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FRUIT CORING AND FILLING INSTRUMENT

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FIG. 1.

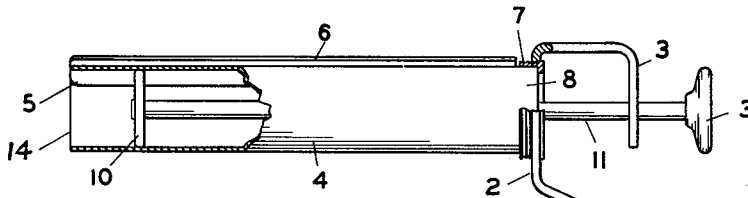


FIG. 2.

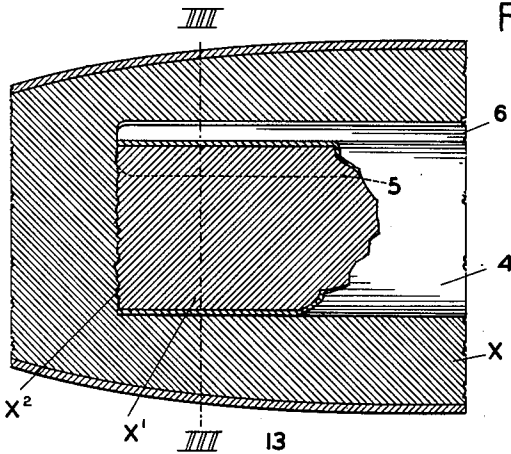


FIG. 5.

FIG. 4.

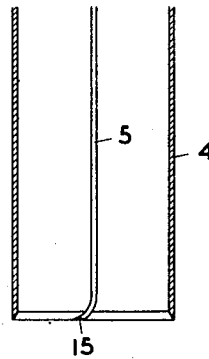
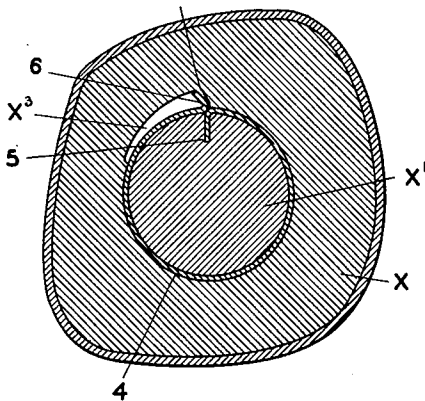


FIG. 3.



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## UNITED STATES PATENT OFFICE

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## FRUIT CORING AND FILLING INSTRUMENT

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4 Claims. (Cl. 107-1)

This invention relates to improvements in fruit coring and filling instruments, and more particularly to the construction and arrangement of the parts thereof.

5 This invention is useful in the production of an edible confection, consisting of a banana or other solid fruit having a filler of ice cream or the like inserted in a cavity formed therein by this device.

10 An object of the invention is to provide means for dividing a plug from the body of the fruit, admitting air into the space surrounding the plug as the plug is twisted loose and withdrawn from the body of the fruit.

15 Another object is to eject the plug from the device and replace it with the desired filler.

A further object is to inject the filler into the opening in the fruit without injury to either.

Other objects and advantages will appear as the description progresses.

20 In this specification and the accompanying drawing the invention is disclosed in its preferred form. However, it is to be understood that it is not limited to this specific form, because it may be embodied in other forms within the purview of the claims following the description.

In the one sheet of drawings:

Fig. 1 is a side elevation of a fruit coring and filling instrument constructed in accordance with this invention.

25 Fig. 2 is an enlarged fragmentary detail, in side elevation partly in vertical section, showing the end of the device embedded in the body of the fruit.

30 Fig. 3 is a cross section of the same taken on the line III-III, in Fig. 2.

Fig. 4 is a fragmentary detail in vertical section of a modified form of cutter.

Fig. 5 is a fragmentary detail of a modified form of plunger.

35 In detail the construction illustrated in the drawing referring first to Fig. 1, comprises the handle 1 shaped to comfortably fit the hand, bent back upon itself to form the base portion 2 and the guide 3. The tubular cutter 4, consists of a thin sheet of metal curled into a cylinder with the longitudinal inwardly projecting blade 5, and the outwardly directed fin 6, running the length of the cutter.

40 The end of the cutter is fixed within the threaded bushing 7, the inner end 8 of which overhangs the end 9 of the cutter body to stop the travel of the piston 10. The bushing 7 is screwed into the base portion 2 of the handle. The end 55 8 of the cutter may be beaded circumferentially

and have its edge clinched over, or it may be otherwise fixed within the base 2.

The ejecting plunger comprises the piston 10, slidable within the cutter and having a notch clearing the blade 5. It is fixed on the end of the piston stem 11, passing through the guide 3 and terminating in the head 12. The juncture of the blade 5 and fin 6 at 13 should be spot welded near the outer end of the cutter to withstand the twisting strains put upon it in severing the plug from the fruit.

The invention operates substantially as follows: The handle 1 is grasped firmly in one hand and the cutter 4 thrust into the fruit X such as a cross severed banana held in the other hand. 15 When the cutter 4 has penetrated the desired depth, it is rotated enough to twist the plug X', see Fig. 3, to cause a transverse fracture as at X', Fig. 2, to break the end of the plug X' loose from the body of the fruit X. It is the function of the blade 5 to prevent the plug X' from turning within the cutter 4 during the twisting operation. It is the purpose of the fin 6 to form the air vent X<sup>3</sup> in the body of the fruit when the tube 4 is twisted as described, see Fig. 3. Otherwise the cutter and the enclosed plug X' are held by friction and suction within the body of the fruit. In the case of a ripe banana the suction is at times sufficient to pull the meat from the skin, or to require a tight grip on the fruit which may crush it and collapse the cavity left by the cutter. Without one or both the blade and fin 5 and 6 the device is not universally practical in all types of desirable fruits.

The advance of the cutter 4 into the fruit backs up the piston 10. When the cutter has been twisted and withdrawn pressure upon the head 12 will eject the plug from the cutter. The empty cutter is then thrust into any stiff or frozen confection, such as ice cream, twisted and withdrawn as previously described. It is then thrust into the cavity in the fruit X, pressure is applied to the head 12 and held as the cutter 4 is again withdrawn. This leaves the confectionery filler within the cavity of the fruit, ready for consumption.

In the smaller sizes the cutter 4 can be made of very thin gauge stainless steel or the like and requires no sharpening of the outer edge at 14. In larger sizes requiring thicker material, this edge should be sharpened. It is obvious that the cutter could be made square or any fanciful shape. The device is also adaptable for coring apples, grape fruit, pears and similar fruits having tough seed cores. For this purpose the blade 55

5 can be extended to the axis of the cutter and have the angular cutting lip 15, the rotation of which will completely sever the core if it is desired not to push the cutter entirely through the fruit as in the case of grapefruit, see Fig. 4.

8 The cup shaped plunger 10x, shown in Fig. 5, is useful in withdrawing the plug X' in the case of a very soft banana, also in handling a soft filler of icecream or the like. The open cup 10 plunger 10x creates a better suction within the cutter 4 in handling such softer materials and prevents them from flowing from the cutter until the plunger is depressed.

15 Having thus described this invention, what is claimed and desired to secure by Letters Patent is:

1. A coring instrument including a handle bent to form a base and a guide; a cutter formed of continuous sheet material bent so that one of its 20 edges forms an inner blade having an angular cutting lip and the opposite edge forms an external fin, one end of said cutter being fixed in

said base; and a plunger in said cutter having a stem engaging said guide.

2. A coring instrument including a hollow cutter; a longitudinal blade rigidly fixed on the interior of the side wall of said cutter and having 5 its outer end angularly bent with respect to the body of the blade so as to form a cutting lip; and a plunger in said cutter.

3. A coring instrument including a hollow cutter having a longitudinal blade and a plunger 10 therein; and a longitudinally disposed thin cutting fin composed of sheet metal material and extending outwardly from the periphery of said cutter.

4. A coring instrument including a hollow cutter formed of continuous sheet material bent so that one of its edges forms an inwardly disposed blade and the opposite end forms an outwardly disposed longitudinal cutting fin; and a plunger 15 in said cutter.

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