F. EGGE.

SOAP SHAVING DEVICE.

APPLICATION FILED MAY 27, 1905. RENEWED APR. 22, 1915.

1,182,541.

Patented May 9, 1916.

2 SHEETS—SHEET 1.

Fig. 1.

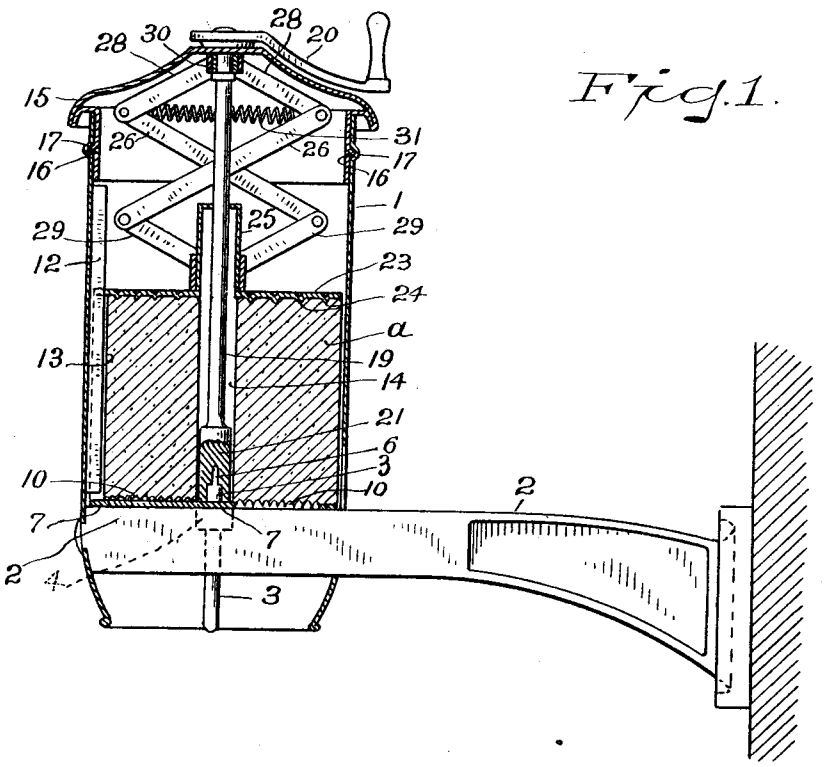


Fig. 2.

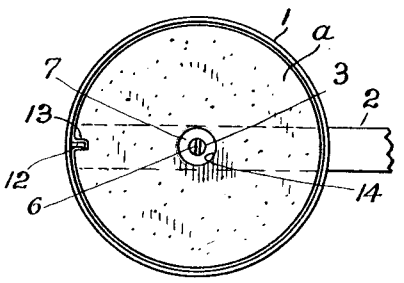
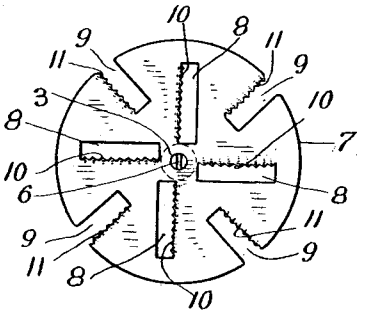


Fig. 3.



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2 SHEETS—SHEET 2.

Fig. 4.

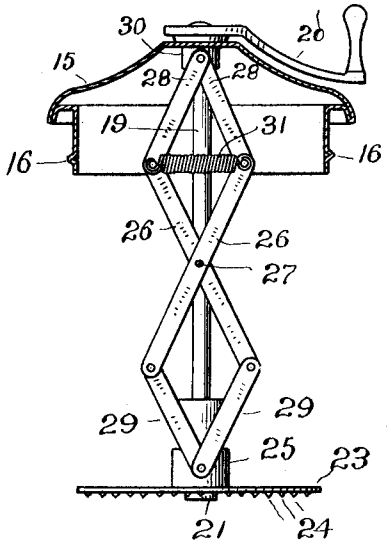


Fig. 5.

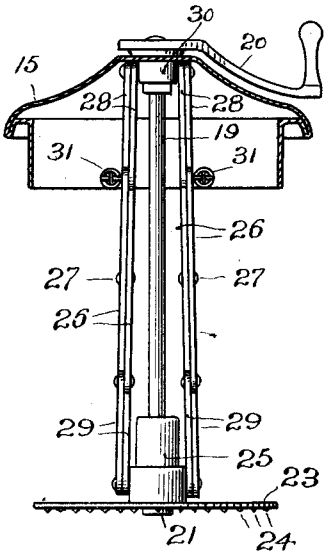


Fig. 6.

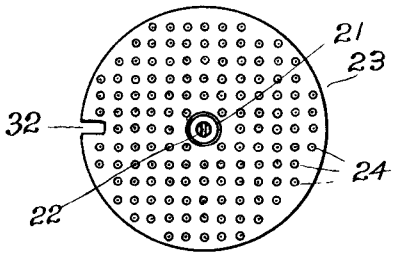
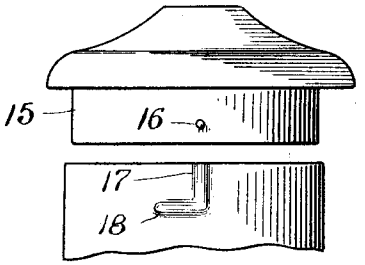


Fig. 7.



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UNITED STATES PATENT OFFICE.

FREDERICK EGGE, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR, BY MESNE ASSIGNMENTS, TO HYGENIC SOAP GRANULATOR COMPANY, A CORPORATION OF NEW JERSEY.

SOAP-SHAVING DEVICE.

1,182,541. Specification of Letters Patent. Patented May 9, 1916.

Application filed May 27, 1905, Serial No. 262,617. Renewed April 22, 1915. Serial No. 23,217.

To all whom it may concern:

Be it known that I, FREDERICK EGGE, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Soap-Shaving Devices; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to soap dispensing machines, the object being to provide a device which may be used as a toilet fixture in connection with wash basins for the purpose of supplying soap in such a form that it may be readily and economically used, thus doing away with the use of a cake of soap in the ordinary manner in the hands.

The object of my invention is to provide a machine of simple and compact construction for the purpose above specified, which shall supply soap in such a form that it will readily dissolve and lather freely in the hands.

To accomplish these results I have provided a machine wherein the soap is shaved into thin narrow strips or ribbons by a suitable comminuting device provided with cutting teeth adapted to be operated against a cake of soap positioned within a suitable receptacle.

This invention relates more particularly to the comminuting device or cutter, but other objects will be in part obvious and will in part appear hereinafter in connection with the description of the device shown in the accompanying drawings as an illustration of an operative embodiment of my invention.

Similar numbers of reference denote like parts in the several views of the drawings.

Figure 1 is a central vertical section showing one embodiment of my invention in an improved device with the parts in position for use. Fig. 2 is a plan view with the cover and parts carried thereby removed. Fig. 3 is a detail plan view of the cutter disk. Fig. 4 is a detail elevation of the cover and the parts carried thereby. Fig. 5 is a view similar to Fig. 4 but looking in a direction at right angles thereto. Fig. 6 is a bottom view of the pressure plate. Fig. 7 is a detail broken view of the case and cover in detached condition showing particularly the means provided for securing the cover in position.

A casing is shown at 1 which is open at its lower extremity and supported by any suitable means, such as the arm 2 which extends through the casing 1 so as to provide a platform or ledge upon which the comminuting device or cutter 7 may be supported. The arm 2 may be secured to the wall or to any suitable fixture convenient to a wash basin.

7 is a cutter disk having a central hub 4 which latter is seated within a recess in the upper surface of the arm 2 so that said disk will be horizontally disposed and will be supported by said arm. Extending through this disk and hub is a short shaft 3 the lower end of which projects loosely through the arm 2 while the upper end is preferably formed into a tenon 6, the object of which is to provide for a free rotary movement of said disk. This disk is provided with closed slots 8 whose inner extremities are near the axis of the disk and also with intermediate slots 9 whose outer ends open into the periphery of the disk and whose inner ends extend about halfway to the axial center of the disk. All these slots have a general radial disposition and in the same relative edges of these slots 8, 9, are formed cutter teeth 10, 11, which teeth are bent upward slightly for the purpose presently to be explained. The cutter disk revolves, as will be presently set forth, and its function is to shave the soap into very fine particles, and therefore it will be clear that there is more or less strain upon this disk during the process of shaving the soap. Accordingly it will be manifest that radially disposed slots cut from the periphery to a point near the axial center of the disk would so weaken the latter that it could not withstand the strain of cutting the soap and therefore particular attention is called to the manner of forming these slots as above described, so that the sweep of the cutting teeth will cover an area of a diameter substantially equal to the diameter of the disk itself. When in operative position this cutter is contained within the casing near the bottom thereof and is supported by the upper surface of the arm 2.

Secured to the interior of the casing is a vertically disposed fin 12 which extends from a point near the top of the casing down to a plane a slight distance above the cutter disk. The soap cake *a* itself has a cylindrical

shape, is adapted to fit snugly within the casing, and has a vertical groove 13 in the side into which this fin extends when the soap is placed within the casing, so that it will be clear that the soap is incapable of rotary movement. The soap is placed in position within the casing and rests immediately upon the cutter disk 7, the teeth of the latter extending upwardly so as to be capable of scoring or cutting the soap when said disk is revolved. It therefore is necessary to provide means for revolving the cutter disk and at the same time to hold the soap firmly against said disk, which part of my invention I will now describe.

The soap itself is made with a central opening 14 extending from top to bottom and when this soap is in position on the cutter disk the upper end of the short shaft 3 will project upwardly within this opening.

15 is the cover of the casing which cover is provided with teats 16, at diametrically opposite points, adapted to engage with vertically disposed channels 17 in the top of the casing and by a slight turn of said cover adapted to be thrust within deflected portions 18 of these channels, whereby the cover and casing may be detachably secured together in a very well known and ordinary manner.

19 is a shaft secured to the top of the cover in any ordinary manner so as to be capable of free revolution, and to the outer extremity of this shaft beyond the cover is secured a crank 20. The lower extremity of this shaft is formed into a head 21 capable of passing freely through the opening 14 in the soap, said head being mortised as shown at 22 so as to engage snugly with the upper end of the shaft 3 and its tenon 6 whereby the cutter disk may be revolved by turning the crank 20.

To hold the soap against the cutter I prefer to employ a disk 23 having serrations 24 depending from the bottom face which disk rests directly upon the soap and has secured to its upper face concentrically therewith a hollow thimble 25 and is cut out at the center so that the head 21 of the shaft may pass through the disk 23 within said thimble, said shaft extending loosely through the top of the thimble.

26 are levers which are pivoted together at 27 at their central portions, and 28, 29, are short levers whose outer ends are respectively pivoted to the outer extremities of the levers 26, the inner ends of these short levers being respectively pivoted together and also to a stationary collar 30 secured to the underside of the cover and to the hollow thimble 25. There are two sets of these levers pivoted in the manner described on opposite sides of the shaft 19, and I employ coil springs 31 whose extremities are secured to the pivotal points at the outer extremities of each of the two sets of short levers 28, the function of these springs being normally to draw together the ends of the levers. These levers are therefore arranged after the manner of lazy tongs, and the serrated disk 23 will accordingly be constantly forced against the cake of soap and the pressure will be uniform. The serrated disk 23 is secured as against turning by means of a notch 32 in the periphery of said disk which engages with the fin 12.

The parts being in the position as shown at Fig. 1, the revolution of the crank 20 will cause the cutter disk to shave very fine particles from the bottom of the cake of soap which particles will be discharged from the bottom of the casing into the hand of the person using the device. When the disk 23 is at its lowermost position within the casing with the levers 26, 28, and 29 fully extended, said disk will just clear the upwardly projecting teeth of the cutter disk, and when the soap cake has been reduced so that it is very thin the serrations 24 will coöperate with the cutter teeth to completely grind up this remnant of soap so that it may be discharged from the casing.

In renewing the soap, the cover and the parts carried thereby are removed from the casing and after a fresh cake of soap has been placed within such casing the cover is placed in position and is depressed until the head 21 engages with the shaft 3 and tongue 6, the cover being then locked to the casing in the manner hereinbefore described.

The arm 2 affords a ledge or platform within the casing for the support of the various parts of my improvement, but of course any suitable ledge or equivalent may be provided within the casing and the arm may be secured to the outside of the casing, and various other changes may be made that are simple and within the range of ordinary mechanical skill, all without departing from the spirit of my invention.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:—

1. A cutter adapted for use in a soap dispensing machine, comprised of a circular disk having a series of rectangular openings closed at both ends and whose inner extremities are near the axis of the disk and also having a series of rectangular openings whose outer ends open into the periphery of the disk, said slots being provided with integral serrated cutting edges on one side thereof.

2. A cutter adapted for use in a soap dispensing machine, comprised of a circular disk having a series of rectangular openings closed at both ends and whose inner extremities are near the axis of the disk and extending to a point intermediate the center and the periphery thereof and also having a

series of rectangular openings whose outer ends open into the periphery of the disk and extending substantially half way to the center thereof, said slots being provided with integral serrated cutting edges on one side thereof.

3. A cutter adapted for use in a soap dispensing machine, comprised of a circular disk having a series of rectangular openings closed at both ends and whose inner extremities are near the axis of the disk and extending to a point intermediate the center and the periphery thereof and also having a series of rectangular openings alternately positioned with said first series of openings and whose outer ends open into the periphery of the disk and extending substantially half way to the center thereof, said slots being provided with integral serrated cutting edges on one side thereof.

4. A cutter adapted for use in a soap dispensing machine, comprised of a circular disk having a series of rectangular openings closed at both ends and whose inner extremities are near the axis of the disk and extending to a point intermediate the center and the periphery thereof and also having a series of rectangular openings whose outer ends open into the periphery of the disk and extending substantially half way to the center thereof, said slots being positioned with one edge extending radially and said edge formed with integral serrated cutting edges projecting above the surface of said disk.

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

FREDERICK EGGE.

Witnesses:
F. W. SMITH, Jr.,
M. T. LONGDEN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."