July 3, 1951 M. BECKER 2,558,808

CONICAL SPOOL COMBINED WITH THREAD GUIDE AND AXIAL RECEPTACLE

Filed July 19, 1947

Fig. 1.

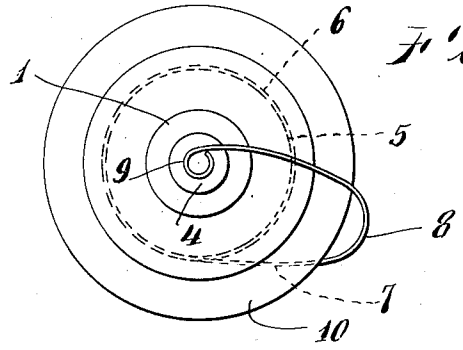


Fig. 2.

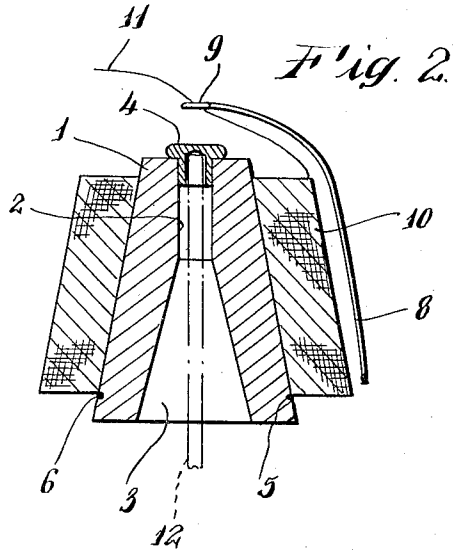


Fig. 3.

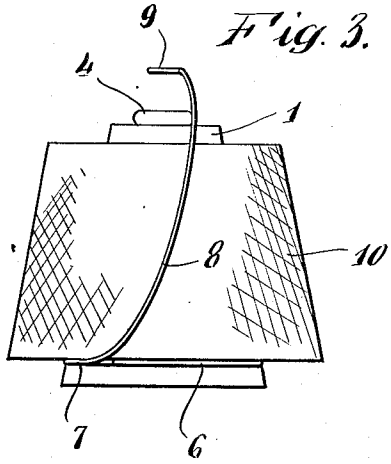
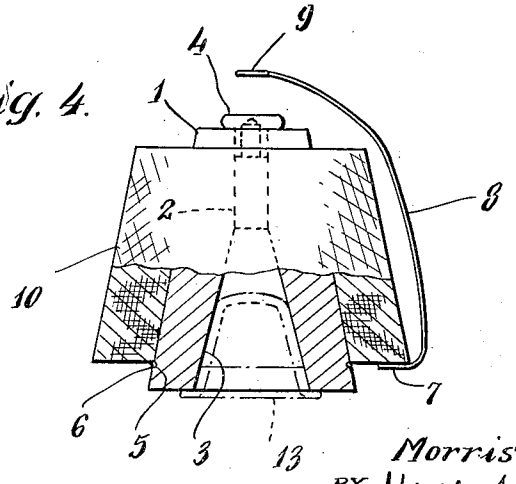


Fig. 4.



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CONICAL SPOOL COMBINED WITH THREAD GUIDE AND AXIAL RECEPTACLE

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4 Claims. (Cl. 242—128)

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The present invention relates to improvements in yarn or thread holders such as spools, reels, or bobbins and, more specifically, it relates to a new and improved conical spool which is, or can be, provided with a thread or yarn guide, and which can be utilized as a receptacle for needles and the like.

One object of the present invention is the provision of a device of the character described which has an axial bore, a portion of which is cylindrical for engaging a cylindrical shaft or spindle while thread or yarn is wound upon the spool, thus making the use of more expensive conical winding shafts or spindles unnecessary for this type of conical yarn or thread holders.

Another object of the present invention is the provision of a device of the character described which beneath said cylindrical bore portion has a conical bore portion adapted to receive the major portion of a thimble, so that the ultimate purchaser and user can utilize this device as a receptacle for conveniently storing therein needles and other small utensils; thus having all that is required for sewing, namely thread, needles and thimble together as a compact unit ready for use; the upper cylindrical bore portion being closed by a plug or the like.

Still another object of the present invention is the provision of a device of the character described which preferably is provided with a special cap for closing the upper extremity of its axial bore, said cap being adapted to engage pivotably the upper extremity of a spool-holding spindle of a sewing machine or the like and to reduce the friction thereon to a minimum, so that my new and improved yarn or thread holder will turn very easily on such a spindle.

Yet a further object of the present invention is the provision of a device of the character described which cannot roll away when it falls to the floor; because its conical shape will cause it to move in circles and will prevent its rolling away in a straight direction, and from which can be unwound the thread or yarn completely without the last layers of thread or yarn sliding off the spool when the latter is in an upright position, which is the case frequently with bobbins or cylindrical spools or reels.

A still further object of the present invention is the provision of a device of the character described which is usually provided with a simple but very effective thread guide for facilitating the unwinding of thread or yarn from the device and for preventing a twisting of the thread or yarn.

An additional object of the present invention

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is the provision of a device of the character described which is simple in construction and inexpensive to manufacture, so that it can be sold at a very reasonable price, the possibility of using it as a combination conical spool with axial receptacle and thimble holder making this device highly desirable for private use by housewives as well as for professional use by tailors, seamstresses and in the entire garment industry.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claims, it being understood that changes may be made in the construction and arrangement of parts without departing from the spirit of the invention as claimed.

In the accompanying drawings the preferred forms of the invention have been shown.

In said drawings:

Figure 1 is a top plan view of a preferred embodiment of my invention;

Figure 2 is a vertical cross-sectional view of the same;

Figure 3 is a side elevation of the device, and

Figure 4 is a side elevation fractionally in vertical section showing the device as it appears with a thimble inserted thereinto.

Similar reference characters refer to similar parts throughout the several views.

In the drawing the numeral 1 denotes a cone of wood, plastic material, light metal or of any other suitable material, adapted to have wound thereupon several layers 10 of thread, yarn or the like. The cone 1 is provided with an axial bore whose upper portion 2 is cylindrical and whose lower portion 3 is conical. The cylindrical portion 2 of the bore is adapted for holding the cone 1 safely in vertical position when a cylindrical shaft or spindle (not shown) is extended through the entire bore while thread or yarn is wound upon the spool, whereas the conical portion 3 of the bore is so dimensioned that a major portion of any ordinary thimble 13 will fit tightly thereinto as is illustrated in Fig. 4. A cap 4 or a plug having an upper rim portion which is larger in diameter than the cylindrical bore portion of said cone and having a lower portion which fits tightly into said cylindrical bore and which is provided with a bore adapted for pivotably engaging the upper extremity of a spool-holding spindle 12 (Fig. 2), preferably is used for closing the upper end of the cylindrical portion 2 of the bore. This partially hollow plug or cap 4, after it has

been inserted into the bore portion 2 can be used for the following two purposes: First, to engage pivotably the upper extremity of a spool-holding spindle of a sewing machine or the like and to reduce the friction thereon to a minimum, so that my new and improved yarn or thread holder will turn very easily on such a spindle; second, to enable a user of this device to insert his or her thimble into the bore portion 3 and thus to attain a completely closed axial receptacle. This advantage to the ultimate purchaser and user will offset any slight increase in price of my device over the price of ordinary cylindrical spools and bobbins.

An annular groove 5 preferably is provided at the outer side of the lower portion of the cone 1 for receiving the spiral-shaped base section 6 of a thread guide. I prefer to construct the thread guide for my new and improved yarn or thread holder in the manner shown in the drawing, where it will be seen that from said spiral-shaped base section 6 radiates a horizontal section 7 to a point which is beyond the outer layer of thread 10 normally wound upon the cone 1; from thence is upwardly extended a slightly inclined section 8, whose lower portion is substantially parallel to the outer side of the cone 1, while its upper portion is bent toward the upper center of the cone 1 and terminates as a loop 9. The thread or yarn 11 which is wound off the cone 1 preferably is extended through the loop 9, which is in spaced relation to the cone 1. By means of the thread guide (6, 7, 8, 9), which can be made of one piece of wire or the like, the unwinding of thread or yarn from the cone 1 is greatly facilitated and any twisting will be avoided.

Since certain changes may be made in the above article and different embodiments of the invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawing shall be interpreted as illustrative and not in a limiting sense.

It is also to be understood that the following claims are intended to cover all of the generic and specific features of the invention herein described, and all statements of the scope of the invention which as a matter of language might be said to fall therebetween.

Having thus fully described my said invention, what I claim as new and desire to secure by Letters Patent is:

1. A conical spool with thread guide and axial receptacle comprising a cone having an axial bore which is partially conical and partially cylindrical, a plug having an upper rim portion which is larger in diameter than the cylindrical bore portion of said cone and having a lower portion which fits tightly into said cylindrical bore portion and which is provided with a bore adapted for pivotally engaging the upper extremity of a spool-holding spindle, and a thin rod being secured to the lower portion of said cone and being extended therefrom radially to a point which is beyond the outer layer of thread normally wound upon the cone, and being bent upwardly from said point to the top portion of the cone and from thence being curved laterally and upwardly to a point above the center of the cone where the extremity of said rod is shaped as a loop.

2. A device of the character described comprising a cone having an axial bore whose upper portion is cylindrical while its lower portion is conical, a plug tightly fitting into the cylindrical portion of said bore being partially extended thereinto from above and having a hollow lower portion whose inner diameter is larger than the outer diameter of a spool-holding spindle, a thin rod being secured to the lower portion of said cone and being extended therefrom radially to a point which is beyond the outer layer of thread normally wound upon the cone, and being bent upwardly from said point to the top portion of the cone and from thence being curved laterally and upwardly to a point above the center of the cone where the extremity of said rod is shaped as a loop.

3. A device of the character described comprising a cone having an axial bore whose upper portion is cylindrical while its lower portion is conical and adapted to receive the major portion of a thimble and being provided at its lower outer side with an annular groove, closing means tightly fitting into the cylindrical portion of said bore being partially extended thereinto from above and having a hollow lower portion adapted to receive therein the upper extremity of a spool-holding spindle, and thread guiding means engaging the annular groove at the outer side of said cone and extending therefrom laterally and upwardly beyond the top extremity of the cone.

4. A device of the character described comprising a cone having an axial bore whose upper portion is cylindrical while its lower portion is conical and adapted to receive the major portion of a thimble and being provided at its lower outer side with an annular groove, a plug having an upper rim portion which is larger in diameter than the cylindrical bore portion of said cone and having a lower portion which fits tightly into said cylindrical bore and which is provided with a bore adapted for pivotably engaging the upper extremity of a spool-holding spindle, and a wire whose lower portion is formed as a spiral engaging the annular groove at the outer side of said cone and extending therefrom laterally and upwardly beyond the top extremity of the cone where its upper extremity is shaped as a loop.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
180,000	Burch	July 18, 1876
629,013	Streeter	July 18, 1899
672,305	Barnett	Apr. 16, 1901
899,451	Knapp	Sept. 22, 1908
1,478,364	Clark et al.	Dec. 18, 1923
2,228,475	Moyer	Jan. 14, 1941
2,349,237	Bouhuys et al.	May 23, 1944