

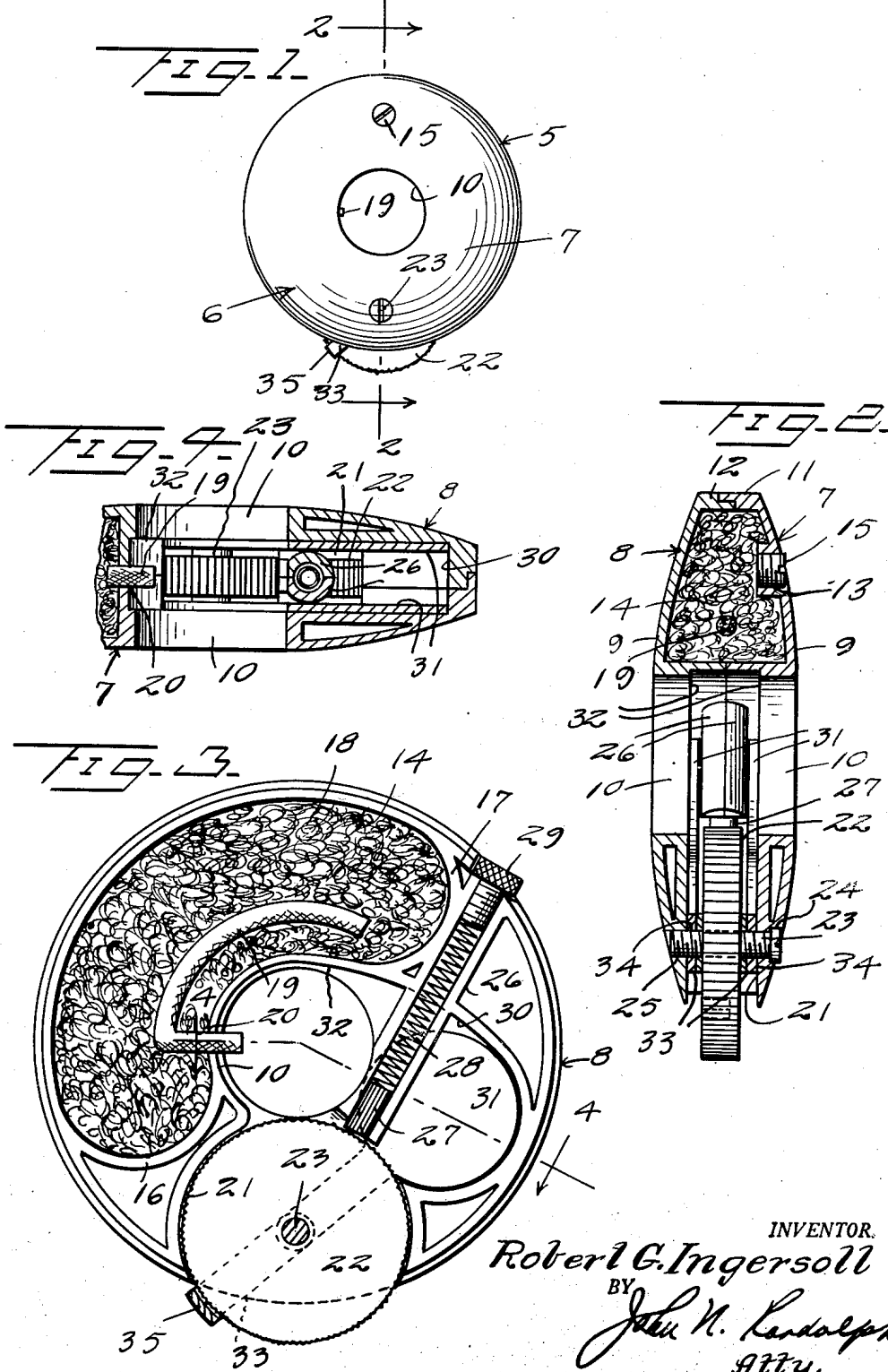
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LIGHTER

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LIGHTER

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1

This invention relates to an improved construction of lighter and more particularly to a lighter especially adapted for lighting pipes and which is so constructed that it is no larger than a conventional cigarette lighter and of approximately the same weight.

Another object of the invention is to provide a pipe lighter which can be very conveniently carried in a pocket and which will be substantially windproof and capable of being easily handled and operated with one hand for lighting a pipe.

Another object of the invention is to provide a lighter which is readily adaptable for use in lighting cigars or cigarettes but which, due to its construction, is especially applicable for lighting pipes and will enable the flame from the lighter wick to be drawn directly to the pipe bowl.

A further object of the invention is to provide a lighter intended to be positioned directly on a pipe bowl so that air drawn therein will pass through the lighter body for drawing the flame from the wick thereof toward the pipe bowl.

Another object of the invention is to provide a lighter of extremely simple construction capable of being economically manufactured and sold and which will be very efficient and durable for its intended purpose.

Various other objects and advantages of the invention will hereinafter become more fully apparent from the following description of the drawing, illustrating a presently preferred embodiment thereof, and wherein:

Figure 1 is a plan view looking toward one side of the lighter;

Figure 2 is an enlarged diametrical sectional view taken substantially along a plane as indicated by the line 2-2 of Figure 1;

Figure 3 is a plan view looking toward the inner side of one section of the lighter and with the other section thereof removed, and

Figure 4 is a sectional view of the lighter taken substantially along a plane as indicated by the line 4-4 of Figure 3.

Referring more specifically to the drawing, the novel pipe lighter in its entirety is designated generally 5 and comprises an annular body, designated generally 6 composed of an annular female section 7 and an annular male section 8, as best illustrated in Figures 2 and 4. The body sections 7 and 8 are provided with correspondingly shaped side walls 9 and with corresponding inner annular walls 10 which extend inwardly with respect to one another from the inner edges of the side walls 9 and which walls 10 are disposed with their inner, free edges in abutting

2

engagement, as seen in Figure 2, when the lighter body 6 is assembled. The female section 7 is provided with an outer annular wall 11 which is internally recessed and the male section 8 is provided with an outer wall 12 which is externally recessed for inter-fitting engagement with the wall 11; said walls 11 and 12 likewise being annular and being disposed concentric with respect to the inner walls 10. The walls 10 are substantially wider than the walls 11 and 12 and the side walls 9, as best seen in Figures 2 and 4, are curved radially and are externally convex so that said walls 9 converge from their inner toward their outer edges or from the inner walls 10 toward the outer walls 11 and 12 so that the body 6 is substantially thicker at its central opening 10 than at its outer edge 11, 12.

The side wall 9 of the female section 7 is provided with an inwardly flanged, internally threaded opening 13 forming a filling opening and which communicates with a chamber 14 of the body 6. The filling opening 13 is normally closed by a threaded plug 15. As best seen in Figure 3, the body sections 7 and 8 are provided with corresponding internal walls 16 and 17 having adjacent ends which merge with portions of the inner walls 10 and outer edges which merge with the outer walls 11 and 12. The walls 16 and 17 of the section 8 only are illustrated but it will be readily apparent that the section 7 is provided with corresponding walls which are adapted to abut against the walls 16 and 17 of the section 8 when the body 6 is assembled and which walls 16 and 17 to combine with portions of the inner walls 10 and the walls 11 and 12 to form the chamber 14 which is adapted to be filled with cotton or other absorbing material 18 and which also contains a wick 19 one end of which projects through an opening 20 formed by semi-circular notches in the inner edges of the walls 10. It will thus be readily apparent that one end of the wick 20 extends into the central opening 10, 10 of the body 6, for a purpose which will hereinafter become apparent.

The body sections 7 and 8 at points remote to the filling opening 13 and out of communication with the fuel chamber 14, are provided with corresponding recesses forming a chamber 21 having a restricted opening communicating with the central opening 10, 10 and a larger outer open end which opens outwardly of the walls 11 and 12. The chamber 21 is of arcuate shape and is adapted to contain a conventional flint or sparking wheel 22 which is rotatably disposed therein and journaled on a shaft 23 which ex-

3

tends through aligned openings 24 and 25 in the body sections 7 and 8. The shaft 23 is applied to the opening 24, then through a central opening of the wheel 22 and is provided with a threaded leading end for engagement with threads of the opening 25 to retain said shaft in an applied position. The opening 24 is unthreaded and sufficiently large to permit the threaded leading end of the shaft 23 to pass therethrough. As seen in Figure 2, the outer end portion of the opening 24 is slightly enlarged to seat the enlarged slotted head of the shaft 23 and which cooperates with the threaded opposite end and the threaded opening 25 for detachably retaining the body sections 7 and 8 connected, so that said shaft 23 not only journals the striking wheel 22 but also detachably retains the lighter body 6 assembled.

The body sections 7 and 8 are provided with corresponding wall portions 26 of arcuate cross section which combine to form a tube one end of which opens outwardly of the walls 11 and 12 and the opposite end of which opens into the chamber 21. This tube is adapted to contain a flint 27 which is urged into engagement with the knurled periphery of the striking wheel 22 by an expansion coiled spring 28 which seats at its outer end against the removable retaining screw 29 which is provided with a knurled head and which engages the threaded outer end portion of the tube 26, 26. It will be readily apparent and as best illustrated in Figure 3, that when the striking wheel 22 is manually revolved in a counter-clockwise direction that the sparks struck from the flint 27 by the frictional contact of the flint and wheel will be directed into the central opening or passage 10, 10 and toward the end of the wick 19 which is disposed within said passage for igniting the wick. As clearly illustrated in Figures 1, 2 and 3, a sufficient portion of the striking wheel 22 projects outwardly from the periphery of the lighter body 6 to be engaged by the thumb of the hand in which the lighter 5 is held for rotating the wheel 22 for igniting the wick 19, as just previously described. It will also be readily apparent that the central bore 10, 10 will provide a chimney adapted to be disposed directly over and in communication with the bowl of a pipe, not shown, so that when the wick 19 is ignited the user by drawing on the pipe may draw the flame from the wick into the pipe bowl for lighting the tobacco due to the downdraft through said chimney 10 toward the pipe bowl. It will also be readily apparent that the lighter 5 will be of a convenient size to be carried in the pocket and due to its over-all shape will not be bulky and is relatively light and may be constructed to weigh no more than a conventional cigarette lighter. It will also be readily apparent that the lighter 5 can be utilized for lighting cigars and cigarettes without modification.

The lighter 5 preferably contains a closure or shutter for the chimney 10 and the exposed portion of the wick 19, when not in use and for this purpose is provided with an internal chamber 30 through which the inner end of the tube 26, 26 extends and which is adapted to contain two disk-shaped shutters 31 which are disposed one on either side of the tube 26, 26 as best illustrated in Figure 4. The chamber 30 is disposed substantially opposite to the fuel chamber 14 and opens into the chimney 10 and which is recessed as seen at 32 on its exposed side to ac-

4

commodate the shutters 31 when said shutters are moved into the passage 10 for closing said passage on either side of the wick 19. The shutters 31 are connected by an elongated, substantially U-shaped strip 33 the ends of which are formed integral with portions of the shutters 31 and the corresponding legs of which extend outwardly through the chamber 21 and straddle the wheel 22. Said legs of the strip 33 are provided with aligned openings 34 through which the shaft 23 loosely extends and the intermediate or bight portion 35 of the strip 33 and which is disposed substantially at right angles to the legs thereof is disposed outwardly of and adjacent a portion of the periphery of the wheel 22 and outwardly of the periphery of the lighter body 6. As best seen in Figure 3, the shutters 31 are shown in positions for exposing the chimney 10 and wick 19 and after use of the lighter 5, as previously described, the thumb which was employed for rotating the wheel 22 can be utilized to engage the bight portion 35 to swing the strips 33 and shutters 31 in a counterclockwise direction on the shaft 23 for moving the shutters into the chimney 10 and with portions of the peripheries thereof in engagement with the recess 32 for closing said chimney on either side of the wick 19. When it is again desired to use the lighter 5, the thumb is initially utilized to engage the bight portion to swing the shutters clockwise to their opened position of Figure 3 after which the thumb is then employed to turn the wheel 22 in the opposite direction or counter-clockwise as previously described for igniting the wick.

Various modifications and changes are contemplated and may obviously be resorted to, without departing from the spirit or scope of the invention as hereinafter defined by the appended claims.

I claim as my invention:

1. A lighter comprising an annular body having a central opening extending therethrough defining a chimney, said body having an internal compartment forming a fuel chamber, a wick disposed within said fuel chamber and having an end projecting therefrom into said chimney, said body having a wheel chamber therein circumferentially spaced from said fuel chamber and opening into the chimney and outwardly of the periphery of the body, a flint wheel rotatably disposed in said wheel chamber having a portion protruding from the periphery of the lighter body, said body having a tubular portion opening into the wheel chamber and containing a flint for engaging the periphery of the flint wheel and disposed so that the sparks therefrom will be directed into the chimney and toward the end of the wick contained therein when said wheel is revolved in one direction.

2. A lighter as in claim 1, and closure means swingably supported in the lighter body and movable into and out of engagement with said chimney for enclosing the exposed end of the wick therebetween when said closure means is disposed in the chimney.

3. A lighter as in claim 1, and closure means swingably supported in the lighter body and movable into and out of engagement with said chimney for enclosing the exposed end of the wick therebetween when said closure means is disposed in the chimney, said closure means having a portion disposed outwardly of the lighter body and concentrically to a portion of the flint

5

wheel and adapted to be manually actuated for moving the closure means into and out of engagement with the chimney.

4. A lighter as in claim 1, said lighter body being formed of separable annular body sections. 5

5. A lighter as in claim 1, said lighter body being formed of separable annular body sections, and a shaft extending through the wheel chamber for journaling the flint wheel and detachably connecting the body sections. 10

6. A lighter as in claim 1, said lighter body being formed of separable annular body sections and a shaft extending through the wheel chamber for journaling the flint wheel and detachably connecting the body sections, said closure means being pivotally mounted on said shaft. 15

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6

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