

(No Model.)

I. H. TWINING.
AUTOMATIC POWDER BOX.

No. 511,565.

Patented Dec. 26, 1893.

Fig. 1.

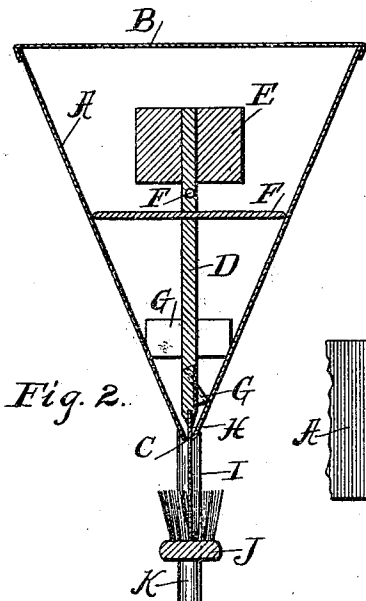
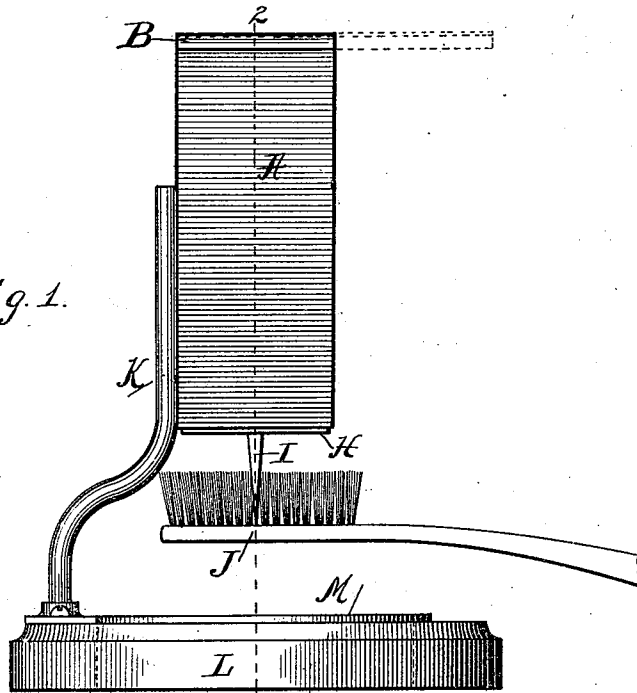


Fig. 2.

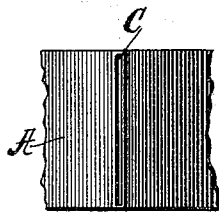


Fig. 4.

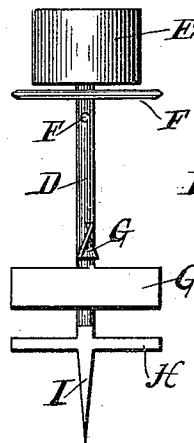


Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

IDA HOUSTON TWINING, OF CHICAGO, ILLINOIS.

AUTOMATIC POWDER-BOX.

SPECIFICATION forming part of Letters Patent No. 511,565, dated December 26, 1893.

Application filed July 16, 1892. Serial No. 440,291. (No model.)

To all whom it may concern:

Be it known that I, IDA HOUSTON TWINING, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Automatic Powder-Boxes, which is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a side elevation of my powder-box and stand, with a tooth-brush under the box in position to receive the powder. Fig. 2 is a vertical sectional view of the same, taken at the line 2—2, Fig. 1. Fig. 3 is a side elevation of the powder agitator, removed from the box. Fig. 4 is a bottom view of the box, with its sides broken away.

The object of my invention is to make a box for toilet powder, particularly tooth powder, from which, by lifting a valve, the quantity of powder which it is desired to use will fall through the bottom of the box, upon the tooth-brush or other article which is used in raising the valve.

My invention consists in the devices and combination of devices hereinafter specifically described and made the subject matter of the claims.

In the accompanying drawings, A represents the box, provided with a tight cover, B. This box is of triangular shape, and has at its bottom an open slot, C. There is in the box what I term a "powder agitator," which has an upright shaft or stem, D, to which is attached a weight, E, arms, F, and spiral flukes, G. It has also attached to it a valve, H. The shaft or stem D extends through the open slot C in the bottom of the box, A, or a separate piece, I, may be attached to the stem or shaft D and extend through the open slot C. By placing a tooth-brush, J, against the lower end of the projection, I, and raising the stem or shaft D in the box, the valve H is raised from the slot C, and the agitator with the arms F and flukes G loosen the powder, and it falls through the open slot C, its entire length, upon the bristles of the brush J, and if any of the powder lodges in the slot C, the valve H forces it out when the agitator is allowed to fall back to its normal position. The agitator in the box prevents the powder from packing, or if in packs, it will loosen it,

and each time that the agitator is raised there will be a quantity of powder discharged through the slot C at the bottom of the box. The quantity of powder discharged each time will depend upon the height to which the agitator is raised; or, if quite a quantity of powder is wanted, the agitator can be raised twice, so that the quantity of tooth-powder which it is desired to receive upon the tooth-brush is obtained.

K, is a bracket rigidly attached to the base or stand L.

M, is a dish which sets into the base L of the stand to receive any powder that may fall from the sides of the tooth-brush.

I have made the flukes G of the powder-agitator oblique, for the purpose of more effectually stirring the powder and prevent it from packing. These oblique flukes G are curved in such manner that when the agitator stem to which they are attached is raised, the weight of the powder on the flukes G will cause the agitator to receive a slightly rotary movement after the valve is raised from the slot in the bottom of the box, and thereby cause the lower part of the flukes to effectually stir and loosen the powder in the lower part of the box. When the weight on the top of the agitator stem brings the agitator down as the pressure from beneath is removed by the operator, the slanting sides of the box cause the valve to come back to its seat, and the flukes also to assist in partly revolving the agitator, thereby constantly loosening the powder in the bottom of the box. I find this to be the practical operation of the agitator when I place the tooth-brush under the point attached to the lower end of the agitator stem and raise the agitator and allow it to fall back in its place, and I am thus enabled to receive regularly the desired quantity of tooth powder upon the tooth brush whenever I raise the agitator in the box and allow it to fall back in its place.

The base L which holds the cup M, may be attached to a bracket K, and made so as to sit on a bureau or dressing-table, or the bracket may be of such shape as to be attached to the wall, the form of the bracket being immaterial, provided it has a cup-holder beneath the box.

While my automatic powder-box is more

especially intended to be used for holding tooth-powder, it can be as readily used for a powder soap-box, or any toilet or other powder which it is desired to use in small quantities. This form of box with my improvement enables me to take from the box the quantity of powder that I desire to use without in any way moistening or soiling powder not used. I am also able to use the powder without removing the cover of the box or opening the box, and the powder remains in the box that is comparatively tight, so that the dust is excluded as well as the moisture, and the powder is kept as nearly in its normal condition until it is entirely used as possible.

The flukes and arms of my agitator are such that I am enabled to stir the powder and keep it from packing, and take from the box any desired quantity I wish to use.

It is very essential in using tooth-powder to have the desired quantity of powder fall from the box upon the bristles of the tooth-brush, and thus avoid the necessity of bringing the brush in contact with the powder in the box, or any powder that is not immediately used with the brush.

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

1. The triangular box A provided with an open slot at its bottom; the agitator-stem or shaft D carrying at its lower end a valve H adapted to fit into the open slot at the bottom of the box; said stem or shaft being also provided with cross-arms F which serve to stir the powder

in the box and also strike the slanting sides of the box and serve as guides to the valve H; a weight E attached to the top of the stem or shaft B; and a projecting point projecting through the open slot in the bottom of the box and rigidly connected to the lower end of the stem or shaft D by which the agitator can be raised in the box, when the weight on the top of the shaft causes the agitator to fall laterally, and the guiding-arms ride up on either side of the box to loosen the powder and cause it to fall through the slot in the bottom of the box, as specified.

2. The triangular box A provided with an open slot at its bottom; the loose weighted stem or shaft D of the agitator provided with a narrow valve near its lower end to fit into the slot at the bottom of the box; spiral flukes G attached to said loose weighted stem near its lower end and directly above the valve, said spiral flukes being adapted to stir the powder in the lower part of the box directly above the slot, and at the same time partially revolve the agitator when the valve is lifted from the slot, and thereby loosen the powder in the box; and the projecting point I attached to the lower end of the weighted stem of the agitator by which it is raised by the operator, the weight on the stem returning it when the pressure from below is removed, all as specified.

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Witnesses:

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