July 12, 1960 B. H. BEST 2,944,761

ROTARY SPOOL RACK

Filed Aug. 7, 1959

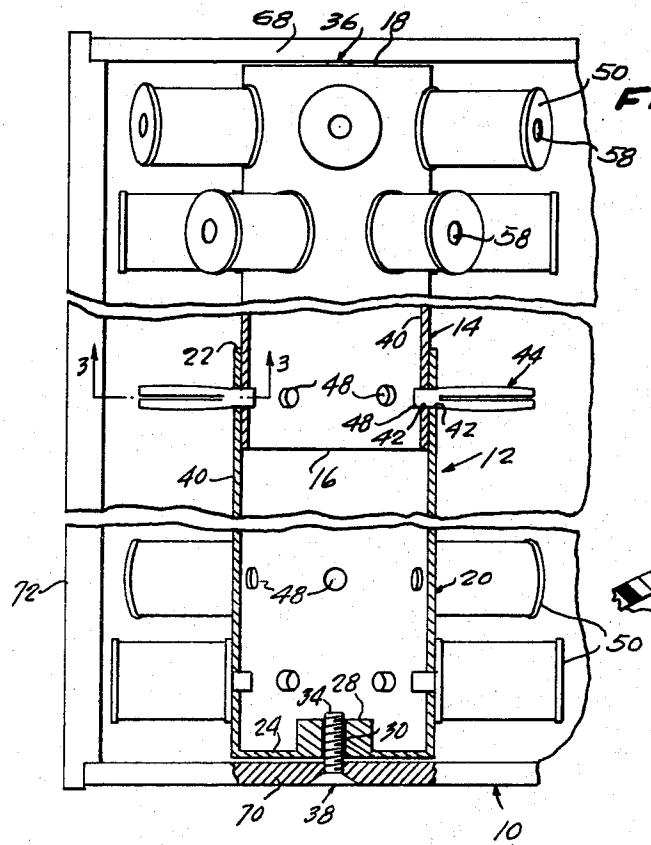


FIG. 1.

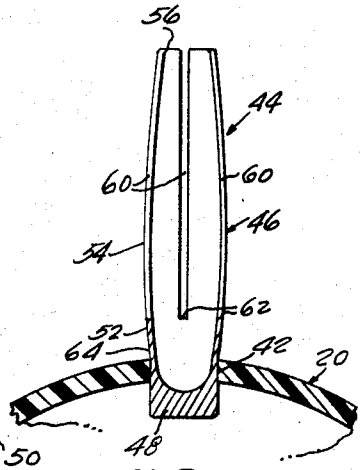


FIG. 3.

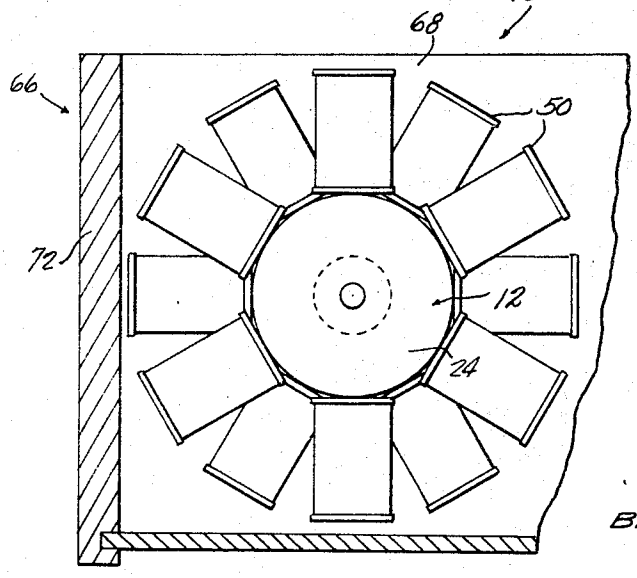


FIG. 2.

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United States Patent Office 2,944,761 Patented July 12, 1960

2,944,761

ROTARY SPOOL RACK

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Filed Aug. 7, 1959, Ser. No. 832,339

3 Claims. (Cl. 242—139)

This invention relates to a novel rotary rack for holding a plurality of sewing thread spools.

The primary object of the invention is to provide a device of the character indicated which involves a supported rotary drum having thereon longitudinal and circumferential rows of spool-holding pins, on which spools are releasably engaged, the drum being preferably supported with its axis in a horiontal position, whereby the sizes and colors of spools can be readily seen and can be quickly and easily reached and removed from the pins for use.

Another object of the invention is to provide a device of the character indicated above whose drum is longitudinally extensible and contractible, so as to accommodate the drum to being mounted on and between supports which are spaced at different distances from each other, such as the side panels of different size drawers or differently spaced mounting brackets, and to accommodate a greater or less number of spool-supporting pins.

A further object of the invention is to provide a device of the character indicated above wherein the drum is composed of telescoped sections which are formed with pin retaining holes, in which pins are adapted to be removably and securably engaged, certain of the holes in the two sections, and related pins, being utilized as means for securing the sections relative to each other in adjusted positions.

A still further object of the invention is to provide a rugged and serviceable device of the character indicated above which is uncomplex in construction, is composed of a small number of simple and easily made parts, and which can be made in attractive forms, at relatively low cost, from a variety of suitable metallic and non-metallic materials.

Other important objects and advantageous features of the invention will be apparent from the following description and the accompanying drawings, wherein, for purposes of illustration only, a specific form of the invention is set forth in detail.

In the drawings:

Figure 1 is a contracted and fragmentary top plan view, partly in section and broken away, of a device of the invention;

Figure 2 is an end elevation of Figure 1, broken away to show drum structure; and

Figure 3 is an enlarged fragmentary section taken on the line 3—3 of Figure 1.

Referring in detail to the drawings, wherein like numerals designate like parts throughout the several views, the illustrated device, generally designated **10**, comprises an axially elongated hollow drum **12**, made of metal or plastic, having limited resiliency and having substantial rigidity, comprising an inner preferably tubular section **14**, having an open inner end **16** and a closed outer end **18**, and an outer preferably tubular section **20**, having an open inner end **22** and a closed outer end **24**. The inner section **14** is slidably telescoped into the outer section

20, to the extent necessary to obtain the desired overall length for the drum **12**.

The closed outer ends **18**, **24** of the sections **14** and **20** are formed with thickened bosses **28**, respectively, which preferably extend axially inwardly in the sections, the bosses being formed therethrough with smooth axial journal bores **30**, which extend to shanks **34** of related mounting screws **36** and **38**, respectively, which are threaded in supports located at the opposite ends of the drum **12**.

The side walls **40** of the drum sections are formed with preferably circular holes **42** which are arranged in circumferential rows, and in staggered longitudinal rows, as shown in Figures 1 and 2. Spool holding pins **44** are removably and securably engaged in the holes **42**.

As shown in Figure 3, the pins **44** preferably comprise elongated hollow bodies **46** having closed inward end portions or plugs **48** of substantial cross section, which are substantially plane cylindrical in form, and which are of a diameter to make frictional engagements in the drum holes **42**, sufficient to preclude the pins being pulled out by the weight of sewing thread spools **50** engaged thereon or by the pull exerted on the pins by removal of spools therefrom while providing for manual disengagement of the pins from the holes, when necessary. The plugs **48** can, for this purpose, be somewhat outwardly tapered from a diameter slightly larger than the holes **42**, so as to achieve a plug fit when inserted in the holes, or the plugs can be left with or provided with, in the course of their manufacture, roughened exteriors so that the plugs grip the edges of the holes, some reliance for retention of the plugs in the holes being made on the resilience of the drum side walls.

The pins **44** have relatively thin and resilient, circular side walls **52**, which extend outwardly from the plugs **48**, and are belled intermediate their ends, as indicated at **54**, and having a slight outward taper to their outer ends **56**, to a diameter easily insertible in the bores **58** of thread spools **50**, with the belled portion **54** being larger in diameter than the spool bores **58**. The pin side walls **52** have therein circumferentially spaced longitudinal slots **60** which extend from the outer ends **56** of the pin bodies **46** to points near to and spaced from the plugs, as indicated at **62**. As indicated at **64**, the inner ends of the belled side wall portions **54** are larger in diameter than the holes **42**, so as to serve to prevent too far insertion of the pins in the holes **42**. Engagement of spools **50** over pins **44** contracts the belled portions **54** of the pins and tensions these portions of the pins against the sides of the spool bores **58** so as to releasably secure the spools on the pins.

While various brackets and support elements can be used, in conjunction with the screws **36** and **38** at opposite ends of the drum **12** for operatively and stationarily supporting the drum, the invention concerns primarily the installation of the drum in a drawer **66**, of such as a sewing cabinet (not shown), the drawer having side panels **68** and **70**, through which the screws **36** and **38** are severally threaded, as seen in Figure 1, with the drum **12** positioned close to the front end panel **72** of the drawer. This arrangement provides for protective, space-saving concealment of the device, while providing ready accessibility thereto.

As shown in Figures 1 and 3, the plugs **48** of the pins **44** are long enough, so that when engaged through holes **42** in the outer drum section **20**, the plugs can engage in holes in the inner drum section **14**, for holding the drum sections in longitudinally adjusted relation to each other.

Although there has been shown and described herein a preferred form of the invention, it is to be understood that the invention is not necessarily confined thereto, and that

any change or changes in the structure of and in the relative arrangements of components thereof are contemplated as being within the scope of the invention as defined by the claims appended hereto.

What is claimed is:

1. A spool rack comprising a rotary cylinder having a side wall and ends, support means for the rack engaged with the ends of the cylinder, and spool-supporting pins mounted on said side wall and projecting radially outwardly from said side wall, said pins having outer and inner ends, said pins having resilient compressible portions spaced from their ends, said compressible portions being larger in diameter than the bores of the spools to be engaged on the pins, said cylinder side wall having holes therein, and said pins having plugs on their inner ends which are frictionally and removably engaged in said holes.

2. A spool rack comprising a rotary cylinder having a side wall and ends, support means for the rack engaged with the ends of the cylinder, and spool-supporting pins mounted on said side wall and projecting radially outwardly from said side wall, said pins having outer and inner ends, said pins having resilient compressible portions spaced from their ends, said compressible portions being larger in diameter than the bores of the spools to be engaged on the pins, said cylinder side wall having holes therein, and said pins having plugs on their inner ends which are frictionally and removably engaged in said holes, said cylinder comprising telescoped tubular sections, holes of the sections being registrable in longitudinally adjusted relations of the sections to receive pin plugs as means precluding endwise movement of the sections relative to each other.

3. A spool rack comprising a rotary cylinder having a side wall and ends, support means for the rack engaged with the ends of the cylinder, and spool-supporting pins mounted on said side wall and projecting radially outwardly from said side wall, said pins having outer and inner ends, said pins having resilient compressible portions spaced from their ends, said compressible portions being larger in diameter than the bores of the spools to be engaged on the pins, said pins comprising hollow resilient bodies having open outer ends and closed inner ends, said pin bodies having side walls which have outwardly belled intermediate portions defining said compressible portions.

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