

(No Model.)

G. PENDLETON, Jr.
BOBBIN.

No. 501,897.

Fig. 1, Patented July 18, 1893.

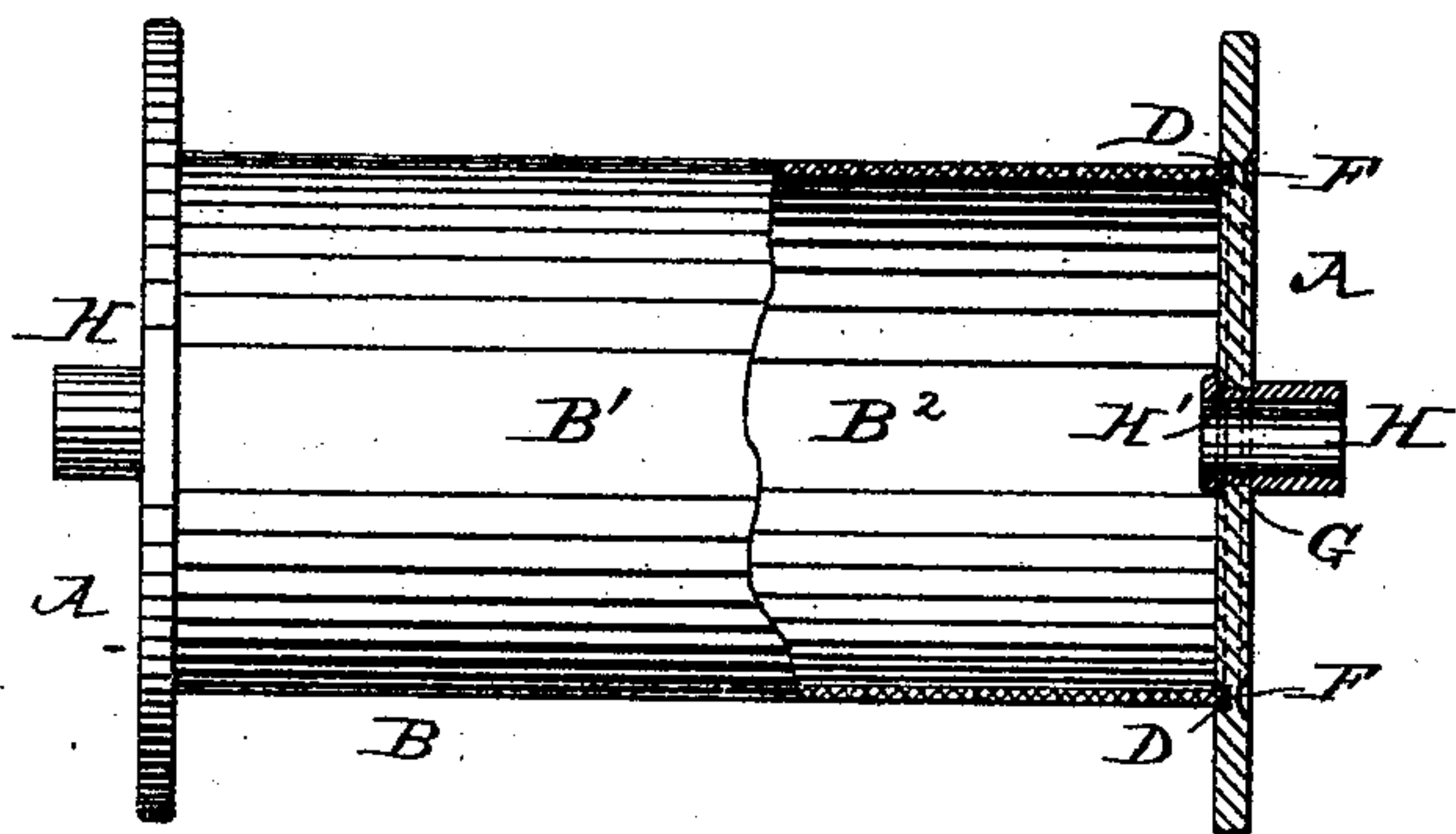
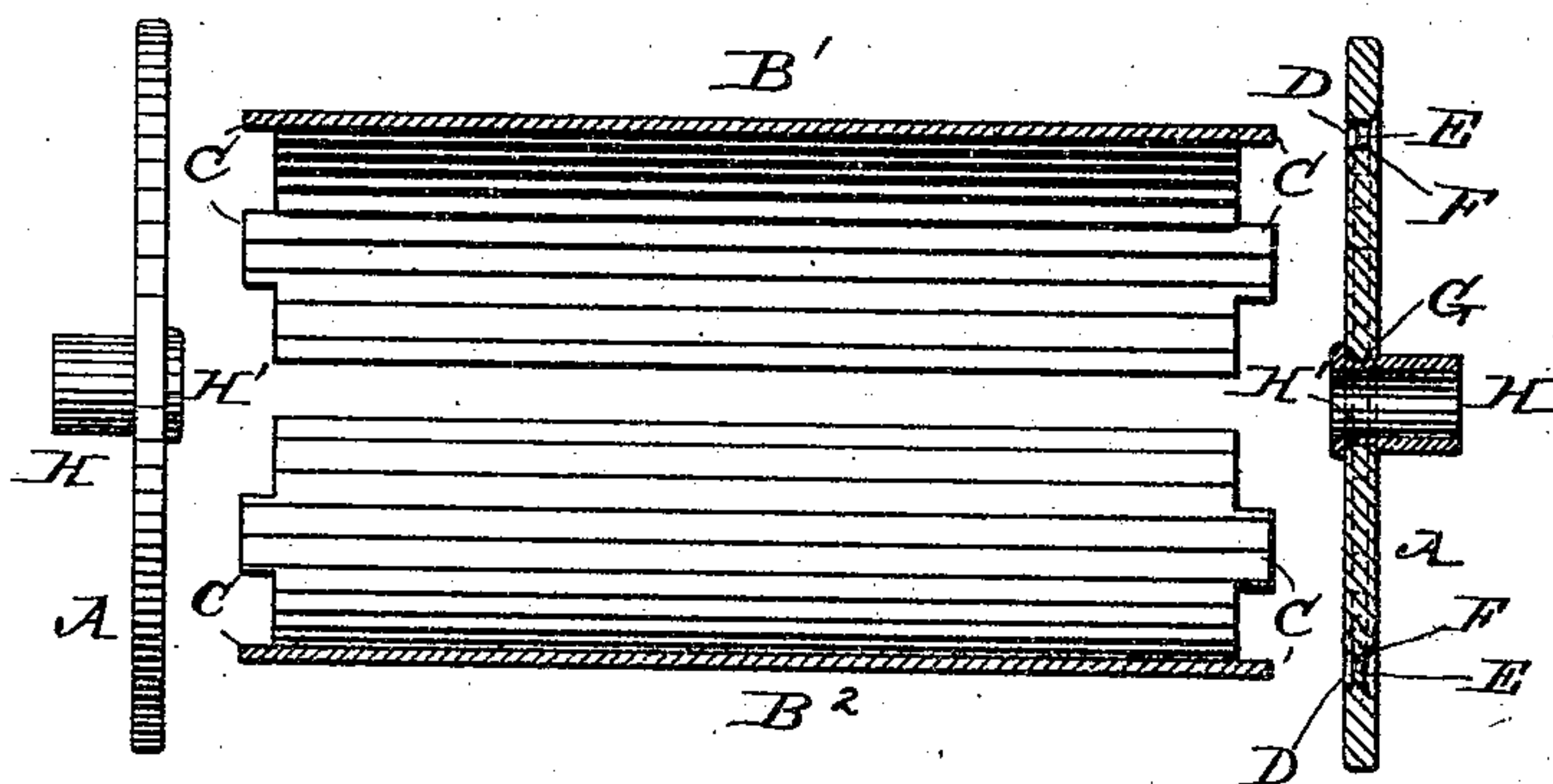


Fig. 2,



WITNESSES:

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BOBBIN.

SPECIFICATION forming part of Letters Patent No. 501,897, dated July 18, 1893.

Application filed March 2, 1893. Serial No. 464,349. (No model.)

To all whom it may concern:

Be it known that I, GURDON PENDLETON, Jr., a citizen of the United States, residing at Paterson, in the county of Passaic, State of New Jersey, have invented a certain new and useful Improvement in Bobbins, of which the following is a specification.

My invention consists of a novel construction of bobbins for use in spinning on a spindle, or as a take-up or winding bobbin, or on a pin-rail as a "twist bobbin."

Bobbins have been heretofore made for these purposes of two metal heads drawn together upon the ends of a cylindrical wooden body or shell by a central metallic rod or tube secured to the heads. Solid metallic bobbins have also been contemplated, as well as various other constructions, in the attempt to provide a true, perfectly balanced bobbin, which will be unaffected by atmospheric changes, can be easily manufactured, will take up and give off the threads without catching, and be otherwise efficient and durable in use. I have attained these advantages by my improvement which comprises various novel features of construction which will be described and pointed out in full hereinafter.

Reference is to be had to the accompanying drawings forming part of this specification in which—

Figure 1 is a side, partly sectional view of a bobbin constructed in accordance with my invention for use as a spinning, winding, or twist bobbin. Fig. 2 is a longitudinal sectional view showing the component parts of the said bobbin before union.

Like letters of reference designate corresponding parts in both figures.

As before mentioned, I construct my improved bobbin of two solid circular metallic heads A, united concentrically to the respective ends of a cylindrical shell B of less diameter than the heads, the latter being thereby rigidly united by the shell B, on which also the thread is wound.

The cylindrical shell B may be formed from a section of a metallic tubing of the proper diameter, but I find it more economical to make the shell from thin metal cut and stamped or pressed to form two opposite and exactly equal semi-cylindrical sections B' B², as shown

in Fig. 2, which when united to the heads A, as in Fig. 1, form the complete shell B.

To properly unite the ends of the shell B to the heads A, I form the respective ends of the shell each with a severalty of equi-distant integral tenons C somewhat longer than the thickness of the heads A, which tenons are preferably cut on the metal of the sections B' B² before they are brought into semi-cylindrical form, and on the inner sides of the heads A, I sink concentric circular grooves D, to receive the ends of the shell B, and through the heads in said grooves form mortises E to correspond with and receive the tenons C, which will protrude through said mortises. I prefer also to sink like circular grooves F in the outer sides of the heads A, to include the said mortises, and I then bring the heads, with the interlocked shell, between the plates of a press, by which I closely seat and seal the ends of the shell B in the inner grooves D, and upset the protruding tenons C in the mortises E, the outer grooves F serving to countersink the overflowing metal of the tenons. The heads are thus most rigidly united by and to the shell B, and the line of union so sealed as to prevent threads from being caught thereby. The bobbin is perfectly rigid, without undue weight, and being wholly of metal is unaffected by changes of temperature.

To adapt this bobbin both for spinning and as a winding or twist bobbin, the heads A are previously provided with central apertures G, and tubular gudgeons H are provided, with necks H' which are fitted and aligned in said apertures, and upset on the inside of the heads to fix the gudgeons securely thereon. The gudgeons H serve as such when the bobbin is used as a winding or take-up bobbin, and also, being tubular, to receive the spindle in spinning, or the pin in the pin-rail in twisting.

When the bobbin is designed for a winding or take-up bobbin solely, the gudgeons may be made solid instead of tubular. I may also for spinning purposes form the two gudgeons H of the end portions of an integral tube, which then need not be upset inside the heads A.

I claim—

1. A bobbin constructed substantially as herein described of a closed cylindrical metallic shell B, formed with series of end tenons C, two metallic heads A formed with mortises E, in which the tenons C are upset and with central apertures G, and gudgeons H fixed in said apertures.
- 5 2. A bobbin constructed substantially as herein described of two centrally apertured metallic heads A, rigidly united by a cylindrical metallic shell B, and gudgeons H formed with reduced necks H' received in said apertures in the heads, and upset on the inside of the heads.

GURDON PENDLETON, JR.

Witnesses:

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