

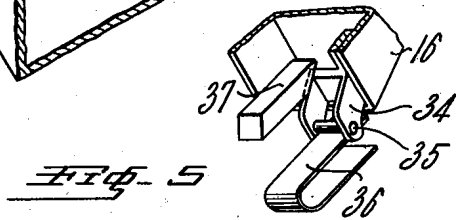
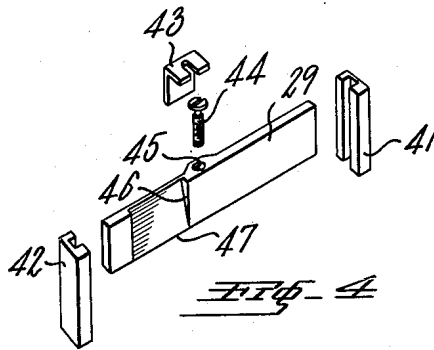
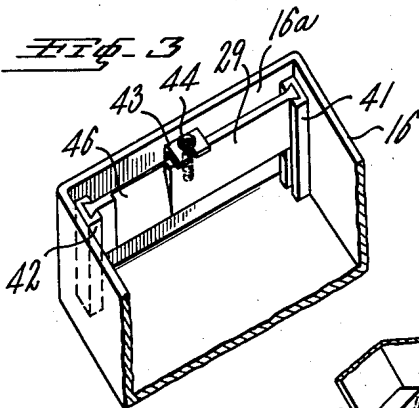
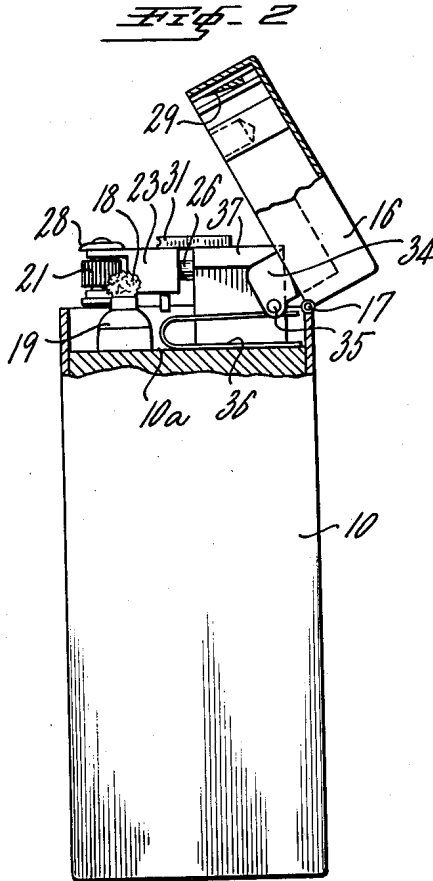
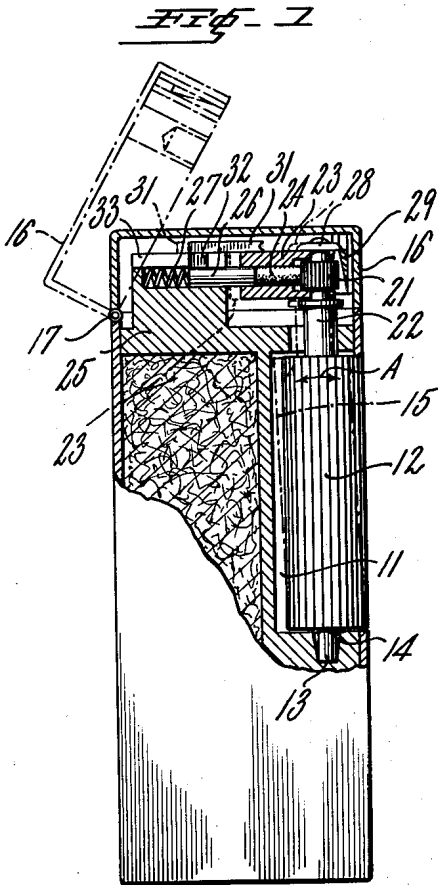
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CLOSURE MEANS FOR CIGARETTE OR CIGAR LIGHTERS

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## CLOSURE MEANS FOR CIGARETTE OR CIGAR LIGHTERS

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4 Claims. (Cl. 67-7.1)

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This invention relates to cigarette or cigar lighters.

It is primary object of the present invention to provide means considerably improving the construction and function of the cover of lighters of the aforesaid character.

It is a further object of the present invention to provide in a cigarette and similar lighter effective catch means which can be adjusted to overcome any manufacturing irregularities in sizes and shapes of the parts which ordinarily tend after shipment is made to prevent the cover from being latched in its fully closed position over the flint assembly and upon the lighter casing.

It is another object of the present invention to provide simplified spring means for effectuating the opening of the cover upon release of the latch, said spring means being easily assembled within the casing of the lighter structure and being tensioned against an abutment on the cover to effect the opening action thereof.

Other objects of the present invention are to provide a cigarette or similar lighter having a substantially vertically extending operating roller serving to release the cover and also to operate the flint, which is of compact and durable construction, inexpensive to manufacture, readily installed, has a minimum number of parts, is of pleasing appearance and efficient in operation.

With the above and other objects in view, the invention will be hereinafter more fully described and the combination and arrangement of parts will be shown in the accompanying drawing and pointed out in the claims which form part of the specification.

In the drawing:

Fig. 1 is an elevational view with a portion of the casing and the cover broken away to expose to view constructional parts of the lighter.

Fig. 2 is a side elevational view looking in the opposite direction with portions of the casing and cover broken away to show the construction of the internal parts.

Fig. 3 is a fragmentary perspective view of the cover inverted to show the adjustable catch.

Fig. 4 is an exploded view of the parts of the adjustable catch.

Fig. 5 is a fragmentary perspective view of the cover operating spring and the parts of the cover associated therewith.

Referring now more particularly to the drawing, 10 represents a casing or container having a cut-out or recess 11 for receiving a vertically extending operating knurled roller 12. The

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lower end of this roller has a stud or extension 13 which is seated in a tapered bearing socket 14 in order to permit the roller 12 to be moved to a dotted line position, as indicated at 15, in order to release hinged snuff cover 16 which is pivotally connected to the casing 10 at 17 and adapted to be withdrawn therefrom to have access to a flame which may be struck upon a wick 18 protruding from a holder 19 in the top of the casing. The wick extends into the casing 10 and into the liquid fuel therewithin.

The upper end of the roller 12 carries a flint wheel 21. This wheel is fixed to an extension 22 of the roller 12 which is journaled in a carriage 23 for flint 24. This carriage is slidably connected on a raised projection 25 of the casing and can be depressed inwardly against the action of a plunger 26 and a coil spring 27 in the projection 25. This spring and plunger urge the flint at all times against the wheel 21, even when the flint has been reduced in length due to the abrasive action of wheel 21 against the flint. The spring 27 also tends to keep the operating roller 12 vertically aligned and extended outwardly so that a latch or detent 28 on the upper end of extension 22 will retain an adjustable snap ledge of catch 29 placed within the interior of the cover whereby to keep the cover closed.

The carriage 23 has a push piece 31 which can be used to release the carriage in order that a new flint 24 can be replaced.

This piece 31 has a connecting bridge 32 which rides in a slot 33 of the projection 25 as the carriage 23 is moved in and out against the action of the flint spring 27 (see dotted position of push piece 31).

The inner wall of cover 16 carries a depending bifurcated portion 34 with a transverse pin 35 adapted to lie on top of a folded or U-shaped spring 36 which is substantially loosely inserted to rest on the top 10a of the casing 10. It should be seen that this spring 36 can be easily assembled into the structure and eliminates the need for more elaborate spring arrangements that are usually employed for the opening of the covers. A stop projection 37 is provided on the top of the casing and is engageable by the projection 34 of the cover to limit the opening movement of the same. Accordingly, when the cover is released, as by depressing the roller 12 inwardly according to arrow A, the cover will automatically be elevated to a raised and open position in order that access can be had to the flame on the wick 18.

Another feature of the present invention lies in

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the construction and use of the adjustable catch 29 disposed to extend across and within the interior of the cover. Soldered to opposite corners within the cover are, respectively, dovetail or grooved guides 41 and 42 (Figs. 3 and 4), which receive the ends of the catch bar 29 for slidable movement. A yoke piece 43 is soldered to the end wall 16a of the cover 16 and shouldered to this yoke piece is an adjusting screw 44 which threadedly engages an opening 45 of the catch 29.

The inner face of the catch 29 is recessed or relieved, as indicated at 46, in order to permit the upward pivotal movement of the cover as the latch 28 is freed from snap edge 47 of the catch 29. By being able to adjust the catch, the cover will always be properly adapted to be closed upon the upper end. Due to irregularities in the manufacture of the various parts of a lighter, it is often difficult to arrange to have the cover properly fit the top of the casing. This difficulty can be taken care of in the present construction by simply adjusting the catch 29.

While various changes may be made in the detail construction, it shall be understood that such changes shall be within the spirit and scope of the present invention as defined by the appended claims.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent, is:

1. In a cigarette lighter having a cover and a casing; a catch extending substantially across and adjustably disposed within said cover, spaced guide elements secured to opposite corners within the cover, and means for adjusting said catch in said guide elements and including a bracket secured to the cover and an adjustable screw extending between the bracket and the catch to effect vertical adjustment of the catch, said catch being relieved to provide a sharp snap edge thereupon and to permit easy operation of the catch with respect to said casing.

2. A cigarette lighter comprising a casing having a top with a top projection, a flint carriage retained on said top projection, said casing having a recess in the side thereof, a vertical operating roller lying in the recess in the side of the casing and journaled in the flint carriage, an extension connected to said roller and having a flint wheel fixed thereon, said carriage adapted to contain a flint for engagement with the flint wheel, a cover hinged to the top of the container and adapted to be closed over the top projection, the flint carriage and the extension of the roller, said roller extension having a latch thereon, a catch seated in said cover and engageable with said latch, U-shaped spring means acting upon the cover to move the same to an open position upon the cover being released from said latch, flint spring means in said top projection and act-

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ing upon the carriage to normally cause engagement of the latch on the roller extension with the catch in the cover and to urge the roller outward, said U-shaped spring means comprising a bent leaf spring engaging upon the top of said casing, an attachment depending from the cover adjacent its pivotal connection with the casing, a stop extending on the top projection and adapted to be engaged by the attachment on the cover to limit the movement of the cover away from said casing top, and means engaging said catch and displacing the latter within said cover and independently of same to adjusted position relatively to said latch.

3. A lighter of the character described comprising a casing having a top, a hollow cover hinged to the top of the casing and adapted to be closed over the casing top, a flint wheel supported by said casing, a latch coaxial with said flint wheel and arranged for pivotal movement with the latter and extending transversely to the axis thereof, and catch means extending across and within the interior of said cover at one end thereof and provided with a snap edge engageable with said latch, said snap edge being adjustable and displaceable in vertical direction within said cover and relative to said top and latch.

4. A lighter according to claim 3, including a substantially horizontally extending U-shaped spring positioned adjacent said cover at an end opposite to that of said catch means and provided with two legs, one of said legs loosely engaging said top of said casing, the other of said legs being operatively connected to said cover, said U-shaped spring acting upon the cover to move the same to an open position upon the cover being released from said latch, and flint spring means urging said flint wheel and with the latter said latch for engagement with said catch of the cover to maintain the latter in closed position.

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