April 27, 1965

R. UDDENBORG

3,180,487

THREADED NEEDLE PACKAGE

Filed March 19, 1962

2 Sheets-Sheet 1

Fig. 1.

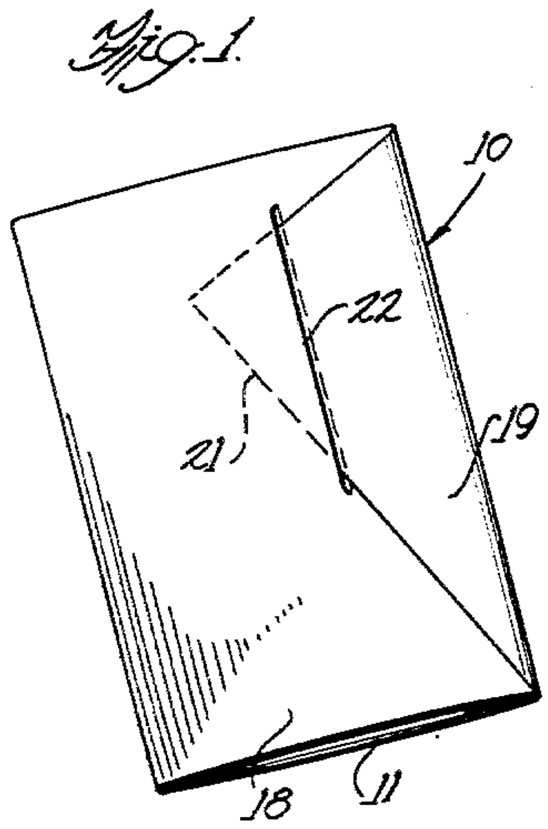


Fig. 2.

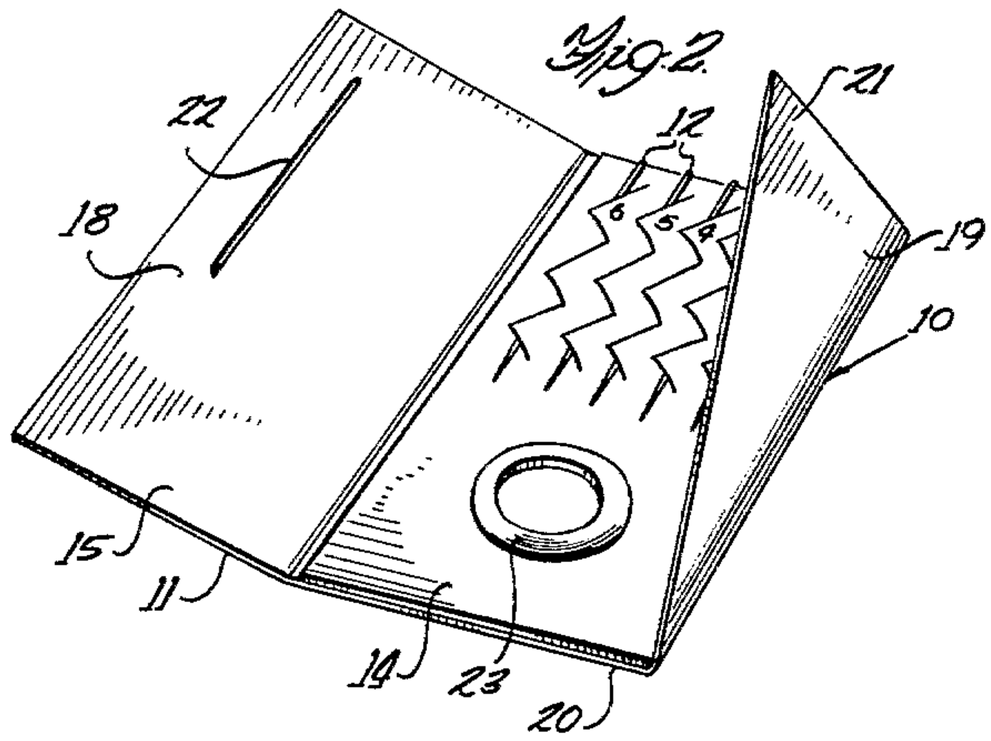


Fig. 3.

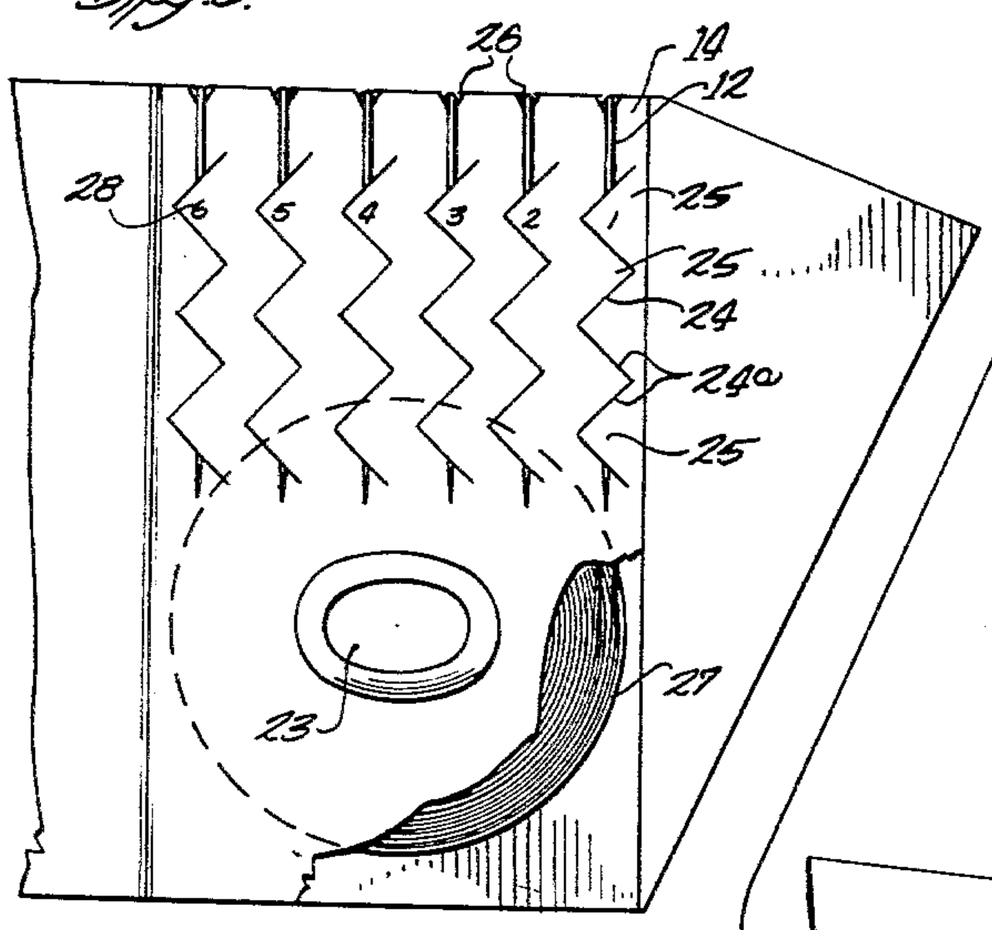
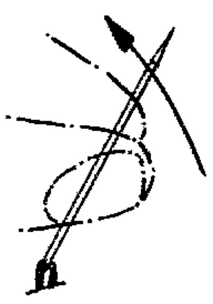


Fig. 4.



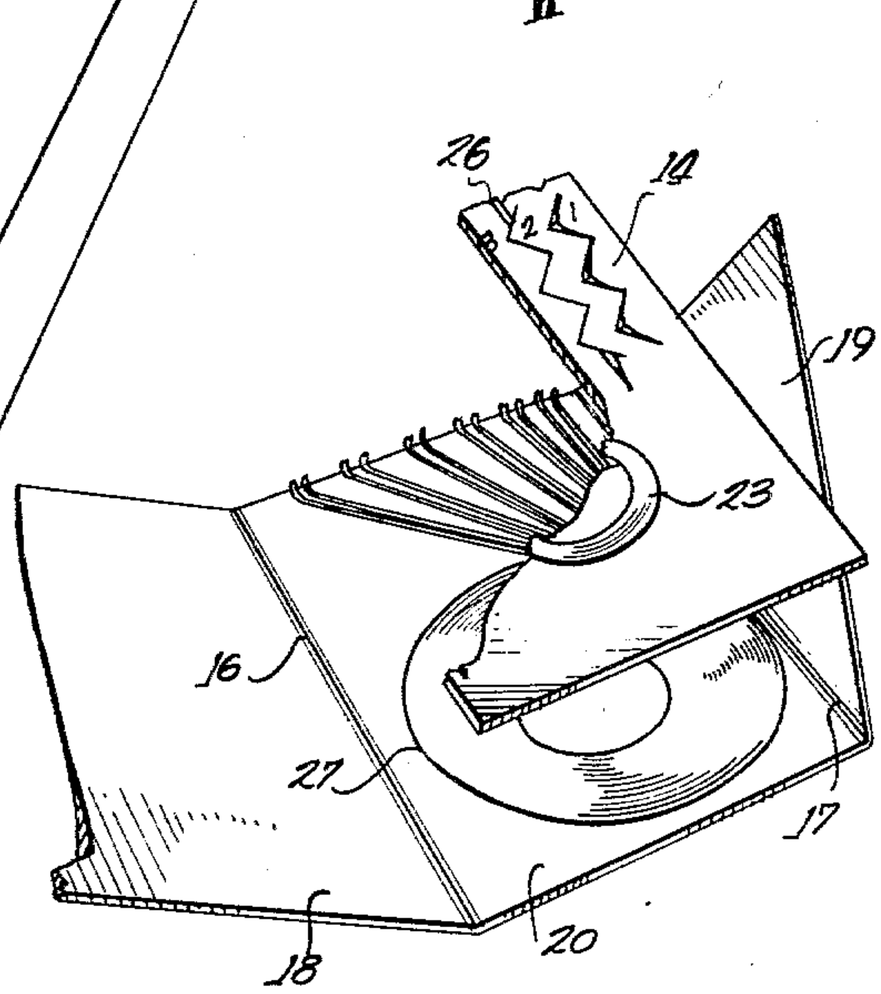
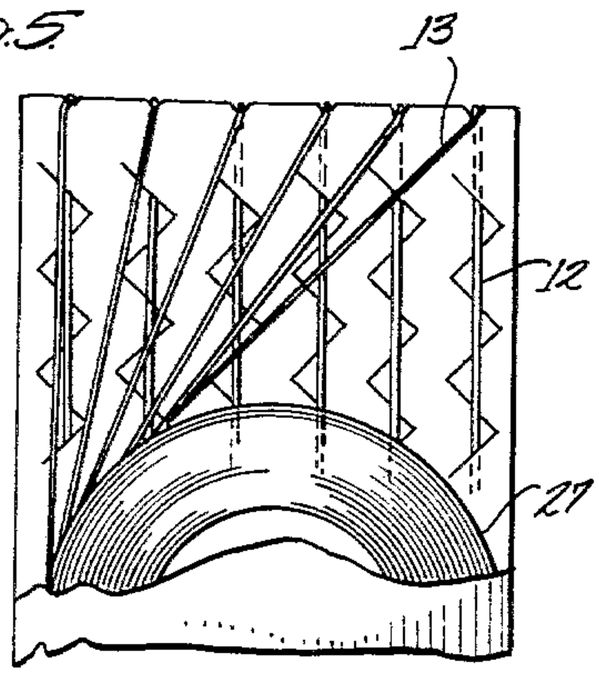


Fig. 5.



Inventor
Richard Uddenborg
Dawson, Tilton, Fallon
Lungmus & Alexander
Attorneys

April 27, 1965 R. UDDENBORG 3,180,487

THREADED NEEDLE PACKAGE

Filed March 19, 1962 2 Sheets-Sheet 2

Fig. 6.

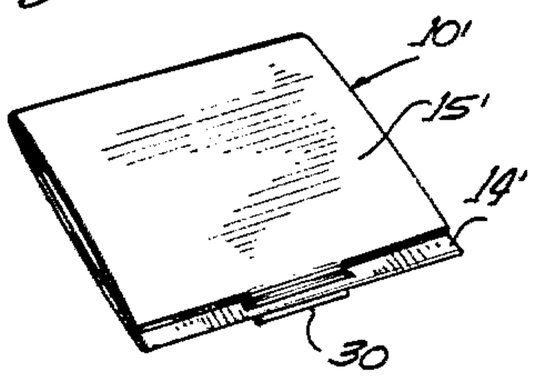


Fig. 7.

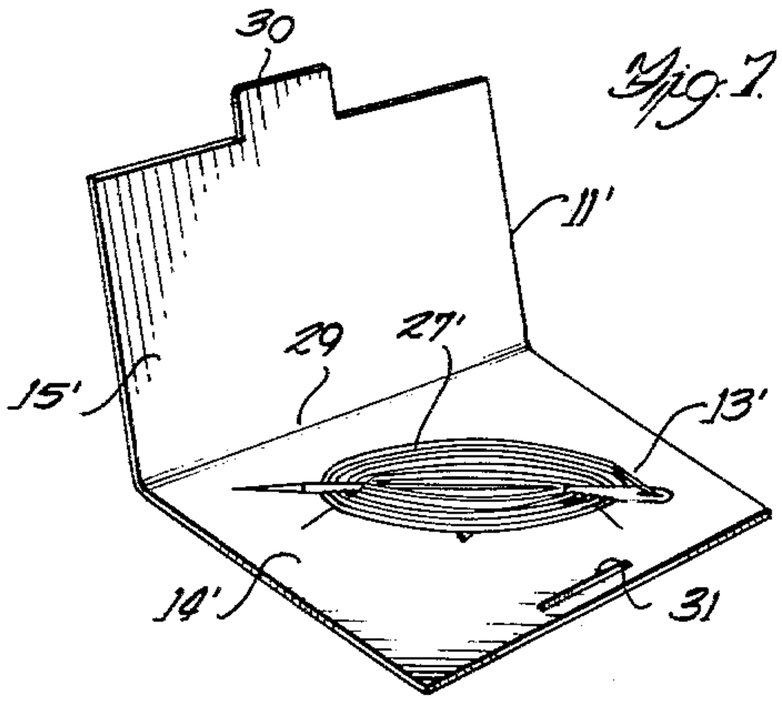


Fig. 8.

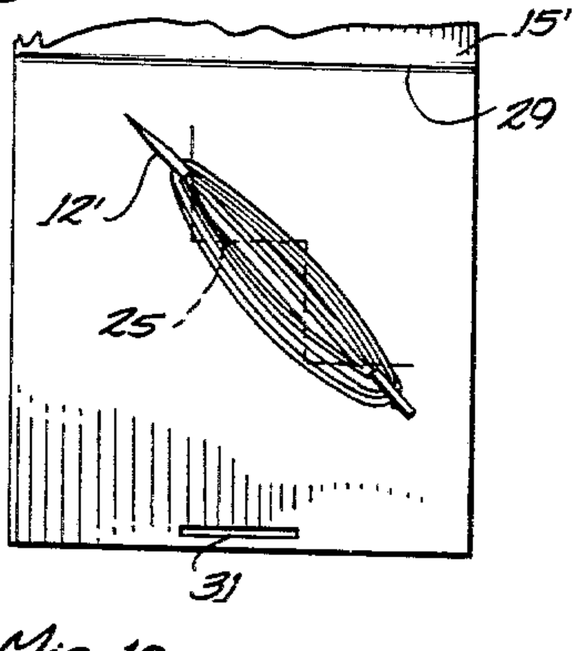


Fig. 9.

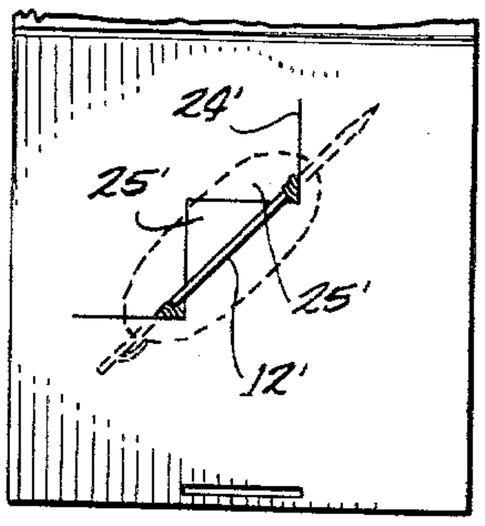


Fig. 10.

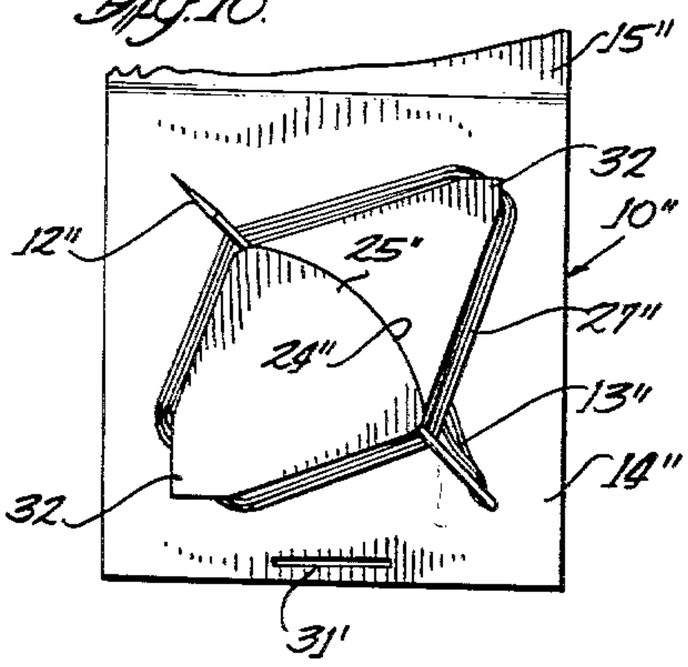
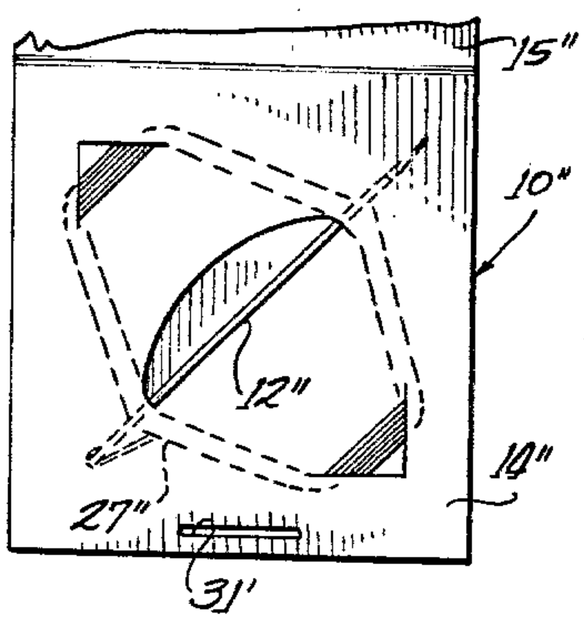


Fig. 11.



Inventor
Rikard Uddenborg
Dawson, Tilton, Fallon
Lungmus & Alexander
Attorneys

United States Patent Office

3,180,487
Patented Apr. 27, 1965

3,180,487

THREADED NEEDLE PACKAGE

Rikard Uddenborg, 5154 N. Clark St., Chicago, Ill.

Filed Mar. 19, 1962, Ser. No. 180,759
7 Claims. (Cl. 206—47)

This invention relates to a threaded needle package, and more specifically, to a package containing one or more pre-threaded sewing needles.

A principal object of the present invention is to provide a package for one or more pre-threaded needles which is formed so that such needles may be sequentially removed without tangling the threads connected thereto. Another object is to provide a holder for threaded needles which supports the needles and threads therefor in secure and compact condition ready for detachment whenever their use is desired. A further object is to provide a simple and inexpensive threaded needle package which is adapted to maintain its integrity despite the handling and rough treatment normally incident to the merchandizing, shipping and storing of such a product.

Other objects will appear from the specification and drawings in which:

FIGURE 1 is a perspective view of a needle package embodying the present invention, the package being shown in closed condition;

FIGURE 2 is a perspective view of the package in open condition;

FIGURE 3 is an enlarged plan view of the open package, partly broken away;

FIGURE 4 is a broken exploded perspective view illustrating the structural interrelationship between the components of the package;

FIGURE 5 is a rear view of the package broken away to illustrate the relationship of the threads therein;

FIGURE 6 is a perspective view of a package comprising a second form of the present invention;

FIGURE 7 is a perspective view of the package of FIGURE 6 in open condition;

FIGURE 8 is a broken plan view of the second package in open condition;

FIGURE 9 is a rear plan view of the second package;

FIGURE 10 is a broken top plan view of an opened package constituting a third form of the present invention;

FIGURE 11 is a rear plan view of the package of FIGURE 10.

In the embodiment of the invention illustrated in FIGURES 1 through 4, the numeral 10 generally designates a package comprising a holder 11 and a plurality of threaded needles 12. The needles are conventional sewing needles which are pointed at one end and provided with eyes at the other. Threads 13 pass through the eyes, each needle being connected to a loop or double stretch of thread. While the total length of thread for each needle may vary in accordance with the intended use, in most cases, it will be at least three feet in total length. Since each thread is looped, its effective length is reduced by one half; in the case of a three foot strand, the thread will have an effective length of one and one-half feet. If desired, the free ends of the two strands may be knotted together although such knotting is not necessary in the structure and operation of the package.

The holder 11 comprises a mounting sheet 14 and a cover 15. The cover is folded along parallel fold lines 16 and 17 to form front cover portions 18 and 19 and rear cover portion or backing 20. In the illustration given, the front and rear cover portions 18 and 20 are rectangular in shape and are of approximately the same size as the rectangular mounting sheet 14. Front cover portion 19 is provided with a pointed locking tab portion 21 adapted to be inserted into the slit 22 of cover portion

18 when the two cover portions are folded over the mounting sheet as shown in FIGURE 1.

Both the cover 15 and the mounting sheet 14 are preferably formed from paperboard or cardboard, although other materials may be used. The primary requirement is that these parts, and particularly the mounting sheet, be formed of a material which is flexible as well as tough and durable. Thus, it is believed apparent that sheet materials of polyethylene, polypropylene, cellulose acetate and the like may also be advantageously used for the holder of this needle package.

The mounting sheet 14 is connected to the backing or rear cover portion 20 by a non-circular rivet 23, the rivet being spaced inwardly from the peripheral edges of the mounting sheet as illustrated most clearly in FIGURES 2 and 3. While an oval rivet is shown, any suitable connecting means may be used as long as it provides a secure and generally centrally located interconnection which will resist relative rotation of the backing and mounting sheets and will also resist relative rotation of the coil of thread carried thereby.

Referring to FIGURE 3, it will be seen that the mounting sheet 14 is provided with a series of jagged openings or slits 24 and that the portions 24*a* of each slit are oriented at approximately right angles to each other to define a series of tabs 25 arranged in alternating apposition. The staggered tabs 25 extend over the intermediate portion of each needle 12 so that, when viewed from above, only the end portions of each needle are disposed on the upper face of the mounting sheet. As will be observed, the longitudinal extent of each jagged slit 24 is less than the length of the needle 12 retained by the series of tabs formed by that slit.

The thread 13 connected to each needle 12 extends about the upper edge of the card and is coiled about the rivet 23 between the undersurface of the mounting sheet and the upper face of the backing 20. These surfaces are held in close proximity by the rivet and, as a result, the coiled thread is frictionally restrained against uncoiling. If desired, the upper edge of the mounting sheet may be notched as indicated at 26 so that the portion of each thread adjacent the eyelet of the needle to which it is attached will be protected by the mounting sheet.

In the illustration given, the package contains a plurality of needles 12, each needle being held in place by its own series of staggered tabs 25. The large coil of thread 27 disposed behind the mounting sheet is composed of the coiled ends of all of the threads 13 attached to the group of needles. In the use of the package, it is desirable to uncoil the threads in reverse order, the thread forming the outermost portion of the coil being unwound first. To facilitate such removal, I prefer to imprint the face of the mounting sheet with suitable indicia 28 indicating the order of removal of the threaded needles.

In the use of the package, a user simply spreads the front cover portions 18 and 19 to expose the needles retained by the mounting sheet and lifts the needle in the foremost position away from the face of the mounting sheet. It should be emphasized that the needle is lifted laterally off of the sheet rather than slid outwardly therefrom; such sliding movement is prevented by the relatively taut portions of the threads 13 which extend along the backside of the mounting sheet between the eyes of the needles and coil 27. Thus, a threaded needle may be most easily detached from the holder by lifting the exposed pointed end thereof away from the mounting sheet until tabs 25 bend upwardly to release the body of the needle. Thereafter, the user, holding the detached needle in one hand and the package in the other, unwinds the thread of the free needle from the coil.

An important aspect of the present invention lies in the recognition that a compact and effective threaded

needle package is achieved only if the needles are supported for removal by lateral rather than longitudinal movement. By mounting the needles for lateral detachment, the threads of the needles assist in holding such needles in place. Furthermore, detachment of the needle from the mounting sheet may be achieved without altering the position of the eye of the needle and, therefore, the needle may be fully released from its mounting before disturbing the thread attached thereto.

In the modified construction of FIGURES 6 through 9 the holder 11′ is formed from a single sheet of flexible material folded along line 29 to define a cover 15′ and an integral mounting sheet 14′. The mounting sheet is provided with a jagged slit 24′ defining tabs 25′ which extend over the intermediate portion of needle 12′, leaving only the opposite end portions of that needle exposed above the mounting sheet 14′. The thread 13′, which is attached to the needle as described in connection with the embodiment of FIGURES 1–5, is wound about the needle to form a coil 27′ upon the upper face of the mounting sheet. As shown in FIGURES 7 and 8, the coils of thread extend beneath the opposite ends of the needle and are thereby anchored in place against the upper surface of the mounting sheet.

If desired, the cover 15′ may be provided with a fastening tab portion 30 adapted to be received within a slit 31 in the mounting sheet for the purpose of holding the cover in the closed position illustrated in FIGURE 6.

As in the first embodiment, detachment of the threaded needle 12′ is achieved simply by lifting it laterally or transversely away from the mounting sheet. Upon removal of the needle, the coil of thread is also released for removal from the sheet 14′ and may be readily uncoiled to prepare the needle for use.

The embodiment of FIGURES 10 and 11 is similar to the embodiment of FIGURES 6 through 9 except that only a single tab 25″ is provided for holding the needle 12″ in place. The tab is defined by a slit 24″ of arcuate shape, the length of the slit being substantially less than the total length of the needle.

To assist in holding the coil of thread 27″ in place, the mounting sheet 14″ is slit to form integral lugs or hooks 32 spaced from the arcuate slit on opposite sides thereof. As shown in the drawings, the coil of thread passes beneath the pointed lugs and also passes beneath the exposed opposite ends of needle 12″ and, therefore, the coil is held in place at four points upon the upper face of the mounting sheet.

As in the preceding embodiments, detachment of needle 12″ is achieved by simply lifting it, rather than sliding it, away from the mounting sheet. The thread 13″ may then be quickly removed from the mounting sheet either by unwinding it while the coil remains on the sheet or by lifting the coil 27″ away from the sheet and thereafter straightening the thread.

While in the foregoing I have disclosed several embodiments of the present invention in considerable detail for purposes of illustration, it will be understood by those skilled in the art that many of these details may be varied without departing from the spirit and scope of the invention.

I claim:

1. A needle package comprising a holder and a plurality of threaded needles, said holder comprising a sheet of flexible material having yieldable means supporting each of said needles for detachment by transverse movement thereof, said needles being supported by said means in spaced series upon said sheet, the threads of all of said needles being wound in a single coil and being arranged in said coil in the same sequence as the needle series with the thread from the first needle of said series forming the outermost convolutions and the thread from the last needle in said series forming the innermost convolutions, and means provided by said package for holding said coil against relative movement with respect to said sheet.

2. The structure of claim 1 in which said first-mentioned menas comprises a series of tabs formed integrally with said sheet and bearing against said needles.

3. The structure of claim 1 in which said holder is also provided with a cover extending over said sheet, coil, and needles.

4. A threaded needle package comprising a holder and a plurality of threaded needles attached thereto, said holder comprising a sheet of flexible material having a plurality of flexible tabs extending over portions of said needles to hold said needles in a selected series against the surface of said sheet, each of said needles being removable from said sheet by transverse movement against the force of at least one of said tabs, the threads of all of said needles being wound in a single coil and being arranged in said coil in the same sequence as the needle series with the thread from the first needle of said series forming the outermost convolutions and the thread from the last needle in said series forming the innermost convolutions, and means provided by said holder for maintaining said coil against said sheet.

5. The structure of claim 4 in which said holder is also provided with a cover sheet, said coil being disposed between said first-mentioned sheet and at least a portion of said cover sheet, and said last-mentioned means extending between said sheets and through the central portion of said coil.

6. A needle package comprising a holder and a plurality of threaded needles removably attached thereto, said holder including a sheet of flexible material having a plurality of slits defining a multiplicity of integral tabs, said tabs extending over intermediate portions of said needles for holding the same in position in a predetermined series arrangement against the surface of said sheet, the threads of all of said needles being wound in a single coil and being arranged in said coil in the same sequence as the series arrangement of the needles with the thread from the first needle of said series forming the outermost convolutions and the thread from the last needle in said series forming the innermost convolutions, said needles being detachable by transverse movement thereof against the holding force of said tabs, and means provided by said holder for restraining movement of said coil with respect to said sheet, whereby, said threaded needles may be removed in sequence by lifting each needle one at a time from said sheet and unwinding its thread from said coil.

7. The structure of claim 6 in which said holder is also provided with a cover sheet, said coil being disposed between said first-mentioned sheet and said cover sheet, and said last-mentioned means extending between said sheets and through the central portion of said coil.

References Cited in the file of this patent

UNITED STATES PATENTS

435,094	Hewitt	Aug. 26, 1890
1,914,836	Randall	June 20, 1933
2,109,318	Lichter	Feb. 22, 1938
2,615,565	Bower et al.	Oct. 28, 1952
2,692,676	Grover	Oct. 26, 1954
2,808,927	Utley et al.	Oct. 8, 1957
2,993,589	Zoller et al.	July 25, 1961
3,062,372	Egler et al.	Nov. 6, 1962

FOREIGN PATENTS

104,845	Australia	Sept. 1, 1938
606,577	Germany	Nov. 15, 1934

FRANKLIN T. GARRETT, *Primary Examiner.*

EARLE J. DRUMMOND, *Examiner.*