May 18, 1926. 1,585,498

W. J. KENYON

MEANS FOR PACKAGING SURGICAL SUTURES

Filed Nov. 7, 1924 2 Sheets-Sheet 1

Fig. 1.

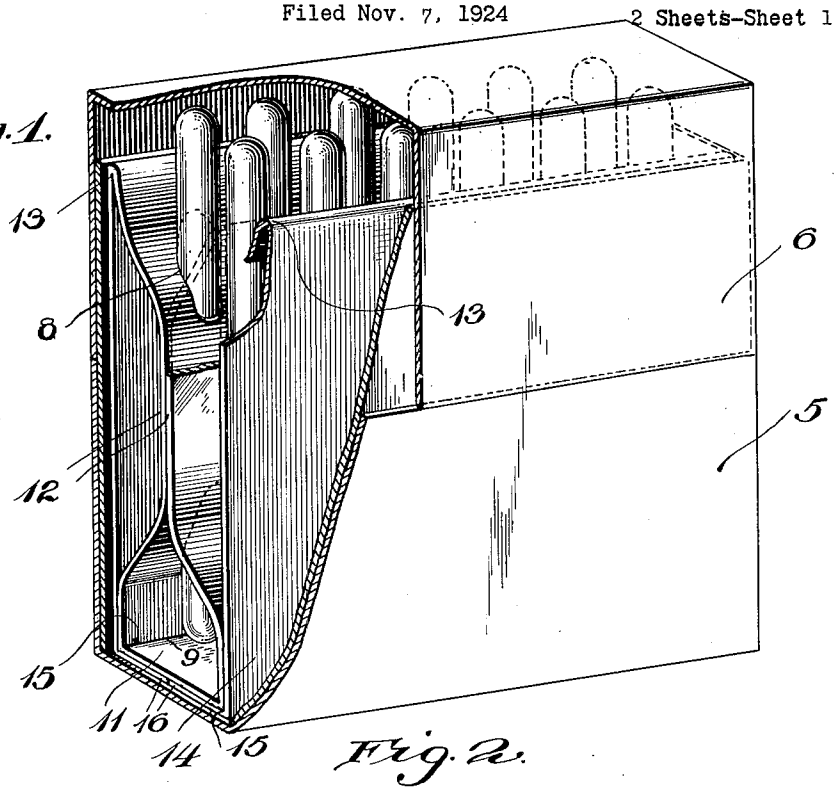
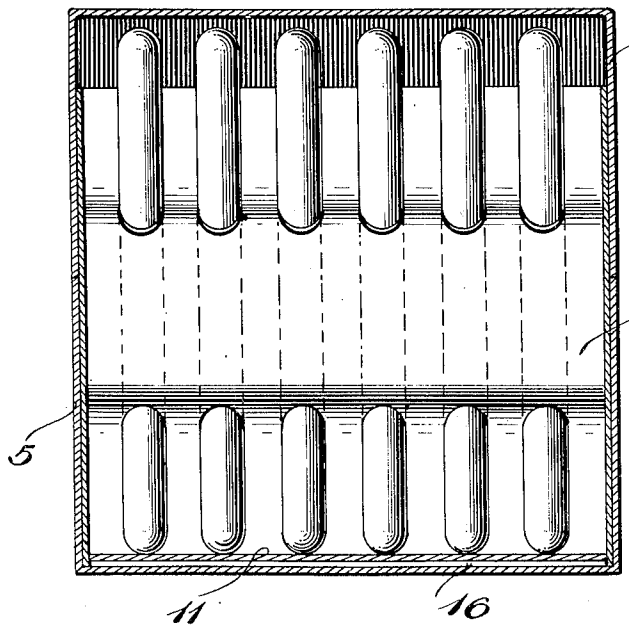


Fig. 2.



Inventor

Wm. J. Kenyon

By Jack A. Richmond

Attorney

May 18, 1926. 1,585,498

W. J. KENYON

MEANS FOR PACKAGING SURGICAL SUTURES

Filed Nov. 7, 1924 2 Sheets-Sheet 2

Fig. 3.

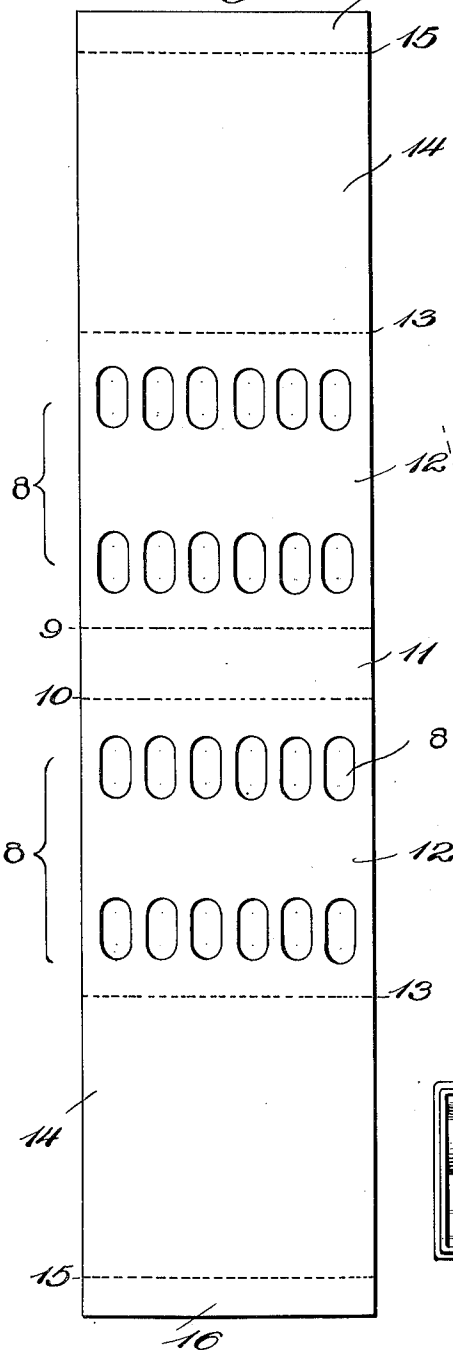


Fig. 4.

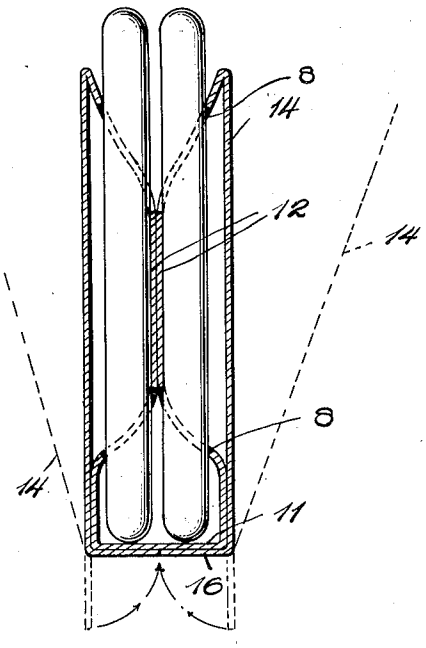
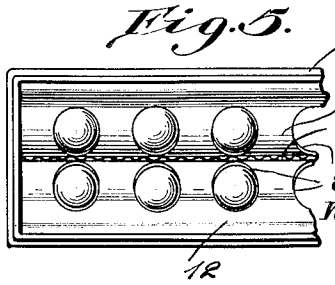


Fig. 5.



Inventor
Wm. J. Kenyon

By Jack N. Richmond
Attorney

Patented May 18, 1926. 1,585,498

UNITED STATES PATENT OFFICE.

WILLIAM J. KENYON, OF NEW BRUNSWICK, NEW JERSEY, ASSIGNOR TO JOHNSON & JOHNSON, OF NEW BRUNSWICK, NEW JERSEY, A CORPORATION OF NEW JERSEY.

MEANS FOR PACKAGING SURGICAL SUTURES.

Application filed November 7, 1924. Serial No. 748,379.

Surgical sutures are generally supplied to the trade in glass tubes packed twelve to the case and individual separation is necessary to prevent breakage of the tubes. In the early days of the art this was accomplished by more or less elaborate containers of wood or metal of the rigid wall cell or compartment type. More recently, in order to minimize expense, it has been the practice to employ fillings of fluted or corrugated paper or pulp. This practice is unsatisfactory and undesirable because it does not afford proper protection to the tubes. Moreover, it makes for slow packing aside from the comparative nonaccessibility of the tubes and the consequent difficulties in removing them.

Objects of my invention are to provide a simple and inexpensive filling or separator which, while insuring adequate individual and collective protection, is further characterized by the rapidity and ease with which the tubes may be inserted and the provision which it affords for the convenient removal at will of any one or all of the tubes; to provide a self contained separator which may be rapidly filled and then introduced into the usual box or casing and which in or out of the box is a complete source of protection for the tubes; to provide a pack or separator which will properly display the label or some other indication of the contents of the tubes; and to provide a simple blank for the rapid and otherwise economical production of the pack or separator.

With such and other objects in view, the nature, characteristic features and scope of my invention will more readily be understood from the following description taken in connection with the accompanying drawings, forming a part hereof, wherein

Figure 1 is a perspective view of the usual box or casing, broken away to disclose my method of assembling suture tubes,

Figure 2 is a vertical sectional view,

Figure 3 is a plan view of the blank,

Figure 4 is a transverse section of the pack or separator, and

Figure 5 is a fragmentary top view of the boxed separator.

In the drawings, 5 represents the usual box or receptacle and 6 represents its complemental cover. According to my invention there is used, in conjunction with the box, a filling or separator 7, which is charged with tubes and then inserted or which may be readily charged after insertion. The tube carrier or separator 7 may be formed from a rectangular flat strip of cardboard, as shown in Figure 3, which is punched to provide two sets of transversely ranging elongated or elliptical slots or openings 8. The slots are disposed in parallelism and in alinement. The strip or blank is scored or creased on parallel lines 9 and 10, to form a bottom wall 11, from which spring the perforated wings or tube carrying walls 12. Walls 12 are indented so that between their ends they overhang the bottom wall and thus put in registry the upper and lower rows of tube receiving slots or openings 8, as well shown in Figures 1 and 4. Walls 12 are scored or creased, as at 13 in the blank, and bent to form the outer walls 14. The valleys formed by the upper and lower bends of the walls 12 clear the tubes and expose their labels and provide for easy and selective removal of the tubes regardless of whether the separator is in or out of the receptacle. The walls 14 in the blank stage are scored and bent, as at 15, to form flanges 16 which co-operate to reinforce and cushion the bottom wall 11.

The self-contained separator of my invention not only provides for adequate individual and collective protection of the tubes, but provides for their rapid assembly and removal and has the decided merit that when removed from the receptacle it may be opened out flat thus simplifying individual tube selection.

As a further measure of protection, I may employ a central partition 17 of corrugated board or the like, which is slipped between the opposed walls 12. The presence of the partition 17 makes for a tight fit of the filling and absolutely eliminates danger of contact of the tubes.

Having thus described my invention, I claim:

1. Means for packaging fragile tubes, comprising the combination with a box or receptacle and its complemental cover, of a flexible separator embodying a unitary structure having a bottom, and tube carriers springing therefrom, and having spaced outer walls with flanges which underlie and reinforce the bottom.

2. Means for packaging fragile tubes, comprising the combination with a box or receptacle and its complemental cover, of a

detachable separator embodying a single cardboard structure formed with a flat bottom whereof the side edges are directed upwardly to form confronting tube carriers and are then reversed to constitute outer walls which fit the walls of the box.

3. Means for packaging fragile tubes, comprising the combination with a box or receptacle and its complemental cover, of a detachable separator embodying a single cardboard structure formed with a flat bottom whereof the side edges are directed upwardly to form confronting tube carriers and are then reversed to constitute outer walls which fit the walls of the box, the upwardly directed portions converging to form top and bottom valleys to expose the tubes.

4. Means for packaging fragile tubes, comprising the combination with a box or receptacle and its complemental cover, of a detachable separator embodying a single cardboard structure formed with a flat bottom whereof the side edges are directed upwardly to form confronting tube carriers and are then reversed to constitute outer walls which fit the walls of the box, the upwardly directed portions converging to form top and bottom valleys to expose the tubes, and auxiliary means to separate and cushion the tube carriers.

5. A separator for the purpose stated, consisting of a unitary structure formed with a flat bottom, having hinged upstanding portions which overhang the bottom and are punched for the reception of tubes, and said upstanding portions having hinged outer walls which conform to the walls of the box.

6. A separator blank consisting of a rectangular flat strip scored on parallel lines to form a bottom wall and hinged tube carrying walls, two sets of elongated slots arranged in parallelism and in alinement in each of the tube carrying walls, scored areas beyond the slots to establish hinged outer walls, and scores near the end margins of the blank to establish reinforcing tabs for the bottom wall.

In testimony whereof I affix my signature.

WILLIAM J. KENYON.