J. BOOTH.

SPINNING RINGS.

No. 180,529. Patented Aug. 1, 1876.

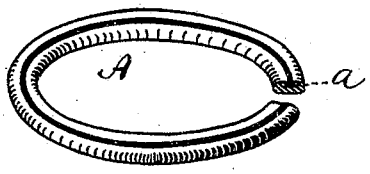


FIG. 1.

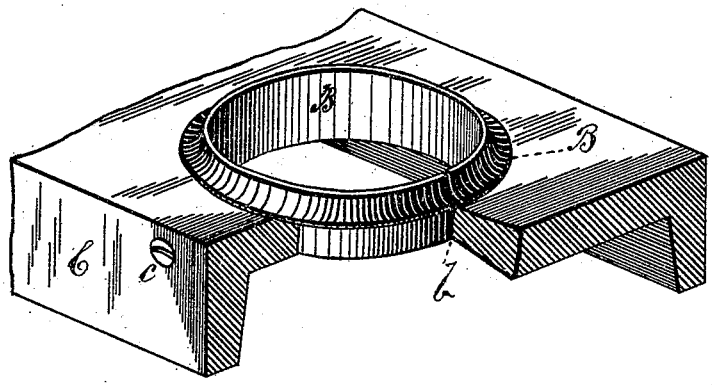


FIG. 2.

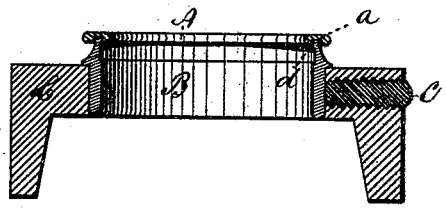


FIG. 3.


FIG. 4.

WITNESSES,

Thomas F. Osgood

J. C. B. Woods

INVENTOR,

John Booth

# UNITED STATES PATENT OFFICE.

JOHN BOOTH, OF CENTRAL FALLS, RHODE ISLAND.

## IMPROVEMENT IN SPINNING-RINGS.

Specification forming part of Letters Patent No. **180,529**, dated August 1, 1876; application filed April 8, 1876.

*To all whom it may concern:*

Be it known that I, JOHN BOOTH, of the town of Central Falls, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Spinning-Rings; and I do hereby declare that the following specification, taken in connection with the drawings, making a part of the same, is a full, clear, and exact description thereof.

Figure 1 is a view, in perspective, of the ring proper, with a segment cut out in order to show the shape of an annular channel or groove cut therein. Fig. 2 represents a section of the ring-rail, with a ring-holder of peculiar form set therein. Fig. 3 is a transverse section in a plane through the center of the ring-holder and ring combined therewith. Fig. 4 is an enlarged sectional view, showing more clearly the combination between the ring and the holder.

My invention consists of a flattened ring of thin metal, which is constructed with an annular recess or channel, such channel being wider in its cross-section at the bottom, than at the surface of the ring; and it also consists in the combination of a ring so constructed with a base-piece or ring-holder whose upper edge is suitably formed to enter such recess in the ring, and is capable, upon being constricted or expanded, to have its peculiarly-formed edge lock with one of the sides of the annular recess, and hold the ring firmly upon the base piece or holder.

The advantage of the improvement is that a ring of this character can be very cheaply constructed, and can be applied at a small cost to common spinning-frames in use.

In the drawings, A represents a ring of flattened metal, which may be made by the well-known process of punching out of sheet metal, or by the processes of forging and swaging. After the ring has been otherwise fashioned a recess or channel, *a*, is cut in one of its faces concentric with its periphery by means of a cutting tool while the ring is revolved in a chuck, or otherwise properly held in a lathe. The cross-section of this channel is dovetailed in form, as seen at Fig. 4—that is to say, it is of greater width at its bottom than at the surface of the ring.

B represents a base-piece or ring-holder which is intented to grasp and hold the ring A. It is set in the ring-rail C, as shown in the drawing, and being provided with a vertical slit, *b*, it is capable of being contracted or expanded in diameter by the pressure of set-screws applied either exteriorly or interiorly in a well-understood way. In the drawing the holder is shown in combination with a pressure or temper screw, *c*, applied in a way which will cause the diameter of the holder to be contracted.

The upper rim or edge of the ring-holder B is turned down sufficiently thin to enter the recess *a* in the ring, and its inner edge is made to overhang, as seen at *d*, Fig. 4, to form a beveled lip, which corresponds in inclination with the beveled side of the recess *a*.

The holder B having been placed in the ring-rail the ring A is combined with it, as shown at Figs. 3 and 4.

It is obvious that when pressure is applied to the holder through the set-screw *c* the ring will be firmly griped by the holder. In case it is proposed to expand the ring instead of contracting it, it will be necessary to form the overhanging lip on the outside edge of the ring-holder instead of upon the inside, as shown in the drawing, and in that case the outer side of the recess *a* should be beveled instead of the inner side.

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

1. A spinning-ring, composed of a flat annular piece of metal, and furnished with a dovetail recess concentric with the periphery of the ring, substantially as described.

2. The combination of an expansible or contractible ring-holder constructed with an overhanging lip, *d*, in combination with a spinning-ring formed with an annular recess or groove, as described, whereby the ring can be locked with the holder and held in place, as specified.

JOHN BOOTH.

Witnesses:
THOMAS F. COSGROVE,
J. C. B. WOODS.