July 7, 1936. H. T. CRAWFORD 2,047,006

APRICOT CUTTER

Filed July 10, 1935 2 Sheets-Sheet 1

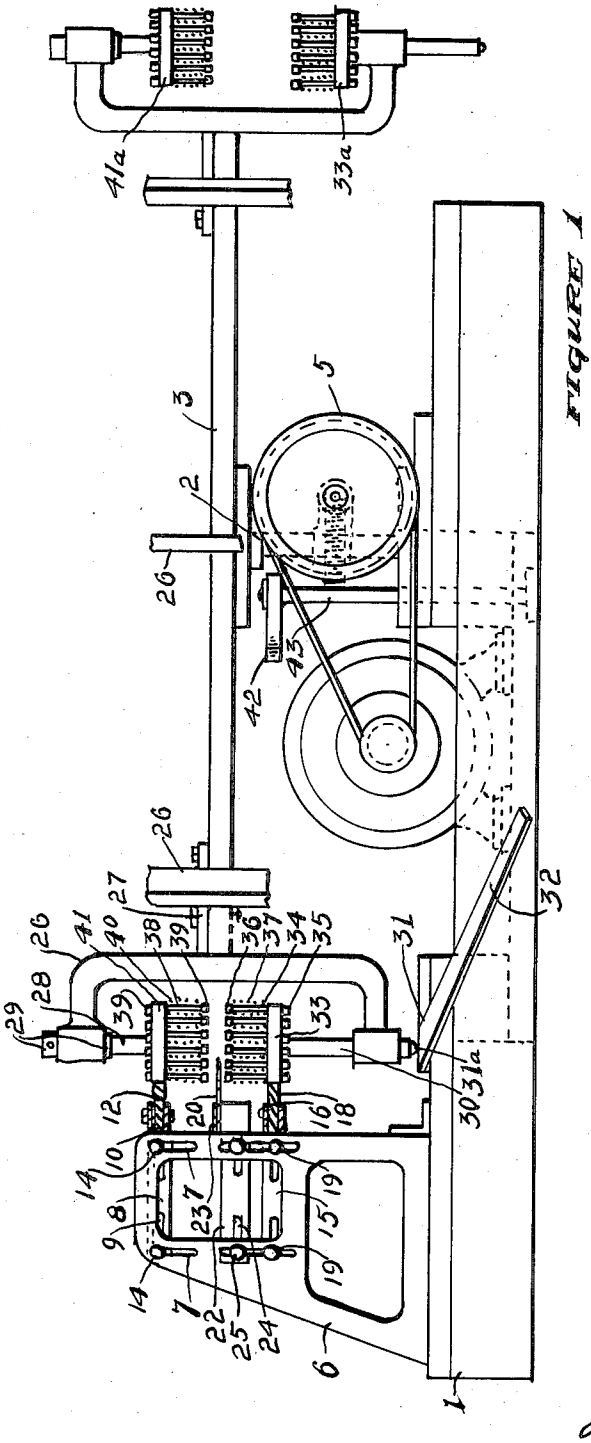


FIGURE 1

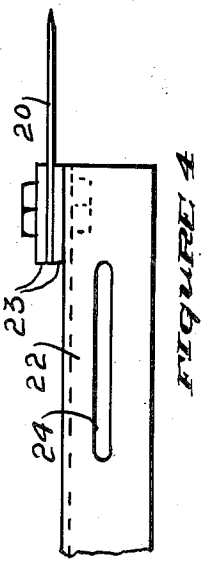


FIGURE 4

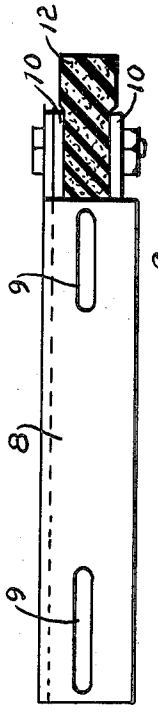


FIGURE 2

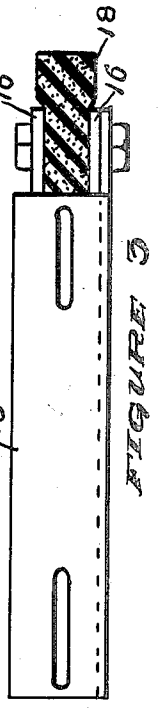


FIGURE 3

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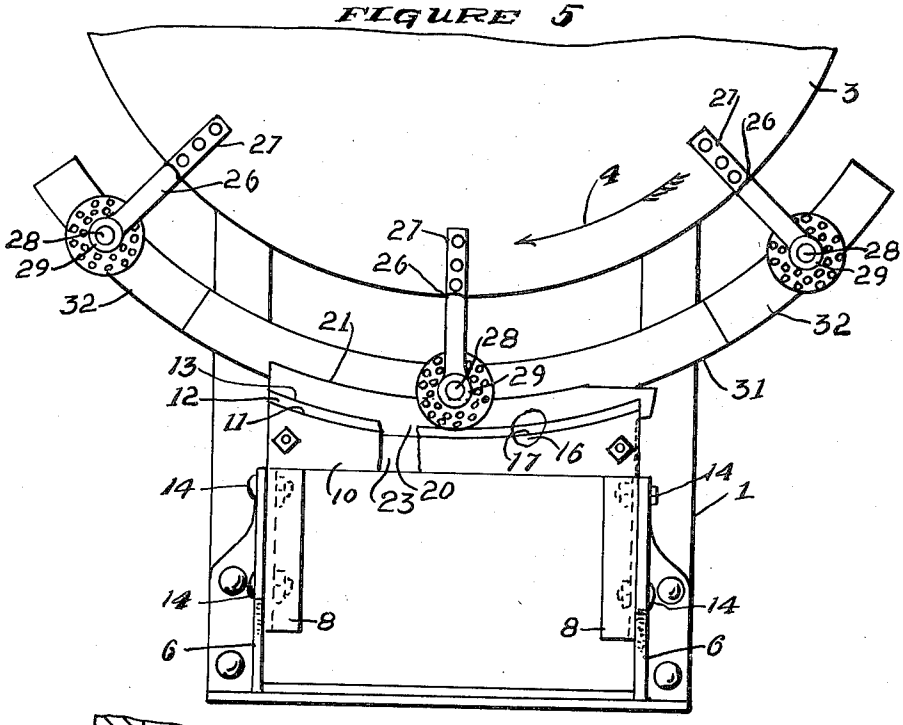
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APRICOT CUTTER

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FIGURE 5



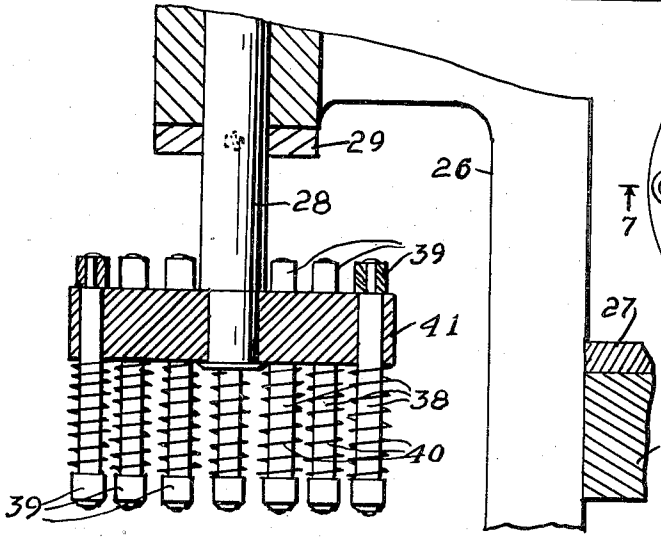


FIGURE 7

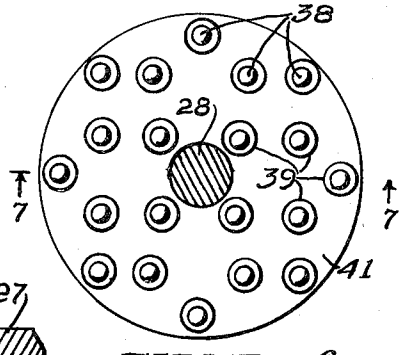


FIGURE 6

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2,047,006

APRICOT CUTTER

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Application July 10, 1935, Serial No. 30,607

6 Claims. (Cl. 146—72)

It is the principal object of the invention to provide a machine that will receive an apricot, automatically position the same and then cut it into two parts, and finally discharge the halved apricot and pit from the machine.

It is another object of the invention to provide a machine of the character indicated that is so constructed and arranged that it will operate successfully upon both hard and soft apricots in rapid succession.

It is still another object to provide a machine of the character indicated that will be economical to manufacture, simple in form and construction, positive in operation, and highly efficient in its practical application.

In the drawing:

Figure 1 is a side elevation of a machine embodying my invention, partly in section and having parts broken away.

Figure 2 is an end elevation of one friction-disc turner, partly in section.

Figure 3 is an end elevation of the other friction-disc turner, partly in section.

Figure 4 is an end elevation of the knife and its holder, a part being broken away.

Figure 5 is a plan view of the structure shown in Figure 1, parts being broken away.

Figure 6 is an enlarged plan view of one of the apricot holders with the supporting spindle shown in section.

Figure 7 is a sectional view on line 7—7 of Figure 6.

In the particular embodiment of the invention herein disclosed I show at 1 a supporting framework upon which is rotatably mounted as at 2 a horizontally disposed table 3. The table 3 is rotated in the direction indicated by arrow 4 in any suitable manner as indicated at 5.

Upon one end of the frame 1 and spaced from the table 3 are mounted vertically disposed brackets 6, and in these brackets are formed spaced, parallel, and vertically disposed slots as 7.

There are two friction-disc turners, the upper one comprising two angle bars as 8 having longitudinal slots as 9 formed therein and rigidly spaced and connected by cross-bars 10, the front edges of the cross-bars being arcuate in form as at 11 and concentrically disposed relative to table 3. Clamped between the bars 10 is a rubber friction member 12 which extends beyond the edges 11 of bars 10 and has a similarly formed and disposed working edge as 13.

The friction-disc turner 8—13 is adjustably mounted in brackets 6 by means of bolts 14 in the slots 7 and 9, this mounting permitting both vertical and horizontal adjustment.

The lower friction-disc turner is similarly formed of bars 15 connected by cross-bars 16 having arcuate edges 17 and clamping rubber friction member 18 in place. This turner is also adjustably mounted as at 19.

At 20 is shown a knife having an arcuate cutting edge 21 and mounted upon side bars 22 through the medium of a cross-bar 23. The side bars 22 are slotted as at 24 and are adjustably mounted upon the brackets 6 by means of bolts 25. The knife may therefore be adjusted vertically or forwardly toward or away from the table 3.

Any desired number of apricot holders may be mounted upon the table 3, but they will, of course, be identical in every detail.

Each holder comprises a yoke as 26 mounted upon the table 3 in any suitable manner as at 27 and extending above and below the same.

A freely rotatable spindle 28 is mounted in the upper arm of the yoke to rotate about a vertical axis and is held against vertical movement by collars as 29. A similar spindle 30 is mounted in the lower arm of the yoke to rotate in axial alignment with spindle 28, but the spindle 30 is also mounted to slide freely along its axis and has a ball thrust bearing 31*a* mounted in its lower end.

At 31 is shown a track member concentrically disposed relative to the axis of rotation of the table 3. The central portion of this track passes over the frame 1 in a horizontal plane but its two ends are inclined downwardly toward the bottom of the frame as shown at 32. The center line of the track lies directly under the path of travel of spindle 30 so that when the said spindle approaches and contacts the track it will ride up on the same and thereby elevate the spindle and the carrier head thereon which will now be described.

Upon the upper end of spindle 30 is fixedly mounted a friction-disc 33. The disc 33 lies in a horizontal plane and has a peripheral friction surface adapted to contact the friction member 18 and be turned thereby.

Slidably mounted in the disc 33 are a number of vertically disposed rods 34, each rod having a head 35 on its lower end to limit its upward movement through the disc 33, and a head on its upper end as 36. A light spring as 37 is mounted on the rod to bear against the disc 33 and head 36 to normally hold the said rod in the fully extended upward position as shown.

The upper spindle 28 is similarly provided with slidable rods 37 having heads 38 and 39 and fitted with springs 40 to normally hold the said rods in a fully extended and lowered position, the disc 41 in which the rods are mounted being adapted to frictionally engage member 12 to be turned thereby.

When the machine is in operation the upper head member will travel in a circle and at a uniformly constant elevation as indicated at 41*a*, but during the longer portion of its journey the lower head member will drop to the position indicated at 33*a*, being raised to its most elevated position only during its passage over the track 31.

The friction members 12 and 18 are so adjusted that when the lower head is raised to its most elevated position the discs 33 and 41 will contact the same and identical rotary movements will be simultaneously imparted thereto.

Assuming the machine to be assembled and in full operation as above described, an apricot is placed on each head 33—37 as it passes the operator. When the spindle 30 is pushed upwardly by track 31 the apricot is brought into contact with the rods 37 of the upper head with the result that all of the rods of the upper and lower heads that contact the apricot adapt themselves to its conformation and support it firmly, yet lightly, in position. When the discs 33 and 41 contact their respective friction members 18 and 12 the apricot is rotated and at the same time advanced to contact the knife 20. These parts are so proportioned that the apricot makes one complete revolution as it passes over the knife and is cut cleanly into two parts thereby.

When the lower head has passed off of the track 31 a finger 42 mounted on frame 1 as at 43 contacts the apricot and pushes it off of said head.

It is to be understood, of course, that while I have herein shown and described but one specific embodiment of the invention, changes in form, construction, and method of assembly and operation may be made within the scope of the appended claims.

I claim:

1. An apricot cutter comprising, an annular horizontally rotatable carrier, vertically disposed fruit holders mounted upon the periphery thereof for movement in a given path of travel, each holder comprising an upper head member, rotatably mounted therein and provided with independently movable and resiliently mounted depending fingers and a lower head member having upstanding independently movable fingers resiliently mounted thereon in opposed relation to said first fingers, said lower member having vertical sliding engagement with said holder, a cam track disposed below the path of travel of the holder to slide the lower member, instrumentalities for rotating said members when they pass over the cam track, and a fruit cutting knife disposed in a horizontal plane and between said members when they pass over the track.

2. In an apricot cutter, a fruit holding device comprising, a yoke and means for supporting the same in a vertical position, a vertically mounted spindle rotatably mounted in the upper arm of the yoke and means for preventing axial movement of the spindle, a horizontally disposed disc mounted on the spindle, fingers slidably mounted in the disc and depending therefrom, resilient means disposed to urge the fingers into said depending position, a second spindle rotatably and slidably mounted in the lower yoke arm in axial alignment with the first spindle and gravity actuated to seat on said arm, a horizontally disposed disc mounted on the end of said spindle adjacent the first disc and in opposed relation to the the first disc, fingers slidably mounted in said last disc in opposed relation to said first rods, and resilient means for supporting said last mentioned rods in an upstanding position.

3. In an apricot cutter, a fruit grasping device comprising a pair of vertically aligned, spaced, and relatively adjustable head members having independently adjustable fingers resiliently mounted thereon to project toward each other from their adjacent ends.

4. In an apricot cutter, a fruit grasping device comprising, a pair of vertically disposed, spaced and axially aligned head members having independently adjustable fingers mounted on their adjacent ends, resilient means between said fingers and their respective heads to urge the fingers into extended positions toward each other, and means operative to change the spacing between the opposing finger ends at predetermined periods.

5. In an apricot cutter, a fruit grasping device comprising, a pair of vertically disposed, spaced and axially aligned head members having fingers mounted on their adjacent ends, resilient means between said fingers and their respective heads to urge the fingers into extended positions toward each other, and means supporting the upper member against axial movement, the lower member being slidably mounted and gravity actuated to a retracted position relative to the upper member, and means operative to slide the lower member upwardly at predetermined periods.

6. In an apricot cutter, a fruit grasping device comprising, a pair of vertically disposed, spaced and axially aligned head members having fingers mounted on their adjacent ends, resilient means between said fingers and their respective heads to urge the fingers into extended positions toward each other, and means supporting the upper member against axial movement, the lower member being slidably mounted and gravity actuated to a retracted position relative to the upper member, means operative to slide the lower member upwardly at predetermined intervals, and means disposed to frictionally engage and rotate said members when the lower member is in its uppermost position.

HARRY T. CRAWFORD.