finish to the coupling.

We are aware that it is not new in thill-couplings to employ an extension for holding up the shafts or pole, the same being used without rubber, and consisting of a square notched piece; but our extension bears on the rubber, and could not be used on this class of couplings, because the shaft-heads are slipped sidewise to their place and tighten only when the shafts are brought down.

What we claim as new is—

A thill-coupling formed by the combination of the jaws B, provided with the pins *b*<sup>1</sup>, the hole *b*<sup>2</sup>, the slot *b*<sup>3</sup>, and the notch *b*<sup>4</sup>, the roller *c*<sup>1</sup>, provided with the socket *c*<sup>2</sup> and the projection *c*<sup>3</sup>, and the rubber block D, with each other and with the axle-clip A and the thill-iron C, substantially as herein shown and described.

HENRY W. WILSON.

Witnesses: ALONZO GANDY.

WILLIAM P. HOLLIDAY,

DAVID McMATH.