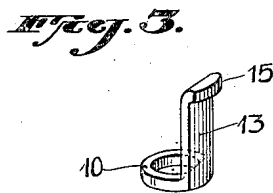
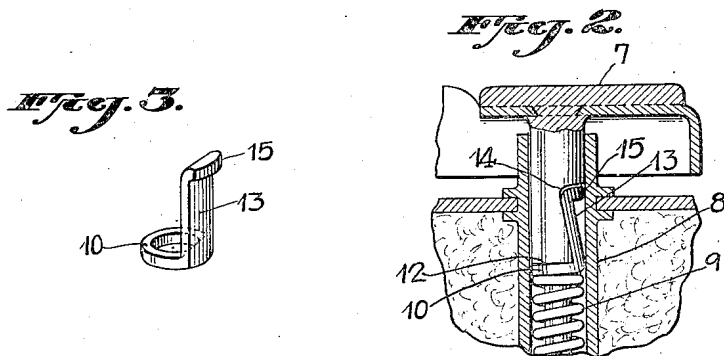
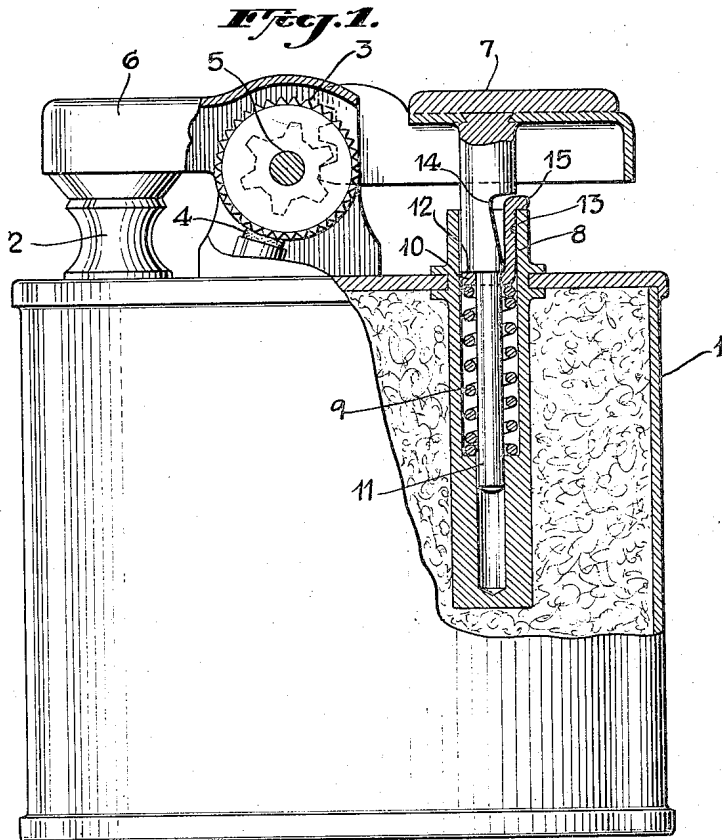


Feb. 21, 1950

W. I. NISSEN
LIGHTER ACTUATING MECHANISM

2,498,377

Filed June 7, 1947



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UNITED STATES PATENT OFFICE

2,498,377

LIGHTER ACTUATING MECHANISM

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Application June 7, 1947, Serial No. 753,171

1 Claim. (Cl. 67—7.1)

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The invention relates to pyrophoric lighters of the type wherein a fingerpiece is positively connected to the sparking mechanism, to actuate the latter. To secure adequate spark production and reliable ignition in lighters of the above type, it is important that the fingerpiece be operated vigorously enough to insure rapid motion of the sparking mechanism, to which object the present invention is primarily directed. In accordance therewith, a latch device is positioned in the path of movement of the fingerpiece in moving from idle position, in such manner as to obstruct or prevent such movement, but as the operator exerts greater manual pressure on the fingerpiece, the latch device is moved to non-obstructing position. As soon as the latch is released, the increased pressure which the operator thus applies, insures rapid and effective actuation of the sparking mechanism. Further objects and advantages of the invention will be in part obvious and in part specifically referred to in the description hereinafter contained which, taken in conjunction with the accompanying drawings, discloses a preferred form of lighter which is constructed to operate in accordance with the invention; the disclosure, however, should be considered as merely illustrative of the principles of the invention in its broader aspects.

In the drawings—

Fig. 1 is a side view partly in section of a lighter constructed to operate in accordance with the invention, the fingerpiece and associated parts appearing in idle position.

Fig. 2 is a fragmentary sectional view similar to Fig. 1 but showing the fingerpiece in active, depressed position.

Fig. 3 is a perspective view showing detached, a form of latch device constituting a part of the mechanism shown in Figs. 1 and 2.

The invention is illustrated as applied to a lighter of well known form in respect to many of its features of construction, having a fuel casing 1, from which protrudes a wick tube 2. A sparking wheel 3 which cooperates in known manner with a flint 4, is rotatably mounted on an axle 5, as is also a snuffer 6. A reciprocable fingerpiece 7 is mounted within a barrel 8 supported by the casing 1, and is urged toward its upper idle position by a spring 9 within such barrel. When the fingerpiece is depressed, the sparking wheel is positively driven in proportion to the rate of movement of the fingerpiece, to project sparks onto the wick carried by wick tube 2 and simultaneously the snuffer 6 is swung upwardly to expose the wick. Upon release of the

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fingerpiece the spring 9 restores it to the idle position shown in Fig. 1, the sparking wheel usually being freed from connection with the fingerpiece during this stage of movement, by an appropriate ratchet mechanism (not shown). Since various forms of lighters of the construction and mode of operation as thus far described, are well known in the art, the same will not be described in greater detail herein.

In the illustrated form of the invention, the latch device above referred to is provided with an annular base 10 which surrounds the plunger 11 extending downwardly from the fingerpiece and engaging slidably within barrel 8. The spring 9 presses the base 10 of the latch toward a shoulder 12 on plunger 11. The latch is provided with an upwardly extending shank 13, which is received within a notch 14 in the plunger, and when the fingerpiece is in idle position, a locking lug 15 engages with parts fixed with respect to the casing to obstruct movement of the fingerpiece toward active position; in the form shown, this lug 15 overlies the upper end of barrel 8.

The spring 9 urges the latch device into the locking position shown in Fig. 1, wherein it resists movement of the fingerpiece in response to manual pressure by the user, which causes the user to apply increased pressure. This increased pressure causes the shank of the fingerpiece to tilt inwardly further into the notch 14 until the lug 15 is released from locking position, whereupon the added pressure insures rapid movement of the fingerpiece during its spark producing stroke, and consequently more reliable spark production by the sparking wheel 3. The amount of manual pressure required to release the fingerpiece will depend upon the angle at which the base 10 or lug 15 or both, are directed with respect to the shank 13, and when the fingerpiece has reached active position and manual pressure upon it is released, the spring 9 in restoring the fingerpiece to idle position, will also restore the latch device to the locking position shown in Fig. 1.

While the invention has been disclosed as carried out by a lighter of the above described specific construction, it should be understood that changes may be made therein without departing from the invention in its broader aspects, within the scope of the appended claim.

I claim:

A cigar lighter having a casing, a wick tube, a sparking mechanism, and a reciprocable fingerpiece mounted on said casing, said fingerpiece being positively connected to said sparking mecha-

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nism to actuate the latter in moving from idle to active position, a guide plunger connected to said fingerpiece and extending into said casing, a spring surrounding said plunger to urge said fingerpiece toward idle position, and a relatively rigid latch piece having a base interposed between said fingerpiece and spring, a shank receivable in a recess in said plunger, said latch piece also having a lug extending from said shank, said base being urged by said spring into a position wherein said lug engages the casing structure to prevent movement of said fingerpiece toward active position, but said base being movable, under the building up of manual pressure upon the fingerpiece, to tilt said shank and lug into such recess

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and thereby release the fingerpiece for movement toward its active position.

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