(No Model.)

J. A. KNEEDLER.

THILL COUPLING.

No. 345,148. Patented July 6, 1886.

Fig. 1.

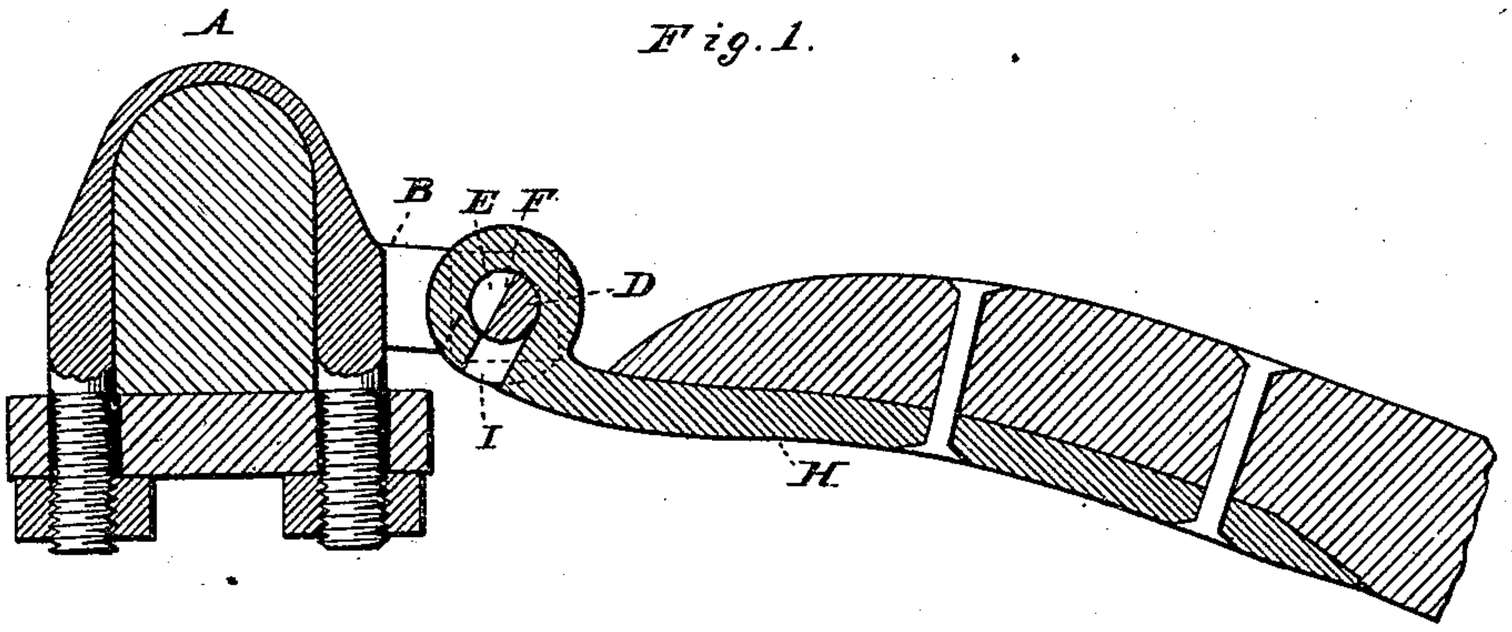


Fig. 2.

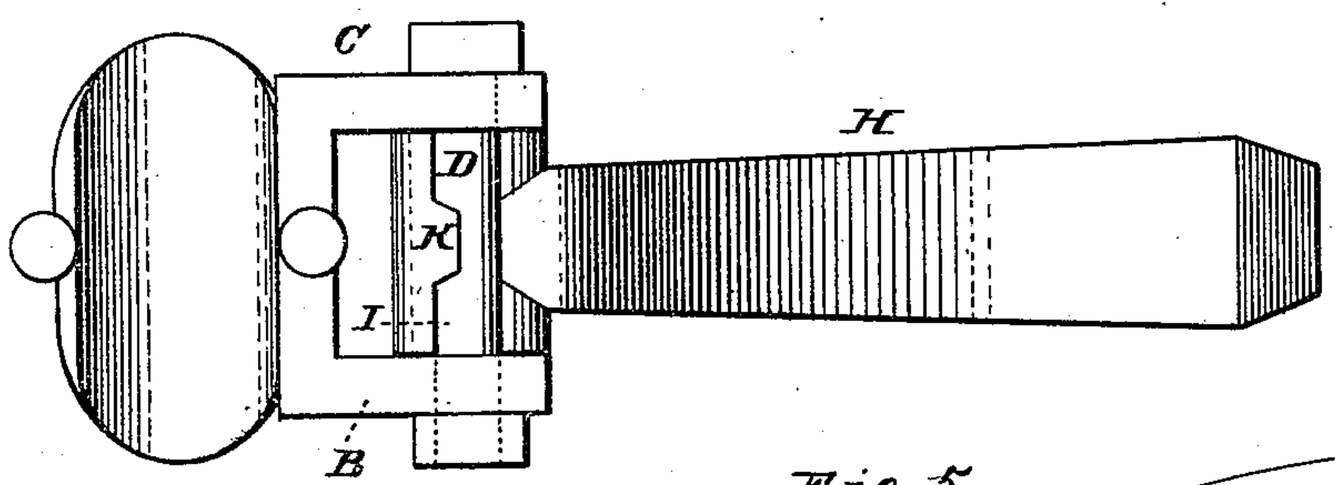


Fig. 5.

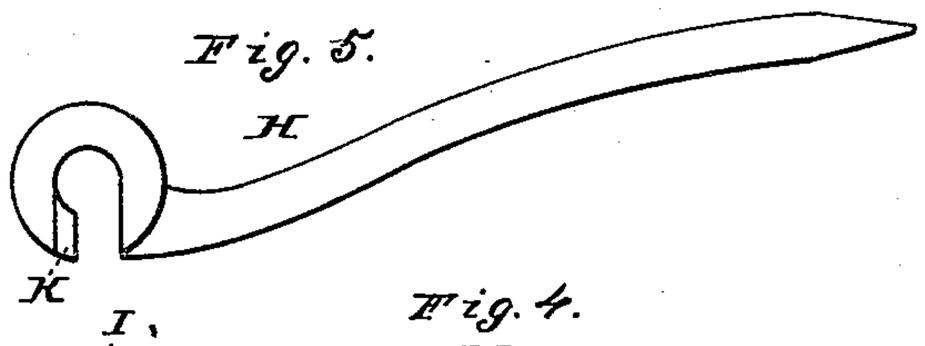


Fig. 3.

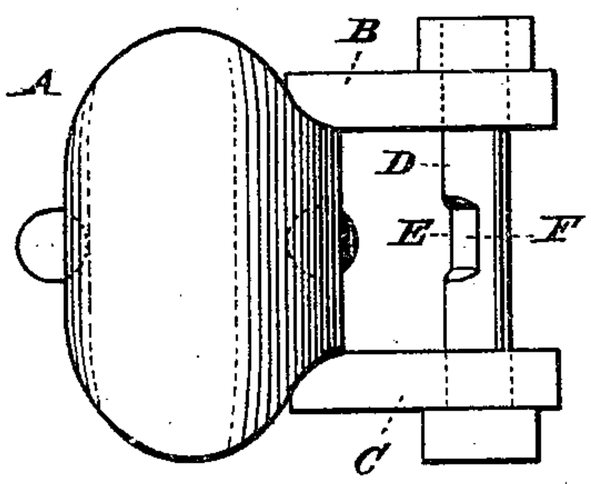
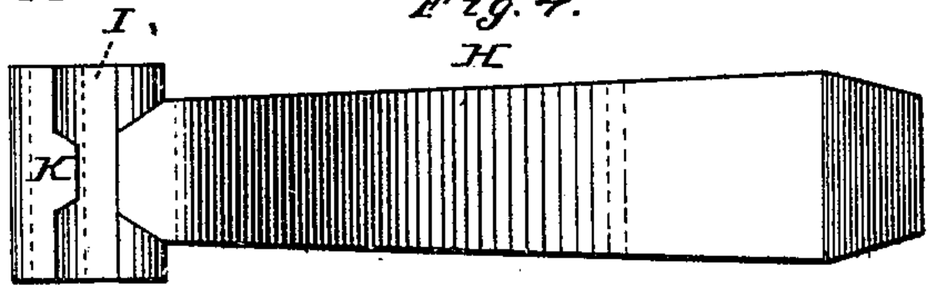


Fig. 4.



WITNESSES

Villette Anderson.
Phil. C. Masi.

INVENTOR

J. A. Kneedler
by Anderson & Smith
his ATTORNEYS

UNITED STATES PATENT OFFICE.

JOHN A. KNEEDLER, OF GRANT, PENNSYLVANIA.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 345,148, dated July 6, 1886.

Application filed October 21, 1885. Serial No. 180,833. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. KNEEDLER, a citizen of the United States, residing at Grant, in the county of Indiana and State of Pennsylvania, 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 representation of this invention, and is a vertical section. Fig. 2 is a bottom view. Fig. 3 is a top view of the clip with the bolt in place. Fig. 4 is a view of the under side of the thill-iron. Fig. 5 is a side view of the same.

My invention relates to thill-couplings; and it consists in the construction and novel arrangement of parts, as will be hereinafter set forth, and pointed out in the claim.

Referring by letter to the accompanying drawings, A designates one of the front axle-clips, which is secured in place in the usual manner, and B C designate the integral lugs extending horizontally forward therefrom. These lugs B C are provided with the usual eyes, in which is rigidly seated the coupling-bolt D, which in this instance is not intended to turn in its seat, nor is it to be removed therefrom in order to detach the thills. At the middle of its length and communicating at the upper horizontal longitudinal middle line of said bolt D is a slightly-elongated notch or depression, E, the ends of which incline inwardly toward the bottom of the notch, and the bottom F inclines from above downwardly and rearwardly or toward the axle-clip. The thill-iron H is open from end to end at I, in what may be properly termed its "lower side," and the rear wall of this elongated opening I is provided with a lug or inwardly-projecting wart, K, at the middle of its length, which wart K can be inserted or entered into the notch E when the points of the thills are at an angle that will permit them to rest upon the floor or upon level ground. The thills may also be detached from the vehicle when at the angle above described, as the notch E and the wart or lug K are then in position to permit their detachment. When, however, the ends of the thills are raised or lifted even slightly above this angle, the wart moves down out of the notch E, and the thills cannot then be detached, as the bolt D then subserves the purpose of a solid round bolt. It will be therefore observed that the thills may be attached and detached without removing the securing-bolts; and, also, that the securing-bolts, being rigidly and permanently fastened to place in the lugs, will not rattle loose nor drop out, so that any accidental detachment of the thills themselves is improbable.

I am aware of the patent granted to W. H. Curtiss, November 24, 1868, No. 84,265, in which the thill-iron is contracted at its mouth by means of a lug adapted to engage a recess in a bolt of the axle-clip and a recess to receive a strip of leather or the like. The recess of the bolt in this patent is perfectly square and the lug has angular corners. A very objectionable feature in the above-named patent is that, the lug being in the forward wall of the mouth of the thill-iron and the recess in the upper side of the bolt, the thills must be raised and tilted in the direction of the vehicle to effect the lock. A further objection lies in the fact that the iron, being recessed, should the leather become worn or lost the rattling and clumsy fitting of the parts would impair the usefulness of the whole device. By the construction I have shown and illustrated these objections are all obviated, and I attach importance to the fact that the lug is beveled and arranged on the inner wall of the mouth of the thill-iron, and also that the recess is on the inner side of the bolt D. I do not, however, wish to be understood as claiming only the devices in the specific construction and combination hereinbefore pointed out.

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

As an improvement in thill-couplings, the

combination, with the clip having the branches B C, of the bolt D, arranged in fixed position between the branches, and provided with the beveled wall recess E on its inner side, and the thill-iron having the beveled lug K on the inside of the outer wall of its eye or mouth, whereby the coupling may be made by depressing the outer ends of the thill, all substantially as shown and described.

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

JOHN A. KNEEDLER.

Witnesses:
H. H. JACOBS,
W. H. BAKER.