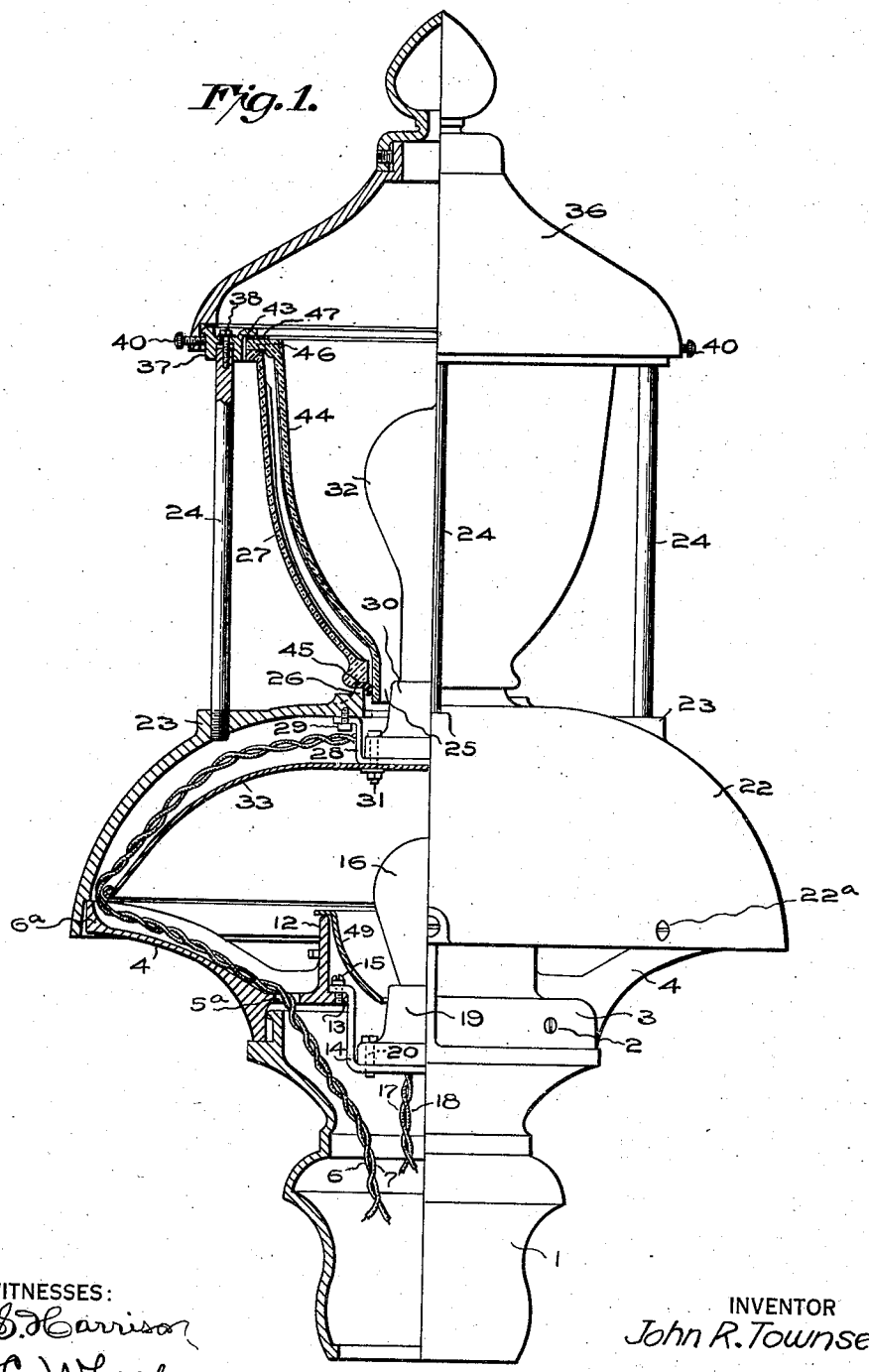
June 17, 1930. J. R. TOWNSEND 1,764,426

TRAFFIC SIGNAL DEVICE

Filed March 31, 1926 2 Sheets-Sheet 1

Fig. 1.



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TRAFFIC SIGNAL DEVICE

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Fig. 2.

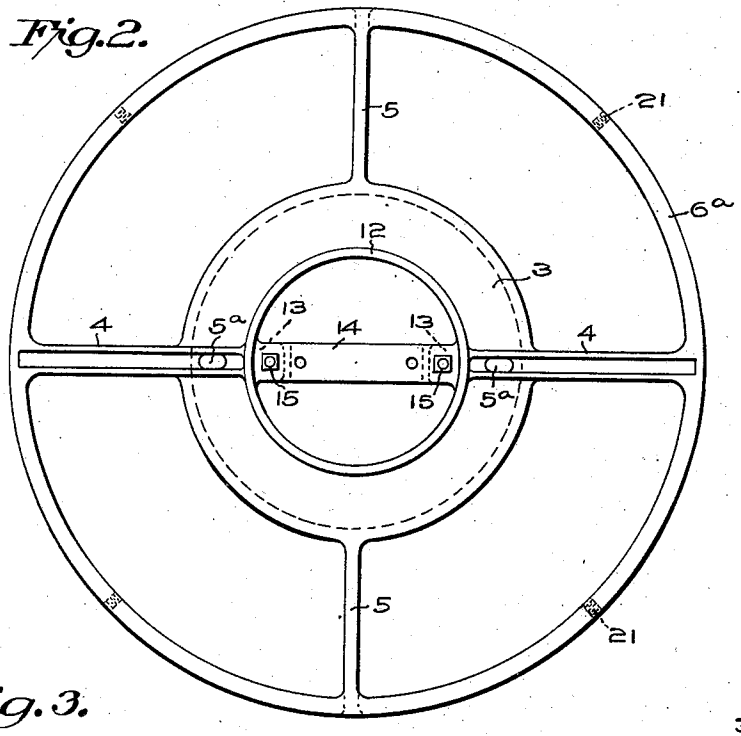


Fig. 3.

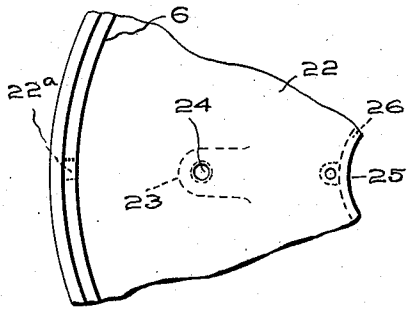
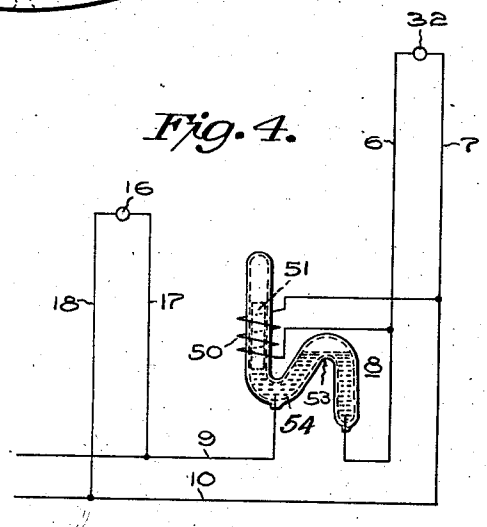


Fig. 4.



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UNITED STATES PATENT OFFICE

JOHN R. TOWNSEND, OF SOUTH BEND, INDIANA, ASSIGNOR, BY MESNE ASSIGNMENTS, TO WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, OF EAST PITTSBURGH, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA

TRAFFIC SIGNAL DEVICE

Application filed March 31, 1926. Serial No. 98,720.

My invention relates to signalling devices, and specifically to street traffic signals.

It is among the objects of my invention to provide an improved traffic signal and guide having an intermittent warning signal and a constantly illuminated background, whereby the observer is suitably warned and is also apprised of his position with respect to, or distance from, the device.

Another object of my invention is to provide a signal of rugged construction that is provided with means for adequately protecting the electrical illuminating devices mounted thereon, thereby insuring continuous and dependable service with minimum of attention and upkeep.

My invention provides both a warning signal and a distance indicator. Two independent light sources are provided so that either one will serve for the temporary guidance of traffic in case the other fails.

In the drawings, constituting a part hereof and in which like numerals designate like parts,

Fig. 1 is a view, partially in elevation and partially in vertical section, of my traffic beacon;

Fig. 2 is a plan view of the supporting ring comprising a portion of the lower housing of my device;

Fig. 3 is an enlarged view of a portion of the lower canopy; and

Fig. 4 is a diagrammatic view, showing the manner in which the lamps are connected in the electrical circuit.

My traffic beacon is adapted to be mounted on a post or standard 1 and secured thereto by means of set screws 2 that are inserted through a collar 3. Integral with the collar 3 are a plurality of equally spaced and upwardly inclined arms 4 and 5, which support an outer ring 6*a*. Although only one channeled arm, such as 4, is necessary, I may provide more than one, as shown.

As shown in Fig. 2, the arms 4 are upwardly-opening U-shape channels, which are provided near the ring 3 with openings 5*a* for accommodating electrical connecting wires or conductors 6 and 7. The conductors may be mounted in the base or standard 1, and connected to a source of current as shown in Fig. 4. A current-interrupting or cutout device 8 (Fig. 4) is inserted in the circuit of the warning signal and is connected to the supply circuit or line conductors 9 and 10.

At their lower extremities, the radial arms 4 and 5 are integral with an upturned collar 12, which is provided with inwardly projecting lugs 13 for attaching a lamp bracket 14 by means of screws 15. A lamp 16, which is electrically connected to the line conductors 9 and 10 through conductors 17 and 18, is mounted in a socket 19, and the socket is mounted on the bracket 14 by means of bolts 20.

The outer ring 6*a* is provided with threaded openings 21 for supporting a lower canopy or housing 22 by means of set screws 22*a*. The openings between the radial arms 4 and the housing 22 preferably are not covered with glass, therefore, the housing 22 is open. The lower canopy 22 is provided on the exterior upper portion thereof with lugs 23 and threaded openings for securing a plurality of posts or uprights 24 thereto. A central opening 25 in the canopy 22 is provided with an upturned flange 26 for supporting a globe 27. A bracket 28 is attached to the inner portion of the lower canopy by means of set screws 29, while a lamp socket 30 for a flash lamp 32 and a bowl-shaped reflector 33 for the lower lamp 16 are mounted on opposite sides of the bracket 28 by means of bolts 31.

The upper or terminal housing consists of a bell-shaped canopy 36, which is mounted on the uprights 24 that are attached to the lugs 23 in the lower housing. A ring 37 is mounted on the upper ends of uprights 24 by means of set screws 38 and is provided with a flange 43 for engaging the globe.

I prefer to use a double-walled globe comprising two members 27 and 44. In placing the globe in the upper housing, the outer wall 27 of the globe is mounted on a lead or felt washer 45 on the flange 26 of the lower canopy 22. The inner globe member 44, which is provided with a flange 46 in its upper portion, is supported at the top of

the flanged globe 27. Another washer, not shown, may be inserted between the globe 27 and the flange 46, if desired. Another washer 47 on the flange 46 is inserted between the latter globe member and flange 43. The globe is held in place by securing the upper ring 37 to the uprights 24 by means of the set screws 38. The canopy 36 is mounted on the ring 37 and secured thereto by means of set screws 40.

It is one of the objects of my invention to provide a non-glaring illuminated background consisting of the signal standard and a small area around the standard. For this purpose, I provide the collar or shield 12 for intercepting all downwardly and horizontally directed incident or direct light rays from the lower lamp 16. The collar 12 is integral with the arms 4 and 5 and projects upwardly a distance sufficient to mask the lamp filament from the view of the observer. A small flanged reflector 49 surrounding the lower lamp is supported on the collar 12 in a manner such that all horizontal and downwardly directed incident rays from the lamp are reflected upwardly toward the large reflector 33.

I prefer to provide my traffic beacon with an intermittently burning upper lamp 32 and a constantly burning lower lamp 16. The constantly burning lamp 16 may be connected across the main line by means of conductors 17 and 18, as shown in Fig. 4. The flash lamp 32 is connected from the line conductor 9 through the mercury 54 in the N-shaped, glass-tube cutout device 8 and leads 6 and 7 to the line conductor 10. The cutout device 8 may be provided with a coil 50 surrounding a portion thereof and connected across conductors 6 and 7, and a freely moving iron core 51 that floats on the mercury 54.

In operation, the coil 50 is energized when the circuit to lamp 32 is closed through the mercury 54, and the iron core 51 is drawn upwardly, thereby lowering the level of the mercury at the curved portion 53 and causing the lamp circuit to be opened. Thereupon, the coil 50 is deenergized and the armature 51 drops into the mercury, raising the level thereof at portion 53 and again closing the circuit. In this way, a suitable flasher action is provided, although it will be understood that any other flashing device may be utilized, if desired.

My invention provides a traffic signal having a sharp warning signal and means whereby the observer is enabled to estimate the distance to, and the location of, the signal. Means are embodied in the device for providing positive and accurate manipulation of the two signals and for protecting the lighting means from destruction. I provide an indirectly illuminated background for the observer, and means for shielding the eye of the observer from glare from a continuous light source.

Although I have described one embodiment of my invention, I do not wish to be limited thereto, as modifications of my invention will suggest themselves to those skilled in the art without departing from the spirit of my invention as defined in the annexed claims.

I claim as my invention:

1. In a traffic beacon of the type employing two light sources, a supporting standard, supporting arms on the standard, a light source mounted in the supporting arms, a canopy mounted on the supporting arms having an opening at its central portion, a second light source disposed above the canopy, a reflector disposed below the canopy and a bracket in the opening for supporting the second light source and the reflector.

2. In a traffic beacon employing two light sources, a supporting standard, a cover structure, comprising a pair of collars and a plurality of supporting arms, disposed to rest upon and cover the top of the standard, one of said collars being adapted to support a reflector, a reflector, a bracket disposed in the cover structure, a light source mounted on the bracket, a canopy having an opening at its central portion mounted on the supporting arms, a bracket in the opening and a reflector disposed beneath the canopy and supported by the bracket.

3. In a traffic beacon employing two light sources, a supporting standard, a cover structure, comprising a pair of collars and a plurality of supporting arms, disposed to rest upon and cover the top of the standard, one of said collars being adapted to support a reflector, a reflector, a bracket disposed in the cover structure, a light source mounted on the bracket, a canopy having an opening at its central portion mounted on the supporting arms, a bracket in the opening and a reflector disposed beneath the canopy and supported by the bracket.

In testimony whereof, I have hereunto subscribed my name this 12th day of March, 1926.

JOHN R. TOWNSEND.