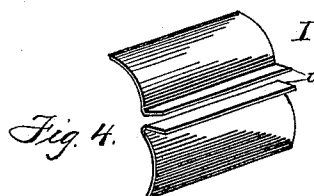
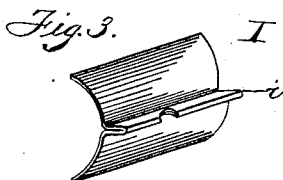
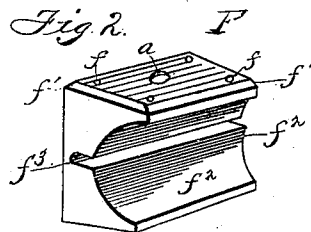
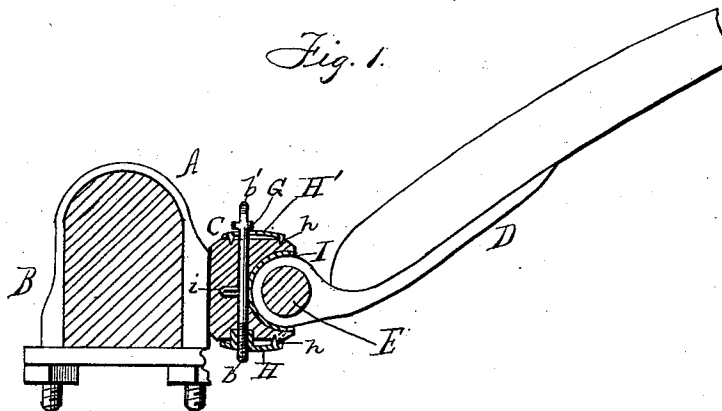


(No Model.)

F. A. WITTICH.
THILL COUPLING.

No. 308,026.

Patented Nov. 11, 1884.



Witnesses:
H. D. Hornhard.
J. P. Reese

Inventor:
Frederick A. Wittich
per *Edson Bros.*
Attorneys

UNITED STATES PATENT OFFICE.

FREDERICK A. WITTICH, OF ASHTABULA, OHIO.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 308,026, dated November 11, 1884.

Application filed May 15, 1884. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK A. WITTICH, a citizen of the United States, residing at Ashtabula, in the county of Ashtabula and State of Ohio, have invented certain new and useful Improvements in Thill-Couplings, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in that class of devices known to the art as "anti-rattlers" for thill-couplings, having for its object the provision of means which shall be simple in construction, effective in operation, and which, when the parts subjected to wear shall have become worn, shall be capable of being easily removed and replaced at slight expense; and the invention consists in the construction, arrangement, and combination of parts, substantially as hereinafter more fully set forth, and particularly pointed out in the claims.

In the drawings which form a part of this specification, Figure 1 is a longitudinal central section of a thill-coupling provided with my improvements. Fig. 2 is a perspective view of the rubber cushion or block. Fig. 3 is a like view of the wear-plate, and Fig. 4 is a modification thereof.

Referring to the drawings, in which like letters of reference indicate like parts in all the figures, A designates a thill-coupling of any preferred or desired construction, the one herein shown being composed of a clip, B, having the outwardly-projecting arms or plates C, between which the thill-iron D fits, and is secured by a transverse bolt, E, passing through the eye of said thill-iron and apertures formed in the arms C of the clip B. A cushion, F, of rubber or like material, is placed between the clip B and thill-iron D, and is held in position by frictional contact with said clip and iron. The cushion F has an aperture, *a*, formed therein in line with its vertical axis, through which passes a bolt, G, having its lower end screw-threaded, as at *b*, and its upper end provided with a thumb-nut, *b'*, or its equivalent. The screw-threaded end of said bolt works in a dish-shaped plate, H, having spurs or teeth *h*, adapted to take into sockets *f*, formed in the cushion F, and the thumb-nut at the upper end of said bolt bears upon a plate of similar shape and construction, H', arranged upon the up-

per surface of the said cushion. If desired, the bolt G may be secured to the lower plate, H, and have screw-threads on its upper end, which are adapted to work in an ordinary nut bearing upon the upper plate, H'. These plates H H' are preferably dish-shaped, so that when they are brought to bear upon the cushion by the bolt G they exert a pressure in a vertical direction at the outer edges thereof only, thereby compressing the outer edges of said cushion inwardly and obviating the unsightly outward bulging of the cushion, as is common in this class of devices. The cushion is further provided with beveled or rounded edges *f'*, to give a neat appearance thereto, and with a concave or rounded face, *f''*, adapted to conform to the eye of the thill-iron. At about the middle of its concave face the cushion has formed therein a recess, *f'''*, which is adapted to receive an extension, *i*, formed with a wear-plate, I, of sheet metal, which is placed between the cushion F and the thill-eye, and adapted to take up the wear which would otherwise come upon the cushion. This plate I is of sheet metal and bent or curved to conform to the shape of the thill-iron. It has an extension, *i*, formed therewith by having a portion of the metal at about the middle thereof bent upon itself, as shown in Fig. 3; or the said plate may be made in two pieces, each piece being concave in form and having a flange. The said extension has an aperture or recess formed therein, through which passes, when the plate is in position against the cushion, the bolt G. When pressure is brought to bear upon the cushion by the plates H H', the wear-plate I will be held against displacement and in its proper relative position by frictional contact therewith.

It will be observed that the wear-plate I covers and protects the rubber cushion from friction and wear, thereby rendering the same more durable, and that when the plates have become useless through usage they can be readily removed and replaced at a slight expense. It will also be observed that the rubber cushion exerts sufficient pressure at all times to prevent rattling of thill-iron, and that the pressure thereof can be adjusted by simply manipulating the thumb-nut.

Modifications in the form and proportion of parts can be made without departing from the

principle or sacrificing the advantages of my invention, the essential features of which have been explained.

5 Having thus fully described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

10 1. The combination, with a clip and thill-iron, of a cushion of rubber having a transverse aperture, and a wear-plate having an extension, substantially as shown and described.

2. In a thill-coupling, the combination of a cushion of rubber having a transverse recess, concave face, and vertical aperture, a wear-

plate concave in form, as described, and constructed of sheet metal, with an extension 15 adapted to fit the transverse recess in the cushion, plates H H', adapted to bear upon the upper and lower surfaces of the cushion, and bolt G, all combined and arranged to operate as set forth. 20

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

FREDERICK A. WITTICH.

Witnesses:

T. E. HOYT,

R. H. PFAFF.