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DEVICE FOR INSERTING WAXED PAPER ENDS IN WAXED PAPER BOTTLE BODIES

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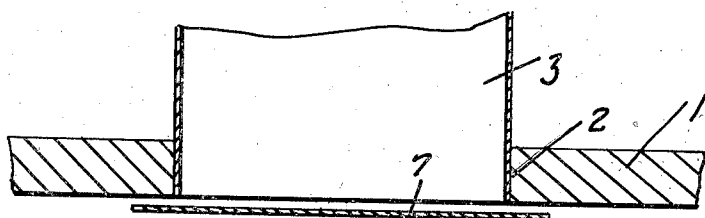


FIG. 1.

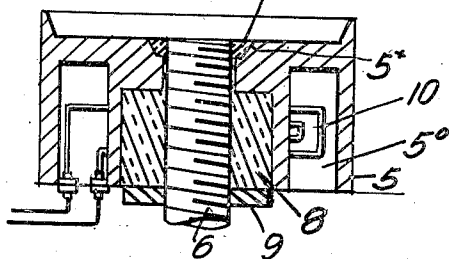


FIG. 2.

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att'y

UNITED STATES PATENT OFFICE

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DEVICE FOR INSERTING WAXED PAPER
ENDS IN WAXED PAPER BOTTLE BODIES

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2 Claims. (Cl. 93—55)

My invention relates to improvements in devices for inserting waxed paper ends in waxed paper bottle bodies, and the object of the invention is to devise means whereby the discs forming the bottle ends may be upset at their edges and inserted so that the upset portions engage the inner surface of the bottle body and are simultaneously heated so that the wax contacting surfaces of the upset portion of the disc and wall of the body is softened so that when the wax cools it seals the surfaces together, and it consists essentially of the arrangement and construction of parts as hereinafter more particularly explained.

Fig. 1 is a sectional view of my device showing the bottle body and disc forming the bottle end in position prior to the insertion of the disc.

Fig. 2 is a similar view to Fig. 1 showing the disc in the inserted position to form the bottle end.

In the drawing like letters of reference indicate corresponding parts in each figure.

1 indicates a female die member provided with a circular orifice 2 around which the circular wall 3 of the bottle body extends concentrically. The wall 3 is formed of waxed paper. 4 is a disc which is also formed of waxed paper and is inserted in the bottle body to form the bottom thereof, as hereinafter set forth.

5 is a male die member provided with a stem 6 which is secured centrally in the die member 5 and insulated therefrom by means of the insulating washer 7 formed of bakelite or other suitable material and an insert 8 also formed of bakelite.

The washer 7 is threaded on to the end of the stem 6 and is counter sunk in a recess 5^a formed in the head of the member 5. 9 is a lock washer which is screwed on to the stem against the insert 8. 10 is an electric heating element which is

held within an annular recess 5^b formed in the die 5 so as to heat the die to a temperature which will sufficiently soften the wax so that it will fuse. The die member 5 is carried axially against the disc 4 forcing it into the bottle body end so that the annular edge portion of the disc is upset as indicated at 4^x to fit against the inner face of the bottle body. The heat of the die member 5 softens the wax on the upset portion of the disc together with the wax on that portion of the bottle body with which it contacts so that it fuses and after the die member 5 is withdrawn cools thereby forming an absolutely sealed joint between the bottle bottom and the body.

What I claim as my invention is:

1. A device for inserting waxed paper bottle ends into waxed paper bottle bodies comprising a holder for the body, means for forcing a disc into the open end of the body to upset the annular edge of the disc to fit the body, and means for simultaneously softening the wax of the upset portion and the portion of the body in which it is inserted to form a sealed joint therebetween when cooled.

2. A device for inserting waxed paper bottle ends into waxed paper bottle bodies comprising a female die member having a circular orifice around which a bottle body extends concentrically, a male die member adapted to engage a disc of waxed paper and force it into the open end of the bottle body so as to upset the annular edge thereof into contact with the wall of the body, and an electric element for heating the male die member so as to soften the wax of the contacting portions of the disc and body so that it fuses and forms a seal between the disc and body when cooled.

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