

**No. 681,137.**

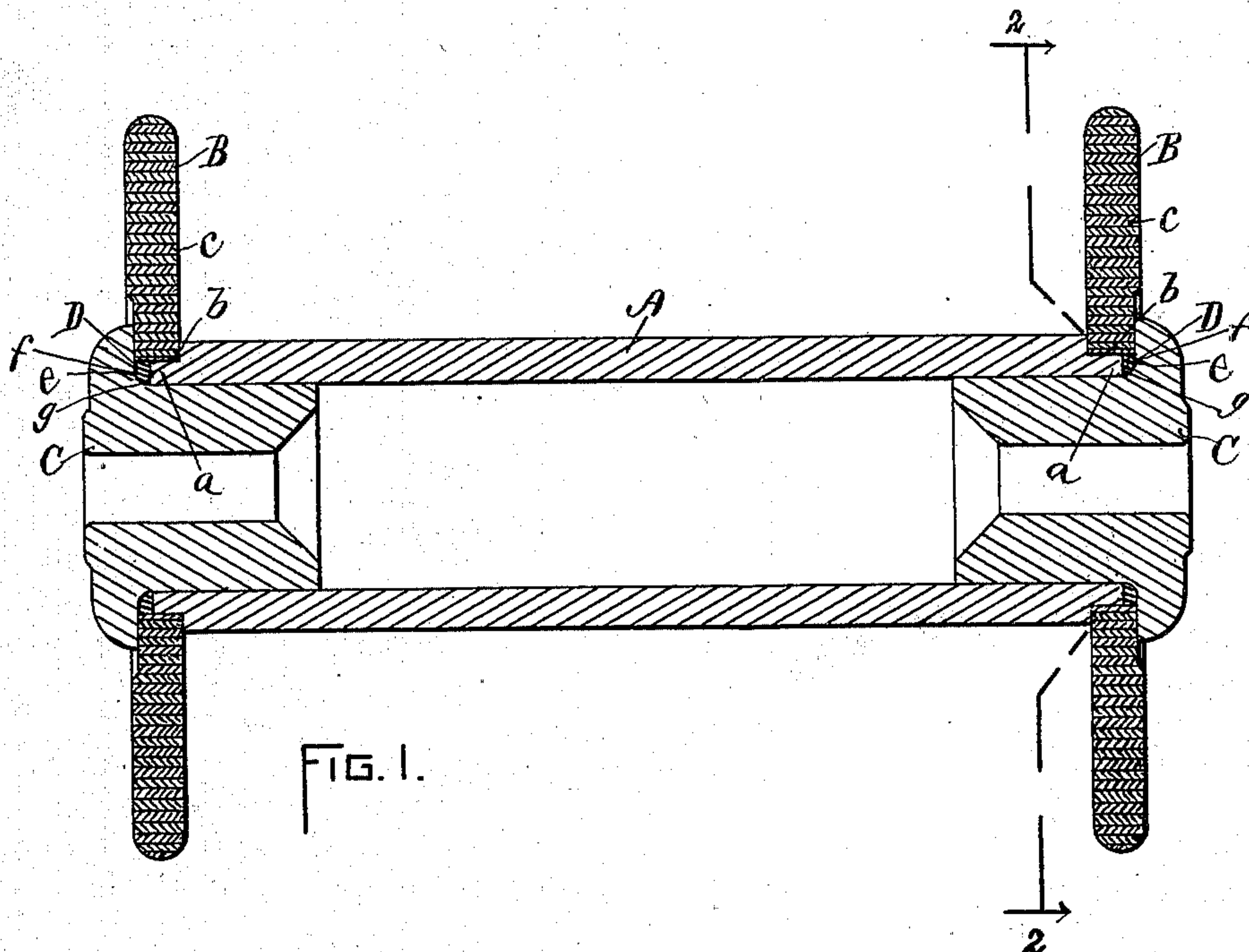
**Patented Aug. 20, 1901.**

**G. T. PITTS.**

**SPOOL.**

(Application filed June 5, 1900.)

(No Model.)



WITNESSES:

Wm J Garceau.  
John S Lynch

INVENTOR:

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AT

ATTY.



# UNITED STATES PATENT OFFICE.

GEORGE T. PITTS, OF FALL RIVER, MASSACHUSETTS, ASSIGNOR TO U. S. BOBBIN AND SHUTTLE COMPANY, OF PROVIDENCE, RHODE ISLAND.

## SPOOL.

SPECIFICATION forming part of Letters Patent No. 681,137, dated August 20, 1901.

Application filed June 5, 1900. Serial No. 19,173. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE T. PITTS, a citizen of the United States, residing at Fall River, in the State of Massachusetts, have invented a new and useful Improvement in Spools, of which the following is a specification.

The nature of my invention consists in the improved construction of the spool, with a head of spirally-wound paper and glue, in combination with the barrel and plug and an intervening ring of glue in a chamber, as hereinafter fully set forth.

In the accompanying drawings, Figure 1 represents an axial section of a warper-spool embodying my improvement. Fig. 2 represents a section taken in the line 2 2 of Fig. 1.

In the drawings, A is the barrel of the spool, made of wood and provided at its ends with the tenons *a a*, which are adapted to enter the bore *b* of the head B of the spool, the said head being formed by winding a strip of paper *c* in spiral form with a cementing material of glue, whereby a head B will be formed that will not split when the spool is either dropped or thrown upon the floor. The tenon *a* is shorter than the thickness of the head B, so that when the wooden plug C is inserted into the bore *d* of the wooden barrel A there will be left an annular chamber *e*, which is to be filled with glue, whereby an annular ring of glue D will be formed, which serves to cement both the bore *b* of the head B and the end *g* of the barrel A with the surface *f* of the plug C, so that upon driving the plug

the parts of the spool will be firmly held together by the intervening ring of glue D, the end of the barrel A, a portion of the flange of the plug C, and of the bore of the head B abutting against the ring of glue D. The wooden barrel A and plugs C C provide for the required light weight, and the spiral winding of the head of the spool provides for the desired strength and prevents the splitting of the head, as in the case of a paper head made of flat disks cemented to each other.

In putting the parts of the spool together I first place the head B of the spool upon the tenon *a* of the barrel B and apply glue to the cylindrical surface *f* of the plug C, and then by driving the plug C into the bore *d* of the barrel A the surplus glue will be caused to fill the chamber *e* and glue all the parts together, and by this means I am enabled to perform the work of assembling the several parts with great rapidity, and therefore lessen the cost of the manufacture of the spool.

I claim as my invention—

The combination of the wooden barrel A, the wooden plug C, and the spirally-wound paper head B, forming an annular chamber *e* between them, and the ring of glue D filling the said chamber, the end *g* of the barrel, the surface *f* of the plug, and a portion of the bore *b* of the head being made to abut against the ring of glue, substantially as described.

GEORGE T. PITTS.

Witnesses:

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