

Feb. 15, 1955

M. J. SHNITZLER ET AL
CASE FOR SAFETY RAZOR SET

2,702,116

Filed March 28, 1951

2 Sheets-Sheet 1

Fig. 1

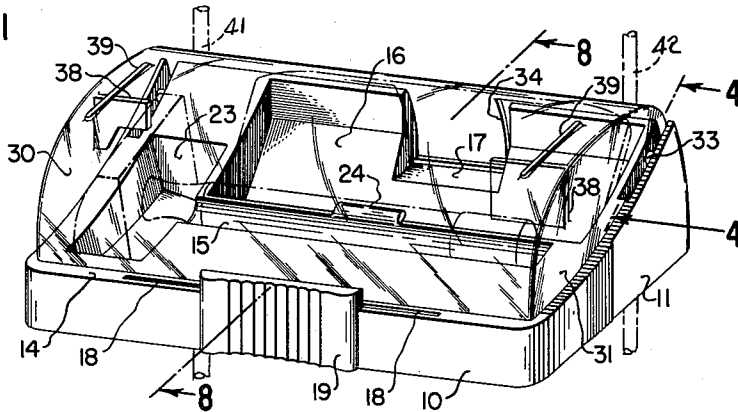


Fig. 2

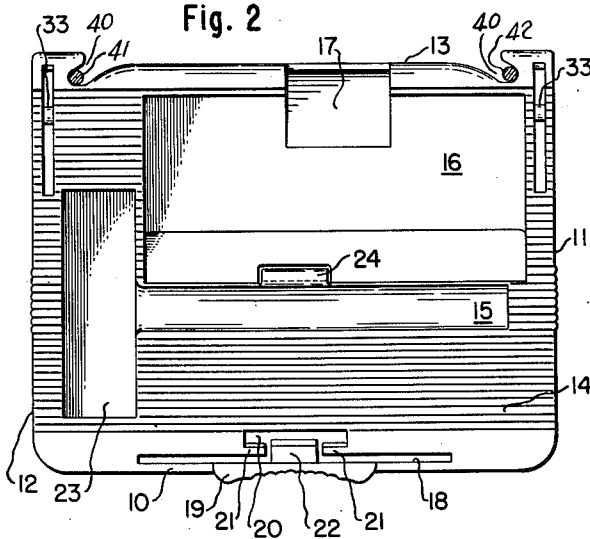


Fig. 4

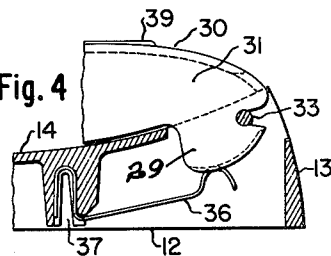


Fig. 5

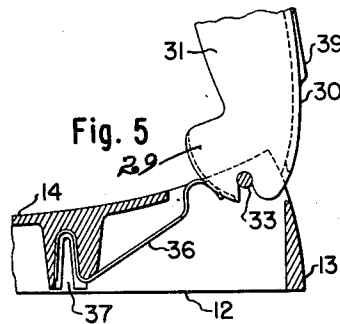


Fig. 3

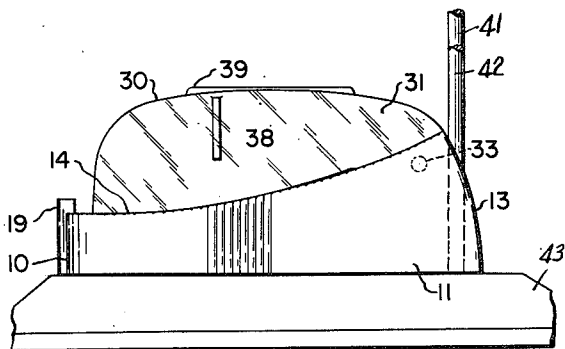
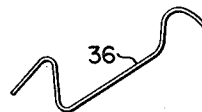


Fig. 6



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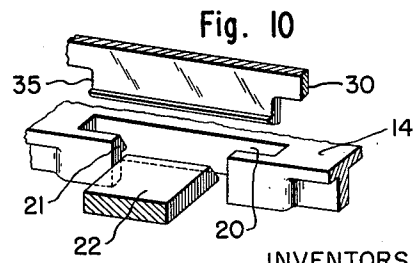
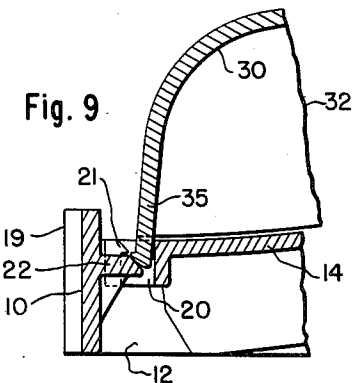
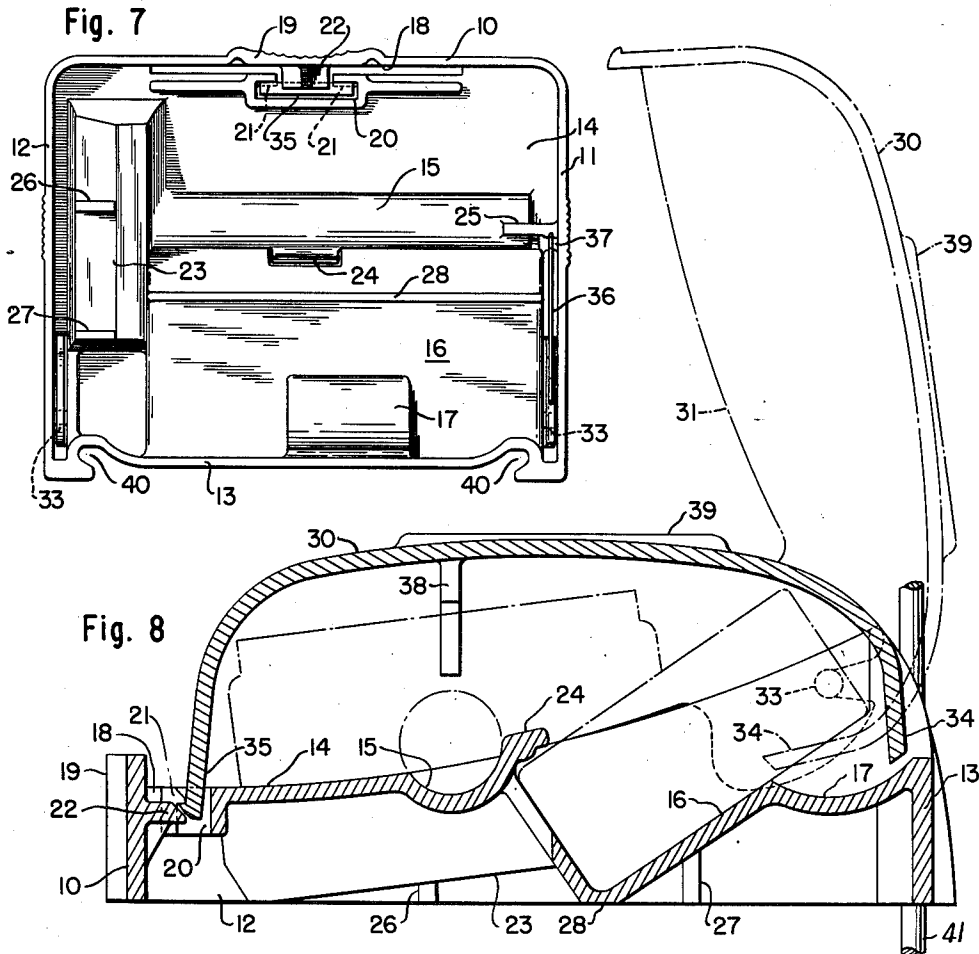
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CASE FOR SAFETY RAZOR SET

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Application March 28, 1951, Serial No. 217,946

17 Claims. (Cl. 206—16)

This invention comprises a new and improved case for a safety razor set, such as a safety razor and a supply of blades in the form of a package or dispensing magazine or other accessories. In general, it is the object of the invention to provide a case attractive in appearance, convenient in use, and economical in manufacture. The case as herein shown may be constructed wholly or partially of plastic resins, and, accordingly, may present a wide range of colors or harmonious color contrasts with or without transparent elements. For example, the cover may be molded of a transparent plastic through which the contents of the case may be seen, as well as colors that may be presented by the interior of the case.

The cover is provided with spring means urging it towards an open position to which it is therefore automatically moved when freed for opening by the user, with a result that the contents of the case are made conveniently accessible for removal as required. The spring-operated cover is provided with a novel latch construction adapted to engage automatically when the cover is closed and to be released merely by the application of pressure on the case in a definite area. The axis of the cover is so located that the cover may assure a wide open position without projecting appreciably beyond the rear wall of the case. The result is that the case may be located against the back wall of a shelf and the cover caused to open by mere pressure of the user's finger against the appropriate area of the case, all without any substantial displacement of the case from its position against the back wall. Moreover, the cover is latched in closed position by the mere operation of closing it. Maximum convenience in use is thus attained.

The body or tray of the case is designed to present a suitable compartment or receptacle for the different items it is to contain, and provision is made to hold a safety razor or its parts therein against displacement so that the case and its contents are quiet in all conditions of transportation and no disturbance or rattling occurs of the enclosed articles.

A feature of the invention consists in improved latching mechanism by which particular advantage is taken of the general structure of the case. As herein shown, cooperating latch elements are provided on the cover and at a suitable location on the body or tray of the case such as, for example, on the forward edge of a panel extending between the end walls of the tray. The front wall of the tray is externally intact and unperforated. It is partially separated from the body of the tray so that it is free to yield under light pressure, and connections are provided for disengaging the cover when the yielding wall section is depressed by the finger of the user. These connections may be so shaped that when the cover is disengaged it is simultaneously given an initial impulse in an opening direction.

A cooperating feature is found in the spring means associated with the cover for automatically opening it when one wishes to do so. This comprises a spring having a U-shaped portion arranged to ride upon an eccentric cam surface of a portion of the cover at a point in advance of its hinge axis. The spring therefore tends at all times to throw the cover into open position, while at the same time its point of application shifts as required along the cam curvature presented by the cover in a direction reducing the leverage of the spring and brings the cover gently to rest in its wide open position.

Another and independent feature of our improved case is that it may be supported in stack formation in a dis-

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play rack by engagement with its rear wall alone, thus leaving the greater part of the case, and specifically its front and both end walls exposed to view without obstruction. As herein shown this is achieved by providing oppositely directed configurations or convolutions forming re-entrant vertical channels in the rear wall located in position to receive upstanding parallel legs or rails of a display rack.

These and other features of the invention will be best understood and appreciated from the following description of a preferred embodiment thereof, selected for purposes of illustration and shown in the accompanying drawings, in which:

Fig. 1 is a view of the case in perspective.

Fig. 2 is a bottom plan view.

Fig. 3 is a view in end elevation.

Figs. 4 and 5 are fragmentary views in section on the line 4—4, showing the cover in two positions.

Fig. 6 is a view in perspective of the spring.

Fig. 7 is a plan view of the tray portion, inverted.

Fig. 8 is a sectional view on an enlarged scale on the line 8—8 of Fig. 1.

Fig. 9 is a fragmentary sectional view of a part of Fig. 8 and,

Fig. 10 is a fragmentary perspective view showing the latching parts in exploded relation.

The case as herein illustrated comprises a tray portion designed to be molded of any suitable inherently resilient plastic material, although not limited in its construction to any specific material. The tray portion has an upright front wall 10, end walls 11 and 12, and a rear wall 13, all of substantially the same thickness, a feature favorable for production by molding. Between the upright walls of the tray above enumerated extends a partition or deck comprising a slightly inclined panel 14, having therein a longitudinal channel 15 for reception of the handle of a safety razor, and an angular panel 16 providing a rectangular compartment with an inclined bottom for a magazine or package of razor blades. The panel 14 is shown as longitudinally corrugated for ornamental purposes and it is disposed flush with the upper edge of the front wall 10 and the end walls 11 and 12, as best shown in Fig. 1. The panels 14 and 16 are preferably molded as a single integral piece of uniform thickness corresponding substantially to the thickness of the walls. The angular panel 16 is provided with a concave recess 17 disposed somewhat off center in its rear edge and leading out through the rear wall 13 of the case. This recess is provided to receive with clearance a flange forming a part of the cover as will presently be described.

The front wall 10 is separated in part from the deck portion of the panel 14 by a longitudinal slot 18. This slot is herein shown as substantially more in length than half the length of the wall 10 and its purpose is to set off a section of the wall which will be free to yield inwardly under light pressure. For that purpose the yielding section of the wall is provided with a fluted finger tab 19, herein shown as projecting in a flange somewhat above the top edge of the front wall 10. The slot 18 opens inwardly into a central rectangular recess 20 defined in part by two short inwardly extending arms formed with hooks 21 for the purpose of engaging the front edge of the cover. The yielding wall section is provided with an inwardly extending releasing arm 22 to be referred to presently and the fluted tab 19 indicates the area to be pressed when the cover is to be released by the arm.

At one end of the panels 14 and 16 is formed a transversely disposed rectangular receptacle 23 designed to hold the head of a safety razor and communicating with the longitudinal channel 15 in the panel 14 for the handle of the razor.

The front wall of the angular panel 16 is provided with a rectangular aperture which opens into the magazine compartment of the case and above which is formed a projecting flange 24. The aperture facilitates molding of the panel and the flange acts to retain the blade package in its compartment. Formed on the underside of the panels are legs 25, 26, and 27 which extend flush with the lower edges of the walls of the tray and, together

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with the flattened downwardly directed apex 28 of the angular panel, provide supporting surfaces by which a number of cases may be stacked vertically one above another for display purposes.

The cover of the case preferably and as herein shown is molded of transparent plastic material, such as lucite, and is shaped to enclose the contents of the tray while at the same time leaving them visible. The cover comprises a generally rectangular convexly curved top 30 having end walls 31 and 32 which are received at their rear ends in slots formed near the angular panel 16 and pivotally supported upon studs 33 which extend across the slots between the end walls 11 and 12 and opposed walls formed near the rear portion of the panel 16. The studs 33 form the axis of the cover, and it will be seen that they are located sufficiently in advance of the rear wall 13 of the case so that the cover in open position stands wholly within the projected area of the case. The walls 31 and 32 of the cover are slotted to receive the pivot pins 33 and are forced into position thereon, springing slightly so that the pins may be seated in an enlarged socket at the inner end of each slot. The cover is provided in its rear wall with downwardly extending arm 34, rectangular in contour and arranged to swing in the recess 17 of the panel 16, as shown in Fig. 8. When the cover is closed, this arm is disposed substantially flush with the rear wall 13 of the tray, and when the cover is raised, the arm 34 will engage the rear side of a magazine in the case and lift it in its compartment so that it can be conveniently grasped and removed by the user.

At its front edge the cover is provided with a shallow centrally disposed depending flange 35 having a forwardly extending beveled shoulder designed to fit with clearance into the rectangular recess 20 above described, and when so inserted to be engaged by the hooks 21 on the two arms at the front side of the recess 20. The material of the cover is sufficiently yielding in its construction so that light pressure thereon by the releasing arm 22 is sufficient to spring the shouldered flange of the cover rearwardly out of engagement with the hooks 21 thereby freeing the cover for opening movement. The beveled surface of the shoulder cooperates with the beveled inner edge of the arm 22 to impart an initial opening impulse to the cover at the instant of its disengagement.

A round wire spring 36, best shown in Figs. 4-6, is provided for normally biasing the cover towards its open position. This spring has a hook-shaped rear end arranged to bear upon a downwardly projecting portion 29 of the side wall 31 of the cover at a point in advance of the pivot 33, so that at all times the cover is urged to swing in a clockwise opening direction as seen in Figs. 4 and 5. Opening movement in this direction is limited by the engagement of the rear edge of the cover with the rear wall 13 of the tray. The forward end of the spring 36 is permanently retained in a narrow grooved recess 37 provided therefore by bosses formed on the inner face of the side wall 11 of the tray. The downwardly projecting portion 29 of the cover has a curved edge face grooved to receive the convex curve of the spring 36. The curvature of the edge is eccentric with respect to the axis of the cover so that the leverage of the spring 36 is gradually reduced as the opening movement progresses. The cover is therefore stopped without appreciable shock in its fully open position.

The rear wall of the case is provided with two opposed convolutions providing re-entrant vertical channels 40 by which the case as a whole may be threaded upon and retained by a pair of spaced vertical rods or wires 41, 42 in a display fixture. The portion of the rear wall 13 lying between the channels 40 may, if desired, be offset inwardly relative to the remaining end portions of the rear wall lying outside or beyond those channels, as clearly shown in Figs. 2 and 7. As a characteristic feature of our construction it will be noted that the upper ends of the channels 40 are located at points below and behind the rear edge portion of the closed cover and that the effective depth of each channel is greater at the bottom than at the top. The cover, moreover, is provided internally with a pair of depending hold-down plates 38 located upon its inner face in position to engage the head and handle of the safety razor and hold them in fixed position within the case. Externally the cover is provided with a pair of transverse ribs 39 which serve as bearing areas and prevent scratching of the cover when the cases are disposed in stacked relation.

In using the case of the present invention, a safety razor

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may be conveniently placed with its handle in the channel 15 and its head in the receptacle 23, and a magazine dispenser may be placed in the compartment provided for it by the angular channel 16 and its forward side will be retained in its compartment by the overhanging flange 24. When the cover 30 is closed, the beveled shoulder of its flange 35 is deflected inwardly and snaps under the hooks 21 in the arms of the deck panel 14, thus latching the cover in closed position with the arm 34 closing the recess 17 in the back of the case.

Now when the user desires to remove his razor or magazine from the case he has merely to press lightly against the finger piece 19, thus flexing inwardly the yielding section of the front wall 10 and projecting the releasing arm 22 into contact with the depending flange 35 of the cover. The inherent resiliency of the cover permits the flange 35 to be forced rearwardly and disengaged from the hooks 21 whereupon the spring 36 causes the cover to fly open into the upright position shown in Fig. 8. At the same time, the arm 34, swinging into the recess 17, partially lifts the rear side of the blade magazine into convenient position for removal from its compartment. The side walls of the cover conform to the rearward inclination of the paneled deck so that when the cover is closed the contents of the case are completely and adequately protected from dust and dampness. In this condition the razor is held securely in its compartment by the hold-down plates and prevented from any displacement which might result in dulling a blade contained therein.

It will be noted that the rear wall 13 may have a slight forward and upward rake so that in placing the case on a shelf, as in a bathroom cabinet, the axis of the hinge is held sufficiently in advance of the wall to permit the cover to fly into substantially vertical position when once released by pressure on the finger piece 19. Accordingly, the case may be conveniently manipulated by one hand of the user both for opening and closing. If it is desired that the cover not be traversed by the channels 40, that can be accomplished by shaping the cover as illustrated and by locating the studs 33 forwardly of the rear wall 13 of the tray.

For display purposes the cases may be stacked vertically one above another in a rack having a pair of stiff parallel side members 41, 42 of round wire. It will be apparent from an inspection of Fig. 2 that the cases may be threaded upon the upper portions of such wires by means of the vertical channels 40 provided by the spaced, oppositely directed re-entrant convolutions of the rear walls and thus slipped downwardly thereon. The legs 25-27 together with the flattened vertex 28 of the channel 16 provide bearing areas of each case and these rest upon the base 43 of the rack or upon the protective ribs 39 of the next underlying case.

The parallel vertical rods or wires or rails 41 and 42 of the rack are shown in phantom fashion in Fig. 1, and in full lines in Figs. 2, 3 and 8, while the base 43 from which they project is shown in fragmentary end elevation in Fig. 3. The members 41, 42 are herein shown as legs or rails of round wire spaced to pass freely into the channels 40 so that the individual cases may be easily threaded upon or removed from the wires by vertical movement. When threaded upon the wires 41, 42 the cases are held in the form of a vertical stack solely by engagement of the convolutions of the rear wall with the wires. The cases are thus displayed on retail counters in a most advantageous and effective manner with their fronts and both ends completely unobstructed and fully exposed to view, while yet being held securely assembled in compact vertically-stacked but removable fashion by simple rail means which are largely invisible from the front of the stack. The wires 41 and 42 may or may not be connected at their upper ends.

Having thus disclosed our invention and described in detail an illustrative embodiment thereof, we claim as new and desire to secure by Letters Patent:

1. A case for a safety razor and blade package comprising a tray having a front wall merging into a panel with receptacles therein, and a cover hinged to the tray, the panel having therein a long central slot defining a yieldable section in the front wall, an operating arm extending from the front wall inwardly with clearance across said slot and having an upwardly beveled inner end, the panel having a recess opening into the slot to receive the end of the operating arm and a pair of arms which in part define the recess and have upwardly beveled hooks thereon, and the cover having a downwardly projecting flange

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with a forwardly projecting shoulder shaped to engage beneath the said beveled hooks and a downwardly beveled edge located in line with said operating arm when the cover is closed.

2. A case of the character described in claim 1 in which the yieldable section of the front wall is provided with a fluted finger pad in its central area.

3. A case for a safety razor and blade package comprising a tray having a front wall, an inwardly extending panel supporting the wall except in a central section where the unsupported section may yield inwardly under finger pressure, the panel having a recess defined in part by hooked arms at each side, a cover hinged to the tray and having a shouldered portion shaped to enter the said recess with clearance and to engage beneath the said hooked arms, and an operating arm projecting inwardly from the front wall in position to engage and flex the cover and disengage it from the said hooked arms.

4. A case for a safety razor set comprising a tray having an upright front wall merging at its upper edge into a transverse panel, the panel having a slot setting off a flexible section in the front wall and a recess leading thereto, a hooked arm at each side of said recess, a cover hinged to the tray and having a flexible portion engageable with said hooked arms, and an operating member on the front wall shaped to pass between said hooked arms and deflect the flexible portion of the cover out of engagement with said hooked arms.

5. A case for a safety razor set comprising a tray having an unperforated front wall with a flexible section thereon, a pair of spaced hooked arms located behind said section, a cover hinged to the tray and having a flexible beveled portion engageable with the hooked arms, and means carried by the flexible section of the front wall for simultaneously deflecting and lifting the cover through the medium of its beveled portion.

6. A case of the character described in claim 5 in which the flexible section of the front wall is defined by an elongated slot and in which the hooked arms are located symmetrically behind the slot and substantially within the ends thereof.

7. A molded plastic case for a safety razor set comprising a rectangular tray member having a rear wall formed with opposed vertical channels spaced to receive a pair of parallel vertical rails of a display rack, a cover member hinged to the tray member to swing about an axis located in front of the rear wall upon pivots located outside said vertical channels whereby the cover may be opened without projecting appreciably beyond the rear wall of the case, and a front wall having a partially separated yieldable section therein and an inwardly extending panel carrying a hooked element, the cover having a shouldered portion initially engaged by said hooked element, and an operating arm projecting inwardly from the yielding front wall section, whereby the user may with one hand flex the front wall and disengage and open the cover while merely pressing on the front wall.

8. A case for a safety razor and a blade package comprising a tray of inherently resilient material having an upright front wall and a horizontal panel with receptacles for a razor and blades therein, and a cover hinged to the back of the tray, the panel having a long slot opening inwardly into a central recess and with it defining a yieldable section in the front wall, and the cover having a portion shaped to enter the said recess and to present a latching element behind the front wall of the tray, a cooperating latching element associated with the tray located in the vicinity of the recess and in latching engagement with the corresponding latching element of the cover when the cover is closed, and means projecting inwardly from the yieldable section of the front wall for disengaging said latching elements in response to finger pressure against the said yieldable section of the front wall thereby releasing the cover for opening.

9. A case for a safety razor and a blade package comprising a tray of inherently resilient material having an upright front wall and a horizontal panel with receptacles for a razor and blades therein, and a cover hinged to the back of the tray, the tray having therein a long slot extending adjacent to the front wall of the tray and defining an elongated yieldable section in said wall presenting a central finger pressure area, the cover having a latching element adjacent to its front edge and the tray having associated therewith a co-operating latching element located rearwardly of the yieldable section of its front wall, and

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means for disengaging the latching elements by inward movement of the yieldable section of the front wall under finger pressure.

10. A case for a safety razor and a blade package comprising a rectangular tray of molded plastic material having upright front and rear walls and an intermediate recessed top panel, and a cover hinged to the rear of the tray, the tray having an elongated slot setting off a central portion of the front wall of the tray and defining an inwardly yieldable central portion on said wall displaceable by finger pressure, abutting latch elements respectively integral with the cover and the tray and being engageable when the cover is closed, and means located rearwardly of and integral with the yieldable section of the front wall for forcibly disengaging said latch elements under finger pressure to release the cover.

11. A case for a safety razor set, comprising a tray having front, side and rear walls, a cover hinged to the side walls of the tray to swing about a horizontal axis disposed substantially in front of the rear wall, the cover having a downwardly projecting portion that extends forwardly from said axis and has an edge face disposed in eccentric relation with respect to the axis of the cover, and a spring having a forward and a rearward end arranged in a forward and rearward direction with respect to the tray, anchored on one of the side walls of said tray at its forward end and bearing at its rear end against said projecting portion at a point in advance of said axis thereby biasing the cover toward open position and operating upon the cover with a decreasing moment arm as the cover approaches open position.

12. A molded plastic case for a safety razor set, comprising a rectangular tray and a cover member hinged thereto, the tray having a front cover latch and a forwardly and upwardly curved rear wall in which are formed re-entrant parallel vertical channels opening toward each other and being located wholly within the contour of the tray, whereby a plurality of such cases may be supported in vertically stacked arrangement wholly by engaging the channels of their rear walls with parallel upright rods, leaving the cases otherwise fully exposed and free for removal and positively holding the engaged supporting rods against separation.

13. A molded plastic case for a safety razor set, comprising a rectangular tray and a cover member hinged thereto, the tray having a front cover latch and a rear wall inclined forwardly with respect to a vertical plane, re-entrant parallel vertical channels formed in said rear wall opening toward each other and being located wholly within the contour of said tray, the upper ends of said channels being located at points below and behind the rear edge portion of the closed cover, whereby a plurality of such cases may be supported in vertically stacked arrangement wholly by engaging the channels of the rear walls of the trays with parallel upright rods, leaving the cases otherwise fully exposed and free for removal and positively holding the engaged supporting rods against separation.

14. A molded plastic case for a safety razor set, comprising a rectangular tray and a cover member having a rear edge and being hinged thereto, said tray having a front wall and a rear wall inclined forwardly with respect to a vertical plane, a front wall cover latch, the rear edge of said cover being located forwardly of said rear wall when said cover is in closed position, the rear wall of said tray having re-entrant parallel vertical channels opening toward each other wholly within the contour of said tray, the upper ends of said channels being located at points below and behind the rear edge portion of the closed cover, whereby a plurality of such cases may be supported in vertically stacked arrangement wholly by engaging the channels of the rear walls of the trays with parallel upright rods, leaving the cases otherwise fully exposed and free for removal and positively holding the engaged supporting rods against separation.

15. A molded plastic case as described in claim 14 in which the effective depth of said channels is greater at their bottom than at their top.

16. A case as defined in claim 9 in which the entire tray, including its panel, the yieldable section of its front wall and its associated latching element, are all integral with each other and with the disengaging means, all being formed as a single unit of molded plastic.

17. A case as defined in claim 9 in which a spring acts on the cover automatically to raise the cover upon dis-

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engagement of the latching elements by inward movement of the yieldable section of the front wall of the tray under finger pressure.

References Cited in the file of this patent

UNITED STATES PATENTS

D. 164,516	Ruskin -----	Sept. 11, 1951	
1,643,171	Orme -----	Sept. 20, 1927	
1,755,063	Holden -----	Apr. 15, 1930	10
1,918,664	Rasmusson -----	July 18, 1933	
1,957,153	Smiley -----	May 1, 1934	
2,090,886	Dion -----	Aug. 24, 1937	
2,110,411	White -----	Mar. 8, 1938	

2,156,844	
2,195,593	
2,200,399	
2,203,960	
2,245,487	5
2,330,624	
2,356,926	
2,374,346	
2,409,748	
2,415,767	10
2,472,449	
2,535,493	
2,571,353	
2,605,926	

8

Gautier -----	May 2, 1939
Kreidler -----	Apr. 2, 1940
Primas -----	May 14, 1940
Hickman -----	June 11, 1940
Machin -----	June 10, 1941
Rathbun -----	Sept. 28, 1943
Gits -----	Aug. 29, 1944
Habif -----	Apr. 24, 1945
Folst -----	Oct. 22, 1946
Shaw -----	Feb. 11, 1947
Van Rosen -----	June 7, 1949
Gerber -----	Dec. 26, 1950
Felsch -----	Oct. 16, 1951
Casey -----	Aug. 5, 1952