June 20, 1950 P. ISAAC 2,512,207

AUTOMATIC CIGARETTE CASE

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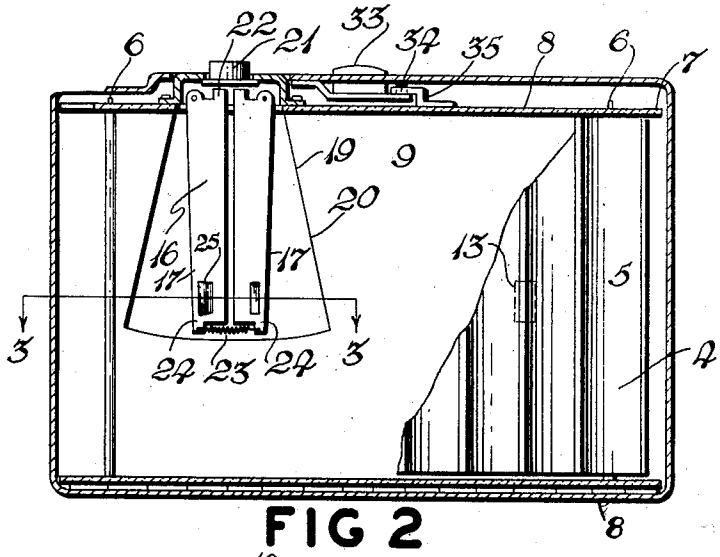


FIG 2

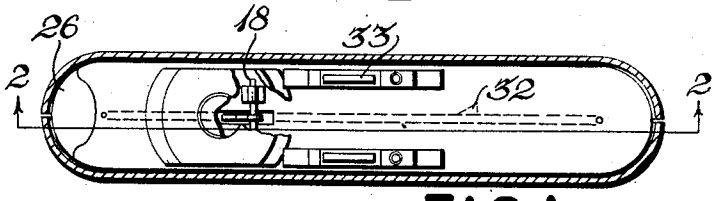


FIG 1

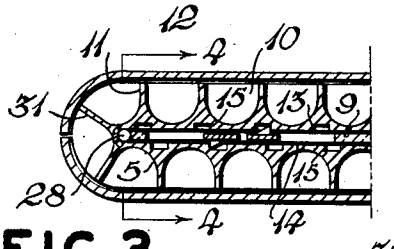


FIG 3

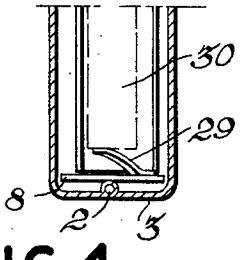


FIG 4

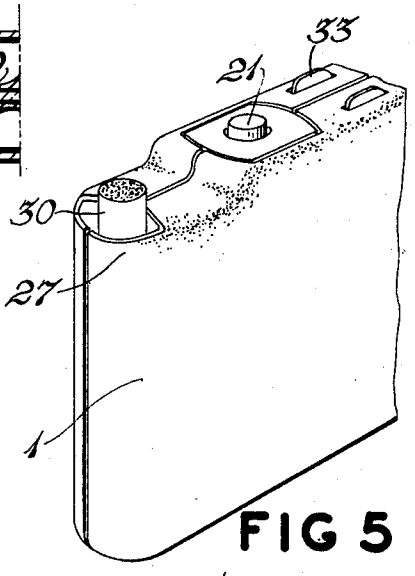


FIG 5

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AUTOMATIC CIGARETTE CASE

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1 Claim. (Cl. 206—41.2)

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My invention relates to new and useful improvements in cigarette cases, an object of my invention being to provide a device of the character herewithin described which after being loaded, will deliver cigarettes in succession through an aperture provided in the case.

A further object of my invention in conjunction with the foregoing object is to provide a device of the character herewithin described which incorporates means whereby cigarettes are delivered in succession to a discharge station in line with which is an ejection aperture through which the cigarettes are projected so that they may readily be withdrawn by the user.

Another object of my invention is to provide a device of the character herewithin described which is particularly easy to re-load without disturbing the mechanism therein.

Another object of my invention is to provide a device of the character herewithin described which is economical in manufacture, simple in operation, and which otherwise is particularly suitable for the purpose for which it is designed.

With the foregoing objects in view, and such other objects and advantages as will become apparent to those skilled in the art to which this invention relates as this specification proceeds, my invention consists essentially in the arrangement and construction of parts all as hereinafter more particularly described, reference being had to the accompanying drawings in which—

Figure 1 is a top plan view of my device sectioned in part to show the interior thereof.

Figure 2 is a side elevation of my device taken along the lines 2—2 of Figure 1.

Figure 3 is a part sectioned view along the lines 3—3 of Figure 2.

Figure 4 is a sectional view along the lines 4—4 of Figure 3.

Figure 5 is a fragmentary perspective view of my device in the presented position.

In the drawings like characters of reference indicate corresponding parts in the different figures.

Many so-called automatic cigarette cases have been designed in the past which enable cigarettes to be dispensed successively from a case by the operation of a lever, slide or the like, the majority of which suffer from the disadvantage of being comparatively bulky, difficult to re-load, and an involved mechanism having the tendency to become out of order.

Consequently I have designed a cigarette case hereinafter to be described which facilitates the successive dispensation of cigarettes but which

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is extremely simple in construction and operation having relatively few working parts and which furthermore is extremely simple to re-load without disturbing the mechanism.

Proceeding therefore to describe my invention in detail it will be seen upon reference to the accompanying drawings that I have provided a flat, substantially oblong cigarette case 1 formed in two halves hingedly connected by means of pin 2 at the base 3 thereof. The housing encloses the feeding mechanism collectively designated 4 which comprises a horizontally rotatable belt 5 extending around a pair of turn posts 6 which are vertically supported adjacent the extremities of a horizontally elongated component 7. This component is of I-configuration having an upper and lower flange 8 and the vertical partition 9.

The belt 5, manufactured from rubber or similar material, is provided with cigarette compartments 10 in the form of elongated vertical open-ended bays which may be moulded therein during manufacture of the belt and reference to Figure 3 of the accompanying drawings will show that these bays are provided in parallel spaced relationship along the length of the belt, the dividing flanges 11 thereof being in contact with the sides 12 of the housing.

Recesses 13 are formed adjacent each bay 10 on the inner surface 14 of belt 5, the sides 15 of the recesses forming what I designate as interceptance shoulders which, in conjunction with a manually operable push assembly collectively designated 16 provides means whereby the belt 5 is moved around the turn posts 6.

My pusher assembly 16 comprises a pair of kicker elements 17 in the form of elongated flat blades which are pivotally connected to the upper flange 8 of the element 7 by means of pins 18. The elements 17 depend downwardly within a diverging aperture 19 formed in the partition 9 of the element 7, the sides 20 of which limit the movement of these elements. Operating button 21, which extends through the top of the housing 1 is adapted to bear against projections 22 on the upper ends of the kicker elements 17 and movement of the button downwardly will cause the kicker elements 17 to diverge simultaneously between and parallel to the runs of the belt 5, the movement thereof being limited by the aforementioned sides 20 of the diverging aperture 19. Tension spring 23 extends between the lower ends 24 of the kicker elements and returns them to the normal position shown in Figure 2 of the accompanying drawings.

I have provided a ratchet tooth 25 on the heel end 24 of the kicker elements adapted to engage with the aforementioned interceptence shoulders 15 within the recesses 13 and in this connection it will be observed upon reference to the Figure 3 that the ratchet tooth on one kicker element engages with recesses located within one run of the belt 5 whereas the ratchet tooth on the other kicker element engages with the opposite run of the belt.

I have provided a cigarette ejection aperture 26 at the leading upper corner 27 of the housing when regarded in the presented position as shown in Figure 5 which is in vertical alignment with the cigarette compartment or bays 10 as they successively pass around the leading turn post specifically designated 28. A cigarette ejection means in the form of a spring 29 is provided at the opposite end of the case to the ejection aperture 26 over which the associated cigarette 30 passes during movement of the belt.

Reference to Figures 3 and 4 will illustrate the action of this ejection spring and it will be appreciated that when the flange specifically designated 31 of the belt 5 passes around the turn post 28 the spring 29 is pressed downwardly against the bottom flange 8 of the component 9. The cigarette 30 is then resting upon the spring 29 which ejects same through the aperture 26 as soon as flange 31 clears the end of the spring.

In operation, button 21 is depressed bearing against the portions 22 of the kicker elements 17. These kicker elements pivoting around pins 18 diverge outwardly simultaneously and as the ratchet teeth 25 are bearing against the interceptence shoulders 15 of the recesses 13 the belt is moved around the turn posts thus bringing the cigarette in registration with the ejection aperture 26. In this connection it is to be observed that each kicker element engages with one run of the belt thus supplying a turning effort on both sides which equalizes the strain thereon. In this context it should be noted that I have provided a non-return ratchet stop 32 extending from one side of the partition 9 which engages within the successive recesses 13 as the belt moves around the turn posts. This prevents any tendency of the belt to move in the opposite direction upon release of the button 21. It will be appreciated that the belt moves around the turn posts each time the button 21 is depressed by an amount governed by the width of the aperture 19 within the partition 9 thus ensuring the registration of the associated cigarette with the ejection aperture 26.

In order to re-load the cigarette case, each side of the case or housing 1 is opened successively by

means of the catch 33 which extends through the upper wall of the case and which is provided with an upwardly projecting pin 34 engageable within the apertured plate 35 attached to the upper flange 8 of member 9 in the conventional manner.

Since various modifications can be made in my invention as hereinabove described, and many apparently widely different embodiments of same made within the spirit and scope of the claim without departing from such spirit and scope, it is intended that all matter contained in the accompanying specification shall be interpreted as illustrative only and not in a limiting sense.

What I claim as my invention is:

A flat, automatic cigarette case comprising in combination a housing having a cigarette ejecting aperture therein, situated at one upper corner thereof when regarded in the presented position, a horizontally rotatable belt, spaced turn posts around which said belt passes, elongated vertical open-ended bays in said belt, interceptance shoulders provided at intervals upon the interior surface of said belt, means for moving said belt, said means consisting in the combination of said shoulders and a manually operable pusher assembly, said pusher assembly containing a pair of pivoted kicker elements mounted for simultaneous divergent movement parallel with and between the parallel runs of said belt and contiguous thereto, each of said kicker elements engaging one of said shoulders on opposite runs of said belt simultaneously thereby moving said belt around said posts and bringing said bays successively into alignment with said ejection aperture, and means for ejecting a cigarette through said aperture upon movement of said belt, said last mentioned means consisting of a spring at the opposite end of said case to the ejection aperture and in alignment therewith to push a cigarette upwardly through the latter when brought into registration therewith.

PETER ISAAC.

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