July 2, 1929. A. DANIEL 1,719,394

TRAFFIC SIGNAL

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Fig. 1.

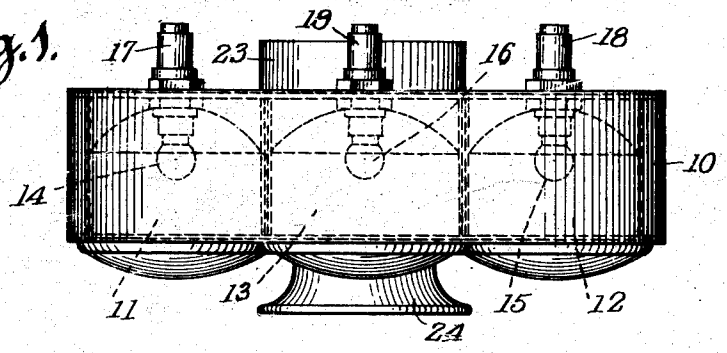


Fig. 2.

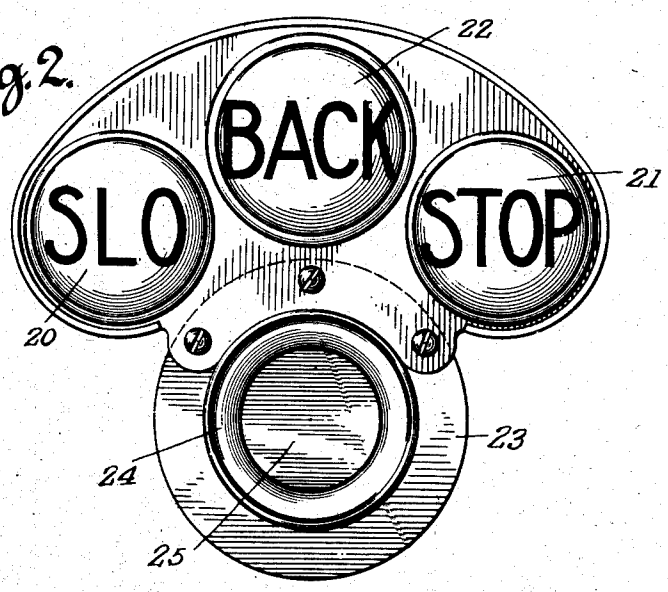
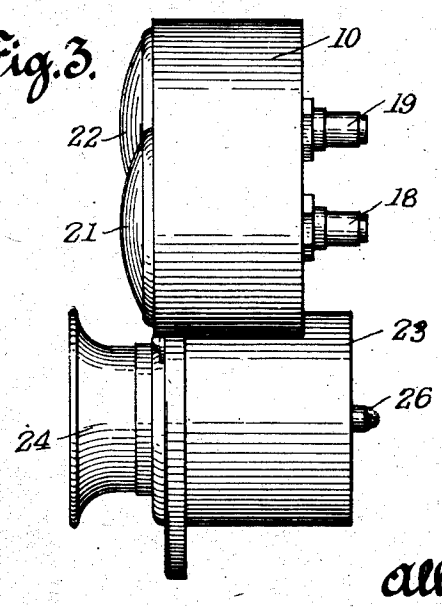


Fig. 3.



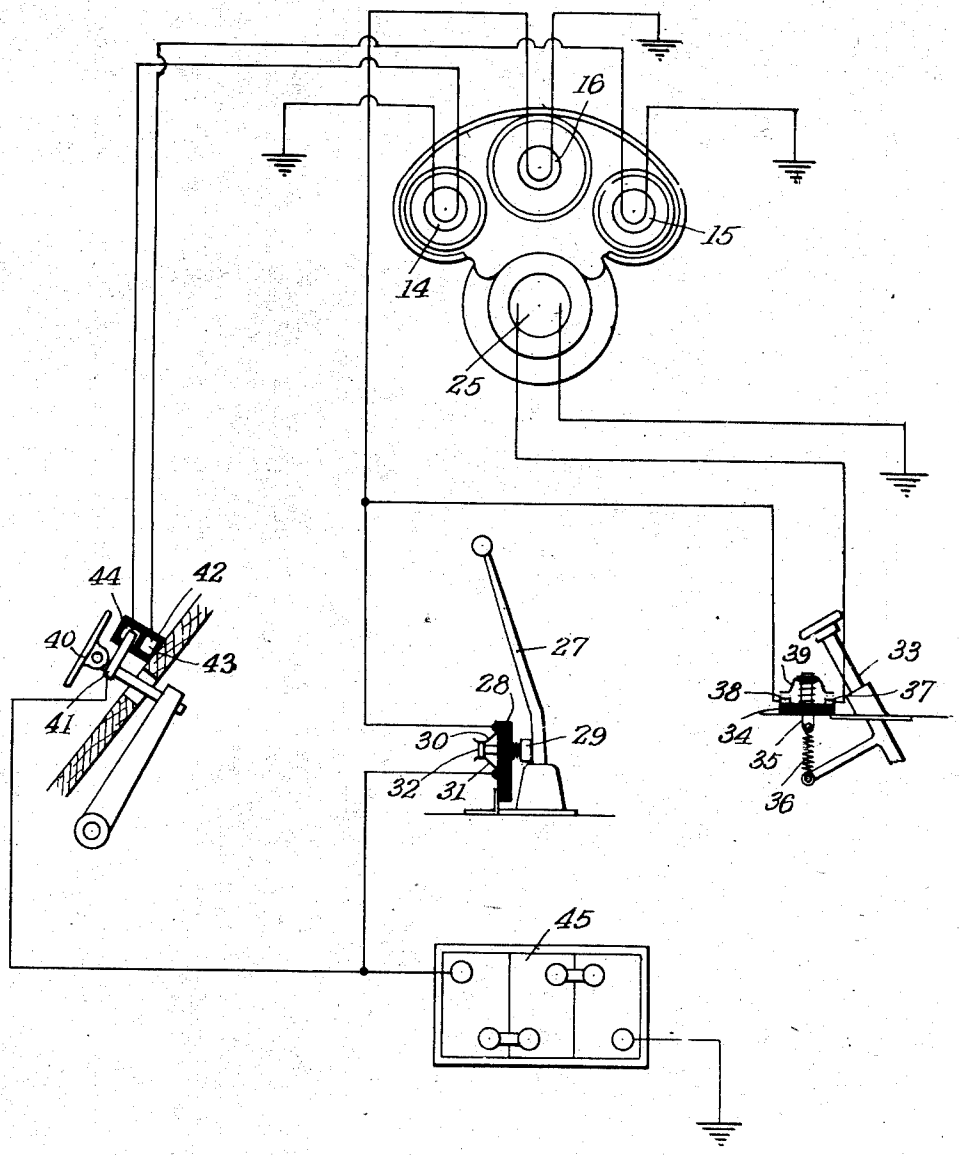
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Fig. 4.



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UNITED STATES PATENT OFFICE.

ALBERT DANIEL, OF NEW ROCHELLE, NEW YORK.

TRAFFIC SIGNAL.

Application filed April 18, 1925. Serial No. 24,029.

This invention relates to improvemets in a traffic signal and has for its especial object the providing of a device of attractive appearance, economical construction and convenience of attachment to a vehicle together with means for showing a reduction in speed signal light, a stop signal light, a backing signal light and the automatic production of an audible signal that the vehicle is going to move in a backward direction. It is highly desirable that this audible signal should be produced automatically, to the end that the driver of the vehicle should have his hands and feet free for the operation of the steering wheel and other mechanical parts.

I am aware of the patents which have issued upon various types of traffic signals and am also familiar with the devices which have been placed upon the market, but I do not know of any structure which contains the features hereinafter set forth and which constitute the basis for my claims.

My device is of especial value in heavy traffic of any kind and particularly where frequent stops are made or under circumstances where for any reason the vehicle has to be backed.

The construction is so arranged that when the foot brake is first applied to reduce the speed of the moving vehicle, the signal "Slo" is illuminated and becomes visible and as the foot brake is further applied and the "Stop" signal shows the "Slo" signal becomes dark.

If the car is to be backed, as it is put in reverse, the "Back" signal is illuminated by a main switch, and as the fuel is fed to the engine to move the car in a backward direction the audible signal is operated so that attention is drawn to the prospective motion by sound as well as sight.

Other advantages and the details of construction appear in the following specification and the accompanying drawings in which:—

Fig. 1 is a top view.

Fig. 2 is a front view.

Fig. 3 is a side view.

Fig. 4 is a wiring diagram.

In the said drawings the casing 10 is shown divided into the three compartments 11, 12 and 13 respectively for the "Slo", "Stop" and "Back" signals, the lamps therein of the usual type being designated respectively by the numerals 14, 15 and 16, the terminals being numbered 17, 18 and 19 and the lenses indicated by 20, 21 and 22.

In the audible signal 23 is the horn body, 24 is the bell or flare, 25 is the diaphragm, and 26 is the terminal on the rear of the horn body 23.

As shown in Fig. 4, if the shift lever 27 is thrown into reverse, the electric circuit connecting the Back light 16 is closed through the switch plunger 29, and the contacts 30 and 31, and the switch bridge 32 mounted on the switch block 28, thereby illuminating said light so that the Back signal becomes visible. As pressure is applied to the accelerator pedal 33 and fuel is fed to the motor, the electric circuit to the audible signal having the diaphragm 25 is closed through the switch plunger 35, the contacts 37 and 38, and the bridge 39 mounted on the switch block 34, thereby causing the emission of an audible signal indicating the vehicle will move in a backward direction.

The reference numeral 36 indicates a spring of the usual type which operates to return the pedal 33 to its normal position when the pressure thereon is removed.

The described switches are above the floor of the car and so protected from the mud and grit present on the underside of the car.

To show a slowing down or stop signal the foot brake pedal 40 is provided with a switch arm 41, a switch block 42, and the contacts 43 and 44.

As pressure is first applied to the pedal 40, and the speed of the vehicle is reduced, the electric circuit to the the Slo signal 14 is closed through the switch arm 41 and the contact 44. As further braking pressure is applied, the circuit to the Slo signal is broken and the circuit to the Stop signal light 15 is closed causing the latter signal to become visible.

The usual type of battery is indicated at 45.

It will be seen from the foregoing that in a compact and efficient form, this device is capable of indicating visibly the prospective slowing down, stopping and rearward movement of a vehicle, together with a audible automatic signal as the backwar movement begins.

I claim:—

1. In an automobile having a prime mover rotating in one direction and a reversing mechanism control, a power controller for said prime mover, a visible backing signal, an audible signal device, means for operating the visible backing signal when the reverse mechanism control is in the operative position, and means cooperating with the reverse mechanism control for operating the audible signal only when the reverse mechanism control is in the operative position and the power control means is actuated.

2. In an automobile including a prime mover, a reversing mechanism control and a power controller for the prime mover, a visible backing signal, an audible signal device, means for operating the visible backing signal when the reverse mechanism control is in the operative position, and means cooperating with the reverse mechanism control for operating the audible signal only when the reverse mechanism control is in the operative position and the power control means is actuated.

3. The combination with an audible signal device for an automobile including a prime mover, a reversing mechanism control and a power controller for the prime mover, of means cooperating with the reverse mechanism control for operating said audible signal device only when the reverse mechanism control is in the operative position and the power control means is actuated.

4. The combination with an automobile including an internal combustion engine, a transmission and shift lever cooperating therewith and operable to positions to connect the engine for forward and backward driving of the automobile, and an accelerator fuel feeding device for the engine, of a signal device, a switch closed by the shift lever when in the backward position, a switch closed by the operation of the accelerator, and an electric circuit for operating said signal device only when both of said switches are closed.

5. The combination with an automobile including an internal combustion engine, a transmission and shift lever cooperating therewith and operable to positions to connect the engine for forward and backward driving of the automobile, and an accelerator fuel feeding device for the engine, of a switch closed by said shift lever when in backward position, a visible backing signal operated when said switch is closed, a switch closed by the operation of the accelerator, and an audible signal device operable after closing the first named switch upon actuating the accelerator to close the second named switch, and feed fuel to the engine to drive the automobile rearwardly.

ALBERT DANIEL.