

(Model.)

I. R. DUNNING.
THILL COUPLING.

No. 249,599.

Patented Nov. 15, 1881.

Fig. 1.

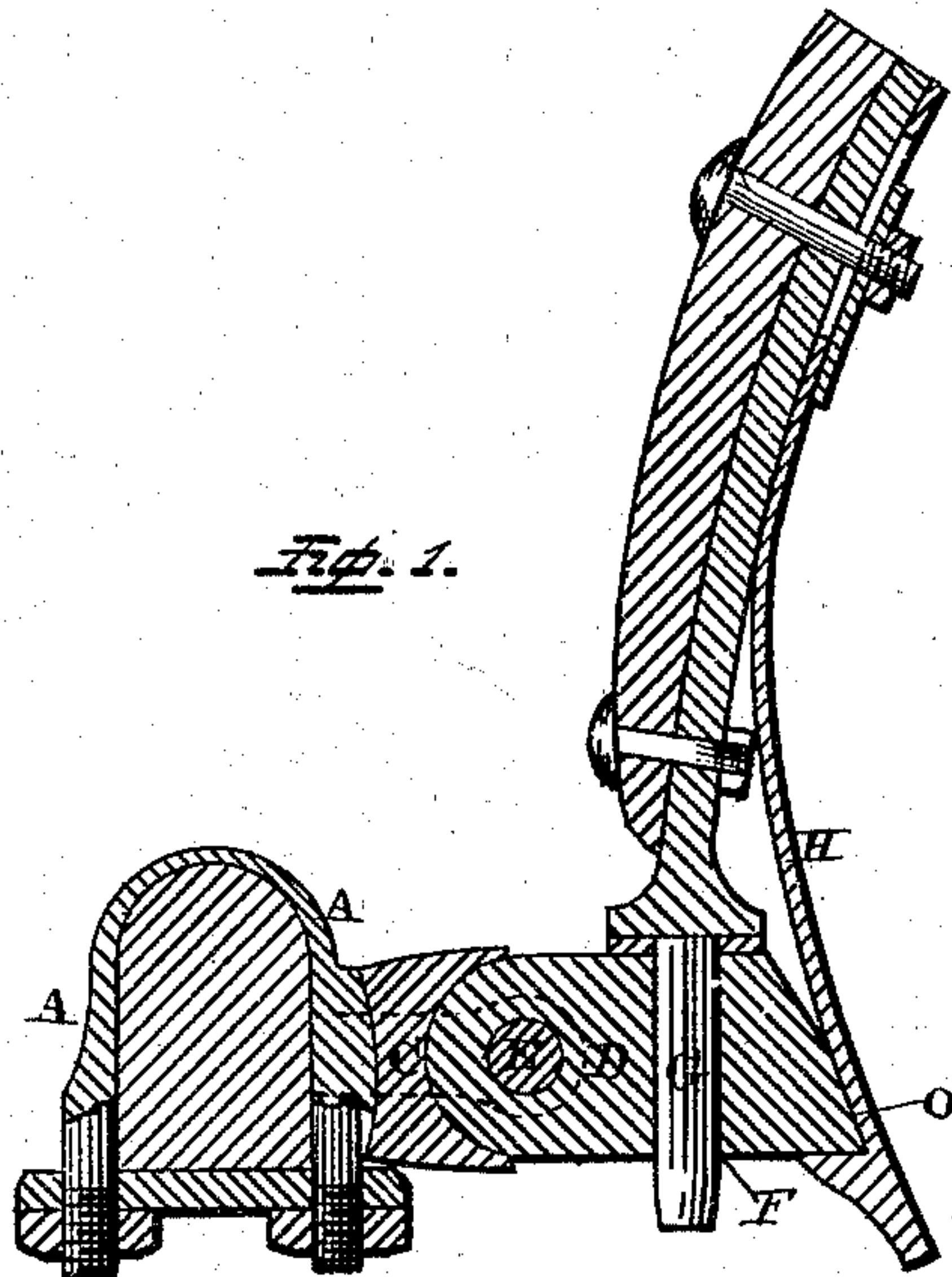


Fig. 2.

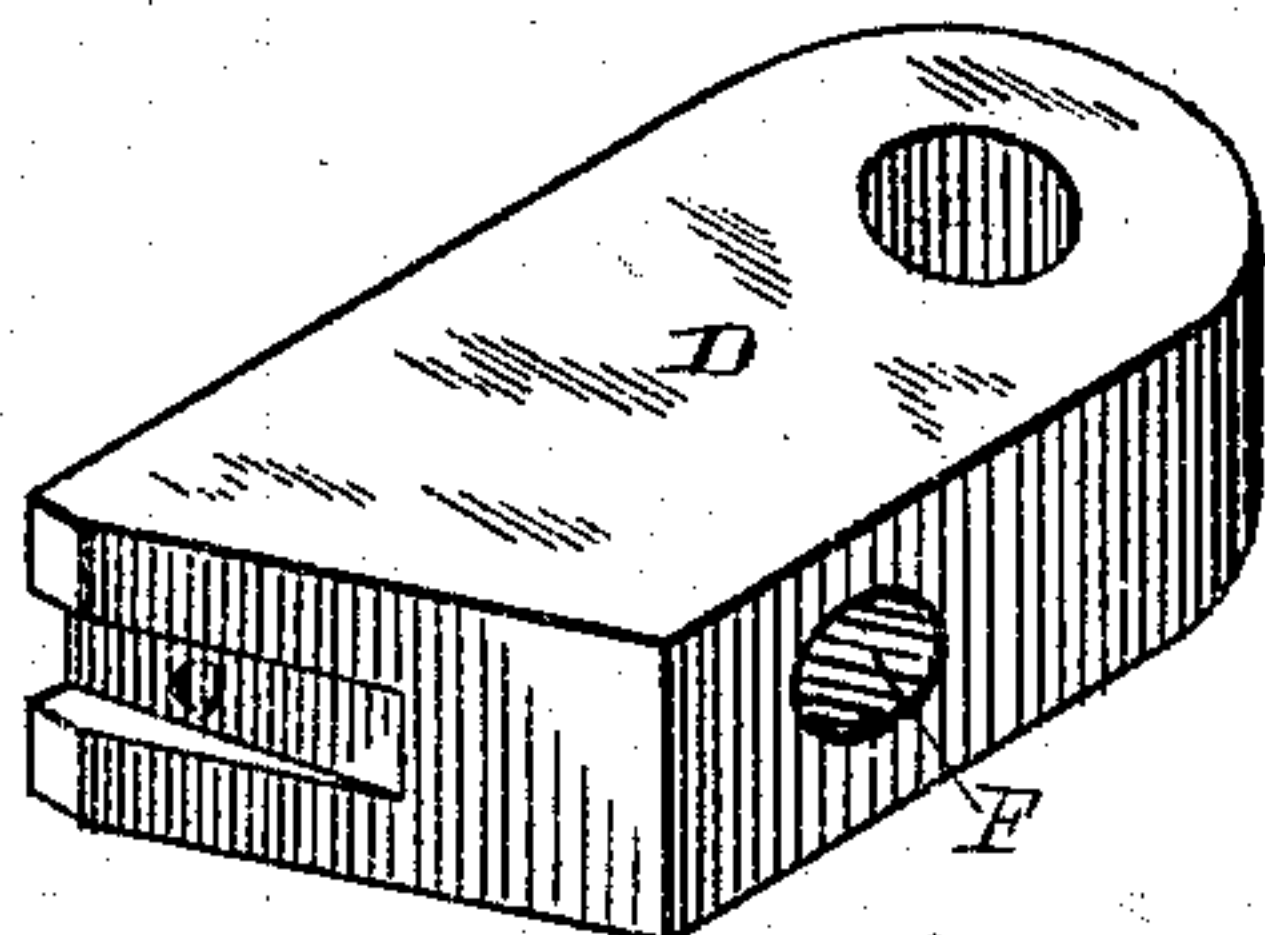
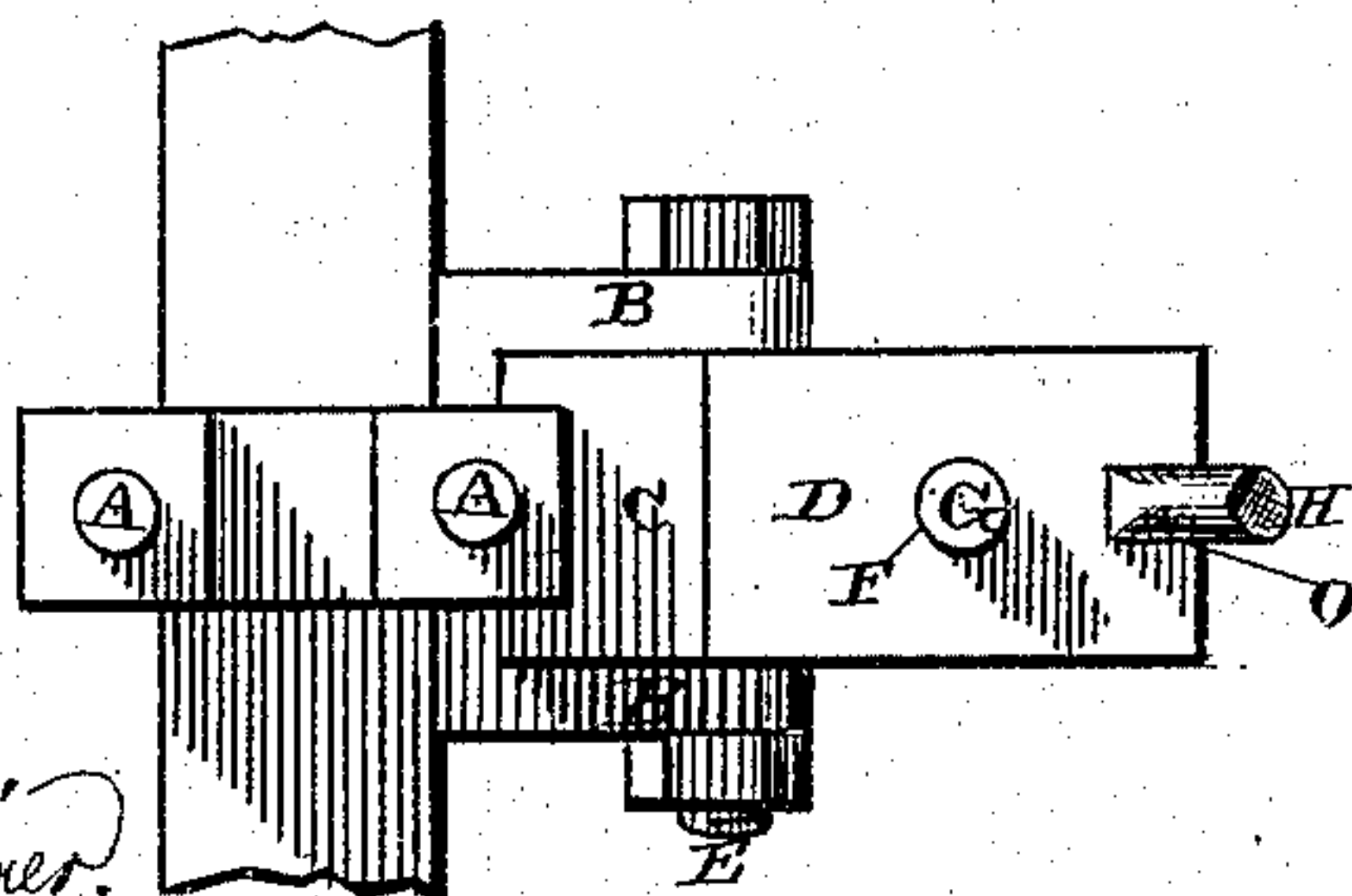


Fig. 3.



Witnesses.

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per
F. A. Lehmann,
att'y.

UNITED STATES PATENT OFFICE.

ISAAC R. DUNNING, OF BENTON HARBOR, MICHIGAN.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 249,599, dated November 15, 1881.

Application filed July 28, 1881. (Model.)

To all whom it may concern:

Be it known that I, ISAAC R. DUNNING, of Benton Harbor, in the county of Berrien and State of Michigan, have invented certain new and useful Improvements in Thill and Tongue 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in thill and tongue couplings; and it consists in the combination of a block of iron, which is pivoted upon a horizontal bolt, with the shaft or tongue iron, having a tenon or projection on its inner end to pass through an opening in the block, and a spring catch or key for locking the shaft or tongue to the coupling, as will be more fully described hereinafter.

The object of my invention is to provide a means whereby the shaft or tongue can be readily applied to or removed from the vehicle, as occasion may require.

Figure 1 is a vertical section of my invention. Fig. 2 is a perspective of the coupling-block by itself. Fig. 3 is an inverted view of my invention complete.

A represents the clip, which is secured to the axle in the usual manner, and which has the two ears or projections B extending horizontally forward from its front edge. In between these two arms or projections is placed the block or rubber C, which is to prevent the coupling from rattling, and the block of iron D, which has a horizontal opening made through its front end, so as to receive the pivotal bolt E. This block can turn freely upon its bolt in a vertical direction, for the purpose of allowing the shaft or tongue to be freely raised or lowered, but the block has no lateral movement whatever.

Through the block, at or near its center, is made a suitably-shaped hole, F, through which is passed a suitably-shaped tenon or projection, G, formed on the inner end of the thill-iron. This tenon or projection fits the opening as tightly as possibly, and in between the collar, which is formed on the thill-iron, and the top

of the block, is placed a suitable washer for the purpose of preventing rattling and noise.

Secured against the under side of the thill or tongue irons is the flat curved spring catch H, which has a suitable slot made through its front end, so that the spring can be adjusted back and forth, and which has its rear end made to catch under the lower edge of the tapered end of the block, so as to prevent the tongue or thill from being raised out of position. The front end of the block is tapered away, as shown, and in its face is made a suitable groove, O, so that the spring will be guided in its movements as it moves down, so as to snap into position. This spring serves not only to prevent the thill or tongue from being raised out of the block, but also serves as a stop to prevent the thill from being turned around in any manner. The end of the block being tapered, as shown, it is only necessary to insert the lower ends of the tenons or projections on the ends of the thill or tongue irons into the holes in the blocks, when the springs will slip down and be guided automatically into position. In order to remove the tongue or thill, it is only necessary to draw the spring outward, when the tongue or thill can be raised up and separated from the coupling.

This coupling may be secured by a key being fitted into a suitable hole made in the block behind the tenon when in position.

Having thus described my invention, I claim—

In a thill-coupling, the combination of the pivoted block D, bolt E, and ears B on the clip A with the tongue-iron G and slotted adjustable spring H, provided with a shoulder on its lower end, the block D having its front end beveled away and provided with the slot O, for automatically guiding the lower end of the spring into position, substantially as shown and described.

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

ISAAC R. DUNNING.

Witnesses:

A. PLUMMER,
M. A. KOON.