T. C. GESLANI.

AUTOMATIC LIGHTER.

APPLICATION FILED DEC. 29, 1919.

1,353,334. **Patented Sept. 21, 1920.**

Fig. 1.

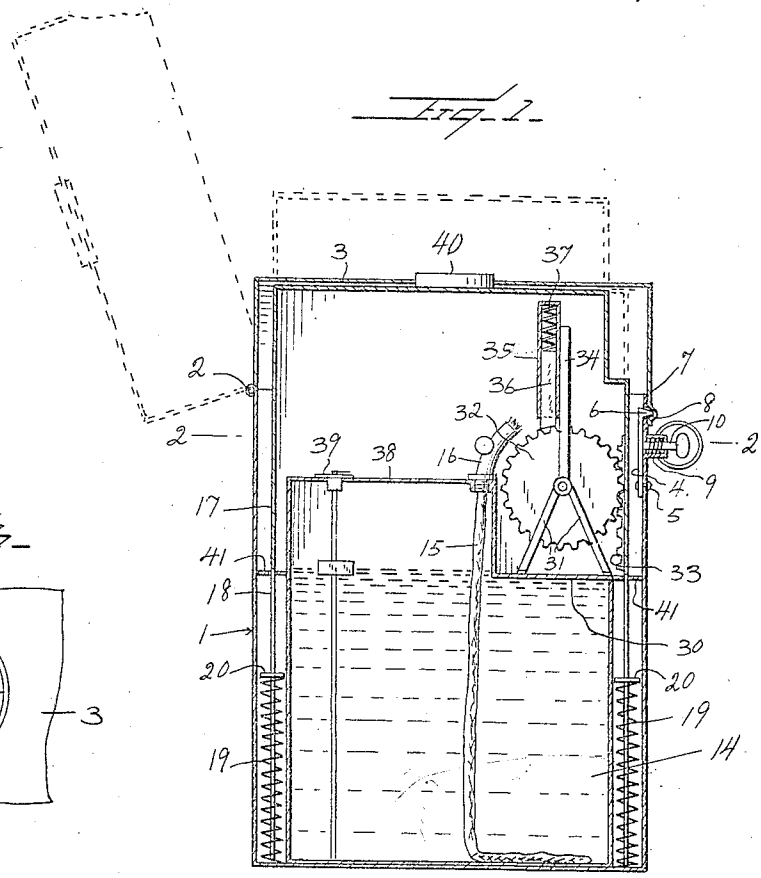


Fig. 3.

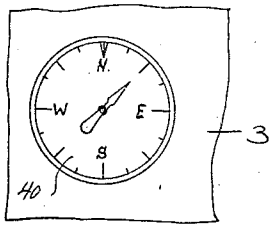


Fig. 4.

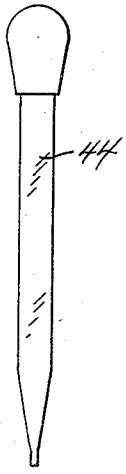
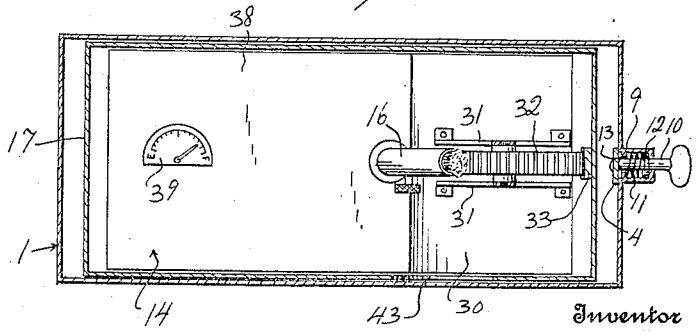


Fig. 2.



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AUTOMATIC LIGHTER.

1,353,334. Specification of Letters Patent. **Patented Sept. 21, 1920.**

Application filed December 29, 1919. Serial No. 348,015.

To whom it may concern:

Be it known that I, TELESFORO C. GESLANI, a citizen of the Philippine Islands, residing at Olongapo, Zamb, Philippine Islands, have invented certain new and useful Improvements in Automatic Lighters, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to an improved automatic lighter, and an important and general object of the invention is to provide a device of this kind, which is simple, efficient and practical in construction, and capable of being manufactured for a relatively low cost and sold at a reasonable profit.

Another object of the invention is to provide a lighter including a casing having a container for the reception of benzene or coal-oil, preferably the latter, in combination with a wick, and means for automatically lighting the wick, thereby conserving the use of matches.

Another object of the invention is the provision of a device of this kind which saves the use of matches and also includes means for shielding the flame of the wick, thereby preventing the wind from blowing the flame out.

A further object of the invention is the provision of automatic means for lighting the wick, as the cover of the casing is released and allowed to open, a part of the automatic means constituting means to throw the cover open.

While the design and construction at present illustrated and set forth is deemed preferable, it is obvious that as a result of a reduction of the invention to a more practical form for commercial purposes, the invention may be susceptible to changes, and the right to these changes is claimed, provided they are comprehended within the scope of what is claimed.

The invention comprises further features and combination of parts, as will be hereinafter set forth, shown in the drawings and claimed.

In the drawings:

Figure 1 is a vertical sectional view through the improved automatic lighter showing the cover closed, and the hood or shield lowered.

Fig. 2 is a horizontal sectional view on line 2—2 of Fig. 1.

Fig. 3 is a detail plan view of a part of the cover of the casing of the lighter, showing the compass thereon.

Fig. 4 is a detail view of a dropper or fluid filling device, for filling the benzene container.

Referring more especially to the drawings, 1 designates a casing which may be any suitable shape, preferably rectangular, though not necessarily, and hinged at 2 thereto is a cover 3. One of the walls of the casing 1 has a latch 4 secured thereto as at 5. The latch has a projection 6 which protrudes through an opening 7 in the wall of the casing 1 and engages a notch in the flange of the cover, to hold the cover closed. Projecting from one of the sides of the casing 1 is a tubular projection 9, on which a spring retained headed pin or button 10 is mounted. The spring 11 of the pin or button is interposed between a shoulder 12 of the pin and a flange 13 of the projection and is in surrounding relation to the pin or button. The pin is disposed in a position so that its end may contact with the spring latch 4. However, the spring 11 holds the pin with its end out of engagement with the spring latch, as is shown. When the headed pin or button is depressed, the end thereof will engage the spring latch and causes the projection or lug 6 to be disengaged from the notch 8, allowing the cover 5 to fly open.

Mounted in the casing 1 is a container 14 which may contain benzene or coal-oil, preferably the latter, and arranged in the container is a wick 15, which passes upwardly through a screw cap burner 16, so that the upper terminal of the wick may be lighted. It will be noted that the container is mounted in the casing 1 and is spaced from the wall thereof. Guided in the space between the container and the casing 1 is a hood or shield 17. Certain opposite walls of the shield or hood at their lower ends are provided with contracted extensions 18, and mounted on the extensions 18 in surrounding relation thereto are coil springs 19. These springs are interposed between the bottom of the casing 1 and the shoulders 20 of the sides of the hood or shield. The tendency of these springs is to force the hood or shield upwardly. When the cover is closed the top of the cover engages the upper end of the shield or hood and holds the same down in the casing 1, therefore it

is obvious that when the cover is released by depressing the pin, the action of the springs 19 will move the hood or shield upwardly, thereby throwing the cover open. The top of the container has an angular shaped portion 30, and positioned in this angular portion and supported by the brackets 31 is a toothed wheel 32. One of the sides of the hood or shield is provided with rack teeth 33 to mesh with the teeth of the wheel 32, so that when the hood or shield is moved upwardly, motion is imparted to the wheel. Rising upwardly from the brackets 31 are supporting arms 34, which carry a tubular sparking stone holder 35. A sparking stone 36 is mounted in the holder 35, and interposed between the upper end of the stone and the closed end of the tubular holder is a coil spring 37. The spring 37 tends to automatically move the stone downwardly, and at all times hold the lower end of the stone in close position to the teeth of the wheel 32. The screw burner cap 16 is carried by a curved extension 38 of the container, so that the upper terminal of the wick will be in a close position to the sparking stone, particularly the terminal of the stone which is engaged by the teeth of the toothed wheel. A suitable gasolene or coal-oil meter 39 is carried by the top of the container, and the needle or indicator of this meter is designed to be actuated by any suitable means (not shown), preferably by means of a fluid actuated float (not shown) so that when the fluid level lowers, the needle or indicator will be actuated, so as to indicate the level of the benzene or coal-oil. The top of the cover is provided with a suitable compass 40 for obvious purposes. The face of the compass 40 is designed to be provided with any suitable luminous means or radiolite, so that the compass may be read at night as well as in the day time.

The space between the container and the casing 1 is provided with suitable limiting stops 41, which are engaged by suitable lugs 20 of the depending parts of the hood or shield, so as to limit the hood or shield in its upward movement. One of the side walls of the shield or hood is provided with a cutaway portion 43, through which a cigarette, cigar or the like may be inserted, so as to be lighted by the flame of the wick.

It is obvious that when the button or headed pin is depressed, releasing the cover, the springs 19 will force the hood or shield upwardly, and owing to the teeth 33 meshing with the teeth of the wheel 32 imparting movement to the wheel, the teeth of the wheel will coöperate with the sparking stone, causing the sparks to fly in the direction of the wick, thereby lighting the same.

The drawing discloses a dropping device 44 including a glass tube and the usual rubber nipple, whereby the container may be filled with suitable lighting fluid, such as coal oil, benzene or the like.

The invention having been set forth, what is claimed as new and useful is:

1. In a lighter of the kind set forth, the combination with a casing provided with a hinged cover and holding means for the cover, of a coal-oil container mounted in the casing and spaced therefrom, of a vertically movable hood or shield guided between the casing and the container, said container having a wick, a sparking device mounted on the container, and coöperative connections between the sparking device and the hood, whereby as the cover is released, the hood is allowed to move upwardly, thereby actuating the sparking device and lighting the wick.

2. In an automatic lighter, the combination with a casing having a hinged cover and retaining means therefor, of a coal-oil container mounted in the casing and spaced therefrom, of a sparking device mounted on the container and lighting the wick and including a sparking stone in close position to the wick, a spring tensioned hood or shield guided between the container and the casing and having coöperative connections with the sparking device, whereby as the cover is released, the sparking device is actuated for lighting the wick.

3. In an automatic lighter, the combination with a casing having a hinged cover and retaining means therefor, of a coal-oil container mounted in the casing and spaced therefrom, of a sparking device mounted on the container and lighting the wick and including a sparking stone in close position to the wick, a spring tensioned hood or shield guided between the container and the casing and having coöperative connections with the sparking device, whereby as the cover is released, the sparking device is actuated for lighting the wick, and means for limiting the hood or shield in its upward movement, one side of the shield or hood having an opening through which a member to be lighted by the flame of the wick may be inserted.

4. In an automatic lighter, the combination with a casing having a hinged cover and retaining means therefor, of a coal-oil container mounted in the casing and spaced therefrom, of a sparking device mounted on the container and lighting the wick and including a sparking stone in close position to the wick, a spring tensioned hood or shield guided between the container and the casing and having coöperative connections with the sparking device, whereby as the cover is released, the sparking device is actuated for lighting the wick, said sparking device comprising a rotatable toothed wheel, supporting brackets to hold the wheel on the

container, a holder for the sparking stone, and spring means in the holder for maintaining the end of the stone in contact with the teeth of the wheel, and toothed connections between the wheel and the hood or shield, whereby as the shield moves upwardly under the action of its spring, the wheel is rotated.

5. In an automatic lighter, the combination with a casing having a hinged cover and retaining means therefor, of a coal-oil container mounted in the casing and spaced therefrom, of a sparking device mounted on the container and lighting the wick and including a sparking stone in close position to the wick, a spring tensioned hood or shield guided between the container and the casing and having coöperative connections with the sparking device, whereby as the cover is released, the sparking device is actuated for lighting the wick, said sparking device comprising a rotatable toothed wheel, supporting brackets to hold the wheel on the container, a holder for the sparking stone, spring means in the holder for maintaining the end of the stone in contact with the teeth of the wheel, and toothed connections between the wheel and the hood or shield, whereby as the shield moves upwardly under the action of its spring, the wheel is rotated, one side of the hood or shield having an opening through which a member to be lighted may be inserted.

In testimony whereof I hereunto affix my signature.

TELESFORO C. GESLANI.