

(No Model.)

W. BURTON.  
THILL COUPLING.

No. 387,281.

Patented Aug. 7, 1888.

Fig. 1.

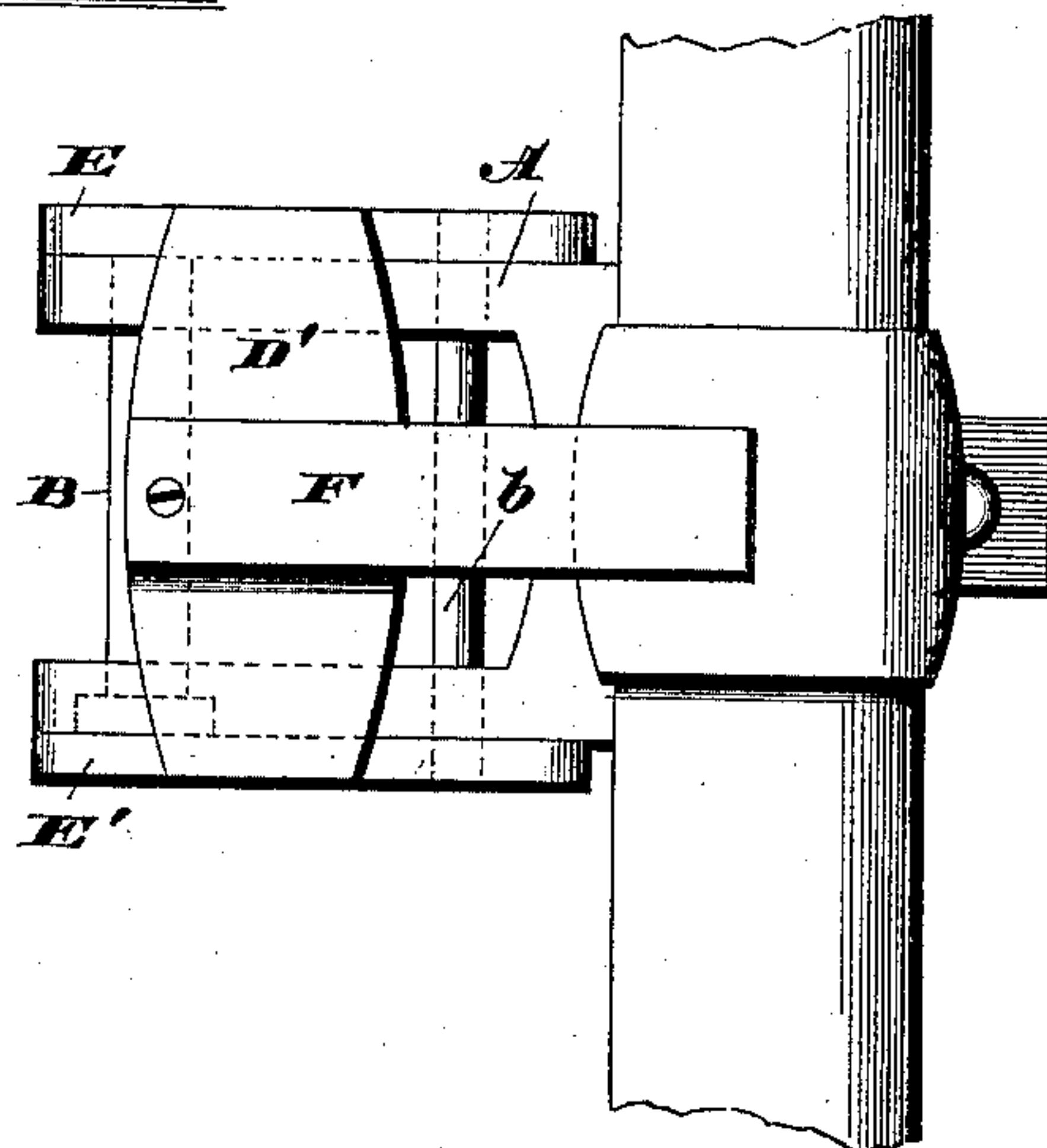


Fig. 2.

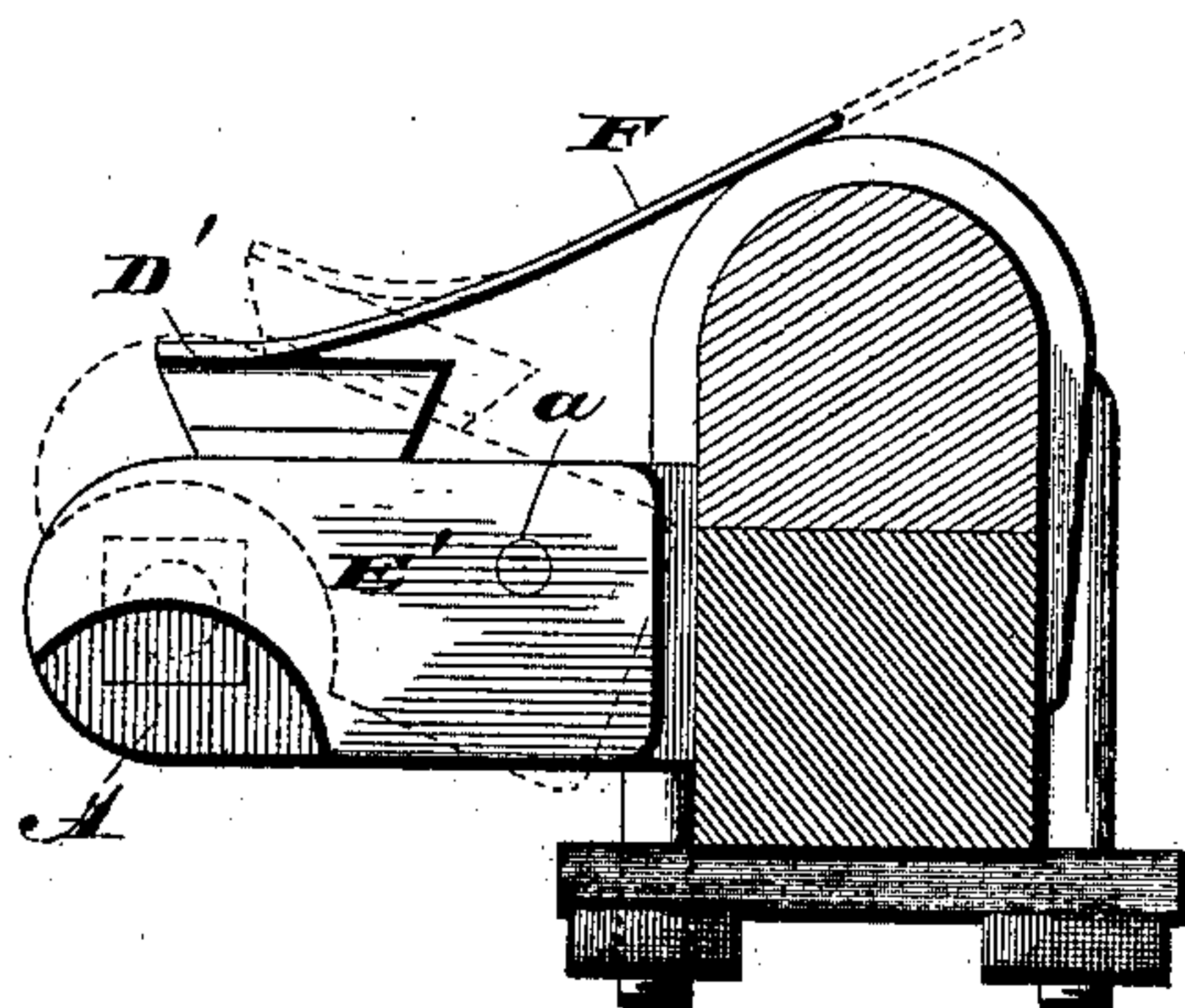
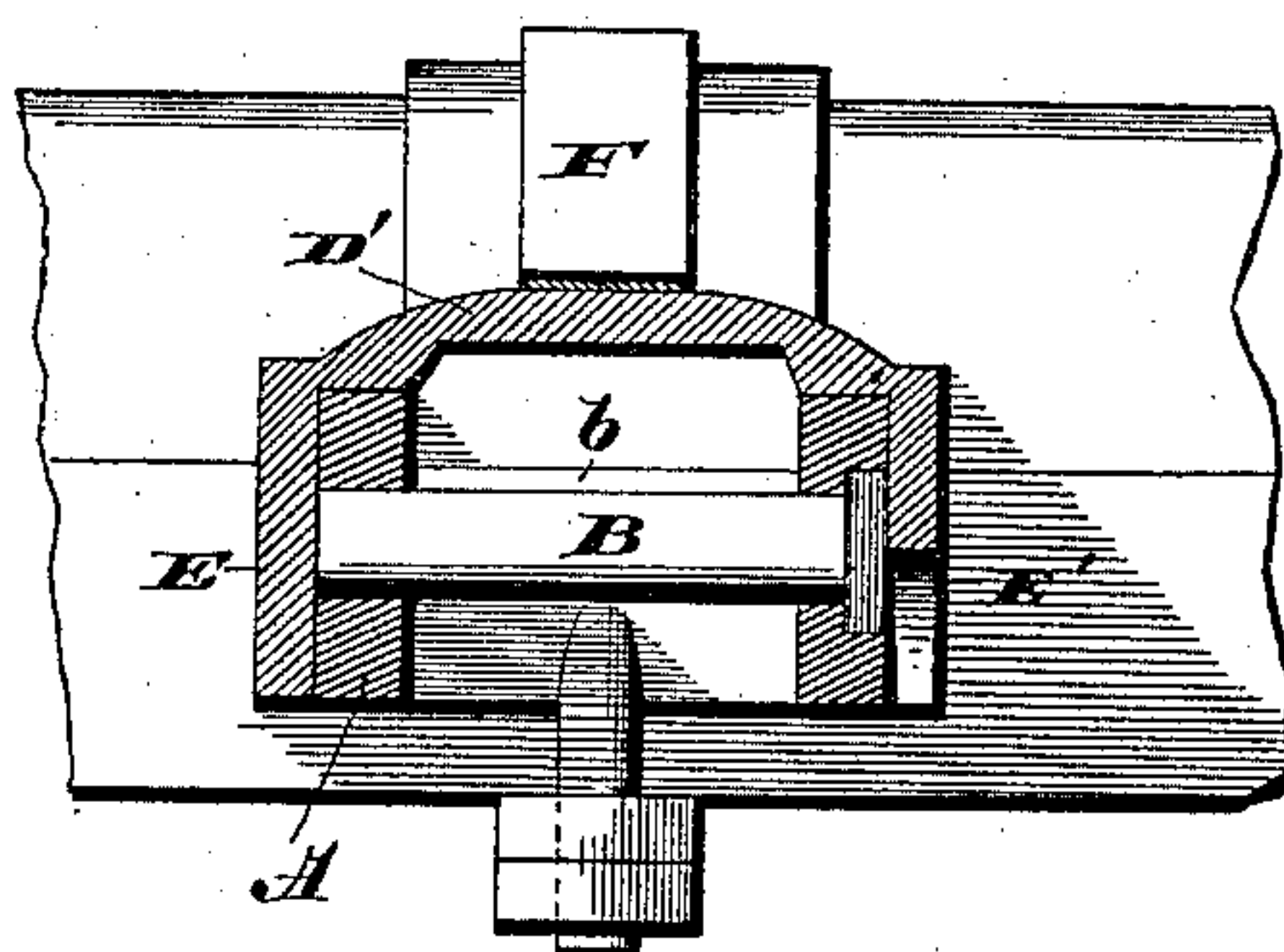


Fig. 3.



WITNESSES

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# UNITED STATES PATENT OFFICE.

WILLIAM BURTON, OF LAKE VILLAGE, INDIANA.

## THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 387,281, dated August 7, 1888.

Application filed March 22, 1888. Serial No. 268,144. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM BURTON, a citizen of the United States of America, residing at Lake Village, in the county of Newton and State of Indiana, have invented certain new and useful Improvements in Thill-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to certain new and useful improvements in thill-couplings, the object of the same being to provide a cheap, simple, and effective means for holding a bolt in position without the use of nuts, so that the same can be readily removed when it is desired to detach the thills or pole from the axle; and my invention consists in the special construction and combination of the parts, as will be hereinafter fully set forth, and specifically pointed out in the claim.

In the accompanying drawings, which illustrate my invention, Figure 1 is a plan view of a thill-coupling constructed in accordance with my invention. Fig. 2 is a side view. Fig. 3 is a sectional view taken through the line *x x* of Fig. 2.

A refers to the clip-iron, which is practically of ordinary construction, the same being secured to the axle in the usual manner. The forwardly-projecting portions of this clip-iron are provided, near their upper edges, with perforations *a a*, and at their forward portions with perforations for receiving the bolt B, which connects the thill-iron with the clip-iron. One of the perforations for the reception of this bolt has adjacent thereto a recess for the reception of the head of the bolt. Through the perforations *a a* passes a pin or rivet, *b*, which serves to hold in place a box or casing, D, which consists of a cross-plate, D', and side pieces, E and E'. The side piece

E' is provided at its front lower edge with a cut-away portion, as shown in Figs. 2 and 3, so that said side piece will only partially cover the head of the bolt, and it will be unnecessary to raise the box or casing the full extent when it is desired to remove or insert the bolt. To the cross-piece D' is attached a flat spring, F, the free end of which will bear upon the clip which goes around the axle, said spring serving to hold the boxing pressed normally downward.

The parts of the boxing are made integral with each other, and they are pivotally attached to each other by the rivet *b*.

Instead of employing a headed bolt, as shown, an ordinary straight bar of metal may be used, if desired, and when such is used the side piece E will prevent the same projecting from the case in that direction when being inserted.

The spring F not only serves to hold the boxing or casing down upon the thill-iron, but also prevents a rattling of the parts.

By the use of this device nuts are entirely dispensed with and the thills can be readily attached and detached.

I claim—

In a thill-coupling, the combination, substantially as set forth, of a clip-iron having forwardly-projecting ears with front and rear bolt-apertures therein, a removable headed bolt mounted in the front aperture, an open box or cap casing hinged to the rear part of said projecting ears, consisting of two side pieces, E and E', connected by a top raised cross-piece or bridge, D', and a flat spring, F, secured at one end to the central part of the cross-piece or bridge D', and its free end extending over and loosely bearing upon that part of the clip-iron which surrounds the axle.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM BURTON.

Witnesses:

JACOB HESS,  
JAMES ASHLEY.