

C. J. W. HAYES.
 AUTOMATICALLY CLOSING COLLAPSIBLE CONTAINER.
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1,065,245.

Patented June 17, 1913.

Fig. 2.

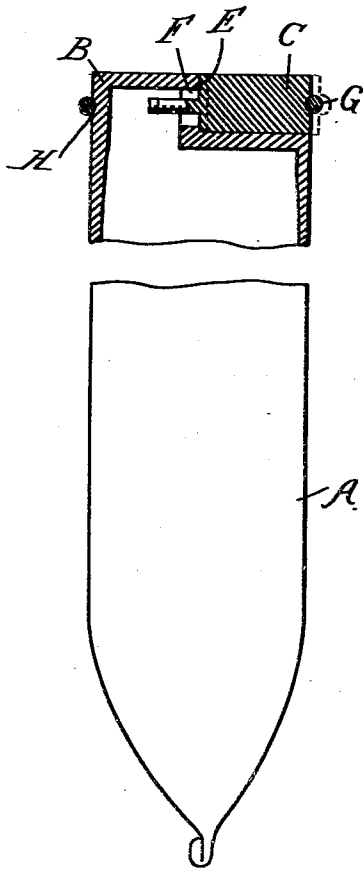
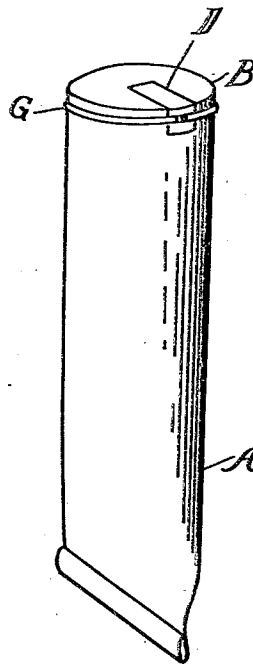


Fig. 1.



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UNITED STATES PATENT OFFICE.

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AUTOMATICALLY-CLOSING COLLAPSIBLE CONTAINER.

1,065,245.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES J. W. HAYES, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Automatically-Closing Collapsible Containers, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to containers or packages for plastic and liquid compositions and is more particularly applicable to that type known as collapsible tubes. It is usual to provide such containers with removable caps that close the orifice through which the contents of the tube is discharged. This necessitates the removal and replacement of the cap each time the material is ejected from the tube which is objectionable on account of the time required and furthermore, the caps when detached are frequently lost exposing the contents of the tube to the air.

The present invention is designed to overcome this difficulty by providing a container with an automatically-closing valve, the construction preferably being as follows:

In the drawings, Figure 1 is a perspective view of a container constructed in accordance with my invention; and Fig. 2 is a longitudinal section thereof.

A is a container of any suitable construction but which as shown is of the collapsible tube type.

B is the head of the container in which the discharge orifice is formed.

C is a valve for automatically closing the discharge orifice but exposed to the pressure within the container by which it is automatically opened.

As preferably constructed, the valve C is arranged in a recess D in the head B and is seated against the face E in which the discharge orifice F is formed. The valve is yieldably pressed against this face or

seated by a spring G which as shown is a split ring of resilient material engaging an annular groove H in the head and a corresponding groove in the end of the valve C. Thus, the tension of the spring will normally hold the valve against the seat E, but whenever sufficient pressure is developed within the container to overbalance the tension of the spring, the valve will be forced from its seat and will permit the discharge of the plastic contents. As soon as the pressure is released the valve will again close and will normally remain in this position.

The construction described is one which can be readily applied to collapsible tubes of the ordinary type but is also applicable to other forms of container in which means is provided for injecting the contents. It will be noticed that the material discharges from the package in a single direction substantially parallel to the plane of the valve face that receives the pressure of the material when the tube is compressed. Furthermore, the member G is arranged to be protected from the contents of the package.

What I claim as my invention is:

1. The combination with a collapsible container for plastic substances having a discharge orifice, of a closure for said orifice exposed to the internal pressure within the tube and movable laterally from its seat, and a resilient band surrounding said container and yieldably holding said closure to its seat.

2. The combination with a collapsible container for plastic materials having a recessed head, and a lateral discharge orifice, of a closure for said orifice engaging said recess, and a resilient band surrounding said container and engaging said closure.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES J. W. HAYES.

Witnesses:

W. J. BELKNAP,
JAMES P. BARRY.