J. C. THOMPSON.

Thill-Couplings.

No. 143,596. Patented Oct. 14, 1873.

Fig. 2

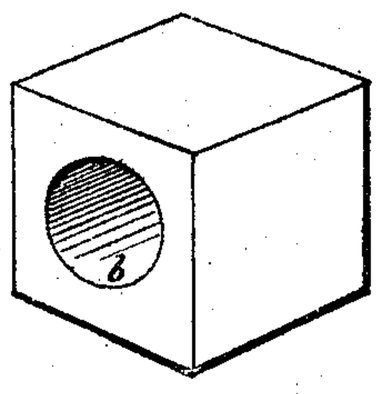
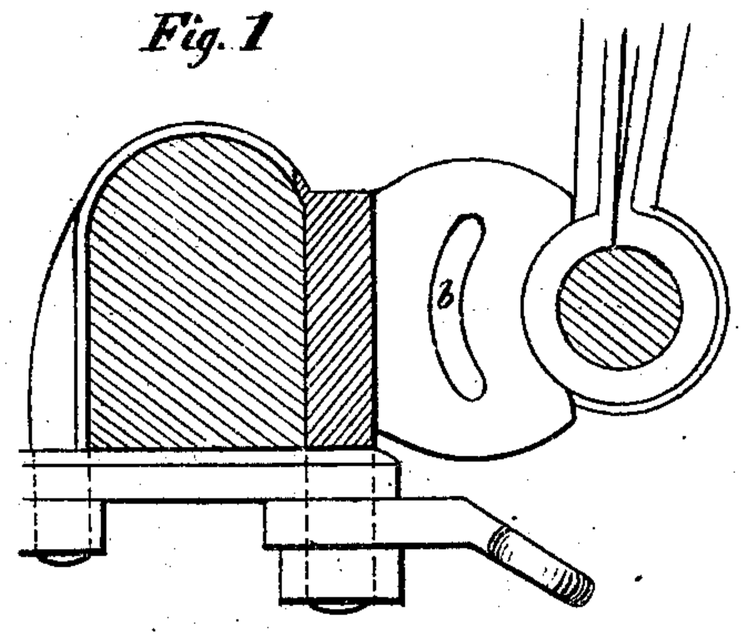


Fig. 1



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN C. THOMPSON, OF NEW HAVEN, CONNECTICUT.

IMPROVEMENT IN THILL-COUPLINGS.

Specification forming part of Letters Patent No. **143,596**, dated October 14, 1873; application filed August 7, 1873.

To all whom it may concern:

Be it known that I, JOHN C. THOMPSON, of the city and county of New Haven and State of Connecticut, have invented an Improved Rubber Cushion or Spring for the Thill-Couplings of Carriages, of which the following is a specification:

To prevent the rattling of thill-couplings it is usual to insert in the same a rubber block or spring, concave on the front side, which, as usually made, has very little elasticity; and the object of my invention is to make a spring which will have greater elasticity, and will more easily admit the insertion of the thill-iron in its place, than any spring heretofore made.

Figure 2 is a drawing of my spring, and I make the same of any desired size, with the sides, and ends flat, and preferably rectangular, though the side nearest the axle may be the largest, and with the circular perforation *b* through the center of the same, as shown in the figure.

As thus made, the thinnest and most flexible part of the spring is in the middle of its sides, on a line parallel with the perforation *b*. When the spring is put in the coupling, and is pressed upon by the circular end of the shaft or thill-iron, it becomes concave on the front side, and conforms to the curvature of the thill-iron. The upper and under sides become convex, and the perforation *b* becomes elongated, and varies in shape with the pressure applied. This peculiar action of the spring gives it great elasticity, durability, and superiority over other springs of the same material for the same purpose.

Fig. 1 is a vertical section of the axle, thill-coupling, and spring, and illustrates the spring in its place.

I claim as my invention—

In a thill-coupling, the rubber cushion or spring made with the perforation *b*, substantially as and for the purpose specified.

JOHN C. THOMPSON.

Witnesses:

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GEORGE TERRY.