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C. C. SCHILLER

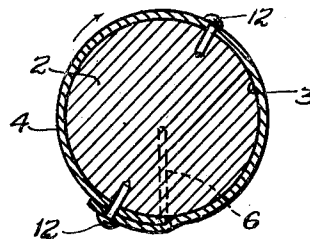
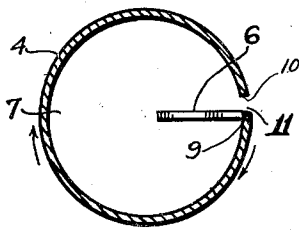
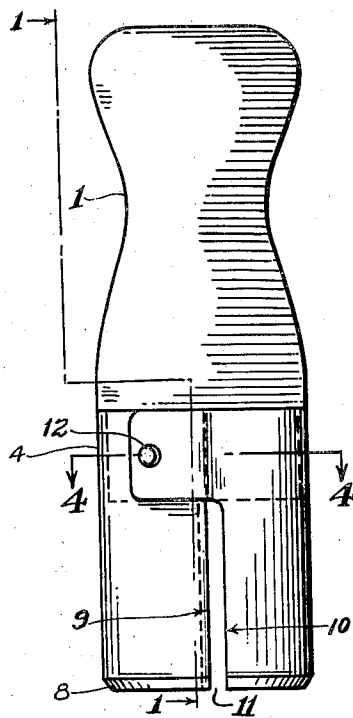
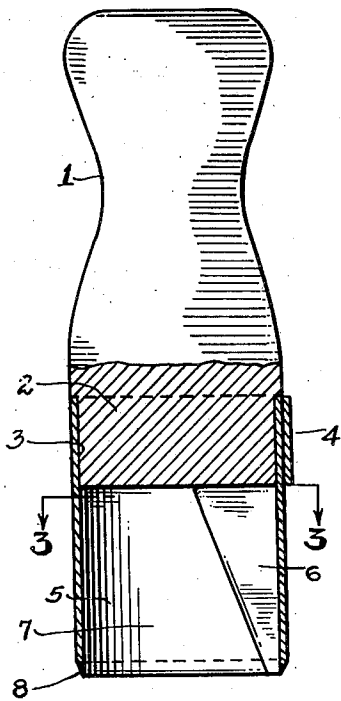
1,977,017

CITRUS FRUIT CORER

Filed Nov. 14, 1932

*Fig. 1.*

*Fig. 2.*



*Fig. 3.*

*Fig. 4.*

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# UNITED STATES PATENT OFFICE

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## CITRUS FRUIT CORER

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Application November 14, 1932, Serial No. 642,638

2 Claims. (Cl. 146—3)

This invention relates to corers for citrus fruits.

The general object of the invention is the provision of a corer adapted to be pushed down through the axial portion of the fruit until its lower end is substantially against the inner surface of the skin at the opposite end, and then rotated so as to detach the core or rag from the skin.

Since the performance of this function requires that the core rotate unitarily with the corer, and the core of the grapefruit unlike the firm homogeneous core portion of an apple, is a mere axis of pith with an attached membrane or rag and too loosely constructed to rotate in its natural consistency, with the corer, a problem exists which the present invention solves successfully, first by compressing the core condensing its mass to a state of substantially homogeneity, providing an inclined tongue or interdigitating member which enters radially into the core as the latter is condensed, further compressing the core by displacement, and causing the core to pack firmly on both sides of the tongue so that it becomes an effective coupling between the core and corer, compelling the core to rotate with the corer.

Other objects of the invention will appear as the following description of a preferred and practical embodiment thereof proceeds.

In the drawing which accompanies and forms a part of the following specification and throughout the several figures of which the same characters of reference have been employed to designate identical parts,

Figure 1 is a longitudinal section, taken along the line 1—1 of Figure 2, and partly in elevation illustrating a corer embodying the features of the present invention;

Figure 2 is a similar view in elevation, taken at right angles to the view shown in Figure 1;

Figure 3 is a section taken along the line 3—3 of Figure 1, looking downward; and

Figure 4 is a section taken along the line 4—4 of Figure 2, looking downward.

Referring now in detail to the several figures, the numeral 1 represents a handle which may be of any desired shape or material, but being shown with a reduced lower portion 2 forming a circumferential rabbet 3 receiving the end of a hollow cylinder 4 preferably of sheet metal. This cylinder extends below the lower end of the handle forming a socket 5 designedly considerably shallower than the depth of the core so that when the corer is pressed into the core, the latter will be compressed in the socket and be made relatively solid and homogeneous in its consistency.

A portion of the cylinder is turned in radially forming a tongue or interdigitating member 6 which is inclined at its inner edge toward the center of the lower end of the handle. The tongue 6 defines with the opposite wall of the socket 5 a sectional area 7 which converges toward the inner end of the socket, so that as the core is compressed into the socket, it will be diverted by the inclined edge of the tongue 6 and still further condensed in the said convergent sectional area, so that the tongue 6 will be imbedded within the core by displacement, the core in the region of said displacement packing itself firmly on opposite sides of the tongue 6 so that the latter becomes an effective coupling between the core and corer, compelling the core to rotate when the corer is rotated. The edge of the core is preferably blunt so as to displace the fibrous portions of the core without cutting them. The lower end of the hollow cylinder 3 may be bevelled as indicated at 8, preferably on the outside as shown.

The edges 9 and 10 of the sheet metal cylinder are spaced apart as shown at 11 in Figure 2, forming a slot in which a knife or other pointed instrument may be inserted for the purpose of removing the core. Another method of expelling the core is to hold the corer with the socketed end uppermost, and by a quick arcuate motion to cause the core to be ejected by centrifugal force.

For purpose of finish, the metal above the tongue 6 may be extended circumferentially into overlapping relation with the opposite side of the hollow cylinder 3 and the parts secured together to the handle by a nail or screw 12. Any equivalent means of attachment may be employed without transcending the scope of the invention.

The illustrated embodiment of the invention shows the tongue 6 terminating substantially flush with the inner end of the handle 1. This is simply a matter of choice, for if desired, the tongue 6 may be made shorter or longer than here shown. If made longer, the upper portion would be housed in a radial slot in the lower end of the handle 1 and thus serve as an additional means for preventing the rotation of the hollow cylinder relatively to the handle.

While I have in the above disclosure described a preferred and practical form of the invention, it is to be understood that the details of construction are merely by way of example and subject to such variations and departures as may be in the future, found necessary or desirable.

What I claim is:

1. Corer for citrus fruits comprising a cylin- 110

drical socket member closed at its inner end and including a handle, the open end of said socket member having a keen edge, said socket member being provided with a longitudinal slot on one side extending substantially the length of the socket member and opening at the periphery of the open end thereof, and a tongue extending inwardly from a wall of said slot, having the inner edge inclined from a point adjacent the periphery of the open end of said socket member toward the center of the closed end.

2. Corer for citrus fruits comprising a cylin-

drical socket member including a handle, the end of said socket member opposite said handle having a cutting edge, and a tongue extending inwardly from said socket member having the inner edge inclined from a point adjacent the periphery of the end of said socket member having the cutting edge toward the axis of said socket member, the latter being provided with a longitudinal slot on one side opening at the periphery of the end having the cutting edge.

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