Oct. 14, 1952 G. H. HARRIS 2,613,527

TIME CONTROLLED CIGARETTE CASE

Filed June 29, 1950

Fig. 1

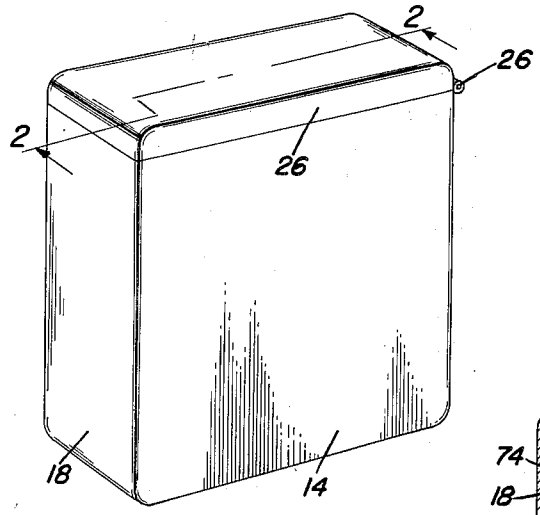


Fig. 2

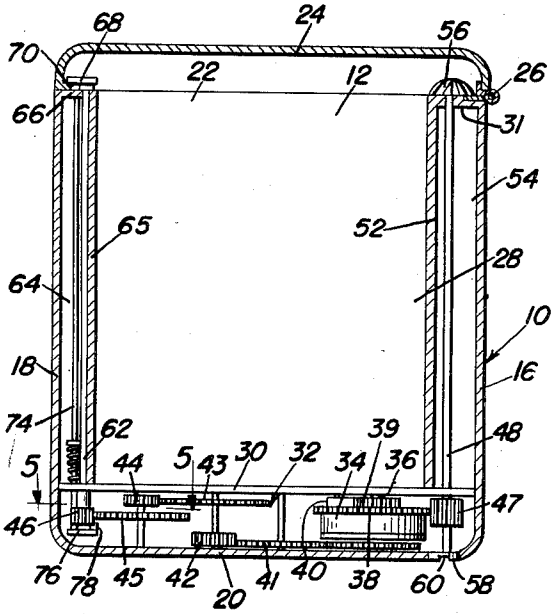


Fig. 3

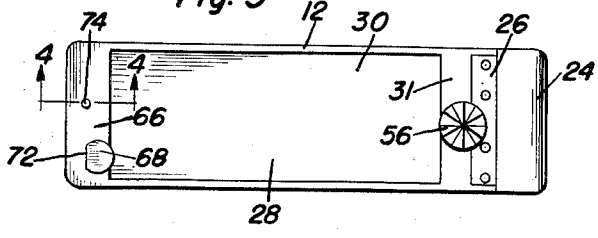
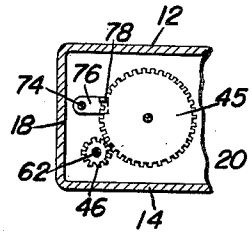


Fig. 5



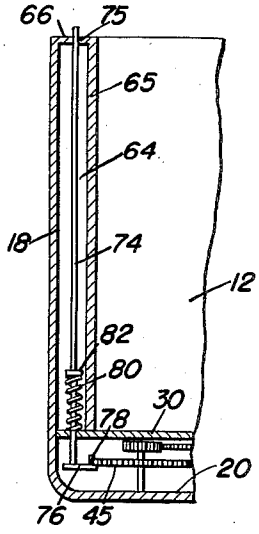


Fig. 4

Garrett H. Harris

INVENTOR.

BY Clarence A. O'Brien and Harvey B. Jacobson

Attorneys

Patented Oct. 14, 1952

2,613,527

UNITED STATES PATENT OFFICE

2,613,527

TIME CONTROLLED CIGARETTE CASE

Garrett H. Harris, Jackson, Miss.

Application June 29, 1950, Serial No. 171,028

7 Claims. (Cl. 70—273)

1

This invention relates to improvements in smokers' articles.

An object of this invention is to provide an improved cigarette case with means incorporated therewith serving the broad purpose of preventing access to the interior of the case for removal of cigarettes at any time other than that allowed by the timing mechanism incorporated in the case whereby the smoking habit of an individual may be reduced.

Another object of this invention is to provide an improved device of the character to be described which is adapted to contain cigarettes, said device including a case having a closure thereon which is hinged and a locking device holding the closure in the closed condition until such time that a timing device operates a bolt to allow the closure to be opened. The device also includes a structure for automatically stopping the operation of the timing device while the closure is in the open condition so that the full period between openings of the closure is not reduced.

Ancillary objects and features of importance will become apparent in following the description of the illustrated form of the invention.

In the drawings:

Figure 1 is a perspective view of the device;

Figure 2 is a longitudinal sectional view taken substantially on the line 2—2 of Figure 1 and in the direction of the arrows;

Figure 3 is a plan view of the device with the closure in the open condition;

Figure 4 is a fragmentary sectional view taken substantially on the line 4—4 of Figure 3 and in the direction of the arrows, and;

Figure 5 is a sectional view taken substantially on the line 5—5 of Figure 2 and in the direction of the arrows to show the stop arrangement for the timing device.

In this invention I have provided a case 10 which includes side walls 12 and 14, end walls or panels 16 and 18, a bottom 20 and which is provided with an open top 22. A closure 24 is hinged as at 26 to the case 10 and is adapted to open and close the opening 22 in the case. The compartment 28 is adapted to contain cigarettes.

A horizontal partition or shelf 30 is disposed in the case adjacent the bottom 20 thereof and it, together with the bottom 20 forms a hanger for the various components of a timer or timing mechanism generally indicated at 32.

The timing mechanism consists of a watch spring 34 mounted on the shaft 36 which also has a gear 38 thereon, similar to the main spring of

2

a watch and its assembly. A ratchet 40, which may be of the spring loaded type, is used to engage the gear 38, permitting the spring mechanism to operate for the purpose of driving the gear train including gears 41, 42, 43, 44, 45 and 46, each of which are mounted on suitable shafting. The winding pinion 47 is mounted on the shaft or winding stem 48. This winding stem passes through openings in the horizontal partition 30 and the upper shelf 31. The upper shelf 31 together with the vertical partition 52 forms a winding stem compartment 54 in the case 10. A winding button 56 is disposed at the upper end of the shaft 48 and on the shelf 31, but below the closure 24. At the lower end of the shaft 48 there is another winding button 58 which is employed for the purpose of operating the pinion 47. This lower button may be provided with a slot 60, to accommodate a coin for the winding function.

The gear 46 is fixed at the lower end of a shaft 62 which is disposed in the compartment 64, defined by the vertical partition 65 and the upper horizontal shelf 66 in the open end 12 of the case 10. A bolt keeper 68 is secured to the upper end of the shaft 62 and is adapted to overlie the inwardly extending flange 70 at one end of the closure 24 in order to hold the closure in the closed condition. There is a flat portion 72 on the bolt 68 which, when disposed parallel with and adjacent to the flange 70 will permit the closure to be released or lifted.

A rod 74 is mounted for reciprocation in the compartment 64 and the upper end thereof passes through an opening 75 in the shelf 66. The lower end of the rod 74 has a stop 76 fixed thereto with a small prong 78 forming a part thereof and adapted to engage in the teeth of the gear 45 in order to prevent rotation of the gear train and hence the timer.

The rod 74 is mounted for vertical reciprocation and is adapted to be operated by the flange 70 of the closure 24. When the closure is in the closed condition, the rod 74 is forced downwardly against the opposing force of the spring 80 which bears against the collar 82 carried by the rod 74 and against the upper surface of the horizontal partition 30. Therefore, when the closure 24 is raised, the spring lifts the stop 76 so that the prong 78 thereof may engage in the teeth in order to stop the movement of the timer.

The operation of the device is as follows:

The compartment 28 is charged with cigarettes, cigars or the like. Then the spring mechanism of the timer 32 is wound tightly by the button 56

when the closure **24** is open. Thereafter the closure **24** is pulled down so that the open top **12** of the case is closed. At this time the rod **74** is pressed downwardly against the force of the spring **80** to thereby release the stop **78** from the gear train which forms a part of the timer. Accordingly the shaft **62** begins to rotate thereby causing the bolt **68** to rotate and cover a part of the flange **70**, holding the closure **24** in the closed condition. At this time no cigarettes may be removed and access to the interior of the device is prohibited in the absence of the actual breaking of it.

In the event that the owner of the device forgets to wind the mechanism so as to cause a complete cycle of operation for opening the closure **24**, he may employ the button **58** to wind the mechanism of the timer to thereby again initiate operation thereof.

Having described the invention, what is claimed as new is:

1. A device to hold cigarettes comprising a case with an opening, a closure arranged to close said opening, a bolt carried by said case to retain said closure in the closed position, a timer connected with said bolt to release said bolt from said closure at predetermined intervals, and means carried by said case and controlled by said closure to stop said timer when said closure is in the open position.

2. The combination of claim 1 and said stop means including a rod mounted for reciprocation in said case, a member at the lower end of said rod to stop said timer, and a spring reacting on said rod and said case and urging said rod in a direction to cause said member to stop said timer.

3. A device for retaining cigarettes comprising a case with an opening, a closure hinged to said case and adapted to overlie the opening and be hingedly moved to a position remote from the opening to thereby render the interior of the case accessible, a horizontal partition disposed in said case adjacent the bottom thereof, a gear train arranged between said horizontal partition at the bottom of said case, a spring mechanism connected with said gear train to cause operation of said gear train, a bolt, said closure having an inwardly directed flange at the top thereof and said bolt being engageable with the upper surface of said flange to hold said closure in the closed condition, a rod mounted for rotation in said case and having said bolt fixed to the upper end thereof, the lower end thereof being fixed to one of said gears of said gear train whereby when said gears are operated said bolt is constantly rotated, said bolt being of such shape that upon a predetermined amount of rotation it is freed from said flange so that said closure may be hingedly operated, and means arranged in said case for winding said spring mechanism.

4. A device for retaining cigarettes comprising a case with an opening, a closure hinged to said case and adapted to overlie the opening and be hingedly moved to a position remote from the opening to thereby render the interior of the case accessible, a horizontal partition disposed in said case adjacent the bottom thereof, a gear train arranged between said horizontal partition at the bottom of said case, a spring mechanism connected with said gear train to cause operation of said gear train, a bolt, said closure having an inwardly directed flange at the top thereof and said bolt being engageable with the upper surface of said flange to hold said closure in the closed condition, a rod mounted for rotation in said case and having said bolt fixed to the upper end thereof, the lower end thereof being fixed to one of said gears of said gear train whereby when said gears are operated said bolt is constantly rotated, said bolt being of such shape that upon a predetermined amount of rotation it is freed from said flange so that said closure may be hingedly operated, means arranged in said case for winding said spring mechanism, said last mentioned means comprising a shaft mounted for rotation in said case with a winding button at at least one end thereof, and said shaft being fixed to one of said gears of said gear train.

5. The combination of claim 4 and a stop disposed beneath said horizontal partition, a reciprocable rod carried by said case and having said stop secured to the lower end thereof, said stop being arranged to engage and hold one of the gears of said train to stop said gear and thereby stop the operation of all of the gears of said train, and the upper end of said reciprocable rod being disposed at the opening in said case so that when said closure is being moved to the closed position it urges said reciprocable rod axially and in a direction to space the stop from the gear which it stops.

6. The combination of claim 4 and vertical partitions in said case defining chambers, one of said chambers having said shaft disposed therein and the other of said chambers having said first mentioned rod therein.

7. The combination of claim 4 and a stop disposed beneath said horizontal partition, a reciprocable rod carried by said case and having said stop secured to the lower end thereof, said stop being arranged to engage and hold one of the gears of said train to stop said gear and thereby stop the operation of all of the gears of said train, the upper end of said reciprocable rod being disposed at the openings in said case so that when said closure is being moved to the closed position it urges said reciprocable rod axially and in a direction to space the stop from the gear which it stops, and said reciprocable rod having a spring operatively connected therewith and reacting thereon to oppose the closure caused operation of said reciprocable rod.

GARRETT H. HARRIS.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
567,623	Stockwell	Sept. 15, 1896
580,736	Smith	Apr. 13, 1897
2,016,534	Blackwell et al.	Oct. 8, 1935
2,415,911	Bubane	Feb. 18, 1947
2,456,963	Leatherman	Dec. 21, 1948
2,554,360	Davis	May 22, 1951

FOREIGN PATENTS

Number	Country	Date
119,785	Switzerland	Apr. 16, 1927
122,036	Austria	Mar. 25, 1931