Feb. 23, 1926. 1,574,449

G. S. SIMONS

TRAFFIC CONTROL SIGNAL

Filed Jan. 10, 1924

Fig. 1.

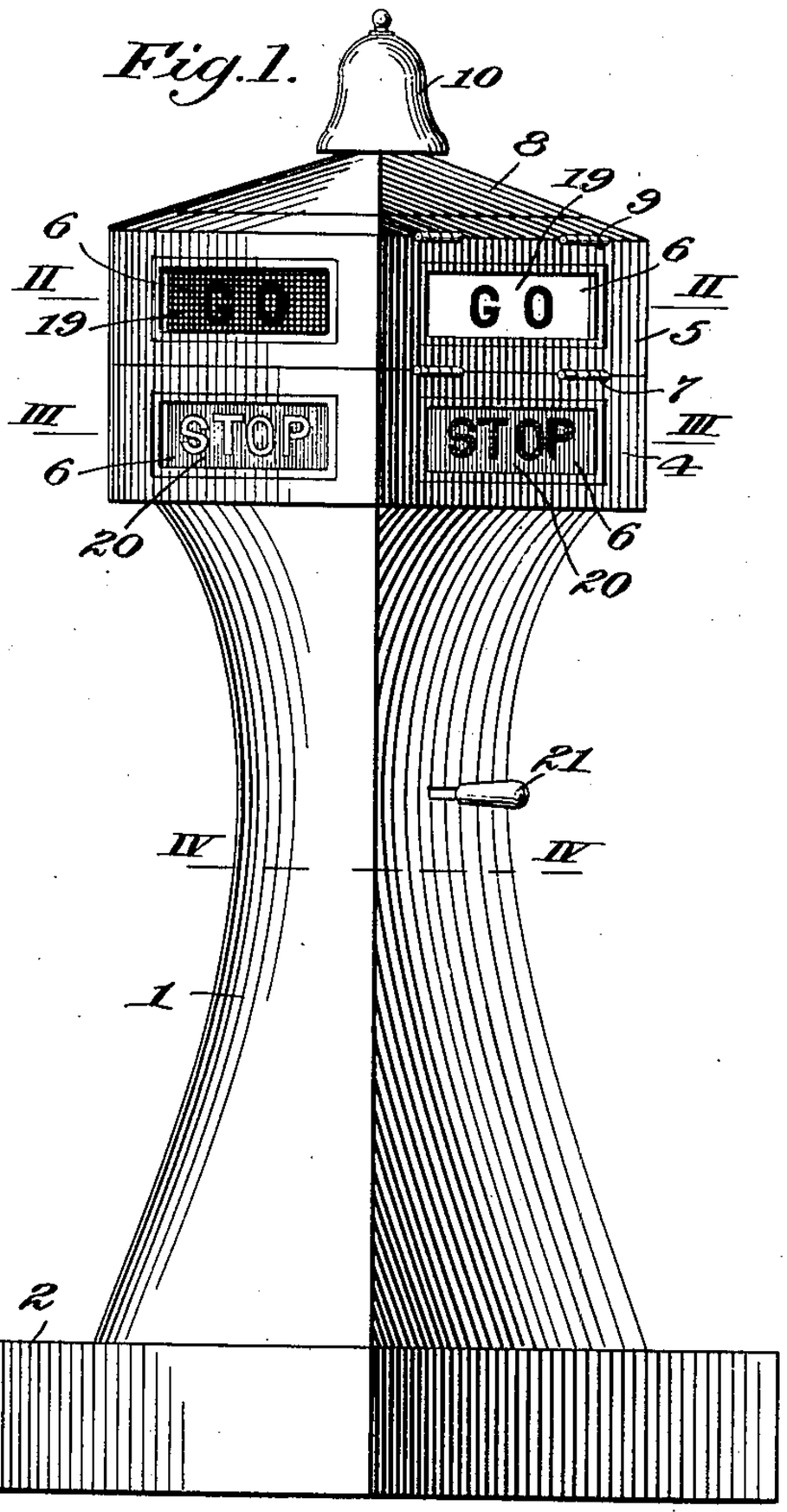


Fig. 2.

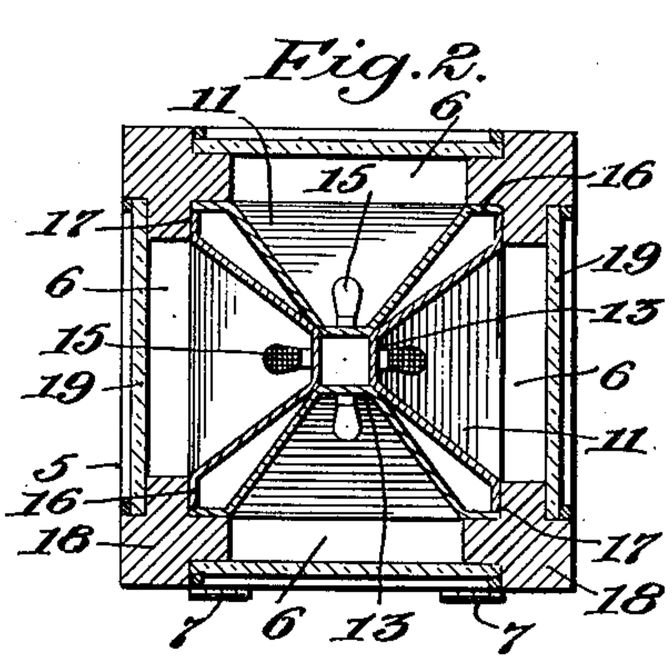


Fig. 3.

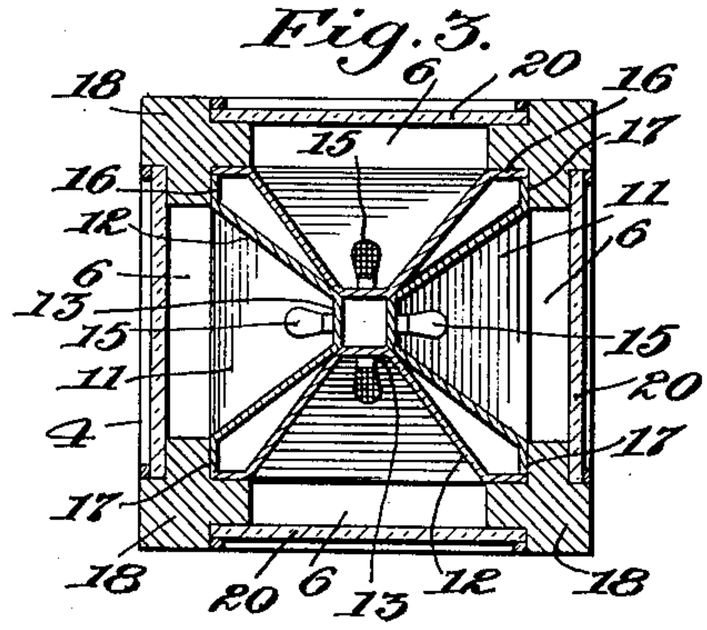


Fig. 5.

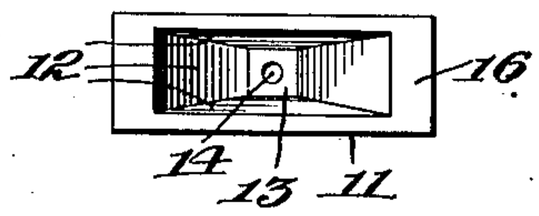
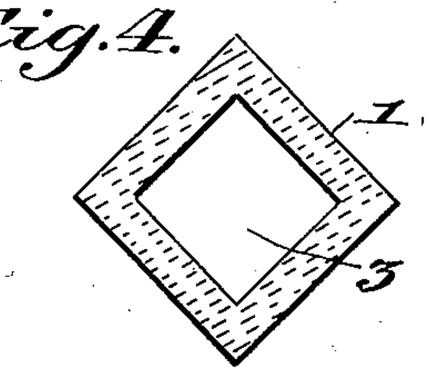


Fig. 4.



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UNITED STATES PATENT OFFICE.

GEORGE S. SIMONS, OF PLAINFIELD, NEW JERSEY.

TRAFFIC-CONTROL SIGNAL.

Application filed January 10, 1924. Serial No. 685,461.

To all whom it may concern:

Be it known that I, GEORGE S. SIMONS, a citizen of the United States, residing at Plainfield, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Traffic-Control Signals, of which the following is a full, clear, and exact specification.

This invention relates to signal posts for controlling traffic at intersecting streets, and has for its object to provide an improved form of stationary post having "go" and "stop" signals mounted thereon and adapted to be alternately illuminated by suitable controlling means, whereby traffic may be allowed to pass along first one and then the other of the intersecting streets.

Another object of the invention is to provide separate superposed compartments for the "go" and "stop" signals, and to provide means of access to each of said compartments for renewing the lamps therein. A further object is to provide a bell or alarm mounted on the post and adapted to be sounded each time the signal lights are changed, so as to call the attention of drivers and pedestrians to the signal changes. Other objects will appear as the description proceeds.

The invention will be first hereinafter described in connection with the accompanying drawings, which constitute part of this specification, and then more specifically defined in the claims at the end of the description.

In the accompanying drawings wherein similar reference characters are used to designate corresponding parts throughout the several views:—

Figure 1 is an elevation of a signal post constructed substantially in accordance with this invention, the same being viewed from one corner of the square base and top portions thereof in order to show two of the "go" and "stop" signals, one of each being illuminated.

Figure 2 is a section on the line II—II of Figure 1.

Figure 3 is a section on the line III—III of Figure 1.

Figure 4 is a section on the line IV—IV of Figure 1, and

Figure 5 is a detailed view of one of the reflectors used in the signal light compartments, said reflector being shown in front elevation.

The post 1 and the base 2 thereof may be made of concrete or other suitable material, and may be formed with a hollow space 3 extending vertically through the center, as indicated in Figure 4. At the top of the post 1, which may be of suitable height, there are formed two superposed signal compartments 4 and 5 each of which is preferably square in cross-section and has openings 6 formed in each of its four sides. The upper compartment 5 is preferably made separate from the lower compartment 4, while the latter may be formed integral with the top of the post 1.

Said upper compartment 5 may be hinged at 7 to the lower compartment, or otherwise attached thereto so that access may be had to the interior of the lower compartment upon raising said upper compartment or swinging it upon said hinges 7. Above the upper compartment 5 there is arranged a peaked cover 8 which may also be hinged at 9 to permit it to be raised for allowing access to the interior of said upper compartment. A bell 10 is mounted on the cover 8 in any suitable manner for giving an audible signal when the signal lights are changed.

Each of the compartments 4 and 5 is fitted with four reflectors 11 having flared walls 12 extending from the central portion of the compartment to one of the side openings 6 therein. Said reflectors have vertical inner end portions 13 perforated at 14 for the passage of the stems of the electric light bulbs 15. At the outer ends of said reflectors there are vertical flanges 16 extending entirely around the same and arranged parallel to the vertical inner end portions 13 thereof. The end portions of the flanges 16 of the adjacent reflectors are fitted together in angular grooves 17 on the interior of the corner pieces 18 of the compartments.

The openings 6 in the four sides of the upper compartment 5 are fitted with panes of clear glass 19 each having the word "Go" indicated thereon preferably in black letters. The openings 6 in the four sides of the lower compartment 4 are fitted with panes of red glass 20 each having the word "Stop" etched thereon in white or other suitable color. It will be noted that the arrangement of the reflectors 11 in the compartments 4 and 5 is

such as to separate the lamps 15, of which there are four in each of said compartments, and to direct the rays from each, when illuminated, to a different one of the openings 6 in the sides of said compartments.

Two of the lamps 15 extending in opposite directions in the upper compartment 5 are intended to be illuminated simultaneously with two of the lamps 15 extending in opposite directions in the lower compartment 4 but at right angles to the two lamps illuminated in the upper compartment, and the other two lamps in each of said compartments are intended to be simultaneously illuminated when or soon after the lamps first illuminated are switched off. Thus, in Figures 2 and 3, the upper and lower lamps 15, in the upper compartment 5, are shown white as being illuminated simultaneously with the right and left hand lamps in the lower compartment 4 which are also shown white, while the other two lamps in each of said compartments are shaded to indicate that they are not illuminated. In Figure 1, the illumination of the lamps arranged at right angles to each other in the upper and lower compartments are also indicated by the difference in shading on the glass panes 19 and 20.

It will be understood that the circuits to the lamps 15 in the two compartments may be controlled in any suitable manner as by the manually operated handle 21 shown in Figure 1, or by any known automatic circuit making and breaking apparatus. The sounding of the bell 10 may be accomplished in any suitable manner each time that the lamps are switched on and off.

I claim:

1. In a traffic signal, a casing comprising corner pieces defining openings on all four sides of said casing, reflectors arranged within said casing, each of said reflectors having a vertical inner wall adapted for the reception of a lamp and diverging side walls extending from said vertical inner wall to the margins of said openings, each reflector also having a vertical flange extending around the outer edges of its diverging side walls adapted to fit within internal angles formed in said corner pieces and means arranged at the entrance of each of said openings having traffic indicia thereon.

2. In a traffic signal, superposed casings, each casing comprising corner pieces defining openings on all four sides thereof, reflectors arranged within the casings, each of said reflectors having a vertical inner wall adapted for the reception of a lamp and diverging side walls extending from said vertical inner wall to the inner margins of said openings, each reflector also having a vertical flange extending around the outer edges of its diverging side walls adapted to fit within internal angles formed in said corner pieces and a piece of translucent material fitting within a recess formed at the entrance of said openings.

In testimony whereof I have signed my name to this specification.

GEORGE S. SIMONS.