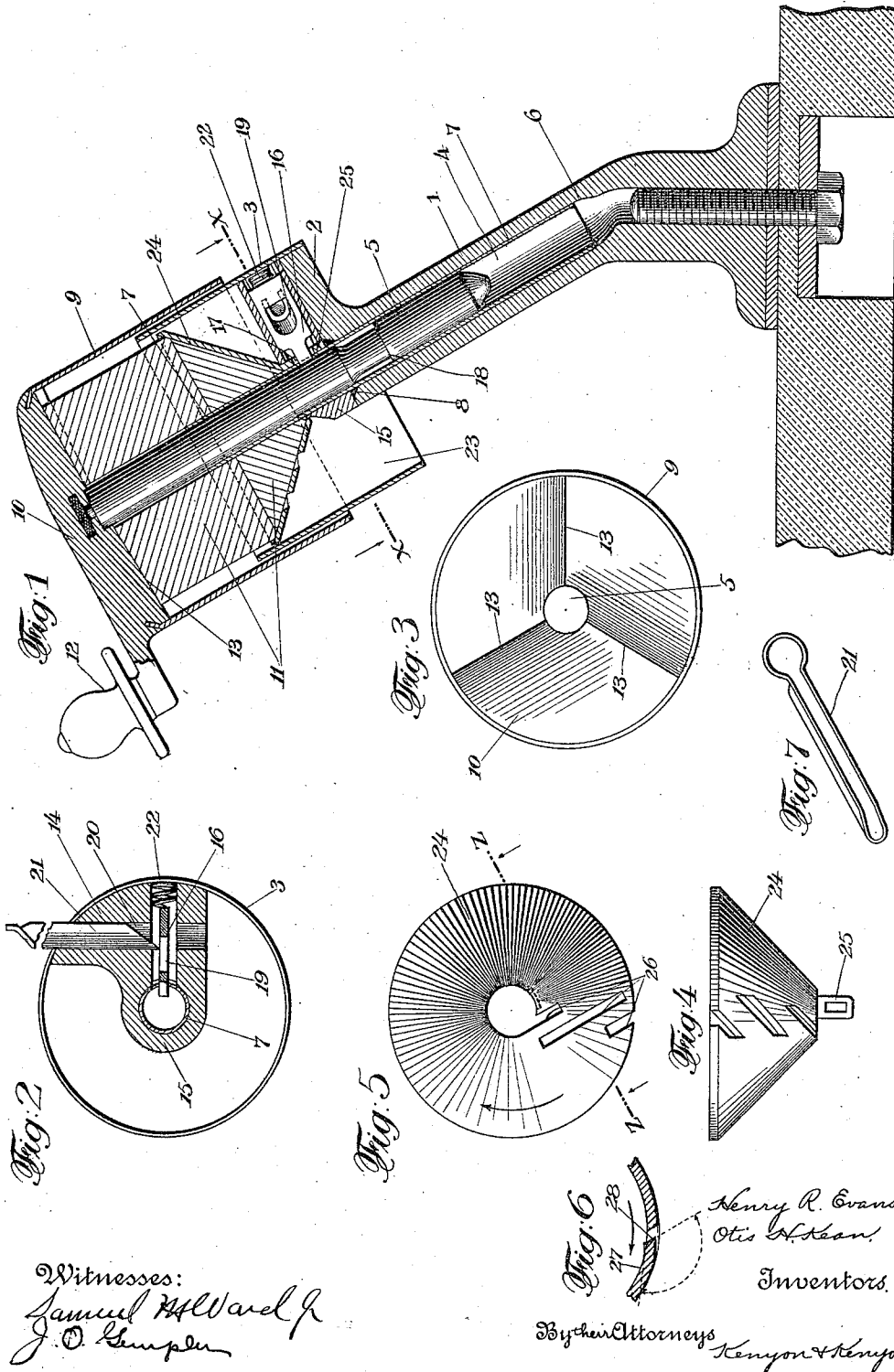


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H. R. EVANS & O. H. KEAN.
SOAP DISPENSING MACHINE.
APPLICATION FILED JULY 16, 1910.

1,060,071.

Patented Apr. 29, 1913.



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UNITED STATES PATENT OFFICE.

HENRY R. EVANS AND OTIS H. KEAN, OF NEW YORK, N. Y.; SAID KEAN ASSIGNOR, BY
MESNE ASSIGNMENTS, TO SOAPITOR SALES COMPANY, OF NEW YORK, N. Y.

SOAP-DISPENSING MACHINE.

1,060,071.

Specification of Letters Patent.

Patented Apr. 29, 1913.

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To all whom it may concern:

Be it known that we, HENRY R. EVANS and OTIS H. KEAN, both citizens of the United States, and residents of New York city, county and State of New York, have invented certain new and useful Improvements in Soap-Dispensing Machines, of which the following is a specification.

Our invention relates to soap dispensing machines, and more particularly to machines for dispensing solid soap.

One of the objects of the invention is to provide a machine which will dispense the soap in the most economical and convenient form, and to this end we provide a novel form of "cutter" which scrapes the soap as distinguished from cutting or grating, thus dispensing the soap in the form of fine scrapings or shavings as distinguished from chips or granules.

Another object of the invention is to provide a compact, durable machine having pleasing outlines, and which may be readily re-filled without danger of disarranging or damaging the operating parts thereof.

Other objects of the invention including the arrangement of certain parts, will more fully appear from the following description taken in connection with the accompanying drawings in which—

Figure 1 is a vertical section through the center of a soap dispensing machine, illustrating the preferred embodiment of our invention; Fig. 2 is a cross sectional view taken on line $x-x$ of Fig. 1, showing the locking device for locking the parts of the machine together; Fig. 3 is a plan view of the inner surface of the top of the machine; Fig. 4 is an elevation of the preferred form of "cutter" showing the scraping edges formed therein; Fig. 5 is a top plan view of the "cutter;" Fig. 6 is an enlarged fragmentary sectional view of the "cutter" taken on the line $z-z$ of Fig. 5 and showing one of the scraping edges; and Fig. 7 is a perspective view of a key.

Referring to the drawings, Fig. 1: 1 is an inclined supporting shank having an enlarged head 2 which may be in the form of a collar or projection secured to the top of the shank, or it may form an integral part of the shank as shown in the illustration.

In the present embodiment of our invention, a cylindrical member 3 forming one of the receptacle members for the soap, is secured to the head 2 in any desired manner. As illustrated in the drawing, it may consist of a section of brass tubing suitably secured to the head 2 by pins or otherwise. The shank 1 is provided with a socket or passageway 4 formed therein, for receiving and concealing a projection or spindle 5 hereinafter referred to. The lower part of this socket or passageway is preferably formed with a tapering portion 6, and a tube 7 is inserted in the socket or passageway, and is centered therein upon the curved portion 6. In order to secure the tube within the socket, we prefer to form the socket with a slightly flaring mouth 8, and solder the tube to the socket at this point; and to form the shank head 2 concentric with the tube 7 and the cylindrical member 3, we place the shank with the tube in position, upon a lathe, and with the tube as a center, we turn down the head 2 to fit the cylindrical member 3.

In the present embodiment of our invention, a second cylindrical receptacle member 9 having a head 10, telescopes with the receptacle member 3 to form a receptacle for the cakes of soap 11 to be dispensed. The spindle 5 is secured to the receptacle 9 in any suitable manner, and in the present embodiment of our invention, it is secured concentrically to the head 10. Where it is desired to have the spindle made of steel or wrought iron, and the cylindrical member made from a section of brass or other suitable metal tubing, it is preferable to connect these parts by placing them in a die-mold and die-cast the head on said parts as shown in the drawings, the head being cast of any suitable metal such as white metal. By this construction, a strong spindle member may be utilized and accurately centered with respect to the cylindrical member 9 so that when the spindle is inserted in the tube 7, the cylindrical members 3 and 9 will properly telescope with each other.

The receptacle member 9 is provided with a suitable handle 12 for rotating it, and also with suitable means such as radial shoulders or projections 13 for engaging similar shoulders or projections in the cakes of soap

in order to rotate the soap when the handle is turned. In the present form of our invention, the handle is formed on the head 10 and the engaging shoulders 13 are cast on the inner surface of the head.

In order to lock the receptacle members together to prevent the removal of the soap or any tampering with the cutter mechanism, a suitable locking device is provided which, in the present embodiment of our invention, consists of a lock case 14 mounted on top of the floor member or enlarged shank head 2 and fastened thereto by any suitable means, and having a part 15 fitting concentrically over the tube 7 to properly adjust and hold it from lateral movement with respect to the tube, and to form a level seat for the "cutter." Within this case is mounted a spring-pressed locking finger or plunger 16 the head of which projects through a suitable opening 17 in the wall of the tube and into engagement with the spindle 5, upon which is formed a suitable shoulder 18 which engages with the finger 16 when the upper receptacle member is lifted, thus preventing the removal of said member by unauthorized persons. The finger 16 is provided with a central perforation 19 one end of which normally registers with a U-shaped passageway 20 (Fig. 2) passing through the wall of the cylindrical member 3 and the lock case 14, and into which a key 21 U-shaped in cross section, is inserted as shown in Fig. 2, to force the finger out against a suitable spring 22 which is placed between the rear of the finger and the receptacle member 3.

The lock case 14 and the shank head 2 upon which the case is mounted, are of such shape and size as to leave a suitable opening 23 at the bottom of the receptacle through which the soap scrapings or shavings may be dispensed.

Within the receptacle a suitable "cutter" is provided for dispensing the soap, and in the present form of our invention, a dished "cutter" 24 is utilized, which is mounted at the bottom of the receptacle, fitting loosely and concentrically over the tube 7. The "cutter" has a slight clearance with respect to the cylindrical member 3, and is provided with a projection 25 extending loosely between the tube and the lock casing and loosely engaging the locking finger, thus permitting a certain amount of movement of the "cutter," but preventing its withdrawal. On account of this loose fit of the "cutter" within the receptacle and its loose engagement with the finger and the adjacent parts, the "cutter" may center itself with respect to the soap, thus maintaining an automatic balance of external forces on the soap and reducing any tendency of the soap to bind around the central shaft, thus diminishing the consequent liability of splitting the soap.

This automatic adjustment of the "cutter" with respect to the soap and its adjacent parts also reduces the necessity of accuracy in and cost of manufacture, since slight differences or variations in the size and position of the "cutter" and adjacent parts are taken care of by this loose seating of the "cutter" which permits it to automatically adjust itself with respect to the soap.

In machines for dispensing solid soap as heretofore used, "cutters" have been employed which cut or granulate the soap as distinguished from scraping it, and when the soap is dispensed by either a cutting or granulating action, the amount of soap cut away or dispensed in a given time, or for a given number of revolutions is considerably greater than would be the case if the soap were consumed or dispensed by a scraping action of the "cutter", since the shavings taken off by a scraping edge are extremely thin, thus preventing wasteful consumption of the soap. The average person using soap dispensing machines will give the handle a certain number of turns without regard to or consideration of the amount of soap being dispensed, and with a "cutter" having granulating members or cutting edges, enough soap is dispensed in this operation for two or three average washings, which results in a wasteful use of a considerable percentage of the product. Inasmuch as the principal function of soap dispensing machines is to economize in the amount of soap used, it is important to reduce the amount of soap dispensed in an average operation to the necessary amount only, and in order to accomplish this, we have provided the "cutter" with one or more scraping edges 26 as distinguished from cutting edges or granulating projections, since the product taken off by a scraping edge is necessarily extremely thin and the use of the scraping edge not only economizes in the soap used, but it gives a product very pleasing in appearance, and on account of its extreme thinness, one which readily dissolves. The shavings produced by the scraping action will quickly fill the hand and give the appearance of a considerable amount of soap, whereas in reality, while the handful of shavings will be sufficient for an ordinary washing, the actual amount of soap dispensed will be very small indeed; and it has been demonstrated by actual experiment that with a machine as shown in the drawings, after a steady and uniform dispensing operation of thirty minutes, resulting in a large pile of shavings, not more than a half inch in length, of the cake had been consumed.

For a soap consuming edge to have a shaving action on the soap as distinguished from a cutting or granulating action, it is necessary that the edge be greater than an acute angle, *i. e.*, that the adjacent surfaces con-

verging to form the edge, shall form between them an angle greater than an acute angle so that the edge will not "hog" into the soap, and an angle of about 120 degrees between these adjacent surfaces has been found very satisfactory.

Referring to Fig. 6, in which it will be assumed that the "cutter" is stationary and that the soap is rotated in the direction of the arrow, it will be seen that the cutting angle, or angle in dotted lines, formed between the soap-engaging surface 27 and the converging surface 28, is an obtuse angle, and in this case, an angle of about 120 degrees; or, stating it differently, the adjacent angle formed between the engaged surface of the soap and the surface 28 of the "cutter" is an acute angle. In the present embodiment of our invention, the "cutter", as formerly stated, is dished, or, more specifically, cone shaped.

The dished shape of the body of the "cutter" reflects the external forces exerted on the soap all toward the center, thus taking advantage of the compressive stress of the soap and reinforcing it or binding it together. This construction and arrangement of the "cutter" diminishes the liability of breaking or cracking the soap while it is being entirely used up, and even though the remnant of the cake first adjacent to the "cutter" becomes cracked or split as it grows smaller, it is still entirely surrounded and confined or pressed in operative position. Furthermore, by virtue of the cutter's dished shape, the periphery of this remnant is at all times scraped away first, thus keeping a strong, mechanically well proportioned cross section of the soap until it is used up. The "cutter" has a smooth inner surface for supporting the soap, and the scraping edges may be formed in this surface, as shown in Fig. 6, by stamping out certain portions of the "cutter" and slightly displacing the cutting edges to engage the soap, after which the "cutter" is suitably tempered and the leading or scraping edge may then be sharpened by grinding or otherwise. The "cutter" might be formed with one continuous edge from the apex of the "cutter" to its periphery, but such a construction would weaken the "cutter", and in order to overcome this and provide a strong, durable "cutter" which will not be warped out of shape in the tempering process, we form the edges by stamping out two or more overlapping portions displaced one from the other so as to prevent the weakening effect of a continuous cut from the center to the periphery of the "cutter." To give a smooth scraping action, and to exert the scraping strain toward the center of the soap, we form the scraping edges obliquely, in the manner shown in Figs. 4 and 5. The projection 25 which is engaged by the locking

finger 16 in the present instance is formed by being stamped out of the apex portion of the metal when the "cutter" is being formed.

The cakes of soap which we use with the present embodiment of our invention are cylindrical and formed with a central aperture or passageway to take the tube 7 and spindle 5. The cakes of soap are of such diameter as not to project over the periphery of the "cutter" 24, and the ends of each cake have radial shoulders formed therein so that the cakes of soap will interlock with each other and with the radial shoulders formed in the head 10. The form of the cakes of soap to be used in each instance will depend upon the particular construction of the machine embodying our invention, and the radial shoulders may or may not be omitted in the cakes of soap, as desired.

The operation of the embodiment of our invention above described, is as follows: To place the soap within the receptacle, the key 21 is inserted in the passageway 20, and the inclined point of the key passing into the outer end of the slot 19 forces the locking finger against the spring 22, withdrawing the inner end of the finger out of the sleeve 7, in which position of the finger the receptacle 9 may be raised without the locking shoulder 18 engaging the finger. The cakes of soap are then placed in position upon the "cutter" concentric with the sleeve 7, after which the receptacle 9 is again placed in position, the spindle 5 passing through the concentric passages formed in the soap, and into locking position within the tube 7 of shank 1, after which the key is withdrawn and the locking finger is thrust forward by the spring into engagement with the spindle, and the machine is now ready for use. As the handle 12 is turned to the right, the radial shoulders 13 formed in the head 10 engage corresponding shoulders formed in the upper cake of soap, which in turn interlocks with similar shoulders on the lower cake of soap to rotate the lower cake against the scraping edges 26, during which operation the thin scrapings or shavings which are taken off by this edge will pass through the slots formed in the "cutter", and pass through the opening in the bottom of the receptacle, which in the present case is practically in alinement with the scraping edges. The machine is shown in Fig. 1 with one cake of soap partly consumed, and the machine is so proportioned that when the extreme bottom end of the cylindrical member 9 comes flush with the bottom end of the cylindrical member 3, it will indicate that a sufficient amount of soap has been consumed to make room in the receptacle for a new cake; but, of course, the machine will continue in operation until the soap is consumed to a point where the head

10 will rest upon the upper end of the sleeve 7, or, where the radial shoulders are used, until the outer edge of the shoulders rest upon the upper end of the cylindrical member 3. When it is desired to remove the "cutter", the key is inserted as above explained, to force the locking finger 16 against the spring 22 and out of the path of the projection 25, after which the receptacle 9 with its projection 5, may be withdrawn, and the "cutter" may then be removed by placing one or more fingers through the opening in the bottom of the receptacle and lifting the "cutter" out of the receptacle 3. To replace the "cutter", it is only necessary to slip it into place over the sleeve 7, with the projection 25 in alignment with the locking finger, after which the key may be withdrawn and the spring 22 will force the locking finger 16 through the aperture in the projection 25 on the "cutter", thus again securing it in position.

It is obvious to those skilled in the art that various modifications may be made embodying one or more of the features of our invention, and that various structural changes in the present embodiment of our invention and different arrangements of the parts thereof may be made without departing from the spirit of our invention, and we aim to cover all such modifications of our invention, and do not wish to be limited to any particular construction or arrangement of the parts other than as specified in the appended claims.

We claim—

1. In a soap dispensing machine, the combination of a soap "cutter", and a receptacle for the soap comprising two cylindrical telescoping members relatively movable rotatively and longitudinally during the dispensing process.

2. In a soap dispensing machine, the combination of a soap "cutter", a receptacle for the soap comprising cylindrical telescoping members relatively movable rotatively and longitudinally during the dispensing process, and means causing relative movement between the soap and the "cutter" by the rotation of one of said receptacle members.

3. In a soap dispensing machine, the combination of a soap "cutter" a receptacle for the soap comprising upper and lower cylindrical telescoping members movable rotatively and longitudinally relatively to each other during the dispensing process, and means at the upper part of the upper receptacle member for causing relative movement between the soap and the "cutter" when said upper member is rotated.

4. In a soap dispensing machine, the combination of a soap "cutter", a receptacle for the soap to be dispensed comprising cylindrical telescoping members relatively mov-

able rotatively and longitudinally during the dispensing process, and means at the end of one of said receptacle members for engaging the soap to rotate it relatively to the "cutter" when said last receptacle member is rotated.

5. In a soap dispensing machine, the combination of a soap "cutter", a receptacle for the soap to be dispensed comprising cylindrical telescoping members relatively movable rotatively and longitudinally during the dispensing process, and a shoulder on the inner surface of one of said receptacle members engaging the soap to drive it relatively to the "cutter".

6. In a soap dispensing machine, the combination of a soap "cutter", a receptacle for the soap to be dispensed comprising cylindrical telescoping members relatively movable rotatively and longitudinally during the dispensing process, one of the receptacle members having a head and a plurality of substantially radial shoulders formed in said head and engaging the soap to drive it relatively to the "cutter".

7. In a soap dispensing machine, the combination of a soap "cutter", a receptacle for the cakes of soap to be dispensed comprising two members relatively movable rotatively and longitudinally during the dispensing process, one of said members having a socket, and a projection from the other member extending into said socket.

8. In a soap dispensing machine, a soap "cutter", a receptacle for the cakes of soap to be dispensed comprising two cylindrical telescoping members, said receptacle having a socket formed at one end, and a projection from the other end extending through the receptacle and into the socket.

9. In a soap dispensing machine, the combination of a soap "cutter", a receptacle for the cakes of soap to be dispensed, comprising two telescoping members relatively movable longitudinally during the dispensing process, said receptacle having a socket formed at one end, and a projection from the inner surface of the other end extending centrally through the receptacle and into the socket.

10. In a soap dispensing machine, the combination of a soap "cutter", a receptacle for the cakes of soap to be scraped, comprising two telescoping members relatively movable longitudinally during the dispensing process, said receptacle provided with an extension at one end having a deep socket formed therein concentric to the axis of the receptacle, and a spindle projecting concentrically from the inner surface of the other end of the receptacle and extending into the socket.

11. In a soap dispensing machine, the combination of a soap "cutter", a receptacle for the cakes of soap to be dispensed, com-

prising two telescoping members relatively movable longitudinally during the dispensing process, said receptacle provided with an extension at one end having a deep socket formed therein concentric to the axis of the receptacle, a spindle projecting concentrically from the inner surface of the other end of the receptacle and extending into the socket, a shoulder formed on the spindle, and a locking member mounted adjacent the socket for engaging the shoulder to lock the spindle in the socket.

12. In a soap dispensing machine, the combination of a soap "cutter", a receptacle for the cakes of soap to be dispensed, comprising two members having telescoping walls and relatively movable longitudinally during the dispensing process, one of said receptacle members being provided with a concentric socket, and a central spindle extending from the other receptacle member into the socket, said last member having a head "die-cast" on said member and spindle.

13. In a soap dispensing machine, the combination of a soap "cutter", a receptacle for the soap comprising two members, a supporting shank for one receptacle member, a central projection from the other receptacle member extending into the shank, and a locking device adjacent the shank and engaging the projection to lock the receptacle members together.

14. In a soap dispensing machine, the combination of a soap "cutter", a receptacle for the soap to be dispensed, comprising a stationary member and a cover member, a supporting shank for the stationary member having a cored out portion, and a projection from the cover member extending through the receptacle and into the cored out shank.

15. In a soap dispensing machine, the combination of a soap "cutter", a receptacle for the soap to be dispensed, comprising a stationary member and a cover member, a supporting shank for the stationary member having a socket formed therein, a central projection from the cover member extending into the socket, and a locking device adjacent the socket and engaging the projection for locking the cover to the stationary member.

16. In a soap dispensing machine, the combination of a soap "cutter", a receptacle for the soap to be dispensed comprising two members having relative longitudinal movement during the dispensing process, a supporting shank for one of said members having a longitudinal aperture therein adjacent the supported member, and a central projection from the other member extending through the receptacle into said aperture and longitudinally movable therein during the dispensing process.

17. In a soap dispensing machine, the combination of a soap "cutter", a receptacle for the soap to be dispensed comprising two members having relative longitudinal and rotary movement during the dispensing process, a supporting shank for one of said receptacle members having a passageway formed therein, a central spindle from the other receptacle member extending within said passageway and rotatively and longitudinally movable therein during the dispensing process.

18. In a soap dispensing machine, the combination of a receptacle for the soap comprising a fixed and a removable member, the fixed member having a socket connected therewith, a spindle extending from the other member and movable longitudinally within the socket during the dispensing process, a soap "cutter" within the receptacle adjacent the socket and positioned to cut the soap concentric to the spindle.

19. In a soap dispensing machine, the combination of a receptacle for the soap comprising two members relatively movable longitudinally during the dispensing process, one of said members provided with a socket, a projection from the other member extending into the socket, and a "cutter" mounted within and at one end of the receptacle concentric to the projection.

20. In a soap dispensing machine, the combination of a receptacle for the soap comprising two members relatively movable rotatively and longitudinally during the dispensing process, one of said members provided with a socket, a projection from the other member extending into the socket, a soap "cutter" within the receptacle at one end and positioned to cut the soap concentrically with respect to said projection, means for rotating one of said receptacle members, and means on said last member for engaging the soap to rotate the same against the "cutter."

21. In a soap dispensing machine, the combination of a receptacle for the soap comprising two telescoping cylindrical members relatively movable rotatively and longitudinally during the dispensing process, a supporting shank extending from the bottom of one of said members and provided with a deep socket formed therein, a spindle projecting from the other member into said socket, a "cutter" within the receptacle concentric with the spindle and adjacent the socket, a projection from said "cutter," and a locking device adjacent the socket for locking the spindle and "cutter" to the lower part of the receptacle.

22. In a soap dispensing machine, the combination of a hollow supporting shank, a receptacle for the soap comprising two members having relative rotary movement

during the dispensing process, one of said members being formed at the head of the shank, a spindle extending centrally from the other member through the receptacle and into the hollow shank, and a "cutter" positioned within the receptacle to cut the soap concentrically to the spindle, said receptacle having an opening at its lower end through which the soap is dispensed.

23. In a soap dispensing machine, the combination of a hollow supporting shank, a receptacle for the soap comprising two telescoping members having relative longitudinal movement during the dispensing process, one of said members being formed at the head of the shank, a spindle extending centrally from the other member through the receptacle and into the hollow shank, and a "cutter" mounted at the lower end of the receptacle concentric to the spindle and having a soap cutting edge formed thereon, said receptacle having an opening substantially in alinement with and below said edge through which the soap is dispensed.

24. In a soap dispensing machine, the combination of a hollow supporting shank, a receptacle for the soap comprising two telescoping members having relative rotary and longitudinal movement during the dispensing process, one of said members being formed at the head of the shank, a spindle extending centrally from the other member through the receptacle and into the hollow shank, a "cutter" mounted at the lower end of the receptacle concentric to the spindle and having a soap cutting edge formed therein, and means on the rotatable member for engaging the soap to rotate it against the edge, said receptacle having an opening on the same side of the spindle as the edge through which the soap is dispensed.

25. In a soap dispensing machine, the combination of a receptacle for the soap to be dispensed comprising a stationary bottom member and a second member longitudinally movable during the dispensing process, a dished "cutter" mounted adjacent the bottom member and supporting the soap to be dispensed, and a spindle extending from one receptacle member to the other and passing coaxially through the "cutter."

26. In a soap dispensing machine, the combination of a receptacle for the soap to be dispensed comprising a stationary bottom member having a socket connected therewith, and a second member longitudinally movable during the dispensing process, a dished "cutter" mounted in the receptacle adjacent the bottom member and supporting the soap to be dispensed, a projection from the movable member extending through the receptacle and coaxially

through the "cutter" and into the socket, and means for locking said projection in the socket to hold the receptacle members together.

27. In a soap dispensing machine, the combination of a receptacle for the soap to be dispensed comprising a bottom member and a cylindrical member having a clearance between it and the bottom member and movable rotatively and longitudinally with respect to said bottom member during the dispensing process, a supporting shank for the bottom member, and an axially projecting spindle extending from the movable member into the socket for centering said last member and a "cutter" positioned within the receptacle for cutting the soap concentrically to the spindle.

28. In a soap dispensing machine, the combination of a receptacle for the soap to be dispensed, and a "cutter" having a soap consuming edge, the converging surface of the "cutter" in advance of the edge forming an acute angle with the engaged surface of the soap.

29. In a soap dispensing machine, the combination of a receptacle for the soap to be dispensed, and a "cutter" having one or more oblique scraping edges.

30. In a soap dispensing machine, the combination of a receptacle for the soap to be dispensed, and a "cutter" having a plurality of parallel oblique scraping edges formed therein.

31. In a soap dispensing machine, the combination of a receptacle for the soap to be dispensed, and a "cutter" having a plurality of scraping edges thereon, one above another and partly overlapping each other.

32. In a soap dispensing machine, the combination of a receptacle for the soap to be dispensed, and a "cutter" having a scraping edge set up from the surface of the "cutter" to engage the soap at an acute angle thereto.

33. In a soap dispensing machine, the combination of a receptacle for the soap to be dispensed, a "cutter" having a smooth surface engaging the soap, and a scraping edge formed in said surface.

34. In a soap dispensing machine, the combination of a receptacle for the soap to be dispensed, and a dished "cutter" having a smooth surface engaging the soap, and a scraping edge formed in said surface.

35. In a soap dispensing machine, the combination of a receptacle for the soap to be dispensed, a dished "cutter" having a smooth surface engaging the soap, and a plurality of oblique scraping edges formed in said surface.

36. In a soap dispensing machine, the combination of a receptacle for the soap to be dispensed, a dished "cutter" having a smooth surface engaging the soap, and a

scraping edge formed in said surface and extending to the axis of the "cutter".

37. In a soap dispensing machine, the combination of a receptacle for the soap to be dispensed, a dished "cutter" positioned concentrically within the receptacle and having a smooth surface engaging the soap, and a plurality of oblique scraping edges formed in said surface, one or more of which extends to the axis of the "cutter".

38. In a soap dispensing machine, the combination of a receptacle for the soap to be dispensed comprising a stationary and a removable member, a dished "cutter" mounted within the receptacle and having a smooth surface engaging the soap and one or more scraping edges, and a spindle extending through the receptacle from one member to the other coaxial with both the "cutter" and the soap to be dispensed.

39. In a soap dispensing machine, the combination of a receptacle for the soap to be dispensed comprising a stationary bottom member and a second member longitudinally movable during the dispensing process, a dished "cutter" mounted adjacent the bottom member, said cutter supporting the soap to be dispensed and provided with a smooth inner surface having one or more scraping edges formed therein, and a spindle extending from one receptacle member to the other and passing coaxially through both the "cutter" and the soap.

40. In a soap dispensing machine, the combination of a receptacle for the soap to be dispensed comprising a stationary bottom member and a second member longitudinally movable during the dispensing process, a dished "cutter" mounted adjacent the bottom member, said cutter supporting the soap to be dispensed and provided with a smooth inner surface having one or more oblique parallel scraping edges formed therein, one of which extends to the axis of the soap, and a spindle extending from one receptacle member to the other and passing coaxially through both the cutter and the soap.

41. In a soap dispensing machine, the combination of a receptacle for the soap to be dispensed, and a self-centering dished "cutter" mounted within the receptacle substantially coaxial with the soap to be dispensed.

42. In a soap dispensing machine, the combination of a receptacle for the soap to be dispensed, a spindle passing through the receptacle concentric to the soap to be dispensed, and a self-centering dished "cutter" mounted within and at the bottom of the receptacle concentric to the spindle.

43. In a soap dispensing machine, the combination of a cylindrical receptacle for the soap to be dispensed, a spindle passing through the receptacle concentric to the

soap to be dispensed, and a stationary dished "cutter" loosely fitting within the receptacle at the bottom thereof so as to be self-centering with respect to the soap.

44. In a soap dispensing machine, the combination of a cylindrical receptacle for the soap to be dispensed, a spindle passing through the receptacle concentric to the soap to be dispensed, a stationary dished "cutter" supporting the soap and mounted at the bottom of the receptacle and having a slight clearance with the side wall thereof, a projection from the "cutter", and means engaging said projection to loosely secure the "cutter" within the receptacle, whereby the "cutter" will center itself with respect to the soap.

45. In a soap dispensing machine, the combination of a receptacle for the soap to be dispensed, and a self-centering dished "cutter" having one or more scraping edges formed in its inner surface, said "cutter" mounted within the receptacle coaxial with the soap to be dispensed.

46. In a soap dispensing machine, the combination of a receptacle for the soap to be dispensed, a spindle passing through the receptacle concentric to the soap to be dispensed, and a self-centering dished "cutter" having one or more scraping edges formed in its inner surface, said "cutter" being mounted within and at the bottom of the receptacle concentric to the spindle and supporting the soap.

47. In a soap dispensing machine, the combination of a receptacle for the soap to be dispensed having an opening in its bottom and comprising a stationary member and a second member rotatively and longitudinally movable during the dispensing process, a cored out supporting shank for the stationary member, a stationary dished "cutter" supporting the soap at the lower end of the receptacle, a spindle projecting from the head of the movable member coaxially through both the soap and the cutter and extending into the cored out shank, and a locking device at the lower end of the receptacle for locking the spindle in the shank.

48. In a soap dispensing machine, the combination of an inclined supporting shank having a deep cored out portion, a tube centered within and extending above said shank, a head on the shank, a cylindrical receptacle member secured to said head, a locking member above the head and adjacent the tube, a dished "cutter" fitting concentrically over said tube and supporting the soap to be dispensed, a projection from the cutter extending between the locking member and tube, a second cylindrical receptacle member telescoping with the first and movable rotatively and longitudinally during the dispensing process, a spindle

- from said second member projecting coaxially through both the soap and the cutter and extending into the tube, and a locking finger within the locking member and extending into engagement with the projection from the cutter and through the wall of the tube into engagement with the spindle, for locking the cutter, spindle and locking member to the tube.
49. In a soap dispensing machine, the combination of a soap "cutter", and a receptacle for the soap comprising two hollow members that telescope during the dispensing process.
50. In a soap dispensing machine, the combination of a soap "cutter", a stationary soap supporting member and a hollow receptacle member for the soap movable toward the stationary member during the dispensing process.
51. In a soap dispensing machine, the combination of a supporting member, a dished "cutter" having a smooth surface engaging the soap and a plurality of scraping edges formed in said surface, said cutter supported upon said member and on which the soap is concentrically supported, and a follower for engaging the soap and feeding it to the "cutter".
52. In a soap dispensing machine, the combination of a supporting member, a "cutter" mounted upon said member, a projection from the supporting member passing concentrically through the soap and a follower for engaging the soap and feeding it to the "cutter" proportional to manual pressure exerted upon the follower during the scraping process.
53. In a soap dispensing machine, the combination of a supporting member and a self centering dished "cutter" mounted upon said member and receiving the soap to be dispensed.
54. In a soap dispensing machine, the combination of a supporting member, a projection from the supporting member, and a self centering dished "cutter" receiving the soap to be dispensed and mounted with the soap concentrically about said projection.
55. In a soap dispensing machine, the combination of a receptacle for the soap to be dispensed, and a dished cutter having a plurality of scraping edges thereon, one above another and partly overlapping each other.
- In testimony whereof, we have signed our names to this specification, in the presence of two subscribing witnesses.
- HENRY R. EVANS.
OTIS H. KEAN.
- Witnesses:
HARRIET SIMON,
CLAUDE P. BURDON.