Sept. 14, 1926. 1,600,067

A. A. RETZE

HAND TRAFFIC SIGNAL

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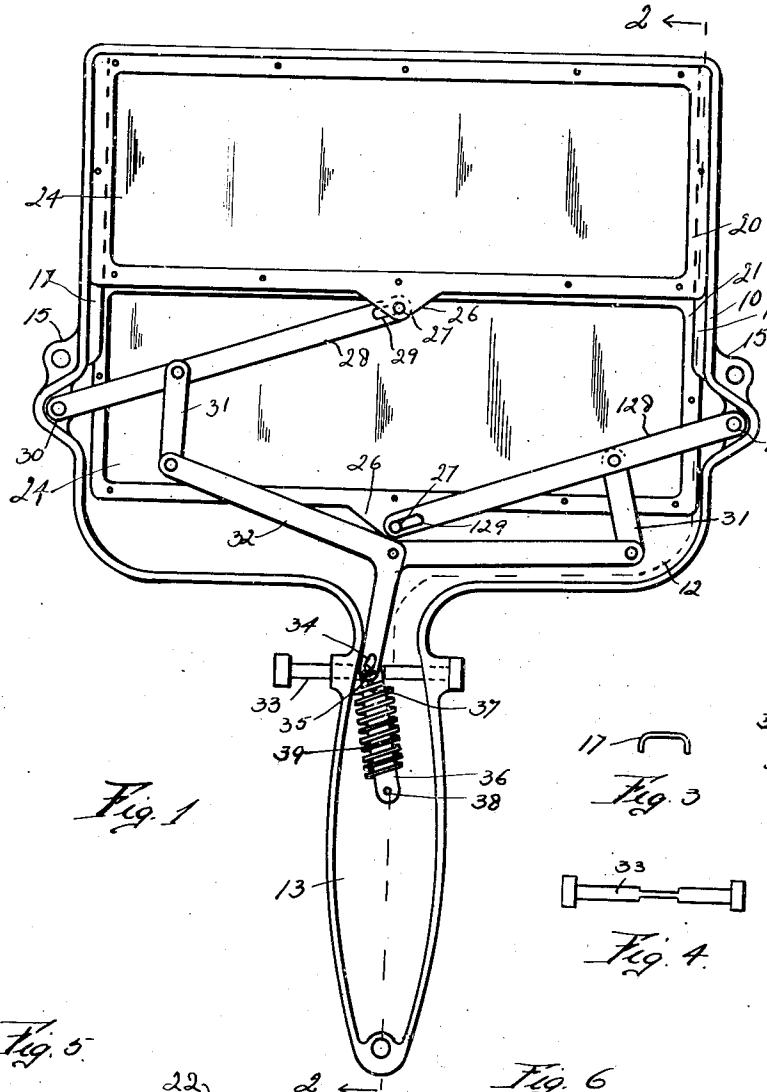


Fig. 1

Fig. 3

Fig. 4

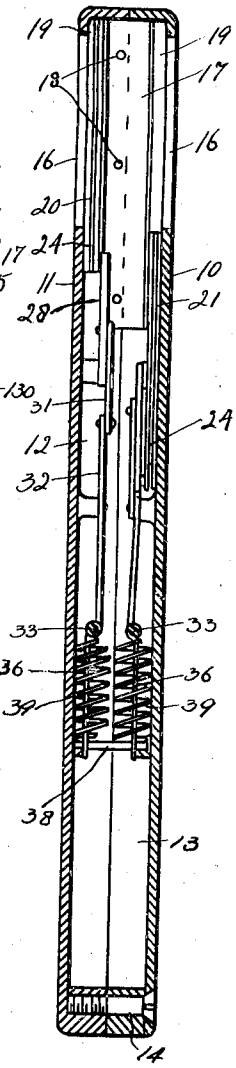


Fig. 2

Fig. 5

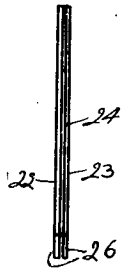
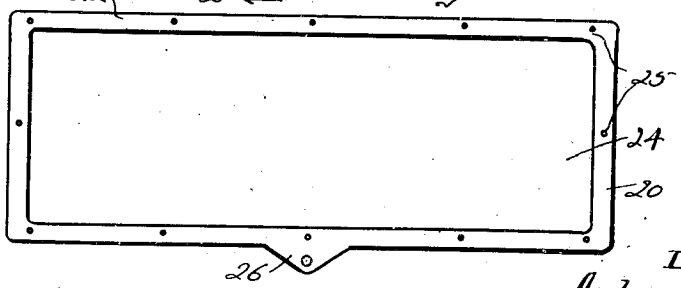


Fig. 6



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Fig. 7.

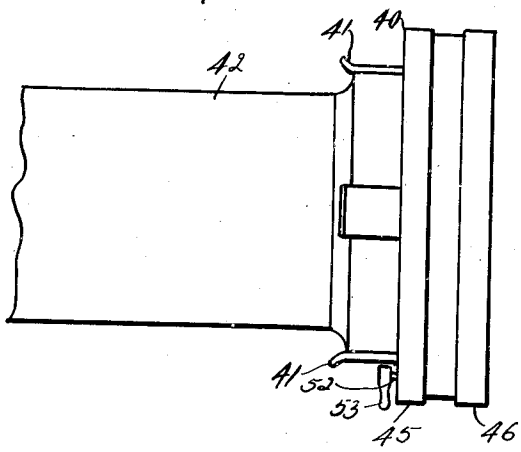
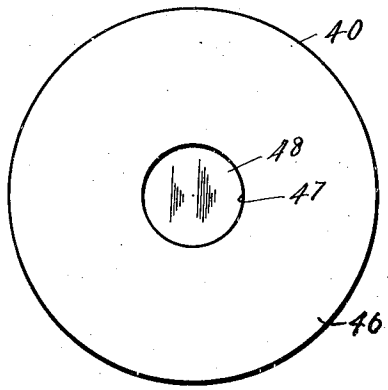


Fig. 8.



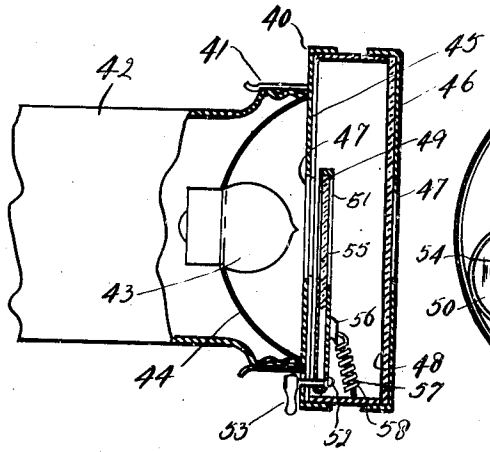


Fig. 9

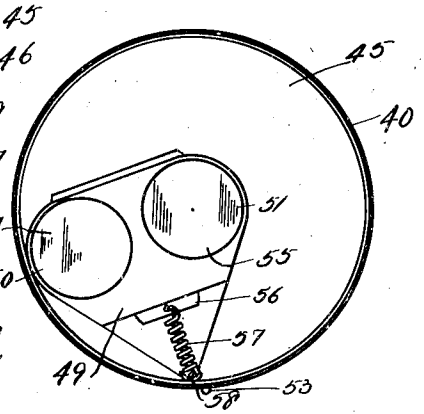


Fig. 10

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UNITED STATES PATENT OFFICE.

ADAM A. RETZE, OF PHILADELPHIA, PENNSYLVANIA.

HAND TRAFFIC SIGNAL.

Application filed June 12, 1925. Serial No. 36,564.

My invention relates to new and useful improvements in a hand traffic signal, and has for its primary object to provide a simple and effective device of this character for use by traffic or other policemen which will enable them to give signals without the use of an enclosed light producing means.

Another object of this invention is to provide a unique method and means for changing the positions of the signal elements or semaphores.

A still further object of my invention is to so arrange the semaphore operating mechanism that when one signal element is removed from the opening in the casing another signal element is disposed there across.

A still further object of my invention is to construct a signal device for connection with the ordinary flashlight.

With these ends in view, this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, I will describe its construction in detail, referring by numerals to the accompanying drawings forming a part of this application, in which:—

Fig. 1 is a side elevation of one of the signal casing sections showing all of the internal mechanism.

Fig. 2 is a section of the complete signal at approximately the line 2—2 of Fig. 1, with the internal parts in elevation.

Fig. 3 is an end view of one of the separators or guides.

Fig. 4 is a plan view of one of the push pins.

Fig. 5 is an end view of one of the sliding frames which constitutes a semaphore signal.

Fig. 6 is a face view thereof.

Fig. 7 is an edge view of a modified form of my invention showing a portion of a flashlight to illustrate the connection therewith.

Fig. 8 is a front elevation thereof.

Fig. 9 is a sectional view of the signal device and a portion of the flashlight.

Fig. 10 is a face or end view thereof with the cap removed.

In carrying out my invention as embodied in Figs. 1 to 6 inclusive, 10 and 11 represent the two similar sections of the signal casing which when joined together provide a hollow body 12 and a hollow handle 13 the chambers thereof being in communication and said casing sections are held together by suitable fastening devices such as screws, one of which is shown at 14, and in the region of the body lugs 15 are provided to accommodate the fastening devices. In each of the sections of the casing and more particularly in the body portion, preferably at the upper end thereof, is formed a sight opening 16 so as to align with each other for the passage of light rays through the casing.

At each side of the casing within the same is located a channel separator or guide 17, Fig. 3, one of which may be fastened to one of the casing sections and the other to the other casing section by fastening devices 18, such as screws. The separators being of less width than the interior of the casing body provide guideways 19 between the flanges of said separators and the side walls of the body.

The ends of the semaphores 20 and 21 are slidably mounted in said guideways so as to be readily moved into or out of registration with the sight openings and each of these semaphores comprises two frame members 22 and 23 with a transparent or translucent light coloring medium 24 disposed therebetween and held in place by rivets 25 or their equivalent. The light coloring medium may be a sheet of colored celluloid or glass and where the latter is used the rivets 25 must be passed through the frame members beyond the edges of the glass. The frame members of each semaphore are provided with lugs 26 depending from their lower edges to hold a rivet 27, or its equivalent for the connection of a straight lever therewith.

The semaphore 20 has one end of a straight lever 28 slidably or variably connected therewith through the medium of the slot 29 in said straight lever which slot registers with the rivet 27 while the opposite end of said straight lever is pivoted at 30 to one end of the casing. The semaphore 21 has one end of a straight lever 128 slidably or variably connected thereto through the medium of the slot 129 registering with the rivet 27 on said semaphore while the opposite end of said straight lever is pivoted as at 130 to the casing at the end opposite the pivot point of the lever 28. Intermediate the ends of each of the straight levers is pivoted one end of

a link 31 while the opposite end of said link is pivoted to the upper outer end of the longer arm of the bell crank lever 32 while the shorter arm projects into the casing handle where the lower end sets in one of the notches in one of the push pins 33, said inner end of the bell crank lever having a slot 34 for registration with a rivet 35 or its equivalent carried by the push pin thereby variably connecting the shorter arm of the bell crank lever with the push pin. In another notch in the push pin is located one end of a spring holding link 36 also having a slot 37 therein for registration with the rivet 35 to variably connect the upper end of the spring holding link with the push pin while the lower end of said link is pivoted on a stud pin 38 and around the spring holding link is coiled a spring 39 having one end resting against the push pin and the other end enclosing the stud pin to hold the parts in certain adjusted positions without the likelihood of accidental displacement after the spring holding link and the short arm of the bell crank lever have been moved out of vertical or endwise alignment.

It is to be particularly noted that the bell crank lever of one semaphore is positioned in the opposite direction to that of the other semaphore so that the simultaneous movement of both push pins in one direction will cause one semaphore to be raised as the other is lowered thereby disposing one of the semaphores across the sight openings as the other is removed therefrom and if one of the semaphores is provided with a red or other danger indicating medium and the other semaphore provided with green or other clear indicating medium these signals may be readily and quickly given to traffic by the officer holding the signal device in front of a light producing means or between such light producing means and the traffic signalled. For instance during the daytime it will be possible for the officer to use the rays of the sun for giving the signals while at night a street light could be used for the same purpose.

In Figs. 7 to 10 inclusive, I have shown a slightly modified form of my invention wherein 40 represents a casing provided with means such as clips 41 for removable attachment to an ordinary hand flashlight 42 provided with an electric light bulb 43 receiving its source of current supply from the usual storage battery, and a reflector 44. The signal casing is formed primarily from two body members or sections 45 and 46 each having a sight opening 47 therethrough and one of these, as the opening in the member 46, may have a transparent medium 48, such as a sheet of clear glass or celluloid, disposed across it.

Within the signal casing is disposed a semaphore 49 preferably formed of relatively thin sheet metal and having two holes 50, 51 therethrough for registration with the sight openings 47 and to bring either of these holes into registration with the sight openings the semaphore is pivoted at one end to a short shaft 52 journalled in one of the casing sections adjacent its edge said shaft being rotated by a handle 53 on the outer end thereof within easy access of a finger or thumb of the operator. The semaphore carries two light coloring mediums 54 and 55, one of which, for instance, may be red and the other green, and these light coloring mediums may be sheets of celluloid or glass. Said light coloring mediums are disposed across the holes 50, 51 in the semaphore and are held in place by flanges turned up from the body of the semaphore. The semaphore is also provided with a lip 56 to which is fastened one end of the spring 57 while the opposite end of said spring is fastened to a staple 58 or its equivalent carried by a portion of the casing and so disposed that the distance between the ends of the spring is greatest when in a vertical position thereby causing the semaphore to be held on either side of its vertical center.

When an officer desires to give a signal with a device such as last described the handle 53 is moved to one side or the other so as to bring one of the holes 50, 51 into registration with the sight openings 47 and then by lighting the flashlight bulb in the ordinary manner the light rays will be projected through the light coloring medium disposed across the particular hole in the semaphore which is in registration with the sight openings thereby giving the desired signal.

Of course I do not wish to be limited to the exact details of construction as herein shown as these may be varied within the limits of the appended claims without departing from the spirit of my invention.

Having thus fully described my invention, what I claim as new and useful is:—

1. A hand traffic signal comprising a casing having sight openings therein, semaphores slidably mounted in the casing, and manually actuated mechanism including aligned push pins which when moved in the same direction will cause one semaphore to be disposed across the sight openings and the other moved away from said sight openings.

2. A signal comprising a hollow casing including two similar sections fastened together and constituting a body and handle, said body having sight openings in its side walls at its upper end to permit the passage of light rays through the casing and leaving solid portions below said sight openings, separators at the ends of the casing to form guideways with the casing walls, semaphores slidably mounted in said guideways, straight

levers pivoted to the semaphores and to opposite ends of the casing body, beyond the sides thereof bell crank levers pivoted in the casing body with an arm of each projecting in opposite directions and the other arms projecting into the casing handle, links pivoted to the straight levers and the oppositely projecting arms of the bell crank levers, push pins connected in alignment by a reduced portion to which the other arms of the bell crank levers are pivoted whereby a movement of the push pins in the same direction will move one semaphore across the sight openings and the other away therefrom, and means tending to hold the semaphores in either adjusted position.

In testimony whereof, I have hereunto affixed my signature.

ADAM A. RETZE.