This invention relates in general to packages of the type comprising an approximately flat, rectangular bag, envelope or like container, formed of superposed sheets of material, and a cover formed of a single strip of flexible material relatively stiffer than the material of which said container is formed, said cover being folded around the container, there being small articles such as medicinal tablets, capsules and the like, sealed between said sheets of material of the container in individual compartments. One object of the invention is to provide a package of this character describing a novel and improved means for holding and protecting the tablets, capsules or the like against damage, such as crushing.

Another object is to provide such a package that shall include a reinforcing guard sheet of suitable material such as cardboard at each of opposite sides of the container, and having an opening in register with each of the articles and of a diameter substantially greater than the article, the aggregate thickness of said sheets being greater than the thickness of said articles, whereby when the cover strip is folded around the container, said guard sheets will protect the articles against crushing and will be held against displacement from the cover by the projection of the article-containing portions of the container into the openings of the guard sheets.

Other objects, advantages and results of the invention will be brought out by the following description in conjunction with the accompanying drawing in which—

Figure 1 is a top view of the cover strip, container and guard sheets in partially assembled relation; Figure 2 is a perspective view of the parts shown in Figure 1 showing the cover strip partially folded and one of the guard sheets swung outwardly away from the container; Figure 3 is a perspective view of a crush-resistant package constructed in accordance with the invention in closed condition; Figure 4 is a greatly enlarged horizontal sectional view approximately on the plane of the line 4—4 of Figure 3; Figure 5 is an enlarged transverse vertical sectional view approximately on the plane of the line 5—5 of Figure 3; Figure 6 is a fragmentary horizontal sectional view approximately on the plane of the line 6—6 of Figure 3; and Figure 7 is a further enlarged vertical sectional view on the plane of the line 7—7 of Figure 3.

Specifying the illustrated embodiment of the invention, the container A is shown as formed of two layers 1 and 2 of suitable flexible material such as cellophane, Pliofilm, metallic foil, paper or the like. This material may be thermoplastic itself or may have a thermoplastic or fusible coating so that the juxtaposed layers can be caused to adhere together by application of heat and pressure or layers could be sealed together with an adhesive. As shown, the layers are heat-sealed and cramped in zones 3 forming and bounding compartments 4 between the layers in which articles such as medicinal tablets 5 are enclosed, the container thus comprising a sheet of integral subpackages, each containing a tablet and being separable from the sheet along scored lines 6; and the sheet has an edge portion 7 extending beyond the package and initially unsealed. The walls of each compartment tightly grip the articles between them and bulge or project beyond the general plane of the container within the sealed zones.

The cover B comprises a strip or sheet of flexible material such as heavy paper that is relatively stiffer than the layers of which the container A is formed and includes a body portion 8 juxtaposed to one side of the container and folded at 9 around one edge portion 7 of the container to form a container-attaching flap 10 that is secured adjacent the fold to the container A for example, by application of heat and pressure where the layers 1 and 2 are thermoplastic or have thermoplastic coatings, the transverse margins of the cover sheet being spaced from the container. Preferably the sealed zone is also cramped as indicated at 11. The body portion of the cover is of approximately the same shape but somewhat larger than the container A in length and breadth and at the end of the body portion opposite the fold 9 there is another fold 12 in the strip around the edge or end of the container opposite the attaching edge 7, and beyond said fold 12 is a closure flap portion 13 that is of a size and shape to cover the side of the container opposite the body portion 8 of the cover; and the transverse end edge zone of said closure flap is adapted to tuck into the space between the transverse marginal end portion of the container-attaching flap 10 and the container, as best shown in Figure 3. Preferably, although not necessarily, the edge of the closure flap has a portion initially sealed to but releasable from the body portion of the cover so as to initially firmly hold the closure flap in closed position but to permit the closure flap to be swung open for access to the subpackages. As shown, a tab 14 projects integrally beyond the end edge of the closure flap and lies in a cut-away portion or opening 15 in the container-attaching flap 10 and in direct contact with the adjacent wall or sheet 1 of the container A with the end edge of the closure flap 14 tucked beneath the marginal end portion of the container-attaching flap as shown in Figure 3. The tab is permanently secured to the container in any suitable way, preferably thermoplastically, and preferably has a weakened or scored zone 16 to permit tearing of the closure flap from the tab for releasing the closure flap. Obviously, the tab 14 will be sealed to the container side at the same time that the sealed zone 11 is formed.

For protecting the articles against damage such as crushing during transportation and handling of the package, a guard member C is provided. This guard member is shown as comprising two sections 17 and 18, each of which comprises a sheet of stiff material such as cardboard, and each sheet has a plurality of openings 19 therethrough so spaced that one may register with each of the compartments 4 when one of the sheets is laid under the container A and the other sheet is laid over the container A. The openings encircle the compartments and are substantially larger in diameter than the articles. The thickness of each guard sheet is greater than the distance that the compartment walls project from the general plane of the container and about equal to the distance between the closure flap or body portion of the cover and the portions of the container surrounding the compartment, and the aggregate thickness of the sheets 17 and 18 is greater than the thickness of the compartments containing the articles as best shown in Figures 3 and 4. Thus when the guard sheets 17 and 18 are dis-
posed at opposite sides of the container A with the openings in register with the respective compartments 4, and with the closure flap in closed position as shown in Figures 4 and 5, the guard sheets will be gripped between the container and the portions 8 and 13 of the cover with the bulging walls of the compartments projecting into the openings 19 whereby said guard sheets will be prevented by the projections of the articles and compartment walls into the openings 19 from sliding laterally away from the container and out of the cover; but when the closure flap is opened, the uppermost guard sheet can be swung away from the container as shown in Figure 2 so that the sub-packages can be easily separated from the container along the scored lines 6. If desired the whole guard including both the sheets may be easily slipped out of the package and thrown away, the guard sheets being intended primarily to protect the tablets during shipments.

Preferably the guard sheets are hingedly connected together, and as shown, a hinge strip 20 is adhesively secured to the two guard sheets 17 and 18 along corresponding edge portions thereof so as to form a hinge 21 by which the two sheets can be swung either into superposed relation to each other with their hinged edges embracing a free edge of the container, or into substantially a common plane. It will be understood that the hinge 21 could be formed along the longitudinal edges of the guard sheets instead of along the transverse edges as shown, in which case the uppermost guard sheet could be swung in the same direction as the cover flap.

It will also be understood that the number of articles in the container and the number of containers in the cover may be varied as desired and that the number of guard members and the number of openings in the guard members will correspond to the number of containers and the number of articles in the containers. The invention also contemplates the packaging of powder, liquid or paste, as well as articles such as tablets, in the container, and the term “commodity container” used in the appended claims is intended to denote a container of this general nature.

While the invention has been shown as embodied in certain structural details, it will be understood by those skilled in the art that modifications and changes may be made in the construction and combination of the cover and the container and the guard member, all within the spirit and scope of the invention. For example, the invention may be utilized in connection with containers wherein only one of the side walls of the commodity compartments bulges. With such as container, of course, only one of the guard sheets needs to have openings for the bulging compartments.

What I claim is:

1. A package comprising an approximately flat commodity container having thin flexible walls seated together in zones forming and bounding a plurality of compartments each of which has a commodity therein and opposite walls of which bulge from the general planes of the corresponding container walls, a relatively stiff but flexible cover having portions each juxtaposed to one of two opposite walls of the container, means fastening said cover portions against separation to close the package but providing for separation of said cover portions to open the package for access to said container, an edge portion of said container being secured to said cover, and a stiff guard sheet held between each of said cover portions and the adjacent wall of the container, said guard sheets having openings in register with and encircling the bulging walls of said compartments and the thickness of said guard sheets being greater than the distance that said compartment walls bulge from the planes of the corresponding container walls and approximately equal to the distance between said cover portions and said planes of the container walls when said cover portions are in package-closing position, said guard sheets being in contact with the corresponding cover portions and said container and gripped therebetween with said bulging walls of said compartments projecting into the corresponding openings in the guard sheets, thereby to hold said guard sheets against slipping out of the package when the package is closed, said guard sheets being otherwise free from and unconnected with said commodity container and said cover.

2. A package as defined in claim 1 wherein said guard sheets are hingedly connected together along corresponding edge portions thereof with said edge portions in embracing relation to one edge of said container thereby to provide a unitary guard member.

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