



1

2,693,276

**MATCH LIGHTER**

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2 Claims. (Cl. 206—34)

My invention relates to an improvement in lighters, especially lighters in which an inflammable substance is ignited to produce a small flame for tobacco smoking and other purposes.

An important object of the invention is to provide a lighter having a casing adapted to receive friction matches, and containing means by which each match in turn can be separated from the others and actuated to strike its end against a rough surface to initiate combustion when the casing is opened.

The construction of the lighter is illustrated on the drawings and set forth in the description, but this disclosure is explanatory only and changes in details not shown herein, may be made without deviation from the main design in which the invention resides.

On the drawings:

Figure 1 is a perspective view of the lighter.

Figure 2 is a longitudinal section on line 2—2 in Figure 1 with the parts in starting position.

Figure 3 is a similar view showing the match in striking position.

Figure 4 is a similar view showing a match ignited and the others shielded; and

Figures 5, 6 and 7 show sectional details.

The article comprises a casing 1, with a cavity 2 in its top for storing matches 3, side by side therein. The matches can be made of cut cardboard all joined together at one end as indicated at 4, with their chemically treated tips 5 at the opposite ends. The casing has an outer cover 6 and an inside cover or screen 7, both pivoted to the casing at one edge of the cavity. The matches 3 are disposed so that the tips 5 of the matches are adjacent the pivoted edges of the covers 6 and 7.

The screen 7 for the matches is relatively short and the free edge of the cover 6 extends beyond the free edge of the screen 7, the overlapping portion of the cover 6 presenting an exposed striking surface 8 on the inner face of the cover 6. This surface can bear a suitable coating to produce combustion at the tips 5 if necessary. The matches are engaged one by one by means of a lifter arm 9, that pulls a match up and brings the tip 5 into frictional engagement with the striking surface 8.

This arm 9 is fixed to a head 10, slidably mounted on a rod 11, in the cavity adjacent the edge opposite the pivoted ends of the cover 6 and screen 7. This rod has its ends in bearings at the sides of the casing, and can rotate therein; and when released it is turned by a coiled spring 12 fixed at one end to the rod and to the inside of the casing at the other end. Except when released the arm 9 is held down in the casing parallel to the matches 3. At its outer end the arm 9 has a laterally bent end or hook 13 that can be passed under a match to pull it upward.

The cover 6 and screen 7 have perforated bearing lugs 14 and 15 respectively and are freely mounted on a transversely extending rod 16 fixed at its ends in the casing 1 along the edge of cavity 2. One such lug 14 is shown at one end of the rod in Figure 1; each of the parts 6 and 7 having two lugs, one at each side as shown on Figure 7. Coiled springs 17 are affixed at one end to the rod 16 and to the lugs 14 and 15 at their other ends, at least one spring being used for each of the covers 6 and 7. These springs tend to keep the cover 6 and screen in position, closing the cavity 2.

One end of the rod 4 has a laterally projecting stud 18 which lies under a catch 19 when the lighter casing is closed. The catch 19 is located in a recess 20 in the top

2

of the casing beside the cavity 2. At one end of this slot is a hole 21 containing a coiled spring 22, pressing against the rear end of the catch 19. This catch keeps the lifter arm 9 depressed by engaging at one end with the stud 18. The casing has a recess 23 in the side, opening to the cavity 2, large enough to give clearance to the stud 18, and the front end 24 of the catch is bevelled from its upper to its lower edge. A stud 25 affixed to the catch extends through a slot 26 in the side of the casing and has a button 27 on its outer end, so that the catch can be moved back against the spring 22.

The catch projecting at its end 24 over the stud 18 holds the rod 11 against its spring 12 and keeps the arm 10 down in the cavity 2. The lid 6 and screen 7 are held shut by their springs 17.

When the button 27 is pushed to move the catch 19 against the spring 22, the stud is released and the spring 12 rotates the rod or shaft 11 to lift the arm 9.

The arm 9 has its end 13 always under one of the matches and the spring 12 is strong enough to raise both covers 6 and 7. When the button 27 is moved to release the rod 11, the spring 12 rotates the rod 9, raising the arm and one of the matches and the covers 6 and 7, and moving the match across the inner faces of the cover 6 and screen 7. The match thus lifts the cover and screen fully to open the casing. When the match passes beyond the free end of the screen 7 the screen 7 drops; being turned down by the spring means 17 connected to it, and thus shields the tips 5 of the other matches. But the spring 12 throws the arm 9 and match raised by the arm, farther forward till the tip 5 of the match rubs across the striking surface 8 of the cover 6. The match then bursts into flame at the tip and can be torn off the card 4.

The lighter is made ready for further use by first lifting the cover 6 and screen 7 and pressing the arm 9 down and moving its end 13 under the next match. The catch 19 is now forced back by the stud 18 passing down across the bevelled front end 24 of the catch 19. When the arm 9 is lowered fully the stud 18 is past the catch which then is impelled by the spring 22 to project over the stud 18, and hold the arm 9 in depressed position. The cover 6 and screen 7 are then closed by the springs 17.

The outside of the cover 6 and other parts of the casing can be covered with advertising matter, and thus the article can be used as souvenir, if desired.

The rod or bar 11 is preferably round at its ends where it engages the casing and square between its ends, so that the arm 9 will be raised when the rod turns. This rod or bar can also be round throughout its length and the head 10 affixed to it by a binding screw.

The casing 1 has a shoulder 28 against which the edge of the cardboard carrying the matches can make contact and the end of the spring 12 is seated in a recess 29.

The rod 16 can be held fast at its ends in the casing 1 by any suitable means so that it does not rotate; and the casing 1 may be made of plastic or any suitable material and have any suitable shape.

Having described my invention, what I believe to be new is:

1. A lighter comprising a casing for friction matches, said casing having a pivoted member bearing a striking surface and movable means for separating one of said matches from the remainder and actuating it to lift said member and engage said surface to produce ignition of the separated match, said casing also having a second pivoted member beneath the first-named member and overlapped by said surface, said second member being in position to be lifted by said match along with said first-named member and then released when the match engages said surface, and means for then returning the second-named pivoted member to its original position to shield the remaining matches.

2. A lighter comprising a casing having a cavity of substantially full width for matches lying side by side therein, a fixed bar extending across one end of the cavity, an arm slidably mounted on said bar, a spring connected to the arm and bar to lift the bar into raised position, a catch in the casing at one side to hold the rod in depressed position parallel to said matches, the rod having a hook at its outer end, and a cover having a striking surface hinged to the casing at the opposite end of the

2,693,276

3

cavity, said casing having a screen for said matches under said cover also hinged to the opposite side of the casing, the striking surface of the cover projecting beyond the free edge of the screen, and springs acting to hold the cover and screen closing said cavity.

4

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