

F. HICKMAN.
Harness-Loops.

No. 145,299.

Patented Dec. 9, 1873.

FIG. 1.

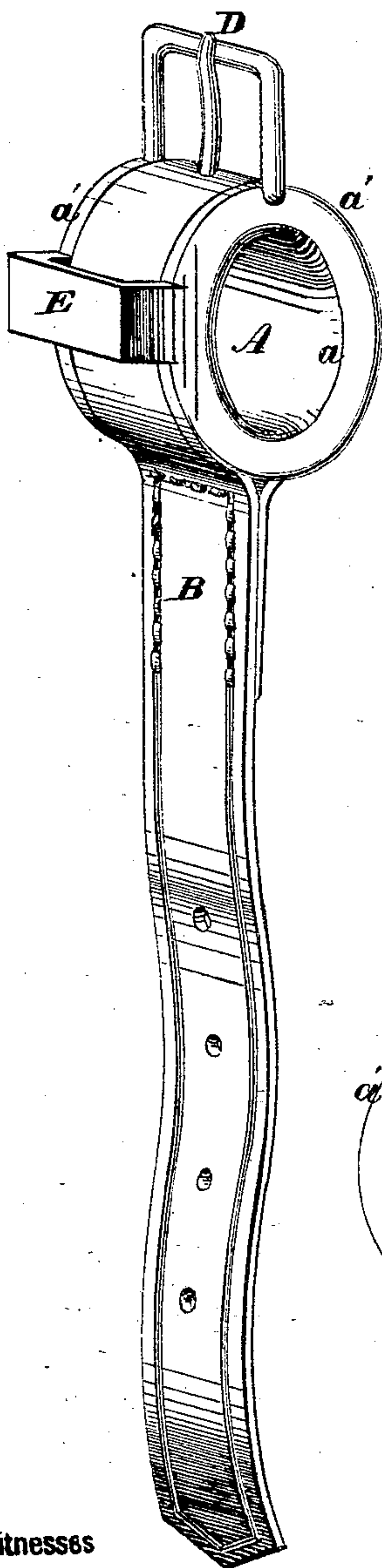


FIG. 2.

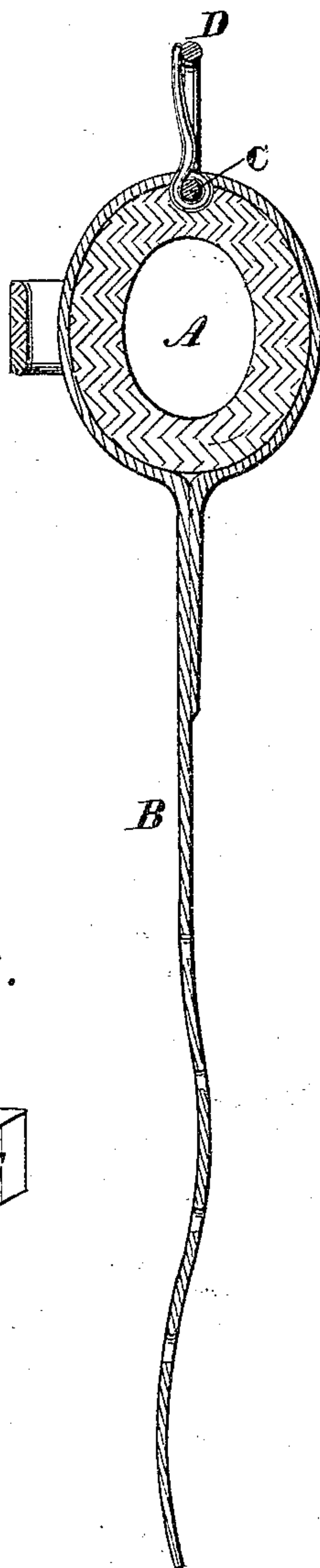
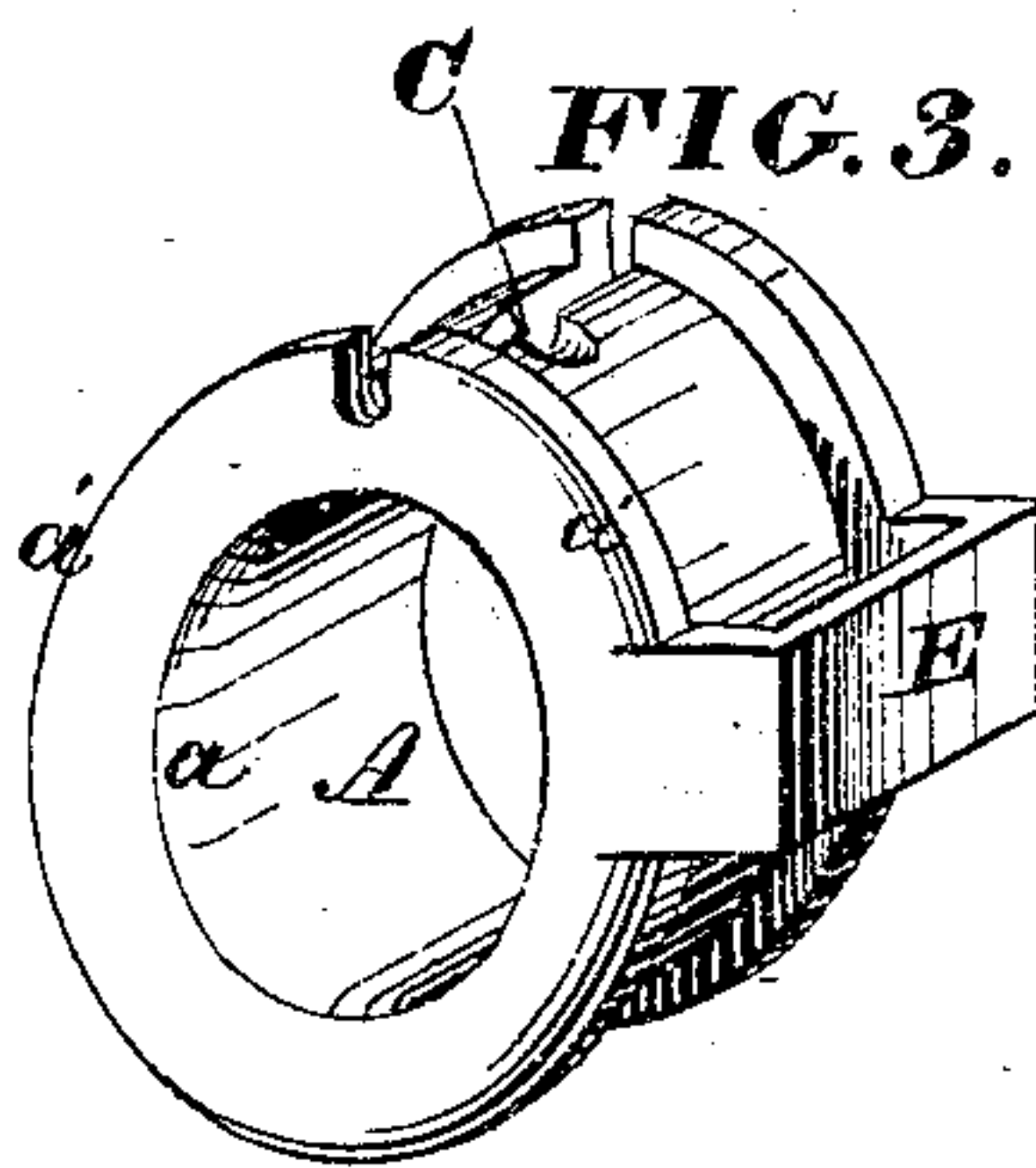


FIG. 3.



Witnesses

Jas. L. Ewin
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UNITED STATES PATENT OFFICE.

FRANCIS HICKMAN, OF READING, PENNSYLVANIA.

IMPROVEMENT IN HARNESS-LOOPS.

Specification forming part of Letters Patent No. **145,299**, dated December 9, 1873; application filed February 17, 1873.

To all whom it may concern:

Be it known that I, FRANCIS HICKMAN, of Reading, in the county of Berks, Pennsylvania, have invented a new and useful Harness-Loop, of which the following is a specification:

My invention relates to a construction of a harness tug or loop, which causes it to grasp the shaft without noise or rattle; and for this purpose that portion of the loop which comes in contact with the shaft is made to consist of india-rubber, and, together with the strap-keeper, may be cast in one piece.

Figure 1 is a perspective view of a harness-tug embodying my invention. Fig. 2 is a vertical transverse section through the same. Fig. 3 is a perspective view of the rubber loop and keeper detached from the strap.

A is an annular block or ring of india-rubber, whose central opening is of the represented oval or elliptical shape, and is preferably rounded toward the edges at *a*, as shown. Externally the said block has flanges *a'*, which confine the ordinary leather strap B. In the upper portion of said block is a channel, C, to receive the bar of a customary buckle, D. The

flanges *a'* project and unite on one side to form a keeper or staple, E.

It will be seen that the block A will receive the shaft as in a cushion, and partially grasp the same, not permitting it to slip about and rattle, as in the customary leather loop.

My invention will be seen to greatly simplify the manufacture of harness-tugs. The entire loop and keeper can be made at small cost, and the hand-work which remains, consisting simply in the attachment of the strap B, is trifling. The subsequent repairs of the tug are in like manner facilitated.

I claim as new and of my invention—

The rubber ring A, formed with the channel C to receive the buckle D, and having the flanges *a'* for securing the edges of the strap B, said flanges being extended and joined together on one side of the ring, so as to form the strap-keeper E, all as herein shown and described.

FRANCIS HICKMAN.

Witnesses:

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