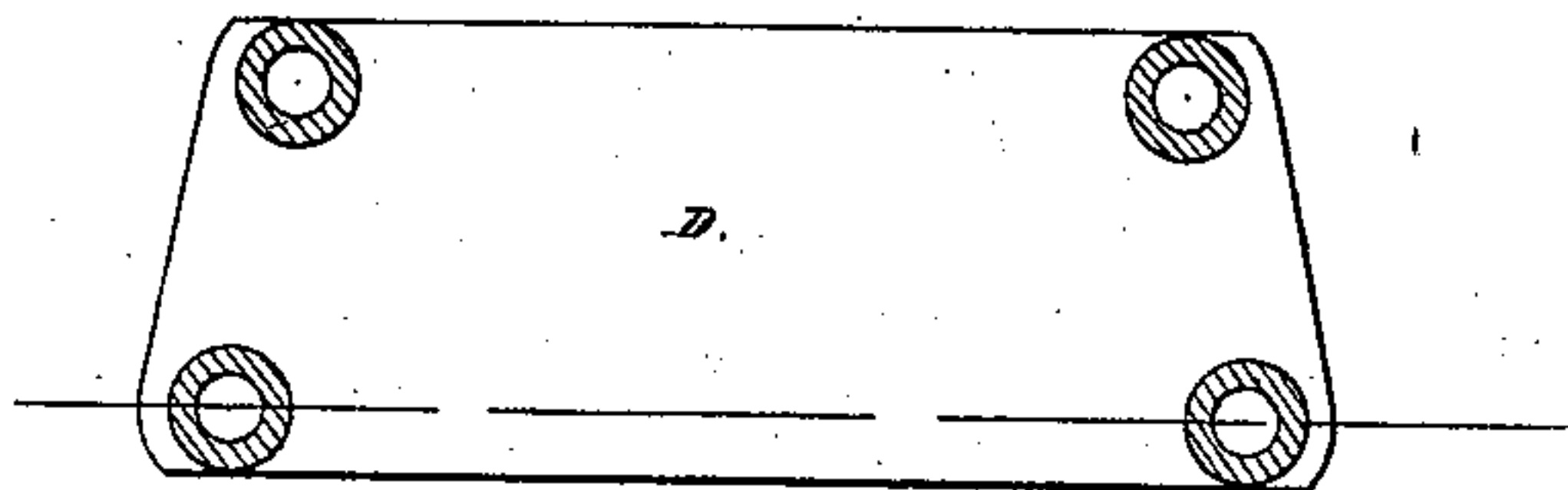
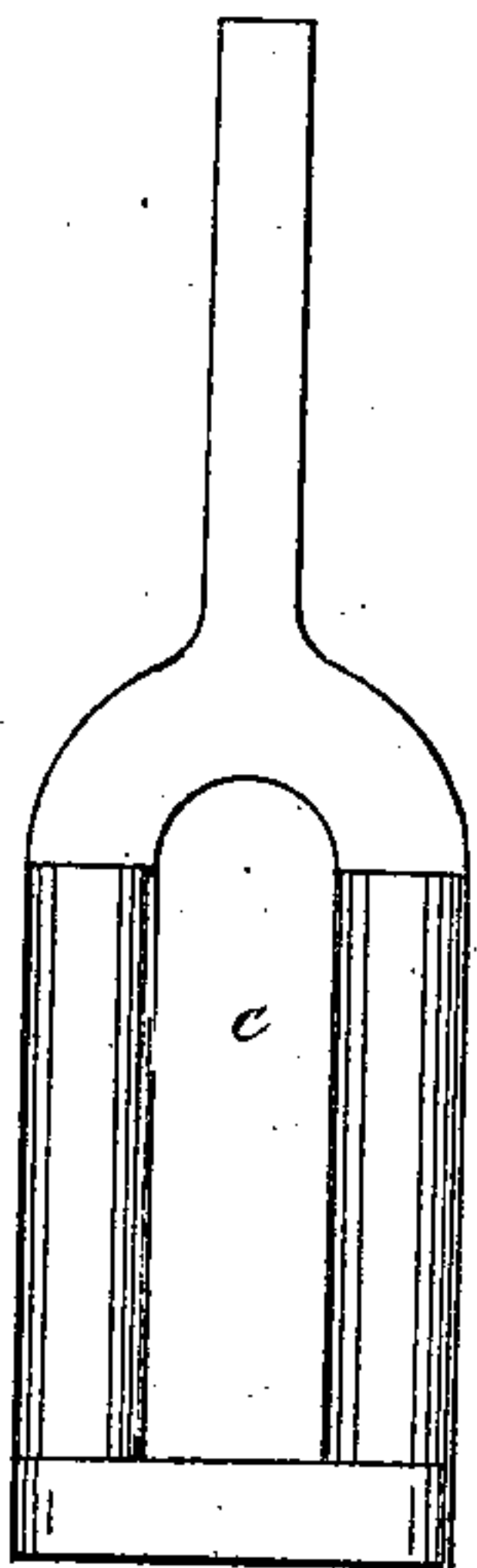
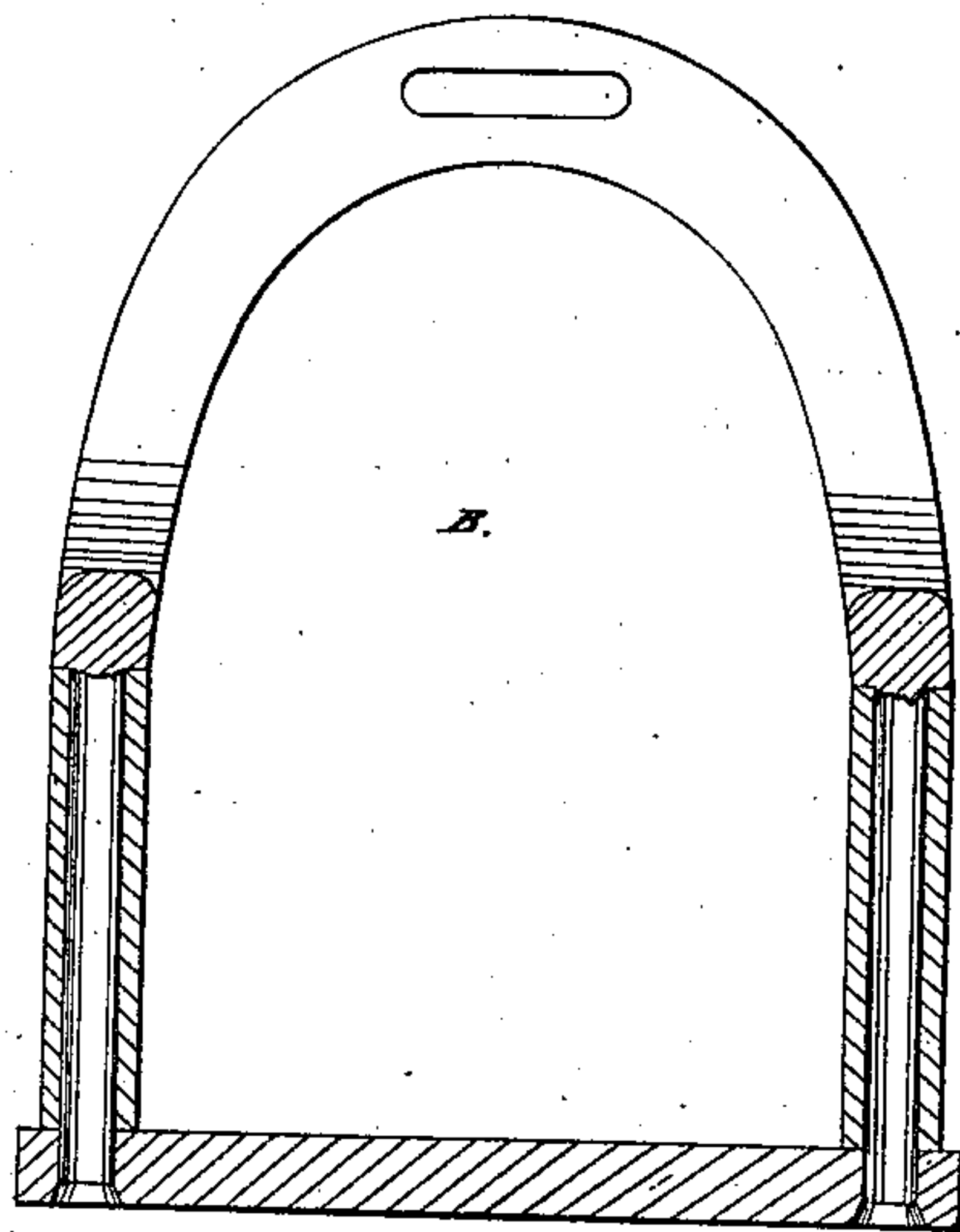
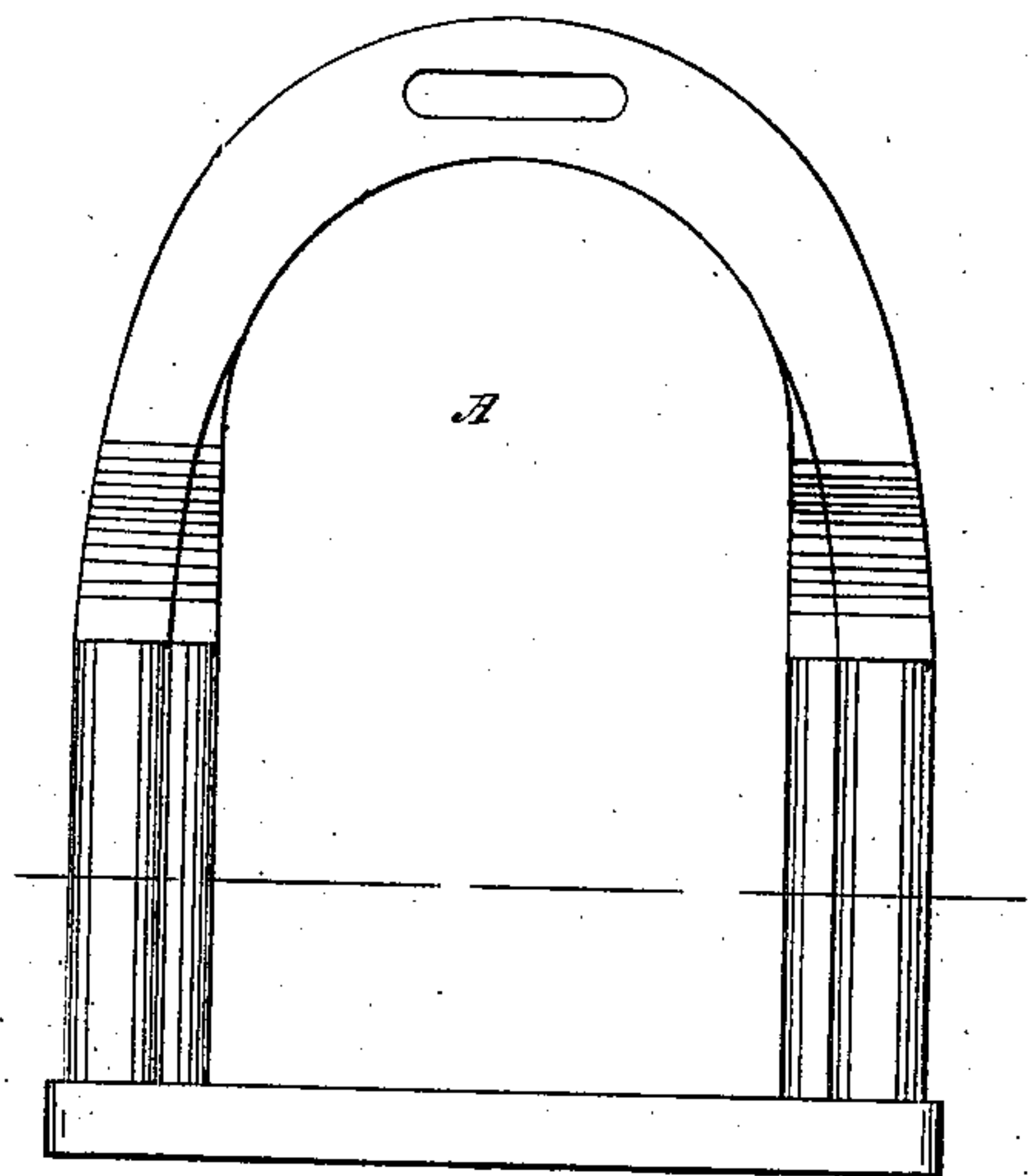


C. Ray,

Riding Stirrup,

N^o 33,753,

Patented Nov. 19, 1861.



Witnesses:
A. P. Martin
W. Cobb J.

Inventor:
Charles Ray

UNITED STATES PATENT OFFICE.

CHARLES RAY, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN STIRRUPS.

Specification forming part of Letters Patent No. **33,753**, dated November 19, 1861.

To all whom it may concern:

Be it known that I, CHARLES RAY, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and Improved Saddle-Stirrup; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in applying to the upright sides of a common stirrup rollers—one or more—in order to prevent the foot of the rider from catching in the stirrup, and when more than one roller is used the same to be so arranged as to prevent the foot being inserted into the stirrup farther than the ball of the foot.

The drawings herewith submitted represent a stirrup having four rollers, two on each upright side, and arranged as above stated, so as to prevent the foot from going into the stirrup farther than the ball.

Drawing A represents a back view of the stirrup with rollers on the inner and outer corners of the sides of the stirrup.

D represents the foot of the stirrup or bottom, upon which the foot rests, viewed from the rear, with the points indicated in blue color where the rollers are attached thereto.

C represents a side view of the stirrup with the rollers arranged as above indicated.

B represents a perpendicular section of the two rear rollers.

What I claim as my invention, and desire to secure by Letters Patent, is—

The application to the sides of stirrups of a revolving surface, however arranged, so as to prevent the feet of the rider from catching in the stirrup, in combination with a step or bottom having a fixed and non-rotating surface, and which bottom shall be rigidly attached to the frame of the stirrup, substantially as above described.

CHARLES RAY.

Witnesses:

A. P. MARTIN,
D. COBB, Jr.