

No. 849,741.

PATENTED APR. 9, 1907.

H. J. S. LEWIS.  
SOAP DISPENSER.  
APPLICATION FILED NOV. 17, 1905.

Fig. 1.

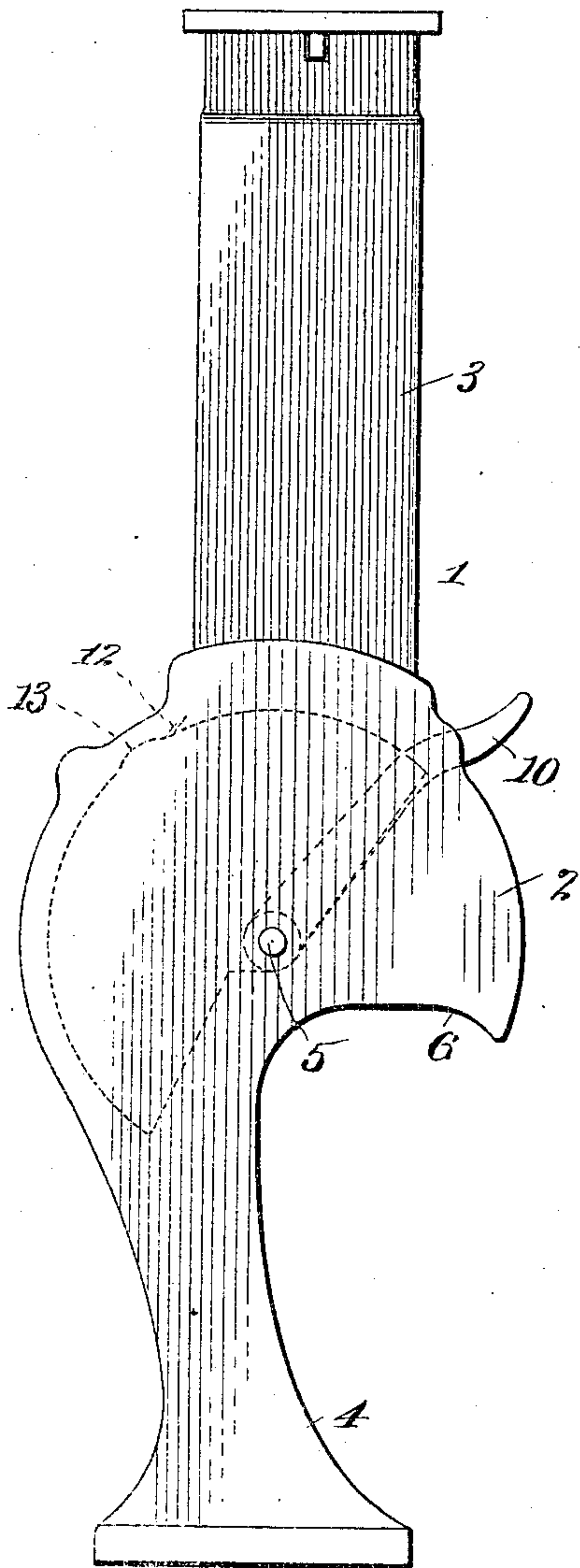
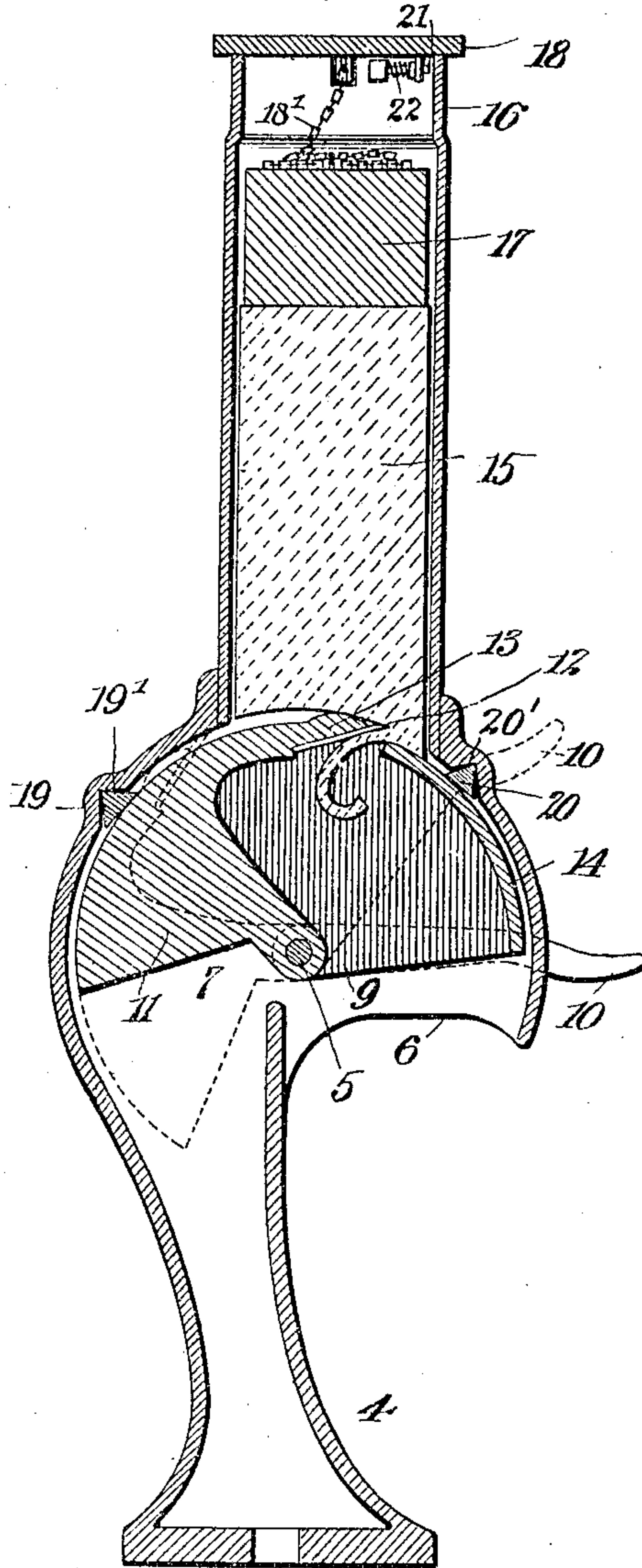


Fig. 2.



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# UNITED STATES PATENT OFFICE.

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## SOAP-DISPENSER.

No. 849,741.

Specification of Letters Patent.

Patented April 9, 1907.

Application filed November 17, 1905. Serial No. 287,889.

*To all whom it may concern:*

Be it known that I, HERMAN J. S. LEWIS, a citizen of the United States, residing at the city of New York, in the borough of Manhattan and State of New York, have invented certain new and useful Improvements in Soap-Dispensers, of which the following is a full, clear, and exact description.

My invention relates to an apparatus for containing and dispensing soap and similar substances.

In hotels and public places it is desirable to provide soap to the guests and patrons; but in practice great expense and inconvenience is caused by unscrupulous persons stealing the soap unless some means is found to prevent this.

My invention relates to such a means, and has for its particular object to secure a device which shall be simple, cheap, easy to construct, efficient in operation, and which shall deliver with certainty a suitable sliver of soap into the hand of the person who manipulates it.

A further object of the invention is to secure a device of this character in which the soap shall be automatically trimmed or pared down to a proper size before its insertion into the machine and in which the parts shall move freely with a minimum amount of friction.

With these and other objects in view my invention consists in the construction, combination, location, and arrangement of parts, all as will be more fully hereinafter described, as shown in the accompanying drawings, and finally particularly pointed out in the appended claims.

In the drawings, Figure 1 is a side elevation of the complete device. Fig. 2 is a longitudinal section of the same.

In carrying out my invention I make use of a swinging knife-blade which oscillates in bearings so as to engage the soap and remove thin slivers or slices therefrom. I provide means by which the soap is automatically fed against the knife-blade and by which the knife-blade moves with a minimum amount of friction.

Referring now to the drawings, and to the different views and reference-signs appearing thereon, in which like parts are designated by

the same reference-sign, 1 indicates a frame or casing having a base portion 2 and a magazine or soap-containing part 3. The base portion 2 is provided with legs 4, by which it is supported in position, and has a transverse shaft or spindle 5, freely journaled therein, which carries the knife mechanism hereinafter described. I conveniently form the base part 2 with an overhanging hood or ledge 6, which serves to protect the interior mechanism and also provides an outlet-opening for the discharge of the soap slices or slivers.

The knife mechanism is designated, broadly, as 7 in the drawings, and comprises an oscillating frame with end plates 9 thereon and a handle 10, projecting beyond the casing, so as to oscillate the frame.

11 denotes a body of metal or material, which is preferably integral with the end plates 9 and extends across the knife-carrying frame. This body of metal 11 constitutes a counterweight for normally moving the knife-carrying frame to its dotted-line position in Fig. 2 and also constitutes a support or backing for the knife-blade proper, which is indicated at 12 in the drawings.

13 indicates a rounded protuberance or rib, which is preferably formed integral with the knife-carrying frame and extends transversely directly behind the knife-blade edge for a purpose which will later more fully appear.

In addition to the transverse counterweight 11 I provide also upon the knife-carrying frame a cylindrical surface or ledge 14, which joins the side plates 9 and moves in an arc having slightly less radius than that of the knife-blade. The arrangement of the cylindrical surface or ledge 14 is such that when the knife-carrying frame swings backward into its dotted-line position the ledge will lie beneath and support the cake of soap.

The cake of soap is itself designated as 15 in the drawings and is inserted in the magazine 3 through a restricted portion 16 in the top thereof. By virtue of this restriction it is insured that the soap within the magazine is of a proper size to move freely therein and not bind against the walls. Inasmuch as the cakes of soap vary considerably in size, it is very desirable to provide some such



means for insuring against the admission of too-large cakes, and I regard the restricted opening 16 of the magazine 3 as an important feature of my invention. It will be understood that in case a cake of soap is too large the restricted opening 16 does not wholly preclude its admission to the magazine, but merely shaves down its outline when it is pushed into the apparatus.

17 indicates a weight, which is conveniently dropped into the magazine after the cake of soap, so as to rest upon the top of the latter. The magazine may be subsequently closed by cover 18, conveniently secured to the weight by chain 18'. Under the influence of the counterweight 11 the knife-carrying frame normally lies in position shown in Fig. 1, and the cake of soap is impelled by gravity against the cylindrical ledge 14.

When now it is desired to obtain a slice or sliver of soap, the handle 10 is depressed, which moves the knife-blade 12 against the soap and shaves off a thin sliver therefrom, as shown in Fig. 2, the thickness of the sliver being greatly exaggerated for greater clearness. The sliver after being cut off is free to drop down through the hood or opening 6 in the casing into the hand of the person desiring it. After the slice of soap has been removed, as above described, the remaining body of the soap is temporarily supported against feeding movement by the protuberance or rib 13, which contacts with the cake and supports it until the knife-carrying frame is fully returned to its normal position. The soap is then free to drop or feed into contact with the ledge 14, as before, whereupon it is in condition for a repetition of the process above described. It will be understood that by reason of the small area presented by the protuberance or rib 13 that a minimum amount of frictional resistance is imposed to the return of the knife-carrying frame under the influence of its counterweight 11.

An additional feature of my invention relates to a means for preventing a layer of soap from adhering to the knife-carrying frame and impeding its movements. For this purpose I employ scraper-blades 19 and 20, which bear against the periphery of such frame, so as to remove the soap layer therefrom. I have shown a practical construction of scraper-blade comprising triangular bars loosely inset into cavities 19' 20' in the casing. By virtue of this arrangement the movements of the knife-carrying frame cause the respective scrapers to move into efficient scraping contact as the knife-carrying frame oscillates.

By reason of the triangular shape of these scraper-bars they are impelled in a direction to remove the soap film from the cylindrical

surfaces of the knife-carrying frame in the to-and-fro movement of the latter. When the knife is moving forward in its cutting action, the scraper-bar 20 removes the soap film from the cylindrical ledge 14, and when the knife is moving rearwardly the bar 19 scrapes the cylindrical surface in the rear of the blade. The soapy dust which is thus removed by the scraper-bars is carried back into contact with the soap by the to-and-fro motion of the knife-carrying frame, the dust then adhering to the soap, so as to be removed with the next sliver thereof which is cut off.

An important practical result of the above arrangement having scraper-blades 19 and 20 is that any kind of soap is available, whether "green" or seasoned. Ordinary appliances of this character have had the defect of not working well on new or green soap on account of its pasty nature; but this defect is overcome in my device.

In some cases it may be desirable to apply locking means to the cover 18 above described, so that it cannot be removed by unauthorized persons and the soap stolen. I have shown a convenient arrangement embodying a bolt 21 upon the cover, which is normally spring-pressed outward toward the casing by spring 22 and which can be withdrawn when desired by a suitable key inserted in an aperture. (Not shown.) The particular form of lock employed is immaterial, a hasp and padlock being equally applicable for locking the covering-place, if desired.

What I claim is—

1. A soap-dispensing receptacle comprising a knife-carrying frame having a counterweight and a knife-blade thereon and a rounded protuberance or rib extending transversely directly behind the edge of the knife-blade, scraper-blades bearing against said knife-carrying frame, and a soap-containing magazine.

2. A soap-shaving machine comprising a magazine, means therein to press the soap downwardly, a frame pivotally mounted below said magazine adapted to support the soap, means for advancing said frame, automatic means for retracting the same, a knife carried by said frame and so mounted as to shave off a thin layer of soap upon the operation of the frame, a soap-supporting protuberance upon said frame in proximity to said knife, and means for removing soap adhering to the exposed surface of the frame.

3. A soap-dispensing receptacle comprising a magazine, a knife-carrying frame having a knife-blade thereon, and having a cylindrical surface behind said blade for supporting the soap after the forward movement of the blade, said blade being separated from

the cylindrical surface by a rounded protuberance, as and for the purpose set forth.

5 4. A soap-dispensing receptacle comprising a knife-carrying frame pivoted on a horizontal axis and having a counterweight, a knife-blade on said frame, said frame having a rounded protuberance behind said knife-blade and a magazine extending into prox-

imity to said knife-carrying frame and adapted to contain a cake of soap.

In witness whereof I subscribe my signature in the presence of two witnesses.

HERMAN J. S. LEWIS.

Witnesses:

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