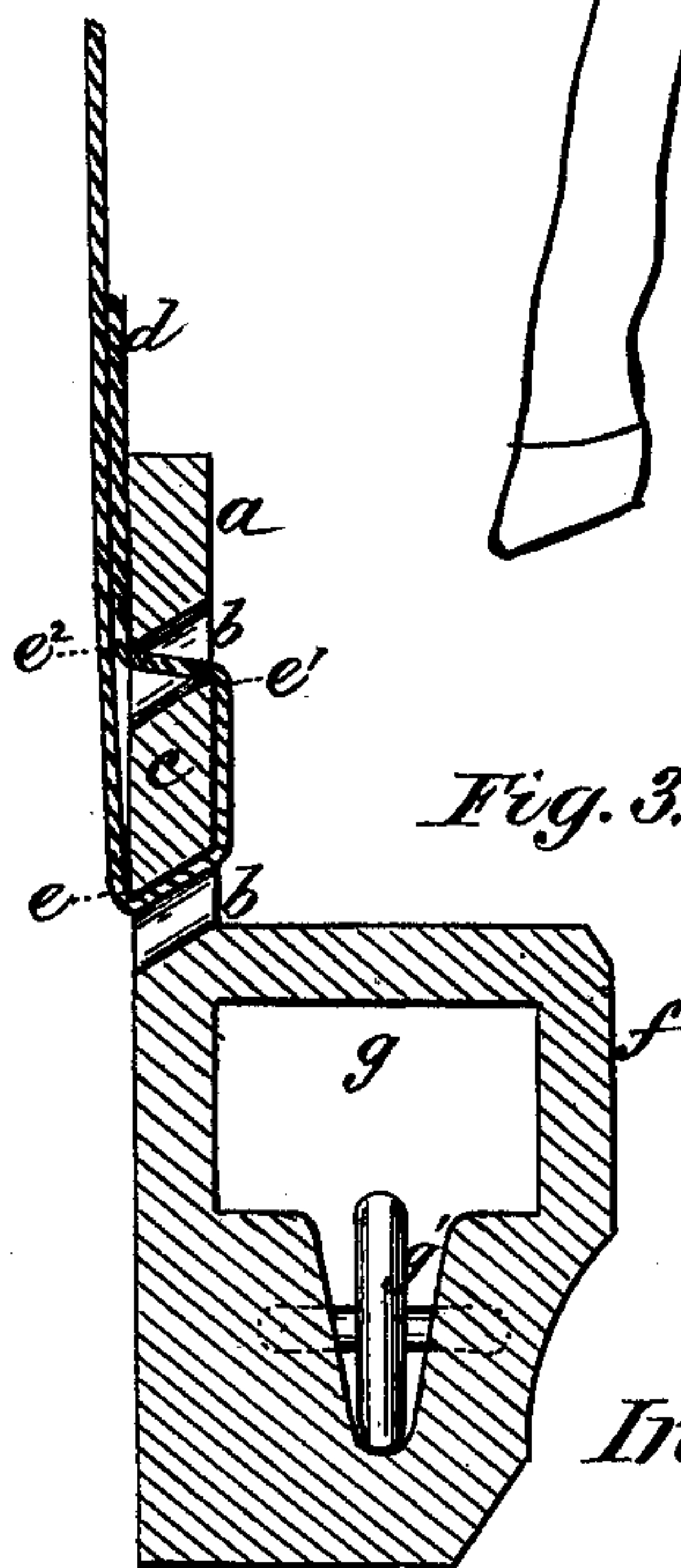
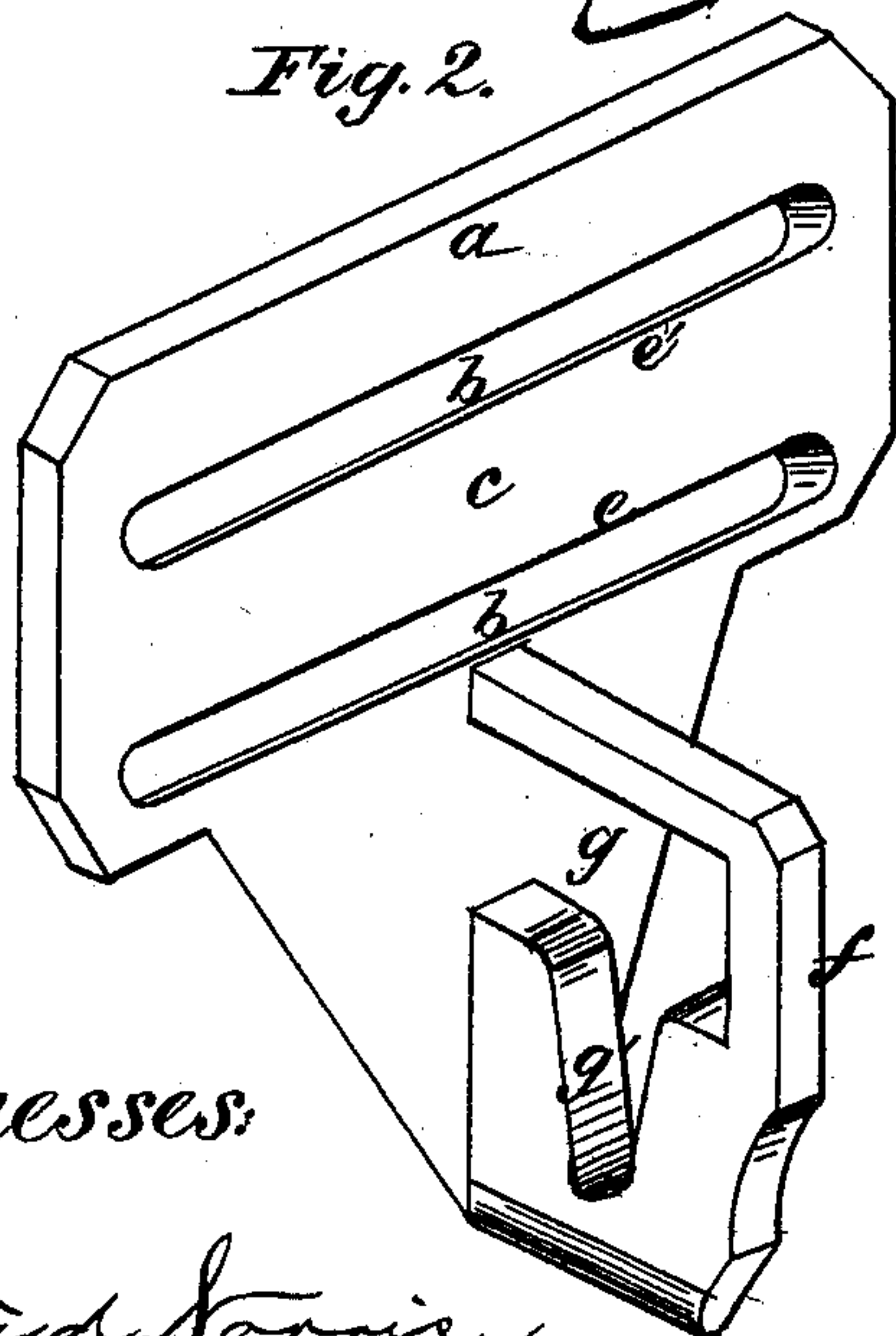
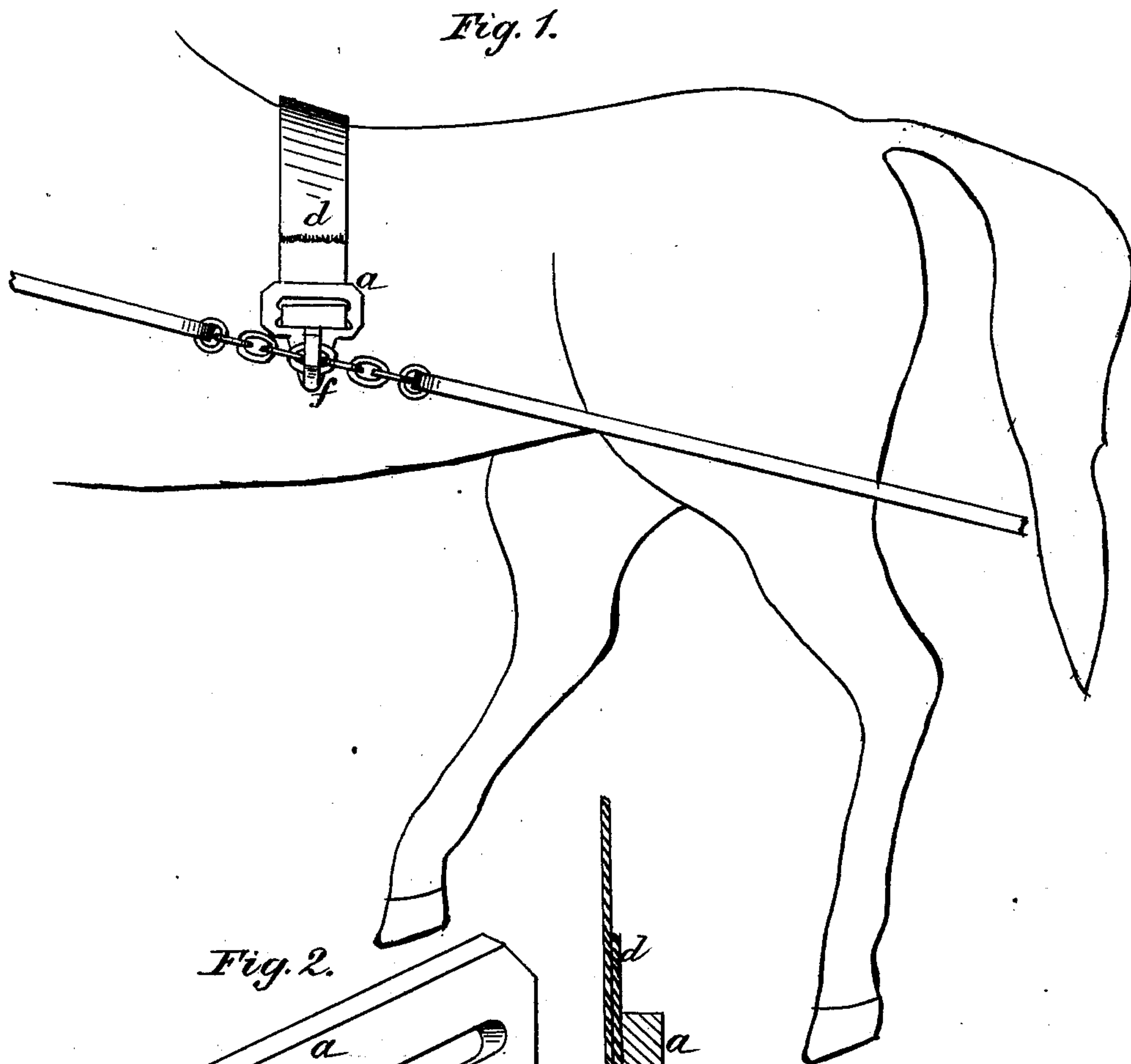


P. MANN.  
 Back-Band Loop for Plow-Harness.  
 No. 214,935.      Patented April 29, 1879.



*Witnesses:*

*Floyd Norris  
 Daniel Smith.*

*Inventor:*

*pro Patrick Mann,  
 Johnson & Johnson  
 Attys.*

# UNITED STATES PATENT OFFICE.

PATRICK MANN, OF WASHINGTON, DISTRICT OF COLUMBIA.

## IMPROVEMENT IN BACK-BAND LOOPS FOR PLOW-HARNESS.

Specification forming part of Letters Patent No. **214,935**, dated April 29, 1879; application filed February 11, 1879.

*To all whom it may concern:*

Be it known that I, PATRICK MANN, of Washington, in the District of Columbia, have invented certain new and useful Improvements in Back-Band Loops for Plow Draft Chains or Traces, of which the following is a specification.

In plow-harness the draft-traces are of chains, or of leather with a section of chain, and they are usually supported by hooks of the back-band.

I use a buckle eye-plate of novel construction for supporting the traces. It consists of a plate having a side projection, in which is formed a triangular or T-shaped eye, adapted to receive the chain or trace and allow it to be turned into a narrow part of the eye to support it, and of a buckle attachment adapted for adjustment on the band, making an adjustable back-band eyed plate of one piece, for use with either a straight or twist link chain or a leather trace, which, when passed through the eye, cannot be pulled out sidewise or become detached.

Referring to the drawings, Figure 1 represents my improved buckle-eye as applied to plow-harness. Fig. 2, the buckle-eye detached from the band, and Fig. 3 a section of the same as applied to the band.

The buckle-plate and the eye for the trace are in one casting. The plate *a* has two parallel slots, *b b*, forming a center bar, *c*, the sides of which and of the slots are beveled, to adapt them to receive the web-band *d*, which is crimped over the center bar, so that the pull of the plate upon the band tends to straighten the band, and thereby to cause it to bite with greater force upon the lower inner and upper outer edges, *e e*<sup>1</sup>, of the beveled center bar, and upon the inner beveled edge, *e*<sup>2</sup>, of the upper slot, thus forming a buckle attachment which allows the band to be lengthened or shortened, according to the height of the horse, and to regulate the pitch of the plow.

The eye is of somewhat triangular or T shape, and is formed in a projection, *f*, from the front side of the buckle-plate, so that the eye *g* is large enough to receive the chain or

trace, and allow it to be turned into the narrow part *g'*, so that it is secure in the eye. The loop projection has no cross-opening, so that the trace when inserted in its eye is secure.

The end of the band, after passing through the two slots, stands upward behind the plate, with a short lap against the outer side of the band, and the bevel sides of the center bar and of the upper slot stand so as to have a biting action upon the band at three points—that is, at the lower inner and upper outer edges, *e e*<sup>1</sup>, of the center bar, and the inner edge, *e*<sup>2</sup>, of the upper slot—so as to make a secure hold, and allow the band to be taken up or let out, as required. The plate thus forms a buckle for the back-band and an eye for the trace.

The three beveled biting-edges, arranged as shown and described, give a secure buckle-fastening. These biting-edges may, however, be rasped, if desired.

The narrow part of the eye is formed by contracting its sides at the lower part, while the eye itself is large enough to receive the leather or chain trace and allow it to be turned edgewise into its seat. When a chain trace is used the links are adjusted in the seat of the eye to suit the length of the horse, and the buckle is adjusted to his height and to adapt the height of the traces to the draft of the plow.

The adjustable eyed buckle-plate herein described forms a new article of manufacture for the back-bands and traces of plow-harness.

I claim—

1. The back-band plate *a*, provided with the eye *g g'*, for receiving and holding the trace.
2. The plate *a*, provided with the beveled slots and the alternately-beveled biting-edges *e e*<sup>1</sup> *e*<sup>2</sup>, and with the side eye, *g g'*, making an adjustable buckle for the back-band and a support for the trace, as a new article of manufacture.

In testimony whereof I have hereunto set my hand in the presence of two witnesses.

PATRICK MANN.

Witnesses:

A. E. H. JOHNSON,

J. W. HAMILTON JOHNSON.