March 15, 1932. L. H. COPPEL 1,849,419

TRAFFIC WARNING DEVICE

Filed Oct. 14, 1929 2 Sheets-Sheet 1

Fig. 1.

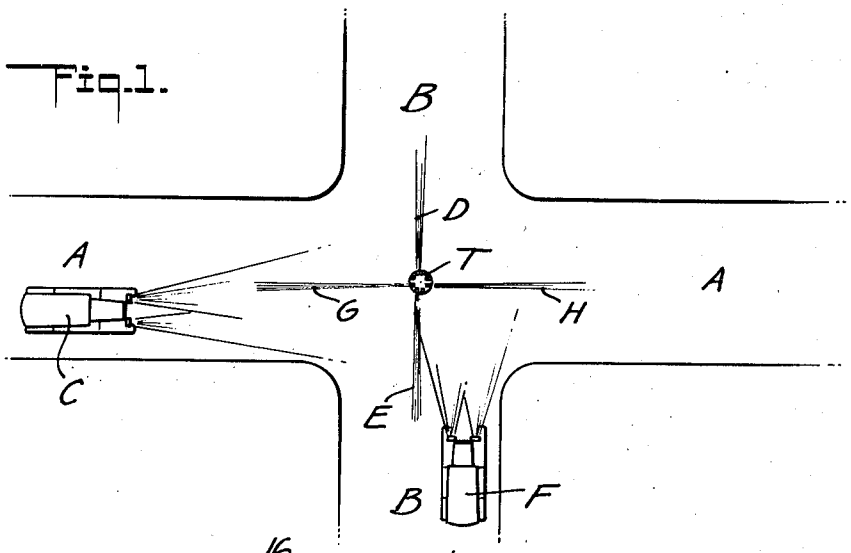


Fig. 2.

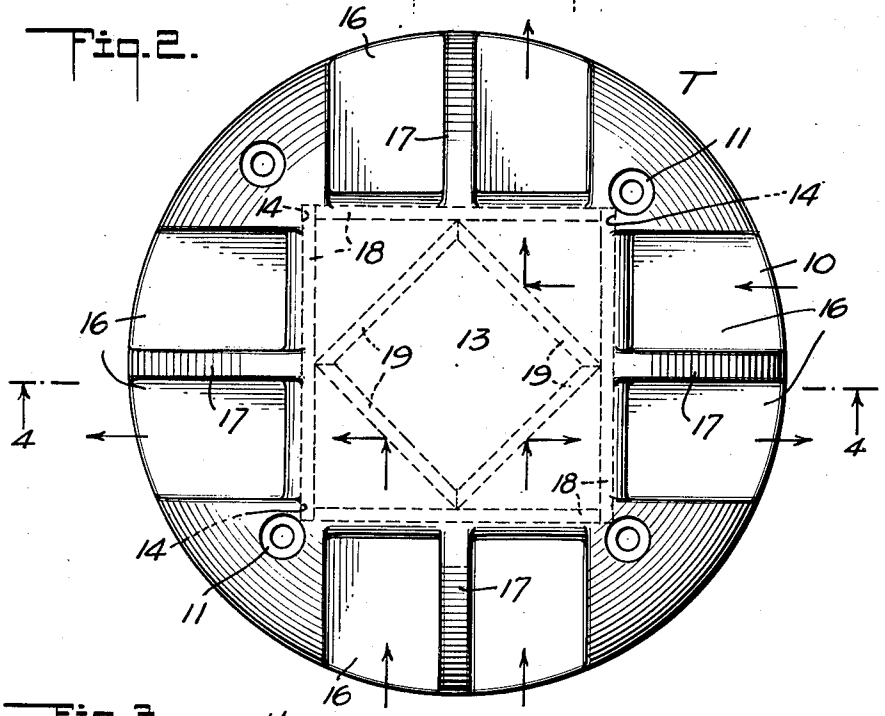
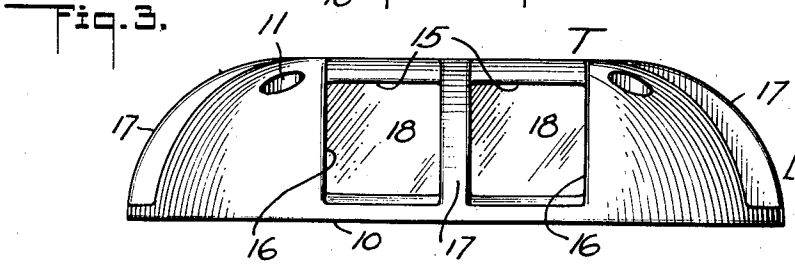


Fig. 3.



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Fig. 4.

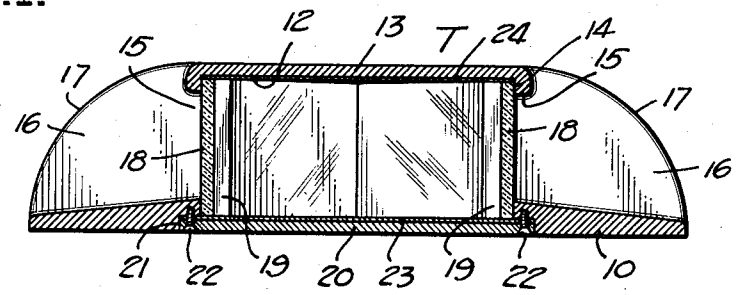
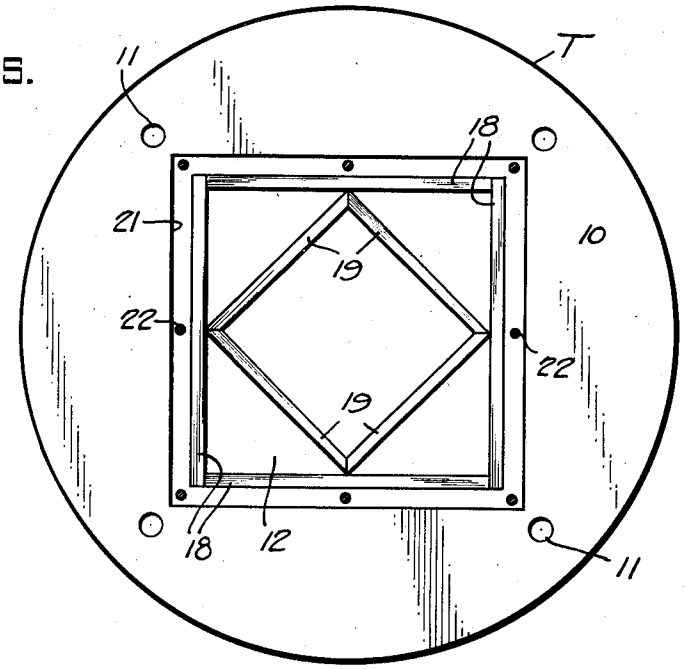


Fig. 5.



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UNITED STATES PATENT OFFICE

LEONARD H. COPPEL, OF LOS ANGELES, CALIFORNIA, ASSIGNOR, BY MESNE ASSIGNMENTS, TO COPALITE REFLECTING SIGNAL COMPANY, LTD., OF LOS ANGELES, CALIFORNIA, A CORPORATION OF CALIFORNIA

TRAFFIC WARNING DEVICE

Application filed October 14, 1929. Serial No. 399,572.

My invention relates to and has for its purpose the provision of a warning device adapted to be installed at intersections and junctions of streets and highways, and by which light rays emanating from the headlights of vehicles approaching an intersection on different streets meeting at the latter and obscured from each other by buildings or other obstructions, will be reflected in such manner as to be rendered visible to the driver of the other vehicle, and thus serve as a warning to the driver of each vehicle of the presence of the other vehicle before the latter is actually in view at the intersection, thereby enabling the respective drivers to take the precautions necessary to avoid a collision.

It is a further purpose of my invention to provide a traffic warning device of the above described character which is preferably, although not necessarily, incorporated in a traffic button of the character which is permanently installed on the surfaces of street and highway intersections for indicating to the drivers of vehicles entering and leaving an intersection, the proper paths of travel to be followed by the respective vehicles in order to avoid confusion at the intersection with the resulting possibility of a collision taking place.

I will describe only one from of traffic warning device embodying my invention and will then point out the novel features thereof in the claim.

In the accompanying drawings,

Figure 1 is a diagrammatic plan view of a street intersection with a traffic button embodying my invention installed therein.

Figure 2 is an enlarged top plan view of the traffic button shown in Figure 1.

Figure 3 is a view of the traffic button in side elevation.

Figure 4 is a vertical sectional view of the traffic button taken on the line 4—4 of Figure 2, and,

Figure 5 is a bottom plan view of the traffic button with parts omitted for the sake of clearness.

Referring specifically to the drawings in which similar reference characters designate similar parts in each of the several views, my invention in its present embodiment is shown incorporated in a traffic button T which as illustrated is usually circular in plan with its base 10 flat so as to rest uniformly on the pavement of a street or highway to which the button is permanently secured by lag screws (not shown) or other fastening members extending into the pavement through counter bored openings 11 in the button.

My invention as illustrated is adapted for use at an intersection wherein two streets form the latter and are at right angles to each other, and to this end the button is provided with a square chamber 12 opening to the base 10 and formed by the top wall 13 and vertical side walls 14 each of which is provided with a pair of substantially square openings 15 communicating with recesses 16 terminating at the peripheral edge of the button. Medially between each pair of openings 15 a radially disposed vertical partition 17 rises from the base 10 and merges into the top wall 13, the partition conforming to the rounded contour of the button and functioning to prevent relatively narrow tires of vehicle wheels from becoming jammed in the recesses.

Spanning each pair of openings 15 in the chamber 12 are light transmitting panels 18 of uncolored glass or other suitable transparent material; and vertically disposed in the chamber are light reflectors 19 in the form of mirrors preferably colored red.

The reflectors 19 in the present instance are in right angular relation and are positioned relatively to the openings 15 so that light rays entering the chamber through the openings of any one pair will be reflected at a right angle in opposed directions from the chamber through one opening of those pairs on opposed sides of the chamber.

The open bottom of the chamber is closed by a cover plate 20 seating in a recess 21 (Figure 5) so as to be flush with the under surface of the base 10. The plate is secured to the button by screws 22; and interposed between the plate and bottom edges of the panels 18 and reflectors 19 as well as between the top wall 13 and the top edges of the panels and reflectors are sheets 23 and 24 respective-

ly, of suitable cushioning and packing material such as felt. The panels 18 and cover plate 20 co-operate with the sheets 23 and 24 to exclude all dust and moisture from the chamber 12 so as to prevent the efficiency of the reflectors 19 from becoming impaired; and the cover plate co-acts with the top wall 13 of the button to securely clamp the panels 18 and reflectors 19 against displacement.

The operation of the device is as follows:

Let it be assumed that the button is installed at the center of an intersection of two streets A and B at right angles to each other as shown in Figure 1. Light rays from the headlights of a vehicle C approaching the intersection from the left on the street A will enter the chamber 12 through the openings 15 of one pair and will be reflected by two of the reflectors 19 in opposed directions parallel to and through the street B as indicated at D and E, so as to be rendered visible to the drivers of vehicles on the street B approaching the intersection from either direction, thus warning the drivers of the presence of the vehicle C before the latter has actually reached the intersection.

Likewise, light rays emanating from a vehicle F approaching the intersection from the street B will be reflected by two of the reflectors 19 in opposed directions parallel to and through the street A as indicated at G and H so as to be rendered visible to the drivers of vehicles on the street A aproaching the intersection from each direction, thus warning the drivers of the presence of the vehicle F so that the driver of each vehicle approaching the intersection will be warned of the presence of the other vehicle or vehicles before the latter has reached the intersection, thereby enabling the respective drivers to take the precautions necessary to avoid a collision.

By the provision of the partitions 17 the driver of a vehicle approaching the intersection from one street is enabled by noting from which opening 15 of a pair, reflected light rays are emanating, the direction from which a vehicle on the other street is approaching the intersection.

It will thus be manifest that although the streets forming an intersection or junction, are obscured one from the other by buildings, sign boards, or other obstructions, that the drivers of all vehicles approaching the intersection will be warned in advance of the presence of the others so that the possibility of collisions at night or on occasions when the visibility is low will be reduced to a minimum.

Although I have herein shown and described only one form of traffic warning device embodying my invention, it is to be understood that various changes and modifications may be made therein without departing from the spirit of the invention and the spirit and scope of the appended claim.

I claim:

A traffic button having a chamber therein, the side walls of which are provided with openings, and the bottom of which is open, a cover plate closing the bottom of the chamber, light transmitting panels in the chamber, spanning the openings and clamped between the cover plate and the top of the chamber by the cover plate to exclude foreign matter from the chamber, and a plurality of light reflectors in the chamber, clamped between the cover plate and top of the chamber by the cover plate and relatively positioned to each other and to the openings, to each reflect light rays entering the chamber through an opening on one side of the latter, from the chamber through an opening on a side of the chamber angularly disposed with respect to the first side.

LEONARD H. COPPEL.