

Sept. 1, 1925.

1,552,173

F. K. KRAG

POWDER BOX

Filed Dec. 26, 1924

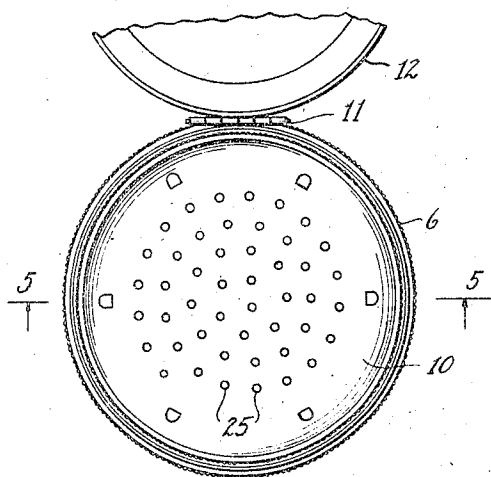


Fig. 1

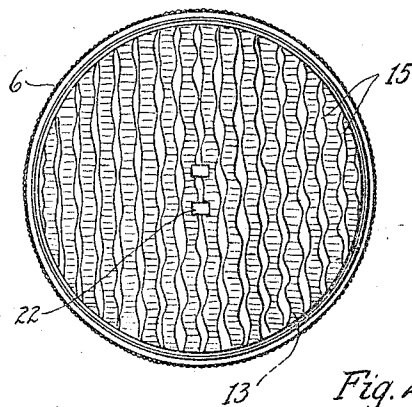


Fig. 2

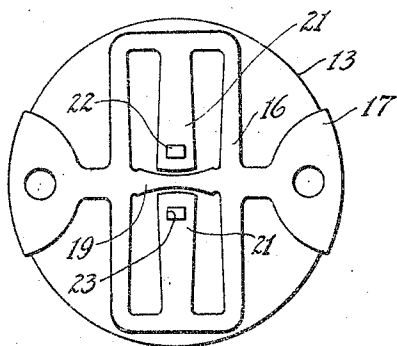


Fig. 3

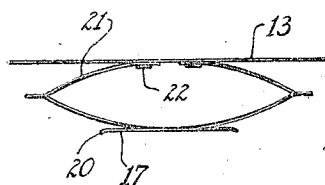


Fig. 4

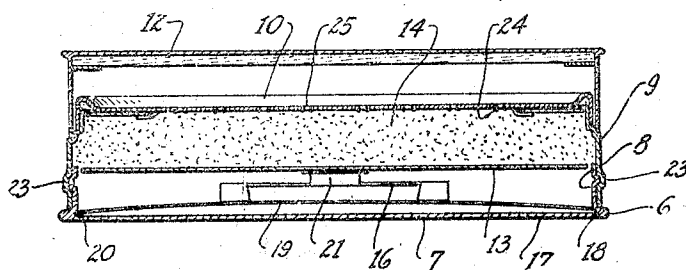


Fig. 5

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Patented Sept. 1, 1925.

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UNITED STATES PATENT OFFICE.

FRANZ K. KRAG, OF CHICAGO, ILLINOIS.

POWDER BOX.

Application filed December 26, 1924. Serial No. 757,992.

To all whom it may concern:

Be it known that I, FRANZ K. KRAG, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Powder Boxes, of which the following is a specification.

This invention relates to powder boxes used for the purpose of holding and delivering powder for cosmetic purposes. It has for one of its objects an improvement in the type of powder box which is disclosed by the Patent No. 1,504,001 issued to Emil Soyez on August 5, 1924, and the improvement relates particularly to the means by which the box is able to furnish and deliver properly the powder as required.

Of the accompanying drawings Fig. 1 is a plan view of the box with the cover raised; Fig. 2 is a plan view of a false bottom in the box which supports the powder; Fig. 3 is a plan view of the under side of the false bottom and of resilient means for operating the false bottom; Fig. 4 is an elevation of the elements of Fig. 3 rotated through 90 degrees; and Fig. 5 is an enlarged sectional view along the lines 5—5 of Fig. 1.

The powder box to which my improvement relates comprises a bottom compartment 6. This compartment is preferably cylindrical, and comprises a bottom 7, and an annular side 8. Mounted on this bottom compartment is a central compartment comprising annular sides 9, a perforated top portion 10, and a false bottom 13. Pivoted to this central compartment by means of a hinge 11 is the top compartment 12. The false bottom 13 is adapted to support the powder 14 which is inserted in the central compartment between the false bottom and the perforated top 10. Beneath the false bottom resilient means are provided for pressing the powder on the false bottom against the perforated partition 10. When so arranged, ordinarily, the powder will not pass through the perforations. The perforated top, however, is rotatably mounted in the central compartment and by rotating this partition with the powder pressing against its lower surface the powder will be forced through the openings, and the amount that is forced through will depend upon the amount of rotation.

The invention which I have made relates to the means for pressing the false bottom upwardly so as to yieldingly press the pow-

der against the perforated top. In order to more effectively force the powder through the openings when the perforated disk is rotated, it is desirable to have the upper surface of the false bottom more or less roughened for example by means of ridges 15 and it is also desirable to prevent rotation of the false bottom in the box as the perforated top is being rotated, so that there will be relative rotation of the top and bottom. The means which I provide for accomplishing these purposes comprise the member 16 which is detachably mounted in the lower compartment. I prefer to punch this member out of a thin sheet of steel and then suitably temper it, so as to make it resilient. In order to detachably hold this resilient member in the box I provide wings 17 which project into an annular groove 18 in the bottom of the box; and, as the wings are so formed as to press outwardly somewhat against the outer wall of the groove, the resilient member is held from rotation, but it may be easily removed by springing the center cross piece 19 upwardly somewhat away from the bottom. To more firmly hold the member in place I prefer to bend downwardly slightly the corners 20 and thus any tendency to rotate is substantially eliminated.

In order to force the false bottom upwardly I provide arms 21 which are bent upwardly out of the general plane of the resilient member and are fixed in any suitable manner to the false bottom, for example by means of lugs 22 formed in the bottom and passing through openings 23 in the arms. When the various members are assembled for use the powder 14 is placed in the box on the false bottom 13 and the walls 9 of the central compartment containing the perforated disk are passed over the walls 8 of the bottom 7. The central compartment is then pressed downwardly, compressing the resilient member and forcing the false bottom down into the bottom compartment; and the central compartment is held in place by any suitable means such as the bayonet fastening means 23. When so assembled, in order to obtain powder from the box it is necessary only to open the box and then rotate, as much as may be desired, the perforated top 10 and the powder will be forced through the openings on to the open end of the disk and the powder may be used as may be desired.

Burrs 24 may be formed on the under side of the top 10 around the perforations 25 to assist in forcing the powder out, and these also assist in keeping the powder from passing through the openings when the top is not rotated.

By having the resilient member detachably fixed in the box it may be readily removed for cleaning or other purposes, and the assembling of the elements is much simplified. With the false bottom movably mounted in the box, powder is likely to work down into the bottom and this may be readily removed by detaching the false bottom and spring from the bottom. Further the disk like formation of the spring with the stabilizing wings, hold the false bottom more firmly in place when the elements are assembled, or the box is being filled with powder.

I claim as my invention:

1. In a powder box, a powder compartment, said compartment having a rotatably mounted perforated cover and a movable bottom and resilient means supporting said bottom, a bottom compartment in said box in which said resilient means are mounted, said resilient means having oppositely extending wings which normally press against the sides of said bottom compartment.

2. In a powder box, a rotatably mounted perforated cover, a bottom, a movable powder support, and means for yieldingly supporting said support mounted between said bottom and said powder support, said means being fixed to said supporting means and being removably but non-rotatably mounted on said bottom.

3. A powder box comprising a rotatably mounted top, said top having perforations therethrough, a movable bottom and a fixed bottom in said box, and resilient means mounted between said two bottoms and adapted to force the movable bottom away from the fixed bottom, said means having oppositely extending wings, the normal distance between the outer edges of said wings being more than the inner diameter of the bottom of said box.

4. A powder box comprising a rotatably mounted top, said top having perforations therethrough, a movable bottom and a fixed bottom in said box, and resilient means mounted between said two bottoms and adapted to force the movable bottom away from the fixed bottom, said means having oppositely extending wings, the normal dis-

tance between the outer edges of said wings being more than the inner diameter of the bottom of said box; said box having an annular groove in its sides projecting outwardly and positioned immediately above said bottom, the outer edges of said wings being positioned in said groove.

5. A powder box comprising a rotatably mounted top, said top having perforations therethrough, a movable bottom and a fixed bottom in said box, and resilient means mounted between said two bottoms and adapted to force the movable bottom away from the fixed bottom, said means having oppositely extending wings, the normal distance between the outer edges of said wings being more than the inner diameter of the bottom of said box; said box having an annular groove in its sides projecting outwardly and positioned immediately above said bottom, the outer edges of said wings being positioned in said groove, and flanges projecting angularly from the outer corners of said wings.

6. A powder box, comprising a top having perforations therethrough, said top being rotatably mounted in said box, a false bottom movably mounted in said box beneath said top, a fixed bottom in said box, and resilient means detachably mounted between said bottoms and adapted to yieldingly force the false bottom towards said top, and means to prevent rotation of said resilient means.

7. A powder box, comprising a top having perforations therethrough, said top being rotatably mounted in said box, a false bottom movably mounted in said box beneath said top, a fixed bottom in said box, and resilient means removably mounted between said bottoms and adapted to yieldingly force the false bottom towards said top, a portion of said means fixed to said false bottom, and means to prevent rotation of said resilient means.

8. In a powder box, a stationary bottom, a false bottom, resilient means mounted between said bottoms for yieldingly supporting said false bottom, and means, integral with said resilient means, for preventing relative rotation of said stationary bottom and said resilient means, said resilient means and preventing means combined being of single thickness throughout.

In testimony whereof, I hereunto set my hand.

FRANZ K. KRAG.