S. J. McVEY.

APPLE CORING AND SLICING MACHINE.

APPLICATION FILED MAY 22, 1914.

1,146,085.

Patented July 13, 1915.

2 SHEETS—SHEET 1.

Fig. 1.

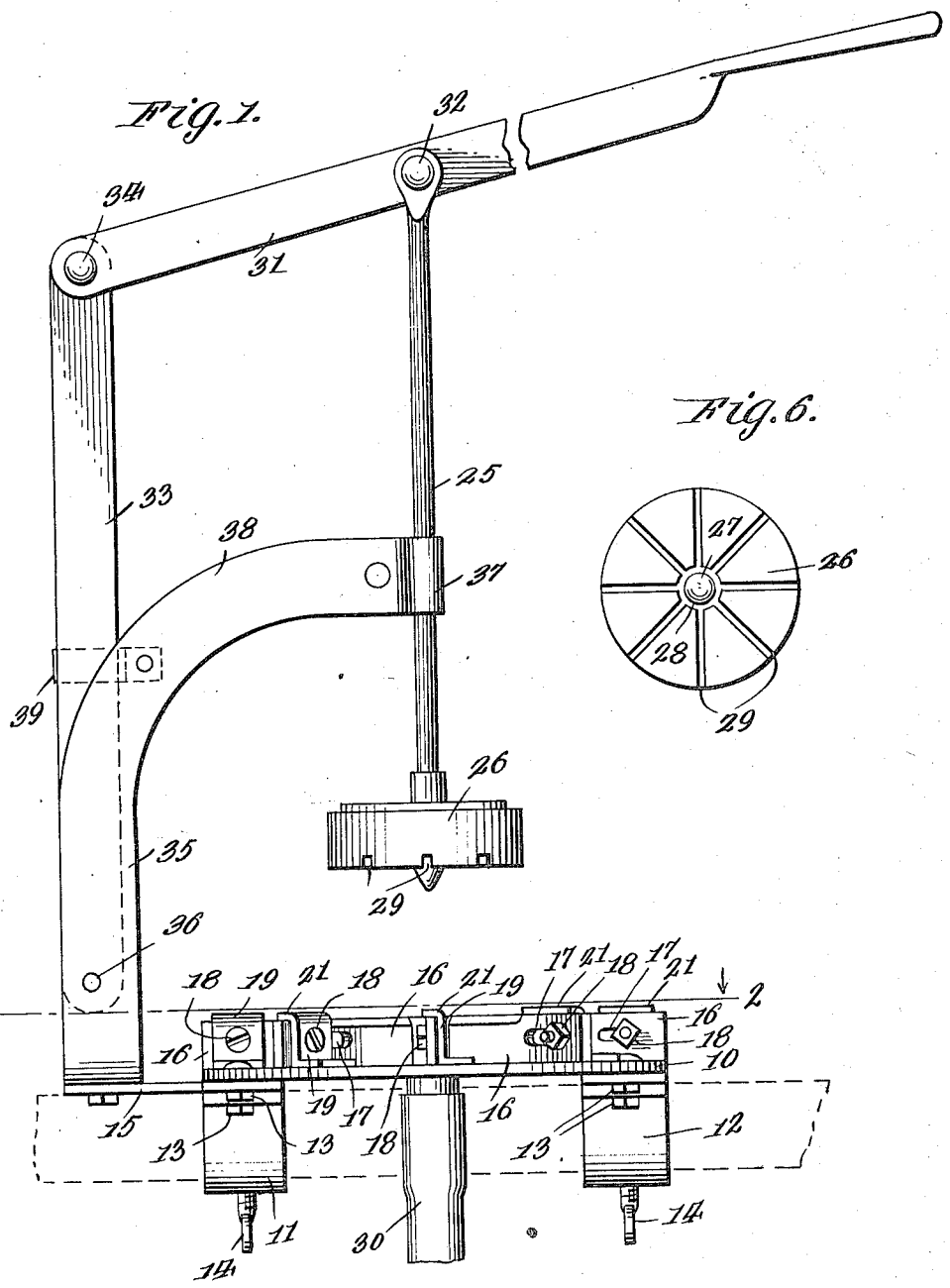


Fig. 6.

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2 SHEETS—SHEET 2.

Fig. 2.

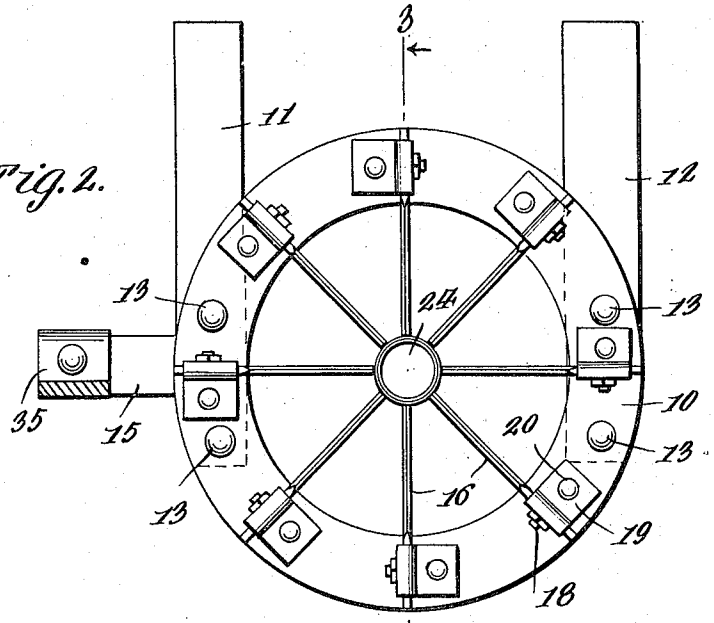


Fig. 3.

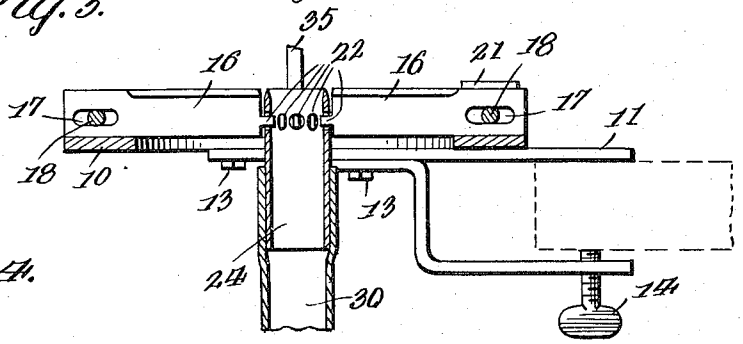


Fig. 4.

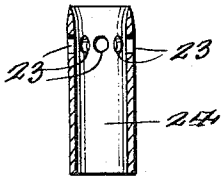
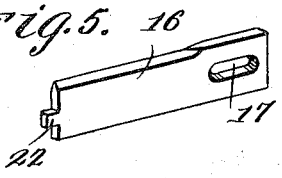


Fig. 5.



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UNITED STATES PATENT OFFICE.

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APPLE CORING AND SLICING MACHINE.

1,146,085. Specification of Letters Patent. Patented July 13, 1915.

Application filed May 22, 1914. Serial No. 840,317.

To all whom it may concern:

Be it known that I, SAMUEL J. McVEY, a citizen of the United States, residing at Belleville, in the county of Wood and State of West Virginia, have invented certain new and useful Improvements in Apple Coring and Slicing Machines, of which the following is a specification.

This invention relates to a machine for simultaneously removing the core of an apple and cutting the apple into a number of parts and the principal object of the invention is to provide a machine which is so constructed that the core may be entirely removed and the apple cut into a number of segments in one operation.

Another object of the invention is to so construct the machine that the cutting knives may be adjusted thus permitting core removing devices of varying sizes to be used.

Another object of the invention is to provide a machine of the character described which will be portable and thus permit it to be connected with a table or other support when in use and removed and put away when no longer needed.

Another object of the invention is to provide an improved type of plunger provided with an improved type of head for engaging the apple and forcing it against the cutting knives.

Another object of the invention is to provide a machine of the character described which will be light and easy to handle but at the same time strong and durable and not liable to easily get out of order or break.

This invention is illustrated in the accompanying drawings, wherein—

Figure 1 is a side elevation of the improved machine; Fig. 2 is a sectional view taken along the line 2—2 of Fig. 1; Fig. 3 is a sectional view taken along the line 3—3 of Fig. 2; Fig. 4 is a sectional view of the core removing sleeve shown in Fig. 3; Fig. 5 is a perspective view of one of the cutting knives; and Fig. 6 is a view looking at the apple engaging face of the head carried by the plunger forming part of this machine.

The base 10 of this machine is in the form of a metallic ring or band as shown in Fig. 2. The clamps 11 and 12 are secured to the base by means of bolts 13 and have their lower jaws provided with set screws 14 so that the machine may be removably connected with a table or other support as shown in Fig. 3. A tongue 15 extends from clamp 11 and serves as a support for a portion of this machine which will be hereinafter described.

The cutting knives 16 have their outer end portions provided with slots 17 through which bolts 18 pass to adjustably connect the knives with the brackets 19 secured to the base 10 by means of bolts or rivets 20. The upper ends of the brackets 19 are bent to form flanges 21 which extend over the outer end portions of the cutting knives to prevent the cutting knives from having any tendency toward pivotal movement upon the bolts 18. It should be noted however, that these flanges 21 will not interfere with the longitudinal sliding of the cutting knives. The inner ends of the cutting knives are provided with teeth 22 which extend into openings 23 formed in the core removing sleeve 24 and thus support the core removing sleeve in the position shown in Figs. 2 and 3. By having the cutting knives 16 slidably mounted the core removing sleeve shown in Fig. 3 may be removed and a larger or smaller one put in place. This will permit the machine to be used with apples of varying sizes.

The apple is placed upon the knives with the flower end engaged by the cutting edges of sleeve 24 and knives 16 and is forced downwardly so that the sleeve will cut through the center of the apple and remove the core and the knives will cut through the apple and divide the same into a number of segments. In order to force the apple downwardly there is provided a plunger 25 the head 26 of which is provided with a tapered finger 27 surrounded by an annular groove 28 from which there extend radiating grooves 29. These grooves 29 are cut to receive the cutting edges of the knives 16 after the knives have passed entirely through the apple. The tapered finger 27 will fit into the flared upper end portion of the core removing sleeve 24 and thus form a wedge which will limit the downward movement of the plunger and prevent the cutting edges of knives 16 from contacting with the inner ends of the grooves 29. The groove 28 permits of the wedging action of finger 27 in sleeve 24 without danger of the cutting edge of the sleeve being dulled. Most of the parts of this machine are made of metal but it is preferred to have the head 26 formed of some soft material such as wood or the

like so that even if the cutting knives did contact with the inner ends of the grooves 28 and 29 the knives would not be dulled to any material extent. In order to prevent the cores from being mixed with the cut apples there is provided a tube 30 removably connected with the sleeve 24 and led to any suitable receptacle for receiving the cores. Only a short piece of the pipe 30 has been shown in the drawings since this pipe may be of any suitable length desired.

In order to operate the plunger 25 there is provided a lever 31 which is pivotally connected with the upper end of the plunger by means of the bolt or rivet 32 and pivotally connected with the upper end of the standard 33 by means of the bolt or rivet 34. This standard 33 is pivotally connected with the guide 35 by means of the bolt or rivet 36 so that when the lever is moved to move plunger 25 through the sleeve 37 at the outer end of the upper arm 38 of guide 35 the standard 33 may oscillate upon the pivot 36 and thus prevent binding between the plunger 25 and sleeve 37. A small strip 39 is carried by the guide 35 and holds the standard in close engagement with the guide so that the standard cannot have side play which might tend to bend the standard.

What is claimed is:—

1. A machine of the character described comprising a base, means adjustably connected with said base for cutting an article into segments, means removably carried by said last mentioned means for removing the center of an article cut by said last mentioned means, and means for forcing an article against said first and second mentioned means to simultaneously cause the center of the article to be removed and the remainder cut into segments.

2. A machine of the character described including supporting means, cutting knives having their outer end portions adjustably connected with said supporting means, and a cutting sleeve releasably supported by said knives.

3. A machine of the character described comprising a base, brackets carried by said base, cutting knives having their outer end portions provided with longitudinally extending slots, securing means passing through said slots to releasably hold said knives in an adjusted position, a cutting sleeve provided with pockets, fingers extending from the inner ends of said cutting knives into said pockets to support said sleeve, and means for forcing an article against the cutting edges of said sleeve and knives.

4. A machine of the character described comprising a base, cutting means carried by said base, said cutting means including a central core removing sleeve and cutting knives radiating from said sleeve, and means for forcing a fruit against said cutting means and including a head having its fruit engaging face provided with a tapered finger surrounded by an annular groove communicating with radiating grooves, the tapered finger extending into said sleeve when said head is moved to an operative position and said sleeve extending into the annular grooves and the cutting knives extending into the radiating grooves of the head.

5. A machine of the character described comprising a base, brackets carried by said base, cutting means adjustably connected with said brackets, the upper ends of said brackets engaging said cutting means to prevent pivotal movement of the same, support engaging brackets carried by said base, a guide carried by one of said last mentioned brackets, a plunger slidably connected with said guide, a standard pivotally connected with said guide, means carried by said guide for preventing side play of said standard, and a lever pivotally connected with said standard and with said plunger.

6. A machine of the character described comprising a base, brackets carried by said base, cutting knives having their outer end portions adjustably connected with said brackets, a cutting sleeve releasably supported by said knives, and means for forcing an article against the cutting edges of said sleeve and knives.

In testimony whereof I affix my signature in presence of two witnesses.

SAMUEL J. McVEY.

Witnesses:
ARTHUR HOUSER,
V. M. EATON.