SANITARY TISSUE DISPENSING AND RECEIVING DEVICE

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This invention relates to a sanitary dispensing and receiving device and has particular reference to a container which dispenses sanitary tissue and receives it after use.

The common cold is very easily communicable by one who is suffering from it and one source of infection to others is the promiscuous use of handkerchiefs, tissue, or other material for catching the nasal discharge, and the like. Even where tissue paper is used and thereafter discarded, the discarded tissue is frequently a source of infection to others because it is placed in waste baskets or other receptacles, from which infection may be readily communicated to others by contact or otherwise.

In accordance with the present invention a sanitary dispensing and receiving device is provided which is formed with two compartments, one of which contains and dispenses unused tissue in a sanitary way, and the other of which is a self-closing container for receiving the used tissue and for rendering it innocuous, so that infection of others by promiscuous distribution of the infected tissue is avoided. While the device of this invention is particularly adapted for the purpose described, it may be used with equal facility by physicians or surgeons in treating various ailments and diseases, in which the tissue is used for various purposes and disposed of in the receiving compartment.

In a preferred embodiment of the invention the device comprises two flat containers, preferably secured together in end-to-end relation and formed of cardboard or the like. One of which contains the tissue in interfolded form for ready dispensing through a slot or the like in a wall of the corresponding container. The attached or second container preferably opens endwise about a form of alligator hinge and is arranged to be self-closing, either inherently or by means of a spring or other closing means, and is lined with a moisture-proof receiving envelope of cellophane, waxed paper, glassine, or the like, the surface of which is coated with granular chloride of lime, which liberates free chlorine upon contact with moisture, such as the moisture contained in a sheet of tissue which has been used for the common cold. The chlorine liberated in the receiving container sterilizes the contents of the receiving container and prohibits infection therewith.

In the modified form of the invention the dispensing container may also be lined with cellophane, or the like, for maintaining sterile the tissue contained therein, this form of the device being especially adapted for medical or surgical use. In either case, the receiving container is made self-closing even though it opens widely, due to its structure, so that it remains normally completely closed and can only be opened intentionally for the insertion of a used piece of tissue.

For a better understanding of the invention, reference may be had to the accompanying drawings, in which

Figure 1 is a perspective view of the device of this invention; Figure 2 is a similar view showing the receiving compartment in open position; Figure 3 is a transverse section through the receiving compartment as seen along the line 3—3 of Figure 1, showing the construction of the cellophane liner; Figure 4 is a longitudinal section as seen along the line 4—4 of Fig. 1; Figure 5 is a perspective view of the sanitary liner for the receiving compartment; Figure 6 is a horizontal section through the container as seen along the line 6—6 of Figure 4; Figure 7 illustrates in perspective a modified form of the device; and Figure 8 illustrates a development of the carton forming the two containers of the device.

In these drawings, numeral 10 designates the new tissue dispensing and receiving device, which comprises the dispensing compartment 11 and the receiving compartment 12, each of which is separated from the other, although both compartments are part of a single unitary structure. The device may be preferably and conveniently made of cardboard, in carton form, and it is this preferred form which will be described herein, although it is to be understood that the device may be made of various different materials if preferred.

The two compartments 11 and 12 may be separate containers or cartons of suitable construction secured together in end-to-end relation, as illustrated in Figure 7, by gluing or otherwise securing the abutting ends of the two cartons together. However, to facilitate manufacture and provide a more economical construction, it is preferred that the two compartment carton be made of one piece of cardboard, which can be stamped out of a cardboard web or sheet with little waste and then folded into shape.

The development or blank of one form of the one-piece carton is illustrated in Figure 8 and comprises the two bottom portions 13 and 14 of the dispensing and receiving compartments.
11 and 12, respectively, these bottom portions being connected by the reversely folded wall portions 15 and 16, which are folded together to form the partition wall between the compartments 11 and 12. A few spots of glue are placed between walls 15 and 16 so that they adhere to form a single partition, as is indicated in Figure 4.

The bottom portions 13 and 14 are provided with opposite side wall portions 17 and 18, respectively, having the glue tabs 19 and 20, respectively, adjacent to the partition wall portions 15 and 16 provided with integral locking tabs 21 and 22, respectively.

The free edge of bottom wall portion 14 is provided with the end wall portion 23, having the locking tabs 24 and the glue tab 25. The free edge of bottom portion 13 is also provided with the opposite end wall portion 26, having the locking tabs 27.

Formed on the free edge of end wall portion 26 is an elongated top portion 28 having twice the length of the bottom wall portion 13 and 14 and being adapted to overlie so as to completely separate the open upper sides of the two containers, which are formed when the locking tabs 21 and 23 of the partition wall 15, 16 are overlapped and glued to the corresponding side wall portions 17 and 18 and to the locking tabs 24 and 27 of the opposite end wall portions 23 and 26, as indicated in Figures 1 and 6. The top portion 28 is glued to the glue tabs 19, 20 and 25, as indicated in Figure 1.

That part of the top portion 28 which overlies and forms the top of the dispensing compartment 11 is provided with lines of perforations 29, defining a tearing strip 30, which, when removed, forms a slot through which the tissue or other material 31 in dispensing compartment 11 may be abstracted. In the preferred arrangement, the material is packed in separate sheets, which are interleafed so that as one sheet is abstracted it withdraws one edge of the next sheet from the slot, as is illustrated in Figure 2.

This arrangement being in accordance with standard practice. Other dispensing arrangements may be used as well as other forms of slots or the like, depending upon requirements.

The opposite side walls 18, the connecting end wall 23 and the corresponding locking tabs 24 are provided with lines of perforations 32, which align when the carton is folded into final shape to form a cleavage plane which lies substantially parallel to the bottom 14. When the line of perforations 32 is broken, the receiving compartment 12 is divided into two connected receptacles 33 and 34, which may be spread apart with an alligator jaw action about the hinge formed by that portion of the carton at the ends of those lines of perforations to provide a wide end opening for the receiving compartment 12.

The ends of the line of perforations 32 preferably terminate at the edges of the corresponding locking tabs 24, so that a stiff, two-ply wall is formed at those points, which resists spreading of the two receptacles constituting the receiving compartment and tends to constrain them toward closed position, thereby rendering the receiving compartment 12 self-closing.

In order to render the receiving compartment more positively self-closing, rubber bands 35 are secured to the ends of the opposite receptacles by staples 36, cement, glue, or other fastening means, or by insertion through the compartment walls, and the like, although other means which normally urge the receptacles toward closed position may be employed with equal facility.

In order that the segregation of the used tissue placed in the receiving compartment may be more effective to prevent infection of others, especially when it has been caught in the nasal discharge, sputum, or other discharges of infectious diseases, it is preferred that the receiving compartment be provided with a water-proof liner 37 in the form of an envelope having only one opening, which is normally closed and can only be forcibly opened when the receiving compartment is opened.

The preferred form of the liner 37 is illustrated in position in Figures 2, 3, 4 and 6, and separately in perspective in Figure 5. It is preferably made of cellulose or other similar waterproof material, waxed or otherwise waterproofed paper, glassine, parchment or other sheet material, and is shaped like an envelope having converging pleats or bellows sides 38, permitting the widest separation of receptacles 33 and 34 of receiving compartment 12, while keeping the side openings thereof sealed in the manner shown in Figures 2, 3, 4, and 5. The open end of the liner envelope 37 is closed by the flaps 39, which are superimposed upon and are secured to the inner surfaces of the ends of the receptacles 33 and 34 with their free edges coinciding with the edges of the opening, as is illustrated in Figures 2 and 4, the staples 36 being conveniently used for this purpose, although glue or other suitable securing means may be employed with equal facility.

With this arrangement, the complete envelope liner 37 may be secured by its flaps 39 to the corresponding parts of end portion 23 of the carton blank shown in Figure 8, either before or during the folding thereof. The receiving compartment is accordingly formed around the envelope 37. Then, when the line of perforations 32 is broken to open the receiving compartment 12, the bellows will be, in effect, an integral part of the receiving compartment.

Although the free edges of the flaps 39 have been illustrated and described as substantially coinciding with the line of perforations 32 extending across end portion 23, the flaps 39 may be made longer, so that they overlap and extend across the opening, but this is not preferred because it is desirable that there be no contact between the sides of the opening of the receiving compartment and the used or contaminated tissue being inserted in the receiving compartment through the opening thereof.

In order to render the used tissue in the receiving compartment sterile, the inner surface of the liner envelope 37 is provided with a coating 40 of dry chloride of lime, which is secured thereto in pulverized or granular form by a suitable adhesive, or in the case of cellulose, waxed paper, or the like, to the heat- or otherwise softened surface or surface coating thereof. Upon contact between the moist used tissues and the chloride of lime, the latter liberates free chlorine within the receiving compartment to render the contents thereof innocuous. Suitable sterilizing media other than chloride of lime may be used as desired. If the envelope liner is not used, the inner wall of the receiving compartment may be waterproofed with paraffin, or the like, and for coated with the sterilizing medium, such as chloride of lime, or the like.

The packing of the used tissue in the receiving
compartment may be facilitated with a stick 41 of wood, stiff cardboard, or the like, inserted in an envelope 42 of cellophane or the like, glued or otherwise secured to the carton at some convenient point, such as on the top of the receiving compartment 12, as illustrated in Figure 1.

As previously indicated, the device of this invention may be made of two separate containers 11' and 12' secured together in end-to-end relation to form a unitary structure, as is illustrated in Figure 7. Also, the two receptacles 33' and 34' forming the receiving container 12' may be made to telescope, as illustrated in Figure 7, so that the hinge action between them taking place along the upper edge 15' of the container 12'. In either of the modifications illustrated, a removable cap 43 (Fig. 7) may be provided to seal the joint between the receptacles 33 and 34 or 33' and 34' when the device is not in use.

The operation of the new device of this invention will be readily understood from the foregoing description and it will be seen that it provides a very simple and effective means for reducing the communication of the infectious diseases, such as common cold, due to the use of handkerchiefs, tissues and the like by the users suffering from the disease. With the present arrangement, the tissue is dispensed by and received in the same carton, which, when the supply of tissue is exhausted, may be burned to effectively destroy the used tissue. The receiving device may also be used alone if desired, i.e., detached from the dispensing carton or provided as a separate unit. Also, instead of arranging the dispensing and receiving container in end-to-end relation, they may be arranged in a superimposed relation with the dispensing container 11 above and the receiving container 12 below, or vice versa, and, in the form shown in Figure 1, the two containers 11 and 12, instead of being gluing at walls 15 and 16, may be swung into a superimposed relation about the junction of these walls as a hinge, the dispensing strip 30 and the stick 41 being placed on the bottom portions 13 and 14 to permit action, the two containers 11 and 12 being glued or otherwise fastened together in this relationship, if desired.

Other forms of dispensing devices may be associated with the receiving container in the same or similar way. The device is also admirably adapted for use by those suffering from tuberculosis and for various medical and surgical purposes. For the latter use, it is preferred that the dispensing compartment be also lined with a sanitary lining such as sterilized cellophane or the like. Furthermore, use of the new device in large offices, schools, factories and the like, would greatly reduce epidemics of the common cold, influenza, gripe, and the like, and consequently save much of the time now lost as the result of colds and the like and prevent much suffering and discomfort.

While certain preferred embodiments of the invention have been illustrated and described herein, it is to be understood that the invention is not limited thereby, but is susceptible of various changes in form and detail within its scope.

I claim:

1. In a device of the character described, the combination of a receptacle open at one side, a second receptacle having an open side coinciding with the open side of the first receptacle, means hinging said receptacles together at one end, and a common lining for the receptacles having pleated sides and an open end conforming to the opening formed by the receptacles opposite the hinge means thereof when the receptacles are spread apart.

2. In a device of the character described, the combination of a receptacle open at one side, a second receptacle having an open side coinciding with the open side of the first receptacle, means hinging said receptacles together at one end, and a sterilizing lining for the receptacles having pleated sides and an open end conforming to the opening formed by the receptacles opposite the hinge means thereof when the receptacles are spread apart.

3. In a device of the character described, the combination of a receptacle open at one side, a second receptacle having an open side coinciding with the open side of the first receptacle, means hinging said receptacles together at one end, a common lining for the receptacles having pleated sides and an open end conforming to the opening formed by the receptacles opposite the hinge means thereof when the receptacles are spread apart, and a coating of sterilizing substance on the lining.

4. In a device of the character described, the combination of a receptacle open at one side, a second receptacle having an open side coinciding with the open side of the first receptacle, means hinging said receptacles together at one end, a lining for the receptacles having pleated sides and an open end conforming to the opening formed by the receptacles opposite the hinge means thereof when the receptacles are spread apart, and a coating of dry chloride of lime on the lining.

5. In a device of the character described, the combination of a receptacle open at one side, a second receptacle having an open side coinciding with the open side of the first receptacle, means hinging said receptacles together at one end, a lining for the receptacles having pleated sides and an open end conforming to the opening being secured to the corresponding ends of the receptacles to move therewith.

6. In a device of the character described, the combination of a dispensing container for sheet material, a second independent receiving container secured to the first container by a common wall to form a unitary structure, said second container having three adjacent walls other than the common wall slits in order to provide an opening for receiving the sheet material from the first container, said end walls so constructed as to function in the fashion of a jaw device, means normally urging the parts of the second container together to close the slit thereof and an envelope lining having pleated sides and an open end within the said container.

7. In a carton, the combination of a blank having two bottom portions, corresponding side and end wall portions foldable to form two separate containers, and a common top portion connected to one of the end wall portions for overlapping both containers to form a unitary structure having two compartments whereby the top portion overlaps first one and then the other of the separate containers.

8. In a carton, the combination of a blank having two bottom portions, corresponding side and end wall portions foldable to form two separate containers, and a common top portion connected to one of the end wall portions for overlapping both containers to form a unitary structure hav-
ing two compartments, the opposite side and con-
necting end walls of one of the containers being
slit along a plane substantially parallel to the cor-
responding bottom portion to provide an opening
for the corresponding compartment said end walls
so constructed as to function in the fashion of a
jaw device.

9. In a carton, the combination of a separate
flat container for sheet material, a second sepa-
rate flat container connected in end-to-end rela-
tion to the first container, the second container
being split into two parts to form an opening for
receiving the sheet material from the first con-
tainer, said end walls so constructed as to func-
tion in the fashion of a jaw device means nor-
mally urging the two parts of the container to-
gether to close the opening and a common lining
within said second container.

10. In a carton, the combination of a separate
flat container for sheet material, a second sepa-
rate flat container connected in end-to-end rela-
tion to the first container, the second container
being split into two parts to form an opening for
receiving sheet material from the first container,
said end walls so constructed as to function in
the fashion of a jaw device and a cap removably
mounted over the split container to seal the latter
and hold the parts thereof in closed position.

11. In a device of the character described, the
combination of a dispensing container for sheet
material, a second independent receiving contain-
er secured to the first container by a common wall
to form a unitary structure, said second container
having three adjacent walls other than the com-
mon wall slit in order to provide an opening for
receiving the sheet material from the first con-
tainer, said end walls so constructed as to func-
tion in the fashion of a jaw device, means nor-
mally urging the parts of the second container
together to close the slits thereof and a cover for
closing the opening of the receiving container.

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