

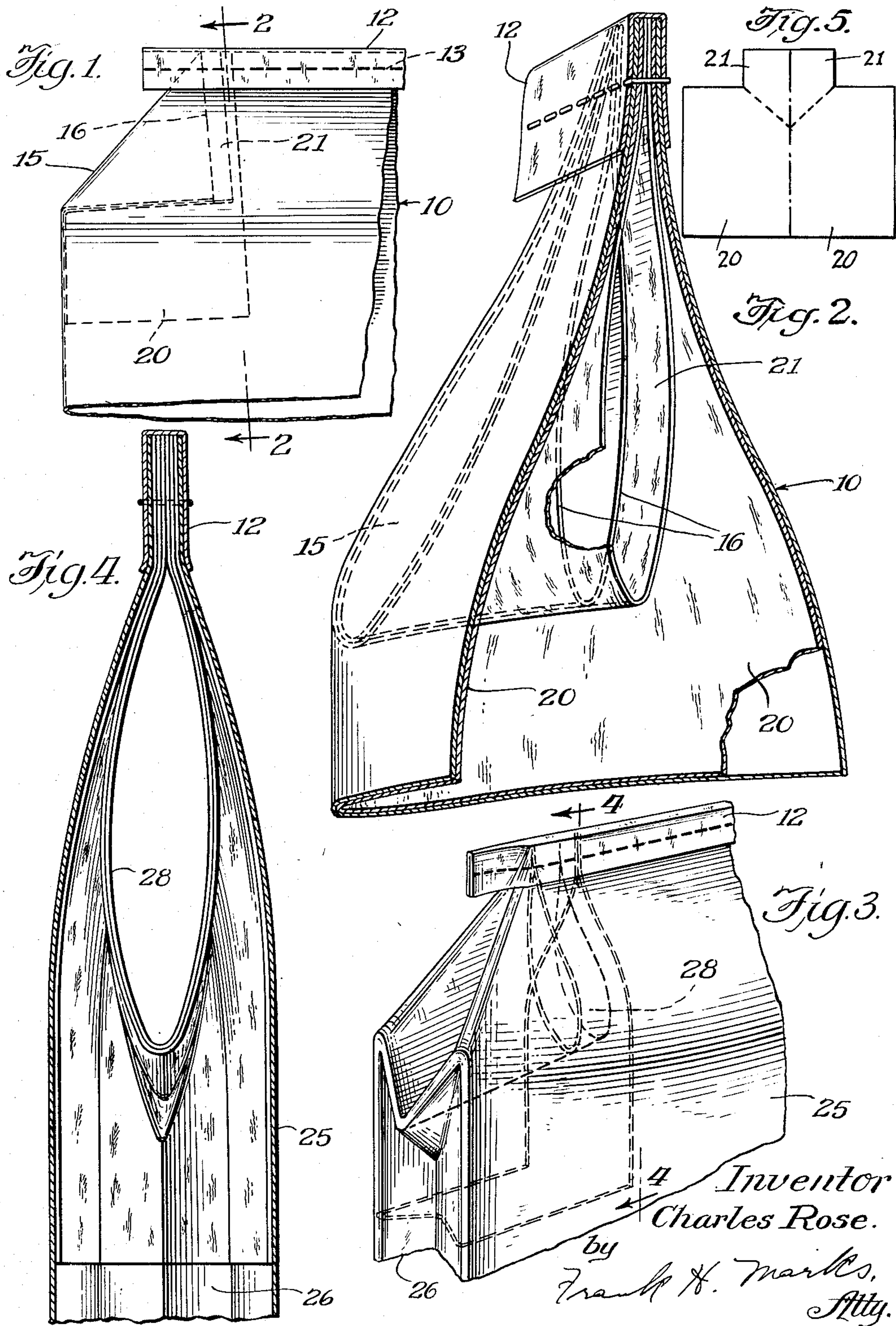
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SELF-CLOSING BAG

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SELF-CLOSING BAG

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2 Claims. (Cl. 229—62.5)

My invention relates to bags and has to do more particularly with a bag having a valve, whereby the bag may be filled, as by means of a nozzle or the like, which valve will be closed by pressure of the bag contents thereagainst when the filled bag is tipped.

The present invention is an improvement over the structure disclosed in my Patent No. 1,356,114, dated October 19, 1920.

Valves formed in accordance with my invention are substantially certain in operation, inexpensive to fabricate, and, in general, thoroughly satisfactory for the purposes desired.

Referring now to the drawing forming a part of this specification and illustrating certain preferred embodiments of my invention:

Fig. 1 is an elevational view of a corner of a bag embodying my invention;

Fig. 2 is a perspective view of the inside of the corner of said bag on an enlarged scale, showing the valve in detail;

Fig. 3 is an outside perspective view of a corner of a bag showing another embodiment of my invention;

Fig. 4 is a sectional view taken on an enlarged scale substantially along the line 4—4 of Fig. 3; and

Fig. 5 is a plan view of a blank for a valve liner forming a part of my invention.

Referring first to Figs. 1 and 2, numeral 10 refers generally to a bag which may be of any desired shape, size and material, but in the embodiment shown it is of rectangular shape and is preferably formed of a heavy grade of manila paper or the like. Bags of this type are commonly used for the shipment of relatively inexpensive granular material, such as fertilizer and other powdered chemicals, cereal feeds, etc., etc. The bag is formed of one or more plies of paper, each ply being formed into a tube by securing the edges thereof to each other as by means of adhesive, adjacent tubes being secured to each other by like means if desired. For simplicity, I have shown a single ply bag, it being understood that any desired number of plies or tubes may be used according to the strength of the material and the strength required in the finished bag. The ends of the bag 10 may be closed by any suitable means, as for example by means of a U-shaped strip or web 12 secured as by stitching 13 to the ends of the bag.

An opening 15 is provided for filling purposes. This opening is formed, as clearly shown in Fig. 2, by inverting or turning inwardly a corner 16 of the bag so as to form a substantially rec-

tangular insert at the corner integral with the bag.

Secured within the corner of the bag adjacent the opening 15, as by stitching 13, is a liner 20 which may be formed of any suitable material. However, in my preferred embodiment I use a heavy grade of creped kraft paper which, by reason of its flexibility and strength, is especially useful for my purpose. The liner is preferably of a generally rectangular shape, except for an extension 21, said liner fitting snugly within the corner of the bag, the extension 21 of the liner being inverted or turned inwardly along the dot-dash lines of Fig. 5 so that the portions 21 and 16 lie contiguous to each other. It will be seen, however, that the intumed portion 21 of the liner 20 projects a substantial distance beyond the edge of the inverted portion 16 of the bag so as to form a horizontally projecting lip or tongue.

In the use of bags embodying my invention as above described, after the bag has been filled by insertion of a nozzle through the opening 15, the bag is inverted and the material, flowing against the inwardly extending valve, forces the same to a position substantially closing the opening 15.

The overhanging lip 21 serves to form a seal between the free edge 16 of the inwardly extending portion of the bag proper and the upper edge of the bag, thus effectively sealing the opening.

In Figs. 3 and 4 I have shown my invention applied to a bag 25 which is substantially similar to the bag of Figs. 1 and 2 excepting that it is folded inwardly at the sides to form gussets 26. This bag is provided with a valve 28 which is substantially similar to that shown in Figs. 1 and 2.

Various other modifications and variations coming within the spirit of my invention may suggest themselves to those skilled in the art, and hence I do not wish to be limited to the specific forms shown or uses mentioned, except to the extent indicated in the appended claims which are to be interpreted as broadly as the state of the art will permit.

I claim:

1. In combination, a bag having an inverted corner to provide a filling opening, and a reinforcing liner disposed in and conforming substantially to the contour of said bag, said liner comprising a sheet folded to conform substantially with the longitudinal edge of the bag and having leaves extending from said edge and contiguous to the sides of the bag and said liner also having an inwardly folded portion contiguous to and extending beyond said inverted corner of

the bag to form a lip acting substantially to seal the opening after the bag has been filled and said inverted corner forced outwardly.

5 2. In combination, a bag having an inverted corner to provide a filling opening, and a reinforcing liner disposed in the corner of the bag, said liner comprising a sheet smaller than the bag and folded to conform substantially to the longitudinal edge of the bag and to form leaves
10 lying contiguous to opposite sides thereof adjacent said corner, said liner having a substantially

straight edge at the top except for a portion extending beyond said edge in the liner blank, said liner being folded inwardly substantially to conform with said inverted corner of the bag and said extension of the liner forming a lip extending beyond said inverted corner of the bag so as substantially to seal the opening after the bag has been filled and the inverted corner has been forced outwardly. 5

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