March 12, 1940. J. P. TIPPETT 2,193,307

POWDER BOX

Filed April 15, 1938

Fig. 1.

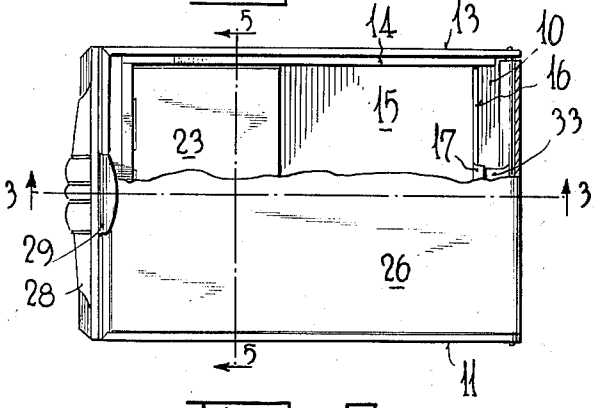


Fig. 2.

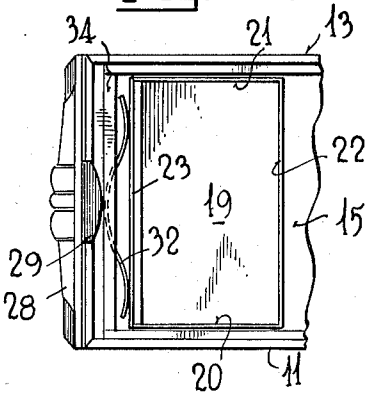


Fig. 3.

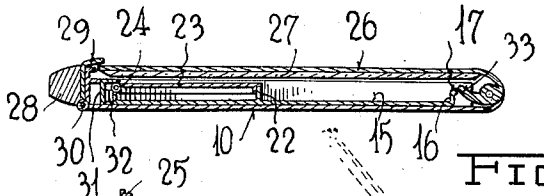


Fig. 4.

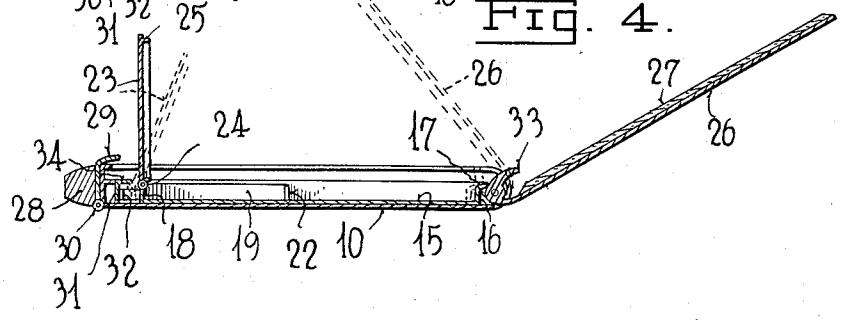
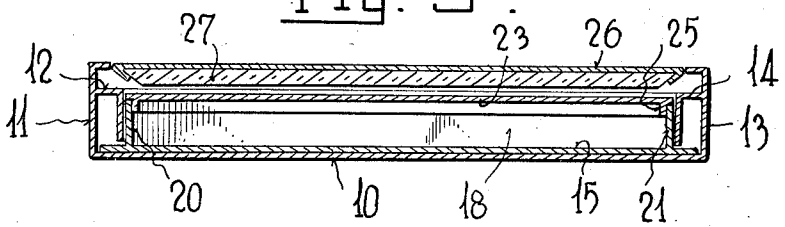


Fig. 5.



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POWDER BOX

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Application April 15, 1938, Serial No. 202,315

10 Claims. (Cl. 220—36)

The invention relates particularly to a powder box provided with a closure and having within a compartment for carrying loose powder, which compartment is provided with a separate cover for closing and sealing the compartment. The arrangement is such that the closure for the powder box and the cover for the compartment will operate together in the proper order so that when the box is open and as the closure is brought to closed position the cover also is brought to closed position, preferably moving to its final closed position a little in advance of the closure. Likewise as the closure is opened the cover opens so that when the closure is fully open the cover may be fully open.

In the accompanying drawing is shown a preferred form the invention may take. Figure 1 is a plan view of a powder box in closed position, parts being broken away to show the entire construction. Fig. 2 is a fragmentary plan view of the structure in open position. Fig. 3 is a transverse vertical section on the line 3—3 of Fig. 1. Fig. 4 is a transverse vertical section similar to Fig. 3 the device being shown in open position with the cover and closure shown in dotted lines in an intermediate position. Fig. 5 is a transverse vertical section on the line 5—5 of Fig. 1.

The box comprises an outer shell 10 which may be of any suitable shape but in the drawing is indicated as rectangular in shape. From one side wall 11 is an inwardly and downwardly projecting member 12 while from the other side wall 13 is a similar inwardly and downwardly projecting member 14. The members 12 and 14 extend nearly to the bottom of the shell. Resting under the members 12 and 14 is a plate 15 which rests loosely against the bottom of the shell 10 but is shorter than the bottom so that it may move toward one end or the other. At one end the plate 15 has an upwardly extending wall 16 provided with a bearing 17 for a purpose hereinafter to be explained. At its other end the plate 19 is provided with an upwardly extending wall 18 which forms one wall of a loose powder compartment 19. The loose powder compartment 19 has side walls 20 and 21 which rise from the plate 19 inwardly of the members 12 and 14. The fourth wall 22 of the powder compartment 19 rises from the plate 15 at the ends of the walls 20 and 21. At the upper edge of the wall 18 is a cover member 23 for the powder compartment 19 carried by a hinge 24 provided with a spring normally tending to hold the cover 23 in the open position which may be substantially vertical as indicated in Figs. 2 and 4. The cover 23 may be provided with downwardly depending flanges 25 to fit and closely engage the walls of the powder compartment 19 so as to form a more or less close powder seal when the cover is closed to prevent spilling or leakage of powder.

At one end the shell 10 carries, preferably by a spring hinge, a closure member 26 which when desired may be provided with a mirror 27. At its other end the shell 10 carries on a spring hinge 30 a member 28 which is provided with an inwardly extending catch 29 which overhangs and holds closed the closure member 26. The member 28 may be pulled back on its hinge 30 and release the closure member 26 allowing it to assume the position indicated in full lines in Fig. 4.

At the end of the shell 10 opposite the hinge of the closure member 26 is a wall 31. Between the wall 31 and the wall 18 of the powder compartment 19 is a spring here illustrated as a leaf spring 32 and above the leaf spring 32 is an inwardly projecting member 34 carried by the wall 31. In released position the spring 32 holds the powder compartment 19 out from under the projecting member 34 as illustrated in Figs. 2 and 4 so that the spring hinge 24 may hold the cover 23 in open position.

Carried by the closure 26 is a cam projection 33 which engages the bearing surface 17 carried by the plate 15. As the closure member 26 is swung on its hinge from the full open position indicated in Fig. 4 the cam 33 engages the bearing member 17 and forces the plate 15 toward the left in Fig. 4. This carries with it the powder compartment 19 the wall 18 of which is thus forced, against the spring 32, under the overhanging member 34. In its movement the cover 23 engages the overhanging member 34 and is gradually forced to its closed position indicated in the Figs. 1, 3 and 5. Preferably the arrangement and proportioning of parts will be such that the cover 23 will be forced under the overhanging member 34 and so into its full closed position slightly before the closure 26 reaches its full closed position. Likewise in opening the closure the member 26 will move slightly before the cover 23 leaves the overhanging member 34 so as to be free to begin to open. It is thus possible to operate the device without the closure member and the cover member interfering with each other.

With the device closed as indicated in Fig. 3 the catch member 29 may be pulled to the left thus releasing the closure member 26 which will

be forced open by its spring hinge. At the same time the cam 33 will allow the spring 32 to force the powder receptacle out from under the overhanging member 34 and allow the spring hinge 22 to force the cover 23 into open position. With the device open as illustrated in Fig. 4 turning the closure member 26 toward closed position will cause the cam 33 to force the edge of the powder receptacle 19 under the overhanging member 34 and force the cover 23 closed. When the closure member 26 has reached its final closed position it will be engaged and held closed by the catch member 29.

The structure shown in the drawing is for illustrative purposes only. Alterations, changes and variations may be made to produce other devices which will embody the invention.

I claim as my invention:

1. In a powder box, a closure for the box a hinge for the closure, a powder receptacle in the box, a cover for the receptacle, means for closing the cover and means controlled by the closure and mounted on the closure hinge for initiating the closing movement of the cover after the closing movement of the closure is initiated and for completing the closing movement of the cover before the closing movement of the closure is completed.

2. In a powder box, a closure for the box, a spring tending to open the closure, a powder receptacle in the box, a cover for the receptacle, a spring tending to open the cover, and a holding means having contact only with the closure but which allows the closure to move to open position said movement operating means to open the cover.

3. In a powder box, a closure for the box, a spring tending to open the closure, a powder receptacle in the box, a cover for the receptacle, a spring tending to open the cover, and a holding means having contact only with the closure but which allows the closure to move to open position said movement operating means to open the cover, the closure and cover operating in succession.

4. In a powder box, a closure, a hinge at one end of the box carrying the closure, a powder compartment in the box, a hinge on the compartment at the side opposite the first mentioned hinge, a cover for the compartment carried by the last mentioned hinge, an overhanging wall on the box holding the cover closed, means tending to force the cover free from the overhanging wall, and a catch for the closure in closed position which when released allows both closure and cover to open.

5. In a powder box having side and end walls, inwardly projecting overhanging members on two sides and one end, a closure member carried by a spring hinge on the other end, a catch for holding the closure member in closed position, a tray under the overhanging members on the sides, a loose powder compartment in the tray below the level of the overhanging member on the end, a cover carried by a spring hinge on the side of the compartment toward the last mentioned overhanging member, a spring under the said overhanging member tending to force the compartment from under the overhanging member, and a cam member carried by the closure member engaging the tray to force it against the spring and under the overhanging member on the end so as to bring the cover into engagement with the overhanging member to close the cover.

6. In a powder box having side and end walls, an inwardly projecting overhanging member on one end, a closure member carried by a spring hinge on the other end, a catch for holding the closure member in closed position, a moveable loose powder compartment below the level of the overhanging member, a cover carried by a spring hinge on the side of the compartment toward the overhanging member, a spring under the overhanging member tending to force the compartment from under the overhanging member, and a cam member carried by the closure member to force the compartment against the spring and under the overhanging member.

7. In a powder box having side and end walls, an inwardly projecting overhanging member on one end, a closure member carried by a spring hinge on the other end, a catch for holding the closure member in closed position, a moveable loose powder compartment below the level of the overhanging member, a cover carried by a spring hinge on the side of the compartment toward the overhanging member, a spring under the said overhanging member tending to force the compartment from under the overhanging member, and means carried by the closure member to force the compartment against the spring and under the overhanging member on the end so as to bring the cover into engagement with the overhanging member to close the cover.

8. In a powder box having side and end walls, an inwardly projecting overhanging member on one end, a closure member carried at the other end, a loose powder compartment in the box below the level of the overhanging member, a cover hinged on the side of the compartment toward the last mentioned overhanging member, means tending to force the compartment from under the overhanging member, and means moving with the closure member to bring the cover into engagement with the overhanging member to close the cover.

9. In a powder box, an inwardly projecting overhanging member at one end, a closure member carried at the other end, a loose powder compartment in the tray below the level of the overhanging member, a cover carried by the side of the compartment toward the overhanging member, and means moving with the closure member to bring the cover into engagement with the overhanging member to close the cover.

10. In a powder box, a closure member for the box, an overhanging member in the box, a powder receptacle moveable to force one end under the overhanging member, a hinge at said end of the receptacle, a cover for the receptacle mounted on the hinge, and means operated by the closure member for moving the receptacle so that the hinged end of the cover goes under and into engagement with the overhanging member to close the cover.

JOHN P. TIPPETT.