Jan. 10, 1928.

1,655,893

E. O. DAEHN

LIGHTER FOR GASOLINE LAMPS

Filed April 14, 1927

Fig. 1

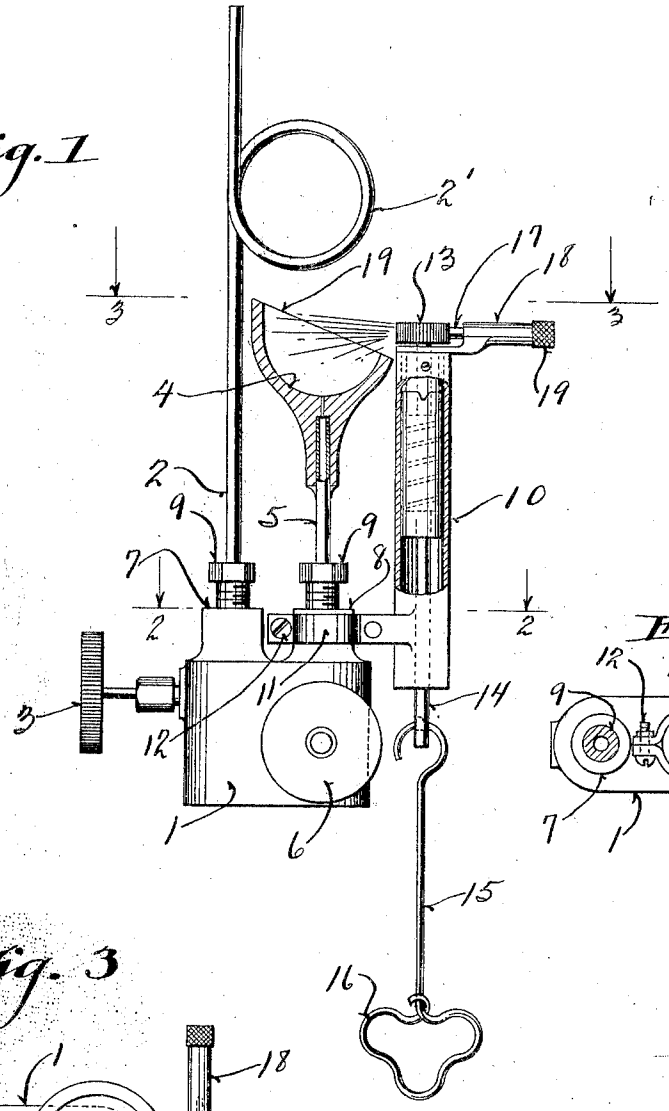


Fig. 2

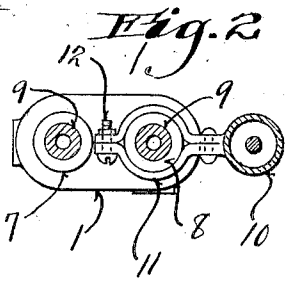
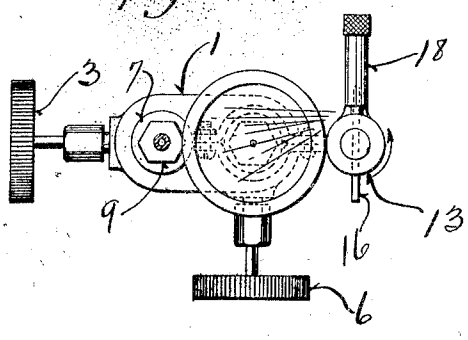


Fig. 3



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Patented Jan. 10, 1928. 1,655,893

UNITED STATES PATENT OFFICE.

EUGENE O. DAEHN, OF RIPON, WISCONSIN.

LIGHTER FOR GASOLINE LAMPS.

Application filed April 14, 1927. Serial No. 183,705.

This invention relates to a lighter for gasoline lamps.

Objects of this invention are to provide a novel form of gasoline lamp in which provision is made for igniting the gasoline in the starting or heating cup to initiate the operation of the lamp.

Further objects are to provide a device which is self-contained, which may be readily applied to existing types of lamps, and which is of simple and reliable construction.

An embodiment of the invention is shown in the accompanying drawings in which:

Figure 1 is a vertical view of a portion of the lamp with parts in section;

Figure 2 is a sectional view on the line 2—2 of Figure 1;

Figure 3 is a sectional view on the line 3—3 of Figure 1.

Referring to the drawings, it will be seen that the lamp is provided with a valve head 1 which is adapted to be screwed upon the gasoline reservoir in the usual manner. This valve head is provided with a manually controlled valve which controls the supply of gasoline to the generator pipe or tube 2. This valve is controlled by the hand wheel 3. The head is also provided with a valve which controls the supply of gasoline to the starter or heater cup 4, such heater cup being carried by an upright pipe 5. This latter valve is controlled by means of the hand wheel 6. It is to be noted that the head 1 is provided with two upstanding portions 7 and 8 which receive the pipes 2 and 5, such pipes being clamped in place by means of the glands 9. The generator pipe is as usual provided with a looped portion or coil 2′ and this coil is located above the starter cup 4.

The attachment consists of a tubular standard 10 provided with clamping jaws 11 adapted to surround the hub or projecting portion 8, as shown in Figure 1, and held in clamped relation thereto by means of the bolt 12 which draws the ears of the arms 11 towards each other, as shown in Figure 2. The standard 10 houses mechanism for imparting a quick rotary motion to the abrading wheel 13 in a manner similar to that set forth in Patent No. 1,104,092 for sparking igniter, issued July 21, 1914, to M. E. Winans.

This mechanism is operated by means of a central downwardly projecting stem 14 which in turn may be operated by means of the link or rotary member 15 provided with a hand grip 16. The specific form of this mechanism forms no portion of this invention and need not therefore be described in detail. The abrading wheel cooperates with a pyrophoric spring pressed plug 17 held in a suitable tubular member 18 and adjusted by means of the knurled end nut 19. The details of this construction of this portion of the apparatus may be identically like that disclosed in the patent noted, and forms no portion of this invention.

The heating cup 4 is provided with a slanting upper edge and it is to be noted particularly that this upper edge 19 rises rearwardly above the plane of the abrading wheel and plug 17 and slopes downwardly at its forward portion below such abrading wheel, so that the cup presents an open face having a slanting top so that the sparks from the plug and abrading wheel will be projected into the cup and will drop into the gasoline therein contained.

In using the device, the hand wheel 6 is rotated slightly to open the valve for supplying gasoline to the heating cup or starting cup 4, and thereafter the member 16 is given a partial rotary motion. This causes a quick rotary motion to be imparted to the abrading wheel 13 and throws a shower of sparks into the starting cup, thus quickly igniting the gasoline. The gasoline, of course, heats the looped portion 2′ of the generator tube and thus gasoline vapor is quickly produced.

It is to be noted that the device is self-contained and does not require the use of matches or other means for initiating the operation of the apparatus. Thus, it is possible to completely house the lamp parts, so that they may be protected from wind currents and thus the lamp may be started outdoors under the most adverse weather conditions.

It will be seen further that the device is very simple and eminently practical.

Although the sparking plug has been shown as set at a particular angle with reference to the other portions of the apparatus, it is to be distinctly understood that this sparking plug may be positioned at any point around the device so as to insure the correct throwing of the sparks into the tilted top starting cup. This construction

may, therefore, be modified so long as the cup itself actually receives the spark and insures the ignition of the gasoline.

It is to be noted particularly from Figure 3 that the preferred position of the sparking plug has been shown, Figure 1 having the sparking plug rocked therearound for the sake of clearness.

Although the invention has been described in considerable detail, such description is intended as illustrative rather than limiting as the invention may be variously embodied and as the scope of such invention is to be determined as claimed.

I claim:

In a gasoline lamp, the combination of a valve head provided with a pair of valves, a generator tube supplied from one of said valves and having a looped portion, a starting cup located below said looped portion and supplied from the other of said valves and supported from said valve head, an igniting attachment clamped to said valve head and having an abrading wheel adjacent its upper end and a cooperating pyrophoric plug adapted to throw a shower of sparks into said starting cup, said starting cup having a slanting upper edge with the rear portion of the cup remote from the abrading wheel positioned above the plane of the abrading wheel and with the portion adjacent the abrading wheel positioned below the plane of such wheel, and means for rotating said abrading wheel.

In testimony that I claim the foregoing I have hereunto set my hand at Ripon, in the county of Fond du Lac and State of Wisconsin.

EUGENE O. DAEHN.