

(No Model.)

H. W. SCHOFF.
NUTMEG GRATER.

No. 543,633.

Patented July 30, 1895.

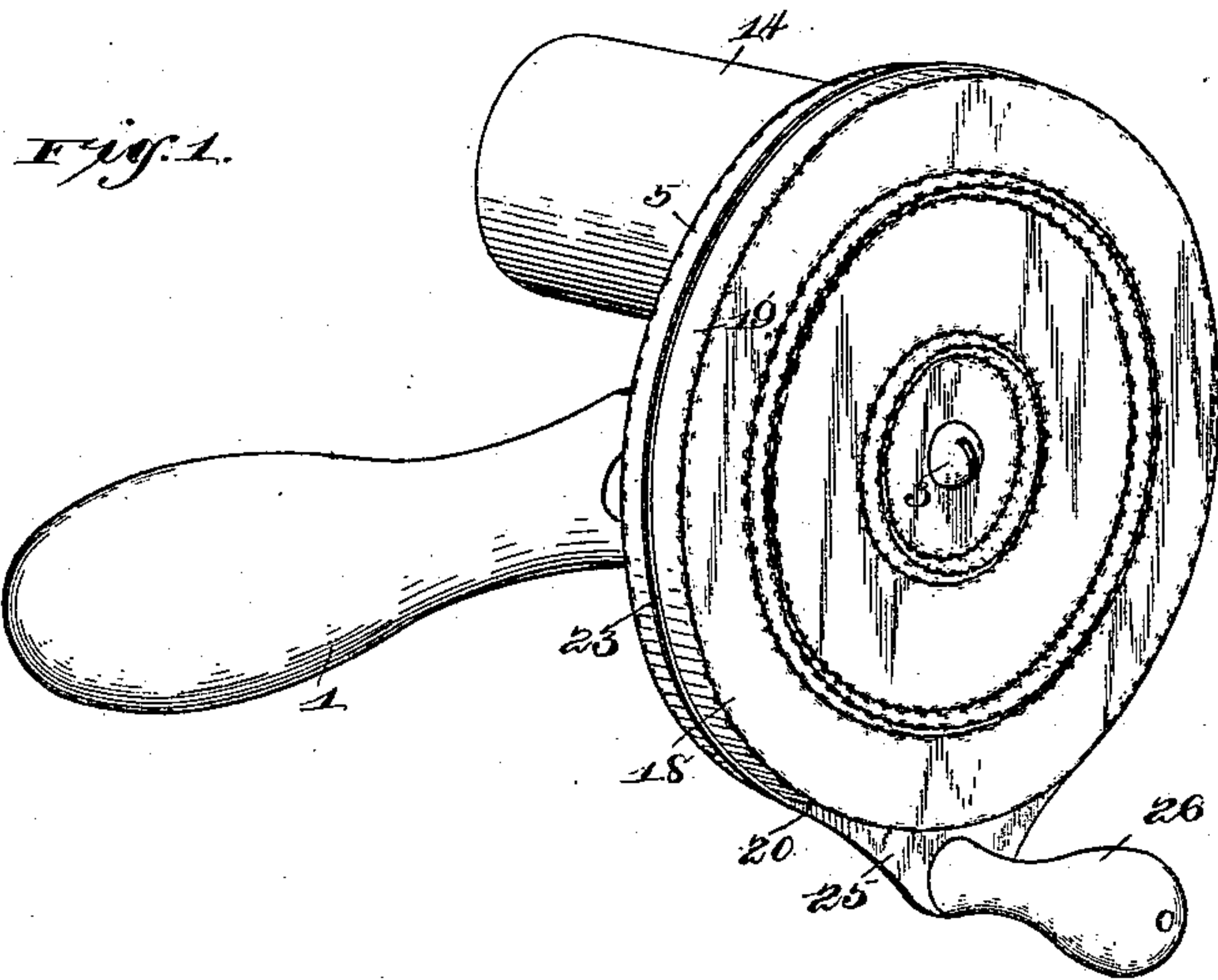


Fig. 2.

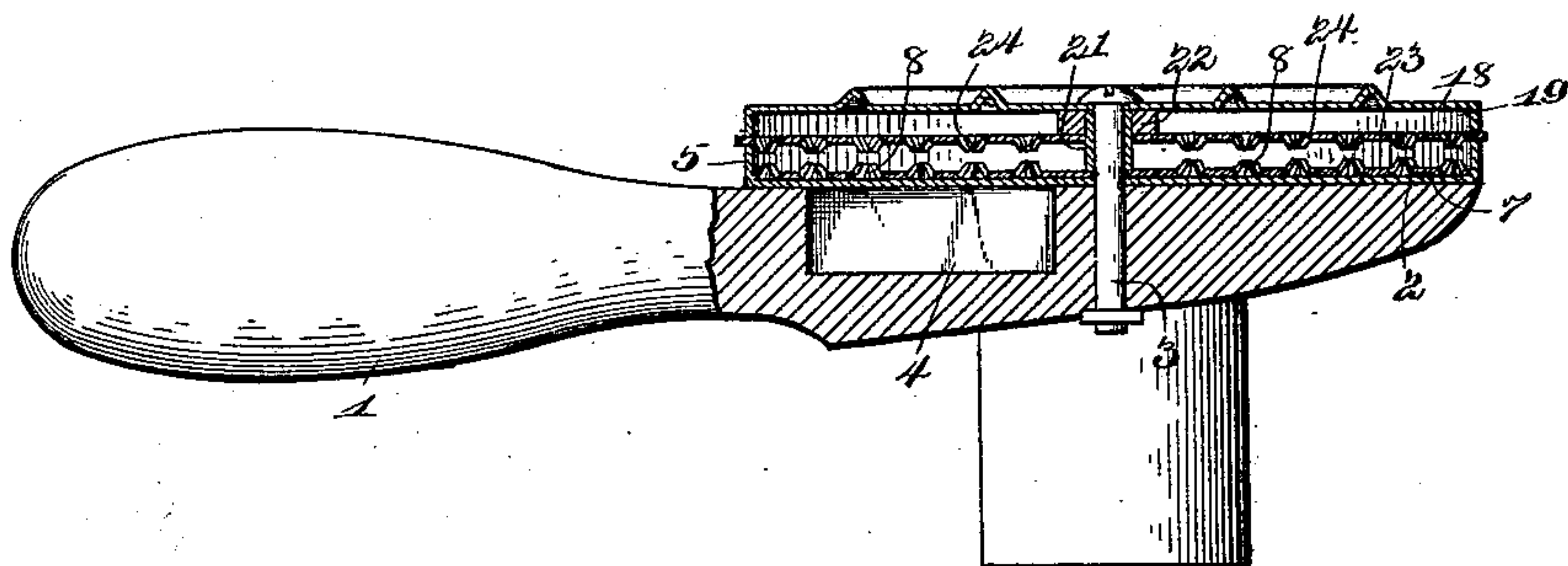


Fig. 4.

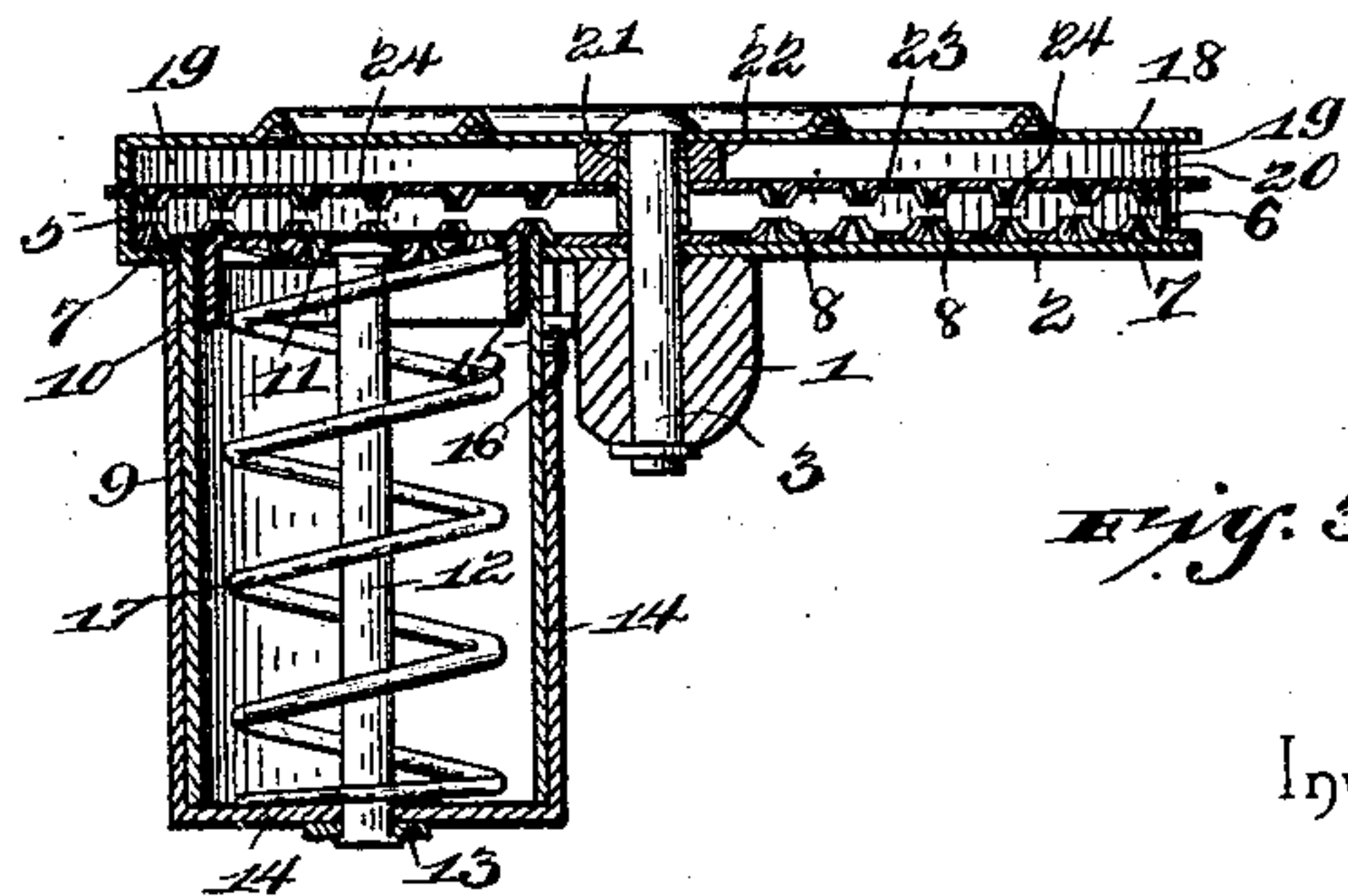
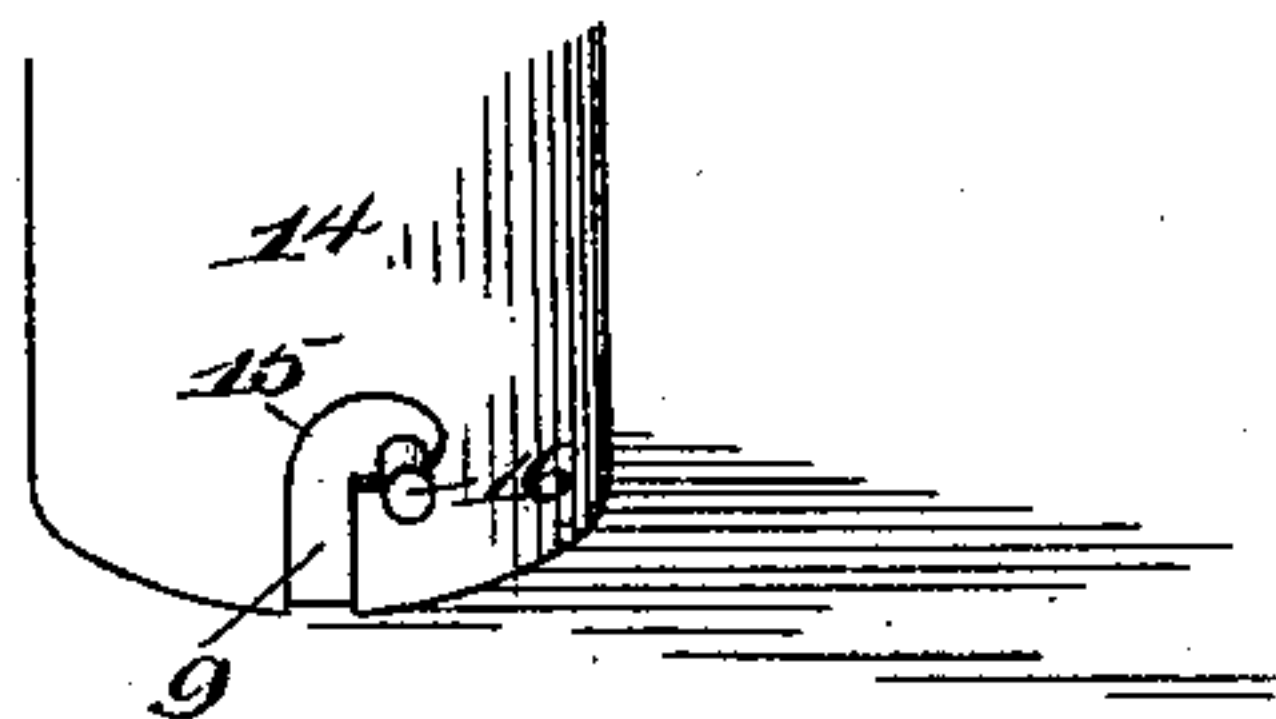


Fig. 3.

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Witnesses

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UNITED STATES PATENT OFFICE.

HENRY W. SCHOFF, OF OAK PARK, ILLINOIS.

NUTMEG-GRATER.

SPECIFICATION forming part of Letters Patent No. 543,633, dated July 30, 1895.

Application filed December 22, 1894. Serial No. 532,710. (No model.)

To all whom it may concern:

Be it known that I, HENRY W. SCHOFF, a citizen of the United States, residing at Oak Park, in the county of Cook and State of Illinois, have invented a new and useful Nutmeg-Grater, of which the following is a specification.

The invention relates to an improvement in that class of nutmeg-graters wherein means are provided for holding the nutmeg and for causing it to come in contact with a roughened grating-surface, the said surface being capable of moving against the nutmeg, or vice versa, so as to effect the grating thereof. A common form of these devices is to be found in a grater having the nutmeg-receptacle connected immediately to a handle or body portion and having a toothed plate or disk revolvably mounted alongside of the nutmeg-receptacle, so that upon the revolution of the plate or disk it will be made to engage with the nutmeg and to grate the same. In other forms this arrangement is reversed and the nutmeg-receptacle is made to revolve against a stationary grating-surface.

My invention is particularly related to the first form, wherein the grating plate or disk is made to revolve against the nutmeg as contained in the receptacle; and the object which my invention contemplates is to simplify the construction of these devices and to make them easier in operation, and consequently of more utility. A second object is to hide or cover, as far as possible, the moving parts of the device, so that it may be operated without causing exterior parts to move and revolve to the inconvenience of the operator. These ends I attain by providing a handle and by rigidly securing thereto by means of a common bolt or center pin two dish-shaped plates secured rigidly together, between which plates two grating-disks are arranged, one of which is rotatably mounted in place and operates in conjunction with the other, which is secured immovably against one of said plates.

The invention also consists in certain novel features and details of construction and arrangement of parts, as hereinafter fully described, illustrated in the drawings, and finally embodied in the claims.

In the drawings, Figure 1 represents a perspective view of a nutmeg-grater embodying

the essential features of my invention. Fig. 2 is a section thereof, taken longitudinally through the handle. Fig. 3 is a section taken through the nutmeg-receptacle. Fig. 4 is a detail perspective illustrating the bayonet-slot arrangement for holding the exterior cap or casing of the nutmeg-receptacle in place.

The reference-numeral 1 indicates the handle of my invention, which comprises a hand-grasping portion and a flattened portion contiguous thereto. This flattened portion is secured to the plate 2 by means of the bolt 3, which passes through the handle portion and through the plate, together with other parts of the device, as will be hereinafter described. The flattened portion of the handle has formed therein a cavity 4, which is closed by contact with the plate 2 and which forms a receptacle in which nuts, screws, and like devices may be placed and retained. This is a convenient device for holding the devices referred to and will be found useful, as will be apparent without further explanation.

The plate 2 has a flange 5 secured to or formed integral with its periphery, the plate being circular in form. The flange 5 projects laterally from the plate and gives the same its dish-shaped character, as referred to hereinbefore. The flange 5 is formed with a break or notch 6 therein, which forms an outlet for the nutmeg.

7 indicates the stationary grating-disk, which is of a size equal to that of the plate 2 and which is rigidly secured to the inner side thereof by soldering it in place. This disk is formed with a series of teeth 8, which are made by punching or perforating the disk, as is customary in such cases. The disk has also a central perforation for permitting the passage of the bolt 3. The purpose of this stationary disk is to catch and hold the particles of nutmeg as they are torn off by the action of the revolving disk and to impede their progress toward the discharge-opening, thereby effecting a more thorough pulverizing of the material.

The plate 2 and the disk 7 are formed with matching openings therein, which are of a size equal to perhaps three-fourths of the radius of the disk and which have the tube 9 rigidly secured therein. The tube 9 projects outwardly from the plate 2 and is open at its

outer end, so as to receive the plunger-block 10 of the nutmeg-receptacle and so as to permit the same to have movement therein. The plunger-block is provided with a concave inner face 11, provided with teeth or projections throughout its extent, and adapted to engage the nutmeg, as will be better explained hereinafter.

Rigidly secured to the block 10 and centrally thereon is the rod 12, which projects horizontally and is provided at its outer end with a head 13. This rod 12 passes through the end of a cap 14, which is capable of fitting snugly over the tube 9 and which is formed with a bayonet-slot 15, operating with a pin 16 on the base of the tube 9, whereby the cap may be locked in place.

17 indicates an expansive spiral spring, which is located within the cap 14 and which bears against the outer end of the same and against the block 10, and which operates to give the latter a tendency inward. When a nutmeg is contained in this receptacle the block 10 is pushed back into the outer portion of the tube 9, and the rod 12 projects beyond the cap 14. As the nutmeg is reduced in size, the rod and block recede, or move inward.

18 indicates a plate, which has the same size and form as the plate 2, and which is located alongside of the same though not in engagement with it. This plate is provided with an inwardly-extending and concentric flange 19, which is similar to the flange 5, and which has formed in it a break or notch 20, corresponding to and matching with the break or notch 6 and serving a similar purpose. The plate 18 has a central perforation through which the bolt 3 passes, and the head of the bolt 3 bears directly against the outer side of the plate 18. Fitted on the bolt 3, and covering that part which lies between the plates 2 and 18, is the sleeve 21, which operates to hold the plates 2 and 18 at the proper distance apart, said sleeve being made to bear against the plates 2 and 18 and thereby perform this function.

Mounted on the sleeve 21, and lying directly against the inner side of the plate 18, is the collar 22, which is provided to hold the moving grating-disk 23 in the proper relative position. The collar 22 may be increased or diminished in thickness, as desired, for increasing or diminishing the pressure of the moving grating-disk toward the stationary grating-disk, thus regulating the distance between the teeth of the opposing stationary and moving grating-disks. This disk 23 is of a size slightly greater than that of the plates 2 and 18, and engages the edge of the flange 19, the plate being held from contact therewith at other points by means of the collar 22. The disk 23 is provided with teeth 24, extending throughout its inner surface, and these teeth are located inward of the flange 19, so as to be capable of co-operating with the teeth 8 of the plate 2 and with the nutmeg.

Formed integral with the disk 23, and pro-

jecting out radially therefrom, is the arm 25, which has the button 26 pivotally mounted thereon, and which, together with the button 26, furnishes means for moving the disk 23.

By providing the moving grating-disk with the radially-projecting integral arm and pivotally mounting the button or handle thereon, power is applied directly to said disk instead of indirectly through the medium of a central shaft or axle, as in the ordinary construction. The inwardly-projecting annular flanges of the outer-casing plates afford a bearing for the outer edge or periphery of the moving grating-disk, and serve to guide and brace the latter in addition to forming the grating-chamber. This greatly simplifies the construction and renders the device less expensive in manufacture.

In the use of my invention the parts are assembled, as shown in the drawings, and the nutmeg inserted by removing the cap 14 and by placing the nutmeg in the tube 9, after which the cap should be replaced, which will cause the block 10 to bear against the nutmeg and push the latter into engagement with the disk 23. The grating operation is now performed by revolving the disk 23, which will cause the teeth 24 thereof to tear off particles of the nutmeg. As the particles of nutmeg torn off by the teeth leave the immediate vicinity of the tube 9, they will drop into the space between the disks 7 and 23, whereupon they will be subjected to a second grating operation, resulting in their reduction to still finer particles. The grated nutmeg is finally expelled through the notches 6 and 20.

The notch 20 is formed in the flange 19, so that all nutmeg which may find its way into the space between the plate 18 and the disk 23 may escape. It will be observed that by means of the peculiar construction of the nutmeg-receptacle the nutmeg will be held firmly against the grating-surface and will be prevented from turning over. In using the device, it is held by the handle 1 with one hand, and the button 26 manipulated with the second hand, all of which will be understood.

By placing three or four small knives on the moving disk and by dispensing with the handle 1, the device may be made capable of slicing cucumbers, potatoes, and other small vegetables. In event of such a use, suitable clamping-screws or other devices will be provided, so that it may be secured to a table in the operation of slicing vegetables. Further, by enlarging the size of the device it may be adapted for grating vegetables—such as potatoes and radishes—and in this latter use the parts will remain unchanged except in point of size.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having described the invention, I claim—
1. In a nutmeg grater, the combination of

two plates located alongside each other and rigidly connected, each plate having an inwardly-projecting peripheral flange formed with a notch, said notches being matched with each other, a moving grating-disk rotatably mounted between the plates and having its periphery disposed between and bearing against the flanges thereof, and a nutmeg receptacle carried by one plate and capable of pressing the nutmeg into engagement with the moving grating plate, substantially as described.

2. In a nutmeg grater, the combination of two plates mounted side by side and rigidly connected by a center pin or common bolt, each plate having an inwardly-projecting flange formed with notches therein, said notches being registered with each other, a nutmeg receptacle carried by one plate, a stationary grating disk rigidly secured directly against the inner side of the plate having the nutmeg receptacle and within the flange thereof, and a moving grating disk rotatably mounted between the said plates and having its periphery disposed between and bearing against the flanges thereof, said disk being formed with a radial extension beyond its periphery to receive an operating handle, substantially as described.

3. In a nutmeg grater, the combination of two plates rigidly connected to each other and mounted side by side, said plates having peripheral flanges thereon projecting inwardly toward each other and formed with matching notches therein, a cap removably secured to the outer side of one plate and communicating with the inner side thereof, a spring within

the cap, a block movable within the cap and pressed toward the remaining plate by means of the spring, said block having a concave inner face formed with teeth thereon, a fixed grating disk immovably secured directly against the inner side of the plate having the cap, a movable grating disk rotatably mounted between the two plates and having its periphery disposed between and bearing against the flanges thereof, and a handle mounted upon and extending beyond the common bolt or center pin and forming a stop for the nutmeg tube or receptacle, substantially as described.

4. In a nutmeg grater, a pair of annular plates having peripheral flanges disposed toward each other, the handle to which said plates are connected, and a common bolt or pivot passing through the center of said plates and into the handle, in combination with a stationary grating disk arranged within the flange of and secured to one of said plates, a rotary grating disk mounted upon said common bolt or center pin, means for revolving said grating disk, and a pressure collar disposed between the inner face of one of said annular plates and the rear face of the rotary grating disk, substantially as and for the purpose specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

HENRY W. SCHOFF.

Witnesses:

W. MOGK,
A. THÜRER.