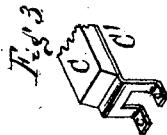
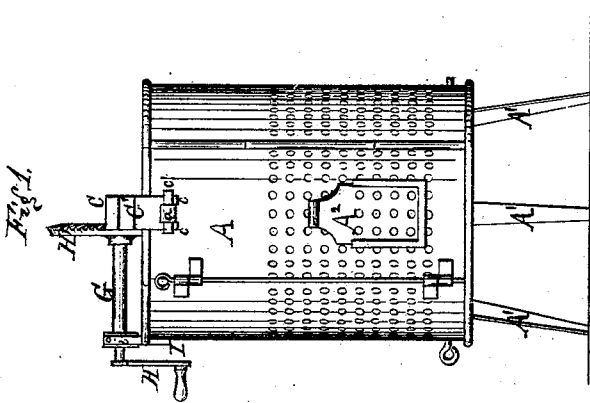
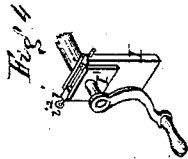
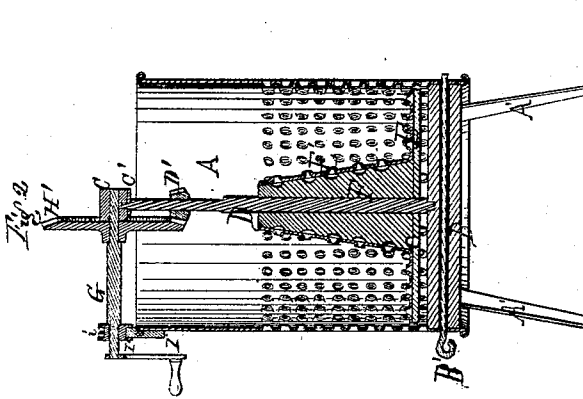


W. H. Williams,

Fruit Parer.

No. 100,348.

Patented Mar. 1, 1870.



Witnesses,
J. N. Doubleday }
A. J. Mahon }

W. H. Williams
Inventor.
By A. M. Smith
Attorney.

United States Patent Office.

W. H. WILLIAMS, OF CANTON, OHIO, ASSIGNOR TO HIMSELF AND C. H. WILLIAMS, OF SAME PLACE.

Letters Patent No. 100,348, dated March 1, 1870.

IMPROVED MACHINE FOR PARING FRUIT.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, W. H. WILLIAMS, of Canton, county of Stark, and State of Ohio, have invented certain new and useful Improvements in Machine for Paring Fruit, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings making a part of this specification, in which—

Figure 1 is an elevation of my improved parer.

Figure 2 is a sectional view.

Figures 3, 4, and 5 are detailed views of detached portions of the same.

The invention relates to that class of parers which consists of an outer stationary shell or cylinder and an inner rotating cylinder or spindle, mounted usually upon a disk or bottom which rotates in common with this inner cylinder, all of these parts having roughened or grating surfaces, by means of which the skin is rapidly and effectually removed from the potatoes, apples, or other fruits or vegetables that are operated upon.

The invention consists in first providing the inner rotating cylinder with a supporting-cone, which enables me to make this cylinder much larger than I could otherwise do with the same weight and strength of material, and thus impart a much more rapid and general rotating motion to the fruit, thereby insuring greater uniformity of work as well as increasing the amount of work which can be done. A further advantage to be derived from the increased size of the inner cylinder is the freedom with which the parings may be delivered from it, and all tendency toward clogging at this point removed; and to this end

The second improvement consists in providing the supporting-cone, above referred to, with a series of spiral grooves or channels cut in its peripheral surface, through which said parings are discharged by centrifugal action.

A further improvement is a sliding door in the outer shell for removing the fruit when pared. There are two points gained by this construction, as follows: First, its adjustability vertically, thus allowing the fruit to escape in a continuous stream just so fast as it shall have been pared and no faster; and second, the ease with which it can be opened and closed even when the machine is filled with fruit or is in operation, while at the same time the door is not liable to be opened accidentally, as would be the case if it were hinged and fastened shut by a button or latch, as in former machines.

In the drawings—

A represents a barrel, cylinder, or shell formed of either cast or sheet metal and provided upon its inner surface with a roughened or grating-surface. This shell is made preferably in two or more sections hinged

or otherwise fastened together substantially as shown in the drawing.

A¹ A¹ A¹ are feet supporting the entire machine.

A² is a door sliding in lips or ways *a* formed upon or attached to shell A, said door being used for the purpose of removing the fruit when pared. The inner surface of this door need not of necessity be roughened.

a a are eyes or loops formed upon the shell at points near the top and diametrically opposite each other.

B is a girt or bar extending across the lower part of shell A and intersecting its center.

B¹ is a pin or rod passing through both bar B and shell A, thereby supporting the bar. But it is obvious that two short pins, one at each end, may be made to answer the same end if it shall be more convenient to use them; or a long rod may be used underneath the bar and secured in proper position by staples driven into the bar or otherwise.

C C' is another girt placed centrally across the upper part of shell A. This girt is represented as made in two parts riveted or bolted together. In the construction shown the upper portion C is made of wood and the lower part of metal. The ends of part C' are slotted or forked, and are first bent down at right angles and then turned out at their extreme ends, forming ears or lugs *e*, as is clearly shown in fig. 3. The girt C C' is attached to shell A by passing the forked ends down over loops or eyes *a*, and inserting keys *c* in the loops *a* above the ears or lug *e*.

D is a shaft, the lower end of which is mounted in a bearing in girt B, and the upper end in girt C C'.

E is a disk or circular head rigidly secured to shaft D.

E' is a conical center piece, made in one piece with or attached to disk E. Both disk E and center piece E' have roughened or grating surfaces.

F is a supporting core made of wood and fitting closely inside of center piece E'.

f f are grooves or channels running spirally from the top to the bottom of this core, and serving to free the center piece from gratings or parings. At the lower extremity of each of these channels there is a slot or opening through the disk E, through which the parings pass.

G is a shaft supported in girt C C' and upon a bearing at one side of shell A.

H is a crank attached to one end of shaft G, and H' is a bevel-wheel mounted rigidly upon the other end of said shaft, and gearing with bevel-pinion D' on shaft D.

The bearing which supports the outer end of shaft G is constructed as follows:

I is a plate bolted to the shell A. This plate has a notch or recess cut or formed in its upper edge, leaving two legs, *i i*.

I' is a block provided with a perforation in which the shaft rests. This block is grooved upon two opposite edges, making it H-shaped and adapting it to slide easily down between legs *i i'*, the lips of the block inclosing the legs, and thereby preventing all lateral motion of the parts, as shown in fig. 4. A pin, *i²*, thrust through the legs above block I' secures the bearing in its proper place.

In operating my machine I put the fruit into the cylinder A, filling the annular space surrounding the center piece E' as full as may be found best, and then by means of crank H give the shaft D, disk E, and center E' a rapid rotary motion, grating and scraping the skin or rind off from the fruit. A rotary motion is also imparted to the fruit itself, which causes each and every portion of its surface to become exposed to the action of the roughened parts.

By adjusting the height to which the door A² is raised, the discharge of fruit may be regulated so as to permit a continuous feeding in of fruit at the top, and a constant delivery of pared fruit at the bottom.

It will be apparent that the channels in core F may

be made by attaching ribs to the outside of the block of which the core is formed, or the core may be made a mere skeleton in form, and still perform all the functions for which it is designed. It is also obvious that the door A² may be made in any part of the cylinder, as well as in that portion which is represented in the drawings as being intended to open.

Having now described my invention,

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

1. The core F, in combination with the roughened grating center piece E', substantially as and for the purpose set forth.

2. The combination in a fruit-parer, of the outer shell A, sliding door A², center piece E', core F, and flange E, constructed and operating substantially as set forth.

W. H. WILLIAMS.

Witnesses:

GEO. W. RAFF,
W. R. FEATHER.