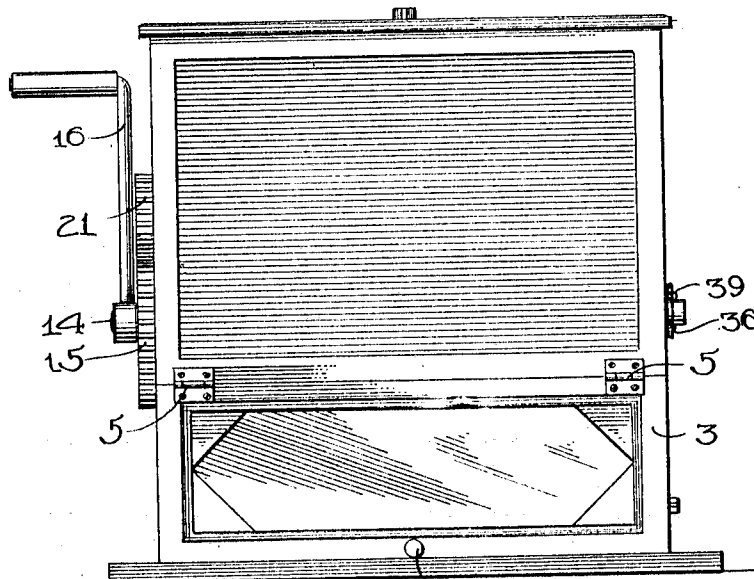


J. STOCK.
VEGETABLE GRINDER.
APPLICATION FILED JULY 20, 1912.

2 SHEETS—SHEET 1.

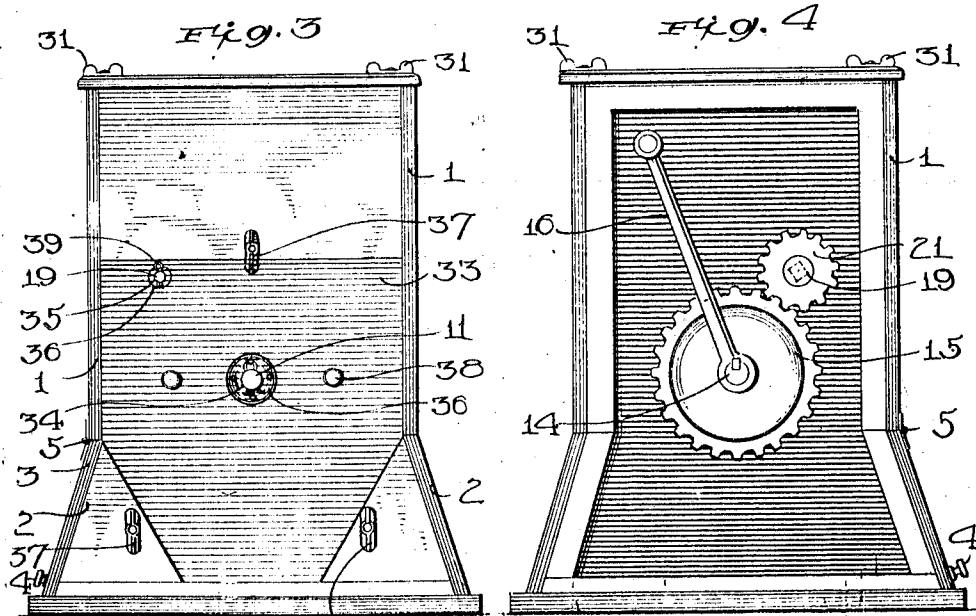
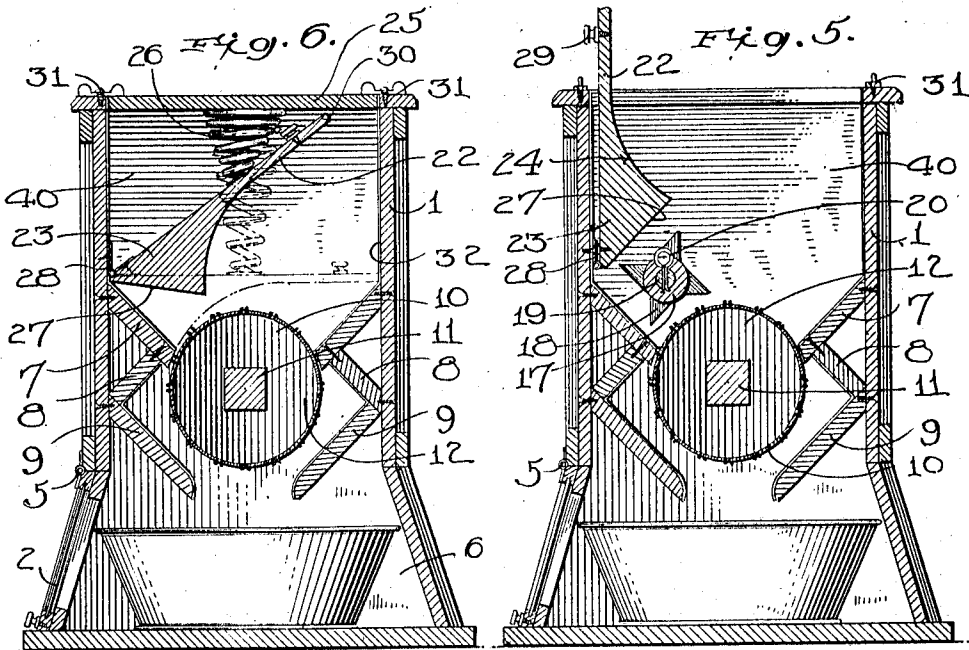


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1,053,751.



WITNESSES

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UNITED STATES PATENT OFFICE.

JOSEPH STOCK, OF PASSAIC, NEW JERSEY.

VEGETABLE-GRINDER.

1,053,751.

Specification of Letters Patent.

Patented Feb. 18, 1913.

Application filed July 20, 1912. Serial No. 710,661.

To all whom it may concern:

Be it known that I, JOSEPH STOCK, a citizen of the United States of America, residing at Passaic, in the county of Passaic and State of New Jersey, have invented certain new and useful Improvements in Vegetable-Grinders, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to a vegetable grinder, and has for its object the production of an efficient means for cutting the vegetables into small particles before delivering the same upon the grinding cylinder.

Another object of the invention is the production of an efficient means for feeding the vegetables upon the grinding cylinder.

With these and other objects in view this invention consists in certain novel combinations, constructions, and arrangement of parts as will be hereinafter fully described and claimed.

In the accompanying drawings:—Figure 1 is a front elevation of the vegetable grinder. Fig. 2 is a central longitudinal section of the same. Fig. 3 is a view of one end of the device. Fig. 4 is a view of the other end thereof. Fig. 5 is a transverse section of the device, showing the relative position of the several parts. Fig. 6 is a transverse section showing how the feeding door is used. Fig. 7 is an enlarged fragmentary section of one end of the chopping roller.

Referring to the accompanying drawings by numerals 1 designates the casing which is provided with the diverging sides 2 near the bottom. A door 3 which is provided with the lifting knob 4 and hinges 5 are connected near the lower side of the casing 1 and forms a closing means for the reservoir 6. It will be seen that by having the door so connected with the casing 1 as to allow the same to rest upon one of the diverging sides 2 the door will normally remain in a closed position. If the sides of the casing extend parallel throughout their entire length the door will tend to sag a little and not form a tight closure for the reservoir.

The casing 1 is provided with a means for guiding the vegetables upon the grinding cylinder which consists of the chute 7 which extends approximately at an angle of 45 degrees. The lower end of the chute 7 is braced by the spacing cleat 8, said spacing cleat 8 resting upon the upper end of the

guiding partition 9. This combination of a chute and guiding partition is formed upon the sides of the casing, but are so constructed as to allow room for the grinding cylinder.

The grinding cylinder which is positioned within the combination of chute and partition is constructed of a sheet of perforated metal 10 and is mounted upon the shaft 11 by means of the heads 12, one of said heads 12 being provided with an enlarged portion forming a flange 13. It will be seen that by use of the head provided with the flange portion, the cylinder may be taken apart for allowing the same to be easily cleaned. The shaft 11 is provided with the reduced portion 14 upon which is mounted the cog wheel 15 and the crank arm 16. It will be seen that by use of the cranking arm 16 that the grinding cylinder may be easily revolved when so desired.

The chopping roller 17 is carried within the casing 1 above the grinding cylinder and to one side thereof, so as to allow the vegetables to be caught by the grinding cylinder. The chopping roller 17 is provided with a plurality of staggered knives 18 and is mounted upon the shaft 19. This roller 17 is prevented from rotating independently of the shaft 19 by means of the pins 20 which extend through the roller 17 and the shaft 19. This roller 17 is rotated by means of a secondary cog wheel 21 which is carried by the end of the shaft 19, said cog wheel 21 registering with the cog wheel 15. When it is desired to remove the chopping roller 17 the pin 20 is withdrawn from the chopping roller and shaft and the shaft is in turn withdrawn from the chopping roller 17.

When it is desired to grind the vegetables without chopping the same, the chopping roller 17 is removed and the vegetables are placed within the upper portion of the casing 1. The feeding door 22 which is provided with the enlarged portion 23 forming a concave face 24 is then lowered upon the vegetables. The cover 25 is then placed upon the upper portion of the casing 1 and the converging coil spring 26, which is carried by the cover 25 is made to bear upon the feeding door 22. By having the spring 26 bearing upon the door 22, the door is pressed downward and in this manner forcing the vegetables into engagement with the grinding cylinder until the beveled face 27 of the enlarged portion 23 rests upon the

chute 7. It will be seen that by use of this beveled face 27 and the chute 7 that the downward movement of the door will be limited and in this manner will prevent the door from coming into engagement with the grinding cylinder, and will in this manner prevent the door from being worn by the rotation of the grinding cylinder. The feeding door 22 which is pivotally mounted within the casing by the hinge 28 is lifted from engagement and placed in position as illustrated in Fig. 5 by means of the knob 29. By referring to Fig. 6 it will also be seen that the end 30 of the feeding door will rest within the angle formed by the casing and chute, and will form a secondary means for limiting the downward movement of the door. When this door is used the cover 25 is held upon the upper portion of the casing by means of the buttons 31. When the cover is in this position the converging form of the spring will allow the feeding door to extend in an inclined position without jamming as would be the case if a spring is used which is provided with parallel sides.

The casing 1 and the chute and guiding partition are lined with a thin sheet of metal 32 so as to allow the interior of the grinder to be easily cleaned.

A door 33 is carried by one end of the grinder and forms a closure therefor. This door 33 is provided with apertures 34 and 35, said apertures 34 and 35 being provided with the wearing plates 36. It will be seen that by use of these wearing plates 36 the shafts 11 and 19 will not wear upon the door 33. This door 33 is held in position by means of the buttons 37, and when it is desired to remove the same it may be easily done by means of the knobs 38.

The ends of the shafts 11 and 19 are provided with the cotter pins 39 which are adapted to prevent the shafts from com-

ing out of engagement with the casing. The upper portion of the casing is provided with the inclined walls 40 which are adapted to guide the vegetables upon the chopping roller 17.

It will be seen that by use of this device that the vegetables are placed within the upper portion of the casing and after the same have been chopped into small particles by means of the chopping roller they are passed upon the grinding cylinder and in turn guided by means of a chute and guiding partition and into the pan placed within the reservoir 6.

Having thus described the invention what is claimed as new, is:—

In a vegetable grinder of the class described, the combination with a casing, a chute carried within said casing, said chute extending at approximately 45 degrees, grinding means positioned below said chute, a feeding door hingedly secured within said casing and above said chute, said door provided at one end with a thickened portion constituting a concave portion upon its underside which is adapted to force the article to be ground upon said grinding means, said thickened portion formed at an angle of approximately 45 degrees, said door adapted to close downwardly toward said grinding means, the thickened portion of said door adapted to rest upon one side of said chute when the door is in a closed position, whereby the door is prevented from wearing upon said grinding means, and the engagement of said door and said chute also acting as a means for reducing the strain upon the hinged portions.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

JOSEPH STOCK. [L. S.]

Witnesses:

ANTHONY PATLEN,
JOE ZUKOUSKI.