L. W. FARMER.

PAPER CARTON.

APPLICATION FILED MAR. 4, 1914.

1,272,409.

Patented July 16, 1918.

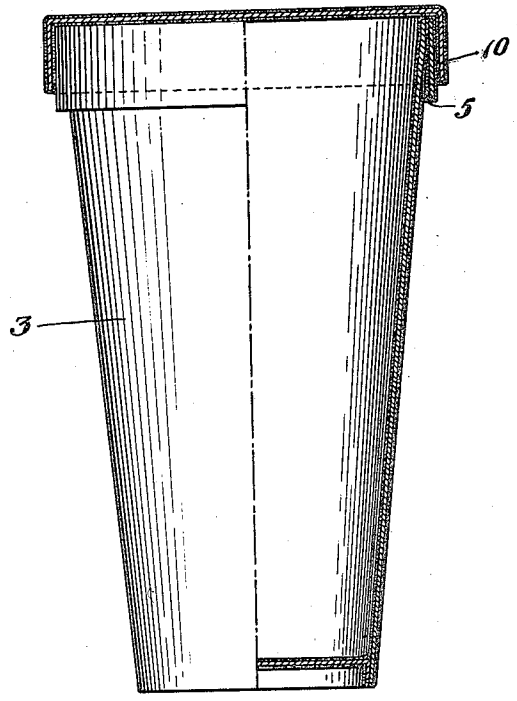


Fig. 1.

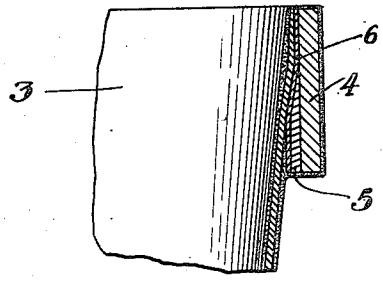


Fig. 2.

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UNITED STATES PATENT OFFICE.

LUKE W. FARMER, OF SOMERVILLE, MASSACHUSETTS.

PAPER CARTON.

1,272,409. Specification of Letters Patent. Patented July 16, 1918.

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To all whom it may concern:

Be it known that I, LUKE W. FARMER, a citizen of the United States, residing at Somerville, in the county of Middlesex and State of Massachusetts, have invented an Improvement in Paper Cartons, of which the following is a specification.

My invention relates to improvements in paper cartons such as are used to contain liquid or semi-liquid foods or other substances.

As is well known, the ordinary paper cartons of cylindrical or polygonal shape, and having a tight closure, cannot be "nested" or packed closely with others of a like shape, consequently much space is sacrificed in the packing of the same for shipment or otherwise. To overcome this difficulty, paper cartons have been made of frusto-conical shape, but much difficulty is encountered in making a tight closure of a practical form.

This invention has for its object the construction of a paper carton of such a shape as to be "nested" or placed one within the other for compact packing, and arranged to receive a simple form of flanged cap, by which to tightly close it.

My invention consists of a frusto-conical body, composed of paper, of a stiff quality, such as tag-stock, or the like, and a cap-receiving collar arranged at its upper end-portion and securely attached thereto, the cap-engaging surface of which is cylindrical, and a closing-cap, usually of paper, adapted to engage tightly the cylindrical cap-engaging surface of the collar.

Figure 1 is a combined section and elevation of a carton embodying my invention.

Fig. 2 is an enlarged detail section of a part of the upper end-portion of the body of the carton with collar attached.

The body-portion 3 of the carton is of frusto-conical shape and constructed of one or more layers of paper, such as tag-stock, pasteboard, or the like, the lower end-portion or bottom of the same being closed by any suitable means, so far as my present invention is concerned. To the upper end-portion of the body 3, is attached a collar or cap-receiving member which, in the preferred form as here shown, is composed of numerous superimposed paper strips of varying width.

The collar as here shown, is composed of three elements, namely, a thick outer strip or band 4 of cylindrical form and of the full width of the collar, a narrow strip 5 arranged within said outer strip or band and at the lower end-portion thereof, and a thin strip or band 6, likewise of circular form, arranged within and extending over both of the aforesaid strips. All of the said strips which form component parts of the collar are adhesively secured together and to the upper end-portion of the body. By so constructing the collar, it will have a thicker lower end-portion thereby when the collar is in engagement with the frusto-conical body-portion, the outer face of the collar will be cylindrical, or formed with parallel or perpendicular sides, to serve as and form a cap-engaging surface. Said collar may be made of thick paper such as tag-stock and the like.

The preferred closing-cap used in conjunction with the carton above described, consists of a paper blank pressed into the form shown, having a resilient flange 10, the diameter of the interior surface of which is slightly less than the diameter of the cylindrical cap engaging surface of the collar, and the resiliency of the flange causes the same to fit over the collar tightly, while the cylindrical shape of the engaging surface of the flange and collar provide for a long contact area. A true cylindrical surface is usually only approximated in the manufacture of the collar described above, because of the material used and the fact that a perfect cylindrical surface is not necessary for practical purposes. Therefore, it is obvious that the cap-engaging surface of a collar such as above described may vary slightly.

The entire carton and closing cap are impregnated and coated with paraffin-wax which renders the same impervious to ordinary liquids.

The collar is here shown as arranged exteriorly on the body-portion but it may be otherwise arranged on the body-portion. While the collar is here shown as a separate member or element attached to the upper end-portion of the body and such construction embodies the preferred form of my invention, it will be obvious that it may be otherwise arranged in connection with, or associated with, the body-portion.

I claim:—

A cap receiving collar for cartons of

frusto-conical body shape comprising a cylindrical section of uniform thickness throughout, an inner section of approximately uniform thickness throughout, and an intermediate section of gradually reduced thickness from the lower to the upper edge thereof, said sections being secured together to present a collar having the relatively inner and outer surfaces inclining toward each other from the lower edge of the collar to the upper edge thereof.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

LUKE W. FARMER.

Witnesses:

AMOS L. TAYLOR,

GEORGE BOHLMAN.