Nov. 8, 1960 L. J. FAZEKAS 2,958,969

ILLUMINATED HOUSE NUMBER PLATE

Filed Feb. 25, 1957

FIG_1

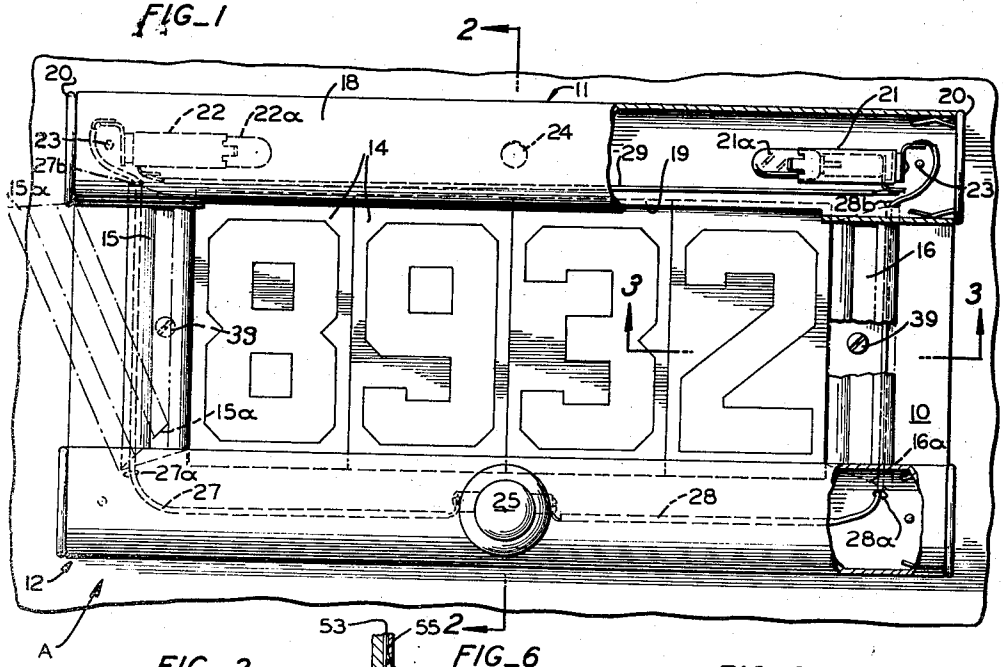


FIG_2

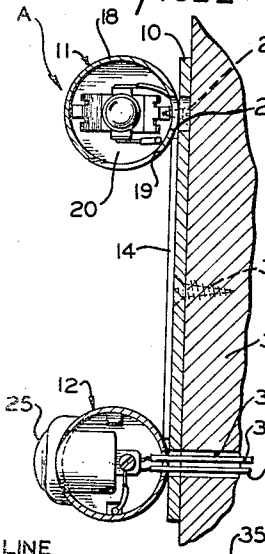


FIG_6

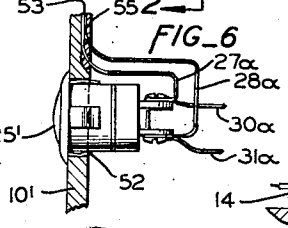
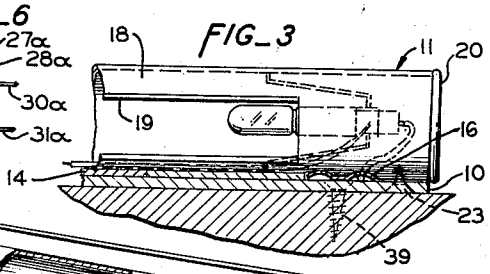


FIG_3



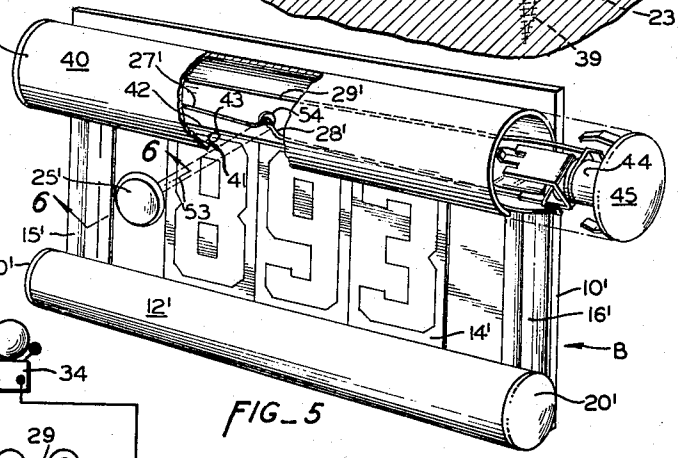


FIG_5

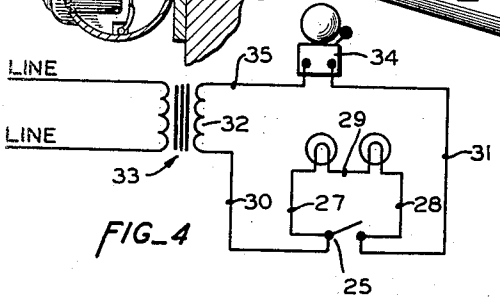


FIG_4

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ILLUMINATED HOUSE NUMBER PLATE

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2 Claims. (Cl. 40—130)

The present invention relates to house number plates, and pertains more particularly to an illuminated number plate in which numerals are removably mounted, and which may be conveniently connected into a usual door bell circuit.

An object of the invention is to provide an improved and simplified illuminated house number.

The invention also provides a house number frame having tubular numeral retaining means attached thereto in a manner to clamp numerals for designating a house number therebeneath.

The invention also provides a combination wherein a selected plurality of numerals are releasably clamped to a supporting plate by means of a tubular member which also comprises a lamp housing.

A still further object of the invention is to provide an improved illuminated house number plate with integral door bell and light circuit wiring, conduit strips being removably mounted in the frame at the ends of the numeral zone thereof.

These, and other objects and advantages of the invention, will be apparent from the following description and the accompanying drawing, wherein

Fig. 1 is a front elevational view of an illuminated number plate embodying the invention with a door bell pushbutton incorporated therein, portions being broken away, and concealed portions of the wiring and one of the lamps being shown in dotted lines.

Fig. 2 is a sectional view taken along line 2—2 of Fig. 1.

Fig. 3 is a fragmentary sectional view taken along line 3—3 of Fig. 1.

Fig. 4 is a circuit diagram showing the combined light and doorbell circuit employed in the device shown in Figs. 1–3.

Fig. 5 is a perspective view of a modified form of number plate embodying the invention, a tube cap having a light mounted therein being shown removed from the assembly.

Fig. 6 is a fragmentary sectional view taken along line 6—6 of Fig. 5.

Briefly, the invention as illustrated in Figs. 1–3 comprises an illuminated number plate and pushbutton assembly A comprising a backing plate **10** of stiff, weather resistant material, such as plastic or metal, having an upper tubular light housing **11** and a lower tubular pushbutton support member **12** secured thereto. The tubes **11** and **12** are parallel to each other, and are spaced apart so as to clamp numerals **14** designating a house number to the backing plate **10**, and also to clamp conduit moulding strips **15** and **16** at opposite ends of the numerals.

Referring to the drawings in detail, the backing plate **10** may be of any stiff, weather proof material, such as, for example, 1/16 inch aluminum plate. The upper tube **11**, which serves as a lamp housing and numeral retaining clamp, may comprise a body portion **18** of aluminum tubing, having a light emitting slot **19** cut in its

bottom side, and capped on both ends by spring clip tubing caps **20** of a well known type.

Lamp sockets **21** and **22** are mounted one adjacent each end of the tube **11** so that light from lamps **21***a* and **22***a* will be directed downwardly through the slot **19** onto numerals **14** mounted in the device. The upper tube **11** is attached to the plate **10** by conventional, countersunk head, self-tapping or sheet metal screws **23**.

An outlet opening **24** (Figs. 1 and 2) preferably is provided clear through the rear wall of the upper tube **11** and the backing plate **10** to allow conductor wires (not shown) to be passed therethrough if it is desired not to employ a pushbutton **25** with the device.

The lower tube **12** may be generally similar to the upper tube **11**, or, if preferred, may be of smaller diameter. The lower tube **12** is unslotted, but is provided with conventional tube caps **20** on its ends similarly to the upper tube **11**. The lower tube **12** is secured to the backing plate **10** in a manner similar to the upper tube **10**.

A pushbutton switch **25** preferably is mounted in the forward wall of the lower tube **12**, and conductor wires **27** and **28**, preferably of small diameter enameled wire, are connected one to each terminal of the pushbutton switch and are threaded through holes **27***a* and **28***a*, respectively, in the lower tube **12**, and thence are carried upwardly across the outer face of the backing plate **10** and into the upper tube **11** through holes **27***b* and **28***b*.

The upper ends of the wires **27** and **28** are each connected to a terminal of the lamps **21***a* and **22***a*, respectively. The fluted conduit strips **15** and **16** which protect and conceal the inter-tube portions of the wires **27** and **28**, are of a length which permits them to be cammed into position beneath the tubes **11** and **12** after the numerals **14** have been clamped into position between the tubes by tightening the screws **23**. To this end the ends **15***a* and **16***a* of each conduit strip are cut along inwardly converging angles which allow them to be swung into and out of position as shown in broken lines in Fig. 1.

A conductor wire **29** connects the other terminals of the lamps **21***a* and **22***a* from those connected to the conductors **27** and **28**, so that the two lamps thus are connected in series with the pushbutton switch **25**. Conductor wires **30** and **31** of a usual door bell circuit (Figs. 2 and 4) are connected one to each terminal of the pushbutton switch **25**. The wire **30** is connected to the secondary coil **32** of a conventional door bell transformer **33** and the wire **31** is connected to one terminal of a door bell **34**. A conductor wire **35** connects the other terminal of the door bell to the secondary coil **32** of the transformer **33**. Thus the lamps **21***a* and **22***a* are always connected in series with the door bell to the secondary of the transformer **33**.

The output of the transformer **33** is such, with respect to the resistance and operating current requirements of the series circuit including the lamps and the door bell, that, with the pushbutton switch open, sufficient current will flow through this circuit to constantly illuminate the lamps **21***a* and **22***a*, but not sufficient to energize the door bell.

Closing the pushbutton switch **25**, however, creates a direct shunt across the lamps **21***a* and **22***a*, thereby allowing a sufficient flow of current through the usual coils (not shown) of the door bell **34** to actuate the latter. The lamps will, of course, be de-energized during the time the pushbutton switch is closed, but this is immaterial, and they immediately light up again when the pushbutton is released.

The numerals **14** may be of any suitable weather proof material, such as plastic, enameled sheet steel, or sheet

aluminum, with the numbers painted or otherwise applied thereon or embedded or cut therein in any one of a number of well known ways.

For assembling the numerals 14 on the backing plate 10, the screws 23 which hold the tubes 11 and 12 to the backing plate are loosened to admit the numerals. The numerals 14 to form a desired number then, in proper sequence, are slidably inserted endwise along the backing plate between the tubes 11 and 12, and the backing plate as shown in Fig. 2. The screws 23 then are tightened to draw the tubes 11 and 12 into tight, edge gripping relation with the numerals.

The assembled number plate A, as shown in Fig. 1, then is ready for mounting. This can be done by connecting the two usual wire leads 30 and 31 of the door bell circuit one to each terminal of the pushbutton switch 25. These wires 30 and 31 may be the usual door bell wires conventionally provided for connecting a pushbutton switch to a door bell, and are usually available adjacent the front door in either new or old houses. These leads 30 and 31 usually project from a hole 37 (Fig. 2) provided in a door frame 28 or other suitable place upon which the device A is to be mounted. After the leads 30 and 31 have been connected to the pushbutton switch 25, the number plate A is then secured in place by usual flat head, wood mounting screws 39 which pass through holes provided therefor in the backing plate 10, and are screwed into the supporting member 38.

The conduit strips 15 and 16 then are slidably inserted to the position shown in Fig. 1 with their ends cammed between the tubes 11 and 12 and the backing plate 10, and overlying the wire portions 27 and 28 to conceal and protect the latter, and also to cover and conceal the mounting screws 39.

The modified form B of the invention shown in Figs. 5 and 6 is in most respects similar to the form A shown in Fig. 1. Where parts of the two forms are substantially identical, the same reference numeral is employed for both, with the prime (′) added for the part shown in Fig. 5. In the form B, instead of the slotted tube body 18 employed in Fig. 1, a piece of sheet metal may be rolled to form a tubular body member 40 (Fig. 5). The lower edges 41 and 42 of the member 40 are spaced apart to provide a slotted opening 43 lengthwise therein. A lamp socket 44 may be mounted in each of a pair of tube caps 45, one of which is provided for each end of the tube 40. Sufficient slack may be left in conductor wires 27′, 28′ and 29′ leading to the sockets to permit either cap 45 with its socket 44 thereon to be withdrawn from the tube for replacing the lamps when necessary.

The lower tube 12′ may be generally similar to the lower tube 12 of Fig. 1, and is provided with conventional tube caps 20′ thereon. Only three numerals 14′ are shown mounted in Fig. 5, but the number of numerals employed, as well as the length of backing plate 10′ and tubes 40 and 12′, is determined by the size of the house number required. In order to accommodate a maximum number of numerals for the length of the backing plate 10′, the conduit strips 15′ and 16′ may be moved outwardly close to the ends of the backing plate.

A modified form of pushbutton mounting is provided in the form B of the invention shown in Figs. 5 and 6. With this arrangement, a hole 52 (Fig. 6) is provided in the backing plate 10′ of a size to receive a conventional snap type pushbutton switch 25′ therein. This hole 52 is provided at one end of the backing plate 10′ in the space between the tubes 40 and 12′. A groove 53, which may be provided by a saw cut made with a conventional circular metal cutting saw (not shown), is provided in the rear face of the backing plate 10′, and extends from a point adjacent the pushbutton hole 52 to registering holes 54 provided in the rear of the upper tube 40 and backing plate 10′.

The conductor wires 27′ and 28′, one from a terminal of each of the lamp sockets 44, are passed through the registering holes 54 and are secured in the groove 53 by suitable plastic material 55 of a type commonly employed in electrical fittings and appliances for embedding conductors therein.

The conductor wires 27′ and 28′ emerge from the plastic material 55 adjacent the pushbutton hole 52 and are connected one to each terminal of the pushbutton switch 25′ in the same manner as that described for the number plate A of Figs. 1–4.

In the event that a pushbutton switch is not required in the number plate B, as in the case where the number plate is to be mounted above a door, the hole 52 may be covered as by one of the numerals 14′, or by a conduitstrip 15′. In this way the number plate may be made up selectively with or without a pushbutton as the customer may desire.

The invention provides a neat and ornamental house number with, if desired, a combination pushbutton, all of which may be mounted and connected ready for operation by simply connecting the two sides of the pushbutton to the wires which conventionally are provided for the pushbutton of the door bell now installed on most houses in the United States.

While I have illustrated and described a preferred embodiment of the present invention, and one modified form thereof, it will be understood however, that other changes and modifications may be made in the details thereof without departing from the scope of the invention as set forth in the appended claims.

Having thus described the invention, what I claim as new and desire to protect by Letters Patent is defined in the following claims.

I claim:

1. A house number plate comprising, in combination, a rigid backing plate having a pair of holes therein one adjacent each end of the plate for receiving mounting screws, a pair of tubes mounted in axially parallel relation one adjacent each of the upper and lower edges of the backing plate, means attaching each of the tubes to the backing plate, the attaching means for one of said tubes being screw threaded, one of said tubes having a light emitting slot extending lengthwise of the side thereof directed toward the other of said tubes, electric light means mounted in the slotted tube to direct light therethrough onto the backing plate between the tubes, a plurality of numeral plates of thin sheet material superimposed in contact with the face of the backing plate and with their upper and lower edges inserted into the angle between diverging portions of the tubes and the flat backing plate, a pair of ornamental strips similarly superimposed on the backing plate one over each of the screw holes therein, and with their upper and lower ends similarly inserted between the tubes and the backing plate, whereby, upon tightening said screw threaded means, said one tube is drawn into gripping relation with the edge portion of the numeral plates and ornamental strips between said first one tube and the backing plate, a pushbutton switch mounted on said backing plate laterally clear of said numeral plates, a pair of conductor wires connected to the electric light means in the upper tube and to the pushbutton switch and extending along the rear of said plate for connection to an electric doorbell circuit.

2. A house number plate comprising, in combination, a rigid backing plate having a pair of holes therein one adjacent each end of the plate for receiving mounting screws, a pair of tubes mounted in axially parallel relation one adjacent each of the upper and lower edges of the backing plate, means attaching each of the tubes to the backing plate, the attaching means for one of said tubes being screw threaded, one of said tubes having a light emitting slot extending lengthwise of the side thereof directed toward the other of said tubes, electric light means mounted in the slotted tube to direct light therethrough onto the backing plate between the tubes, a

plurality of numeral plates of thin sheet material superimposed in contact with the face of the backing plate and with their upper and lower edges inserted into the angle between diverging portions of the tubes and the flat backing plate, a pair of ornamental strips similarly superimposed on the backing plate one over each of the screw holes therein, and with their upper and lower ends similarly inserted between the tubes and the backing plate, whereby, upon tightening said screw threaded means, said one tube is drawn into gripping relation with the edge portion of the numeral plates and ornamental strips between said first one tube and the backing platea and a pair of conductor wires connected to the electric light means in the upper tube for connection to an electric doorbell circuit.

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