No. 867,976. PATENTED OCT. 15, 1907

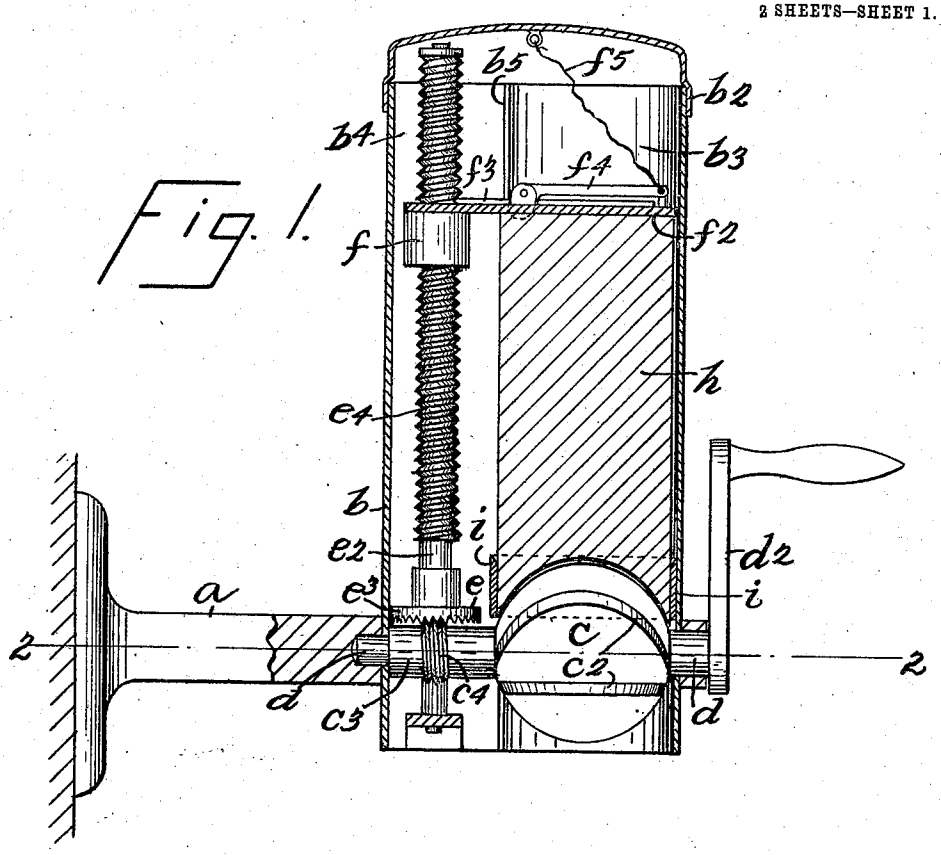
J. V. IRENIUS.

SOAP SHAVER.

APPLICATION FILED JAN. 11, 1907.

2 SHEETS—SHEET 1.

Fig. 1.



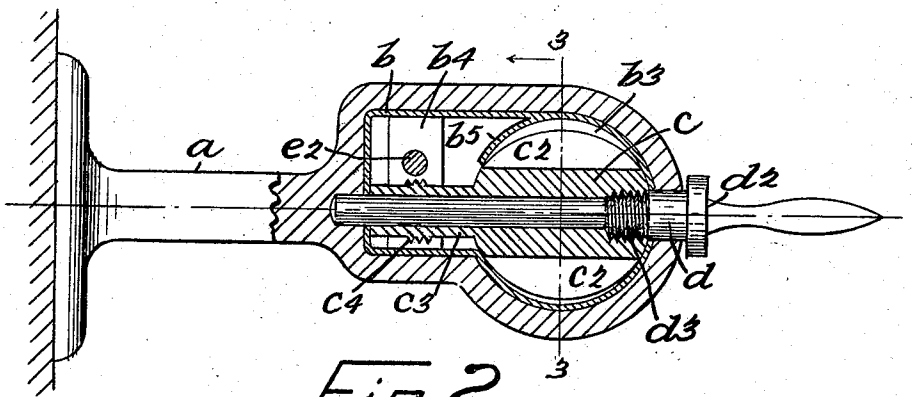


Fig. 2

WITNESSES

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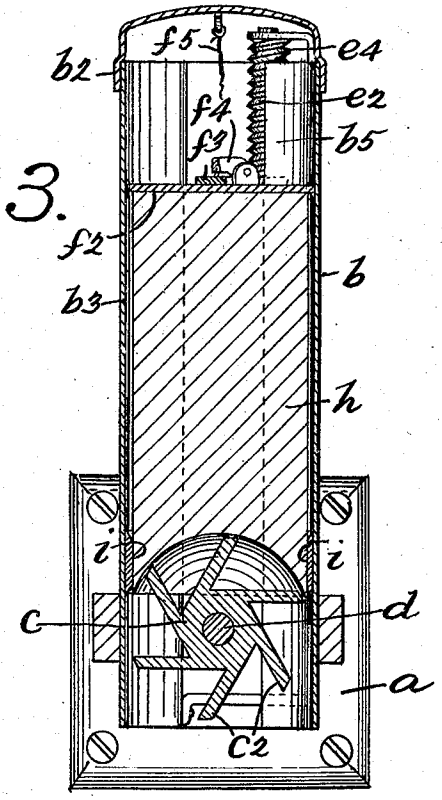
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Fig. 3.



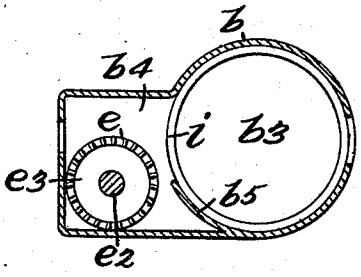


Fig. 4.

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SOAP-SHAVER.

No. 867,976. Specification of Letters Patent. Patented Oct. 15, 1907.

Application filed January 11, 1907. Serial No. 351,760.

To all whom it may concern:

Be it known that I, JOSEPH V. IRENIUS, a citizen of the United States of America, and residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Soap-Shavers, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to soap dispensing machines being related to a companion case filed Dec. 12, 1906, Serial No. 347,400 and the object thereof is to deliver a desired amount of soap into the hands of the user without the unsanitary necessity of handling the main cake or bar thereof; a further object being to deliver the same into a readily soluble form in such quantity as to prevent waste and to provide means for such delivery; a still further object being to provide such a device in which a cake or bar of soap is entirely converted into said soluble form and in which replenishing thereof is readily accomplished and also to provide a device which is composed of few parts, which is positive in action, which is very economical in construction and which insures the position and delivery of a cake of soap therein.

My invention is fully described in the following specification, of which the accompanying drawings form a part, in which the separate parts thereof are designated by suitable reference characters in each of the views, and in which:—

Figure 1 is a vertical section through a soap shaving machine constructed according to my invention; Fig. 2 is a horizontal section thereof taken on the line 2—2 of Fig. 1 and looking downwardly; Fig. 3 is a section at right angles to that shown in Fig. 1 and taken on the line 3—3 of Fig. 2; and Fig. 4 is a section on the line 2—2 of Fig. 1, but looking upwardly.

In the drawings forming a part of this application, I have shown a machine of the class described, comprising a support a, a casing b therein and open at each end and provided with a cover b^2 which is readily removable but which may be locked in position if desired, and the casing b comprises two compartments b^3 and b^4, in communication with each other, and of which the compartment b^3 is circular in form whereas the compartment b^4 is preferably angular and, as shown in the drawings, a wall b^5 is arranged in the casing to separate the compartments.

Arranged in the casing b, adjacent to the bottom thereof, is a cutter c comprising a plurality of blades c^2 arranged tangentially of an axle d passing therethrough and provided with cutting edges as shown and the cutter c is also provided with a projecting member c^3 upon which are placed several screw-threads c^4 serving as a worm and in operative connection with a gear wheel e mounted upon a shaft e^2 arranged vertically in the casing said gear having the teeth thereof arranged at the bottom of a plate e^3 and the shaft e^2 is also provided with a screw-thread e^4 which extends for a predetermined distance thereon.

The axle d is provided with an integral crank-arm d^2, externally of the casing b, and carries a screw-thread d^3 at a point adjacent to the interior of said casing, beyond which the axle d is reduced in diameter, and the thread d^3 engages a similar thread in the cutter c thereby locking the axle and cutter together and, as shown in Fig. 2, the axle d extends beyond the casing b and into the support a and which serves as a bearing therefor.

Slidably mounted upon the shaft e^2 is a collar f, to which is secured a plate f^2 and upon which is mounted a slide f^3 adapted to be moved backwardly and forwardly in the manner shown and described in my application filed December 12th, 1906, Serial Number 347,400, by means of a cam lever f^4 to the end of which is connected a cord f^2 also connected with the cover b^5 and the slide f^5 engages the thread e^3 when in its forwardly position but when the cord f^3 is pulled the slide f^3 is moved backwardly out of engagement with the thread e^4 and the plate f^2 may be drawn upwardly out of the casing b after which it is rotated upon the shaft e^2 clear of the open end of said casing thereby permitting the insertion of a cake of soap thereinto, said cake being shown at h.

In assembling my machine, the support a and casing b are secured together and the shaft e^2, with the collar f thereon, placed in position after which the cutter c is placed within the casing in such manner that the thread c^4 engages the gear e, at which time the axle d is passed through the support a and casing b and into the cutter c until the threads thereon engage the threads in the cutter and a few turns of the crank arm d^2 will hold the cutter and axle in position and continued rotation thereof rotates the cutter and thereby the shaft e^2 which acts upon the slide f^3 and forces the plate f^2 downwardly, thus feeding the soap h, upon which the plate f^2 rests, to the cutterc.

Secured within the casing b, above the cutter c, is an annular band i, the top edge of which is outwardly inclined and, in practice, the cake or bar h of soap is made of the same diameter as the interior of the band i and which serves as a guide therefor in its movement toward the cutter.

In the operation of my invention the cake h of soap is placed in the casing b in the manner described, after which the plate f^2 is dropped into the casing until it rests upon the soap, after which the slide f^3 is moved into engagement with the shaft e^2 after which the rotation of the crank arm d^2 in the proper direction forces

the soap downwardly through the annular band *i* and to the cutter c^3 which, because of the circular formation of blades thereon, cuts away said soap in shavings, of a thickness corresponding to the pitch of the thread on the shaft e^2, until a hemispherical recess is formed therein which serves to hold the soap in its position with relation with the cutter although movement thereof is also prevented, transversely, by the band *i* and the wall b^5 and the soap shavings drop into the hands of a user placed beneath the open bottom end of the casing.

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

1. A soap shaving machine embodying a casing, a horizontal shaft in said casing having a screw threaded portion, a vertical shaft in the casing having screw threads thereon, a gear wheel comprised of a plate secured to said vertical shaft and having downwardly facing teeth in engagement with said screw threaded portion of the horizontal shaft, a cutter on said horizontal shaft, and means to bear against the top of the soap cake removably engaged with said screw threads of the vertical shaft and operated by the latter.

2. A soap shaving machine embodying a casing having a short vertical separating wall at its upper end to form a soap cake compartment, a cutter of approximately the same length as the width of said compartment arranged below the lower end of the latter and a guide of substantially the same shape as said compartment arranged at a distance below said wall and above said cutter so that the blades of the latter will project in said guide and lie flush with the top thereof.

3. A soap shaving machine embodying a casing divided into two comparatively short longitudinally extending chambers, a cutter at a distance below the lower end of one of said chambers, and a guide member of band form open at both ends and disposed at a distance from said chamber and arranged so that the blades of said cutter will project thereinto and lie flush with the top thereof.

4. A soap shaving machine embodying a casing, a circular guide having open ends located intermediate the top and bottom of said casing, a cutter in casing comprising a series of blades having arc-shaped cutting edges, the outer most point of said cutting edges lying flush with the top of said guide, and means to feed the soap through said guide, said means being restricted in its downward movement by engagement with said guide.

5. A soap shaving machine embodying a casing, an open ended band-like guide in said casing, a cutter below said guide having blades which have cutting parts lying flush with the top of said guide, a soap feeding plate to engage on top of the soap cake, means to operate said plate, said plate being restricted in its downward movement by engagement with the top of said guide.

6. A soap shaving machine embodying a casing, a support therefor, a horizontal shaft in the lower end of the casing having its inner end projecting through the casing and into an opening provided therefor in said support, a cutter on said shaft, a screw threaded portion on said shaft, a vertical shaft in the casing arranged to one side of the horizontal shaft, a gear wheel on said vertical shaft embodying a horizontal toothed plate which overlies said screw threads of the horizontal shaft, and means operated by said vertical shaft for engagement with the soap cake.

7. A soap shaving machine embodying a casing, a horizontal shaft in said casing having a screw threaded portion, a cutter on said shaft, a vertical shaft spaced from said horizontal shaft, a gear wheel on said vertical shaft embodying a horizontally disposed plate having downwardly facing teeth, the radius of said plate being such as to cause the teeth thereof to overlie and engage said screw threads of the horizontal shaft and means operated by said vertical shaft for feeding the soap cake to said cutter.

8. A soap shaving machine embodying a casing, a short vertical arc-shaped wall at the top of the casing, forming a top guide for the soap, a bottom guide for the soap embodying an open-ended band located at a distance from said top guide and formed with an upwardly extended enlarged mouth, a cutter extending through said band to project in said mouth, and means to feed the soap through each of said guides.

9. A soap shaving machine, embodying a casing, a short open ended top soap guide having an open side, and a lower soap guide having open ends located at a distance from said top soap guide, means to feed the soap operating through said open side of the top guide, and a cutter having blades which extend to the top of said lower guide.

10. A soap shaving machine embodying a horizontal operating shaft carrying a cutter therein, an open ended guide member shaped to receive and engage the soap cake overlying said cutter, means operated by said shaft for forcing the soap cake through said guide member, and an inclosing casing.

In testimony that I claim the foregoing as my invention I have signed my name in presence of the subscribing witnesses this 9th day of January 1907.

JOSEPH V. IRENIUS.

Witnesses:
M. M. WHIPPLE,
EDW. BRADY.