H. A. BROWN.

TRAFFIC LIGHT SIGNAL.

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1,319,265. Patented Oct. 21, 1919.

Fig. 1.

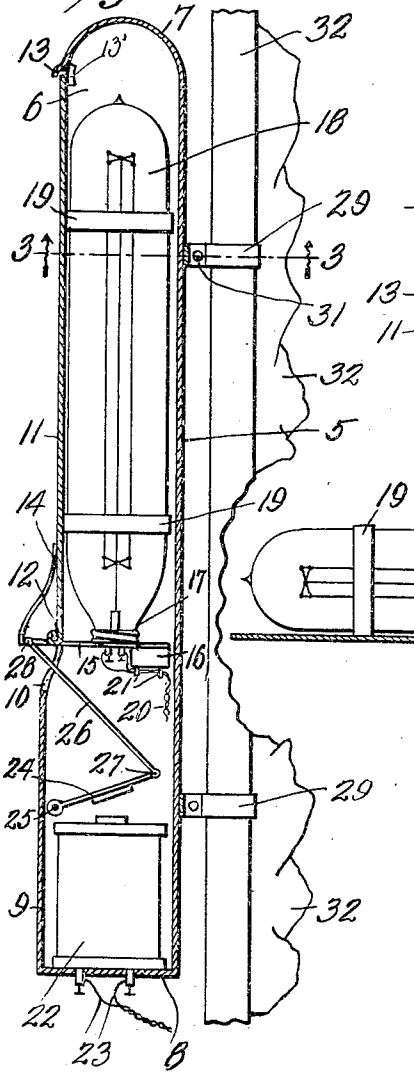


Fig. 3.

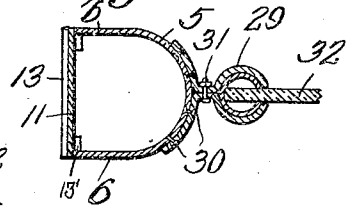
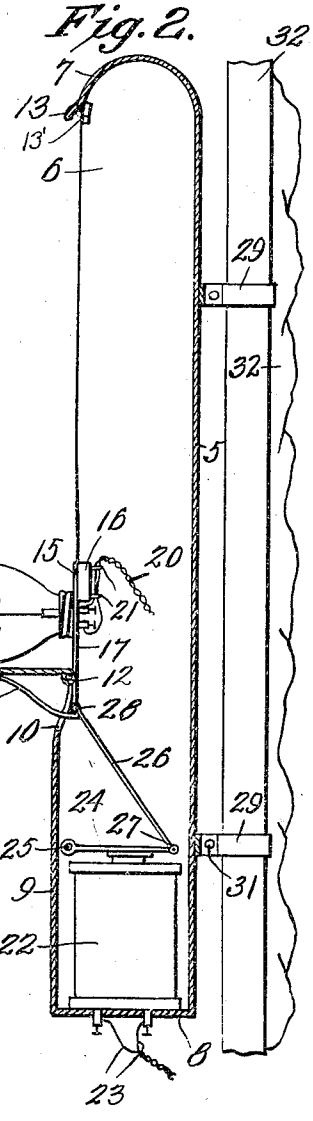


Fig. 2.



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TRAFFIC LIGHT-SIGNAL.

1,319,265. Specification of Letters Patent. Patented Oct. 21, 1919.

Application filed June 7, 1918. Serial No. 238,801.

To all whom it may concern:

Be it known that I, HARRY A. BROWN, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Traffic Light-Signals, of which the following is a specification.

This invention is a traffic light signal and has special reference to an operating mechanism for moving a signal light into position where it will be easily displayed for giving a signal.

Another object of this invention is the production of a traffic light signal which includes a casing having a hinged door together with a light carried upon the door and means for shifting the door, whereby when so desired, the door may be swung to an open position for removing the light from the casing, thus disclosing a signal.

Another object of this invention is the production of a traffic signal, wherein electrical means are employed for shifting the door to an open position for displaying a signal light, although when a circuit is broken, the door will then return to its closed position to return the light to the casing.

Broadly stated, the invention consists of a casing having a door, a lamp carried upon said door, an electro-magnet carried within said casing, an armature carried adjacent said magnet, a link connected to said armature, and to said door, whereby when said electro-magnet is energized the armature will be attracted for causing said link to shift said door to an open position for displaying the light, although when the electro-magnet is deënergized, a weight carried upon the platform will return the door to a closed position.

One practical form of construction and assembly of the present invention will be hereinafter described and is illustrated in the accompanying drawing, in which—

Figure 1 is a central vertical section through the traffic light signal, the support therefor being illustrated in fragmentary elevation.

Fig. 2 is a central vertical section through the device, showing the door swung to an open position to display the signal lamp, and

Fig. 3 is a section taken on the line 3—3 of Fig. 1.

In the preferred embodiment of the present invention, about to be described, 5 indicates the back wall of the casing from which the parallel side walls 6 extend. A top 7 is formed upon the upper end of the back wall 5 and side walls 6, while a bottom 8 is formed on the lower end of these walls. A front wall 9 is formed on the forward portion of the side walls 6 and the bottom 8 and it will be noted that this front wall 9 is slotted as indicated at 10 and that it terminates at a point near the center of the casing.

The door 11 is hinged as indicated at 12 upon the front wall 9 and is of such length as to extend to a point near the top 7 for removably closing the forward portion of the casing. In order to prevent rain from beating into the interior of the casing, the top 7 is provided with a lip 13 overhanging the upper end of the door 11, thus preventing the passage of such rain over the upper end of the door when the same is in a closed position the inward movement of the door 11 is limited by the stop lugs 13′ carried adjacent the lip 13.

The hood strip 14 is fixed in any desired manner upon the outer surface of the door 11 adjacent the lower end thereof and this hood strip 14 is bent to have its lower edge spaced from the hinged section 12 of the door. Therefore, it is obvious that this hood strip will protect the hinge from the weather and will also tend to prevent the weather from beating through the slot 10. A platform 15 is secured to the lower end of the door 11 in any desired manner and extends beyond each side of the door as shown in Figs. 1 and 2. Therefore the platform extends into the casing to hold the door in a closed position and also beyond

the forward portion of the door, the forward end of the platform being connected in any desired manner to the lower end of the hood 14. The weight 16 is secured in any desired manner upon the inner end of this platform at a considerable distance from the hinged connection 12. Accordingly, this weight will be at a distance from the hinged position thus being in position to easily swing the door 11 into a closed position.

A lamp socket 17 is carried upon the platform 15 and carries the lamp 18, as shown clearly in Figs. 1 and 2. The straps 19 are also passed about the lamp 18 and are connected in any desired manner to the inner surface of the door 11, thus positively holding the lamp 18 against shifting. The conductors 20 extend from the binding post of the lamp and are passed through eyes 21 carried by the weight 16, thus being held in an out of the way position. These conductors may be connected to the source of supply which actuates the electromagnet to be hereinafter described, so that when the operating switch used for closing the circuit and energizing the electro-magnet is operated, the device will also be illuminated.

An electro-magnet 22 is carried within the casing and rests upon the bottom 8 thereof. The conductors 23 lead from the binding posts of the electromagnet 22 to a suitable source of supply and for this reason it is obvious that when a circuit is closed, the electro-magnet 22 will be energized. The armature 24 is pivotally mounted as indicated at 25 and directly above the electromagnet 22. The link 26 has one end pivoted as indicated at 27 upon the free end of the armature 24 while the link 26 extends through the slot 10 and has its remaining end pivoted as indicated at 28 upon the platform 15. When the electromagnet 22 is energized it will retract the armature 24, thus swinging the armature to draw upon the link 26. As this link 26 is shifted in one direction it will pull upon the outer end of the platform 15, thus swinging the door to an open position, as illustrated in Fig. 2. At this time the current will also flow to the lamp for illuminating the same and thus give a signal. If so desired, such a signal as herein disclosed may be carried upon each side of the automobile and when the lamp is illuminated and swung to an extended position it will give a signal as to the direction which the chauffeur is about to turn the automobile, according to the side upon which the lamp is carried.

As soon as the necessity for disclosing the signal ceases, the circuit is broken and for this reason the electro-magnet 24 will become deënergized. The weight 26 is carried upon one side of the platform and off-center with respect to the hinged member 12, thus causing the door 11 to be swung to a closed position. It is of course obvious that any desired size of weight may be used to accomplish this function.

In order to support the casing upon the automobile, it will be seen that a pair of complemental clamp sections 29 are riveted as indicated at 30 upon the back wall 5 of the casing. A bolt 31 joins these sections together in a binding engagement with the wind shield 32.

From the foregoing description, it will be seen that a very simple and efficient signal light has been constructed which may be readily attached to the wind shield of an automobile, thus allowing the same to be easily applied to automobiles now in use. The weight on the door normally holds the door in a closed position, although when the circuit is closed, by a button, not being deemed necessary to be herein disclosed, as it is not a part of the present invention, the magnet will be energized for attracting the armature and causing the door to be swung to an open position, simultaneously with the illumination of the lamp, thus causing the lamp to be swung in a substantially horizontal plane for giving a signal.

The foregoing description and the drawings have reference to what may be considered the preferred, or approved, form of my invention. It is to be understood that I may make such changes in construction and arrangement and combination of parts, materials, dimensions, et cetera, as may prove expedient and fall within the scope of the appended claims.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. In a device of the class described, the combination of a casing, a door hingedly mounted upon said casing, signaling means carried by said door, a platform secured to said door and extending at right angles thereto, said platform projecting beyond each side of the door, thus extending into said casing and also beyond the forward portion thereof, said platform also assisting in supporting said signaling means, a weight carried upon said platform at the inner end thereof, a door opening means carried within said casing and extending therefrom to be connected to the platform at the outer end thereof, and a hood fixed upon the outer portion of said door and being connected to the outer end of said platform to protect said last mentioned means from the weather.

2. In a device of the class described, the combination of a casing, a door hingedly mounted upon said casing, signaling means

carried by said door, platforms secured to said door and extending at right angles thereto, said platforms projecting beyond each side of the door, thus extending into said casing and beyond the forward portion thereof, said platform also assisting in supporting said signaling means, a weight carried upon said platform and the inner end thereof, for normally holding the door in a closed position, and a door opening means carried within said casing and extending therefrom to be connected to the platform at the outer end thereof.

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

HARRY A. BROWN.

Witnesses:
KATHRYN M. BROWN,
EW. EASTWOOD.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."