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2,990,086

DISPENSER FOR POWDERED MATERIALS

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FIG. 1

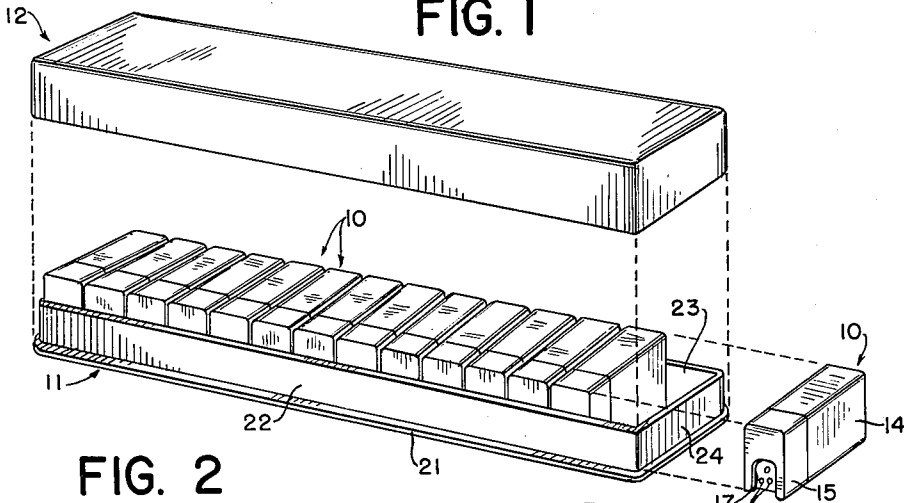


FIG. 2

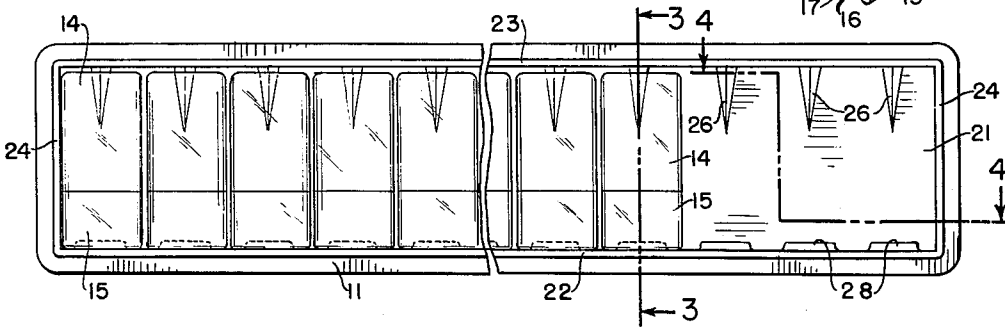


FIG. 3

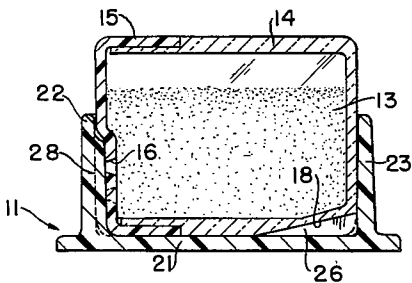


FIG. 4

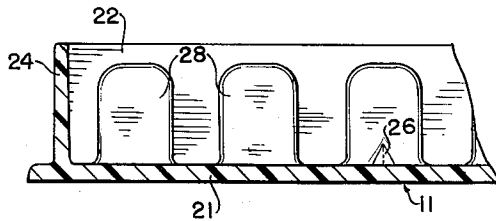
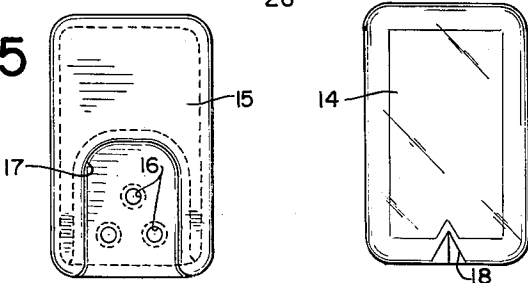


FIG. 6

FIG. 5



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DISPENSER FOR POWDERED MATERIALS

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7 Claims. (Cl. 222-142.3)

This invention relates to a dispenser for powdered materials, and more particularly to a dispenser device for a number of individually packaged samples of powdered materials such as, for example, samples of face powders.

It is frequently desirable to arrange or display a variety of kinds or colors of powdered materials in an orderly and attractive manner so that each of the powdered materials can be sampled or used independently of, or in any desired combination with, the others. For example, in the merchandising of face powders it is desirable that samples of a large number of different shades or types of face powder be attractively and conveniently packaged together, with each sample individually packaged in its own dispensing container so that any one shade or one of a number of shades, or any combination of them, can be sampled by prospective customers. It has been found, however, that individual containers for samples of powdered material frequently are lost or are given away with the result that there is no longer a full range of colors or varieties of powder to be sampled or used. In addition, the types of containers for powdered materials heretofore available have been provided with closure members which are inefficient and awkward to use and which frequently become lost or mislaid with the result that the contents of the individual containers inadvertently spill therefrom.

I have now devised a new container for samples of powdered materials (e.g. face powders) which, in addition to its attractive and utilitarian design, virtually eliminates the problem of loss or give-away of the individual containers of powdered material and provides a secure closure for each of the individual containers of powdered material. My new dispenser device comprises an individual dispensing container for each sample of the powdered material and a holder for the dispensing containers which maintains the containers in an attractive and orderly manner when the containers are positioned in the holder. Each of the dispensing containers is formed with small openings positioned at one end thereof and with a wedge-shaped depression adjacent the other end thereof. The holder for the dispensing containers includes a bottom wall, a front wall and a rear wall. The bottom wall of the holder is formed with a plurality of wedge-shaped protrusions spaced equidistantly therealong and positioned adjacent the rear wall. Each wedge-shaped protrusion is adapted to enter and be received in the wedge-shaped depressions formed in the dispensing containers. The front wall of the holder is provided with a plurality of closure members one of which is disposed opposite each wedge-shaped protrusion formed on the bottom wall of the holder, each closure member being adapted to close the openings in one of the dispensing containers when the dispensing container is positioned in the holder with the wedge-shaped protrusion of the holder received in the wedge-shaped depression formed in the dispensing container.

My new dispenser device will be more fully understood from the following description in conjunction with the accompanying drawings of which

FIG. 1 is a perspective view of a preferred embodiment of my dispenser device with the cover removed and with one of the dispensing containers of the device withdrawn from the holder;

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FIG. 2 is a plan view of the dispenser device of FIG. 1 with three of the endmost dispensing containers removed from the holder for purposes of illustration;

FIG. 3 is a sectional view along line 3-3 of FIG. 2;

FIG. 4 is a sectional view along line 4-4 of FIG. 2;

FIG. 5 is an elevation of one end of a dispensing container showing the powder dispensing holes formed in this end of the container; and

FIG. 6 is an elevation of the other end of the dispensing container shown in FIG. 5 showing the wedge-shaped depression formed in this end of the container.

The preferred embodiment of my dispenser device shown in the drawing comprises an individual dispensing container 10 for each one of a plurality of samples of powdered material and a holder 11 adapted to receive the individual dispensing containers 10 and maintain them therein in an orderly and attractive manner. The holder 11 is also advantageously provided with a cover 12 which fits over the holder and protects the dispensing containers 10 received in the holder while at the same time preventing the dispensing containers from inadvertently becoming dislodged and falling out of the holder during travel.

The dispensing containers 10 for the samples of powdered material are substantially identical to one another. In the preferred embodiment of my device shown in the drawing each dispensing container 10 comprises a generally rectilinear structure adapted to contain powdered material 13, the container advantageously having a transparent main body portion 14 and an opaque cap portion 15 both of which are formed of a molded plastic material. At least one, and preferably several, powder dispensing opening or holes 16 are formed in one end (i.e. the front end) of the dispensing container 10, and preferably in the cap portion 15 thereof, to permit the powdered material contained in the dispensing container to be withdrawn or shaken therefrom when it is desired to sample this powdered material. As shown best in FIG. 1, in the preferred embodiment of my invention the cap portion 15 of the container 10 is formed with a U-shaped depression 17 in which depression the powder dispensing openings 16 are located, the U-shaped depression 17 cooperating with closure members of the holder 11 in the manner hereinafter described to securely close the powder dispensing openings in the dispensing container. Each dispensing container 10 is also formed with a slanted wedge-shaped depression 18 disposed adjacent the end (i.e. the rear end) of the container opposite the end formed with the powder dispensing openings 15. The wedge-shaped depression 18 formed in the dispensing container is slanted inwardly from front to rear so that it extends more deeply into the body or wall of the dispensing container as it approaches the rear wall of the container. Thus, the wedge-shaped depression 18 has a triangular cross-section when viewed from above as shown in FIG. 2, when viewed from the side as shown in FIG. 3, and when viewed from the end as shown in FIG. 6.

The holder 11 for the plurality of dispensing containers 10 comprises, in the preferred embodiment of my device shown in the drawing, an open-top rectilinear structure having a bottom wall 21, a front wall 22 disposed substantially perpendicular to the bottom wall, a rear wall 23 disposed substantially parallel to the front wall and side walls 24 disposed substantially perpendicular to the front and rear walls. The holder 11 and the cover 12 which fits thereover are advantageously formed from a molded plastic material. The bottom wall 21 of the holder 11 is formed with a plurality of wedge-shaped protrusions 26 which are spaced equidistantly from one another adjacent the rear wall 23 of the holder. The wedge-shaped protrusions 26 are adapted to be received in the

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wedge-shaped depressions 17 formed in each of the dispensing containers 10, and therefore, in the preferred embodiment of my device shown in the drawing the wedge-shaped protrusions 26 are slanted upwardly toward the rear wall 23 so that the protrusions extend a greater distance above the surface of the bottom wall as the protrusions approach the rear wall of the holder 11. Thus, the wedge-shaped protrusions 26 have a triangular cross-section when viewed from above as shown in FIG. 2, when viewed from the side as shown in FIG. 3, and when viewed from the end as shown in FIG. 4.

The front wall 22 of the holder is formed with a plurality of closure members, one of the closure members being disposed opposite each one of the wedge-shaped protrusions 26 formed in the bottom wall of the holder. Each closure member is adapted to shut off or close the powder dispensing openings 16 in one of the dispensing containers 10 when the dispensing container is positioned in the holder 11 with the opposing wedge-shaped protrusion of the holder received in the wedge-shaped depression of the container as shown in FIGS. 2 and 3 of the drawing. In the preferred embodiment of my invention shown in the drawing, each closure member comprises a U-shaped protrusion 28 formed on the inner surface of the front wall 22 and adapted to be received in the U-shaped depression 17 formed in the front end of the dispensing container 10 as shown best in FIGS. 2 and 3 of the drawing.

Assuming that each of the individual dispensing containers 10 contains a sample of a different kind or color of face powder, and further assuming that all of the dispensing containers 10 are positioned or disposed in the holder 11 as shown generally in FIG. 1, the face powder contained in any one or more of the dispensing containers 10 can be sampled by merely removing the appropriate dispensing container from the holder 11 and shaking a sample of the face powder therefrom through the dispensing openings 16. As the dispensing container 10 is not by itself provided with means for closing the powder dispensing openings 16, the dispensing container must be returned to the holder 11 in order to prevent spillage of the powder from the container 10. When the dispensing container is returned to the holder 11, the wedge-shaped protrusion 26 associated therewith enters the wedge-shaped depression 18 of the container, and the associated U-shaped protrusion 28 enters the U-shaped depression 17 formed in the front of the container 10. As the act of returning or inserting the container 10 into the holder 11 approaches completion, the slanted wedge-shaped protrusion 26 enters more deeply into the slanted wedge-shaped depression 18, and the dispensing container 10 is urged toward the front wall of the holder 11 due to the camming action of one slanted surface against the other. As a result of this movement or pressure in the direction of the front wall 21, the closure member of the holder 11 (i.e. the U-shaped protrusion 28) firmly and securely closes up or shuts the powder dispensing openings 16 formed in the front end of the container 10, as shown best in FIG. 3. Moreover, the frictional contact between the sides of the wedge-shaped protrusion 26 and the sides of the wedge-shaped depression 18 insures that the dispensing container 10 will be held securely in the holder 11 until the dispensing container 10 is once again deliberately removed from the holder 11. That is to say, the cooperation between the wedge-shaped protrusion 26 of the holder 11 and the wedge-shaped depression 18 in the dispensing container 10 serves both to insure secure closing of the powder dispensing openings 16 and to maintain the dispensing container 10 firmly in the holder 11.

From the foregoing description of my new dispensing device, it will be seen that I have devised an important improvement in the art to which my invention relates.

I claim:

1. A dispenser device for a plurality of individual samples of powdered materials comprising a dispensing con-

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tainer for each sample and a holder for said dispensing containers, each of said dispensing containers being formed with at least one powder-dispensing opening disposed at one end thereof and with a wedge-shaped depression disposed adjacent the other end thereof, said holder comprising a bottom wall, a front wall and a rear wall, said bottom wall being formed with a plurality of wedge-shaped protrusions positioned equidistantly from one another adjacent said rear wall and said front wall being formed with a plurality of closure members one of which is positioned opposite each one of said wedge-shaped protrusions, each of said wedge-shaped protrusions being adapted to enter and be received in the wedge-shaped depression formed in one of the dispensing containers when said dispensing container is received in said holder and each closure member being adapted to close the powder dispensing openings in one of the dispensing containers when said dispensing container is positioned in the holder with the wedge-shaped protrusion of the holder received in the wedge-shaped depression of the dispensing container.

2. A dispenser device for a plurality of individual samples of powdered materials comprising a dispensing container for each sample and a holder for said dispensing containers, each of said dispensing containers being formed with at least one powder dispensing opening disposed at the front end thereof and with a wedge-shaped depression disposed adjacent the rear end thereof, said wedge-shaped depression being slanted inwardly from front to rear, said holder being formed with a plurality of wedge-shaped protrusions positioned equidistantly from one another adjacent the rear wall thereof and with a plurality of closure members one of which is positioned opposite each one of said wedge-shaped protrusions, each of said wedge-shaped protrusions being slanted upwardly from front to rear and being adapted to enter and be received in the slanted wedge-shaped depression formed in one of the dispensing containers, and each closure member being adapted to close the powder dispensing openings in one of the dispensing containers when said dispensing container is positioned in the holder with the wedge-shaped protrusion of the holder received in the wedge-shaped depression of the dispensing container.

3. A dispenser device for a plurality of individual samples of powdered materials comprising a dispensing container for each sample and a holder for said dispensing containers, each of said dispensing containers being formed with a U-shaped depression disposed at the front end thereof and with a wedge-shaped depression disposed adjacent the rear end thereof, said wedge-shaped depression being slanted inwardly from front to rear, said dispensing container being further formed with at least one powder dispensing opening positioned in said U-shaped depression and communicating with the interior of said container, said holder comprising a bottom wall, a front wall disposed substantially perpendicular thereto and a rear wall disposed substantially parallel to the front wall, said bottom wall being formed with a plurality of wedge-shaped protrusions positioned equidistantly from one another adjacent said rear wall, each wedge-shaped protrusion being slanted upwardly from front to rear and being adapted to enter and be received in the slanted wedge-shaped depression formed in one of the dispensing containers, said front wall of the holder being formed with a plurality of U-shaped protrusions one of which is positioned opposite each one of the slanted wedge-shaped protrusions formed on the bottom wall, each U-shaped protrusion being adapted to enter the U-shaped depression formed in one of said dispensing containers and to close the powder dispensing openings located in said U-shaped depression when said dispensing container is positioned in the holder with the wedge-shaped protrusion of the holder received in the wedge-shaped depression of the dispensing container.

4. In a dispenser device including a plurality of in-

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dividual dispensing containers, each of said containers being formed with a wedge-shaped depression and at least one powder-dispensing opening in one end thereof, the improvement which comprises a rectangular box-like holder having front, rear, side and bottom walls, a plurality of wedge-shaped protrusions spaced lengthwise of said holder at the meeting edges of the rear and bottom walls, said protrusions being adapted to enter and be received in said depressions formed in said dispensing containers, and a plurality of closure members formed along the inner face of said front wall, one opposite each wedge-shaped protrusion, each closure member being adapted to close said powder-dispensing opening in said dispensing container when said container is positioned in the holder with the opposing wedge-shaped protrusion of the holder received in the wedge-shaped depression of the dispensing container, each of said wedge-shaped protrusions being slanted upwardly from front to rear and each of said wedge-shaped depressions being slanted inwardly from front to rear, such that said protrusion and depression form camming surfaces which force said closure member against said powder dispensing opening, said closure member and the end of said container for said dispensing opening being formed such that together they secure one end of the container in the holder.

5. A dispensing device comprising a holder for at least one dispensing container, said dispensing container being formed with at least one powder dispensing opening and defining a wedge-shaped depression for securing said dispensing container in said holder, said holder having a closure member adapted to seal the powder dispensing opening in said dispensing container and a mating wedge-shaped protrusion for placement into said depression in said container, said protrusion being slanted upwardly from front to rear and said depression being slanted inwardly from front to rear such that said protrusion and depression form camming surfaces which force said closure member against said powder dispensing opening.

6. A dispensing device having a plurality of individual samples of powdered materials comprising a dispensing container for each sample and a holder for said dispensing containers, each of said dispensing containers being

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formed with at least one powder-dispensing opening disposed at one end thereof and defining a wedge-shaped depression therein, said holder being formed with a plurality of wedge-shaped protrusions and with a plurality of closure members one of which is positioned opposite each one of said wedge-shaped protrusions, each of said wedge-shaped protrusions being adapted to enter and be received in the wedge-shaped depression formed in one of the dispensing containers and each closure member being adapted to close the powder dispensing opening in said dispensing container when said dispensing container is positioned in the holder with the opposing wedge-shaped protrusion of the holder received in the wedge-shaped depression of the container, each of said wedge-shaped protrusions and depressions being slanted in a direction toward the respective closure member for said container such that insertion of said protrusion into said depression forces said container toward the closure member therefor.

7. In combination, a dispensing container for powdered materials and a holder for said dispensing container, said dispensing container being formed with at least one powder-dispensing opening disposed at one end thereof and defining a wedge-shaped depression therein, said holder being formed with a mating wedge-shaped protrusion for reception within said depression and being formed with a closure member adapted to close the powder-dispensing opening, said protrusion and depression being slanted in a direction such that insertion of said dispensing container into said holder with said protrusion in said depression forces said dispensing container toward said closure member to close the powder-dispensing opening.

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