March 9, 1948. H. C. SUNDBY 2,437,623

LIGHTER

Filed Oct. 8, 1945

Fig. 1.

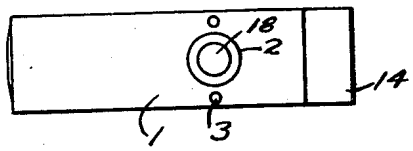


Fig. 2.

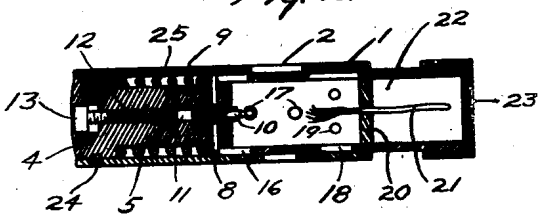
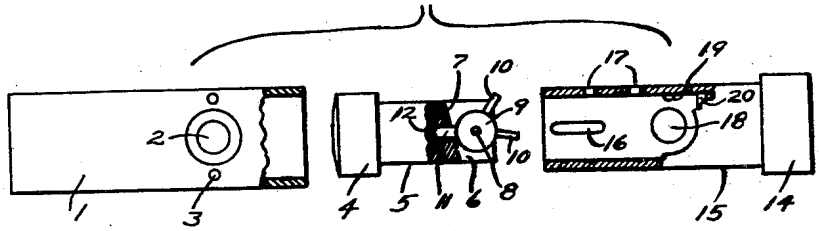


Fig. 3.



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UNITED STATES PATENT OFFICE

2,437,623

LIGHTER

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2 Claims. (Cl. 67—7.1)

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The object of this invention is to devise a novel lighter for the lighting of cigarettes, cigars or pipes.

A further object of the invention is to devise a novel construction and arrangement of telescopic sections, relative movement of which actuates a friction wheel of an igniter mechanism.

A further object of the inventoin is to devise a novel lighter which is wind-proof, which can be economically manufactured and assembled, and which can be easily operated.

With the foregoing and other objects in view as will hereinafter clearly appear, my invention comprehends a novel lighter.

For the purpose of illustrating the invention I have shown in the accompanying drawings a preferred embodiment thereof which I have found in practice to give satisfactory and reliable results. It is, however, to be understood that the various instrumentalities of which the invention consists can be variously arranged and organized and the invention is not limited to the precise arrangement and organization of these instrumentalities as herein set forth.

Figure 1 is a top plan view of a lighter embodying my invention, the sections being shown in closed position.

Figure 2 is a longitudinal section.

Figure 3 is an exploded view of the parts, which are partly broken away for clearness of illustration.

Similar numerals of reference indicate corresponding parts.

Referring to the drawings:

1 designates the body portion of a lighter embodying my invention and in the form of an open ended tube or cylinder having an opening 2 through its wall which as shown is of greater diameter in the top wall than in the bottom wall. 3 are vent openings for admission of air to support combustion.

4 is a carrier for the igniter mechanism and in the form of a rod having a reduced diameter 5 and having a slot 6 opening through one end and provided with an inclined bottom wall 7. A rod 8 forms a bearing for a friction wheel 9 positioned in the slot and having angularly disposed pins 10 extending outwardly from its periphery. The friction wheel bears against a flint 11 tensioned by a spring 12 disposed between the flint and an abutment 13 in threaded engagement with the carrier 4.

14 designates a tubular member having a reduced diameter 15 to fit the bore of the body portion 1 and having a slot 16 through it to receive the rod or pivot pin 8.

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Openings 17, longitudinally spaced are adapted to receive the pins 10. An opening 18 through the walls of the member 14 registers with the opening 2 when the parts 1 and 14 are in closed position as seen in Figure 1. 19 are vent openings in the part 14. A disc 20 in the member 14 carries a wick 21 in a chamber 22 formed between the disc 20 and a threaded plug 23. The carrier 4 is secured in the body portion 1 in any desired manner and as shown it is fixed in position by a screw 24.

The manner in which the parts are assembled and operate will now be readily apparent to those skilled in this art and is as follows.

The carrier 4 is moved into the member 14, the pivot pin 8 being received in the slot 16 and one of the pins 10 extending into an opening 17, and the parts as thus assembled are moved into the tubular body portion 1 and the carrier fixed relatively thereto by the screw 24. A spring 25 encircling the reduced diameter 5 tends to separate the parts 1 and 14, which form telescopic sections of the igniter. The relative movement of such sections is limited by the pivot pin 8 and the end walls of the slot 16, and the sections are normally retained in the position seen in Figure 2 which is the open position. If now the sections are moved towards each other, the pins 10 effect the turning of the friction wheel 9 to produce a spark which is directed towards the wick 21 by the inclined wall 7 of the slot 6. Since at this time the openings 2 and 18 are in register with each other, the flame will pass therethrough to effect the ignition of the cigarette, cigare or pipe held in proximity to such openings.

When the pressure moving the sections together is released the wall of the section 14 closes the opening 2, and the wall of the section 1 closes the opening 18, thereby causing the lighter to be extinguished.

The openings 2 and 18 may be larger in the top wall than in the bottom wall.

It will now be clear that the lighter comprises two telescopic sections, one of which carries the igniting mechanism and the other of which carries the wick, and the ignition is effected by relative movement of the two sections.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a lighter, a casing comprising telescopic sections, a stationary carrier in one section, a tensioned flint in said carrier, a friction wheel

engaging said flint, a rod on said carrier for mounting said friction wheel, said inner section having longitudinally extending openings into which the ends of said rod extend to limit relative movement of said sections and to restrict such movement to a rectilinear path, said sections having air openings adapted to register when the sections are in the igniting position, and an impregnated wick to receive sparks from said flint.

2. The construction specified in claim 1, wherein the friction wheel carries angularly disposed pins and the inner section has longitudinally spaced openings to receive said pins.

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