

Nov. 9, 1948.

J. P. JONES

2,453,133

PAPER BOTTLE TAP

Filed June 11, 1945

FIG. 1.

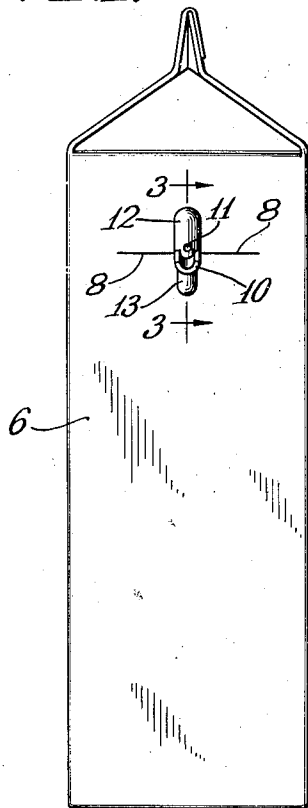


FIG. 3.

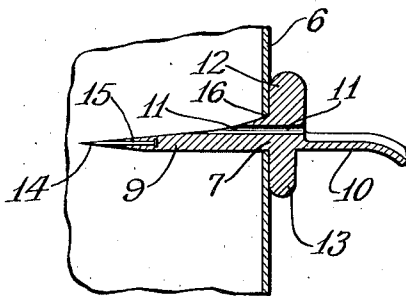


FIG. 4.

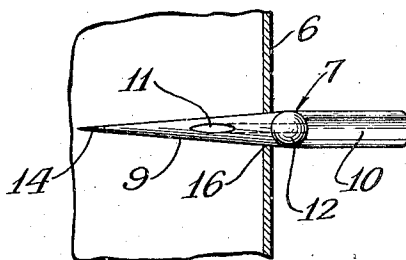


FIG. 5.

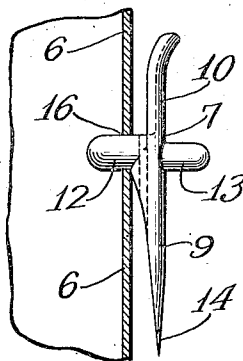
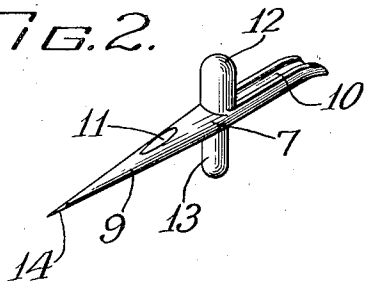


FIG. 2.



Inventor:
John Paul Jones
By Kent W. Womack Attorney

UNITED STATES PATENT OFFICE

2,453,133

PAPER BOTTLE TAP

John Paul Jones, Omaha, Nebr., assignor to Dairy Specialties, Inc., a corporation of Nebraska

Application June 11, 1945, Serial No. 598,881

2 Claims. (Cl. 222-81)

1

This invention relates in general to a tap adapted to be inserted at the lower cream level of a paper bottle or container for drawing off the cream therefrom, although it may have a more general use wherever applicable.

An important object of the invention is to provide a sharp pointed tap which may be readily inserted through the wall of a container such as a paper milk bottle with an opening and discharge spout for directing the liquid outwardly from the wall of the container.

A further object of the invention is to provide a projection on the tap for assisting in inserting the pointed extremity of the tap which may also serve as a plug for the opening made by the tap when the discharged tip is removed.

A still further object of the invention is to provide a tap made of plastic or other suitable material which is both light and strong, easily kept clean and capable of receiving and retaining a sharp pointed pin or nail in the piercing extremity of the tap.

Other objects of the invention will appear in the specification and will be apparent from the accompanying drawings in which

Fig. 1 is a side elevation of a paper container for milk to which a tap of the present invention is applied;

Fig. 2 is a perspective view of a tap in accordance with this invention;

Fig. 3 is a sectional view of the tap as applied in a milk bottle as taken on the line 3-3 of Fig. 1;

Fig. 4 is a top view of the tap as shown in Fig. 3; and

Fig. 5 is a detailed view showing the tap as withdrawn from the container and a projecting plug inserted in the opening made by the pointed extremity of the tap.

In applying a cream draw-off tap to a paper bottle container it is necessary to accurately locate the tap at the lower cream level and it is also necessary to cleanly tap or insert the draw-off through the wall of the container in order first that the draw-off may be located in the proper position and secondly that the wall of the container is neither torn nor too large a hole made in applying the tap so that it cannot be tightly plugged if desired as the tap is removed. The present invention overcomes these objections by providing a draw-off device made of metal, plastic or similar material which is easily kept clean and sanitary, and which has an extremely sharp point incorporated in the inserted extremity so that the wall of a container may be easily pierced.

2

Referring now more particularly to the drawings, a container 6 of the paper milk bottle type is illustrated in Fig. 1 to which a tap or draw-off device 7 is applied in a position at a predetermined distance below the top of the container and easily designated by a line 8 or a point indicating the place where the tap must be applied in order to withdraw the cream from the milk bottle.

This tap comprises a unitary body member having a pointed extremity 9, an opposite pouring spout 10, a discharge passage 11 leading from the upper side of the pointed extremity to the upper end of the pouring spout. In order to easily determine the proper position of the tap there are opposite intermediate projections 12 and 13 preferably at right angles to a pointed extremity and inner end of the spout and the inner sides of the projections, that is the ones at the same side as the pointed extremity being in alignment. These projections are also preferably of a different size, that is, one may be longer than the other or one of them as 12, may be larger in diameter than the other 13, so that they may be easily distinguished from each other and the larger one placed uppermost in its normal application to a container.

A waxed milk container is usually pretty stiff and requires a sharp point to cleanly and quickly penetrate the wall without making a ragged and leaky joint. The point of the extremity 9 is therefore preferably provided with an extremely sharp point 14 such as that of a needle, a sharp pin such as that of a phonograph needle. A sharp headed pin 15 or a pointed brad which may be molded into the tip of the point when the tap is made, particularly when the tap is formed of plastic material. The pointed extremity 9 is also graduated in thickness from its extremity to the opposite end where it joins the upper and lower projections 12 and 13 and the largest diameter is equal to that or less than that of the larger extremity 12 so that when the pointed extremity of the tip is withdrawn from an opening 16 which it makes in the wall of the container, the rounded end of the projection 12 may be inserted tightly in the opening 16 thereby forming a perfect plug or seal for the opening as represented in Figure 5. In this position the projection 13 will extend outwardly and the pointed extremity 9 and the opposite trough 10 will be substantially parallel to the outer face of the wall of the container.

The use and operation of this draw-off tap is extremely simple since the milk container to which it is applied will have a designated point or line near the top of the container so that it is only necessary to apply the sharp point 14 to

3

the marked position and to press it inwardly. As soon as the inner end of the passage penetrates the wall of the container, the cream or liquid above the opening will commence to flow therefrom and if the projection 12 is disposed upwardly the liquid will follow the passage outwardly into the spout 10 and will flow downwardly therefrom at a short distance from the side wall of the container into a glass or other receptacle suitably placed at the outside of the milk container.

Although described as a draw-off for cream from milk bottles this tap may be similarly used for discharging any liquid from a container having an opening therein which the pointed extremity will fit or having a wall which may be penetrated by the pointed end of the tap.

Various changes in the construction, combination and arrangement of the parts may be made without departing from the spirit and scope of the invention.

I claim:

1. A draw-off tap having a gradually pointed extremity with an opposite discharge spout and a passage leading from one side of the extremity to the upper end of the discharge spout, a projection intermediate the ends of the tap for determining the extent of insertion of the pointed extremity and having a diameter equal to the largest diameter of the pointed extremity.

2. A draw-off tap having a unitary body portion of plastic material with a gradually pointed

4

end having a sharp metal-like tip in the extremity of the end and conforming to the graduation thereof, a trough extending oppositely from the pointed end, a passage extending lengthwise from one side of the tip into the upper end of the spout, a projection extending upwardly intermediate the ends and above the passageway having a diameter equal to the largest diameter of the pointed end and another projection of different diameter extending downwardly opposite the first projection, the sides of the projections adjacent the pointed end being parallel to limit the insertion of the pointed end into a container to which it is applied.

JOHN PAUL JONES.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,502,465	Garrett	July 22, 1924
1,538,273	Darrow	May 19, 1925
2,118,366	Spielvogel	May 24, 1938
2,245,698	Miller	June 17, 1941

FOREIGN PATENTS

Number	Country	Date
573,684	Germany	Jan. 30, 1932
394,520	Germany	May 6, 1923
360,554	Germany	June 24, 1921