June 19, 1945. H. A. HUSTED 2,378,774

CIGARETTE CASE

Filed Nov. 22, 1943

Fig. 1

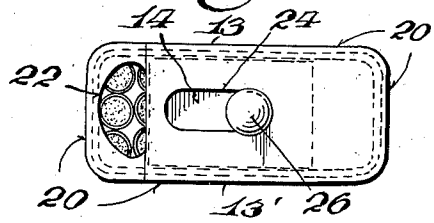


Fig. 5

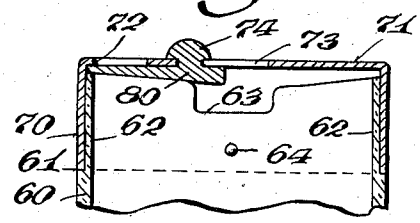


Fig. 2

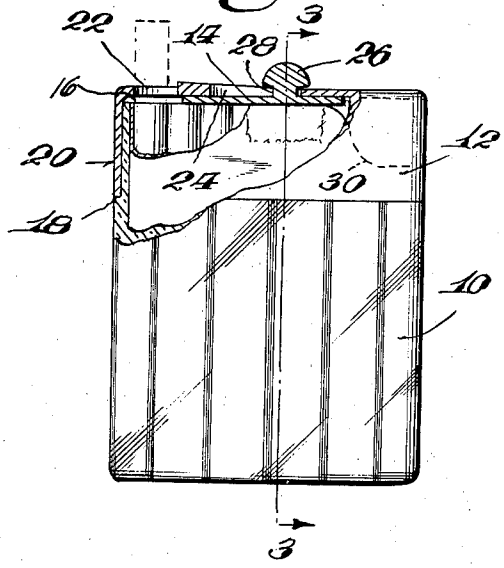


Fig. 3

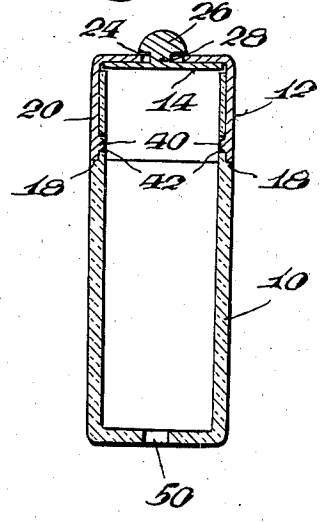
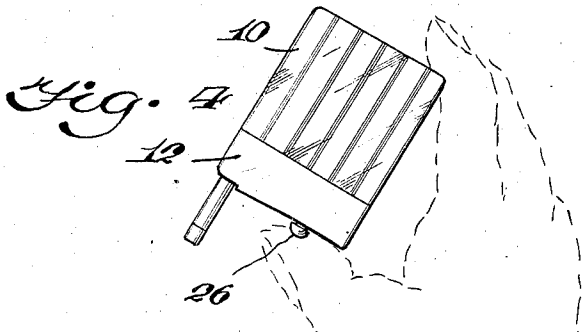


Fig. 4



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CIGARETTE CASE

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Application November 22, 1943, Serial No. 511,306

4 Claims. (Cl. 206—41.2)

It is a primary object of this invention to provide a protective case for a partially opened pack of cigarettes, which case has means for dispensing cigarettes therefrom, and also has closure means to prevent the spilling of tobacco when the closed case is carried in the pocket.

It is a further object of this invention to provide a cigarette case of the class described which meets, accurately and individually, the optimum requirements of a case of this type.

It is a further object of this invention to provide a cigarette case of the class described which is formed from a minimum number of parts, and in which each of the parts may be moulded from plastic material.

The accomplishment of the above and other objects will be made clear from the following detailed description, taken in connection with the annexed drawing in which:

Fig. 1 is a top plan view of the improved case;

Fig. 2 is a side elevation, partly in section;

Fig. 3 is a cross-section taken on the line 3—3 of Fig. 2;

Fig. 4 is a perspective view illustrating the use of the improved case; and

Fig. 5 is a view similar to Fig. 2 but showing an alternative form of construction.

Cigarettes for the mass market are very nearly the cheapest manufactured goods on sale. In items of such low unit cost, the cost of packaging is a major item. It is, therefore, impossible to produce popular priced cigarettes in rigid, protective packages. The conventional packaging of cigarettes is subject to the defect that the non-rigid package may be crushed in the user's pocket, and the further defect that, being non-recloseable, tobacco spills into the pocket holding the pack. At the same time, lint works its way into the cigarettes. Protective cases in which the cigarettes must be removed from the conventional pack and repacked in the case have never enjoyed any extensive vogue among men for the reason that the transfer operation is simply too much trouble.

During the past twelve or fifteen years, there has been a constant search for a supplementary case which will receive the conventional cigarette pack without the trouble of transferring individual cigarettes; which will protect the pack against crushing; which will give easy access to the cigarettes; and which may be tightly closed to prevent spillage of tobacco and contamination of the cigarettes. At the same time, such cases must be cheap, or the mass market to which they are directed will be unresponsive. The present invention for the first time meets every requirement of the problem with an optimum solution.

In Fig. 2 there is illustrated a protective case comprising a lower member 10, cap member 12 and a closure member 14. The walls of the lower member 10 are made thinner adjacent its open mouth 16 to provide a shoulder 18 running entirely around the periphery of the member 10. The cap member 12 has vertical walls 20 equal in thickness to the shoulder 18. Where the cap member 12 is applied to the lower member 10 the result is an enclosed structure having uniformly smooth exterior and interior walls. These walls may, of course, be suitably embossed or otherwise decorated by methods common in the art of moulding plastics. The walls may, moreover, be made wholly transparent.

At one end of the cap member 12 is an elliptical dispensing opening 22 and adjacent thereto is an elongated slot 24. A button 26 is moulded integrally with the plate 14 and is joined thereto by a neck portion 28. The button 26 is only slightly greater in diameter than the slot 24 and when the parts are moulded from relatively resilient plastic material the button 26 may be snapped through the slot 24 by slightly spreading the sides of the slot. This is easy because of the camming effect of the curvature of the upper surface of the button 26. It is difficult, however, thereafter to disassemble members 14 and 12 because of the sqare shoulder with which the neck 28 intersects the under side of the button 26.

The front and rear walls of the lower member 10 are cut away at 30 and the adjacent end wall is similarly cut away. This provides a "thumb-notch" affording a convenient gripping point for the removal of an empty pack from the case. While in Figs. 1 and 2 the dispensing opening 22 is shown at the side of the case opposite the thumb notch just described, in practice it is immaterial which side of the case the dispensing opening occupies. This is important since, for the insertion or removal of a pack of cigarettes, the lower member 10 and the cap member 12 are completely separated and if any particular orientation of the parts were necessary for reassembly, an almost fatal element of inconvenience would result.

As will be noted in Fig. 2 the side edges of the closure plate 14 are guided by the side walls 20 of the cap member 12. It is also to be noted that the width of the plate 14 is such that its edges overlie the edges of the walls of the lower member 10. These walls prevent canting of the

plate 14 which might cause binding of the button 26 when the plate is retracted to expose the dispensing opening 22.

As shown particularly in Fig. 2, the top surface of the member 12 increases slightly in thickness from the rear end toward the front end of the slot 24, so that at the rear end, the height of the neck 28 slightly exceeds the thickness of the cap member 12, while at the front end, the thickness of the cap member 12 slightly exceeds the height of the neck 28. As a result when the plate 14 is pressed to closing position by the thumb of the user acting on button 26, the increased thickness at the forward end of slot 24 sets up a binding action between the material of the cap member 12 and the button 26 on one side, and between cap member 12 and the plate 14 of the other side. This binding is sufficiently tight to prevent any accidental displacement of the plate 14 away from closing position.

Accidental separation of the cap member 12 from the lower member 10 is prevented by the interengagement of means illustrated in Fig. 3. Cylindrical lugs 40 are moulded into the side walls 20 of the cap member 12. These lugs extend from the walls 20 by an amount approximating the thickness of the reduced upper portion of the walls of the lower member 10, and are preferably located approximately medially of the wider walls 20 of the cap member 12. The reduced upper portion of the walls of the lower member 10 have perforations 42 sized and spaced so as to register with the lugs 40 when the cap member 12 reaches its final position relative to the lower member 10. The wider walls 20, being formed of relatively resilient plastic material spring sufficiently to accommodate the lugs 40 as the cap member 12 is thrust over the reduced portions of the lower member 10, and this springing action carries the lugs 40 into the perforations 42 to form a lock. When this action takes place, there is normally a new pack inside the lower member 10, giving that member substantial rigidity even against bending or flexing of its wider walls. When the cap member 12 is to be removed from the lower member 10, the pack inserted therein will usually be empty. The wider walls of the lower member 10 may therefore be flexed inwardly to an extent sufficient to disengage the perforations 42 from the lugs 40 and thus to permit the removal of the cap member 12.

If desired, a perforation 50 (Fig. 3) may be placed in the bottom of the lower member 10. This will prove useful when the cigarette pack so closely conforms to the inner surface of the member 10 as to have a compression effect upon air entrapped in the member 10.

The button 26 and neck 28 may be, as shown, integral with the plate 14. If desired, however, button 26 and neck 28 could penetrate plate 14 and be riveted thereto either by pressure alone, or by heat and pressure. When both members are formed of plastic material, the neck 28 may be wet with acetone and passed through a perforation in the plate 14 under which circumstances the acetone will sufficiently dissolve the material of the neck 28 and the adjacent portions of the plate 14 to effect the equivalent of a weld therebetween.

In Fig. 5 there is shown an alternative form of lower member 60 having a peripheral shoulder 61 and thinned upper walls 62. A thumb notch 63 is provided centrally of the wider walls of the lower member 60 but terminates sufficiently above the shoulder 61 to accommodate a locking perforation 64 identical in function with the locking perforation 42 shown in Fig. 3. The edges of the wider walls of the lower member 60 are inclined from a low point adjacent the thumb notch 63 to a high point at the extremities of the wider walls.

A cap member 70 fits the walls 62 of member 60 and bears on the shoulder 61. The top surface 71 of the member 70 has a dispensing opening 72 identical with the opening 22 of Fig. 1. Adjacent the opening 72 is a slot 73 receiving a button 74 attached to a closure plate 80. The closure plate is tapered in cross-section to conform to the sloping edges of the wider sides of the lower member 60.

In the design shown in Fig. 5 the material of the cap member 70 is of uniform thickness throughout its walls and the only tapered cross section occurs in the closure plate 80 where it is easiest to manufacture. Indeed, the plate 80 may be cut from continuous extruded rod stock of the proper cross section. There is no problem of orientation since it does not matter upon which side of the lower member 60 the plate is brought to rest. The taper of the plate 80 coacts with the slope of the edges of the wider walls of the member 60 to provide a wedging action which produces a binding of the plate 80, holding the same against accidental displacement away from closing position.

It is to be noted that the openings 22 (Fig. 1) and 72 (Fig. 5) are so calculated that there is only a clear passage for one cigarette at a time. This avoids the embarrassment of having two or more cigarettes drop at once when the case is handled in the manner illustrated in Fig. 4, which is the normal manner of handling a case of this general type. The corners of both members are rounded to conform to the actual form of a cigarette pack. The plastic material is amply strong to resist crushing, and the closure is completely dust-proof. All members are free of reentrant surfaces and the several parts therefore lend themselves to simple moulding operations.

Certain variations from the precise forms illustrated will suggest themselves to anyone skilled in the art. It is not, therefore, intended to limit this invention to the precise disclosure, but only as set forth in the subjoined claims which are to be broadly construed.

I claim:

1. A cigarette case adapted to hold an opened pack of cigarettes and to dispense cigarettes therefrom, said case comprising a substantially rigid lower member adapted to receive a cigarette pack and to cover five sides thereof, the walls of said lower member being thinned adjacent its open side to provide a peripheral shoulder; a cap member fitting the thinned portion of said lower member and having a rim bearing on said shoulder, the upper face of said cap member having a cigarette dispensing opening and a slidable plate secured to said upper face and movable to open and close said opening; said plate being guided laterally by opposed walls of said cap member, and being guided vertically by the edges of opposed walls of said lower member.

2. A closure for a cigarette case comprising a cap member having front and rear walls, end walls, and an upper face integral with said walls, said upper face having a cigarette dispensing opening; a plate adapted to cover said opening and mounted to slide between said front and rear

walls; a member attached to said plate and protruding through a slot in said upper face, the portion of said member lying on the side of said upper face opposite said plate being larger than said slot to hold the plate in contact with said upper face, the thickness of the material of said upper face increasing from the rear of said slot towards said dispensing opening whereby to bind said material between said protruding portion and said plate when the latter covers said dispensing opening.

3. A cigarette case adapted to hold an opened pack of cigarettes and to dispense cigarettes therefrom, said case comprising a substantially rigid lower member adapted to receive a cigarette pack and to cover five sides thereof; the walls of said lower member being thinned adjacent its open side to provide a peripheral shoulder; a cap member fitting the thinned portion of said lower member and having a rim bearing on said shoulder, the upper face of said cap member having a cigarette dispensing opening, a slidable plate secured to said upper face and movable to open and close said opening, the thinned portions of the wider opposed walls of said lower member being cut away at the centers of said walls to provide a thumb notch; the edges of said wider walls sloping upwardly from said thumb notch and said plate having a tapered cross section corresponding to the slope of said edges.

4. In a cigarette case, a member having front and rear walls, end walls, and an upper face integral with said walls, said upper face having a cigarette dispensing opening; said member being molded of plastic material; a plate formed of plastic material, adapted to cover said opening, and mounted to slide on the under side of said upper face between said front and rear walls; a member formed of plastic material and integrally attached to said plate and protruding through an elongated slot of uniform width formed in said upper face, the portion of said member lying on the side of said upper face opposite said plate being larger than said slot, said portion having a flat under-surface bearing against the outer surface of the slot edges, the smallest transverse width of the member in the plane of the said flat surface being greater than the width of the slot to hold the plate in contact with said upper face, the shape of said protruding portion being so related to the width of said slot and the stiffness of the material of said upper face that it may be snapped through said slot by a camming action, said portion serving, when engaged through said slot, as the sole means preventing separation of said plate and said upper face.

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