

April 17, 1951

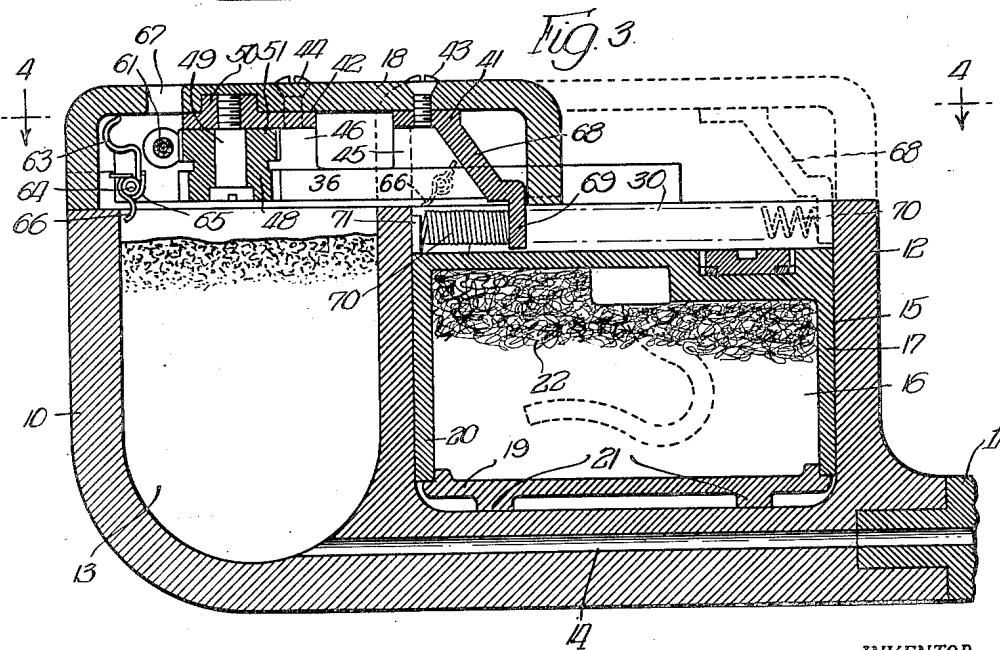
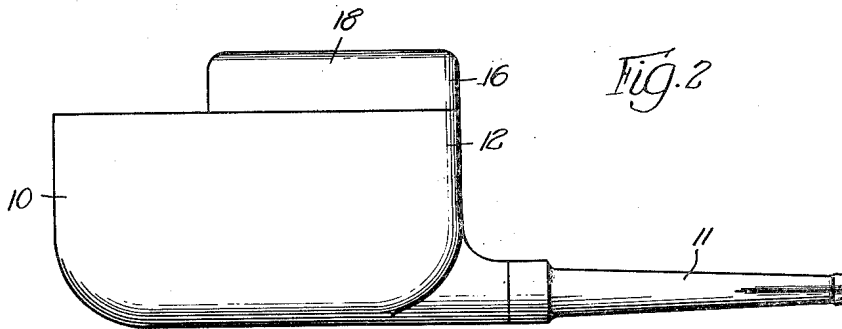
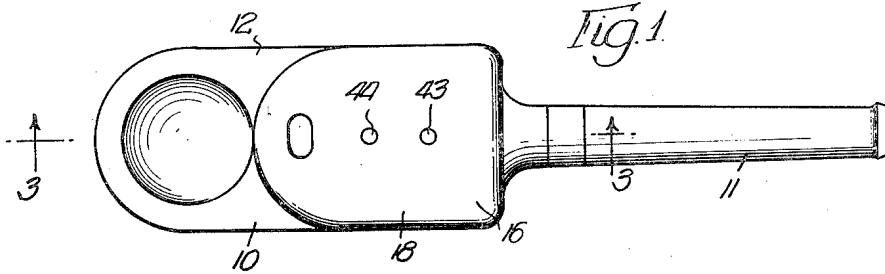
J. VAN TOLL

2,549,727

COMBINATION PIPE AND LIGHTER

Filed March 18, 1947

2 Sheets-Sheet 1



INVENTOR.  
John Van Toll.

BY  
Cromwell, Greist & Ward  
attys.

April 17, 1951

J. VAN TOLL

2,549,727

COMBINATION PIPE AND LIGHTER

Filed March 18, 1947

2 Sheets-Sheet 2

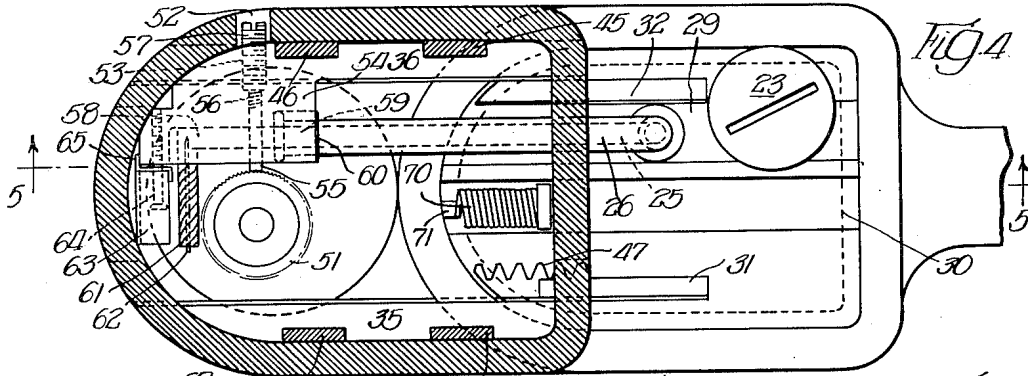


FIG. 4

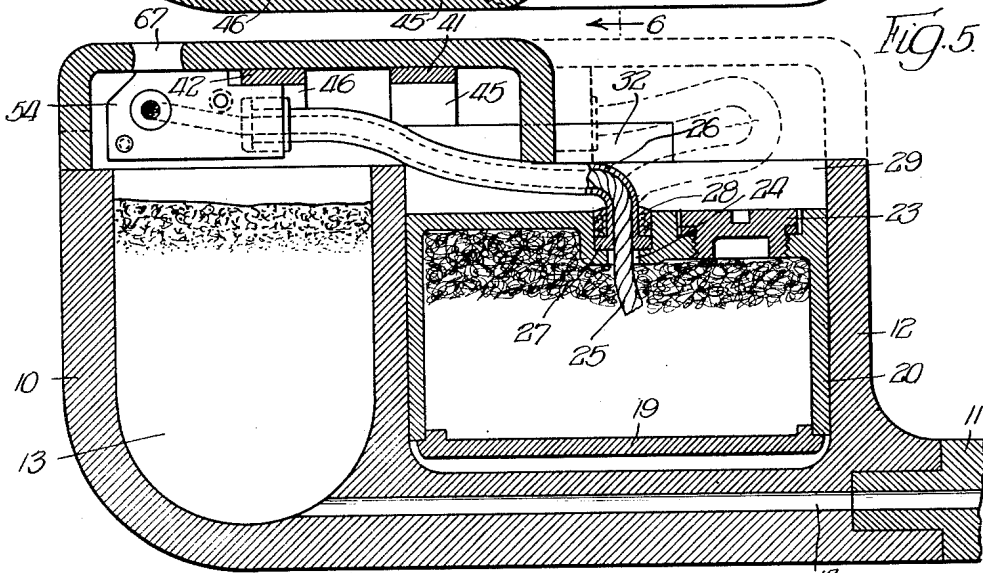


FIG. 5

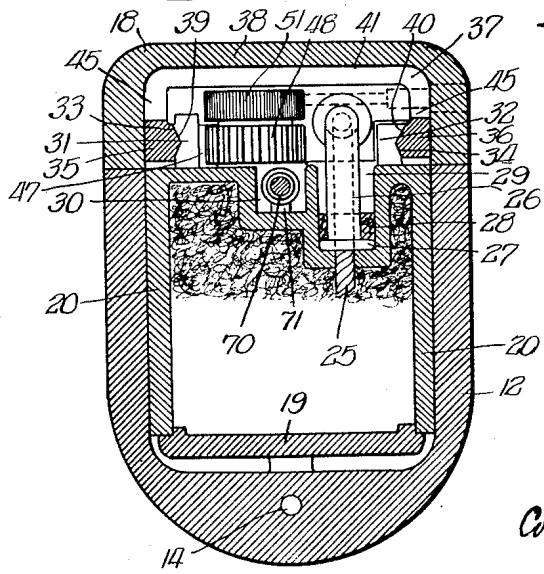


FIG. 6

INVENTOR.  
*Johz Van Toll,*  
 BY  
*Cromwell Greist & Warden*  
*attys.*

# UNITED STATES PATENT OFFICE

2,549,727

## COMBINATION PIPE AND LIGHTER

John Van Toll, Chicago, Ill.

Application March 18, 1947, Serial No. 735,431

10 Claims. (Cl. 131—185)

1

This invention is concerned with improvements in tobacco smoking pipes.

An object of the invention is to provide an improved tobacco smoking pipe having incorporated therein a mechanical lighting means so that the user of the pipe may light the pipe without resort to matches or separate lighting means.

Another object of the invention is to combine with a pipe a mechanical lighting means so arranged that it provides a guard for the flame which facilitates the lighting of the pipe when the user is exposed to a wind or draft.

Another object of the invention is to provide a pipe with a mechanical lighting means arranged in an extension of the bowl of the pipe in such a manner that it does not seriously detract from the appearance of the pipe nor interfere with the filling or cleaning of the pipe.

A further object of the invention is to provide in combination with a pipe a mechanical lighter assembly which is adapted to be removably positioned in a recess provided adjacent the bowl of the pipe whereby one lighter assembly may be used in several pipes.

Another object of the invention is to provide a mechanical lighter assembly adapted to be incorporated as a unit in a recess provided adjacent the bowl of the pipe and including a movable portion so arranged that when the lighter is used to light the pipe the flame from the wick may be carried over almost the entire surface of the tobacco in the pipe.

These and other objects of the invention will be apparent from a consideration of the preferred form of the pipe and lighter combination which is shown by way of illustration in the accompanying drawings, wherein:

Fig. 1 is a plan view of a pipe having incorporated therein a mechanical lighter assembly in accordance with the principles of the invention;

Fig. 2 is a side elevation of the pipe;

Fig. 3 is a partial section on the line 3—3 of Fig. 1 to an enlarged scale and with the top assembly in forward position;

Fig. 4 is a section on the line 4—4 of Fig. 3;

Fig. 5 is a section on the line 5—5 of Fig. 4; and

Fig. 6 is a section on the line 6—6 of Fig. 5, with the top assembly of the lighting mechanism in retracted position.

The pipe illustrated in the drawings comprises a bowl portion 10 and a stem portion 11 which extends rearwardly of the bowl. Intermediate the bowl 10 and the stem 11 and forming a continuation of the bowl 10 there is provided a portion 12 adapted to receive a lighter assembly.

2

The portion 12 constitutes a rearward extension of the bowl 10 and preferably is formed integral therewith. The bowl 10, which is of a size adapted to receive the usual charge of smoking tobacco 13, is connected by the passageway 14 with the stem 11, the latter preferably being of the usual removable construction. The bowl portion 10 and the extension 12 may be made of any suitable material, such as briar, plastic or metal.

The extension 12 is provided with a recess 15. The lighting assembly 16 comprises a fuel pack or container 17 adapted to be removably positioned and frictionally retained in the recess 15 and a cover assembly 18. The cover assembly 18 is slidably supported on the top of the container 17 and is so shaped that it conforms to the top of the extension 12 which is level with, or in the same plane as, the top of the bowl portion 10.

The fuel pack or container 17 may be formed of two sections or members 19 and 20. The section 19 constitutes a base and is provided with downward projections or feet members 21 for spacing the same slightly from the bottom of the recess 15. The section 20 of the fuel pack 17 is adapted to contain a supply of cotton or like material 22 which is adapted to be saturated with a conventional lighter fluid. The section 20 is provided in its top (Figs. 4 and 5) with a filler plug 23 for obtaining access to the container and supplying the cotton with fuel. The container section 20 is also provided at the top thereof with a wick aperture 24 for receiving a wick 25. The wick 25 is encased in a flexible cover member 26. The one end 27 of the cover member 26 is positioned in the aperture 24 and sealed therein by packing material 28.

The top of the container section 20 is also provided with a pair of parallel groove formations 29 and 30. The groove 29 is adapted to accommodate portions of the wick 25 and its casing 26. The groove 30 is for a purpose which will be described later.

Guide members 31 and 32 (Fig. 6) are secured to the top surface of the container section 20 and extend above the top surface of the pipe bowl 10 and the extension 12. The guide members 31 and 32 are grooved on their vertical outward faces at 33 and 34 to form guideways for receiving cooperating slide members 35 and 36 which are secured to a frame 37 in the cap member 38 of the top assembly 18.

Slide members 35 and 36 are provided with converging tapered inner surfaces 39 and 40 for cooperation with the grooves 33 and 34 in the

3

guide members 31 and 32 to slidingly connect the top assembly 18 with the fuel pack 17. The slide members 35 and 36 are preferably formed as an integral part of the frame 37 which is rigidly secured in the cap member 38. The frame 37 includes parallel cross members 41 and 42 which extend transversely of the cap 38 and are secured thereto by the screws 43 and 44. The cross members 41 and 42 are provided with downwardly extending ends 45 and 46, respectively, at each side of the cap member 38 which terminate in the side rails or slides 35 and 36, being preferably formed integral therewith.

The guide member 31 is provided on its inner face with rack teeth 47 which are adapted to engage the teeth on a gear 48 rotatably mounted on a stub shaft 49 which is supported from an integral extension 50 of the transverse member 42 of the frame. The gear 48 is preferably formed integral with a striker wheel 51.

The cap 38 is provided with an aperture 52 in one side wall (Fig. 4) which communicates with a bore 53 in a block-like supporting member 54 extending downwardly from the frame member 42. The bore 53 receives a flint 55 which is urged inwardly against the striker wheel 51 by a compression spring 56 and an adjustable set screw 57.

The supporting block 54 is provided with an angular recess 58 for receiving the wick 25. The end 59 of wick casing 26 extends into an enlarged portion of the recess 58 in one end of the block 54 and is sealed therein by a packing member 60. The end 61 of the wick 25 extends outwardly of the recess 58 adjacent the striker wheel 51 in a lateral direction from the supporting block 54 and is provided with a stiffening pin 62.

Adjacent the end 61 of the wick 25 a flame stop member 63 is rotatably mounted in parallel relation. The stop member 63 is mounted on a pin 64 which is secured in the block 54 and is urged away from the end 61 of the wick by a spring 65. An extension 66 is provided on the stop 63 which extends on the opposite side of the pivot pin 64 and when the cover is retracted engages a portion of the top edge of the bowl 10 and the fuel pack 17 to move the flame cover 63 to closed position to quench the flame.

The cap member 38 is provided with an aperture 67 directly above the end 61 of the wick 25 for permitting air to enter the cap and provide a draft for the flame in lighting the pipe.

The transverse member 41 of the frame 37 is provided with a downwardly extending member 68 (Fig. 3), the end 69 of which projects into the groove 30 in the top of the fuel pack container 17 and engages one end of a compression spring 70. The other end of the spring 70 engages an upstanding tongue 71 on the forward wall of the container 17 at the forward end of the groove 30. The spring 70 forces the cap assembly 18 rearwardly from the bowl portion 10 into the retracted position when it is released after the pipe has been lighted. When the cap assembly 18 is moved to the rearward position the spring 70 is sufficiently compressed to hold the assembly in retracted position.

In using the pipe, the smoker fills the bowl 10 with a charge of smoking tobacco 13 and then moves the cap assembly 18 of the lighting mechanism 16 forwardly over the top of the bowl 10. The teeth 47 on the guide member 31 engage the teeth on gear 48 and rotate the striker wheel 51. Sparks resulting from engagement of the striker wheel 51 with the flint 55 will ignite the end 61

4

of the wick 25. By drawing air through aperture 67 past the flame on the wick end 61 the flame is drawn down into the tobacco 13 to light the pipe. Upon releasing the cap assembly 18 the spring 70 retracts the same and moves the flame rearwardly across the top of the tobacco 13 until the flame stop 63 is actuated by engagement of the extension 66 with the top edge of the bowl 10, as indicated in dotted line in Fig. 3.

The lighting assembly 16 is removable as a unit from the recess 15 in the bow extension 12 and is retained therein by frictional engagement with the side walls. It may be removed from the pipe by merely lifting it upwardly out of the recess 15. A plurality of pipes may be provided by the smoker each having a bowl extension for reception of the lighting assembly whereby a single lighting assembly may be used with a number of different pipes.

While specific details of construction and materials have been referred to in describing the illustrated embodiment of the invention, it will be understood that other details of construction and materials may be resorted to within the spirit of the invention.

I claim:

1. In a tobacco smoking pipe, a bowl having a rearward extension, said rearward extension having a recess, a lighting mechanism having a portion thereof removably positioned in said recess, said lighting mechanism comprising a fuel container and a laterally movable downwardly opening cap thereon, said cap being movable forwardly on said bowl extension to position a portion of the open bottom thereof over said bowl, said cap having a flint holder and a striker element therefor, a wick extending from said fuel container to a point adjacent said striker element and having one end movable with said cap, and cooperating means on said cap and said fuel container for operating said striker element to light said wick when said cap is moved into position over said bowl.

2. In a tobacco smoking pipe as recited in claim 1, said wick having an intermediate portion extending between the fuel container and the movable cap and a flexible tube enclosing said wick portion.

3. In a tobacco smoking pipe as recited in claim 1, cooperating elements between said fuel container and said cap including spring means for returning said cap from its extended position over said bowl to a retracted position over said fuel container.

4. In a tobacco smoking pipe as recited in claim 1, said striker operating means on said cap and said fuel container comprising a rack and pinion.

5. In a tobacco smoking pipe, an elongated unitary base having a tobacco receiving recess and a recess for receiving a portion of a lighting mechanism, a lighting mechanism having a fuel container portion secured in fixed relation in said second mentioned recess, a wick extending from the top of said fuel container, a downwardly opening top member laterally movable on said fuel container, lighting elements arranged in said movable top member including a flint, a striker element in engagement therewith, means for mounting the end of said wick in proximity to said flint whereby when said striker element is actuated the end of said wick will be lighted, means on said fuel container and said movable top member for guiding said movable top member whereby

5

the same may be moved into position to bring the end of said wick over said tobacco receiving recess, and cooperating elements on said guide means and said striker element for actuating said striker element upon movement of said movable top member.

6. In a tobacco smoking pipe as recited in claim 5, means on said fuel container and said movable top member for automatically retracting said movable top member to its inoperative position over said fuel container.

7. In a lighting assembly adapted to be partially inserted in a recess in a tobacco smoking pipe, a fuel container adapted to be received in said pipe recess and a laterally slidable downwardly opening compartment forming cover member extending above said fuel container, said compartment forming member having mounted therein a flint holder and a striker element, a wick supporting member positioned adjacent said striker element, a flexible wick, said wick having its one end extending from said wick supporting member and the other end extending into said fuel container, a flexible cover member extending from said wick supporting member to said fuel container and enclosing the intermediate portion of said wick, means for actuating said striker element comprising a rack on said fuel container and a pinion connected to said striker element, said means being operable to light said wick when said compartment forming member is moved into open position laterally of said fuel container.

8. In a lighting assembly as recited in claim 7, cooperating guide rails between said fuel container and said compartment forming member, and cooperating means including a compression

6

spring for controlling the lateral movement of said compartment forming member.

9. In a lighting mechanism as recited in claim 7, a pivotally mounted flame stop member adjacent said wick end in said compartment forming member, and means for actuating said flame stop member when said compartment forming member is retracted to its inoperative position over said fuel container.

10. In a lighting mechanism as recited in claim 7, a flame stop member, means pivotally mounting said flame stop member adjacent said wick end in said compartment forming member and an arm on said flame stop member extending on the opposite side of said pivotal mounting means for actuation by engagement with an abutment on said pipe when said compartment forming member is retracted to its inoperative position over said fuel container.

JOHN VAN TOLL.

REFERENCES CITED

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

UNITED STATES PATENTS

Number	Name	Date
1,704,091	Lozoff -----	Mar. 5, 1929
1,855,524	Martini -----	Apr. 26, 1932
1,878,714	Sandling -----	Sept. 20, 1932
2,398,695	Cloutier -----	Apr. 16, 1946
2,444,663	Miller, Jr. -----	July 6, 1948

FOREIGN PATENTS

Number	Country	Date
541,753	France -----	May 6, 1922