

(No Model.)

L. B. STUART.
Thill Coupling.

No. 235,826.

Patented Dec. 21, 1880.

Fig: 1.

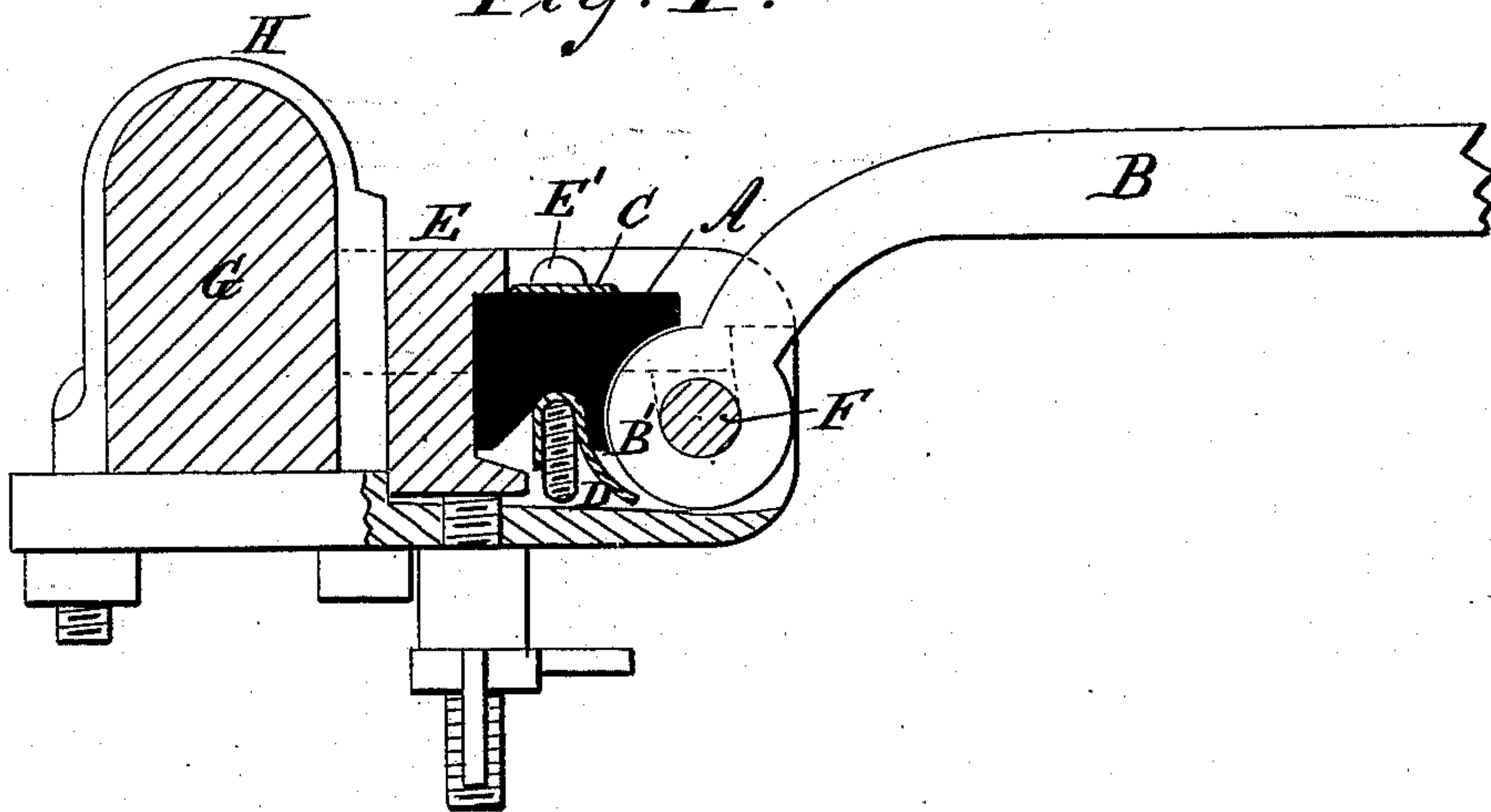
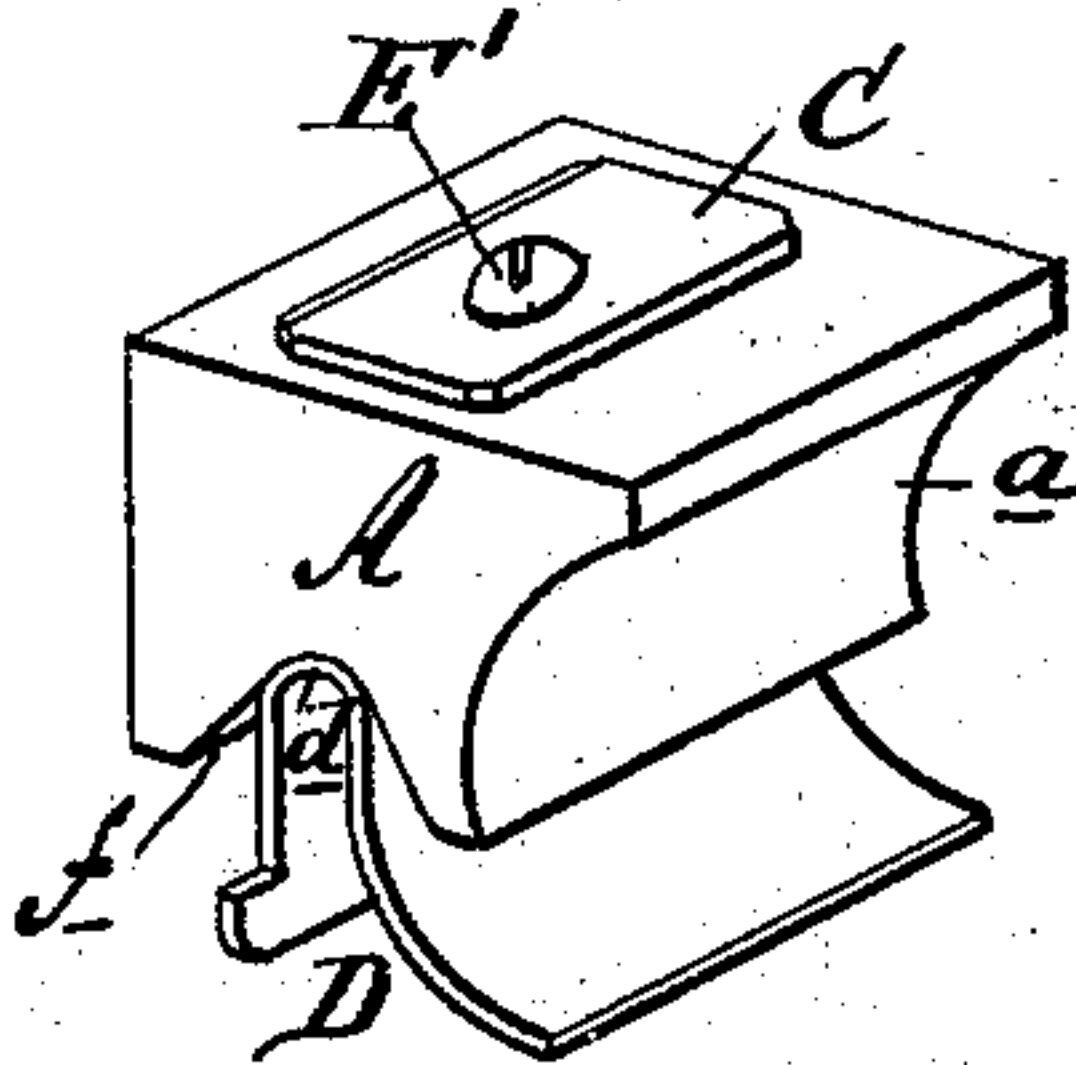


Fig: 2.



WITNESSES:

A. Schehl.
C. Sedgwick

INVENTOR:

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ATTORNEYS.

UNITED STATES PATENT OFFICE.

LEVI B. STUART, OF SEYMOUR, ASSIGNOR TO HIMSELF AND THOMAS WALLACE, OF ANSONIA, CONNECTICUT.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 235,826, dated December 21, 1880.

Application filed July 2, 1880. (No model.)

To all whom it may concern:

Be it known that I, LEVI B. STUART, of Seymour, in the county of New Haven and State of Connecticut, have invented a new and Improved Thill-Coupling Spring, of which the following is a specification.

The object of this invention is to provide a more durable and easily-adjusted spring to prevent the rattling of the shaft on its bolt.

The invention consists in combining a grooved cushion and a centrally-ribbed plate, as hereinafter fully described.

Figure 1 is a sectional side elevation of a thill-coupling, showing the device in position. Fig. 2 is a perspective view of the device.

Similar letters of reference indicate corresponding parts.

In the drawings, A represents the rubber cushion or block, having its face cut away on a curve, as shown at *a*, to fit against the eye B' of the shaft or pole B.

C is a flat metal plate on the top of the block A, and D is a doubly-curved plate at the bottom thereof, and E' is a screw passing down through said plates C D and cushion or block A, whereby said plates C D may be drawn together as the curved face *a* wears by friction of the pole-eye B', and the cushion or block A is thereby expanded so as to fill the coupling-box E to the extent desired and still prevent the rattling of the eye B' on the cross-pin F when the vehicle is in motion. The

front part or face of the plate D is curved to conform with the eye B' of the shaft or pole B, in order to preserve the proper shape to the face of the cushion or block A, as said block A is more compressed, while the rear edge of the plate D bears against the back of the coupling-box E, that is held to the axle G by a clip, H, and the central bend or ridge, *d*, in said plate D, being drawn up into the groove of the cushion A, operates to expand said cushion A in the desired direction.

The advantages of this device are, that it can be inserted into a thill-coupling box without removing any of the bolts of said box and by compression and consequent expansion between the plates C D. By means of the screw E' the said elastic cushion A can be made effective for a much longer period than can the non-expanding devices now in use.

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

In a thill-coupling spring, the combination, with the cushion A, provided with groove *f*, of the plate D, provided with central ridge, *d*, substantially as herein shown and described, whereby the said cushion is more readily expanded, as set forth.

LEVI B. STUART.

Witnesses:

W. H. WILLIAMS,
JOSHUA KENDALL.