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E. SCHMIDT

DISPENSING RECEPTACLE

Filed June 27, 1922

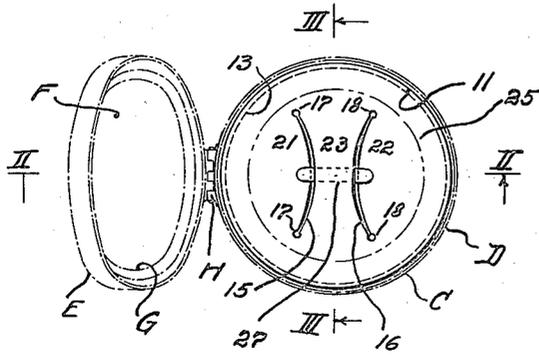


Fig. I

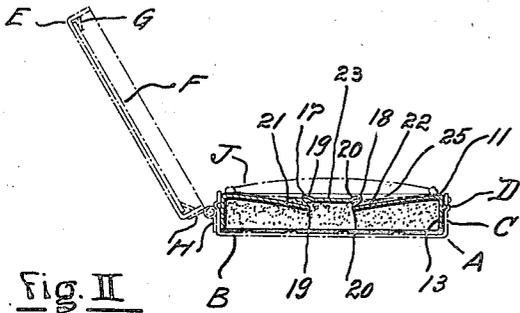


Fig. II

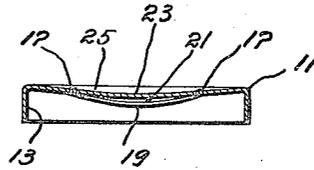


Fig. III

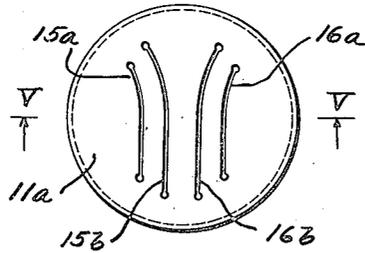


Fig. IV

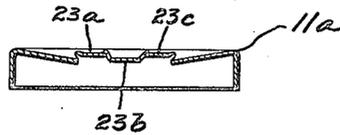


Fig. V

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EMIL SCHMIDT, OF ELMHURST, NEW YORK.

DISPENSING RECEPTACLE.

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To all whom it may concern:

Be it known that I, EMIL SCHMIDT, a resident of Elmhurst, in the county of Queens and State of New York, have invented certain new and useful Improvements in Dispensing Receptacles, of which the following is a specification.

This invention generally relates to vanity boxes or kindred containers adapted to hold cosmetics, such as are commonly carried in a lady's handbag or worn on a chain; and it especially pertains to a receptacle for toilet-powder, intended to be applied by means of a puff, overlying an inner head provided with peculiarly-formed surface concavities and dispensing apertures.

Primarily, the invention has for its object to produce an improved container of the class described having an inner head or internal closure apertured in such a manner as will effectively prevent the powdered substance to be dispensed therethrough from clogging the outlets for the same.

Another object is so to form the said inner head or closure that the powdered substance will tend normally to remain below the top surface thereof, and in any event will easily find its way through the said apertures back into the body of the container from which it originally exuded, whenever the latter is righted.

A further object is to provide a container head of the type aforesaid, the dispensing apertures of which may be temporarily sealed by a removable element pressed thereupon through the agency of an external cover member.

Still another object is the provision, in a container head of the species mentioned, of dispensing apertures so shaped and arranged that although they are covered by the said removable element, yet they will permit a certain quantity of the powdered substance to flow out and lodge thereunder from the body of the receptacle, at such times as it is being shaken or tipped from a horizontal position.

A still further object is the production of a container head of the nature set forth having a portion intermediate of its delivery apertures designed to constitute a conven-

ient grip for the finger, whereby the head can be easily manipulated.

An additional object is to furnish a container head of the kind referred to, which admits of being quickly removed or replaced without paying any special attention to the place it should be given relative to the position then occupied by the receptacle with which it is associated.

A general object is to supply a container head of the sort indicated, which shall be composed of few, simple parts, of light but strong and durable construction; convenient to manipulate and reliable in operation, as well as easily maintained in working order; readily fitted to both new and already existing receptacles; and amenable besides to low cost of manufacture.

Other objects and advantages of the invention will become apparent as the specification proceeds.

With the aforesaid objects in view, the invention consists of the novel combinations and arrangements of parts hereinafter described in their preferred embodiments, pointed out in the subjoined claims, and illustrated on the annexed drawing, wherein like parts are designated by the same reference characters throughout the several views.

Briefly described, the invention consists of an apertured head of improved type, contacting with the interior of a vanity box or similar receptacle to retain therein or to dispense therefrom, as the case may be, the pulverized substance previously stored in the same. The box, with its contents and appurtenances, may be considered as a single article destined for use by itself alone, or it may be treated as only one part of a toilet kit. In its preferred form, herein exemplified, the said head is in the nature of a variably or differentially depressed cap with a depending flange that engages the inner side walls of the box, provided therewith, by a telescoping joint. The lower edge of the flange is arranged to rest upon the bottom of the box, so that the powdery contents thereof are incased entirely within the space compassed by the said bottom and the flanged cap thereabove. Centrally, the sur-

face of the cap is both depressed and slitted, in order to form a diametral bridge-piece affording a convenient fingerhold whenever it is desired to remove the head from the container or replace it therein. The slits are reversely curved from the centre outward on opposite sides of the bridge, and their previously meeting edges are respectively forced upward and downward, thereby forming from each slit a pair of parting lips between which the pulverized substance in the container may freely flow out or in, as the latter is tipped from one side to the other. Due to their curvature and superposition one above another, the lips exert a shearing action upon the substance as it flows either way therebetween, thus serving to keep it loose and uncompacted always. The portions of the cap's surface adjoining the edges of the slits remote from the bridge-piece are made slightly concave and sloping down toward the centre of the container, to provide temporary receivers for the pulverized substance during its passage either outward or inward through the said slits. Farther out, namely around its perimeter, the surface of the cap is depressed in a similar manner to constitute an annular strip inclined downward and centerward, the chief function of which is to check the outflow or facilitate the retrogression of the substance issued from the container and temporarily spread over either one of the said receivers when they are canted or tipped sidewise. This annular strip further affords a bearing for the peripheral edge of a powder-puff laid upon the surface of the cap in position to be pressed thereagainst by the outer cover of the container. The puff is forced into intimate contact with the bridge-piece and the annular strip, along its middle portion and near its circumferential edge respectively, but is less compacted where it lodges in the concave receivers and between the parted lips, with the result that while it stops free egress of the substance from the container, still it admits of being charged with a moderate quantity of the same, sufficient for an ordinary application. The advantages of the invention as here outlined are best realized when all of its features and instrumentalities are combined in the one and same structure, but, useful devices may be produced embodying less than the whole.

It will be obvious to those skilled in the art to which the invention appertains, upon becoming conversant with the details thereof, that the same may be incorporated in several different constructions. The accompanying drawing, therefore, is submitted merely as showing the preferred exemplification of the invention.

In the said drawing:—
Figure I is a top plan view of this im-

proved head, showing it in position within a so-called vanity-box or face-powder receptacle, the outline of the latter being merely indicated by dots and dashes, and the external cover thereof appearing in perspective at the left-hand side of the plan view;

Fig. II is a vertical transverse section on the line II—II of the preceding figure, looking upward in the direction of the vertically pointed arrows;

Fig. III is a similar section taken at right-angles to the previous one, that is, on the line III—III of Fig. I, looking from right to left in the direction pointed out by the horizontally disposed arrows thereto appertaining;

Fig. IV is a plan view akin to Fig. I, depicting a slightly modified construction of the improved head, removed from the container; and

Fig. V is an upright section of this modified form of head, taken from the line V—V of Fig. IV, and likewise showing it detached.

Referring now to these several views, for a detailed description of the invention thereby exemplified, it will be noted first that the known parts of the receptacle wherewith the said head is associated and coacts, have been designated by letters of reference, instead of numerals as used to denote the present improvements, because the said parts are not claimed as pertaining to the latter, except in so far as they may form therewith legitimate combinations of elements capable of yielding novel and useful results.

Of these reference letters, A denotes the body part of a vanity box adapted to hold a certain quantity of face-powder, which as well known in pharmaceutical establishments may consist simply of pulverized starch, delicately scented with some choice perfume. The powder is poured into this box, and rests directly upon the bottom thereof, indicated by the letter B. From the bottom B, rises at or near its circumference the usual circular wall C, preferably formed integral therewith, of metal or other suitable material, which may be more or less ornamented, in any desired manner.

Exteriorly surrounding the circular wall C aforesaid is a circumambient beading D, located at a predetermined distance below the upper edge thereof, as represented in Figs. I and II. The beading D, it will be observed, is designed to meet and coact with the downwardly projecting edge of a flanged cover E, provided as an outer closure for the box A.

A mirror F is set within the flange of the said cover E, and maintained permanently in position therein by means of a retainer G, of annular formation. The cover, with the mirror thus applied to the interior thereof, is connected by a hinge H to the exterior

face of the said wall C below the said beading, upon which the said edge of the cover bears when the box is closed.

The numeral 11 designates an inner head or internal closure for the above-described box A, to which it may be removably fitted, as shown. The top part (11) of the said head is preferably dished or curved inwardly, as illustrated, for instance in Figs. II and III. A rim or flange 13 depends from the perimetral edge of this top part, extending downwardly in the same direction as the curvature thereof, and far enough into the box to reach its bottom B. The inner face of the circular wall C of the box is engaged by the rim or flange 13, which is snugly fitted to it interiorly in such a manner as to be guided thereby and caused to form a tight telescoping joint therewith. Thus constructed, the said head is in the nature of a flanged cap fitting the inside of the box, and constituting with the bottom of the latter an interior receptacle for its powdery contents. The lower edge of the rim or flange 13 is made to bear squarely upon the bottom B, and when pushed into contact therewith, it serves to locate the top part of the head or cap 11 in appropriate position relatively to the same. The telescoping joint above referred to is sufficiently tight, as will be understood, to prevent the powder from finding its way out of the box between the inner face of the wall C thereof and the said inner rim or flange 13, when the head or cap is properly fitted.

Slits 15 and 16 are formed in the top or upper face of the head 11. As best seen in Fig. I, these slits are spaced apart, and curved in opposite directions from the centre outward, each terminating at both ends with orificial enlargements, respectively designated by the reference numerals 17 and 18. It will be observed, with particular reference to Fig. II, that the adjoining edges of the said slits are offset one from the other in a plane parallel to the central axis of the head's surface 11, or substantially at right angles thereto, as represented at 19—19, 20—20, in the latter-named figure, so that a longitudinally elongated and transversely contracted aperture or slot is formed between the said edges. An extended opening of this nature has, in practice, been found to prevent arching or building up of the powder across the edges offset in the manner recited. The choking or bridging of the powder, which has always been detrimentally prevalent, with small-sized openings previously employed in similar structures, is thereby entirely obviated.

Adjacent to, but exteriorly beyond the peculiar apertures resulting from the parting and offsetting of the opposite edges of the slits in the manner hereinabove stated, are formed temporary receivers 21 and 22, con-

sisting of depressed portions of the head's surface 11, inclined laterally and downwardly below the central part thereof. The powder coming up between the parted edges or lips bordering the said apertures, when the box A is shaken sidewise, that is, in a transverse direction relatively to the slits 15, 16, lodges upon these receivers, and remains thereon accessible to the user, or until the receptacle is canted on either side to let it slide back under the said surface. It will be noticed from Fig. I, that the receivers are considerably larger in size and area than the slit-like apertures.

The aforementioned central part of the head's surface, which is left intermediate of the oppositely curved slits constitutes a bridge-piece 23, providing a grip wherewith the head may be manipulated when removing or replacing it, incidentally to filling or replenishing the receptacle with powder. By virtue of the concave-like formation of the said slits, that is, inasmuch as their respective curves are bowed towards each other inwardly of the head's surface, the person handling the head is enabled to obtain a better grip than could be had otherwise on the bridge 23, between the nails of the thumb and middle finger; that is, there is less liability of the fingers slipping, when the bridge is taken hold of across its central portion.

It will be noticed, regarding Figs. II and III, that the bridge 23 is given a depressed curvature which is below that of the marginal edge of the head's surface 11, while the receivers 21 and 22 are indented therefrom according to a curve still lower than that of the said bridge. Thus, it will be seen that the top part of the head or cap 11 is formed with differentially depressed curvatures at right angles to one another.

The outer sides of both the receivers 21 and 22, as well as the opposite extremities of the bridge-piece 23, merge into an annular field 25, which is uniformly dished and slightly inclined downwardly inward, around the perimetral edge of the head's surface, that is, in that portion, strip, or stretch of the surface lying just beyond a circle drawn to enclose the before mentioned enlargements 17, 18, of the slits 15, 16.

A sealing element, preferably consisting of a powder-puff J, is superimposed upon the head or cap 11, with its edge overlying the said annular field or surface strip 25. The puff J may be simply a wad of swan's down, or of some similar flossy, loose texture, susceptible both of compression and dilatation. As will be readily perceived upon reference to Fig. II, the puff J, conforms to the shape of the external cover E of the box A, so that when this cover is pressed down thereon, the puff forms a tightening medium which bars the egress of the powder out of its receptacle, through the slits 15, 16. Owing,

however, to the differential depressions in the head's surface, and the lighter compacting of the puff in the region next adjacent to the bridge 23, a small amount of the powder can pass by or be shaken out of the said slits, and lodge on the receivers 21, 22 under the puff, in quantity just sufficient to constitute a charge for one application. But, if the box is tapped with the fingers from the underside of the bottom B thereof, or on its outer cover E, or else thumped endwise against some hard object, while held in a horizontal position, the powder lying on the receivers 21, 22 will flow back through the slits, into the space thereunder.

In the modified embodiment of the invention represented by Figs. IV and V, the head or cap 11^a delineated therein is provided with double sets of slits, respectively designated by the reference numerals 15^a, 15^b, 16^a, and 16^b. The several slits here mentioned provide between them a plurality of bridges, as 23^a, 23^b, and 23^c, which may be either straight or curved at option, or combine in themselves both of these formations. As shown in Fig. V, the three bridges named possess substantially the same characteristics as the single bridge forming part of the construction hereinbefore described and illustrated in Figs. I to III. It will be noted, nevertheless, that the central bridge 23^b is situated in a lower plane than either of the lateral bridges 23^a and 23^c. On account of this particular feature, the central bridge approaches nearer the level of the temporary receivers, as shown in Fig. V, than is the case in Figs. II and III.

A head or cap of the character disclosed in the modified construction above spoken of is particularly adapted for use in conjunction with a powder receptacle of comparatively large dimensions. The previously described construction having one slit on each side of a central bridge-piece, producing oppositely located receivers, is better suited to a medium-sized receptacle. But, if the latter is of relatively small size, a single slit with one receiver will suffice. It is understood, altho the above mentioned slits have been referred to in conjunction with the heads of powder boxes, no limitation is intended in that respect, as the same are applicable to containers holding other pulverized or granulated substances.

In powder-boxes made of paper or other fibrous material, wherein the slits are liable to become closed by reason of their opposite edges being forced against each other, it will be advisable to use a spacer in order to insure a free flow of the powder therebetween. Such a spacer, for example, may consist of a bar 27, inserted under the bridge 23, as shown in Fig. I, the ends of the bar resting upon and being secured to the adjoining edges of the receivers 21 and 22.

While certain preferred embodiments of this device have been shown and described, nevertheless changes in the form, arrangements, proportions, sizes and details thereof may be made, without departing from the scope of the invention as defined by the appended claims.

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

1. A dispensing receptacle of the character described, including a head provided with a longitudinally extended, transversely contracted aperture the adjoining edges whereof are offset one from the other in a plane at a substantially right angle to said head, and a receiver formed with the latter adjacent to the lower one of said edges adapted temporarily to hold matter issuing from the receptacle.

2. A dispensing receptacle of the character described, including a head provided with a slit extending transversely of its surface, and a receiver of larger size than said slits formed at one side thereof by a gradual incline downward of said surface from the perimeter of said head.

3. A dispensing receptacle of the character described, including a head provided with slits spaced apart on opposite sides of a median line running across the surface thereof, and receivers of larger area than said slits formed outwardly beyond the same and having their inner edges respectively in gradually inclined downward relation to said surface.

4. A dispensing receptacle of the character described, including a head provided with slits for the passage of material therethru and extending transversely of its surface, and a bridge formed intermediate of said slits substantially central of said surface so as to afford a manipulating grip for said head.

5. A dispensing receptacle of the character described, including a head provided with slits forming opposite curves in its surface, a bridge produced out of the latter intermediate of said slits, and receivers likewise embodied in said surface at the outer edges of the slits sloping downwardly by the sides of said bridge.

6. A dispensing receptacle of the character described, including a head provided with slits transversely of its surface forming opposite curves centrally approaching each other, and a bridge-piece constituting a manipulating grip for said head rising from said surface above said slits at their outer edges.

7. A dispensing receptacle of the character described, including a head provided with a slit extending transversely of the surface thereof, said slit having its edges offset in the direction of the axis of said

head, and a concave receiver laterally inclined gradually to cause its free margin to coincide with the lower edge of the slit.

8. A dispensing receptacle of the character described, including a head provided with transverse slits in its surface, the adjacent edges of said slits being spaced apart in a plane of approximately right angles to said head, and a pair of concave receivers formed from said surface sloping downwardly towards each other the free margins of said receivers constituting the lower edges of the slits.

9. A dispensing receptacle of the character described, including a head provided with transverse slits in its surface depressed at their outer edges, and a bridge formed from the portion of said surface comprised between said slits, said outer edges of the latter remaining below the opposite sides of said bridge.

10. A dispensing receptacle of the character described, including a head provided with transversely disposed slits in its surface depressed at their outer edges, and a concave bridge intermediate of said edges having its opposite sides raised relatively to the same.

11. A dispensing receptacle of the character described, including a head provided with a transverse slit in its surface gradually sloping receiver of larger size than said slit formed at one edge of the latter out of said surface, and an inclined outer field situated at a higher elevation extending upwardly beyond said receiver on the side thereof remote from said slit.

12. A dispensing receptacle of the character described, including a head provided with transversely disposed slits cut through its surface, concave receivers inclined downwardly from said surface at the outer edges of said slits, and a concave bridge inter-

mediate of the latter, said bridge having a differential curvature relative to that of said receivers.

13. A dispensing receptacle of the character described, including a head provided with transverse slits in its surface, curved receivers formed out of said surface sloping downwardly therefrom at the outer edges of said slits, a differentially curved bridge intermediate of the latter, and an outer upwardly-inclined field into which said curved receivers and bridge become respectively merged.

14. A dispensing receptacle of the character described, including a head provided with a slit extending transversely of the surface thereof, a receiver of larger area than said slit, sloping at the outer edge of the latter downwardly from said surface, an upwardly inclined field surrounding said receiver, and an element seated upon said field to cover the same while permitting a certain amount of outflow thereunder from the slit.

15. A dispensing receptacle of the character described, including a head provided with differentially dished surfaces and an annular flange depending from the perimeter of said head in the direction of the bottom of the receptacle, the head having transverse slits located below the upper edge of its perimeter intermediate of said differentially dished surfaces.

16. A dispensing receptacle of the character described, including a head provided with a dished surface having an elongated aperture one edge whereof is disposed below the other to form parted lips, and a rim depending from the perimeter of said head serving to locate said lips in proper relation with respect to the bottom of the receptacle within which the head is fitted.

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