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CONTAINER TOP.

APPLICATION FILED MAR. 2, 1905. RENEWED DEC. 26, 1905.

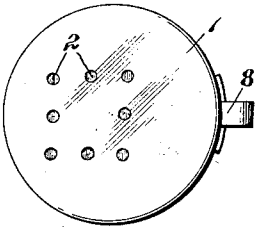


Fig. 1.

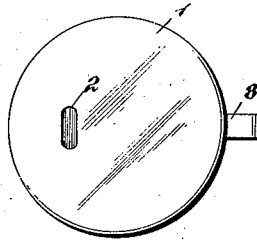


Fig. 4.

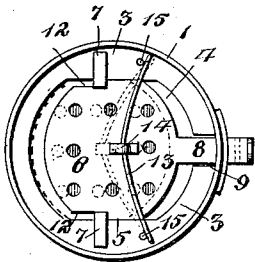


Fig. 2.

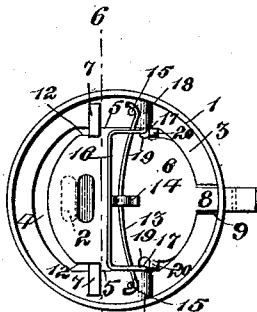


Fig. 5.

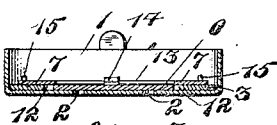


Fig. 3.

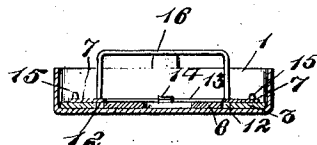


Fig. 6.

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CONTAINER-TOP.

No. 823,381.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, JOHN BAKER WILLIAMSON and ALFRED VIOLETT OLDHAM, citizens of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Container-Tops; and we do 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 improvements in container-tops.

The object of the invention is to provide a top having one or more discharge-apertures formed therein and a valve by which said apertures are normally closed, means being provided whereby the valves are readily operated to open said apertures and means whereby the same are automatically closed when the opening mechanism is released.

Another object is to provide means whereby the contents of the boxes will be automatically pushed through the discharge-aperture when the same is open, thereby obviating the necessity of shaking or jarring the box.

A further object is to provide a container-top of this character which will be simple, strong, and durable in construction, efficient in use, and well adapted to the purpose for which it is designed.

With these and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a top plan view of a container-top constructed in accordance with the invention. Fig. 2 is a bottom plan or inside view of the same, showing in full lines the valve in position to close the discharge-aperture and in dotted lines the valve in position to open the same. Fig. 3 is a vertical sectional view taken on a line with the valve-retaining lugs. Fig. 4 is a top plan view showing another form of the invention. Fig. 5 is a bottom plan or inside view of the same, and Fig. 6 is a vertical cross-sectional view taken on the line 6 6 of Fig. 5.

Referring to the drawings more particularly, 1 denotes the container-top, which may

be of any suitable form or shape and is here shown as being in the form of a cylindrical cap. In the top of the cap is formed one or more discharge-apertures 2. The cap shown in Fig. 1 has a plurality of circular discharge-apertures, while the cap shown in Fig. 4 is provided with only one discharge-aperture, said apertures being here shown as elongated or elliptical.

Within the cap or top 1 is arranged a frame, which is here shown in the form of a plate or disk 3, having formed therein a centrally-disposed opening 4, two walls or sides of which are straight and formed parallel with each other, thus forming guideways 5. Within the opening 4 is slidably mounted an apertured valve plate or disk 6, said disk being provided with straight parallel sides which are adapted to engage the guideways 5, formed in the disk 3. This disk 3 has formed thereon adjacent to the guideways 5 overhanging retaining-lugs 7, whereby the valve-plate 6 is held in close sliding engagement with the inner side of the container-top. On the plate 6 is formed a radially-projecting arm 8, said arm being adapted to pass through a guideway 9, formed in one side of the plate or disk 3, and through an aperture or slot 10, formed in the flange in the top. The outer end of the arm 8 is bent downwardly at right angles to form a finger-piece by which the plate is pushed inwardly across the inner side of the top of the cap between the guideways 5 to bring the apertures in said valve-plate into alinement with the discharge-apertures in the cap. The opposite corners at one end of the valve-plate are cut away, as shown at 12, to facilitate the removal of the valve from the top when desired.

In order that the valve-plate may be retracted to its normal position after being shifted to open the discharge-apertures, a spring-rod 13 is provided, said rod being removably attached to the valve-plate by means of a strap 14, the ends of the spring-rod being adapted to engage downwardly-projecting pins or lugs 15, formed on the inner side of the plate or disk 3. The arrangement is such that when the valve is pushed inwardly to open the discharge-apertures the same will be moved against the tension of the spring 13, so that when pressure has been removed from the arm 8 the valve-plate

will be quickly moved in the opposite direction, thereby closing the discharge-opening in the top:

In Figs. 4, 5, and 6, wherein but one discharge-aperture is shown, the device is provided with means whereby a quantity of the contents of the box will be forced out each time the valve-plate is shifted to open the discharge-aperture. This discharge mechanism preferably consists of a bail-shaped rod or bar 16, the ends of which are bent laterally at right angles to the sides of the bail and form pivots 17, which are engaged with bearing-recesses 18, formed in the plate or disk 3 adjacent to the inner side of the top of the container. In the valve-plate adjacent to the pivotal ends of the bail are formed notches 19, through which the sides of the bail pass, said valve-plate being also provided with upwardly-projecting curved lugs 20, which when the valve-plate is pushed inwardly to open the discharge-apertures will engage the sides of the bail, thus forcing the same downwardly into engagement with the inner side of the valve-plate. The length of the bail is such that the outer cross-bar of the same will be brought to a position adjacent to the discharge slots or apertures in the valve-plate and the top of the container, thereby forcing or aiding in the discharge of the contents of the can through said discharge-apertures at each operation of the valve, thus obviating the necessity of shaking or jarring the container and permitting said contents to be readily discharged upon the brush or other place where desired.

By providing an apertured container-top with an automatically-closing valve such as herein shown and described the contents of the container may be readily discharged therefrom when desired, after which the discharge-aperture will be automatically closed, thereby preventing the entrance of dust and preventing said contents from coming out of the box should the same be upset or knocked down.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In an apertured container-top, the combination with an apertured plate or disk

forming an open frame, parallel guideways formed on the inner edges of said frame, an apertured valve-plate arranged in said frame to engage and slide between said apertures, a radially-projecting arm formed on said valve plate, said arm extending through the side of said container-top and having formed thereon a finger-piece, and a spring secured to said valve-plate and engaging pins on said frame whereby when said valve-plate is shifted to uncover the opening in the top, the same will be automatically retracted to close said opening, substantially as described.

2. In an apertured container-top, the combination with a guide-frame arranged therein, an automatically-closing apertured valve slidably mounted in said frame, means whereby said valve is shifted to open the aperture in said top, and an automatically-operated mechanism to force a portion of the contents of the box through said opening in the top, substantially as described.

3. In an apertured container-top, the combination with a guide-frame arranged therein, an automatically-closing apertured valve slidably mounted in said frame, means whereby said valve is shifted to open the aperture in said top, and a discharge device actuated by the shifting of said valve-plate to force a portion of the contents of the container through the opening in the top, substantially as described.

4. In an apertured container-top, the combination with an apertured plate or disk forming an open frame, parallel guideways formed on the inner edges of said frame, an apertured valve-plate arranged in said frame to engage and slide between said apertures, a radially-projecting arm formed on said valve-plate, said arm extending through the side of said container-top and having formed thereon a finger-piece, a spring adapted to retract said valve-plate and close said discharge-opening, a bail-shaped discharge device, pivotally mounted in said frame and engaging notches in said valve-plate and lugs formed on said valve-plate whereby when the latter is shifted to open the aperture in said top, said discharge device will be actuated to force a portion of the contents of the box through the opening and when said valve-plate is retracted the discharge device will also be retracted thereby, substantially as described.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

JOHN BAKER WILLIAMSON.
ALFRED VIOLETT OLDHAM.

Witnesses:

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