

April 7, 1959

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2,881,306

ILLUMINATED OUTDOOR TELEPHONE BOOTH

Filed Dec. 1, 1953

4 Sheets-Sheet 1

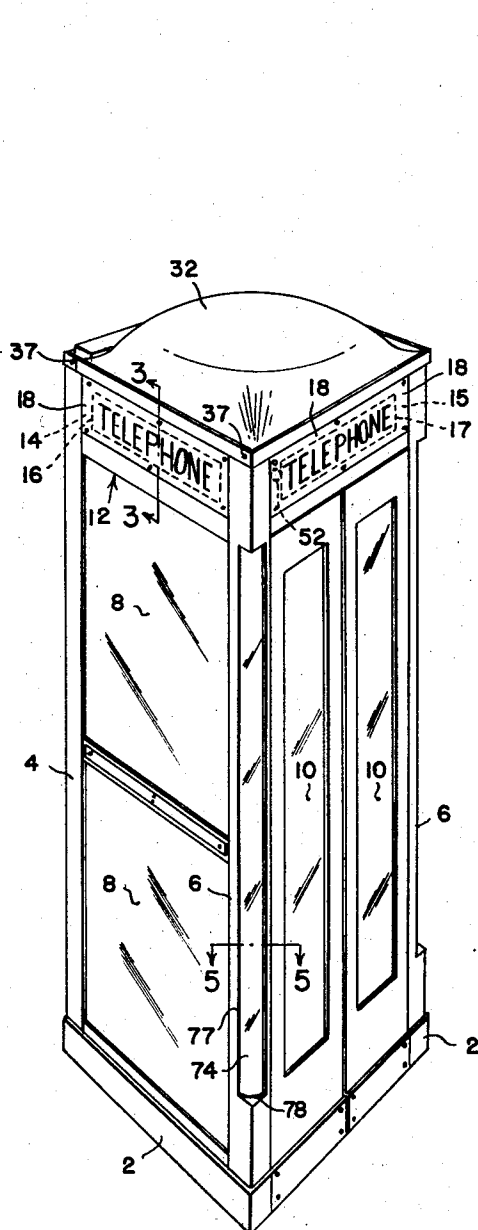


FIG. 1.

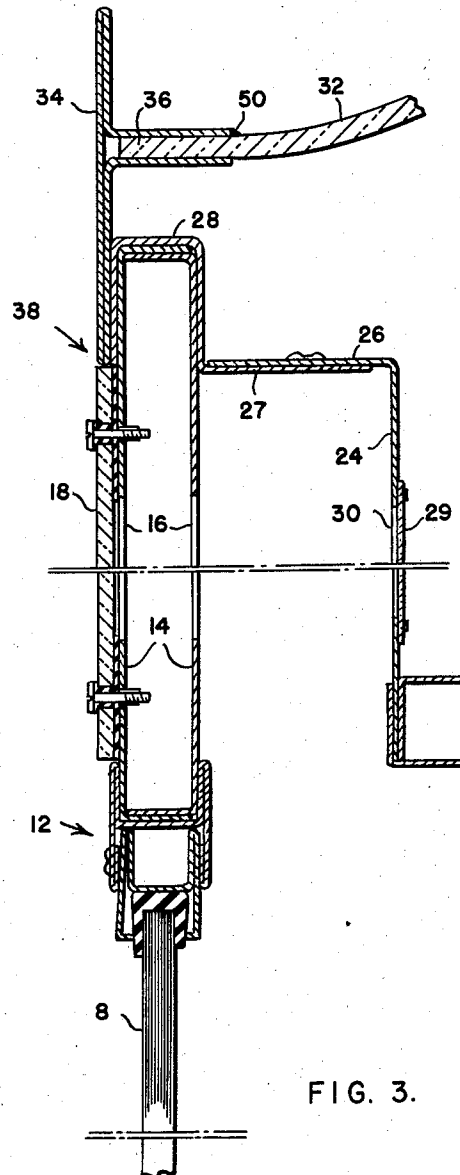


FIG. 3.

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4 Sheets-Sheet 2

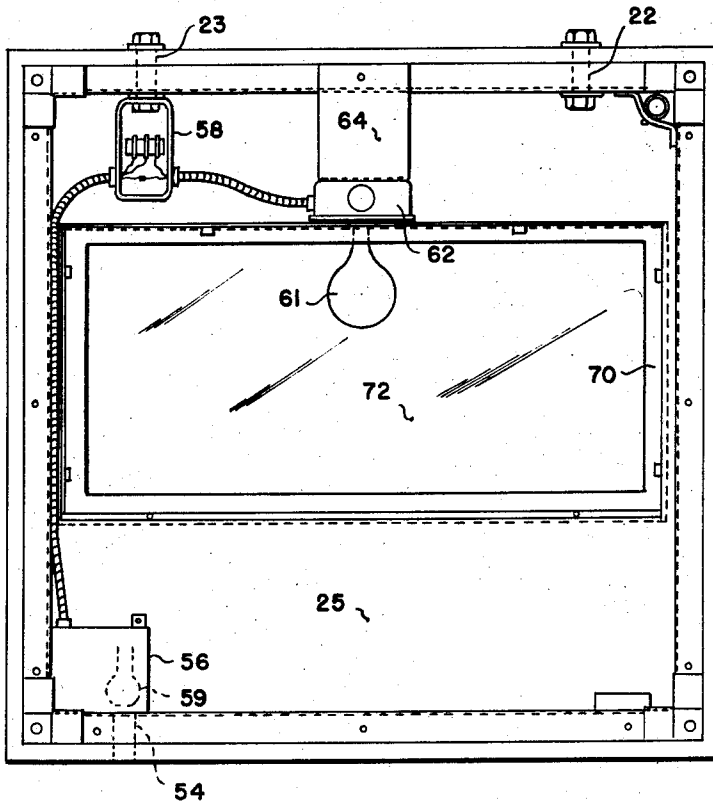


FIG. 2.

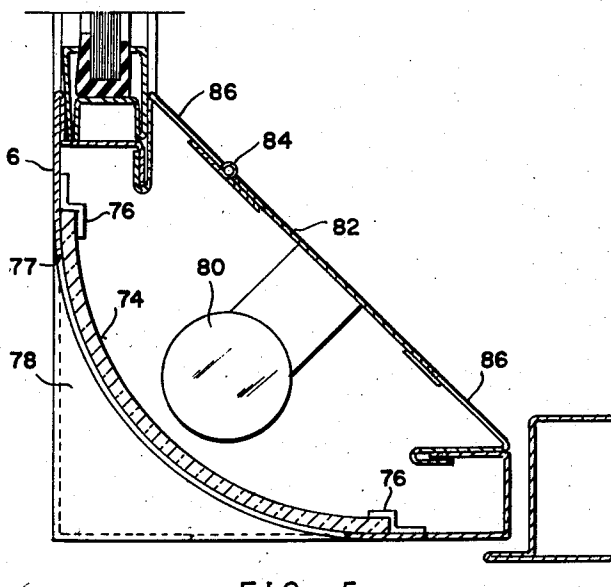


FIG. 5.

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4 Sheets-Sheet 4

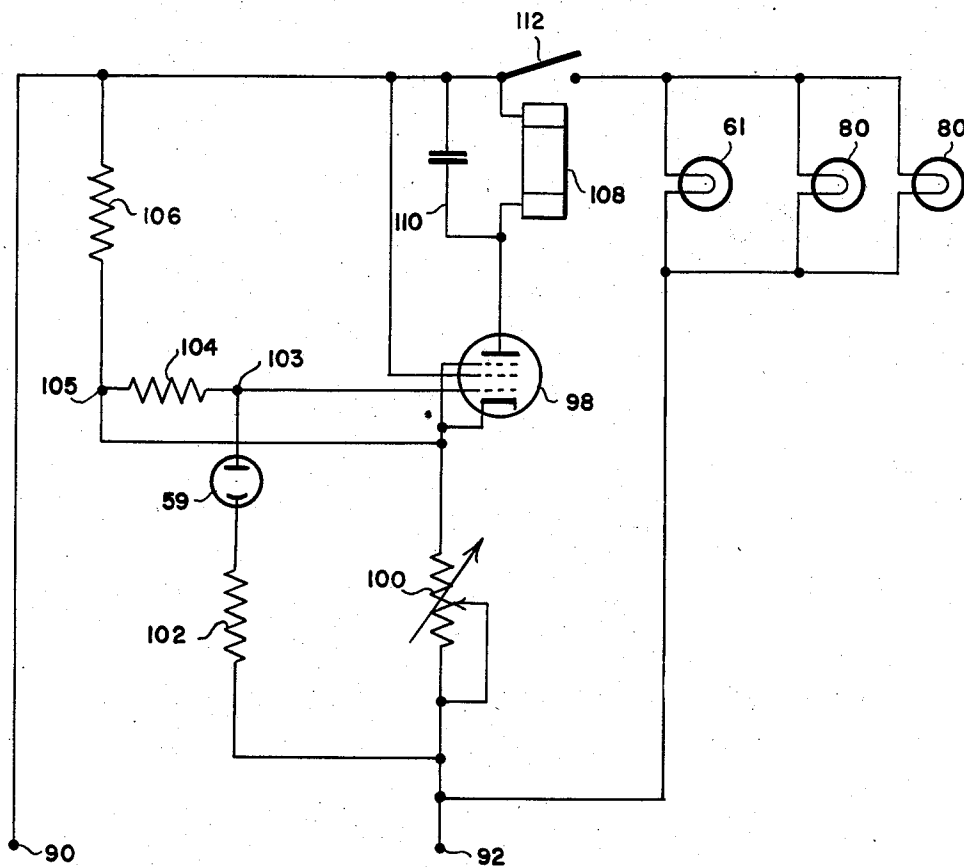


FIG. 6

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2,881,306

ILLUMINATED OUTDOOR TELEPHONE BOOTH

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Application December 1, 1953, Serial No. 395,447

2 Claims. (Cl. 240—2)

This invention relates to an illuminated public telephone booth and, more particularly, to a public outdoor telephone booth having a roof or top, side panels and corner posts which are adapted to be illuminated at night in order that the booth may be easily found by a person desiring to make a telephone call.

The use of outdoor public telephone booths has increased greatly in recent years coincident with the increase in highway, long distance and commuter travel. Public outdoor telephones are installed at intervals along the new superhighways, at railway commuter stations, in highway gasoline stations and in numerous other locations where a public outdoor telephone booth may be of service. It is desirable to position the booths outdoors where they are completely visible and accessible to the public at all times. Furthermore, an installation of this type avoids the inconvenience formerly attending the use of public telephones which were, for example, usually installed within an attendant's working or showroom space in a gasoline station or in an otherwise occupied enclosure.

It will, of course, be evident that telephone service is as important at night time as it is in the day time. An outdoor telephone booth, which is available for use twenty-four hours of the day, is desirably provided with illuminating means in order that the presence of the booth may be observed at night by a person desiring to make a telephone call.

It is an object of this invention to provide an illuminated telephone booth which will be clearly visible at night from a considerable distance.

It is a further object of the invention to provide an illuminated telephone booth in which the illumination is automatically turned on and off in response to the degree of existing daylight intensity.

It is a further object of the invention to provide an outdoor illuminated telephone booth which is weather-proof and in which the various electrical and control elements are readily accessible for maintenance and adjustment.

These and other objects of the invention will become apparent from the following description when read in conjunction with the accompanying drawings in which:

Figure 1 is a perspective view showing the front, top and side of a telephone booth incorporating an illuminated dome, illuminated lintel panels and illuminated corner posts;

Figure 2 is a top view of the telephone booth with covering dome thereof removed;

Figure 3 is a fragmentary sectional elevation of the side of the booth taken on the trace 3—3 of Figure 1;

Figure 4 is a fragmentary sectional elevation of the booth taken through the rear of the booth at an elevation similar to that of the section shown in Figure 3;

Figure 5 is a fragmentary transverse section of a corner of the booth taken on the trace 5—5 shown in Figure 1; and

Figure 6 is a wiring diagram of the electrical circuit involved in the booth.

The telephone booth includes a base framework 2 on which there is mounted a pair of rear corner posts 4 and a pair of front corner posts 6. Side panels 8 are mounted between the front and rear corner posts. The side panels are preferably formed of glass or other suitably transparent material. A rear panel 9 is mounted between the two rear corner posts. A door assembly comprising a pair of hinged door panels 10 is mounted between the two front corner posts 6. A transversely extending retaining structure such as that indicated generally at 12 extends between the front and rear corner posts, retains the upper ends of the side panels 8 and engages the lower portion of each of the side lintel members 14 which also extend between the front and rear corner posts and are supported thereby. A similar retaining structure 12 and a lintel member 20 extend transversely of the rear of the booth. A lintel member 15 extends transversely of the front of the booth. Typical structural details of the elements thus far described are set forth in my co-pending patent applications Serial No. 307,630, filed September 3, 1953 and Serial No. 340,257, filed March 4, 1953, the latter being abandoned.

A transversely extending opening 16 is provided in each of the side lintel members 14 and a transversely extending opening 17 is provided in the front lintel member 15. On the external face of each of the side and front lintel members there is affixed a glass or other suitably translucent or transparent panel 18 on which there is painted or otherwise marked the word "Telephone," the markings being such that, light passing through the transversely extending openings in the lintel members, as will be hereinafter described, and passing through the panels 18, will make the word "Telephone" on each panel visible to a viewer externally of the booth. Reference to Figure 4 will make it clear that the rear lintel panel 20 is not provided with an illuminated panel in view of the fact that the telephone booth is generally placed with its back against the wall or other blocking type of structure. Through the rear lintel there extends conduits 23 and 22 through which power lines and telephone lines may be conducted into the interior of the ceiling structure of the telephone booth which will now be described.

The ceiling structure includes four vertically extending side walls 24 extending upwardly from and supporting a ceiling pan 25. Flanges 26 extend outwardly from each of the vertically extending members 24 and are adapted to rest upon an inwardly extending flange 27 of channel members 28 which rest upon the top of the four lintel members. The ceiling structure front and side walls 24 are each provided with transparent plates 29 affixed thereto over horizontally extending cut-outs 30 through which light may pass. These panels and cutouts are in alignment with the openings 16 and 17 in the side and front lintel members, respectively, and the panels 18 mounted thereon bearing the word "Telephone."

A roof in the form of a dome 32 formed of translucent plastic or other suitable material covers the top of the telephone booth and is held in position thereon by a retaining member 34 which engages the peripherally extending flange 36 of the dome and slides downwardly over the external surface of the lintel members and is held in position with four screws 37. The portion of the dome mounting structure extending across the rear of the telephone booth is somewhat modified as indicated generally at 40 in Figure 4 and includes a lower retaining member 42 which is adapted to engage the outer surface of the channel 28 and also includes an upper re-

taining member 44 which is joined to the member 42 by means of screws or other suitable fastening means 46 and has a leg 48 adapted to bear upon the rear portion of the peripheral flange 36 of the dome and hold the dome in position. A calking material 50 is applied between the peripheral flange of the dome and the clamping means therefor in order to prevent rain water from leaking through around the dome of the booth and into the booth.

A passage 54, as indicated in Figure 2, extends from behind the front transparent panel 18 through the front lintel member 15 and the ceiling structure into a box 56 positioned in the ceiling structure. The outer end of the passage 54 is indicated at 52 in Figure 1 and terminates behind the front transparent plate 18. A photoelectric cell, indicated schematically at 59, is so positioned within the box 56 behind the end of the passage 54 that the light sensitive portion of the cell will receive light through the passage 54. Details of the electric circuit will be described in conjunction with Figure 6. A junction box 58 is positioned within the ceiling structure and is connected with the inner end of the conduit 23. An illuminating lamp 61 is mounted on a junction box 62 which is supported by a bracket 64 connected with the ceiling structure. The box 56 mounted within the ceiling structure contains a relay and other electrical elements as will be hereinafter described in conjunction with Figure 6.

A frame 70 is hingedly mounted in the pan 25 of the ceiling structure and supports a transparent panel 72 positioned below the lamp 61.

It will be evident from the foregoing that light emanating from the lamp 61 will pass downwardly through the transparent panel 72 in the ceiling structure, thus illuminating the interior of the booth. Light from the lamp 61 will also pass horizontally, sidewardly and forwardly through the lintel member cutouts illuminating the panels 18 bearing the word "Telephone" and mounted on the external faces of the telephone booth lintels. Light from the lamp 61 will also pass upwardly illuminating the dome 32. The dome 32 is preferably formed of a translucent material in order that the dome will appear to glow and will be visible from all directions and angles and appear to be uniformly illuminated.

The two front corner posts 6 are each provided with a cut away region 77 which is closed by means of a vertically extending translucent panel 74 held in a position on the interior of the post by means of spaced clips 76. The top and bottom of the cut away region of each post is closed off by triangular corner plates 78. A vertically extending illuminating tube 80 is positioned behind the translucent panel 74 and is preferably accessibly mounted on a panel 82 which is hingedly or otherwise mounted to an interior closing plate 86 which serves to close off the inside surface of the corner post. It will be evident that, when the lamps 80 are illuminated, the translucent panels 74 will be visible at night.

In Figure 6 there is shown an electrical diagram of the circuit involved in the illuminated telephone booth. A suitable source of electrical current, supplied to the booth by conductors, not shown, extending through the conduit 23, is connected to the terminals 90 and 92. A pentode 98 having sharp cutoff characteristics, has its cathode connected through a variable resistance 100 to the terminal 92. One side of the photoelectric cell 59 is connected through a resistance 102 to the terminal 92. The other side of the photoelectric cell is connected to a terminal point 103. A resistor 104 is connected between the terminal point 103 and a terminal point 105. A resistor 106 is connected between terminal point 105 and terminal 90. The terminal point 105 between the resistors 104 and 106 is connected to the cathode of the tube 98. The control grid of the pentode 98 is connected to the terminal point 103. The plate of the tube 98 is connected through the coil 108 of a relay to the terminal 90. The relay contact 112, which closes when the relay coil 108 is energized, is

connected in series with a parallel arrangement of the ceiling illuminating lamp 61 and the two front corner post illuminating lamps 80. The opposite sides of the illuminating lamps 61 and 80 are connected to the terminal 92. The opposite side of the contact 112 is connected to the terminal 90. A condenser 110 is connected across the relay coil 108.

It will be evident that, with properly selected values for the resistors 102, 104 and 106, the cathode resistor 100 may be adjusted to provide a cathode voltage level for which the tube 98 will become conductive when the current through the photoelectric cell 59 has decreased to a predetermined value and the potential level at terminal 103 has reached a predetermined value. Thus, when the intensity of the day light externally of the booth has diminished to a predetermined value as determined by the adjustment of the value of the variable resistance 100 and the potential at the contact point 103 has shifted with respect to the cathode potential to a value at which the tube 98 becomes conductive, the relay 108 is energized and closes the contact 112 thus energizing the illuminating lamps 61 and 80. When, thereafter, the day light intensity externally of the booth increases to a value where the potential at terminal 103 has shifted with respect to the cathode potential to a value at which the tube will cease conducting current, the relay contact 112 will open, thus deenergizing the illuminating lamps.

From the foregoing it will be evident that the telephone booth disclosed herein is of an illuminated type which will be clearly visible at night for considerable distances and will be readily identifiable as a telephone booth.

Additionally, the automatic control circuit provides a telephone booth which may be unattended and which, by the action of the light sensitive control circuit, will be illuminated each evening when the external lighting has diminished to a level below a selected intensity level, for example, one in which it would be difficult for one seeking a telephone booth to see a booth. In the morning, when the daylight intensity has increased sufficiently to make unnecessary the continuation of the dome, panel and corner post illumination, the photocell controlled circuit will extinguish the illuminating lamps until the following evening.

It will be evident that the illuminated corner posts need not necessarily be employed though they are preferably employed. It will further be evident that various modifications may be made in the appearance of the panels bearing the word "Telephone" and in the contour and formation of the illuminated roof. These and other modifications may be made to the embodiment of the invention set forth herein without departing from the scope of the invention as set forth in the following claims.

What is claimed is:

1. A telephone booth including a ceiling structure, illuminating means mounted in said ceiling structure illuminating the interior of the booth, light transmitting means visible externally of the booth and adapted to be illuminated by said internal illuminating means, means positioned in said ceiling structure and responsive to the degree of illumination existing externally of the booth for controlling said illuminating means, and means for exposing said controlling means to the degree of illumination existing externally of the booth.

2. An outdoor telephone booth comprising front and rear corner posts, side panels extending between said front and rear corner posts, lintels extending between said front and said front and rear corner posts above said panels and each including a light transmitting member, a ceiling structure in said booth including a horizontally extending light transmitting bottom panel and means including vertically extending ceiling side panels supporting said bottom panel and in spaced relation with said lintels, said ceiling side panels mounting light transmitting members adjacent to said light transmitting members in said lintels,

a roof covering said booth including a light transmitting member, illuminating means mounted in said ceiling structure illuminating the interior of the booth through said light transmitting panel and illuminating said light transmitting members.

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