A. A. CLARK.

MEANS FOR IGNITING AND CONTROLLING VEHICLE LAMPS.

APPLICATION FILED APR. 24, 1908.

933,694. Patented Sept. 7, 1909.

Fig. 1.

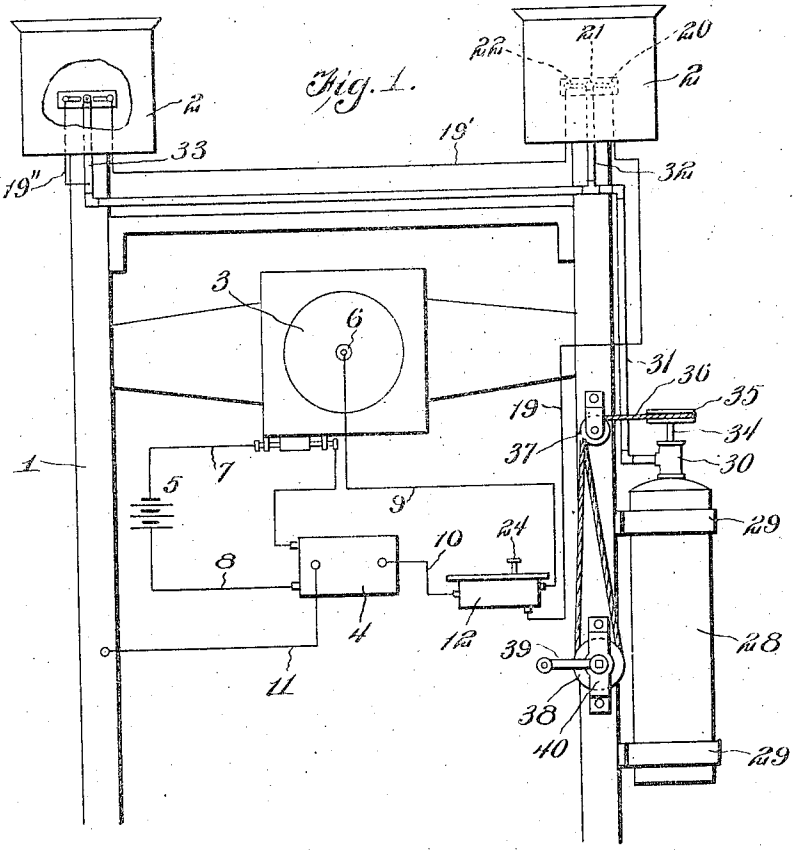
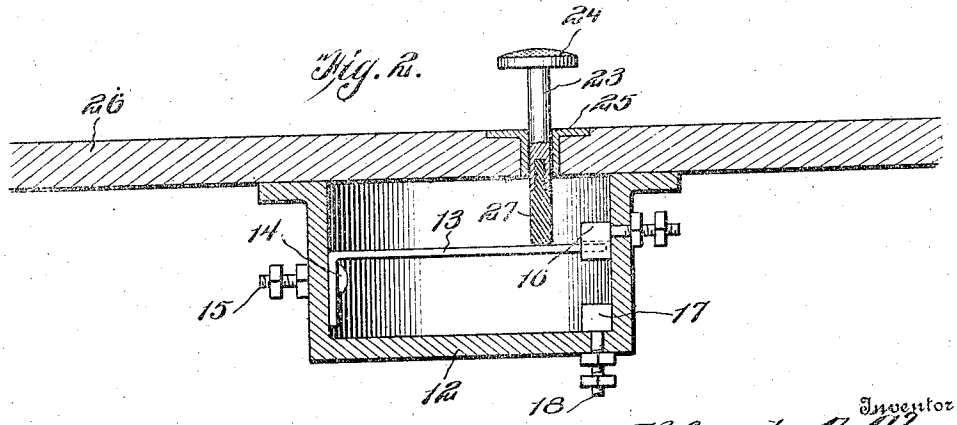


Fig. 2.



Witnesses

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MEANS FOR IGNITING AND CONTROLLING VEHICLE-LAMPS.

933,694. Specification of Letters Patent. Patented Sept. 7, 1909.

Application filed April 24, 1908. Serial No. 429,082.

To all whom it may concern:

Be it known that I, ALFRED A. CLARK, a citizen of the United States, residing at Baltimore city, and State of Maryland, have invented new and useful Improvements in Means for Igniting and Controlling Vehicle-Lamps, of which the following is a specification.

This invention relates to means for igniting and controlling vehicle lamps, the object of the invention being to provide a simple inexpensive means for igniting and controlling the burners of the lamps carried by motor-driven vehicles such as automobiles and the like, the device comprising means for diverting a portion of the secondary current of the ignition apparatus of the internal combustion motor for causing sparks adjacent to the burner; also means for controlling the gas tank, generator, or any other gas apparatus and connections, whereby gas may be conducted to the burners by means under the control of the operator of the vehicle without alighting therefrom.

With the above and other objects in view, the nature of which will more fully appear as the description proceeds, the invention consists in the novel construction, combination and arrangement of parts as hereinafter more fully described, illustrated and claimed.

In the accompanying drawings:—Figure 1 is a diagrammatic plan view of the frame of a motor vehicle, showing the device of this invention applied thereto. Fig. 2 is an enlarged sectional view of the switch.

For the purpose of illustrating the application of the present invention to an automobile, 1 designates the frame of the automobile and 2 the usual head lamps thereof while 3 designates the engine by means of which the vehicle is driven.

The usual jump spark ignition apparatus comprises a spark coil 4 and battery 5 and a spark plug 6 together with wires placing said parts in circuit, 7 and 8 designating the primary wires and circuit, 9 and 10 the secondary wires and circuit and 11 the ground wire.

In carrying out the present invention, I employ a switch shown, for example, as in Fig. 2 and which comprises a switch box 12 in which there is arranged a spring 13 having one end thereof secured to one side of the box and electrically associated with a spark coil terminal 14 the shank 15 of which extends outside of the box and is adapted to receive one of the secondary wires 10 from the spark coil 4. At its opposite end the spring 13 normally lies in contact with a spark plug terminal 16 to which the secondary wire 9 leading to the spark plug 6 is connected as shown in Fig. 1. The terminal 16 preferably consists of a metal block having one side thereof recessed to hold the free end of the spring 13 as indicated by dotted lines in Fig. 2. In the path of movement of the free end of the spring 13 there is arranged another metal block 17 which constitutes a lamp terminal, being provided with a threaded shank 18 to receive a wire 19 which extends to one of the lamps and connects to one of the spark points 20 adjacent to the burner 21 of said lamp. Opposite the spark point 20 is another spark point 22 from which the wire 19′ extends to another lamp where the arrangement just described is duplicated, a wire 19″ leading from the final lamp, and grounded to a portion of the frame or to the gas pipe or which may be wired to terminal 11.

The spring 13 is operated by means of a plunger 23 provided with an enlarged operating head 24 and mounted to slide through a metal guide base 25 secured to the floor of the vehicle designated at 26. The plunger 23 comprises an inner insulating section 27 of material having no electrical conductivity which insulating section bears against the spring 13 and operates when the plunger is pushed inward to move the free end of said spring from the terminal 16 to the terminal 17 thus diverting the current from the engine spark plug to the lamp spark points, whereby sparks are produced in proximity to the gas burner effecting the ignition of the gas. In order to control the entrance of the gas to the burners without requiring the driver of the vehicle to dismount, I provide a gas tank 28 or generator or other gas apparatus which is secured by straps 29 or other suitable means in any convenient manner to the vehicle body or frame, the tank or generator being provided with a discharge nozzle 30 from which the gas pipe or tubing 31 leads to the lamps, said pipe or tubing being shown as provided with branches or extensions 32 and 33 leading to the lamps. The flow of gas from the tank or generator 28 is controlled by means of a valve mounted in a nozzle 30 or other suitable contrivance which may be used by a gas producer and having mounted on the

stem 34 thereof an operating wheel or lever 35 from which a band or belt 35 extends around one or more guide pulleys 37 to a band-operating device which is shown for convenience as consisting of a band-wheel 38 operated by means of a hand crank 39, said wheel being journaled in a suitable drum 40 connected to the frame or body of the vehicle so as to place the operating handle within convenient reach of the operator.

In order to light the lamps, the operator moves the handle 39 so as to open the valve of the gas tank or generator thereby permitting gas to flow through the pipe 31 and branches 32 and 33 of the lamp burners. The operator then presses the plunger 23 inward or operates other means which may be used to divert the secondary current of the ignition apparatus from the engine to the spark points adjacent to the lamps. This requires merely a momentary displacement of the spring 13 and as soon as the plunger 23 is relieved of pressure, the spring 13 returns immediately to its normal position in which it lies in contact with the terminal 16 which is in the engine spark plug circuit.

I claim:—

Gas control apparatus for automobile lamps comprising, in combination with a gas lamp burner, a gas tank, a tube leading from the tank to the burner, a control valve on the tank, an operating shaft provided with a handle located within reach of the driver in his seat on the machine, and an operating connection between said shaft and the control valve on the gas tank.

In testimony whereof I affix my signature in presence of two witnesses.

ALFRED A. CLARK.

Witnesses:
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