(No Model.)

J. A. KIRBY.

THILL COUPLING.

No. 480,772. Patented Aug. 16, 1892.

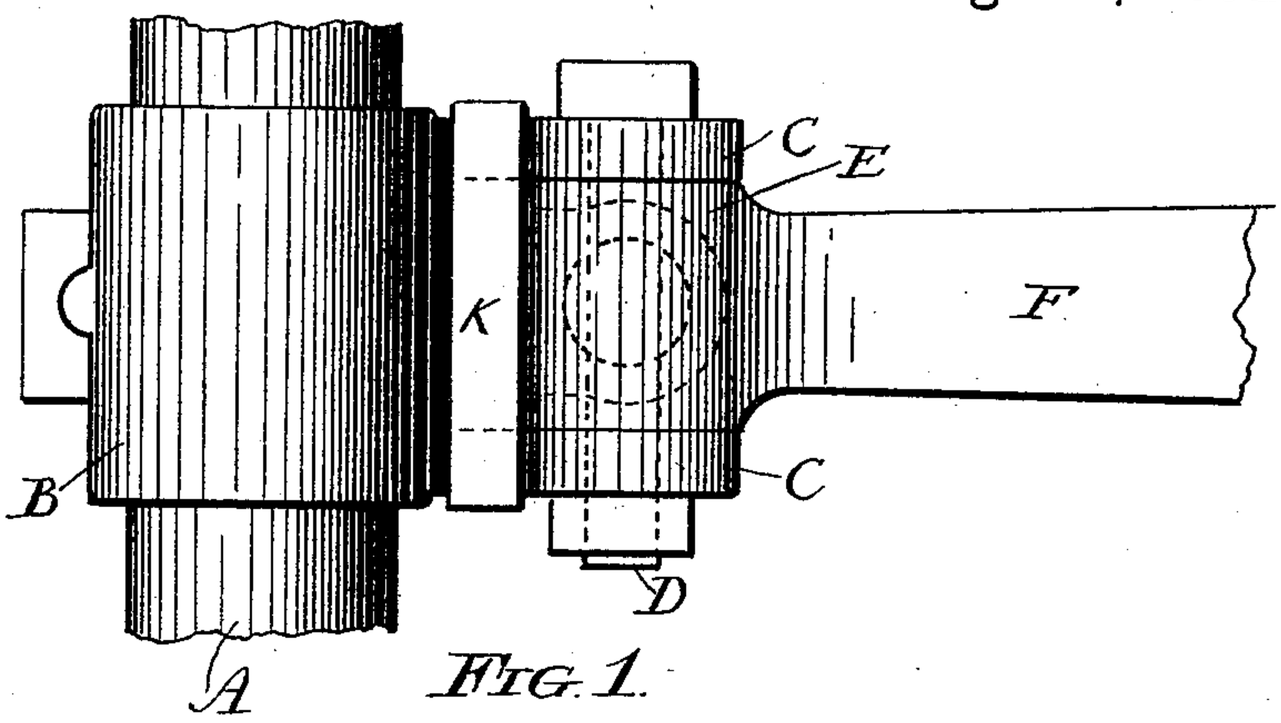

FIG. 1.

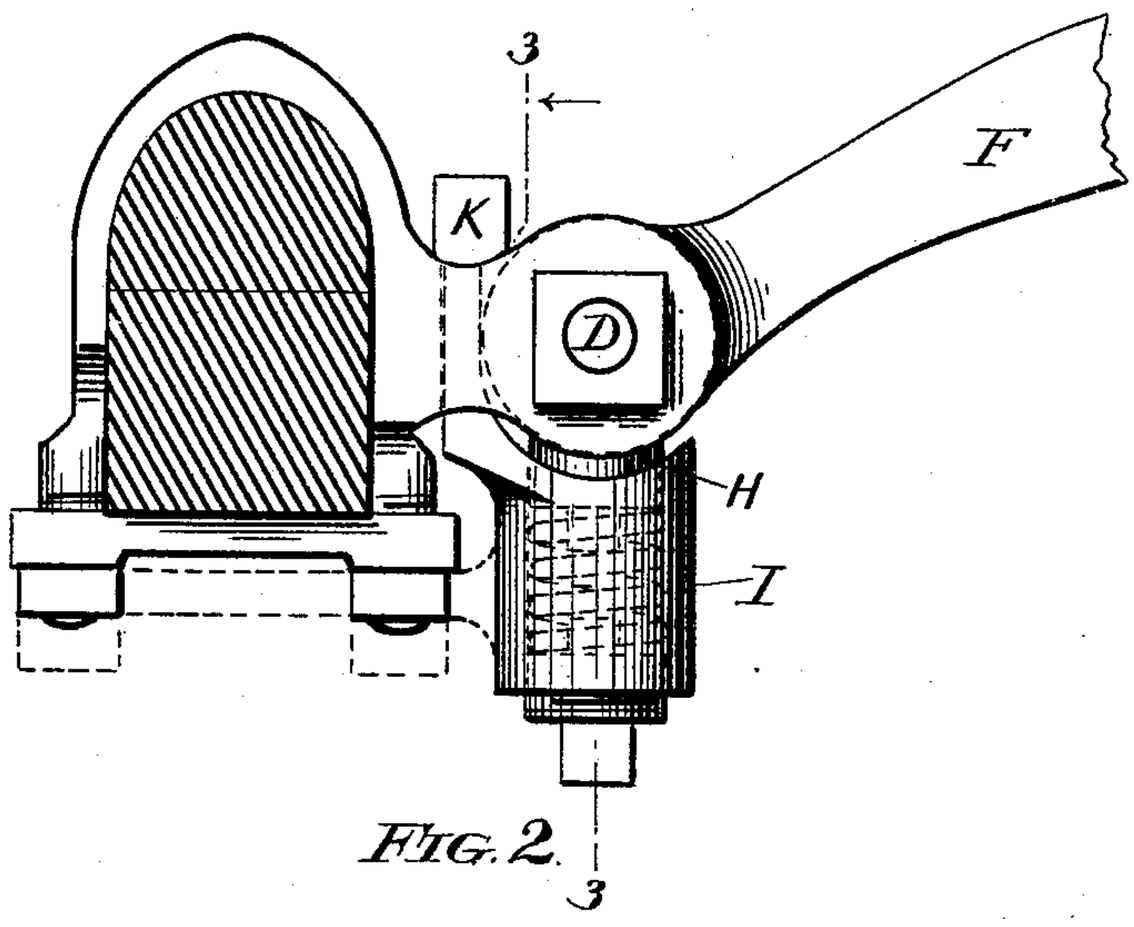

FIG. 2.

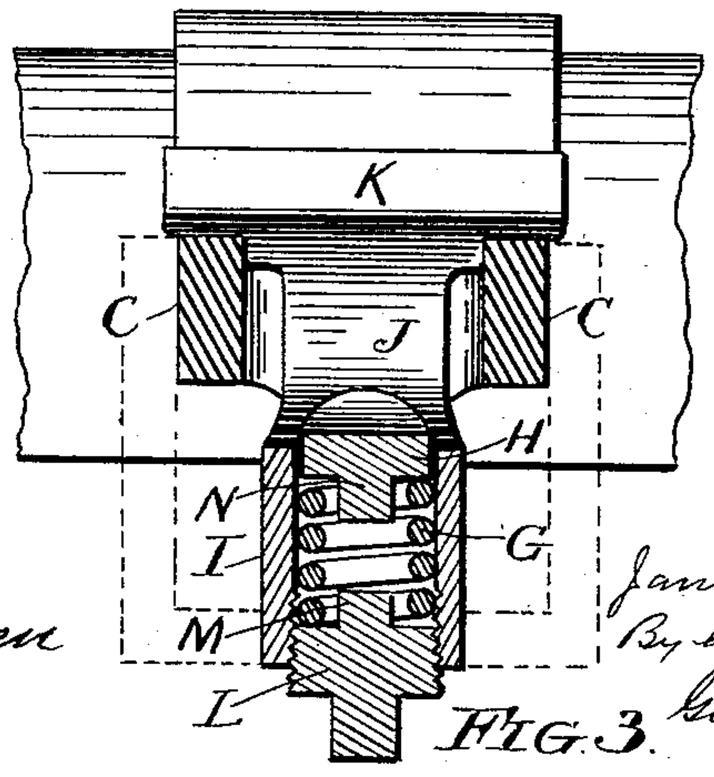

FIG. 3.

Witnesses:
J. Halpenny.
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UNITED STATES PATENT OFFICE.

JAMES A. KIRBY, OF CHICAGO, ILLINOIS, ASSIGNOR OF TWO-THIRDS TO GEORGE R. JENKINS AND CHARLES F. BURNS, OF SAME PLACE.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 480,772, dated August 16, 1892.

Application filed February 13, 1892. Serial No. 421,415. (No model.)

To all whom it may concern:

Be it known that I, JAMES A. KIRBY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Anti-Rattlers for Thills, of which the following is a specification.

The object of the present invention is to provide a simple device that can be easily attached to the thills of a vehicle for preventing them from rattling; and to this end the said invention consists in certain features of novelty that are particularly pointed out in the claim hereinafter.

In the accompanying drawings, which are made a part of this specification, Figure 1 is a plan view showing a portion of the thill, a portion of the axle, the thill-coupler, and the improved anti-rattler applied thereto. Fig. 2 is a side elevation thereof. Fig. 3 is a section thereof on the line 3 3.

A represents the axle; B, a clip embracing it; C C, parallel arms projecting forward therefrom and perforated at their forward ends for the passage of the bolt D that passes through a perforated cylindrical enlargement at the rear extremity of the thill. This is all old, being the most customary arrangement.

According to my present invention, I cause a coiled spring G to exert its expansive force against the cylindrical portion E of the thill through the medium of a follower H, a suitable housing being provided for sustaining the spring. I desire to have it understood that in its generic sense my invention is not limited to details in the construction of this housing. The one shown in the drawings consists of a short cylinder I, open at both ends and having upon its rear side an arm J, which extends upward between the arms C C and is provided with a cross-head K, that rests upon the top sides of the arms C C and thereby sustains the cylinder. The bottom of the cylinder is closed by a screw-threaded plug L, having on its top side a stud M, that enters the spring and holds it in central position, said plug having its lower end squared for the reception of a wrench, whereby it may be moved up or down for adjusting the tension of the spring.

The follower H fits loosely in the upper end of the cylinder, has its top side hollowed out to fit the cylindrical portion E of the thill, and has on its under side a stud N, that projects downward into the spring. This device may be readily attached to most any thill-coupler, and by properly regulating the force of the spring all rattling of the thills may be prevented.

As a further modification, the cylinder may be dispensed with, as its sole purpose is to conceal the spring, and the operation of the device would not be altered by its omission.

What I claim as new, and desire to secure by Letters Patent, is—

In an anti-rattler for thills, the combination of the coiled spring G, the housing I, containing said spring, said housing being open at both ends and provided at its lower end with internal screw-threads, the screw-plug L, closing the lower end of the housing and squared for the reception of a wrench, the follower H, fitting in the upper end of said housing, resting upon the spring, and having its upper face hollowed out to fit the thill-iron, and an arm J, extending upward from the back of the housing and having the cross-head K, adapted to rest on top of the arms of the thill-coupler and support the anti-rattler, substantially as set forth.

JAMES A. KIRBY.

Witnesses:
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