

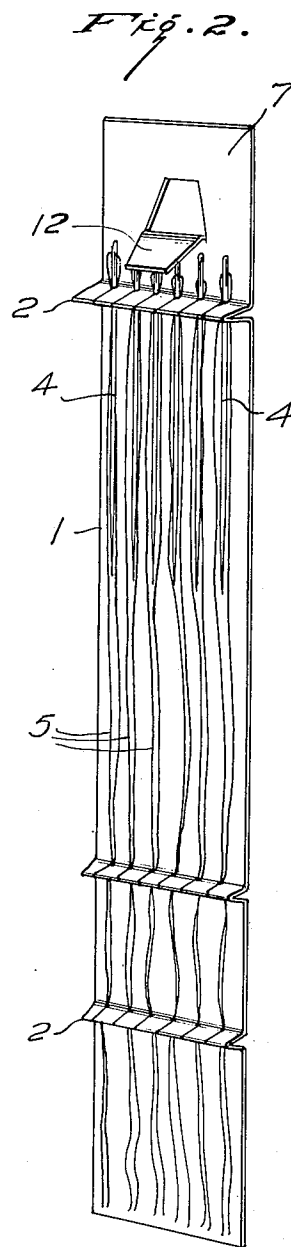
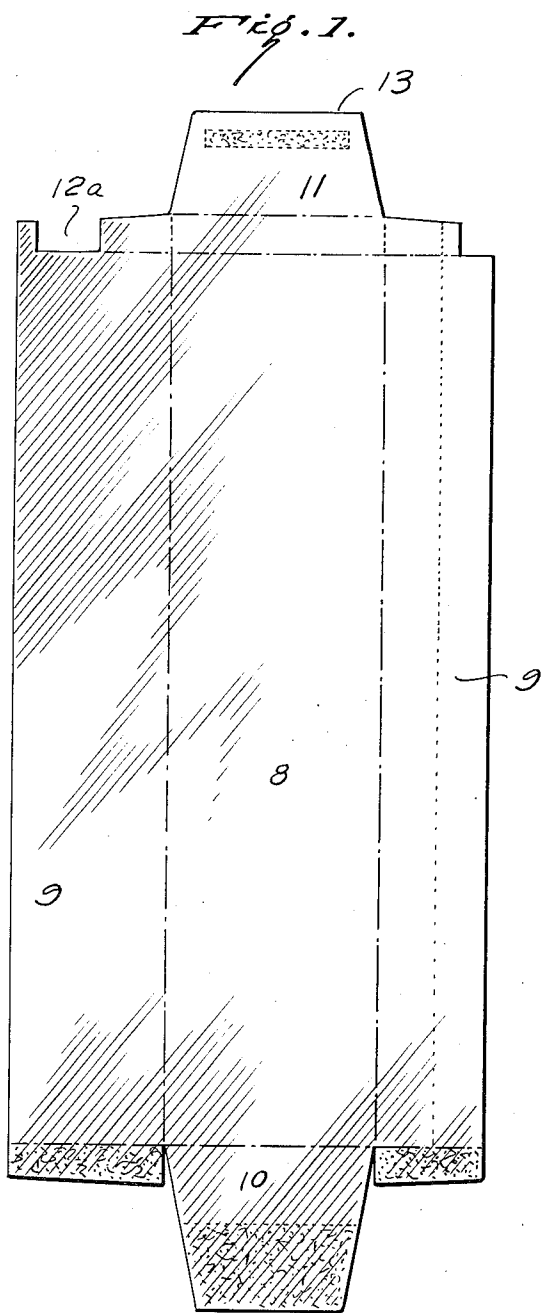
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P. W. GROVER
SUTURE NEEDLE PACKAGE

2,692,676

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2 Sheets-Sheet 1



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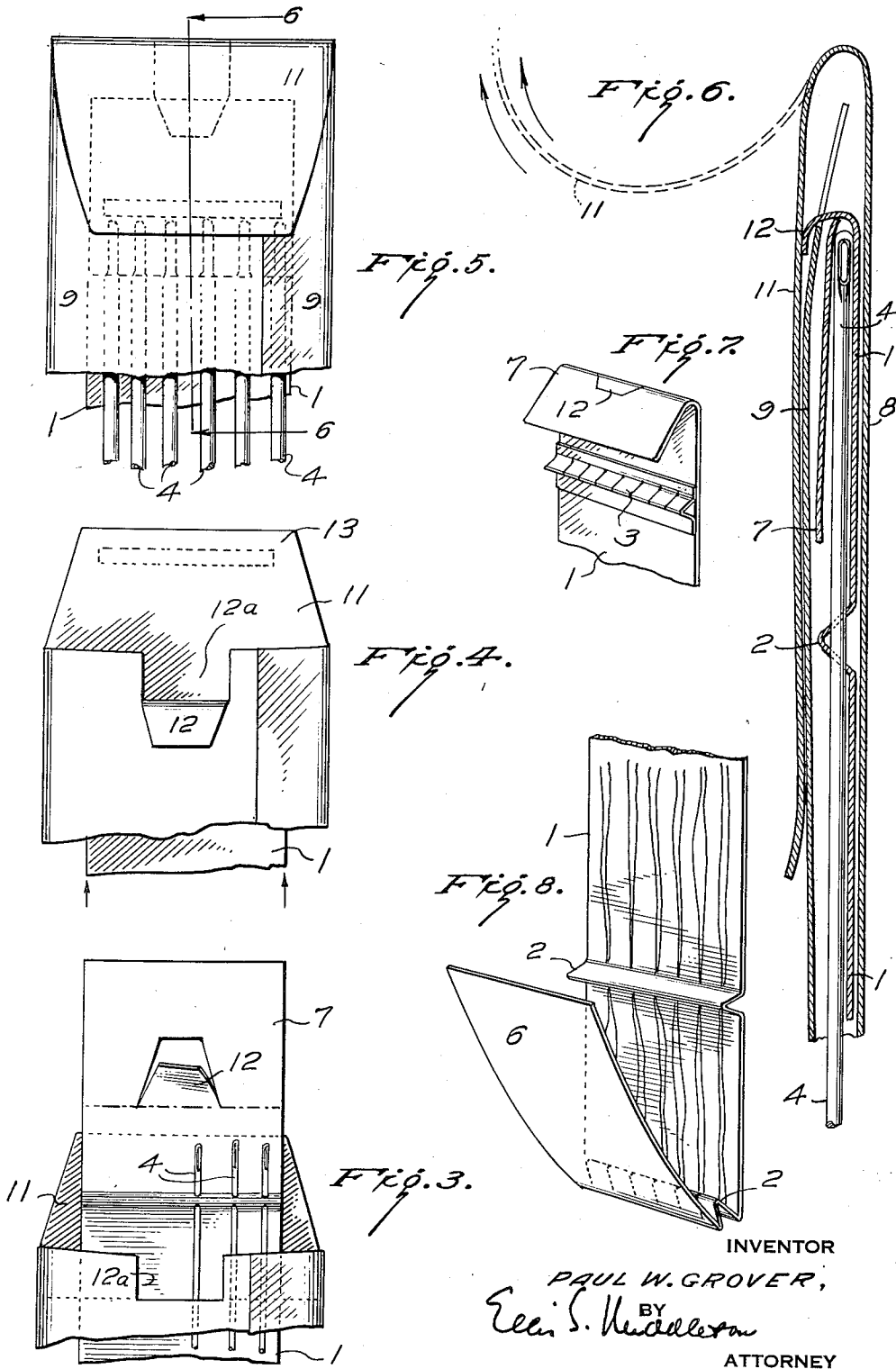
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SUTURE NEEDLE PACKAGE

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2 Claims. (Cl. 206—63.3)

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The present invention relates to a composite package containing surgical suture-threaded needles, that is, surgeons' needles already containing a length of surgical suture, so as to make unnecessary the delay incident to threading a needle by the nurse or surgeon.

The principal object of the invention is to provide the surgeon with a convenient package of threaded needles, each carrying its own length of suture material, each needle-suture combination lying in an orderly arrangement without entanglement, yet which may be readily withdrawn without disturbing the remainder of the supply.

Another object of the invention is the provision of such a combination package which is cheap to manufacture, may be readily assembled and which can be sterilized and maintained sterile until used.

Other objects and advantages will appear as the description proceeds having reference to the accompanying drawings in which:

Fig. 1 is a plan view of the envelope portion of the package before folding,

Fig. 2 is a perspective view of the needle-suture holder,

Fig. 3 is a view showing the needle-suture holder being inserted into the envelope,

Fig. 4 is a plan view of the combination package showing the manner in which the top tab of the holder is available for withdrawing the holder,

Fig. 5 is a fragmentary view of the top of the package with the top flap folded down, and

Fig. 6 is a sectional enlarged view along the line 6—6 of Fig. 5,

Fig. 7 is a perspective view showing an alternative method of forming the offsets,

Fig. 8 is a perspective view showing the partly folded bottom of the holder.

To this end the invention contemplates a holder carrying suture-threaded needles within an envelope, the holder having one or more offsets. The needles which may be point up or point down, as well as the sutures, are held by at least one offset. Each offset is slitted at the proper place in order that the needle or suture may be firmly held in position.

The invention also contemplates the provision of a bottom flap on the holder of an extent which will permit turned back ends of the sutures to be pinched between an offset and the flap to hold the sutures against accidental displacement.

Provision may also be made for an offset or gusset at the bottom of the holder flap so that upon folding of the holder it will at least partially collapse and additionally grip the sutures.

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This invention may also include a relatively small secondary flap in the needle holder to facilitate the holder removal.

The invention further contemplates the novel construction, arrangement and combination of parts more fully shown in the drawings.

Referring now with particularity to the embodiments illustrated, there is shown at 1 the main body of the holder made of an elongated strip of paper, cardboard, plastic or other suitable material, provided with a plurality of offsets 2 which may merely be folds in the strip material. Alternatively, as shown in Fig. 7, the offset may be a separate piece of material as at 3, suitably secured to the main body 1. Both forms will be referred to hereinafter as offsets.

Held within the offsets are a series of needles 4, each of which carries its own surgical suture 5, preferably though not necessarily of a double length as shown. The length of suture also extends through at least one offset so as to be secured to the holder in substantial parallelism with the rest and in a manner to minimize entanglement. It is preferred that the length of a suture be greater than the effective length of the holder as shown in Fig. 8. There, it will be observed, the lowermost offset is slightly larger than the others and forms a gusseted connection between the main body 1 of the holder and a bottom flap 6. When this flap 6 is folded upwardly it not only tends to collapse the lower offset 2 so as to make it lie in substantial parallelism with the body of the holder, but it pinches the end portion of the suture and holds it against accidental withdrawal. This desirable action is enhanced when the length of the bottom flap 6 is greater than the distance between the bottom of the holder and the first offset up from the bottom. Thus, in the folding operation and in inserting the holder into the envelope, the bottom flap lies against the top of the second offset and also holds the end portion of the suture therebetween.

As shown it is preferred to arrange the needles in reversed position, that is, with the points down so as to minimize pricking the fingers or gloves of the surgeon or nurse when removing the needles.

The holder body 1 is also provided with a top tab 7, having a secondary flap 12, the purpose of which will be described hereafter.

The envelope part of the package is shown in detail in Fig. 1 to consist of a sheet of material 8 folded to form side flaps 9, a bottom flap 10 and a top flap 11. One of the side flaps is gummed in the usual manner as is the bottom

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flap, so that upon folding, an elongated envelope results.

When the holder is inserted into the envelope as in Fig. 4, the top tab 7 of the former underlies the top of flap 9 of the envelope while the secondary tab 12 normally occupies the slot 12a in flap 9 of the envelope and makes possible the ready withdrawal of the holder.

The top flap 11 of the envelope is provided with an area of adhesive intermediate the length of the flap and at a distance from the top edge of the body greater than the extent of the holder secondary tab 12, the extreme end portion 13 of the envelope flap 11 being clear of adhesive. Thus, when the top flap is folded down and adhered to the body, the extreme end portion of the former may be grasped and the flap pulled upwardly to make the holder secondary tab 12 available to withdraw the holder to an extent to make the needles accessible.

The entire package with its contained needles and suture material may be suitably sterilized and will remain so until opened or used.

Obviously, the needles may be of the same or different sizes and the sutures of the same or different gauge in character as desired.

The package thus provides the surgeon or nurse with a series of needles already threaded with a length of suture material all in a sterile condition, and the threaded needles may be readily and quickly withdrawn without entangling the remaining sutures.

While the invention has been described with particular reference to specific embodiments, it is to be understood that the invention is not to be limited thereto but is to be construed broadly and restricted only by the scope of the claims.

I claim:

1. A composite needle and suture package including a needle and suture holder comprising an elongated strip of material having a plurality of offsets thereon, a plurality of needles threaded with sutures mounted on said holder by means of said offsets, said needles and said sutures being held in general parallelism throughout substantially their entire length by said offsets, both needles and sutures penetrating the same, an envelope enclosing the holder, said envelope being provided with a top flap overlying the main

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body of the envelope, a slot in the upper edge of the side of said envelope opposite said flap, a tab on said holder lying in said slot, said holder being provided with a bottom flap at the bottom thereof, with an offset immediately adjacent thereto, the sutures penetrating said offset, whereby when the bottom flap is folded over against the main body of the holder, said offset lies in substantial parallelism therewith and secures the sutures against accidental withdrawal.

2. A composite needle and suture package including a needle and suture holder comprising an elongated strip of material having a plurality of offsets thereon, a plurality of needles threaded with sutures mounted on said holder by means of said offsets, said needles and said sutures being held in general parallelism throughout substantially their entire length by said offsets, both needles and sutures penetrating the same, an envelope enclosing the holder, said envelope being provided with a top flap overlying the main body of the envelope, a downwardly folded tab on said holder overlying the top edge of the main body of the envelope and positioned between said flap and said upper edge of the envelope, said holder being provided with a bottom flap at the bottom thereof, with an offset immediately adjacent thereto forming a gusseted lower end, the sutures penetrating said offset or gusset, whereby when the bottom flap is folded over against the main body of the holder, said offset or gusset lies in substantial parallelism therewith and secures the sutures against accidental withdrawal by a pinching action.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
83,284	James	Oct. 20, 1868
166,550	Phillips	Aug. 10, 1875
381,889	Scott	Apr. 24, 1888
578,458	Knieriemen	Mar. 9, 1897
830,609	Metzger	Sept. 11, 1906

FOREIGN PATENTS

Number	Country	Date
2,206	Great Britain	of 1867
2,958	Great Britain	Feb. 8, 1884