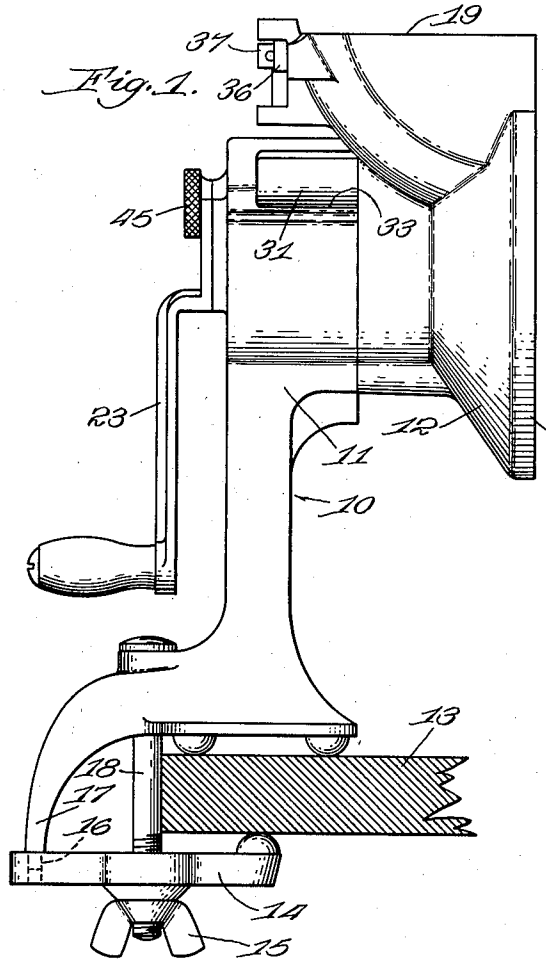
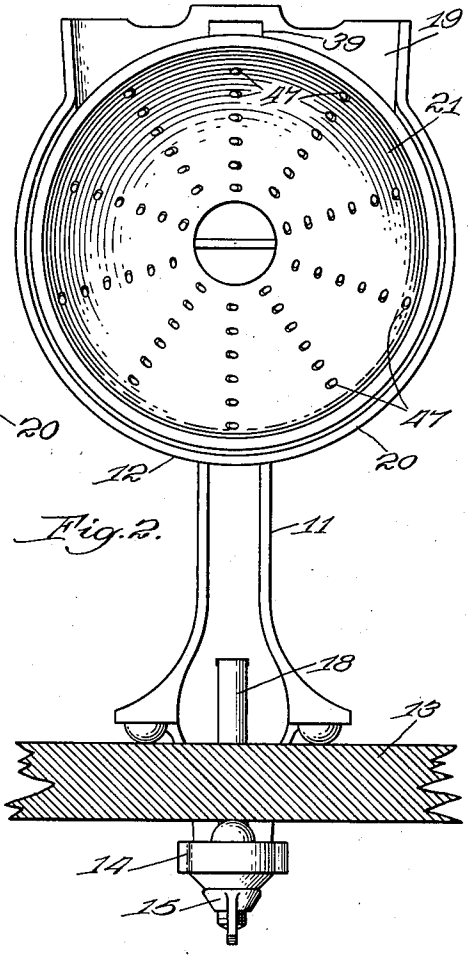
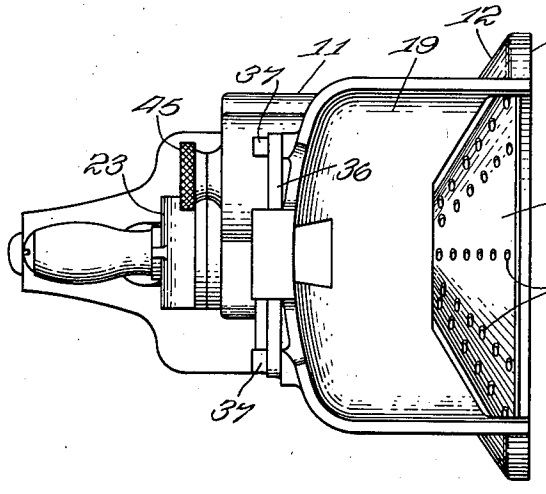
June 15, 1937. P. W. STEPHENS 2,084,067

VEGETABLE TOOL

Filed Feb. 27, 1936 2 Sheets-Sheet 1







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VEGETABLE TOOL

Filed Feb. 27, 1936 2 Sheets-Sheet 2

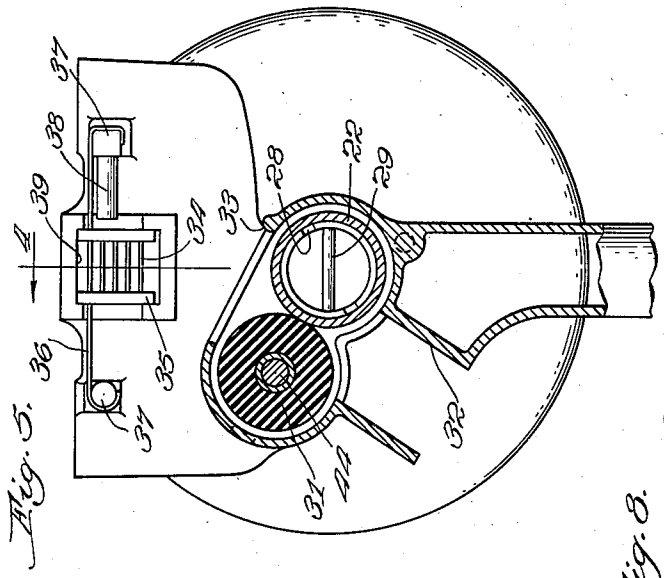


Fig. 5.

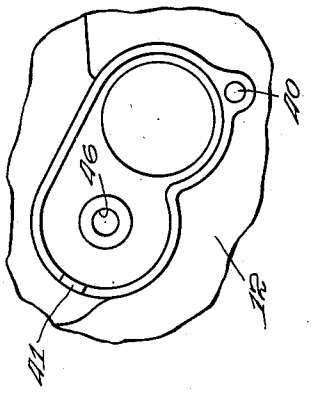


Fig. 8.

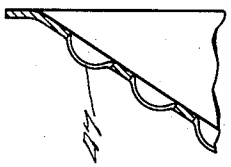


Fig. 6.

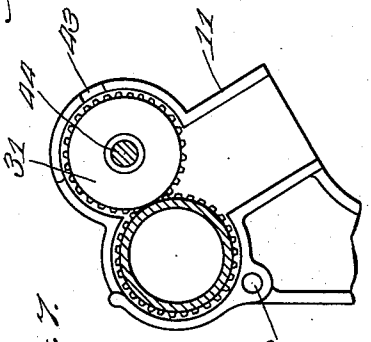


Fig. 7.

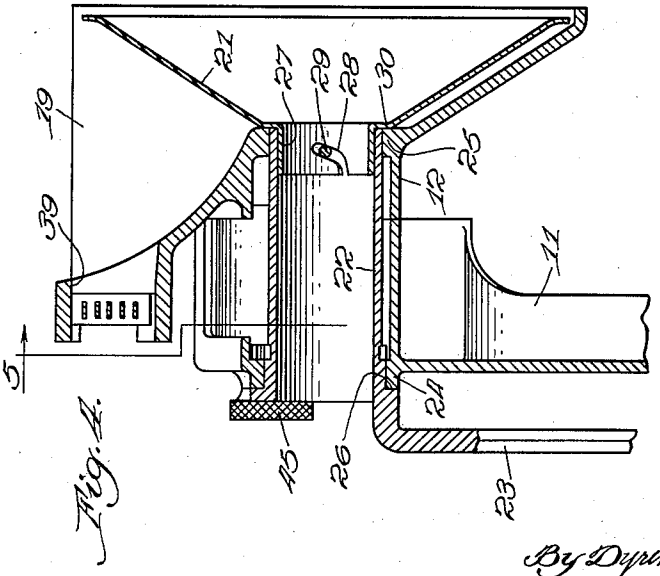


Fig. 4.

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VEGETABLE TOOL

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Application February 27, 1936, Serial No. 66,131

9 Claims. (Cl. 146—1)

This invention relates to a vegetable tool, and more particularly to a tool adapted to perform several different operations upon vegetables.

One feature of this invention is that it combines in one unitary structure means for performing several different operations upon vegetables; another feature of this device is that the housing thereof is readily separable into two parts for cleaning; still another feature of this invention is that one shaft and its associated crank operates the shredder and the pea-sheller; other features and advantages of this apparatus will be apparent from the following specification and the drawings, in which—

Fig. 1 is a vertical elevation of this device; Fig. 2 is a front elevation of the same device; Fig. 3 is a top view; Fig. 4 is a vertical sectional view of a part of the device; Fig. 5 is a view along the line 5 of Fig. 4, partly in section; Fig. 6 is a fragmentary sectional view of the shredder; Fig. 7 is a fragmentary view, partly in section, of the back portion of the housing and rollers; and Fig. 8 is an elevation of the corresponding part of the front portion of the housing.

While vegetable shredders, graters or grinders are known in the art, and pea-shellers and bean-knives are also known, all of such tools and devices have had objectionable features. The structure disclosed herein combines a pea-sheller, a vegetable grater or shredder, and a bean-stringer and slicer in a single housing, readily attachable to a table or the like. The housing comprises a front and back portion so constructed and arranged that manual removal of a single knob or retaining member permits separation of the two portions of the housing, thus facilitating cleaning. The shredder is in the form of a conical member removably attached to a shaft adapted to be rotated by a crank, which shaft is also a portion of the pea-sheller mechanism.

In the particular embodiment of this invention disclosed herewith, the vegetable tool is indicated in general by the reference number 10. The body or housing structure is formed of two separable portions 11 and 12. The back portion 11 of this housing is adapted to be clamped to a table 13, or other similar surface, as by clamping member 14 and wing nut 15. The clamping member is here shown as having a recess 16 adapted to receive a projecting portion 17 of the housing portion 11, the member being drawn up into engagement with said portion 17 and with the table 13 by drawing up the wing nut 15 on the bolt 18.

The forward portion 12 of the housing is provided with a hopper or receiving portion 19 into which vegetables or the like are placed, and a substantially conical portion 20 adapted to have revolvably mounted therein a shredder, grater or grinder 21. The shredder is also substantially conical in shape, preferably being stamped metal.

The shredder 21 is removably attached to a hollow shaft 22 of substantial diameter, which shaft projects through the back portion of the housing and is adapted to be rotated by a crank 23, here shown as cast integrally with the hollow shaft 22. This shaft is journaled in the housing upon bearings 24 and 25. A shoulder or stop 26 is cast into one end of the shaft and adapted to cooperate with the bearing 24 to prevent forward longitudinal movement of the shaft. The substantially conical shredder 21 has an inwardly projecting hub-portion 27, adapted to be received within the shaft 22. This hub-portion has a slot or opening 28 therein adapted to receive and engage a pin 29 mounted within the hollow shaft 22, whereby the shredder is held in place during operation thereof. It will be noted that the substantially vertical portion 30 of the shredder immediately adjacent the hub-portion serves as a stop for the other end of the shaft.

The hollow shaft 22 has rotatably mounted immediately adjacent thereto and cooperating therewith a roller 31, here shown as of rubber or other resilient material. As illustrated more particularly in Fig. 7, gearing is provided at one end of said shaft and said roller in order that the roller may be driven by the shaft when the crank is turned. An inlet opening 32 is provided in the housing into which peas may be fed so that the shells thereof will pass up between the roller 31 and the cooperating roller formed by the shaft 22 and pass out through the outlet opening 33, the peas dropping back out of the inlet opening 32.

A bean stringer and slicer is formed of a plurality of blades 34, held together by a blade-retaining member 35. The uppermost blade 36 is shown having a portion projecting beyond the remaining blades on each side thereof, the ends being turned down and adapted to frictionally engage pins 37 on the housing. The housing has thereon a suitable member 38 immediately adjacent but slightly spaced from one of the projecting portions of said blade 36. By the cooperation of this projecting portion of the blade and the stop member a bean drawn across the blade has the string removed therefrom with substantially only as much bean removed or sliced

off as is necessary to remove the string portion. This amount is regulated, of course, by the spacing between the blade 36 and the stop member 38. The remaining blades 34 cooperate with the central portion of the blade 36, lying in an opening 39 in the housing, to form a bean-slicer through which the beans may be pushed to slice them either longitudinally or transversely.

As heretofore mentioned, the structure or housing is composed of a back portion 11 and a front portion 12. Referring more particularly to Figs. 7 and 8, the front portion is here shown as having a pin 40 and a lug 41 thereon adapted to be inserted into the openings 42 and 43 respectively in the back-portion 11 of the housing. The shaft 44 carrying the roller 31 is provided at the back end thereof with a knurled knob 45 whereby it may be manually rotated, and the other end thereof is adapted to be threaded into the opening 46 in the front housing portion 12.

Referring more particularly to Fig. 4, it will be seen, as a result of this construction, that the vegetable tool can be disassembled very easily for cleaning, and re-assembled with similar ease. The conical shredder may be removed from the end of the shaft 22 by a partial rotation sufficient to disengage the pin 29 from the slot 28. The knurled knob or manually operable retaining means 45 may then be removed, whereupon the front and back portions of the housing separate and the shaft 22 and roller 31 are readily removable. To re-assemble, the shaft 22 and retaining bolt or shaft 44 would be inserted in the proper openings in the back portion 11 of the housing, the roller 31 slipped into place on the shaft 44, the front portion 12 of the housing placed in position with the pin 40 and lug 41 engaging their corresponding openings, and the knurled knob 45 rotated to thread the end of the shaft 44 into the opening 46. The conical shredder would then be slipped into place and twisted to lock it.

Referring more particularly to Fig. 6, it will be seen that the conical shredder has projections or cutter-portions 47 stamped therein. These are preferably swedged somewhat to provide a better cutting edge. The direction of the projections is such that cutting is done when the crank 23 is rotated in the direction normal for a right-handed person. It will also be noted that the slot 28 is so designed that this rotation tends to keep the pin 29 in locked position.

While I have shown and described certain embodiments of my invention, it is to be understood that it is capable of many modifications. Changes, therefore, in the construction and arrangement may be made without departing from the spirit and scope of the invention as disclosed in the appended claims, in which it is my intention to claim all novelty inherent in my invention as broadly as permissible, in view of the prior art.

What I claim as new and desire to secure by Letters Patent is:

1. A device of the character described, including: a housing; a shaft of substantial diameter rotatably journaled therein; a roller of substantially similar diameter rotatably mounted in the housing adjacent and parallel to said shaft, said shaft being adapted to cooperate with said roller to shell peas; crank means on one end of said shaft; and vegetable shredding means on the other end of said shaft.

2. A device of the character described, including: a housing; a shaft of substantial diameter rotatably journaled therein; a roller of substantially similar diameter rotatably mounted in the housing adjacent and parallel to said shaft, said shaft being adapted to cooperate with said roller to shell peas; crank means on one end of said shaft; vegetable shredding means on the other end of said shaft; and means on said housing for stringing and slicing beans.

3. A device of the character described, including: a separable housing; a shaft of substantial diameter rotatably journaled therein; a roller of substantially similar diameter rotatably journalled in said housing closely adjacent and parallel to said shaft, said shaft being adapted to cooperate with said roller to shell peas; crank means on one end of said shaft; and vegetable shredding means on the other end of said shaft, said last-mentioned means being readily removable from said shaft.

4. A device of the character described, including: a separable housing; a hollow shaft of substantial diameter rotatably journaled therein; a roller of similar diameter rotatably journalled therein adjacent said shaft, said shaft being adapted to cooperate with said roller to shell peas; crank means on one end of said shaft; and vegetable shredding means removably attached to the other end of said shaft.

5. Apparatus of the character claimed in claim 4, wherein said roller is composed of resilient material and is driven by said shaft.

6. A device of the character described, including: a housing having two separable portions; a retaining member, said two separable portions being so constructed and arranged that said member fastens them together in a single rigid structure; a shaft of substantial diameter rotatably journaled in said housing; a roller of similar diameter rotatably journalled therein adjacent said shaft, whereby peas may be shelled; crank means on one end of said shaft; and vegetable shredding means removably attached to the other end of said shaft.

7. A device of the character described, including: a housing having two separable portions, said portions having interlocking means thereon; a retaining member, whereby said two portions are fastened together in a single rigid structure; a shaft of substantial diameter rotatably journaled in said housing; a roller of similar diameter rotatably journalled therein adjacent and parallel to said shaft, said shaft being adapted to cooperate with said roller to shell peas; crank means on one end of said shaft; and vegetable shredding means removably attached to the other end of said shaft.

8. Apparatus of the character claimed in claim 7, wherein said retaining member is readily manually removable.

9. Apparatus of the character claimed in claim 7 wherein said retaining member and said shredder are both readily removable manually.

PERCY W. STEPHENS.