

(No Model.)

H. S. NUNAMAKER & L. D. BLANCHARD.
THILL COUPLING.

No. 475,886.

Patented May 31. 1892.

Fig. 1.

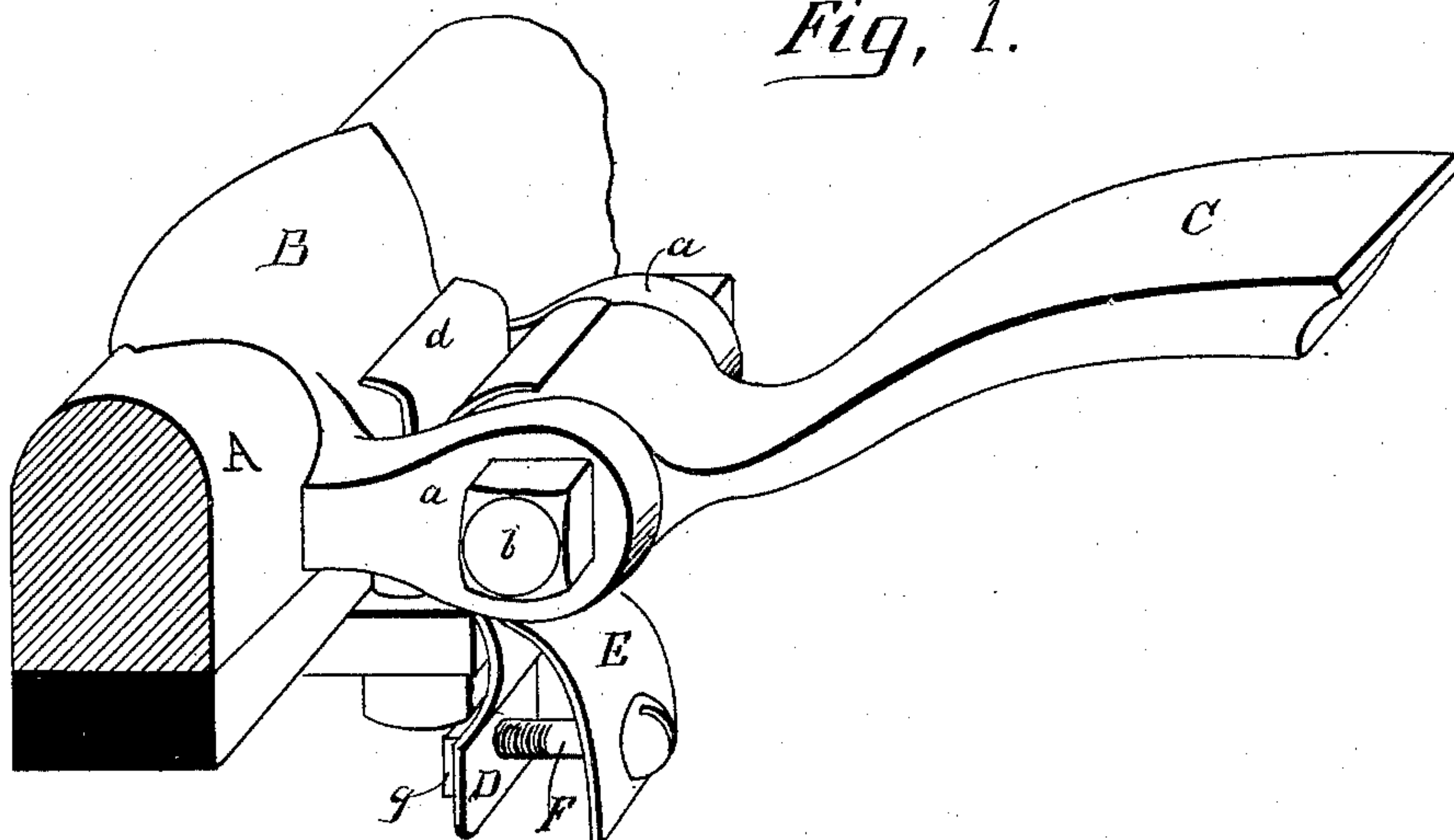


Fig. 2.

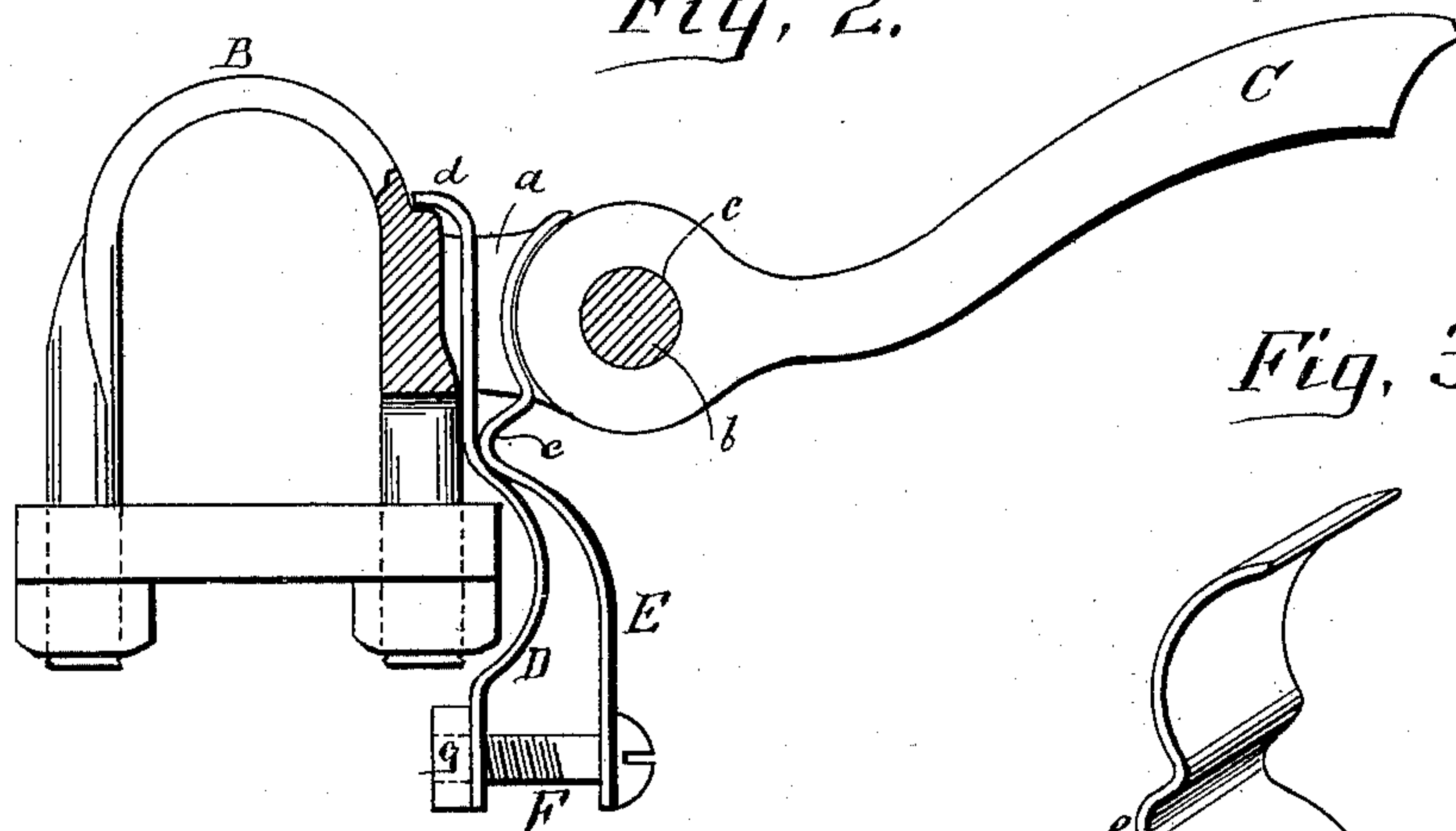


Fig. 3.

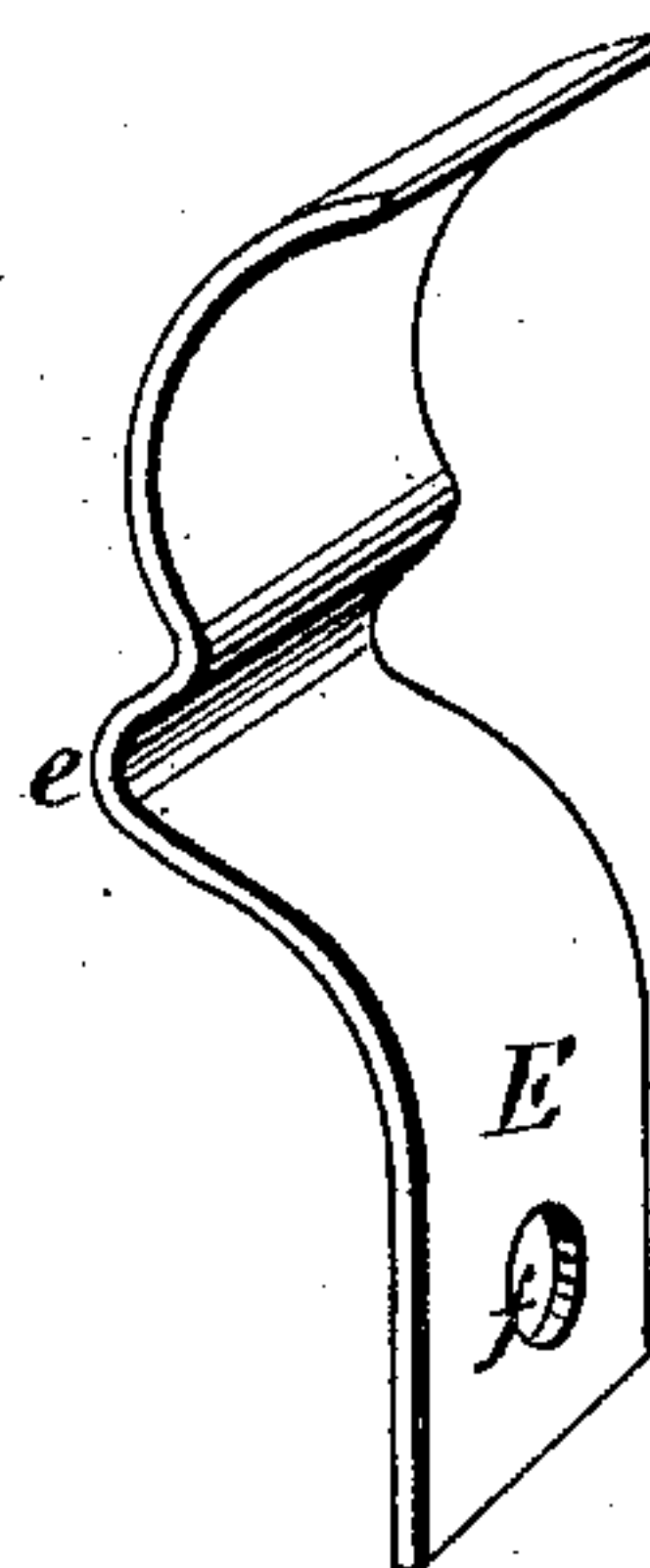
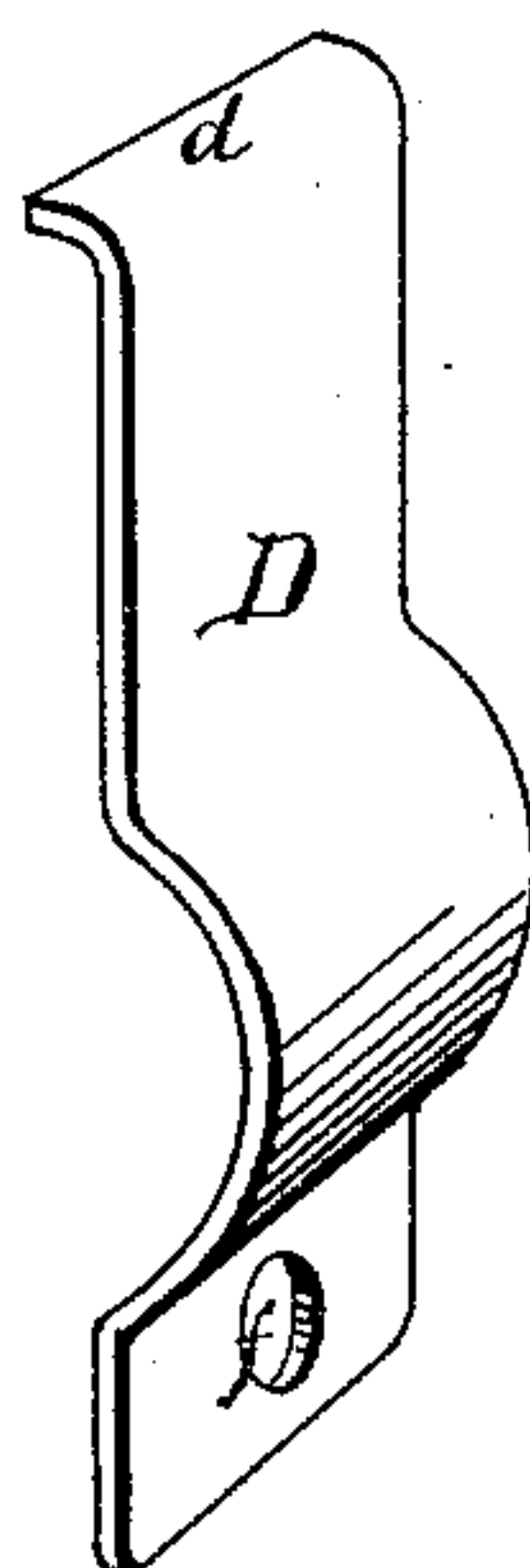


Fig. 4.



WITNESSES:

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HENRY S. NUNAMAKER AND LEWIS D. BLANCHARD, OF CANTON, OHIO.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 475,886, dated May 31, 1892.

Application filed November 30, 1891. Serial No. 413,468. (No model.)

To all whom it may concern:

Be it known that we, HENRY S. NUNAMAKER and LEWIS D. BLANCHARD, citizens of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Anti-Rattlers for Thill-Couplings; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 is a perspective view showing the different parts properly located. Fig. 2 is a transverse section through Fig. 1, showing axle removed. Fig. 3 is a detached view of the spring. Fig. 4 is a detached view of the fulcrum-bar.

The present invention has relation to anti-rattlers for thill-couplings; and it consists in the different parts and combination of parts hereinafter described, and particularly pointed out in the claim.

Similar letters of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings, A represents the axle, which is constructed in the ordinary manner. To the axle A are attached in the usual manner the clips B, which clips are provided with the ears *a*, said ears being for the purpose of holding the draft-bolts *b*. The thill-irons C may be of the form shown in the drawings and are of the usual kind and style, and, as shown, are provided with the aperture *c*, which is for the purpose of receiving the draft-bolts *b*. The fulcrum-bar D is substantially of the form shown in the drawings, and is provided at its top or upper end with the bent or curved portion *d*, which bent or curved portion embraces the front or forward upper edge of the clip B, substantially as illustrated in Figs. 1 and 2. The spring E is located substantially as shown in the drawings, and, as shown, it is provided with the bent or curved extension *e*, which bent or curved extension abuts against the front face of the fulcrum-bar D. The top or upper portion of the spring E is bent or curved, so as to conform with the periphery of the thill-iron C, substantially as illustrated in Figs. 1, 2, and 3. The bottom or lower ends of the ful-

crum-bar D and the spring E are each provided with the apertures *f*, which apertures are for the purpose of receiving and holding the screw-threaded bolt F, said screw-threaded bolt being provided with the screw-threaded nut *g*.

In use the fulcrum-bar D and the spring E are placed in the position illustrated in Figs. 1 and 2, after which the screw-threaded bolt F is placed through the aperture *f*, after which the nut is placed upon said bolt and the desired amount of tension given to the spring E by turning the screw-threaded bolt F in the direction that will bring the bottom or lower ends of the fulcrum-bar D and the spring E toward each other, which in turn presses the top or upper end of the spring E against the rear end of the thill-iron C.

It will be understood that by providing the bent or curved extension *e* and simply abutting said bent or curved extension *e* against the fulcrum-bar D said spring is free to adjust itself so that its bent or curved portion, coming in contact with the rear end of the thill-iron, will automatically adjust itself to the thill-iron, as the curved extension *e* is free to slide on the fulcrum-bar D. It will, however, be understood that very little longitudinal movement of the spring E is had, and hence the sliding movement of the extension *e* on the fulcrum-bar D is very slight. It will also be understood that we are enabled to adjust our device to the common thill-couplings and that by simply abutting the fulcrum-bar D and the spring E together that said parts can be quickly adjusted and attached and at the same time no extra device or devices are required to securely hold our anti-rattling device in proper position. The spring E may be curved more than shown in the drawings, so as to bring a portion of the spring farther under the rear end of the thill-iron. For the purpose of preventing the spring E from bulging or springing laterally between the point *e* and the screw F the fulcrum-bar D is bent or curved below the extension or point *e*. By this arrangement a greater contact-surface is provided for the extension *e*.

Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The combination of the clip B, provided

with the ears *a*, the draft-bolt *b*, the thill-iron
C, the detachable fulcrum-bar D, provided
with the bent or curved portion *d* and bent or
curved above the screw F and below the slid-
5 ing extension *e*, the spring E, provided with
the extension *e*, and the screw-threaded bolt F,
substantially as and for the purpose specified.

In testimony that we claim the above we

have hereunto subscribed our names in the
presence of two witnesses.

HENRY S. NUNAMAKER.
LEWIS D. BLANCHARD.

Witnesses:

E. A. C. SMITH,
F. W. BOND.