

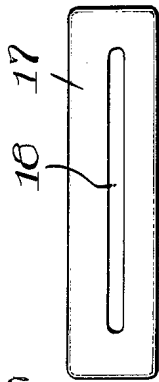
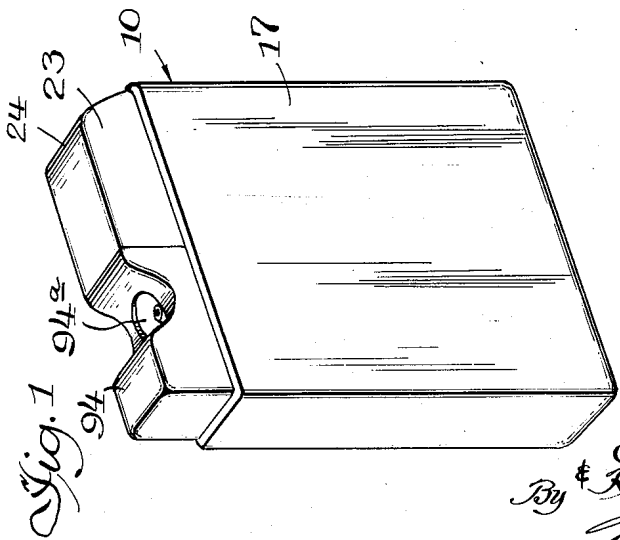
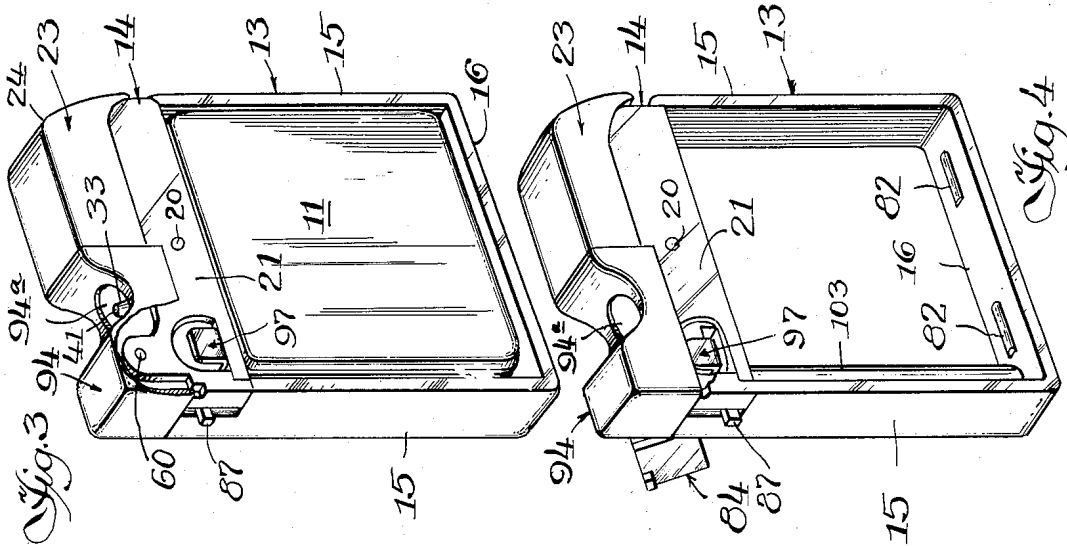
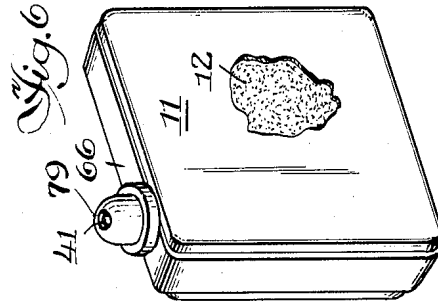
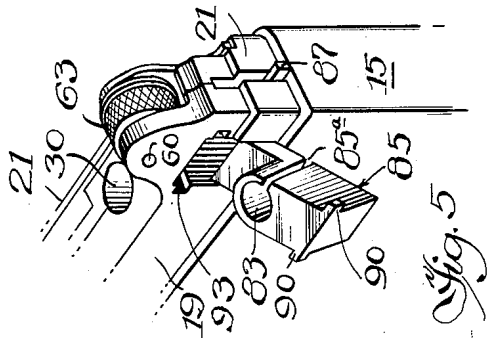
Feb. 28, 1956

E. H. SEIBERT ET AL  
CIGARETTE AND CIGAR LIGHTER

2,736,181

Filed Aug. 9, 1952

4 Sheets-Sheet 1



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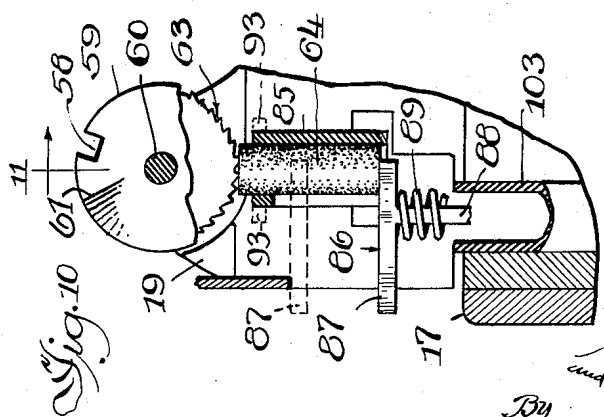
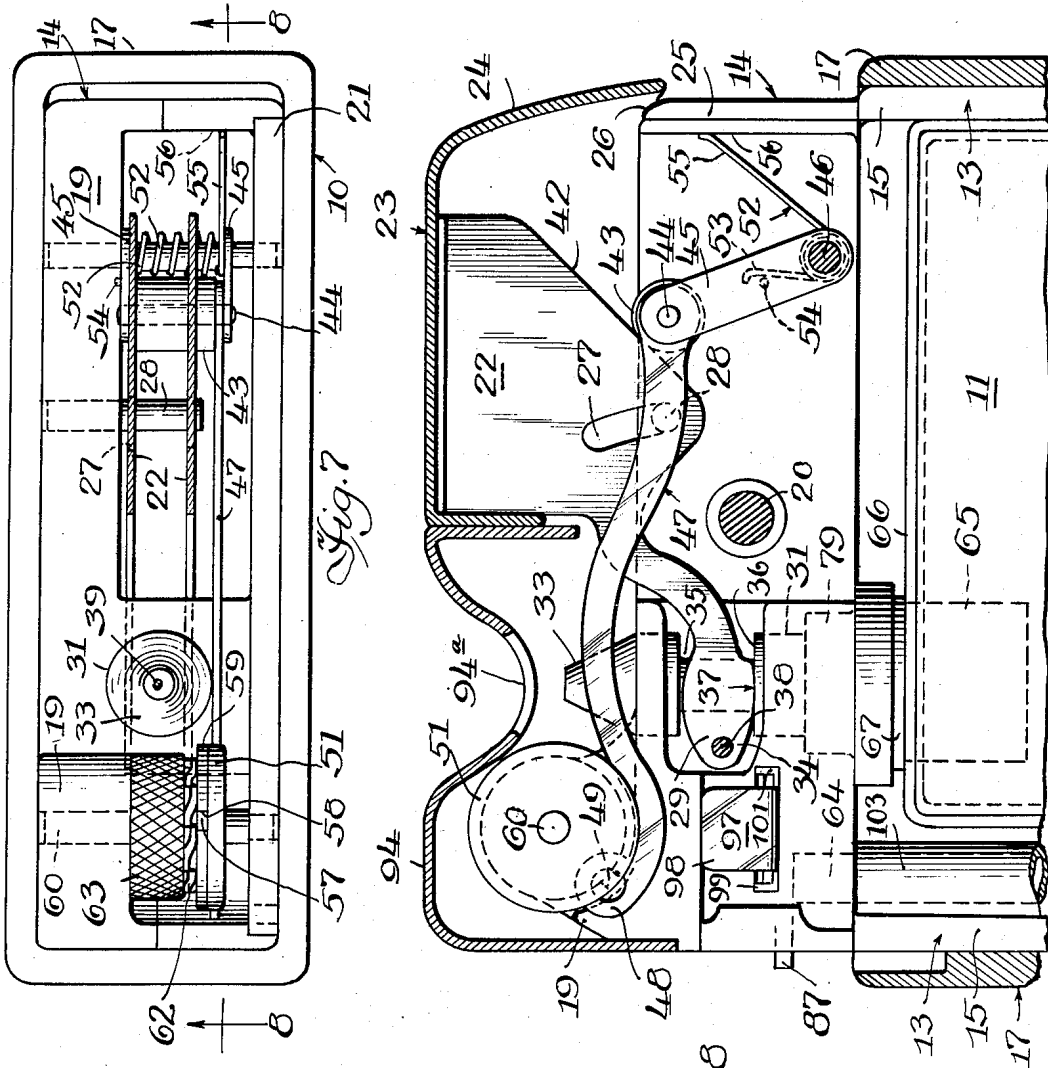
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4 Sheets-Sheet 2



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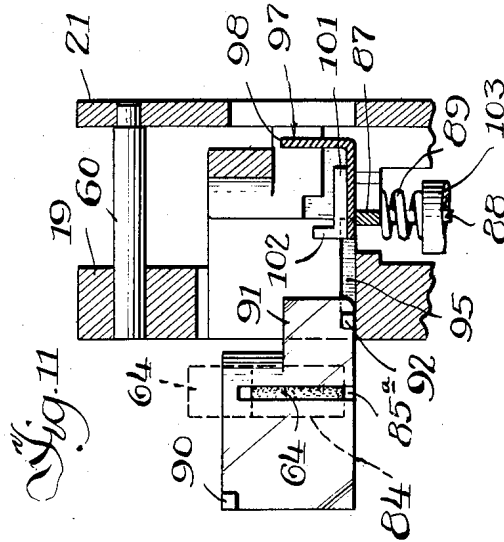
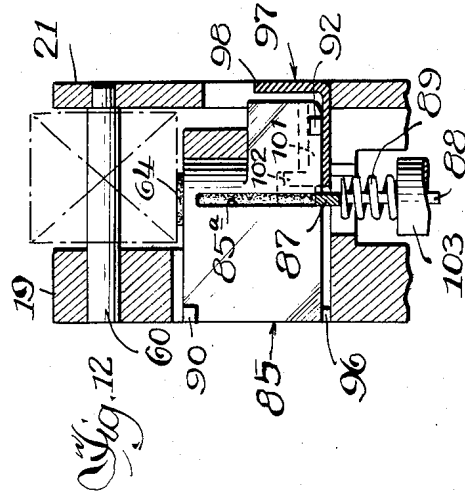
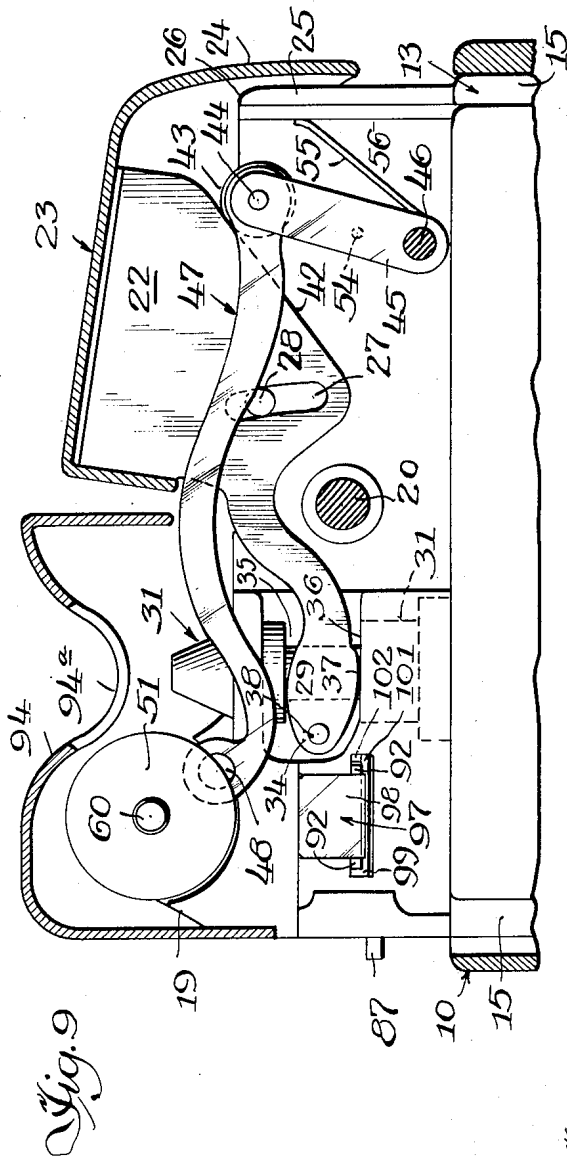
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4 Sheets-Sheet 3



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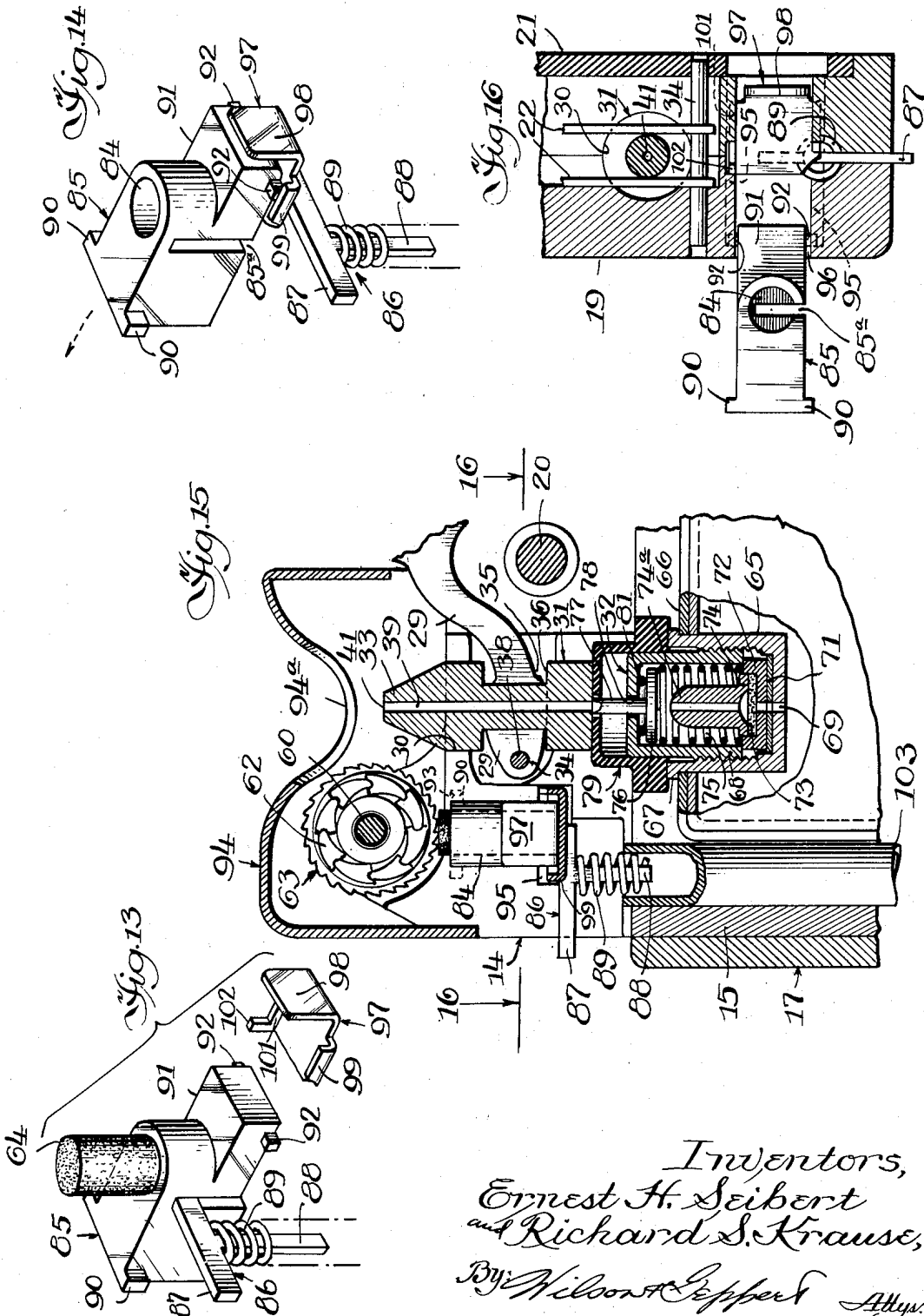
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4 Sheets-Sheet 4



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2,736,181

**CIGARETTE AND CIGAR LIGHTER**

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**Application August 9, 1952, Serial No. 303,564**

**10 Claims. (Cl. 67-7.1)**

The present invention relates to a so-called cigarette or cigar lighter and more particularly to a novel lighter of the type employing a liquefied petroleum gas, including butane.

It is, therefore, an object of the present invention to provide a novel lighter construction and assembly of the gaseous fuel type.

Another object of the present invention is the provision of a novel fuel cartridge or storage receptacle containing a solid adsorbent for storage of the gaseous fuel or liquefied petroleum gas.

A further object is to provide a novel valve and flow control assembly for controlling the passage and discharge of gaseous fuel and so arranged and related with respect to the sparking mechanism as to most effectively synchronize the opening of the valve and the projection of a spark, whereby to insure a maximum number of lights without the necessity of renewal or recharging of a storage cartridge of the gaseous fuel.

Another and important object of the present invention is the provision of a novel combined fuel cartridge and valve unit adapted to be readily and bodily inserted, removed or replaced in the frame or housing of the lighter and when assembled it is automatically located in operative position and ready for immediate use. In its preferred embodiment, this fuel cartridge and assembled valve unit may be discarded when the fuel supply is exhausted, or it may be re-filled or re-charged for continued use.

The present invention further comprehends the provision of a novel thumb-actuated mechanism for simultaneously actuating or operating the sparking wheel and igniting the burner of a pyrophoric lighter employing a liquefied petroleum gas such as butane.

A further object of the present invention is the provision of a novel cam-actuated means and mechanism for operating a gas flow control opening the valve of the fuel supply and simultaneously therewith rotating the sparking wheel to cause a spark to ignite the escaping gas. Upon release of the cam-actuated means, the valve is automatically closed to completely shut off any flow of the combustible gas and further rotation of the sparking wheel is stopped until the operator again manually initiates operation thereof.

A further and important object of the present invention is the provision of a novel holder for the flint, and the provision of a novel means and manner of mounting this holder to permit a flint to be readily and easily replaced by withdrawing this holder from its normal, operative position in the lighter.

Another object is to provide a novel flint control adapted to engage and tensionally maintain the flint at all times in proper operative or striking relation to the sparking wheel. This novel flint control is so constructed, arranged and related to the flint holder and provided with a novel locking means, whereby the holder can only be withdrawn when the flint control is depressed, and when this flint control is depressed and the holder withdrawn,

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the novel locking means maintains the flint control in its depressed, inoperative position until the flint holder is again returned to its operative position whereupon the flint control automatically engages the flint and forces it against the sparking wheel.

The invention further comprehends the provision of a novel frame or housing for the lighter and a novel means and manner of assembly of its operating parts in the head of the frame or housing. To permit such assembly the head is made sectional with one of the sections affixed or formed integral with the body of the frame and the other removable or detachable for ready assembly upon the insertion and mounting of the operating parts, and both sections of the head cored or channelled to receive and operatively mount the operating parts.

Further objects are to provide a construction of maximum simplicity, efficiency, economy and ease of assembly and operation, and such further objects, advantages and capabilities as will later more fully appear and are inherently possessed thereby.

In the drawings:

Figure 1 is a view in perspective of the present novel lighter construction fully assembled.

Fig. 2 is a bottom view of the assembled lighter and showing the slot in the outer casing or enclosure by means of which the main lighter assembly may be readily removed from this casing or enclosure, when desired.

Fig. 3 is a perspective view of the lighter assembly removed from the outer or enclosing casing and with a portion of the cover or cap for the spark wheel and associated parts broken away.

Fig. 4 is a perspective view of the assembly of Fig. 3 but with the detachable fuel cartridge removed and the flint holder or retainer withdrawn from its operative position for reception of a new flint.

Fig. 5 is a fragmentary perspective view of the upper portion of Fig. 4 viewed from the side opposite to that there shown, but with the nozzle or gas flow control and the covers or caps removed from above the spark wheel and from above the thumb-actuating or operating mechanism.

Fig. 6 is a perspective view of the detachable fuel cartridge removed from the lighter assembly.

Fig. 7 is an enlarged top plan view of the lighter assembly with the covers or caps removed from above the spark wheel and from above the actuating or operating mechanism for the spark wheel and the fuel valve.

Fig. 8 is a fragmentary view in vertical cross section of the upper portion of the lighter assembly, the view being taken in a plane represented by the line 8-8 of Fig. 7 and viewed in the direction of the arrows.

Fig. 9 is a view similar to Fig. 8 but with the cap or cover for operating the lighter depressed to open the valve and allow the escape of the gaseous fuel, and simultaneously therewith actuating the spark wheel to ignite the gas.

Fig. 10 is a fragmentary enlarged view of the flint and its mounting and showing its relationship with the spark wheel.

Fig. 11 is a view in vertical cross section taken in a plane represented by the line 11-11 of Fig. 10 and viewed in the direction of the arrows, the spark wheel, its pawl driver and drive pawl having been removed and the flint holder withdrawn to approximately the limit of its movement.

Fig. 12 is a view similar to Fig. 11 but with the flint holder returned to its operative position and the flint elevated to its operative position with the spark wheel.

Fig. 13 is a view in perspective showing the flint, the flint holder, the flint control and associated parts in their operative position but with these parts removed from the lighter assembly and the locking plate disassembled.

Fig. 14 is a perspective view of the parts of Fig. 13 but with the flint and the flint control removed from the flint holder and the locking plate mounted in assembled relation, the parts being in the position occupied in Figs. 11 and 16 when the flint holder is withdrawn from its operative position.

Fig. 15 is a fragmentary view in vertical cross section taken through the nozzle or gas flow control, the burner and the valve assembly for controlling the discharge of the gaseous fuel.

Fig. 16 is a fragmentary view in horizontal cross section taken in a plane represented by the line 16—16 of Fig. 15 and viewed in the direction of the arrows, the flint holder having been withdrawn to the position shown in Figs. 11 and 14.

Referring more particularly to the drawings and to the novel illustrative embodiment therein shown, the present invention comprehends a novel lighter 10 of the type employing a gaseous fuel such as butane or liquefied petroleum gas stored within a container or fuel cartridge 11 containing a solid adsorbent 12 for the fuel. This adsorbent which substantially fills the container or cartridge 11, preferably comprises a mass of extruded, calcined fuller's earth, of the type obtained in Georgia and Florida, adapted to adsorb and store a liquefied petroleum gas such as butane. Other solid adsorbents which may be employed include bentonites and particularly diatomite bentonite.

The lighter comprises a substantially rectangular frame or housing 13 having an opening for the reception of the cartridge 11 and the frame or housing including a head 14, side walls 15 and a base 16. The frame and cartridge are adapted to be received in an encompassing or outer casing or enclosure 17 of plastic or other suitable material. To facilitate removal of the frame 13 and contained cartridge 11 from the casing or housing 17, the base of the latter is slotted at 18 to permit the insertion of a coin or other instrument to force the frame and cartridge from the casing. The cartridge may be of metal, plastic or other suitable material adapted to receive and retain the adsorbent 12 and the contained or stored liquefied petroleum gas under relatively high pressure without any appreciable distortion of the container or fuel cartridge 11 by the internal pressure.

The head 14 of the frame 13 is divided or arranged in two sections, an upstanding part 19 made or formed integral with or rigidly affixed to the upper end of the frame and a separate part 21 detachable or removable with respect to the part 19, but adapted to be joined by a screw or other attaching means at 20. Each of these parts 19 and 21 is cored to provide complementary cavities for receiving operating or actuating mechanism for proper functioning of the lighter (Figs. 5, 7, 8, 9, 11, 12 and 16). As clearly disclosed, in these complementary recesses or cavities are arranged a pair of spaced and depending operating levers 22, 22 suitably affixed at their upper ends to a depressible or thumb-actuated cap or cover 23 formed as an inverted cupped member having depending walls. The rear wall 24 is outwardly flared or curved so that as the cap is depressed it pivots outwardly and downwardly (see Figs. 8 and 9) with this outwardly flared rear wall adapted to overlap the upstanding ends 25 of the sections 19 and 21. To facilitate such movements, these ends are preferably relieved or rounded at 26.

The operating levers 22, 22 are each provided with an arcuate slot 27 with these slots aligned and adapted to receive a transverse pin 28 having one end thereof suitably mounted in the side wall of the section 19 (Figs. 7, 8, 9 and 16). The forwardly or outwardly extending projection 29 of each lever is reduced and curved and with these projections adapted to carry or move in a vertical bore 30 a burner nozzle or gas flow control 31 to control the operation of a valve unit 32 for a fuel burner 33 at the upper end of the nozzle or flow controller 31. This is accomplished by locating each of these pro-

jections 29 adjacent their end 34 within an annular recess or groove 35 in and disposed intermediate the ends of the nozzle or gas flow control 31 and each projection, adjacent the end 34 where it engages a shoulder 36 defining the base of the groove 35 of the nozzle or flow controller, having a cam surface 37 engaging the shoulder 36 and thereby depressing this nozzle or flow controller 31 to actuate the valve 32. A cross pin 38 connects the extreme ends 34 of these spaced projections and retains these ends in the groove 35.

In addition to lowering the nozzle or flow controller 31 to open the valve 32 and permit the escape of the gaseous fuel from the fuel supply cartridge 11, through the hollow core or passageway 39 in the nozzle or flow controller 31 to be ignited at the burner opening 41, the levers 22, 22 (Figs. 7, 8 and 9) are each provided with a cam surface 42 bearing against a roller 43 carried by a cross pin 44. This pin and its roller are carried by the upper end of a pair of spaced links 45, the other or lower end of each link being pivotally mounted and adapted to be rocked about a rock shaft 46. Pivotaly mounted on one end of the cross pin 44 adjacent a link 45 is one end of a connecting rod or bar 47, with the other end of this rod or bar having an eye 48 adapted to receive a lug or projection 49 on a pawl driver 51. Thus by depressing the thumb-actuated cap 23, the nozzle or flow controller 31 is depressed to open the valve 32 and permit the escape of gas, and the cam surface 42 on the operating levers 22 simultaneously retracts the connecting rod or bar 47 which oscillates the pawl driver 51 through a desired arc of movement in a counter-clockwise direction. Upon release of the cap or thumb-actuated pad 23, the rocking links 45 and the roller 43 are spring-biased to their forward position by a spring 52 wound about the rock shaft 46 and having one end 53 engaging a pin or projection 54 on a link or arm 45 and the other end 55 bearing against the upstanding end wall at 56 of the head 14 (Figs. 7 and 8).

The pawl driver 51 is of cup shape having the projection 49 and a projection 57 substantially 180° apart, the latter adapted to be received within a peripheral slot 58 in a disc 59 (Fig. 10). This disc which is carried with the pawl driver on the pin or shaft 60 has a substantially radially extending drive pawl or tooth 61 adapted to engage one of the ratchet teeth 62 on the adjacent face of a spark wheel 63, and thereby rotates in but one direction the abrasive surface of the spark wheel over an adjacent flint 64 to thereby project sparks over the burner opening 41. Upon release of the thumb-actuated pad or cap 23, the connecting rod or bar 47 is returned to its forward and inoperative position (Fig. 8), and such movement causes the roller 43 to ride over the cam surface 42 and elevate the levers 22 to their raised position.

The valve unit of assembly 32 for the liquefied gaseous fuel is carried by the fuel cartridge 11 (Figs. 6, 8 and 15). It comprises a cup-shaped housing 65 depending into the top wall 66 of the outer casing of the cartridge 11 with a peripheral shoulder 67 seating upon the exterior of the upper wall. It is internally threaded to telescopically receive an externally threaded, inverted cup-shaped housing 68 which housings 65 and 68 combine to form a valve chamber. The housing 65 is provided with a small gas orifice or aperture 69 in its base aligned with similar orifices or apertures in an outer valve disc 71 and a cupped member 72. The member 72 conformably receives a gas flow restriction disc 73 formed of a filter paper or material adapted to filter out any of the solid particles of the adsorbent as well as any foreign matter. This restriction disc 73 is maintained within the hollow of the cupped member 72 by means of an apertured inner valve disc 74 formed of a deformable metal or material having an upstanding boss 74<sup>a</sup> over which is placed a compression spring 75. One end of this spring 75 seats on the peripheral flange of the cupped member 72 and the other end against the base or bottom disc of a

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vertically movable valve member 76 to spring-bias this valve member to elevated, closed position.

The valve member 76 is provided with a valve stem or burner core 77 projecting through and above an aperture or orifice 78 in the upper housing 68, with the end of the stem or core 77 aligned with an opening in a flexible or resilient gas seal cap 79 of rubber or the like seating upon the peripheral shoulder 67 of the lower housing 65 of the valve unit. To seal the gas against escape from the interior of this housing assembly, an O-ring or toroidal sealing ring 81 is carried upon the upper face of the disc of the valve member 76 whereby when the latter is in its elevated position, the sealing ring 81 seats against the underside of the top wall of the upper housing 68 and seals the escape of gas through its aperture or orifice 78 and through the aperture or opening in the gas seal cap 79 from where it escapes through the bore or passageway 39 in the nozzle or gas flow control 31. This cap 79 being of rubber or resilient material, seals against the base or underside of the nozzle or gas flow control 31 when the parts are in assembled relation.

To accommodate this cap 79, the underside of the stationary section or part 19 and the removable section or part 21 of the head 14 is recessed to conformably receive this cap when the cartridge 11 is inserted into the frame 13. Embossments 82 on the base 16 of the frame are adapted to be received and retained in complementary recesses or detents in the base of the cartridge case. When the nozzle or gas flow control 31 is depressed by the projecting ends 29 of the operating levers 22, the valve stem 77 being of greater width than the diameter of the passage or bore 39, is engaged and depressed to thereby open the valve 76 and allow the gas entering the passage 39 to escape.

The flint 64 is carried in a recess or cavity 84 of a flint holder 85. The base of this holder is slotted laterally or transversely at 85<sup>a</sup> to receive a flint control 86 in the form of a cross having a horizontal arm 87 engaging against the underside of the flint 64 and a depending vertical arm 88 which is spring-biased to elevated position by a coil spring 89 whereby it exerts pressure against the underside of the flint and forces it against the spark wheel 63. The flint holder 85 is slidably mounted in transverse aligned slots in the fixed part 19 and within removable or detachable part 21 of the head 14 of the frame 13 (Figs. 11, 12, 15 and 16).

The outer end of the flint holder 85 is provided with lateral projections 90 and the inner end is reduced at 91 and provided with lateral projections 92. The projections 90 are adapted to be received in complementary notches 93 in the fixed part 19 of the head 14 and in similar disposed notches in a side wall of a cap 94 covering the spark wheel 63 and associated parts, whereby the cap 94 is locked in assembled position by the projections 90 in the notches 93. The cap is provided with an opening 94<sup>a</sup> for the flame of the burner. The flint holder may be withdrawn sufficiently either to remove the cap 94 or to allow access to the flint 64, but provision is made to prevent its complete withdrawal as shown in Fig. 16. This is accomplished by providing the adjacent walls of the fixed part 19 and removable part 21 with tracks 95 which stop short to provide stops or shoulders 96 against which the projections contact at the limit of withdrawal of the flint holder.

A flint control lock 97 in the form of an angular locking plate having an upstanding flange 98 at its outer end and side flanges 99 and 101, is slidably mounted in the tracks 95 formed by the transverse slots in the fixed and removable parts 19 and 21, respectively, of the head 14. The flange 101 is provided with an upstanding projection 102 providing a stop and limiting the movement of this locking plate to the length of the relatively short slot into which it projects and in which it moves (see Fig. 16), thereby preventing the complete withdrawal of the control lock 97.

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To permit the flint holder 85 to be withdrawn to the limit of its outward movement as in Figs. 5, 14 and 16, the horizontal arm 87 of the flint control 86 is depressed sufficiently to withdraw it from its slot 85<sup>a</sup>, whereupon applying inward pressure to the outer flange 98 of the lock 97 causes the latter to abut and force the holder 85 outwardly sufficient to permit the operator to grasp the outer end of this holder by the lateral projections 90 and withdraw it to the position shown in Figs. 5 and 16. Such inner movement of the control lock 97 moves it to a position over the upper edge of the horizontal arm 87 of the flint control 86 and retains this arm out of the slot 85<sup>a</sup> and depressed against the tension of the coil spring 89 (Figs. 11, 14 and 16), thereby permitting ready removal of the flint holder 85. Withdrawal of the flint holder 85 also releases the cap 94 so that the latter may be lifted for access to the spark wheel 63 and associated parts.

When the flint 64 has been replaced, the flint holder 85 may be quickly returned to its operative position by merely forcing it inwardly from the positions shown in Figs. 11 and 16 to the position shown in Fig. 12. In this movement, the flint holder 85 engages or abuts the flint control lock 97 and moves the latter from its position over the upper arm 87 of the flint control 86 (Fig. 11) to disengage this arm and permit it to be received and elevated into the slot 85<sup>a</sup> of the flint holder 85 by the spring 89 (Fig. 12). In this position the flint 64 is tensionally held against the spark wheel 63. A flint tube 103 receives the lower end of the coil spring 89 and the vertical leg 88 of the flint control 86.

From the above description and the disclosure in the drawings, it will be readily evident that the present invention comprehends a novel cigarette and cigar lighter of the pocket type employing butane or a liquefied petroleum gas which expands into a gas when released to the atmosphere. This fuel is stored within a novel pressure-type fuel storage receptacle or cartridge containing an adsorbent of solid particles and dispensed in a novel manner to enhance the operative life of the lighter before the cartridge or fuel storage unit requires replacement or re-filling. It further comprehends a novel lighter construction and a novel means and manner of constructing, mounting and assembling the component parts thereof in their operative position whereby the lighter may be quickly assembled or disassembled and the parts replaced when the occasion requires.

Having thus disclosed the invention, we claim:

1. In a cigarette and cigar lighter, a housing providing a base, side walls and head, a pressure-tight fuel tank containing a liquefied petroleum gas, a valve carried by said tank for controlling the discharge from the tank and provided with a valve stem projecting thereabove and a resilient cap through which the valve stem is adapted to project when the tank is mounted in the housing, said tank and its valve being mounted within said housing, a sparking wheel, a valve control mounted in said head vertically movable in a bore in said head and provided with a burner at its upper end and at its lower end adapted to engage the valve stem and control the opening of said valve, and actuating mechanism adapted to depress said valve control and stem to open the valve for the passage of gas from the tank, through the valve control to the burner, and to rotate the sparking wheel, said valve control and burner being disposed between said sparking wheel and said actuating mechanism.

2. In a cigarette and cigar lighter, a housing providing a base, side walls and head, a pressure-tight fuel tank containing an adsorbent and a liquefied petroleum gas, a valve carried by said tank for controlling the discharge from the tank said valve having a valve stem projecting thereabove and a resilient cap through which the valve stem is adapted to project when the tank is mounted in the housing, a sparking wheel, a valve control mounted upon and separate from said valve in a base of said head

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and provided with a burner at its upper end and at its lower end adapted to engage the valve stem and control the opening of said valve, and actuating mechanism adapted to depress said valve control to open the valve for the passage of gas from the tank, through the valve control to the burner, and to rotate the sparking wheel.

3. In a cigarette and cigar lighter, a pressure-tight fuel tank for a liquefied petroleum gas having a valve provided with a valve stem adapted to be depressed to open the valve and permit discharge of the gas, a frame for receiving said tank and provided with a sectional head projecting above said tank, the sections of said head being recessed, a sparking wheel, a valve control member and burner and operating mechanism all mounted for operation in said recessed head with said control member separate from but disposed above said valve when in operative position, said operating mechanism being connected to said sparking wheel and to said valve control member and burner for simultaneously rotating said sparking wheel and for depressing said valve control to depress the valve stem and open the valve.

4. In a cigarette and cigar lighter, a pressure-tight fuel receptacle for a liquefied petroleum gas which expands into a gas when released to the atmosphere, an adsorbent in said receptacle for adsorbing and storing the gas, a valve mounted in said receptacle and provided with a valve stem projecting thereabove for controlling passage of the gas, a housing for said receptacle and valve, a sparking wheel, a flint maintained in contact with the wheel, a valve control and burner slidably mounted in the housing above said valve stem and adapted to engage said stem and open the valve when depressed, a depressible cap on said housing, an operating lever connecting the cap to the valve control and actuated by depressing the cap for depressing the valve control to open the valve for the discharge of gas from the receptacle through the valve and valve control to the burner, and means associated with the cap for simultaneously rotating said sparking wheel against the flint to project sparks and ignite the gas at the burner.

5. In a cigarette and cigar lighter, a pressure-tight fuel receptacle for a liquefied petroleum gas, a valve carried by said receptacle having an upwardly projecting valve stem for controlling passage of the gas, a housing for said receptacle and valve, a sparking wheel, a flint maintained in contact with the wheel, a valve control and burner mounted in the housing and adapted to seat upon and depress the valve stem to open the valve when depressed, a manually-actuated member on said housing for operating the lighter by simultaneously rotating the sparking wheel against the flint and opening the valve, a lever connected to said member and provided with a camming surface for engaging and depressing the valve control to open the valve for the passage of gas from said receptacle, a member connected at one end to and adapted to rotate said sparking wheel, and means on said lever for retracting the other end of said member to thereby rotate the sparking wheel when said actuating member is operated.

6. In a cigarette and cigar lighter, a pressure-tight fuel receptacle for a liquefied petroleum gas, a valve for controlling passage of the gas, a housing for said receptacle and valve, a sparking wheel and flint, a valve control and burner carried by the housing and adapted to open the valve when depressed, and an operating cap pivotally mounted on the top of the housing and provided with camming means connected to the sparking wheel and to the valve control for simultaneously rotating the sparking wheel over the flint and depressing the valve control to open the valve and allow the escape of the gas through the valve from said storage receptacle, said camming means including a lever fixed to the cap at one end and with its other end carrying the valve control, said fixed end having a cam surface, and a link actuated by the cam surface for rotating the sparking wheel.

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7. In a cigarette and cigar lighter, a pressure-tight fuel receptacle for a liquefied petroleum gas such as butane which expands into a gas when released to the atmosphere, a valve for controlling passage of the gas, a housing for said receptacle and valve, a sparking wheel and flint held in engagement with the wheel, a valve control and burner carried by the housing and adapted to open the valve when depressed, and mechanism carried by said housing for simultaneously rotating the sparking wheel and operating the valve control to open the valve and allow the escape of gas from the storage receptacle and through the valve control to the burner, said mechanism including an actuating member adapted to be depressed by the operator, a lever arm having one end engaged by said member and its other end engaging the valve control for depressing the latter to open the valve, a cam surface on said arm, and a connecting rod having one end connected to the sparking wheel and its other end moved by said cam surface upon depressing the actuating member to rotate said sparking wheel and project a spark to ignite the gas at the burner.

8. In a cigarette and cigar lighter, a pressure-tight fuel receptacle for a liquefied petroleum gas, a valve for controlling passage of the gas, a housing for said receptacle and valve, a sparking wheel, a flint maintained in contact with the wheel, a valve control and burner mounted in the housing and adapted to open the valve when depressed, a manually-actuated member on said housing for operating the lighter by simultaneously rotating the sparking wheel against the flint and opening the valve, a lever connected to said member and provided with camming surfaces one of which engages and depresses the valve control to open the valve for the passage of gas from said receptacle, a shaft on which the sparking wheel is rotatably mounted, ratchet teeth on the wheel, a pawl driver and a drive pawl connected together and mounted for oscillation on said shaft adjacent the wheel, with said drive pawl when rotated in one direction engaging a tooth on the wheel and rotating the latter through a predetermined arc of travel, a rod connected at one end to the pawl driver and at its other end carrying a roller tensionally maintained in contact with the other camming surface on said lever, whereby operation of said member also causes rotation in one direction of the pawl driver, pawl and sparking wheel through a predetermined arc to project sparks from the flint to the gas burner to ignite the gas thereat, and tension means for returning said rod, pawl driver and drive pawl to their original position when said manually-actuated member is released.

9. In a cigarette and cigar lighter, a supporting frame, a sparking wheel rotatably mounted upon the frame, a flint holder slidably mounted in the frame for lateral movement and access to the flint and provided with a recess for the flint and a slot through the base and opening into the recess, a flint control having an arm slidably received in the slot to lock the holder in operative position and adapted to engage the underside of the flint, means for tensionally maintaining said arm in engagement with the flint, and a flint control locking member slidably mounted in the frame in alignment with the flint holder and adapted to engage and maintain the flint control depressed and out of its slot in the flint holder to permit the latter to be withdrawn for access to the flint.

10. In a cigarette and cigar lighter, a pressure-tight fuel receptacle for a liquefied petroleum gas, and a valve unit for controlling passage of the gas comprising an upright and an inverted cup-shaped housing telescopically arranged to provide a valve chamber having an inlet port and a discharge port for said chamber, a valve member having a stem received in the discharge port, a valve control mounted above the valve member and its stem and provided with a longitudinal bore therethrough for the passage of gas when the valve member is opened and at its lower end adapted to engage and depress the valve stem to control the opening of said valve member, ten-



sion means for spring-biasing and elevating the valve member to closed position, a gas flow restrictor for filtering the gas flowing through said ports and a resilient sealing cap encompassing the valve stem and enclosing the upper end of the inverted cup shaped housing.

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FOREIGN PATENTS

Switzerland -----	Sept. 30, 1945
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