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2,346,636

CATHETERIZATION COMPACT

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Fig. 1.

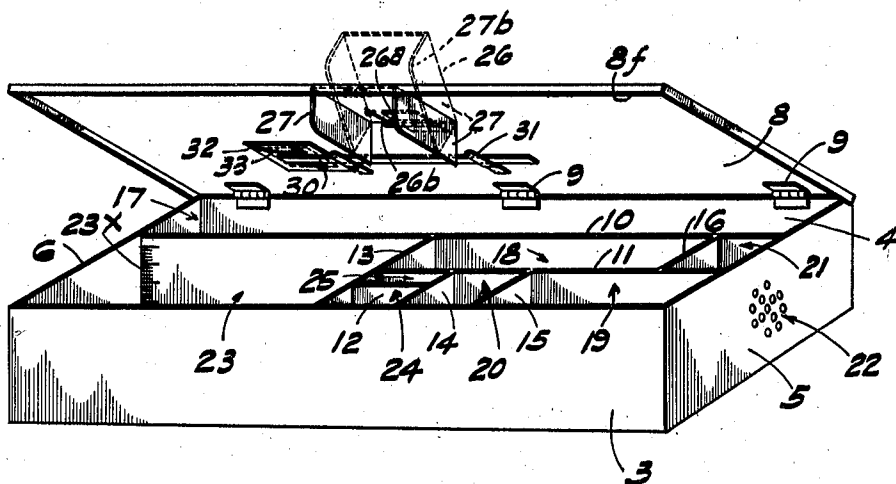


Fig. 2.

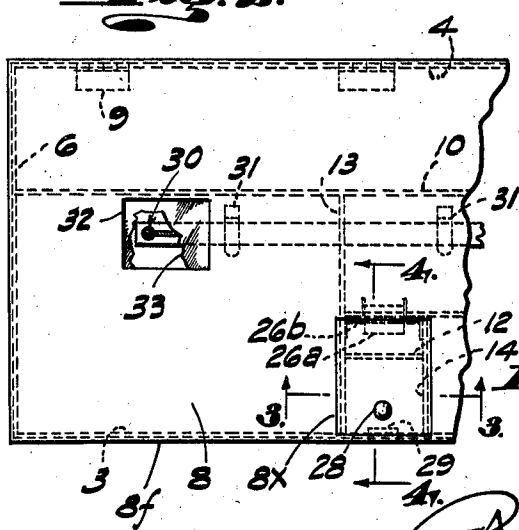


Fig. 3.

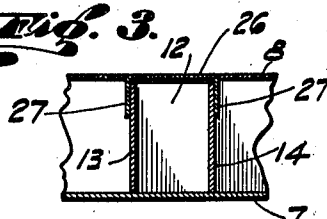


Fig. 4.



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CATHETERIZATION COMPACT

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4 Claims. (Cl. 206—12)

This invention relates to a container for sterilizing articles and for protecting them against de-sterilization.

Although the container provided by this invention may be used to protect a great many different substances and articles against contamination by germs, it is more particularly the object of the invention to afford this protection to the instruments and substances used in catheterizations of patients.

It is usually necessary, under present conditions, for the doctor's attendant to spend about half an hour for the purpose of sterilizing and assembling for use the various articles and instruments to be used in performing a catheterization. This task includes using several sterilometers in order to determine that the sponges, gloves, forceps, catheters and other accessories have been sterilized. By the use of the present invention these articles are all sterilized en masse, only one sterilometer being used and much time being saved and trouble avoided.

Objects of the invention in addition to those above indicated are: To provide guarded access to certain compartments of a container of a plurality of sterilized articles so that other articles within the container than those to which access is had will not be contaminated; to provide improved means for admitting sterilizing steam to the interior of the container without later impairing the sterile condition of the contents thereof; to provide improved means for supporting within the container a sterilometer in a position for convenient inspection without opening the container; and to provide for the container an improved combined lid and trapdoor structure.

Other objects, advantages and features of invention will hereinafter appear.

Referring to the accompanying drawing, which illustrates what is at present deemed to be a preferred embodiment of the invention,

Fig. 1 is a perspective view of the complete article, the lid being partly open to disclose interior parts. This view illustrates the interior compartments, such compartments being empty and the sterilometer being carried interiorly by the lid. The open position of the trapdoor carried by the main lid is indicated by dotted lines.

Fig. 2 is a fragmentary plan view of the device looking down upon the trapdoor, a portion of the window being broken away in order more clearly to disclose the sterilometer.

Figs. 3 and 4 are enlarged sectional detail views taken respectively on lines 3—3 and 4—4 of Fig. 2.

Referring in detail to the drawing, the embodiment of the invention shown therein comprises an elongated box arrangement consisting of side walls 3 and 4, end walls 5 and 6, a bottom wall 7 and a lid 8 secured to said side wall 4 by a plurality of hinges 9.

Within said box arrangement is a plurality of longitudinally extending partitions 10, 11 and 12, and a plurality of transverse partitions 13, 14, 15 and 16. By these partitions there is provided a compartment 17 which extends from end to end of that side of the structure to which the lid is hinged, said compartment being adapted to contain catheters; a compartment 18 to contain forceps; a compartment 19 to contain gloves, towels, syringes and miscellaneous equipment; a compartment 20 to contain sponges; a compartment 21 to contain waste and provided with a group of apertures 22; and a compartment 23 to contain samples of urine, the latter compartment having the part of its back wall which is formed by the partition 10 furnished with a vertical row of graduations 23a to indicate the quantity of the sample taken. The apertures 22 are only for the purpose of letting the steam out during sterilization. They are placed in said compartment 22 for the reason that this compartment always remains empty unless it is filled with the waste matter after performing a catheterization.

In addition to the aforesaid compartments there are provided, in the front part of the midlength portion of the container, two juxtaposed compartments 24 and 25, the front compartment 24 being utilized as a storage place for a sterile solution and the compartment 25 therebehind being utilized as a container for oil, these two containers being used only after the compact containing the equipment for performing a catheterization has been brought from the autoclave in which the assembly has been sterilized, or from other places where kept in readiness for use, access being provided to the compartments 24 and 25 without opening the main lid 8, which might contaminate the sterilized articles, this being avoided by opening only the trapdoor 26 in a door opening 8a contained in the lid 8.

Describing the trapdoor 26 in detail, said trapdoor is hinged to the main lid 8 by a hinge 26a, a rat-trap spring 26b, coiled around the hinge pin 26c, being utilized to maintain the trapdoor in a yieldably closed condition. Said trapdoor is provided with wings 27 which, in the closed condition of the trapdoor, extend alongside the transverse walls 13 and 14 in an outside relation

to the intervening compartments 24 and 25. Said trapdoor is desirably operated by means of a knob 28, the opening of the trapdoor being yieldingly opposed by said spring 26b, and when said trapdoor is opened to an extent sufficient to provide access to compartments 24 and 25 said wings 27 aid in shielding the contents of compartments 20 and 23 against splashing when the oil and sterile solution are added to said compartments 24 and 25 preparatory to performing a catheterization.

The lid 8 has through it an opening 8x (see Fig. 4) wide enough to admit the winged sides of the trapdoor, said opening extending out to the flange 8f of the lid. In order to prevent the front edges of the trapdoor wings 27 from striking against the front edge of the opening 8x through the lid 8, said wings are arcuately beveled at 27b.

All the transverse and longitudinal partitions which have been mentioned have their upper edges located in a slightly downwardly spaced relation to the top edges of the side and end walls 3, 4, 5 and 6. This arrangement provides for a circulation of the steam throughout the several compartments of the device and not only insures sterilizing said compartments but also of the equipment placed within them, when the compact is placed in a sterilization chamber.

Owing to the downwardly spaced relation existing between the closed lid 8 and the partitions within the box provision is made for preventing the trapdoor 26 from inclining downwardly when both the lid and trapdoor are in the closed condition. For this purpose the small horizontal rest plate 29 shown in Fig. 4 is attached to the upper edge of the front wall 3 of the box to arrest the closing movement of the trapdoor before it moves to an inclined position.

The contents of the compact are always wrapped in suitable gauze, paper or towels prior to being placed within the container.

Due to the fact that the trapdoor 26 provides only guarded access to the sterile solution compartments there is never any danger that access to said compartments contaminate the sterilized equipment in the other compartments.

When the trapdoor 26 is opened by means of the knob 28, this trapdoor is utilized as a pull wherewith to open the main lid 8, without providing an additional handle therefor.

The elongated sterilometer 30, which may be of a conventional character, is shown supported from the underside of the lid 8 by means of a pair of spring clips 31 each of which has one end portion secured to the lid and has a detached end portion directed toward the free edge of said lid. Adjacent to one end portion of the mounted sterilometer the lid 8 has a window 32 covered with a pane 33 of any suitable transparent material, and through this window the sterilometer is observable to determine whether or not the contents of the container have been properly sterilized. If the sterilometer displays white it indicates an improper sterilization.

What is claimed is:

1. A container of the kind described comprising a lid, a box to which said lid is hinged, said

box having within it partitions thereby dividing off a plurality of compartments underlying said lid when it is in the closed position, said compartments having open tops when said lid is in the open position, a door in said lid capable of being opened and closed independently of the latter and when open affording access while said lid is closed to certain of said compartments independently of the others, and means carried internally by said door to guard against de-sterilization of adjacent compartments when said door is opened to afford access to others of said compartments.

2. A container of the kind described comprising a lid, a box to which said lid is hinged, said box having within it partitions thereby dividing off a plurality of compartments underlying said lid when it is in the closed position, said compartments having open tops when said lid is in the open position, a door in said lid capable of being opened and closed independently of the latter and when open affording access while said lid is closed to certain of said compartments independently of the others, and means carried internally by said door to guard against de-sterilization of adjacent compartments when said door is opened to afford access to others of said compartments, said means to guard against de-sterilization consisting of a pair of wings disposed in vertical planes, one of said wings being located at each side of said door.

3. A container of the kind described comprising a lid, a box to which said lid is hinged, said box having within it partitions thereby dividing off a plurality of compartments underlying said lid when it is in the closed position, said compartments having open tops when said lid is in the open position, a door in said lid capable of being opened and closed independently of the latter and when open affording access while said lid is closed to certain of said compartments independently of the others, and means carried internally by said door to guard against de-sterilization of adjacent compartments when said door is opened to afford access to others of said compartments, said means to guard against de-sterilization being a pair of wings having end edges which are directed toward the free edge of said lid and which approximately abut against the front wall of the box when said lid and door are closed, said edges being beveled so as to clear the front side of the box during the operation of said lid and door.

4. In a device of the kind described, a box having a plurality of compartments therein, a lid hinged to the top of said box, said lid when closed forming a cover for certain of said compartments, there being through said lid an opening which extends over other of said compartments when said lid is closed, the latter compartments having side walls downwardly spaced from said lid when closed, and a door carried by said lid and swingably attached thereto to open and close said opening, said door carrying wings to close the spaces between said side walls and the inner side of said lid when said door and lid are both in their closed positions.

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