

Sept. 13, 1927.

F. M. SCHAEFER

1,641,993

PEELING MACHINE

Filed May 21, 1924

2 Sheets-Sheet 1

Fig. 2

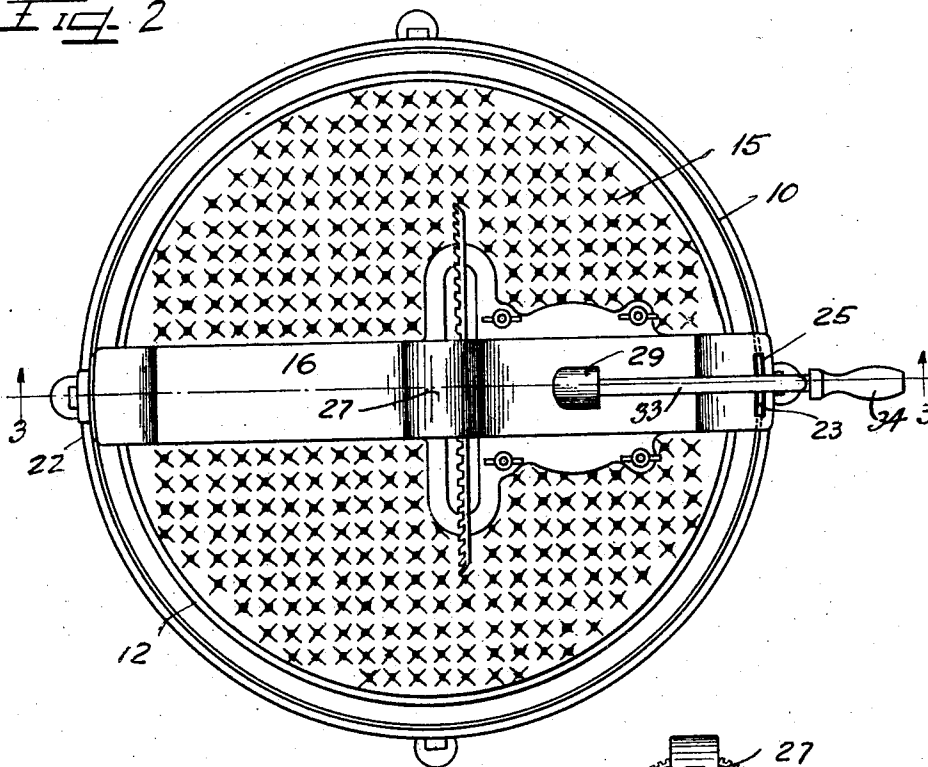


Fig. 4

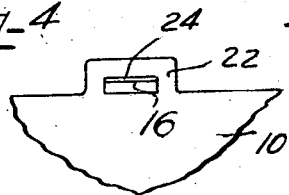


Fig. 1

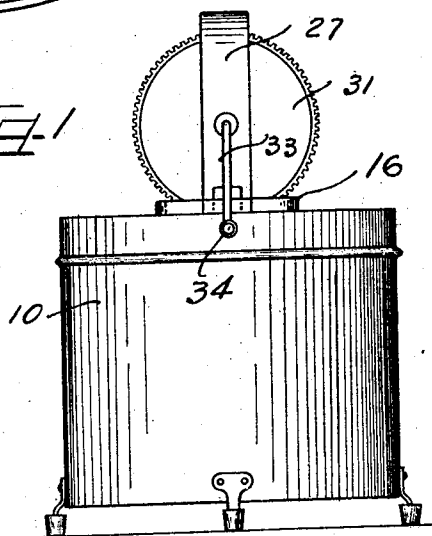
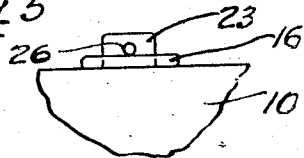


Fig. 5



Witnesses

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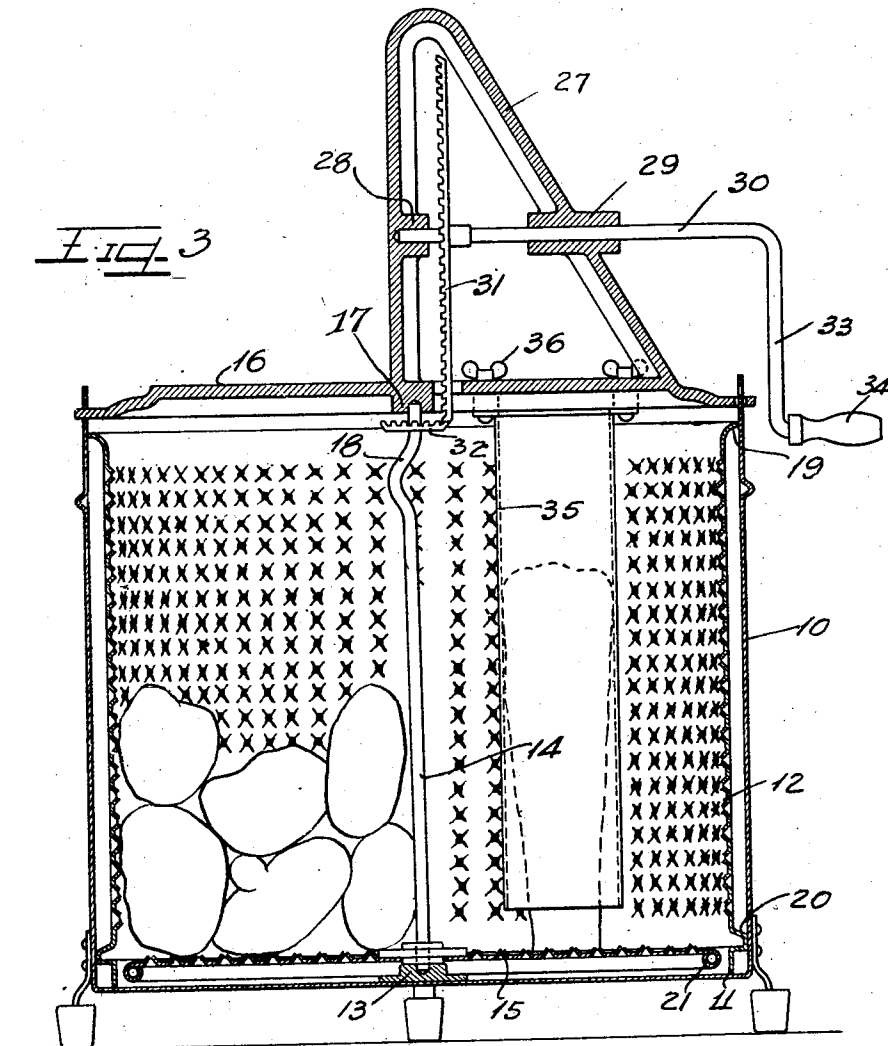
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PEELING MACHINE

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2 Sheets-Sheet 2



Witnesses

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UNITED STATES PATENT OFFICE.

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PEELING MACHINE.

Application filed May 21, 1924. Serial No. 714,778.

This invention relates to potato peelers of the type in which the skin is removed by abrasion.

It has been customary, heretofore, to form the abrasive surfaces of grains of an abrasive material such as emery or the like held in position by a suitable binder.

The abrading action is produced by placing the potatoes in a stationary cylinder lined with abrasive material having a rotatable bottom also coated with abrasive. Heretofore, however, the bottom has been arranged to rotate symmetrically about its axis so that a potato resting thereon has no upward and downward movement due to the rotation of such bottom.

One of the principal objects, therefore, of the present invention is to provide an improved and simplified form of abrasive surface.

Another object of the invention is to provide a potato peeler in which the contents are periodically moved up and down therein to aid the abrasive action.

Other and further important objects of this invention will be apparent from the drawings and specification.

The invention (in a preferred form) is illustrated in the drawings and hereinafter more fully described.

On the drawings:

Figure 1 is a side elevation of a potato peeler constructed in accordance with the present invention.

Figure 2 is a plan view of the same.

Figure 3 is a section on the line 3—3 of Figure 2.

Figures 4 and 5 are detail views of the means for securing the driving mechanism to the body of the peeler.

As shown on the drawings:

The peeler comprises a casing 10 open top and bottom but provided with an inturned flange 11 at its lower edge to support a perforated cylinder 12 slidably fitting within the casing.

Across the bottom of the casing is arranged a cross-piece 13 which acts as a step-bearing for a shaft 14 carrying a perforated disc 15.

A cross-piece 16 extending across the top of the casing is formed with a boss 17 which acts as a bearing for the upper end of the shaft 14. This shaft is bent at 18 so as to offset the upper end of the shaft 14 with the

result that the disc 15 is tilted with respect to its axis of rotation.

The perforations both on the cylinder 12 and the disc 15 are made by driving a sharp pointed tool through the metal without removing any of the latter so as to leave a sharp, rough edge around each aperture.

The cylinder 12 is stiffened by forming a flange 19 thereon at its upper edge and a projecting bead 20 adjacent its lower edge. This flange and bead also provide a space between the cylinder and the casing for any material which passes through the perforations in the cylinder and thus avoids clogging of the latter.

The disc 15 is strengthened by rolling over its edge, as at 21.

The cross-piece 16 is detachably secured by forming lugs 22 and 23 at diametrically opposite points on the upper edge of the casing 10. The lug 22 is formed with an aperture 24 through which one end of the cross-piece 16 may be inserted. The other end of the latter is provided with a slot 25 through which the lug 23 may be projected after the first end of the cross-piece has been engaged with the lug 22. To hold the cross-piece in position, an aperture 26 is formed in the lug 23 for a cotter-pin or the like.

Mounted on, and preferably formed integrally with the cross-piece 16 is a vertical frame 27 having bearings 28 and 29 formed therein for a shaft 30. This shaft 30 carries a gear 31 adapted to mesh with a pinion 32 on the shaft 14. At its outer end the shaft 30 is bent to provide an operating crank 33 furnished with a handle 34.

It is frequently desired to granulate carrots, horse-radish and the like and for this purpose an open-bottomed cylinder 35 is provided adapted to be clamped by thumb-nuts 36 to the underside of the cross-piece 16.

The operation is as follows:

For peeling potatoes the cylinder 35 is removed and the remaining parts assembled as shown in Figure 3. The potatoes are then inserted in the cylinder and the handle 34 rotated until the skin has been abraded away. As there is a space between the periphery of the disc 15 and the cylinder 12 the particles of skin, etc., may be washed away from the potatoes before the latter are removed.

Ordinarily there is no need to remove either the cylinder 12 or the disc 15 from

the casing between successive operations. They should be removed, however, from time to time for cleaning and for removal of material collecting in the space between the cylinder 12 and the casing 10.

For granulating carrots, horse-radish and the like the cross-piece 16 is detached and the cylinder 35 attached. The carrot is then inserted in the cylinder and cross-piece replaced. The handle 34 is then rotated until the carrot has been granulated to the desired extent. This operation is the reverse of the potato peeling operation in that the material removed is the valuable material instead of the waste material. The operation should, therefore, be carried out over a pan to collect the granulated material passing through the perforations in the disc 15 or around its edge.

I am aware that numerous details of structure may be varied through a wide range without departing from the principles of this invention, and I therefore do not purpose limiting the patent granted otherwise than necessitated by the prior art.

I claim as my invention:

1. In a potato peeler comprising a casing having a bearing at its bottom and a grating cylinder therein, a laterally bent integral vertically disposed shaft journaled in said bearing and connected for rotation at its upper end, and an abrading disk at the bottom of said casing secured to said shaft so that it lies at an angle to the vertical axis of the grating cylinder, and means for rotating the shaft and disk.

2. In a potato peeler, a casing, an abrading cylinder therein, a driving mechanism, supporting means for said driving mechanism, a bearing supported by the casing,

a laterally bent integral shaft journaled in said bearing and said supporting means presenting a portion inclined with respect to the axis of the cylinder, means operatively connecting said shaft for rotation by said driving mechanism, and an abrading disk in said casing secured to the said inclined portion of said shaft.

3. In a device of the kind described, a casing, a driving mechanism at the top thereof, means for supporting said driving mechanism, abrading means in the casing operated by the driving mechanism, and an open end guide cylinder detachably secured to a portion of said supporting means and pendant in the casing toward said abrading means.

4. In a device of the kind described, a casing, a driving mechanism associated therewith, means for securing said driving mechanism, abrading means in the casing operated by the driving mechanism, and a guide cylinder detachably secured to said supporting means and pendant within the casing having a lower open end above a portion of said abrading means.

5. In a device of the kind described, a casing, a driving mechanism associated therewith, means for supporting said driving mechanism detachably secured to the casing, abrading means in the casing including an abrading cylinder and a disk, the latter operated by the driving mechanism, and an open end guide cylinder detachably secured to said supporting means and projecting within the abrading cylinder to a point above said abrading disk.

In testimony whereof I have hereunto subscribed my name.

FRANK M. SCHAEFER.