

March 15, 1960

WINTON CHUEN CHIU

2,928,534

NEEDLE CONTAINER

Filed Dec. 21, 1956

Fig. 1

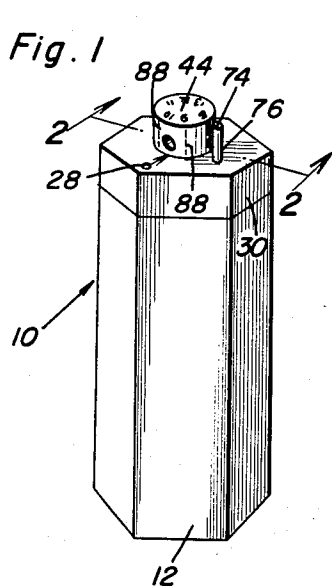


Fig. 2

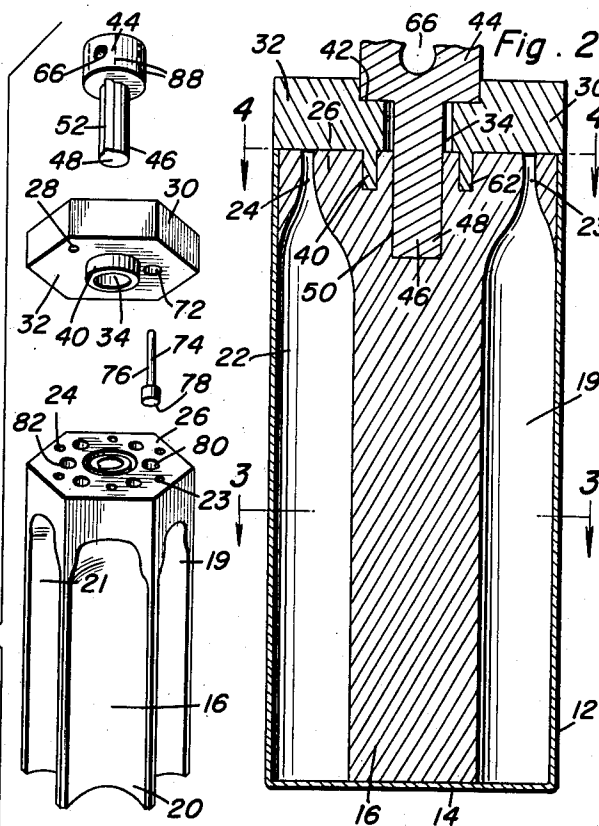


Fig. 5

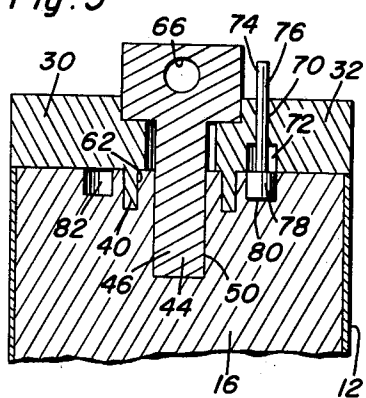


Fig. 6

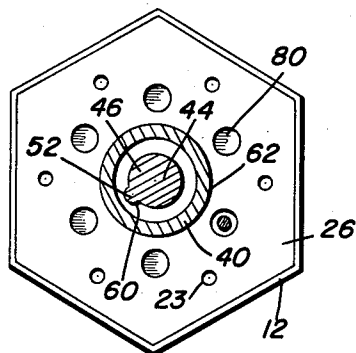
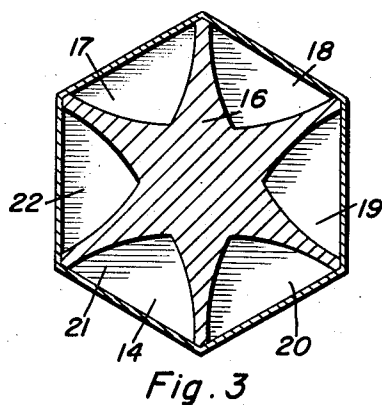
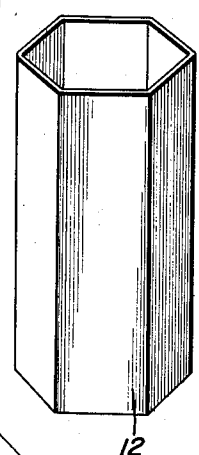


Fig. 4

Winton Cheun Chiu
INVENTOR.

BY *Alonso A. O'Brien*
and *Harvey R. Jacobs*
Attorneys

1

2,928,534

NEEDLE CONTAINER

Winton Cheun Chiu, Oakland, Calif.

Application December 21, 1956, Serial No. 629,907

1 Claim. (Cl. 206—17)

This invention relates to an appliance whose principal use is in connection with the storage and dispensing of either sewing machine needles or hand needles.

An object of the invention is to provide an appliance which stores needles of any type, at the same time providing for safety in handling the needles and for storage thereof. It is a convenience to be able to merely pick up the container and dial the desired size of needle then invert the container and have such a needle drop into one hand of the user.

A further object of the present invention is to provide a container which is adapted to hold discreet supplies of needles of various sizes and dimensions or of various types, the invention being in the actual construction of the container whereby the handling of needles is facilitated and automatically provides for the safety in the storage of needles since small children cannot have access to the container and a person who desires to sew is unlikely to have a needle pierce his or her flesh.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a perspective view of an appliance which is constructed in accordance with the invention.

Figure 2 is a longitudinal sectional view taken on the line 2—2 of Figure 1;

Figure 3 is a transverse sectional view taken on the line 3—3 of Figure 2;

Figure 4 is a transverse sectional view taken on the line 4—4 of Figure 2;

Figure 5 is a fragmentary sectional view of the closure part of the appliance, and;

Figure 6 is an exploded perspective view of the parts of the appliance of Figure 1.

In the accompanying drawings there is an appliance 10 which is used for the purpose of storing and dispensing needles in a safe and convenient manner. The appliance comprises a casing or housing 12 which is hexagonal in cross section, having six side walls and a bottom 14 and an open top. Core 16 is disposed in the housing 12 and is star-shaped in cross section so that it has six chambers 17, 18, 19, 20, 21 and 22, respectively, formed by six longitudinal recesses which are V-shaped in cross section and closed by the side walls of the casing or housing 12. Each chamber has an inwardly tapered discharge outlet, such as outlets 23 and 24, for chambers 19 and 22 (Figure 2). Accordingly, the top wall 26 of the core 16 has six needle discharge openings therein which are arranged in a circle and which are adapted to be registered with discharge aperture 28 in the closure 30.

The closure 30 consists of a flat plate 32 having the aperture 28 extending therethrough and a central passage 34 around which depending skirt 40 extends. There is an upwardly opening wall 42 in the plate 32 which accommodates the head 44 of the pin 46. Shank 48 of this pin

2

passes through passage 34 and into a bore 50 which opens upwardly to the top surface of the core 16 and in the center thereof. Key 52 (Figure 6) is operatively connected to keyway 60 (Figure 4) which is in the core and more particularly, which opens outwardly of bore 50. This couples pin 46 to the core 16 and the core is immovable with respect to the housing 12.

Closure 30 has its spherical skirt 40 seated in an annular recess 62 which is formed in the core 16 and which opens upwardly to receive this skirt. Therefore, the closure 30 is restrained in its travel so that it may only rotate.

A passage 66 is formed in the head 44 so that the appliance may be hung with a string, small chain, etc. Ordinary means of joining the parts together are used. For example, if the appliance is made of plastic, a plasticizer type of cement is suggested.

There is a bore 70 and counterbore 72 in the closure plate 32 and it supports plunger 74 that has a shank 76 and an enlargement 78 at the end thereof. Six holes, as at 80 and 82 (Figure 5) are equally spaced in a circle in top wall 26 and are adapted to accommodate the enlargement 78 of the plunger. When the plunger enlargement 78 is in one of the holes 80, 82 or others like it, the closure 30 cannot rotate. But, when lifted by shank 76 so that the enlargement 78 moves into the counterbore 72, the closures may rotate thereby registering the aperture 28 with one of the openings as at 23 or 24, with one of the six chambers.

Indicated lines 88 are applied vertically on the head 44, and the arrow near aperture 28 functions as means by which the indicator lines are read. If desired, the top of the head 44 may be provided with numerical designations which reflect the type of needle which is in the particular chamber adjacent to the indicator line 88 in question.

In use the chambers are filled with needles of various types or qualities or sizes depending on the prerogative of the user. Then, when a needle is desired, the user holds the container in the left hand and with the right hand plunger 74 is lifted so that the enlargement 78 moves into counterbore 72 and the closure may rotate thereby registering aperture 28 with one of the apertures 23 or 24 of the six chambers. Meanwhile the arrow near aperture 28 points exactly to indicator line 88 which is the type of needle desired. The tapered walls on the upper ends of the chambers facilitate the sliding of only one needle through the discharge aperture 28, when the appliance is inverted.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is described as new is as follows:

A needle container comprising an elongated open top housing, an elongated core fitted and fixed in said housing and having longitudinal peripheral recesses therein closed by said housing and forming chambers for containing a plurality of needles of different sizes in each chamber, said core having a flat top provided with discharge outlets for the needles extending from said chambers through said top, a closure for the top of the housing having a single needle discharge aperture therein, means rotatably mounting the closure on said core for revolving said aperture into registration with said discharge outlets selectively for gravity discharge of needles out of said chambers in response to inverting said housing to position said closure lowermost, and means for releasably locking said closure

3

to said core when said aperture is in registration with a selected discharge outlet, said means rotatably mounting the closure comprising a depending coaxial skirt on said closure, and an annular groove in said top in which said skirt is rotatably fitted, said means for locking comprising a circular series of sockets in said top grouped around said groove, and a plunger slidable in said head into and out of said sockets and gravity actuated to slidably seat in said sockets.

References Cited in the file of this patent

UNITED STATES PATENTS

100,879 Field et al. ----- Mar. 15, 1870

172,314

981,541

1,183,111

2,148,721

2,351,815

10

163,053

719,266

637,509

4

Hill et al. ----- Jan. 13, 1876

Downing ----- Jan. 10, 1911

Pettermann ----- May 16, 1916

Avstreich ----- Feb. 28, 1939

Jensen ----- June 20, 1944

FOREIGN PATENTS

Switzerland ----- Sept. 16, 1933

Germany ----- Apr. 2, 1942

Great Britain ----- May 24, 1950