

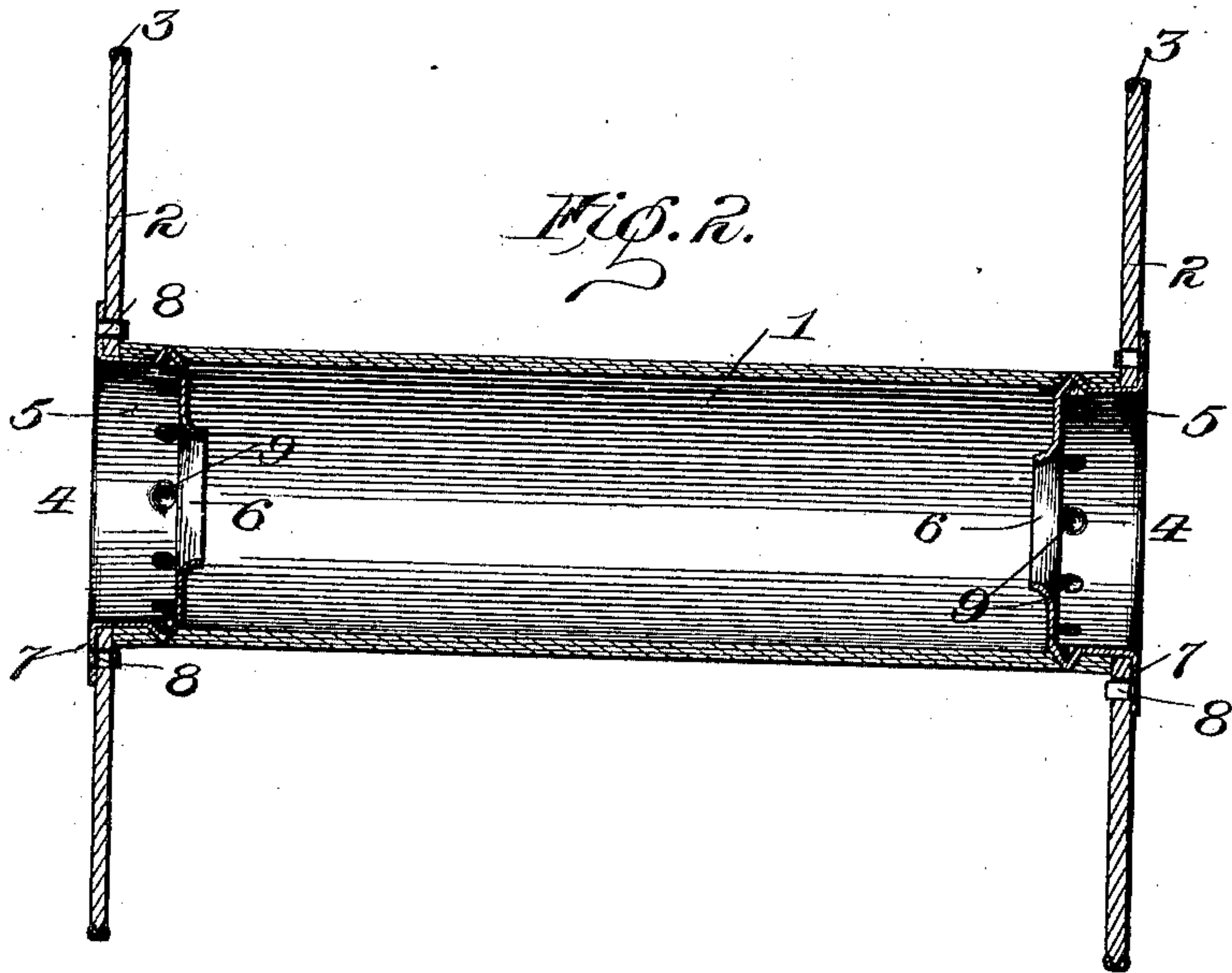
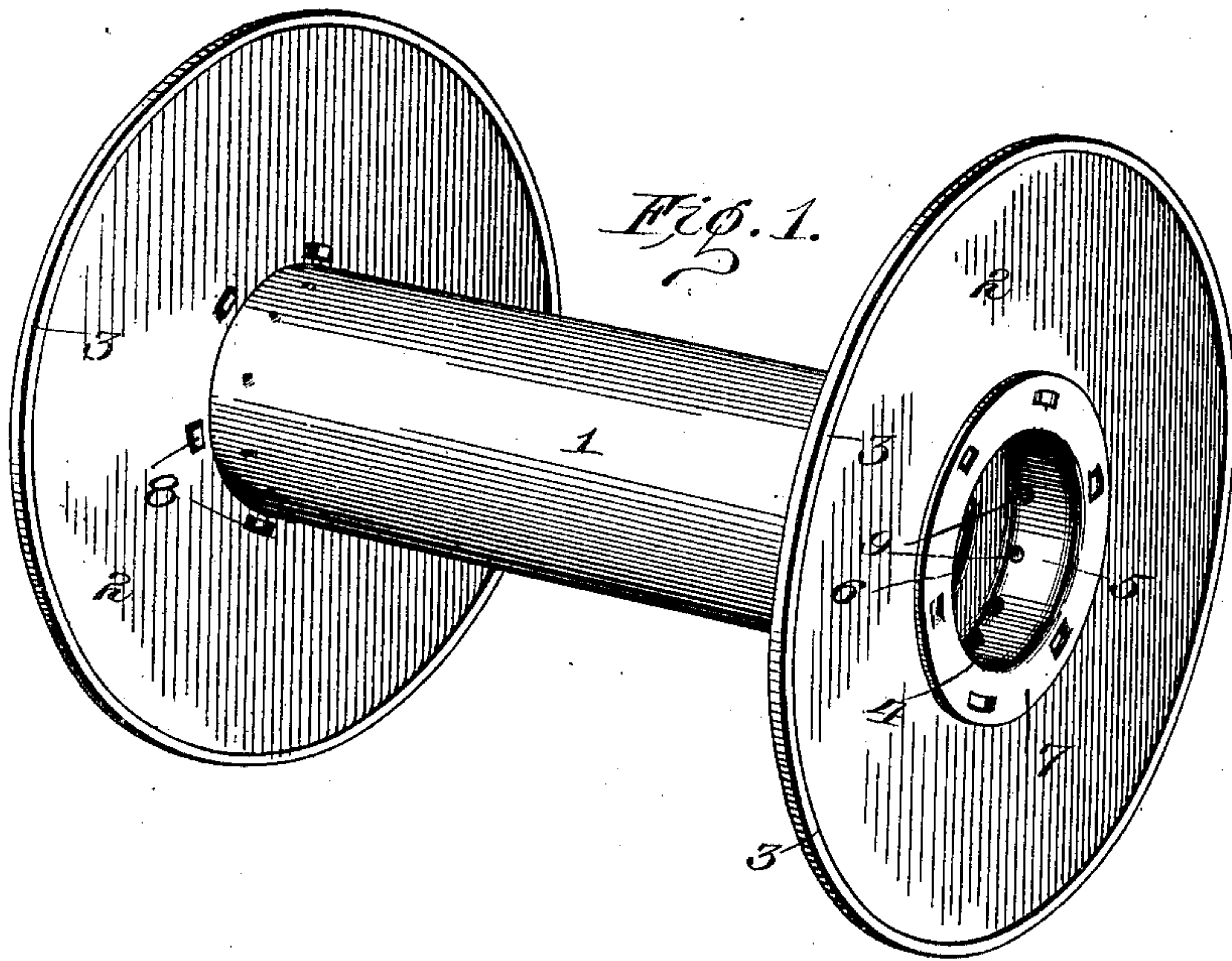
No. 668,974.

F. B. BUEDINGEN.
SPOOL.

Patented Feb. 26, 1901.

(Application filed May 22, 1900.)

(No Model.)



Witnesses:

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UNITED STATES PATENT OFFICE.

FERDINAND B. BUEDINGEN, OF ROCHESTER, NEW YORK.

SPOOL.

SPECIFICATION forming part of Letters Patent No. 668,974, dated February 26, 1901.

Original application filed January 25, 1900, Serial No. 3,010. Divided and this application filed May 22, 1900. Serial No. 17,594. (No model.)

To all whom it may concern:

Be it known that I, FERDINAND B. BUEDINGEN, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Spools; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-numerals marked thereon.

My present invention has for its object to provide a spool or reel adapted to contain ribbon, trimming, or similar material that shall be light, simple, and consist of but few parts which may be readily constructed and assembled, all as will be hereinafter fully described and the novel features pointed out in the claims at the end of this specification.

This application is a division of my prior application, Serial No. 3,010, filed January 25, 1900.

In the drawings, Figure 1 is a perspective view of a spool or reel constructed in accordance with my invention, and Fig. 2 a longitudinal sectional view of the same.

Similar reference-numerals indicate similar parts.

The spool consists generally of a central hollow spindle or cylindrical body 1, preferably formed of one or more thicknesses of cardboard, the end pieces or disks 2, also formed of one or more pieces of cardboard bound at their edges with a binding-strip 3 of metal pressed thereon, and locking members or thimbles 4, each preferably composed of a single piece of sheet metal engaging and secured to the outer faces of the disks and the inner sides of the spindle 1. The locking members 4 are preferably formed cup-shaped, as shown, having the tubular portion 5 adapted to fit within the ends of the spindle 1 and also to fit in the central apertures in the disks 2 and the perforated bottom 6, the metal at the edges of the perforation being bent inward slightly to form smooth journals if the spool is centered on a mandrel or for the insertion of the operator's fingers. At the outer ends of the members are the radially-extending flanges 7, between which and the ends of the spindle the end disks 2 are held, said disks being secured to the flanges by the tongues 8, struck out of the flanges 7, inserted through them and turned down upon the opposite side, as shown, holding these parts firmly together,

and the members are held in the spindle by forming indentations or projections 9 in the tubular portion 5, extending outwardly and into the material of the spindle, as shown.

As the members 4 can be rapidly and cheaply stamped from sheet metal and the tubes formed by ordinary tube-machines and the disks stamped, the parts can readily be assembled by unskilled operators and the spool as a whole placed on the market at a nominal cost.

The members for securing the heads could of course be made as separate articles of manufacture and supplied to manufacturers of paper specialties, who could readily make the paper parts and assemble the parts of the spool at a nominal cost.

I claim as my invention—

1. In a spool or reel, the combination with the tubular spindle, and a disk or head applied thereto, of a securing member composed of a single piece of material having the central tubular portion extending through the disk and fitting within and engaging the interior of the spindle and the outwardly-extending annular flange provided with projections secured to the disk.

2. In a spool or reel, the combination with the tubular spindle, and a disk or head applied thereto, of a securing member having the portion extending through the disk and within the spindle and provided with the projections engaging the inner side of the latter and the outwardly-extending flange, and the projections thereon positively engaging the disk.

3. The combination with the hollow spindle and the disk or head of the securing member composed of sheet metal having the central tubular portion provided with the outwardly-extending projection and passing through the disk and fitting within the spindle, and having also the flange and the projections thereon passing through the disk and secured thereto.

4. A device for securing heads to tubular spindle constructed of a single piece of sheet material and embodying a cup-shaped body having an external flange at one end provided with securing-tongues and an internal perforated flange at the other end.

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