Jan. 9, 1951 M. B. PEAKE 2,537,940

SEWING KIT

Filed March 18, 1946

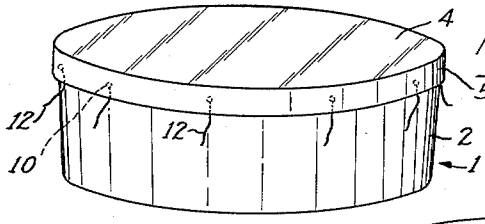

Fig. 1.

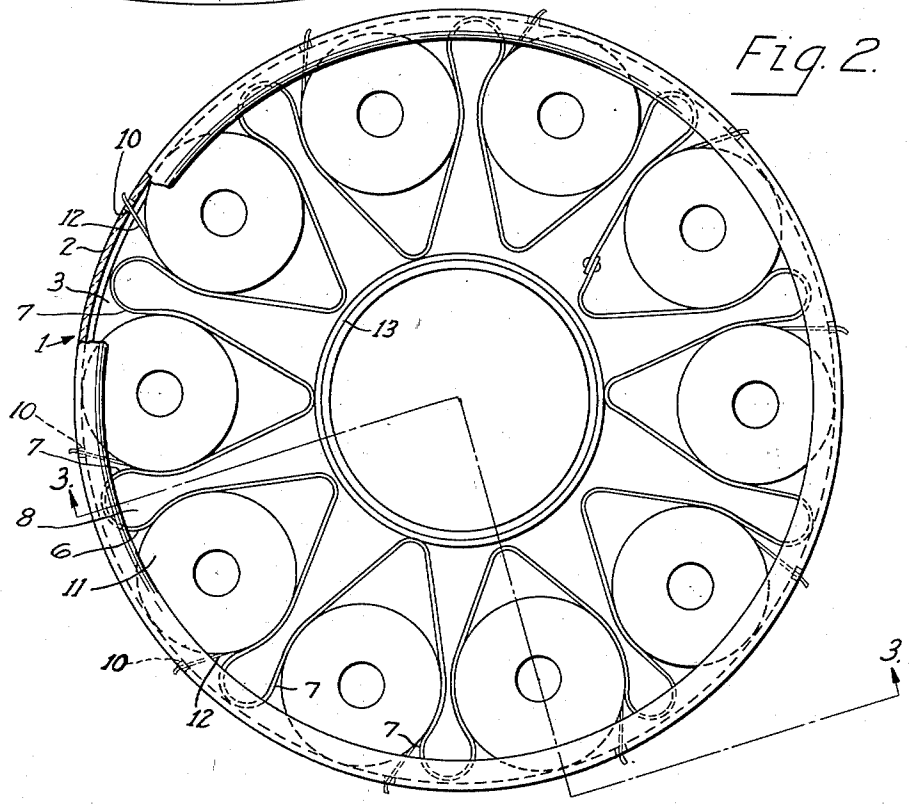

Fig. 2.

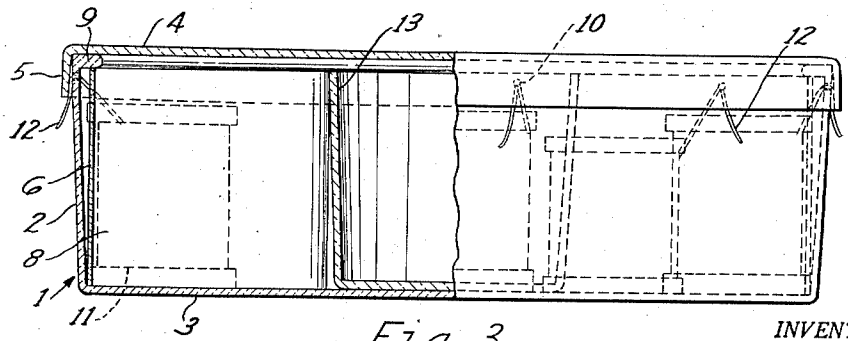

Fig. 3.

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Patented Jan. 9, 1951

2,537,940

UNITED STATES PATENT OFFICE

2,537,940

SEWING KIT

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Application March 18, 1946, Serial No. 655,173

10 Claims. (Cl. 223—107)

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This invention relates to a sewing kit and particularly to a new and improved sewing kit which is capable of retaining a larger assortment of spools of thread and other sewing equipment in better order for use than do prior kits for this purpose.

One of the principal objects of the present invention is to provide a sewing kit in which selected spools of thread may be inserted and removed readily but in which they are held against accidental displacement when the kit is open.

Another object is to provide a sewing kit in which the thread from spools contained in the kit is accessible from the outside of the kit.

Another object is to provide means for preventing accidental unwinding and loosening of the thread on the spools in the kit and resultant knotting and tangling of loose threads of different spools.

Another and equally important object is to provide a kit which readily operates in the manner described with spools of different diameters and in which the holding means for the spools is self-adjusting for this purpose.

Another object is to provide a kit which has transparent portions such that the spools are readily visible while contained in the kit.

A more specific object is to provide a kit of the character described which is simple in construction, has a minimum number of operating parts, and can be assembled readily and economically.

Other objects and advantages will become apparent from the following description, wherein reference is made to the drawings, in which

Fig. 1 is a perspective view of the kit with the spools therein;

Fig. 2 is a top plan view of the kit and spools therein with the cover of the kit removed; and

Fig. 3 is a sectional view of the kit with the spools therein with the cover in place, and is taken on line 3—3 of Fig. 2.

Referring to the drawing, the kit comprises a container 1 which preferably is cylindrical and open at the top. The container 1 has a peripheral wall 2 which preferably is transparent and may be of synthetic material such as settable "plastic," Celluloid, cellulose acetate, acrylic resin or other synthetic "plastics" which are readily moldable or formable. If desired, the kit 1 may be molded entirely of transparent settable plastic material or the bottom wall 3 may be of a different material suitably secured to the peripheral wall 2.

The container is closed at the top by a cover 4 which likewise may be of transparent settable plastic material. The cover 4 has an external peripheral flange 5 embracing the upper marginal portion of the kit. The flange 5 is arranged to fit snugly, with slight inward radial pressure, onto the upper marginal portion of the receptacle 1 so as to remain in place when the kit is inverted, and also to cooperate in maintaining taut the thread on spools contained in the container, as will later be described.

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Within the receptacle 1 is a means for holding the spools with their axes upright and in such condition that they can be readily inserted and removed from the kit. In the preferred form of the invention illustrated, this means comprises a strip 6 which may be of the same transparent synthetic material as the container or other resilient self-supporting material. The strip is corrugated and is disposed in the container, preferably along the peripheral wall 2 thereof, with its corrugations positioned with their axes upright, thus providing open top, resiliently expansible and contractible spool receiving pockets having self-supporting side walls. It is preferred that those of the corrugations which are concave toward the peripheral wall 2, as indicated at 7, be used to accommodate the spools with their axes upright, and that they be larger than the corrugations which are convex toward the peripheral wall 2, as indicated at 8. If desired, both the corrugations 7 and 8 may be used to accommodate spools in upright positions, but the use of only those corrugations concave in the same direction has distinct advantages.

The resilient strip 6, as a whole, is expansible and contractible radially or laterally of the container 1 so that it may be compressed radially and inserted in the container and, upon being released, will expand and fit snugly within the container. The corrugations 8 are formed so that their crests abut the peripheral wall 2 of the container under outwardly directed yielding pressure so as to hold the corrugated strip in place frictionally against accidental displacement axially of the container.

In order to provide more positive means for holding the strip from accidental movement axially of the container, the peripheral wall 2 is provided at its upper edge with an inwardly overhanging peripheral shoulder 9 which is of sufficient dimension inwardly so as to engage the upper edge of the strip 6 after the strip is released and has expanded in the container. Thus the strip is easily installed and portions thereof can be moved bodily relative to the walls of the container and relative to other portions by flexure of part or all of the corrugations.

A kit of this character to be practical must be arranged to accommodate spools of different diameters. If the corrugated strip 6 is wholly

unattached to the walls 2 and 3 of the container 1 or is unattached for substantial lengths, all of the corrugations, or a plurality of the corrugations between any points of attachment, are movable bodily in a direction transversely in at least one direction so as to accommodate different sizes of spools at their maximum diameter portions under lateral yielding pressure.

Furthermore, it is preferred that the pockets thus defined by the corrugations be expansible and contractible independently of each other so that larger size spools can be accommodated side by side if desired. For this purpose the corrugations between those which receive and embrace the spools preferably are normally open at the sides opposite their crests, and those which embrace the spools may be open or closed at the side opposite their crests. Since it is desirable to support the spools so they are readily visible through the peripheral wall of the container, the corrugations 7, as mentioned, are concave toward the peripheral wall and are used as the pockets for accommodating the spools, the spools being engaged by the walls of the corrugations 7 and, if the spools are of appreciable size, also by the peripheral wall 2.

The strip 6 must be resilient and flexible so that each corrugation can accommodate a wide range of spool sizes, yet it must be sufficiently stiff to exert the required holding pressure. At the same time, resistance to rotation of the spools about their axes must not be so great as to prevent such rotation by a reasonably hard pull on the thread. With such a relatively stiff strip it is preferred that the corrugations be open at the sides opposite their crests so as not to offer an undesirably great amount of resistance to contraction of empty corrugations, to movement of the strip endwise or bodily movement of some corrugations when a number of large spools are accommodated in a plurality of adjacent corrugations, and to rotation of the spools by pulling the thread. If closed corrugations were used with a strip of such thickness, self adjustment of the strip would be limited and some of the advantages resulting from the open sided corrugations would be lost. Furthermore, by using open sided corrugations between the spool holding corrugations, the danger of cracking the strip is eliminated. Accordingly, the corrugations 8 which are convex toward the peripheral wall are also open so as to provide space for the lateral expansion and bodily movement of themselves and of the corrugations 7 and preferably are such that their crests frictionally engage the peripheral wall 2 under outward yielding pressure.

When a spool is inserted into one of the corrugations 7 it is yieldably held by the lateral pressure exerted by the walls of the corrugation both from movement axially and also against rotational movement, thus providing a snubbing effect relative to the spool and yieldably resisting rotation of the spool about its axis when the thread is unwound therefrom.

Since the spools are readily visible through the wall 2, it is desirable to provide apertures or openings in the peripheral wall so that the thread can be unwound or removed from the spool without opening the kit. For this purpose, apertures 10 are provided in the peripheral wall 2. As illustrated in Fig. 2, a spool 11 is shown held by the walls of one of the corrugations 7 and the peripheral wall 2. The thread 12 from the spool extends through one of the apertures 10. This aperture preferably is positioned so that it is overlain by the flange 5 of the cover 4. Consequently, the thread drawn from the spool bends abruptly downwardly out of alignment with the aperture 10 due to the flange 5 and passes under the lower edge of the flange 5 by which it is frictionally resisted. Thus not only is the spool snubbed within the container so as to prevent loosening of the thread therein by accidental relative rotation of the spool and thread but also the thread is additionally snubbed by being abruptly bent after it passes through the aperture 10 and by being yieldably frictionally engaged by the flange 5 of the cover.

In order to accommodate miscellaneous sewing items such as thimbles, needles, darning yarns and the like, without interference with the spools, a central box 13 is provided. In the form illustrated, the crests of the corrugations 7 terminate in spaced relation to the central portion of the container 1 and these crests, or part only of them, if desired, define a central box receiving space of slightly less diameter than the upper margin of the box 13. Thus the box 13 may be inserted in the space defined by the innermost crests of the corrugations 7 and be resiliently held in by engagement of the crests therewith at the upper margin of the box. The box 13 may have resilient side walls so that, when it is provided, radial movement of the corrugations as a whole is not prevented.

Since the corrugations 8 are open opposite their crests, as also are the corrugations 7, and since the strip 6 is not secured to the peripheral wall between each corrugation, the pockets defined by the corrugations are expansible and contractible in all directions transversely of the container 1 and also may be moved bodily relative thereto, especially in the direction of the peripheral wall, as well as having limited bodily movement transversely. This arrangement has the specific advantage in that self-adjusting so that a large number of large spools may be held frictionally in position in adjacent corrugations, if desired, in which case such corrugations move bodily as well as expand to accommodate the larger size spool. On the other hand, with smaller spools, the corrugations can remain more nearly in their normal empty position. This arrangement provides a greater range of flexibility for accommodating and frictionally engaging spools of different diameters regardless of their sizes and arrangements relative to each other.

The strip 6 is of an upright dimension slightly greater than the overall axial dimension of any spool accommodated therein. The corrugations 7 are of such size as to accommodate with light frictional engagement the minimum diameter spool customarily obtainable at retail so that any spool of that or any larger size is held frictionally against accidental axial displacement and rotation thereof is frictionally opposed. Since the strip either is not secured to the peripheral wall at all, or if secured thereto, is secured only at widely spaced points between which are a plurality of corrugations, the corrugations themselves can migrate along the wall and distribute themselves and the expansion and contraction properly for accommodating a considerable number of large spools. Thus a greater flexibility is provided than is customarily provided by independently anchored pockets.

In the form illustrated, no mechanical anchorage of the strip 6 to the walls of the container is provided, though some of the advantages could be retained if an occasional corrugation was so

anchored even though this would greatly limit movement of the corrugations for distributing the expansion and therefore would limit the number of sizes of spools which could be accommodated conveniently.

I claim:

1. In combination, a sewing kit comprising a relatively rigid open top container, a strip of resilient, self restoring, self-supporting material having a plurality of corrugations extending transversely of its length and disposed in the container along a side wall thereof with the axes of the corrugations upright and thereby providing a row of open top spool receiving pockets which are resiliently expansible and contractible endwise of the row, spools of thread accommodated in upright position in the pockets of the row and each having a maximum diameter so related to the cross-sectional size and shape of its accommodating pocket that it is resiliently engaged by walls thereof and frictionally restrained thereby against endwise movement out of its pocket and snubbed against rotation about its axis.

2. The combination according to claim 1 characterized in that adjacent walls of at least some adjacent corrugations which open in the same direction laterally are spaced apart from each other endwise of the row over substantially their entire extent to provide for individual expansion of said adjacent corrugations.

3. In combination, a sewing kit comprising a cylindrical container, a resilient strip of self-supporting material having corrugations extending transversely of its length and disposed therein with the axes of the corrugations upright, and providing spool receiving pockets, said strip extending about the entire periphery of the container, said corrugations being individually expansible and contractible transversely of their respective axes, and said strip as a whole being expansible radially of the container and being unconnected to the container walls so as to be rotatably movable as a whole about the axis of the container relative to the peripheral wall, and inwardly extending flange means about the upper edge of the container defining an opening which is smaller than the strip as a whole when the strip, as a whole, is of normal radial dimension and through which opening the strip as a whole is receivable and removable when the strip is contracted as a whole radially, whereby the strip normally is constrained from movement parallel to the axis of the container out of the top of the container, and spools of thread accommodated in the pockets and resiliently engaged by the strip and constrained thereby from movement endwise out of the pockets and from rotation about their axes, respectively.

4. A sewing kit comprising a relatively rigid open top container, an elongated strip of resilient self-supporting self-restoring material having a plurality of corrugations extending transversely of its length and being disposed in the container along a peripheral wall thereof with the axes of the corrugations upright, alternate ones of the corrugations opening laterally toward the peripheral wall being of greater dimension endwise of the row than the corrugations therebetween, and providing open top self-restoring spool receiving pockets which are resiliently expansible and contractible transversely of their axes and adapted to receive spools in upright position through their open tops, respectively, and frictionally engage the spools laterally and thereby restrain them against movement out of the open tops of the pockets and snub them against rotation about their axes, respectively.

5. A sewing kit comprising a relatively rigid open top container, an elongated strip of resilient self-supporting self-restoring material having a plurality of corrugations extending transversely of its length and being disposed in the container along a peripheral wall thereof with the axes of the corrugations upright and thereby providing a row of open top self-restoring spool receiving pockets which are resiliently expansible and contractible endwise of the row and are adapted to be expanded and receive spools in upright position through their open tops, respectively, and, when released, to contract and frictionally engage the spools and restrain them against movement out of the pockets and snub them aginst rotation about their axes, and at least a portion of the length of the strip, which portion includes a plurality of said corrugations, being mounted in the container to afford bodily movement of the corrugations of said portion transversely of their axes along said peripheral wall by resilient contraction and expansion of other corrugations of said portion.

6. A sewing kit according to claim 5 characterized in that the adjacent walls of at least some adjacent corrugations which open laterally in the same direction are spaced apart from each other endwise of the row from their outer to their inner limits and thereby provide for individual expansion of said adjacent corrugations.

7. A sewing kit according to claim 5 characterized in that the container is cylindrical and the strip is unconnected with the walls of the container and thereby the strip is free to rotate as a whole circumferentially of the container and the corrugations thereof are free to move bodily relative to the container walls.

8. A sewing kit according to claim 5 characterized in that said strip extends about the entire peripheral wall of the container and is in spaced relation to the midportion of the container and is, as a whole, resiliently expansible and contractible radially toward and away from said midportion.

9. A sewing kit according to claim 8 characterized in that a box is detachably accommodated in the midportion of the container and the inwardly disposed crests of at least part of the corrugations resiliently press against the peripheral wall of the box and frictionally hold the box in said container.

10. A sewing kit according to claim 8 characterized in that said container has inwardly projecting flange means on the peripheral wall defining an opening which is smaller than the strip when the strip as a whole is of normal radial dimension and through which opening the strip is receivable and removable while the strip as a whole is contracted radially.

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