June 23, 1936. M. GABRITSCH 2,045,457

LIGHTER

Filed June 12, 1934

Fig. 1.

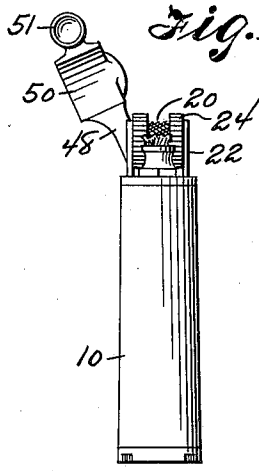

Fig. 2.

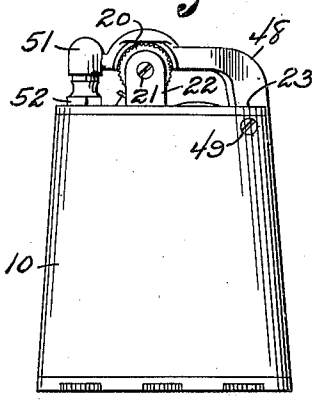

Fig. 4.

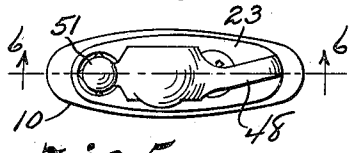

Fig. 5.

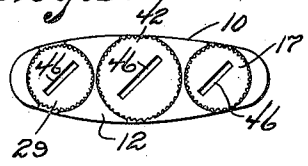

Fig. 3.

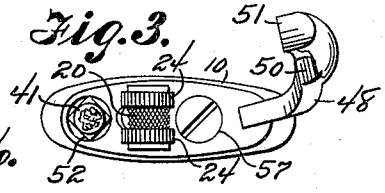

Fig. 12.

Fig. 6.

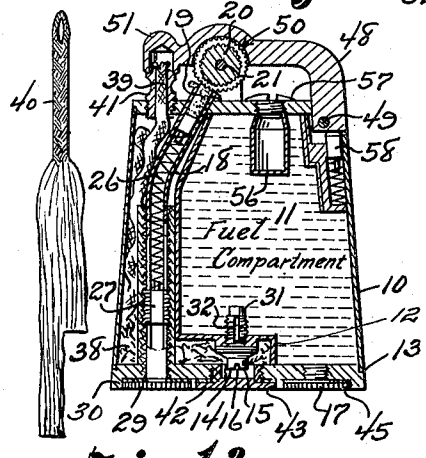

Fig. 9.

Fig. 7.

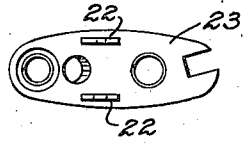

Fig. 10.

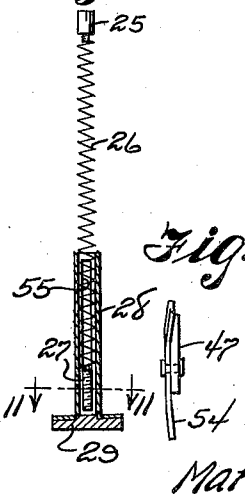

Fig. 8.

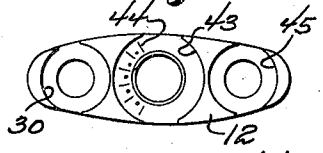

Fig. 11.

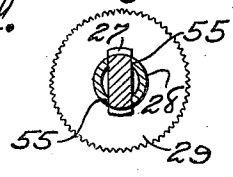

Fig. 13.

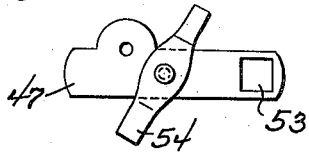

Fig. 14.

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2,045,457

LIGHTER

Martin Gabritsch, Canon City, Colo.

Application June 12, 1934, Serial No. 730,301

1 Claim. (Cl. 67—7.1)

The invention relates to a lighter and more especially to a pipe, cigar or cigarette lighter.

The primary object of the invention is the provision of a lighter of this character, wherein the flint is advanced to the friction wheel for sparking purposes in a novel manner and thus enabling the entire consumption of the flint piece before bringing into use a new flint, and also the fuel to the lighting wick is delivered or fed in a novel manner, the latter being regulated and controlled.

Another object of the invention is the provision of a lighter of this character, wherein the arm or lever for the friction wheel and the sniffer for the wick is of novel construction so that when swung to expose the wheel and the wick it will be out of the way and to one side, whereby when the wick is lighted, a pipe, cigar or the like can be conveniently lighted.

A further object of the invention is the provision of a lighter of this character, wherein the flint pressure spring can be adjusted instantly to any desired pressure and the lighting wick tube is removable for the insertion of a new wick through the bottom end of said tube and also convenience in the introduction of the wick into the body of the casing, there also being arranged in a novel manner an extra flint or holder.

A still further object of the invention is the provision of a lighter of this character which is simple in construction, readily and easily operated, thoroughly reliable and efficient in its working, neat, attractive, durable, and inexpensive to manufacture.

With these and other objects in view, the invention consists in the features of construction, combination and arrangement of parts as will be hereinafter more fully described in detail, illustrated in the accompanying drawing, which discloses the preferred embodiment of the invention, and pointed out in the claim hereunto appended.

In the accompanying drawing:

Figure 1 is a front elevation of the lighter constructed in accordance with the invention, showing the arm or lever in thrown position to one side of the body of the lighter.

Figure 2 is a side elevation of the lighter with the arm or lever protecting the friction wheel and sniffing the lighting wick.

Figure 3 is a top plan view with the arm or lever in the position shown in Figure 1.

Figure 4 is a top plan view with the arm or lever in the position shown in Figure 2.

Figure 5 is a bottom plan view of the lighter.

Figure 6 is a vertical longitudinal sectional view through the lighter, taken on the line 6—6 of Figure 4 looking in the direction of the arrows.

Figure 7 is a plan view of the body or casing of the lighter with certain of the parts removed therefrom.

Figure 8 is a bottom plan view of the body or casing with the screw plugs removed, showing in detail the calibrated area or scale for the setting of the regulating screw.

Figure 9 is a plan view of the gas regulating screw.

Figure 10 is a vertical sectional view through the flint feeding means.

Figure 11 is an enlarged sectional view taken on the line 11—11 of Figure 10.

Figure 12 is an elevation of the auxiliary wick for the lighter.

Figure 13 is a plan view of a combination tool for use with the lighter.

Figure 14 is an edge elevation thereof.

Similar reference characters indicate corresponding parts throughout the several views in the drawing.

Referring to the drawing in detail, the lighter comprises a relatively narrow substantially oval-shaped hollow body or casing 10, it being preferably tapered from one end to the other thereof in a longitudinal direction, and interiorly of this body or casing is formed a fuel chamber 11 having a partially inset bottom 12 from the bottom 13 of the body or casing and this bottom 12 has fitted therein a fluid regulating screw 14 carrying a head 15 provided with a screw driver slot 16 at its outer side, so that such screw 14 can be manually turned for the adjustment thereof. The bottom 13 of the body or casing 10 has fitted therein a screw plug 17 which when removed permits the filling of the fuel chamber 11 with fuel for the lighter.

Built into the body or casing 10 close to the chamber 11 but outside of the same is a flint tube 18 which is adapted to present the flint 19 to a friction wheel 20, the journal 21 therefor being supported in bearings 22 arranged at the top 23 of the body or casing 10. This wheel 20 has formed at opposite sides thereof driving wheels 24, the same being of greater diameter than the wheel 20, it being preferable to have the wheels 20 and 24 unitary or integral with each other, so that when the thumb of the hand of a person engages the wheels 24 for actuating the wheel 20 there will be no liability of soiling the hand from the flint dust as usually accu-

mulates upon the friction wheel 20 when sparking the said flint 19.

Within the tube 18 and acting against the flint 19 is a follower 25, this being urged in the direction of the flint by a coiled tensioning spring 26, the spring 26 being within the tube 18 and seated against a feed screw 27 slidably fitting a barrel 28 and in threaded engagement in the tube 18, the barrel being formed with a circular head 29 counterseated at 30 in the bottom 13 of the body or casing 10. It will be apparent that the head 29 can be pulled out of the counterseat 30 in the bottom 13 and by applying rotary movement thereto the barrel 28 will turn the screw 27, which is in threaded engagement with the tube 18, to vary the tension of the spring 26 which increases or decreases the pressure of the flint 19 on the wheel 20 for light or heavy sparking purposes when the wheel 20 is actuated.

The regulating screw 14 has its shank 31 provided with an elongated slot 32 so that when the screw is adjusted the fuel within the chamber 11 will have a variable flow through the slot 32 from said chamber into a wick space 38 provided in the body or casing 10, as should be apparent.

The wick space 38 communicates with the inset bottom portion 12 of the chamber 11 and has therein the main and auxiliary wicks 39 and 40, respectively, these being joined with each other. The end of the auxiliary wick 40 is received in the inset portion 12 of the chamber 11 but does not interfere with the regulation of the screw 14. The main wick 39 is passed through a wick tube 41, the latter being detachably engaged in the top 23 of the body or casing 10 to expose the outer end of the said wick for the lighting thereof from sparks created from the flint 19.

The bottom 13 of the body or casing 10 has fitted therein the removable plug 42 which allows access to the screw 14, the plug 42 being counterseated, at 43, in the bottom 13 of the body or casing, and this seat has indicated thereon calibrations or a scale 44 with which coacts the slot 16 in the head 15 of the screw 14, to enable a person to determine the degree of adjustment of the said screw 14 for regulating the flow of the fuel within the chamber 11 to the wick space 38, as should be obvious. The plug 17 is counterseated, at 45, in the bottom 13 of said body or casing 10.

The plug 17, the head 29 and the plug 42, in their outer faces, are provided with screw driver slots 46 so that the same can be readily placed and removed through the instrumentality of the tool 47, shown in Figures 13 and 14 of the drawing, this being a specially constructed tool for use with the lighter.

Swingingly mounted at the top 23 of the body or casing 10 is an arm or lever 48, it swinging on the pivot 49 and being of curved formation, the lever being provided with the cavity or notch 50 for the wheels 20 and 24 and a sniffer 51 for the wick 39, and it will be seen that when the arm or lever 48 is swung to the position as shown in Figures 2, 4, and 6 of the drawing it will be a protector for the wheels 20 and 24 and the sniffer 51 will extinguish the lighted wick 39. The curvature of this arm or lever 48 is for the purpose of offsetting it when swung away from the wheels 20 and 24 to be out of the way for convenience in the lighting of a pipe, cigar or cigarette at the wick 39 when burning, as the arm or lever 48 will be offset and entirely out of the way. The wick tube 41 is formed with a squared portion 52 to permit wrench engagement therewith by the tool 47 at the end 53 of the latter, thus enabling the convenient mounting and demounting of this tube when the occasion requires. The tool includes a pivoted screw driver 54 adapted for use with the plugs 17 and 42, as well as the head 29 of the barrel 28.

It should be obvious that the screw 27 slidably fitted with the barrel 28 is of flat formation and fits within slots 55 diametrically opposed and formed in the said barrel longitudinally thereof, so that the barrel when turned will impart like movement to said screw for the adjustment thereof in the tube 18, the fitting of the screw and barrel being shown in detail in Figure 11 of the drawing.

Suspended within the fuel chamber 11 from the top 23 of the body or casing 10 is an extra flint receiver 56, it being accessible through the top and closed by a screw plug 57, and in this receiver is adapted to be several pieces of flint (not shown), these being for placement in substitute for the flint 19 when the latter is used up.

Mounted within the body or casing 10 is a spring tensioned latch 58 which operates against the pivoted end of the arm or lever 48 so as to hold the same in protecting position or non-protecting position for the wheels 20 and 24, respectively.

It will be understood, of course, that the feed of fuel from the chamber 11 in the body or casing 10 is had through the opening for the screw 14 which is the regulating screw for the fluid in said chamber 11.

The manner of use of the lighter should be clearly understood from the foregoing description and, therefore, a more extended explanation has been omitted.

What is claimed is:

A lighter comprising a casing interiorly divided to provide a fuel chamber having a bottom partially inset from the bottom of the casing and a wick space laterally of the fuel chamber and beneath the inset bottom, a valve controlling an opening in the bottom of the fuel chamber communicating with wick space below the latter and consisting of a screw having an enlarged head provided with a kerf and a longitudinal slot in one side and the bottom of the casing having an opening in axial alignment with the opening in the bottom of the fuel chamber to provide access to the screw valve, a removable plug closing the opening in the bottom of the casing, a wick in the wick space and exposed at the top of the casing; a flint disposed adjacent the exposed portion of the wick, and a flint wheel rotatably mounted on the top of the casing and in contact with the flint.

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