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A. M. ANDERSON ET AL

APPLE CORER

Filed Aug. 25, 1919

Fig. 1.

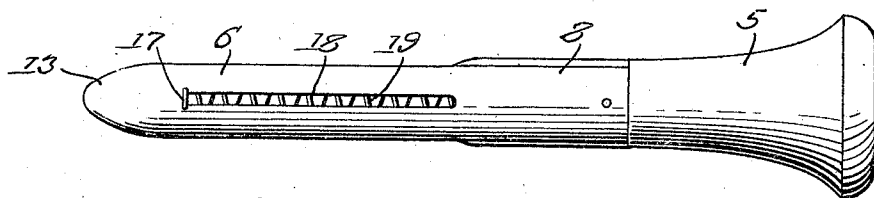


Fig. 2.

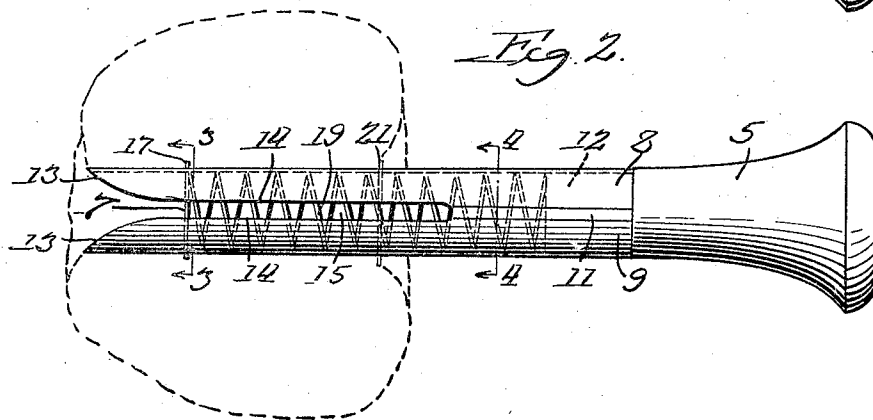


Fig. 3.

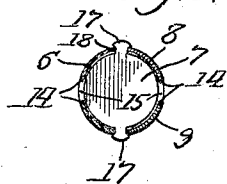
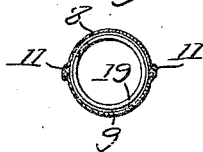


Fig. 4.



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UNITED STATES PATENT OFFICE.

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APPLE CORER.

Application filed August 25, 1919. Serial No. 319,812.

To all whom it may concern:

Be it known that we, ARVID M. ANDERSON and WALTER W. ABITZ, citizens of the United States, residing at Rockford, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Apple Corers, of which the following is a specification.

This invention pertaining in general to vegetable cutters and crushers, has more particular reference to devices used for coring fruits, especially apples.

The primary object of the invention is to provide as a new article of manufacture, a corer of simple and novel construction which shall enable the coring of fruits, in a most practical and effective manner. We have also aimed to so construct the corer that it is capable of production at a comparatively low cost and so that it shall embody such symmetrical design as to promote its salability.

Another important object is the provision of a corer having a novel coring action. Our invention contemplates coring by two movements, that is, an initial movement which substantially cores an apple but leaves a portion of the core unsevered, and a final severing movement which causes the core to be forcibly ejected from the device by reason of the action of a spring-pressed abutment therein. To illustrate concretely the operation of our improvement in its preferred embodiment, the operator presses the coring device into an apple so that the core is embraced and inclosed within such device and completely severed except for a strip longitudinally of the core. During this action, an abutment within the device has been retracted against a spring pressure and upon giving the device a partial rotative movement said core strip will be severed from the apple, whereupon said abutment will forcibly eject the core from the device. This permits the operator to first perform the major coring operation and then by holding the apple over or pointing the device toward the opening of a core receptacle, cause the core to be discharged into the receptacle by simply imparting a partial rotative movement to the device.

Other objects and attendant advantages will be appreciated as the invention becomes better understood by reference to the follow-

ing description when considered in connection with the accompanying drawings, in which—

Figure 1 is a plan view of a corer embodying our improvements;

Fig. 2, a side elevation of the corer, illustrating its use in connection with an apple; and

Figs. 3 and 4, cross-sectional views taken substantially on the lines 3—3 and 4—4 respectively of Fig. 2.

Our improved corer comprises, generally stated, a handle 5 preferably of the mushroom type, a tubular coring body designated generally by character 6 and a yielding abutment 7 movable lengthwise within the tubular body. This body is preferably formed in two semi-circular sections 8 and 9 for convenience in manufacturing, these sections being suitably secured together at the edges 11 by means of a lap joint. The tubular body thus produced is rigidly secured to the reduced shank 12 of the handle.

We have designed to so shape the corer body that a portion or strip of the core will be unsevered by the act of pressing the device through an apple to such an extent as would ordinarily completely sever the core. To this end we have shaped the tubular body to provide tapered cutting edges 13 which converge inwardly and merge into the longitudinally extending edges 14 which define the sides of diametrically opposed openings 15 extending longitudinally of the tubular body to a substantial depth, as clearly shown in the drawing. From this construction, it will be manifest that when the tubular body is pressed through an apple as indicated in Fig. 2, with the edges 13 encircling the core the latter will be completely severed except for the strips occupying the openings 15. These strips may be severed by the edges 14 by imparting a partial rotative movement to the device, as will be obvious. The purpose of this feature of the construction is to allow the core to remain intact, although substantially severed from the apple, so that a core-ejecting device may be brought into effect instantly at the convenience and will of the operator. It will be noted that we have provided a core-ejecting device consisting of the above-mentioned abutment 7 having diametrically opposed guides 17 guided in the ways 18, extending longitudinally of the tubular body. An expansion

spring 19 interposed between the shank 12 of the handle and the abutment 7 constantly urges the latter toward the open or cutting end of the coring body to the full line position indicated in the drawing, limited by the outer ends of the guide slots 18. When the corer is pressed into an apple as indicated in Fig. 2, the abutment will be retracted to substantially a position indicated by the character 21, Fig. 2. At this stage in the operation it will be observed that the core is substantially severed from the apple except for the strips between the edges 14. Upon partially rotating the coring device, these strips will be severed and the core will be instantly discharged or ejected through the open end of the tubular body by the action of the spring 19 against the abutment 17. It will thus be manifest that we have provided a self-cleaning corer of a very simple construction which causes each core to be instantly discharged at the will of the operator. That is, the operator may perform the major coring operation by holding the apple in any position desired and then causes the core to be discharged directly into a receptacle by simply pointing the device into the opening of the receptacle and turning the handle slightly. This feature enables the coring operation to be performed very quickly and conveniently without scattering the cores or requiring extra time of the operator to extract the cores from the device. The construction shown is exceptionally simple and enables the production of a corer as a new article of manufacture at a comparatively low cost.

It is believed that the foregoing conveys a clear understanding of the objects and prin-

ciples of our improvement, and while we have illustrated but a single working embodiment thereof, it should be understood that various changes might be made in the construction and arrangement without departing from the spirit and scope of the invention as expressed in the appended claims; in which—

We claim:

1. A corer of the character described comprising a tube-like coring body equipped at one end with a handle and at its opposite open end with a cutting edge and having a longitudinal slot the sides of which merge into said cutting edge, an ejector slidable lengthwise within said body, and a spring within said body constantly urging the ejector toward said open end, whereby the corer when pressed through the fruit will cut the core from end to end and leave an unsevered portion, and whereby upon rotation of the corer said portion will be severed and automatically ejected from the fruit by the spring-pressed ejector.

2. A corer of the character described comprising a tube-like coring body equipped at one end with a handle and having diametrically opposed longitudinal slots merging at the opposite end of said body into tapered cutting edges, each half portion of the body defined by said slots being shaped to provide a longitudinal ejector-guiding slot, an ejector slidable lengthwise within said body and having diametrically opposed projections guided in the second mentioned slots, and a spring within said body constantly urging the ejector toward the open end thereof.

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