(No Model.)

W. E. FISH.

SOAP RECEPTACLE AND GRATER.

No. 470,186. Patented Mar. 8, 1892.

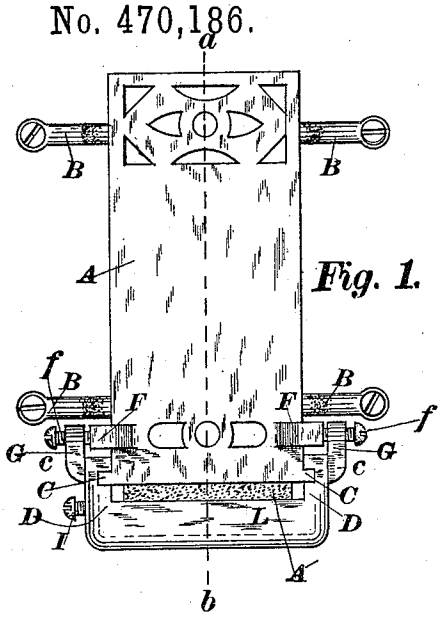

Fig. 1.

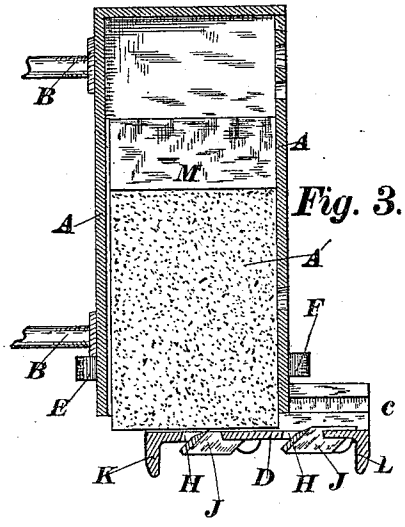

Fig. 3.

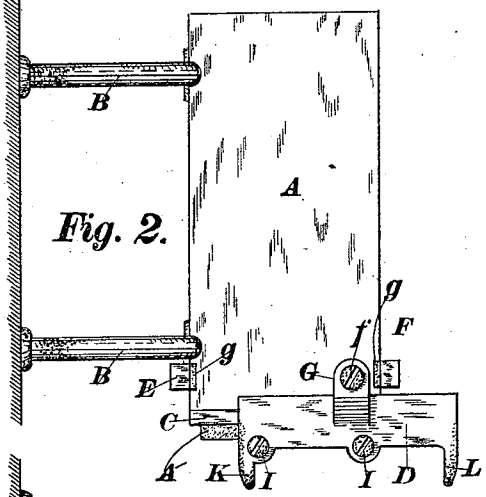

Fig. 2.

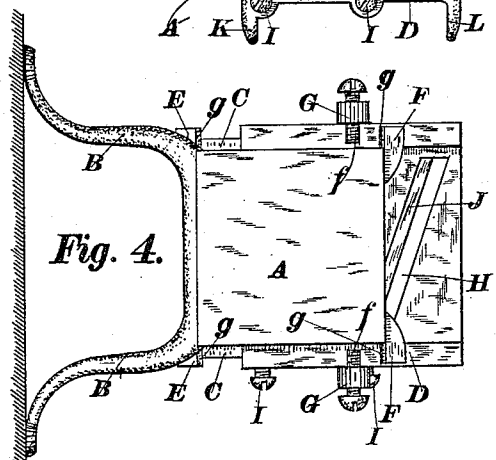

Fig. 4.

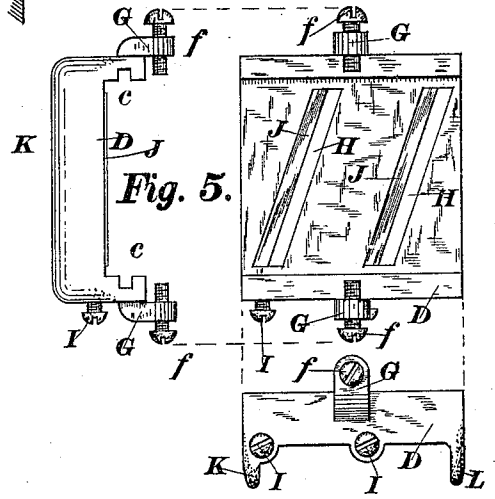

Fig. 5.

Witnesses
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Inventor
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By his Attorney Oscar Snell

UNITED STATES PATENT OFFICE.

WARREN E. FISH, OF CHICAGO, ILLINOIS, ASSIGNOR OF TWO-THIRDS TO CHARLES C. CORBETT AND CLARENCE T. OSBORN, OF SAME PLACE.

SOAP RECEPTACLE AND GRATER.

SPECIFICATION forming part of Letters Patent No. 470,186, dated March 8, 1892.

Application filed September 7, 1891. Serial No. 404,928. (No model.)

To all whom it may concern:

Be it known that I, WARREN E. FISH, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in a Soap Receptacle and Grater, of which the following is a specification.

My invention relates to a soap receptacle to which a grater is attached, the receptacle containing soap in the form of a hard cake, which is cut into shavings or a powder by means of the grater and used for toilet purposes; but my invention relates more particularly to improvements in a soap receptacle and grater invented by Charles C. Corbett and Clarence T. Osborn, both of Chicago, Illinois, for which an application for a patent of the United States was filed July 30, 1891, Serial No. 401,114.

My object is to substitute a horizontal rectilinear motion for the vibratory motion of the grater-frame described in the above-named invention; also, in so arranging the grater-frame that it is used for the double purpose of a grater-frame and lid, which covers the only opening through which the soap can be introduced into the receptacle; also, in providing stops to limit the motion of the grater-frame, thus serving the double purpose of preventing the grater-frame having more stroke than is necessary to carry the grater-knives through the soap and to never uncover the cake of soap sufficiently to permit its removal without first removing the stops, all of which is fully illustrated in the accompanying drawings and will be fully explained hereinafter.

Figure 1 is a front elevation of the device as it appears attached to a wall containing a cake of soap and ready for action. Fig. 2 is a side elevation of the left side of Fig. 1. Fig. 3 is a vertical section of Fig. 1 on line *a b*. Fig. 4 is a top view of Fig. 2. Fig. 5 is respectively end, top, and side views of grater-frame detached from the device better to show construction.

Similar letters refer to like parts throughout the several views.

The receptacle is composed of a rectangular box A, having sides and top cast of one solid piece, but without a bottom. The box is firmly secured to a vertical wall or other support by means of legs B at the sides. At the bottom margin thereof are ledges C, which form tongues to enter the grooves *e* of the slide portion of grater-frame D, there being a ledge on each side of box A and a groove in each side of grater-frame D, as shown.

At E and F are lugs secured to box A, and at G are lugs secured to grater-frame D, and through lugs G are the stop-screws *f*, which limit the motion of grater-frame D, as will be shown.

When the grater-frame D is to be placed in position on the lower end of box A, the screws *f* are first backed out until their threaded ends are even with the inside surface of lugs G, when the grater-frame can be slid upon the lower end of box A, with ledges C in grooves *e*. If now screws *f* are turned in until the threaded end is almost in contact with box A, they will act as stops to limit the motion of grater-frame D by striking against the leather pads *g* at the inside face of lugs E and F. There are slots H through grater-frame D, which have a slanting direction across the frame. Secured within these slots by means of screws I are knives J, which partake of the slanting direction of the slots and on this account when in action have a shearing action when cutting the soap. The knives can be set so that any desired thickness of shaving can be cut from the soap.

At each end of the grater-frame are downwardly-projecting parts K and L, which form finger-pieces by which the grater-frame is grasped in the operation of grating soap.

When a bar of soap A′ is first put into the box A, its weight would probably be sufficient to hold its lower end to the cut of the knives; but as the soap becomes shorter its weight decreases, until it is necessary to have more pressure downward. The weight M can be used above the soap, if necessary, or the box A can be made very long, so that when the soap is much reduced in length and weight an additional bar can be put into the box above the short piece in substitution for the weight.

In operation when soap is needed for toilet purposes the grater-frame is grasped by the fingers at the downwardly-projecting parts K

and L and reciprocated forward and back until screws *f* strike against the leather pads *g* of projections E and F at the termination of its stroke each way. In the meantime the weight of the soap upon the edges of knives which stand above the level of the grater-frame causes the knives to take hold and cut off a shaving of soap. The manner of grasping the grater-frame with the fingers is to place the four fingers in contact with the projection K, while the thumb contacts with front projection L, which position of the hand is such that the soap-shavings will fall from the knives J down through openings H into the palm of the hand. The knives J are movable and can be set high enough above the grater-frame plate to cut a thick enough shaving of soap to suffice for one application. It is, however, preferred to set the knives to cut very thin shavings, so that several motions of the grater-frame are necessary to obtain the required amount of soap. The knives can be made to cut the soap into a powder or in strings or flat shavings to suit the caprice of either the dealer or user. When the soap A′ has been shaved away until it is necessary to put in a new bar, it is done by backing out screws *f* of lug G until they miss the lugs E and F at the termination of their stroke, when the grater-frame can be removed from the box A and thus expose its open bottom. Soap is inserted upward into box A, the grater frame, which also acts as a lid, slid into place, the screws *f* driven into position shown in Fig. 5, and the device is ready for action. In devices of this kind all ordinary lids and locks are soon broken or become deranged by use, so that no protection is afforded the soap from being taken out of the box and carried away. Cleanliness, convenience, and economy are sought for in this device, and part of these qualities are attained by the general construction thereof; but economy in preventing theft is attained by there being no ordinary lids or locks, the movable stops *f* being made, when necessary, so that no ordinary tools will remove them and make it possible to detach the combined grater-frame and bottom D.

I claim as my invention and desire to secure by Letters Patent—

1. In a soap receptacle and grater, a receptacle A, having a grater-frame attached to its lower end and forming the bottom thereof, said frame capable of a limited reciprocating rectilinear motion across the lower end of said receptacle, said frame having openings H, in which are secured knives, said frame limited in its motion by stops secured to said frame, said stops contacting at the termination of the stroke of said frame with stops secured to said receptacle, the whole operating in combination for the purpose substantially as set forth.

2. In a soap receptacle and grater, a receptacle A, having but one orifice for the admission of soap, said orifice covered by a frame D, said frame movably attached to said receptacle and capable of a reciprocating rectilinear motion across said orifice, said frame having openings within which are set adjustable knives J, and movable stops attached to frame D, said stops contacting stops secured to said receptacle, the several parts serving and operating for the special purpose in the manner substantially as described.

WARREN E. FISH.

Witnesses:
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C. S. OSBORN.