

Oct. 21, 1969

B. JONES

3,473,756

HOLDER FOR SPOOLS OF THREAD AND THE LIKE

Filed Feb. 14, 1968

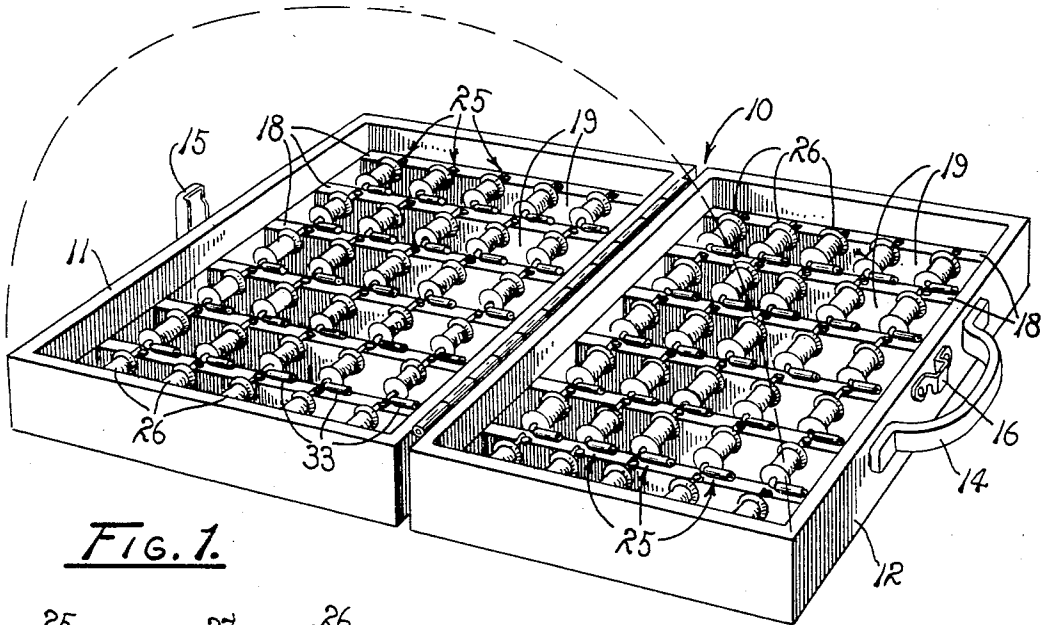


FIG. 1.

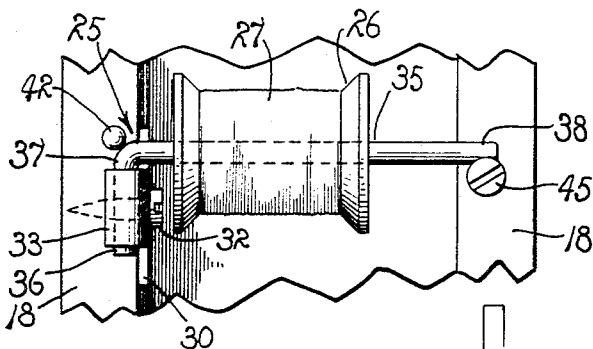


FIG. 2.

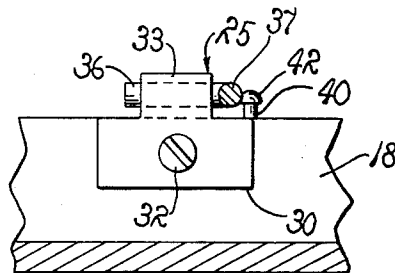


FIG. 4.

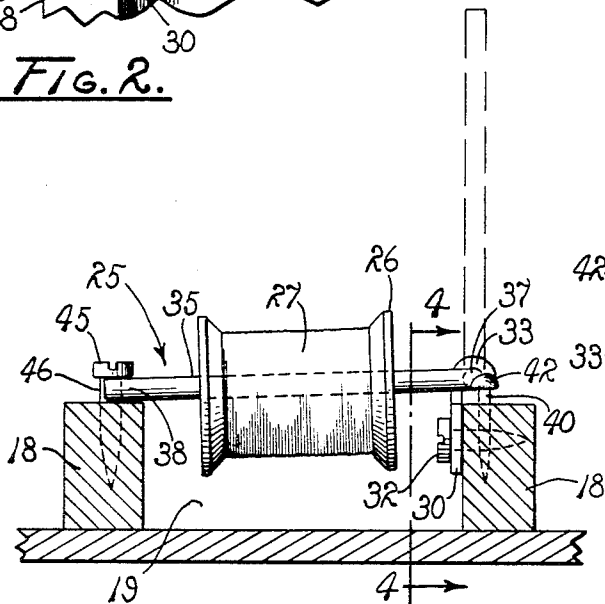


FIG. 3.

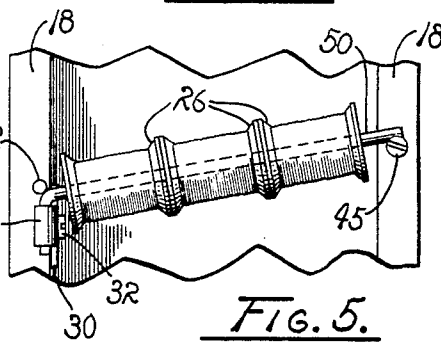


FIG. 5.

BUDD JONES
INVENTOR

Huebner + Horel
ATTORNEYS

1

3,473,756

HOLDER FOR SPOOLS OF THREAD AND THE LIKE

Budd Jones, P.O. Box 691, Visalia, Calif. 93277
Filed Feb. 14, 1968, Ser. No. 705,364
Int. Cl. B65h 49/18

U.S. Cl. 242—137

2 Claims

ABSTRACT OF THE DISCLOSURE

A holder for spools of thread and the like having a frame providing a spool receiving compartment and a spool mounting spindle pivotally mounted on the frame for selective manipulation between a closed position disposed in bridging relation to the compartment rotatably to retain such a spool of thread in a continuously observable accessible position and an open position outwardly extended from said compartment.

BACKGROUND OF THE INVENTION

Spools of thread are customarily loosely stored in home sewing baskets, compartmentalized trays, and other similar storage devices which are not usually readily accessible for immediate use. Furthermore, the size, type, and color of the thread is not always immediately discernible when the thread is stored in such indiscriminately placed condition, making proper selection of a particular thread difficult. Even after the desired spool of thread is selected, the entire spool must be removed from the storage device each time the thread is used and then returned to the holder after such use. In an attempt to overcome such problems, spool holders have been provided affording a plurality of substantially upright spool receiving pegs. If provided in a multi-tiered arrangement in order to accommodate a full complement of thread sizes and colors, the tiers must be sufficiently vertically spaced in order to permit removal of the individual spools from their respective pegs. This substantially increases the size of such prior holders which cannot be conveniently stored in a relatively small space such as in drawers, closets and the like. Furthermore, because of their undesirable consumption of space, conventional spool holders are not readily adaptable or acceptable for use in department stores and the like for storing and displaying spools of thread.

SUMMARY OF THE INVENTION

Accordingly, it is an object of the present invention to provide an improved holder for spools of thread and the like.

Another object is to provide such an improved holder for holding or displaying a relatively large number of spools of thread in a minimum of space.

Another object is to provide an improved holder of the character described in which the size, type and color of thread on each spool are readily observable and accessible for immediate use.

Another object is to provide an improved holder in which the thread may be removed from particular spools without removing the spool from the holder.

Another object is to provide an improved holder where- in the spools may be easily and conveniently individual-

2

ly removed from the holder without removing or disturbing other spools on the holder.

Another object is to provide an improved spool holder which utilizes a support frame having a pair of hinged sections which are closable for transport with the frame being adapted to be formed of a single open section for mounting on a wall or disposing in a flat horizontal condition within a drawer or the like.

Another object is to provide an improved spool holder which may be readily adapted for home use and for commercial displays.

Other objects and advantages of the present invention will subsequently become more clearly apparent upon reference to the following description and accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of a spool holder embodying the principles of the present invention.

FIG. 2 is a somewhat enlarged fragmentary top plan view of an individual spool receiving spindle of the spool holder of FIG. 1 shown in a closed position.

FIG. 3 is a somewhat enlarged side elevation of the spool receiving spindle shown in a closed position of FIG. 2 and including a dashed line open position.

FIG. 4 is a somewhat enlarged transverse vertical section through the spool receiving spindle, taken generally along the line 4—4 of FIG. 3.

FIG. 5 is a top plan view of a modified form of spool receiving spindle which accommodates a plurality of spools of thread for commercial display purposes.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring more particularly to the drawings, a spool holder embodying the principles of the present invention provides a substantially rectangular case or frame generally indicated by the reference numeral 10 having a pair of hinged upper and lower sections 11 and 12, respectively, closable for transport by a handle 14. The sections are held in their closed position by a latch 15 on the upper section 11 which is releasably engageable with a striker member 16 on the lower section. It will be noted that the frame may be alternatively formed of a single open section for mounting on the wall or other support surface or disposition in a flat horizontal condition within a draw or the like. Each section of the frame has a plurality of spaced substantially parallel divider strips which define therebetween a plurality of elongated spool receiving compartments 19.

In each of the compartments 19 is disposed a plurality of spool mounting devices generally indicated by the reference numeral 25 in sufficiently spaced relation longitudinally of the divider strips 18 individually to accommodate a plurality of spools of thread indicated by the reference numeral 26 having a supply of thread 27 tightly wound thereon. Each of the spool mounting devices provides a hinge plate 30 secured to a respective one of the divider strips by a fastener member such as the screw 32. The hinge plate includes a tubular portion 33 rested on the upper surface of its associated divider strip with the axis of the tubular portion extending longitudinally of the divider strip.

An elongated L-shaped spool receiving spindle 35 constructed of a substantially rigid rod material is disposed in bridging relation to its associated compartment 19 and

provides a pivot end 36 rotatably extended through the tubular portion 33 of its associated hinge plate 30. The spindle further includes an arcuate bend portion 37 closely adjacent to its pivot end with the spindle terminating in an opposite distal end 38. A spindle constraining pin or nail 40 is mounted in upstanding relation from the divider strip in axially spaced relation from the tubular portion of the hinge plate. The pin has an enlarged head 42 frictionally slidably engaging the arcuate bend portion of the spindle to preclude axial disengagement of the pivot end of the spindle from the hinge plate. The constraining pin further provides sufficient drag against the arcuate bend portion of the spindle to hold the spindle in selectively adjusted position outwardly extended from the compartment. Furthermore, the head 42 of the pin also serves as a positive stop to restrict movement of the spindle through a range of not more than 90° from a fully closed position across the compartment 19, as shown in full lines in FIG. 3, to a substantially vertical open position shown in dashed lines.

The spindle 35 is releasably constrained in its closed position by its inherent flexibility permitting movement of its distal end 38 to a position beneath the head 45 of a lock screw 46 mounted in the corresponding divider strip 18 of the frame 10. It will be noted that the divider strips 18 which are common to a pair of adjacent compartments 19 provide mounting for both the hinge plates 30 and the lock screws 46 for the spindles in the adjacent compartments so as to best utilize the available space without interference between the spindles.

As best shown in FIG. 5, a modified form of the spindle is indicated by the reference numeral 50. It will be noted that the spindle 50 is substantially longer than the spindle 35 of the first form of the invention in order to hold a plurality of the spools of thread 26. It will be further noted that the divider strips 18 of the frame 10 are spaced a greater distance apart in FIG. 5 so as to accommodate the increased number of spools on the longer spindle 50. The longer spindle is utilized when the holder is employed as a commercial display with the frame being mounted in a substantially upright position providing substantially vertical compartments 19. The spindle rods 50 are obtusely angularly extended from their respective pivot ends so that during movement of the rods to their outwardly extended open positions the spools will be retained on the spindle rod with the upward angularity of the rods precluding gravitational axially endward sliding movement and inadvertent removal of the spools therefrom.

OPERATION

The operation of the described embodiments of the subject invention is believed to be clearly apparent and is briefly summarized at this point. As previously described, the frame 10 may be provided, as in FIG. 1, with a pair of hinged sections 11 and 12 which are readily closed and latched for rendering the frame portable and which is easily opened for immediate complete viewing of the entire complement of spools of thread 26 supported on the spindles 35. Alternatively, the frame may be provided in the individual sections for convenient storing in a substantially flat horizontal condition within a drawer or the like or for mounting in a substantially upright vertical position upon a wall or other support surface. In any of the above described conditions, the spools of thread 26 are continuously immediately observable for selection of the appropriate size, type and color of thread to be used. The spools are rotatably mounted on their respective spindles so that the thread can be unwound therefrom without completely removing the spool of thread from the spindles and the support frame.

Complete removal of the spools of thread 26 from their respective spindles 35 is easily accomplished by manipulation of the distal end 38 of the selected spindle past the head 45 of the lock pin 46. The inherent flexi-

bility of the spindle rod 35 permits such movement of the distal end of the spindle past the head of the lock pin for positioning the spool outwardly from its respective compartment 19 of the frame. The outward swinging movement of the spindle is continually frictionally resisted by the head 42 of the constraining pin 40 in sliding engagement with the arcuate portion 37 of the spindle to hold the spindle in any desired outwardly disposed adjusted position between its fully closed and fully opened position.

As further described, the head 42 of the constraining pin 40 further serves as a positive stop to limit such outward swinging movement of the spindle to a position substantially 90° from its fully closed position so as to preclude interference between the spindles of the adjacent compartments 19. After use, the spool can be easily and conveniently reinstalled on the spindle and returned to the compartment by manipulation of the spindle toward its closed position with the distal end 37 thereof springing past the head end 45 of the lock screw 46 dependably to hold the spindle and spool in its locked, closed position. The spindle 50 of FIG. 5 is substantially identical in operation to that described for the spindle 35 with its obtuse angularity with respect to its pivot end precluding inadvertent gravitational sliding removal of the spools from the end of the spindle.

In view of the foregoing, it is readily apparent that the structure of the present invention provides an improved holder for spools of thread and the like wherein the size, type and color of thread on each spool is readily observable and immediately accessible at all times. The thread may be removed from any particular spool without removing the spool from the holder but which permits complete removal of the spool without removing or disturbing the adjacent spools on the holder. The spool holder of the present invention is further adaptable to be mounted in any desired position both horizontally and vertically and for use both in the home and for commercial displays.

Although the invention has been herein shown and described in what is conceived to be the most practical and preferred embodiment, it is recognized that departures may be made therefrom within the scope of the invention, which is not to be limited to the details disclosed herein but is to be accorded the full scope of the claims so as to embrace any and all equivalent devices and apparatus.

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

1. A spool holder for spools of thread and the like comprising a frame having a plurality of divider strips mounted therein in spaced substantially parallel relation to define a plurality of spool receiving compartments; a plurality of substantially rigid spool mounting spindle rods individually providing substantially right angularly related pivot ends, opposite distal ends, and arcuate bend portions intermediate said ends; a plurality of hinge members mounted on said divider strips individually pivotally receiving said pivot ends of the spindle rods mounting the same for selective manipulation between closed positions disposed in bridging relation to their respective compartments rotatably to retain such spools within the compartments in a continuously observable accessible position for removal of thread therefrom and open positions outwardly extended from their respective compartments for removal of the entire spool from said spindle rods; a plurality of latch members mounted on said divider strips in individually releasably locking relation to said distal ends of the spindle rods when the spindle rods are in their closed positions; and a plurality of stop members mounted on said divider strips individually adjacent to said pivot ends of the spindle rods to preclude axial removal of said pivot ends from their respective hinge members and in continuously frictionally sliding engagement with their arcuate bend portions to hold the

5

spindle rods in a variety of selectively adjusted positions between their fully closed and fully opened positions.

2. The spool holder of claim 1 in which the spindle rods are of sufficient length to hold a plurality of spools of thread, and said pivot ends of the spindle rods are obtusely angularly related thereto and mounted in a substantially vertical position so that when said frame is disposed in a substantially upright attitude the spindle rods are upwardly angularly extended in their opened positions to preclude inadvertent gravitational sliding of said spools endwardly from the spindle rods.

5

10

6

References Cited

UNITED STATES PATENTS

473,080	4/1892	Pierre	-----	211—59
2,402,696	6/1946	Track	-----	242—139
3,305,190	2/1967	Gans	-----	242—139

LEONARD D. CHRISTIAN, Primary Examiner

U.S. CI. X.R.

211—59