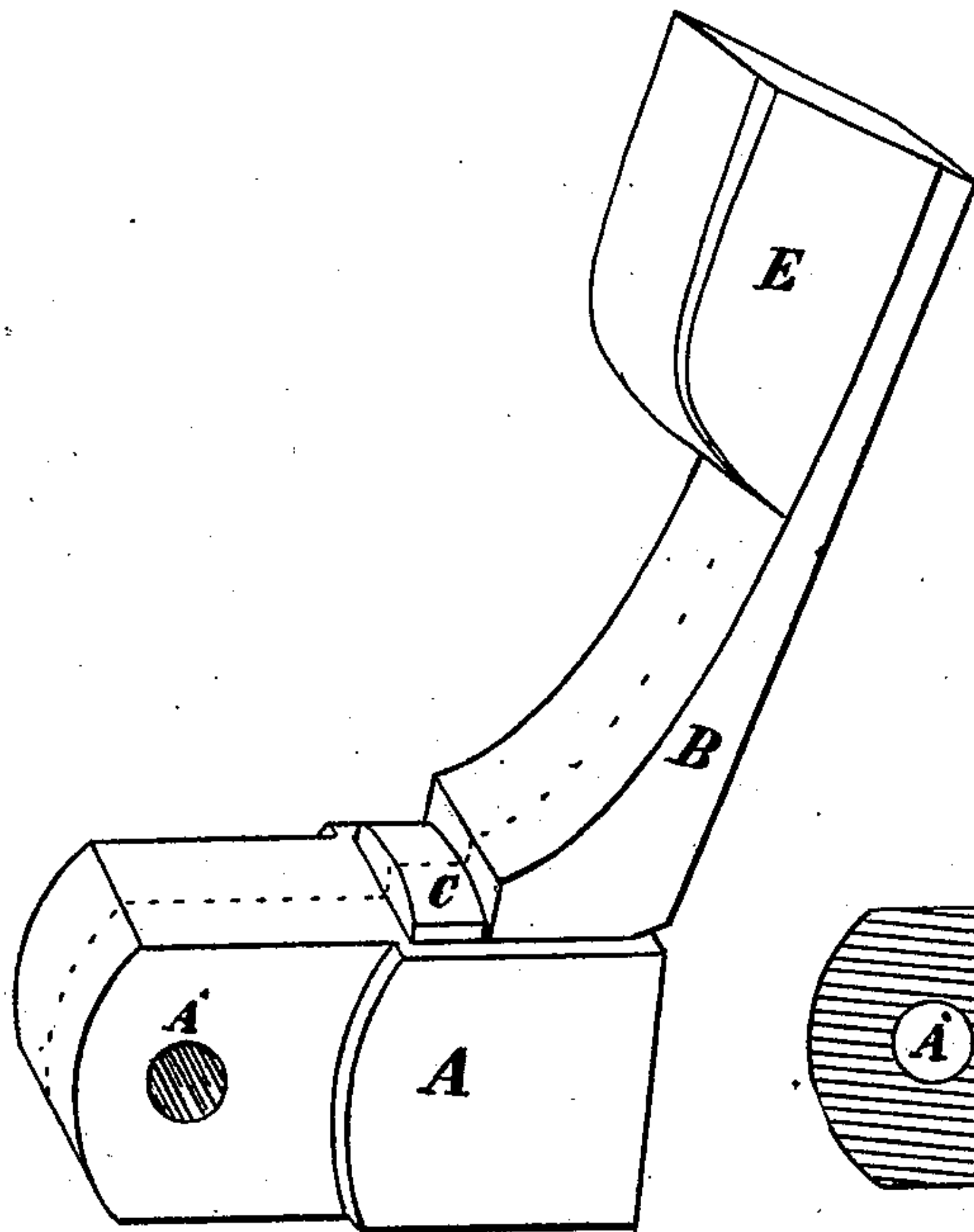


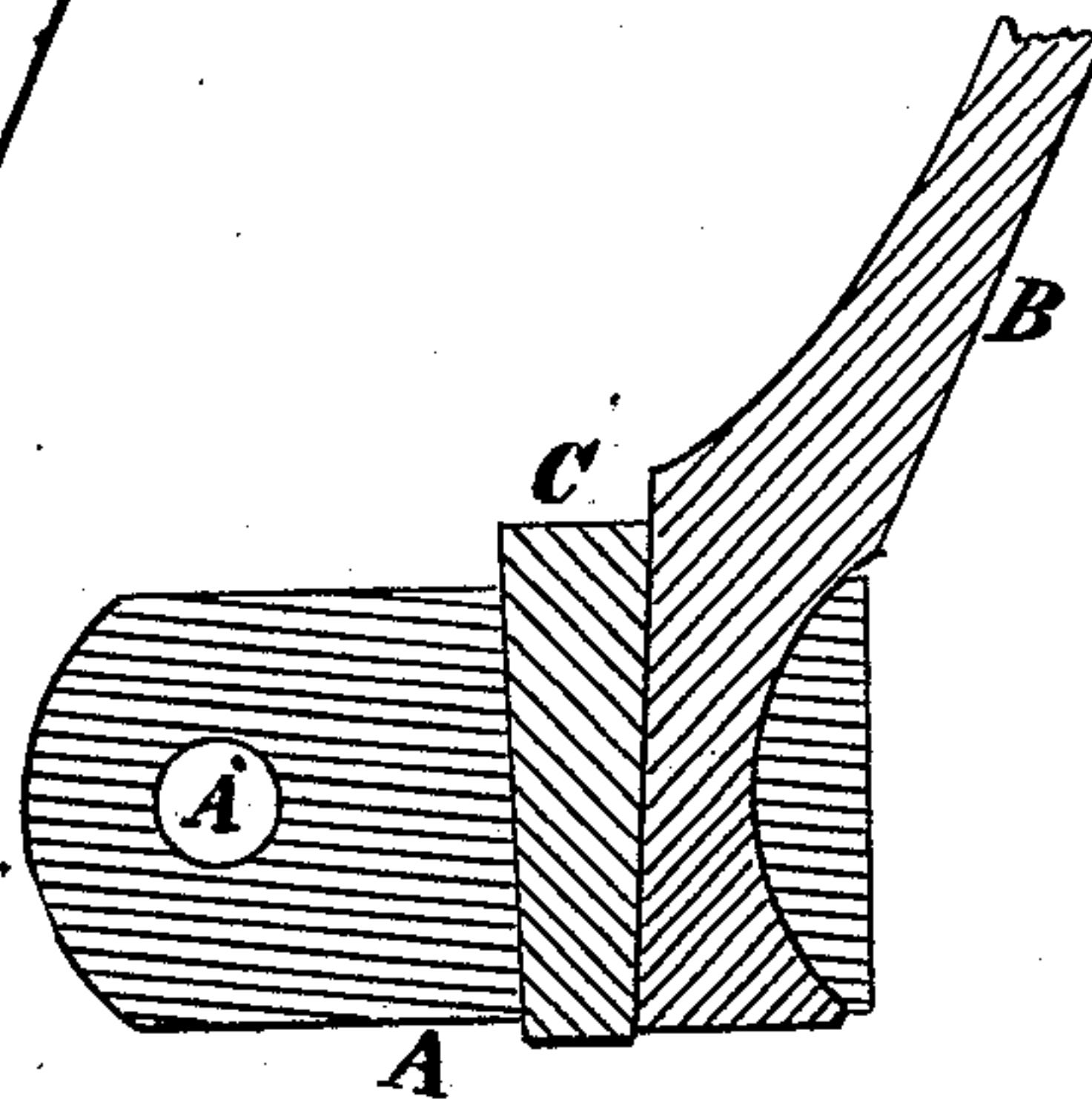
L. E. THAYER.  
Thill Coupling.

No. 201,962.

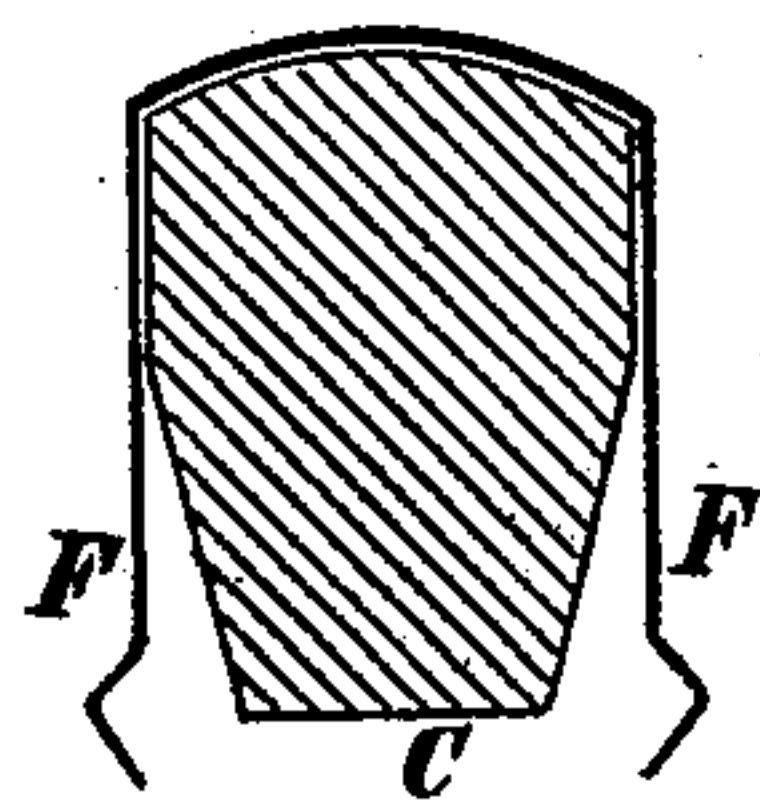
Patented April 2, 1878.



*fig 1*



*fig 2*



*fig 3*

Witness

*James S. Drake*  
*L. A. Baker*

Inventor

*Leonard E. Thayer*

# UNITED STATES PATENT OFFICE.

LEONARD E. THAYER, OF LANSING, MICHIGAN.

## IMPROVEMENT IN THILL-COUPPLINGS.

Specification forming part of Letters Patent No. **201,962**, dated April 2, 1878; application filed December 18, 1877.

*To all whom it may concern:*

Be it known that I, LEONARD E. THAYER, of Lansing, in the county of Ingham and State of Michigan, have invented a new and useful Improvement in Thill-Couplings, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a perspective view of my coupling; Fig. 2, a sectional view of the same through dotted line in Fig. 1, and Fig. 3 a side view of the key.

The object of my invention is to furnish a device by which thills or a pole may be easily and quickly attached or detached without loosening the nuts and taking out the bolts in the joints.

In the drawings, A is the box, which is attached to the clip, in the usual way, by a bolt through at A'. B is the iron, which is firmly attached to the thill E, the lower end being swaged concave, so as to fit upon the convex surface, which is upon the inside of the box A, as shown in Fig. 2, and is held firmly in place by the key C.

F F is a spring, which passes over the top

and down both edges of the key, having upon each lower end an elbow bent outward, which elbows, when the key is in place, by the action of the spring, are forced outward under the edge of the box A, thereby preventing the key from working out.

The old way of detaching the thills has always been to unscrew the nut and take the bolt out—that is, through the joint. Now, if this bolt is ever so nicely fitted, by taking out a few times it becomes loose and will rattle, and finally work out of itself by the motion of the thills, whereas with my coupling the bolt, through the joint, may be fitted nice and tight, and never needs to be loosened.

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

The box A, thill-iron B, key C, and spring F, all combined substantially as shown and described.

LEONARD E. THAYER.

Witnesses:

JAMES S. DRAKE,  
L. A. BAKER.