

C. E. BOARDMAN.

PACKING FOR HYDRAULIC CYLINDERS.

No. 188,496.

Patented March 20, 1877.

Fig: 1.

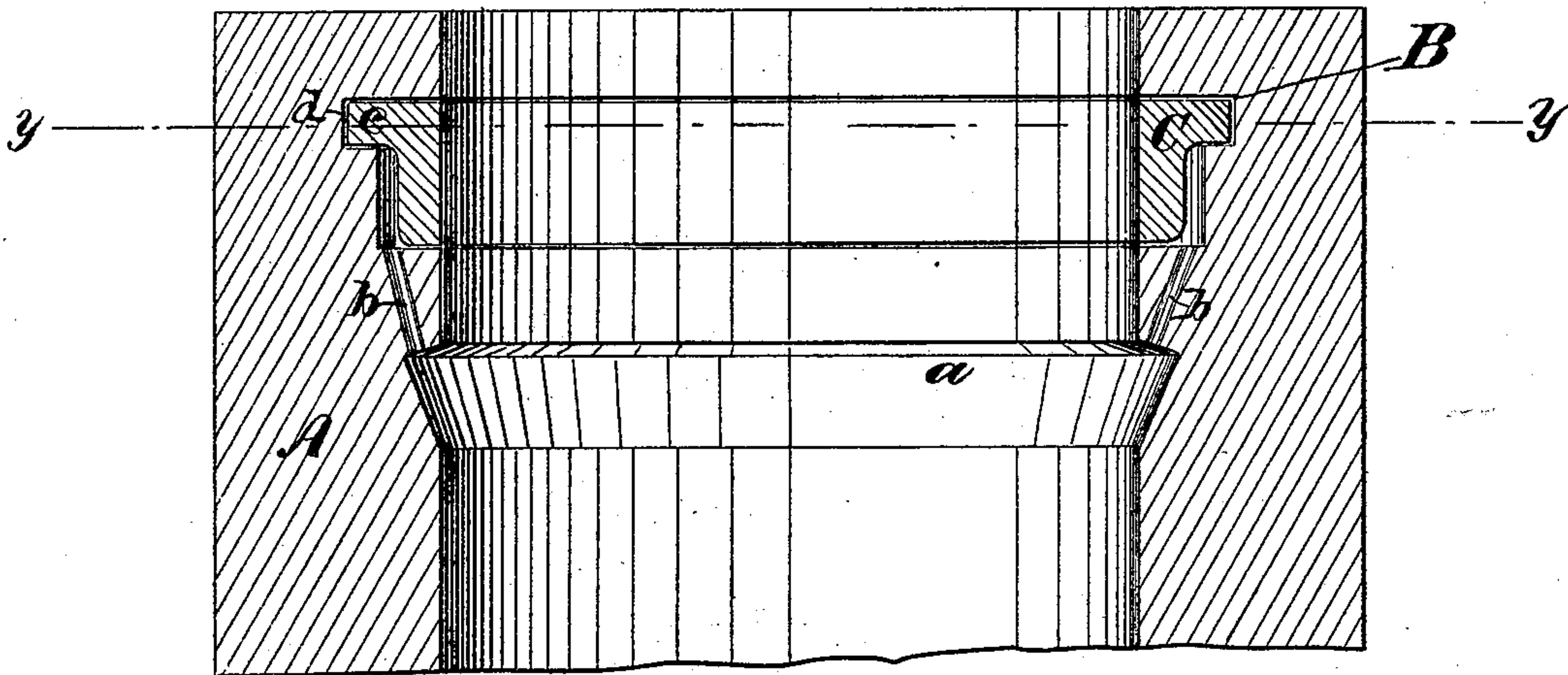
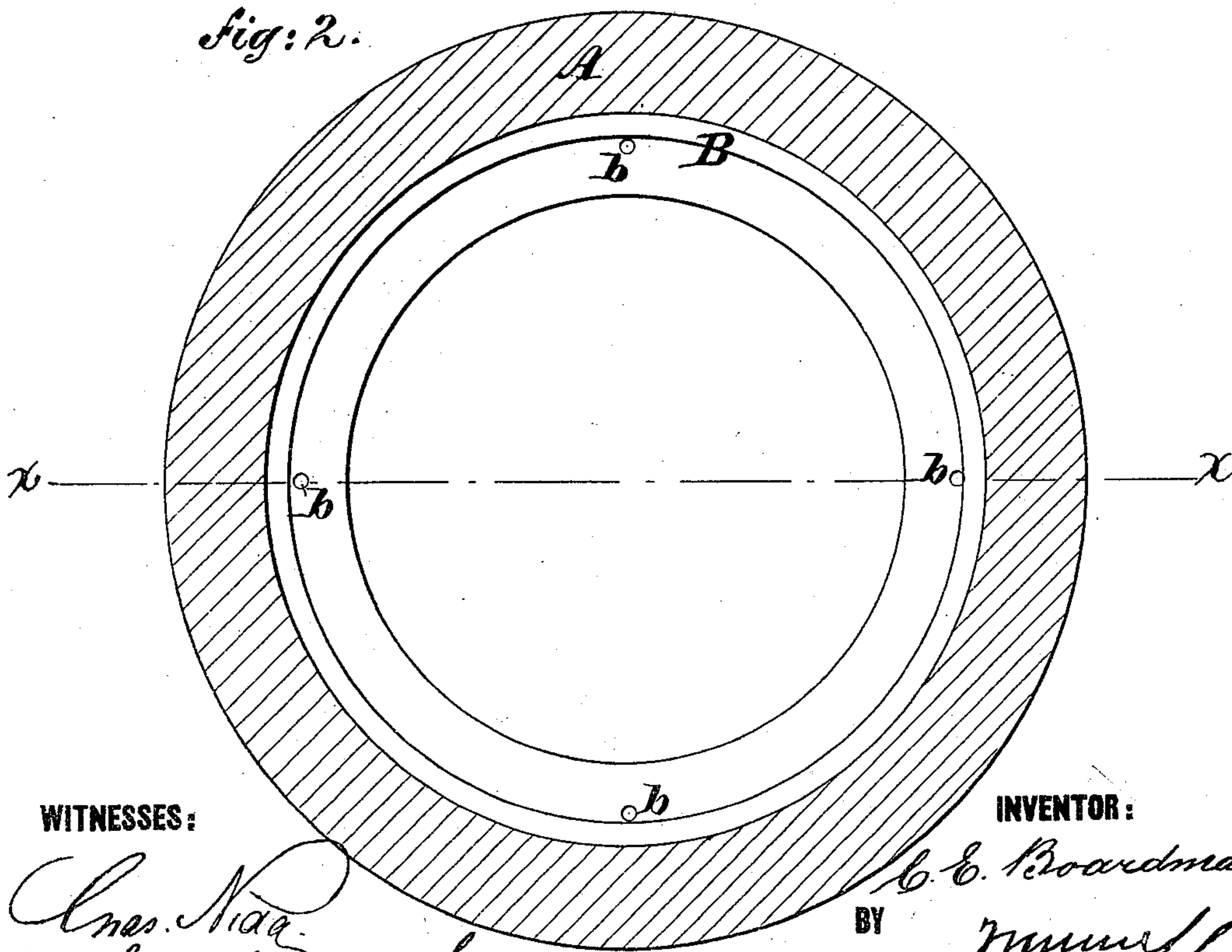


Fig: 2.



WITNESSES:

Chas. Nida.
J. H. Scarborough.

INVENTOR:

C. E. Boardman
BY *Mumford*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

CHARLES E. BOARDMAN, OF NEW YORK, N. Y.

IMPROVEMENT IN PACKING FOR HYDRAULIC CYLINDERS.

Specification forming part of Letters Patent No. **188,496**, dated March 20, 1877; application filed February 17, 1877.

To all whom it may concern:

Be it known that I, CHARLES E. BOARDMAN, of the city, county, and State of New York, have invented a new and Improved Packing for Hydraulic Cylinders, of which the following is a specification:

In the accompanying drawing, Figure 1 is a transverse section on line *x x*, Fig. 2. Fig. 2 is a horizontal section, on line *y y* in Fig. 1.

Similar letters of reference indicate corresponding parts.

The invention will first be described in connection with the drawing, and then pointed out in the claim.

Referring to the drawing, A is a portion of a hydraulic cylinder, in which an L-shaped groove, B, is cut, the deeper portion of which is outward or nearest the mouth of the cylinder. An angular or V-shaped groove, *a*, is formed a short distance from the groove B, and is connected with the bottom of the said groove by holes *b*.

The packing-ring C, which is placed in the groove B, is made of rubber and fibrous material, or from any other suitable substance,

and is provided with a flange, *c*, which fits the deepest portion of the groove B. It also fits the groove closely at the inner surface of the cylinder, but is of such thickness as to leave a small space, *d*, behind it in the shallower part of the groove B.

When pressure is created in the cylinder, the water passes through the groove *a* and holes *b* into the space behind the packing-ring C, and forces it against the ram as well as against the outer side of the groove.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination, with an elastic flanged packing, C *c*, of a cylinder, having the grooves *a* B, connected by the water-channels *b*, as shown and described, so that the packing will not shift, is forced evenly out, and will wear uniformly.

CHARLES E. BOARDMAN.

Witnesses:

C. SEDGWICK,
ALEX. F. ROBERTS.