

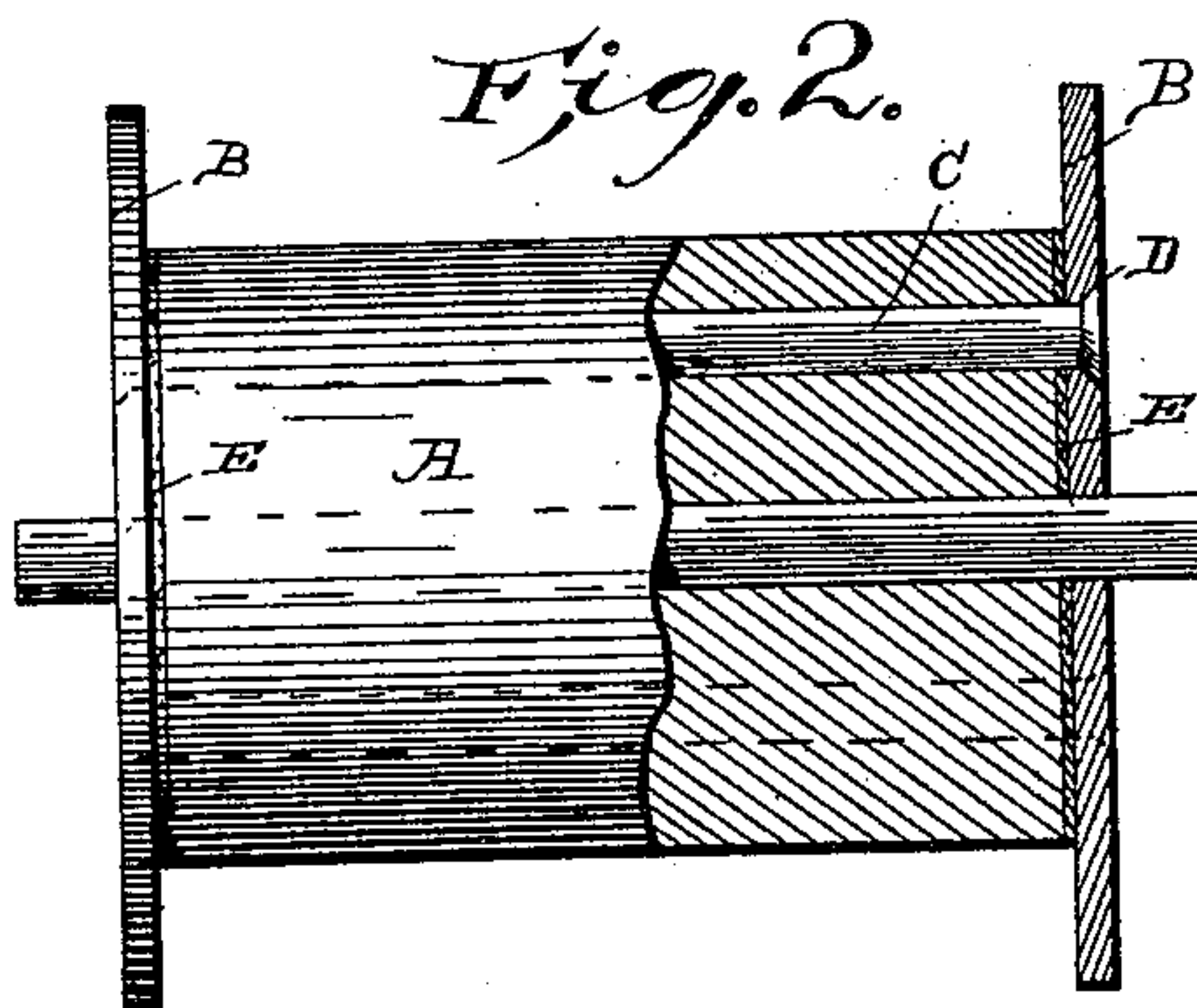
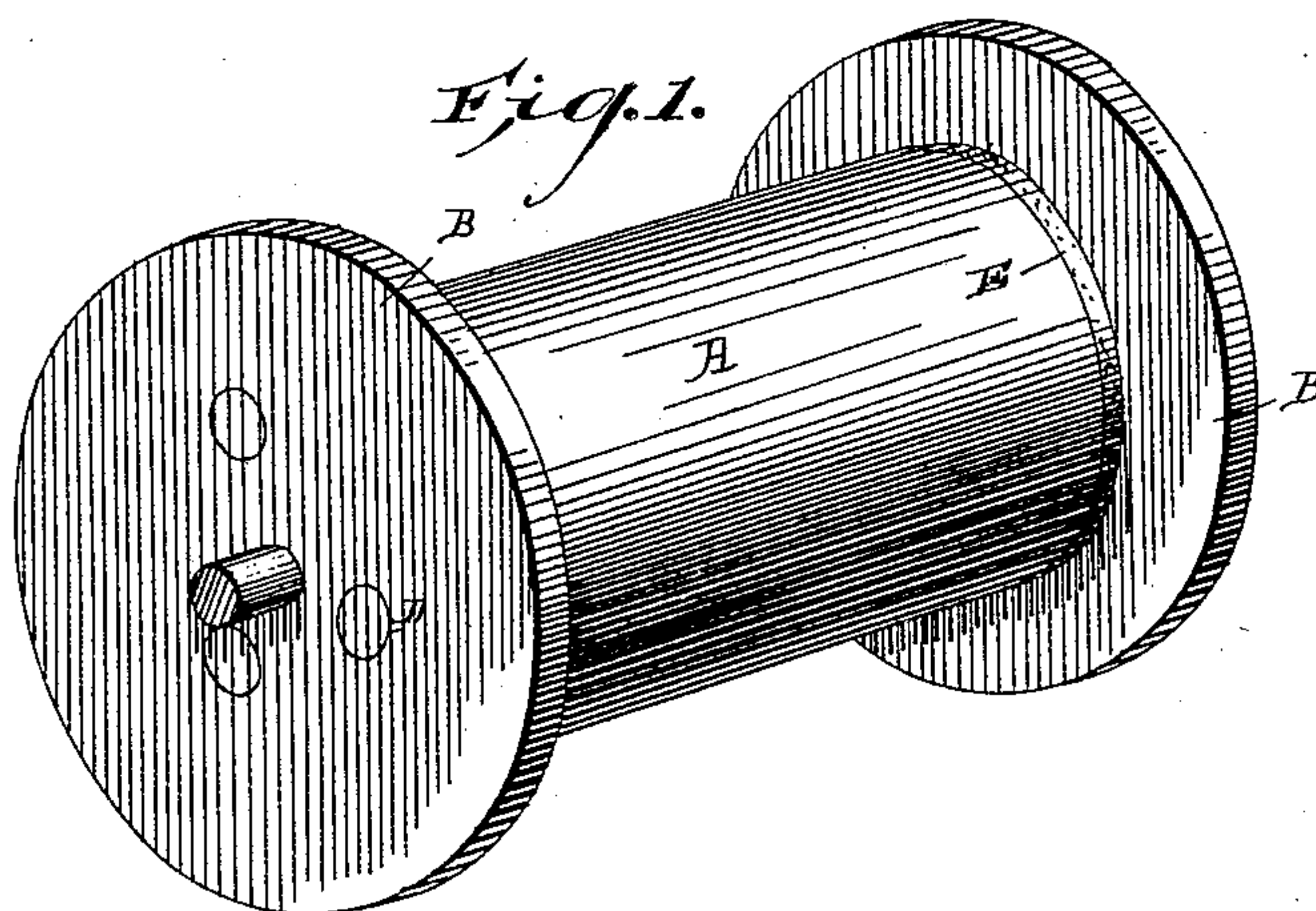
(No Model.)

O. O. SULLIVAN.

BOBBIN.

No. 396,008.

Patented Jan. 8, 1889.



Witnesses.

Henry G. Dietrich
J. W. Garner

Inventor,
Otho O. Sullivan.

by *C. A. Hojwick*
his Attorney

UNITED STATES PATENT OFFICE.

OTHO O. SULLIVAN, OF STONINGTON, CONNECTICUT.

BOBBIN.

SPECIFICATION forming part of Letters Patent No. 396,008, dated January 8, 1889.

Application filed September 19, 1887. Renewed June 28, 1888. Serial No. 278,462. (No model.)

To all whom it may concern:

Be it known that I, OTHO O. SULLIVAN, a citizen of the United States, residing at Stonington, in the county of New London and State of Connecticut, have invented a new and useful Improvement in Bobbins, of which the following is a specification.

My invention relates to an improvement for bobbins for winding silk; and it consists in the peculiar construction and arrangement of devices that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of a bobbin embodying my improvements. Fig. 2 is partly an elevation and partly a vertical longitudinal section view of the same.

A represents the cylindrical sleeve or drum of the bobbin, which is made of wood and of the usual length and diameter.

B represents the circular heads of metal, secured to the ends of the drum by means of rods or rivets C, which extend longitudinally through openings in the drum and have their ends inserted in openings D, with which the heads B are provided. The said openings D are countersunk or flared, and the ends of the rods or rivets C are swaged therein.

Before placing the heads on the ends of the drum circular pieces, E, of cloth, rubber, felt, or other suitable elastic material, are placed on the ends of the drum, so that when the heads are secured in place the pieces E will be compressed between the ends of the drum and the heads B, and thereby prevent cracks from being formed between the ends of the drum and the heads.

The bobbins now in common use have the heads B secured directly to the ends of the drum, and inasmuch as the said heads and the ends of the drum are not perfectly true cracks are thereby formed between the heads and the ends of the drum, into which a thread of silk is drawn, thereby causing the same to

break and rendering it impossible to find the end of the thread, the result being that the silk is sometimes cut off from the bobbin and wasted. So many of these bobbins are employed in the manufacture of silk that it would involve considerable expense to make them so accurately and nicely as to prevent cracks from existing between the ends of the drums and the heads.

I remedy the defect before described by placing elastic washers or pieces E between the ends of the drums and the heads, thereby causing the said pieces to completely fill the spaces formed by the inequalities in the opposing sides of the drum and its heads. After the pieces E and the heads are secured in place on the ends of the drum, the bobbin is varnished, thereby filling the edges of the elastic pieces E and holding the same firmly in place.

Having thus described my invention, I claim—

1. As a new article of manufacture, the bobbin comprising the drum, the heads secured on the ends of the drum, and the elastic pieces E, secured between the said heads and the ends of the drum, and thereby filling the cracks or spaces between the said heads and the ends of the drum, for the purpose set forth, substantially as described.

2. As a new article of manufacture, the bobbin comprising the drum A, made of wood, the heads B, made of metal and secured on the ends of the drum, and the pieces E, of rubber, cloth, felt, or other suitable elastic material, secured between the ends of the drum and the heads B, for the purpose set forth, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

OTHO O. SULLIVAN.

Witnesses:

JOHN. S. HENRY,

SAMUEL B. PENDLETON.