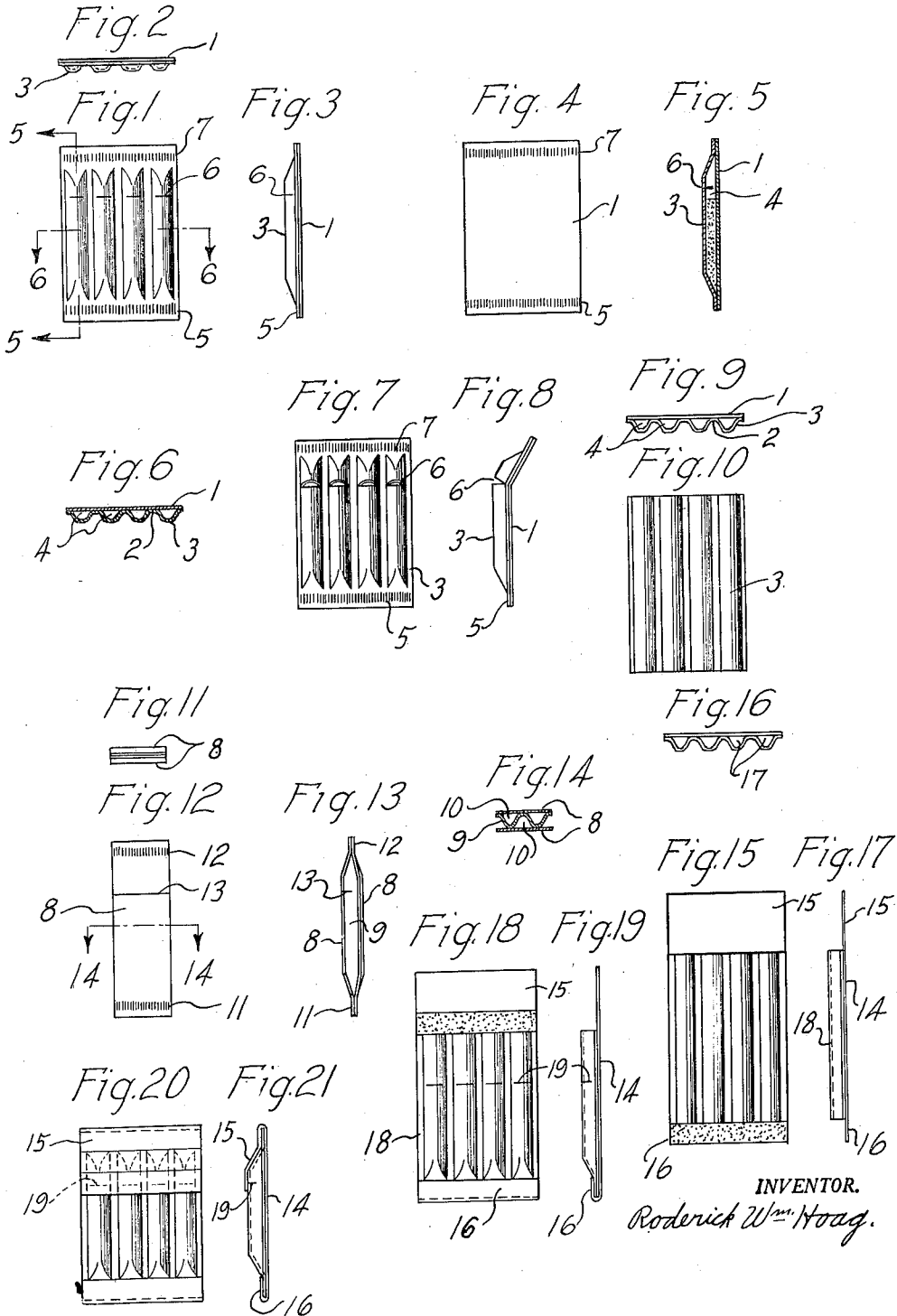


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SHAKER DISPENSER

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## UNITED STATES PATENT OFFICE

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## SHAKER DISPENSER

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3 Claims. (Cl. 206—56)

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The invention relates to improvements in dispensing packages in general and more specifically to packages for dispensing granular or powdered material such as salt and tooth powder.

One object of my invention is to provide a package for dispensing granular or powdered material, and which is so inexpensive that it may be discarded after a single use.

Another object of my invention is to provide a condiment shaker dispenser package which may be manufactured and filled at high speed by automatic machinery.

An important advantage of my improved package is that while it costs about the same amount to produce as flat envelopes of the same size, it is much better adapted to be filled by automatic machinery, and the contents does not become compressed and packed as it does in flat envelopes, but remains relatively free and pourable, because the corrugated sheet protects the contents from being compressed.

For many purposes it is desirable that the paper or other material from which the package is made be water and moisture resistant.

The surfaces of the package may be provided with indicia for directions in using the package, for indicating its contents and for advertising.

With said objects in view, and others hereinafter explained, my invention consists in the shaker dispenser package substantially as hereinafter described and claimed.

Of the accompanying drawings:

Figure 1 is an elevation of a package representing one embodiment of my invention.

Figure 2 is a top view of Figure 1.

Figure 3 is a side view of Figure 1.

Figure 4 is a rear view of the dispenser shown in Figures 1-3 inclusive.

Figure 5 is a section at 5-5 of Figure 1 showing the packaged commodity within the package.

Figure 6 is a section at 6-6 of Figure 1.

Figure 7 is an elevation of the dispenser package shown in Figures 1-6 inclusive, with the upper portion of the package bent back to open the aperture through which the contents of the package may be dispensed by shaking or pouring.

Figure 8 is a side view of Figure 7.

Figure 9 is a top view of section of single-faced corrugated material from which the embodiment shown in Figures 1-8 may be made.

Figure 10 is a front elevation of Figure 9.

Figures 11-14 inclusive illustrate a modified form of my invention wherein a section of double-faced corrugated paper is used. This embodiment comprises a corrugated member having a

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flat backing section secured to one surface of the corrugated member and a flat facing section secured to the opposite surface of the corrugated member.

Figures 15-21 inclusive illustrate a third embodiment of my invention wherein the backing section of single-faced corrugated paper is folded over and adhesively secured to the corrugated sheet, to form closures for the package.

Figures 15, 16, and 17 show a section of single-faced corrugated paper from which the embodiment shown in Figures 18-21 is made.

Figures 18 and 19 show the condition of package made from the corrugated paper shown in Figures 15, 16 and 17, with the bottom closure folded and adhesively secured.

Figures 20 and 21 illustrate the completed package made from the corrugated paper shown in Figures 15, 16 and 17.

Similar reference characters indicate similar parts or features in all of the views.

Referring to Figures 1 to 10 inclusive which illustrate one embodiment of my invention made from a section of single-faced corrugated paper. Single-faced corrugated paper has long been extensively used for making boxes, wrappers and generally for the protection of articles in shipping and handling. However, so far as I am aware, single-faced and double-faced corrugated paper has not heretofore been used as a unitary dispensing package for granular and powdered materials.

Single-faced corrugated paper (Figures 9 and 10) comprises a relatively flat backing section of paper 1 to which is adhesively secured the crowns 2 of a sheet of corrugated paper 3 to provide a series of small open end pockets 4.

After a section of single-faced corrugated paper (Figures 9 and 10) has been prepared to have the desired dimensions and the proper number of pockets to hold the quantity of substance to be packaged, the ends of the pockets 4 at one end of the corrugated paper assembly are closed by crushing and securing the corrugation of sheet 3 against the backing section 1, as shown at 5 (Figures 1, 3, 7, and 8).

In closing the ends of the pockets 4, glue or other adhesive may be used, or the corrugated sheet 3 and cover sheet 1 may be secured together by crimping or by "paper-welding," so-called, which consists in making a series of small cuts and folding and pressing together adjacent edges of the cover sheet and corrugated sheet. The walls of each pocket 4 of the corrugated sheet 3 are transversally slit to provide a sifting

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or pouring apertures 6 when the top of the package is bent back as shown in Figures 7 and 8.

After closing and securing the bottom ends 5 of the pockets 4 of the single-faced corrugated section of paper, the commodity to be packaged, such as salt, pepper or any other granular or powdered material, is poured into the top or open end of pockets 4. It is preferable that the pockets 4 be not filled quite up to the aperture slits 6, in order that there may not be pressure from within the pockets to accidentally open the apertures 6.

The final step in making the package consists in forming the top closure 7 by closing the top openings of pockets 4 in substantially the same manner as the bottom closure 5.

Figures 11, 12 and 13 illustrate a modified form of my invention, using a double-faced corrugated section of paper.

Double-faced corrugated paper is an assembly made up of two relatively flat sheets 8 comprising a facing section and a backing section (Figures 11-14 inclusive) adhesively secured to opposite sides of a corrugated sheet 9, to form longitudinal, open end pockets 10. The bottom closure 11 and the top closure 12 may be formed in the same manner as above described for the package made from the single-faced corrugated paper.

The package is filled by pouring the commodity to be packaged into openings 10 after the bottom closure 11 has been made and before the top closure 12 has been formed. The slit 13 serves as an aperture through which the commodity may be poured or sifted by bending back the top portion of the package.

Figures 15-21 inclusive illustrate a third embodiment of my invention, wherein the backing section 14 extends at each end longitudinally beyond the corrugated sheet, in order that the top closure 15 and the bottom closure 16 may be formed by folding the ends of the cover sheet over the ends of the corrugations of corrugated sheet 18, to close the openings 17.

In making the package illustrated by Figures 15-21 inclusive, a single-faced corrugated paper is provided to have the backing section thereof extend longitudinally beyond the ends of the corrugations of the corrugated sheet 18, to provide a bottom closure extension 16, and a top closure extension 15. The bottom closure extension 16 is folded over the bottom ends of the corrugations of sheet 18 and secured thereto by adhesive or other means. The commodity to be packaged is then poured into the openings 17 formed by the corrugated sheet 18 and the backing section 14. The crowns of the corrugation on sheet 18 are transversally slit at 19 (Figs. 18-21 inclusive) to provide dispensing apertures.

The top closure extension 15 is folded over the top ends of the corrugations of sheet 18 and secured thereto by adhesive or any other desired means. It is sometimes desirable to cover the dispensing slits 19, this may be accomplished by the top closure extension 15 sufficiently long to extend over the said slits when the closure is completed. This third embodiment may be opened to dispense the contents by bending back the top portion of the package and shaking or pouring out the content.

The material from which my improved dispenser may be made is not limited to corrugated

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paper, the material may be made of cellophane, plastic material, or any other suitable substance.

Having described my invention, what I claim is:

1. A commodity container comprising, a rectangular section of material corrugated to form a series of alternate parallel ridges and recesses, each of the ridges on one side of the corrugated material having a transverse cut intermediate the ends of the corrugations; and a rectangular, relatively flat backing section of material superposed upon and adhesively secured to the material forming said recesses on the side opposite the side having the transverse cuts, the ends of the parallel ridges and recesses of the corrugated material being pressed against and secured to the flat section of material to form a container having a plurality of parallel, elongated pockets, the material of said recesses and said backing section being imperforate.

2. A commodity container comprising a rectangular section of material corrugated to form a series of alternate parallel ridges and recesses, each of the ridges on one side of the corrugated material having a transverse cut intermediate the ends of the corrugations; and a rectangular, relatively flat backing section of material superposed upon and secured to the material forming said recesses on the side opposite the side having the transverse cuts, the ends of the parallel ridges and recesses of the corrugated material being pressed against and secured to the flat section of material to form a container having a plurality of parallel, elongated pockets, the material of said recesses and said backing section being imperforate; and a bottom closure formed by folding and securing an extension of the backing section over the ends of the corrugations at one edge of the corrugated sheet, and a top closure opposite the bottom closure and formed by folding and securing an extension of the backing section over the adjacent ends of the corrugations.

3. A commodity container comprising, a rectangular section of material corrugated to form alternate parallel ridges and recesses; a rectangular, relatively flat backing section of material superposed upon and secured to the material forming said recesses; a relatively flat facing section of material superposed upon and secured to the material forming said ridges, the facing section of material and each ridge being transversely cut intermediate the ends of the corrugations, the ends of the parallel ridges and recesses of the corrugated material being pressed against and secured between the backing section of material and the facing section of material.

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