Nov. 4, 1924. 1,514,225

C. O. PHILLIPS

CONTAINER FOR POWDER

Filed Oct. 5, 1922

Fig. 1.

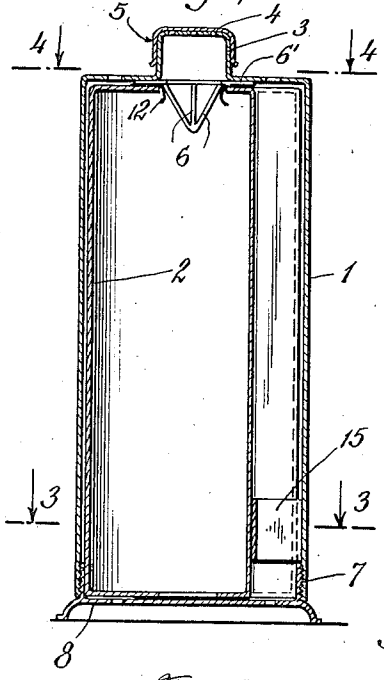


Fig. 2.

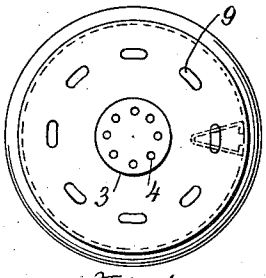


Fig. 3.

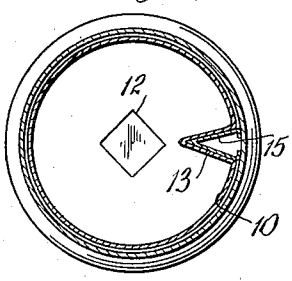


Fig. 4.

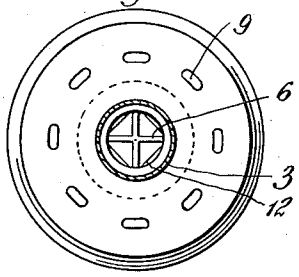


Fig. 5.

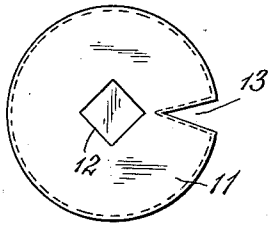


Fig. 6.

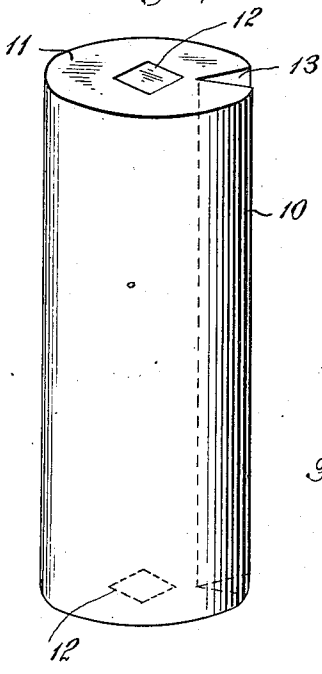


Fig. 7.

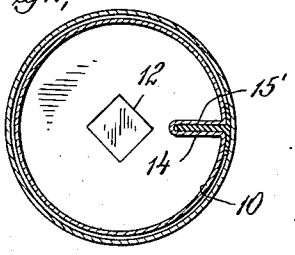


Fig. 8.

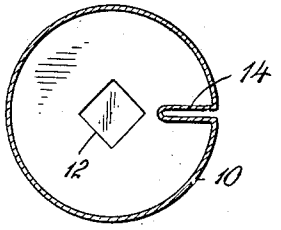


Fig. 10.

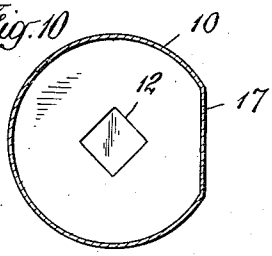


Fig. 9.

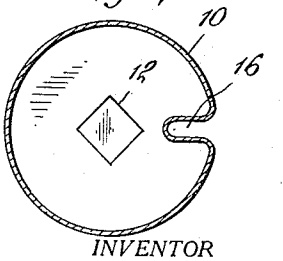
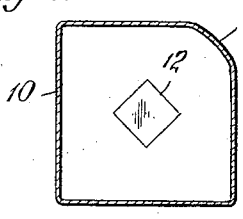


Fig. 11.



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Patented Nov. 4, 1924. 1,514,225

UNITED STATES PATENT OFFICE.

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CONTAINER FOR POWDER.

Application filed October 5, 1922. Serial No. 592,470.

To all whom it may concern:

Be it known that I, CECIL O. PHILLIPS, a citizen of the United States, residing at New York, in the county of New York, State of New York, have invented certain new and useful Improvements in Containers for Powder; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to containers for powders, granules, flakes, etc., and more particularly to sanitary containers comprising an outer container member or casing adapted to receive inner or refill cartons. A composite container of this type is disclosed in my copending application Serial No. 566,381.

As shown in my co-pending application above referred to, the outer casing of the container comprises a metal or celluloid member of substantially the same configuration as an ordinary talcum-powder can. This outer casing is provided with a closed neck having perforations in the closed end thereof for the purpose of dispensing powder from the container. This outer casing is preferably provided with what may be called an open perforating cone arranged directly below the neck of the casing. It has been found that the easiest way to make this open cone is to bend two small wires or narrow strips of metal into a substantially V-shape and then solder or otherwise affix these wires to the outer casing, so that they are at right angles to each other. The cone thus forms a pyramid.

The inner or refill cartons adapted to be inserted within the outer casing above referred to, may be made in any suitable shape to fit the outer casing. These refill cartons have a perforable section provided in each end thereof. The position of each of these sections and its configuration are such that they conform to the position and shape of the base of the perforating cone in the outer casing; thus when a refill carton is inserted in the outer casing, the perforating cone punctures the perforable section in one end of the carton.

It has been found that the most satisfactory type of inner carton which may be used is one which is provided with perforable sections of substantially the same size as the base of the perforating cone, and no larger. Accordingly, in order that the perforating cone may register properly within the perforable section with which it comes in contact, it is necessary to insert the refill carton in the outer casing, so that the position of the carton bears a definite relation to the outer casing. Accordingly, the principal object of this invention is to provide a carton which may be inserted in an outer casing only when the carton and casing bear a definite relation to each other, thus insuring a proper registration of the perforating cone and the perforable section in the end of the carton with which this cone comes in contact. In general, this object is accomplished by making a portion of the side of the carton in an irregular shape. If the outer casing is provided with a false side or inwardly projecting member corresponding with the irregular portion of the carton, then it is impossible to insert the carton into the outer casing except when the irregular portion of the surface of the carton registers with the corresponding guide member provided on the outer casing.

This invention may be better understood by referring to the following detailed description which is to be considered in conjunction with the accompanying drawings in which—

Fig. 1 is a vertical section of the complete composite container, showing details of construction.

Fig. 2 is a top plan view of the improved container.

Fig. 3 is a transverse section of the container taken on line 3—3 of Fig. 1.

Fig. 4 is a transverse section of the container taken on line 4—4 of Fig. 1.

Fig. 5 is a top plan view of the improved refill carton.

Fig. 6 is a perspective view of the improved refill carton.

Fig. 7 is a transverse section of a modified form of composite container.

Fig. 8 is a transverse section of the refill carton shown in Fig. 7.

Figs. 9, 10 and 11 are top plan views of modified forms of the refill carton.

The form of container shown in Figs. 1–4 inclusive comprises an outer casing 1 adapted to receive an inner or refill carton 2. The outer casing 1 may be made of ordinary material such as metal or celluloid, and may be made in any suitable shape, such as

round, oval, etc. It is shown round merely for a convenience of illustration. This outer casing 1 is provided at the upper end thereof with a closed neck 3 having perforations 4 in the closed end thereof for the purpose of dispensing powder from within the container. If it is so desired, a cap 5 may be provided for the purpose of covering the opening or perforations 4 when the container is not in use. The perforating cone comprises two intersecting wires or thin strips of metal 6 arranged to form a pyramid. These wires 6 may be fastened to a suitable base plate 6' which, in turn, may be fastened to the outer casing in any ordinary manner, such as soldering the parts together. At the lower end of the outer casing, it may be noted that internal screw threads 7 are provided, which are adapted to engage corresponding screw threads on the removable bottom 8. It is to be understood, of course, that the top of the outer casing may be removable instead of the bottom 8. If an outer casing having other than a circular cross section is used, a wedge fitting bottom such as that disclosed in my co-pending application, may be used instead of the screw threaded bottom shown in Figure 1. If it is so desired, a plurality of perforations 9 may be provided at the upper end of the outer casing. These perforations may be arranged in an ornamental manner, and they render the upper end of the refill carton visible, so that the proximity of the upper end of the refill carton to the upper end of the casing may be ascertained. Thus it is possible to make certain that the inner carton has been forced into the outer casing so that it abuts against the upper end of the casing.

The form of refill carton shown in Figs. 1, 2, 3, 5 and 6 comprises a cylindrical portion 10 fitted with suitable end pieces 11. The inner cartons may be made of any suitable cheap material, such as heavy paper or pasteboard. The substantially square perforable section 12, provided in both ends of the refill carton, may be made by cutting a portion of the ends away to form an opening the size of section 12, and then pasting thin perforable paper over this opening. These sections may also be made by partly severing the ends 11 around the margin of the section 12, or these sections may be rendered perforable in any other suitable manner. A portion of the side of the inner carton is made in such a manner that it forms an irregular break in the continuity of the surface of the carton wall, and forms a notch 13 extending from the top to the bottom of the carton. A carton of this type may be made by taking a paper or cardboard cylinder of larger diameter than the diameter of the finished carton, moistening a portion of the cylinder and then forcing this moistened portion of the cylinder inward to form the notch 13. It is also possible to make a carton of this type by cutting lengthwise a paste-board cylinder of substantially the same diameter as the finished carton and fastening a V-shaped strip of paste-board to the cut edges of the cylinder.

By again referring to Figs. 1, 2 and 3, it may be noted that the outer casing is provided with a V-shaped member 15 of such a size that it readily fits into the V-shaped notch 13 in the refill carton. This inwardly projecting member 15 may be made of a strip of thin sheet metal bent into the desired shape and fastened to the outer casing by solder or other suitable means. This member 15 may extend from the top to the bottom, or it may be relatively short as shown in Fig. 15. It is also possible to provide a V-shaped dent in the surface of the outer casing, of such a shape that it may fit the notch 13 in the refilled carton. In this case, it will be unnecessary to provide any additional member 15 on the inside of the casing. This is not a preferred embodiment however, for it destroys the continuity of the surface of the outer casing and thus mars its appearance.

Several modified forms of inner cartons are shown in Figs. 7–11 inclusive. The form shown in Fig. 7 is made in such a manner that a narrow slot 14 is provided in the carton instead of a V-shaped slot as shown in Fig. 6. If such a carton is used, it is obvious that a thin inwardly projecting member 15' should be provided on the inside of the outer casing 1. This member 15' should be of such a size that it readily fits into the slot 14. In Fig. 9 a carton is shown which has what may be termed a U-shaped slot 16 provided therein. If the material used in making an inner carton is of such a character that it will rupture if bent to a sharp angle, the form of carton shown in Fig. 9 is to be preferred to the form shown in Fig. 6. In Fig. 10 a refill carton is shown which has a plain surface 17. In this case the outer casing may be provided with a false side corresponding with the plain surface 17. This form of inner carton possesses numerous desirable features:—it may be easily packed for shipment and the plain surface 17 is well adapted to receive printed slips or labels referring to the contents of the carton. The form of carton shown in Fig. 11 comprises a container of substantially rectangular cross section with one corner 18 rounded. The outer casing may be provided with square corners and should have a rounded false corner or surface on the inside thereof corresponding with the corner 18 of the carton.

From the preceding description it should be evident that the present invention pro-

vides an inner refill carton of such a character that it may be inserted in an outer casing only when the carton and casing register properly, that is, bear a certain definite relation to each other.

The improved carton will contain practically as much powder as an ordinary carton of the same diameter, and it has the distinct advantage that it is not possible to insert this carton into the outer casing in such a manner that one of the perforable end sections will not register properly with the perforating cone. From the preceding description it should also be apparent that the form, size and proportions of the various parts may be varied without departing from the principle of the invention, which is not limited to the particular embodiments shown and described, but is intended to include such modifications thereof as fall within the scope of the appended claims.

The term "depression" as used in this application to apply to the irregular portion of the inner carton, is intended to include all modifications similar to those shown in Figs. 6–11 inclusive. All of these figures show an inner carton having a portion of a side formed into an irregular shape or depression of such a character that it may register with a corresponding projection provided on the inner surface of the outer casing of the container.

I claim:

1. A composite container of the type described, comprising an outer casing, perforated means on one end of said casing for dispensing powder, and an inwardly projecting perforating member of a particular shape arranged near said perforated means, a refill carton having a perforable section in one end thereof, of a shape corresponding to the perforating member, and positioning means associated with said outer casing whereby when a refill carton is inserted into the outer casing the perforating member registers with the perforable section in the end of the carton adjacent thereto.

2. A refill carton adapted to be inserted into the outer casing of a composite container having a perforating device of a particular shape, said carton having a perforable section in one end thereof of a shape to correspond to said perforating device, and having a portion of the side of the carton formed in an irregular shape, the position of said portion bearing a definite relation to the position of said perforable section and the perforating device.

3. A refill carton adapted to be inserted into the outer casing of a composite container, said carton having a perforable section in one end thereof of a particular outline and having a depression in a side of the carton, the position of said depression bearing a definite relation to the position of said perforable section.

4. A refill carton adapted to be inserted into the outer casing of a composite container, said carton having a perforable section in one end thereof of a particular angular outline, and having a substantially V-shaped depression in a side of the carton and extending the full length of the carton, the position of said depression bearing a definite relation to the position of said perforable section.

In testimony whereof I affix my signature.

CECIL O. PHILLIPS.