

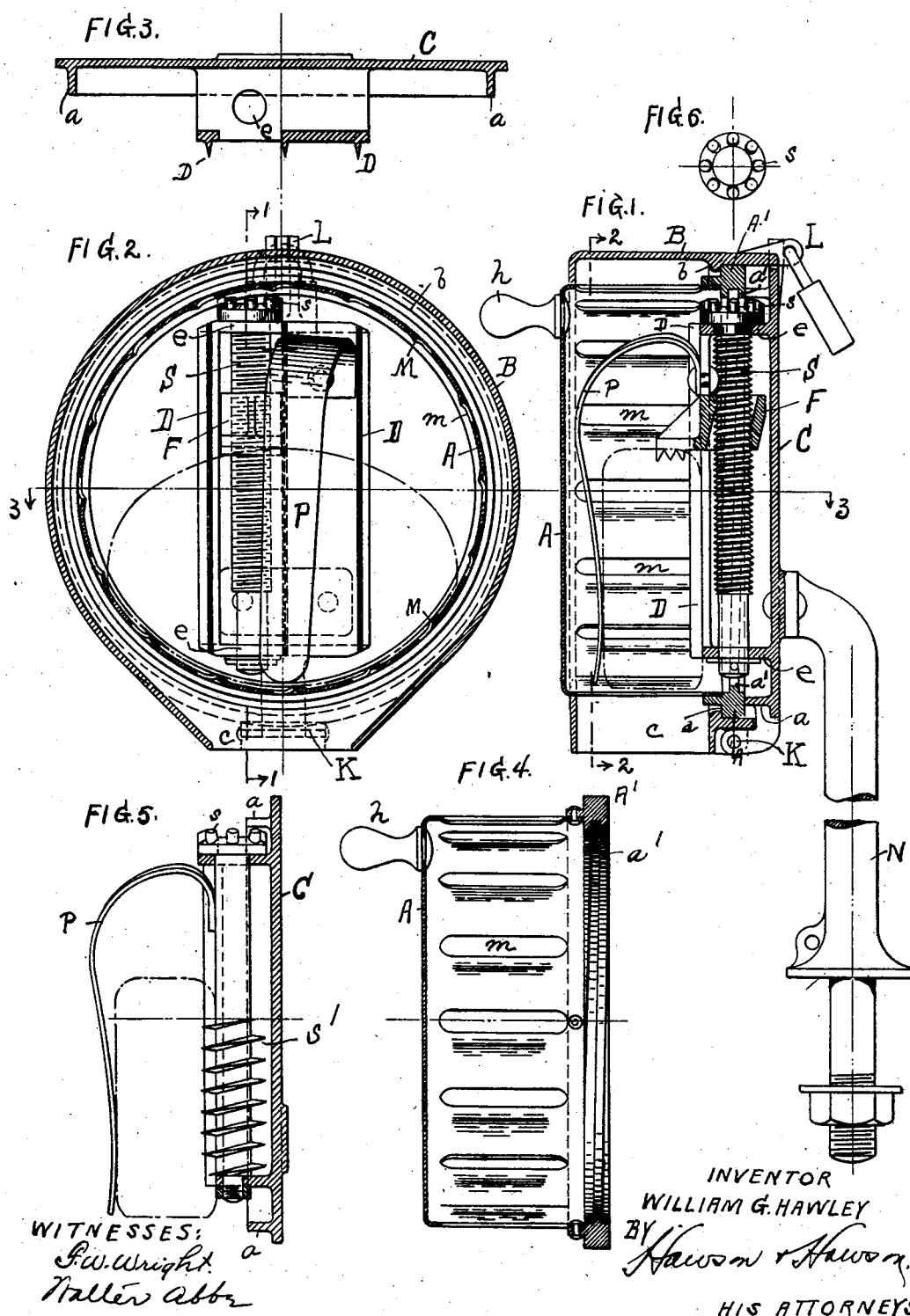
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PATENTED SEPT. 15, 1903.

W. G. HAWLEY.
SOAP FLAKER.

APPLICATION FILED MAY 22, 1903.

NO MODEL.



UNITED STATES PATENT OFFICE.

WILLIAM G. HAWLEY, OF NEW YORK, N. Y.

SOAP-FLAKER.

SPECIFICATION forming part of Letters Patent No. 739,175, dated September 15, 1903.

Application filed May 22, 1903. Serial No. 158,324. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM G. HAWLEY, a citizen of the United States of America, residing in New York city, county and State of New York, have invented an Improved Soap-Flaker, of which the following is a specification.

This invention has for its object to improve the construction of soap flakers or shavers for lavatory use, so that they can be cheaply constructed, readily operated, be of slightly appearance, and be convenient for use.

In the accompanying drawings, Figure 1 is a sectional elevation on the line 1 1, Fig. 2. Fig. 2 is a sectional front view of the soap-flaker on the line 2 2, Fig. 1. Fig. 3 is a section of the back of the case on the line 3 3, Figs. 1 and 2. Fig. 4 is a sectional view of the soap-shaving cylinder detached. Fig. 5 is a sectional view of a modification, and Fig. 6 is a plan view of the upper end of the feed-screw.

The main frame of the device comprises a fixed part in the form of a back plate C and a cylindrical inclosing casing B, hinged at K to the back plate C, which latter is mounted upon a standard N, suitable for attachment to the top plate of a fixed washbasin. Through an opening in the front of the inclosing casing projects the closed front face of the soap-shaving cylinder A, which is shown separately in Fig. 4. This shaving-cylinder A is separable from the back plate and is provided with an outwardly-projecting rim or flange A' at its inner open end. The outer surface of this flange is fitted into a bearing in the outer casing B, and the flange is held in position when the casing is closed and latched or locked, as at *l*, by means of an inwardly-projecting flange or shoulder *b* in the outer casing and an annular projection *a* on the inside surface of the back plate C. A bearing is thus formed in which the shaving-cylinder can be rotated within the outer cylinder by means of a projecting handle *h* on the front of the shaving-cylinder.

The shaving-cylinder has a series of knives M at its periphery or side walls, and these knives may conveniently be formed out of the sheet metal of the cylinder itself, as by slotting the cylinder at *m* and bending the following edges of the slots inward, as shown

in Fig. 2. Between the shaving-cylinder and the outer casing B an annular space is formed about the knives, into which the soap shavings pass as they are cut away and fall to the bottom of the space, where a discharge-outlet *c* in the casing is provided.

To hold the cake of soap in place, I form on the inner face of the back plate sharp-edged vertical ribs or guides D D, and I also secure to the back plate a curved spring-plate P, the free end of which projects downwardly, Figs. 1 and 2, and presses against the front face of the cake of soap, which is thereby pressed into holding contact with the ribs D D, as indicated by dotted lines in Figs. 1 and 2.

To keep the soap up to the inner face of the cylinder or to provide for the feeding forward of the soap cake to the cutting-knives as the soap is cut away, I prefer to use a feed-screw S, mounted in bearings *e e* in the back plate and having its thread engaged with semicircular threads at the diagonal upper and lower parts of the bore of a feed-nut F, which is suitably guided in the back plate and bears upon the soap cake, as shown in Fig. 1. To turn the feed-screw, I provide at its upper end studs *s s*, with which engages a spiral groove or thread *a'* on the inner face of the rim A' of the revolving cylinder A. The diagonally opposite parts of the hole through the feed-nut F are cut away, as shown in Fig. 1, to permit the nut to be run back by hand toward the starting end of the feed-screw S, a well-known expedient. Instead of using a feed-nut, however, I may form, upon the screw itself, as at S', Fig. 5, a deep and sharp-edged thread, which may engage the soap cake itself to feed it forward.

The feed-screw is located at one side of the center of the casing, as shown in Fig. 2, and so arranged that the spiral or thread on the shaving-cylinder will engage with the studs on one side of the feed-screw and clear those on the opposite side. The arrangement and proportioning of the spiral, the studs, and the hinge K are such that in opening the casing to replace the soap the spiral, which falls away from the casing and knives, will draw the stud with which it is engaged through a fraction of a revolution and then freely disengage, so that the casing and shaving-cylinder may be withdrawn from the back plate

together. In closing the casing a similar action in the reverse direction takes place.

I claim as my invention—

1. A soap-flaker, comprising a casing having a discharge-outlet, a rotatable cylinder having knives located in its periphery within the cylinder, stationary means for holding the soap within the cylinder and means for feeding the soap to the knives, substantially as described.

2. A soap-flaker, comprising a plate with sharp projecting guides, a spring adapted to force the soap against the guides and a feeding device adapted to feed the soap in the direction of the guides, substantially as described.

3. A soap-shaver, comprising a plate, a casing, a rotatable knife-cylinder within the casing, a device for holding and feeding the soap to the knives within the cylinder and means for operating said feeding device by the ro-

tation of the cylinder, substantially as described.

4. A soap-flaker, comprising a plate, a casing, a feed-screw mounted in the plate, a studied wheel on the screw, a knife-cylinder rotatably mounted in the casing, and screw-threaded at its rim to engage with the studied wheel, substantially as described.

5. A soap-flaker, comprising a casing, a plate and a spring to bear on the soap cake, a feed device, a rotatable knife-cylinder in the casing and gearing between the rotatable knife-cylinder and feed device, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM G. HAWLEY.

Witnesses:

WALTER ABBE,

F. WARREN WRIGHT.