(No Model.)

F. P. JOHNSON.
Thill-Coupling.

No. 226,755. **Patented April 20, 1880.**

Fig. 1

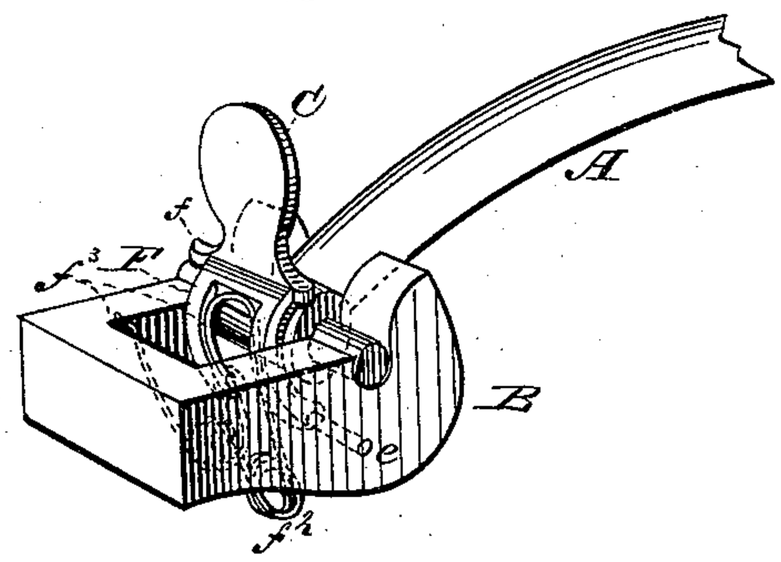


Fig. 2

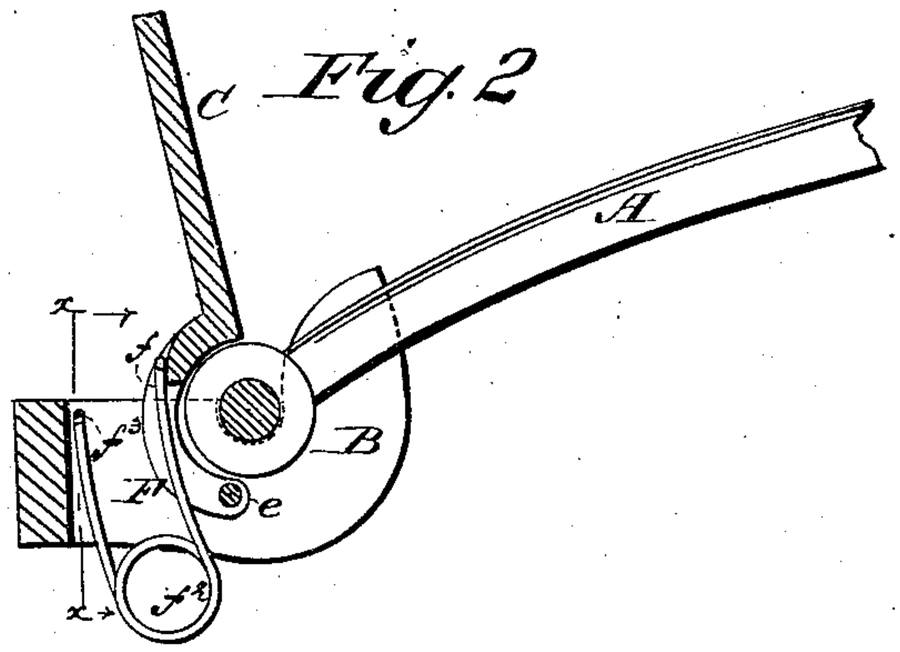
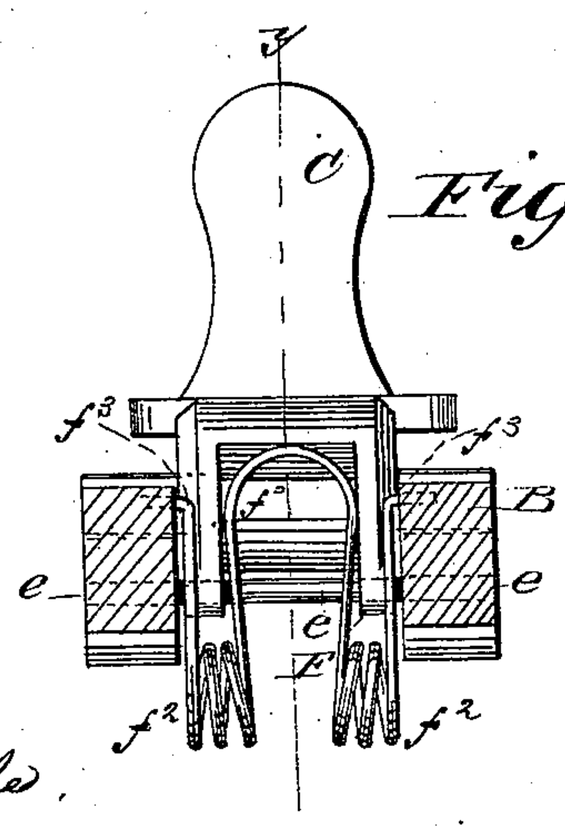


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

FRANK P. JOHNSON, OF EYER'S GROVE, PENNSYLVANIA.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 226,755, dated April 20, 1880.

Application filed March 13, 1880. (No model.)

To all whom it may concern:

Be it known that I, FRANK P. JOHNSON, of Eyer's Grove, in the county of Columbia and State of Pennsylvania, have invented a new and useful Improvement in Thill-Couplings, of which the following is a specification.

My invention consists in a novel construction and arrangement of a spring and a locking-lever, and the combination thereof with the thill-iron and clip, whereby the coupling and uncoupling of the thill and the holding of the same securely in place are facilitated, as hereinafter described.

In the accompanying drawings, Figure 1 is a perspective view of my improvement. Fig. 2 is a vertical section of the same. Fig. 3 is a vertical section taken in the line *x x* of Fig. 2.

Similar letters of reference indicate corresponding parts.

A is the thill-iron, and B the clip. The thill-iron is provided with trunnions and the clip with notches for the reception of the same.

C is a lever, having its upper portion formed into a straight thumb-piece and its lower portion curved in semicircular form to correspond with the cylindrical portion of the thill-iron between the trunnions. The lower end of the semicircular portion is forked or divided into two branches, which are perforated in a direction transversely to the length of the lever. These perforated lower ends occupy a position in the crotch of the clip B immediately under the trunnions and cylindrical portion of the thill-iron, and are held in place therein by means of a bolt or rivet, *e*, which forms the fulcrum and center of oscillation of the lever C.

F is a wire spring of the form commonly known as a "mouse-trap spring"—that is to say, the wire is bent midway of its length to form a loop, *f*. Midway between the loop and the ends the wire is wound into two coils, f^2 f^2, and then turned up again in the general direction of the loop *f*. In this case the ends of the wire are turned laterally in opposite directions to form pivots f^3 f^3, which work in sockets in the branches of the crotch of the clip B; while the loop *f* bears against the rear side of the lever C just above the fork or junction of the two branches of said lever.

To couple or uncouple the thill the lever C is pressed back. When it is released the spring F presses it forward, as indicated by the arrow in Fig. 2, so as to prevent uncoupling when the thill-iron is in place.

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

The lever C, having its lower portion semicircular and pivoted in the clip B, and the spring F, provided with the loop *f*, bearing on the lever C, and having its ends f^3 engaged with sockets in the clip B, in combination with said clip and a thill-iron, substantially as herein described.

FRANK PIERCE JOHNSON.

Witnesses:

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IRA C. PURSEL.