

No. 643,544.

Patented Feb. 13, 1900.

B. G. SIMMONS.  
SPOOL.

(Application filed June 2, 1899.)

(No Model.)

Fig. 1.

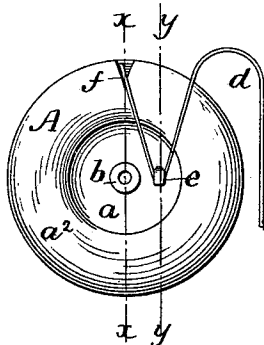


Fig. 2.

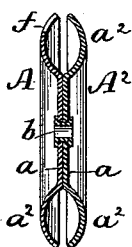
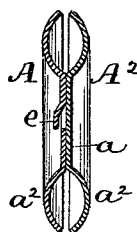


Fig. 3.



WITNESSES

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# UNITED STATES PATENT OFFICE.

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## SPOOL.

SPECIFICATION forming part of Letters Patent No. 643,544, dated February 13, 1900.

Application filed June 2, 1899. Serial No. 719,115. (No model.)

To all whom it may concern:

Be it known that I, BERT G. SIMMONS, a citizen of the United States, residing at New Brunswick, in the county of Middlesex and State of New Jersey, have invented certain new and useful Improvements in Spools, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to spools of relatively large diameter compared with their width and therefore well adapted to be carried in a person's pocket without materially increasing its bulk; and the object of my invention is to provide spools of this class with inexpensive means integral with their bodies for retaining and cutting off when desired a portion of the thread or yarn wound upon said spool without requiring a knife or other cutting-tool. I attain this object in the spool illustrated in the accompanying drawings, in which—

Figure 1 is a front view of the spool constructed in accordance with my invention. Fig. 2 is a transverse section of the same on line  $xx$  of Fig. 1. Fig. 3 is a transverse section of the same on line  $yy$  of Fig. 1.

The spool consists of two disks  $A A^2$ . The middle portion  $a$  of each disk, occupying about half of the diameter of said disks, is flat and made to bear against the similar middle portion of the other disk, being retained in frictional contact by a rivet  $b$  in the form of an eyelet, having its ends flanged upon the central portion  $a$  of each disk. The outer portion  $a^2$  of each disk is dished outwardly to form between them a chamber for the reception of thread or yarn  $d$ , wound therein. The inner end of said yarn being clamped between the flat surfaces of the middle portions  $a$  permits it to be tightly wound within the receiving-chamber and prevents its coil from rotating when its outer end is pulled upon sharply to break a piece thereof. The dished periphery of each disk does not quite touch the periphery of the other; but there is a circular opening between them for the passage of the yarn.

To provide a retainer for the outer end of the yarn  $d$ , a small lip  $e$  is partly punched out of the middle portion  $a$  of the disk  $A$ , so as to form acute-angular edges between said lip and said portion  $a$ . Said lip  $e$  is overarched by

the outer bulging portion  $a^2$  of the wall of the spool and is thereby prevented from coming in contact with the textile material of a person's pocket. Said lip  $e$  serves two purposes, one of which is for one of its edges to partly cut and help to break off any desired length of yarn that has been unwound and passed thereunder by giving a little sharp pull to said length, and the other purpose is to clamp the end of the unwound yarn.

To direct the yarn from the periphery of the disk to the under side of the lip  $e$ , there is formed in the periphery of the disk  $A$  an angular groove  $f$ , which prevents the unraveling of the yarn from the chamber of the spool until said yarn is pulled tangentially to the periphery of the spool. Said spool is intended mainly to contain "dental floss," which is much preferable to ordinary toothpicks to remove deposits from between the teeth of persons.

I am aware that some spools have been made of paper disks bulging out adjacent to their edges and that the bodies of wood spools have been provided with cutting and clamping devices secured to their ends, and I do not claim spools thus constructed.

Having now fully described my invention, I claim—

1. A spool consisting of two disks, each disk having its central portion  $a$  in contact with the central portion of the other, and its peripheral portion  $a^2$  bulging out, with a rivet centrally uniting the disks, one of said disks having a lip  $e$  integral therewith projecting from the depressed portion of its side substantially as described.

2. A spool consisting of two disks, each having its central portion in contact with the central portion of the other, and its peripheral portion  $a^2$  bulging out, with a rivet centrally uniting the disks, one of said disks having a lip  $e$ , integral therewith projecting from its side and overarched by the peripheral bulging-out portion  $a^2$ , substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

BERT G. SIMMONS.

Witnesses:

S. P. MOORE,  
A. R. LEWIS.