D. S. WASHBURN.

VEGETABLE GRATER.

APPLICATION FILED NOV. 16, 1909.

970,864.

Patented Sept. 20, 1910.

Fig. 1

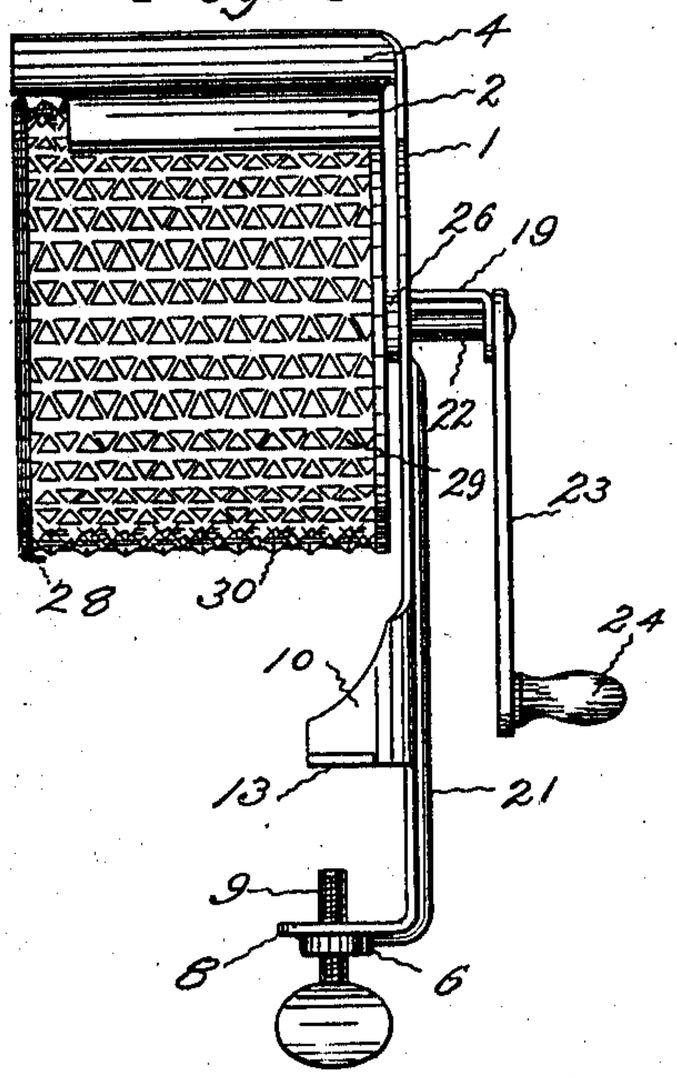


Fig. 3

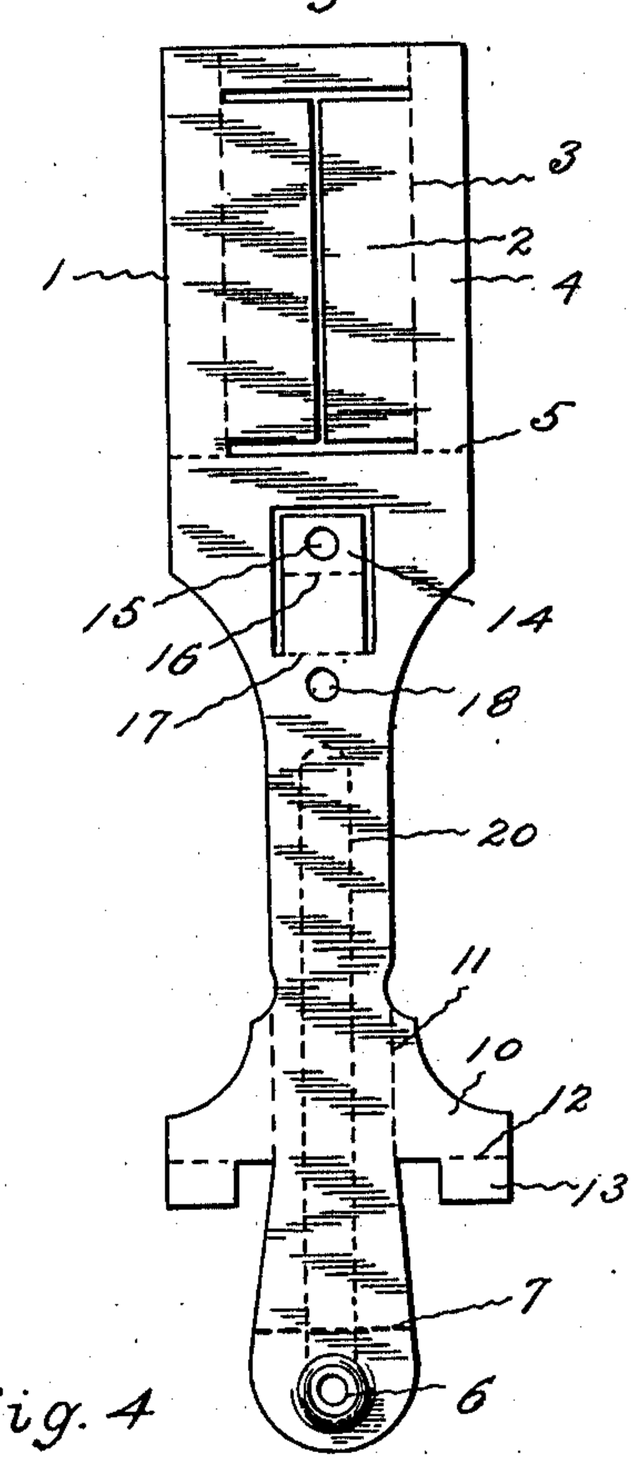


Fig. 2

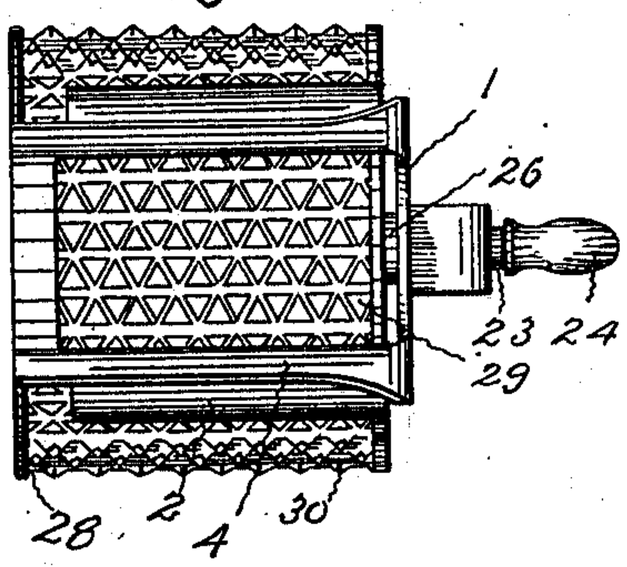
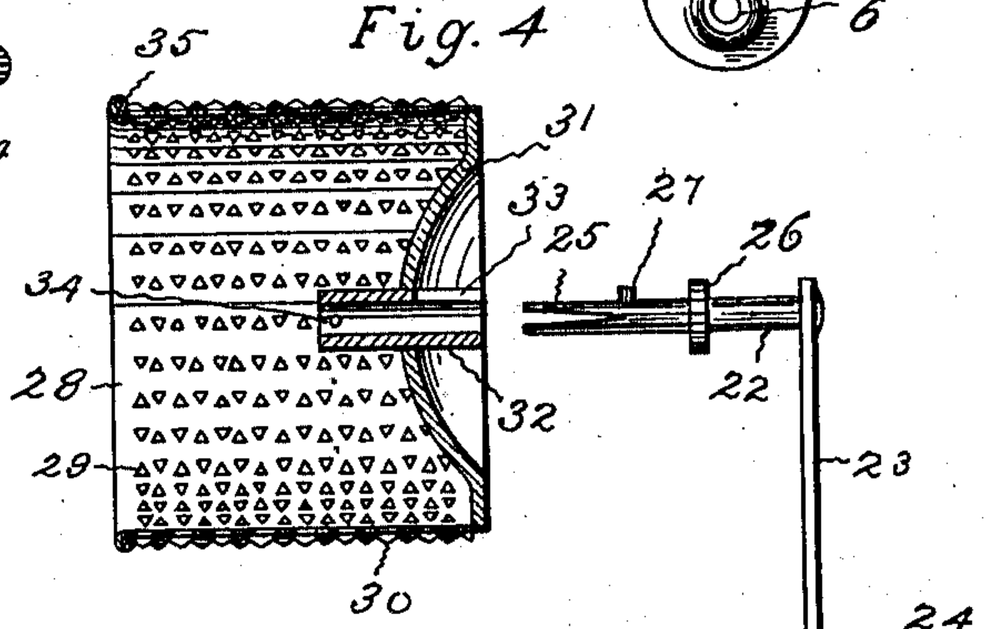


Fig. 4



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UNITED STATES PATENT OFFICE.

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VEGETABLE-GRATER.

970,864. Specification of Letters Patent. **Patented Sept. 20, 1910.**

Application filed November 16, 1909. Serial No. 528,332.

To all whom it may concern:

Be it known that I, DAVID S. WASHBURN, a citizen of the United States, residing at Meriden, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Vegetable-Graters, of which the following is a specification.

This invention relates to those culinary implements which are designed to be attached to a kitchen table and used for the purpose of disintegrating vegetables and fruit.

The object of the invention is to provide an implement of this character which is very cheap to manufacture, which is convenient and efficient in use, and which can be easily cleaned and kept in a sanitary condition.

The embodiment of the invention illustrated has a frame which is formed from a single piece of material. This frame has a cavity at the top, into which the substance to be disintegrated is thrust, feet near the bottom, designed to rest upon the upper surface of a table, a bracket at the lower end, carrying a screw that coöperates with the feet for clamping the utensil in position for use, and a bracket for supporting a rotatory spindle which is provided with a crank handle, whereby it may be rotated, and removably located upon which is a drum with perforated walls designed to provide the revoluble disintegrating surface.

Figure 1 of the accompanying drawings shows a side elevation of a grater which embodies this invention. Fig. 2 shows a plan of the same. Fig. 3 shows the blank from which the supporting frame is formed. Fig. 4 shows a sectional view of the grating drum, and a side view of the spindle and handle, by means of which the drum is rotated, these parts being separated in order to show the manner in which they are put together.

The frame is formed of a blank 1, of sheet steel, iron or other suitable metal, properly treated to prevent corrosion or rust. Near the upper end this blank is cut so as to form wings 2. These wings are turned down on the dotted lines 3 at substantially right angles to the edges 4, and then the upper end of the frame is bent over on the dotted line 5 so as to extend at practically right angles to the body of the frame. The lower end of the frame is punched to provide a perforated boss 6, and then this lower end is bent at right angles to the body on the dotted line 7, to form a bracket 8. The perforation in this boss is threaded for the reception of a clamp screw 9. The blank above the lower end has wings 10 that are bent out at right angles to the body of the frame on the dotted lines 11. The lower edges of these wings are then bent at right angles on the dotted lines 12 so as to provide feet 13 which will coöperate with the clamp screw for fastening the device to the edge of a table or other support. Near the middle, the blank is cut so as to form a tongue 14. This tongue has a perforation 15, and it is bent first at right angles on the dotted lines 16, and then again at right angles on the dotted line 17 until the perforation 15 alines with the perforation 18, in order to form the bracket 19. In order to stiffen the standard part of the frame, and prevent the bracket 8 from straightening when the clamp screw is tightened, a section may be punched or swelled out, as on the lines 20, so as to form a rib 21.

The spindle 22 is loosely mounted in the perforations 15 and 18 of the bracket 19. An arm 23, provided with a handle 24, is attached to the outer end of the spindle. The inner end of the spindle is preferably slotted, so as to form a pair of spring fingers 25. A collar 26 may be placed on the spindle, and a pin 27 may be set into the spindle between the collar and the spring fingers.

The grating drum 28 has a cylindrical wall of light sheet metal which is punched out from the inside so as to provide angular perforations 29, with edges that project in such manner as to form grating teeth 30. One end of this drum is left open, and the edge of this end may be turned back on itself over a wire 35. The other end of this drum is provided with a head 31. This head may be recessed, as shown in Fig. 4. Projecting through and fastened to the head is a bearing tube 32, which tube has a slot 33 on its outer end. The tube may also, if desired, near its inner end have a pin 34 extending through it. The interior diameter of the tube is of such size as to just receive the split end of the spindle 22. The spindle is held in the frame by the collar 26 on the inside, and the handle 23 on the outside of the bracket 19. The drum is attached to the frame by thrusting the bearing tube on the end of the spindle, the pin 27 entering the slot 33. The pin 34 if used, enters the slot and tends to spread the spring fingers so that the spindle will grip the inner walls of the

tube that is fastened to the end wall of the drum. By this means the drum rotates with the spindle when the handle is turned, and yet the drum can be easily and quickly removed and replaced when desired, and when replaced and in use it will not accidentally slip from or work off the spindle.

A grater formed in this manner is very cheap to manufacture and assemble, for there are but few parts, and those parts are easily formed and quickly put together. This grater is efficient in use, for the grating surface can be revolved with considerable rapidity beneath the cavity provided at the top of the frame for the insertion of the fruit or vegetable to be grated. It is a very simple matter to remove the grating drum so that all of the parts, the frame and the drum, can be very easily cleaned. This enables the utensil to be kept in a neat and sanitary condition.

The invention claimed is:

1. A vegetable grater comprising a support formed of a single piece of sheet metal, said support having a frame provided with a receiving opening, bent forwardly at the top, a bracket provided with a threaded perforation, bent forwardly at the bottom, feet bent forwardly from the sides above the bottom, and a bracket provided with a bearing perforation, bent rearwardly near the middle, a clamp screw turning in the threaded perforation in the bottom bracket, a spindle extending through the perforation in the bearing bracket, spring fingers at the forward end of the spindle, a handle attached to the rear end of the spindle, a drum having a perforated roughened peripheral surface, and a supporting tube attached to the drum and fitted upon and frictionally held by the fingers at the forward end of the spindle.

2. A blank for forming a vegetable grater frame having integral wings formed near its upper end, a perforated bracket formed at its lower end, integral wings projecting from each side near its lower end, integral feet projecting from the lower edges of said latter wings, and a perforated tongue near the middle for providing a spindle bearing.

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