

(No Model.)

L. C. BASS.  
SPOOL.

No. 428,035.

Patented May 13, 1890.

Fig. 1.

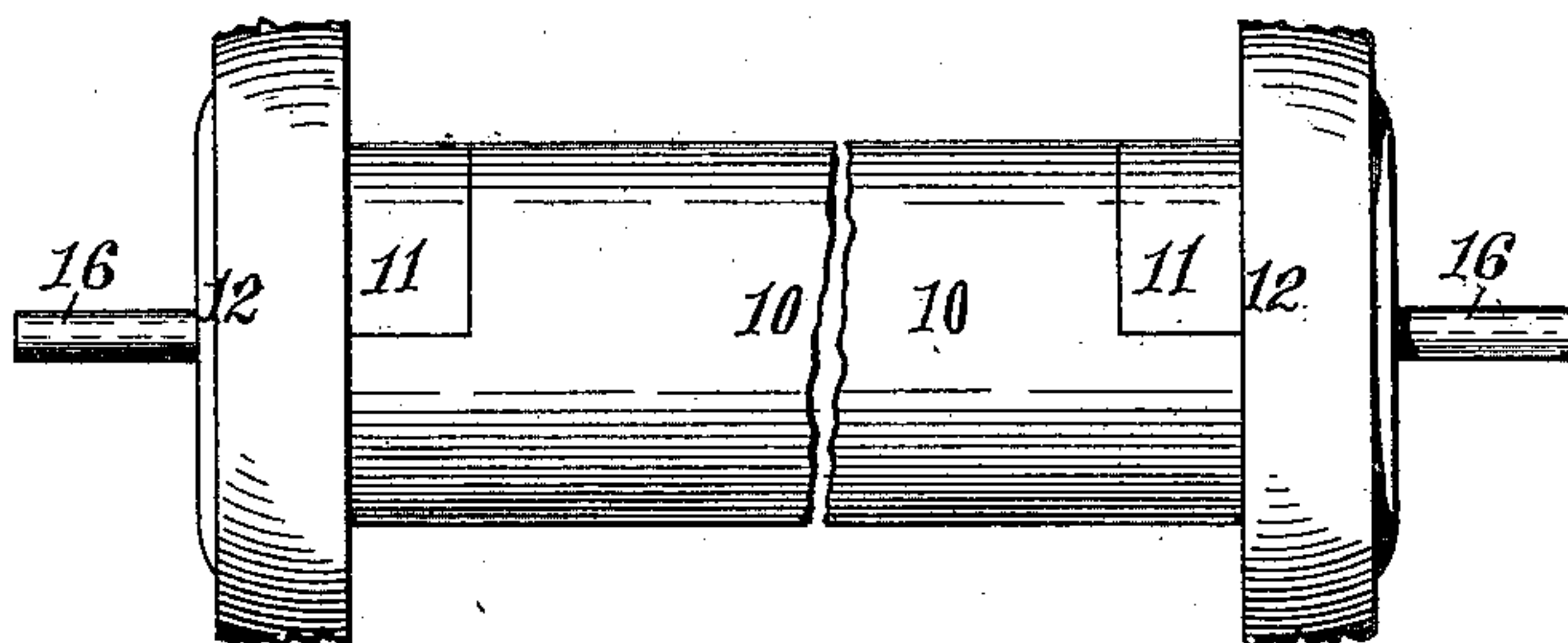


Fig. 2.

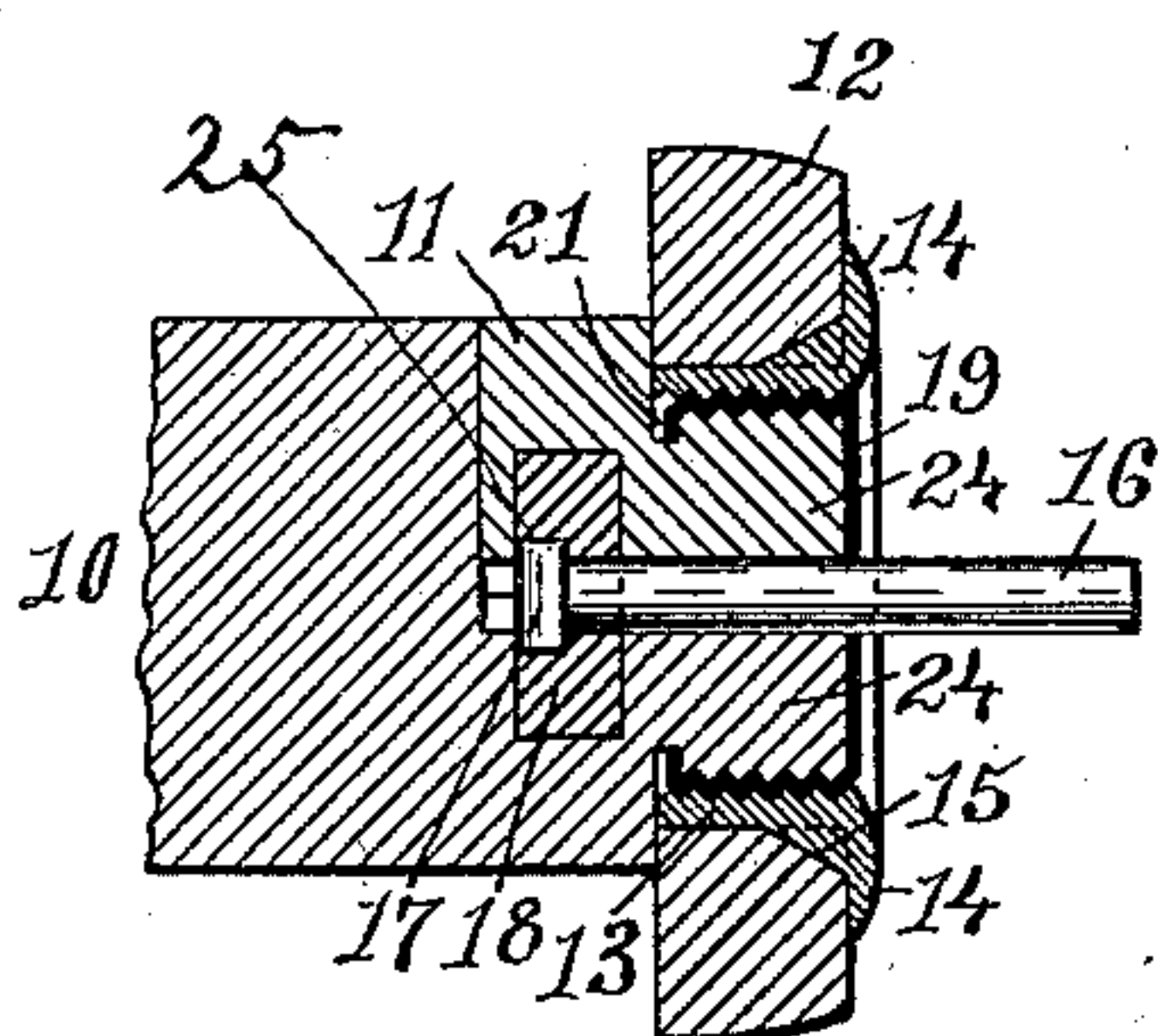


Fig. 3.

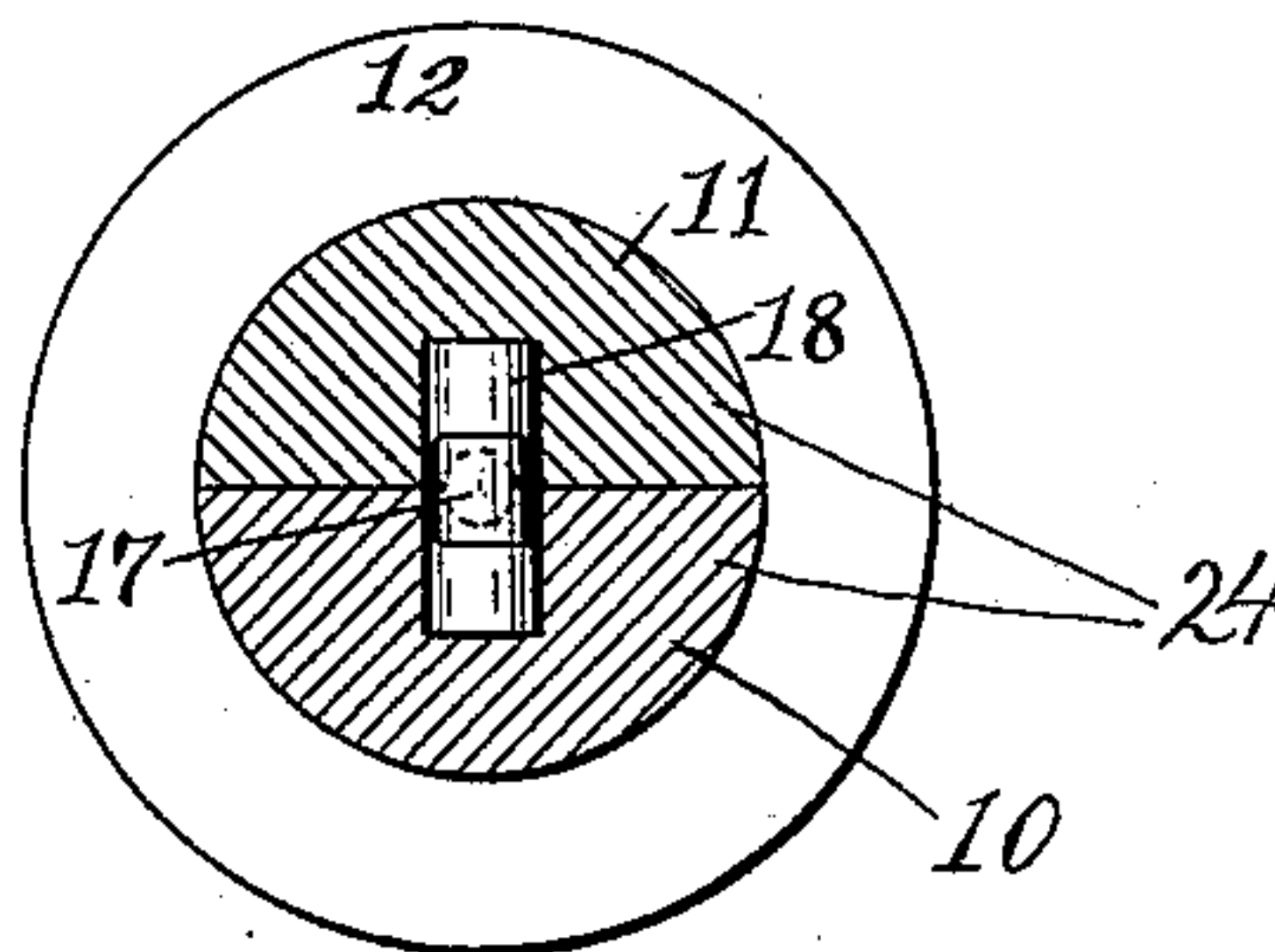


Fig. 4.

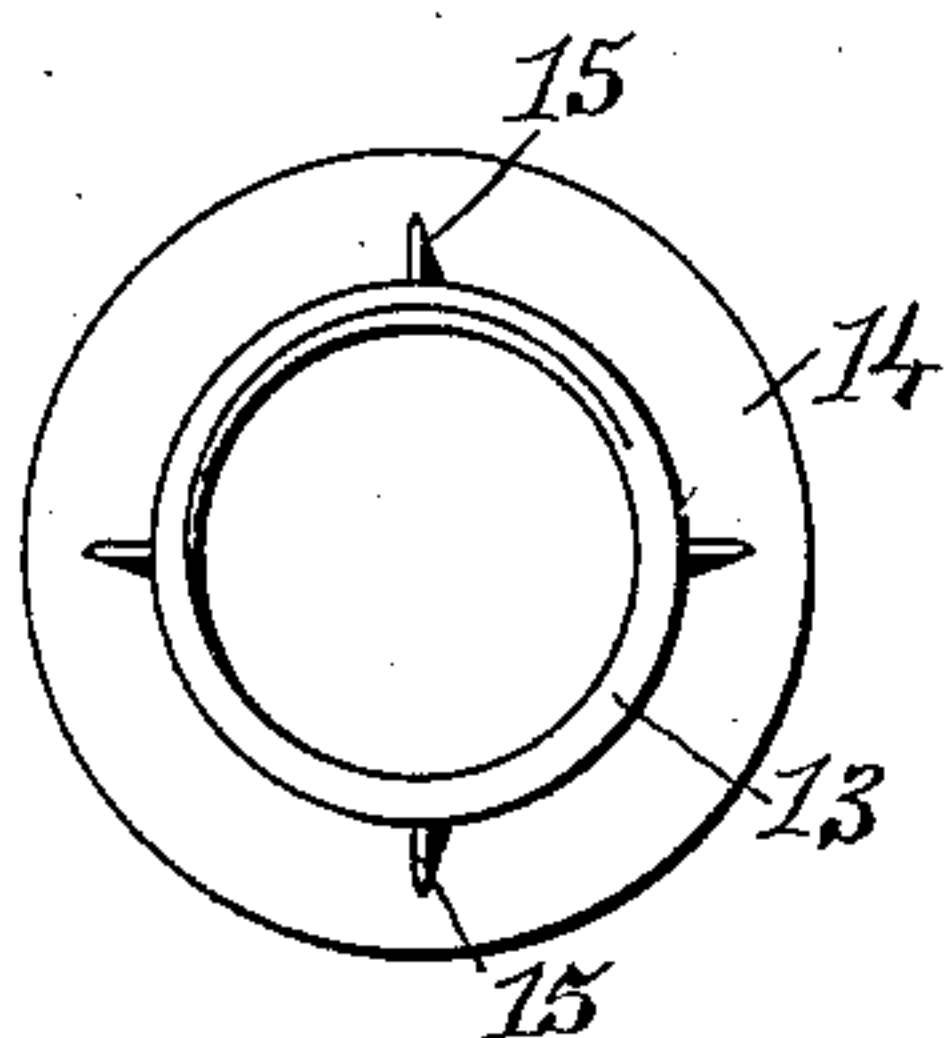
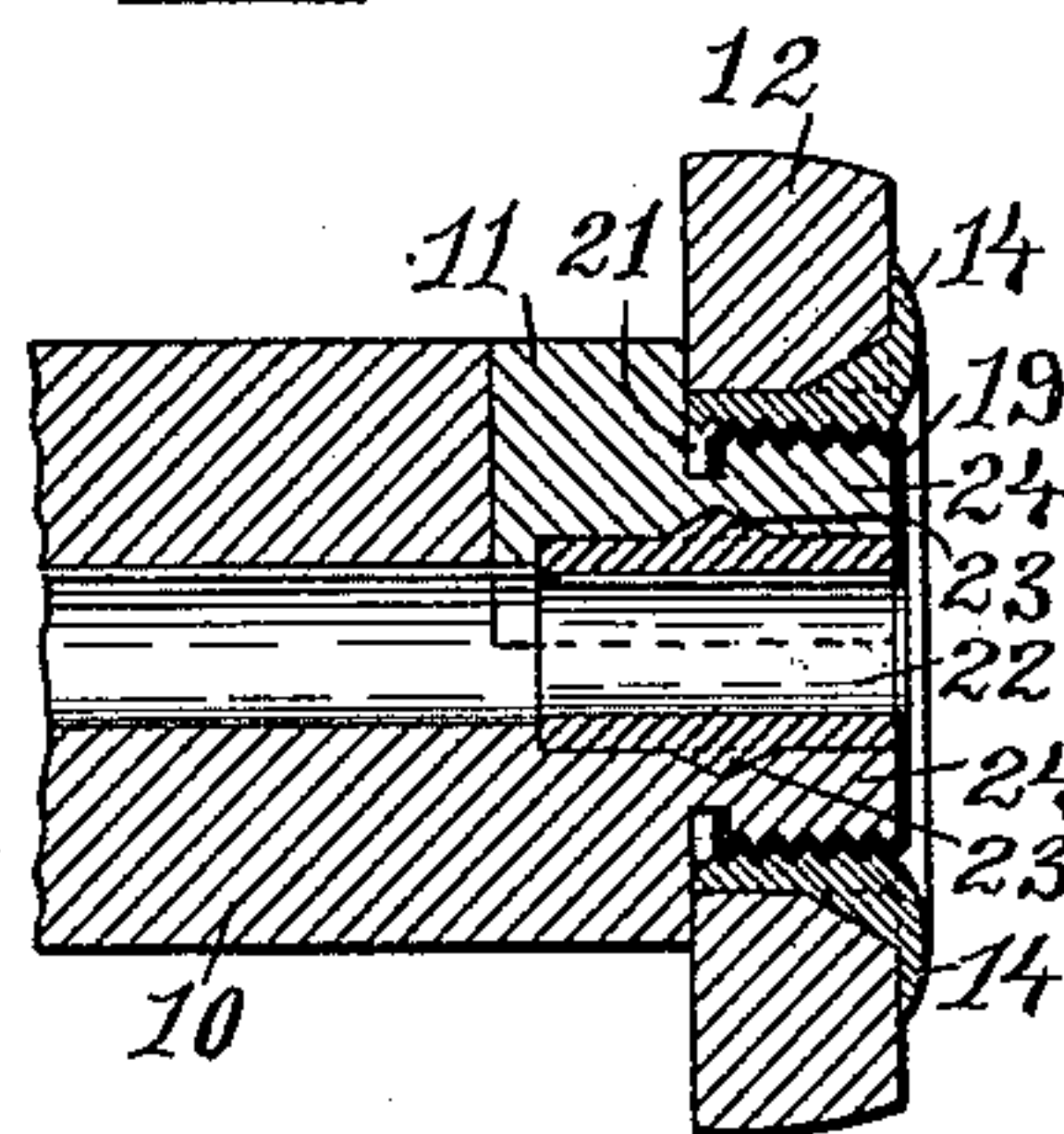


Fig. 5.



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# UNITED STATES PATENT OFFICE.

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## SPOOL.

SPECIFICATION forming part of Letters Patent No. 428,035, dated May 13, 1890.

Application filed August 5, 1889. Serial No. 319,755. (No model.)

*To all whom it may concern:*

Be it known that I, LEWIS C. BASS, of New Bedford, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Spools, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

10 The objects of my invention are to provide a spool with detachable heads and to secure in the ends of the spool suitable bearing spindles or bushings.

15 In order that my invention may be fully understood, I have illustrated in the accompanying drawings the best forms thereof so far devised by me, with the knowledge that such forms admit of modifications without making a substantial departure from the spirit of the invention.

20 In the accompanying drawings, Figure 1 is a side view of my improved spool. Fig. 2 is a sectional view of one end of a spool, showing a bearing-spindle or journal as held in position. Fig. 3 is a sectional view looking at the holding-pin and showing the head of the spindle. Fig. 4 is a view of the screw-threaded thimble. Fig. 5 is a sectional view of one end of a spool, showing a bushing as held in position.

30 In the said drawings like numbers of reference designate corresponding parts throughout.

35 Referring to the drawings, the numbers 10 designate the barrel of the spool; 11 11, the removable sections of the barrel; 12 12, the heads of the spool, and 13 the screw-threaded thimble provided with the head 14 and having spurs or feathers 15 15.

40 16 is the bearing-spindle or journal, having the head 17.

18 indicates the holding-pin, which has a hole through its center and has a socket for the head of the spindle.

45 19 is the double screw-threaded collar, the outer thread, fitting the thimble 13, being a gain-thread, thereby causing the thimble 13 to securely hold the head against the barrel of the spool. The inner thread of the collar

19 fits the thread cut on the reduced portion 50 24 of the barrel, and the inner end of the collar 19 is turned down into the groove 21. In a cheap form of spool the sections 11 11 may be held in place by cement and the collar 19 dispensed with.

55 In the form shown in Fig. 5 a bushing 22 is used in place of the bearing-spindle. The bushing is provided with the spurs or feathers 23 for preventing the bushings being turned.

60 In constructing my spool, when the spindle or journal 16 is used, I first turn the barrel of the desired size with the reduced screw-threaded and grooved ends, over which the collars 19 are to be screwed. I then bore a hole in each of the ends of the size of the 65 spindles, then saw into the end of the barrel in the center the desired distance and then downward across the barrel to meet the first saw-cut, when the section 11 will be released from the barrel, as clearly shown in the several sections of the drawings. I then bore a hole of the diameter of the holding-pin and half of its length into the barrel and also into the removable section. I now pass the spindle 75 through the hole in the holding-pin until the head is in proper position in the socket 25, formed in the back of the holding-pin. The holding-pin is now placed in the hole in the barrel, the removable section is placed in position, the screw-threaded collar is screwed 80 over the reduced end of the barrel and removable section, and the inner end of the collar turned down into the groove. The thimble having been forced into position in the hole in the head, the head is screwed onto 85 the collar, and by reason of the gain in the thread and the head bringing up against the barrel the head will be securely held in position. Where the bushing shown in Fig. 5 is used, a hole slightly larger than the hole in 90 the bushing is bored through the length of the barrel. The ends are then counterbored to receive the bushing. The bushing is placed in position, the removable section is then placed upon the bushing and forced 95 downward, causing the spurs or feathers to enter the material of the barrel and removable section and hold the bushing against rotation,



the collar is screwed on and the end turned down into the groove, the head is then screwed into position, and the spool is ready for use.

It is evident that the bearing-spindle or journal and holding-pin can be made in one piece, if found desirable; also, that if one of the heads of the spool should be split or otherwise become broken it can be readily removed and replaced by a new head. It is also evident that the spools can be made with any desired diameter of barrel or head.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, in a spool, of the barrel, the removable section, the head, the thimble, the collar, and a bearing, substantially as herein shown and described.

2. The combination of the barrel, the re-

movable section, the bearing-spindle, the thimble, and the head, substantially as herein shown and described.

3. The combination, in a spool, of the barrel 10, having a removable section 11 and the reduced portion 24 and the groove 21, the collar 19, the thimble 13, provided with the spurs 15, the bearing, and the head 12, substantially as herein shown and described.

4. The combination of the barrel 10, having the removable section 11, and also having the reduced portion 24 and groove 21, the collar 19, the bearing-spindle 16, the thimble 13, and head 12, substantially as herein shown and described.

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