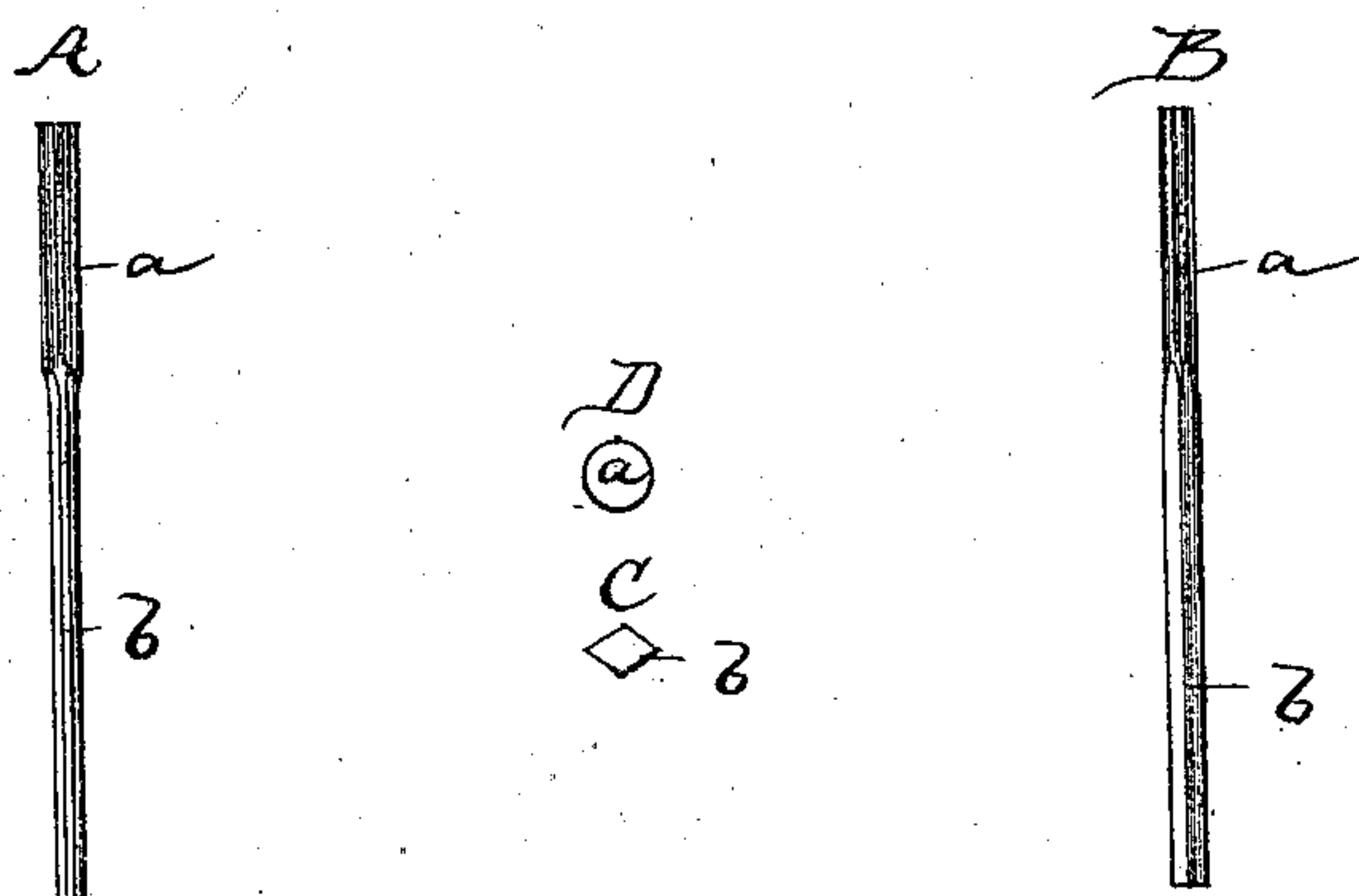


A. S. LIBBY.

Drivers for Boot and Shoe Nailing-Machines.

No. 143,699.

Patented Oct. 14, 1873.



Witnesses.
L. B. Hilder.
L. H. Latimer.

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by his attys.
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UNITED STATES PATENT OFFICE.

ASA S. LIBBY, OF LAWRENCE, MASSACHUSETTS.

IMPROVEMENT IN DRIVERS FOR BOOT AND SHOE NAILING MACHINES.

Specification forming part of Letters Patent No. **143,699**, dated October 14, 1873; application filed August 14, 1872.

To all whom it may concern:

Be it known that I, ASA S. LIBBY, of Lawrence, in the county of Middlesex and State of Massachusetts, have invented an Improved Driver for Boot and Shoe Nailing Machines; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

In using drivers for sole-nailing machines, such as are shown in United States Letters Patent Nos. 76,150 and 122,985, great difficulty is experienced in getting drivers which, having the requisite form, also possess strength, rigidity, and toughness sufficient for their work.

In my invention I take a piece of round steel wire and draw its driving end in a pair of rolls having V-shaped peripheral grooves, the two rolls meeting at the plain surfaces, and their action upon the wire indurating and

imparting to it the cross-sectional lozenge shape to fit the nail-tube, and the nails driven by it through such tube. My invention consists in such a driver.

The drawing represents side views of it at A and B, an end view of its driving end at C, and an opposite-end view at D.

a denotes the round steel wire; *b*, the lozenge-shaped shank, which is formed from the round wire by cold-drawing the round wire into the quadrangular shape in the two V-shaped grooves of the pair of rolls.

I claim—

The nail-driver made from round wire, having its driving end drawn into prismatic shape and hardened, substantially as described.

A. S. LIBBY.

Witnesses:

FRANCIS GOULD,
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