

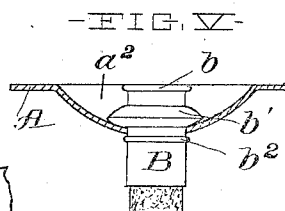
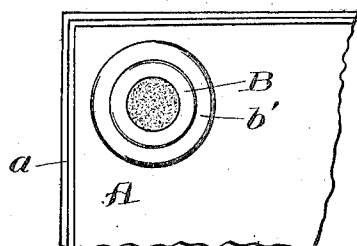
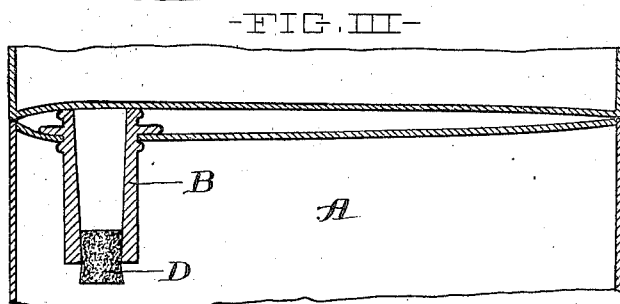
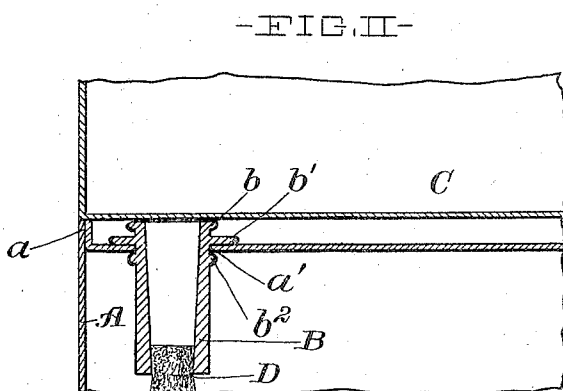
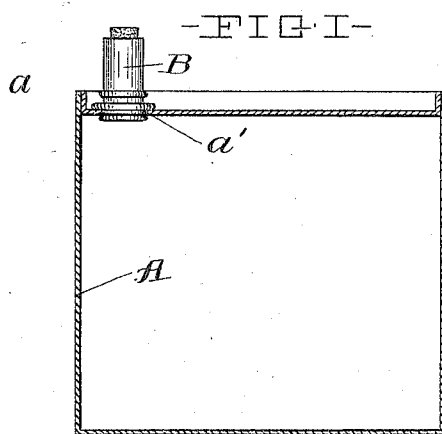
No. 680,684.

Patented Aug. 20, 1901.

R. P. BEATTY.
PACKAGE.

(Application filed Mar. 23, 1901.)

(No Model.)



witnesses,
J. C. Turner,
A. E. Merkel.

Inventor,
R. P. Beatty,
By J. D. Fay
Atty.

UNITED STATES PATENT OFFICE.

ROBERT P. BEATTY, OF CLEVELAND, OHIO.

PACKAGE.

SPECIFICATION forming part of Letters Patent No. 680,684, dated August 20, 1901.

Application filed March 23, 1901. Serial No. 52,500. (No model.)

To all whom it may concern:

Be it known that I, ROBERT P. BEATTY, a citizen of the United States, and a resident of Cleveland, county of Cuyahoga, and State of Ohio, have invented a new and useful Improvement in Packages, of which the following is a specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle, so as to distinguish it from other inventions.

My invention relates to packages for containing comminuted material, such as salt and the like, its object being to provide such package with a pouring spout or nozzle of sufficient length to meet the requirements and at the same time permit such packages to be conveniently, economically, and safely piled or packed contiguously to each other and shipped without involving the interference of such spouts therewith.

Said invention consists of means hereinafter fully described and specifically set forth in the claim.

The annexed drawings and the following description set forth in detail certain means embodying the invention, such disclosed means constituting but one of various mechanical forms in which the principle of the invention may be used.

In said annexed drawings, Figure I represents a section of a package embodying my invention and showing the spout in elevation and in a normal position. Fig. II represents a partial sectional view on an enlarged scale, illustrating the spout in an inverted position, showing also in partial view a second package placed upon the first. Fig. III represents a similar view illustrating a modified form of package embodying my invention. Fig. IV represents a partial plan view of a package; and Fig. V, a partial section of a modified form of package, showing the spout in elevation therein.

A card or straw board box A is formed upon the edge of its upper surface with an upwardly-projecting bead or rim *a*. The sheet forming such upper surface is pierced by a circular aperture *a'*, whose location is preferably near the rim and, when the box is square or rectangular, in one corner of such upper surface, as shown in Fig. IV. A removable

spout B is placed in said aperture and is formed near its inner normal extremity with three flanges, a primary flange *b'* and two secondary flanges *b* and *b*², flange *b'* being located intermediately of the spout's extremities and flanges *b* and *b*² being located, respectively, on each side thereof. The spaces between these flanges are made of a width substantially equal to the thickness of the sheet at the aperture. The diameters of flanges *b* and *b*² are made equal to each other and are of a size such that they may be caused by pressure to pass through the aperture *a*, the elasticity of the material of the sheet surrounding such aperture permitting such operation and also permitting the removal of the spout in the same manner. Flange *b'* is made of a diameter sufficiently large to preclude the possibility of its insertion into said aperture. The thickness of flange *b* when it is located at the extremity of the spout, as shown, or the distance from its inner contact-surface to the end surface of the adjacent spout extremity is made substantially equal to or less than the depth of the rim *a*, so that when said spout is placed in its inverted position a second package C may be placed upon the rim and be free from contact with said spout. The spouts being so inverted, the packages may be conveniently and readily stacked upon shelves when stored or packed in boxes for shipping.

The bore of the spout is preferably made conical, as shown, and a cork stopper D placed in the outer contracted end, so as to prevent the discharge of the material contained in the box during shipping.

After filling the package through the apertures *a'* the stoppered spouts are placed in their inverted position therein, as shown in Fig. II. In such condition the packages are, as before stated, conveniently packed or stored. When it is desired to use the material contained in a package, the stopper is removed and inserted in the aperture in its normal position, as shown in Fig. I.

When inverted the stopper receives the cardboard or strawboard sheet between flanges *b'* and *b*², and when in the normal position it receives same between flanges *b* and *b'*. In this manner a spout of sufficient length is obtained for use in pouring which does not

interfere with convenient and economical storing or packing.

When the material of which the package is made is of sufficient elasticity, the rim a may be entirely dispensed with, as shown in Fig. III, the top of the one package and the bottom of the other upon it giving way sufficiently to permit their edges to contact, and thus pack or stack properly.

In the modified form illustrated in Fig. V a concave depression a^2 is pressed in the top of the package, in the center of which is located the circular aperture a' . Flange b' is given a double-convex form, as illustrated, in order to accommodate itself to the conformation of said depression. The diameter of flange b^2 is here made somewhat less than that of flange b , whereby the insertion and removal are effected with less pressure than that required to insert flange b . Said flange b^2 is inserted after the formation of the aperture a' , at which time the material, not having before been subjected to such insertion, is unfrayed and stiff. In such condition a much smaller flange is effective in properly retaining the spout in place. When it is desired to insert the spout for use, flange b is inserted, requiring greater pressure, and hence insuring less liability to un contemplated removal. This is permissible, since it is not designed to remove the spout and again use the

package after the contents thereof have once been removed, such package being upon such removal abandoned. The objection which would arise out of the use of a comparatively large flange b , the repeated insertion of which would injure the opening and impair the integrity of the device, is hence removed.

Other modes of applying the principle of my invention may be employed instead of the one explained, change being made as regards the mechanism herein disclosed, provided the means stated by the following claim or the equivalent of such stated means be employed.

I therefore particularly point out and distinctly claim as my invention—

The combination with a package provided with an opening surrounded by elastic material, of a spout provided with a flange of greater diameter than that of said opening and incapable of passing through same, and two flanges located respectively upon opposite sides of said first-named flange of diameter greater than that of said opening and such as to render them each capable of passing therethrough.

Signed by me this 20th day of March, 1901.
ROBERT P. BEATTY.

Attest:

A. E. MERKEL,
G. W. SAYWELL.