April 17, 1951 J. SIEGAL 2,549,643

VANITY CASE HAVING A MEMBER FOR AUTOMATICALLY WIPING CLEAN THE MIRROR CONTAINED IN THE CASE

Filed Nov. 5, 1946 2 Sheets-Sheet 1

Fig. 1

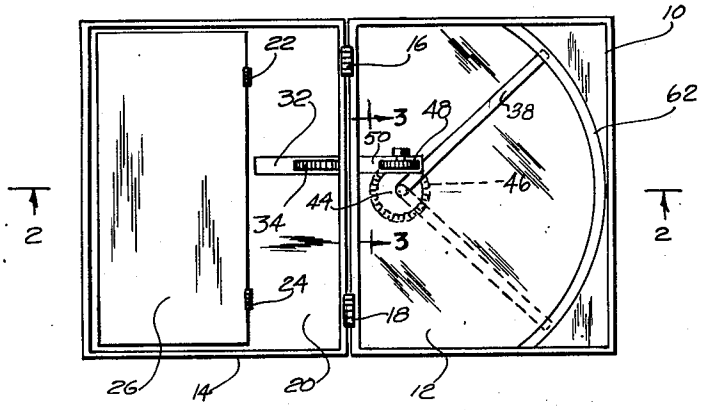


Fig. 2

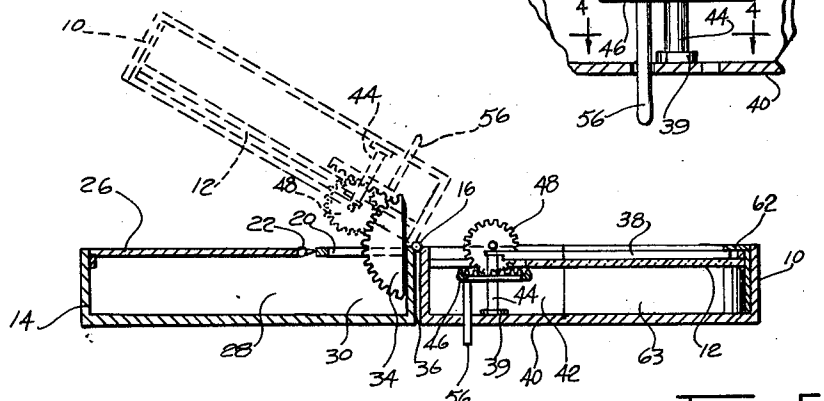


Fig. 3

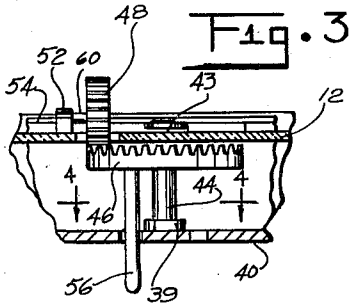


Fig. 4

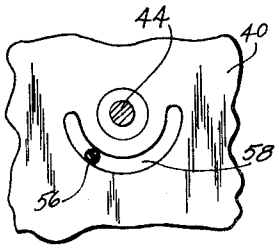
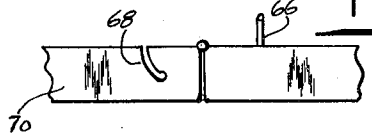


Fig. 5



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Fig. 8

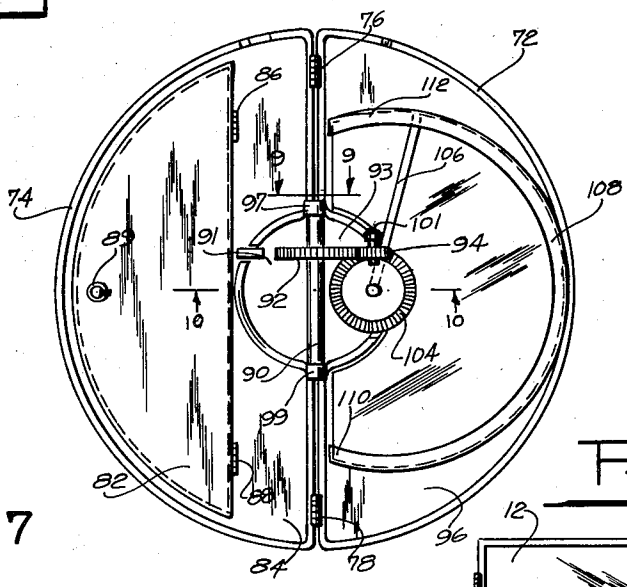


Fig. 6

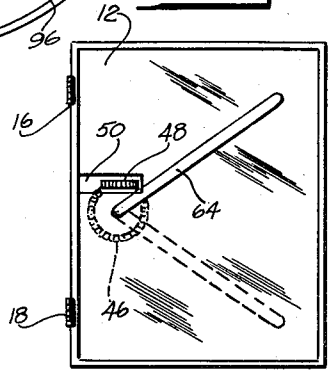


Fig. 7

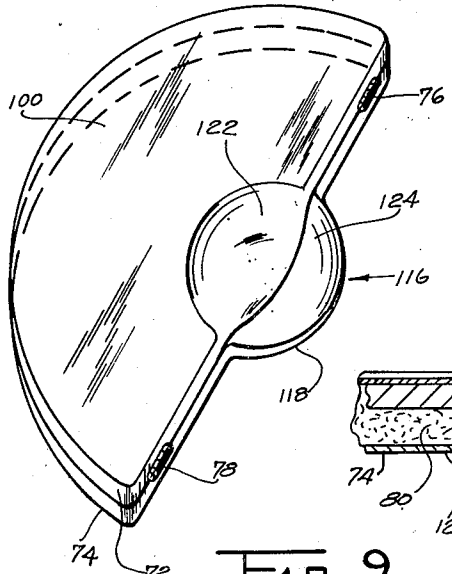


Fig. 10

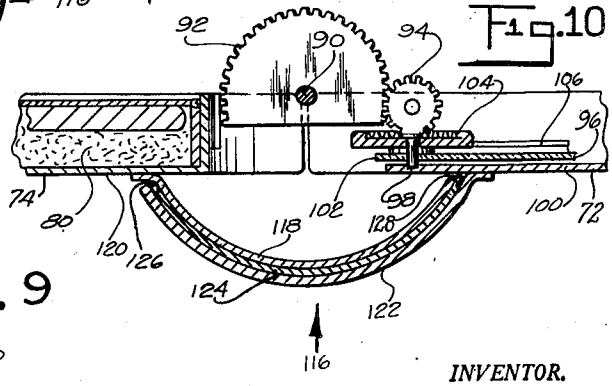
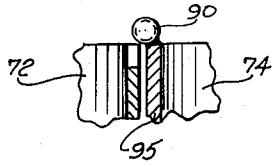


Fig. 9



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2,549,643

VANITY CASE HAVING A MEMBER FOR AUTOMATICALLY WIPING CLEAN THE MIRROR CONTAINED IN THE CASE

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Application November 5, 1946, Serial No. 707,922

8 Claims. (Cl. 132—83)

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The present invention relates to vanity cases and more particularly to such cases which are provided with a mirror and a means to automatically clean the mirror upon opening the vanity case.

Vanity cases are designed to contain either loose powder or powder in cake form as well as other make-up which is applied to the face of the user. As a matter of convenience in order to assist in the application of this make-up, such vanity cases are provided with a mirror on the inside thereof.

Due to the powder becoming smeared on the mirror, which thereby becomes cloudy, before the application of the make-up, it is always necessary for the user to wipe it clean so that the image of the user may be readily seen. Such wiping operation has always been inconvenient, disconcerting and a source of annoyance.

The present invention therefore contemplates the provision of a wiping member which will automatically be wiped across the surface of the mirror upon opening the vanity case, which operation serves to polish it. The present invention contemplates the provision of a mechanism by means of which the wiping member is moved over the surface of the mirror by a positive action and which mechanism includes a train of gears operatively connecting the wiping member to a section of the vanity case.

The present invention still further contemplates a vanity case having a mirror wiping member, which may be opened by a mechanism which operates the gear connecting mechanism.

The present invention still further contemplates the provision of a vanity case having a mirror and a wiping member movably thereacross in which the wiping member is locked in place upon closing the vanity case.

These, other and further objects and advantages of the present invention will be clear from the description which follows and the drawings appended thereto, in which

Fig. 1 is a plan view of an opened vanity case according to my invention, the position of the wiping member when the case is closed being shown in broken lines

Fig. 2 is a section on the line 2—2 of Fig. 1, the mirror containing compartment or section in incomplete open position being illustrated in broken lines

Fig. 3 is a section on the line 3—3 of Fig. 1

Fig. 4 is a section on the line 4—4 of Fig. 3

Fig. 5 is a partial side view of a modified form of my invention

Fig. 6 is a plan view of the mirror containing compartment or section of a modification of my invention, the position of the wiping member when the case is closed being shown in broken lines

Fig. 7 is a perspective plan view of a modification of a vanity case according to my invention

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Fig. 8 is a plan view thereof, the case being in open position

Fig. 9 is a section on the line 9—9 of Fig. 8

Fig. 10 is a section on the line 10—10 of Fig. 8.

Referring now to the drawings and more particularly to Figs. 1 to 4 inclusive, a vanity case according to my invention is provided with the mirror containing section 10 on the inside of which the mirror 12 is mounted in any conventional manner and the powder containing section 14.

The sections 10 and 14 are connected together by means of the conventional hinges 16 and 18 so that the mirror section 10 may be swung, as desired, into open or closed position.

Connected to the upper plate 20 by means of the hinges 22 and 24, I provide the closure 26, which closes off the powder compartment 28 in the section 14.

Extending upward from the compartment 30 through the slot 32 in the upper plate 20, I provide the stationary preferably semi-circular upright gear 34, the blank edge of which is secured to the vertical back wall 36 of the compartment 30.

As will be seen, this gear 34 is part of the gear train by means of which the wiping member 38 is moved across the surface of the morror 12 when the upper or mirror section 10 is swung into open and closed position on the hinges 16 and 18.

Journaled in the bearing 39 on the bottom wall 40 of the compartment 42, underneath the mirror 12, through which it extends into the bearing 43 on the mirror 12 in which bearing it is also journaled, I provide the shaft 44, to which shaft at the upper end thereof above the mirror 12, the wiping member 38 is secured.

Arranged in the compartment 42 underneath the mirror 12 I mount the gear 46, which gear is rotatable on the shaft 44.

The teeth of the gear 46 mesh with the teeth of the gear 48, which gear 48 extends through the slot 50 in the mirror 12 into engagement with the teeth of the gear 46. The gear 48 is journaled for rotation in the bearing 52 secured to the side wall 54 of the slot 50.

Extending down from the underside of the gear 48, I provide the arm 56 which extends to the exterior of the vanity case through the semi-circular slot 58 in the bottom wall 40.

Thus, the arm 56 may be reciprocated in the slot 58 from left to right and return, Fig. 4, to cause the gear 46 to which it is secured to rotate with the shaft 44; when the vanity case is closed, the gear 48 has been positioned at the bottom of the gear 34, as viewed in Fig. 2, with the section 10 positioned on top of section 14.

As the gear 46 is rotated on the shaft 44 by means of the arm 56, the gear 48 and the shaft 60 to which it is keyed are rotated in the journal 52 thus causing the gear 48 to ride upward on the stationary gear 34 from the lower part

thereof to the upper part thereof, as viewed in Fig. 2. This operation causes the section 10, which is connected to the gear 48 at the side wall 54, and thus carried by the gear 48 and the bearing 52, to swing into open position on the hinges 16 and 18 until the gear 48 is disengaged from the gear 34 at which time the user of the vanity case manually swings the section 10 into completely open position or any intermediate position.

It will of course be understood that the arm 56 and slot 58, if desired, may be omitted, the vanity case being then manually opened in the conventional manner, the gear 48 rotated on the gear 34 and in turn causing the gear 46 and shaft 44 to rotate.

Rotation of the gear 46 through the gears 48 and 34, upon manually opening the vanity case, should it be desired to omit the arm 56 or by means of movement of the arm 56 from the left end of slot 58 to the right end thereof, as viewed in Fig. 4, causes movement of the wiping member 38 about the shaft 44 as a pivot from the bottom position, illustrated in broken lines, to the top position, illustrated in full lines, as viewed in Fig. 1.

This movement of the wiping member 38 across the surface of the mirror 12 serves to clean off whatever powder or dirt may be clinging thereto, it being understood that the bottom of the wiping member 38 is provided with a suitable cleaning material, for example, felt.

It will of course be understood, that if an arm 56 and slot 58 are used, the parts are so relatively dimensioned that the gear 48 will become disengaged from the gear 34 upon the arm 56 reaching the right end of the slot 58, as viewed in Fig. 4, and will be positioned at the lower extremity of gear 34, upon the arm 56 reaching the left end of the slot 58, as viewed in Fig. 4.

When the vanity case is to be closed, the section 10 is swung back about the hinges 16 and 18 until the gear 48 engages the gear 34, when it is made to ride thereon to its lowermost position through movement of the arm 56, which rotates gear 46 and brings the wiping arm 38 back to the position illustrated by the broken lines of Fig. 1.

In the construction in which the arm 56 is omitted, as the section 10 is lowered onto the section 14, the gear 34 causes the gear 48 to rotate about the shaft 60 and correspondingly the gear 46 about the shaft 44 to return the wiping member 38 into position when the vanity case is closed.

In order to guide the wiping movement of the member 38, I provide across the surface of the mirror 12, the rail element 62, the depending wall 63 of which fits into the compartment 42, under which the outer end of the wiping member 38 moves.

If desired, this rail member may be omitted, in which event, the wiping member 64 (see Fig. 6) may be made of a resilient material, such as spring steel, which is so bent and formed that the member 64 is always tensioned against the surface of the mirror 12.

If desired, referring to Fig. 5, a backing catch 66 may be provided at the end of the locking member 67, on the wall 69 of the section 10, which is brought home in the slot 68 in the wall 70 of the section 14 when the section 10 is swung thereon to close the case.

Referring now to Figs. 7 to 10 inclusive, I have there disclosed a modification of my invention in which the vanity case comprises the semi-

circular sections 72 and 74, which are hingedly secured together by the hinges 76 and 78.

The powder compartment 80 in the section 74 is provided with cover 82 hingedly mounted on the wall 84 by hinges 86 and 88 and may have the catch 89 for opening the powder compartment.

The section 74 at the center 91 thereof is cut away to permit the gears of the gear train to be mounted therein, as is the section 72 at the center 93 thereof.

Secured to stationary post 90, which is connected at each end of the wall 95 by means of the union connection 97 and 99 and extends across the openings 91 and 93 at the center of the vanity case, I provide the semi-circular stationary gear 92 which meshes with the gear 94 supported for rotation above the mirror 96 in the section 72 by means of the bearing 101 fixed therein.

Keyed to the shaft 98, which shaft is journaled in the wall and the washer 102 above the mirror 96, I provide the bevel gear 104 which meshes with the gear 94.

Secured to the shaft 98 beneath the gear 104, I provide the wiping element 106, which as will be seen, is moved from the bottom to the top of Fig. 8 across the surface of the mirror 96, against which it is tensioned, upon opening the vanity case to thereby clean the mirror.

A guide element 108 is secured on the face of the mirror 96 under which the outer end of the wiping element 106 is moved to thus prevent loosening of the wiping element.

When the section 72 is held against the section 74 to close the vanity case, the gear 94 is positioned at the extreme lower left end (Fig. 10) of the gear 92 and the wiping element at the extreme lower part of its stroke at 110 (Fig. 8).

Upon opening the vanity case by swinging the section 72 into open position on the hinges 76 and 78, the gear 94 rides on the gear 92 to the extreme lower right position, as illustrated in Fig. 10, rotating the bevel gear 104 on the shaft 98 and thus moving the wiping element 106 across the surface of the mirror 96 to the extreme upper position at 112 (Fig. 8), thus cleaning off the mirror.

Upon closing the vanity case and bringing the section 72 on the section 74, the reverse operation is performed to bring the wiping element 106 back to normal closed position.

In order to cover the central openings 91 and 93 and the gears of the gear train and particularly gear 92 upon closing the vanity case, I provide the telescopic dome 116, which comprises the inner semi-spherical wall 118, secured to the wall 120 of the section 74, the outer semi-spherical wall 122, secured to the wall 100 of the section 72 and the intermediate semi-spherical wall 124, which latter is slidable between the walls 118 and 122.

Upon closing the vanity case, the walls 118, 122 and 124 slide relatively to one another to thus extend the telescopic dome 116 into the size and shape illustrated in Fig. 7 and upon opening the vanity case they slide relatively to one another to foreshorten the dome into the size and position illustrated in Fig. 10.

To put it another way, the outer telescopic walls 118 and 122, slide on the inner telescope wall 124, which latter retains the relative position assumed by it in Fig. 10, so that the closed case and dome 116 members, upon closing, assume the position illustrated in Fig. 7.

This operation occurs because the wall 122 is secured to the section wall 100 and the wall 118 is secured to the section wall 120 so that when the sections of the case are closed, these semi-spherical walls must move on the intermediate wall 124 into the closed dome-like form illustrated.

In order to accomplish this action, I provide at the extreme left end of the wall 122, as viewed in Fig. 10, the catch 126, and at the other right end of the intermediate wall 124, as viewed in Fig. 10, the corresponding groove 128. Upon closing the vanity case, the outer wall 122 slides on the intermediate wall 124, the catch 126 riding thereon, until the catch is brought home in the groove 128, whereupon further movement of the section 72 causes the intermediate wall 124 to be carried by the outer wall 122 into ultimate dome extended position.

Upon opening the case, the reverse operation takes place to telescopically foreshorten the dome 116.

It will now be apparent that I have provided a vanity case having a mirror which is automatically wiped clean by a positive gear mechanism connection upon opening the vanity case for use.

As various possible embodiments might be made of the above invention, and as various changes might be made in the embodiments set forth, it is to be understood that all matter herein set forth or shown in the accompanying drawings and described in the specification is to be interpreted as illustrative and not in a limiting sense.

I claim:

1. In a vanity case having a pair of hinged sections, a mirror in one section, a wiping member tensioned against the mirror, a shaft arranged for rotation in said mirror section and positioned at right angles to the mirror, said wiping member secured to said shaft and movable across the face of the mirror upon rotation of the shaft, and a gear train comprising a gear secured to said shaft, a stationary gear and a third gear connecting the stationary gear with the gear on the shaft and mounted in the mirror section to move across the stationary gear upon swinging the mirror section on the hinges relative to the other section to open and close the vanity case, the axes of the stationary gear and third gear being parallel to each other and at right angles to the said shaft.

2. In a vanity case, a powder section, a mirror section, hinge means connecting the said sections together whereby the mirror section may be swung away from and on the powder section to open and close the vanity case, said powder section having a slot, a stationary gear secured to the powder section and extending through the slot, a mirror in the mirror section and having a slot, a movable gear mounted on the mirror section and rotatable in the slot, a rotatable gear in the mirror section meshing with the movable gear, and a wiping member movable across the surface of the mirror and operatively connected to the rotatable gear, said movable gear moving across the face of the stationary gear disengageable therefrom upon opening the vanity case and engaging the stationary gear and moving across the face thereof upon closing the vanity case.

3. In a vanity case, a first section, a second section, hinge means connecting the sections together whereby one section may be swung away from and on the other section to open and close the vanity case, one of said sections having a slot, a gear rotatable in said last named section, a member connected to said gear and extending through the slot and movable therein to cause rotation of said gear, a second gear meshing with the first gear and mounted in said last mentioned section, and a stationary gear in the other section normally meshing with the second gear when the case is closed and disengageable therefrom when the case is open.

4. In a vanity case, a first section, a second section, hinge means connecting the sections together whereby one section may be swung away from and on the other section to open and close the vanity case, one of said sections having a slot, a gear rotatable in said last named section, a member connected to said gear and extending through the slot and movable therein to cause rotating of said gear, a second gear meshing with the first gear and mounted in said last mentioned section, and a stationary gear in the other section, said second gear movable across the face of the stationary gear by rotation of the first gear upon movement of the member in said slot.

5. In a vanity case, a first section having an opening at the center thereof, a second section having an opening at the center thereof in alignment with the opening of the first section, a mirror in one of the sections, a gear train in the openings, a wiping member in the section containing the mirror connected to the gear train, hinge means connecting the sections together and a telescopic dome on the sections and covering the opening, said gear train operable to move the wiping member in the said section upon swinging one of the sections relative to the other section on the hinge means to open and close the vanity case, said dome arranged in collapsed condition upon opening the vanity case and arranged in telescoped condition upon closing the vanity case to keep covered the opening and the gear train therein from the bottom of the case.

6. The vanity case of claim 5, said telescopic dome comprising an inner wall connected to one section, an outer wall connected to the other section, and an intermediate wall between the said inner and outer wall.

7. The vanity case of claim 5, said gear train comprising a bevel gear mounted for rotation on the mirror holding section, a second gear mounted for rotation on the mirror holding section and meshing with the bevel gear and a third gear secured to the vanity case between the two sections and meshing with the second gear.

8. The vanity case of claim 1 and including locking means on the hinge sections for locking the sections together in closed position.

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