A. W. JOHNSON.

AUTOMOBILE SIGNALING DEVICE.

APPLICATION FILED FEB. 8, 1916.

1,223,981.

Patented Apr. 24, 1917.

2 SHEETS—SHEET 1.

Fig. 1.

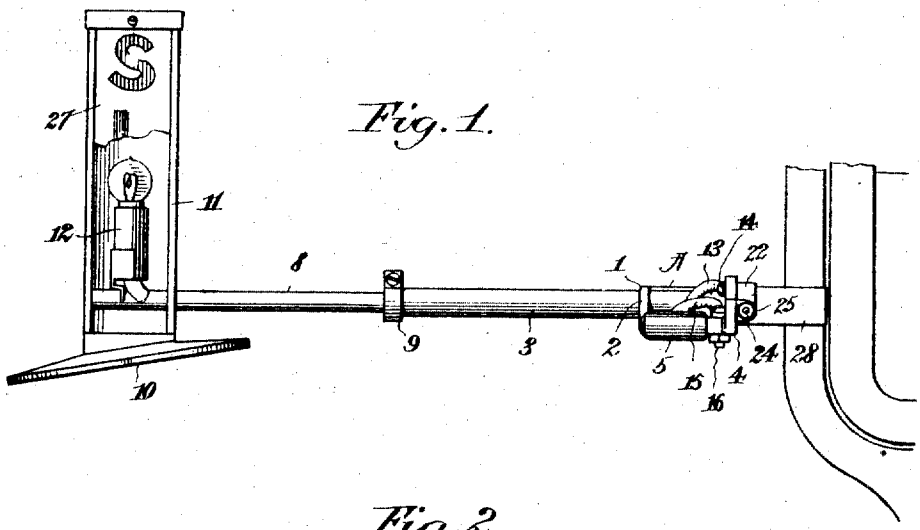


Fig. 2.

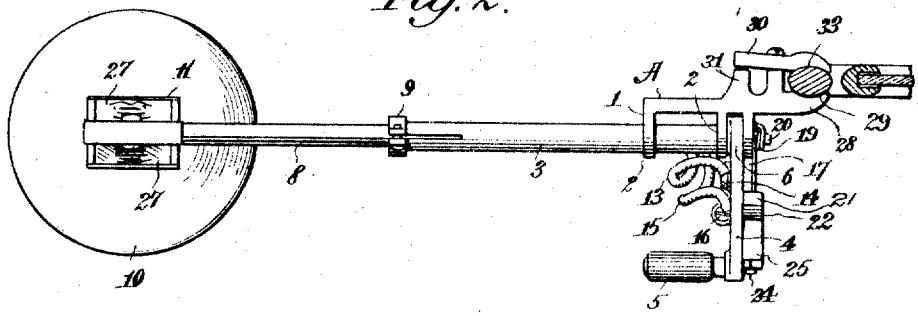


Fig. 3.

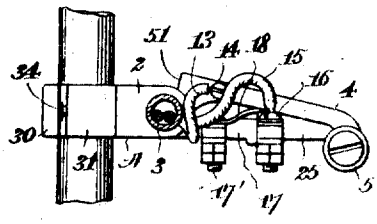
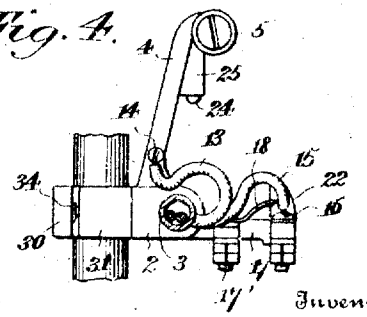


Fig. 4.



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2 SHEETS—SHEET 2.

Fig. 5.

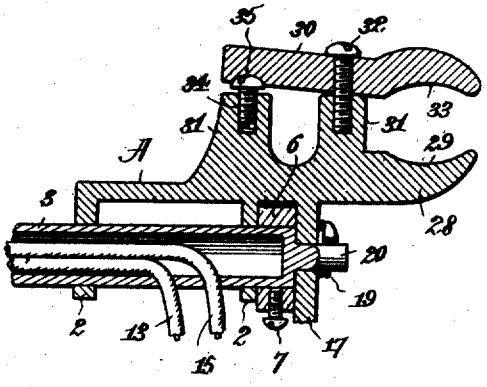


Fig. 6.

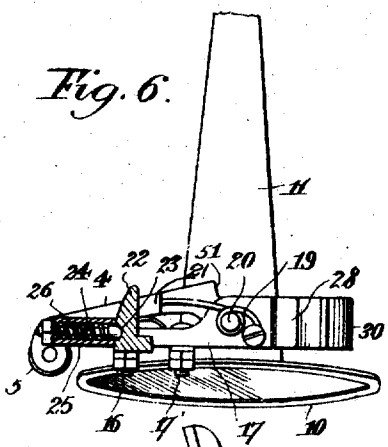


Fig. 7.

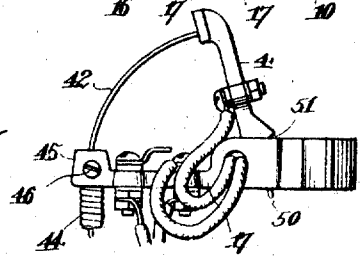
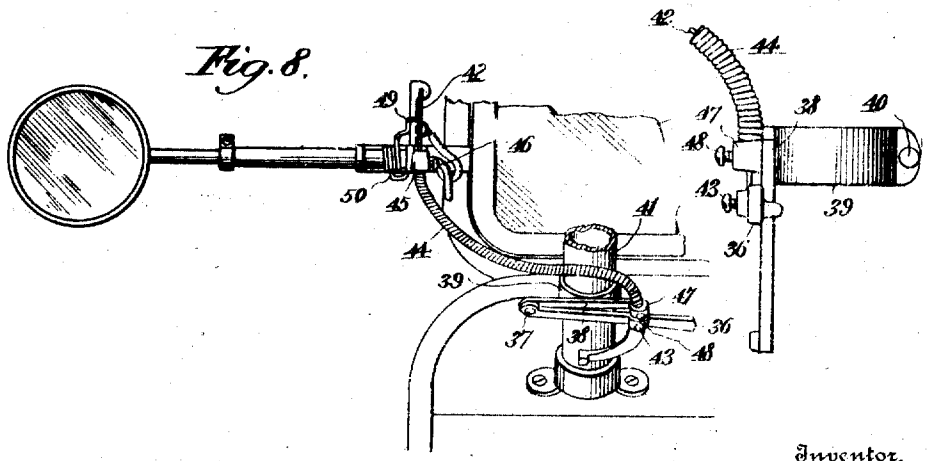


Fig. 8.



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UNITED STATES PATENT OFFICE.

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AUTOMOBILE SIGNALING DEVICE.

1,223,981. Specification of Letters Patent. Patented Apr. 24, 1917.

Application filed February 8, 1916. Serial No. 76,978.

To all whom it may concern:

Be it known that I, AXEL W. JOHNSON, a citizen of the United States, residing at Portland, in the county of Multnomah and State of Oregon, have invented new and useful Improvements in Automobile Signaling Devices, of which the following is a specification.

This invention relates to automobile signaling devices, the broad object of the invention being to provide a signaling device embodying in connection with a supporting member, a reflector and a signaling face or member having a fixed relation to the reflector, combined with means for shifting the signal to a visible or signaling position, at the same time illuminating the signal so that the information imparted thereby is readily discernible to persons in the vicinity of the vehicle upon which the signaling device is mounted.

A further object of the invention is to provide operating means of such a character that the signal will be illuminated only when moved to its operative position, the illumination being cut off by the return movement of the signal to its inoperative position.

With the above and other objects in view, the invention consists in the novel construction, combination and arrangement of parts, as herein described, illustrated and claimed.

In the accompanying drawings:—

Figure 1 is a rear elevation showing the signaling device applied to an automobile windshield, with the circuit closer shut.

Fig. 2 is a plan view of the signaling device partly in section showing the circuit closer shut.

Fig. 3 is a vertical cross section through the rock shaft looking toward the circuit closer which is shown open.

Fig. 4 is a similar view with the circuit closer shut.

Fig. 5 is a fragmentary horizontal section showing the clamping means.

Fig. 6 is an end elevation partly in section showing the catch for holding the signal in a visible position.

Fig. 7 is an end elevation partly in section showing modified operating and circuit closing means with the circuit closer open.

Fig. 8 is a rear elevation of the same partly in section shown applied together with the operating lever and connections.

In carrying out the present invention, and in the preferred embodiment thereof, I employ a supporting member designated generally at A, the main body thereof indicated at 1 being provided with one or more bearings 2 in which is journaled one end of a rock shaft 3. This rock shaft has fast thereon a combined operating arm and circuit closing arm 4 shown in one embodiment of the invention as provided with a handle 5, the arm 4 embodying a hub or collar 6 which is fixed in relation to the shaft 3 by means of a set screw 7 the latter enabling the arm to be adjusted around the shaft for the purpose of adjusting the angle of the reflector or mirror hereinafter described.

The shaft 3 is preferably of tubular and sectional telescopic construction, the outer section 8 thereof being of sufficiently smaller diameter to enable it to slide within the main section 4 and the two sections being held in fixed relation to each other by the clamping means shown at 9. Fast on the outer extremity of the shaft as a whole is a shield adapted to support a reflector or mirror 10 and a signaling arm 11. For the sake of economy in manufacture, the arm 11 is fastened at its base directly to the back of the reflector 10, the latter acting as a shield to conceal the arm 11 when the reflector is in use. Said arm is of hollow formation and made progressively increasing in cross sectional area from its free end toward the reflector where it is of sufficient internal dimensions to contain an electric lamp 12 the wires to which lead through the tubular shaft 3. One of these wires 13 connects with a binding post 14 on the arm 4. The other wire 15 is connected to a binding post 16 on an extension 17 of the supporting member A. On the same extension 17 is another binding post 17′ having a projecting spring contact 18 with which the arm 4 is adapted to contact when moved downwardly thereby closing the circuit in which the electric lamp 12 is included. Wires from a battery or other source of electrical energy (not shown) are intended to be connected to the binding posts 16 and 18 so as to furnish the current for the lamp 12. The arm 4 is held normally raised by means of a spring 19 one

terminal of which is coiled around and fastened to a reduced end 20 of the shaft 3 while the other terminal of the spring is connected to the arm 3 by means of a lug 21 on said arm.

On the extension 17 of the supporting member there is a beveled lip 22 formed in its beveled face with a depression or socket 23 which is adapted to be engaged by a spring pressed catch 24 shown in the form of a plunger mounted for longitudinal movement in a tubular guide 25 carried by the arm 4 and containing the spring 26 by which the plunger catch 24 is pressed yieldingly into engagement with the socket 23 when the arm is moved to its lower limit. This has the effect of locking the circuit closer shut and holding the reflector 10 facing downwardly with the signal arm 11 extending upwardly so as to display the front and rear faces thereof both of which are equipped with panels 27 of glass or like material having words or symbols of caution represented thereon as indicated in the drawings. When the arm 4 is pushed upwardly, the catch 24 is disengaged from the socket 23 and the reflector is returned to its useful position while the signal arm is moved to a substantially horizontal position where it will not be visible as a signal. Simultaneously the circuit closer is opened thereby cutting out the lamp 12. The spring 19 serves to sustain the parts in the position last referred to. By reason of the fact that the shaft 3 is of sectional and telescopic construction, it may be extended or contracted in length and by means of the clamping means 9, the angle of the reflector may be adjusted to suit the operator of the machine in order to enable him to observe vehicles and pedestrians approaching from the rear.

The main body 1 of the supporting member A is extended to form a clamping jaw 28 with a concaved face 29 to engage one side of the frame of a windshield. An adjustable jaw 30 is supported by lugs 31 on the jaw 29 and is secured to one of said lugs by means of a clamping screw 32 or its equivalent, the adjustable jaw being also provided with a concaved face 33 to engage the opposite side of the frame of the windshield. This enables the supporting member A to be firmly clamped on the windshield frame to support the remainder of the device above described. One of the lugs 31 has a spacing screw 34 threaded therein, the head of which is received in a socket 35 in the inner end of the adjustable jaw 30 thereby enabling the angle of the adjustable jaw to be adjusted to suit windshield frames of different sizes and to prevent the jaws from coming in contact with the windshield glass and fracturing the same.

As the operator of an automobile approaches the point where he intends to slow down or stop or turn, he moves the arm 4 downwardly so as to dispose the signal in a substantially vertical position. Simultaneously therewith the arm 4 closes the circuit and energizes the electric lamp 12. After a turn is made or the car is again proceeding at the desired speed or in accordance with the traffic regulations, the arm 4 is moved in the opposite direction by the operator thereby opening the circuit closer, deënergizing the lamp 12 and restoring the mirror or reflector 10 to its useful position.

In some cases it may be desirable to operate the signaling device from the steering column of an automobile in which case an operating lever 36 is employed, the same being pivotally mounted at 37 on a support 38 provided with a clamping band 39 and clamping screw 40 enabling said band to be tightly secured around the steering column 41 as shown. A flexible operating element 42 such as a wire is fastened at one end to the lever 36 by means of a set screw 43 and is fastened at its opposite end to the arm 3. The flexible operating element 42 passes through a flexible guide 44 shown as consisting of coiled wire, one end of which is fastened within an eye 45 on the extension 17 above referred to by means of a set screw 46 and the other end of which is fastened in an eye 47 on the support 38 by means of a set screw 48. In one case the driver operates the signal by means of the handle 5 on the arm 4 and in the other case he operates the signal by means of the lever 36 on the steering column. Otherwise the operation is identical. However, under the arrangement shown in Figs. 7 and 8, the inner end of the tubular shaft 3 is left open and the wires leading to the electric lamp 12 are inserted through the end of the shaft. In such case the spring 19 will have one end connected to the arm 40 as shown at 49, said spring being coiled around the larger section of the telescopic shaft and having its other end in engagement with the supporting member A as shown at 50. Under either construction, the arm 4 is provided with a shoulder 51 which strikes against the supporting member A to limit the upward movement of said arm for the purpose of holding the mirror or reflector at the proper angle on the return movement thereof to its useful position.

Having thus described my invention, I claim:—

In a traffic signal for automobiles, the combination of a supporting member, means for securing said supporting member to a wind-shield, a substantially horizontal rock shaft journaled on said supporting member, a signal arm fixedly related to said rock shaft and extending at a right angle thereto, a signal arm shield fixedly

attached to said arm and adapted to support a reflector, and a manually controlled arm on said rock shaft for turning the latter, said signal arm and shield being so related to the rock shaft that when the signal is in its non-useful position it is concealed by said shield.

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

AXEL W. JOHNSON.

Witnesses:
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