This invention relates to containers for dry comminuted substances, and more particularly to measuring spouts for use with packages containing dry comminuted or powdered substances.

There are many commodities in frequent and general use in the modern home, which are used in dry powdered or comminuted form, and which are intended to be utilized in preselected portions. Such substances include flour, salt, sugar, soaps and soup powders, detergents, etc. Because of their dry state, they are generally packaged and sold in paper or cardboard boxes. Furthermore, such boxes are frequently provided with pouring spouts so that the contents of the package may be conveniently removed from the package. If measuring containers are readily available, or if the substances are not intended to be used in critical proportions, then such pouring spouts adequately fulfill the purposes for which they are intended. However, in many cases, it is desirable that the contents of the package be utilized in critical proportions, and therefore it is necessary to pour the contents into a measuring vehicle, such as a cup, before the measured portions can be used.

For example, dry soap powders and detergents are intended to be used in certain proportions which, though not extremely critical, are desired to be maintained within reasonable limits. This is particularly true in the case of detergents intended to be used in automatic washing machines, since an excessive use of a detergent will produce excessive suds and thereby hamper the washing operation, as well as cause unnecessary waste. However, soap powders and detergents are commonly sold in the “large economy size,” and these large size packages are difficult to handle. Furthermore, it is often inconvenient to the user to pour the contents of the package into the measuring cup, before transferring the contents of the cup into a washing machine.

Accordingly, it is an object of the present invention to provide a more effective means for dispensing dry powdered or comminuted substances, such as soap powders and detergents, from the packages in which they are sold.

It is also an object of the present invention to provide a measuring spout for a package of dry powdered or comminuted substances, which measuring spout will withdraw a preselected volume of such substances, as well as provide convenient means for dispensing the substances, and for sealing the package when closed.

The advantages of the present invention are preferably obtained with a measuring spout formed in the manner of the present container, which automatically fills itself when retracted into the package, and which prevents further withdrawal of such substances when the spout is opened to dispense such substances.

These and other objects and features of the present invention will be apparent from the following detailed description, wherein reference is made to the accompanying drawings.

In the drawings:
FIGURE 1 shows a package which includes one form of the present invention.
FIGURE 2 shows a package adapted to accommodate one form of the present invention.
FIGURE 3 shows a view of one form of measuring spout.
FIGURE 4 shows a view of another form of the measuring spout depicted in FIGURE 3.

FIGURE 5 shows another view of the measuring spout depicted in FIGURE 4.

Referring now to FIGURE 1, there may be seen a typical package 2 suitable for dry commodities, such as flour, sugar, salt, etc. The package 2 has a pouring spout 13 adapted according to one form of the present invention. As shown, the package 2 is preferably formed to accept the pouring spout 13 in a manner such that one of the narrower sides 8 is cut as shown in FIGURE 2. The side 8 is cut in the manner of a flap 3 to form a hinge-like support for the spout 1.

Referring now to FIGURE 3, there may be seen one form of the pouring spout 1, wherein the facing side 12 is formed of a folded or double strip of metal or plastic, such double strip being suitable to fit over the flap 3 of the package 2. FIGURE 4 shows another form of the spout 1, wherein the facing side 12 is not double, but rather is provided with two incised projections 21 which penetrate through, and then fold back against the flap 3 so as to fasten the spout 1 tightly to the flap 3.

When the spout 1 is moved into the retracted position within the package 2, the facing side 12 of the spout 1, together with the flap 3, serves to seal the package 2 shut against accidental or inadvertent spillage of the contents of the package 2. Accordingly, if the spout 1 is located near or at the bottom of the package 2, as depicted in FIGURE 1, then the spout 1 will automatically fill when moved to the retracted position—provided there is a sufficient amount of the dry substances within the package 2, or provided the spout 1 is located near the bottom of the package 2. If the spout 1 is located near the top of the package 2, or if the level of the contents of the package 2 is even with or below the mouth 10 of the spout 1, then it may be necessary to tilt the package 2 in order that the contents of the package 2 will flow into the spout 1.

When the spout 1 is moved to its extended position, the rear surface 14 of the spout 1 is automatically positioned so as to close the package 2 against inadvertent spillage. Moreover, it may be desirable to form the rear surface 14 in the manner shown in FIGURES 4 and 5, wherein the rear surface 14 includes an extension 16 partially covering the mouth 10 of the spout 1. This extension 16 or cover acts to prevent spillage during the interval when the spout 1 is being moved between its retracted and extended positions, and particularly when the spout 1 is temporarily positioned between these two extremes.

When the spout 1 is retracted, it is necessary to anchor against the contents of the package 2. Although the resistance offered by the contents is usually nowhere near enough to effectively obstruct closure of the spout 1, it is desirable that the spout 1 be relatively narrow so as to minimize this resistance. That is, the width of the facing and rear surfaces 12 and 14 should be reduced as much as possible, and the angle between these surfaces should be made as great as possible, commensurate with the feature that the spout 1 be formed to withdraw a preselected amount of the contents of the package 2. This preselected amount may be any quantity, such as a cup full, one-half cup full, etc.

The upper edge of the facing surface 12 may be provided with a small tip 18, which preferably projects above the upper cut in the package 2 as depicted in FIGURE 2. This tip may be formed to easily extend the spout 1 from its retracted position. The accurately shaped sides of the spout 1 are preferably provided with outwardly extending projections 6, which catch against the side cuts in the package 2 depicted in FIGURE 2, and which thus tend to prevent the spout 1 from falling open accidentally.

Numerous other variations and modifications may ob-
viously be made without departing from the invention. Accordingly, it should be clearly understood that the forms of the invention described above and shown in the figures of the accompanying drawing as illustrative only and are not intended to limit the scope of the invention.

What is claimed is:

1. Container means for holding dry comminuted substances, said container means comprising
   wall means having a pivotally movable flap section, and
   a measuring spout pivotally movable with said flap section, said spout including
   a pair of accurately-shaped and spaced-apart parallel side members,
   a rear member adjacent said side members, and
   a front member connected with said rear member at the apexes of said side members and outwardly and snugly folded over said flap section of said wall means so that said measuring spout moves in conjunction with said flap section of said wall means.

2. The container means described in claim 1, wherein the rear member of said measuring spout includes a section extending partially over said spout and toward said front member to partially obstruct gravity flow of said substances into said spout.

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