

Oct. 4, 1927.

H. ROBINSON

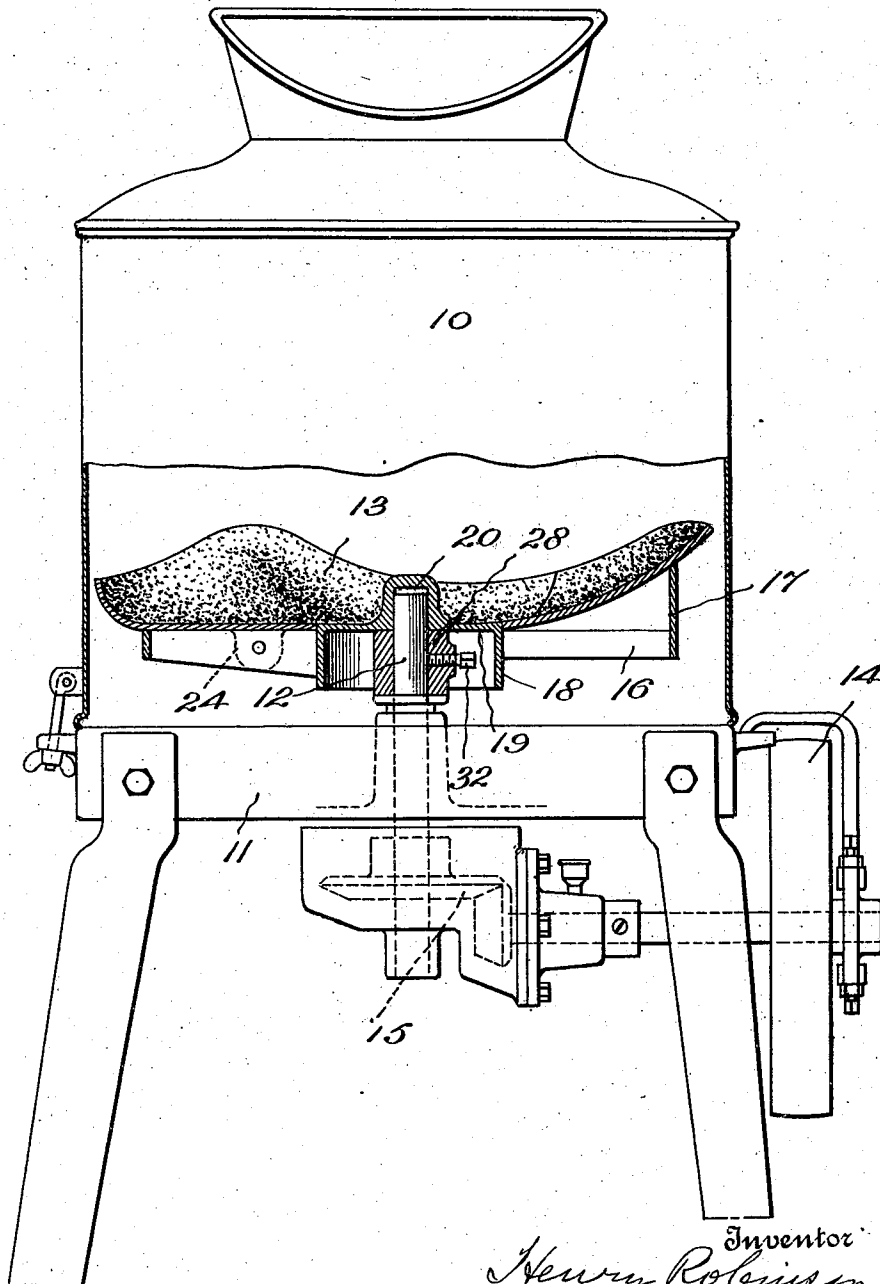
1,644,448

VEGETABLE PARING MACHINE

Filed Oct. 12, 1926

2 Sheets-Sheet 1

Fig. 1.



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Fig. 2.

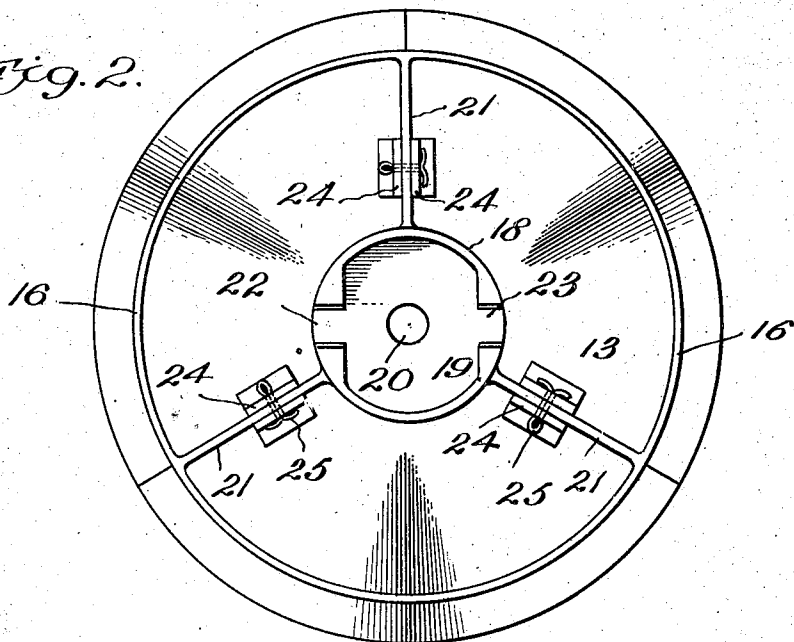


Fig. 3.

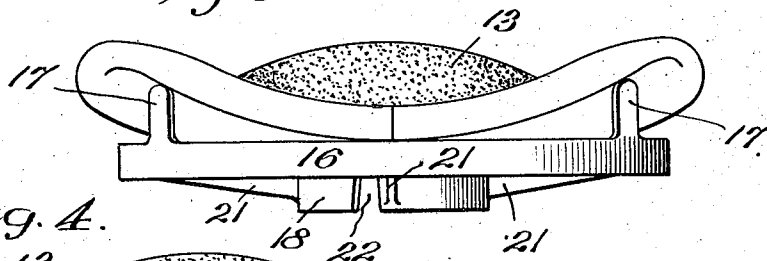


Fig. 4.

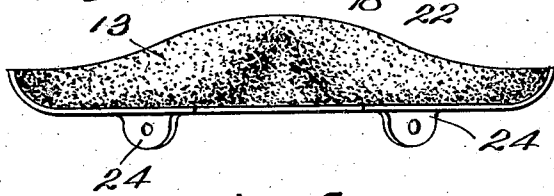


Fig. 5.

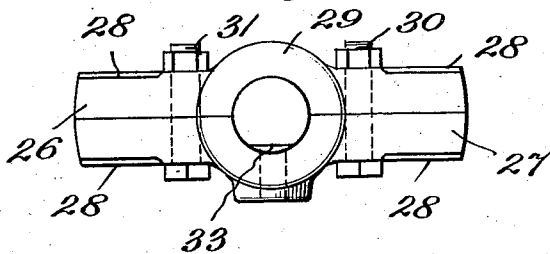
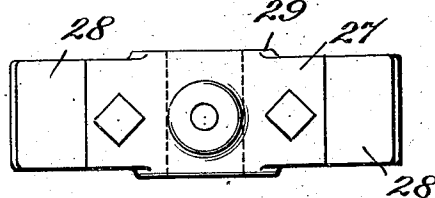


Fig. 6.



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UNITED STATES PATENT OFFICE.

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VEGETABLE-PARING MACHINE.

Application filed October 12, 1926. Serial No. 141,087.

Vegetable paring machines are extensively used wherein a specially formed abrasive rotating plate supports the vegetables to be peeled within a cylindrical pot or container, whose interior surface may or may not be made abrasive.

The present invention relates to an improved form of mounting for the abrasive rotary supporting plate in machines of this character, as well as to an improved form of plate to be employed therewith.

The principal object of the invention is to supply apparatus of this character which is cheap to construct, easily and quickly assembled or taken apart, not easily subject to getting out of order, while at the same time perfectly reliable in action and extremely durable.

The invention is illustrated in a preferred form in the accompanying drawings, wherein Figure 1 is a view partly in vertical section and partly in elevation of my complete vegetable peeler, Figure 2 is a plan view of my abrasive plate and supporting frame seen from below, Figure 3 is a side elevation of one section of my preferred form of abrasive plate, Figure 4 is a view in elevation of one of the sections of the abrading member. Figure 5 is a plan view of the power transmitting cross piece, and Figure 6 is a view of the same in elevation.

My peeling machine comprises the usual container 10, removably mounted upon a base 11, in which is mounted a vertical driving shaft 12 for the abrasive supporting plate 13. This shaft may be driven in any desired manner, as for instance by the pulley 14 which drives the shaft 12 through the gears 15.

One of the advantages of my invention is that, when the abrasive disc or plate wears out, it can be easily removed and replaced by a new plate, without sacrificing its mounting.

For this purpose I provide a separable mounting support in the form, preferably, of a skeleton frame. In the form shown, this frame comprises an outer circular ring 16 provided with upwardly extending projections 17, which fit under the upwardly curved portions of the abrasive plate 13. The peculiar shape of the plate 13 shown in the drawings is well known in the art and forms no part of the present invention.

The central portion of the mounting frame comprises a ring-shaped web 18, surmounted by a circular plate 19 having a socket 20

for the shaft 12 and these parts are connected with the outer ring 16 by radial ribs 21.

The web 18 is thickened at two diametrically opposite points, as shown in Figure 2, at which points the web is provided with radial sockets 22, 23 slightly tapering upward as shown in Figure 3.

The abrasive disc is removably fastened to the supporting and mounting frame just described. While my invention is broad enough to cover any appropriate construction for this purpose, I prefer the following.

As shown, the abrasive disc or plate 13 is made in as many sections (radially divided) as there are ribs 21 on the mounting frame. In the drawings three of these are shown, but my invention is not confined to any particular number.

At the opposite ends of each section of the plate 13 are depending lugs 24, and these are so placed on the different sections that, when the sections are assembled, the lugs in pairs closely embrace the sides of the different ribs 21, affording means for removably fastening the abrasive plate to the mounting frame. This fastening can, of course, be accomplished in various ways. In the form shown a cotter pin 25 passes through each pair of opposed lugs 24 and through the rib 21 which they embrace. Thus the whole or a part of the abrasive disc or plate 13, can be quickly removed and replaced by simply bending and removing the cotter pins that hold it.

My invention comprises means whereby the abrasive plate combined with and fastened to its mounting may be quickly and reliably mounted upon and operatively connected with the driving shaft 12, however the latter may be driven.

For this purpose I provide a transmitting cross piece on the driving shaft adapted to enter the socket openings 22, 23, in the web 18 of the mounting frame. While this may be accomplished in many ways, the following is my preferred mode of construction.

The cross piece is formed of two similar halves 26 and 27, whose ends are tapered at 28 to fit the taper of the socket openings 22, 23. These halves have a thickened cylindrical central portion 29 which closely fits the shaft 12, and the two halves are clamped firmly upon said shaft, as by the bolts 30, 31. If desired, a set screw 32 may also be used, screwing down upon a flattened portion 33 of the shaft. Obviously the cross

piece might be made in a single piece, split at one end only to permit it to fit over the shaft.

5 A cross piece of this character having been fixed to the shaft 12, as shown in Figure 1, the mounting frame with the abrasive plate attached can then be instantly placed in operative relation to the driving shaft by simply setting the frame down on the shaft
10 in the manner shown in Figure 1, wherein the end of the shaft 12 fits into the socket 20, while the tapered ends of the transmitting cross piece fit into the radial socket openings 22, 23.

15 Many changes may be made in my preferred construction without departing from the scope of my invention, which is not limited to the details herein shown and described.

20 What I claim is:

1. In a vegetable paring machine, a vertical driving shaft, an abrasive plate having high and low portions and a mounting frame between said plate and shaft provided with
25 upward extensions adapted to fit under the higher portions of the abrasive plate.

2. In a vegetable paring machine, a vertical driving shaft, a narrow cross piece mounted transversely on the driving shaft for transmitting movements from the shaft, 30 and a mounting frame comprising an outer ring and an inner ring-shaped web carrying a bearing socket and cut away to form socket openings adapted to fit over the ends of said cross piece. 35

3. In a vegetable paring machine, a driving shaft, a removable transmitting cross piece made in separable parts and adapted to be clamped upon said shaft transversely thereto, an abrasive plate and means cooperating with said plate and said cross piece for operatively connecting the abrasive plate with said shaft. 40

4. Apparatus as in claim 2 wherein the ends of the cross piece are tapered vertically, 45 and wherein bearing socket openings are tapered to fit the taper at the cross piece.

In testimony whereof I have hereto affixed my signature on this 11th day of October, 1926.

HENRY ROBINSON.