T. J. HUBBELL.

THILL-COUPLING.

No. 189,225. Patented April 3, 1877.

Fig. 1.

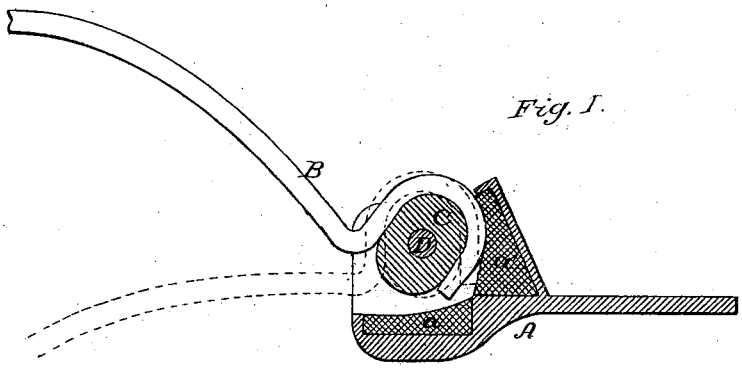
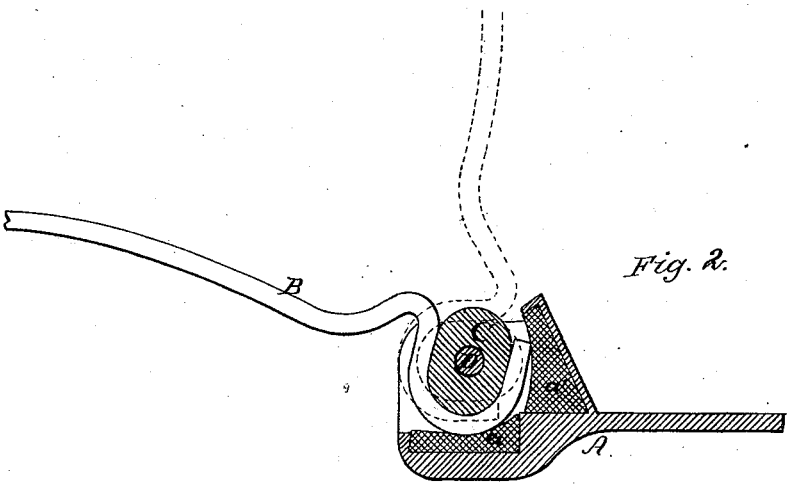


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

THOMAS J. HUBBELL, OF YOUNTVILLE, CAL., ASSIGNOR OF ONE-HALF HI RIGHT TO JOHN ALLEN BOYLAN, OF CANASERAGA, N. Y.

IMPROVEMENT IN THILL-COUPLINGS.

Specification forming part of Letters Patent No. **189,225**, dated April 3, 1877; application filed March 9, 1877.

To all whom it may concern:

Be it known that I, THOMAS J. HUBBELL, of Yountville, Napa county, California, have invented a new and Improved Thill-Coupling; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a sectional view of the coupling, having the thill-iron fastened in one manner. Fig. 2 is a section showing the thill-iron fastened from below.

The object of my invention is to provide a thill-coupling from which the thill-irons can be easily detached when the thills are not in use for draft purposes.

My invention consists of a thill-iron having a peculiar-shaped hooked end, in combination with a rotating cam on a fixed central bolt, located in a box attached to a clip grasping the axle, the box being partially lined with an elastic medium.

In order that those skilled in the art may make and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, A is a clip attached with bows to the axle. In the box of this clip, by means of a bolt, D, passing from side to side, I secure a rotating or movable cam-shaped griper, C, which, in its longest diameter, clears by a given distance two cushions, *a a'*, located in the back and bottom of the box. B is the end of the thill-iron, bent into the shape shown, the inner contour of the curve being in conformity with the curve of the cam C, and the thickness of the metal slightly greater than the space between the cam in its longest diameter and the elastic cushions *a a'*.

The operation is as follows: The shafts being held either in the position shown in the dotted lines of Fig. 1 or Fig. 2, the operations being simply one the reverse of the other, and the cam-griper C also being in the position shown in dotted lines, the hook easily passes over the elliptical end of the griper C, as its short diameter is toward the elastic cushion, against which the hook will bear. The shafts and thill-iron are then brought either up or down to the position in which it is required to apply the draft, being about a horizontal position. This causes the long diameter of the cam to move toward the cushion, and the hook of the thill-iron is compressed between the cam and the elastic washer so long as the shafts are in position for draft.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a thill-coupling, the box A, having the packing *a a'*, in combination with the fixed bolt D, movable cam C, and hooked thill-iron B, all constructed, arranged, and operated as set forth.

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