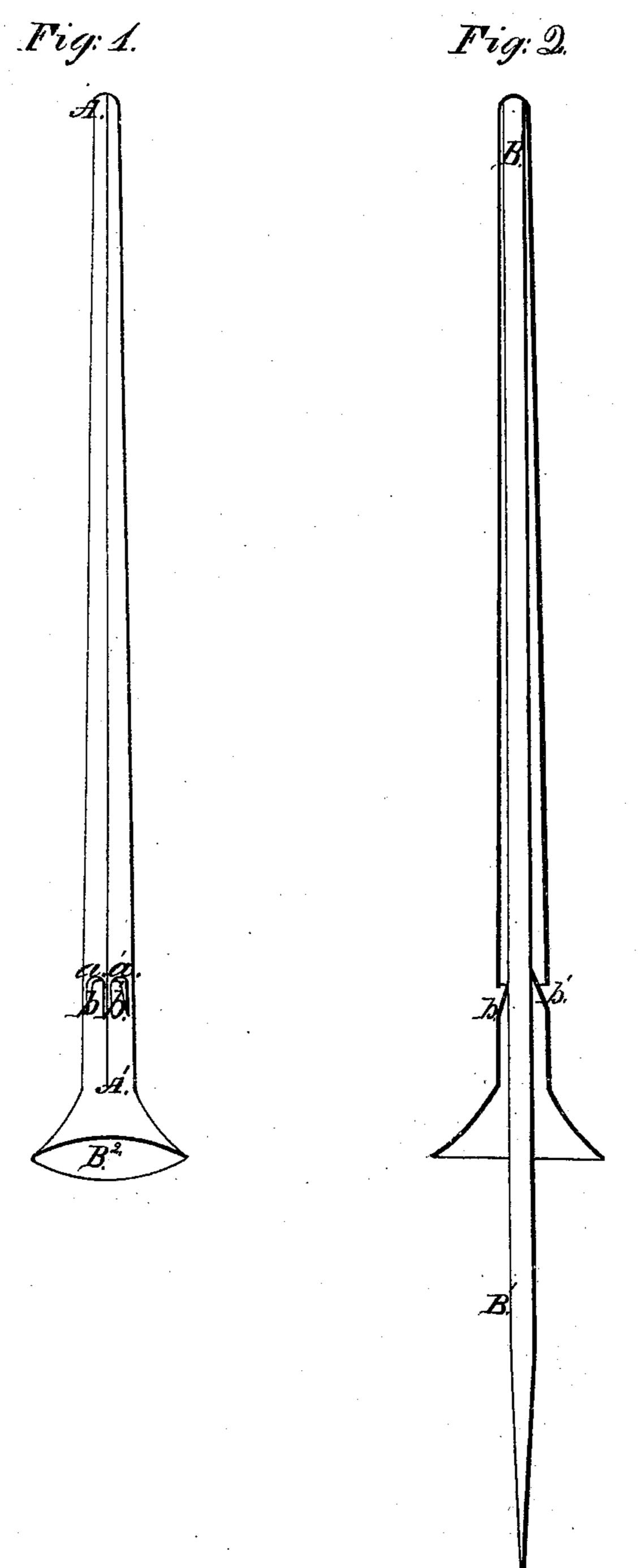
## W. M. Brisbert. Springer Bobbin.

1.88,268.

Patente Mar. 30,1869.



Witnesses.

Di & Strawn

Inventer. Williams M. Brisben,



## WILLIAM M. BRISBEN, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 88,268, dated March 30, 1869.

## IMPROVEMENT IN BOBBIN FOR SPINNING-MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

Be it known that I, WILLIAM M. BRISBEN, of the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Bobbins; and I do hereby declare the following, when taken in connection with the accompanying drawings, and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification.

Figure 1 is a view, in perspective, of the bobbin: Figure 2 is a longitudinal section of the same, show-

ing the spindle with the bobbin in place.

The object of this invention is to produce a metal bobbin that is light, easily made, and cheap in its construction, and can be quickly and securely applied to the spindle, and firmly held in position, and as easily removed when necessary; and

It consists of a tapering metallic tube, made from a piece of sheet-metal, and bent to form the barrel of the tube, having spring-tongues formed in the tube,

and the tube itself a spring.

Wooden bobbins, as heretofore made, are liable to split, or become useless by wear upon the spindle, so as not to be firmly held thereon; and when such is the case they must be thrown aside, and others used in their places.

Metal tubes with wooden heads have been used, but they are expensive, and particularly so when any spring is inserted in them to hold them in firm and close contact with the spindle; but by my construction of metallic bobbins, the danger of splitting and wear is avoided, and the means of holding it in position is perfect, and at the same time can be produced much cheaper than other kinds. In the drawings—

A A' represent the tapering tube with the seam open the whole length.

B<sup>2</sup> is the bottom end of the tube, and is bell-shaped in form.

B and B' are the spindle.

a and a' are incisions made in opposite sides of the metal tube, and form tongues b and b', which are bent inward, and form springs, so that when the bobbin is pushed on to the spindle, the tongues a and a' will both centre, and hold the bobbin firm in its place on the spindle.

The tapering tube, by having the longitudinal seam open, likewise operates as a spring, the whole length, or nearly so, of the tube, as it is enabled to grasp the end of the spindle firmly at B, and will never become loose by wear until entirely worn out.

The tube is made from thin sheet-metal, preferably of steel because of its having more elasticity; but other metals will answer.

Having thus described my invention,

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

A sheet-metal bobbin, having an open seam the whole length of tube A, and spring-tongues b b' in incision a a', and bell-shaped, or flaring bottom  $B^2$ , constructed to operate substantially in the manner set forth.

WM. M. BRISBEN.

Witnesses:

Wilson Kerr, H. B. Brisben.